

AGREEMENT BETWEEN OWNER AND CONTRACTOR

The Parties to this agreement are:

Owner:

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY,
a political subdivision of the State of Texas.
c/o The Muller Law Group, PLLC
16555 Southwest Freeway, Suite 200
Sugar Land, Texas 77479

Contractor:

James Construction Group, LLC
21755 Interstate 45 North, Bldg. 1
Spring, TX 77388

THIS AGREEMENT ("Agreement") is made and entered into this 1st day of March, 2016, between the Parties, for and in consideration of the mutual covenants hereinafter set forth, and under the conditions expressed in the Bonds bearing even date herewith, the Contractor and Owner hereby agree as follows:

Scope of Work:

Contractor shall commence and complete the Work generally described as follows:

Construction of the southbound frontage road and Sansbury Road intersection from
IH 69/US 59 to Rabbs Bayou
Fort Bend Grand Parkway Toll Road, Segment C, Section C-1,
for Fort Bend Grand Parkway Toll Road Authority,
Fort Bend County, Texas,
according to those particular Plans and Technical Specifications
prepared by IDC, Inc. ("Engineer")

and all Extra Work in connection therewith, under the terms as stated in the General and Special Conditions of the Agreement, and, at Contractor's own proper cost and expense, to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said Work, in accordance with the conditions and prices stated in the Bid attached hereto and in accordance with the Contract Documents, including, but not limited to, Invitation to Bidders, Instructions to Bidders, General and Special Conditions of the Agreement, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications, on file with Engineer. Contractor represents and warrants to the Owner that it has carefully examined this Agreement and all other Contract Documents, which are made a part of the Contract, and is thoroughly familiar therewith.

Under this Agreement and the Contract Documents, Contractor shall furnish all materials, appliances, tools, equipment, transportation, services, and all labor and superintendence necessary for the construction of the Work as described in the Technical Specifications and as shown on the Plans. The completed installation shall not lack any part that can be reasonably implied as necessary to its proper functioning or any subsidiary item that is customarily furnished, and Contractor shall deliver the installation to Owner in operating condition.

The Work, in general, under the Contract includes:

Construction of the southbound frontage road and Sansbury Road intersection from
IH 69/US 59 to Rabbs Bayou

Time for Completion:

The Contractor hereby agrees to begin work within **10 calendar days** after Engineer has given written Notice to Proceed. Contractor hereby also agrees to achieve Final Completion of the Work within **300 calendar days** after the date of the written Notice to Proceed. Contractor hereby also agrees to achieve Substantial Completion of the Work within **275 calendar days** after the date of the written Notice to Proceed.

Surety Bonds Required:

It is further agreed by the parties to this Contract that Contractor will execute:

- a Payment Bond in the sum of 100% of the initial Contract Price, if the initial Contract Price is \$25,000 or more
- AND
- a Performance Bond in the sum of 100% of the initial Contract Price, if the initial Contract Price is \$100,000 or more,

for the satisfactory performance of the Work, the fulfillment of any guarantees required, and the prompt payment to all persons supplying labor and materials in the prosecution of the Work, in accordance with this Contract on the forms provided for this purpose; and it is agreed that this Contract shall not be in effect until such Bonds are furnished and approved by Owner. Upon increase of the Contract Price authorized by Change Order, Contractor shall immediately provide revised Bonds for such increased Contract Price. Contractor's failure to provide compliant Bonds may be grounds for immediate termination regardless of whether the Contractor has started work on the Project.

All Bonds shall be in the form prescribed by the Contract Documents except as required otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 370 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A certified copy of the agent's authority to act must accompany all Bonds signed by an agent. Surety must have a minimum Best's Key Rating of "B+". If the surety company does not have such a rating due to the length of

time it has existed, the surety company must be eligible to participate in the surety bond guarantee program of the Small Business Administration and must be an approved surety listed in the current U.S. Department of Treasury Circular 570, and must meet all of the rules and regulations of the Treasury Department with respect to performance and payment bonds for federal jobs, including specifically the rules related to the underwriting limitation.

For bonds over \$100,000, the surety must also hold a certificate of authority from the United States Secretary of Treasury to qualify as a surety on obligations permitted or required under federal law, or have obtained reinsurance for any liability in excess of \$1,000,000 from a reinsurer that is authorized and admitted as a reinsurer in the State of Texas and is the holder of a certificate of authority from the United States Secretary of Treasury to qualify as a surety or reinsurer on obligations permitted or required under federal law. The person executing the Bonds must be a licensed Texas local recording agent and such licensing must be recorded in the files of the Texas Department of Insurance.

The person executing the Bonds must be authorized by the surety company to execute the Bonds on behalf of the company in the amount required for the contract and such authorization must be recorded in the files of the Texas Department of Insurance. The Contract shall not be in effect until such bonds have been provided by the Contractor and accepted by the Owner.

If the surety on any Bond furnished by Contractor is declared bankrupt, becomes insolvent, its right to do business is terminated in any state where any part of the Project is located, or it ceases to meet the requirements herein Contractor shall promptly notify Contractor, Owner and Engineer and shall, within 10 calendar days after the event giving rise to such notification, provide another Bond and surety to fulfill the required obligations.

Contract Price:

The Contract Price for this Work is five million, one hundred ninety-nine thousand, nine hundred four and 50/100 dollars (\$5,199,904.50). The initial Contract Price may increase or decrease due to Change Orders and the Contract Price Adjustment as provided by the Contract Documents.

Owner agrees to pay Contractor's invoices for work performed, in accordance with the terms of the Contract Documents, in an aggregate amount not to exceed the Contract Price, plus Change Orders and Extra Work approved by the Board of Directors of the Owner. Failure by Owner to make such payments to the Contractor shall constitute a default by Owner and shall entitle the Contractor to all rights and remedies arising under the Contract Documents for a default in payment of sums due.

Contractor and Owner agree that time is of the essence of this Contract. Therefore, Contractor and Owner agree that for each and every calendar day the Work or any portion thereof shall remain incomplete after the expiration of the time limits set in the Contract, or as extended under the provisions of the Contract Documents the Contract Price will decrease by \$2,500.00 for Substantial Completion and \$1,500.00 for Final Completion ("Contract Price Adjustment"). The Owner shall have the option to deduct and withhold said amount from any monies that the Owner owes the Contractor or its sureties or to recover such amount from the Contractor or the sureties on the Contractor's performance bond.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in the year and day first above written.

FORT BEND GRAND PARKWAY TOLL
ROAD AUTHORITY

Owner

By: 

Name: James D. Condrey, DDS

Title: Chairman

James Construction Group, LLC

Contractor

By: 

Name: Rudolph Polselli

Title: Vice President, Texas Heavy Civil Operations

(The following to be executed if Contractor is a Corporation)

I, Crystal Ireland certify that I am the secretary of the Corporation named as Contractor herein; that Rudolph Polselli, who signed this Contract on behalf of Contractor, was then Vice President, Texas Heavy Civil Operations of said Corporation; that said Contract was duly signed for and on behalf of said Corporation by authority of its governing body and is within the scope of its corporate powers.

Signed: 

Corporate Seal

4811-5798-0448, v. 1

EFFECTIVE DATE

THIS AGREEMENT IS EFFECTIVE ON THE DATE IT IS APPROVED BY THE FORT BEND COUNTY COMMISSIONERS COURT, AND IF NOT SO APPROVED SHALL BE NULL AND VOID.

DATE OF COMMISSIONERS COURT APPROVAL: _____

AGENDA ITEM NO.: _____

**FORT BEND GRAND PARKWAY
TOLL ROAD AUTHORITY**

PERFORMANCE BOND

2 original bonds executed

PERFORMANCE BOND

Bond Nos: Federal - 82388081
Continental - 929625171

STATE OF TEXAS

Contract Date _____

COUNTY OF Harris

Date Bond Executed February 3, 2016

PRINCIPAL James Construction Group, LLC

SURETY Federal Insurance Company & Continental Casualty Company

OWNER Fort Bend Grand Parkway Toll Road Authority

PENAL SUM OF BOND (in words and figures) Five Million, One Hundred Ninety-Nine Thousand, Nine Hundred Four & 60/100 \$5,199,904.60

being 100 percent of the Contract Price
Construction of the southbound frontage road and Sansbury Road intersection from IH 69/US 59 to Rabbs Bayou
CONTRACT for _____ for Fort Bend Grand Parkway Toll Road Authority, Fort Bend County, Texas (the "Contract").

Fort Bend Grand Parkway Toll Road, Segment C, Section C-1

KNOW ALL PERSONS BY THESE PRESENTS, that we, Principal and Surety above named, are held and firmly bound unto Owner, its successors and assigns, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves and our respective heirs, executors, administrators, officers, directors, shareholders, partners, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal entered into that certain Contract with Owner, dated the same date as this bond, which Contract is expressly incorporated herein for all purposes.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION IS SUCH, that if Principal well and truly performs the work in accordance with the plans, specifications and any other contract documents, during the original term of the Contract and any extensions thereof that may be granted by Owner, with or without notice to Surety, and during the life of any guaranty or warranty required under the Contract, then this obligation is void; otherwise it is to remain in full force and effect. Should the Principal fail to faithfully and strictly perform the work as required by the Contract in all its terms, the Surety will be liable for all damages, losses, expenses and liabilities that the Owner may suffer in consequence thereof.

This bond is given in compliance with the provisions of Chapter 2253 of the Texas Government Code, as amended, which is incorporated herein by this reference. However, all of the express provisions contained herein and in the Contract are applicable whether or not within the scope of said statute.

Surety hereby agrees, for value received, that no change, extension of time, alteration or addition to the terms of the Contract or to work performed under the Contract, or to the plans, specifications or drawings accompanying the Contract, will in any way affect its obligations on this bond and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder.

The bound parties have executed this instrument pursuant to authority of their respective governing body, to be effective on the same date of the Contract.

**FORT BEND GRAND PARKWAY
TOLL ROAD AUTHORITY**

PAYMENT BOND

James Construction Group, LLC
PRINCIPAL

By [Signature]

Name Rudolph Polseli

Title Vice President, Texas Heavy Civil Operations

Address 21755 Interstate 45 North, Bldg. 1
Spring, TX 77388

ATTEST

By [Signature]

Name Crystal Ireland

Title Contract Administrator

(SEAL)

Federal Insurance Company
& Continental Casualty Company
SURETY

By [Signature]

Name Marc W. Boots

Title Attorney-in-Fact

(SEAL)

ATTEST

By [Signature]

Name Ashley S. Coleman

Title Witness

Physical Address:

Federal: Attn: Surety Dept., 15 Mountain View Rd., Warren, NJ 07059

Continental: Attn: Surety Dept., 333 S. Wabash Ave., Chicago, IL 60604

Mailing Address:

Same as above

Telephone: Federal: (908) 903-3493

Continental: (312) 822-5000

Local Recording Agent Personal Identification Number:

License #918527 / NPN#1576934

Surety must attach its original Power of Attorney to this bond.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, John M. Perisich, certify that I am the secretary of the corporation named as Principal in the Bond; that Rudolph Polseli, who signed the bond on behalf of Principal, was then Vice President of the corporation; that I know his or her signature, and his or her signature is genuine; and that the Bond was duly signed for and on behalf of the corporation by authority of its governing body.

[Signature] (Corporate Seal)

James Construction Group, LLC
PRINCIPAL
By [Signature]
Name Rudolph Polsell
Title Vice President, Texas Heavy Civil Operations
Address 21755 Interstate 45 North, Bldg. 1
Spring, TX 77388

ATTEST
By [Signature]
Name Crystal Ireland
Title Contract Administrator

(SEAL)

**Federal Insurance Company
& Continental Casualty Company**
SURETY
By [Signature]
Name Marc W. Boots
Title Attorney-in-Fact

ATTEST
By [Signature]
Name Ashley S. Coleman
Title Witness

(SEAL)

Physical Address:
Federal: Attn: Surety Dept., 15 Mountain View Rd., Warren, NJ 07059
Continental: Attn: Surety Dept., 333 S. Wabash Ave., Chicago, IL 60604

Mailing Address:
Same as above

Telephone: Federal: (908) 903-3493
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Local Recording Agent Personal Identification Number:
License #918527 / NPN #1576934

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CERTIFICATE AS TO CORPORATE PRINCIPAL

I, John M. Perisich, certify that I am the secretary of the corporation named as Principal in the Bond; that Rudolph Polsell, who signed the bond on behalf of Principal, was then Vice President of the corporation; that I know his or her signature, and his or her signature is genuine; and that the Bond was duly signed for and on behalf of the corporation by authority of its governing body.

[Signature] (Corporate Seal)

STATE OF TEXAS
STATE BOARD OF INSURANCE

Certificate No 9315



Company No. 08-28750

CERTIFICATE OF AUTHORITY

THIS IS TO CERTIFY THAT

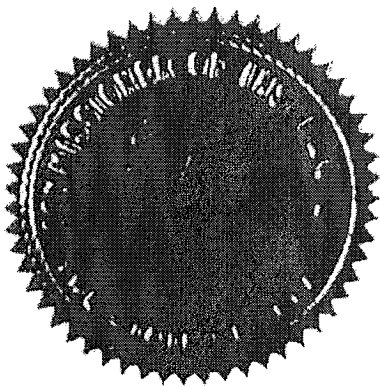
FEDERAL INSURANCE COMPANY

INDIANAPOLIS, INDIANA

has complied with the laws of the State of Texas applicable thereto and is hereby authorized to transact the business of

Fire; Allied Coverages; Hail-growing crops only; Rain; Inland Marine; Ocean Marine; Aircraft--Liability & Physical Damage; Accident; Health; Workers' Compensation & Employers' Liability; Employers' Liability; Automobile--Liability & Physical Damage; Liability other than Automobile; Fidelity & Surety; Glass; Burglary & Theft; Forgery; Boiler & Machinery; Credit; Livestock and Reinsurance on all lines authorized to do business on a direct basis

insurance within the State of Texas. This Certificate of Authority shall be in full force and effect until it is revoked, canceled or suspended according to law.



IN TESTIMONY WHEREOF, witness my

hand and seal of office at Austin, Texas, this

31st day of July, A. D. 1990.

COMMISSIONER OF INSURANCE

STATE OF TEXAS
STATE BOARD OF INSURANCE

Certificate No 1399



Company No. 08-20550

CERTIFICATE OF AUTHORITY

THIS IS TO CERTIFY THAT

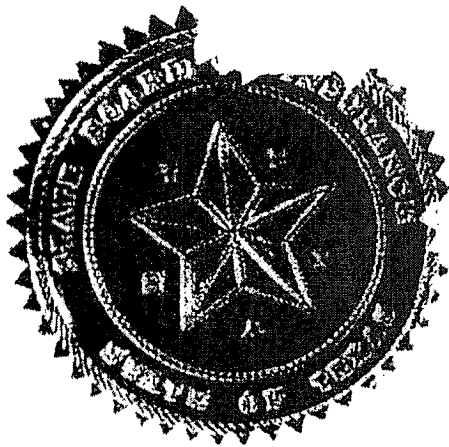
CONTINENTAL CASUALTY COMPANY

CHICAGO, ILLINOIS

has complied with the laws of the State of Texas applicable thereto and is hereby authorized to transact the business of

Fire; Allied Coverages; Hail, browing crops only; Rain; Inland Marine;
Ocean Marine; Aircraft--Liability and Physical Damage; Accident and Health;
Workmen's Compensation and Employers' Liability; Automobile--Liability and
Physical Damage; Liability other than Automobile; Fidelity and Surety; Glass;
Burglary and Theft; Forgery; Boiler and Machinery; Forgery; Boiler and
Machinery; Credit; Livestock; Reinsurance on all lines except Life and Annuities

insurance within the State of Texas. This Certificate of Authority shall be in full force and effect until it is revoked, canceled or suspended according to law.



IN TESTIMONY WHEREOF, witness my
hand and seal of office at Austin, Texas, this
22nd day of August, 1960, A. D.

John A. Harrison

COMMISSIONER OF INSURANCE

State of Texas

Claim Notice Endorsement

To be attached to and form a part of Bond No. 929625171.

In accordance with Section 2253.021(f) of the Texas Government Code and Section 53.202(6) of the Texas Property Code any notice of claim to the named surety under this bond(s) should be sent to:

**CNA Surety
333 South Wabash
Chicago, IL 60604**

Telephone: (312) 822-5000



**Chubb
Surety**

**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059**

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Joseph R. Aubert, Marc W. Boots, Richard Covington, Ashley Koletar, Vickie Lacy, P. T. Osburn and Maria D. Zuniga of Houston, Texas; Susan Golla of San Antonio, Texas -----

each as their true and lawful Attorney- In- Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 24th day of August, 2015.

Dawn M. Chloros, Assistant Secretary

David B. Norris, Jr., Vice President



STATE OF NEW JERSEY

ss.

County of Somerset

On this 24th day of August, 2015 before me, a Notary Public of New Jersey, personally came Dawn M. Chloros, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros, being by me duly sworn, did depose and say that she is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By- Laws of said Companies; and that she signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that she is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By- Laws and in deponent's presence.

Notarial Seal



**KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2019**

Notary Public

CERTIFICATION

Extract from the By- Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"Except as otherwise provided in these By-Laws or by law or as otherwise directed by the Board of Directors, the President or any Vice President shall be authorized to execute and deliver, in the name and on behalf of the Corporation, all agreements, bonds, contracts, deeds, mortgages, and other instruments, either for the Corporation's own account or in a fiduciary or other capacity, and the seal of the Corporation, if appropriate, shall be affixed thereto by any of such officers or the Secretary or an Assistant Secretary. The Board of Directors, the President or any Vice President designated by the Board of Directors may authorize any other officer, employee or agent to execute and deliver, in the name and on behalf of the Corporation, agreements, bonds, contracts, deeds, mortgages, and other instruments, either for the Corporation's own account or in a fiduciary or other capacity, and, if appropriate, to affix the seal of the Corporation thereto. The grant of such authority by the Board or any such officer may be general or confined to specific instances."

I, Dawn M. Chloros, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By- Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in the U.S. Virgin Islands, and Federal is licensed in Guam, Puerto Rico, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 3rd day of February, 2016



Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656 e-mail: surety@chubb.com

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company (herein called "the CNA Companies"), are duly organized and existing insurance companies having their principal offices in the City of Chicago, and State of Illinois, and that they do by virtue of the signatures and seals herein affixed hereby make, constitute and appoint

Marc W Boots, Vickie Lacy, P T Osburn, Richard Covington, Maria D Zuniga, Joseph R Aulbert, Individually

of Houston, TX, their true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on their behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of their insurance companies and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Boards of Directors of the insurance companies.

In Witness Whereof, the CNA Companies have caused these presents to be signed by their Vice President and their corporate seals to be hereto affixed on this 13th day of August, 2015.

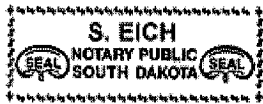


Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Paul T. Bruflat
Paul T. Bruflat Vice President

State of South Dakota, County of Minnehaha, ss:

On this 13th day of August, 2015, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company described in and which executed the above instrument; that he knows the seals of said insurance companies; that the seals affixed to the said instrument are such corporate seals; that they were so affixed pursuant to authority given by the Boards of Directors of said insurance companies and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance companies.



My Commission Expires February 12, 2021

S. Eich

S. Eich Notary Public

CERTIFICATE

I, D. Bult, Assistant Secretary of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance companies printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance companies this 3rd day of February, 2016.



Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

D. Bult

D. Bult Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE BOARD OF DIRECTORS OF CONTINENTAL CASUALTY COMPANY:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company at a meeting held on May 12, 1995:

“RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective.”

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of Continental Casualty Company.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25th day of April, 2012:

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”

ADOPTED BY THE BOARD OF DIRECTORS OF NATIONAL FIRE INSURANCE COMPANY OF HARTFORD:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company by unanimous written consent dated May 10, 1995:

“RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective.”

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of National Fire Insurance Company of Hartford.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25th day of April, 2012:

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”

ADOPTED BY THE BOARD OF DIRECTORS OF AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company by unanimous written consent dated May 10, 1995:

“RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective.”

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of American Casualty Company of Reading, Pennsylvania.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25th day of April, 2012:

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

James Construction Group, LLC
Spring, TX United States

Certificate Number:
2016-14575

Date Filed:
02/17/2016

Date Acknowledged:
2/23/16

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Fort Bend County Grand Parkway Toll Road Authority

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the goods or services to be provided under the contract.

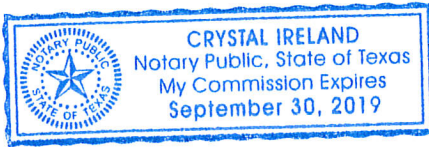
GPC-020
General Contractor of Construction of new southbound frontage road and Sansbury road intersection from IH 69 / US 59 to Rabbs Bayou

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.



[Signature]
Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Rudolph Poliselli, this the 17 day of February, 2016, to certify which, witness my hand and seal of office.

