

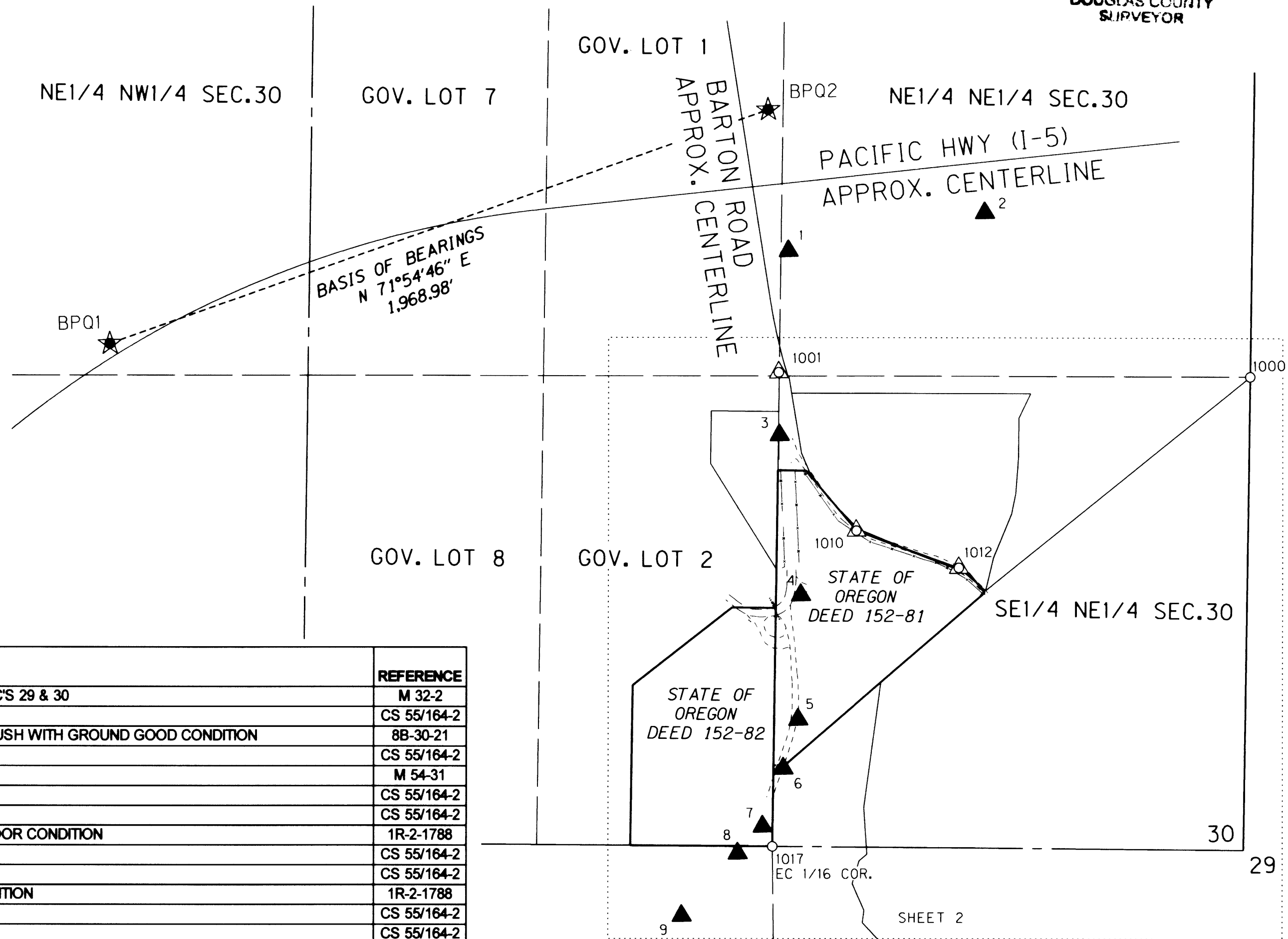
NE 1/4 SEC. 30 T.32S., R.5W., W.M.  
 SE 1/4 SEC. 30 T.32S., R.5W., W.M.  
 NW 1/4 SEC. 30 T.32S., R.5W., W.M.

