

Erosion Control - Grouse 18702 CCF

		# Landing	Acres		
Ground based acres	10.5	1	0.25		
Skyline acres	373.4	238	59.5	61.25	ac
Helicopter acres	41.2	2	1.5		

ground landings are als

Skid Roads; ground based expect up to 15% of the acreage to be disturbed . Approximately 10% of this acreage will require seed and fert...

	Length	Width	Sq FT/ Ac		
seed and fert...	0.15	10.5	0.1	0.2	ac
Temp Roads:	18584	14	43560	0.1	0.6 ac
				Total ac	62.0 seed and fert ac

use 10% of

Seed and fertilize: one person can seed and fert 2.2 ac/day;

Acres	Ac/Day	Days	\$/Day	
62.0	2.2	28	150	\$4,227.27 labor

materials and equipment; 62.0 ac x \$175/ ac =

Ac	\$/Ac	
62.0	175	\$10,850.00 materials and equipment seed and fert

scarify skid roads: district experience on recent sales shows scarification cost to be \$100/ac over entire sale acreage

Ac	\$/Ac	
10.5	100	\$1,050.00 scarification

Total \$16,127.27

21% overhead: 1.21 \$16,127.27 \$19,514.00

Cost/ CCF **\$1.04**

so shared with cable and counted as cable

f length

f length

Grouse

Landing Construction Cost

18702 CCF

Helicopter Landing Construction

Landings will be constructed at the time the temp road is constructed. Natural openings will be used where possible. Approximately 1/2 acre in size. Approximately 0 landings will be needed.

	Cost/UM	# Days	Hrs	Cost	
Falling landing area	\$250.00	1		\$250.00	
Clearing area	\$500.00	1		\$500.00	
Shaping Landing Area (Excavator or cat & dump truck)	\$200.00	0	4	\$800.00	
Reshaping of road surfaces (2 hours/ landing)	\$500.00		0	\$0.00	included in Temp RD Cost
				\$1,550.00	
				\$/CCF \$0.08	

Ground Based Landing Construction

Landings will be constructed at the time the temp road is constructed. Natural openings will be used where possible. Approximately 1/4 acre in size. Approximately 1 landing (rest are shared cable landings) will be needed. Most will be on existing landings

	Cost/UM	# Days	Hrs	Cost	
Falling landing area	\$250.00	0.5		\$125.00	
Clearing area	\$500.00	0.5		\$250.00	
Shaping Landing Area (Loader or Cat)	\$100.00		2	\$200.00	
Reshaping of road surfaces (2 hours/ landing)	\$500.00		0	\$0.00	included in Temp RD Cost
				\$575.00	
				\$/CCF \$0.03	

Skyline Landing Construction All units will need to have landings constructed or reconstructed. Landings on system roads will be off road surface if possible.

Landings will be constructed at the time the temp road is constructed. Natural openings will be used where possible. Approximately 1/4 acre in size. Approximately 238 landings will be needed with approximately 81 landings on system road. 157 are on other roads and need some a
Approximately 4 Landings can be constructed per day Landings along the ridge line will be used for both sides of the unit.

	Cost/UM	# Days	Hrs	Cost	
Additional Falling of landing area	\$250.00	5		\$1,250.00	
Clearing area	\$500.00	5		\$2,500.00	
Shaping Landing Area (Loader or Cat) 2 hrs/ landing	\$100.00		157	\$15,700.00	
Reshaping of road surfaces (1 hr per landing)	\$500.00		81	\$40,500.00	of system roads
				\$59,950.00	
				\$/CCF \$3.21	

Total Landing Construction Cost **\$3.32** \$/CCF

mount of improvement

Estimated Purchaser Brush Disposal Cost:

The total estimated purchaser cost is estimated at \$7,753.16 or \$320.38 per acre for the 24.2 acres. This was estimated by the following and calculated on the spread sheet below.

Covering and re-piling of the landing piles with one laborer at \$19.92 at 5 hour per day for 24 days for covering, slash pullback and restacking is \$2,390.40. One Loader with operator at \$95.00 per hour for 50 hours is \$4,750.00. Pile covering, chain saw fuel, 2 cycle oil and bar oil is estimated at \$463.00. With 15 rolls of visqueen at \$26.00 per roll for \$390.00, 5 gallons saw fuel at \$4.00 a gallon for \$20.00, 1- 6/2.6 fl oz of 2 cycle mix at \$14.00 per 6 for \$14.00 and 3 gallons of bar oil at \$13.00 per gallon for \$39.00.

