PAPE-DAWSON ENGINEERS

DRAFT

CULVERT ID A

Hwy	FM 140
CSJ	0748-04-042
Sta	123+06.09
Type	Cross Culvert
Desc	1 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	36

MODIFIED

CSJ	0748-04-03	
Date	1996	
	Left (ft)	Right (ft)
Ext	2.5	1.5

H&H

Design Freq (yr)	10	Q_5 (cfs)	50
Existing Capacity, Q_E (cfs)	57.24	Q_{10} (cfs)	100
Ponding at Q_D (ft)	.22		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace

Remarks: Culvert shows sings of flows closer to those calculated, heavy debris at inlet

CULVERT ID: A

ROADSIDE

Clear Zone Available (ft)	7.6
Guard Fence Req'd	Yes
>12" Cover	Yes

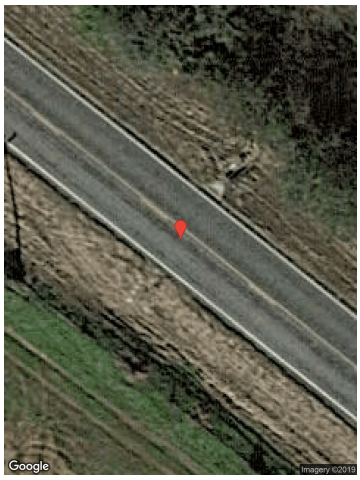
LOCATION MAP

Lat	28.908467
Long	-99.127031

INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



https://www.google.com/maps/search/?api=1&query=28.90846776,-99.12703143

PAPE-DAWSON ENGINEERS

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CULVERT ID B

Hwy	FM 140
CSJ	0748-04-042
Sta	144+54.80
Type	Cross Culvert
Desc	3 ~ 28 IN X 20 IN CMP
Arch Des	Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	42

MODIFIED

CSJ	0748-04-03	
Date	1996	
	Left (ft)	Right (ft)
Ext	5.4	2

H&H

Design Freq (yr)	10	Q_5 (cfs)	98
Existing Capacity, Q_E (cfs)	121.24	Q_{10} (cfs)	117
Ponding at Q_D (ft)	-.08		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	Yes	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Replace
Remarks			

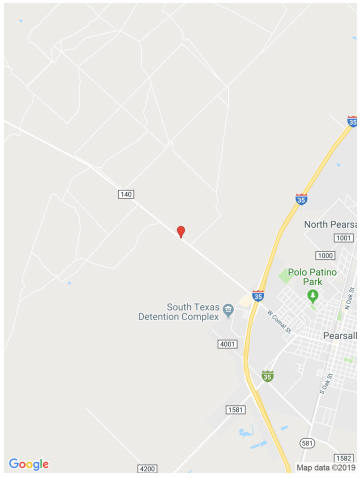
CULVERT ID: B

ROADSIDE

Clear Zone Available (ft)	5.25
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

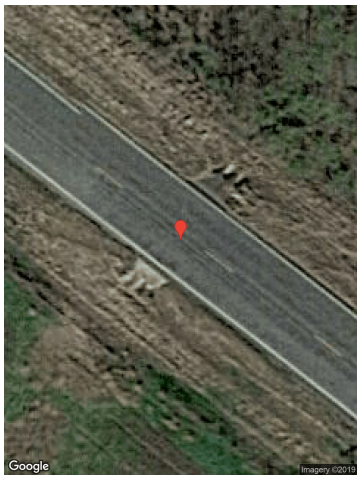
Lat	28.912106
Long	-99.132322



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID C

Hwy FM 140

CSJ 0748-04-042

Sta 180+80.59

Type Cross Culvert

Desc 1 ~ 10 FT x 4 FT &
2 ~ 8 FT x 4 FT RCB

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

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ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	840

MODIFIED

CSJ	0748-04-03	
Date	1996	
	Left (ft)	Right (ft)
Ext	11.7	11.7

H&H

Design Freq (yr)	25	Q_5 (cfs)	630	
Existing Capacity, Q_E (cfs)	1526.4	Q_{10} (cfs)	1030	
Ponding at Q_D (ft)	.48	Q_{25} (cfs)	1730	Design flow, Q_D

VISUAL

Bridge Class	Yes	Left End Trt	FW-0
Overall Condition	Good	Right End Trt	FW-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &

Remarks: When structure overflows, DA C contributes to D1 and D2 structures which increases D1 and D2 flows explaining asbuilt delta.

CULVERT ID: C

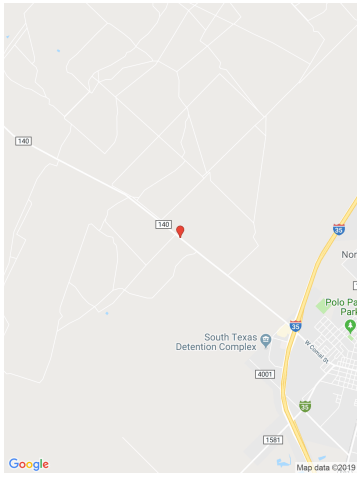
ROADSIDE

Clear Zone Available (ft)	9.8
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

Lat 28.91831

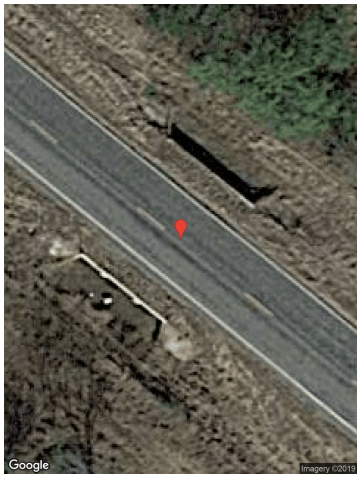
Long -99.141192



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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PAPE-DAWSON ENGINEERS

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DRAFT

CULVERT ID D1

Hwy FM 140

CSJ 0748-04-042

Sta 191+26.70

Type Cross Culvert

Desc 2 ~ 6 FT X 4' & 2 ~ 8 FT X 4 FT RCB

PHOTOS LEFT

PHOTOS CENTER

PHOTOS RIGHT

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ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	914

MODIFIED

CSJ	0748-04-03	
Date	1996	
	Left (ft)	Right (ft)
Ext	-	-

H&H

Design Freq (yr)	25	Q_5 (cfs)	109	
Existing Capacity, Q_E (cfs)	1064.5	Q_{10} (cfs)	132	
Ponding at Q_D (ft)	-4.46	Q_{25} (cfs)	161	Design flow, Q_D

VISUAL

Bridge Class	Yes	Left End Trt	FW-0
Overall Condition	Good	Right End Trt	FW-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &

Remarks: Modification in 1996 added 2~8x4 RCBs. Receives contributions from DA C.

CULVERT ID: D1

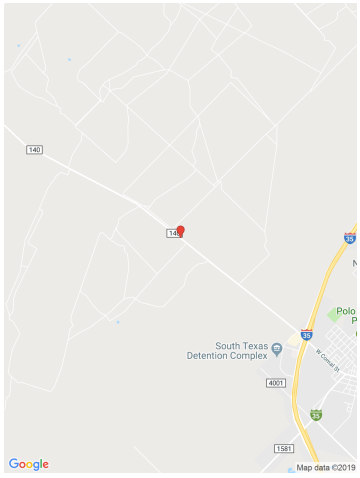
ROADSIDE

Clear Zone Available (ft)	9.8
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

Lat 28.920109

Long -99.143745



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

https://www.google.com/maps/search/?api=1&query=28.92010918,-99.14374565

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DRAFT

CULVERT ID D2

Hwy FM 140

CSJ 0748-04-042

Sta 194+57.05

Type Cross Culvert

Desc 2 ~ 6 FT X 4 FT & 2 ~ 8 FT X 4 FT RCB

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	911

MODIFIED

CSJ	0748-04-03
Date	1996

	Left (ft)	Right (ft)
Ext	-	1.7

H&H

Design Freq (yr)	25	Q_5 (cfs)	109
Existing Capacity, Q_E (cfs)	1081.2	Q_{10} (cfs)	132
Ponding at Q_D (ft)	-4.55	Q_{25} (cfs)	161

