

EXHIBIT

"A"

STATE OF TEXAS

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§

COUNTY OF WILLIAMSON

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**SUPPLEMENTAL CONTRACT NO. 2
TO CONTRACT FOR ENGINEERING SERVICES**

FIRM: K FRIESE & ASSOCIATES, INC. ("Engineer")
ADDRESS: 1120 S. Capital of Texas Highway, Building 2, Suite 100, Austin, TX 78746
PROJECT: Kenney Fort Boulevard Extension

This Supplemental Contract No. 2 to Contract for Engineering Services is made by and between the City of Round Rock, Texas, hereinafter called the "City" and K Friese & Associates, Inc., hereinafter called the "Engineer".

WHEREAS, the City and Engineer executed a Contract for Engineering Services, hereinafter called the "Contract", on the 9th day of April, 2015 for the Kenney Fort Boulevard Extension Project in the amount of \$450,961.00; and

WHEREAS, the City and Engineer executed Supplemental Contract No. 1 on February 11, 2016 to amend the scope of services and to increase the compensation by \$79,745.00 to a total of \$530,706.00; and

WHEREAS, it has become necessary to amend the Contract to modify the provisions for the scope of services and to increase the compensation by \$505,778.00 to a total of \$1,036,484.00;

NOW THEREFORE, premises considered, the City and the Engineer agree that said Contract is amended as follows:

I.

Article 1. City Services and Exhibit A. City Services shall be amended as set forth in the attached Addendum To Exhibit A.

II.

Article 2. Engineering Services and Exhibit B. Engineering Services shall be amended as set forth in the attached Addendum to Exhibit B. Exhibit C. Work Schedule shall be amended as set forth in the attached Addendum to Exhibit C.

III.

Article 4. Compensation and Exhibit D. Fee Schedule shall be amended by increasing by \$505,778.00 the lump sum amount payable under the Contract for a total of \$1,036,484.00, as shown by the attached Addendum to Exhibit D.

IN WITNESS WHEREOF, the City and the Engineer have executed this Supplemental Contract in duplicate.

[signature pages follow]

K FRIESE & ASSOCIATES, INC.

By: TM. Owens
Thomas M. Owens, P.E., Executive Vice President

2 AUG 19
Date

CITY OF ROUND ROCK

APPROVED AS TO FORM:

By: _____
Craig Morgan, Mayor

Stephan L. Sheets, City Attorney

Date

ADDENDUM TO EXHIBIT A
City Services

The City of Round Rock (City) will provide the following information and other assistance to K Friese & Associates, (Engineer) that the City deems appropriate and necessary.

1. Any readily available pertinent existing information relating to the services to be performed by the Engineer; the City will provide one copy of such information in a format chosen by the City.
2. Clear direction and/or response to questions or requests made by the Engineer in the course of the Engineer's performance of services.
3. Timely review of deliverable that have been properly completed and submitted by the Engineer, and timely provision of comments, if any, to the Engineer resulting from said reviews.

ADDENDUM TO EXHIBIT B

Engineering Services

UNDERSTANDING

The original contract for this project was for preparation of a single set of PS&E for Kenney Fort Boulevard from Chandler Creek Boulevard to Old Settlers Boulevard. The project alignment was based on a schematic study previously completed by KFA. The plans were to design a four lane divided roadway that would be expandable to six lanes in the future.

SEGMENT 4A

After the start of design, KFA was notified that the adjacent Old Settlers Park was about to undergo an expansion adjacent to the roadway. As result, the alignment of Kenney Fort Boulevard needed to be adjusted to accommodate the planned park expansion. During review of the park design, KFA identified a major drainage conflict with the park design and future roadway cross-drainage. KFA met several times with City staff and the park engineer to develop solutions, including diverting roadway cross-drainage to another location and design of a new downstream drainage channel to accommodate the roadway drainage. In order to provide vehicular access to the park, KFA was asked to separate out the portion of the roadway into a separate construction set (called Kenney Fort Boulevard Segment 4A) and provide construction phase services for that separate phase. All tasks described herein with "Segment 4A" are associated with this separate construction set.

SEGMENT 4B

After completion of the 60% submittal, KFA was notified by the City that the adjacent Cressman property had recently been acquired by a developer and desired to realign the road through the Cressman property to accommodate their development plans. Furthermore, the developer and the City agreed to design and construct a segment of Kenney Fort Segment 4 from the proposed subdivision driveway and Old Settlers Boulevard. This segment consists of about 7,000 linear feet of alignment and would construct the western three lanes of the future six lane roadway. Items under this heading will be effort to revise the design to a new alignment and produce an additional set of plans, bid phase, and construction phase services.

