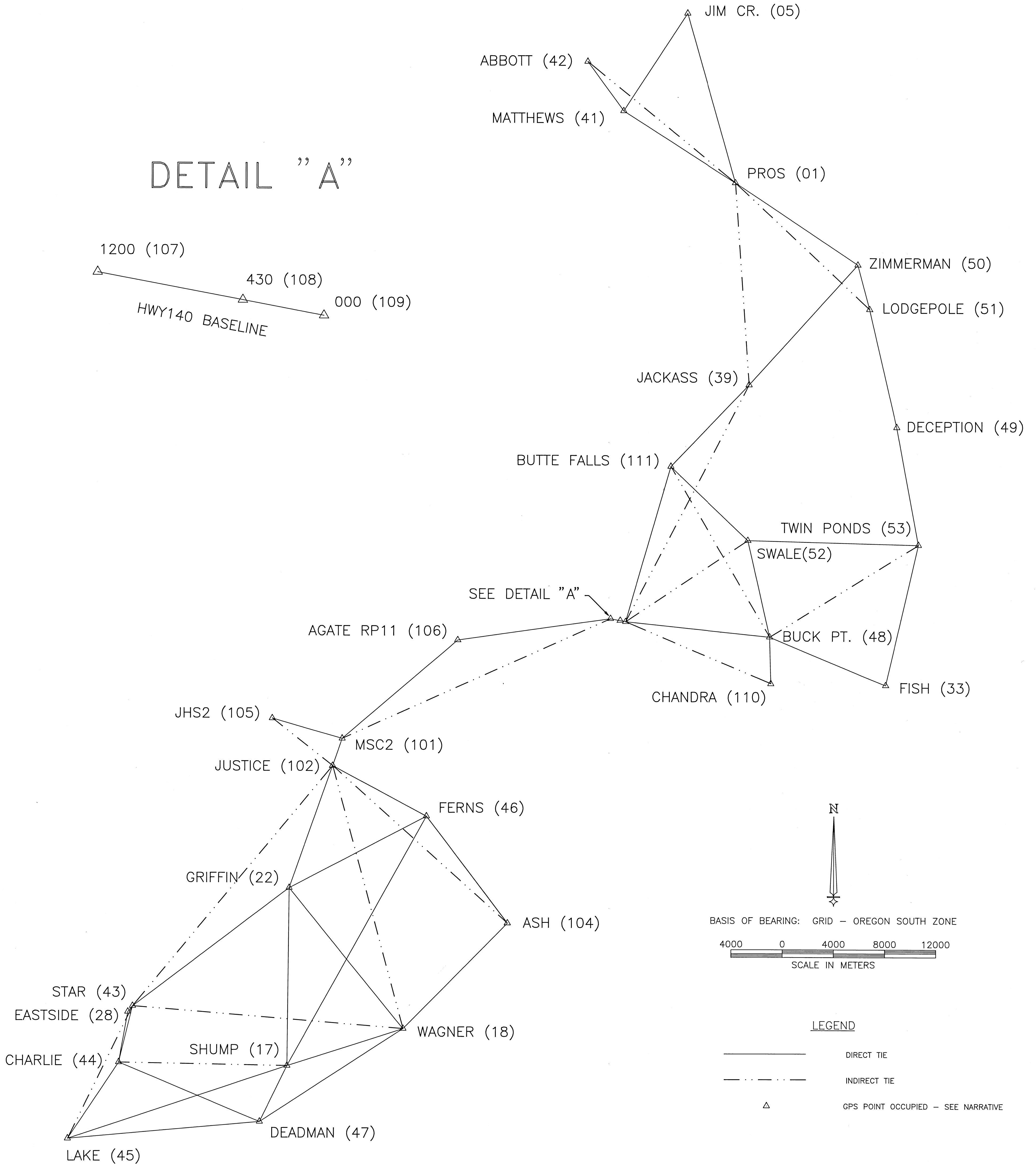


MAP OF GEODETIC CONTROL

SURVEY NO. _____

10066

DETAIL "A"



HISTORY OF SURVEY, COORDINATES, AND PROCEDURES

SEE NARRATIVE

CERTIFICATE OF SURVEY

I, STEPHAN L. BAROTT, NO. 2332, REGISTERED PROFESSIONAL LAND SURVEYOR, STATE OF OREGON, HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION IN CONFORMANCE WITH THE LAWS OF THE STATE OF OREGON AT THE REQUEST OF THE UNITED STATES FOREST SERVICE.

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Stephan L. Barott
STEPHAN L. BAROTT
No. 2332
(EXPIRES 12/31/95)

DATE 9-10-95 P. 8
This survey consists of:
1 - sheeted map
20 - partial narrative
JACKSON COUNTY
SURVEYOR

PROJECT NO. 94-100

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION 6 - ROGUE RIVER NATIONAL FOREST

RECORD OF GEODETIC CONTROL
FOR
ROGUE RIVER NATIONAL FOREST
SURVEY COMMENCED: FEBRUARY 2, 1994
SURVEY COMPLETED MARCH 6, 1995

REVIEWED BY: *David L. ...* DATE: 4/4/95
FOREST L.S.

