



Timber Sale Appraisal
Davis Ridge
Sale AT-341-2025-W01073-01

District: Astoria

Date: December 17, 2024

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,592,179.22	\$135,787.56	\$1,727,966.78
		Project Work:	(\$237,988.00)
		Advertised Value:	\$1,489,978.78



Timber Sale Appraisal Davis Ridge Sale AT-341-2025-W01073-01

District: Astoria

Date: December 17, 2024

Timber Description

Location:

Stand Stocking: 80%

Species Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	97
Western Hemlock / Fir	15	0	96
Red Cedar	16	0	96
Alder (Red)	12	0	95
Maple	15	0	95

Volume by Grade	2S	3S & 4S 6"-11"	3S 12"+	3S	4S	8" - 9"	10" - 11"	12"+	6" - 7"	Camprun	Total
Douglas - Fir	1,905	1,084	50	0	0	0	0	0	0	0	3,039
Western Hemlock / Fir	307	313	83	0	0	0	0	0	0	0	703
Red Cedar	77	0	0	14	29	0	0	0	0	0	120
Alder (Red)	0	0	0	0	0	198	87	60	278	0	623
Maple	0	0	0	0	0	0	0	0	0	19	19
Total	2,289	1,397	133	14	29	198	87	60	278	19	4,504

Comments: Pond Values Used: Local Pond Values, December, 2024.

Expected Log Markets: Clatskanie, Warrenton, Forest Grove, Tillamook, Mist, Wauna, Longview, WA, and Chehalis, WA.

PRICING:

Sitka spruce stumpage = pond value - (Douglas-fir) logging cost.

$\$246.07/\text{MBF} = \$511/\text{MBF} - \$264.93/\text{MBF}$

Other Costs (with Profit & Risk to be added):

Machine Washing for Invasive Weed Compliance (entering and leaving) = \$2,000

Ditch Filters:

20 bales of straw @ \$12/bale = \$240.00

4 hours of labor (installation/removal) @ \$50/hr = \$200

Total P&R Cost = \$2,440.00

Other Costs (No Profit & Risk added): None

SLASH PILING

(See attached appraisal. Includes move-in and pile materials) = \$15,500.00

ROAD MAINTENANCE

(See attached Road Maintenance Cost Summary Sheet)

TOTAL Road Maintenance: $\$30,006/4,504 \text{ MBF} = \$6.66/\text{MBF}$



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Logging Conditions

Combination#: 1

Douglas - Fir	33.00%
Western Hemlock / Fir	33.00%
Red Cedar	33.00%
Alder (Red)	33.00%
Maple	33.00%

Logging System: Cable: Medium Tower >40 - <70
Process: Stroke Delimber

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: \$173.44

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 2

Douglas - Fir	67.00%
Western Hemlock / Fir	67.00%
Red Cedar	67.00%
Alder (Red)	67.00%
Maple	67.00%

Logging System: Shovel
Process: Feller Buncher

yarding distance: Medium (800 ft)
downhill yarding:No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 20
bd. ft / load: 4600

cost / mbf: \$108.70

machines: Feller Buncher w/ Delimber



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Logging Costs

Operating Seasons: 3.00	Profit Risk: 12%
Project Costs: \$237,988.00	Other Costs \$2,440.00 (P/R):
Slash Disposal: \$15,500.00	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$6.66

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	3.0	4.7
Western Hemlock / Fir	\$0.00	3.0	4.6
Red Cedar	\$0.00	3.0	4.6
Alder (Red)	\$0.00	3.0	4.3
Maple	\$0.00	3.0	4.0



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$130.06	\$6.86	\$2.92	\$91.31	\$0.54	\$27.80	\$3.44	\$2.00	\$0.00	\$264.93
Western Hemlock / Fir									
\$130.06	\$6.93	\$2.92	\$94.20	\$0.54	\$28.16	\$3.44	\$2.00	\$0.00	\$268.25
Red Cedar									
\$130.06	\$6.93	\$2.92	\$94.20	\$0.54	\$28.16	\$3.44	\$2.00	\$0.00	\$268.25
Alder (Red)									
\$130.06	\$6.99	\$2.92	\$101.74	\$0.54	\$29.07	\$3.44	\$2.00	\$0.00	\$276.76
Maple									
\$130.06	\$6.99	\$2.92	\$109.38	\$0.54	\$29.99	\$3.44	\$2.00	\$0.00	\$285.32

Species	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$701.00	\$436.07	\$0.00
Western Hemlock / Fir	\$0.00	\$482.08	\$213.83	\$0.00
Red Cedar	\$0.00	\$1,240.25	\$972.00	\$0.00
Alder (Red)	\$0.00	\$492.44	\$215.68	\$0.00
Maple	\$0.00	\$360.00	\$74.68	\$0.00



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Summary

Amortized

Species	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Red Cedar	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00
Maple	0	\$0.00	\$0.00

Unamortized

Species	MBF	Value	Total
Douglas - Fir	3,039	\$436.07	\$1,325,216.73
Western Hemlock / Fir	703	\$213.83	\$150,322.49
Red Cedar	120	\$972.00	\$116,640.00
Alder (Red)	623	\$215.68	\$134,368.64
Maple	19	\$74.68	\$1,418.92

Gross Timber Sale Value

Recovery: \$1,727,966.78

Prepared By: Ryan Simpson

Phone: 503-325-5451

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Davis Ridge
Date: December 17th, 2024
By: Ryan Simpson

MBF: 4,504
\$\$/MBF: \$6.66

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Interim Road Maintenance	Grader 14G	\$972	1	16	\$126	\$2,988
	Rubber tired backhoe	\$401	1	8	\$97	\$1,177
	Dump Truck 12CY	\$205	1	16	\$99	\$1,789
	Vibratory Roller	\$972	1	8	\$97	\$1,748
Final Road Maintenance	Grader 14G	\$972	1	40	\$126	\$6,012
	Dump Truck 12CY	\$205	2	16	\$99	\$1,994
	FE Loader C966	\$931	1	16	\$108	\$2,659
	Vibratory Roller	\$972	1	40	\$97	\$4,852
	Water Truck 2,500 gallon	\$238	1	24	\$113	\$2,950
	C315 Excavator	\$1,005	1	16	\$127	\$3,037
	Labor			16	\$50	\$800
Total						\$30,006

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	2.5	5.0	2.0	16

Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	1.5	7.0	4.7	40
Vibratory Roller	1.5	7.0	4.7	40

Process and compact: All crushed rock roads

Davis Ridge Road:	1.6 Miles
Gnat Creek Ridge Road:	0.9 Miles
Gnat Creek Road:	2.1 Miles
Unnamed Spurs:	1.8 Miles
New Construction - Surfaced:	0.6 Miles
Grade & Process Total:	7.0 Miles

Site Prep Appraisal

Sale Number: AT-341-2025-W01073-01

Sale Name: Davis Ridge

Date: 12/11/2024

Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)	Estimated Piles/Acre	Landing Production Rate (hrs/30 acres)
Doug-fir	A	0.5	0.5	6
Hemlock/Fir	B	1.3	4.5	8
Hemlock/Spruce	C	1.8	6.0	10
Hemlock	D	1.8	6.0	8
Conifer/Hardwood	E	1.0	2.0	8
Whole Tree Yarding	F	0.5	0.5	12

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area	
1	MC	A	30	15	\$145.00	\$2,175.00	
2	MC	A	78	39	\$145.00	\$5,655.00	
					In-unit Piling	Sub Total =	\$7,830.00
Sale Area	Number of Landings to be Piled	# cable acres per area	Total Cost/Area	Number of In-Unit Piles	Material Cost/Pile	Total Cost/Area	
1	11	25	\$725.00	26	\$5.00	\$130.00	
2	19	30	\$870.00	58	\$5.00	\$290.00	
					Materials	Sub Total =	\$420.00
					Landing Piling	Sub Total =	\$1,595.00
Move-In Allowance	Number of Move-In's	Total Move-In Allowance					
\$1,290.00	1	\$1,290.00	Brush Piler				
\$205.00	1	\$205.00	Dump Truck (12cy)				
					Move-In	Sub Total =	\$1,495.00
Slash Endhaul							
Dump Truck hrs	Cost/Hour	Total	Loader hrs	Cost/Hour	Total		
16	\$99.00	\$1,584.00	16	\$161.00	\$2,576.00		
						Sub Total =	\$4,160.00
						Grand Total =	\$15,500.00

*Cost includes separating firewood

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Davis Ridge

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>
Surfaced			
1A to 1B, 1C to 1D, 2A to 2B, 2C to 2D, 2E to 2F, 2G to 2H 2I to 2J, 2K to 2L, 2M to 2N, 2Q to 2R, and 2U to 2V	31.50	0.60	\$65,500.04
Unsurfaced			
2O to 2P and 2S to 2T	10.10	0.19	\$6,970.64
Road Maint.			\$5,049.62
Move-In			\$3,937.00
TOTALS	41.60	0.79	\$81,457

Project No. 2: ROAD IMPROVEMENT:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>
I1 to I2, I3 to I4, I5 to I6 I7 to I8, I9 to I10, I11 to I12 I13 to I14, and I15 to I16	263.8	5.00	\$100,137.24
Road Maint.			\$6,977.38
Move-In			\$5,440.00
TOTALS	263.80	5.00	\$112,555

SPECIAL PROJECTS (Move-In and Road Maint. are Included separately as needed, for each Special Project):

<u>Description</u>	<u>Length/Vol.</u>	<u>Cost</u>
Proj. 3 Big Noise Quarry Development, Rock Crushing, and Stockpile Site Construction	5,309	\$43,976.00
TOTAL		\$43,976

GRAND TOTAL **\$237,988**

Compiled By: Cole Hatcher

Date: 11/18/2024

Move In and Maintenance Calculator for Construction and Improvement

SALE NAME: Davis Ridge

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>	
Surfaced				
1A to 1B, 1C to 1D, 2A to 2B, 2C to 2D, 2E to 2F, 2G to 2H 2I to 2J, 2K to 2L, 2M to 2N, 2Q to 2R, and 2U to 2V	31.50	0.60	\$65,500.04	
Unsurfaced				
2O to 2P and 2S to 2T	10.10	0.19	\$6,970.64	
TOTALS	41.60	0.79		\$72,471

