



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Elkberg
Sale FG-341-2023-W00862-01

District: Forest Grove

Date: August 02, 2022

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,075,327.20	\$0.00	\$2,075,327.20
		Project Work:	(\$146,410.00)
		Advertised Value:	\$1,928,917.20



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District: Forest Grove

Date: August 02, 2022

Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	98
Western Hemlock / Fir	16	0	98

Volume by Grade	2S	3S & 4S 6"-11"	Total
Douglas - Fir	2,151	1,274	3,425
Western Hemlock / Fir	123	104	227
Total	2,274	1,378	3,652

Comments: Pond Values Used: Local Pond Values, June 2022.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$873.04/\text{MBF} = \$1,228/\text{MBF} - \$354.96/\text{MBF}$

Red alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:
 $\$307.04/\text{MBF} = \$662/\text{MBF} - \$354.96/\text{MBF}$

BRANDING AND PAINTING COST ALLOWANCE = $\$2.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$5.00/\text{Gallon}$

HAULING COST ALLOWANCE
Hauling costs equivalent to $\$1,200$ daily truck cost.

Other Costs (with Profit & Risk to be added):
None

Other Costs (No Profit & Risk added):
Weyerhaeuser Road Use Fee = $\$59,656.93$
Machine Time to Block/Waterbar Roads, and Skid Trails:
 $20 \text{ hours} \times \$150/\text{hour} = \$3,000$
Machine Time to Pile Landing Slash:
 $20 \text{ hours} \times \$150/\text{hour} = \$3,000$
Equipment Cleaning: $3 \text{ pieces} \times \$1,000/\text{Piece} = \$3,000$
TOTAL Other Costs (No Profit & Risk added) = $\$68,656.93$

SLASH TREATMENT: $10 \text{ acres} \times \$250/\text{acre} = \$2,500$

ROAD MAINTENANCE
(Includes: Move-in, Grading, Rolling and Spot Rocking)
Move-in = $\$3,032.21$
General Road Maintenance: $3.76 \text{ miles} \times \$2,093.38 = \$7,871.10$
TOTAL Road Maintenance: $\$10,903.31 / 3,652 \text{ MBF} = \$2.98/\text{MBF}$



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Logging Conditions

Combination#: 1 Douglas - Fir 69.71%
 Western Hemlock / Fir 69.46%

Logging System: Cable: Large Tower >=70 **Process:** Harvester Head Delimbing
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 10 **bd. ft / load:** 4600
cost / mbf: \$175.27
machines: Log Loader (A)
 Forwarder
 Harvester
 Tower Yarder (Large)

Combination#: 2 Douglas - Fir 30.29%
 Western Hemlock / Fir 30.54%

Logging System: Shovel **Process:** Harvester Head Delimbing
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 12 **bd. ft / load:** 4600
cost / mbf: \$96.81
machines: Forwarder
 Harvester



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Elkberg
Sale FG-341-2023-W00862-01

District: Forest Grove

Date: August 02, 2022

Logging Costs

Operating Seasons: 2.00	Profit Risk: 15%
Project Costs: \$146,410.00	Other Costs (P/R): \$0.00
Slash Disposal: \$2,500.00	Other Costs: \$68,656.93

Miles of Road

Road Maintenance: \$2.98

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.6
Western Hemlock / Fir	\$0.00	2.0	4.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Elkberg Sale FG-341-2023-W00862-01

District: Forest Grove

Date: August 02, 2022

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$151.50	\$3.04	\$2.40	\$133.04	\$0.00	\$43.50	\$0.68	\$2.00	\$18.80	\$354.96
Western Hemlock / Fir									
\$151.31	\$3.04	\$2.40	\$153.00	\$0.00	\$46.46	\$0.68	\$2.00	\$18.80	\$377.69

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$938.47	\$583.51	\$0.00
Western Hemlock / Fir	\$0.00	\$716.04	\$338.35	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Elkberg
Sale FG-341-2023-W00862-01

District: Forest Grove

Date: August 02, 2022

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,425	\$583.51	\$1,998,521.75
Western Hemlock / Fir	227	\$338.35	\$76,805.45

Gross Timber Sale Value

Recovery: \$2,075,327.20

Prepared By: MARK SAVAGE

Phone: 503-359-7437

TIMBER SALE SUMMARY
Elkberg
#FG-341-2023-W00862-01

1. **Location:** Portions of Section 33, T1S, R6W, W.M., Washington County, Oregon.
2. **Type of Sale:** Unit 1 is a 77-acre Modified Clearcut Unit 2 is 3 acres of Right-of-Way timber removal. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF, Washington County.
4. **Sale Acreage:** Acres are net of Stream Buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
5. **Cruise:** See Cruise Report.
6. **Timber Description:** The Timber Sale Area consists of well stocked 57-74 year-old Douglas-fir stands with minor amounts of western hemlock, noble fir, and red alder. The stand has an average of 246 ft² of basal area (all species), an average Douglas-fir DBH of 18 inches and an estimated average net Douglas-fir volume of approximately 43.3 MBF per acre.
7. **Topography and Logging Method:** Slopes within the sale units range from 5% to 80%, with a generally northeastern aspect. Unit 1 is 72% cable-based yarding and 28% ground-based yarding. The average cable road length is 500 feet and the maximum is approximately 900 feet. The average horizontal skid trail length is 200 feet and the maximum is approximately 400 feet. Unit 2 is 100% ground-based yarding, associated with Right-of-Way Timber.
8. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, proceed south on Highway 47 for 15 miles. Turn right onto Pike Road and continue for 4.5 miles. Pike Road then becomes Turner Creek Road. Continue on Turner Creek Road for 4 miles to a Weyerhaeuser gate. Continue through this gate on Turner Creek Road for 4.5 miles. Turn left onto Flora Mainline from Turner Creek Road, and there is an additional Weyerhaeuser gate. Proceed through the gate on Flora Mainline and continue for 3 miles to Steinberg Ridge Road and follow approximately 500 feet. Turn left onto Elkhorn Road and follow for 1.3 miles to Point M. From here, prospective Purchasers will need to walk for 1.3 miles to access the southern portion of the timber sale area. There are two gates along this route that will require a key which can be obtained from the Forest Grove District Office.
9. **Projects:**

