

## WORK AUTHORIZATION

### WORK AUTHORIZATION NO. 1

#### PROJECT: Speed Studies for 30 Williamson County Roads

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated September 3, 2015 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Kimley-Horn and Associates (the "Engineer").

Part 1. The Engineer will provide the following Engineering 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 \$ 34,597.00.

Part 3. Payment to the Engineer 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 September 30, 2016. The Engineering 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.

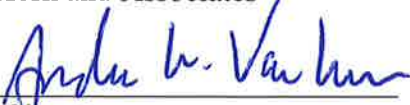
Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other 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 Engineer 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 Engineer.

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

EXECUTED this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

ENGINEER:

Kimley-Horn and Associates

By:   
Signature

Andrew VanLeeuwen  
Printed Name

Sr. Vice President  
Title

COUNTY:

Williamson County, Texas

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

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

## ATTACHMENT A

### Services to be Provided by the County

**Locations:** Multiple (30 County Roadways)

**Project:** Speed Studies to Establish Speed Limits

#### SCOPE OF WORK OVERVIEW

This project involves speed studies for multiple Williamson County roadways. Kimley-Horn and Associates (K-H) will perform studies to determine the appropriate speed limits for each roadway listed in the table below.

| Road          | From        | To             | Road   | From                     | To                   |
|---------------|-------------|----------------|--------|--------------------------|----------------------|
| Landfill Road | FM 1660     | End of Road    | CR 200 | SH 29                    | CR 236               |
| CR 100        | SH 29       | FM 1660        | CR 220 | CR 223                   | CR 226               |
| CR 105        | CR 110      | CR 100         | CR 226 | SH 138                   | Florence City Limits |
| CR 110        | US 79       | Rockride Ln    | CR 234 | CR 143                   | FM 487               |
| CR 112        | AW Grimes   | CR 110         | CR 241 | RM 2338                  | SH 195               |
| CR 117        | CR 112      | Redbud Ln      | CR 245 | RM 2338                  | FM 970               |
| CR 123        | Redbud Lane | US 79          | CR 279 | Liberty Hill City Limits | CR 281               |
| CR 137        | FM 1660     | CR 138         | CR 281 | CR 279                   | CR 282               |
| CR 138        | SH 130      | CR 137         | CR 282 | RM 1869                  | Rural Space Rd       |
| CR 139        | CR 137      | Rowe Ln        | CR 283 | CR 284                   | CR 282               |
| CR 143        | IH 35       | SH 195         | CR 284 | CR 282                   | CR 286               |
| CR 145        | CR 311      | FM 1105        | CR 301 | CR 380                   | E FM 487             |
| CR 147        | SH 195      | East of CR 234 | CR 311 | IH 35                    | FM 1105              |
| CR 153        | FM 1105     | FM 1105        | CR 313 | CR 312                   | CR 3001              |
| CR 175        | FM 2243     | RM 1431        | CR 122 | Red Bud                  | CR 110               |

#### SERVICES TO BE PROVIDED BY THE COUNTY

The County shall provide all information requested by K-H during the project, including but not limited to the following:

- Timely responses to requests for information or clarification; and
- Timely review of all submittals.
- Provide available copies of associated studies and coordination with ongoing related county projects.
- Provide decisions in a timely manner.
- Process payment to Engineer in a timely manner.

## ATTACHMENT B

### Services to be Provided by the Engineer

**Locations:** Multiple (30 Williamson County Roadways)

**Project:** Speed Studies to Establish Speed Limits

#### SCOPE OF WORK OVERVIEW

This project involves speed studies for multiple Williamson County roadways. Kimley-Horn and Associates (K-H) will perform studies to determine the appropriate speed limits for each roadway listed in the table below.

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| CR 100        | SH 29       | FM 1660        | CR 220 | CR 223                   | CR 226               |
| CR 105        | CR 110      | CR 100         | CR 226 | SH 138                   | Florence City Limits |
| CR 110        | US 79       | Rockride Ln    | CR 234 | CR 143                   | FM 487               |
| CR 112        | AW Grimes   | CR 110         | CR 241 | RM 2338                  | SH 195               |
| CR 117        | CR 112      | Redbud Ln      | CR 245 | RM 2338                  | FM 970               |
| CR 123        | Redbud Lane | US 79          | CR 279 | Liberty Hill City Limits | CR 281               |
| CR 137        | FM 1660     | CR 138         | CR 281 | CR 279                   | CR 282               |
| CR 138        | SH 130      | CR 137         | CR 282 | RM 1869                  | Rural Space Rd       |
| CR 139        | CR 137      | Rowe Ln        | CR 283 | CR 284                   | CR 282               |
| CR 143        | IH 35       | SH 195         | CR 284 | CR 282                   | CR 286               |
| CR 145        | CR 311      | FM 1105        | CR 301 | CR 380                   | E FM 487             |
| CR 147        | SH 195      | East of CR 234 | CR 311 | IH 35                    | FM 1105              |
| CR 153        | FM 1105     | FM 1105        | CR 313 | CR 312                   | CR 3001              |
| CR 175        | FM 2243     | RM 1431        | CR 122 | Red Bud                  | CR 110               |

