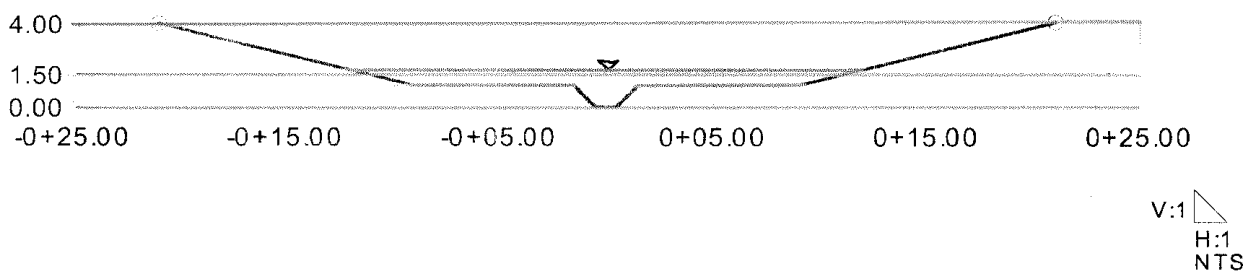
CROSS SECTION WEST - PROPOSED
Cross Section for Irregular Channel

COE-HLNA
OCT 07 2003

West Catron
Typical - X-Section

Project Description	
Worksheet	XS-2P
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	1.76	ft
Elevation Range	.00 to 4.00	
Discharge	45.00	cfs



2

CROSS SECTION WEST - PROPOSED (Q100)

Cross Section for Irregular Channel

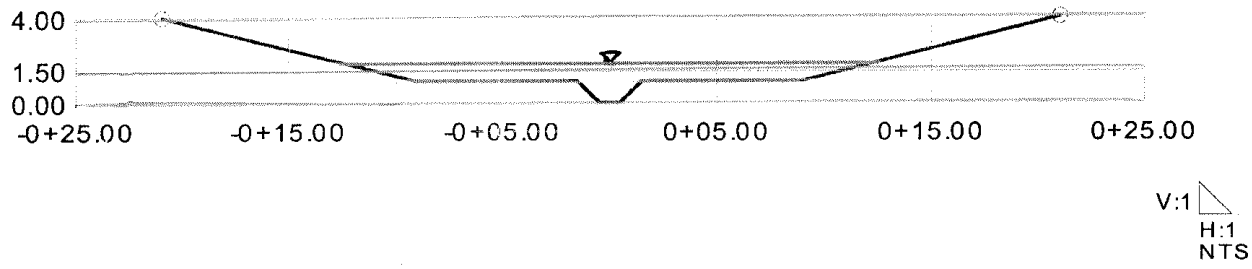
COE-HLNA

OCT 07 2003

West Catron
Typical X-Section
100 yr event

Project Description	
Worksheet	XS-2P-100
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data	
Mannings Coefficie	0.045
Slope	0.009 ft/ft
Water Surface Elev	1.87 ft
Elevation Range	.00 to 4.00
Discharge	56.00 cfs



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Allied Engineering Services, Inc.
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

