

**L & G Consulting Engineers Inc**  
**2100 W. Expressway 83**  
**Mercedes, TX 78570**  
**(956)565-9813 Fax (956)565-9018**

**INVOICE#:** 11327062  
**INVOICE DATE:** 7/31/2018

Hidalgo County PCT#4

**BILL TO:** 84  
 Hidalgo County Pct. #4  
 x/o Commissioner Joseph Palacios  
 1051 N. Doolittle Rd.  
 Edinburg, TX 78541

**AUG 02 2018**

Edinburg, Texas 78542

**JOB:** 120902  
 10th Street Extension Project  
 WA#2, PO#700265  
 C-12-126-10-16

DESCRIPTION	CONTRACT	PREVIOUS APPLICATIONS	CURRENT COMPLETED	TOTAL COMPLETED	% COMPL	BALANCE TO FINISH
Supplemental #5 to Work Authorization #2 - Construction Management, Construction Inspection and Construction Material Testing						
32001-Construction Inspection	599,040.96	149,760.24	59,904.10 ✓	209,664.34 ✓	35.0	389,376.62
32002-Construction Management	316,287.90	79,071.98	31,628.79 ✓	110,700.77 ✓	35.0	205,587.13
32030-Construction QC/QA	79,230.36	19,807.59	7,923.04 ✓	27,730.63 ✓	35.0	51,499.73
33004-Material Testing	186,639.37	46,659.84	18,663.94 ✓	65,323.78 ✓	35.0	121,315.59
	1,181,198.59	295,299.65	118,119.87	413,419.52	35.0	767,779.07
<b>TOTAL:</b>	<b>3,534,538.03</b>	<b>2,648,639.09</b>	<b>118,119.87</b>	<b>2,766,758.96</b>	<b>78.3</b>	<b>767,779.07</b>

ORIGINAL CONTRACT SUM \$ 1,187,220.00  
 CHANGE BY CHANGE ORDER \$ 2,347,318.03  
 CONTRACT SUM TO DATE \$ 3,534,538.03  
 TOTAL COMPLETED TO DATE \$ 2,766,758.96 ✓  
 LESS PREVIOUS INVOICES \$ 2,648,639.09 ✓  
 CURRENT PAYMENT DUE \$ 118,119.87 ✓

  
 PROJECT MANAGER'S SIGNATURE

8-1315-431-00-124-030-0-841  
 8-1315-431-00-124-030-0-721

Invoice Received By: \_\_\_\_\_  
 on \_\_\_\_\_  
 Goods/Services Received By: \_\_\_\_\_  
 on \_\_\_\_\_



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**Mercedes, TX 78570**  
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**INVOICE#: 11327062**  
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Edinburg, TX 78541

**JOB: 120902**  
10th Street Extension Project  
WA#2, PO#700265  
C-12-126-10-16

DESCRIPTION	CONTRACT	PREVIOUS APPLICATIONS	CURRENT COMPLETED	TOTAL COMPLETED	% COMPL	BALANCE TO FINISH
<b>Engineering services for the month of July 2018.</b>						
Work Authorization #2 - Preparation of the PS&E						
15001-Field Survey	45,001.00	45,001.00		45,001.00	100.0	-
15010-Field Srvy/SUB	80,000.00	80,000.00		80,000.00	100.0	-
16001-Rdwy Dsgn	799,217.00	799,217.00		799,217.00	100.0	-
16002-Rdwy Dsgn-Outfall	48,000.00	48,000.00		48,000.00	100.0	-
16205-Sign,Marki,Dsg	59,721.00	59,721.00		59,721.00	100.0	-
16250-Sigl Dsgn-SUB	60,281.00	60,281.00		60,281.00	100.0	-
16308-Permted Utility	95,000.00	95,000.00		95,000.00	100.0	-
	<u>1,187,220.00</u>	<u>1,187,220.00</u>	<u>0.00</u>	<u>1,187,220.00</u>	<u>100.0</u>	<u>-</u>
Supplemental #1 to Work Authorization #2 - Additional Traffic Signal & Two Warrants						
16205-Signal Design	5,001.00	5,001.00		5,001.00	100.0	-
16250-Signal Dsgn/SUB	24,977.60	24,977.60		24,977.60	100.0	-
	<u>29,978.60</u>	<u>29,978.60</u>	<u>0.00</u>	<u>29,978.60</u>	<u>100.0</u>	<u>-</u>
Supplemental #2 to Work Authorization #2 - Phase III Right-of-Way Acquisition						
6000-ROW Acquisition	380,800.00	380,800.00		380,800.00	100.0	-
60100-Title Services	38,400.00	38,400.00		38,400.00	100.0	-
60200-Appraisal Serv	32,000.00	32,000.00		32,000.00	100.0	-
60210-Appraisal Srv/SUB	144,000.00	144,000.00		144,000.00	100.0	-
60300-Appraisal Rvw	22,400.00	22,400.00		22,400.00	100.0	-
60310-Aprsal Rvw/SUB	28,800.00	28,800.00		28,800.00	100.0	-
60400-Parcel Negtion	224,000.00	224,000.00		224,000.00	100.0	-
60500-Clsng Srvs Fee	12,800.00	12,800.00		12,800.00	100.0	-
Sub Total	<u>883,200.00</u>	<u>883,200.00</u>	<u>0.00</u>	<u>883,200.00</u>	<u>100.0</u>	<u>-</u>
Supplemental #3 to Work Authorization #2 - Provide Compensable Utility Oversight						
60101-Comp Utily Mgmt	135,000.00	135,000.00		135,000.00	100.0	-
Supplemental #4 to Work Authorization #2 - Abatement and Demolition of Guardhouse and Wall						
12006-Asbestos Abate	10,066.94	10,066.94		10,066.94	100.0	-
12050-Abatement/ SUB	6,870.00	6,870.00		6,870.00	100.0	-
12060-Asbestos Abate/ SUB	27,940.00	27,940.00		27,940.00	100.0	-
13002-ROW Map	5,018.88	5,018.88		5,018.88	100.0	-
13020-ROW Map/ SUB	3,189.00	3,189.00		3,189.00	100.0	-
15007-Sub-Surface Utility Eng.	5,018.88	5,018.88		5,018.88	100.0	-
15070-Sub-Surface Utility Eng/SUB	19,752.00	19,752.00		19,752.00	100.0	-
15008-Dsgn Chnge Cal	40,085.14	40,085.14		40,085.14	100.0	-
Sub Total	<u>117,940.84</u>	<u>117,940.84</u>	<u>0.00</u>	<u>117,940.84</u>	<u>100.0</u>	<u>-</u>



August 1, 2018

Commissioner Joseph Palacios  
Hidalgo County Precinct 4  
1051 N. Doolittle Rd  
Edinburg, TX 78542

**RE: 10<sup>th</sup> Street Extension - Work Authorization No. 2 - Limits: SH 107 to FM 1925  
PO#700265 - L&G Project#120902**

Dear Commissioner Palacios:

Attached for your approval is our invoice for services rendered under this work authorization for the month of July 2018.

Attached to this progress report is:

- L & G's Invoice
- Work Schedule

*The following is the status for the Work Authorization and Supplemental's listed below:*

**Work Authorization#2 – Preparation of the PS&E**

- 100% complete
- *Suppl. #1 to Work Auth. #2 – Additional Traffic Signal & Two Traffic Warrants*
  - 100% complete
- *Suppl. #2 to Work Auth. #2 – Phase III Right-of-Way Acquisition*
  - 100% complete
- *Suppl. #3 to Work Auth. #2 – Provide Compensable Utility Oversight*
  - 100% complete
- *Suppl. #4 to Work Auth. #2 – Abatement and Demolition of Guardhouse and Wall*
  - 100% complete

**Below is a narrative for the Supplemental identified below:**

- **Suppl. #5 to Work Auth. #2 – Construction Management, Construction Inspection and Construction Material Testing**

		% Complete
<b>FC 32001 – CONSTRUCTION INSPECTION</b>		
L&G inspector is on the project on a daily basis monitoring construction progress and making sure work is being performed in compliance with TxDOT and LGPP requirements. L&G continues to coordinate with TxDOT on the on-going progress of project. The contractor is currently working on Roadway Excavation and Embankment, placement of Drainage Structures, Lime treatment of Subgrade, MC-30, Seal Coat and HMA CP placement.	<b>L&amp;G</b>	<b>35%</b>

<b>FC 32002 – CONSTRUCTION MANAGEMENT</b>		
L&G continues to process a monthly estimate to be used for monthly submittals to Hidalgo County Pct #4 and TxDOT. L&G continues to maintain project record in compliance with LGPP requirements. L&G has been developed Change Order #3 requesting additional work items needed to properly drainage adjacent areas. The change order has been approved by TxDOT and Hidalgo County Commissioner's Court.	<b>L&amp;G</b>	<b>35%</b>
<b>FC 32030 – CONSTRUCTION QC/QA</b>		
B2Z, Rosendo Garcia, has reviewed project files for completeness and organization. Rosendo has obtained and reviewed a copy of the project Sampling and Testing Guide Schedule. Mr. Garcia has visited the project barricades and bulletin board. Mr. Garcia makes notes of items for discussion. Discussions are held between B2Z and L&G Construction Group to discuss findings. See B2Z's progress report for additional details.	<b>B2Z</b>	<b>35%</b>
<b>FC 33004 – MATERIAL TESTING</b>		
L&G lab has sampled and tested flex base material. Material for sand backfill was sampled and tested. L&G has coordinated with TxDOT on approving HMA CP and Concrete designs and suppliers.	<b>L&amp;G</b>	<b>35%</b>

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Should you have any questions or require additional information, please do not hesitate to give me a call at (956) 585-1909.