Direction felling for was calculated at \$149.76

Olympic National Forest KV/BD Cost Estimation Sheet (Slash Preparation Work Conducted by Purchaser/Burned by Forest)														
Sale Unit	Grouse			Treatment Type					Total Acres Treated	24.2				
Personnel Costs														
Type of work	# Needed	\$/Hr	\$/CCF	Days or Pile	Hours/unit	CCF/Acre	Acres	Activity				Cost/Acre	Total	
Laborer	1	\$19.92		24	5		24	MP/HP				\$99.60	\$2,390.40	
Faller	1		\$0.26			24	24	DF				\$6.24	\$149.76	
												\$0.00	\$0.00	
												\$0.00	\$0.00	
												\$0.00	\$0.00	
												\$0.00	\$0.00	
												\$0.00	\$0.00	
Equipment Costs (including operator)														
Equipment Type	# Needed	\$/Hr	\$/Day	Hours	Days	Acres	Activity	Cost/Acre	Total	Type of Supplies	Units	\$/Unit	Total	
Loader	1	\$95.00		50			MP	\$0.00	\$4,750.00	Visqueen (10x100)	15	\$26.00	\$390.00	
								\$0.00	\$0.00	Saw Fuel	5	\$4.00	\$20.00	
								\$0.00	\$0.00	2cycle/mix	1	\$14.00	\$14.00	
								\$0.00	\$0.00	Bar oil	3	\$13.00	\$39.00	
								\$0.00	\$0.00				\$0.00	
								\$0.00	\$0.00				\$0.00	
								\$0.00	\$0.00				\$0.00	
								\$0.00	\$0.00				\$0.00	
Total Project Costs														
Personnel Totals		Equipment Totals		Supply Costs										
\$2,540.16		\$4,750.00		\$463.00										
Total Cost to the Purchaser		Total Cost Per Acre to Purchaser												
\$7,753.16		\$320.38												
Treatment Types: DF=Directional Felling; MLS=Machine Lop and Scatter; HLS=Hand Lop and Scatter; HP=Hand Pile and Cover; MP=Machine Pile and Cover;														

Grouse T.S.

SUBGRADE, SURFACING, AND ROCK

For appraisal purposes only, not part of the contract, not to be used as final design.

See Sale Area Map

Road Name	From Station (Approx.)	To Station (Approx.)	Subdivision	Cut Slope Ratio	Fill Slope Ratio	Finished Surface Width Excluding Curve Widening and Turnouts Feet (Approx.)	Uncompacted Depth of New Rock Inches (Approx.) PIT RUN	Designated Rock Source PIT RUN	Remarks
T1	0+00	16+00	17A	Utilize Existing Prism		12	Spot rock 6"	See Sale Area Map	1,3
T2	0+00	2+10	17	Utilize/ Reestablish Existing Prism		12	6"	See Sale Area Map	1,3
T3	0+00	14+58	17,17B	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T4	0+00	11+00	16	¾:1	1½:1	12	Spot Rock	See Sale Area Map	1,3
T4	11+00	42+87	16	Utilize/ Reestablish Existing Prism, outslope		12	6	See Sale Area Map	1,3
T5	0+00	2+55	18A	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T6	0+00	23+00	18D,E,F	Utilize Existing Prism		12	6	See Sale Area Map	1,3
T7	0+00	3+60	19D	Utilize Existing Prism		12	6	See Sale Area Map	1,3
T7	3+60	15+56	19D	Utilize/ Reestablish Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T8	0+00	4+34	19D	1:1	1½:1	12	Spot Rock	See Sale Area Map	1,3
T9	0+00	4+06	19	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T10	0+00	9+39	19	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T11	0+00	9+28	81C	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T12	0+00	15+55	20E	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T13	0+00	3+94	20D	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T14	0+00	3+91	21C	1:1	1½:1	12	6	See Sale Area Map	1,3
T15	0+00	8+68	22	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T16	0+00	6+50	22	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3
T17	0+00	3+53	BP1	Utilize Existing Prism		12	Spot Rock	See Sale Area Map	1,3