[Signature] Signature of officer administering oath
Crystal Ireland Printed name of officer administering oath
Contract Administrator Title of officer administering oath

THIS BID MUST BE SUBMITTED IN A SEALED BID ENVELOPE

SPECIFICATIONS AND BID

FOR

CONSTRUCTION OF THE FORT BEND GRAND
PARKWAY TOLL ROAD SEGMENT C, SECTION C-1
SOUTHBOUND FRONTAGE ROAD AND SANBURY
ROAD INTERSECTION FROM IH 69/US 59 TO RABBS
BAYOU

FORT BEND GRAND PARKWAY
TOLL ROAD AUTHORITY

Notice To Bidder:

ALL BIDS ARE TO BE SUBMITTED TO THE FORT BEND
GRAND PARKWAY TOLL ROAD AUTHORITY, C/O MIKE
STONE ASSOCIATES, INC., 19875 SOUTHWEST FREEWAY,
SUITE 270, SUGAR LAND, TEXAS, 77479 BY 2:00 P.M. ON
TUESDAY, JANUARY 19, 2016.

BIDDER IS REQUIRED TO FILL IN INFORMATION BELOW:

James Construction Group, LLC

BIDDER (Company Name)

TOTAL AMOUNT OF BID \$ 5,199,904.50

FORT BEND COUNTY, TEXAS

SALES TAX EXEMPTION

NOTICE TO CONTRACTORS

The Contractor's attention is directed to TEX. TAX CODE ANN. 151.311, which was amended by the Texas Legislature, effective October 1, 1993.

Under Section 151.311, as amended, tangible personal property purchased by a contractor for use in the performance of a contract for the improvement of real property for an organization such as Fort Bend Grand Parkway Toll Road Authority (FBGPTRA) is exempt from the payment of sales and use tax thereon when the property is incorporated into the realty in the performance of the contract. Building materials, etc., are exempt from tax if they are: (1) necessary and essential for the performance of the contract; and (2) completely consumed at the job site (i.e., after being used once for their intended purpose they are used up or destroyed). Items that can be re-used on other jobs are not tax exempt.

Services purchased by a contractor are also tax exempt, where: (1) the contract is for an improvement to real estate for an exempt organization; and (2) the contract expressly requires the specific service to be provided or purchased by the person performing the contract; or (3) the service is integral to the performance of the contract.

Machinery and equipment, including repair and replacement parts for the same, are not tax exempt when used in the performance of a contract for the improvement of real estate for FBGPTRA.

The Contractor should be aware that the Texas Comptroller of Public Accounts issues rules interpreting applicable provisions of the tax code from time to time. The rules should be consulted when answering specific questions. The Contractor can obtain additional information concerning the applicable sales and use tax, as well as sales tax permits and information regarding resale certificates, from the State Comptroller's Office, at (800) 252-5555.

FBGPTRA PROPOSAL SHEET
 FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
 FORT BEND GRAND PARKWAY (SH 99) - SEGMENT C, SECTION C-1

ALT	ITEM	DESC SP	SP	BID ITEM DESCRIPTION	UNIT	QUANTITY	BID PRICE	AMOUNT	SEQ
	100	6002		PREPARING ROW	STA	47.00	\$ 9,050.00	\$ 425,350.00	1
	104	6001		REMOVING CONG (PAV)	SY	2339.00	\$ 4.00	\$ 9,356.00	2
	104	6009		REMOVING CONG (RIPRAP)	SY	220.00	\$ 3.00	\$ 660.00	3
	104	6029		REMOVING CONG (CURB OR CURB & GUTTER)	LF	1974.00	\$ 2.00	\$ 3,948.00	4
	104	6036		REMOVING CONG (SIDEWALK OR RAMP)	SY	192.00	\$ 3.00	\$ 576.00	5
	105	6014		REMOVING STAB BASE & ASPH PAV (7"-12")	SY	5278.00	\$ 1.00	\$ 5,278.00	6
	110	6001		EXCAVATION (ROADWAY)	CY	18070.00	\$ 5.00	\$ 90,350.00	7
	132	6005		EMBANKMENT (FINAL)(ORD COMP)(TY C)	CY	1820.00	\$ 4.00	\$ 7,280.00	8
	132	6006		EMBANKMENT (FINAL)(DENS CONT)(TY C)	CY	6910.00	\$ 6.50	\$ 44,915.00	9
	162	6002		BLOCK SODDING	SY	38563.00	\$ 3.50	\$ 134,970.50	10
	166	6001		FERTILIZER	AC	0.88	\$ 1,250.00	\$ 1,100.00	11
	168	6001		VEGETATIVE WATERING	MG	106.00	\$ 11.00	\$ 1,166.00	12
	260	6006		LIME TRT (EXST MATL) (6")	SY	21797.00	\$ 3.00	\$ 65,391.00	13
	260	6012		LIME(HYD.COM OR QK)(SLRY)OR QK(DRY)	TON	315.00	\$ 145.00	\$ 45,675.00	14
	260	6027		LIME TRT (EXST MATL)(8")	SY	2400.00	\$ 12.00	\$ 28,800.00	15
	276	6224		CEM TRT(PLNT MX) (CL N)(TY E)(GR 4)(6")	SY	21797.00	\$ 12.00	\$ 261,564.00	16
	292	6002		ASPHALT STAB BASE (GR 2)(PG 64)	TON	1056.00	\$ 80.00	\$ 84,480.00	17
	292	6017		ASPHALT STAB BASE (GR 4)(PG 64)	TON	1200.00	\$ 72.00	\$ 86,400.00	18
	341	6043		D-GR HMA TY-D PG70-22	TON	2374.00	\$ 85.00	\$ 201,790.00	19
	341	6064		D-GR HMA TY-D PG 70-22 (LEVEL-UP)	TON	196.00	\$ 115.00	\$ 22,540.00	20
	360	6002		CONG PVMT (CONT REINF - CRCP) (8")	SY	6257.00	\$ 52.00	\$ 325,364.00	21
	360	6004		CONG PVMT (CONT REINF - CRCP) (10")	SY	13185.00	\$ 58.00	\$ 764,730.00	22
	360	6050		CONG PAV (CONT REINF)(FAST TRK)(11")	SY	1929.00	\$ 85.00	\$ 163,965.00	23
	400	6005		GEM STABIL BKFL	CY	3407.00	\$ 36.00	\$ 122,652.00	24
	400	6009		CEMENT STAB BACKFILL (INLET OR MH)	CY	258.00	\$ 36.00	\$ 9,288.00	25
	402	6001		TRENCH EXCAVATION PROTECTION	LF	4238.00	\$ 1.00	\$ 4,238.00	26
	403	6001		TEMPORARY SPL SHORING	SF	2350.00	\$ 3.00	\$ 7,050.00	27
	416	6030		DRILL SHAFT (TRF SIG POLE) (24 IN)	LF	78.00	\$ 115.00	\$ 8,970.00	28
	416	6032		DRILL SHAFT (TRF SIG POLE) (36 IN)	LF	32.00	\$ 175.00	\$ 5,600.00	29

FBGPTRA PROPOSAL SHEET
 FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
 FORT BEND GRAND PARKWAY (SH 99) - SEGMENT C, SECTION C-1

ALT	ITEM	DESC SP	SP	BID ITEM DESCRIPTION	UNIT	QUANTITY	BID PRICE	AMOUNT	SEQ
	416	6034		DRILL SHAFT (TRF SIG POLE) (48 IN)	LF	44.00	\$ 300.00	\$ 13,200.00	30
	432	6006		RIPRAP (CONC)(CLB)	OY	109.00	\$ 350.00	\$ 38,150.00	31
	462	6034		CONG BOX-CULV (10 FT X 10 FT)	LF	184.00	\$ 800.00	\$ 147,200.00	32
	464	6005		RC PIPE (CL 11") (24 IN)	LF	1601.00	\$ 65.00	\$ 104,065.00	33
	464	6007		RC PIPE (CL 11") (30 IN)	LF	542.00	\$ 80.00	\$ 43,360.00	34
	464	6008		RC PIPE (CL 11") (36 IN)	LF	349.00	\$ 120.00	\$ 41,880.00	35
	464	6009		RC PIPE (CL 11") (42 IN)	LF	1223.00	\$ 130.00	\$ 158,990.00	36
	464	6010		RC PIPE (CL 11") (48 IN)	LF	523.00	\$ 150.00	\$ 78,450.00	37
	465	6166		INLET (COMPL)(TY AAD)	EA	6.00	\$ 5,500.00	\$ 33,000.00	38
	465	6173		MANH (COMPLY)(TY A)	EA	10.00	\$ 6,000.00	\$ 60,000.00	39
	465	6176		INLET (COMPL)(CURB)(TY C1)	EA	15.00	\$ 8,000.00	\$ 120,000.00	40
	466	6189		WINGWALL (PW - 2) (HW=14 FT)	EA	1.00	\$ 50,000.00	\$ 50,000.00	41
	466	6191		WINGWALL (PW - 2) (HW=16 FT)	EA	1.00	\$ 85,000.00	\$ 85,000.00	42
	467	6395		SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	5.00	\$ 1,200.00	\$ 6,000.00	43
	467	6419		SET (TY II) (30 IN) (RCP) (4: 1) @	EA	1.00	\$ 1,700.00	\$ 1,700.00	44
	467	6466		SET (TY II) (42 IN) (RCP) (6: 1) (P)	EA	2.00	\$ 6,500.00	\$ 13,000.00	45
	476	6014		JACK BOR OR TUN PIPE (24 IN)(RC)(CL IV)	LF	90.00	\$ 120.00	\$ 10,800.00	46
	476	6020		JACK BOR OR TUN PIPE (30 IN)(RC)(CL IV)	LF	212.00	\$ 180.00	\$ 38,160.00	47
	496	6002		REMOV STR (INLET)	EA	3.00	\$ 800.00	\$ 2,400.00	48
	496	6003		REMOV STR (MANHOLE)	EA	1.00	\$ 450.00	\$ 450.00	49
	496	6004		REMOV STR (SET)	EA	6.00	\$ 270.00	\$ 1,620.00	50
	496	6007		REMOV STR (PIPE)	LF	487.00	\$ 13.00	\$ 6,331.00	51
	500	6001		MOBILIZATION	LS	1.00	\$ 59,500.00	\$ 59,500.00	52
	502	6001		BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	11.00	\$ 8,000.00	\$ 88,000.00	53
	506	6001		ROCK FILTER DAMS (INSTALL)(TY 1)	LF	140.00	\$ 35.00	\$ 4,900.00	54
	506	6011		ROCK FILTER DAMS (REMOVE)	LF	140.00	\$ 14.00	\$ 1,960.00	55
	506	6020		CONSTRUCTION EXITS (INSTALL)(TY 1)	SY	311.00	\$ 38.00	\$ 11,818.00	56
	506	6024		CONSTRUCTION EXITS (REMOVE)	SY	311.00	\$ 16.00	\$ 4,976.00	57
	506	6040		BIODEG EROSN CONT LOGS (INSTL) (8')	LF	210.00	\$ 6.00	\$ 1,260.00	58

FBGPTRA PROPOSAL SHEET
 FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
 FORT BEND GRAND PARKWAY (SH 99) - SEGMENT C, SECTION C-1

ALT	ITEM	DESC SP	SP	BID ITEM DESCRIPTION	UNIT	QUANTITY	BID PRICE	AMOUNT	SEQ
	506	6041		BIODEG EROSN CONT LOGS (INSTL) (12")	LF	200.00	\$ 8.00	\$ 1,600.00	59
	506	6043		BIODEG EROSN CONT LOGS (REMOVE)	LF	410.00	\$ 0.50	\$ 205.00	60
	512	6045		PORT CTB (STKPL)(LOW PROF)(TY 1)	LF	80.00	\$ 12.00	\$ 960.00	61
	512	6046		PORT CTB (STKPL)(LOW PROF)(TY 2)	LF	40.00	\$ 12.00	\$ 480.00	62
	529	6005		CONG CURB (MONO) (TY II)	LF	5439.00	\$ 3.50	\$ 19,036.50	63
	529	6008		TY II CURB AND GUTTER	LF	1662.00	\$ 20.00	\$ 33,040.00	64
	529	6010		CONG CURB (U-	LF	767.00	\$ 20.00	\$ 15,340.00	65
	529	6011		CONG CURB (DOWEL)	LF	21.00	\$ 20.00	\$ 420.00	66
	530	6004		DRIVEWAYS (CONG)	SY	520.00	\$ 70.00	\$ 36,400.00	67
	530	6005		DRIVEWAYS (ACP)	SY	83.00	\$ 30.00	\$ 2,490.00	68
	531	6001		CONG SIDEWALKS (4")	SY	268.00	\$ 35.00	\$ 9,380.00	69
	531	6004		CURB RAMPS (TY 1)	EA	4.00	\$ 1,800.00	\$ 7,200.00	70
	531	6010		CURB RAMPS (TY 7)	EA	8.00	\$ 1,900.00	\$ 15,200.00	71
	531	6029		CURB RAMPS (TY 20)	SY	2.00	\$ 2,000.00	\$ 4,000.00	72
	540	6001		MTL W-BEAM GD FEN (TIM POST)	LF	663.00	\$ 20.00	\$ 13,260.00	73
	540	6016		DOWNSTREAM ANCHOR TERMINAL SECTION	EA	2.00	\$ 1,100.00	\$ 2,200.00	74
	544	6001		GUARDRAIL END TREATMENT (INSTALL)	EA	2.00	\$ 2,200.00	\$ 4,400.00	75
	618	6023		CONDT (PVC) (SCH 40) (2")	LF	1080.00	\$ 9.80	\$ 10,584.00	76
	618	6033		CONDT (PVC) (SCH 40)	LF	230.00	\$ 16.75	\$ 3,852.50	77
	618	6047		CONDT (PVC) (SCH 80) (2") (BORE)	LF	765.00	\$ 9.85	\$ 7,535.25	78
	618	6059		CONDT (PVC) (SCH 80) (4") (BORE)	LF	620.00	\$ 17.00	\$ 10,540.00	79
	620	6009		ELEC CONDR (NO.6) BARE	LF	2755.00	\$ 1.40	\$ 3,857.00	80
	620	6011		ELEC CONDR (NO.4) BARE	LF	345.00	\$ 1.90	\$ 655.50	81
	620	6012		ELEC CONDR (NO.4) INSULATED	LF	1035.00	\$ 1.90	\$ 1,966.50	82
	621	6005		TRAY CABLE (4 CONDR) (12 AWG)	LF	1135.00	\$ 1.90	\$ 2,156.50	83
	624	6010		GROUND BOX TY D (162922)W/APRON	EA	22.00	\$ 680.00	\$ 14,960.00	84
	628	6009		ELC SRV TY A 120/240	EA	1.00	\$ 5,225.00	\$ 5,225.00	85
	644	6050		IN SM RD SN SUP&AM TYS80(2)SA(P)	EA	1.00	\$ 987.00	\$ 987.00	86
	644	6056		IN SM RD SN SUP&AM TYTWT(1)UA(P)	EA	46.00	\$ 320.00	\$ 14,720.00	87

FBGPTRA PROPOSAL SHEET
 FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
 FORT BEND GRAND PARKWAY (SH 99) - SEGMENT C, SECTION C-1

ALT	ITEM	DESC SP	SP	BID ITEM DESCRIPTION	UNIT	QUANTITY	BID PRICE	AMOUNT	SEQ
	644	6057		IN SM RD SN SUP&AM TYTWT(1)UA(T)	EA	4.00	\$ 430.00	\$ 1,720.00	88
	644	6076		REMOVE SM RD SN SUP&AM	EA	39.00	\$ 75.00	\$ 2,925.00	89
	662	6005		WK ZN PAV MRK NON-REMOV (W)6"(BRK)	LF	1035.00	\$ 0.68	\$ 703.80	90
	662	6008		WK ZN PAV MRK NON-REMOV (W)6"(SLD)	LF	300.00	\$ 0.65	\$ 195.00	91
	662	6012		WK ZN PAV MRK NON-REMOV (W)8"(SLD)	LF	1070.00	\$ 1.30	\$ 1,391.00	92
	662	6014		WK ZN PAV MRK NON-REMOV (W)12"(SLD)	LF	355.00	\$ 1.95	\$ 692.25	93
	662	6016		WK ZN PAV MRK NON-REMOV (W)24"(SLD)	LF	95.00	\$ 3.90	\$ 370.50	94
	662	6017		WK ZN PAV MRK NON-REMOV (W)(ARROW)	EA	3.00	\$ 25.00	\$ 75.00	95
	662	6026		WK ZN PAV MRK NON-REMOV (W)(TURN ARW)	EA	1.00	\$ 35.00	\$ 35.00	96
	662	6039		WK ZN PAV MRK NON-REMOV (Y)12"(SLD)	LF	305.00	\$ 1.95	\$ 594.75	97
	662	6041		WK ZN PAV MRK NON-REMOV (Y)24"(SLD)	LF	835.00	\$ 3.90	\$ 3,256.50	98
	666	6036		REFL PAV MRK TY I (W)8"(SLD)(100MIL)	LF	3180.00	\$ 1.00	\$ 3,180.00	99
	666	6042		REFL PAV MRK TY I (W)12"(SLD)(100MIL)	LF	730.00	\$ 3.00	\$ 2,190.00	100
	666	6048		REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	370.00	\$ 6.00	\$ 2,220.00	101
	666	6099		REF PAV MRK TY I (W)18"(YLD TR)(100MIL)	EA	20.00	\$ 24.00	\$ 480.00	102
	666	6147		REFL PAV MRK TY I (Y)24"(SLD)(100MIL)	LF	510.00	\$ 6.00	\$ 3,060.00	103
	666	6225		PAVEMENT SEALER 6"	LF	3820.00	\$ 0.25	\$ 955.00	104
	666	6231		PAVEMENT SEALER (ARROW)	EA	14.00	\$ 15.00	\$ 210.00	105
	666	6232		PAVEMENT SEALER (WORD)	EA	15.00	\$ 15.00	\$ 225.00	106
	666	6236		PAVEMENT SEALER (TURN)	EA	2.00	\$ 22.50	\$ 45.00	107
	666	6243		PAVEMENT SEALER (YLD TRI)	EA	20.00	\$ 5.00	\$ 100.00	108
	666	6306		RE PM W/RET REQ TY I (W)6"(BRK)(100MIL)	LF	3950.00	\$ 0.68	\$ 2,686.00	109
	666	6309		RE PM W/RET REQ TY I (W)6"(SLD)(100MIL)	LF	4800.00	\$ 0.65	\$ 3,120.00	110
	666	6321		RE PM W/RET REQ TY I (Y)6"(SLD)(100MIL)	LF	5360.00	\$ 0.65	\$ 3,484.00	111
	668	6077		PREFAB PAV MRK TY C (W) (ARROW)	EA	14.00	\$ 250.00	\$ 3,500.00	112
	668	6080		PREFAB PAV MRK TY C (W) (TURN ARROW)	EA	2.00	\$ 395.00	\$ 790.00	113
	668	6085		PREFAB PAV MRK TY C (W) (WORD)	EA	15.00	\$ 350.00	\$ 5,250.00	114
	672	6009		REFL PAV MRKR TY 11-A-A	EA	55.00	\$ 6.00	\$ 330.00	115
	672	6010		REFL PAV MRKR TY 11-C-R	EA	515.00	\$ 4.20	\$ 2,163.00	116

FBGPTRA PROPOSAL SHEET
 FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
 FORT BEND GRAND PARKWAY (SH 99) - SEGMENT C, SECTION C-1

