

District: West Oregon

Date: November 01, 2024

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$747,799.30	\$5,114.80	\$752,914.10
		Project Work:	(\$50,412.00)
		Advertised Value:	\$702,502.10



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Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	24	0	97
Red Cedar	18	0	97
Alder (Red)	16	0	97

Volume by Grade	2S	3S & 4S 6"- 11"	Camprun	Total
Douglas - Fir	1,378	287	0	1,665
Red Cedar	0	0	100	100
Alder (Red)	0	0	40	40
Maple	0	0	22	22
Total	1,378	287	162	1,827

Comments: Pond Values Used: local Pond Values, September 2024

Western Hemlock and other Conifers Stumpage Price = Pond value minus logging costs: \$182.82/MBF = \$505/MBF - \$322.18/MBF

Bigleaf Maple and Other Hardwoods Stumpage Price = Hardwood Pulp price using a conversion factor of 10 ton/MBF: = \$28.00/MBF

PULP (Conifer and Hardwood Price) = \$2.80/TON

Other Costs (with Profit and Risk to be added) Intermediate Support/Tail Tree: 2 supports @ \$100/support = \$200 Artifical Tailhold Anchor: D7 dozer move-in cost = \$950 D7 to move between units = 3 hrs @ \$178/hr = \$534 Total Other Costs (with Profit and Risk to be added) = \$1,684

Other Costs (No Profit and Risk to be added): Equipment Cleaning (Invasive Species): \$2000 Landing slash piling: 2 Landings @ \$100/Landing = \$200 Landing slash piling and firewood sorting: 5 Landings @ \$180/ Landing = \$900 Felling of sub-merch species: 66 hrs @ \$50/hr = \$3,300 Waterbar and block dirt roads: 4.5 stations @ \$16.95/Station = \$76 Total Other Costs (No Profit and Risk) = \$6,476

ROAD MAINTENANCE Move-in: Grader \$950, Vibratory Roller \$950 Final Road Maintenance: \$14,628.54 Total Road Maintenance: \$16,528.54/ 1,827 MBF = \$9.05/MBF

SLASH DISPOSAL Project Work: Move-In: \$1,750 30 hrs @ \$175/hr = \$5,250 and 2 moves between units @ \$300/move = \$600 Total Slash Disposal = \$7,600



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	Logo	jing Conditions
Combination#: 1	Douglas - Fir Red Cedar Alder (Red)	54.00% 54.00% 54.00%
Logging System:	Cable: Medium Tower >40 - <70	Process: Manual Falling/Delimbing
yarding distance: tree size:	Short (400 ft) Mature / Regen Cut (900 Bft/tree), 3-5	downhill yarding: No logs/MBF
loads / day:	11	bd. ft / load: 4700
cost / mbf:	\$154.31	
machines:	Log Loader (A)	
	Tower Yarder (Medium)	
Combination#: 2	Douglas - Fir	38.00%
	Red Cedar	38.00%
	Alder (Red)	38.00%
Logging System:	Shovel	Process: Manual Falling/Delimbing
yarding distance:	Short (400 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5	ogs/MBF
loads / day:	22	bd. ft / load: 4700
cost / mbf:	\$96.71	
machines:	Shovel Logger	
Combination#: 3	Douglas - Fir Red Cedar Alder (Red)	2.00% 2.00% 2.00%
Combination#: 3	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing
Combination#: 3 Logging System:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft)	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downbill varding: No
Combination#: 3 Logging System: yarding distance: tree size:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 I	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF
Combination#: 3 Logging System: yarding distance: tree size: loads / day:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 I	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 I 6 \$282.91	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium)	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines: Combination#: 4	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium) Douglas - Fir Red Cedar Alder (Red)	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700 6.00% 6.00% 6.00%
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines: Combination#: 4 Logging System:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium) Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700 6.00% 6.00% 6.00% 6.00% Process: Manual Falling/Delimbing
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines: Combination#: 4 Logging System: yarding distance:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium) Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft)	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700 6.00% 6.00% 6.00% 6.00% Process: Manual Falling/Delimbing downhill yarding: No
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines: Combination#: 4 Logging System: yarding distance: tree size:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium) Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Regen Cut (900 Bft/tree), 3-5	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF 6.00% 6.00% 6.00% 6.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines: Combination#: 4 Logging System: yarding distance: tree size: loads / day:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium) Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Regen Cut (900 Bft/tree), 3-5 l 7	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700 6.00% 6.00% 6.00% 6.00% 6.00% 6.00% bd. ft / load: 4700
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines: Combination#: 4 Logging System: yarding distance: tree size: loads / day: cost / mbf:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium) Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Regen Cut (900 Bft/tree), 3-5 l 7 \$242.49	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700 6.00% 6.00% 6.00% 6.00% 6.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700
Combination#: 3 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines: Combination#: 4 Logging System: yarding distance: tree size: loads / day: cost / mbf: machines:	Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-5 l 6 \$282.91 Log Loader (A) Tower Yarder (Medium) Douglas - Fir Red Cedar Alder (Red) Cable: Medium Tower >40 - <70 Short (400 ft) Mature / Regen Cut (900 Bft/tree), 3-5 l 7 \$242.49 Log Loader (A)	2.00% 2.00% 2.00% Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF 6.00% 6.00% 6.00% 6.00% 6.00% 6.00% bd. ft / load: 4700 Process: Manual Falling/Delimbing downhill yarding: No ogs/MBF bd. ft / load: 4700



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Logging Costs		
Operating Seasons: 2.00	Profit Risk: 10%	
Project Costs: \$50,412.00	Other Costs (P/R): \$1,684.00	
Slash Disposal: \$7,600.00	Other Costs: \$6,476.00	

Miles of Road		Road Maintenance: \$	9.05
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	5.0
Red Cedar	\$0.00	2.0	4.3
Alder (Red)	\$0.00	2.0	3.9



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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								
\$140.28	\$9.32	\$4.80	\$128.75	\$0.92	\$28.41	\$4.16	\$2.00	\$3.54	\$322.18
Red Cedar									
\$140.28	\$9.32	\$4.80	\$149.71	\$0.92	\$30.50	\$4.16	\$2.00	\$3.54	\$345.23
Alder (Red	I)								
\$140.28	\$9.32	\$4.80	\$165.07	\$0.92	\$32.04	\$4.16	\$2.00	\$3.54	\$362.13

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$728.80	\$406.62	\$0.00
Red Cedar	\$0.00	\$1,053.00	\$707.77	\$0.00
Alder (Red)	\$0.00	\$490.00	\$127.87	\$0.00



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Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Red Cedar	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,665	\$406.62	\$677,022.30
Red Cedar	100	\$707.77	\$70,777.00
Alder (Red)	40	\$127.87	\$5,114.80

	<u>Gross Timber</u>		
	Recovery:	\$752,914.10	
Prepared By:	Steven Irving	Phone:	541-929-9264

SUMMARY OF ALL PROJECT COSTS

Sale Name:	Old Highway		Date: Time:	January 2025 14:03
Project #1 - Con	<u>struction</u>			
Road Segment		Length	Cost	
A to B		1.5 sta	\$1,060	
	TOTALS	1.5 sta	\$1,060	
Project #2 - Roa	d Improvement, Surface Rock Re	eplacement, and Maintenance		
Road Segment		Length	Cost	
1 to 2		142.5 sta	\$14,297	
3 to 4		55.7 sta	\$3,420	
5 to 6		13.8 sta	\$2,202	
7 to 8		13.3 sta	\$8,321	
9 to 10		62.9 sta	\$15,358	
11 to 12		15.0 sta	\$254	
13 to 14		5.5 sta	\$93	
15 to 16		3.0 sta	\$1,057	
	TOTALS	311.7 sta	\$45,002	
Project #3 - Mov	e in		Cost	
Excavator C325	or equiv		\$1.500	
Dozer D-6 or equ	iv		\$950	
Grader, Cat 14-G	or equiv.		\$950	
Vibratory roller	· · · · · · · · · · · · · · · · · · ·		\$950	
	TOTAL		\$4,350	
			GRAND TOTA	L \$50,412
Compiled by:	Steven Irving			Date 11/15/2024

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Old Highway A to B	Project #	1					LENGTH	1.5 sta
CLEARIN	NG AND GRUBBING				Rate				
Road and	d Landing	0.10 ac		@	\$1,470.00	/acre) =	\$147	
					TOTAL CLEA	RING	AND C	GRUBBING =	\$147
EXCAVA	TION				Rate				
Construct	t road	1.5 sta		@	\$235.00	/sta	=	\$353	
Construct	t landing	1 ldg		@	\$480.00	/ldg	=	\$480	
Shape su (w/ grade	ıbgrade r)	1.5 sta		@	\$22.69	/sta	=	\$34	
Compact (w/ roller)	subgrade	1.5 sta		@	\$17.50	/sta	=	\$26	
Shape La (w/ grade	anding er)	0.5 sta		@	\$22.69	/sta	=	\$11	
Compact (w/ roller)	Landing	0.5 sta		@	\$17.50	/sta	=	\$9	
()						TOTA	LEX	CAVATION =	\$913
Compiled Date:	l by:	Steven Irving Nov 15, 2024				GRAN	ID TO	TAL ====>	\$1,060

