

Sale FG-341-2021-W00474-01

District: Forest Grove Date: October 13, 2020

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,947,873.74	\$0.00	\$1,947,873.74
		Project Work:	(\$284,993.07)
		Advertised Value:	\$1,662,880.67



Sale FG-341-2021-W00474-01

District: Forest Grove Date: October 13, 2020

Timber Description

Location: Portions of Sections 21, 22 & 27, T3N, R6W, W.M.,

Tillamook County, Oregon

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	26	0	98
Western Hemlock / Fir	21	0	98

Volume by Grade	2\$	3S & 4S 6"- 11"	Total
Douglas - Fir	3,220	444	3,664
Western Hemlock / Fir	205	45	250
Total	3,425	489	3,914

Comments: Pond Values Used: Local Pond Values, August 2020.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost: \$913.17/MBF = \$1,125/MBF - \$211.83/MBF

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost: \$324.17/MBF = \$536.00/MBF - \$211.83/MBF

BRANDING AND PAINTING COST ALLOWANCE = \$2.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$950 daily truck cost.

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

Other Costs (No Profit & Risk added):

Machine Time to Block/Waterbar Roads, and Skid Trails:

10 hours x \$150/hour = \$1,500

Machine Time to Pile Landing Slash and Sort Firewood:

20 hours x \$150/hour = \$3,000

Equipment Cleaning: 3 pieces x \$1,000/Piece = \$3,000

Slash Disposal: 10 acres $\times 200/acre = 2,000$

TOTAL Other Costs (No Profit & Risk added) = \$9,500

ROAD MAINTENANCE

General Road Maintenance(includes move-in,grader,roller): 8.43 miles x \$2,800.10/mile = \$23,604.84 TOTAL Road Maintenance: \$23,604.84/3,914 MBF = \$6.03/MBF



Sale FG-341-2021-W00474-01

District: Forest Grove Date: October 13, 2020

Logging Conditions

Combination#: 1 Douglas - Fir 70.92%

Western Hemlock / Fir 71.00%

yarding distance: Long (1,500 ft) downhill yarding: No

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

loads / day: 10 bd. ft / load: 4800

cost / mbf: \$125.00

machines: Log Loader (A)

Stroke Delimber (A) Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 29.08%

Western Hemlock / Fir 29.00%

Logging System: Shovel Process: Stroke Delimber

yarding distance: Short (400 ft) downhill yarding: No

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

loads / day: 12 bd. ft / load: 4800

cost / mbf: \$55.07

machines: Stroke Delimber (B)



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District: Forest Grove Date: October 13, 2020

Logging Costs

Operating Seasons: 2.00

Profit Risk: 15%

Project Costs: \$284,993.07

Other Costs (P/R): \$0.00

Slash Disposal: \$0.00

Other Costs: \$9,500.00

Miles of Road

Road Maintenance:

\$6.03

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	4.8	
Western Hemlock / Fir	\$0.00	2.0	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										
\$104.67	\$6.15	\$2.24	\$67.29	\$0.00	\$27.05	\$0.00	\$2.00	\$2.43	\$211.83	
Western Hemlock / Fir										
\$104.72	\$6.15	\$2.24	\$121.12	\$0.00	\$35.13	\$0.00	\$2.00	\$2.43	\$273.79	

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$724.49	\$512.66	\$0.00
Western Hemlock / Fir	\$0.00	\$551.74	\$277.95	\$0.00



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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	3,664	\$512.66	\$1,878,386.24	
Western Hemlock / Fir	250	\$277.95	\$69,487.50	

Gross Timber Sale Value

Recovery: \$1,947,873.74

Prepared By: Mark Savage Phone: 503-359-7437

TIMBER SALE SUMMARY **Daring Doty** #FG-341-2021-W00474-01

- 1. Location: Portions of Sections 21, 22 & 27, T3N, R6W, W.M., Tillamook County, Oregon.
- 2. Type of Sale: This timber sale is 90 net acres of Modified Clearcut in two units. Unit 1 is 90 acres and Unit 2 is less than 1 acre of Right-of-Way Timber. The timber will be sold on a recovery basis at a sealed bid auction.
- 3. Revenue Distribution: 100% BOF, Tillamook County, Tax Code 56-1.
- 4. Sale Acreage: Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
- 5. Cruise: The Timber Sale Area was cruised by ODF Cruisers in August of 2020. For more information see Cruise Report.
- 6. Timber Description: The Timber Sale Area consists of an over-stocked 80 year old Douglasfir stand with minor amounts of western hemlock, western redcedar, true firs, and hardwoods. The stand has an average of 184 ft² of basal area all species, an average Douglas-fir DBH of 26 inches, and an estimated average net Douglas-fir volume of approximately 40.7 MBF per acre.
- 7. Topography and Logging Method: Slopes within the sale areas range from 5% to 70%, and variable in aspect. Unit 1 is 29% ground-based yarding and 71% cable yarding. Unit 2 is 100% ground-based yarding. In Unit 1, the average cable corridor length is approximately 1,200 feet and the maximum is approximately 2,500 feet. The average horizontal skid trail length is approximately 150 feet and the maximum is approximately 300 feet.
- 8. Access: All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 47 through Banks, then merge onto Highway 26 west-bound and continue for approximately 20 miles. Between the mile markers 31 and 32, turn left onto the Salmonberry Road. Proceed on Salmonberry Road for 1.2 miles and turn left onto Section 10 Road. Follow Section 10 Road for 2.1 miles and turn left on Wheeler Road. Proceed for 0.1 miles on Wheeler Road and turn right onto Fire Road 2. Follow Fire Road 2 for 2 miles and turn right onto Giveout Mountain Road. Follow Giveout Mountain Road for approximately 1.3 miles to access the western portion of Unit 1.

9.	Projects:	
	Project No. 1: Rocked Road Construction	\$3,810.88
	Project No. 2: Road Improvement	\$163,232.65
	Project No. 3: Stockpile Construction	\$103,532.69
	Project No. 4: Gate Installation	\$14,416.85
	Total Credit for all Projects	\$284,993.07

PROJECT COST SUMMARY SHEET

Daring Doty Timber Sale: Sale Number: FG-341-2021-W00474-01 PROJECT NO. 1: ROCKED ROAD CONSTRUCTION Road Segment Length Cost \$3,644.42 S to T 2+05 2+05 stations 0.04 miles Total Rock = 1½" - 0 24 cy 3" - 0 313 cy Move-in = \$90.59 **TOTAL PROJECT COST =** \$3,735.01 PROJECT NO. 2: ROAD IMPROVEMENT Road Segment Length Cost \$61,397.76 A to B 110+75 C to D 18+40 \$10,999.97 E to F 7+60 \$1,526.46 G to H 5+90 \$3,613.03 12+90 \$7,036.74 I to J K to L 4+00 \$2,676.05 M to N 12+50 \$8,585.38 O to P 94+75 \$52,793.28 \$7,197.11 Q to R 13+40 280+20 stations 5.31 miles Total Rock = 1½" - 0 6,041 cy 2,118 cy 3" - 0 Move-in = \$3,873.23 TOTAL PROJECT COST = \$159,699.01 PROJECT NO. 3: STOCKPILE CONSTRUCTION Rock Size Stockpile Measure Cost 3,175 cy 1½" - 0 \$35,526.99 3" - 0 \$69,071.21 5,500 cy Total Rock = 1½" - 0 3,683 cy 6,380 cy 3" - 0 \$2,599.91 Move-in = **TOTAL PROJECT COST =** \$107,198.11 **PROJECT NO. 4: GATE INSTALLATION** Gate Size Cost Location Point U 20' \$6,111.41 Point V 20' \$6,112.31 Total Rock = 12 cy Boulders Move-in = \$2,137.22 **TOTAL PROJECT COST =** \$14,360.95