SEGMENT 4C

KFA was also notified that the City would like to revise the design of Kenney Fort Boulevard from a 4-lane divided arterial to a 6-lane divided arterial and extend the limits south to approximately 250-feet south of Joe DiMaggio Boulevard. The project limits will be extended by approximately 800-feet south of the current terminus. The extension of the project will include widening the existing bridge over Chandler Creek, adding a right turn lane from northbound Kenney Fort Boulevard to eastbound Joe DiMaggio Boulevard, traffic signal modifications at the intersection of Kenney Fort Boulevard and Joe DiMaggio Boulevard, and design of the full 6-lane divided arterial throughout. Additional storm drain design will be required to accommodate the 6-lane divided arterial as the 4-lane section utilized center ditches to convey storm water. This supplemental will include PS&E for the 6-lane divided arterial including illumination, sidewalk, shared use path, storm drain, traffic signal,

bridge and retaining wall design as it applies to the additional services. The PS&E will include re-submittal of the 60% submittal with the described design revisions.

ANTICIPATED MILESTONE SUBMITTALS

Segment 4A – Complete, no further submittals

Segment 4B – 90%, 100%

Segment 4C –60%, 90%, 100%

SCOPE OF SERVICES

TASK 1 – PROJECT MANAGEMENT

1. Project Meetings and Park Coordination (Segment 4A) – KFA attended extra meetings with City staff and conducted ongoing coordination with the park expansion engineer to specifically discuss coordination between the two projects.
2. Project Management/Administration (Segment 4C Extend Limits) – This task includes routine communication with the City; managing sub-consultants, manpower, budgets and schedules; invoicing; implementing and monitoring of QA/QC efforts; and other activities associated with managing the project. A design phase extension of 12 months is assumed for this proposal.
3. Project Meetings and Status Reports - KFA attended a supplemental scoping meeting with City staff. KFA will provide status reports to the City with invoices documenting progress, budget and schedule for the additional 60% submittal.

TASK 2 – FINAL DESIGN

1. Construction Plans (Segment 4A) – KFA produced an additional plan set and cost estimates for the Kenney Fort Boulevard Segment 4A project. The sheets in this plan set included:
 - a. COVER SHEET (1 Sheet)
 - b. INDEX OF SHEETS (1 Sheet)
 - c. GENERAL NOTES (1 Sheet)
 - d. QUANTITY SUMMARY SHEETS (5 Sheets)
 - e. PROJECT LAYOUT (1 Sheet)
 - f. TYPICAL SECTIONS (1 Sheet)
 - g. ROADWAY PLAN AND PROFILE (2 Sheets)
 - h. INTERSECTION DETAIL (1 Sheet)
 - i. DRIVEWAY PLAN AND PROFILES (1 Sheet)
 - j. ROADWAY DETAILS (3 Sheets)
 - k. OFFSITE DRAINAGE AREA MAPS (2 Sheets)
 - l. ONSITE DRAINAGE AREA MAPS (1 Sheet)

- m. DRAINAGE PLAN (1 Sheet)
 - n. DRAINAGE PROFILES (1 Sheet)
 - o. CULVERT LAYOUT (1 Sheet)
 - p. CULVERT HYDRAULIC DATA (1 Sheet)
 - q. CHANNEL GRADING PLAN (1 Sheet)
 - r. DRAINAGE DETAILS (16 Sheets)
 - s. SWPPP (1 Sheet)
 - t. EROSION AND SEDIMENTATION CONTROL PLAN (1 Sheet)
 - u. EROSION AND SEDIMENTATION CONTROL DETAILS (3 Sheets)
 - v. SIGNING AND PAVEMENT MARKING PLAN (1 Sheet)
 - w. SIGNING AND PAVEMENT MARKING DETAILS (5 Sheets)
 - x. ILLUMINATION LAYOUT (1 Sheet)
 - y. ILLUMINATION DETAILS (3 Sheets)
 - z. CROSS SECTIONS (5 Sheets)
2. Opinion of Probable Construction Cost (Segment 4A) – KFA prepared and submitted an engineer's opinion of probable construction cost in Microsoft Excel format at each submittal to the City.
3. Revise Alignment (Segment 4B) – KFA will:
- a. Revise roadway alignment and update 3D models to accommodate new alignment
 - b. Revise drainage analysis and 3D models to accommodate new alignment
4. Construction Plans (Segment 4B) – KFA will revise the roadway alignment and an additional plan set and cost estimates for the Kenney Fort Boulevard Segment 4B project. As this segment was previously designed to 60%, the submittal schedule for this segment will include 90% and 100% plans. The sheets in this plan set include:
- a. COVER SHEET (1 Sheet)
 - b. INDEX OF SHEETS (1 Sheet)
 - c. GENERAL NOTES (1 Sheet)
 - d. QUANTITY SUMMARY SHEETS (5 Sheets)
 - e. PROJECT LAYOUT (1 Sheet)
 - f. TYPICAL SECTIONS (1 Sheet)
 - g. ROADWAY PLAN AND PROFILE (7 Sheets)
 - h. INTERSECTION DETAIL (2 Sheets)
 - i. DRIVEWAY PLAN AND PROFILES (1 Sheet)
 - j. ROADWAY DETAILS (3 Sheets)
 - k. OFFSITE DRAINAGE AREA MAPS (2 Sheets)
 - l. ONSITE DRAINAGE AREA MAPS (1 Sheet)
 - m. DRAINAGE PLAN (4 Sheets)
 - n. DRAINAGE PROFILES (4 Sheets)
 - o. CULVERT LAYOUT (1 Sheet)
 - p. CULVERT HYDRAULIC DATA (1 Sheet)
 - q. DRAINAGE DETAILS (20 Sheets)