SALE ROAD	Old Highway 1 to 2	Project	:# 2					LENGTH	142.5 sta
IMPROVE	EMENT				<u>Rate</u>				
Shape su	rface	142.5 sta		@	\$22.69	/sta	=	\$3,233	
(w/ grade	r)								
Process r	ock	8.0 sta		@	\$22.69	/sta	=	\$182	
(w/ grade	r)								
Process r	ock	0.5 sta		@	\$22.69	/sta	=	\$11	
(w/ dozer))								
Compact	surface	151.0 sta		@	\$17.50	/sta	=	\$2,643	
(w/ roller)		00 1 1		~	* (* * *			\$ 2,222	
Ditch re-e	establishment	60.4 sta		@	\$48.00	/sta	=	\$2,899	
(Sta. 0+0)	0 to 60+40)	10		0	¢40.00	1		¢ 400	
(Sto 27)	Naterbars	TU ea		W	\$42.00	/ea	=	\$4ZU	
Cloan out	601000+40)	2 00		0	¢25.00	/02	_	\$50	
(inlots and	d outlets)	2 64		œ	φ25.00	/ea	-	\$ 50	
Remove S	Sod	104 7 sta		0	\$16.95	/sta	_	\$1 775	
(w/ grade	r)	104.7 514		e	φ10.00	/510	-	ψ1,770	
(iii, grado	•)					TOTAL	IMP	ROVEMENT =	\$11,213
SURFAC	ING		Size		Rate				
Spot rock		80 CY	1½"-0"	@	\$28.68	/CY	=	\$2,294	
Landing r	ock	30 CY	Jaw-Run	@	\$26.32	/CY	=	\$790	
						тот	AL I	ROCK COST =	\$3,084
Compiled	by:	Steven Irvina							
Date:	,	Nov 15, 2024				GRAN	ID T	OTAL ====>	\$14,297

SALE ROAD	Old Highway 3 to 4	Project #	2					LENGTH	55.7 sta
IMPROV	'EMENT				Rate				
Shape so (w/ grade	urface er)	20.0 sta		@	\$22.69	/sta	=	\$454	
Compac (w/ roller	t surface	28.0 sta		@	\$17.50	/sta	=	\$490	
Process (w/ grade	rock er)	8.0 sta		@	\$22.69	/sta	=	\$182	
						TOTAL	IMPF	OVEMENT =	\$1,126
SURFAC	CING		<u>Size</u>		Rate				
Spot roc	k	80 CY	1½"-0"	@	\$28.68	/CY	=	\$2,294	
						тот	AL R	OCK COST =	\$2,294
Compile	d by:	Steven Irving							
Date:		Nov 15, 2024				GRAM	ND TO	OTAL =====>	\$3,420

SALE ROAD	Old Highway 5 to 6	Pro	oject #	2					LENGTH	13.3 sta
IMPROVI	EMENT					Rate				
Widen jur (w/ grade	nction r)	1 sta			@	\$22.69	/sta	=	\$23	
Process r (w/ grade	rock r)	5.0 sta			@	\$22.69	/sta	=	\$113	
Shape su (w/ grade	r)	4.0 sta			@	\$22.69	/sta	=	\$91	
Compact (w/ roller)	surface	5.0 sta			@	\$17.50	/sta	=	\$88	
Remove (w/ grade	Sod r)	13.8 sta			@	\$16.95	/sta	=	\$234	
							TOTAL	IMPR	ROVEMENT =	\$549
SURFAC	ING Rock (2" lift)	50 CY		<u>Size</u> 1½"-0"	Ø	<u>Rate</u> \$24.00	/CY	_	\$1 200	
(0+00 to 4	4+00)			172 0	e	φ2 1.00	/01	_	ψ1,200	
Junction (Sta. 0+0	rock 0)	20 CY		3"-0"	@	\$22.65	/CY	=	\$453	
							тот	AL R	OCK COST =	\$1,653
Compiled Date:	l by:	Steven Irving Nov 15, 2024					GRAN)TAL ====>	\$2,202

SALE ROAD	Old Highway 7 to 8	Project #	2					LENGTH	62.9 sta
EXCAV	ATION				<u>Rate</u>				
Re-oper	landings	1.5 hrs		@	\$140.00	/hr	=	\$210	
(w/ doze	er)								
Shape la	anding subgrades	1.5 sta		@	\$22.69	/sta	=	\$34	
(w/ grad	er)			~	A				
Compac	t landing subgrades	1.5 sta		@	\$17.50	/sta	=	\$26	
(w/ rollel	r)					TOTA	AL EX	CAVATION =	\$270
IMPRO\	/EMENT				Rate				
Widen ju	unction	1 sta		@	\$22.69	/sta	=	\$23	
(w/ grad	er)								
Process	landing rock	1.5 sta		@	\$22.69	/sta	=	\$34	
(w/ doze	er)			_					
Process	surface rock	14.3 sta		@	\$22.69	/sta	=	\$324	
(w/ grad	er) urface	10.0 oto		0	¢00.00	lata		\$202	
Shape s	unace or)	13.3 Sla		W	\$22.69	/sta	=	\$30Z	
Compac	t surface	15.8 sta		Ø	\$17 50	/sta	_	\$277	
(w/ rolle	r)	10.0 014		0		/014	_	Ψ211	
Remove	Sod	13.3 sta		@	\$16.95	/sta	=	\$225	
(w/ grad	er)								
						TOTAL	IMPR	OVEMENT =	\$1,185
SURFA	CING		Size		Rate				
Surface	rock (2"lift)	150 CY	1½"-0"	@	\$24.00	/CY	=	\$3.600	
Junction	rock	20 CY	3"-0"	@	\$22.65	/CY	=	\$453	
(Sta. 0+	00)								
Landing	rock	130 CY	Jaw-Run	@	\$21.64	/CY	=	\$2,813	
(Sta. 7+	80, 10+10 and 13+30)								
						тот	AL R	OCK COST =	\$6,866
Compile	d by:	Steven Irving							
Date:		Nov 15, 2024				GRAN	ID TO	TAL ====>	\$8,321

SALE ROAD	Old Highway 9 to 10	Project #	2					LENGTH	15.0 sta
IMPROV	EMENT				Rate				
Process	Rock	25.5 sta		@	\$22.69	/sta	=	\$579	
Shape su	urface	25.5 sta		@	\$22.69	/sta	=	\$579	
Process	Rock	0.5 sta		@	\$22.69	/sta	=	\$11	
(w/ dozer Compact (w/ roller)	r) : surface)	26.0 sta		@	\$17.50	/sta	=	\$455	
Remove (w/ grade	, Sod er)	62.9 sta		@	\$16.95	/sta	=	\$1,066	
(W/ grade	, , , , , , , , , , , , , , , , , , ,					TOTAL	IMPF	ROVEMENT =	\$2,690
SURFAC	ING		<u>Size</u>		<u>Rate</u>				
Surface r	rock (2"lift) 10 to 25+50)	280 CY	1½"-0"	@	\$24.00	/CY	=	\$6,720	
Culvert b (Sta. 2+2	edding material	40 CY	1½"-0"	@	\$24.00	/CY	=	\$960	
Landing	Rock -80)	50 CY	Jaw-Run	@	\$21.64	/CY	=	\$1,082	
(,					тот	AL R	OCK COST =	\$8,762
SPECIAL	PROJECTS				Rate				
24"x45' 0 (Sta. 2+2	CPP 20 and 3+30)	90 ft		@	\$24.20	/ft	=	\$2,178	
Replace (w/ excav	culvert vator)	8 hrs		@	\$160	/hr	=	\$1,280	
Compact	: fill	220 CY		@	\$0.90	/CY	=	\$198	
Clean ou (inlets an	t culverts d outlets)	2 culverts		@	\$25	ea	=	\$50	
Culvert d	lisposal	2 culverts		@	\$100	ea	=	\$200	
					TOTAL SPI	ECIAL PI	ROJE	ECTS COST =	\$3,906
Compileo	d by:	Steven Irving							

Date:

Steven Irving Nov 15, 2024

GRAND TOTAL ====> \$15,358

SALE ROAD	Old Highway 11 to 12	Project #	2					LENGTH	15.0 sta
IMPRON Remove (w/ grad	/EMENT e sod er)	15.0 sta		@	<u>Rate</u> \$16.95	/sta TOTAL	= IMPR(\$254 OVEMENT =	\$254
Compile Date:	d by:	Steven Irving Nov 15, 2024				GRAN		TAL ====>	\$254

SALE ROAD	Old Highway 13 to 14	Project #	2				LENGTH	5.5 sta
IMPROV Remove (w/ grade	/EMENT sod er)	5.5 sta		@	<u>Rate</u> \$16.95	/sta = TOTAL IMP	\$93 ROVEMENT =	\$93
Compile Date:	d by:	Steven Irving Nov 15, 2024				GRAND T	OTAL ====>	\$93

SALE ROAD	Old Highway 15 to 16	Project #	2					LENGTH	3.0 sta
EXCAVA	TION								
Widen roa	ad	3.0 sta		@	\$152.00	/sta	=	\$456	
(w/ excav	rator)								
Shape su	bgrade r)	3.0 sta		@	\$22.69	/sta	=	\$68	
Compact (w/ roller)	subgrade	3.0 sta		@	\$17.50	/sta	=	\$53	
Construct	t landing	1 ldg		@	\$480.00	/ldg	=	\$480	
						TOTAL	IMPR	OVEMENT =	\$1,057
Compiled Date:	by:	Steven Irving Nov 15, 2024				GRAN	ID TC)TAL ====>	\$1,057

SUMMARY OF MAINTENANCE COST

SALE	Old Highway	Fina	Final log haul Maintenance Cost Estimat (Costed in appraisal, not in project costs)				
Move-in	Grader Vibratory Roller		\$ \$	950 950			
Road Segment	Length	Cost/Sta	Cost		Mileage		
1 to 2 (Pt. 1 to Pt. 7, Pt. 4 to Pt. 2, +5 stations)	110.7	\$40.19	\$4,44	49.03	2.10		
3 to 4	55.7	\$40.19	\$2,23	38.58	1.05		
5 to 6	4.0	\$40.19	\$16	60.76	0.08		
7 to 8	13.3	\$40.19	\$53	34.53	0.25		
9 to 10	32.3	\$40.19	\$1,29	98.14	0.61		
Total	216.0		\$8,68	31.04	4.09		

Maintenance Rock:

	Volume	Cost/CY	Cost
1½"-0"	250	\$23.79	\$5,947.50
Grand Total			\$ 16,528.54
TS Volume	1,827	MBF	
Cost / MBF =			\$9.05
NOTES:			