APPROVED BY: *David L. ...* DATE: 4/7/95
FOREST ENGINEER

10066

**SURVEY NARRATIVE
to comply with
PARAGRAPH 209.250 (5) & (6), OREGON REVISED STATUTES**

SURVEY FOR:

ROGUE RIVER NATIONAL FOREST
P.O. BOX 520
MEDFORD, OREGON 97501

PURPOSE OF THIS SURVEY:

The purpose of this survey was to establish horizontal and vertical Geodetic control for various projects within the Rogue River National Forest.

LOCATION OF SURVEY:

The project area is primarily located on the Applegate, Butte Falls, and Prospect Ranger Districts of the Rogue River National Forest. Project location is generally in Townships 31-40 South, Ranges 4 West-4 East, Willamette Meridian, Jackson County, Oregon. Control stations (GPS) locations are as noted on the attached Map of Geodetic Control, and are described later in this narrative.

PROCEDURE:

This project was completed using Trimble 4000 SE and 4000 ST single frequency GPS receivers in the static mode for simultaneous collection of NAVSTAR satellite signals at each station as shown on the Geodetic Control Survey diagram. Four separate Control Surveys were conducted throughout 1994. This report combines all of the 1994 GPS surveys into one Narrative and a one-page Map of Geodetic Control.

Oregon High Precision GPS Network (HPGN) "B-order" stations PROS, ASH, JUSTICE, and 1st Order station AGATE RP11 were held for horizontal control as published by National Geodetic Survey (NGS) on the North American Datum [NAD 83(91)] on April 26, 1991. U.S. Forest Service stations JHS2 and Jim Creek (T31SR2E23) were also held for horizontal control. Vertical control stations (third-order NGVD-29) held for control were: Station ASH, JUSTICE, U.S. Army Corps of Engineers station SED RGE 1A-2 (eccentric for GPS APPLEGATE LAKE-45). All stations will be described later in this narrative. Ellipsoid Separation/Geoid Height was determined by GEOID93 modeling. TRIMVEC Version E software was utilized for primary data reduction and network adjustment. State Plane coordinate conversion [NAD83(91)] for the final product was computed utilizing TRIMNET software and U.S. Army Corps of Engineers "CORCON Ver. 3.01" software.

The final adjusted coordinates are shown in this narrative. Precision for all points set and occupied for this survey is greater than 1:50,000. All other GPS data is on file as Project GPS1994 (94-100), Rogue River National Forest Engineering/Surveying, 1319 East McAndrews Road, Medford, Oregon 97504.

HISTORY OF SURVEYS:

HORIZONTAL (GEODETIC) AND VERTICAL CONTROL

The Oregon High Precision GPS Network (HPGN) was established in 1991. This network utilizes NAD83(91) datum adjustment. Coordinates NAD83(91) for horizontal "B Order" stations PROS (01), ASH (104), JUSTICE (102), and "1st-Order" station AGATE DAM RP11 (106) were established at that time. Geoid modeling "Geoid90" was used to compute the Geoid separation. Stations ASH and JUSTICE were tied to Third-order bench marks. Stations PROS and AGATE DAM RP11 utilized GPS heights.

Station JHS-2 was established by Richard B. Davis for the U.S. Forest Service in 1991. Davis utilized Stations JUSTICE and ASH to establish NAD 83(91) coordinates for JHS2.

The U.S. Forest Service established the following GPS points in 1986: JIM CREEK (05), SHUMP (17), WAGNER (18), GRIFFIN (22), FISH (33), JACKASS (39). These GPS points were adjusted in 1986 utilizing NAD 83 control. The 1986 coordinates are on file with Rogue River National Forest and Jackson County Surveyor. These stations had different names in 1986 and will be described later in this narrative.

Station Jim Creek (05) was part of a 1992 U.S. Forest Service GPS Control Project for Prospect Ranger District. The NAD 83(91) coordinates are on file with the Jackson County Surveyor's Office.

Station FERNS (46) was established in 1968 by Jackson County. The National Geodetic Survey (NGS) adjusted this second-order station to NAD83(91) coordinates in October, 1991.

The U.S. Corps of Engineers established control monuments and bench marks around Applegate Lake in 1980-81. Station AG-INTAKE (LAKE-45) and Bench Mark SED RGE 1A-2 were established at that time. Differential levels were run from SED RGE 1A-2 to AG-INTAKE (LAKE-45) for this current GPS survey.

EQUIPMENT UTILIZED THIS SURVEY:

Equipment used throughout this survey include Trimble Navigation 4000 SE and ST Global Positioning System (GPS) single frequency receivers, used in the Static mode.