Project No. 2: ROAD IMPROVEMENT:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>	
I1 to I2, I3 to I4, I5 to I6 I7 to I8, I9 to I10, I11 to I12 I13 to I14, and I15 to I16	263.80	5.00	\$100,137	
TOTALS	263.80	5.00		\$100,137

MOVE IN (Construction & Improvement Only)

<u>Equipment</u>	<u>Length/Mile</u>	<u>Cost</u>	
Vibratory Roller		\$972.00	
D8 Dozer		\$1,755.00	
C315 Excavator		\$1,005.00	
C330 Excavator		\$1,755.00	
C966 Loader		\$972.00	
14 G Grader		\$972.00	
Water Truck (2,500 gal)		\$238.00	
Dump Truck w/ Pup Trailer 20cy (x2)		\$478.00	
Dump Truck 12cy (x6)		\$1,230.00	
TOTAL			\$9,377.00

ROAD MAINTENANCE (Construction & Improvement Only)

	<u>Length/Mile</u>	<u>Cost</u>	
Project Road Maintenance	8.86	\$12,027.00	
TOTAL			\$12,027.00

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Davis Rdge NEW CONSTRUCTION: 41.60 STATIONS 0.79 MILES
ROAD: 1A to 1B (0.5), 1C to 1D (1.0), 2A to 2B (2.65), 2C to 2D (1.0), IMPROVEMENT: STATIONS 0.00 MILES
POINTS: 2E to 2F (1.15), 2G to 2H (1.9), 2I to 2J (0.5), 2K to 2L (0.9), 2M to 2N (11.0), 2O to 2P (3.5), 2Q to 2R (9.6), 2S to 2T (6.6), 2U to 2V (1.3)

CLEARING & GRUBBING						
Method	Acres/amount	x	Rate	=	Cost	
Surfaced		x		=		
1A to 1B, 1C to 1D, 2A to 2B, 2C to 2D, 2E to 2F, 2G to 2H, 2I to 2J, 2K to 2L, 2M to 2N (5+40 to 11+00), 2Q (0+00 to 5+60)						
Scatter outside of the right of way	\$/acre 2.40		\$ 1,669		\$4,005.60	
Haul clearing debris w/ 12cy truck and C330	\$/hr 8.00		\$ 294		\$2,352.00	
Unsurfaced						
2O to 2P, 2S to 2T						
Scatter outside of the right of way	\$/acre 0.75		\$ 1,669		\$1,251.75	
SUB TOTAL FOR CLEARING & GRUBBING						\$7,609

EXCAVATION						
Material	Cyl/amount	x	Rate	=	Cost	
1A to 1B						
0+00 to 0+50 Balanced construction	\$/sta 0.50	x	\$154.00	=	\$77.00	
0+50 Landing construction	\$/landing 1.00	x	\$487.00	=	\$487.00	
1C to 1D						
0+00 to 1+00 Balanced construction	\$/sta 1	x	\$154.00	=	\$154.00	
2A to 2B						
0+00 to 2+65 Balanced construction	\$/sta 2.65	x	\$154.00	=	\$408.10	
2C to 2D						
0+00 to 1+00 Balanced construction	\$/sta 1.00	x	\$154.00	=	\$154.00	
2E to 2F						
0+00 to 1+15 Balanced construction	\$/sta 1.15	x	\$154.00	=	\$177.10	
2G to 2H						
0+00 to 1+90 Balanced construction	\$/sta 2	x	\$154.00	=	\$292.60	
2I to 2J						
0+00 to 0+50 Balanced construction	\$/sta 0.50	x	\$154.00	=	\$77.00	
0+50 Landing construction	\$/landing 1	x	\$487.00	=	\$487.00	
2K to 2L						
0+00 to 0+90 Balanced construction	\$/sta 0.90	x	\$154.00	=	\$138.60	
0+90 Landing construction	\$/landing 1	x	\$487.00	=	\$487.00	
2M to 2N						
0+00 to 5+60 Common drift (<= 50% slopes)	\$/cy 90	x	\$2.25	=	\$202.50	
5+60 to 11+00 Balanced construction	\$/sta 5.40	x	\$154.00	=	\$831.60	
0+00 to 5+60 End-haul excavation	\$/cy 200	x	\$4.99	=	\$998.00	
0+00 to 5+60 Embankment compaction	\$/cy 90	x	\$0.87	=	\$78.30	
0+20 to 1+90 Sidecast pullback w/ C330	\$/hr 4	x	\$195.00	=	\$780.00	
6+65, 7+15, 11+00						
Landing construction	\$/landing 3	x	\$487.00	=	\$1,461.00	
3 to 14 (33+00) Waste material compaction	\$/cy 200	x	\$0.50	=	\$100.00	
0+00 to 1+75 Cut slope rounding	\$/sta 1.75	x	\$54.39	=	\$95.18	
Backfilling riprap and subgrade construction w/ C330	\$/hr 8	x	\$195.00	=	\$1,560.00	
0+50						
Construct turnout w/ C330	\$/hr 2	x	\$195.00	=	\$390.00	
2O to 2P						
0+00 to 3+50 Common drift (<= 50% slopes)	\$/cy 330	x	\$2.25	=	\$742.50	
0+00 to 3+50 Embankment compaction	\$/cy 330	x	\$0.87	=	\$287.10	
0+70 to 1+70 Cut slope rounding	\$/sta 1.00	x	\$54.39	=	\$54.39	
2Q to 2R						
0+00 to 9+60 Common drift (<= 50% slopes)	\$/cy 920	x	\$2.25	=	\$2,070.00	
0+00 to 9+60 Embankment compaction	\$/cy 920	x	\$0.87	=	\$800.40	
3+00						
Construct turnout w/ C330	\$/hr 2	x	\$195.00	=	\$390.00	
7+40						
Construct turnaround w/ C330	\$/hr 2	x	\$195.00	=	\$390.00	
2S to 2T						
0+00 to 6+60 Common drift (<= 50% slopes)	\$/cy 380	x	\$2.25	=	\$855.00	
0+00 to 6+60 Embankment compaction	\$/cy 380	x	\$0.87	=	\$330.60	
5+00						
Construct turnaround w/ C330	\$/hr 2	x	\$195.00	=	\$390.00	
2U to 2V						
0+00 to 1+30 Balanced construction	\$/sta 1.30	x	\$154.00	=	\$200.20	
SUB TOTAL FOR EXCAVATION						\$15,946

CULVERT MATERIALS AND INSTALLATION									
Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
2A to 2B					2S to 2T				
0+00	18" CPP	40	\$24.37	\$974.80	0+00	18" CPP	40	\$24.37	\$974.80
2C to 2D					2U to 2V				
0+00	18" CPP	40	\$24.37	\$974.80	0+00	18" CPP	40	\$24.37	\$974.80
2Q to 2R									
0+00	18" CPP	40	\$24.37	\$974.80					
5+00	18" CPP	40	\$24.37	\$974.80					

ROAD SEGMENT									
2G to 2H		2G to 2H		2G to 2H		2G to 2H		2G to 2H	
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6"-0" jaw-run	0+00 to 1+90	10	Volume (CY) per	Number of	1.90	\$11.36	\$1,360	
Junction	4"-0" crushed	0+00	N/A	station	junctions	1	\$11.36	\$250	
Total Rock for Road Segment: 2G to 2H									
142									
\$1,610									
ROAD SEGMENT									
2I to 2J		2I to 2J		2I to 2J		2I to 2J		2I to 2J	
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6"-0" jaw-run	0+00 to 0+50	10	Volume (CY) per	Number of	0.50	\$11.36	\$358	
Junction	4"-0" crushed	0+00	N/A	station	junctions	1	\$11.36	\$250	
Landings	6"-0" pit-run	0+50	N/A	landing	landings	1	\$11.36	\$875	
Total Rock for Road Segment: 2I to 2J									
131									
\$1,482									
ROAD SEGMENT									
2K to 2L		2K to 2L		2K to 2L		2K to 2L		2K to 2L	
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6"-0" jaw-run	0+00 to 0+90	10	Volume (CY) per	Number of	0.90	\$11.36	\$644	
Junction	4"-0" crushed	0+00	N/A	station	junctions	1	\$11.36	\$250	
Landings	6"-0" pit-run	0+90	N/A	landing	landings	1	\$11.36	\$1,250	
Total Rock for Road Segment: 2K to 2L									
189									
\$2,144									
ROAD SEGMENT									
2M to 2N		2M to 2N		2M to 2N		2M to 2N		2M to 2N	
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6"-0" jaw-run	0+00 to 11+00	10	Volume (CY) per	Number of	11.00	\$11.36	\$7,872	
Junction	4"-0" crushed	0+00	N/A	station	junctions	1	\$11.36	\$250	
Turnouts	6"-0" jaw-run	0+50	N/A	turnout	turnouts	1	\$11.36	\$375	
Subgrade Construction	24"-6" riprap	1+25 to 1+90	N/A	load	loads	10	\$12.28	\$1,351	
Landings	6"-0" pit-run	6+65, 7+15, 11+00	N/A	landing	landings	3	\$11.36	\$2,624	
Total Rock for Road Segment: 2M to 2N									
1,089									
\$12,472									
ROAD SEGMENT									
2O to 2P		2O to 2P		2O to 2P		2O to 2P		2O to 2P	
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6"-0" jaw-run	0+00 to 0+50	10	Volume (CY) per	Number of	0.50	\$11.36	\$358	
Junction	1 1/2"-0" crushed	0+00	N/A	station	junctions	1	\$11.36	\$250	
Total Rock for Road Segment: 2O to 2P									
54									
\$608									
ROAD SEGMENT									
2Q to 2R		2Q to 2R		2Q to 2R		2Q to 2R		2Q to 2R	
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	4"-0" crushed	0+00 to 9+60	10	Volume (CY) per	Number of	9.60	\$11.36	\$6,871	
Junction	4"-0" crushed	0+00	N/A	station	junctions	1	\$11.36	\$250	
Fill Armor	24"-6" riprap	5+40 to 6+40	N/A	load	loads	12	\$12.28	\$1,621	
Turnouts	4"-0" crushed	3+00	N/A	turnout	turnouts	1	\$11.36	\$250	
Turnarounds	4"-0" crushed	7+40	N/A	turnaround	turnarounds	1	\$11.36	\$375	
Total Rock for Road Segment: 2Q to 2R									
814									
\$9,365									

