


## STRUCTURE SURVEY TEMPLATE

				<b>DATE</b>	3-4-08
<b>ROAD NAME</b>		Pipes @ Confluence w/ SCR		<b>COUNTY</b>	
<b>STREAM NAME</b>		Hanes Barrance		<b>PHOTO ID #</b>	
<b>STRUCTURE #</b>		1		<b>X,Y COORDINATE</b>	
<b>TYPE</b>	<b>LENGTH</b>	<b>SIZE (W X H) &amp; SHAPE</b>	<b>MATERIAL</b>	<b>Road to Bed</b>	<b>INLET/OUTLET TYPE</b>
Railroad Bridge				<b>Top of Road EL</b>	
<b>SPECIAL NOTE</b> (Conditions, Blockage, etc)		lots of broken concrete, bricks, etc in channel			

<b>HIGH WATER MARK</b> (Description, Witness, and Date)					
<b>TYPE</b>		<b>CULVERT TYPE</b>	<b>MATERIAL</b>	<b>Road to Bed</b>	<b>INLET/OUTLET TYPE</b>
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  <b>Top of Road EL</b>  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)

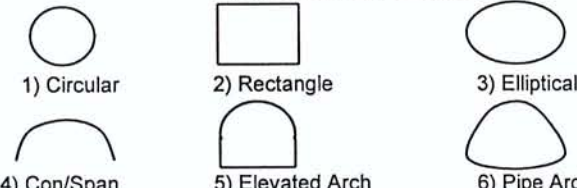
**Pier Shape**

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



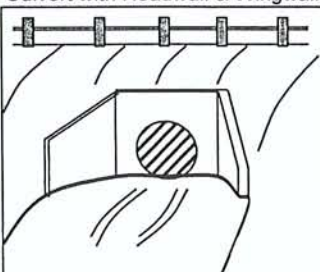
**Types (Shape) of Culvert**

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

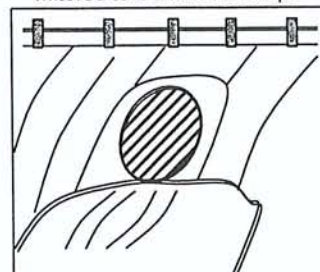


**Inlet/Outlet Type**

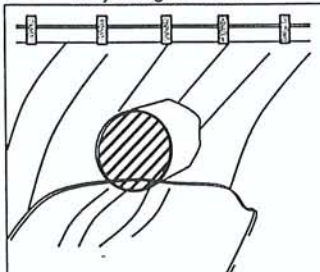
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

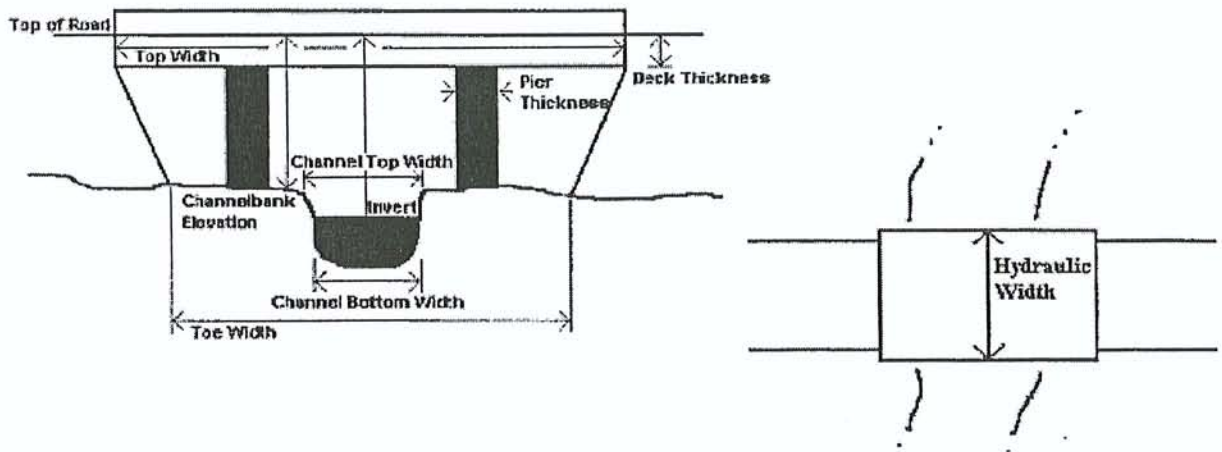


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

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



Name	Description	PHOTOS
< Photo List > HSB1 # 61 ~ # 62	SCR	<p>many pipes ~ 6' - 8' above invert Sparks wires</p> <p>Haines</p>

