

YOLANDA FORD
Mayor

VASHAUNDRA EDWARDS
Councilmember at Large Position No. 1

CHRIS PRESTON
Mayor Pro Tem
Councilmember at Large Position No. 2



REGINALD PEARSON
Councilmember District A

JEFFREY L. BONEY
Councilmember District B

ANTHONY G. MAROULIS
Councilmember District C

FLOYD EMERY
Councilmember District D

CITY COUNCIL MEETING AGENDA

Notice is hereby given of a meeting of the City Council of Missouri City to be held on **Monday, May 20, 2019**, at **7:00 p.m.** at: **City Hall, Council Chamber, 2nd Floor**, 1522 Texas Parkway, Missouri City, Texas, 77489, for the purpose of considering the following agenda items. All agenda items are subject to action. The City Council reserves the right to meet in a closed session on any agenda item should the need arise and if applicable pursuant to authorization by Title 5, Chapter 551, of the Texas Government Code.

1. ROLL CALL

2. PLEDGE OF ALLEGIANCE

3. PRESENTATIONS AND RECOGNITIONS

- (a) Recognize Gerard Wilcher for his initial lifesaving response and actions during an incident in July 2018.
- (b) Recognize the Thurgood Marshall High School track teams.
- (c) Swearing in ceremony for the municipal court judges.
- (d) Proclaim the week of May 19-25, 2019, as "National Public Works Week" in the City of Missouri City, Texas.

4. PUBLIC COMMENTS

An opportunity for the public to address City Council on agenda items or concerns not on the agenda—those wishing to speak must complete the orange comment card, present the comment card to the City Secretary prior to the beginning of the meeting, and observe a three-minute time limit.

5. STAFF REPORTS

- (a) City Manager announcements.
- (b) Quarterly Budget Report, as of March 31, 2019.

6. CONSENT AGENDA

All consent agenda items listed are considered routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a councilmember so requests; in which event, the item will be removed from the Consent Agenda and considered in its normal sequence on the agenda. Information concerning consent agenda items is available for public review.

- (a) Consider approving the minutes of the special and regular City Council meetings of May 6, 2019, and the special City Council meeting of May 13, 2019.

- (b) Consider an ordinance amending Chapter 86, Utilities, of the City of Missouri City Code; amending regulations regarding drought contingency plans; providing a penalty; and consider the ordinance on the second and final reading.

7. PUBLIC HEARINGS AND RELATED ACTIONS

- (a) **Zoning Public Hearings and Ordinances** – *There are no Zoning Public Hearings and Ordinances on this agenda.*
- (b) **Public Hearings and related actions** – *There are no Public Hearings and related actions on this agenda.*

8. APPOINTMENTS – *There are no Appointments on this agenda.*

9. AUTHORIZATIONS

- (a) Consider authorizing the city manager to negotiate and execute a contract for the reconstruction of Glenn Lakes Bridge over Oyster Creek tributary in an amount not to exceed \$1,612,278.
- (b) Consider authorizing an interlocal agreement for a City-managed mobility project with Fort Bend County for the Beltway 8 connector.
- (c) Consider authorizing the city manager to negotiate and execute a contract for the design of the Veterans Memorial.
- (d) Consider authorizing the city manager to negotiate and execute a contract for the provision of on-call engineering services in an amount not to exceed \$60,000.

10. ORDINANCES – *There are no Ordinances on this agenda.*

11. RESOLUTIONS – *There are no Resolutions on this agenda.*

12. CITY COUNCIL ANNOUNCEMENTS

Discussion, review, and possible action regarding a meeting or activity of one or more of the following entities (each entity refers to a City of Missouri City entity unless otherwise indicated):

Charter Review Commission, Community Development Advisory Committee, Construction Board of Adjustments, Electrical Board, Parks Board, Planning and Zoning Commission, Tax Increment Reinvestment Zone Boards, Fort Bend Chamber of Commerce, Houston-Galveston Area Council, Fort Bend Regional Council, Texas Municipal League, Fort Bend County, Harris County, Gulf Coast Building and Construction Trades Council, Mayor's Youth Commission, Finances and Services Committee, Fort Bend Leadership Forum, Fort Bend County Drainage District, Economic Development Committee, Missouri City Parks Foundation, Missouri City Police and Fire Auxiliary, Livable Community Committee, Texas Parkway Alliance, High Performance Organization Committee, Missouri City Juneteenth Celebration Foundation, Fort Bend County Mayor and Council Association, METRO, Planning, Development and Infrastructure Committee, Fort Bend Independent School District, Greater Fort Bend Economic Development Coalition, Transportation Policy Council, Community Development Advisory Committee, Veterans Memorial Committee, Missouri City Recreation and Leisure Local Government Corporation, Missouri City Development Authority, and the Greater Houston Partnership and Emergency Management updates.

13. CLOSED EXECUTIVE SESSION

The City Council may go into Executive Session regarding any item posted on the Agenda as authorized by Title 5, Chapter 551 of the Texas Government Code.

14. RECONVENE

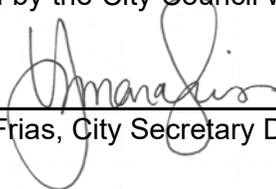
Reconvene into Regular Session and Consider Action, if any, on items discussed in Executive Session.

15. ADJOURN

In compliance with the Americans with Disabilities Act, the City of Missouri City will provide for reasonable accommodations for persons attending City Council meetings. To better serve you, requests should be received 24 hours prior to the meetings. Please contact Maria Jackson, City Secretary, at 281.403.8686.

CERTIFICATION

I certify that a copy of the May 20, 2019, agenda of items to be considered by the City Council was posted on the City Hall bulletin board on May 16, 2019, at 4:00 p.m.



Yomara Frias, City Secretary Department

I certify that the attached notice and agenda of items to be considered by the City Council was removed by me from the City Hall bulletin board on the ____ day of _____, 2019.

Signed: _____

Title: _____



**Council Agenda Item
May 20, 2019**

1. ROLL CALL

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3. PRESENTATIONS AND RECOGNITIONS

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CITY COUNCIL SPECIAL MEETING MINUTES

The City Council of the City of Missouri City, Texas, met in special session on **Monday, May 6, 2019**, at the City Hall, Council Chamber, 1522 Texas Parkway, Missouri City, Texas, 77489, at **5:30 p.m.** to consider the following:

1. CALL TO ORDER

Mayor Ford called the meeting to order at 5:40 p.m.

Those also present: Mayor Pro Tem Preston, Councilmembers Edwards, Pearson, Boney, Maroulis, and Emery; City Manager Snipes, First Assistant City Attorney Way, City Secretary Jackson, Assistant City Manager Atkinson, Police Chief Berezin, Director of Financial Services Portis, Municipal Court Administrator Rychlik, City Attorney Iyamu, Deputy Court Administrator West, Interim Director of Human Resources Manor, Director of Communications Walker, Chief Performance Officer Weisenberger, Purchasing/Risk Manager Pleasant, Media Relation Specialist III Kalimkootil, and Media Relation Specialist III Sanders.

2. DISCUSSION/POSSIBLE ACTION

(a) Update on Strategic Plan process facilitation candidates.

Chief Performance Officer Weisenberger presented the process and provided an update on the Strategic Plan process facilitation candidates. Weisenberger recommended that City Council select and interview two groups; however, she also recommended that City Council interview the second and third place groups, as there was only a two-point difference.

Councilmember Edwards asked the locations of the firms, as she knew firms received points for their location. Weisenberger noted the ranking did not incorporate extra points for local entities, as the search was conducted nationally. Edwards stated she was concerned with not providing residents the convenience of a close location. City Manager Snipes clarified this was just for the Strategic Plan process facilitation and not agenda item 2b for the collection services item. Mayor Ford asked why the location was not provided. Snipes noted this was a professional services agreement and noting the location has not been a part of the process. Mayor Ford stated she would like to know their location as it would be helpful to conduct further research. Snipes stated the goal was to obtain the experiences in this field, wherever they were, and would provide the locations in the future. Weisenberger noted the experience was noted.

Councilmember Maroulis asked about the wide range of costs. Weisenberger stated she has not spoken with any of the companies who submitted a proposal. Mayor Pro Tem Preston asked about how the company gauged their relationship with municipalities. Weisenberger stated they reached out to other entities and references, and additional information was submitted on their experience. Councilmember Maroulis asked about the cost for the last two facilitators. City Manager Snipes stated staff would provide Council with such costs. Councilmember Pearson asked for a breakdown of the costs. Weisenberger stated they could go through it, should the Council wish to do so. Councilmember Boney requested to interview the top three candidates, due to the closeness of the scores.

Councilmember Maroulis stepped away at 5:56 p.m. and returned at 5:57 p.m.

Mayor Ford suggested Council interview all four candidates, due to the variation of the costs. Councilmember Emery asked to be provided with the candidate's websites and approach on how they would address strategic plans. Emery also asked if the candidates would provide City Council with an overview of their experience.

- (b) Discuss and consider the negotiation and execution of a municipal court collection services contract.

Purchasing/Risk Manager Pleasant presented on the Collections Services Contract RFP No. 19-012. Councilmember Edwards asked for the locations of the businesses. City Manager Snipes stated MVBA was from Round Rock and has other locations throughout Texas; and, Linebarger & Perdue were both in Houston. Councilmember Edwards was concerned that residents would not be able to pay if they were not local. Municipal Court Administrator Rychlik noted payments were made through the City's online portal.

Mayor Ford inquired about the questions that were sent to the Attorney General's office and about the extension of the deadline. City Attorney Iyamu noted that because the City was in a competitive process, it was not required to provide information for a competitive advantage to another company during the process. Iyamu stated the Attorney General's Office suggested the City should withhold such information. Mayor Ford asked about the question in reference to a bidder's past relationship with the municipality and if that bidder received a base amount of points. Purchasing/Risk Manager Pleasant stated the question was addressed in the addendum. City Manager Snipes read the response.

Councilmember Edwards stepped away at 6:11 p.m. and returned at 6:14 p.m.

Mayor Ford asked if each of the evaluators called the references or did one person call. Pleasant stated one person called which was standard for solicitation.

Councilmember Emery stated there were three questions and/or concerns that he wanted to pursue. The first was the amount of returns that the City would experience from the three vendors, specifically the two new vendors. The second was in the reviews, there were categories for additional capabilities provided by MVBA, and he would want a value placed on what those additional features would be. Third, back in 2013, an item was raised by \$300,000 from one vendor to another vendor due to conversion delays and asked for clarification. Rychlik stated added service would be difficult to say, as if a firm wanted to add a service for free for example, they would have to summons anyone, and there would be timesaving from City staff's time, but could not place an actual cost. Other added services include door hangers. Councilmember Emery stated to him, the door hangers was not an added service due to City staff time used to place the door hangers out.

Councilmember Pearson asked about the rate of collection and if it had increased or decreased. Assistant City Manager Atkinson stated they would provide documentation regarding the rate of collection. Councilmember Boney asked where the loss of revenue would place the City. City Manager Snipes stated it would not be as adverse as the current vendor would transition when the new vendor comes in with no drop off in revenue.

Mayor Ford inquired about this evaluation criteria versus the last criteria back in 2013 and why there was a slim margin and not a huge difference as in the current evaluation. Pleasant stated the matrix were the same and that actual references were not called last time and they were this time. Councilmember Maroulis asked if there was language about falling below the benchmark. Rychlik stated it was not in the RFP but it would be placed in the contract. Mayor Pro Tem Preston addressed the evaluation criteria and suggested if the City could have asked various questions, as oppose to similar questions.

- (c) Discuss and consider administrative procedures for City Council appointees to process verbal discussions and requests of City Council.

Mayor Ford stated that if a Councilmember requested an item on the agenda, that information should be disbursed to all of Council. Councilmember Boney requested direct reports provide the same information to all of Council as it was pertinent to City business. Mayor Ford suggested Council should discuss and decipher what information or requests should be provided to all of Council. City Manager Snipes stated Council received information on how staff would deal with routine requests. He added Council would receive notifications of requests that took over 30 minutes to do research.

Councilmember Emery noted some of the items that were asked about might never reach the agenda; however, he believed it might be pertinent to the group. First City Attorney Way stated they would be walking a thin line of the Opens Meeting Act if the information was provided but not shared among Council. Councilmember Emery asked staff to look into it. Snipes stated there needed to be a balance administratively with processing requests of Council. Councilmember Boney stated that information regarding matters that would affect the City fiscally, personnel matters, and if one has more access such information, all of City Council should be made aware of it.

Councilmember Pearson stated transparency was used a lot, and finds it interesting that there was a struggle for transparency amongst Council. He asked that they find common ground to be transparent. Snipes stated a routine request was information that was readily available; however, non-routine requests would take over 30 minutes.

Mayor Ford suggested that the committee address what requests should be presented at the Council meeting and how information should be disbursed. Councilmember Pearson stated that in the meantime, the City would move forward with the administrative policy currently in place.

Councilmember Maroulis moved to take the process to the committee and follow the current administrative procedures. Councilmember Boney seconded. **MOTION PASSED UNANIMOUSLY.**

City Council recessed the special City Council meeting at 6:57 p.m. At 8:43 p.m., City Council reconvened the special City Council meeting.

- (d) Discuss and consider retaining special counsel for Ivy Kenneth Joy L. Miraflor and Josefina P. Serrano v. the City of Missouri City, Texas, and Yolanda Ford, in her official capacity as Mayor of the City of Missouri City, Texas (Harris County Cause Number 201920262- 7 in the 151st District Court of Harris County).

City Attorney Iyamu presented on the lawsuit and noted that on November 19, 2018, and December 3, 2018, City Council postponed a zoning request in the Vicksburg neighborhood to rezone a 5.19-acre tract of land from R-1-A single family residential district to PD Planned Development District to allow for the development of a child care facility and certain commercial uses. On December 17, 2018, the zoning request failed to be approved in a 0-7 vote by the City Council. The owners of that property have filed the Miraflor lawsuit against the City. The City's risk pool, the Texas Municipal League Insurance Risk Pool ("TMLIRP"), has denied the City's request to cover this matter on the basis that, per the City's policy with TMLIRP, claims for injunctive relief and inverse condemnation relief were not covered by the policy. In matters such as this, the City attorney's office has historically sought outside counsel. John Hightower of Olson and Olson most recently represented the City in a zoning litigation matter that concluded with a petition to dismiss that matter. Mr. Hightower was recommended for this matter because of his expertise in municipal law and zoning and because of the existing contract, the City has a contract with his firm, which would make him readily available to the City once the appropriate officials were served (decreases the time it would take to negotiate a new

contract with a different firm). Mr. Hightower was a former section chief and assistant city attorney for the City of Houston. His biography was included in the background information for this item.

Councilmember Maroulis moved to use John Hightower of Olson and Olson, as the City's representative. Councilmember Emery seconded. **MOTION PASSED UNANIMOUSLY.**

- (e) Consider and discuss interview questions for board, committee, and commission members.

Councilmember Edwards requested that each City Councilmember to bring two questions to the interviews in an effort to ensure questions were not repetitive. Edwards also suggested questions be submitted to City Secretary Jackson. Snipes suggested Council submit more than two questions, in the event there were repetitive questions. Councilmember Pearson suggested coming up with questions during the meeting. Councilmember Edwards would like the community to all be provided the opportunity to serve. Mayor Pro Tem Preston would like Council to submit questions to the City Secretary. Councilmember Pearson suggested submitting alternate questions. The deadline for questions to the City Secretary noon on Thursday, May 9.

3. CLOSED EXECUTIVE SESSION

After proper notice was given pursuant to the Texas Open Meetings Act, the City Council went into Executive Session at 9:03 p.m.

Texas Government Code, Section 551.074 – Deliberations concerning the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of a public officer or employee: the city secretary, the city attorney, and the city manager.

Texas Government Code, Section 551.087 – Deliberations regarding commercial or financial information that the governmental body received from a business prospect that the governmental body seeks to locate, stay, or expand in or near the territory of the governmental body and with which the governmental body is conducting economic development negotiations: commercial development prospect.

Councilmember Edwards stepped away at 9:36 p.m. and returned at 9:40 p.m.

4. RECONVENE

At 10:08 p.m., Council reconvened into open session. No action was taken.

5. ADJOURN

The special City Council meeting adjourned at 10:09 p.m.

Maria Jackson, City Secretary

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CITY COUNCIL MEETING MINUTES

The City Council of the City of Missouri City, Texas, met in regular session on **Monday, May 6, 2019**, at the City Hall, Council Chamber, 2nd Floor, 1522 Texas Parkway, Missouri City, Texas, 77489, at **7:00 p.m.** to consider the following:

1. ROLL CALL

Mayor Ford called the meeting to order at 7:09 p.m.

Those also present: Mayor Pro Tem Preston, Councilmembers Edwards, Pearson, Boney, Maroulis and Emery; City Manager Snipes, First Assistant City Attorney Way, and City Secretary Jackson.

2. The **PLEDGE OF ALLEGIANCE** was led by Fire Chief Campbell.

3. PRESENTATIONS AND RECOGNITIONS

Mayor Ford recognized the 2019 Professional Golfers' Association (PGA) Master Professional Richard Brown III. Mayor Ford proclaimed the week of May 5-11, 2019, as "Public Service Recognition Week" in the City of Missouri City, Texas; proclaimed the week of May 5-11, 2019, as "Hurricane Preparedness Week" in the City of Missouri City, Texas; and proclaimed the week of May 12-18, 2019, as "National Police Week" in the City of Missouri City, Texas.

4. PUBLIC COMMENTS

Charles Potter, spoke against and expressed his concerns regarding KIPP Academy.

Regina Gardner, spoke against and expressed her concerns regarding KIPP Academy.

Tramaine Chatman, spoke against and expressed her concerns regarding KIPP Academy.

5. STAFF REPORTS

City Manager Snipes stated a transparency document was released to the public recently as an overview of the City's efforts. He thanked the Parks and Recreation Department for a successful MCTX Fest event. He stated non-emergency City Hall offices would be closed from 11:30 a.m. to 1:00 p.m. on Wednesday, May 8 and from noon to 5:00 p.m. on Friday, May 10 in observance of Public Service Recognition Week. Snipes stated staff has shared tips during Hurricane Preparedness Week. He noted that Missouri City was named in the list of "Greenest Cities in Texas" by Just Energy. He asked everyone to mark their calendars for the upcoming events: Senior Casino Trip on May 7; Third Annual Mother's Day Cake Decorating event on May 11; Surface Water Treatment Plan Phase II Ground Breaking Ceremony on May 13, Tots Sorts on May 13; and, Family Fun Night Summer Kickoff party on May 17.

(b) Update regarding the City's check drafting process for the payment of City funds.

Director of Financial Services Portis presented an update regarding the City's check drafting process for the payment of City funds. Councilmember Boney asked for the reason the checks were being looked. Director Ports stated the concern was that former Mayor Owen's name were on the checks. City Manager Snipes

noted Mayor Ford had stated that a check was sent to her and that started the process. Councilmember Boney acknowledged that former Mayor Owen was the Mayor for over 20 years and the bank was notified, before the swearing in ceremony and that a change would be made.

6. CONSENT AGENDA

- (a) Consider approving the minutes of the special and regular City Council meetings of April 15, 2019.
- (b) Consider accepting the quarterly investment report for the period ending on March 31, 2019.

Mayor Pro Tem Preston moved to pull item 6b for discussion.

Councilmember Maroulis moved to approve the Consent Agenda item 6a pursuant to recommendations by City Staff. Councilmember Pearson seconded. **MOTION PASSED UNANIMOUSLY.**

Susan Anderson, Valley View, presented the quarterly report ending on March 31, 2019. Councilmember Emery noted that interest gained would go into the general fund to help fund City services. Councilmember Maroulis inquired on how far out do they start planning. Anderson stated they analyze cash outs and build a maturity ladder.

Councilmember Emery moved to approve the Consent Agenda item 6b pursuant to recommendations by City Staff. Councilmember Pearson seconded. **MOTION PASSED UNANIMOUSLY.**

7. PUBLIC HEARINGS AND RELATED ACTIONS

(a) Zoning Public Hearings and Ordinances

- (1) Consider an ordinance amending Specific Use Permit No. 65, authorizing the use of a 5.80-acre tract of land in the City of Missouri City as Specific Use Permit No. 65-Sewer facility; adding a 8.51-acre tract of land; authorizing a total 14.31-acre tract of land as Specific Use Permit No. 65-Sewer facility; describing said 14.31-acre tract of land; providing limitations, restrictions, and conditions on such specific use; amending the zoning district map of the City of Missouri City; providing a penalty; and containing other provisions relating to the subject; and consider the ordinance on the final reading. The subject site is located north of Thurgood Marshall High School/Buffalo Run Park, east of Echo Creek Drive, west of S. Cravens Road, and south of Highway 90A.

Councilmember Boney moved to adopt the ordinance with the correction for Section 5.II. Councilmember Pearson seconded. **MOTION PASSED UNANIMOUSLY.**

(b) Public Hearings and related actions

- (1) Public hearing for or against an amendment to the drought contingency plan ordinance and consider the ordinance on the first of two readings.

Mayor Pro Tem Preston moved to open the public hearing at 8:03 p.m. Councilmember Emery seconded. **MOTION PASSED UNANIMOUSLY.**

Utilities Manager McGraw stated that at the March 18, 2019, City Council meeting, Council amended and adopted the Drought Contingency Plan (DCP) to reflect recent updates made by the Gulf Coast Water Authority (GCWA) pertaining to curtailment and surcharges. The amendment was required by TCEQ rules and regulations and also staff proposed to aggregate the groundwater and surface water system under the same set of conservation measures, enforcement, and other details on how conservation would take place during times when GCWA declares a drought. The provision of this plan shall apply to all entities utilizing water provided by the City of Missouri City, including all members of the GRP Conservation during times of

insufficient rainfall allows the Supplier (GCWA) and the City to minimize the adverse impacts of water shortages and to further minimize the adverse impacts of emergency conditions. This would allow the City to protect and preserve public health, welfare and safety of our citizens. This would be the first of the two public hearings required to amend and adopt the City's Drought Contingency Plan (DCP).

Councilmember Boney moved to close the public hearing at 8:04 p.m. Councilmember Emery seconded. **MOTION PASSED UNANIMOUSLY.**

Councilmember Emery moved to adopt the ordinance. Councilmember Pearson seconded. **MOTION PASSED UNANIMOUSLY.**

There were no **APPOINTMENTS.**

9. AUTHORIZATIONS

- (a) Consider authorizing a professional services contract for Fire Station No. 6 design phase services.

Director of Public Works Kumar stated the project consisted of designing Fire Station No. 6, along with space evaluations for the Fire Administration and Public Service Headquarters for potential relocation of staff to the new Fire Station. In November 2018, Public Works along with the Purchasing Division, prepared and advertised a Request for Qualification (RFQ # 19-020). Notices were published in the local newspaper, the City's website and the State of Texas Electronic State Business Daily site. In accordance with what Council adopted as the 2013 Consultant Selection Policy, a Staff Selection Committee evaluated the submitted statement of qualifications from 22 firms for this project. The selection committee included representation from the Fire Department. Five (5) short listed firms were presented to the Planning, Development and Infrastructure (PDI) Committee on February 18, 2019. The Planning, Development and Infrastructure Committee authorized staff to conduct interviews with the five (5) short-listed firms. Based on these interviews, the Staff Selection Committee found Martinez Architects to be the most qualified firm for this particular project. The recommendations from the Staff Selection Committee were presented to the (PDI) committee on March 18, 2019. The PDI committee authorized staff to move forward to negotiate a professional services contract with Martinez Architects. Based on the scope of services required and the fees negotiated with Martinez Architects, the total contract amount would be \$541,250.00.

Mayor Pro Tem Preston moved to authorize a professional services contract for Fire Station No. 6 design phase services with Martinez Architects in the amount of \$541,250.00. Councilmember Boney seconded. **MOTION PASSED UNANIMOUSLY.**

- (b) Consider awarding and authorizing the negotiation and execution of a municipal court collection services contract.

Municipal Court Administrator Rychlik presented staff's recommendation to award the contract to McCreary, Veselka, Bragg & Allen, PC, which was the firm that scored the highest during the evaluation process. The contract would be for five years, with an opportunity to terminate. City Manager Snipes noted there was a performance clause in the agreement. Councilmember Emery asked if Council had a say in the performance clause of the agreement. Assistant City Manager Atkinson stated they could look into it. Mayor Ford requested that Council receive the annual reviews.

Councilmember Maroulis moved to negotiate and execute a municipal court collection services contract with MVBA, per staff's recommendation. **MOTION DIED DUE TO LACK OF SECOND.**

Councilmember Maroulis asked if City Council decided on Linebarger, would they work with the City regarding add-on services. Rychlik stated she was not sure as they did not propose any add-ons.

Councilmember Emery moved to negotiate and execute a municipal court collection services contract with Linebarger. Councilmember Pearson seconded. **MOTION PASSED.**

Ayes: Councilmembers Pearson, Boney, Maroulis and Emery
Nays: Mayor Ford, Mayor Pro Tem Preston and Councilmember Edwards

- (c) Consider authorizing the city manager to negotiate and execute an interlocal agreement with the City of Pearland for the purchase of the Pearland Package Plant for an amount not to exceed \$2,300,000.

Councilmember Boney asked about the repercussions, had the City of Pearland decided not to enter the agreement after the item was tagged during the last City Council meeting. Utilities Manager McGraw stated the City would have to spend up to \$15 million building a new plant. Councilmember Boney thanked the City of Pearland.

Councilmember Emery moved to authorize the city manager to negotiate and execute an interlocal agreement with the City of Pearland for the purchase of the Pearland Package Plant for an amount not to exceed \$2,300,000. Councilmember Boney seconded. **MOTION PASSED UNANIMOUSLY.**

- (d) Consider authorizing the City Manager to execute a contract for ditch cleaning and excavation services.

Assistant Director of Public Works Brouhard noted that after the previous contract was approved, the bidder decided not to sign the contract. City Staff members have now decided to go with the second bidder. Mayor Ford noted the contract would begin in FY 2019 for \$40,000, and the subsequent two (2) years at \$40,000 per year making the total contract for the three year term \$120,000. Mayor inquired on the reason for the high cost. Brouhard stated the bid was not written in a clear way and have asked the contractor to provide line items.

Councilmember Maroulis moved to authorize the City Manager to execute a contract for ditch cleaning and excavation services with Texas Drainage Inc. Councilmember Boney seconded. **MOTION PASSED UNANIMOUSLY.**

10. ORDINANCES

- (a) Consider an ordinance amending the general budget for the fiscal year beginning October 1, 2018, and ending September 30, 2019; transferring various appropriations among accounts; appropriating supplemental revenue to various fund accounts; authorizing the appropriate city officials to take steps necessary to accomplish such transfers; making certain findings; containing certain provisions relating to the subject; and consider the ordinance on the first and final reading.

Director Portis presented the budget amendments for the second quarter. Mayor Ford asked if the amendments increased the budget. Portis stated it changed in multiple funds and there were net income impacts. Mayor Ford stated she believed Hotel Occupancy Tax (HOT) funds should be used for permanent items, as opposed to festivals. First Assistant Attorney Way noted that HOT funds should be used for items that could be used to promote tourism, and cannot be on anything the general fund could cover.

Councilmember Emery moved to adopt the ordinance. Councilmember Boney seconded. **MOTION PASSED UNANIMOUSLY.**

11. RESOLUTIONS

- (a) Consider a resolution authorizing the Mayor to execute and the City Secretary to attest an assignment, notice and consent by and between the City of Missouri City, Texas; Star Gessner Properties, LTD; and Waterworld USA, Inc. pertaining to the assignment of a tax abatement agreement from Star Gessner Properties, LTD to Waterworld USA, Inc.

Councilmember Pearson moved to approve the resolution. Councilmember Boney seconded. **MOTION PASSED UNANIMOUSLY.**

12. CITY COUNCIL ANNOUNCEMENTS

Councilmember Emery announced his upcoming Community Meeting on May 23, with County Judge KB George speaking in regards to Oyster Creek. Councilmember Pearson stated he talked to businesses on Texas Parkway on cleaning up their business area. Councilmember Maroulis stated he attended the Bamboo Spice ribbon cutting; participated at the Public Service Recognition Week; and, congratulated the Parks and Recreation Department for MCTX event. Councilmember Boney thanked Representative Ron Reynolds and the Communications department for bringing the Small Business event to Missouri City. Boney thanked staff and all residents who serve on committees. Mayor Ford thanked Chase for sponsoring a luncheon to provide education to small business owners and receiving funding.

13. ADJOURN

The regular City Council meeting adjourned at 8:34 p.m.

Maria Jackson, City Secretary

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Councilmember District D

CITY COUNCIL SPECIAL MEETING MINUTES

The City Council of the City of Missouri City, Texas, met in special session on **Monday, May 13, 2019**, at the City Hall, Council Chamber, 1522 Texas Parkway, Missouri City, Texas, 77489, at **5:00 p.m.** to consider the following:

1. CALL TO ORDER

Mayor Ford called the meeting to order at 5:04 p.m.

Those also present: Councilmembers Pearson, Boney, and Emery; City Manager Snipes, First Assistant City Attorney Way, City Secretary Jackson, Director of Communications Walker, and Media Relation Specialist III Kalimkootil. Councilmember Edwards arrived at 5:05 p.m. Mayor Pro Tem Preston arrived at 5:06 p.m. Absent: Councilmember Maroulis.

2. DISCUSSION/POSSIBLE ACTION

- (a) Interview, discuss, and consider candidates to serve on various city boards, committees, and commissions.

City Council interviewed Kymberly McMorries, J.R. Atkins, Claudia Iveth Garcia, William Booher, Candace McCray, Victoria Porter, Timothy R. Haney, Peter Thompson, Daniel Silva, Angie Wierzbicki, Bob Bailey, and Glenn Harper for various city boards, committees, and commissions.

Councilmember Pearson moved to recess the special City Council meeting at 7:14 p.m. Councilmember Edwards seconded. **MOTION PASSED UNANIMOUSLY.**

Councilmember Emery moved to reconvene the special City Council meeting at 7:17 p.m. Councilmember Edwards seconded. **MOTION PASSED UNANIMOUSLY.**

City Council interviewed Llarance Turner.

Councilmember Emery moved to extend Mr. Turner's interview by three minutes. Councilmember Pearson seconded. **MOTION PASSED UNANIMOUSLY.**

The Mayor requested that the committee determine what other cities were doing when terms expire.

3. ADJOURN

The special City Council meeting adjourned at 7:32 p.m.

Maria Jackson, City Secretary



CITY COUNCIL AGENDA ITEM COVER MEMO

May 20, 2019

To: Mayor and City Council
Agenda Item: 6(b) City's Drought Contingency Plan (DCP).
Submitted by: Dan McGraw, Utilities Manager

SYNOPSIS

Pursuant to, Title 30, Part 1, Chapter 288, Subchapter B, Rules 288.20-288.22 of the Texas Administrative Code, the City is required to adopt and update a Drought Contingency Plan. The Drought Contingency Plan is a mechanism to manage drinking water supplies during times of drought or emergency to ensure enough water supply for domestic water use, industrial use, and sanitation and fire protection. The Groundwater Reduction Plan (GRP) committee made a recommendation for City Council to approve the draft plan at the August 21, 2018 meeting. Subsequently, on March 18, 2019, the Council amended and adopted the Drought Contingency Plan (DCP) to reflect recent updates made by the Gulf Coast Water Authority (GCWA).

STRATEGIC PLAN 2019 GOALS ADDRESSED

- Create a great place to live
- Have quality development through buildout

BACKGROUND

At the March 18, 2019 City Council meeting, the Council amended and adopted the Drought Contingency Plan (DCP) to reflect recent updates made by the Gulf Coast Water Authority (GCWA) pertaining to curtailment and surcharges.

The amendment is required by TCEQ rules and regulations and also staff proposed to aggregate the groundwater and surface water system under the same set of conservation measures, enforcement, and other details on how conservation will take place during times when GCWA declares a drought. The provision of this plan shall apply to all entities utilizing water provided by the City of Missouri City, including all members of the GRP

This first public hearing was held on May 6, 2019 and this is the second of the two public hearings required to amend and adopt the City's Drought Contingency Plan (DCP).

Conservation during times of insufficient rainfall allows the Supplier (GCWA) and the City to minimize the adverse impacts of water shortages and to further minimize the adverse impacts of emergency conditions. This allows the City to protect and preserve public health, welfare and safety of our citizens

BUDGET/FISCAL ANALYSIS

Purchasing Review: N/A
Financial/Budget Review: N/A

Note: Compliance with the conflict of interest questionnaire requirements, if applicable, and the interested party disclosure requirements (HB 1295) has been confirmed/is pending within 30-days of this Council action and prior to execution.

SUPPORTING MATERIALS

1. DCP Ordinance
2. Resolution 2019-15
3. COMC Drought Contingency Plan 2012
4. COMC Drought Contingency Plan 2019
5. GCWA Drought Contingency Plan adopted December 6, 2018

STAFF'S RECOMMENDATION

Staff recommends that City Council approve the amendment the City's Drought Contingency Plan (DCP).

Director Approval:

Shashi K. Kumar, P.E.

**Assistant City Manager/
City Manager Approval:**

Bill Atkinson

ORDINANCE NO. O-19-__

**AN ORDINANCE OF THE CITY OF MISSOURI CITY, TEXAS,
AMENDING CHAPTER 86, UTILITIES, OF THE MISSOURI CITY CODE;
AMENDING REGULATIONS REGARDING CERTAIN DROUGHT
CONTINGENCY PLANS; PROVIDING FOR REPEAL; PROVIDING A
PENALTY; AND PROVIDING FOR SEVERABILITY.**

* * * * *

WHEREAS, pursuant to Title 30, Part 1, Chapter 288, Subchapter B, Rules 288.20-288.22 of the Texas Administrative Code, retail public water suppliers are required to adopt and update drought contingency plans at least every five years; and

WHEREAS, pursuant to Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code, such drought contingency plan must document coordination with the regional planning groups for the service area of the retail public water supplier to ensure consistency with the appropriate approved regional water plans; and

WHEREAS, the City of Missouri City, including the Groundwater Reduction Plan Advisory Committee, which is comprised of a representative of municipal utility districts in the City converting to surface water and a representative of municipal utility districts in the City not converting to surface water, reviewed the drought contingency plan prepared by the Gulf Coast Water Authority (the "GCWA"); and

WHEREAS, the GCWA held eight stakeholder or public meetings on the development of the drought contingency plan from January 2017 through August 2018; and

WHEREAS, the City of Missouri City desires to adopt additional provisions to execute its drought contingency obligations; and

WHEREAS, the City of Missouri City held two public hearings relating to the development of the additional provisions for the contingency plan; and

WHEREAS, the City Council of the City of Missouri City now deems it appropriate to amend regulations regarding drought contingency plans; and

WHEREAS, the meeting at which this Ordinance for adoption is being considered has been properly noticed and is open to the public; now, therefore,

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MISSOURI CITY,
TEXAS:**

Section 1. The facts and recitations set forth in the preamble of this Ordinance are hereby found to be true and correct.

Section 2. The Missouri City Code is hereby amended by deleting Section 86-30.3 of Subdivision II of Division 2 of Article I of Chapter 86 thereof and substituting therefor a new Section 86-30.3 of Division 2 of Article I of Chapter 86 to provide as follows:

“ARTICLE I – CITY WATER AND SEWER SERVICES

.

Division 2 – WATER AND SEWER SERVICES, RATES, AND COSTS

.

Subdivision II. Northeast Oyster Creek Utility Service Area

Sec. 86-30.3. - Drought contingency plan.

The city herein approves and adopts the "Drought Contingency Plan" prepared by the Gulf Coast Water Authority, dated December 6, 2018, as modified by the "City of Missouri City Drought Contingency Plan," dated May 20, 2019, as the drought contingency plan applicable to the Northeast Oyster Creek utility service area. A copy of said plan shall be made available at the city secretary's office for public inspection during regular business hours."

Section 3. The Missouri City Code is hereby amended by deleting Sections 86-30.7 and 86-30.8 of Subdivision III and Subdivision IV, respectively, of Division 2 of Article I of Chapter 86 thereof and substituting therefor new Sections 86-30.7 and 86-30.8 of Subdivision III and Subdivision IV, respectively, of Division 2 of Article I of Chapter 86 to provide as follows:

“ARTICLE I – CITY WATER AND SEWER SERVICES

.

Division 2 – WATER AND SEWER SERVICES, RATES, AND COSTS

.

Subdivision III. Mustang Bayou Utility Service Area

Sec. 86-30.7. - Drought contingency plan.

The city herein approves and adopts the "Drought Contingency Plan" prepared by the Gulf Coast Water Authority, dated December 6, 2018, as modified by the "City of Missouri City Drought Contingency Plan," dated May 20, 2019, as the drought contingency plan applicable to the Mustang Bayou utility service area. A copy of said plan shall be made available at the city secretary's office for public inspection during regular business hours.

Subdivision IV. Surface Water Treatment Plant Utility Service Area

Sec. 86-30.8. - Drought contingency plan.

The city herein approves and adopts the "Drought Contingency Plan" prepared by the Gulf Coast Water Authority, dated December 6, 2018, as modified by the "City of Missouri City Drought Contingency Plan," dated May 20, 2019, as the drought contingency plan applicable to the surface water treatment plant utility service area. A copy of said plan shall be made available at the city secretary's office for public inspection during regular business hours."

Section 4. Repeal. Resolution R-19-15, adopted on March 18, 2019, is hereby repealed. All ordinances, resolutions or parts of ordinances or resolutions in conflict herewith, if any, shall be and are hereby repealed only to the extent of such conflict.

Section 5. Penalty. Any person who violates, or any person who causes or allows another person to violate, any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than Five Hundred Dollars (\$500.00). Each occurrence of any violation of this Ordinance shall constitute a separate offense. Each day in which any violation of this Ordinance occurs shall constitute a separate offense.