ALT	ITEM	DESC SP	SP	BID ITEM DESCRIPTION	UNIT	QUANTITY	BID PRICE	AMOUNT	SEQ
	678	6002		PAV SURF PREP FOR MRK (6")	LF	2800.00	\$ 0.04	\$ 112.00	117
	678	6004		PAV SURF PREP FOR MRK (8")	LF	3180.00	\$ 0.08	\$ 254.40	118
	678	6006		PAV SURF PREP FOR MRK (12")	LF	730.00	\$ 0.12	\$ 87.60	119
	678	6008		PAV SURF PREP FOR MRK (24")	LF	420.00	\$ 0.24	\$ 100.80	120
	678	6009		PAV SURF PREP FOR MRK (ARROW)	EA	14.00	\$ 8.00	\$ 112.00	121
	678	6016		PAV SURF PREP FOR MRK (WORD)	EA	15.00	\$ 8.00	\$ 120.00	122
	678	6033		PAV SURF PREP FOR MRK (RPM)	EA	515.00	\$ 0.25	\$ 128.75	123
	680	6002		INSTALL HWY TRF SIG (ISOLATED)	EA	1.00	\$ 27,250.00	\$ 27,250.00	124
	680	6004		REMOVING TRAFFIC SIGNALS	EA	1.00	\$ 3,925.00	\$ 3,925.00	125
	682	6001		VEH SIG SEC (12")LED(GRN)S	EA	17.00	\$ 220.00	\$ 3,740.00	126
	682	6002		VEH SIG SEC (12")LED(GRN ARW)	EA	6.00	\$ 220.00	\$ 1,320.00	127
	682	6003		VEH SIG SEC (12")LED(YEL)	EA	17.00	\$ 220.00	\$ 3,740.00	128
	682	6004		VEH SIG SEC (12")LED(YEL ARW)	EA	6.00	\$ 220.00	\$ 1,320.00	129
	682	6005		VEH SIG SEC (12")LED(RED)	EA	17.00	\$ 220.00	\$ 3,740.00	130
	682	6006		VEH SIG SEC (12")LED(RED ARW)	EA	4.00	\$ 220.00	\$ 880.00	131
	682	6018		PED SIG SEC (LED)(COUNTDOWN)	EA	16.00	\$ 485.00	\$ 7,760.00	132
	682	6023		BACK PLATE (12")(3 SEC)	EA	19.00	\$ 130.00	\$ 2,470.00	133
	682	6025		BACK PLATE (12")(5 SEC)	EA	2.00	\$ 165.00	\$ 330.00	134
	684	6007		TRF SIG CBL (TY A)(12 AWG)(2 CONDR)	LF	4185.00	\$ 1.15	\$ 4,812.75	135
	684	6009		TRF SIG CBL (TY A)(12 AWG)(4 CONDR)	LF	4495.00	\$ 1.35	\$ 6,068.25	136
	684	6012		TRF SIG CBL (TY A)(12 AWG)(7 CONDR)	LF	2015.00	\$ 1.90	\$ 3,828.50	137
	684	6028		TRF SIG CBL (TY A)(14 AWG)(2 CONDR)	LF	4450.00	\$ 1.15	\$ 5,117.50	138
	685	6005		RELOCT RDSO FLSH BCN AM (SOLAR PWRD)	EA	1.00	\$ 2,500.00	\$ 2,500.00	139
	686	6043		INS TRF SIG PL AM(S)1 ARM(40")LUM	EA	2.00	\$ 6,925.00	\$ 13,850.00	140
	686	6191		INS TRF SIG PL AM(S)2 ARM(50 - 40")LUM	EA	1.00	\$ 17,925.00	\$ 17,925.00	141
	686	6283		INS TRF SIG PL AM(S)2 ARM(65-28")LUM	EA	1.00	\$ 18,225.00	\$ 18,225.00	142
	687	6001		PED POLE ASSEMBLY	EA	13.00	\$ 975.00	\$ 12,675.00	143
	688	6001		PED DETECT PUSH BUTTON (APS)	EA	15.00	\$ 725.00	\$ 10,875.00	144
	688	6005		VEH LP DETECT (SAWCUT)(14 AWG)(BLK)	LF	3555.00	\$ 10.00	\$ 35,550.00	145

FBGPTRA PROPOSAL SHEET
 FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
 FORT BEND GRAND PARKWAY (SH 99) - SEGMENT C, SECTION C-1

ALT	ITEM	DESC	SP	BID ITEM DESCRIPTION	UNIT	QUANTITY	BID PRICE	AMOUNT	SEQ
	6001	6001		PORTABLE CHANGEABLE MESSAGE SIGN	DAY	56.00	40.00	2,240.00	146
	6019	6007		PREFB PV MK W/MANTY TY B(W)6" (BRK)CNTST	LF	1830.00	6.63	12,132.90	147
	F001			FORCE ACCOUNT - LAW ENFORCEMENT	LS	1.00	10,000.00	10,000.00	148
	F002			REMOVE ILLUMINATION POLES	EA	5.00	600.00	3,000.00	149

TOTAL BID AMOUNT \$ 5,197,904.50

Signed



Title Vice President, Texas Heavy Civil Operations

Date

01/19/2016

Additional Signature for Joint Venture:

Signed

Title

Date

Highway: Fort Bend Grand Parkway Toll Road
Segment C - Section C-1: Construction of the
southbound frontage road and Sansbury Road
intersection from IH 69/US 59 to Rabbs
Bayou
County: Fort Bend

The enclosed Texas Department of Transportation Specifications, Special Provisions, General Notes and Specification Data in this document have been selected by me, or under my responsible supervision, as being applicable to this project(s).

NOTE: For the purpose of constructing this Proposal and the attached form of Contract, the Texas Department of Transportation Standard Specifications for Construction of Highways, Streets and Bridges, as adopted by the Texas Department of Transportation on November 1, 2014, hereinafter referred to are approved and incorporated herein by reference for all purposes by the Fort Bend Grand Parkway Toll Road Authority as official specifications, together with and to be modified by the Special Provisions and Special Specifications as are listed herein.



Nadem Abbasi
Project Manager
IDC, Inc.
12/22/15
Date:

County: Fort Bend
Highway: SH 99

GENERAL NOTES:

General Notes:

Fort Bend County Levee Improvement District No. 11

A levee exists within the project limits and work is required across it, as shown in the plans. No excavation can be made within the existing levee footprint or at any time can the levee be breached. Caution is required while working within the levee easement. Contact the District's operator prior to any work within the levee easement.

Michael S. Rusk, P.E.
District Engineer - Fort Bend County Levee Improvement District No 11
RiverPark Subdivision Recreation Center
5875 Summit Creek Dr.
Sugar Land, Texas 77479
(713) 953-5581

General:

If fixed features require, the governing slopes shown may vary between the limits shown and to the extent determined by the Engineer.

Notify the Engineer immediately if discrepancies are discovered in the horizontal control or the benchmark data.

The following standard detail sheets are modified:

Modified Standards

Box Culvert Supplement (BCS)
Long Mast Arm Assembly Parts List LMA(5)-12
Traffic Signal Pole Foundation TS-FD-12
Traffic Signal Support Structure Single Mast Arm Assembly SMA-100(1)-12

References to manufacturer's trade name or catalog numbers are for the purpose of identification only. Similar materials from other manufacturers are permitted if they are of equal quality, comply with the specifications for this project, and are approved, except for roadway illumination, electrical, and traffic signal items.

The cost for materials, labor, and incidentals to provide for traffic across the roadway and for ingress and egress to private property in accordance with Section 7.2.4 of the standard specifications is subsidiary to the various bid items. Restore access roadways to their original condition upon completing construction.

Grade street intersections and median openings for surface drainage.

If a foundation is to be placed where a riprap surface or an asphalt concrete surface presently exists, use caution in breaking out the existing surface for placement. Break out no greater

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area than is required to place the foundation. After placing the foundation, wrap the periphery with 0.5 in. pre-molded mastic expansion joint. Then replace the remaining portion of the broken out surface with Class A or Class C concrete or cold mix asphalt concrete to the exact slope, pattern, and thickness of the existing riprap or asphalt. Payment for breaking out the existing surface, wrapping the foundation, and replacing the surface is subsidiary to the various bid items.

The lengths of the posts for ground mounted signs and the tower legs for the overhead sign supports are approximate. Verify the lengths before ordering these materials to meet the existing field conditions and to conform to the minimum sign mounting heights shown in the plans.

Furnish aluminum Type A signs instead of plywood signs for signs shown on the Summary of Small Signs sheet.

Stencil the National Bridge Inventory (NBI) number on each bridge shown on these plans. The NBI number is shown above the title block for each bridge layout.

Clearly mark or highlight on the shop drawings, the items being furnished for this project. Submit required shop drawings in accordance with the shop drawing distribution list shown in the note for Item 5 for review and distribution.

General: Roadway Illumination and Electrical

For roadway illumination and electrical items, use materials from pre-qualified producers as shown on the Construction Division (CST) of the Department's material producers list. Check the latest link on the TxDOT website for this list. The category/item is "Roadway Illumination and Electrical Supplies." No substitutions will be allowed for materials found on this list.

Perform electrical work in conformance with the National Electrical Code (NEC) and Department standard sheets.

General: Traffic Signals

For traffic signal items, use materials from the Pre-Qualified Producers List (located at <http://www.dot.state.tx.us/GSD/purchasing/supps.htm>) and the materials pre-qualified for illumination and electrical items (located at <http://ftp.dot.state.tx.us/pub/txdot-info/cmd/mpl/riaes.pdf>) as shown on the Department's Material Producers List and the Roadway Illumination and Electrical Supplies List. Check the latest links on the TxDOT website for these lists. No substitutions will be allowed for materials found on these lists.

General: Site Management

Mark stations every 100 ft. and maintain the markings for the project duration. Remove the station markings at the completion of the project. This work is subsidiary to the various bid items.

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Do not mix or store materials, or store or repair equipment, on top of concrete pavement or bridge decks unless authorized by the Engineer. Permission will be granted to store materials on surfaces if no damage or discoloration will result.

Personal vehicles of employees are not permitted to park within the right of way, including sections closed to public traffic. Employees may park on the right of way at the Contractor's office, equipment, and materials storage yard sites.

Assume ownership of debris and dispose of at an approved location. Do not dispose of debris on private property unless approved in writing by the Engineer.

Control the dust caused by construction operations. For sweeping the base material in preparation for laying asphalt and for sweeping the finished concrete pavement, use one of the following types of sweepers or approved equal:

Tricycle Type

Wayne Series 900
Elgin White Wing
Elgin Pelican

Truck Type - 4 Wheel

M-B Cruiser II
Wayne Model 945
Mobile TE-3
Mobile TE-4
Murphy 4042

General: Traffic Control and Construction

Schedule construction operations such that preparing individual items of work follows in close sequence to constructing storm drains in order to provide as little inconvenience as practical to the businesses and residents along the project.

Schedule work so that the base placement operations follow the subgrade work as closely as practical to reduce the hazard to the traveling public and to prevent undue delay caused by wet weather.

If fences cross construction easements shown on the plans and work is required beyond the fences, remove and replace the fences as directed. This work and the materials are subsidiary to the various bid items.

When design details are not shown on the plans, provide signs and arrows conforming to the latest "Standard Highway Sign Designs for Texas" manual.

General: Utilities

Consider the locations of underground utilities depicted in the plans as approximate and employ responsible care to avoid damaging utility facilities. Depending upon scope and magnitude of planned construction activities, advanced field confirmation by the utility owner or operator may be prudent. Where possible, protect and preserve permanent signs, markers, and designations of underground facilities.

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If the Contractor damages or causes damage (breaks, leaks, nicks, dents, gouges, etc.) to the utility, contact the utility facility owner or operator immediately.

Notify the Engineer at least 48 hours before constructing junction boxes at storm drain and utility intersections.

Install or remove poles and luminaires located near overhead or underground electrical lines using established industry and utility safety practices. Consult the appropriate utility company before beginning such work.

If overhead or underground power lines need to be de-energized, contact the electrical service provider to perform this work. Costs associated with de-energizing the power lines or other protective measures required are at no expense to the County.

If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.

Perform electrical work in conformance with the National Electrical Code (NEC).

Item 5: Control of Work

Before contract letting, electronically generated earthwork cross-section data will be furnished free of charge to the prospective bidders on a compact high-density disk, in an ASCII print format. This will be available through the Association of General Contractors bulletin board service or through the Engineer's office. If the earthwork data is not available electronically, reproducible earthwork cross sections are available at the Engineer's office for borrowing by copying service companies for the purpose of making copies for the prospective bidders, at the prospective bidder's expense. The earthwork cross-section data provided above is for non-construction purposes only and it is the responsibility of the prospective bidder to validate the enclosed data with the appropriate plans, specifications, and estimates for the projects.

Submit shop drawings electronically for the fabrication of items as documented in Table 1 below. Information and requirements for electronic submittals can be viewed in the "Guide to Electronic Shop Drawing Submittal" which can be accessed through the following web link, ftp://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/bridge/e_submit_guide.pdf.

References to 11 in. x 17 in. sheets in individual specifications for structural items imply electronic CAD sheets.

Table 1

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2014 Construction Specification Required Shop/Working Drawing Submittals

Spec Item No.'s	Product	Submittal Required	Approval Required (Y/N)	Contractor/Fabricator P.E. Seal Required	Reviewing Party
7.20	Construction Load Analyses	Y	Y	Y	B
403	Temporary Special Shoring	Y	N	Y	B
462	Concrete Box Culvert	Y	Y	N	C
462	Concrete Box Culvert (Alternate Designs Only, calcs req'd.)	Y	Y	Y	B
464	Reinforced Concrete Pipe (Jack and Bore only; ONLY when requested)	Y	Y	Y	A
465	Pre-cast Junction Boxes, Grates, and Inlets	Y	Y	N	A
465	Pre-cast Junction Boxes, Grates, and Inlets (Alternate Designs Only, calcs req'd.)	Y	Y	Y	B
466	Pre-cast Headwalls and Wingwalls	Y	Y	N	A
467	Pre-cast Safety End Treatments	Y	Y	N	A
627	Treated Timber Poles	Y	Y	N	T
680	Installation of Highway Traffic Signals	Y	Y	N	T
682	Vehicle and Pedestrian Signal Heads	Y	Y	N	T
684	Traffic Signal Cables	Y	Y	N	T
686	Traffic Signal Pole Assemblies (Steel) (Non-Standard only)	Y	Y	Y	T
687	Pedestal Pole Assemblies	Y	Y	N	T
688	Detectors	Y	Y	N	A

Item 7: Legal Relations and Responsibilities

The total area disturbed for this project is 21 acres. The disturbed area in this project, the project locations in the Contract, and Contractor project specific locations (PSLs) within 1 mile of the project limits for the Contract, will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI for PSLs on the ROW to the Engineer (to the appropriate MS4 operator when on an off-state system route) and to the local government that operates a separate storm drain system.

Maintain the roadway slope stability. Maintaining slope stability is subsidiary to the various bid items.

Item 8: Prosecution and Progress

No lane closures are allowed the day before, during, and day after the seven national Holidays unless otherwise approved by the Engineer.

The Contractor must achieve Substantial Completion within 275 calendar days. Substantial completion is considered to be completion, in the opinion of the Engineer, of all required permanent and temporary construction, striping, safety devices, signage and incidentals in order to open southbound frontage road lanes and Sansbury Blvd. to traffic.

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Failing to achieve Substantial Completion within the days specified by the Engineer the Contractor will be assessed liquidated damages of \$2,500 per day which will be withheld from any amount owed the Contractor. If the amount owed the Contractor is insufficient to withhold the amount, the Contractor shall pay the difference to the Authority.

The Contractor must achieve Final Completion no more than 25 calendar days after the date Substantial Completion.

Failing to achieve Final Completion within the days specified by the Engineer the Contractor will be assessed liquidated damages of \$1,500 per day which will be withheld from any amount owed the Contractor. If the amount owed the Contractor is insufficient to withhold the amount, the Contractor shall pay the difference to the Authority.

The Authority will not adjust the number of days for the project and milestones, if any, due to differences in opinion regarding any assumptions made in the preparation of the schedule or for errors, omissions, or discrepancies found in the time determination schedule.

Create, maintain, and submit for approval, a Critical Path Method (CPM) project schedule using computer software that is fully compatible with the latest version of Primavera Systems, Inc. or Primavera Project Planner (P3 or P6).

Working days will be computed and charged based on a calendar day basis in accordance with Section 8.3.1.5.

Provide a virus-free computer disk or other acceptable electronic media containing the Primavera construction schedule.

The Lane Closure Assessment Fee is \$ 500.00 per hour. This fee applies to the Contractor for closures or obstructions that overlap into restricted hour traffic for each hour or portion thereof, per lane, regardless of the length of lane closure or obstruction. For Restricted Hours subject to Lane Assessment Fee refer to the Item, "Barricades, Signs, and Traffic Handling."

Item 100: Preparing Right of Way

The illumination poles and signs shown in the plans are to be stock-piled so that these items may be returned to the previous owner of the property. Insure that the power to these items is properly de-energized before removal. This work is subsidiary to this bid Item.

Clean existing ditches under fill sections of undesirable materials including grass, muck, and trash. Perform this work in accordance with the Construction section of the Item, "Preparing Right of Way." This work is subsidiary to this bid Item.

Remove abandoned utilities that are in conflict with the new utilities, at no expense to the County.

Reestablish and maintain right of way stakes after completing the right of way preparation activities and until the new utilities are in place.

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Remove and assume ownership of the existing ground mounted signs within the limits of roadway construction unless otherwise noted or directed. This work is subsidiary to the Item, "Preparing Right of Way."

Item 104: Removing Concrete

Removing concrete curb is paid as a separate bid item if the existing pavement on which it rests is not removed at the same time.

Item 105: Removing Treated and Untreated Base and Asphalt Pavement

Removing curb on cement-treated and untreated base or on cement treatment being removed at the same time is subsidiary to this bid Item.

Item 110: Excavation

If manipulating the excavated material requires moving the same material more than once to accomplish the desired results, the excavation is measured and paid for only once regardless of the manipulation required.

Transition the ditch grades and channel bottom widths at structure locations. Use only approved channel excavation in the embankment.

The total excavation quantity shown on the plans includes the quantity for excavating to 2 ft. behind the back of the proposed curb.

Item 132: Embankment

If salvaged base is used for the embankment material, break it into small pieces to achieve the required density and to facilitate placing in the embankment. Obtain approval of the material before placing in the embankment.

Furnish Type C material with a maximum Liquid Limit (LL) of 65, a minimum Plasticity Index (PI) of 5, and composed of suitable earth material such as loam, clay, or other materials that form a suitable embankment.

The embankment material used on the project which has a Liquid Limit exceeding 45 will be tested for Liquid Limits at the rate of one test per 20,000 cu. yd. or per total quantity less than 20,000 cu. yd., unless otherwise directed. Only use material that passes the above tests.

The Contractor has the option of selecting the type of backfill material consisting of Reclaimable Asphalt Pavement (RAP), Flex Base, or Crushed Concrete provided that it meets the requirements listed below.

If using salvaged asphalt concrete pavement, size it so that all the material, passes the 2-in. sieve. Use RAP that does not contain deleterious material such as clay or organic material.

Crushed concrete must meet the requirements of Item 247, Grade 1-2. Department Test Methods Tex-116-E and Tex-117-E will not be required.

Place emulsified asphalt (SS-1, CSS-1, or CSS-1H) at an application rate of 0.25 gal/sq. yard.

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Item 161: Compost

Item 162: Sodding for Erosion Control

Item 164: Seeding for Erosion Control

Item 166: Fertilizer

Item 168: Vegetative Watering

Refer to the "Fertilizer, Seed, Sod, Straw, Compost, and Water" plan sheet for material specifications, application rates, and for watering requirements.

Item 204: Sprinkling

Perform subsidiary sprinkling as required under various other items in accordance with the Item, "Sprinkling."

Sprinkling for dust control is subsidiary to the various bid items.

Item 210: Rolling

Use a medium pneumatic roller meeting the requirements of Item 210 as directed. This work is subsidiary to the various bid items. On every asphalt shot, use a minimum of 3 pneumatic rollers or as directed. Use approved rolling patterns. Successive asphalt shots will not be allowed until acceptable rolling has been accomplished on the preceding asphalt shot.

Item 260: Lime Treatment (Road-Mixed)

For slurry placing, before discharging through the distributors, sufficiently agitate or mix the lime and water to place the lime in suspension and to obtain a uniform mixture.

The Engineer will observe the lime treatment that the Contractor elects to open to construction traffic immediately after compaction. If the construction traffic damages the subgrade, route the traffic off the damaged section in accordance with the standard specification. If the construction traffic does not damage the subgrade, cure the subgrade until other courses of material cover it. Apply these courses within 14 days with a maximum curing period of 7 days.

Place the hydrated and the commercial lime as a water suspension or slurry according to the slurry placing method shown in Section 260.4.3.2, "Slurry Placement."

Use the type of lime at particular locations as directed.

Place the quicklime dry or as a slurry.

For the dry quicklime, a spreader box is not required if the lime material is evenly distributed.

In limited areas, the Contractor may construct the lime slurry subgrade under a sequence of work in which the application, mixing, and compaction are completed in the same working day, if approved by the Engineer.

Provide documentation from certified public scales showing gross, tare, and net weights. Provide producer's delivery tickets also showing gross, tare, and net weights. Completely empty the lime trailers at the project site. The Engineer may direct the Contractor to reweigh

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any shipment of lime on certified scales. The cost of this operation is subsidiary to the Item, "Lime Treatment (Road-Mixed)."

The percentage of lime shown on the plans is estimated on the basis of engineering tests. If soil tests made during construction indicate properties different than those originally anticipated, the Engineer may vary the percentage of the lime to provide soil characteristics similar to those of the preliminary tests.

Mix the lime with the new base material in an approved pug mill type stationary mixer.

Item 276: Cement Treatment (Plant-Mixed)

Before placing the new base, wet and coat the vertical construction joints between the new base and the previously placed base with dry cement.

If the total thickness of the cement treatment is greater than 8 in., compact it in multiple lifts in accordance with Section 276.4.3, "Compaction." Place the courses in the same working day unless otherwise approved.

Use Class N Cement Treatment containing 4.5 percent cement based on the dry weight of the aggregate. There is no minimum compressive strength requirement for this Item.

The requirement for core drilling to determine the thickness of cement treatment is waived if using less than 500 sq. yd. at one location.

For widening the existing pavement, the Engineer may waive the requirements for preparing the subgrade by scarifying and compacting if the as-cut subgrade can be maintained to the density of the natural ground and to a uniform consistency when placing the base course. Keep the subgrade wet.

Compact in accordance with the standard specifications and complete the finishing operations within a period of 5 hours after adding the cement to the base material.

Cure the final course of cement treatment using an asphalt distributor that distributes the approved curing material and water mixture material at a rate of 0.25 gallons per square-yard evenly and smoothly or as recommended by the manufacturer at the recommended dilution rate, under a pressure necessary for proper distribution. Provide a curing material meeting the requirements of the Item, "Asphalts, Oils, and Emulsions" for curing the cement treatment. Use the following materials for curing the courses of cement treatment:

Curing Material	Application
Water	All courses, except final course
PCE	Final course

Continue curing until placing another course or opening the finished section to traffic.