Sincerely,

  
Ricardo Gallaga., P.E.  
Project Manager  
Attachments

July 26, 2018

Mr. Ricardo Gallaga, P.E.  
 Project Manager ~ L&G Consulting Engineers, Inc.  
 2100 W. Expressway 83  
 Mercedes, Texas 78570

**RE: Work Authorization #45 for Construction Inspection & CMT  
 10<sup>th</sup> Street Construction Management  
 Invoice No. 3323 (Job #152780)  
 CSJ: 0921-02-300**

Dear Mr. Gallaga:

Attached for your review and approval is our invoice for services rendered during the month of June 2018 on the subject referenced project.

The following is attached:

- Invoice No. 3323 (Job #152780)

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

TASK	
<b>(1) FC 32010 – Construction Management (B2Z Engineering)            QC/QA Construction Inspection            QC/QA Material Testing</b>	<u>% Complete = 35.0%</u>
<p><b>Updated</b> – B2Z conducted a detailed review of the below referenced file folders produced by L&amp;G and offer the following:</p> <p><b><u>Project Files:</u></b> B2Z has continued review of the up-to-date project files and has found them to be well organized for effective project management tracking items activity and general project requirements.</p> <p><b><u>On-Site Inspection (QC/QA):</u></b></p> <p><b><u>Field Visit (7-9-18)</u></b> B2Z noted the following while driving the project:</p> <ul style="list-style-type: none"> <li>• Drainage –           <ul style="list-style-type: none"> <li>➢ Inlet C-14 at Sta. 139+40 on the left needs to be reviewed for repair or replacement for precast section 2 (from the bottom) that has a damaged portion of the west wall with steel exposed as it sit on precast bottom section.</li> <li>➢ Contractor was continuing installation of the drainage system on west side north of Rogers Rd. (opposite Gardenia St.).</li> <li>➢ Drainage Structure Safety – Project has some deep boxes around the bridge and at other locations not yet covered with final top and could potentially present a safety hazard since these inlets rise just above ground level and should be protected until structure is completed.</li> </ul> </li> </ul>	

- Flex Base –
  - North of bridge to Chapin – Trucks were delivering flex base material for the top 4” and windrowing in the center of the roadway.
  - Between Russell Rd and Canal (around Sta. 192) - Trucks were delivering 6” raw base and windrowing in the center of the roadway.
- Curb and Gutter –
  - Curb and Gutter had been done from just north of the bridge to just south of Chapin, with the exception of the leave-outs to connect the inlets in the process of being formed. Noted that the curb and gutter on the west side had better workmanship than the east side primarily due to the tooling of the joints and profile appearance of the curb.
  - Curb and Gutter work had also been done starting just north of Russell Rd on the west side to about Sta. 161, with the exception of the inlet leave-outs.
- Sidewalk – Additional sidewalk was done on west side to about Sta. 177+50 (C&G ends at about Sta. 178+10 south of Russell on both sides).
- Hot Mix (1 ½” Base Course from Sta. 169+25 to just south of Russell Rd about Sta. 177+25) – Contractor had paved this section and noted that texture and ride had improved over the initial paving done between SH 107 and Schunior.
- Bridge (West Main Drain Ditch) – Since last visit contractor had poured Abutment #4 backwall/wingwall and had completed the finishing of the concrete. This morning they were working at Abutment #4 preparing to shape up the slope and set forms for the riprap.
- Erosion/Silt Control Devices – Need to install or maintain silt control logs at inlets and rock filter dams in canals.

*Field Visit (7-16-18) – B2Z noted the following while driving the project:*

- Irrigation Well (Sta. 166+23, 70’ Rt.) – At time of visit, upper well sections previously placed had been removed exposing well gate stems. Contractor was patching a water leak apparently caused by a damaged portion of the pipe on the west side between the bottom pipe section where well gates were installed and next section up. A considerable amount of patching material was being applied and well should be monitored for duration of the project to ensure leak free function or complete replacement of damaged pipe section.
- Subgrade (excavation) – Contractor was excavating to subgrade level and hauling off the material at the following locations:
  - On the west side, from SH 107 to where curb and gutter construction started full width at approx. 106+50. This is the area that became available for work when traffic was switched to the east side on the newly constructed portion to SH 107.
  - On the west side, starting at Rogers Rd going north and working at approx. Sta. 209 at time of visit.
- Flex Base –
  - 6” had been stabilized and compacted from just north of Schunior to inlets on south side of bridge at approx. Sta. 139+40. Raw base for the top 4” was being delivered and placed in the center of the roadway within these limits to approx. Sta. 136.
  - Truck transport was placing dry cement on top 4” of scarified flex base for processing and water truck was waiting for placement completion for the full width area from north of the bridge to just south of Chapin Rd. where curb and gutter was done on west side. Day was windy. C&G gaps at inlets not done yet.
  - Raw base for the top 4” had been delivered on the west half of the roadway where curb and gutter had been done north of Chapin on the west side.
  - Raw base for the bottom 6” had been delivered and spread full width from just north of Russell Rd at approx. Sta. 180+15 to approx. Sta. 191+60 just south of canal.

- Curb and Gutter
  - Curb and gutter construction had just started and was on-going at time of visit north of Schunior on the west side at about Sta. 131 going north with stringline set up to just south of bridge at about Sta. 139+40. Stringline had also been set on east side going south to continue curb and gutter work.
  - Curb and Gutter had been done from just north of Chapin on west side at Sta. 154+10 to around Sta. 161.
- Bridge (West Main Drain Ditch) – Contractor had started riprap work on bridge abutments. Three sections had already been poured at Abutment #4, and had started shaping and forming at Abutment #1.
- Erosion/Silt Control Devices – Need to install or maintain silt control logs at inlets and rock filter dams in canals. The Type “1” rock filter dams required in plans do not provide for wire mesh to hold the aggregate together; i.e. the Type “3” provides for aggregate in wire mesh for a stream flow condition.

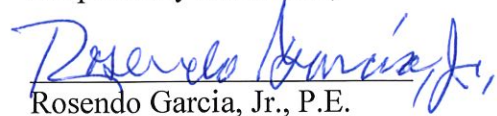
**Updated** – B2Z has noted the following review of records:

- Trench Backfill Densities –
  - Report R098 shows passing densities at locations where 18” and 42” pipe had been installed.
  - Report R106 shows sand supplied meets the backfill requirement for Item 400.
  - Reports R143, R144, R145 and R151 also show that material supplied for pipe bedding material meets the requirements of Item 400.
- Embankment Proctors – File includes Reports R101, R110, R152, R153 and R154 to establish proctors for “embankment” testing. These proctors are included in the “MD Curve” tab of the “Embankment/Trench” file that primarily includes trench backfill density and sand gradation results. No information from these proctor reports matches proctor information used on the trench density reports on file to date. Discussed with Leo and Jose Luis who mentioned there were earlier proctors that may not be in file and will be reviewed.
- Subgrade (gradation, densities, depth checks) –
  - Densities - Reports R096, R133, R134 and R158 have passing densities taken at several locations.
  - Gradation - Reports R170, R171, and R172 indicate passing gradations for pulverized material.
  - Depth Test - Reports R099, R100, R159, R160 and R173 show subgrade locations tested meet required 12” depth.
  - Lime Slurry Testing – Reports R116 and R132 document that Lime Slurry samples (3 total) were tested by San Antonio Testing Laboratory according to test procedure TEX-600-J and meet the requirements of DMS 6350.
- Flex Base –
  - Densities – Reports on file for 6” (R107) and R149, and 4” (R097) cement stabilized base, all passing. R149 shows the required % proctor as 98, but should be 95 as required by Item 275 and correctly shown on the other two reports. Also noticed that the reports available in May 2018 also showed 98% as the required compaction in lieu of 95%.
  - Depth Test – Reports R108 and R109 for 6” flex base are passing.
  - Field Sample Gradations (QC tests) – Reports R103, R122 and R138 for quality control testing and verification from random field samples meet base gradation requirements.
  - Raw Base Proctors – Reports R102, R121 and R137 establish raw base proctors and verify raw material PI.
- Concrete –
  - The file now includes various reports for Specimen Sets 2 through 28 covering riprap, curb and gutter, sidewalk and bridge work.
    - For Specimen Sets 2 thru 16: All have passing results at 7 or 28 days or both, except for Bridge set 12 (R105 for Bent #2 which broke at 2,240 psi at 4 days, 2,450 psi at 7 days and 3,520 psi at 28 days) did not meet 3,600 psi requirement.