Section 6. Severability. In the event any clause, phrase, provision, sentence or part of this Ordinance or the application of the same to any person or circumstance shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof, other than the part declared to be invalid or unconstitutional; and the City Council of the City of Missouri City, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

PASSED and APPROVED on first reading this 6th day of May, 2019.

PASSED, APPROVED and ADOPTED on second and final reading this 20th day of May, 2019.

Yolanda Ford, Mayor

ATTEST:

APPROVED AS TO FORM:

Maria Jackson, City Secretary

Jamilah Way, First Asst. City Attorney
For E. Joyce Iyamu, City Attorney

RESOLUTION NO. R-19-15

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MISSOURI CITY, TEXAS, ADOPTING A DROUGHT CONTINGENCY PLAN IN THE CITY OF MISSOURI CITY, TEXAS.

* * * * *

WHEREAS, pursuant to Title 30, Part 1, Chapter 288, Subchapter B, Rules 288.20-288.22 of the Texas Administrative Code, retail public water suppliers are required to adopt and update drought contingency plans at least every five years; and

WHEREAS, pursuant to Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code, such drought contingency plan must document coordination with the regional planning groups for the service area of the retail public water supplier to ensure consistency with the appropriate approved regional water plans; and

WHEREAS, the City of Missouri City, including the Groundwater Reduction Plan Advisory Committee, which is comprised of a representative of municipal utility districts in the City converting to surface water and a representative of municipal utility districts in the City not converting to surface water, reviewed the drought contingency plan prepared by the Gulf Coast Water Authority (the "GCWA"); and

WHEREAS, the GCWA held eight stakeholder or public meetings on the development of the drought contingency plan from January 2017 through August 2018; and

WHEREAS, the meeting at which this Resolution for adoption is being considered has been properly noticed and is open to the public; now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MISSOURI CITY, TEXAS:

Section 1. That the City Council of the City of Missouri City, Texas, does, hereby adopt, for and on behalf of the City of Missouri City, Texas, Exhibit "A," the Drought Contingency Plan for Gulf Coast Water Authority.

Section 2. The officers and employees of the City are hereby authorized and directed to execute such instruments and take such actions as are consistent with the provisions of this Resolution.

Section 3. Repeal. All resolutions or parts of resolutions, if any, in conflict herewith, shall be and are expressly repealed to the extent of such conflict.

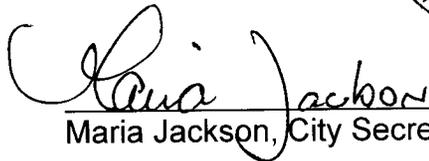
Section 4. Severability. In the event any clause, phrase, provision, sentence or part of this Resolution or the application of the same to any person or circumstances

shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Resolution as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Missouri City, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

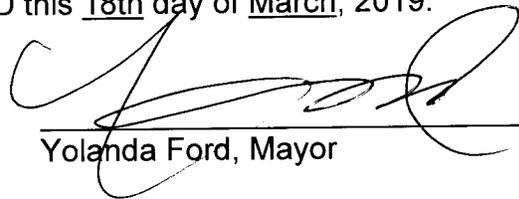
PASSED, APPROVED and ADOPTED this 18th day of March, 2019.



ATTEST:

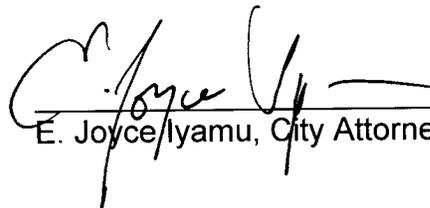


Maria Jackson, City Secretary



Yolanda Ford, Mayor

APPROVED AS TO FORM:



E. Joyce Iyamu, City Attorney

Exhibit “A”

Drought Contingency Plan for Gulf Coast Water Authority

Section I: Introduction

The purpose of this drought contingency plan (the Plan) for the Gulf Coast Water Authority (GCWA) is as follows:

- To conserve the available water supply in times of drought and emergency;
- To maintain supplies for domestic water use, industrial use, sanitation, and fire protection;
- To protect and preserve public health, welfare, and safety;
- To minimize the adverse impacts of water supply shortages;
- To minimize the adverse impacts of emergency water supply conditions; and
- To satisfy the requirements set forth by the Texas Commission on Environmental Quality (TCEQ) and other agencies.

A drought is generally defined as an extended period of time when an area receives insufficient amounts of rainfall to maintain or replenish the water supply, thereby causing temporary water supply shortages. In the absence of drought response measures, water demands tend to increase during a drought due to the need for additional outdoor irrigation and cooling water. The severity of a drought depends on the degree of depletion of supplies and on the relationship of demand to available supplies.

This Plan addresses periods of time when: (i) the quantity of water in the Brazos River available to GCWA under its water rights, and its alternative sources of water (including contracts for stored water from the Brazos River Authority [BRA]) is insufficient to meet the demands of GCWA's water supply customers; or (ii) the capacity of GCWA's pump stations, canals or water treatment plants is insufficient to meet the demands of any water supply customers dependent on such facilities, or both.

Section II: TCEQ Requirements for Drought Contingency Plans

This Plan is consistent with TCEQ guidelines and requirements for the development of drought contingency plans by wholesale water suppliers, contained in Title 30, Part 1, Chapter 288, Subchapter B, Rules 288.20-288.22 of the Texas Administrative Code. These rules are included in *Appendix A*. As required by TCEQ rules, GCWA will review and update this Plan, as appropriate based on an assessment of any other new or updated information. GCWA will review and update the Plan no less than every five years to satisfy TCEQ requirements, or as deemed necessary by GCWA.

Section III: Public Involvement

Opportunity for the public and GCWA's water customers to provide input into the preparation of the Plan was provided by GCWA through the following measures:

- Providing written notice of the proposed plan and the opportunity to comment on the plan by newspaper, posted notice, and notice on GCWA's website;

- Making the draft plan available on GCWA’s website;
- Providing the draft plan to anyone requesting a copy; and
- Holding eight (8) stakeholder and/or public meetings on plan development from January 2017 through August 2018.

Section IV: Water Customer Education

After the Plan is adopted, GCWA will continue to inform and educate the public and GCWA’s customers about the Plan through the following measures:

- Preparing a bulletin describing the Plan and making it available at appropriate locations;
- Making the Plan and actions taken by GCWA related to implementation of the Plan available to the public through the GCWA website and other social media outlets;
- Notifying local organizations, schools, and civic groups that GCWA staff are available to make presentations on the Plan (usually in conjunction with presentations on water conservation programs); and
- Notifying GCWA’s customers about the Plan, upon Plan adoption and if any Plan amendments are made.

Section V: Coordination with Regional Water Planning Groups

The water service area of the GCWA is located within the Region H water planning area as defined by the Texas Water Development Board. GCWA has provided a copy of this Plan to Region H, along with the letter shown in *Appendix B*.

Section VI: Authorization

The GCWA General Manager (the GM), or his/her designee is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The GM shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VII: Application of Drought Response Measures

The provisions of this Plan shall apply to all of GCWA’s customers. The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, municipalities, political subdivisions, and all other legal entities.

With the exception of Section VIII.5, this Plan applies only to **GCWA Water Supplies**, including both **Run-of-River Supplies** and **GCWA Alternate Water Supplies**. **Customer Purchased Backup Water** is subject to Section VIII.5 because delivery of **Customer Purchased Backup Water** is subject to GCWA’s physical ability to transport water via GCWA’s canal and pipe systems.

The following actions will be taken when a drought stage is initiated:

- GCWA’s customers who are potentially affected by a drought or emergency (the Affected Customers) will be notified by e-mail or via GCWA’s designated emergency communications network and will be provided details of the reasons for initiation of the drought contingency stage; and
- If GCWA declares a Stage 5 - Water Emergency Response (Section VIII.5) requiring mandatory water restrictions, GCWA will notify the Executive Director of the TCEQ within

5 business days. Notifications will be made via e-mail to wcp@tceq.texas.gov.

The GM may decide not to order the implementation of a drought contingency response stage even though one or more of the trigger criteria for the stage are met. Factors which could influence such a decision include, but are not limited to, the time of year, existing or potential weather conditions, the anticipation of replenished water supplies, the availability of **GCWA Alternate Water Supplies**, or the anticipation that additional facilities will become available to meet needs.

Section VIII: Definitions, and Criteria and Actions Required for Drought or Emergency Response Stages for Affected Customers.

This section defines terms used in the Plan. This section also describes the criteria for and actions required for drought response stages. Defined terms are listed below, and are shown in **Bold** whenever used throughout this Plan.

- **Affected Customers:** Customers that are impacted by a particular shortage of **GCWA Water Supplies** or the delivery capacity of GCWA facilities, when compared to the water demand for such supplies or facilities. **Affected Customers** include the customers that have delivery points downstream of the circumstances that are triggering a **Stage Response**. For instance, GCWA's canal customers may be affected by events impacting diversion rate, river pump stations or canal conveyance to the point of delivery by GCWA to the customer. Similarly, GCWA's treated water customers may be impacted by events concerning the river pump stations and canal conveyances, but also storage in GCWA reservoir(s) and operation of the Thomas S. Mackey Water Treatment Plant and distribution infrastructure. The concept of Affected Customers is intended to limit the scope of drought and emergency response to only those customers directly impacted by a significant event, whether it be related to river conditions, pump station capacity, or conveyance and other infrastructure.
- **Base Water Use:** The computed monthly average usage for each individual GCWA **Firm Customer** based on that customer's actual usage during the same month during the three previous calendar years, excluding any reductions in usage as a result of implementing a Stage Response measure pursuant to this Plan.
- **Conserved Water Quantity:** The volume of water conserved by an individual GCWA customer during the implemented Stage Response, defined as the difference between the customer's Base Water Usage or Interruptible Water Usage, and actual customer usage.
- **Contributing Watershed:** The portion of the Brazos River watershed upstream of GCWA's Shannon Pump Station that is administered by the Brazos River Watermaster.
- **Customer Purchased Backup Water:** Any water supply that is secured by the customer and is assigned and managed by GCWA, or secured by GCWA for that customer pursuant to an agreement with GCWA.
- **Deliverable Capacity:** The capacity to convey water at a given point in the GCWA water delivery system, as limited by diversion/pumping capacity, conveyance capacity, treatment capacity, or other factors..
- **Excess Water Usage:** The volume of water used by an individual customer in excess of the customer's **Base Water Use** or **Interruptible Water Use**, during the implemented Stage Response.
- **Firm Customers:** Customers to which GCWA is contractually obligated to provide water for a period longer than one year. **Firm Customers** may receive **Run-of-River Supplies** and **GCWA Alternate Water Supplies**. **Interruptible Customers** are not **Firm Customers**.
- **GCWA Alternate Water Supplies:** Any water provided by GCWA other than under its **Run-of-River supplies**. **GCWA Alternate Water Supplies** include stored water contracts with BRA, and other water sources obtained or owned by GCWA.

- **GCWA Water Supplies.** Water supplies owned or contracted by GCWA, including **Run-of-River Supplies** and **GCWA Alternate Water Supplies**.
- **Interruptible Customers with Backup:** Customers to which GCWA may provide water only when sufficient **Run-of-River Supplies** are available, or when GCWA is delivering **GCWA Alternate Water Supplies** which the customer has purchased through GCWA.
- **Interruptible Customers without Backup:** Customers to which GCWA may provide water only when sufficient **Run-of-River Supplies** are available; these customers do not have access to **GCWA Alternate Water Supplies**.
- **Interruptible Water Use** – Water usage by **Interruptible Customers with Backup**, and by **Interruptible Customers without Backup**.
- **Lower Basin User’s Group** – a group of water users in the lower Brazos basin that collaboratively manages water operations to ensure efficient utilization of available water. This group will be organized by GCWA. During the summer of 2018, such a group effectively and efficiently assessed Run-of-River Flows, available Alternate Water Supplies, and customer demands to maximize water availability for all group participants.
- **Monthly Flow Target:** As determined by the GM, the flow value for each month in cubic feet per second (cfs or ft³/s) that is needed to meet the total demand for **Base Water Use** and **Interruptible Water Use** for that month, plus the estimated water diversions for that month by NRG Energy (NRG) and Dow Chemical Company at Freeport (Dow).
- **Raw Water Rate:** The raw water rate for Fund 08 Canal Division as adopted annually by the GCWA Board of Directors.
- **Run-of-River Supplies:** Water available to GCWA under its water rights 12-5168, 13-5169, 12-5171, 12-5322, or 13-5357. This water is water available from the Brazos River, Mustang Bayou, Halls Bayou, Chocolate Bayou, or Jones & Oyster Creek, and is diverted according to the State of Texas prior-appropriation system.
- **Run-of-River Flow at Hempstead:** Water within the Brazos River as measured at the US Geological Survey (USGS) gaging station #8111500 (Brazos River near Hempstead, TX). The **Run-of-River Flow at Hempstead** includes only water authorized for diversion under the State of Texas prior appropriation system, and excludes releases of stored water by BRA, **Customer Purchased Backup Water**, or other sources of flow in the river not authorized for diversion under the State of Texas prior-appropriation system.
- **Stage Response:** Any of the responses to drought or water shortage listed in Section VIII.
- **System Demand:** Demand on the GCWA system, defined as the sum of GCWA customer demands located at or downstream of a given location on the GCWA water distribution system (canals, reservoirs, water treatment plant, pump stations, and other water distribution infrastructure).

Table 1 provides a summary of pertinent drought stage response conditions, water use reduction goals, water rate surcharges and water rate credits. Items in Table 1 are explicitly described below throughout the Plan.

Table 1: Summary of Drought and Emergency Response Stages

	Stage 1 Response	Stage 2 Response	Stage 3 Response	Stage 4 Response	Stage 5 Water Emergency Response
Minimum percentage of Contributing Watershed in “Moderate Drought” or higher per the US Drought Monitor to declare Stage Response	50%	NA	NA	NA	NA
System Demand Exceeds [A]% of Deliverable Capacity to declare Stage Response :	85%	90%	95%	98%	NA
Run-of-River Supplies plus GCWA Alternate Water Supplies are less than [A]% of the Monthly Flow Target through August 31 to declare Stage Response	NA	95%	90%	85%	NA
Water Use Reduction Goal	95%	90%	85%	80%	GM discretion
Potential Surcharge	NA	2.5x	2.5x	5.0x	10.0x
Potential Credit	NA	1.0x	1.0x	1.0x	1.0x

“NA” signifies “Not Applicable”. [A] references percentage values listed in Table rows.

Section VIII.1: Stage 1 Response (Mild Water Shortage; TCEQ “Watch” Level)

A Stage 1 Response for **Affected Customers** may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 1 Response. The GM will consider declaring a Stage 1 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1) **System Demand** exceeds 85% of **Deliverable Capacity** within the GCWA system for three consecutive days (applicable to any portion thereof).
- 2) Greater than 50% (by area) of the **Contributing Watershed** is classified as being under a D1 (“Moderate Drought”) condition, or greater, as identified on the most recent United States Drought Monitor website. (Currently accessible at: <http://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?TX>)

A Stage 1 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 1 Response no longer prevail.

Response Measures:

The goal for water use under Stage 1 is 95% of the total **Base Water Use** and **Interruptible Water Use** for all **Affected Customers**. The GM may implement any of the following actions deemed necessary, and may implement other appropriate actions not listed below:

- Notify all **Affected Customers** that a Stage 1 Response condition exists;
- Request all **Affected Customers** to initiate Stage 1 or other appropriate stage in their drought contingency plans;
- Request voluntary reductions in water use by all **Affected Customers**;
- Initiate or continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Increase public awareness of drought or system conditions and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 1 Response Condition exists.

Section VIII.2: Stage 2 Response (Moderate Water Shortage; TCEQ “Concern” Level)

A Stage 2 Response for **Affected Customers** may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 2 Response. The GM will consider declaring a Stage 2 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1) **System Demand** exceeds 90% of **Deliverable Capacity** within GCWA’s conveyance system for three consecutive days (applicable to any portion thereof).
- 2) The Lower Basin User’s Group recommends further water conservation based on its collective experience managing river operations.
- 3) Water available from **Run-of-River Supplies** and **GCWA Alternate Water Supplies** is determined to be insufficient to satisfy 95% of GCWA’s **Monthly Flow Target** through August 31 of the current year (if date is on or after January 1) or through August 31 of the next year (if date is on or after September 1 of the current year).

A Stage 2 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 2 Response no longer prevail.

Response Measures:

The goal for water use under Stage 2 is 90% of the total **Base Water Use** and **Interruptible Water Use** for all **Affected Customers**. If the circumstances warrant, the GM may set an alternative water use reduction goal.

The GM may implement any of the following actions deemed necessary:

- Continue or initiate any actions available under Stage 1;
- Notify all **Affected Customers** that a Stage 2 Response condition exists;
- Initiate or continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Request all **Affected Customers** to initiate Stage 2 or other appropriate stage in their drought contingency plans;
- Request voluntary reductions in water use by **Affected Customers**;
- Meet with **Affected Customers** to determine water use on an as needed basis, identify **Affected Customers** exceeding 95% of their **Base Water Use** or **Interruptible Water Use** and encourage them to reduce their usage;

- Cease issuance of new short-term or **Interruptible Customer** contracts with the exception of contracts needed under emergency conditions;
- Terminate water deliveries to existing **Interruptible Customers without Backup**;
- Increase public awareness of drought condition and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 2 Response Condition exists.

If water deliveries to **Interruptible Customers without Backup** are terminated, GCWA will recalculate the **Monthly Flow Target** by excluding from the calculations the water demand of those customers.

Section VIII.3: Stage 3 Response (Severe Water Shortage; TCEQ “Priority” Level)

A Stage 3 Response for Affected Customers may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 3 Response. The GM will consider declaring a Stage 3 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1) **System Demand** exceeds 95% of **Deliverable Capacity** within GCWA’s conveyance system for three consecutive days (applicable to any portion thereof).
- 2) The Lower Basin User’s Group recommends further water conservation based on its collective experience managing river operations.
- 3) Water available from **Run-of-River Supplies** and **GCWA Alternate Water Supplies** is determined to be insufficient to satisfy 90% of GCWA’s Monthly Flow Target through August 31 of the current year (if date is on or after January 1) or through August 31 of the next year (if date is on or after September 1 of the current year).

A Stage 3 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 3 Response no longer prevail.

Response Measures:

The goal for water use under Stage 3 is 85% of the total **Base Water Use** and **Interruptible Water Use** for all **Affected Customers**. If the circumstances warrant, the GM may set an alternative water use reduction goal.

The GM may implement any of the following actions deemed necessary:

- Initiate or continue any actions available under Stage 1 and Stage 2;
- Notify all **Affected Customers** that a Stage 3 Response condition exists;
- Continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Continue to coordinate with **Affected Customers** to determine water use on as needed basis, identify **Affected Customers** exceeding 90% of their **Base Water Use** or **Interruptible Water Use**, and encourage them to reduce their usage;
- Request all **Affected Customers** to initiate Stage 3 or other appropriate stage in their drought contingency plans;
- Encourage **Affected Customers** to initiate or continue use of any alternate water supplies available to them
- Terminate **Run-of-River Supplies** for **Interruptible Customers with Backup**, thereby limiting such customers to only obtaining water from **GCWA Alternate Water Supplies**, if any;

- Increase public awareness of drought condition and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 3 Response Condition exists.

If the water deliveries of **Run-of-River Supplies** to **Interruptible Customers with Backup** are terminated, GCWA will recalculate the **Monthly Flow Target** by excluding from the calculations the water demand of those customers.

Section VIII.4: Stage 4 Response (Extreme Water Shortage; TCEQ “Emergency” Level)

A Stage 4 Response for Affected Customers may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 4 Response. The GM will consider declaring a Stage 4 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1 **System Demand** exceeds 98% of **Deliverable Capacity** within GCWA’s conveyance system for three consecutive days (applicable to any portion thereof).
- 2 The Lower Basin User’s Group recommends further water conservation based on its collective experience managing river operations.
- 3 Water available from **Run-of-River Supplies** and **GCWA Alternate Water Supplies** is determined to be insufficient to satisfy 85% of GCWA’s Monthly Flow Target through August 31 of the current year (if date is on or after January 1) or through August 31 of the next year (if date is on or after September 1 of the current year).

A Stage 4 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 4 Response no longer prevail.

Response Measures:

The goal for water use under Stage 4 is 80% of the total **Base Water Use** for all **Affected Customers**. If the circumstances warrant, the GM may set an alternative water use reduction goal.

The GM may implement any of the following actions deemed necessary:

- Initiate or continue any actions available under Stages 1, 2 and 3;
- Notify all **Affected Customers** that a Stage 4 Response condition exists;
- Continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Continue to coordinate with **Affected Customers** to determine water use, identify **Affected Customers** exceeding 85% of their **Base Water Use** and encourage them to reduce their usage;
- Request all **Affected Customers** to initiate Stage 4 or other appropriate stage in their drought contingency plans;
- Encourage **Affected Customers** to initiate or continue use of any alternate water supplies available to them
- Terminate all water delivery to **Interruptible Customers with Backup**.
- Request relief from the Brazos Watermaster, and if necessary, make a priority call to enforce GCWA’s senior water rights.
- Increase public awareness of drought conditions and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 4 Response Condition exists.

When the water deliveries to **Interruptible Customers with Backup** are terminated, GCWA will recalculate the **Monthly Flow Target** by excluding from the calculations the water demand of those customers.

Section VIII.5: Stage 5 - Water Emergency Response (Emergency Water Shortage; TCEQ “Emergency” Level)

A Stage 5 Water Emergency Response for **Affected Customers** may be triggered when the GM finds that conditions warrant the declaration of a water emergency response due to:

- 1) A major GCWA system failure leading to loss of water service,
- 2) The water supply becoming contaminated and unusable, or

A Stage 5 response may be terminated by the GM when the circumstances that triggered the initiation of Stage 5 no longer prevail.

The goal for water use reduction under a water emergency response is subject to the scope of the emergency. The GM may order the implementation of any of the actions listed below as deemed necessary. The water emergency response measures are as follows:

- Continue or initiate any actions available under Stage 1, 2, 3, and 4
- Notify all **Affected Customers** that an emergency condition exists and meet with **Affected Customers** as appropriate to inform them of the specific nature of the emergency condition
- Require **Affected Customers** to initiate the emergency or other appropriate stage in their drought contingency plan
- Initiate pro-rata distribution of available water under TWC §11.039
- Notify the Brazos Watermaster, if applicable

Under Stage 5, GCWA will notify TCEQ of its emergency conditions and the imposition of mandatory reductions in water use by **Affected Customers**. GCWA will notify TCEQ within five (5) days of initiation and termination of Stage 5 conditions. Notifications will be submitted to the TCEQ Public Drinking Water Section Drought Team, and will be submitted via the TCEQ-required online form, currently available at: https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws/pws-drought-contingency-plan-reporting-form. Assistance in making notifications may be obtained via e-mail to wcp@tceq.texas.gov or via phone at 512-239-4691.

Section IX: Pro Rata Water Distribution

In the event one or more Stage 5 Response Conditions specified herein have been met, the GM is hereby authorized to initiate distribution of water supplies on a pro-rata basis among all **Affected Customers**. The distribution will be in accordance with Texas Water Code, §11.039.

Section X: Enforcement

Section X.1 Surcharge

Under Stage 2 or Stage 3 Response Conditions, **Affected Customers** shall pay the following surcharge on their monthly **Excess Water Usage**, calculated as follows:

Excess Water Usage multiplied by **2.5** times the individual customer’s **Raw Water Rate**.

Under Stage 4 Response Conditions, **Affected Customers** shall pay the following surcharge on their monthly **Excess Water Usage**, calculated as follows:

Excess Water Usage multiplied by **5.0** times the individual customer's **Raw Water Rate**.

Under Stage 5 Response Conditions, **Affected Customers** shall pay the following surcharge on their monthly **Excess Water Usage**, calculated as follows:

Excess Water Usage multiplied by **10.0** times the individual customer's **Raw Water Rate**.

Overage payments made by any customers under the terms of the customer's contract(s) with GCWA shall be credited against any surcharge for **Excess Water Use** assessed under this Plan.

Revenues obtained by GCWA from the Surcharges will be deposited or credited to Fund 08 Canal Division.

Section X.2 Credits

Under Stage 2, Stage 3, or Stage 4 Response conditions, **Affected Customers** which achieve the applicable water use reduction goal shall receive a conservation incentive payment based on their **Conserved Water Quantity**, calculated as follows:

Conserved Water Quantity multiplied by **1.0** times the individual customer's **Raw Water Rate**.

Section XI: Variances

The GM may, in writing, grant a variance to a GCWA customer for a specified period of time for water uses otherwise prohibited or managed under this Plan, if one or more of the following conditions are met:

- Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the GCWA customer,
- A customer's calculated **Base Water Use or Interruptible Water Use** is incorrectly or inappropriately computed,
- A customer's recent or pending increase or decrease in contract water volume for example through obtaining additional GCWA contracts, contract amendments, exercising of contract options, or by other mechanisms) renders historical usage no longer reflective of current water demands,
- Compliance with this Plan cannot be accomplished due to technical, legal, or other limitations, or
- Alternative methods that achieve the same level of reduction in water use may be implemented.

Variance requests regarding **Base Water Use** or **Interruptible Water Use** must provide a description of why the original GCWA-calculated **Base Water Use** or **Interruptible Water Use** either under or over-estimates reasonably expected customer usage. The extenuating circumstances justifying a variance may include, but are not limited to, meter malfunction, planned or emergency shut-downs of industrial facilities, damage or required maintenance to conveyance facilities, and anticipated growth in demand beyond the historic three-year period.

All petitions for variances will be in writing and should include the following information:

- Name and address of the petitioner(s),
- Purpose of water use,
- Specific changes or provisions from which relief is requested,

- Detailed statement of any adverse effect of the provisions for which a variance is requested,
- Description of the change or relief requested, including providing a detailed justification of the change or relief,
- Period of time for which the variance is sought,
- Alternative measures that will be taken to reduce water use (if applicable), and
- Other pertinent information.

Variances may be granted or denied at the discretion of the GM. However, if a variance request is denied, the GM shall provide in writing to the petitioner a reasoned justification for the denial of the variance. If the GM does not grant or deny a variance within 10 days from receipt of the variance request, the request is automatically denied, and the petitioner may appeal the denial directly to the GCWA Board of Directors.

Section XII: Appeals

- (a) *Generally.* The Board of Directors shall hear and decide applications for appeals of interpretations and of variances from: (i) the requirements of this Plan or other orders of GCWA, and (ii) actions of GCWA's officers relating to permits, licenses, variances or other special permissions.
- (b) *Who may apply; when to file.* Any person aggrieved by an applicable regulation or action may apply for an appeal. Applications must be filed, in writing, within 20 calendar days following the time the person knows of the requirement or action in question. The Board, for good cause shown, may extend the time for filing. Grievances not made in writing and filed within the time prescribed are waived.
- (c) *Special requirements for appeal of variance decisions by GM.* Variances shall only be issued to the minimum extent necessary to afford relief, and variances shall only be issued upon:
- (1) Showing a good and sufficient cause;
 - (2) A determination that failure to grant the variance would result in unusual hardship to the applicant; and
 - (3) A determination that the granting of a variance will not result in additional threats to public safety, extraordinary public expense, nuisances, fraud on or victimization of the public, or a conflict with existing laws or orders.
- (d) *Conditions.* Upon consideration of the factors noted above, the Board of Directors may attach such conditions to variances as it deems necessary to further the purpose and objectives of this Plan or other applicable orders of the Board or regulations of the State.
- (e) *Finality.* Board of Director's decisions on appeals, interpretations and variances control over decisions by any other officer or body of GCWA. No decision of the GCWA is final until: (i) it is officially made by an officer or body authorized to do so, and (ii) all applicable administrative remedies, as allowed by this section, are exhausted."

Section XII: Severability

It is hereby declared to be the intention of the GCWA that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections

of this Plan, since the same would not have been enacted by the GCWA without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Section XIII: Implementation

This Plan was adopted by the Gulf Coast Water Authority via a resolution passed by the Board of Directors on December 6, 2018. A copy of this resolution may be found in *Appendix C* of this document.

As part of the implementation process, GCWA will initiate and maintain an ad-hoc Drought Contingency Advisory Committee. The Committee will be administered by GCWA. The Committee will be comprised of representatives from each of the industrial customers, major municipal treated water customers and agriculture. The Brazos River Watermaster will be an ad-hoc member. The Committee will meet with GCWA twice each year to:

- Review information on river flow and BRA reservoir levels, and drought conditions in the Brazos River Basin.
- Monitor the running computation of Base Water Use and Interruptible Water Use for each customer.
- Receive information on water use, conservation and drought contingency planning by GCWA, NRG, and Dow.
- Provide feedback to GCWA on the implementation of the Plan.
- Receive information from GCWA on its acquisition of Alternate Water Supplies.

Adopted December 6, 2018

CITY OF MISSOURI CITY

DROUGHT CONTINGENCY PLAN

PWSID 0790207

August, 2012

Prepared by:



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**CITY OF MISSOURI CITY, TEXAS
DROUGHT CONTINGENCY PLAN**

Section I Declaration of Policy, Purpose and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the City of Missouri City, Texas (City) adopts the following Drought Contingency Plan (Plan).

Section II Public Involvement

Opportunity for the public and wholesale water customers to provide input into the preparation of the Plan was provided by the City by means of regular City Council meetings.

Section III Water Customer Education

The City will periodically provide wholesale and retail water customers with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. Information concerning the Plan will also be provided via the City's website. A copy of the Plan will be provided to the wholesale customers initially after adoption of the Plan and thereafter when the Plan is revised or resubmitted to the Texas Commission on Environmental Quality and to Region H Water Planning Group.

Section IV Coordination with Regional Water Planning Group

The wholesale and retail water service area of the City of Missouri City is located within the Region H Water Planning Group and the City has provided a copy of the Plan to the Region H Water Planning Group.

Section V Authorization

The City Manager for the City of Missouri City, or his/her designee, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The City Manager, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VI Application

The provisions of this Plan shall apply to all customers utilizing water provided by the City of Missouri City. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section VII Criteria for Initiation and Termination of Drought Response Stages

The City Manager, or his/her designee, shall monitor water supply and/or demand conditions on a weekly basis and shall determine when conditions warrant initiation or termination of each stage of the Plan. Notification to wholesale customers of the initiation or termination of drought response stages will be made by email, mail, facsimile or telephone. Notification to retail customers will be made through the City's website and news media.

The triggering criteria described below are based on a combination of two factors.

1. The City receives raw water on a wholesale basis from the Gulf Coast Water Authority (GCWA) which maintains a water conservation and drought contingency plan. Pursuant to pro rata measures described in section §11.039 of the Texas Water Code if a shortage of water in a water supply covered by a water conservation plan prepared in compliance with applicable State Rules results from drought, accident, or other cause, the person, association of persons, or corporation owning or controlling the water shall divide the water to be distributed among all customers pro rata, according to:
 - a. The amount of water to which each customer may be entitled; or
 - b. The amount of water to which each customer may be entitled, less the amount of water the customer would have saved if the customer had operated its water system in compliance with the water conservation plan.

As such the City of Missouri City recognizes the need to implement drought-related water use restrictions for wholesale and retail customers receiving treated surface water based on the same triggering criteria recognized by the GCWA. One set of triggering criteria defined by the City of Missouri City in its Plan will be the same as the triggering criteria defined in the GCWA's current Drought Contingency Plan.

2. The City also recognizes that conditions in its wholesale and/or retail delivery system may require the City to implement drought contingency measures exclusive of conditions in the GCWA delivery system. A second set of triggering conditions are therefore defined in the City's Plan based on water usage of its wholesale purchasers and the City's production and delivery systems.

Stage 1 Triggers -- Mild Water Shortage Conditions

1. Requirements for Initiation:
 - a. The City of Missouri City will recognize that a mild water shortage condition exists for wholesale and retail customers receiving treated surface water when the GCWA declares Stage 1 of its Drought Contingency Plan to be in effect, and supplemental groundwater supplies are not sufficient to meet demand when combined with available treated surface water, or
 - b. For wholesale and retail treated surface water customers when the pumpage from the Missouri City Regional Water Treatment Plant (MCRWTP) exceeds 80% of rated treatment plant capacity for three (3) consecutive days, or

- c. When continually falling water storage facility levels in retail storage tanks do not refill above the 50% level overnight.

2. Requirements for Termination:

- a. Stage 1 of the Plan may be rescinded when GCWA rescinds its Stage 1 or when all of the other conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days.
- b. The City of Missouri City will notify its wholesale and/or retail customers of the termination of Stage 1 in the same manner as the notification of initiation of Stage 1 of the Plan.

Stage 2 Triggers -- Moderate Water Shortage Conditions

1. Requirements for Initiation:

- a. The City of Missouri City will recognize that a moderate water shortage condition exists for wholesale and retail customers receiving treated surface water when the GCWA declares Stage 2 of its Drought Contingency Plan to be in effect, and supplemental groundwater supplies are not sufficient to meet demand when combined with available treated surface water, or
- b. For wholesale and retail treated surface water customers when the pumpage from the MCRWTP exceeds 90% of rated treatment plant capacity for three (3) consecutive days, or
- c. When continually falling water storage facility levels in retail storage tanks do not refill above the 50% level overnight for three (3) consecutive days.

2. Requirements for Termination:

- a. Stage 2 of the Plan may be rescinded when GCWA rescinds its Stage 2 or when all of the other conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days.
- b. The City of Missouri City will notify its wholesale and/or retail customers of the termination of Stage 2 in the same manner as the notification of initiation of Stage 2 of the Plan.
- c. Stage 1 may be implemented upon rescinding Stage 2.

Stage 3 Triggers -- Severe Water Shortage Conditions

1. Requirements for Initiation:

- a. The City of Missouri City will recognize that a severe water shortage condition exists for wholesale and retail customers receiving treated surface water when the GCWA declares Stage 3 of its Drought Contingency Plan to be in effect, and supplemental groundwater supplies are not sufficient to meet demand when combined with available treated surface water, or
- b. For wholesale and retail treated surface water customers when the pumpage from the MCRWTP exceeds 95% of rated treatment plant capacity for three (3) consecutive days, or

- c. When continually falling water storage facility levels in retail storage tanks do not refill above the 50% level overnight for five (5) consecutive days.
2. Requirements for Termination:
 - a. Stage 3 of the Plan may be rescinded when GCWA rescinds its Stage 3 or when all of the other conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days.
 - b. The City of Missouri City will notify its wholesale and/or retail customers of the termination of Stage 3 in the same manner as the notification of initiation of Stage 3 of the Plan.
 - c. Stage 1 or 2 may be implemented upon rescinding Stage 3.

Stage 4 Triggers -- Emergency Water Shortage Conditions

1. Requirements for Initiation:
 - a. The City of Missouri City will recognize an emergency water shortage condition for wholesale and retail customers receiving treated surface water when the GCWA declares a Water Emergency Response of its Drought Contingency Plan to be in effect, and supplemental groundwater supplies are not sufficient to meet demand when combined with available treated surface water, or
 - b. When major line breaks, pump system failures, treatment system failures, water supply contamination or other unforeseen conditions occur that cause the City Manager to recommend implementation of Stage 4 of the Plan.
2. Requirements for Termination:
 - a. Stage 4 of the Plan may be rescinded when GCWA rescinds its Water Emergency Response or when all of the other conditions listed as triggering events have ceased to exist, or
 - b. When at the discretion of the City Manager or his/her designee service has been restored to the point where Stage 4 conditions may be rescinded.
 - c. The City of Missouri City will notify its wholesale and/or retail customers of the termination of Stage 4 in the same manner as the notification of initiation of Stage 4 of the Plan.

Section VIII: Drought Response Stages

The City Manager or his/her designee, shall monitor water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section VII, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement the following actions:

Stage 1 Response -- Mild Water Shortage Conditions

1. Target:
 - a. Achieve voluntary reduction in total water use by wholesale and/or retail system users as applicable.
2. Best Management Practices for Supply Management:
 - a. Wholesale customers may utilize wells to supplement surface water production when necessary during periods when drought restrictions corresponding to GCWA stages are in place.
3. Water Use Restrictions for Reducing Demand:
 - a. The City Manager, or his/her designee, will contact wholesale and/or retail water customers to discuss water supply and/or demand conditions, and will request that wholesale and/or retail water customers initiate voluntary measures to reduce water use (e.g., implement Stage 1 of the wholesale customer's drought contingency plan).
 - b. The City Manager, or his/her designee, will provide regular updates to City's website with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 2 Response -- Moderate Water Shortage Conditions

1. Target:
 - a. Achieve reduction in total water use by wholesale and/or retail system users, as applicable, to a point where water use drops below Stage 2 trigger conditions.
2. Best Management Practices for Supply Management:
 - a. Wholesale customers may utilize wells to supplement surface water production when necessary during periods when drought restrictions corresponding to GCWA stages are in place.
3. Water Use Restrictions for Reducing Demand:
 - a. The City Manager, or his/her designee, will initiate weekly contact with wholesale and/or retail water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.
 - b. The City Manager, or his/her designee, will request wholesale water customers to initiate mandatory measures to reduce non-essential water use (e.g., implement Stage 2 of the wholesale customer's drought contingency plan).

- c. The City Manager, or his/her designee, will initiate preparations for the implementation of pro rata curtailment of treated surface water deliveries by preparing a monthly water usage allocation baseline for each wholesale customer according to the procedures specified in Section IX of the Plan.
- d. The City Manager, or his/her designee, will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.
- e. The City Manager, or his/her designee, will notify the Executive Director of the TCEQ within 5 business days of implementing Stage 2 restrictions.

