"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Strassel Road
Sale 341-14-17

District: **Forest Grove** **Date:** **January 29, 2014**

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$839,615.64	$2,142.00	$841,757.64
		Project Work:	$(51,260.00)
		Advertised Value:	$790,497.64

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Strassel Road
Sale 341-14-17

District: **Forest Grove** **Date:** **January 29, 2014**

timber description

Location: Portions of Section 36, T3N, R5W, W.M., Washington County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	95
Western Hemlock / Fir	13	0	95
Red Cedar	14	0	95
Alder (Red)	14	0	95
Maple	18	0	95

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	1,294	396	82	1,772
Western Hemlock / Fir	1	3	1	5
Red Cedar	5	4	2	11
Alder (Red)	1	2	1	4
Maple	1	1	0	2
Total	1,302	406	86	1,794

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Strassel Road
Sale 341-14-17

District: Forest Grove **Date: January 29, 2014**

comments:

Pond Values Used: 4th Quarter Calendar Year 2013.

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $4.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to $780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: 1,794 MBF @$1/MBF = $1,794
TOTAL Other Costs (with Profit & Risk to be added) = $1,794

Other Costs (No Profit & Risk added):
Blocking/Waterbarring Skid Roads: 5 hrs @ $150/hr = $750
Machine Time for Piling Slash: 5 hrs @ $150/hr = $750
Equipment Cleaning: 3 machines @ $1,000/machine = $3,000
Stimson Road Use Fee + Cost of Trees + Rock Royalty = $6,773
McClelland Easement Rock Haul (inch and half,30cy) = $600
Dust Abatement: 2 Applications - 2,400ft @ $1.10/ft = $2,640
TOTAL Other Costs (No Profit & Risk added) = $14,513

ROAD MAINTENANCE
Move-in: $2,000
General Road Maintenance: 4.7 miles x $1,000/mile = $4,700
TOTAL: $6,700 / 1,794 MBF = $3.73/MBF

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logging conditions

combination#:	**1**	Douglas - Fir	100.00%
		Western Hemlock / Fir	100.00%
		Red Cedar	100.00%
		Alder (Red)	100.00%
		Maple	100.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process**: Harvester Head Delimbing
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 9.0 **bd. ft / load:** 4,700
cost / mbf: $98.22

machines: Forwarder
Harvester

"STEWARDSHIP IN FORESTRY"

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Strassel Road
Sale 341-14-17

District: **Forest Grove** **Date:** **January 29, 2014**

logging costs

Operating Seasons:	2.00	**Profit Risk:**	15.00%
Project Costs:	$51,260.00	**Other Costs (P/R):**	$1,794.00
Slash Disposal:	$0.00	**Other Costs:**	$14,513.00

Miles of Road

Road Maintenance: $3.73

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

Hauling Costs

Species	$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	$0.00	3.0	4.7
Western Hemlock / Fir	$0.00	2.0	3.7
Red Cedar	$0.00	2.0	3.7
Alder (Red)	$0.00	2.0	3.7
Maple	$0.00	2.0	3.7

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Strassel Road
Sale 341-14-17

District: **Forest Grove** **Date:** **January 29, 2014**

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$98.22	$3.92	$4.89	$50.50	$1.00	$23.78	$0.00	$5.00	$8.09	$195.40
Western Hemlock / Fir									
$98.22	$3.92	$4.89	$96.24	$1.00	$30.64	$0.00	$5.00	$8.09	$248.00
Red Cedar									
$98.22	$3.92	$4.89	$96.24	$1.00	$30.64	$0.00	$5.00	$8.09	$248.00
Alder (Red)									
$98.22	$3.92	$4.89	$96.24	$1.00	$30.64	$0.00	$5.00	$8.09	$248.00
Maple									
$98.22	$3.92	$4.89	$96.24	$1.00	$30.64	$0.00	$5.00	$8.09	$248.00

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$663.52	$468.12	$0.00
Western Hemlock / Fir	$0.00	$505.00	$257.00	$0.00
Red Cedar	$0.00	$1,050.00	$802.00	$0.00
Alder (Red)	$0.00	$688.75	$440.75	$0.00
Maple	$0.00	$437.50	$189.50	$0.00

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Strassel Road
Sale 341-14-17

District: **Forest Grove** **Date:** **January 29, 2014**

summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,772	$468.12	$829,508.64
Western Hemlock / Fir	5	$257.00	$1,285.00
Red Cedar	11	$802.00	$8,822.00
Alder (Red)	4	$440.75	$1,763.00
Maple	2	$189.50	$379.00

Gross Timber Sale Value

Recovery: $841,757.64

Prepared by: Jeff Peck **Phone:** 503-359-7461

TIMBER SALE SUMMARY
Strassel Road
Contract No. 341-14-17

1. **Location:** Portions of Section 36, T3N, R5W.

2. **Type of Sale:** This timber sale is a 57 acre Partial Cut, and 3 acres of right-of-way. The timber will be sold on a recovery basis at a sealed bid auction.

3. **Revenue Distribution:** 100% BOF, Washington County.

4. **Sale Acreage:** Acres are net of stream buffers, road prisms, and thinning not required areas. Acreage was determined using ESRI ArcMap GIS software.

5. **Cruise** : The Timber Sale was cruised by ODF Cruisers in October 2013. For more information see Cruise Report.

6. **Timber Description:** The Timber Sale Area consists of medium to well stocked 77 year old Douglas-fir stands with minor amounts of cedar, western hemlock, true firs, and hardwoods. The average "take" Douglas-fir DBH is 21 inches in Areas 1&2 combined. The estimated average net per acre Douglas-fir take volume in Areas 1&2 combined is 28,800bf.

7. **Topography and Logging Method:** Slopes within the sale areas range from 5% to 40% and are variable in aspect. Areas 1 and 2 are 100% ground-based yarding.

8. **Access:** From Forest Grove travel north on Highway 47 10 miles and merge onto Highway 26. Continue on Highway 26 4.3 miles to Strassel Road which is just before milepost 45. Turn left onto Strassel Road and continue 2.2 miles to Area 1. The gate near Points K and Point L shown on Exhibit A may require a key or a combination that can be obtained at the ODF office in Forest Grove.

