ATTACHMENT D

AUTHORIZATION OF CHANGE IN SERVICES
CITY OF SAN MARCOS, TEXAS

PROJECT: Sunset Acres Subdivision PER (Contract #218-394)
CONSULTANT: Allan Plummer Associates, Inc.
AUTHORIZATION NO.: 2
ORIGINAL CONTRACT DATE: March 12, 2018
AUTHORIZATION DATE:

WORK TO BE ADDED TO OR DELETED FROM SCOPE OF SERVICES

A change in service is requested to provide additional services for Sunset Acres Subdivision storm drain, streets and utilities improvements including, field surveys, subsurface utility engineering, geotechnical investigation, design phase services, bid and construction phase services

Previous Change In Services
#1; December 10, 2018; Additional storm drain design; $46,398.00

Previous contract amount:	$234,298.00
Net increase/decrease in contract amount:	$875,777.00
Revised contract amount:	$1,110,075.00

Requested by:

By: Stephen J Coonan Date: 10/3/19

Stephen J Coonan, Principal
Printed name, title

Approved by:

City of San Marcos: Date:

By:
Bert Lumbreras, City Manager

Sunset Acres Final Design

PROJECT DESCRIPTION SUMMARY

Plummer Associates, Inc. (Plummer) understands that the City of San Marcos (or City) desires to make drainage and utility improvements within the Sunset Acres Subdivision. The storm drain system that currently serves the subdivision is undersized. The system drains to a trunk line within the Texas Department of Transportation (TxDOT) right-of-way for Interstate 35. TxDOT is in the process of designing improvements to I35 in the area of Sunset Acres. The City has approached TxDOT about increasing the capacity of the trunk line along I35 to receive the 25-year flow from an upgraded storm drain system in Sunset Acres. TxDOT has expressed a willingness to cooperate with the City concerning this request. In addition to the storm drain system being undersized, several streets have been repaved such that the gutters have been filled, reducing the carrying capacity. In addition, the slopes of the gutters are relatively flat and the area has experienced soil movement causing areas of ponding. It is anticipated that the drainage improvements will require a complete reconstruction of the streets to increase the gutter slopes and restore/increase the carrying capacities of the gutters. Additional inlets and increased storm drain sizes will also be needed.

TxDOT and their consultants indicated that right-of-way constraints will limit the additional storm drain capacity that can be constructed as part of their project. To achieve a 25-year design within Sunset Acres, the Preliminary Engineering Study determined that the construction of additional detention is also needed to reduce flows to a level that matches the available capacity in the increased trunkline.

In addition to the drainage improvements, the City also wants to make some water and wastewater improvements. Finally, the residents of Sunset Acres have expressed concern with the level of traffic on Broadway and the speeds at which the traffic moves. As part of this project, the City will implement traffic calming improvements along Broadway.

The City intends to move forward with Engineering Design for the project. The schedule for the TxDOT improvements are such that they project will not go to construction until 2021 and not be complete until 2023. Since the improved trunkline is necessary to receive the increased flow from Sunset Acres, the drainage improvements within the subdivision can not be completed before the trunkline is completed. However, the City wants to provide some relief to residents sooner. Therefore, the project will be bid in two separate packages, The first package will include the construction of the detention pond. This improvement will reduce the peak flow of water that reaches the subdivision and is not dependent on the TxDOT project to provide benefit. The second package will include all of the other improvements.

Plummer proposes to complete the following services during this design phase. Building from the work done in the Preliminary Engineering phase of the project.

BASIC SERVICES

Task 1 - Project Management & QA/QC

Regular status meetings shall be held by the City's Project Manager and Plummer during the course of the Project. Items to be discussed during the monthly meetings might include, but not be limited to, progress reports, invoices, technical issues, policy interpretations, goals, anticipated challenges, etc. The meetings may also be used to present, discuss, and/or review work-in-progress as required by the City's Project

Manager. Plummer shall prepare and submit minutes of these meetings to the City's Project Manager within one week of the meeting. Plummer or the City's Project Manager shall schedule the meetings.

Proposed Improvements

The Preliminary Engineering Report on Sunset Acres Storm Drain improvements identified the following improvements:

- North System 1
  - *Parker Drive (A):* Increase in main drainage line, upsizing existing inlets (4), new curb inlets will be added (3), rehabilitate street to add gutters.
  - *Patricia Drive (A):* Increase in main drainage line, addition of new extension line, upsizing existing inlets (3), new curb inlets will be added (1), rehabilitate street to add gutters.
  - *Ebony Street:* Addition of new main drain line, new curb inlets will be added (3), rehabilitate street to add gutters.
  - *Abandonment of Existing Storm Drain:* Existing 18" to 24" RCP line connecting Parker Drive, Ebony Street and Oakdale Street will be disconnected from the manholes, filled with concrete and abandoned in place.

- North System 2
  - *Magnolia Drive:* Addition of new main drain line, new grate inlets will be added (1), rehabilitate entire street to add gutters.
  - *Lockwood Street (A):* Increase in main drainage line, upsizing existing inlets (2), new curb inlets will be added (1), rehabilitate street to add crown.
  - *Oakdale Road:* New main drainage line installed, upsizing existing inlets (1), new curb inlets will be added (4), area inlets added (2), rehabilitate street to add crown.
  - *Patricia Drive (A):* Increase in main drainage line, upsizing existing inlets (2), new curb inlets will be added (2), rehabilitate street to add crown.
  - Ebony Street (W): Replace existing storm drain to add box culvert for TxDOT truck line tie in, rehabilitate street to add gutters.

- South System
  - *Broadway Street:* Increase in main drainage line and alignment modifications, new curb inlets will be added (6), area inlets added (3), traffic improvements.
  - *Parker Drive (B):* Existing curb inlet upsized (1)
  - *Parkdale Street:* Increase in main drainage line, upsizing existing inlets (2), new curb inlet will be added (1), rehabilitate street to add gutters. Stormwater channel installed parallel on the backside of the homes within existing easement.
  - *Lockwood Street:* New main drainage line, new curb inlet will be added (3), rehabilitate street to add crown.
  - *Candlelight Lane (B):* Increase in main drainage line, upsizing existing inlets (1), new curb inlet will be added (1), rehabilitate street to add gutters.
  - *Patricia Drive (B):* Increase in main drainage line, upsizing existing inlets (2), rehabilitate street to add gutters.
  - *Del Sol Drive and Peter Garza Drive:* Increase in main drainage line, upsizing existing inlets (2), new curb inlets will be added (2), rehabilitate street to add gutters.

- Detention Pond Improvements
    - Existing Detention Pond will be expanded into the Mendez Elementary School property (Option 1). Detention pond will be designed as a multi-use detention pond allowing for the use by the school during dry periods as well as reducing the inundation footprint during smaller runoff events.

- Water and Wastewater Improvements
    - Water Main Relocation (Patricia Drive)
    - Wastewater Line Replacement (Parkdale Street)
    - Wastewater Line Replacement (Broadway Street)

Storm drain inlets and manholes plus street replacement are included with the storm drain improvements.

Task 2 – Obtain Field Surveys

Plummer will obtain detailed field surveys for both projects. The survey will establish topography, rights-of-ways, and physical improvements within the limits of the project. The survey will be provided in Texas State Plane, NAD 83, Grid Coordinate with surface to grid conversion factor noted. Vertical control will be based on NAVD 88.

Task 3 - Subsurface Utility Engineering

Plummer (and CobbFendley) will consult with the City's Transportation and Public Works Department, Water Department, and other City departments, public utilities, private utilities, and government agencies to determine the approximate location of above and underground utilities, and other facilities (current and future) that have an impact or influence on the project. Plummer will design City facilities to avoid or minimize conflicts with existing utilities, and where known and possible consider potential future utilities in designs.

Two-dimensional horizontal mapping (Quality Level B) utilizing non-destructive surface techniques. Quality Level A test holes may be later required but are not included in this scope of services. Ground Penetrating Radar (GPR) under ideal conditions may be used to investigate nonconductive buried lines however Texas soil conditions are generally not suitable for GPR. Some success using GPR has been done but non-conductive features can remain undetected.

Task 4 – Obtain Geotechnical Survey

Plummer will obtain a Geotechnical Evaluation of soil conditions in the project area. The evaluation will provide information on anticipated soil conditions to be encountered by the Contractor, as well as provide embankment recommendation for the detention pond and pavement recommendations for the reconstructed roadways.

Task 5 - 30% Submittal for Detention Pond

The 30% design plans shall include, at a minimum, the following:

- Existing conditions, including roadway, structures, vegetation and utilities, as determined by field survey;
- Drainage area maps;
- Complete hydrologic analyses.

- Existing right-of-way lines, existing property lines, existing permanent easements. For each property, identify on the drawings the property identification number, the deed volume and page number, and street address as well as the names of all property owners.
- Preliminary layout (plan view) of all existing and proposed utilities showing all proposed underground and overhead utilities to be reconstructed and/or relocated in as part of the Project;
- Construction notes;
- Utility conflict matrix.

Task 6 - 60% Submittal for Detention Pond

In addition to the information provided in the 30% plans submittal, the 60% submittal shall provide, at a minimum, the following:

- Complete and final hydrologic and hydraulic analyses.
- Proposed right-of-way lines, proposed property lines, proposed permanent and temporary easement lines. Right-of-way and/or easements shall be sufficient to encompass all improvements, including landscaping;
- Preliminary location (plan and profile) of all proposed storm drainage features (channels, pipes, manholes, inlets, etc.);
- Preliminary location (plan and profile) of all existing and proposed utilities showing all proposed underground and overhead utilities to be reconstructed and/or relocated as part of the Project;
- Preliminary location of construction work areas showing which existing features may be impacted by construction (fences, trees, sheds, etc.) and identifying the party responsible for removal and/or re-establishment;
- Tree protection notes;
- Recommendation of construction materials to be used;
- Updated utility conflict matrix;
- Opinion of Probable Construction Cost.

Task 7 - 90% Submittal for Detention Pond

In addition to the information provided in the 60% plans submittal, the 90% submittal shall provide, at a minimum, the following:

- Details sufficient for the construction of all proposed facilities;
- Traffic control plans: Traffic control plans and specifications shall identify the proposed construction phasing for the Project, including any utility construction and/or relocation. The plans shall be prepared in accordance with the requirements of the City of San Marcos. All traffic control devices proposed to be used within a City right-of-way must comply with both the Texas Manual on Uniform Traffic Control Devices and the City of San Marcos Transportation Design Manual. Temporary control devices proposed to be used within a City right-of-way must be crashworthy and must be included in the Texas Department of Transportation (TXDOT) Compliant Work Zone Traffic Control Device

List. The final traffic control plans and specifications shall include a phasing sequence identifying work to be done in each phase, the traffic controls of each phase, and any special considerations such as time limitations, hour of day limitations, or required completion times. They shall also show all temporary pavement markings. Final construction traffic control plans shall be sealed by a Texas registered professional engineer.

