

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

LOCATION: Section 20, Township 33 South, Range 1 East of the
Willamette Meridian, Jackson County, Oregon.

PURPOSE: To monument the boundary corners and post line markers
along that portion of the Elk Creek Project Boundary being
in Section 20, as shown on Segment 1 of the Corps of
Engineers Elk Creek Lake Real Estate drawings. The survey
was performed during June 1987 through May 1988.

PROCEDURE: Establishing Lambert State Plane Coordinate control:

Second order control monument Station LET, established
by the Corps of Engineers in 1974, was used as a basis of
Lambert State Plane Coordinates (South Zone). The 1974
adjusted coordinates were used. The line from Station LET
to Station GBL, also established in 1974 and located in the
southeast quarter-section of adjoining Section 18, was used
as a basis of bearing. The USCE record bearing from LET to
GBL = North 52°58'08.5" West.

All bearings and distances shown are on State Plane
Coordinate grid. Coordinates and distances are shown to .xxx
feet and bearings to .x seconds 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 each individual survey traverse.
The grid factor at Station LET is:

Scale factor (latitude N 42°41'10") = 0.9999298
Elevation factor (2200') = 0.9998948
Combined (grid) factor = 0.9998246

All horizontal control established by this survey meets
requirements of 3rd Order, Class 1, National Oceanic and
Atmospheric Administration specifications for geodetic
control.

Establishing section subdivision control:

The project boundary within Section 20 is dependent
upon the subdivisional lines of the section. A series of
traverses were run, using an electronic "total station" 1
second theodolite and distance meter, to locate the
controlling section monuments and establish coordinates.

The location of the southwest corner of the section
falls in the construction area of the Elk Creek dam. The
monument and all accessories were destroyed by excavation
work. The coordinates used were those as determined by a
registered surveyor (Oregon LS 1069) in 1986, just prior to
the necessary destruction of the corner. For additional
information, refer to the narrative that accompanies the
project boundary map for Section 20, on file in the Jackson
County Surveyor's Office as Survey No. 11179.

The northwest corner of the section, which had been
perpetuated by the BLM from original evidence, falls in an
area which has been cleared for quarry operations in
conjunction with the dam construction. No evidence of the
monument or corner accessories remains. The coordinate
location was determined by references taken by Hoffbuhr &
Associates, Inc., shortly before the corner was obliterated.

At the west quarter-section corner of Section 20, the
1974 monument set by the BLM has been destroyed by aggregate
stockpiling operations. There were no corner accessories.
The corner location was therefore determined by single
proportionate measurement along the west boundary of the
section. For additional information, refer to the narrative
that accompanies the project boundary map for Section 19, on
file in the Jackson County Surveyor's Office as Survey No.
11247.

The southeast and northeast corners of Section 20 and
the east quarter-section corner have been perpetuated from
original evidence. The north quarter-section corner was
monumented in 1936 by the BLM from parcel evidence. A single
proportionate position was computed from the south quarter-
section corner and a ground search made for evidence of the
original survey. None was found. The monument proportioned
set by the BLM in 1936 was found to be out of position by
28.76 feet, as shown on the plat. This was considered to be
outside of the allowable "limits of closure" as outlined in
the 1947 and 1973 editions of the Manual of Surveying
Instructions, using a ratio of 1/1200 for latitude and
departure independently.

Using the section control determined as described
above, Section 20 was subdivided to determine the southeast
quarter-section, which had been monumented by the BLM in
1958 and 1974. The computed positions were compared with
the found monumentation, with the north, south, east and
west one-sixteenth corner monuments around the southeast
quarter-section being outside of the allowable "limits of
closure" as described above. Monuments were set at the
computed positions of the south quarter-section corner and
center-south, center-east, and southeast one-sixteenth
corners as shown on the plat, since they are angle points on
the project boundary.

Using the control determined as described above,
Section 20 was monumented as shown on the plat on sheet 1.
The intermediate project boundary monuments were positioned
for intervisibility.

SECTION CONTROL - (Bearings oriented to true north)

FOUND:

Southeast corner of Section 20: Found, the 1958 BLM brass
cap on a 2.5" diameter pipe, exposed 9", and the
following bearing trees marked by the BLM in 1958:
16" fir with healed blazes bears N 48° E 26.7 ft.
12" fir with healed blazes bears S 48° E 35.6 ft.
13" fir with healed blazes bears S 48° W 16.7 ft.
14" fir with healed blazes bears N 58° W 20.4 ft.
Also found a 17" black oak, marked by the GLO, lower
blaze open and rotted, bears S 40° E 28.0 ft.

Northeast corner of Section 20: Found, the 1956 BLM brass
cap on a 2" diameter pipe, exposed 12" above a mound of
stone, from which stands the following original bearing
tree:
18" oak with healed blazes bears N64°33'E 12.0 ft.
Trees marked by the BLM in 1956 were found as follows:
16" pine with healed blazes bears N43°17'E 52.9 ft.
6" oak with healed blazes bears S70°46'E 52.1 ft.
13" fir with healed blazes bears S69°54'W 47.9 ft.
9" oak with healed blazes bears N58°06'W 42.2 ft.

North quarter-section corner of Section 20: Found, the
1956 brass cap on a 1" diameter pipe, exposed 6", from
which bear the following trees marked by the BLM in
1974:
12" fir snag with scribing visible bears S 12° E 26.5
ft.
15" fir stump with scribing visible bears N 34° W 17.5
ft.

East quarter-section corner of Section 20: Found, the 1974
BLM brass cap on a 2.5" pipe, exposed 10" in a mound of
stone, and the following bearing trees:
44" oak with healed blazes, an original bearing tree,
bears S10°50'W 33.5 ft.
12" fir with healed blazes, marked by the BLM in 1974,
bears S43°36'E 19.7 ft.

Center quarter-section corner of Section 20: Found, the
1974 BLM brass cap on a 2.5" diameter pipe, exposed 7",
and the following 1974 bearing trees:
6" oak with scribing visible bears S 16° E 33.5 ft.
(record 16.8 ft.).
11" pine with scribing visible bears N 8° W 6.2 ft.

South sixteenth-section corner between Sections 20 and 21:
No monument found or set. The 1974 BLM brass cap on a
2.5" diameter pipe, exposed 4" in a mound of stone,
intended to be set at the corner position, bears S
8°55' W 24.62 ft. From this monument were found the
following bearing trees:
12" pine with scribing visible bears N 45° E 19.8 ft.
11" oak with scribing visible bears S 50° W 23.6 ft.

East sixteenth-section corner between Sections 20 and 29:
No monument found or set. The 1974 BLM brass cap
monument, on a 2.5" diameter pipe, exposed 5",
intended to be set at the corner position, bears N
68°38'E 9.06 ft. From this monument was found the
following bearing tree:
12" fir with healed blazes bears S73°27'E 26.15 ft.

SET:

South quarter-section corner Section 20: Set a 30" long
Berntsen aluminum monument, exposed 2", with the
aluminum cap stamped as shown here, from
which bear the following:
The 1958 BLM brass cap monument
intended to be set at the propor-
tionate position bears N 23°39' E
28.76 ft. S 29
LS 1656
A 10" fir (dead) with healed blazes
bears N 7°39' W 53.1 ft.
A 10" white oak with healed blazes bears S 60°01' E
60.8 ft. Both trees were marked by the BLM in 1958.
I marked a 5" white oak with "1/4 S29 BT", which bears
S 54° W 15.0 ft.

Center-south sixteenth-section corner of Section 29: Set a
30" long Berntsen aluminum monument, flush, with the
aluminum cap stamped as shown here, from
which bear the following:
1988
The 1974 BLM brass cap monument
intended to mark the CS 1/16th
corner bears N37°52'E 15.25 ft. S 1/16 + S 20
26" pine with healed blazes bears
S 75°32' E 34.72 ft. LS 1656
9" fir with healed blazes bears N 23°25' W 43.86 ft.

Southeast sixteenth-section corner of Section 20: Set an
18" long Berntsen aluminum monument in a mound of
stone, with the aluminum cap stamped as
shown here, and marked the following
bearing trees:
1988
6" white oak bears N 10° W 43.5 ft. SE 1/16 + S 20
5" white oak bears S 60° W 10.9 ft. LS 1656
Both trees are marked "SE 1/16 S 20 BT".

Center east sixteenth-section corner of Section 20: Set a
30" long Berntsen aluminum monument in a mound of
stone, with the aluminum cap stamped as
shown here, and from which bear the
following:
1988
The 1974 BLM monument intended to
mark the CE 1/16 corner position
bears N 88°38'02" E 84.92 ft. LS 1656
10" pine with scribing visible bears S84°24'E 82.1 ft.
8" fir snag with scribing visible bears N 66°30' E 77.2
ft. Both trees were marked by the BLM in 1974.

North sixteenth-section corner between Sections 20 and 21:
Set a 30" long Berntsen aluminum monument, exposed 3",
with the aluminum cap stamped as shown here, and marked
the following bearing trees:
1988
6" black oak bears S 33° E 28.0 ft.. N 1/16
marked "N 1/16 S 21 BT". S 20 + S 21
4" black oak bears S 52° W 31.3 ft.. LS 1656
marked "N 1/16 S 20 BT".

REGISTERED
PROFESSIONAL
LAND SURVEYOR

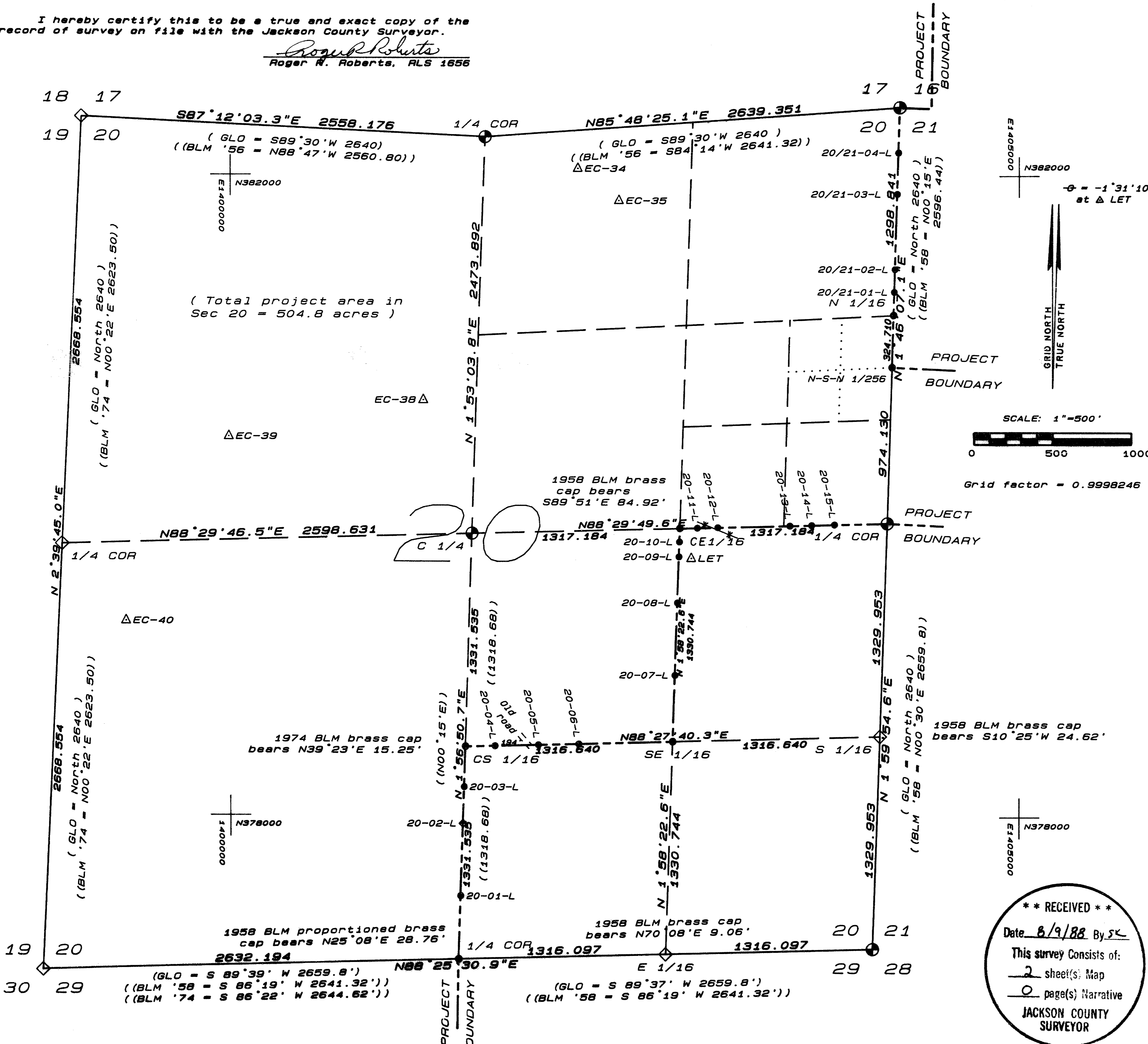
Roger Roberts

OREGON
JULY 14, 1978
ROGER R. ROBERTS
1956

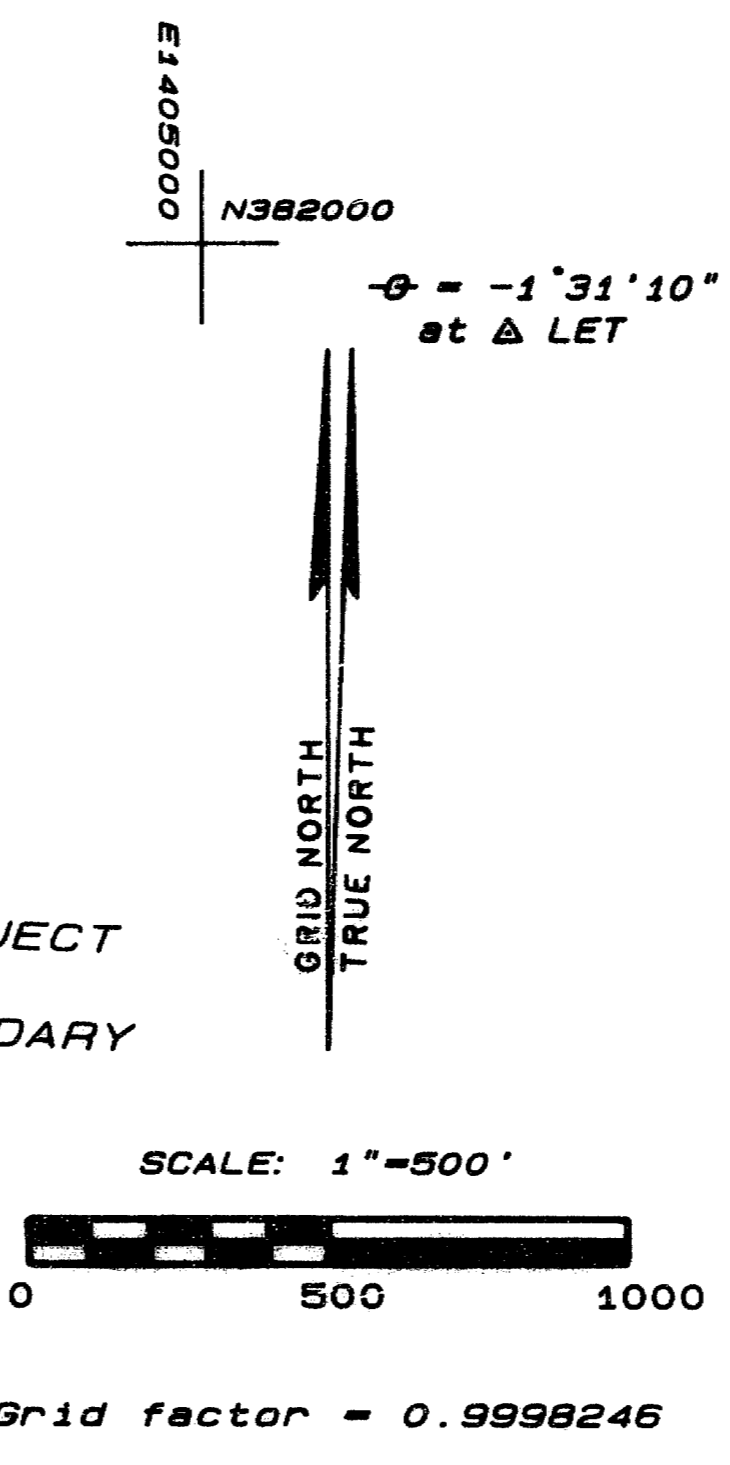
U.S. ARMY ENGINEER DISTRICT, PORTLAND		
ROGUE RIVER BASIN ELK CREEK LAKE PROJECT BOUNDARY MONUMENTATION SECTION 20, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M. JACKSON COUNTY, OREGON		
SUPERVISED: <i>RRR</i>	DRAWN: H-P CAM	Ref: Real Estate Segment Map 1 NPPEN-SY-86-50
DATE: MAY, 1988	SHEET: 2 of 2	PREPARED BY: HOFFBUHR & ASSOCIATES, INC., MEDFORD, OREGON

I hereby certify this to be a true and exact copy of the record of survey on file with the Jackson County Surveyor.

Roger R. Roberts
Roger R. Roberts, ALS 1856



(Total project area in Sec 20 = 504.8 acres)



- LEGEND**
- △ = Found USCE brass disc, second order control monument
 - ◇ = Found brass disc set by Bureau of Land Management
 - = No monument found or set. See sheet 2 for additional information
 - = Set Berntsen aluminum monument stamped with point number, date, and "L.S. 1856". Alongside, set metal post with boundary sign.
 - ◆ = Set brass disc on rock surface
 - () = General Land Office record measurements *
 - (()) = Bureau of Land Management record measurements *
 - * = Fenceline
- * not reduced to grid

I, Roger R. Roberts, registered land surveyor in the State of Oregon, hereby certify that this plat and notes hereon, or attached, are a correct representation of a survey I performed during June, 1987, through May, 1988 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. OACW57-87-C-0054.

Roger R. Roberts
Roger R. Roberts

DESCRIPTION	LAMBERT COORDINATES	
	NORTH	EAST
Control Station LET	379610.008	1402921.642
Control Station EC-39	380366.462	1399990.750
Control Station EC-40	379212.718	1399338.863
Control Station EC-35	381839.950	1402460.790
Control Station EC-34	382039.080	1402200.870
Sec cor 16, 17, 20, 21	382428.077	1402426.026
Sec cor 20, 21, 28, 29	377173.344	1404073.092
Sec cor 19, 20, 29, 30	377028.674	1398810.693
Sec cor 17, 18, 19, 20	382360.020	1399058.615
1/4 cor Sec 19/20	379694.347	1398934.654
1/4 cor Sec 17/20	382235.095	1401613.739
1/4 cor Sec 20/21	379831.633	1404165.851
1/4 cor Sec 20/29	377101.009	1401441.893
C 1/4 cor	379762.541	1401532.390
N 1/16 Sec 20/21	381129.855	1404205.939
S 1/16 Sec 20/21	378502.488	1404119.472
E 1/16 Sec 20/29	377137.177	1402757.492
SE 1/16	378467.132	1402803.306
CS 1/16	378431.775	1401487.141
CE 1/16	379797.087	1402849.120
N-S-N 1/256 Sec 20/21	380805.299	1404195.917

PROJECT BOUNDARY			
1/4 Sec 20/29			
20-01-L	N 1 56 50.7 E	396.176	1401441.893
20-02-L	N 1 56 50.7 E	453.297	377496.956
20-03-L	N 1 56 50.7 E	229.465	377949.992
CS 1/16	N 1 56 50.7 E	252.597	378179.324
20-04-L	N 88 27 40.3 E	188.589	378431.775
20-05-L	N 88 27 40.3 E	274.262	378436.839
20-06-L	N 88 27 40.3 E	256.540	378444.204
20-06-L	N 88 27 40.3 E	597.249	378451.093
SE 1/16	N 1 58 22.6 E	414.129	378467.132
20-07-L	N 1 58 22.6 E	414.129	378881.016
20-08-L	N 1 58 22.6 E	452.006	379332.753
20-09-L	N 1 58 22.6 E	287.062	379619.646
20-10-L	N 1 58 22.6 E	93.180	379812.771
20-10-L	N 1 58 22.6 E	84.366	379712.771
CE 1/16	N 88 29 49.6 E	110.382	379797.087
20-11-L	N 88 29 49.6 E	110.382	379799.982
20-12-L	N 88 29 49.6 E	128.442	379803.351
20-13-L	N 88 29 49.6 E	458.425	379815.374
20-14-L	N 88 29 49.6 E	139.675	379819.037
20-15-L	N 88 29 49.6 E	143.214	379822.793
20-15-L	N 88 29 49.6 E	337.045	379822.793
1/4 Sec 20/21			379831.633
N-S-N 1/256 Sec 20/21			380805.299
N 1/16 Sec 20/21	N 1 46 07.1 E	324.710	381129.855
20/21-01-L	N 1 46 07.1 E	144.788	381274.574
20/21-02-L	N 1 46 07.1 E	141.426	381415.932
20/21-03-L	N 1 46 07.1 E	469.841	381885.549
20/21-04-L	N 1 46 07.1 E	259.382	382144.808
Sec cor 16, 17, 20, 21	N 1 46 07.1 E	283.404	382428.077

- Refer to sheet 2 for horizontal control details -

**** RECEIVED ****
Date 6/9/88 By SK
This survey consists of:
2 sheet(s) Map
0 page(s) Narrative
JACKSON COUNTY SURVEYOR

REGISTERED PROFESSIONAL LAND SURVEYOR
Roger R. Roberts
OREGON JULY 14, 1978
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U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROGUE RIVER BASIN
ELK CREEK LAKE
PROJECT BOUNDARY MONUMENTATION
SECTION 20, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
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