Project No. 1: Rocked Road Construction	\$122,491.09
Project No. 2: Road Improvement	\$23,918.91
 Total Credit for all Projects	 \$146,410.00

PROJECT COST SUMMARY SHEET

Timber Sale: Elkberg
Sale Number: FG-341-2023-W00862-01

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

Road Segment	Length	Cost
A to B	36+60	\$43,751.68
C to D	23+00	\$25,833.99
E to F	7+80	\$13,625.70
G to H	8+60	\$12,503.62
I to J	5+50	\$6,084.13
K to L	2+00	\$2,854.64
	83+50 stations	
	1.58 miles	
Total Rock =	8,547 cy	4" - 0
	12 cy	Riprap
		Move-in =
		\$6,701.79
		TOTAL PROJECT COST =
		\$111,355.54
		TOTAL PROJECT COST W/ 10% FUEL ADJUSTMENT=
		\$122,491.09

PROJECT NO. 2: ROAD IMPROVEMENT

Road Segment	Length	Cost
M to A	24+00	\$8,761.16
N to O	75+00	\$3,627.01
P to M	21+50	\$8,047.63
	120+50 stations	
	2.28 miles	
Total Rock =	2,030 cy	4" - 0
		Move-in =
		\$1,308.66
		TOTAL PROJECT COST =
		\$21,744.46
		TOTAL PROJECT COST W/ 10% FUEL ADJUSTMENT=
		\$23,918.91
		TOTAL CREDITS =
		\$133,100.00
		TOTAL CREDITS W/ 10% FUEL ADJUSTMENT =
		\$146,410.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
Road Segment: A to B

Sale Number: FG-341-2023-W00862-01
Construction: 36+60 stations
0.69 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	4.21	ac @	\$1,078.00	per ac =	\$4,538.38
Remove large stump	11.00	ea @	\$82.50	per ea =	\$907.50
Balanced road construction	22.35	sta @	\$192.50	per sta =	\$4,302.38
Drift	14.25	sta @	\$450.00	per sta =	\$6,412.50
Turnout	7	ea @	\$66.00	per ea =	\$462.00
Turnaround	1	ea @	\$82.50	per ea =	\$82.50
Approach to landing	0.50	sta @	\$192.50	per sta =	\$96.25
Roadside landing	2	ea @	\$165.00	per ea =	\$330.00
Landing	2	ea @	\$314.00	per ea =	\$628.00
Grade, ditch, & roll	37.10	sta @	\$36.00	per sta =	\$1,335.60

TOTAL CONSTRUCTION COSTS = \$19,095.11

CULVERTS

Culverts and Bands

18" Diameter	210	LF @	\$20.00	per LF =	\$4,200.00
24" Diameter	40	LF @	\$29.00	per LF =	\$1,160.00

Markers & Stakes

Culvert marker	8	ea @	\$10.00	per ea =	\$80.00
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TOTAL CULVERT COSTS = \$5,440.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock						
Energy dissipator	24"-12"	\$1.69	\$3.06	\$1.60	12	\$76.20
Subgrade reinforcement	4" - 0	\$0.89	\$3.06	\$0.75	189	\$888.30
Subtotal =					201	\$964.50
Surfacing rock						
Base rock	4" - 0	\$0.89	\$3.06	\$1.22	2,379	\$12,299.43
Junction	4" - 0	\$0.89	\$3.06	\$1.22	96	\$496.32
Turnout	4" - 0	\$0.89	\$3.06	\$1.22	203	\$1,049.51
Turnaround	4" - 0	\$0.89	\$3.06	\$1.22	20	\$103.40
Curve widening	4" - 0	\$0.89	\$3.06	\$1.22	40	\$206.80
Approach to landing	4" - 0	\$0.89	\$3.06	\$1.22	33	\$170.61
Roadside landing	4" - 0	\$0.89	\$3.06	\$1.22	190	\$982.30
Landing	4" - 0	\$0.89	\$3.06	\$1.22	360	\$1,861.20
Subtotal =					3,321	\$17,169.57

Totals

All Rock =	3,522
4" - 0 =	3,510
Riprap =	12

TOTAL ROCK COSTS = \$18,134.07

EROSION CONTROL

Grass seed & fertilizer	2.11	ac @	\$500.00	per ac =	\$1,052.50
Straw mulch (bale)	3	ea @	\$10.00	per ea =	\$30.00

TOTAL EROSION CONTROL COSTS = \$1,082.50

TOTAL PROJECT COST = \$43,751.68

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
Road Segment: C to D

Sale Number: FG-341-2023-W00862-01
Construction: 23+00 stations
0.44 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	2.65	ac @	\$1,078.00	per ac =	\$2,856.70
Balanced road construction	16.95	sta @	\$192.50	per sta =	\$3,262.88
Drift	6.05	sta @	\$450.00	per sta =	\$2,722.50
Turnout	5	ea @	\$66.00	per ea =	\$330.00
Turnaround	1	ea @	\$82.50	per ea =	\$82.50
Approach to landing	0.50	sta @	\$192.50	per sta =	\$96.25
Landing	2	ea @	\$314.00	per ea =	\$628.00
Grade, ditch, & roll	23.50	sta @	\$36.00	per sta =	\$846.00

TOTAL CONSTRUCTION COSTS = \$10,824.83

CULVERTS

Culverts and Bands					
18" Diameter	120	LF @	\$20.00	per LF =	\$2,400.00
24" Diameter	40	LF @	\$29.00	per LF =	\$1,160.00
Markers & Stakes					
Culvert marker	5	ea @	\$10.00	per ea =	\$50.00