Stage 3 Response -- Severe Water Shortage Conditions

- 1. Target:
 - a. Achieve reduction in total water use by wholesale and/or retail users to a point where water use drops below Stage 3 trigger conditions.
- 2. Best Management Practices for Supply Management:
 - a. Wholesale customers may utilize wells to supplement surface water production when necessary during periods when drought restrictions corresponding to GCWA stages are in place.
- 3. Water Use Restrictions for Reducing Demand:
 - a. The City Manager, or his/her designee, will initiate weekly contact with wholesale and/or retail water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.
 - b. The City Manager, or his/her designee, will initiate pro rata curtailment of water diversions and/or deliveries for each wholesale customer according to the procedures specified in Section VI of the Plan. Mandatory reductions will not be required if a wholesale customer can supplement reduced surface water deliveries with groundwater supplies adequate to meet demands.
 - c. The City Manager, or his/her designee, will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.
 - d. The City Manager, or his/her designee, will notify the Executive Director of the TCEQ within 5 business days of implementing Stage 3 restrictions.

Stage 4 Response -- Emergency Water Shortage Conditions

Whenever emergency water shortage conditions exist as defined in Section VII of the Plan, the City Manager, or his/her designee, shall:

1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.
2. Inform the utility director or other responsible official of each wholesale water customer by telephone or in person and suggest actions, as appropriate, to alleviate problems (e.g., notification of the public to reduce water use until service is restored).
3. Update the City's website to provide information to retail users.
4. If appropriate, notify city, county, and/or state emergency response officials for assistance.
5. Undertake necessary actions, including repairs and/or clean-up as needed.
6. The City Manager, or his/her designee, will notify the Executive Director of the TCEQ within 5 business days of implementing Stage 4 restrictions.
7. Prepare a post-event assessment report for City use on the incident and critique of emergency response procedures and actions to better prepare for future response measures.

Section IX: Pro Rata Water Allocation

In the event that the triggering criteria specified in Section VII of the Plan for Stage 3 – Severe Water Shortage Conditions or Stage 4 – Emergency Water Shortage Conditions have been met, the City Manager is hereby authorized initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039. Pro rata allocations for each wholesale customer will be based on a 36-month baseline of water use for each wholesale customer for the previous 36-month period. Where three years of water use information are not available, the baseline will be formulated for that user using available monthly consumption records.

Section X: Enforcement

During Stages 3 and 4 when pro rata allocation of available water supplies is in effect, wholesale customers shall pay the following surcharges on excess water diversions and/or deliveries:

1. 1.2 times the normal water charge for treated water deliveries in excess of the monthly allocation up through 5 percent above the monthly allocation.

2. 1.3 times the normal water charge for treated water deliveries in excess of the monthly allocation from greater than 5 percent through 10 percent above the monthly allocation.
3. 1.4 times the normal water charge for treated water deliveries in excess of the monthly allocation from greater than 10 percent through 15 percent above the monthly allocation.
4. 1.5 times the normal treated water charge for water deliveries more than 15 percent above the monthly allocation.

The above surcharges shall be cumulative.

Section XI: Variances

The City Manager, or his/her designee, may, in writing, grant a temporary variance to the pro rata water allocation policies provided by this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

- A. Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
- B. Alternative methods and water sources (including alternative groundwater sources) can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Plan shall file a petition for variance with the City Manager within 5 days after pro rata allocation has been invoked. All petitions for variances shall be reviewed by the City Council of Missouri City, and shall include the following:

1. Name and address of the petitioner(s).
2. Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established in the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Resolution.
3. Description of the relief requested.
4. Period of time for which the variance is sought.
5. Alternative measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
6. Other pertinent information.

Variances granted by the City Council of Missouri City shall be subject to the following conditions, unless waived or modified by the City Council of Missouri City or its designee:

1. Variances granted shall include a timetable for compliance.
2. Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

Section XII: Severability

It is hereby declared to be the intention of the City Council of Missouri City that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the City Council of Missouri City without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Appendix A

Ordinance Adopting the Drought Contingency Plan

ORDINANCE NO. O-12-28

AN ORDINANCE OF THE CITY OF MISSOURI CITY, TEXAS, AMENDING CHAPTER 86, UTILITIES, OF THE CODE OF ORDINANCES OF THE CITY OF MISSOURI CITY, TEXAS, BY ADOPTING A DROUGHT CONTINGENCY PLAN; PROVIDING FOR REPEAL; AND PROVIDING FOR SEVERABILITY.

* * * * *

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MISSOURI CITY, TEXAS:

Section 1. The Code of Ordinances of the City of Missouri City, Texas, is hereby amended by amending the definition of "Mustang Bayou utility service area" of Section 86-1 of Division 1 of Article I of Chapter 86 thereof to provide as follows:

"Chapter 86 – UTILITIES

ARTICLE I. CITY WATER AND SEWER SERVICES

DIVISION 1. - IN GENERAL

Sec. 86-1. - Definitions.

The following definitions shall apply in the interpretation and the enforcement of this article except where the context clearly indicates a different meaning:

. . . .

Mustang Bayou utility service area shall mean that geographical area as set out in the map entitled Mustang Bayou utility service area map which is incorporated by reference herein and which shall be made available at the city secretary's office for public inspection during regular business hours."

Section 2. The Code of Ordinances of the City of Missouri City, Texas, is hereby amended by adding a definition for "Surface Water Treatment Plant utility service area" to Section 86-1 of Division 1 of Article I of Chapter 86 thereof, and substituting therefor a new Section 86-1 of Division 1 of Article I of Chapter 86 to provide as follows:

"Chapter 86 – UTILITIES

ARTICLE I. CITY WATER AND SEWER SERVICES

DIVISION 1. - IN GENERAL

Sec. 86-1. - Definitions.

The following definitions shall apply in the interpretation and the enforcement of this article except where the context clearly indicates a different meaning:

. . . .

Surface Water Treatment Plant utility service area shall mean that geographical area set out in a map entitled Surface Water Treatment Plant utility service area map which is incorporated by reference herein and which shall be made available at the city secretary's office for public inspection during regular business hours."

Section 3. The Code of Ordinances of the City of Missouri City, Texas, is hereby amended by deleting Section 86-30.7 of Subdivision 3 of Division 2 of Article I of Chapter 86 thereof, and substituting therefor a new Section 86-30.7 of Subdivision 3 of Division 2 of Article I of Chapter 86 to provide as follows:

"Chapter 86 – UTILITIES

ARTICLE I. CITY WATER AND SEWER SERVICES

. . . .

DIVISION 2. - WATER AND SEWER SERVICES, RATES AND COSTS

. . . .

Subdivision 3. - Mustang Bayou Utility Service Area

. . . .

Sec. 86-30.7. - Water conservation plan and drought contingency plan.

The city herein approves and adopts the "Policy Regulating Use of Water During a Serious and/or Emergency Water Period/Water Conservation" for Fort Bend County Municipal Utility District No. 48 adopted May 25, 2000, as the water conservation plan applicable to the Mustang Bayou utility service area. The city herein approves and adopts the "City of Missouri City Drought Contingency Plan" dated August 2012, as the drought contingency plan applicable to the Mustang Bayou utility service area. A copy of each of said plans shall be made available at the city secretary's office for public inspection during regular business hours."

Section 4. The Code of Ordinances of the City of Missouri City, Texas, is hereby amended by adding a new Subdivision 4 of Division 2 of Article I of Chapter 86 thereof to provide as follows:

"Chapter 86 – UTILITIES

ARTICLE I. CITY WATER AND SEWER SERVICES

.

DIVISION 2. - WATER AND SEWER SERVICES, RATES AND COSTS

.

Subdivision 4. - Surface Water Treatment Plant Utility Service Area

Sec. 86-30.8. - Drought contingency plan.

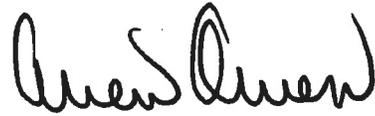
The city herein approves and adopts the "City of Missouri City Drought Contingency Plan" dated August 2012, as the drought contingency plan applicable to the Surface Water Treatment Plant utility service area. A copy of said plan shall be made available at the city secretary's office for public inspection during regular business hours."

Section 5. *Repeal.* All Ordinances or parts of Ordinances in conflict herewith, if any, shall be and are hereby repealed only to the extent of such conflict.

Section 6. Severability. In the event any section, paragraph, subdivision, clause, phrase, provision, sentence or part of this Ordinance or the application of the same to any person or circumstance shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Missouri City, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

PASSED and APPROVED on first reading this 20th day of August, 2012.

PASSED, APPROVED and ADOPTED on second and final reading this 4th day of September, 2012.



Allen Owen, Mayor

ATTEST:

APPROVED AS TO FORM:



Maria Gonzalez, City Secretary

Caroline Kelley, City Attorney

Appendix B

Notification to Wholesale Purchasers

Insert Future – Notification to Wholesale Purchasers

CITY OF MISSOURI CITY

DROUGHT CONTINGENCY PLAN

PWSID 0790207

May, 2019

Prepared By:



LREWater, LLC

a Leonard Rice Engineers Company

1101 Satellite View #301 Round Rock, Texas 78665

Phone: (512) 736-6485

Website: www.LREWater.com

PE Firm Registration No. 14368

PG Firm Registration No. 50516

CITY OF MISSOURI CITY, TEXAS DROUGHT CONTINGENCY PLAN

Section I Declaration of Policy, Purpose and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the City of Missouri City, Texas (City) adopts the following Drought Contingency Plan (Plan).

Section II Public Involvement

Opportunity for the public and wholesale water customers to provide input into the preparation of the Plan was provided by the City by means of public hearings at regular City Council meetings on May 6, 2019 and May 20, 2019. The Plan was explicitly discussed and public comment was encouraged at those meetings.

Section III Water Customer Education

The City and members of the City's Ground Water Reduction Plan (GRP) will periodically provide **All Customers** with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. Information concerning the Plan will also be provided via the City's website. A copy of the Plan will be provided to the wholesale customers initially after adoption of the Plan and thereafter when the Plan is revised or resubmitted to the Texas Commission on Environmental Quality (TCEQ).

Section IV Coordination with Regional Water Planning Group

The wholesale and retail water service area of the City of Missouri City is located within the Region H Water Planning Group and the City has provided a copy of the Plan to the Region H Water Planning Group and to the City's water supplier, the **Gulf Coast Water Authority (GCWA)**. Copies of the Plan transmittal letters to the Region H water planning group and the GCWA are available upon request.

Section V Authorization

The Public Works Director for the City of Missouri City, or his/her designee, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The Public Works Director, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VI Application

The provisions of this Plan shall apply to all entities utilizing water provided by the City of Missouri City, including all members of the GRP, both ground water (non-converted) and surface water (converted) users. The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities. When the Public Works Director or a designee initiates or terminates response stages under this Plan, he/she shall immediately notify the public by means of announcements in local media. Unless otherwise specified for specific responses listed below, water supply update releases will be on at least a daily basis during implementation of this Plan when conditions warrant drought stage 2 or higher.

Section VII: Recommended Residential Water Conservation & Demand Reduction Measures

During any stage of drought response, efforts must be made to reduce water usage and minimize water demand. The following means of conserving water and minimizing water usage are **recommended**. These measures are **voluntary** and are not enforceable by the City of Missouri City.

- Limit showers to 2 to 5 minutes or less for Stage 2, 3, 4, and 5 drought responses.
- Turning off showers while lathering hair and body, and only turning on showers to rinse.
- Re-using cooking water to water plants, or to rinse/wash dishes
- Delay clothes washing until full loads are available.
- Utilize hand sanitizers rather than washing hands with potable water.
- Utilize dry shampoos and wet-wipes to clean your body and decrease the frequency of showering.
- Rainwater harvesting using rain barrels, with the water later used for landscape irrigation.

Voluntary Water Conservation Measures – All Drought Stages

#1	Limit showers to 2-5 minutes or less for Stage 2, 3, 4, and 5 drought responses	
#2	Turn off showers while lathering hair and body, and only turning on showers to rinse	
#3	Re-use cooking water to water plants, or to rinse/wash dishes	
#4	<u>Delay clothes washing until full loads are available.</u>	
	<u>Limit clothes laundering to:</u>	
	For Customers with odd street numbers	For Customers with even street numbers:
	Tuesdays, Thursdays, and Saturdays	Wednesdays, Fridays, and Sundays
#5	Utilize hand sanitizers rather than washing hands with potable water	
#6	Utilize dry shampoos and wet-wipes to clean your body and decrease the frequency of showering.	
#7	Harvest rainwater using rain barrels, with the water later used for landscape irrigation	

Section VIII: Definitions

For the purposes of this Plan, the following definitions shall apply. Defined terms are shown in **BOLD** fonts throughout the Plan.

- **Gulf Coast Water Authority (GCWA)** – the primary supplier of Surface water for the City of Missouri City, whose water allocation decisions directly affect water availability under the City of Missouri City’s contract for water supplies. Water conservation procedures within the **GCWA** drought contingency plan directly affect water availability for the City of Missouri City, and the Public Works Director or a designee may implement City of Missouri City drought stage responses in direct accord with those implemented by **GCWA**.
- **Groundwater Users** – customers in the City of Missouri City Groundwater Reduction Plan who utilize groundwater.
- **Surface Water Users** - customers in the City of Missouri City Groundwater Reduction Plan who utilize surface water. This water is generally provided by the **GCWA**
- **All Customers** – all customers in the City of Missouri City Ground Water Reduction Plan, including both Surface Water Users and Groundwater Users.
- **Historical Monthly Average Water Usage** - the computed monthly average usage for the City of Missouri City based on actual usage (as reported to **GCWA** and approved by the City) during the same month during the three previous calendar years, excluding any reductions in usage as a result of implementing a Stage Response measure pursuant to this Plan.

- **Baseline Historical Monthly Average Water Usage** - the computed monthly average usage for wholesale customers and all retail customers (in aggregate) of the City of Missouri City based on actual usage during the same month during the three previous calendar years, excluding any reductions in usage as a result of implementing a Stage Response measure pursuant to this Plan.
- **Aesthetic Water Use:** water use for ornamental or decorative purposes such as in fountains, reflecting pools, and water gardens.
- **Conservation:** those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved.
- **Retail Customer:** any person or entity purchasing drinking water from the City of Missouri City for use or consumption.
- **Wholesale Customer:** any entity purchasing potable water from the City of Missouri City for resale or redistribution.
- **Landscape Irrigation Use:** water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including but not limited to residential and commercial lawns, gardens, golf courses, parks, right-of-ways, and medians. Both potable and non-potable water may be used for this purpose.
- **Non-Essential Water Use:** the use of potable water for activities deemed beneficial yet non-essential for the maintenance of public health, safety and welfare for the City of Missouri City. Non-essential water use will be regulated or prohibited, depending on implementation stages of this Plan. The Public Works Director may designate whether a water usage activity results in Non-Essential Water Use, and may modify such designations from time to time. The following water use activities are considered as Non-Essential Water Use activities for the purposes of this Plan: :
 - irrigation of landscape areas, including parks, schools, athletic fields, and golf courses, except otherwise provided under this Plan;
 - washing any motor vehicle, motorbike, boat, trailer, airplane or other vehicle, other than in a commercial car wash, if not necessary for the protection of public health, safety, and welfare;
 - washing any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
 - washing buildings or structures for purposes other than immediate fire protection;
 - flushing gutters or allowing water to run or accumulate in any gutter or street;
 - filling, refilling, or adding to any indoor or outdoor swimming pools or jacuzzi-type pools;
 - filling, refilling, or adding to any fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
 - using water hydrants for construction purposes or any other purposes other than firefighting, hydrant flushing and street cleaning; and
 - water loss because a responsible party has not repaired controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Section IX: Drought Response Stage Criteria and Response Actions

The Public Works Director, or his/her designee shall monitor water supply and demand conditions and shall determine when conditions warrant initiation or termination of each stage of the Plan.

The triggering criteria and response measures described below are based on experience of City staff and associates obtained by managing water supplies through recent drought periods, including the most recent 2011 extreme single-year drought for the Brazos River basin. Triggering criteria and response measures are also based on similar criteria and measures utilized by the **GCWA**.

Notification to **All Customers** of the initiation or termination of drought response stages will be made by email, mail, facsimile or telephone. Additional notifications will be made through the City's website and news media.

Normal operations of the City of Missouri City water treatment and distribution systems is considered a Stage 0 drought response under this Plan. Under Stage 0 conditions, **All Customers** receive water at the time, quantity, and quality desired.

The City of Missouri City may move between drought stages as needed to effectively manage water supplies and demands. It is not necessary to sequentially progress through drought stages, and the Public Works Director (or a designee) may skip drought stages as conditions warrant.

Section IX.1 - Stage 1 Response (Mild Water Shortage; TCEQ “Watch” Level)

A Stage 1 Response may be triggered when the Public Works Director (or a designee) finds that the Response Conditions warrant the declaration of a Stage 1 Response. The Public Works Director (or a designee) will consider declaring a Stage 1 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

1. The **GCWA** has initiated a Stage 1 Response under its Drought Contingency Plan.
2. Total water demand exceeds 80% of the deliverable capacity from the Missouri City Regional Water Treatment Plant (MCRWTP) for three (3) consecutive days.
3. When continually falling water storage facility levels in retail storage tanks do not refill above the 50% level overnight.

A Stage 1 Response may be terminated by the Public Works Director (or a designee) when the Response Conditions that triggered the initiation of a Stage 1 Response no longer prevail.

Response Measures:

The goal for water use (from both surface water and groundwater sources) under Stage 1 is a reduction of **5%** of water use compared to **Baseline Historical Monthly Average Water Usage** as calculated by the City. The Public Works Director (or a designee) may implement any of the following actions deemed necessary, and may implement other appropriate actions not listed below:

General Measures:

- Notify **All Customers** that a Stage 1 Response condition exists;
- Request voluntary reductions in water use by **All Customers** ; or
- Increase public awareness of drought or system conditions and measures to reduce demand.

Supply Management Measures:

- Monitor Surface water and Groundwater supplies and demands and notify users by press releases of conditions as appropriate;
- Notify **All Consumers** regarding the desire to reduce their usage on a voluntary basis by at least 5%;
- Defer or delay City maintenance services (e.g. flushing of water mains, watering of City property);
- Utilize reclaimed, non-potable water for irrigation purposes, where feasible; or
- Explore alternative sources of potable water.

Stage 1 Voluntary Demand Reduction Measures

Issue press releases and/or published notices in all media, requesting practice of water conservation activities, and minimization or discontinuance of all Non-Essential Water Uses .	
Request, via press releases and/or published notices, that All Customers voluntarily limit Landscape Irrigation Use :	
For Customers with odd street numbers	For Customers with even street numbers:
Tuesdays, Thursdays, and Saturdays	Wednesdays, Fridays, and Sundays
before 10:00am OR after 8:00pm	before 10:00am OR after 8:00pm

Section IX.2 - Stage 2 Response (Moderate Water Shortage; TCEQ “Concern” Level)

A Stage 2 Response may be triggered when the Public Works Director (or a designee) finds that the Response Conditions warrant the declaration of a Stage 2 Response. The Public Works Director (or a designee) will consider declaring a Stage 2 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

1. The **GCWA** has initiated a Stage 2 Response under its Drought Contingency Plan.
2. Total water demand exceeds 90% of the deliverable capacity from the Missouri City Regional Water Treatment Plant (MCRWTP) for three (3) consecutive days.
3. When continually falling water storage facility levels in retail storage tanks do not refill above the 50% level overnight for three (3) consecutive days.

A Stage 2 Response may be terminated by the Public Works Director (or a designee) when the Response Conditions that triggered the initiation of a Stage 2 Response no longer prevail.

Response Measures:

The primary goal for water use (from both surface water and groundwater sources) under Stage 2 is a reduction of **10%** of water use compared to **Baseline Historical Monthly Average Water Usage** as calculated by the City. The secondary goal for Surface Water Usage under Stage 2 is a reduction of **10%** of water use compared to the **Historical Monthly Average Water Usage** as calculated by **GCWA** and approved by the City. Such a reduction in Surface Water Usage will allow the City to avoid surcharges imposed by **GCWA**. The Public Works Director (or a designee) may implement of any of the following actions deemed necessary, and may implement other appropriate actions not listed below.

General Measures:

- Notify **All Customers** that a Stage 2 Response condition exists;
- Request reductions in water use by **All Customers**; or
- Increase public awareness of drought or system conditions and measures to reduce demand.

Supply Management Measures:

- Monitor water supply (Surface Water and Groundwater) and demand and notify users by press releases of conditions as appropriate;
- Survey customers and develop water usage reduction plans; or
- Defer or delay City maintenance services (e.g. flushing of water mains, watering of City property).

Stage 2 Voluntary Demand Reduction Measures

#1	Limit Landscape Irrigation Use:	
	For Customers with odd street numbers	For Customers with even street numbers:
	Tuesdays, Thursdays, and Saturdays	Wednesdays, Fridays, and Sundays
	before 10:00am OR after 8:00pm	before 10:00am OR after 8:00pm
**Landscape irrigation is permitted at ANYTIME on designated days if it is by means of a hand-held hose, a faucet filled bucket, or watering can of five (5) gallons or less, or via a drip irrigation system.		
#2	Limit Private Vehicle Washing, including any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle:	
	For Customers with odd street numbers	For Customers with even street numbers:
	Tuesdays, Thursdays, and Saturdays	Wednesdays, Fridays, and Sundays
	Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses.	
	Vehicle washing may be done at any time at a commercial car wash or commercial service station.	
Further, such washing may be exempted from the Plan if, as determined by the City Manager (or a designee), the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks, fishing vessels, and vehicles used to transport food and perishables.		

#3	Limit Pool Filling or Refilling , including any indoor or outdoor swimming pools, wading pools, or Jacuzzi-type pools	
	For Customers with odd street numbers	For Customers with even street numbers:
	Tuesdays, Thursdays, and Saturdays before 10:00am OR after 8:00pm	Wednesdays, Fridays, and Sundays before 10:00am OR after 8:00pm
#4	Reduce usage of potable water to fill, refill, or add water to any ornamental fountain or pond for aesthetic or scenic purposes, except where necessary to support aquatic life	
#5	Limit water usage from fire hydrants for only firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare. Use of water from designated fire hydrants for construction purposes may be allowed under special permit from the Public Works Director (or a designee).	
#6	Limit Potable Water Use for Golf Course Irrigation for greens, tees, and fairways:	
	For Customers with odd street numbers	For Customers with even street numbers:
	Tuesdays, Thursdays, and Saturdays before 10:00am OR after 8:00pm	Wednesdays, Fridays, and Sundays before 10:00am OR after 8:00pm
Properties utilizing a water source other than potable water provided by the City of Missouri City (e.g. reclaimed, non-potable water) are not subject to this regulation		
#7	Suggest all restaurants avoid serving water to patrons except on patron request.	
#8	Limit Non-Essential Water Uses , including:	
	Wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas	
	Wash down of buildings or structures for purposes other than immediate fire protection	
	Use of water for dust control, except as permitted by the Public Works Director (or a designee)	
	Hydrant flushing (except for water system repairs), flushing gutters, or allowing water to run or accumulate in any street	
	Failure to repair controllable leaks within a reasonable period after having been given notice directing the repair of such leaks	

Section IX.3 - Stage 3 Response (Severe Water Shortage; TCEQ “Priority” Level)

A Stage 3 Response may be triggered when the Public Works Director (or a designee) finds that the Response Conditions warrant the declaration of a Stage 3 Response. The Public Works Director (or a designee) will consider declaring a Stage 3 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

1. The **GCWA** has initiated a Stage 3 Response under its Drought Contingency Plan.
2. Total water demand exceeds 95% of the deliverable capacity from the Missouri City Regional Water Treatment Plant (MCRWTP) for three (3) consecutive days
3. When continually falling water storage facility levels in retail storage tanks do not refill above the 50% level overnight for five (5) consecutive days.

A Stage 3 Response may be terminated by the Public Works Director (or a designee) when the Response Conditions that triggered the initiation of a Stage 3 Response no longer prevail.

Response Measures:

The primary goal for water use (from both surface water and groundwater sources) under Stage 3 is a reduction of **15%** of water use compared to **Baseline Historical Monthly Average Water Usage** as calculated by the City. The secondary goal for Surface Water Usage under Stage 3 is a reduction of **15%** of water use compared to the **Historical Monthly Average Water Usage** as calculated by **GCWA** and approved by the City. Such a reduction in Surface Water Usage will allow the City to avoid surcharges imposed by GCWA. The Public Works Director (or a designee) may implement any of the following actions deemed necessary, and may implement other appropriate actions not listed below.

Within five (5) days of implementing (or terminating) mandatory water use restrictions, the Public Works Director (or a designee) will notify the Texas Commission on Environmental Quality (TCEQ). Notifications will be submitted to the TCEQ Public Drinking Water Section Drought Team, and will be submitted via the TCEQ-required online form, currently available at: https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws/pws-drought-contingency-plan-reporting-form. Assistance in making notifications may be obtained via e-mail to wcp@tceq.texas.gov or via phone at 512-239-4691.

General Measures:

- Notify **All Customers** that a Stage 3 Response condition exists;
- Require reductions in water use by **All Customers**; or
- Increase public awareness of drought or system conditions and measures to reduce demand.

Supply Management Measures:

- Monitor water supply (Surface Water and Groundwater) and demand and notify users by press releases of conditions as appropriate.
- Meet with customers and develop water usage reduction plans.
- Defer or delay City maintenance services (e.g. flushing of water mains, watering of City property).
- Initiate usage of reclaimed, non-potable water for **Landscape Irrigation Use**, wherever feasible.
- Explore and initiate usage alternative sources of potable water.

Stage 3 Mandatory Demand Reduction Measures

#1	Continue ALL Stage 2 Demand Reduction Measures
#2	Prohibit usage of hose-end sprinklers and automatic sprinkler systems at all times. Limit Landscape Irrigation Usage to use of hand-held hoses, hand-held buckets, or drip irrigation only. .
#3	Prohibit water use for construction purposes from designated fire hydrants, unless written permission is obtained from the Public Works Director (or a designee).
#4	Prohibit watering of golf course tees unless the golf course utilizes a water source other than that provided by the City (e.g. reclaimed, non-potable water)

Section IX.4: Stage 4 Response (Extreme Water Shortage; TCEQ “Emergency” Level)

A Stage 4 Response may be triggered when the Public Works Director (or a designee) finds that the Response Conditions warrant the declaration of a Stage 4 Response. The Public Works Director (or a designee) will consider declaring a Stage 4 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

1. The **GCWA** has initiated a Stage 4 Response under its Drought Contingency Plan.
2. Total water demand exceeds 95% of the deliverable capacity from the Missouri City Regional Water Treatment Plant (MCRWTP) for three (3) consecutive days
3. When continually falling water storage facility levels in retail storage tanks do not refill above the 50% level overnight for five (5) consecutive days.

A Stage 4 Response may be terminated by the Public Works Director (or a designee) when the Response Conditions that triggered the initiation of a Stage 4 Response no longer prevail.

Response Measures:

The primary goal for water use (from both surface water and groundwater sources) under Stage 4 is a reduction of 20% of water use compared to **Baseline Historical Monthly Average Water Usage** as calculated by the City. The secondary goal for Surface Water Usage under Stage 4 is a reduction of 20% of water use compared to the **Historical Monthly Average Water Usage** as calculated by **GCWA** and approved by the City. Such a reduction in Surface Water Usage will allow the City to avoid surcharges imposed by GCWA. The Public Works Director (or a designee) may implement any of the following actions deemed necessary, and may implement other appropriate actions not listed below.

Within five (5) days of implementing (or terminating) mandatory water use restrictions, the Public Works Director (or a designee) will notify the Texas Commission on Environmental Quality (TCEQ). Notifications will be submitted to the TCEQ Public Drinking Water Section Drought

Team, and will be submitted via the TCEQ-required online form, currently available at: https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws/pws-drought-contingency-plan-reporting-form. Assistance in making notifications may be obtained via e-mail to wcp@tceq.texas.gov or via phone at 512-239-4691.

General Measures:

- Notify **All Customers** that a Stage 4 Response condition exists;
- Require reductions in water use by **All Customers**;
- Increase public awareness of drought or system conditions and measures to reduce demand

Supply Management Measures:

- Monitor water supply and demand and notify users by press releases of conditions as appropriate
-
- Meet with customers and develop water usage reduction plans
- Defer or delay City maintenance services (e.g. flushing of water mains, watering of City property)
- Initiate usage of reclaimed, non-potable water for **Landscape Irrigation Use**, wherever feasible.
- Aggressively explore alternative sources of potable water

Stage 4 Mandatory Demand Reduction Measures

#1	Continue ALL Stage 3 Demand Reduction Measures	
#2	Prohibit usage of hose-end sprinklers and automatic sprinkler systems at all times. Limit Landscape Irrigation Usage to use of hand-held hoses, hand-held buckets, or drip irrigation only:	
	For Customers with odd street numbers	For Customers with even street numbers:
	Tuesdays & Thursdays	Wednesdays & Fridays
	before 8:00am OR after 8:00pm	before 8:00am OR after 8:00pm
#3	Prohibit use of potable water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle unless the wash is occurring at a commercial car wash or commercial service station and cleaning the vehicle is necessary to maintain public health, safety and welfare. Any such vehicle washes may only occur between 6:00am and 10:00am, or between 6:00pm and 10:00pm.	
#4	Prohibit the filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi-type pools:	
#5	Prohibit the operation of any ornamental fountain or pond for aesthetic or scenic purposes, except where necessary to support aquatic life of where such fountains or ponds are equipped with a recirculation system (approved for use by the Public Works Director or a designee).	

Under Stage 4 response conditions, the Public Works Director (or a designee) may suspend pending applications for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind.

Section IX.5: Stage 5 - Water Emergency Response (Emergency Water Shortage; TCEQ “Emergency” Level)

A Stage 5 Response may be triggered when the Public Works Director (or a designee) finds that the Response Conditions warrant the declaration of a Stage 5 Response. The Public Works Director (or a designee) will consider declaring a Stage 5 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

1. The **GCWA** has initiated a Stage 5 Response under its Drought Contingency Plan.
2. Major water line breaks, pump failures, or system failures occur which cause significant loss of capability to provide water service
3. Natural or man-made contamination of the water supply sources limits or prohibits the delivery of potable water
4. Stage 4 Response measures have not reduced the water usage to goal levels, and the Public Works Director (or a designee) determines the City may not be able to meet the water demands of customers.

A Stage 5 Response may be terminated by the Public Works Director (or a designee) when the Response Conditions that triggered the initiation of a Stage 5 Response no longer prevail.

Response Measures:

The goal for water use under Stage 5 is subject to the scope of the emergency. The Public Works Director (or a designee) may implement any of the following actions deemed necessary, and may implement other appropriate actions not listed below. Within five (5) days of implementing (or terminating) mandatory water use restrictions, the Public Works Director (or a designee) will notify the Texas Commission on Environmental Quality (TCEQ). Notifications will be submitted to the TCEQ Public Drinking Water Section Drought Team, and will be submitted via the TCEQ-required online form, currently available at:

https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws/pws-drought-contingency-plan-reporting-form. Assistance in making notifications may be obtained via e-mail to wcp@tceq.texas.gov or via phone at 512-239-4691.

General Measures:

- Notify **All Customers** that a Stage 5 Response condition exists;
- Require reductions in water use by **All Customers**;
- Increase public awareness of drought or system conditions and measures to reduce demand

Supply Management Measures:

- Discontinue all water system operations and correct the emergency situation to insure a safe supply of water
- Monitor water supply and demand on a constant basis and notify users by press releases of

conditions as appropriate, with notices provided at least every 4 hours.

- Issue Boil Water notices via press releases, and if necessary, published notices
- Place Fire Department on Alert
- Defer or delay City maintenance services (e.g. flushing of water mains, watering of City property)
- Initiate usage of reclaimed, non-potable water for **Landscape Irrigation Use**, wherever feasible.
- Aggressively explore alternative sources of potable water

Stage 5 Mandatory Demand Reduction Measures

#1	Continue ALL Stage 4 Demand Reduction Measures
#2	Prohibit Landscape Irrigation Water Use at all times
#3	Prohibit use of potable water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle, unless written permission is provided by the Public Works Director (or a designee).

Water deliveries to wholesale water providers will be allocated on a pro-rata basis as provided under the Texas Water Code §11.039, following the water allocation plan developed between the City and the wholesale water provider.

Section X: Emergency Water Allocation

If the supply of available potable water reaches such a low level that anticipated demand cannot be met and the health and safety of the community may be at risk, the Public Works Director (or a designee) shall be responsible for administering an allocation program under which the City may limit the times and/or days water will be pumped into the water distribution system. If necessary, this allocation may vary for areas of the City served by different storage tanks/reservoirs. Schedules of water availability in different areas of the City will be announced by press releases to all media, and may be supplemented by the distribution of circulars at businesses and public buildings throughout the City, as determined by the Public Works Director (or a designee).

Water distribution to wholesale accounts: There will be a provision in every wholesale water contract entered into or renewed by the City after adoption of this plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be allocated in accordance with Texas Water Code, §11.039.

Section XI: Enforcement

- (a) No person shall knowingly or intentionally allow the use of water from the City of Missouri City for any use contrary to any provision of this Plan, as specified by the drought response stage in effect at the time as a result of action taken by Public Works Director (or a designee), in accordance with provisions of this Plan. Any violation shall be considered an infraction against the public health and sanitation of the City.
- (b) Any person who violates this Plan is guilty of a misdemeanor and shall be punishable by a fine not exceeding \$2,000.00 dollars and a surcharge of 20% applied to their current water bill. Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. Services discontinued under such circumstances shall be restored only upon advance payment of a re-connection charge, as established by a schedule of fees adopted by the city council. In addition, suitable assurance must be given to the City Manager (or a designee) that the same action shall not be repeated while the Plan is in effect. Compliance with this plan may also be sought through injunctive relief in the district court.
- (c) The Public Works Director (or a designee) shall assume that the billing name for a water customer account is the person responsible for any violations to this Plan, and shall be presumed to be the violator, unless that person can submit tangible proof that another person or entity bears responsibility for the property.
- (d) An appropriate employee of the City of Missouri City may issue a citation to a person or entity in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the violator, if known, and the offense charged. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator or to an agent or employee of a violator.
- (e) In the event of water allocation, appropriate security measures should be implemented by the affected City departments
- (f) Any surcharge assessed to the City of Missouri City by the GCWA will be passed on to **All Customers** in a manner to be determined by the Groundwater Reduction Plan Oversight Committee. For the remainder of 2019, the City intends to avoid **GCWA** surcharges through the use of groundwater credits from the Fort Bend Subsidence District. The Groundwater Reduction Plan Oversight Committee will review other options regarding **GCWA** surcharges and will amend this Plan as needed to explain how the City will handle future surcharges that **GCWA** may assess.
- (g) The Groundwater Reduction Plan Oversight Committee will also review options for managing any credits assessed to the City of Missouri City by the **GCWA** as a result of the City's water conservation efforts during droughts. This Plan will be amended as needed to explain how the City will handle future credits that **GCWA** may assess.

Section XII: Variances

The Public Works Director (or a designee) may, in writing, grant a temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

(a) Compliance with this Plan cannot be technically feasible during the duration of the water supply shortage or other condition for which the Plan is in effect.

(b) Alternative methods can be implemented which will achieve the same reduction in water use.

Persons requesting a variance or an exemption from the provisions of this Ordinance shall file a petition for variance, obtained from the Public Works Director (or a designee), with the City of Missouri City within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the Public Works Director (or a designee), and shall include the following:

- (a) Name and address of the petitioner(s).
- (b) Purpose of water use.
- (c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
- (d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
- (e) Description of the relief requested.
- (f) Period of time for which the variance is sought.
- (g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this of this Plan and the compliance date.
- (h) Other pertinent information.

Variances granted by the City of Missouri City shall be subject to the following conditions, unless waived or modified by the Public Works Director (or a designee):

- (a) Variances granted shall be valid only for the granted limited time period during the current situation where Stages of conservation are declared, and shall expire on the designated date or the termination of Stage 1 (and a return to non-drought conditions) in the current sequence, whichever occurs first.
- (b) All variances granted shall be valid for a maximum of 90 days, at which time, if the City is still under a declared conservation period, the customer will have to re-apply for a new variance.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

Section XIII: Severability

It is hereby declared to be the intention of the City Council of Missouri City that the sections, paragraphs, sentences, DCP City of Missouri
City PWSID 0790207

clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the City Council of Missouri City without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Drought Contingency Plan for Gulf Coast Water Authority

Section I: Introduction

The purpose of this drought contingency plan (the Plan) for the Gulf Coast Water Authority (GCWA) is as follows:

- To conserve the available water supply in times of drought and emergency;
- To maintain supplies for domestic water use, industrial use, sanitation, and fire protection;
- To protect and preserve public health, welfare, and safety;
- To minimize the adverse impacts of water supply shortages;
- To minimize the adverse impacts of emergency water supply conditions; and
- To satisfy the requirements set forth by the Texas Commission on Environmental Quality (TCEQ) and other agencies.

A drought is generally defined as an extended period of time when an area receives insufficient amounts of rainfall to maintain or replenish the water supply, thereby causing temporary water supply shortages. In the absence of drought response measures, water demands tend to increase during a drought due to the need for additional outdoor irrigation and cooling water. The severity of a drought depends on the degree of depletion of supplies and on the relationship of demand to available supplies.

This Plan addresses periods of time when: (i) the quantity of water in the Brazos River available to GCWA under its water rights, and its alternative sources of water (including contracts for stored water from the Brazos River Authority [BRA]) is insufficient to meet the demands of GCWA's water supply customers; or (ii) the capacity of GCWA's pump stations, canals or water treatment plants is insufficient to meet the demands of any water supply customers dependent on such facilities, or both.

Section II: TCEQ Requirements for Drought Contingency Plans

This Plan is consistent with TCEQ guidelines and requirements for the development of drought contingency plans by wholesale water suppliers, contained in Title 30, Part 1, Chapter 288, Subchapter B, Rules 288.20-288.22 of the Texas Administrative Code. These rules are included in *Appendix A*. As required by TCEQ rules, GCWA will review and update this Plan, as appropriate based on an assessment of any other new or updated information. GCWA will review and update the Plan no less than every five years to satisfy TCEQ requirements, or as deemed necessary by GCWA.

