

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 7/21/2021

Control	0905-21-004, ETC.
Project	BR 2019(810), ETC.
Highway	CR
County	CROSBY

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: BR 2019(810)

CONTROL: 0905-21-004

COUNTY: CROSBY

LETTING: 08/04/2021

REFERENCE NO: 0720

PROPOSAL ADDENDUMS

- PROPOSAL COVER
- BID INSERTS (SH. NO.:
- GENERAL NOTES (SH. NO.: J

- SPEC LIST (SH. NO.:
- SPECIAL PROVISIONS:
- ADDED:

DELETED:

- SPECIAL SPECIFICATIONS:
- ADDED:

DELETED:

X OTHER: PLAN SHEET AND OTHER CHANGES

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

*****GENERAL NOTES*****

SHEET J: ADDED THAT THE LEAD PAINTED BRIGE MEMBERS MUST BE REMOVED AND TRANSFERRED TO A SUITABLE METAL RECYCLING CENTER, SUBSIDIARY TO ITEM 496

*****PLAN SHEETS*****

SHEET 2 (INDEX OF SHEETS): REVISION'S OF SHEETS SHOWN

SHEET 005D (GENERAL NOTES) : REVISION OF ITEM 496

SHEET 83 (EPIC): REVISED SECTION IV

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GENERAL NOTES:

Surface Treatment Basis of Estimate

DESCRIPTION	EMUL (ERSN CONT)
ASPH TYPE & GRADE	CSS-1H
ASPH RATE (GAL/SY)	**0.13 Asphalt Emulsion

*Est. shot rate is 0.26 GAL/SY (50% Asph. Emul./50% Water) or as directed.

Surface Treatment Area (SY)

EMUL (ERSN CONT)
3254

General Requirements and Covenants - Items 1 thru 9

Contractor questions on this project are to be addressed to the following individual(s):

Heath Bozeman, Plainview Area Engineer: Heath.Bozeman@txdot.gov, (806)293-5484

Contractor questions will be accepted through email, phone, and in person by the above individuals.

All contractor questions will be reviewed by the Engineer. Once a response is developed, it will be posted to TxDOT's Public FTP at the following Address:

<https://ftp.dot.state.tx.us/pub/txdot-info/Pre-Letting Responses/>

All questions submitted that generate a response will be posted through this site. The site is organized by District, Project Type (Construction or Maintenance), Letting Date, CCSJ/Project Name. Check the FTP site regularly for any updates.

Item 1 – Abbreviations and Definitions

Contract Prosecution – Each contract awarded by the Department stands on its own and as such, is separate from other contracts. A contractor awarded multiple contracts, must be capable and sufficiently staffed to concurrently process any and all contracts at the same time.

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Item 2 – Instructions to Bidders

The construction time determination schedule will be posted on the Contractor Q&A FTP site.

Earthwork files and cross-sections will be posted on the Contractor Q&A FTP site.

View the plans on-line or download from the web at:

<http://www.dot.state.tx.us/business/plansonline/agreement.htm>

Choose “I Agree” then, “Click here”, then “State-Let-Construction”, pick the letting month, then “Plans” and then choose the plans set.

Order plans from any of the plan reproduction companies shown on the web at:

http://www.dot.state.tx.us/business/contractors_consultants/repro_companies.htm

By signing this proposal, a bidder acknowledges that he/she has a copy of the “Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges”, adopted by the Texas Department of Transportation, November 1, 2014. This specification book may be purchased from the Department or downloaded at:

<http://www.txdot.gov/business/resources/txdot-specifications.html>

Utilities

Overhead utilities exist within the project limits. Call One Call to mark the locations of all utilities.

Item 5 – Control of the Work

Perform construction surveying in accordance with Article 5.9.3, “Method C.”

When deviation from the plans is requested by the Contractor, but not required for installation, the Contractor will bear any additional costs associated with the deviation.

Restore all disturbed areas due to trenching or any construction activity to a condition equivalent to the original condition within 14 working days from the time work began in the area including all necessary seeding.

The construction, operation, and maintenance of the proposed project will be consistent with the state implementation plan as prepared by the Texas Commission on Environmental Quality.

