
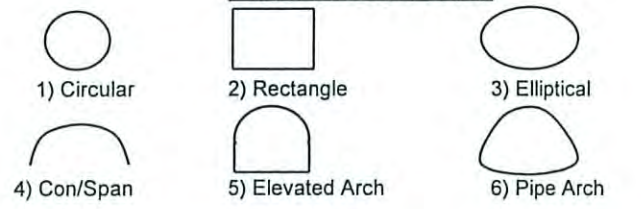


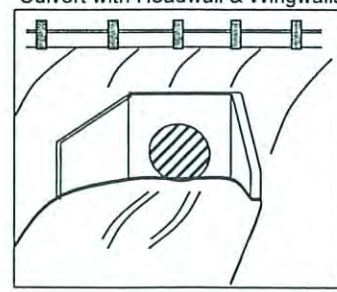
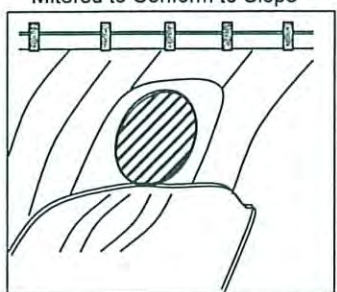
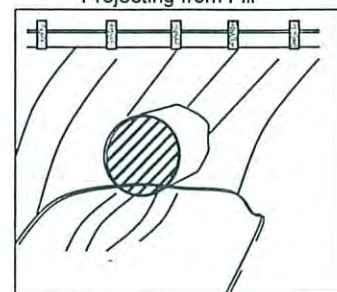
STRUCTURE SURVEY TEMPLATE

				DATE	3/5/08
ROAD NAME				COUNTY	
STREAM NAME				PHOTO ID #	
STRUCTURE #		X,Y COORDINATE			
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge				Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		Reimer ditch near outfall to SCR - could not access any further d/s.			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape		Number of Barrels	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated	Height from Top of Road to Invert	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope
Culvert Dam Drillway Riser Barrel Outlet		1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	Steel Timber Ductile Clay Masonry Rock	Top of Road EL	MES (Mitered End Section) FES (Flared End Section)
				From Topo Map (FT.NGVD) or (FT.NAVD)	

Pier Shape

1) Circular pier 2) Twin-Cylinder piers 3) Elongated pier 4) Triangular nose 5) Square nose		Types (Shape) of Culvert 1) Circular 2) Rectangle 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	
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Inlet/Outlet Type

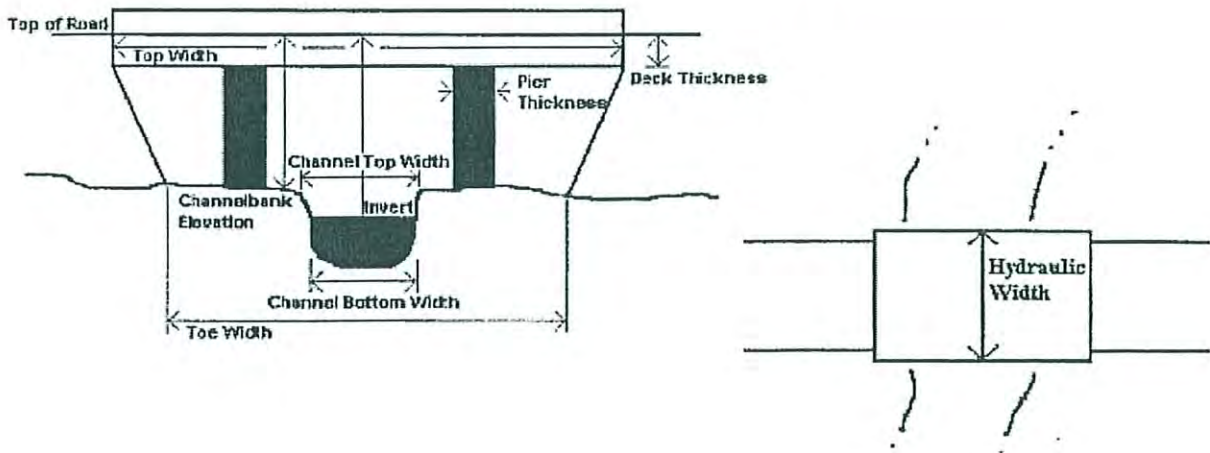
Culvert with Headwall & Wingwalls 	Mitered to Conform to Slope 	Projecting from Fill 
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CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



PHOTOS

Name

Description

96 d/s near outfall to SCR looking d/s
 97 ~ 200' u/s of photo 96 looking d/s

ADDITIONAL CHANNEL INFORMATION

A.G.