9. **Projects:**

Project No. 1: 0.93 miles of road construction and 3.77 miles of road improvement	$22,344.50
Project No. 2: Surfacing	$23,866.97
Project No. 3: Grass seed, fertilize, and mulch	$645.69
Move in and equipment cleaning:	$4,400.25
Total Credit for all Projects (rounded)	$51,260.00

PROJECT COST SUMMARY SHEET

Timber Sale: Strassel Road

Sale Number: 341-14-17

PROJECT NO. 1: ROAD CONSTRUCTION AND IMPROVEMENT

CONSTRUCTION

Road Segment	Length	Cost
A to B	5+15	$1,445.87
C to D	18+25	$9,164.20
E to F	3+80	$2,383.52
G to H	20+30	$5,323.13
I to J	1+50	$1,241.78
	49+00 stations	
	0.93 miles	

SUBTOTAL CONSTRUCTION **$19,558.50**

IMPROVEMENTS

Road Segment	Length	Cost
K to L	170+00	$2,380.00
M to C	29+00	$406.00
	199+00 stations	
	3.77 miles	

SUBTOTAL IMPROVEMENTS **$2,786.00**

TOTAL PROJECT NO. 1 COST = **$22,344.50**

PROJECT NO. 2: SURFACING

Road Segment	Amount	Type	Cost
C to D	1,760 cy	6"-0	$15,840.00
E to F	427 cy	6"-0	$3,889.97
M to C	350 cy	6"-0	$2,877.00
Stockpile	300 cy	6"-0	$1,260.00
Total	2,837 cy	6" - 0	

TOTAL PROJECT NO. 2 COST = **$23,866.97**

PROJECT NO. 3: GRASS SEED, FERTILIZE, & MULCH

TOTAL PROJECT NO. 3 COST = **$645.69**

MOVE IN & EQUIPMENT CLEANING **$4,400.25**

TOTAL ALL PROJECTS **$51,257.40**

TOTAL CREDITS **$51,260.00**

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **A to B** Construction 5+15 stations

0.10 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.59	acres @	$980.00	per acre =	$579.32	
Balanced Road Construction	5.15	sta @	$90.00	per sta =	$463.50	
Turnaround	1	ea @	$75.00	per ea =	$75.00	
Landing	1	ea @	$285.00	per ea =	$285.00	
Grade, Outslope and Roll	1.50	sta @	$28.70	per sta =	$43.05	
				PROJECT NO. 1 TOTAL COST =		**$1,445.87**

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.30	acres @	$220.00	per acre =	$65.03	
				PROJECT NO. 3 TOTAL COST =		**$65.03**

TOTAL COST = $1,510.90

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **C to D** Construction 18+25 stations

0.35 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	2.09	acres @	$980.00	per acre =	$2,052.92	
Balanced Road Construction	16.00	sta @	$90.00	per sta =	$1,440.00	
Turnaround	1.00	ea @	$75.00	per ea =	$75.00	
Drift	2.25	sta @	$150.00	per sta =	$337.50	
Construct Turnouts (2)	2	ea @	$60.00	per ea =	$120.00	
Landing	1	ea @	$285.00	per ea =	$285.00	
Grade, Ditch, and Roll	18.25	sta @	$28.70	per sta =	$523.78	
				TOTAL EXCAVATION COSTS=		**$4,834.20**

CULVERTS - MATERIALS & INSTALLATION

Culverts

60 LF of 18" $1,200.00

50 LF of 30" $1,950.00

40 LF of 24" $1,160.00

Culvert Markers

2 markers $20.00

TOTAL CULVERT COSTS = **$4,330.00**

PROJECT NO. 1 TOTAL COST = $9,164.20

PROJECT NO. 2:

SURFACING

	12	" deep =	65 cy/sta				
C to D	1,186	cy of	6" - 0	@	$9.00	per cy =	$10,674.00
Subgrade Reiforcement	310	cy of	6" - 0	@	$9.00	per cy =	$2,790.00
Turnaround	20	cy of	6" - 0	@	$9.00	per cy =	$180.00
Turnouts (2)	44	cy of	6" - 0	@	$9.00	per cy =	$396.00
Junction	20	cy of	6" - 0	@	$9.00	per cy =	$180.00
Landing (1)	180	cy of	6" - 0	@	$9.00	per cy =	$1,620.00
Total =	1,760						

PROJECT NO. 2 TOTAL COST = $15,840.00

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	1.05 acres @	$220.00	per acre =	$230.43	
Mulch	4.00 bales @	$4.50	per bale =	$18.00	
				PROJECT NO. 3 TOTAL COST =	**$248.43**

TOTAL COST = $25,252.63

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **E to F** Construction 3+80 stations

0.07 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.44	acres @	$980.00	per acre =	$427.46	
Balanced Road Construction	3.80	sta @	$90.00	per sta =	$342.00	
Landing	1	ea @	$285.00	per ea =	$285.00	
Grade, Ditch, and Roll	3.80	sta @	$28.70	per sta =	$109.06	
				TOTAL EXCAVATION COSTS=		**$1,163.52**

CULVERTS - MATERIALS & INSTALLATION

Culverts

60 LF of 18" $1,200.00

Culvert Markers

2 markers $20.00

TOTAL CULVERT COSTS = **$1,220.00**

PROJECT NO. 1 TOTAL COST = $2,383.52

PROJECT NO. 2:

SURFACING 12 " deep = 65 cy/sta

E to F	247	cy of	6" - 0	@	$9.11	per cy =	$2,250.17
Landing (1)	180	cy of	6" - 0	@	$9.11	per cy =	$1,639.80
Total =	427						

PROJECT NO. 2 TOTAL COST = $3,889.97

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.22 acres @	$220.00	per acre =	$47.98	
Mulch	2.00 bales @	$4.50	per bale =	$9.00	
				PROJECT NO. 3 TOTAL COST =	**$56.98**

TOTAL COST = $6,330.47

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **G to H** Construction 20+30 stations

