Appendix D

Traffic Flow Data by Count Site with Maps and Photos

Following are the coding instructions, form and the results of the daily observations at each of the count sites. Included are location maps and site photos used to orient the observers and to record sites for future use.

Share-the-Dream Trail
Traffic Flow Data
Team Instructions
6/4/05

Why

The Share-the-Dream Trail is being dedicated in September of 2005 for use by street legal vehicles. The Recreation Outdoor Coalition (ROC) wants the trail to also be available to non-street legal vehicles.

The US Forest Service has criteria that must be followed in making a decision to allow sharing the road or mixing street legal with non-street legal vehicles. The Lassen National Forest has indicated that if a formal engineering study indicates acceptable risks of mixing the use on certain roads, then the Forest will allow that use.

ROC has embarked on performing the study for the Lassen.

Engineering Study

The study process being utilized involves four major steps"

1. Traffic Flow Data
2. Roadway Characteristics
3. Data evaluation and summarization
4. Accident Risk Analysis and Recommendations

The study assumes that all vehicles and operators are legally licensed and equipped to safely operate.

Step 1 involves observing all traffic passing a given point during a specific time frame to provide a statistical sample of what traffic is using the system.

Step 2 involves recording the surface type, travel way width, shoulder or clear area width for accident avoidance maneuvers, the average travel speed (basic speed), stopping sight distance at curves, roadside hazards and adjacent down hill slopes to assess physical conditions.

Step 3 involves calculating the average daily traffic, the percentage of traffic by vehicle class, the number of people per vehicle and a cataloging of physical conditions that fall below an acceptable minimum.

And step 4 takes the data obtained and using sound judgement, assigning a risk or potential for an accident and assessment of the severity of an accident, and recommendations.

Coding Instructions

Traffic Flow Data Form

The study team member or recorder is to note who he/she is in the "collected by" space, the date of the count and the weather conditions in the provided space.

Record weather as clear, partly cloudy, cloudy, rain and temperature as cool, warm, hot.

Vehicles are classified as follows:

Vehicle Class	Characteristics	Record
1	Street Legal** 2WD or 4WD** Motorcycles**	Passenger Car SUV, including Jeeps Pickup Motorcycle
2 OHV	Non-street Legal <50" wide 2 wheels/tires 3 or more wheels/tires 2WD or 4WD (Dirt bikes, quads or ATVs)	 Dirt Bike Quad
3 OHV	Non-street Legal >50" wide 4 or more wheels/tires 2WD or 4WD ("Jeeps" or dune buggies)	

For example, a state licensed highway motorcycle with a white metal plate on the rear fender is to be coded in the Class 1 block.

Record vehicle Class 1 traffic as either passenger car, sport utility vehicle, pickup or motorcycle. See Traffic Flow Data Form.

** State licensed with metal plates for use on "highways".

Traffic Flow Data

Count Station #_____

BCDT-3B Traffic Study

Study Segment #_____ GPS Coord.: Lat_____ Lon_____ Field Data Collected by_____

Location Narrative_____ Date and Weather_____

Forest LASSEN Road No_____ Normal Season Use Period_____ to_____

Milepost	Vehicle Classification							Total Traffic Numeric
	1 Street-legal				2 OHV		3 OHV	
	Passenger Car	SUV	Pickup	Motorcycle	Dirt Bike	Quad		
7AM – 11 AM								
11 AM – 3 PM								
3 PM – 7 PM								
Total Count for Day								
% Traffic by Class								

People per Vehicle (any class)					
1	2	3	4	5	6 or more

Site Photo

Summary—Traffic Observations
June–August 2005 Station Summaries

Street Legal					Non-Street Legal		Total
Sta	Car	SUV	PU	Motorcycle	Dirt Bike	Quad	
1	6	6	10		3	28	53
3	11	35	75	2		6	129
4	11	36	63		8	15	133
5	9	27	34		2	8	80
*8	14	67	92		16	20	209
9	4	17	14			7	42
10	8	16	39	2		21	86
11	21	18	67			6	112
12	2	13	31			8	54
Totals	86	235	425	4	29	119	898
%	10%	26%	47%	0%	3%	14%	100%
%	83%				17%		100%

Station	June, July, August ADT	Average Per Road	People per Vehicle
1	5.48		1.62
3	18.00	10 (32N10) 16.14	1.85
4	19.24		1.79
5	11.19		1.54
*8	26.76	32N12 32N13 16.17	1.60
9	5.57		1.44
10	13.90		1.49
11	13.95		1.85
12	7.86		1.57
Total	110.87		14.71
Average	12.32		1.63

* See note on Station 8 ADT-2005 Form

Summary—Time of Day
Number of Vehicles

Time	Passenger car	SUV	Pickup	Motor-cycle	Dirt Bike	Quad	Total
7AM-11AM	12	54	107	0	8	35	216
11AM-3PM	42	114	206	4	12	52	430
3PM-7PM	32	67	112	0	9	32	252
Total	86	235	425	4	29	119	898

% of Total

7AM-11AM	1%	6%	12%	0%	1%	4%	24%
11AM-3PM	5%	13%	23%	0%	1%	6%	48%
3PM-7PM	4%	7%	12%	0%	1%	4%	28%
Total	10%	26%	47%	0%	3%	14%	100%

Station Labor Day Weekend (9/4/2005)

1	1	1	5			22	29
3	3	16	27	1		12	59
4	1	12	11	1	2	16	43
5	3	4	9		4	14	34
8	4	5	21		11	10	51
9	1	4	5		12	34	56
10	1	2	8				11
11	9	11	20			3	43
12			13	1		2	16
Total	23	55	119	3	29	113	342
%	7%	16%	35%	1%	8%	33%	100%

Other Travelers Recorded–Summer 2005

Count Station	FS Vehicle	Park Service	Horseback Riders	Hikers	Class C Motorhomes	Bicycle	Mule Drawn Wagons
1	2	1				1	
3	8				1		
4	24			8	1	2	
5	4					2	
8			4		4		
9	6		7				2
10	3						
11	2						
12	2	1					
Totals	51	2	11	8	6	5	2

ADT — 2005

29N22
Road Number 30N16
Count Station 1

Observed Vehicles

Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun						1		1
6/15 Wed			1					1
7/3 Sun	6	5	7		3	24		45
7/20 Wed		1						1
8/7 Sun			2			2		4
8/17 Wed						1		1
Total	6	6	10		3	28		53
% by class	42%				58%			100%