Land Use

dense arundo + grasses

Vegetative Cover

silt + sand

Bed Material

earthen channel, + riprap,

General Channel Condition

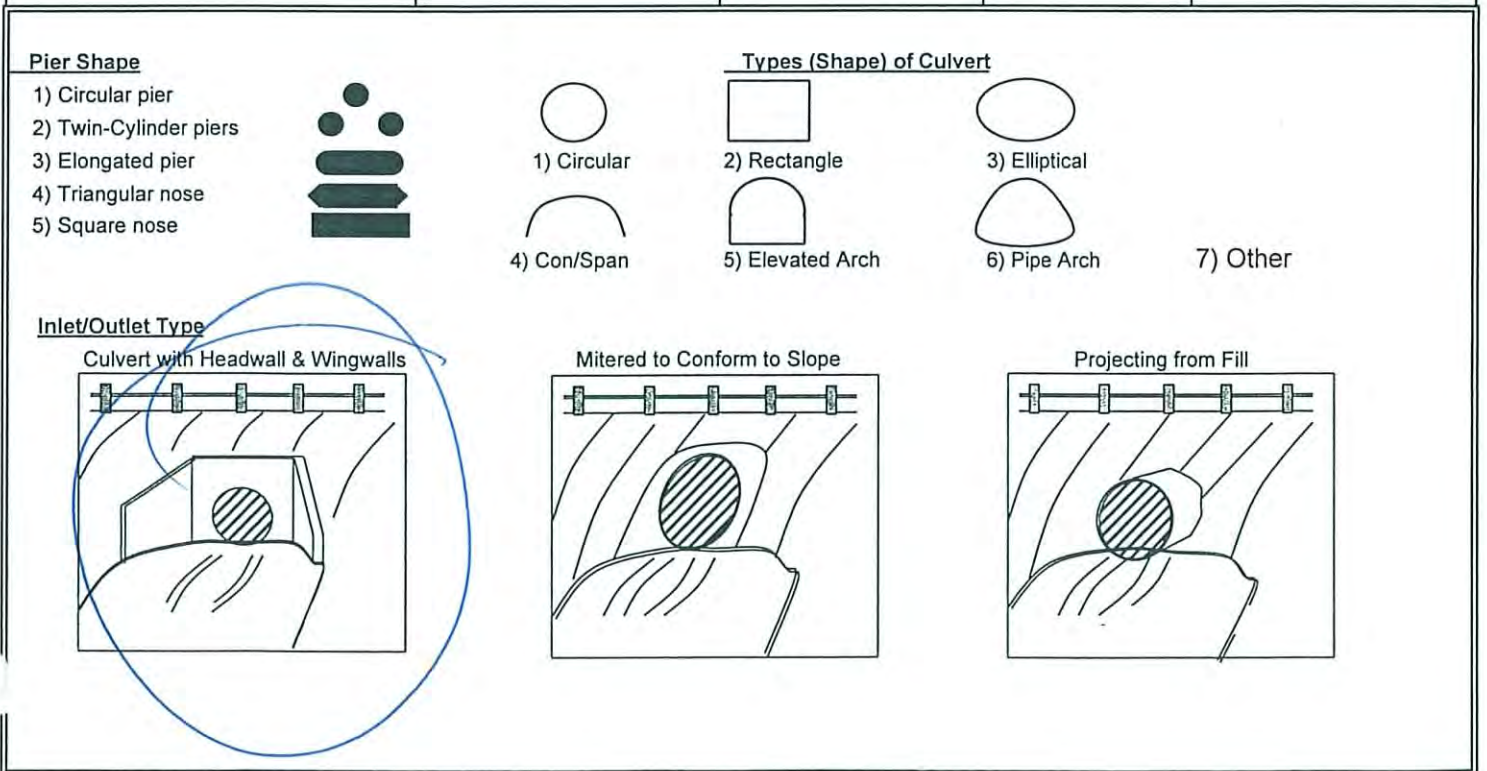
banks are steep w/ evidence of erosion

Banks

Overbanks

STRUCTURE SURVEY TEMPLATE

ROAD NAME				DATE	
Scraper Rd				3/5/08	
STREAM NAME				COUNTY	
Reiner Ditch					
STRUCTURE #		X,Y COORDINATE			
RD 2					
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		12' x 5'			
				Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		1st crossing w/sof cutback			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape Culvert Dam Spillway Riser Barrel Outlet		Number of Barrels 1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert Top of Road EL From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

