

TOWNSHIP 9 SOUTH, RANGE 39 EAST, OF THE WILLAMETTE MERIDIAN, OREGON

SHEET 2 OF 4

DEPENDENT RESURVEY AND SUBDIVISION OF SECTION 5

HISTORY OF SURVEYS

UNDER FEDERAL AUTHORITY

The history of surveys in that portion of the township pertaining to this resurvey is as follows:

In 1863 Timothy W. Davenport, U.S. Deputy Surveyor, surveyed the west and north boundaries of the township.

In 1864 David P. Thompson and Daniel Chaplin, U.S. Deputy Surveyors, surveyed a portion of the subdivision lines.

In 1872 C.M. Foster, U.S. Deputy Mineral Surveyor, surveyed Mineral Survey No. 18.

In 1879 Henry M. Thatcher, U.S. Deputy Surveyor, completed the survey of the subdivision lines.

In 1879 C.M. Foster, U.S. Mineral Surveyor, surveyed Mineral Survey No. 95.

UNDER STATE AUTHORITY

In 1911, Ira L. Hoffman, Baker County Surveyor, remonumented the cor. of secs. 5, 6, 7, and 8 (see his diary of 1911 on file at the Baker County Surveyor's Office).

In 1953, the Oregon State Highway Department tied the cor. of secs. 4, 5, 32, and 33 on the N. boundary of the Tp. into the construction survey for the Pocahontas-Baker section of the Baker-Pine Creek-Wingville Road (see this plat on file at the Baker County Surveyor's Office).

In 1970, James H. Hambleton, Registered Land Surveyor No. 645, surveyed the NW 1/4 of sec. 5 (see Baker County Survey No. 6-70).

In 1974, James D. Hanley, Registered Engineer No. 2808, recovered and used Hoffman's SW. cor. and Hambleton's NW. cor. of sec. 5 and reestablished at proportionate measurement (but did not monument) the 1/4 sec. cor. of secs. 5 and 6 (see Baker County Survey No. 9-39-8).

In 1977, James D. Hanley, Registered Engineer No. 2808, used Hambleton's NW. cor. of sec. 5 (see Baker County Survey No. 9-39-17; identical with Baker County Survey No. 8-39-23).

In 1977, James D. Hanley, Registered Engineer No. 2808, again used Hoffman's SW. cor. and Hambleton's NW. cor. of sec. 5 (see Baker County Survey No. 9-39-19).

In 1975 (monuments set in 1977), James D. Hanley, Registered Engineer No. 2808, reestablished the 1/4 sec. cor. of secs. 5 and 8 (see Baker County Survey No. 9-39-22).

In 1977, James D. Hanley, Registered Engineer No. 2808, reestablished the 1/4 sec. cor. of secs. 4 and 5, the NE. cor. of sec. 5 and subdivided sec. 5 (see Baker County Survey No. 9-39-23).

In 1977, James D. Hanley, Registered Engineer No. 2808, retraced the south boundary of sec. 5 (see Baker County Survey No. 9-39-24).

In 1979, William L. Hanley, Registered Land Surveyor No. 1639, used Hambleton's NW. cor. of sec. 5 (see Baker County Survey No. 8-39-27).

From 1969-80, James D. Hanley, Registered Land Surveyor No. 1206, surveyed the south one-half of sec. 5 (see Baker County Survey No. 9-39-30).

In 1984, James D. Hanley, Registered Land Surveyor No. 1206, remonumented the 1/4 sec. cor. of secs. 5 and 8 (see Baker County Corner Monumentation No. 9-39-54).

In 1984, James D. Hanley, Registered Land Surveyor No. 1206, remonumented the cor. of secs. 5, 6, 7, and 8 (see Baker County Corner Monumentation No. 9-39-55).

In 1984, William L. Hanley, Registered Land Surveyor No. 1639, surveyed portions of Mineral Survey No. 18 (see Baker County Survey No. 9-39-58).

In 1990, William R. Wells, Registered Land Surveyor No. 1106, retraced the south boundary of sec. 5 and subdivided sec. 8 (see Baker County Survey No. 9-39-254).

In 1991, William R. Wells, Registered Land Surveyor No. 1106, recovered and perpetuated the 1/4 sec. cor. of secs. 5 and 8 (see Baker County Corner Monumentation No. 9-39-220).

METHOD OF SURVEY

This survey was performed with both terrestrial and satellite technology. The satellite measurements utilized the NAVSTAR Global Positioning System and Trimble 4000SSE dual frequency, carrier phase receivers. The terrestrial measurements utilized a Topcon ITS 1 total station. The GPS portion of the survey followed guidelines published by the Federal Geodetic Control Committee in May, 1988, in the publication "Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques". All standards for group C, second order, class II were met with these exceptions:

1. No vertical stations were included in the network. Positions were computed using the published ellipsoid heights of the control stations.

