

PO # 122466  
oms



9700 Richmond Ave.  
Suite 250  
Houston, Texas 77042  
T-713-706-4414  
F-713-706-4410

January 3, 2018

Mr. Donald Durgin, P.E.  
RPS Klotz & Associates  
1160 Dairy Ashford, Suite 500  
Houston, Texas 77079

Re: 2013 Mobility Bond Program, Fort Bend County  
Bellaire Blvd from FM 1464 to San Pablo  
FCM Project No. 2014101  
Period: July 1, 2017 through December 31, 2017  
**Invoice No. 17**

Dear Mr. Durgin;

We hereby submit our invoice for the above referenced project. The total amount due for this invoice is **Twelve Thousand Three Hundred Eighty One Dollars and Seventy One Cents (\$12,381.71)**. This amount is for professional services as per our contract.

06,533 02/05/18  
Please feel free to call me if there are any questions.

Very truly yours,  
FCM Engineers, P.C.

Dr. Frank C, Mbachu, P.E. DEE  
President

FCM/mh

Enclosure

Project Name: Bellaire from San Pablo Dr. to FM 1464  
 FCM Project No: 2014101  
 Invoice Number: 17  
 Invoice Period : July 1, 2017 thru December 31, 2017  
 Invoice Date: January 3, 2018

Date: January 3, 2018

A) Basic Services	Amount Authorized	NTP Date	Invoice No.	Invoice Amount	% Complete	Total to Date	Previously Invoiced	Amount Due
1. Phase I Design Basic Services	\$ 111,934.38	1/30/2015	9	\$ -	100.00%	\$ 111,934.38	\$ 111,934.38	\$ -
2. Phase II Design Basic Services	\$ 241,045.74	1/30/2015	14	\$ -	100.00%	\$ 241,045.74	\$ 241,045.74	\$ -
3. Phase III Design Basic Services	\$ 22,218.06	1/30/2015	17	\$ 2,400.00	90.58%	\$ 20,124.50	\$ 17,724.50	\$ 2,400.00
<b>Total Basic Services</b>	<b>\$ 375,198.18</b>			<b>\$ 2,400.00</b>	<b>99.44%</b>	<b>\$ 373,104.62</b>	<b>\$ 370,704.62</b>	<b>\$ 2,400.00</b>
B) Additional Services	Amount Authorized	NTP Date	Invoice No.	Invoice Amount	% Complete	Total to Date	Previously Invoiced	Amount Due
1. Surveying - Landtech Consultants Inc.	\$ 35,760.00	1/30/2015	8	\$ -	100.00%	\$ 35,760.00	\$ 35,760.00	\$ -
2. Geotechnical Investigations - Austin-Reed Engineers, LLC	\$ 37,009.00	1/30/2015	14	\$ -	100.00%	\$ 37,009.00	\$ 37,009.00	\$ -
3. Traffic Control Plans - Nathelyne A. Kennedy & Associates	\$ 11,570.00	1/30/2015	14	\$ -	100.00%	\$ 11,570.00	\$ 11,570.00	\$ -
4. Storm Water Pollution Plan - Nathelyne A. Kennedy & Associates.	\$ 8,132.00	1/30/2015	14	\$ -	100.00%	\$ 8,132.00	\$ 8,132.00	\$ -
5. Sidewalk Addition to the Project (First Amendment)	\$ 9,000.00	9/6/2016	15	\$ -	100.00%	\$ 9,000.00	\$ 9,000.00	\$ -
6. Maintenance Access Design & Survey including Survey to Reset Controls (Second Amendment)	\$ 10,720.67	10/20/2017	17	\$ 9,981.71	93.11%	\$ 9,981.71	\$ -	\$ 9,981.71
<b>Total Additional Services</b>	<b>\$ 112,191.67</b>			<b>\$ -</b>		<b>\$ 111,452.71</b>	<b>\$ 101,471.00</b>	<b>\$ 9,981.71</b>
<b>Total A &amp; B Services</b>	<b>\$ 487,389.85</b>			<b>\$ 2,400.00</b>	<b>99.42%</b>	<b>\$ 484,557.33</b>	<b>\$ 472,175.62</b>	<b>\$ 12,381.71</b>
<b>TOTAL DUE FOR INVOICE NO.17</b>								<b>\$ 12,381.71</b>



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 Suite 250  
 Houston, Texas 77042  
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 F-713-706-4410

Date: **January 3, 2018**

2013 Mobility Bond Program, Fort Bend County  
 Bellaire Blvd. from FM 1464 to San Pablo  
 FCM Project No. 2014101

Period : July 01, 2017 thru December 31, 2018

**Invoice No. 17**

Authorized Amount:

Phase I - Preliminary Engineering Services = \$111,934.38

Phase II - Final Engineering Design = \$241,045.74

Phase III - Construction Services = \$22,218.06

Additional Services = \$101,471.00

Second Amendment = \$10,720.67

**Total Authorization = \$487,389.85** ✓

INVOICE SUMMARY

FCM Engineers, P.C. Phase III Services

Personnel	Classification	Hours	Billing Rate #	Total Amount
Frank C. Mbachu	Project Manager	14	\$174.75	\$2,446.50
David Collins	Sr. Engineer	0	\$121.50	\$0.00
Mary Huang	Project Engineer	5.5	\$116.85	\$642.68
George Williams	CAD Technician	0	\$75.12	\$0.00
<b>Total</b>		<b>19.5</b>		<b>\$3,089.18</b>

Maintenance Access Design (80% of \$3,890.67) **\$3,112.53**

Subconsultants

Jaymark Engineering Corporation (See Attached Invoice)	\$2,400.00
LandTech (See Attached Invoice)	\$3,780.00
<b>TOTAL SUBCONSULTANTS</b>	<b>\$6,180.00</b>

TOTAL THIS INVOICE **\$12,381.71**

PREVIOUSLY INVOICED **\$472,175.62** ✓

INVOICE TO DATE **\$484,557.33** ✓

SECOND AMENDMENT CONSISTS OF THE FOLLOWINGS:

Maintenance Access Design = \$3,890.67

Easement Parcels (2) Survey = \$3,780.00

\*Survey for Construction Staking = \$3,050.00

\* The survey invoice for this amount was paid from Phase III Construction Services  
 The amount for \$3,050.00 will be billed as Phase III Services.



# LANDTECH

Landtech, Inc.  
2525 North Loop West, Suite 300  
Houston, Texas 77008  
T: 713-861-7068; F: 713-861-4131  
TxBPE Reg. No. F-1364  
TxBPLS Reg. No. 10019100

FCM ENGINEERS, PC  
9700 RICHMOND AVENUE  
SUITE 250  
HOUSTON, TX 77042  
ATTN: DR. FRANK C. MBACHU, P.E., DEE

INVOICE NUMBER: 54760  
DATE: 11/28/2017  
PROJECT ID: 1520008  
CLIENT ID: 2098

FOR PROFESSIONAL SERVICES

**BELLAIRE BLVD. FROM FM 1464 TO SAN PABLO DRIVE**

Description	Contract Amount	Percent Complete	Prior Billed	Total Billed	Current Billed
METES & BOUNDS FOR TWO EASEMENT ACQUISITION	3,780.00	100.00	0.00	3,780.00	3,780.00
Total	3,780.00	100.00	0.00	3,780.00	3,780.00

**TOTAL INVOICE DUE 3,780.00**

THANK YOU,  
APPROVED BY



PAUL P. KWAN, RPLS  
PRESIDENT



**Jaymark Engineering Corporation**  
 3730 Cypress Creek Parkway, Suite 108  
 Houston, TX 77068  
 (346) 316-1181; Fax (346) 316-1185  
 www.jaymarkengineering.com

## *INVOICE*

FCM Engineers  
 9700 Richmond Avenue, Suite 2500  
 Attn: Dr. Frank C. Mbachu, P.E., DEE  
 Houston, TX 77042

Number: **20326**  
 Job: 15-020  
 Date: 12/6/2017

**2013 Mobility Bond Program/Fort Bend County  
 Bellaire Boulevard from FM1464 to San Pablo Drive Project  
 Bridge Design Engineering Services**

<u>Contract Amount</u>	<u>Percent Complete</u>	<u>Total Completed To Date</u>	<u>Previous Billings</u>	<u>Current Amount Due</u>	<u>Current Percentage</u>
<b>Design Phase Engineering Services</b>					
\$ 114,360.00	100.00%	\$ 114,360.00	\$ 114,360.00	\$ -	0.00%
<b>Construction Phase Engineering Services</b>					
\$ 6,000.00	80.00%	\$ 4,800.00	\$ 2,400.00	\$ 2,400.00	40.00%
Additional Services - None				\$ -	
Total Amount Due Upon Receipt				\$ 2,400.00	

I certify that the amount invoiced is true and correct to the best of my knowledge.