#### SERVICES TO BE PROVIDED BY THE ENGINEER

##### **Task 1. Project Management**

Project management spans the entire duration of the project and involves monitoring and coordination of services provided to the County to assure timely and efficient completion of the project. K-H will perform typical project management duties to meet the schedule discussed in subsequent sections. Project management duties will include coordination and communication with the Client, coordination with subcontractors, and accounting activities related to the performance of the study.

**Task 2. Data Collection**

K-H will conduct a segment analysis to determine the number of data collection locations needed for a given roadway. Typical segment lengths will be every one to two miles.

K-H will review each roadway and develop specific locations for the speed tube counts to be located.

K-H will collect daily (24-hour) vehicle speed tube counts in both directions at up to 45 locations.

Speed data will be collected on a typical weekday (Tuesday, Wednesday, or Thursday)

**Task 3. Speed Study Analysis**

K-H will apply criteria from the Texas Manual on Uniform Traffic Control Devices (TMUTCD) and governing state law to the traffic and speed data to determine the applicable speed zones that are warranted for each section of roadway studied.

**Task 4. Technical Memorandum Report**

The findings of the above scope of services will be documented in a technical memorandum report. The report will include findings and recommendations in a tabular format. For each road segment identified in Task 2, a recommended speed limit will be provided. This report will not include any analysis or recommendations for advisory signage.

**Task 5. Project Coordination Meetings**

After submission of the draft report, K-H will attend one (1) meeting with County staff to review the project findings and receive their comments. Additional meetings may be scheduled; however, such meetings are not included in this scope.

**Additional Services**

Any services not specifically provided for in the above scope will be considered additional services and can be performed at our then current hourly rates. Additional services we can provide include, but are not limited to, the following:

- Additional analyses or major re-works that are required as a result of comments that are inconsistent with K-H's original direction from the County;
- Advisory speed studies for horizontal curves, and
- Attendance at additional meetings beyond those listed.

**Schedule**

KHA will provide our services as expeditiously as practicable to meet the mutually agreed upon schedule, attached as Attachment C. This schedule shall be extended as necessary, for periods of delay or suspension, resulting from circumstances the Consultant does not control.

**WORK AUTHORIZATION 1**

**ATTACHMENT C: PROJECT SCHEDULE**

**Project Name:** Williamson County Speed Studies  
**Project Description:** Speed Limit Studies - 30 Roads  
**Prepared By:** Kimley-Horn and Associates, Inc.

| Task # | Task Name          | Project Schedule |         |
|--------|--------------------|------------------|---------|
|        |                    | Month 1          | Month 2 |
| 1      | Project Management | █                | █       |
| 2      | Data Collection    | █                | █       |
| 3      | Analysis           | █                | █       |
| 4      | Tech Memo Report   | █                | █       |
| 5      | Meetings           | █                | █       |
|        | County Review      |                  | █       |

**WORK AUTHORIZATION 1**

**Attachment D**

**Project Name:** Williamson County Speed Studies  
**Project Description:** Speed Limit Studies - 30 Roads  
**Prepared By:** Kimley-Horn and Associates, Inc.