- “Report of Site Visit” R113 shows that specimens 14 and 15 were for “Bent Cap #2 (Report R105 for Specimens 12 also shows it was for “Bent No. 2”). Placement Location for Set 14 shows “North Abutment”, and Placement Location for Set 15 shows “Curb and Gutter” requiring 3000 psi concrete instead of 3,600 psi for bridge use (although 7 day break for Set 15 was 4,020 psi). These reports need to be reviewed for consistency if Site Visit Report information applies.
- Specimen Sets 18, 19, 20 met 28 day strength, and sets 22 and 23 met at 7 days.
- Specimen Sets 21, 24 (did not meet @ 7 days), pending 28 day results.
- Site Visit Reports on file are pending results for Specimen Sets 17, 25, 27 and 28.
- Surface Treatment Aggregate (Item 302) – Test Report R142 indicates that the aggregate did not meet testing requirements primarily due to failing decantation value, but Report R141 sampled (6-26-18) and reported (7-2-18) on same date as R142 passed. Test Report R080 sampled on 5-11-18 reported in May report had been the last passing sample.
- Underdrain Pipe Filter Aggregate (Item 556) - Reports R139, R140 and R150 show that material did not pass item requirements and was rejected.
- Hot Mix – Report R146 shows that contractor continued paving on June 27, 2018 and that testing results for Lot #3 (sublots 1 and 2) are included. There were no reports in the file available for review (density and thermal profiles, and joint density tests also req’d).
- Lottman/Asphalt Tests – Lottman and asphaltic material testing required.
- Water Sample – No results available yet for water sample testing taken from irrigation canal at Sta. 141+25.
- Material On Hand (MOH) – For June 2018 estimate period, no new material was received on Materials on Hand Request but \$331,199.53 was deducted for material used. Material used and deducted included drainage items (RC pipe of various sizes and inlets), Irrigation PVC Pipe (18”), and concrete sidewalk and curb ramp related items (wire mesh, red brick tile).

Should you have any questions regarding this submittal, please do not hesitate to email me at [Rosendo@B2ZEng.com](mailto:Rosendo@B2ZEng.com) or call me at (956) 900-4361.

Respectfully Submitted,



Rosendo Garcia, Jr., P.E.

Senior Construction Manager – B2Z Engineering, LLC



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

### Invoice

Date	Invoice #
7/26/2018	3323

Please send remittance with copy of invoice to:

Attn: Mrs. Aisha Gonzalez  
P.O. Box 2724  
McAllen, Tx. 78502


Bill To: L&G Engineering  
2100 W. Expressway 83  
Mercedes, Tx. 78570

Project Info:  
10th Street Construction Inspection & CMT  
JOB: 152780  
Billing Period 6/27/18 - 7/26/18

**CSJ#0921-02-300**

Description	Contract Amount	x	% Complete	Current Amount Due
FC 32010 - Construction Management ~ Sub	\$79,230.36		35.00%	\$7,923.04
			Previously Invoiced	\$19,807.59

TOTAL PREVIOUSLY INVOICED	\$19,807.59
<b>TOTAL DUE THIS INVOICE</b>	<b>\$7,923.04</b>

  
Aisha Gonzalez - President

Approved  
B

**EXHIBIT "C"**  
**WORK SCHEDULE**  
**10th Street Extension - WA #2**  
 From SH 107 to FM 1925 (Monte Christo Rd)  
 Length = 2.5 miles

TASK AND DESCRIPTION	FIRM		2018												2019												2020				2021								
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC	Q1	Q2	Q3	Q4	Q1	Q2	Q3						
<b>10th Street Extension (SH 107-FM1925)</b>																																							
<b>WA #1: EA, PI, Schematic &amp; ROW Map</b>																																							
Advertise & Conduct Public Meeting	L&G	COMP																																					
TxDOT Schematic Approval	TxDOT	COMP																																					
TxDOT ROW Map Approval	TxDOT	COMP																																					
Environmental Decision	TxDOT	COMP																																					
<b>WA #2: Design Survey &amp; PS&amp;E</b>																																							
Design Survey	DLS	COMP																																					
Permitted Utility Coordination	L&G	COMP																																					
Outfall Coordination with HCDD #1	L&G	COMP																																					
30% PS&E Completion	L&G	COMP																																					
60% PS&E Completion	L&G	COMP																																					
90% PS&E Completion	L&G	COMP																																					
95% PS&E Completion	L&G	COMP																																					
TxDOT Review	TxDOT	COMP																																					
100% Mylars Completion	L&G	COMP																																					
TxDOT Approval	TxDOT	COMP																																					
<b>TXDOT RELEASE OF ROW</b>																																							
ROW Release	TxDOT	COMP																																					
<b>WA #3: ROW Acq. (SH 107 - Schunior)*</b>																																							
ROW Acquisition (Approx. 64 parcels)																																							
ROW Acquisition Process	L&G	COMP																																					
<b>Construction Mngmnt - Bid Analysis &amp; Contract Award</b>																																							
Receive TxDOT approval to advertise including pre-bid & DBE Conf	TxDOT	COMP																																					
Advertise (1st) & post in civcast (3 weeks prior to bid opening)	Cty/L&G	COMP																																					
Advertise (2nd) & post in www.civcastusa.com	Cty/L&G	COMP																																					
Advertise (3rd) & post in www.civcastusa.com	Cty/L&G	COMP																																					
Conduct DBE conference & Pre-Bid Meeting	Cty/L&G	COMP																																					
Open Bids (verify apparent low bidder)(7 weeks prior to letting)	Cty/L&G	COMP																																					
Submit Bids to TxDOT (low bidder concurrence)(6 wks to letting)	Cty/L&G	COMP																																					
Receive concurrence from TxDOT	TxDOT	COMP																																					
Recommend to County; Award to Low Bidder	L&G	COMP																																					
Award Contract at Commissioner's Court (Letting Date)	County	COMP																																					
<b>Construction Management - Contract Execution</b>																																							
Assist the County with Execution of the Contract	L&G	COMP																																					
<b>Construction Operations (SH 107 - FM 1925)</b>																																							
Construction Begins ( Start Date: February 2018)	County																																						



# L&G Engineering

Transportation Consultants

August 1, 2018

Honorable Joseph Palacios  
Hidalgo County Commissioner Pct. #4  
1051 N. Doolittle  
Edinburg, Texas 78542

ATTENTION: Ms. Maria Mayorga

Reference: 10<sup>th</sup> Street Extension Project – L&G Consulting Engineers Test Reports

Dear Commissioner:

I have reviewed the attached L&G Consulting Engineers Test Reports and billed with invoice number 11327062 for 10<sup>th</sup> Street Extension Project. I hereby certify that the testing results meet, exceed or comply with project specifications and/or are in accordance with TxDOT's sampling and testing criteria.

Should you have any questions, please call me at (956) 595-1909.

Respectfully,

Ricardo Gallaga Jr., P.E.  
Project Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

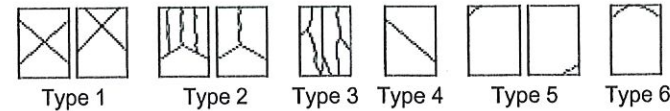
L&G Project Number: E130181  
 L&G Report Number: R089-28  
 Sample Date: 05/15/2018  
 Date Reported: 07/05/2018

Page 1 of 1

Placement Location: Curb and Gutter / Sta. 102+00  
 Mix ID: TXDOT Class A Supplier: J-III Concrete  
 Specified Strength: 3,000 P.S.I. @ 28 days  
 Specified Slump: 2 MAX Slump: 2.0"  
 Specified Air Content: N/A Air Content: 3.0%  
 Weather Conditions: Cloudy/Hot Air Temp.: 81°F  
 Time Batched: 8:36 am Time Sampled: 9:30 am Concrete Temp.: 83°F  
 Plant Ticket No: 308921 Truck No: 175 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
8	A	05/22/2018	7	121,165	6.000	28.274	Type 3	4,290		143.00%
	B	05/22/2018	7	122,525	6.000	28.274	Type 3	4,330	4,310	144.33%
	C	06/12/2018	28	173,450	6.000	28.274	Type 2	6,130		204.33%
	D	06/12/2018	28	173,085	6.000	28.274	Type 3	6,120	6,130	204.00%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

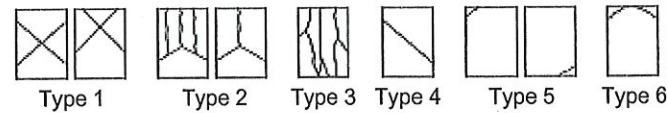
L&G Project Number: E130181  
 L&G Report Number: R105-28  
 Sample Date: 05/25/2018  
 Date Reported: 07/05/2018

Page 1 of 1

Placement Location: Bent No. 2  
 Mix ID: TxDOT CLC Supplier: CEMEX  
 Specified Strength: 3,600 P.S.I. @ 28 days  
 Specified Slump: 5 MAX Slump: 3.5"  
 Specified Air Content: 3-5% Air Content: 3.5%  
 Weather Conditions: Clear/Hot Air Temp.: 91°f  
 Time Batched: 11:20 am Time Sampled: 12:05 pm Concrete Temp.: 92°f  
 Plant Ticket No: 54765061 Truck No: 10033434 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
12	A	05/29/2018	4	63,320	6.000	28.274	Type 3	2,240	2,240	62.22%
	B	06/01/2018	7	69,170	6.000	28.274	Type 3	2,450	2,450	68.06%
	C	06/22/2018	28	99,515	6.000	28.274	Type 2	3,520	3,520	97.78%



**Remarks/Comments:**

One specimen kept for 56 day testing.

