

## **WORK AUTHORIZATION**

**WORK AUTHORIZATION NO. 5**

**PROJECT: Right of Way Survey and Parcel Maps for San Gabriel Ranch Road**

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Surveying Services, being dated **February 9, 2015** and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and **Surveying and Mapping (SAM) LLC** (the "Surveyor").

Part 1. The Surveyor will provide the following Surveying Services set forth in Attachment "B" of this Work Authorization.

Part 2. The maximum amount payable for services under this Work Authorization without modification is **\$19859.80.**

Part 3. Payment to the Surveyor for the services established under this Work Authorization shall be made in accordance with the Contract.

Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on **February 28, 2017.** The Surveying Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Surveyor understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Surveyor that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Surveyor.

Part 7. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this 15<sup>th</sup> day of November, 20 16.

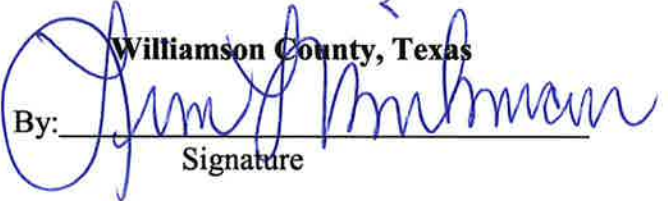
SURVEYOR:

COUNTY:

**SURVEYING & MAPPING (SAM) LLC**

**Williamson County, Texas**

By:   
Signature

By:   
Signature

Michael R. Hatcher  
Printed Name

for Dan Gattis  
Printed Name

Principal / Senior Vice President  
Title

County Judge  
Title

## **LIST OF ATTACHMENTS**

**Attachment A - Services to be Provided by County**

**Attachment B - Services to be Provided by Surveyor**

**Attachment C - Work Schedule**

**Attachment D - Fee Schedule**

**Attachment A**  
**Services to be Provided by County**

The County shall:

- A. Provide the specification requirements for all surveys.
- B. Provide timely reviews and decisions necessary to enable the Surveyor to maintain an agreed upon project schedule as developed in Attachment C.
- C. Designate a project manager to serve at the County's point of contact with the Surveyor.
- D. The Horizontal datum, as provided by Williamson County for this project, will be NAD83 (2011) Epoch 2010, and will be projected to Texas Coordinate System, Central Zone using a combined scale factor of 0.99985472.
- E. Primary Control Points provided by Williamson County will be recovered and held for this effort.
- F. It is assumed that Williamson County will coordinate Right-Of-Entry (ROE) with the Property Owners prior to the Surveyor entering private property.

**Attachment B**  
**Services to be Provided by Surveyor**

**RIGHT-OF-WAY SUVEYS AND PARCEL MAPS (UP TO 6 ROW PARCELS)**

**PROJECT CONTROL**

Surveying And Mapping, LLC (SAM) shall recover existing primary survey control utilized in the previous work authorization for San Gabriel Ranch Road boundary survey. The primary survey control, as provided by Williamson County, consists of a subterranean concrete monument with a 3-1/4 inch diameter aluminum cap flush with the natural ground surface on the northerly right-of-way of Remuda Drive, approximately 200 feet west of the intersection with Mustang Circle, Liberty Hill, Texas, and stamped "Williamson County GPS Monument" "GPS-40" "2007-40" Elevation: 902.36.

SAM shall establish up to 2 secondary control points (5/8" iron rods with "SAM Control" plastic caps) and tie to the above described primary control. Vertical values will be based on GPS and will be represented in US Survey Feet. Verifying secondary control elevations through digital levels is outside of this scope of services.

Horizontal datum, as provided by Williamson County for this project, will be NAD83 (2011) Epoch 2010, and will be projected to Texas Coordinate System, Central Zone using a combined scale factor of 0.99985472. Vertical Datum, as provided by Williamson County for this project, will be based on the orthometric height, (GEOID 03).

**RIGHT-OF-ENTRY (ROE)**

Williamson County will obtain written ROE from the landowners for the purpose of gaining access for survey. SAM will contact affected land owners prior to commencing any work on private property. SAM anticipates that Williamson County will handle problems regarding any and all refusal to grant ROE or communication with land owners who are hostile with respect to the completion of this scope of services. SAM will document any interactions with land owners while performing the work. Gaining ROE from all land owners in a timely manner will be critical to the success and efficiency in meeting deadlines for this project.

**RECORDS RESEARCH AND DEED STUDY**

Upon notice to proceed, SAM will conduct research in the Williamson County Appraisal District offices to confirm property ownership for the six (6) affected properties (subject properties). Concurrently, copies of the current deeds and any plats for all subject properties will be obtained from the Williamson County Clerks' records.