MONUMENTS ACCEPTED FOR GEODETIC CONTROL (G.P.S.):

Horizontal Control Stations

GPS 102---"JUSTICE"---The station is an Oregon Primary GPS Network Survey Disk stamped:

OREGON PRIMARY

G.P.S. STATION
JUSTICE
1989

as described on page 131-132 of the Oregon High Precision Network book. (NGS#---NZ1325 on DSX file)

Township 37 South, Range 2 West, SE 1/4 Section 25, Willamette Meridian, Oregon.

Latitude:	42°19'21.42830" North	75646.7223 North
Longitude:	122°52'36.72874" West	1304098.1908 East
Orthometric Height:		1390.5 Ft (3rd Order)
Geoid Height:		-23.335 Meters

GPS 104---"ASH"---The station is an Oregon Primary GPS Network Survey Disk stamped:

OREGON PRIMARY

G.P.S. STATION
ASH
1989

as described on page 19-20 of the Oregon High Precision Network book. (NGS#---NZ1326 on DSX file)

Township 38 South, Range 1 East, SW 1/4 Section 33, Willamette Meridian, Oregon.

Latitude: 42°12'56.39242" North 63387.1294 North
 Longitude: 122°42'25.16768" West 1317783.1441 East
 Orthometric Height: 1826.4 Ft (3rd Order)
 Geoid Height: -22.988 Meters

GPS 01---"PROS"---The station is an Oregon Primary GPS Network
 Survey Disk stamped:

OREGON PRIMARY

.

G.P.S. STATION
 PROS
 1989

as described on page 217-218 of the Oregon High Precision Network
 book. (NGS#---NZ1327 on DSX file)

Township 32 South, Range 3 East, SW 1/4 Section 31, Willamette
 Meridian, Oregon.

Latitude: 42°44'26.41739" North 121279.2172 North
 Longitude: 122°30'37.80897" West 1335402.5224 East
 Orthometric Height: 2530.9 Ft (GPS)
 Geoid Height: -22.377 Meters

GPS 05---"JIM CR."---The station is a 2½-inch diameter brass cap
 monument set in cement, marked:

U S F S
 CONTROL
 G P S

.

31S2E22
 1986

Township 31 South, Range 2 East, SW 1/4 Section 23, Willamette
 Meridian, Oregon.

Latitude: 42°51'29.74702" North 134437.0252 North
 Longitude: 122°33'38.28428" West 1331620.4518 East
 Orthometric Height: 4065.7 Ft (GPS)
 Geoid Height: -22.184 Meters

To reach station from Prospect Ranger Station, follow Highway 62 Northerly for approximately 6 Mi. to Forest Road #68; turn left (Westerly) and follow Road 68 for 1.9 Mi. to Forest Road #64; turn left (Southwesterly) and follow Road 64 for 0.6 Mi. to Forest Road 6470; turn right (Northerly and Westerly) and follow Road 6470 for 2.2 Mi. to Forest Road 6470-300; turn left (Southerly) for 2.4 Mi. to Forest Road 6470-350; turn right (southwesterly) and follow Road 350 for 0.5 Mi. to Forest Road 6470-354; turn right (northwesterly) and follow Road 354 (this road is blocked with a dirt barrier) for 0.7 Mi. to the end of the road. Station is located in an old clearcut area, 40 feet from the center of Road 354, and approximately 100 feet East of the end of the road.

GPS 105---"JHS2"---The station is a 2½-inch diameter brass cap (in a monument case), in asphalt surface of J. Herbert Stone Nursery road, marked:

JHS 2
.

Township 37 South, Range 2 West, NW 1/4 Section 15, Willamette Meridian, Oregon.

Latitude:	42°21'16.46402" North	79333.4034 North
Longitude:	122°56'07.589723 West	1299375.1908 East
Orthometric Height:		1333.6 Ft (GPS)
Geoid Height:		-23.361 Meters

GPS 106---"AGATE DAM RP11"---The station is a U.S. Bureau of Reclamation brass cap monument in cement, marked:

R P 1-1
10+00
20+00

the cap has been defaced, but is readable,

as described on page 3-4 of the Oregon High Precision Network book. (NGS#---NZ 1331 on DSX file)

Township 36 South, Range 1 West, NE 1/4 Section 25, Willamette Meridian, Oregon.

Latitude:	42°24'48.62405" North	85476.6813 North
Longitude:	122°45'43.34569" West	1313832.6736 East
Orthometric Height:		1520.8 Ft (GPS)
Geoid Height:		-23.285 Meters

MONUMENTS FOUND AND UTILIZED THIS SURVEY:

GPS 17---"SHUMP"---The station is marked with a 3½-inch diameter aluminum cap set in concrete, stamped:

U.S.Department of Agriculture
CAMERA
POINT

40S2W11
1986
Forest Service

Township 40 South, Range 2 West, NW 1/4 Section 11, Willamette Meridian, Oregon.