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SALE	NAME:	Old Hig	ghway			DATE:	Nov 15, 20	24
ROAD	NAME:	Highway	7 20 Ci	utoff		CLASS:	Medium	
ROCK	SOURCE:	Rickard	1			10 CY -	truck	
Route	:	Highway	20					
TIME	Computat	ion:						
Road	speed ti	me fact	ors:					
	1.	55	MPH		MRT		0.0	minutes
	2.	50	MPH	30.6	MRT		36.7	minutes
	3.	45	MPH		MRT		0.0	minutes
	4.	40	MPH		MRT		0.0	minutes
	5.	35	MPH		MRT		0.0	minutes
	6.	30	MPH		MRT		0.0	minutes
	7.	25	MPH		MRT		0.0	minutes
	8.	20	MPH		MRT		0.0	minutes
	9.	15	MPH	0.9	MRT		3.6	minutes
	10.	10	MPH	0.9	MRT		5.4	minutes
	11.	05	MPH		MRT		0.0	minutes
Dump Tc (1	or sprea tal haul .00% effi	d time ing cyc ciency)	per RI le tim	e for thi	ls setting		0.50	minutes minutes
Opera	ator effi	ciency	correc	tion	0.85		54.35	minutes
Job e	efficienc	y corre	ction		0.90		60.39	minutes
Truck	capacit	y (CY)			10.00		6.04	min/CY
Loadi	.ng time,	delay	time p	er CY			0.25	min/CY
TIME	(minutes	s) per c	ubic y	ard			6.29	min/CY
COST	per CY c	computat	ion	tor por h			\$100 00	/hr
CC	st of tr	uck and	opera	tor per n	iour		\$1.67	/ 111 • / min
	SU OI UI	uck anu	opera	lot bet u	litiliace		91.07	/ 11111
Cost	per CY						\$10.50	/CY
					Cost Delivered			
Size		Cost/Yo	l (Pit)		w/o processing			

Size	Cost/Yd (Pit)	w/o processing
1½" - 0"	\$ 13.50	\$24.00
3" - 0"	\$ 12.15	\$22.65
Jaw-Run	\$ 11.14	\$21.64

Rock Haul Cost Computation

Size	Cost	t/Yd	(Pit)	Cost Del: w/o proce	ivered essing			
Cost per C	Y							\$15.18	/CY
Cost of Cost of	truck truck	and c and c	opera opera	ator per h ator per n	nour ninute			\$100.00 \$1.67	/hr. /min
COST per C	Y compu	tatic	on						
TIME (minu	tes) pe	r cub	bic y	yard				9.09	min/CY
Loading tim	me, del	ay ti	ime p	ber CY				0.25	min/CY
Truck capa	city (C	Y)			10.00			8.84	min/CY
Job effici	ency co	rrect	cion		0.90			88.37	minutes
Operator e	fficien	icy co	orrec	ction	0.85			79.53	minutes
Dump or sp Total h (100% e	read ti auling fficien	me pe cycle cy)	er RI e tin	? ne for thi	s settin	g		0.50	minutes minutes
-	11.	0.5 M	ігл ІРН	2.5	MRT			13.0	minutes
	9.	15 M	IPH	2.5	MRT MDT			10.0	minutes
	8.	20 M	IPH	0 5	MRT			0.0	minutes
	7.	25 M	IPH		MRT			0.0	minutes
	6.	30 M	IPH		MRT			0.0	minutes
	5.	35 M	IPH		MRT			0.0	minutes
	4.	40 M	IPH	15.6	MRT			23.4	minutes
	3.	45 M	IPH		MRT			0.0	minutes
	2.	50 M	IPH	15.6	MRT			18.7	minutes
Roda Speca	1.	55 M	IPH		MRT			0.0	minutes
TIME Compu	tation:	actor	~ . .						
Route:	Higł	nway 2	20, 1	Harlan-Bu	rnt Woods				
ROCK SOURC	E: Ricł	kard			-	1() CY t	ruck	
ROAD NAME:	Burr	nt Wo	ods i	Ridge Roa	d	CI	LASS	Medium	
SALE NAME:	01d	Highy	wav			DA	ATE:	Nov 15, 20	24

Size	Cost/Yd (Pit)	w/o processing
1½" - 0"	\$ 13.50	\$28.68
3" - 0"	\$ 12.15	\$27.33
Jaw-Run	\$ 11.14	\$26.32

Old Highway (WO-341-2025-W01170-01) FY 2025

1. Sale Area Location: Portions of Sections 15 and 16, T11S, R08W, W.M., Lincoln, Oregon.

2. Fund Distribution:

a. Fund BOF 100%

3. Sale Acreage by Area:

Unit	Treatment	Gross Acres	Stream Buffers	Slope Buffer	Non- Stocked	Existing Roads	Thinning Not Required	Green Tree Reserve Area	Net Sale Acres	Acreage Comp. Method
1	Clearcut	19	2	-	2	2	-	1	12	GIS
2	Clearcut	33	1	4	-	1	-	1	26	GIS
3	Commercial Thinning	5	1	<1	-	<1	1	-	3	GIS
	Total	57	4	4	2	3	1	2	41	GIS

4. Cruisers and Cruise Dates: The sale was cruised by Steven Irving in September and October of 2024.

5. Cruise Method and Computation: The sale consists of three units. Unit 1 is a clearcut that was cruised using variable radius plot sampling on a 3 x 3 chain grid using a 40 BAF. A total of 17 plots were taken in Unit 1 with all plots being meeasure plots. Unit 2 is a clearcut unit that was cruised using variable radius plot sampling on a 3 x 3 chain grid using a 40 BAF, A total of 17 plots. Unit 3 is a premarked commercial thinning unit that was cruised using cruise lines on a one chain spacing, grading every-other marked tree throughout the unit, giving each graded tree a tree count of two in order to represent all marked trees within the unit.

Measure plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury SuperACE cruise program to determine stand statistics and net board foot volume. Additional volume was removed to account for hidden defect and breakage.

Digital ortho photos, Lidar data, and GPS data were used to map the boundaries for the sale, and ArcPro GIS was used to determine gross and net acreage.

- 6. Measurement Standards: Tree heights were measured to the nearest foot, to a top diameter of 5 inches inside bark or to 40% of form factor. Diameters at breast height (DBH) were measured to the nearest inch, and a form point of 16 feet was used to calculate form factor. Form factors were measured or estimated on every tree. Most trees were graded in 40 foot log segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.
- 7. **Timber Description:** Timber in Unit 1 includes 12 acres of 75 to 80-year-old Douglas-fir with some scattered bigleaf maple and red alder, and 2 non-stocked acres. The average Douglas-fir to be removed is approximately 22 inches DBH, with an average height of 79 feet to a merchantable top. The average bigleaf maple is approximately 14 inches DBH, with an average height of 32 feet to a merchantable top. The average red alder is approximately

13 inches with an average height of 43 feet to a merchantable top. The average volume per acre to be harvested (net) in the stocked areas of Unit 1 is approximately 27.4 MBF.

Timber in Unit 2 includes approximately 26 acres of 49 to 78 year-old Douglas-fir and western red-cedar with some scattered bigleaf maple and red alder. The average Douglas-fir to be removed is approximately 24 inches DBH, with an average height of 101 feet to a merchantable top. The average western red-cedar to be removed is approximately 18 inches DBH, with an average height of 57 feet to a merchantable top. The average red alder to be removed is approximately 19 inches DBH, with an average height of 63 feet to a merchantable top. The average red alder to be removed is approximately 19 inches DBH, with an average height of 63 feet to a merchantable top. The average volume per acre to be harvested (net) in Unit 2 is approximately 59.4 MBF.

Timber in Unit 3 includes approximately 3 acres of 49 to 78 year-old Douglas-fir and western red-cedar. The average Douglas-fir to be removed is approximately 20 inches DBH, with an average height of 84 feet to a merchantable top. The average western red-cedar to be removed is approximately 14 inches DBH, with an average height of 38 feet to a merchantable top. The average volume per acre to be harvested (net) in Unit 3 is 11.9 MBF.

Unit	Target CV	Target SE	Actual CV	Actual SE
1	65%	9%	97.9%	24.5%
2	45%	9%	35.8%	6.7%
3	-	-	44.5%	6.1%

8. Statistical Analysis and Stand Summary: (See attached "Statistics").

Note: Statistics shown are for conifer and hardwood trees combined. Percentages are for net board foot volume.

9. Total Volume (MBF) by Species and Grade: (See attached volume report "Species, Sort Grade – Board Foot Volumes - Project").

