17756

MAP OF SURVEY

LOCATED IN THE NORTH ½ OF SECTION 28
TOWNSHIP 37 SOUTH, RANGE 2 WEST,
WILLAMETTE MERIDIAN, JACKSON COUNTY

OR 238 AT HANLEY ROAD
KEY No.12734

* * RECEIVED * *
DATE 4-24-03 BY BG
This survey consists of:
3 sheet(s) Map
0 page(s) Narrative
JACKSON COUNTY SURVEYOR

SURVEY NARRATIVE

TO COMPLY WITH O.R.S. 209.250
FOR:
OREGON DEPARTMENT OF TRANSPORTATION (ODOT), ROGUE VALLEY AREA OFFICE
200 ANTELOPE ROAD, WHITE CITY, OREGON 97503

PURPOSE:
TO ESTABLISH HORIZONTAL & VERTICAL CONTROL; TO LOCATE MONUMENTS OF RECORD & TO ESTABLISH ACCURATE COORDINATES FOR EACH MONUMENT FOUND; TO LOCATE THE RIGHT OF WAY CENTERLINE FOR A PORTION OF HIGHWAY 238 NEAR HANLEY ROAD; AND TO LOCATE THE CENTERLINE OF HANLEY ROAD NEAR HIGHWAY 238. THIS SURVEY WORK IS DONE IN PREPARATON OF A PROPOSED ROADWAY IMPROVEMENT PROJECT.

NOTE: DUE TO THE COMPLETION OF A DIFFERENT HIGHWAY PROJECT IN THE MEDFORD AREA, JURISDICTION OF THE SECTION OF HIGHWAY BETWEEN HANLEY ROAD AND ROSS LANE NORTH HAS BEEN GIVEN TO THE JACKSON COUNTY ROADS AND PARKS DEPARTMENT. JACKSON COUNTY IS CURRENTLY REFERRING TO THAT PORTION OF ROADWAY AS "OLD HIGHWAY 238", FORMERLY KNOWN AS HIGHWAY 238.

EQUIPMENT:
LEICA TCA 1800 TOTAL STATION WITH A STANDARD ANGULAR ERROR OF +/-1 SECOND, AND A STANDARD DISTANCE ERROR OF +/-2mm, +2ppm.
WILD NA2002 DIGITAL LEVEL WITH A PUBLISHED ACCURACY OF 1.5mm/KM USING A BAR CODE STAFF. ALL SURVEYING EQUIPMENT THAT WAS USED FOR THIS PROJECT WAS CALIBRATED BEFORE, AND/OR PERIODICALLY THROUGHOUT THE DURATION OF THIS PROJECT