Design flow, Q_D

VISUAL

Bridge Class	Yes	Left End Trt	FW-0
Overall Condition	Good	Right End Trt	FW-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &

Remarks: Modification in 1996 added 2~8x4 RCBs and extended existing. Receives contribution from DA C

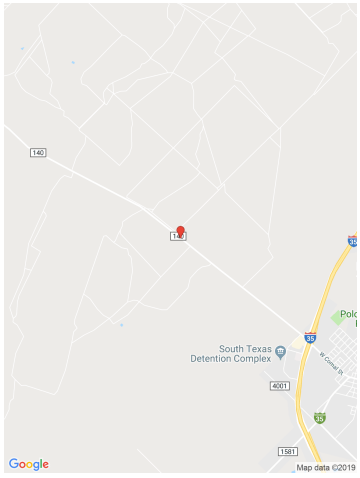
CULVERT ID: D2

ROADSIDE

Clear Zone Available (ft)	9.8
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

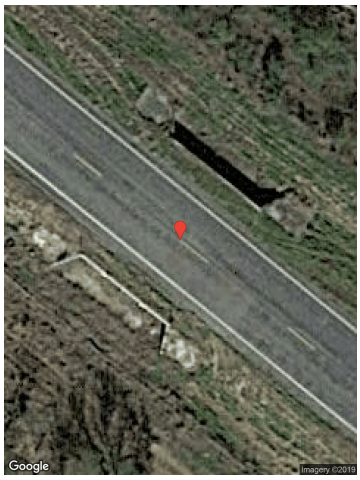
Lat	28.920677
Long	-99.144551



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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CULVERT ID E

Hwy	FM 140
CSJ	0748-04-042
Sta	209+04.20
Type	Cross Culvert
Desc	2 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	85

MODIFIED

CSJ	0748-04-03	
Date	1996	
	Left (ft)	Right (ft)
Ext	13.75	13.75

H&H

Design Freq (yr)	10	Q_5 (cfs)	127	
Existing Capacity, Q_E (cfs)	108.5	Q_{10} (cfs)	154	Design flow, Q_D
Ponding at Q_D (ft)	.17			

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace
Remarks			

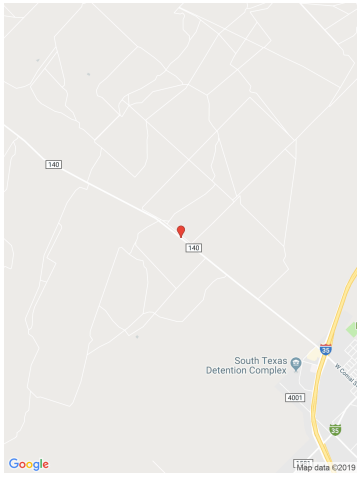
CULVERT ID: E

ROADSIDE

Clear Zone Available (ft)	7.3
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

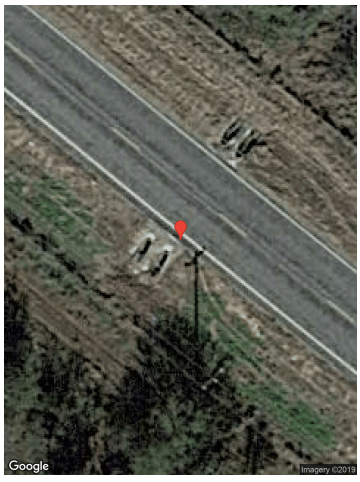
Lat	28.923134
Long	-99.148104



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



https://www.google.com/maps/search/?api=1&query=28.92313496,-99.14810442

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DRAFT

CULVERT ID F

Hwy FM 140

CSJ 0748-04-042

Sta 238+76.65

Type Cross Culvert

Desc 1 ~ 42 IN X 29 IN CMP

Arch Des Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

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ELEMENT HISTORY

AS BUILT	CSJ	0748-04-00	MODIFIED	CSJ	0748-04-03
	Date	1950		Date	1995
	Design Freq (yr)	5			Left (ft) Right (ft)
	Design Q (cfs)	29		Ext	1.87 -

H&H

Design Freq (yr)	10	Q_5 (cfs)	61
Existing Capacity, Q_E (cfs)	85.85	Q_{10} (cfs)	75 Design flow, Q_D
Ponding at Q_D (ft)	-.32		

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

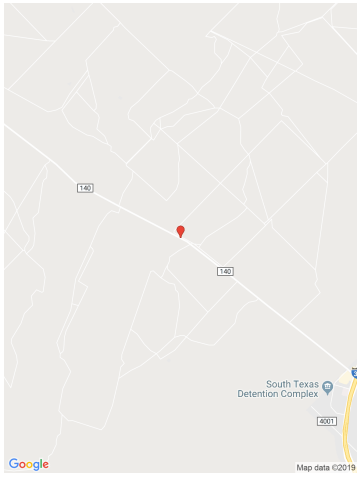
CULVERT ID: F

ROADSIDE

Clear Zone Available (ft)	5.8
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

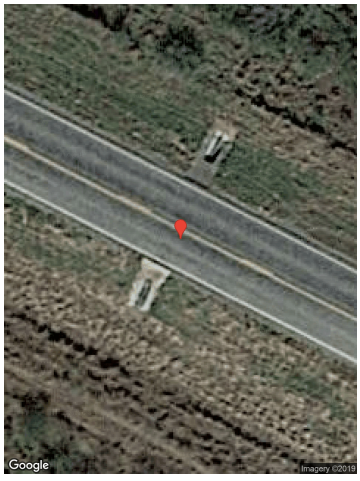
Lat	28.927947
Long	-99.155588



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID H

Hwy	FM 140
CSJ	0748-04-042
Sta	281+05.67
Type	Cross Culvert
Desc	1 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	33

MODIFIED

CSJ	0748-04-03
Date	1995

	Left (ft)	Right (ft)
Ext	-	4.52

H&H

Design Freq (yr)	10	Q_5 (cfs)	113
Existing Capacity, Q_E (cfs)	153.75	Q_{10} (cfs)	134
Ponding at Q_D (ft)	-.49		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

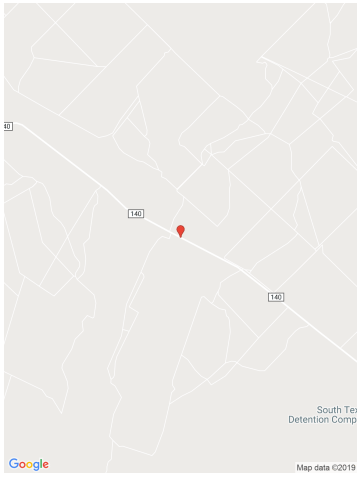
CULVERT ID: H

ROADSIDE

Clear Zone Available (ft)	8.5
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

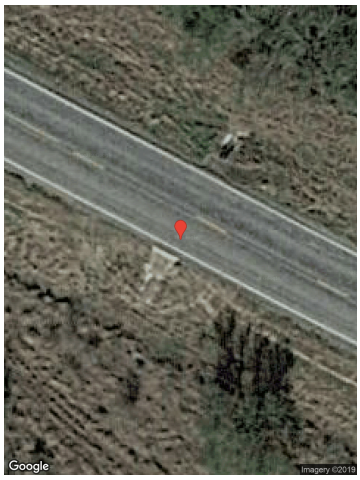
Lat	28.933238
Long	-99.167365



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID J

Hwy FM 140

CSJ 0748-04-042

Sta 314+25.42

Type Cross Culvert

Desc 2 ~ 6 FT X 4 FT RCB

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	-
Design Q (cfs)	-

MODIFIED

CSJ	0748-04-03	
Date	1995	
	Left (ft)	Right (ft)
Ext	13.67	13.67

H&H

Design Freq (yr)	10	Q_5 (cfs)	45
Existing Capacity, Q_E (cfs)	434.97	Q_{10} (cfs)	54
Ponding at Q_D (ft)	-4.95		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	FW-0
Overall Condition	Good	Right End Trt	FW-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Clean
Buckled	No	Recommend	Remain &

Remarks: No design Q provided in plans. Located between Frio River & Hondo Slough bridges. Conveys some water from DA K.

