

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: C 923-00-67

CONTROL: 0923-00-067

COUNTY: BROWN

LETTING: 09/05/2024

REFERENCE NO: 0828

PROPOSAL ADDENDUMS

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

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

DELETED:

- SPECIAL SPECIFICATIONS:
- ADDED:

DELETED:

X OTHER: SEE COMMENTS BELOW

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

***** BID INSERTS *****

REVISED QUANTITIES FOR THE FOLLOWING BID ITEMS:
403-7001, 420-7146

ADDED THE FOLLOWING BID ITEMS:
458-7007, 542-7001

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

REPLACED ALL SHEETS TO INCLUDE SPECIFICATION DATA.

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

SHEET 10, 10A-10B - REPLACED SHEETS DUE TO THE ABOVE CHANGES AND ITEM 8
UPDATES.

SHEET 11,11A,12-14 - REPLACED DUE TO THE ABOVE CHANGES.

SHEET 47 - REPLACE SHEET.

SHEET 49 - REPLACE SHEET.

SHEET 94 - REPLACE SHEET.

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

(CONTINUED)

SHEET 101 - REPLACE SHEET.
SHEET 110 - REPLACE SHEET.
SHEET 114 - REPLACE SHEET.
SHEET 120 - REPLACE SHEET.
SHEET 121 - REPLACE SHEET.

GENERAL NOTES

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

Item	Description	Soil Constants		
		Max LL.	Max. PI	Min. PI
132	Embankment (Final)(Ord Comp)(Ty C)	40	30	3

ENVIRONMENTAL GENERAL NOTES

The Contractor will not be allowed to store equipment, materials, incidentals, hazardous chemicals, petroleum products, concrete washouts, etc. in the Department's R.O.W. without written permission from the Engineer.

See the "Environmental" section of the plans for additional information.

To prevent spread of Zebra Mussels and other exotic species:

1. Spray/rinse all equipment and vehicles, using hot and/or high-pressure water as soon as possible after exiting the waterbody.
2. Drain all water from receptacles before leaving the area, and
3. Allow all equipment to dry completely before use in another waterbody
4. If zebra mussels are encountered at the project location, contractor will not transport any equipment from the site and will notify the TxDOT project engineer immediately.

For more detailed information, see: https://tpwd.texas.gov/fishboat/boat/protect_water/

TEXAS ONE CALL

Fiber optic cable systems, gas lines, underground power lines, water lines, sewer lines, and other various utilities may be buried within the project limits. Protection of these utility systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. The Contractor will telephone Texas One Call at 1-800-344-8377 (a 24-hour number), to determine if utilities are buried anywhere on the project in accordance with all UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY laws. This action; however, will in no way be interpreted as relief of responsibilities under the terms of the Contract as set out in the plans and specifications. Coordinate the repair of all damages caused by daily operations and have facilities restored to service in a timely manner as directed at no additional cost to TxDOT.

GENERAL

Unless specifically noted as applying to only a certain project or projects, these general notes will apply to all projects associated to this contract.

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

Name	Email Address
Chris Graf, P.E.	Chris.Graf@txdot.gov
Jordan Perry, P.E.	jordan.perry@txdot.gov

Contractor questions will be accepted through email, phone, and in person by the above individual(s).

Questions may also be submitted via the Letting Pre-Bid Q&A web page. This webpage can be accessed from the Notice to Contractors dashboard located at the following Address:
<https://tableau.txdot.gov/views/ProjectInformationDashboard/NoticetoContractors>

All contractor questions will be reviewed by the Engineer. All questions and any corresponding responses that are generated will be posted through the same Letting Pre-Bid Q&A web page.

The Letting Pre-Bid Q&A web page for each project can be accessed by using the dashboard to navigate to the project you are interested in by scrolling or filtering the dashboard using the controls on the left. Hover over the blue hyperlink for the project you want to view the Q&A for and click on the link in the window that pops up.

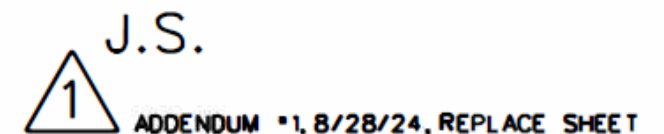
The term "Article" or "Section" referred to hereon is defined in the forward of the Standard Specifications for Construction and Maintenance of Highways, Streets, And Bridges adopted by the Texas Department of Transportation September 2024.

ITEM 6 CONTROL OF MATERIALS

In accordance with **Section 6.10.1.2**, the Contractor will dispose of all painted steel at a steel recycling or smelting facility and a receipt will be required. In lieu of this, the Contractor has the option to either show proof that the paint is lead free or show proof that the lead paint has been abated by an abatement certified company. The Department will not be obligated for the cost of paint testing and/or abatement materials, processes, personnel, incidentals, etc.

The following structures have been identified to have lead paint present:

- 23-141-0-0251-05-022
- 23-167-0-0055-01-033
- 23-141-0-2199-01-001
- 23-025-0-0054-07-030
- 23-068-0-0007-14-013



23-215-0-0011-12-058

23-215-0-1031-01-011

ITEM 7 LEGAL RELATIONS AND RESPONSIBILITIES

No significant traffic generator events identified.

ITEM 8 PROSECUTION AND PROGRESS

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

Work will not be performed without time being charged unless otherwise exempted by the Section as defined above.

Contractor shall complete all repairs prior to moving to next structure.

PROJECT SCHEDULES

Bar graph scheduling will be required to be submitted and maintained monthly by the Contractor unless otherwise directed by the Engineer. (8.5.2.)

For monthly submittals, the Contractor will provide the schedule in an Adobe Acrobat compatible format (PDF file). If the Engineer requests the schedule in an electronic format, the Contractor will submit a schedule that is fully compatible with Primavera P6 Professional Release 15.

The Contractor should anticipate two (2) concrete structure repair crews, one (1) zone painting crew, and one (1) concrete crew.

ITEM 9 MEASUREMENT AND PAYMENT

Monthly estimates will be computed from the 26th of the previous month through the 25th of the current month unless otherwise approved in writing by the Engineer.

ITEM 401 FLOWABLE BACKFILL

All flowable backfill will be "Non-Excavatable" unless otherwise specified.

Adequate lead pressure shall be maintained with flowable fill in order to sufficiently fill voids under riprap.

Access holes may be required down slope in order to verify suitable backfilling operations.

Use a minimum of four (4) sacks cement per cubic yard.

Type I Cement is required if accelerator is used.

ITEM 420 CONCRETE SUBSTRUCTURES

All Class C Concrete has been measured for plan quantity payment.

ITEM 421 HYDRAULIC CEMENT CONCRETE

Furnish dome lids with 4" x 8" cylinder test molds.

Strength testing equipment is not required for Contract controlling test.

ITEM 427 SURFACE FINISHES FOR CONCRETE

Surface Area II will receive a rub finish

ITEM 429 CONCRETE STRUCTURE REPAIR

Clean debris from all abutment and interior bent caps. This work will be subsidiary to Item 429.

Submit repair materials to the Engineer. Materials must be capable of overhead repairs.

If required, drill and install anchor bars using TY III Class "C" epoxy adhesive meeting DMS-6100 "Epoxy Adhesives."

Prior to repairing concrete, field verify repair method and quantity.

Place silane over all repairs in accordance with the epoxy waterproofing & silane details sheet.

ITEM 432 RIPRAP

Locations and quantities may be varied as directed by the Engineer to accommodate field conditions.

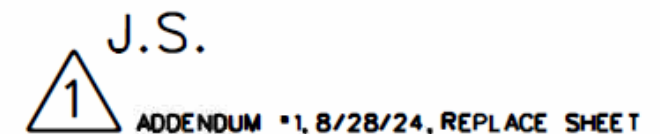
Use dry riprap for the stone protection item. Stones shall be graded so as not to obstruct full channel flow. Filter fabric is required.

Limit excavation to within 1' of riprap. If excavation exceeds these limits without the Engineer's approval, riprap will be extended to the limits of the disturbance. No additional compensation will be allowed for this work.

ITEM 438 CLEANING AND SEALING JOINTS

Clean all joints full depth from top of the slab to the top of cap. This includes joints that have end diaphragms sitting on caps.

Clean all caps of loose material.



Clean all steel and concrete with a 5000 psi water pressure blast and allow to dry thoroughly prior to placing joint material and sealant.

Clean and seal pan girder joints in accordance with Clean & Seal Joints Details (Pan Girder) Detail "B".

Use detail "A" for class 7 clean and seal joints.

Use detail "B" for class 3 clean and seal joints.

ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING

The Contractor will be required to keep all TCP devices clean. If notified by the Engineer to clean the TCP devices, the Contractor will have until the end of that daylight period to comply. Failure to comply will result in a suspension of all work until the TCP devices are clean. Time will not be suspended.

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.

The Contractor will be responsible for maintaining the edge of the roadway throughout the project in a traversable condition and/or as directed by the Engineer. Salvaged milling may be used as directed by the Engineer. This work will not be paid for directly and will be considered subsidiary to Item 502 "Barricades, Signs, and Traffic Handling".

All devices shown on the TCP Standards are required and considered subsidiary to Item 502 unless specifically outlined elsewhere in the plans.

All signs will be constructed in accordance with the details shown in the current Standard Highway Sign Designs for Texas manual.

ITEM 505 TRUCK MOUNTED ATTENUATOR (TMA) AND TRAILER ATTENUATOR (TA)

Provide the number of vehicles with truck mounted attenuators (TMA) listed in the table below. The Contractor will be responsible for determining if one or more of these operations will be ongoing at the same time to determine the total number of TMAs needed for the project.

STANDARD / PHASE	# TMA'S REQUIRED
TCP(1-1)	1
TCP(1-2)	1
TCP(1-4)	1

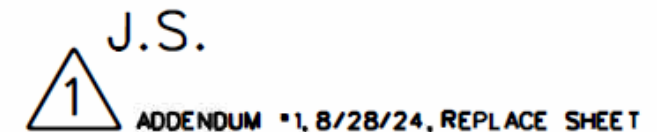
See sheet "TCP SUMMARY" in plans for estimated quantities.

ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS

The Contractor should anticipate multiple mobilizations for the installation of BMP's on this project.

The Engineer will determine actual time and placement locations of BMP's and temporary measures. Contractor will not install BMPs until locations are approved by the Engineer.

Stockpile sites may be cleared of cover vegetation, but the vegetation root system will not be destroyed.






Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0923-00-067

DISTRICT Brownwood
HIGHWAY Various

COUNTY Brown

CONTROL SECTION JOB				0923-00-067		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00176103			
COUNTY				Brown			
HIGHWAY				Various			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL		
	100-7002	PREPARING ROW	STA	2.000		2.000	
	110-7002	EXCAV (CHANNEL)	CY	58.000		58.000	
	132-7005	EMBANK (FNL)(OC)(TY C)	CY	1,700.000		1,700.000	
	164-7007	BROADCAST SEED (TEMP_WARM_COOL)	SY	1,400.000		1,400.000	
	401-7001	FLOWABLE BACKFILL	CY	102.000		102.000	
	403-7001	TEMPORARY SPL SHORING	SF	680.000		680.000	
	420-7059	CL C CONC(PILE ENCASEMENT)	LF	9.250		9.250	
	420-7067	CL C CONC (MISC)	CY	17.500		17.500	
	420-7146	CL C CONC (WINGWALLS)	CY	16.800		16.800	
	428-7001	PENETRATING CONCRETE SURFACE TREATMENT	SY	184.000		184.000	
	429-7001	CONC STR REPAIR(CLEAN & COAT WTH EPOXY)	SF	32.000		32.000	
	429-7007	CONC STR REPAIR (VERTICAL & OVERHEAD)	SF	542.000		542.000	
	429-7010	CONC STR REPAIR (PAN GIRDER HOLE REPR)	EA	107.000		107.000	
	432-7002	RIPRAP (CONC)(5 IN)	CY	25.200		25.200	
	432-7041	RIPRAP (STONE PROTECTION)(12 IN)	CY	60.000		60.000	
	432-7045	RIPRAP (STONE PROTECTION)(24 IN)	CY	283.000		283.000	
	432-7048	RIPRAP (STONE PROTECTION)(36 IN)	CY	402.500		402.500	
	438-7004	CLEANING AND SEALING EXIST JOINTS (CL3)	LF	351.750		351.750	
	438-7007	CLEANING AND SEALING EXIST JOINTS (CL7)	LF	1,062.000		1,062.000	
	458-7007	WATERPROOFING (TY 10)	SY	12.000		12.000	
	467-7199	SET (TY I)(S= 8 FT)(HW= 10 FT)(3:1)(C)	EA	4.000		4.000	
	480-7002	CLEAN EXIST CULVERTS	CY	89.000		89.000	
	495-7003	RAISING EXIST STRUCT (REF NO. 1)	EA	1.000		1.000	
	495-7004	RAISING EXIST STRUCT (REF NO. 2)	EA	1.000		1.000	
	499-7001	ADJUST STL SHOES	EA	1.000		1.000	
	500-7001	MOBILIZATION	LS	1.000		1.000	
	502-7001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	6.000		6.000	
	503-7001	PORTABLE CHANGEABLE MESSAGE SIGN	DAY	5.000		5.000	
	505-7001	TMA (STATIONARY)	DAY	121.000		121.000	
	506-7039	TEMP SEDMT CONT FENCE (INSTALL)	LF	900.000		900.000	
	506-7041	TEMP SEDMT CONT FENCE (REMOVE)	LF	900.000		900.000	
	542-7001	REMOVE METAL BEAM GUARD FENCE	LF	350.000		350.000	
	658-7056	INSTL OM ASSM (OM-2Y)(WC)GND	EA	4.000		4.000	
	735-7060	DRIFTWOOD REMOVAL	CY	4.500		4.500	
	776-7024	REPLACE(STEEL RAIL)	LF	60.000		60.000	
	778-7004	CONCRETE RAIL REPLACEMENT (IN-KIND)	LF	25.000		25.000	
	780-7002	CNC CRACK REPAIR (DISCRETE)(INJECT)	LF	79.000		79.000	

