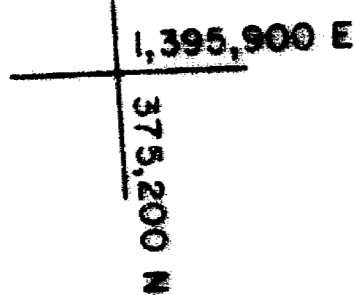


HORIZONTAL CONTROL SUMMARY - Sheets 1 thru 3

Coordinates for sheets 1 through 3 are based on USCE 1974 Second Order Lambert Coordinates (South Zone) at Δ EC-47. Basis of bearing: USCE record bearing from Δ EC-47 to Δ EC-46 = N 26°21'46.2" E.

All bearings and distances shown are on State Plane Coordinate grid. Coordinates and distances are shown to .xxx feet and bearings to .x feet for mathematical consistency only and are not intended to imply accuracy of survey.

An average latitude and elevation were used to compute a single grid factor for the entire length of the relocated lower Elk Creek Road and approach road:
 Scale factor (latitude N 42°40'45") = 0.9999308
 Elevation factor (1600') = 0.9999230
 Combined (grid) factor = 0.9998538



LEGEND

- Δ = Found USCE brass disc, second order control monument
- \odot = Found monument as described; see narrative for additional information
- \bullet = Set 5/8" diameter x 30" steel pin with aluminum cap, set .05' below surface of Elk Creek Road, 0.5' below surface of approach road
