





**(2) Unpaved**

Road Number	Termini	Miles
1535	Jct 1535 and 268	3.0
1562B	Jct 1562 and 1562A	0.4
1562A	Jct 1562A and 1535	2.9
Total		6.3

**Total Haul Route 2 Miles (Paved and Unpaved) = 31.6**

**HAUL ROUTE WEIGHTED AVERAGE****(1) Paved**

Haul Route #1	Total paved miles (5.3) weighted by % volume of sale (.79)	4.2
Haul Route #2	Total paved miles (25.3) weighted by % volume of sale (.21)	5.3
Total		9.5

**(2) Unpaved**

Haul Route #1	Total unpaved miles (10.1) weighted by % volume of sale (.79)	8.0
Haul Route #2	Total unpaved miles (6.3) weighted by % volume of sale (.21)	1.3
Total		9.3

**Total Weighted Haul Miles (Paved and Unpaved) = 18.8**

**(b) Road Maintenance****(1) Roads to be Maintained:**

Road No.	Name	Termini	Surface	Miles
406	Hayden Lake Divide	MP 6.3: MP 6.5 (jct. 406B)	Native	0.2
406B (West)	Hayden Lake Divide	MP 0 (jct. 206): MP 3.4	Native	3.4
406B (East)	Hayden Lake Divide	MP 4.2 (jct 406G): MP 4.3 (jct 406)	Native	0.1
406F	Hayden Lake Divide	MP 0: MP 1.0	Native	1.0
406G	Hayden Lake Divide	MP 0: MP 2.0	Native	2.0
406K	Hayden Lake Divide	MP 0: MP 0.4	Native	0.4
206	Railroad Grade	MP 3.9: MP 14.7	Native	10.8
1535	Horse Ridge	MP 4.9: MP 7.9	Native	3.0
1562B	South Canfield	MP 0: MP 0.4	Native	0.4
1562A	South Canfield	MP 0: MP 2.5	Native	2.5
Total				23.8

**(2) Recurrent Maintenance**

Road No.	Miles	Cost/ccf/mile	%Total Vol.	Cost/CCF	
				Purchaser	Forest Service
406	0.2	.21	11	\$ 0.01	
406B (West)	3.4	.21	75	\$ 0.54	
406B (East)	0.1	.21	11	\$ 0.01	
406F	1.0	.21	18	\$0.04	
406G	2.0	.21	49	\$0.21	
406K	0.4	.21	08	\$0.01	
206	10.8	.21	79	\$1.79	
1535	3.0	.21	21	\$0.13	
1562B	0.4	.21	10	\$0.01	
1562A	2.5	.21	10	\$0.05	
<b>Total</b>				<b>\$2.80</b>	

**(3) Surface Replacement**

Road Number	Miles	* Cost/CCF/Mile	% Total Vol.	Cost/ CCF
406	0.2	.09	11	\$ 0.01
406B (West)	3.4	.09	75	\$0.23
406B (East)	0.1	.09	11	\$0.01
406F	1.0	.09	18	\$0.02
406G	2.0	.09	49	\$0.09
406K	0.4	.09	08	\$0.01
206	10.8	.09	79	\$0.77
1535	3.0	.09	21	\$0.06
1562A	2.5	.09	10	\$0.02
1562B	0.4	.09	10	\$0.01
<b>Total</b>				<b>\$1.23</b>

**(4) Roadside Vegetative Brushing**

Road Number	Miles	* Cost/CCF/Mile	% Total Vol.	Cost/ CCF
206	10.8	.10	79	\$0.85
406	0.2	.10	11	\$0.01
1535	3.0	.10	21	\$0.06
1562A	2.5	.10	10	\$0.02
<b>Total</b>				<b>\$0.94</b>