TOTAL CULVERT COSTS = \$3,610.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	\$0.89	\$3.11	\$1.22	1,495	\$7,803.90
Turnout	4" - 0	\$0.89	\$3.11	\$1.22	145	\$756.90
Turnaround	4" - 0	\$0.89	\$3.11	\$1.22	20	\$104.40
Approach to landing	4" - 0	\$0.89	\$3.11	\$1.22	33	\$172.26
Landing	4" - 0	\$0.89	\$3.11	\$1.22	360	\$1,879.20
Subtotal =					2,053	\$10,716.66

Totals	All Rock =	2,053
	4" - 0 =	2,053

TOTAL ROCK COSTS = \$10,716.66

EROSION CONTROL

Grass seed & fertilizer	1.33	ac @	\$500.00	per ac =	\$662.50
Straw mulch (bale)	2	ea @	\$10.00	per ea =	\$20.00

TOTAL EROSION CONTROL COSTS = \$682.50

TOTAL PROJECT COST = \$25,833.99

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
Road Segment: E to F

Sale Number: FG-341-2023-W00862-01
Construction: 7+80 stations
0.15 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	0.90	ac @	\$1,078.00	per ac =	\$970.20
Remove large stump	5.00	ea @	\$82.50	per ea =	\$412.50
Balanced road construction	5.00	sta @	\$192.50	per sta =	\$962.50
Drift	2.80	sta @	\$450.00	per sta =	\$1,260.00
Turnout	2	ea @	\$66.00	per ea =	\$132.00
Turnaround	1	ea @	\$82.50	per ea =	\$82.50
Approach to landing	1.00	sta @	\$192.50	per sta =	\$192.50
Landing	2	ea @	\$314.00	per ea =	\$628.00
Grade, ditch, & roll	8.80	sta @	\$36.00	per sta =	\$316.80

TOTAL CONSTRUCTION COSTS = \$4,957.00

CULVERTS

Culverts and Bands					
18" Diameter	90	LF @	\$20.00	per LF =	\$1,800.00
24" Diameter	40	LF @	\$29.00	per LF =	\$1,160.00
Markers & Stakes					
Culvert marker	4	ea @	\$10.00	per ea =	\$40.00

TOTAL CULVERT COSTS = \$3,000.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	\$0.89	\$3.26	\$1.22	507	\$2,722.59
Turnout	4" - 0	\$0.89	\$3.26	\$1.22	58	\$311.46
Turnaround	4" - 0	\$0.89	\$3.26	\$1.22	20	\$107.40
Approach to landing	4" - 0	\$0.89	\$3.26	\$1.22	65	\$349.05
Landing	4" - 0	\$0.89	\$3.26	\$1.22	360	\$1,933.20
				Subtotal =	1,010	\$5,423.70

Totals

All Rock =	1,010
4" - 0 =	1,010

TOTAL ROCK COSTS = \$5,423.70

EROSION CONTROL

Grass seed & fertilizer	0.45	ac @	\$500.00	per ac =	\$225.00
Straw mulch (bale)	2	ea @	\$10.00	per ea =	\$20.00

TOTAL EROSION CONTROL COSTS = \$245.00

TOTAL PROJECT COST = \$13,625.70

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
Road Segment: G to H

Sale Number: FG-341-2023-W00862-01
Construction: 8+60 stations
0.16 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	0.99	ac @	\$1,078.00	per ac =	\$1,067.22
Remove large stump	6.00	ea @	\$82.50	per ea =	\$495.00
Balanced road construction	5.80	sta @	\$192.50	per sta =	\$1,116.50
Drift	2.80	sta @	\$450.00	per sta =	\$1,260.00
Turnout	2	ea @	\$66.00	per ea =	\$132.00
Turnaround	1	ea @	\$82.50	per ea =	\$82.50
Approach to landing	0.60	sta @	\$192.50	per sta =	\$115.50
Landing	2	ea @	\$314.00	per ea =	\$628.00
Grade, ditch, & roll	9.20	sta @	\$36.00	per sta =	\$331.20

TOTAL CONSTRUCTION COSTS = \$5,227.92

CULVERTS

Culverts and Bands

18" Diameter	30	LF @	\$20.00	per LF =	\$600.00
24" Diameter	24	LF @	\$29.00	per LF =	\$696.00

Markers & Stakes

Culvert marker	2	ea @	\$10.00	per ea =	\$20.00
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TOTAL CULVERT COSTS = \$1,316.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	\$0.89	\$3.26	\$1.22	559	\$3,001.83
Junction	4" - 0	\$0.89	\$3.26	\$1.22	24	\$128.88
Turnout	4" - 0	\$0.89	\$3.26	\$1.22	58	\$311.46
Turnaround	4" - 0	\$0.89	\$3.26	\$1.22	20	\$107.40
Approach to landing	4" - 0	\$0.89	\$3.26	\$1.22	39	\$209.43
Landing	4" - 0	\$0.89	\$3.26	\$1.22	360	\$1,933.20
Subtotal =					1,060	\$5,692.20

Totals

All Rock =	1,060
4" - 0 =	1,060

TOTAL ROCK COSTS = \$5,692.20

EROSION CONTROL

Grass seed & fertilizer	0.50	ac @	\$500.00	per ac =	\$247.50
Straw mulch (bale)	2	ea @	\$10.00	per ea =	\$20.00

TOTAL EROSION CONTROL COSTS = \$267.50

TOTAL PROJECT COST = \$12,503.62

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
Road Segment: I to J

Sale Number: FG-341-2023-W00862-01
Construction: 5+50 stations
0.10 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	0.64	ac @	\$1,078.00	per ac =	\$689.92
Remove large stump	4.00	ea @	\$82.50	per ea =	\$330.00
Balanced road construction	5.50	sta @	\$192.50	per sta =	\$1,058.75
Turnout	1	ea @	\$66.00	per ea =	\$66.00
Turnaround	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	5.50	sta @	\$36.00	per sta =	\$198.00