  - Erosion control plans: Plummer shall design and specify erosion control measures that minimize erosion and off-site sedimentation during construction of the Project. The plan and specifications shall be prepared in accordance with the requirements of the City of San Marcos.

- Standard specifications, special provisions to the specifications, and remaining bid documents: Plummer shall prepare detailed construction specifications using the City of San Marcos Standard Specifications, and all remaining documents needed for the bid process using the City's standards documents.
- Plummer shall prepare thorough and complete special provisions to the specifications to cover those items of material, work and other conditions special to the project. Any revisions or special provisions to the specifications shall be submitted to the City for approval. Plummer will submit five (5) copies of draft bidding documents to the City for review. Following the City's review, Plummer shall make appropriate revisions and submit two revised copies of the bid documents.
- Updated utility conflict matrix.
- Opinion of Probable Construction Cost: Plummer shall update and seal an opinion of probable construction cost for the authorized project and submit the Opinion of Probable Cost to the City's Project Manager. In accordance with the requirements of the supplemental terms and conditions of the professional services agreement, the Opinion of Probable Construction Cost shall be a Class A estimate.

DELIVERABLES

- 90% construction plans and specifications.
- Documentation of key design decisions (Project Decision Log).
- Detailed estimates of probable construction cost for the authorized construction project, including summaries of bid items and quantities using the City's standard bid items and format.

Task 8 - Final Design Submittal for Detention Pond

Prior to acceptance of the final design, provide to the City ten (10) copies of the draft Bid Documents consisting of the complete construction plans and Project Manual, and one set of final design criteria and calculations of principal elements of the design.

DELIVERABLES

- 100% construction plans and specifications.
- Documentation of key design decisions (Project Decision Log).
- Detailed estimates of probable construction cost for the authorized construction project, including summaries of bid items and quantities using the City's standard bid items and format.

- Original cover bond for the signatures of authorized City officials.

Task 9 - Advertisement/Bidding Phase for Detention Pond

Plummer will assist the City in the advertisement and bidding of the Detention Pond Project. It is anticipated that the City will advertise and distribute the plans and specifications to prospective bidders. Plummer will provide City of San Marcos with reproducible sets of the plans and contract documents. The City will produce the sets to be distributed to the prospective bidders. In addition, Plummer will provide the following specific services during this phase.

9.1 Attend a Pre-Bid Conference

Plummer shall attend a pre-bid conference planned and hosted by San Marcos. Plummer shall prepare and distribute meeting minutes to all attendees.

9.2 Issue Appropriate Addenda

Plummer shall respond to questions from prospective bidders and prepare and issue addenda as appropriate to clarify the plans and specifications. It is anticipated that only one addendum will be required for the Project.

9.3 Review Bids Received

Plummer shall review the bids received for the project and make a formal recommendation to City of San Marcos concerning the award of the project based on the amounts bid, a check of the contractor's references, and assessment of the contractor's capabilities, and ability to meet the contract schedule.

Task 10 - 30% Submittal for Storm Drain/Street/Utility Improvements

The 30% design plans shall include, at a minimum, the following:

- Existing conditions, including roadway, structures, vegetation and utilities, as determined by field survey;
- Drainage area maps;
- Complete hydrologic analyses and catch basin spread analyses (on hard copy and in digital format) conducted for design of the proposed drainage system, based on the hydrology used in the Preliminary Engineering.
- Existing right-of-way lines, existing property lines, existing permanent easements. For each property, identify on the drawings the property identification number, the deed volume and page number, and street address as well as the names of all property owners.
- Preliminary layout (plan view) of all proposed storm drainage features (channels, pipes, manholes, inlets, etc.);

- Preliminary layout (plan view) of all existing and proposed utilities showing all proposed underground and overhead utilities to be reconstructed and/or relocated in as part of the Project;
- Construction notes;
- Utility conflict matrix

Task 11 - 60% Submittal for Storm Drain/Street/Utility Improvements

In addition to the information provided in the 30% plans submittal, the 60% submittal shall provide, at a minimum, the following:

- Complete and final hydrologic and hydraulic analyses, catch basin spread analyses, and all other calculations (on hard copy and in digital format) conducted for design of the proposed drainage system. The analyses shall use the design survey data and final system profiles. Proposed hydrology associated with NOAA Atlas 14 will be checked during this process but the basis for design will be the hydrology used in the Preliminary Engineering Report.
- Proposed right-of-way lines, proposed property lines, proposed permanent and temporary easement lines. Right-of-way and/or easements shall be sufficient to encompass all improvements, including landscaping;
- Preliminary location (plan and profile) of all proposed storm drainage features (channels, pipes, manholes, inlets, etc.);
- Preliminary location (plan and profile) of all existing and proposed utilities showing all proposed underground and overhead utilities to be reconstructed and/or relocated as part of the Project;
- Preliminary location of construction work areas showing which existing features may be impacted by construction (fences, trees, sheds, etc.) and identifying the party responsible for removal and/or re-establishment;
- Tree protection notes;
- Recommendation of construction materials to be used;
- Construction phasing considerations;
- Updated utility conflict matrix;
- Preliminary Opinion of Probable Construction Costs.

Task 12 - 90% Submittal for Storm Drain/Street/Utility Improvements

In addition to the information provided in the 60% plans submittal, the 90% submittal shall provide, at a minimum, the following:

- Details sufficient for the construction of all proposed facilities;
- Traffic control plans: Traffic control plans and specifications shall identify the proposed construction phasing for the Project, including any utility construction and/or relocation. The plans shall be prepared in accordance with the requirements of the City of San Marcos. All traffic control devices proposed to be used within a City right-of-way must comply with both the Texas Manual on Uniform Traffic Control Devices and the City of

San Marcos Transportation Design Manual. Temporary control devices proposed to be used within a City right-of-way must be crashworthy and must be included in the Texas Department of Transportation (TXDOT) Compliant Work Zone Traffic Control Device List. The final traffic control plans and specifications shall include a phasing sequence identifying work to be done in each phase, the traffic controls of each phase, and any special considerations such as time limitations, hour of day limitations, or required completion times. They shall also show all temporary pavement markings. Final construction traffic control plans shall be sealed by a Texas registered professional engineer.

- Erosion control plans: Plummer shall design and specify erosion control measures that minimize erosion and off-site sedimentation during construction of the Project. The plan and specifications shall be prepared in accordance with the requirements of the City of San Marcos.

- Standard specifications, special provisions to the specifications, and remaining bid documents: Plummer shall prepare detailed construction specifications using the City of San Marcos Standard Specifications, and all remaining documents needed for the bid process using the City's standards documents.
- Plummer shall prepare thorough and complete special provisions to the specifications to cover those items of material, work and other conditions special to the project. Any revisions or special provisions to the specifications shall be submitted to the City for approval. Plummer will submit five (5) copies of draft bidding documents to the City for review. Following the City's review, Plummer shall make appropriate revisions and submit two revised copies of the bid documents.
- Opinion of Probable Construction Cost: Plummer shall update and seal an opinion of probable construction cost for the authorized project and submit the Opinion of Probable Cost to the City's Project Manager. In accordance with the requirements of the supplemental terms and conditions of the professional services agreement, the Opinion of Probable Construction Cost shall be a Class A estimate.
- Plummer shall update the final utility conflict matrix.
- Plummer shall incorporate the final construction phasing plan into the contract documents.

DELIVERABLES

- 90% construction plans and specifications.
- Documentation of key design decisions (Project Decision Log).
- Detailed estimates of probable construction cost for the authorized construction project, including summaries of bid items and quantities using the City's standard bid items and format.

Task 13 - Final Design Submittal for Storm Drain/Street/Utility Improvements

Prior to acceptance of the final design, provide to the City ten (10) copies of the draft Bid Documents consisting of the complete construction plans and Project Manual, and one set of final design criteria and calculations of principal elements of the design.

DELIVERABLES

- 100% construction plans and specifications.
- Documentation of key design decisions (Project Decision Log).
- Detailed estimates of probable construction cost for the authorized construction project, including summaries of bid items and quantities using the City's standard bid items and format.
- Original cover bond for the signatures of authorized City officials.

Task 14 - Advertisement/Bidding Phase for Storm Drain/Street/Utility Improvements

Plummer will assist the City in the advertisement and bidding of the project. It is anticipated that the City will advertise and distribute the plans and specifications to prospective bidders. Plummer will provide City of San Marcos with reproducible sets of the plans and contract documents. The City will produce the sets to be distributed to the prospective bidders. In addition, Plummer will provide the following specific services during this phase.

14.1 Attend a Pre-Bid Conference

Plummer shall attend a mandatory pre-bid conference planned and hosted by San Marcos. Plummer shall prepare and distribute meeting minutes to all attendees.

14.2 Issue Appropriate Addenda

Plummer shall respond to questions from prospective bidders and prepare and issue addenda as appropriate to clarify the plans and specifications. It is anticipated that only one addendum will be required for the Project.

14.3 Review Bids Received

Plummer shall review the bids received for the project and make a formal recommendation to City of San Marcos concerning the award of the project based on the amounts bid, a check of the contractor's references, and assessment of the contractor's capabilities, and ability to meet the contract schedule.

Task 15 - Hydrology and Hydraulics

Preliminary hydraulic and models will be updated to reflect the final design. It is assumed that the proposed storm sewer and regional pond layout as defined in the preliminary engineering report will remain in the same configuration. Plans for improvements identified in the preliminary engineering report and to comply with the criteria in the City's Stormwater Technical Manual. They system shall be designed, if possible, to meet the following criteria

1. Convery the Q25 within the street curbs and storm drain system
2. Convey the 100-year peak flows within the defined street rights of way and easements.
3. Follow criteria and methods outlined in the City's Stormwater Technical Manual.

4. Plummer shall also evaluate the performance of the system design against the NOAA Atlas 14 hydrology.

The hydraulic model (Infoworks ICM model) will additionally be configured and delivered to the City to complement the goal of developing "rain-on-mesh" mode archive for future analysis.

Schedule

Plummer will provide the 90% submittal for the Detention Pond to the City within six (6) months from receiving a Notice-to-Proceed. Final documents for the Detention Pond will be completed two (2) months following receipt of comments from the City.

Plummer will provide the 90% submittal for the Storm Drain/Streets/Utility Improvements within twelve (12) months from receiving a Notice-to-Proceed. Final documents for the Storm Drain/Streets/Utility Improvements will be completed two (2) months following receipt of comments from the City.