ADDITIONAL CHANNEL INFORMATION

Land Use

use of pipes & oil pumps  
residence & cattle on L orchard on R

Vegetative Cover

flat, trees on left bank near residence

Bed Material

rocks, concrete, sand

General Channel Condition

rough, spoils levees

Banks

~ 2:1

Overbanks

flat..



# STRUCTURE SURVEY TEMPLATE







					DATE	3-4-08	
ROAD NAME				Highway 126		COUNTY	
STREAM NAME				Hanes Branch		PHOTO ID #	
STRUCTURE #			2		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)							
HIGH WATER MARK (Description, Witness, and Date)							
TYPE			CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE	
Bridge Span Bridge Pier Shape <u>Culvert</u> dbi box Dam Spillway Riser Barrel Outlet			Number of Barrels 2 1) Circular 2) Rectangle (Span X Rise) 8' x 8.5' 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 RC BOX	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

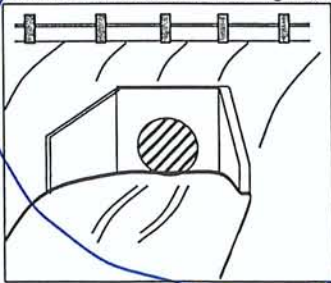


### Types (Shape) of Culvert

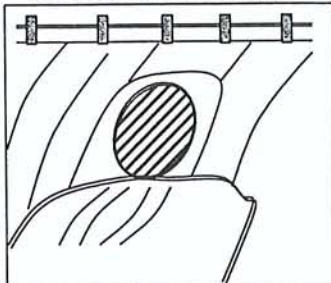
- |   |   |   |
|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

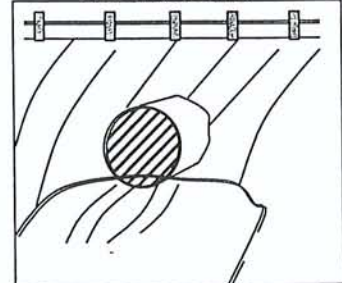
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

