

# EXHIBIT 1

## SERVICES TO BE PROVIDED BY ENGINEER DANNENBAUM ENGINEERING COMPANY – AUSTIN, LLC

### City of Pflugerville Community Block Development Grant (CBDG) 2018 Pavement Rehabilitation

#### PROJECT DESCRIPTION

The City of Pflugerville (the City) is requesting design services for the CBDG 2018 Pavement Rehabilitation program. The streets to be included in the rehabilitation design are **Mill Creek Road (Project 1)**, **Green Meadows Lane (Project 2)** and **El Malino Drive (Project 3)** – See **Map 1**. Mill Creek Road and Green Meadows Lane will be constructed under one contract. El Malino Drive, Bellemeade Boulevard, Yellow Sage Street, and Frost Circle will be constructed under separate future contracts. This professional services agreement (PSA) will include rehabilitation plans for all six of these roads developed to the 30% design stage. Additionally, rehab plans for El Malino Drive will be developed to the 90% stage, including design plans and construction cost estimates. Finally, the full Plans, Specifications, and Estimates (PS&E) package, as well as bidding and construction phase services, will be provided for Mill Creek Road and Green Meadows under this PSA. Geotechnical investigations and analysis, pavement designs, topographic surveys, and subsurface utility engineering (SUE) will be provided for Areas 1, 2 and 3 as required – See **Maps 2 & 3**.

#### I. PROJECT MANAGEMENT

- A. **Coordination** with The City of Pflugerville and sub-consultants. Coordination will include correspondence, telephone conversations, faxes, and emails.
- B. **Site Visits:** The Engineer shall conduct one site visit to review the area and potential drainage issues.
- C. **Project meetings:** The Engineer shall attend two project meetings with the Owner to inform the Owner of the project status and conduct two meetings with sub consultants.
- D. **Neighborhood Meetings:** The Engineer shall attend one neighborhood meeting and prepare simple exhibits. The City will be responsible for the notifications and site of the meetings.
- E. **Project Management:**
  - 1. **Scheduling.** The Engineer shall maintain an updated version of the Design Schedule for the project.
  - 2. **Progress Reports and Invoices.** The Engineer shall prepare and submit brief monthly progress reports and invoices.

## II. CONSTRUCTION DOCUMENTS

- A. **Research Utilities/Data Collection.** The Engineer shall collect, review and evaluate the data. The Engineer shall notify the City whenever the Engineer finds disagreement with collected information.
- B. **Cover Sheet & General Notes:** The Cover Sheet and General Notes will conform to the City's criteria.
- C. **Typical Sections:** Typical sections shall be required for all proposed and existing roadways. Typical sections shall include width of travel lanes, shoulders and ROW. The typical section shall also include PGL, centerline, pavement design, side slopes, sodding/seeding limits, station limits, limits of embankment and excavation, etc. The typical sections will generally be the existing pavement width with ribbon curb. The Engineer will look at the possibility of adding sidewalk to one side of the street.
- D. **Grading Plans:** The Engineer shall provide a combined plan , profile and grading plan for the roadways with spot elevations. No pavement markings exist and it is anticipated that no markings will be added. These plans will be prepared at a scale of 1"=40'.
- E. **Drainage:** Detailed drainage design will include the identification of drainage areas, preparation of drainage area maps, and hydrologic calculations. Possible storm sewer design on Mill Road and the design of ditches with profiles will be prepared. Other subsurface drainage where desirable will included..
- F. **Traffic Control Plan** – The Engineer will prepare simple traffic control plans with erosion and sedimentation based on the approved sequence of construction. Standards will be incorporated into the traffic control plan.
- G. **Quantities & Cost Estimate:** The Engineer shall compute all quantities and prepare Cost Estimates.
- H. **Project Manual:** The Engineer shall prepare the project manual including the City's front end documents, bid tab and standard specifications
- I. **Review Comments.** Engineer shall address 30%, 90%, and 100% review comments from the City and provide responses.
- J. **QA/QC Review.** ENGINEER shall provide PS&E Quality Assurance / Quality Control for the 30%, 90%, and 100% submittals.
- K. **Other Services to be Provided:**
  - 1. Topographic Survey (McGray & McGray Land Surveyors, Inc.)
  - 2. Subsurface Utility Engineering (The Rios Group, Inc.)
  - 3. Geotechnical Engineering (Corsair Consulting LLC)
  - 4. Pavement Design and Life Cycle Cost (HVJ Associates, Inc.)

### **III. BID PHASE SERVICES**

1. Prepare PDF versions of all construction documents, including project manual, for bidding.
2. Attend the pre-bid meeting.
3. Respond to bidder's questions during the bid period.
4. Prepare and distribute project addenda during bid period.
5. Analyze contractor bids, prepare bid tabulation, check references, and make recommendation for award to the responsive apparent low bidder.
6. Furnish paper copies of conformed construction documents to city and contractor at pre-construction conference. (6 copies - 2 to contractor and 4 to city)

### **IV. CONSTRUCTION PHASE SERVICES**

1. Attend the pre-construction conference.
2. Attend 5 Construction Meetings/Site visits, prepare agendas and minutes of meetings
3. Review 6 Contractor Pay Applications
4. Respond to 6 Requests for Information (RFI)
5. Prepare 1 Change Order if necessary
6. Attend Final Walk-Through and prepare punch list
7. Prepare Engineer's Concurrence Letter and Record Drawings

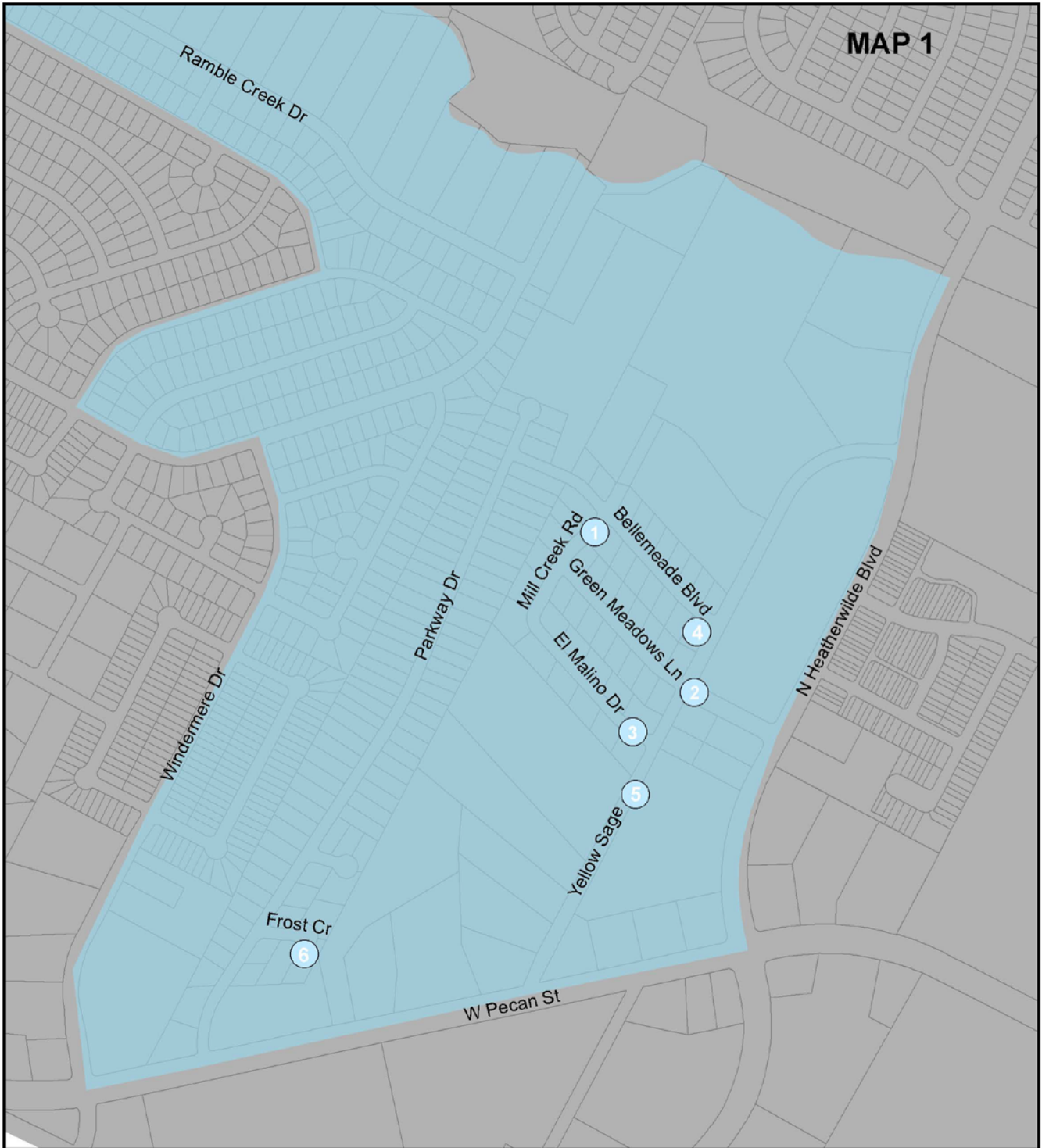
### **V. DELIVERABLES**

Deliverable Requirements:

1. All contract documents, including hard copies and electronic files, shall be turned over to the OWNER at the completion of the project.
2. Construction plan set submittals at 30%, 90% and 100% (Final).
3. The project construction manual shall be included with the 90% and 100% submittals, and furnished as part of the bid documents.
4. Engineer's Estimated Probable Cost of Construction shall be furnished at the 30%, 90% and Final submittals.
5. The estimated construction schedule shall be submitted with the 30% and Final submittals.
6. Design schedule shall be updated and furnished with each review submittal as changes warrant.
7. All plan sheets shall be developed to half-scale and plotted on 11"x17" bond paper.