ROAD SEGMENT			2S to 2T		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	2S to 2T		0+00 to 6+60					
				Volume (CY) per station	Number of junctions	Volume (CY) per junction	Number of junctions				
Base Rock	6'-0" jaw-run	0+00 to 1+00	10	63	1.00	63	stations	\$11.36	\$716		
Junction	4'-0" crushed	0+00	N/A	22	1	22	junctions	\$11.36	\$250		
Total Rock for Road Segment: 2S to 2T									85		
\$956											
ROAD SEGMENT			2U to 2V		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	2U to 2V		0+00 to 1+30					
				Volume (CY) per station	Number of junctions	Volume (CY) per junction	Number of loads				
Base Rock	6'-0" jaw-run	0+00 to 1+30	10	63	1.30	82	stations	\$11.36	\$930		
Junction	4'-0" crushed	0+00	N/A	22	1	22	junctions	\$11.36	\$250		
Culvert Bedding/Backfill	3/4'-0" crushed	0+00	N/A	11	3	33	loads	\$9.29	\$307		
Total Rock for Road Segment: 2U to 2V									137		
\$1,487											
Processing:											
Description											
Water, Process & Compact Base Rock (4'-0"):											
Grade, Shape, Compact Base Rock (6'-0"):											

SALE NAME:	Davis Ridge	NEW CONSTRUCTION:	STATIONS	0.00 MILES
ROAD:	11 to 12 (80.05), 13 to 14 (42.5), 15 to 16 (6.4), 17 to 18 (8.9),	IMPROVEMENT:	263.80 STATIONS	5.00 MILES

CLEARING & GRUBBING				
Method	Acres/amount	x	Rate	= Cost
SUB TOTAL FOR CLEARING & GRUBBING				
				\$0

EXCAVATION						
Material	Cyl/amount	x	Rate	=	Cost	
11 to 12						
30+30, 72+90,						
74+10	\$/hr	x	\$127.00	=	\$381.00	
Install a series of 3 rock ditch filters w/ C31						
59+40, 71+60	\$/diss.	x	\$225.33	=	\$450.66	
Install energy dissipator						
13 to 14						
0+00, 16+35	\$/hr	x	\$127.00	=	\$254.00	
Clean culvert outlet w/ C315						
33+00	\$/hr	x	\$195.00	=	\$585.00	
Contract waste area w/ C330						
34+35 to 42+50	\$/hr	x	\$195.00	=	\$1,560.00	
Remove stumps from ditch w/ C330						
34+35 to 42+50	\$/hr	x	\$99.00	=	\$792.00	
Haul stumps and ditch waste w/ 12cy truck						
39+00	\$/hr	x	\$195.00	=	\$390.00	
Contract turnaround w/ C330						
36+80	\$/hr	x	\$127.00	=	\$127.00	
Locate culvert outlet w/ C315						
17 to 18						
5+70, 8+90	\$/hr	x	\$127.00	=	\$254.00	
Clear and scatter alder from landing w/C31						
19 to 110						
33+00	\$/hr	x	\$127.00	=	\$127.00	
Clear blowdown tree and debris w/ C315						
59+50	\$/hr	x	\$195.00	=	\$195.00	
Remove hanging tree w/ C330						
SUB TOTAL FOR EXCAVATION						

\$5,116

CULVERT MATERIALS AND INSTALLATION									
Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
11 to 12					13 to 14				
11+65	18" CPP	40	\$24.37	\$974.80	41+00	18" CPP	40	\$24.37	\$974.80
12+80	18" CPP	30	\$24.37	\$731.10	19 to 110				
20+50	18" CPP	30	\$24.37	\$731.10	35+10	18" CPP	30	\$24.37	\$731.10
28+65	18" CPP	40	\$24.37	\$974.80	79+75	18" CPP	30	\$24.37	\$731.10
59+40	18" CPP	30	\$24.37	\$731.10	84+55	18" CPP	40	\$24.37	\$974.80
71+60	18" CPP	30	\$24.37	\$731.10	89+95	18" CPP	30	\$24.37	\$731.10
Other/miscellaneous:					Description				
					Quantity				
					Rate				
					Cost				
Culvert stakes & markers:					11				
					\$25.53				
					\$280.83				
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION									
\$9,298									

SURFACING									
Subgrade prep: All 1" Segments All 1" Segments 13 to 14 (33+00 to 42+50), 15 to 16, 19 to 110, 111 to 112, 113 to 114, and 115		Description Grade, Shape and Ditch 16" Subgrade Compaction		Stations/ amount		Rate/ sta./amt		Cost	
						x		\$8,172.52	
						x		\$30.98	
						x		\$25.19	
								\$6,645.12	
						x		\$40.27	
								\$5,712.30	
ROAD SEGMENT									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.	Rate/ Sta./ amt.	Cost	
				11 to 12	0-00 to 80+05				
Surfacing	1 1/2"-0" crushed	6+50 to 80+05	3	Volume (CY)	Number of	73.55	\$11.36	\$15,875	TOTAL VOLUME (CY)
				station per	stations				
		4+10, 10+95, 14+30, 26+90, 32+70, 41+20, 47+25, 51+40, 55+45, 58+75, 65+10, 68+40, 76+60, 78+40							
Turnouts	1 1/2"-0" crushed	N/A	N/A	turnout	11	14	\$11.36	\$1,749	154
		11+65 (4), 12+80 (3), 20+50 (4), 28+65 (3), 59+40 (3), 71+60 (3)							
Culvert Bedding and Backfill	3/4"-0" crushed		N/A	load	11	20	\$9.29	\$2,044	220
		30+30, 53+45, 73+30, 74+10		3 filter series	11	4	\$11.36	\$500	44
Rock Ditch Filters	6"-4" pit-run		N/A	load	11	2	\$12.28	\$270	22
Energy Dissipator	24"-6" riprap		N/A						
Total Rock for Road Segment			11 to 12						1,837
\$20,438									
ROAD SEGMENT									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.	Rate/ Sta./ amt.	Cost	
				13 to 14	0-00 to 42+50				
Surfacing	1 1/2"-0" crushed	0+00 to 18+90	3	Volume (CY)	Number of	18.9	\$11.36	\$4,079	TOTAL VOLUME (CY)
				station per	stations				
Junctions	3/4"-0" crushed		N/A	junction	22	1	\$9.29	\$204	22
		2+00, 13+40, 17+15							
Turnouts	1 1/2"-0" crushed		N/A	turnout	11	3	\$11.36	\$375	33
Surfacing	4"-0" crushed		4	station	25	14.4	\$11.36	\$4,090	360
Turnouts	4"-0" crushed		N/A	turnout	11	1	\$11.36	\$125	11
Surfacing	4"-0" crushed		6	station	38	9.5	\$11.36	\$4,101	361
		33+00 to 42+50							
		36+80 (2), 39+00 (4)							
Subgrade Reinforcement	6"-0" jaw-run		N/A	load	11	6	\$11.36	\$750	66
Turnaround	4"-0" crushed		N/A	turnaround	33	1	\$11.36	\$375	33
Culvert Bedding and Backfill	3/4"-0" crushed		N/A	culvert	44	1	\$9.29	\$409	44
Total Rock for Road Segment			13 to 14						1,289
\$14,508									
ROAD SEGMENT									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.	Rate/ Sta./ amt.	Cost	
				15 to 16	0-00 to 6+40				
Surfacing	4"-0" crushed	0-00 to 6+40	6	Volume (CY)	Number of	6.4	\$11.36	\$2,763	TOTAL VOLUME (CY)
				station per	stations				
Junctions	1 1/2"-0" crushed		N/A	junction	22	1	\$11.36	\$250	22
Subgrade Reinforcement	6"-0" jaw-run		N/A	load	11	2	\$11.36	\$250	22
Landings	6"-0" pit-run		N/A	landing	110	1	\$11.36	\$1,250	110
Surface Leveling Rock	4"-0" crushed		N/A	load	11	2	\$11.36	\$250	22
Total Rock for Road Segment			15 to 16						419
\$4,762									
ROAD SEGMENT									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.	Rate/ Sta./ amt.	Cost	
				17 to 18	0-00 to 8+90				
Surfacing	1 1/2"-0" crushed	0-00 to 8+90	3	Volume (CY)	Number of	8.9	\$11.36	\$1,921	TOTAL VOLUME (CY)
				station per	stations				
Turnaround	4"-0" crushed		N/A	turnaround	22	1	\$11.36	\$250	22
Landings	6"-0" pit-run		N/A	landing	77	2	\$11.36	\$1,749	154
Total Rock for Road Segment			17 to 18						345
\$3,920									