- \circ = No monument - will be set on subsequent survey of project boundary now underway.
- B.T. = Bearing tree
- CMP = Corrugated metal pipe culvert
- = Top of cut limits
- ~~~~~ = Bottom of fill limits

LEFT	STATION	RIGHT
0	L 119+52.80 PT	0
0.4'	L 116+64.96 PC	-
0.5'	L 112+02.61 PT	-
0.3'	L 109+77.89 PC	-
1.3'	L 107+07.55 PT	-
1.1'	L 104+94.91 PC	-
0.3'	L 100+61.97 PT	-
1.2'	L 99+37.64 PC	-
2.1'	L 99+00.00	-

Location of \odot of asphalt relative to monumented \odot

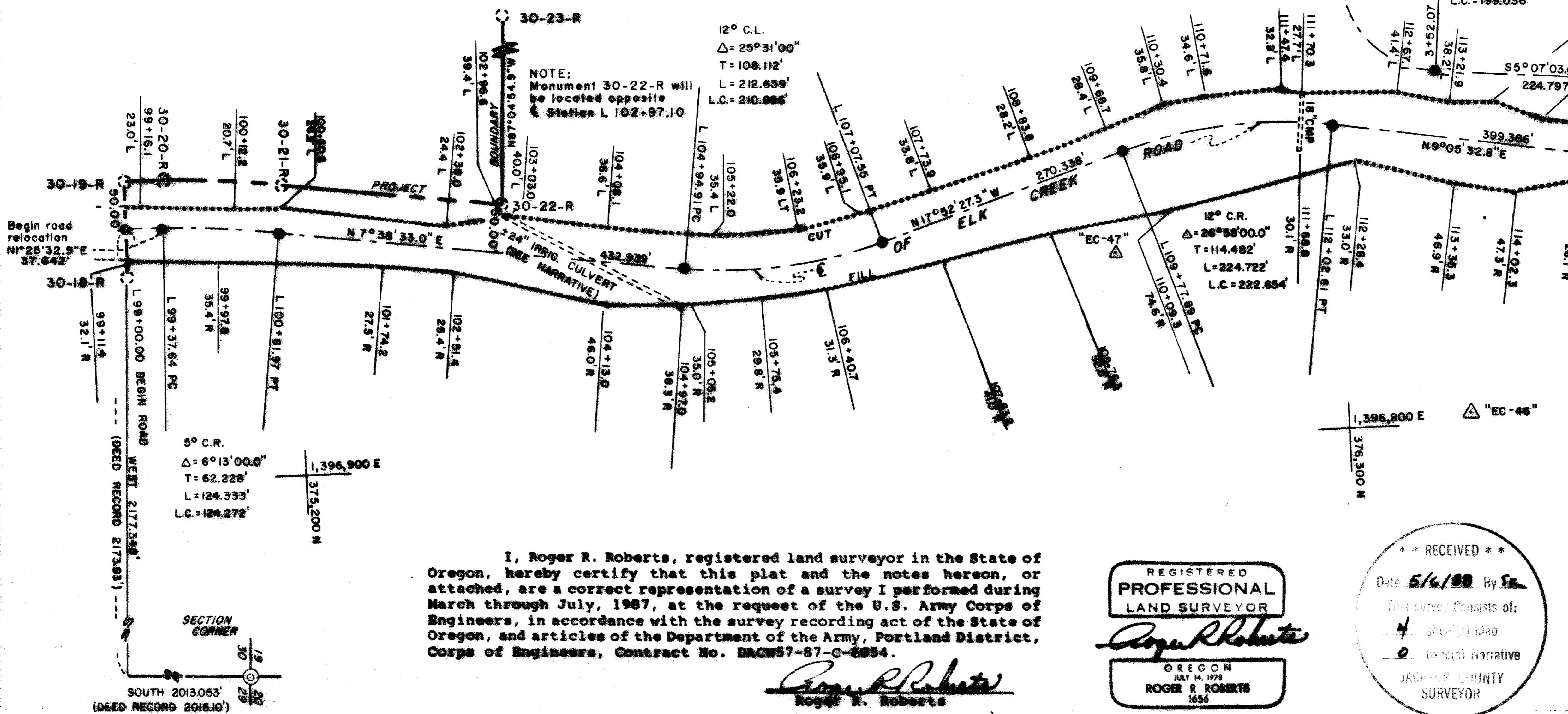
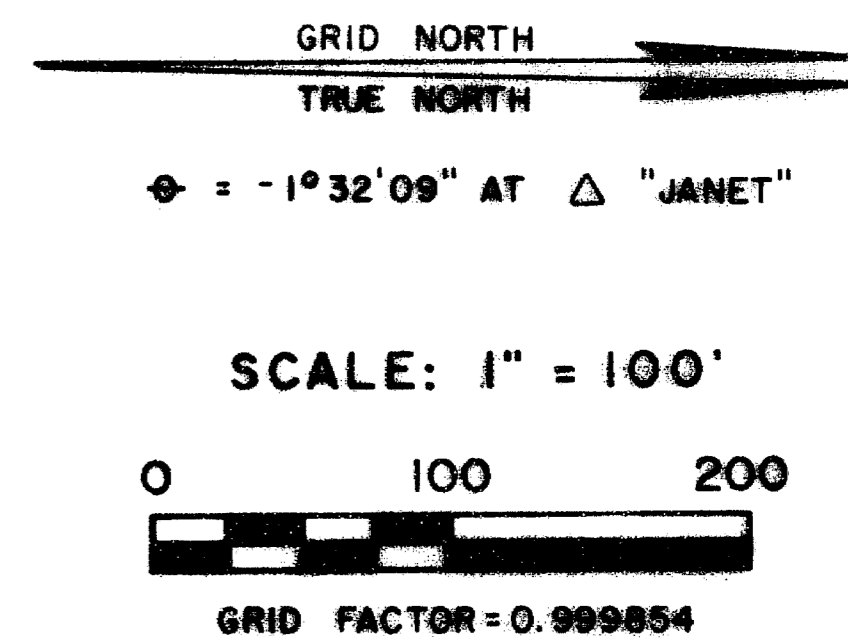
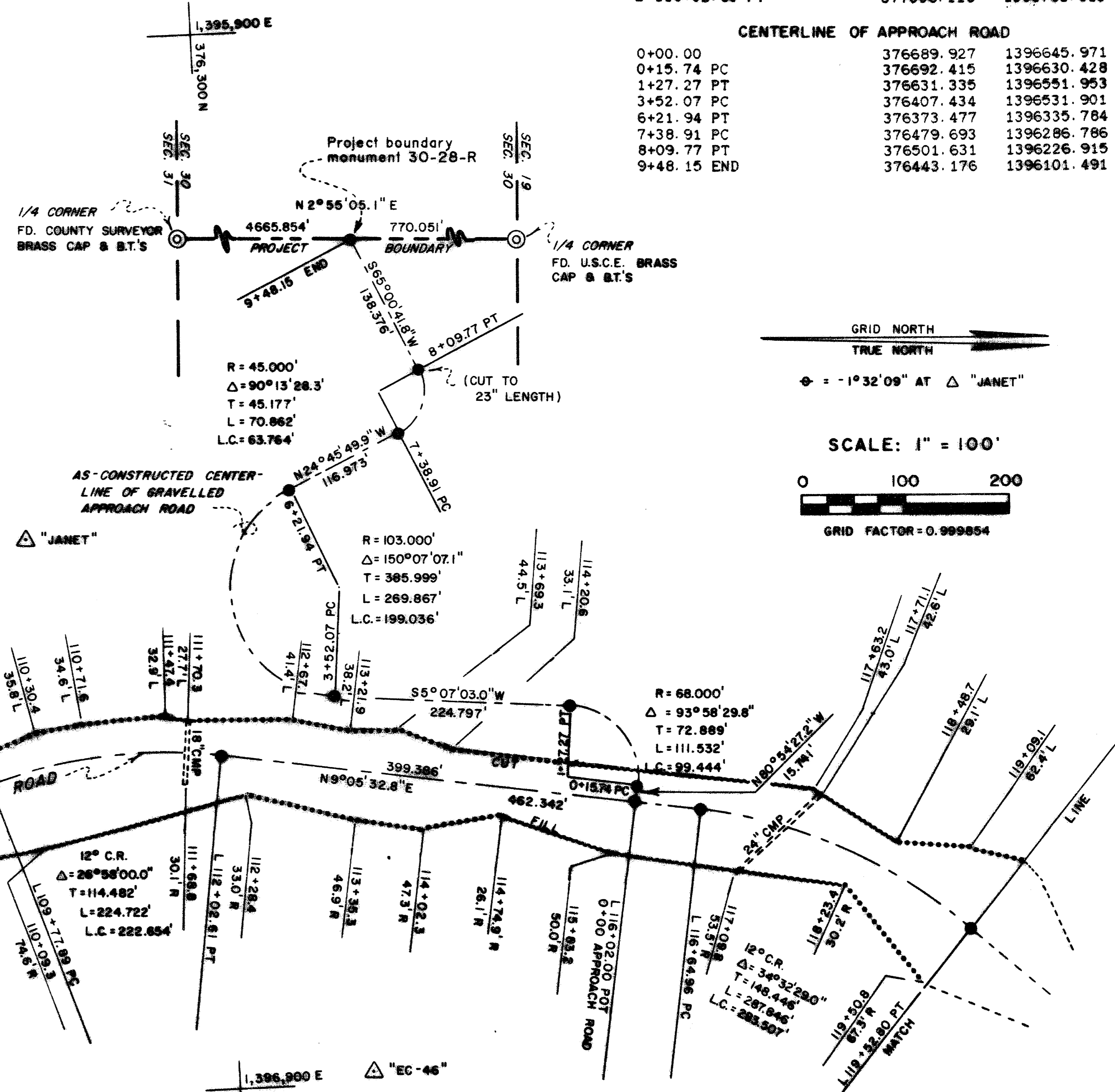
Map format and monumentation have been reviewed and found acceptable.

By: *William G. Galt, County Engineer*
 Jackson County Public Works Department

DESCRIPTION	LAMBERT COORDINATES	
	NORTHING	EASTING
JANET	376120.274	1396370.547
EC-46	376429.942	1396808.455
EC-47	376080.243	1396705.234
1/4 corner Section 19/30	377212.229	1396140.693
1/4 corner Section 30/31	371783.373	1388883.961

CENTERLINE OF ELK CREEK ROAD		
L 99+00.00	375015.621	1396633.345
L 99+37.64 PC	375053.252	1396634.282
L 100+61.97 PT	375177.135	1396644.106