**(5) Road Maintenance Summary**

	Cost/CCF	Cost/Ton
Recurrent Maintenance (Purchaser)	\$2.80	\$0.96
Recurrent Maintenance (FS)	0	0
Surface Replacement (FS)	\$1.23	\$0.42
Roadside Vegetative Brushing (FS)	\$0.94	\$0.32
Total Deposit	\$2.17	\$0.74
Total Road maintenance	\$4.97	\$1.70

6. Slash Disposal

(See detailed Slash Plan in Timber Sale Report)

	Cost/CCF	Cost/Ton
Forest Service (\$109,154 / 6790 CCF)	\$16.08	\$5.23
Purchaser (\$94,550 / 6790 CCF)	\$13.92	\$4.53
Total	\$30.00	\$9.76

7. Erosion Control

(See Erosion Control Plan in Timber Sale Report) \$ 0.17 /CCF

8. Other Environmental Protection Costs

(a) Flaggers (C5.41)

(see Other Provisions in Timber Sale Report)

(b) C5.312 Reconditioning Costs

Road Number	Road Name	Type of Work	Road Mileage
406B (West)	Hayden Lake Divide	Reconditioning	3.38
406B (East)	Hayden Lake Divide	Reconditioning	0.05
406G	Hayden Lake Divide	Reconditioning	2.03

(1) Base Costs

Sawyer w/saw \$32.70/hr  
 Grader w/operator \$134.83/hr  
 General Labor \$32.61  
 Mobilization @ 7%

(2) Rolling Dips

Construct Rolling Dip - \$141.51 each  
 Reshape Existing Rolling Dip - \$72.00

(3) Reconditioning Costs:

Road # 406B-West - 3.38 Miles

Construct 3 Type III Rolling Dips 3 each X \$141.51 = \$ 424.53  
 Reconstruct 6 Type III Rolling Dips 6 each X \$72.00 = \$ 432.00

Clearing:

M.P. 0.00 to 3.38 - 24 hr Sawyer @ \$32.70/hr = \$ 784.80

Blading:

M.P. 0.00 to 3.38 - 24hr Grader @ \$134.83/hr = \$ 3,235.92

Road # 406B-East-0.04 Miles

Clearing:

M.P. 4.23 to 4.27 – 2 hr Sawyer @ \$32.70/hr = \$ 65.40

Blading:

M.P. 4.23 to 4.27 – 1/2hr Grader @ \$134.83/hr = \$ 67.42

Road # 406G-2.03 Miles:

Clearing:

M.P. 0.00 to 2.03 – 16 hr Sawyer @ \$32.70/hr = \$ 523.20

Blading:

M.P. 0.00 to 2.07 – 16 hr Grader @ \$134.83/hr = \$ 2,157.28

Subtotal = \$ 7,690.55

Mobilization @ 10% = \$ 769.06

**Total Cost C5.312# - Reconditioning = \$ 8,459.61/6790 = \$1.24/CCF**

(c) Topsoil Preservation – Unit 28

Additional cost for stockpiling organic matter and top soil, decompaction, and reapplication stock piled organic material and top soil in Unit 28 skid trails.

Based on : Backhoe/Tractor = \$115.00/hour

Operator = \$44.43/hour

Estimate 250' per hour to remove and stock pile topsoil and organic matter.

Estimate 250' per hour to decompact and reapply organic matter.

708' length of road surface/250' hour = 3 hours x 2 = 6 hours.

6 hours x \$159.43/hour = \$956.58 for additional work

= \$956.58

Mobilization = 10 %

= \$95.65

Subtotal + Mobilization = Total Cost \$1,052.23/ 1.06 (Profit) =

\$992.67

Total Skid Trail Topsoil stockpiling and redistribution

= \$ 993

Total Miles = 0.13

Cost Estimate per CCF (All Species) (6,790 ccf)

= \$ 0.15

(d) Recontours (C5.41#)

(see Other Provisions in Timber Sale Report)

(e) Noxious Weed Treatment (C6.27)

(see Other Provisions in Timber Sale Report)