*M. S. Taylor*

Signature

12/6/2017

Date



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T-713-706-4414  
F-713-706-4410

**2013 Mobility Bond Program, Fort Bend County  
Bellaire Blvd from FM 1464 to San Pablo Drive**

**PROJECT STATUS REPORT No. 17: January 3, 2018**

**Phase III – Construction Phase Services**

**A. Additional Services Authorization (Second Amendment)**

Second Amendment to Agreement for Professional Engineering Services for \$10,720.67 consists of the followings:

- 1.) Maintenance Access design for \$3,890.67
- 2.) Easement Parcels Survey (2) for \$3,780.00
- 3.) Construction Staking Survey for \$3,050.00

**B. Submittals Review**

There are total 13 submittals reviewed and returned to the construction manager. The log of submittals is attached to this report.

**C. RFI Responses**

There are 17 RFI's submitted, reviewed with response and forwarded to the construction manager. The log of RFI's is attached to this report.

**D. Construction Site Photographs**

The Engineer visited the construction site on 7/20/2017, 8/21/2017, 10/17/2017 and 12/14/17 and took construction pictures but only the most recent pictures taken on 12/14/2017 are attached to this project status report.

**E. List of Planned Activities for the following Months**

The following activities are planned to be accomplished in January 2018.

1. Review of submittals.
2. Review and response to RFI's and provide other contract document clarifications when requested by construction manager.



**FCM Engineers, P.C.**

NAME: Hongman (Mary) Huang

**TIME SHEET**

EMPLOYEE # 6660

FROM	TO
12/01/17	12/15/17
SUPERVISOR:	

WEEK DAY	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
DAY OF THE MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

PROJECT NO.	REG.HRS.															
TASK NO.	O.T.HRS.															

PROJECT NAME																
2014101	0.5													0.5		

Fort Bend County Mobility Bond 2013																
2014082	4					2		1						1		

SEWPP Improvements Phase 3 Services																
2011062	0															
Neighborhood																

2017033	7	0.5		2	1	2		1						0.5		
HCFC																

2012111	0															
City-Wide Stormwater Pump Station																

	9.5	1		1	1.5		1.5	1						1	2.5	
Marketing																

	18	3.5		2	2.5	1	3.5	2						1	2.5	
Overhead																


MEETINGS #100																
HOLIDAY #123																
SICK #124																
VACATION #125																

TOTAL HOURS	39	5		5	5	5	5	5						4	5	
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<b>DO NOT WRITE IN THIS SPACE</b>		EMPLOYEE SIGNATURE: <i>Hongman Huang</i>														
TOTAL VAC. HOURS		PAYROLL/ACCOUNTING NOTES: <i>[Signature]</i>														
TOTAL SICK HOURS																
TOTAL REG. HOURS																



FCM Engineers, P.C.

NAME: Frank C. Mbachu

TIME SHEET

EMPLOYEE # 6660

FROM	TO
12/01/17	12/15/17
SUPERVISOR :	

WEEK DAY		Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
DAY OF THE MONTH		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
PROJECT NO.	REG.HRS.																
TASK NO.	O.T.HRS.																
PROJECT NAME																	
2017012	62	6			6	6	4	4	8			6	6	7	3	6	
- Antoine Pavind & Drainage: Victory to West Gulf bank																	
2017033	18	2			2	2		4				2	2	1	2	1	
HCFCDD Disaster Recovery Program Management																	
2014082	5						4										1
SEWPP Improvements																	
2014101	3														3		
Bellaire Boulevard from FM 1464 to San Pablo																	
	0																
MEETINGS #100																	
HOLIDAY #123																	
SICK #124																	
VACATION #125																	

TOTAL HOURS	88	8			8	8	8	8	8			8	8	8	8	8	
DO NOT WRITE IN THIS SPACE		EMPLOYEE SIGNATURE: <i>FCM</i>															
TOTAL VAC. HOURS		PAYROLL/ACCOUNTING NOTES:															
TOTAL SICK HOURS																	
TOTAL REG. HOURS																	





FCM Engineers, P.C.

NAME: Hongman (Mary) Huang

**TIME SHEET**

EMPLOYEE # 6660

FROM	TO
10/16/17	10/31/17
SUPERVISOR :	

WEEK DAY	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue
DAY OF THE MONTH	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

PROJECT NO.	REG.HRS.															
TASK NO.	O.T.HRS.															