- r. SWPPP (1 Sheet)
 - s. EROSION AND SEDIMENTATION CONTROL PLAN (4 Sheets)
 - t. EROSION AND SEDIMENTATION CONTROL DETAILS (3 Sheets)
 - u. SIGNING AND PAVEMENT MARKING PLAN (4 Sheets)
 - v. SIGNING AND PAVEMENT MARKING DETAILS (5 Sheets)
 - w. ILLUMINATION LAYOUT (4 Sheets)
 - x. ILLUMINATION DETAILS (3 Sheets)
 - y. CROSS SECTIONS (23 Sheets)
5. Environmental Documentation – Cox/McLain Environmental Consulting, Inc. (CMEC) will provide environmental consulting services for the additional improvements of Kenney Fort Boulevard. The following assessments conducted under this agreement will be reported and submitted in an Environmental Technical Memorandum:
- a. Archeological Resources – CMEC cultural resources personnel will conduct searches of the THC's Sites Atlas and other data sources to identify previously documented archeological sites, cemeteries, historical markers, properties and districts listed on the National Register of Historic Places (NRHP), and State Antiquities Landmarks (SALs) for the newly added southern extension, which falls outside the previous survey area of potential effects (APE). Results of the search will be integrated with soil information, topographic maps, aerial photographs, and other pertinent data in a coordination letter to the THC in compliance with the Antiquities Code of Texas. Additionally, a copy of the coordination letter and maps will be provided to USACE Cultural Resource Specialists. Any additional investigations required by either agency (e.g., a field survey under Section 106 of the National Historic Preservation Act) could be provided under a separate scope of work.
 - b. Water Resources – CMEC will collect data on surface water streams and other existing water resources and the potential for pollution during construction and from the completed facility. The 100-year flood plain, as delineated by FEMA, will be identified and the impacts of the proposed project will be assessed. Potential for impacts to groundwater will be discussed; no Geologic Assessment is required (the project is outside the Edwards Aquifer Recharge, Contributing, or Transition Zones). CMEC wetlands specialists will perform evaluations of wetlands and waters of the U.S. in all areas potentially affected by the proposed project. Ordinary High Water Marks within the proposed right-of-way will be mapped using GPS and GIS techniques, and potential impacts to any features will be evaluated. Wetland field delineations will be conducted, and wetland data sheets will be prepared and included in the report appendix. This task will include a determination of the type of permit (if any) that will be needed from the USACE. The permit determination will be summarized in the

report. Any 404 permit preparation would be carried out under an additional scope and budget.