Spread the material so that the layers of base are uniform in depth and in loose density before compacting.

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Type E material consists of Type A material, crushed concrete (except under flexible pavement), or Reclaimed Asphalt Pavement (RAP) meeting the requirements of the Item, "Flexible Base." If approved, the 50 percent maximum RAP limitation may be waived.

Unless otherwise directed, place the next pavement layer within 7 working days of placing the base.

If using crushed stone for the Type E material under this Item, ensure it meets the requirements for the Item, "Flexible Base," Type A, Grade 1-2. Texas Test Method TEX-117-E is not required for this Item.

If using Recycled Type E cement treatment under proposed flexible pavement, produce it using the existing base salvaged from within this project or from other approved Department projects and salvaged asphalt concrete pavement. Do not use crushed concrete under flexible pavement.

If using Recycled Type E cement treatment under proposed concrete pavement, produce it using the existing base salvaged from within this project or from other approved Department projects, salvaged asphalt concrete pavement, or crushed concrete. If using crushed concrete as an aggregate, meet the requirements of Grade 3.

If using salvaged existing base and asphalt concrete pavement as described above, size it so that all the material, except the existing individual aggregate, passes the 2-in. sieve and is of a gradation that allows satisfactory compaction. Provide salvaged material that does not contain deleterious material such as clay or organic material. Provide material passing the No. 40 sieve, defined as soil binder, with a maximum Plasticity Index of 10 and a maximum Liquid Limit of 35 when tested in accordance with test method TEX-106-E.

Meet the following additional requirements if the base and ACP are salvaged from other Department projects:

1. Obtain written approval before using the material.
2. Salvage and stockpile by approved methods.
3. Stockpile the material for exclusive use by the Department.

Item 292: Asphalt Treatment (Plant-Mixed)

If using the iron ore topsoil as the primary aggregate, meaning 80 percent or more by weight of the total mixture, the requirements for the water susceptibility test are waived.

Mixtures containing the iron ore topsoil are exempted from test methods TEX-217-F (Part I, separation of deleterious material and Part II, decantation test for coarse aggregate) and TEX-203-F (Sand Equivalent Test).

Assume responsibility for proportioning the materials entering the asphalt mixture, regardless of the type of plant used.

Furnish the mix designs for approval.

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Compact the courses to a minimum density of 95 percent of the maximum density as determined using test method TEX-126-E.

Meet the following grading requirements:

Sieve Size	Percent Passing Grade 4 (Bondbreaker)
1-3/4 in.	-
1 in.	-
1/2 in.	100
No. 4	30 - 70
No. 40	15 - 45

Physical requirements are as follows:

- Maximum Plasticity Index (PI) = 8
- Maximum Liquid Limit (LL) = 35
- Maximum Wet Ball Mill = 50 (crushed stone)
- Maximum LA Abrasion = 50 (iron ore)

If blending the materials, perform the Wet Ball Mill test for the composite aggregate.

Form bituminous mix incorporating 3.5 to 7 percent asphaltic binder by dry weight.

For nominal aggregate size less than 0.5 in., design the mix in accordance with test method TEX-204-F. The minimum stability in accordance with TEX-208-F is 30 percent with a laboratory molded density of 96 percent plus or minus 1.5 percent.

If the layer thickness after placing is 1.25 in. or less, the bondbreaker is exempt from the in-place density control described in Section 292.4.5, "Compaction.

"Item 341: Dense-Graded Hot Mix Asphalt

Taper the asphalt concrete pavement at the beginning and ending points.

Use a maximum 6H:1V slope for the asphalt concrete pavement edge.

Where the 6H:1V ACP edge taper extends over onto the unsurfaced shoulders, blade off the loose existing shoulder material to provide a solid base for the outside taper edge. After placing the ACP overlay, blade this material back against the edge taper. This work is subsidiary to the various bid items.

The stockpile will be the point of sampling of coarse aggregate for test method TEX-217-F (Part II, decantation).

Place the asphalt concrete pavement in courses as shown on the typical sections.

Do not use petroleum-based solvents in the beds of hot mix asphalt delivery vehicles.

Dilution of tack coat is not allowed.

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Do not use Surface Aggregate Classification (SAC) C for this project.

For determining the Asphalt Content, only ignition ovens will be allowed.

Item 360: Concrete Pavement

Where the pavement curb is left off for a later tie, provide the dowels or the tie bars as indicated on the paving detail sheets. The dowel bars and tie bars are subsidiary to the various bid items.

Repair portions of the concrete pavement surfaces that are damaged while in a plastic state before that area receives permanent pavement markings and opens to traffic. Perform repairs that are structurally equivalent to and cosmetically uniform with the adjacent undamaged areas. Do not repair by grouting onto the surface.

On pavement widening, hand finishing in place of the longitudinal float will be permitted.

Where existing pavement is widened with new pavement, place the new pavement a minimum of 2 ft. wide.

Equip the batching plants to proportion by weight, aggregates and bulk cement, using approved proportioning devices and approved automatic scales.

For mono curb, the curb height transitions will be paid at the contract unit price of the larger curb height in the transition. The 2.5-in. laydown curbs for driveways will be paid at the unit price bid for the Item 529, "Cone Curb (Mono) (Ty II)."

High-early strength cement may be used for frontage road and city street intersection construction.

Do not use limestone dust of fracture as fine aggregate.

If the concrete design requires greater than 5.5 sacks of cementitious material per cubic yard, obtain written approval. If placing concrete pavement mixes from April 1 to October 31, inclusive, use a minimum of 25 percent by weight of Class F Fly Ash.

Perform saw cutting as shown on the plans in accordance with Section 360.4.10, "Sawing Joints." This saw cutting is subsidiary to various bid items.

Use coarse aggregate to produce concrete with a maximum Coefficient of Thermal Expansion (CTE) of 5.5×10^{-6} in/in/°F. Before construction, submit test specimens to the TxDOT Construction Division for aggregate acceptance. Provide samples or test specimens as directed. The TxDOT Construction Division will perform the testing. Test results are final. Testing is required for naturally occurring aggregates.

Complete the entire Fast Track Concrete construction process, from the time the Fast Track Work Area is closed to traffic, to the time the Fast Track Work Area is opened to traffic. The Fast Track operation includes, but is not limited to, traffic control, existing pavement and subgrade removal, preparation of subgrade, placement of steel, placement of Fast Track

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concrete pavement, cure time, striping, etc. Perform work in the Fast Track Work Area in an expeditious manner, within the allowable time period for any area shown below:

Fast Track Work Area	Allowable Duration
1. Sansbury Blvd intersection construction, Phase 1 step 2A	2 days maximum
2. Sansbury Blvd intersection construction, Phase 1 step 2B	2 days maximum

Failure to perform any Fast Track Work Area construction within the above time frames will be cause for the Engineer to require the Contractor to shut down all other construction operations to ensure all resources are directed toward the completion of the Fast Track operation. This shutdown will remain in force until the Fast Track operation is complete. Such a shutdown will not warrant additional time, time suspension, or any additional costs to the Department.

Unless otherwise directed in writing, provide Class HES concrete with a minimum average flexural strength of 425 psi or a minimum average compressive strength of 3,000 psi in 16 hours.

When directed in writing, open the pavement to traffic before the minimum requirements have been attained.

When needed, place and remove forms in accordance with Section 360.4.5, except do not remove forms until at least 6 hours after concrete has been placed. The time for the form removal may be extended with the direction of the Engineer if weather or other conditions make it advisable.

Sprinkling and rolling, required for the compaction of the rough subgrade in advance of fine-grading are subsidiary to this Item. Maintenance of a moist condition of the subgrade in advance of fine-grading and concrete is subsidiary work, as provided above.

Item 400: Excavation and Backfill for Structures

Plugging existing pipe culverts is subsidiary to the various bid items.

If Recycled Cement Treatment (Type D) is included in the plans, the following additional requirements apply:

1. Use only approved sand, crushed concrete, or salvaged base free from deleterious matter, as aggregate for cement-stabilized backfill
2. Provide crushed concrete or salvaged base backfill material in accordance with the Item, "Cement Treatment (Plant-Mixed)(Type D)" (base or crushed concrete), except the recycled Type D material must not contain Reclaimed Asphalt Pavement (RAP).
3. For backfill material below the spring line of pipes, use cement-stabilized sand rather than Recycled Type D backfill material.

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4. For the cement-stabilized sand backfill, use a minimum of 7 percent of hydraulic cement based on the dry weight of backfill material. The cement content for the crushed concrete and salvaged base is specified in the Item, "Cement Treatment (Plant-Mixed) (Type D)."
5. Place and compact the stabilized backfill material using a gradation that provides a dense mass without segregating and is impervious to passing of water.

Item 420: Concrete Substructures

Unless otherwise noted, use Class C concrete with an ordinary surface finish for signal, lighting, or sign structure foundations.

Item 421: Hydraulic Cement Concrete

Entrained air is required in all slip formed concrete (bridge rail, concrete traffic barrier, pavement, etc.), but is not required for other structural concrete. Adjust the dosage of air entraining agent for low air content as directed or allowed by the Engineer. If entrained air is provided where not required, do not exceed the manufacturer's recommended dosage.

Item 427: Surface Finishes for Concrete

Provide a Surface Area I finish for structures.

Item 432: Riprap

If stone riprap is shown on the plans, use common stone riprap in accordance with Section 432.2.3.3, placed dry in accordance with Section 432.3.2.3. Do not grout.

Item 449: Anchor Bolts

Pipe joint compound, as used in this Item, is an electrically conducting protective thread lubricant compound to be used on the foundation anchor bolts for illuminations poles (Crouse-Hinds TL-2, Oz/Gedney Std, or Thomas & Betts Kopr-Shield).

Item 462: Concrete Box Culverts and Drains

Item 464: Reinforced Concrete Pipe

Concrete collars are subsidiary to the various bid items except for those specified on the plans for stage construction, which are paid for under the Item, "Concrete Substructures" as "Cl C Conc (Collar)."

Rubber gaskets are required for concrete pipe joints except for connections of safety end treatments, driveway culverts, and joints between the existing pipes and extensions.

Open, install, and backfill each section, or a portion of a section, in the same day at locations requiring pipe culverts under existing roadways.

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Place the pipe drains across existing roadways half at a time to allow passage of traffic. No trenches may remain open overnight.

Known locations of existing stub-outs are shown on the plans, but these stub-outs may be in a different position or condition. Delays, inconveniences, or additional work required will not be a basis for additional compensation.

Provide leave-outs or holes in the proposed storm drain structures and pipes for drainage during interim construction. This work is subsidiary to the various bid items.

The flowline elevations of side road structures are based on the proposed ditches. Field-verify these elevations and adjust them as necessary to meet the field conditions. Before placing these structures, prepare and submit for approval, the data (revised elevation, alignment, length, etc.) for the adjusted structures.

Item 465: Junction Boxes, Manholes, and Inlets

If required on the plans, build manholes and inlets to stage 1 construction, cover with temporary pavement, and complete in a later phase of construction. This temporary covering and pavement are subsidiary to the various bid items.

Construct manholes and inlets in graded areas, first to an elevation at least 4 in. above the top of the highest entering pipe and cover with a wooden cover. Complete the construction of such manholes and inlets to the finished elevation when completing the grading work for such manholes and inlets. Adjust the final elevation, if required, since this elevation is approximate.

Construct manholes and inlets in paved areas to an elevation so their temporary wooden covers are flush with the surface of the base material.

Do not leave excavations or trenches open overnight.

Item 502: Barricades, Signs, and Traffic Handling

Do not reduce the existing number of lanes open to traffic except as shown on the following time schedule.

DAY	Daytime closure Hours	Nighttime closure Hours
Monday	9:00 AM-3:00 PM	7:00 PM-5:30 AM
Tuesday	9:00 AM-3:00 PM	7:00 PM-5:30 AM
Wednesday	9:00 AM-3:00 PM	7:00 PM-5:30 AM
Thursday	9:00 AM-3:00 PM	7:00 PM-5:30 AM
Friday	9:00 AM-3:00 PM	7:00 PM-5:30 AM
Saturday	Any	Any

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Sunday	Any	Any
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Use a traffic control plan for handling traffic through the various phases of construction. Follow the phasing sequence unless otherwise agreed upon by the Engineer and the Project Manager. Ensure this plan conforms to the latest "Texas Manual on Uniform Traffic Control Devices" and the latest Barricade and Construction (BC) Standard Sheets. The latest versions of Work Zone Standard Sheets WZ (BTS-1) and WZ (BTS-2) are the traffic control plan for the signal installations.

Submit changes to the traffic control plan to the Engineer. Provide a layout showing the construction phasing, signs, striping, and signalizations for changes to the original traffic control plan.

Furnish and maintain the barricades and warning signs, including the necessary temporary and portable traffic control devices, during the various phases of construction. Place and construct these barricades and warning signs in accordance with the latest "Texas Manual on Uniform Traffic Control Devices" for typical construction layouts.

Cover work zone signs when work related to the signs is not in progress, or when any hazard related to the signs no longer exists.

Keep the delineation devices, signs, and pavement markings clean. This work is subsidiary to the Item, "Barricades, Signs, and Traffic Handling."

If a section is not complete before the end of the workday, pull back the base material to the existing pavement edge on a 6H: 1V slope. Edge drop-offs during the hours of darkness are not permitted.

Cover or remove the permanent signs and construction signs that are incorrect or that do not apply to the current situation for a particular phase.

Do not mount signs on drums or barricades, except those listed in the latest Barricades and Construction standard sheets.

Use traffic cones for daytime work only. Replace the cones with plastic drums during nighttime hours.

Place positive barriers to protect drop-off conditions greater than 2 ft. within the clear zone that remain overnight.

Use shadow vehicles with Truck Mounted Attenuators (TMA) for lane and shoulder closures.

Item 504: Field Office and Laboratory

Provide a Type E field office meeting the requirements of a Type C structure. Provide this as a single structure with a minimum of 500 sq. ft. of floor space and 3 rooms. Provide the structure with the following facilities. The cost of providing these items is subsidiary to this bid Item:

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1. Three desks with 3 swivel chairs, two 5-drawer file cabinets and 3 straight back chairs.
2. Telephone service and equipment consisting of a minimum of one telephone with one extension. Include the call-waiting feature in the service.
3. Potable water with an electric water cooler, a cup dispenser, and cups.
4. Adequate heating, air conditioning, lighting, and a sufficient number of electrical outlets.
5. A commercially available toilet or equivalent facility for the field office and each laboratory.
6. Provide internet service via an ISP with dedicated dial-up modem line, DSL, or cable connection for desktop microcomputers and laptop microcomputers.

Provide a fenced enclosure approximately 100 ft. by 200 ft. Provide an appropriate parking area covered with a suitable base material and with a minimum of 2 security lights, one on each end of the lot. Cost of the work and materials to provide the enclosure are subsidiary to the various bid items.

Piped in water to the Engineer's building will not be required, but furnish water for curing concrete test specimens.

The above requirements are subsidiary to the various bid items.

Assume ownership of temporary chain link security fences.

Equip each field office with a first aid kit and at least a 20 lb. ABC type fire extinguisher.

Item 506: Temporary Erosion, Sedimentation and Environmental Controls

A Storm Water Pollution Prevention Plan (SWP3) is required. Since the disturbed area is more than 5 acres, a "Notice of Intent" (NOI) is also required.

Use appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. Remove and dispose of materials in compliance with State and Federal laws.

Before starting construction, review with the Engineer the SWP3 used for temporary erosion control as outlined on the plans. Before construction, place the temporary erosion and sedimentation control features as shown on the SWP3.

Schedule the seeding or sodding work as soon as possible. The project schedule provides for a vegetation management plan.

After completing earthwork operations, restore and reseed the disturbed areas in accordance with the Department's specifications for permanent or temporary erosion control.

Implement temporary and permanent erosion control measures to comply with the National Pollution Discharge Elimination System (NPDES) general permit under the Clean Water Act.

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Before starting grading operations and during the project duration, place the temporary or permanent erosion control measures to prevent sediment from leaving the right of way.

Item 529: Concrete Curb, Gutter, and Combined Curb and Gutter

Item 530: Intersections, Driveways, and Turnouts

Item 531: Sidewalks

An air-entraining admixture is not required.

For concrete curbs, use Grade 7 aggregate conforming to Section 421.2.6 of the Item, "Hydraulic Cement Concrete."

For driveways and turnouts, coarse aggregate Grade No. 3 through No. 8 conforming to the gradation requirements specified in the Item, "Hydraulic Cement Concrete" will be permitted.

For reinforcing steel in sidewalks and pedestrian ramps, use No. 4 bars at a maximum 18 in. spacing center-to-center in both directions.

Item 540: Metal Beam Guard Fence

Painting the timber posts is not required.

Use timber posts for galvanized steel metal beam guard fence, except for anchorage at turned down ends.

Furnish and install wood blocks between the rail elements and the timber posts as detailed on the plans. These block-outs are subsidiary to this bid Item.

The quantity of the metal beam guard fence is subject to change.

Provide a mow strip as shown on the plans, at metal beam guard fence locations, including any guardrail end treatments.

Galvanize the rail elements supplied for this project by using a Type II Zinc Coating.

Item 585: Ride Quality for Pavement Surfaces

To eliminate the need for corrective action due to excessive deviations in the final surface layers, exercise caution to ensure satisfactory profile results in the intermediate paving layers (mixture).

Milling will not be allowed as a corrective action for excessive deviations in the final surface layer of hot-mix asphalt.

For concrete or asphalt curb and gutter sections or frontage roads, use Surface Test Type B and Pay Adjustment Schedule 2 except for the outside lane. Use Surface Test Type B and Pay Adjustment Schedule 3 for the outside lane.

For all other roads (cross streets and intersections), use Surface Test Type A.

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Item 618: Conduit
Item 620: Electrical Conductors
Item 628: Electrical Services

If the specifications for electrical items require UL-listed products, this means UL-listed or CSA-listed.

Item 618: Conduit

When backfilling bore pits, ensure that the conduit is not damaged during installation or due to settling backfill material. Compact select backfill in 3 equal lifts to the bottom of the conduit; or if using sand, place it 2 in. above the conduit. Ensure backfill density is equal to that of the existing soil. Prevent material from entering the conduit.

Construct bore pits a minimum of 5 ft. from the edge of the base or pavement. Close the bore pit holes overnight.

Unless shown on the plans, install underground conduit a minimum of 24 in. deep. Install the conduit in accordance with the latest National Electrical Code (NEC) and applicable Department standard sheets. Place conduit under driveways or roadways a minimum of 24 in. below the pavement surface.

If using casing to place bored conduit, the casing is subsidiary to the conduit.

If placing the conduit under existing pavement to reach the service poles, bore the conduit in place and extend it a minimum distance of 5 ft. beyond the edge of shoulder or the back of curb.

Item 620: Electrical Conductors

Test each wire of each cable or conductor after installation. Incomplete circuits or damage to the wire or the cable are cause for immediate rejection of the entire cable being tested. Remove and replace the entire cable at no expense to the Department. Also test the replacement cable after installation.

When pulling cables or conductors through the conduit, do not exceed the manufacturer's recommended pulling tensions. Lubricate the cables or conductors with a lubricant recommended by the cable manufacturer.

For both transformer and shoe-base type illumination poles, provide double-pole breakaway fuse holders as shown on the Department's Construction Division (CST) material producers list. Check the latest link on the Department website for this list. The category is "Roadway Illumination and Electrical Supplies." The fuse holder is shown on the list under Items 610 and 620. Provide 10 Amp time delay fuses.

Ensure that circuits test clear of faults, grounds, and open circuits.

Split bolt connectors are allowed only for splices on the grounding conductors.

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For Roadside Flashing Beacon Assemblies (Item 685) and Pedestal Pole Assemblies (Item 687) within the project, provide single-pole breakaway disconnects as shown on the Construction Division (CST) material producers list. Check the latest link on the Department website for this list. The category is "Roadway Illumination and Electrical Supplies." The fuse holder is shown on the list under Item 685. For underground (hot) conductors, install a breakaway connector with a dummy fuse (slug). Provide dummy fuse (slug). For grounded (neutral) conductors, install a breakaway connector with a white colored marking and a permanently installed dummy fuse (slug).

For electrical licensing and electrical certification requirements for this project, see Item 7 of the Standard Specifications and any applicable special provisions to Item 7.

Item 624: Ground Boxes

The ground box locations are approximate. Alternate ground box locations may be used as directed, to avoid placing in sidewalks or driveways.

Ground metal ground box covers. Bond the ground box cover and ground conductors to a ground rod located in the ground box and to the system ground.

Ground the existing metal ground box covers as shown on the latest standard sheet ED (4)-14.

During construction and until project completion, provide personnel and equipment necessary to remove ground box lids for inspection. Provide this assistance within 24 hours of notification.

Construct concrete aprons in accordance with the latest standard sheet ED (4)-14. Make the depth of the concrete apron the same as the depth of the ground box, except for Type 1 and Type 2 ground boxes. For Type 1 or Type 2 ground boxes, construct the concrete apron in accordance with details shown on the "Ground Box Details Installations" standard.

