

WILLIAMSON COUNTY PURCHASING DEPARTMENT 301 SE INNER LOOP - SUITE 106 GEORGETOWN, TEXAS 78626

http://wilco-online.org/eBids/Bids.aspx

INVITATION FOR BIDS (IFB)

SIGNS AND DELINEATORS FOR WILLIAMSON COUNTY BID # 13IFB00109

BIDS MUST BE RECEIVED ON OR BEFORE: DECEMBER 26, 2012 – 2:00PM

BIDS WILL BE PUBLICLY OPENED: DECEMBER 26, 2012 - 2:00PM

PRE-BID CONFERENCE: DECEMBER 12, 2012 AT 2:00PM AT WILLIAMSON COUNTY CENTRAL MAINTENANCE FACILITY TRAINING ROOM, 3151 SE INNER LOOP, GEORGETOWN, TX 78626.

All vendors interested in submitting a bid are encouraged to attend the pre-bid conference at 2:00 PM on December 12, 2012 at the Williamson County Central Maintenance Facility Training Room, located at 3151 SE Inner Loop, Georgetown, TX 78626.

BID SUBMISSION

Notice is hereby given that sealed Bids will be accepted by the Williamson County Purchasing Department for Bid # 13IFB00109, SIGNS AND DELINEATORS. Specifications for this Bid may be obtained from http://wilco-online.org/eBids/Bids.aspx.

Bids are to be addressed to the Williamson County Purchasing Agent, Bob Space, 301 SE Inner Loop, Ste 106, Georgetown, TX 78626, with the Bid number and Bid name marked on the outside of the envelope. Bidders should forward one (1) original, two (2) paper copies and one (1) CD copy of their Bid to the address shown below. Late Bids will be rejected as non-responsive. Bids will be publicly opened in the Williamson County Purchasing Department at the time and date indicated above. Bidders are invited to attend the sealed Bid opening.

BID NAME: SIGNS AND DELINEATORS FOR WILLIAMSON

COUNTY

BID NO: 13IFB00109

DUE DATE/TIME: DECEMBER 26, 2012 ON OR BEFORE 2:00 PM MAIL OR DELIVER TO: Williamson County Purchasing Department

301 SE Inner Loop

Suite 106

Georgetown, TX 78626

All Bidders interested in submitting a Bid may attend the Pre-Bid conference on December 12, 2012 at 2:00 PM at The Williamson County Central Maintenance Facility Training Room, 3151 SE Inner Loop, Georgetown, TX 78626

Any questions, clarifications or requests for general information should be directed to the contact listed below.

Assistant Purchasing Agent or successor **Kerstin Hancock**301 SE Inner Loop, Suite 106
Georgetown, TX 78626 **khancock**@wilco.org

Question submittals must be made via email, and are due by 5PM CST on December 18, 2012. Every effort will be made to answer questions within 24 hours of receiving them, with an email response.

All submitted questions with their answers will be posted and updated on a daily basis to the Williamson County portal, http://wilco-online.org/eBids/Bids.aspx

It is the Bidder's responsibility to check with Williamson County's Purchasing Department prior to submitting your Bid to ensure that you have a complete, up-to-date package. The Williamson County Purchasing Department takes no responsibility to ensure any interested Bidder has obtained any outstanding addenda or additional information. Any addenda and/or other information relevant to the IFB will be posted on the Williamson County vendor portal at the following link: http://wilco-online.org/eBids/Bids.aspx

All interested Bidders are invited to submit a Bid in accordance with the Instructions and General Requirements, Bid Format, Bid Specifications, and Definitions, Terms and Conditions stated in this IFB. No negotiations or modifications to the Bids received will be allowed.

BIDDERS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE IFB

SIGNS AND DELINEATORS FOR WILLIAMSON COUNTY BID # 13IFB00109

WILLIAMSON COUNTY WILL NOT BE RESPONSIBLE FOR UNMARKED OR IMPROPERLY MARKED ENVELOPES

There is no expressed or implied obligation for Williamson County (sometimes referred to herein as the "County") to reimburse Bidders for any expense incurred in preparing a Bid in response to this IFB and Williamson County will not reimburse Bidders for these expenses.

All Bids must be received in the Williamson County Purchasing Department before the opening, which will be on the date and at the time set forth on page 1. Bids received after the submittal deadline will be considered void and unacceptable and returned to the Bidder unopened. Williamson County is not responsible for lateness or non-delivery of mail, carrier, etc. The date and time stamp of the Williamson County Purchasing Department shall be the official date and time of receipt.

FACSIMILE AND ELECTRONIC TRANSMITTALS WILL NOT BE ACCEPTED.

The **Bidder's Bid, all IFB requirements and Submittal Checklist** should be completed prior to submission. Failure to fully complete forms/affidavits and return the documentation required by this IFB may, at Williamson County's sole discretion, render your Bid null and void. Bids will be publicly opened and read aloud in the Williamson County Purchasing Department, 301 SE Inner Loop, Suite 106, Georgetown, Texas 78626.

HOURS FOR THE WILLIAMSON COUNTY PURCHASING DEPARTMENT ARE 8:00 AM – 12:00 PM AND 1:00 PM – 5:00 PM CENTRAL TIME (PURCHASING DEPARTMENT IS CLOSED DURING LUNCH FROM 12:00PM – 1:00PM), MONDAY – FRIDAY, EXCLUDING COUNTY HOLIDAYS

Tentative Schedule of Events

Issuance of IFB December 4, 2012

Pre-Bid Conference December 12, 2012

Deadline to Submit Questions December 18, 2012

Bid Submission Deadline

(Late Bids will not be considered) December 26, 2012

Evaluation of Bids January 4, 2012

Recommendation for Contract Award January 15, 2012

PRE-BID INSPECTION

To the extent necessary and prior to the submittal, Bidders are strongly encouraged to visually inspect and be familiar with all goods and/or services for which they intend to submit a Bid. If in the Pre-Bid inspection the Bidder determines any discrepancies, he/she/it should inform the Williamson County Purchasing

Department.

1. INTRODUCTION TO BIDDERS

This IFB is to receive Bids from qualified Bidders regarding the goods and/or services which Williamson County seeks to procure under this IFB.

2. DEFINITIONS, TERMS AND CONDITIONS

2.1 **DEFINITIONS**

- a. "Addenda" Means any written or graphic instruments issued by Williamson County prior to the consideration of Bids which modify or interpret the Bid Documents by additions, deletions, clarifications, or corrections.
- b. "Agreement" The Successful Bidder may be required by Williamson County to sign an additional Agreement containing terms necessary to ensure compliance with the IFB and Bidder's Bid. Such ensuing Agreement(s) shall contain the Bid Specifications, Terms and Conditions that are derived from the IFB.
- c. "Contract" This IFB and the Bid of the Successful Bidder shall become a contract between the Successful Bidder and Williamson County once the Successful Bidder's Bid is properly accepted by the Williamson County Commissioners Court.
- d. "Bid Documents" The Legal Notice, IFB including attachments, and any Addenda issued by Williamson County prior to the consideration of any Bids.
- e. "Bid" Is a complete, properly signed Bid submitted in accordance with this IFB which is irrevocable during the specified period for evaluation and acceptance of Bids.
- f. "Bidder" A person or entity who submits a Bid in response to this IFB.
- g. "IFB" Refers to this document, together with the attachments thereto and any future addenda issued by Williamson County.
- h. "Successful Bidder" The responsible Bidder to whom Williamson County intends to award the Contract.

2.2 TERMS AND CONDITIONS

2.2.1 Venue and Governing Law

Bidder hereby agrees and acknowledges that venue and jurisdiction of any suit, right, or cause of action arising out of or in connection with this IFB, the Contract and any ensuing Agreement shall lie exclusively in either Williamson County, Texas or in the Austin Division of the Western Federal District of Texas, and the parties hereto expressly consent and submit to such jurisdiction. Furthermore, except to the extent that this IFB, the Contract and any ensuing Agreement is governed by the laws of the United States, this IFB, the Contract and any ensuing Agreement shall be governed by and construed in accordance with the laws of the State of Texas, excluding, however, its choice of law rules.

2.2.2 Incorporation by Reference and Precedence

The Contract shall be derived from (1) the IFB and is Addenda; and (2) the Bidder's Bid. In the event of a dispute under the Contract, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence: (1) the IFB and its Addenda; and (2) the Bidder's Bid.

In the event Williamson County requires that an ensuing Agreement be executed following award and a dispute arises between (1) terms and conditions of the ensuing Agreement, (2) the IFB,

and its Addenda; and (3) the Bidder's Bid, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence: (1) terms and conditions of the ensuing Agreement, (2) the IFB; and (3) the Bidder's Bid.

2.2.3 Ownership of Bid

Each Bid shall become the property of Williamson County upon submittal and will not be returned to Bidders unless received after the submittal deadline.

2.2.4 Disqualification of Bidder

Upon signing and submittal of the Bid, a Bidder offering to sell supplies, materials, services, or equipment to Williamson County certifies that the Bidder has not violated the antitrust laws of this state codified in Section 15.01, et seq, Business & Commerce Code, or the Federal Antitrust Laws, and has not communicated directly or indirectly the offer made to any competitor or any other person engaged in such line of business. Any or all Bids may be rejected if Williamson County believes that collusion exists among the Bidders.

2.2.5 Funding

County intends to budget and make sufficient funds available and authorize funds for expenditure to finance the costs of the Contract. Bidders understand and agree that the County's payment of amounts under the Contract shall be contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to make payments under this Contract.

2.2.6 Assignment, Successors and Assigns

The Successful Bidder may not assign, sell, or otherwise transfer the Contract or any other rights or interests obtained under the Contract without written permission of the Williamson County Commissioners Court. The Contract and any ensuing Agreement shall be binding upon and inure to the benefit of the contracting parties hereto and their respective successors and permitted assigns.

2.2.7 Implied Requirements

Products and services not specifically described or required in the IFB, but which are necessary to provide the functional capabilities described by the Bidder, shall be implied and deemed to be included in the Bid.

2.2.8 Termination

- a. Termination for Cause: Williamson County reserves the right to terminate the Contract and/or any ensuing Agreement for default if the Successful Bidder breaches any of the IFB Specifications, Terms and Conditions, including warranties of Bidder, if any, or if the Successful Bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies Williamson County may have at law or in equity or as may otherwise be provided hereunder. Default may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all other requirements to Williamson County's satisfaction, and/or to meet all other obligations and requirements.
- b. Termination for Convenience: Williamson County may terminate the Contract and/or any ensuing Agreement for convenience and without cause or further liability, upon thirty (30) calendar day's written notice to Successful Bidder. In the event Williamson County exercises its right to terminate without cause, it is

understood and agreed that only the amounts due to the Successful Bidder for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for Williamson County's termination for convenience.

2.2.9 Non-Performance

It is the objective of Williamson County to obtain complete and satisfactory performance of the requirements set forth herein. In addition to any other remedies available at law, in equity or that may be set out herein, failure to perform may result in a deduction of payment equal to the amount of the goods and/or services that were not provided and/or performed to the County's satisfaction. In the event of such non-performance, the County shall have the right, but shall not be obligated, to complete the services itself or by others and/or purchase the goods from other sources. If the County elects to acquire the goods or perform the services itself or by others, pursuant to the foregoing, the Successful Bidder shall reimburse the County, within ten (10) calendar days of demand, for all costs incurred by the County (including, without limitation, applicable, general, and administrative expenses, and field overhead, and the cost of necessary equipment, materials, and field labor) in correcting the nonperformance which the Successful Bidder fails to meet pursuant to the requirements set out herein. In the event the Successful Bidder refuses to reimburse the County as set out in this provision, County shall have the right to deduct such reimbursement amounts from any amounts that may be then owing or that may become owing in the future to the Successful Bidder.

2.2.10 Proprietary Information and Texas Public Information Act

All material submitted to the County shall become public property and subject to the Texas Public Information Act upon receipt. If a Bidder does not desire proprietary information in the Bid to be disclosed, each page must be clearly identified and marked proprietary at time of submittal or, more preferably, all proprietary information may be placed in a folder or appendix and be clearly identified and marked as being proprietary. The County will, to the extent allowed by law, endeavor to protect from public disclosure the information that has been identified and marked as proprietary. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General. Failure to clearly identify and mark information as being proprietary as set forth under this provision will result in all unmarked information being deemed non-proprietary and available to the public. For all information that has not been clearly identified and marked as proprietary by the Bidder, the County may choose to place such information on the County's website and/or a similar public database without obtaining any type of prior consent from the Bidder.

To the extent, if any, that any provision in this IFB or in the Bidder's Bid is in conflict with Tex. Gov't Code 552.001 et seq., as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Williamson County, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to Williamson County as to whether or not the same are available to the public. It is further understood that Williamson County's officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Williamson County, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to Williamson County by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

2.2.11 Right to Audit

Successful Bidder agrees that Williamson County or its duly authorized representatives shall, until the expiration of three (3) years after termination or expiration the services to be performed, have access to and the right to examine and photocopy any and all books, documents, papers and

records of Successful Bidder, which are directly pertinent to the services to be performed or goods to be delivered for the purposes of making audits, examinations, excerpts and transcriptions. Successful Bidder agrees that Williamson County shall have access during normal working hours to all necessary facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Williamson County shall give Successful Bidder reasonable advance notice of intended audits.

2.2.12 Testing and Inspections

Williamson County reserves the right to inspect and test equipment, supplies, materials and goods for quality and compliance with this IFB, and ability to meet the needs of the user. Demonstration units must be available for review. Should the goods or services fail to meet requirements and/or be unavailable for evaluation, Williamson County can deem the Bidder to be in breach and terminate the Contract and/or any ensuing Agreement(s).

2.2.13 Bid Preparation Cost

Cost of developing Bids is entirely the responsibility of Bidders and shall not be charged to Williamson County. There is no expressed or implied obligation for Williamson County to reimburse Bidders for any expense incurred in preparing a Bid in response to this IFB and Williamson County will not reimburse Bidders for such expenses.

2.2.14 INDEMNIFICATION

SUCCESSFUL BIDDER SHALL INDEMNIFY, DEFEND AND SAVE HARMLESS WILLIAMSON COUNTY, ITS OFFICIALS, EMPLOYEES, AGENTS AND AGENTS' EMPLOYEES FROM AND AGAINST ALL CLAIMS, LIABILITY, AND EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, ARISING FROM ACTIVITIES OF BIDDER, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED HEREUNDER THAT RESULT FROM THE NEGLIGENT ACT, ERROR, OR OMISSION OF BIDDER OR ANY OF BIDDER'S AGENTS, SERVANTS OR EMPLOYEES, AS WELL AS ALL CLAIMS OF LOSS OR DAMAGE TO THE BIDDER'S AND WILLIAMSON COUNTY'S PROPERTY, EQUIPMENT, AND/OR SUPPLIES.