SAM will enlist the services of a title company to provide title reports for the six (6) affected subject properties. Based upon the records obtained, SAM will prepare a working drawing of the deeds and ROW information to be used for a preliminary base map.

## **FIELD SURVEYS**

SAM will recover monuments marking the existing ROW lines (if any) and the front corners of the properties from which ROW is to be obtained and will tie the monumentation found to the project control. SAM will recover the corner or angle point monuments nearest to the proposed ROW on the side line of each of the subject properties and these corners will be tied to the project control.

## **BOUNDARY ANALYSIS**

Utilizing the deed study and the data obtained from the field survey, SAM will analyze the results of the survey and perform computations to determine locations of ROW lines and the side property lines of each of the subject properties.

## **PREPARATION OF DOCUMENTS**

- a. SAM will develop a base file showing ownership of the subject properties and any easements found during the title abstract. Properties adjacent to the existing/proposed right of way within the project limits will be labeled with the owner's name and deed recordation information.
- b. Utilizing the boundary surveys performed by SAM, and the proposed ROW line provided by Williamson County, SAM will compute the boundaries of the ROW parcels for each of the subject properties.
- c. SAM will draft plats for up to six (6) parcels for ROW acquisition, upon receiving final ROW lines from Williamson County, to be prepared on 8 1/2" x 11" pages. A closure computation will be prepared for each of the plats.
- d. SAM will prepare a field note (metes and bounds) description for each of the six (6) parcels. A closure computation will be prepared for each of the descriptions.
- e. SAM will draft a continuous ROW roll plot exhibit, at an even scale, based upon the above stated project limits. The roll plot will contain the proposed ROW lines, existing ROW lines, parcel numbers and record ownership information.

- f. To assure the accuracy of the documents, SAM will read the descriptions while all details are compared parcel plats (bearings, distances, stations and offsets, deed references, etc.). Final mark-ups will be made and corrections completed.
- g. All of the above described survey documents (ROW roll plot, property descriptions parcel plats and closure computations) will be submitted to Williamson County for review. Upon the completion of review of all ROW survey documents, SAM will make any necessary corrections. The final ROW documents will then be delivered to Williamson County.

## **MONUMENTATION**

5/8 inch iron rods with aluminum caps stamped "Williamson County ROW" will be set at PCs, PTs, and angle points along the proposed right-of-way line and at property line intersections with the proposed right-of-way line (assume 20 total).

## **ROW SURVEY DELIVERABLES**

- a. Three legal descriptions for each parcel (signed and sealed).
- b. Three individual survey plats on 8 1/2"x11" for each parcel (signed and sealed).
- c. ROW map/roll plot
- d. One set of area computation sheets for legal descriptions, plats, and ROW roll plot showing parcel lines and parcel numbers corresponding to field notes for all parcels.
- e. Digital files on CD for the right-of-way base file and reference files in Microstation V8 (.dgn) format. These shall be delivered to Williamson County prior to finalizing the proposed ROW acquisition documents.
- f. PDF copy of Title Reports for each parcel to be used in assisting the ROW acquisition effort.

## **ADDITIONAL SERVICES**

In addition to the services outlined above, SAM can provide additional services as requested on a time and materials basis. If requested, a scope of work and estimated fee will be provided in writing prior to SAM proceeding with any additional service. These additional services include, but are not limited to, the following:

- ROW or Boundary surveying and mapping services beyond that scoped herein.
- Design surveying services.
- Obtaining right of entry from the adjoining landowners.
- Records research to abstract title, easements and other encumbrances of

record beyond the scoped herein.

- Preparing of descriptions and plats for temporary construction easements and surveying to stake such easements if required.
- Aerial or Geospatial services.
- Subsurface Utility Engineering (SUE) services.
- Construction staking.
- Any other services not specifically outlined above.



TASK DESCRIPTION	SENIOR PROJECT MANAGER	PROJECT MANAGER	SENIOR SURVEY TECHNICIAN	SURVEY TECHNICIAN	GPS HDS COORDINATOR	2-PERSON SURVEY CREW	3-PERSON SURVEY CREW	FIELD COORDINATOR	ADMIN CLERICAL	TOTAL LABOR HRS. & COSTS
<b>ROW Surveying</b>										
Recover and Establish Horizontal Survey Control			1	4		10				\$1,785.00
Right-Of-Entry Coordination				2						\$160.00
Records Research and Deed Study			2	6						\$1,110.00
Field Surveys			1	4		30				\$4,385.00
Boundary Analysis			6	12						\$1,830.00
Preparation of Documents (Up to 6 Parcels and One Roll Plot)			4	30	20					\$4,800.00
Measurement (up to 20)			1	2		20				\$2,905.00
<b>ROW Surveying Sub Totals</b>	0	15	58	26	0	60	0	0	0	\$16,975.00
<b>HOURS SUB-TOTALS</b>	0	15	58	26	0	60	0	0	0	16975
CONTRACT RATE PER HOUR	\$145.00	\$125.00	\$90.00	\$90.00	\$105.00	\$130.00	\$160.00	\$65.00	\$60.00	
TOTAL LABOR COSTS	\$0.00	\$1,875.00	\$5,220.00	\$2,080.00	\$0.00	\$7,800.00	\$0.00	\$0.00	\$0.00	\$16,975.00
<b>OTHER DIRECT EXPENSES</b>	<b># OF UNITS</b>	<b>COST/UNIT</b>								
Mileage (number x current state rate)	620	\$0.54								\$334.80
GPS RTK	30	\$25.00								\$750.00
Title Reports	6	\$300.00								\$1,800.00
<b>SUBTOTAL DIRECT EXPENSES</b>										\$2,884.80