<u>TOTAL CREDITS = \$284,993.07</u>

	JUIVII	VIAITI OI V	CONSTINU	311014 0031			
Timber Sale:		Daring Do	ty	_	Sale Number:	FG-341-202	1-W00474-01
Road Segment:		A to B		lı	mprovement:	110+75	stations
				_		2.10	miles
PROJECT NO. 2							
IMPROVEMENT	_		*****			** ***	
Clearing & grubbing (scatter)	1.28	ac @		per acre =		\$1,103.87	
Clean ditch & scatter waste material	110.75	sta @		per sta =		\$6,645.00	
Clean culvert inlet & outlet, scatter waste	20	ea @		per ea =		\$500.00	
Remove existing culverts	1	ea @		per ea =		\$150.00	
Improve Turnouts	7	ea @		per ea =		\$231.00	
Grade, ditch, & roll	110.75	sta @	\$36.00	per sta =		\$3,987.00	
				TOTAL I	MPROVEMEN	NT COSTS =	\$12,616.87
CULVERTS				<u></u>			ψ·=,σ·σ·σ·
Culverts and Bands	-						
18" Diameter	30	LF @	\$20.00	per LF =		\$600.00	
Markers & Stakes	30	L1 @	Ψ20.00	per Li –		ψ000.00	
Culvert Markers	19	ea @	\$10.00	per ea =		\$190.00	
Culvert Markers	13	ea w	ψ10.00	per ea –	•	ψ190.00	
				TC	TAL CULVER	T COSTS -	\$790.00
BOOK				<u>1C</u>	TAL CULVER	<u> </u>	\$790.00
ROCK							
	Rock	Base	Haul Cost	Placement/			
	Size	Cost \$/cy		Processing Cost \$/	Total CY	Rock Cost	
	OIZO	Ουσι φισγ	φ/Оу	1 Toocsomig Cost w	Oy		
Subgrade rock			11				
Bedding and backfill	1½" - 0	\$7.99	\$5.66	\$0.50	24	\$339.51	
	-			Subtotal =	24	\$339.51	
Surfacing rock							
Surfacing rock	1½" - 0		\$3.77	\$1.22	3,433	\$44,550.57	
Junction	1½" - 0	\$7.99	\$3.77	\$1.22	120	\$1,557.15	
Turnout	1½" - 0	\$7.99	\$3.77	\$1.22	98	\$1,271.67	
		•	•	Subtotal =	3,651	\$47,379.38	
			Totals	All Rock	3,675		
				1½" -	0 = 3,675		
						•	
					TOTAL ROC	CK COSTS =	\$47,718.89
EROSION CONTROL						-	
Grass seed & fertilizer	0.64	ac @	\$425.00	per ac =		\$272.00	
Craco scou a fortilizor	0.04	ac w	ψ 7 20.00	per ac –	-	Ψ212.00	
				TOTAL EROS	ION CONTRO	OL COSTS =	\$272.00
						<u></u>	
				_	OTAL DDG "	-01.0001	#04 007 70
				<u>I</u>	OTAL PROJE	<u>=c1 c081 =</u>	\$61,397.76

Timber Cala	Daring Doty		Sale Number:		EC 244 202	1 10/00/17/1 04	
Timber Sale:			ıty	=	•		
Road Segment:		C to D		-	Improvement:	18+40	stations miles
						0.35	miles
PROJECT NO. 2							
IMPROVEMENT							
Clearing & grubbing (scatter)	0.22	ac @	\$862.40	per acre =		\$189.73	
Clean ditch & scatter waste material	18.40	sta @	\$60.00	per sta =		\$1,104.00	
Clean culvert inlet & outlet, scatter waste	2	ea @	\$25.00	per ea =		\$50.00	
"Y" Junction	1.00	sta @	\$110.00	per sta =		\$110.00	
Grade, ditch, & roll	18.40	sta @	\$36.00	per sta =		\$662.40	
				TOTAL I	MPROVEMEN	IT COSTS =	\$2,116.13
CULVERTS						_	
Markers & Stakes							
Culvert Markers	1	ea @	\$10.00	per ea =		\$10.00	
Additional Installation Cost		_					
Repair Culvert Outlet	1	hrs @	\$175.00	per hr =		\$175.00	
DOCK				<u>10</u>	OTAL CULVER	1 COS1S =	\$185.00
ROCK	i						
	Rock	Base	Haul Cost	Placement/			
	Size	Cost \$/cy	\$/cy	Processing Cost \$	Total CY	Rock Cost	
	0.20	0001 4/109	4,09	i recessing east \$			
Surfacing rock	011.0	h7.00	40.50	A4.00	004	#7.404.00	
Surfacing rock	3" -0	\$7.69	\$3.50	\$1.22	601	\$7,461.09	
Junction	3" -0	\$7.69	\$3.50	\$1.22	96	\$1,191.00	
				Subtotal =	697	\$8,652.09	
			Totals	All Roc	k = 697		
				3" -	0 = 697		
					Į.		
					TOTAL ROC	K COSTS =	\$8,652.09
EROSION CONTROL						_	
Grass seed & fertilizer	0.11	ac @	\$425.00	per ac =		\$46.75	
		J		·		· ·	¢46.75
				TOTAL EROS	SION CONTRO	<u> </u>	\$46.75
				-	TOTAL DDC IT	CT COST -	¢40,000,07
				<u>_</u>	TOTAL PROJE	<u>:c1 c051 =</u>	\$10,999.97

	SUMIN	MARY OF C	ONSTRUC	TION COST				
Timber Sale:		Daring Doty		Sale	e Number:	FG-341-202	1-W00474-01	
Road Segment:		E to F		Imp	rovement:	7+60	stations	
				<u>-</u>		0.14	miles	
PROJECT NO. 2								
IMPROVEMENT								
Clearing & grubbing (scatter)	0.09	ac @	\$862.40	per acre =		\$77.62		
Clean ditch & scatter waste material	7.60	sta @	\$60.00	per sta =		\$456.00		
Clean culvert inlet & outlet, scatter waste	1	ea @	\$25.00	per ea =		\$25.00		
Improve Roadside Landing	1	ea @	\$82.50	per ea =		\$82.50		
Grade, ditch, & roll	7.60	sta @		per sta =		\$273.60		
				TOTAL IMPR	ROVEMEN	T COSTS =	\$914.72	
CULVERTS						_		
Markers & Stakes								
Culvert Markers	1	ea @	\$10.00	per ea =		\$10.00		
				TOTAL	CHIVED	T COSTS =	\$10.00	
ROCK				TOTAL	COLVEIX	1 00313 =	φ10.00	
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost		
Surfacing rock								
Roadside landing	3" -0	\$7.69	\$3.49	\$1.22	47	\$582.62		
Troduction fairling	0 0	φν.σσ	ψ0.40	Subtotal =	47	\$582.62		
			.	AUD	1 47	ī		
			Totals	All Rock = 3" - 0 =	47 47			
						•		
				<u>T0</u>	TAL ROC	K COSTS =	\$582.62	
EROSION CONTROL								
Grass seed & fertilizer	0.05	ac @	\$425.00	per ac =		\$19.13		
				TOTAL EROSION	CONTRO	L COSTS =	\$19.13	
				<u>TOTA</u>	L PROJE	CT COST =	\$1,526.46	

Timber Sale:	Daring Doty Sale			Number:	FG-341-202	1-W00474-01	
Road Segment:		G to H		- Impi	rovement:	5+90	stations
<u> </u>				•		0.11	miles
PROJECT NO. 2							
IMPROVEMENT							
Clearing & grubbing (scatter)	0.07	ac @	\$862.40	per acre =		\$60.37	
Clean ditch & scatter waste material	5.90	sta @	\$60.00	per sta =		\$354.00	
Improve Landing	1	ea @	\$110.00	per ea =		\$110.00	
Grade, ditch, & roll	5.90	sta @	\$36.00	per sta =		\$212.40	
				TOTAL IMPR	OVEMEN	T COSTS =	\$736.77
ROCK						_	
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost	
Surfacing rock							
Surfacing rock	3" -0	\$7.69	\$3.54	\$1.22	183	\$2,276.41	
Landing	3" -0	\$7.69	\$3.54	\$1.22	47	\$584.97	
-			•	Subtotal =	230	\$2,861.38	
			T-4-1-	All Deels	000	-	
			Totals	All Rock = 3" - 0 =	230	,	
				<u> </u>	200	ļ	
				<u>TO</u>	TAL ROCI	K COSTS =	\$2,861.38
EROSION CONTROL							
Grass seed & fertilizer	0.04	ac @	\$425.00	per ac =		\$14.88	
				TOTAL EROSION	CONTRO	L COSTS =	\$14.88
						_	
				TOTA	L PROJE	CT COST =	\$3,613.03