Section III: Public Involvement

Opportunity for the public and GCWA's water customers to provide input into the preparation of the Plan was provided by GCWA through the following measures:

- Providing written notice of the proposed plan and the opportunity to comment on the plan by newspaper, posted notice, and notice on GCWA's website;

- Making the draft plan available on GCWA’s website;
- Providing the draft plan to anyone requesting a copy; and
- Holding eight (8) stakeholder and/or public meetings on plan development from January 2017 through August 2018.

Section IV: Water Customer Education

After the Plan is adopted, GCWA will continue to inform and educate the public and GCWA’s customers about the Plan through the following measures:

- Preparing a bulletin describing the Plan and making it available at appropriate locations;
- Making the Plan and actions taken by GCWA related to implementation of the Plan available to the public through the GCWA website and other social media outlets;
- Notifying local organizations, schools, and civic groups that GCWA staff are available to make presentations on the Plan (usually in conjunction with presentations on water conservation programs); and
- Notifying GCWA’s customers about the Plan, upon Plan adoption and if any Plan amendments are made.

Section V: Coordination with Regional Water Planning Groups

The water service area of the GCWA is located within the Region H water planning area as defined by the Texas Water Development Board. GCWA has provided a copy of this Plan to Region H, along with the letter shown in *Appendix B*.

Section VI: Authorization

The GCWA General Manager (the GM), or his/her designee is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The GM shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VII: Application of Drought Response Measures

The provisions of this Plan shall apply to all of GCWA’s customers. The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, municipalities, political subdivisions, and all other legal entities.

With the exception of Section VIII.5, this Plan applies only to **GCWA Water Supplies**, including both **Run-of-River Supplies** and **GCWA Alternate Water Supplies**. **Customer Purchased Backup Water** is subject to Section VIII.5 because delivery of **Customer Purchased Backup Water** is subject to GCWA’s physical ability to transport water via GCWA’s canal and pipe systems.

The following actions will be taken when a drought stage is initiated:

- GCWA’s customers who are potentially affected by a drought or emergency (the Affected Customers) will be notified by e-mail or via GCWA’s designated emergency communications network and will be provided details of the reasons for initiation of the drought contingency stage; and
- If GCWA declares a Stage 5 - Water Emergency Response (Section VIII.5) requiring mandatory water restrictions, GCWA will notify the Executive Director of the TCEQ within

5 business days. Notifications will be made via e-mail to wcp@tceq.texas.gov.

The GM may decide not to order the implementation of a drought contingency response stage even though one or more of the trigger criteria for the stage are met. Factors which could influence such a decision include, but are not limited to, the time of year, existing or potential weather conditions, the anticipation of replenished water supplies, the availability of **GCWA Alternate Water Supplies**, or the anticipation that additional facilities will become available to meet needs.

Section VIII: Definitions, and Criteria and Actions Required for Drought or Emergency Response Stages for Affected Customers.

This section defines terms used in the Plan. This section also describes the criteria for and actions required for drought response stages. Defined terms are listed below, and are shown in **Bold** whenever used throughout this Plan.

- **Affected Customers:** Customers that are impacted by a particular shortage of **GCWA Water Supplies** or the delivery capacity of GCWA facilities, when compared to the water demand for such supplies or facilities. **Affected Customers** include the customers that have delivery points downstream of the circumstances that are triggering a **Stage Response**. For instance, GCWA's canal customers may be affected by events impacting diversion rate, river pump stations or canal conveyance to the point of delivery by GCWA to the customer. Similarly, GCWA's treated water customers may be impacted by events concerning the river pump stations and canal conveyances, but also storage in GCWA reservoir(s) and operation of the Thomas S. Mackey Water Treatment Plant and distribution infrastructure. The concept of Affected Customers is intended to limit the scope of drought and emergency response to only those customers directly impacted by a significant event, whether it be related to river conditions, pump station capacity, or conveyance and other infrastructure.
- **Base Water Use:** The computed monthly average usage for each individual GCWA **Firm Customer** based on that customer's actual usage during the same month during the three previous calendar years, excluding any reductions in usage as a result of implementing a Stage Response measure pursuant to this Plan.
- **Conserved Water Quantity:** The volume of water conserved by an individual GCWA customer during the implemented Stage Response, defined as the difference between the customer's Base Water Usage or Interruptible Water Usage, and actual customer usage.
- **Contributing Watershed:** The portion of the Brazos River watershed upstream of GCWA's Shannon Pump Station that is administered by the Brazos River Watermaster.
- **Customer Purchased Backup Water:** Any water supply that is secured by the customer and is assigned and managed by GCWA, or secured by GCWA for that customer pursuant to an agreement with GCWA.
- **Deliverable Capacity:** The capacity to convey water at a given point in the GCWA water delivery system, as limited by diversion/pumping capacity, conveyance capacity, treatment capacity, or other factors..
- **Excess Water Usage:** The volume of water used by an individual customer in excess of the customer's **Base Water Use** or **Interruptible Water Use**, during the implemented Stage Response.
- **Firm Customers:** Customers to which GCWA is contractually obligated to provide water for a period longer than one year. **Firm Customers** may receive **Run-of-River Supplies** and **GCWA Alternate Water Supplies**. **Interruptible Customers** are not **Firm Customers**.
- **GCWA Alternate Water Supplies:** Any water provided by GCWA other than under its **Run-of-River supplies**. **GCWA Alternate Water Supplies** include stored water contracts with BRA, and other water sources obtained or owned by GCWA.

- **GCWA Water Supplies.** Water supplies owned or contracted by GCWA, including **Run-of-River Supplies** and **GCWA Alternate Water Supplies**.
- **Interruptible Customers with Backup:** Customers to which GCWA may provide water only when sufficient **Run-of-River Supplies** are available, or when GCWA is delivering **GCWA Alternate Water Supplies** which the customer has purchased through GCWA.
- **Interruptible Customers without Backup:** Customers to which GCWA may provide water only when sufficient **Run-of-River Supplies** are available; these customers do not have access to **GCWA Alternate Water Supplies**.
- **Interruptible Water Use –** Water usage by **Interruptible Customers with Backup**, and by **Interruptible Customers without Backup**.
- **Lower Basin User’s Group** – a group of water users in the lower Brazos basin that collaboratively manages water operations to ensure efficient utilization of available water. This group will be organized by GCWA. During the summer of 2018, such a group effectively and efficiently assessed Run-of-River Flows, available Alternate Water Supplies, and customer demands to maximize water availability for all group participants.
- **Monthly Flow Target:** As determined by the GM, the flow value for each month in cubic feet per second (cfs or ft³/s) that is needed to meet the total demand for **Base Water Use** and **Interruptible Water Use** for that month, plus the estimated water diversions for that month by NRG Energy (NRG) and Dow Chemical Company at Freeport (Dow).
- **Raw Water Rate:** The raw water rate for Fund 08 Canal Division as adopted annually by the GCWA Board of Directors.
- **Run-of-River Supplies:** Water available to GCWA under its water rights 12-5168, 13-5169, 12-5171, 12-5322, or 13-5357. This water is water available from the Brazos River, Mustang Bayou, Halls Bayou, Chocolate Bayou, or Jones & Oyster Creek, and is diverted according to the State of Texas prior-appropriation system.
- **Run-of-River Flow at Hempstead:** Water within the Brazos River as measured at the US Geological Survey (USGS) gaging station #8111500 (Brazos River near Hempstead, TX). The **Run-of-River Flow at Hempstead** includes only water authorized for diversion under the State of Texas prior appropriation system, and excludes releases of stored water by BRA, **Customer Purchased Backup Water**, or other sources of flow in the river not authorized for diversion under the State of Texas prior-appropriation system.
- **Stage Response:** Any of the responses to drought or water shortage listed in Section VIII.
- **System Demand:** Demand on the GCWA system, defined as the sum of GCWA customer demands located at or downstream of a given location on the GCWA water distribution system (canals, reservoirs, water treatment plant, pump stations, and other water distribution infrastructure).

Table 1 provides a summary of pertinent drought stage response conditions, water use reduction goals, water rate surcharges and water rate credits. Items in Table 1 are explicitly described below throughout the Plan.

Table 1: Summary of Drought and Emergency Response Stages

	Stage 1 Response	Stage 2 Response	Stage 3 Response	Stage 4 Response	Stage 5 Water Emergency Response
Minimum percentage of Contributing Watershed in “Moderate Drought” or higher per the US Drought Monitor to declare Stage Response	50%	NA	NA	NA	NA
System Demand Exceeds [A]% of Deliverable Capacity to declare Stage Response :	85%	90%	95%	98%	NA
Run-of-River Supplies plus GCWA Alternate Water Supplies are less than [A]% of the Monthly Flow Target through August 31 to declare Stage Response	NA	95%	90%	85%	NA
Water Use Reduction Goal	95%	90%	85%	80%	GM discretion
Potential Surcharge	NA	2.5x	2.5x	5.0x	10.0x
Potential Credit	NA	1.0x	1.0x	1.0x	1.0x

“NA” signifies “Not Applicable”. [A] references percentage values listed in Table rows.

Section VIII.1: Stage 1 Response (Mild Water Shortage; TCEQ “Watch” Level)

A Stage 1 Response for **Affected Customers** may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 1 Response. The GM will consider declaring a Stage 1 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1) **System Demand** exceeds 85% of **Deliverable Capacity** within the GCWA system for three consecutive days (applicable to any portion thereof).
- 2) Greater than 50% (by area) of the **Contributing Watershed** is classified as being under a D1 (“Moderate Drought”) condition, or greater, as identified on the most recent United States Drought Monitor website. (Currently accessible at: <http://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?TX>)

A Stage 1 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 1 Response no longer prevail.

Response Measures:

The goal for water use under Stage 1 is 95% of the total **Base Water Use** and **Interruptible Water Use** for all **Affected Customers**. The GM may implement any of the following actions deemed necessary, and may implement other appropriate actions not listed below:

- Notify all **Affected Customers** that a Stage 1 Response condition exists;
- Request all **Affected Customers** to initiate Stage 1 or other appropriate stage in their drought contingency plans;
- Request voluntary reductions in water use by all **Affected Customers**;
- Initiate or continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Increase public awareness of drought or system conditions and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 1 Response Condition exists.

Section VIII.2: Stage 2 Response (Moderate Water Shortage; TCEQ “Concern” Level)

A Stage 2 Response for **Affected Customers** may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 2 Response. The GM will consider declaring a Stage 2 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1) **System Demand** exceeds 90% of **Deliverable Capacity** within GCWA’s conveyance system for three consecutive days (applicable to any portion thereof).
- 2) The Lower Basin User’s Group recommends further water conservation based on its collective experience managing river operations.
- 3) Water available from **Run-of-River Supplies** and **GCWA Alternate Water Supplies** is determined to be insufficient to satisfy 95% of GCWA’s **Monthly Flow Target** through August 31 of the current year (if date is on or after January 1) or through August 31 of the next year (if date is on or after September 1 of the current year).

A Stage 2 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 2 Response no longer prevail.

Response Measures:

The goal for water use under Stage 2 is 90% of the total **Base Water Use** and **Interruptible Water Use** for all **Affected Customers**. If the circumstances warrant, the GM may set an alternative water use reduction goal.

The GM may implement any of the following actions deemed necessary:

- Continue or initiate any actions available under Stage 1;
- Notify all **Affected Customers** that a Stage 2 Response condition exists;
- Initiate or continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Request all **Affected Customers** to initiate Stage 2 or other appropriate stage in their drought contingency plans;
- Request voluntary reductions in water use by **Affected Customers**;
- Meet with Affected Customers to determine water use on a as needed basis, identify **Affected Customers** exceeding 95% of their **Base Water Use** or **Interruptible Water Use** and encourage them to reduce their usage;

- Cease issuance of new short-term or **Interruptible Customer** contracts with the exception of contracts needed under emergency conditions;
- Terminate water deliveries to existing **Interruptible Customers without Backup**;
- Increase public awareness of drought condition and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 2 Response Condition exists.

If water deliveries to **Interruptible Customers without Backup** are terminated, GCWA will recalculate the **Monthly Flow Target** by excluding from the calculations the water demand of those customers.

Section VIII.3: Stage 3 Response (Severe Water Shortage; TCEQ “Priority” Level)

A Stage 3 Response for Affected Customers may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 3 Response. The GM will consider declaring a Stage 3 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1) **System Demand** exceeds 95% of **Deliverable Capacity** within GCWA’s conveyance system for three consecutive days (applicable to any portion thereof).
- 2) The Lower Basin User’s Group recommends further water conservation based on its collective experience managing river operations.
- 3) Water available from **Run-of-River Supplies** and **GCWA Alternate Water Supplies** is determined to be insufficient to satisfy 90% of GCWA’s Monthly Flow Target through August 31 of the current year (if date is on or after January 1) or through August 31 of the next year (if date is on or after September 1 of the current year).

A Stage 3 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 3 Response no longer prevail.

Response Measures:

The goal for water use under Stage 3 is 85% of the total **Base Water Use** and **Interruptible Water Use** for all **Affected Customers**. If the circumstances warrant, the GM may set an alternative water use reduction goal.

The GM may implement any of the following actions deemed necessary:

- Initiate or continue any actions available under Stage 1 and Stage 2;
- Notify all **Affected Customers** that a Stage 3 Response condition exists;
- Continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Continue to coordinate with **Affected Customers** to determine water use on as needed basis, identify **Affected Customers** exceeding 90% of their **Base Water Use** or **Interruptible Water Use**, and encourage them to reduce their usage;
- Request all **Affected Customers** to initiate Stage 3 or other appropriate stage in their drought contingency plans;
- Encourage **Affected Customers** to initiate or continue use of any alternate water supplies available to them
- Terminate **Run-of-River Supplies** for **Interruptible Customers with Backup**, thereby limiting such customers to only obtaining water from **GCWA Alternate Water Supplies**, if any;

- Increase public awareness of drought condition and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 3 Response Condition exists.

If the water deliveries of **Run-of-River Supplies** to **Interruptible Customers with Backup** are terminated, GCWA will recalculate the **Monthly Flow Target** by excluding from the calculations the water demand of those customers.

Section VIII.4: Stage 4 Response (Extreme Water Shortage; TCEQ “Emergency” Level)

A Stage 4 Response for Affected Customers may be triggered when the GM finds that the Response Conditions warrant the declaration of a Stage 4 Response. The GM will consider declaring a Stage 4 Response when at least one of the following Response Conditions is satisfied:

Response Conditions:

- 1 **System Demand** exceeds 98% of **Deliverable Capacity** within GCWA’s conveyance system for three consecutive days (applicable to any portion thereof).
- 2 The Lower Basin User’s Group recommends further water conservation based on its collective experience managing river operations.
- 3 Water available from **Run-of-River Supplies** and **GCWA Alternate Water Supplies** is determined to be insufficient to satisfy 85% of GCWA’s Monthly Flow Target through August 31 of the current year (if date is on or after January 1) or through August 31 of the next year (if date is on or after September 1 of the current year).

A Stage 4 Response may be terminated by the GM when the Response Conditions that triggered the initiation of a Stage 4 Response no longer prevail.

Response Measures:

The goal for water use under Stage 4 is 80% of the total **Base Water Use** for all **Affected Customers**. If the circumstances warrant, the GM may set an alternative water use reduction goal.

The GM may implement any of the following actions deemed necessary:

- Initiate or continue any actions available under Stages 1, 2 and 3;
- Notify all **Affected Customers** that a Stage 4 Response condition exists;
- Continue usage of **GCWA Alternate Water Supplies** to augment **Run-of-River Supplies**;
- Continue to coordinate with **Affected Customers** to determine water use, identify **Affected Customers** exceeding 85% of their **Base Water Use** and encourage them to reduce their usage;
- Request all **Affected Customers** to initiate Stage 4 or other appropriate stage in their drought contingency plans;
- Encourage **Affected Customers** to initiate or continue use of any alternate water supplies available to them
- Terminate all water delivery to **Interruptible Customers with Backup**.
- Request relief from the Brazos Watermaster, and if necessary, make a priority call to enforce GCWA’s senior water rights.
- Increase public awareness of drought conditions and measures to reduce demand; and
- Notify the Brazos Watermaster, NRG, and Dow that a Stage 4 Response Condition exists.

When the water deliveries to **Interruptible Customers with Backup** are terminated, GCWA will recalculate the **Monthly Flow Target** by excluding from the calculations the water demand of those customers.

Section VIII.5: Stage 5 - Water Emergency Response (Emergency Water Shortage; TCEQ “Emergency” Level)

A Stage 5 Water Emergency Response for **Affected Customers** may be triggered when the GM finds that conditions warrant the declaration of a water emergency response due to:

- 1) A major GCWA system failure leading to loss of water service,
- 2) The water supply becoming contaminated and unusable, or

A Stage 5 response may be terminated by the GM when the circumstances that triggered the initiation of Stage 5 no longer prevail.

The goal for water use reduction under a water emergency response is subject to the scope of the emergency. The GM may order the implementation of any of the actions listed below as deemed necessary. The water emergency response measures are as follows:

- Continue or initiate any actions available under Stage 1, 2, 3, and 4
- Notify all **Affected Customers** that an emergency condition exists and meet with **Affected Customers** as appropriate to inform them of the specific nature of the emergency condition
- Require **Affected Customers** to initiate the emergency or other appropriate stage in their drought contingency plan
- Initiate pro-rata distribution of available water under TWC §11.039
- Notify the Brazos Watermaster, if applicable

Under Stage 5, GCWA will notify TCEQ of its emergency conditions and the imposition of mandatory reductions in water use by **Affected Customers**. GCWA will notify TCEQ within five (5) days of initiation and termination of Stage 5 conditions. Notifications will be submitted to the TCEQ Public Drinking Water Section Drought Team, and will be submitted via the TCEQ-required online form, currently available at: https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws/pws-drought-contingency-plan-reporting-form. Assistance in making notifications may be obtained via e-mail to wcp@tceq.texas.gov or via phone at 512-239-4691.

Section IX: Pro Rata Water Distribution

In the event one or more Stage 5 Response Conditions specified herein have been met, the GM is hereby authorized to initiate distribution of water supplies on a pro-rata basis among all **Affected Customers**. The distribution will be in accordance with Texas Water Code, §11.039.

Section X: Enforcement

Section X.1 Surcharge

Under Stage 2 or Stage 3 Response Conditions, **Affected Customers** shall pay the following surcharge on their monthly **Excess Water Usage**, calculated as follows:

Excess Water Usage multiplied by **2.5** times the individual customer’s **Raw Water Rate**.

Under Stage 4 Response Conditions, **Affected Customers** shall pay the following surcharge on their monthly **Excess Water Usage**, calculated as follows:

Excess Water Usage multiplied by **5.0** times the individual customer's **Raw Water Rate**.

Under Stage 5 Response Conditions, **Affected Customers** shall pay the following surcharge on their monthly **Excess Water Usage**, calculated as follows:

Excess Water Usage multiplied by **10.0** times the individual customer's **Raw Water Rate**.

Overage payments made by any customers under the terms of the customer's contract(s) with GCWA shall be credited against any surcharge for **Excess Water Use** assessed under this Plan.

Revenues obtained by GCWA from the Surcharges will be deposited or credited to Fund 08 Canal Division.

Section X.2 Credits

Under Stage 2, Stage 3, or Stage 4 Response conditions, **Affected Customers** which achieve the applicable water use reduction goal shall receive a conservation incentive payment based on their **Conserved Water Quantity**, calculated as follows:

Conserved Water Quantity multiplied by **1.0** times the individual customer's **Raw Water Rate**.

Section XI: Variances

The GM may, in writing, grant a variance to a GCWA customer for a specified period of time for water uses otherwise prohibited or managed under this Plan, if one or more of the following conditions are met:

- Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the GCWA customer,
- A customer's calculated **Base Water Use or Interruptible Water Use** is incorrectly or inappropriately computed,
- A customer's recent or pending increase or decrease in contract water volume for example through obtaining additional GCWA contracts, contract amendments, exercising of contract options, or by other mechanisms) renders historical usage no longer reflective of current water demands,
- Compliance with this Plan cannot be accomplished due to technical, legal, or other limitations, or
- Alternative methods that achieve the same level of reduction in water use may be implemented.

Variance requests regarding **Base Water Use or Interruptible Water Use** must provide a description of why the original GCWA-calculated **Base Water Use or Interruptible Water Use** either under or over-estimates reasonably expected customer usage. The extenuating circumstances justifying a variance may include, but are not limited to, meter malfunction, planned or emergency shut-downs of industrial facilities, damage or required maintenance to conveyance facilities, and anticipated growth in demand beyond the historic three-year period.

All petitions for variances will be in writing and should include the following information:

- Name and address of the petitioner(s),
- Purpose of water use,
- Specific changes or provisions from which relief is requested,

- Detailed statement of any adverse effect of the provisions for which a variance is requested,
- Description of the change or relief requested, including providing a detailed justification of the change or relief,
- Period of time for which the variance is sought,
- Alternative measures that will be taken to reduce water use (if applicable), and
- Other pertinent information.

Variances may be granted or denied at the discretion of the GM. However, if a variance request is denied, the GM shall provide in writing to the petitioner a reasoned justification for the denial of the variance. If the GM does not grant or deny a variance within 10 days from receipt of the variance request, the request is automatically denied, and the petitioner may appeal the denial directly to the GCWA Board of Directors.

Section XII: Appeals

- (a) *Generally.* The Board of Directors shall hear and decide applications for appeals of interpretations and of variances from: (i) the requirements of this Plan or other orders of GCWA, and (ii) actions of GCWA's officers relating to permits, licenses, variances or other special permissions.
- (b) *Who may apply; when to file.* Any person aggrieved by an applicable regulation or action may apply for an appeal. Applications must be filed, in writing, within 20 calendar days following the time the person knows of the requirement or action in question. The Board, for good cause shown, may extend the time for filing. Grievances not made in writing and filed within the time prescribed are waived.
- (c) *Special requirements for appeal of variance decisions by GM.* Variances shall only be issued to the minimum extent necessary to afford relief, and variances shall only be issued upon:
- (1) Showing a good and sufficient cause;
 - (2) A determination that failure to grant the variance would result in unusual hardship to the applicant; and
 - (3) A determination that the granting of a variance will not result in additional threats to public safety, extraordinary public expense, nuisances, fraud on or victimization of the public, or a conflict with existing laws or orders.
- (d) *Conditions.* Upon consideration of the factors noted above, the Board of Directors may attach such conditions to variances as it deems necessary to further the purpose and objectives of this Plan or other applicable orders of the Board or regulations of the State.
- (e) *Finality.* Board of Director's decisions on appeals, interpretations and variances control over decisions by any other officer or body of GCWA. No decision of the GCWA is final until: (i) it is officially made by an officer or body authorized to do so, and (ii) all applicable administrative remedies, as allowed by this section, are exhausted."

Section XII: Severability

It is hereby declared to be the intention of the GCWA that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections

of this Plan, since the same would not have been enacted by the GCWA without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Section XIII: Implementation

This Plan was adopted by the Gulf Coast Water Authority via a resolution passed by the Board of Directors on December 6, 2018. A copy of this resolution may be found in *Appendix C* of this document.

As part of the implementation process, GCWA will initiate and maintain an ad-hoc Drought Contingency Advisory Committee. The Committee will be administered by GCWA. The Committee will be comprised of representatives from each of the industrial customers, major municipal treated water customers and agriculture. The Brazos River Watermaster will be an ad-hoc member. The Committee will meet with GCWA twice each year to:

- Review information on river flow and BRA reservoir levels, and drought conditions in the Brazos River Basin.
- Monitor the running computation of Base Water Use and Interruptible Water Use for each customer.
- Receive information on water use, conservation and drought contingency planning by GCWA, NRG, and Dow.
- Provide feedback to GCWA on the implementation of the Plan.
- Receive information from GCWA on its acquisition of Alternate Water Supplies.

Adopted December 6, 2018



**Council Agenda Item
May 20, 2019**

7. PUBLIC HEARINGS AND RELATED ACTIONS

(a) **Zoning Public Hearings and Ordinances** – *There are no Zoning Public Hearings and Ordinances on this agenda.*

(b) **Public Hearings and related actions** – *There are no Public Hearings and related actions on this agenda.*

8. APPOINTMENTS – *There are no Appointments on this agenda.*



**CITY COUNCIL
AGENDA ITEM COVER MEMO**

May 20, 2019

To: Mayor and City Council
Agenda Item: 9(a) Authorize the City Manager to execute a contract with Mar-Con Services, LLC for the Reconstruction of Glenn Lakes Bridge over Oyster Creek Tributary.
Submitted by: Shashi K. Kumar, P.E., Director of Public Works and City Engineer

SYNOPSIS

The Department of Public Works requests authorization for the City Manager to enter into a contract with Mar-Con Services, LLC for the Reconstruction of Glenn Lakes Bridge over Oyster Creek Tributary.

STRATEGIC PLAN 2019 GOALS ADDRESSED

- Create a great place to live
- Have quality development through buildout

BACKGROUND

The Glenn Lakes Bridge over Oyster Creek Tributary has been in service since the 1970's. Over time, the bridge has shown increased exposure to the pier foundations due to changes in bank scouring (erosion) during flood events. The replacement of the bridge is necessary to maintain safe access to the residents.

In March 2019, Public Works along with the Purchasing Division, prepared and advertised an Invitation for Bid (IFB # 19-325). Notices were published in the local newspaper; the City's website and the State of Texas Electronic State Business Daily site.

The design Engineer and staff reviewed and evaluated the bids submitted. It was determined that the bid submitted by Mar-Con Services, LLC of Pasadena, Texas was the lowest most responsive bidder in the amount of \$1,612,277.74. Construction is anticipated to start in July 2019 and scheduled to be completed in June 2020.

As part of the 2013 Fort Bend County Mobility Bond Program the County will contribute to the City, \$250,000 towards these construction improvements as indicated in the fully executed interlocal agreement between the City and Fort Bend County. Staff will request funding from the County upon Council's approval of the contract with Mar-Con Services, LLC.

BUDGET/FISCAL ANALYSIS

Funding Source	Account Number	Project Code/Name	FY19 Funds Budgeted	FY19 Funds Available	Amount Requested
General Bond	403-58700-15-999-50087	50087 / Glenn Lakes Lane Bridge Replacement	\$2,767,710	\$2,582,477	\$1,612,277.74

Purchasing Review: Shannon L. Pleasant, CTPM - Procurement and Risk Manager
Financial/Budget Review: Bertha P. Alexander, Budget & Financial Reporting Manager

Note: Compliance with the conflict of interest questionnaire requirements, if applicable, and the interested party disclosure requirements (HB 1295) has been confirmed/is pending within 30-days of this Council action and prior to execution.

SUPPORTING MATERIALS

1. Design Engineer's Recommendation and Bid Tabulation
2. Project Location Map

STAFF'S RECOMMENDATION

Staff recommends that City Council authorize the City Manager to enter into a contract with Mar-Con Services, LLC for the reconstruction of Glenn Lakes Bridge over Oyster Creek Tributary in the amount of \$1,612,277.74

Director Approval: Shashi K. Kumar

**Assistant City Manager/
City Manager Approval:** Bill Atkinson



GC Engineering, Inc.

2505 Park Avenue, Pearland, Texas 77581
Phone: (281) 412-7008, Fax: (281) 412-4623
www.gc-engineering.com

May 06, 2019

Mr. Mark Law
Project Manager
City of Missouri City
1522 Texas Parkway
Missouri City, TX 77489

RE: Reconstruction of Glenn Lakes Bridge Over Oyster Creek Tributary (Bridge No. R004-80-002), City of Missouri City, Missouri City, Texas, GCE Project No: C-0798

Dear Mr. Law:

Bids for the construction of the above referenced Project were received and opened on April 30, 2019 at 2:00 p.m. at City of Missouri City, 1522 Texas Parkway, Missouri City TX 77489. A total of four bids were received and the bid tabulation sheet and the bid summary are attached. The bid amounts by each bidder are as follows:

<u>Bidder</u>	<u>Bid Amount</u>	<u>Contract Time (Calendar Days)</u>
Mar-Con Services, LLC	\$1,612,277.74	240
WadeCon, LLC	\$1,916,188.00	300
NBG Contractors, Inc	\$1,920,409.35	300
Harper Brothers Construction, LLC.	\$2,103,752.50	300

GC Engineering Inc. (GCE) reviewed the bids for mathematical errors and found three minor errors in Mar-Con Services, LLC’s bid. However, the original bid amount of Mar-Con Services, LLC’s was not affected by the errors. The lowest bidder is Mar-Con Services, LLC. with a total bid amount of \$1,612,277.74.

GCE reviewed the financial statements, and work experience of the lowest bidder. In addition, GCE contacted the references provided by the lowest bidder. GCEs review revealed that credentials of Mar-Con Services, LLC is satisfactory for the construction of the proposed bridge project.

Based on the review of the information on the Mar-Con Services, LLC, GCE recommends that the City award the Contract to Mar-Con Services, LLC for the above referenced project, at a total contract price of \$1,612,277.74.

If you have any questions or need additional information, please contact me at (281) 412-7008, Ext. 104.

Sincerely,
GC ENGINEERING, INC.

A. Mahendra Rodrigo, P.E.
Principal

Enclosure:
A. Bid Tabulation

IFB 19-325 RECONSTRUCTION OF GLENN LAKES BRIDGE OVER OYSTER CREEK TRIBUTARY, EAST OF HIGHLAND LAKES DRIVE

CITY OF MISSOURI CITY, MISSOURI CITY, TEXAS
BID ANALYSIS

Name	1	2	3	4	Average of Low Three Bidders
	Mario Ramos	Jerry Wade	David Boehm	Jon Harper	
	mario@marconllc.com	dschomer@wadecon.com	davidb@nbqconstructors.com	bids@harperbro.com	
	713-473-1800	281-348-0853	281-495-0842	713-893-4593	
Email					
Phone No.					
	Mar-Con Services, LLC	WadeCon, LLC	NBG Contractors, Inc.	Harper Brothers Construction, LLC	

Item No.	Item Description	Units	Quantity	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
SECTION 1 - SITE PREPARATION AND EARTHWORK													
1	PREPARING ROW	AC	0.6	\$46,000.90	\$27,600.54	\$100,000.00	\$60,000.00	\$5,000.00	\$3,000.00	\$11,000.00	\$6,600.00	\$50,333.63	\$30,200.18
2	REMOVING CONC (PAV)	SY	175	\$9.20	\$1,610.00	\$10.00	\$1,750.00	\$25.00	\$4,375.00	\$5.00	\$875.00	\$14.73	\$2,578.33
3	REMOVING CONC (SIDEWALKS)	SY	103	\$6.00	\$618.00	\$10.00	\$1,030.00	\$15.00	\$1,545.00	\$5.00	\$515.00	\$10.33	\$1,064.33
4	EXCAVATION (CHANNEL)	CY	817	\$30.20	\$24,673.40	\$20.00	\$16,340.00	\$20.00	\$16,340.00	\$15.00	\$12,255.00	\$23.40	\$19,117.80
5	EMBANKMENT (FINAL)(DENS CONT)(TY A)	CY	253	\$13.20	\$3,339.60	\$20.00	\$5,060.00	\$15.00	\$3,795.00	\$15.00	\$3,795.00	\$16.07	\$4,064.87
6	MOBILIZATION	LS	1	\$182,329.10	\$182,329.10	\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00	\$200,000.00	\$200,000.00	\$160,776.37	\$160,776.37
7	PRUNING AND TRIMMING TREES AND SHRUBS	LS	1	\$345.00	\$345.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00	\$1,500.00	\$1,500.00	\$615.00	\$615.00
8	INSTALL TREE PROTECTION FENCE	LF	125	\$5.80	\$725.00	\$10.00	\$1,250.00	\$2.00	\$250.00	\$2.00	\$250.00	\$5.93	\$741.67
9	INSTALL ROOT PRUNING TRENCH	LF	40	\$28.80	\$1,152.00	\$20.00	\$800.00	\$7.50	\$300.00	\$20.00	\$800.00	\$18.77	\$750.67
10	MISSOURI CITY PROJECT SIGN	EA	2	\$799.30	\$1,598.60	\$1,000.00	\$2,000.00	\$1,500.00	\$3,000.00	\$750.00	\$1,500.00	\$1,099.77	\$2,199.53
SUBTOTAL SECTION 1 - SITE PREPARATION AND EARTHWORK					\$243,991.24		\$239,230.00		\$183,105.00		\$228,090.00		\$222,108.75
SECTION 2 - BRIDGE CONSTRUCTION													
11	CEM STABIL BKFL	CY	164	\$83.00	\$13,612.00	\$30.00	\$4,920.00	\$60.00	\$9,840.00	\$75.00	\$12,300.00	\$57.67	\$9,457.33
12	DRILL SHAFT (18 IN)	LF	80	\$68.70	\$5,496.00	\$200.00	\$16,000.00	\$150.00	\$12,000.00	\$85.00	\$6,800.00	\$139.57	\$11,165.33
13	DRILL SHAFT (36 IN)	LF	992	\$229.10	\$227,267.20	\$300.00	\$297,600.00	\$375.00	\$372,000.00	\$400.00	\$396,800.00	\$301.37	\$298,955.73
14	CL C CONC (ABUT)(HPC)	CY	46	\$1,004.50	\$46,207.00	\$2,000.00	\$92,000.00	\$1,100.00	\$50,600.00	\$1,000.00	\$46,000.00	\$1,368.17	\$62,935.67
15	CL C CONC (WINGWALLS)	CY	18	\$802.90	\$14,452.20	\$1,000.00	\$18,000.00	\$1,300.00	\$23,400.00	\$1,400.00	\$25,200.00	\$1,034.30	\$18,617.40
16	CL C CONC (BENT) (HPC)	CY	64	\$1,074.00	\$68,736.00	\$1,500.00	\$96,000.00	\$1,200.00	\$76,800.00	\$1,000.00	\$64,000.00	\$1,258.00	\$80,512.00
17	CL S CONC (APPROACH SLAB) (HPC)	CY	85	\$389.50	\$33,107.50	\$300.00	\$25,500.00	\$500.00	\$42,500.00	\$700.00	\$59,500.00	\$396.50	\$33,702.50
18	REINF CONC SLAB (HPC) (CL S)	SF	7920	\$25.50	\$201,960.00	\$20.00	\$158,400.00	\$19.00	\$150,480.00	\$18.00	\$142,560.00	\$21.50	\$170,280.00
19	PRESTR CONC GIRDER (TX28)	LF	1145	\$177.30	\$203,008.50	\$170.00	\$194,650.00	\$175.00	\$200,375.00	\$250.00	\$286,250.00	\$174.10	\$199,344.50
20	STR STEEL (MISC NON - BRIDGE)	LB	310	\$19.20	\$5,952.00	\$15.00	\$4,650.00	\$13.00	\$4,030.00	\$15.00	\$4,650.00	\$15.73	\$4,877.33
21	RAIL (TY C411) (HPC)	LF	386	\$169.70	\$65,504.20	\$200.00	\$77,200.00	\$115.00	\$44,390.00	\$220.00	\$84,920.00	\$161.57	\$62,364.73
22	PAINTING OF STRUCTURES	LS	1	\$6,486.00	\$6,486.00	\$10,000.00	\$10,000.00	\$2,500.00	\$2,500.00	\$10,000.00	\$10,000.00	\$6,328.67	\$6,328.67
23	SEALED EXPANSION JOINT (4 IN)(SEJ-A)	LF	112	\$80.70	\$9,038.40	\$90.00	\$10,080.00	\$90.00	\$10,080.00	\$100.00	\$11,200.00	\$86.90	\$9,732.80
24	BRIDGE PLAQUE	EA	4	\$1,160.20	\$4,640.80	\$1,500.00	\$6,000.00	\$800.00	\$3,200.00	\$750.00	\$3,000.00	\$1,153.40	\$4,613.60
25	REMOV STR (BRIDGE 100 - 499 FT LENGTH)	EA	1	\$57,013.60	\$57,013.60	\$50,000.00	\$50,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$69,004.53	\$69,004.53
SUBTOTAL SECTION 2 - BRIDGE CONSTRUCTION					\$962,481.40		\$1,061,000.00		\$1,102,195.00		\$1,253,180.00		\$1,041,892.13
SECTION 3 - PAVING													
26	COLORED CONCRETE PAVERS- GEORGIA BLEND, INCLUDING SAND BEDDING & GEOTEXTILE FABRIC	SY	38	\$81.10	\$3,081.80	\$100.00	\$3,800.00	\$150.00	\$5,700.00	\$175.00	\$6,650.00	\$110.37	\$4,193.93
27	CONC CURB (TY II)	LF	522	\$9.30	\$4,854.60	\$10.00	\$5,220.00	\$6.00	\$3,132.00	\$3.00	\$1,566.00	\$8.43	\$4,402.20
28	CONC SIDEWALKS (4"), INCLUDING 2" COMPACTED BANK SAND BASE	SY	326	\$48.40	\$15,778.40	\$60.00	\$19,560.00	\$60.00	\$19,560.00	\$65.00	\$21,190.00	\$56.13	\$18,299.47
29	RIPRAP (CONC)(CL B)(RR8)	CY	169	\$372.10	\$62,884.90	\$400.00	\$67,600.00	\$500.00	\$84,500.00	\$750.00	\$126,750.00	\$424.03	\$71,661.63
30	CONC RAMP (TYPE I) WITH FLARES ON BOTH SIDES	EA	1	\$1,042.90	\$1,042.90	\$2,000.00	\$2,000.00	\$2,500.00	\$2,500.00	\$2,000.00	\$2,000.00	\$1,847.63	\$1,847.63
SUBTOTAL SECTION 3 - PAVING					\$87,642.60		\$98,180.00		\$115,392.00		\$158,156.00		\$100,404.87
SECTION 4 - DRAINAGE													
31	CMP (GAL STL 30 IN)	LF	47	\$80.20	\$3,769.40	\$150.00	\$7,050.00	\$150.00	\$7,050.00	\$180.00	\$8,460.00	\$126.73	\$5,956.47
32	MANH (COMPL)(PRM)(60IN)	EA	1	\$6,116.50	\$6,116.50	\$5,000.00	\$5,000.00	\$6,500.00	\$6,500.00	\$6,000.00	\$6,000.00	\$5,872.17	\$5,872.17
33	CUT, REMOVE AND DISPOSE EXISTING CMP	LF	51	\$13.50	\$688.50	\$40.00	\$2,040.00	\$20.00	\$1,020.00	\$20.00	\$1,020.00	\$24.50	\$1,249.50
34	TRENCH EXCAVATION PROTECTION	LF	47	\$5.00	\$235.00	\$1.00	\$47.00	\$1.00	\$47.00	\$1.00	\$47.00	\$2.33	\$109.67
35	ADJUSTING MANHOLE RIM TO NEW GRADE	EA	1	\$707.00	\$707.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00	\$600.00	\$600.00	\$735.67	\$735.67
SUBTOTAL SECTION 4 - DRAINAGE					\$11,516.40		\$15,137.00		\$15,117.00		\$16,127.00		\$13,923.47