### **VI. EXCLUDED SERVICES**

- A. Illumination.
- B. CLOMR or LOMR.
- C. Traffic Impact Analysis.
- D. Permits other than any necessary City permit.



## TRACT 18.60 BLOCK GROUP 1

Total Universe: 1,280  
LowMod: 995  
LMI: 77.73%

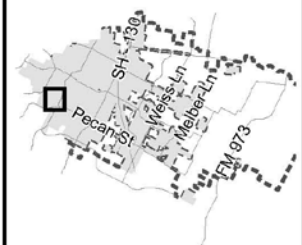
- # Project Priority
- Project Streets
- Project Area
- City Limits
- ETJ

0 400 800 Feet

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. The City of Pflugerville makes no warranty, representation, or guarantee of any kind regarding either the maps or information provided herein. The City of Pflugerville specifically disclaims all representations or warranties, express or implied, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. No responsibility is assumed for damages or other liabilities due to the accuracy, availability, completeness, use or misuse of the information provided. For additional information please call the City's Geographic Information Services Division at (512) 990-4300 or visit the City's website at [www.pflugervilletx.gov](http://www.pflugervilletx.gov).

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**PFLUGERVILLE**  
TEXAS

## Locator Map





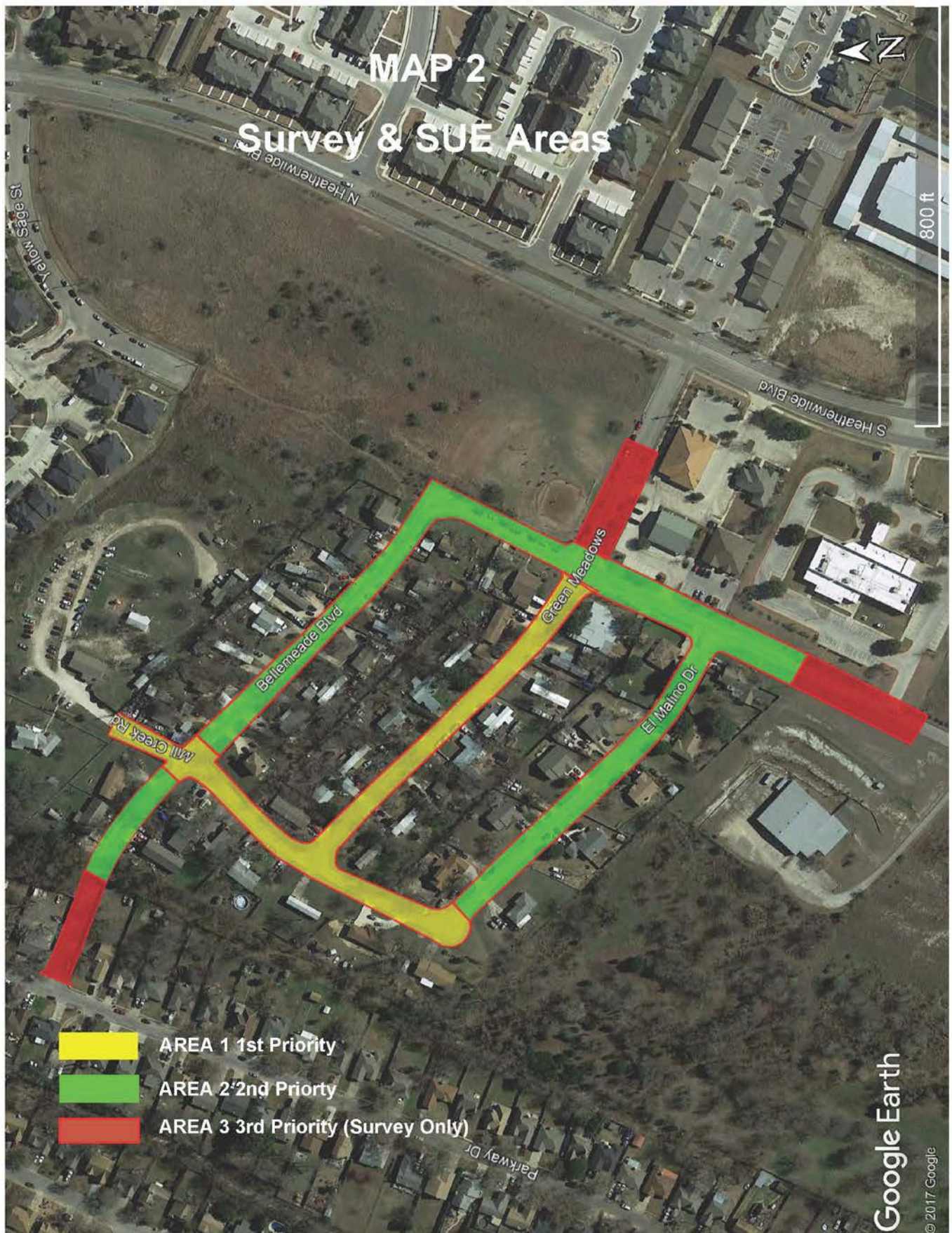
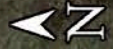




EXHIBIT "B"

MAP 3  
Survey & SUE Areas



300 ft

- AREA 1 1st Priority
- AREA 2 2nd Priority
- AREA 3 3rd Priority (Survey Only)

Google Earth

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## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

### MILL CREEK ROAD - PROJECT 1

Design and Construction Phase

### Project Task Manhour Budget

December 7, 2017

Task Description	No. of Sheets	Project Manager \$215.00	QA/QC Engineer \$225.00	Senior Proj Engr \$170.00	Project Engineer \$115.00	Design Engineer \$110.00	CAD Technician \$87.00	Clerical \$75.00	Total Man-Hours	Total Cost
Coordination with Owner		2		2				2	6	\$920.00
Site Visit (1)		1				2			3	\$435.00
Coordination with McGray		1		1		2			4	\$605.00
Coordination with Corsair		1		1		2			4	\$605.00
Coordination with Rios		1		1		2			4	\$605.00
Neighborhood Meetings & Exhibits (1)		1		1		1	2		5	\$669.00
Project Management		2		2					4	\$770.00
<b>Project Management</b>		<b>9</b>		<b>8</b>		<b>9</b>	<b>2</b>	<b>2</b>	<b>30</b>	<b>\$4,609.00</b>
Research Utilities/Data Collection					1	2			3	\$335.00
Cover Sheet & General Notes	2				1	2	3		6	\$596.00
Typical Sections	1	1			2	2	4		9	\$1,013.00
3D Model (Geopak)						8			8	\$880.00
Roadway Plan/Profile & Grading Sheets (1"=40')	2	1		2	6	32	40		81	\$8,245.00
Drainage Area Map and Hydrologic Calcs	1	1		8		16	16		41	\$4,727.00
Ditch/Storm Sewer Profiles and Hydraulic Calcs	1	1		8		16	24		49	\$5,423.00
Traffic Control Plan with ESC	1			1	2	2	2		7	\$794.00
Standard Details	1				1	1	2		4	\$399.00
Quantities & Cost Estimates		1		2	4	6	4		17	\$2,023.00
Project Manual		1		2	2			2	7	\$935.00
Address Comments		1			2	4	8		15	\$1,581.00
QA/QC			4						4	\$900.00
<b>Construction Documents</b>		<b>7</b>	<b>4</b>	<b>23</b>	<b>21</b>	<b>91</b>	<b>103</b>	<b>2</b>	<b>251</b>	<b>\$27,851.00</b>
<b>Bid Phase</b>		<b>1</b>		<b>2</b>	<b>4</b>		<b>4</b>		<b>11</b>	<b>\$1,363.00</b>
Preconstruction Conference		1		3		2			6	\$945.00
Site Visits (5)		1		5		3			9	\$1,395.00
RFI's (6)		1		3		6			10	\$1,385.00
Review Pay Applications (6)				3					3	\$510.00
Final Walk-Through		1		2					3	\$555.00
Change Orders (1)		1				4	4		9	\$1,003.00
Contract Close-Out & Record Drawings		1		2		4	4		11	\$1,343.00
<b>Construction Phase</b>		<b>6</b>		<b>18</b>		<b>19</b>	<b>8</b>		<b>51</b>	<b>\$7,136.00</b>
<b>TOTAL</b>	<b>9</b>	<b>23</b>	<b>4</b>	<b>51</b>	<b>25</b>	<b>119</b>	<b>117</b>	<b>4</b>	<b>343</b>	<b>\$40,959.00</b>