Other Environmental Protection Costs Summary

Description	Total Cost	Cost/CCF
Flaggers (C5.41#)	\$15,149.28	<b>\$2.23</b>
Road Reconditioning (C5.312#)	\$8,459.61	<b>\$1.24</b>
Recontours (C5.41#) (406B, 406G)	\$682	<b>\$0.10</b>
Topsoil preservation (Unit 28)	\$993	<b>\$0.15</b>
Noxious Weed Treatment (C6.27#)	\$15,040	<b>\$2.21</b>

9. Temporary Road Costs

Unit or Road No. 406BT

Reference: Cost Estimating Guide for Road Construction (2009), ch 14. Temporary Road Cost Estimating Cost Guide – pages 97-108

Average Side Slope: 35

Length (406BT): 708 ft = 0.13 Miles

Timber Volume: 15 MBF/Acre

Drainage Structures: 0 Dips

0 18" (450 mm) CMP, 0 "CMP

Note: Do not adjust project costs for inflation or deflation.

- (1) Clearing and Grubbing (Table T-1) = \$ 4,595.00
  - (2) Excavation (Table T-1) = \$ 2,905.00
  - (3) Seeding (Table T-1) = \$ 920.00
  - (4) Obliteration (Table T-2) = \$ 3,300.00
  - (5) Total Unit Cost (1)+(2)+(3)+(4) = \$ 11,720.00
  - (6) Basic Cost Total (5) X Length = \$11,720.00 / Mile X 0.13 Miles(s) = \$ 1,523.60
  - (7) Drainage Structures
    - 0 dips X 0 /Dip = 0
    - 0 18" (450 mm) CMPs X 0 /CMP = 0
- Drainage Cost Total = 0

(8) Subtotal Basic + Drainage Cost (6) + (7) Subtotal = \$ 1,523.60

(9) Mobilization = 10% = \$152.36

Note: Due to the relatively low cost, a 10% mobilization cost was used as opposed to the standard 7%)

Subtotal (8) + Mobilization (9) = Total Cost \$1,675.96/ 1.06 (Profit) = \$1,581.09 \*

\*Total Cost to be entered on Line 26, 2400-17

Total Temporary Skid Road Cost = \$ 1,581.09

Total Miles = 0.13

Cost Estimate per CCF (All Species) (6,795 ccf) = \$ 0.23

#### 10. Specified Roads

(See Schedule of Items for more detailed information)

Road No.	Miles		Purchaser Costs	
	Construction	Reconstruction	Construction	Reconstruction
406B	0	0.02	0	\$4,441.52
406F	0	0.98	0	\$7,627.33
406G	0	0.06	0	\$4,189.16
406K	0	0.42	0	\$2,250.04
1562A	0	2.49	0	\$11,096.60
1562B	0	0.44	0	\$2,036.55

Total Purchaser Costs: \$ 31,641.20

Estimated Cost per CCF (All Species): \$ 4.66

#### 11. Base Rates

(Adjustments of Base Rates to protect regeneration costs in SAI Plan)

Sale Volume 7128 x \$0.25/CCF \$ 1,782

Regeneration Costs \$ 29,534

Regeneration Costs plus min NFF \$ \$31,316

Total value at minimum rates \* \$ 21,360

Amount of increase needed \$ 9,956

Increase per CCF \$ 1.47

\* Total Value at Minimum Rates:

Species	Rate/ccf	Volume	Total Value
C/PP	\$5.00	326	\$1,630
DF/L	\$3.00	4197	\$12,591
GF/H/LP	\$3.00	2267	\$6,801
Non-Saw	\$1.00	338	\$338
Total			\$ 21,360

Species Group	DF,L,C,WP	LP,GF,H,	Non-Sawtimber	Ton Rate All species & products
Base Rates	3.14 + 1.47= 4.61	3.00 + 1.47= 4.47	1.00	2.47/Ton

12. Base Indices : NA