City Responsibilities / Assumptions in Scope Preparation

- City will give prompt notice of any development or other activities that would affect the scope or schedule of the scope of work.
- Archeological Surveys are not included in the scope of services.
- Karst investigations and surveys are not included in the scope of services.
- Work can be performed within the public right-of-way; no easements other than an agreement with the School District are anticipated.

City of San Marcos
Sunset Acres Final Design
Basic Services
August 2019 Proposal

Level 2 (Phase) No. and Description *Level 3 (Task) No. and Description*	Principal (hrs)	Sr. Proj Mgr (hrs)	Proj Mgr (hrs)	Proj Engr (hrs)	EIT (hrs)	Technician (hrs)	Clerical (hrs)	QC (hrs)	Total Labor Hours	Total Labor Fee ($$$)	Percent of Total Fee
Basic Services	**221**	**0**	**1,071**	**0**	**1,539**	**1,446**	**62**	**60**	**4,399**	**$ 694,000**	**100.0%**
1 Project Management and Meetings	**60**	**0**	**164**	**0**	**80**	**0**	**8**	**60**	**372**	**$ 80,240**	**11.6%**
1 Project Initiation and QAQC	8		12					60	80	$ 23,140	3.3%
2 Project Administration	20		100						120	$ 26,100	3.8%
3 Project Meetings (10)	24		40		60		8		132	$ 23,660	3.4%
4 Public Meetings (2)	8		12		20				40	$ 7,340	1.1%
2 Obtain Field Surveys	**1**	**0**	**6**	**0**	**12**	**8**	**0**	**0**	**27**	**$ 4,085**	**0.6%**
1 Obtain Survey	1		6		12	8			27	$ 4,085	0.6%
3 Obtain SUE Information	**1**	**0**	**6**	**0**	**12**	**8**	**0**	**0**	**27**	**$ 4,085**	**0.6%**
1 SUE Review	1		6		12	8			27	$ 4,085	0.6%
4 Obtain Geotechnical Evaluation	**1**	**0**	**6**	**0**	**8**	**0**	**0**	**0**	**15**	**$ 2,505**	**0.4%**
1 Obtain Geotechnical Evaluation	1		6		8				15	$ 2,505	0.4%
5 30% Design for Detention Pond	**4**	**0**	**35**	**0**	**75**	**100**	**0**	**0**	**214**	**$ 31,095**	**4.5%**
1 Detention Pond	4		35		75	100			214	$ 31,095	4.5%
6 60% Design for Detention Pond	**4**	**0**	**30**	**0**	**60**	**80**	**0**	**0**	**174**	**$ 25,520**	**3.7%**
1 Detention Pond	4		30		60	80			174	$ 25,520	3.7%
7 90% Design for Detention Pond	**2**	**0**	**20**	**0**	**40**	**60**	**0**	**0**	**122**	**$ 17,710**	**2.6%**
1 Detention Pond	2		20		40	60			122	$ 17,710	2.6%
8 Final Design for Detention Pond	**6**	**0**	**34**	**0**	**84**	**24**	**12**	**0**	**160**	**$ 23,630**	**3.4%**
1 Final Design Drawings	2		10		20	24			56	$ 8,350	1.2%
2 Construction Specs	2		12		40		12		66	$ 9,270	1.3%
3 Cost Opinions (90% and 99%)	2		12		24				38	$ 6,010	0.9%
9 Advertisement.Bidding Phase for Detention Pond	**4**	**0**	**22**	**0**	**42**	**40**	**8**	**0**	**116**	**$ 17,110**	**2.5%**
1 Attend Pre-Bid Converence			4		6				10	$ 1,550	0.2%
2 Respond to Questions / Issue Appropriate Addenda	2		12		24	40	8		86	$ 12,250	1.8%
3 Review Bids/Make Recommendation	2		6		12				20	$ 3,310	0.5%
10 30% Design for Storm Drain/Street/Utility	**40**	**0**	**216**	**0**	**322**	**388**	**0**	**0**	**966**	**$ 148,030**	**21.3%**
1 Storm Drains	24		120		180	180			504	$ 78,120	11.3%
2 Streets	6		60		80	100			246	$ 37,330	5.4%
3 Water	4		16		30	48			98	$ 14,650	2.1%
4 Wastewater	6		20		32	60			118	$ 17,930	2.6%
11 60% Design for Storm Drain/Street/Utility	**36**	**0**	**168**	**0**	**274**	**340**	**0**	**0**	**818**	**$ 124,730**	**18.0%**
1 Storm Drains	20		100		160	160			440	$ 67,700	9.8%
2 Streets	6		40		60	80			186	$ 28,130	4.1%
3 Water	4		12		24	40			80	$ 12,020	1.7%
4 Wastewater	6		16		30	60			112	$ 16,880	2.4%
12 90% Design for Storm Drain/Street/Utility	**20**	**0**	**122**	**0**	**216**	**230**	**0**	**0**	**588**	**$ 88,550**	**12.8%**
1 Storm Drains	12		80		140	140			372	$ 56,060	8.1%
2 Streets	4		24		40	40			108	$ 16,420	2.4%
3 Water	2		8		16	20			46	$ 6,910	1.0%
4 Wastewater	2		10		20	30			62	$ 9,160	1.3%

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Sunset Acres Final Design
Basic Services
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Level 2 (Phase) No. and Description *Level 3 (Task) No. and Description*	Principal (hrs)	Sr. Proj Mgr (hrs)	Proj Mgr (hrs)	Proj Engr (hrs)	EIT (hrs)	Technician (hrs)	Clerical (hrs)	QC (hrs)	Total Labor Hours	Total Labor Fee ($$$)	Percent of Total Fee
Basic Services	**221**	**0**	**1,071**	**0**	**1,539**	**1,446**	**62**	**60**	**4,399**	**$ 694,000**	**100.0%**
13 Final Design for Storm Drain/Street/Utility	**32**	**0**	**188**	**0**	**248**	**120**	**20**	**0**	**608**	**$ 96,660**	**13.9%**
1 Final Design Drawings	10		80		120	120			330	$ 50,250	7.2%
2 Construction Specs	10		60		80		20		170	$ 27,150	3.9%
3 Cost Opinions (90% and 99%)	12		48		48				108	$ 19,260	2.8%
14 Bidding	**8**	**0**	**30**	**0**	**58**	**40**	**12**	**0**	**148**	**$ 22,350**	**3.2%**
1 Attend Pre-Bid Converence			4		6				10	$ 1,550	0.2%
2 Respond to Questions / Issue Appropriate Addenda	6		20		40	40	12		118	$ 17,490	2.5%
3 Review Bids/Make Recommendation	2		6		12				20	$ 3,310	0.5%
15 Update H&H Models	**2**	**0**	**24**	**0**	**8**	**8**	**2**	**0**	**44**	**$ 7,700**	**1.1%**
1 Update Hydrology and Hydraulics	2		24		8	8	2		44	$ 7,700	1.1%
TOTAL LABOR											
Total Labor Hours	**221**	**0**	**1,071**	**0**	**1,539**	**1,446**	**62**	**60**	**4,399**		
Total Labor Amount										**$ 694,000**	**100.0%**
Labor Rates per Hour	**$305**	**$240**	**$200**	**$150**	**$125**	**$135**	**$105**	**$305**			
Total Amounts by Labor Category	**$ 67,405**	**$ -**	**$ 214,200**	**$ -**	**$ 192,375**	**$ 195,210**	**$ 6,510**	**$ 18,300**		**$ 694,000**	
Labor Category Percent of Total Labor	**9.7%**	**0.0%**	**30.9%**	**0.0%**	**27.7%**	**28.1%**	**0.9%**	**2.6%**			**100.0%**
TOTAL EXPENSES (see breakdown below)											
Total Subconsultants										**$ 153,733**	
Total Reimbursables										**$ 28,045**	
Total Expenses										**$ 181,777**	
GRAND TOTAL - Basic Services										**$ 875,777**	

SUBCONSULTANT EXPENSES

Code	Description	Budget ($$)	Markup	Fee ($$$)
CA	Architect Consultant	$ -	1.10	$ -
CC	Civil Engr Consultant	$ -	1.10	$ -
CE	Electrical Consultant	$ -	1.10	$ -
CG	Geotechnical Consultant	$ 19,990	1.10	$ 21,989
CM	Mechanical Consultant	$ -	1.10	$ -
CO	Other Consultant	$ -	1.10	$ -
CS	Structural Consultant	$ -	1.10	$ -
CY	Surveying Consultant	$ 28,052	1.10	$ 30,857
C1	Traffic / Civil Consultant	$ 44,765	1.10	$ 49,242
C2	H&H Consultant	$ 20,500	1.10	$ 22,550
C3	SUE Consultant	$ 26,450	1.10	$ 29,095
C4		$ -	1.10	$ -
C5		$ -	1.10	$ -
C6		$ -	1.10	$ -
TOTAL SUBCONSULTANT EXPENSES		**$ 139,757**		**$ 153,733**

REIMBURSABLE EXPENSES

Code	Description	Budget ($$)	Markup	Fee ($$$)
RA	Laboratory Analysis	$ -	1.10	$ -
RC	Computer	$ 21,995	1.10	$ 24,195
RH	Historical	$ -	1.10	$ -
RI	In-House Reproduction	$ 2,000	1.10	$ 2,200
RL	Long Distance Telephone	$ -	1.10	$ -
RM	Employee Mileage	$ 500	1.10	$ 550
RO	Other Expenses	$ -	1.10	$ -
RP	Purchased Services	$ -	1.10	$ -
RR	Reproduction	$ 500	1.10	$ 550
RS	Shipping, Delivery, Postage	$ -	1.10	$ -
RT	Travel, Meals, Lodging	$ 500	1.10	$ 550
RU	Telecommunications	$ -	1.00	$ -
R1		$ -	1.10	$ -
R2		$ -	1.10	$ -
TOTAL REIMBURSABLE EXPENSES		**$ 25,495**		**$ 28,045**

Balcones Geotechnical
5926 Balcones Drive, Suite 230 Austin, Texas 78731 Phone: 512-380-9969
TBPE Firm Registration F-15624

Mr. Chad Ballard, PE
Alan Plummer Associates, Inc.
14755 Preston Road, Suite 420
Dallas, TX 75254

Proposal No. 0119-055
July 16, 2019
cballard@plummer.com

Proposal for Geotechnical Investigation
Sunset Acres Drainage Improvements
San Marcos, Texas

Balcones Geotechnical, LLC (Balcones) is pleased to provide this proposal for geotechnical engineering services for the above referenced project. Our understanding of the project is based on the information provided by you. We have received the site plan showing the proposed drainage improvements, and discussed the project with you.