Projects 1 - 6

Projects 1 & 2 ONLY



## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation  
**MILL CREEK ROAD - PROJECT 1**  
Design and Construction Phase Engineering  
December 7, 2017

**ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES**  
**AND EXPENSES OF THE ENGINEER**

**RATES:**

Project Manager-	\$215.00 /hour
QA/QC Engineer-	\$225.00 /hour
Senior Project Engineer-	\$170.00 /hour
Project Engineer -	\$115.00 /hour
Design Engineer-	\$110.00 /hour
Design Technician -	\$120.00 /hour
CADD Technician-	\$87.00 /hour
Clerical -	\$75.00 /hour

<b>DESIGN &amp; BID PHASE:</b>	<b>\$33,823.00</b>
<b>CONSTRUCTION PHASE:</b>	<b>\$7,136.00</b>

**EXPENSES:**

Mileage:	100	miles @	\$0.575	\$57.50
Photocopies:	200	each @	\$0.06	\$12.00
Color Copies	5	each @	\$2.00	\$10.00
Delivery	4	each @	\$15.00	\$60.00
Blacklines -		each @	\$5.00	\$0.00
Project Manuals -	5	each @	\$50.00	\$250.00
1/2 Size Sets -	4	each @	\$20.00	\$80.00
<b>Sub-Total</b>			<b>\$</b>	<b>412.00</b>

<b>TOTAL ESTIMATED FEE:</b>	<b>\$41,371.00</b>
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## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

### GREEN MEADOWS LANE - PROJECT 2

Design and Construction Phase

### Project Task Manhour Budget

December 7, 2017

Task Description	No. of Sheets	Project Manager \$215.00	QA/QC Engineer \$225.00	Senior Proj Engr \$170.00	Project Engineer \$115.00	Design Engineer \$110.00	CAD Technician \$87.00	Clerical \$75.00	Total Man-Hours	Total Cost
Coordination with Owner		2		2				2	6	\$920.00
Site Visit (1)		1				2			3	\$435.00
Coordination with McGray		1		1		2			4	\$605.00
Coordination with Corsair		1		1		2			4	\$605.00
Coordination with Rios		1		1		2			4	\$605.00
Neighborhood Meetings & Exhibits (1)		1		1		1	2		5	\$669.00
Project Management		2		2					4	\$770.00
<b>Project Management</b>		<b>9</b>		<b>8</b>		<b>9</b>	<b>2</b>	<b>2</b>	<b>30</b>	<b>\$4,609.00</b>
Research Utilities/Data Collection					1	2			3	\$335.00
Cover Sheet & General Notes	2				1	2	3		6	\$596.00
Typical Sections	1	1			2	2	4		9	\$1,013.00
3D Model (Geopak)						8			8	\$880.00
Roadway Plan/Profile & Grading Sheets (1"=40')	2	1		2	6	32	40		81	\$8,245.00
Drainage Area Map and Hydrologic Calcs	1	1		8		16	16		41	\$4,727.00
Ditch/Storm Sewer Profiles and Hydraulic Calcs	1	1		8		16	24		49	\$5,423.00
Traffic Control Plan with ESC	1			1	2	2	2		7	\$794.00
Standard Details	1				1	1	2		4	\$399.00
Quantities & Cost Estimates		1		2	4	6	4		17	\$2,023.00
Project Manual				2	2			2	6	\$720.00
Address Comments					2	4	8		14	\$1,366.00
QA/QC			4						4	\$900.00
<b>Construction Documents</b>	<b>9</b>	<b>5</b>	<b>4</b>	<b>23</b>	<b>21</b>	<b>91</b>	<b>103</b>	<b>2</b>	<b>249</b>	<b>\$27,421.00</b>
<b>Bid Phase</b>		<b>1</b>		<b>2</b>	<b>4</b>		<b>4</b>		<b>11</b>	<b>\$1,363.00</b>
Preconstruction Conference		1		3		2			6	\$945.00
Site Visits (5)		1		5		3			9	\$1,395.00
RFI's (6)		1		3		6			10	\$1,385.00
Review Pay Applications (6)				3					3	\$510.00
Final Walk-Through		1		2					3	\$555.00
Change Orders (1)		1				4	4		9	\$1,003.00
Contract Close-Out & Record Drawings		1		2		4	4		11	\$1,343.00
<b>Construction Phase</b>		<b>6</b>		<b>18</b>		<b>19</b>	<b>8</b>		<b>51</b>	<b>\$7,136.00</b>
<b>TOTAL</b>	<b>18</b>	<b>21</b>	<b>4</b>	<b>51</b>	<b>25</b>	<b>119</b>	<b>117</b>	<b>4</b>	<b>341</b>	<b>\$40,529.00</b>

Projects 1 - 6

Projects 1 & 2 ONLY

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation  
**GREEN MEADOWS LANE - PROJECT 2**  
Design and Construction Phase Engineering  
December 7, 2017

**ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES**  
**AND EXPENSES OF THE ENGINEER**

**RATES:**

Project Manager-	\$215.00 /hour
QA/QC Engineer-	\$225.00 /hour
Senior Project Engineer-	\$170.00 /hour
Project Engineer -	\$115.00 /hour
Design Engineer-	\$110.00 /hour
Design Technician -	\$120.00 /hour
CADD Technician-	\$87.00 /hour
Clerical -	\$75.00 /hour

<b>DESIGN &amp; BID PHASE:</b>	<b>\$33,393.00</b>
<b>CONSTRUCTION PHASE:</b>	<b>\$7,136.00</b>

**EXPENSES:**

Mileage:	100	miles @	\$0.575	\$57.50
Photocopies:	200	each @	\$0.06	\$12.00
Color Copies	5	each @	\$2.00	\$10.00
Delivery	4	each @	\$15.00	\$60.00
Blacklines -	-	each @	\$5.00	\$0.00
Project Manuals -	5	each @	\$50.00	\$250.00
1/2 Size Sets -	4	each @	\$20.00	\$80.00
<b>Sub-Total</b>			<b>\$</b>	<b>412.00</b>

<b>TOTAL ESTIMATED FEE:</b>	<b>\$40,941.00</b>
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## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

EL MALINO DRIVE - PROJECT 3

90% Design

### Project Task Manhour Budget

December 7, 2017

Task Description	No. of Sheets	Project Manager \$215.00	QA/QC Engineer \$225.00	Senior Proj Engr \$170.00	Project Engineer \$115.00	Design Engineer \$110.00	CAD Technician \$87.00	Clerical \$75.00	Total Man-Hours	Total Cost
Coordination with Owner		2		2		1		2	7	\$1,030.00
Site Visit (1)		1				1			2	\$325.00
Coordination with McGray		1		1		1			3	\$495.00
Coordination with Corsair		1		1		1			3	\$495.00
Coordination with Rios		1		1		1			3	\$495.00
Neighborhood Meetings & Exhibits (1)		1		1		1	2		5	\$669.00
Project Management		2		1					3	\$600.00
<b>Project Management</b>		<b>9</b>		<b>7</b>		<b>6</b>	<b>2</b>	<b>2</b>	<b>26</b>	<b>\$4,109.00</b>
Research Utilities/Data Collection						2			2	\$220.00
Cover Sheet & General Notes	2				1	2	3		6	\$596.00
Typical Sections	1	1			2	2	4		9	\$1,013.00
3D Model (Geopak)						8			8	\$880.00
Roadway Plan/Profile & Grading Sheets (1"=40')	2	1		2	5	28	32		68	\$6,994.00
Drainage Area Map and Hydrologic Calcs	1	1		8		14	15		38	\$4,420.00
Ditch/Storm Sewer Profiles and Hydraulic Calcs	1	1		8		14	20		43	\$4,855.00
Traffic Control Plan with ESC	1			1	1	2	2		6	\$679.00
Standard Details	1									
Quantities & Cost Estimates				1	2	4	2		9	\$1,014.00
Project Manual										
Address Comments		1			2	4	8		15	\$1,581.00
QA/QC			2						2	\$450.00
<b>Construction Documents</b>		<b>5</b>	<b>2</b>	<b>20</b>	<b>13</b>	<b>80</b>	<b>86</b>		<b>206</b>	<b>\$22,702.00</b>
<b>Bid Phase</b>										
Preconstruction Conference										
Site Visits (5)										
RFI's (6)										
Review Pay Applications (6)										
Final Walk-Through										
Change Orders (1)										
Contract Close-Out & Record Drawings										
<b>Construction Phase</b>										
<b>TOTAL</b>	<b>9</b>	<b>14</b>	<b>2</b>	<b>27</b>	<b>13</b>	<b>86</b>	<b>88</b>	<b>2</b>	<b>232</b>	<b>\$26,811.00</b>