Unit	Species	Gross Cruise Volume	Cruised D & B	Cruised D & B (MBF)	Hidden D & B	Hidden D & B (MBF)	Net Sale Volume
	Douglas- fir	289	1.6%	(5)	5%	(14)	270
1	Red Alder	25	4.2%	(1)	5%	(1)	23
	Bigleaf Maple	22	11.3%	(2)	5%	(1)	19
2	Douglas- fir	1,430	0.8%	(11)	4%	(57)	1,362
	Western Red-Cedar	105	1.0%	(1)	5%	(5)	99
-	Red Alder	18	1.6%	(<1)	5%	(1)	17
	Bigleaf Maple	3	5.9%	(<1)	5%	(<1)	3
3	Douglas- fir	35	1.3%	(<1)	5%	(2)	33
	Western Red-Cedar	1	-	(<1)	5%	(<1)	1
Total		1,928	1.0%	20	4.2%	81	1,827

Unit	Species	Ave. DBH	Net Vol.	2-Saw	3-Saw	4-Saw	Camp Run
	Douglas-	22	Grade %	78%	18%	4%	-
	fir		270	211	48	11	-
1	Dod Aldon	12	Grade %	-	-	-	100%
1	Red Alder	15	23	-	-	-	23
	Bigleaf	14	Grade %	· _	-	-	100%
	Maple	14	19	-	-	-	19
	Douglas- fir	24	Grade %	84%	14%	2%	-
		24	1362	1,144	191	27	-
	Western Red-Cedar	10	Grade %	-	-	-	100%
2		18	99	-	-	-	99
2	Bigleaf Maple	35	Grade %	-	-	-	100%
			3	-	-	-	3
	Dod Aldon	10	Grade %	-	-	-	100%
	Keu Alder	19	17	-	-	-	17
	Douglas-	20	Grade %	70%	25%	5%	-
2	fir	20	33	23	8	2	-
3	Western	14	Grade %	-	-	-	100%
	Red-Cedar	14	1	-	-	-	1
Total			1,827	1,378	247	40	162

Attachments: Cruise Design

Cruise Maps Species, Sort Grade – Board Foot Volumes Statistics Stand Table Summary Log Stock Table – MBF

Prepared by: <u>Steven Irving</u>

Date: 10/17/2024

Unit Forester: Cody Uli Cody Valencia 2

Date: 11/4/24

Revised August, 2002

CRUISE DESIGN WEST OREGON DISTRICT

Sale Name: _____Old Highway Area 1___

 Harvest Type:
 MC
 Net BF
 Net BF

 Approx. Cruise Acres:
 15.7
 Estimated CV% 65
 /Acre
 SE% Objective 9
 /Acre

Planned Sale Volume: 1819 MMBF Estimated Sale Area Value/Acre: \$ 500

A. <u>Cruise Goals</u>: (a) Grade minimum <u>50</u> conifer and <u>20</u> hardwood trees:
 (b) Sample <u>20</u> cruise plots (20 grade: 0 count); (c) Other goals <u>X</u> Determine log grades for sale value; <u>Determine take and leave tree species and sizes</u>.

(Special cruising directions – leave trees etc.) <u>Take plots as shown on map. Do not take plots in buffers.</u>

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

B. <u>Cruise Design</u>:

1. Plot Cruises: BAF 40 Full point

Cruise Line Direction(s) <u> </u>	
Cruise Line Spacing	3, 198	(chains) (feet)
Cruise Plot Spacing	3,198	(chains) (feet)
Grade/Count Ratio	1:0	

C. Tree Measurements:

- Diameter: Minimum DBH to cruise is <u>8</u>" for conifers and <u>10</u>" for hardwoods. Record dbh to nearest ½" 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 for conifer is <u>5</u>", <u>7</u>" for <u>hardwoods</u> or <u>40</u> % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" 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. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes: A. <u>Species</u>: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)
 - B. <u>Sort</u>: Use code "1" (Domestic).
 - C. <u>Grade</u>: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ; Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 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: <u>Plot Type Cruises</u>: Write plot identification numbers on the ribbon. At each plot, tie <u>red</u> flagging above eye level near plot center and another <u>red</u> flagging around a sturdy wooden stake marking plot center. On <u>red</u> flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in <u>yellow</u> paint
- **9. Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back), Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Red Flagging, Yellow Paint.
- **10. Attachments:** A. <u>Cruise Map</u> (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.

Steven Irving

CRUISE DESIGN WEST OREGON DISTRICT

 Sale Name:
 Old Highway
 Area
 2

 Harvest Type:
 MC
 Net BF
 Net BF

 Approx. Cruise Acres:
 26
 Estimated CV% 45
 /Acre
 SE% Objective 9
 /Acre

Planned Sale Volume: 1819 MMBF Estimated Sale Area Value/Acre: \$ 500

A. <u>Cruise Goals</u>: (a) Grade minimum <u>100</u> conifer and <u>0</u> hardwood trees:
 (b) Sample <u>30</u> cruise plots (15 grade: 15 count); (c) Other goals <u>X</u> Determine log grades for sale value; <u>Determine take and leave tree species and sizes.</u>

(Special cruising directions – leave trees etc.) <u>Take plots as shown on map. Do not take plots in buffers.</u>

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

B. <u>Cruise Design</u>:

1. Plot Cruises: BAF 40 Full point

Cruise Line Direction(s) <u>90, 270</u>	
Cruise Line Spacing	3, 198	(chains) (feet)
Cruise Plot Spacing	3, 198	(chains) (feet)
Grade/Count Ratio	<u>1:1</u>	

C. Tree Measurements:

- Diameter: Minimum DBH to cruise is <u>8</u>" for conifers and <u>10</u>" for hardwoods. Record dbh to nearest ½" 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 for conifer is <u>5</u>", <u>7</u>" for <u>hardwoods</u> or <u>40</u> % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" 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. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes: A. <u>Species</u>: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)
 - B. <u>Sort</u>: Use code "1" (Domestic).
 - C. <u>Grade</u>: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ; Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 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: <u>Plot Type Cruises</u>: At each plot, tie <u>red</u> flagging above eye level near plot center and another <u>red</u> flagging around a sturdy wooden stake marking plot center. On <u>red</u> flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in <u>yellow</u> paint.
- **9. Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back), Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Red Flagging, Yellow Paint.
- **10. Attachments:** A. <u>Cruise Map</u> (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:	Steven Irving	
Approved by:		
Date:		

Revised August, 2002

CRUISE DESIGN WEST OREGON DISTRICT

 Sale Name:
 Old Highway
 Area
 3

 Harvest Type:
 PC
 Net BF
 Net BF

 Approx. Cruise Acres:
 3
 Estimated CV%
 N/A
 /Acre
 SE% Objective
 N/A
 /Acre

Planned Sale Volume: 1819 MMBF Estimated Sale Area Value/Acre: \$ 500

A. <u>Cruise Goals</u>: (a) Grade minimum <u>40</u> conifer and <u>0</u> hardwood trees:
(b) Sample <u>0</u> cruise plots (0 grade: 0 count); (c) Other goals <u>X</u> Determine log grades for sale value; <u>X</u> Determine take and leave tree species and sizes.

(Special cruising directions – leave trees etc.) <u>Take plots as shown on map. Do not take plots in buffers.</u>

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

B. <u>Cruise Design</u>:

1. Strip Cruise: BAF N/A

Cruise Line Direction(s) <u>90, 270</u>	
Cruise Line Spacing	1, 66	(chains) (feet)
Cruise Plot Spacing	N/A	(chains) (feet)
Grade/Count Ratio	<u>1:1</u>	

C. Tree Measurements:

- Diameter: Minimum DBH to cruise is <u>8</u>" for conifers and <u>10</u>" for hardwoods. Record dbh to nearest ½" 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 for conifer is <u>5</u>", <u>7</u>" for <u>hardwoods</u> or <u>40</u> % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" 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. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes: A. <u>Species</u>: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)
 - B. <u>Sort</u>: Use code "1" (Domestic).
 - C. <u>Grade</u>: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ; Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 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: <u>Plot Type Cruises</u>: Mark cruise line beginning points with <u>blue</u> flagging. Write line direction on the ribbon. Mark take trees with a <u>yellow</u> bole stripe. Mark measure trees with tree number or diameter in <u>yellow</u> paint. Measure every other tree along cruise lines throughout the unit (40 measure trees, 79 total take trees) <u>ITS and 100% Cruises</u>: Mark cruise "strips" with various colored flagging (blue). Mark trees measured and graded with <u>yellow</u> paint.
- **9. Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back), Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Red Flagging, Yellow Paint.
- **10. Attachments:** A. <u>Cruise Map</u> (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:	Steven Irving	
Approved by:	-	
Date:		

TC PS	TATS				PH P	ROJECT ROJECT	STATI	<u>STICS</u> HIWAY			PAGE DATE	1 10/15/2024
TWP	RGE	SC	TRACT	The second second second second	ТҮРЕ		A	CRES	PLOTS	TREES	CuFt	BdFt
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						TDEES		ESTIMATED	P	ERCENT		
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BLA	NKS											
100 9	%											
					STA	AND SUMM	IARY					
		SA	MPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
		T	REES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DF			50	48.6	21.7	79	26.8	125.0	24,090	23,693	5,123	5,123
BLN	1APLE		18	36.0	14.4	32	10.7	40.5	1,884	1,672	683	683
	LDER U DI I		11	29.4	12.6	43	1.2	25.5	2,130	2,040	209	209
тот	AL		81	.0	17.7	55	46.6	196.0	29.158	28.449	6.649	6.649
			01	111.0			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	17010	27,100	20,172	3,3 12	.,
CON	IFIDENC	E LIMI	TS OF THI	E SAMPLE		WILLBEY	WITHIN T	ΗΕ SAMPIEE	RROR			
	04	5.1 1					••••••••••••••••••••••••••••••••••••••					
CL	68.1		COEFF			SAMPL	E TREES	- BF	#	OF TREES R	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%]	LOW	AVG	HIGH		5	10	15
DF			87.3	12.3		756	862	969				
RAI	DER		63.1 52.4	20.1		44 64	50 77	90				
D-W	ILDLI		4.7	4.4		1,572	1,645	1,718				
тот	AL		121.3	13.5		515	596	676		588	147	65
CL	68.1		COEFF			SAMPL	E TREES	- CF	#	OF TREES R	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	I	LOW	AVG	HIGH		5	10	15
DF			73.1	10.3		158	177	195				
BL M	IAPLE		71.0	17.2		23	27	32				
R AL	DER		47.4	15.0		22	26	30				
D-WI TOT			4.8	4.5		514 112	329 127	344 141		411	103	46
~~			20755				12, . CDT					
CL	68.1		COEFF	S E 0/	т	TREES/.	ACRE	UICU	#	OF PLOTS R	EQ. 10	INF. POP.
DF	1.0		131.0	32.7	1	33	49	65			10	15
BL M	IAPLE		199.4	49.8		18	36	54				
R AL	DER		204.6	51.1		14	29	44				
D-WI	LDLI		412.3	103.0			1	1				
TOT	AL		80.7	20.2		92	115	138		276	69	31
CL	68.1		COEFF			BASAL	AREA/AC	RE	#	OF PLOTS R	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	I	.OW	AVG	HIGH		5	10	15
DF			107.8	26.9		91	125	159				
BL M	APLE		188.2	47.0 45.0		21 14	41 26	00 37				
D-WI	LDLI		412.3	103.0			5	10				
тот	AL		58.9	14.7		167	196	225		147	37	16
CL	68 1		COEFF			NET BF/	ACRE		# (OF PLOTS R	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	L	.OW	AVG	HIGH		5	10	15
DF			124.9	31.2		16,304	23,693	31,082				
BL M	APLE		166.4	41.6		977	1,672	2,366				
R AL	DER		206.6	51.6		987	2,040	3,093				

TC PST	'ATS					PROJEC' PROJECT	T STATI OL	ISTICS HIWAY			PAGE DATE	2 10/15/2024
TWP	RGE	SC	TRACT		ТҮРЕ		Α	CRES	PLOTS	TREES	CuFt	BdFt
11S 11S 11S	08 08W 08W	15 15 15	UI_DF_STR U1_HW_STI U1_MX_STF	ATA RAT RATA	00MC 00MC 00MC			12.00	17	83	S	W
CL	68.1		COEFF			NET E	BF/ACRE			# OF PLOT	S REQ.	INF. POP.
SD:	1.00		VAR.	S.E.%		LOW	AVG	HIGH		5	10	15
D-WI	LDLI		412.3	103.0			1,045	2,121				
тот	4L		97.9	24.5		21,493	28,449	35,406		407	102	45
CL	68.1		COEFF			NET C	CUFT FT/A	CRE		# OF PLOTS R	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%		LOW	AVG	HIGH		5	10	15
DF			117.4	29.3		3,621	5,123	6,625				
BL M	APLE		178.4	44.6		379	683	988				
R AL	DER		193.5	48.3		327	634	940				
D-WI	LDLI		412.3	103.0			209	424				
тот	AL.		81.4	20.3		5,298	6,649	8,001		281	70	31

тс	PSPCSTGR		S	pecies, S	ort Gra	ide - Boa	rd F	oot V	olum	es (Pi	oject	:)								
T1 T1 T1	IS R08W S15 7 IS R08W S15 7 IS R08W S15 7	Гу00МС Гу00МС Гу00МС		6.00 3.00 3.00		Project Acres	:	OI	.HIW 12.	AY 00							Page Date Time	10 10	1)/15/2():20:2)24 0AM
		%						Perc	ent of l	Net Boa	rd Foot	Volume					Aver	age Log	g	Logs
	S So Gr	Net	Bd. Ft	. per Acre		Total			Log Sc	ale Dia.			Log	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
DF	DO 2M	78	1.9	19,049	18,687		224			34	66		1	2	97	39	17	462	2.36	40.5
DF	DO 3M	18	.4	4,260	4,241		51		97	3		3	13	15	69	35	9	106	0.80	40.1
DF	DO 4M	4	2.0	781	765		9	54	46			60	16	24		19	6	23	0.34	33.8
DF	Totals	83	1.6	24,090	23,693		284	2	19	28	52	2	4	5	89	32	11	207	1.40	114.4
вм	DO CR	100	11.3	1,884	1,672		20	9	70	21		21	19	44	16	29	7	47	0.67	35.2
вм	Totals	6	11.3	1,884	1,672		20	9	70	21		21	19	44	16	29	7	47	0.67	35.2
RA	DO CR	100	4.2	2,130	2,040		24	2	90	8		11	20	14	55	27	7	44	0.51	46.6
RA	Totals	7	4.2	2,130	2,040		24	2	90	8		11	20	14	55	27	7	44	0.51	46.6
DFW DFW DFW DFW	DO 2M DO 3M DO 4M	12 84 4	1.0	127 896 31 1,054	127 887 31 1,045		2 11 0 13		43	15 57 15	100 85 84	100			100 100 97	36 40 12 30	17 22 11 18	420 913 49 547	2.63 4.43 1.10 3.65	.3 1.0 .6 1.9
Tota	s		2.4	29,158	28,449		341	2	26	25	46	4	6	8	83	30	9	144	1.11	198.1

TC PL	OGSTV	В					Log S	Stock '	Table -	MBF									
T11S F T11S F T11S F	08W S 08W S	15 Ty 15 Ty 15 Ty 15 Ty	00MC 00MC 00MC	(2 2	5.00 3.00 3.00		Proje Acre	ect: s	OLI	HIWAY 12	2.00			4,		Page Date Time	10/ 10:	1 15/2024 20:19AM	
<u> </u>	S So	Gr	Log	Cross	Def	Not	%			Net Volu	me by S	Scaling Dia	amete	r in Inche	·s				
Spp 7	rt rt	de	Log Len	MBF	%	MBF	Spc	2-3	4-5	6-7	8-9	10-11 12	2-13	14-15	16-19	20-23	24-29	30-39 40+	
DF	DO	2M	[30	2		2	.8						1		1				
DF	DO	2M	32	3	14.5	3	1.0						1	2					
DF	DO	2M	34	1		1	.4						1						
DF	DO	2M	36	2	4.4	2	.7									2			
DF	DO	2M	38	3	5.3	2	.9						2						
DF	DO	2M	40	217	1.7	214	75.2						19	42	59	54	29	10	
DF	DO	3M	12	0		0	.1							0					
DF	DO	3M	18	1		1	.2					0		0					
DF	DO	3M	20	0		0	.1					0							
DF	DO	3M	24	1	8.0	1	.5				0	0	0						
DF	DO	3M	26	1		1	.5				1	1							
DF	DO	3M	28	1		1	.4					1							
DF	DO	3M	30	3	3.6	3	1.1			1	1	1	0						
DF	DO	3M	32	2		2	.9			1	1	I							
DF	DO	3M	34	5		5	1.9			1	3	1							
DF	DO	3M	36	2		2	.7			1		1							
DF	DO	3M	38	4		4	1.4				E	3							
DF		3M	40				10.3					20							
DF	DO	4M	12	2		2	.7		0	1	1								
DF		4M	14	0		1	.2		0	1									
DF		41/1	10	1		1	.5		1	1									
		41VI	10 20	2		2	.0		1	0	0								
DF		4M	20	0		0	.1			0	0								
DF		4M	24	1		1	.2		1										
DF		4M	28	1		1	.2		1										
DF	DO	4M	32	1	13.5	1	.4		1	0									
DF	DO	4M	34	1		1	.3		1										
DF		Fotals		289	1.6	284	83.3		5	10	13	30	25	45	60	56	29	10	
BM	DO	CR	12	0		0	1.2			0									
BM	DO	CR	16	3	4.3	3	15.2				1				2				
ВМ	DO	CR	20	1		1	4.9			1									
ВМ	DO	CR	28	3		3	16.6		1				2						
ВМ	DO	CR	30	0		0	2.4			0									
BM	DO	CR	32	4	8.6	4	20.1			4									
BM	DO	CR	34	6	26.0	5	23.8			3	2								
BM	DO	CR	36	1	16.7	1	4.1			1									

,

T11S R T11S R T11S R	.08W S15 Ty .08W S15 Ty .08W S15 Ty	/00MC /00MC /00MC		6.00 3.00 3.00		Proj Acre	ect: OLH s	HWAY 12.	00					Page Date Time	10/ 10:	2 15/2024 20:19A	4 .M
S	So Gr	Log	Gross	Def	Net	%	1	let Volun	ie by S	Scaling Di	iamete	r in Inch	es	1		<u> </u>	
spp 1		Len	MBF	<u>%</u>	MBF	Spc	2-3 4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40
BM	DO CR	. 38 . 40	1	13.3	1	6.0 5.8	0	1									
BM	Totals	3	23	11.3	20	5.9	2	11	3		2		2				.00000000
RA	DO CR	. 12	1		1	6.1		1					Construction of Algorithms				
RA	DO CR	. 14	1		1	2.3		1									
RA	DO CR	18	1		1	2.4		1									
RA	DO CR	28	2		2	6.7		2									
RA	DO CR	30	4	8.3	3	13.2			3								
RA	DO CR	32	4	13.0	3	13.8		2			2						
RA	DO CR	36	5		5	20.1		5									
RA	DO CR	. 38	0		0	2.0	0										
RA	DO CR	40	8	3.3	8	33.4		2	6								
RA	Totals		26	4.2	24	7.2	0	13	9		2						
DFW	DO 2M	36	2		2	12.1							2				
DFW	DO 3M	40	11	1.0	11	84.9							2		9		ionarca c
DFW	DO 4M	12	0		0	3.0				0	0		******************				0.000
DFW	Totals		13		13	3.7		Aleman 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 - 2000 -		0	0		3		9		-
Total	All Specie	s	350	2.4	341	100.0	7	35	25	20	20	45	65	56	20	10	

TC PLO	OGSTBF					Log	Stock '	Fable	- Percei	nt Boar	d Fee	t							
						Proje	ct:	OLH	IWAY	Acr	es		12.0	0					
T11S R T11S R T11S R	.08W S15 .08W S15 .08W S15	Ty00M Ty00M Ty00M	IC IC IC	6 3 3	5.00 5.00 5.00		CuFt:	S		BdFt:	W					Page Date Time	10/ 10:	1 15/2024 20:20A	M
s	So	Lo	g	Gross	Def	Net	%			Perce	ent Net V	Volume by	Scaling	Diameter i	n Inches	r			
Spp Т	rt Gre	d Le	n	MBF	%	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23 2	24-29	30-39	40+
DF	DO 2	2M .	30	2		2	.8						45.6		54.4				
DF	DO 2	2M .	32	3	14.5	3	1.0						21.7	78.3					
DF	DO 2	2M 3	34	1		1	.4						100.0						
DF	DO 2	2M 3	36	2	4.4	2	.7									100.0			
DF	DO 2	2M 3	38	3	5.3	2	.9						100.0						
DF	DO 2	2M 4	1 0	217	1.7	214	75.2						8.9	19.7	27.6	25.3	13.7	4.7	warnele et
DF	DO 3	BM 1	2	0		0	.1							100.0					
DF	DO 3	3M	18	1		1	.2					45.5		54.5					
DF	DO 3	BM 2	20	0		0	.1					100.0							
DF	DO 3	BM 2	24	1	8.0	1	.5				32.1	30.5	37.4						
DF	DO 3	BM 2	26	1		1	.5				61.0	39.0							
DF	DO 3	BM 2	28	1		1	.4					100.0							
DF	DO 3	BM 3	30	3	3.6	3	1.1			18.7	28.7	37.6	15.0						
DF	DO 3	BM 3	32	2		2	.9			28.0	45.7	26.3							
DF	DO 3	SM 3	34	5		5	1.9			13.0	59.0	28.1							
DF	DO 3	SM 3	6	2		2	.7			62.9		37.1							
DF	DO 3	SM 3	8	4		4	1.4			16.3		83.7							
DF	DO 3	SM 4	10	29		29	10.3			11.9	18.6	69.5							
DF	DO 4	M 1	2	2		2	.7			45.5	54.5								
DF	DO 4	M 1	4	0		0	.2		66.7	33.3									
DF	DO 4	M I	6	1		1	.3		34.2	65.8									
DF	DO 4	M I	8	2		2	.6		85.7	14.3									
DF	DO 4	M 2	0	0		0	.1				100.0								
DF	DO 4	M 2	4	0		0	.1			100.0									
DF	DO 4	-M 2	6	1		1	.2		100.0					2					
DF	DO 4	M 2	8	1		1	.2		100.0										
DF	DO 4	-M 3	2	I	13.5	1	.4		68.8	31.2									
DF	DO 4	-M 3	4	1		1	.3		100.0	5.1									
DF	Tot	als	_	289	1.6	284	83.3		1.7	3.5	4.6	10.6	8.9	15.8	21.2	19.7	10.3	3.5	
BM	DO C	CR 1	2	. 0		0	1.2			100.0									
BM	DO C	CR 1	6	3	4.3	3	15.2			1000	32.4				67.6				
BM	DO C	CR 2	0	1		1	4.9			100.0			(12)						
BM	DO C	2R 2	8	3		3	16.6		35.8	100.0			64.2						
BM	DO C	- R 3	0	0	0.1	0	2.4			100.0									
BM	DO C	ж 3	2	4	8.6	4	20.1			100.0	25.0								
BM	DO C	CR 3	4	6	26.0	5	23.8			64.2	35.8								

TC	PLO	GSTBF					Log	Stock '	Table	- Perce	nt Boar	d Fee	t							
							Proje	ect:	OLH	IWAY	Acı	es		12.0	0					
T115 T115 T115	S RO S RO S RO	08W S1 08W S1 08W S1	5 Ty 5 Ty 5 Ty	00MC 00MC 00MC		6.00 3.00 3.00		CuFt:	s		BdFt:	W				50000	Page Date Time	10/ 10:	2 /15/202 :20:20A	4 \M
	s	So		Log	Gross	Def	Net	%			Perc	ent Net '	Volume by	Scaling	Diameter	· in Inches				
Spp	Т	rt G	rd	Len	MBF	%	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23 2	4-29	30-39	40+
BM		DO	CR	36		16.7	1	4.1			100.0									
BM		DO	CR	38		13.3	1	6.0		23.3	76.7									
BM		DO	CR	40			1	5.8		28.2	71.8									
BM		Т	otals		23	3 11.3	20	5.9		8.9	56.7	13.5		10.6		10.3				in di basanca sa sandi ban'n
RA		DO	CR	12			1	6.1			100.0					89949-1				
RA		DO	CR	14		l	1	2.3			100.0									
RA		DO	CR	18		l	1	2.4			100.0									
RA		DO	CR	28	2	2	2	6.7			100.0									
RA		DO	CR	30	4	8.3	3	13.2				100.0								
RA		DO	CR	32	4	13.0	3	13.8			45.1			54.9						
RA		DO	CR	36	5	;	5	20.1			100.0									
RA		DO	CR	38	()	0	2.0		100.0										
RA		DO	CR	40	8	3.3	8	33.4			30.0	70.0								
RA		Т	otals		26	4.2	24	7.2		2.0	53.8	36.6		7.6						
DFW		DO	2M	36	2		2	12,1		an a						100.0				
DFW		DO	3M	40	11	1.0	11	84.9								15.1		84.9		
DFW		DO	4M	12	C)	0	3.0					42.6	57.4						
DFW		T	otals		13		13	3.7					1.3	1.7		24.9		72.1		
Total		All Spe	ecies		350	2.4	341	100.0		2.1	10.1	7.3	8.9	8.6	13.2	. 19.2	16.4	11.2	3.0	

TC PS	TATS				PR PI	ROJECT ROJECT	STATI	STICS HIWAY			PAGE DATE	1 9/20/2024
TWP	RGE	SC	TRACT		ТҮРЕ		A	CRES	PLOTS	TREES	CuFt	BdFt
115	08	15	UNIT_2		00MC			26.00	30	220	1	W
						TREES		ESTIMATED TOTAL	Pl S	ERCENT		er en
		I	PLOTS	TREES		PER PLOT		TREES		TREES		
TOT	AL		30	220		7.3						
CRU	ISE		15	113		7.5		2,657		4.3		
DBH	COUNT											
REFO	OREST											
COU	NT		15	103		6.9						
BLAI	NKS											
100 %					CP 1						<u></u>	
				TREE	STA	ND SUMN	IARY	DAGAT	CROSS	NICT	CROSS	NET
		SA T	TREES	ACRE	AVG DRH	BOLE I FN	KEL DEN	DASAL ARFA	GKUSS BF/AC	NEI BF/AC	CE/AC	CF/AC
DE			02	75 C	140	101	A0 7	111EA 1207	5/ 006	54 562	12 075	12 075
UF WR (CEDAR		13	23.0	17 0	57	40.7	40.0	4 020	3.981	1.307	1.307
RAL	DER		3	3.4	19.0	63	1.5	6.7	690	678	201	201
BL M	IAPLE		1	.2	35.0	58	0.2	1.3	136	128	31	31
TOT	AL		113	102.2	22.7	90	60.2	286.7	59,841	59,350	13,614	13,614
CON	IFIDENCI 68	е LIMI 3.1 П	TIS OF THE	SAMPLE OF 100 THE	E VOLUME	WILL BE	WITHIN T	HE SAMPLE E	ERROR			
CL	68.1		COEFF			SAMPL	E TREES	- BF	#	OF TREES R	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	I	.OW	AVG	HIGH		5	10	15
DF			67.5	6.9		925	993	1,062				
WR C	CEDAR		94.8	27.3		178	245	311				
R AL	DER		86.9	60.1		120	300	480				
BL M	AT.		76.2	7 2		822	886	040		232	58	26
		- <u>6.4</u> 6.4.1	70.2	1.2		022		777		2.52	50	
CL	68.1		COEFF	a b 4		SAMPL	E TREES	- CF	#	OF TREES RI	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	L	109	AVG 210	HIGH		5	10	15
UF WR C	FDAR		50.4 70.1	20.2		61	210	91				
RAL	DER		84.2	58.3		36	87	138				
BL M	APLE											
TOTA	AL		63.0	5.9		179	191	202		159	40	18
CI	60 1		COFFF			TDFFS/	ACRE		#	OF PLOTS RI	- 	INF POP
SD.	1.0		VAR %	SE%	T	.0W	AVG	HIGH		5	10	15
DF	1.0		42.9	8.0		70	76	82				
WR C	EDAR		209.4	38.9		14	23	32				
R ALI	DER		355.3	66.0		1	3	6				
BL M.	APLE		547.7	101.7			0	0				
TOTA	4L		40.6	7.5		94	102	110		68	17	8
CL	68.1		COEFF			BASAL	AREA/AC	RE	# (OF PLOTS RE	EQ.	INF. POP.
SD:	1,0		VAR.%	S.E.%	L	ow	AVG	HIGH		5	10	15
DF			38.7	7.2		222	239	256				
WR C	EDAR		208.4	38.7		25	40	55				
R ALI	DER		355.3	66.0		2	7	11				
	APLE		54/./ 37 ∕	101.7 K A		260	1 287	5 201		43	11	5
			54.4 COEFE	0.0		ALET DE	207	504			20	
CL SD:	68.1		UDEFF	SE 0/	T	NET BE/ OW	AURE	нісн	# (JF PLOIS RE	.U. 10	INF. POP.
DF	1.0		41 3	3.E.% 77	L	50.376	54.563	58,749		ر	10	15
WR CI	EDAR		217.4	40.4		2,375	3,981	5,588				
R ALE	DER		355.3	66.0		231	678	1,126				
BL MA	APLE		547.7	101.7			128	258				

TC PST	TATS				PROJECT project	T STATI OL	<u>STICS</u> hiway			PAGE DATE	2 9/20/2024
TWP	RGE	SC	TRACT	T	YPE	A	CRES	PLOTS	TREES	CuFt	BdFt
118	08	15	UNIT_2	00	MC		26.00	30	220	1	W
CL	68.1		COEFF		NET B	F/ACRE			# OF PLOTS	S REQ.	INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
тот	AL		35.8	6.7	55,403	59,350	63,298		53	13	6
CL	68.1		COEFF		NET C	UFT FT/A	CRE		# OF PLOTS RE	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15
DF			39.5	7.3	11,190	12,075	12,960				
WR C	EDAR		213.2	39.6	790	1,307	1,824				
R AL	DER		355.3	66.0	68	201	333				
BL M	APLE		547.7	101.7		31	63				
ТОТ	4L		32.7	6.1	12,788	13,614	14,439		44	11	5