L 104+94.91 PC	375606.228	1396701.683
L 107+07.55 PT	375816.274	1396682.878
L 109+77.89 PC	376073.563	1396599.904
L 112+02.61 PT	376295.564	1396582.857
L 116+64.96 PC	376752.096	1396655.920
L 119+52.80 PT	377006.118	1396781.813

CENTERLINE OF APPROACH ROAD		
0+00.00	376689.927	1396645.971
0+15.74 PC	376692.415	1396630.428
1+27.27 PT	376631.335	1396551.953
3+52.07 PC	376407.434	1396531.901
6+21.94 PT	376373.477	1396335.784
7+38.91 PC	376479.693	1396286.786
8+09.77 PT	376501.631	1396226.915
9+48.15 END	376443.176	1396101.491



I, Roger R. Roberts, registered land surveyor in the State of Oregon, hereby certify that this plat and the notes hereon, or attached, are a correct representation of a survey I performed during March through July, 1987, at the request of the U.S. Army Corps of Engineers, in accordance with the survey recording act of the State of Oregon, and articles of the Department of the Army, Portland District, Corps of Engineers, Contract No. DACW57-87-G-8954.

Roger R. Roberts
 Roger R. Roberts

REGISTERED PROFESSIONAL LAND SURVEYOR
Roger R. Roberts
 OREGON 287.14.178
 ROGER R. ROBERTS
 1954