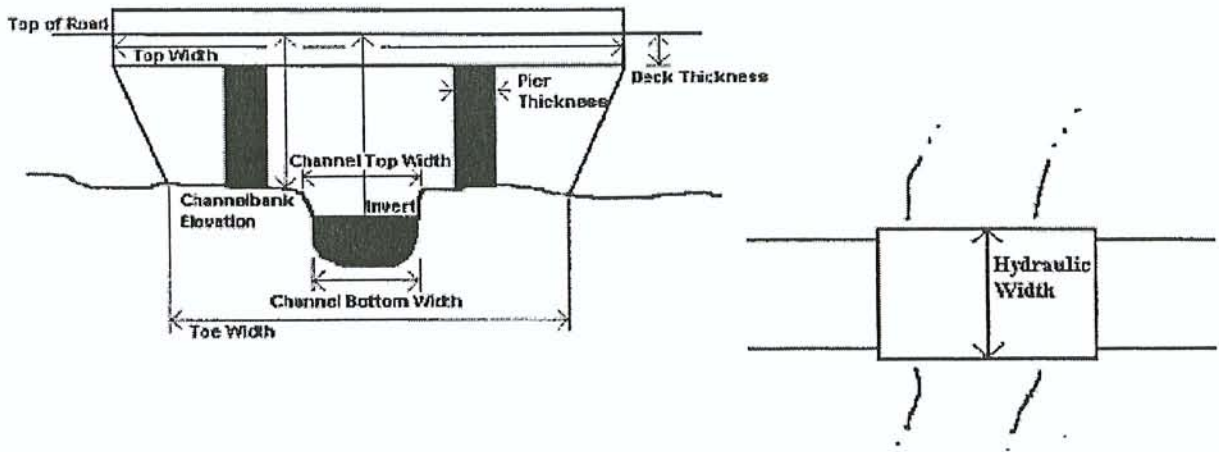


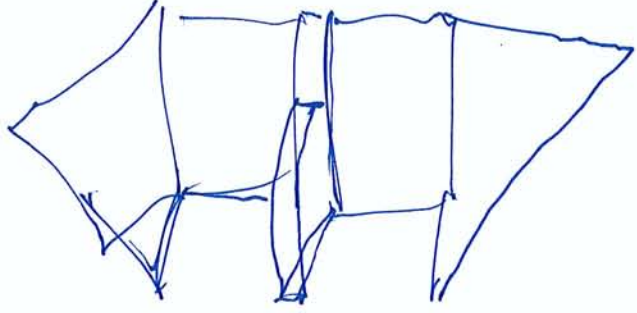
### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

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



PHOTOS	
Name	Description
< Photo List > HSBZ #63 ~ #66	debris nose on pier @ inlet
Warping inlet walls	

ADDITIONAL CHANNEL INFORMATION

open area  
bottom HWY 126 & v/s frontage  
D/S = dg, L & R

Land Use

occasional Eucalyptus tree

Vegetative Cover

gravel / cobbles / boulders v/s  
sand / gravel d/s

Bed Material

cobbles / gravel on bottom thru length of culvert  
up to 6" dia.

General Channel Condition

bottom, some brush P/S  
weeds v/s

Banks

flat dg P/S ..  
orchard v/s, above frontage road ..

Overbanks

leaves (spoils) on both banks P/S ..



# STRUCTURE SURVEY TEMPLATE







				DATE	3.4.08
ROAD NAME				Frontage → Faulkner Rd	
STREAM NAME				Hous Barranca	
STRUCTURE #				3	
TYPE				X,Y COORDINATE	
LENGTH		SIZE (W X H) & SHAPE		MATERIAL	
Railroad Bridge				Road to Bed	
				Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)				R side filled higher with sediment	
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE		MATERIAL	
Bridge Span Bridge Pier Shape <u>Culvert</u> Dam Spillway Riser Barrel Outlet		Number of Barrels		RCP (Reinforced Concrete Pipe)	
		1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other		CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock RC box	
				Road to Bed	
				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

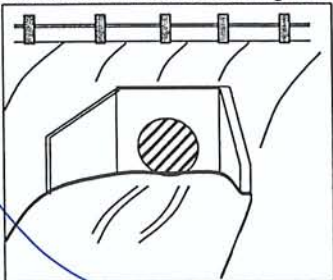


### Types (Shape) of Culvert

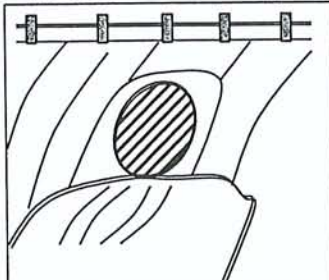
- |   |   |   |
|---|---|---|
|  |  |  |
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|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

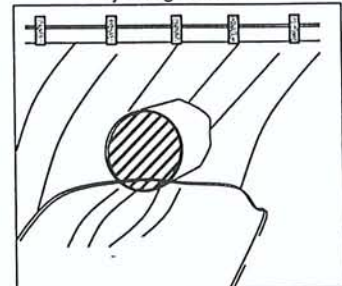
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

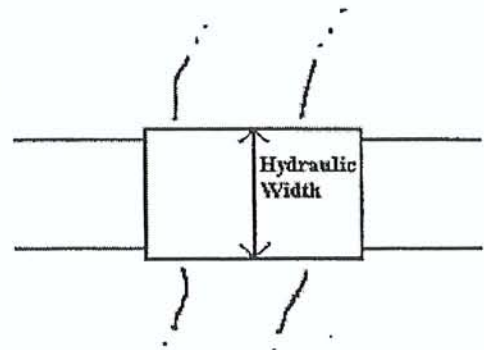
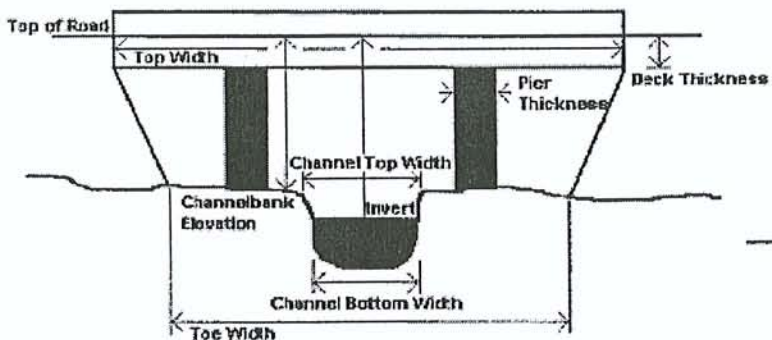