ROAD SEGMENT												
Application	Rock Size and Type	Location	Depth of Rock (Inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost		
				19 to 110	Volume (CY)	0+00 to 92+70	Number of					
Surfacing	3/4"-0" crushed	0+00 to 9+30	2	station	13	stations	9.3	121	\$9.29	\$1,123		
Junctions	3/4"-0" crushed	0+00	N/A	junction	22	junctions	1	22	\$9.29	\$204		
Turnouts	3/4"-0" crushed	5+40	N/A	turnout	11	turnouts	1	11	\$9.29	\$102		
Culvert Bedding and Backfill												
	3/4"-0" crushed	35+10 (3), 79+75 (3), 84+55 (4), 89+95 (3)	N/A	load	11	loads	13	143	\$9.29	\$1,328		
Surface Leveling Rock	1 1/2"-0" crushed		N/A	load	11	loads	5	55	\$11.36	\$625		
Total Rock for Road Segment:									\$3,383			
ROAD SEGMENT												
Application	Rock Size and Type	Location	Depth of Rock (Inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost		
				111 to 112	Volume (CY)	0+00 to 26+25	Number of					
Surfacing	1 1/2"-0" crushed	0+00 to 20+00	2	station	13	stations	20	260	\$11.36	\$2,954		
Junctions	1 1/2"-0" crushed	0+00	N/A	junction	22	junctions	1	22	\$11.36	\$250		
Surface Leveling Rock	1 1/2"-0" crushed	5+05	N/A	load	11	loads	2	22	\$11.36	\$250		
Turnouts	1 1/2"-0" crushed	5+05, 7+85	N/A	turnout	11	turnouts	2	22	\$11.36	\$250		
Landings	6"-0" pit-run	15+90	N/A	landing	44	landings	1	44	\$11.36	\$500		
Total Rock for Road Segment:									\$4,203			
ROAD SEGMENT												
Application	Rock Size and Type	Location	Depth of Rock (Inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost		
				113 to 114	Volume (CY)	0+00 to 6+00	Number of					
Surfacing	3/4"-0" crushed	0+00 to 6+00	2	station	13	stations	2.85	37	\$9.29	\$344		
Junctions	3/4"-0" crushed	0+00	N/A	junction	11	junctions	1	11	\$9.29	\$102		
Turnouts	3/4"-0" crushed	0+70	N/A	turnout	11	turnouts	1	11	\$9.29	\$102		
Surface Leveling Rock	3/4"-0" crushed	0+70	N/A	load	11	loads	1	11	\$9.29	\$102		
Turnarounds	3/4"-0" crushed	3+10	N/A	turnaround	33	turnarounds	1	33	\$9.29	\$307		
Landings	6"-0" pit-run	6+00	N/A	landing	44	landings	1	44	\$11.36	\$500		
Total Rock for Road Segment:									\$1,457			
ROAD SEGMENT												
Application	Rock Size and Type	Location	Depth of Rock (Inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost		
				115 to 116	Volume (CY)	0+00 to 1+00	Number of					
Surfacing	6"-0" jaw-run	0+00 to 1+00	4	station	25	stations	1	25	\$11.36	\$284		
Junctions	1 1/2"-0" crushed	0+00	N/A	junction	11	junctions	1	11	\$11.36	\$125		
Landings	6"-0" pit-run	6+00	N/A	landing	44	landings	1	44	\$11.36	\$500		
Total Rock for Road Segment:									\$909			
SUB TOTAL FOR SURFACING										\$85,724		
				Processing:		Description		No. sta	Rate/sta	Cost		
				Water, Process & Compact				164.80	\$70.47	\$11,613		
				24"-6" rr	6"-0" jr	6"-4" pr	6"-0" pr	4"-0" crushed	1 1/2"-0" crushed	2"-1" drainrock		
				22	113	44	396	1,053	2,527	0		
								686	4,841			
GRAND TOTAL										\$85,724		
										Subtotal of Surfacing & Spec. Proj.	\$85,724	
										Subtotal of Clearing, Exc., Cultiv.	\$14,413	
											\$100,137	

Projects Road Maintenance Cost Summary

Sale: Davis Ridge
Date: 20-Jun-24
By: Cole Hatcher CB

Type	Equipment/Rationale			Hours	Rate	Cost
Project Work	Grader 14G			38	\$126	\$4,788
Final Haul	Dump Truck 12CY			8	\$99	\$792
Road	FE Loader C966			8	\$105	\$840
Maintenance	Vibratory Roller			38	\$97	\$3,686
	Water Truck 2,500 gallon			17	\$113	\$1,921
Total						\$12,027

Production Rates

	Miles/day	Distance(miles)	Days
Grader	1.5	8.86	5.9
Vibratory Roller	1.5	8.86	5.9

NOTE: Gnat Creek Road	2.11	Miles
East Big Noise to the Big Noise Quarry	4.25	Miles
Spot Grade Nicolai Mainline to Hunt Creek Stockpiles	4 Hours 2.50	Miles
		Miles
TOTAL=	8.86	Miles

CRUSHED ROCK COST

SALE NAME: Davis Ridge

DATE: 06/25/2024

PROJECT:	No. 1 and 2
Stockpile:	Big Noise & Bigfoot

MATERIAL: 1 1/2"-0", 4"-0"
6"-0"jr, 6"-0"pr, &
6"-4"pr

BY: Cole H

[illegible]

ROCK HAUL:

Truck type:	D20	No. trucks:	2
Delay min.:	8	Efficiency:	85%
Truck type:	D12	No. trucks:	6
Delay min.:	6	Efficiency:	85%
Truck type:	D10	No. trucks:	
Delay min.:	5	Efficiency:	85%

Ave haul:	\$9.50	/cy
Load:	\$0.66	/cy
Spread:	\$1.20	/cy

Production: cy/day = 712

CRUSHED ROCK HAUL COSTS 7,037 cy @ \$11.36 /cy

CRUSHED ROCK COST

SALE NAME: Davis Ridge

DATE: 06/25/2024

PROJECT:	No. 1 and 2
Stockpile:	Hunt Creek

MATERIAL: 3/4"-0"

BY: Cole H

[illegible]

ROCK HAUL:

Truck type: D20 No. trucks: 2
 Delay min.: 8 Efficiency: 85%

Ave haul:	\$7.63	/cy
Load:	\$0.59	/cy
Spread:	\$1.07	/cy

Truck type: D12 No. trucks: 6
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 887

CRUSHED ROCK HAUL COSTS

785 cy @ \$9.29 /cy

RIP RAP ROCK COST

SALE NAME:	Davis Ridge
PROJECT:	No. 1 & 2
QUARRY:	Big Noise

MATERIAL: Rip Rap

DATE: 11/14/2024
BY: Cole H

[illegible]

ROCK HAUL:

Truck type:	<u>D12</u>	No. trucks:	<u>6</u>
Delay min.:	<u>6</u>	Efficiency:	<u>85%</u>
Truck type:	<u>D10</u>	No. trucks:	<u> </u>
Delay min.:	<u>5</u>	Efficiency:	<u>85%</u>

Ave haul: \$10.75 /cy
Load: \$1.53 /cy
Develop: _____ /cy

Production: cy/day = 442

RIP RAP ROCK HAUL COSTS

264 cy @ \$12.28 /cy

SUMMARY OF ROCK DEVELOPMENT AND CRUSHING COSTS

PROJECT NO. 3

Quarry: Big Noise

Location: NE 1/4, NW 1/4, Sec. 1, T7N, R7W

County: Clatsop

By: Brittany West

Date: 11/15/2024

Timber Sale Name: Davis Ridge

Swell:

Shrink: 16%

Loading Hopper: Yes

ROCK SIZE	REJECT	GRADATION	STOCKPILE CU. YDS.	TRUCK MEAS CU. YDS.	TOTAL CU. YDS.
3/4"-0"		CR			
1-1/2"-0"		CR			
6"-0" JR		CR		4,121	4,121
6"-0" PR		PR		924	924
24"-6"		RR		264	264
36"		RR			
TOTAL CUBIC YARDS OF ROCK:				5,309	5,309

1) MOBILIZATION & SET UP:

EQUIPMENT	QUANTITY	RATE	COST	EQUIPMENT	QUANTITY	RATE	COST
Dump Trucks	1	\$205	\$205				
Drill & Compressor	1	\$1,755	\$1,755				
Powder	1	\$439	\$439				
Excavator	1	\$1,755	\$1,755				
Loader	1	\$1,005	\$1,005				
1 Stage Crusher	1	\$1,805	\$1,805				

SUB TOTAL FOR MOBILIZATION

\$6,964

EQUIPMENT SET UP	TIMES	RATE	COST
1 Stage Crusher	1	\$1,256	\$1,256

SUB TOTAL FOR SET UP COSTS

\$1,256

TOTAL MOBILIZATION & SET UP COSTS

\$8,220

2) CLEARING & GRUBBING

DESCRIPTION	QUANTITY	UNIT	RATE	COST

TOTAL CLEARING & GRUBBING COSTS

3) EXCAVATION

MATERIAL DESCRIPTION	QUANTITY	UNIT	RATE	COST

TOTAL EXCAVATION COSTS

4) DEVELOP ROCK

ROCK SUMMARY			METHOD	%	QUANTITY	RATE	COST
Type	Cu. yd. Vol.	Weight	Ripping	20%	1,062	\$3.80	\$4,035
crushed	4,121	78%	Drill & shoot	80%	4,247	\$3.90	\$16,564
pit run	924	17%	Oversize red	5%	252	\$7.70	\$1,942
rip rap	264	5%	Other				
Total	5,309						
reject							

TOTAL ROCK DEVELOPMENT COSTS \$22,541

5) CALIBRATION & TESTING

DESCRIPTION	NO.	\$/TEST	COST
Calibrate			
Calibrate			
Test			
Test			

TOTAL CALIBRATION & TESTING COSTS

6) FEEDING & LOADING

DESCRIPTION	CU. YD. QUANTITY	COST CU. YD.	TOTAL COST
Dig & Feed Rock	4,121	\$0.76	\$3,137

TOTAL FEEDING & LOADING COSTS \$3,137

7) ROCK CRUSHING

ROCK SIZE	ROCK TYPE	CU. YD. QUANTITY	CRUSHER TYPE	HOURLY PRODUCTION	RATE CU. YD.	TOTAL COST
3/4"-0"	crushed					
1-1/2"-0"	crushed					
6"-0" JR	crushed	4,121	1 stage w/s	180	\$1.03	\$4,258

TOTAL ROCK CRUSHING COSTS \$4,258

8) STOCKPILING

STOCKPILE SITE PREPARATION

Equipment	Hours	Rate	Total
Dozer		\$180.00	
Compactor		\$97.00	
Grader		\$126.00	
Excavator		\$195.00	

SUB TOTAL

Rock for Floor (CY)	\$/CY Haul	Total

HAUL & STOCKPILE

STOCKPILE LOCATION

	SIZE	# of TRUCKS	CU. YDS.	RATE	COST
1. Big Noise Quarry		1	2,500	\$1.08	\$2,700
2.					
3.					
4.					
5.					
6.					