RECEIVED
 Date: 5/6/88 By: [Signature]
 This survey consists of:
 4 sheets map
 2 sheets narrative
 JACKSON COUNTY SURVEYOR

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROGUE RIVER BASIN
 ELK CREEK LAKE
 CENTERLINE MONUMENTATION OF RELOCATED LOWER PORTION
 ELK CREEK COUNTY ROAD
 AND APPROACH ROAD
 SECTION 30, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
 JACKSON COUNTY, OREGON

SUPERVISED: *Roger R. Roberts* DRAWN: C. FERNS REAL ESTATE MAP SEGMENT I
 NPPEN-SY-86-50
 DATE: SEPTEMBER 1987 SHEET: 1 OF 4 PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON

1/4 CORNER
FOUND U.S.C.E.
BRASS CAP
AND B.T.'S

NOTE: REFER TO SHEET I FOR
HORIZONTAL CONTROL SUMMARY

LAMBERT COORDINATES

DESCRIPTION	NORTHING	EASTING
Centerline at sectionline	377158.156	1396926.766
Section cor 19, 20, 29, 30	377028.674	1398810.693
1/4 corner Section 19/30	377212.229	1396140.693

CENTERLINE OF ELK CREEK ROAD

L 119+52.80 PT	377006.118	1396781.813
L 123+08.70 PC	377263.707	1397027.397
L 128+33.26 PT	377746.646	1397063.639
L 131+05.07 PC	377969.167	1396907.539
L 136+09.91 PT BK	378437.491	1396930.549