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

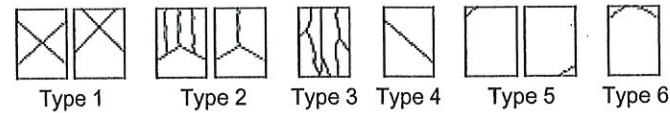
L&G Project Number: E130181  
 L&G Report Number: R112-28  
 Sample Date: 05/31/2018  
 Date Reported: 07/05/2018

Page 1 of 1

Placement Location: Curb - Sta. 178+00  
 Mix ID: xDOT CLASS Supplier: Jill Concrete  
 Specified Strength: 3,000 P.S.I. @ 28 days  
 Specified Slump: 2" MAX Slump: 1.0"  
 Specified Air Content: N/A Air Content: 1.5%  
 Weather Conditions: Sunny/Clear Air Temp.: 80°f  
 Time Batched: 6:24 am Time Sampled: 7:16 am Concrete Temp.: 79°f  
 Plant Ticket No: 310193 Truck No: 199 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
13	A	06/07/2018	7	118,610	6.000	28.274	Type 3	4,190		139.67%
	B	06/07/2018	7	115,180	6.000	28.274	Type 3	4,070	4,130	135.67%
	C	06/28/2018	28	132,640	6.000	28.274	Type 3	4,690		156.33%
	D	06/28/2018	28	141,765	6.000	28.274	Type 3	5,010	4,850	167.00%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

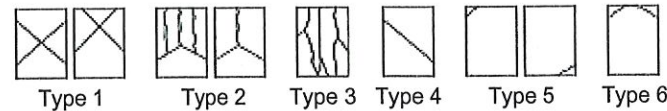
L&G Project Number: E130181  
 L&G Report Number: R114-28  
 Sample Date: 06/02/2018  
 Date Reported: 07/05/2018

Page 1 of 1

Placement Location: North Abutment  
 Mix ID: TxDOT Class C Supplier: CEMEX  
 Specified Strength: 3,600 P.S.I. @ 28 days  
 Specified Slump: 5 MAX Slump: 5.25"  
 Specified Air Content: 3-5% Air Content: 1.9%  
 Weather Conditions: Sunny/Humid Air Temp.: 86°F  
 Time Batched: 6:50 am Time Sampled: 7:20 am Concrete Temp.: 78°F  
 Plant Ticket No: 54765315 Truck No: 10036849 CY: 20  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
14	A	06/09/2018	7	95,450	6.000	28.274	Type 6	3,380		93.89%
	B	06/09/2018	7	96,095	6.000	28.274	Type 3	3,400	3,390	94.44%
	C	06/30/2018	28	117,565	6.000	28.274	Type 2	4,160		115.56%
	D	06/30/2018	28	126,520	6.000	28.274	Type 6	4,470	4,320	124.17%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

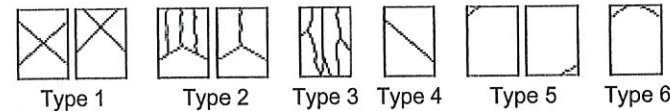
L&G Project Number: E130181  
 L&G Report Number: R115-28  
 Sample Date: 06/02/2018  
 Date Reported: 07/05/2018

Page 1 of 1

Placement Location: Curb and Gutter  
 Mix ID: TXDOT Class A Supplier: J-III Concrete  
 Specified Strength: 3,000 P.S.I. @ 28 days  
 Specified Slump: 2 MAX Slump: 2.25"  
 Specified Air Content: N/A Air Content: 1.1%  
 Weather Conditions: Sunny/Humid Air Temp.: 82°f  
 Time Batched: 7:42 am Time Sampled: 8:20 am Concrete Temp.: 87°f  
 Plant Ticket No: 310404 Truck No: 158 CY: 30  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
15	A	06/09/2018	7	110,900	6.000	28.274	Type 6	3,920		130.67%
	B	06/09/2018	7	116,360	6.000	28.274	Type 3	4,120	4,020	137.33%
	C	06/30/2018	28	127,320	6.000	28.274	Type 5	4,500		150.00%
	D	06/30/2018	28	135,470	6.000	28.274	Type 2	4,790	4,650	159.67%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

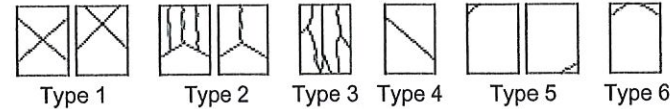
L&G Project Number: E130181  
 L&G Report Number: R118-28  
 Sample Date: 06/07/2018  
 Date Reported: 07/23/2018

Page 1 of 1

Placement Location: Bent Cap #3 - Sta. 142+00  
 Mix ID: [x]DOT Class C Supplier: CEMEX  
 Specified Strength: 3,600 P.S.I. @ 28 days  
 Specified Slump: Max 5 Slump: 6.0"  
 Specified Air Content: 3 to 5 Air Content: 1.4%  
 Weather Conditions: Clear/Hot Air Temp.: 80°f  
 Time Batched: 6:50 am Time Sampled: 7:30 am Concrete Temp.: 85°f  
 Plant Ticket No: 54777158 Truck No: 10035672 CY: 9  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
16	A	06/14/2018	7	71,760	6.000	28.274	Type 3	2,540		70.56%
	B	06/14/2018	7	76,165	6.000	28.274	Type 3	2,690	2,620	74.72%
	C	07/05/2018	28	103,150	6.000	28.274	Type 4	3,650		101.39%
	D	07/05/2018	28	109,885	6.000	28.274	Type 4	3,890	3,770	108.06%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

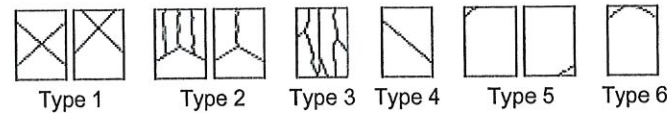
L&G Project Number: E130181  
 L&G Report Number: R125-28  
 Sample Date: 06/13/2018  
 Date Reported: 06/25/2018

Page 1 of 1

Placement Location: Bent Cap #4 Sta. 142+00  
 Mix ID: TXDOT Class C Supplier: CEMEX  
 Specified Strength: 3,600 P.S.I. @ 28 days  
 Specified Slump: MAX 5 Slump: 6.0"  
 Specified Air Content: 3 to 5 % Air Content: 2.3%  
 Weather Conditions: Clear/Hot Air Temp.: 78°f  
 Time Batched: 6:30 am Time Sampled: 7:15 am Concrete Temp.: 89°f  
 Plant Ticket No: 54777301 Truck No: 10035548 CY: 9  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
18	A	06/20/2018	7	95,970	6.000	28.274	Type 2	3,390		94.17%
	B	06/20/2018	7	94,554	6.000	28.274	Type 3	3,340	3,370	92.78%
	C	07/11/2018	28	112,480	6.000	28.274	Type 5	3,980		110.56%
	D	07/11/2018	28	105,100	6.000	28.274	Type 5	3,720	3,850	103.33%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

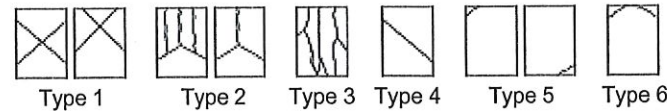
L&G Project Number: E130181  
 L&G Report Number: R131-28  
 Sample Date: 06/15/2018  
 Date Reported: 06/15/2018

Page 1 of 1

Placement Location: Rip Rap Sta. 166+25 (Right Side)  
 Mix ID: TXDOT Class A Supplier: Jill Concrete  
 Specified Strength: 3,000 P.S.I. @ 28 days  
 Specified Slump: 2.5 MAX Slump: 4.5"  
 Specified Air Content: N/A Air Content: 1.2%  
 Weather Conditions: Sunny/Hot Air Temp.: 100°f  
 Time Batched: 1:21 pm Time Sampled: 2:15 pm Concrete Temp.: 85°f  
 Plant Ticket No: 440102 Truck No: 184 CY: 4  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
19	A	06/22/2018	7	136,730	6.000	28.274	Type 4	4,840		161.33%
	B	06/22/2018	7	137,355	6.000	28.274	Type 2	4,860	4,850	162.00%
	C	07/13/2018	28	158,475	6.000	28.274	Type 6	5,600		186.67%
	D	07/13/2018	28	154,240	6.000	28.274	Type 6	5,460	5,530	182.00%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**FIELD DENSITIES  
 TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R133  
 Sample Date: 06/02/2018  
 Date Reported: 07/05/2018