FILED  
 Date: 10/25/2010 By: JC  
 This survey consists of:  
 Map: M161-39 A+B  
 Narrative:  
 Corner Rpt:  
 DOUGLAS COUNTY  
 SURVEYOR

BOUNDARY LINE LEGEND	
	RESOLVED BOUNDARY
	EXISTING PROPERTY LINE (NOT RESOLVED)
	EXISTING EASEMENT
	SECTION
	1/4 SECTION
	1/16 SECTION OR GOVERNMENT LOT

POINT LEGEND	
	FOUND MONUMENT
	SET GPS STATION
	SET NETWORK POINT
	FOUND MONUMENT, USED FOR NETWORK CONTROL

NETWORK OBSERVATIONS	
OCCUPIED	MEASURED
1	2, 3, 1001
2	1
3	4, 5, 1001, 1010
4	3, 6, 1010, 1012
5	6, 7
6	5, 7, 8
7	6, 8, 9
8	9
9	8
1001	1, 3, 4, 5
1010	4, 1012
1012	4
BPQ2	1, 2, 1001



USE ODOT PEN TABLE SURV\_CRR\_BW.TBL  
 (GRAYSHADE) TO PLOT SHEETS

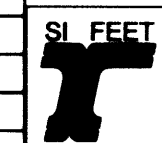
RECOVERED MONUMENTS (SHOWN ON SHEET 2)

PT. NO.	LDP NORTHING	LDP EASTING	DATE	DESCRIPTION	REFERENCE
1000	413159.777	4162768.546	2/3/10	FD. 1/2" I.D. IRON PIPE 0.9 FT. ABOVE GROUND GOOD CONDITION N 1/16 COR. SEC'S 29 & 30	M 32-2
1001	413206.990	4161440.135	2/2/10	FD. 5/8" IRON ROD FLUSH WITH GROUND GOOD CONDITION	CS 55/164-2
1002	413196.614	4161434.248	2/3/10	FD. 5/8" IRON ROD W/ 1 1/2" ALUM. CAP STAMPED "OREG. STATE HWY DEPT." FLUSH WITH GROUND GOOD CONDITION	8B-30-21
1003	413206.050	4161466.842	2/3/10	FD. 5/8" IRON ROD DOWN 0.1 FT. BELOW GROUND GOOD CONDITION	CS 55/164-2
1004	412339.071	4161005.513	2/3/10	FD. 5/8" IRON REBAR 0.4 FT. ABOVE GROUND GOOD CONDITION	M 54-31
1005	412977.461	4161498.051	2/3/10	FD. 5/8" IRON REBAR 0.1 FT. BELOW GROUND GOOD CONDITION	CS 55/164-2
1006	412925.686	4161519.024	2/3/10	FD. 5/8" IRON REBAR 0.9 FT. BELOW GROUND GOOD CONDITION	CS 55/164-2
1007	412928.120	4161509.544	2/3/10	FD. 1" DIA. HEX STEEL ROD FLUSH WITH GRAVEL SURFACE BENT NORTHERLY POOR CONDITION	1R-2-1788
1008	412849.669	4161570.500	2/3/10	FD. 5/8" IRON REBAR 0.3 FT. BELOW GROUND GOOD COND.	CS 55/164-2
1009	412761.008	4161652.358	2/3/10	FD. 5/8" IRON REBAR 0.6 FT. BELOW GRAVEL ROAD SURFACE GOOD COND.	CS 55/164-2
1010	412756.162	4161647.361	2/2/10	FD. 1" DIA. HEX STEEL ROD 0.6 FT. BELOW GRAVEL ROAD SURFACE GOOD CONDITION	1R-2-1788
1011	412702.315	4161784.663	2/3/10	FD. 5/8" IRON REBAR 0.2 FT. BELOW GROUND GOOD CONDITION	CS 55/164-2
1012	412643.875	4161933.368	2/2/10	FD. 5/8" IRON ROD 0.4 FT. BELOW GROUND GOOD CONDITION	CS 55/164-2
1013	412627.636	4161961.416	2/3/10	FD. 1" DIA. HEX STEEL ROD 0.4 FT. BELOW SURFACE POOR CONDITION TIED WHERE ROD ENTERS GROUND	1R-2-1788
1014	412577.720	4162006.996	2/3/10	FD. 5/8" IRON REBAR 0.3 FT. BELOW GRAVEL ROAD SURFACE GOOD COND.	CS 55/164-2
1015	412571.912	4162004.441	2/3/10	FD. 1" DIA. HEX STEEL ROD 0.3 FT. BELOW GRAVEL ROAD SURFACE GOOD CONDITION	1R-2-1788
1016	412075.293	4161395.235	2/3/10	FD. 1" IRON ROD BENT EASTERLY POOR CONDITION TIED WHERE ROD ENTERS THE GROUND	M 52-69A
1017	411875.590	4161387.141	2/3/10	FD. 1" IRON ROD 0.2 FT. ABOVE SURFACE GOOD CONDITION EC 1/16 CORNER SEC. 30	M 52-69A
1018	411889.228	4160987.110	2/3/10	FD. 5/8" IRON REBAR 0.7 FT. ABOVE GROUND GOOD CONDITION	M 54-31

CONTROL MONUMENTS

PT. NO.	LDP NORTHING	LDP EASTING	ELEV.	DATE	DESCRIPTION	REFERENCE
1	413549.171	4161476.764	1518.95	2/2/10	SET 1" COPPER PLUG STAMPED "ODOT CONTROL 1" IN CONCRETE SIGN	
2	413642.278	4162033.099		2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 2" 0.1 FEET BELOW SURFACE	
3	413030.415	4161437.449	1516.44	2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 3" FLUSH WITH PAVEMENT	
4	412579.632	4161485.857	1524.59	2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 4" 0.1 FEET BELOW SURFACE	
5	412229.843	4161489.256	1556.01	2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 5" 0.1 FEET BELOW SURFACE	
6	412093.556	4161424.113	1574.22	2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 6" FLUSH WITH GRAVEL	
7	411932.528	4161361.060	1595.98	2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 7" 0.1 FEET BELOW SURFACE	
8	411858.553	4161289.077	1606.27	2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 8" FLUSH WITH SURFACE	
9	411687.455	4161126.728		2/2/10	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL 9" FLUSH WITH SURFACE	
1001	413206.990	4161440.135	1515.17	2/2/10	FD. 5/8" IRON ROD FLUSH WITH GROUND GOOD CONDITION	CS55/164-2
1010	412756.162	4161647.361		2/2/10	FD. 1" DIA. HEX STEEL ROD 0.6 FT. BELOW GRAVEL ROAD SURFACE GOOD CONDITION	1R-2-1788
1012	412643.875	4161933.368		2/2/10	FD. 5/8" IRON ROD 0.4 FT. BELOW GROUND GOOD CONDITION	CS 55/164-2
BPQ1	413337.191	4159558.149		12/23/09	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL BPQ 1" 0.1 FEET BELOW EDGE OF GRAVEL	
BPQ2	413948.487	4161429.836	1519.96	12/23/09	SET 5/8" X 30" IRON REBAR W/ 1 1/2" BRASS CAP STAMPED "ODOT CONTROL BPQ 2" FLUSH WITH PAVEMENT	
B 748			1523.32	1/8/10	FD. 3 1/2" BRASS DISK STAMPED " FOR INFORMATION OR TO REPORT DAMAGE WRITE WASHINGTON, D.C. VERTICAL CONTROL MARK NATIONAL GEODETIC SURVEY THE DIRECTOR B 748 1987" SET IN BRIDGE CURB GOOD CONDITION	NGS

CONTROL NETWORK SCHEMATIC  
 NOT TO SCALE



REGISTERED PROFESSIONAL LAND SURVEYOR  
 ANDREW D. AUSLAND  
 JULY 15, 2003  
 56136LS  
 EXPIRES 12/31/2011

OREGON DEPARTMENT OF TRANSPORTATION  
 RIGHT-OF-WAY BOUNDARY MONUMENTATION MAP  
 BARTON PARK QUARRY  
 PACIFIC HIGHWAY  
 DOUGLAS COUNTY  
 FILE: BRTPOr.w.dgn MODEL: RWM

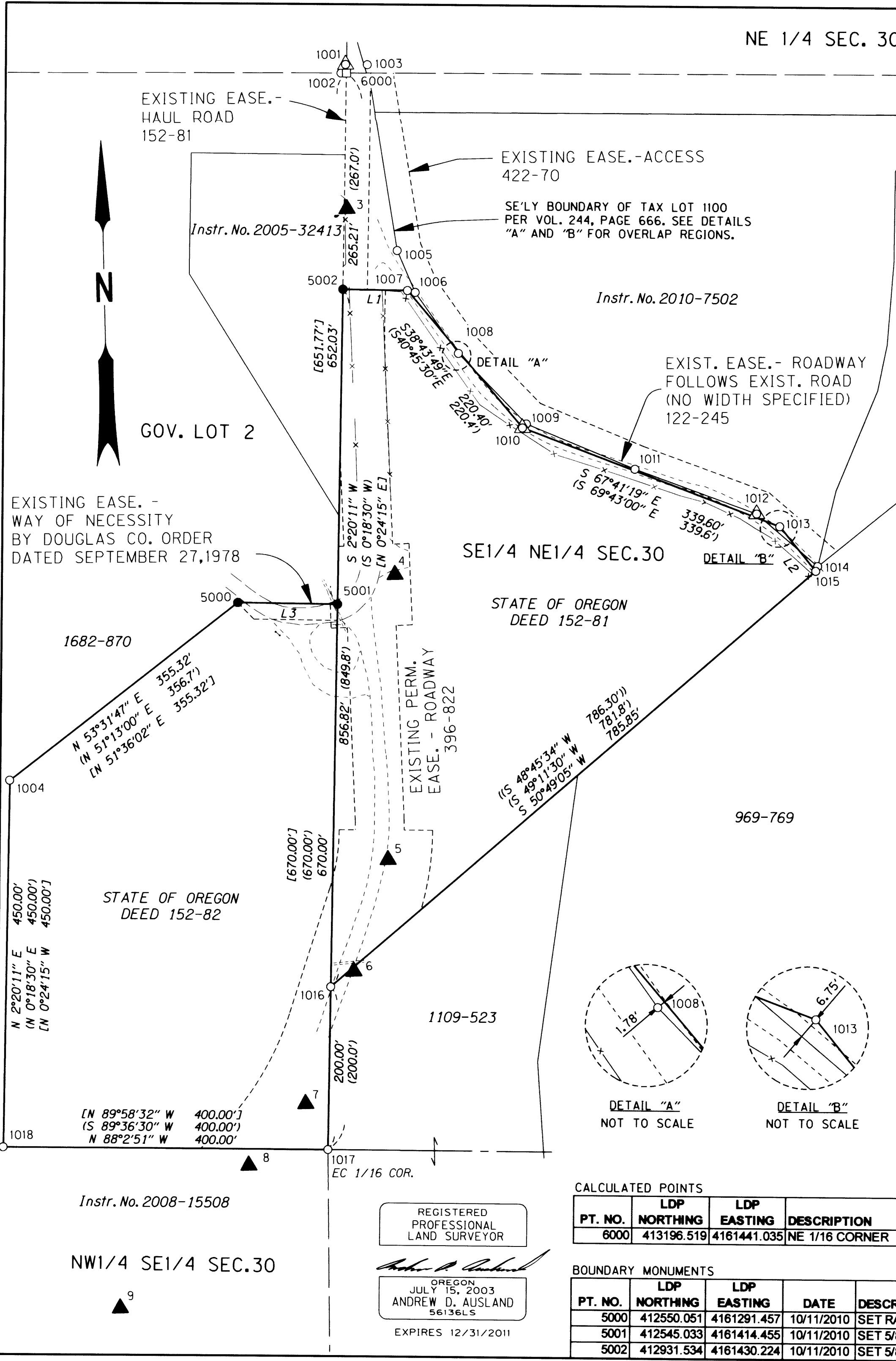
FOR ODOT REGION 3  
 3500 NW. STEWART PKWY.  
 ROSEBURG, OR. 97470

OCTOBER 20, 2010  
 SCALE 1" = 100'  
 SHEET 1 OF 2

MAP FILE M161-39 A

MAP FILE M161-39 A

FILED  
 Date: 10-25-2010 by J.C.  
 This survey consists of:  
 Map: M161-39A+B  
 Narrative:  
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 DOUGLAS COUNTY SURVEYOR



**PURPOSE**  
 THE PURPOSE OF THIS SURVEY WAS TO RESOLVE THE BOUNDARIES FOR A ROCK QUARRY SITE AND STOCKPILE SITE OWNED BY THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT). THIS PROJECT IS CALLED BARTON PARK QUARRY AND CONSISTS OF TWO PARCELS OF LAND AT THE SOUTH END OF BARTON ROAD IN DOUGLAS COUNTY, OREGON. SURVEY FIELD WORK WAS PERFORMED INTERMITTENTLY BETWEEN DECEMBER 21, 2009 AND FEBRUARY 9, 2010. THE ORIGINAL FIELD NOTES FOR THE PROJECT ARE ARCHIVED IN SALEM IN FIELD BOOK NUMBER 4472. ALL MONUMENTS SHOWN TO BE SET ON THIS SURVEY WERE SET BY RADIAL STAKEOUT METHODS FROM A TOTAL STATION AND CHECKED FROM AN INDEPENDENT INSTRUMENT SET-UP.

**COORDINATES & BASIS OF BEARING**  
 THE BEARINGS ARE BASED ON THE OREGON COORDINATE SYSTEM (OCS) OF 1983, (CORS96) (EPOCH: 2002), SOUTH ZONE (3602). THIS SURVEY UTILIZES A LOCAL DATUM PLANE (LDP) WHICH IS RELATIVE TO THE SAID OCS, WITH RESPECT TO THE LOCAL LATITUDE AND GROUND ELEVATION. THE LDP COORDINATES DEFINE TRUE GROUND DISTANCES. TO CONVERT LDP COORDINATES TO THE OCS, MULTIPLY THE COORDINATES BY 0.99985215. THE COORDINATE VALUES OF SHOWN CONTROL & RECOVERED MONUMENTS ARE SHOWN TO THE THIRD DECIMAL PLACE TO REDUCE ROUNDING ERRORS. IN REALITY, THE EXPECTED ACCURACY OF SHOWN COORDINATES IS PROBABLY 0.01' OR GREATER.

**HORIZONTAL CONTROL**  
 GRID STATE PLANE COORDINATES USING OPUS-RS IN INTERNATIONAL FEET WERE ACQUIRED BY GPS ON TWO MONUMENTS SET BY THE ROSEBURG SURVEY CREW AS CONTROL FOR THIS PROJECT. THE GPS POINTS SET FOR CONTROL ARE NAMED BPQ1 AND BPQ2. THEIR LDP COORDINATES WERE FIXED WHEN HORIZONTAL LEAST SQUARES ADJUSTMENT WAS APPLIED TO THE NETWORK CONTROL. POINTS BPQ1 AND BPQ2 FORM THE BASIS OF BEARING FOR THIS PROJECT.

**HORIZONTAL CONTROL EQUIPMENT**  
 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.

A LEICA TCRP1201 TOTAL STATION WAS USED TO ESTABLISH THE HORIZONTAL CONTROL NETWORK AND TIE IN FOUND MONUMENTS. IT HAS THE FOLLOWING ACCURACY: STANDARD ANGULAR ERROR +/- 1 SECOND; STANDARD DISTANCE ERROR OF +/- 2MM, + 2 PPM.

**VERTICAL CONTROL**  
 BENCH MARK B748 WITH NAVD 1988 DATUM WAS HELD AS FIXED FOR ALL VERTICAL CONTROL. A LEVEL CIRCUIT WAS COMPLETED TO PLACE ELEVATIONS ON POINTS 1, 3-8, 1001, AND BPQ2.

**VERTICAL CONTROL EQUIPMENT**  
 A LEICA DNA10 DIGITAL LEVEL AND A LEICA GBNL4C ALUMINUM LEVEL ROD WAS USED TO COMPLETE THE LEVEL CIRCUITS. THIS INSTRUMENT HAS A STANDARD DEVIATION OF 1.5 MM IN A 1 KILOMETER DOUBLE-RUN LEVEL CIRCUIT.

**ACCURACY OF CONTROL**  
 IN GENERAL THE NETWORK POINTS (USUALLY NUMBERED 1-499) ARE THE MOST ACCURATE HAVING MULTIPLE TIES BETWEEN MULTIPLE POINTS. CONTROLLED STRATEGIC POINTS OR AUXILIARY POINTS ARE DOUBLE TIED AND NUMBERED 500-999. RECOVERED MONUMENTS ARE DOUBLE TIED AND NUMBERED 1000-4999.

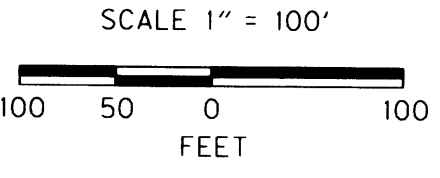
**QUARRY PARCEL (32-5-30A-900)**  
 THE PARCEL KNOWN AS THE QUARRY SITE (TAX LOT 32-5-30A-900) WAS CALCULATED USING DEED REFERENCES FROM VOL. 152, PAGE 82 (ALSO ODOT DRAWING 1R-2-1788) AND M 54-31. THE EASTERLY BOUNDARY OF THE PARCEL WAS CONTROLLED BY THE 1/16TH LINE HELD BETWEEN POINTS 1017 (EC 1/16TH) AND CALCULATED POINT 6000 (NE 1/16TH) AND HELD THE RECORD DISTANCE. THE SOUTH LINE OF SAID PROPERTY WAS ESTABLISHED BY HOLDING THE SOUTH LINE OF THE SW 1/4 OF THE NE 1/4 AT A RECORD DISTANCE OF 400.00 FEET. THE WESTERLY BOUNDARY WAS HELD PARALLEL TO THE NORTH-SOUTH 1/16TH LINE PREVIOUSLY DESCRIBED AS THE EASTERLY BOUNDARY OF SAID PARCEL. RECORD DEED DISTANCE WAS HELD FOR THIS LINE. THE NORTHERLY BOUNDARY WAS CALCULATED BY HOLDING RECORD ANGLE RELATIONSHIP TO SAID 1/16TH LINE AND HOLDING THE RECORD DISTANCE. THE NORTHWESTERLY LINE WAS ESTABLISHED AS A RESULT OF THE WESTERLY AND NORTHERLY BOUNDARY END POINTS. THE MEASURED DISTANCE FIT CLOSE WITH POINT NO. 1004 SET ON M 54-31.

**STOCKPILE PARCEL (32-5-30A-1000)**  
 THE SOUTHEASTERLY BOUNDARY OF THE STOCKPILE SITE WAS ESTABLISHED BY HOLDING A LINE BETWEEN POINT NUMBERS 1016 AND 1015, WHICH FOLLOWS THE OCCUPATION LINE OF A FENCE CONSTRUCTED BY THE OREGON STATE HIGHWAY DEPARTMENT (OSHD) BACK IN 1948. ONLY PORTIONS OF THIS FENCE REMAINS TODAY BUT IS SHOWN ON M 52-69A TO HAVE RUN THE ENTIRE LENGTH. POINT NUMBER 1015 FOUND AT THE EXTREME EASTERLY CORNER OF SAID PROPERTY MEASURES 4.05 FEET LONGER THAN THE RECORD; HOWEVER THE ORIGINAL RECORDS INDICATE THAT THE ORIGINAL MONUMENT SET BY OSHD IN 1948 (POINT 1015) HAS SUBSEQUENTLY BEEN ACCEPTED TO CONTROL THE LINE IN M52-69A AND M52-69AB. ALTHOUGH NOT OF RECORD, THE MONUMENTS ALONG THE NORTHEASTERLY BOUNDARY WERE DETERMINED TO BE SET BY ODOT SURVEY CREWS AROUND 1948 AND FIT WELL WITH THE THREE DEED COURSES BETWEEN POINTS 1015 AND 5002. I CONCLUDED THAT THE MONUMENTS ARE THE BEST EVIDENCE OF THE LINE AS IT WAS TYPICAL PRACTICE FOR PAST ODOT SURVEY CREWS NOT TO SHOW EVIDENCE OF MONUMENTS THAT WERE SET ALONG OWNERSHIP BOUNDARIES. FURTHERMORE, I HELD RECORD DEED BEARINGS AND DISTANCES WITH THE MONUMENTS FOUND ALONG THE COURSES FOLLOWING THE NORTHEASTERLY SIDE OF THE SAID PROPERTY.

THE DEED CALLS FOR THE PROPERTY DESCRIBED IN VOLUME 244, PAGE 666 CONFLICTS WITH THE NORTHEASTERLY LINE OF THE STOCKPILE PROPERTY. THE SAID PROPERTY WAS ORIGINALLY SOLD TO THE STATE BY ALLEN IN 1948 AND PRECEDED THE JUNIOR TAX LOT 1000, ALSO CONVEYED BY ALLEN. IT APPEARS THAT WHEN TAX LOT 1100 WAS CONVEYED IN 1955 BY ALLEN, THE LEGAL DESCRIPTION USED THE SOUTHWESTERLY LINE OF THE 30 FOOT ACCESS EASEMENT SHOWN ON M 55-164-2 TO ALSO CONVEY PROPERTY IN VOLUME 244, PAGE 666. NO ATTEMPT WAS MADE ON FILED SURVEY M52-69B TO RESOLVE THE NORTHEASTERLY LINE OF THE STOCKPILE PROPERTY IN VOLUME 152, PAGE 81. THIS SURVEY HAS DETAILED TWO BOUNDARY OVERLAP AREAS NOTED IN DETAILS 6A AND 6B OF THE SURVEY. THE RECORD DEED CALLS ALONG THE 1948 STOCKPILE LINE ARE SENIOR TO THOSE SHOWN IN VOLUME 244, PAGE 666 AND ARE DEPICTED ONLY TO CLARIFY ANY CONFUSION WITH THE DEEDS.

POINT NUMBERS 5000 THROUGH 5002 WERE CALCULATED AND MONUMENTS SET AT THE BOUNDARY ANGLE POINTS SHOWN ON THE FACE OF THIS SURVEY.

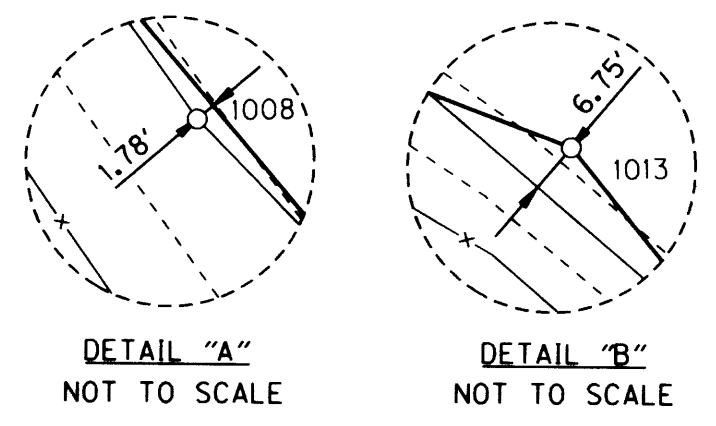
WHITE CARSONITE WITNESS POSTS MARKED "RIGHT OF WAY BOUNDARY MARKER NEARBY" WERE SET AT POINTS 1004, 1018, 1016, 1017, AND 5001-5002. ORANGE CARSONITE POSTS MARKED "ODOT SURVEY MARKER NEAR BY DO NOT DISTURB" WERE SET AT POINTS 1 THROUGH 9, BPQ1 AND BPQ2.



SEE RECOVERED MONUMENTS TABLE, CONTROL MONUMENTS TABLE, & BOUNDARY LINE LEGEND ON SHEET 1

RECORD DATA		POINT LEGEND	
( )	PER ODOT DRG. 1R-2-1788	●	SET R/W MONUMENT
(( ))	PER M 52-69A	□	CALCULATED POINT
[ ]	PER M 54-31	★	SET GPS STATION *
NO BRACKET	MEASURED/RESOLVED	▲	SET NETWORK POINT *
		○	FOUND MONUMENT *
		△	FOUND MONUMENT, USED FOR NETWORK CONTROL *

LINE TABLE			
LINE	MEASURED BRG. & DIST.	RECORD BRG. & DIST	
L1	S 87°39'49" E 79.58'	(S 89°41'30" E) (79.9')	
L2	S 37°31'19" E 70.00'	(S 39°33'00" E) (70.0')	
L3	S 87°39'49" E 123.10'	(S 89°41'30" E) (123.1')	
L3	S 87°39'49" E 123.10'	(S 89°35'45" E) (123.10')	



CALCULATED POINTS			
PT. NO.	LDP NORTHING	LDP EASTING	DESCRIPTION
6000	413196.519	4161441.035	NE 1/16 CORNER

BOUNDARY MONUMENTS				
PT. NO.	LDP NORTHING	LDP EASTING	DATE	DESCRIPTION
5000	412550.051	4161291.457	10/11/2010	SET RAILROAD SPIKE W/ PUNCH MARK IN BEDROCK
5001	412545.033	4161414.455	10/11/2010	SET 5/8" x 30" IRON REBAR W/ 2" ALUMINUM CAP STAMPED "ODOT RIGHT OF WAY 5001"
5002	412931.534	4161430.224	10/11/2010	SET 5/8" x 30" IRON REBAR W/ 2" ALUMINUM CAP STAMPED "ODOT RIGHT OF WAY 5002"

REGISTERED PROFESSIONAL LAND SURVEYOR  
 Andrew D. Ausland  
 OREGON JULY 15, 2003  
 ANDREW D. AUSLAND 56136LS  
 EXPIRES 12/31/2011

SI FEET  
 OREGON DEPARTMENT OF TRANSPORTATION  
 RIGHT-OF-WAY BOUNDARY MONUMENTATION MAP  
 BARTON PARK QUARRY  
 PACIFIC HIGHWAY  
 DOUGLAS COUNTY  
 FILE: BRTPOrw.dgn MODEL: RWM

FOR ODOT REGION 3  
 3500 NW STEWART PKWY.  
 ROSEBURG, OR. 97470  
 OCTOBER 20, 2010  
 SCALE 1" = 100'  
 SHEET 2 OF 2

MAP FILE M161-39B

MAP FILE M161-39B