	SUMIN	MART OF C	ONSTRUC	TION COST			
Timber Sale:		Daring Do	ty	_ Sale	e Number:	FG-341-202	21-W00474-01
Road Segment:		I to J		Imp	rovement:	12+90	stations
-				_		0.24	miles
PROJECT NO. 2							
IMPROVEMENT							
Clearing & grubbing (scatter)	0.15	ac @	\$862.40	per acre =		\$129.36	
Clean culvert inlet & outlet, scatter waste	2	ea @		per ea =		\$50.00	
Improve Roadside Landing	1	ea @		per ea =		\$82.50	
Grade, ditch, & roll	12.90	sta @		per sta =		\$464.40	
		Ū		TOTAL MADE) (EN 4EN 1	T 000T0	#700.00
OLUL VEDTO				TOTAL IMPR	KOVEMEN	<u> </u>	\$726.26
CULVERTS Markers & Stakes							
Culvert Markers	2	aa @	¢10.00	nor oo =		\$20.00	
Culvert Markers	2	ea @	\$10.00	per ea =		\$20.00	
				TOTAL	CHI VED	T COCTC -	#20.00
BOCK				TOTAL	CULVER	T COSTS =	\$20.00
ROCK		1					
	Rock	Base	Haul Cost	Placement/			
	Size	Cost \$/cy	_	Processing Cost \$/cy	Total CY	Rock Cost	
			4, -7				
Surfacing rock			ı	_	,		
Surfacing rock	3" -0	\$7.69	\$3.74	\$1.22	400	\$5,057.22	
Junction	3" -0	\$7.69	\$3.74	\$1.22	48	\$607.02	
Landing	3" -0	\$7.69	\$3.74	\$1.22	47	\$594.37	
				Subtotal =	495	\$6,258.61	
					1	ī	
			Totals	All Rock =	495		
				3" - 0 =	495	l	
				TO	TAL DOC	/ COSTS -	ФС О <u>ГО</u> С4
				<u>10</u>	TAL ROCI	K COSTS =	\$6,258.61
EROSION CONTROL							
Grass seed & fertilizer	0.08	ac @	\$425.00	per ac =		\$31.88	
				TOTAL EROSION	CONTRO	L COSTS =	\$31.88
				101AL LINOSION	CONTINU	<u> </u>	ψυ 1.00
				<u>TOT</u> 4	AL PROJE	CT COST =	\$7,036.74
						_	·

	SUMIN	MARY OF C	ONSTRUC	TION COST			
Timber Sale:		Daring Do	ty	Sale	Number:	FG-341-202	1-W00474-01
Road Segment:		K to L		- Imp	rovement:	4+00	stations
•				•		0.08	miles
PROJECT NO. 2							
IMPROVEMENT							
Clearing & grubbing (scatter)	0.05	ac @	\$862.40	per acre =		\$43.12	
Clean ditch & scatter waste material	4.00	sta @	\$60.00	per sta =		\$240.00	
Improve Landing	1	ea @	\$110.00	per ea =		\$110.00	
Grade, ditch, & roll	4.00	sta @	\$36.00	per sta =		\$144.00	
				TOTAL IMPR	OVEMEN	T COSTS =	\$537.12
ROCK						_	
	Rock	Base	Haul Cost	Placement/			
	Size	Cost \$/cy	_	Processing Cost \$/cy	Total CY	Rock Cost	
Surfacing rock						<u> </u>	
Surfacing rock	3" -0	\$7.69	\$3.54	\$1.22	124	\$1,543.33	
Landing	3" -0	\$7.69	\$3.54	\$1.22	47	\$584.97	
				Subtotal =	171	\$2,128.30	
			Totals	All Rock =	171	ī	
			TOLAIS	3" - 0 =		+	
				3 - 0 -	171	1	
				ТО	TAL ROC	K COSTS =	\$2,128.30
EROSION CONTROL							
Grass seed & fertilizer	0.03	ac @	\$425.00	per ac =		\$10.63	
				TOTAL EROSION	CONTRO	L COSTS =	\$10.63
					_		
				TOTA	L PROJE	CT COST =	\$2,676.05

	GOIVIIV		ONSTRUC	TION COST			
Timber Sale:		Daring Do	ty	_ Sa	ale Number:	FG-341-202	1-W00474-01
Road Segment:		M to N		Im	provement:	12+50	stations
				_		0.24	miles
PDC IFOT NO. 0							
PROJECT NO. 2							
IMPROVEMENT Clearing & grubbing (scatter)	0.15	aa @	¢060.40	nor coro =		\$129.36	
Clean ditch & scatter waste material	12.50	ac @		per acre =		\$750.00	
Clean culvert inlet & outlet, scatter waste	2	sta @ ea @		per sta =		\$50.00	
,	1	_	\$157.00	per ea =		\$157.00	
Improve Landing	12.50	_		•		\$450.00	
Grade, ditch, & roll	12.50	sta @	\$36.00	per sta =		\$450.00	
				TOTAL IMP	ROVEMEN	T COSTS =	\$1,536.36
CULVERTS						_	_
Culverts and Bands							
18" Diameter	30	LF @	\$20.00	per LF =		\$600.00	
Markers & Stakes							
Culvert Markers	3	ea @	\$10.00	per ea =		\$30.00	
				<u>TOT</u>	AL CULVER	T COSTS =	\$630.00
ROCK						_	
	Rock	Base	Haul Cost		Total CY	Rock Cost	
	Size	Cost \$/cy	\$/cy	Processing Cost \$/c	у	Trook Goot	
Subgrade rock				1		<u> </u>	
Bedding and backfill	1½" - 0	\$7.99	\$5.64	\$0.50	24	\$339.03	
				Subtotal =	24	\$339.03	
Surfacing rock						,	
Surfacing rock	3" -0	\$7.69	\$3.76	\$1.22	388	\$4,908.16	
Landing	3" -0	\$7.69	\$3.76	\$1.22	90	\$1,139.96	
				Subtotal =	478	\$6,048.11	
						_	
			Totals	All Rock		_	
				1½" - 0	= 24		
				3" - 0	= 478		
				•			
				<u>T</u>	OTAL ROC	K COSTS =	\$6,387.14
EROSION CONTROL						_	
Grass seed & fertilizer	0.08	ac @	\$425.00	per ac =		\$31.88	
		&	,	·			
				TOTAL EROSIO	N CONTRO	L COSTS =	\$31.88
				TOT	AL PROJE	CT COST =	\$8,585.38
				<u>101</u>		= =	40,000.00

Timbo				511010 0031	Cala Numbar:	EC 241 202	1 1000474 01
	r Sale:	Daring Do	пу	_		FG-341-202	
Road Se	gment:	O to P		_	mprovement:	94+75 1.79	stations miles
						1.79	IIIIes
PROJECT NO. 2							
IMPROVEMENT							
Clearing & grubbing (scatter)	1.09	ac @	\$862.40	per acre =		\$940.02	
Clean ditch & scatter waste material	94.75	sta @	\$60.00	per sta =		\$5,685.00	
Clean culvert inlet & outlet, scatter was	te 19	ea @	\$25.00	per ea =		\$475.00	
Cutslope layback							
Excavate & load	1219	cy @	\$1.60	per cy =		\$1,949.63	
Haul	1584	cy @		per cy =		\$2,296.91	
Shape and compact waste material	l 1584	cy @		per cy =		\$475.22	
Improve "Y" Junction	1.50	sta @		per sta =		\$165.00	
Improve Turnouts	2	ea @		per ea =		\$66.00	
Construct Turnarounds	1	ea @		per ea =		\$82.50	
Approach to landing	2.00	sta @		per sta =		\$1,380.00	
Improve Landing	2	ea @		per ea =		\$220.00	
Improve Landing	1	ea @		per ea =		\$157.00	
Grade, ditch, & roll	94.75	sta @	\$36.00	per sta =		\$3,411.00	
				TOTAL I	MPROVEME	NT COSTS =	\$17,303.28
CULVERTS							
Culverts and Bands	_						
18" Diameter	80	LF @	\$20.00	per LF =		\$1,600.00	
24" Diameter	50	LF @	\$29.00	per LF =		\$1,450.00	
36" Diameter	60	LF @	\$50.00	per LF =		\$3,000.00	
Markers & Stakes							
Culvert Markers	12	ea @	\$10.00	per ea =		\$120.00	
DOOL				TC	TAL CULVE	RT COSTS =	\$6,170.00
ROCK							
	Rock	Base	Haul Cost	Placement/			
	Size	Cost \$/cy		Processing Cost \$/	cv Total CY	Rock Cost	
		· , ,	, ,	J - ,	,		
Subgrade rock	44411 0	1 4= 00	AT 10	40.50	1 00		
Bedding and backfill	1½" - 0	\$7.99	\$5.10	\$0.50	96	\$1,304.28	
Surfacing rock				Subtotal =	96	\$1,304.28	
Surfacing rock	1½" - 0	\$7.99	\$5.10	\$1.22	1,421	\$20,332.70	
Junction	1½" - 0	Ţ	\$5.10	\$1.22	72	\$1,030.05	
	1½" - 0			\$1.22			
Turnout Turnaround	1½" - 0		\$5.10 \$5.10	\$1.22	14 8	\$200.29 \$114.45	
Curve widening	1½" - 0		\$5.10	\$1.22	293	\$4,198.34	
Approach to landing	1½" - 0		\$5.10	\$1.22	30	\$4,196.34	
	1½" - 0						
Landing Landing	1½" - 0		\$5.10 \$5.10	\$1.22 \$1.22	50 45	\$715.31 \$643.78	
Landing	1/2 - 0	φ1.99	φυ. ΙΟ	\$1.22 Subtotal =	1,934	\$043.78	
				Subtotal –	1,934	φ21,004.10	
			Totals	All Rock	x = 2,030		
			2.0	1½" -			
					, , ,	ı	
					TOTAL RO	CK COSTS =	\$28,968.38
EROSION CONTROL							
Grass seed & fertilizer	0.55	ac @	\$425.00	per ac =		\$231.63	
Straw Mulch Bale	12	ea @	\$10.00	per ea =		\$120.00	
 -		&	,	·			
				TOTAL EROS	SION CONTR	OL COSTS =	\$351.63
				<u> 1</u>	OTAL PROJ	ECT COST =	\$52,793.28
				_			