Latitude:	42°06'39.18749" North	52217.3580 North
Longitude:	122°54'39.69506" West	1300606.6983 East
Ortho Height:		3468.9 Ft (GPS)
Geoid Height:		-22.941 Meters

To reach the station from the intersection of and Upper Applegate Highway and Little Applegate Highway (3 miles south of Ruch), follow Little Applegate Highway southeasterly for 6.5 miles to Yale Creek Road (Forest Road 1099); follow Yale Creek Road (1099) southerly and southeasterly for 4.5 miles; turn left (northeasterly) on Forest Road 1099-500; follow road 500 for 0.6 miles to Forest Road 1099-540; turn left (northwesterly) and follow road 540 for 0.8 miles. to the intersection of Forest Roads 540 and 545. Monument is 50 feet southeast of this intersection. Road 540 has a locked gate. Key can be obtained at Applegate Ranger Station.

GPS 18---"WAGNER"---The station is marked with a 3½-inch diameter aluminum cap set in concrete, stamped:

U.S.Department of Agriculture
CAMERA
POINT

.
39S1W34
1986
Forest Service

Township 39 South, Range 1 West, NE 1/4 Section 34, Willamette Meridian, Oregon.

Latitude:	42°08'22.18236" North	55141.6668 North
Longitude:	122°48'09.08854" West	1309664.9119 East
Ortho Height:		4136.5 Ft (GPS)
Geoid Height:		-22.774 Meters

To reach the station from the intersection of Main Street and Wagner Creek Road in Talent, go southerly across railroad tracks past the school; continue southerly and take a right turn at the first stop sign south of the school; follow Wagner Creek road for approximately 8.6 miles to Wagner Gap (intersection of Forest Roads 22 and 2250); monument is located in a large open field, 150 feet south of this intersection and 100 feet West of Talent (McDonald) Irrigation Ditch.

GPS 22---"GRIFFIN"---The station is marked with a 3½-inch diameter aluminum cap set in middle of a paved road, in concrete, stamped:

U.S.Department of Agriculture
CAMERA
POINT

.
38S2W26
1986
Forest Service

Township 38 South, Range 2 West, NW 1/4 Section 26, Willamette Meridian, Oregon.

Latitude:	42°14'08.97188" North	66098.0216 North
Longitude:	122°54'51.61152" West	1300733.0693 East
Ortho Height:		3132.2 Ft (GPS)
Geoid Height:		-23.126 Meters

To reach the station from West Medford, follow Griffin Creek Road (Jackson County) southerly to the intersection of Bureau of Land Management, Anderson Butte Road #38-2-24; follow road 38-2-24 easterly and southerly for 1.9 miles. Monument is located in the center of a paved road, 50 feet east of the section line. The 1/4 corner for sections 26 and 27 bears North, 280 feet.

GPS 28---"EASTSIDE"---The station is marked with a 2½-inch diameter brass cap monument set in concrete in a large rock outcrop. The station is also known as the center-south one-sixteenth (CS 1/16) corner for Section 28, stamped:

```

T39S    R3W
      C
      |
S 1/16 . S28
      |
      C
      |
    19 80
    RPLS 601
  
```

Township 39 South, Range 3 West, SE 1/4 Section 28, Willamette Meridian, Oregon.

Latitude:	42°08'42.60880" North	56396.8020 North
Longitude:	123°03'46.35464" West	1288168.9530 East
Ortho Height:		1545.7 Ft (GPS)
Geoid Height:		-23.305 Meters

To reach the station from Upper Applegate Highway and Eastside Road (East of the Applegate River in section 15), follow Eastside Road southerly for approximately 3.5 miles to Rogue River National Forest Boundary. Walk Westerly along an old fence and the property line for 750 feet. Corner lies on a rock outcrop, 50 feet east of the Applegate River. The Forest Boundary is marked and posted East and South from this corner.

GPS 33---"FISH"---The station is marked with a 2½-inch diameter brass cap monument set in concrete, stamped:

```

U S F S
CONTROL
G P S
.
36S4E33
1986
  
```

Township 36 South, Range 4 East, SE 1/4 Section 33, Willamette Meridian, Oregon.

Latitude:	42°23'23.43862" North	82025.7055 North
Longitude:	122°21'18.48294" West	1347257.0174 East
Ortho Height:		4699.9 Ft (GPS)
Geoid Height:		-22.040 Meters

To reach the station from the intersection of Highway 140 and Fish Lake-Butte Falls Highway (County Road 821) at mile 28.6; follow County Road 821 northerly for 0.2 miles. Turn right (east) on Forest Road 3700-200. Go through a locked gate for 300 feet. Station is located in a clearcut, 100 feet south of road 200. The one-quarter corner for sections 33 and 4 bears southwest, 500 feet.

GPS 39---"JACKASS"---The station is marked with a 2½-inch diameter brass cap monument set in concrete, stamped:

U S F S
CONTROL
G P S
.
34S3E20
1986

Township 34 South, Range 3 East, NW 1/4 Section 20, Willamette Meridian, Oregon.