PROJECT NAME

2014101	1.5		1	0.5												
Fort Bend County Mobil																

2017011	11.5				2			2		0.5	1.5	2			2.5	1
Antoine North Paving																

2017033	2	1	1													
HCFC																

2014082	4.5				1	2.5		1								

SEWPP Improvements Phase 3 Services

Marketing	15.5	1	0.5		0.5	1			2.5	4	1	2.5			0.5	2
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Overhead	14.5	3	2	2	1.5	1		2			2					1
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2016091	0.5			0.5												
Local Drainage (Chester)																

2011062	0															
Neighborhood																

MEETINGS #100																
HOLIDAY #123																
SICK #124																
VACATION #125																

TOTAL HOURS	50	5	4.5	3	5	4.5		5	2.5	4.5	4.5	4.5			4	3
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DO NOT WRITE IN THIS SPACE	EMPLOYEE SIGNATURE: <i>Hongman Huang</i>															
TOTAL VAC. HOURS	PAYROLL/ACCOUNTING NOTES:															
TOTAL SICK HOURS																
TOTAL REG. HOURS																





FCM Engineers, P.C.

NAME: Hongman (Mary) Huang

**TIME SHEET**

EMPLOYEE # 6660

FROM	TO
08/16/17	08/31/17
SUPERVISOR :	

WEEK DAY	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
DAY OF THE MONTH	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

PROJECT NO.	REG.HRS.															
TASK NO.	O.T.HRS.															

PROJECT NAME

2014101	1						1									
Fort Bend County Mobil																

2017011	5	2	2					1								
Antoine North Paving																

2017033	0															
HCFCD																

2012111	0															
City-Wide Stormwater Pump Station																

Marketing	22		3	3		1	1.5	2	3.5						4	4
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Overhead	17	2		1		1	2.5	2	1.5	5					1	1
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2016091	3	1		1		1										
Local Drainage (Chester)																

MEETINGS #100																
HOLIDAY #123																
SICK #124																
VACATION #125																

TOTAL HOURS	48	5	5	5		3	5	5	5	5					5	5
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DO NOT WRITE IN THIS SPACE

TOTAL VAC. HOURS

TOTAL SICK HOURS

TOTAL REG. HOURS

EMPLOYEE SIGNATURE: *Hongman Huang*

PAYROLL/ACCOUNTING NOTES: *HPM*





FCM Engineers, P.C.

NAME: Hongman (Mary) Huang

**TIME SHEET**

EMPLOYEE # 6660

FROM	TO
07/16/17	07/31/17
SUPERVISOR :	

WEEK DAY	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon
DAY OF THE MONTH	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

PROJECT NO.	REG.HRS.															
TASK NO.	O.T.HRS.															

PROJECT NAME																
2014101	1.5			1		0.5										
Fort Bend County Mobilit																
201482	0															
SEWPP Improvements Phase 3 Servi																
2017011	6												2.5			3.5
Antoine North Paving a																
2017033	18		1	2	2.5	2	1.5			1.5	2	2	2	1.5		
HCFC																
2012111	0															
City-Wide Stormwater Pump Station																
	5.5		1	1	1	1	0.5			1	0					
Marketing																
Overhead	19		2	1	1.5	1.5	2.5			1.5	2	2	2.5	1		1.5

MEETINGS #100																
HOLIDAY #123																
SICK #124																
VACATION #125																

TOTAL HOURS	50		4	5	5	5	4.5			4	4	4	4.5	5			5
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DO NOT WRITE IN THIS SPACE		EMPLOYEE SIGNATURE:	<i>Hongman Huang</i>
TOTAL VAC. HOURS		PAYROLL/ACCOUNTING NOTES:	<i>HM</i>
TOTAL SICK HOURS			
TOTAL REG. HOURS			



FCM Engineers, P.C.

NAME: Hongman (Mary) Huang

TIME SHEET

EMPLOYEE # 6660

FROM	TO
07/01/17	07/15/17
SUPERVISOR:	

WEEK DAY	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
DAY OF THE MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

PROJECT NO.	REG.HRS.				H											
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TASK NO.	O.T.HRS.															
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PROJECT NAME

2014101	1			1												
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Fort Bend County Mobil...

201482	1			1												
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SEWPP Improvements Phase 3 Servi...

2017011	0															
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Antoine North Paving a...

