

**BUREAU OF LAND MANAGEMENT
ELKO FIELD OFFICE
BURNED AREA EMERGENCY REHABILITATION PLAN AND ACCOMPLISHMENT REPORT**

PART F - SPECIFICATIONS

SPECIFICATION TITLE:	RESTORE DRAINAGE AND GRADE TO ROADS DAMAGED BY FIRE SUPPRESSION	AGENCY:	BLM Elko F.O.
PART E LINE ITEM:	S-6 Facility Replacement (BLM 98-148 III M)	FISCAL YEAR(S) (list each year):	2001 - 2003

I. WORK TO BE DONE

Number and Describe Each Task:	
A.	<p>General Description: Rehabilitation of preexisting roads is necessary to provide safe and adequate travelways and to avoid erosion gullies and ponding on road surfaces due to blockage of drainage diversions by berms. The intent is not to improve the roads beyond the pre-existing condition but to reestablish roadway surfaces and drainage for public safety. Road regrading should occur after sufficient moisture is available to reconstruct roads to pre-fire condition. Many of these roads provide primary access to private property, permittee allotments, recreational users, and the public at large</p> <p>Equipment Use: Motor graders, assisted by other equipment to improve there effectiveness, are generally the preferred equipment to grade roads. Graveling will generally be done with 10-wheel dump trucks and/or 18-wheel belly dumps for hauling gravel, with the trucks being loaded with front-end loaders.</p>
B.	<p>Location (Suitable) Sites: See treatment map for location of road regrading.</p>
C.	<p>Design/Construction Specifications:</p> <ol style="list-style-type: none"> 1. Pull berm on outside edge of road, including side cast material, back onto road surface. 2. Maintain integrity of natural drainages; reestablish rolling dips where damaged. 3. Spot gravel critical areas.
D.	<p>Purpose of Treatment Specifications: Protect the users, reduce hazards, and prevent further deterioration of roads.</p>

II. LABOR, MATERIALS AND OTHER COST:

▶ PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item Do not include contract personnel costs here (see contractor services below).	COST/ITEM
GS-11 @ \$25.00/hour x 10 hours/day x 60 days x 1 year	\$15,000.00
TOTAL PERSONNEL SERVICE COST	\$15,000.00
▶ EQUIPMENT PURCHASE, LEASE AND /OR RENT (Item @ Cost/Hour X # of House X # Fiscal Years = Cost/Item): Note: Purchase require written justification that demonstrates cost benefits over leasing or renting.	COST/ITEM
Road gravel: 20 cubic yard belly dump trailer 134 days x \$150/day x 1 year	\$20,100.00
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$20,100.00
▶ MATERIALS AND SUPPLIES: (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item):	COST/ITEM
Road Gravel: 1,370 cu. yards/ mile x \$10/yard x 15.25 miles x 1year	\$208,925.00
TOTAL MATERIALS AND SUPPLY COST	\$208,925.00
▶ TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST/ITEM
TOTAL TRAVEL COST	
▶ CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST/ITEM
Road grading: 69.25 miles (total miles) at \$1,500/ mile	\$103,875.00
Contract administration and oversight (4% of contract cost to agency)	\$4,155.00
Road graveling (1 mile) by Elko County	\$1,825.00
Bridge repair by Elko County	\$6,500.00
Cattleguard replacement by Elko County, 3 x \$13,000/ea x 1 year	\$39,000.00
TOTAL CONTRACT COST	\$155,355.00

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY 1	Miles	\$5,037.44	70.25	\$353,880.00	F	P,C
FY1	Bridge	\$6,500.00	1	\$6,500.00	F	P,C
FY1	Cattleguard	\$13,000.00	3	\$39,000.00	F	P,C
FY 2						
FY 3						
TOTAL:				\$399,380.00	F	P,C

FUNDING SOURCES:

F = Fire Suppression Account
EFR = Emergency Fire Rehabilitation
OP = Agency Operating Fund
O = Other

METHODS:

P = Agency Personnel Services
C = Contract (Long-Term)
EFC = Emergency Fire Contract
FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	M, C
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account.	

P = Personnel Services, **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within BAER Report:
Cost and quantity estimates from Norman Rockwell, Elko FO Roads Engineer and Elko Sand and Gravel Company.
See Map Index, Treatment Section.

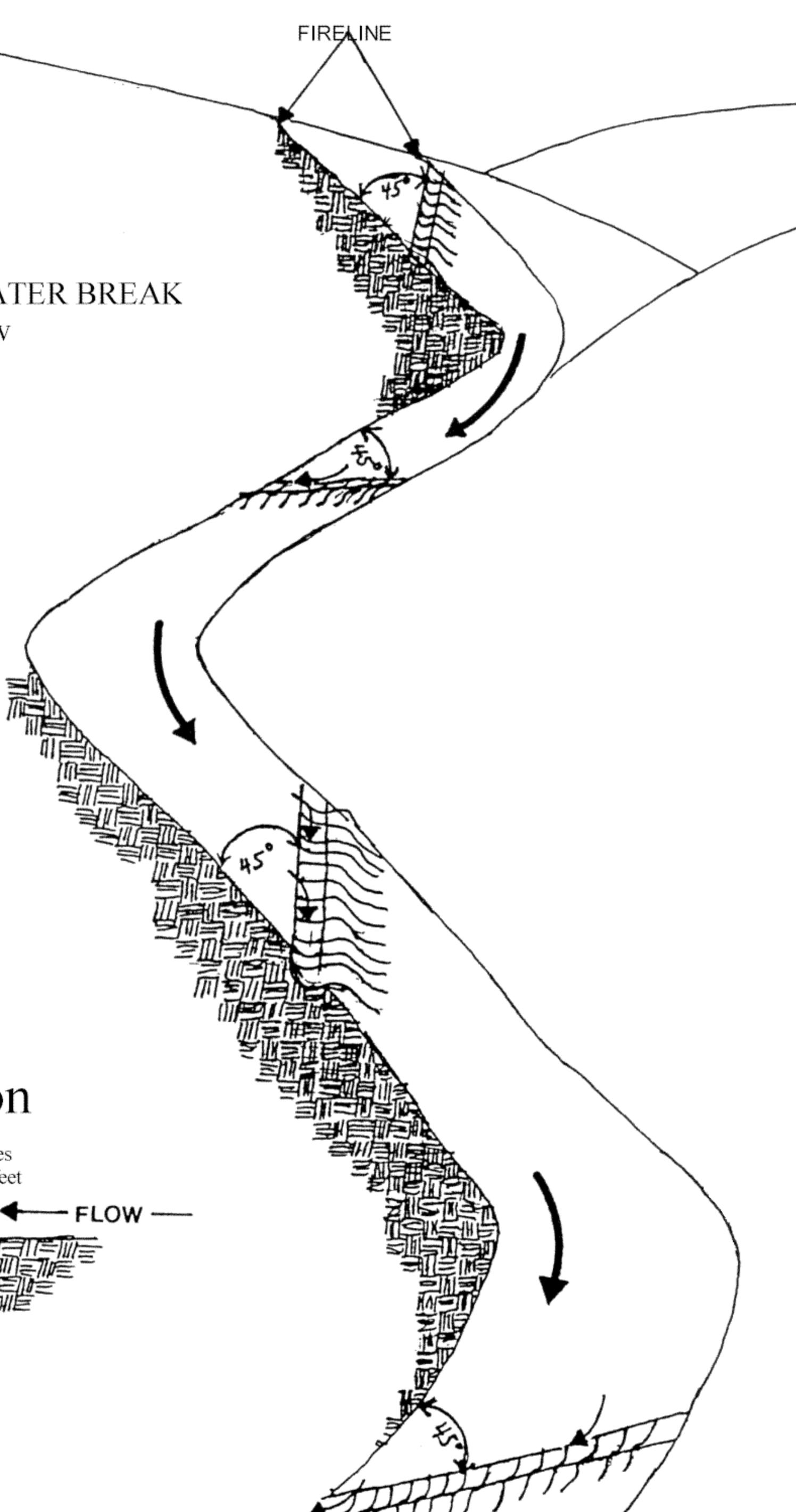
IV. TOTAL COST BY FIRE

FIRE NAME	UNITS TREATED	COST
Charlie	3.25 Miles	\$16,371.66
Wimpy	5 Miles	\$25,187.18
Camp Creek	5 Miles 1 Mile Elko County	\$30,224.62
Cold Springs	1 Bridge	\$6,500.00
Mahogany	1 Mile	\$5,037.42
Rabbit	46 Miles	\$231,722.22
Chokecherry	9 Miles 3 Cattleguards	\$45,336.90
		\$39,000.00
TOTAL COST	70.25	\$399,380.00