SUB TOTAL

\$2,700

TOTAL STOCKPILING COSTS

\$2,700

9) MISCELLANEOUS COSTS

DESCRIPTION	COST
Final Quarry Dev., Access Road Const., Waterbarring, Drainage, Block Quarry Access	\$3,120

TOTAL MISCELLANEOUS COSTS

\$3,120

10) GRAND TOTAL:

\$43,976

\$/Cubic Yard

\$10.67

Footnotes:

**Davis Ridge
TIMBER CRUISE REPORT
FY 2025**

1. **Sale Area Location:** Portions of Sections 10, 11, 12, 13, & 14 of T8N, R7W, W.M., Clatsop County, OR.
2. **Fund Distribution:** BOF 100% Tax Code: 4-03 (100%)
3. **Sale Acreage by Area:**

Unit	Harvest Type	Gross Acres	Stream Buffer Acres	Reserve Tree Area	Existing R/W Acres	New R/W	Net Acres	Survey Method
1	Clearcut	68	7	1	5	<1	55	GIS
2	Clearcut	128	10	5	5	3	105	GIS
3	R/W	3	-	-	-	-	3	LxW
TOTALS		199	17	6	10	3	163	

4. **Cruisers and Cruise Dates:** Avery Petersen, John Czarnecki, Ryan Simpson, Kevin Berry, and Justin Bush (12/04/2024-12/05/2024)

5. Cruise Method and Computation:

Units 1 & 2: Units 1 and 2 were variable plot cruised with a 40 BAF. A total of 67 plots were sampled on a seven and a half chain by three and a half chain spacing with a count to grade ratio of 2:1, resulting in 28 grade plots and 39 count plots. There are 30 grade plots and 37 count plots reported due to minor species being graded on two count plots.

Unit 3 (R/W): In-unit Right-of-Way consists of new spur roads and landings within Units 1 and 2. Cruise data for Unit 3 was obtained from the U12 cruise.

Data was collected on Allegro 2 data collectors and downloaded to the Atterbury SuperACE 2008 program for computing. See the attached Cruise Designs for more details on the cruise method. The cruise calculations were processed in the Astoria District office.

UNIT(s)	CRUISE	TRACT	TYPE	ACRES
1 & 2	DRIDGE	U12	00MC	160
3 (R/W)	DRIDGE	R/W	00MC	3

6. Timber Description:

Units 1 and 2 are clearcuts with an average of 53 years. The stand consists of Douglas-fir, western hemlock, and red alder, with minor components of western redcedar and bigleaf maple. The average take Douglas-fir is approximately 18 inches DBH and 63 feet to a merchantable top. The average take western hemlock is approximately 15 inches DBH and 45 feet to a merchantable top. The average take red alder is approximately 12 inches DBH and 42 feet to a merchantable top. The average take western redcedar is approximately 16 inches DBH and 28 feet to a merchantable top. The average take bigleaf maple is approximately 15 inches DBH and 34 feet to a merchantable top. Average net volume to be harvested per acre is 28 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

Unit 3 (R/W) is similar to the timber description in Units 1 and 2. Average net volume to be harvested per acre is 28 MBF.

7. Statistical Analysis and Stand Summary:

Statistics for Stand B.F. volumes

Type	Estimated CV	Target SE%	Actual CV	Actual SE%
U12	60.0%	9.0%	60.7%	7.4%

8. Volumes by Species and Log Grade:

Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Conifer

Species	DBH	Net Vol.	2 Saw	3 Saw*	4 Saw	% D & B	% Sale
Douglas-fir	18"	3,039	1,905	940	194	0.4%	67%
Western hemlock	15"	703	307	337	59	1.0%	16%
Western redcedar	16"	120	77	14	29	1.5%	3%
TOTALS	--	3,862	2,289	1,291	282	--	--

*This sale includes approximately 50 MBF of 12"+ 3-saw Douglas-fir, 83 MBF of 12"+ 3-saw western hemlock, and 12 MBF of 12"+ 3-saw western redcedar.

Hardwood

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red alder	12"	623	60	87	198	278	1.1%	14%
Bigleaf maple	15"	19	--	--	--	19	0.0%	>1%
TOTALS	--	642	60	87	198	297	--	--

TOTAL VOLUME	4,504 MBF
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9. Approvals:

Prepared by: Ryan Simpson

Date: 12/10/2024

Unit Forester Approval: _____

Date: _____

- 10. Attachments:** Cruise Design and Map (3 pages)
 Volume Report (3 pages)
 Statistics Report (6 pages)
 Log Stock Table (3 pages)
 Stand Table Summary (2 pages)

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Davis Ridge

Unit U12

Harvest Type: Clearcut

Approx. Cruise Acres: 163 **Estimated CV%** 60 Net BF/Acre **SE% Objective** 9% Net BF/Acre

Planned Sale Volume: 5,824 MBF **Estimated Sale Area Value/Acre:** \$13,867/Acre

A. Cruise Goals: (a) Grade minimum 100 conifer trees.

(b) Sample 67 plots (28 grade/ 39 count); (c) Other goals (Determine "automark" thinning standards; X Determine log grades for sale value; Determine snag and leave tree species and sizes.

B. Cruise Design:

1. Plot Cruises: BAF: 40

Unit 1:

Cruise Line Direction: 15°/195°
Cruise Line Spacing 7.5 (chains) 495 (feet)
Cruise Plot Spacing 3.5 (chains) 231 (feet)
Grade/Count Ratio 1:2

Unit 2:

Cruise Line Direction: 0°/180°
Cruise Line Spacing 7.5 (chains) 495 (feet)
Cruise Plot Spacing 3.5 (chains) 231 (feet)
Grade/Count Ratio 1:2

Take plots as marked on cruise map.

DO NOT: record any 22' log lengths, or any 12', 24', or 32' log lengths for hardwoods.

DO NOT: record snags < 15" DBH or record snag measurements on count plots.

C. Tree Measurements:

1. Diameter: Minimum DBH to cruise is 8" for conifers and 8" for hardwoods.

Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

2. Bole Length: Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.

3. Top Cruise Diameter (TCD): Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 20" dbh and 40% of dob @ FP for conifer trees > 20" dbh.

4. Form Factors: (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer

species on the cruise area and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree. Hardwoods shall be recorded in 8' and 10' multiples.

6. **Species, Sort, and Grade Codes:**

- A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); GF (Grand fir); SF (Silver fir); A (Red alder); M (Bigleaf maple); SN (Snag). For "leave trees", add an "L" to the species code (such as DL, HL, CL, etc.).
- B. Sort: Use code "1" (Domestic).
- C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull
Hardwoods: Alder Grades: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill, or R = Camp Run; 0 = Cull.
All Maple Camp Run = R

Grade oversized 3-SAW (DIB $\geq$ 12", knots $> 2\frac{1}{2}$ " inside scaling cylinder affecting $> 50\%$ of log)

7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.
9. **Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back), Compass, Allegro II Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint, Permanent Marker.
10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.)

Cruise Design by: John Czarnecki

Approved by: [Signature]

Date: 12/12/2012

TIMBER CRUISE MAP

OF TIMBER SALE CONTRACT

NO. AT-341-2025-W01073-01

DAVIS RIDGE

PORTIONS OF SECTIONS

10, 11, 12, 13, & 14

OF T8N, R7W, W.M.,

CLATSOP COUNTY, OREGON



Line Azimuth

Unit 1: 15°/195°

BAF: 40

Unit 2: 0°/180°

Cruise Plots

Count Plots: 39

Grade Plots: 28

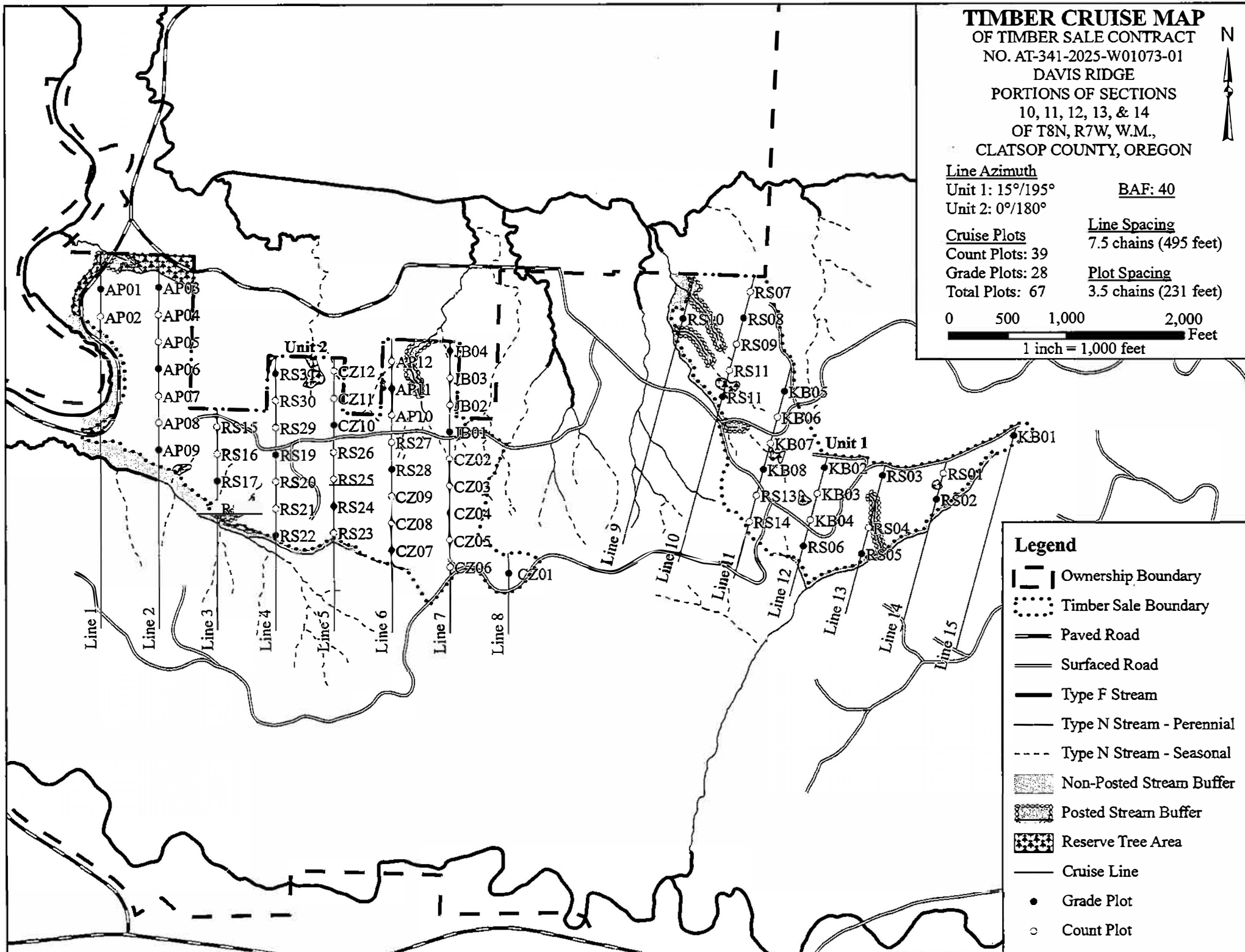
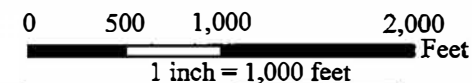
Total Plots: 67