Latitude:	42°35'55.25452" North	105476.0358 North
Longitude:	122°29'32.30615" West	1336516.6901 East
Ortho Height:		3266.5 Ft (GPS)
Geoid Height:		-22.436 Meters

To reach the station from Butte Falls Ranger Station; follow the Butte Falls-Fish Lake Highway easterly for 0.7 miles to the Butte Falls-Prospect Highway; follow the Butte Falls-Prospect Highway northerly for 5.7 to Bureau of Land Management Road 34-3-29.3; follow road 34-3-29.3 along Jackass Creek for approximately 1 mile to a Y-intersection for BLM roads 34-3-29.3 and 34-3-21.3. Station is located in the median between the two roads, in a pine plantation. A six foot aluminum post bears S.14°W., 12.2 feet.

GPS 41---"MATTHEWS"---The station is marked with a 2½-inch diameter brass cap monument set in a stone and concrete mound, also know as the one-quarter corner (1/4) for Sections 17 and 18, stamped:

T32S R2E
 1/4
 S18 . S17
 1994
 LS 2332

Township 32 South, Range 2 East, SW 1/4 Section 17, Willamette Meridian, Oregon.

Latitude:	42°47'18.21081" North	126797.6510 North
Longitude:	122°37'09.08594" West	1326640.3284 East
Ortho Height:		2199.8 Ft (GPS)
Geoid Height:		-22.530 Meters

To reach the station from Highway 62 and Elk Creek Road intersection; follow Elk Creek Road for northeasterly for approximately 12.7 miles to the intersection of Forest Road 66 in section 18; follow Road 66 southeasterly for approximately 0.6 miles to old road to Squaw Prairie. Follow old road northerly and northwesterly for 0.5 miles to a new fence. Station is located 200 feet south of old road at the corner of a fence. Reference Jackson County Record Survey No. 14387 for a detailed description.

GPS 45---"LAKE"---The station is marked with a 3-inch diameter monument set in the center of Applegate Lake Intake pier, also known as station AG-INTAKE, stamped:

CORPS OF ENGINEERS-U.S. ARMY
 AG-INTAKE

+

1980

SURVEY MARK

Township 40 South, Range 4 West, SE 1/4 Section 25, Willamette Meridian, Oregon.

Latitude:	42°03'17.23442" North	199431.6872 North
Longitude:	123°06'56.44674" West	4987962.6205 East
Ortho Height:		2006.2 Ft (3rd-Order)
Geoid Height:		-23.414 Meters

To reach the station from Swain View Point at Applegate Lake, walk 500 feet easterly along a concrete walk way to its end over Applegate Lake. Station is in the top-center of in Intake Tower for Applegate Dam.

GPS 46---"FERNS"---The station is marked with a 3-inch diameter monument set in concrete, stamped:

JACKSON COUNTY S.
 FERNS
 .
 19 68

Township 38 South, Range 1 West, SE 1/4 Section 2, Willamette Meridian, Oregon. (NGS#---NZ 1109)

Latitude:	42°17'20.91424" North	71722.4079 North
Longitude:	122°47'11.72205" West	1311435.6472 East
Ortho Height:		2112.4 Ft (GPS)
Geoid Height:		-23.181 Meters

Found station as described by Jackson County and NGS (reference NZ 1109 on DSX file).

GPS 107 "BL 1200"---The station is marked with a standard NGS calibration baseline disc set in top of a 35-inch diameter concrete post, stamped:

CALIBRATION BASELINE
 1200
 +
 19 86
 NATIONAL GEODETIC SURVEY

Township 36 South, Range 2 East, NW 1/4 Section 20, Willamette Meridian, Oregon.

Latitude:	42°25'54.12118" North	87186.5677 North
Longitude:	122°37'04.11018" West	1325751.5466 East
Ortho Height:		1774.4 Ft (GPS)
Geoid Height:		-23.006 Meters

To reach the station from the intersection of Highway 62 and Highway 140 in White City, go easterly on Highway 140 for 14.7 miles to the log scaling station (2 miles past Lake Creek Road). Station is 21.3 meters south of Highway 140 centerline and 8.8 meters north of a wire fence.

GPS 108---"BL 430"---The station is marked with a standard NGS calibration baseline disc set in a 31-inch diameter concrete post, stamped:

CALIBRATION BASELINE

430

+

19 86

NATIONAL GEODETIC SURVEY

Township 36 South, Range 2 East, NW 1/4 Section 20, Willamette Meridian, Oregon.

Latitude:	42°25'50.12151" North	87044.0248 North
Longitude:	122°36'30.86736" West	1326508.0407 East
Ortho Height:		1799.5 Ft (GPS)
Geoid Height:		-22.979 Meters

To reach the station from the intersection of Highway 62 and Highway 140 in White City, go easterly on Highway 140 for 14.7 miles to the log scaling station (2.0 miles past Lake Creek Road). Continue easterly for 0.5 miles. Station is 19.7 meters south of Highway 140 centerline and 10.7 meters north of a wire fence.