- c. **Biological Resources** – CMEC biologists will describe project area biological resources including vegetation communities and wildlife habitat. Ecologically sensitive resources, including potential threatened or endangered species habitat, will be identified and their potential to be affected by project construction and operation will be assessed and described in the environmental report. A wildlife habitat assessment for suitability for endangered species will be conducted by CMEC. Additional habitat assessment services will be provided by a registered geologist with a specialization in hydrogeology and karst species habitat requirements. This assessment will focus on the unnamed tributary to Chandler Branch and a potential spring and spring run that have been observed there. The assessment will focus on the likelihood that the spring may provide habitat for federally protected, aquifer-dependent species including the Jollyville Plateau salamander. Should the assessment determine that the spring and spring run are potential habitat for protected species, coordination with the USACE and/or USFWS may be required.
 - d. **Hazardous Materials** – CMEC will perform an ASTM E1527-compliant database search for potential hazardous materials sites within the expanded project footprint and regulatory radii.
 - e. **Environmental Tech Memo Preparation/Comment Response** – This task includes the writing and production of a complete environmental technical memorandum, as well as revisions in response to comments from the Engineer and the City of Round Rock. Only generalized, preliminary mitigation measures will be presented where adverse impacts may potentially occur; detailed mitigation plans are not part of this Scope of Services. This task includes the submittal of electronic copies of the draft and final environmental tech memo (the Engineer/City of Round Rock review).
6. **Design Survey** – Inland Geodetics, LP (Inland) will perform additional design survey consisting of design topographic data of the existing Kenney Fort Boulevard roadway and bridge, including the intersection of Joe DiMaggio Boulevard. The survey will include improvements, drainage features, trees 8" and up, visible utilities, "one call" markings, rock outcroppings, driveways, and other entities as directed by the project engineer. Back of curbs, striping, centerline spot elevations and sign inventory will be collected for approximately 1000 feet south of the southern limits for traffic control planning. Two creek cross sections up and downstream from the face of bridge will also be obtained. The design survey will depict the approximate limits of existing right of way.
7. **Geotechnical Investigation** – Arias Geoprosessionals, Inc. (Arias) will perform a Global Stability Analysis to support the retaining wall design at the north and

south abutments of the bridge over Chandler Creek as well as provide a D50 grain size test for use in Scour Analysis. Two borings are proposed to a depth of 50-feet. Due to site conditions, it is anticipated that at least one boring will require traffic control coordinated with the City of Round Rock Transportation Department. This scope does not include recommendations for bridge foundations or pavement structure. A report will be generated summarizing the following:

- Description of the field exploration program;
- Description of the laboratory testing program and results;
- Soil boring plan that depicts boring locations on a base map provided by Client. Borings will be located using a hand-held GPS device accurate to about 10 horizontal meters;
- Soil boring logs with detailed descriptions and soil classifications based on the Unified Soil Classification System (ASTM D 2487);
- Results of grain size and hydrometer tests for use in scour analysis;
- Discussion of area geology, and subsurface information including stratigraphy and generalized subsurface conditions;
- Depth of groundwater, if encountered;
- Results of global stability analyses of the proposed embankments on configurations determined to be critical or representative sections;
- Recommendations for embankment construction and slopes; and
- Comments regarding excavation potential and groundwater.

8. Chandler Creek Impact Analysis – KFA will provide additional drainage analysis including:

- a. Hydrologic impact analysis of additional impervious cover from Kenney Fort Boulevard at Chandler Creek utilizing the 2016 Upper Brushy Creek Water Control and Improvement District (UBCWCID) HEC-HMS model.
- b. Hydraulic impact analysis at Chandler creek utilizing the 2016 UBCWCID HEC-RAS model. The hydraulic impact analysis will include evaluation of the impact of fill in the floodplain and bridge widening as defined by the 2016 UBCWCID models. It is not anticipated that the hydrologic impact will need to be integrated into the hydraulic impact analysis.

9. Construction Plans (SEGMENT 4C) – KFA will produce the following sheets (11" x 17" Full Size) as appropriate for the revised roadway design. QA/QC is included in each sheet task.

a. MISCELLANEOUS PLANS

1. QUANTITY/SUMMARY SHEETS (5 Sheets) –

- 1. Roadway Quantities
- 2. Summary of Drainage Structures and Erosion Control
- 3. Summary of Pavement Markings and Traffic Controls
- 4. Summary of Small Signs

5. Summary of Bridge and Retaining Wall Quantities

b. ROADWAY PLANS & GEOMETRY

1. TYPICAL SECTIONS (1 Sheet) – Proposed typical sections
2. ROADWAY PLAN AND PROFILE SHEETS (2 sheets)

c. GRADING AND DETAILS

1. CROSS-SECTIONS – (3 Sheets) KFA will complete design cross-sections at 100-foot stations and other locations as necessary for the determination of cut and fill quantities and to further refine the design vertical geometry.
2. INTERSECTION DETAIL SHEETS (1 Sheet) – KFA will provide intersection details for the Kenney Fort at Joe DiMaggio intersection including a 1"=40' scale plan view and spot grading at all PC, PT, edge of pavement and street tie-ins.
3. ROADWAY DETAILS (1 Sheets) – KFA will include miscellaneous detail sheets for the project.

d. DRAINAGE PLANS

1. OFFSITE DRAINAGE AREA MAP (2 Sheet)
2. ONSITE DRAINAGE AREA MAP (1 Sheet)
3. BRIDGE HYDRAULIC DATA SHEET (1 Sheet)
4. BRIDGE SCOUR SHEET (1 Sheet)
5. STORM SEWER PLAN & PROFILE SHEETS (2 Sheets)
6. STORM SEWER HYDRAULIC CALCULATIONS (1 Sheet)
7. DRAINAGE DETAIL SHEETS (1 Sheets)

e. RETAINING WALL PLANS

1. RETAINING WALL LAYOUTS (4 Sheets)
2. RETAINING WALL DETAILS (4 Sheets)

f. BRIDGE PLANS

1. BRIDGE LAYOUT – NB WIDENING (2 Sheets)
2. NB TEST HOLE DATA (1 Sheet)
3. NB WIDENING EST. QUANTITIES AND BRG SEAT ELEV (1 Sheet)
4. NB WIDENING REMOVAL PLAN (1 Sheet)
5. NB WIDENING ABUTMENT DETAILS (2 Sheets)
6. NB WIDENING BENT DETAILS (1 Sheet)
7. NB WIDENING SPAN DETAILS (1 Sheet)
8. NB WIDENING GIRDER LAYOUT (1 Sheet)
9. BRIDGE LAYOUT – SB WIDENING (2 Sheets)
10. SB TEST HOLE DATA (1 Sheet)
11. SB WIDENING EST. QUANTITIES AND BRG SEAT ELEV. (1 Sheet)

- 12. SB WIDENING REMOVAL PLAN (1 Sheet)
- 13. SB WIDENING ABUTMENT DETAILS (2 Sheets)
- 14. SB WIDENING BENT DETAILS (1 Sheet)
- 15. SB WIDENING SPAN DETAILS (1 Sheet)
- 16. SB WIDENING GIRDER LAYOUT (1 Sheet)
- 17. SB WIDENING MEDIAN DETAILS (1 Sheet)
- 18. BRIDGE STANDARDS, C411 (3 Sheets)
- 19. MODIFIED BRIDGE STANDARD, BAS-A (MOD) (1 Sheet)

g. TRAFFIC CONTROL PLANS

- 1. TRAFFIC CONTROL PLAN SHEETS (3 Sheets)

h. SIGNING, MARKING AND SIGNALIZATION

- 1. SIGNING AND PAVEMENT MARKING LAYOUTS (1 Sheet)
- 2. TRAFFIC SIGNAL CONDITION DIAGRAM (1 Sheet)
- 3. TRAFFIC SIGNAL LAYOUT (1 Sheet)
- 4. TRAFFIC SIGNAL WIRING AND SIGN DETAILS (1 Sheet)

i. ILLUMINATION

- 1. ILLUMINATION PLANS (1 Sheet)

j. EROSION CONTROL SHEETS

- 1. EROSION CONTROL PLAN SHEETS (1 Sheet)

10. Opinion of Probable Construction Cost – KFA will prepare and submit an engineer's opinion of probable construction cost for the 60% resubmittal.

11. Utility Coordination – KFA will amend the utility conflict matrix and coordinate with utility owners to relocate facilities which cannot be avoided by reasonable roadway design revisions.

TASK 3 – CONSTRUCTION PHASE

1. Construction Phase Services (Segment 4C) – KFA will assist the City of Round Rock with contract administration during the construction phase of the project. KFA's services include:

- a. Submittal Review – KFA maintained a log of all Contractor submittals, tracked review progress, reviewed and approved submittals, and distributed submittals to the appropriate parties.

- b. Requests for Information (RFIs) – KFA will provide answers to requests for information (RFI's) from Contractor as related to possible conflicts and clarifications needed between plans and specifications.
- c. Record Drawings. KFA used the Contractor's redline as-built drawings to document as-built conditions in the final record drawings.