Projects 1 - 6

Projects 1 & 2 ONLY

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

### EL MALINO DRIVE - PROJECT 3

90% Design

December 7, 2017

#### ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES AND EXPENSES OF THE ENGINEER

##### RATES:

Project Manager-	\$215.00	/hour
QA/QC Engineer-	\$225.00	/hour
Senior Project Engineer-	\$170.00	/hour
Project Engineer -	\$115.00	/hour
Design Engineer-	\$110.00	/hour
Design Technician -	\$120.00	/hour
CADD Technician-	\$87.00	/hour
Clerical -	\$75.00	/hour

##### DESIGN & PHASE:

**\$26,811.00**

##### CONSTRUCTION PHASE:

##### EXPENSES:

Mileage:	100	miles @	\$0.575	\$57.50
Photocopies:	200	each @	\$0.06	\$12.00
Color Copies	5	each @	\$2.00	\$10.00
Delivery	3	each @	\$15.00	\$45.00
Blacklines -	-	each @	\$5.00	
Project Manuals -	-	each @	\$50.00	
1/2 Size Sets -	-	each @	\$20.00	\$
<b>Sub-Total</b>				<b>\$ 67.00</b>

##### TOTAL ESTIMATED FEE:

**\$26,878.00**



## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

BELLMEADE BLVD. - PROJECT 4

30% Design

### Project Task Manhour Budget

December 6, 2017

Task Description	No. of Sheets	Project Manager \$215.00	QA/QC Engineer \$225.00	Senior Proj Engr \$170.00	Project Engineer \$115.00	Design Engineer \$110.00	CAD Technician \$87.00	Clerical \$75.00	Total Man-Hours	Total Cost
Coordination with Owner		1		1				1	3	\$460.00
Site Visit (1)										
Coordination with McGray				1					1	\$170.00
Coordination with Corsair				1					1	\$170.00
Coordination with Rios				1					1	\$170.00
Neighborhood Meetings & Exhibits (1)		1		1		1	1		4	\$582.00
Project Management		2		1					3	\$600.00
<b>Project Management</b>		<b>4</b>		<b>6</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>13</b>	<b>\$2,152.00</b>
Research Utilities/Data Collection					1	2			3	\$335.00
Cover Sheet & General Notes	2				1	1	2		4	\$399.00
Typical Sections	1	1			1	1	2		5	\$614.00
3D Model (Geopak)						4			4	\$440.00
Roadway Plan/Profile & Grading Sheets (1"=40')	2	1		2	3	8	16		30	\$3,172.00
Drainage Area Map and Hydrologic Calcs	1	2		4		8	8		22	\$2,686.00
Ditch/Storm Sewer Profiles and Hydraulic Calcs	1	2		4		8	8		22	\$2,686.00
Traffic Control Plan with ESC										
Standard Details										
Quantities & Cost Estimates				2	4	4	4		14	\$1,588.00
Project Manual										
Address Comments		1			1	2	2		6	\$724.00
QA/QC			2						2	\$450.00
<b>Construction Documents</b>		<b>7</b>	<b>2</b>	<b>12</b>	<b>11</b>	<b>38</b>	<b>42</b>		<b>112</b>	<b>\$13,094.00</b>
<b>Bid Phase</b>										
Preconstruction Conference										
Site Visits (5)										
RFI's (6)										
Review Pay Applications (6)										
Final Walk-Through										
Change Orders (1)										
Contract Close-Out & Record Drawings										
<b>Construction Phase</b>										
<b>TOTAL</b>	<b>7</b>	<b>11</b>	<b>2</b>	<b>18</b>	<b>11</b>	<b>39</b>	<b>43</b>	<b>1</b>	<b>125</b>	<b>\$15,246.00</b>

Projects 1 - 6

Projects 1 & 2 ONLY

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

**BELLMEADE BLVD. - PROJECT 4**

**30% Design**

**December 7, 2017**

**ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES**  
**AND EXPENSES OF THE ENGINEER**

**RATES:**

Project Manager-	\$215.00 /hour
QA/QC Engineer-	\$225.00 /hour
Senior Project Engineer-	\$170.00 /hour
Project Engineer -	\$115.00 /hour
Design Engineer-	\$110.00 /hour
Design Technician -	\$120.00 /hour
CADD Technician-	\$87.00 /hour
Clerical -	\$75.00 /hour

**DESIGN & PHASE:**

**\$15,246.00**

**CONSTRUCTION PHASE:**

**EXPENSES:**

Mileage:	-	miles @	\$0.575	
Photocopies:	-	each @	\$0.06	
Color Copies	-	each @	\$2.00	
Delivery	-	each @	\$15.00	
Blacklines -	-	each @	\$5.00	
Project Manuals -	-	each @	\$50.00	
1/2 Size Sets -	-	each @	\$20.00	\$ -
<b>Sub-Total</b>				<b>\$ -</b>

**TOTAL ESTIMATED FEE:**

**\$15,246.00**

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

YELLOW SAGE - PROJECT 5

30% Design

### Project Task Manhour Budget

December 6, 2017

Task Description	No. of Sheets	Project Manager \$215.00	QA/QC Engineer \$225.00	Senior Proj Engr \$170.00	Project Engineer \$115.00	Design Engineer \$110.00	CAD Technician \$87.00	Clerical \$75.00	Total Man-Hours	Total Cost
Coordination with Owner		1		1				1	3	\$460.00
Site Visit (1)										
Coordination with McGray				1					1	\$170.00
Coordination with Corsair				1					1	\$170.00
Coordination with Rios				1					1	\$170.00
Neighborhood Meetings & Exhibits (1)		1		1		1	1		4	\$582.00
Project Management		2		1					3	\$600.00
<b>Project Management</b>		<b>4</b>		<b>6</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>13</b>	<b>\$2,152.00</b>
Research Utilities/Data Collection					1	2			3	\$335.00
Cover Sheet & General Notes	2				1	1	2		4	\$399.00
Typical Sections	1	1			1	1	2		5	\$614.00
3D Model (Geopak)						4			4	\$440.00
Roadway Plan/Profile & Grading Sheets (1"=40')	2	1		2	3	8	16		30	\$3,172.00
Drainage Area Map and Hydrologic Calcs	1	2		4		8	8		22	\$2,686.00
Ditch/Storm Sewer Profiles and Hydraulic Calcs	1	2		4		8	8		22	\$2,686.00
Traffic Control Plan with ESC										
Standard Details										
Quantities & Cost Estimates				2	4	4	4		14	\$1,588.00
Project Manual										
Address Comments		1			1	2	2		6	\$724.00
QA/QC			2						2	\$450.00
<b>Construction Documents</b>		<b>7</b>	<b>2</b>	<b>12</b>	<b>11</b>	<b>38</b>	<b>42</b>		<b>112</b>	<b>\$13,094.00</b>
<b>Bid Phase</b>										
Preconstruction Conference										
Site Visits (5)										
RFI's (6)										
Review Pay Applications (6)										
Final Walk-Through										
Change Orders (1)										
Contract Close-Out & Record Drawings										
<b>Construction Phase</b>										
<b>TOTAL</b>	<b>7</b>	<b>11</b>	<b>2</b>	<b>18</b>	<b>11</b>	<b>39</b>	<b>43</b>	<b>1</b>	<b>125</b>	<b>\$15,246.00</b>

Projects 1 - 6

Projects 1 & 2 ONLY

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

### YELLOW SAGE - PROJECT 5

30% Design

December 7, 2017

#### ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES AND EXPENSES OF THE ENGINEER

##### RATES:

Project Manager-	\$215.00 /hour
QA/QC Engineer-	\$225.00 /hour
Senior Project Engineer-	\$170.00 /hour
Project Engineer -	\$115.00 /hour
Design Engineer-	\$110.00 /hour
Design Technician -	\$120.00 /hour
CADD Technician-	\$87.00 /hour
Clerical -	\$75.00 /hour

