

NARRATIVE

PURPOSE: THIS PROJECT WAS DONE TO PRESERVE THE LOCATION OF PUBLIC LAND SURVEY SYSTEM (PLSS) MONUMENTS ALONG THE LINCOLN COUNTY BORDER ADJOINING POLK COUNTY. THE LOCATIONS DETERMINED FOR THESE MONUMENTS WILL BE AVAILABLE FOR CORRECTIONS TO THE PLSS BASE MAPS AND THE BLM GEOGRAPHIC COORDINATE DATA BASE (GCDB).

SCOPE: GEODETIC POSITIONS OF 11 CORNER MONUMENTS WERE DETERMINED. LINCOLN COUNTY CORNER CONDITION REPORTS WERE PREPARED FOR THESE CORNERS. ACCESSORY AZIMUTH MARKS WERE SET FOR 7 OF THESE CORNERS.

EQUIPMENT: GPS OBSERVATIONS AT POLK 155, POLK 185, AND POLK 167 WERE RECORDED BY POLK COUNTY PERSONNEL WITH TRIMBLE EQUIPMENT. ALL OTHER OBSERVATIONS WERE DONE BY LINCOLN COUNTY USING LEICA SR9500 AND SR399 RECEIVERS. CONVENTIONAL MEASUREMENTS WERE MADE WITH A LEICA TCA1105 5-SECOND TOTAL STATION WITH A 2MM 2PPM EDM.

FIELD OBSERVATIONS WERE DONE BETWEEN JUNE 3 AND DECEMBER 8, 2004.

BASELINE CALCULATIONS: BASELINES FROM POLK 155, POLK 185, AND POLK 167 WERE PROCESSED AT POLK COUNTY USING TRIMBLE SOFTWARE. ALL OTHER BASELINES WERE PROCESSED AT LINCOLN COUNTY USING LEICA SKI SOFTWARE.

NETWORK ADJUSTMENT: ALL BASELINES WERE IMPORTED INTO STAR*NET VERSION 6, FILE "POLK COUNTY LINE.PRJ". CONTROL POINT LOCATIONS WERE INPUT FROM POLK AND LINCOLN COUNTY GEODETIC RECORDS. TWO-SIGMA STANDARD ERRORS FOR POLK COUNTY CONTROL POINTS WERE INCLUDED IN THE INPUT DATA.

MINIMALLY CONSTRAINED ADJUSTMENT: MINIMALLY CONSTRAINED ADJUSTMENT WAS DONE TO ONE CONTROL POINT AT A TIME WHILE COMPARING WITH THE REMAINING 11 POINTS. THE FOLLOWING IS A COMPARISON OF SOME OF THE RESULTS TO THE PUBLISHED POSITION:

CONTROL POINT HELD	MEAN 2 SIGMA VARIANCE FROM RECORD, FEET	
	HORIZONTAL	VERTICAL
POLK 110	.11	.09
POLK 185	.10	.08
MOONSHINE	.10	.08
STOCKPILE	.12	.11

CONSTRAINED ADJUSTMENT: THE NETWORK WAS CONSTRAINED BOTH HORIZONTALLY AND VERTICALLY USING ALL 12 OF THE GEODETIC REFERENCES TO WHICH BASELINES WERE MEASURED. THIS ADJUSTMENT PASSES THE CHI-SQUARE TEST AT 95% CONFIDENCE WITH AN ERROR FACTOR OF 1.077. THE GPS VECTOR STANDARD ERROR FACTOR WAS SET TO 30. THE REMAINING PROJECT OPTIONS WERE LEFT AT THE LINCOLN COUNTY PROJECT DEFAULT VALUES, INCLUDING GEOID HEIGHT MODEL GEOID90, VERTICAL GEOID MODEL GEOID99, AND THE NGDV 1929/47 DATUM. SEE STAR*NET ADJUSTMENT REPORT "POLK COUNTY LINE.PRJ" FOR DETAILS. THE REFERENCES USED WERE LINCOLN COUNTY STATIONS MOONSHINE AND STOCKPILE; AND POLK COUNTY STATIONS 110, 118, 128, 129, 137, 138, 149, 155, 167, AND 185. LINCOLN COUNTY STATIONS 9085 AND AZ9085 WERE NOT HELD FOR CONTROL DUE TO VEGETATIVE OVERGROWTH.

COORDINATE SYSTEM AND BASIS OF BEARING: THE COORDINATES AND BEARINGS ARE OREGON COORDINATE SYSTEM 1983, NORTH. THE AVERAGE PROJECT MAPPING ANGLE IS -2°17'40". THE INDIVIDUAL GEODETIC CONTROL POINT SHEETS SHOW INTERVISIBLE ADJACENT CONTROL POINTS AS AZIMUTH MARKS. THE RESPECTIVE CORNER CONDITION REPORTS SHOW THE GEODETIC BEARINGS TO THESE AZIMUTH MARKS USING THE APPROPRIATE LOCAL MAPPING ANGLES.