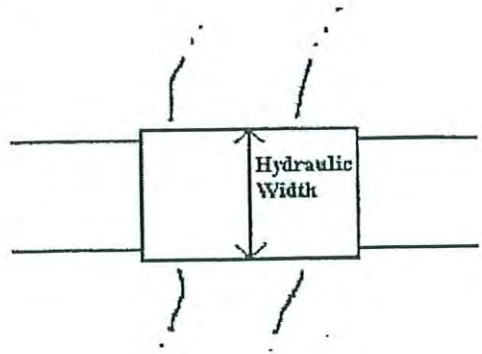
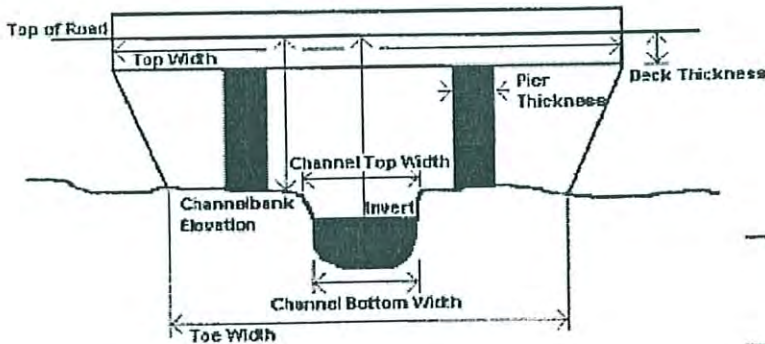


CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



PHOTOS

Name

Description

- 98 d/s side of bridge looking u/s
- 99 u/s side of bridge looking d/s
- 100 d/s side of bridge - looking d/s
@ rock filled wall.
- 101 u/s side of bridge looking u/s.

ADDITIONAL CHANNEL INFORMATION

Ag

Land Use

not much vegetation ups of crossing

Vegetative Cover

silt/sand

Bed Material

General Channel Condition

left bank d/s of bridge is rock +
wire similar to gabion

Banks

sandy erodible material

Overbanks

STRUCTURE SURVEY TEMPLATE

				DATE	3/5/08
ROAD NAME				COUNTY	
STREAM NAME				PHOTO ID #	
STRUCTURE #		X, Y COORDINATE			
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		9' x 50" 40 low chord		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)					
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape		Number of Barrels	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated	Height from Top of Road to Invert	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope
Culvert		1) Circular	Steel	Top of Road EL	MES (Mitered End Section) FES (Flared End Section)
Dam		2) Rectangle (Span X Rise)	Timber	From Topo Map (FT.NGVD) or (FT.NAVD)	
Spillway		3) Elliptical	Ductile		
Riser Barrel		4) Con/Span	Clay		
Outlet		5) Elevated Arch	Masonry Rock		
		6) Pipe Arch			
		7) Other			

Pier Shape

- 1) Circular pier
- 2) Twin-Cylinder piers
- 3) Elongated pier
- 4) Triangular nose
- 5) Square nose

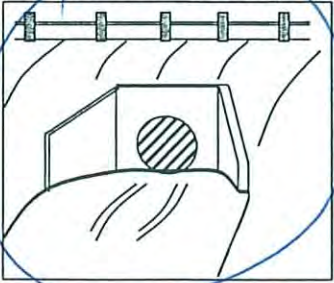


Types (Shape) of Culvert

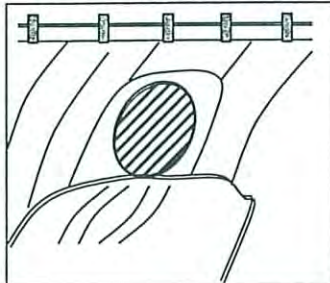
- 1) Circular
- 2) Rectangle
- 3) Elliptical
- 4) Con/Span
- 5) Elevated Arch
- 6) Pipe Arch
- 7) Other

Inlet/Outlet Type

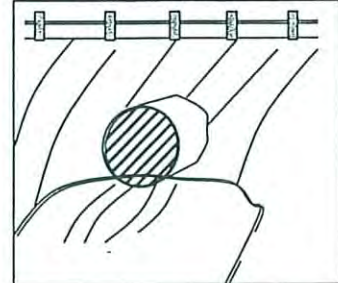
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

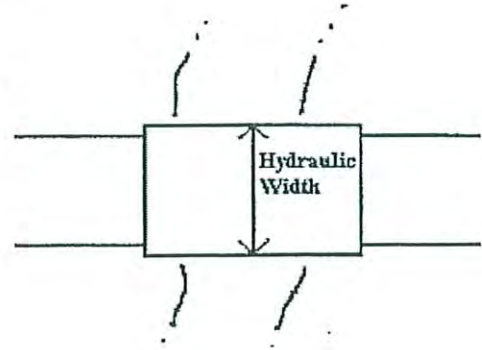
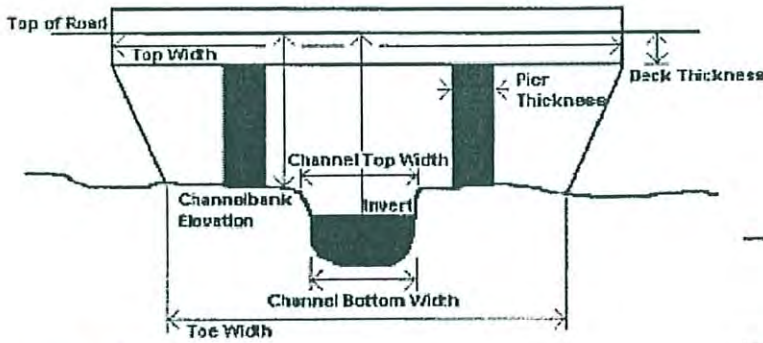


CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



2' | 19"

PHOTOS

Name	Description
102	d/s side of bridge looking u/s
103	u/s side of crossing looking d/s
104	u/s side of crossing looking u/s.