CROSS SECTION EAST - PROPOSED

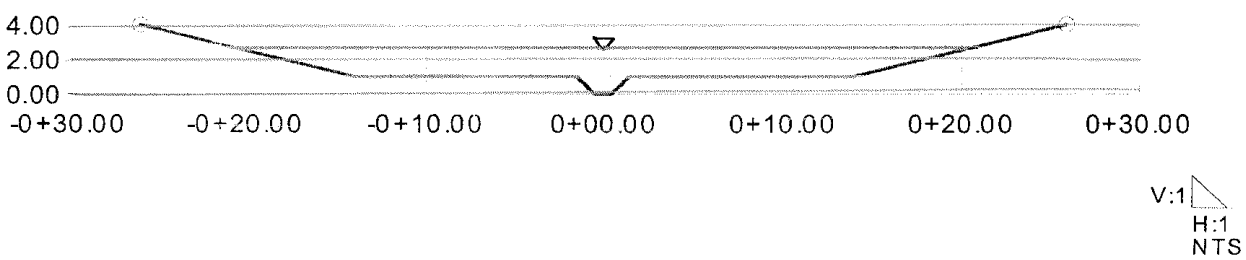
Cross Section for Irregular Channel

COE-HLNA
OCT 07 2003

East Catron
Typical X-Section

Project Description	
Worksheet	XS-5P
Flow Element	Irregular Chann
Method	Manning's Forr
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	2.71	ft
Elevation Range	.00 to 4.00	
Discharge	246.00	cfs



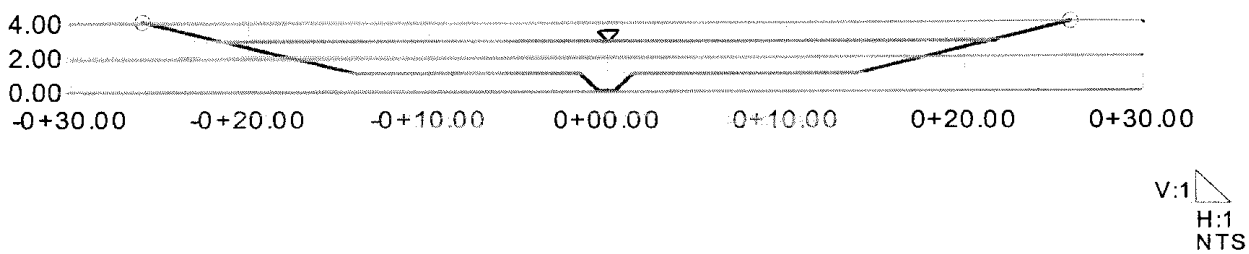
CROSS SECTION EAST - PROPOSED (Q100)
Cross Section for Irregular Channel

COE-HLNA
OCT 07 2003

East Catron
Typical x-Section
100 yr event

Project Description	
Worksheet	XS-5P-100
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data	
Mannings Coefficie	0.045
Slope	0.009 ft/ft
Water Surface Elev	2.96 ft
Elevation Range	.00 to 4.00
Discharge	310.00 cfs



5

CROSS SECTION 2 - EXISTING

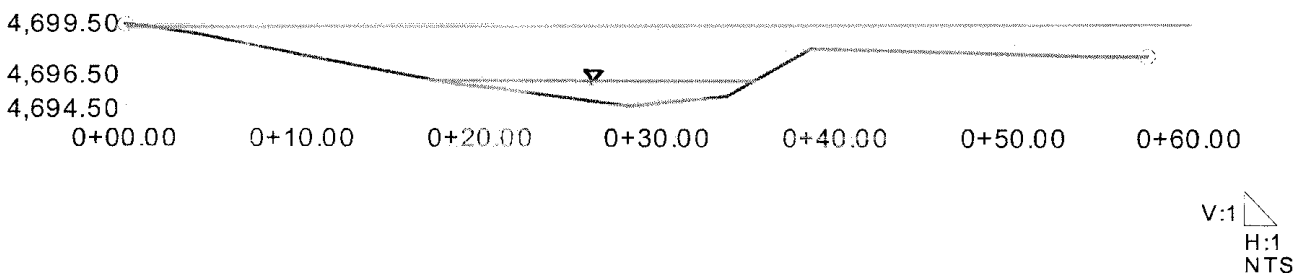
Cross Section for Irregular Channel

COE-HLNA
OCT 07 2003

West Catron
Existing X-Section
Crossing # 2

Project Description	
Worksheet	xs-2e
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	4,696.19	ft
Elevation Range	94.67 to 4,699.40	
Discharge	45.00	cfs