	SUMN	MARY OF C	ONSTRUC	TION COST			
Timber Sale:		Daring Do	ty	_ Sa	le Number:	FG-341-202	21-W00474-01
Road Segment:		Q to R		Im	provement:	13+40	stations
						0.25	miles
PROJECT NO. 2							
IMPROVEMENT							
Clearing & grubbing (scatter)	0.16	ac @	\$862.40	per acre =		\$137.98	
Clean ditch & scatter waste material	13.40	sta @		per sta =		\$804.00	
Clean culvert inlet & outlet, scatter waste	1	ea @		per ea =		\$25.00	
Construct Settling Ponds	6	ea @		per ea =		\$150.00	
Improve Turnouts	1	ea @		per ea =		\$33.00	
Construct Turnarounds	1	_		•			
		ea @		per ea =		\$82.50	
Improve Landing	1	ea @		per ea =		\$157.00	
Grade, ditch, & roll	13.40	sta @	\$36.00	per sta =		\$482.40	
CHIVEDTS				TOTAL IMP	ROVEMEN	T COSTS =	\$1,871.88
CULVERTS Culverte and Bands							
Culverts and Bands	40		000.00			0.4.400.05	
24" Diameter	40	LF @	\$29.00	per LF =		\$1,160.00	
Markers & Stakes							
Culvert Markers	1	ea @	\$10.00	per ea =		\$10.00	
				<u>TOTA</u>	L CULVER	T COSTS =	\$1,170.00
ROCK	•						
		_		5, ,,			
	Rock	Base	Haul Cost		Total CY	Rock Cost	
	Size	Cost \$/cy	\$/cy	Processing Cost \$/cg	/		
Subgrade rock		l	l	•	II.		
Bedding and backfill	1½" - 0	\$7.99	\$7.34	\$0.50	24	\$379.83	
		•	•	Subtotal =	24	\$379.83	
Surfacing rock					·		
Surfacing rock	1½" - 0	\$7.99	\$4.89	\$1.22	201	\$2,833.34	
Turnout	1½" - 0	\$7.99	\$4.89	\$1.22	10	\$140.96	
Turnaround	1½" - 0	\$7.99	\$4.89	\$1.22	8	\$112.77	
Landing	1½" - 0	\$7.99	\$4.89	\$1.22	45	\$634.33	
	.,.	ψσ	ψσσ	Subtotal =	264	\$3,721.40	
				Cubiciai	201	ψο,121.10	
			Totals	All Rock =	288	Ī	
				1½" - 0		1	
						1	
				T	OTAL ROC	K COSTS =	\$4,101.23
EROSION CONTROL				<u>-</u>			Ţ ., .
Grass seed & fertilizer	0.00	oo @	¢425.00	nor 00 =		¢24.00	
	80.0	ac @	\$425.00	per ac =		\$34.00	
Straw Mulch Bale	2	ea @	\$10.00	per ea =		\$20.00	
				TOTAL EROSIO	N CONTRO	L COSTS =	\$54.00
				T OT	AL DROVE	CT COST =	¢7 107 11
				<u>101</u>	AL PRUJE	CT COST =	\$7,197.11

	SUMMARY OF CONSTRUCTION						
Timber Sale:		Daring Do	ty	-			021-W00474-01
Road Segment:		S to T		_ C	onstruction:		stations
						0.04	miles
PROJECT NO. 1							
CONSTRUCTION							
Clearing & grubbing (scatter)	0.24	ac @	\$862.40	per ac =		\$206.98	
Balanced road construction	2.05	sta @		•		\$225.50	
Landing	1	ea @		per ea =		\$314.00	
Grade, ditch, & roll	2.05	sta @	\$36.00	per sta =		\$73.80	-
				TOTAL CON	STRUCTIO	N COSTS =	\$820.28
CULVERTS	_						
Culverts and Bands							
18" Diameter	40	LF @	\$20.00	per LF =		\$800.00	
Markers & Stakes							
Culvert markers	1	ea @	\$10.00	per ea =		\$10.00	
				TOTA	L CULVER	T COSTS =	\$810.00
ROCK							
				Placement/			1
	Rock	Base	Haul Cost	Processing	Total CY	Rock Cost	
	Size	Cost \$/cy	\$/cy	Cost \$/cy	Total O1	TROOK GOSt	
Subgrade rock					-1	I.	
Bedding and backfill	1½" - 0	\$7.99	\$5.00	\$0.50	24	\$323.67	
Surfacing rock							-
Surfacing rock	3" -0	\$7.69	\$3.33	\$1.22	133	\$1,630.47	
Landing	3" -0	\$7.69	\$3.33	\$1.22	180	\$2,202.52	
				Subtotal =	313	\$1,630.47]
			Totals	All Rock =	337	1	
			Totals	1½" - 0 =			
				3" - 0 =		•	
				3 - 0 -	. 313	J	
				<u>T</u>	OTAL ROC	K COSTS =	\$1,954.14
EROSION CONTROL							
Grass seed & fertilizer	0.12	ac @	\$500.00	per ac =		\$60.00	_
			TΩ	TAL EROSIOI	N CONTRO	L COSTS =	\$60.00
			<u> </u>				Ψ.σ.σσ
				тот	AL PROJE	CT COST =	\$3,644.42
				101	AL I NOJL	<u> </u>	ψυ,υττ.τΔ

Timber Sale:	Daring Do		ty		Number:	FG-341-2021-W00474-	
Road Segment:		Point U					
PROJECT NO. 4							
GATE CONSTRUCTION							
20' Gate, Metal, Paint and Shop Supplies	1	ea @	\$1,960.00	per ea =		\$1,960.00	
Cutting, Welding and Painting	16	hr @	\$75.00	per hr =		\$1,200.00	
GATE INSTALLATION							
Equipment time, Labor & Welding	1	ea @	\$1,200.00	per ea =		\$1,200.00	
Painting and Concrete	1	ea @	\$1,725.00	per ea =		\$1,725.00	
ROCK							
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost	
Subgrade rock			I.				
Blocking	24"-36"	\$1.43	\$1.37	\$1.60	6	\$26.41	
				Subtotal =	6	\$26.41	
			Totals	All Rock = Boulders =	6		