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

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



Name	Description	PHOTOS
<i>Winged inlet with pier nose..</i>		<p>&lt; Photo List &gt;                      HSB3 #67 ~ #69</p> <p><i>9" pier.</i></p>



ADDITIONAL CHANNEL INFORMATION

Land Use

orchard L & R v/s  
open between frontage & HWY 126

Vegetative Cover

some local Eucalyptus

Bed Material

sand / gravel cobbles v/s  
rocks / boulders D/s

General Channel Condition

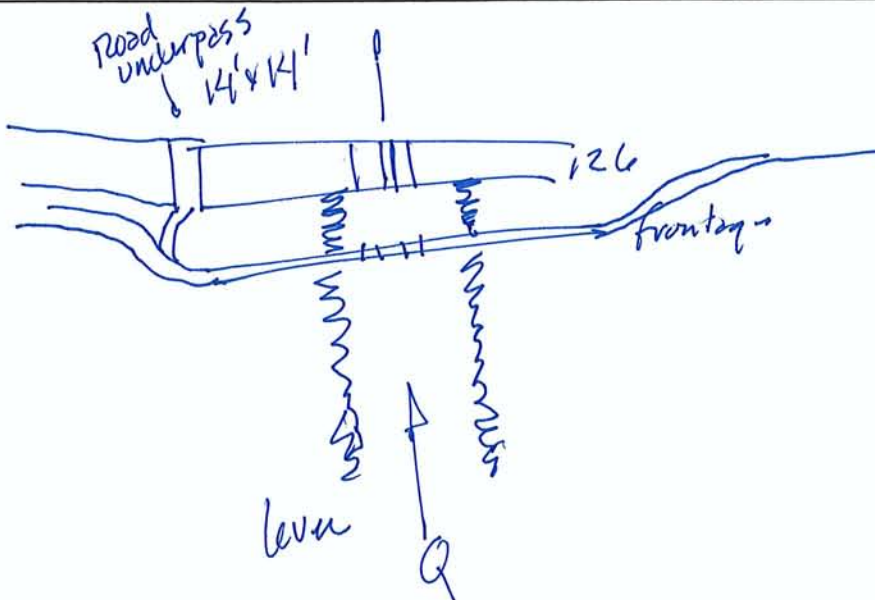
prismatic v/s D/s  
some woody debris D/s

Banks

willows on banks v/s

Overbanks

orchard  
channel has levees both sides, v/s & D/s



# STRUCTURE SURVEY TEMPLATE







				<b>DATE</b>	3.4.08
<b>ROAD NAME</b>		Railroad		<b>COUNTY</b>	
<b>STREAM NAME</b>		Hanes Branch		<b>PHOTO ID #</b>	
<b>STRUCTURE #</b>		4		<b>X,Y COORDINATE</b>	
<b>TYPE</b>	<b>LENGTH</b>	<b>SIZE (W X H) &amp; SHAPE</b>	<b>MATERIAL</b>	<b>Road to Bed</b>	<b>INLET/OUTLET TYPE</b>
Railroad Bridge	~28'			<b>Top of Road EL</b>	
<b>SPECIAL NOTE</b> (Conditions, Blockage, etc)		no piers			
<b>HIGH WATER MARK</b> (Description, Witness, and Date)					
<b>TYPE</b>		<b>CULVERT TYPE</b>	<b>MATERIAL</b>	<b>Road to Bed</b>	<b>INLET/OUTLET TYPE</b>
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  <del>Top of Road EL</del>  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
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- 4) Triangular nose
- 5) Square nose