See MAP
B - 2842

SURVEY BY: LINCOLN COUNTY SURVEYOR'S OFFICE 880 NE 7TH STREET NEWPORT, OR. 97365		SURVEY FOR: GEODETIC CONTROL LINCOLN COUNTY T G. 7. 8. 9 S. R 8. 9 W. W.M.		REGISTERED PROFESSIONAL LAND SURVEYOR <i>Tom Hamilton</i> OREGON JULY 13, 1979 THOMAS R. HAMILTON 1816 RENEWAL DATE JUNE 30, 2005
DATE: 28 JANUARY 2005		SCALE: NONE		
FIELD CREW: PBL/TH/EDN/MM		SHEET NO: 2 OF 5		
DRAFTED BY: PBL		COGO FILE: POLK COUNTY LINE.PRJ		
CHECKED BY: EDN		DRAWING NAME: POLK COUNTY LINE2.FLX		

Lincoln County Geodetic Control

Lincoln County Surveyor's Office, 880 NE
7th Street, Newport, Or. 97365

C.S.# _____
FILED
LINCOLN COUNTY SURVEYOR

17AZ		Oregon North Zone State		2 sigma local factors:
		QTR. Plane NAD83(91) in int. ft.		
Alias	AZ700400 T 6S. R9 W. Sec. 13	Northing	519051.546	+/- 0.11 ft.
Latitude NAD83(91)	45 02 41.18218 N	Easting	7368796.119	
Longitude NAD83(91)	123 43 30.07648 W	Convergence	-2 17 13.70	vertical
Method	GPS	Grid Factor	0.99989691	
Source	Lincoln County	Elevation Factor	0.99995633	
Azimuth Marks	17, 17COR	Combined Factor	0.99985324	
Corner Report				
Elevation NGVD29/47 Based		298.285m	978.63ft	
Geoid 90 Separation		-19.990m	-65.58ft	
WGS 84 Ellipsoid Height		278.295m	913.04ft	
2 sigma network accuracy NAD83(91) based, +/- 0.13ft horizontal and vertical				

Description AZ TO CC SECS 13/24 (6-9) and SC 18/19 (6-8)

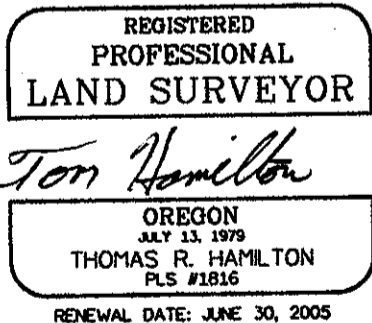
Monument
5/8" x 30" iron rod w/ 2" Lincoln County aluminum cap, at grade, marked "17AZ 2004".

Narrative
SEE SHEET 2.