GPS 109---"BL 000"---The station is marked with a standard NGS calibration baseline disc set in a 24-inch diameter concrete post, stamped:

CALIBRATION BASELINE

0

+

19 86

NATIONAL GEODETIC SURVEY

Township 36 South, Range 2 East, NE 1/4 Section 20, Willamette Meridian, Oregon.

Latitude:	42°25'47.88935" North	86964.5000 North
Longitude:	122°36'12.29770" West	1326930.6380 East
Ortho Height:		1816.7 Ft (GPS)
Geoid Height:		-22.962 Meters

To reach the station from the intersection of Highway 62 and Highway 140 in White City, go easterly on Highway 140 for 14.7 miles to the log scaling station (2.0 miles past Lake Creek Road). Continue easterly for 0.75 miles. Station is 18.6 meters south of Highway 140 centerline and 11.5 meters north of a wire fence.

GPS 110----"CHANDRA"**----**The station is a marked with a 3-inch diameter Bureau of Land Management brass cap monument, marked:

U.S. DEPT OF THE INTERIOR

T36S		R3E
S33		S34
S 4		S 3

T37S
1961
BUREAU OF LAND MANAGEMENT
CADASTRAL SURVEY

Township 36 South, Range 3 East, SE 1/4 Section 33, Willamette Meridian, Oregon.

Latitude:	42°23'20.85343" North	82150.2502 North
Longitude:	122°27'50.23256" West	1338297.0738 East
Ortho Height:		3080.0 Ft (GPS)
Geoid Height:		-22.438 Meters

To reach the station from the intersection of Highway 62 and Highway 140 in White City, go easterly on Highway 140 for 22.55 miles to a private driveway, 50 feet East of the National Forest boundary. Corner is a standard BLM monument located S.32°E., 63 feet from a well, and bears South, 187 feet from the centerline of Highway 140. National Forest land is to the northwest and southeast of this section corner.

GPS 111---"BUTTE FALLS"---The station is marked with a 2½-inch diameter brass cap monument set in a stone and concrete, stamped:

PROPERTY CORNER

.
1990
LS 1071

Township 35 South, Range 2 East, SE 1/4 Section 10, Willamette Meridian, Oregon.

Latitude:	42°32'23.30164" North	99081.9479 North
Longitude:	122°33'52.71883" West	1330420.8948 East
Ortho Height:		2530.80 Ft (3rd-Order)
Geoid Height:		-22.741 Meters

The monument is located in the town of Butte Falls, Oregon, at the southeast corner of U.S. Forest Service property as follows: At the intersection of the north side of Medco Haul Road and west side of Laurel Ave. Reference R.S. 12271 (line "A") dated August 30, 1990 by Harold L. Center.

MONUMENTS ESTABLISHED THIS SURVEY:

GEODETIC CONTROL---G.P.S. STATIONS:

GPS 42---"ABBOTT"---The station is marked with a 2½ ins. diam., 30 ins. long iron post set 24 ins. in a 3 ft. X 2 ft. concrete and stone mound. Cap stamped:

G P S
4 2
ABBOTT
.
1994
LS 2332

Township 32 South, Range 1 East, NW 1/4 Section 1, Willamette Meridian, Oregon.

Latitude:	42°49'20.38774" North	130640.3319 North
Longitude:	122°39'16.90052" West	1323833.5478 East
Ortho Height:		2733.7 Feet (GPS)
Geoid Height:		-22.495 Meters

To reach the station from the intersection of Highway 62 and Elk Creek Road; follow Elk Creek Road northeasterly for approximately 12 miles to Forest Road 6620; follow road 6620 northerly and northwesterly for approximately 2.5 miles to Forest Road 6620-100; The station is located 500 feet northeast of this intersection on private land, between the road 6620 and an old rock pit. The National Forest Boundary is approximately 200 feet north. Bitter Lick Creek and Trail #1079 bears East, 0.3 miles.

GPS 43---"STAR"---The station is marked with a 3-inch diameter brass disk, cemented in a cement slab, stamped:

G P S
4 3
.
D

1994

Township 39 South, Range 3 West, NE 1/4 Section 28, Willamette Meridian, Oregon.

Latitude:	42°08'57.68771" North	56851.0542 North
Longitude:	123°03'30.96061" West	1288536.4921 East
Ortho Height:		1555.6 Feet (GPS)
Geoid Height:		-23.305 Meters

Station is located at U.S. Forest Service, Applegate Ranger Station near the gas pump island. Brass disk set near the southeast corner of a cement slab.

GPS 44--"CHARLIE" station is marked with a 2½ ins. diam. by 30 ins. long iron post with a 2½ ins. diam. brass set flush and surrounded by concrete. Cap stamped:

G P S
4 4
CHARLIE
.
1994
LS 2332

Township 40 South, Range 3 West, NW 1/4 Section 9, Willamette Meridian, Oregon.