2017033	15					2	1				2	2	3	2	3	
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HCFCD

2012111	0															
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City-Wide Stormwater Pump Station

	17			1		1.5	2	3			3.5	3.5		2.5		
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Marketing

Overhead	11			2		1.5	2	2					2	0.5	1	
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MEETINGS #100

HOLIDAY #123 5 5

SICK #124

VACATION #125

TOTAL HOURS	50			5	5	5	5	5			5.5	5.5	5	5	4	
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DO NOT WRITE IN THIS SPACE

EMPLOYEE SIGNATURE:

TOTAL VAC. HOURS

TOTAL SICK HOURS

TOTAL REG. HOURS

PAYROLL/ACCOUNTING NOTES:

*Hongman Huang*

*[Signature]*



**Bellaire Boulevard from FM1464 to San Pablo Mobility Project**  
**No. 13202**  
**LIST OF RFIs**

**Contractor:**  
**Allgood Construction**

RFI No	Drawing No.	Date Submitted	Description of Request	RFI Response	Date Responded	Processed Days
1	36	4/27/2017	The Prestressed Concrete Slab Beam Design Form (PSBND) contains no data. Can the design engineer please occupy to form for all beams on each bridge? Please provide coordinates or station/offset and elevations for all break p/points on the slope paving below the bridges	Please refer to attached TXDOT Detail sheet for beam data  Please find attached updated Bridge Plan Sheets with Elevations provided on the slope paving. Dimensions and Tie-downs have been provided on the plan for the slope paving. Coordinates can be obtained using the CAD files, and can be provided upon request	5/2/2017	2
2	32	4/28/2017			5/2/2017	2
3	n/a	4/28/2017	For the concrete items on the bridges, the bid form references all Harris County specifications with the exception of the bridge deck for the Chickory Bridges which references TXDOT Item 422. Please clarify that the San Pablo bridge deck will follow TXDOT Item 422 as well even though it is listed as Harris County Item 360. Additionally, please clarify that the following mix designations are correct: 1. Class S per TXDOT Item 422 - Bridge Deck, Bridge Sidewalk, and Bridge Median 2. Class B1 per Harris County Item 421 - Columns, Caps, Abutments, Approach Slabs 3. Class D per Harris County Item 421 - Slope Paving	Both bridges shall use Harris County Item 360 1. Use Harris County Item 421 Class C2 for Bridge Deck, Bridge Sidewalk, and Bridge 2. Use Harris County Item 421 Class A2 for Columns, Caps, Abutments, Approach Slabs 3. Use Harris County Item 421 Class D for Slope Paving	5/2/2017	2
4	32 & 33	4/28/2017	1. The Begin and End Bridge Station/Elevation on Sheet 22 and 23 are 14+88.67/93.46' and 16+19.67/92.77'; this conflicts with the Begin and End Bridge Station/Elevation on Sheet 32 which are 14+94.74/93.46' and 16+14.74/92.77'. Please confirm the Begin and End Bridge Stations/Elevations. 2. The Begin and End Bridge Station/Elevation on Sheet 27 are 37+76.73/91.30' and 38+67.75/90.95'; this conflicts with the Begin and End Bridge Station/Elevation on Sheet 33 which are 37+81.51/91.30' and 38+61.51/90.95'. Please confirm the Begin and End Bridge Stations/Elevations. 3. The bearing for the Chickory Woods Bridge on Sheet 3 is N88°21'07"E; this conflicts with the bearing on Sheet 32 which is N88°19'43.80"E. Please confirm which is correct. 4. The bearing for the San Pablo Bridge on Sheet 3 is N86°51'04"E; this conflicts with the bearing on Sheet 33 which is N86°44'57.38"E. Please confirm which is correct. 5. Please confirm where exactly the profile grade falls on the bridge. Normally it is on the top of curb, face of curb, on the low side of the bridge. 6. The width of the bridges on Sheets 32 and 33 is 34'-1" which does not match the widths shown on Sheet 41 (Design Guidelines - Span Details - Slab Beams - Half Boulevard 0° Skew Sheet 2 of 2). Please confirm the bridge widths including sidewalk widths, travel lane widths, and median curb widths. We believe this should be 34'-0" wide total with an 8' wide sidewalk, 24' wide travel lanes, and a 2' wide median curb.	1. The Begin and End Stations shown on sheet 32 have been checked and verified correct as per original survey baseline. Civil plan sheets 22&23 should be corrected reflect these stations. 2. The Begin and End Stations shown on sheet 33 have been checked and verified correct as per original survey baseline. Civil plan sheets 27 should be corrected reflect these stations. 3. Bearing for the Chickory Woods Bridge on Sheet 32 has been checked and verified correct as per original survey baseline. Civil plan sheet 3 should be corrected reflect this bearing. 4. Bearing for the San Pablo Bridge on Sheet 32 has been checked and verified correct as per original survey baseline. Civil plan sheet 3 should be corrected reflect this bearing. 5. The profile grade shown on the Bridge Plan is the Top of Curb elevation. 6. Bridges has been revised 34'-0" see attached revised bridge plans. 7. We are not providing 18" drilled shafts under the wing walls, not required.	5/4/2017	2