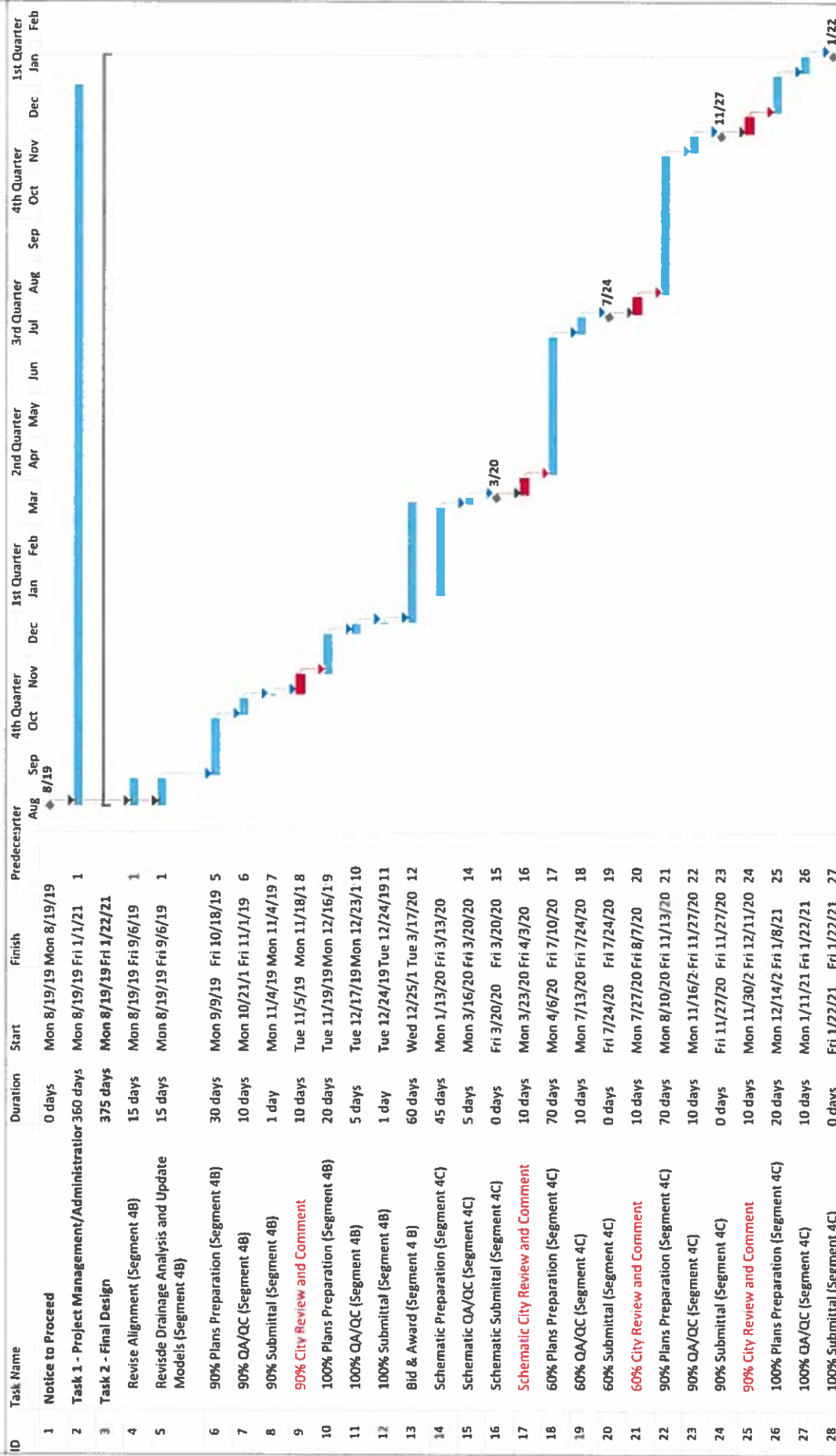
ASSUMPTIONS

1. Preparation of a FEMA permit including a Conditional Letter of Map Revision (CLOMR) or a Letter of Map Revision (LOMR) is not anticipated to be necessary and is not included in this proposal.
2. Water quality and storm water detention design is not included in this proposal.
3. Waterline design is not included in this scope.
4. Revision of Chandler Creek Bridge to accommodate water line is not included with this scope.
5. Relocation of reuse water lines is not anticipated at this time. If it becomes necessary to include, a separate scope and fee will be prepared.
6. Temporary signals for traffic control are not anticipated at this time, if it becomes necessary to include, a separate scope and fee will be prepared.
7. This scope does not include documentation and associated public involvement activities for compliance with Chapter 26 of the Texas Parks and Wildlife Code. If it becomes necessary to include, a separate scope and fee will be prepared..
8. Assumes that a tech memo (for a project using only local {City} funds) would be adequate, and no NEPA document (under USACE or TxDOT review) would be required. If a determination is made that USACE permitting would trigger the need for a NEPA evaluation, an additional scope and budget would be required.