FIRELINE

WATER RILL OR WATER BREAK

Plan View



Cross-Section

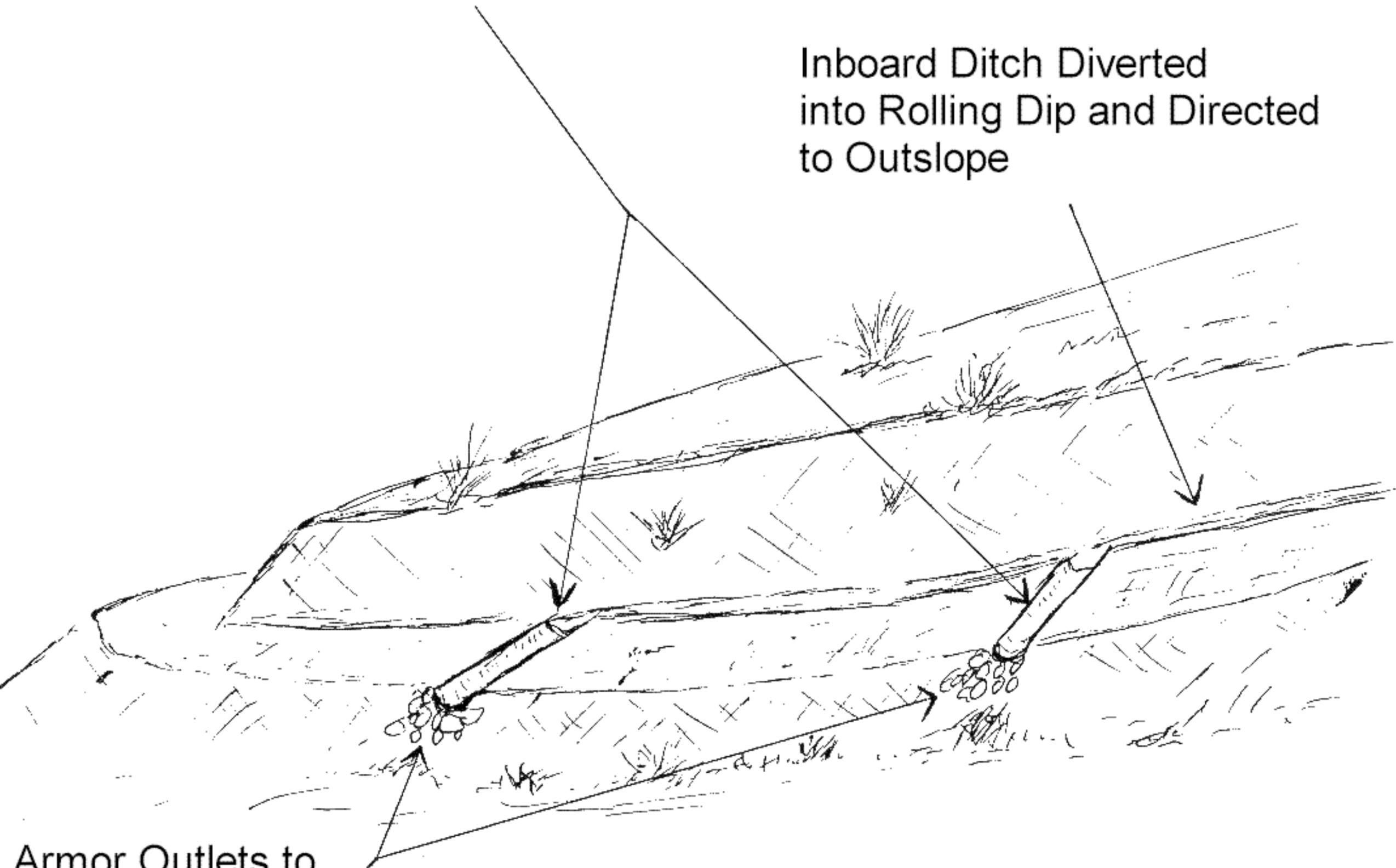
Water Rill Height = 4 to 6 inches
Water Bar Height = 1 1/2 to 2 feet