**Bellaire Boulevard from FM1464 to San Pablo Mobility Project**  
**No. 13202**  
**LIST OF RFIs**

**Contractor:**  
**Allgood Construction**


RFI No	Drawing No.	Date Submitted	Description of Request	RFI Response	Date Responded	Processed Days
5	32 & 33	4/28/2017	Sheets 32 and 33 call for a 20' Approach Slab 13" Thick BAS-C which is a TxDOT Standard. The Bridge Details on Sheet 36 call for a 10" Thick Approach Slab – Harris County Standard. Which is correct?	Sheets 32 & 33 have been revised to show 10" thick as per Harris County Approach Slab Detail on sheet 36. Please see attached revised plans.	5/4/2017	2
6	32 & 33	5/11/2017	The abutment bearings are not 90° to the baseline bearing for both bridges. Please confirm if the abutments and bents are 90° to the baseline or skewed to the baseline.	Corrected the abutment bearings. Abutment bearings are 90° to the baseline for both bridges. See attached drawings.	5/12/2017	2
7	41	5/11/2017	The Table of Variable Values on Sheet 41 for the slab beams is missing the Dead Load Deflection values "A" and "B". Please furnish for the 4SB12, 4SB15, 5SB12, and 5SB15 beams for their applicable span lengths.	Please use the Table on TxDOT Prestressed Concrete Slab Beam Spans (TY SB 12 or SB 15) SPSB-30 (attached) for requested value.	5/12/2017	2
8		5/17/2017	Please provide the information requested by the precaster on the attached drawings. 1. The design sheet provided (attached) only indicates the slab beam designs for the 5SB12 and the 5SB15 for a 24 ft. roadway Can you please provide us with the slab beam designs for the 4SB12 and the 4SB15 for a "24 ft. roadway". 2. On sheet no. 75 (attached) the contract drawing indicate a "Typical Transverse Section" for the 4SB12 and 5SB12 bridge only. Also indicating a shear connection detail. There was no sheet indicating a "Typical Transverse Section" for the 4SB15 and 5SB15 bridge. Can you please provide us with the contract plan sheet with the "Typical Transverse Section" for the 4SB15 and 5SB15 bridge. Can you please verify if ALL Bridges will require the "Shear Connection Detail". Also, please note that we don't have a complete set to make sure that everything is provided as required. The cover sheet "Index" does not indicate all the sheets that are included as part of this project.	1."Can you please provide us with the slab beam design for the 4SB12 and the 4SB15 for a 24 ft. roadway. On TxDOT Sheet PSBSSD: Use the 30' Roadway SB12 Beam for the 4SB15 data Use the 30' Roadway SB15 Beam for the 4SB12 data 2. Can you please provide us with the contract plan sheet with the "Typical Transverse Section" for the 4SB15 and 5SB15 bridge." The Layout is the same as the Typical Transverse Section for 4SB12/5SB12, please find attached sheet showing a Typical Transverse Section with 4SB15/5SB15. 3. "Can you please verify if ALL Bridges will require the "Shear Connection Detail." Yes, all bridges will require the Shear Connection Detail. 4. "Also, please note that we don't have a complete set to make sure that everything is provided as required. The cover sheet "Index" does not indicate all the sheets that are included as part of this project" Please refer to FCM Engineers for this item.	6/6/2017	4