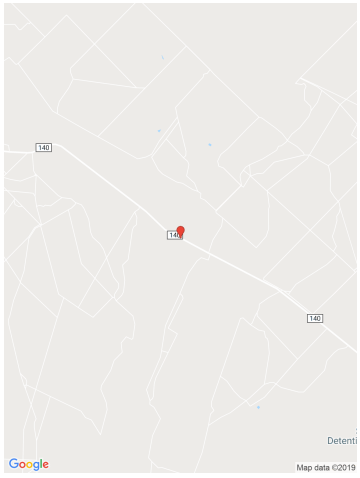
CULVERT ID: J

ROADSIDE

Clear Zone Available (ft)	8.42
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

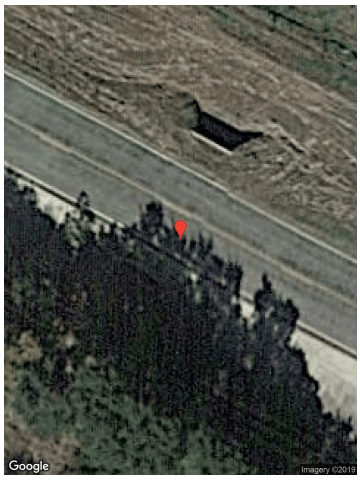
Lat	28.937509
Long	-99.176521



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



https://www.google.com/maps/search/?api=1&query=28.93750948,-99.17652158

PAPE-DAWSON ENGINEERS

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DRAFT

CULVERT ID L

Hwy	FM 140
CSJ	0748-04-042
Sta	335+03.93
Type	Cross Culvert
Desc	2 ~ 28 IN X 20 IN CMP
Arch Des	Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	10

MODIFIED

CSJ	0748-04-03	
Date	1995	
	Left (ft)	Right (ft)
Ext	2.74	3.3

H&H

Design Freq (yr)	10	Q_5 (cfs)	46	
Existing Capacity, Q_E (cfs)	34.29	Q_{10} (cfs)	56	Design flow, Q_D
Ponding at Q_D (ft)	.14			

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks	Replace end treatment.		

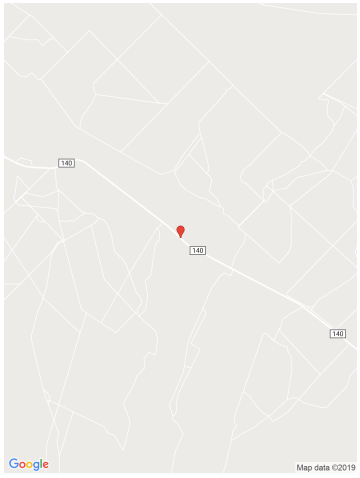
CULVERT ID: L

ROADSIDE

Clear Zone Available (ft)	6
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

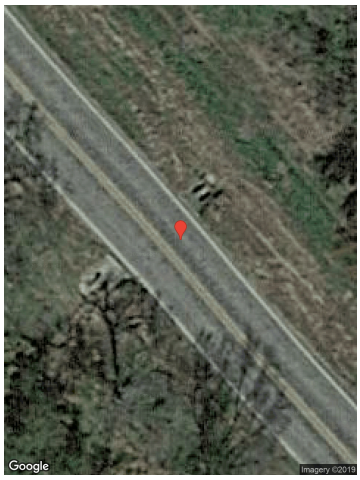
Lat	28.940739
Long	-99.181827



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



https://www.google.com/maps/search/?api=1&query=28.94073966,-99.18182761

PAPE-DAWSON ENGINEERS

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DRAFT

CULVERT ID M

Hwy	FM 140
CSJ	0748-04-042
Sta	360+04.55
Type	Cross Culvert
Desc	2 ~ 28 IN X 20 IN CMP
Arch Des	Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	25

MODIFIED

CSJ	0748-04-03	
Date	1995	
	Left (ft)	Right (ft)
Ext	3.86	3.7

H&H

Design Freq (yr)	10	Q_5 (cfs)	40	
Existing Capacity, Q_E (cfs)	37.2	Q_{10} (cfs)	48	Design flow, Q_D
Ponding at Q_D (ft)	.07			

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Replace
Remarks			

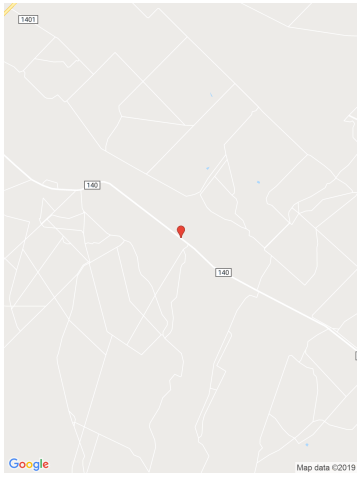
CULVERT ID: M

ROADSIDE

Clear Zone Available (ft)	5.8
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

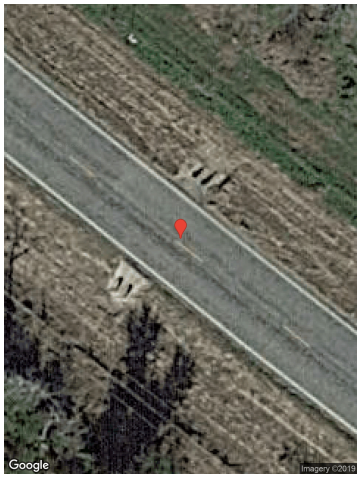
Lat	28.945193
Long	-99.187759



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID N

Hwy FM 140

CSJ 0748-04-042

Sta 400+55.06

Type Cross Culvert

Desc 2 ~ 28 IN X 20 IN CMP

Arch Des Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

TBPE Firm Registration #470 | TBPLS Firm Registration #10028800

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ELEMENT HISTORY

CULVERT ID: N

	AS BUILT	MODIFIED
CSJ	0748-04-00	0748-04-03
Date	1950	1995
Design Freq (yr)	5	
Design Q (cfs)	21	
		Left (ft) / Right (ft)
Ext		3 / 5

H&H

Design Freq (yr)	10	Q_5 (cfs)	39
Existing Capacity, Q_E (cfs)	46.05	Q_{10} (cfs)	46 — Design flow, Q_D
Ponding at Q_D (ft)	-.01		

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Replace
Remarks	Slight buckling in one culvert.		

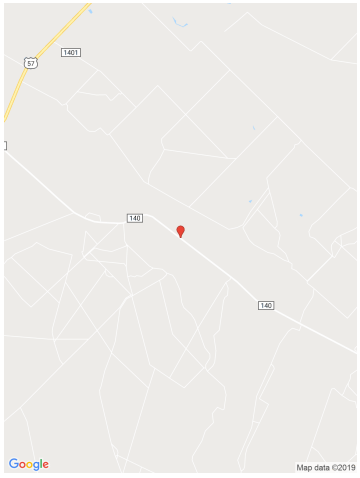
ROADSIDE

Clear Zone Available (ft)	7.11
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

Lat 28.952014

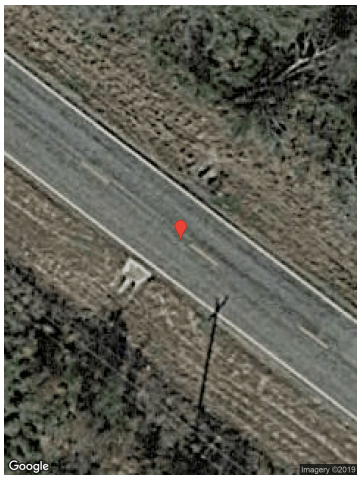
Long -99.19777



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID P

Hwy	FM 140
CSJ	0748-04-042
Sta	452+05.70
Type	Cross Culvert
Desc	4 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1950
Design Freq (yr)	5
Design Q (cfs)	154