The requirements included in DMS-11070 supersede the requirements of standard sheet ED (4)-14.

Item 628: Electrical Services

Verify and coordinate the electrical service location with the engineering section of the appropriate utility district or company.

Identify the electrical service pole with an address number assigned by the Utility Service Provider. Provide 2-in. numerals visible from the highway. Provide numbers cut out aluminum figures nailed to wood poles or painted figures on steel poles or service cabinets.

Item 636: Signs

Include aluminum route markers, exit only panels, routing signs, and other special panels attached to guide signs in the unit bid price for the parent guide sign material.

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Furnish and install signs shown on the traffic signal "Summary of Traffic Signal Materials" sheet. Ensure that the legend on these sign panels is in accordance with the latest "Standard Highway Sign Designs for Texas" manual.

Item 644: Small Roadside Sign Assemblies

Sign locations shown on the plans are approximate. Before placing them, obtain approval of and then stake the exact locations for these signs.

Use the Texas Universal Triangular Slip Base with the concrete foundation for small ground mounted signs, unless otherwise shown in the plans.

Remove existing street name signs from existing stop signs and re-install them above the new stop signs. Removing and re-installing existing street name signs is subsidiary to the Item, "Small Roadside Sign Assemblies."

When design details are not shown on the plans, provide signs and arrows conforming to the latest "Standard Highway Sign Designs for Texas" manual.

Provide and install the materials for speed limit signs. Use Type E Super High Specific Intensity (Fluorescent Prismatic) yellow green reflective sheeting background to fabricate school signs (S1-1, S3-1, S4-3, S5-1, W16-2, SW16-9p, and SW16-7pL(R)).

Assume ownership of the removed existing signs.

Locations of the relocated signs are approximate. Before placing them, obtain approval of and then stake the exact locations for these signs.

Replace existing signs that become damaged during relocation at no expense to the Department.

Item 656: Foundations for Traffic Control Devices

Item 662: Work Zone Pavement Markings

At the end of each workday, mark roadways that remain open to traffic during construction operations with standard pavement markings, in accordance with the latest "Texas Manual on Uniform Traffic Control Devices."

Using raised markers for removable work zone pavement markings on final concrete surfaces is optional.

Do not use raised pavement markers as optional work zone pavement markings on final asphalt surfaces.

For transition lane lines and detour lane lines, use raised pavement markers as shown for solid lines on the latest Barricade and Construction standard sheet for "Work Zone Pavement Marking Details."

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Item 662: Work Zone Pavement Markings

Item 666: Reflectorized Pavement Markings

Item 668: Prefabricated Pavement Markings

Item 6019: Longitudinal Prefabricated Pavement Markings (PPM) with Warranty

Use Type III glass beads for thermoplastic and multipolymer pavement markings.

Use a 0.100 in. (100 mil) thickness for thermoplastic pavement markings, measured to the top of the thermoplastic, not including the exposed glass beads.

Use a 0.022 in. (22 mil) thickness for multipolymer pavement markings, measured to the top of the multipolymer, not including the exposed glass beads.

For roadways with asphalt surfaces to be striped with work zone or permanent thermoplastic markings, the Contractor has the option to apply paint and beads markings for a maximum 30-day period until placing the thermoplastic markings, or until starting the succeeding phase of work on the striped area. Maintain the paint and beads markings, at no expense to the Department, until placing the thermoplastic markings or starting the succeeding phase of work on the striped area. The work zone markings, whether paint and beads or thermoplastic, are paid under the Item, "Work Zone Pavement Markings" and the markings are paid for only once for the given phase of construction.

If using paint and bead markings as described above, purchase the traffic paint from the open market.

If the Type II markings become dirty and require cleaning by washing, brushing, compressed air, or other approved methods before applying the Type I thermoplastic markings, this additional cleaning is subsidiary to the Item, "Reflectorized Pavement Markings."

Establish the alignment and layout for work zone striping and permanent striping.

Stripe all roadways before opening them to traffic.

Place pavement markings under these items in accordance with details shown on the plans, the latest "Texas Manual on Uniform Traffic Control Devices," or as directed.

When design details are not shown on the plans, provide pavement markings for arrows, words, and symbols conforming to the latest "Standard Highway Sign Designs for Texas" manual.

Item 672: Raised Pavement Markers

If other operations are complete on the project and if the curing time period is not yet elapsed, the contract time will be suspended until the curing is done.

Before placing the raised pavement markers on concrete pavement, blast clean the surface using an abrasive-blasting medium. This work is subsidiary to the Item, "Raised Pavement Markers."

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Provide epoxy adhesive that is machine-mixed or nozzle-mixed and dispensed. Equip the machine or nozzle with a mechanism to ensure positive mix measurement control.

Item 678: Pavement Surface Preparation for Markings

Do not blast clean asphalt concrete pavement. Clean asphalt concrete pavement as required under the applicable specifications or as directed.

On new concrete pavement or on existing concrete pavement when placing a new stripe on a new location, remove the curing compounds and contamination from the pavement surface by flail milling or as directed. In addition, air-blast the surface with compressed air just before placing the new stripe.

On existing concrete pavement when placing a new stripe on an existing location, after removing the existing stripe under the Item, "Eliminating Existing Pavement Markings and Markers," air-blast the surface with compressed air just before placing the new stripe.

Perform air blasting with a compressor that is capable of generating air at a minimum of 100 psi using 5/16 in. or larger hosing for the air blast (equipment should have sufficient capacity to remove contaminants but not damage the pavement surface). Do not clean concrete pavement by grinding.

Item 680: Highway Traffic Signals

Clearly mark or highlight on the shop drawings the items being furnished for this project.

Furnish labor, tools, equipment, and materials as shown on the plans and specifications for a complete and operating signal installation.

Furnish the type of controller cabinet specified on the plans. Refer to the table shown in the Departmental Material Specifications (DMS-11170, Fully Actuated, Solid-State Traffic Signal Controller Assembly), Section 11170.6.K, Type 4 cabinet, page 25 of 39, regarding the size of the cabinet, back panel configuration, and the size of the load bay. Use the following website to view this specification: <http://www.txdot.gov/business/resources/dms.html>

Complete traffic signal construction work, including correcting discrepancies shown on the Department inspector's "Traffic Signal Installation Inspection Report" before the beginning of the test period.

Provide a full-time qualified traffic signal technician responsible for installing, maintaining, or replacing traffic signal devices.

Staking in the field is subject to approval.

Make adjustments in project construction, if needed, due to conflicts with underground utilities.

Do not aim the luminaire arms mounted on traffic signal poles into the intersection. Aim each arm perpendicular to the centerline of the roadway it is intended to cover, to develop the proper illumination pattern for the intersection.

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Provide continuous conductors without splices from signal controller to signal heads. Route the conductors for luminaires to the service enclosure. Splices or attachments to the terminal block in the access compartment of the mast arm pole are not permitted except for the luminaire cable.

Abrasions to the conductor insulation caused while pulling cable for the traffic signal system are cause for immediate rejection. Remove and replace the entire damaged cable at no expense to the Department.

When pulling cables or conductors through conduit, do not exceed the manufacturer's recommended pulling tensions. Lubricate the cables or conductors with a lubricant as recommended by the cable manufacturer.

Bond the controller housing, signal poles, conduit, and spans to a minimum No. 6 AWG stranded copper conductor. An equipment grounding conductor is required in every conduit to form a continuous grounding system. Effectively connect the grounding system to ground rods or concrete encased grounding electrodes as indicated in the plans.

Wrap signal heads with dark plastic or suitable material to conceal the signal faces from the time of installation until placing into operation. Do not use burlap.

Furnish signal heads from the same manufacturer.

Use Type C High Specific Intensity grade sheeting for signs mounted under or adjacent to the signal heads.

Furnish and attach compression type connectors. Install the connectors with a compression mechanical release hand-crimping tool to each individual conductor before making connections to the terminal strips.

The Contractor may use ready mix concrete.

Apply membrane curing on concrete work in accordance with Section 420.4.10.3, "Membrane Curing."

The standard 4.5-in. galvanized pipe type poles, except the breakaway type, are subject only to the Engineer's inspection for their acceptance. Mill test reports or documentation will not be required.

Item 682: Vehicle and Pedestrian Signal Heads

Install two set screws on vehicle signal head mounting hardware fittings. back plates.

Item 685: Roadside Flashing Beacon Assemblies

When shown on the plans, provide solar powered flasher controller assemblies in accordance with Departmental Material Specifications DMS-11150, "Solar Power Flasher Controller Assembly."

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When solar powered school zone signs are shown on the plans, provide solar powered flasher controller assemblies capable of 24 hour operations.

Furnish and install screw-in anchor foundations in accordance with Special Specification Item, "Screw-In Anchor Type Foundations." The work performed and materials furnished in accordance with this Item are subsidiary to the Item, "Roadside Flashing Beacon Assemblies."

Item 686: Traffic Signal Pole Assemblies (Steel)

For a steel mast arm or steel strain pole assembly, hold the anchor bolts and conduits rigidly in place with a welded steel template.

Leave a minimum of one full diameter thread exposed on each anchor bolt securing a signal pole.

Set the anchor bolts for the steel strain poles so that two are in compression and two are in tension.

Use a Texas Cone Penetrometer reading of 10. The drilled shaft length is from the surface elevation to the bottom of the drilled shaft. Provide an additional length of the pole foundation from the surface level to the roadway level, if required for unusual locations. Provide the drilled shaft depth regardless of the length of the pole foundation. The pole foundation depth from the surface level to the roadway level is a maximum of 4 ft., or as approved.

Locate mast arm pole assemblies a minimum of 4 ft. from the roadway curb or pavement edge.

Place steel strain poles at a 10 ft. desirable minimum distance from the roadway curb or pavement edge.

After the traffic signal pole assembly is plumb and the nuts are tight, tack-weld each anchor bolt nut in two places to its washer. Tack-weld each washer to the base plate in two places. Do not weld components to the bolt. Perform tack-welding in accordance with the Item, "Steel Structures." After tack-welding, repair galvanizing damage on bolts, nuts, and washers in accordance with Section 445.3.5, "Repairs."

The Department may test the anchor bolts using ultrasonic methods for traffic signal poles after they are installed. Replace faulty anchor bolts as directed. Do not weld the anchor bolts.

Item 687: Pedestal Pole Assemblies

Furnish black powder coated traffic signal poles. Apply powder coated finish over the galvanized surface. Prepare galvanized surfaces for powder coating in accordance with the powder coating manufacturer's recommendations. Do not water-quench or chromate-quench galvanized surfaces to be powder coated. After preparing galvanized surfaces, powder coat with a minimum of 2.0 mils dry film thickness (DFT) of urethane powder or triglycidyl isocyanurate (TGIC) polyester powder. Provide powder coat adhesion meeting the 5A or 5B

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classifications of ASTM D3359. Ensure powder coating is uniform in appearance and free of scratches.

Furnish and install screw-in anchor foundations in accordance with Special Specification Item, "Screw-In Anchor Type Foundations." The work performed and materials furnished in accordance with this Item are subsidiary to the Item, "Pedestal Pole Assemblies."

Item 688: Pedestrian Detectors and Vehicle Loop Detectors

Provide pedestrian push buttons a minimum of 2 in. diameter in the smallest dimension.

Install a rubber grommet or bushing between the push button assembly and the signal pole to protect the conductors.

Provide a black tube loop detector wire as specified in the "International Municipal Signal Association, Inc." (IMSA) Specification No. 51-7, 1997.

At intersections where a minimum of 10 ft. spacing between adjacent accessible pedestrian signal units is not possible, provide each accessible pedestrian pushbutton with the following features: a pushbutton locator tone, a tactile arrow, a speech walk message for the walking person indication and a speech pushbutton information message.

Provide pedestrian push buttons a minimum of 2 in. diameter in the smallest dimension.

Install a rubber grommet or bushing between the push button assembly and the signal pole to protect the conductors.

If the loop sealant supplied by the Contractor is not on the Department's pre-qualified product list, before applying the sealant provide a 5-gal. container of loop sealant for testing.

Assume responsibility for the signal carrying capability and performance of the cable. Install each wire with a lightning protection device unless otherwise noted. Ground the cable in accordance with the manufacturer's recommendation.

Basis of Estimate

Item	Description	Limit and Rate	Unit
260	Lime Treatment (Road-Mixed) For materials used as subgrade • Lime(HYD, COM, or QK)(SLRY) or QK(DRY)	6 % by weight based on 100 Lb. / Cu. Ft. subgrade	SY TON
292	Asphalt Treatment (Plant-Mixed) • Asphalt • Aggregate	110 Lb. / Sq. Yd.-In. 5 % by weight 95 % by weight	TON
310	Prime Coat	0.25 Gal. / Sq. Yd.	GAL
341	Dense-Graded Hot Mix Asphalt • Asphalt • Aggregate	110 Lb. / Sq. Yd.-In. 6 % by weight 94 % by weight	TON

Governing Specifications and Special Provisions

All specifications and special provisions applicable to this project are identified as follows:

Standard Specifications: Adopted by the Texas Department of Transportation November 1, 2014. Standard Specifications are incorporated into the contract by reference and a copy may be purchased from TxDOT.

Items 1 to 9 including General Requirements and Covenants

- Item 100 Preparing Right of Way (103)
- Item 104 Removing Concrete
- Item 105 Removing Treated and Untreated Base and Asphalt
- Item 110 Excavation (132)
- Item 132 Embankment (100), (160), (204), (210), (216), (260), (400)
- Item 162 Sodding for Erosion Control (166), (168)
- Item 166 Fertilizer (520)
- Item 168 Vegetative Watering
- Item 260 Lime Treatment (Road-Mixed) (105), (204), (210), (216), (247), (300), (310), (520)
- Item 276 Cement Treatment (Plant-Mixed) (204), (210), (216), (247), (300), (520)
- Item 292 Asphalt Treatment (Plant-Mixed) (300), (301), (320), (520), (585)
- Item 341 Dense-Graded Hot-Mix Asphalt (300), (301), (320), (520), (585)
- Item 360 Concrete Pavement (421), (422), (438), (440), (529), (585)
- Item 400 Excavation and Backfill for Structures (110), (132), (401), (402), (403), (416), (420), (421), (423)
- Item 402 Trench Excavation Protection
- Item 403 Temporary Special Shoring (410), (411), (423)
- Item 416 Drilled Shaft Foundations (405), (420), (421), (423), (440), (448)
- Item 432 Riprap (247), (420), (421), (431), (440)
- Item 462 Concrete Box Culverts and Drains (400), (402), (403), (420), (421), (422), (424), (440), (464), (476)
- Item 464 Reinforced Concrete Pipe (400), (402), (403), (467), (476)
- Item 465 Junction Boxes, Manholes, and Inlets (400), (420), (421), (424), (440), (471)
- Item 466 Headwalls and Wingwalls (400), (420), (421), (432), (440), (464)
- Item 467 Safety End Treatment (400), (420), (421), (432), (440), (442), (445), (460), (464)
- Item 476 Jacking, Boring, or Tunneling Pipe or Box (402), (403), (460), (462), (464)
- Item 496 Removing Structures
- Item 500 Mobilization
- Item 502 Barricades, Signs, and Traffic Handling
- Item 504 Field Office and Laboratory
- Item 506 Temporary Erosion, Sedimentation, and Environmental Controls (161), (432), (556)
- Item 512 Portable Concrete Traffic Barrier (420), (421), (424), (440), (442)
- Item 529 Concrete Curb, Gutter, and Combined Curb and Gutter (360), (420), (421), (440)
- Item 530 Intersections, Driveways, and Turnouts (247), (260), (263), (275), (276), (292), (316), (330), (334), (340), (360), (421), (440)
- Item 531 Sidewalks (104), (360), (420), (421), (440), (530)
- Item 540 Metal Beam Guard Fence (421), (441), (445), (529)
- Item 544 Guardrail End Treatments
- Item 618 Conduit (400), (476)
- Item 620 Electrical Conductors (610), (628)
- Item 621 Tray Cable (620)
- Item 624 Ground Boxes (420), (421), (432), (440), (618), (620)
- Item 628 Electrical Services (441), (445), (449), (618), (620), (627), (656)
- Item 644 Small Roadside Sign Assemblies (421), (440), (441), (442), (445), (636), (643), (656)
- Item 662 Work Zone Pavement Markings (666), (668), (672), (677)
- Item 666 Retroreflectorized Pavement Markings (316), (502), (662), (677), (678)
- Item 668 Prefabricated Pavement Markings (678)

Fort Bend Grand Parkway
Toll Road Authority

Fort Bend Grand Parkway Toll Road (SH 99)
Segment C-1
Construction of Southbound Frontage Road

Item 672	Raised Pavement Markers (677), (678)
Item 678	Pavement Surface Preparation for Markings (677)
Item 685	Roadside Flashing Beacon Assemblies (441), (442), (445), (449), (610), (620), (621), (624), (628), (656), (682), (684), (687)
Item 680	Highway Traffic Signals (416), (610), (618), (624), (625), (627), (628), (636), (656), (682), (684), (686), (688)
Item 682	Vehicle and Pedestrian Signal Heads
Item 684	Traffic Signal Cables
Item 686	Traffic Signal Pole Assemblies (Steel) (416), (421), (441), (442), (445), (449)
Item 687	Pedestal Pole Assemblies (445), (449), (656), (682)
Item 688	Pedestrian Detectors and Vehicle Loop Detectors (324), (618), (624), (682), (684)

Special Provisions:

Special Provisions will govern and take precedence over the Specifications enumerated hereon wherever in conflict therewith. All Special Provisions are included herein.

Prevailing Wages

Special Provision	General (FBGPTRA)
Special Provision	000-010 Important Notice to Contractors
Special Provision	000-100 Important Notice to Contractors – Utility Adjustment (FBGPTRA)
Special Provision	000-200 Important Notice to Contractors – ROW Acquisition (FBGPTRA)
Special Provision to Item 2	Instructions to Bidders 002-001 (FBGPTRA)
Special Provision to Item 3	Award and Execution of Contract 003-005 (FBGPTRA)
Special Provision to Item 4	Scope of Work 004-001 (FBGPTRA)
Special Provision to Item 7	Legal Relations and Responsibilities 007-001 (FBGPTRA), 007-001, 007-003
Special Provision to Item 8	Prosecution and Progress 008-001 (FBGPTRA)
Special Provision to Item 9	Measurement and Payment 009-001 (FBGPTRA)

Special Specifications:

Item 6001	Portable Changeable Message Sign
Item 6019	Longitudinal Prefabricated Pavement Markings (PPM) with Warranty

General:

The above-listed specification items are those under which payment is to be made. These, together with such other pertinent items, if any, as may be referred to in the above-listed specification items, and including the special provisions listed above, constitute the complete specifications for this project.

PREVAILING WAGES:

This project is subject to the prevailing wage rate requirements of Chapter 2258 of the Government Code. The Contractor shall pay Fort Bend Grand Parkway Toll Road Authority sixty dollars (\$60.00) for each worker employed by the Contractor for the provision of services described herein for each calendar day or part of the day that the worker is paid less than the below stated rates. Contractors may also visit www.wdol.gov/dba.aspx.

General Decision Number: TX150056 01/02/2015 TX56

Superseded General Decision Number: TX20140056

State: Texas

Construction Type: Highway

Counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, San Jacinto and Waller Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of \$10.10 for 2015 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at ww.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/02/2015

* SUTX2011-013 08/10/2011

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER (Paving and Structures).....	\$ 12.98	
ELECTRICIAN.....	\$ 27.11	

FORM BUILDER/FORM SETTER

Paving & Curb.....	\$ 12.34
Structures.....	\$ 12.23

LABORER

Asphalt Raker.....	\$ 12.36
Flagger.....	\$ 10.33
Laborer, Common.....	\$ 11.02
Laborer, Utility.....	\$ 11.73
Pipelaye.....	\$ 12.12
Work Zone Barricade Servicer.....	\$ 11.67

PAINTER (Structures).....	\$ 18.62
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POWER EQUIPMENT OPERATOR:

Asphalt Distributor.....	\$ 14.06
Asphalt Paving Machine.....	\$ 14.32
Broom or Sweeper.....	\$ 12.68
Concrete Pavement Finishing Machine.....	\$ 13.07
Concrete Paving, Curing, Float, Texturing Machine....	\$ 11.71
Concrete Saw.....	\$ 13.99
Crane, Hydraulic 80 Tons or less.....	\$ 13.86
Crane, Lattice boom 80 tons or less.....	\$ 14.97
Crane, Lattice boom over 80 Tons.....	\$ 15.80
Crawler Tractor.....	\$ 13.68
Excavator, 50,000 pounds or less.....	\$ 12.71
Excavator, Over 50,000 pounds.....	\$ 14.53
Foundation Drill, Crawler Mounted.....	\$ 17.43
Foundation Drill, Truck Mounted.....	\$ 15.89
Front End Loader 3 CY or Less.....	\$ 13.32
Front End Loader, Over 3 CY.	\$ 13.17
Loader/Backhoe.....	\$ 14.29
Mechanic.....	\$ 16.96
Milling Machine.....	\$ 13.53
Motor Grader, Fine Grade....	\$ 15.69

Motor Grader, Rough.....	\$ 14.23
Off Road Hauler.....	\$ 14.60
Pavement Marking Machine....	\$ 11.18
Piledriver.....	\$ 14.95
Roller, Asphalt.....	\$ 11.95
Roller, Other.....	\$ 11.57
Scraper.....	\$ 13.47
Spreader Box.....	\$ 13.58
 Servicer.....	 \$ 13.97
 Steel Worker	
Reinforcing Steel.....	\$ 15.15
Structural Steel Welder....	\$ 12.85
Structural Steel.....	\$ 14.39
 TRUCK DRIVER	
Low Boy Float.....	\$ 16.03
Single Axle.....	\$ 11.46
Single or Tandem Axle Dump..	\$ 11.48
Tandem Axle Tractor w/Semi	
Trailer.....	\$ 12.27

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example:

PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

SPECIAL PROVISION – GENERAL

For this project, the following sections of the Texas Standard Specifications (“TSS”) are hereby modified with respect to the clauses cited below and no other clauses or requirements of the TSS are waived or changed hereby.