**Bellaire Boulevard from FM1464 to San Pablo Mobility Project**  
 No. 13202  
 LIST OF RFI's

Contractor:  
 Allgood Construction

RFI No	Drawing No.	Date Submitted	Description of Request	RFI Response	Date Responded	Processed Days
9		5/17/2017	<p>Can you please provide the following information so that I have the information need to submit the contractor NOI</p> <ol style="list-style-type: none"> <li>1. What is the name of first water body to receive the stormwater runoff?</li> <li>2. What is the segment number of the classified water body that the discharge will eventually reach?</li> <li>3. Is the discharge into an MS4?</li> <li>4. What is the name of the MS4 Operator</li> <li>5. Are any surface water bodies receiving discharge from the construction site on the latest EPA approved CWA 303(d) list of impaired waters?</li> <li>6. If yes what is the name of the impaired water body receiving the discharges from the construction site?</li> </ol>	<ol style="list-style-type: none"> <li>1. Brays Bayou</li> <li>2. 1007K</li> <li>3. Yes, It discharges into MS4</li> <li>4. Fort Bend County Drainage District</li> <li>5. Yes</li> <li>6. Country Club Bayou above Tidal, Segment No. 1007K</li> </ol>	6/5/2017	1
10		5/17/2017	<p>As you know the NTP for the Bellaire Blvd Project #13202 was issued for 5-15-17 like we discussed in the pre-construction meeting. I have not moved on site due to not being provided with all the requested information. I have requested control staking and CAD files so that we can setup on site but this information has not been provided. As well from the engineer responses to RFI 2 and 4 there have been revisions to the plans that have not been sent out. Until I receive control staking, revised plans, and CAD files then we will not be moving on site to begin construction and would like to request a time extension from 5-15-17 until this information is provided and is correct. If you have any questions please let me know.</p>	<p>A time extension will be approved for the days Allgood was not able to proceed with the work due to errors or omissions in the contract plans. Once Allgood has sufficient plans to proceed the total number of days delayed will be calculated and added to the contract by Change Order.</p>	5/30/2017	1
11		6/14/2017	<p>During the pre-construction meeting on 4-25-17 the railing for the bridge was discussed and the county had a possible desire to change the railing from a steel rail to a concrete rail for ease of maintenance. Since the pre-con there has not been any further information provided as to how we should proceed with the railing. If a decision is not made quickly it could possible delay the process of fabrication of the railing. If changes will be made from the original design can you please provide new drawings and plans. So that we can reprice the bid item pasted off the given the new quantities.</p>	<p><b>Bridge near Chickory Woods:</b></p> <ol style="list-style-type: none"> <li>1. Sidewalks to Remain as shown on plans.</li> <li>2. Change rail on 2' sidewalk sections to TXDOT T233 rail. Attach per detail for raised sidewalk as shown on TXDOT C223 rail.</li> <li>3. Change rail on 8' sidewalk sections to TXDOT C223 rail.</li> </ol> <p><b>Bridge Near San Pablo:</b></p> <ol style="list-style-type: none"> <li>1. Sidewalks to remain as shown on plans</li> <li>2. Harris County Pedestrian Rail remains as shown on plans.</li> <li>3. Change rail On 2' sidewalk sections to TXDOT T233 rail. Attach per detail for raised sidewalk as shown on TXDOT C223 rail.</li> <li>4. Change rail on 8.5' sidewalk sections to TXDOT C223 rail.</li> </ol>	6/17/2017	8

		<b>Bellaire Boulevard from FM1464 to San Pablo Mobility Project</b> No. 13202 LIST OF RFI's			<b>Contractor:</b> Allgood Construction	
RFI No	Drawing No.	Date Submitted	Description of Request	RFI Response	Date Responded	Processed Days
11.1		6/14/2017	<p>For the Bridge Railing in addition to the bridge revisions showing the railing can you please provide a cross section of the bridges with dimensions of where the rail will sit on the curb and sidewalk so that I can ensure the wing wall for the abutment is in the correct location. The rail will sit on the wing wall in the area of the approach slab.</p> <p>There appears to be enough bid item quantity in the two Sealed Expansion Joint (4") (SEJA) items to install joints at the abutments and the two interior bents for all four bridges although they are not called for on the plan sheets. It is not typical on a bridge of this length to see SEJ's at all bents, rather just at the abutments. Please confirm whether SEJ's are required at all bents.</p> <p>Our surveyor took some shots this morning at the Chickory Bridge for the rebar and elevation concerns on the drilled shafts, here is a summary of what happened and our recommendations:</p> <ol style="list-style-type: none"> <li>1. The reinforcing steel on Shaft 1 (Eastbound Bent 2 North) floated 3.33' during placement of concrete and the top of shaft elevation is low by 4.69'</li> <li>2. The reinforcing steel on Shaft 2 (Eastbound Bend 2 Middle) floated 1.55' during placement of concrete and the top of shaft elevation is within 1.5" of being at grade</li> <li>3. Issue 1 – Reinforcing Steel Floating               <ol style="list-style-type: none"> <li>a. This was caused by pumping concrete too fast in a relatively small diameter shaft.</li> <li>b. Pump truck operator was instructed to slow down the rate of concrete placement to prevent floating the rebar cages on future shafts.</li> <li>c. There is nothing that can be done about the reinforcing floating and being high.</li> <li>d. We spoke with a structural engineer that we work with who's opinion was that there shouldn't be a great concern about the rebar floating</li> </ol> </li> <li>i. The shafts are compression members and not tension members</li> <li>ii. The bottom 3 foot of unreinforced shaft will be fine in compression</li> <li>iii. The bending moment should be dissipated within the top 1/3 of the shaft</li> <li>iv. There should be no moment load at the bottom of the shaft nor any tension load, only compression</li> </ol> <p>4. Issue 2 – Top of Shaft Elevation Low</p> <ol style="list-style-type: none"> <li>a. This was caused by not having a sufficient quantity of concrete for the shaft placement.</li> <li>b. Shaft contractor was instructed to ensure they have enough concrete to complete the shafts to grade</li> <li>c. The top of shaft elevations were changed slightly (lowered) to ensure that the construction joint between the drilled shaft and the CIP concrete column was at least 1' below finished grade per the Common Foundation Details on Sheet 35</li> <li>d. For Shaft 1 (Eastbound Bent 2 North), the CIP Column height will be increased 4.69' which will put the construction joint between the drilled shaft and the CIP concrete column well below the minimum of 1' below finished</li> </ol>	Revised Bridge Section, to show revised rails rails. Find attached revised plans and included TxDOC T223 and TxDOC C223	6/20/2017	10
12		6/16/2017		The drawing show that sealed expansion joints are to be installed at each bent, therefore the Contractor shall install a seal expansion joint at each bent	6/17/2017	2
13		6/19/2017		No objection Take	6/19/2017	1