TOTAL CONSTRUCTION COSTS = \$2,739.17

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	\$0.89	\$3.27	\$1.22	363	\$1,952.94
Turnout	4" - 0	\$0.89	\$3.27	\$1.22	29	\$156.02
Turnaround	4" - 0	\$0.89	\$3.27	\$1.22	20	\$107.60
Landing	4" - 0	\$0.89	\$3.27	\$1.22	180	\$968.40
Subtotal =					592	\$3,184.96

Totals

All Rock =	592
4" - 0 =	592

TOTAL ROCK COSTS = \$3,184.96

EROSION CONTROL

Grass seed & fertilizer	0.32	ac @	\$500.00	per ac =	\$160.00
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TOTAL EROSION CONTROL COSTS = \$160.00

TOTAL PROJECT COST = \$6,084.13

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
Road Segment: K to L

Sale Number: FG-341-2023-W00862-01
Construction: 2+00 stations
0.04 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	0.23	ac @	\$1,078.00	per ac =	\$247.94
Balanced road construction	2.00	sta @	\$192.50	per sta =	\$385.00
Turnaround	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	2.00	sta @	\$36.00	per sta =	\$72.00

TOTAL CONSTRUCTION COSTS = \$1,101.44

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	\$0.89	\$3.36	\$1.22	130	\$711.10
Landing	4" - 0	\$0.89	\$3.36	\$1.22	180	\$984.60
Subtotal =					310	\$1,695.70

Totals

All Rock =	310
4" - 0 =	310

TOTAL ROCK COSTS = \$1,695.70

EROSION CONTROL

Grass seed & fertilizer	0.12	ac @	\$500.00	per ac =	\$57.50
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TOTAL EROSION CONTROL COSTS = \$57.50

TOTAL PROJECT COST = \$2,854.64

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
Road Segment: M to A

Sale Number: FG-341-2023-W00862-01
24+00 stations
0.45 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	0.28	ac @	\$1,078.00	per acre =	\$301.84
Clean ditch & scatter waste material	24.00	sta @	\$60.00	per sta =	\$1,440.00
Construct turnout	2	ea @	\$66.00	per ea =	\$132.00
Grade & roll (inslope)	10.00	sta @	\$32.20	per sta =	\$322.00
Grade, ditch, & roll	14.00	sta @	\$36.00	per sta =	\$504.00

TOTAL IMPROVEMENT COSTS = \$2,699.84

CULVERTS

Culverts and Bands					
18" Diameter	30	LF @	\$20.00	per LF =	\$600.00
Markers & Stakes					
Culvert marker	1	ea @	\$10.00	per ea =	\$10.00

TOTAL CULVERT COSTS = \$610.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	\$0.89	\$2.93	\$1.22	1,008	\$5,080.32
Junction	4" - 0	\$0.89	\$2.93	\$1.22	12	\$60.48
Turnout	4" - 0	\$0.89	\$2.93	\$1.22	38	\$191.52
Subtotal =					1,058	\$5,332.32

Totals	All Rock =	1,058
	4" - 0 =	1,058

TOTAL ROCK COSTS = \$5,332.32

EROSION CONTROL

Grass seed & fertilizer	0.28	ac @	\$425.00	per ac =	\$119.00
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TOTAL EROSION CONTROL COSTS = \$119.00

TOTAL PROJECT COST = \$8,761.16

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Elkberg</u>	Sale Number:	<u>FG-341-2023-W00862-01</u>	
Road Segment:	<u>N to O</u>	Improvement:	<u>75+00</u>	stations
			<u>1.42</u>	miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	2.42	ac @	\$862.40	per acre =	\$2,087.01
Grade (outslope)	75.00	sta @	\$15.40	per sta =	\$1,155.00
Construct tank trap	2.00	ea @	\$55.00	per ea =	\$110.00
Construct waterbar	10.00	ea @	\$27.50	per ea =	\$275.00

TOTAL IMPROVEMENT COSTS = \$3,627.01

TOTAL PROJECT COST = \$3,627.01

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg
 Road Segment: P to M

Sale Number: FG-341-2023-W00862-01
21+50 stations
0.41 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	0.25	ac @	\$1,078.00	per acre =	\$269.50
Clean ditch & scatter waste material	21.50	sta @	\$60.00	per sta =	\$1,290.00
Improve turnout	3	ea @	\$33.00	per ea =	\$99.00
Grade, ditch, & roll	21.50	sta @	\$36.00	per sta =	\$774.00

TOTAL IMPROVEMENT COSTS = \$2,432.50

CULVERTS

Culverts and Bands					
18" Diameter	30	LF @	\$20.00	per LF =	\$600.00
Markers & Stakes					
Culvert marker	1	ea @	\$10.00	per ea =	\$10.00

TOTAL CULVERT COSTS = \$610.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	\$0.89	\$2.93	\$1.22	903	\$4,551.12
Junction	4" - 0	\$0.89	\$2.93	\$1.22	12	\$60.48
Turnout	4" - 0	\$0.89	\$2.93	\$1.22	57	\$287.28
Subtotal =					972	\$4,898.88

Totals	All Rock =	972
	4" - 0 =	972

TOTAL ROCK COSTS = \$4,898.88

EROSION CONTROL

Grass seed & fertilizer	0.25	ac @	\$425.00	per ac =	\$106.25
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TOTAL EROSION CONTROL COSTS = \$106.25