Global – All references to “State” or “Department” are replaced with “Authority.”

Special Provision to Item 000

Important Notice to Contractors



By the 20th day of each month, report to the Engineer the number of incidents and injuries that occurred on the project the previous month. Report:

- the total number of incidents and injuries for the Contractor and all subcontractors, and
- the number of Contractor and subcontractor-related incidents and injuries that involved a third party.

An "incident" is defined as any work-related occurrence that caused damage only to vehicles, equipment, materials, etc.

An "injury" is defined as an OSHA recordable injury.

Acquire an Electronic Project Records System (EPRS) account to report incidents and injuries. Submit an EPRS User Access Request Form (Form 2451) to request an account. This form can be found at <http://www.txdot.gov/business/resources/doing-business/prequalification.html>.

Report injuries and incidents using the EPRS website located at <https://apps.dot.state.tx.us/apps/eprs/InjuryIncident/InjuryIncident.aspx>.

Failure to submit this information to the Engineers by the 20th day of each month will result in the Department taking actions including, but not limited to withholding estimates and suspending the work. This report will not be paid for directly, but will be considered subsidiary to items of the contract.

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

SPECIAL PROVISION

000---100

Important Notice to Contractors

The Contractor's attention is directed to the fact that utility adjustments for the construction of this project have, as of December 22, 2015, been adjusted except as listed herein.

All private utilities are to be adjusted by their respective owner to clear construction proposed by this project. Should the Contractor encounter any other conflicts such as sewers, water lines, gas lines, etc., he shall contact the respective utility companies or pertinent government agency as soon as it becomes apparent that the utility lines interface with the work.

The contractor is invited to review the outstanding adjustments with the Engineer assigned to this project and listed in the "Important Notice to Contractors".

The following utilities are to be adjusted by their owners and are expected to be completed by the dates shown and are provided here for incorporation by the Contractor into his construction sequencing. At the pre-construction conference, the Authority will provide the successful Contractor with all available information and approximate adjustment dates to be incorporated into the Contractor's construction schedule.

Approximate CL Fort Bend Toll Road (SB Frtg Rd Sta)	Description	Owner	Expected Completion
106+48	Overhead Electric	CenterPoint Energy	May 1, 2016
106+48	Overhead Line	Comcast	May 15, 2016
106+48	Underground Conduit	Comcast	May 15, 2016
115+83	Transmission Tower	CenterPoint Energy	June 30, 2016
116+34	Overhead Electric	CenterPoint Energy	May 1, 2016
126+51	Overhead Electric	CenterPoint Energy	May 1, 2016
126+51	Overhead Line	Comcast	May 15, 2016
126+51	Overhead Line	Phonoscope	May 15, 2016
133+83	Street Light Pole	CenterPoint Energy	May 1, 2016
134+15	Electrical Ground Box 5	Canyon Gate at the Brazos	May 15, 2016
134+70	Underground Conduit	AT&T	May 15, 2016
134+71	Street Light Pole	CenterPoint Energy	May 1, 2016
144+50	Fiber Underground	AT&T	May 15, 2016
144+64	Underground Conduit	AT&T	May 15, 2016
145+05	Overhead Electric	CenterPoint Energy	May 1, 2016
145+05	Overhead Line	Phonoscope	May 15, 2016
146+48	Underground Conduit	Phonoscope	May 15, 2016

Approximate CL Fort Bend Toll Road (NB Frtg Rd Sta)	Description	Owner	Expected Completion
82+53	Overhead Electric	CenterPoint Energy	May 1, 2016
82+58	Overhead Line	Comcast	May 15, 2016
82+53	Underground Conduit	Comcast	May 15, 2016
82+53	Overhead Line	Phonoscope	May 15, 2016
82+53	Underground Conduit	Phonoscope	May 15, 2016

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

SPECIAL PROVISION

000--200

Important Notice to Contractors

The Contractor's attention is directed to the fact that right of way for the construction of this project have, as of December 22, 2015, been acquired except as listed herein.

The contractor is invited to review the outstanding right of way parcels with the Engineer assigned to this project and listed in the "Important Notice to Contractors".

The following right of way parcels are to be acquired by the Authority and are expected to be acquired by the dates shown and are provided here for incorporation by the Contractor into his construction sequencing. At the pre-construction conference, the Authority will provide the successful Contractor with all available information and approximate acquisition dates to be incorporated into the Contractor's construction schedule.

PARCEL	OWNER	ACREAGE	ESTIMATED ACQUISITION DATE
2A	Niranjan S. Patel	0.88 Ac	April 1, 2016
5	Cars-DB10, L.P.	0.00 Ac	April 1, 2016
6	Mount Maria Baptist Church	0.53 Ac	May 1, 2016
20	Canyon Gate at the Brazos Owner Association	0.01 Ac	April 1, 2016
22A	BUC-BE'S, LTD.	3.13 Ac	April 1, 2016
22B	BUC-BE'S, LTD.	0.01 Ac	April 1, 2016

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

SPECIAL PROVISION TO ITEM 2

INSTRUCTIONS TO BIDDERS

Item 2, "Instructions to Bidders," of the Texas Department of Transportation Standard Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements are waived or changed.

Except for Section 1, the remainder of Item 2 is voided and replaced by the following:

Section 2, Eligibility of Bidders. For this project, the Fort Bend Grand Parkway Toll Road Authority (FBGPTRA) requires that bidders be prequalified by the Texas Department of Transportation. Submit to Texas Department of Transportation for approval a Confidential Questionnaire Form and an audited financial statement at least 10 days before the date that bids are to be opened. Once approved, the eligibility is valid for a period of one year. Comply with all technical prequalification requirements in the bid form. Obtain prequalification forms from the Construction Division.

Section 3, Issuing Bid Forms. Request bid forms orally, in writing, or electronically.

In the case of a joint venture, all joint venture participants must be prequalified. An equally divided portion of the Engineer's estimate must be within each participant's available bidding capacity.

The FBGPTRA will not issue a bid form for a proposed Contract if one or more of the following apply:

- The Bidder is disqualified by an agency of the federal government.
- The Bidder is suspended or debarred by the TxDOT Commission, or is prohibited from rebidding a specific proposal because of bid error or failure to enter into a Contract of the first awarded bid.
- The Bidder has not fulfilled the requirements for prequalification.
- The Bidder or a subsidiary or affiliate of the Bidder has received compensation from the FBGPTRA to participate in the preparation of the plans or specifications on which the bid or Contract is based.
- The Bidder did not attend an advertised mandatory pre-bid conference.

Section 4, Interpreting Estimated Quantities. The quantities listed in the bid form are approximate and will be used for the comparison of bids. Payments will be made for the work performed in accordance with the Contract.

Section 5, Examining Documents and Work Locations. Examine the bid form, plans, specifications, and specified work locations before submitting a bid for the work contemplated.

Submitting a bid will be considered evidence that the Bidder has performed this examination. Borings, soil profiles, water elevations, and underground utilities shown on the plans were obtained for use of the FBGPTRA in the preparation of plans. This information is provided for the Bidder's information only and the FBGPTRA makes no representation as to the accuracy of the data. Be aware of the difficulty of accurately classifying all material encountered in making foundation investigations, the possible erosion of stream channels and banks after survey data have been obtained, and the unreliability of water elevations other than for the date recorded.

Oral explanations, instructions, or consideration for contractor-proposed changes in the Items of work, specifications, plans or bid forms given during the bidding process are not binding. Only requirements included in the bid form, associated specifications, plans and FBGPTRA issued addenda are binding. Request explanations of documents in adequate time to allow the FBGPTRA to reply before the bid opening date.

Immediately notify the FBGPTRA of any error, omission, or ambiguity discovered in any part of the bid form, specifications or plans. The FBGPTRA will issue an addendum when appropriate.

Section 6, Preparing the Bid. Prepare the bid on the form furnished by the FBGPTRA. Bid forms may be printed or electronic. Informational forms will not be accepted.

Specify a unit price in dollars and cents for each Item for which an estimated quantity is given. When "Working Days" is an Item, submit the number of working days to be used to complete the Contract, or phases of the Contract shown on the plans.

An Item left blank will constitute an incomplete bid and will be handled as prescribed in Section 11, "Tabulating Bids." Include unit bid prices for each Item in the Item group or alternate Item group, except for instances when alternate Items pertain to foreign steel or iron materials.

If a bid form contains both regular bid Items for domestic and alternate bid Items pertaining to foreign steel or iron materials the bidder must either:

- Submit unit bid prices for domestic bid items only, or
- Submit unit bid prices for both the alternate foreign bid items and domestic bid items.

Verify whether addenda have been issued on a proposed Contract. Acknowledge all addenda.

Section 7, Nonresponsive Bids. A bid that has one or more of the deficiencies listed below is nonresponsive and will not be considered.

- The person or, in the case of a manually submitted joint venture bid, persons did not sign the bid form.
- The proposal guaranty did not comply with the requirements contained in Article 2.8, "Bid Guaranty."
- The bid was in a form other than the official bid form issued to the Bidder or Bidders.

- The bid was not in the hands of the letting official at the time and location specified in the advertisement. For electronic bids, "in the hands of the letting official" means CivCast vault acknowledgement.
- The bid form submitted had the incorrect number of Items.
- A computer printout, when used, was not signed in the name of the Bidder (or joint Bidders, in the case of a joint venture), or omitted required Items or included an Item or Items not shown in the bid form.
- The Bidder was not authorized to receive a bid form under Article 2.3, "Issuing Bid Forms."
- The Bidder failed to acknowledge receipt of all addenda issued.
- The Bidder bid more than the maximum or less than the minimum number of allowable working days shown on the plans when working days was an Item.
- The Bidder modified the bid in a manner that altered the conditions or requirements for work as stated in the bid form.
- The Bidder did not attend a specified mandatory pre-bid conference.
- The FBGPTRA will not accept or read any of the bids submitted on the same project by:
 - A joint venture and one or more of its partners, or
 - Affiliated bidders.

Section 8, Electronic Bid.

Section 8.1. Electronic Bid Form. Use the electronic bid form in CivCast. Acknowledge an addendum by initialing each addendum listed under the addenda tab in CivCast.

Article 8.2. Bid Guaranty. For electronic bids, upload a copy of the guaranty check or bid bond on CivCast. Submit the original guaranty check or bid bond within 24 hours to FBGPTRA.

Article 8.3. Electronically Submitted Bids. Submit the electronic bid to the electronic vault using CIVCAST. It is the bidder's responsibility to ensure that the bid is received by the electronic vault on or before the time and date set for the opening.

Article 8.4. Revising Bid Forms. Make desired changes up until the time and date set for the opening of bids using CIVCAST. The electronically submitted bid with the latest time stamp by the electronic vault will be used for tabulation purposes.

Article 8.4.1. After Bid Opening. Revisions to bids are not allowed after the time and date set for the opening.

Article 8.5. Withdrawing Bids. Submit a written request to withdraw the bid. For a written request, submit a signed request to the Letting Official. A request to withdraw an electronic bid must be made by a person authorized to bind the Bidder and must be made prior to the time and date set for the opening. For written request for withdrawals of electronic bids and in the case of joint venture, the FBGPTRA will accept a request from any person authorized to bind a party to the joint venture to withdraw a bid.

Article 8.6. The FBGPTRA will not be responsible for Internet unavailability. The FBGPTRA will not provide a computer for preparing, submitting, revising or withdrawing an electronic bid.

Section 9, Printed Bid.

Article 9.1. Printed Bid Form. Make all entries and execute the bid form in ink. Acknowledge all addenda by checking the appropriate box on the addendum acknowledgement page. Provide the complete and correct name of the Bidder submitting the bid. A person authorized to bind the Bidder must sign the bid form. In the case of a joint venture, provide the complete and correct name of all Bidders submitting the bid. The bid form must be signed by person(s) authorized to bind the Bidder(s).

As an alternative to hand writing the unit prices in the bid form, submit a computer printout signed by the person authorized to bind the Bidder or for a joint venture the persons authorized to bind the Bidders. As a minimum, computer printouts must contain the information in the format shown on the "Example of Bid Prices Submitted by Computer Printout" form in the bid form.

Article 9.2. Bid Guaranty. The bid guaranty amount is fixed at the amount indicated on the bid form on the date the bid form is released to the public. Provide a bid guaranty in the amount indicated on the bid form as follows:

- For printed bids, use either a guaranty check or a bid bond.

Article 9.2.1. Guaranty Check. The guaranty check must be payable to the Fort Bend Grand Parkway Toll Road Authority and must be a cashier's check, money order, or teller's check drawn by or on a state or national bank, a savings and loan association, or a state or federally chartered credit union (collectively referred to as "bank"). The check must be dated on or before the date of the bid opening. Post dated checks will not be accepted. The type of check or money order must be indicated on the face of the instrument and the instrument must be no more than 90 days old. A check must be made payable at or through the institution issuing the instrument; be drawn by a bank and on a bank; or be payable at or through a bank. The FBGPTRA will not accept personal checks, certified checks, or other types of money orders as a bid guaranty.

Article 9.2.2. Bid Bond. The bid bond shall be on the American Institute of Architects, AIA Document 310, with powers of attorney attached, and in the amount specified on the bid bond form. The bond form must be dated on or before the date of the bid opening, bear the impressed seal of the Surety and be signed by the Bidder or Bidders, in the case of a joint venture, and an authorized individual of the Surety. As an alternative for joint venture Bidders, each of the Bidders may submit a separate bid bond, completed as outlined in this Subarticle. Bid bonds will only be accepted from Sureties authorized to execute a bond under and in accordance with state law.

Article 9.3. Submittal of Bid. Place the completed bid form and the bid guaranty in a sealed envelope marked to indicate the contents.

When submitting by mail or delivery service, place the envelope in another sealed envelope and address as indicated in the official advertisement. It is the bidder's responsibility to ensure that the sealed bid arrives at the location described in the official advertisement of the project on or before the time and date set for the opening. The bid must be in the hands of the Letting Official by that time, regardless of the method chosen for delivery, in order to be accepted.

In addition to the requirements above, all pages of a bid form printed from CIVCAST must be submitted.

Article 9.4. Revising Bid Forms. Revisions to bids will be handled as follows:

Article 9.4.1. Before Submission. Make desired changes to the printed bid form in ink and initial the changes.

Article 9.4.2. After Submission. Withdraw the bid in accordance with Article 2.11, "Withdrawing Bids." Make desired changes to the printed bid form in ink and initial the changes. Resubmit to the Letting Official in accordance with Article 2.9, "Delivery of Bid." The FBGPTRA will not make revisions to a bid on behalf of a Bidder.

Article 9.4.3. After Bid Opening. Revisions to bids are not allowed after the time and date set for the opening.

Article 9.5. Withdrawing Bids. Submit a signed written request to the Letting Official. The FBGPTRA will not accept telephone or electronic requests, but will accept a properly signed telefacsimile request. The request must be made by a person authorized to bind the Bidder, and must be in the hands of the Letting Official before the time and date set for the opening. In the case of joint venture, the FBGPTRA will accept a request from any person authorized to bind a party to the joint venture to withdrawal a bid.

Section 10, Opening and Reading of Bids. At the time, date and location specified in the official advertisement, the Letting Official will publicly:

- Open and read manually submitted bids; and
- Read electronically submitted bids.

Section 11, Tabulating Bids.

Article 11.1. Official Total Bid Amount. The FBGPTRA will sum the products of the quantities and the unit prices bid in the bid form to determine the official total bid amount. Except as provided in Section 11.5.3., "Special Item Considerations," the official total bid amount is the basis for determining the apparent low Bidder. The total bid amounts will be compared and the results made public.

Article 11.2. Consideration of Bid Format. When a Bidder submits both an electronic bid and a properly completed manual bid, the unit bid prices in the manual bid will be used to determine

the total bid amount. If a bidder submits an electronic bid and an incomplete manual bid, the electronic bid will be used in the tabulation of the total bid amount.

If a bidder submits two or more manual bids, all responsive bids will be tabulated. The bid with the lowest tabulation will be used to determine the total bid amount.

Article 11.3. Rounding of Unit Prices. The FBGPTRA will round off all unit bids involving fractional parts of a cent to the nearest one-tenth cent (\$0.001) in determining the amount of the bid as well as computing the amount due for payment of each Item under the Contract. For rounding purposes, entries of five-hundredths of a cent (\$0.0005) or more will be rounded up to the next highest tenth of a cent, while entries less than five-hundredths of a cent will be rounded down to the next lowest tenth of a cent.

Article 11.4. Interpretation of Unit Prices. The FBGPTRA will make a documented determination of the unit bid price for tabulation purposes if a unit bid price is illegible. The FBGPTRA's determination will be final.

Article 11.5. Consideration of Unit Prices. Unit bid price entries such as no dollars and no cents, zero dollars and zero cents, or numerical entries of \$0.00, will be tabulated as one-tenth of a cent (\$0.001).

The FBGPTRA will consider proposals where unit bid prices have been left blank incomplete and nonresponsive. If a proposal has a regular and a corresponding alternate Item or group of Items, the bid will be considered complete if:

- The regular Item or group of regular Items has unit prices entered, or
- The alternate Item or group of alternate Items has unit prices entered.

The bid will be considered incomplete and nonresponsive if:

- A regular Item or group of regular Items is left blank, and
- A corresponding alternate Item or group of alternate Items is left blank.

Article 11.5.1. Consideration of Alternate Items. The FBGPTRA will make two calculations using one-tenth of a cent (\$0.001) for each Item if:

- A regular Item or a group of Items have an entry such as no dollars and no cents, zero dollars and zero cents, or numerical entries of \$0.00, and
- A corresponding alternate Item or group of Items, have an entry such as no dollars and no cents, zero dollars and zero cents, or numerical entries of \$0.00.

The FBGPTRA will select the regular Item or Items or the alternate Item or Items at the FBGPTRA's discretion if both the regular and alternate bid results in the same cost to the State.

The FBGPTRA will use the unit price that is greater than zero for bid tabulation if:

- A unit price greater than zero has been entered for either a regular bid or a corresponding alternate Item or group of Items, and
- An entry of no dollars and no cents, zero dollars and zero cents, or a numerical entry of \$0.00 has been entered for the other corresponding Item or group of Items.

If a unit price has been entered for both the regular Item and a corresponding alternate Item, the FBGPTRA will select the option (regular or alternate) that results in the lowest cost to the State. The FBGPTRA will select the regular Item or Items or the alternate Item or Items at the FBGPTRA's discretion if both the regular and alternate bid results in the same cost to the State.

Article 11.5.2. Special Item Considerations.

Article 11.5.2.1. Rubber Additives. For proposed Contracts without federal funds, if an alternate Item for "Hot Asphalt-Rubber Surface Treatments" or "Hot Mix Asphalt Concrete Pavement" which contains ground tire rubber is shown in the bid form and the Bidder bids that alternate Item, the amounts bid for "Hot Asphalt-Rubber" and "Aggregate" or "Hot Mix Asphalt Concrete" will be reduced to 85% of the amounts actually bid. This reduction will only be used for the purposes of determining the lowest Bidder. To qualify, the ground tire rubber used must be produced from scrap tire ground in a facility in Texas. Payment for "Hot Asphalt-Rubber" and "Aggregate" or "Hot Mix Asphalt Concrete" will be at the actual unit prices bid.

Article 11.5.2.2. "Buy America." For proposed Contracts where unit bid prices are submitted for both domestic and foreign steel or iron materials, the total bid amount will be calculated using both the domestic and foreign steel unit bid prices. If the total bid amount using the foreign steel or iron materials is the low bid, and the lowest bid using domestic steel or iron materials exceeds the low bid using foreign steel or iron materials by 25% or more, the apparent low Bidder will be the bid using foreign steel or iron materials. If the difference between the low bid using foreign steel or iron materials and the lowest bid using domestic steel or iron materials is less than 25%, the apparent low Bidder will be the bid using domestic steel or iron materials.

Article 11.5.2.3. Home State Bidding Preference. For the purpose of determining the apparent low Bidder on proposed Contracts without federal funds, the total bid amount will be based upon the reverse application of the non-resident Bidder's home state bidding preference, if any.

Section 12, Consideration of Bid Errors. The FBGPTRA will consider a claim of a bid error by the apparent low Bidder if the following requirements have been met:

- Submit written notification to the FBGPTRA within 5 business days after the date the bid is opened.
- Identify the Items of work involved and include bidding documentation. The FBGPTRA may request clarification of submitted documentation.