ADDITIONAL CHANNEL INFORMATION

Ag

Land Use

no vegetation in channel or on banks
d/s of bridge, some vegetation
on u/s side of bridge.

Vegetative Cover

Bed Material

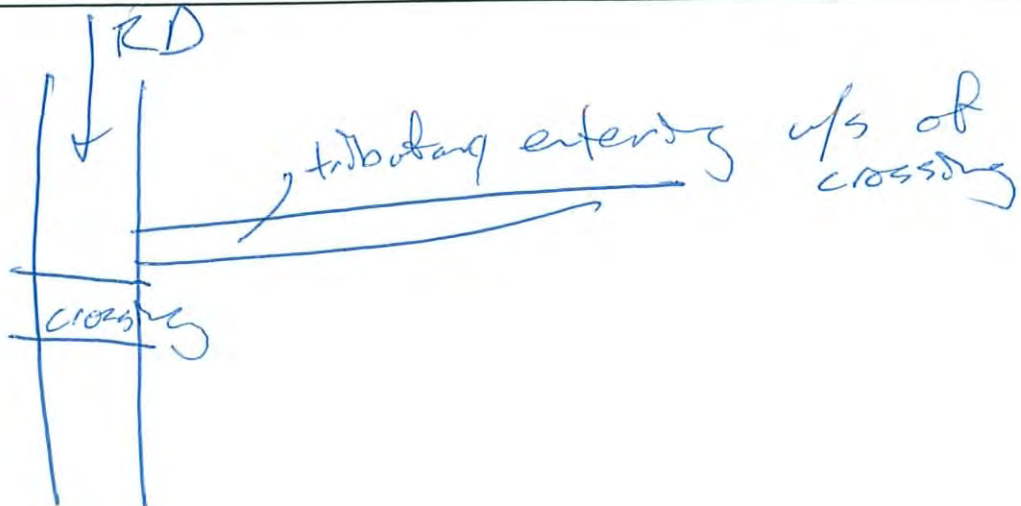
Appear to be main tamed; levee
on both sides for a majority of
the reach.

General Channel Condition

sandy erodible material

Banks

Overbanks



STRUCTURE SURVEY TEMPLATE







				DATE	3/5/08
ROAD NAME				COUNTY	
STREAM NAME				PHOTO ID #	
STRUCTURE #			X,Y COORDINATE		
TYPE		LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed
Railroad Bridge			11' x 5' d/s 13' x 4' u/s		Top of Road EL
SPECIAL NOTE (Conditions, Blockage, etc)		Wingwalls extend along channel 25' d/s			
HIGH WATER MARK (Description, Witness, and Date)		u/s side of culvert has large trib coming in			
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape Culvert Dam Spillway Riser Barrel Outlet		Number of Barrels 1) Circular 2) Rectangle (Span X Rjse) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert Top of Road EL From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

Pier Shape

- 1) Circular pier
- 2) Twin-Cylinder piers
- 3) Elongated pier
- 4) Triangular nose
- 5) Square nose

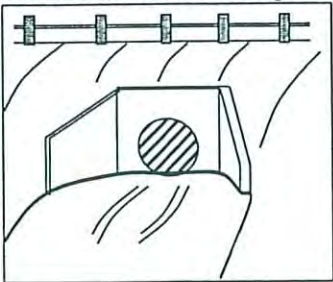


Types (Shape) of Culvert

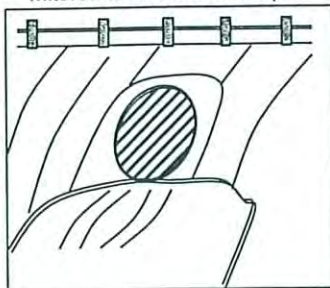
- | | | |
|---|---|---|
|  |  |  |
| 1) Circular | 2) Rectangle | 3) Elliptical |
|  |  |  |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch |
- 7) Other

Inlet/Outlet Type

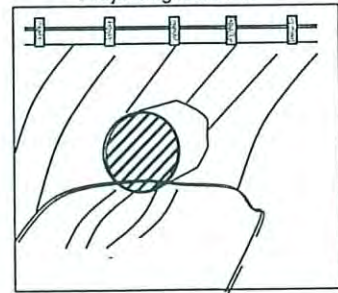
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