TOTAL ROCK COSTS = \$26.41

TOTAL PROJECT COST = \$6,111.41

Timber Sale:		Daring Do	ty	Sale Number: FG-341-2021-W004				
Road Segment:	t: Point V							
PROJECT NO. 4								
GATE CONSTRUCTION								
20' Gate, Metal, Paint and Shop Supplies	1	ea @	\$1,960.00	per ea =		\$1,960.00		
Cutting, Welding and Painting	16	hr @	\$75.00	per hr =		\$1,200.00		
GATE INSTALLATION								
Equipment time, Labor & Welding	1	ea @	\$1,200.00	per ea =		\$1,200.00		
Painting and Concrete	1	ea @	\$1,725.00	per ea =		\$1,725.00		
ROCK								
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost		
Subgrade rock		1	I		1	<u> </u>		
Blocking	24"-36"	\$1.43	\$1.52	\$1.60	6	\$27.31		
				Subtotal =	6	\$27.31		

Totals

TOTAL ROCK COSTS = \$27.31

All Rock =

Boulders =

6

6

TOTAL PROJECT COST = \$6,112.31

Timber Sale:	Daring Doty	Sale Number:	FG-341-2021-W00474-01

PROJECT NO. 3 STOCKPILE CONSTRUCTION

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement / Processing Cost \$/cy	Total CY SM	Rock Cost
Stockpile rock						
Stockpile	1½" - 0	\$7.99	\$0.56	\$1.10	3,683	\$35,526.99
Stockpile	3" - 0	\$7.69	\$2.04	\$1.10	6,380	\$69,071.21
	<u> </u>	•		Subtotal =	10,063	\$104,598.19

Totals

All Rock =	10,063
1½" - 0 =	3,683
3" - 0 =	6,380

TOTAL PROJECT COST = \$104,598.19

Timber Sale:	Daring Doty	Sale Number:	FG-341-2021-W00474-01

TOTAL MOVE-IN COSTS = \$2,137.22

PROJECT No. 1, 2 & 3 MOVE-IN, WITHIN AREA MOVE,	& CLEANING COSTS	
Equipment	Total	
Grader	\$1,137.22	
Roller (smooth/grid) & Compactor	\$677.66	
Excavator (Large) - Equipment Cleaning	\$2,137.22	
Dozer (Large) - Equipment Cleaning	\$2,181.80	
Dump Truck (10cy +)	\$250.25	
Water Truck (2,500 Gal)	\$179.58	
	TOTAL MOVE-IN COSTS =	\$6,563.73
PROJECT No. 4 MOVE-IN & CLEANING COSTS		
Equipment	Total	
Excavator (Large) - Equipment Cleaning	\$2,137.22	

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

	Timber Sale:	Darin	g Doty		
;	Sale Number:	FG-341-202	1-W00474-01	_	
(Quarry Name:	Rock Cre	eek Ridge	_	
	1 1/2" - 0:	6,065 cy	_(truck measu	ure)	
	3" - 0:	2,431 cy	_(truck measu	ıre)	
	Boulders:	12 ea	_ (truck meası	ıre)	
Stockpile	(1 1/2"-0):_	3,175 cy	_(stockpile m	easure)	
Stockpile	(3"-0):_	5,500 cy	_ (stockpile m	easure)	
Total t	ruck yardage: _	18,571 cy	_		
Total in p	lace yardage: _	14,285 cy	_		
	Swell:	130%			
	Compaction: _	116%	_		
Move-in & Other Base Cost	<u>.</u> .				4000 -0
Quarry development & ove		al			\$882.59
Equipment cleaning & mov					\$1,785.21
Equipment cleaning & mov	e in dozer				\$1,777.98
Move in & setup drill					\$432.71
Move in loader					\$698.07
Move in & setup crusher					\$4,264.78
Move in Dump Trucks	Φ 7 4 50	/0.000	40	44-	\$412.20
Gradation tests	\$71.50	/2,000cy x	10	_tests =	\$715.00
Change gradation					\$275.00
Clean up quarry					\$500.00
8 Test Drills & Drill Reports					\$1,056.00
				Subtotal =	\$11,743.54
1 1/2"-0 Base Cost				Per CY =	\$0.63/cy
Drill & shoot	\$2.80	/ cy x	7,498	cy =	\$20,995.61
Load crusher	\$0.80	/ cy x	9,748	_cy =	\$7,798.37
Crush (1 1/2" - 0)	\$3.60	/ cy x	6,065	_cy =	\$21,833.87
Crush (Stockpile)	\$3.60	/ cy x	3,683	_ cy =	\$13,258.80
Load dump truck	\$0.80	/ cy x	9,748	_ cy =	\$7,798.37
Load damp track	Ψ0.00	, o j x		_ ⁵ , Subtotal =	\$71,685.02
				Per CY =	\$7.35/cy
3"-0 Base Cost				1 01 01	ψ1.00/09
Drill & shoot	\$2.80	/ cy x	6,778	_cy =	\$18,977.43
Load crusher	\$0.80	/ cy x	8,811	cy =	\$7,048.76
Crush (3" - 0)	\$3.30	/ cy x	2,431	_cy =	\$8,022.14
Crush (Stockpile)	\$3.30	/ cy x	6,380	_cy =	\$21,054.00
Load dump truck	\$0.80	/ cy x	8,811	cy =	\$7,048.76
				Subtotal =	\$62,151.09
				Per CY =	\$7.05/cy
Boulder Base Cost	_				
Load dump truck	\$0.80	/ cy x	12	_cy =	\$9.60
				Subtotal =	\$9.60
				Per CY =	\$0.80/cy
				Total =	\$145,589.25
1 1/2"-0	Base Cost =	\$7.99/cy	<u> </u>		

1 1/2"-0 Base Cost = \$7.99/cy
3"-0 Base Cost = \$7.69/cy
Boulder Base Cost = \$1.43/cy

CRUISE REPORT Daring Doty FG-341-2021-W00474-01

1. LOCATION: Portions of Sections 21, 22, & 27, T3N, R6W, W.M., Tillamook County, Oregon.

2. CRUISE DESIGN:

Pre-cruise evaluation indicated that the stand's average DBH is approximately 25 inches and the coefficient of variation is about 52%. For sales of this size and approximate value, ODF cruise standards require a sampling error of 9% at a 68% confidence level, and a minimum sample size of 100 graded trees. The cruise design chosen for this sale is a variable radius sample plot using a 40 BAF prism.

3. SAMPLING METHOD:

The Timber Sale Area was sampled in August 2020 with 32 variable radius grade plots using a 40 BAF prism. Plots were laid out on a 4 chain x 5 chain grid in Unit 1. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS:

147 trees were measured and graded producing a cumulative Sampling Error of 6.9% on the Douglas-fir basal area and 6.6% for the Douglas-fir net board foot volume.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following Columbia River Log Scale grade rules and favored 40 foot segments.

- a) Height Standards: Total tree heights were measured to the nearest foot. Bole heights were calculated to a top DIB of six inches (or 25% of DBH, whichever is larger) for conifers.
- 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 Super Ace 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 timber cruised by Nate Hunter, Adrian Torres, Kenton Burns, and Mark Savage.

Prepared by:	Mark Savage	10/1/2020
	-	Date
Reviewed by:	Mark Savage	10/1/2020
Ť	-	Date