| Task # | KHA Task Name                            | Direct Labor (Person-Hours) |   |                    |                   |                               |     |     | KHA Labor Total (hours) | KHA Labor Expense (\$) | Sub-Contractor and Expense (\$) |
|--------|--|-----------------------------|---|--------------------|-------------------|-------------------------------|-----|-----|-------------------------|------------------------|---------------------------------|
|        |  | Principal<br>\$240.00       | Senior Transportation Engineer II<br>\$215.00 | Engineer<br>145.00 | Analyst<br>115.00 | Secretary / Clerical<br>75.00 |     |     |                         |                        |                                 |
| 1      | <b>Project Management</b>                |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
|        | Project Administration and Documentation | 1                           | 2   |                    |                   | 2                             |     |     |                         | 820                    |                                 |
|        | Project Reporting and Invoicing          | 1                           | 2   |                    |                   | 2                             |     |     |                         | 820                    |                                 |
|        | Subconsultant Coordination               | 2                           | 5   | 2                  | 4                 | 4                             | 0   | 0   | 0                       | 965                    |                                 |
|        | <b>Task Total (Hours)</b>                |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
|        | <b>Task Total (Dollars)</b>              | \$480                       | \$1,075                                       | \$290              | \$460             | \$300                         | 0   | 0   | 0                       | \$2,605                | \$0                             |
| 2      | <b>Data Collection</b>                   |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
|        | Segment Analysis                         | 1                           | 2   | 4                  | 15                |                               |     |     |                         | 2975                   |                                 |
|        | Map of Count Locations for GRAM          |                             | 2   |                    | 15                |                               |     |     |                         | 2155                   |                                 |
|        | Tube Counts (up to 45)                   | 1                           | 6   | 4                  | 45                | 0                             | 0   | 0   | 0                       | 2155                   | \$7,800                         |
|        | <b>Task Total (Hours)</b>                | \$240                       | \$1,290                                       | \$560              | \$5,175           | \$0                           | \$0 | \$0 | \$0                     | \$7,285                | \$7,800                         |
|        | <b>Task Total (Dollars)</b>              |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
| 3      | <b>Speed Study Analysis</b>              |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
|        | Speed Limit Analysis                     | 2                           | 2   | 5                  | 45                |                               |     |     |                         | 6810                   |                                 |
|        |  | 2                           | 2   | 5                  | 45                | 0                             | 0   | 0   | 0                       | 54                     |                                 |
|        |  | \$480                       | \$430   | \$725              | \$5,175           | \$0                           | \$0 | \$0 | \$0                     | \$6,810                | \$0                             |
|        | <b>Task Total (Hours)</b>                |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
|        | <b>Task Total (Dollars)</b>              |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
| 4      | <b>Technical Memo</b>                    |                             |   |                    |                   |                               |     |     |                         |                        |                                 |
|        | Draft Tech Memo                          | 1                           | 8   | 16                 | 20                |                               |     |     |                         | 6580                   |                                 |
|        | Address Review Comments                  |                             | 1   | 2                  | 4                 |                               |     |     |                         | 965                    |                                 |
|        | Final Tech Memo                          | 1                           | 1   | 1                  | 2                 |                               |     |     |                         | 830                    |                                 |
|        | Printing / Binding                       | 2                           | 10  | 19                 | 28                | 2                             | 2   | 0   | 0                       | 380                    |                                 |
|        | <b>Task Total (Dollars)</b>              | \$480                       | \$2,150                                       | \$2,755            | \$3,220           | \$150                         | \$0 | \$0 | \$0                     | \$8,755                | \$0                             |

| Task # | KHA Task Name                | Direct Labor (Person-Hours) |                                   |          |          |                      |     |          | KHA Labor Total (hours) | KHA Labor Expense (\$) | Sub-Contractor and Expense (\$) |
|--------|------------------------------|-----------------------------|-----------------------------------|----------|----------|----------------------|-----|----------|-------------------------|------------------------|---------------------------------|
|        |                              | Principal                   | Senior Transportation Engineer II | Engineer | Analyst  | Secretary / Clerical |     |          |                         |                        |                                 |
| 5      | Project Coordination Meeting |                             |                                   |          |          |                      |     |          |                         |                        |                                 |
|        | County Review Meeting        | 0                           | 4                                 | 0        | 4        | 0                    | 0   | 8        | 1320                    |                        |                                 |
|        | Task Total (Hours)           |                             |                                   |          |          |                      |     |          |                         |                        |                                 |
|        | Task Total (Dollars)         | \$0                         | \$860                             | \$0      | \$460    | \$0                  | \$0 | \$0      | \$1,320                 | \$0                    |                                 |
|        | TOTAL (Hours)                | 7                           | 27                                | 30       | 126      | 6                    | 0   | 196      |                         |                        |                                 |
|        | TOTAL (Fee)                  | \$1,680                     | \$5,805                           | \$4,350  | \$14,490 | \$450                | \$0 | \$26,775 | \$7,800                 |                        |                                 |

**Project Summary**

| Expenses                       |            |  |   |         |          |                 |
|--------------------------------|------------|--|---|---------|----------|-----------------|
| Subconsultants Data Collection |            |  |   |         |          |                 |
| Mileage                        | 40.0 Miles |  | x | \$0.540 | per mile | \$7,800         |
| 11" x17" Plots                 | 0.0 Plots  |  | x | \$0.20  | per plot | \$22            |
| 8-1/2" x11" Plots              | 0.0 Plots  |  | x | \$0.10  | per plot | \$0             |
| <b>Total</b>                   |            |  |   |         |          | \$7,822         |
| K-H LABOR                      |            |  |   |         |          | \$26,775        |
| <b>GRAND TOTAL</b>             |            |  |   |         |          | <b>\$34,597</b> |