FURTHERMORE, WILLIAMSON COUNTY, ITS OFFICIALS, EMPLOYEES, AGENTS AND AGENTS' EMPLOYEES SHALL NOT BE LIABLE FOR DAMAGES TO THE SUCCESSFUL BIDDER ARISING FROM ANY ACT OF ANY THIRD PARTY, INCLUDING, BUT NOT BEING LIMITED TO THEFT. SUCCESSFUL BIDDER FURTHER AGREES TO INDEMNIFY, DEFEND AND SAVE HARMLESS WILLIAMSON COUNTY FROM, ITS OFFICIALS, EMPLOYEES, AGENTS AND AGENTS' EMPLOYEES AGAINST ALL CLAIMS OF WHATEVER NATURE ARISING FROM ANY ACCIDENT, INJURY, OR DAMAGE WHATSOEVER CAUSED TO ANY PERSON OR TO THE PROPERTY OF ANY PERSON OCCURRING IN RELATION TO SUCCESSFUL BIDDER'S PERFORMANCE OF ANY SERVICES REQUESTED HEREUNDER DURING THE TERM OF THE CONTRACT AND/OR ANY ENSUING AGREEMENT(S).

SUCCESSFUL BIDDER SHALL TIMELY REPORT ALL CLAIMS, DEMANDS, SUITS, ACTIONS, PROCEEDINGS, LIENS OR JUDGMENTS TO WILLIAMSON COUNTY AND SHALL, UPON THE RECEIPT OF ANY CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN OR JUDGMENT, NOT LATER THAN THE FIFTEENTH (15TH) DAY OF EACH MONTH; PROVIDE WILLIAMSON COUNTY WITH A WRITTEN REPORT ON EACH SUCH MATTER, SETTING FORTH THE STATUS OF EACH MATTER, THE SCHEDULE OR PLANNED PROCEEDINGS WITH RESPECT TO EACH MATTER AND THE COOPERATION OR ASSISTANCE, IF ANY, OF WILLIAMSON COUNTY REQUIRED BY SUCCESSFUL BIDDER IN THE DEFENSE OF EACH MATTER. SUCCESSFUL BIDDER'S DUTY TO DEFEND, INDEMNIFY AND HOLD WILLIAMSON COUNTY HARMLESS SHALL BE ABSOLUTE. IT SHALL NOT ABATE OR END BY REASON OF THE EXPIRATION OR TERMINATION OF THE CONTRACT AND/OR ANY ENSUING AGREEMENT(S) UNLESS OTHERWISE AGREED BY WILLIAMSON COUNTY IN WRITING. THE PROVISIONS OF THIS SECTION SHALL SURVIVE THE TERMINATION OF THE CONTRACT AND SHALL REMAIN IN FULL FORCE AND EFFECT WITH RESPECT TO ALL SUCH MATTERS NO MATTER WHEN THEY ARISE.

IN THE EVENT OF ANY DISPUTE BETWEEN THE PARTIES AS TO WHETHER A CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN OR JUDGMENT APPEARS TO HAVE BEEN CAUSED BY OR APPEARS TO HAVE ARISEN OUT OF OR IN CONNECTION WITH ACTS OR OMISSIONS OF WILLIAMSON COUNTY, BIDDER SHALL NEVERTHE-LESS FULLY DEFEND SUCH CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN OR JUDGMENT UNTIL AND UNLESS THERE IS A DETERMINATION BY A COURT OF COMPETENT JURISDICTION THAT THE ACTS AND OMISSIONS OF BIDDER ARE NOT AT ISSUE IN THE MATTER.

Successful Bidder's indemnification shall cover, and Successful Bidder agrees to indemnify Williamson County, in the event Williamson County is found to have been negligent for having selected Successful Bidder to perform the work described in this request. The provision by Successful Bidder of insurance shall not limit the liability of Successful Bidder under the Contract and/or any ensuing Agreement.

2.2.15 Waiver of Subrogation

Successful Bidder and Successful Bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Williamson County as an indirect party to any suit arising out of personal or property damages resulting from the Bidder's performance under this Contract and any ensuing Agreement.

2.2.16 Relationship of the Parties

The Successful Bidder shall be an independent contractor and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions herein which may appear to give County the right to direct the Successful Bidder as to details of doing work herein covered or to exercise a measure of control over the work shall be deemed to mean that the Successful Bidder shall follow the desires of County in the results of the work only. County shall not retain or have the right to control the Successful Bidder's means, methods or details pertaining to the Successful Bidder's performance of the work. County and the Successful Bidder hereby agree and declare that the Successful Bidder is an independent contractor and as such meets the qualifications of an "Independent Contractor" under Texas Workers Compensation Act, Texas Labor Code, Section 406.141, that the Successful Bidder is not an employee of County, and that the Successful Bidder and its employees, agents and subcontractors shall not be entitled to workers compensation coverage or any other type of insurance coverage held by County.

2.2.17 Sole Provider

The Successful Bidder agrees and acknowledges that it shall not be considered a sole provider of the goods and/or services described herein and that Williamson County may contract with other providers of such goods and/or services if Williamson County deems, at its sole discretion, that multiple providers of the same goods and/or services will serve the best interest of Williamson County.

2.2.18 Force Majeure

If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.

2.2.19 Severability

If any provision of this IFB, the Contract or any ensuing Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render

unenforceable any other provision thereof, but rather the entire IFB, Contract or any ensuing Agreement will be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligation of the parties shall be construed and enforced in accordance therewith. The parties acknowledge that if any provision of this IFB, the Contract or any ensuing Agreement is determined to be invalid or unenforceable, it is the desire and intention of each that such provision be reformed and construed in such a manner that it will, to the maximum extent practicable, give effect to the intent of this IFB, the Contract or any ensuing Agreement and be deemed to be validated and enforceable.

2.2.20 Equal Opportunity

Neither party shall discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.

2.2.21 Notice

Any notice to be given shall be in writing and may be affected by personal delivery, or by registered or certified mail, return receipt requested, addressed to the proper party, at the following address:

Williamson County Purchasing Department Bob Space, Purchasing Agent (or successor) 301 SE Inner Loop, Suite 106 Georgetown, Texas 78626

Bidder:

Address set out in Bidder's Transmittal Letter

Notices given in accordance with this provision shall be effective upon (i) receipt by the party to which notice is given, or (ii) on the third (3rd) calendar day following mailing, whichever occurs first.

2.2.22 Sales and Use Tax Exemption

Williamson County is a body corporate and politic under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code Ann. § 151.309, as amended, and the services and/or goods subject hereof are being secured for use by Williamson County.

2.2.23 Compliance with Laws

Williamson County and Successful Bidder shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of the Contract and any ensuing Agreement, including, without limitation, Workers' Compensation laws, salary and wage statutes and regulations, licensing laws and regulations. When required, the Successful Bidder shall furnish the County with certification of compliance with said laws, statues, ordinances, rules, regulations, orders, and decrees above specified.

2.2.24 Incorporation of Exhibits, Appendices and Attachments

All of the Exhibits, Appendices and Attachments referred to herein are incorporated by reference as if set forth verbatim herein.

2.2.25 No Waiver of Immunities

Nothing herein shall be deemed to waive, modify or amend any legal defense available at law or in equity to Williamson County, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Williamson County does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

2.2.26 No Waiver

The failure or delay of any party to enforce at any time or any period of time any of the provisions of this IFB, the Contract or any ensuing Agreement shall not constitute a present or future waiver of such provisions nor the right of either party to enforce each and every provision. Furthermore, no term or provision hereof shall be deemed waived and no breach excused unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether expressed or implied, shall not constitute a consent to, waiver of or excuse for any other, different or subsequent breach.

2.2.27 Current Revenues

The obligations of the parties under the Contract and any ensuing Agreement do not constitute a general obligation or indebtedness of County for which County is obligated to levy, pledge, or collect any form of taxation. It is understood and agreed that Williamson County shall have the right to terminate the Contract and any ensuing Agreement at the end of any Williamson County fiscal year if the governing body of Williamson County does not appropriate sufficient funds as determined by Williamson County's budget for the fiscal year in question. Williamson County may effect such termination by giving written notice of termination to the Successful Bidder at the end of its then-current fiscal year.

2.2.28 FOB - Destination

To the extent applicable to this IFB, all of the items listed are to be Free On Board to final destination (FOB Destination) with all transportation charges if applicable to be included in the Bid, unless otherwise specified in the Invitation for Bids. The title and risk of loss of the goods shall not pass to the County until receipt and acceptance takes place at the FOB Destination point.

2.2.29 Binding Effect

This Contract and any ensuing Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted assigns and successors.

2.2.30 Assignment

The Successful Bidder's interest and duties hereunder may not be assigned or delegated to a third party without the express written consent of Williamson County.

2.2.31 Safety

Successful Bidder is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with any services to be provided hereunder. The safety program

shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.

2.2.32 General Obligations and Reliance

Successful Bidder shall perform all services and/or provide all goods, as well as those reasonably inferable and necessary for completion and provision of services and/or goods required hereunder. The Successful Bidder shall keep the County informed of the progress and quality of the services. Successful Bidder agrees and acknowledges that County is relying on Successful Bidder's represented expertise and ability to provide the goods and/or services described herein. Successful Bidder agrees to use its best efforts, skill, judgment, and abilities to perform its obligations in accordance with the highest standards used in the profession and to further the interests of County in accordance with County's requirements and procedures. Successful Bidder's duties as set forth herein shall at no time be in any way diminished by reason of any approval by the County nor shall the Successful Bidder be released from any liability by reason of such approval by the County, it being understood that the County at all times is ultimately relying upon the Successful Bidder's skill and knowledge in performing the services and providing any goods required hereunder.

2.2.33 Estimated Quantities

To the extent applicable to this IFB, the estimated quantity of each item listed in this IFB is only an estimate -- the actual quantity to be purchased may be more or less. The County is not obligated to purchase any minimum amount, and the County may purchase any reasonable amount greater than the estimate for the same unit price. Any limit on quantities available must be stated expressly in the Bid.

2.2.34 Contractual Development

The contents of the IFB and the selected Bid will become an integral part of the Contract, but may be modified, at Williamson County's sole discretion, by provisions of an ensuing Agreement. Therefore, the Bidder must agree to inclusion in an ensuing Agreement of the Bid Specifications, Terms and Conditions of this IFB.

2.2.35 Survivability

All applicable agreements that were entered into between Successful Bidder and Williamson County under the terms and conditions of the Contract and/or any ensuing Agreement shall survive the expiration or termination thereof for ninety (90) days unless a new contract has been awarded.

2.2.36 Air Quality

In determining the overall best Bid, the County may, to the extent applicable, exercise the following option granted to local governments under the Texas Local Government Code.

Option – TLGC § 271.907. This option allows the County to evaluate Bids and give preference to goods and/or services of a Bidder that demonstrates that the Bidder meets or exceeds any and all state or federal environmental standards, including voluntary standards, relating to air quality. If the Bid being submitted will have an effect on air quality for Williamson County (as it relates to any state, federal, or voluntary air quality standard), then the Bidder is encouraged to provide information in narrative form indicating the anticipated air quality impact. Bidders are expected to meet all mandated state and federal air quality standards.

2.2.37 Entire Agreement

The Contract and any ensuing Agreement shall supersede all prior Agreements, written or oral between the Successful Bidder and County and shall constitute the entire Agreement and understanding between the parties with respect to the services and/or goods to be provided. Each of the provisions herein shall be binding upon the parties and may not be waived, modified amended or altered except by writing signed by the Successful Bidder and County.

2.2.38 Payment

Unless specified otherwise in this IFB or an ensuing Agreement, the following provision shall control the County's method of payment:

County's payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. An invoice shall be deemed overdue the 31st day after the later of (1) the date County receives the goods under the Contract; (2) the date the performance of the service under the Contract is completed; or (3) the date the Williamson County Auditor receives an invoice for the goods or services. Interest charges for any overdue payments shall be paid by County in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of County's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice submitted by Successful Bidder, County shall notify Successful Bidder of the error not later than the twenty first (21st) day after the Date County receives the invoice. If the error is resolved in favor of Successful Bidder, Successful Bidder shall be entitled to receive interest on the unpaid balance of the invoice submitted by Successful Bidder beginning on the date that the payment for the invoice became overdue. If the error is resolved in favor of the County, Successful Bidder shall submit a corrected invoice that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by Chapter 2251 of the Texas Government Code if the corrected invoice is not paid by the appropriate date.

As a minimum, invoices shall include:

- (1) Name, address, and telephone number of Successful Bidder and similar information in the event the payment is to be made to a different address
- (2) County contract, Purchase Order, and/or delivery order number
- (3) Identification of items or service as outlined in the Contract
- (4) Quantity or quantities, applicable unit prices, total prices, and total amount
- (5) Any additional payment information which may be called for by the Contract

Payment inquiries should be directed to the Williamson County Auditor's Office, Accounts Payable Department: Donna Baker, 943-1558.

2.2.39 Economic Adjustment

To the extent applicable to this IFB, the Successful Bidder may submit a request for a contract pricing adjustment for approval by the County if the Bidder can show just cause substantiating an adjustment. The requested adjustment must be for goods and/or services and in no way represent an increase in the Bidder's profits, labor or other overhead. The Bidder's request must include evidence in the form of a certified statement or affidavit from the supplier or manufacturer detailing the price adjustment, the effective date for the adjustment, and any other information requested by the Purchasing Department to verify the adjustment.

An adjustment request will not become effective until after approval of the Williamson County Commissioners Court. Until then, the original contract pricing will remain unchanged. If an issue regarding an adjustment request is not resolved, the Purchasing Department reserves the right to seek competition from other sources.

Any goods or services delivered by the Successful Bidder at a not agreed upon price are done so at the Successful Bidder's risk.

Pricing must remain firm for the first three (3) months of the initial contract period. A minimum period of three (3) months must elapse between adjustment requests.

2.2.40 Contractual Formation and Ensuing Agreement

The IFB and the Bidder's Bid, when properly accepted by the Williamson County Commissioners Court, shall constitute a contract equally binding between the Successful Bidder and Williamson County. The Successful Bidder may be required by Williamson County to sign an additional Agreement containing terms necessary to ensure compliance with the IFB and Bidder's Bid.

2.2.41 Initial Contract Term

The Successful Bidder shall provide the goods and/or services described herein for an initial term beginning the date of Commissioners' Court award and continue for twelve (12) months thereafter.

2.2.42 Contract Extensions

The Commissioners Court reserves the right to extend this Contract, by mutual agreement of both parties, as it deems to be in the best interest of the County. If approved, this extension will be in twelve (12) month increments for up to an additional twenty-four (24) months, with the terms and conditions remaining the same. The total period of this Contract, including all extensions will not exceed a maximum combined period of thirty-six (36) months. The extension of this Contract is contingent on the appropriation of necessary funds by Commissioners Court for the fiscal year in question. Upon the failure of Commissioners Court to so appropriate in any year, the Successful Bidder may elect to terminate this Contract, with no additional liability to the County. The County and the Successful Bidder agree that termination shall be the Successful Bidder's sole remedy under this circumstance.

2.2.43 Cooperative Purchasing Program

During the term of the Contract resulting from this IFB, Williamson County would like to afford the same prices, terms and conditions to other political subdivisions or public entities. Another entity's participation in the Contract resulting from this Invitation to Bid is subject to a properly authorized Purchasing Cooperative Interlocal Agreement with Williamson County. Any liability created by Purchase Orders issued against the Contract shall be the sole responsibility of the governmental agency placing the order.

3. INSTRUCTIONS AND GENERAL REQUIREMENTS

Read this document carefully. Follow all instructions and requirements. You are responsible for fulfilling all requirements and specifications. Be sure you have a clear understanding of this IFB.