The project will consist of drainage improvements to the existing Sunset Acres residential subdivision. Improvements will include replacement of existing storm drain pipes and catch basins, and extension of the existing detention basin. Installation of upgraded storm drain piping is anticipated to range from 4 to 8 ft below grade. The following sections of this proposal present our proposed scope of services, estimated cost and schedule.

Field Investigation

The project site is located between IH-35 and Parker Drive, in San Marcos, Texas. The site geology is mapped as being underlain by Quaternary alluvial deposits and highly plastic, potentially expansive clay of the Pecan Gap formation. Based on our understanding of the proposed construction, we propose the following drilling scope.

Location	Boring Depth (ft)	Number of Borings	Total Footage (ft)
Storm Drain – North System	10	7	70
Storm Drain – North System B	10	3	30
Storm Drain – South System	10	6	60
Del Sol Drive Extension	10	3	30
New Berm	20	4	80
Detention Pond Tiers	15	4	60
	TOTAL	**27**	**330 ft**

Groundwater, if encountered, will be measured at the time of drilling, and stabilized at least 10 minutes prior to backfilling. The boreholes will be backfilled with a mixture of soil cuttings and bentonite, and capped with sackcrete and cold-patch asphalt to match existing.

Laboratory Testing

Laboratory index tests (natural water contents, Atterberg limits, and partial gradation analyses) will be performed to classify soil strata and evaluate plasticity. Unconfined compression tests will be conducted on selected undisturbed clay specimens to evaluate the compressive and shear strength of the subsurface strata. In addition to classification and strength testing, and soluble sulfate content will be performed on selected soil samples. The lab testing program will be dependent on the soils encountered.

Engineering Report

An engineering report will be prepared by the undersigned geotechnical engineer, registered in the State of Texas, and will include the following:

1. General subsurface conditions, including a boring log with descriptions of strata, summaries of laboratory test results, and water levels obtained at the time of drilling;
2. Boring location plan;
3. Recommendations regarding bedding and backfilling of the proposed piping;
4. Comments regarding groundwater;
5. Pavement thickness design recommendations;
6. Recommended slope configurations for embankment berm reconstruction; and
7. General earthwork recommendations.

This proposed scope of work is not intended to be a Geotechnical Baseline Report for trenchless installations. One electronic copy (PDF) will be submitted.

Cost Estimate

Based on the scope of work outlined herein, our estimated fee is itemized on Attachment 1. The cost estimate is based on the following:

1. The borings will be drilled in locations accessible to a truck-mounted drill rig;
2. Boring locations will be established using a hand-held GPS device and measuring distances from existing site features;

3. We will notify Texas 811 at least 72 hours prior to drilling. We request that any site utility plans, if available, be provided to us prior to field staking and drilling of the borings;
4. The borings will be drilled during the normal work week, during normal work hours; and
5. Right-of-entry to private property, if needed, will be secured by others.

The estimated fee may be exceeded if site conditions are significantly different than anticipated or changes in work are required or requested. However, the estimated fee will not be exceeded without the client's prior authorization. Required additions to the above scope of services would be invoiced in accordance with the attached fee schedule.

Schedule

Weather and site conditions permitting, field operations can start within 1 to 2 weeks after formal authorization to proceed. The borings will take 3 to 4 days to complete. Under normal circumstances, laboratory testing and report preparation will take an additional 3 to 4 weeks to complete. We will keep you verbally informed of our findings as they become available.

* * *

Terms and Conditions

The attached Schedule TC-01 describes general contractual conditions including identification of client, on-site responsibilities and risks, warranty, invoicing procedures, and record and sample maintenance.

To indicate acceptance of this proposal, please sign the signature block to indicate your acceptance of the Terms and Conditions set out herein. We appreciate the opportunity to submit this proposal and look forward to working with you on this project. Please call if we can answer any questions or if you would like to discuss this proposal.

Sincerely,

Balcones Geotechnical, LLC
TBPE Firm Reg. F-15624

Rebecca A. Russo, P.E.
Senior Geotechnical Engineer

John A. Wooley, PE
Principal

Attachments:

Attachment 1 – Cost Estimate
Schedule TC-01

C L I E N T:

_____
Firm Name

_____
Authorizing Signature

_____
Typed Name & Title

_____
Date

Proposal No. 0119-021
7/16/2019

Balcones Geotechnical
Austin, TX 78731
512.380.9969

Attachment 1 - Cost Estimate
Geotechnical Investigation
Sunset Acres Drainage Improvements
San Marcos, TX

1. Soil Borings - Geotechnical		Quantity	Unit	Rate	Subtotal
	Coordination, one-call, supervision of clearing, staking of borings, field logging				
	Mobilization / Demobilization	1	l.s.	$450.00	$450.00
	Drilling and Sampling - Soil	330	feet	$20.00	$6,600.00
	Backfilling Borehole	330	feet	$5.00	$1,650.00
	Patching Boreholes	16	each	$45.00	$720.00
	Project Management	4	hour	$175.00	$700.00
	Engineering Technician (Field Staking, One-Call, Logging)	40	hour	$65.00	$2,600.00
	Trip Charge	2	l.s.	$50.00	$100.00
				Subtotal	**$12,820.00**

2. Laboratory Investigation		Quantity	Unit	Rate	Subtotal
	Atterberg Limit Determinations	25	each	$65.00	$1,625.00
	Sieve Analysis	25	each	$65.00	$1,625.00
	Unconfined Compression Tests, soil	10	each	$60.00	$600.00
	Soluble Sulfate	6	each	$45.00	$270.00
	Graduate Engineer	2	hour	$95.00	$190.00
				Subtotal	**$4,310.00**

4. Engineering Services - Geotechnical Report		Quantity	Unit	Rate	Subtotal
	Senior Geotechnical Engineer	4	hour	$175.00	$700.00
	Graduate Engineer	20	hour	$95.00	$1,900.00
	Drafting/Admin	4	hour	$65.00	$260.00
				Subtotal	**$2,860.00**

		Total Estimated Cost	**$19,990.00**

SCHEDULE TC-01
GENERAL TERMS AND CONDITIONS FOR TECHNICAL SERVICES

1. **Parties to These General Terms and Conditions**

CLIENT is the entity which authorizes performance of services by Balcones Geotechnical (CONSULTANT), its employees, officers, agents, subcontractors and sub consultants (including affiliated corporations).

2. **Standard of Care**

CONSULTANT will strive to perform services in a manner consistent with that level of care and skill ordinarily exercised by other members of the CONSULTANT's profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this AGREEMENT, or in any report, opinion, document, or other instrument of service.

3. **Standard Procedures**

Consistent with the applicable standard of care, CONSULTANT has developed and follows a variety of standard procedures intended to achieve completeness of service, appropriate quality, and prompt detection and correction of errors and omissions before instruments of service are issued to CLIENT or other parties designated by CLIENT, CONSULTANT's procedures are dynamic. The individuals applying them are empowered to institute the changes needed to accommodate their individual styles and preferences, to achieve outcomes that maintain uniform quality criteria despite the differing work styles and preferences of the professionals involved. In addition, CONSULTANT's standard procedures including those that are individually modified, are subject to adjustment on each project or on elements of a project, as the professional applying such procedures deems fit.

4. **Field Operations**

4.1 Right-of-Entry. CLIENT shall provide for CONSULTANT's right to enter from time to time property owned by CLIENT and/or other(s) in order for CONSULTANT to fulfill the scope of service indicated hereunder. CLIENT recognizes that CONSULTANT's use of exploratory equipment may cause some damage to the grounds, and understands that the correction of such damage is not part of this AGREEMENT.

4.2 Hazardous Materials. CLIENT will provide CONSULTANT with all information in CLIENT's possession, control or knowledge as to the potential occurrence of hazardous materials, or Biological Pollutants at the site of the field work. If unanticipated hazardous materials or Biological Pollutants are encountered, CONSULTANT may demobilize its field operations at CLIENT's expense. Remobilization will proceed following consultation with CONSULTANT's safety coordinator and CLIENT's acceptance of proposed safety measures and fee adjustments.

4.3 Buried Utilities. CONSULTANT will perform research to locate utility lines and other man-made objects that may exist beneath the site's surface. CLIENT recognizes that, despite due care, CONSLTANT may be unable to identify the location of all subsurface utility lines and man-made objects, and information obtained by CONSULTANT may contain errors or be incomplete. In addition, CLIENT shall, to the fullest extent permitted by law, waive any claim against CONSULTANT, and indemnify, defend, and hold CONSULTANT harmless from any claim or liability for injury or loss arising from damage to or contact with buried utility lines or other buried man-made objects that were not called to CONSULTANT's attention or which were not properly located on drawings furnished to CONSULTANT.

4.4 Site Safety. CONSULTANT is not responsible for the job site safety of others, nor does CONSULTANT have stop-work authority over work by others. CONSULTANT will conduct its work in a safe, workman-like manner, and will observe the work-site safety requirements of which it is notified.

4.5 Safety Hazard. If CONSULTANT finds a site condition that it believes to be a safety hazard, CONSULTANT may undertake immediate action as it deems prudent or necessary.

5. **Drill Cuttings and Fluids**

Drill cuttings and fluids will be disposed of on-site at the completion of drilling activities. If any other disposal protocol is required by CLIENT, it will be performed at additional cost.

6. **Disposal of Samples**

All soil, rock water, and other samples obtained from the project site are CLIENT's property. Unless other arrangements are mutually agreed upon in writing, or unless otherwise required, CONSULTANT shall preserve such samples for no longer than forty- five (45) calendar days after CONSULTANT's issuance to the CLIENT of the initial instrument of professional service that relates data obtained from them.

7. **Compliance with Codes and Standards**

CONSULTANT shall observe those publicly announced federal, state, and local codes, standards, statutes, and regulations applicable at the time CONSULTANT renders service. CONSULTANT shall access the impact of any change to such code, standard, statue, or regulation and if, in CONSULTANT's professional opinion, the impact affects CONSULTANT's services, fees, expenses, anticipated completion date, or other significant concern, a changed condition will exist and shall be dealt with accordingly.

8. **Governing Law**

Unless otherwise provided, the substantive law of the state of Texas will govern the validity of the AGREEMENT, its interpretation and performance, and remedies for contract breach or any other claims related to this AGREEMENT.

9. **Defects in Service**

CLIENT and CLIENT's personnel and contractors shall promptly inform CONSULTANT of any actual or suspected defects in CONSULTANT's services, to help CONSULTANT take those prompt, effective measures that in CONSULTANT's opinion will help minimize the consequences of any such defect.