Page 1 of 1

<b>Material Description</b>	3% Limed Subgrade		
<b>Required % Proctor</b>	95.0	<b>Moisture Tolerance</b>	-1+2
	<b>Proctor No</b>	<b>Optimum % Moisture</b>	<b>Opt. Density, LB/CF</b>
	LS MD6	21.0	99.3

Test No.	Test Location	Proctor No	Moisture Content	Dry Density	Percent Compaction	Depth (inch)
1	3% Lime Subgrade Propose Northbound Lanes	LS MD6	21.1%	96.8 pcf	97.5% (Pass)	12"

Remarks: Test results are in general compliance with the project specifications except as noted.  
 Test Methods: TEX-115-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering



\_\_\_\_\_  
 Ricardo A. Gil, Lab Manager

**FIELD DENSITIES  
 TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R134

Sample Date: 06/05/2018

Date Reported: 07/05/2018

Page 1 of 1

Material Description 3% Limed Subgrade

Required % Proctor 95.0 Moisture Tolerance -1+2

Proctor No	Optimum % Moisture	Opt. Density, LB/CF
LS MD6	21.0	99.3

Test No.	Test Location	Proctor No	Moisture Content	Dry Density	Percent Compaction	Depth (inch)
1	Northbound Lanes Sta. 138+00 (RT)	LS MD6	20.0%	94.9 pcf	95.6% (Pass)	12"
2	Northbound Lanes Sta. 134+00(RT)	LS MD6	20.3%	94.7 pcf	95.4% (Pass)	12"

Remarks: Test results are in general compliance with the project specifications except as noted.  
 Test Methods: TEX-115-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering



\_\_\_\_\_  
 Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R135

Sample Date: 06/18/2018

Date Reported: 07/05/2018

Page 1 of 1

On June 18, 2018 a representative of L&G Engineering Laboratory was dispatched to 10th Street Extension to perform inspection on the placement of ready-mixed concrete on South Bent Cap.

Specimen Number 20 was obtained and tested at 9:00 AM, and the following were determined:

<b>Concrete Temp:</b> 88°f	N/A	<b>Entrapped/Entrained Air Content:</b> 1.1%	3 to 5 %
	Specification		Specification
<b>Ambient Temp:</b> 84°f	N/A	<b>Slump:</b> 5 inches	Max 5
	Specification		Specification

From Specimen Number 20, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

On June 26, 2018 a representative of L&G Engineering Laboratory was dispatched to the referenced project to collect the cylindrical specimens cast on the placement of ready-mixed concrete on South Bent Cap. The specimens were delivered to the laboratory where they were stripped, labeled, and placed in a curing tank for testing at intervals of 7 and 28 days.

Test Methods (If Applicable): TEX-415-A, TEX-416-A, TEX-422-A, TEX-447-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

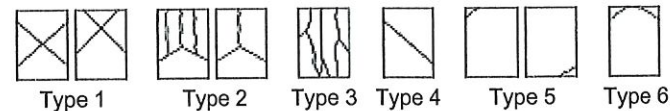
L&G Project Number: E130181  
 L&G Report Number: R136-28  
 Sample Date: 06/18/2018  
 Date Reported: 07/05/2018

Page 1 of 1

Placement Location: South Bent Cap  
 Mix ID: EXDOR Class C Supplier: CEMEX  
 Specified Strength: 3,600 P.S.I. @ 28 days  
 Specified Slump: 5 MAX Slump: 5.0"  
 Specified Air Content: N/A Air Content: 1.1%  
 Weather Conditions: Partly Cloudy - Humid Air Temp.: 84°f  
 Time Batched: 8:00 am Time Sampled: 9:00 am Concrete Temp.: 88°f  
 Plant Ticket No: 54777391 Truck No: 10035434 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
20	A	06/25/2018	7	87,905	6.000	28.274	Type 2	3,110		86.39%
	B	06/25/2018	7	80,180	6.000	28.274	Type 4	2,840	2,970	78.89%
	C	07/16/2018	28	111,200	6.000	28.274	Type 2	3,930		109.17%
	D	07/16/2018	28	119,170	6.000	28.274	Type 2	4,210	4,070	116.94%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**PROCTOR  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

L&G Project Number: E130181

Client: Hidalgo County Pct. #4  
Contractor: Texas Cordia Construction, LLC

L&G Report Number: R137  
Sample Date: 06/26/2018  
Date Reported: 07/02/2018

Page 1 of 1

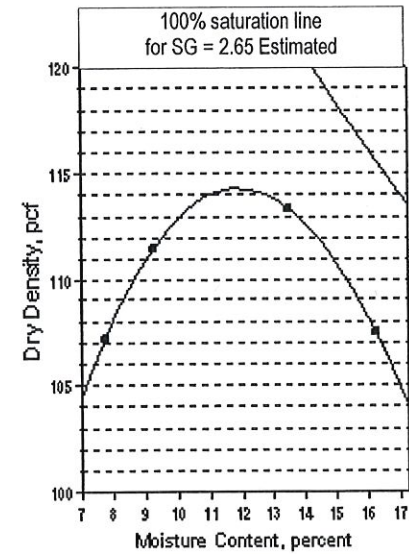
Compaction Method: TEX 113  
Material Description: Base - Raw

Specific Gravity: 2.65

Liquid Limit: 23  
Plastic Limit: 18  
Plasticity Index: 5

Specimen No.:	1	2	3	4
Moisture, %:	7.8	9.2	13.4	16.3
Dry Density (pcf):	107.4	111.4	113.3	107.3

Maximum Dry Density in P.C.F.: 114.2  
Optimum Moisture (%): 11.8



Test Method: TEX 113 Method-C, TEX 106

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering

Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

L&G Project Number: E130181

Client: Hidalgo County Pct. #4

L&G Report Number: R138

Contractor: Texas Cordia Construction, LLC

Sample Date: 06/26/2018

Date Reported: 07/02/2018

Page 1 of 1

Material: Raw Base Material - Ty E Gr 4

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
2 in	0	0
1/2 in	23	20-60
No. 4	49	40-75
No. 40	88	70-90

Remarks: Texas Wet Ball Mill Value: 45.1%

Test Method (As Applicable): Tex Method 110-E, TEX 116-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



\_\_\_\_\_  
Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R139

Sample Date: 06/28/2018

Date Reported: 07/02/2018

Page 1 of 1

Material: Gravel #3

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
1 1/2 in	0	0-10
3/4 in	60*	20-40
No. 4	100*	35-65
No. 20	100*	40-60
No. 50	100	75-100

Remarks: Decant Value: 0.18, Did not meet testing requirements.-Material was rejected.

Test Method (As Applicable): TEX 401 Item 556 Type C Gravel

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



\_\_\_\_\_  
Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19  
Client: Hidalgo County Pct. #4  
Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
L&G Report Number: R140  
Sample Date: 06/28/2018  
Date Reported: 07/02/2018

Page 1 of 1

Material: Gravel #4

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
1 1/2 in	0	0-10
3/4 in	45*	20-40
No. 4	100*	35-65
No. 20	100*	40-60
No. 50	100	75-100

Remarks: Decant Value: 0.2, did not meet testing requirements.-material was rejected  
Test Method (As Applicable): TEX 401 Item 556 Type C Gravel

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
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Respectfully Submitted,  
L&G Engineering



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Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R142

Sample Date: 06/26/2018

Date Reported: 07/02/2018

Page 1 of 1

Material: Surface treatment-Item 302

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
5/8 in	0	0
1/2 in	5	0-5
3/8 in	39	20-40
No. 4	95	95-100
No. 8	97*	98-100

Remarks: Decant Value: 1.3%, Did not meet testing requirements.

Test Method (As Applicable): Tex Method 401-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R141

Sample Date: 06/26/2018

Date Reported: 07/02/2018

Page 1 of 1

Material: Surface Treatment-Item 302

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
5/8 in	0	0
1/2 in	2	0-5
3/8 in	29	20-40
No. 4	95	95-100
No. 8	98	98-100

Remarks: Decant Value: 0.97

Test Method (As Applicable): Tex Method 401-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
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1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R143

Sample Date: 06/26/2018

Date Reported: 07/02/2018

Page 1 of 1

Material: Pipe Bedding-Item 400

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
3 in	0	0
No. 200	94.4	90-100

Remarks: Meets requirements  
Test Method (As Applicable):

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



\_\_\_\_\_  
Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4  
Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R144  
Sample Date: 06/26/2018  
Date Reported: 07/05/2018

Page 1 of 1

Material: Pipe Bedding - Item 400

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
3 in	0	0
No. 200	95.0	90-100

Remarks: Meets requirements  
Test Method (As Applicable):

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



\_\_\_\_\_  
Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19  
Client: Hidalgo County Pct. #4  
Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
L&G Report Number: R145  
Sample Date: 06/26/2018  
Date Reported: 07/02/2018

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Page 1 of 1

Material: Pipe Bedding - Item 400

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
3 in	0	0
No. 200	94.2	90-100

Remarks: Meets requirements  
Test Method (As Applicable):

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



---

Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R146

Sample Date: 06/27/2018

Date Reported: 07/05/2018

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Page 1 of 1

On June 27, 2018, the Contractor continued paving operations on the project. The Contractor's field and laboratory test results, as well as L&G's results are included herein for Lot #3 (Sublot 1 & 2).

Test Methods (If Applicable): TxDOT Methods

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

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L&G Engineering



---

Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R147

Sample Date: 06/27/2018

Date Reported: 07/23/2018

Page 1 of 1

On June 27, 2018 a representative of L&G Engineering Laboratory was dispatched to 10th Street Extension to perform inspection on the placement of ready-mixed concrete on Back wall Abut #4 Sta. 142+00.

Specimen Number 21 was obtained and tested at 11:40 AM, and the following were determined:

<b>Concrete Temp:</b> 90°f	N/A	<b>Entrapped/Entrained Air Content:</b> 2%	3 to 5 %
	Specification		Specification
<b>Ambient Temp:</b> 88°f	N/A	<b>Slump:</b> 7 inches	Max 5
	Specification		Specification

From Specimen Number 21, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

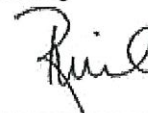
On July 5, 2018 a representative of L&G Engineering Laboratory was dispatched to the referenced project to collect the cylindrical specimens cast on the placement of ready-mixed concrete on Back Wall Abut #4 Sta. 142+00. The specimens were delivered to the laboratory where they were stripped, labeled, and placed in a curing tank for testing at intervals of 7 and 28 days.

Remarks: \*\* Slump Out of Tolerance

Test Methods (If Applicable): TEX-415-A, TEX-416-A, TEX-422-A, TEX-447-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
 TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

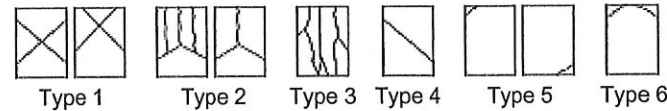
L&G Project Number: E130181  
 L&G Report Number: R148  
 Sample Date: 06/27/2018  
 Date Reported: 07/23/2018

Page 1 of 1

Placement Location: Back Wall / Abutment Sta. 142+00  
 Mix ID: TXDOT Class C Supplier: CEMEX  
 Specified Strength: 3,600 P.S.I. @ 28 days  
 Specified Slump: Max 5 Slump: 7.0"  
 Specified Air Content: 3 to 5 % Air Content: 2.0%  
 Weather Conditions: Clear/Hot Air Temp.: 88°f  
 Time Batched: 11:00 am Time Sampled: 11:40 am Concrete Temp.: 90°f  
 Plant Ticket No: 54777501 Truck No: 10064434 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
21	A	07/04/2018	7	74,950	6.000	28.274	Type 5	2,650		73.61%
	B	07/04/2018	7	77,835	6.000	28.274	Type 3	2,750	2,700	76.39%



**Remarks/Comments:**

\*\*Slump out of tolerance

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

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 L&G Engineering

Ricardo A. Gil, Lab Manager

**FIELD DENSITIES  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R149  
 Sample Date: 07/03/2018  
 Date Reported: 07/05/2018

Page 1 of 1

Material Description	Cement Flexbase		
Required % Proctor	98.0	Moisture Tolerance	-2+2
	<u>Proctor No</u>	<u>Optimum % Moisture</u>	<u>Opt. Density, LB/CF</u>
	BASE MD4	14.5	112.3

Test No.	Test Location	Proctor No	Moisture Content	Dry Density	Percent Compaction	Depth (inch)
1	6" Flexbase 4'RT Sta. 144+00	BASE MD4	15.4%	111.5 pcf	99.3% (Pass)	6"
2	6" Flexbase 20'LT Sta. 144+10	BASE MD4	14.9%	115.2 pcf	102.6% (Pass)	6"
3	6" Flexbase 15'RT Sta. 149+00	BASE MD4	15.1%	114.9 pcf	102.3% (Pass)	6"
4	6" Flexbase 20'LT Sta. 150+00	BASE MD4	15.8%	114.2 pcf	101.7% (Pass)	6"

Remarks: Test results are in general compliance with the project specifications except as noted.  
 Test Methods: TEX-115-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

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 L&G Engineering



\_\_\_\_\_  
 Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R150

Sample Date: 07/05/2018

Date Reported: 07/09/2018

Page 1 of 1

Material: Crushed aggregate

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
1 1/2 in	0	0-10
3/4 in	0*	20-40
No. 4	32*	35-65
No. 20	97*	40-60
No. 50	99	75-100

Remarks: Did not meet testing requirements. Decant Value- 0.3%-material rejected  
Test Method (As Applicable): Item 556 Type C Gravel

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



\_\_\_\_\_  
Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R151

Sample Date: 07/05/2018

Date Reported: 07/13/2018

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Page 1 of 1

Material: Pipe Bedding-Item 400

<u>Sieve</u>	<u>% Retained</u>	<u>Required</u>
3 in	0	0
No. 200	95.3	90-100

Remarks: Meets requirements

Test Method (As Applicable):

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



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Ricardo A. Gil, Lab Manager

**PROCTOR  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R152  
 Sample Date: 07/05/2018  
 Date Reported: 07/13/2018

Page 1 of 1

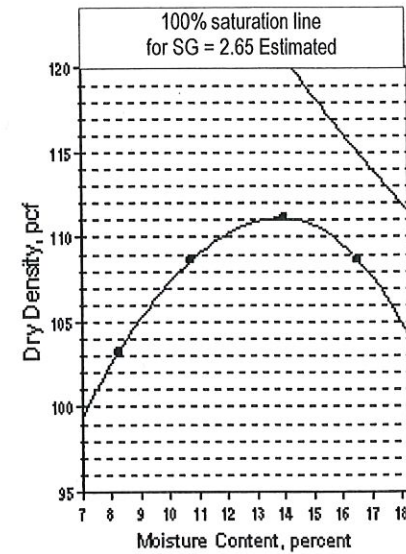
Compaction Method: TEX 113  
 Material Description: Embankment-Item 132

Specific Gravity: 2.65

Liquid Limit: 38  
 Plastic Limit: 14  
 Plasticity Index: 24  
 % Passing No. 200: 52

Specimen No.:	1	2	3	4
Moisture, %:	8.3	10.8	14.1	16.6
Dry Density (pcf):	103.4	108.7	111.1	108.5

Maximum Dry Density in P.C.F.: 111.1  
 Optimum Moisture (%): 14.0



Test Method: TEX 113 Method-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
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 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

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 L&G Engineering

Ricardo A. Gil, Lab Manager

**PROCTOR  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R153  
 Sample Date: 07/05/2018  
 Date Reported: 07/13/2018

Page 1 of 1

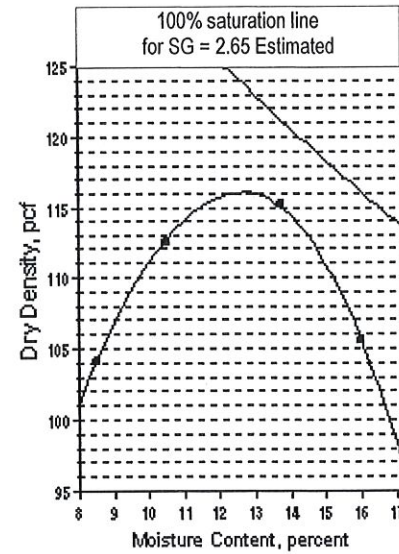
Compaction Method: TEX 113  
 Material Description: Embankment-Item 132

Specific Gravity: 2.65

Liquid Limit: 39  
 Plastic Limit: 23  
 Plasticity Index: 16  
 % Passing No. 200: 50

Specimen No.:	1	2	3	4
Moisture, %:	8.5	10.5	13.7	15.9
Dry Density (pcf):	104.1	112.6	115.3	106.3

Maximum Dry Density in P.C.F.: 116.1  
 Optimum Moisture (%): 12.7



Test Method: TEX 113 Method-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
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 1-cc Laboratory

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 L&G Engineering

Ricardo A. Gil, Lab Manager

**PROCTOR  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R154  
 Sample Date: 07/05/2018  
 Date Reported: 07/13/2018