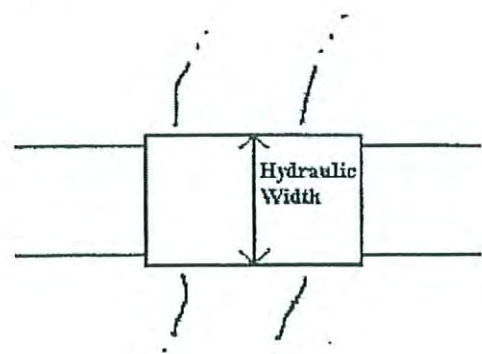
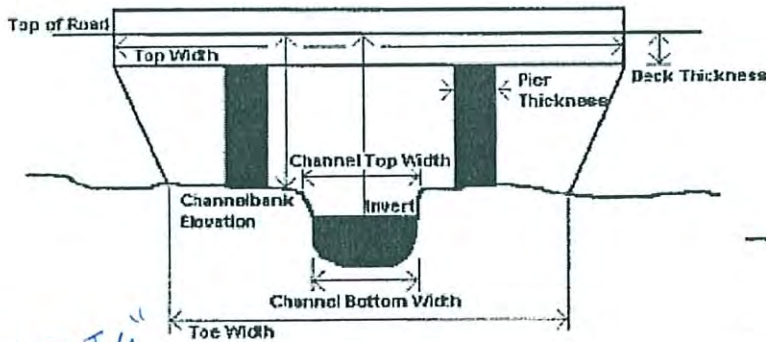


CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
2'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



Name	Description	PHOTOS
105	d/s side of crossing	looking u/s
106	d/s side of crossing	looking d/s
107	u/s side of crossing	looking d/s
108	u/s side of crossing	looking u/s @ trib channel
109	u/s side of crossing showing confluence;	trib & rd looking north

ADDITIONAL CHANNEL INFORMATION

As

Land Use

Vegetative Cover

sand, silt, some cobbles
debris accumulation in bottom of
channel

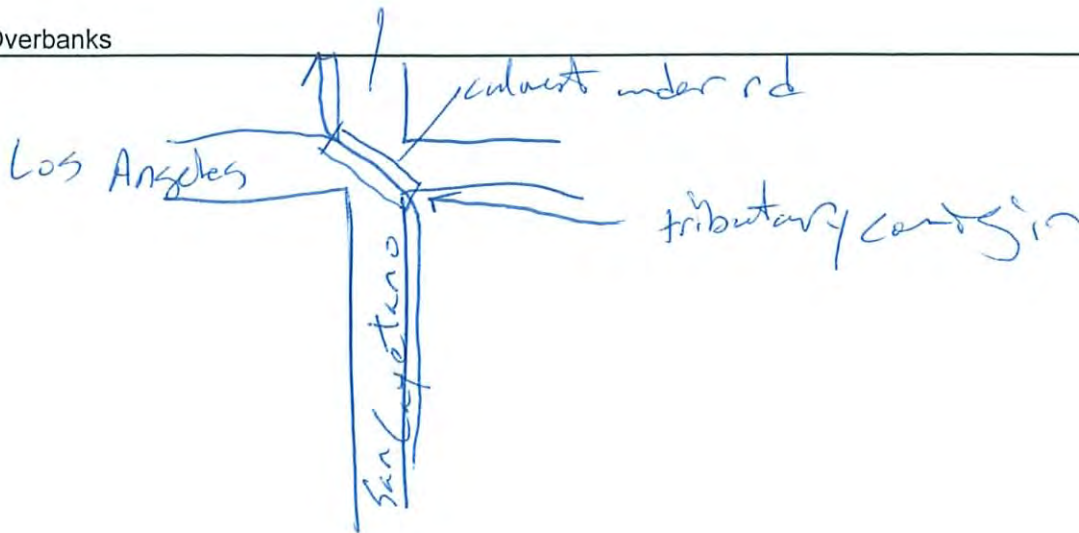
Bed Material

concrete rectangular

General Channel Condition

Banks

Overbanks




STRUCTURE SURVEY TEMPLATE


				DATE	3/5/08
ROAD NAME				COUNTY	
STREAM NAME				PHOTO ID #	
STRUCTURE #		X, Y COORDINATE			
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		7 x 4.5'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		Just up se 20' of RD 4.			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape Culvert Dam Spillway Riser Barrel Outlet		Number of Barrels 1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert Top of Road EL From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

Pier Shape


- 1) Circular pier
- 2) Twin-Cylinder piers
- 3) Elongated pier
- 4) Triangular nose
- 5) Square nose