10. **Termination**
CLIENT or CONSULTANT may terminate this AGREEMENT without penalty. The party initiating termination shall so notify the other party, and termination shall become effective fourteen (14) calendar days after receipt of the termination notice. Irrespective of which party effects termination or the cause thereof, CLIENT shall within thirty(30) calendar days of termination pay CONSULTANT's fees for services rendered and costs incurred, in accordance with CONSULTANT's prevailing fee schedule and expense reimbursement policy. These fees and costs shall include those outstanding at the time of termination, as well as those reasonably stemming from termination and post-termination activities, including, but not limited to, demobilization, schedule modification, personnel reassignment, equipment decontamination and/or disposal, and disposal and replacement of contaminated consumables.

11. **Indemnification**
CONSULTANT agrees to hold harmless and indemnify CLIENT from and against liability to the extent caused by CONSULTANT's negligent performance of the services. CONSULTANT shall in no case be required to pay an amount disproportionate to CONSULTANT's negligence, nor shall CONSULTANT be required to pay any amount or sum levied against CLIENT to recognize more than actual and/or reasonable damages.

12. **Hold Harmless**
CLIENT agrees to hold CONSULTANT harmless to the fullest extent permitted by law under the specific circumstances indicated elsewhere in this AGREEMENT. To meet this obligation when called for, CLIENT agrees to: a) Waive any claim against CONSULTANT for the circumstances involved, with "any claim" being defined to mean "any claim in contract, tort, or statute alleging negligence, errors, omissions, strict liability, statutory liability, breach of contract, breach of warranty, negligent misrepresentation, or other acts giving rise to liability." b) Indemnify and defend CONSULTANT for any claims for injury or loss alleged to have arisen from the circumstance involved.

13. **Limitation of Liability**
CLIENT and CONSULTANT agree to allocate certain of the risks so that, to the fullest extent permitted by law, CONSULTANT's total aggregate liability to CLIENT is limited to $50,000 or the CONSULTAN's fee, whichever is lower, for any and all injuries, damages, claims, losses, expenses arising out of this AGREEMENT form any cause or causes. Such causes include, but are not limited to CONSULTANT's negligence, errors, omissions, strict liability, statutory liability, breach of contract, negligent misrepresentation, or other acts giving rise to liability based upon contract, tort, or statute.

14. **Severability**
CLIENT and CONSULTANT have entered into this AGREEMENT to communicate mutual understandings and responsibilities to one another. Any provision of this AGREEMENT that violates a statute or regulation shall be deemed void, and all remaining provisions shall continue in force. CLIENT and CONSULTANT shall endeavor to quickly replace a voided provision with a valid substitute that expresses the intent of, or at least addresses the issues covered by the original provision.

15. **Third Party Exclusion**
This AGREEMENT shall not create any rights or benefits to parties other than CLIENT and CONSULTANT, except such other rights as may be specifically called for herein.

16. **Consequential Damages**
CLIENT shall not be liable to CONSULTANT and CONSULTANT shall not be liable to CLIENT for any consequential damages incurred by either due to the fault of the other, regardless of: the nature of the fault; or whether it was committed by CLIENT or CONSULTANT, their employees, agents, or subcontractors; or whether such liability arises in breach of contract or warranty, tort (including negligence), statute, or any other cause of action. Consequential damages include, but are not limited to, loss of use and loss of profit.

17. **Independent Consultant Status**
Except as may otherwise be noted herein, CONSULTANT shall serve as CLIENT's independent consultant and shall provide those services indicated herein. Irrespective of any assignability provisions, CONSULTANT may retain subcontractors to perform services CONSULTANT customarily has performed by subcontractors and, should CONSULTANT determine it appropriate or necessary to rely on a subcontractor when it is not customary to do so, CONSULTANT shall obtain prior written approval or subsequent written confirmation from CLIENT.

18. **Insurance**
CONSULTANT maintains worker' compensation and employer's liability insurance of a form and in the amount required by state law, general liability with an aggregate limit of two million dollars ($2,000,000), and professional liability insurance with a limit of one million dollars ($1,000,000). CLIENT recognizes that the insurance market can be erratic and that no consultant can guarantee an ability to maintain the coverage indicated above. CONSULTANT warrants that CONSULTANT will endeavor to do so, within a context of prudent business practices, and will notify CLIENT of any change in coverage no later than 10 calendar days after CONSULTANT becomes aware of such changes. If any of CONSULTANT's coverage is withdrawn, or if CONSULTANT decides to forgo coverage because a replacement policy will afford inadequate protection and/or will require significantly increased premium when compared to prior coverage, CONSULTANT and CLIENT will confer about alternatives available, if any, and shall bargain in good faith in an attempt to achieve conditions acceptable to both.

19. **Payment**
CONSULTANT's invoices will be approved by CLIENT and presented by CLIENT to Owner. CLIENT will pay CONSULTANT amounts due promptly after Owner pays CLIENT. Notwithstanding any action or inaction by Owner, CLIENT will make every attempt to assure that all CONSULTANT's un-disputed invoiced amounts will be paid within sixty (60) calendar days of the invoice.

October 2, 2019

Chad Ballard, P.E., CFM
Stormwater Team Leader
Plummer
14755 Preston Road, Suite 420
Dallas, Texas 75254

Re: Proposal for Surveying Services
San Marcos - Sunset Acres Subdivision
Additional Surveying Services

Dear Mr. Ballard:

LNV, Inc. is pleased to submit this not to exceed lump sum proposal for additional surveying services to Plummer for the above referenced project.

Project Understanding

This project includes the following:

- 1. Sanitary sewer survey along TxDOT frontage road from just south of Broadway Street to just north of Ebony Street, approximately 1,750 linear feet to include top of manhole and flowline elevations only.
- 2. Locate existing gate valves only along TxDOT frontage road from Del Sol Drive to the entrance of 54th Street Restaurant, approximately five gate valves.
- 3. Provide digital deliverables including sanitary sewer inverts, existing water gate valves, notes and control network.
- 4. Property Pins around the School Site (detention pond)
- 5. N end of Patricia Dr. west to the I-35 frontage road (water line relocation)
- 6. The area behind Parkdale Dr. (proposing stormwater channel and pipeline)
- 7. Broadway St from Parker Dr. to US-123 (street)
- 8. Outfall pipe flowline at the small stormwater detention pond along Parker Dr.
- 9. Parker Dr. to Del Sol Dr. (street)
- 10. Peter Garza Dr. from Mendez Elementary School (street)

Project Tasks

The following describes the project tasks and deliverables:

Design Topographic Survey

LNV will conduct the following tasks:

- Place a one-call and survey the horizontal location of the utilities as marked by one-call;
- The survey will be provided in Texas State Plane, NAD 83, Grid Coordinate location with surface to grid conversion factor noted. Vertical control will be based on NAVD 88;
- Establish horizontal and vertical control, at least 2 control points outside of the project area and provide location of survey benchmarks or monuments;

- Provide wastewater manhole rim/inlet elevation, flowline (if available/accessible within the existing ROW) within limits stated above;
- Provide location of existing gate valves within limits stated above.
- Provide location of surface items in Task locations 5-7, 9 & 10.
- Provide 2D and 3D CADD files;
- Provide the ASCII text file.

Additional Services

LNV will conduct the following Additional Services as required by Plummer:

- Easements, field notes, or plats are not expected to be necessary at this time; however, if during design they are determined to be necessary, a separate scope/fee proposal will be requested.

Project Duration and Proposed Fee

Task	Task Duration
Surveying Services	
Additional Survey	25 Business days from NTP

The attached Fee Estimate is summarized below:

Task	Task Fee
Surveying Services	
Additional Survey	$28,052.00
TOTAL	**$28,052.00**

Project Scope Exclusions

Please note that this fee proposal only includes the tasks and fees for the work described above. This fee proposal does not include tasks and fees for any of the following at this time:

- Topographic survey of the project limits identified in the email received September 23, 2019;
- Development of project specifications and/or bid documents;
- Coordination with other utilities;
- Coordination with City of San Marcos;
- Development of Traffic Control Plan (TCP);
- Development of SW3P and submittal to TCEQ;
- Development of restrained length plan layout;
- Development of a valve test shutdown plan;
- Bid phase services;
- Construction Submittal review;
- Subsurface Utility Engineering (SUE) services;
- Environmental Engineering Services;
- Construction observation;
- Geotechnical services during construction or design, including geotechnical borings, materials testing, compaction testing, or sieve analysis of any kind;

- Preparing proposed easement and/or temporary construction easement documents;
- Design of relocation of existing utilities that may be in conflict with proposed water main replacements/relocations;
- Rehabilitation, replacement, or relocation of existing sewer mains.

LNV's team is however, capable of and can provide these, and other related services, if any are determined to be needed during the course of the project. A separate fee proposal can be developed if and when these services are needed per Plummer's request.

We look forward to working with you on this important project. If you have any questions or comments, please feel free to contact me at 512-381-8333 or via email at mnaiser@lnvinc.com.

Sincerely,
LNV, Inc.
TBPE Firm No. F-366

Marcus Naiser, P.E.
Vice President / Project Manager

Attachments: Attachment "A", Surveying Service Fee Breakdown

Sunset Acres Survey - Additional Services

MANHOUR BREAKDOWN FOR SERVICES

October 2, 2019

FUNCTIONAL TASKS	S.I.T.	PROFESSIONAL SURVEYOR	FIELD CREW	Total
Project Set-Up, Block Maps and Staking files	2	1		3
Control Network	2	1	4	7
Sanitary Sewer Survey (manhole inverts)	4	2	8	14
Existing Water Line Gate Valves	2	1	4	7
Post Processing	4	2		6
Total of Hours	14	7	16	37
Total Cost	$1,386.00	$966.00	$2,720.00	**$5,072.00**
Unit Rate	$99.00	$138.00	$170.00	
Property Pins at School Site Detention Pond				
Project Set-Up, Plats and Staking files	2	1		3
Control, Existing Property Corners	2	1	6	9
Stake Property Corners	2	1	12	15
Post Processing	2	2		4
Total of Hours	8	5	18	31
Total Cost	$792.00	$690.00	$3,060.00	**$4,542.00**
Unit Rate	$99.00	$138.00	$170.00	
N End of Patricia Dr. west to I-35 Frontage (Water line relocation)				
Project Set-Up, Plats, Maps, One Call, ROE	6	3		9
Control, Alignment	3	1	6	10
Topographic Survey	2	2	6	10
Post Processing	4	2		6
Total of Hours	15	8	12	35
Total Cost	$1,485.00	$1,104.00	$2,040.00	**$4,629.00**
Unit Rate	$99.00	$138.00	$170.00	
Area behind Parkdale Dr (Proposed Stormwater Channel and Pipeline)				
Project Set-Up, Plats, Maps, One Call	4	1		5
Control Network	2	1	6	9
Topographic Survey	2	1	8	11
Post Processing	3	2		5
Total of Hours	11	5	14	30
Total Cost	$1,089.00	$690.00	$2,380.00	**$4,159.00**
Unit Rate	$99.00	$138.00	$170.00	
Broadway Street from Parker Dr to US-123				
Project Set-Up, Plats, Maps, One Call	4	1		5
Control	2	1	6	9
Topographic Survey	2	2	6	10
Post Processing	4	2		6
Total of Hours	12	6	12	30
Total Cost	$1,188.00	$828.00	$2,040.00	**$4,056.00**
Unit Rate	$99.00	$138.00	$170.00	
Outfall Pipe Flowline at small Stormwater Detention Pond on Parker Dr				
Project Set-Up	1	1		2
Benchmark	1	1	1	3
Elevation Survey	1	1	2	4
Post Processing	1	1		2
Total of Hours	4	4	3	11
Total Cost	$396.00	$552.00	$510.00	**$1,458.00**
Unit Rate	$99.00	$138.00	$170.00	