TOTAL PROJECT COST = \$8,047.63

SUMMARY OF CONSTRUCTION COST

Timber Sale: Elkberg

Sale Number: FG-341-2023-W00862-01

PROJECT No. 1 & 2 MOVE-IN, WITHIN AREA MOVE, & CLEANING COSTS

<u>Equipment</u>	<u>Total</u>
Grader	\$1,135.95
Loader (Med. & Large)	\$986.20
Roller (smooth/grid) & Compactor	\$676.67
Excavator (Large) - Equipment Cleaning	\$2,135.95
Dozer (Large) - Equipment Cleaning	\$2,180.57
Dump Truck (10cy +)	<u>\$895.11</u>
<u>TOTAL MOVE-IN COSTS =</u>	<u><u>\$8,010.45</u></u>

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: Elkberg
Sale Number: FG-341-2023-W00862-01
Stockpile Name: Barney Stockpile

4" - 0: 10,577 cy (truck measure)
Riprap: 12 cy (truck measure)
Total truck yardage: 10,589 cy

<u>Move-in</u>								
	Move in loader							\$792.09
	Move in Dump Trucks							\$109.85
						Subtotal =		\$901.94
						Per CY =		\$0.09
<u>4"-0, Pit-run Base Cost</u>								
	Load dump truck	\$0.80	/ cy x	10,577	cy =			\$8,461.60
						Subtotal =		\$8,461.60
						Per CY =		\$0.80
<u>Riprap Base Cost</u>								
	Load dump truck	\$1.60	/ cy x	12	cy =			\$19.20
						Subtotal =		\$19.20
						Per CY =		\$1.60

4"-0 Cost = \$0.89/cy
Riprap Cost = \$1.69/cy

CRUISE REPORT
Elkberg
#FG-341-2023-W00862-01

1. LOCATION:

Portions of Sections 33, T1S, R6W, W.M., Washington County, Oregon.

2. CRUISE DESIGN:

The timber cruise was designed using an estimated coefficient of variation (CV) of 60%, average stand diameter of 18 inches, sampling error (SE) of 11% and a minimum of 100 grade trees.

3. SAMPLING METHOD:

The Timber Sale Area was cruised in May of 2022 with 29 variable radius grade plots using a 40 BAF prism. Plots were laid out on a 5 chain x 5 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS:

178 trees were measured and graded producing a standard error of 6.8% on the Douglas-fir Basal Area and 7.2% on the Douglas-fir Net Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following the Official Log Scaling and Grading Rules as adopted by the NW Log Rules Advisory Group. 40 foot segments were favored.

- a) **Height Standards:** Total tree heights were measured to the nearest foot. Bole heights were calculated to a six-inch top.
- b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.
- c) **Form Factors:** Measured for each grade tree using a form point of 16 feet.

6. DATA PROCESSING:

- a) **Volumes and Statistics:** Cruise estimates and sampling statistics were derived from SuperAce 2008 cruise software.
- b) **Deductions:** The following percent volume deductions are by species to account for the hidden defect and breakage. For conifers two percent was deducted.

7. CRUISERS: The sale was cruised by ODF cruisers Kenton Burns, Shamus Smith, and Mark Savage.

Prepared by: Mark Savage 5-18-2022

Reviewed by: Mark Savage 5-18-2022
Date

TC PSTATS				PROJECT STATISTICS				PAGE	1		
				PROJECT	ELKBRG			DATE	5/31/2022		
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt	
01N	06	33	00U1	00MC	77.00		29	198	S	W	
					TREES	ESTIMATED		PERCENT			
				PLOTS	TREES	TOTAL		SAMPLE			
					PER PLOT	TREES		TREES			
TOTAL			29	198	6.8						
CRUISE			29	198	6.8	13,655		1.5			
DBH COUNT											
REFOREST											
COUNT											
BLANKS											
100 %											
STAND SUMMARY											
			SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS
			TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC
DOUG FIR			167	136.4	17.6	114	54.9	230.3	44,195	43,928	9,667
DOUG FIR-S			20	30.3	12.9	56	7.7	27.6			
WHEMLOCK			10	10.4	15.6	91	3.5	13.8	2,591	2,574	587
NOB FIR			1	.2	32.0	139	0.2	1.4	346	346	69
TOTAL			198	177.3	16.8	103	66.6	273.1	47,132	46,848	10,322
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR			84.9	6.6	564	604	643				
DOUG FIR-S											
WHEMLOCK			85.1	28.3	331	462	593				
NOB FIR											
TOTAL			95.5	6.8	503	539	576	364	91	40	
CL	68.1	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR			76.6	5.9	121	129	137				
DOUG FIR-S											
WHEMLOCK			79.8	26.6	76	103	131				
NOB FIR											
TOTAL			87.4	6.2	108	115	123	305	76	34	
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR			62.9	11.9	120	136	153				
DOUG FIR-S			152.5	28.8	22	30	39				
WHEMLOCK			290.9	54.9	5	10	16				
NOB FIR			538.5	101.7		0	0				
TOTAL			58.8	11.1	158	177	197	143	36	16	
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR			35.8	6.8	215	230	246				
DOUG FIR-S			103.3	19.5	22	28	33				
WHEMLOCK			223.0	42.1	8	14	20				
NOB FIR			538.5	101.7		1	3				
TOTAL			30.8	5.8	257	273	289	39	10	4	
CL	68.1	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15	
DOUG FIR			37.9	7.2	40,785	43,928	47,072				
DOUG FIR-S											
WHEMLOCK			246.8	46.6	1,375	2,574	3,774				
NOB FIR			538.5	101.7		346	697				

TC PSTATS				PROJECT STATISTICS					PAGE	2
				PROJECT	ELKBRG			DATE	5/31/2022	
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
01N	06	33	00U1	00MC	77.00		29	198	S	W
CL	68.1		COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL			38.5	7.3	43,443	46,848	50,254	61	15	7
CL	68.1		COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			38.0	7.2	8,973	9,667	10,361			
DOUG FIR-S										
WHEMLOCK			240.0	45.3	321	587	853			
NOB FIR			538.5	101.7		69	139			
TOTAL			38.1	7.2	9,580	10,322	11,064	60	15	7

