

**Sheepskin Trail**  
Fayette County, Pennsylvania

Estimates of costs for trail construction  
03/25/99

Mackin Engineering Company

Segment: #5 Smithfield to Gans

Approximate Miles: 4.69

24,800 LF

	UNIT	QTY	UNIT PRICE	SUBTOTAL	REMARKS
<b>LAND ACQUISITION</b>					
purchase	ACRE	14.11	\$3,000.00	\$42,330.00	no easement
					Land Acquisition Subtotal \$42,330.00
<b>TRAIL CONSTRUCTION</b>					
light clearing	ACRE	0.00	\$500.00	\$0.00	Clearance of 25' wide, brush
medium clearing	ACRE	0.00	\$1,200.00	\$0.00	Clearance of 25' wide, less than 2" cal.
heavy clearing	ACRE	11.88	\$3,000.00	\$35,640.00	Clearance of 25' wide, greater than 2" cal.
clean linear drainage ditch	LF	16,600	\$1.75	\$29,050.00	Clean exist drain ditch
create new linear drainage ditch	LF	0	\$2.50	\$0.00	Typical V ditch, 3'x 1.5' deep
18" cross pipe	LF	1,640	\$40.00	\$65,600.00	(41) 40 lf each, 1 cross pipe/ 500 LF
R4 rip-rap at aprons	CY	82	\$100.00	\$8,200.00	2 CY per cross pipe
grading of crown & corridor	CY	7,667	\$2.50	\$19,167.50	20' wide x 0.5'
earthwork	CY	250	\$6.00	\$1,500.00	(\$15 fill/ \$6 cut) erosion problem @ Weaver Bottom
rock excavation	CY	0	\$250.00	\$0.00	\$250 CY
install trail paving (surfacing/subbase)	SY	23,001	\$7.00	\$161,007.00	Trail paving of 10' typical (1" surf/6" sub) (#10 limestone surface / 2A limestone subbase)
seeding and mulching	SY	34,500	\$0.50	\$17,250.00	Lawn, 7.5' shoulder each side of trail
split rail fence	LF	13,200	\$12.00	\$158,400.00	intermittent locations
warning beacons	PAIR	2	\$13,000.00	\$26,000.00	Rt. 119 and Railroad St.
special conditions signs (bike lane)	EA	0	\$250.00	\$0.00	
line striping for bike way/narrow drive lane	LF	0	\$3.00	\$0.00	
bicycle safe grate modifications to inlets	EA	0	\$500.00	\$0.00	
road crossing (signs, bollards, access gates at trail) (line striping, Signing on road by others)	EA	7	\$3,000.00	\$21,000.00	Washington Way, Water Street, T-500, SR 3009, T-335, T-362 @ Gans, SR 3002
					Trail Subtotal \$542,814.50
<b>STRUCTURES</b>					
Bridge Rehab.					Structure #1
Decking and Rails	LF	35	\$270.00	\$9,450.00	over Georges Creek @ Smithfield
split rail fence approach barriers	LF	60	\$15.00	\$900.00	12x35'L
Bridge Rehab.					Structure #2
Decking and Rails	LF	35	\$270.00	\$9,450.00	over Georges Creek @ Smithfield
split rail fence approach barriers	LF	60	\$15.00	\$900.00	12x35'L
Bridge Rehab.					Structure #3
Decking and Rails	LF	67	\$270.00	\$18,090.00	over Georges Creek
split rail fence approach barriers	LF	60	\$15.00	\$900.00	12x35'L
Bridge Rehab.					Structure #4
Decking and Rails	LF	35	\$270.00	\$9,450.00	over Weaver Bottom Rd.
split rail fence approach barriers	LF	60	\$15.00	\$900.00	12x35'L
Tunnel Rehab.					Tunnel #1
concrete patching	SFF	5,000	\$15.00	\$75,000.00	Morgan Tunnel

split rail fence approach barriers  
weep hole cleaning

LF  
Ea

60  
70

\$15.00  
\$5.00

\$900.00 25'x445'L  
\$350.00 (Cost of trail through tunnel is considered in trail price)

Structure Subtotal \$128,290.00

**Combined Subtotal \$711,434.50**

Contingency of 10% \$71,143.45  
Administration, 10% \$71,143.45  
Environmental Impact Study 8% \$56,914.76  
Engineering, survey and design 10% \$71,143.45  
Construction engineering and mobilization 12% \$85,372.14

**Grand Total \$1,097,151.75**