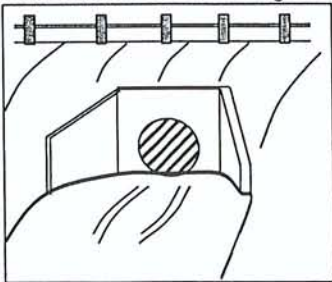


**Types (Shape) of Culvert**

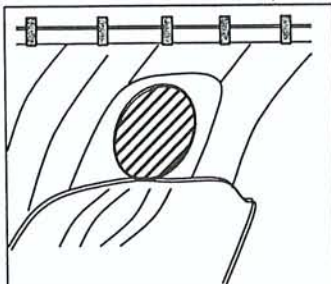
- |   |   |   |
|---|---|---|
|  |  |  |
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|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

**Inlet/Outlet Type**

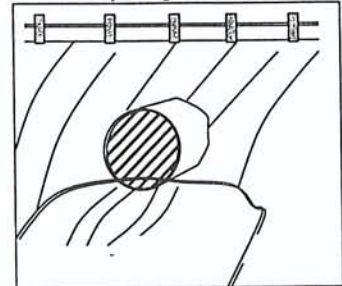
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

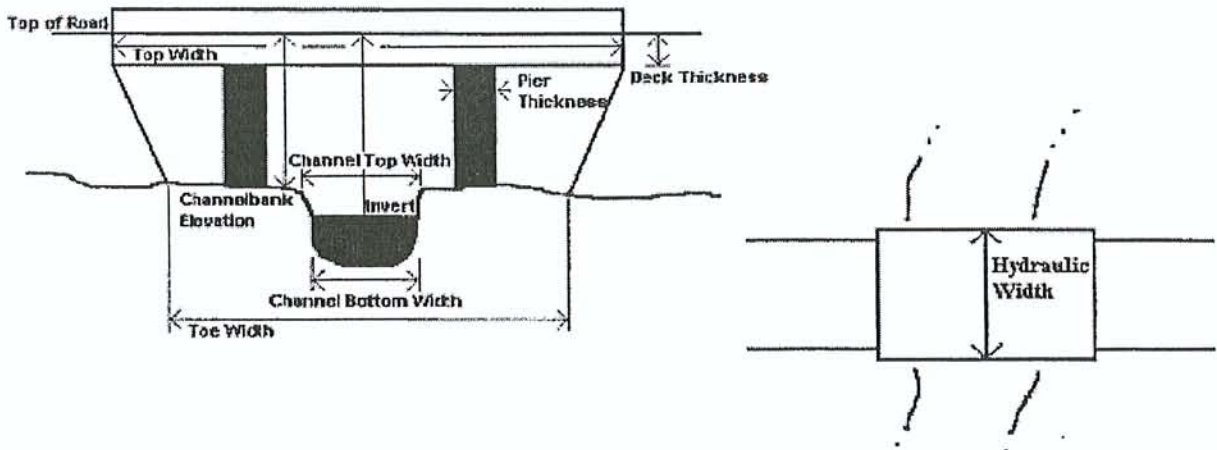


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

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



PHOTOS		
Name	Description	
clear span bridge		
< Photo List >		
HSB# #70 ~ #74		



ADDITIONAL CHANNEL INFORMATION

orchards  $\frac{1}{2}$  }  $\frac{1}{2}$  both overbanks

Land Use

willows on/in banks

Vegetative Cover

sand / gravel / cobbles

Bed Material

cutting well defined  $\frac{1}{2}$ s  
more irregular  $\frac{1}{2}$ s

General Channel Condition

level banks with roads,  $\frac{1}{2}$ L,  $\frac{1}{2}$ s  
no levees or roads  $\frac{1}{2}$ s

Banks

orchards. ... below top of levees  $\frac{1}{2}$ s

Overbanks

# STRUCTURE SURVEY TEMPLATE

				DATE	3.4.08
ROAD NAME		Telegraph Rd		COUNTY	
STREAM NAME		Hanes Barton		PHOTO ID #	
STRUCTURE #		# 5		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)					
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape <u>Culvert</u> Dam Spillway Riser Barrel Outlet		Number of Barrels 1 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 <u>Top of Road EL</u> 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