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
<div>T01N R06W S33 Ty00MC77.00</div>				Project: ELKBRG										Page 1							
				Acres 77.00										Date 5/31/2022							
				Time 8:32:34AM																	
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
				Def%	Gross	Net	Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf			
							4-5		6-11	12-16	17+	12-20	21-30	31-35					36-99		
DF			CU														9	9		0.00	17.0
DF			2M	63	.9	28,170	27,919	2,150			53	47	0	1		99	40	15	381	1.98	73.3
DF			3M	33	.1	14,511	14,495	1,116		99	1		1	0	6	93	39	8	95	0.59	152.8
DF			4M	4		1,514	1,514	117		100			41	59			21	6	26	0.33	58.8
DF Totals				94	.6	44,195	43,928	3,382		36	34	30	2	3	2	93	34	9	145	0.95	301.9
DF	S		CU														22	8		0.00	42.8
DF Totals																	22	8		0.00	42.8
WH			2M	49	1.3	1,294	1,276	98			58	42				100	40	15	371	1.96	3.4
WH			3M	44		1,139	1,139	88		92	8				5	95	39	8	109	0.69	10.4
WH			4M	7		159	159	12		100			33	67			21	6	26	0.30	6.2
WH Totals				5	.7	2,591	2,574	198		47	32	21	2	4	2	92	33	9	129	0.88	20.0
NF			2M	95		331	331	25			30	70				100	40	20	670	3.10	.5
NF			3M	5		15	15	1		100						100	38	6	60	0.80	.2
NF Totals				1		346	346	27		4	29	67				100	39	15	467	2.36	.7
Totals					0.6	47,132	46,848	3,607		37	34	30	2	3	2	93	32	9	128	0.87	365.5

TC		PSTNDSUM										Stand Table Summary										Page		1	
																						Date:		5/31/2022	
T01N R06W S33 Ty00MC				77.00		Project ELKBRG										Time:		8:32:36AM							
						Acres 77.00										Grown Year:									
S T	Sp	Sample		Tot					Average Log		Net		Net		T o t a l s										
		DBH	Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF									
DF		8	1	87	83	3.951	1.38	3.95	3.7	20.0	.42	15	79	32	11	6									
DF		9	5	87	81	15.611	6.90	15.61	8.9	50.0	3.98	140	781	306	108	60									
DF		10	4	88	99	10.116	5.52	10.12	12.8	60.0	3.68	129	607	283	99	47									
DF		11	3	88	99	6.270	4.14	10.45	11.2	50.0	3.35	117	523	258	90	40									
DF		12	7	86	99	12.293	9.66	22.83	12.9	53.1	8.38	294	1,212	645	226	93									
DF		13	6	87	104	8.978	8.28	17.96	15.1	64.2	7.74	272	1,152	596	209	89									
DF		14	4	88	112	5.161	5.52	10.32	19.1	87.5	5.63	198	903	434	152	70									
DF		15	6	87	102	6.744	8.28	12.36	21.9	99.1	7.71	270	1,225	593	208	94									
DF		16	9	88	116	8.891	12.41	17.78	26.4	113.9	13.38	469	2,025	1,030	361	156									
DF		17	5	86	119	4.375	6.90	9.63	28.0	116.4	7.68	269	1,120	591	207	86									
DF		18	12	87	125	9.366	16.55	23.42	29.6	123.7	19.76	693	2,896	1,521	534	223									
DF		19	7	87	131	4.904	9.66	13.31	32.2	136.8	12.22	429	1,821	941	330	140									
DF		20	11	87	130	6.955	15.17	18.97	33.8	147.3	18.30	642	2,794	1,409	494	215									
DF		21	9	87	137	5.161	12.41	15.48	37.9	170.7	16.74	587	2,644	1,289	452	204									
DF		22	7	89	135	3.658	9.66	10.97	41.5	191.0	12.98	455	2,095	999	351	161									
DF		23	5	86	137	2.390	6.90	6.69	45.8	202.9	8.73	306	1,358	672	236	105									
DF		24	14	87	143	6.147	19.31	18.44	50.9	228.1	26.77	939	4,206	2,062	723	324									
DF		25	10	86	138	4.046	13.79	11.73	54.8	246.6	18.34	644	2,893	1,412	496	223									
DF		26	4	88	143	1.496	5.52	4.49	60.8	285.8	7.78	273	1,283	599	210	99									
DF		27	8	87	135	2.775	11.03	7.98	61.0	268.7	13.88	487	2,144	1,069	375	165									
DF		28	1	86	163	.323	1.38	.97	74.9	393.3	2.07	72	381	159	56	29									
DF		29	3	86	150	.902	4.14	2.71	77.9	375.6	6.01	211	1,016	463	162	78									
DF		30	6	85	146	1.686	8.28	5.34	76.8	364.7	11.68	410	1,947	899	316	150									
DF		31	2	86	155	.526	2.76	1.58	90.0	446.7	4.05	142	705	312	109	54									
DF		32	3	84	138	.741	4.14	2.22	88.6	403.3	5.61	197	896	432	152	69									
DF		33	1	84	138	.232	1.38	.70	77.7	383.3	1.54	54	267	119	42	21									
DF		34	3	87	146	.656	4.14	2.19	96.3	479.0	6.00	211	1,048	462	162	81									
DF		35	2	90	158	.413	2.76	1.65	87.6	501.3	4.12	145	828	317	111	64									
DF		36	4	86	146	.781	5.52	2.34	104.8	542.5	7.00	245	1,270	539	189	98									
DF		37	1	84	140	.185	1.38	.55	118.8	590.0	1.88	66	327	144	51	25									
DF		38	3	85	152	.525	4.14	1.75	123.1	647.0	6.14	216	1,133	473	166	87									
DF		42	1	85	148	.143	1.38	.43	161.0	810.0	1.97	69	348	152	53	27									
DF		Totals	167	87	114	136.402	230.34	284.92	33.9	154.2	275.50	9,667	43,928	21,214	7,443	3,382									
WH		9	1	85	41	3.122	1.38	3.12	6.0	30.0	.60	19	94	46	14	7									
WH		11	1	86	64	2.090	1.38	2.09	16.3	60.0	1.09	34	125	84	26	10									
WH		16	2	87	135	1.976	2.76	5.93	22.1	96.7	4.19	131	573	322	101	44									
WH		19	2	86	128	1.401	2.76	3.50	37.3	160.0	4.18	131	560	322	101	43									
WH		20	1	85	128	.632	1.38	1.90	33.9	143.3	2.06	64	272	158	49	21									
WH		23	1	86	137	.478	1.38	1.43	46.8	210.0	2.15	67	301	165	52	23									
WH		24	1	86	132	.439	1.38	1.32	51.8	230.0	2.18	68	303	168	53	23									
WH		32	1	86	143	.247	1.38	.74	98.5	466.7	2.34	73	346	180	56	27									
WH		Totals	10	86	91	10.385	13.79	20.03	29.3	128.5	18.78	587	2,574	1,446	452	198									
NF		32	1	87	139	.247	1.38	.74	92.8	466.7	1.65	69	346	127	53	27									
NF		Totals	1	87	139	.247	1.38	.74	92.8	466.7	1.65	69	346	127	53	27									
DF S		7	1	86	48	5.161	1.38																		
DF S		8	2	86	45	7.903	2.76																		
DF S		11	2	86	66	4.180	2.76																		
DF S		12	1	86	20	1.756	1.38																		
DF S		13	2	85	36	2.993	2.76																		
DF S		14	1	86	72	1.290	1.38																		
DF S		15	1	85	112	1.124	1.38																		