Page 1 of 1

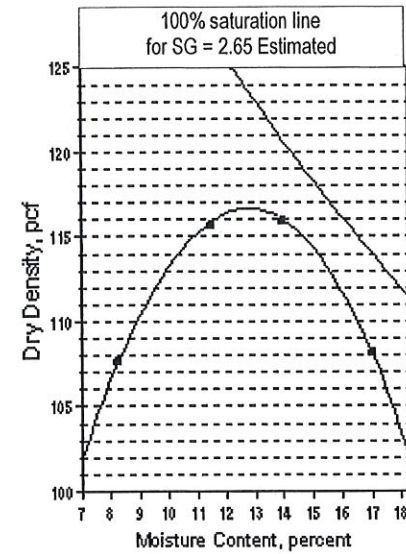
Compaction Method: TEX 113  
 Material Description: Embankment-Item 132

Specific Gravity: 2.65

Liquid Limit: 31  
 Plastic Limit: 8  
 Plasticity Index: 23  
 % Passing No. 200: 48

Specimen No.:	1	2	3	4
Moisture, %:	8.2	11.4	14.1	17.0
Dry Density (pcf):	107.4	115.7	115.9	108.1

Maximum Dry Density in P.C.F.: 116.6  
 Optimum Moisture (%): 12.9



Test Method: TEX 113 Method-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

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 L&G Engineering

Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R155

Sample Date: 07/06/2018

Date Reported: 07/23/2018

Page 1 of 1

On July 6, 2018 a representative of L&G Engineering Laboratory was dispatched to 10th Street Extension to perform inspection on the placement of ready-mixed concrete on Curb and Gutter Sta. 151+00 and Sta. 142+00.

Specimen Number 22 was obtained and tested at 7:00 AM, and the following were determined:

<b>Concrete Temp:</b> <u>90°f</u>	<u>N/A</u> Specification	<b>Entrapped/Entrained Air Content:</b> <u>2%</u>	<u>as approved</u> Specification
<b>Ambient Temp:</b> <u>75°f</u>	<u>N/A</u> Specification	<b>Slump:</b> <u>3 inches</u>	<u>Max 2</u> Specification

From Specimen Number 22, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

Specimen Number 23 was obtained and tested at 10:30 AM, and the following were determined:

<b>Concrete Temp:</b> <u>90°f</u>	<u>N/A</u> Specification	<b>Entrapped/Entrained Air Content:</b> <u>1%</u>	<u>as approved</u> Specification
<b>Ambient Temp:</b> <u>85°f</u>	<u>N/A</u> Specification	<b>Slump:</b> <u>2 1/2 inches</u>	<u>Max 2</u> Specification

From Specimen Number 23, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

On July 7, 2018 a representative of L&G Engineering Laboratory was dispatched to the referenced project to collect the cylindrical specimens cast on the placement of ready-mixed concrete on Curb and Gutter Sta. 151+00 and Sta. 142+00. The specimens were delivered to the laboratory where they were stripped, labeled, and placed in a curing tank for testing at intervals of 7 and 28 days.

Test Methods (If Applicable): TEX-415-A, TEX-416-A, TEX-422-A, TEX-447-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

Respectfully Submitted,  
L&G Engineering



Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
 TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

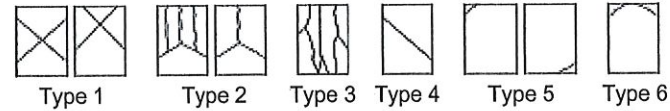
L&G Project Number: E130181  
 L&G Report Number: R156  
 Sample Date: 07/06/2018  
 Date Reported: 07/23/2018

Page 1 of 1

Placement Location: Curb and Gutter Sta. 151+00 and Sta. 142+00.  
 Mix ID: TxDot Class A Supplier: J-III Concrete  
 Specified Strength: 3,000 P.S.I. @ 28 days  
 Specified Slump: Max 2 Slump: 3.0"  
 Specified Air Content: as approved Air Content: 2.0%  
 Weather Conditions: Clear/Hot Air Temp.: 75°F  
 Time Batched: 6:31 am Time Sampled: 7:00 am Concrete Temp.: 90°F  
 Plant Ticket No: 442414 Truck No: 158 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
22	A	07/13/2018	7	113,000	6.000	28.274	Type 3	4,000		133.33%
	B	07/13/2018	7	116,765	6.000	28.274	Type 2	4,130	4,060	137.67%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering

Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

L&G Project Number: E130181

Client: Hidalgo County Pct. #4

L&G Report Number: R157

Contractor: Texas Cordia Construction, LLC

Sample Date: 07/06/2018

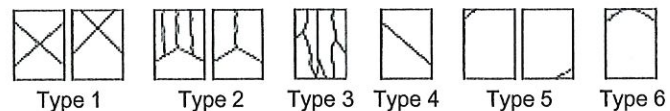
Date Reported: 07/23/2018

Page 1 of 1

Placement Location: Curb and Gutter Sta. 151+00 and Sta. 142+00.  
 Mix ID: TXDOT Class A Supplier: J-III Concrete  
 Specified Strength: 3,000 P.S.I. @ 28 days  
 Specified Slump: Max 2 Slump: 2.5"  
 Specified Air Content: as approved Air Content: 1.0%  
 Weather Conditions: Clear/Hot Air Temp.: 85°f  
 Time Batched: 10:03 am Time Sampled: 10:30 am Concrete Temp.: 90°f  
 Plant Ticket No: 442432 Truck No: 180 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
23	A	07/13/2018	7	108,125	6.000	28.274	Type 6	3,820		127.33%
	B	07/13/2018	7	101,550	6.000	28.274	Type 3	3,590	3,710	119.67%



**Remarks/Comments:**

**Test Methods:** TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
L&G Engineering

Ricardo A. Gil, Lab Manager

**FIELD DENSITIES  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R158  
 Sample Date: 07/06/2018  
 Date Reported: 07/23/2018

Page 1 of 1

<b>Material Description</b>	Limed Subgrade		
<b>Required % Proctor</b>	95.0	<b>Moisture Tolerance</b>	-1+2
	<b>Proctor No</b>	<b>Optimum % Moisture</b>	<b>Opt. Density, LB/CF</b>
	LS MD6	21.0	99.3

Test No.	Test Location	Proctor No	Moisture Content	Dry Density	Percent Compaction	Depth (inch)
1	Sta. 181+25 Right Side 10'Rt of CL	LS MD6	22.9%	95.0 pcf	95.7% (Pass)	12"
2	Sta. 181+00 Left Side 20'Lt of CL	LS MD6	20.2%	97.2 pcf	97.9% (Pass)	12"
3	Sta. 185+00 Right Side 25'Rt of CL	LS MD6	22.5%	95.7 pcf	96.4% (Pass)	12"
4	Sta. 186+00 Left Side 30'Lt of CL	LS MD6	20.8%	96.4 pcf	97.1% (Pass)	12"
5	Sta. 189+00 Right Side 20'Rt of CL	LS MD6	20.4%	97.5 pcf	98.2% (Pass)	12"
6	Sta. 189+50 Left Side 10'Lt of CL	LS MD6	22.4%	95.5 pcf	96.2% (Pass)	12"

Remarks: Test results are in general compliance with the project specifications except as noted.  
 Test Methods: TEX-115-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
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 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

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 L&G Engineering



Ricardo A. Gil, Lab Manager

**SUBGRADE THICKNESS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R159  
 Sample Date: 07/06/2018  
 Date Reported: 07/23/2018

Page 1 of 1

Quantity Represented:

Core#	Street	Station	Location	Thickness, In.
1	10th Street	189+00	NB Lanes	12.01

Test Methods: TEX-140-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
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 Ricardo A. Gil, Lab Manager

**SUBGRADE THICKNESS  
 TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R160  
 Sample Date: 07/06/2018  
 Date Reported: 07/24/2018

Page 1 of 1

Quantity Represented:

Core#	Street	Station	Location	Thickness, In.
	10th Street	181+00	SB Lanes	12

Test Methods: TEX-140-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
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 Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R161

Sample Date: 07/11/2018

Date Reported: 07/23/2018

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Page 1 of 1

On July 11, 2018 a representative of L&G Engineering Laboratory was dispatched to 10th Street Extension to perform inspection on the placement of ready-mixed concrete on Rip Rap Abut. #1 Sta. 142+00.

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Specimen Number 24 was obtained and tested at 4:20 PM, and the following were determined:

<b>Concrete Temp:</b> <u>89°f</u>	<u>N/A</u> Specification	<b>Entrapped/Entrained Air Content:</b> <u>3.3%</u>	<u>as approved</u> Specification
<b>Ambient Temp:</b> <u>99°f</u>	<u>N/A</u> Specification	<b>Slump:</b> <u>6 1/2 inches</u>	<u>Max 5</u> Specification

From Specimen Number 24, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

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On July 12, 2018 a representative of L&G Engineering Laboratory was dispatched to the referenced project to collect the cylindrical specimens cast on the placement of ready-mixed concrete on Rip Rap Abut. #1 Sta. 142+00. The specimens were delivered to the laboratory where they were stripped, labeled, and placed in a curing tank for testing at intervals of 7 and 28 days.