PROCEDURE:
A NETWORK WAS RUN THROUGHOUT THE PROJECT LIMITS, BEGINNING WITH EXISTING GEODETIC CONTROL POINTS "JACK" AND "BYBE". COORDINATES FOR "JACK" AND "BYBE" WERE FIXED. A LEAST SQUARES ADJUSTMENT WAS USED AND PRODUCED RESULTS INDICATING THAT 95% WERE WITHIN THE TOTAL ANGULAR ERROR TOLERANCE OF THREE SECONDS, AND 100% WERE WITHIN TWO TIMES THE TOTAL ANGULAR ERROR TOLERANCE (SIX SECONDS). DISTANCE RESIDUALS INDICATED 100% OF THE RESIDUALS WERE WITHIN THE TOTAL DISTANCE ERROR TOLERANCE OF 5mm. THESE VARIANCES ARE WELL WITHIN ODOT'S TOLERANCE STANDARDS. THE ADJUSTED COORDINATES FOR THE NETWORK AND MONUMENTS ARE SHOWN ON THIS SURVEY. THE LEAST SQUARES ADJUSTMENT REPORT IS SHOWN ON SHEET 1/3. FOUND MONUMENTS WERE DOUBLE TIED PER ODOT SPECIFICATIONS. FOUND MONUMENTS ARE SHOWN WITH A PERPENDICULAR OFFSET FROM THE RESOLVED CENTERLINE.
HIGHWAY 238 & OLD HIGHWAY 238:
FILED SURVEY 2438 REFERS TO A 1910 SURVEY, MY RESEARCH COULD NOT LOCATE SAID SURVEY. JACKSON COUNTY SURVEYOR PROVIDED FIELD NOTES FOR "ANCIENT ROAD SURVEY #1, 1910", HOWEVER, THESE FIELD NOTES DO NOT CORRELATE WITH FILED SURVEY 2438. THE 1910 SURVEY AND ANCIENT ROAD SURVEY #1 FIELD NOTES WERE NOT USED IN DETERMINING THE HIGHWAY CENTERLINE ON THIS MAP OF SURVEY
THE ODOT DRAWING USED TO AID DETERMINING THE HIGHWAY CENTERLINE FOR THIS PROJECT IS: 5B-7-9, DATED OCTOBER 1936 AND REFERENCED ON THIS SURVEY AS R/W1. THE CENTERLINE BEGININNG TANGENT ON THIS MAP WAS DETERMINED BY FILED SURVEY 17499, RECORD CURVE DATA PER R/W1 WAS USED ON THE ENSUING CURVE TO THE RIGHT. THE CENTERLINE TANGENT BETWEEN STATION PT 15+178.718 AND PC 15+622.218 WAS DETERMINED BY USING A 9.144m OFFSET FROM MONUMENT 1016 AND THE RECORD POSITION PER FILED SURVEY AND MONUMENT 1014. RECORD RADIUS PER R/W1 WAS USED FOR THE CURVE AT STATION PC 15+126.136. THE TANGENT BETWEEN STA PT 15+679.310 AND PC 15+983.033 WAS DETERMINED BY A 9.144m OFFSET FROM MONUMENTS 1020 AND 1022. THE ENDING TANGENT OF THIS PROJECT WAS DETERMINED BY A 9.144m OFFSET FROM MONUMENTS 1007 AND 1032. RECORD RADIUS PER R/W1 WAS USED FOR THE CURVE AT STATION PC 15+983.033.
HANLEY ROAD:
CENTERLINE WAS DETERMINED BY A 9.144m OFFSET FROM MONUMENTS 1000 AND 1001 AND EXTENDING THE CENTERLINE NORTHERLY AND SOUTHERLY TO INTERSECT WITH HIGHWAY 238.