6

CROSS SECTION 2 - EXISTING (Q100)
Cross Section for Irregular Channel

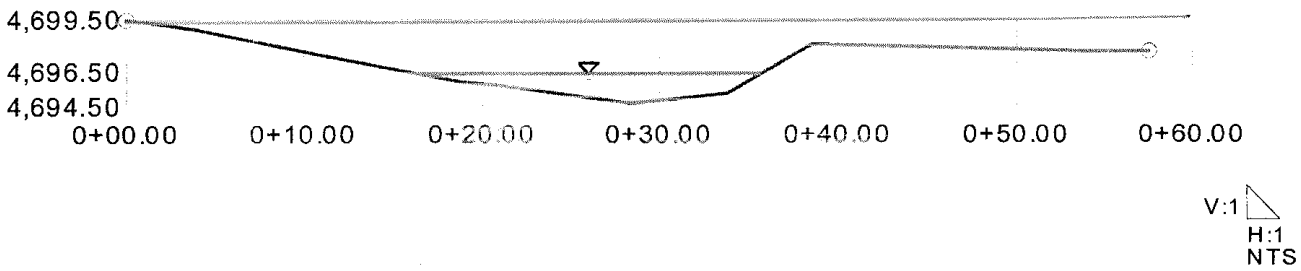
COE-HLNA

OCT 07 2003

West Catron
Existing X-Section
Crossing # 2
100 yr event

Project Description	
Worksheet	xs-2e-100
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	4,696.33	ft
Elevation Range	94.67 to 4,699.40	
Discharge	56.00	cfs



CROSS SECTION 3 - EXISTING

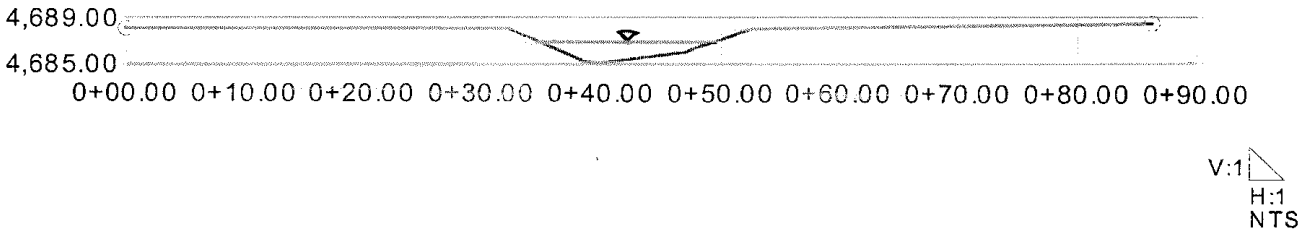
Cross Section for Irregular Channel

COE-HLNA
OCT 07 2003

West Catron
Existing X-Section
Crossing #3

Project Description	
Worksheet	xs-3e
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	4,686.89	ft
Elevation Range	35.00 to 4,688.53	
Discharge	53.00	cfs



8

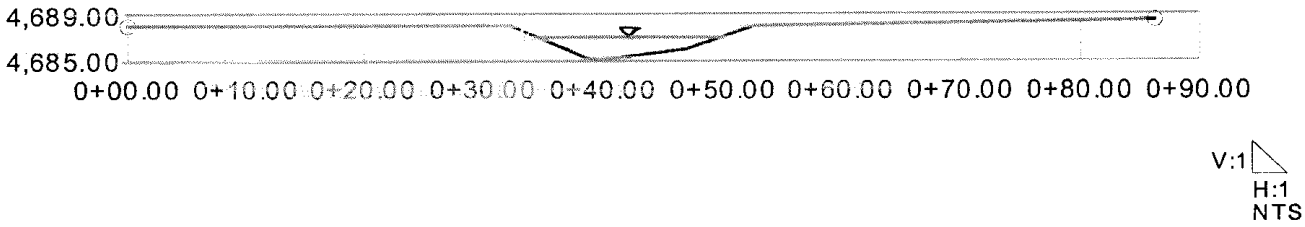
CROSS SECTION 3 - EXISTING (Q100)
Cross Section for Irregular Channel