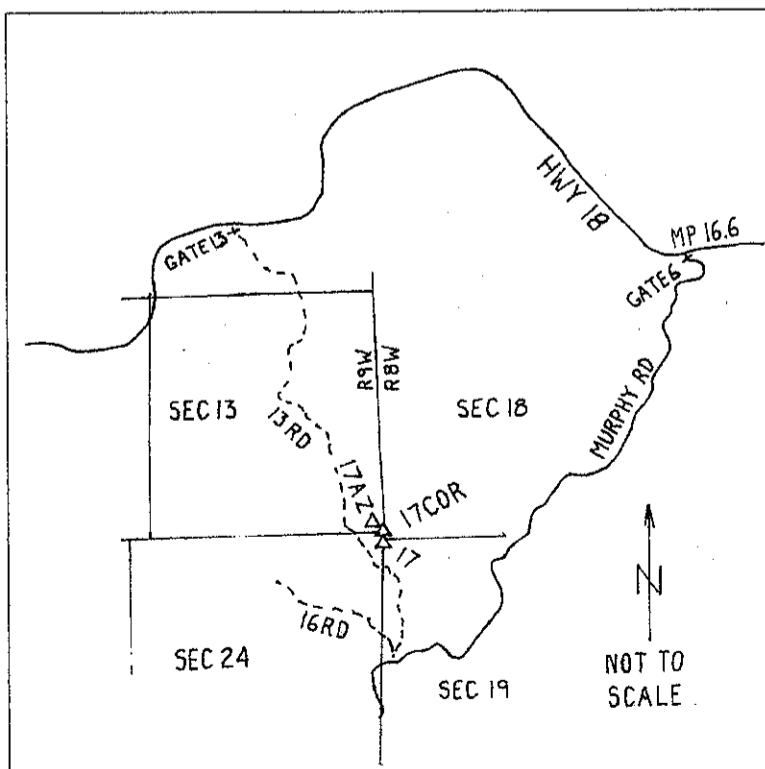


To Reach

From Highway 18 milepost 16.6, go south through Miami gate #6 on Murphy Road to the "3 1/2" marker (2.7 road miles) and turn right on Miami Road 16 for 250', then right again on Miami Rd 13 for 0.7 miles to beginning of standing timber on right. Pack ENE'ly along timberline ±500' to hilltop, then ±300 SE along ridge to #17AZ on South slope.



Revised



VICINITY MAP

Lincoln County Geodetic Control

Lincoln County Surveyor's Office, 880 NE
7th Street, Newport, Or. 97365

SHEET NO: 4 OF 5

C.S.# 17519

FILED 15 FEBRUARY 2005

LINCOLN COUNTY SURVEYOR

17COR		Oregon North Zone State QTR. Plane NAD83(91) in int. ft.		2 sigma local factors: horizontal +/- 0.11 ft.
Alias	0609700400 T 6S. R 9 W. Sec. 24	Northing	518920.788	
Latitude NAD83(91)	45 02 39.92718 N	Easting	7368885.335	vertical +/- 0.1 ft.
Longitude NAD83(91)	123 43 28.76210 W	Convergence	-2 17 12.77	
Method	Traverse	Date	12/17/2004	
Source	Lincoln County	Grid Factor	0.99989893	
Azimuth Marks	17, 17AZ	Elevation Factor	0.99985908	
Corner Report	17505	Combined Factor	0.99985601	
Elevation NGVD29/47 Based		280.762m	921.13ft	
Geoid 90 Separation		-19.992m	-65.58ft	
WGS 84 Ellipsoid Height		260.770m	855.54ft	
2 sigma network accuracy NAD83(91) based, +/- 0.13ft horizontal and vertical				

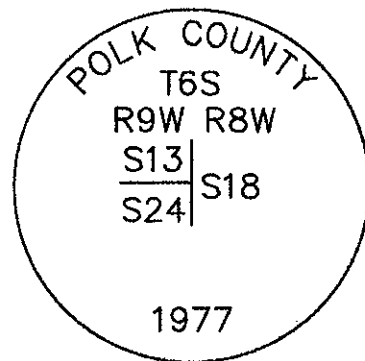
Description Closing corner to sections 13 and 24 (6-9)

Monument

2" o.d. iron pipe w/ 2" brass cap marked "POLK COUNTY T6S R9W R8W S13/S18/S24 1977" at grade.

Narrative

SEE SHEET 2.



To Reach

From 17AZ, S 33° E, ± 150'.