Т	TSPCSTGR				Specie	es, Sort (Project	Grade - Boar : OLF	d Foo HWA	ot Vol Y	lumes	s (Тур	e)]	Pag Date Fim	e e 9 e 1	1 /20/202 1:52:4	24 5AM
T11S Twj 11S	R08W S1 p Rg 08V	5 T00N e W	1C Sec 15 U	Tract INIT_2		Туре 00М	Acre C 26.	s 00	Plots 30		Sampl	e Trees 117	;	C 1	uFt	T11 BdF W	S R Ft	08W S1	.5 T001	мс
Spp	S _{So} o ^T rt a	Gr ad	% Net BdFt	Bd. Def%	Ft. per Acre Gross	e Net	Total Net MBF	Pero I 4-5	cent Ne Log Sca 6-11	et Boar ale Dia 12-16	d Foot 17+	Volum Lo 12-20	e g Leng 21-30	th 31-35	36-99	Av Ln I Ft I	veraş Dia în	ge Log Bd Ft	CF/ Lf	Logs Per /Acre
DF DF DF	DO DO DO	2M 3M 4M	84 14 2	.8 .5	46,405 7,534 1,058	46,011 7,494 1,058	1,196 195 28	20	100 80	33	67	0 2 70	1 5 23	1 12	97 80 7	39 37 16	16 9 7	456 108 22	2.40 0.88 0.47	101.0 69.6 47.3
DF	Totals		92	.8	54,996	54,563	1,419	0	15	27	57	2	2	3	93	33	12	250	1.66	217.9
RC	DO	CR	100	1.0	4,020	3,981	104	8	40	31	21	4	10	6	80	28	8	90	1.04	44.5
RC	Totals		7	1.0	4,020	3,981	104	8	40	31	21	4	10	6	80	28	8	90	1.04	44.5
RA	DO	CR	100	1.6	690	678	18	2	67		31	7	2		92	28	8	100	1.05	6.8
RA	Totals		1	1.6	690	678	18	2	67		31	7	2		92	28	8	100	1.05	6.8
BM	DO	CR	100	5.9	136	128	3		11		89	11		89		24	16	320	3.25	.4
BM	Totals		0	5.9	136	128	3		11		89	11		89		24	16	320	3.25	.4
Туре Т	otals			.8	59,841	59,350	1,543	1	18	27	54	2	3	3	92	32	11	220	1.56	269.5

ТС	TLOGS	STBF			Log	g Stock Ta Pr	ble - Pe oiect:	ercent Board OL	Feet HIWAY									
T11S I Twp 11S	R08W Rj 08	y S1 ge SW	5 T00 S	OMC ec Tra 15 UNI	act T 2		Туре 00МС	Acres 2 26	I .00	Plots 30	Sampl	le Trees	S	T11	'11S R08W S15 T00MC Page 1 Date 09/20/2024			
	1							1							l'ime	11:52:	45AM	
s	So		Log	Gross	%	Net	%	Percent	Net Volu	me by S	Scaling D	liamete	r in Inche	es	T		I	
Spp T	rt (Grd	Len	MBF	Def	MBF	Spc	2-3 4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39 40+	
DF	DO	2N	1 12	1		1	.1					100.0	100.0					
DF	DO	2N 2N	1 20 1 28	4		4	с. Т					100.0	100.0					
DF	DO	2N	1 30	11		11	.8					17.8			82.2			
DF	DO	2N	1 32	6		6	.4						100.0					
DF	DO	2N	1 34	8		8	.6					72.2	27.8					
DF	DO	2N	1 36	5		5	.4					22.6	100.0	27.1				
DF		2N 2N	1 38 1 40	1 161		8 1 151	.6 81.1					55.0 12.5	10.9	37.1	24.4	14.0	1.0	
	150	21V	0			.,					100.0	. 210						
DF DF	DO	3M 3M	1 18 1 20	1 4		1 4	.0			100.0	100.0							
DF	DO	3N	1 26	1		1	.1				100.0							
DF	DO	3M	1 28	3		3	.2		64.0	36.0								
DF	DO	3M	1 30	7		7	.5		16.6	46.9	36.5							
DF	DO	3M	1 32	13		13	.9		18.8	18.8	62.4							
DF		3M 3M	1 34	6		6	./		10.8	55.9 75.6	24.4							
DF	DO	3M	1 38	31		31	2.2		19.1	47.9	33.0							
DF	DO	3M	1 40	120		120	8.4		7.1	28.3	64.6							
DF —	DO	4N	[12	10		10	.7	22.	1 13.1	35.3	29.5					· · · · · · · · · · · · · · · · · · ·		
DF	DO	4M	[14	4		4	.3	10.4	89.6									
DF	DO	4M	[16	3		3	.2		82.3	17.7								
DF	DO	4M	18	1		1	.0		100.0									
DF		4M	20	6		6	.1	19.3	54.0	26.7								
DF	DO	4M	1 26	1		1	.0		100.0									
DF	DO	4M	[40	2		2	.1	100.0										
DF		Tot	als	1,430		1,419	91.9		2.4	5.3	7.6	11.0	10.3	30.3	20.5	11.4	.8	
RC	DO	CR	. 12	2		2	2.4	44.8	13.5	41.8								
RC	DO	CR	16	0		0	.5		100.0									
RC	DO	CR	20	1		1	1.4	57.3	42.7									
KC RC	D0	CR	24 26	1		1	1.2 4.7	100 (100.0									
RC	DO	CR	30	4		4	4.1	28.5			71.5							
RC	DO	CR	34	6		6	5.7				100.0							
RC	DO	CR	36	11		11	10.8		40.1	29.7		30.1						
RC	DO	CR	40	73		72	69.3			19.1	10.2	28.0	12.1	30.7				
RC		Tot	als	105		104	6.7	7.7	6.9	17.4	15.7	22.7	8.4	21.3				
RA	DO	CR	12	0		0	2.1		100.0									
RA	DO	CR	18	1		1	4.7		100.0									
RA DA	DO	CR	28	0		0	1.7	100.0		27.2	38.1			34 3				
	00		40	10		10	91.0			21.2	25.7			21.4				
RA		Tot	ais	18	1.6	18	1.1	1.7	6.8	24.9	35.2			31.4				
BM	DO	CR	16	0		0	10.9				100.0				100.0			
BM	DO	CR	32	3		3	89.1								100.0			
BM		Tota	als	4	5.9	3	.2				10.9		and the second secon		89.1			
Гotal	All S	pecie	s	1,556		1,543	100.0	.9	2.7	6.3	8.5	11.7	10.0	29.7	19.0	10.4	.8	

TC TI	LOGST	̈́VΒ				Lo Pr	og Stoc oject:	k Table - M OLl	IBF HIWAY	,							
T11S	R08W	V S1	5 T0	ЭМС					<u></u>					T11	S R08V	V S15 T	00M
Twp 11S	Rg 08	ge 8W	S	iec T 15 UN	ract IT 2		Туре 00МС	Acres	۱ 00.	Plots 30	Samp	le Tree 117	s]	Date	9/20/2	.024
							Γ								l'ime	11:52:	:43AM
S Spp T	So (Gr	Log	Gross	% Def	Net MPF	%	22 45	Net Vol	lume by	Scaling	Diame	ter in Inc	hes	20.22	24.20	20.20 404
		ле 2М	Len [12		Dei	1	spe	2-3 4-5	6-/	8-9	10-11	12-13	14-15	16-19	20-23		30-39 40+
DF	DO	2M	[20	4		4	.3					1	4				
DF	DO	2M	28	1		1	.1					1					
DF DF	DO	2M 2M	30 32			11 6	.8					2	6		9		
DF	DO	2M	34	8		8	.6					6	2				
DF	DO	2M	36	5		5	.4						5				
DF	DO DO	2M 2M	38 40	8	٥	8	.6 81 1					3 144	126	3 427	281	161	12
- -		21VI	10	1,101	•7		01.1 A					1	120	727	201	101	
DF DF	DO	3M 3M	18			1	.0			4							
DF	DO	3M	26	1		1	.1				1						
DF	DO	3M	28	3		3	.2		2	1							
DF	DO DO	3M 3M	30	7	2.5	7	.5		1	3 2	2						
)F	DO	3M	34	11	1.5	11	.7			6	4						
OF	DO	3M	36	6		6	.4			4	1						
OF	DO	3M	38	31	5	31	2.2		6	15	10					i	
)r —	00	3M	40	120	.5	120	8.4		°	34							
DF DF	DO DO	4M 4M	10 12	10		10	7	2	₁	3	3						
DF	DO	4M	12	4		4	.3	0	4	5	5						
OF	DO	4M	16	3		3	.2		3	1							
OF	DO	4M	18	1		1	.0		1								
)F)F	DO	4M 4M	20 24	6		6	.1	1	3	2							
OF	DO	4M	26	1		1	.0		1								
DF	DO	4M	40	2		2	.1	2									
DF		Tota	ils	1,430		1,419	91.9	6	34	75	108	157	146	430	290	161	12
C	DO	CR	11														
.C C	DO DO	CR CR	12 16	2		2	2.4 5	1		1						ſ	
.C	DO	CR	20	1		1	1.4	1	1							l	
.C	DO	CR	24	1		1	1.2		1								
C C	DO DO	CR	26 30	5		5	4.7 4 1	5			2						
C	DO	CR	34	4		6	5.7	1			6						
С	DO	CR	36	11		11	10.8		4	3		3					
C	DO	CR	40	73	1.4	72	69.3			14	7	20	9	22			
RC		Tota	ls	105		104	6.7		7	18	16	23	9	22			
RA .	DO	CR	12	0		0	2.1		0								
A A	DO DO	CR CP	18 28	1		1	4.7 17	Λ	I								
A	DO	CR	20 40	16	1.8	16	91.6	0		4	6			6			
RA		Tota	ls	18	1.6	18	1.1	0	1	4	6			6			
M	DO	CR	16	0		0	10.9				0						
M	DO	CR	32	3	6.6	3	89.1								3		
BM		Tota	ls	4	5.9	3	.2				0				3		