IFB 19-325 RECONSTRUCTION OF GLENN LAKES BRIDGE OVER OYSTER CREEK TRIBUTARY, EAST OF HIGHLAND LAKES DRIVE

CITY OF MISSOURI CITY, MISSOURI CITY, TEXAS
BID ANALYSIS

	1	2	3	4	Average of Low Three Bidders
Name	Mario Ramos	Jerry Wade	David Boehm	Jon Harper	
Email	mario@marconllc.com	dschomer@wadecon.com	davidb@nbgconstructors.com	bids@harperbro.com	
Phone No.	713-473-1800	281-348-0853	281-495-0842	713-893-4593	
	Mar-Con Services, LLC	WadeCon, LLC	NBG Contractors, Inc.	Harper Brothers Construction, LLC	

Item No.	Item Description	Units	Quantity	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
SECTION 5 - WATER													
36	12-INCH DIAMETER WELDED STEEL WATER LINE, AERIAL CROSSING, (ATTACHED UNDER BRIDGE) 12-INCH PVC DR18 C900 PVC BURIED PIPE FROM ABUTMENT TO EXISTING WATERLINE (INCLUDING FITTINGS, HANGERS, BRACKETS, GATE VALVE, TEMPORARY 2-INCH BLOWOFF VALVE, CONNECTION TO EXISTING WATER LINE, EMBEDDED ITEMS, COATINGS-BLUE COLOR, BEDDING AND BACKFILL, DISINFECTION, HYDROSTATIC TESTING, REMOVAL AND DISPOSAL OF EXISTING PIPING, FITTINGS)	LS	1	\$45,695.30	\$45,695.30	\$80,000.00	\$80,000.00	\$60,000.00	\$60,000.00	\$65,000.00	\$65,000.00	\$61,898.43	\$61,898.43
37	TEMPORARY 12-INCH WATER LINE INCLUDING FITTINGS AND CONNECTION TO EXISTING WATERLINE, DISINFECTION AND HYDROSTATIC TESTING	LS	1	\$19,241.00	\$19,241.00	\$30,000.00	\$30,000.00	\$100,000.00	\$100,000.00	\$65,000.00	\$65,000.00	\$49,747.00	\$49,747.00
SUBTOTAL SECTION 5 - WATER					\$64,936.30		\$110,000.00		\$160,000.00		\$130,000.00		\$111,645.43
SECTION 6 - PLANTER BOX & IRRIGATION													
38	1" WATER SERVICE CONNECTION INCLUDING METER, VALVES, BACKFLOW PREVENTER, HOUSING, 1-INCH PVC LINES AND APPURTENANCES, BEDDING AND BACKFILL, CONNECTION THRU BRIDGE AND ALL COSTS ASSOCIATED WITH WATER CONNECTION BY QVUD	LS	1	\$2,764.30	\$2,764.30	\$10,000.00	\$10,000.00	\$5,000.00	\$5,000.00	\$7,000.00	\$7,000.00	\$5,921.43	\$5,921.43
39	FURNISHING AND PLACING TOPSOIL (PLANTING MEDIA) AND GRAVEL	CY	49	\$137.20	\$6,722.80	\$20.00	\$980.00	\$100.00	\$4,900.00	\$290.00	\$14,210.00	\$85.73	\$4,200.93
40	4" PVC FRENCH DRAIN WITH GEOSOCK	LF	330	\$11.00	\$3,630.00	\$30.00	\$9,900.00	\$10.00	\$3,300.00	\$10.00	\$3,300.00	\$17.00	\$5,610.00
41	CLASS C CONC (MISC) WITH ASHLAR STONE (DAYTON SUPERIOR) EXTERIOR FINISH OR SIMILAR (1" THICK OF STONE)	CY	36	\$1,104.60	\$39,765.60	\$2,500.00	\$90,000.00	\$1,300.00	\$46,800.00	\$1,200.00	\$43,200.00	\$1,634.87	\$58,855.20
SUBTOTAL SECTION 6 - PLANTER BOX & IRRIGATION					\$52,882.70		\$110,880.00		\$60,000.00		\$67,710.00		\$74,587.57
SECTION 7 - SANITARY SEWER													
42	8-INCH DIAMETER WELDED STEEL SANITARY SEWER FORCE MAIN, AERIAL CROSSING, (ATTACHED UNDER BRIDGE) 8-INCH DIAMETER DR18 C900 PVC BURIED PIPE FROM ABUTMENT TO EXISTING PIPE (INCLUDING FITTINGS, HANGERS, BRACKETS, CONNECTION TO EXISTING SANITARY SEWER LINE, EMBEDDED ITEMS, COATINGS, BEDDING AND BACKFILL, TESTING, REMOVAL AND DISPOSAL OF EXISTING SANITARY SEWER, ANY PUMPING, TRUCKING, AND DISCHARGE OF WASTE WATER FROM LIFT STATION WITHOUT AFFECTING WASTEWATER LIFT STATION OPERATIONS)	LS	1	\$37,143.00	\$37,143.00	\$80,000.00	\$80,000.00	\$50,000.00	\$50,000.00	\$45,000.00	\$45,000.00	\$55,714.33	\$55,714.33
43	TEMPORARY 8-INCH SANITARY SEWER FORCE MAIN INCLUDING FITTINGS, SUPPORT STRUCTURES, CONNECTION TO EXISTING SANITARY SEWER LINE, TESTING, REMOVAL AND DISPOSAL	LS	1	\$11,924.80	\$11,924.80	\$50,000.00	\$50,000.00	\$75,000.00	\$75,000.00	\$38,000.00	\$38,000.00	\$45,641.60	\$45,641.60
SUBTOTAL SECTION 7 - SANITARY SEWER					\$49,067.80		\$130,000.00		\$125,000.00		\$83,000.00		\$101,355.93
SECTION 8 - SIGNING AND PAVEMENT MARKINGS													
44	ALUMINUM SIGNS (TY A)	SF	10	\$28.80	\$288.00	\$100.00	\$1,000.00	\$15.00	\$150.00	\$25.00	\$250.00	\$47.93	\$479.33
45	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	2	\$143.80	\$287.60	\$400.00	\$800.00	\$300.00	\$600.00	\$275.00	\$550.00	\$281.27	\$562.53
46	REMOVE SM RD SN SUP & AM	EA	1	\$61.70	\$61.70	\$100.00	\$100.00	\$150.00	\$150.00	\$75.00	\$75.00	\$103.90	\$103.90
47	REFL PAV MRK TY I (W) 4" (SLD)(1000MIL)	LF	643	\$0.70	\$450.10	\$1.00	\$643.00	\$1.00	\$643.00	\$2.00	\$1,286.00	\$0.90	\$578.70
48	REFL PAV MRK TY I (W)(BIKE ARW)(100MIL)	EA	2	\$143.80	\$287.60	\$250.00	\$500.00	\$75.00	\$150.00	\$750.00	\$1,500.00	\$156.27	\$312.53
49	REFL PAV MRK TY I (W)(BIKE SYML)(100MIL)	EA	2	\$143.80	\$287.60	\$250.00	\$500.00	\$150.00	\$300.00	\$750.00	\$1,500.00	\$181.27	\$362.53
50	REFL PAV MRK TY I (Y) 4" (SLD)(100MIL)	LF	894	\$0.70	\$625.80	\$1.00	\$894.00	\$1.00	\$894.00	\$2.00	\$1,788.00	\$0.90	\$804.60
51	REFL PAV MRK TY I (Y)24"(SLD)(100MIL)	LF	34	\$6.60	\$224.40	\$10.00	\$340.00	\$6.00	\$204.00	\$15.00	\$510.00	\$7.53	\$256.13
52	REFL PAV MRKR TY II-A-A	EA	82	\$4.00	\$328.00	\$10.00	\$820.00	\$5.00	\$410.00	\$5.00	\$410.00	\$6.33	\$519.33
53	PAV SURF PREP FOR MRK (4")	LF	1867	\$0.30	\$560.10	\$1.00	\$1,867.00	\$0.05	\$93.35	\$0.10	\$186.70	\$0.45	\$840.15
54	PAV SURF PREP FOR MRK (ARROW)	EA	2	\$23.00	\$46.00	\$10.00	\$20.00	\$10.00	\$20.00	\$50.00	\$100.00	\$14.33	\$28.67
55	PAV SURF PREP FOR MRK (SYMBOL)	EA	2	\$23.00	\$46.00	\$10.00	\$20.00	\$20.00	\$40.00	\$50.00	\$100.00	\$17.67	\$35.33
SUBTOTAL SECTION 8 - SIGNING AND PAVEMENT MARKINGS					\$3,492.90		\$7,504.00		\$3,654.35		\$8,255.70		\$4,883.75
SECTION 9 - STREETLIGHTING													
56	CONDT (PVC) (SCH 80) (2")	LF	928	\$12.80	\$11,878.40	\$15.00	\$13,920.00	\$15.00	\$13,920.00	\$11.10	\$10,300.80	\$14.27	\$13,239.47
57	12' STREET LIGHTS INCLUDING FOUNDATION, POLES, BRACKETS, LUMINARE, WIRING, POWER SUPPLY AND INCIDENTALS	EA	6	\$6,440.00	\$38,640.00	\$8,000.00	\$48,000.00	\$7,500.00	\$45,000.00	\$5,600.00	\$33,600.00	\$7,313.33	\$43,880.00

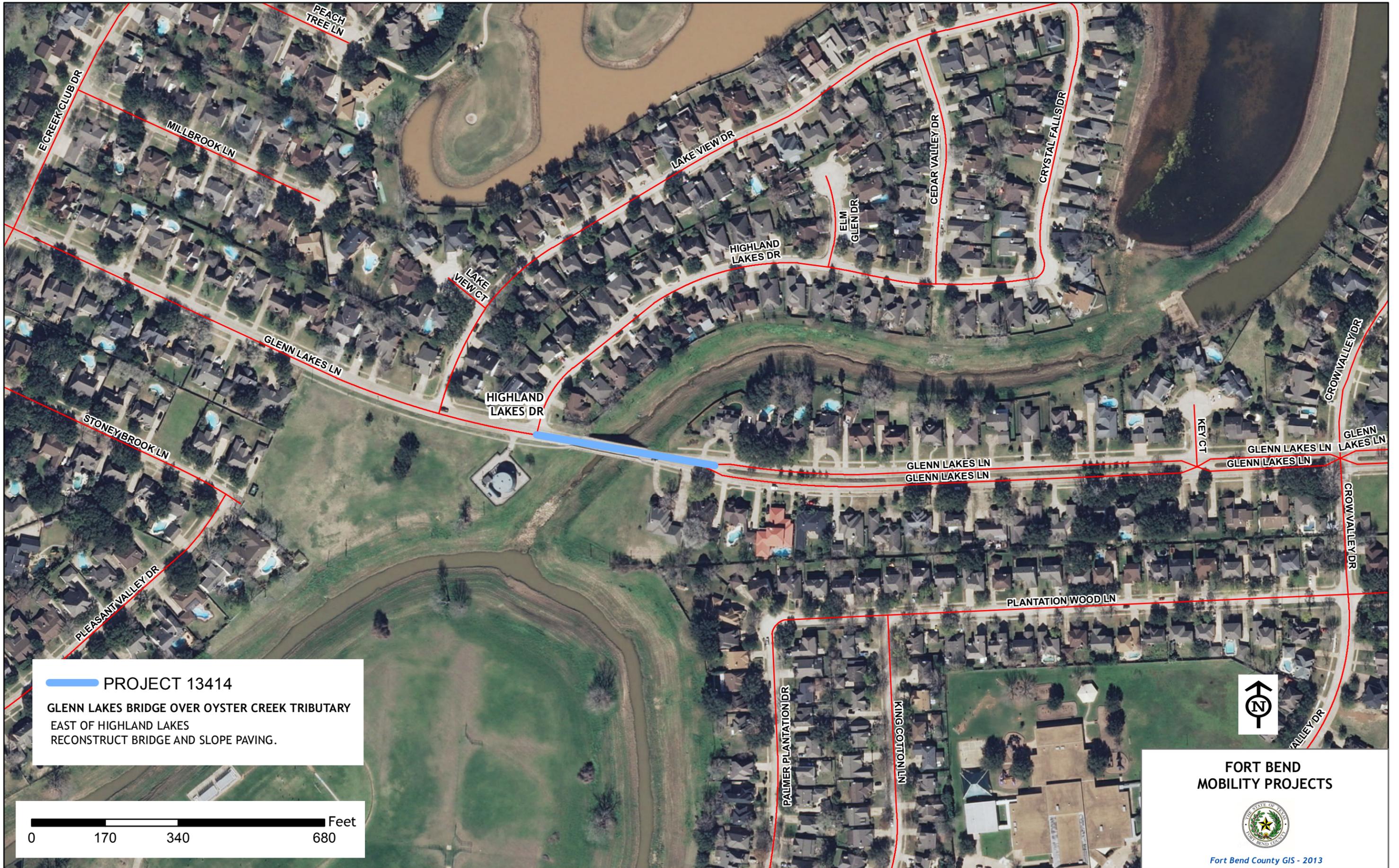
IFB 19-325 RECONSTRUCTION OF GLENN LAKES BRIDGE OVER OYSTER CREEK TRIBUTARY, EAST OF HIGHLAND LAKES DRIVE

CITY OF MISSOURI CITY, MISSOURI CITY, TEXAS
BID ANALYSIS

	1	2	3	4	Average of Low Three Bidders
Name	Mario Ramos	Jerry Wade	David Boehm	Jon Harper	
Email	mario@marconllc.com	dschomer@wadecon.com	davidb@nbgconstructors.com	bids@harperbro.com	
Phone No.	713-473-1800	281-348-0853	281-495-0842	713-893-4593	
	Mar-Con Services, LLC	WadeCon, LLC	NBG Contractors, Inc.	Harper Brothers Construction, LLC	

Item No.	Item Description	Units	Quantity	Unit Price	Total Price								
58	SERVICE POLE METAL FRAME INCLUDING FOUNDATION, WIRING, MOUNTING PANEL, METER, DISCONNECTS, SURGE PROTECTORS AND ALL COSTS ASSOCIATED WITH CENTERPOINT ENERGY FOR POWER SUPPLY	LS	1	\$12,995.00	\$12,995.00	\$10,000.00	\$10,000.00	\$15,000.00	\$15,000.00	\$11,300.00	\$11,300.00	\$12,665.00	\$12,665.00
59	120V/10A OUTDOOR RATED RECEPTACLES INCLUDING WIRING, MAIN BREAKER, METER, METER CAN, JUNCTION BOXES, GROUND BOXES, GROUNDING MATERIAL, PANEL BOARD, MOUNTING MATERIAL AND INCIDENTALS	LS	1	\$8,337.50	\$8,337.50	\$10,000.00	\$10,000.00	\$8,500.00	\$8,500.00	\$7,250.00	\$7,250.00	\$8,945.83	\$8,945.83
SUBTOTAL SECTION 9 - STREETLIGHTING					\$71,850.90		\$81,920.00		\$82,420.00		\$62,450.80		\$78,730.30
SECTION 10 - STORM WATER POLLUTION PREVENTION													
60	TEMP SEDMT CONT FENCE (INSTALL)	LF	450	\$1.80	\$810.00	\$5.00	\$2,250.00	\$3.00	\$1,350.00	\$2.00	\$900.00	\$3.27	\$1,470.00
61	TEMP SEDMT CONT FENCE (REMOVE)	LF	450	\$0.60	\$270.00	\$2.00	\$900.00	\$1.00	\$450.00	\$2.00	\$900.00	\$1.20	\$540.00
62	CONSTRUCTION EXISTS (INSTALL) (TY 1)	SY	134	\$19.00	\$2,546.00	\$20.00	\$2,680.00	\$50.00	\$6,700.00	\$15.00	\$2,010.00	\$29.67	\$3,975.33
63	CONSTRUCTION EXISTS (REMOVE)	SY	134	\$1.60	\$214.40	\$10.00	\$1,340.00	\$10.00	\$1,340.00	\$2.00	\$268.00	\$7.20	\$964.80
64	BIODEG EROSN CONT LOGS (INSTL) (8")	LF	96	\$5.80	\$556.80	\$1.00	\$96.00	\$5.00	\$480.00	\$50.00	\$4,800.00	\$3.93	\$377.60
65	BIODEG EROSN CONT LOGS (REMOVE)	LF	96	\$3.50	\$336.00	\$1.00	\$96.00	\$1.00	\$96.00	\$5.00	\$480.00	\$1.83	\$176.00
66	BLOCK SODDING	SY	185	\$4.60	\$851.00	\$5.00	\$925.00	\$6.00	\$1,110.00	\$5.00	\$925.00	\$5.20	\$962.00
67	HYDROMULCH SEEDING	AC	0.5	\$3,220.00	\$1,610.00	\$10,000.00	\$5,000.00	\$3,000.00	\$1,500.00	\$2,000.00	\$1,000.00	\$5,406.67	\$2,703.33
68	FERTILIZER	TON	1	\$661.30	\$661.30	\$10.00	\$10.00	\$100.00	\$100.00	\$750.00	\$750.00	\$257.10	\$257.10
69	VEGETATIVE WATERING	MG	100	\$25.40	\$2,540.00	\$10.00	\$1,000.00	\$10.00	\$1,000.00	\$25.00	\$2,500.00	\$15.13	\$1,513.33
70	SWPPP INSPECTION AND MAINTENANCE (MIN. BID - REQUIRED.)	MO	12	\$57.50	\$690.00	\$100.00	\$1,200.00	\$500.00	\$6,000.00	\$550.00	\$6,600.00	\$219.17	\$2,630.00
SUBTOTAL SECTION 10 - STORM WATER POLLUTION PREVENTION					\$11,085.50		\$15,497.00		\$20,126.00		\$21,133.00		\$15,569.50
SECTION 11 - TRAFFIC CONTROL PLANS													
71	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	12	\$1,150.00	\$13,800.00	\$1,000.00	\$12,000.00	\$750.00	\$9,000.00	\$1,500.00	\$18,000.00	\$966.67	\$11,600.00
72	PORT CTB (FUR & INST)(LOW PROF)(TY 1)	LF	50	\$46.60	\$2,330.00	\$40.00	\$2,000.00	\$25.00	\$1,250.00	\$25.00	\$1,250.00	\$37.20	\$1,860.00
73	PORT CTB (REMOVE)(LOW PROF)(TY 1)	LF	50	\$46.60	\$2,330.00	\$20.00	\$1,000.00	\$25.00	\$1,250.00	\$15.00	\$750.00	\$30.53	\$1,526.67
SUBTOTAL SECTION 11 - TRAFFIC CONTROL PLANS					\$18,460.00		\$15,000.00		\$11,500.00		\$20,000.00		\$14,986.67
TOTAL BASE BID:					\$1,577,407.74		\$1,884,348.00		\$1,878,509.35		\$2,048,102.50		\$1,780,088.36
SECTION 12 - SUPPLEMENTAL ITEMS													
74	CEMENT TREAT (NEW BASE) (6")	SY	115	\$21.00	\$2,415.00	\$70.00	\$8,050.00	\$25.00	\$2,875.00	\$60.00	\$6,900.00	\$38.67	\$4,446.67
75	CONC PAV (JOINT REINF) (7")	SY	115	\$54.10	\$6,221.50	\$70.00	\$8,050.00	\$65.00	\$7,475.00	\$190.00	\$21,850.00	\$63.03	\$7,248.83
76	RIPRAP (STONE TY R)(DRY)(12 IN)	CY	50	\$177.50	\$8,875.00	\$100.00	\$5,000.00	\$150.00	\$7,500.00	\$75.00	\$3,750.00	\$142.50	\$7,125.00
77	DRIVEWAYS (CONC)(6")	SY	50	\$54.10	\$2,705.00	\$80.00	\$4,000.00	\$70.00	\$3,500.00	\$140.00	\$7,000.00	\$68.03	\$3,401.67
78	REMOVE TREE (12" - 29.99")	EA	1	\$1,380.00	\$1,380.00	\$2,000.00	\$2,000.00	\$600.00	\$600.00	\$2,000.00	\$2,000.00	\$1,326.67	\$1,326.67
79	EXTRA HAND EXCAVATION	CY	200	\$24.60	\$4,920.00	\$1.00	\$200.00	\$45.00	\$9,000.00	\$15.00	\$3,000.00	\$23.53	\$4,706.67
80	EXTRA MACHINE EXCAVATION	CY	190	\$14.40	\$2,736.00	\$1.00	\$190.00	\$15.00	\$2,850.00	\$20.00	\$3,800.00	\$10.13	\$1,925.33
81	EXTRA 12" PVC WATER EXTENSION	LF	75	\$66.90	\$5,017.50	\$50.00	\$3,750.00	\$100.00	\$7,500.00	\$90.00	\$6,750.00	\$72.30	\$5,422.50
82	STREETLIGHT CABLE RELOCATION BY CENTERPOINT ENERGY	LS	1	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00
SUBTOTAL SECTION 12 - SUPPLEMENTAL ITEMS					\$34,870.00		\$31,840.00		\$41,900.00		\$55,650.00		\$36,203.33
TOTAL BID:					\$1,612,277.74		\$1,916,188.00		\$1,920,409.35		\$2,103,752.50		\$1,816,291.70
ORIGINAL BID FROM BID OPENING:					\$1,612,277.74		\$1,916,188.00		\$1,920,409.35		\$2,103,752.50		
CONTRACT CALENDAR DAYS					240		300		300		300		

Note: Highlighted cells contain math errors in the original bid document



 **PROJECT 13414**
GLENN LAKES BRIDGE OVER OYSTER CREEK TRIBUTARY
EAST OF HIGHLAND LAKES
RECONSTRUCT BRIDGE AND SLOPE PAVING.



**FORT BEND
MOBILITY PROJECTS**





CITY COUNCIL AGENDA ITEM COVER MEMO

May 20, 2019

To: Mayor and City Council
Agenda Item: 9(b) Consider authorizing the City Manager to negotiate and execute an interlocal agreement with Fort Bend County for the construction of the Beltway 8 connector project.
Submitted by: Shashi K. Kumar, P.E., Public Works Director and City Engineer

SYNOPSIS

Consider authorizing the City Manager to negotiate and execute an interlocal agreement with Fort Bend County for the Fort Bend County Project No. 17214 - Beltway 8 connector project.

STRATEGIC PLAN 2019 GOALS ADDRESSED

- Create a Great Place to Live
- Maintain a Fiscally Sound City Government
- Have quality development through buildout

BACKGROUND

In November, 2017 Fort Bend County voters passed a \$218 Million bond package to fund potential roadway/mobility projects in Fort Bend County (FBC). The submission of City's project list to FBC was approved by City Council via Resolution No. R-17-10., of which four (4) projects were authorized within Missouri City limits. In general, all these projects require a 50% funding match by the local entity (City) based on estimated construction costs. The other 50% is programmed to be funded by FBC, with a not to exceed cap. In addition, sections of the projects that extend beyond FBC limits are not funded by the County, and would require local jurisdictions to absorb these costs. Currently, in the City's adopted 5-year CIP, the City has not committed its share of funding for the four (4) authorized mobility bond projects.

One of the key mobility projects authorized include the "Beltway 8 Connector" project as shown in the attached vicinity map. The scope of this project includes construction of a 3-lane concrete curb and gutter roadway connecting Cravens Rd. and Beltway 8. This project is designed to alleviate heavy/truck traffic that currently uses Gessner Rd., extending through the residential neighborhood. In addition it will provide access to undeveloped tracts in the City's Industrially Zoned areas. This project is located within both Fort Bend and Harris Counties, with approximately 30% of the southern section of the roadway extending to FBC. As such, FBC has committed funding for the Fort Bend section \$970,000, whereas the total project cost is estimated at \$3.32 Million.

Since none of the mobility projects are currently funded in the City's CIP, the City is trying to leverage other sources of funding and partnerships to commit its share of funding to implement the mobility projects. The City was approached by the owner/developer of the 100-acre tract (Logistics Property Company, LLC.) to construct this entire roadway segment, provided the developer is reimbursed County's share of funding committed for this project. In addition, the developer/owner will be dedicating right-of-way to construct this roadway project. See attached Logistics property map. The proposed roadway would be built to City's standards and be dedicated as a public roadway. This presented a "win-win" opportunity both for the City and

the Developer. As such, an economic development agreement (380 agreement) was authorized by the City Council at the December 3, 2018 City Council meeting to dedicate right-of-way for the project and to construct the roadway on City's behalf, with City's commitment to reimburse FBC share of funding committed for this project.

Now, this (second) interlocal agreement is proposed with FBC to secure County's share of commitment for the project. Upon receipt of funds in the amount of \$970,000 from FBC, based on the terms of the attached interlocal agreement, the City will reimburse the Developer up to \$970,000 towards project cost. The developer will be responsible for the balance. The City has successfully entered into such agreements in recent times to implement mobility projects. This was the same approach that the Council authorized for the Independence Blvd. (Segment 1) roadway expansion project with the developer of Liberty Ridge, which is currently under construction.

Design plans for the Beltway 8 connector project is nearing completion. Construction is anticipated to start this summer and the roadway is expected to be open to the public by spring 2019.

BUDGET ANALYSIS

Purchasing Review: N/A

Financial/Budget Review: N/A

Note: Compliance with the conflict of interest questionnaire requirements, if applicable, and the interested party disclosure requirements (HB 1295) has been confirmed/is pending within 30-days of this Council action and prior to execution.

SUPPORTING MATERIALS

1. Project vicinity map
2. Logistics property map
3. Proposed Beltway 8 connector
4. Interlocal Agreement (ILA) with Fort Bend County

STAFF'S RECOMMENDATION

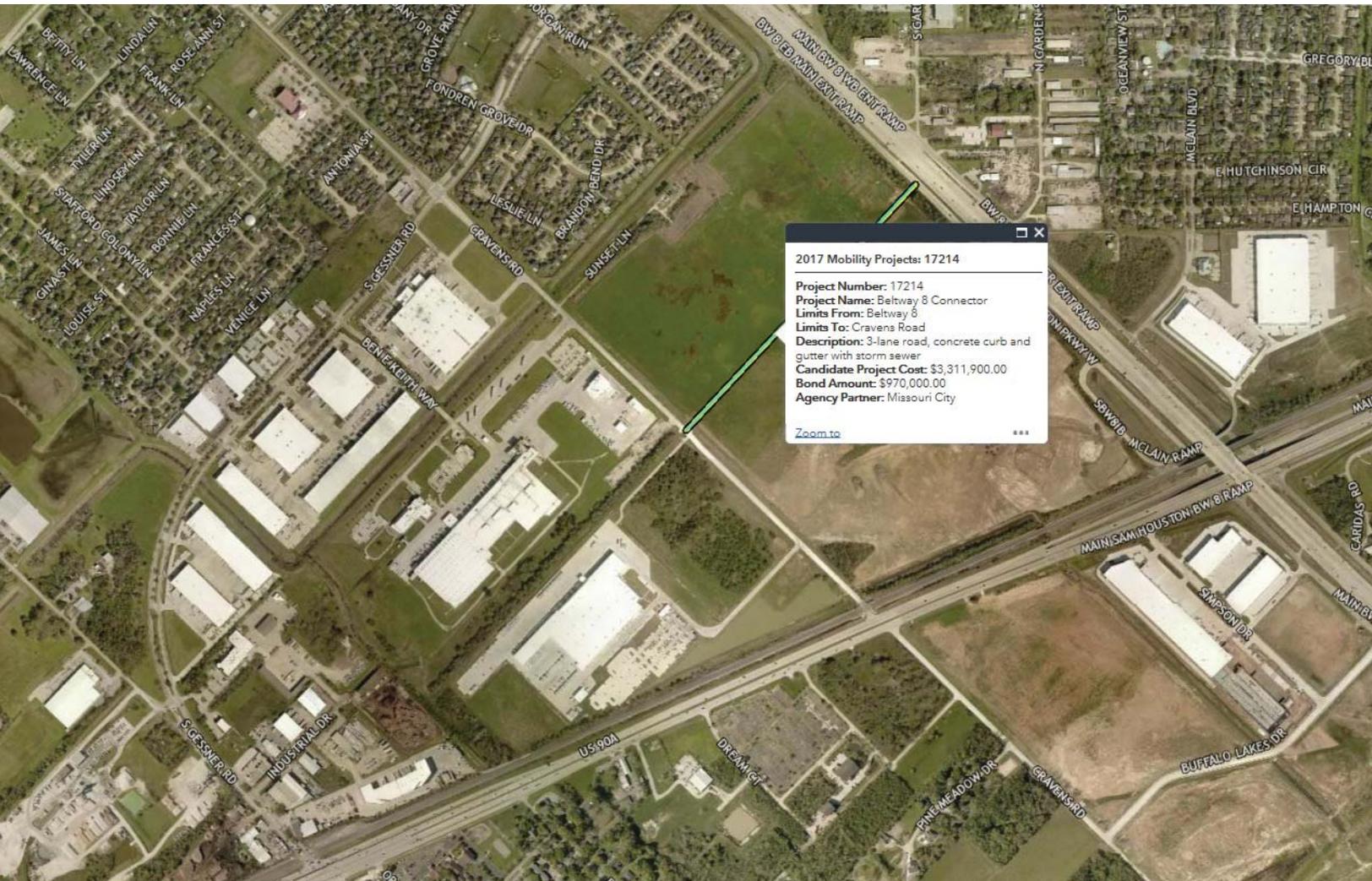
Staff recommends authorizing the City Manager to negotiate and execute an interlocal agreement with Fort Bend County for the Fort Bend County Project No. 17214 - Beltway 8 connector project.

Director Approval:

Shashi K. Kumar, P.E.

**Assistant City Manager/
City Manager Approval:**

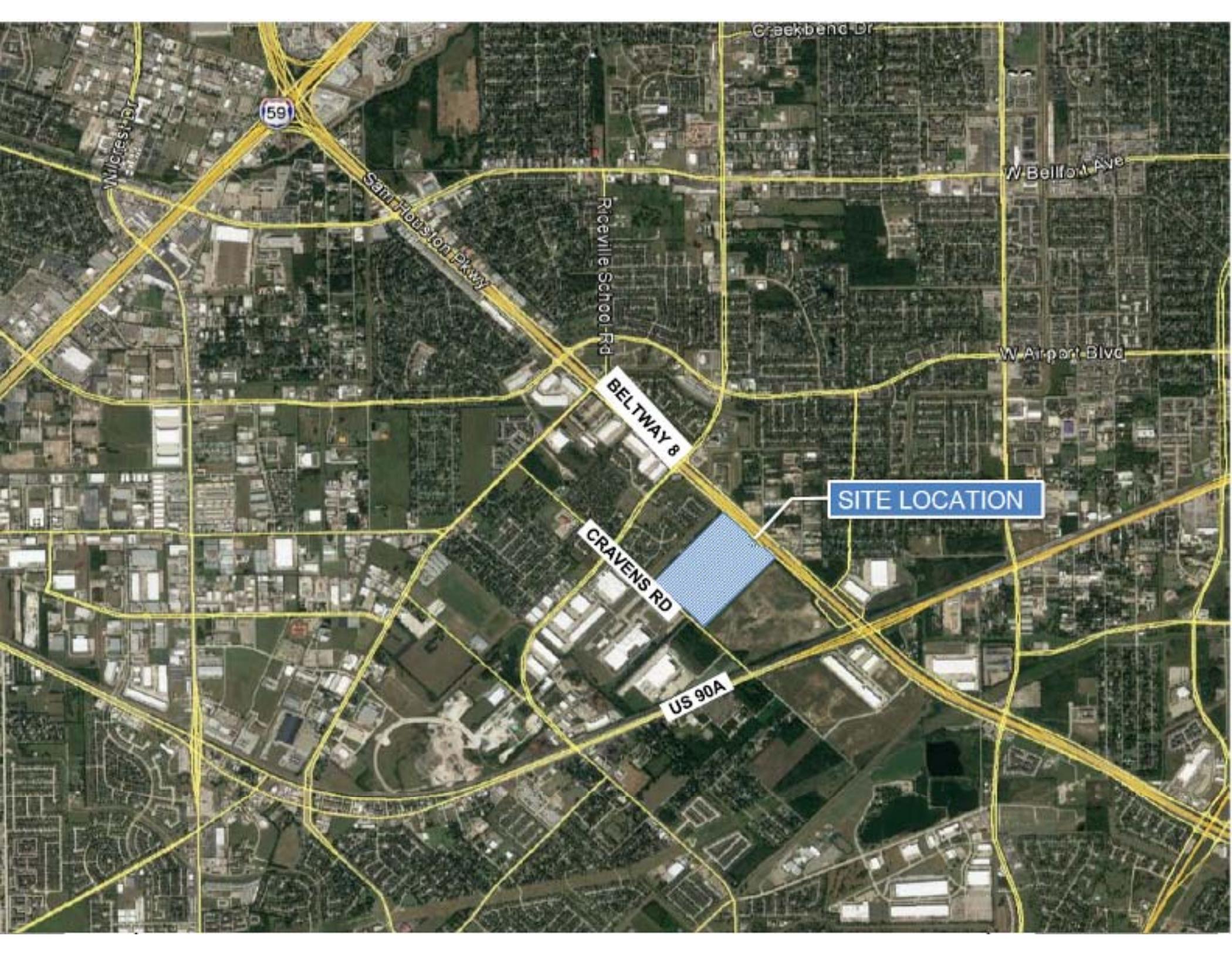
Bill Atkinson



2017 Mobility Projects: 17214

Project Number: 17214
Project Name: Beltway 8 Connector
Limits From: Beltway 8
Limits To: Cravens Road
Description: 3-lane road, concrete curb and gutter with storm sewer
Candidate Project Cost: \$3,311,900.00
Bond Amount: \$970,000.00
Agency Partner: Missouri City

[Zoom to](#) ...



59

Wicrest Dr

Sam Houston Pkwy

Riceville School Rd

Creekbend Dr

W Belford Ave

BELTWAY 8

W Airport Blvd

SITE LOCATION

CRAVENS RD

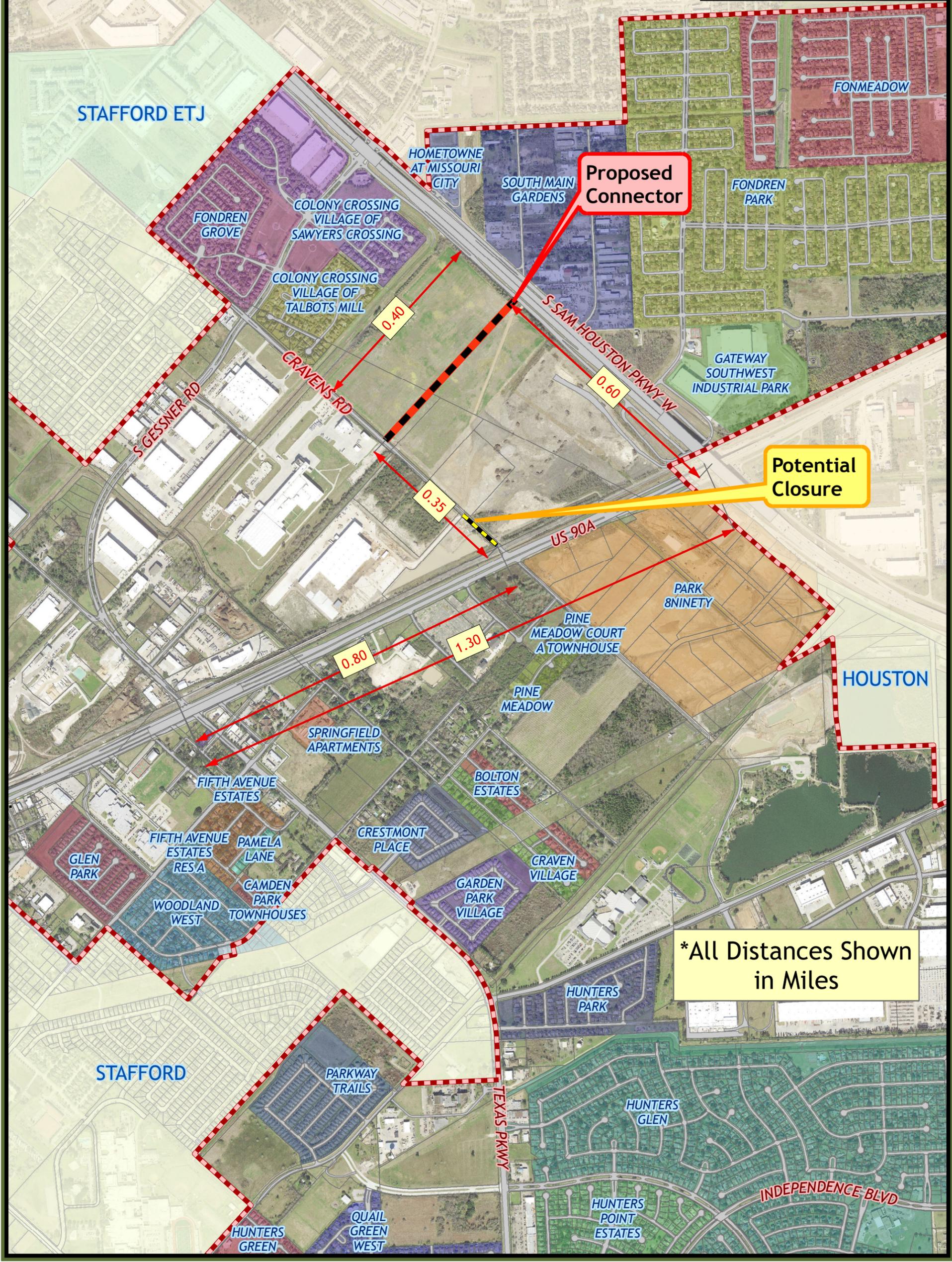
US 90A

Proposed Cravens Road Connector

Geographic Coordinate System North American Datum 1983 (NAD83)

0 335 670 1,340 2,010 Feet

The information on this map is provided and maintained by various agencies, including county departments, municipal governments, state and federal agencies. The map is designed to serve as a secondary representation of real property found within the jurisdiction, and is compiled from the recorded deeds, plats, and other public records, which are primary sources for this public information. The data layers do not take the place of a legal survey or other primary source documentation. The City and its vendors assume no legal responsibility for the information on this map.