SURVEY DATA

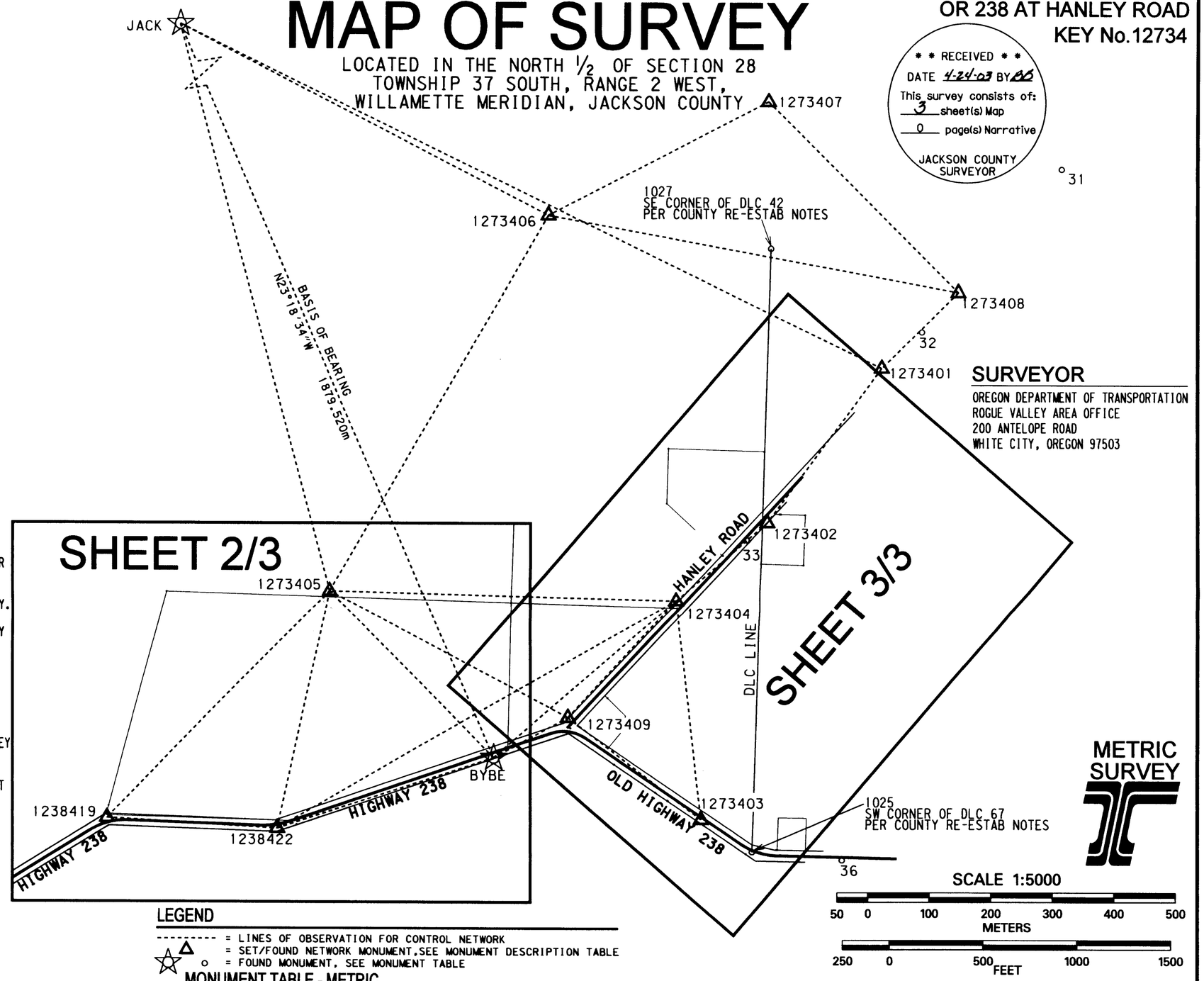
FIELD WORK WAS COMPLETED IN MARCH, 2003

BASIS OF BEARING: OREGON SOUTH ZONE, NAD83 (91)
MONUMENTS "JACK" AND "BYBE" PER CS 17733

COORDINATES SHOWN ARE LOCAL DATUM PLANE (LDP)
THE COMBINED SCALE FACTOR (CSF) OF 0.99992848 IS TAKEN FROM FILED SURVEY 17499. CONVERGENCE AT CONTROL POINT "BYBE" IS -01°40'21.61".
TO CONVERT FROM LDP TO OREGON STATE PLANE (SPC), USE THE FOLLOWING FORMULA: LDP x CSF = SPC.
TO CONVERT FROM METRIC TO SURVEY FEET MULTIPLY THE METRIC VALUE BY 3.28083.

VERTICAL DATUM BASED UPON BENCHMARK "Y 199" CONVERTED TO NAVD88 DATUM. THIS WAS ACHIEVED BY USING THE NGVD29 METRIC ELEVATION 478.211m AND ADDING 1.020m AS CALCULATED BY VERTCON SOFTWARE; RESULTING IN A CALCULATED NAVD88 ELEVATION OF 479.231m FOR BENCHMARK "Y 199". A BENCH CIRCUIT WAS RAN FROM BENCHMARK "Y 199" TO BENCHMARK "L 199". RESULTS OF THIS CIRCUIT WERE WELL WITHIN ODOT STANDARDS.
FEMA BENCHMARK RM8, PER PANEL 4155890412, WAS TIED IN DURING THE BENCH CIRCUIT. THE GUARDRAIL POST THAT RM8 IS IN, IS SLIGHTLY BENT NORTHERLY, MAKING THE VERTICAL ACCURACY SUSPECT. THE PUBLISHED NGVD29 ELEVATION FOR RM8 IS 1412.46 FEET (NGVD29). AN NAVD88 METRIC ELEVATION OF 431.430 WAS CALCULATED FOR RM8.