MODIFIED

CSJ	0748-04-03	
Date	1995	
	Left (ft)	Right (ft)
Ext	9.42	-

H&H

Design Freq (yr)	10	Q_5 (cfs)	37	
Existing Capacity, Q_E (cfs)	114.65	Q_{10} (cfs)	44	Design flow, Q_D
Ponding at Q_D (ft)	-2.82			

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

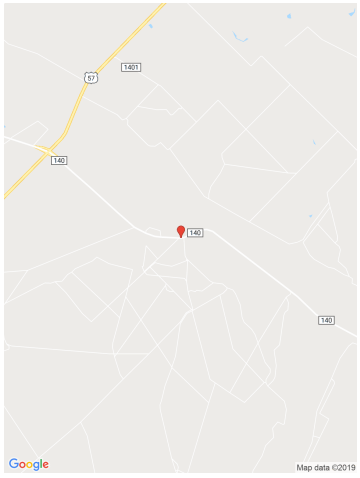
CULVERT ID: P

ROADSIDE

Clear Zone Available (ft)	12.3
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

Lat	28.954974
Long	-99.211796



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

https://www.google.com/maps/search/?api=1&query=28.95497415,-99.21179687

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DRAFT

CULVERT ID Q

Hwy FM 140

CSJ 0748-04-042

Sta 493+43.32

Type Cross Culvert

Desc 1 ~ 42 IN X 29 IN CMP

Arch Des Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1952
Design Freq (yr)	5
Design Q (cfs)	8

MODIFIED

CSJ	0748-04-03	
Date	1995	
	Left (ft)	Right (ft)
Ext	1.32	2.14

H&H

Design Freq (yr)	10	Q_5 (cfs)	70
Existing Capacity, Q_E (cfs)	38.43	Q_{10} (cfs)	85
Ponding at Q_D (ft)	.24		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace
Remarks			

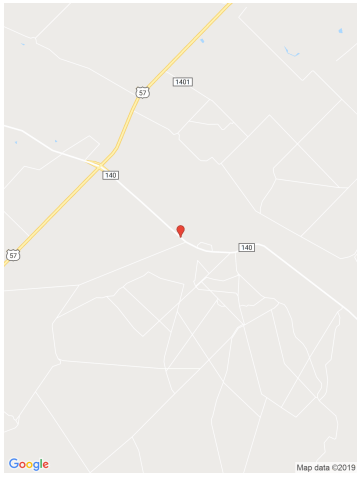
CULVERT ID: Q

ROADSIDE

Clear Zone Available (ft)	8.4
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

Lat	28.958041
Long	-99.223907



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

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CULVERT ID R1

Hwy	FM 140
CSJ	0748-04-043
Sta	617+70.20
Type	Cross Culvert
Desc	5 ~ 71 IN X 47 IN CMP
Arch Des	Design 9

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

CULVERT ID: R1

ELEMENT HISTORY

AS BUILT		MODIFIED		
CSJ	0748-04-02	CSJ	N/A	
Date	1993	Date	N/A	
Design Freq (yr)	10		Left (ft)	Right (ft)
Design Q (cfs)	516	Ext	-	-

H&H

Design Freq (yr)	10	Q_5 (cfs)	245	
Existing Capacity, Q_E (cfs)	952.2	Q_{10} (cfs)	508	Design flow, Q_D
Ponding at Q_D (ft)	-3.75			

VISUAL

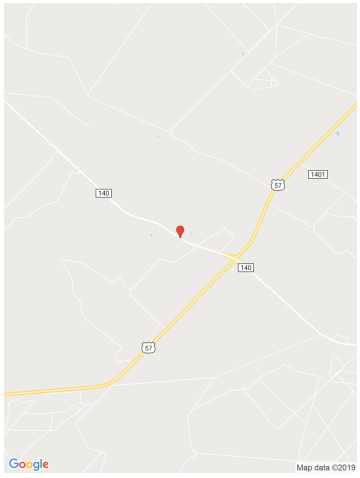
Bridge Class	No	Left End Trt	CH-PW-A-0
Overall Condition	Poor	Right End Trt	CH-PW-A-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Replace
Remarks	Collapsed, buckling in three barrels.		

ROADSIDE

Clear Zone Available (ft)	21
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

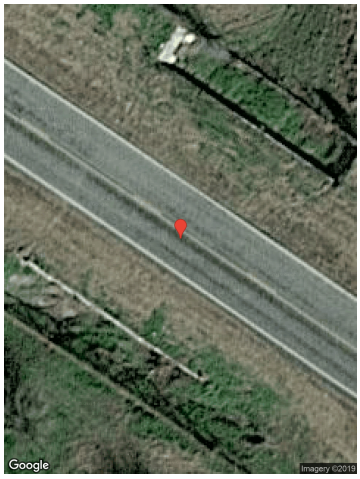
Lat	28.976903
Long	-99.255514



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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CULVERT ID R2

Hwy	FM 140
CSJ	0748-04-043
Sta	621+51.41
Type	Cross Culvert
Desc	2 ~ 71 IN X 47 IN CMP
Arch Des	Design 9

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-02
Date	1993
Design Freq (yr)	10
Design Q (cfs)	317

MODIFIED

CSJ	N/A	
Date	N/A	
	Left (ft)	Right (ft)
Ext	-	-

H&H

Design Freq (yr)	10	Q_5 (cfs)	100	
Existing Capacity, Q_E (cfs)	353.8	Q_{10} (cfs)	202	Design flow, Q_D
Ponding at Q_D (ft)	-1.73			

VISUAL

Bridge Class	No	Left End Trt	CH-PW-0
Overall Condition	Good	Right End Trt	CH-PW-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

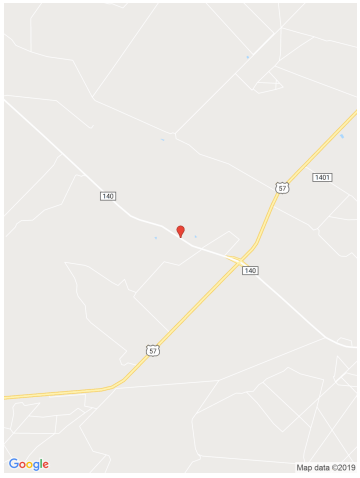
CULVERT ID: R2

ROADSIDE

Clear Zone Available (ft)	15.7
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

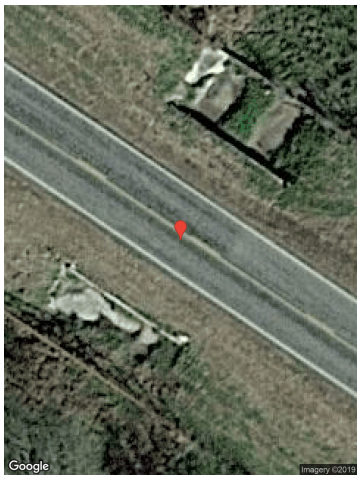
Lat	28.977486
Long	-99.256501



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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CULVERT ID R3

Hwy	FM 140
CSJ	0748-04-043
Sta	625+91.35
Type	Cross Culvert
Desc	5 ~ 71 IN X 47 IN CMP
Arch Des	Design 9

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

CULVERT ID: R3

ELEMENT HISTORY

AS BUILT	CSJ	0748-04-02	
	Date	1993	
	Design Freq (yr)	10	
	Design Q (cfs)	522	
MODIFIED	CSJ	N/A	
	Date	N/A	
		Left (ft)	Right (ft)
	Ext	-	-

H&H

Design Freq (yr)	10	Q_5 (cfs)	245	
Existing Capacity, Q_E (cfs)	929.8	Q_{10} (cfs)	508	Design flow, Q_D
Ponding at Q_D (ft)	-3.38			

VISUAL

Bridge Class	No	Left End Trt	CH-PW-0
Overall Condition	Fair	Right End Trt	CH-PW-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Remain &
Remarks	Buckling in 2 barrels		