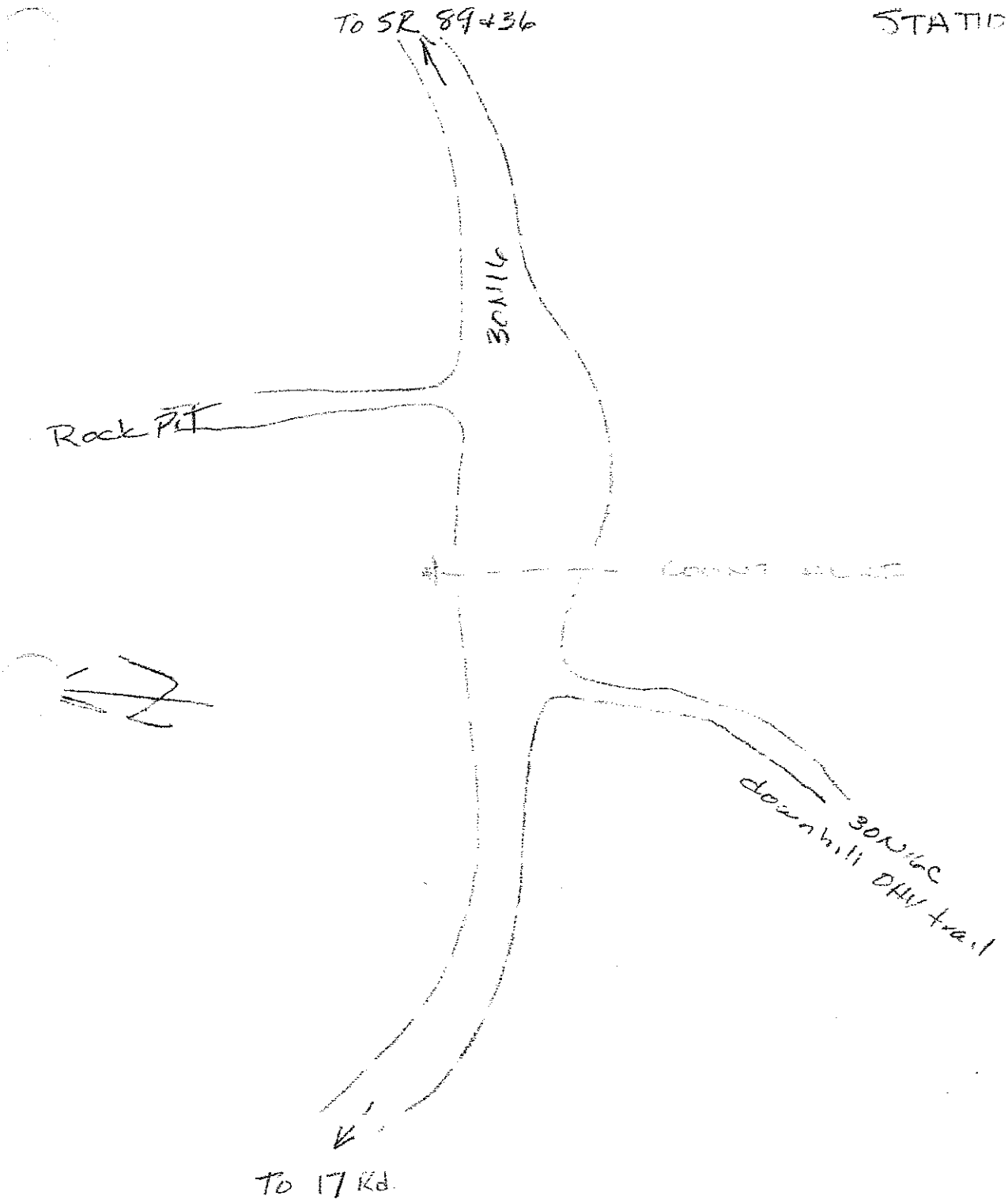
9/4 Sun	1	1	5			22		29
% by class	24%				76%			100%

Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	1	1	1.50
July	1	45 (7/3)	2.10
August	1	4	1.25
Total	3	50	4.85
Average	÷3= 1.00	÷3= 16.67	÷3= 1.62

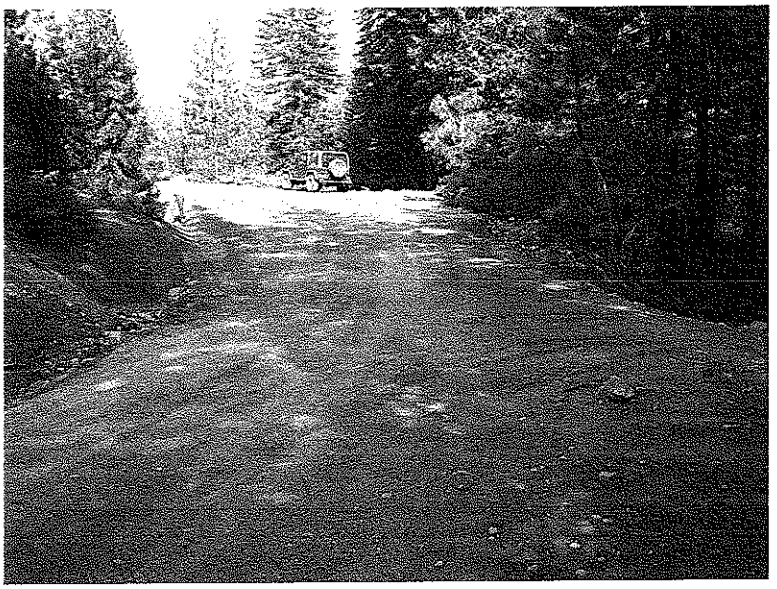
ADT = $\frac{\text{5 Ave Weekdays + 2 Ave Weekend}}{7}$

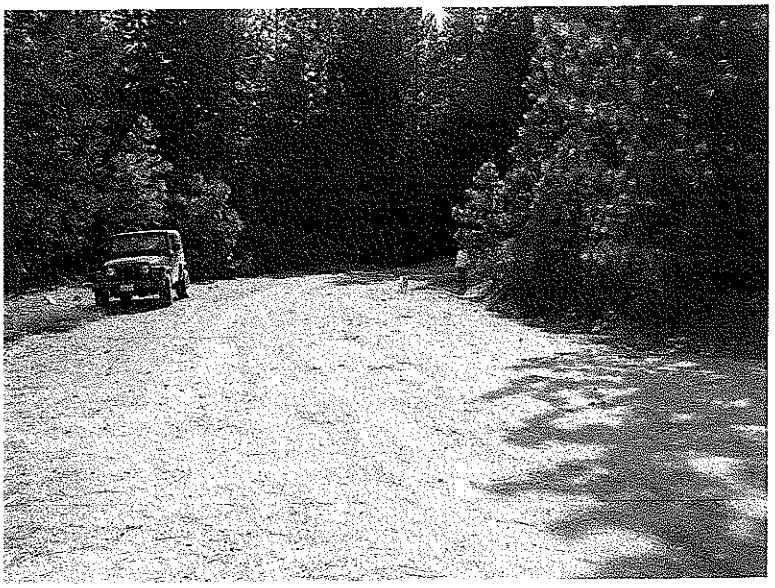
ADT = $\frac{5(\ 1.00\ ) + 2(\ 16.67\ )}{7}$ = 5.48

STATION 1



STATION # 1





ADT — 2005

Road Number 10(32N10)
Count Station 3

Observed Vehicles

Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun		8	4					12
6/15 Wed		1	5					6
7/3 Sun	5	8	38	2		2		55
7/20 Wed	5	3	9			2		19
8/7 Sun		10	10			2		22
8/17 Wed	1	5	9					15
Total	11	35	75	2		6		129
% by class	95%				5%			100%

9/4 Sun	3	16	27	1		12		59
% by class	80%				20%			100%

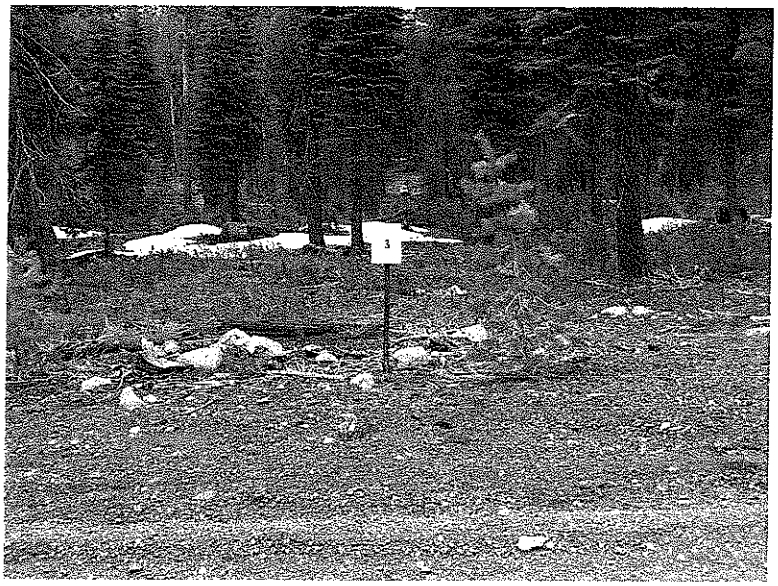
Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	6	12	1.59
July	19	55 (7/3)	1.87
August	15	22	2.08
Total	40	89	5.54
Average	÷3= 13.33	÷3= 29.67	÷3= 1.85