Line Spacing

7.5 chains (495 feet)

Plot Spacing

3.5 chains (231 feet)



Species, Sort Grade - Board Foot Volumes (Project)

T08N R07W S10 Ty00MC 3.00
T08N R07W S10 Ty00MC 160.00

Project: DRIDGE

Acres 163.00

Page 1
Date 12/10/2024
Time 12:51:15PM

S Spp	So T	Gr rt	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					
A			DOCU														9	15		0.00	1.2
A			DO1S	9		368	368	60			78	22	41	30		30	25	13	149	1.49	2.5
A			DO2S	14	1.6	540	531	87		100				33	41	26	31	11	125	1.06	4.3
A			DO3S	32		1,212	1,212	198		100			12	12	24	52	31	8	70	0.67	17.3
A			DO4S	45	1.9	1,735	1,703	278		100			28	28	19	25	25	6	34	0.41	50.5
A Totals				14	1.1	3,855	3,813	623		90	8	2	20	24	22	34	26	7	50	0.56	75.7
D			DO2S	62	.6	11,753	11,686	1,905			49	51	0	1	7	92	39	15	379	2.25	30.9
D			DO3S	31	.2	5,775	5,765	940		95	5		2	17	16	65	35	9	102	0.85	56.8
D			DO4S	7		1,191	1,191	194		100			31	69			23	6	29	0.44	41.4
D Totals				67	.4	18,719	18,643	3,039		36	32	32	3	10	9	78	32	9	144	1.16	129.0
H			DOCU														7	18		0.00	2.6
H			DO2S	43		1,886	1,886	307			90	10		9	10	82	38	14	278	1.89	6.8
H			DO3S	48	2.0	2,108	2,066	337		75	13	12	4	2	28	66	36	9	104	0.89	19.8
H			DO4S	9		364	364	59		100			60	40			20	6	23	0.43	15.7
H Totals				16	1.0	4,359	4,317	703		45	45	10	7	8	18	67	29	9	96	0.97	44.8
C			DOCU														8	35		0.00	.1
C			DO2S	64	2.3	482	471	77			25	75	2		22	76	35	19	615	4.99	.8
C			DO3S	11		85	85	14		18	82		18	41	42		24	13	173	1.91	.5
C			DO4S	25		177	177	29		100			57	43			21	7	31	0.58	5.7
C Totals				3	1.5	745	733	120		26	26	48	17	15	19	49	22	9	104	1.42	7.0
M			DO4S	100		117	117	19		100					100		32	7	60	0.72	1.9
M Totals				0		117	117	19		100					100		32	7	60	0.72	1.9
Totals					0.6	27,794	27,623	4,504		45	31	25	6	12	13	69	29	9	107	0.97	258.6

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)												Page		1			
				Project: DRIDGE												Date		12/10/2024			
																Time		12:51:15PM			
T08N R07W S10 T00MC												T08N R07W S10 T00MC									
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt			
08N		07W		10		R/W		00MC		3.00		67		133		1		W			
				%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
S	So	Gr		Net				Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/		
Spp	T	rt	ad	BdFt	Def%	Gross	Net	Nel	MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf
D		DO	2S	62	.6	11,753	11,686	35				49	51	0	1	7	92	39	15	379	2.25
D		DO	3S	31	.2	5,775	5,765	17			95	5		2	17	16	65	35	9	102	0.85
D		DO	4S	7		1,191	1,191	4			100			31	69			23	6	29	0.44
D	Totals			67	.4	18,719	18,643	56			36	32	32	3	10	9	78	32	9	144	1.16
H		DO	CU															7	18		0.00
H		DO	2S	43		1,886	1,886	6			90	10			9	10	82	38	14	278	1.89
H		DO	3S	48	2.0	2,108	2,066	6		75	13	12		4	2	28	66	36	9	104	0.89
H		DO	4S	9		364	364	1		100				60	40			20	6	23	0.43
H	Totals			16	1.0	4,359	4,317	13			45	45	10	7	8	18	67	29	9	96	0.97
A		DO	CU															9	15		0.00
A		DO	1S	9		368	368	1			78	22		41	30		30	25	13	149	1.49
A		DO	2S	14	1.6	540	531	2		100					33	41	26	31	11	125	1.06
A		DO	3S	32		1,212	1,212	4		100				12	12	24	52	31	8	70	0.67
A		DO	4S	45	1.9	1,735	1,703	5		100				28	28	19	25	25	6	34	0.41
A	Totals			14	1.1	3,855	3,813	11			90	8	2	20	24	22	34	26	7	50	0.56
C		DO	CU															8	35		0.00
C		DO	2S	64	2.3	482	471	1			25	75		2		22	76	35	19	615	4.99
C		DO	3S	11		85	85	0		18	82			18	41	42		24	13	173	1.91
C		DO	4S	25		177	177	1		100				57	43			21	7	31	0.58
C	Totals			3	1.5	745	733	2			26	26	48	17	15	19	49	22	9	104	1.42
M		DO	4S	100		117	117	0		100					100			32	7	60	0.72
M	Totals			0		117	117	0		100					100			32	7	60	0.72
Type Totals					.6	27,794	27,623	83			45	31	25	6	12	13	69	29	9	107	0.97

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page		1											
				Project: DRIDGE										Date		12/10/2024											
														Time		12:51:15PM											
T08N R07W S10 T00MC										T08N R07W S10 T00MC																	
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt									
08N		07W		10		U12		00MC		160.00		67		133		1		W									
S Spp		So T		Gr rt		ad		% Net BdFt		Bd. Ft. per Acre Def% Gross Net		Total Net MBF		Percent Net Board Foot Volume								Average Log				Logs Per /Acre	
														Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf					
														4-5		6-11		12-16		17+		12-20		21-30			
D		DO		2S		62		.6 11,753 11,686		1,870		49 51		0 1 7 92		39 15 379 2.25		30.9									
D		DO		3S		31		.2 5,775 5,765		922		95 5		2 17 16 65		35 9 102 0.85		56.8									
D		DO		4S		7		1,191 1,191		191		100		31 69		23 6 29 0.44		41.4									
D		Totals				67		.4 18,719 18,643		2,983		36 32 32		3 10 9 78		32 9 144 1.16		129.0									
H		DO		CU												7 18 0.00		2.6									
H		DO		2S		43		1,886 1,886		302		90 10		9 10 82		38 14 278 1.89		6.8									
H		DO		3S		48		2.0 2,108 2,066		331		75 13 12		4 2 28 66		36 9 104 0.89		19.8									
H		DO		4S		9		364 364		58		100		60 40		20 6 23 0.43		15.7									
H		Totals				16		1.0 4,359 4,317		691		45 45 10		7 8 18 67		29 9 96 0.97		44.8									
A		DO		CU												9 15 0.00		1.2									
A		DO		1S		9		368 368		59		78 22		41 30 30		25 13 149 1.49		2.5									
A		DO		2S		14		1.6 540 531		85		100		33 41 26		31 11 125 1.06		4.3									
A		DO		3S		32		1,212 1,212		194		100		12 12 24 52		31 8 70 0.67		17.3									
A		DO		4S		45		1.9 1,735 1,703		272		100		28 28 19 25		25 6 34 0.41		50.5									
A		Totals				14		1.1 3,855 3,813		610		90 8 2		20 24 22 34		26 7 50 0.56		75.7									
C		DO		CU												8 35 0.00		.1									
C		DO		2S		64		2.3 482 471		75		25 75		2 22 76		35 19 615 4.99		.8									
C		DO		3S		11		85 85		14		18 82		18 41 42		24 13 173 1.91		.5									
C		DO		4S		25		177 177		28		100		57 43		21 7 31 0.58		5.7									
C		Totals				3		1.5 745 733		117		26 26 48		17 15 19 49		22 9 104 1.42		7.0									
M		DO		4S		100		117 117		19		100		100		32 7 60 0.72		1.9									
M		Totals				0		117 117		19		100		100		32 7 60 0.72		1.9									
Type Totals								.6 27,794 27,623		4,420		45 31 25		6 12 13 69		29 9 107 0.97		258.6									

TC PSTATS				PROJECT STATISTICS				PAGE 1				
				PROJECT		DRIDGE		DATE 12/10/2024				
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
08N	07	10	R/W	00MC	163.00	134	682	1	W			
08N	07W	10	U12	00MC								
				TREES	ESTIMATED	PERCENT						
				PER PLOT	TOTAL	SAMPLE						
				PLOTS	TREES	TREES	TREES					
TOTAL			134	682	5.1							
CRUISE			60	266	4.4	25,423	1.0					
DBH COUNT												
REFOREST												
COUNT			74	398	5.4							
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
			TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR			136	68.0	17.8	63	27.8	117.0	18,719	18,643	4,749	4,749
WHEMLOCK			44	30.6	15.3	45	9.9	38.8	4,359	4,317	1,255	1,255
R ALDER			68	49.3	11.6	42	10.7	36.4	3,855	3,813	1,103	1,103
WR CEDAR			16	6.2	16.3	28	2.2	9.0	745	733	224	224
BL MAPLE			2	1.9	15.0	34	0.6	2.4	117	117	45	45
TOTAL			266	156.0	15.5	51	51.8	203.6	27,794	27,623	7,377	7,377
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			134.2	11.5	555	627	699					
WHEMLOCK			87.4	13.2	235	271	307					
R ALDER			66.6	8.1	91	99	107					
WR CEDAR			111.5	28.8	409	574	739					
BL MAPLE					60	60	60					
TOTAL			157.3	9.6	385	426	467	988	247	110		
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			111.8	9.6	129	143	156					
WHEMLOCK			77.6	11.7	67	75	84					
R ALDER			63.6	7.7	27	29	31					
WR CEDAR			97.5	25.2	120	160	200					
BL MAPLE					23	23	23					
TOTAL			129.2	7.9	94	103	111	666	167	74		
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			164.9	14.2	58	68	78					
WHEMLOCK			255.7	22.1	24	31	37					
R ALDER			304.8	26.3	36	49	62					
WR CEDAR			456.2	39.4	4	6	9					
BL MAPLE			691.3	59.7	1	2	3					
TOTAL			124.6	10.8	139	156	173	620	155	69		
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			163.2	14.1	101	117	134					
WHEMLOCK			242.1	20.9	31	39	47					
R ALDER			302.8	26.1	27	36	46					
WR CEDAR			350.6	30.3	6	9	12					
BL MAPLE			691.3	59.7	1	2	4					
TOTAL			113.8	9.8	184	204	224	517	129	57		