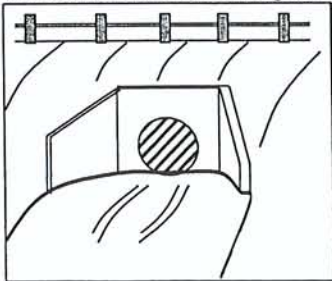


### Types (Shape) of Culvert

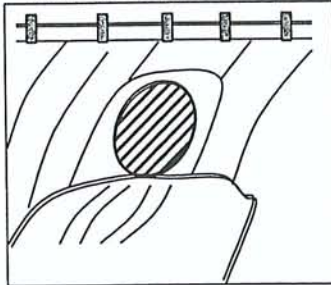
- |             |                  |               |
|-------------|------------------|---------------|
|             |                  |               |
| 1) Circular | 2) Rectangle     | 3) Elliptical |
|             |                  |               |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch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

### Inlet/Outlet Type

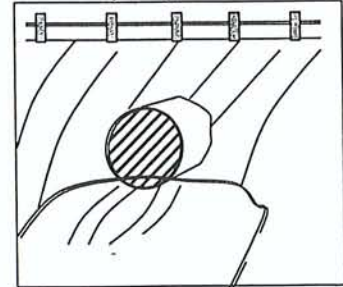
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

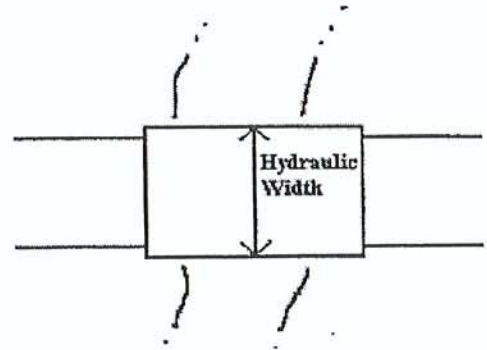
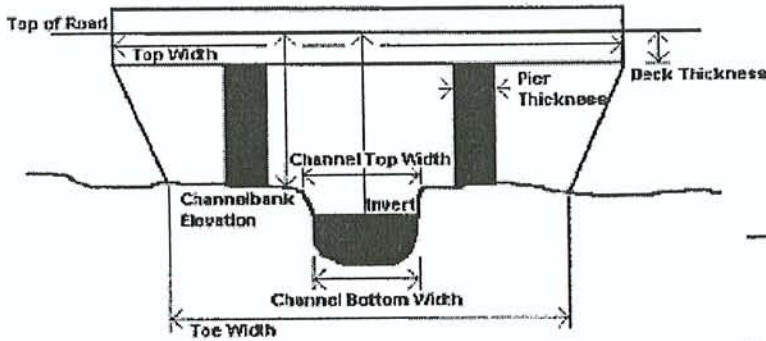


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

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



### PHOTOS

Name

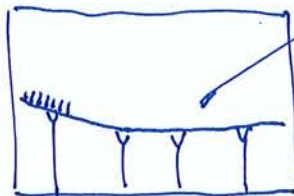
Description

< Photo List >

HSB5 #75~#80

looked  
vs  
from  
in  
box

grate  
to  
nowhere..





ADDITIONAL CHANNEL INFORMATION

Residences both banks U/S  
L bank, D/S off r bank, D/S } + orchards

Land Use

tall trees U/S, L ob.  
tall trees, both banks (eucalyptus) D/S

Vegetative Cover

cobbles/sand/gravel U/S  
sands/gravels/cobbles D/S

Bed Material

irregular U/S, grouted rock @ outlet D/S,

General Channel Condition

eratum, some veg (vines) & brush

Banks

houses U/S

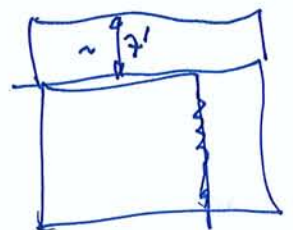
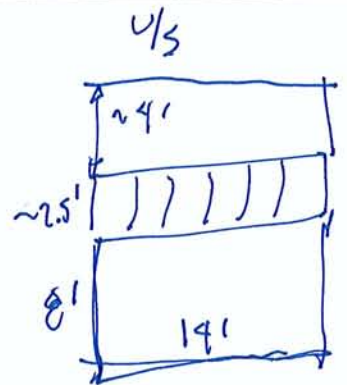
flat