Rolling Dip Construction

Rolling Dips Constructed at
Approximately 45 Degree
Angle to Road Bed and
Diverted to Outslope

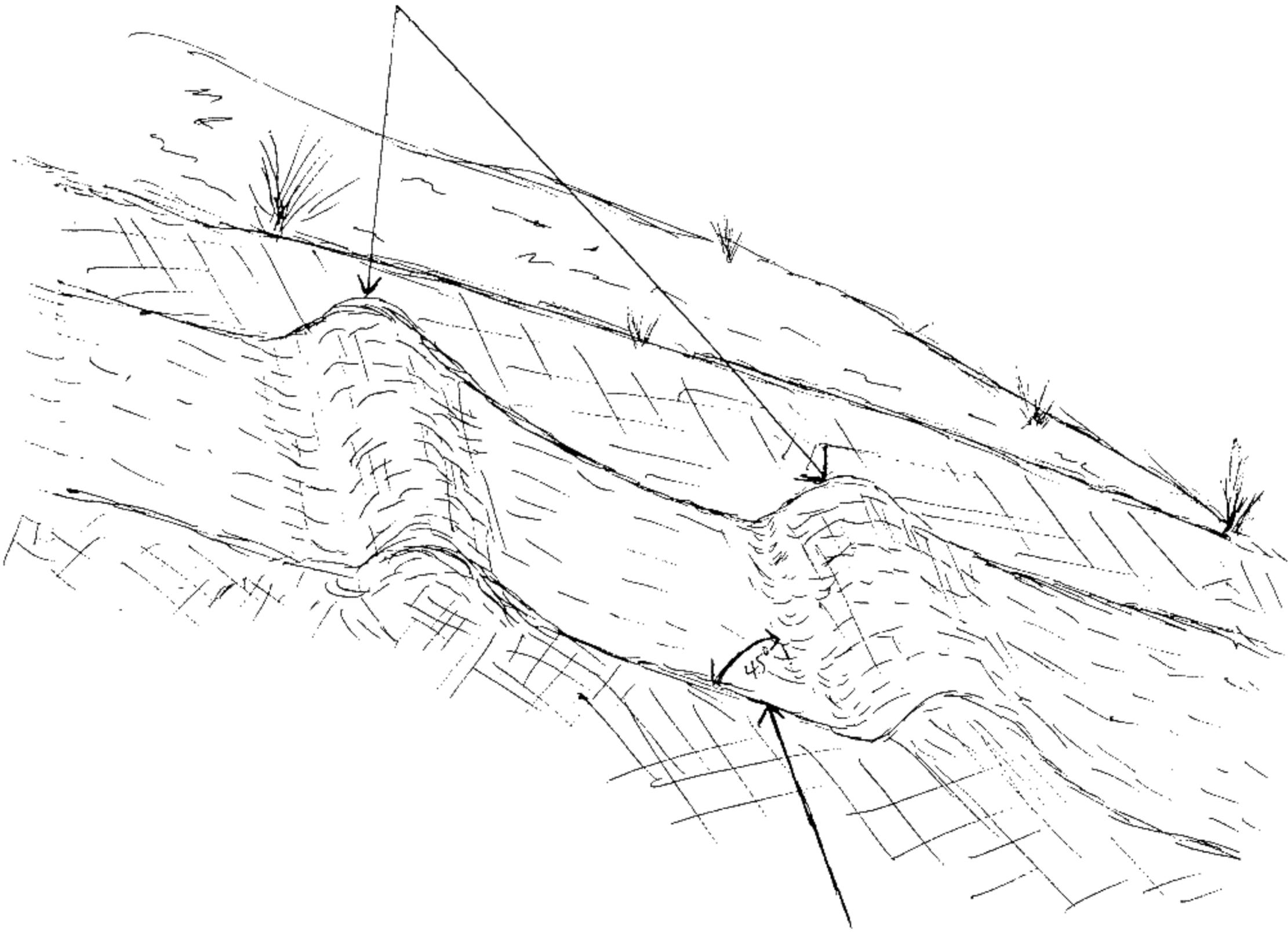
Inboard Ditch Diverted
into Rolling Dip and Directed
to Outslope



Armor Outlets to
Prevent Gully Erosion
on Outslope

Water Bar Construction

Berms Constructed 2 to 3 Feet High of Compacted Fill



Berms Constructed at Approximately 45 Degree Towards Outslope