		<b>Bellaire Boulevard from FM1464 to San Pablo Mobility Project</b> No. 13202 LIST OF RFI's			<b>Contractor:</b> Allgood Construction	
RFI No	Drawing No.	Date Submitted	Description of Request	RFI Response	Date Responded	Processed Days
14		27-Jun	<p>The plans show channel excavation along the slope paving under each bridge. I understand that spoils from the slope paving is an incidental cost to placing the slope paving. Which would be the 5 inches in order to place forms and concrete. But the plans are showing to excavate the embankments on each of the bridge. In order to achieve the elevation called out on the plans we have calculated about 1700 CY of dirt that needs to be removed. It seems as if there is not a bid item to for channel excavation but item 120 of the specifications seems the fit the parameters.</p> <p>Should the channel excavation be a bid item that was missed since no other item relates this material and plans show excavation? Below are survey quantities that show the amounts for each bridge. From Existing Ground to top of Slope paving</p> <p>NEG's surveyor has come up with around 1,700 cy of channel excavation required under the bridges for the slope paving (see attached volume reports); how is this excavation measured and paid?</p> <ul style="list-style-type: none"> <li>Item 491 " Reinforced Concrete Slope Paving" does not indicate that excavation is incidental to the Slope Paving</li> <li>Item 120 " Excavation for Channels and Other Drainage Facilities" is listed as a specification applicable to the project.</li> <li>Item 120 "Excavation for Channels and Other Drainage Facilities"</li> </ul>	<p>We concur that the contractor should be compensated for the excavation along the concrete slope paving under each bridge:</p>	27-Jun	1
15		10/18/2017	<p>During the bore for the 48" Storm Sewer we came in contact with the existing force main. The 45 degree bend is inside the proposed storm sewer path. The offset will need to be extended in order for the 48" RCP to fit. We are in contact with the operator and they have notified their engineer as well. We are currently waiting for a phone call back after the one site visit yesterday.</p>			
16		10/18/2017	<p>For the junction box at STA 6+76 we have to issues.</p> <ol style="list-style-type: none"> <li>We will need to remove 15x23" of pavement of the existing left turn lane. The plans show for this pavement to be proposed but actually it is in place. During the lime of removal the west bound lane will be reduced to 1 lane.</li> <li>After removing the existing manhole it was determined that the existing 48" RCP had a 30" RCP inside of it. Since this existing RCP goes under the existing road way we are unsure what this line connects into. So what size of pipe should we use to tie into the Junction Box 48" or 30" .</li> </ol>	<ol style="list-style-type: none"> <li>Remove and Replace Pavement to install the Junction Box at Sta. 6+76. Close one west bound lane till the pavement is replaced.</li> <li>After investigation is was determined that only one joint of 48" RCP was placed. Remove the 48" RCP and connect the 30" into the Junction Box. Update the record drawings to reflect a 30" RCP instead of the 48" .</li> </ol>	10/18/2017	







## Svatek, Donna

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**From:** Don Durgin <Don.Durgin@rpsgroup.com>  
**Sent:** Monday, February 05, 2018 1:07 PM  
**To:** Svatek, Donna  
**Cc:** Harris, Britten  
**Subject:** 13202 Bellaire Invoice 017  
**Attachments:** 13202 Bellaire Invoice 017.pdf

Donna,

I have reviewed the attached invoice and recommend approval. Please process for payment.

Thanks.

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**Department Manager**  
**RPS | Infrastructure**  
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*Formerly Klotz Associates*

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