Types (Shape) of Culvert




1) Circular




4) Con/Span




2) Rectangle



5) Elevated Arch



3) Elliptical

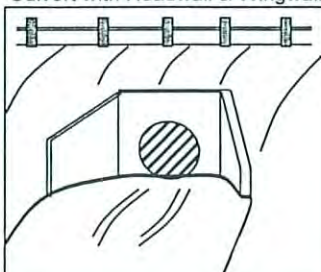


6) Pipe Arch

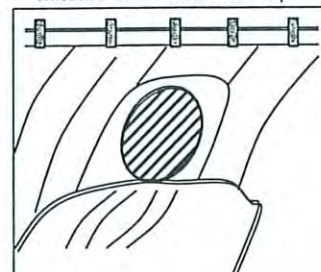
7) Other

Inlet/Outlet Type

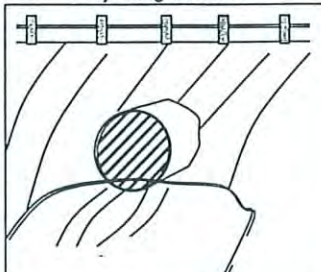
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

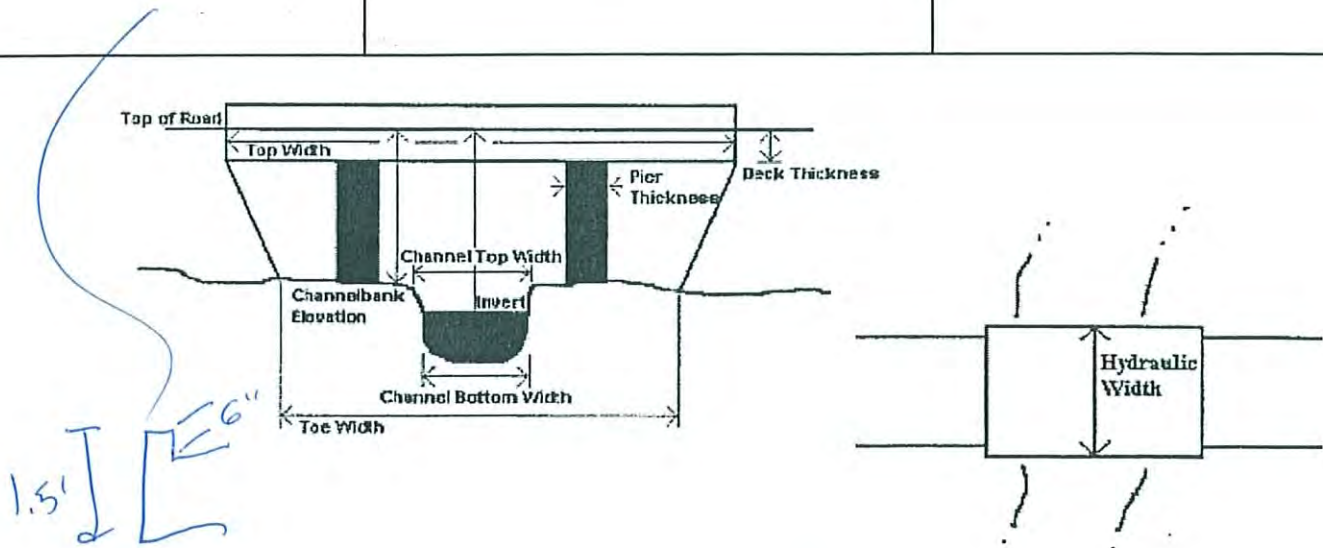


CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



		PHOTOS
Name	Description	
110	d/s side of crossing looking ups	
111	u/s side of crossing looking d/s	
112	u/s side of crossing looking ups	

ADDITIONAL CHANNEL INFORMATION

Ag

Land Use

Vegetative Cover

Bed Material

General Channel Condition

smooth graded rock - lined channel
u/s of crossing

Banks

Overbanks

STRUCTURE SURVEY TEMPLATE

				DATE	3/5/08
ROAD NAME		California Ave		COUNTY	
STREAM NAME		Render Ditch		PHOTO ID #	
STRUCTURE #		P.D.C.		X,Y COORDINATE	
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		7' x 5.5'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		bottom of channel on w/s side shows concrete cracking			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge <u>Span Bridge</u> Pier Shape Culvert Dam Spillway Riser Barrel Outlet		Number of Barrels 1) Circular <u>2) Rectangle (Span X Rise)</u> 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert Top of Road EL From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

Pier Shape

- 1) Circular pier
- 2) Twin-Cylinder piers
- 3) Elongated pier
- 4) Triangular nose
- 5) Square nose

