

MAP OF SURVEY FOR HORIZONTAL CONTROL AND MONUMENT RECOVERY CRATER LAKE HIGHWAY SITUATED IN SECTION'S 5 & 8, T37S, R1W, WM JACKSON COUNTY, OREGON JANUARY 2010

- LEGEND: CONTROL POINT AS NOTED, FOUND SURVEY MONUMENT AS NOTED, MONUMENT SEARCHED FOR BUT NOT FOUND, BENCHMARK, ASPHALT SURFACE, COUNTY SURVEY NUMBER, CONTROL POINT, FOUND MONUMENT, TAX LOT NUMBER, RED PLASTIC CAP, YELLOW PLASTIC CAP, ORANGE PLASTIC CAP

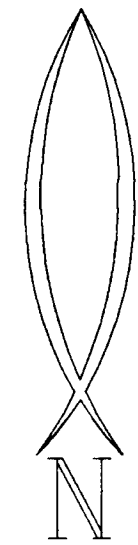
NARRATIVE: SURVEY FOR: City of Medford Engineering Dept. 411 West 8th Street Medford, OR. 97501 Attn: Dennis Hart & Jon Proud

PURPOSE: The purpose of this survey and resulting map is two fold: 1. As required by ORS 209.155(1)(b), to locate all existing monumentation in the proposed area of construction which may be disturbed or destroyed during realignment and improvement of Crater Lake Avenue and Owens Drive. 2. To show the mathematical location of the proposed construction centerline of the realignment and right of way lines as surveyed and described by H.E.A., and as depicted in City of Medford improvement drawings P-1542.

PROCEDURE: The original project began in 2007 with a low level flight and aerial map completed by 3DiWEST mapping company. The result of this was a 1/2 foot contour interval topographic map of the project area. This initial phase required numerous ground control flight panels to be set and then tied in with RTK GPS. This primary control was augmented with closed loop traverses run with a Trimble 5600 total station which tightened our existing control, tied in survey monuments of record, and established additional control points.

Table with 3 columns: HEA GPS No., *COM GRID No., HORIZ. RESIDUAL. Rows 44-70.

SCALE 1" = 120'

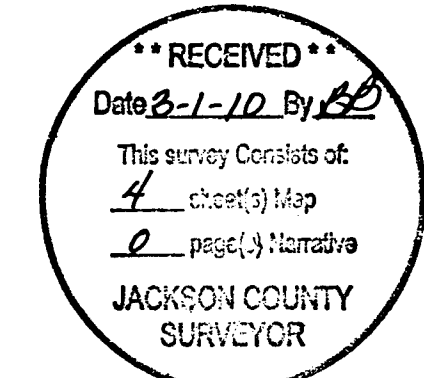


SHEET INDEX

- SHEET 1 - Fd. monuments, right of way alignment and set control points in Section 5 (North Half)
SHEET 2 - Fd. monuments, right of way alignment and set control points in Section 8 (South Half)
SHEET 3 - Horizontal measurement data for the proposed construction centerline of Crater Lake Ave. in Section 5 (North Half)
SHEET 4 - Horizontal measurement data for the proposed construction centerline of Owens Drive in Section 8 (South Half)

CONTROL POINTS

- 42 PANEL POINT #3 SET MAGNAIL IN AC N 26732.315 E 4284168.837 ELEV. = 1322.99 (NOT SHOWN)
58 PANEL POINT #2 SET MAGNAIL IN AC N 267180.481 E 4284852.748 ELEV. = 1334.60
81 PANEL POINT #4 SET MAGNAIL IN AC N 267180.481 E 4284852.748 ELEV. = 1334.73
89 PANEL POINT #5 SET MAGNAIL IN AC N 267052.232 E 4285200.565 ELEV. = 1334.26



HORIZONTAL DATUM: Local Datum Plane which is based on the City of Medford Horiz. Datum (Oregon State Plane, South Zone, NAD 83/91) and has been adjusted to ground elevation (Grid dist. = Ground dist.). City of Medford Datum to LDP = Scale Factor 1.0000700964 (Base point is Point #46) BEARINGS ARE GRID BEARINGS Units = International Feet