MANHOUR BREAKDOWN FOR SERVICES

October 2, 2019

FUNCTIONAL TASKS	S.I.T.	PROFESSIONAL SURVEYOR	FIELD CREW	Total
Parker Dr to Del Sol Dr				
Project Set-Up, Plats, Maps, One Call	4	1		5
Control	2	1	6	9
Topographic Survey	2	2	7	11
Post Processing	6	2		8
Total of Hours	14	6	13	33
Total Cost	$1,386.00	$828.00	$2,210.00	**$4,424.00**
Unit Rate	$99.00	$138.00	$170.00	
Peter Garza Dr from Mendez Elementary School				
Project Set-Up, Plats, Maps, One Call	4	1		5
Control	2	1	6	9
Topographic Survey	2	2	6	10
Post Processing	6	2		8
Total of Hours	14	6	12	32
Total Cost	$1,386.00	$828.00	$2,040.00	**$4,254.00**
Unit Rate	$99.00	$138.00	$170.00	

Project Total Cost	**$28,052.00**

MANPOWER/BUDGET ESTIMATE
BROADWAY AVENUE FINAL DESIGN

Task		$ 250.00 Principal Hrs	$ 200.00 QA/QC Manager Hrs	$ 165.00 Project Manager Hrs	$ 130.00 Project Engineer Hrs	$ 95.00 EIT Hrs	$ 90.00 Senior Technician Hrs	$ 85.00 Admin Hrs	Total Hrs	Labor Cost $	Expenses $	Total Cost $
Final Design Phase												
1	Project Management & QA/QC			12				6	18	$2,490		$2,490
2	Meetings											$0
	Kick-off Meeting			*4*	*4*				*8*	*$1,180*	*$50*	*$1,230*
	Design Review Meetings			*24*	*12*				*36*	*$5,520*	*$200*	*$5,720*
3	Deliverables											
a.	Design Plans								0			$0
a.i.	Signing and Striping Plans		4	12	24	32			72	$8,940		$8,940
a.ii.	Traffic Control Plans		6	16	48	60			130	$15,780		$15,780
a.iii.	Sign Detail Sheets		1	1		12			14	$1,505		$1,505
a.iv.	Standard Detail Sheets		1	1	4	12			18	$2,025		$2,025
b.	Project Manual			1	4	4			9	$1,065		$1,065
c.	Cost Estimates			4	8	12			24	$2,840		$2,840
Bid Phase												$0
1	Bid Phase Services											$0
a.	Pre-Bid Meeting			4					4	$660	$50	$710
b.	Respond to Bidder Questions			4		4			8	$1,040		$1,040
c.	Addenda			4		8			12	$1,420		$1,420
Total		0	12	87	104	144	0	6	353	$ 44,465.00	$ 300.00	$ 44,765.00

K·FRIESE + ASSOCIATES
PUBLIC PROJECT ENGINEERING

July 18, 2019
1000-17-0067.3

Mr. Chad Ballard, PE, CFM
Alan Plummer Associates, Inc.
14755 Preston Road, Ste. 420
Dallas, TX 75254

Subject: **Proposal for Phase 3 Engineering Services to perform Final Design InfoWorks ICM modeling for the Sunset Acres Subdivision, San Marcos, TX**

Scheibe Consulting, LLC was contacted by Alan Plummer Associates, Inc. (APAI) to provide a proposal for engineering services to assist with performing final design InfoWorks ICM modeling for proposed storm drain and regional detention improvements located within and around the Sunset Acres Subdivision.

Attachment A is a fee proposal for engineering services. This cover letter will need to be signed to begin work. Terms and Conditions were signed previously along with the Phase 1 fee proposal.

I appreciate the opportunity to be of service. Please let me know if you have any questions.

Sincerely,
Scheibe Consulting, LLC

Eric Scheibe, PE, CFM
President

Approved by:

_____ _____
(Signature) (Date)

_____
(Printed Name / Title)

ATTACHMENT A

Phase 3 Engineering Services to perform Final Design InfoWorks ICM modeling for the Sunset Acres Subdivision,

San Marcos, TX

Scope of Work

Introduction

The goal of this project is to build upon the preliminary engineering analysis (and associated InfoWorks ICM modeling) completed in the first two phases of this project to develop a final proposed conditions InfoWorks ICM model, followed by a final rain-on-mesh InfoWorks ICM model at the completion of the final design. The intent of this final InfoWorks ICM rain-on-mesh model is to help complement the city's overall goal of having all of their stormsewer systems modeled as rain-on-mesh and archived for future use and analysis. As with the preliminary engineering effort, it is expected that APAI will complete the stormsewer and overall drainage design construction documents and will provide Scheibe with sufficient detail regarding inlets, trunkline sizes, regional detention pond design, and diversion channel design so that the final InfoWorks ICM model developed by Scheibe accurately reflects the final design that is to be constructed. This effort also assumes that the proposed stormsewer, diversion channel, and regional detention pond layout, as defined in the PER, will generally remain in the same configuration. If major configuration changes are proposed in the final design, then additional services may be required. In addition, this modeling effort assumes no major changes to the proposed regional detention facilities that were outlined in the PER. If the regional detention pond is relocated (due to land acquisition issues) then additional services may be required.

Following is a list of tasks required for this effort:

1. 60% Design Model Updates
2. 90% Design Model Updates
3. Final Rain-on-Mesh Model Updates
4. Final Memorandum
5. Meetings
6. Expenses

Services excluded from this proposal are structural design (including Site Retaining Walls, foundations, breakaway wall design, and anchoring analysis); ReZone; Geotechnical Investigation/ Pavement Design, Civil Construction Documents for overall subdivision improvements (including utilities, roads, detention, water quality, and overall stormsewer plans); FEMA Elevation Certificate, easement designation; construction staking; Permit Fees; SWPPP; Construction Phase Services; Construction Documents (for required drainage improvements – if needed); FEMA CLOMR/LOMR preparation; Electrical Utility Design; environmental assessments including endangered species investigation, wetland determination, archeological investigation, 404 Permitting, and Phase 1 ESAs; and unanticipated engineering services associated with issues that may arise during construction. Should any of these services be desired or required, an additional scope and fee proposal may be necessary.

Furthermore, it is anticipated that APAI will provide the following services in support of this Scheibe task order:

1. *Survey coordination/review;*
2. *60%, 90%, & 100% drainage construction documents needed to accurately model the proposed conditions; &*
3. *Coordination with TxDOT on any potential conflicts with the Sunset Acres proposed stormsewer and the TxDOT proposed stormsewer system.*

Following is a detailed explanation of tasks to be provided by Scheibe:

1. 60% Design Model Updates – Scheibe will update the previously developed InfoWorks ICM model to replicate the proposed APAI 60% stormsewer construction documents.

2. 90% Design Model Updates – Scheibe will update the previously developed 60% InfoWorks ICM model to replicate the proposed APAI 90% stormsewer construction documents.

3. Final Rain-on-Mesh Model Updates – Scheibe will update the previously developed 90% InfoWorks ICM model into a final rain-on-mesh model to be archived and used by the City for future analysis.

4. Final Memorandum – Scheibe will finalize a technical memorandum that documents the overall analysis and final results.

5. Meetings – This effort is assumed to consist of three (3) meetings total. Two (2) with APAI staff and one (1) with the City of San Marcos and/or TxDOT.

6. Expenses – Expenses shall include printing, mileage, and other similar fees necessary for the execution of this project. Expenses will be billed at cost + 5%.

Fee Schedule

The following is a fee schedule for services noted in this proposal:

Task 1 – 60% Design Model Updates - $4,000
Task 2 – 90% Design Model Updates - $4,000
Task 3 – Final Rain-on-Mesh Model Updates - $6,000
Task 4 – Final Technical Memorandum - $3,000
Task 5 – Meetings - $3,000
Task 6 – Expenses - $500

Total Fee = $20,500 + Expenses

Note: This engineering fee does not include permit fees to the city, county, USACE, FEMA, or other unanticipated review/permitting authorities.

CobbFendley

July 19, 2019

Chad Ballard
Plummer
14755 Preston Road, Suite 420
Dallas, Texas 75254

VIA E-MAIL

Re: Sunset Acres SUE for Drainage Improvements Project
San Marcos, TX

Dear Mr. Ballard,

CobbFendley is pleased to provide this scope and fee estimate for the Subsurface Utility Engineering (SUE) investigation services associated with the project referenced above. The proposed Scope of Services and Basis of Compensation are outlined below. This proposal is based on email and telephone communications on July11th and July 18th, 2019.

Scope of Services

The purpose of this SUE investigation is to assist in determining the presence and location of subsurface utilities. The scope limits are to match the proposed storm improvements project, as highlighted in orange on the attached exhibit.

All Wastewater Utility, Storm Drain, and Irrigation facilities and appurtenances are excluded.

SERVICES TO BE PROVIDED BY COBB FENDLEY

When performing this type of work CobbFendley typically follows ASCE 38-02 "The Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data"- see below.

Utility Quality Levels are defined in cumulative order (least to greatest):

Quality Level D - Existing Records: Utilities are plotted from review of available existing records

Quality Level C - Surface Visible Feature Survey: Quality Level "D" information from existing records is correlated with surveyed surface-visible features.

Quality Level B - Designate: Two-dimensional horizontal mapping. This information is obtained through the application and interpretation of appropriate non-destructive surface geophysical methods. Utility indications may be referenced to established survey control. Additional description of services, methodology and equipment is below.