Overbanks

warped inlet + grouted riprap U/S  
steep conc chute @ U/S end



D/S



# STRUCTURE SURVEY TEMPLATE

				DATE	3.4.08
ROAD NAME		Footmills (#6 Santa Paula St not visited)		COUNTY	
STREAM NAME		Haines Barranca		PHOTO ID #	
STRUCTURE #		# 6 → # 7		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)		unaccessible -- need plans from County...			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge <del>Span Bridge</del> <del>Pier Shape</del> Culvert Dam Spillway Riser Barrel Outlet	B W X H 10/11 Sides bottom	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

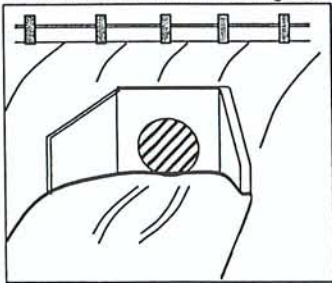


### Types (Shape) of Culvert

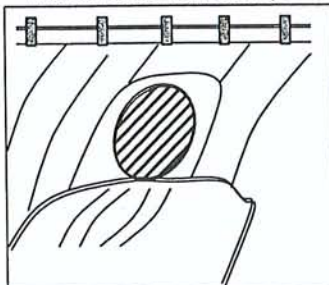
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|-------------|------------------|---------------|----------|
| 1) Circular | 2) Rectangle     | 3) Elliptical |          |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch  | 7) Other |

### Inlet/Outlet Type

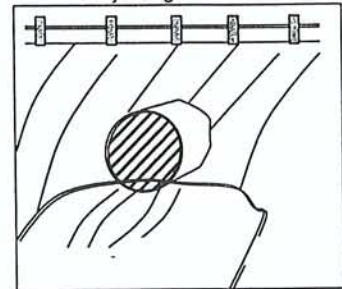
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill



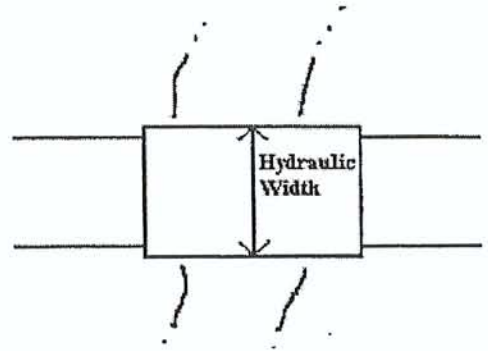
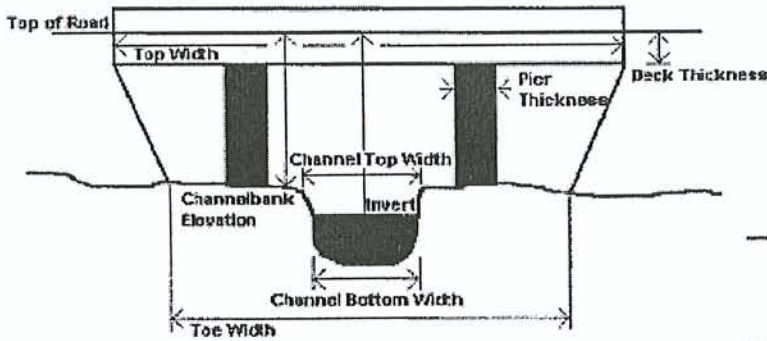


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

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



### PHOTOS

Name

Description

< Photo List >

HSB7 #81~#84

wed As built ..

very deep channel below  
road el.

45° wing walls 0/3 & 1/3



ADDITIONAL CHANNEL INFORMATION

Land Use

orchard

residence

on R bank well d/s of crossing  
on L bank u/s

Vegetative Cover

Eucalyptus u/s

Bed Material

cobbles / boulders u/s

General Channel Condition

deep incised channel  
full of brush & trees - mostly willows

Banks

brushy + trees, u/s & ds

Overbanks

~~Flow~~

vert. conc wall on d/s side, L bank

note: cannot see entire study reach  
upstream - Langdooby Ranch - private road.  
stopped here

Channel appears to get narrower ds