TC PST	ΓΑΤS										PAGE DATE	1 9/29/2020
TWP	RGE	SC TR	ACT	TY	/PE		AC	RES	PLOTS	TREES	CuFt	BdFt
03N	06	21 00U	1	00	MC			90.00	32	147	S	W
						TREES		ESTIMATED TOTAL				
		PLOTS	TR	EES		PER PLOT		TREES	,	TREES		
TOTA	AL	3	32	147		4.6						
DBH REFO COU	COUNT DREST NT NKS	3	32	147		4.6		4,679		3.1		
	-				STAN	ND SUMM	IARY					
		SAMPI F	TREE	es.	AVG	BOLE	RFI.	BASAL	GROSS	NFT	GROSS	NFT
					DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOU	G FIR]	136	45.3	26.2	147	33.2	170.0	41,855	41,505	8,636	8,636
WHE	MLOCK		7	5.7	16.8	77	2.1	8.8	1,445	1,445	339	
NOB	FIR		4	1.0	29.9	152	0.9	5.0	1,400	1,389	269	269
TOT	AL	1	47	52.0	25.5	139	36.4	183.8	44,700	44,339	9,244	9,244
				0 THE V	OLUME V					OF #22 = 2	FO	DIE 200
CL CD:	P RGE											
					L					3	10	
							,					
										70	18	
CI	60.1	CC	EEE			CAMDI	E TDEES	CF	#	OE TREES D	EO	INE DOD
SD:				F %	1.0				# '		-	
					L						10	1
NOB	FIR	3	37.3	21.3		224	285	346				
			<i>C</i> 1	3.0		200						
		3	0.4			208	215	221		53	13	
CL	68.1							221	# /			
CL SD:		CC	EFF	.E.%	LO	TREES/	ACRE		#	OF PLOTS R	EQ.	INF. POP.
SD:	1.0	CC VA	DEFF AR.% S		LC	TREES/	ACRE AVG	HIGH	#	OF PLOTS R	EQ.	INF. POP.
SD:	1.0 G FIR	CC VA	DEFF AR.% S	8.8	LC	TREES/	ACRE AVG 45	HIGH 49	#	OF PLOTS R	EQ.	INF. POP.
SD: DOUG WHE NOB	1.0 G FIR MLOCK FIR	CC VA 5	DEFF AR.% S 50.1 12.9	8.8 55.3	LC	TREES/.	ACRE AVG 45 6 1	HIGH 49 9	#	OF PLOTS R 5	EQ.	INF. POP.
SD: DOUG WHE NOB	1.0 G FIR MLOCK FIR	CC VA 5 31 28	DEFF AR.% S 50.1 12.9 30.6	8.8 55.3 49.6	LO	TREES/	ACRE AVG 45 6 1	HIGH 49 9 2	#	OF PLOTS R 5	EQ. 10	INF. POP.
SD: DOUG WHE NOB	Part Part											
SD: DOUG WHE NOB TOTA	1.0 G FIR MLOCK FIR AL	CCC VA 5 5 31 28 5 5 CCC	DEFF AR.% S 50.1 12.9 30.6 0.2 DEFF	8.8 55.3 49.6 8.9		TREES/. DW 41 3 1 47 BASAL	ACRE AVG 45 6 1 52 AREA/AC	HIGH 49 9 2 57		OF PLOTS R 5 101 OF PLOTS R	EQ. 10 25 EQ.	INF. POP. INF. POP.
SD: DOUG	1.0 G FIR EMLOCK FIR AL 68.1 1.0 G FIR	CCC VA 31 28 5 CCC VA 33	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 89.2	8.8 55.3 49.6 8.9 .E.%		TREES/. DW 41 3 1 47 BASAL DW 158	ACRE AVG 45 6 1 52 AREA/AC AVG 170	HIGH 49 9 2 57 RE HIGH 182		OF PLOTS R 5 101 OF PLOTS R	EQ. 10 25 EQ.	INF. POP. INF. POP.
SD: DOUG	1.0 G FIR EMLOCK FIR AL 68.1 1.0 G FIR	CCC VA 5 5 CCC VA 5 5 CCC VA 5 5 CCC	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 89.2 24.4	8.8 55.3 49.6 8.9 .E.% 6.9 39.6		TREES/ DW 41 3 1 47 BASAL DW 158 5	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9	HIGH 49 9 2 57 RE HIGH 182 12		OF PLOTS R 5 101 OF PLOTS R	EQ. 10 25 EQ.	INF. POP. INF. POP.
SD: DOUGUE NOB TOTA CL SD: DOUGUE NOB	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR EMLOCK FIR	CCC VA 5 5 CCC VA 3 2 2 2 2 2 6	DEFF AR.% S 50.1 2.9 80.6 0.2 DEFF AR.% S 39.2 24.4 58.8	8.8 55.3 49.6 8.9 .E.% 6.9 39.6 47.5		TREES/. DW 41 3 1 47 BASAL DW 158 5 3	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5	HIGH 49 9 2 57 RE HIGH 182 12 7		OF PLOTS R 5 101 OF PLOTS R 5	EQ. 10 25 EQ. 10	INF. POP. INF. POP. 1
SD: DOUGUE NOB TOTA CL SD: DOUGUE NOB	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR EMLOCK FIR	CCC VA 5 5 CCC VA 3 2 2 2 2 2 6	DEFF AR.% S 50.1 2.9 80.6 0.2 DEFF AR.% S 39.2 24.4 58.8	8.8 55.3 49.6 8.9 .E.% 6.9 39.6 47.5		TREES/. DW 41 3 1 47 BASAL DW 158 5 3	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5	HIGH 49 9 2 57 RE HIGH 182 12 7		OF PLOTS R 5 101 OF PLOTS R 5	EQ. 10 25 EQ. 10	INF. POP. INF. POP. 1
SD: DOUGUE NOB TOTA CL SD: DOUGUE NOB	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR MLOCK FIR AL	CCC VA 3 22 26 3 3	DEFF IR.% S 50.1 12.9 30.6 0.2 DEFF IR.% S 39.2 24.4 58.8 6.6	8.8 55.3 49.6 8.9 .E.% 6.9 39.6 47.5		TREES/. 20W 41 3 1 47 BASAL 20W 158 5 3 172	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184	HIGH 49 9 2 57 RE HIGH 182 12 7	#	OF PLOTS R 5 101 OF PLOTS R 5	EQ. 10 25 EQ. 10	INF. POP. INF. POP. 1
SD: DOUG WHE NOB TOTA SD: DOUG WHE NOB TOTA CL SD: CL SD:	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR CMLOCK FIR AL 68.1 1.0 68.1 1.0	CCC VA 5 5 CCC VA 6 3 22 26 3 CCC VA	DEFF AR.% S 50.1 12.9 180.6 0.2 DEFF AR.% S 39.2 24.4 58.8 6.6 DEFF AR.% S	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5	LC	TREES/. DW 41 3 1 47 BASAL DW 158 5 3 172 NET BE	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG	HIGH 49 9 2 57 RE HIGH 182 12 7 196	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R	EQ. 10 25 EQ. 10 13 EQ.	INF. POP. INF. POP. INF. POP.
SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: DOUG	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR AL 68.1 1.0	CCC VA 5 5 311 28 5 5 CCC VA 6 3 3 CCC VA 6 3	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 39.2 24.4 58.8 6.6 DEFF AR.% S 87.5	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5	LC	TREES/. DW 41 3 1 47 BASAL DW 158 5 3 172 NET BE DW 18,755	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG 41,505	HIGH 49 9 2 57 RE HIGH 182 12 7 196 HIGH 44,256	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R	EQ. 10 25 EQ. 10 13 EQ.	INF. POP. INF. POP. INF. POP.
SD: DOUG WHE NOB TOT. CL SD: DOUG WHE SD: DOUG WHE SD: DOUG WHE WHE	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR AL 68.1 1.0 G FIR	CCC VA 5 5 CCC VA 6 3 CCC VA 6 5 CCC VA 6	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 99.2 24.4 58.8 6.6 DEFF AR.% S 97.5 27.3	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5	LC	TREES/. DW 41 3 1 47 BASAL . DW 158 5 3 172 NET BF. DW 18,755 865	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG 41,505 1,445	HIGH 49 9 2 57 RE HIGH 182 7 196 HIGH 44,256 2,025	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R	EQ. 10 25 EQ. 10 13 EQ.	INF. POP. INF. POP. INF. POP.
SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR AL 68.1 1.0 G FIR AL FIR AL FIR	CCC VA 5 5 CCC VA 6 5 2 2 2 CCC VA 6 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 899.2 24.4 58.8 6.6 DEFF AR.% S 87.5 27.3	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5 E.% 6.6 40.2 48.6	L(TREES/. DW 41 3 1 47 BASAL . DW 158 5 3 172 NET BF. DW 88,755 865 713	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG 41,505 1,445 1,389	HIGH 49 9 2 57 RE HIGH 182 12 7 196 HIGH 44,256 2,025 2,064	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R 5	EQ. 10 25 EQ. 10 13 EQ. 10	INF. POP. INF. POP. 1
SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR AL 68.1 1.0 G FIR AL FIR AL FIR	CCC VA 5 5 CCC VA 6 5 2 2 2 CCC VA 6 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 899.2 24.4 58.8 6.6 DEFF AR.% S 87.5 27.3	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5 E.% 6.6 40.2 48.6	L(TREES/. DW 41 3 1 47 BASAL . DW 158 5 3 172 NET BF. DW 88,755 865 713	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG 41,505 1,445 1,389	HIGH 49 9 2 57 RE HIGH 182 12 7 196 HIGH 44,256 2,025 2,064	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R 5	EQ. 10 25 EQ. 10 13 EQ. 10	INF. POP. INF. POP. 1
SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB	G FIR MLOCK FIR AL 68.1 1.0 G FIR CMLOCK FIR AL 68.1 1.0 G FIR CMLOCK FIR AL 68.1 1.0 G FIR CMLOCK FIR AL	CCC VA 3 3 CCC VA 3 3 CCC CCC VA 3 3 CCC CCC CCC CCC CCC CCC CCC CCC CC	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 99.2 24.4 58.8 6.6 DEFF AR.% S 97.5 27.3 75.4 7.6 DEFF	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5 E.% 6.6 40.2 48.6 6.6	L(TREES/. DW 41 3 1 47 BASAL DW 158 5 3 172 NET BF. DW 18,755 865 713 1,393	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG 41,505 1,445 1,389 44,339	HIGH 49 9 2 57 RE HIGH 182 12 7 196 HIGH 44,256 2,025 2,064 47,285	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R 5	EQ. 10 25 EQ. 10 13 EQ. 10	INF. POP. INF. POP. 1
SD: DOUG NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: CL SD: CL SD: CL SD: CL SD:	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR CMLOCK FIR AL 68.1 1.0 G FIR AL 68.1 1.0 G FIR AL 68.1 1.0	CCC VA S S S S CCC VA S S S CCC VA S S S CCC VA S CCC	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 899.2 24.4 58.8 6.6 DEFF AR.% S 7.5 27.3 75.4 7.6 DEFF AR.% S	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5 E.% 6.6 40.2 48.6 6.6	LO 3	TREES/. DW 41 3 1 47 BASAL . DW 158 5 3 172 NET BF. DW 88,755 865 713 1,393 NET CU	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG 41,505 1,445 1,389 44,339 /FT FT/AC AVG	HIGH 49 9 2 57 RE HIGH 182 12 7 196 HIGH 44,256 2,025 2,064 47,285 ERE HIGH	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R 5	EQ. 10 25 EQ. 10 13 EQ. 10 14 EQ.	INF. POP. INF. POP. INF. POP.
SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT. CL SD: DOUG WHE NOB TOT.	1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR AL 68.1 1.0 G FIR MLOCK FIR AL 68.1 1.0 G FIR MLOCK FIR AL 68.1	CCC VA 3 3 CCC VA 3 CCC VA 3 3 CCC VA 3 CCC VA 3 3 CCC VA 3 CCC V	DEFF AR.% S 50.1 12.9 80.6 0.2 DEFF AR.% S 89.2 24.4 58.8 6.6 DEFF AR.% S 87.5 27.3 75.4 7.6 DEFF AR.% S 88.9	8.8 55.3 49.6 8.9 E.% 6.9 39.6 47.5 6.5 E.% 6.6 40.2 48.6 6.6 6.9	LO 3	TREES/. DW 41 3 1 47 BASAL . DW 158 5 3 172 NET BF. DW 88,755 865 713 1,393 NET CU DW 8,043	ACRE AVG 45 6 1 52 AREA/AC AVG 170 9 5 184 /ACRE AVG 41,505 1,445 1,389 44,339 FFT FT/AC AVG 8,636	HIGH 49 9 2 57 RE HIGH 182 12 7 196 HIGH 44,256 2,025 2,064 47,285 ERE HIGH 9,230	#	OF PLOTS R 5 101 OF PLOTS R 5 54 OF PLOTS R 5	EQ. 10 25 EQ. 10 13 EQ. 10 14 EQ.	INF. POP. INF. POP. INF. POP.