Remarks: \*\*Slump out of tolerance

Test Methods (If Applicable): TEX-415-A, TEX-416-A, TEX-422-A, TEX-447-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

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L&G Engineering



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Ricardo A. Gil, Lab Manager

**CONCRETE COMPRESSION  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

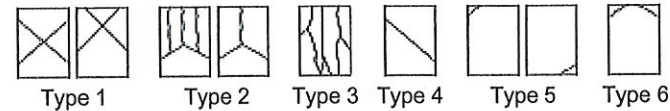
L&G Project Number: E130181  
 L&G Report Number: R162  
 Sample Date: 07/11/2018  
 Date Reported: 07/23/2018

Page 1 of 1

Placement Location: Rip Rap Abut. #1 Sta. 142+00.  
 Mix ID: TXDOT Class A Supplier: CEMEX  
 Specified Strength: 3,000 P.S.I. @ 28 days  
 Specified Slump: Max 5 Slump: 6.5"  
 Specified Air Content: as approved Air Content: 3.3%  
 Weather Conditions: Hot/Sunny Air Temp.: 99°F  
 Time Batched: 3:25 pm Time Sampled: 4:20 pm Concrete Temp.: 89°F  
 Plant Ticket No: 44714198 Truck No: 10036003 CY: 10  
 Water: 0 gal.

**Compressive Strength Data**

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Diameter	Area	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
24	A	07/18/2018	7	79,955	6.000	28.274	Type 3	2,830		94.33%
	B	07/18/2018	7	81,950	6.000	28.274	Type 2	2,900	2,860	96.67%



**Remarks/Comments:**

\*\* Slump out of tolerance

Test Methods: TEX-418-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

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 L&G Engineering

Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R163

Sample Date: 07/16/2018

Date Reported: 07/23/2018

Page 1 of 1

On July 16, 2018 a representative of L&G Engineering Laboratory was dispatched to 10th Street Extension to perform inspection on the placement of ready-mixed concrete on Curb and Gutter Sta. 129+30.

Specimen Number 25 was obtained and tested at 7:55 AM, and the following were determined:

<b>Concrete Temp:</b> 81°f	N/A	<b>Entrapped/Entrained Air Content:</b> 1.2%	as approved
	Specification		Specification
<b>Ambient Temp:</b> 80°f	N/A	<b>Slump:</b> 1 inch	Max 2
	Specification		Specification

From Specimen Number 25, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

On July 17, 2018 a representative of L&G Engineering Laboratory was dispatched to the referenced project to collect the cylindrical specimens cast on the placement of ready-mixed concrete on Curb and Gutter Sta. 129+30. The specimens were delivered to the laboratory where they were stripped, labeled, and placed in a curing tank for testing at intervals of 7 and 28 days.

Test Methods (If Applicable): TEX-415-A, TEX-416-A, TEX-422-A, TEX-447-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

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L&G Engineering



Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R165

Sample Date: 07/17/2018

Date Reported: 07/23/2018

Page 1 of 1

On July 17, 2018 a representative of L&G Engineering Laboratory was dispatched to 10th Street Extension to perform inspection on the placement of ready-mixed concrete on Curb and Gutter.

Specimen Number 26 was obtained and tested at 6:00 AM, and the following were determined:

**Concrete Temp:** 83°f N/A **Entrapped/Entrained Air Content:** 1.7% as approved  
Specification Specification  
**Ambient Temp:** 70°f N/A **Slump:** 1 1/2 inches Max 2  
Specification Specification

From Specimen Number 26, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

Specimen Number 27 was obtained and tested at 7:30 AM, and the following were determined:

**Concrete Temp:** 84°f N/A **Entrapped/Entrained Air Content:** 1.7% as approved  
Specification Specification  
**Ambient Temp:** 72°f N/A **Slump:** 1 inch Max 2  
Specification Specification

From Specimen Number 27, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

On July 19, 2018 a representative of L&G Engineering Laboratory was dispatched to the referenced project to collect the cylindrical specimens cast on the placement of ready-mixed concrete on Curb and Gutter. The specimens were delivered to the laboratory where they were stripped, labeled, and placed in a curing tank for testing at intervals of 7 and 28 days.

Test Methods (If Applicable): TEX-415-A, TEX-416-A, TEX-422-A, TEX-447-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

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L&G Engineering



Ricardo A. Gil, Lab Manager

**REPORT OF SITE VISIT  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

Client: Hidalgo County Pct. #4

Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181

L&G Report Number: R168

Sample Date: 07/19/2018

Date Reported: 07/23/2018

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Page 1 of 1

On July 19, 2018 a representative of L&G Engineering Laboratory was dispatched to 10th Street Extension to perform inspection on the placement of ready-mixed concrete on Rip Rap Sta. 142+25 Abut. #1.

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Specimen Number 28 was obtained and tested at 1:00 PM, and the following were determined:

<b>Concrete Temp:</b> <u>90°f</u>	<u>N/A</u>	<b>Entrapped/Entrained Air Content:</b> <u>2%</u>	<u>as approved</u>
	Specification		Specification
<b>Ambient Temp:</b> <u>93°f</u>	<u>N/A</u>	<b>Slump:</b> <u>5 inches</u>	<u>Max 5</u>
	Specification		Specification

From Specimen Number 28, a total of 4 6x12 cylindrical test specimens were cast for Compressive Strength Testing at intervals of 7 and 28 days.

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On July 20, 2018 a representative of L&G Engineering Laboratory was dispatched to the referenced project to collect the cylindrical specimens cast on the placement of ready-mixed concrete on Rip Rap Sta. 142+25 Abut #1. The specimens were delivered to the laboratory where they were stripped, labeled, and placed in a curing tank for testing at intervals of 7 and 28 days.

Test Methods (If Applicable): TEX-415-A, TEX-416-A, TEX-422-A, TEX-447-A

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

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L&G Engineering



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Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

L&G Project Number: E130181

Client: Hidalgo County Pct. #4

L&G Report Number: R170

Contractor: Texas Cordia Construction, LLC

Sample Date: 06/04/2018

Date Reported: 07/24/2018

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Page 1 of 1

Material: Lime Subgrade

<u>Sieve</u>	<u>% Passing</u>	<u>Required</u>
1 3/4 in	100	100
3/4 in	93*	85
No. 4	91*	60

Remarks: Sta. 181+00(RT) \*Met Requirements.

Test Method (As Applicable): Tex 101-E / Part III

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
(1-cc copy)  
1-cc Texas Cordia Construction, LLC  
1-cc Laboratory

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L&G Engineering



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Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19

L&G Project Number: E130181

Client: Hidalgo County Pct. #4  
Contractor: Texas Cordia Construction, LLC

L&G Report Number: R171  
Sample Date: 06/04/2018  
Date Reported: 07/24/2018

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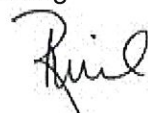
Material: Limed Subgrade

<u>Sieve</u>	<u>% Passing</u>	<u>Required</u>
1 3/4 in	100	100
3/4 in	92*	85
No. 4	90*	60

Remarks: Sta. 184+00 (LT) \*Met Requirements.  
Test Method (As Applicable): Tex 101-E / Part III

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
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1-cc Laboratory

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L&G Engineering



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Ricardo A. Gil, Lab Manager

**SIEVE ANALYSIS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
C-17-218-12-19  
Client: Hidalgo County Pct. #4  
Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
L&G Report Number: R172  
Sample Date: 06/04/2018  
Date Reported: 07/24/2018

Page 1 of 1

Material: Limed Subgrade

<u>Sieve</u>	<u>% Passing</u>	<u>Required</u>
1 3/4 in	100	100
3/4 in	93*	85
No. 4	92*	60

Remarks: Sta. 138+00(LT) \*Met Requirements.  
Test Method (As Applicable): Tex 101-E / Part III

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
(Edinburg, TX) Attn: Maria Lucio  
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1-cc Laboratory

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L&G Engineering



\_\_\_\_\_  
Ricardo A. Gil, Lab Manager

**SUBGRADE THICKNESS  
TEST REPORT**

Project Description: 10th Street Extension Project from SH107 to FM 1925  
 C-17-218-12-19  
 Client: Hidalgo County Pct. #4  
 Contractor: Texas Cordia Construction, LLC

L&G Project Number: E130181  
 L&G Report Number: R173  
 Sample Date: 06/05/2018  
 Date Reported: 07/25/2018

Page 1 of 1

Quantity Represented:

Core#	Street	Station	Location	Thickness, In.
1	10th Street (Northbound Lanes)	138+00	RT	12.06
2	10th Street (Northbound Lanes)	138+00	RT	12
3	10th Street (Northbound Lanes)	138+00	RT	12.13

Test Methods: TEX-140-E

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)  
 (Edinburg, TX) Attn: Maria Lucio  
 (1-cc copy)  
 1-cc Texas Cordia Construction, LLC  
 1-cc Laboratory

Respectfully Submitted,  
 L&G Engineering



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 Ricardo A. Gil, Lab Manager