Proposed Connector

Potential Closure

***All Distances Shown in Miles**

THE STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

§

COUNTY OF FORT BEND

§

**INTERLOCAL AGREEMENT FOR CITY-MANAGED MOBILITY PROJECT
FORT BEND COUNTY PROJECT NO. 17214 – BELTWAY 8 CONNECTOR**

This Agreement is made and entered into pursuant to the Interlocal Cooperation Act, Chapter 791 of the TEXAS GOVERNMENT CODE and Section 251.012 of the TEXAS TRANSPORTATION CODE, by and between the City of Missouri City, a municipal corporation and home-rule city of the State of Texas, principally situated in Fort Bend County, acting by and through its City Council, (“City”), and Fort Bend County, a body corporate and politic under the laws of the State of Texas, acting by and through its Commissioners Court, (“County”). The City and the County may be referred to collectively as the “Parties”.

RECITALS

WHEREAS, in 2017 the citizens of Fort Bend County voted to approve the issuance of general obligation bonds that allows the County to participate with other local governmental entities to fund certain regional street and road improvements and associated drainage facilities (“Mobility Projects”) that are funded in part by the state or federal government; and

WHEREAS, the project contemplated in this Agreement is the construction or roadway improvements that will enhance the traffic flow/circulation and drainage in the service area, and such Project is desired by the City and the County; and

WHEREAS, the County may not expend proceeds of bond issues or taxes levied pursuant to Article III, Section 52 (b) or (c) of the Texas Constitution on city streets that are not integral parts of or connecting links with county roads or state highways in accordance with Section 251.012 of the TEXAS TRANSPORTATION CODE; and

WHEREAS, the Parties assert that the Project, as defined below, is part of a city street that is an integral part of or a connecting link with county roads or state highways in accordance with Section 251.012 of the TEXAS TRANSPORTATION CODE; and

WHEREAS, the Commissioners Court of Fort Bend County finds that the Project contemplated in this Agreement serves a County purpose; and

WHEREAS, the City and the County agree to participate in this Project according to the terms of this Agreement; and

WHEREAS, the governing bodies of the City and County have authorized this Agreement;

NOW, THEREFORE, for and in consideration of the mutual covenants, agreements and benefits to both Parties, it is agreed as follows:

AGREEMENT

Section 1. Purpose

The purpose of this Agreement is to outline the funding obligations related to the improvements to the Beltway 8 Connector.

Section 2. Definitions

- A. **City** means the City of Missouri City, Texas.
- B. **County** means Fort Bend County, Texas.
- C. **Project** means improvements to the Beltway 8 Connector, being the construction of a three-lane road, concrete curb and gutter with storm sewer.
- D. **Eligible Project Costs** means costs, as determined by County, construction of roadway improvements, Project related drainage facilities, utility and pipeline conflicts, approved traffic control devices, and sidewalks up to five feet (5') wide. Eligible Project Costs shall exclude, unless otherwise stipulated herein, engineering design and services related to the completion of Plans, Specifications and Estimates ("PS&E"), design and construction costs related to landscaping, irrigation, lighting, hike & bike trails, reconstruction of utilities, except utility conflicts created by the construction of Project elements, and design and construction costs of upgrades to eligible project components and similar facilities requested by the City to be included in the Project.

Section 3. Incorporation of Recitals

The representations, covenants and recitations set forth in the foregoing recitals are material to this Agreement and are incorporated into this Agreement.

Section 4. County's Rights and Obligations

- A. During the work on the Project, County shall have the right to review all documents, maps, plats, records, photographs, reports and drawings affecting the construction and to inspect the work in progress, provided however, that in conducting such inspections, County shall not interfere with the work in progress. Any deficiencies brought to the attention of City by the County shall be promptly addressed by City.
- B. County shall have the right to participate in the final inspection of the Project. At that time, any deficiencies noted by County shall be promptly addressed by City.
- C. The County's sole obligation under this Agreement is to provide the funding for Eligible Project Costs to the City as specified in this Section. The County agrees to pay the City an amount equal to the lesser of the following:
 - (1) Fifty Percent (50%) of Eligible Project Costs; or
 - (2) \$970,000.00
- D. The County is not obligated to expend any further funds above \$970,000.00 on the Project from the 2017 General Obligation Bonds or any other sources of funding, nor shall the County's share of the Project exceed fifty percent (50%) of the cost of Eligible Project Costs.

E. The County will forward the lesser amount as detailed in Section 4. D., above to the City upon the City's award of the construction contract for the Project. The City will forward to the County a request for payment that includes sufficient detail for the County to review the low bidder submittal. The County will forward payment to the City within thirty (30) days of approval of the construction contract from the City Council and a request from the City for payment.

F. Should the City fail to initiate Project design or construction by the dates provided below, or elect to forego construction for any reason, the County shall have, within its sole discretion to exercise, the right to re-allocate its contribution as it determines appropriate.

Section 5. City's Rights and Obligations

A. The City is responsible for managing the design and overseeing the construction and completion of the Project and complying with the applicable state and federal laws.

B. The City agrees to initiate the Project design no later than December 31, 2019.

C. The City agrees to initiate construction of the Project no later than May 31, 2021.

D. The City agrees that the improvements constructed under this Agreement, except those specifically identified as being County facilities, are the City's public infrastructure and shall be operated and maintained by the City.

E. In the event the City fails to initiate Project design or construction within the time prescribed above, determines the Project lacks feasibility, or for any other reason elects to forego its construction, the City shall provide written notice to the County of such failure or its decision to forego construction. This Agreement shall automatically terminate upon the City's election to forego construction of the Project. However, in the case of the City's delay in initiating Project design or construction, the County shall have the option to proceed with its obligations under this Agreement, notwithstanding such delay. Upon an election to terminate this Agreement under any circumstances, City agrees to refund all amounts provided by County, if any, upon thirty (30) days of said notice to the County.

F. The City shall submit reports to the County describing in sufficient detail the progress of the Project. These reports shall be submitted to County at increments agreed to between the Parties as appropriate for the various phases of the Project. Reports received by the City from contractors detailing the progress of the Project shall suffice for the requirements of this section, so long as the City has reviewed such reports and confirmed accuracy of the contractor's report.

G. The City will submit the plans for the Project to the County Engineer for review in accordance with the 2017 General Obligation Bond requirements for the Project. During the work on the Project, the County may review the documents, maps, plats, records, photographs, reports, and drawings pertaining to the Project and may inspect the work in progress, provided that it does not interfere with the work.

H. Upon completion of the Project, but no later than 60 days after, the City will furnish the County with a full accounting of the funds expended on the Project and an electronic

copy of the record drawings showing the Project as constructed. The County Auditor may review the City's records regarding this Project.

I. If, after completion of Project and the City's receipt of the funds as stated in Section 4, there are funds remaining and/or savings from Project, City shall return such funds to County within thirty (30) days of County acceptance of full accounting required in Section 5.H. above.

Section 6. Liability

The City and County are entitled to the immunities and defenses of the Texas Tort Claims Act. Nothing in the Agreement shall be construed to waive either party's sovereign immunity.

Section 7. Maintenance

Upon completion of the Project, the City shall maintain the portion of the Project within its jurisdiction.

Section 8. Limit of Appropriation

A. Prior to the execution of this Agreement, the City has been advised by the County, and the City clearly understands and agrees, such understanding and agreement being of the absolute essence to this Agreement, that the County shall have available the total maximum amount of (i.) Fifty Percent (50%) of Eligible Project Costs, or (ii.) \$970,000.00, WHICHEVER AMOUNT IS LESS, specifically allocated to fully discharge any and all liabilities that may be incurred by the County for the Project.

B. The City does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum funding that the City may become entitled to hereunder and the total maximum amount that the County will reimburse the City hereunder will not under any condition, circumstance or interpretation hereof exceed Fifty Percent (50%) of Eligible Project Costs or \$970,000.00, WHICHEVER AMOUNT IS LESS.

C. Each party paying for the performance of its obligations under this Agreement shall make those payments from current revenues available to that party.

Section 9. Insurance Requirements

City agrees that it will require Contractor's insurance policies name County as well as City as additional insureds on all policies except for Workers' Compensation and Professional Liability. Any such insurance policies shall include at least the following minimum coverage:

A. Worker's Compensation in the amount required by law. The policy shall include the All States Endorsement.

B. Comprehensive General Liability Insurance including contractual liability insurance, \$1,000,000 per occurrence, \$2,000,000 aggregate (defense costs excluded from face amount of policy).

C. Comprehensive Automobile Liability Insurance, including owned, non-owned and hired vehicles used for the Project, with bodily injury and property damage with a combined limit of not less than \$1,000,000 each occurrence.

D. City may require insurance in excess of the amount of coverage set out above, as it deems necessary, in such cases County shall remain an additional insured. City will provide County with proof of insurance within thirty (30) days of City's award of the contract for the Project construction.

Section 10. Assignment

No party hereto shall make, in whole or in part, any assignment of this Agreement or any obligation hereunder without the prior written consent of the other party.

Section 11. No Third Party Beneficiaries

The Parties do not intend that any specific third party obtain a right by virtue of the execution or performance of this Agreement.

Section 12. Notices

All notices and communications under this Agreement shall be mailed by certified mail, return receipt requested, or delivered to the following addresses:

County: Fort Bend County
Attention: County Judge
401 Jackson Street, 1st Floor
Richmond, Texas 77469

With a copy to: Fort Bend County Engineering Department
Attention: County Engineer
301 Jackson Street
Richmond, Texas 77469

City: City of Missouri City, Texas
Attention: City Manager
1522 Texas Parkway
Missouri City, Texas 77489

Section 13. Entire Agreement

This Agreement contains the entire agreement between the Parties relating to the rights granted and the obligations assumed. Any modifications concerning this instrument shall be of no force or effect, unless a subsequent modification in writing is signed by all Parties hereto. If a court finds or rules that any part of this Agreement is invalid or unlawful, the remainder of the Agreement continues to be binding on the Parties.

Section 14. Execution

This Agreement has been executed by the City and the County upon and by the authority of their respective governing bodies. This Agreement shall become effective on the date executed by the final party, and remain in effect until (i.) September 30, 2023, (ii.) the Project is complete, or (iii.) the Agreement is terminated otherwise as provided herein; and the obligations under Sections 4 and 5 of this Agreement are fulfilled, whichever is sooner.

FORT BEND COUNTY, TEXAS

CITY OF MISSOURI CITY, TEXAS

KP George, County Judge

Yolanda Ford, Mayor

Date: _____

Date: _____

ATTEST:

ATTEST:

Laura Richard, County Clerk

Maria Jackson, City Secretary

APPROVED:

J. Stacy Slawinski, P.E., County Engineer

APPROVED AS TO LEGAL FORM:

Marcus D. Spencer, First Assistant County Attorney

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$_____ to accomplish and pay the obligation of Fort Bend County under the terms of this Agreement.

Robert Ed Sturdivant, Fort Bend County Auditor



CITY COUNCIL AGENDA ITEM COVER MEMO

May 20, 2019

To: Mayor and City Council
Agenda Item: 9(c) Authorize the City Manager to execute a Professional Services Contract with LMA Design, LLC for the design of the Veterans Memorial.
Submitted by: Jason S. Mangum, Director of Parks and Recreation

SYNOPSIS

The Department of Parks and Recreation requests authorization for the City Manager to enter into a Professional Services Contract with LMA Design, LLC for the design of the Veterans Memorial, which will be located within the existing City Hall Complex Campus.

STRATEGIC PLAN 2019 GOALS ADDRESSED

- Create a great place to live.

BACKGROUND

In 2011, several City Council and Staff members expressed the need for a Veterans Memorial located within the City of Missouri City, as a tribute to all the courageous veterans who served this nation.

The City formulated action steps in order to bring the Veterans Memorial idea to be fully realized, and a design competition was held by the City in 2014, with LMA Design, LLC submitting the chosen design; however, the Veterans Memorial project was soon after stalled due to lack of funding.

During its regular January 7, 2019 meeting, City Council unanimously voted to reaffirm its commitment to creating a Veterans Memorial in Missouri City.

Through the direction of City Council, City Management and the Parks and Recreation Department, the Veterans Memorial project has been reestablished as a high priority and community need.

In 2018, the Missouri City Parks Foundation developed a fundraising action plan and has since received multiple grants and donations specifically for the Veterans Memorial project. In addition, the City has contributed funds to assist with the project's design and construction plans.

With fundraising efforts well underway, it is crucial that the City have formal design plans. The Veterans Memorial will serve as the centerpiece for the placemaking master plan of City Hall, and will bring forth a diverse and meaningful component to the City Hall campus.

BUDGET/FISCAL ANALYSIS

Funding Source	Account Number	Project Code/Name	FY19 Funds Budgeted	FY19 Funds Available	Amount Requested
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General Bond	404-58200-10-999-20015	20015 / Veterans Memorial	\$200,000	\$200,000	\$141,600
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Purchasing Review: Shannon Pleasant, CTPM - Procurement and Risk Manager
Financial/Budget Review: Bertha P. Alexander, Budget & Financial Reporting Manager

Note: Compliance with the conflict of interest questionnaire requirements, if applicable, and the interested party disclosure requirements (HB 1295) has been confirmed/is pending within 30-days of this Council action and prior to execution.

SUPPORTING MATERIALS

1. LMA Design, LLC proposal, Scope of Services and Design Schedule
2. Concept Designs and Location Map

STAFF'S RECOMMENDATION

Staff recommends that City Council authorize the City Manager to enter into a Professional Services contract with LMA Design, LLC, in the amount of \$141,600.00

Director Approval: Jason S. Mangum, CPRE

**Assistant City Manager/
City Manager Approval:** Anthony J. Snipes, City Manager

Project

Veterans Memorial Park - Phase 1 Construction Documents (Project)
Missouri City, Texas

Client

The Client is the City of Missouri City, Texas (Client)

Consultant

LMA Design (LMA)
100 Nugent St., Suite 123
Conroe, Texas 77301
713-517-3318
Attention: Lloyd Lentz, Principal

Project Purpose and Understanding

The Client is planning to construct a new Veterans Memorial, with surrounding park facilities, in the area between City Hall and Scanlin Road, as shown on Exhibit B.

This proposal covers the preparation of Landscape Architectural and Engineering Construction Documents, including Drawings and Technical Specifications, as well as limited Bid and Construction Phase Services for Phase 1. Under a separate agreement with the City, Tolunay-Wong Engineers (Wong) is preparing Construction Drawings for the Plaza, Fountain, Campaign Columns, Benches and Lighted Flag Poles to approximately 60% of a final bid set. LMA will complete the work started by Wong and finalize the Drawings and Specifications for Bid. Refer to Exhibit C – “Allocation of Responsibilities” for Consultant and City respective responsibilities.

Facilities and infrastructure elements included in Phase 1 design and construction include the following:

- a. Memorial plaza, fountain with granite veneer, campaign columns with stone veneer, granite pavers, 8 ft. lighted concrete benches, and illuminated flag poles
- b. Brick, or similar paving, for pedestrians between the existing parking lot and the Memorial Plaza, which can be inscripted for dedication
- c. Finalization of Construction Drawings and Specifications for the Plaza, Campaign Columns, Fountain, Benches and Lighted Flagpoles
- d. Earthwork and grading.
- e. Detention swale to compensate for net increase in additional paving at Memorial Plaza, if any
- f. Drain line to detention swale for Memorial Fountain
- g. New tree plantings, 3 inch caliper

- h. Common Bermuda Grass – Hydroseeded, for all lawn areas within and immediately adjacent to Plaza area
- i. Automatic irrigation system
- j. Water service for irrigation and Memorial Fountain
- k. Electrical Engineering and underground primary electrical system, transformers and distribution panels
- l. Electrical Engineering And Secondary Electrical System For Campaign Column Lighting, Flagpole Lighting and Memorial Fountain
- m. Structural engineering for campaign column footings and fountain shell
- n. Telecommunications conduits – routing as directed by City

PHASE 1 SCOPE OF WORK – BASIC SERVICES

TASK A - DATA COLLECTION, INVENTORY AND ANALYSIS

- 1. Kick off Meeting/Site Tour – Photo Document Existing Conditions
- 2. Data Collection
 - a. The City will provide AutoCAD compatible digital Information needed for Construction Drawings, as follows:
 - 1) Recent Aerial Photograph
 - 2) 100 Year Flood Plain Limits, if any
 - 3) “As-Built” Record drawings for
 - a) storm drainage – subsurface and surface systems
 - b) water and sanitary systems
 - c) City owned telecommunications and data lines
 - b. The City will also provide contact information for electrical, natural gas and private telecommunications service providers
 - c. Site and Topographic Survey (GBI Partners Surveyors) (Reimbursable Expense in LMA Fees)
 - 1) Visible site features within the limits shown on Exhibit B – Project Boundary
 - 2) Topography at 1 ft contour intervals with existing spot grades
 - 3) Rights-of-way, easements and other encroachments
 - d. Geotechnical Investigation (Tolunay-Wong) (Reimbursable Expense in LMA Fees)
 - 1) Borings of various depths as required (Total of 3)
 - 2) Engineering recommendations for columns and fountain footings.
 - 3) Engineering recommendations for pavements, both vehicular and pedestrian.

- e. Subsurface Utility Engineering (SUE) (Reimbursable Expense in LMA Fees)
 - 1) SUE engineer will rely on City of Missouri City “As Built” record drawings, information from private utilities and site survey data prepared by the surveyor.
 - 2) Perform utility locating operations to Level D, which includes “potholing” underground utilities to determine depth once the horizontal location is confirmed.
- 3. Site Inventory and “Opportunities and Constraints” Analysis
 - a. Using data collected from the City, the Site Survey, the SUE Engineer and dry utility service providers, LMA will:
 - 1) Assemble Preliminary Base Map (Digital)
 - 2) Prepare Site Inventory and “Opportunities and Constraints” Analysis
 - b. Meet once with Parks Staff to discuss the Site Inventory, “Opportunities and Constraints” Analysis and to confirm proposed facility locations
 - 1) Reconfirm construction scope and budget for Phase 1
 - 2) Prepare a Meeting Record of key discussion items.

TASK B – CONSTRUCTION DOCUMENTS (LMA + Engineering Subconsultants + Tolunay-Wong Drawings)

- 1. Schematic Design Services (30% Complete Documents Based on Construction Drawings by Wong)

Based on the project parameters and discussions with the Client, LMA will prepare landscape and engineering design drawings and support documents for the proposed improvements. Plans will be prepared at the scale of 1 inch = 20 feet, except for enlarged detail plan areas, which will be drawn at an appropriate scale. Drawing sheets will be 24 inch x 36 inch format.

 - a. The Schematic Design Documents may include plan, section and elevation drawings illustrating the general scope, scale and relationship of the landscape architectural and infrastructure elements. A list of the Technical Specifications sections will be included.
 - b. Prepare Opinion of Probable Construction Costs (OPCC) based on the Schematic Design.
 - c. Meet with the Client to review and discuss the Schematic Design and Engineering Drawings and OPCC.
 - 1) Prepare a Meeting Record of key discussion items.
 - 2) As required, revise and refine the Schematic Design and OPCC to reflect Client review comments.
- 2. 3D Graphics / Visualization (Reimbursable Expense in LMA Fees)
 - a. Based on the Phase 1 Schematic Design, and as directed by the Client, LMA will update the existing 3D graphic model to illustrate the proposed Phase 1 features using SketchUp, or other appropriate software.

- b. The 3D illustration will be prepared in two steps, preliminary and final, and will include aerial and ground view images. The image quality will match the existing images of the Memorial Plaza.
- c. Four (4) views are included. Additional views can be provided upon request and authorization by the client as Additional Services.
- 3. Design Development Services (60% Complete Documents Based on Construction Drawings by Wong)
 - a. Plans, sections, elevations and detail drawings prepared to approximate 60% level of completion.
 - b. Draft technical specifications and drawing notes that outline key products, performance requirements and procedures will be prepared.
 - c. Prepare an updated OPCC
 - d. Meet with the Client to receive and discuss review comments.
 - 1) Prepare a Meeting Record of key discussion items.
- 4. Construction Document Services (95% Complete Documents – LMA to Complete Construction Drawings Prepared by Wong)
 - a. Plans, sections, elevations and detail drawings will be prepared to approximate 95% level of completion and ready for advertisement by the City.
 - b. Technical specifications and drawing notes that describe key products, performance requirements and procedures will be provided as PDF files, for incorporation to the “Specifications Book” by the City
 - c. Prepare an updated OPCC
 - d. Meet with the Client to receive and discuss final review comments
 - e. Complete revisions and edits requested by the Client and provide one PDF copy of all documents to the City for printing and distribution.

TASK C – BID PHASE SERVICES

LMA will provide the following Bid Phase Services:

- 1. Assist with responses to bidder inquiries and issuance of addenda
- 2. Attend Prebid Conference at City Hall
- 3. Assist with review of bids and bidder qualifications

TASK D – CONSTRUCTION PHASE SERVICES

LMA will provide the following Construction Phase Services:

- 1. Attend Preconstruction Conference at project site
- 2. Respond to contractor requests for information (RFI's)
- 3. Process shop drawings and submittals
- 4. Assist with review of contractor invoices



5. Visit the project site monthly, for a total of eight (8) visits, to view construction progress and general compliance with the intent of the Construction Documents
6. Visit the project site two (2) times to observe commissioning of the fountain
7. Visit the project site two (2) times to observe commissioning of the electrical and lighting systems
8. Visit the project site four (4) additional times in response to City requests

BASIS OF COMPENSATION

LMA will provide the services outlined above on a Lump Sum Basis as delineated below in Tables 1, 2 and 3, with monthly invoices and progress payments prorated to the extent of work completed.

TABLE 1 – BASIC SERVICES	
TASK DESCRIPTION	FEE
TASK A - DATA COLLECTION, INVENTORY AND ANALYSIS	\$11,000.00
TASK B - CONSTRUCTION DOCUMENTS (LMA + Subconsultants)	\$65,000.00
TASK C - BID PHASE SERVICES	\$4,000.00
TASK D - CONSTRUCTION PHASE SERVICES (8 Months)	\$40,000.00
TOTAL BASIC SERVICES FEE	\$120,000.00

REIMBURSABLE EXPENSES

Reimbursable Expenses are not included in the professional fees above and shall include the actual costs incurred for the services noted below and necessary transportation vehicle mileage, at the current IRS approved rate, when LMA’s automobiles are used. Reimbursable Expenses also include printing and delivery charges. Reimbursement for non-mileage expense costs will be paid at LMA’s cost times a 1.15 multiplier.

TABLE 2 – REIMBURSABLE SERVICES & EXPENSES ALLOWANCE	
TASK DESCRIPTION	ALLOWANCE
Site / Topographic Survey	\$2,500.00
Geotech. Investigation – 3 Borings (1@Plaza, 1@Det Swale, 1@ Future Rd.)	\$7,500.00
Subsurface Utility Engineering Services (SUE)	\$5,600.00
3d Graphics / Visualization	\$3,500.00
Vehicle Mileage	\$1,500.00



Printing, Courier, Postage	\$1,000.00
TOTAL REIMBURSABLE SERVICES RECOMMENDED ALLOWANCE	\$21,600.00

TABLE 3 – GRAND TOTAL	
Basic Services Fee	\$120,000.00
Reimbursable Services Recommended Allowance	\$21,600.00
TOTAL	\$141,600.00

ADDITIONAL SERVICES

Services or tasks that are not specifically identified above will be provided by LMA upon request and authorization by the Client. Additional Services will be paid for as agreed between the Client and LMA.

CLARIFICATIONS AND EXCLUSIONS

1. The Phase 1 Veterans Memorial Park project includes two (2) areas, as shown on Exhibit B:
 - a. Veterans Memorial Plaza - approximately 1.0 acres
 - b. Shallow detention swale (dry bottom)
2. Design of the future roadway to Scanlin Rd. is not included in this Scope of Work
 - a. A recommended budget for Civil Engineering services related to the future roadway is provided below in Table 4:

TABLE 4 – RECOMMENDED CIVIL ENGINEERING FEE BUDGET FOR CONCRETE DRIVE TO SCANLIN ROAD	
TOTAL CIVIL ENGINEERING BUDGET	\$15,000

3. Should the Phase 1 project area or scope of work change from that described above, design and engineering fees may be renegotiated accordingly.
4. All engineering, architecture, environmental and other services not specifically identified herein are excluded from this Scope of Services.
5. All OPCCs prepared by LMA will be based on available cost data, experience and judgment. However, since LMA has no control over market conditions or bidding procedures, LMA cannot warrant that bids or ultimate construction costs will not vary from these cost projections.
6. Construction site visits, public meetings, presentations or other meetings beyond those described above will be provided as Additional Services upon request and authorization by the client.



7. LMA may use a variety of computer software, including AutoCAD, MS Word, MS Excel, SketchUp, Adobe InDesign, Adobe Illustrator and Adobe Photoshop. However, all construction drawings will be prepared in AutoCAD and delivered to the City electronically in PDF format.
8. The City will arrange for and pay for printing of Construction Drawings and Specifications to be issued for bid and for construction, including addenda.
9. The City will prepare and publish the "Specifications" book.
10. The City will write and publish bid solicitations and tabulate bids. LMA will review the bid tabulation and make recommendation for award of the construction contract.
11. Preparation of renderings or presentation materials for marketing or purposes, other than identified herein, will be provided as Additional Services upon request and authorization by the client.
12. This Scope of Work is based on a Ground Breaking date of November 11, 2019 and an eight (8) month construction schedule. Should construction continue past 8 months, additional site visits, field reports, and other Construction Phase Services will be provided as Additional Services.

End of Exhibit A



EXHIBIT B - PROJECT LIMITS (R4)
May 9, 2019



LMA Design
100 Nugent Street
Suite 123
Conroe, Texas 77301
713-517-3318
LLentz@LMA-Design.com
WWW.LMA-Design.com

Landscape Architecture
Irrigation Design
Low Impact Design
Tree Disposition Analysis

**VETERANS MEMORIAL PARK – PHASE 1
MISSOURI CITY, TEXAS**

EXHIBIT C
ALLOCATION OF RESPONSIBILITIES

TASK / SERVICE	WONG (DESIGN-BUILD)	LMA (TRADITIONAL BID)	CITY
TOPOGRAPHIC / SITE SURVEY		*	
PLAT / RECORDATION			*
DEVELOPMENT & UTILITY SURVEY		*	
WASTEWATER / STORMWATER RESERVATION LETTERS FROM APPROPRIATE AGENCIES			*
ENVIRONMENTAL ISSUES / SPECIAL WASTEWATER TREATMENT			*
ELECTRICAL & NATURAL GAS SERVICE REQUESTS		*	
PROCESSING OF ENERGY COMPLIANCE DOCUMENTATION		*	
BUILDING CODE COMPLIANCE ANALYSIS			*
TEXAS HANDICAP ACCESIBILITY COMPLIANCE		*	
DRIVEWAY PERMITS			*
COLLECT AS-BUILT RECORD DRAWINGS FOR WASTEWATER, WATER, CITY TELECOMMUNICATIONS SYSTEMS			*
GEOTECHNICAL INVESTIGATION		*	
SUBSURFACE UTILITY ENGINEERING		*	
PREPARE CONSOLIDATED SITE INVENTORY EXHIBIT		*	
CONSTRUCTION "CONSTRAINTS" EXHIBIT		*	
INVENTORY AND ANALYSIS REVIEW MEETING WITH CITY STAFF	*	*	*
30% PLAZA CONSTRUCTION DRAWINGS, EXCLUDING ENGINEERING	*		
30% NON-PLAZA , INCLUDING ENGINEERING		*	

EXHIBIT C
ALLOCATION OF RESPONSIBILITIES

TASK / SERVICE	WONG (DESIGN-BUILD)	LMA (TRADITIONAL BID)	CITY
30% COST ESTIMATE UPDATE		*	
30% CD REVIEW MEETING WITH CITY STAFF	*	*	*
60% PLAZA CONSTRUCTION DRAWINGS, EXCLUDING ENGINEERING	*		
60% NON-PLAZA , INCLUDING ENGINEERING		*	
60% COST ESTIMATE UPDATE		*	
60% CD REVIEW MEETING WITH CITY STAFF	*	*	*
90% PLAZA CONSTRUCTION DRAWINGS		*	
90% NON-PLAZA , INCLUDING ENGINEERING		*	
90% COST ESTIMATE UPDATE		*	
90% CD REVIEW MEETING WITH CITY STAFF		*	*
BID PHASE SERVICES		*	*
CONSTRUCTION PHASE SERVICES		*	*
NOTES:			
1. TOLUNAY-WONG CONTRACT IS ONLY FOR DOCUMENTS TO ALLOW CONTRACTOR PRICING - NO SEALED DRAWINGS, FULL SPECIFICATIONS OR ENGINEERING			
2. PERMITS AND PERMIT FEES ARE BY THE CITY			

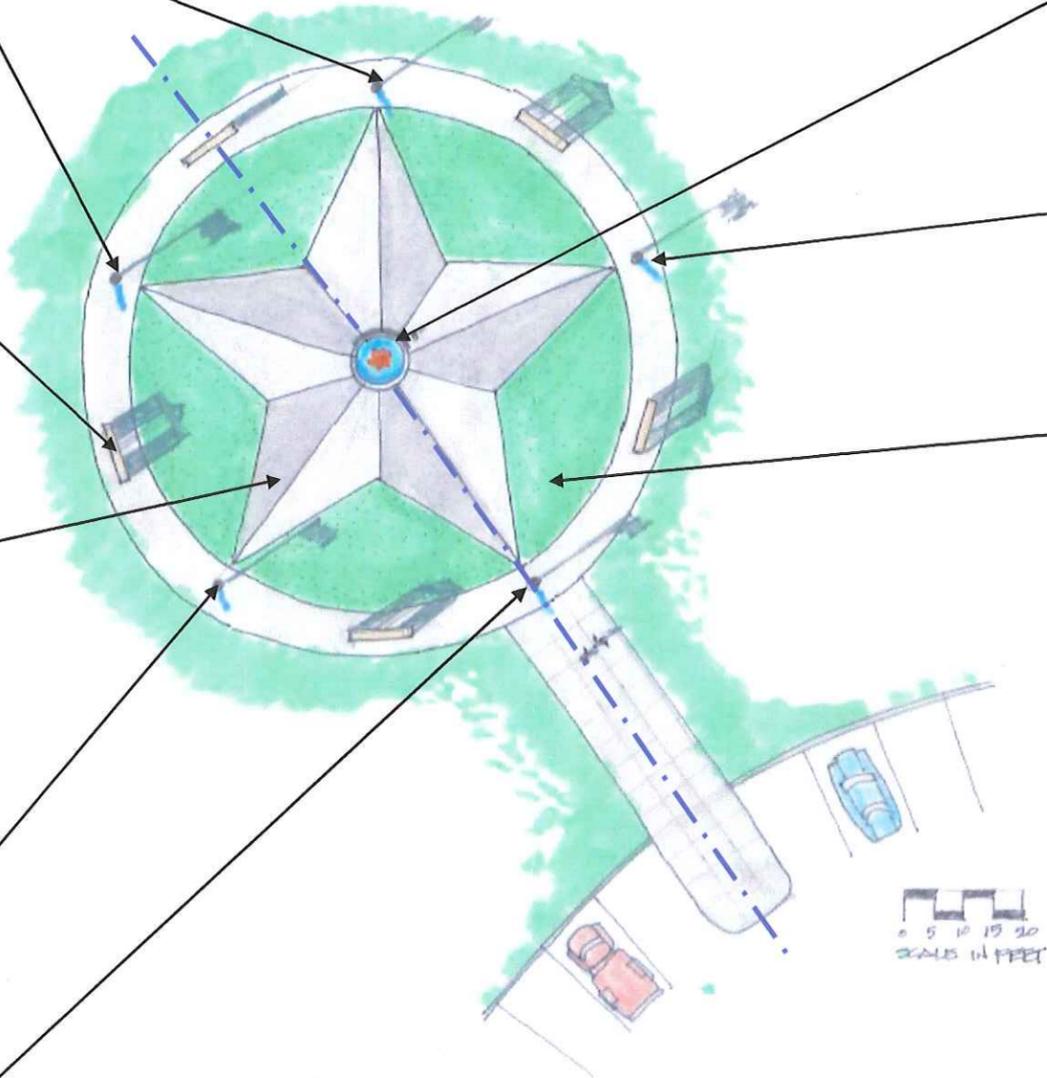
American Flags (2) – Bracket the central axis and view entering the memorial.

Column Pairs – Centered between each of the points, these columns represent each of the wars from World War I through the Persian Gulf Wars.

Star – Paved with native Texas limestone or granite. Two tones to provide visual “depth” and to define each of the points.

Texas Flag No. 2 – Brackets the central axis and view entering the memorial.

City of Missouri City Flag – Greets visitors at the entrance to the memorial. Flags are located at each point of the star.



Fountain + Freedom Flame – This is the heart and focal point of the entire memorial.

Texas Flag No. 2 – Brackets the central axis and view entering the memorial.

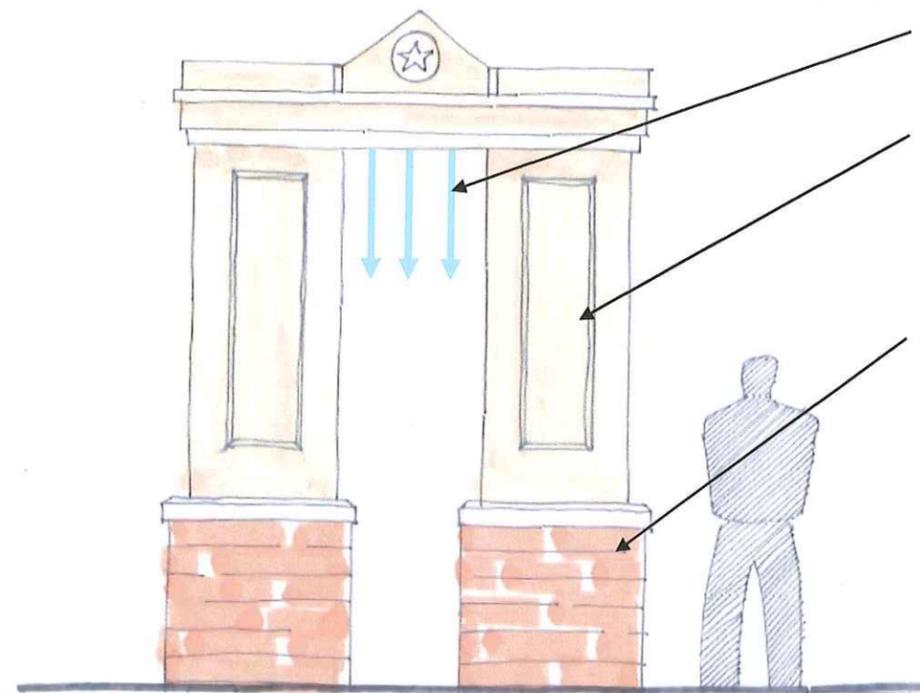
Turf – Solid sod “Tiff Grass” for best manicured appearance

Key Design Concept
The number five is at the heart of this design, representing each of the major conflicts of the 20th and 21st centuries:

- World War I
- World War II
- The Korean War
- The Viet Nam War
- The Persian Gulf Wars

This monument will be presented best in Community Park.