The FBGPTRA will evaluate the claim of an error by the apparent low Bidder by considering the following:

- The bid error relates to a material Item of work.

2014 Specifications

- The bid error amount is a significant portion of the total bid.
- The bid error occurred despite the exercise of ordinary care.
- The delay of the proposed work will not impact cost and safety to the public.

Acceptance of the bid error claim by the FBGPTRA will result in the rejection of all bids. The erring Contractor will not be allowed to bid the project when it is relet. Rejection of bids due to the Contractor's bid error may result in the application of sanctions by the FBGPTRA.

Section 13, Gratuities. Do not offer FBGPTRA employees benefits, gifts, or favors. The only exceptions allowed are ordinary business lunches. Failure to honor this policy may result in the termination of the Contract and sanctions under the Texas Administrative Code. Termination of the Contract will be in accordance with Article 8.7, "Termination of Contract."

END OF SPECIAL PROVISION

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

SPECIAL PROVISION TO ITEM 3

AWARD AND EXECUTION OF CONTRACT

Item 3, "Award and Execution of Contract," of the Texas Department of Transportation Standard Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements are waived or changed.

Section 1, "Award of the Contract," is voided and replaced in its entirety as follows:

The Authority will award, reject, or defer the Contract within 60 days after the opening of the proposal. The Authority reserves the right to reject any or all proposals and to waive technicalities in the best interest of the County.

Article 4.2., "Bonds," is supplemented by the following:

Performance Bond and Payment Bond forms provided by the Authority must be completed.

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

SPECIAL PROVISION TO ITEM 4

SCOPE OF WORK

Item 4, "Scope of Work," of the Texas Department of Transportation Standard Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements are waived or changed.

Section 4, "Changes in the Work," is supplemented by the following:

For purposes of extra work, the following individuals have the authority shown to approve extra work. The Authority has no obligation to pay for extra work unless the Contractor secures written authorization executed by the appropriate person prior to commencement of the work. Extra work may not be split or severed to avoid the requirements of this section.

Mike Stone (Operations Manager):	\$ 50,000 or less
Board of Directors:	greater than \$ 50,000

Article 4.1., "Change Orders," is added as follows:

The unit prices Bid shall govern for additions to, or deductions from the Contract. If materials or labor are required for which no unit price is bid, the price shall be that reached by agreement by the Authority and the Contractor after definite evidence is furnished by the Contractor to the Authority that the price is the current prevailing price in the area. If the Authority and the Contractor cannot agree, the Engineer shall determine the price for changes.

No compensation shall be allowed under a Change Order for any person not actively engaged in the performance of the specified work.

No extra work shall be paid for without an approved Change Order prior to the start of the extra work.

If additional time is required by reason of the Change, the number of days for completion provided for in this Contract shall be adjusted at the time the Change Order is entered into, and if no adjustment is made on the Change Order form, any additional time is to be considered waived by the Contractor.

Any extension of time given shall not release the Contractor or the Surety from their Performance and Payment Bonds or from all obligations hereunder, which shall remain in full force until the discharge of the Contract.

All time limits stated in the Contract Documents are the essence of the agreement. The provisions of this Article shall not exclude recovery of damage (including but not limited to fees

and charges of engineers, architects, attorneys and other professionals and court and arbitration costs for delay by either party.)

Section 6, "Requests for Additional Compensation and Damages," is revised by removing the first two paragraphs and replacing as follows:

In the event the Contractor requests additional compensation for work not clearly covered in the contract, the contractor shall notify the Authority in writing of his intention to make a claim for additional compensation before beginning such work, within 21 days of the day Contractor knows or should have known of such claim. The Contractor must provide a written estimate of the amount of the claim or assessment of damages within 30 days of timely notice of the claim. If such notice is not given, then the Contractor waives his right to file a claim for such work. Notice of such claim by the Contractor and the documentation of the cost of the claim work by Contractor shall not be construed as proof or substantiation of the validity of such claim. All such claims must be approved in writing by the Board of Directors of the Authority.

No claims for delay damages may be made nor will the Authority ever be obligated to pay delay damages. Contractor's sole remedy for damages caused by delay is an extension of the contract time. This limitation applies to delay caused by the Authority and delay caused by third parties only. Contractor will not be entitled to extension of time for delays resulting in whole or part from the Contractor's actions or omissions.

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
SPECIAL PROVISION TO ITEM 7
LEGAL RELATIONS AND RESPONSIBILITIES

Item 7, "Legal Relations and Responsibilities," of the Texas Department of Transportation Standard Specifications is hereby modified with respect to the clauses cited below. No other clauses or requirements are waived or changed.

Section 3, "Laws to be Observed," is supplemented by the addition of the following:

It is the intent of the Authority that all construction work shall be accomplished with minimum disturbance and inconvenience to the public.

The operation of heavy construction equipment over adjacent streets shall be avoided to the greatest extent practicable. If such operation is unavoidable, care shall be taken to prevent the creation of any nuisance, including, but not limited to, the tracking of dirt or the blowing of dust from uncovered loads.

If sites, buildings, and locations of historical, archaeological, educational, or scientific interests are discovered after construction operations are begun, operation in that particular area shall cease immediately and the sites, buildings, or location shall be investigated or evaluated by the Fort Bend Grand Parkway Toll Road Authority (FBGPTRA). An extension of time will be granted, if necessary, for delays caused by these investigations and evaluations. It is specifically understood, however, that if the Contractor is delayed by virtue of an investigation and evaluation that this delay will not be considered as basis for claim for damages or additional compensation of any kind by the Contractor and that an extension of time will be sole remedy of Contractor for such delay.

Section 6, "Personal Liability of Public Officials," is revised to read in its entirety as follows:

In carrying out provisions of the Contract Documents or in exercising any power or authority granted there under, there shall be no liability for the Project Engineer, the Section Engineer(s), Construction Phase Engineer, their respective officers, employees, subcontractors, or authorized assistants, either personally or otherwise, as they are agents and representatives of the Authority, and there shall be no liability, either personal or otherwise for any member of the Commissioners' Court, the FBGPTRA, or any of the FBGPTRA's officers, employees, or consultants. Neither the Contract Document nor FBGPTRA's or Contractor's course of conduct shall be deemed to create the relationship of principal and agent by and between the FBGPTRA and the Contractor.

Section 15, "Responsibility of Damage Claims," is voided and replaced by the following:

TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL PROTECT, DEFEND, INDEMNIFY AND HOLD HARMLESS FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY, THE PROJECT ENGINEER, THE SECTION

ENGINEER(S), THE CONSTRUCTION PHASE ENGINEER, AND THEIR RESPECTIVE OFFICERS AND EMPLOYEES (COLLECTIVELY, THE "INDEMNIFIED PARTIES") FROM AND AGAINST EVERY LOSS, ITEM OF DAMAGE, INJURY, EXPENSE, DEMAND, CLAIM, CAUSE OF ACTION, JUDGMENT OR LIABILITY, OF WHATSOEVER KIND OR CHARACTER, WHETHER ARISING IN CONTRACT OR TORT OR UNDER ANY STATUTE, FOR EVERY ELEMENT OF RECOVERY, WHETHER DIRECT OR INDIRECT, INCLUDING SPECIAL AND CONSEQUENTIAL DAMAGES, AND INCLUDING ALL RELATED FINES, FEES AND COSTS, TO INCLUDE ALL FEES AND CHARGES OF ENGINEERS, ARCHITECTS, ATTORNEYS AND OTHER PROFESSIONALS AND ALL COURT OR ARBITRATION OR OTHER DISPUTE RESOLUTION COSTS, FOR:

(I) BODILY INJURY OR DEATH OF AN EMPLOYEE OF ANY CONTRACTOR PARTIES, EVEN IF SUCH BODILY INJURY OR DEATH IS CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE, BREACH OF CONTRACT, BREACH OR VIOLATION OF A STATUTE, ORDINANCE, GOVERNMENTAL REGULATION, STANDARD, OR RULE, OR OTHER FAULT OF AN INDEMNIFIED PARTY; AND

(II) BODILY INJURY TO OR DEATH OF ANY PERSON NOT ENCOMPASSED IN (I), ABOVE, PROPERTY DAMAGE OR ECONOMIC LOSS (INCLUDING LOSS OF USE) CAUSED BY OR ARISING OUT OF ANY BREACH OF THIS CONTRACT, OR THE BREACH OF ANY COMMON LAW DUTY, OR THE VIOLATION OF ANY STATUTE OR REGULATION BY THE CONTRACTOR PARTIES IN CONNECTION WITH THE PERFORMANCE (OR NON-PERFORMANCE) OF THE WORK, IN EACH INSTANCE, EVEN IF DUE IN PART TO THE NEGLIGENCE, BREACH OF CONTRACT, BREACH OR VIOLATION OF A STATUTE, ORDINANCE, GOVERNMENTAL REGULATION, STANDARD, OR RULE, OR OTHER FAULT OF AN INDEMNIFIED PARTY, PROVIDED, HOWEVER, THAT CONTRACTOR'S OBLIGATION OF INDEMNIFICATION SHALL NOT EXTEND TO THE PERCENTAGE OF DAMAGES, INJURIES, EXPENSES, DEMANDS, CLAIMS, CAUSES OF ACTION, JUDGMENTS, LIABILITIES, COSTS AND FEES CAUSED BY THE INDEMNIFIED PARTIES.

THIS INDEMNITY AGREEMENT IS INTENDED TO MEET THE TEXAS "EXPRESS NEGLIGENCE RULE" BECAUSE CONTRACTOR AGREES THAT IT APPLIES AND IS ENFORCEABLE EVEN AS TO LOSSES, DAMAGES, INJURIES, EXPENSES, CLAIMS, CAUSES OF ACTION, JUDGMENTS OR LIABILITIES JOINTLY OR CONCURRENTLY CAUSED BY THE NEGLIGENCE OR OTHER FAULT OF THE INDEMNIFIED PARTIES. THE TERM "FAULT" IN THE PREVIOUS SENTENCE INCLUDES THE VIOLATION OR BREACH BY THE INDEMNIFIED PARTIES OF ANY COMMON LAW DUTY, ANY TERM OF THIS CONTRACT, OR ANY STATUTE OR REGULATION.

NOTWITHSTANDING THE FOREGOING, THE CONTRACTOR ASSUMES NO RESPONSIBILITY FOR THE TIMELY DELIVERY AND ADEQUACY, ACCURACY AND/OR SUFFICIENCY OF THE PLANS, SPECIFICATIONS, OR DRAWINGS PRODUCED BY FBCTRA'S ENGINEERS, AND IT SHALL NOT BE LIABLE TO THE

FBC/TRA FOR DAMAGES RESULTING FROM ERRORS, INCONSISTENCIES OR OMISSIONS IN SUCH PLANS, SPECIFICATIONS, OR DRAWINGS.

THIS INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY ANY OTHER PROVISION OF THIS CONTRACT OR BY ANY LIMITATIONS ON THE AMOUNT OR TYPE OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR PARTIES UNDER WORKERS' COMPENSATION ACTS, DISABILITY BENEFIT ACTS OR OTHER EMPLOYEE BENEFITS ACTS.

THIS INDEMNIFICATION OBLIGATION IS IN ADDITION TO ALL OTHER LEGAL, EQUITABLE, OR INDEMNIFICATION REMEDIES AVAILABLE TO THE INDEMNIFIED PARTIES. THIS INDEMNIFICATION OBLIGATION SURVIVES THE TERMINATION OR EXPIRATION OF THIS CONTRACT.

CONTRACTOR DOES HEREBY WAIVE, RELEASE AND FOREVER RELINQUISH AND DISCHARGE AUTHORITY FROM ALL OF CONTRACTOR'S CAUSES OF ACTION ARISING FROM BODILY INJURY OR DEATH OR DAMAGE TO ANY PROPERTY ARISING OUT OF THE WORK, REGARDLESS OF WHETHER THE INJURY OR DAMAGE IS CAUSED IN FULL OR IN PART BY THE NEGLIGENCE OR OTHER FAULT OF THE INDEMNIFIED PARTIES.

In the event that any statute, rule of law or equitable principle should be held applicable to any indemnity clause contained in this Contract in favor of one or more of the Indemnified Parties which would render void, voidable, or unenforceable any such indemnity clause as to any party by reason of any provisions contained therein, then and in only such event, such indemnity clause shall be deemed modified and read, construed and enforced as to such party with respect to the provisions held to violate the statute, rule of law or equitable principle to require indemnity by Contractor of the Indemnified Parties to the fullest extent required by such indemnity provision modified and limited only to the degree or extent necessary to bring such indemnity into compliance with such statute, rule of law or equitable principle, but otherwise, the indemnity shall remain in full force and effect and binding upon the parties hereto.

Each party hereto agrees and covenants that it will not contest the validity or enforceability of any indemnity or exculpatory provision of this Contract on the basis that the party has no notice or knowledge of such provision or that the provision is not "conspicuous."

If other provisions contain any indemnities or limitations, such indemnities shall be deemed to be cumulative of and to operate independently of the indemnities provided herein to the end that all indemnities provided in the Contract shall be construed to grant indemnity to the Indemnified Parties to the fullest extent of each such indemnity.

Contractor shall include in each of its subcontracts with its subcontractors of every tier provisions the same as in all material respects those contained herein. Such provisions shall be for the benefit of and in favor of the Indemnified Parties and such other parties on whom Contractor and such subcontractors may agree.

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
SPECIAL PROVISION TO ITEM 8
PROSECUTION AND PROGRESS

Item 8, "Prosecution and Progress," of the Texas Department of Transportation Standard Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements are waived or changed.

Section 1, "Prosecution of Work," is revised by removing the first sentence and replacing as follows:

Prior to beginning construction operations, a preconstruction conference between the Contractor and the Engineer will be conducted. Prior to the preconstruction conference, The Contractor shall submit to the Engineer a preliminary CPM progress schedule which details the first 100 days of the contract in accordance with the requirements of Article 5.2., Progress Schedule. Within 30 calendar days following the preconstruction conference, the contractor shall submit the final version of the Contract Schedule. If the contractor fails to submit the initial schedule within the 30 days, the Engineer may withhold \$1,000 per day until an initial (baseline) schedule that complies with the specifications is submitted. The engineer will review the schedule within 7 days, and determine if the schedule is acceptable. If the schedule is not acceptable, the contractor will have 7 days to make the necessary changes. If the contractor fails to submit the revised and corrected initial schedule within the 30 days, the Engineer may withhold \$1,000 per day until an initial schedule that complies with the specifications is submitted.

Section 3, "Computation of Contract Time for Completion," is revised to read in its entirety as follows:

Time is of the essence of this Contract. All references to days are references to calendar days unless expressly stated otherwise. Calculation of Contract Time will commence on the Notice to Proceed date and run continuously for the duration of the contract.

The Contractor must achieve Substantial Completion within the contract duration specified.

The Contractor must achieve Final Completion no more than the number of days specified by the Engineer from the date of Substantial Completion.

Work shall begin on the date fixed in the Contract requisition. It shall be prosecuted regularly and without interruption until completion. The entire work shall be finished and fully completed to the satisfaction of the Engineer by FINAL COMPLETION.

Article 5.2., "Progress Schedule," is voided and replaced in its entirety as follows:

The Contractor must furnish a Critical Path Method schedule. Each schedule submittal must be accompanied by an electronic backup copy of the schedule. Schedules must be submitted at least monthly and must accompany each pay application. The schedule shall include all planned work activities and sequences. The initial schedule must utilize all of the contract time allowed in the contract. The schedule should incorporate major material procurements including preparation of shop drawings, submittals, fabrication and delivery of long lead items, known utility relocations, and other activities that may affect the completion of the Contract in the progress schedule. Each activity will be assigned a dollar value, the sum of which shall be equal to the adjusted contract value. The schedule activities must generally have durations shorter than one month and the work divided into discrete increments to allow easy identification of the specific task and simplify the updating process.

The Contractor may use Phoenix CPM Scheduling Software or Primavera P6. Schedules prepared and submitted in any other format will not be accepted.

The Engineer may require the Contractor to develop more detailed schedules for certain phases of the project such as major traffic changes, work requiring lane closures, or recovery schedules if the project falls behind schedule etc.

The contractor must provide a person proficient in CPM analysis to create and maintain the project schedule and be available when requested to meet with the Owner's Representative.

The CPM schedule must generally comply with construction industry standards as presented in "CPM in Construction" by James J. O'Brien or the AGC Guide to "Construction Planning and Scheduling". The schedule must have a clearly identifiable Critical Path. The Critical Path is defined as the longest path. It is the Fort Bend Grand Parkway Toll Road Authority's (the Authority) intention to conduct regular schedule update and review meetings with the Contractor to identify potential conflicts and opportunities on the project. The schedules submitted throughout the project will be essential elements in any delay claim.

Article 5.3., "Schedule Format," is replaced to read in its entirety as follows:

The project schedule shall include but is not limited to the following:

- Begin the project schedule on the start date of contract time or start of compensable work on the project, whichever occurs first;
- Show the sequence and interdependence of activities required for complete performance of the work;
- Ensure all work sequences are logical and show a coordinated plan of the work;
- Show a predecessor and successor for each activity
- Clearly and accurately identify the critical path as the longest continuous path

- Provide a legend for all abbreviations and include the schedule filename, run date, data date, project start date, and project completion date in the title block of each schedule submittal;
- Through the use of calendars, incorporate seasonal weather conditions into the schedule for work (e.g., earthwork, concrete paving, structures, asphalt, drainage, etc.) that may be influenced by temperature or precipitation. Also, incorporate non work periods such as holidays, weekends, or other non-work days as identified in the Contract;
- No constraints or negative lags will be allowed.
- Show submittal and procurement periods.

Article 5.4., "Activity Format," is replaced to read in its entirety as follows:

For each activity on the project schedule provide:

- A logical activity number utilizing an alphanumeric designation system tied to the sequence of work and traffic control plans;
- A concise description of the work represented by the activity;
- An activity duration in days;
- The estimated quantity of work;
- Plan and incorporate resources, such as crews and heavy equipment, for each activity. Accurately represent the planned labor and equipment hours necessary to achieve the estimated productivity rates;
- Code the activities so that organized plots of the schedule may be produced;

Article 5.5.1., "Bar Chart," is voided in its entirety.

Article 5.5.1.1., "Progress Schedule Reviews," is voided in its entirety.

Article 5.5.2.1., "Preliminary Schedule," is voided in its entirety.

Article 5.5.2.2., "Baseline Schedule," is voided in its entirety.

Article 5.5.2.2.1., "Review," is voided in its entirety.

Article 5.5.2.3., "Progress Schedule," is revised by removing the last two paragraphs and replacing as follows:

The cut-off day for recording monthly progress will be established by the Project Engineer. Submit the updated schedule no later than the 1st work day of the following month.

A monthly update narrative will be included in the monthly schedule update. This narrative should include but is not limited to the following:

- The status of the project completion date, listing reasons why any change may have occurred;
- List all activities that have been added, deleted, or otherwise changed in the schedule with explanations for the modifications and description of the impacts each has on the project schedule;
- Any revisions that may have been performed to the schedule, providing the purpose of the revision and description of the impact to the project critical path and completion dates; and
- The status of the critical path, explaining reasons for any changes in critical path, impacts to the critical path that occurred during the period represented, or identifying any potential impacts that may occur in the next 3 months, including but not limited to material deliveries, utility and right way clearances, or other potential impacts.

No direct compensation will be made for fulfilling these requirements, as this work is considered subsidiary to the Item 500-2001, Mobilization. If the contractor does not submit the monthly schedule update by the 1st workday of the following month, the Engineer may withhold \$1,000 per day until an updated schedule that complies with the specifications is submitted.

Any amounts withheld by the Engineer for failure to comply with any part of Section 5, Project Schedules, may be deducted from the Contract Amount by the Engineer at his discretion.

Article 5.5.3., "Notice of Potential Time Impact," is revised to read in its entirety as follows:

Control of the contract duration, completion date, and contract amount are essential elements of this contract and shall only be adjusted in writing by Change Order. A Change Order amending the contract duration and the contract completion date or the contract amount shall only be considered after the Contractor has made such a request in a timely manner accompanied by proper documentation supporting such a request. The contract duration, completion date, and amount may not be adjusted by any other means.

Reasons for adjustment. The Engineer will consider adjustment of the contract duration, completion date, and contract amount for any changed condition or event which in the sole opinion of the Engineer is beyond the control of the Contractor; could not have been reasonably foreseen; and impacts the longest path on the properly prepared and submitted CPM schedule for the project.

Longest Path. Extensions of time will be granted only to the extent the changed conditions impact the longest path of the properly prepared CPM schedule. No extension of time will be granted for any change that does not impact the longest path, nor will any extension of time be granted for that portion of any delay event that is absorbed by float within the schedule.

Delays affecting activities not on the longest path by definition can not affect the completion date of the project and will not be considered as a reason to adjust the contract duration or the contract completion date but may be considered for cost impacts. In cases of non-critical delays the Contractor must provide timely documentation of the condition giving rise to the non-critical delay and documentation on the how the delay is causing the cost impact. All notice requirements contained in this provision pertain equally to critical as well as non-critical impacts without exception.