PROJECT STATISTICS

PROJECT DRIDGE

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
08N	07	10	R/W	00MC	163.00	134	682	1	W
08N	07W	10	U12	00MC					

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		176.9	15.3	15,796	18,643	21,490			
WHEMLOCK		239.0	20.6	3,426	4,317	5,208			
R ALDER		315.7	27.2	2,774	3,813	4,852			
WR CEDAR		353.8	30.5	510	733	957			
BL MAPLE		691.3	59.7	47	117	186			
TOTAL		128.0	11.1	24,570	27,623	30,676	655	164	73

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	DRIDGE	DATE 12/10/2024				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	07W	10	R/W	00MC	3.00	67	341	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
PLOTS		TREES		PER PLOT		TREES				
TOTAL		67	341	5.1						
CRUISE		30	133	4.4		468	28.4			
DBH COUNT										
REFOREST										
COUNT		37	199	5.4						
BLANKS										
100 %										
STAND SUMMARY										
SAMPLE		TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
TREES		/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR		68	68.0	17.8	63	27.8	117.0	18,719	18,643	4,749
WHEMLOCK		22	30.6	15.3	45	9.9	38.8	4,359	4,317	1,255
R ALDER		34	49.3	11.6	42	10.7	36.4	3,855	3,813	1,103
WR CEDAR		8	6.2	16.3	28	2.2	9.0	745	733	224
BL MAPLE		1	1.9	15.0	34	0.6	2.4	117	117	45
TOTAL		133	156.0	15.5	51	51.8	203.6	27,794	27,623	7,377
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		134.7	16.3	525	627	729				
WHEMLOCK		88.5	19.3	219	271	323				
R ALDER		67.1	11.5	88	99	111				
WR CEDAR		115.4	43.5	324	574	823				
BL MAPLE										
TOTAL		157.6	13.7	368	426	484	992	248	110	
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		112.2	13.6	123	143	162				
WHEMLOCK		78.5	17.1	62	75	88				
R ALDER		64.1	11.0	26	29	32				
WR CEDAR		101.0	38.1	99	160	221				
BL MAPLE										
TOTAL		129.4	11.2	91	103	114	669	167	74	
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		96.6	11.8	60	68	76				
WHEMLOCK		171.1	20.9	24	31	37				
R ALDER		209.0	25.5	37	49	62				
WR CEDAR		322.3	39.3	4	6	9				
BL MAPLE		494.9	60.4	1	2	3				
TOTAL		56.9	6.9	145	156	167	129	32	14	
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		95.1	11.6	103	117	131				
WHEMLOCK		160.5	19.6	31	39	46				
R ALDER		207.5	25.3	27	36	46				
WR CEDAR		243.7	29.7	6	9	12				
BL MAPLE		494.9	60.4	1	2	4				
TOTAL		43.4	5.3	193	204	214	75	19	8	

TC TSTATS				STATISTICS				PAGE	2
				PROJECT	DRIDGE			DATE	12/10/2024
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
08N	07W	10	R/W	00MC	3.00	67	341	1	W
CL:	68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.	S.E. %	LOW	AVG	HIGH	5	10	15
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		107.1	13.1	16,205	18,643	21,081			
WHEMLOCK		158.1	19.3	3,484	4,317	5,150			
R ALDER		217.2	26.5	2,802	3,813	4,825			
WR CEDAR		246.0	30.0	513	733	954			
BL MAPLE		494.9	60.4	46	117	187			
TOTAL		60.7	7.4	25,577	27,623	29,670	147	37	16

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	DRIDGE			DATE	12/10/2024		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
08N	07W	10	U12	00MC	160.00	67	341	1	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
PLOTS		TREES									
TOTAL		67	341	5.1							
CRUISE		30	133	4.4		24,955		.5			
DBH COUNT											
REFOREST											
COUNT		37	199	5.4							
BLANKS											
100 %											
STAND SUMMARY											
SAMPLE		TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET	
TREES		/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC	
DOUG FIR		68	68.0	17.8	63	27.8	117.0	18,719	18,643	4,749	
WHEMLOCK		22	30.6	15.3	45	9.9	38.8	4,359	4,317	1,255	
R ALDER		34	49.3	11.6	42	10.7	36.4	3,855	3,813	1,103	
WR CEDAR		8	6.2	16.3	28	2.2	9.0	745	733	224	
BL MAPLE		1	1.9	15.0	34	0.6	2.4	117	117	45	
TOTAL		133	156.0	15.5	51	51.8	203.6	27,794	27,623	7,377	
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		134.7	16.3	525	627	729					
WHEMLOCK		88.5	19.3	219	271	323					
R ALDER		67.1	11.5	88	99	111					
WR CEDAR		115.4	43.5	324	574	823					
BL MAPLE											
TOTAL		157.6	13.7	368	426	484	992	248	110		
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		112.2	13.6	123	143	162					
WHEMLOCK		78.5	17.1	62	75	88					
R ALDER		64.1	11.0	26	29	32					
WR CEDAR		101.0	38.1	99	160	221					
BL MAPLE											
TOTAL		129.4	11.2	91	103	114	669	167	74		
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		96.6	11.8	60	68	76					
WHEMLOCK		171.1	20.9	24	31	37					
R ALDER		209.0	25.5	37	49	62					
WR CEDAR		322.3	39.3	4	6	9					
BL MAPLE		494.9	60.4	1	2	3					
TOTAL		56.9	6.9	145	156	167	129	32	14		
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		95.1	11.6	103	117	131					
WHEMLOCK		160.5	19.6	31	39	46					
R ALDER		207.5	25.3	27	36	46					
WR CEDAR		243.7	29.7	6	9	12					
BL MAPLE		494.9	60.4	1	2	4					
TOTAL		43.4	5.3	193	204	214	75	19	8		
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		107.1	13.1	16,205	18,643	21,081					
WHEMLOCK		158.1	19.3	3,484	4,317	5,150					

TC TSTATS				STATISTICS			PAGE	2	
				PROJECT	DRIDGE	DATE		12/10/2024	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
08N	07W	10	U12	00MC	160.00	67	341	1	W
CL: 68.1 %		COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
R ALDER		217.2	26.5	2,802	3,813	4,825			
WR CEDAR		246.0	30.0	513	733	954			
BL MAPLE		494.9	60.4	46	117	187			
TOTAL		60.7	7.4	25,577	27,623	29,670	147	37	16

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+
A		DO 1S	16	24		24	3.9						11		13				
A		DO 1S	30	18		18	2.9						18						
A		DO 1S	40	18		18	2.9						18						
A		DO 2S	24	14		14	2.3					14							
A		DO 2S	26	16	9.1	14	2.3					14							
A		DO 2S	32	17		17	2.7					17							
A		DO 2S	34	18		18	3.0					18							
A		DO 2S	40	23		23	3.6					23							
A		DO 3S	16	18		18	3.0				18								
A		DO 3S	20	5		5	.8				5								
A		DO 3S	24	11		11	1.7				11								
A		DO 3S	30	13		13	2.1				13								
A		DO 3S	32	32		32	5.1				32								
A		DO 3S	34	16		16	2.5				16								
A		DO 3S	38	36		36	5.8				36								
A		DO 3S	40	67		67	10.7				67								
A		DO 4S	12	5		5	.8			5									
A		DO 4S	16	30	8.9	27	4.3			27									
A		DO 4S	18	22		22	3.6			22									
A		DO 4S	20	24		24	3.9			24									
A		DO 4S	24	15		15	2.3			15									
A		DO 4S	26	21		21	3.4			21									
A		DO 4S	28	18		18	2.8			18									
A		DO 4S	30	27	10.0	24	3.9			24									
A		DO 4S	32	52		52	8.4			52									
A		DO 4S	40	69		69	11.2			69									
A		Totals		628	1.1	622	13.8			278	198	87	47		13				
D		DO 2S	18	3		3	.1						3						
D		DO 2S	20	3		3	.1						3						
D		DO 2S	24	16		16	.5						16						
D		DO 2S	32	129		129	4.2						53	12	63				
D		DO 2S	40	1,765		1,754	57.7						423	200	465	280	300	86	
D		DO 3S	14	3		3	.1						3						
D		DO 3S	18	3		3	.1					3							
D		DO 3S	20	12		12	.4				6		3	3					
D		DO 3S	24	51		51	1.7				3	48							

TC PLOGSTVB			Log Stock Table - MBF															
T08N R07W S10 Ty00MC			3.00		Project: DRIDGE										Page 2			
T08N R07W S10 Ty00MC			160.00		Acres 163.00										Date 12/10/2024			
															Time 12:51:18PM			
S T Spp	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+
D	DO 3S	26	42		42	1.4				21	21							
D	DO 3S	28	68		68	2.2			15	15	38							
D	DO 3S	32	105		105	3.5			35	9	51		11					
D	DO 3S	34	44		44	1.5			44									
D	DO 3S	36	21		21	.7			21									
D	DO 3S	38	24		24	.8			24									
D	DO 3S	40	568		566	18.6			54	78	405	8	22					
D	DO 4S	16	23		23	.8			21	2								
D	DO 4S	18	16		16	.5			11	5								
D	DO 4S	20	21		21	.7			14	7								
D	DO 4S	24	63		63	2.1			57	7								
D	DO 4S	26	18		18	.6			18									
D	DO 4S	28	23		23	.8			23									
D	DO 4S	30	29		29	.9			29									
D	Totals		3,051		3,039	67.5			364	154	566	513	248	528	280	300	86	
H	DO 2S	24	26		26	3.7							26					
H	DO 2S	32	31		31	4.4								31				
H	DO 2S	40	251		251	35.6						149	67	34				
H	DO 3S	16	4		4	.5					4							
H	DO 3S	18	10		10	1.4					10							
H	DO 3S	28	5		5	.8			5									
H	DO 3S	32	64		64	9.2			8	24	32							
H	DO 3S	34	31		31	4.4			7		24							
H	DO 3S	40	230	3.0	223	31.7			99	14	28		43		40			
H	DO 4S	12	8		8	1.2			8									
H	DO 4S	18	3		3	.4				3								
H	DO 4S	20	24		24	3.5			24									
H	DO 4S	28	13		13	1.9			13									
H	DO 4S	30	11		11	1.5			11									
H	Totals		711		704	15.6			175	41	98	149	110	60	71			
C	DO 2S	16	2		2	1.4					2							
C	DO 2S	32	17		17	14.2									17			
C	DO 2S	40	60	3.0	58	48.6							18		41			
C	DO 3S	16	1		1	1.2					1							
C	DO 3S	18	1		1	.9					1							