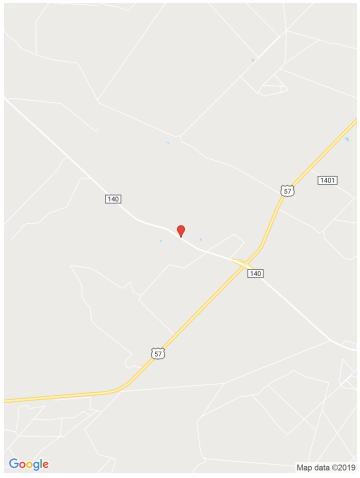
ROADSIDE

Clear Zone Available (ft)	17.6
Guard Fence Req'd	Yes
>12" Cover	Yes

LOCATION MAP

Lat 28.978161

Long -99.257643



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

https://www.google.com/maps/search/?api=1&query=28.97816144,-99.25764358

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CULVERT ID S1

Hwy	FM 140
CSJ	0748-04-043
Sta	682+05.92
Type	Cross Culvert
Desc	1 ~ 28 IN X 20 IN CMP
Arch Des	Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

CULVERT ID: S1

ELEMENT HISTORY

AS BUILT		MODIFIED			
CSJ	0748-04-00	CSJ	0748-04-04		
Date	1952	Date	1993		
Design Freq (yr)	10		Left (ft)	Right (ft)	
Design Q (cfs)	223	Ext	5.67	5.67	

H&H

Design Freq (yr)	10	Q_5 (cfs)	115
Existing Capacity, Q_E (cfs)	341.15	Q_{10} (cfs)	185 Design flow, Q_D
Ponding at Q_D (ft)	-.97		

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

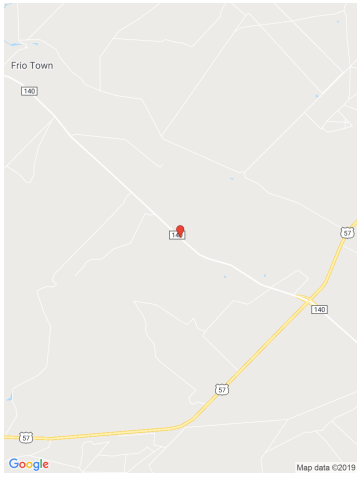
ROADSIDE

Clear Zone Available (ft)	6
Guard Fence Req'd	No
>12" Cover	No

LOCATION MAP

Lat 28.985542

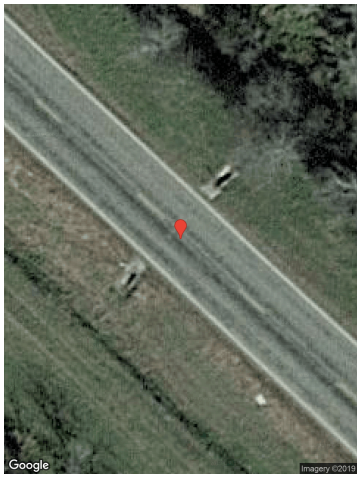
Long -99.272702



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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PAPE-DAWSON ENGINEERS

DRAFT

CULVERT ID S2

Hwy FM 140

CSJ 0748-04-043

Sta 687+40.79

Type Cross Culvert

Desc 1 ~ 28 IN X 20 IN CMP

Arch Des Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

TBPE Firm Registration #470 | TBPLS Firm Registration #10028800

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ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1952
Design Freq (yr)	10
Design Q (cfs)	223

MODIFIED

CSJ	0748-04-02
Date	1993

	Left (ft)	Right (ft)
Ext	5.83	6.83

H&H

Design Freq (yr)	10	Q_5 (cfs)	115
Existing Capacity, Q_E (cfs)	298	Q_{10} (cfs)	185
Ponding at Q_D (ft)	-1.19		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Remain &

Remarks: Slight buckling, difficult to determine extent.

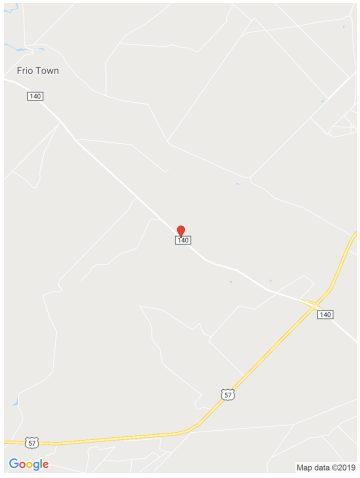
CULVERT ID: S2

ROADSIDE

Clear Zone Available (ft)	7
Guard Fence Req'd	No
>12" Cover	No

LOCATION MAP

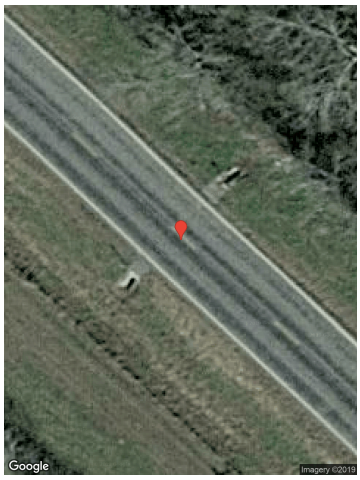
Lat	28.986546
Long	-99.273925



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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PAPE-DAWSON ENGINEERS

PAPE-DAWSON ENGINEERS

DRAFT

CULVERT ID T

Hwy	FM 140
CSJ	0748-04-043
Sta	762+06.91
Type	Cross Culvert
Desc	1 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1952
Design Freq (yr)	10
Design Q (cfs)	21

MODIFIED

CSJ	0748-04-02	
Date	1993	
	Left (ft)	Right (ft)
Ext	7.5	9.75

H&H

Design Freq (yr)	10	Q_5 (cfs)	44
Existing Capacity, Q_E (cfs)	36.5	Q_{10} (cfs)	54
Ponding at Q_D (ft)	.14		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Poor	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Replace
Remarks			

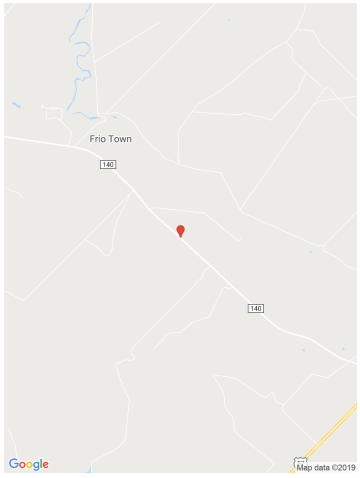
CULVERT ID: T

ROADSIDE

Clear Zone Available (ft)	7.4
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

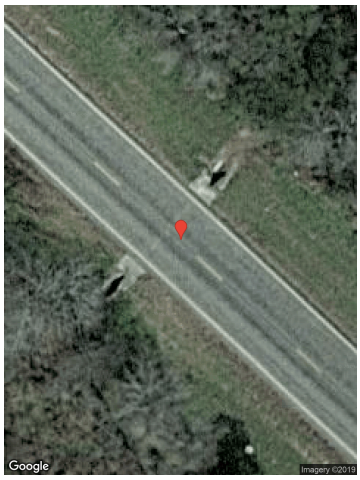
Lat	29.000521
Long	-99.291033



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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PAPE-DAWSON ENGINEERS

PAPE-DAWSON ENGINEERS

DRAFT

CULVERT ID U

Hwy	FM 140
CSJ	0748-04-043
Sta	787+07.13
Type	Cross Culvert
Desc	1 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1952
Design Freq (yr)	10
Design Q (cfs)	24

MODIFIED

CSJ	0748-04-02
Date	1993

	Left (ft)	Right (ft)
Ext	7.75	7.5

H&H

Design Freq (yr)	10	Q_5 (cfs)	32
Existing Capacity, Q_E (cfs)	42.08	Q_{10} (cfs)	38
Ponding at Q_D (ft)	-.19		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

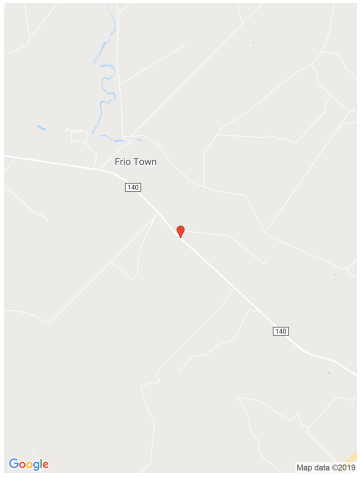
CULVERT ID: U

ROADSIDE

Clear Zone Available (ft)	6.78
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