Missouri City Veterans' Memorial



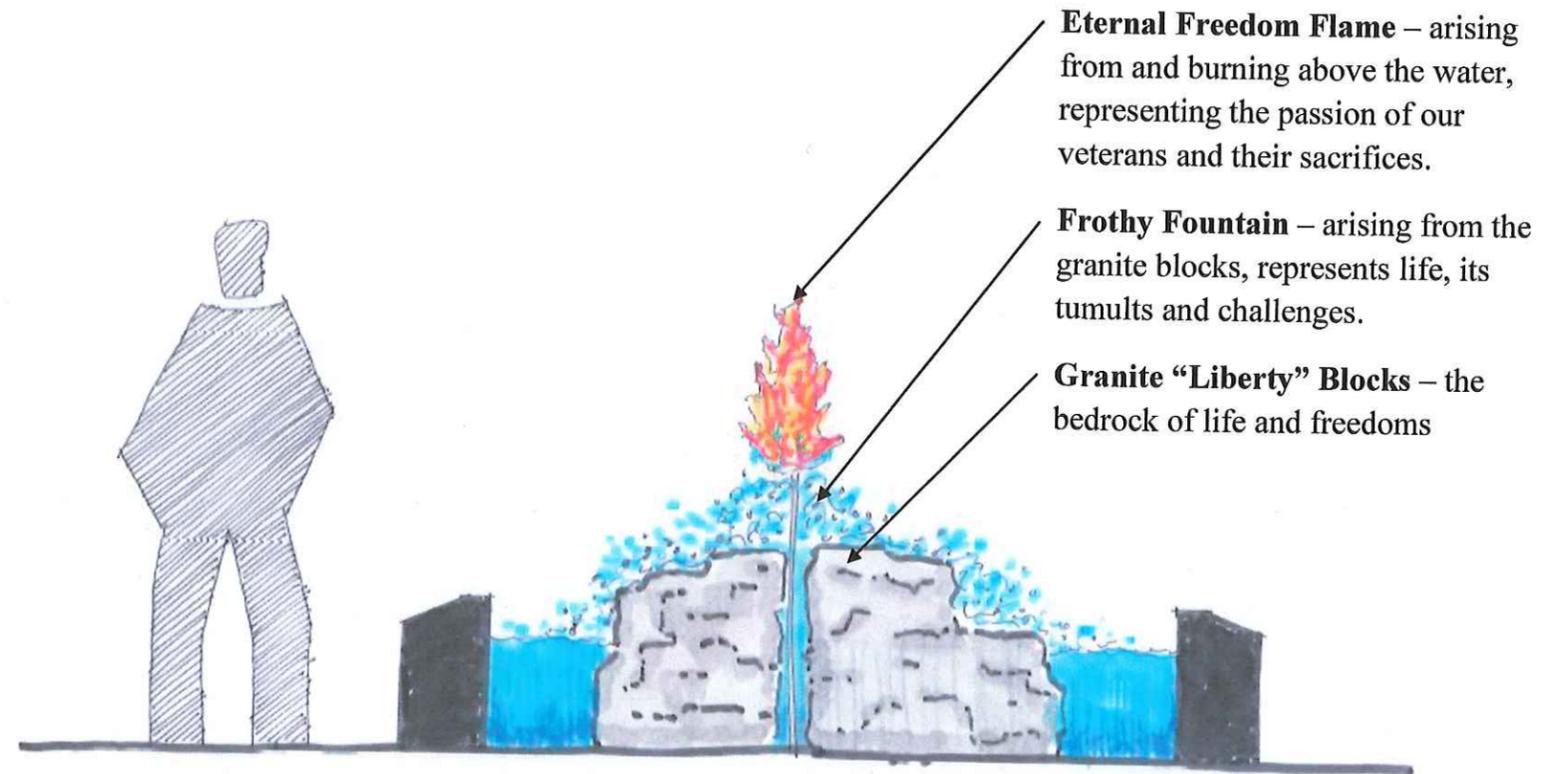
Down Lighting From the Lintel – to provide indirect night lighting

Limestone Column – display description of the war and its mission. Each column face can incorporate quotes or the stories of veterans.

Brick or Stone Base – traditional material used at many Army posts in Texas

“Campaign Columns”

Placed opposite each point of the Star, these column structures provide opportunities for interpretative graphics and narratives



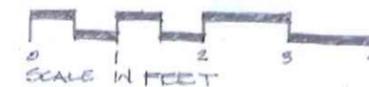
Eternal Freedom Flame – arising from and burning above the water, representing the passion of our veterans and their sacrifices.

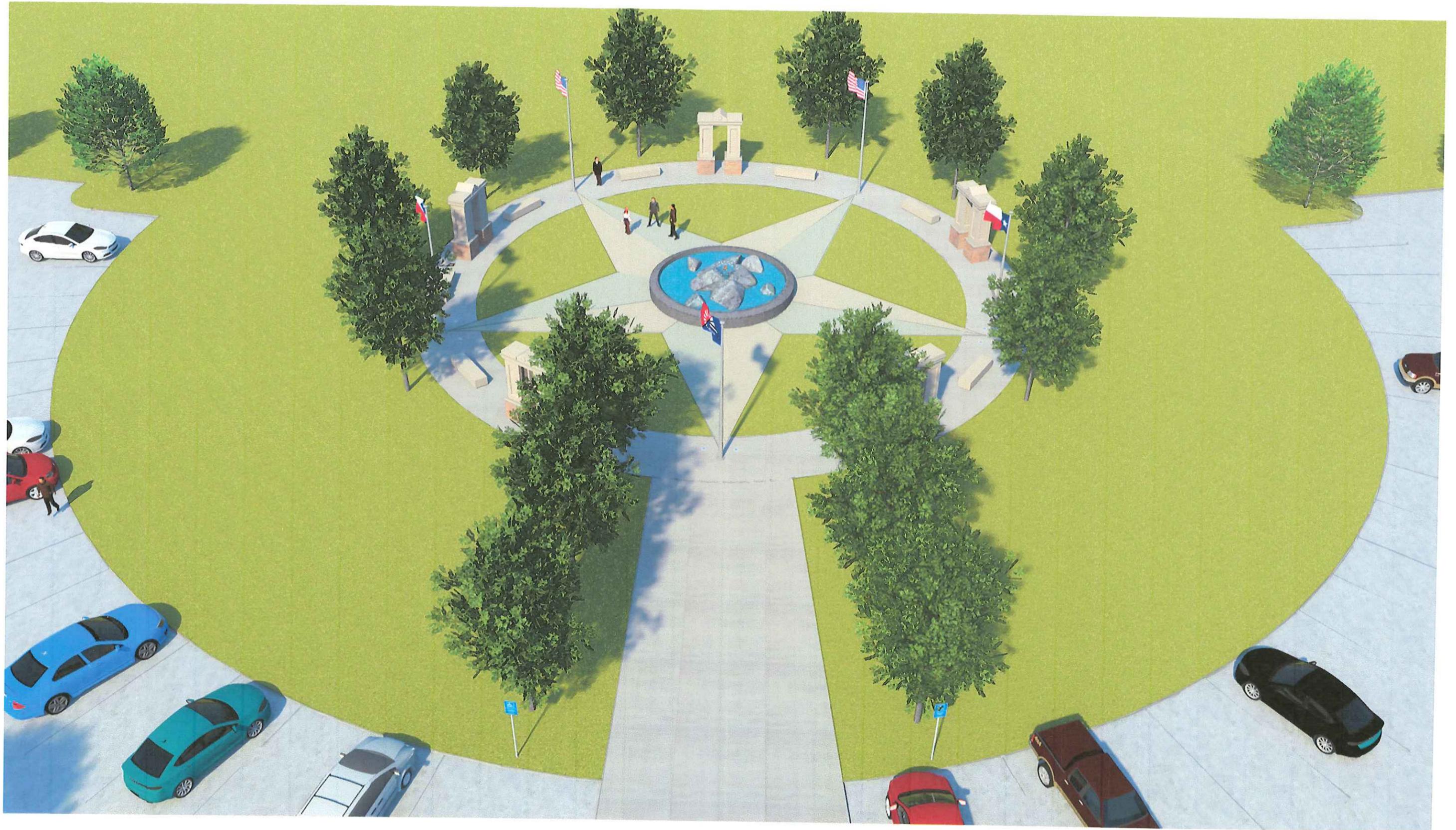
Frothy Fountain – arising from the granite blocks, represents life, its tumults and challenges.

Granite “Liberty” Blocks – the bedrock of life and freedoms

“Freedom Flame” Fountain

The Freedom Flame Fountain represents the passion for freedom that will never be extinguished.









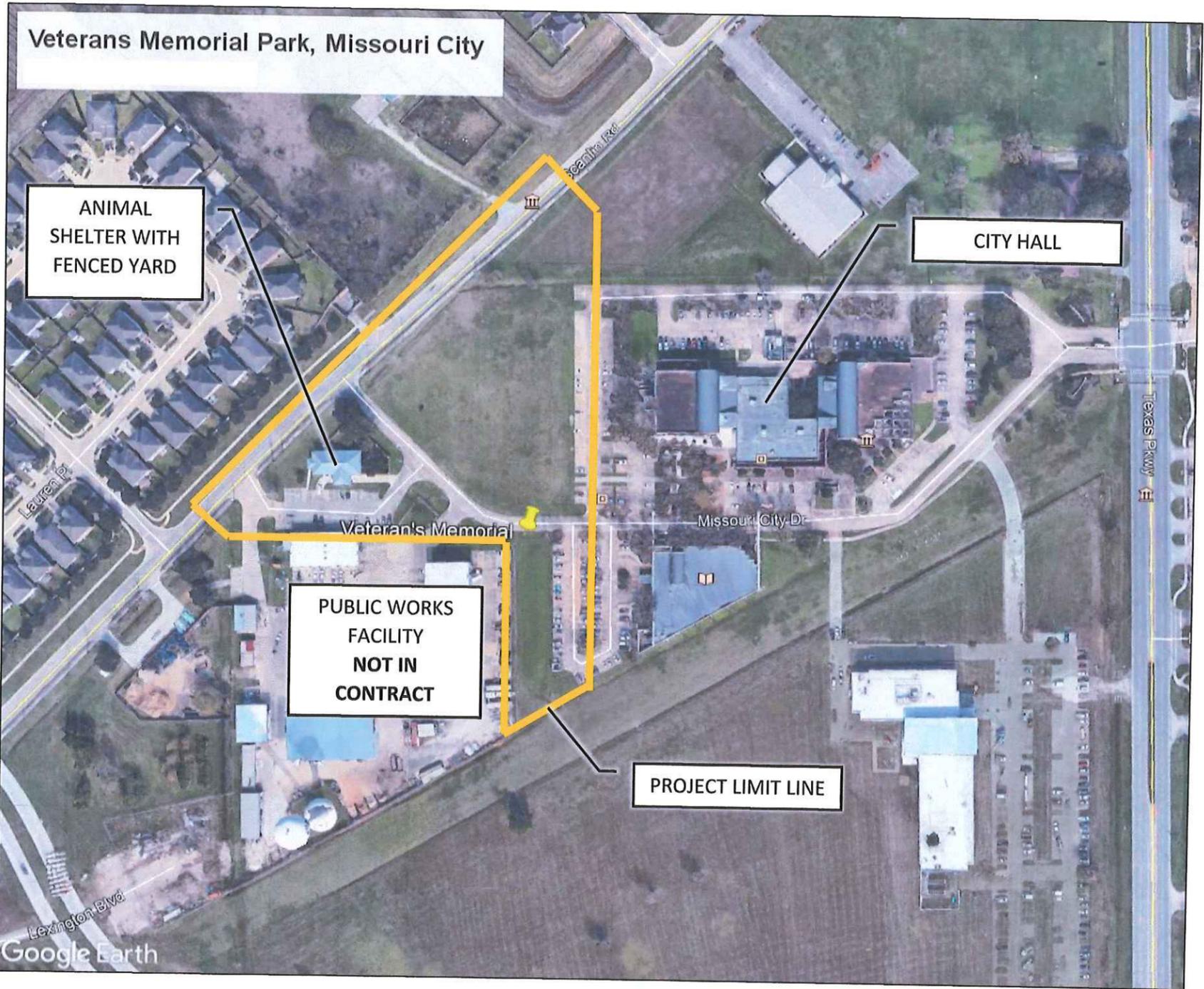


EXHIBIT B - PROJECT LIMITS (Revised)
March 26, 2019

LMA
Design

LMA Design
100 Nugent Street
Suite 123
Conroe, Texas 77301
713-517-3318
LLentz@LMA-Design.com
WWW.LMA-Design.com

Landscape Architecture
Irrigation Design
Low Impact Design
Tree Disposition Analysis



**CITY COUNCIL
AGENDA ITEM COVER MEMO**

May 20, 2019

To: Mayor and City Council
Agenda Item: 9(d) Authorize City Manager to execute a contract for the provision of on-call traffic engineering services.
Submitted by: Cliff Brouhard, P.E, Assistant Director of Public Works

SYNOPSIS

The Department of Public Works requests authorization for the City Manager to enter into a contract with Consor Engineers, LLC for the provision of on-call traffic engineering services.

STRATEGIC PLAN 2019 GOALS ADDRESSED

- Create a great place to live

BACKGROUND

The City posted Request for Proposal # 19-320 for on-call Traffic Engineering Services on January 24, 2019 with an opening date of February 12, 2019. The City received five (5) responses. Subsequently, staff selection committee evaluated the proposals based on qualifications and selected Consor Engineers, LLC of Houston, Texas for the award. Consor Engineers, LLC has previously provided same services to the City under a former name "AIA Engineers" and staff has been satisfied with their performance.

Due to the need of highly specialized equipment and analysis software to complete certain traffic engineering tasks, the Public Works Department utilizes outside engineering firms that are equipped to collect and analyze traffic information. These services include the following:

Sight Distance Analysis, Speed Analysis, Intersection Level of Service determination, Traffic Signal Design and Warrant analysis, Pavement Marking Plans, Multi-Way Stop Analysis, Circulation Studies, Grant Writing, Data Collection (Volume, Speed, and Classification), Turning Movement Analysis, and Recommendations of Traffic Calming Measures.

BUDGET/FISCAL ANALYSIS

Funding Source	Account Number	Project Code/Name	FY19 Funds Budgeted	FY19 Funds Available	Amount Requested
Metro Funds	401-53024-15-401-50027	50027 / Traffic Studies	\$77,119	\$61,019	\$60,000*

***\$60,000 in Metro Funds are allocated yearly to pay for traffic studies. The total over the next 4 years of approximately \$240,000.**

Purchasing Review: Shannon Pleasant, CTPM - Procurement and Risk Manager

Financial/Budget Review: Bertha P. Alexander, Budget & Financial Reporting Manager

Note: Compliance with the conflict of interest questionnaire requirements, if applicable, and the interested party disclosure requirements (HB 1295) has been confirmed/is pending within 30-days of this Council action and prior to execution.

SUPPORTING MATERIALS

1. Proposed contractors' response to RFQ # 19-320

STAFF'S RECOMMENDATION

The Department of Public Works requests authorization for the City Manager to enter into a contract with Consor Engineers, LLC. for provision of on-call traffic engineering services for an amount not to exceed \$60,000 a year.

Director Approval: Shashi K. Kumar

**Assistant City Manager/
City Manager Approval: Bill Atkinson**



JANUARY 24, 2019

REQUEST FOR QUALIFICATIONS (RFQ) NO. 19-320

TRAFFIC ENGINEERING SERVICES

COMMODITY CODE(S): 925-93

ISSUED BY THE PURCHASING OFFICE OF THE CITY OF MISSOURI CITY, TEXAS

Sealed responses, subject to the terms and conditions of this RFQ, for the above referenced professional service must be received by the Purchasing Division of the Missouri City, at City Hall, 1522 Texas Parkway, Missouri City, Texas 77489 by 2:00 P.M., **February 12, 2019**. Responses received after the specified time will be returned unopened. All necessary information and addendums may be obtained from the following websites: <http://www.txsmartbuy.com/sp>.

CONSOR Engineers, LLC

LEGAL NAME OF CONTRACTING COMPANY

Zina Schwartz, PE

Executive Vice-President

CONTACT PERSON

TITLE

281.493.4140

281.493.2211

zschwartz@aiainc.com

TELEPHONE NUMBER

FACSIMILE NUMBER

E-MAIL ADDRESS

15310 Park Row

Houston, Texas

77084

COMPLETE MAILING ADDRESS

CITY/STATE

ZIP

COMPLETE STREET ADDRESS (if different)

CITY/STATE

ZIP

AUTHORIZED SIGNATURE



February 12, 2019

City of Missouri City
Attn: Purchasing Division
1522 Texas Parkway
Missouri City, Texas 77489

RE: Statement of Qualifications – RFQ No. 19-0320 Traffic Engineering Services

Dear Selection Committee Members:

CONSOR Engineers, LLC (formerly AIA Engineers) is pleased to submit this statement of qualifications for providing traffic engineering services to the City of Missouri City.

CONSOR has been providing engineering services to the City of Missouri City since 2006. Most recently, we have provided on-call traffic engineering services to the City since 2014. Our work on this on-call contract has included 41 work authorizations which have included traffic data collection, signal and stop warrant analysis, safety and capacity improvements, school zone analysis, median modifications, intersection restriping, sight distance analysis, pavement markings, signage evaluations, parking capacity improvements, gateway population sign design, and construction cost estimates. Most of these work authorizations stemmed from concerns of residents in the City, and our firm was called upon to analyze situations within a short time period and provide recommendations.

CONSOR brings every aspect of the design requirements for the potential projects with recent similar design experience and has the following unique characteristics in our local Houston office:

- 23 Professional Engineers with overlapping capabilities
- Experienced Project Manager with a proven track record for on-time and within budget project delivery with the City of Missouri City and other local agencies including the METRO, City of Houston, and TxDOT Houston District
- Staff with pertinent project experience in all aspects of traffic engineering – means no delays or cost overruns
- Availability and commitment of staff
- ISO 9001:2015 Certification – written QA/QC program successfully implemented on past project

Our team offers complementary skills that will enable us to get the job done. Our Project Manager, Kishore Juluru, PE, PTOE, will be the point-of-contact for the firm.

CONSOR provides a strong team that is ready, available, and eager to provide traffic engineering services on this contract. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "Zina Schwartz". The signature is fluid and cursive, written over the printed name.

Zina Schwartz, PE
Executive Vice-President

Project Understanding and Approach

The key to a traffic engineering evergreen project is having a staff with the capability to handle multiple work authorizations simultaneously. CONSOR (formerly AIA Engineers) has worked successfully on several On-Call Traffic Engineering projects, including for the City of Missouri City since 2014, where multiple work authorizations were completed concurrently. All of our team members have longevity and are known for their hands-on responsiveness.

CONSOR understands the projects will include performing traffic engineering, design, and traffic analysis related to the various types of services outlined in the scope of services, as well as traffic data collection.

CONSOR has worked on several City of Missouri City, TxDOT, and other local entity projects providing traffic engineering, utility coordination, field investigations and inventories, and design elements. The CONSOR Team is committed to providing the City of Missouri City with the highest quality of service on time and within budget. Our strategy to accomplish this work includes:

- Understand the City's needs and goals
- Understand and communicate scope of work accurately
- Good and accurate documentation of decisions, criteria and supporting documentation
- Provide value engineering – make sure the City gets the most for the money spent
- Responsiveness – be available to the City on short notice and respond immediately when needed. Our local employees have proven to the City our ability to act quickly when needed.
- Utilize the right personnel for the right job
- Scheduling/Design – CONSOR utilizes scheduling software to ensure that scheduled submittals are met and to coordinate the different phases of the project. Throughout the design process, we will maintain contact with utility companies and conduct utility meetings to ensure clearance prior to project letting.
- Integration of design activities – CONSOR will utilize FTP sites to share files between subconsultants in addition to our main office server that all of our offices can connect to.
- Estimating – CONSOR will update the construction cost estimate at every milestone submittal to the City. We will utilize historic bid tabulations, estimator software, and Citywide recently let projects to estimate construction costs.

TRAFFIC STUDIES

Before starting any study, the purpose of the study will be outlined. The data that will need to be collected will be determined in addition to the data collection method. A data collection plan will be established so as not to miss any important elements in the field. Once the data is collected, the information will be evaluated in the office for any errors. Once it is determined that the data is good, the CONSOR Team will perform the necessary evaluations and complete the reports. The project approach to various types of traffic engineering studies are outlined below:

Signal Warrant Studies will be completed in accordance with the TMUTCD. First, 24-hour volume classification counts will be collected at all of the approaches for the intersection being studied. The data will be evaluated to determine the highest 8-hours, highest 4-hours, and peak hour. Pedestrian counts, accident data, and existing condition information will also be collected. This data will be used to evaluate the nine signal warrants outlined in the TMUTCD. Besides the evaluation of the nine signal warrants, the study will also include:

- Field observations
- Existing condition diagram
- Collision diagram
- Posted speed limits
- Nearby traffic generators such as schools, retirement facilities, etc.
- Vehicle hours of stopped time delay by approach
- Number and distribution of acceptable vehicular gaps on the major street
- Pedestrian delay time on an average weekday, Saturday or Sunday
- Queue length on stop-controlled approaches

CONSOR has also completed the following types of traffic engineering studies:

- **Capacity/intersection improvement analysis**
- **Travel time and delay studies**
- **Speed zone studies**
- **Stop warrant studies**
- **School zone safety studies**
- **U-turns restriction study for certain times of the day**
- **Corridor signal timing/phasing studies**
- **Traffic impact analysis**

DESIGN OF TRAFFIC SIGNALS, TRAFFIC CONTROL PLANS, SIGNING AND PAVEMENT MARKINGS, AND INTERSECTION IMPROVEMENTS

Step 1: Scoping

- Meet with the Project Manager and make a joint field visit to understand the project needs and purpose. Prepare an accurate scope in coordination with the City and convey the scope to other team members. In addition, signal (mast arm or span wire) configuration and interconnection will be determined.

Step 2: Obtain and Evaluate Existing Data, Surveying

- Obtain existing data: Depending on the project type, we will obtain and evaluate existing data including as-builts, utility investigation, ROW information, and planned improvements, and we will conduct a site visit.
- Perform topographic survey, Right-of-Entry if needed, and utility investigation and location.
- Coordinate with Missouri City and adjacent entities regarding nearby planned improvements and proposed traffic generators to determine the impact to the roadway network and anticipated traffic volumes.

Step 3: Preliminary Design

- Once we gather the existing data and perform some preliminary engineering, we will request a design meeting. This will set the design criteria and parameters for the project. The design will be based on Missouri City's Design Guidelines and/or TxDOT Houston District's latest specifications and standard drawings. Traffic data will be reviewed to determine if the proposed geometric improvements will meet the traffic demands. Conceptual construction sequencing will be presented to the City to receive buy-in prior to TCP preparation. Items like major utility conflicts, preliminary cost, right-of-way needed, environmental and drainage impacts, and impacts to adjacent properties will be investigated and presented during this phase. If there are needs for illumination or ADA facilities, conceptual drawings will be prepared for the same. In addition, culvert extensions will be looked at if needed, where roadway widening, sidewalks, and curb ramps will affect intersection geometry layout. In addition, overall intersection geometry will be evaluated to determine if additional turn lanes may be required.
- Other design projects within the City of Missouri City will be properly coordinated to ensure that signal layouts will accommodate future improvements.
- Based on traffic volumes and accident data, CONSOR will investigate the need for additional safety features. Recommendations to the signal timings will also be provided if required.
- ITS layouts will be completed if necessary. CONSOR has completed numerous projects involving connections into an existing interconnect system using fiber optic interconnect as well as spread spectrum wireless interconnect.
- CONSOR will evaluate all intersections for ADA compliance. Zina Schwartz has worked on numerous projects where TDLR inspection was required and all intersections had to be ADA compliant. Specifically she completed an evaluation of 60 METRO intersections for ADA compliance.
- Signing and pavement markings and traffic control plans will be designed in accordance with TxMUTCD standards.

Step 4: Final PS&E Preparation

Once the preliminary design criteria and the preliminary design has been reviewed and discussed with the City, CONSOR will move forward with the final design. CONSOR continues open lines of communication throughout the project development process. As design issues arise, we are experienced at analyzing them using our depth of knowledge. We will normally formulate two or three possible solutions and present our recommendation to the City. Our references will attest to CONSOR's leadership of similar type projects.

Roadway design, ADA ramp and facility details, TCP including temporary signals, SW3P, signing and pavement markings, signal layouts, signal details, electrical schedules, interconnect details, illumination, quantities, cost estimate, general notes, and specifications will be prepared. The CONSOR Team has experience in the preparation and completion of PS&E for the Missouri City.

The traffic signal layout will have the following items:

- Existing condition layout
- Geometric layout of the intersection including pole, conduit, signal head, VIVDS cameras/radars/magnetometer/loops/etc., opticom detection if required, luminaires, cabinet, meter pole, ROW, and utility locations per TxDOT/Missouri City criteria
- Electrical schedule – conduit runs will be labeled along with wiring along the mast arms or span wire
- Signal pole chart labeling the poles, stations, offsets, descriptions of the signal pole to include mast arm length and luminaire locations, and meter pole
- Vehicle detection chart identifying the cameras and the appropriate setting for each
- Types of signal heads to be used on each mast arm or span wire
- Legend
- Signs including pedestrian signs for the push buttons and street names signs on the mast arms.

The CONSOR Team prides itself on delivering a turnkey project from inception to completed construction. Should the signal projects be let by TxDOT for construction, CONSOR is familiar with the standard TxDOT procedures. An integral step that sets the CONSOR Team apart from others occurs when the plan design nears 90% completion. TxDOT has project cost estimates and specifications on their mainframe. The CONSOR Project Manager and Task Leaders have current access to TxDOT's mainframe via a web portal. We are experienced with the input of cost estimates into TxDOT's mainframe, including special provisions and generating the Specifications List. Once these items are input, they must be "run" in the mainframe environment and output for the PS&E. The Project Manager as the responsible engineer will also electronically "seal" the project within TxDOT's mainframe. Multiple traffic signal projects are usually pooled or combined for project letting. CONSOR has extensive experience working with multiple TxDOT CSJs in separating quantities, cost estimates, and even invoices. We are keenly aware that each cost estimate for each CSJ is entered into DCIS separately, but the specification list and other paperwork are single documents for the overall combined project. With the CONSOR Team, no on the job training is needed – it will be done right the first time.

Finally, our project approach will be to complete the project on schedule, within budget, and in accordance with the City of Missouri City's policies and procedures. We plan to deliver a product that is complete, accurate, and consistent by following QA/QC procedures. We believe in keeping open lines of communication between the City of Missouri City, public agencies, other subconsultants, and ourselves.

The Project Manager, Mr. Juluru, understands that responsive service and communication are the foundation to any project. For each submittal milestone, CONSOR reviews the deliverables and expectations with the City of Missouri City's Project Manager. This ensures the City's expectations are met and there are no "surprises."

PROJECT COORDINATION AND COMMUNICATION

We communicate with the client and coordinate with personnel through weekly meetings, distribution of meeting minutes, project notes, and documentation of all decisions. The Project Manager will be the focal point/clearing house of all project communications coming from and going to Missouri City. All written communications on projects will be directed or copied to the Project Manager. Verbal communications of significance should be updated to the Project Manager. It is the Project Manager's intent to maintain effective and efficient systems of communication.

SCHEDULE, BUDGET, AND CONTINGENCIES

A project schedule and budget will be developed by task and made a part of the work plan. Each team member will update the Project Manager monthly on budget and schedule status. This updated schedule and budget will be submitted to the City along with monthly invoices. Contingencies have the ability to affect both schedule and budget. CONSOR will inform the City immediately of any impacts – and suggested resolution. Of course, the desire is always to complete the design in a logical sequence. However, sometimes due to other circumstances, we are forced to overlap tasks in order to continue to meet the construction letting. These occurrences will be evaluated individually and a proactive plan developed. Early identification of critical path and red flags will help to eliminate or reduce schedule surprises.

CONSOR has had the opportunity to work for Missouri City in addition to several cities similar in size to the City and understands the dynamic of this kind of relationship. We work closely with City staff to prepare a scope that is thorough and addresses the project requirements. With the fast-paced growth of cities like Missouri City, CONSOR understands that design requirements can change from start of the project to the completion. For example on one of our projects in Missouri City, a Lowes development was going to be constructed between two intersection that CONSOR (formerly AIA) was designing along SH 6 (Glenn Lakes and FM 1092). CONSOR incorporated the right turn lanes and driveways into the plans without going back to the City to modify scope and increase fee.

MILESTONE MEETINGS

All team members will schedule specific milestone meetings with the Project Manager to communicate status of assigned tasks. Budget/schedule and work effort remaining will be reviewed.

Resources

- CONSOR has strong Task Leaders available to work on the project. Each of the Task Leaders has a strong support group with other members who have the necessary technical expertise to step in and lead should the need arise.
- Should a key team member need to leave the project for some reason, CONSOR has alternate staff available to fill these shoes. CONSOR has been fortunate in the ever revolving door on the engineering community to have a large number of staff that has been with the firm for most of their professional careers. Two of the key task leaders, Janice Kruse and Zina Schwartz have each been with CONSOR for nine and twenty-three years respectively. Project Manager Kishore Juluru has been with the firm for seven years. In addition, CONSOR has numerous other key engineers that have been with the firm for ten years or more.

Our commitment is to provide you, our client, a quality project, on time and within budget that meets your goals and needs.

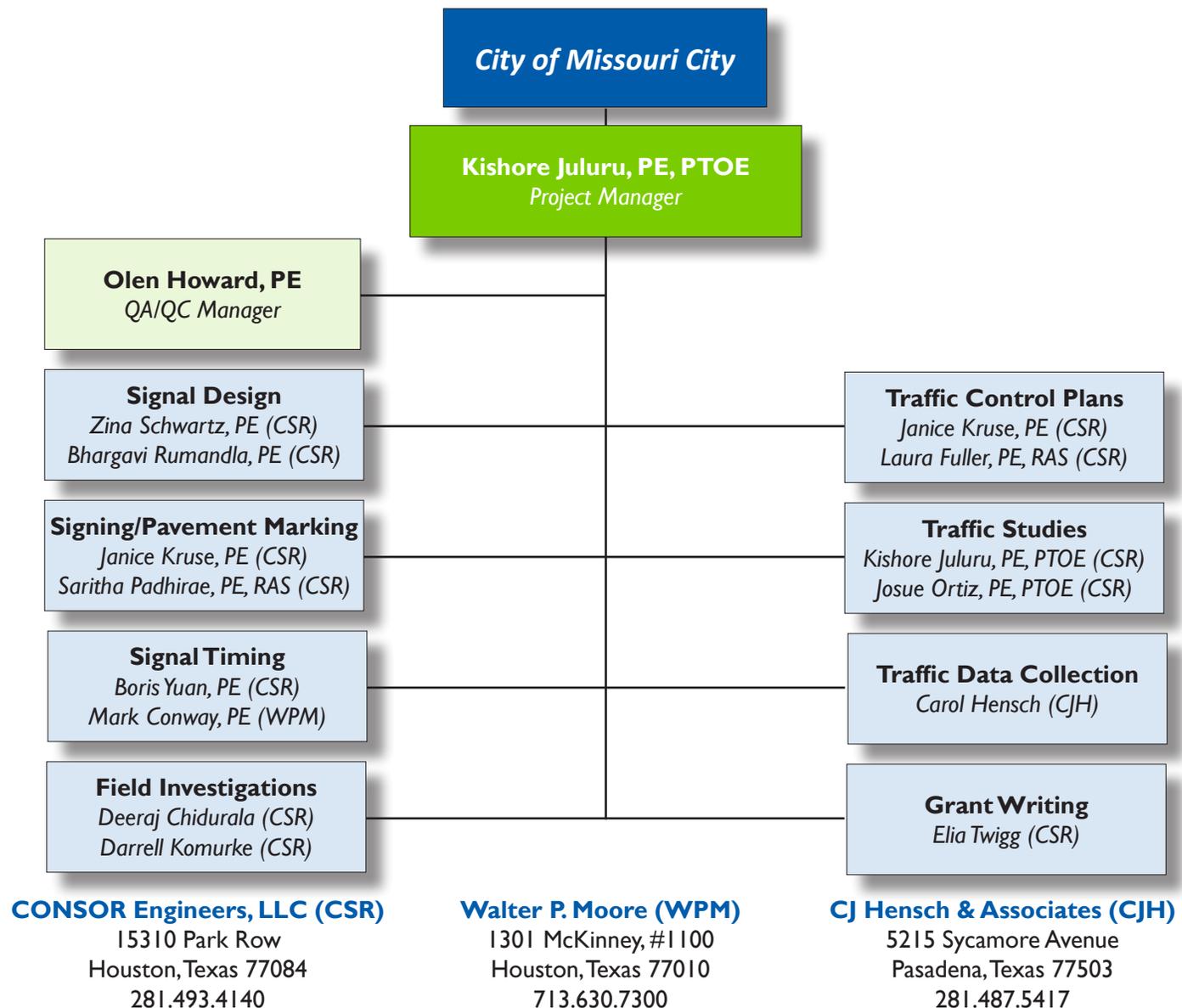
Evidence of the Firm’s Ability to Perform Work

CONSOR Engineers, LLC (formerly AIA Engineers) is a mid-sized firm with a flexible company structure. Mr. Kishore Juluru as Project Manager has received very favorable comments on his responsiveness to client’s needs. CONSOR’s staff is able to meet any schedule you may have and has the ability to work on an accelerated schedule. Our firm is headquartered in Houston which allows us to be very responsive to Missouri City’s needs and schedules. We have never committed to any schedule we were unable to meet.

CONSOR Team Organizational Chart

CONSOR has assembled a project Team that is very experienced and knowledgeable in their specialized fields. The Task Leaders are team players, innovative, and committed to meeting schedules set forth by the City of Missouri City. Combined experience of the CONSOR Team provides a depth of knowledge and expertise in all areas required for the Traffic Engineering Services On-Call Contract. These include, but are not limited to, field investigations, traffic and other various studies, signal design, TCP, signing/pavement marking, signal timing, intersection analysis/improvements, and grant writing. CONSOR employs in-house Registered Accessibility Specialist (RAS) staff familiar with ADA and TAS requirements. The firm also has extensive bridge inspection experience, having inspected more than 15,000 bridges in 30 years. The firm employs more than 15 TxDOT and FHWA-qualified team leaders with Texas bridge inspection experience.

Mr. Juluru has worked with these individuals for numerous years and is confident in their abilities and commitment to the projects. CONSOR Engineers, Walter P. Moore, and CJ Hensch are all Houston-based firms.



The CONSOR Team members are all located in the Houston area with several living in Fort Bend County, and we will be fully devoted to the Missouri City’s task. CONSOR has the resources and manpower available on all levels to complete projects on time and within budget. In addition to our proposed Team shown in the Organization Chart, CONSOR has additional local Houston staff resources available, and can easily bring in additional Team members should the need arise:

Staff Positions	Total
Professional Engineers	23
Engineers in Training (EIT)	24
Graduate Engineers (GE)	3
Planner	1
CADD Technicians	14
Schedulers	3
Construction Inspectors	16
Administrative Staff	13

CONSOR will be committed to this project from start to finish. Our clients’ satisfaction is always our ultimate goal. The Team of CONSOR and Walter P. Moore has overlapping capabilities and expertise.

CONSOR (as AIA Engineers) has managed the following on-call engineering contracts:

- City of Missouri City On-Call Traffic Engineering – 41 work authorizations
- TxDOT El Paso District On-Call Traffic Engineering – 2017
- TxDOT Houston District On-Call Traffic Engineering – 2016
- TxDOT Houston District On-Call Traffic Signal Timing – 2015
- TxDOT Houston District On-Call Traffic Engineering – 2013
- 2014-2016 City of Houston On-Call Traffic Signal Design and Intersection Safety Improvement Projects
- 2013 City of Houston Intersection Safety Improvements
- 2011-2012 City of Houston On-Call Traffic Signal Design and Intersection Safety Improvement Projects
- City of Houston On-Call Traffic Engineering (2 contracts)
- METRO On-Call Traffic Engineering (two contracts)
- TxDOT Houston District On-Call Urban/Rural PS&E (two contracts)
- TxDOT Beaumont District On-Call Traffic Engineering

The CONSOR Team that we have presented has worked together on previous traffic engineering on-call contracts. Several of these contracts had multiple concurrent work authorizations.

Mr. Kishore Juluru, PE, PTOE will serve as the Team’s Project Manager and Task Leader for Traffic Studies. Mr. Juluru, a Registered Professional Engineer and Professional Traffic Operations Engineer in the State of Texas, has successfully managed several traffic engineering evergreen contracts. These evergreen contracts included multiple work authorizations that had to be completed simultaneously. He has more than 17 years of experience in traffic engineering. Mr. Juluru has also completed various traffic engineering studies, operation analyses with HCS and Synchro software for the evaluation of alternative roadway improvements, signing and pavement marking plans, traffic signal layouts and traffic control plans. In addition, many of Mr. Juluru’s projects have involved extensive field data investigations as described in the projects in the following sections. Please see his resume for additional projects that he has managed.

As part of current On-Call Traffic Engineering Services with Missouri City, the CONSOR (formerly AIA Engineers) Team successfully conducted the following traffic engineering studies:

- 1. School zone analysis** for Edgar Glover Elementary School, Quail Valley Elementary School, and Lake Olympia Middle School. The work included field investigations/verifications during the school start and end time periods, evaluation of existing signing/pavement markings, pedestrian safety analysis, speed studies, and recommendations.
- 2. Sight distance analysis/evaluation** on Water Cove Drive/Lake Run Drive (both approaches) at its intersection with Riverstone Boulevard to identify safety issues and provide solutions to mitigate these issues.
- 3. Intersection analysis** for the intersection of Raoul Wallenberg at FM 1092 to identify the level of service and provide recommendations to improve the intersection safety. Coordinated with Missouri City and TxDOT Houston District to identify and approve the median nose modifications, additional signs, pavement markings, and delineator

placement and provided drawings to help the in-house City staff to make the changes.

4. **Evaluated existing traffic signal** at the intersection of FM 1092 at SH 6 and provided recommendations for the addition of the right turn lane on the southbound approach of FM 1092. Provided the layouts with the pavement markings, summary of quantities, and traffic control plan meeting TxDOT and City requirements to help the City staff incorporate these changes.
5. **Stop warrant studies** per the TMUTCD criteria and engineering judgement for locations including El Dorado at Robinson, Hampton at Robindale, and Pine Hollow Drive at Lexington Boulevard. In total, the CONSOR Team provided stop warrants for 15 intersections. These varied from two-way stop control to multi-way stop control.
6. **Reviewed Missouri City-provided traffic impact analysis/studies** to verify if they met the Missouri City Infrastructure Design Manual criteria and the ITE guidelines with regards to trip generation and trip distribution. The CONSOR team provided comments on these studies.
7. **Missouri City population signs:** coordinated the need and design of these signs.
8. **Traffic signal warrants** were conducted at the intersections of US 90A at Cravens Road (which included railroad crossing) and Texas Parkway at Greendale Drive per the TMUTCD guidelines.
9. **Traffic circulation analysis** was conducted for the closure of outbound Raoul Wallenberg Street to FM 1092 and identified the change in traffic patterns. Traffic counts were conducted and Synchro analysis was used to identify the existing and proposed conditions and the impacts it will have on the neighboring intersections. The conclusions and recommendations of this analysis were presented in a report format to the City of Missouri City.
10. **Traffic counts** were conducted to include vehicle classification in order to aid Missouri City in re-timing the signals along the SH 6 as well as the FM 1092, Cartwright, and Texas Parkway corridors.
11. **Traffic calming measures** were developed along Peninsulas Drive from Wild Peach Place to Oyster Creek Place Drive to address the high vehicle speeds along this stretch of the street, presence of cut-thru truck traffic, and the on-street parking along Peninsulas Drive near the old pier location despite parking restrictions. The study included traffic counts, spot speed studies, and crash analysis, and the Team provided recommendations to include additional signs, update/refresh exist pavement markings, and markers and additional police enforcement.