COE-HLNA
COE-HLNA
OCT 07 2003

West Catron
Existing X-Section
Crossing #3
100 yr. event

Project Description	
Worksheet	xs-3e-100
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	4,687.08	ft
Elevation Range	35.00 to 4,688.53	
Discharge	67.00	cfs



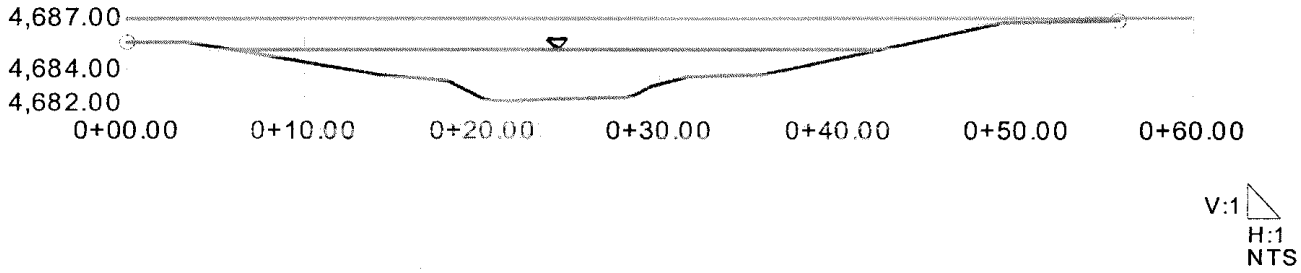
CROSS SECTION 6 - EXISTING (Q25)
Cross Section for Irregular Channel

COE-HLNA
OCT 07 2003

East Catron
Existing X-Section
Crossing # 6

Project Description	
Worksheet	xs-6e
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	4,685.09	ft
Elevation Range	32.12 to 4,686.70	
Discharge	250.00	cfs



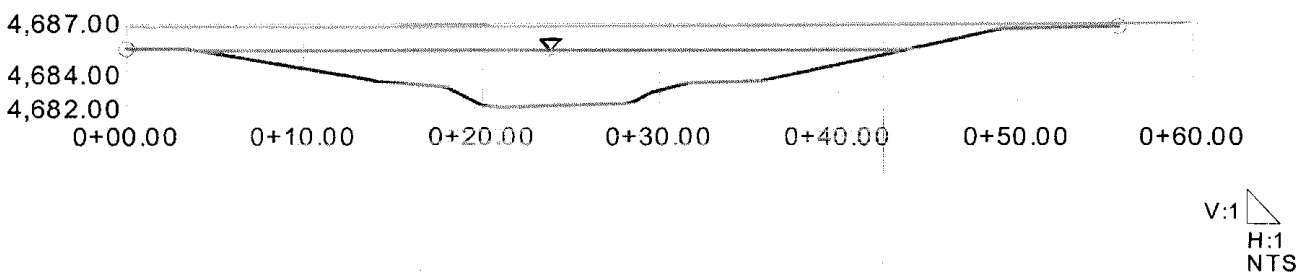
CROSS SECTION 6 - EXISTING (Q100)
Cross Section for Irregular Channel