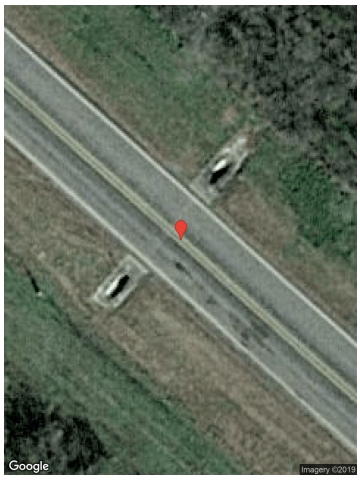
Lat	29.005121
Long	-99.296847



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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PAPE-DAWSON ENGINEERS

PAPE-DAWSON ENGINEERS

DRAFT

CULVERT ID V

Hwy FM 140

CSJ 0748-04-043

Sta 800+07.18

Type Cross Culvert

Desc 1 ~ 42 IN X 29 IN CMP

Arch Des Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1952
Design Freq (yr)	10
Design Q (cfs)	22

MODIFIED

CSJ	0748-04-02	
Date	1993	
	Left (ft)	Right (ft)
Ext	7.92	7.45

H&H

Design Freq (yr)	10	Q_5 (cfs)	49
Existing Capacity, Q_E (cfs)	45.62	Q_{10} (cfs)	58
Ponding at Q_D (ft)	.16		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace

Remarks: Damaged one end.

CULVERT ID: V

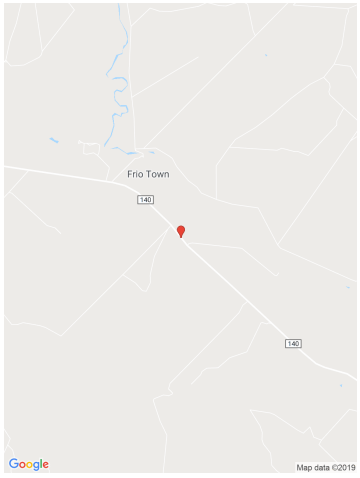
ROADSIDE

Clear Zone Available (ft)	7.17
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

Lat 29.00767

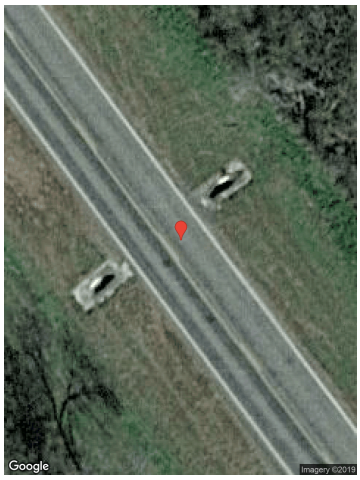
Long -99.299679



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID W

Hwy	FM 140
CSJ	0748-04-043
Sta	821+06.32
Type	Cross Culvert
Desc	1 ~ 28 IN X 20 IN CMP
Arch Des	Design 3

PHOTOS LEFT

PHOTOS CENTER

PHOTOS RIGHT

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ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1952
Design Freq (yr)	10
Design Q (cfs)	10

MODIFIED

CSJ	0748-04-02	
Date	1993	
	Left (ft)	Right (ft)
Ext	4.5	6.91

H&H

Design Freq (yr)	10	Q_5 (cfs)	30	
Existing Capacity, Q_E (cfs)	20.01	Q_{10} (cfs)	37	Design flow, Q_D
Ponding at Q_D (ft)	.18			

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace
Remarks			

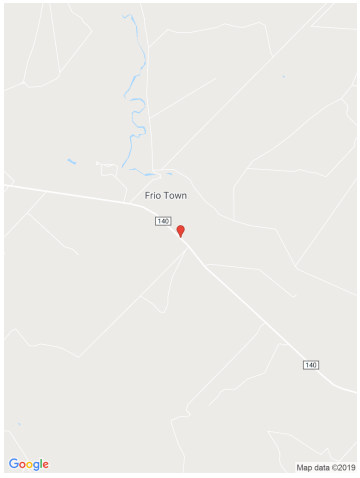
CULVERT ID: W

ROADSIDE

Clear Zone Available (ft)	6.5
Guard Fence Req'd	No
>12" Cover	No

LOCATION MAP

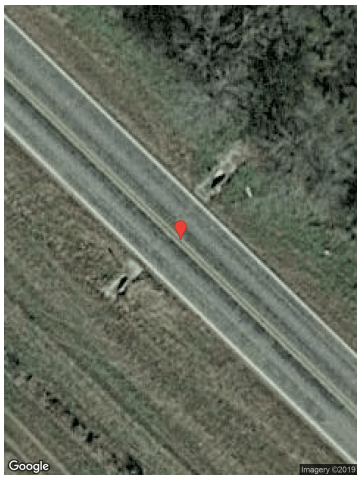
Lat	29.012093
Long	-99.303879



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID X

Hwy FM 140

CSJ 0748-04-043

Sta 835+76.13

Type Cross Culvert

Desc 1 ~ 42 IN X 29 IN CMP

Arch Des Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

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ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1952
Design Freq (yr)	10
Design Q (cfs)	62

MODIFIED

CSJ	0748-04-02	
Date	1993	
	Left (ft)	Right (ft)
Ext	21.5	11

H&H

Design Freq (yr)	10	Q_5 (cfs)	84
Existing Capacity, Q_E (cfs)	70.1	Q_{10} (cfs)	101
Ponding at Q_D (ft)	.45		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	CH-FW-A-0
Overall Condition	Good	Right End Trt	CH-PW-A-0
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace
Remarks			

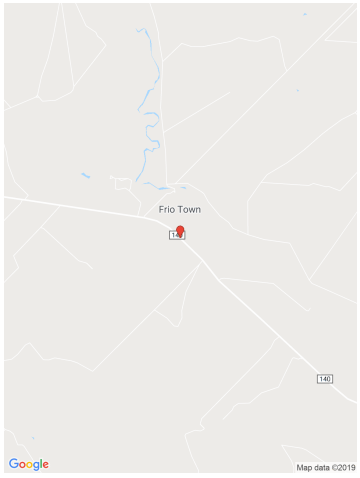
CULVERT ID: X

ROADSIDE

Clear Zone Available (ft)	16.7
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

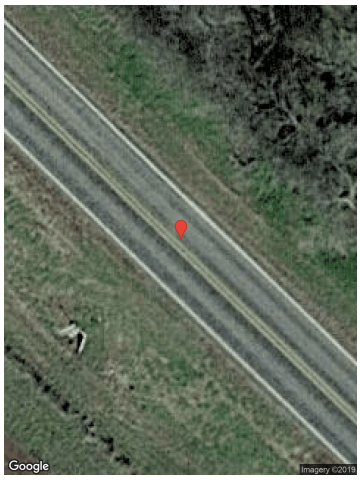
Lat	29.0149
Long	-99.307188



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID Y

Hwy FM 140

CSJ 0748-04-043

Sta 848+57.54

Type Cross Culvert

Desc 2 ~ 28 IN X 20 IN CMP

Arch Des Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1955
Design Freq (yr)	10
Design Q (cfs)	18

MODIFIED

CSJ	0748-04-02
Date	1993

	Left (ft)	Right (ft)
Ext	4.58	10.5

H&H

Design Freq (yr)	10	Q_5 (cfs)	11
Existing Capacity, Q_E (cfs)	36.3	Q_{10} (cfs)	13
Ponding at Q_D (ft)	-1.79		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace
Remarks			