L 137+73.82 AHD		
L 144+86.08 PC	378977.678	1397394.786

SECTION 30

SECTION 19

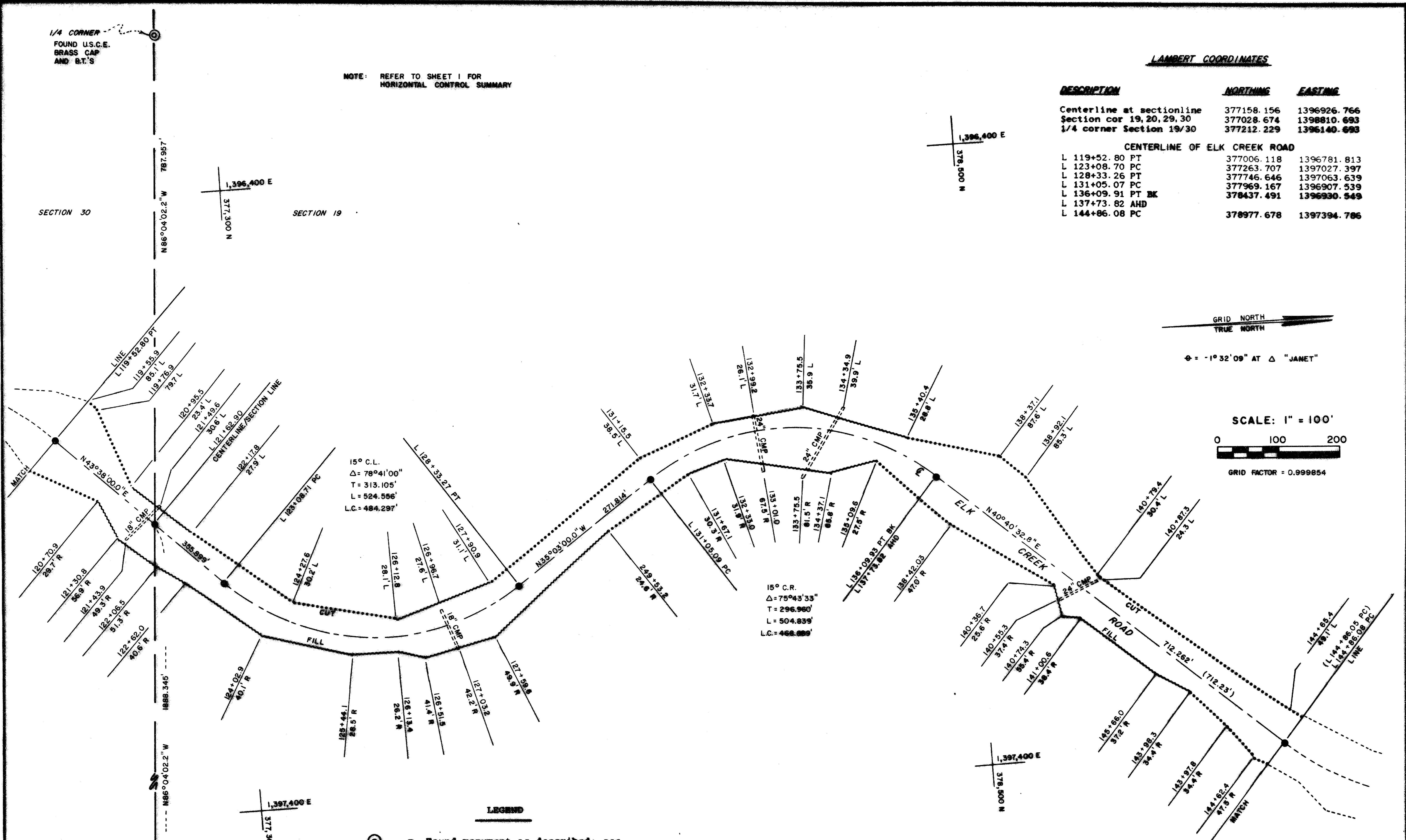
GRID NORTH
TRUE NORTH

∠ = -1° 32' 09" AT ∠ "JANET"

SCALE: 1" = 100'



GRID FACTOR = 0.999854



LEGEND

- ⊙ = Found monument as described; see narrative for additional information
- = Set 5/8" diameter x 38" steel pin with aluminum cap, set .65' below road surface
- B.T. = Bearing tree
- CMP = Corrugated metal pipe culvert
- = Top of cut limits
- = Bottom of fill limits

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Roger R. Schmitt
OREGON
JULY 24, 1978
ROGER R. SCHMITT
P.L.S.

U.S. ARMY ENGINEER DISTRICT, PORTLAND

**ROGUE RIVER BASIN
ELK CREEK LAKE**

CENTERLINE MONUMENTATION OF RELOCATED LOWER PORTION
ELK CREEK COUNTY ROAD

SECTION 19, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
JACKSON COUNTY, OREGON

SUPERVISED: <i>Roger R. Schmitt</i>	DRAWN: C. FERNS	REAL ESTATE MAP SEGMENT I NPPEN-SY-86-50
DATE: SEPTEMBER 1987	SHEET: 2 OF 4	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON

1,397,000 E
380,000 N

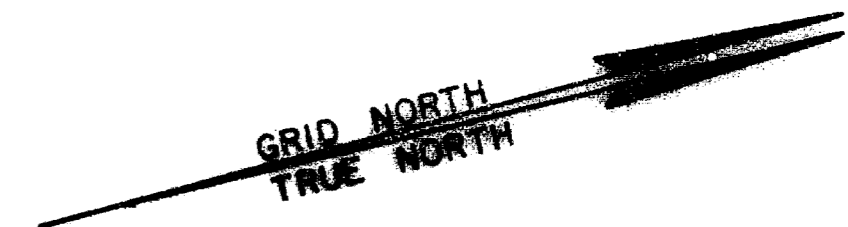
1,397,000 E