DRAINAGE AND CULVERTS

Road Name	Station (Approx.)	Feature	Purpose	Minimum Culvert Diameter (Inches)	Q-100 Culvert Diameter (Inches)	Rock Source (Fill)	Remarks
						PIT RUN	
T4	21+55	Culvert	Ditch Relief	18	na	See Sale Area Map	
T4	27+20	Culvert	Dry Draw	18	na	See Sale Area Map	
T4	32+40	Culvert	Dry Draw	18	na	See Sale Area Map	
T6	0+00	Culvert	Ditch Relief	18	na	See Sale Area Map	
T7	0+00	Culvert	Ditch Relief	18	na	See Sale Area Map	
T12	0+00	Culvert	Ditch Relief	18	na	See Sale Area Map	
T15	0+00	Culvert	Ditch Relief	18	na	See Sale Area Map	
T17	0+00	Culvert	Ditch Relief	18	na	See Sale Area Map	

1. Inslope and outslope as needed to maintain proper drainage.
2. Landings and short access spurs, estimate 300 cubic yards.
3. Existing culverts may be utilized in place.

Road Name	Grouse				total ft	Subdivision	Travel Way	Rock Depth	CY Rock	Culverts	Cubic Yds Rock		
	50k/mile new const	35k/mile Heavy	30k/mile Reconstruction Moderate	25k/mile Light							2259049	20A	
T1		1600			1600	17A	12	6	193		193		
T2		210			210	17	12	6	51		51		
T3				1458	1458	17, 17B	12	6	88		88		
T4			1100		1100	16	12	6	132	3	18"	132	
T4		3187			3187	16	12	6	767			281	
T5			255		255	18A	12	6	15			15	
T6		2300			2300	18D,E,F	12	6	554	1	18"	554	
T7			360		360	19D	12	6	87	1	18"	87	
T7			1196		1196	19D	12	6	72			72	
T8			434		434	19D	12	6	104			104	
T9			406		406	19	12	6	24			23	
T10		200	739		939	19	12	6	170			170	
T11				928	928	81C	12	6	112			112	
T12			1555		1555	20E	12	6	281	1	18"	281	
T13			394		394	20D	12	6	24			24	
T14	391				391	21C	12	6	94			94	
T15			868		868	22	12	6	104	1	18"	104	
T16			650		650	22	12	6	78			78	
T17			353		353	BP1	12	5	42	1	18"		
	391	7497	8310	2386	18584			Totals =	2992	8		2000	500
Miles	0.07	1.42	1.57	0.45	3.52			spot rock					

Average Rock Haul for pit run one way is 14.0 miles(Boulder pit)
Average Rock Haul for crushed one way is 0 miles, na

~ 2000 yards at end of 2259049
~ 500 yards next to 20A
rest from boulder pit

New construction - as shown in above table. Use cost of \$50,000/mi from past district experience.

Reconstruction of existing grade includes some removal of timber , debris removal, drainage restoration, culvert placement, blading and shaping. Rock as shown in above table. Use cost of 70 % of new const for heavy, 60% moderate and 50% for light reconstruction

Clearing limits will not exceed 16 feet unless otherwise designated.

New construction temp 0.00 miles

0.07 miles X \$50,000

\$3,500

Estimated CY of Rock Needed

Temp. roads: Pit Run Crushed

All 2992 0

other 300

Total 3292

Landings & s

Reconstruction of temp roads

miles 1.42 1.57 0.45

\$/mile \$35,000 \$30,000 \$25,000

\$ \$49,700 \$47,100 \$11,250

\$108,050.00

Culverts \$500/culvert **18"**
\$4,000.00

8 - 18 " culverts may be needed as relief culverts
Placement of the culverts will be determined as des
Sensitive Construction of temp roads (C5.1, Option

Rock Haul

		yards	loads	\$/load	Cost	\$/load =	26.8 miles RndTrip, see above for tr
local	Pit Run	2,500	250	\$123.00	\$30,750.00		
boulder	Pit Run	492	49	\$246.00	\$12,103.20		2 loads every 3 hour
	Crushed	0	0	\$82.00	\$0.00		dump + excavator (half time) = \$164
				Total	\$42,853.20		(\$164*3hrs)/2 loads = \$246/ load

Close Temp Roads - includes culvert removal, barrier placement, scarification for rehab, ~14inches. Seeding and fert is included in the erosion control appraisal:
 Approximately 1000 feet per day estimated.
 Allow 18 days to use shovel to close roads at \$1500/day includes pr and r etc