DESIGN & PHASE:

\$15,246.00

CONSTRUCTION PHASE:

##### EXPENSES:

Mileage:	-	miles @	\$0.575	
Photocopies:	-	each @	\$0.06	
Color Copies	-	each @	\$2.00	
Delivery	-	each @	\$15.00	
Blacklines -	-	each @	\$5.00	
Project Manuals -	-	each @	\$50.00	
1/2 Size Sets -	-	each @	\$20.00	\$ -
<b>Sub-Total</b>				<b>\$ -</b>

TOTAL ESTIMATED FEE:

\$15,246.00

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

FROST CIRCLE - PROJECT 6

30% Design

### Project Task Manhour Budget

December 6, 2017

Task Description	No. of Sheets	Project Manager \$215.00	QA/QC Engineer \$225.00	Senior Proj Engr \$170.00	Project Engineer \$115.00	Design Engineer \$110.00	CAD Technician \$87.00	Clerical \$75.00	Total Man-Hours	Total Cost
Coordination with Owner		1		1				1	3	\$460.00
Site Visit (1)										
Coordination with McGray				1					1	\$170.00
Coordination with Corsair				1					1	\$170.00
Coordination with Rios				1					1	\$170.00
Neighborhood Meetings & Exhibits (1)										
Project Management		1		1					2	\$385.00
<b>Project Management</b>		<b>2</b>		<b>5</b>				<b>1</b>	<b>8</b>	<b>\$1,355.00</b>
<b>Research Utilities/Data Collection</b>						1			1	\$110.00
Cover Sheet	1					2	2		4	\$394.00
Typical Sections	1					1	2		3	\$284.00
3D Model (Geopak)						2			2	\$220.00
Roadway Plan/Profile & Grading Sheets (1"=40')	1	1		1		3	6		11	\$1,237.00
Drainage Area Map and Hydrologic Calcs	1	1		1		3	6		11	\$1,237.00
Ditch/Storm Sewer Profiles and Hydraulic Calcs	1	1		1		3	6		11	\$1,237.00
Traffic Control Plan with ESC										
Standard Details										
Quantities & Cost Estimates				1	1	2	3		7	\$766.00
Project Manual										
Address Comments					1	1	2		4	\$399.00
QA/QC			1						1	\$225.00
<b>Construction Documents</b>		<b>3</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>18</b>	<b>27</b>		<b>55</b>	<b>\$6,109.00</b>
<b>Bid Phase</b>										
<b>Preconstruction Conference</b>										
Site Visits (5)										
RFI's (6)										
Review Pay Applications (6)										
Final Walk-Through										
Change Orders (1)										
Contract Close-Out & Record Drawings										
<b>Construction Phase</b>										
<b>TOTAL</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>9</b>	<b>2</b>	<b>18</b>	<b>27</b>	<b>1</b>	<b>63</b>	<b>\$7,464.00</b>

Projects 1 - 6

Projects 1 & 2 ONLY

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

### FROST CIRCLE - PROJECT 6

30% Design

December 7, 2017

#### ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES AND EXPENSES OF THE ENGINEER

##### RATES:

Project Manager-	\$215.00 /hour
QA/QC Engineer-	\$225.00 /hour
Senior Project Engineer-	\$170.00 /hour
Project Engineer -	\$115.00 /hour
Design Engineer-	\$110.00 /hour
Design Technician -	\$120.00 /hour
CADD Technician-	\$87.00 /hour
Clerical -	\$75.00 /hour

DESIGN & PHASE:

**\$7,464.00**

CONSTRUCTION PHASE:

##### EXPENSES:

Mileage:	-	miles @	\$0.575	
Photocopies:	-	each @	\$0.06	
Color Copies	-	each @	\$2.00	
Delivery	-	each @	\$15.00	
Blacklines -	-	each @	\$5.00	
Project Manuals -	-	each @	\$50.00	
1/2 Size Sets -	-	each @	\$20.00	\$ -
<b>Sub-Total</b>				<b>\$ -</b>

**TOTAL ESTIMATED FEE:**

**\$7,464.00**

## EXHIBIT 2

### City of Pflugerville - 2018 Pavement Rehabilitation

#### TOTAL MANHOURS PROJECTS 1 - 6

#### Design and Construction Phase

#### Project Task Manhour Budget

December 7, 2017

Task Description	No. of Sheets	Project Manager \$215.00	QA/QC Engineer \$225.00	Senior Proj Engr \$170.00	Project Engineer \$115.00	Design Engineer \$110.00	CAD Technician \$87.00	Clerical \$75.00	Total Man-Hours	Total Cost
Coordination with Owner		9		9		1		9	28	\$4,250.00
Site Visit (1)		3				5			8	\$1,195.00
Coordination with McGray		3		6		5			14	\$2,215.00
Coordination with Corsair		3		6		5			14	\$2,215.00
Coordination with Rios		3		6		5			14	\$2,215.00
Neighborhood Meetings & Exhibits (1)		5		5		5	8		23	\$3,171.00
Project Management		11		8					19	\$3,725.00
<b>Project Management</b>		<b>37</b>		<b>40</b>		<b>26</b>	<b>8</b>	<b>9</b>	<b>120</b>	<b>\$18,986.00</b>
Research Utilities/Data Collection					4	11			15	\$1,670.00
Cover Sheet & General Notes	11				5	10	15		30	\$2,980.00
Typical Sections	6	5			8	9	18		40	\$4,551.00
3D Model (Geopak)						34			34	\$3,740.00
Roadway Plan/Profile & Grading Sheets (1"=40')	11	6		11	23	111	150		301	\$31,065.00
Drainage Area Map and Hydrologic Calcs	6	8		33		65	69		175	\$20,483.00
Ditch/Storm Sewer Profiles and Hydraulic Calcs	6	8		33		65	90		196	\$22,310.00
Traffic Control Plan with ESC	3			3	5	6	6		20	\$2,267.00
Standard Details	3				2	2	4		8	\$798.00
Quantities & Cost Estimates		2		10	19	26	21		78	\$9,002.00
Project Manual		1		4	4			4	13	\$1,655.00
Address Comments		4			9	17	30		60	\$6,375.00
QA/QC			15						15	\$3,375.00
<b>Construction Documents</b>	<b>46</b>	<b>34</b>	<b>15</b>	<b>94</b>	<b>79</b>	<b>356</b>	<b>403</b>	<b>4</b>	<b>985</b>	<b>\$110,271.00</b>
<b>Bid Phase</b>		<b>2</b>		<b>4</b>	<b>8</b>		<b>8</b>		<b>22</b>	<b>\$2,726.00</b>
Preconstruction Conference		2		6		4			12	\$1,890.00
Site Visits (5)		2		10		6			18	\$2,790.00
RFI's (6)		2		6		12			20	\$2,770.00
Review Pay Applications (6)				6					6	\$1,020.00
Final Walk-Through		2		4					6	\$1,110.00
Change Orders (1)		2				8	8		18	\$2,006.00
Contract Close-Out & Record Drawings		2		4		8	8		22	\$2,686.00
<b>Construction Phase</b>		<b>12</b>		<b>36</b>		<b>38</b>	<b>16</b>		<b>102</b>	<b>\$14,272.00</b>
<b>TOTAL</b>	<b>46</b>	<b>85</b>	<b>15</b>	<b>174</b>	<b>87</b>	<b>420</b>	<b>435</b>	<b>13</b>	<b>1229</b>	<b>\$146,255.00</b>

Projects 1 - 6  
 Projects 1 & 2 ONLY

## EXHIBIT 2

City of Pflugerville - 2018 Pavement Rehabilitation

TOTAL: PROJECTS 1-6

Design and Construction Phase Engineering

December 7, 2017

**ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES  
AND EXPENSES OF THE ENGINEER**

**RATES:**

Project Manager-	\$215.00 /hour
QA/QC Engineer-	\$225.00 /hour
Senior Project Engineer-	\$170.00 /hour
Project Engineer -	\$115.00 /hour
Design Engineer-	\$110.00 /hour
Design Technician -	\$120.00 /hour
CADD Technician-	\$87.00 /hour
Clerical -	\$75.00 /hour

<b>DESIGN &amp; BID PHASE:</b>	<b>\$131,983.00</b>
<b>CONSTRUCTION PHASE:</b>	<b>\$14,272.00</b>

**SUBCONSULTANTS:**

McGray & McGray Land Surveyors, Inc.	\$	40,000.00
Corsair Consulting LLC	\$	8,400.00
HVJ Associates, Inc.	\$	10,940.00
The Rios Group, Inc.	\$	8,400.00
<b>Sub-Total</b>	<b>\$</b>	<b>67,740.00</b>