379,200 N

12° C.L.
 $\Delta = 27^{\circ}15'33''$ (27°16')
 $T = 115.773'$ (115.80')
 $L = 227.161'$ (227.22')
 $L.C. = 225.025'$ (225.08')

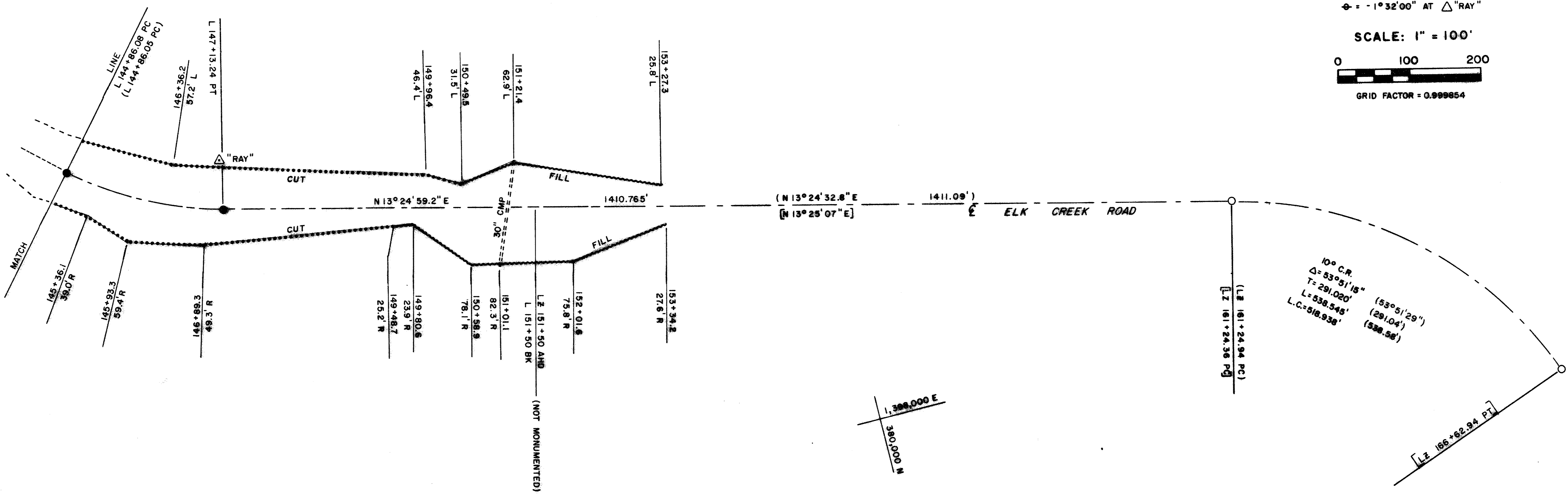
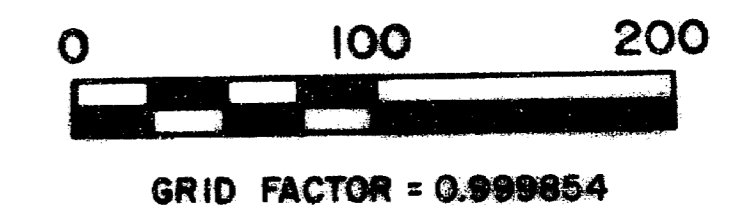
NOTE: REFER TO SHEET I FOR HORIZONTAL CONTROL SUMMARY

LAMBERT COORDINATES

DESCRIPTION	NORTHING	EASTING
RAY	379190.617	1397431.544
FLO	379966.921	1398290.629
CENTERLINE OF ELK CREEK ROAD		
L 144+86.08 PC	378977.678	1397394.786
L 147+13.24 PT	379178.094	1397497.106
LZ 161+24.36 PC	380550.358	1397824.442
LZ 166+62.94 PT	380945.861	1398160.410



SCALE: 1" = 100'



10° C.R.
 $\Delta = 53^{\circ}51'15''$ (53°51'29")
 $T = 291.020'$ (291.04')
 $L = 538.545'$ (538.58')
 $L.C. = 518.938'$

LEGEND

- \triangle = Found USCE brass disc, second order control monument
- \circ = Found aluminum cap monument in road surface
- \bullet = Set 5/8" diameter x 38" steel pin with aluminum cap, set .05' below surface of Elk Creek Road
- CMP = Corrugated metal pipe culvert
- = Top of cut limits
- ~~~~~ = Bottom of fill limits
- () = Design record measurement
- [] = Prior record of survey