In addition to these projects, CONSOR has in-house engineering staff with the ability to adjust/update signal timings in the field and who are well versed with Naztec, Econolite, and Siemens traffic controllers; knowledgeable of adaptive traffic signal systems to include Trafficware's ATMS and Centracs; and understanding of the Missouri City ITS system.

CONSOR is well versed in traffic analysis software including Synchro (microsimulation), VISSIM (macrosimulation), Sidra for roundabouts, HCS for arterials and freeways, AutoTurn for turning templates, GuideSign for sign design, and CAD software including AutoCad and MicroStation.

Mr. Juluru has been involved with the planning and design of transportation engineering projects for more than 17 years. He has been involved in the design of traffic signals, illumination, and ITS elements for numerous municipal entities including the City of Missouri City, TxDOT, and private sector clients. His experience also includes traffic studies, traffic control plans, and signing and pavement markings. His responsibilities have included preparation of PS&E; project management; and managing and coordinating with subconsultants. Mr. Juluru has managed the City of Missouri City's On-Call Traffic Engineering contract since 2014.



17 Years
of
Experience

EDUCATION

Master of Science, Transportation Engineering, The University of Texas at Arlington, 2004

Bachelor of Science, Civil Engineering, University of Bombay, 2000

LICENSURE

Professional Engineer
TX #100219

Professional Traffic Operations Engineer #2688

ORGANIZATIONS

Texas District of the Institute of Transportation Engineers – Greater Houston Section

% AVAILABILITY

75%

OFFICE LOCATION

Houston, Texas

REPRESENTATIVE PROJECTS:

PROJECT MANAGER

On-Call Traffic Engineering City of Missouri City, Texas

Mr. Juluru has managed this on-call traffic engineering services for the City of Missouri City since 2014. Work has included 41 work authorizations which have included traffic data collection, safety and capacity improvements, school zone analysis, median modifications, intersection restriping, sight distance analysis, pavement markings, signage evaluations, parking capacity improvements, gateway population sign design, and construction cost estimates. Most WAs stemmed from concerns from residents in the City, and our firm was called upon to analyze situations within a short time period and provide recommendations.

PROJECT MANAGER

On-Call Traffic Signal Timing TxDOT Houston District

Mr. Juluru served as Project Manager for this on-call contract. Work involved signal re-timing, traffic counts, travel time runs (before and after), corridor analyses (SYNCHRO and Tru-traffic), calculating yellow change interval and all red clearance times using ITE equations, lane assignment investigations, field implementation and fine tuning after implementation, and final reports which include time of day plans, optimized time space diagrams, MOEs, and recommendations.

PROJECT ENGINEER

On-Call Traffic Engineering Services TxDOT Houston District

Mr. Juluru completed multiple traffic signal warrant studies, corridor wide speed studies, intersection safety analysis, and traffic signal design to include ADA-compliant ramps, utility coordination, and traffic detour analysis during construction. Each of these projects had compressed schedules and tight deadlines which were met by the team.

PROJECT ENGINEER

Traffic Impact/Feasibility Study – Kirby Drive Extension from Holmes Road to Orem Drive City of Houston, Texas

Mr. Juluru completed the corridor feasibility study, assessed the existing traffic conditions, projected traffic patterns for future years, and conducted simulation for existing and future years using both SYNCHRO and VISSIM software. He also tested different configurations and determined the lane requirements and geometries for existing and future conditions. Based on the alternatives generated, he developed a benefit cost analyses.

PROJECT ENGINEER

Citywide Traffic Signal Rebuild Package City of Houston, Texas

Mr. Juluru designed the traffic signal and roadway improvements at the complex intersection of Northpark Drive at Woodridge Parkway. The project included traffic signal poles, ADA-compliant wheelchair ramps, and crosswalks. Mr. Juluru prepared

associated construction cost estimates. Construction phase services were also been provided for this project. Additionally, in a subconsultant role, Mr. Juluru performed similar design services for the intersections of Sheffield at Market, I3602 Memorial - Fire Station #57, Dunvale at Richmond, and Westview at Wirt.

PROJECT ENGINEER
2011 and 2012 On-Call Traffic Signal Design and Intersection Safety Improvement Project
City of Houston, Texas

Mr. Juluru designed the HAWK signal on Almeda Drive south of Dixie Drive. The work included HAWK signal design, signing and pavement markings, advance signage for the vehicular traffic, and utility coordination. Construction phase services were provided for this project.

PROJECT ENGINEER
2011 On Call ITS/Signal Design
City of Houston, Texas

Mr. Juluru was responsible for the design of five intersections in the City of Houston including Wayside at Long, Fondren at Clarewood, Fondren at Sharpview, Fondren at Portal, and Telephone at Woodridge. The design included the use of wireless magnetometer vehicle detection system at two intersections and traditional loop detector systems at three intersections. As a part of this project, existing as-builts were obtained, signal cabinets were opened to field verify fiber optic interconnections, and the cabinets were relocated to accommodate the proposed field conditions. This included design of new communication ground boxes and installing cable and conduit to connect to the system. The option of installing City of Houston wireless communication (Wimax) for communication was also investigated. The design included audible pedestrian signal design, electrical schedule, ADA-compliant wheelchair ramps and median nose adjustments to accommodate the crosswalks.

PROJECT ENGINEER
Tenaris Bay City Plant at SH 35
Traffic Impact Analysis
Bay City, Texas

Mr. Juluru completed a numerous traffic impact studies to identify the impacts caused by the installation of temporary construction driveways and permanent employee driveways for the \$1.5 billion Tenaris facility. These were conducted using the standard ITE procedures and based on the information provided by Tenaris Bay City plant. As a part of the analysis, signal warrant studies were also conducted. Recommendations were provided which included staggering the employee shifts, relocating the driveways, sight distance issues, and avoiding the heavy vehicle traffic during the peak hours.

TRAFFIC OPERATIONS STUDY
TASK LEAD
FM 517/SH 3 Access Management
Study
League City, Texas

Mr. Juluru was responsible for developing a traffic performance model for detailed operational analysis for 22 major intersections in the study area. He conducted field investigations, analyzed traffic counts, and coordinated with the local entities including schools to identify the traffic issues at the intersections. The study involved using the macroscopic SYNCHRO modeling software for evaluating various performance measures including capacity/level of services (LOS), vehicle delays and arterial LOS for three different time horizons for both the A.M. and P.M. peak hours. The TIP plan was also investigated to accommodate the future planned improvements in the vicinity of the study area. Based on the analysis, results provided the short-term, intermediate-term, and long-term recommendations in tabular, graphic, and report format.

PROJECT ENGINEER
Park Row at Fox Lake Drive
Harris County, Texas
 Mr. Juluru designed the traffic signal and recommended geometric improvements based on the traffic patterns at the intersection of Park Row at Fox Lake Drive. The design also included foundations for traffic signal poles, wheelchair ramps, pedestrian crosswalks, electric wire schedules, and construction cost estimates. The design included fiber optic interconnect from the signal to the County's master controller. Underground and overhead runs were designed based on the field conditions and the County design criteria. Mr. Juluru also provided construction administration services, reviewed the contractor submittals and shop drawings, and responded to contractor's RFI.

PROJECT ENGINEER
SL 82 at IH 35, Traffic Signal Design,
Timing, and Phasing
TxDOT Austin District,
San Marcos, Texas

Mr. Juluru completed the design of the signal for the first modified displaced left turn in the State of Texas. There were three intersections as a part of this modified displaced left turn, and they were coded to operate from a single controller using two phases and a number of overlaps to optimize the operation of the intersections. Signal timing and phasing were also determined for this complex operation to accommodate all the various phases.

Ms. Schwartz has more than 24 years of experience in the traffic and transportation engineering fields. She has designed traffic signals and traffic control plans, performed traffic impact studies, developed signing and pavement markings, designed illumination, and led transportation planning. Ms. Schwartz has provided engineering services to the City of Missouri City, Fort Bend County, Harris County, City of Houston, METRO, and TxDOT.



24 Years
of
Experience

EDUCATION

Bachelor of Science, Civil Engineering, The University of Texas, 1994

LICENSURE

Professional Engineer
TX #85814

ORGANIZATIONS

Texas District of the Institute of Transportation Engineers – Greater Houston Section

- Section Representative (2017-2018)
- President (2016)
- Vice-President (2015)
- Secretary/Treasurer (2014)

% AVAILABILITY

50%

OFFICE LOCATION

Houston, Texas

REPRESENTATIVE PROJECTS:

TRAFFIC ENGINEERING TASK LEAD

On-Call Traffic Engineering City of Missouri City, Texas

Ms. Schwartz has provided on-call traffic engineering services to the City of Missouri City since 2014. Work has included numerous work authorizations which have included traffic data collection, safety and capacity improvements, school zone analysis, median modifications, intersection restriping, sight distance analysis, pavement markings, signage evaluations, parking capacity improvements, gateway population sign design, and construction cost estimates. Most WAs stemmed from concerns from residents in the City, and our firm was called upon to analyze situations within a short time period and provide recommendations.

PROJECT MANAGER

On-Call Traffic Engineering Services TxDOT Houston District

Ms. Schwartz served as project manager for this on-call contract. Ms. Schwartz conducted corridor-wide speed studies and intersection safety analysis to improve traffic safety with overall traffic flow along the corridor, signal warrant studies; and traffic signal design to include wiring, service drop coordination, initial timing/phasing plans.

PROJECT MANAGER

Creekmont Signal Design City of Missouri City, Texas

Ms. Schwartz designed a new signal at Creekmont and SH 6 for Laredo Holdings. This included obtaining a

TxDOT permit and coordinating with TxDOT for fiber optic connections, municipal utility districts (MUDs) for utilities, and CenterPoint for electrical service. She designed the signal, including aesthetic pedestrian plazas at all four corners, to the latest Missouri City standards.

PROJECT MANAGER

Missouri City Design Standards City of Missouri City, Texas

Ms. Schwartz coordinated with the City to develop signal design standards. Using PDF files from various signal projects that the City wanted to include as part of their standards, Ms. Schwartz re-drew them in CAD.

TRAFFIC ENGINEERING TASK LEAD

Intelligent Transportation System (ITS) Phase 2 City of Missouri City, Texas

Ms. Schwartz was the task leader for utility coordination for this project which culminated in the development of PS&E for the installation of Wireless Communications Network, CCTV, DMS, Bluetooth, School Zone Flasher Upgrades, Traffic Signal Controller Upgrades, Train Crossing Warning Flasher, and Countdown Pedestrian Signals. Ms. Schwartz coordinated with the CenterPoint Energy to secure electrical service.

TRAFFIC ENGINEERING TASK LEAD

Intersection Improvements and Signal Design City of Missouri City, Texas

Ms. Schwartz was task leader for signalization and signing and pavement

markings for four intersection improvement projects in the City of Missouri City. The scope included geometric improvements at the intersections, signal modifications, as well as utility investigation and relocation. Intersections included Lake Olympia Parkway, Sienna Ranch Road, Sienna Parkway, and Lake Shore Harbour Boulevard.

PROJECT MANAGER
2014 -2016 On-Call Traffic Signal Design and Intersection Safety Improvement Project
City of Houston, Texas

This project included more than 20 WAs for signal design, addition of left turn lanes, median openings, roadway panel replacement, traffic control plans, signing and pavement markings, and construction phase services.

PROJECT MANAGER
2011 and 2012 On-Call Traffic Signal Design and Intersection Safety Improvement Project
City of Houston, Texas

Ms. Schwartz managed and prepared signal layouts, signing, and pavement markings and designed ADA-compliant wheelchair ramps within tight ROW and several underground utilities for intersections including Wayside at Ave. R, Capital at S. 69th, Telephone at Winkler, La Branch at Crawford, La Branch at Jefferson, La Branch at Peas, Long at Wayside, Fondren at Portal, Fondren at Sharpview, Clarewood at Fondren, and Telephone at Woodridge.

SIGNALIZATION AND SIGNING AND PAVEMENT MARKINGS

TASK LEAD
Intersection Improvements and Signal Design

City of Missouri City, Texas
 Ms. Schwartz served as the task leader for signalization and signing and pavement markings for four intersection improvement projects in the City of Missouri City. The scope included geometric improvements at the intersections, signal modifications, as well as utility investigation and

relocation, survey, ownership research, property determination, ROW mapping and environmental documentation. Intersections included Lexington Boulevard at FM 1092, Cartwright Boulevard at FM 1092, Glenn Lakes Lane at SH 6, and SH6 at FM 1092.

PROJECT MANAGER
PER Reconstruction of Glenn Lakes/SH 6 Intersection

City of Missouri City, Texas
 Ms. Schwartz was the Project Manager responsible for developing the preliminary engineering report (PER) for the intersection reconstruction in accordance with the City of Missouri City Design Guidelines. She provided an intersection layout detailing the preliminary pavement and drainage design at the improved location, including curb returns, geometrics, transition length, stationing, pavement, and drainage details. The project was designed for full pavement width to the City ROW and provided a transition to the existing roadway. She analyzed and identified the impact of the improvements on the existing signalization along the SH 6 corridor.

UTILITY COORDINATION TASK LEAD
Traffic Signal Wireless Communication System

City of Missouri City, Texas
 As a sub to Walter P Moore, CONSOR (formerly AIA Engineers) was responsible for all utility coordination and system inventory of all signalized intersections in Missouri City. CONSOR created a GIS-based inventory compatible with Missouri City's GIS, of ITS components that included traffic signal controllers requiring TMC connectivity, any existing communication infrastructure backbone, traffic signal controllers to be upgraded or replaced, existing and planned CCTV cameras, potential surveillance areas, AVI tag reader locations, intersections targeted for countdown pedestrian signals, intersections with no pedestrian

elements, intersections targeted for UPS, existing UPS locations/intersections, and city facilities with and without radio towers (that could potentially support the wireless network). CONSOR collected utility information and created utility base maps for a 250-ft. radius for each one of the proposed CCTV cameras, DMS, and AVI reader locations. In addition, CONSOR coordinated with CenterPoint Energy on all power drop locations.

PROJECT MANAGER
On-Call Traffic Engineering Services
City of Houston, Texas

Ms. Schwartz managed on-call traffic engineering services for the City from 2000 to 2007. During that time CONSOR (formerly AIA) completed more than 20 projects ranging from traffic data collection to traffic calming and conceptual geometric designs. CONSOR provided services including intersection redesigns including improving traffic circles to allow for better truck movement, closing off existing neighborhood streets to re-route traffic, providing landscaped islands, and providing for better pedestrian accessibility. Traffic studies and signal warrant studies were also completed.

ILLUMINATION TASK LEAD
US 90A Illumination
City of Sugar Land, Texas

Ms. Schwartz prepared Illumination Electrical Plans for lighting along US 90A from SH 6 to approximately 1,200-ft. east of Dairy Ashford to meet NEC requirements. The illumination pole foundations, ground boxes, and conduit were already installed in the field as part of the US 90A widening project. Ms. Schwartz coordinated all utility power drop locations with CenterPoint and plan approval with TxDOT. The City of Sugar Land used standard 40-ft. dual mast arm TxDOT illumination poles with 400 HPS fixtures. Ms. Schwartz assisted the City with investigating LED and Incandescent fixtures as possible alternatives to high pressure sodium fixtures.

Ms. Kruse has more than 30 years of experience as manager and lead engineer on roadway/highway projects, roadway geometrics, and utility design. She is experienced in the application of CADD techniques for roadway design and is familiar with the use of Cogo/Roads, GEOPAK, THYSYS, and Winstorm computer programs. She has led projects requiring environmental assessments, coordination with businesses and residences, provision of pedestrian/bikeway facilities, traffic improvements, tree protection, structural improvements, and aesthetics. She has extensive experience with the City of Missouri City on previous projects.



34 Years
 of
 Experience

EDUCATION

Bachelor of Science, Civil Engineering, Texas A&M University, 1984

LICENSURE

Professional Engineer
 TX #66045

% AVAILABILITY

40%

OFFICE LOCATION

Houston, Texas

REPRESENTATIVE PROJECTS:

PROJECT ENGINEER

Various Grant Assistance to the City of Missouri City Public Works Department

City of Missouri City, Texas

TIP Assistance: Gathered information, prepared preliminary project estimates, and completed application forms online for TIP projects sponsored by the City for inclusion in the 2008-2011 TIP.

Restriping SH 6: Utilized study prepared by others and prepared restriping plan for SH 6 to reduce bus congestion on SH 6 at Lake Olympia Drive. Prepared full plan set and coordinated with TxDOT to obtain permit for construction.

TIGER Grant Application: Assisted Missouri City by providing construction cost estimates and exhibits for federal grant application.

PROJECT MANAGER

Intersection and Signal Improvements City of Missouri City, Texas

Ms. Kruse managed this project for the City of Missouri City for capacity improvements at four intersections. The contract was with the City but TxDOT let the project. The scope included level of service analysis, turn lane needs, storage length, geometric improvements at the intersections, signal modifications, as well as utility investigation and relocation, survey, and environmental documentation. One environmental document (Categorical Exclusion) was prepared for the improvements at all intersections. Subconsultants

performed the survey and environmental document. Temporary signals were designed for the various traffic control phases. Ms. Kruse worked jointly with Missouri City regarding aesthetics for traffic signals.

- Lexington Blvd at FM 1092: Addition of eastbound left turn bay in median. Lengthened eastbound dedicated right turn lane. Reconstructed both eastbound and westbound lanes on Lexington west of FM 1092 to improve grade at intersection. Added of pedestal pole for eastbound left turn traffic
- Cartwright Blvd at FM 1092: Constructed dedicated northbound and southbound right turn lanes on FM 1092. Provided southbound and northbound acceleration lanes. Lengthened westbound right turn lane on Cartwright Blvd. Upgraded existing span-wire configuration to mast-arm poles.
- Glenn Lakes Lane at SH 6: Added of eastbound acceleration lane as well as westbound channelized right turn lane. Upgraded existing span-wire configuration to mast-arm poles.
- SH6 at FM 1092: Added second left turn both north and south bound. Addition of a north bound acceleration lane on FM 1092. Addition of directional medians along SH 6. Upgraded existing span-wire configuration of property in the northeast corner of the intersection.

PROJECT MANAGER
**Sidewalk Improvements on Texas Parkway and Cartwright Road
City of Missouri City, Texas**

Ms. Kruse served as the Project Manager for the development of construction plans to construct sidewalks along Texas Parkway (FM 2234) in Missouri City. The initial project scope identified 9,270 LF of possible new sidewalk to be constructed within the TxDOT right-of-way. For the sidewalk to fit within the right-of-way, side slopes needed to be adjusted and possibly drainage improvements installed with drop inlets. Where possible and not cost prohibitive, the storm sewer trunkline for the ultimate widening was proposed for the modified drop inlets to tie-in to. These modified drop inlets could later be converted into standard Type "C1" curb inlets once the curb and gutter section is constructed.

PROJECT MANAGER
**Capacity and Access Management Improvements
City of Missouri City, Texas**

Ms. Kruse managed the design for the City let the project for construction utilizing TxDOT permit (obtained by Ms. Kruse). Project included capacity improvements at five intersections along SH 6 (FM 1092, Lake Olympia, Sienna Parkway, Sienna Ranch, and Lake Shore Harbour); median (access management) to replace the continuous left turn lane on SH 6 in the vicinity of intersections; span wire signals replaced with mast arm ornamental signals; pedestrian signals; and pedestrian plazas.

PROJECT MANAGER
**Access Management Improvements on Texas Parkway (FM 2234) from US 90A to Cartwright Road
City of Missouri City, Texas/
TxDOT Houston District**

Ms. Kruse managed this contract which was with the City of Missouri City, but

the project was let by TxDOT. The scope included replacing the existing continuous left turn lane with a raised median. She reviewed locations to provide openings and designated left turn movements and conducted coordination meeting with TxDOT to discuss design criteria and to obtain approval on the typical section. Ms. Kruse reviewed traffic data and overall plan street pattern of adjacent neighborhoods in order to suggest locations to provide opening and designated left turn movements. She oversaw preparation of a Categorical Exclusion document.

PROJECT MANAGER
**Austin Parkway Reconstruction
City of Sugar Land, Texas**

Ms. Kruse served as the Project Manager responsible for preliminary and final design for the reconstruction of 4,100-ft. of Austin Parkway from SH 6 to First Colony LID 2 Crossing. Project included the preparation of a Preliminary Engineering Report including documentation of data collection, field visits, review of as-builts, preliminary drainage evaluation, video inspection of the sanitary sewer, and determination of anticipated utility conflicts. Project included water line replacement, bike trail, and signal modifications. Plans incorporated extensive tree protection. Alternative bids were prepared to include two additional roadways and a bike trail.

PROJECT MANAGER
**FM 1876 (Eldridge Road) from US 90A to West Bellfort
Sugar Land, Texas/
TxDOT Houston District**

Ms. Kruse served as the Project Manager responsible for the design of 3.4-miles in roadway improvements from preliminary schematic to final construction drawings. The roadway was improved from a two-lane, rural section to a divided four-lane,

concrete curb-and-gutter section. The project included seven traffic signals and interconnect layout and a two-mile, eight-foot sidewalk. Ms. Kruse coordinated multi-agency involvement for the public hearings on the environmental assessment, noise workshop, and public meetings.

PROJECT MANAGER
**First Colony Mall Signalization
City of Sugar Land, Texas/
TxDOT Houston District/Developer**

Ms. Kruse served for the design of five traffic signals and interconnections around the perimeter of First Colony Mall. Ms. Kruse worked with the developer and the City of Sugar Land in selecting the style of the ornamental traffic signals and lights. These were the first ornamental traffic signals within the City. Ms. Kruse obtained TxDOT approval for usage of ornamental signal poles and coordinated an agreement on maintenance issues. Ms. Kruse developed special specifications for the ornamental signal poles and coordinated with TxDOT for approval of special specifications.

PROJECT ENGINEER
**Harlem Road
Fort Bend County, Texas**

This project included the route study and schematic design for a 7.4-mile corridor along Harlem Road for widening the existing two-lane roadway to a four-lane divided roadway. Project included alternate route determination, functional classification and design criteria determination, drainage analysis, cost estimates, public involvement, and utility investigation. Typical sections were developed utilizing TxDOT and Fort Bend County design criteria. Curb and gutter, open ditch, and curb and gutter with open ditch combinations were developed and considered. Ms. Kruse also managed a one-mile section of PS&E.

Ms. Padhirae has over 10 years of experience in the traffic and transportation engineering field. Ms. Padhirae has a thorough working knowledge of the TxDOT Roadway Design Manual, ADA guidelines and Texas Accessibility Standards, AASHTO Green Book, and TMUTCD, and AASHTO Guide for the Development Bicycle Facilities. Ms. Padhirae has designed signing and pavement marking, traffic control plans, roadway geometrics, sidewalks, and bikeways.



10 Years
of
Experience

EDUCATION

Master of Science, Civil Engineering,
Lamar University, 2005

Bachelor of Science, Civil
Engineering, Kakatiya Institute of
Technology & Science, India, 2003

LICENSURE

Professional Engineer
TX #110173

Registered Accessibility Specialist
TX #1519

AVAILABILITY

60%

OFFICE LOCATION

Houston, Texas

REPRESENTATIVE PROJECTS:

PROJECT ENGINEER

Intersection and Signal Improvements City of Missouri City, Texas

This project included intersection improvements at four different intersections. The project involves roadway design, paving, drainage, temporary signals, permanent traffic signals, signing and pavement markings, and traffic control plans. Project was let for construction by TxDOT and was designed to TxDOT standards. Ms. Padhirae designed the temporary and permanent traffic signals at all three intersections. In addition, she designed the signing and pavement markings.

- Lexington Blvd at FM 1092: Addition of eastbound left turn bay in median. Lengthened eastbound dedicated right turn lane. Reconstructed both eastbound and westbound lanes on Lexington west of FM 1092 to improve grade at intersection. Added of pedestal pole for eastbound left turn traffic
- Cartwright Blvd at FM 1092: Constructed dedicated northbound and southbound right turn lanes on FM 1092. Provided southbound and northbound acceleration lanes. Lengthened westbound right turn lane on Cartwright Blvd. Upgraded existing span-wire configuration to mast-arm poles.
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- SH6 at FM 1092: Added second left turn both north and south bound. Addition of a north bound acceleration lane on FM 1092. Addition of directional medians along SH 6. Upgraded existing span-wire configuration of property in the northeast corner of the intersection.

PROJECT ENGINEER

Sidewalk Improvements on Texas Parkway and Cartwright Road City of Missouri City, Texas

This project included the development of construction plans to construct sidewalks along Texas Parkway (FM 2234) in Missouri City. The initial project scope identified 9,270 LF of possible new sidewalk to be constructed within the TxDOT right-of-way. For the sidewalk to fit within the right-of-way, side slopes needed to be adjusted and possibly drainage improvements installed with drop inlets. Where possible and not cost prohibitive, the storm sewer trunkline for the ultimate widening was proposed for the modified drop inlets to tie-in to. These modified drop inlets could later be convert into standard Type "CI" curb inlets once the curb and gutter section is constructed. Ms. Padhirae upgraded the signals for the pedestrian crosswalks. The crosswalks and pedestrian ramps at several intersections were enhanced with various types of brick pavers as well as special landscaping.

PROJECT ENGINEER

On-Call Traffic Engineering City of Stafford, Texas

Ms. Padhirae was Project Engineer for this on-call contract. She assisted with sight distance verification of both vehicular and train traffic for the US 90 A screening wall. She also assisted with the traffic signal warrant analysis and traffic signal design for the 5th Street at Present Street intersection. Ms. Padhirae completed the electrical design for the pedestrian illumination project along US 90A and assisted with coordinating with CenterPoint Energy for the power drop locations.

PROJECT ENGINEER

[Pedestrian Ramp at Main Street](#) [METRO, Houston, Texas](#)

Ms. Padhirae served as the Project Engineer for the pedestrian curb ramp replacement project in front of the Main Street Transit Center. She designed and managed the project for replacement and modification to the pedestrian ramps and path near the Center. The design included utility coordination, METRO Rail, and City permit coordination. Project included traffic control and pedestrian detours due to the high pedestrian traffic near the work area.

PROJECT ENGINEER

[Hermann Park Esplanades](#) [Houston, Texas](#)

Ms. Padhirae served as the Project Engineer for the project located within Houston's Museum District between Fannin and Main Street along Hermann Drive. The project involved construction of 5-ft. to 8-ft. sidewalks. Amenities, including limestone landscape walls/newels, benches, signage, pedestrian lighting, and planting, expanded the Hermann Park brand to the esplanades. Ms. Padhirae assisted with the design of all pedestrian enhancements on this project.

PROJECT MANAGER

[Sidewalk Reconstruction](#) [City of Houston, Texas](#)

Ms. Padhirae served as the Project Engineer for the project in the

downtown area (METRO North Rail alignment) which included evaluation of 90,000 LF of sidewalk and design of 53,000 LF of sidewalk to bring into ADA compliance and provide connection to five neighborhood schools. Included review of existing sidewalk; documenting ADA noncompliant locations; designing ADA compliant ramps; replacing poor and missing sidewalk segments; evaluating impacts to existing facilities such as trees, utilities, and driveways; and designing associated improvements.

PROJECT ENGINEER

[Town Center Pedestrian Improvements](#) [City of Sugar Land, Texas](#)

Ms. Padhirae served as the Project Engineer for the project to develop four miles of 8-ft. sidewalks and mid block crossings on Town Center Boulevard. Project included plan with phasing and prioritization for implementation within available funding that improves pedestrian access to local destinations and encourages walking for short trips. Ms. Padhirae identified potential pedestrian-bicyclist access points to local businesses (front door access) and connectivity to other sidewalks and bike paths located adjacent to the project area. Ensured design met ADAAG and TAS standards.

PROJECT ENGINEER

[BU 90U Widening from IH 610](#) [northeast to Mesa Road \(Old FM 527\)](#) [TxDOT Houston District](#)

This project included the widening of an existing four-lane undivided rural roadway to a six-lane divided curb and gutter urban facility. The project involved roadway design, drainage, temporary signals, traffic signals and interconnect system, signing and pavement markings, traffic control plans, utility relocation, and storm water pollution prevention plans. Ms. Padhirae completed the traffic control plans and detours layouts, and she assisted in the design of the temporary traffic signals and traffic signals.

PROJECT ENGINEER

[Mason Road](#) [Harris County, Texas](#)

This project included the widening of the existing four-lane to a six-lane roadway from the Harris County/Fort Bend County Line to 500-ft. South of Chesterwick/Winding Hollow. The project involved roadway design, paving, drainage, signing and pavement markings, traffic control plans, utility relocation, storm water pollution prevention plans, and development of the project manual. Ms. Padhirae completed the project manual and assisted in the design of the traffic control plans and signing and pavement markings on Mason Road.

PROJECT ENGINEER

[Kirby Drive from US 59 to Richmond](#) [Avenue, Upper Kirby](#) [Houston, Texas](#)

This project included the reconstruction of the existing six-lane roadway with continuous left turn lane to a six-lane roadway with raised median from US 59 to Richmond Avenue. The project involved roadway design, drainage, temporary signals, traffic signals, signing and pavement markings, traffic control plans, utility relocation, and storm water pollution prevention plans. Ms. Padhirae completed the traffic control plans, detours layouts and assisted in the design of temporary traffic signals and traffic signal on Kirby Drive.

PROJECT ENGINEER

[Bunker Hill from Long Point to IH 10](#) [Houston, Texas](#)

This project included the widening of the existing roadway from a two-lane to a four-lane roadway. The project involved roadway design, grading, paving, drainage, temporary signals, traffic signals and interconnect system, signing and pavement markings, illumination, traffic control plans, utility relocation, and storm water pollution prevention plans. Ms. Padhirae completed the temporary and permanent traffic signals and interconnect system.

Mr. Conway has more than 33 years of traffic and ITS engineering experience, including research, planning, design, project management, implementation, operations, maintenance, and evaluation. He spent nine years with TxDOT and more than 24 years in the private sector working on numerous and varying ITS projects and assignments. He has engineered over \$400 million worth of advanced transportation management and ITS projects including regional and statewide strategic planning.



33 Years
of
Experience

EDUCATION

Bachelor of Science, Civil Engineering, Louisiana Tech University, 1985

LICENSURE

Professional Engineer
TX #68707

ORGANIZATIONS

ITS America
ITS Texas Board of Directors – Past President
TexITE, DSITE

% AVAILABILITY

25%

OFFICE LOCATION

Houston, Texas

REPRESENTATIVE PROJECTS:

PROJECT MANAGER

ITS Phase 1

City of Missouri City, Texas

Mr. Conway served as the Project Manager for this \$4 million ARRA project that consisted of the design, integration, and testing of a City-wide wireless Ethernet communications network; integration of 44 traffic signals and 100 VIVD; installation and integration of 25 CCTV cameras, six DMS and 56 AVI reader stations; design and integration of a new traffic management center (TMC); integration of an existing Ethernet fiber network; and development of traffic information web site. The project also included extensive coordination with TxDOT and interconnection of the TMC with the City's PDHQ and EOC via a wireless tower-to-tower link.

PROJECT MANAGER

ITS Phase 2

City of Missouri City, Texas

The project consisted of wireless network expansion and enhancements; design and integration of additional CCTV, DMS, signal interconnects, new Bluetooth, 18 school zone flasher interconnects, and an automated advanced railroad crossing system; and website enhancements.

PROJECT MANAGER

Traffic/ITS On-Call

City of Houston, Texas

Mr. Conway served as the Project Manager for this on-call contract with the City of Houston. He managed the design of more than 20 miles of fiber

optic cable, interconnection of more than 30 traffic signals, replacement of 10 traffic signals, design of a wireless bridge, and several complex integrations including TxDOT, Houston TranStar, Houston Emergency Center and the Houston Police Department facility on Reisner.

PROJECT MANAGER

METRO Traffic and ITS On-Call

Houston, Texas

Mr. Conway served as the Project Manager for two contracts for the development and deployment of systems and technology projects. He managed work that included design of wireless video security system for the Grand Parkway Park-and-Ride, design of a police command center, development of a regional fiber sharing plan framework, development of fiber specifications, and schematic design of the Missouri City multi-modal commuter lot.

PROJECT MANAGER

ITS On-Call Services

Uptown Redevelopment Authority

Houston, Texas

Project consisted of the development, implementation, and operations of a traffic management program in the Uptown/Galleria area. Work included design and project management of digital video surveillance system, development and implementation of TMC, maintenance management; and program management. Work included extensive coordination with multiple agencies and entities such as utilities and wireless carriers.

References

Reference 1	
Company Name:	METRO
Contact Person:	Michael D. Tegethoff, PE
Address:	1900 Main Street, Rm 10023, P.O. Box 61429 Houston, Texas 77208-1429
Phone No.:	713.739.4975
Email:	Michael.tegethoff@ridemetro.org

Reference 2	
Company Name:	METRO
Contact Person:	Timothy Mills, PE
Address:	1900 Main Street, P.O. Box 61429 Houston, Texas 77208-1429
Phone No.:	713.739.6861
Email:	Timothy.Mills@ridemetro.org

Reference 3	
Company Name:	City of Houston
Contact Person:	Ian Hlavacek, PE
Address:	611 Walker Street, 5th Floor Houston, TX 77002
Phone No.:	832.395.3002
Email:	Ian.Hlavacek@houstontx.gov

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 2

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.

Conzor Engineers, LLC
Houston, TX United States

Certificate Number:
2019-451312

Date Filed:
02/11/2019

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

The City of Missouri City

Date Acknowledged:

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 services, goods, or other property to be provided under the contract.

RFQ No. 19-320
Professional Traffic Engineering Services, Commodity Code 925-93

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Asfour, Ramzi	Coral Gables, FL United States	X	
	Rangaswamy, Govindraj	Fort Lauderdale, FL United States	X	
	Wehr, Andrew	Chicago, IL United States	X	
	Jin, Chaoran	Chicago, IL United States	X	
	Greer, David	Chicago, IL United States	X	
	Sommerschild, Bill	Chicago, IL United States	X	
	Gwilliam, Scott	Chicago, IL United States	X	
	Dauten, Kent	Chicago, IL United States	X	
	Reser, David	St. Cloud, FL United States	X	
	Patil, Sandeep	Houston, TX United States	X	
	Islam, Ashraf	Houston, TX United States	X	

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

2 of 2

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.

Conzor Engineers, LLC
 Houston, TX United States

Certificate Number:
 2019-451312

Date Filed:
 02/11/2019

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

The City of Missouri City

Date Acknowledged:

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 services, goods, or other property to be provided under the contract.

RFQ No. 19-320
 Professional Traffic Engineering Services, Commodity Code 925-93

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 UNSWORN DECLARATION

My name is Karen Dennis, and my date of birth is 11/08/1955.

My address is 15310 Park Row, Houston, Texas, 77084, USA.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Harris County, State of Texas, on the 11th day of February, 2019.
(month) (year)

Karen Dennis

 Signature of authorized agent of contracting business entity
 (Declarant)

Proposal # 19-320 for on-call		Traffic Engineering		Services	
<u>Respondent</u>	<u>Address</u>	<u>Location</u>			
Walter P. Moore and Associates	1301 McKinney, Suite 1100	Houston			TX
Conzor Engineers, LLC	15310 Park Row	Houston			TX
Gradient Group, LLC	2500 City West Blvd, Suite 300	Houston			TX
LJA Engineering, Inc	2929 Briarpark Dr., Suite 600	Houston			TX
Kimley-Horn and Associates, Inc.	11700 Katy Freeway, Suite 800	Houston			TX



**Council Agenda Item
May 20, 2019**

10. ORDINANCES – *There are no Ordinances on this agenda.*

11. RESOLUTIONS – *There are no Resolutions on this agenda.*

12. CITY COUNCIL ANNOUNCEMENTS

Discussion, review, and possible action regarding a meeting or activity of one or more of the following entities (each entity refers to a City of Missouri City entity unless otherwise indicated):

Charter Review Commission, Community Development Advisory Committee, Construction Board of Adjustments, Electrical Board, Parks Board, Planning and Zoning Commission, Tax Increment Reinvestment Zone Boards, Fort Bend Chamber of Commerce, Houston-Galveston Area Council, Fort Bend Regional Council, Texas Municipal League, Fort Bend County, Harris County, Gulf Coast Building and Construction Trades Council, Mayor's Youth Commission, Finances and Services Committee, Fort Bend Leadership Forum, Fort Bend County Drainage District, Economic Development Committee, Missouri City Parks Foundation, Missouri City Police and Fire Auxiliary, Livable Community Committee, Texas Parkway Alliance, High Performance Organization Committee, Missouri City Juneteenth Celebration Foundation, Fort Bend County Mayor and Council Association, METRO, Planning, Development and Infrastructure Committee, Fort Bend Independent School District, Greater Fort Bend Economic Development Coalition, Transportation Policy Council, Community Development Advisory Committee, Veterans Memorial Committee, Missouri City Recreation and Leisure Local Government Corporation, Missouri City Development Authority, and the Greater Houston Partnership and Emergency Management updates.

13. CLOSED EXECUTIVE SESSION

The City Council may go into Executive Session regarding any item posted on the Agenda as authorized by Title 5, Chapter 551 of the Texas Government Code.

14. RECONVENE

Reconvene into Regular Session and Consider Action, if any, on items discussed in Executive Session.

15. ADJOURN