T37S, R2W, N½ OF SEC 28



SURVEYOR

OREGON DEPARTMENT OF TRANSPORTATION
ROGUE VALLEY AREA OFFICE
200 ANTELOPE ROAD
WHITE CITY, OREGON 97503

METRIC SURVEY

SCALE 1:5000

50 0 100 200 300 400 500
METERS
250 0 500 1000 1500
FEET

LEGEND

--------- = LINES OF OBSERVATION FOR CONTROL NETWORK
△ = SET/FOUND NETWORK MONUMENT, SEE MONUMENT DESCRIPTION TABLE
o = FOUND MONUMENT, SEE MONUMENT TABLE

MONUMENT TABLE - METRIC

Pt ID	North	East	Elev	Description
31	77012.390	1299512.836		FD REBAR W/1-1/2" ALUM CAP "ODOT CONTROL "31"
32	76751.655	1299285.851		FD REBAR W/1-1/2" ALUM CAP "ODOT CONTROL "32"
33	76416.766	1299001.652		FD REBAR W/1-1/2" ALUM CAP "ODOT CONTROL "33"
36	75900.921	1299156.217	435.774	FD REBAR W/1-1/2" ALUM CAP "ODOT CONTROL "36"

Liscad Plus V4.1 - Least Squares Adjustment Report
Variance Factor: 1.75

Adjusted Coordinates		95% Confidence Limits			Error Ellipse		
Pt ID	North	East	North	East	Semi Maj.	Semi Min.	Orientation
1238422	75950.825	1298243.112	0.004	0.003	0.004	0.003	151°54'17"
1273409	76128.347	1298713.196	0.002	0.003	0.003	0.002	58°38'25"
1273405	76333.455	1298327.854	0.003	0.003	0.004	0.002	48°15'47"
1273404	76318.381	1298888.099	0.004	0.003	0.004	0.003	143°36'54"
1238419	75967.092	1297967.117	0.007	0.005	0.008	0.004	158°58'56"
1273406	76937.676	1298681.222	0.004	0.005	0.005	0.004	57°35'32"
1273403	75965.702	1298928.056	0.005	0.005	0.006	0.004	46°22'14"
1273402	76444.223	1299035.111	0.005	0.005	0.005	0.005	28°26'11"
1273401	76693.283	1299220.983	0.006	0.005	0.007	0.005	24°41'30"
1273408	76815.090	1299345.091	0.008	0.005	0.008	0.005	11°10'03"
1273407	77120.443	1299037.006	0.006	0.007	0.007	0.006	102°06'37"

N

OREGON DEPARTMENT OF TRANSPORTATION

HORIZONTAL CONTROL, MONUMENT RECOVERY AND CENTERLINE RETRACEMENT MAP

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 13, 1999
JOHN R. PARIANI
*51382LS
RENEWS: DEC. 31, 2004