**EXPENSES:**

Mileage:	300	miles @	\$0.575	\$172.50
Photocopies:	600	each @	\$0.06	\$36.00
Color Copies	15	each @	\$2.00	\$30.00
Delivery	11	each @	\$15.00	\$165.00
Blacklines -	-	each @	\$5.00	\$0.00
Project Manuals -	10	each @	\$50.00	\$500.00
1/2 Size Sets -	8	each @	\$20.00	\$160.00
<b>Sub-Total</b>			<b>\$</b>	<b>891.00</b>

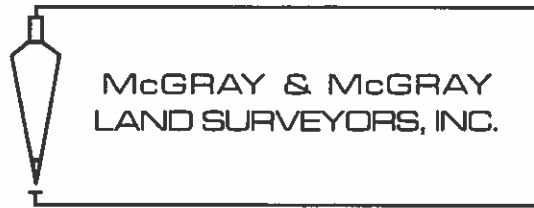
<b>TOTAL ESTIMATED FEE:</b>	<b>\$214,886.00</b>
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# **ATTACHMENT A**

## **SUBCONSULTANTS**

November 29, 2017



Tom Arndt, P.E.  
Dannenbaum Engineering  
3409 Executive Center Drive, Suite 129  
Austin, Texas 78731  
(512) 427-3227

VIA EMAIL  
tom.arndt@dannenbaum.com

**RE: Proposal for Topographic Surveying Services for the Pflugerville 2018  
Pavement Rehabilitation Project, Pflugerville, Texas**

Dear Mr. Arndt:

We appreciate the opportunity to present you with this proposal for the above referenced project. The following represents our understanding of the area to survey and scope of services. Our fee proposal follows.

**Survey Limits:**

*(Area within the street right-of-way lines as shown on Exhibits "A" & "B", attached)*

**Area 1** - El Malino Dr., Green Meadows & Yellow Sage St. *(Yellow Highlighted Areas)*

**Area 2** - Mill Creek Rd., Bellemeade Blvd. & Yellow Sage St. *(Green Highlighted Areas)*

**Area 3** - Bellemeade Blvd., Green Meadows, Yellow Sage St. & Frost Cir. *(Red Highlighted Areas)*

**Scope of Services:**

**Design Survey *(Limited to the area within the street right-of-way lines):***

- Cross sections shall be taken at 50-foot intervals along with break lines as required, to provide a digital topographic design file at 1-foot interval contours.
- Locate and identify all above ground features within the survey limits including fences, visible utilities, sidewalks, driveways, signs, manholes, water valves, telecom boxes, utility poles, mailboxes, water meters, etc. Trees 8-inches and larger in diameter shall be measured, identified and tagged with a point number.
- Invert elevations, and size/type of utility and drainage pipes and culverts shall be identified for all manholes and culverts within the project limits. For all gravity flow utilities (i.e. storm water and sanitary sewer) tie in the manhole upstream and downstream of the last manhole within the project limits. This may result in having to tie in manholes that are outside of the project limits as defined by you.

- Locate QL-B paint marks provided by The Rios Group. Their fee is not part of this proposal.
- We will find sufficient property corners to allow us to graphically depict the location of the right-of-way lines but this service will not include a boundary survey of the existing right-of-way or investigation into right-of-way widening.

**Deliverables:**

- A. Microstation (Ver. 8i).
- B. The units of the drawing file shall be U.S. survey feet.

**Lump Sum Fees (Non-taxable):**

Area 1 Total \$	16,500.00
Area 2 Total \$	17,450.00
Area 3 Total \$	6,050.00
<b>TOTAL \$</b>	<b>40,000.00</b>

We will proceed as soon as we receive notice to proceed. We estimate it will take approximately 6 - 8 weeks (weekends and holidays excluded) from notice to proceed to complete this project, weather and circumstances beyond our control permitting. Please let us know if we need to accelerate this schedule.

Thank you for including us on this project. We look forward to the opportunity to work with you. If you think we have omitted any service you require or misinterpreted your request, please let Joe Webber or Chris Conrad know.

Sincerely,



Judith J. McGray, RPLS  
President  
TBPLS Firm #10095500

Authorized to Proceed by:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title



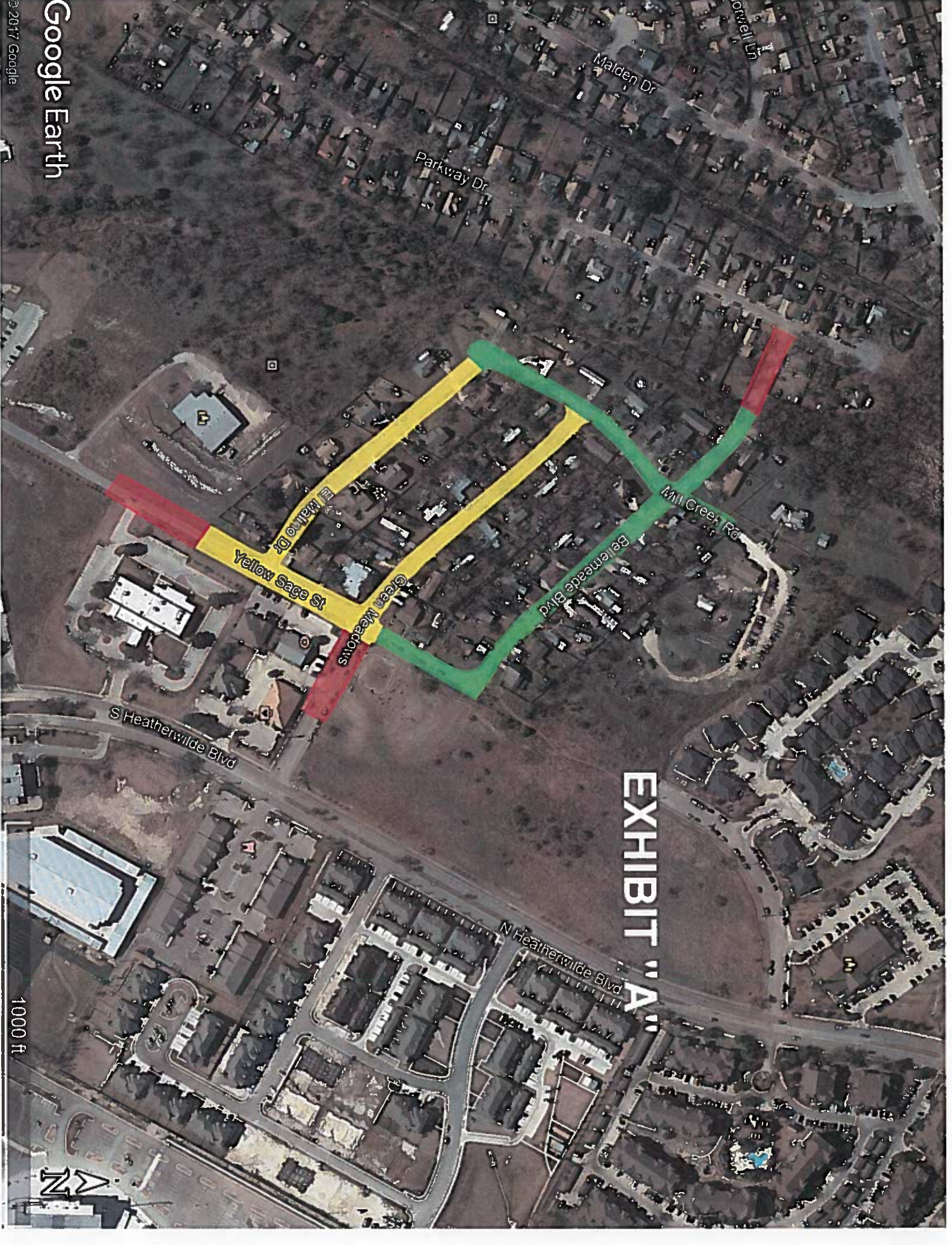


EXHIBIT "A"

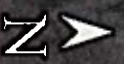


EXHIBIT "B"

Frost Cir

Parkway Dr

1825



500 ft



December 6, 2017

Mr. Tom Arndt  
Dannenbaum Engineering Company  
3409 Executive Center Drive, Suite 129  
Austin, TX 78731

**Reference: 2018 Pflugerville Pavement Program  
Corsair Project No. 1700567**

Dear Sir:

Corsair Consulting LLC proposes to provide geotechnical engineering services as they relate to the 2018 Pflugerville Pavement program located in Travis County, TX. The following is our proposed scope of services:

**Geotechnical Investigation:**

- A. Obtain and review existing and available geotechnical and geologic information. Perform field reconnaissance of project limits. Attend coordination meeting.
- B. Perform borings, obtaining boring samples below existing grade. Borings are estimated to consist of the following:
  - 2 borings to a depth of 10 feet within the at-grade project limits.
  - Borings are to occur within the limits of the existing ROW, dependent upon utilities and access.