TC		PSTNDSUM										Stand Table Summary						Page		2	
																		Date:		5/31/2022	
		T01N R06W S33 Ty00MC				77.00		Project		ELKBRG				Time:		8:32:36AM					
								Acres		77.00				Grown Year:							
S	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals							
				FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.							Tons	Cunits	MBF		
DFS		17	1	85	55	.875	1.38														
DFS		18	2	82	48	1.561	2.76														
DFS		20	1	88	87	.632	1.38														
DFS		21	2	88	118	1.147	2.76														
DFS		22	1	86	52	.523	1.38														
DFS		24	1	86	100	.439	1.38														
DFS		26	1	90	120	.374	1.38														
DFS		27	1	86	66	.347	1.38														
DFS		Totals	20	86	56	30.305	27.59														
Totals			198	87	103	177.339	273.10	305.69	33.8	153.3	295.93	10,322	46,848	22,787	7,948	3,607					

TC		PLOGSTVB		Log Stock Table - MBF																	
T01N R06W S33 Ty00MC						77.00		Project:		ELKBRG								Page		1	
								Acres		77.00								Date		5/31/2022	
																		Time		8:32:33AM	
S T Spp	So Gr rt	Log de Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches														
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+			
DF	2M	16	10		10	.3										10					
DF	2M	22	6		6	.2							6								
DF	2M	30	11		11	.3										11					
DF	2M	40	2,142		2,122	62.7						440	436	708	332	206					
DF	3M	16	6		6	.2					6										
DF	3M	26	2		2	.1				2											
DF	3M	28	3		3	.1				2	1										
DF	3M	32	25		25	.8				24	1										
DF	3M	34	41		41	1.2				39	2										
DF	3M	36	60		60	1.8				52	6	2									
DF	3M	38	25		25	.7				25											
DF	3M	40	955		954	28.2				219	300	430	6								
DF	4M	12	0		0	.0				0											
DF	4M	14	3		3	.1				3											
DF	4M	16	26		26	.8				25	1										
DF	4M	18	10		10	.3				8	1										
DF	4M	20	9		9	.3				9											
DF	4M	22	14		14	.4				14											
DF	4M	24	20		20	.6				20											
DF	4M	26	8		8	.2				8											
DF	4M	28	16		16	.5				16											
DF	4M	30	11		11	.3				11											
DF	Totals		3,403		3,382	93.8				475	314	438	447	443	708	332	227				
WH	2M	40	100	1.3	98	49.6						13	30	39	17						
WH	3M	32	5		5	2.3				5											
WH	3M	38	10		10	4.9				10											
WH	3M	40	74		74	37.1				5	20	42	7								
WH	4M	16	2		2	.8				2											
WH	4M	20	2		2	1.3				2											
WH	4M	22	7		7	3.6				7											
WH	4M	28	1		1	.5				1											
WH	Totals		200		198	5.5				32	20	42	20	30	39	17					
NF	2M	40	25		25	95.7								8	18						
NF	3M	38	1		1	4.3				1											

TC		PLOGSTVB		Log Stock Table - MBF															
<div>T01N R06W S33 Ty00MC77.00</div>				Project:		ELKBRG						Page		2					
				Acres		77.00						Date		5/31/2022					
												Time		8:32:33AM					
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
NF		Totals		27		27	.7			1				8		18			
Total		All Species		3,629		3,607	100.0			508	333	480	466	473	754	366	227		

VOLUME SUMMARY
(Shown in MBF)
Elkberg
FG-341-2023-W00862-01
May 2022

Unit 1: Modified Clearcut (77 Acres)