TC PST	ATS				PROJECT PROJECT		STICS RDOT			PAGE DATE	2 9/29/2020
TWP	RGE	SC	TRACT	TY	PE	A	CRES	PLOTS	TREES	CuFt	BdFt
03N	06	21	00U1	00M	I C		90.00	32	147	S	W
CL	68.1		COEFF		NET C	UFT FT/A	CRE		# OF PLOTS	S REQ.	INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
NOB	FIR		271.3	47.9	140	269	398				
TOTA	AL		37.7	6.7	8,630	9,244	9,859		57	14	6

TC	PSPCSTGR		Sp	oecies, S	ort Gra	de - Board F	oot V	olum	es (Pr	oject)								
T03	3N R06W S21 T	Гу00МС		90.00		Project: Acres	DA	ARDO' 90.0								Page Date Time		1 29/202 :37:55	20
		%					Perc	cent of N	Net Boar	rd Foot	Volume					Avera	ige Log	g	Logs
	S So Gr	Net	Bd. Ft.	per Acre		Total		Log Sca	ale Dia.			Log l	Length		Ln	Dia	Bd	CF/	Per
Spp	T rt ad	BdFt	Def%	Gross	Net	Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	/Acre
WH	2M	71		1,034	1,034	93			28	72				100	40	18	521	2.63	2.0
WH	3M	21		304	304	27		100				5	5	90	38	8	89	0.76	3.4
WH	4M	8		107	107	10		100			15	85			24	6	30	0.36	3.5
WH	Totals	3		1,445	1,445	130		28	20	52	1	7	1	91	33	9	162	1.15	8.9
DF	CU														7	15		0.00	1.4
DF	2M	87	.9	36,813	36,481	3,283			34	66		1	6	93	39	17	459	2.28	79.4
DF	3M	11	.4	4,618	4,600	414		100					6	94	39	8	102	0.77	45.0
DF	4M	2		424	424	38		100			49	51			21	6	26	0.40	16.1
DF	Totals	94	.8	41,855	41,505	3,735		12	30	58	0	2	6	92	37	13	292	1.65	142.0
NF	2M	93	.8	1,303	1,292	116			18	82				100	40	18	578	2.68	2.2
NF	3M	93 5	.0	74	74	7		100	10	02				100	40	9	131	0.98	.6
NF	4M	2		23	23	2		100			67	33		100	18	7	28	0.50	.8
NF	Totals	3	.8	1,400	1,389	125		7	17	76	1	1		98	35	14	383	2.12	3.6
Total	ls		0.8	44,700	44,339	3,991		12	29	58	1	2	6	92	37	13	287	1.64	154.5

TC PSTNDSI	M		Stand Tal	ole Summary	Page	1
					Date:	9/29/2020
T03N R06W S	1 Ty00MC	90.00	Project	DARDOT	Time	: 1:37:56PM
			Acres	90.00	Grow	vn Year:

S				Tot				Average	_		Net	Net			
Spc T	DBH	Sample 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	Totals Cunits	MBF
DF	14	1	88	129	1.169	1.25	2.34	20.0	90.0	1.33	47	210	120	42	19
DF	18	1	86	115	.707	1.25	1.41	34.1	135.0	1.38	48	191	124	43	17
DF	20	7	87	135	4.011	8.75	11.46	35.2	154.5	11.48	403	1,770	1,034	363	159
DF	21	4	86	131	2.079	5.00	6.24	36.1	155.8	6.41	225	972	577	203	87
DF	22	6	87	140	2.841	7.50	8.52	43.1	197.2	10.48	368	1,681	943	331	151
DF	23	4	87	146	1.733	5.00	5.20	47.3	213.3	7.00	246	1,109	630	221	100
DF	24	11	87	149	4.377	13.75	13.93	50.3	232.3	19.96	701	3,235	1,797	630	291
DF	25	12	86	147	4.400	15.00	13.93	54.1	248.2	21.50	755	3,458	1,935	679	311
DF	26	13	87	151	4.407	16.25	13.90	60.8	288.8	24.08	845	4,014	2,167	760	361
DF	27	13	88	153	4.087	16.25	14.15	61.4	304.2	24.75	869	4,304	2,228	782	387
DF	28	10	87	147	2.923	12.50	9.35	67.7	322.2	18.04	633	3,014	1,624	570	271
DF	29	12	87	153	3.270	15.00	10.08	76.8	385.7	22.08	775	3,889	1,988	697	350
DF	30	7	86	148	1.783	8.75	5.35	83.5	411.0	12.72	446	2,198	1,145	402	198
DF	31	11	86	157	2.623	13.75	8.59	85.3	428.1	20.88	733	3,675	1,879	659	331
DF	32	8	85	152	1.790	10.00	5.82	87.1	431.2	14.44	507	2,509	1,299	456	226
DF	33	5	85	152	1.052	6.25	3.37	95.7	473.1	9.19	322	1,593	827	290	143
DF	34	5	83	156	.991	6.25	3.37	93.7	481.8	9.00	316	1,624	810	284	146
DF	35	2	83	159	.374	2.50	1.12	115.3	551.7	3.69	129	619	332	116	56
DF	36	2	86	164	.354	2.50	1.41	97.6	538.8	3.94	138	762	354	124	69
DF	38	1	84	169	.159	1.25	.63	108.0	572.5	1.95	69	363	176	62	33
DF	43	1	82	150	.124	1.25	.37	171.2	846.7	1.81	64	315	163	57	28
DF	Totals	136	87	147	45.255	170.00	140.55	61.4	295.3	246.14	8,636	41,505	22,152	7,773	3,735
WH	10	1	80	60	2.292	1.25	2.29	11.1	40.0	.82	26	92	73	23	8
WH	13	1	84	59	1.356	1.25	1.36	22.4	60.0	.97	30	81	87	27	7
WH	16	1	84	71	.895	1.25	1.79	20.3	65.0	1.16	36	116	105	33	10
WH	26	1	84	115	.339	1.25	1.02	52.9	210.0	1.72	54	214	155	48	19
WH	28	2	87	145	.585	2.50	1.75	75.1	376.7	4.21	132	661	379	118	59
WH	31	1	83	137	.238	1.25	.72	85.5	393.3	1.96	61	281	176	55	25
WH	Totals	7	83	77	5.705	8.75	8.92	38.0	161.9	10.84	339	1,445	976	305	130
NF	25	1	87	166	.367	1.25	1.47	49.1	250.0	1.73	72	367	156	65	33
NF	29	1	83	119	.273	1.25	.82	64.9	276.7	1.27	53	226	115	48	20
NF	34	1	87	152	.198	1.25	.59	114.9	633.3	1.64	68	377	148	62	34
NF	35	1	85	174	.187	1.25	.75	101.1	560.0	1.82	76	419	163	68	38
NF	Totals	4	86	152	1.025	5.00	3.63	74.2	382.8	6.46	269	1,389	581	242	125
Totals		147	86	139	51.985	183.75	153.10	60.4	289.6	263.44	9,244	44,339	23,709	8,320	3,991

 TC
 PLOGSTVB
 Log Stock Table - MBF

 T03N R06W S21 Ty00MC
 90.00
 Project: DARDOT Date 9/29/2020

 Acres
 90.00
 Till 1 CV TYNN F

Time

1:37:55PM

	1				1											37:3311	
Spp T		Log Len		Def Net	%	2.5						r in Inche		100.00	24.55	20.22	
~ F F			MBF	% MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	1	24-29	30-39	40+
WH	2M	40	93	93	71.6							15	25	53			
WH	3M	28	1	1	1.0			1									
WH	3M	32	1	1	1.0			1									
WH	3M	40	25	25	19.0			7	13	5							
WH	4M	12	1	1	.6			1									
WH	4M	14	1	1	.5			1									
WH	4M	30	8	8	6.3			8									
WH	Totals		130	130	3.3			20	13	5		15	25	53			
DF	2M	24	12	12	.3										12		
DF	2M	26	12	12	.3									12			
DF	2M	28	13	13	.3									13			
DF	2M	32	209	1.6 205	5.5								45	116	45		
DF	2M	36	12	12	.3							12					
DF	2M	40	3,055	3,028	81.1						243	510	1328	860	87		
DF	3M	32	10	10	.3			10									
DF	3M	34	13	13	.4			13									
DF	3M	36	15	15	.4			15									
DF	3M	38	8	8	.2			8									
DF	3M	40	369	368	9.8			48	153	167							
DF	4M	12	1	1	.0			1									
DF	4M	14	4	4	.1			3	1								
DF	4M	16	6	6	.2			5	1								
DF	4M	18	3	3	.1			2	1								
DF	4M	20	4	4	.1			3	1								
DF	4M	22	1	1	.0			1									
DF	4M	24	4	4	.1			4									
DF	4M	26	4	4	.1			4									
DF	4M	28	6	6	.2			6									
DF	4M	30	4	4	.1			4									
DF	Totals		3,767	3,735	93.6			128	157	167	243	523	1372	1001	144		
NF	2M	40	117	116	93.0						5	16	43	13	40		
NF	3M	40	7	7	5.3				4	3							
NF	4M	16	1	1	1.1			1									
NF	4M	24	1	1	.5				1								

		GSTVB 06W S21 T	Гу00МС		90.00		Log S Proje	ect:	Table - DAI	RDOT	0.00					Page Date Time	9/2	2 9/2020 37:55P	
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	2-3	4-5	Net Volum 6-7	me by S		Diamete 12-13	r in Inche	es 16-19	20-23	24-29	30-39	40
NF		Tota	ıls	12	26	125	3.1			1	5	3	5	16	43	13	40		
Total		All Spec	ies	4,02	23	3,991	100.0			149	175	174	248	554	1440	1067	184		

VOLUME SUMMARY

(Volumes in MBF)

Daring Doty

FG-341-2021-W00474-01

October 2020

UNIT 1: MC (90 ACRES)

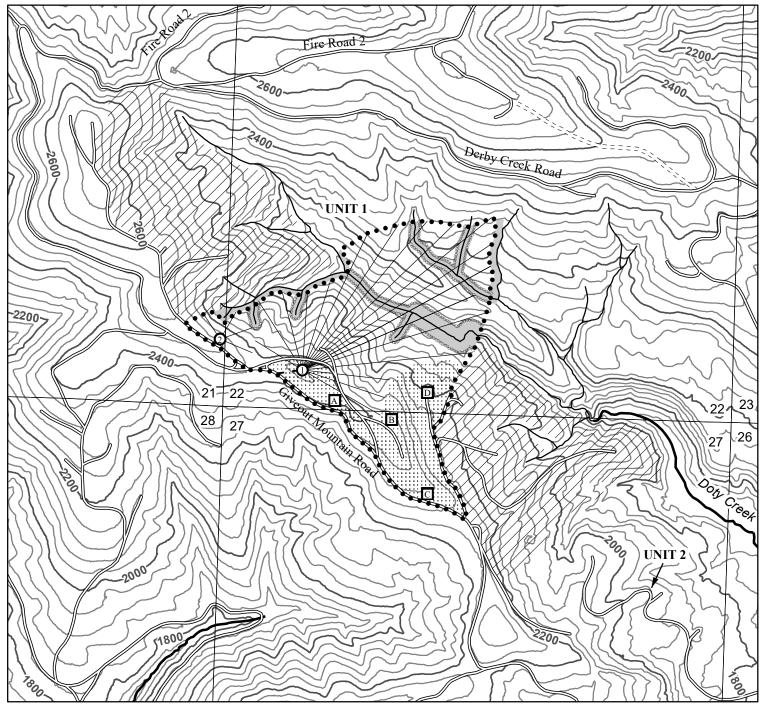
SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	3,283	414	38	3,735
	Hidden D&B (2%)	(66)	(8)	(1)	(75)
	NET TOTAL	3,217	406	37	3,660
	% of Total	88	11	1	
Western hemlock	Cruise Volume	93	27	10	130
	Hidden D&B (2%)	(2)	(1)	(0)	(3)
	NET TOTAL	91	26	10	127
	% of Total	72	20	8	
	Cruise Volume	116	7	2	125
Noble fir	Hidden D&B (2%)	(2)	(0)	(0)	(2)
	NET TOTAL	114	7	2	123
	% of Total	92	6	2	

UNIT 2: R/W (<1 ACRE)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	3	1	0	4
	Hidden D&B (2%)	(0)	(0)	(0)	(0)
	NET TOTAL	3	1	0	4
	% of Total	75	25	0	

SALE TOTAL

SPECIES	2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	3,220	407	37	3,664
Western hemlock	91	26	10	127
Noble fir	114	7	2	123
Total	3,425	440	49	3,914



LEGEND

• • • Timber Sale Boundary

Stream Buffer 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-341-2021-W00474-01 DARING DOTY PORTIONS OF SECTIONS 21, 22 & 27, T3N, R6W, W.M.,

TILLAMOOK COUNTY, OREGON

Forest Grove District GIS October, 2020

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

250 500 1,000 1,500 2,000

APPROXIMATE NET ACRES

	TRACTOR	CABLE
UNIT 1 UNIT 2	26 <1	64 0
TOTAL	26	64