OR HIGHWAY 238
(MILE POST 34.65 to 35.15)
AT HANLEY ROAD,
JACKSON COUNTY

ODOT
200 ANTELOPE ROAD
WHITE CITY, OREGON 97503

DATE: MAY 06, 2003
CADD File: 12734MRM1.DGN

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17756

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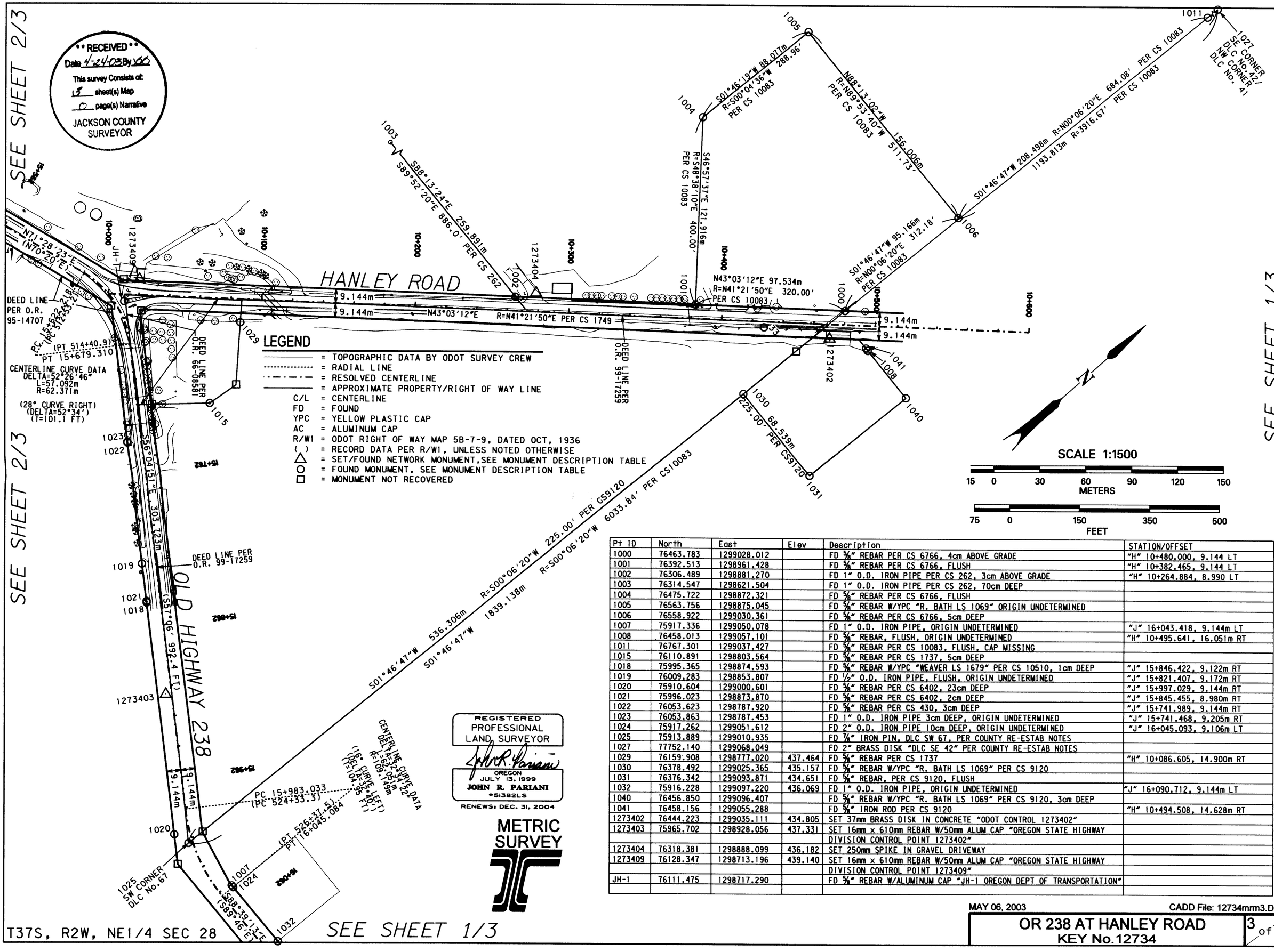
SEE SHEET 2/3

SEE SHEET 1/3

SEE SHEET 2/3



REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON JULY 13, 1999 JOHN R. PARIANI 51382LS
RENEWS: DEC. 31, 2004