ADDENDUM TO EXHIBIT C
Work Schedule

Attached Behind This Page

Kennedy Fort Boulevard Extension
Exhibit C
Work Schedule



Date: Tue 7/16/19	Task	External Tasks	Manual Task	Finish-only
	Split	External Milestone	Duration-only	Deadline
	Milestone	Inactive Task	Manual Summary Rollup	Progress
	Summary	Inactive Milestone	Manual Summary	Manual Progress
	Project Summary	Inactive Summary	Start-only	

ADDENDUM TO EXHIBIT D
Fee Schedule

Attached Behind This Page

**KENNEY FORT BOULEVARD EXTENSION
EXHIBIT D
FEE SCHEDULE**

Billing Rate		\$ 180.00	\$ 160.00	\$ 110.00	\$ 100.00	\$ 85.00	\$ 60.00						
Task		Principal Hours	Project Manager Hours	Senior Engineer Hours	Project Engineer Hours	EST Hours	Sr. CAD/ Technician Hours	Client Hours	Total Labor Hours	Total Labor Cost	Sub-Consultant Cost	Expenses Cost	Total Cost
Task 1 - Project Management													
1	Project Management/Administration (Segment 4A)		8	32		80			120	\$12,640		\$50	\$12,690
2	Project Management/Administration (Segment 4C)			20		20		6	62	\$6,120	\$1,750		\$7,870
3	Project Meetings & Status Reports (5 Meetings)			20	20			6	46	\$5,780	\$3,175	\$100	\$9,055
Subtotal Task 1		0	8	88	28	80	0	12	253	\$24,540	\$4,925	\$150	\$29,615
Task 2 - Final Design													
1	Construction Plans (SEGMENT 4A)		24	60		80			164	\$22,100	\$9,485	\$50	\$31,635
2	Opinion of Probable Construction Cost (Segment 4A)			8		12			20	\$2,480			\$2,480
3	a. Revise roadway alignment and update 3D models			8	24	40			72	\$7,920			\$7,920
	b. Revise drainage analysis and update models			8	24	40			72	\$7,920			\$7,920
4	Construction Plans (SEGMENT 4B)								0	\$0			\$0
a	COVER SHEET (1)			0.5	1	1			2.5	\$200			\$200
b	INDEX OF SHEETS (1)				0.5	1			1.5	\$155			\$155
c	GENERAL NOTES (1)			0.5	0.5	1			2	\$235			\$235
d	QUANTITY SUMMARY SHEETS (5)			2	4	4			10	\$1,100			\$1,100
e	PROJECT LAYOUT (1)			0.5	2	4			6.5	\$700			\$700
f	TYPICAL SECTIONS (1)			2	4	4			10	\$1,100			\$1,100
g	ROADWAY PLAN AND PROFILE (7)			20	40	60			120	\$13,600			\$13,600
h	INTERSECTION DETAIL (2)			8	12	16			36	\$4,200			\$4,200
i	DRIVEWAY PLAN AND PROFILES (1)			1	2	4			7	\$780			\$780
j	ROADWAY DETAILS (3)			0.5	0.5	1			2	\$235			\$235
k	OFFSITE DRAINAGE AREA MAPS (2)			0.5	4	4			8.5	\$920			\$920
l	ONSITE DRAINAGE AREA MAPS (4)			0.5	8	8			14.5	\$1,540			\$1,540
m	DRAINAGE PLAN (4)			4	20	40			64	\$6,840			\$6,840
n	DRAINAGE PROFILES (4)			4	20	40			64	\$6,840			\$6,840
o	CULVERT LAYOUT (1)			2	4	6			12	\$1,300			\$1,300
p	CULVERT HYDRAULIC DATA (1)			0.5	0.5	1			2	\$235			\$235
q	DRAINAGE DETAILS (20)			0.5	2	4			6.5	\$700			\$700
r	SWPPP (1)			0.5	4	4			6.5	\$620			\$620
s	EROSION AND SEDIMENTATION CONTROL PLAN (4)			6	12	16			34	\$3,880			\$3,880
t	EROSION AND SEDIMENTATION CONTROL DETAILS (3)			0.5	0.5	1			2	\$235			\$235
u	SIGNING AND PAVEMENT MARKING PLAN (4)			16	16	32			64	\$7,520			\$7,520