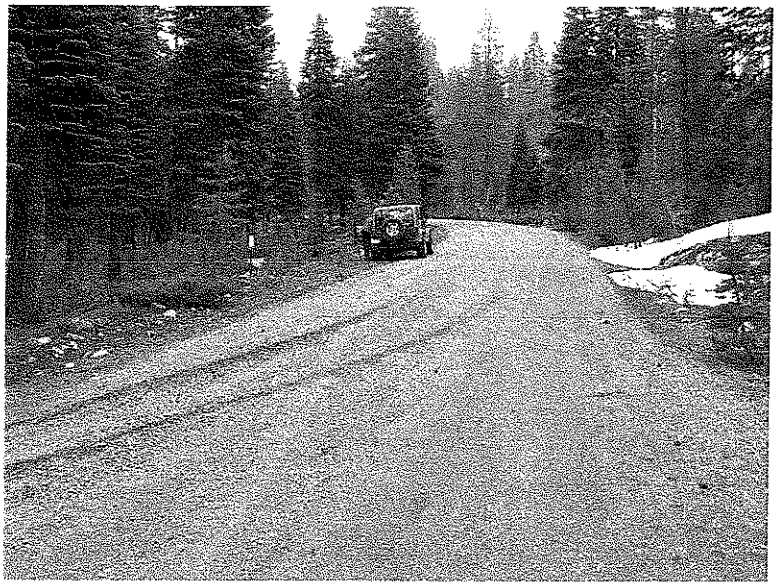
$$ADT = \frac{5 \text{ Ave Weekdays} + 2 \text{ Ave Weekend}}{7}$$

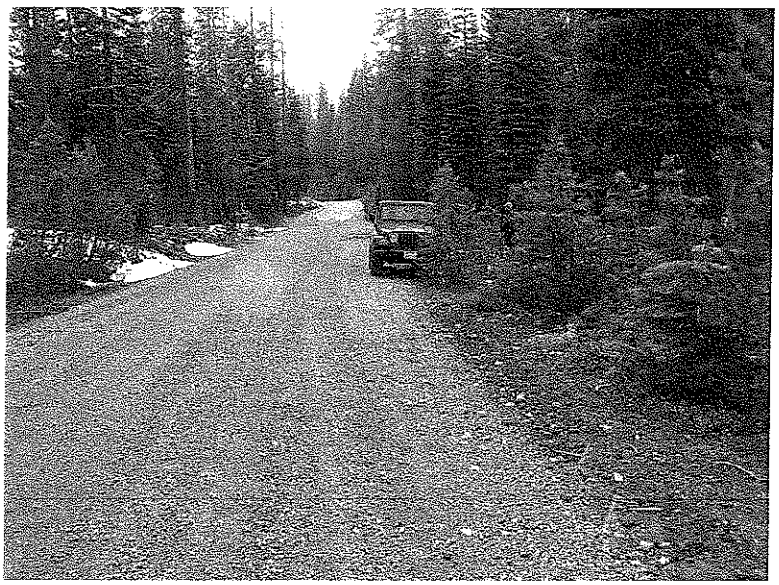
$$ADT = \frac{5(13.33) + 2(29.67)}{7} = 18.00$$

STATION 3

STATION # 3







ADT — 2005

Road Number 10 (32N10)
Count Station 4

Observed Vehicles

Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun		1	2					3
6/15 Wed		2	3					5
7/3 Sun	5	10	26		4	4		49
7/20 Wed	2	7	20			2		31
8/7 Sun	3	12	7		4	9		35
8/17 Wed	1	4	5					10
Total	11	36	63		8	15		133
% by class	83%				17%			100%

9/4 Sun	1	12	11	1	2	16		43
% by class	58%				42%			100%

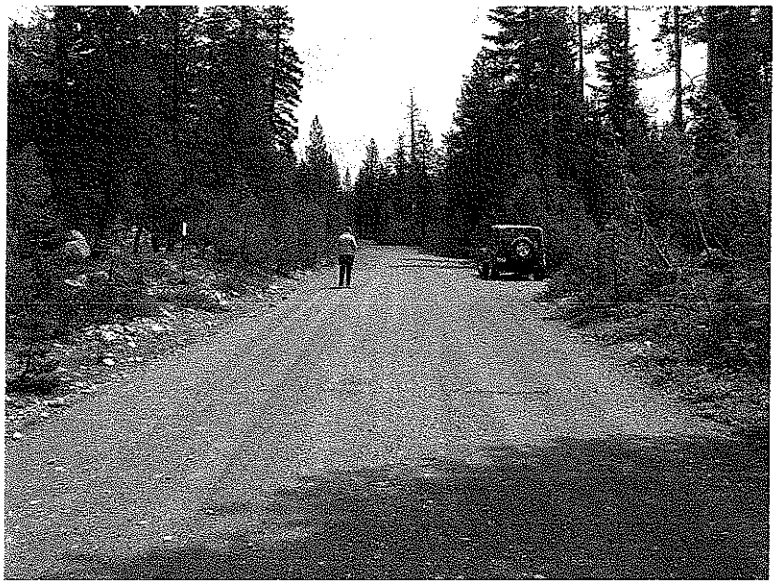
Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	5	3	1.90
July	31	49 (7/3)	1.80
August	10	35	1.68
Total	46	87	5.38
Average	÷3= 15.33	÷3= 29.00	÷3= 1.79

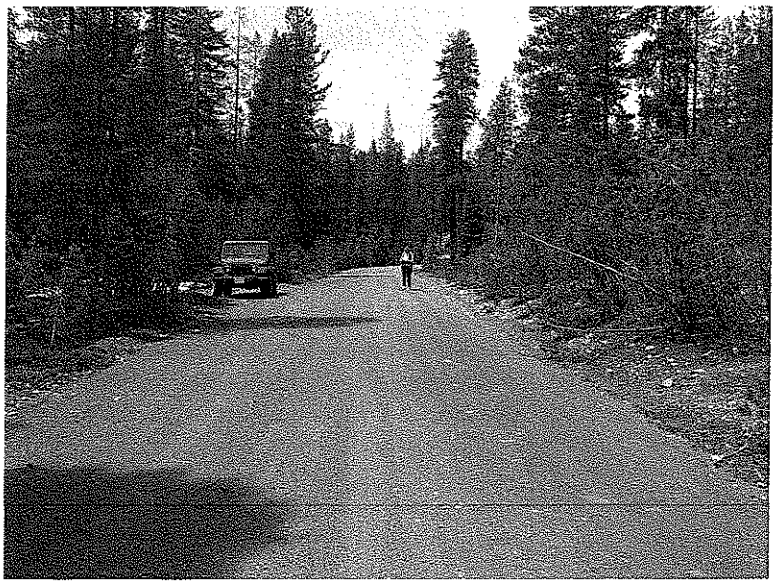
ADT = $\frac{\text{5 Ave Weekdays + 2 Ave Weekend}}{7}$

ADT = $\frac{5(\ 15.33\ ) + 2(\ 29.00\ )}{7}$ = 19.24

STATION 4

STATION # 4





STATION # 4

ADT — 2005

Road Number 10 (32 N 10)
Count Station 5

Observed Vehicles

Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun		5	8					13
6/15 Wed	1	4	3					8
7/3 Sun	3	8	12		2	4		29
7/20 Wed		4	3			4		11
8/7 Sun	5	4	4					13
8/17 Wed		2	4					6
Total	9	27	34		2	8		80
% by class	87%				13%			100%