TC TI	LOGSTVB				Lo	g Stoc	k Tal	ble - M	BF									
					Pr	oject:		OLF	IIWAY	4Y						a mine station in the state of the		
T11S I	R08W S1	15 T00	MC											T11	S R08V	V S15 T	00M	
Twp 11S	Rge 08W	S	ec Tra 15 UNI	ict T_2		Туре 00МС		Acres 26.	00	Plots 30	Samp	ole Trees 117	5]] [Page Date Time	2 9/20/2 11:52:		
S	So Gr	Log	Gross	%	Net	%			Net Vo	lume by	Scaling	Diamet	ter in Inc	ches				
Spp Т	rt de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
Γotal All	otal All Species 1,556				1,543	100.0		14	42	97	130	180	155	458	293	161	12	

TC PSTATS				<u>PR</u> PI	ROJECT ROJECT	STATI OL	<u>STICS</u> HIWAY			PAGE DATE	1 10/17/202
TWP RGE	SC	TRACT		ТҮРЕ		A	CRES	PLOTS	TREES	CuFt	BdFt
11S 08	15	U3		00PC			3.00			1	W
					TREES		ESTIMATED	P	ERCENT SAMPLE		- <u></u>
		PLOTS	TREES		PER PLOT		TREES		TREES		
TOTAL											
CRUISE							101				
DBH COUNT											
REFOREST											
COUNT											
BLANKS											
100 %											
				STA	ND SUMM	ARY					
	SA	MPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
		TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DF-T		83	27.7	19.8	84	13.3	59.1	11,690	11,543	2,728	2,72
WR CEDAR-T		18	6.0	13.5	38	1.6	6.0	373	373	137	13
TOTAL		101	. 33.7	18.8	76	15.0	65.0	12,063	11,917	2,864	2,86
CONFIDENC	E LIM	ITS OF THE	SAMPLE								
6	8.1 ′	FIMES OUT	OF 100 TH	E VOLUME	WILL BE V	VITHIN T	HE SAMPLE E	RROR			
CL 68.1		COEFF			SAMPLE	TREES -	- BF	#	OF TREES F	EQ.	INF. POP.
SD: 1.0		VAR.%	S.E.%	L	.OW	AVG	HIGH		5	10	
DF-T		23.8	3.5		742	770	.797				
WR CEDAR-T		24.5	8.6		114	124	135				
TOTAL		44.5	6.1		622	662	702		79	20	
CL 68.1		COEFF			SAMPLE	TREES -	CF	#	OF TREES R	EQ.	INF. POP.
SD: 1.0		VAR.%	S.E.%	L	OW.	AVG	HIGH		5	10	
DF-T					182	182	182				
WR CEDAR-T					46	46	46				

Т	TSPCSTGR				Species	s, Sort (Project	Grade - Boar : OLH	d Foo uway	ot Vo 7	lume	s (Typ	be)				,	Pag Date Tim	e e 1 e 2	1 0/17/2 ::55:11)24 PM
T11S Twj 11S	R08W S1 p Rg 08V	5 T00F e W	PC Sec 15 U	Tract 13		Туре 00РС	Acre C 3.	s 00	Plots 1	3	Sampl	e Trees 101		C 1	uFt	T11 Bdl W	IS R Ft	08W S1	5 T00	PC
Spp	S _{So} (Gr ad	% Net BdFt	Bd. Def%	Ft. per Acre Gross	Net	Total Net MBF	Perc L 4-5	ent No og Sca 6-11	et Boar ale Dia 12-16	rd Foot 1. 17+	Volume Log 12-20	Leng 21-30	th 31-35	36-99	Av Ln 1 Ft 1	verag Dia In	ge Log Bd Ft	CF/ Lf	Logs Per /Acre
DF DF DF	DO DO DO	2M 3M 4M	70 25 5	1.7 .2 .6	8,250 2,877 563	8,113 2,870 560	24 9 2	45	96 55	53 4	47	58	1 5 34	7 8	99 88	40 38 18	16 9 6	399 115 22	2.15 0.86 0.39	20.3 25.0 26.0
DF	Totals		97	1.3	11,690	11,543	35	2	26	38	33	3	4	2	91	31	10	162	1.23	71.3
RC	DO	CR	100		373	373	1	23	41	36		11	23	23	43	24	6	43	0.65	8.7
RC	Totals		3		373	373	1	23	41	36		11	23	23	43	24	6	43	0.65	8.7
Туре Т	otals			1.2	12,063	11,917	36	3	27	38	32	3	5	3	90	30	9	149	1.18	80.0

T11S	R08W S15	5 Т00	PC										T1	1S R08)8W S15 T00PC 1 10/17/2024 2:55:10PM 3 24-29 30-39 3 4 3 4 3 4 3 4 3 4	TOOPC
Twp 11S	Rge 08W	S	ec Tra 15 U3	ct		Type 00PC	Acre	s 3.00	Plots 1		Sample Tree 101	s		Page Date Time	1 10/17 <u>2:55</u> :	/2024 :10PM
S	So Gr	Log	Gross	%	Net	%		Net V	olume	by	Scaling Diame	ter in In	ıches	-1		- <u>1</u>
Spp 1	rt de	Len	MBF	Def	MBF	Spc	2-3 4-5	6-7	8-9		10-11 12-13	14-15	16-19	20-23	24-29	30-39 4
DF	DO 2M	30	0		0	1.0					()				
DF	DO 2M	40	24	1.7	24	69.2					4	ł	7	6 3	4	4
DF -	DO 3M	26	0		0	.3				0						
DF	DO 3M	30	0		0	1.0			0	0	0					
DF	DO 3M	32	0		0	1.2				0	0					
DF	DO 3M	34	0		0	.6				0						
DF	DO 3M	36	1		1	2.2)		0			0		
DF	DO 3M	38	1		1	3.7		1)	0	1					
DF	DO 3M	40	6	.4	6	15.9)	3	2					
DF	DO 4M	9									· · · · · · · · · · · · · · · · · · ·					
DF	DO 4M	10														
DF	DO 4M	11														
DF	DO 4M	12	0		0	.6				0	0					
DF	DO 4M	14	0		0	.3)							
DF	DO 4M	16	0	4.0	0	.7)							
DF	DO 4M	18	0		0	.5)		0						
DF	DO 4M	20	0		0	.6	()							
DF	DO 4M	21	0		0	.1	(
DF	DO 4M	22	0		0	.1	(
DF	DO 4M	24	0		0	.8	() ()							
DF	DO 4M	25	0		0	.2	(
DF	DO 4M	27	0		0	.4	(
DF	DO 4M	32	0		0	.2	(
DF	DO 4M	34	0		0	.2	(
DF	Total	s	35	1.3	35	96.9	1	2		4	4 4	-	7 (5 3	4	
RC	DO CR	10														
RC	DO CR	11						1								
RC	DO CR	18	0		0	3.6	C									
RC	DO CR	20	0		0	7.1		1		0	:					
RC	DO CR	22	0		0	3.6	0									
RC	DO CR	23	0		0	3.6	0									
RC	DO CR	29	0		0	5.4	0									
RC	DO CR	30	0		0	10.7		1		0						
۲C	DO CR	32	0		0	23.2		0		0						
RC	DO CR	36	0		0	7.1	0									
RC	DO CR	40	0		0	35.7					0					
RC	Totals	5	1		1	3.1	0	0		0	0					
otal All	Species		36	1.2	36	100.0	1	2		$_{4}$ T	4 5	7	6	3	4	
	-		50		55		1	I ⁴		· 1	, ,		L. L.	1 ,		1

T11S F	R08W S15	TOOPO												T1	IS R08V	V S15 T	00PC	
Twp 11S	Rge 08W	Sec 15	Trac U3	et		Type 00PC		Acres 3.	00	Plots 1	Samp	ole Tree 101	8		Page Date Time	1 10/17/ 2:55:	2024 10PM	
S	So L	og	Gross	%	Net	%		Percent	Net Volu	me by S	Scaling	Diamete	er in Inc	hes				
Spp Т	rt Grd L	en	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	4
DF	DO 2M	30	0		0	1.0						100.0			1			
DF	DO 2M	40	24		24	69.2						16.9	27.1	24.1	14.4	17.4	Į.	
DF	DO 3M	26	0		0	.3				100.0								
DF	DO 3M	30	0		0	1.0			28.6	34.3	37.1							
DF	DO 3M	32	0		0	1.2				33.3	66.7							
DF	DO 3M	34	0		0	.6				100.0								
DF	DO 3M	36	1		1	2.2			15.8		36.8			47.4				
DF	DO 3M	38	1		1	3.7			21.9	25.0	53.1							
DF	DO 3M	10	6		6	15.9			7.6	47.1	45.3							
DF	DO 4M	2	0		0	.6		18.2		27.3	54.5							
DF	DO 4M	14	0		0	.3		27.3	72.7									
DF	DO 4M	16	0		0	.7		16.7	83.3									
DF	DO 4M	8	0		0	.5		55.6		44.4								
DF	DO 4M	20	0		0	.6		27.3	72.7									
DF	DO 4M	21	0		0	۱. ۱		100.0										
DF	DO 4M	2	0		0	ا. م		100.0	70 (
		5	0		0	٥. د		21.4	/8.0									
		7	0		0	.2 1		100.0										
DF	DO 4M	2	0		0	.4		100.0										
DF	DO 4M	4	0		0	.2		100.0										
DF	Totals		35	1.3	35	96.9		2.2	4.6	10.4	11.5	12.8	18.8	17.7	10.0	12.1		
RC	DO CR	8	0		0	3.6		100.0										
RC	DO CR 2	.0	0		0	7.1				100.0								
RC	DO CR 2	2	0		0	3.6		100.0										
RC	DO CR 2	3	0		0	3.6		100.0										
RC	DO CR 2	9	0		0	5.4		100.0										
۲C	DO CR 3	0	0		0	10.7				100.0								
RC	DO CR 3	2	0		0	23.2			46.2	53.8								
RC	DO CR 3	6	0		0	7.1		100.0										
RC	DO CR 4	0	0		0	35.7						100.0						
RC	Totals		1		1	3.1		23.2	10.7	30.4		35.7						-
otal	All Snecies		36	12	36	100.0		20	48	11.0	1 11 1	12.5	10 0	17.2	07	117		





11/18/2024