**Deliverables:**

- 1) Boring logs and a summary of test results.

Perform laboratory testing to classify soil strata, evaluate plasticity and shrink/swell potential and evaluate the compressive strength. Tests may include moisture contents, atterberg limits, unconfined compressive strengths, sieve analyses, absorption swell tests, lime-series tests, resilient modulus test and sulfate content tests depending on our evaluation of the materials.

Our anticipated schedule is as follows:

Commence field work 1-3 weeks from NTP  
Duration of drilling 1 day  
Soils classification and lab testing 6-8 weeks  
Summary 6-8 weeks from completion of field work

Please feel free to contact us with any questions you may have.

Sincerely,

**CORSAIR CONSULTING LLC**

A handwritten signature in black ink, appearing to read "AJH", is positioned above the printed name.

Andy J. Hustad, P.E.

TBPE Firm Registration No. F-14216

GEOTECH ESTIMATE FOR  
2018 PFLUGERVILLE PAVEMENT  
DESIGN

Borings	Number	\$	Total	
10' Pavement	2 Each	\$ 350.00	\$ 700.00	Soil/Rock drilling without TCP
30' Retaining Wall Borings	0 Each	\$ 900.00	\$ -	Rock Drilling w/ TCP every 5 ft.
60' Bridge Borings	0 Each	\$ 1,800.00	\$ -	Rock Drilling w/ TCP every 5 ft.
Bucket Samples	1 Each	\$ 150.00	\$ 150.00	
Drill Crew Mob	1 Each	\$ 350.00	\$ 350.00	
Utility Clearing and boring Staking EIT	4 Hours	\$ 80.00	\$ 320.00	
Field engineer EIT Logging	8 Hours	\$ 80.00	\$ 640.00	
Traffic Control Signage	1 Days	\$ 450.00	\$ 450.00	
	Sub. Total		\$ 2,610.00	

Lab				
Atterberg Limits	6	\$ 65.00	\$ 390.00	
Sieve Analyses Full Sieve with D50, D90	6	\$ 120.00	\$ 720.00	
Sulfates TEX 145-E	2	\$ 95.00	\$ 190.00	
Resilent Modulus Testing	0	\$ 1,650.00	\$ -	
Soil Moisture Density Relationship TXE 114-E	0	\$ 185.00	\$ -	
Optimum Lime/Cement Content pH TXE 121-E	0	\$ 290.00	\$ -	
Texas Triaxial TEX 117-E	1	\$ 1,090.00	\$ 1,090.00	
Compressive Strength of Rock	0	\$ 45.00	\$ -	
Swell Test ASTM D4546, Method C	2	\$ 310.00	\$ 620.00	
California Bearing ratio (CBR)	0	\$ 400.00	\$ -	
Moisture Content of Soil	20	\$ 8.00	\$ 160.00	
	Sub Total		\$ 3,170.00	

Logs & Lab	No. Hours	Billing Rate	Total	
Project Manager	2	\$ 168.00	\$336.00	
Project Engineer	4	\$ 151.00	\$604.00	
JR. Project Engineer	5	\$ 110.00	\$550.00	
	Sub. Total		\$ 1,490.00	

Report Preparation	No. Hours	Billing Rate	Total	
Project Manager	1	\$ 168.00	\$168.00	
Project Engineer	2	\$ 151.00	\$302.00	
Jr. Project Engineer	6	\$ 110.00	\$660.00	
	Sub. Total		\$ 1,130.00	

Total \$ 8,400.00





Houston | 1701 Directors Boulevard  
Austin | Suite 910  
Dallas | Austin, TX 78744  
San Antonio | 737-222-5151  
www.hvj.com

December 4, 2017

Tom Arndt  
Dannenbaum Engineering Company - Austin, LLC  
3409 Executive Center Drive, Suite 129  
Austin, Texas 78731

Re: 2018 City of Pflugerville CDBG 2018 Street Rehabilitation Program  
Pavement Engineering Design and Associated Life Cycle Cost Estimate  
Owner: City of Pflugerville (COP)  
HVJ Project No. AP1710437

Dear Mr. Arndt:

HVJ Associates, Inc. (HVJ) is pleased to submit this proposal for providing pavement evaluation and design engineering and associated life cycle cost analyses (LCCA) to Dannenbaum Engineering Company - Austin, LLC (DECA) for this project. This letter outlines HVJ's technical approach and fee estimate for providing these services. The scope of work includes thickness designs for two local streets (Mill Creek Road and El Malino Drive) and one collector street (Green Meadows Lane) at this time and chip seal or overlay surfacing on the existing base for one locate street (Frost Lane). The 2018 street rehabilitation program is funded by a Community Development Block Grant (CDBG). HVJ will be provided geotechnical borings and laboratory testing by another firm.

### **Pavement Design and LCCA**

The TxDOT Flexible Pavement System (FPS 21) pavement design program will be used to develop the pavement thickness designs. The pavement design will include consideration of design traffic to be estimated by HVJ and geotechnical borings and lab testing results provided by another firm. To estimate design traffic, the following data is required from DECA or the City of Pflugerville: current and projected traffic counts and truck percentages for each street/street classification.

HVJ proposes to prepare one Asphalt Concrete Pavement reconstruction design considering a Flexible Base alternative or an Insitu Cement Stabilized Base alternative for two street classifications, local (Mill Creek Road and El Malino Drive) and collector (Green Meadows Lane). For Frost Lane, a local street, HVJ will design a chip seal or overlay surfacing on the existing base.

HVJ will consider the high Plasticity Index (P.I.) soil within the project limits and expects to recommend lime stabilization of the insitu subgrade. The latest Capital Area Pavement Engineering Council (CAPEC) design concepts and guidelines will be incorporated into the review of the expected high plasticity clay subgrades. Since no major cut or fill conditions are expected on these existing streets, it is critical to the pavement design to determine the insitu strength of the existing subgrades which are to be left in place. The most cost effective and accurate method to determine this parameter is nondestructive deflection testing to supplement the limited geotechnical data to be

Mr. Tom Arndt, PE  
AP1710437  
December 4, 2017

provided. Thus one day of Falling Weight Deflectometer (FWD) testing and back-calculation of the insitu material properties with the MODULUS 6.1 software will be accomplished.

For the LCCA of the alternative pavement designs, HVJ will use recent bid tabulations for unit prices and planned future maintenance and rehabilitation profiles to be provided by the City of Pflugerville.

Since no PCC alternatives are to be considered, HVJ will use the LCCA model in FPS 21, which provides a present worth unit cost comparison of the various alternatives. User costs will not be included since these streets do not have high traffic volumes.

### **Engineering Report**

HVJ anticipates providing a pavement design report which will include the following items:

- Assumed Design Traffic, Equivalent Single Axle Loads (ESALs),
- Calculated pavement subgrade strengths from FWD testing
- All Pavement thickness design inputs and resulting recommendations,
- Recommended Standard Pavement Material Specifications,
- General earthwork recommendations, and
- Life Cycle Cost Analyses (LCCA)

### **Plan Review**

HVJ will review the DECA construction documents to confirm HVJ's pavement design recommendations are properly addressed and incorporated into the design. HVJ proposes to review the submittals made for the 60 % and 90% DECA submittals, to accomplish this task.

### **Schedule**

HVJ proposes the following schedule.

<b>Task</b>	<b>Proposed Schedule</b>
Field FWD Investigations	1 to 2 Weeks (dependent on weather)
Submit Preliminary Pavement Design Report	2 Weeks after receipt of traffic data from DECA or COP and completed geotechnical report
Submit Final Pavement Design Report	2 Weeks after receipt of pavement design comments from DECA and COP
Plan Reviews	1 week (or less) after receipt of construction document submittal, as needed to maintain DECA's submittal schedule with COP

### **Fees**

Based on the scope of work and conditions as outlined in the next section, the estimated lump sum fee for pavement evaluation/design and LCCA services is \$10,940.

Mr. Tom Arndt, PE  
AP1710437  
December 4, 2017

### Insurance

Insurance certificates verifying HVJ's general liability, auto, worker compensation, and errors and omissions insurance coverage, listing Dannenbaum Engineering Company - Austin, LLC (DECA) as a certificate holder, will be provided upon request.

### Invoices

Invoices will be submitted at the end of each month based on the time spent on the work and items completed. HVJ credit terms are 30 days net.