\triangle "FLO"

REGISTERED
PROFESSIONAL
 LAND SURVEYOR
Roger L. Roberts
 OREGON
 JULY 14, 1978
ROGER L. ROBERTS
 M.S.C.

U.S. ARMY ENGINEER DISTRICT, PORTLAND		
ROGUE RIVER BASIN ELK CREEK LAKE CENTERLINE MONUMENTATION OF RELOCATED LOWER PORTION ELK CREEK COUNTY ROAD SECTION 19, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M. JACKSON COUNTY, OREGON		
SUPERVISED: <i>C. Ferns</i>	DRAWN: C. FERNS	REAL ESTATE MAP SEGMENT I NPPEN-SY-86-50
DATE: SEPTEMBER 1987	SHEET: 3 OF 4	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON

1,398,000 E
379,200 N

1,398,000 E
380,000 N

**SURVEY NARRATIVE TO COMPLY WITH PARAGRAPH 209.250
OREGON REVISED STATUTES**

LOCATION: Sections 19 and 30, Township 33 South, Range 1 East of the Willamette Meridian, Jackson County, Oregon.

PURPOSE: To monument and plat the centerline of the lower portion of the relocated Elk Creek Road, from beginning station L 99+00 to the beginning of the curve at station LZ 161+24.94. Also, to monument and plat the centerline of the approach road from the centerline of Elk Creek Road to the project boundary.

PROCEDURE: Establishing Lambert State Plane Coordinate control

Field survey work commenced on March 27, 1987. Second order control station EC-47, located near the beginning of the project, was used for the basis of coordinates, and the backsight taken from EC-47 to EC-46 was used as bearing control. A control traverse was then run northerly from EC-47, along the as-constructed roadway, and closed on second order control station "RAY", with the angle closure taken on the line from "RAY" to "FLO". The angular closure of the traverse was $00^{\circ}00'47''$, with a precision of 1 in 38,300. The closed traverse was then adjusted using the compass rule.