Timely notice of any impact is an essential element of this contract. The Contractor must provide the Engineer with notice of any delay which may impact the project completion date or impact cost within 7 calendar days from the commencement of the delay, or 7 calendar days from the date the Contractor should have reasonably been aware of the delay. Initial notice of the delay must be in writing and must generally describe the event or condition causing the delay and must specifically identify the schedule activities by activity ID and description which are being impacted, and generally the types and amounts of cost per day being incurred. The Contractor's initial notice shall also provide a brief explanation of why an alternative construction sequence eliminating or minimizing the delay is not possible or practical. This initial notice may be a letter containing all of the elements described above. The Engineer may request an immediate schedule review meeting with the Contractor upon notice of any delay to review the current CPM schedule and consider all possible alternatives.

FAILURE TO PROVIDE WRITTEN NOTICE WITHIN 7 CALENDAR DAYS OF THE COMMENCEMENT OF ANY DELAY MAY RESULT IN THE DENIAL OF ANY REQUEST FOR AN ADJUSTMENT TO THE CONTRACT DURATION, COMPLETION DATE, OR CONTRACT AMOUNT RESULTING FROM THAT DELAY.

Article 5.5.4., "Time Impact Analysis," is revised to read in its entirety as follows:

The Impact of the Delay will be evaluated using the Time Impact Analysis method. A Time Impact Analysis consists of the following steps:

Step 1. Establish the status of the project immediately prior to the delay event or impact, or as near as practical prior to the commencement of the delay.

Step 2. Using the schedule produced in Step 1, add an activity to the schedule for the delay event with an estimated duration, or the actual duration of the delay event in the case of delay which has ended. Logically connect the added activity representing the delay event to the appropriate predecessor and successor activities to determine the impact to the completion date.

Step 3. Track the effects of the impact on the schedule during the occurrence by progressing the schedule monthly including the delay activity included in Step 2.

Step 4. Immediately after the conclusion of the delay event, or as near as practical after the delay event has ended, establish the status of the project and provide details identifying any mitigating actions or circumstances used to keep the project ongoing during the impact period.

Submit Step 1 and 2 with the Notice of Potential Time Impact. Incorporate Step 3 into schedule updates until impact is complete. Submit Step 4 with the Final Documentation, no later than 10 days after the completion of the impact.

Determine the time impact by comparing the status of the work prior to the impact (Step 1) to the prediction of the effect of the impact (Step 2), and to the actual effects of the impact once it is complete (step 4). All four steps of the Time Impact Analysis shall be completed before consideration of a Contract time extension or adjustment of milestone date will be provided.

Final Documentation. After the delay event or condition has ended the Contractor has 10 days to prepare and submit the final documentation of the impact of the delay including all cost impacts. An additional 30 days to prepare the final statement of impacts may be granted by the Engineer if requested by the Contractor in writing prior to the conclusion of the initial 10 day period. This documentation shall include a concise Time Impact Analysis Statement prepared using the submitted CPM schedules and a statement of all additional costs incurred as a result of the delay event or condition with backup documentation to support the claimed cost.

FAILURE TO PROVIDE WRITTEN DOCUMENTATION OF THE TIME AND COST IMPACT OF ANY DELAY WITHIN 10 DAYS OF THE CONCLUSION OF ANY DELAY MAY RESULT IN THE SUBSEQUENT DENIAL OF ANY REQUEST FOR AN ADJUSTMENT TO THE CONTRACT COMPLETION DATE OR COST IMPACTS.

Section 6, "Failure to Complete Work on Time," is revised to read in its entirety as follows:

Failing to achieve Final Completion within the days specified by the Engineer the Contractor will be assessed liquidated damages of \$1,500 per day which will be withheld from any amount owed the Contractor. If the amount owed the Contractor is insufficient to withhold the amount, the Contractor shall pay the difference to the Authority.

The Engineer may waive the collection of liquidated damages if the Work in its entirety, or any portion of the Work for which a date of completion is stipulated, has been substantially completed within the prescribed time of completion therefore.

If the Contractor fails to complete the Work within the time fixed by the Contract, or extensions thereof, and if the Engineer shall, nevertheless, permit the Contractor to continue and complete same, such permission shall neither modify nor waive any liability of the Contractor for damages arising from non-completion of the Work within the said time, but all such liabilities shall continue in full force against the Contractor

END OF SPECIAL PROVISION

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
SPECIAL PROVISION TO ITEM 9
MEASUREMENT AND PAYMENT

Item 9, "Measurement and Payment," of the Texas Department of Transportation Standard Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements are waived or changed.

Section 6, "Payment for Material on Hand (MOH)," is supplemented by the following:

The Contractor shall furnish an affidavit that the material is stored in a bonded facility approved by the Fort Bend Grand Parkway Toll Road Authority (FBGPTRA). The estimate shall be made and included for 75 percent of the invoice material cost and invoice freight cost of materials involved after the Contractor has furnished the engineer with a copy of the paid invoices. Only materials requiring approved shop drawings, or where shop drawings are permitted due to quantities of units or because of stage construction, which are completely constructed and/or fabricated on the Contractor's order for a specific project, and on which an approved Test Report has been issued are eligible.

Section 8, "Retainage," is voided and replaced in its entirety as follows:

The Authority will withhold 5.0 percent retainage from the total amount approved for payment until the completion and final acceptance. The Contractor may withhold retainage on subcontractors in accordance with state and federal regulations.

The retainage will be released after all submittals are received and final quantities have been determined.

Article 9.7.1.1., "Labor," is voided and replaced in its entirety as follows:

The Contractor will receive an additional 15% as compensation based on the total wages paid said laborers and foremen. For cost of premiums on public-liability and workers compensation insurance, social security and unemployment insurance taxes, an amount equal to 55 percent of the sum of the labor cost, excluding the 15 percent compensation provided above, will be paid to the Contractor.

Article 9.7.1.3., "Materials," is voided and replaced in its entirety as follows:

The Contractor will receive the actual cost, including freight charges, of the materials used on such work to which cost will be added a sum equal to 15 percent thereof as compensation.

Section 10, "Final Payment," is supplemented by the following:

The Contractor shall after completion of his contract submit his final estimate for quantities installed during the construction period and the value thereof at the Contract unit prices.

The Engineer shall approve and submit the final estimate to the Commissioners' Court and the County shall at such time or within thirty (30) days from and after the date of said estimate as the County may elect, pay the entire sum so found to be due after audit and approval by the County Auditor, after deducting therefrom all previous payments and all amounts to be kept and all amounts to be retained under the provisions of the Contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment. It is mutually agreed between the parties to the Contract that no estimate or payment made under the Contract, except the final payment, shall exclude any claim of the County or shall constitute conclusive evidence of acceptable performance of the Contract either wholly or in part by the County; and no payments shall be construed to be an acceptance of any defective work or improper materials, or a release from any claims for damages. The Contractor hereby further agrees that the payment of the final amount due under the Contract and adjustment and payment of the bill rendered for any work done in accordance with any alterations to the Contract on a Change In Contract form shall release the County and the Engineer from any and all claims or liability on account of work performed under the Contract or alterations thereof. The Contractor agrees to examine the final estimate and, if he finds it correct, to execute thereon his release in full of all claims due by Fort Bend County, and to certify under oath to the payment by him of all claims against him for labor, materials, and supplies furnished by the Contractor by all persons and firms in the performance of the Contract.

Section 11, "Electronic Wire Transfers," is added as follows:

If the Contractor requests in writing to the Engineer, the Authority will make payments via electronic wire transfer.

Special Specification 6001

Portable Changeable Message Sign



1. DESCRIPTION

Furnish, operate, and maintain portable trailer mounted changeable message sign (PCMS) units.

2. MATERIALS

Furnish new or used material in accordance with the requirements of this item and the details shown on the plans. Provide a self-contained PCMS unit with the following:

- Sign controller
- Changeable Message Sign
- Trailer
- Power source

Paint the exterior surfaces of the power supply housing, supports, trailer, and sign with Federal Orange No. 22246 or Federal Yellow No. 13538 of Federal Standard 595C, except paint the sign face assembly flat black.

- 2.1. **Sign Controller.** Provide a controller with permanent storage of a minimum of 75 pre-programmed messages. Provide an external input device for random programming and storage of a minimum of 75 additional messages. Provide a controller capable of displaying up to 3 messages sequentially. Provide a controller with adjustable display rates. Enclose sign controller equipment in a lockable enclosure.
- 2.2. **Changeable Message Sign.** Provide a sign capable of being elevated to at least 7 ft. above the roadway surface from the bottom of the sign. Provide a sign capable of being rotated 360° and secured against movement in any position.
- Provide a sign with 3 separate lines of text and 8 characters per line minimum. Provide a minimum 18 in. character height. Provide a 5 × 7 character pixel matrix. Provide a message legibility distance of 600 ft. for nighttime conditions and 800 ft. for normal daylight conditions. Provide for manual and automatic dimming light sources.
- The following are descriptions for 3 screen types of PCMS:
- **Character Modular Matrix.** This screen type comprises of character blocks.
 - **Continuous Line Matrix.** This screen type uses proportionally spaced fonts for each line of text.
 - **Full Matrix.** This screen type uses proportionally spaced fonts, varies the height of characters, and displays simple graphics on the entire sign.
- 2.3. **Trailer.** Provide a 2 wheel trailer with square top fenders, 4 leveling jacks, and trailer lights. Do not exceed an overall trailer width of 96 in. Shock mount the electronics and sign assembly.
- 2.4. **Power Source.** Provide a diesel generator, solar powered power source, or both. Provide a backup power source as necessary.
- 2.5. **Cellular Telephone.** When shown on the plans, provide a cellular telephone connection to communicate with the PCMS unit remotely.

3. CONSTRUCTION

Place or relocate PCMS units as shown on the plans or as directed. The plans will show the number of PCMS units needed, for how many days, and for which construction phases.

Maintain the PCMS units in good working condition. Repair damaged or malfunctioning PCMS units as soon as possible. PCMS units will remain the property of the Contractor.

4. MEASUREMENT

This item will be measured by each PCMS or by the day used. All PCMS units must be set up on a work area and operational before a calendar day can be considered measurable. When measurement by the day is specified, a day will be measured for each PCMS set up and operational on the worksite.

5. PAYMENT

The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid for "Portable Changeable Message Sign." This price is full compensation for PCMS units; set up; relocating; removing; replacement parts; batteries (when required); fuel, oil, and oil filters (when required); cellular telephone charges (when required); software; and equipment, materials, tools, labor, and incidentals.

Special Specification 6019

Longitudinal Prefabricated Pavement Markings (PPM) with Warranty



1. DESCRIPTION

Furnish and place longitudinal PPM as shown on the plans. Provide a manufacturer's warranty bond for a 6 year period. The Department will allow a Contractor provided warranty bond instead of the manufacturer's bond if all conditions of the manufacturer's warranty, including the requirements of this Item, are met. In such case, the Contractor is responsible for meeting the warranty requirements. Use the form provided by the Department. The Department will allow substitution of a contractor's bond with a manufacturer's bond after execution of the Contract before final acceptance.

2. MATERIALS

Use pavement markings that meet the requirements of Type B in DMS-8240, "Permanent Prefabricated Pavement Markings," and that are shown on the Department's MPL.

3. EQUIPMENT

Provide equipment as required or directed according to the following: (The provider of the warranty bond is responsible for providing equipment during the warranty period unless otherwise shown on the plans.)

- 3.1. **Preparation and Application.** Use equipment designed for the pavement preparation and application of the type of PPM material selected.
- 3.2. **Colorimeter.** Provide a colorimeter using 45°/0° geometry CIE, D65 Illuminant, 2° standard observation angle meeting the requirements of ASTM E1347, E1348, or E1349.
- 3.3. **Retroreflectometer.** Unless otherwise shown on the plans, provide a portable or mobile retroreflectometer meeting the following requirements.
 - 3.3.1. **Portable Retroreflectometer.** Provide a portable retroreflectometer that meets the requirements of ASTM E1710.
 - 3.3.2. **Mobile Retroreflectometer.** Provide a mobile retroreflectometer that:
 - is approved by the Construction Division (CST) and certified by the Texas Transportation Institute Mobile Retroreflectometer Certification Program for project evaluation of retroreflectivity
 - is calibrated daily, before measuring retroreflectivity on any pavement stripe, with a portable retroreflectometer meeting the following requirements: ASTM E1710, entrance angle of 88.76°, observation angle of 1.05°, and an accuracy of ±15%; and
 - requires no traffic control when retroreflectivity measurements are taken and is capable of taking continuous readings at or near posted speeds

Furnish mobile retroreflectivity measurements in compliance with Special Specification, "Mobile Retroreflectivity Data Collection for Pavement Markings," unless otherwise approved by the Engineer. The Engineer may require an occasional field comparison check with a portable retroreflectometer meeting the requirements listed above to ensure accuracy.

4. CONSTRUCTION

- 4.1. **General.** Prepare the pavement surface using controlled techniques that minimize pavement damage and hazards to the traveling public. Apply the PPM materials according to the manufacturer's recommendations, using widths, colors, and shapes at locations as shown on the plans.

Obtain approval for the sequence of work and estimated daily production. Use traffic control as shown on the plans or as approved. Establish guides to mark the lateral location of pavement markings as shown on the plans or as directed, and have guide locations verified. Use material for guides that will not leave a permanent mark on the roadway. Apply markings in alignment with the guides and without deviating for the alignment more than 1 in. per 200 ft. of roadway or more than 2 in. maximum. Remove all applied markings that are not in alignment or sequence as stated in the plans or as stated in the specifications at the Contractor's expense and in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

- 4.2. **Initial Performance Requirements.** Meet Article 5, "Performance Requirements" initially, after installation.

The Engineer will conduct visual performance evaluations of PPM. For markings that do not meet the Engineer's visual performance evaluation, the Contractor may present test results for color (using a colorimeter), retroreflectivity (using a retroreflectorimeter in accordance with this Item), and durability (in accordance with ASTM D913) for the Engineer's use in making acceptance or rejection decisions.

For PPM not meeting performance requirements, repair or replace until reevaluation shows the PPM meet the performance requirements as approved by the Engineer.

- 4.3. **Written Acceptance.** The Department will provide written acceptance after the Contractor meets the initial performance requirements. This written acceptance (see attached sample form) will include the date, location, length, and type of PPM.

5. PERFORMANCE REQUIREMENTS

- 5.1. **Color.** Provide PPM consisting of pigments blended to provide color conforming to highway colors as shown in Table 1.

Table 1
Color Requirements

Federal 595 Color		Chromaticity Coordinates								Brightness (Y)
		1		2		3		4		
		x	y	x	y	X	y	x	y	
White	17865	.290	.315	.310	.295	.350	.340	.330	.360	60 Min
Yellow	33538	.470	.455	.510	.489	.490	.432	.537	.462	30 Min
Black										5 Max

- 5.2. **Retroreflectivity.** Provide PPM for longitudinal markings meeting the minimum retroreflectivity values listed in Table 2.

Table 2
Minimum Retroreflectivity Requirements

Color	Retroreflectivity, mcd/m ² /lx, Min
White	120
Yellow	120

- 5.3. **Durability.** Provide PPM that do not lose more than 5% of the striping material in a 1,000-ft. section of continuous stripe or broken stripe (25 broken stripes). Pavement markings must remain in the proper alignment and location.

- 5.4. **Performance Evaluation Procedures.** Provide traffic control and conduct evaluations of color, retroreflectivity, and durability as required or directed.
- 5.4.1. **Color.** Measure color using 45°/0° geometry CIE, D65 illuminant, 2° standard observation angle in accordance with ASTM E 1347, E 1348, or E 1349.
- 5.4.2. **Retroreflectivity.** Unless otherwise shown on the plans, conduct retroreflectivity evaluations of pavement markings with either a portable or mobile retroreflectometer. Make all measurements in the direction of traffic flow, except for broken centerline on 2-way roadways, where measurements will be made in both directions.
- If using a portable retroreflectometer, take a minimum of 1 measurement every mile on each series of markings (i.e., edgeline, center skipline, each line of a double line, etc.), at locations approved by the Engineer. If more than 1 measurement is taken, average the measurements. For all markings measured in both directions, take a minimum of 1 measurement in each direction. If the measurement taken on a specific series of markings within each mile segment falls below the minimum retroreflectivity values, take a minimum of 5 more measurements at locations determined by the Engineer within that mile segment for that series of marking. If the average of these 5 measurements falls below the minimum retroreflectivity requirements, that mile segment of the applied markings does not meet the performance requirement.
- If using a mobile retroreflectometer, review the results to determine deficient sections and deficient areas of interest. These areas do not meet the performance requirements.
- 5.4.3. **Durability.** Measure durability in accordance with ASTM D913 for marking material loss and visual inspection for alignment and location. Conduct evaluations at locations approved by the Engineer.

6. WARRANTY REQUIREMENTS

Each warranty period is for 6 yr. and starts the day after written acceptance.

The marking warrantor is responsible for meeting Article 5, "Performance Requirements," for the duration of the warranty period.

During the warranty period, the Engineer will conduct periodic visual performance evaluations of PPM. For retroreflectivity the Engineer will use Tex-828-B, "Determining Functional Characteristics of Pavement Markings." The warrantor may be present during these evaluations. For areas, which, in the opinion of the Engineer, have a questionable visual evaluation, the warrantor may replace the PPM or may conduct a performance evaluation for the performance requirement in question, according to Section 5.4., "Performance Evaluation Procedures." Conduct retroreflectivity evaluations according to Section 5.4.2., "Retroreflectivity," using either portable or mobile retroreflectometer unless otherwise shown on the plans. The warrantor is responsible for traffic control when conducting performance evaluations.

The warrantor will replace PPM that fails to meet the color, retroreflectivity, or durability performance requirements during the warranty period. Replace PPM that fails to meet the performance requirements within 30 days of notification.

All replacement PPM must meet the materials and performance requirements of this specification, under the following conditions to complete the warranty period:

If the longitudinal PPM fails to meet the performance requirements in Article 5 in Years 1 through 4, use materials meeting Type B requirements of specification DMS-8240.

If the longitudinal PPM fails to meet the performance requirements in Article 5 in Years 5 or 6, use materials that meet DMS-8240 (Type A or B), or on the Department's MPL, to meet the performance requirements of Article 5.

The end of the warranty period does not relieve the warrantor from the performance deficiencies requiring corrective action identified during the warranty period.

The Engineer may exclude PPM from the replacement provisions of the warranty period, provided the Engineer determines that the failure is a result of outside causes rather than defective material. Examples of outside causes are extreme wear at intersections, damage by snow or ice removal, and premature pavement failure.

Provide a contact person, address and telephone number for notification of needed PPM replacement.

7. MEASUREMENT

This item will be measured by the foot or by any other unit shown on the plans. Each stripe will be measured separately.

This is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

8. PAYMENT

The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid for "Longitudinal Prefabricated Pavement Markings (PPM) with Warranty" of the color, shape and width, specified as applicable, at the time of project acceptance. This price is full compensation for materials, application of longitudinal PPM, testing, warranty work, equipment, labor, tools, and incidentals.

WARRANTY BOND	CONTRACT NO.	
	COUNTY	
	BOND NO	

KNOW ALL PERSONS BY THESE PRESENTS: That we, _____, manufacturer of or Contractor for prefabricated pavement markings, as Principal, and _____, as Surety, are held and firmly bound unto the State of Texas, as Obligor, in the penal sum of _____ Dollars \$ _____, lawful money of the United States, well and truly to be paid to the State of Texas, and we bind ourselves, our heirs, successors, executors, and administrators jointly and severally, firmly by these presents.

Whereas, the above bounden Principal has provided prefabricated pavement markings to _____ for the foregoing contract entered into between _____ and the Obligor, attached hereto; and

Whereas, the Principal is required to protect the Obligor against any defects resulting from faulty prefabricated pavement markings installed under said contract for a period of 6 years beginning the day after written acceptance.

Now, therefore, the condition of this obligation is such that if the above bounden Principal, its heirs, successors, executors, and administrators shall promptly and faithfully carry out and perform the warranty as provided in said contract, and shall, within thirty days of due notice, replace any installed prefabricated pavement markings that may fail to meet Obligor's performance evaluation as provided for in the Contract during the period specified above or shall pay over, make good, and reimburse to the said Obligor all loss and damage that said Obligor may sustain by reason of failure or default of said Principal so to do, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

Provided further that the end of a warranty period shall not relieve Principal from its obligation to correct deficiencies requiring corrective action, so long as those deficiencies are identified during the warranty period.

WITNESS our hand this _____ day of _____ 20 _____

(Warrantor Name)

* By: _____
(Warrantor Officer)

**SURETY (Print Firm Name and Seal)

* By: _____
(Title)

* By: _____
(Warrantor Officer)

**SURETY (Print Firm Name and Seal)

**SURETY (Print Firm Name and Seal)

* By: _____
(Title)

* By: _____
(Title)

Note:

* Attach a Power of Attorney showing that the officer of the installing contractor has authority to sign this obligation.

** Attach a Power of Attorney showing that the surety officer or Attorney-in-Fact has authority to sign this obligation; the Power of Attorney and bond must be impressed with the corporate seal. The surety must be a US Treasury listed company and provide notification information.