Quality Level A - Locate (Test Hole): Three-dimensional mapping and other characterization data. This information is obtained through exposing utility facilities through test holes and measuring and recording (to appropriate survey control) utility/environment data

It is anticipated that for this project, CobbFendley will provide Quality Level B information - Quality Level A test holes may be required later. SUE investigations are conducted for engineering design purposes and are not to be used for construction clearing purposes.

CobbFendley

Utility Designating (Level B)

1. CobbFendley will perform Record Research to obtain utility information for site and adjacent streets that may contain utilities leading onto the site. This will assist CobbFendley in identifying utilities and marking them in the field.

2. CobbFendley will designate (means to record and mark) the horizontal location of the existing tone-able utility facilities using non-destructive surface geophysical techniques. Tone-able utilities are typically utilities that are conductive or internally accessible with a traceable fish tape or sonde. Water and communication vaults can be investigated from above ground. Cobb Fendley does not typically enter buried power vaults or manholes.

3. If internally accessible (e.g. via a cleanout) nonconductive lines can often be traced out with a fish tape or sonde. Under ideal circumstances nonconductive buried lines can be investigated successfully with Ground Penetrating Radar (GPR). Soil conditions in Texas are however generally not suitable for GPR. CobbFendley has had success using GPR for SUE work but non-conductive features can remain undetected.

4. A non-water base paint, utilizing the APWA color code scheme and pin flags will be used on all surface markings of underground features. CobbFendley will provide a field sketch of designated utilities.

5. Designated utilities will be surveyed by CobbFendley and referenced to project control datum. Utilities shown by record information, but not designated in the field will be represented by a different line style on the CADD deliverable (Quality Level D) The Client will provide survey control and a project basemap in AutoCAD/ Microstaion format.

Vacuum Excavation (Level A) – not currently in the scope

In locations where the depth of identified buried utilities is required, CobbFendley can perform FHWA Level A vacuum test holes. Holes are excavated using a nondestructive compressed air vacuum excavation truck. Vacuum excavation is performed as follows:

1) Comply with policies for the prevention of underground utility damage (i.e., one-call system).

2) Vacuum excavate to measure and record the depth and location of found items. CobbFendley accepts no responsibility for contaminated soils should they be encountered during excavation. CobbFendley does not take ownership of any excavated material.

3) Record depth of the utility, line size, line material, condition of the line, type of soil around the line. Provide markers at each utility location.

4) Backfill the hole. Compact in lifts. Restore pavement (if in paved areas).

5) Survey of utility test hole locations will be provided by CobbFendley.

6) CobbFendley will provide copies of field test holes data sheets showing utility depth, size and line material, condition of the line, type of soil for each location.

For parking lane, and low use roads: Standard traffic control is performed by CobbFendley and is included in our standard rates. Standard traffic control can be described as short-term lane closure necessary to access utility features located in the roadway. Should 'non-standard' traffic control be required (flagging operations, lane closures, police officer present, arrow board, etc…) these services will be considered extra.

Basis of Compensation

The above scope of Level B services can be provided for a **lump sum** fee using the rates below:

Quality Level B SUE	2019 Rate	Unit	Quantity	Sub-Total
Senior Engineer	$195.00	Hour	10	$1,950.00
Utility Specialist/Coordinator	$145.00	Hour	12	$1,740.00
CADD / Survey CAD	$100.00	Hour	24	$2,400.00
Clerical	$80.00	Hour	4	$320.00
SUE Tech II	$80.00	Hour	80	$6,400.00
SUE Tech III	$100.00	Hour	80	$8,000.00
2 man Survey Crew	$145.00	Hour	28	$4,060.00
RPLS	$170.00	Hour	4	$680.00
Support Truck SUE	$90.00	Day	10	$900.00
			Total	$26,450.00

Additional Services

CobbFendley can also provide utility vacuum excavation test holes to verify utility depth information. Test holes are performed on unit rate basis determined by depth. Rates include personnel and equipment necessary to perform the excavation, record test hole information, backfill and patch hole. Survey to establish test hole elevations is not included.

Level A SUE Test Hole Rates:

0 Ft.–5 Ft.	$1,250/Hole
5.01 Ft.– 8 Ft.	$1,500/Hole
Every 1 Ft. deeper than 8 Ft.	$150 per ft. or portion of
Holes > 20Ft.	to be negotiated

No test holes are currently included in this scope of work.

SUE Limitations

Above ground geophysical techniques cannot guarantee to find all buried utility lines. This is particularly true with when GPR is being used in unfavorable conditions. Soil conditions in Central TX are not conducive to GPR use (the USDA Natural Resource Conservation Service maps show the suitability of soil for GPR use as low) As a result its effectiveness in finding buried utilities is limited

CobbFendley will perform subsurface utility engineering in accordance with ASCE 38/02 Standard Guidelines for the Collection and Depiction of Subsurface Utility Data. CobbFendley and Associates, Inc. will exercise all reasonable and customary care in the performance of SUE and Survey services, realizing efficient design and ultimately the safety of all personnel is a prime consideration in the detection and mapping of subsurface utility features which may be in with conflict proposed boring or trenching. However, a possibility exists that some utilities may not be detected and/or mapped using standard SUE procedures previously described. While uncommon, utilities possessing characteristics mentioned below can be missed while using the standard SUE procedures:

- Utilities buried excessively deep, beyond detection limits of standard locating equipment.
- Abandoned utilities
- Utilities with no apparent surface features and no records available
- Nonconductive utilities.
- Utilities buried in soil unsuitable for GPR detection

Contractor shall call One Call before excavating as required by Texas Law.

If this proposal is acceptable and you agree to the following terms and conditions, please sign below return to us. If you have any questions or comments, please do not hesitate to contact us.

Sincerely,

COBB, FENDLEY & ASSOCIATES, INC.

Jim Herbert, PE
Sr. Project Manager

This proposal accepted by:

Plummer

_____
Signature Date

_____
Print Name

_____
Title

GENERAL TERMS AND CONDITIONS OF THE AUTHORIZATION FOR PROFESSIONAL SERVICES

1. REIMBURSABLE EXPENSES

CobbFendley's direct expenses shall be those costs incurred on or directly for the CLIENT'S project, including but not limited to necessary transportation costs including mileage at the current IRS rate, meals and lodging, laboratory tests and analyses, and printing and binding charges. These direct expenses shall be billed in accordance with the attached rate schedule.

2. OUTSIDE SERVICES

When technical or professional services are furnished by an outside source, when approved by the CLIENT, an additional amount shall be added to the cost of these services by CobbFendley to cover CobbFendley's administrative costs, as provided in the attached CobbFendley rate schedule.

3. COST PROJECTIONS

If included in CobbFendley's scope of services, opinions or estimates of probable construction costs are prepared on the basis of CobbFendley's experience and qualifications and represent CobbFendley's judgment as a professional generally familiar with the industry. However, since CobbFendley has no control over the cost of labor, materials, equipment or services furnished by others, over contractor's methods of determining prices, or over competitive bidding or market conditions, CobbFendley cannot and does not guarantee, represent or warrant that proposals, bids, or the actual construction cost will not vary from CobbFendley's opinions or estimates of probable construction cost.

4. PROFESSIONAL STANDARDS

CobbFendley agrees to perform its services in accordance with the standard of professional care used by other practicing professional engineers of ordinary prudence in the same field of engineering and performing the same type of work in CLIENT'S community under the same or similar circumstances. CobbFendley makes no other warranty, expressed or implied.

5. TERMINATION

Either CLIENT or CobbFendley may terminate this authorization by giving 30 days written notice to the other party. In such event, CLIENT shall forthwith pay CobbFendley in full for all work previously authorized and performed prior to effective date of termination. If no notice of termination is given, the relationships and obligations created by this Authorization shall be terminated upon completion of all applicable requirements of this Authorization. Failure by Client to make payments when due shall be cause for suspension of services or, ultimately, termination, unless and until CobbFendley has been paid in full all amounts due for services, expenses and other related charges, including interest on past due amounts.

6. OWNERSHIP OF DOCUMENTS

All documents prepared or furnished by CobbFendley pursuant to this Agreement are instruments of CobbFendley's professional service, and CobbFendley shall retain an ownership and property interest therein, including all copyrights. CobbFendley grants Client a license to use instruments of CobbFendley's professional service for the purpose of constructing, occupying or maintaining the project. Reuse or modification of any such documents by Client, without CobbFendley's written permission, shall be at Client's sole risk, and Client agrees to indemnify and hold CobbFendley harmless from all claims, damages and expenses, including attorneys' fees, arising out of such reuse by Client or by others acting through Client.

7. USE OF ELECTRONIC DOCUMENTS

Copies of documents that may be relied upon by Client are limited to the printed copies (also known as hard copies) or fully-scaled PDF files that are signed and sealed by CobbFendley's authorized design professionals. Files in electronic formats, or other types of information furnished by CobbFendley to Client such as text, data or graphics, are only for convenience of Client. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. When transferring documents in electronic formats, CobbFendley makes no representations as to long-term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems or computer hardware differing from those in use by CobbFendley at the beginning of this project.

8. HAZARDOUS ENVIRONMENTAL CONDITIONS

CobbFendley shall have no liability or responsibility for the discovery, presence, handling, removal, disposal, cleanup, or exposure of persons or other property to underground substances, hazards, or conditions or other latent substances, hazards or conditions (including but not limited to contaminants, pollutants, chemicals or other hazardous or toxic solids, liquids or gases of any kind), Client acknowledges that CobbFendley is performing professional services for Client and CobbFendley is not and shall not be required to become an "arranger," "operator," "generator" or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA)

9. FORCE MAJEURE

Neither party shall be deemed in default of this agreement to the extent that any delay or failure in the performance of its obligations results from any cause beyond its reasonable control and without its negligence.

10. CONSTRUCTION PHASE SERVICES

If this Agreement provides for any construction phase services by CobbFendley, it is agreed that the Contractor, not CobbFendley, is responsible for the construction of the project, and that CobbFendley is not responsible for the acts or omissions of any contractor, subcontractor or material supplier; for time of performance; for safety precautions, programs or enforcement; or for construction means, methods, techniques, sequences and procedures employed by the Contractor. CobbFendley shall not be obligated to make exhaustive or continuous on-site inspections to check the quality or adequacy of construction or to verify that the work or materials of any contractor, subcontractor or materials supplier is in compliance with the plans and specifications. CobbFendley shall not be responsible for the Contractor's failure to execute the work in accordance with the Construction contract.