An average latitude of $N 42^{\circ}40'45''$ and representative average elevation of 1600 ft. were used to determine the grid factor of 0.999854.

DETERMINING THE CENTERLINE OF ELK CREEK ROAD

To establish the beginning point L 99+00, there were 4 possible locations to consider;

- A. By deed calls from the northeast corner of Section 30, based on USCE record coordinates for the section corner
- B. By deed calls from the same section corner, based on coordinates of its position as determined by a private surveyor (Oregon LS #1069) in 1906, just prior to its necessary destruction by construction activities
- C. The design record coordinate position of L 99+00
- D. Adjusting the design measurements to best fit the constructed road configuration.

The coordinates of the section corner as defined in Method B above were determined by direct measurements from second order control stations EC-42 and EC-44, and differed from those defined in Method A by 4.22 feet. After contacting the surveyor to discuss his method of measurement and degree of accuracy attained, it was decided that the section corner coordinates as determined by Method B were probably the more accurate. Method A was therefore eliminated.

The location of L 99+00 as determined by Method C fell 1.9 feet east of the centerline of asphalt, and by Method B fell 5.4 feet east of the line. During the survey of the control traverse, sideshot measurements were taken to locate the as-constructed centerline of the road surface. Comparing this with Methods B and C showed Method C to be more in conformance with the as-constructed line. Also, since the descriptions of several private parcels of land abutting the road right of way are controlled by the location of L 99+00, using the design coordinates would more closely follow the intent at the time these legal descriptions were written and recorded. Methods B and D were eliminated.

The centerline location was therefore computed strictly by design coordinates and measurements from L 99+00 to and including the PI of the last curve. The configuration of this curve was adjusted slightly from the design plan to fit the resultant bearing from the PI to the previously monumented point of curve at station LZ 161+24.94. The monuments were then placed accordingly.

The ends of the irrigation culvert crossing under the roadbed between stations 102+96.6 and 104+97.0 are enclosed in inlet and outlet structures and the true size of pipe not apparent.

CENTERLINE OF APPROACH ROAD

A geometric centerline was computed to closely follow the as-constructed centerline, and monuments placed accordingly. Monuments were placed along the centerline from Elk Creek Road to the project boundary, with the project boundary being determined by a straight line computed between the South 1/4 and North 1/4 corners of Section 30.

SECTION CONTROL: (Bearings rotated to true north)

South 1/4 corner of Section 30:

Found, the 1970 County Surveyor brass cap monument marking the 1/4 corner common to Sections 30 and 31, and the following bearing trees.

- 14" dia. black oak bears $N 12^{\circ}57' W 26.8$ ft.
- 34" dia. fir snag bears $S 88^{\circ}07' W 8.2$ ft.
- 12" dia. black oak bears $N 19^{\circ}10' E 14.7$ ft.
- 20" dia. white oak bears $N 88^{\circ}39' E 61.3$ ft.

North 1/4 corner of Section 30:

Found, the 1960 USCE brass cap on 1.5" dia. pipe, exposed 7", marking the 1/4 corner common to sections 30 and 19, and the following bearing trees.

- 11" dia. fir bears $N 40^{\circ}50' E 6.4$ ft.
- 18" dia. oak bears $N 74^{\circ}15' E 21.4$ ft. 9" dia. fir bears $S 31^{\circ}28' E 13.2$ ft.

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Roger L. Roberts

OREGON
JULY 14, 1972
ROGER L. ROBERTS
1456

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROGUE RIVER BASIN
ELK CREEK LAKE
SURVEY NARRATIVE
ELK CREEK COUNTY ROAD
AND APPROACH ROAD
SECTIONS 19 AND 30, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
JACKSON COUNTY, OREGON

SUPERVISED: <i>R. Roberts</i>	DRAWN: C. FERNS	REAL ESTATE MAP SEGMENT I NPPEN-SY-86-50
DATE: SEPTEMBER 1987	SHEET: 4 OF 4	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON