

Date: 6/14/2012 By: JC
This survey consists of:
Map: SHW 38-019 A-H
Narrative:
Corner Rpt:

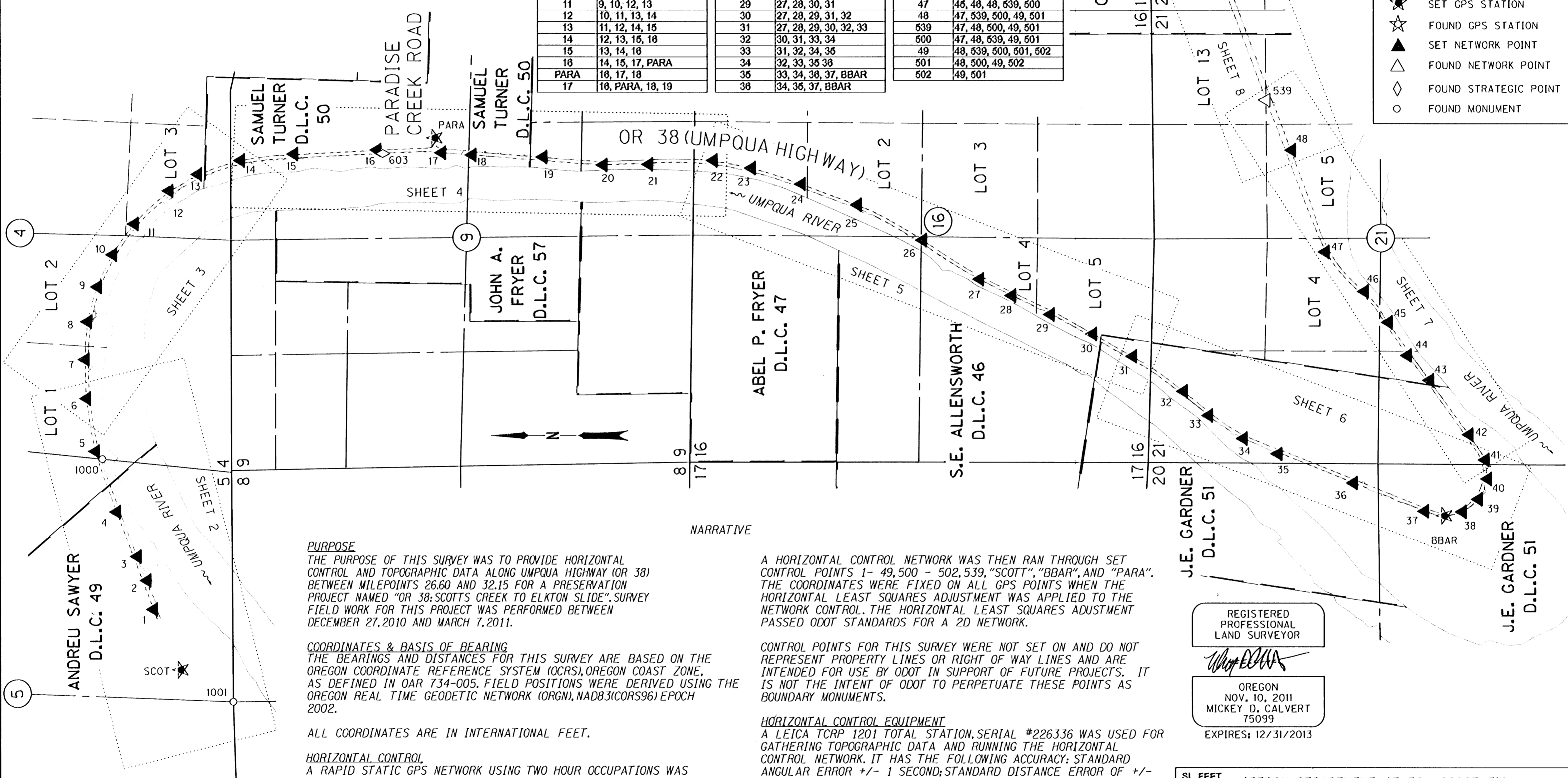
DOUGLAS COUNTY
SURVEYOR

SEC. 4, 5, 9, 16, 20, 21, & 22, T22S, R8W, W.M.

LINE LEGEND	
	SECTION LINE
	QUARTER SECTION LINE
	D.L.C. LINE
	D.L.C. THIS SIDE
	SIXTEENTH/GOV. LOT LINE

NETWORK OBSERVATIONS		NETWORK OBSERVATIONS		NETWORK OBSERVATIONS	
OCCUPIED	MEASURED	OCCUPIED	MEASURED	OCCUPIED	MEASURED
SCOT	1, 2	18	18, 17, PARA, 19, 20, 21	37	35, 38, BBAR, 38
1	SCOT, 2, 3	19	17, 18, 20	38	37, BBAR, 39, 40
2	SCOT, 1, 3, 4, 5	20	18, 19, 21, 22	39	BBAR, 38, 40, 41
3	1, 2, 4, 5	21	20, 22	40	38, 39, 41, 42
4	2, 3, 5	22	20, 21, 23, 24	41	39, 40, 42, 43, 44
5	2, 4, 6, 7	23	22, 24, 25	42	40, 41, 43, 44
6	5, 7, 8	24	22, 23, 25, 26	43	41, 42, 44, 45, 46
7	5, 6, 8, 9	25	23, 24, 26, 27	44	42, 43, 45, 46
8	8, 7, 9, 10	26	24, 25, 27	45	43, 44, 46, 47
9	7, 8, 10, 11	27	26, 28, 28, 29, 30	46	43, 44, 45, 47
10	8, 9, 11, 12	28	27, 29, 30, 31	47	45, 46, 48, 539, 500
11	9, 10, 12, 13	29	27, 28, 30, 31	48	47, 539, 500, 49, 501
12	10, 11, 13, 14	30	27, 28, 29, 31, 32	49	47, 48, 539, 49, 501
13	11, 12, 14, 15	31	27, 28, 29, 30, 32, 33	501	47, 48, 500, 49, 501
14	12, 13, 15, 16	32	30, 31, 33, 34	500	47, 48, 539, 49, 501
15	13, 14, 16	33	31, 32, 34, 35	49	48, 539, 500, 501, 502
16	14, 15, 17, PARA	34	32, 33, 35, 36	501	48, 500, 49, 502
17	18, 17, 18	35	33, 34, 36, 37, BBAR	502	49, 501
18	18, PARA, 18, 19	36	34, 35, 37, BBAR		

POINT LEGEND	
	SET GPS STATION
	FOUND GPS STATION
	SET NETWORK POINT
	FOUND NETWORK POINT
	FOUND STRATEGIC POINT
	FOUND MONUMENT



PURPOSE
THE PURPOSE OF THIS SURVEY WAS TO PROVIDE HORIZONTAL CONTROL AND TOPOGRAPHIC DATA ALONG UMPQUA HIGHWAY (OR 38) BETWEEN MILEPOINTS 26.60 AND 32.15 FOR A PRESERVATION PROJECT NAMED "OR 38: SCOTT'S CREEK TO ELKTON SLIDE". SURVEY FIELD WORK FOR THIS PROJECT WAS PERFORMED BETWEEN DECEMBER 27, 2010 AND MARCH 7, 2011.

COORDINATES & BASIS OF BEARING
THE BEARINGS AND DISTANCES FOR THIS SURVEY ARE BASED ON THE OREGON COORDINATE REFERENCE SYSTEM (OCRS), OREGON COAST ZONE, AS DEFINED IN OAR 734-005. FIELD POSITIONS WERE DERIVED USING THE OREGON REAL TIME GEODETIC NETWORK (ORGN), NAD83(CORS96) EPOCH 2002.

ALL COORDINATES ARE IN INTERNATIONAL FEET.

HORIZONTAL CONTROL
A RAPID STATIC GPS NETWORK USING TWO HOUR OCCUPATIONS WAS PERFORMED TO ESTABLISH PRIMARY HORIZONTAL CONTROL ON POINTS "SCOT" AND "500". THIS NETWORK WAS PROCESSED HOLDING OREGON REAL TIME GEODETIC NETWORK (ORGN) POINTS "REED", "OBEC", AND "YONC" FIXED.

A SUBSEQUENT RAPID STATIC GPS SESSION WAS PERFORMED USING (2) 15 MINUTE OCCUPATIONS MEASURING FROM "SCOT" AND "500" SIMULTANEOUSLY TO ESTABLISH COORDINATES ON POINTS "BBAR" AND "PARA". A SECOND SESSION WAS COMPLETED ON THESE SAME POINTS UNDER A DIFFERENT SATELLITE CONSTELLATION.

NARRATIVE
A HORIZONTAL CONTROL NETWORK WAS THEN RUN THROUGH SET CONTROL POINTS 1- 49, 500 - 502, 539, "SCOTT", "BBAR", AND "PARA". THE COORDINATES WERE FIXED ON ALL GPS POINTS WHEN THE HORIZONTAL LEAST SQUARES ADJUSTMENT WAS APPLIED TO THE NETWORK CONTROL. THE HORIZONTAL LEAST SQUARES ADJUSTMENT PASSED ODOT STANDARDS FOR A 2D NETWORK.

CONTROL POINTS FOR THIS SURVEY WERE NOT SET ON AND DO NOT REPRESENT PROPERTY LINES OR RIGHT OF WAY LINES AND ARE INTENDED FOR USE BY ODOT IN SUPPORT OF FUTURE PROJECTS. IT IS NOT THE INTENT OF ODOT TO PERPETUATE THESE POINTS AS BOUNDARY MONUMENTS.

HORIZONTAL CONTROL EQUIPMENT
A LEICA TCRP 1201 TOTAL STATION, SERIAL #226336 WAS USED FOR GATHERING TOPOGRAPHIC DATA AND RUNNING THE HORIZONTAL CONTROL NETWORK. IT HAS THE FOLLOWING ACCURACY: STANDARD ANGULAR ERROR +/- 1 SECOND; STANDARD DISTANCE ERROR OF +/- 2MM, + 2 PPM.

A LEICA GX1230 DUAL FREQUENCY GPS RECEIVER WAS USED FOR GPS OBSERVATIONS. IT HAS THE FOLLOWING ACCURACY: PHASED DIFFERENTIAL STATIC METHOD HORIZONTAL ERROR OF 5 MM + 0.5 PPM, AND A VERTICAL ERROR OF 10 MM, + 0.5 PPM; PHASED DIFFERENTIAL RTK METHOD HORIZONTAL ERROR OF 10 MM + 1 PPM, AND A VERTICAL ERROR OF 20 MM, + 1 PPM.

CONTROL NETWORK SCHEMATIC
NOT TO SCALE

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Walt B. Calvert
OREGON
NOV. 10, 2011
MICKEY D. CALVERT
75099
EXPIRES: 12/31/2013

SI FEET
OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL MAP
OR 38: SCOTT'S CREEK TO ELKTON SLIDE PAVING
UMPUQA HIGHWAY, NO. 45, OR38, M.P. 26.60-32.15
DOUGLAS COUNTY
FILE: I6203RW.DGN MODEL: CRR
FOR ODOT REGION 3
3500 NW. STEWART PKWY.
ROSEBURG, OR. 97470
JUNE 13, 2012
SHEET 1 OF 8