11. LIMITATION OF LIABILITY FOR DAMAGES

IN THE EVENT THAT CLIENT SHALL MAKE ANY CLAIM OR FILE ANY SUIT FOR DAMAGES AGAINST COBBFENDLEY ARISING OUT OF OR RELATED TO COBBFENDLEY'S PERFORMANCE OR NON-PERFORMANCE OF THE SERVICES TO BE PROVIDED UNDER THIS AGREEMENT, COBBFENDLEY'S LIABILITY TO CLIENT FOR ANY SUCH DAMAGES SHALL BE LIMITED TO ACTUAL AND DIRECT DAMAGES TO AN AMOUNT NOT TO EXCEED THE AMOUNT FEES CHARGED BY COBBFENDLEY TO CLIENT HEREUNDER. COBBFENDLEY SHALL HAVE NO LIABILITY FOR ANY CONSEQUENTIAL OR INDIRECT DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST BUSINESS OPPORTUNITIES, ADDITIONAL OVERHEAD, OR DAMAGES FOR LOSS OF USE OR LOSS OF PRODUCTION.

12. ALTERNATIVE DISPUTE RESOLUTION

In the event that any dispute shall arise between Client and CobbFendley regarding the parties rights or obligations under this Agreement, the parties shall, as a condition precedent to taking any action against one another make a good faith effort to resolve such disagreements by negotiation and/or non-binding mediation.

13. LEGAL EXPENSES

In the event that legal action is brought by CLIENT or CobbFendley against the other party to enforce any of the obligations hereunder or arising out of any dispute concerning the terms and conditions hereby created, the losing party shall pay the prevailing party such reasonable amounts for fees, costs and expenses as may be set by the court.

14. PAYMENT TO COBBFENDLEY

Monthly invoices will be issued by CobbFendley for all work performed under the terms of this agreement. Invoices are due and payable within ten (10) business days of receipt. Unless noted otherwise, tasks stated in the Scope of Services will be invoiced on a lump sum basis.

If CLIENT is not the OWNER, CLIENT agrees to pay CobbFendley within ten (10) business days of receipt of payment from OWNER.

Pending resolution of any dispute concerning any portion of any invoice submitted by CobbFendley, all undisputed portions shall be paid in accordance with this paragraph.

Progress payments on CobbFendley fees for percentage of project completion and reimbursable expenses incurred will be due and payable upon receipt of invoice at the end of each month.

If payment is not received within 60 days from date of invoice, CobbFendley retains the right to cease further work on the project until such time that the overdue invoices are paid. CobbFendley also retains the right to withhold final approved plans and other deliverables until all overdue invoices are paid.

15. AUTHORIZATION OF OWNER

Client hereby authorizes CobbFendley to enter upon the property for the purpose of conducting CobbFendley services thereon. If Client is not the Owner of the property, Client agrees to obtain such authorization from the Owner and provide same in writing to CobbFendley.

16. CONTRACT DOCUMENTS

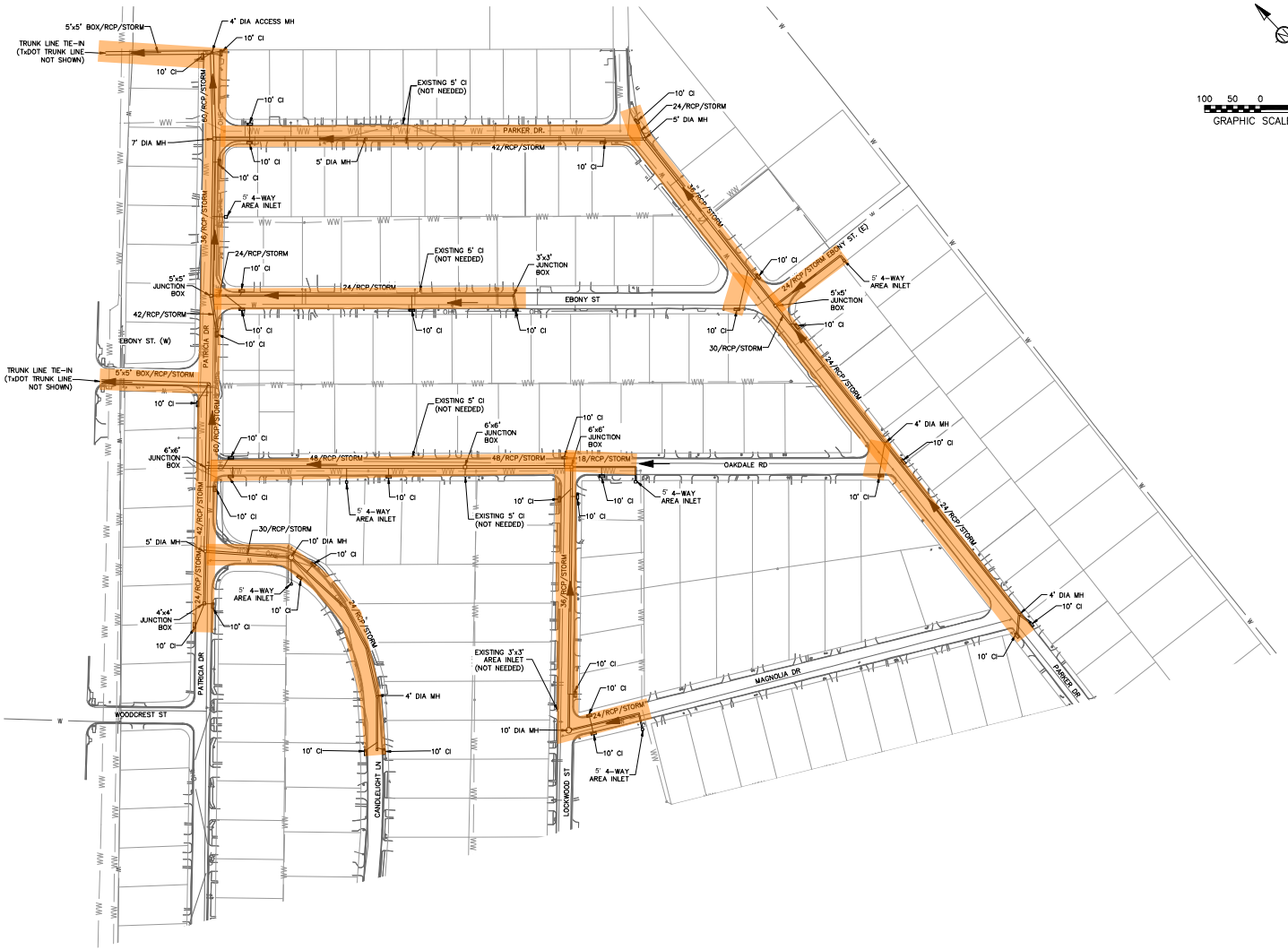
This signed Authorization, together with the attached General Terms and Conditions of the Authorization for Professional Services and CobbFendley Rate Schedule contains the entire and integrated agreement between Client and CobbFendley and supersedes all prior negotiations, representations or agreements, either written or oral. This agreement may only be amended by written instrument signed by both parties.

17. SALES TAX

To the extent that state sales taxes apply to any of the services or materials to be provided hereunder, such taxes are in addition to and are not included in the proposed fees of this Authorization.

18. BENEFICIARIES AND ASSIGNMENT

This agreement is made for the sole benefit of Client and CobbFendley and nothing in this agreement shall create a contractual relationship or cause of action in favor of any third party against either Client or CobbFendley. This agreement may not be assigned without the written consent of both Client and CobbFendley.



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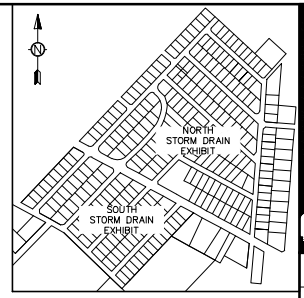

LEGEND

- FLOW DIRECTION
- PROPOSED STORM DRAIN
- STORM DRAIN TO REMAIN

NOTES:

1. DIMENSIONS AS SHOWN FOR PRELIMINARY DESIGN HAVE BEEN SIZED USING HEC-HMS.

*The City indicated during review of the PER that the possibility of wider inlets at the north end of Patricia Drive should be considered. This option will be evaluated during detailed design.

EXHIBIT G-1 PROPOSED NORTH SYSTEMS STORM DRAIN

ALAN PLUMMER ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERS AND SCIENTISTS
6300 LA CALMA DRIVE, SUITE 400
AUSTIN, TEXAS 78752-3843
PHONE (512) 454-4797 FAX (512) 454-2325
TEXAS REGISTERED ENGINEERING FIRM F-13

NO.	DATE	REVISION	BY

CITY OF SAN MARCOS
630 E. HOPKINS
SAN MARCOS, TX 78666

CITY OF SAN MARCOS
SUNSET ACRES DRAINAGE IMPROVEMENTS

EXHIBIT
PROPOSED STORM DRAIN LAYOUT (NORTH)

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
STEPHEN J. COONAN
TEXAS P.E. NO. 65516
DATE: 5/10/2019

BAR IS ONE INCH ON ORIGINAL DRAWING.
ONE INCH

DESIGNED J. ZAMORA
DRAWN B. BAUMAN
CHECKED S. COONAN
REVIEWED R. PIERCE

Seq. of
Dwg. No. 1
0600-031-01

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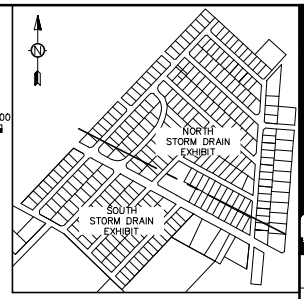

LEGEND

- FLOW DIRECTION
- PROPOSED STORM DRAIN
- STORM DRAIN TO REMAIN

NOTES:

1. DIMENSIONS AS SHOWN FOR PRELIMINARY DESIGN HAVE BEEN SIZED USING HEC-HMS.

EXHIBIT G-2 PROPOSED SOUTH SYSTEMS STORM DRAIN

ALAN PLUMMER ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERS AND SCIENTISTS
6300 LA CALMA DRIVE, SUITE 400
AUSTIN, TEXAS 78752-3843
PHONE: 512-454-4797 FAX: 512-454-2325
TEXAS REGISTERED ENGINEERING FIRM F-13

NO.	DATE	REVISION	BY

CITY OF SAN MARCOS
630 E. HOPKINS
SAN MARCOS, TX 78666

CITY OF SAN MARCOS
SUNSET ACRES DRAINAGE IMPROVEMENTS

EXHIBIT
PROPOSED STORM DRAIN LAYOUT (SOUTH)

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
STEPHEN J. COONAN
TEXAS P.E. NO. 65516
DATE: 5/10/2019

BAR IS ONE INCH ON ORIGINAL DRAWING.
ONE INCH

DESIGNED J ZAMORA
DRAWN B BAUMAN
CHECKED S COONAN
REVIEWED R PIERCE

Seq. of

Dwg. No. 2

0600-031-01

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