### Conditions

The following assumptions were made in the development of this proposal:

- Dannenbaum Engineering Company - Austin, LLC (DECA) will provide a completed geotechnical report including Atterberg Limits, sulfate, Texas Triaxial, and swell testing.
- Basic traffic data for pavement design, including current and projected ADT and percent trucks will be provided by Dannenbaum Engineering Company - Austin, LLC (DECA).
- Dannenbaum Engineering Company - Austin, LLC (DECA) will provide either CAD drawings or specific area calculations for each street from which HVJ will develop quantities for LCCA.
- HVJ's scope of work does not include: bid/award phase nor construction phase services.

If this proposal meets with your approval, please sign and complete the indicated spaces below and forward a copy of the proposal to us. Thank you for this opportunity. We appreciate your business.

Sincerely,

**HVJ ASSOCIATES, INC.**



R. F. (Frank) Carmichael III, PE  
Senior Pavement Engineer

FC/fc

Agreed to this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Phone Number: \_\_\_\_\_ 512-427-3227 \_\_\_\_\_

Date to Start Work: \_\_\_\_\_

Mr. Tom Arndt, PE  
 AP1710437  
 December 4, 2017

<b>Pavement Design and Geotechnical Investigation</b>					
<b>Mill Creek Road, El Malino Drive, Green Meadows Lane, and Frost Lane</b>					
<b>City of Pflugerville</b>					
<b>HVJ Proposal No. AP1710437</b>					
<b>FWD Testing and Traffic Counts</b>					
Mobilization/Demobilization	1	@	\$100.00	each	\$100.00
FWD Equipment	1	@	\$2,500.00	day	\$2,500.00
Traffic Control	1	@	\$800.00	day	\$800.00
				<b>Subtotal</b>	<b>\$3,400.00</b>
<b>Pavement Engineering &amp; Reporting</b>					
Senior Pavement Engineer, PE	16	@	\$175.00	hr	\$2,800.00
Project Engineer, PE	4	@	\$125.00	hr	\$500.00
Staff Engineer, EIT	34	@	\$100.00	hr	\$3,400.00
Sr. FWD Eng Tech	10	@	\$60.00	hr	\$600.00
Eng Tech	6	@	\$40.00	hr	\$240.00
				<b>Subtotal</b>	<b>\$7,540.00</b>
				<b>Total</b>	<b>\$10,940.00</b>



Revised December 7, 2017

Tom Arndt  
Dannenbaum Engineering Company – Austin, LLC  
3409 Executive Center Drive, Suite 129  
Austin, TX 78731  
512.427.3227  
Tom.Arndt@dannenbaum.com

**RE: Subsurface Utility Engineering  
City of Pflugerville – 2018 Pavement Rehabilitation Program**

Dear Mr. Arndt:

The Rios Group, Inc. (TRG) is pleased to submit a cost proposal for Subsurface Utility Engineering (SUE) for the above referenced project. This proposal is based on information provided via email and telephone on December 7, 2017.

**Introduction**

TRG will perform SUE services for this project in general accordance with the recommended practices and procedures described in ASCE publication CI/ASCE 38-02 “Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.” As described in the publication, four levels have been established to describe and depict the quality of subsurface utility information. The four quality levels are as follows:

- Quality Level D (QL“D”) – Information obtained from existing utility records.
- Quality Level C (QL“C”) – Surveyed data depicting visible above-ground features supplemented with QL“D” information.
- Quality Level B (QL“B”) – Two-dimensional horizontal information obtained through the application and interpretation of non-destructive surface geophysical methods. Also known as “designating,” this level incorporates QL“C” information and provides horizontal positioning of subsurface utilities to within approximately 1.0 foot.
- Quality Level A (QL“A”) – Three-dimensional horizontal and vertical information obtained through non-destructive vacuum excavation equipment to expose utilities at critical points. Also known as “locating,” this level incorporates QL“B” information and provides horizontal and vertical positioning of subsurface utilities to within approximately 0.05 feet.

**Scope of Work**

Based on information provided by Dannenbaum Engineering Company (Client), TRG has developed a preliminary scope for the SUE work on this project. This scope of work may be modified, with the Client’s concurrence, during the performance of work if warranted by actual field findings.

The scope of this proposal includes QL“C” SUE services for various roadway improvements in Pflugerville, Texas. Exhibit “A” and Exhibit “B” show the SUE limits in yellow and green. TRG will collect available utility records, and produce a QL“C” utility file within these limits. It is understood that the Client’s surveyor (McGray & McGray Land Surveyors) will provide TRG with a CAD background file that includes an above-ground utility survey. It is assumed that the investigation will extend from Right-Of-Way (ROW) to ROW along each street.

For estimating purposes, the attached fee schedules (C-1, C-2) show a separate pricing for the two priority areas (yellow-1, green-2).

### **TRG Procedures**

#### **QL“D” and “C” – Records Research and Surface Feature Survey**

It is the responsibility of the SUE provider to perform due-diligence with regard to records research and the acquisition of available utility records. The due-diligence provided for this project will consist of contacting the applicable One Call agency and associated utility owners/municipalities, visually inspecting the work area for evidence of utilities, and reviewing available utility record information. Additional utilities not identified through these efforts will be referred to as Unknown utilities.

### **Deliverables**

TRG will provide the following as a final deliverable to the Client:

- A utility file in Microstation format depicting the QL“C” utilities. The Client will provide TRG with any necessary background files for use in completing the final deliverables.
- 11” x 17” SUE Plan Sheets depicting the QL“C” utilities. These plans will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.

### **Schedule**

TRG estimates that the QL“C” SUE work can be completed in ten (10) working days following receipt of the survey data.

### **Estimated Fee**

The total estimated **LUMP SUM** cost to complete the work described herein is **Seven Thousand Eight Hundred Ninety-Five Dollars and NO/100 (\$7,895.00)**. The breakdown of cost for the two priority areas is:

- Priority 1 – Yellow Areas – Three Thousand Five Hundred Ten Dollars and NO/100 (\$3,510.00) – (Refer to Exhibit C-1 for fee schedule)
- Priority 2 – Green Areas – Four Thousand Three Hundred Eighty-Five Dollars and NO/100 (\$4,385.00) – (Refer to Exhibit C-2 for fee schedule)

We look forward to working with you on this project. If there are any questions, please do not hesitate to call at 512.580.5440.

Respectfully,

**The Rios Group, Inc.**



Ryan C. Chapin, P.E.  
Project Manager

**Accepted on:**      **Month**\_\_\_\_\_ **Day**\_\_\_\_\_ **Year**\_\_\_\_\_

**Company**\_\_\_\_\_

**Print Name**\_\_\_\_\_

**Signature** \_\_\_\_\_

**Title** \_\_\_\_\_



# EXHIBIT "A"



Google Earth

© 2017 Google

S Heatherwide Blvd

800 ft





# EXHIBIT "B"



Google Earth

© 2017 Google



300 ft





**Estimate for Subsurface Utility Engineering**  
**City of Pflugerville - 2018 Pavement**  
**Rehabilitation Program**  
**Priority 1 - Yellow Areas**

**EXHIBIT C-1**

<b>QL "C" SUE</b>	<i>Rate</i>	<i>Assumed Quantity</i>	<i>Unit of Measure</i>	<i>Sub-Total</i>
Project Manager	\$ 200.00	2	HR	\$ 400.00
Project Engineer	\$ 160.00	8	HR	\$ 1,280.00
CAD Technician	\$ 90.00	14	HR	\$ 1,260.00
Clerical Support	\$ 65.00	2	HR	\$ 130.00
SUE Field Manager	\$ 110.00	4	HR	\$ 440.00
<b>Sub-Total</b>				<b>\$ 3,510.00</b>
<b>Total Estimated Cost</b>				<b>\$ 3,510.00</b>



**Estimate for Subsurface Utility Engineering**  
**City of Pflugerville - 2018 Pavement**  
**Rehabilitation Program**  
**Priority 2 - Green Areas**

**EXHIBIT C-2**

<b>QL "C" SUE</b>	<i>Rate</i>	<i>Assumed Quantity</i>	<i>Unit of Measure</i>	<i>Sub-Total</i>
Project Manager	\$ 200.00	3	HR	\$ 600.00
Project Engineer	\$ 160.00	10	HR	\$ 1,600.00
CAD Technician	\$ 90.00	16	HR	\$ 1,440.00
Clerical Support	\$ 65.00	3	HR	\$ 195.00
SUE Field Manager	\$ 110.00	5	HR	\$ 550.00
<b>Sub-Total</b>				<b>\$ 4,385.00</b>
<b>Total Estimated Cost</b>				<b>\$ 4,385.00</b>

## EXHIBIT 3

City of Pflugerville  
2018 CBDG Pavement Rehabilitation  
PHASE 1 SCHEDULE

December 6, 2017