2. The length of time for data collection was shortened due the use of the Trimble fast static method of observation.

Two stations from the National Spatial Reference System were used as control. Those stations were B order station "Airport" and first order station "Mason" both of which were established by the National Geodetic Survey using GPS technology in 1989 and 1990 respectively. Coordinates used were:

Mason	Latitude	44° 40' 24.70716" N.
	Longitude	117° 59' 40.96796" W.
		NAD83(91)

Airport	Latitude	44° 49' 57.80718" N.
	Longitude	117° 48' 54.56010" W.
		NAD83(91)

GPS baselines were computed with software developed by Trimble Navigation titled "GPSurvey™ v. 2.00a" and adjusted by least squares analysis with software developed by GEOsurv Inc. titled "Geolab™ v 2.4D". Terrestrial measurements have been adjusted by "Cadastral Measurement Management" (CMM), a computer program that incorporates least squares analysis. The positional uncertainty of the points of this survey with respect to these control stations, as expressed by the semi-major axis of the error ellipses at 95% confidence level, ranged from 0.03 to 0.10 foot. The directions of the lines are based on the true meridian as determined by solar observations and adjusted GPS baselines.

During the resurvey, the lines of the previous surveys were retraced and a search was made for all corners, and other calls of record. Lost corners were reestablished and remonumented at proportionate positions based on the official record. Electronically detectable magnets in white cases were buried as memorials at all corners monumented in this survey.

FIELD NOTES

The following field notes describe the resurvey of a portion of the north boundary and subdivisional lines, and the subdivision of section 5, township 9 south, range 39 east, Willamette Meridian, Oregon.

CORNER DESCRIPTIONS

(A) At the point for the corner of sections 4, 5, 32 and 33 there is no remaining evidence of the original monument. While searching the area I found a railroad spike set flush with the surface of Brown Lane, an asphalt road 20 feet wide, which bears N. and S. Apparently this is the monument set by James H. Hambleton in 1970 (County Survey No. 6-70). It is not clear how he determined this position but it appears that he set it in the center of the road on line between the township corner to the west and the 1/4 corner of sections 33 and 4. This is a logical approach but does not fit the history and use lines of the area.

A second position for this corner was determined by James D. Hanley in 1977 on County Survey No. 9-39-23 and 9-39-30, using a record tie to the corner from the Oregon State Highway Department Survey of 1953. He did not set a monument at this position but used it to determine the position for the 1/4 corner of sections 4 and 5. To determine his position on the ground, I used his record bearings and distances from the 1/4 corner of sections 4 and 5 and the section corner of sections 5, 6, 31, and 32. This position fell 18.61 ft., N. 3° 14' 06" E. of the spike set by Hambleton.

Further investigation of the records from the area revealed aerial photographs showing the proposed location of a water transmission pipeline for the city of Baker, dated October, 1961, which clearly show the use lines between section 5 and 32 to be north of the proposed pipeline. Also, a water line easement recorded on page 201 of book 172 in the Baker County Courthouse and dated August 1, 1962, provides for a 30 foot easement across the NE 1/4 of the NE 1/4 of section 5, the north line of which was to coincide with the north line of section 5. There is no such easement in section 32. Mr. Hambleton's position for the section corner lies south of the point where this pipeline passes under the road.

Since Mr Hanley's position conforms more accurately to the history and use lines, I accept it as the best available evidence of the original position of the section corner and monument it as follows.

At the point for the corner of sections 4, 5, 32, and 33, I drive a railroad spike flush with the surface of the road.

As reference to this point I set

A stainless steel post, 28 ins. long, 2 1/2 ins. diameter, 23 ins. in the ground, with a brass cap marked T8S R39E 35.03 ft S32 RM 1995 and an arrow pointing to the corner. From the corner this reference monument bears N. 50° 26' 59" E., a distance of 35.03 ft. I set an orange, carsonite post east of this reference monument.

A stainless steel post, 28 ins. long, 2 1/2 ins. diameter, 22 ins. in the ground, with a brass cap marked T8S R39E 27.52 ft S32 RM 1995, with an arrow pointing to the corner. From the corner this reference monument bears N. 67° 55' 10" W., a distance of 27.52 ft.

There were no trees available.

NAD83(91) coordinates: Latitude 44° 49' 04.27" N.
Longitude 117° 57' 08.60" W.

(B) The point for the 1/4 corner of sections 5 and 32, as determined at proportionate distance, is located in a steel irrigation gate beneath a barbed wire fence which runs north and south. There is no remaining evidence of the original corner. I chiseled a cross (X) in the bottom of the gate at the exact point for the corner.

As reference to this point I set

A stainless steel post, 28 ins. long, 2 1/2 ins. diameter, 26 ins. in the ground, with a brass cap marked 1/4 S5 17.25 ft RM 1995 and an arrow pointing to the corner. From the corner the reference monument bears S. 71° 51' 30" E., a distance of 17.25 ft.

There were no trees available.

NAD83(91) coordinates: Latitude 44° 49' 04.12" N.
Longitude 117° 57' 45.37" W.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Portland, Oregon April 27, 1998

The survey represented by this plat, having been correctly executed in accordance with the requirements of law and the regulations of this Bureau, is hereby accepted.

For the Director

Wayne A. Gardner

Chief Cadastral Surveyor of Oregon

FILED September 14, 1998
BAKER COUNTY SURVEYOR
SURVEY NO. 9-39-273