 J.S.
ADDENDUM #1, 8/28/24, REPLACE SHEET

DISTRICT	COUNTY	CCSJ	SHEET
Brownwood	Brown	0923-00-067	11




Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0923-00-067

DISTRICT Brownwood
HIGHWAY Various

COUNTY Brown

CONTROL SECTION JOB				0923-00-067		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00176103			
COUNTY				Brown			
HIGHWAY				Various			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL		
	4010-7003	STEEL BRIDGE ZONE PAINTING REF STR #2	EA	1.000		1.000	
	4010-7004	STEEL BRIDGE ZONE PAINTING REF STR #3	EA	1.000		1.000	
	4010-7005	STEEL BRIDGE ZONE PAINTING REF STR #4	EA	1.000		1.000	
	4010-7006	STEEL BRIDGE ZONE PAINTING REF STR #5	EA	1.000		1.000	
	18	EROSION CONTROL MAINTENANCE: CONTRACTOR FORCE ACCOUNT WORK (PART)	LS	1.000		1.000	
		SAFETY CONTINGENCY: CONTRACTOR FORCE ACCOUNT WORK (PART)	LS	1.000		1.000	


J.S.
ADDENDUM #1, 8/28/24, REPLACE SHEET




DISTRICT	COUNTY	CCSJ	SHEET
Brownwood	Brown	0923-00-067	11A

SAN SABA COUNTY			110 7002	164 7007	401 7001	403 7001	420 7146	420 7059	428 7001	429 7001	429 7007	429 7010	432 7041	432 7045	432 7048	438 7004	438 7007	449 7001	480 7002	495 7003	495 7004	506 7039	506 7041	735 7060	776 7024	778 7004	780 7002	4010 7003	4010 7004	4010 7005	4010 7006		
			EXCAVATION (CHANNEL)	BROADCAST SEED (TEMP WARM COOL)	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	CL C CONC (WINGWALLS)	CL C CONC (PILE ENCASEMENT)	PENETRATING CONCRETE SURFACE TREATMENT	CONC STR REPAIR (CLEAN & COAT WITH EPOXY)	CONC STR REPAIR (VERTICAL & OVERHEAD)	CONC STR REPAIR (PAN GIRDER HOLE REPR)	RIPRAP (STONE PROTECTION) (12 IN)	RIPRAP (STONE PROTECTION) (24 IN)	RIPRAP (STONE PROTECTION) (36 IN)	CLEANING AND SEALING EXIST JOINTS (CL3)	CLEANING AND SEALING EXIST JOINTS (CL7)	ANCHOR BOLTS	CLEAN EXIST CULVERTS	RAISING EXIST STRUCT (REF NO. 1)	RAISING EXIST STRUCT (REF NO. 2)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	DRIFTWOOD REMOVAL	REPLACE (STEEL RAIL)	CONCRETE RAIL REPLACEMENT (IN- KIND)	CNC CRACK REPAIR (DISCRETE)(INJECT)	STEEL BRIDGE ZONE PAINTING REF STR #2	STEEL BRIDGE ZONE PAINTING REF STR #3	STEEL BRIDGE ZONE PAINTING REF STR #4	STEEL BRIDGE ZONE PAINTING REF STR #5		
			CY	SY	CY	SF	CY	LF	SY	SF	EA	CY	CY	CY	LF	LF	EA	CY	EA	EA	EA	LF	LF	CY	LF	LF	LF	EA	EA	EA	EA		
232060027203053	US 190	BAGLEY SLOUGH							7		34																						
232060027204025	US 190	SIMPSON CREEK							1	12	5					351.75				1													1
232060028906032	SH 16	CHEROKEE CREEK							1	4	4.5																						
232060272901002	FM 2732	DRAW #2		100		240	13							5									50	50									
232060272901003	FM 2732	DRAW #3		100		120	3.8							10									100	100									
232060027204026	US 190	FORT HOLLOW CREEK							2		10																						
232060027204027	US 190	BARNETT SPRINGS CREEK							1		7.5										1												
232060028904033	SH 16	NORTH PRONG HORSE CREEK																										12					
232060028904035	SH 16	MIDDLE PRONG HORSE CREEK																										24					
232060124101004	FM 1031	DRY SIMPSON CREEK							1		5	36																5					
232060272901004	FM 2732	DRAW #4		100										18								50	50										
232060028904047	SH 16	SAN SABA RIVER RELIEF				2			2.5		12																						
232060028904037	SH 16	JERRYS CREEK							4		17																						
232060027203054	US 190	SAN SABA RIVER																							60								
TOTALS			0	300	2	360	16.8	0	19.5	16	95	36	0	33	0	351.75	0	1	0	1	1	1	200	200	0	60	0	47	0	0	0	1	

LAMPASAS COUNTY			110 7002	164 7007	401 7001	403 7001	420 7146	420 7059	428 7001	429 7001	429 7007	429 7010	432 7041	432 7045	432 7048	438 7004	438 7007	449 7001	480 7002	495 7003	495 7004	506 7039	506 7041	735 7060	776 7024	778 7004	780 7002	4010 7003	4010 7004	4010 7005	4010 7006	
			EXCAVATION (CHANNEL)	BROADCAST SEED (TEMP WARM COOL)	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	CL C CONC (WINGWALLS)	CL C CONC (PILE ENCASEMENT)	PENETRATING CONCRETE SURFACE TREATMENT	CONC STR REPAIR (CLEAN & COAT WITH EPOXY)	CONC STR REPAIR (VERTICAL & OVERHEAD)	CONC STR REPAIR (PAN GIRDER HOLE REPR)	RIPRAP (STONE PROTECTION) (12 IN)	RIPRAP (STONE PROTECTION) (24 IN)	RIPRAP (STONE PROTECTION) (36 IN)	CLEANING AND SEALING EXIST JOINTS (CL3)	CLEANING AND SEALING EXIST JOINTS (CL7)	ANCHOR BOLTS	CLEAN EXIST CULVERTS	RAISING EXIST STRUCT (REF NO. 1)	RAISING EXIST STRUCT (REF NO. 2)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	DRIFTWOOD REMOVAL	REPLACE (STEEL RAIL)	CONCRETE RAIL REPLACEMENT (IN- KIND)	CNC CRACK REPAIR (DISCRETE)(INJECT)	STEEL BRIDGE ZONE PAINTING REF STR #2	STEEL BRIDGE ZONE PAINTING REF STR #3	STEEL BRIDGE ZONE PAINTING REF STR #4	STEEL BRIDGE ZONE PAINTING REF STR #5	
			CY	SY	CY	SF	CY	LF	SY	SF	SF	EA	CY	CY	CY	LF	LF	EA	CY	EA	EA	EA	LF	LF	CY	LF	LF	LF	EA	EA	EA	EA
231410023101032	US 190	LAMPASAS RIVER		150	20			1.5		7			45									100	100	4.5				1				
231410027402012	US 183	BNSF RAILROAD																														
231410219901001	FM 2313	LAMPASAS RIVER									39																			1		
231410321601001	FM 3170	MESQUITE CREEK		150									60										100	100								
TOTALS			0	300	20	0	0	1.5	0	7	39	0	105	0	0	0	0	0	0	0	0	0	200	200	4.5	0	0	0	1	0	1	0

COMANCHE COUNTY			110 7002	164 7007	401 7001	403 7001	420 7146	420 7059	428 7001	429 7001	429 7007	429 7010	432 7041	432 7045	432 7048	438 7004	438 7007	449 7001	480 7002	495 7003	495 7004	506 7039	506 7041	735 7060	776 7024	778 7004	780 7002	4010 7003	4010 7004	4010 7005	4010 7006		
			EXCAVATION (CHANNEL)	BROADCAST SEED (TEMP WARM COOL)	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	CL C CONC (WINGWALLS)	CL C CONC (PILE ENCASEMENT)	PENETRATING CONCRETE SURFACE TREATMENT	CONC STR REPAIR (CLEAN & COAT WITH EPOXY)	CONC STR REPAIR (VERTICAL & OVERHEAD)	CONC STR REPAIR (PAN GIRDER HOLE REPR)	RIPRAP (STONE PROTECTION) (12 IN)	RIPRAP (STONE PROTECTION) (24 IN)	RIPRAP (STONE PROTECTION) (36 IN)	CLEANING AND SEALING EXIST JOINTS (CL3)	CLEANING AND SEALING EXIST JOINTS (CL7)	ANCHOR BOLTS	CLEAN EXIST CULVERTS	RAISING EXIST STRUCT (REF NO. 1)	RAISING EXIST STRUCT (REF NO. 2)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	DRIFTWOOD REMOVAL	REPLACE (STEEL RAIL)	CONCRETE RAIL REPLACEMENT (IN- KIND)	CNC CRACK REPAIR (DISCRETE)(INJECT)	STEEL BRIDGE ZONE PAINTING REF STR #2	STEEL BRIDGE ZONE PAINTING REF STR #3	STEEL BRIDGE ZONE PAINTING REF STR #4	STEEL BRIDGE ZONE PAINTING REF STR #5		
			CY	SY	CY	SF	CY	LF	SY	SF	SF	EA	CY	CY	CY	LF	LF	EA	CY	EA	EA	EA	LF	LF	CY	LF	LF	LF	EA	EA	EA	EA	
230470028802025	SH 16	DUNCAN CREEK						9.25	20		102																						
230470028901041	SH 16	INDIAN CREEK			30					6																							
TOTALS			0	0	30	0	0	9.25	20	6	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

DN: CK: DW: CK: DW: CK:

J.S.
 **ADDENDUM #1, 8/28/24, REPLACE SHEET**

DATE: FILE:

BRIDGE SUMMARY SHEET




CONT	SECT	JOB	HIGHWAY
0923	00	067.e tc.	VARIOUS
DIST	COUNTY	SHEET NO.	
BWD	BROWN, e tc.	12	

BROWN COUNTY			110	164	401	403	420	420	428	429	429	429	432	432	432	438	438	449	480	495	495	506	506	735	776	778	780	4010	4010	4010	4010	
			7002	7007	7001	7001	7146	7059	7001	7001	7001	7007	7010	7041	7045	7048	7004	7007	7001	7001	7002	7003	7004	7039	7041	7060	7024	7004	7002	7003	7004	7005
			EXCAVATION (CHANNEL)	BROADCAST SEED (TEMP WARM COOL)	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	CL C CONC (WINGWALLS)	CL C CONC (PILE ENCASEMENT)	PENETRATING CONCRETE SURFACE TREATMENT	CONC STR REPAIR (CLEAN & COAT WITH EPOXY)	CONC STR REPAIR (VERTICAL & OVERHEAD)	CONC STR REPAIR (PAN GIRDER HOLE REPR)	RIPRAP (STONE PROTECTION) (12 IN)	RIPRAP (STONE PROTECTION) (24 IN)	RIPRAP (STONE PROTECTION) (36 IN)	CLEANING AND SEALING EXIST JOINTS (CL3)	CLEANING AND SEALING EXIST JOINTS (CL 7)	ANCHOR BOLTS	CLEAN EXIST CULVERTS	RAISING EXIST STRUCT (REF NO. 1)	RAISING EXIST STRUCT (REF NO. 2)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	DRIFTWOOD REMOVAL	REPLACE (STEEL RAIL)	CONCRETE RAIL REPLACEMENT (IN-KIND)	CNC CRACK REPAIR (DISCRETE)(INJECT)	STEEL BRIDGE ZONE PAINTING REF STR #2	STEEL BRIDGE ZONE PAINTING REF STR #3	STEEL BRIDGE ZONE PAINTING REF STR #4	STEEL BRIDGE ZONE PAINTING REF STR #5	
			CY	SY	CY	SF	CY	LF	SY	SF	SF	EA	CY	CY	CY	LF	LF	EA	CY	EA	EA	LF	LF	CY	LF	LF	LF	EA	EA	EA	EA	
230250005407030	US 67	PECAN BAYOU		150											89							100	100									
230250048001003	SH 279	ROCKY CREEK						1.5	2	6																						
230250012801034	US 377	BNSF RR & CARNEGIE ST						3		14						1062																
230250012703016	US 183	ELM CREEK						2.5		11																25	24					
230250012703011	US 183	DRAW #11	20	100															26													
230250103501005	FM 585	SAND CREEK BRANCH		100															62													
230250263804004	SH 206	DINNER CREEK		100									60						1													
TOTALS			20	450	0	0	0	0	7	2	31	0	60	0	89	0	1062	0	89	0	0	250	250	0	0	25	24	0	0	0	0	