At the end of each day remove from the ROW, inside or outside the project limits, any excess material and debris resulting from construction.

Correct any deficiencies identified during the final inspection including required paperwork.

Submit all required paperwork within 60 days of project acceptance.

When a precast or cast-in-place concrete element is included in the plans, a precast concrete alternate may be submitted in accordance with “Standard Operating Procedure for Alternate Precast Proposal Submission” found online at <https://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/publications/bridge.html#design>. Acceptance or denial of an alternate is at the sole discretion of the Engineer. Impacts to the project schedule and any additional costs resulting from the use of alternates are the sole responsibility of the Contractor.

Item 6 – Control of Materials

Use materials from pre-qualified producers. A list of material producers pre-qualified by the Construction Division (CST) of the Texas Department of Transportation (TxDOT) can be found at the following website:

http://www.txdot.gov/business/contractors_consultants/producer_list.htm

In addition to the requirements of the plans and specifications, make all material and equipment furnished, installed, modified, tested, or otherwise used on this contract, and becoming the property of TxDOT, fully functional within the manufacturer normal specifications, warranties, and guarantees. Make any additional functions of the material and equipment normally supplied by the manufacturer, but not specified by TxDOT, completely functional.

Article 6.6

Receive and unload all materials with Contractor’s personnel.

Store material off TxDOT property or Right of Way unless approved by the project supervisor.

Article 6.11

Repair damage to the Right of Way to the satisfaction of the project supervisor.

Item 7 – Legal Relations and Responsibilities

Coordinate street closures with the local fire, police, and other emergency personnel.

Maintain access to adjacent property at all times.

Notify, in writing, each residence and business 10 days prior to beginning construction of the phase/phases that are expected to affect their ingress and egress. This notice may be hand delivered or mailed.

When applicable, comply with all requirements of the Environmental Permits Issues and Commitments (EPIC) sheets.

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Provide a lidded dumpster to be used by Contractor's personnel on the job site. This shall be considered subsidiary to the various bid items.

Dispose of all waste materials in compliance with local, state, and federal regulations. Submit a list of all approved waste sites to the Engineer for review.

No significant traffic generator events identified.

Both existing bridges contain lead paint and torch cutting steel members will NOT be allowed.

Remove barn swallow nests one month prior to and daily during the breeding season of April 15th- July 15th. Otherwise work shall be stopped until after the brooding season.

Item 8 - Prosecution and Progress

This project is to be complete in 213 days and 13 months of barricades in accordance with the contract documents.

Work must begin by 11/1/2021.

Monthly schedule updates are a very important aspect of managing the progress of this project. The Engineer may withhold the monthly estimate if the schedule update has not been received.

A bar chart will be required on this project.

Do not begin work before sunrise or end work after sunset unless authorized by the Engineer, and remove all equipment from the roadway before sundown.

Perform any erosion control measures such as seeding or sodding before beginning the next phase, or land, unless otherwise authorized by the Engineer.

Working days will be computed and charged in accordance with Article 8.3.1.4 Standard Workweek.

Shut down operations the working day before the following major traffic generating holidays: January 1st (New Year's); Last Monday in May (Memorial Day); July 4th (Independence Day); First Monday in September (Labor Day); Fourth Thursday in November (Thanksgiving); and December 24th (Christmas Eve).

Payment for final 3% mobilization will be made according to Article 500.3. Timeliness for submittal of required paperwork and correction of deficiencies is a consideration in developing the final contractor evaluation score.

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Item 9 - Measurement and Payment

Submit material-on-hand payment requests at least three working days prior to the end of the month for payment on that month's estimate.

Item 100 - Preparing Right Of Way

Item to be used for the preparation of areas to receive embankment, small tree removal less than 6" diameter, and any other removals not itemized.

Items 110 And 132 - Excavation and Embankment

Provide Type C Embankment conforming to the following material specifications:

Liquid Limit (maximum)	45
Plasticity Index (maximum)	25
Bar Linear Shrinkage (minimum)	2

Consider all embankment to be Earth Embankment in accordance with Article 132.3.1.

Concrete RAP will be allowed as embankment at lower levels.

Proof roll as directed by the Engineer.

Item 164 - Seeding For Erosion Control

Notify the Engineer of scheduled seeding operations 24 hours prior to seeding applications. Do not begin seeding operations until the Engineer has approved seedbed preparations. Locate and flag all irrigation heads, valve covers, utility facility covers, etc. prior to commencing seed application operations.

Leave the seeded area lightly tracked in order to establish a better environment for seed germination.

Furnish seed tags from the seed supplier to the Engineer for verification of quantity and type.

Submit an available substitution to the Engineer, for approval, if a grass variety is not available.

Do not disturb or drive on newly seeded areas. Repair any damage to the seeded areas to the satisfaction of the Engineer.

A Cultipak planter may be used in lieu of drill seeding.

Item 216 – Proof Rolling

Provide a 25 ton roller, or other equipment approved by the Engineer for proof rolling.

Proof roll as directed.

Item 247 - Flexible Base

TEST TO BE IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION
STANDARD TEST METHODS

FLEXIBLE BASE SPECIFICATION DATA

GRADING REQUIREMENTS PERCENT RETAINED – SIEVES SIEVE SIZES INCHES					SOIL CONSTANTS		MAX WET BALL	MAX % INCREASE	MIN STRENGTH 15 PSI
1 3/4	7/8	1/2	#4	#40	L.L. MAX	P.I. MAX			
0	10-30	30-55	50-75	70-90	40	15	50	25	N/A

Provide Type D Grade 4 flexible base.

The addition of field sand to reduce the plasticity index a maximum of three points below the original P.I. is permitted. Introduce field sand at the crusher on a feed belt prior to building the stockpile.

The addition of lime, or suitable material as approved by the Engineer, is permitted to reduce the plasticity index, if the mixture is mixed on the road or in a pugmill just prior to placement.

Proof roll as directed by the Engineer.

Provide the state at least 30 days to perform material testing on the flex base.

Item 314 - Emulsified Asphalt Treatment

Apply the emulsified asphalt and water mixture, as directed by the Engineer.

Item 400 - Excavation and Backfill for Structures

Furnish crushed caliche or sand and gravel as aggregate for cement stabilized backfill.

Deliver the cement stabilized backfill in a mixer truck in a flowable state.

Construct fill over structures to plan grade before hauling with heavy equipment over structures.

Compact backfill used for structures, other than flowable backfill, to a minimum density of 95 percent.

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Use a template in order to secure reasonably accurate Class C shaping of the foundation material outside of cement stabilized areas.

Contact the utility company and properly secure the utility poles prior to excavating next to the utility poles. The work and material used to secure the utility poles are subsidiary to the pertinent items.

Item 403 – Temporary Special Shoring

The intent of this item is to provide a coffer dam for structures so the water may be pumped out and work resumed after a rain event.

Item 420 - Concrete Substructures

Furnish and place preformed fiber material, a minimum one-half (1/2)-inch thick, as shown on the plans or directed by the Engineer.

Furnish a temperature recorder with the minimum capabilities of a 7-day recording time, 2 degree F division, and 120 VAC with 9-volt backup, for each curing tank used on the project. Supply all charts, recording pins, and other equipment necessary for complete operation of the temperature recorder during the project. The temperature recorder and all associated equipment will not be paid directly, but will be subsidiary to the various bid items.

Use Grade 3 or Grade 4 coarse aggregate in all concrete structures.

Cold weather protection requirements within 72 hours of a concrete paving pour as per the following table:

PROJECTED LOW TEMP	PROTECTION REQUIRED
< 20 degrees	DO NOT POUR
20-27 degrees	cover with plastic, then a insulating blanket, and plastic on top
28-35 degrees	cover with plastic, then a insulating blanket
> 35 degrees	no protection required

All projected temperatures will be based on the NOAA website. None of the above actions releases the Contractor from the responsibility for freeze damaged concrete for whatever reason.

Coring of structural classes of concrete will not be allowed. All coring of miscellaneous concrete shall be at the Contractor's expense including all prep work. Coring must be completed within 3 days of notice of failing 28-day samples; otherwise pay deductions apply using 28-day compressive strength.

Provide TY II curing compound for all curb and gutter, sidewalks, driveways, curb ramps, riprap, and cast-in-place SET's.

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When doweling into concrete, clean out the hole, fill completely with epoxy, then place the dowel. Do not dip the dowel into epoxy first and shove it into the hole.

Do not place concrete when the wind gusts get to over 25 miles per hour.

Paint the NBI number on the bridge as directed.

Place the evaporation retarder right after the finish float and before the curing compound.

Vibrate all concrete.

Make 3 sets of cylinders.

Item 421 - Hydraulic Cement Concrete

All Class C concrete that is designed using Class C fly ash will require silica fume.

Class C Fly Ash without silica fume will be allowed in Class A, B, and P concrete mix designs as directed by the Engineer.

For Class S concrete, Class C Fly Ash will be allowed without silica fume, but must contain Shrinkage Reducing Agents (SRA) and Micro/Macro fibers as directed by the Engineer.

If Class C fly ash is used, a maximum of 35% will be allowed.

Micro/Macro Fibers:

Provide 100% virgin polypropelene fibrillated fibers in all bridge slabs at a rate of 5.0 lbs/CY. The fibers shall conform to ASTM C1116, Type III and shall have a minimum length of $\frac{3}{4}$ inch. The following 100% virgin polypropelene fibrillated fibers are approved for this project:

Tuf-Strand SF
Fibermesh 650
SikaFiber Force MS 20

An alternate fiber, equal or better than the above listed materials may be used if approved by the Engineer. Use in accordance with manufacturer's specifications.

Shrinkage Reducing Agents:

The following shrinkage reducing agents and respective dosages are approved for this project:

Materlife SRA 20 at 1.0 gal/cy
Eclipse 4500 at 1.0 gal/cy
SRA-157-EXT at 1.8 % by weight of cementitious
Sika Control 40 at 24.0 fl. oz. per 100 lbs of cementitious
Sika Control 220 at 24.0 fl. oz. per 100 lbs of cementitious
Sika Control 75 at 24.0 fl. oz. per 100 lbs of cementitious

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◆ Provide air entrainment in all concrete except for concrete used in drilled shafts and precast concrete members. Target an entrained air content of 4.0% for concrete pavement and 5.5% for all other concrete requiring air entrainment. Ensure the minimum entrained air content is at least 3.0% for all classes of concrete.

◆ The Engineer will perform all concrete job control testing.

The sodium sulfate soundness Test Method TEX-411-A is waived.

Supply 2 – 4' x 8' x ¾" sheets of plywood, in order to perform required testing procedures at the location of concrete placements.

Use 4-inch by 8-inch cylinder molds for concrete with Grade 3 or smaller coarse aggregate. Supply new cylinder molds and lids subsidiary to the various bid items. 3 sets of cylinders must be made for concrete pours.

The Engineer will inspect concrete batch plants and trucks for approval.

Provide sulphate resistant concrete for drilled shafts and bridge structure components in contact with the soil.

Concrete plant must be capable of providing automated moisture content control for both coarse and fine aggregate.

Item 422 – Concrete Superstructures

Load with concrete and screed bridge slabs on the same skew angle as the bridge.

Place the evaporation retarder right after the finish float and before the curing compound.

Place a bond breaker consisting of 2 layers of felt fabric under the approach slab. This work is subsidiary to the approach slabs.

Follow cold weather protection requirements listed under Item 420.

Item 427 - Surface Finishes For Concrete

Provide surface area I concrete surfaces with a rub finish as soon as forms are removed.

Item 466 – Headwalls and Wingwalls

Install reinforced concrete aprons on all headwalls and wingwalls, using reinforcing composed of #4 bars at 12-inch spacings, center-to-center, or as shown on the detail sheet.

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Item 496 - Removing Structures

Prior to begin construction, Contractor shall remove empty barn swallow nests if found on existing structures to be removed.

Dispose of removed structures. Mechanically remove and transfer lead painted bridge members to a suitable metal recycling center. Cost will be subsidiary to Item 496, Removing Structures.

Dispose of fence material in appropriate manner after removal.

Item 502 - Barricades, Signs And Traffic Handling

Prior to beginning construction, the Engineer shall approve the routing of traffic and sequence of work.

Additional signs and barricades as directed by the Engineer shall be considered subsidiary to Item 502.

Provide flashing portable arrow panels for all lane closures.

Wash the channelizing devices and barricades following each rainfall or snowfall event and at times deemed necessary by the Engineer.

To ensure the safety and convenience of traffic, flaggers may be required when construction machinery is being operated along, across, or adjacent to lanes carrying traffic. If considered necessary by the Engineer, supplemental signs and barricades may be required.

Fill any holes left by barricade or sign supports and restore the area to its original condition.

Barricades, Signs and Traffic Handling is a plan quantity item. If time is suspended, no additional compensation will be made.

Traffic switches will not be permitted on Fridays or any working day preceding a holiday unless authorized by the Engineer.

Cones or chevrons may be used in lieu of vertical panels at the discretion of the Engineer. Cones cannot be used to separate opposing traffic.

Construct temporary ramps to maintain access to driveways and city streets as directed by the Engineer. Temporary ramp construction is subsidiary to Item 502.

The Contractor shall bid the traffic control plan shown in the plans. Any proposed alterations to the TCP (combining work areas / phasing / etc.) shall be submitted to the Engineer at least 10 days prior to anticipated changes.

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Square tubing sign supports may be used for temporary construction signs. Aluminum and wood signs may be mounted if the vertical supports are embedded into the ground. Square tubing supports on skids which are typically held in place with sand bags can only support signs made of light weight fluted plastic.

Any trench or drop off over 2” and less than 10” will require a safety slope of at least 1:1 if drop off is going to be existing for more than 2 nights. For drop-offs greater than 10”, a safety slope will be required at the end of operations for that day. This safety slope may be constructed with RAP, embankment, or other material approved by the Engineer. The placement, maintenance, and removal of this safety slope is the responsibility of the Contractor and will be considered subsidiary to the various bid items.

The Contractor Force Account “Safety Contingency” that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor’s Responsible Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

Correct all noted deficiencies within 7 calendar days, otherwise, cease all operations until the noted deficiencies are corrected.

Stockpiles that meet the barricade requirements as shown on the BC(10) Standard are required to be erected at the time of material delivery in the Right-of-Way and maintained as long as the stockpile exists. Payment for Material-on-Hand will be withheld from the estimate for inadequate barricades or the failure to maintain barricades on a per stockpile basis as determined by the Engineer.

Like new traffic control devices will be required at the initial setup for all projects or as approved by the Engineer.

Provide flags and a CW8-15P “MOTORCYCLE WARNING” plaque on all CW20-1D “ROAD WORK AHEAD” signs.

Use only the work zone speed limit and TCP signs that are relevant to the active work area and as directed. Reset signs for subsequent work phases as work progresses and approved by the Engineer. Reset normal speed limit signs at the ends of work zones.

All bid items and work requiring traffic control is the responsibility of the contractor, even when not explicitly detailed in the plans. Consider this work subsidiary to Item 502.

Item 506 - Temporary Erosion, Sedimentation, and Environmental Controls

Place a weatherproof bulletin board containing the TCEQ required information on the project at a site directed by the Engineer. Post the following documents: (1) "TCEQ TPDES Storm Water Program" Construction Site Notice and (2) TCEQ "TPDES Permit." Place rain gauge(s) at locations designated by the Engineer. At the completion of the contract, the bulletin board will become the property of the State and will remain in place until 70 percent vegetation coverage has been obtained.

Provide long-term, Type 1 construction exits, located at the Contractor's equipment storage area.

Silt fence, sandbags and other BMPs will be placed and relocated as directed by the Engineer in order to comply fully with the SW3P requirements.

No N.O.I. is required for this project.

The soil area disturbed by this project, including all disturbed areas within the limits of this project as described in the Contract and at Contractor project specific locations (PSLs) within one mile of the project limits, contributes to the establishment of the Texas Commission on Environmental Quality (TCEQ) Construction General Permit (CGP) requirements for storm water discharges. The Department will obtain an authorization from the TCEQ to discharge storm water for construction activities shown on the plans. The Contractor shall obtain the required authorization from the TCEQ for Contractor project specific locations (PSLs) for construction support activities off the right-of-way. As directed by the Engineer, the Contractor shall obtain any required authorization from the TCEQ for on-site PSLs. When the total area disturbed within the project limits and at PSLs within one mile of the project limits exceeds five acres, the Contractor shall provide a copy of the Contractor's Notice of Intent (NOI) submission and Construction General Permit for PSLs on the right-of-way to the Engineer (and submit a copy of NOIs to appropriate MS4 operators).

Sediments removed from BMPs shall be paid for by force account. The Contractor shall submit an invoice for the work.

Correct all noted deficiencies within 7 calendar days, otherwise, cease all operations until the noted deficiencies are corrected.

Maintain 100 feet of silt fence, 100 feet of erosion control logs, and 50 sandbags on site at all times for repairs/replacement as needed.

Item 540 - Metal Beam Guard Fence

Mount an amber or white delineator on the guard fence post at 100-foot intervals. Use prismatic reflective sheeting. Place a minimum of three delineators at each metal beam guard fence placement.

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All metal beam guard fence shall have steel posts.

Material-on-hand for metal beam guard fence rail will not be paid unless it is properly stored (out of the elements) to reduce white rust.

Existing metal beam guard fence posts may be set in concrete.

Reimbursable repair or replacement will be paid at contract bid prices.

Install the MBGF from the structure out to ensure proper post spacing and connection to the concrete rail.

Hammer drilling will not be allowed when attaching TL2 transition to the concrete rails.

Item 544 – Guardrail End Treatments

Reimbursable repair or replacement will be paid at contract bid prices.

All guardrail end treatments shall have steel posts.

Guardrail end treatments require object marker sticker in accordance with D & M (VIA)

Item 585 - Ride Quality for Pavement Surfaces

Use Surface Test Type A.

Corrective action, when required, shall be diamond grinding, as approved and directed by the Engineer. Seal all concrete surfaces after grinding with lindseed oil or as directed. This work is considered subsidiary.

Item 644 - Small Roadside Sign Assemblies

All signs on this project, new or relocated, will require a retroreflective wrap on the sign support. This wrap shall be 12 inches in height, visible in all directions and shall be placed 3 ft. below the bottom of the sign. The color for YIELD, STOP, WRONG WAY, and DO NOT ENTER signs shall be red. The color for all other signs shall be yellow. This retroreflective wrap will not be paid for directly but considered subsidiary to Item 644.

Stake all sign locations, and receive approval from the Engineer, prior to sign placement.

The triangular slip bases will be the two bolt clamp type (Southern Plains Fabrication or equivalent). For more information refer to the approved materials producers list:

http://www.txdot.gov/business/contractors_consultants/producer_list.htm

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Item 658 - Delineator and Object Marker Assemblies

Delineator and object marker assembly posts shall be driveable and composed of post-consumer recycled materials. Embedded stub shall be perforated square tubing.

Drivable posts shall be three-piece Flexible Delineator Post System, utilizing a 2-3/8" round post with a square to round flexible joint. The Embedded Anchor shall be 2" x 12 gauge x 24" long steel perforated square tubing. The Posts shall be permanently sealed at the top and have a 3-1/2" wide x 13" flattened surface to accommodate up to a 3" x 12" reflective sheet on both sides.

Surface Mount posts shall be the three-piece Flexible Delineator Post System, utilizing a 2-3/8" round post with a square to round flexible joint. The base shall have 6 mounting holes to accommodate for mounting on narrow headwalls as well as all surfaces. The Posts shall be permanently sealed at the top and have a 3-1/2" wide by 13" flattened surface to accommodate up to a 3" x 12" reflective sheet on both sides.

Guard Fence Delineator posts shall be 33" in length and permanently sealed at the top and have a 3-1/2" wide by 13" flattened on both ends and transition to 2-3/8" round in the center for 360-degree visibility.

Item 734 – Litter Removal

Perform litter at the completion of each bridge structure and as directed by the Engineer.

Item 6185 – Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)

Provide 1 TMAs for stationary use for the duration of the project. Stationary TMAs will be used during the various phases of work required for this project. Payment will be made by the day for each TMA used in stationary operations.