COE-HLNA
OCT 07 2003

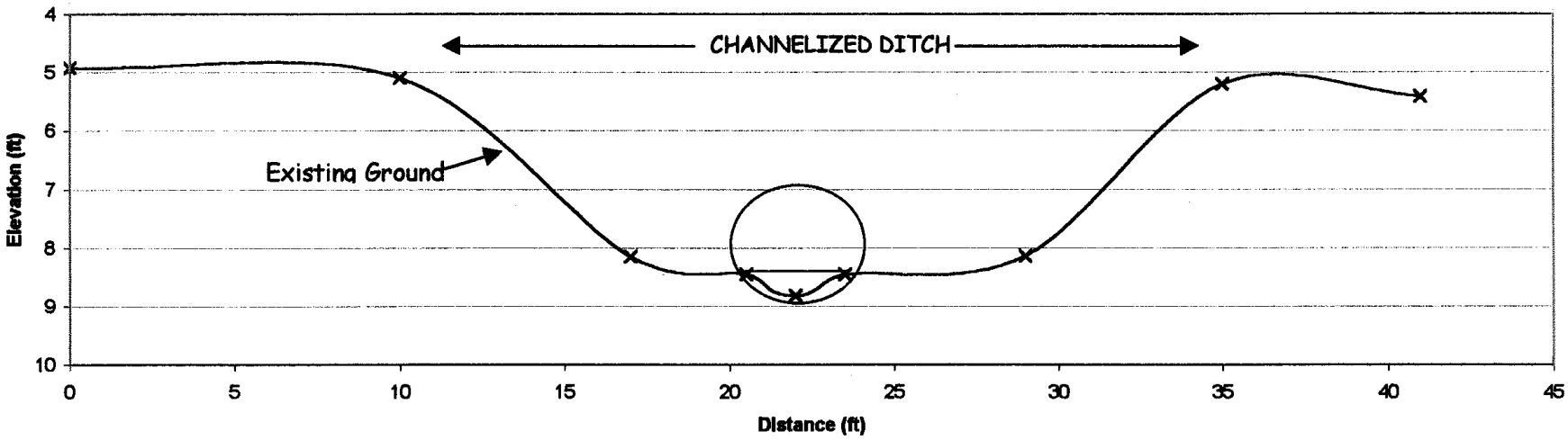
East Catron
Existing X-Section
Crossing # 6
100 yr. event

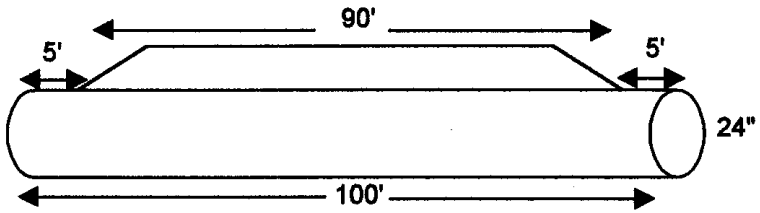
Project Description	
Worksheet	xs-6e-100
Flow Element	Irregular Chann
Method	Manning's Forr
Solve For	Channel Depth

Section Data		
Mannings Coefficie	0.045	
Slope	0.009	ft/ft
Water Surface Elev	4,685.38	ft
Elevation Range	32.12 to 4,686.70	
Discharge	314.00	cfs