TC PLOGSTVB		Log Stock Table - MBF																					
T08N R07W S10 Ty00MC		3.00		Project:		DRIDGE														Page		3	
T08N R07W S10 Ty00MC		160.00		Acres		163.00														Date		12/10/2024	
																				Time		12:51:18PM	
S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												20-23	24-29	30-39	40+	
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19									
C	DO	3S	30	6	6	4.7								6									
C	DO	3S	32	6	6	4.8								6									
C	DO	4S	18	12	12	10.4			12														
C	DO	4S	20	4	4	3.3			4														
C	DO	4S	24	5	5	3.9			5														
C	DO	4S	26	8	8	6.6			8														
C	Totals			121	1.5	120	2.7		29		2	2	6	23		57							
M	DO	4S	32	19	19	100.0			19														
M	Totals			19	19	.4			19														
Total	All Species			4,530	4,503	100.0			865	393	752	711	364	625	351	357		86					

TC		PSTNDSUM		Stand Table Summary							Page		1			
											Date:		12/10/2024			
T08N R07W S10 Ty00MC3.00 T08N R07W S10 Ty00MC160.00				Project					DRIDGE		Time:		12:51:19PM			
				Acres					163.00		Grown Year:					
S Spec	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
		DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
D		8	2	89	21	4.930	1.72	4.93	5.0	20.0		25	99		40	16
D		10	4	86	43	6.310	3.44	6.31	9.0	30.0		57	189		93	31
D		11	4	87	52	5.215	3.44	5.21	13.5	40.0		70	209		115	34
D		12	4	87	77	4.382	3.44	6.57	15.0	50.0		99	329		161	54
D		13	2	85	57	1.867	1.72	1.87	21.0	60.0		39	112		64	18
D		14	2	88	74	1.610	1.72	3.22	15.5	60.0		50	193		81	31
D		15	4	85	77	2.804	3.44	5.61	18.7	65.0		105	365		171	59
D		16	12	85	90	7.395	10.32	14.79	24.5	85.8		362	1,269		591	207
D		17	12	84	92	6.550	10.32	13.10	28.1	93.3		368	1,223		600	199
D		18	8	85	103	3.895	6.88	8.76	30.4	108.9		267	954		435	156
D		19	18	85	97	7.866	15.49	16.61	35.6	119.5		591	1,984		963	323
D		20	8	86	108	3.155	6.88	7.10	39.3	141.1		279	1,002		455	163
D		22	2	77	152	.652	1.72	1.96	43.7	160.0		85	313		139	51
D		23	14	83	105	4.175	12.05	9.54	50.4	177.5		481	1,694		785	276
D		24	6	87	120	1.643	5.16	4.93	49.1	201.1		242	991		395	162
D		25	8	86	117	2.019	6.88	5.05	60.3	239.0		304	1,206		496	197
D		26	2	83	174	.467	1.72	1.87	55.5	250.0		104	467		169	76
D		29	2	88	141	.375	1.72	1.13	82.7	396.7		93	446		152	73
D		30	4	81	175	.701	3.44	2.80	73.0	336.3		205	943		334	154
D		31	2	83	169	.328	1.72	1.31	76.5	370.0		100	486		164	79
D		32	2	83	182	.308	1.72	1.23	86.0	410.0		106	505		173	82
D		36	2	85	165	.243	1.72	.73	136.0	683.3		99	499		162	81
D		37	2	80	171	.230	1.72	.92	108.0	537.5		100	495		162	81
D		39	2	81	188	.207	1.72	.83	126.7	647.5		105	537		171	88
D		40	2	81	183	.197	1.72	.79	131.3	670.0		104	528		169	86
D		43	2	86	190	.171	1.72	.68	167.7	932.5		114	636		187	104
D		45	2	77	175	.156	1.72	.62	155.5	770.0		97	480		158	78
D		47	2	78	175	.143	1.72	.57	170.7	852.5		98	487		159	79
D		Totals	136	85	85	67.995	117.01	129.05	36.8	144.5		4,749	18,643		7,741	3,039
H		8	2	85	17	5.053	1.76	5.05	4.0	10.0		20	51		33	8
H		10	2	89	33	3.234	1.76	3.23	9.0	30.0		29	97		47	16
H		11	2	86	46	2.673	1.76	2.67	12.0	30.0		32	80		52	13
H		12	6	86	64	6.738	5.29	6.74	22.3	66.7		150	449		245	73
H		14	4	87	84	3.300	3.53	6.60	19.2	67.5		127	446		207	73
H		18	6	84	88	2.995	5.29	4.99	34.4	120.0		172	599		280	98
H		20	6	85	98	2.426	5.29	4.85	45.7	153.3		222	744		361	121
H		22	4	84	84	1.336	3.53	2.67	44.2	160.0		118	428		193	70
H		23	2	86	99	.611	1.76	1.22	60.0	215.0		73	263		120	43
H		24	2	80	83	.561	1.76	.56	67.0	240.0		38	135		61	22
H		25	2	82	103	.517	1.76	1.03	72.0	245.0		75	254		121	41
H		27	2	80	73	.444	1.76	.89	65.0	200.0		58	177		94	29
H		30	2	86	122	.359	1.76	1.08	81.7	343.3		88	370		144	60
H		31	2	83	96	.337	1.76	.67	80.0	335.0		54	225		88	37
H		Totals	44	86	62	30.584	38.81	42.27	29.7	102.1		1,255	4,317		2,046	704
A		8	4	86	44	6.137	2.14	6.14	7.5	30.0		46	184		75	30
A		9	6	86	66	7.274	3.21	7.27	12.0	46.7		87	339		142	55
A		10	6	86	74	5.892	3.21	9.82	9.4	34.0		92	334		150	54
A		11	14	87	65	11.361	7.50	16.23	12.8	41.0		208	665		339	108
A		12	8	87	73	5.455	4.28	9.55	13.6	45.7		130	436		211	71
A		13	8	87	89	4.648	4.28	9.30	17.4	57.5		162	535		263	87
A		14	2	86	68	1.002	1.07	2.00	16.5	55.0		33	110		54	18
A		15	10	87	69	4.364	5.36	8.73	20.0	71.0		175	620		285	101

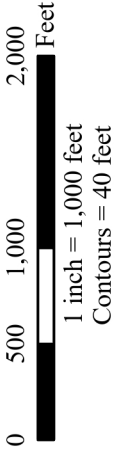
TC		PSTNDSUM		Stand Table Summary								Page		2	
												Date:		12/10/2024	
T08N R07W S10 Ty00MC3.00 T08N R07W S10 Ty00MC160.00				Project				DRIDGE				Time:		12:51:19PM	
				Acres				163.00				Grown Year:			
S Spec T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
	DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
A	16	4	86	68	1.534	2.14	2.30	25.7	90.0		59	207	96	34	
A	18	2	86	91	.606	1.07	1.21	35.5	125.0		43	152	70	25	
A	19	2	87	73	.544	1.07	1.09	35.0	110.0		38	120	62	20	
A	21	2	87	78	.445	1.07	.89	35.0	125.0		31	111	51	18	
A	Totals	68	87	68	49.262	36.42	74.53	14.8	51.2		1,103	3,813	1,799	622	
C	9	2	88	38	2.534	1.12	2.53	7.0	30.0		18	76	29	12	
C	13	4	76	37	2.429	2.24	2.43	14.5	30.0		35	73	57	12	
C	17	2	72	34	.710	1.12	.71	23.0	40.0		16	28	27	5	
C	38	2	67	76	.142	1.12	.28	117.5	230.0		33	65	54	11	
C	40	4	77	119	.257	2.24	.64	136.6	542.0		88	348	143	57	
C	43	2	75	130	.111	1.12	.33	101.3	430.0		34	143	55	23	
C	Totals	16	80	43	6.183	8.96	6.93	32.3	105.8		224	733	365	120	
M	15	2	86	42	1.946	2.39	1.95	23.0	60.0		45	117	73	19	
M	Totals	2	86	42	1.946	2.39	1.95	23.0	60.0		45	117	73	19	
Totals		266	86	73	155.970	203.58	254.72	29.0	108.4		7,377	27,623	12,025	4,503	

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W01073-01

DAVIS RIDGE
PORTIONS OF SECTIONS
10, 11, 12, 13, & 14
OF T8N, R7W, W.M.,
CLATSOP COUNTY, OREGON

Logging			
Breakdown	Tractor	Cable	Acres
Unit 1 (CC)	55%	45%	55
Unit 2 (CC)	72%	28%	105
Unit 3 (R/W)	100%	0%	3
Total	67%	33%	163



Legend

- Ownership Boundary

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Posted Timber Sale Boundary

—

Non-Posted Timber Sale Boundary

—

Paved Road

—

Surfaced Road

—

New Road Construction - Unsurfaced

—

New Road Construction - Surfaced

⊙

Landing to be Constructed
- Existing Landing
- Cable Based Yarding
- ⌞

Ground Based Yarding
- Type F Stream
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Non-Posted Stream Buffer
- ▨

Posted Stream Buffer

▨

Stream Buffer Removal

⊠

Temporary Stream Crossing

▨

Early Felling

▨

Reserve Tree Area

▨

Controlled Felling

▨

Operationally Restricted Area

□

Section Line

◇

Survey Monument