v	SIGNING AND PAVEMENT MARKING DETAILS (5)			0.5	0.5	1			2	\$235			\$235
w	ILLUMINATION LAYOUT (4)			2	2				4	\$540	\$11,000		\$11,540
x	ILLUMINATION DETAILS (3)								0	\$0	\$512		\$512
y	CROSS SECTIONS (23)			4	8	12			24	\$2,720			\$2,720
3	Environmental Documentation (CMC)				4				4	\$440	\$12,967		\$13,407
4	Design Survey (Interd)				4				4	\$440	\$20,588		\$21,028
5	Geotechnical Investigation (Anas)				4				4	\$440	\$8,500		\$8,940
6	Chandler Creek Impact Analysis				4				4	\$440			\$440
a	Hydrologic Impact Analysis		4	4	16	30			54	\$6,100			\$6,100
b	Hydraulic Impact Analysis		4	8	24	40			76	\$8,680			\$8,680
7	Construction Plans (SEGMENT 4C)											\$500	\$500
a.1	QUANTITY SUMMARY SHEETS (5)		1	2	4	8	8		23	\$2,430			\$2,430
b.1	TYPICAL SECTIONS (1)		1	2	4	12	8		27	\$2,830			\$2,830
2	ROADWAY PLAN AND PROFILE SHEETS (2)		1	8	16	24	32		81	\$8,350			\$8,350
c.1	CROSS-SECTIONS (3)			4	16	16	8		44	\$4,680			\$4,680
2	INTERSECTION DETAIL SHEETS (1)		1	2	4	4	12		23	\$2,370			\$2,370
3	ROADWAY DETAILS (1)			2	2	2	4		10	\$1,080			\$1,080
d.1	OFFSITE DRAINAGE AREA MAP (2)		1	1	8	8	8		24	\$2,480			\$2,480
2	ONSITE DRAINAGE AREA MAP (1)		1	6	8	24	24		63	\$6,470			\$6,470
3	BRIDGE HYDRAULIC DATA SHEET (1)		1	2	4	8	8		21	\$2,230			\$2,230
4	BRIDGE SCOUR SHEET (1)		1	2	4	8	8		21	\$2,230			\$2,230
5	STORM SEWER PLAN AND PROFILES (2)		2	4	16	28	32		82	\$8,300			\$8,300
6	STORM SEWER HYDRAULIC CALCULATIONS (1)		2	2	6	6	4		22	\$2,500			\$2,500
7	DRAINAGE DETAIL SHEETS (1)			2	2	2	4		10	\$1,080			\$1,080
e.1	RETAINING WALL LAYOUTS (4)		4	8	10	20	30		72	\$7,600			\$7,600
2	RETAINING WALL DETAILS (JACOBS)								0	\$0	\$9,912		\$9,912
f	BRIDGE PLANS (JACOBS)										\$116,307		\$116,307
g.1	TRAFFIC CONTROL PLAN SHEETS (3)		4	6	20	36	32		98	\$10,240			\$10,240
h.1	SIGNING AND PAVEMENT MARKING LAYOUTS (1)		1	2	4	10	16		33	\$3,310			\$3,310
2-4	TRAFFIC SIGNAL PLANS (RTG)								0	\$0	\$24,933		\$24,933
i.1	ILLUMINATION PLANS (1) (RTG)								0	\$0	\$33,064		\$33,064
j	EROSION CONTROL PLAN SHEETS (2)			1	4	6	12		23	\$2,220			\$2,220
k	Opinion of Probable Construction Cost			2		8	4		14	\$1,480			\$1,480
7	Utility Coordination				6	12	12		30	\$3,480			\$3,480
Subtotal Task 2		0	63	258.5	412	747	254	0	1782.5	\$188,330	\$344,945	\$1440	\$534,655
Task 3 - Construction Phase													
a	Submittal Review (Segment 4C)			20		2			22	\$3,400			\$3,400
b	Requests for Information (Segment 4C)			8		6			14	\$2,080			\$2,080
c	Record Drawings (Segment 4C)			4			8		12	\$1,320			\$1,320
d	Submittal Review (Segment 4C)			4	8	8			20	\$2,320	\$7,015		\$9,335
e	Requests for Information (Segment 4C)			8	16	12	4		40	\$4,580	\$19,064		\$23,644
f	Record Drawings (Segment 4C)			2	8	4	8	4	26	\$2,560		\$150	\$2,710
Subtotal Task 3		0	3	44	33	34	35	4	139	\$16,280	\$22,079	\$150	\$38,509
Project Totals		0	66	300	484	841	274	16	2021.5	\$204,610	\$377,024	\$1650	\$583,284