Latitude: 42°06'34.01430" North 52448.6215 North
 Longitude: 123°04'11.77547" West 1287463.7467 East
 Ortho Height: 2427.3 Feet (GPS)
 Geoid Height: -23.315 Meters

To reach the station from Upper Applegate Highway and Beaver Creek Road 20; follow Beaver Creek Road easterly for approximately 1.5 miles to Forest Road 941 (Charlie Buck Gulch); follow road 941 southerly and southwesterly for 0.9 miles to road 943; follow road 943 southwesterly for 0.8 miles to the edge of a north-facing clearcut. Station is located 10 feet north of road and 100 feet west of an old trail. Beaver Creek Road and private dwellings are visible to the north. Road 943 is rocky and is not maintained. Two gates have been locked at times. Check with Applegate Ranger Station for access.

GPS 47---"DEADMAN POINT"---The station is marked with a 2½ ins. diam. by 30 ins. long iron post with a 2½ ins. diam. brass set in a concrete and rock mound, 3 feet base, 2 feet high. Cap stamped:

G P S
 4 7
 DEADMAN
 .
 1994
 LS 2332

Township 40 South, Range 2 West, SE 1/4 Section 21, Willamette Meridian, Oregon.

Latitude: 42°04'15.99032" North 47858.6149 North
 Longitude: 122°56'06.84840" West 1298476.6745 East
 Ortho Height: 4960.8 Feet (GPS)
 Geoid Height: -22.935 Meters

To reach the station from the intersection of Upper Applegate Highway and Beaver Creek Road 20; follow Beaver Creek Road 20 southeasterly for approximately 10 miles to a saddle, near a cattle guard and Forest Road 2000-840. Station is located between Road 20 and Road 840.

GPS 48---"BUCK POINT"---The station is marked with a 3-inch diameter brass cap cemented in a large rock near Buck Point, stamped:

BUCK POINT
 GPS 48
 .
 19 94
 LS 2332

Township 36 South, Range 3 East, SE 1/4 Section 21, Willamette Meridian, Oregon.

Latitude: 42°25'19.05580" North 85801.0183 North
 Longitude: 122°27'58.80305" West 1338186.7195 East
 Ortho Height: 5006.1 Ft (GPS)
 Geoid Height: -22.438 Meters

To reach the station from the intersection of Highway 62 and Highway 140 in White City, follow Highway 140 easterly for 18.7 miles to Wasson Canyon Road (BLM Road 36-3E-26); follow road 36-3E-26 northerly and easterly for 9.7 miles to Forest Road 3050; follow road 3050 northerly for 0.5 miles to Forest Road 3050-850; Follow Road 850 southeasterly and northeasterly for 1.1 miles, to its end. Station is located on Buck Point at the old lookout site.

GPS 49----"DECEPTION"----The station is marked with a 2½ ins. diam. 30 ins. long iron post set in concrete, stamped:

DECEPTION
 G P S
 4 9
 .
 1994
 LS 2332

Township 34 South, Range 4 East, NE 1/4 Section 33, Willamette Meridian, Oregon.

Latitude: 42°34'16.43277" North 102161.4286 North
 Longitude: 122°21'03.35389" West 1348048.2431 East
 Ortho Height: 4412.8 Feet (GPS)
 Geoid Height: -21.922 Meters

To reach the station from Butte Falls Ranger Station; follow the Fish Lake-Butte Falls Highway easterly for approximately 0.7 miles to the fish hatchery on the south and the Butte Falls-Prospect Highway on the north; follow the Butte Falls-Prospect Highway northerly and easterly approximately 2 miles to the intersection of Forest Road 32 (Rancheria Road); follow Road 32 easterly and northeasterly for approximately 11.4 miles to the intersection of Forest Road 3200-560; follow Road 560 southerly and westerly for approximately 1.1 miles. Station is located in an old clearcut, 100 feet north of road 560, between Fireline Creek and Deception Creek.

GPS 50---"ZIMMERMAN"---The station is marked with a 3½ ins. diam. brass disk set in a large rock, stamped:

ZIMMERMAN SEED ORCHARD
GPS 50
.
1994
LS 2332

Township 33 South, Range 4 East, SW 1/4 Section 19, Willamette Meridian, Oregon.

Latitude:	42°41'04.60659 North	114827.5894 North
Longitude:	122°23'30.70702" West	1344973.0348 East
Ortho Height:		4081.8 Feet (GPS)
Geoid Height:		-21.985 Meters

To reach the station from Butte Falls Ranger Station; follow the Fish Lake-Butte Falls Highway easterly for approximately 0.7 miles to intersection of the Butte Falls-Prospect Highway on the north; follow the Butte Falls-Prospect Highway northeasterly for approximately 9 miles to the intersection of Forest Road 34 (Lodgepole Road); Follow Road 34 northeasterly for 4.7 miles to Forest Road 3400-400; Follow Road 400 northerly for 2.5 miles to Forest Road 440; Follow Road 440 northwesterly for 0.5 miles to U.S. Forest Service Zimmerman Seed Orchard; enter locked gate and follow road northerly for 500 feet to a old trailer and buildings. Station is located on a rock outcrop, 50 feet west of the access road, and 150 feet southwest of trailer.