0.38 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	2.33	acres @	$980.00	per acre =	$2,283.52
Balanced Road Construction	20.30	sta @	$90.00	per sta =	$1,827.00
Construct Turnouts	2	ea @	$60.00	per ea =	$120.00
Turnaround	1.00	sta @	$75.00	per sta =	$75.00
Roadside Landing	1	ea @	$150.00	per ea =	$150.00
Landing	1	ea @	$285.00	per ea =	$285.00
Grade, Ditch, and Roll	20.30	sta @	$28.70	per sta =	$582.61

PROJECT NO. 1 TOTAL COST = $5,323.13

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	1.17	acres @	$220.00	per acre =	$256.31

PROJECT NO. 3 TOTAL COST = $256.31

TOTAL COST = $5,579.44

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **I to J** Construction 1+50 stations

0.03 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.17	acres @	$980.00	per acre =	$168.73	
Balanced Road Construction	1.50	sta @	$90.00	per sta =	$135.00	
Landing	1	ea @	$285.00	per ea =	$285.00	
Grade, Ditch, and Roll	1.50	sta @	$28.70	per sta =	$43.05	
				TOTAL EXCAVATION COSTS=		**$631.78**

CULVERTS - MATERIALS & INSTALLATION

Culverts

30 LF of 18" $600.00

Culvert Markers

1 markers $10.00

TOTAL CULVERT COSTS = **$610.00**

PROJECT NO. 1 TOTAL COST = $1,241.78

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.09	acres @	$220.00	per acre =	$18.94	

PROJECT NO. 3 TOTAL COST = $18.94

TOTAL COST = $1,260.72

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **K to L** Improvement 170+00 stations

3.22 miles

PROJECT NO. 1

GRADING

Grade & Shape	170.00	sta @	$14.00	per sta =	$2,380.00

TOTAL COST = $2,380.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **M to C** Improvement 29+00 stations

0.55 miles

PROJECT NO. 1

EXCAVATION

Grade & Shape			29.00	sta @	$14.00	per sta =	$406.00
						PROJECT NO. 1 TOTAL COST	**$406.00**

PROJECT NO. 2:

SURFACING

Spot Rock	350	cy of	6" - 0	@	$8.22	per cy =	$2,877.00
Total =							
	350	cy of	6" - 0				

PROJECT NO. 2 TOTAL COST = $2,877.00

TOTAL COST = $3,283.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Strassel Road** Timber Sale No. : 341-14-17

Road Segment: **Stockpile** Improvement 0+00 stations

0.00 miles

PROJECT NO. 2:

300 cy Stockpile

	300	cy of	6" - 0	@	$3.20 per cy =	$960.00
Shape stockpile (40x40x15)					$1.00 per cy =	$300.00

PROJECT 2 TOTAL COST = $1,260.00

ROCK DEVELOPMENT COST SUMMARY

Timber Sale:	Strassel Road
Sale Number:	341-14-17
Pit Name:	Stimson Pit

Swell:	1.30				Pit Run (trk measure)	2,837 cy
Shrinkage:	1.16				Total Truck Yardage:	2,837 cy
Drill Pct.:	100%				Total In Place Yardage:	2,182 cy
Scalp & Clear Overburden:	$145.00	/hr	6	hr	=	$870.00
Dig Rock	$2.25	/hr	2,182	cy	=	$4,910.19
Load Dump Truck:	$0.70	/cy x	2,837	cy	=	$1,985.90
					Subtotal	$7,766.09
Move in Excavator						$608.09
Move in Loader						$547.47
Clean Up Pit						$150.00
					Subtotal	$1,305.56

ROCK DEVELOPMENT COST = $3.20/cy

TOTAL PRODUCTION COST $9,071.65

Move-In & Equipment Cleaning

Timber Sale: Strassel Road
Sale Number: 341-14-17

LOWBOY HAUL (One-way)		
DIST. (mi)	ROAD	AVE SPEED (mph)
0.0	Main Lines	**7**
0.0	Steep Grades	**2**

No.	EQUIPMENT DESCRIPTION	Equipment Cleaning	Base Cost	Woods Cost	Pilot Cars	Within Area Move ($/mile)	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor		$0.00	$0.00		$0.00	0.0	$0.00	$0.00
0	Brush Cutter		$0.00	$0.00		$0.00	0.0	$0.00	$0.00
1	Graders		$316.67	$0.00		$3.65	4.0	$14.60	$331.27
0	Loader (Small)		$0.00	$0.00		$0.00	0.0	$0.00	$0.00
0	Loader (Med. & Large)		$0.00	$0.00	1	$0.00	0.0	$0.00	$0.00
1	Rollers (smooth/grid) & Compactors		$308.59	$40.25		$5.00	0.0	$0.00	$348.84
0	Excavators (Small)		$0.00	$0.00		$0.00	0.0	$0.00	$0.00
0	Excavators (Med.)	$0	$0.00	$0.00		$0.00	0.0	$0.00	$0.00
1	Excavators (Large)	$1,000	$466.14	$82.80	1	$44.80	4.0	$179.20	$1,728.14
0	Backhoe		$0.00	$0.00		$0.00	0.0	$0.00	$0.00
0	Tractors (D6)	$0	$0.00	$0.00	2	$0.00	0.0	$0.00	$0.00
0	Tractors (D7)	$0	$0.00	$0.00	2	$0.00	0.0	$0.00	$0.00
1	Tractor (D8)	$1,000	$473.80	$82.80	2	$15.10	4.0	$60.40	$1,617.00
3	Dump Truck (10 cy +)		$375.00	$0.00		$8.55	0.0	$0.00	$375.00
0	Dump Truck (Off Hiway)		$0.00	$0.00	1	$0.00	0.0	$0.00	$0.00
0	Water Truck (1500 Gal)		$0.00	$0.00		$0.00	0.0	$0.00	$0.00
0	Water Truck (2500 Gal)		$0.00	$0.00		$0.00	0.0	$0.00	$0.00

TOTAL MOVE-IN COSTS: $4,400.25

CRUISE REPORT
Strassel Road
341-14-17

1. LOCATION: Portions of Section 36, T3N, R5W, W.M., Washington County, Oregon.

2. CRUISE DESIGN:

The cruise design assumed a Coefficient of Variation (CV%) of 45%, an average stand diameter of 22 inches, a desired sampling error (SE%) of 11%. Pre-cruise plots indicated that approximately 7-9 trees per plot could be realized with a 40 BAF prism.

3. SAMPLING METHOD:

Thinning: The Sale Area was cruised in October 2013 with 22 variable radius (grade) plots using a 40 BAF prism. 22 Plots were laid out on a (5) chain x (4) chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain. Cruisers 'thinned' plots to 180 ft^2 of basal area by assigning a 'Take' or 'Leave' status to each tree in every plot.

4. CRUISE RESULTS:

163 trees were measured and graded producing a cumulative Basal Area sampling error of 13.5% and 14.5% on the Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

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

All trees were assigned a 'Take' status were measured and graded following Columbia River Log Scale grade rules and favoring 40 foot segments.

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

5. DATA PROCESSING:

a) **Volumes and Statistics**, Cruise and grown forward volume estimates, and sampling statistics, were derived from Super Ace 2008 cruise software.
b) **Deductions:** Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.
c) **Right of Way:** The volume for the new construction and road improvement rights of way derived from the average per acre volume by species and grade, multiplied by the right of way acres within the stand.

6. Cruisers: The sale was cruised by ODF cruisers (J. Koch, J. Peck, M. Savage, P. Stone).

Prepared by: _____

Jeff Peck Date

Reviewed by: _____

Eric Foucht Date

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T03N R05W S36 Ty0001 57.00

Project: **STRASSEL**

Acres **57.00**

Page **1**

Date **12/17/2013**

Time **11:42:01AM**

Spp	S T	So Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	L	2M	72	.1	23,098	23,069	1,315			37	63				100	40	16	436	2.05	52.9
DF	L	3M	23	.3	7,613	7,592	433		100				0	13	87	38	8	102	0.60	74.6
DF	L	4M	5		1,301	1,301	74		100			31	34	15	20	22	6	29	0.35	45.3
DF	**Totals**		47	.2	32,013	31,963	1,822		28	27	45	1	1	4	94	34	10	185	1.08	172.8
DF	T	CU														2	11		0.00	1.0
DF	T	2M	73	.3	21,166	21,093	1,202			59	41				100	40	15	344	1.69	61.4
DF	T	3M	22	.2	6,426	6,416	366		100					8	92	39	9	117	0.70	54.7
DF	T	4M	5		1,328	1,328	76		100			16	38	15	31	25	6	35	0.39	38.1
DF	**Totals**		43	.3	28,920	28,837	1,644		27	43	30	1	2	2	95	36	11	186	1.09	155.2
RC	L	CU														4	13		0.00	1.7
RC	L	2M	47		1,789	1,789	102			62	38				100	40	14	292	2.14	6.1
RC	L	3M	39		1,466	1,466	84		100				3	32	65	36	7	68	0.53	21.5
RC	L	4M	14		525	525	30		100			9	44		47	28	6	38	0.37	13.9
RC	**Totals**		6		3,779	3,779	215		53	29	18	1	7	13	79	33	8	87	0.76	43.2
WH	L	2M	20	4.2	277	265	15			100					100	40	13	230	1.16	1.2
WH	L	3M	64		853	853	49		100				10		90	36	8	95	0.60	9.0
WH	L	4M	16		203	203	12		100			58	42			17	6	22	0.32	9.0
WH	**Totals**		2	.9	1,332	1,321	75		80	20		9	13		78	27	8	69	0.57	19.2
BM	L	2M	44		289	289	16			100			56		44	31	12	167	1.57	1.7
BM	L	3M	49		326	326	19		100						100	40	9	110	0.69	3.0
BM	L	4M	7		40	40	2		100			100				16	7	23	0.55	1.7
BM	**Totals**		1		655	655	37		56	44		6	25		69	31	9	102	0.90	6.4
RA	L	2M	17		183	183	10			100					100	40	14	290	2.11	.6
RA	L	3M	63		665	665	38		100				25		75	34	8	84	0.80	7.9
RA	L	4M	20		203	203	12		100			44	56			17	7	28	0.34	7.3
RA	**Totals**		2		1,051	1,051	60		83	17		8	27		65	26	8	66	0.74	15.9
Totals				0.2	67,751	67,607	3,854		31	34	35	1	3	3	92	34	10	164	1.02	412.7

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 12/17/2013

T03N R05W S36 Ty0001 57.00

Project STRASSEL
Acres 57.00

Time: 11:44:12AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF	L	8	1	88	100	5.209	1.82	5.21	7.4	50.0	1.10	39	260	63	22	15
DF	L	9	1	89	100	4.116	1.82	4.12	10.9	60.0	1.28	45	247	73	26	14
DF	L	10	2	88	114	6.667	3.64	13.33	8.5	42.5	3.24	114	567	185	65	32
DF	L	11	1	86	113	2.755	1.82	5.51	10.7	50.0	1.68	59	276	96	34	16
DF	L	13	1	92	126	1.973	1.82	3.95	18.3	90.0	2.06	72	355	117	41	20
DF	L	14	4	90	114	6.803	7.27	18.71	17.1	81.8	9.11	320	1,531	519	182	87
DF	L	15	3	88	133	4.445	5.45	11.85	20.9	96.2	7.04	247	1,141	402	141	65
DF	L	16	1	89	126	1.302	1.82	3.91	20.4	93.3	2.27	80	365	129	45	21
DF	L	17	2	90	143	2.307	3.64	6.92	26.1	121.7	5.14	181	842	293	103	48
DF	L	18	2	91	154	2.058	3.64	7.20	28.7	140.0	5.90	207	1,008	336	118	57
DF	L	19	1	93	148	.923	1.82	2.77	36.1	176.7	2.85	100	489	163	57	28
DF	L	20	4	88	152	3.334	7.27	10.83	34.6	163.1	10.69	375	1,767	609	214	101
DF	L	21	2	89	139	1.512	3.64	4.54	39.4	191.7	5.09	179	869	290	102	50
DF	L	22	3	88	147	2.066	5.45	6.89	39.7	190.0	7.79	273	1,309	444	156	75
DF	L	23	2	88	153	1.260	3.64	3.78	50.0	238.3	5.39	189	901	307	108	51
DF	L	24	8	90	154	4.630	14.55	15.05	51.2	249.6	21.95	770	3,756	1,251	439	214
DF	L	25	3	89	150	1.600	5.45	5.87	49.2	240.9	8.22	288	1,413	468	164	81
DF	L	26	1	89	149	.493	1.82	1.48	64.1	316.7	2.70	95	468	154	54	27
DF	L	27	8	89	152	3.658	14.55	12.35	61.1	305.6	21.49	754	3,773	1,225	430	215
DF	L	28	4	88	160	1.701	7.27	6.80	58.5	308.8	11.34	398	2,100	646	227	120
DF	L	29	5	86	153	1.982	9.09	7.53	63.4	318.4	13.60	477	2,398	775	272	137
DF	L	30	2	91	171	.741	3.64	2.96	74.1	411.3	6.26	220	1,219	357	125	69
DF	L	31	4	88	163	1.388	7.27	5.20	79.7	425.3	11.82	415	2,213	674	236	126
DF	L	32	1	89	157	.326	1.82	1.30	74.4	402.5	2.76	97	524	157	55	30
DF	L	33	3	88	166	.918	5.45	3.67	83.5	439.2	8.74	307	1,613	498	175	92
DF	L	36	1	87	169	.257	1.82	1.03	98.5	542.5	2.89	101	558	165	58	32
DF	L	Totals	70	89	133	64.423	127.27	172.76	37.0	185.0	182.41	6,400	31,963	10,397	3,648	1,822
DF	T	15	2	85	130	2.963	3.64	7.41	21.3	94.0	4.49	158	696	256	90	40
DF	T	16	3	90	131	3.907	5.45	11.72	21.8	102.2	7.27	255	1,198	414	145	68
DF	T	17	4	88	139	4.614	7.27	12.69	25.9	116.4	9.36	329	1,476	534	187	84
DF	T	18	4	84	137	4.116	7.27	12.35	27.5	119.2	9.67	339	1,471	551	193	84
DF	T	19	6	89	144	5.541	10.91	17.55	31.8	150.5	15.90	558	2,641	906	318	151
DF	T	20	2	85	142	1.667	3.64	5.00	34.1	150.0	4.85	170	750	277	97	43
DF	T	21	6	88	148	4.535	10.91	14.36	38.6	184.2	15.78	554	2,646	899	316	151
DF	T	22	6	88	160	4.133	10.91	13.09	44.2	210.5	16.47	578	2,755	939	329	157
DF	T	23	8	87	153	5.041	14.55	17.64	43.6	208.6	21.94	770	3,680	1,251	439	210
DF	T	24	5	91	157	2.894	9.09	9.84	50.2	247.6	14.07	494	2,437	802	281	139
DF	T	25	8	89	154	4.267	14.55	16.00	49.6	246.3	22.62	794	3,942	1,290	452	225
DF	T	26	2	86	164	.986	3.64	3.95	50.1	243.8	5.63	197	962	321	113	55
DF	T	27	4	88	153	1.829	7.27	6.40	62.4	317.1	11.38	399	2,030	649	228	116
DF	T	28	2	85	180	.850	3.64	3.40	64.1	330.0	6.22	218	1,123	354	124	64
DF	T	29	2	88	151	.793	3.64	2.77	71.8	371.4	5.68	199	1,031	324	114	59
DF	T	Totals	64	88	147	48.135	116.36	154.16	39.0	187.1	171.34	6,012	28,837	9,767	3,427	1,644
RC	L	9	2	81	75	8.231	3.64	8.23	11.8	55.0	2.28	97	453	130	55	26
RC	L	10	3	77	73	10.001	5.45	10.00	12.6	46.7	2.96	126	467	169	72	27
RC	L	14	1	66	71	1.701	1.82	1.70	21.2	60.0	.85	36	102	48	21	6
RC	L	15	2	77	101	2.963	3.64	5.93	23.5	82.5	3.27	139	489	186	79	28
RC	L	19	1	81	107	.923	1.82	2.77	26.2	86.7	1.70	72	240	97	41	14
RC	L	20	2	80	116	1.667	3.64	4.17	36.2	118.0	3.55	151	492	202	86	28
RC	L	21	2	76	123	1.512	3.64	4.54	33.0	101.7	3.52	150	461	200	85	26
RC	L	25	1	71	104	.533	1.82	1.07	60.9	145.0	1.53	65	155	87	37	9
RC	L	26	1	81	132	.493	1.82	1.48	55.1	223.3	1.91	81	330	109	46	19

Stand Table Summary

Date: 12/17/2013

T03N R05W S36 Ty0001 57.00

Project STRASSEL

Acres 57.00

Time: 11:44:12AM

Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
RC	L	31	1	78	108	.347	1.82	.69	102.3	345.0	1.67	71	239	95	40	14
RC	L	32	1	81	137	.326	1.82	.98	86.7	360.0	1.99	85	352	113	48	20
RC	L	Totals	17	78	85	28.697	30.91	41.55	25.8	91.0	25.23	1,074	3,779	1,438	612	215
WH	L	11	1	87	88	2.755	1.82	5.51	10.2	40.0	1.80	56	220	103	32	13
WH	L	14	2	93	118	3.402	3.64	10.20	15.1	71.7	4.94	154	731	282	88	42
WH	L	17	1	93	128	1.153	1.82	3.46	24.2	106.7	2.68	84	369	153	48	21
WH	L	Totals	4	91	108	7.310	7.27	19.18	15.3	68.9	9.42	294	1,321	537	168	75
RA	L	11	1	75	99	2.755	1.82	5.51	9.0	35.0	1.36	49	193	77	28	11
RA	L	14	2	74	97	3.402	3.64	6.80	18.3	62.5	3.42	124	425	195	71	24
RA	L	17	1	74	95	1.153	1.82	2.31	30.4	95.0	1.93	70	219	110	40	12
RA	L	23	1	82	102	.630	1.82	1.26	51.5	170.0	1.78	65	214	102	37	12
RA	L	Totals	5	75	98	7.940	9.09	15.88	19.4	66.2	8.49	309	1,051	484	176	60
BM	L	15	1	78	126	1.482	1.82	2.96	27.5	110.0	2.16	82	326	123	47	19
BM	L	17	1	93	107	1.153	1.82	2.31	19.0	80.0	1.16	44	185	66	25	11
BM	L	24	1	75	84	.579	1.82	1.16	47.4	125.0	1.45	55	145	83	31	8
BM	L	Totals	3	83	112	3.214	5.45	6.43	28.0	101.9	4.78	180	655	272	103	37
Totals			163	86	125	159.719	296.36	409.96	34.8	164.9	401.67	14,269	67,607	22,895	8,134	3,854

TC PLOGSTVB

Log Stock Table - MBF

T03N R05W S36 Ty0001 57.00

Project: STRASSEL
Acres 57.00

Date 12/17/2013
Time 11:38:19AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	L		2M	40	1,317		1,315	72.2						173		250		475	363	54
DF	L		3M	28	2		2	.1				2								
DF	L		3M	32	29		29	1.6			17	9	2							
DF	L		3M	34	26		26	1.4			14	6	6							
DF	L		3M	36	36		36	2.0			9	13	14							
DF	L		3M	38	23		23	1.3			18	5								
DF	L		3M	40	318		317	17.4			58	69	190							
DF	L		4M	12	4		4	.2			4									
DF	L		4M	14	7		7	.4			7									
DF	L		4M	15	1		1	.0			1									
DF	L		4M	18	2		2	.1			2									
DF	L		4M	19	1		1	.1			1									
DF	L		4M	20	8		8	.4			8									
DF	L		4M	21	1		1	.1			1									
DF	L		4M	22	9		9	.5			9									
DF	L		4M	24	6		6	.3			6									
DF	L		4M	26	2		2	.1			2									
DF	L		4M	28	4		4	.2			4									
DF	L		4M	30	3		3	.2			1	2								
DF	L		4M	32	2		2	.1			2									
DF	L		4M	33	1		1	.1			1									
DF	L		4M	34	8		8	.4			8									
DF	L		4M	36	7		7	.4			7									
DF	L		4M	38	8		8	.4			8									
DF			Totals		1,825		1,822	47.3			189	106	211	173	250	475	363	54		
DF	T		2M	40	1,206		1,202	73.1						276	355	464	107			
DF	T		3M	32	14		14	.8			1	5	8							
DF	T		3M	34	15		15	.9			3	13								
DF	T		3M	36	36	1.6	35	2.1			8	7	20							
DF	T		3M	38	2		2	.1			2									
DF	T		3M	40	299		299	18.2			35	79	186							
DF	T		4M	12	4		4	.2			4									
DF	T		4M	14	3		3	.2			3									
DF	T		4M	15	1		1	.0			1									
DF	T		4M	16	1		1	.1			1									
DF	T		4M	18	1		1	.0			1									

TC PLOGSTVB

Log Stock Table - MBF

T03N R05W S36 Ty0001 57.00

Project: STRASSEL
Acres 57.00

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Date 12/17/2013
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Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	T		4M	20	4		4	.2			4									
DF	T		4M	22	2		2	.1			2									
DF	T		4M	24	5		5	.3			3	2								
DF	T		4M	26	8		8	.5			8									
DF	T		4M	27	2		2	.1			2									
DF	T		4M	28	4		4	.3			4									
DF	T		4M	30	8		8	.5			6	2								
DF	T		4M	32	11		11	.7			4	7								
DF	T		4M	36	7		7	.4			7									
DF	T		4M	38	1		1	.1			1									
DF	T		4M	40	15		15	.9			9	5								
DF			Totals		1,648		1,644	42.7			107	120	214	276	355	464	107			
RC	L		2M	40	102		102	47.3						58	5	25	14			
RC	L		3M	28	2		2	1.0				2								
RC	L		3M	32	11		11	5.1			11									
RC	L		3M	34	16		16	7.4			16									
RC	L		3M	36	4		4	1.8				4								
RC	L		3M	38	9		9	4.3			6	3								
RC	L		3M	40	41		41	19.2			14	22	5							
RC	L		4M	12	1		1	.5			1									
RC	L		4M	14	1		1	.4			1									
RC	L		4M	16	1		1	.4			1									
RC	L		4M	22	1		1	.4			1									
RC	L		4M	26	6		6	2.9			6									
RC	L		4M	28	3		3	1.2				3								
RC	L		4M	30	3		3	1.6			3									
RC	L		4M	40	14		14	6.5			14									
RC			Totals		215		215	5.6			74	34	5	58	5	25	14			
WH	L		2M	40	16	4.2	15	20.1						15						
WH	L		3M	28	5		5	6.4				5								
WH	L		3M	36	15		15	19.5			9	5								
WH	L		3M	40	29		29	38.6					29							
WH	L		4M	12	2		2	2.2			2									
WH	L		4M	14	2		2	2.6			2									
WH	L		4M	16	3		3	4.2			3									

TC PLOGSTVB

Log Stock Table - MBF

T03N R05W S36 Ty0001 57.00

Project: STRASSEL
Acres 57.00

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Date 12/17/2013
Time 11:38:19AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
WH	L		4M	28	5		5	6.4				5								
WH		Totals			76		75	2.0			16	15	29	15						
BM	L		2M	28	9		9	24.6						9						
BM	L		2M	36	7		7	19.4						7						
BM	L		3M	40	19		19	49.7			6		13							
BM	L		4M	14	1		1	3.5			1									
BM	L		4M	20	1		1	2.6			1									
BM		Totals			37		37	1.0			8		13	16						
RA	L		2M	40	10		10	17.4							10					
RA	L		3M	28	10		10	16.1			10									
RA	L		3M	36	10		10	16.2				10								
RA	L		3M	40	19		19	31.0				9	10							
RA	L		4M	12	5		5	8.5			5									
RA	L		4M	22	4		4	6.5			4									
RA	L		4M	26	3		3	4.4			3									
RA		Totals			60		60	1.6			21	18	10		10					
Total		All Species			3,862		3,854	100.0			416	294	482	539	621	964	485	54		

TC PSTATS

PROJECT STATISTICS

PROJECT STRASSEL

DATE 12/17/2013

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	05	36	0001	0001	57.00	22	163	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	22	163	7.4		
CRUISE	22	163	7.4	9,104	1.8
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L	70	64.4	19.0	100	29.2	127.3	32,013	31,963	6,400	6,400
DOUG FIR-T	64	48.1	21.1	119	25.4	116.4	28,920	28,837	6,012	6,012
WR CEDAR-L	17	28.7	14.1	59	8.2	30.9	3,779	3,779	1,074	1,074
R ALDER-L	5	7.9	14.5	74	2.4	9.1	1,051	1,051	309	309
WHEMLOCK-L	4	7.3	13.5	77	2.0	7.3	1,332	1,321	294	294
BL MAPLE-L	3	3.2	17.6	73	1.3	5.5	655	655	180	180
TOTAL	*163*	*159.7*	*18.4*	*95*	*69.0*	*296.4*	*67,751*	*67,607*	*14,269*	*14,269*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR-L	60.7	7.3	787	849	910			
DOUG FIR-T	44.2	5.5	656	694	733			
WR CEDAR-L	100.5	25.1	213	284	355			
R ALDER-L	61.6	30.6	118	170	222			
WHEMLOCK-L	47.4	27.1	151	208	264			
BL MAPLE-L	21.8	15.1	178	210	242			
TOTAL	*66.5*	*5.2*	*645*	*681*	*716*	*176*	*44*	*20*

CL 68.1 SD: 1.0

SAMPLE TREES - CF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR-L	56.2	6.7	156	167	179			
DOUG FIR-T	38.9	4.9	136	143	150			
WR CEDAR-L	90.2	22.5	63	82	100			
R ALDER-L	64.4	32.0	35	51	67			
WHEMLOCK-L	46.3	26.5	34	46	58			
BL MAPLE-L	46.6	32.3	42	63	83			
TOTAL	*58.8*	*4.6*	*134*	*140*	*147*	*138*	*34*	*15*

CL 68.1 SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR-L	109.8	23.9	49	64	80			
DOUG FIR-T	65.9	14.4	41	48	55			
WR CEDAR-L	220.0	48.0	15	29	42			
R ALDER-L	403.4	87.9	1	8	15			
WHEMLOCK-L	283.5	61.8	3	7	12			
BL MAPLE-L	275.1	60.0	1	3	5			
TOTAL	*56.3*	*12.3*	*140*	*160*	*179*	*132*	*33*	*15*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR-L	51.9	11.3	113	127	142			
DOUG FIR-T	61.8	13.5	101	116	132			
WR CEDAR-L	182.7	39.8	19	31	43			
R ALDER-L	382.4	83.4	2	9	17			

PROJECT STATISTICS

PROJECT STRASSEL

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	05	36	0001	0001	57.00	22	163	S	W

CL 68.1 SD: 1.00

BASAL AREA/ACRE

	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
WHEMLOCK-L	275.6	60.1	3	7	12			
BL MAPLE-L	257.6	56.1	2	5	9			
TOTAL	*31.1*	*6.8*	*276*	*296*	*316*	*40*	*10*	*4*

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR-L	53.6	11.7	28,230	31,963	35,695			
DOUG FIR-T	66.4	14.5	24,665	28,837	33,009			
WR CEDAR-L	187.1	40.8	2,238	3,779	5,321			
R ALDER-L	379.4	82.7	182	1,051	1,921			
WHEMLOCK-L	266.0	58.0	555	1,321	2,087			
BL MAPLE-L	275.8	60.1	261	655	1,049			
TOTAL	*38.1*	*8.3*	*61,994*	*67,607*	*73,220*	*61*	*15*	*7*

CL 68.1 SD: 1.0

NET CUFT FT/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR-L	52.5	11.4	5,668	6,400	7,133			
DOUG FIR-T	64.8	14.1	5,163	6,012	6,862			
WR CEDAR-L	184.8	40.3	641	1,074	1,506			
R ALDER-L	372.9	81.3	58	309	560			
WHEMLOCK-L	270.7	59.0	121	294	468			
BL MAPLE-L	267.8	58.4	75	180	285			
TOTAL	*34.9*	*7.6*	*13,185*	*14,269*	*15,354*	*51*	*13*	*6*

Residual Stand Specifications

Strassel Road
341-14-17

AREAS 1 & 2

Residual QMD assumption (from cruise leave tree information) - 21.
Target Relative Density - 39

	Minimum	Target	Maximum
Relative Density	31	39	48
Basal Area	140	180	220
Trees per Acre	337	434	530

$RD = BA/\sqrt{DBH}$
$BA = \sqrt{DBH}(RD)$
$BA/tree = (\pi r^2)/(144)$
$TPA = (BA/acre)/(BA/tree)$

VOLUME SUMMARY
(Shown in MBF)
Strassel Road
341-14-17

AREAS 1 & 2: PC-L (57) ACRES

SPECIES		2 SAW	3 SAW	4 SAW	Camprun	TOTAL
Douglas-fir	Cruise Volume	1,202	366	76	0	1,644
	Hidden D&B (3%)	(36)	(11)	(2)	()	(49)
	NET TOTAL	1,166	355	74	0	1,595
	% of Total	73	22	5	0	

AREA 3: R/W (3 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	Camprun	TOTAL
Douglas-fir	Cruise Volume	132	42	8	0	182
	Hidden D&B (3%)	(4)	(1)	()	()	(4)
	NET TOTAL	128	41	8	0	178
	% of Total	72	23	4	0	

SPECIES		2 SAW	3 SAW	4 SAW	Camprun	TOTAL
Hemlock/Fir	Cruise Volume	1	3	1	0	5
	Hidden D&B (3%)	()	()	()	()	()
	NET TOTAL	1	3	1	0	5
	% of Total	20	60	20	0	

