

LAMBERT COORDINATES

DESCRIPTION	NORTH	EAST
Control Station EC-17	394777.650	1405034.460
Control Station EC-18	393784.310	1404425.980
Control Station EC-19	393067.540	1404691.050
Sec cor 4, 5, 8, 9	392802.084	1404747.710
Sec cor 4, 5, 32, 33	398097.512	1405138.243
1/4 cor Sec 5/8	392864.900	1402122.224
1/4 cor Sec 32/5	398039.530	1402519.458
1/4 cor Sec 6/5	395622.918	1399779.681
1/4 cor Sec 5/4	395435.707	1404953.772
C 1/4 cor	395533.144	1402327.497
E 1/16 Sec 32/5	398068.378	1403828.399
N 1/16 Sec 5/4	396774.980	1405046.588
S 1/16 Sec 5/4	394119.749	1404850.281
E 1/16 Sec 5/8	392833.492	1403434.967
SE 1/16 Sec 5	394198.850	1402224.909
CN 1/16 Sec 5	396802.682	1402424.729
CE 1/16 Sec 5	395484.426	1403640.635
NE 1/16 Sec 5	396788.893	1403735.250
S 1/16 Sec 5	394159.290	1403537.826
W-E 1/64 Sec 5/8	392849.196	1402778.595
C-S-S 1/64 Sec 5	393531.875	1402173.556
C-S-SE 1/64 Sec 5	393496.391	1403486.397
C-W-SE 1/64 Sec 5	394179.070	1402881.368
SW-SE 1/64 Sec 5	393514.133	1402829.982
POB of descrip Tract 303	393746.260	1403178.648
POB of descrip Tract 304	398235.026	1405222.051

PROJECT BOUNDARY

05/08-01-R	N 88 37 45.9 W	287.187	392850.435	1402726.826
05/08-02-R	N 88 37 45.9 W	317.588	392857.304	1402439.722
1/4 cor Sec 5/8	N 4 24 06.6 E	174.207	392864.900	1402122.224
05-01-R	N 4 24 06.6 E	282.514	393038.593	1402135.595
05-02-R	N 4 24 06.6 E	147.795	393320.274	1402157.278
05-03-R	N 4 24 06.6 E	64.431	393467.634	1402168.621
C-S-S 1/64	S 88 27 06.2 E	492.311	393531.875	1402173.556
05-04-R	S 88 27 06.2 E	164.344	393518.573	1402665.697
SW-SE 1/64	N 4 25 08.4 E	467.698	393514.133	1402829.982
05-05-R	N 4 25 08.4 E	199.222	393980.441	1402866.018
C-W-SE 1/64	S 88 16 26.7 E	247.711	394179.070	1402881.368
05-06-R	S 88 16 26.7 E	77.074	394171.609	1403128.966
05-07-R	S 88 16 26.7 E	77.074	394169.288	1403206.006
Delta:	1 46 53.3	Radius:	609.256	
Arc:	18.943	Tangent:	9.472	
Long Chord:	N 52 30 52.3 E	18.943		
05-08-R	N 53 24 19.0 E	123.810	394180.816	1403221.037
05-09-R	N 53 24 19.0 E	123.810	394254.625	1403320.440
Delta:	25 57 10.0	Radius:	209.256	
Arc:	94.785	Tangent:	48.220	
Long Chord:	N 40 25 44.0 E	93.977		
05-10-R	N 40 25 44.0 E	120.002	394326.151	1403381.384
Delta:	25 57 09.0	Radius:	209.256	
Arc:	94.784	Tangent:	48.219	
Long Chord:	N 14 28 34.5 E	93.976		
05-11-R	N 14 28 34.5 E	117.097	394417.153	1403404.876
05-12-R	N 1 30 00.0 E	117.097	394534.210	1403407.942
05-13-R	N 1 30 00.0 E	441.237	394975.296	1403419.492
05-14-R	N 1 30 00.0 E	120.002	395095.257	1403422.633
05-15-R	N 1 30 00.0 E	231.802	395326.980	1403428.701
05-16-R	N 1 30 00.0 E	88.222	395415.171	1403431.010
Delta:	30 33 45.8	Radius:	609.256	
Arc:	324.989	Tangent:	166.460	
Long Chord:	N 16 46 52.9 E	324.150		
05-17-R	N 16 46 52.9 E	132.150	395722.644	1403523.733
Delta:	13 26 14.2	Radius:	609.256	
Arc:	142.886	Tangent:	71.772	
Long Chord:	N 38 46 52.9 E	142.558		
05-18-R	N 38 46 52.9 E	142.558	395833.774	1403613.024

(Continued)
 - Refer to sheet 2 for additional project boundary coordinates and measurements, and sheet 3 for horizontal control details -

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROGUE RIVER BASIN
 ELK CREEK LAKE
 PROJECT BOUNDARY MONUMENTATION
 SECTION 5, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
 JACKSON COUNTY, OREGON

SUPERVISED: RRR	DRAWN: H-P CAM	Ref: Real Estate Segment Map 3 NPPEN-SY-86-50
DATE: AUGUST, 1988	SHEET: 1 of 3	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON

- LEGEND
- ▲ = Found USCE brass disc, second order control monument
 - = Found brass cap set by Bureau of Land Management
 - = Found 2.5" dia. lead-filled reducer on 1.5" dia. pipe
 - = Found County Surveyor lead-filled reducer on 1" pipe
 - = Found 3" aluminum cap on 5/8" rebar, "AA Surveying Inc"
 - = No monument set. See sheet 2 for additional information
 - = Set Bernsten aluminum monument stamped with point number, date, and "L.S. 1656". Alongside, set metal post with boundary sign.
 - ◆ = Set brass disc on rock surface
 - () = General Land Office record measurements *
 - () = Bureau of Land Management record measurements *
 - () = Filed Survey No. 9353 (RLS 1651) record measurements *
 - POB 303 = Point of Beginning of Tract 303 description re: Instrument No. 73-10098 of the Official Records of Jackson Co.
 - POB 304 = Point of Beginning of Tract 304 description re: Instrument No. 73-13782 of the Official Records of Jackson Co.
- * 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 January, 1988, through August, 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. DACW57-87-C-0054.

Roger R. Roberts
 Roger R. Roberts

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR

OREGON
 JULY 14, 1978
 ROGER R. ROBERTS
 1656

** RECEIVED **
 Date: 9-21-88 by SK
 This survey consists of:
 3 sheet(s) Map
 0 page(s) Narrative
 JACKSON COUNTY
 SURVEYOR

SURVEY NARRATIVE TO COMPLY WITH PARAGRAPH 209.250
OREGON REVISED STATUTES

LOCATION: Section 5, 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 5, as shown on Segment 3 of the Corps of
Engineers Elk Creek Lake Reel Estate drawings. The survey
was performed during January 1988 through July 1988.

PROCEDURE: Establishing Lambert State Plane Coordinate control:

Second order control monument Station EC-17, estab-
lished by the Corps of Engineers in 1964, was used as a
basis of Lambert State Plane Coordinates (South Zone). The
1974 adjusted coordinates were used. The line from Station
EC-17 to Station EC-18, also established in 1964, was used
as a basis of bearing. The USCE record bearing from EC-17 to
EC-18 = South 31°29'23.8" 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 EC-17 is:

Scale factor (Latitude N 42°43'42") = 0.9999240
Elevation factor (1700') = 0.9999187
Combined (grid) factor = 0.9998427

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 5 is dependent
upon the subdivisional lines of the section and metes and
bounds descriptions. 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 southeast section corner and the north, south,
east and west quarter-section corners of Section 5 have
been perpetuated from original evidence. The monument and
all references marking the northeast corner of the section
were destroyed during road construction in approximately
1984. Four trees with recent blazes and scribing were
found just outside of the construction area. The surveyor
who did the staking for the road construction, (ALS 539),
was contacted. He stated that no additional references
were taken prior to the destruction of the corner location,
and that he marked the previously mentioned trees after
construction. Also, the section corner location shown
on his as-built maps, on file at the County Surveyor's
Office as Survey No. 10972, was determined by retracement
of a portion of Survey No. 9353 located in the northeast
quarter-section of Section 5. He had measured, on the north
boundary of Section 5, from the 1/4 corner to the east 1/16
corner, and projected the bearing easterly the record of
survey distance to establish the section corner position.
He did not set a monument or take measurements to the trees
that he had marked.

I was provided by the Corps of Engineers a copy of the
field notes of a survey traverse run in 1966 (Field Book No.
11091), at which time a tie was made to the section corner.
The notes indicated the monument to be a 1" pipe with 1.75"
reducer, and ties were also made to three bearing trees.
The traverse began at Control Station EC-13, with a back-
sight taken from Station EC-12. These two monuments were
recovered at this time, and the traverse retraced. The
remains of traverse hub 33-A-3 were found, and the remain-
der of the old traverse computed forward the record distance
of 384.13 ft. This I felt to be the best available evidence
of the corner position, and a monument was set and reference
measurements taken to the existing marked trees. A retracement
of the as-built road map measurements produced a
location northerly 0.7 ft. from this monumented position.

The BLM monument and all references marking the center-
east sixteenth-section corner were also destroyed during
road construction. Again, the map of Survey No. 10972 shows
a location for the corner. The surveyor said that no
additional references were taken prior to destruction, and
that no monument was set afterwards. He also stated that
the "1.32" shown on the map is the distance that the corner
position bears east of the tangent line, rather than the
road centerline curve. That position lies 7.3 ft. west of
my computed position. Therefore, the computed position was
used for this survey.

As shown on the plat, the project boundary follows the
east-west centerline of the northeast quarter of Section 5
for a distance of 2.50 ft. The coordinated positions of the
monuments found at the four corners of the northeast quarter
of the section, along with the east sixteenth on the north
boundary and the center-east sixteenth on the south boundary
of the quarter section, were used to compute coordinates for
the northeast sixteenth-section corner. The iron pin with
2" aluminum cap, set in 1982 on Survey No. 9353 to mark the
sixteenth section corner, fit very well with the computed
position (0.18 ft.). The map of Survey No. 9353

indicates that no monument was set at the north sixteenth-
section corner on the east boundary of the section, but
that a 1" pipe with reducer was found 8.28 ft. from the
position. Therefore, a computed position was used for the
north sixteenth-section corner on the east boundary. This
computed position and the monument found at the northeast
sixteenth-section corner were used to determine the location
of that particular portion of the project boundary.

The monument set by the BLM in 1974 to mark the
southeast sixteenth-section corner was evidently also
destroyed by road construction activity, along with one of
two bearing trees. The remaining bearing tree was used to
establish a tentative corner position. This position was
compared to the position computed by using the control found
or determined around the southeast quarter of the section.
These two positions differed by 3.98 ft. As shown on the
map on sheet 1, the BLM's position of this corner, and the
Oregon State Department of Forestry monument set for the
east sixteenth-section corner on the south boundary of
Section 5 were not used for this survey. They were
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 1/1280
for latitude and departure independently. No monument was
set at either corner.

The westerly boundaries of Tracts 303 and 304 were
both determined by metes and bounds as described in Instru-
ment Nos. 73-10098 and 73-13782, respectively, of the
Official Records of Jackson County, with each boundary
being 200 feet westerly of and parallel with a described
line.

As shown on Sheet 2, the approach roads lying between
Elk Creek Road and the project boundary in Section 5 were
monumented. An attempt was made to hold to the map of the
as-constructed Elk Creek Road, referred to above as Survey
No. 10972. However, most of the road alignments were found
to differ considerably from the record, and the roads were
monumented according to the existing centerlines.

Using the section control determined as described
above, Section 5 was subdivided and 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:

Corner common to Sections 4, 5, 8, and 9: Found, the 2.5"
diameter BLM brass cap set in 1965, and the following
original bearing tree:
32" dia. fir stump with scribing visible bears S 35°37'
E 16.8 ft.
Trees marked by the BLM in 1956 were found as follows:
11" vine maple with healed blazes bears N 65°29'
E 58.5 ft.
30" fir with healed blazes bears S 48°27'E 24.3 ft.
30" fir with healed blazes bears S 35°59'W 59.1 ft.
17" fir with healed blazes bears N 35°44'W 31.8 ft.

Quarter-section corner common to Sections 4 and 5: Found,
the 3" diameter brass cap on a 2" pipe, exposed 3",
stamped "Oregon State Board of Forestry", and the
following bearing trees:
24" fir with healed blazes bears N53°31'E 21.8 ft.
17" oak with healed blazes bears S40°16'W 96.7 ft.
20" pine with healed blazes bears N63°35'W 50.6 ft.
A granite stone with a chiseled "+" bears S 25°14'E
5.28 ft.

Quarter-section corner common to Sections 5 and 8: Found,
the BLM brass cap set in 1974, exposed 2", and the
following bearing trees:
12" fir with healed blazes bears N 19°54' E 46.4 ft.
30" madrone with scribing visible bears S 9°12'W 11.8
ft.

Quarter-section corner common to Section 32, Township 32
South, and Section 5, Township 33 South, Range 1 East:
Found, set by the County Surveyor, exposed 8", from
which bear the following bearing trees:
18" fir with healed blazes bears S10°30'W 22.9 ft.
25" diameter sawed fir stump with healed blaze bears
N70°22'E 24.1 ft.
10" oak with healed blazes bears S43°05'W 7.9 ft.

Quarter-section corner common to Sections 5 and 6: Found, a
1" pipe with metal-filled reducer, set by the County
Surveyor in 1949, exposed 6", and the following bearing
trees:
An original bearing tree, now a 28" fir snag, with
healed blazes, bears S 65° E 15.5 ft.
A tree marked by the BLM in 1974, now an 18" diameter
sawed stump with healed blaze, bears S 40° W 27.7 ft.

Center quarter-section corner of Section 5: The BLM brass
cap set in 1974, exposed 2", and the following bearing
trees:
13" fir with healed blazes bears S17°31'E 19.0 ft.
28" fir with healed blazes bears N20°W 62.0 ft.

South sixteenth-section corner between Sections 4 and 5:
Found the 5/8" diameter iron rebar set by the BLM in
1974, exposed 4", and the following bearing tree:
24" hickory with scribing visible bears S 79° W 107.18
ft.

East sixteenth-section corner between Sections 5 and 8:
No monument found or set at the computed position. The
1974 BLM brass cap on a 2.5" pipe, intended to be set
at the corner position, bears N89°39'W 3.57 ft., from
which were found the following bearing trees:
26" fir with healed blazes bears S 6°08' E 26.7 ft.
34" fir with healed blazes bears N 36°21'W 26.1 ft.

East sixteenth-section corner between Section 32, Township
32, and Section 5, Township 33 South, Range 1 East:
Found, a 2" diameter aluminum cap on a 5/8" iron
rebar, exposed 6", stamped "AA Surveying Inc", and the
following bearing trees:
10" fir with scribing visible bears N13°07'W 12.3 ft.
11" fir with healed blazes bears S9°09'W 12.0 ft.
The 1" pipe with metal-filled reducer evidently set by
Elk Lumber Co. in 1949 bears Northwestly 0.4 ft. This
monument is leaning and is unstable, possibly having
been disturbed.

Center-south sixteenth-section corner: Found, the BLM
brass cap set in 1974, exposed 2", and the following
bearing tree:
10" madrone with scribing visible bears S10°45'E 88.0
ft.

SET:

Section corner common to Sections 32 and 33, Township 32
South, Range 1 West, and Sections 4 and 5, Township 33
South, Range 1 West: Set a 30" long Berntsen aluminum
monument, exposed 4", with the aluminum
cap stamped as shown here, from which
bear the following bearing trees:
21" fir with healed blazes bears
N57°51'W 106.83 ft. 5 +
12" fir with healed blazes bears
S24°17'W 108.34 ft. T325 R1E
12" fir with scribing visible bears
S29°13'E 72.55 ft. 32 + 33
14" fir with healed blazes bears N86°08'E 60.84 ft. 5 + 4
The corner lies on the east cutbank of Elk Creek Road,
just above the ditch bottom. LS 1656

REGISTERED
PROFESSIONAL
LAND SURVEYOR

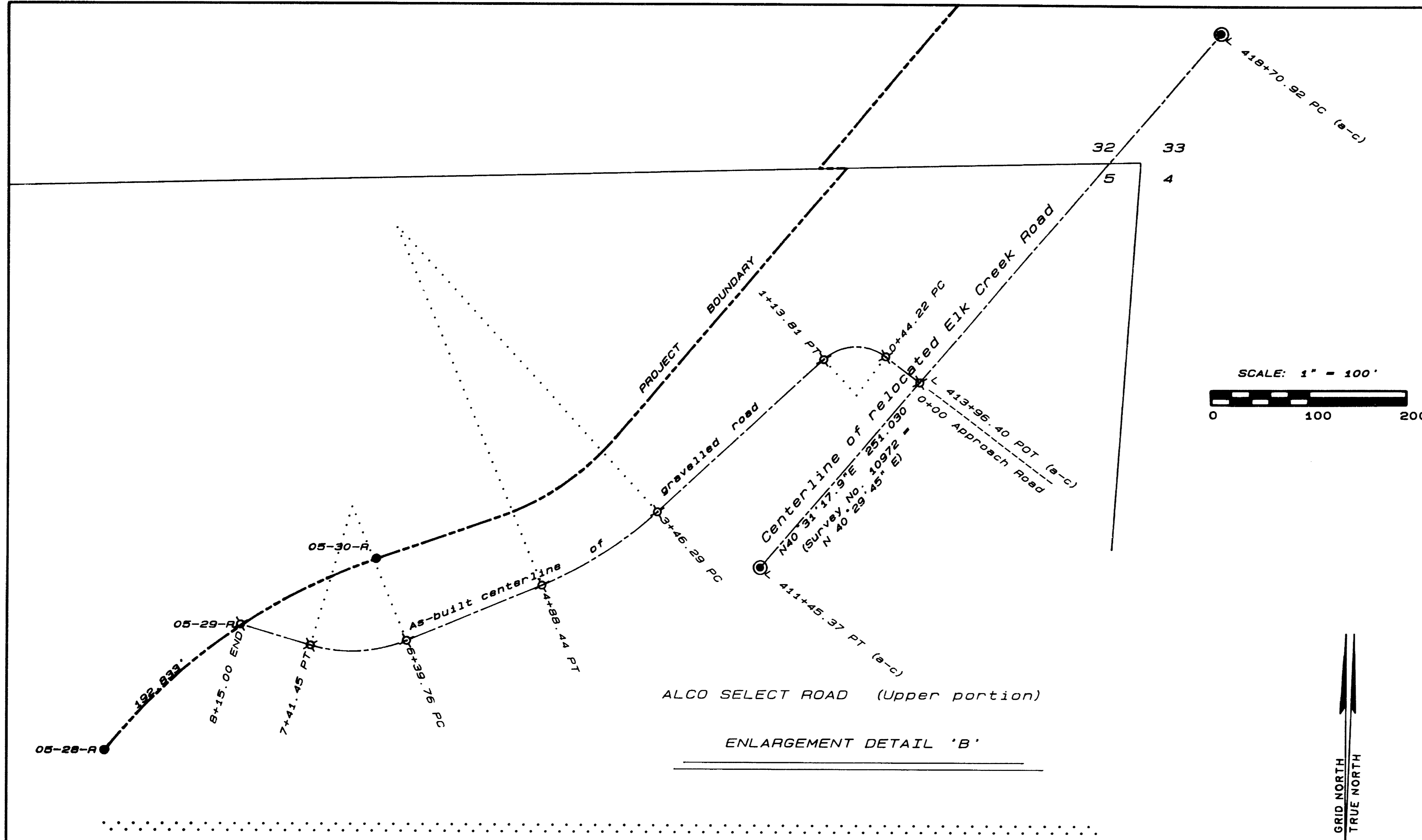
Roger R. Roberts

OREGON
JULY 14, 1978
ROGER R. ROBERTS
1856

U. S. ARMY ENGINEER DISTRICT, PORTLAND

ROGUE RIVER BASIN
ELK CREEK LAKE
PROJECT BOUNDARY MONUMENTATION
SECTION 5, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
JACKSON COUNTY, OREGON

SUPERVISED: <i>RRR</i>	DRAWN: H-P CAM	Ref: Real Estate Segment Map 3 NPPEN-SY-66-50
DATE: August, 1988	SHEET: 3 of 3	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON



(continued from sheet 1)

05-18-R	N 45 30 00.0 E	329.057	395833.774	1403613.024
05-19-R	N 45 30 00.0 E	62.830	396064.413	1403847.724
05-20-R	N 45 30 00.0 E	449.973	396108.452	1403892.538
05-21-R	N 45 30 00.0 E	449.973	396423.842	1404213.481
	Delta:	94 00 00.0	Radius:	118.310
	Arc:	194.101	Tangent:	126.872
	Long Chord:	N 1 30 00.0 W	173.053	
05-22-R	N 48 30 00.0 W	87.620	396596.835	1404208.951
05-23-R	Delta:	8 27 37.0	396654.894	1404143.328
	Arc:	89.962	Radius:	609.256
	Long Chord:	N 44 16 11.5 W	89.881	Tangent: 45.063
05-24-R	Delta:	7 45 04.1	396719.254	1404080.588
	Arc:	82.422	Radius:	609.256
	Long Chord:	N 36 09 51.0 W	82.359	Tangent: 41.274
05-25-R	S 89 23 31.6 E	2.498	396785.745	1404031.987
05-26-R	Delta:	29 05 04.1	396785.719	1404034.485
	Arc:	309.270	Radius:	609.256
	Long Chord:	N 17 45 16.2 W	309.951	Tangent: 158.044
05-27-R	Delta:	41 31 01.4	397077.107	1403941.186
	Arc:	441.472	Radius:	609.256
	Long Chord:	N 17 32 46.6 E	431.877	Tangent: 230.930
05-28-R	Delta:	18 08 03.9	397488.890	1404071.386
	Arc:	192.833	Radius:	609.256
	Long Chord:	N 47 22 19.2 E	192.029	Tangent: 87.229
05-29-R	Delta:	14 33 38.8	397618.939	1404212.675
	Arc:	154.832	Radius:	609.256
	Long Chord:	N 63 43 10.6 E	154.416	Tangent: 77.836
05-30-R	N 71 00 00.0 E	134.270	397731.023	1404351.130
05-31-R	Delta:	30 30 00.0	397731.023	1404478.085
	Arc:	147.702	Radius:	277.465
	Long Chord:	N 55 45 00.0 E	145.964	Tangent: 75.646
05-32-R	N 40 30 00.0 E	365.086	397813.172	1404598.737
32/05-01-R	S 88 43 32.9 W	28.461	398090.786	1404835.842
32/05-02-R			398090.153	1404807.388

ROAD CENTERLINES

Centerline of Elk Creek Road:

L 371+40.60 PT			394409.041	1403605.376
N 1 29 20.7 E	879.375			
L 380+20.00 POT			395288.119	1403628.228
N 1 29 20.7 E	118.710			
L 381+38.71 PC			395406.789	1403631.312

Centerline of approach road at L 380+20.00:

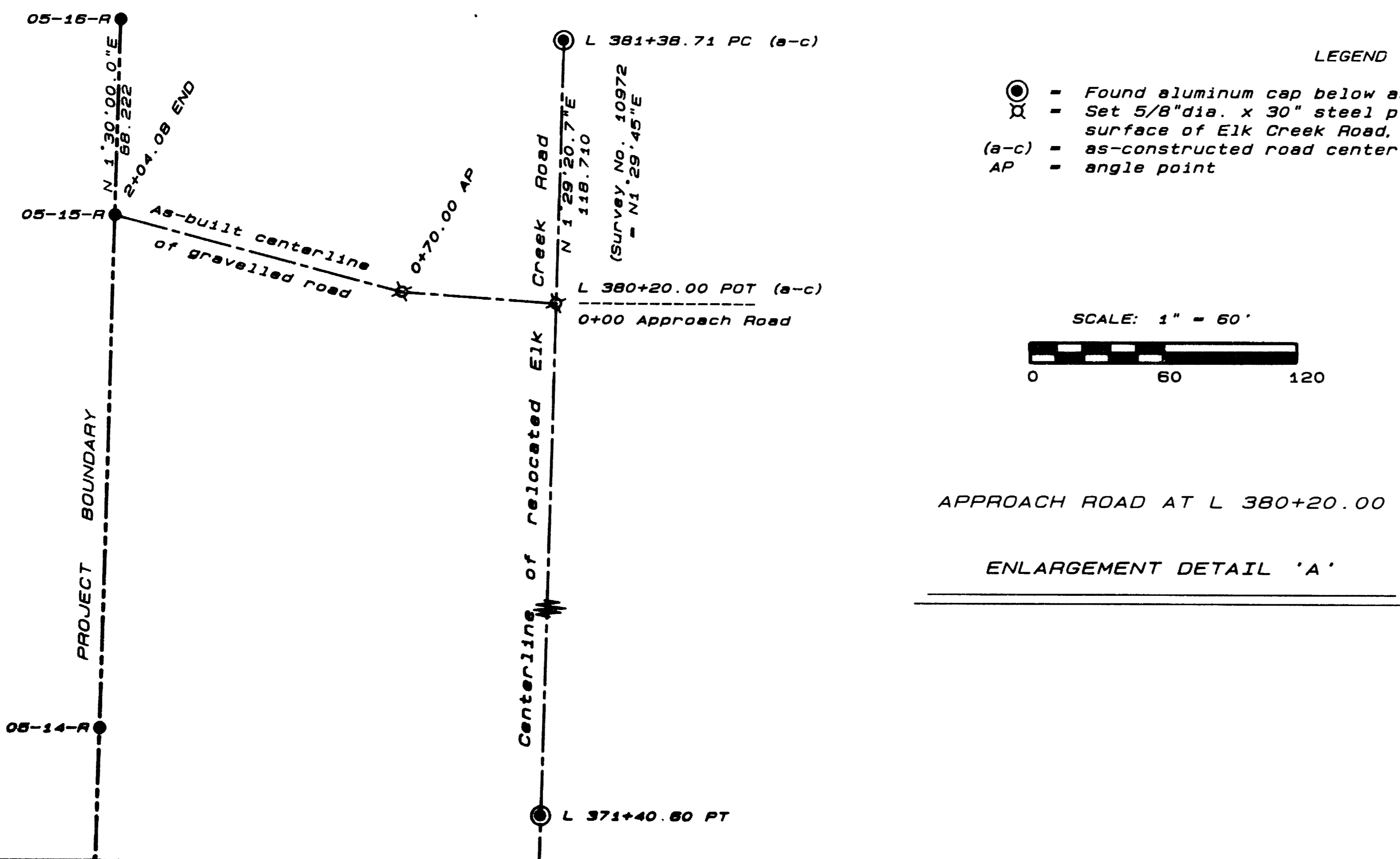
L 380+20.00	N 86 00 40.0 W	70.003	395288.119	1403628.228
0+70.00 Angle Point			395292.988	1403558.394
N 75 18 40.5 W	134.075			
2+04.08 END (= 05-15-R)			395326.985	1403428.701

Centerline of Elk Creek Road:

L 411+45.37 PT			397679.334	1404749.330
N 40 31 17.9 E	251.030			
L 413+96.40 POT			397870.157	1404912.433
N 40 31 17.9 E	474.412			
L 418+70.94 PC			398230.786	1405220.676

Alco Select Road (Upper portion)

0+00.00			397870.157	1404912.433
0+44.22 PC	N 52 54 23.7 W	44.222	397896.828	1404877.159
	Delta:	79 44 15.2	Radius:	50.000
	Arc:	69.584	Tangent:	41.760
	Long Chord:	S 87 13 28.7 W	64.103	
1+13.81 PT	S 47 21 21.1 W	232.486	397893.724	1404813.131
3+46.29 PC	Delta:	20 21 41.6	397736.228	1404642.120
	Arc:	142.151	Radius:	400.000
	Long Chord:	S 57 32 11.9 W	141.404	Tangent: 71.833
4+88.44 PT	S 67 43 02.7 W	151.315	397660.328	1404522.813
6+39.76 PC	Delta:	38 50 42.6	397602.954	1404382.798
	Arc:	101.696	Radius:	150.000
	Long Chord:	S 87 08 24.0 W	99.760	Tangent: 52.890
7+41.45 PT	N 73 26 14.7 W	73.539	397597.976	1404283.162
8+15.00 END (= 05-29-R)			397618.939	1404212.675



U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROGUE RIVER BASIN
ELK CREEK LAKE
APPROACH ROAD MONUMENTATION
SECTION 5, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
JACKSON COUNTY, OREGON

SUPERVISED: <i>RRR</i>	DRAWN: H-P CAM	Ref: Real Estate Segment Map 3 NPPEN-SY-85-50
DATE: AUGUST, 1988	SHEET: 2 of 3	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON

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