VERTICAL DATUM: Benchmark Data - North Half Survey BM A-423 - City of Medford Datum (also being found monument #419) Record Elevation = 1339.786' State Hwy Brass Cap in the northwest corner of the catchbasin on the southwest corner of Coker Butte Rd and Crater Lake Ave and the southeast corner of Coker Butte Rd and Crater Lake Hwy, 8' west of phone riser. Benchmark Data - South Half Survey BM A-473 - City of Medford Datum Record Elevation = 1329.607' Brass cap in the top of the south headwall on the south side of Owen Drive on the east side of old Crater Lake Avenue.

FOUND MONUMENTS

- 400 FD 5/8" REBAR, FLUSH N 26811.836 E 4284866.972 CS 5556
401 FD 5/8" REBAR, FLUSH, TOP 6" BENT N 267033.437 E 4284856.800 CS 7342
402 FD 5/8" REBAR, FLUSH N 26765.717 E 4284855.187 CS 5556
403 FD 5/8" REBAR, FLUSH N 267525.216 E 4284851.060 CS 2806 & 18175
404 FD YPC "D. MCMAHAN LS 1913" N 267350.55 E 4284846.17 CS 13269

GPS CALIBRATION POINTS

Table with 3 columns: HEA GPS CONTROL POINTS, *CITY OF MEDFORD GRID POINTS. Rows 44-51, 70-71, 113-115, 127-129.

NOTE: All measurement data (bearings and distances) shown hereon represent calculated record locations for existing right of way lines, platted or described property lines, and/or newly described right of way lines per noted Document No..

SHEET 1 RIGHT OF WAY CURVE TABLE

Table with 5 columns: NO., DELTA, RADIUS, LENGTH, LONG CHORD. Rows C1-C19.

SHEET 1 LINE TABLE

Table with 3 columns: NO., BEARING, DISTANCE. Rows L1-L7.

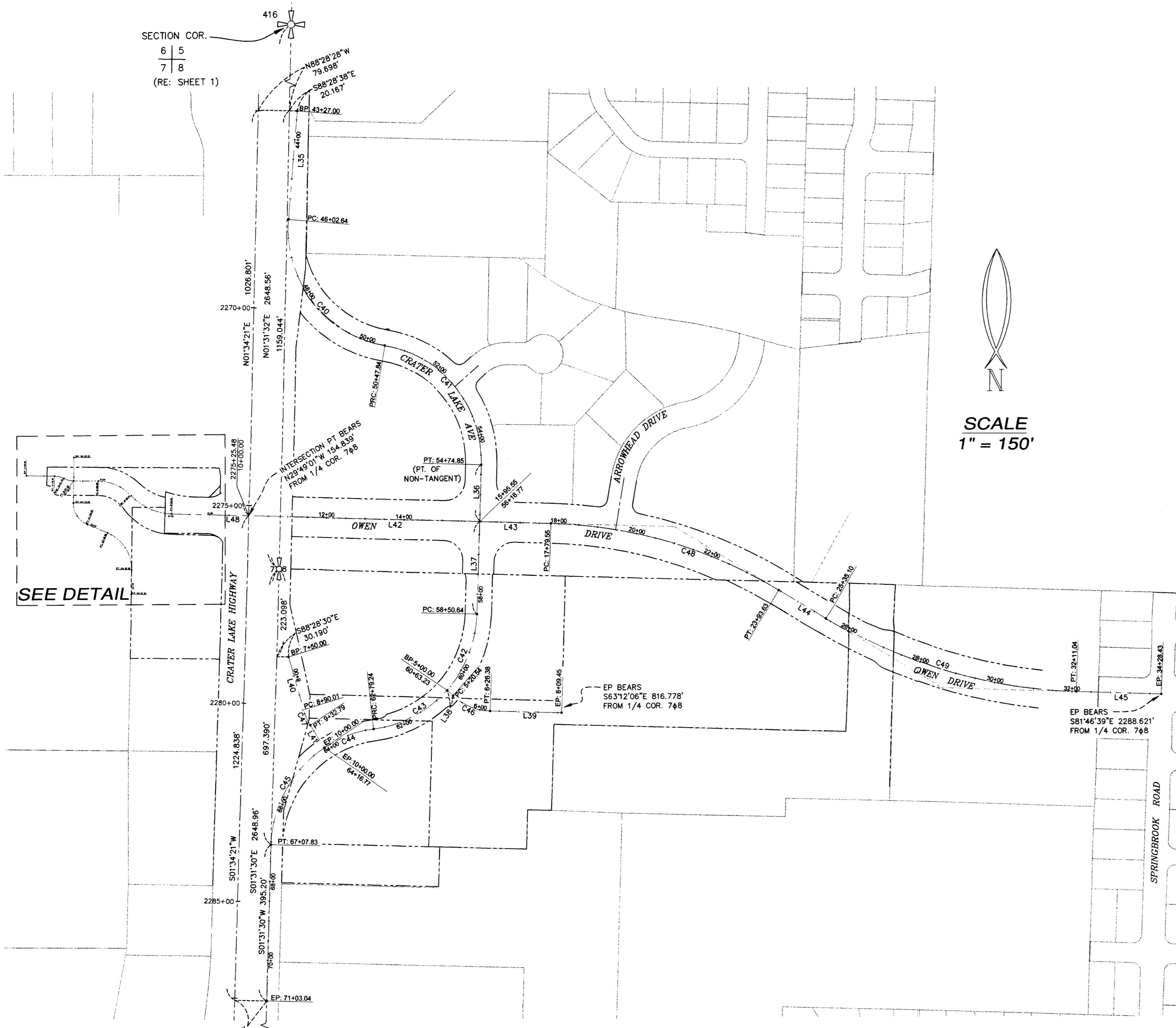
REGISTERED PROFESSIONAL LAND SURVEYOR

Richard J. Bath OREGON JULY 30, 1976 RICHARD L. BATH No. 1068 RENEWS 12/31/11

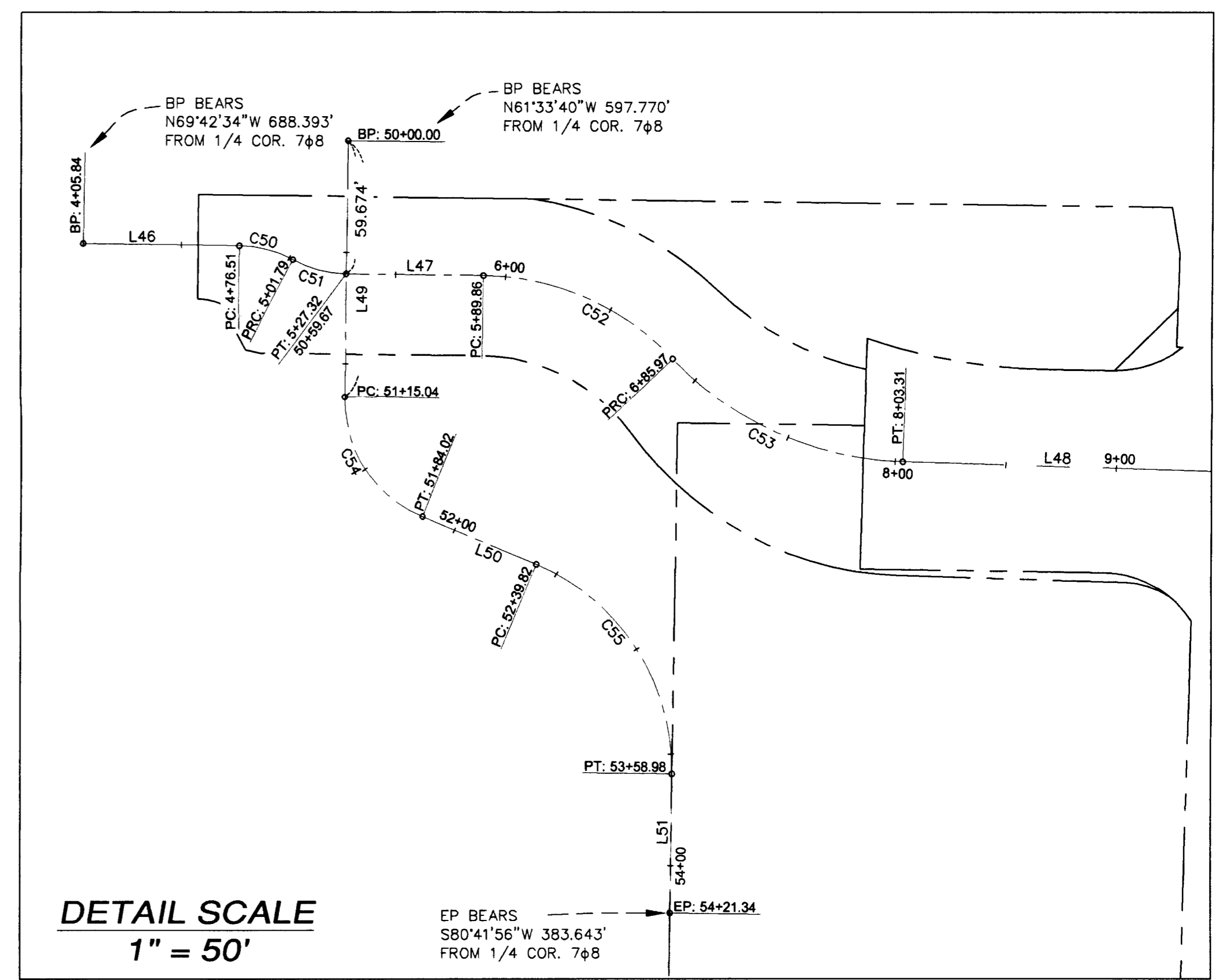
Hardey Engineering & Associates, Inc.

P.O. BOX 1625 MEDFORD, OREGON 97501-0063 VOICE: 541-772-6880 FAX: 541-772-9573 EMAIL: info@hea-inc.com

MAP OF SURVEY
FOR
HORIZONTAL CONTROL
AND
MONUMENT RECOVERY
CRATER LAKE HIGHWAY
SITUATED IN
SECTION'S 5 & 8, T37S, R1W, WM
JACKSON COUNTY, OREGON
JANUARY 2010



SCALE
1" = 150'



DETAIL SCALE
1" = 50'

SECTION COR.
6 | 5
7 | 8
(RE: SHEET 1)

SECTION COR.
7 | 8
17 | 18

CONSTRUCTION CENTERLINE

SHEET 4
CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	LONG	CHORD
C40	85°01'35"	300.00'	445.20'	S37°31'41"E	405.46'
C41	81°33'14"	300.00'	427.02'	S39°15'51"E	391.87'
C42	40°36'06"	300.00'	212.59'	S21°49'33"W	208.17'
C43	41°15'13"	300.00'	216.00'	S62°45'12"W	211.37'
C44	26°16'02"	300.00'	137.53'	S70°14'48"W	136.33'
C45	55°35'20"	300.00'	291.06'	S29°19'09"W	279.78'
C46	40°25'39"	150.00'	105.84'	S68°05'14"E	103.66'
C47	16°20'18"	150.00'	42.77'	S24°43'03"E	42.63'
C48	29°19'13"	1200.00'	614.08'	S73°38'28"E	607.40'
C49	29°20'23"	1320.00'	675.94'	S73°39'03"E	668.58'
C50	27°19'22"	53.00'	25.27'	S75°25'45"E	25.04'
C51	27°36'09"	53.00'	25.53'	S75°34'10"E	25.29'
C52	45°53'27"	120.00'	96.11'	S66°25'31"E	93.57'
C53	44°49'17"	150.00'	117.34'	S65°53'26"E	114.37'
C54	68°08'42"	58.00'	68.98'	S33°26'36"E	64.99'
C55	68°16'19"	100.00'	119.16'	S33°22'47"E	112.23'

SHEET 4
LINE TABLE

NO.	BEARING	DISTANCE
L35	S04°59'06"W	275.64'
L36	S01°31'30"W	141.92'
L37	S01°31'30"W	233.88'
L38	S47°52'24"E	20.54'
L39	S88°18'03"E	183.07'
L40	S16°32'55"E	140.01'
L41	S32°53'12"E	67.21'
L42	S88°18'04"E	595.54'
L43	S88°18'04"E	184.00'
L44	S58°58'51"E	141.47'
L45	S88°19'15"E	217.39'
L46	S89°05'27"E	70.68'
L47	S89°22'14"E	62.54'
L48	S88°18'04"E	196.70'
L49	S00°37'46"W	115.04'
L50	S67°30'57"E	55.80'
L51	S00°45'22"W	62.37'

LEGEND

BP = ALIGNMENT BEGINNING POINT
EP = ALIGNMENT ENDING POINT
RE: SHEET 2 FOR HORIZONTAL & VERTICAL CONTROL POINTS

RECEIVED
Date: 3-1-10 By: [Signature]
This survey consists of:
4 sheets Map
2 pages Narrative
JACKSON COUNTY SURVEYOR

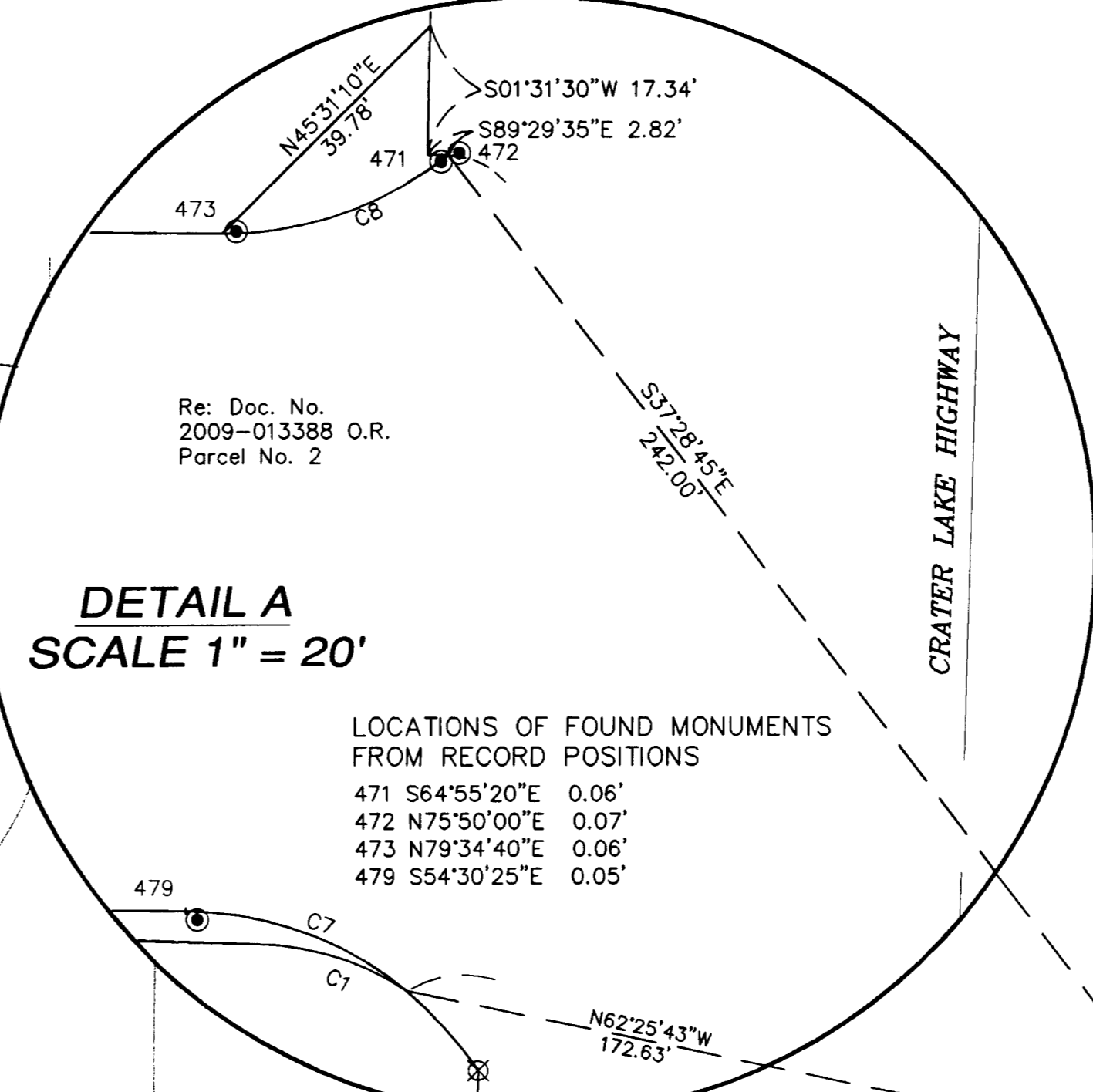
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OREGON
JULY 30, 1976
RICHARD L. BATH
No. 1089
RENEWS 12/31/11

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101-35-07.dwg MonRecovery_craterlakehw.dwg (Project No. 101-35-08, Phase II)

MAP OF SURVEY FOR HORIZONTAL CONTROL AND MONUMENT RECOVERY CRATER LAKE HIGHWAY SITUATED IN SECTION'S 5 & 8, T37S, R1W, WM JACKSON COUNTY, OREGON JANUARY 2010

RECEIVED Date 3-1-10 By 66 This survey consists of 4 sheets of map 0 pages of narrative JACKSON COUNTY SURVEYOR



- LEGEND: CONTROL POINT AS NOTED, FOUND SURVEY MONUMENT AS NOTED, MONUMENT SEARCHED FOR BUT NOT FOUND, BENCHMARK, ASPHALT SURFACE, COUNTY SURVEY NUMBER, CONTROL POINT, FOUND MONUMENT, TAX LOT NUMBER, RED PLASTIC CAP, YELLOW PLASTIC CAP, ORANGE PLASTIC CAP

CONTROL POINTS

- 49 PANEL POINT #11 SET MAGNAIL IN AC N 264455.329 E 4284193.145 ELEV. = 1323.44
54 PANEL POINT #13 SET MAGNAIL IN AC N 264398.224 E 4286016.941 ELEV. = 1334.18
94 SET REBAR & ALUM. CAP "HEA CONTROL POINT" N 264266.343 E 4286147.917 ELEV. = NONE

SHEET 2 RIGHT OF WAY CURVE TABLE

Table with columns: NO., DELTA, RADIUS, LENGTH, LONG CHORD, BEARING, DISTANCE. Lists curve data for various points.

SHEET 2 LINE TABLE

Table with columns: NO., BEARING, DISTANCE. Lists line data for various points.

SCALE 1" = 120'

FOUND MONUMENTS

- 78 FD YPC "HOFFBUHR & ASSOC INC", 2" EXPOSED FLUSH IN AC N 264366.186 E 4285211.554
444 FD ALUM CAP "HOFFBUHR" FLUSH IN AC N 264606.688 E 4285257.928
449 FD ALUM CAP "HOFFBUHR" FLUSH IN AC N 264443.094 E 4285603.156

SECTION COR. MKD: "T37S R1W" 6 5 7 8 CS "1988"

SECTION COR. 7 8 17 18 Calculated position per Fd. county re-estab. RP's (Monument paved over)

37-1W-07A, 07D, 08BC, 08BD, 08C and 08CA

101-35-07\dwg\MonRecovery_craterlakehwy.dwg (Project No. 101-35-08, Phase II)

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