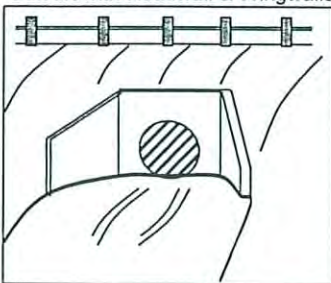


Types (Shape) of Culvert

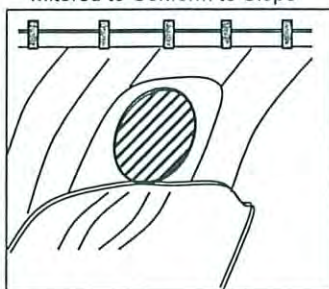
- | | | |
|-------------|------------------|---------------|
| | | |
| 1) Circular | 2) Rectangle | 3) Elliptical |
| | | |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch |
| 7) Other | | |

Inlet/Outlet Type

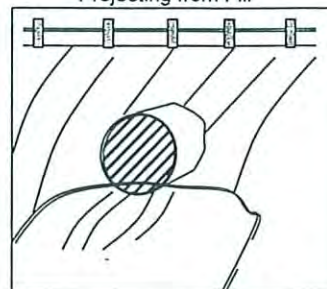
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

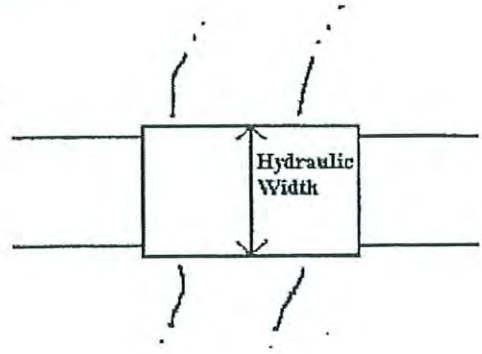
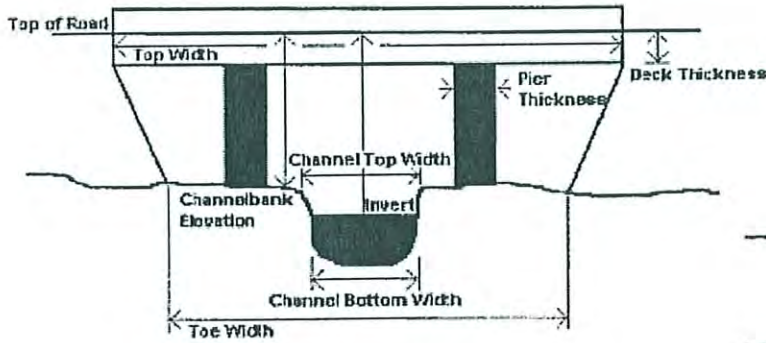


CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
9"		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



PHOTOS

Name	Description	PHOTOS
113	d/s side of crossing	looking u/s
114	u/s side of crossing	looking d/s
115	u/s side of crossing	looking u/s

ADDITIONAL CHANNEL INFORMATION

Land Use

Vegetative Cover

u/s of crossing a channel shows evidence
of erosion, not much sediment accumulation;
d/s of crossing there is sand + small rocks

Bed Material

General Channel Condition

Banks

Overbanks

STRUCTURE SURVEY TEMPLATE

ROAD NAME				DATE	
South Mountain Rd				3/5/08	
STREAM NAME				COUNTY	
STRUCTURE #		X,Y COORDINATE		PHOTO ID #	
RD#					
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		12' x 55' d/s side 13' x 6.5' v/s side			
SPECIAL NOTE (Conditions, Blockage, etc)				Top of Road EL	
Rectangular concrete lined channel, drop structure 20' v/s of v/s end of crossing.					
HIGH WATER MARK (Description, Witness, and Date)					
TYPE	NUMBER OF BARRELS	CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge <u>Span Bridge</u> Pier Shape Culvert Dam Millway Riser Barrel Outlet	Number of Barrels 1) Circular 2) <u>Rectangle (Span X Rise)</u> 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert Top of Road EL From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)	

Pier Shape

- 1) Circular pier
- 2) Twin-Cylinder piers
- 3) Elongated pier
- 4) Triangular nose
- 5) Square nose

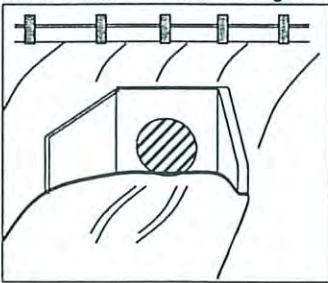


Types (Shape) of Culvert

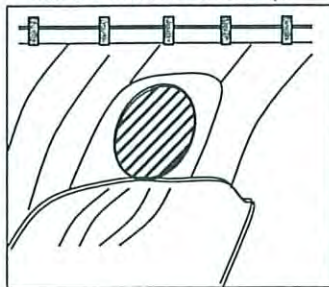
- | | | |
|-------------|------------------|---------------|
| | | |
| 1) Circular | 2) Rectangle | 3) Elliptical |
| | | |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch |
| 7) Other | | |