STEPHENS COUNTY			110	164	401	403	420	420	428	429	429	429	432	432	432	438	438	449	480	495	495	506	506	735	776	778	780	4010	4010	4010	4010	
			7002	7007	7001	7001	7146	7059	7001	7001	7001	7001	7007	7010	7041	7045	7048	7004	7007	7001	7002	7003	7004	7039	7041	7060	7024	7004	7002	7003	7004	7005
			EXCAVATION (CHANNEL)	BROADCAST SEED (TEMP WARM COOL)	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	CL C CONC (WINGWALLS)	CL C CONC (PILE ENCASEMENT)	PENETRATING CONCRETE SURFACE TREATMENT	CONC STR REPAIR (CLEAN & COAT WITH EPOXY)	CONC STR REPAIR (VERTICAL & OVERHEAD)	CONC STR REPAIR (PAN GIRDER HOLE REPR)	RIPRAP (STONE PROTECTION) (12 IN)	RIPRAP (STONE PROTECTION) (24 IN)	RIPRAP (STONE PROTECTION) (36 IN)	CLEANING AND SEALING EXIST JOINTS (CL3)	CLEANING AND SEALING EXIST JOINTS (CL 7)	ANCHOR BOLTS	CLEAN EXIST CULVERT	RAISING EXIST STRUCT (REF NO. 1)	RAISING EXIST STRUCT (REF NO. 2)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	DRIFTWOOD REMOVAL	REPLACE (STEEL RAIL)	CONCRETE RAIL REPLACEMENT (IN-KIND)	CNC CRACK REPAIR (DISCRETE)(INJECT)	STEEL BRIDGE ZONE PAINTING REF STR #2	STEEL BRIDGE ZONE PAINTING REF STR #3	STEEL BRIDGE ZONE PAINTING REF STR #4	STEEL BRIDGE ZONE PAINTING REF STR #5	
			CY	SY	CY	SF	CY	LF	SY	SF	SF	EA	CY	CY	CY	LF	LF	EA	CY	EA	EA	LF	LF	CY	LF	LF	LF	EA	EA	EA	EA	
232150001112058	LP 252	CADDO CREEK							6	8	47																	8				
232150103101011	FM 578	CLEAR FORK BRAZOS RIVER						130		260	32																					
232150129302001	FM 1148	VEALE CREEK			20																											
TOTALS			0	0	20	0	0	0	136	8	307	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0

EASTLAND COUNTY			110	164	401	403	420	420	428	429	429	429	432	432	432	438	438	449	480	495	495	506	506	735	776	778	780	4010	4010	4010	4010
			7002	7007	7001	7001	7146	7059	7001	7001	7001	7001	7007	7010	7041	7045	7048	7004	7007	7001	7002	7003	7004	7039	7041	7060	7024	7004	7002	7003	7004
			EXCAVATION (CHANNEL)	BROADCAST SEED (TEMP WARM COOL)	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	CL C CONC (WINGWALLS)	CL C CONC (PILE ENCASEMENT)	PENETRATING CONCRETE SURFACE TREATMENT	CONC STR REPAIR (CLEAN & COAT WITH EPOXY)	CONC STR REPAIR (VERTICAL & OVERHEAD)	CONC STR REPAIR (PAN GIRDER HOLE REPR)	RIPRAP (STONE PROTECTION) (12 IN)	RIPRAP (STONE PROTECTION) (24 IN)	RIPRAP (STONE PROTECTION) (36 IN)	CLEANING AND SEALING EXIST JOINTS (CL3)	CLEANING AND SEALING EXIST JOINTS (CL 7)	ANCHOR BOLTS	CLEAN EXIST CULVERTS	RAISING EXIST STRUCT (REF NO. 1)	RAISING EXIST STRUCT (REF NO. 2)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	DRIFTWOOD REMOVAL	REPLACE (STEEL RAIL)	CONCRETE RAIL REPLACEMENT (IN-KIND)	CNC CRACK REPAIR (DISCRETE)(INJECT)	STEEL BRIDGE ZONE PAINTING REF STR #2	STEEL BRIDGE ZONE PAINTING REF STR #3	STEEL BRIDGE ZONE PAINTING REF STR #4	STEEL BRIDGE ZONE PAINTING REF STR #5
			CY	SY	CY	SF	CY	LF	SY	SF	SF	EA	CY	CY	CY	LF	LF	EA	CY	EA	EA	LF	LF	CY	LF	LF	LF	EA	EA	EA	EA
230680263801005	SH 206	SABANNA CREEK DRAW	18	100										25									50	50							
TOTALS			18	100	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	50	50	0	0	0	0	0	0	0


J.S.
 ADDENDUM #1, 8/28/24, REPLACE SHEET

BRIDGE SUMMARY SHEET



CONT	SECT	JOB	HIGHWAY
0923	00	067.e tc.	VARIOUS
DIST	COUNTY		SHEET NO.
BWD	BROWN.e tc.		13

MILLS COUNTY			110 7002	164 7007	401 7001	403 7001	420 7146	420 7059	428 7001	429 7001	429 7007	429 7010	432 7041	432 7045	432 7048	438 7004	438 7007	449 7001	480 7002	495 7003	495 7004	506 7039	506 7041	735 7060	776 7024	778 7004	780 7002	4010 7003	4010 7004	4010 7005	4010 7006	
			EXCAVATION (CHANNEL)	BROADCAST SEED (TEMP WARM COOL)	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	CL C CONC (WINGWALLS)	CL C CONC (PILE ENCASEMENT)	PENETRATING CONCRETE SURFACE TREATMENT	CONC STR REPAIR (CLEAN & COAT WTH EPOXY)	CONC STR REPAIR (VERTICAL & OVERHEAD)	CONC STR REPAIR (PAN GIRDER HOLE REPR)	RIPRAP (STONE PROTECTION) (12 IN)	RIPRAP (STONE PROTECTION) (24 IN)	RIPRAP (STONE PROTECTION) (36 IN)	CLEANING AND SEALING EXIST JOINTS (CL3)	CLEANING AND SEALING EXIST JOINTS (CL 7)	ANCHOR BOLTS	CLEAN EXIST CULVERTS	RAISING EXIST STRUCT (REF NO. 1)	RAISING EXIST STRUCT (REF NO. 2)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	DRIFTWOOD REMOVAL	REPLACE (STEEL RAIL)	CONCRETE RAIL REPLACEMENT (IN- KIND)	CNC CRACK REPAIR (DISCRETE)(INJECT)	STEEL BRIDGE ZONE PAINTING REF STR #2	STEEL BRIDGE ZONE PAINTING REF STR #3	STEEL BRIDGE ZONE PAINTING REF STR #4	STEEL BRIDGE ZONE PAINTING REF STR #5	
			CY	SY	CY	SF	CY	LF	SY	SF	SF	EA	CY	CY	CY	LF	LF	EA	CY	EA	EA	LF	LF	CY	LF	LF	LF	EA	EA	EA	EA	
231670005501033	US 84	NORTH BENNETT CREEK	20	150										120									100	100						1		
231670005501031	US 84	M BENNETT CK (KEMP LAKE)		100	30										313.5								100	100								
TOTALS			20	250	30	0	0	0	0	0	0	0	0	120	313.5	0	0	0	0	0	0	0	200	200	0	0	0	0	0	1	0	0

J.S.
 ADDENDUM #1, 8/28/24, REPLACE SHEET

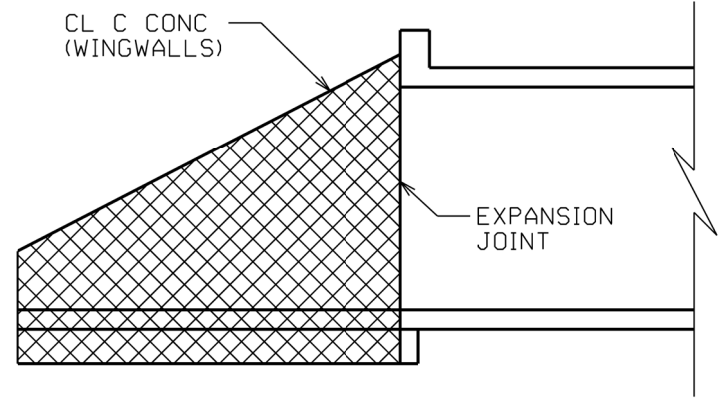
ADDITIONAL QUANTITIES FOUND ON SHEET 114
FOR US 183 @ DRAW #13

**BRIDGE
SUMMARY
SHEET**



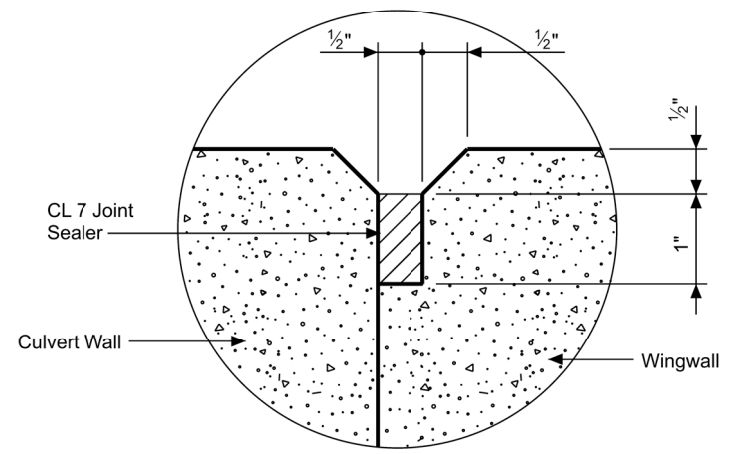
CONT	SECT	JOB	HIGHWAY
0923	00	067.e.t.c.	VARIOUS
DIST	COUNTY		SHEET NO.
BWD	BROWN.e.t.c.		14

DATE: 8/28/2024 9:33:55 AM
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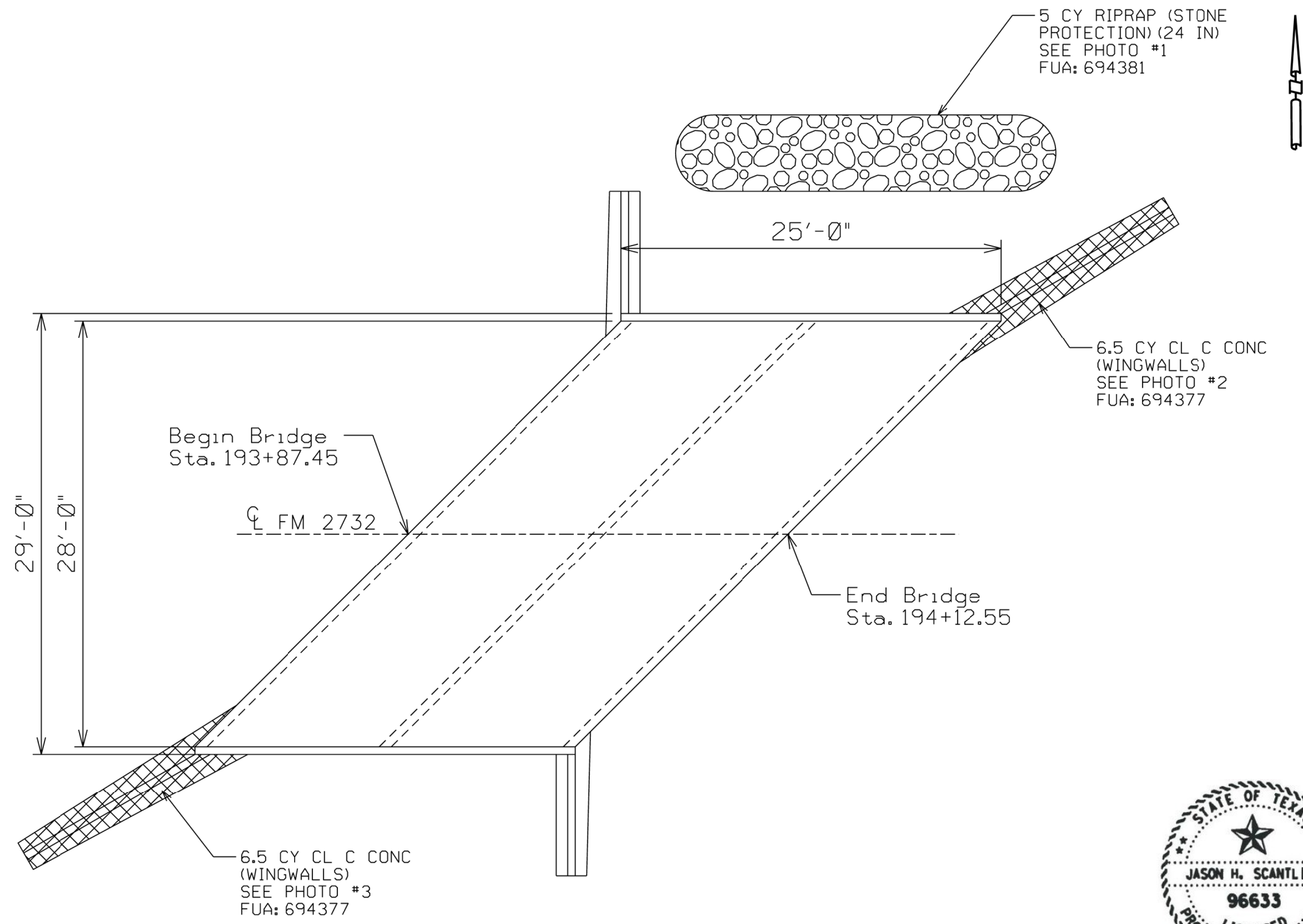


WINGWALL DETAIL

NOTE: REMOVE EXISTING WINGWALL TO DIMENSIONS AS DIRECTED BY THE ENGINEER. REPLACE ACCORDING TO ITEM 420 AND REFER TO FW-S FOR DIMENSIONS DOWEL AND EPOXY D BARS INTO EXISTING STRUCTURE. FABRICATE 1/2 INCH EXPANSION JOINT BETWEEN WINGWALL AND CULVERT, SEE EXPANSION JOINT DETAIL. THIS WORK IS SUBSIDIARY TO ITEM 420, CL C CONC (WINGWALLS).



EXPANSION JOINT DETAIL



J.S.

1 ADDENDUM #1, 8/28/24, REPLACE SHEET

Sta. 193+87.45 - 194+12.55
 2 Barrel 8' x 6' x 41.4' Concrete
 Multiple Box Culvert

ITEM	CODE	DESCRIPTION	QUANT	UNIT
164	7007	BROADCAST SEED (TEMP WARM COOL)	100.0	SY
403	7001	TEMPORARY SPL SHORING	240.0	SF
420	7146	CL C CONC (WINGWALLS)	13.0	CY
432	7045	RIPRAP (STONE PROTECTION) (24 IN)	5.0	CY
506	7039	TEMP SEDMT CONT FENCE (INSTALL)	50.0	LF
506	7041	TEMP SEDMT CONT FENCE (REMOVE)	50.0	LF

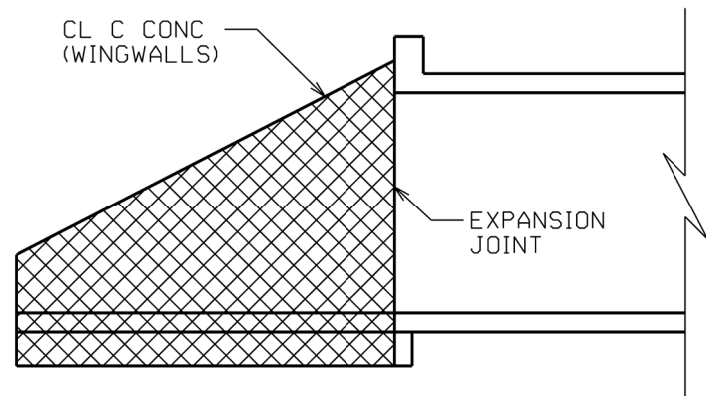


08/28/2024

FM 2732
 DRAW #2
 232060272901002
 SAN SABA CO.

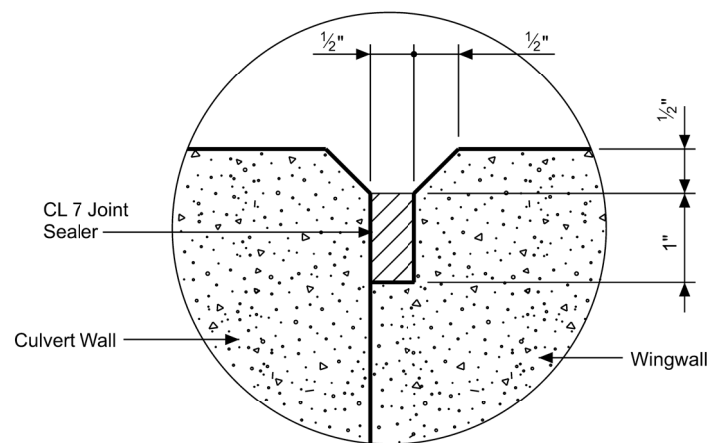


CONT	SECT	JOB	HIGHWAY
0923	00	067, etc.	VARIOUS
DIST	COUNTY	SHEET NO.	
BWD	BROWN, etc.	47	

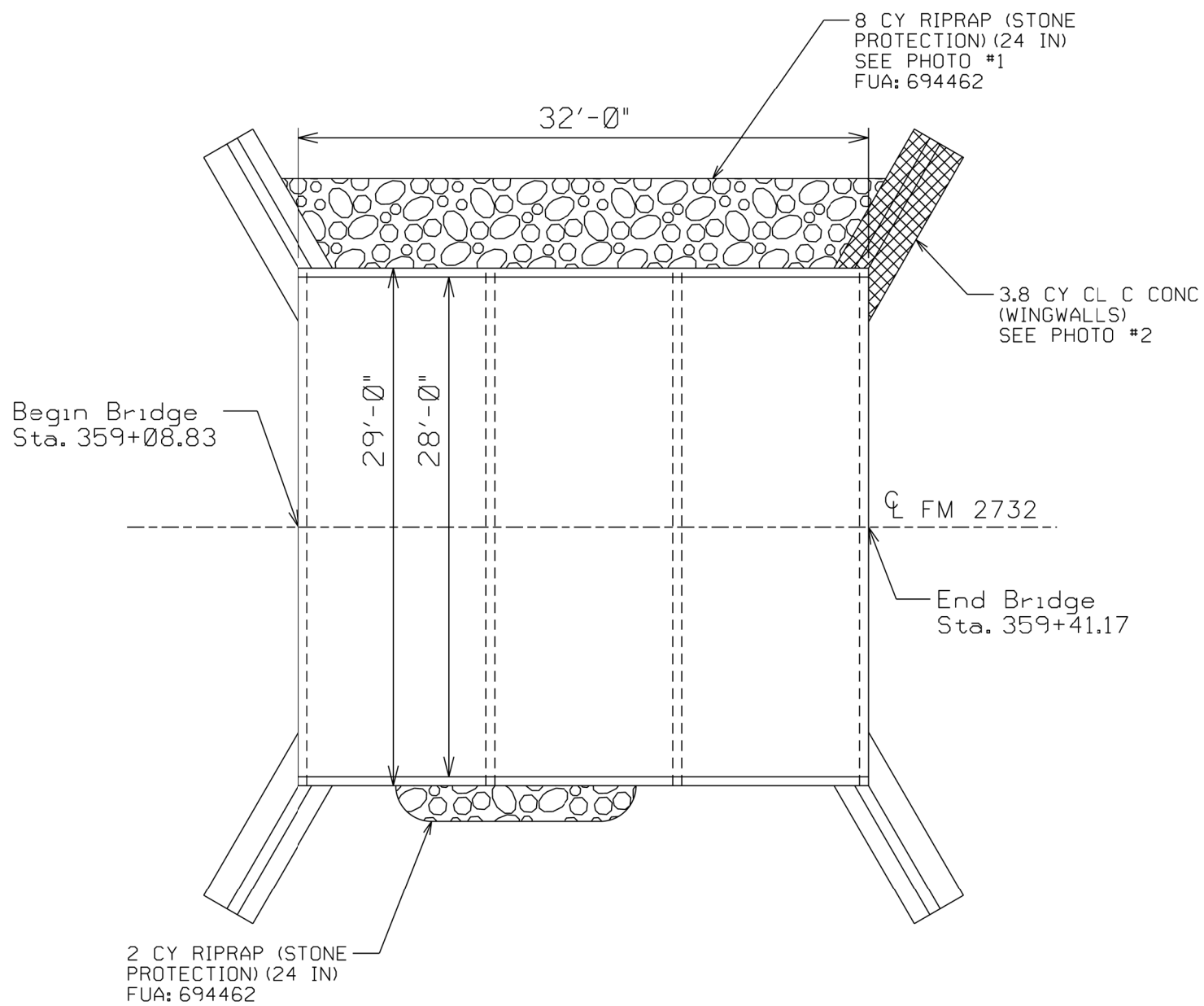


WINGWALL DETAIL

NOTE: REMOVE EXISTING WINGWALL TO DIMENSIONS AS DIRECTED BY THE ENGINEER. REPLACE ACCORDING TO ITEM 420 AND REFER TO FW-0 FOR DIMENSIONS DOWEL AND EPOXY D BARS INTO EXISTING STRUCTURE. FABRICATE 1/2 INCH EXPANSION JOINT BETWEEN WINGWALL AND CULVERT, SEE EXPANSION JOINT DETAIL. THIS WORK IS SUBSIDIARY TO ITEM 420, CL C CONC (WINGWALLS).



EXPANSION JOINT DETAIL



J.H. Scantling, P.E.

08/28/2024

FM 2732
DRAW #3
232060272901003
SAN SABA CO.

ITEM	CODE	DESCRIPTION	QUANT	UNIT
164	7007	BROADCAST SEED (TEMP WARM COOL)	100.0	SY
403	7001	TEMPORARY SPL SHORING	120.0	SF
420	7146	CL C CONC (WINGWALLS)	3.8	CY
432	7045	RIPRAP (STONE PROTECTION) (24 IN)	10.0	CY
506	7039	TEMP SEDMT CONT FENCE (INSTALL)	100.0	SF
506	7041	TEMP SEDMT CONT FENCE (REMOVE)	100.0	SF

Sta. 359+08.83 - 359+41.17
3 Barrel - 10' x 6' x 29'-0" Concrete
Box Culvert



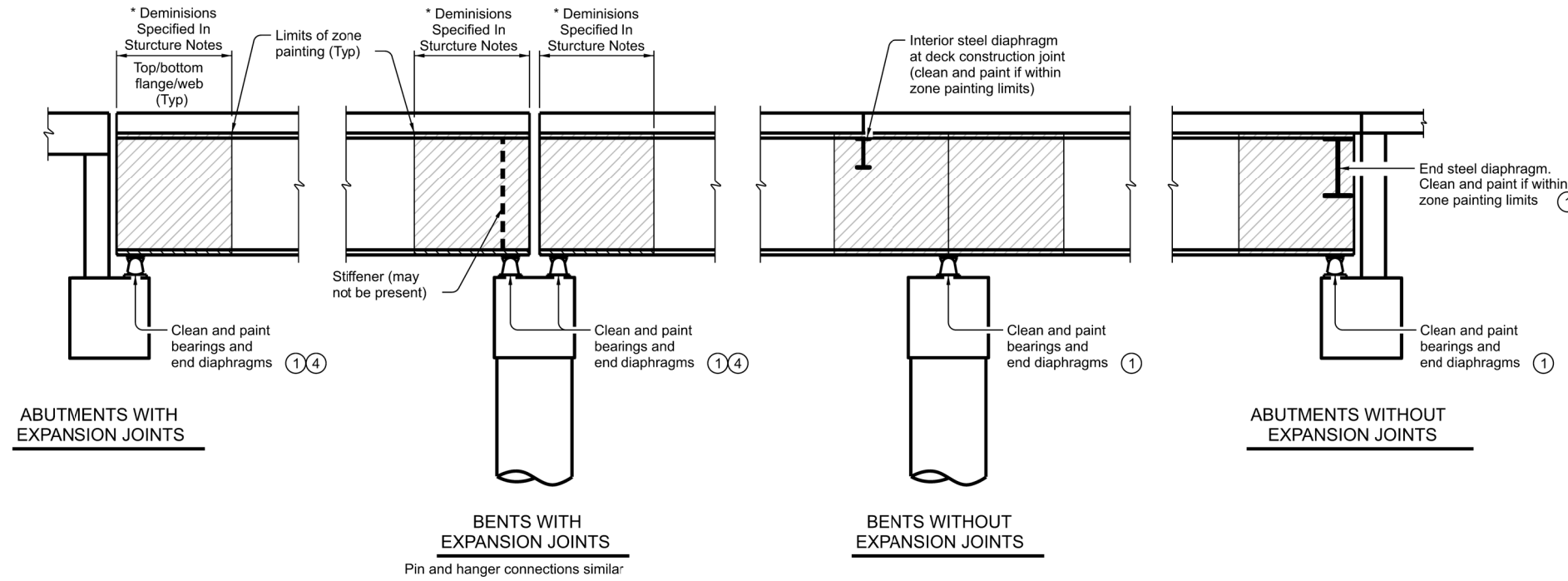
CONT	SECT	JOB	HIGHWAY
0923	00	067.e.t.c.	VARIOUS
DIST	COUNTY		SHEET NO.
BWD	BROWN.e.t.c.		49

DATE: 8/28/2024 9:35:56 AM
FILE:

J.S.
1

ADDENDUM #1, 8/28/24, REPLACE SHEET

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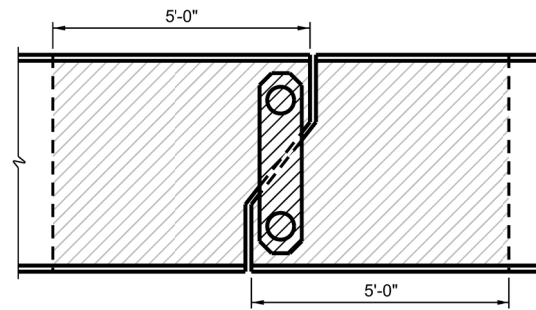


STRUCTURE NOTES:

- Ref Str #1:** Provide default system as shown on the plans sheets. Estimated total surface area to clean and paint is 2700 SF.
- Ref Str #2:** Provide default system to each painted beam end and bearing (9 beam lines) 1.5' from end of beam (65F per beam end), at abutments and interior bents. Total estimated surface area to clean and paint is 450 SF. Additionally, high pressure wash end 2' of each weathering steel beam (3 beam lines) and bearings. Washing weathering steel beams ends is subsidiary to Zone Cleaning and Painting the painted beams.
- Ref Str #3:** Provide default system to each painted steel beam end and bearing (5 beam lines) 2' from end of beam (145F per beam end), at abutments and interior bents. Total estimated surface area to clean and paint is 450 SF.
- Ref Str #4:** Provide alternative system to each painted steel beam end (2' from end), bearing, and end diaphragm (4 beam lines each end span, 3 end diaphragms each end span)-125SF per end span. Provide default system to 8 interior diaphragm lines and 2' total of beam and interior diaphragm-100SF per interior diaphragm line. Total estimated surface area to clean and paint is 1050SF.
- Ref Str #5:** Provide default system to each painted steel beam end and bearing (5 beam lines) 2' from end of beam (155F per beam end), at abutments and interior bents. Total estimated surface area to clean and paint is 900 SF.

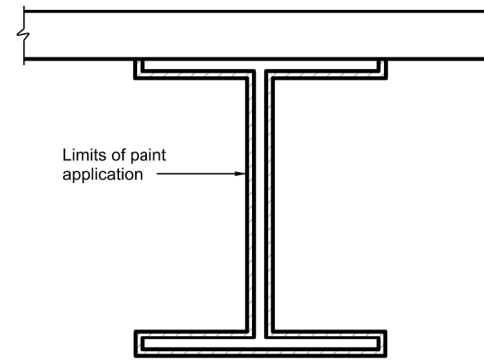
PARTIAL STEEL BEAM ELEVATION

Dimensions shown are basis of paint estimate but do not define exact limits of repainting. Address deteriorated paint as directed by the Engineer. Painting perimeter does not need to be a vertical plane except on exterior surfaces of exterior beams.



PIN AND HANGER ASSEMBLY WITH ZONE PAINT LIMITS

Showing example pin and hanger system. Pin and hanger system may vary from what is shown.



STEEL BEAM CROSS SECTION WITH ZONE PAINT LIMITS

ZONE PAINTING NOTES:

Prepare the surfaces to be cleaned by using hand tools, vacuuming, and water blasting as described in Special Specification 4010, "Steel Bridge Zone Painting" for Default Special Protection System. Abrasive blast and achieve SSPC SP10/SP11 (near white metal) for the Alternate Special Protection System.

Water blast all bearings for a minimum of 1 minute each while moving nozzle to thoroughly clean all surfaces. Keep nozzle no further than 6 inches from the surface. Blast concealed surfaces of end diaphragms below bridge expansion joints.

Use oil-free compressed air to blow out tightly confined locations.

Probe around edges of remaining paint with hand scraper to ensure all delaminated paint is removed.

For zone painting steel pilings, excavate a minimum of 1'-0" below existing ground level around each piling. Re-establish ground level once topcoat is dry to the touch.

GENERAL NOTES:

Clean and paint the structure in accordance with Special Specification 4010, "Steel Bridge Zone Painting."

Provide potable water for water blasting steel. Water from municipal supplies approved by the Texas Department of Health will not require testing. When water is provided from another source, test for chlorides and provide water with a maximum chloride concentration of 500 ppm (500 mg/L).

The default Special Protection System includes:

- Penetrating Sealer (DMS-8105)
- Top Coat (DMS-8105)

The Alternate Special Protection System includes:

- Epoxy Zinc Primer (DMS-8101)
- Top Coat (DMS-8105),

Provide a High Ratio Calcium Sulfonate (HRCSA) top coat for bearings.

Provide compatible penetrating sealer and top coat from the same manufacturer.

Tint the proposed paint system to match the existing bridge paint color. Select the proposed paint color from the Federal Standard Colors list. Submit proposed paint color samples to the Engineer for approval before paint purchase.

TABLE OF ESTIMATED QUANTITIES

STRUCTURE NUMBER (& FEATURE CROSSED)	REFERENCE NUMBER	QUANTITY PER STRUCTURE (SF)
US 183 @ BNSF RAILROAD	#2	450
US 84 @ NORTH BENNETT CREEK	#3	450
FM 2313 @ LAMPASAS RIVER	#4	1050
US 190 @ SIMPSON CREEK	#5	900
TOTAL QUANTITY (SF)		5550

- ① Bearings and diaphragms may vary from what is shown.
- ② Paint quantities shown include allowance for bearings, diaphragms and other minor areas as determined by the Engineer.
- ③ Showing minimum areas of paint application. Spot clean and paint other locations on the bridge as directed by the Engineer.
- ④ See "Cleaning at Expansion Bearings" detail.



08/28/2024

SHEET 1 OF 2

		Bridge Division		
ZONE PAINTING DETAILS				
FILE:	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT	February 2024	CONT SECT	JOB	HIGHWAY
	REVISIONS	0923 00	067, etc.	VARIOUS
		DIST	COUNTY	SHEET NO.
		BWD	BROWN, etc.	94

J.S.
ADDENDUM #1, 8/28/24, REPLACE SHEET

DATE:
FILE:

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DATE: 8/28/2024 9:40:22 AM
FILE: I:\BDD5G\TEAM\Design Projects\Brown\0923-00-067 2025 CAT 1 BRIDGE V.4 Design\101 BCS.dgn

Culvert Station and/or Creek Name followed by applicable end (Lt, Rt or Both)	Description of Box Culvert No. Spans ~ Span X Height	Max Fill Height (Ft)	Applicable Box Culvert Standard (4)	Applicable Wingwall or End Treatment Standard	Skew Angle (0°, 15°, 30° or 45°)	Side Slope or Channel Slope Ratio (SL:1)	T Culvert Top Slab Thickness (In)	U Culvert Wall Thickness (In)	C Estimated Curb Height (Ft)	Hw Height of Wingwall (Ft)	A Curb to End of Wingwall (Ft)	B Offset of End of Wingwall (Ft)	Lw Length of Longest Wingwall (Ft)	Ltw Culvert Toewall Length (Ft)	Atw Anchor Toewall Length (Ft)	Riprap Apron (CY)	Class "C" Conc (Curb) (CY)	Class "C" Conc (Wingwall) (CY)	Total Wingwall Area (SF)
FM 2732 @ DRAW #2 LEFT	2 ~ 8' X 6'	1'	MC-8-13	FW-S	45	2:1	8	7	0.833	7.25	13.833	23.96	27.667	25.102	N/A	0.0	0.0	6.5	105.0
FM 2732 @ DRAW #2 RIGHT	2 ~ 8' X 6'	1'	MC-8-13	FW-S	45	2:1	8	7	0.833	7.25	13.833	23.96	27.667	25.102	N/A	0.0	0.0	6.5	105.0
FM 2732 @ DRAW #3	3 ~ 10' X 6'	1'	MC-10-7	FW-0	0	2:1	8	7	0.833	7.25	13.833	7.987	15.973	32.333	N/A	0.0	0.0	3.8	61.0

NOTES:

- Skew = 0° on SW-0, FW-0, SETB-CD, SETB-SW-0, and SETB-FW-0 standard sheets; 30° maximum for safety end treatment
- SL:1 = Horizontal : 1 Vertical
 - Side slope at culvert for flared or straight wingwalls.
 - Channel slope for parallel wingwalls.
 - Slope must be 3:1 or flatter for safety end treatments.
- T = Box culvert top slab thickness. Dimension can be found on the applicable box culvert standard sheet.
- U = Box culvert wall thickness. Dimension can be found on the applicable box culvert standard sheet.
- C = Curb height
- See applicable wing or end treatment standard sheets for calculations of Hw, A, B, Lw, Ltw, Atw, and Total Wingwall Area.
- Hw = Height of wingwall
- A = Distance from face of curb to end of wingwall (not applicable to parallel or straight wingwalls)
- B = Offset of end of wingwall (not applicable to parallel or straight wingwalls)
- Lw = Length of longest wingwall.
- Ltw = Length of culvert toewall (not applicable when using riprap apron)
- Atw = Length of anchor toewall (applicable to safety end treatment only)
- Total Wingwall Area = Wingwall area in sq. ft. for two wingwalls (one structure end) if Lt or Rt. Area for four wingwalls (two structure ends) if Both.

- ① Round the wall heights shown to the nearest foot for bidding purposes.
- ② Concrete volume shown is for box culvert curb only. For curbs using the Box Culvert Rail Mounting Details (RAC) standard sheet quantities shown must be increased by a factor of 2.25. If Class S concrete is required for the top slab of the culvert, also provide Class S concrete for the curb. Curb concrete is considered part of the Box Culvert for payment.
- ③ Concrete volume shown is total of wings, footings, culvert toewall (if any), anchor toewalls (if any) and wingwall toewalls. Riprap aprons, culverts, and curb quantities are not included.
- ④ Regardless of the type of culvert shown on this sheet, the Contractor has the option of furnishing cast-in-place or precast culverts unless otherwise shown elsewhere on the plans. If the Contractor elects to provide culverts of a different type than those shown on this sheet, it is the Contractor's responsibility to make the necessary adjustments to the dimensions and quantities shown.

J.S.
ADDENDUM #1, 8/28/24, REPLACE SHEET



08/28/2024

				<i>Bridge Division Standard</i>
BOX CULVERT SUPPLEMENT WINGS AND END TREATMENTS				
BCS				
FILE:	ON: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	0923 00		067, etc.	VARIOUS
	DIST	COUNTY		SHEET NO.
	BWD	BROWN, etc.		101

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I. WORK AT CROSSING LOCATIONS (AT GRADE, HIGHWAY OVERPASS, HIGHWAY UNDERPASS, PEDESTRIAN, OR CLOSED/ABANDONED)

This project is adjacent or parallel work, not within RR ROW:
 DOT No.: 024701G
 Crossing Type: Highway Overpass
 RR Company Operating Track at Crossing: CTXR
 RR Company Owning Track at Crossing: CTXR
 RR MP: 2.880
 RR Subdivision: SAN SABA
 City: Lometa
 County: Lampasas
 CSJ at this Crossing: 0923-00-067
 Latitude: 31.244153
 Longitude: -98.424878

Scope of Work, including any TCP, to be performed by State Contractor:

Cleaning and painting steel beams and bearings. Work will be performed in railroad ROW. Traffic control plan employed by the state contractor will be TCP (1-1A).

Bridge: US 183 @ CTXR, Lampasas County
 NBI#: 231410027402012

Scope of Work to be performed by Railroad Company:

Flagging Only

II. FLAGGING & INSPECTION

No. of Days of Railroad Flagging Expected: 5

On this project, night or weekend flagging is:

Expected
 Not Expected

Flagging services will be provided by:

Railroad Company: 1) Txdot will pay flagging invoices. Flagging Agreement with railroad will be needed or, 2) Permitted crossing. Railroad company to provide flagging.
 Outside Party: Contractor will pay flagging invoices to be reimbursed by TxDOT

Contractor must incorporate flaggers into anticipated construction schedule. The Railroad requires a 30-day notice if their flaggers are to be utilized. If Contractor falls behind schedule due to their own negligence and is not ready for scheduled flaggers, any flagging charges will be paid by Contractor.

Contact Information for Flagging:

UPRR UP.info@railpros.com
 Call Center 877-315-0513, Select #1 for flagging
 UP.request@nrssinc.net
 Call Center 877-984-6777
 BNSF BNSFinfo@railprofs.com
 Call Center 877-315-0513, Select #1 for flagging
 CPKCR KCS.info@railpros.com
 Call Center 877-315-0513, Select #1 for flagging
 Bottom Line On-Track Safety Services
 bottomline076@aol.com, 903-767-7630

OTHERS:
 cscus@omnitrax.com
 Call Center 877-276-3777, Select #2 for flagging

Contractor must incorporate railroad construction inspection into anticipated construction schedule.

Not Required
 Required. Contact Information for Construction Inspection:

III. CONSTRUCTION WORK TO BE PERFORMED BY THE RAILROAD

Required.
 Not Required
 Railroad Point of Contact: _____

Coordinate with TxDOT for any work to be performed by the Railroad Company. TxDOT must issue a work order for any work done by the Railroad Company prior to the work being performed.

IV. RAILROAD INSURANCE REQUIREMENTS


The Contractor shall confirm the insurance requirements with the Railroad as the insurance limits are subject to change without notice.

Insurance policies and corresponding certificates of insurance must be issued by the contractor on behalf of the Railroad. Separate insurance policies and certificates are required when more than one Railroad Company is operating on the same right of way, or when several Railroad Companies are involved and operate on their own separate right of ways.

No direct compensation will be made to the Contractor for providing the insurance coverages shown below or any deductibles. These costs are incidental to the various bid items.

Escalated Limits	
Type of Insurance	Amount of Coverage (Minimum)
Workers Compensation	\$500,000 / \$500,000 / \$500,000
Commercial General Liability	\$2,000,000 / \$4,000,000
Business Automobile	\$2,000,000

Railroad Protective Liability Limits	
<input type="checkbox"/> Not Required	
<input checked="" type="checkbox"/> Non - Bridge/Typical Maintenance Projects. Includes repairs to overpass/underpass and culvert structures	\$2,000,000 / \$6,000,000
<input type="checkbox"/> Bridge Structure Projects. Includes new construction or replacement of overpass/underpass structures	\$5,000,000 / \$10,000,000
<input type="checkbox"/> Other: _____	


J.S.
ADDENDUM #1, 8/28/24, REPLACE SHEET

V. CONTRACTOR'S RIGHT OF ENTRY (CROE)

Not Required
 Required: UPRR Maintenance Consent Letter. TxDOT to assist
 Required: TxDOT to assist in obtaining the UPRR CROE
 Required: Contractor to obtain

- BNSF: _____
 https://bnsf.railpermitting.com
- CPKCR
 https://jllrpg.360works.com/fmi/webd/rpo_web_kcs.fmp12
- Other Railroads: CTXR: https://omnitrax.com/track-access/

To view previously approved CROE templates agreed upon between the State and Railroad, see: <https://www.txdot.gov/business/resources/railroad-highway-crossing/sample-right-of-entry-agreements.html>

Approved CROE templates are not to be modified by the Contractor.

Contractor shall not operate within Railroad Right of Way without an executed Construction & Maintenance Agreement between the State and the Railroad and an executed CROE between the Contractor and the Railroad if required on project.

VI. RAILROAD COORDINATION MEETING

A Railroad Coordination Meeting is required. See item 5, Article 8.1, of the Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges Manual for more details.

VII. RAILROAD SAFETY ORIENTATION

A. Complete the Railroad's course "Orientation for Contractor's Safety," and maintain registration prior to working on the Railroad's property. This course is required to be completed annually by Contractor and Subcontractor personnel working on site.

UPRR, BNSF, CPKCR will not accept on-track safety training certificates from other Railroads. Refer to each Railroad's specific contractor right of entry for training information.

Know and follow the Contractor's Right of Entry Agreement EXHIBIT D, MINIMUM SAFETY REQUIREMENTS regarding clothing, personal protective equipment, and general safety requirements.

VIII. SUBCONTRACTORS

Contractor shall not subcontract work without written consent of TxDOT. Subcontractors are subject to the same insurance requirements as the Prime Contractor.

IX. EMERGENCY NOTIFICATION

In Case of Railroad Emergency

Call: CTXR

Railroad Emergency Line at: (888) 533-9416

Location: DOT_024701G


RR Milepost: 2.880

Subdivision: SAN SABA

RRD Review Only

Initials: ET

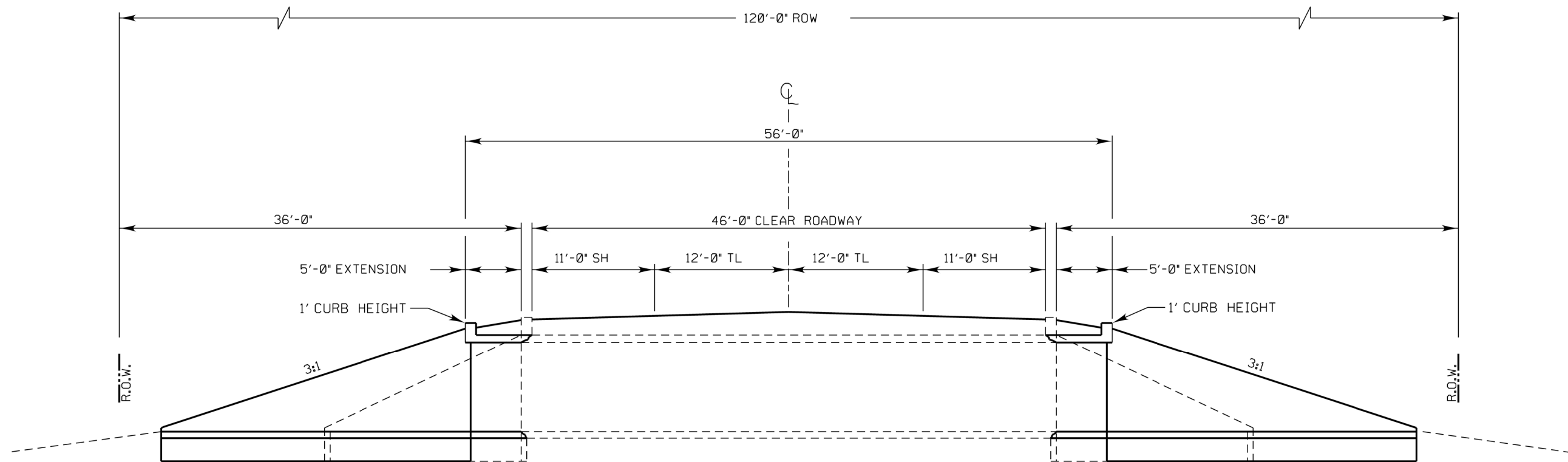
Date: 8/28/2024


Rail Division

RAILROAD SCOPE OF WORK

PROJECT SPECIFIC DETAILS

FILE: rr-scope-of-work.pdf	DN: TxDOT	CK:	DW:	CK:
© TxDOT June 2014	CONT	SECT	JOB	HIGHWAY
6/2023	0923	00	067, ETC.	VARIOUS
DIST		COUNTY		SHEET NO.
BWD		BROWN, ETC.		110



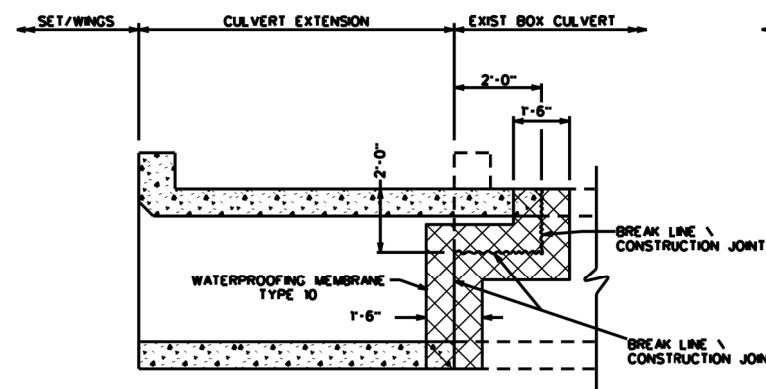
EXIST: (2) 10'x8'x46'
 PROP: (2) 10'x8'x56' MC-10-7, MC-MD, SETB-FW-0

ITEM	CODE	DESCRIPTION	QTY	UNIT	FINAL
0100	7002	PREPARING ROW	2.0	STA	
0132	7005	EMBANKMENT(FNL)(OC)(TY C)	1700.0	CY	
0403	7001	TEMPORARY SPL SHORING	320.0	LF	
*0420	7067	CL C CONC (MISC)	17.5	CY	
0432	7002	RIPRAP (CONC) (5 IN)	25.2	CY	
0458	7007	WATERPROOFING (TY 10)	12.0	SY	
0467	7199	SET(TY 1)(S=8FT)(HW=10FT)(3:1)(C)	4.0	EA	
*0542	7001	REMOVE METAL BEAM GUARD FENCE	350.0	LF	
0658	7056	INSTALL OM ASSM(OM-2Y)(WC)GND	4.0	EA	

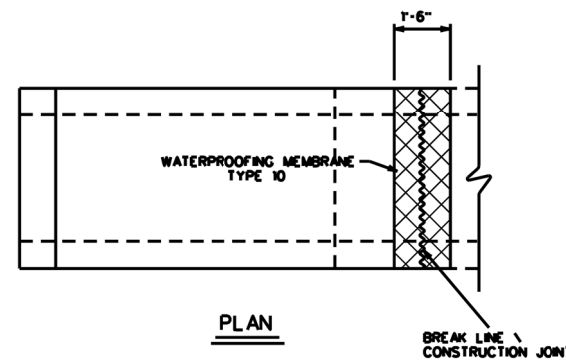
*CL C CONC (MISC) SHALL BE USED FOR CULVERT EXTENSION. QUANTITY INCLUDES CURBS.

* THE REMOVAL OF ALL EXISTING METAL BEAM GUARD FENCE, METAL BEAM GUARD FENCE TRANSITIONS, SINGLE GUARDRAIL TERMINALS, AND TURNDOWNS WILL BE PERFORMED IN ACCORDANCE WITH ITEM 542, REMOVE METAL BEAM GUARD FENCE.

WATERPROOF MEMBRANE DETAILS

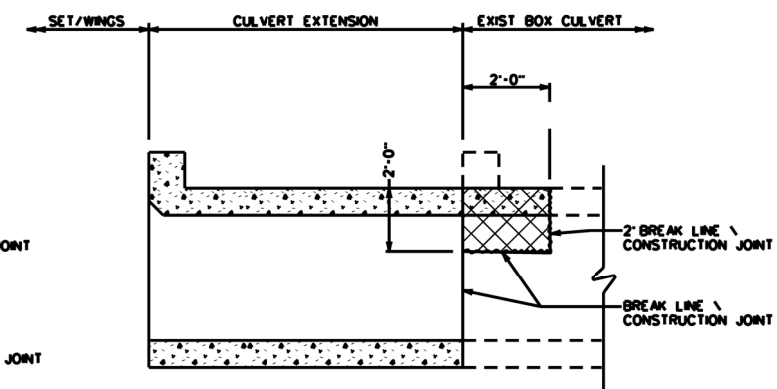


ELEVATION

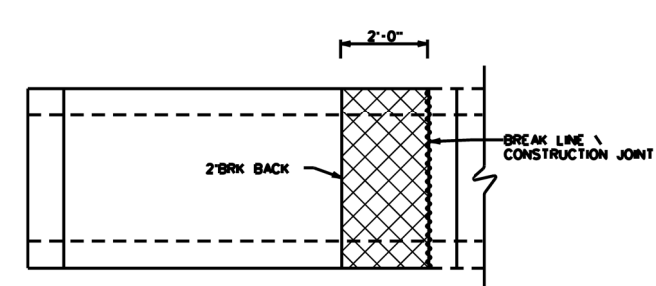


PLAN

2' BREAK BACK DETAIL



ELEVATION



PLAN

NOTE:
 PLACE WATERPROOFING MEMBRANES IN ACCORDANCE WITH ITEM (458) CENTERED ON CONCRETE CONSTRUCTION JOINTS ON TOP DECK AND EXTERIOR WALLS.



J.H. Scantling, P.E.

08/28/2024

US 183 @
 DRAW #13
 232150040402013
 EASTLAND CO.



CONT	SECT	JOB	HIGHWAY
0923	00	067, etc.	VARIOUS
DIST	COUNTY	SHEET NO.	
BWD	BROWN, etc.	114	

DATE: 8/28/2024 11:50:52 AM
 FILE:



J.S.

ADDENDUM #1, 8/28/24, REPLACE SHEET

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act." No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

TABLE OF DIMENSIONS AND REINFORCING STEEL (Wings for One Structure End)

Maximum Wingwall Height Hw (9)	Dimensions				Variable Reinforcing				Estimated Quantities (3) per ft of wing length (Two-Wings)	
	W	X	Y	Z	Bars J1		Bars J2		Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73	0.248
3'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07	0.261
3'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74	0.273
4'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41	0.285
4'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	41.75	0.330
5'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.09	0.343
5'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.75	0.355
6'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	46.42	0.367
7'-0"	3'-8"	1'-9"	1'-3"	7"	#4	1'-0"	#4	1'-0"	52.77	0.414
8'-0"	4'-2"	2'-0"	1'-6"	8"	#5	1'-0"	#4	1'-0"	60.19	0.486
9'-0"	4'-8"	2'-3"	1'-9"	8"	#4	6"	#4	6"	81.49	0.535
10'-0"	5'-2"	2'-6"	2'-0"	8"	#5	6"	#4	6"	97.25	0.584
11'-0"	5'-8"	2'-9"	2'-3"	8"	#6	6"	#5	6"	133.65	0.634
12'-0"	6'-2"	3'-0"	2'-6"	9"	#7	6"	#5	6"	162.29	0.721

TABLE OF WING WALL REINFORCING (Two-Wings)

Bar	Size	No.	Spa
D	#5	~	1'-0"
E	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'-0"
R	#5	6	~
V	#4	~	1'-0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

Bar	Size	No.	Spa
L	#4	~	1'-6"
Q	#4	1	~

Reinf (Lb/Ft) 2.45
Conc (CY/Ft) 0.037

TABLE OF ESTIMATED ANCHOR TOEWALL QUANTITIES

Bar	Size	No.	Spa
K	#4	~	1'-0"
N	#5	6	~
OL	#4	6	~

Reinf (Lb/Ft) 9.82
Conc (CY/Ft) 0.074

- Extend Bars P 3'-0" Min into bottom slab of box culvert.
- Adjust to fit as necessary to maintain 1 1/2" clear cover and 4" Min between bars.
- Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings multiply the tabulated values by Lw.
- Recommended values of slope are: 3:1, 4:1, and 6:1. Provide 3:1 or flatter slope.
- When shown elsewhere on the plans, construct 5" deep concrete riprap. Payment for riprap is as required by Item 432, "Riprap." Unless otherwise shown on the plans or directed by the Engineer, extend construction joints or grooved joints, oriented in the direction of flow, across the full distance of the riprap, at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B is not required.
- At Contractor's option, end the culvert toewall flush with wingwall toewall. Adjust reinforcing as needed.
- 3" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures without railing and curbs taller than 1'-0", refer to the Extend Curb Details (ECD) standard sheet.
- For vehicle safety, reduce curb heights, if necessary, to provide a maximum 3" projection above finished grade. No changes will be made in quantities and no additional compensation will be allowed for this work.
- See Table of Maximum Wing Heights for various slopes. Height is limited based on a 33'-6" maximum safety pipe runner length.

TABLE OF MAXIMUM WING HEIGHTS (9)

Side Slope	Hw Max
3:1	11'-5"
4:1	8'-10"
6:1	6'-1"

WING DIMENSION CALCULATIONS:

$Hw = H + T + C - 0.250' \quad (9)$
 $A = (Hw - 0.333') (SL)$
 $B = (A) (\tan 30^\circ)$
 $Lw = (A) + \cos (30^\circ)$

For cast-in-place culverts:
 $Ltw = (N) (S) + (N + 1) (U)$
For precast culverts:
 $Ltw = (N) (2U + S) + (N - 1) (0.500')$

$Lc = (Ltw) - (2U)$
 $Atw = (Lc) + (2B)$
Total Wingwall Area (two wings ~ SF)
 $= (Hw + 0.333') (Lw)$

Hw = Height of wingwall (feet)
Atw = Anchor toewall length (feet)
Lw = Length of wingwall (feet)
N = Number of culvert barrels
SL:1 = Side slope ratio (horizontal : 1 vertical)
Ltw = Culvert toewall length (feet)
Lc = Culvert curb between wings (feet)

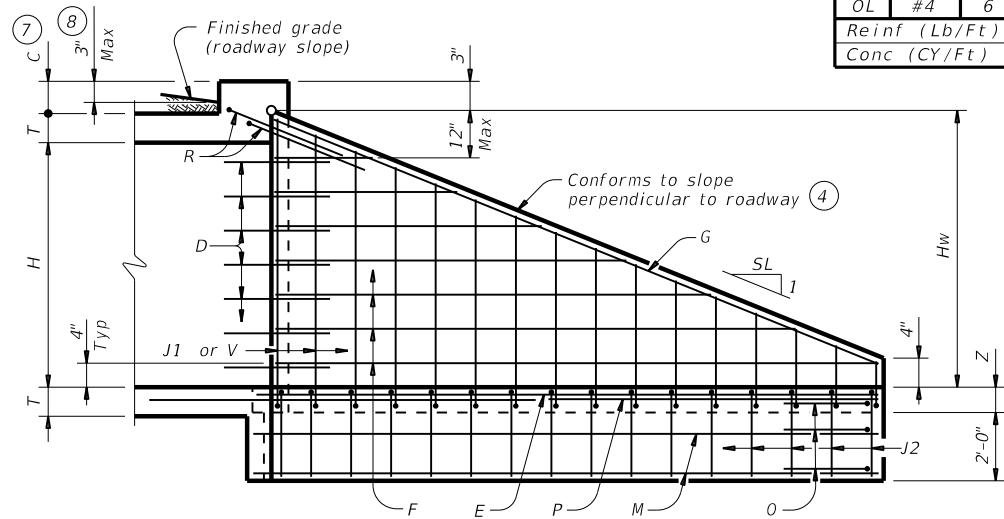
See applicable box culvert standard for H, S, T, and U values. See Table of Maximum Wall Heights for limits on Hw.

MATERIAL NOTES:

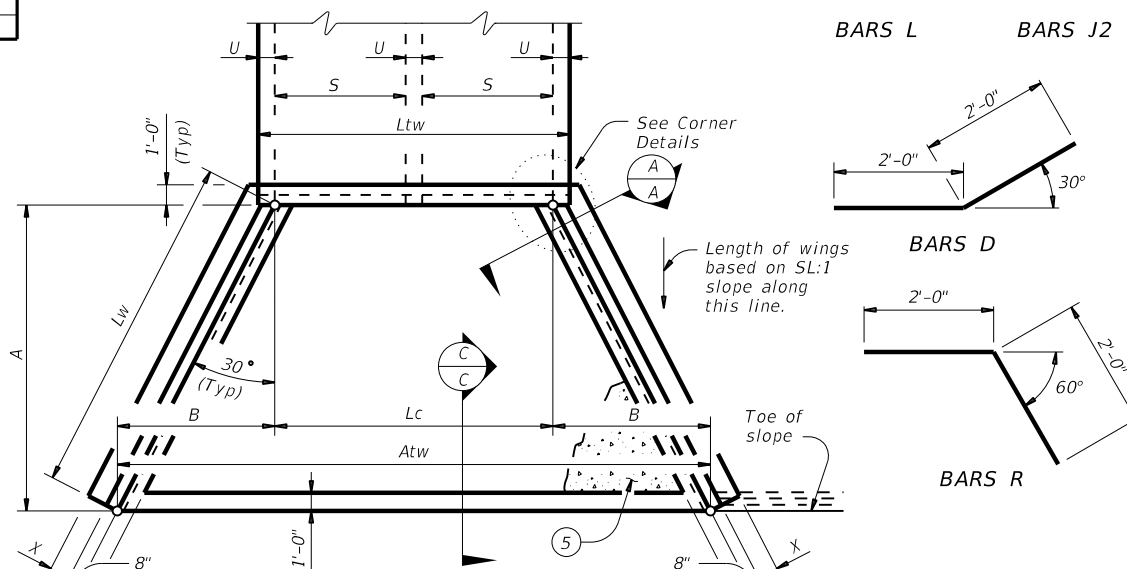
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans. Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.
Provide Class "C" concrete ($f'c = 3,600$ psi).
Adjust reinforcing as necessary to provide a minimum clear cover of 1 1/2".
Provide pipe runners and anchor pipes meeting the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 Gr B, or API 5LX52.
Provide ASTM A307 bolts and nuts.
Provide ASTM A36 steel plates.
Galvanize all steel components, except reinforcing unless required elsewhere in the plans, after fabrication.
Repair galvanizing damaged during transport or construction in accordance with the Item 445, "Galvanizing."
For optional adhesive anchors, install adhesive anchorages in accordance with the manufacturer's instructions including hole size, drilling equipment and method, hole cleaning equipment and method, mixing and dispensing adhesive, and anchor insertion. Do not alter the manufacturer's mixing nozzle or dispenser. Provide anchorage rods that are clean and free of grease, oil, or any other foreign material. Demonstrate hole cleaning method to the Engineer for approval and continue the approved process for all anchorage locations. Test adhesive anchors in accordance with Item 450.3.3, "Tests." Test 3 anchors per 100 anchors installed.

GENERAL NOTES:

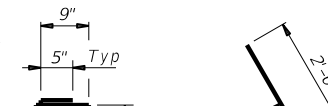
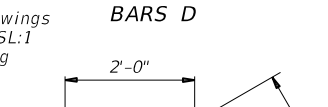
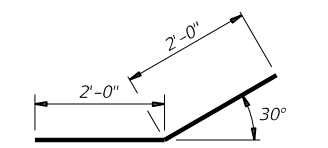
Designed according to AASHTO LRFD Bridge Design Specifications. The safety end treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the pipe runners.
Pipe runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.
When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.
All bolts, nuts, washers, brackets, angles, and pipe runners are considered parts of the safety end treatment for payment.
The quantities for pipe runners, reinforcing steel, and concrete, resulting from the formulas given herein are for Contractor's information only.
See the Box Culvert Supplement (BCS) standard sheet for additional dimensions and information.



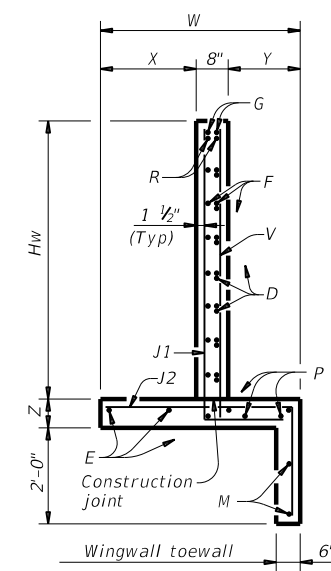
INSIDE ELEVATION OF WINGWALL
(Showing reinforcing. Culvert and culvert toewall reinforcing not shown for clarity.)



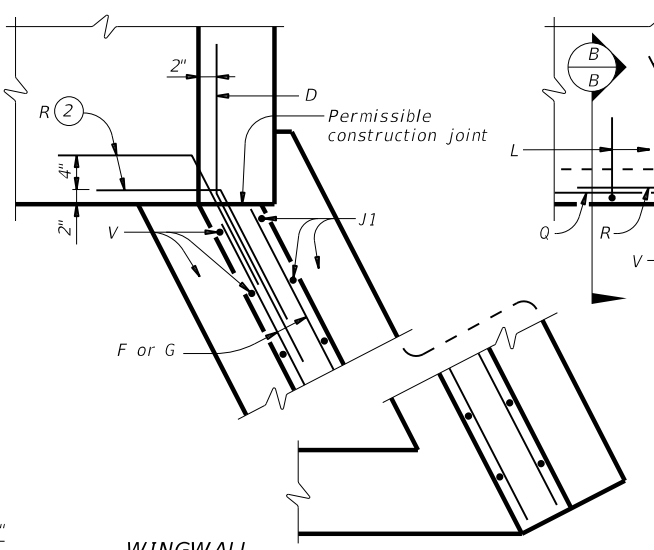
STRUCTURAL PLAN
(Showing dimensions.)



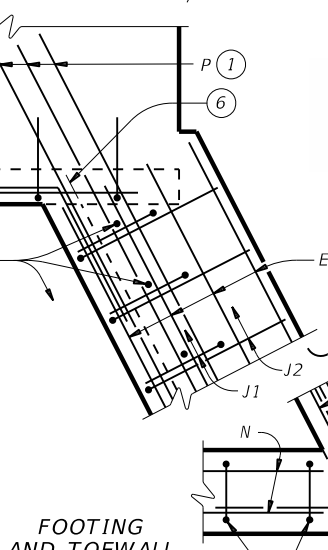
Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.



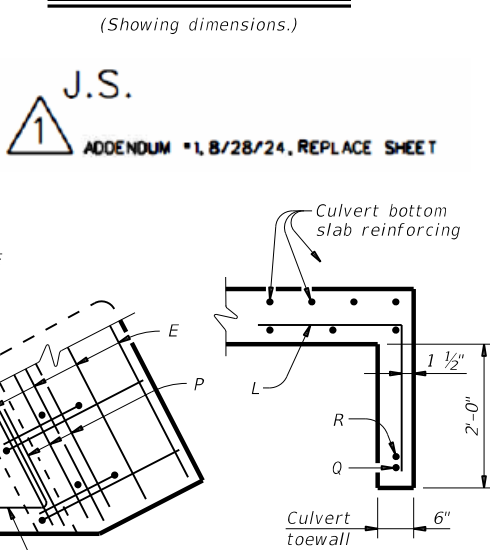
SECTION A-A



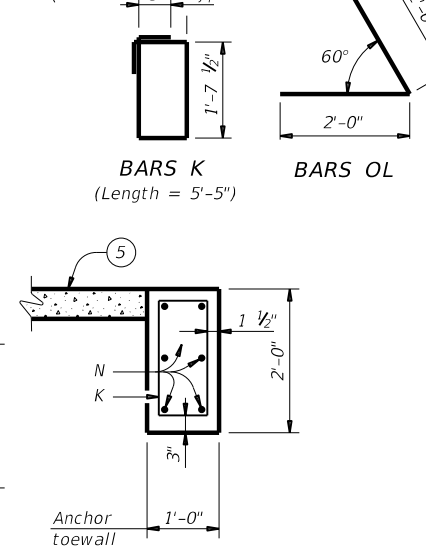
WINGWALL and CORNER DETAILS
(Culvert and culvert toewall reinforcing not shown for clarity.)



FOOTING AND TOEWALL



SECTION B-B



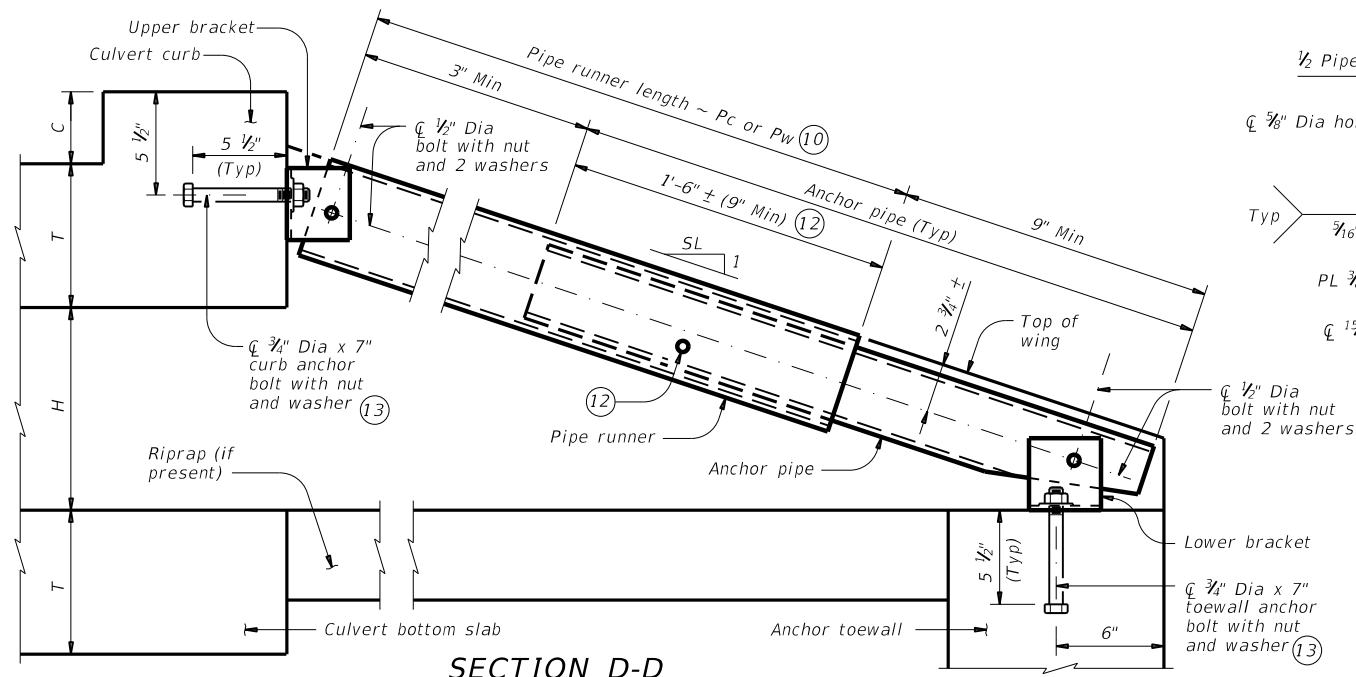
SECTION C-C

J.S. ADDENDUM *1, 8/28/24, REPLACE SHEET

Texas Department of Transportation
Safety End Treatment WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS TYPE I ~ CROSS DRAINAGE SETB-FW-0

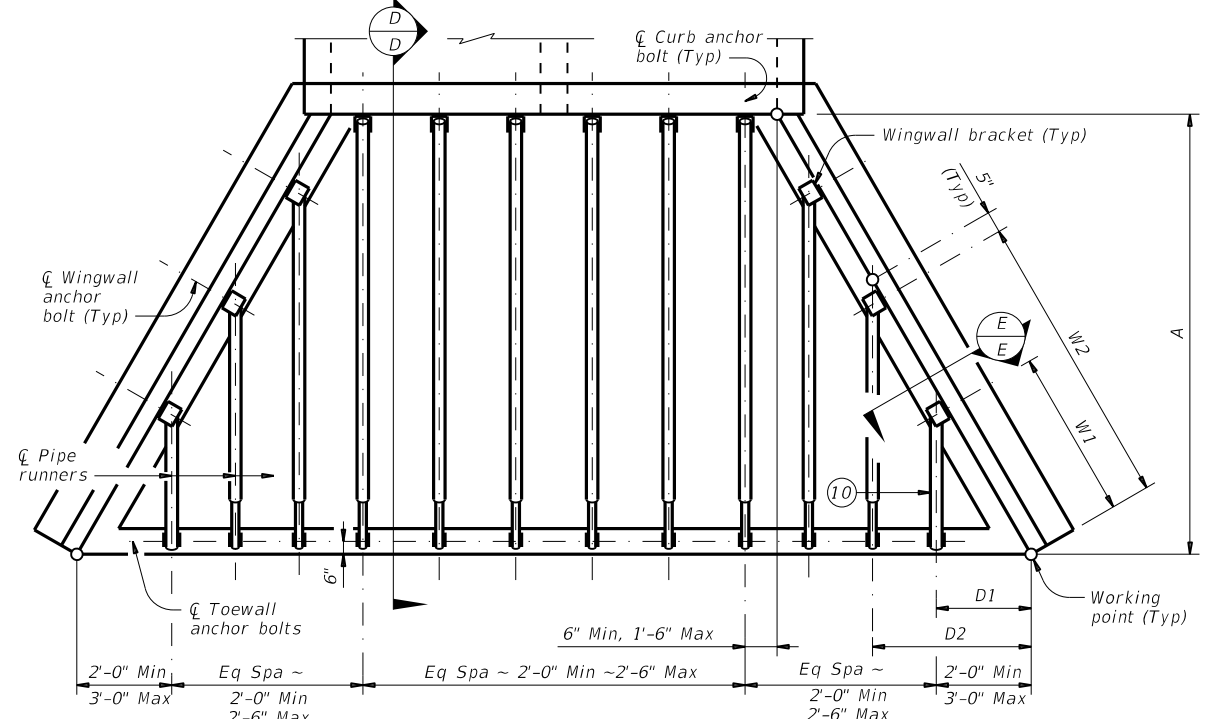
FILE: 0923	DN: February 2020	CK: CAT	DW: TxDOT	CR: TxDOT
CONTRACT: 0923	SECTION: 00	JOB: 067, etc.	HIGHWAY: VARIOUS	
DIST: BWD	COUNTY: BROWN, ETC.	SHEET NO.: 120		

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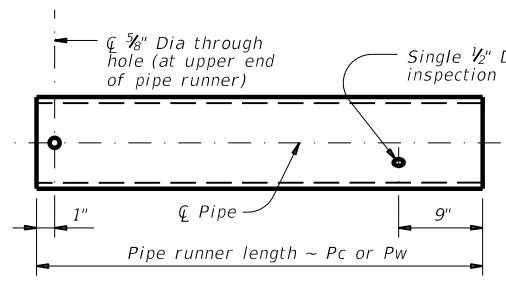


SECTION D-D

(Showing curb pipe runner. Except for upper bracket, wingwall pipe runners are similar.)

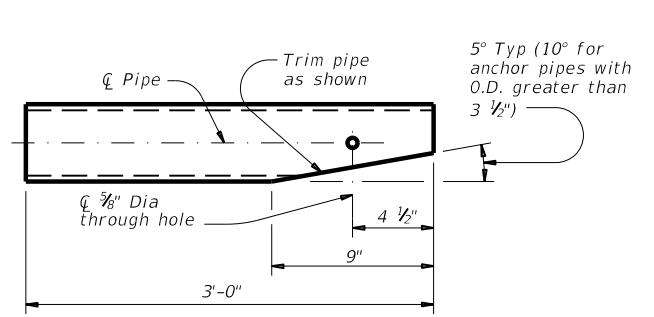


PIPE RUNNER PLAN

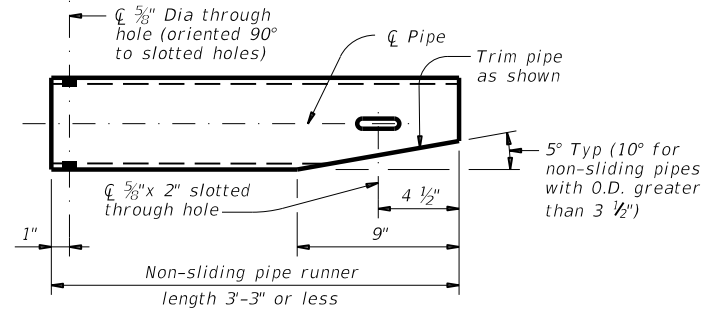


Note: Pipe diameter required for curb pipe runner is also used for wingwall pipe runner.

PIPE RUNNER DETAILS

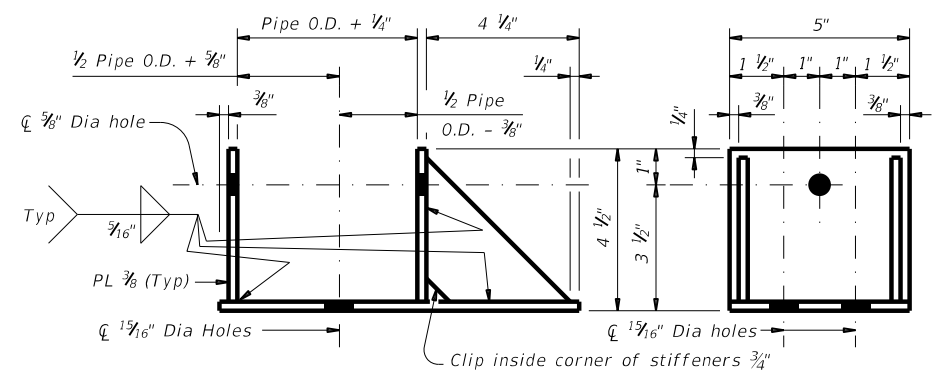


ANCHOR PIPE DETAILS



Note: Pipe size is the same as required for curb pipe runner. Adjust the corresponding lower bracket accordingly.

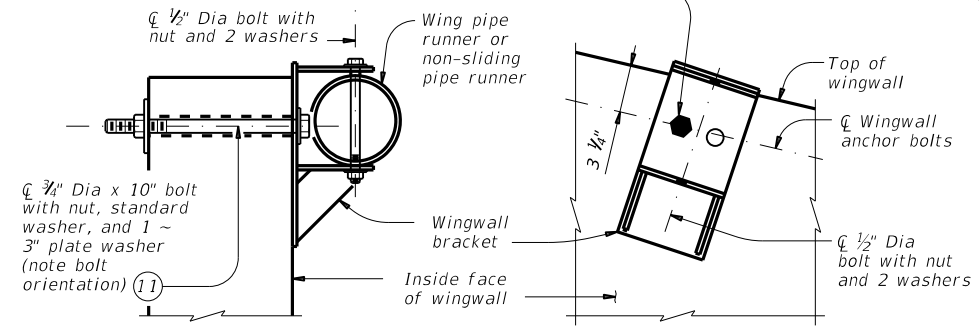
NON-SLIDING PIPE RUNNER DETAILS



ELEVATION

SIDE VIEW

Install 3/4" anchor bolt in hole nearest to the culvert curb. Other bolt hole is intended for use on the opposite hand wingwall.



SECTION E-E

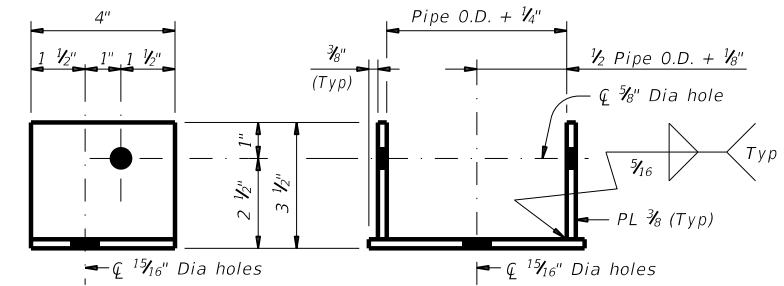
(Showing installed bracket.)

ELEVATION

(Showing installed bracket normal to wall. Pipe not shown for clarity.)

Note: Match wingwall bracket to the upper curb bracket size.

WINGWALL BRACKET DETAILS



SIDE VIEW

ELEVATION

Note: Match upper and lower brackets, except for the brackets used with non-sliding pipe runners, to the required pipe diameters as shown in the table.

UPPER AND LOWER BRACKET DETAILS

Maximum Pipe Runner Length (Pc or Pw)	MAXIMUM PIPE RUNNER LENGTHS AND REQUIRED PIPE RUNNER SIZES					
	Required Pipe Runner Size			Required Anchor Pipe Size		
	Pipe Size	Pipe O.D.	Pipe I.D.	Pipe Size	Pipe O.D.	Pipe I.D.
9'-4"	3" STD	3.500"	3.068"	2" STD	2.375"	2.067"
19'-0"	4" STD	4.500"	4.026"	3" STD	3.500"	3.068"
33'-6"	5" STD	5.563"	5.047"	4" STD	4.500"	4.026"

- 10 If pipe runner length (Pw) is 1'-9" or less replace the normal pipe runner and anchor pipe with a single non-sliding pipe runner. See Non-Sliding Pipe Runner Details for additional information.
- 11 At Contractor's option, 3/8" diameter hole may be formed or cored drilled. Percussion drilling is not permitted. Adjust placement of reinforcing steel as necessary to avoid bolt holes.
- 12 After installation of pipe runner, use the 1/2" inspection hole to ensure that the lap of the anchor pipe with the pipe runner is adequate.
- 13 At Contractor's option, an adhesive anchor may be used. Provide 3/4" Dia adhesive anchors that meet the requirements of ASTM A307 Gr A fully threaded rods. Embed threaded rods into curb, wingwalls, and toewall using a Type III, Class C, D, E, or F anchor adhesive. Minimum embedment depth is 5 1/2". Provide anchor adhesive able to achieve a basic bond strength in tension, Nba, of 20 kips. Submit signed and sealed calculations or the manufacturer's published literature showing the proposed anchor adhesive's ability to develop this load to the Engineer for approval prior to use.

PIPE RUNNER DIMENSION CALCULATIONS:

$$Wn = (2.000)(Dn) - (0.416')$$

$$Pwn = (Dn)(K2) - (2.063')$$

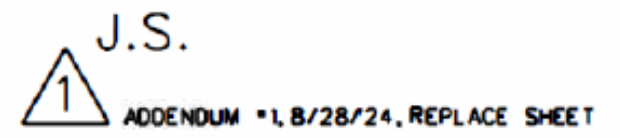
$$Pw1 \text{ Non-Sliding Pipe Runner (If required)} = (D1)(K2) - (0.563')$$

$$Pc = (A)(K1) - (1.688')$$

Wn = Distance from working point to centerline anchor bolt measured along bottom inside face of wing (feet)
 Dn = Distance from working point to centerline pipe runner measured along outside face of anchor toewall (feet)
 Pw = Wingwall pipe runner length (feet)
 Pc = Curb pipe runner length (feet)
 K = Constant values for use in formulas

Slope SL:1	K1	K2
3:1	~ 1.054	~ 1.826
4:1	~ 1.031	~ 1.785
6:1	~ 1.014	~ 1.756

n = Wing pipe runner number



				Bridge Division Standard		
SAFETY END TREATMENT WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS TYPE I ~ CROSS DRAINAGE						
SETB-FW-0						
FILE:	DN: GAF	CK: CAT	DW: TxDOT	CK: TxDOT		
©TxDOT February 2020	CON: SECT	JOB	HIGHWAY			
REVISIONS	0923	00	067, etc.	VARIOUS		
DIST	COUNTY	SHEET NO.				
BWD	BROWN, ETC.	121				