General requirements apply to all advertised IFBs; however, these may be superseded, in whole or in part, by the **Bid Specifications**, **Addenda issued as a part of this IFB.** Be sure your Bid package is complete.

3.1 Ambiguity, Conflict, or other Errors in the IFB

If Bidder discovers any ambiguity, conflict, discrepancy, omission or other error in this IFB, Bidder shall immediately notify Williamson County Purchasing Department of such error in writing and request modification or clarification of the document. Modifications will be made by issuing Addenda. If the Bidder fails to notify Williamson County prior to the date and time fixed for submission of Bids of an error or ambiguity in the IFB known to Bidder, or an error or ambiguity that reasonably should have been known to Bidder, then Bidder shall be deemed to have waived the error or ambiguity or its later resolution.

Williamson County may also modify the IFB, no later than 48 hours prior to the date and time fixed for submission of Bids, by issuance of an Addendum. All addenda will be numbered consecutively, beginning with 1.

3.2 Notification of Most Current Address

Bidders in receipt of this IFB shall notify the Williamson County Purchasing Department of any address changes, contact person changes, and/or telephone number changes no later than 48 hours prior to the date and time fixed for submission of Bids.

3.3 Bid Preparation Cost

Cost of developing Bids is entirely the responsibility of Bidders and shall not be charged to Williamson County.

3.4 Signature of Bidder

A Transmittal Letter, which shall be considered an integral part of the Bid, shall be signed by an individual who is authorized to bind the Bidder contractually.

If the Bidder is a Corporation or Limited Liability Company, the legal name of the Corporation or Limited Liability Company shall be provided together with the signature of the officer or officers authorized to sign on behalf of such entity.

If the Bidder is a General Partnership, the true name of the firm shall be provided with the signature of each partner authorized to sign.

If the Bidder is a Limited Partnership, the name of the Limited Partner's General Partner shall be provided with the signature of the officer authorized to sign on behalf of the General Partner.

If the Bidder is a Sole Proprietor(s) (individual), each Sole Proprietor(s) shall sign.

If signature is by an agent, other than the Sole Proprietor(s) or an officer of a Corporation, Limited Liability Company, General Partner or a member of a General Partnership, a power of attorney or equivalent document must be submitted to the Williamson County Purchasing Department with the Bid.

3.5 Assumed Business Name

If the Bidder operates business under an Assumed Business Name, the Bidder <u>must</u> have on file with the Williamson County Clerk a current Assumed Name Certificate and provide a file marked copy of same with its Bid.

3.6 Bid Obligation

The contents of the IFB, Bid and any clarification thereof submitted by the Successful Bidder shall become part of the contractual obligation and incorporated by reference into the Contract and any ensuing Agreement.

3.7 Compliance with IFB Specifications

It is intended that this IFB describe the requirements and the Bid format in sufficient detail to secure comparable Bids. Failure to comply with all provisions of the IFB may, at the sole discretion of Williamson County, result in disqualification.

3.8 Withdrawal of Bid

The Bidder may withdraw its Bid by submitting a written request over the signature of an authorized individual, as described herein above, to the Williamson County Purchasing Department any time prior to the submission deadline. The Bidder may thereafter submit a new Bid prior to the deadline. Modification or withdrawal of the Bid in any manner will not be considered if submitted after the deadline.

3.9 Evaluation/Award

Williamson County reserves the right to use all pertinent information (also learned from sources other than disclosed in the BID process) that might affect Williamson County's judgment as to the appropriateness of an award to the lowest and best evaluated Bid. This information may be appended to the Bid evaluation process results. Information on a Bidder from reliable sources, and not within the Bidder's Bid, may also be noted and made part of the evaluation file. Williamson County shall have sole discretion for determining the reliability of the source.

To ensure the proper and fair evaluation of a solicitation, Williamson County prohibits unsolicited communication initiated by the Bidder to the County Official or Employee evaluating or considering the Bids prior to the time an award has been made. Unsolicited communication may be ground for disqualifying the offending Bidder from consideration or award of the solicitation then in evaluation, or any future solicitation.

Communication between Bidder and the County will be initiated by the appropriate County Official or Employee in order to obtain information or clarification needed to develop a proper and accurate evaluation of the solicitation.

Williamson County reserves the right to award a Contract in whole to one Bidder or to award a contract on each separate item or combination of items as may be most advantageous to the County. A primary, secondary, third and/or subsequent award *may* be made for this IFB. Bids may be rejected for some items, departments or areas, even though awards are made for others. The convenience of having a single source for similar items will be taken into consideration together with price in determining the lowest and best Bid.

To award the lowest responsible bidder in accordance with Texas Government Code Subchapters B and C, the County may consider:

- Price
- Bidder's experience and reputation

- Quality of the Bidder's goods and/or services
- Bidder's safety record
- Bidder's proposed personnel
- Bidder's financial capabilities
- Any other relevant factors specifically listed in the IFB

Consideration of Location of Principal Office

Pursuant to Texas Local Government Code Section 271.905, in purchasing under this title any real property or personal property that is not affixed to real property, if Williamson County receives one or more Bids from a Bidder whose principal place of business is in Williamson County and whose Bid is within three percent (3%) of the lowest bid price received by Williamson County from a Bidder who is not a resident of Williamson County, Williamson County may enter into a contract with:

- (1) the lowest Bidder: or
- (2) the Bidder whose principal place of business is in Williamson County if the Williamson County Commissioners Court determines, in writing, that the local Bidder offers Williamson County the best combination of contract price and additional economic development opportunities for Williamson County created by the contract award, including the employment of residents of Williamson County and increased tax revenues to Williamson County.

This consideration does not prohibit Williamson County from rejecting all Bids.

It is understood that the Commissioners Court of Williamson County, Texas, reserves the right to accept or reject any and/or all Bids for any or all goods and/or services covered in this IFB, and to waive informalities or defects in the Bid or to accept such Bid it shall deem to be in the best interest of Williamson County.

Awards should be made approximately thirty (30) business days after the Bid opening date Results may be obtained by viewing the Williamson County vendor portal at the following link: http://wilco-online.org/eBids/Bids.aspx

3.10 Responsibility

It is expected that a prospective Bidder will be able to affirmatively demonstrate Bidder's responsibility. A prospective Bidder should be able to meet the following requirements:

- a) have adequate financial resources, or the ability to obtain such resources as required;
- b) be able to comply with the required or proposed delivery schedule;
- c) have a satisfactory record of performance; and
- d) be otherwise qualified and eligible to receive an award.

Williamson County may request representation and other information sufficient to determine Bidder's ability to meet these minimum standards listed above.

3.11 Firm Pricing

For unit price items, all of the items listed are to be on a "per unit" basis, stating a firm price per unit or unit quantity of each item. Bidder must submit a firm price that must be good from the date of Bid opening for the fixed period of time set out in this IFB. Unless the IFB expressly states otherwise, this period shall be until the end of the Initial Contract Period. Bids which do not state a

fixed price, or which are subject to change without notice, will not be considered. The Court may award a contract for the period implied or expressly stated in the lowest and best Bid.

3.12 Purchase Orders

If required by the Williamson County Purchasing Department, a purchase order(s) may be generated to the Successful Bidder for goods and/or services. If a purchase order is issued, the purchase order number must appear on all itemized invoices and/or requests for payment.

3.13 Silence of Specifications

The apparent silence of these specifications as to any detail or to the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

3.14 References

Williamson County may require Bidder to supply a list of at least three (3) references where like services and/or goods have been supplied by their firm if Bidder has not done business with the County within the past five (5) years. The name of firm, address, phone number and name of a representative to contact must be provided.

4. BID FORMAT AND SUBMISSION

4.1 Organization of Bid Contents for Submittal

Each Bid should be organized and be submitted in the order described below:

- a. Transmittal Letter;
- b. Bid Submittal Checklist;
- c. Price Sheets, (Appendices A of IFB)
- e. References: Identification of three (3) references for which the Bidder is providing or has provided the services and/or goods of the type requested, including the name, position, and telephone number of a contact person at each entity (Appendix B of IFB)
- f. Conflict of Interest Questionnaire (Appendix C of IFB)
- g. Bid Affidavit (Appendix D of IFB)
- h. Signature Page (Appendix E of IFB)

4.2 Transmittal Letter

The Bidder must submit a Transmittal Letter that provides the following:

- a. Name and address of individual or business entity submitting the Bid;
- b. Bidder's type of business entity (i.e., Corporation, General Partnership, Limited Partnership, LLC, etc.);
- c. Place of incorporation or organization, if applicable;
- d. Name and location of major offices and other facilities that relate to the Bidder's performance under the terms of this IFB;
- e. Name, address, business and fax number of the Bidder's principal contact person regarding all contractual matters relating to this IFB;
- f. The Bidder's Federal Employer Identification Number;
- g. A commitment by the Bidder to provide the services required by Williamson County;
- h. A statement that the Bid is valid for ninety (90) calendar days from the deadline for submittal of Bids to Williamson County (Any Bid containing a term of less than ninety (90) calendar days for acceptance, may at Williamson County's sole discretion, be rejected as non-responsive.);
- i. If the Bid being submitted will have an effect on air quality for Williamson County (as it relates to any state, federal, or voluntary air quality standard), then the Bidder is encouraged to provide information in narrative form indicating the anticipated air quality impact.

The Transmittal Letter must be signed by a person legally authorized to bind the Bidder to the representations in the Transmittal Letter and Bid. In the case of a joint Bid, each party must sign the Transmittal Letter.

4.3 Conflict of Interest

No public official shall have interest in a contract, in accordance with Vernon's Texas Codes Annotated, Local Government Code Title 5, Subtitle C, Chapter 171, as amended.

As of January 1, 2006, Bidders are responsible for complying with Local Government Code Title 5, Subtitle C, Chapter 176. Additional information may be obtained from the Williamson County website at the following link:

http://www.wilco.org/CountyDepartments/Purchasing/ConflictofInterestDisclosure/taBid/689/language/en-US/Default.aspx

Each Bidder must disclose any existing or potential conflict of interest relative to the performance of the requirements of this IFB. Examples of potential conflicts may include an existing business or personal relationship between the Bidder, its principal, or any affiliate or subcontractor, with Williamson County or any other entity or person involved in any way in the project that is the subject of this IFB. Similarly, any personal or business relationship between the Bidder, the principals, or any affiliate or subcontractor, with any employee or official of Williamson County or its suppliers must be disclosed. Any such relationship that might be perceived or represented as a conflict must be disclosed. Failure to disclose any such relationship or reveal personal relationships with Williamson County employees or officials may be cause for termination. Williamson County will decide if an actual or perceived conflict should result in Bid disqualification.

By submitting a Bid in response to this IFB, all Bidders affirm that they have not given, nor intend to give, at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a Williamson County public servant or any employee, official or representative of same, in connection with this procurement.

Each Bidder must provide a Conflict of Interest Statement. The Conflict of Interest Statement is attached as an Appendix to this IFB and must be completed, signed, and submitted with your Bid.

4.4 Ethics

The Bidder shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official or agent of Williamson County.

4.5 Bid Submittal Deadline

The Bid is due no later than the submittal date and time set forth on Page 1 of this IFB, and must include each item identified on the Bid Submittal Checklist page of this IFB.

4.6 Delivery of Bids

All Bids are to be delivered on or before the submittal deadline, as noted on Page 1 of this IFB, to:

Williamson County Purchasing Department Bob Space, Purchasing Agent (or successor) 301 SE Inner Loop, Suite 106 Georgetown, Texas 78626

Williamson County will not accept any Bids received after the submittal deadline, and shall return such Bids unopened to the Bidder.

Williamson County will not accept any responsibility for Bids being delivered by third party carriers.

Bidder should submit one (1) original, two (2) paper copies and one (1) CD copy of the Bid. Bids will be opened publicly in a manner to avoid public disclosure of contents; however, names of Bidders will be read aloud.

Bidders should list the Bid Number on the outside of the box or envelope and note "Sealed Bid Enclosed."

FAILURE BY BIDDER TO INCLUDE ALL LISTED ITEMS MAY, AT THE SOLE DISCRETION OF WILLIAMSON COUNTY, RESULT IN THE REJECTION OF ITS BID.

5. BID SPECIFICATIONS

5.1 <u>Definition of Terms</u>

County: Williamson County.

Contractor: Successful Bidder of the attached IFB.

Engineer: Director of Williamson County Road and Bridge Division

Inspector: Employee of Williamson County supplied full time to the contractor's crew for the selection, prosecution, and quality control of the work. Should the work, as well as the geographical location, allow, the County may supply one foreman for multiple crews.

Specifications: Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2004.

CST/M&P: The Texas Department of Transportation Construction Division, Materials and Pavement Section

DMS – 4400: The Texas Department of Transportation Departmental Materials Specification for Flexible Delineator and Object Marker Posts (Embedded and Surface-Mount Types)

DMS – 7110: The Texas Department of Transportation Departmental Materials Specification for Aluminum Sign Blanks.

DMS – 7120: The Texas Department of Transportation Departmental Materials Specification for Sign Hardware

DMS - 8300: The Texas Department of Transportation Departmental Materials Specification for Sign Face Materials

DMS - 8310: The Texas Department of Transportation Departmental Materials Specification for Flexible Roll-up Reflective Signs

DMS - 8600: The Texas Department of Transportation Departmental Materials Specification for Delineators and Object Markers.

DMS - 8700: The Texas Department of Transportation Departmental Materials Specification for Flagger Stop/Slow Paddles

Department: Williamson County Road and Bridge Division

5.2 Scope of Services

County is seeking qualified companies to provide for purchase: Road sign material, delineators, object markers and traffic control devices per applicable Texas Department of Transportation, Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges 2004, Texas Department of Transportation Departmental Materials Specifications and Standard

Sheets included in this IFB. County is seeking to purchase materials only. Installation is not included.

5.3 Additional Requirements

Control of Materials

Source Control. Use only materials that meet Contract requirements. Unless otherwise specified or approved, use new materials for the work. Secure the Engineer's approval of the proposed source of materials to be used before their delivery. Materials can be approved at a supply source or staging area but may be re-inspected.

Material Quality. Correct or remove materials that fail to meet the contract requirements. Contractor is responsible for cost incurred if additional sampling and testing is required by a change of source,

materials not meeting Contract requirements will be rejected, unless the Engineer approves corrective actions. Upon rejection, immediately remove and replace rejected materials.

If the Contractor does not comply with this Article, the County may remove and replace defective material. The cost of testing, removal, and replacement will be deducted from invoice.

Manufacturer Warranties. Transfer to the County warranties and guarantees required by the Contract or received as part of normal trade practice.

Road Sign Materials

Refer to DMS-7120, DMS-8300 and DMS-8310 for contract requirements.

Materials provided must also meet with the requirements and intended use as shown on attached standard sheets: BC (4)-07, BC (5)-07, SMD (GEN)-08, SMD (TWT)-08 and SMD (FRP)-08

Delineators and Object Markers

Refer to DMS-4400 and DMS-8600 for contract requirements.

Materials provided must also meet with the requirements and intended use as shown on attached standard sheets: BC (9)-07, and D&OM (1)-10.

Traffic Control Devices

Refer to DMS-8620 for contract requirements

Materials provided must also meet with the requirements and intended use as shown on attached standard sheets: BC (8)-07, BC (10)-07 and BC (11)-07.

Standard Sheets:

DMS - 8600

DELINEATORS AND OBJECT MARKERS

EFFECTIVE DATE: SEPTEMBER 2007

- 8600.1. Description. This Specification governs for the materials, composition, quality, sampling, and testing of delineators and object markers.
- **8600.2.** Units of Measurements. The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
- 8600.3. Material Producer List. The Materials and Pavements Section of the Construction Division (CST/M&P) maintains the Material Producer List (MPL) of all materials conforming to the requirements of this Specification. Materials appearing on the MPL, entitled "Type C Delineator Units," require no further testing, unless deemed necessary by the Project Engineer or CST/M&P.
- 8600.4. Bidders' and Suppliers' Requirements. Before any material is considered, it must be of manufacture and product code or designation shown on the MPL maintained by the Department.

8600.5. Pre-Qualification Procedure.

A. Pre-Qualification Request. Submit a written request for evaluation to the Texas Department of Transportation, Construction Division, Materials and Pavements Section (CP51), 125 East 11th Street, Austin, Texas 78701-2483.

Include the following information in the request:

- Company name
- · Physical and mailing addresses
- Type of material
- · Contact person and telephone number
- B. Sampling and Testing. The Department will sample in accordance with Tex-725-I and will test in accordance with the methods listed in Article 8600.6.

Pre-qualification of the Type C bracket consists of a visual examination of the bracket by CST/M&P to ensure there are no obvious deficiencies in size, materials, fasteners, or adhesives. When an adhesive is used, it must be the adhesive recommended by the manufacturer of the unit.

- C. Evaluation. CST/M&P will notify prospective bidders and suppliers after completion of material evaluation.
 - Qualification. If approved for use by the Department, CST/M&P will add the material to the MPL.

Report changes in the composition or in the manufacturing process of any material to CST/M&P. Significant changes reported by the manufacturer, as determined by the Director of CST/M&P, may require a re-evaluation of performance.

Failure. Producers not qualified under this Specification may not furnish materials for Department projects and must show evidence of correction of all deficiencies before reconsideration for qualification.

Costs of sampling and testing are normally borne by the Department; however, the costs to sample and test materials failing to conform to the requirements of this Specification are borne by the Contractor or supplier. The Director of CST/M&P will assess this cost at the time of testing.

Amounts due the Department will be deducted from monthly or final estimates on contracts or from partial or final payments on direct purchases by the State.

- D. Periodic Evaluation. The Department reserves the right to conduct random sampling of pre-qualified materials for testing and to perform random audits of test reports. Department representatives may sample material from the manufacturing plant, the project site, and the warehouse. CST/M&P reserves the right to test samples to verify compliance with this Specification.
- E. Disqualification. The Department reserves the right to conduct whatever tests are considered necessary to identify a pre-approved material and to determine if a change has been made in composition, manufacturing process, or quality, which may affect its durability or performance.

Changes detected in the composition or in the manufacturing process, not reported by the manufacturer, may be cause for removal of that material from the MPL.

Failure of materials to comply with the requirements of this Specification as a result of periodic evaluation may be cause for removal of those materials from the MPL.

8600.6. Material Requirements.

- A. General Requirements.
 - Type A Reflector Type. Type A must consist of Class 1 or Class 2 flat surface, reflective sheeting. Class 1 and Class 2 reflective sheeting must meet the requirements of ASTM D 4956, Type III, IV, or V.
 - Type B Reflector Type. Type B must consist of center-mount acrylic, plastic-prismatic reflector units.
 - Type C Reflector Type. Type C must consist of Type A or Type B reflector units attached to a bracket to facilitate the mounting of the delineator on concrete traffic

barriers, railings, or other locations as shown on the plans. These units must be preapproved.

B. Construction Requirements.

- General. Delineators must consist of one or two individual reflectorized panels of
 reflective sheeting or reflector units of Type A, Class 1 or 2 reflector units or Type B
 reflector units of the color, shape, and size specified.
- 2. Flexible Posts. Delineators for flexible posts must consist of reflective panels or individual reflector units of Type A, Class 1 or 2 reflective sheeting of the color, shape, and size specified for the various types applied directly to the post in the specified position.
- 3. Non-Flexible Posts. Delineators for nonflexible posts must consist of panels of Type A, Class 1 or 2 sheeting; individual reflector units of Type A, Class 1 or 2 sheeting; or Type B reflector units of the color, shape, and size specified for the various types.

Panels or individual reflector units utilizing sheeting must be constructed by applying the sheeting to 1.6 mm (0.063 in.) aluminum blanks or fiberglass reinforced plastic or other approved blank material of approved thickness of the specified size.

- **4. Object Markers.** Types 1 and 4 must be of the color and size specified utilizing Type B reflector units only.
 - Type 2 must be of the color, size, and type of sheeting as specified.
 - Type 3 must be of the color and size specified utilizing Type A reflective sheeting only.
 - Note—See the Department's Standard Plans sheet for Delineators and Object Markers.
- C. Type A Reflective Materials. Type A reflective materials must meet the requirements of ASTM D 4956, Type III, IV, or V, except where specific differences are shown.
 - 1. Specific Intensity (SI). Type A reflective materials must meet the minimum brightness values for each class when tested in accordance with Tex-842-B.
 - Durability. Weather-Ometer exposure will be in accordance with ASTM G 155 using Exposure Cycle 1 with a quartz inner filter glass and Type "S" Borosilicate outer filter glass.

Color must show no appreciable change and SI must be a minimum of 80% of the beginning value after 2,000 hours Weather-Ometer exposure.

The sheeting, when applied to aluminum panels, must show no cracking, crazing, blistering, chalking, or dimensional change after Weather-Ometer exposure.

3. Adhesion. The adhesive must be a pressure-sensitive type.

The adhesive must adhere so that the sheeting cannot be peeled or pulled from the surface in pieces greater than 1,290 mm² (2 sq. in.) when applied to clean aluminum at temperatures from 10° to 38°C (50° to 100°F), aged for 36 hours at 60°C (140°F), and allowed to cool to room temperature for 12 hours.

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- D. Type B Reflector Units. Type B reflector units must consist of center-mount acrylic, plastic-prismatic reflector units meeting the following requirements.
 - Construction. The reflector unit must consist of a clear and transparent plastic face, referred to as the lens, and back material attached to the lens to permanently seal it against water, dust, and air.

The lens must consist of a smooth front surface, free from projections or indentations other than for identification.

Mold the manufacturer's name or trademark legibly on the lens.

2. Design and Fabrication. The reflector unit must have a mounting hole in its center.

There must be a 4.8 mm (3/16 in.) inside diameter non-corrosive grommet within the mounting hole, such that the normal tightening of the mounting fastener will not fracture the seal of the reflector unit.

The face of the reflector unit must not be less than 4516 mm² (7 in.²) in area.

Specific Intensity. Ninety-six percent or more of the reflector units must equal or
exceed the minimum values of specific intensity listed in Table 1, when tested in
accordance with Tex-842-B.

Table 1 Specific Intensity (SI) Minimum Values

Specific Intensity (62) Minimum + Mates						
		SI		cd/lux/unit or CP/FTC/Unit		
Observation Angle	Entrance Angle	White Yellow		Red		
0.1	0	60	30	10		
0.1	20	30	15	4		
1/3	0	30	15	4		
1/3	20	15	8	2		

- Seal Test. Ninety-six percent or more of the reflector units must pass the seal test when tested in accordance with Tex-845-B.
- Heat Test. The reflector units must pass the heat test when tested in accordance with Tex-846-B.

8600.7. Payment.

- **A. Procurement by the State.** Payment for all materials governed by this Specification will be in conformance with provisions of the purchase order awarded by the State.
- **B.** Contracts. All materials governed by this Specification utilized by the manufacturer in Contract projects will be paid for in accordance with the Department's *Standard Specifications for Construction of Highways, Streets, and Bridges*, Item 658.

8600.8. Archived Versions. Archived versions are available.

DMS - 8310 FLEXIBLE ROLL-UP REFLECTIVE SIGNS

EFFECTIVE DATE: SEPTEMBER 2007

- **8310.1. Description.** This Specification governs for the materials, composition, quality, services, sampling, and testing of flexible roll-up reflective signs.
- **8310.2.** Units of Measurements. The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
- **8310.3. Pre-Qualified Product List.** The General Services Division maintains the pre-qualified producer list (QPL) of all materials conforming to the requirements of this Specification. Materials appearing on the QPL, entitled "<u>Flexible Roll-Up Reflective Signs</u>," require no further testing, unless deemed necessary by the Project Engineer or CST/M&P.
- **8310.4.** Bidders' and Suppliers' Requirements. Before any bid is considered, the materials must be shown on the MPL.

8310.5. Pre-Qualification Procedure.

- A. Pre-Qualification Request. Submit a written request for evaluation to the Texas Department of Transportation, General Services Division (GSD), 125 East 11th Street, Austin, Texas 78701-2483.
- B. Pre-Qualification Sample. Submit the following materials with the request:
 - Two 610 mm × 610 mm (24 in. × 24 in.) samples of the reflective material, white and orange, to be used as the reflective face of completed signs
 - Two 610 mm × 610 mm (24 in. × 24 in.) samples of the backing material, white and orange, to be used as the backing of the completed signs
 - One each, white and orange, completed 1.22 m × 1.22 m (48 in. × 48 in.)
 "Construction Ahead" signs conforming to the details of the *Texas Manual on Uniform Traffic Control Devices*
 - Signs will be complete, with cross braces ready to attach to a fold-up, spring-loaded type sign support

Some of the tests required by this Specification extend over a prolonged period, and some tests cannot be made after the backing material is applied. Therefore, testing for acceptance of materials supplied on any contract or State purchase order will only be considered on those materials that, in the opinion of the Director of the Construction Division's Materials and Pavements Section (CST/M&P,) are identifiable as being a material having an established performance history of compliance with the criteria established by this Specification.

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- C. Evaluation. CST/M&P will notify prospective bidders and suppliers after completion of material evaluation.
 - Qualification. Manufacturers will be notified after their material has been evaluated. If approved for use by the Department, the material will be added to the QPL.
 - Report changes in the composition or in the manufacturing process of any material to CST/M&P. Significant changes reported by the manufacturer, as determined by the Director of CST/M&P, may require a re-evaluation of performance.
 - Failure. Producers not qualified under this Specification may not furnish materials for Department projects and must show evidence of correction of all deficiencies before reconsideration for qualification.
 - Costs of sampling and testing are normally borne by the Department; however, the costs to sample and test materials failing to conform to the requirements of this Specification are borne by the supplier. The Director of CST/M&P will assess this cost at the time of testing.
 - Amounts due the Department will be deducted from monthly or final estimates on Contracts or from partial or final payments on direct purchases by the State.
- D. Periodic Evaluation. The Department reserves the right to periodically evaluate the performance of materials, to randomly select samples from materials submitted on State purchase orders, and to perform random audits of test reports. Department representatives may sample material from the manufacturing plant, the project site, and the warehouse. CST/M&P reserves the right to test samples to verify compliance with this Specification. Failure of materials to comply with the requirements of this Specification as a result of periodic evaluation may be cause for removal of those materials from the QPL.
 - Sampling and testing will be in accordance with Tex-720-I. Unless otherwise noted, the Department will sample at the district warehouse or regional service centers.
- E. Disqualification. The Department reserves the right to conduct whatever tests considered necessary to identify a pre-qualified material and to determine if a change has been made in composition, manufacturing process, or quality, which may affect its durability or performance.
 - Changes detected in the composition or in the manufacturing process, not reported by the manufacturer, may be cause for removal of that material from the QPL.

8310.6. Material Requirements.

A. General Requirements. Flexible roll-up reflective signs should consist of a vinyl microprism retroreflective sheeting heat sealed in a pattern not to exceed 32 mm × 32 mm (1-1/4 in. × 1-1/4 in.) to a vinyl coated fabric backing or other approved sheeting and backing materials.

The reflective face and backing must both be UV light stabilized and of the same color.

B. Sign Face Characteristics. The reflective sheeting and other materials used to produce the face of flexible roll-up reflective signs must meet the following requirements:

- Flexibility. There must be no signs of cracking or crazing when flexed repeatedly over a 1.6 mm (1/16 in.) mandrel to 180° at 25°C (77°F).
- 2. Chemical Resistance. The surface of the sheeting or the face of a completed sign must be chemical resistant to the extent that there will be no surface change when wiped with a soft, clean cloth dampened with VM&P naphtha, mineral spirits, turpentine, mild soaps, or mild detergents.
- Gloss. The sheeting's face and screened areas must have an 85° gloss meter rating of not less than 35 when tested in accordance with ASTM D 523.
- 4. Diffuse Day Color. The CIE chromaticity coordinates of reflective sheeting must fall within the areas having the corner points and reflectance requirements for the various colors as shown in Table 1 before and after Weather-Ometer (Atlas, Sunshine Type) exposure, as described in Sub Article 8310.6.B.6 of this Specification.

Table 1 Chromaticity Coordinates

Color	Chroi	naticity	Reflectance
	X	y	Y
White	0.310	0.300	
	0.290	0.320	
	0.360	0.360	40 Minimum
	0.340	0.380	
Orange	0.530	0.360	
	0.530	0.400	
	0.590	0.410	12 - 30
	0.640	0.360	

Color will be determined in accordance with Tex-839-B.

- **5. Reflected Night Color.** The reflected night color must appear to be essentially the same as the day color when observed at 15.2 m (50 ft.).
- 6. Durability. Sheeting or sign faces must show no cracking, crazing, blistering, chalking, or dimensional change after 250 hr. exposure in an Atlas Weather-Ometer utilizing an 18-102 cam, in accordance with ASTM G 155 using exposure Cycle 1 with a quartz inner filter glass and Type "S" Borosilicate outer filter glass.
- 7. Mildew Resistance. The sheeting must evidence no fungus growth when tested by Federal Test Method 6271.1 under the conditions listed in Table 2.

Table 2
Mildew Resistance Test Requirements

Conditions		
Test specimens will be leached with water before inoculation.		
The test organism will be pullularia pullulans.		
The length of the incubation period will be 21 days.		

8. Specific Intensity. Reflective sheeting must have the minimum brightness values, before exposure, as shown in Table 3.

Brightness values will be determined at the divergence and entrance angles shown and will be expressed in units of lumens per lux per square meter (candlepower per footcandle per square foot).

Table 3
Specific Intensity (SI) Minimum Brightness Values

Brightnes	ss Values						
Color	Divergence	Angle of Incidence – SI - lm/lx/m² (cp/ftc/ft²)			t²)		
	Angle		2°	1	0°	2	0°
White	0.2°	942	(75)	628	(50)	314	(25)
-	0.33°	753	(60)	439	(35)	151	(12)
Orange	0.2°	226	(18)	176	(14)	75	(6)
-	0.33°	151	(12)	100	(8)	75	(4)

SI will be determined in accordance with Tex-842-B.

The reflective sheeting must retain a minimum of 50% of the above shown SI values after the Atlas Weather-Ometer exposure as described in Durability.

No process ink used to produce messages on the sign face must be removed when tested in accordance with Federal Test Method 6301, after a minimum of 96 hours after processing, or after exposure in the Atlas Weather-Ometer

C. Sign Face Backing Fabric. The backing fabric used to produce flexible roll-up reflective signs must be coated on both sides with polyvinyl chloride or other approved material of the same color as the sign face.

1. Base Fabric.

Table 4

Minimum Requirements for Base Fabric

Item	Requirement
Fiber	1000 Dernier polyester
Weight	100 g/m ² (3 oz./yd ²)
Fabric Count	10 warp, 10 fill

2. Coated Fabric.

Table 5

Minimum Requirements for Coated Fabric

Item	Requirement
Total Weight	490 g/m² (14.5 oz./yd²)
Distribution	60 face, 40 back

D. Completed Flexible Roll-Up Reflective Sign. The completed flexible roll-up reflective sign must exhibit a minimum tensile strength of 3.4 Newtons per 25.4 mm width (15 lb. per inch of width) and a minimum elongation of 90%.

Test tensile strength in accordance with ASTM D 828. Test elongation in accordance with ASTM D 987, (Discontinued 1969). Condition the sign face at room temperature 22–27°C (72–80°F) for a minimum of 24 hrs before testing.

1. Additions to Sign Blank.

- Four reinforced vinyl tie straps or hook and loop fasteners must be attached to the backside of the sign. Attachment must be on the sign diagonals and 300–355 mm (12–14 in.) from the sign center.
- Tie straps must be 13 mm (1/2 in.) minimum in width and 355 mm (14 in.) minimum in length. Attachment to the sign must be by sewing with a non-wicking, high tensile strength, and mildew-resistant thread. Attachment must be within 13 mm (1/2 in.) of the center of the tie strap. Attachment must be rectangular approximately 25 × 10 mm (1 in. × 3/8 in.) with diagonal stitching.
- Hook side and loop side of the fastener shall be a minimum of 140 × 25 mm (5-1/2 × 1 in.) each. Attachment shall be approximately 25 × 25 mm (1 × 1 in.) with diagonal stitching using a non-wicking, high tensile strength, mildewresistant thread. Hook side of fastener must face away from the back of the sign. A tie strap or hook and loop fastener must be attached approximately 20 mm (3/4 in.) from a horizontal corner of the sign to secure sign when in the rolled up position for transporting or storing. The tie strap or hook and loop fastener must meet the requirements and be attached as specified. Corner reinforcement must be attached to the backside of the sign at each corner.
- Reinforcements must be made of three triangular 200 × 200 × 280 mm (8 × 8 × 11 in.) (approximate) pieces of 510 g (18 oz.) nylon reinforced vinyl

double stitched with stitching approximately 6 mm (1/4 in.) from edges. A pocket for cross braces should be formed in the corner reinforcing by double stitching 25–28 mm (1–1-1/8 in.) along each side of and parallel to the sign diagonals and cutting a slot 45 mm (1-3/4 in.) long into the two outer layers of reinforcing perpendicular to the diagonals and 6 mm (1/4 in.) from the inner double stitch in the corner reinforcing.

- 2. Sign Support Cross Brace Material. Cross braces must be constructed of glass reinforced resin or other suitable material to provide enough strength for the sign to withstand 65 kmph (40 mph) winds without causing sign material to distort enough to affect legibility of sign. Cross-brace material must be UV stabilized if necessary.
- 3. Sign Support Cross Brace Fabrication. Cross-brace ends must be rounded to prevent splintering, sharp edges and damage to sign faces. Cross braces must be fastened at centers with a pop rivet. The pop rivet must have rounded heads on both sides a minimum of 13 mm (1/2 in.) in diameter. An aluminum washer must be placed between the two cross braces.
- E. Overlay Panels. Overlay panels must be constructed of the same materials as the signs.

Attachment to the face of the sign must be accomplished by means of hook and loop fastener system.

- Hook fastener components must be attached to the signs.
- Loop fastener components must be attached to the back of the overlay panel.

Attachment of fastener components must be by means of sewing. A non-wicking, hightensile strength, mildew-resistant thread must be used.

When overlay panels are required, they must conform to details of drawings attached to the invitation to bid.

8310.7. Payment. Payment for all materials and services under this specification will be in conformance with the conditions prescribed in the Contract awarded by the State.

8310.8. Archived Versions. Archived versions are available.

DMS - 8300 SIGN FACE MATERIALS

EFFECTIVE DATE: MAY 2009

8300.1. Description. This Specification establishes pre-qualification, warranty, material, and testing requirements, and approval procedures for the following sign face materials:

- · reflective sheeting,
- · conformable reflective sheeting,
- screen inks.
- · colored transparent films and non-reflective black films, and
- anti-graffiti films and coatings.

8300.2. Units of Measurements. The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.

8300.3. Material Producer List. The Materials and Pavements Section of the Construction Division (CST/M&P) maintains the Material Producer List (MPL) of all materials that have demonstrated the ability to conform to the requirements of this Specification. Materials appearing on the MPL, entitled "Sign Face Materials," do not require sampling and testing before use, but the Department may periodically sample materials to ensure conformance to this specification and may also sample if material quality is suspect.

8300.4. Bidders' and Suppliers' Requirements. The Department will only purchase or allow on projects those products listed by manufacturer and product code or designation shown on the MPL.

Use of pre-qualified materials does not relieve the contractor of the responsibility to provide materials that meet the specifications.

8300.5. Pre-Qualification Procedure.

A. Pre-Qualification Request. Submit a written request for evaluation to the Texas Department of Transportation, Construction Division, Materials and Pavements Section (CP-51), 125 East 11th Street, Austin, Texas 78701-2483.

Include the following information in the request:

- · company name,
- physical and mailing addresses,
- type of material,
- company material designation (product name, style number, etc.), and
- contact person and telephone number.

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For sign sheeting submissions, include:

- Proposed TxDOT sheeting type,
- ASTM sheeting type,
- a test report with actual test data showing the material complies with the requirements of ASTM D 4956 for the sheeting type proposed, and
- the warranty statement required in Article 8300.6, 'Comprehensive Manufacturer's Warranty Requirements.'
- **B. Pre-Qualification Sample.** For all proposed products, provide pre-qualification sample quantities at no cost to the Department in accordance with Tex-720-I.

The Department reserves the right to perform any or all tests in this Specification as a check on the tests reported by the manufacturer. In the case of any variance, the Department's tests will govern.

The Department will charge suppliers for the cost of sampling and testing of materials that do not meet the requirements of this specification in accordance with Section 8300.7.

C. Evaluation.

 Qualification. The Department will list materials meeting the requirements of this Specification on the MPL.

The Department may grant provisional pre-qualification after successful completion of the accelerated weathering requirements; or for materials that have undergone a full evaluation by the National Transportation Product Evaluation Program, and whose test results meet the minimum durability values required by this Specification.

The Department will grant full pre-qualification after successful completion of the exterior exposure requirements. Failure to complete all exterior exposure requirements successfully is grounds for cancellation of provisional pre-qualification.

Report changes in the composition or in the manufacturing process of any material to CST/M&P at the address shown in Article 8300.4.

The Department will review significant changes reported and the material may require a re-evaluation. The Department reserves the right to conduct whatever tests deemed necessary to identify a pre-qualified material and determine if there is a change in the composition, manufacturing process, or quality, which may affect its durability or performance.

Failure. Producers not qualified under this Specification may not furnish materials for Department projects and must show evidence of correction of all deficiencies before reconsideration for qualification.

Costs of sampling and testing are normally borne by the Department; however, the costs to sample and test materials failing to conform to the requirements of this Specification are borne by the supplier. The Director of CST/M&P will assess this cost at the time of testing.

Amounts due the Department will be deducted from monthly or final estimates on Contracts or from partial or final payments on direct purchases by the State.

- D. Periodic Evaluation. The Department reserves the right to randomly sample and evaluate pre-qualified materials for conformance to this Specification and to perform random audits of documentation. Department representatives may sample material from the manufacturing plant, the project site, and the warehouse.
 - Failure of materials to comply with the requirements of this Specification as a result of periodic evaluation may be cause for removal of those materials from the MPL.
- **E. Disqualification.** Disqualification and removal from the MPL may occur if one of the following infractions occurs:
 - material fails to meet the requirements stated in this Specification,
 - the producer fails to report changes in the formulation or production process of the material to CST/M&P.
 - the producer has unpaid charges for failing samples, or
 - the producer has unresolved warranty issues.
- F. Re-Qualification. A manufacturer or supplier may submit material for re-evaluation after documenting the problem and its resolution. Submit documentation identifying the cause and corrective action taken.
- **8300.6.** Comprehensive Manufacturer's Warranty Requirements. Sign face material manufacturers must comply with all requirements of the following warranty. Failure to comply with the requirements of this warranty is cause for removal from the MPL.

Submit a statement indicating understanding and compliance with the provisions of the warranty and willingness to abide by the provisions to the address shown in Article 8300.4.A. Include the name, address, and telephone number of the person to contact regarding potential claims under the warranty provisions.

The warranty must include the use of one manufacturer's sign face material directly applied to a different manufacturer's sign face material. If a failure occurs, assignment of warranty responsibility is to the manufacturer of the sign face material that fails. (Example: If the sheeting separates from the sign substrate, the manufacturer of the sheeting attached to the substrate will be responsible. If the sheeting or film used for legend detaches from the sheeting attached to the substrate, the manufacturer of the legend material will be responsible for the failure.)

- A. Certification. Submit a certification with each lot or shipment, which states that the material supplied meets the requirements listed. Show individual lot numbers on the certification.
- B. Field Performance. Sign face materials processed, applied, stored, and handled according to the manufacturer's recommendations (or as required in this Specification when there is an exception to the manufacturer's recommendations), must perform satisfactorily for the number of years stated in Section 8300.6.C for that sign face material. The performance period begins at the time of application of the sign face material to the sign. The warranty requirements go into effect upon final acceptance by

the Department. The Department will adjust the performance period to deduct the time between application of the sign face material to the sign and Department acceptance.

The sign face material is unsatisfactory if:

- it deteriorates due to natural causes to the extent that the sign is ineffective for its intended purpose (Example: When the sign is viewed from a moving vehicle under normal day and night driving conditions) or
- shows any of the following defects:
 - cracks discernible with the unaided eye from the driver's position while in an outside lane at a distance of 50 ft. (15 m) or greater from the sign
 - peeling in excess of 1/4 in. (6.4 mm)
 - shrinkage in excess of 1/8 in. (3.2 mm) total per 48 in. (1.2 m) of sheeting width
 - fading or loss of color to the extent that color fails to meet the requirements in ASTM D 4956 or
 - loss of reflectivity to a level below 80% for Types C, D, and E sheeting of the minimum values specified in ASTM D 4956 or in this Specification for new sheeting when measured at the angles specified for each type.

Provide the applicators with manuals, training videos, or both describing the proper application method. Submit, to the address shown in Article 8300.4.A, a copy of the current training materials provided with any updates as they occur. Include recommended procedures for the storage and handling of materials after application to the sign face up to final installation.

The sign face material manufacturer's warranty does not relieve the Contractor for unacceptable work or improper handling, storage, or installation. The Contractor is fully responsible for all materials and work until final acceptance by the Department.

C. Minimum Performance Period. All signs made with the type of sheeting indicated below and any other sign face materials used on each type of sheeting, except construction and maintenance work signs and barricades, must meet the minimum performance periods and replacement actions in Table 1.

Table 1 Warranty Period (yr.)

Sheeting Type	Period for Complete Sign Replacement and Installation	Additional Period for Sheeting Material Replacement Only
C, D	7	3
E	5	2

D. Manufacturer's Replacement Obligation. Where and when shown that retroreflective traffic signs processed in conformance with the sign face material manufacturer's recommendations (or as required in this Specification when there is an exception to the manufacturer's recommendations) have not met the field performance requirements above, a manufacturer's replacement obligation exists. The manufacturer must cover the costs of replacement of the sign on the roadway or of restoring the sign surface to its

original effectiveness as determined by and at no cost to the Department for materials or labor.

Replacement sign face materials must:

- · be the same type originally specified unless otherwise approved or directed,
- meet all the requirements of this Specification, and
- appear on the MPL.

Schedule with designated Department personnel, within 30 days of notification of potential replacement obligation, an on-site investigation to determine if the sign face material manufacturer's obligation exists.

Fulfill all obligations within 120 days after determination of obligations are made. The Department may replace signs where uncompleted obligations occur and may bill the manufacturer for all Department costs in performing the manufacturer's replacement obligation.

When in the judgment of the Department deteriorated signs present a traffic hazard, the Department reserves the right to remove the signs from the roadway and place them in storage for the manufacturer's inspection. Reimburse the Department for all costs, including labor for removal and replacement, when inspection reveals that a material manufacturer's obligation exists.

The materials manufacturer may use an independent Contractor to fulfill obligations to replace or refurbish signs on the roadway.

Terms of the Contract must be in conformance with the provisions of Contracts used by the Department for this type work, be approved by the Department, and save harmless the Department from any liability that may arise out of the Contractor's operations.

The Department can provide a sample Contract to the manufacturer upon the manufacturer's request.

The Department reserves the right to place a representative on the job to ensure that the signs are replaced or refurbished in conformance with Department standards. The Department will test all sign face materials used to fulfill the manufacturer's obligations to ensure compliance with this Specification.

Replacement material assumes the remaining warranty period of the material it replaces.

- E. Sign Processors' Obligations. Submit the following with each shipment of signs or sign faces:
 - · Department Contract or purchase order number and
 - a copy of the certification, as required in Section 8300.6.A, 'Certification,' showing
 the lot number of all sign face materials from which the completed signs or sign faces
 were processed.

8300.7. Material Requirements for Reflective Sheeting. This Specification covers the general and specific requirements for the three types of reflective sheeting materials listed in Table 2— Types C, D, and E.

Meet all the requirements of ASTM D 4956, except when otherwise specified. For Type C and D white sheeting intended for use on permanently installed highway signs, the average coefficient of retroreflection for a roll of sheeting must not vary more than 15 % when comparing Ra at 0 degrees and rotated 90 degrees for the angle epsilon (or rotational angle) while tested at each observation angle (alpha) and the -4 entrance angle (Beta 1). Calculate the 15% variation by dividing the difference between Ra (0) and Ra (90) by Ra (90).

For white sheeting not meeting the 15% maximum orientation requirement, provide identification marks or other orientation features in or on the sheeting face denoting the optimum orientation of the sheeting. The markings must be visible from a minimum distance of 5 ft. and must be arrayed in such a manner that they will be readily distinguishable on cut-out legend, symbols, or borders. Provide guidelines illustrating the optimum sheeting orientation for sign fabrication.

The Department conducts outdoor weathering at the Department's test site in Austin, Texas or at other locations as deemed necessary by the Director of CST/M&P.

Meet the supplementary requirements specified in ASTM D 4956, Supplementary Requirement S3, 'Artificial Accelerated Weathering' when tested in accordance with ASTM G 155 using Exposure Cycle 1 with a quartz inner filter glass and Type "S" Borosilicate outer filter glass. The Department will test the following application types, not listed in Table S3.1, for the hours indicated and with the specified results as shown:

- nonconstruction work zone
 - 2,200 hr. and
 - meeting a minimum of 80% of the minimum specified initial retroreflectivity values for that type after accelerated weathering.
- construction work zone
 - 500 hr. and
 - meeting a minimum of 60% of the minimum specified initial retroreflectivity values for that type after accelerated weathering.

The manufacturer may fabricate identification marks to denote type of sheeting in or on the face of sheeting. When used, place the markings inconspicuously on 4 to 12 in. (100 to 300 mm) centers visible from a distance of not more than 30 ft. (9 m) or in a manner pre-approved by the Director of CST/M&P.

The sheeting manufacturer must furnish identification codes to the Department.

Table 2
Sheeting Requirements

Type	ASTM D 4956 Type	Comments
		Must meet all requirements for non-fluorescent sheeting for ASTM Type III or IV.
С	III or IV	The MPL lists Type C sheeting made with encapsulated glass beads and microprismatic elements separately, and the Department may specify one or the other for specific applications. White sheeting for permanent signs not meeting the 15% maximum orientation requirement will be listed separately on the MPL and must be applied in the direction stated in Section 8300.7.F.
D	VII, VIII, IX, X	Must meet all requirements for non- fluorescent sheeting for ASTM Types VII, VIII, IX, X. White sheeting for permanent signs not meeting the 15% maximum orientation requirement will be listed separately on the MPL and must be applied in the direction stated in Section 8300.7.F.
E	VII, VIII, IX, X	Must meet all requirements for fluorescent sheeting for ASTM Types VII, VIII, IX, X.

A. Film Characteristics. Meet the requirements of Table 3.

Table 3
Film Requirements

Characteristic	Requirement
Workability	The integrity of the film must be such that when the sheeting or a completed sign face is trimmed (in the normal manner) to match the sign substrate, the film must not crack, flake, nor chip on the sign panel or sign face side of the trim line.
Temperature Stability	 At any combination of temperatures from 50 to 100°F (10 to 38°C) and relative humidity from 20% to 90%, the sheeting must be able to be cut, applied, and color processed. Unapplied sheeting must withstand heat curing of process inks at temperatures up to 200°F (93°C), unless otherwise limited by the sheeting manufacturer and so stated in their technical literature.
Chemical Resistance	The surface of the sheeting or the face of a completed sign must be chemically resistant to the extent that there will be no surface change when wiped with a soft, clean cloth dampened with mild detergents or cleaners supplied by or recommended by the sheeting manufacturer.

B. Adhesive. Precoat the backside of the reflective sheeting with either a heat-activated or a pressure-sensitive adhesive. No additional coats of adhesive must be required to affix the reflective sheeting to the sign blank. The adhesive and liner, when used, must meet the requirements of ASTM D 4956.

Suppliers of reflective sheeting using a porous, textured-backing paper to protect the adhesive layer that is not suitable for use as a slip-sheet for packaging of completed signs, sign panels, or both, must supply rolls of slip-sheet paper in the various widths of reflective sheeting supplied. The area of slip-sheet paper, supplied in the various widths, must be the same as the area of reflective sheeting supplied in the various widths. Supplied slip-sheet paper is subsidiary to the reflective sheeting and any costs, direct or indirect, must be included in the bid price for reflective sheeting on State purchases.

The adhesive must have no staining effect on the reflective sheeting.

- C. Reflected Night Color. The reflected night color must be:
 - identifiable as the same color as the day color when observed at 50 ft. (15 m) and
 - uniform and free of streaks, mars, and other imperfections.
- D. Screened Sheeting Optical Performance. Before exterior exposure or Weather-Ometer (WOM) exposure, sheeting reverse screened with transparent ink must have the minimum coefficient of retroreflectivity values specified in ASTM D 4956.

(NOTE: Retroreflectivity will be determined in accordance with Tex-842-B.)

- **E. Material Identification.** Mark each container, carton, or box containing reflective sheeting with the information listed in ASTM D 4956. The identification numbers must also appear on the inside of the sheeting roll core. The identification number on the outside of the box and on the inside of the core must match. The mismatch of these numbers may be cause for rejection.
- F. Sign Fabrication. When utilizing white sheeting for permanent signs that does not meet the 15% maximum orientation requirement, fabricate signs by applying the sheeting for cut-out legend, symbols, borders, and route marker attachments within the parent sign face with the identification marks or other orientation features in the optimum direction.

8300.8. Material Requirements for Conformable Reflective Sheeting.

A. General Requirements. Conformable reflective sheeting is intended for use on both flat surface and round plastic or metal posts. Meet all the requirements of ASTM D 4956, except when otherwise specified. In addition to the ASTM requirements, meet the requirements of Tex-843-B.

8300.9. Material Requirements for Screen Inks.

- A. General Requirements. Specifically formulate screen inks for screening sign faces or legends on the type of reflective sheeting required.
- B. Color. Screen inks, when screened onto any pre-qualified white reflective sheeting, must produce a color within the color requirements specified for the various colors of reflective sheeting in ASTM D 4956.

Use the type of screen recommended by the manufacturer.

Use screen inks as supplied or thinned according to the manufacturer's recommendations. Color will be determined by using ink from sealed, unopened containers as received from the manufacturer and according to manufacturer's recommendations for thinning.

- C. Transparency. Black screen ink, when applied to white sheeting, must be completely opaque.
- D. Durability. Screen inks, recommended by the ink manufacturer for use on any of the types of reflective sheeting, must exhibit the same durability as specified for that type of reflective sheeting.

When tested according to Federal Test Method 6301, "Adhesion (Wet) Tape Test," the results must show no process inks removed after processing a minimum of 96 hr. or after exposure of the sheeting types to durability and weathering tests specified.

8300.10. Material Requirements for Colored Transparent Films and Non-Reflective Black Films.

A. General. Colored, transparent films must consist of durable, electronically cuttable films coated with a transparent, pressure-sensitive adhesive protected by a removable liner. Non-reflective black films must be acrylic and consist of durable, electronically cuttable films coated with a pressure-sensitive adhesive protected by a removable liner.

The films must be:

- designed to be cut on knife-over-roll (sprocket-fed or friction-fed) and flat bed electronic cutting machines;
- available in standard traffic colors;
- · dimensionally stable; and
- designed to cut, weed, lift, and transfer.

The films must not release any volatile, organic compounds.

- **B.** Color. When applied to retroreflective sheeting, the resulting color must fall within the color requirements specified for each color of reflective sheeting in ASTM D 4956. Black film must have a reflectance (Y) no greater than 4.0 as determined by Tex-839-B.
- C. Coefficient of Retroreflection. When applied to retroreflective sheeting, the resulting coefficient of retroreflection must meet the minimum values specified in ASTM D 4956.
- Retroreflectivity will be determined in accordance with Tex-842-B. **D. Adhesion.** Adhesion must meet the requirements of ASTM D 4956.
- **E. Durability.** All films, when applied to the various types of reflective sheeting, must meet the same durability requirements as specified for that type of reflective sheeting.

8300.11. Anti-Graffiti Films and Coatings.

- A. Color. When applied to retroreflective sheeting, the resulting color must fall within the color requirements specified for the various colors of reflective sheeting in ASTM D 4956.
- B. Coefficient of Retroreflection. When applied to retroreflective sheeting, the resulting coefficient of retroreflection reading must have the minimum values as shown in ASTM D 4956.

Coefficient of retroreflection will be determined in accordance with Tex-842-B.

C. Durability.

- Resistance and Exposure
 - The sheeting must show no cracking, crazing, blistering, chalking, or dimensional change after WOM exposure for 2,200 hr. and exterior exposure at 45° for 36 mo. or at 90° for 5 yr.
 - WOM exposure will be in accordance with ASTM G 155, using Exposure Cycle 1 with a quartz inner filter glass and Type "S" Borosilicate outer filter glass.
 - Exterior exposure will be facing south at the Department's exterior exposure test site in Austin, Texas or other locations as deemed necessary by the Director of CST/M&P.

8300.12. Contrast Ratio of Sign Faces and Completed Signs. For all sign faces and completed signs using transparent screen inks or transparent films, the "Contrast Ratio" is the

quotient obtained when the coefficient of retroreflection of the white is divided by the coefficient of retroreflection of the other color.

The contrast ratio will be determined at an observation angle of 0.2° and an entrance angle of -4° .

For all signs, which use white and red reflective sheeting, the contrast ratio must not be less than 4.0 or greater than 15.0. For all other signs, sign panels, sign faces, and traffic control devices, the contrast ratio must not be less than 4.0.

8300.13. Packaging. Package the materials in containers that will permit normal shipping and storage without the material sustaining damage or becoming difficult to apply.

Roll material must contain no more than three splices per 50 yd. (46 m). The length of the roll core must not be less than the width of the material.

- **A.** Pressure-Sensitive Material. The ends of the material must be cut square with an overlap splice of $3/8 \pm 1/8$ in. in width $(9.5 \pm 3.2 \text{ mm})$. Edges of the overlap splice are to be straight and square.
- **B.** Heat-Activated Material. Cut the ends of the material square, but jointed closely together and held securely in place with a removable tape.

8300.14. Archived Versions. Archived versions are available.

DMS - 7120 SIGN HARDWARE

EFFECTIVE DATE: AUGUST 2004

7120.1. Description. This Specification governs the furnishing of hardware for signs, including frames, wind beams, stiffeners, exit number panel supports, splice bars, pipe and post clamp castings, and fasteners.

7120.2. Material Requirements.

- A. General Requirements. Unless otherwise shown on the plans, all frames, wind beams, stiffeners, exit number panel supports, splice bars, pipe and post clamp castings, and fasteners will be stainless steel, galvanized steel, or aluminum. Dissimilar metals will be selected or insulated to prevent corrosion. The following specifications will apply.
- B. Frames and Wind Beams (Tees, Zees).
 - Aluminum—ASTM B 221, Alloy 6061-T6
- C. Stiffeners (S-Shapes).
 - Steel—ASTM A 36, Galvanized to ASTM A 123
- D. Exit Number Panel Supports (Angles, Tees).
 - Aluminum—ASTM B 221, Alloys 6061-T6
 - Steel—ASTM A 36, Galvanized to ASTM A 123
- E. Splice Bars.
 - Aluminum—ASTM B 209, Alloys 6061-T6, or 5052-H38
- F. Aluminum Castings.
 - · Pipe Clamps:
 - ASTM B 26, Alloy 356.0-F
 - ASTM B 85, Alloy 360.0 or A360.0 or
 - ASTM B 180, Alloy 356.0-F or A444.0-T-4
 - Post Clamps:
 - ASTM B 26, Alloy 356.0-T6, or
 - ASTM B 108, Alloy 356.0-T6

G. Screws, Bolts, Nuts, and Washers.

- Aluminum—Alloy 2024-T4
- · Stainless Steel-ASTM A 320, Grade B8F Annealed
- Galvanized Steel:
 - ASTM A 307
 - galvanized to ASTM A 153, Class C or D, or
 - galvanized to ASTM B 695, Class 50

H. High-Strength Bolts, Nuts, and Washers.

- ASTM A 325, or
- ASTM A 449
- galvanized to ASTM A 153, Class C or D, or
- galvanized to ASTM B 695, Class 50

I. Dichromate Sealed Finish for Aluminum Hardware.

- Mil-A-8625A Type II
- J. Documentation. Provide Mill Test Reports from the producing mill for all structural components—frames, wind beams, stiffeners, exit number panel supports, splice bars, and high strength fasteners. Mill test reports must reflect the chemical analysis of the base metal and the physical test results (i.e., yield and tensile strength and elongation) obtained on the finished product.

Provide a manufacturer's certification for pipe and post clamp castings, and miscellaneous fasteners (screws, bolts, nuts, and washers) stating that the material meets all applicable requirements.

7120.3. Archived Versions. Archived versions are available.

DMS - 7110 ALUMINUM SIGN BLANKS

EFFECTIVE DATE: MARCH 2005

- **7110.1. Description.** This Specification governs the furnishing of aluminum substrates for signs, including aluminum sheet or coil and extruded sign panels.
- **7110.2. Sampling and Testing.** Aluminum sheet or coil, and extrusions will conform to this Specification unless otherwise specified by the plans. Sample the material in accordance with Tex-721-I.
- **7110.3. Periodic Evaluation.** The Department reserves the right to conduct sampling of materials for testing. Department representatives may sample material from the sign fabricator's plant.

7110.4. Material Requirements.

A. Aluminum Sheet or Coil.

- Aluminum sheet or coil will conform to the requirements of ASTM B 209, Alloys 6061-T-6, or 5052-H38.
- Sign blanks made from sheet or coil will be free of buckles, warps, dents, cockles, burrs, and other defects and must be a plane surface.
- Treat all sign blanks fabricated from sheet and coil with a chromate chemical process resulting in a coating meeting the requirements of ASTM B 449, Class 2. The coating will be light-colored, tight, and free from powdery residues.

B. Aluminum Extrusions.

- Aluminum signs (Types G and O) will conform to ASTM B 221, Alloys 6061 or 6063, T4 or T6 temper.
- Railroad crossbuck sign panels will conform to ASTM B 221, Alloys 6061 or 6063, T6 temper.
- C. Documentation. Furnish mill test reports, obtained from the manufacturer, for aluminum sheet or coil and for extrusions that reflect the chemical and physical properties of the aluminum.

1 - 1

7110.5. Archived Versions. Archived versions are available.

DMS - 4400

FLEXIBLE DELINEATOR AND OBJECT MARKER POSTS (EMBEDDED AND SURFACE-MOUNT TYPES)

EFFECTIVE DATE: MAY 2010

- **4400.1. Description.** This Specification governs for the material, composition, quality, sampling, and testing of flexible delineator and object marker posts, both embedded and surfacemount types, and describes the qualification procedures and the Material Producer List (MPL).
- **4400.2. Units of Measurements.** The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
- **4400.3. Material Producer List.** The Materials and Pavements Section of the Construction Division (CST/M&P) maintains the Material Producer List (MPL) of all materials conforming to the requirements of this Specification. Materials appearing on the MPL, entitled "Flexible Delineator and Object Marker Posts," require no further testing unless deemed necessary by the Project Engineer or CST/M&P. Before any material is considered for use on Department projects, it must be of manufacture and product code or designation shown on the MPL.

4400.4. Pre-Qualification Procedure.

A. Pre-Qualification Request. Prospective producers interested in submitting their product for evaluation must submit a written request to the Texas Department of Transportation, Construction Division, Materials and Pavements Section (CP51), 125 East 11th Street, Austin, Texas 78701-2483.

The manufacturer, supplier, or their representative must conduct impact tests. Submit a test report that includes a certification by a licensed, professional engineer that the posts have been impact tested, with the following requirements:

- · Test a minimum of eight posts.
- The posts must survive ten hits (hit from the same direction each time) by a passenger
 car, at a speed between 50 and 55 mph. ("Survive" is defined as remaining in place
 and not having a list in any direction from vertical of more than 20°.) For this test,
 install and orient the posts as recommended by the manufacturer for typical roadway
 applications.
- In addition, after five hits, the delineator or object marker must be certified to meet minimum reflectivity requirements specified in accordance with DMS-8600.
- Submit photographs showing both the posts impacted and the impact vehicle after five and ten hits.
- National Transportation Product Evaluation Program test results will also be accepted.

TEXAS DEPARTMENT OF TRANSPORTATION

Before materials are placed on the MPL, producers or suppliers must submit certifications and photographs to CST/M&P for approval.

A demonstration of the manual installation of a post 6-1/2 ft. in length, using the recommended manual driver, may be required. The supplier or their designated representative will perform the demonstration at a location specified by the Department. Any problems noted during installation must be addressed before qualified status is granted.

B. Pre-Qualification Sample. Submit a minimum of ten flexible posts, including anchors and special mounting hardware for ground or surface mount, for testing.

Identify the post as being one of the following categories and types:

- Embedded—the post is designed to be either driven into the ground or affixed to a
 foundation set in concrete.
- Surface Mount—the post is designed to be attached to a base that is mounted to the roadway surface.

Submit all materials for pre-qualification tests at no cost to the Department.

The Department reserves the right to perform any or all tests specified as a check on the tests reported by the manufacturer. In the case of any variance, Department tests will govern.

C. Sampling and Testing. Sampling will be in accordance with Tex-737-I.

Testing will be in accordance with Article 4400.5.

- D. Evaluation. CST/M&P will notify prospective bidders and suppliers after completion of material evaluation.
 - Qualification. If approved for use by the Department, the material will be added to the MPL. If material is listed on the MPL, no additional submittals are required for that product.

Report changes in the composition or in the manufacturing process of any material to CST/M&P. Significant changes reported by the manufacturer, as determined by the Director of CST/M&P, may require a re-evaluation of performance.

When in the opinion of the Director of CST/M&P changes have been made in the composition, manufacturing process, or design of a pre-qualified product, a re-evaluation may be required. The Department may conduct additional tests to identify changes in the material. Detected changes in the composition or in the manufacturing process not reported by the manufacturer may be cause for removal of that material from the MPL.

Failure. Producers not qualified under this Specification may not furnish materials for Department projects and must show evidence of correction of all deficiencies before reconsideration for qualification.

Costs for sampling and testing performed by the Department are normally borne by the Department; however, the contractor or supplier will bear the costs for sampling and

testing of failing materials. This cost will be assessed at the rate established by the Director of the Construction Division and in effect at the time of testing.

Amounts due the Department will be deducted from monthly or final estimates on contracts or from partial or final payments on direct purchases by the Department. Products will not be retested until costs for previously failed tests have been paid.

E. Periodic Evaluation. The Department reserves the right to conduct random sampling of pre-qualified, certified materials for testing and to perform random audits of test reports.

The Department may select random samples for periodic evaluation of performance from materials submitted to the Department on contracts or direct State purchase orders. Department representatives may sample material from the manufacturing plant, the project site, and the warehouse. CST/M&P reserves the right to test samples to verify compliance with this Specification.

Failure of materials to comply with the requirements specified may be cause for removal of those materials from the MPL.

- **F. Disqualification.** Disqualification and removal from the MPL may occur if one of the following infractions occurs:
 - · material fails to meet the requirements stated in this Specification,
 - the producer fails to report to CST/M&P changes in the composition or in the manufacturing process of any material, or
 - the producer has unpaid charges for failing samples.
- G. Requalification. A manufacturer or supplier may submit material for re-evaluation after documenting the problem and its resolution. Submit documentation identifying the cause and corrective action taken.

4400.5. Material Requirements.

A. General Requirements. All posts must meet all requirements specified except where specific requirements are shown for a specific type.

Manufacture posts from any flexible material of a high-impact resistance quality and resistant to ultraviolet light, ozone, and hydrocarbons.

B. Design and Test Requirements. The top of hollow or tubular posts must be permanently closed to prevent moisture or debris from entering.

The surface texture to which the delineator is to be attached must be clean, smooth, and suitable for the adhesion of reflective sheeting without preparation.

The length of the post must be as specified on the plans or on the purchase order.

The infrared and x-ray spectra of material from posts furnished must match the spectra for the pre-qualified posts in accordance with Tex-888-B and Tex-896-B.

The specific gravity of material from posts furnished must not vary more than 0.12 from the specific gravity of the pre-qualified posts. The specific gravity of post material will be

measured in a gas pycnometer using helium as the pressure gas. The pycnometer will be operated according to the pycnometer manufacturer's recommended procedures.

The posts must show no significant change in color, flexibility, or integrity after 1,000-hr. exposure in accordance with ASTM G 155 using Exposure Cycle 1 with a quartz inner filter glass and Type "S" Borosilicate outer filter glass.

Unless otherwise specified, the color of the posts must be opaque white meeting all Federal Highway Administration color requirements.

The posts must show no significant change in color, flexibility, or integrity after coating with herbicides, currently used by the Department, for 48 hr. then rinsed.

C. Surface-Mount Post Base Requirements. In addition to the above requirements, the base of surface-mount posts must meet the following requirements:

Manufacture the base from a rigid, high-impact, resistant material and be resistant to ultraviolet light, ozone, and hydrocarbons.

The dimensions of the base must be approximately 200 mm (8 in.) in diameter and have a height of no more than 50 mm (2 in.).

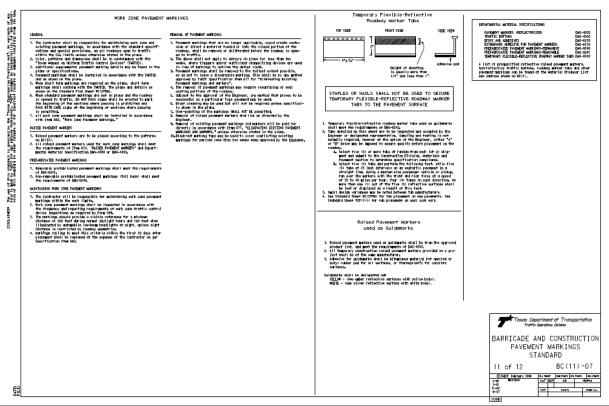
Use adhesives recommended by the manufacturer to adhere the base to asphalt and concrete flat surfaces.

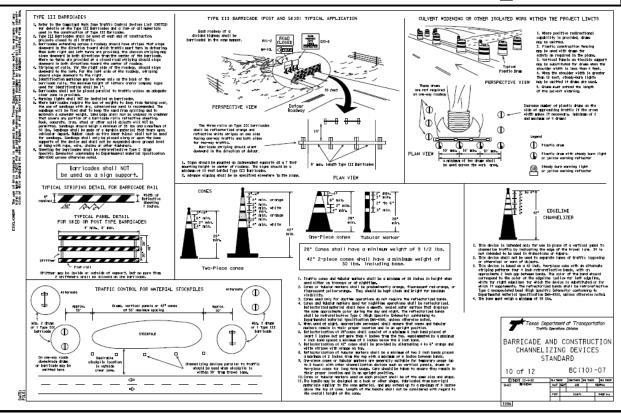
Allow for replacement of the post in 4 min. or less.

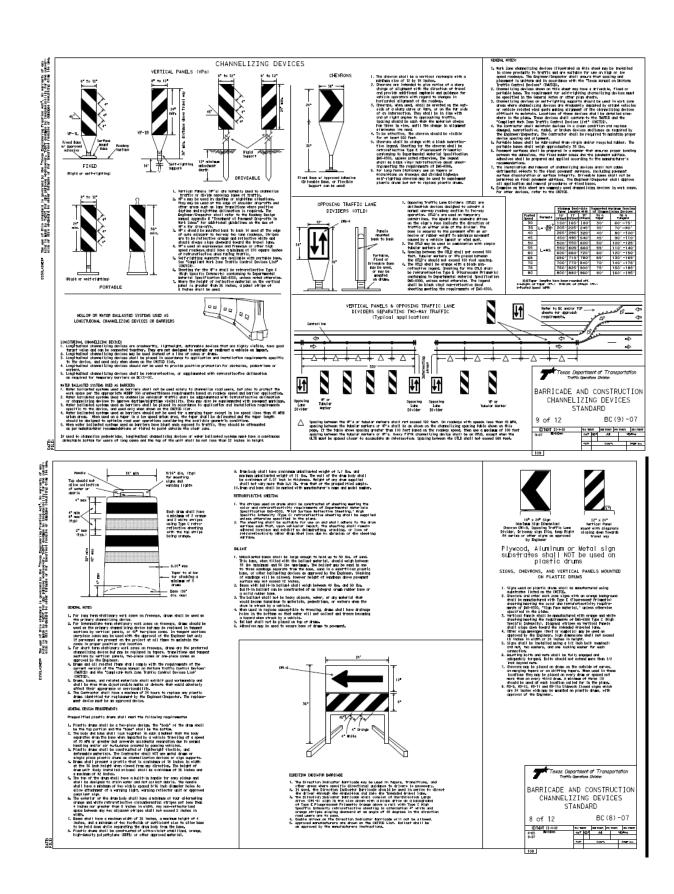
To install the post directly into or onto the base, design the base to be tamperproof by using a spanner wrench, roll pins locking system, or some other approved locking device.

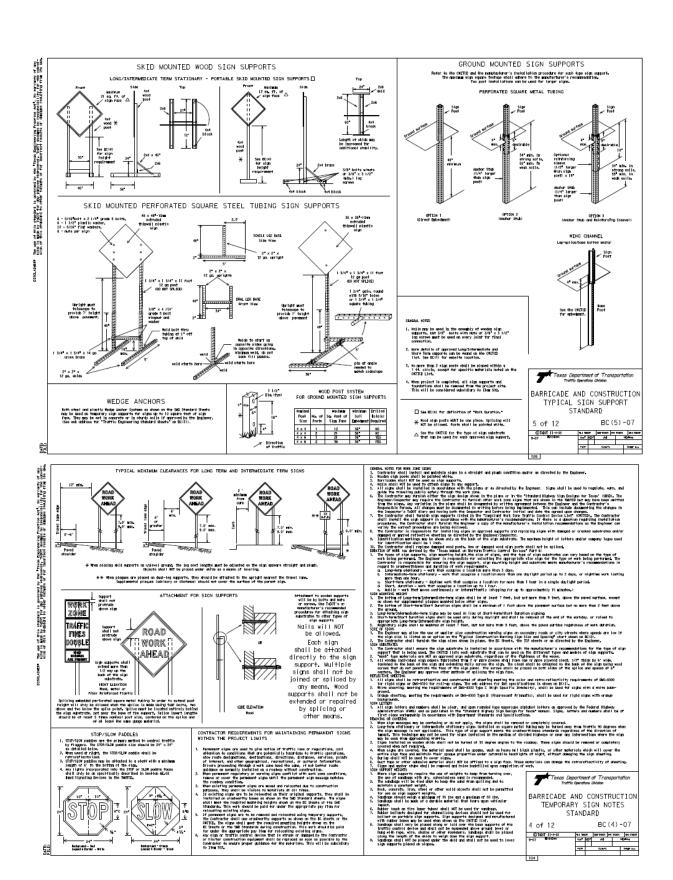
4400.6. Payment.

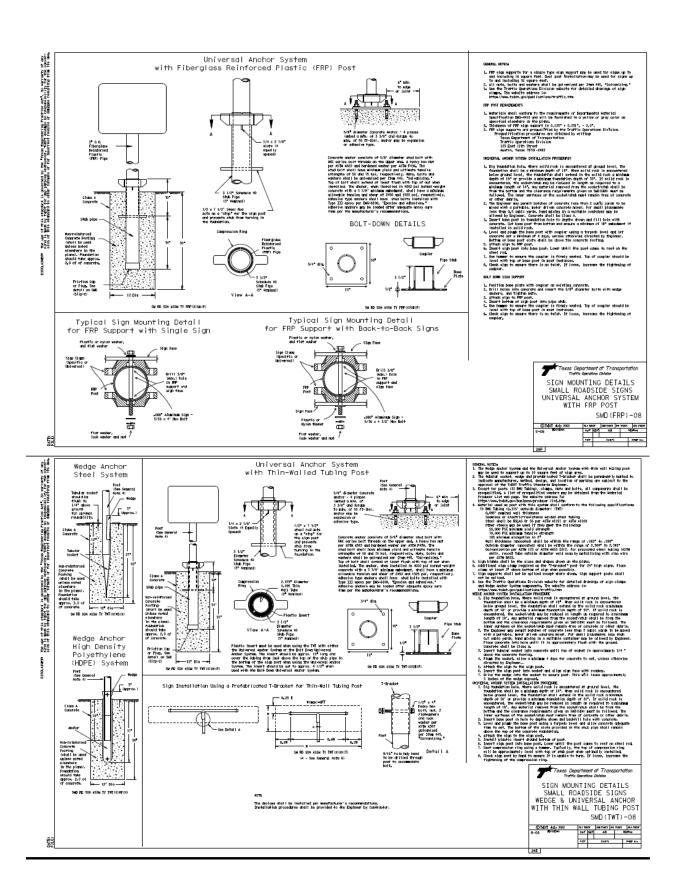
- A. Procurement by the State. Payment for all materials will be in accordance with the conditions prescribed in the contract awarded by the State.
- B. Contracts. Payment for all materials will be in accordance with the Department's Standard Specification Item 658.
- 4400.7. Archived Versions. Archived versions are available.

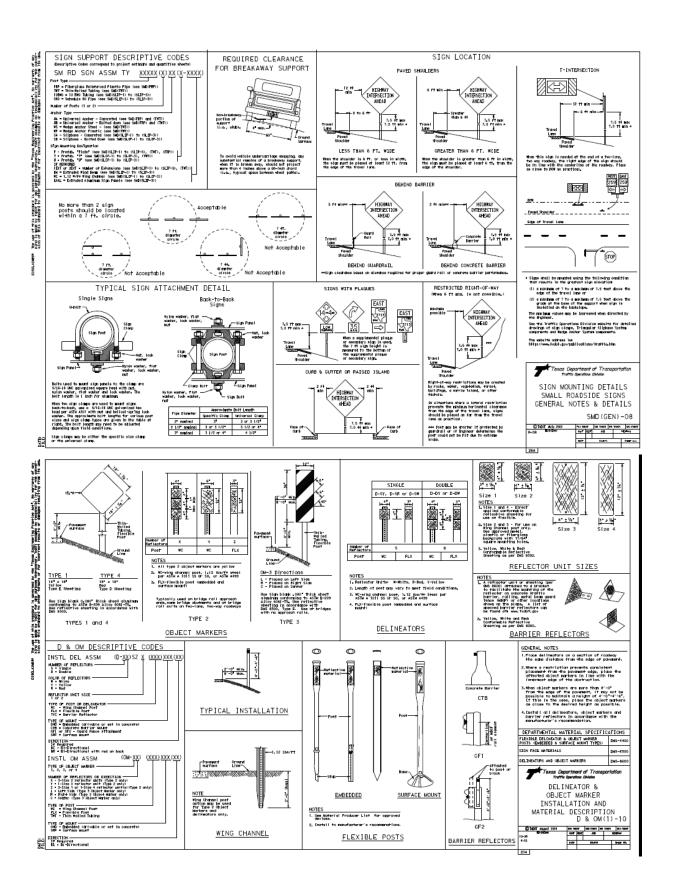












6. CONTRACT ADMINISTRATION

J.TERRON EVERTSON, P.E., Director of Williamson County Road and Bridge, (or successor), 3151 SE INNER LOOP, STE B, GEORGETOWN, TX 78626, shall serve as Williamson County's Contract Administrator with designated responsibility to ensure compliance with the requirements of the Contract and any ensuing Agreement, such as but not limited to, acceptance, inspection and delivery. The Contract Administrator will serve as liaison between the Williamson County Commissioners Court and the Successful Bidder.

SIGNS AND DELINEATORS FOR WILLIAMSON BID NUMBER: 13IFB00109

BID SUBMITTAL CHECKLIST

PLEASE READ, COMPLETE AND RETURN THIS "BID SUBMITTAL CHECKLIST" WITH YOUR BID.

The Bidder's attention is especially called to the items listed below (return pages marked with red border), which should be submitted in full as part of Bidder's Bid.

Failure to submit any of the documents listed below as a part of your Bid, or failure to acknowledge any addendum in writing with your Bid, or submitting a Bid on any condition, limitation, or provision not officially invited in this IFB may serve, at Williamson County's sole discretion, as cause for rejection of the Bid. The County reserves the right to request that any Bidder clarify its Bid or to supply any additional material deemed necessary to assist in the evaluation of the Bid.

Bidder should check each box below indicating compliance. ☐ Transmittal Letter Price Sheets, (Appendix A) References: Identification of three (3) entities for which the Bidder is providing or has provided product/services of the type requested, including the name, position, and telephone number of a contact person at each entity (Appendix B) ☐ Conflict of Interest Questionnaire (Appendix C) ☐ Bid Affidavit (Appendix D) ☐ Signature Page (Appendix E) If Bidder is operating under an assumed business name, a file marked copy of the Assumed Name Certificate that has been filed with the Williamson County Clerk must be submitted with this bid. One (1) original, two (2) paper copies and one (1) CD copy of the Bid should be mailed to or delivered on or before the Bid submittal deadline, to the Williamson County Purchasing Department, 301 SE Inner Loop, Suite 106, Georgetown, TX 78626. Telephone Number Company Address Fax Number Authorized Representative (Please print) Title

BIDDER MUST RETURN THIS PAGE WITH ITS BID

Date

Authorized Signature

APPENDIX A PRICE SHEET

THIS FORM MUST BE COMPLETED, SIGNED, AND RETURNED WITH BID

The undersigned Bidder, having become familiar with this IFB agrees to furnish the goods and/or services in accordance with this IFB.

Jous and	/or services in accordance with this IFB.	•	1	UNIT
ITEM #	DEDCRIPTION		UNIT	PRICE
1	62" Road Markers w/ 3"x 12" Yellow H.I.S. Sh	neeting	EACH	
-	-	ieetiiig		
2	24" Stop/ Slow Paddles and Staff		EACH	
3	28" Cones w/ Reflective Bands		EACH	
	M.U.T.C.D. Signs - Reg	gulatory		
				UNIT
	Size	Sheeting	UNIT	PRICE
	24" Octagon	H.I.S.	EACH	
	30" Octagon	H.I.S.	EACH	
	36" Octagon	H.I.S.	EACH	
	48" Octagon	H.I.S.	EACH	
	30" Triangle	H.I.S.	EACH	
	36" Triangle	H.I.S.	EACH	
	9"x 12"	H.I.S.	EACH	
	12"x 6"	H.I.S.	EACH	
	18"x 6"	H.I.S.	EACH	
	18"x 12"	H.I.S.	EACH	
	18"x 18"	H.I.S.	EACH	
	18"x 24"	H.I.S.	EACH	
	21"x 15"	H.I.S.	EACH	
4	24"x 24"	H.I.S.	EACH	
	24"x 30"	H.I.S.	EACH	
	24"x 36"	H.I.S.	EACH	
	24"x 42"	H.I.S.	EACH	
	24"x 48"	H.I.S.	EACH	
	30"x 18"	H.I.S.	EACH	
	30"x 24"	H.I.S.	EACH	
	30"x 30"	H.I.S.	EACH	
	30"x 36"	H.I.S.	EACH	
	30"x 42"	H.I.S.	EACH	
	36"x 12"	H.I.S.	EACH	
	36"x 18"	H.I.S.	EACH	
	36"x 24"	H.I.S.	EACH	
	36"x 36"	H.I.S.	EACH	
	48"x 9"	H.I.S.	EACH	
	48"x 24"	H.I.S.	EACH	
	48"x 30"	H.I.S.	EACH	
	60"x 30"	H.I.S.	EACH	

NAME of Bidder

	Size	Sheeting	UNIT	UNIT PRICE
	30" H.I.S. Circle	H.I.S.	EACH	
	36" H.I.S. Circle	H.I.S.	EACH	
	12"x 18"	H.I.S.	EACH	
	18"x 18"	H.I.S.	EACH	
	18"x 24"	H.I.S.	EACH	
	24"x 12"	H.I.S.	EACH	
	24"x 24"	H.I.S.	EACH	
	24"x 30"	H.I.S.	EACH	
	30"x 15"	H.I.S.	EACH	
	30"x 30"	H.I.S.	EACH	
5	30"x 36"	H.I.S.	EACH	
	36"x 18"	H.I.S.	EACH	
	36"x 24"	H.I.S.	EACH	
	36"x 36"	H.I.S.	EACH	
	36"x 48"	H.I.S.	EACH	
	48"x 24"	H.I.S.	EACH	
	48"x 48"	H.I.S.	EACH	
	48"x 60"	H.I.S.	EACH	
	60"x 30"	H.I.S.	EACH	
	66"x 12"	H.I.S.	EACH	
	84"x 24"	H.I.S.	EACH	
	M.U.T.C.D.	Signs - School	1	UNIT
	Size	Sheeting	UNIT	PRICE
	30" H.I.S. Pentagon	H.I.S.	Each	
	36" H.I.S. Pentagon	H.I.S.	Each	
	24"x 8"	H.I.S.	Each	
	24"x 10"	H.I.S.	Each	
	24"x 30"	H.I.S.	Each	
6	24"x 48"	H.I.S.	Each	
	30"x 30"	H.I.S.	Each	
	36"x 12"	H.I.S.	Each	
	36"x 15"	H.I.S.	Each	
	36"x 18"	H.I.S.	Each	
	36"x 36"	H.I.S.	Each	
	36"x 48"	H.I.S.	Each	
			1	1

Bracket and Post Hardware					
				UNIT	
	Item		UNIT	PRICE	
	2 3/8" Post Bracket		Each		
7	3" Post Bracket		Each		
	2 3/8" Back to Back Post Brackets		Each		

NAME of Bidder

	Street Sign Blanks and Ha	irdware		
				UNIT
	Item	Sheeting	UNIT	PRICE
	6"x 18" Flat	H.I.S. White	Each	
	6"x 24" Flat	H.I.S. White	Each	
	6"x 30" Flat	H.I.S. White	Each	
	6"x 36" Flat	H.I.S. White	Each	
	9"x 24" Flat	H.I.S. White	Each	
	9"x 30" Flat	H.I.S. White	Each	
8	9"x 36" Flat	H.I.S. White	Each	
	Cap Round - 2 3/8" x 5 1/2"Flat Blade Holder		Each	
	Cap Round - 2 3/8" x 12"Flat Blade Holder		Each	
	Cap Round - 3" x 5 1/2" Flat Blade Holder		Each	
	Cap Round - 3" x 12" Flat Blade Holder		Each	
	90° Tee - 5 1/2 "Flat Blade		Each	
	90° Tee - 12" Flat Blade Holder		Each	
	Tubular & U-Channel	Post		
	Item		UNIT	UNIT PRICE
	10'x 2 3/8" O.D. Round Post		Each	
	12'x 2 3/8" O.D. Round Post		Each	
9	6' Green U-Channel		Each	
	6" Galvanized U-Channel		Each	
	12' Green U-Channel		Each	
	Roll Goods			
	ltem	Туре	UNIT	UNIT PRICE
	6"x 50 Yards - Barricade Tape	H.I.S.	Each	
	7"x 50 Yards - Barricade Tape	H.I.S.	Each	1

	30" Reflective Sheeting	E.G	Each	
	30" Reflective Sheeting	S.E.G.	Each	
	30" Reflective Sheeting	H.I.S.	Each	
	30" Reflective Sheeting	H.I.P.	Each	
10	30" Reflective Sheeting	D.G.	Each	
	30" Non Reflective Sheeting	Vinyl	Each	
	30" E.C. Film	E.C.	Each	
	48" Reflective Sheeting	E.G	Each	
	48" Reflective Sheeting	H.I.P.	Each	
	48" Non Reflective Sheeting	Vinyl	Each	
	48" E.C. Film	E.C.	Each	

NAME of Bidder

	Barricade Material		
	ltem	UNIT PR	IIT ICE
	4"x 4"x 5' HPPL Post	EACH	
	1"x 8"x 8' Plank	EACH	
11	Type I 24" Barricade with Sheeting	EACH	
	Type II 24" Barricade with Sheeting	EACH	
	Type III 8' Barricade with Sheeting	EACH	
		EACH	
	Flexible Roll Up Signs		
	Item	UNIT PR	IIT ICE
	36" Non Reflective Sign with Base	EACH	
12	36" Reflective Sign with Base	EACH	
	48" Non Reflective Sign with Base	EACH	
	348" Reflective Sign with Base	EACH	
		EACH	

APPENDIX A PRICE SHEET - CONTINUED

THIS FORM MUST BE COMPLETED, SIGNED, AND RETURNED WITH BID

Cooperative Purchasing Program

Check one of the following options below . A non-affirmative Bid will in no way have a negative impact on the County's evaluation of the Bid.				
☐ I will offer the quoted prices to all authorized entities during the term of the County's contract.				
☐ I will not offer the quoted prices to all authorized entities.				
If no box is checked Bidder agrees to offer the quoted prices to all authorized entities.				
The undersigned hereby certifies that he or she has read the terms of this IFB and understands that Williamson County reserves the right to waive any informality in or to reject any or all Bids.				
Bidder Name:				
Address:				
Telephone: Fax:				
Contact Name (please print):				
Authorized Signature:				
Title or Representative Capacity of Signer:				
State of Incorporation/Organization or Primary Place of Business:				

APPENDIX B BIDDER REFERENCES THIS FORM MUST BE COMPLETED, SIGNED, AND RETURNED WITH BID

Please list at least three (3) companies or governmental agencies where the same or similar goods and/or services as contained in this IFB package that were recently provided by Bidder.

	REFERENCE ONE			
Government/Company Name:				
Address:				
Contact Person and Title:				
Phone:	Fax:			
Contract Period:	Scope of Work:			
	REFERENCE TWO			
Government/Company Name:				
Address:				
Contact Person and Title:				
Phone:	Fax:			
Contract Period:	Scope of Work:			
	REFERENCE THREE			
Government/Company Name:				
Address:				
Contact Person and Title:				
Phone:	Fax:			
Contract Period:	Scope of Work:			

APPENDIX C CONFLICT OF INTEREST QUESTIONNAIRE THIS FORM MUST BE COMPLETED, SIGNED, AND RETURNED WITH BID

For Bidder or other person doing business with local government entity				
This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity.	OFFICE USE ONLY			
By law this questionnaire must be filed with the records administrator of the local government not later than the 7 th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006 Local Government Code.				
A person commits an offense if the person violates Section 176.0006, Local Government Code. An offense under this section is a Class C misdemeanor.				
Name of person doing business with local governmental entity.				
2. Check this box is you are filing an update to a previously filed question	naire.			
(The law requires that you file an updated completed questionnaire with the a later than September 1 of the year for which an activity described in Section Code, is pending and not later than the 7 th business day after the date the ori becomes incomplete or inaccurate.)	176.006(a), Local Government			
 Describe each affiliation or business relationship with an employee or contractor of the local government entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money. 				
Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.				

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ Page 2

For Bidder or other person doing business with local government entity

5.		Name of local government officer with whom filer has affiliation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)					
	This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom filer has affiliation or business relationship. Attach additional pages to this Form CIQ as necessary						
	A.	A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire?					
		☐ Yes ☐ No					
	B.	3. Is the filer of the questionnaire receive or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local government entity?					
		☐ Yes ☐ No					
	C.	C. Is the filer of the questionnaire affiliated with a Corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more					
		☐ Yes ☐ No					
	D. Describe each affiliation or business relationship:						
6.	Des	Describe any other affiliation or business relationship th	at might cause a conflict of interest.				
	, 3						
7.		Bidder Name:					
		Authorized Signature: Title or Representative Capacity of Signer:					
		Date:, 20					

BIDDER MUST RETURN THIS APPENDIX COMPLETED WITH ITS BID

APPENDIX D BID AFFIDAVIT THIS FORM MUST BE COMPLETED, SIGNED, AND RETURNED WITH BID

The undersigned certifies that the IFB and the Bidder's Bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all goods and/or services upon which prices are extended at the price Bid, and upon the conditions contained in the IFB.

-	•		•	•			
STATE OF			COUNTY	OF			
	appeared	d C			for the State of		
"I,				(Nam	ne of Signer) am	a duly authoriz	ed officer
of/agent for	to	ovocuto	tho	foregoing (Na	ame of Bidder) on b	and have be	een duly
					On Di (Name of Bio		tne
person or person certify that the in any pool o	cons engage Bidder is r agreemed person or person of Bi	ged in the sam not now, nor ha ent or combina persons to sub dder:	e line of bu as been for ation, to co mit a Bid o	usiness prior to r the past six (6		ing of this Bid. y or indirectly c	Further, I oncerned
					_		
Telephone#:							
Ву:							
Printed Name:							
Title:							
SUBSCRIBED	AND SW	ORN to before	me by the	above-named _			on
this the	day of	:			, 20		
			_	Notary Publi			

APPENDIX E SIGNATURE PAGE THIS FORM MUST BE COMPLETED, SIGNED, AND RETURNED WITH BID

This Bid shall remain in effect for ninety (90) calendar days from Bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The Bidder agrees, if this Bid is accepted, to furnish any and all items upon which prices are offered, at the price and in accordance with the Specifications, Terms and Conditions contained in the IFB, and all other items made a part of this IFB.

The undersigned affirms that he or she is duly authorized to execute this Bid and that by executing this Bid, Bidder understands, acknowledges and agrees that the Bidder's Bid, when properly accepted by the Williamson County Commissioners Court, shall constitute a contract equally binding between the Successful Bidder and Williamson County upon Contract Award. Bidder represents to Williamson County that Bidder has not prepared this Bid in collusion with any other Bidder, and that the contents of this Bid as to prices, terms or conditions have not been communicated by the undersigned nor by any employee or agent to any other Bidder or to any other person(s) engaged in this type of business prior to the official opening of this Bid. And further, that neither the Bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to submit a Bid or not to submit a Bid thereon.

Bidder (Entity Name)	Signature
Street & Mailing Address	Print Name
City, State & Zip	Date Signed
Telephone Number	Fax Number
F-mail Address	

Williamson County Inner Loop Annex

Address:

301 SE Inner Loop Georgetown, TX 78626

Directions:

From South (Austin, Round Rock)
Take IH-35 Northbound
Exit 259
Stay on frontage road for approximately 2 miles
At stop sign, go right on Inner Loop

At stop sign, go right on Inner Loop

Just past Snead Drive, the Inner Loop Annex is on the left

Main entrance is on the side of the building by the flagpoles

From North (Georgetown, Jarrell)

Take IH-35 Southbound
Exit 259
At stop sign, go left under the overpass
At stop stay straight onto Inner Loop
Just past Snead Drive, the Inner Loop Annex is on the left
Main entrance is on the side of the building by the flagpoles