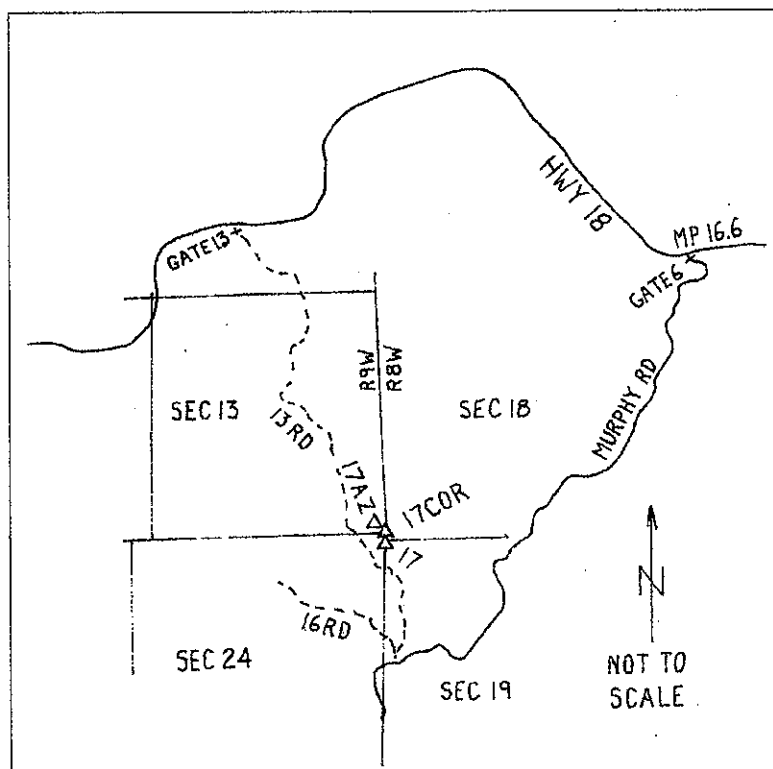
REGISTERED
PROFESSIONAL
LAND SURVEYOR

Tom Hamilton

OREGON
JULY 13, 1979
THOMAS R. HAMILTON
PLS #1816

RENEWAL DATE: JUNE 30, 2005

Revised



VICINITY MAP

Lincoln County Geodetic Control

Lincoln County Surveyor's Office, 880 NE
7th Street, Newport, Or. 97365

SHEET NO: 5 OF 5

C.S.# _____
FILED
LINCOLN COUNTY SURVEYOR

17		Oregon North Zone State		2 sigma local factors:
		QTR. Plane NAD83(91) in int. ft.		
Alias	0609700377 T 6S, R 8 W, Sec. 19	Northing	518817.442	horizontal
Latitude NAD83(91)	45 02 38.90539 N	Easting	7368880.012	+/- 0.11 ft.
Longitude NAD83(91)	123 43 28.77875 W	Convergence	-2 17 12.78	
Method	GPS	Grid Factor	0.99989694	
Date	12/17/2004	Elevation Factor	0.99995909	vertical
Source	Lincoln County	Combined Factor	0.99985603	+/- 0.1 ft.
Azimuth Marks	17AZ, 17COR			
Corner Report	17504			
Elevation NGVD29/47 Based		280.670m	920.83ft	
Geoid 90 Separation		-19.991m	-65.59ft	
WGS 84 Ellipsoid Height		260.679m	855.25ft	
2 sigma network accuracy NAD83(91) based, +/- 0.13ft horizontal and vertical				

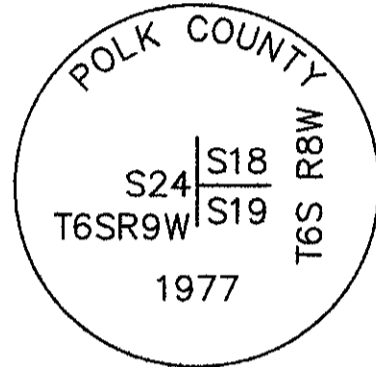
Description Standard corner to sections 18 and 19 (6-8)

Monument

2" o.d. iron pipe w/ 2" brass cap marked "POLK COUNTY S18/S24/S19 T6SR9W T6SR8W 1977" at grade.

Narrative

SEE SHEET 2.



To Reach

From 17AZ, S 20° E, ± 250'.

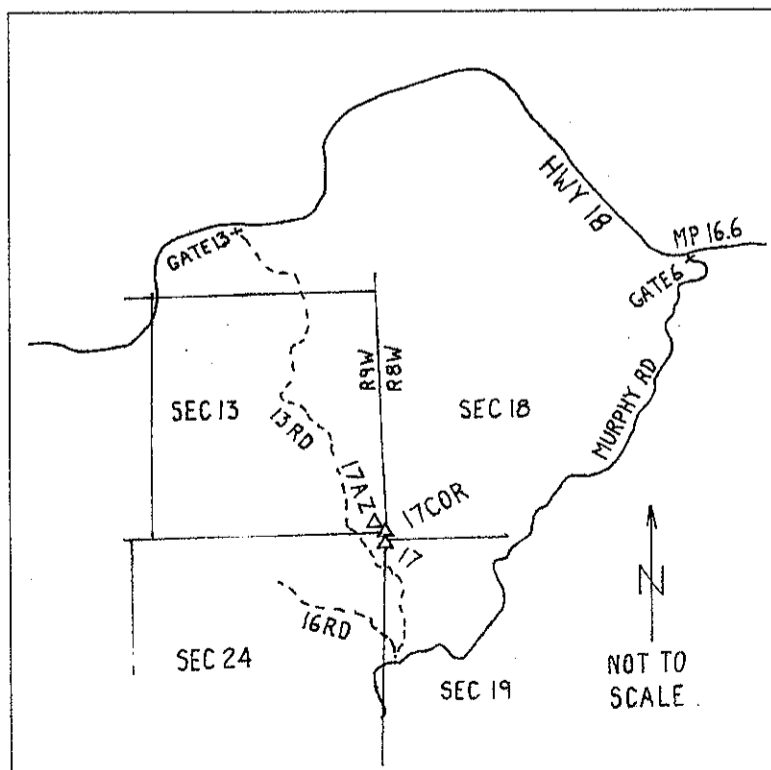
REGISTERED
PROFESSIONAL
LAND SURVEYOR

Tom Hamilton

OREGON
JULY 13, 1979
THOMAS R. HAMILTON
PLS #1816

RENEWAL DATE: JUNE 30, 2005

Revised



VICINITY MAP