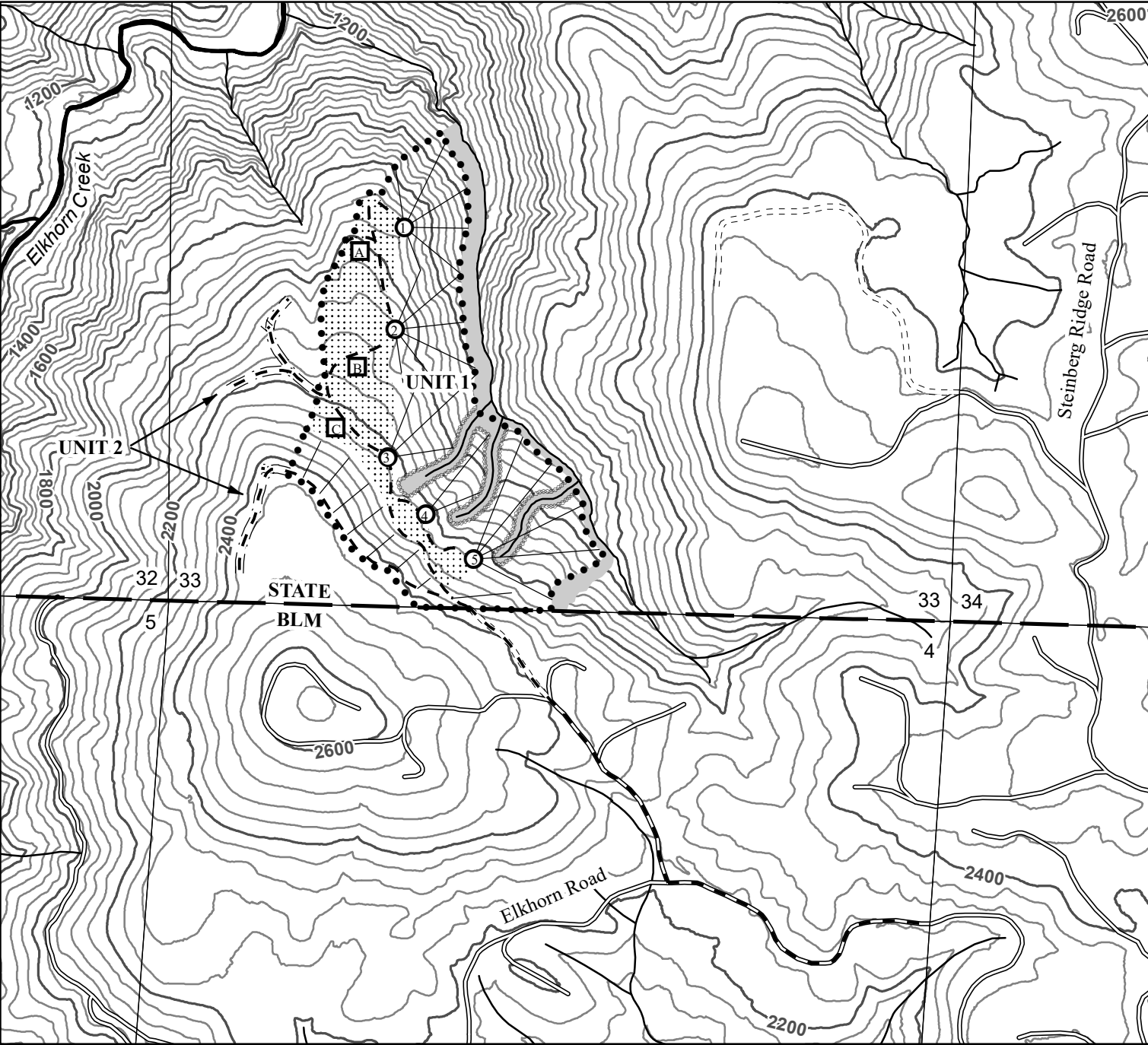
SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	2,150	1,116	117	3,383
	Hidden D&B (2%)	(43)	(22)	(2)	(67)
	NET TOTAL	2,107	1,094	115	3,316
	% of Total	64	33	3	
Western Hemlock	Cruise Volume	98	88	12	198
	Hidden D&B (2%)	(2)	(2)	(0)	(4)
	NET TOTAL	96	86	12	194
	% of Total	50	44	6	
Noble Fir	Cruise Volume	25	1	0	26
	Hidden D&B (2%)	(1)	(0)	(0)	(1)
	NET TOTAL	24	1	0	25
	% of Total	96	4		

Unit 2: Right-of-Way (3 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	45	42	25	112
	Hidden D&B (2%)	(1)	(1)	(1)	(3)
	NET TOTAL	44	41	24	109
	% of Total	40	38	22	
Western Hemlock	Cruise Volume	3	3	2	8
	Hidden D&B (2%)	(0)	(0)	(0)	(0)
	NET TOTAL	3	3	2	8
	% of Total	38	38	24	

SALE TOTAL

SPECIES	2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	2,151	1,135	139	3,425
Western Hemlock	99	89	14	202
Noble Fir	24	1	0	25
Total	2,274	1,225	153	3,652



LEGEND

- Timber Sale Boundary
- - - - - Stream Buffer Boundary
- - - - - Right-of-Way Boundary
- ▭ ODF Ownership Boundary
- Surfaced Roads
- - - - - Unsurfaced Roads
- - - - - New Road Construction
- Type-F Stream
- Type-N Stream
- ▭ Stream Buffer
- ◁ Cable Yarding Area
- ▤ Tractor Yarding Area
- Cable Landing
- ▣ Tractor Landing
- ▭ Section Lines
- 40 Foot Contour Band
- 200 Foot Contour Band

LOGGING PLAN

FOR TIMBER SALE CONTRACT #FG-341-2023-W00862-01
ELKBERG
PORTIONS OF SECTION 33, T1S, R6W, W.M.,
WASHINGTON COUNTY, OREGON

Forest Grove District GIS
May, 2022

This product is for informational use and may not be
suitable for legal, engineering, or surveying purposes.

1:12,000

1 inch = 1,000 feet



APPROXIMATE NET ACRES

TRACTOR CABLE

UNIT 1	21	56
UNIT 2	3	0
TOTAL	24	56