\$27,000

total \$185,403.20
 cost per CCF = **\$9.91**

Miles
2259049 20A

6
6
6
4.2
4.6
5
4.7
2.2
3.8
3.8
3.6
3.6
2.8
1.1
1.1
0
0.4
0.4
0.4
3.2

(6.4 miles/ 12mph)*60 32 minutes
(7.4 miles/ 12mph)*60 37 minutes
34.5 average
3.7 average 1 way round to 45 mins = 4 loads per 3 hours

minutes

2273100 0.1 0.5 (.1 miles/12mph)*60 minutes
2273 1.2 6
101 5.5 6.6
2258 0.8 4
2259 5.8 29
13.4 46.1 1 way
26.8 92.2 **round trip**
round to 90 mins = 2 loads per 3 hours

hort access spurs

24" 36"

cribed in
1)

ip to Boulder pit

\$/load =

See above for local rock sources

4 loads every 3 hours

dump + excavator (half time) = \$164/hr

l/hr

$(\$164 * 3 \text{ hrs}) / 4 \text{ loads} = \$123 / \text{load}$

USDA - FOREST SERVICE
Stewardship: N

REPORT OF TIMBER SALE
APPRAISAL SUMMARY CCF

R6-FS-2400-17 (04/10)
Version 1421 (TEA 06-14)

Region: 06
Forest: 09 Olympic
District: 03 Quinault
Salvage: N

Sale Name: Grouse
Sale Number: 93420
Appraise to: Aberdeen
Appraiser: McNealy

Appraisal Date: 07/17/14
Base Period Ending: 03/31/14
Competition Factor: 20%
Essential KV Cost: 0

SELLING PRICES	1	2	3	4	5	6	7	Average	Total
1. Species	D-fir	W Hem							
2. Species Code	205	263							
3. Product/Unit	01-03	01-03							
4. Volume	7,214	11,488							18,702
5. Base Period Price	110.68	30.11						61.19	
6. Base Period Index	234.55	200.53						213.65	
7. Current Index	221.64	199.72						208.18	
8. Rapid Market Adj	10.40							4.01	
9. Market Adj BP Price	108.17	29.30						59.72	
10. Unusual Adjustment									
11. GBCv-Nonsaw Adj									
12. Product Quality Adj	14.25	13.54						13.81	
13. Adj Base Period Price	122.42	42.84						73.54	1,375,283.80

COSTS	Zone Avg Cost/UM	Est Sale Cost/UM	Adj to BP Cost	ROADS	Km	Miles	Cost
14. Stump to Truck	116.53	130.86	-14.33	Specified Road Con			
15. Haul/Scale	30.71	33.51	-2.80	Specified Road Rec	6.39	3.97	163,892
16. Road Maintenance	10.87	13.19	-2.32	Temporary Road Con	5.67	3.52	185,403
17. Contract	6.28	2.19	4.09	Haul Miles		44	
18. Development & Other	5.77	13.23	-7.46				
19. Road Const & Recon		8.76	-8.76				
20. Total (lines 14-19)	170.16	201.74	-31.58	DEPOSITS:	Br Disp/UM .74	Rd Mtc/UM 3.75	C(T)5.213# .57

ADVERTISED RATES	1	2	3	4	5	6	7	Average	Total
21. Predicted Bid Rate	90.84	11.26						41.96	784,674.64
22. Competition Adjustment	18.17	2.25						8.39	156,926.38
23. Property Value									
24. Indicated Adv Rate	72.67	9.01						33.57	627,748.26
25. Base Rate	3.00	3.00						3.00	56,106.00
26. Adjustment									
27. Advertised Rate	72.67	9.01						33.57	627,748.26

CCF to MBF Rate Factors: 1.8709 1.8722 1.8717
 CCF to MBF Volume Factors: .5345 .5341 .5343
 MBF to CCF Index Factors: .52 .52
 CCF Base Index for A(T)5a:
 CCF Wtd Avg Del Log Price: 357.82 318.07
 MBF Volume: 3,856 6,136 9,992
 Total Tons Removed: 21,552 38,013 59,565
 Net CCF to Tons Conversion Factor for C8.3#(Option 1) or K-I.3.1#: 3.1850 DEPOSITS/Ton BD: .23 RM: 1.18