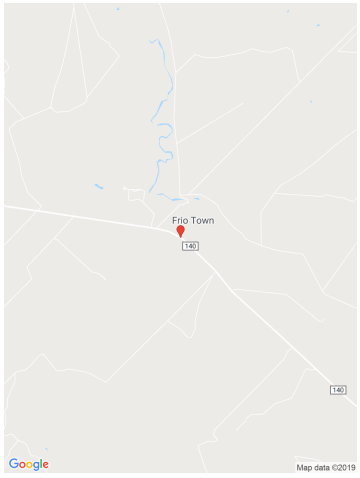
CULVERT ID: Y

ROADSIDE

Clear Zone Available (ft)	9.63
Guard Fence Req'd	No
>12" Cover	No

LOCATION MAP

Lat	29.017216
Long	-99.310198



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

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CULVERT ID Z

Hwy	FM 140
CSJ	0748-04-043
Sta	853+06.82
Type	Cross Culvert
Desc	2 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1955
Design Freq (yr)	10
Design Q (cfs)	14

MODIFIED

CSJ	0748-04-02	
Date	1993	
	Left (ft)	Right (ft)
Ext	8.67	7.67

H&H

Design Freq (yr)	10	Q_5 (cfs)	32
Existing Capacity, Q_E (cfs)	61.8	Q_{10} (cfs)	38
Ponding at Q_D (ft)	-.79		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

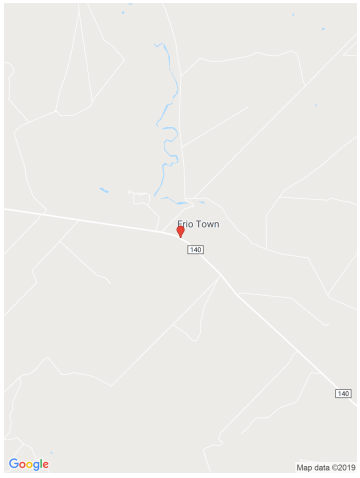
CULVERT ID: Z

ROADSIDE

Clear Zone Available (ft)	5.5
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

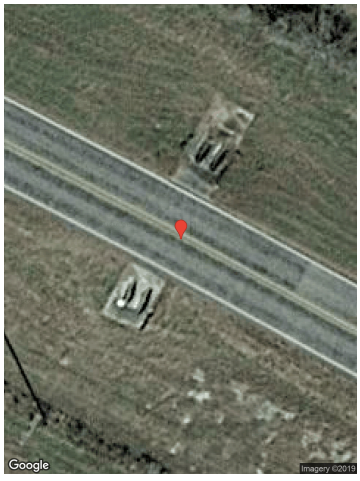
Lat	29.01786
Long	-99.311396



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID AA

Hwy	FM 140
CSJ	0748-04-043
Sta	881+05.39
Type	Cross Culvert
Desc	2 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

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ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1955
Design Freq (yr)	2
Design Q (cfs)	24

MODIFIED

CSJ	0748-04-02
Date	1987

	Left (ft)	Right (ft)
Ext	1	1

H&H

Design Freq (yr)	10	Q_5 (cfs)	83
Existing Capacity, Q_E (cfs)	97.4	Q_{10} (cfs)	100
Ponding at Q_D (ft)	.06		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

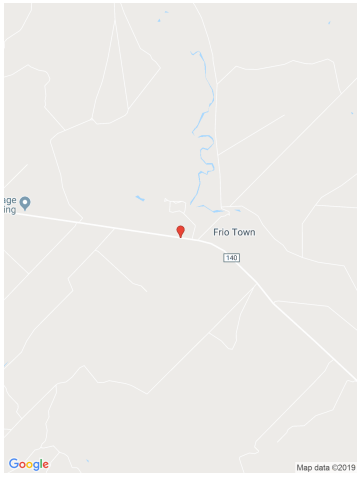
CULVERT ID: AA

ROADSIDE

Clear Zone Available (ft)	12.3
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

Lat	29.019583
Long	-99.319875



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

https://www.google.com/maps/search/?api=1&query=29.01958344,-99.31987531

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CULVERT ID AB

Hwy	FM 140
CSJ	0748-04-043
Sta	898+05.06
Type	Cross Culvert
Desc	2 ~ 42 IN X 29 IN CMP
Arch Des	Design 5

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT		MODIFIED			
CSJ	0748-04-00	CSJ	0748-04-02		
Date	1955	Date	1987		
Design Freq (yr)	2		Left (ft)	Right (ft)	
Design Q (cfs)	13	Ext	1	1	

H&H

Design Freq (yr)	10	Q_5 (cfs)	48
Existing Capacity, Q_E (cfs)	94.9	Q_{10} (cfs)	58
Ponding at Q_D (ft)	-1.6		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	Yes
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

CULVERT ID: AB

ROADSIDE

Clear Zone Available (ft)	11.3
Guard Fence Req'd	No
>12" Cover	Yes

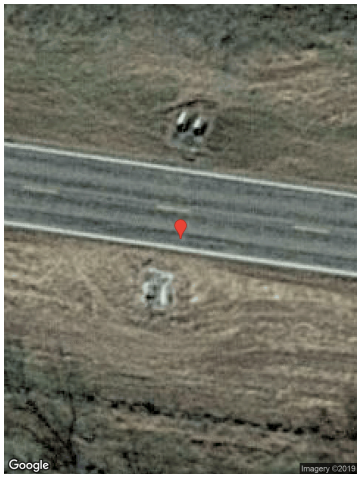
LOCATION MAP

Lat	29.020268
Long	-99.325136

INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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CULVERT ID AC

Hwy FM 140

CSJ 0748-04-043

Sta 932+03.45

Type Cross Culvert

Desc 4 ~ 28 IN X 20 IN CMP

Arch Des Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

CULVERT ID: AC

ELEMENT HISTORY

AS BUILT		MODIFIED			
CSJ	0748-04-00	CSJ	0748-04-02		
Date	1955	Date	1987		
Design Freq (yr)	2		Left (ft)	Right (ft)	
Design Q (cfs)	45	Ext	1	1	

H&H

Design Freq (yr)	10	Q_5 (cfs)	45	
Existing Capacity, Q_E (cfs)	71.1	Q_{10} (cfs)	54	Design flow, Q_D
Ponding at Q_D (ft)	-.96			

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace
Remarks			

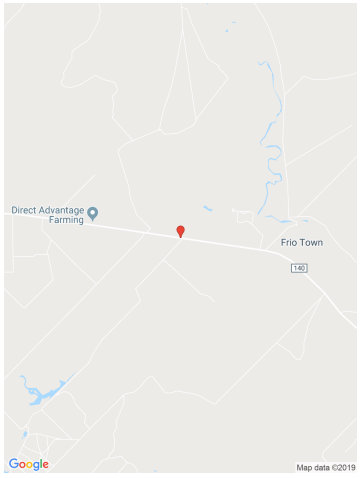
ROADSIDE

Clear Zone Available (ft)	10.6
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

Lat 29.021636

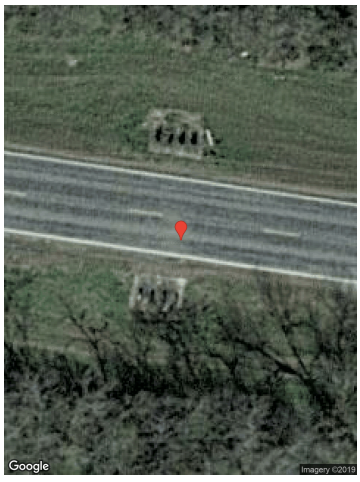
Long -99.335653



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID AD

Hwy FM 140

CSJ 0748-04-043

Sta 983+05.02

Type Cross Culvert

Desc 6 ~ 28 IN X 20 IN CMP

Arch Des Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1955
Design Freq (yr)	2
Design Q (cfs)	752

MODIFIED

CSJ	0748-04-02	
Date	1987	
	Left (ft)	Right (ft)
Ext	1	2

H&H

Design Freq (yr)	10	Q_5 (cfs)	240
Existing Capacity, Q_E (cfs)	122.4	Q_{10} (cfs)	460
Ponding at Q_D (ft)	.49		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	Yes	In | Out Condition	Sedimentation
Buckled	No	Recommend	Replace
Remarks			

CULVERT ID: AD

ROADSIDE

Clear Zone Available (ft)	12
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

Lat	29.023689
Long	-99.351443

INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

https://www.google.com/maps/search/?api=1&query=29.02368928,-99.35144372

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CULVERT ID AE

Hwy	FM 140
CSJ	0748-04-043
Sta	1040+94.26
Type	Cross Culvert
Desc	7 ~ 28 IN X 20 IN CMP
Arch Des	Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1955
Design Freq (yr)	2
Design Q (cfs)	872

MODIFIED

CSJ	0748-04-02
Date	1987

	Left (ft)	Right (ft)
Ext	1	1

H&H

Design Freq (yr)	10	Q_5 (cfs)	23.8
Existing Capacity, Q_E (cfs)	156.9	Q_{10} (cfs)	140
Ponding at Q_D (ft)	-.46		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Replace
Remarks	Replace buckled culverts.		

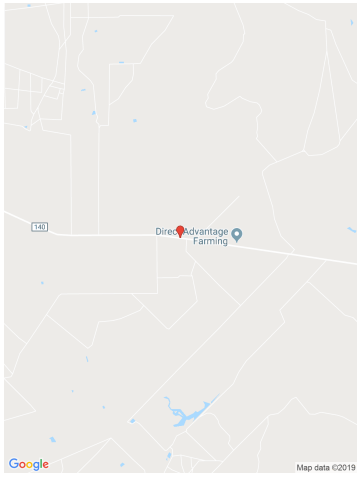
CULVERT ID: AE

ROADSIDE

Clear Zone Available (ft)	10.6
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

Lat	29.026016
Long	-99.369362



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

https://www.google.com/maps/search/?api=1&query=29.02601634,-99.36936234

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DRAFT

CULVERT ID AF

Hwy FM 140

CSJ 0748-04-043

Sta 1083+97.03

Type Cross Culvert

Desc 6 ~ 28 IN X 20 IN CMP

Arch Des Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

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ELEMENT HISTORY

AS BUILT

CSJ	0748-04-00
Date	1955
Design Freq (yr)	2
Design Q (cfs)	595

MODIFIED

CSJ	0748-04-02	
Date	1987	
	Left (ft)	Right (ft)
Ext	4	3

H&H

Design Freq (yr)	10	Q_5 (cfs)	60
Existing Capacity, Q_E (cfs)	117.4	Q_{10} (cfs)	150
Ponding at Q_D (ft)	.12		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Fair	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	Yes	Recommend	Replace
Remarks	2 barrels have buckling.		

CULVERT ID: AF

ROADSIDE

Clear Zone Available (ft)	13.1
Guard Fence Req'd	No
>12" Cover	Yes

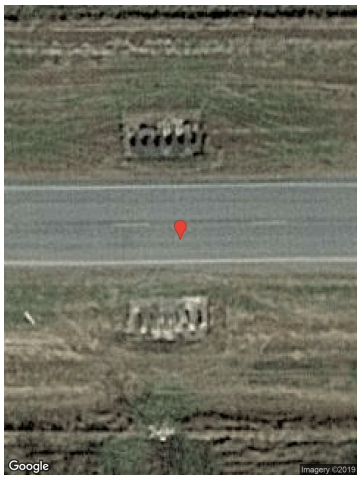
LOCATION MAP

Lat	29.026592
Long	-99.382779

INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



https://www.google.com/maps/search/?api=1&query=29.02659282,-99.38277907

PAPE-DAWSON ENGINEERS

PAPE-DAWSON ENGINEERS

DRAFT

CULVERT ID AG

Hwy	FM 140
CSJ	0748-04-043
Sta	1122+94.98
Type	Cross Culvert
Desc	4 ~ 28 IN X 20 IN CMP
Arch Des	Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

DRAFT

CULVERT ID: AG

ELEMENT HISTORY

AS BUILT		MODIFIED			
CSJ	0748-04-02	CSJ	N/A		
Date	1987	Date	N/A		
Design Freq (yr)	2		Left (ft)	Right (ft)	
Design Q (cfs)	624	Ext	-	-	

H&H

Design Freq (yr)	10	Q_5 (cfs)	44	
Existing Capacity, Q_E (cfs)	69.8	Q_{10} (cfs)	54	Design flow, Q_D
Ponding at Q_D (ft)	-.43			

VISUAL

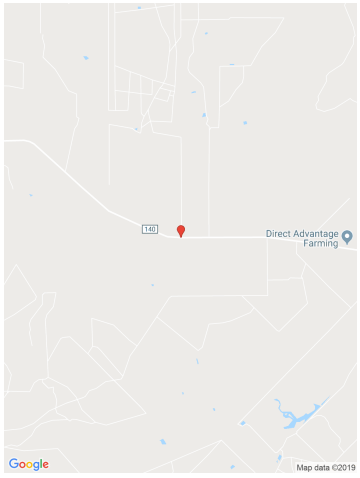
Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks			

ROADSIDE

Clear Zone Available (ft)	8.7
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

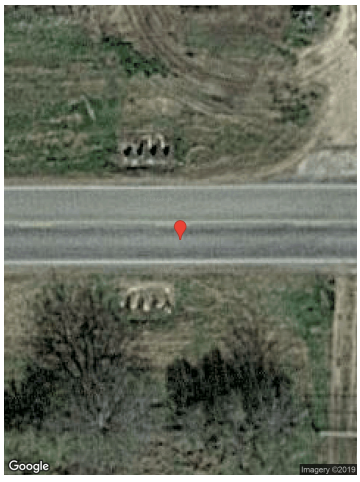
Lat	29.026517
Long	-99.394957



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP



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DRAFT

CULVERT ID AH

Hwy FM 140

CSJ 0748-04-043

Sta 1171+94.86

Type Cross Culvert

Desc 7 ~ 28 IN X 20 IN RCP

Arch Des Design 3

PHOTOS LEFT

PHOTOS RIGHT

PHOTOS CENTER

TBPE Firm Registration #470 | TBPLS Firm Registration #10028800

San Antonio | Austin | Houston | Fort Worth | Dallas

Transportation | Water Resources | Land Development | Surveying | Environmental

2000 NW Loop 410, San Antonio, TX 78213 T: 210.375.9000 www.Pape-Dawson.com

DRAFT

ELEMENT HISTORY

AS BUILT

CSJ	0748-04-02
Date	1987
Design Freq (yr)	2
Design Q (cfs)	95

MODIFIED

CSJ	N/A	
Date	N/A	
	Left (ft)	Right (ft)
Ext	-	-

H&H

Design Freq (yr)	10	Q_5 (cfs)	96
Existing Capacity, Q_E (cfs)	150.4	Q_{10} (cfs)	117
Ponding at Q_D (ft)	-.94		

Design flow, Q_D

VISUAL

Bridge Class	No	Left End Trt	SETP-CD-A
Overall Condition	Good	Right End Trt	SETP-CD-A
Spalling	No	Pipe Runners	No
Rusted	No	In | Out Condition	Sedimentation
Buckled	No	Recommend	Remain &
Remarks	Replace end treatment.		

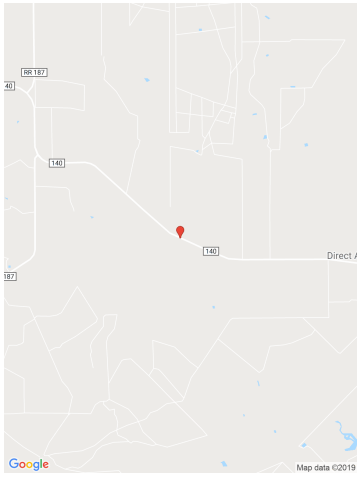
CULVERT ID: AH

ROADSIDE

Clear Zone Available (ft)	8.9
Guard Fence Req'd	No
>12" Cover	Yes

LOCATION MAP

Lat	29.030891
Long	-99.409324



INTERIOR PHOTO LT

INTERIOR PHOTO RT

AERIAL MAP

https://www.google.com/maps/search/?api=1&query=29.03089143,-99.40932427

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