<b>SUMMARY</b>		
LABOR COSTS		\$16,975.00
NON-SALARY (OTHER DIRECT EXPENSES)		\$2,884.80
<b>TOTAL SAM SURVEY</b>		<b>\$19,859.80</b>

## Attachment C

### Work Schedule

ATTACHMENT C - WORK SCHEDULE						
Surveying and Mapping, LLC	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Recover and Establish Horizontal Survey Control*						
Righ-Of-Entry Coordination						
Records Research and Deed Study						
Field Surveys*						
Boundary Analysis						
Williamson County Review						
Preparation of Documents						
Williamson County Review						
Monumentation*						
* Weather Dependent						

SAM, LLC has sufficient office & field staff available to accommodate accelerated work schedules that may become necessary during the course of the project. Please contact us immediately upon becoming aware of this situation to discuss compressing the schedule, along with associated fees, to deliver the final product to meet the new deadline.

## **Attachment D**

### **Fee Schedule**

#### **SAM, LLC STANDARD AUSTIN RATE SCHEDULE**

Effective October 16, 2014

##### **SURVEY FIELD CREW SERVICES:**

Two (2) Person Survey Field Crew	\$130.00 per hour
Three (3) Person Survey Field Crew	\$160.00 per hour
Additional Rodperson, Chainperson or Flagperson	\$32.00 per hour
1 Person Crew with Receiver or Robotic Total Station	\$105.00 per hour
GPS Receiver	\$25.00 per hour
Field Coordinator	\$85.00 per hour
ATV or Utility Vehicle	\$75.00 per day

Field crews are equipped with a four-wheel drive vehicle. There is mileage charge for survey crew vehicles computed at the current I.R.S. mileage allowance.

##### **SURVEY OFFICE PERSONNEL SERVICES:**

Principal	\$170.00 per hour
Associate/Senior Project Manager	\$145.00 per hour
Project Manager	\$125.00 per hour
Staff Surveyor	\$110.00 per hour
GPS/HDS Coordinator	\$105.00 per hour
Surveyor-In-Training (SIT)	\$90.00 per hour
Senior Survey Technician	\$90.00 per hour
Survey Technician	\$80.00 per hour
Administration / Clerical Support	\$60.00 per hour

All surveying services are regulated under the Texas Board of Professional Land Surveying. The Board can be contacted at 12100 Park 35 Circle, Bldg A, Suite 156 Austin, Texas 78753.

##### **GEOSPATIAL SERVICES:**

Principal	\$170.00 per hour
Senior Project Manager	\$155.00 per hour
Project Manager	\$140.00 per hour
Acquisition Manager	\$125.00 per hour
Pilot	\$125.00 per hour
Photogrammetrist / Project Lead	\$105.00 per hour
Acquisition / Calibration / Aerial Triangulation Technician	\$95.00 per hour
LiDAR / Photogrammetry Technician	\$92.50 per hour
HDS Laser Scanning Technician	\$95.00 per hour

**EQUIPMENT:**

Aerial LiDAR System (Equipment Only)	\$6,500.00 per day
Mobile Mapping System (Equipment Only)	\$6,000.00 per day
Mobile Mapping Equipment Stand-by Fee (Equipment Only)	\$3,000.00 per day
HDS Laser Scanner	\$850.00 per day
High Rail Equipped Vehicle	\$100.00 per day
Weather Station	\$100.00 per day
Oblique Camera System	\$250.00 per day
Video Camera System	\$50.00 per day
Helicopter (Turbine Engine Powered)	\$1,450.00 per hour
Helicopter (Reciprocal Engine Powered)	\$850.00 per hour
GPS Receiver (Unmanned)	\$ 25.00 per hour
Geospatial Work Station	\$ 15.00 per hour
Aerial Film Scanning	\$ 10.00 per frame