METRIC SURVEY

Pt ID	North	East	Elev	Description	STATION/OFFSET
1000	76463.783	1299028.012		FD 5/8" REBAR PER CS 6766, 4cm ABOVE GRADE	"H" 10+480.000, 9.144 LT
1001	76392.513	1298961.428		FD 5/8" REBAR PER CS 6766, FLUSH	"H" 10+382.465, 9.144 LT
1002	76306.489	1298881.270		FD 1" O.D. IRON PIPE PER CS 262, 3cm ABOVE GRADE	"H" 10+264.884, 8.990 LT
1003	76314.547	1298621.504		FD 1" O.D. IRON PIPE PER CS 262, 70cm DEEP	
1004	76475.722	1298872.321		FD 5/8" REBAR PER CS 6766, FLUSH	
1005	76563.756	1298875.045		FD 5/8" REBAR W/YPC "R. BATH LS 1069" ORIGIN UNDETERMINED	
1006	76558.922	1299030.361		FD 5/8" REBAR PER CS 6766, 5cm DEEP	
1007	75917.336	1299050.078		FD 1" O.D. IRON PIPE, ORIGIN UNDETERMINED	"J" 16+043.418, 9.144m LT
1008	76458.013	1299057.101		FD 5/8" REBAR, FLUSH, ORIGIN UNDETERMINED	"H" 10+495.641, 16.051m RT
1011	76767.301	1299037.427		FD 5/8" REBAR PER CS 10083, FLUSH, CAP MISSING	
1015	76110.891	1298803.564		FD 5/8" REBAR PER CS 1737, 5cm DEEP	
1018	75995.365	1298874.593		FD 5/8" REBAR W/YPC "WEAVER LS 1679" PER CS 10510, 1cm DEEP	"J" 15+846.422, 9.122m RT
1019	76009.283	1298853.807		FD 1/2" O.D. IRON PIPE, FLUSH, ORIGIN UNDETERMINED	"J" 15+821.407, 9.172m RT
1020	75910.604	1299000.601		FD 5/8" REBAR PER CS 6402, 23cm DEEP	"J" 15+997.029, 9.144m RT
1021	75996.023	1298873.870		FD 5/8" REBAR PER CS 6402, 2cm DEEP	"J" 15+845.455, 8.980m RT
1022	76053.623	1298787.920		FD 5/8" REBAR PER CS 430, 3cm DEEP	"J" 15+741.989, 9.144m RT
1023	76053.863	1298787.453		FD 1" O.D. IRON PIPE 3cm DEEP, ORIGIN UNDETERMINED	"J" 15+741.468, 9.205m RT
1024	75917.262	1299051.612		FD 2" O.D. IRON PIPE 10cm DEEP, ORIGIN UNDETERMINED	"J" 16+045.093, 9.106m LT
1025	75913.889	1299010.935		FD 7/8" IRON PIN, DLC SW 67, PER COUNTY RE-ESTAB NOTES	
1027	77752.140	1299068.049		FD 2" BRASS DISK "DLC SE 42" PER COUNTY RE-ESTAB NOTES	
1029	76159.908	1298777.020	437.464	FD 5/8" REBAR PER CS 1737	"H" 10+086.605, 14.900m RT
1030	76378.492	1299025.365	435.157	FD 5/8" REBAR W/YPC "R. BATH LS 1069" PER CS 9120	
1031	76376.342	1299093.871	434.651	FD 5/8" REBAR, PER CS 9120, FLUSH	
1032	75916.228	1299097.220	436.069	FD 1" O.D. IRON PIPE, ORIGIN UNDETERMINED	"J" 16+090.712, 9.144m LT
1040	76456.850	1299096.407		FD 5/8" REBAR W/YPC "R. BATH LS 1069" PER CS 9120, 3cm DEEP	
1041	76458.156	1299055.288		FD 5/8" IRON ROD PER CS 9120	"H" 10+494.508, 14.628m RT
1273402	76444.223	1299035.111	434.805	SET 37mm BRASS DISK IN CONCRETE "ODOT CONTROL 1273402"	
1273403	75965.702	1298928.056	437.331	SET 16mm x 610mm REBAR W/50mm ALUM CAP "OREGON STATE HIGHWAY	
				DIVISION CONTROL POINT 1273402"	
1273404	76318.381	1298888.099	436.182	SET 250mm SPIKE IN GRAVEL DRIVEWAY	
1273409	76128.347	1298713.196	439.140	SET 16mm x 610mm REBAR W/50mm ALUM CAP "OREGON STATE HIGHWAY	
				DIVISION CONTROL POINT 1273409"	
JH-1	76111.475	1298717.290		FD 5/8" REBAR W/ALUMINUM CAP "JH-1 OREGON DEPT OF TRANSPORTATION"	

T37S, R2W, NE1/4 SEC 28

SEE SHEET 1/3

MAY 06, 2003 CADD File: 12734mrm3.DGN

OR 238 AT HANLEY ROAD
KEY No.12734

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LEGEND

- = TOPOGRAPHIC DATA BY ODOT SURVEY CREWS
- ---------- = RADIAL LINE
- ·-·-·-·- = RESOLVED CENTERLINE
- ———— = APPROXIMATE PROPERTY/RIGHT OF WAY LINE
- C/L = CENTERLINE
- FD = FOUND
- YPC = YELLOW PLASTIC CAP
- AC = ALUMINUM CAP
- R/W1 = ODOT RIGHT OF WAY MAP 5B-7-9, DATED OCT, 1936
- ( ) = RECORD DATA PER R/W1, UNLESS NOTED OTHERWISE
- △ = SET/FOUND NETWORK MONUMENT, SEE MONUMENT DESCRIPTION TABLE
- ○ = FOUND MONUMENT, SEE MONUMENT DESCRIPTION TABLE
- □ = MONUMENT NOT RECOVERED

RECEIVED
Date 4-24-03 By BO
This survey Consists of:
3 sheet(s) Map
0 page(s) Narrative
JACKSON COUNTY SURVEYOR

MONUMENT TABLE - METRIC

Pt ID	North	East	Elev	Description	STATION/OFFSET
1003	76314.547	1298621.504		FD 1" O.D. IRON PIPE PER CS 262, 70cm DEEP	
1010	76679.623	1298632.152		FD 5/8" REBAR W/YPC "R. BATH LS 1069" PER	
				CS 10083, SLIGHTLY BENT TO SOUTH	
1012	76332.278	1298063.477		FD 1" O.D. IRON PIPE PER CS 262, 45cm DEEP	
1013	75986.442	1297969.835		FD 3/4" O.D. IRON PIPE PER CS 262, 30cm DEEP	14+886.836, 26.213m LT.
1014	76094.916	1298615.757		FD 3/4" O.D. IRON PIPE PER CS 262, 15cm DEEP	
1016	75948.372	1298252.632		FD 5/8" REBAR PER CS 2438, 7cm DEEP	15+162.718, 10.264m RT.
1017	75956.851	1298274.289		FD 1-1/2" O.D. IRON PIPE 4CM DEEP, ORIGIN UNDETERMINED	15+184.858, 8.170m RT.
1114	75684.137	1297510.933		FD 1/2" IP PER 1923 R/W MAP, 700 mm DEEP IN MONUMENT CASE	
1238419	75967.092	1297967.117	448.619	FD 16mm x 610mm REBAR W/50mm ALUM CAP	14+880.728, 7.987 LT.
				"OREGON STATE HIGHWAY DIVISION CONTROL POINT 1238419"	
1238422	75950.825	1298243.112	444.944	FD SPIKE IN ROADWAY SHOULDER	15+154.290, 6.105m RT.
1273405	76333.455	1298327.854		SET 250mm SPIKE IN GRAVEL ROADWAY SHOULDER	
BYBE	76063.903	1298593.066	439.990	SET 76mm BRASS DISK IN CONCRETE "BYBE 1994" PER CS 17733	

1010
S01°40'14"W 365.231m
RECORD PER CS*
1003
S01°29'56"W 219.706m
S00°11'25"E 721.00' PER CS 262
SEE SHEET 3/3

1012
1273405 △
S88°10'48"E 558.308m
S89°52'20"E 1831.69' PER CS 262

N15°09'03"E 358.289m
N13°30'E 1175.13' PER CS 262

C/L CURVE DATA
DELTA=20°36'35"
L=52.582m
R=146.182m
(12° CURVE LEFT)
(DELTA=20°42')
(T=523.25 FT)

DEED LINE PER O.R. 89-16328
1014
15+467
9.144m
9.144m
BYBE
PC 5+12.53 (21)
PC 15+622.218

HIGHWAY 238

DEED LINE PER O.R. 89-16328
N71°28'23"E 443.500m
(N70°20'E 1458.90')

PC 15+126.136
(PC 496+22.3)
PT 15+178.718
(PT 496+74.3)

1013
DEED LINE PER O.R. 89-16328
1238419
9.144m
9.144m
S87°55'02"E 213.252m
(S88°58'E 695.5')
1017
1238422
1016

N58°30'58"E 503.167m
(N57°28'E 1542.7')
9.144m
9.144m
1114 PER
1923 R/W MAP
AND CS 17499

(PC 487+17.0)
PC 14+846.939
(PT 489+26.8)
PT 14+912.883

C/L CURVE DATA
DELTA=33°34'00"
L=63.945m
R=109.149m
(16° CURVE RIGHT)
(DELTA=33°34')
(T=108.0 FT)

N

SCALE 1:1500
15 0 30 60 90 120 150
METERS
75 0 150 350 500
FEET

REGISTERED
PROFESSIONAL
LAND SURVEYOR
OREGON
JULY 13, 1999
JOHN R. PARIANI
*51382LS
RENEWS: DEC. 31, 2004

METRIC SURVEY

MAY 06, 2003
CADD File: 12734mm2.DGN

T37S, R2W, NW1/4 SEC 28

OR 238 AT HANLEY ROAD
KEY No.12734

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