GPS 51---"LODGEPOLE"---The station is marked with a 3 ins. diam. brass disk set bedrock, stamped:

LODGEPOLE GUARD STATION
GPS 51
.
19 94
LS 2332

Township 33 South, Range 4 East, SW 1/4 Section 32, Willamette Meridian, Oregon.

Latitude:	42°39'13.04873" North	111363.5558 North
Longitude:	122°22'46.30790" West	1345906.2434 East
Ortho Height:		3932.6 Ft (GPS)
Geoid Height:		-21.954 Meters

To reach the station from Butte Falls Ranger Station; follow the Fish Lake-Butte Falls Highway easterly for approximately 0.7 miles to the fish hatchery on the south and the Butte Falls-Prospect Highway on the north; follow the Butte Falls-Prospect Highway northerly and easterly approximately 9 miles to the intersection of Forest Road 34 (Lodgepole Road); Follow Road 34 northeasterly for approximately 4.9 miles to the intersection of Forest Road 600 (Lodgepole Guard Station road); follow Road 600 northerly for approximately 0.6 miles to Lodgepole Guard Station. Station is located in an open meadow near Lodgepole Guard Station.

GPS 52---"SWALE"---The station is marked with a 2½ ins. diam. 30 ins. long iron post set in concrete, stamped:

S W A L E
G P S
5 2
.
19 94
LS 2332

Township 35 South, Range 3 East, NE 1/4 Section 32, Willamette Meridian, Oregon.

Latitude:	42°29'21.68973" North	93330.3589 North
Longitude:	122°29'22.00316" West	1336463.0441 East
Ortho Height:		3044.9 Feet (GPS)
Geoid Height:		-22.520 Meters

To reach the station from Butte Falls Ranger Station; follow the Butte Falls-Fish Lake Highway easterly for approximately 5 miles to Forest Road 3015; follow Road 3015 southeasterly for 1.7 miles, just north of Road 100 intersection. Station is located 20 feet west of Road 3015 in an open meadow. The one-quarter corner for sections 29 and 32 is visible approximately 200 feet to the northwest.

GPS 53---"TWIN PONDS"---The station is marked with a 3 ins. diam. brass disk set in a drill hole with epoxy, in a large rock outcrop, stamped:

TWIN PONDS
G P S
5 3
.
19 94
LS 2332

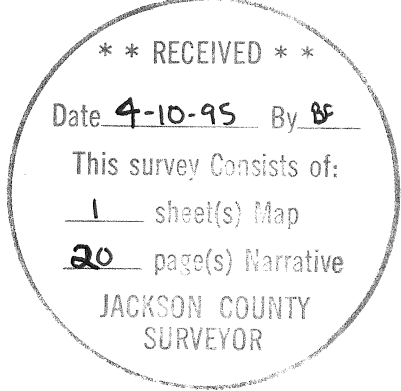
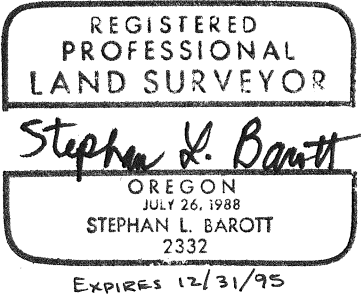
Township 35 South, Range 4 East, NE 1/4 Section 34, Willamette Meridian, Oregon.

Latitude: 42°29'20.31326" North 92984.3652 North
Longitude: 122°19'38.66863" West 1349779.7521 East
Ortho Height: 4860.1 Feet (GPS)
Geoid Height: -21.884 Meters

To reach the station from the intersection of Highway 62 and Highway 140 in White City; follow Highway 140 easterly for 28.6 miles to the Butte Falls-Fish lake Highway (County Road 821); Follow the Butte Falls-Fish Lake Highway northerly for 9 miles to Forest Road 37; Follow Road 37 easterly for 1.6 miles to the intersection of Forest Road 3760 (a red cinder road); Follow Road 3760 easterly for 4.5 miles to a wide turn out near its end. Station is located on the west side of road 3760 on a large boulder, near a bend in the road, and 200 feet west of the Twin Ponds Trail Head at the Sky Lakes Wilderness Boundary.

BASIS OF BEARING: Basis of bearing is geodetic (GPS) converted to Grid, Oregon South Zone.

Survey Commenced: FEBRUARY 2, 1994
Survey Completed: MARCH 6, 1995



STEPHAN L. BAROTT
Registered Professional Land Surveyor
Oregon Certificate No. 2332