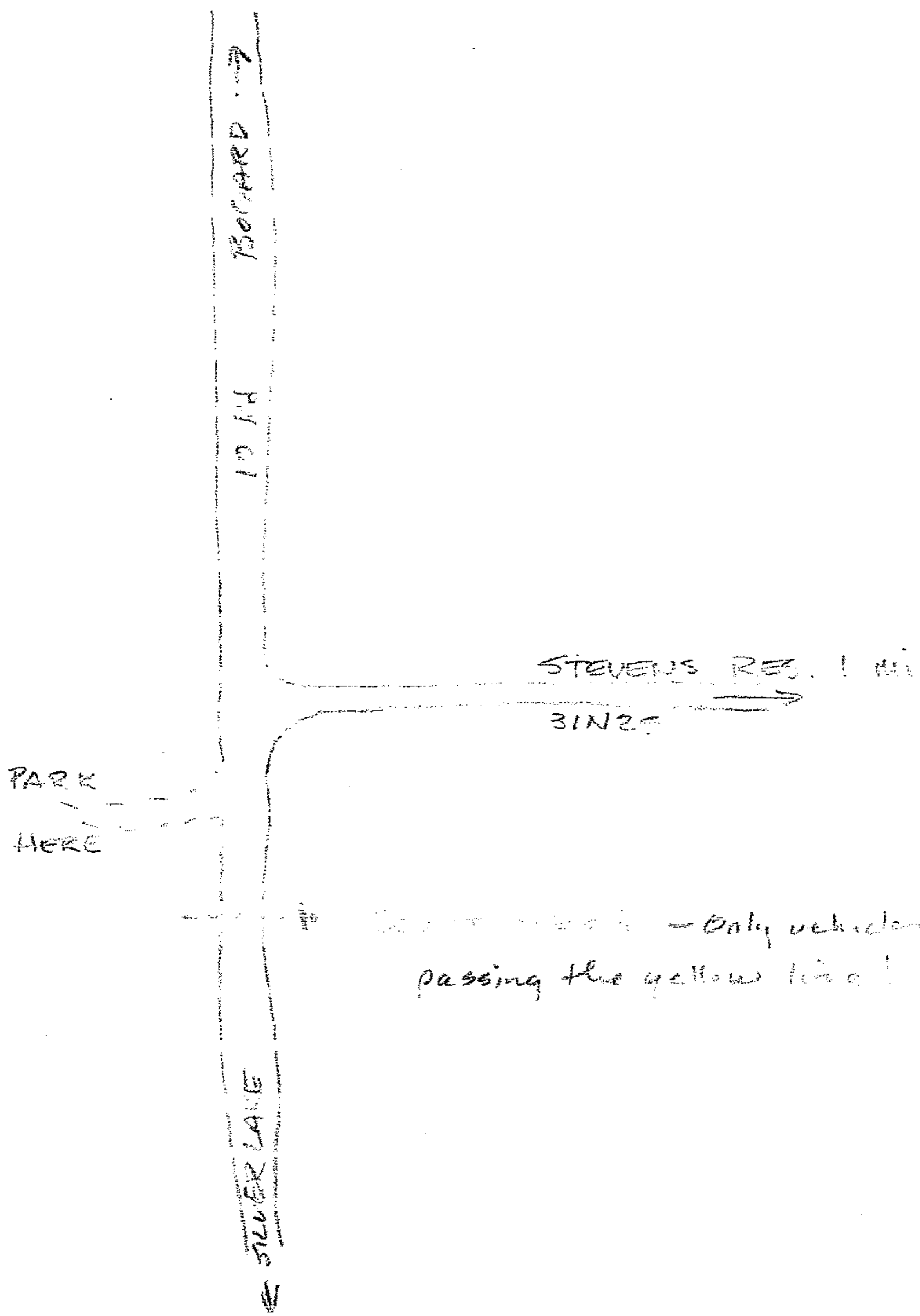
9/4 Sun	3	4	9		4	14		34
% by class	47%				53%			100%

Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	8	13	1.20
July	11	29 (7/3)	1.21
August	6	13	2.21
Total	25	55	4.62
Average	÷3= 8.33	÷3= 18.33	÷3= 1.54

ADT = $\frac{\text{5 Ave Weekdays + 2 Ave Weekend}}{7}$

ADT = $\frac{5(\ 8.33\ ) + 2(\ 18.33\ )}{7}$ = 11.19

STATION 3


BOGARD
STEVENS RES. 1 mi
31N25
PARK HERE
– Only vehicles
passing the yellow line!
SILVER LAKE

STATION # 5

ADT — 2005

Road Number 32N13
Count Station 8
*

Observed Vehicles

Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun	2	18	11 (3)					34
6/15 Wed		7	9			3		19
7/3 Sun	10	25	23		15	15		88
7/20 Wed	1	5	8		1			15
8/7 Sun	1	7	28 (1)			2		39
8/17 Wed		5	9					14
Total	14	67	92		16	20		209
% by class	83%				17%			100%

9/4 Sun	4	5	21		11	10		51
% by class	59%				41%			100%

Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	19	34	1.58
July	15	88 (7/3)	1.69
August	14	39	1.54
Total	48.00	161.00	4.81
Average	÷3= 16.00	÷3= 53.67	÷3= 1.60

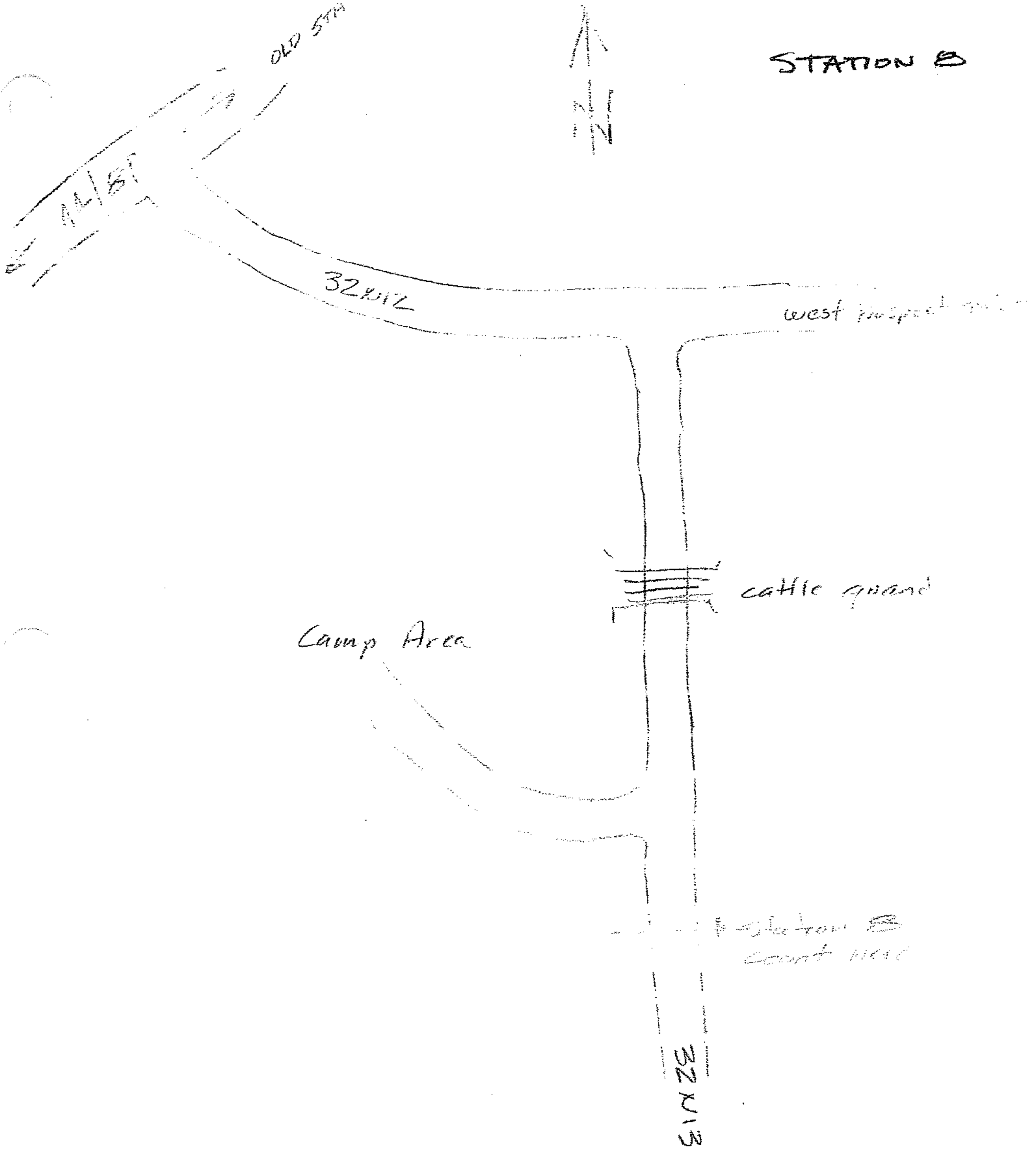
** Class C Motorhome

ADT = $\frac{5 \text{ Ave Weekdays} + 2 \text{ Ave Weekend}}{7}$

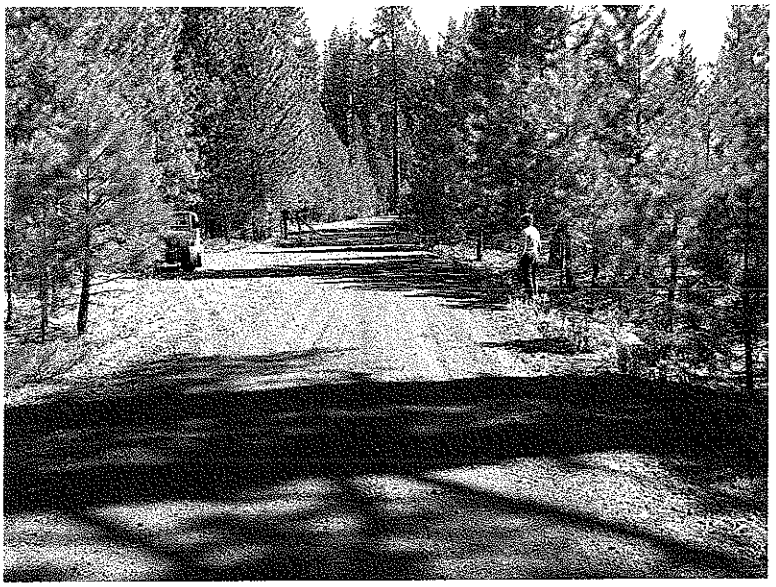
ADT = $\frac{5(16.00) + 2(53.67)}{7} = 26.76$

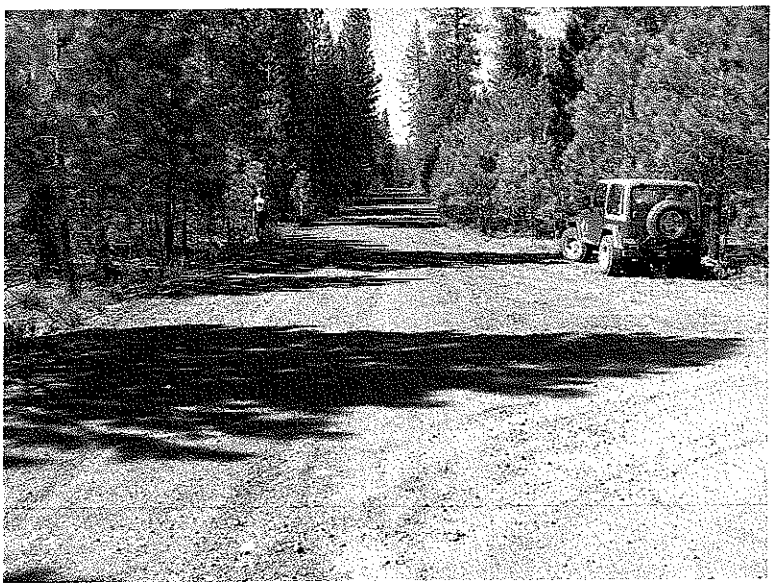
* Poor choice of site! Dispersed camping area access on each side of site. Private land camping area 1/2 mile south. Road is signed w/ Vehicle MVUM route marker!

STATION B



STATION # 8





ADT — 2005

Road Number 32N13
Count Station 9

Observed Vehicles

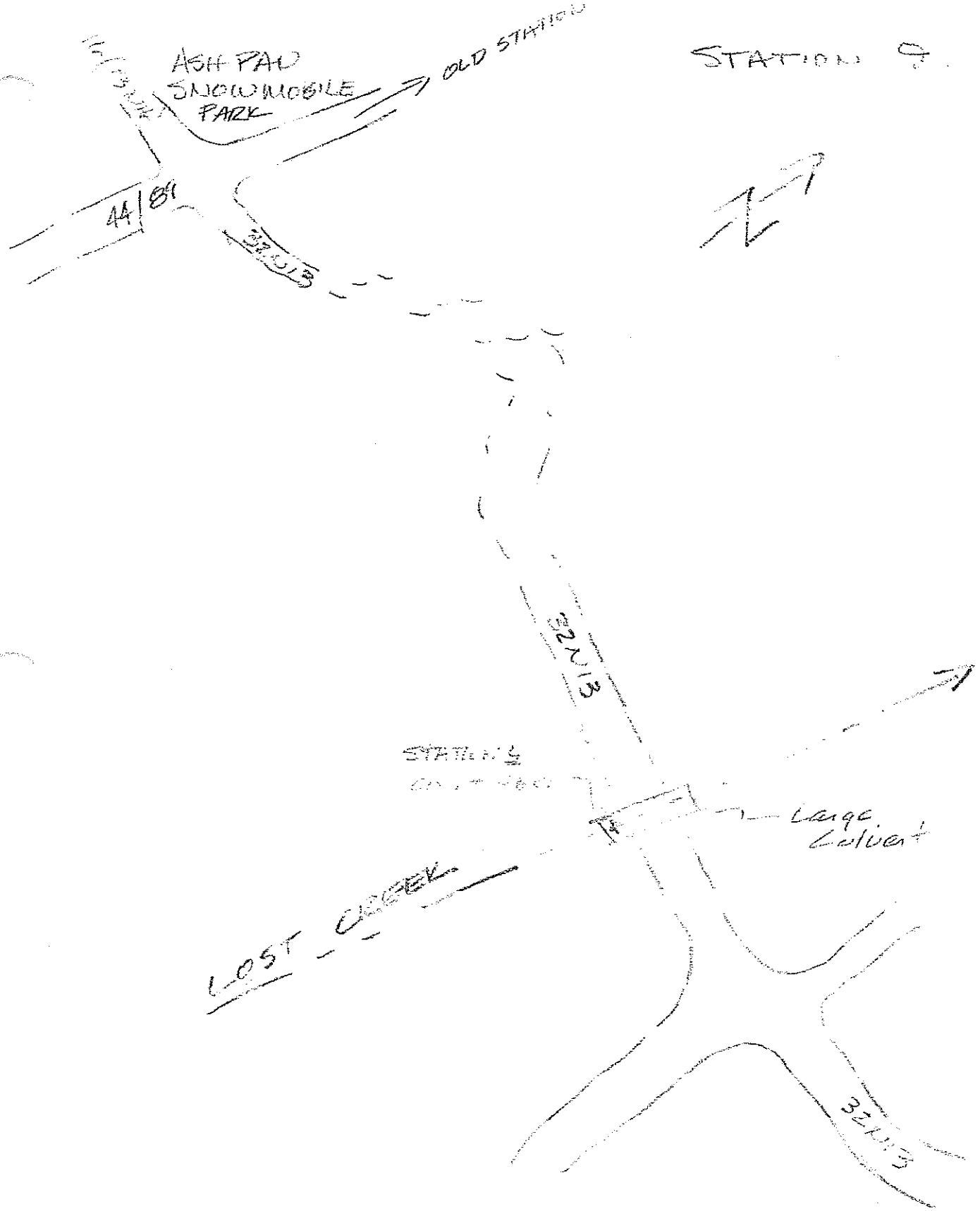
Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun		4	3					7
6/15 Wed	2	2	3					7
7/3 Sun	1	6	6			7		20
7/20 Wed								~~0~~
8/7 Sun		2	2					4
8/17 Wed	1	3						4
Total	4	17	14			7		42
% by class	83%				17%			100%

9/4 Sun	1	4	5		12	34		56
% by class	18%				82%			100%

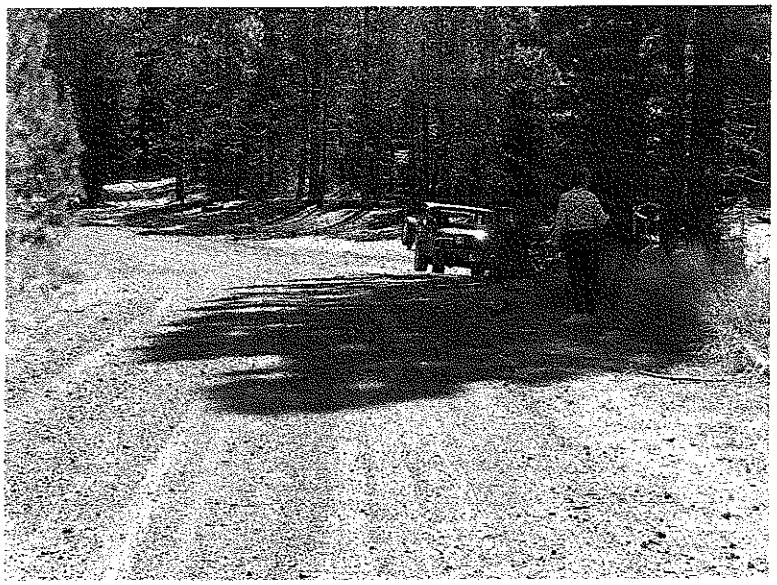
Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	7	7	2.36
July	~~0~~	20 (7/3)	0.83
August	4	4	1.13
Total	11	31	4.32
Average	÷3= 3.67	÷3= 10.33	÷3= 1.44

ADT = $\frac{\text{5 Ave Weekdays + 2 Ave Weekend}}{7}$

ADT = $\frac{5(\ 3.67\ ) + 2(\ 10.33\ )}{7}$ = 5.57


ASH PAD
SNOWMOBILE
PARK
OLD STATION
STATION 9
44
81
STATION 4
Large
Culvert
LOST CREEK

STATION # 9



ADT — 2005

Road Number 33N16(16)
Count Station 10

Observed Vehicles

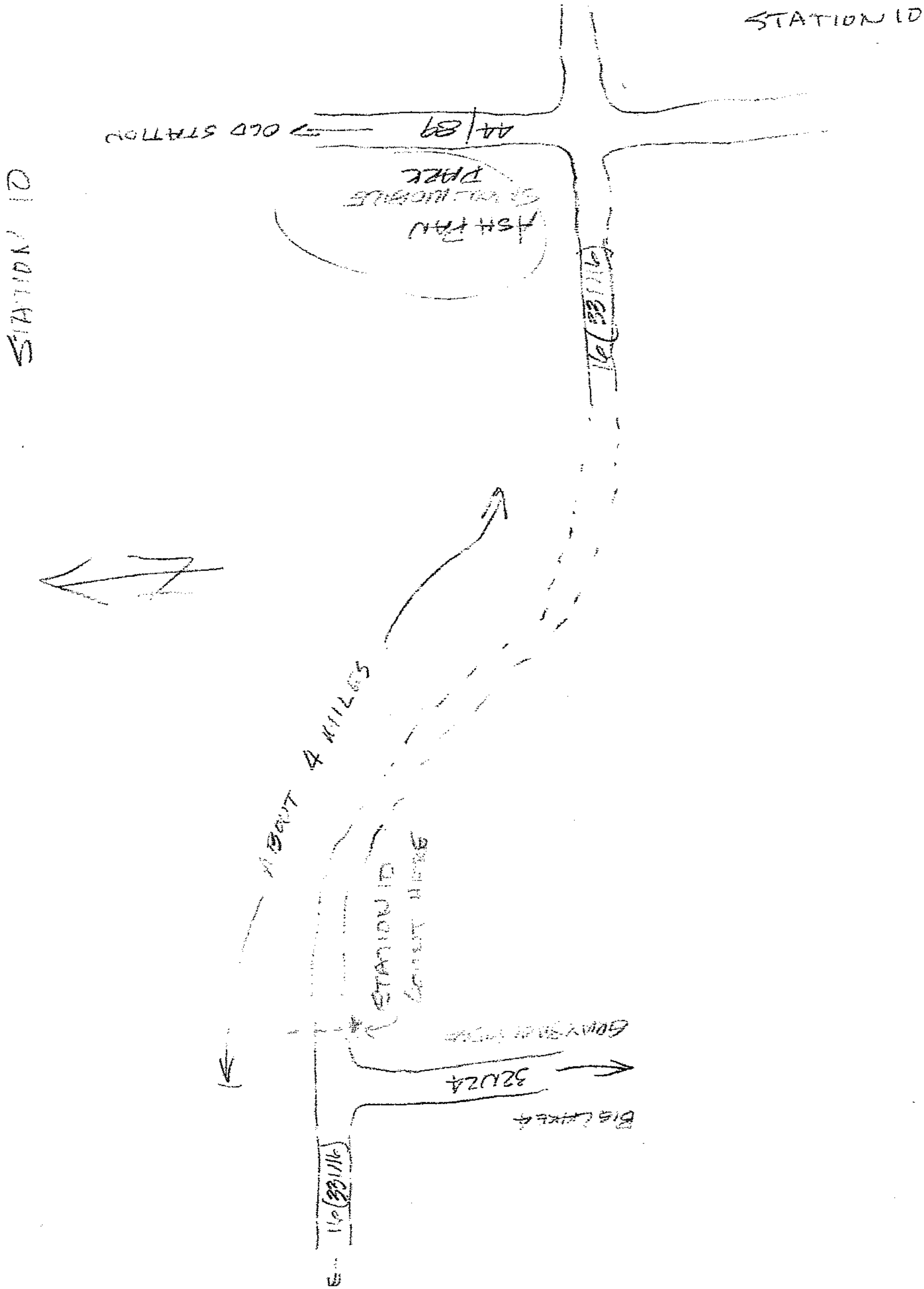
Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun	3	2	6			4		15
6/15 Wed	1	5	5			6		17
7/3 Sun	3	7	6	2		7		25
7/20 Wed			15					15
8/7 Sun	1	2	3					6
8/17 Wed			4			4		8
Total	8	16	39	2		21		86
% by class	76%				24%			100%

9/4 Sun	1	2	8					11
% by class	100%				0%			100%

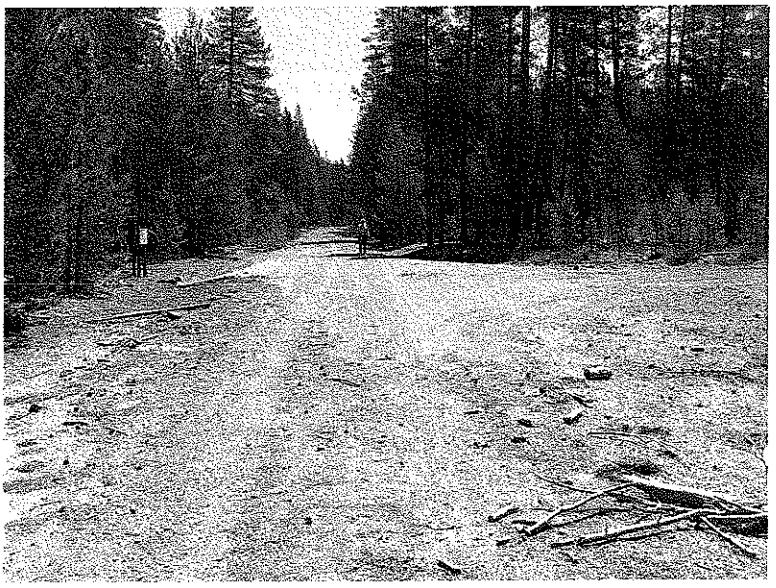
Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	17	15	1.40
July	15	25 (7/3)	1.72
August	8	6	1.36
Total	40	46	4.48
Average	÷3= 13.33	÷3= 15.33	÷3= 1.49

ADT = $\frac{5 \text{ Ave Weekdays} + 2 \text{ Ave Weekend}}{7}$

ADT = $\frac{5(13.33) + 2(15.33)}{7}$ = 13.90


STATION ID
OLD STATION
44|89
ASH PAN
PARK
STATION ID
ABOUT 4 MILES
STATION ID
32U24
BIG LAKE

STATION # 10



ADT — 2005

Road Number 32N17
Count Station 11

Observed Vehicles

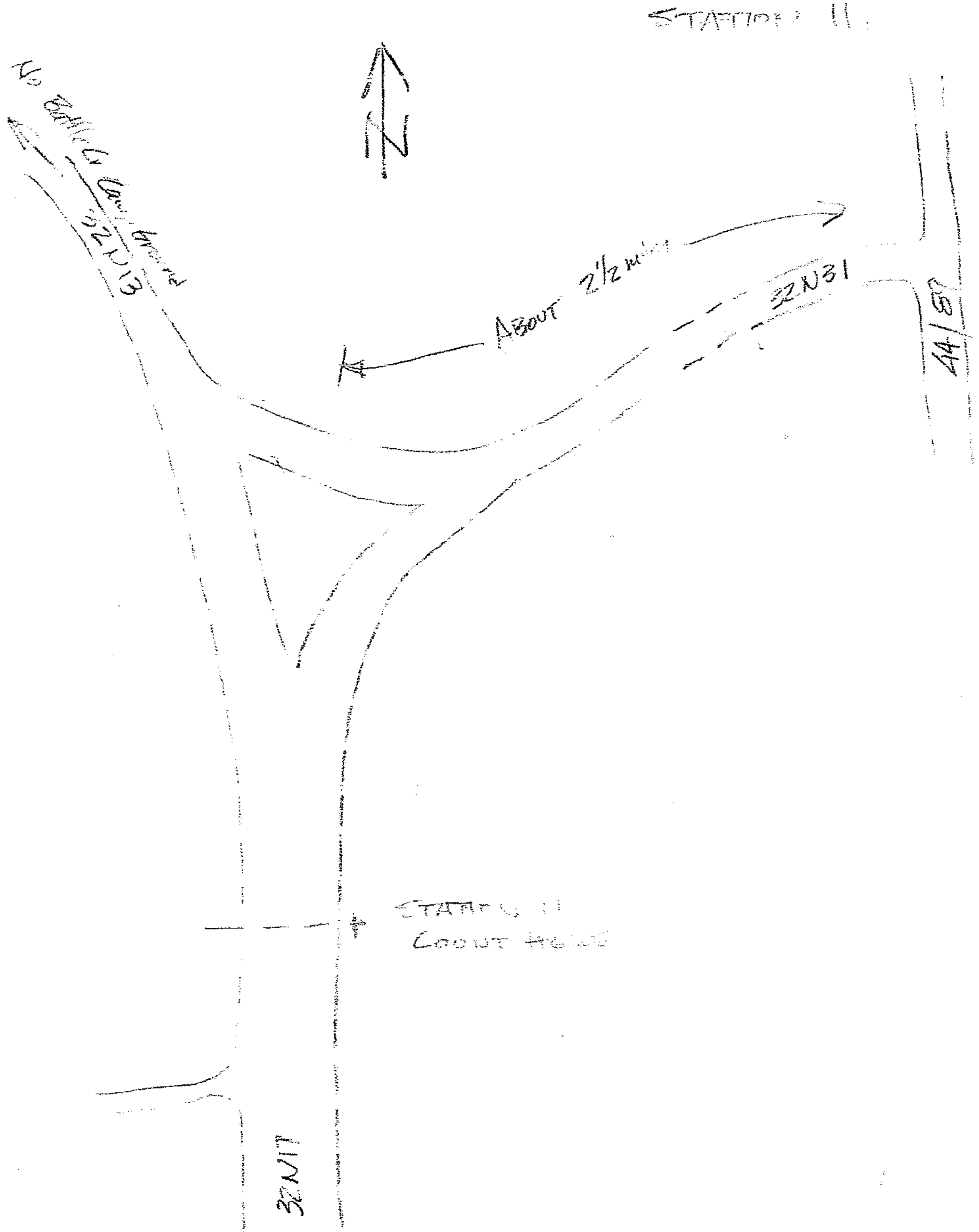
Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun	2		4					6
6/15 Wed			5			1		6
7/3 Sun	15	5	32			5		57
7/20 Wed		4	1					5
8/7 Sun	4	4	18					26
8/17 Wed		5	7					12
Total	21	18	67			6		112
% by class	95%				5%			100%

9/4 Sun	9	11	20			3		43
% by class	93%				7%			100%

Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	6	6	1.67
July	5	57 (7/3)	1.73
August	12	26	2.16
Total	23	89	5.56
Average	÷3= 7.67	÷3= 29.67	÷3= 1.85

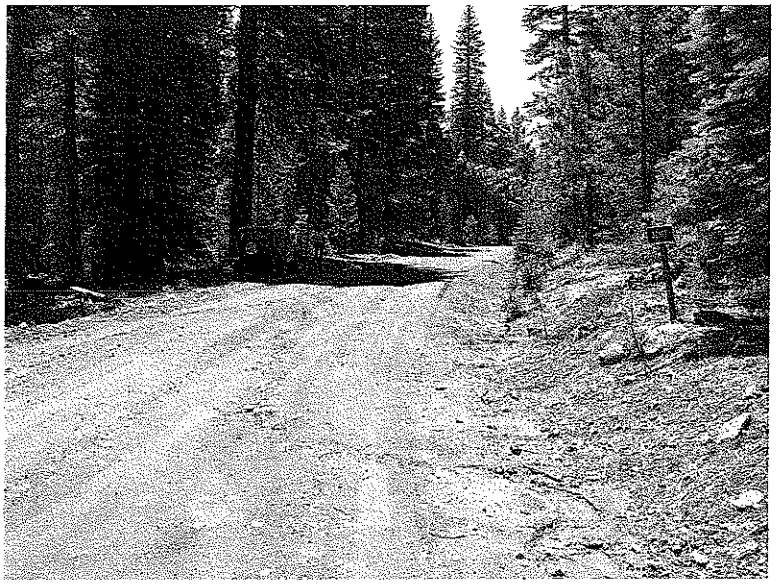
ADT = $\frac{\text{5 Ave Weekdays + 2 Ave Weekend}}{7}$

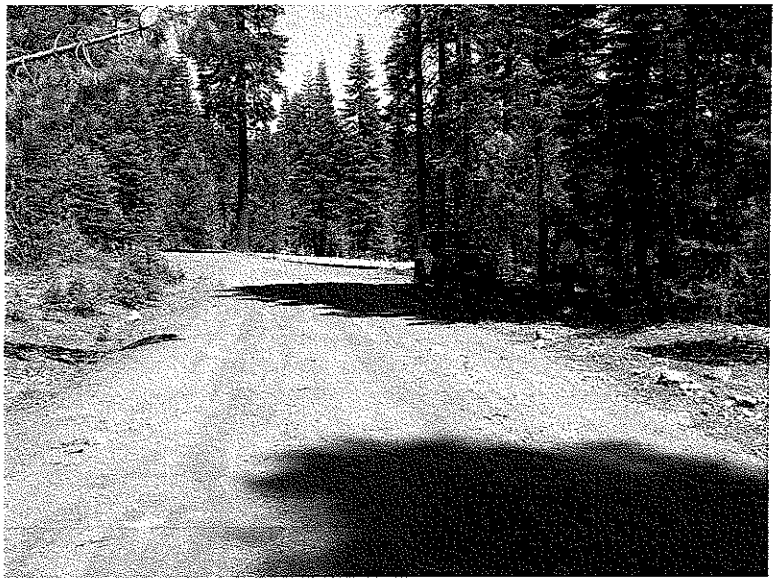
ADT = $\frac{5(\ 7.67\ ) + 2(\ 29.67\ )}{7}$ = 13.95



STATION 11
N
To Bathtub Campground
32N13
ABOUT 2 1/2 miles
32N31
44/50
STATION 11
COUNT HERE
32N17

STATION # 11





ADT — 2005

Road Number 17 (31N17)
Count Station 12

Observed Vehicles

Date/Day	Class 1 (street legal)				Class 2 (OHV)		Class 3 OHV Other	Total
	Passenger Car	SUV	PU	Motor-cycle	Dirt Bike	Quad		
6/5 Sun	1	3	3					7
6/15 Wed			4					4
7/3 Sun	1	3	10					14
7/20 Wed		5	2					7
8/7 Sun		2	6			6		14
8/17 Wed			6			2		8
Total	2	13	31			8		54
% by class	85%				15%			100%

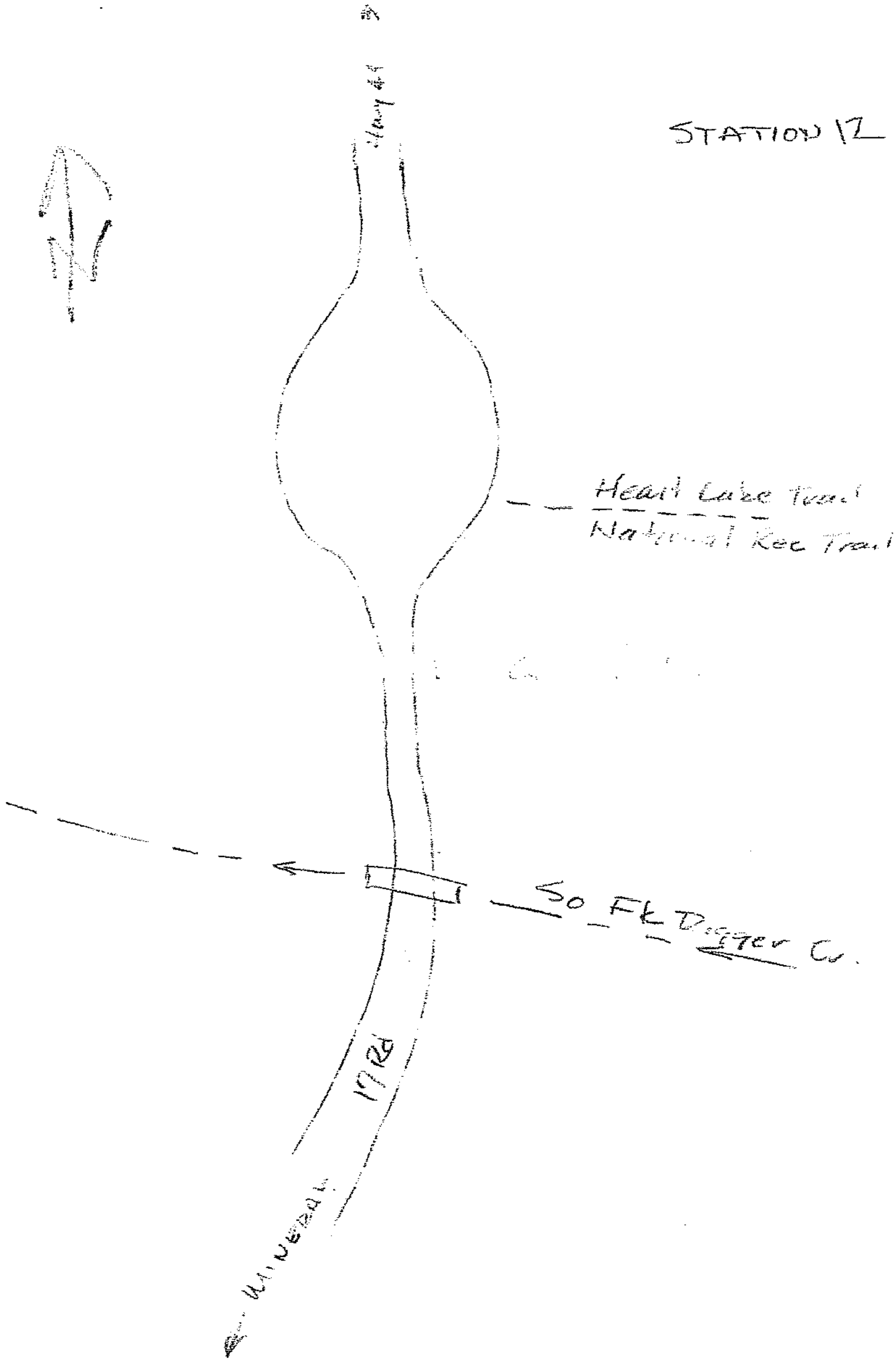
9/4 Sun			13	1		2		16
% by class	87%				13%			100%

Observed Vehicles	Weekday (Wed)	Weekend (Sun)	People/Vehicle
June	4	7	1.18
July	7	14 (7|3)	2.07
August	8	14	1.45
Total	19	35	4.70
Average	÷3= 6.33	÷3= 11.67	÷3= 1.57

$$ADT = \frac{5 \text{ Ave Weekdays} + 2 \text{ Ave Weekend}}{7}$$

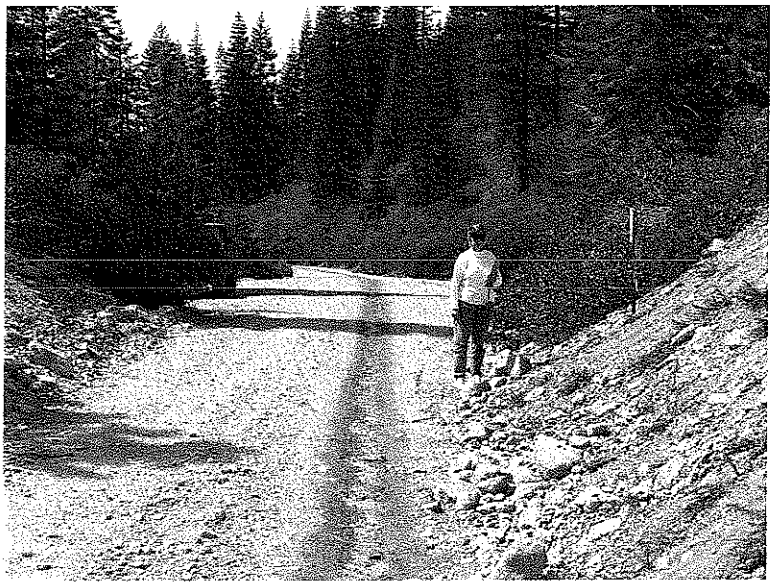
$$ADT = \frac{5(\ 6.33\ ) + 2(\ 11.67\ )}{7} = 7.86$$

STATION 12



N
Hwy 44
Heart Lake Trail
National Rec Trail
So Fk Digger Cr.
17 Rd
MINERAL

STATION # 12



Traffic Survey
USFS 17 Road
Between SR 36 and SR 44
West side of Lassen Volcanic National Park (Between Mineral and Viola or Manzanita Lake)

Background

Two separate traffic surveys were conducted during the summer of 2005. There are some differences between the survey results that we are trying to understand.

Information Request

Do you or any of your employees commute on the 17 Road? Yes No

If yes—how many days per week? _____

If yes---what time(s) of the day?_____

If yes---Is this all season?_____

Signed_____ Individual or Agency Representative

Agency_____

Date_____

Thank you

Recreation Outdoor Coalition (ROC)

Barbara Tatman

From: smilligan4732 [smilligan4732@sbcglobal.net]
Sent: Thursday, February 23, 2006 9:00 AM
To: Dick Tatman
Subject: commuter traffic

Dick,
Do you ned the forms physically filled out?

When Nancy took the forms around and talked to the people they all said they did not have ANYONE who commutted on the 17-Road. I can take them back by this week-end and have them fill them out if you feel a filled out form would be better.

She said she hit the Mineral Gas Mart (MGM), the Post Office, and the park. Did not go to the Lassen Mineral Lodge but I KNOW they have no one who commutes.

What do you think?

Thanks.

Syl

I think we need something from the Park in writing. They are the ones that I believe we keep hearing about.