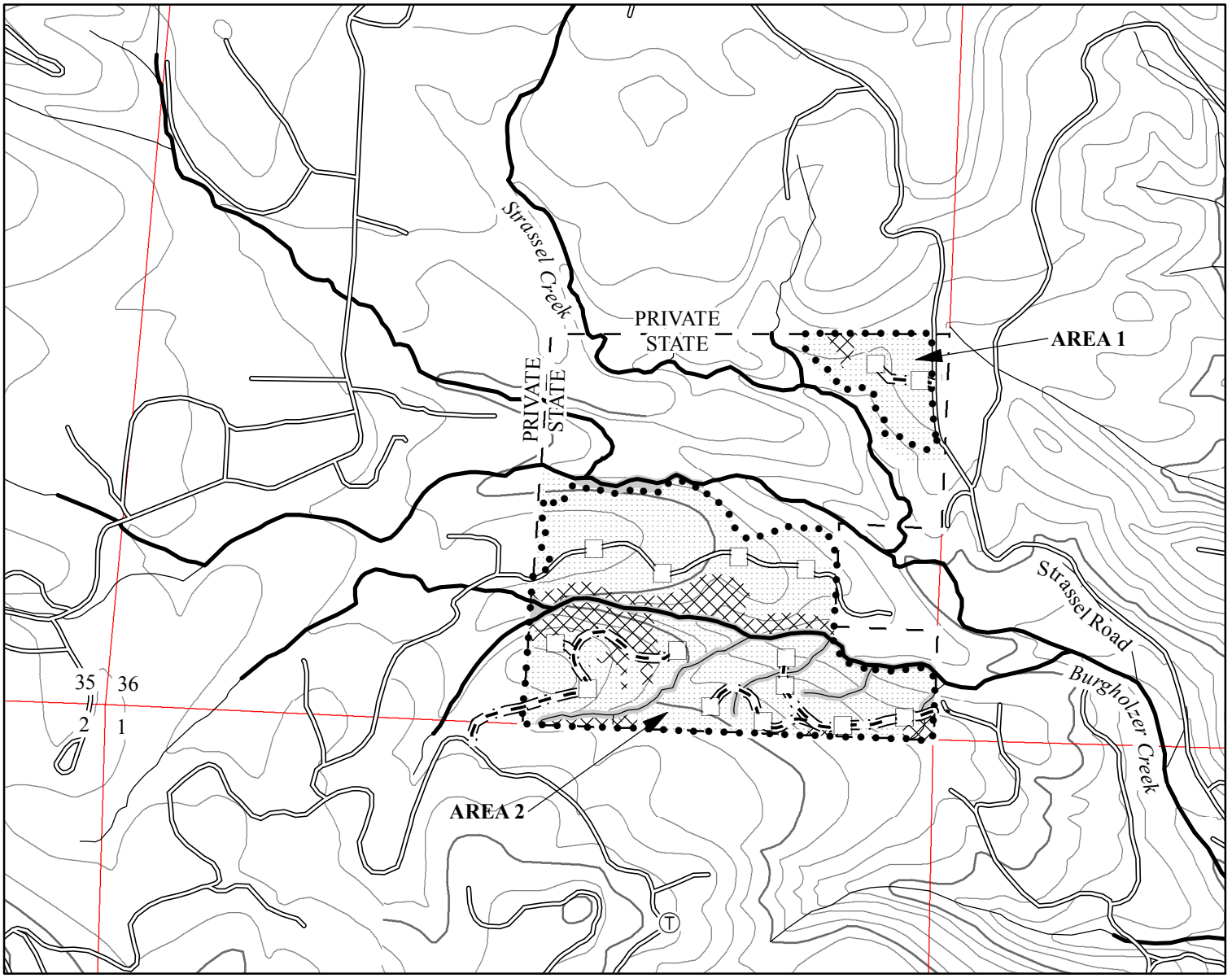
SPECIES		2 SAW	3 SAW	4 SAW	Camprun	TOTAL
Cedar	Cruise Volume	5	4	2	0	11
	Hidden D&B (3%)	()	()	()	()	()
	NET TOTAL	5	4	2	0	11
	% of Total	45	36	18	0	

SPECIES		2 SAW	3 SAW	4 SAW	Camprun	TOTAL
Red alder	Cruise Volume	1	2	1	0	4
	Hidden D&B (3%)	()	()	()	()	()
	NET TOTAL	1	2	1	0	4
	% of Total	25	50	25	0	

SPECIES		2 SAW	3 SAW	4 SAW	Camprun	TOTAL
Bigleaf	Cruise Volume	1	1	0	0	2
Maple	Hidden D&B (3%)	()	()	()	()	()
	NET TOTAL	1	1	0	0	2
	% of Total	50	50	0	0	

SALE TOTAL

SPECIES		2 SAW	3 SAW	4 SAW	Camprun	TOTAL
Douglas-fir		1,294	396	82	0	1,772
Hemlock/fir		1	3	1	0	5
Cedar		5	4	2	0	11
Red alder		1	2	1	0	4
BL Maple		1	1	0	0	2



LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-14-17
STRASSEL ROAD
PORTIONS OF SECTION 36 T3N, R5W, W.M.
WASHINGTON COUNTY, OREGON

Forest Grove District GIS
November, 2013
This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

Legend

- Timber Sale Boundary
- Posted Right of Way Boundary
- Roads
- New Construction
- Type F Stream
- Type N Stream
- Stream Buffer
- Thinning Optional Area
- Tractor Landings
- Tractor Yarding Area
- ODF Ownership Boundary
- Sections
- 400 Foot Contour Band
- 80 Foot Contour Band
- Ⓣ Truck Turnaround
- Area 3 (R/W)

N

1:12,000
1 inch = 1,000 feet

0 500 1,000 2,000
Feet

APPROXIMATE NET ACRES

	TRACTOR	CABLE
AREA 1	8	0
AREA 2	49	0
AREA 3	3	0
TOTAL	60	0