Inlet/Outlet Type

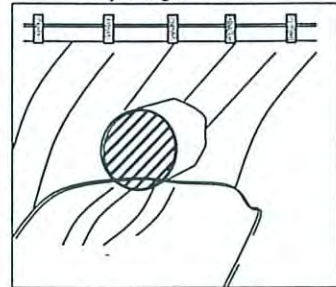
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

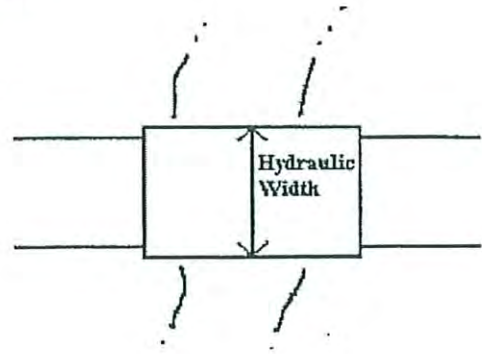
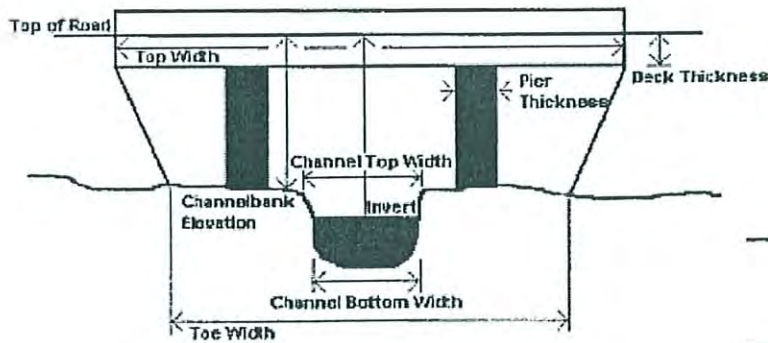


CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
26"		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



PHOTOS

Name	Description
119	d/s side of crossing looking ups
120	ups side of crossing looking d/s
121	ups side of crossing looking ups

ADDITIONAL CHANNEL INFORMATION

Land Use

A_g

Vegetative Cover

sand + small gravel in bottom of
channel on d/s side
no sand or sediment in channel ups of
crossing.

Bed Material

concrete lined; narrower d/s of
crossing than ups of crossing

General Channel Condition

Banks


Overbanks

STRUCTURE SURVEY TEMPLATE

ROAD NAME				DATE		3/5/08	
STREAM NAME				COUNTY			
STRUCTURE #				PHOTO ID #			
STRUCTURE #				X,Y COORDINATE			
TYPE		LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE	
Railroad Bridge							
					Top of Road EL		
SPECIAL NOTE (Conditions, Blockage, etc)			<p style="font-size: 1.2em; font-family: cursive;">This is above our study reach, but we took photos anyway.</p>				
HIGH WATER MARK (Description, Witness, and Date)							
TYPE		LENGTH	CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE	
Bridge			Number of Barrels	RCP (Reinforced Concrete Pipe)	Height from Top of Road to Invert	Headwall	
Span Bridge			1) Circular	CMP (Corrugated Metal Pipe)		Wingwalls Type 0°, 45°, 90°	
Pier Shape			2) Rectangle (Span X Rise)	Bitmus Coated	Top of Road EL	Projecting	
Culvert			3) Elliptical	Steel		Flush with Slope	
Dam			4) Con/Span	Timber	From Topo Map (FT.NGVD) or (FT.NAVD)	MES (Mitered End Section)	
Spillway			5) Elevated Arch	Ductile		FES (Flared End Section)	
Riser Barrel			6) Pipe Arch	Clay			
Outlet			7) Other	Masonry Rock			

Pier Shape

- 1) Circular pier
- 2) Twin-Cylinder piers
- 3) Elongated pier
- 4) Triangular nose
- 5) Square nose

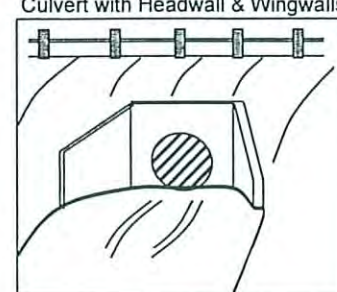


Types (Shape) of Culvert

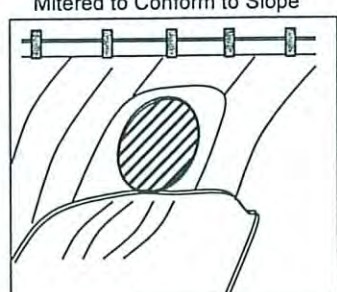
- 1) Circular
- 2) Rectangle
- 3) Elliptical
- 4) Con/Span
- 5) Elevated Arch
- 6) Pipe Arch
- 7) Other

Inlet/Outlet Type

Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