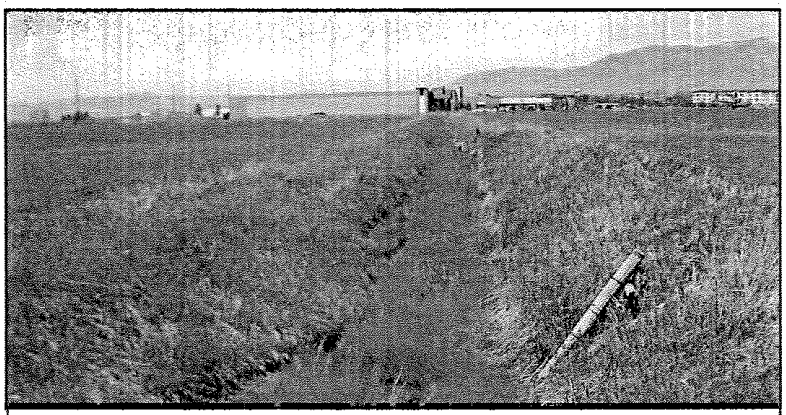


West Catron Creek
Culvert Crossing Schematic





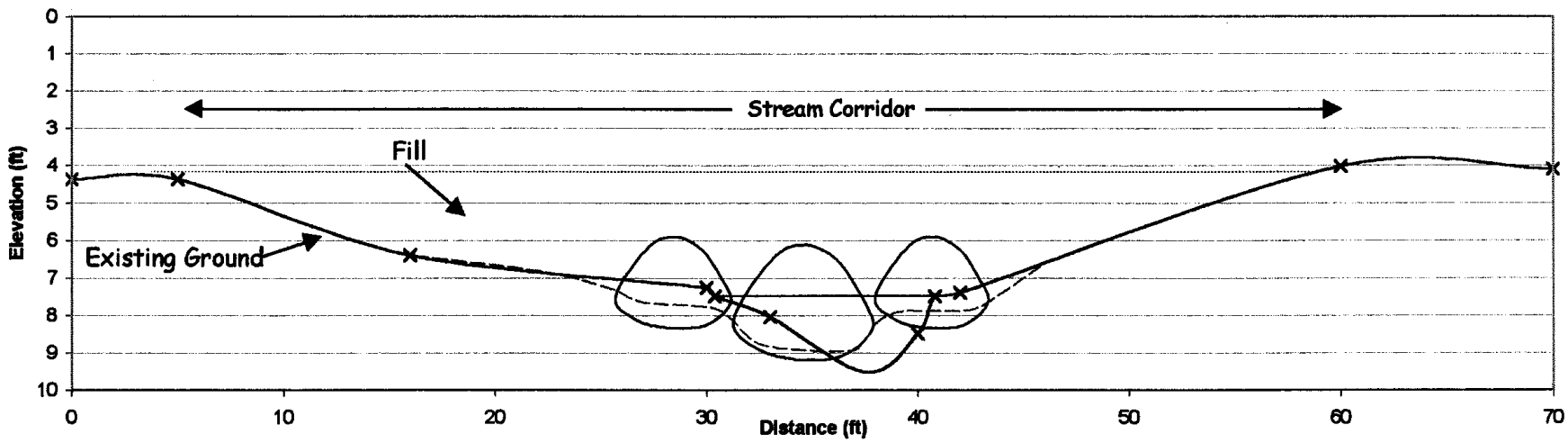
Longitudinal View of Culvert in ditch



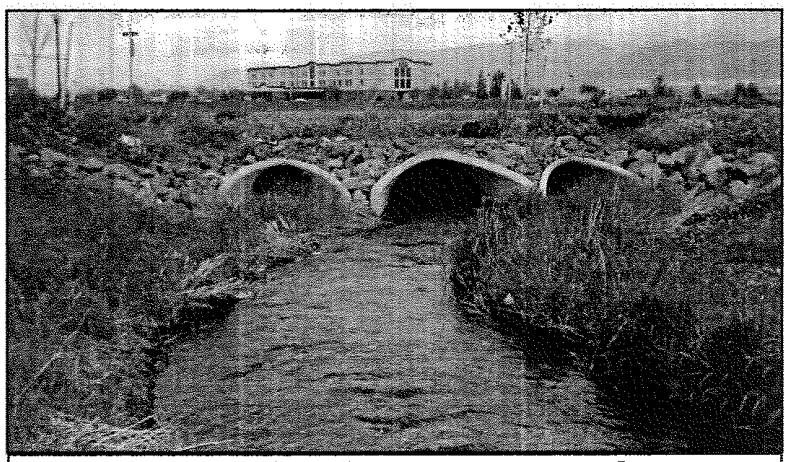
W. Catron Cr. Looking downstream towards Bob Wards/Target

COE-HLNA
JUN 06 2003

East Catron Creek
Culvert Crossing Schematic



E. Catron Cr. at approximate Cattail Road Crossing Location 6/2/03



E. Catron Cr. Culverts at Burke St. 6/2/03