

center of College and Webb Streets. At 3160 ft. stop spacing off blocks and streets, at 5626' 3/8" turn 90° left and run S. 23° 36' W. 686' 3/8" to the established corner of the Reservation opposite the mouth of the Wild Horse.

As before noted the distance from the center of Main Street as measured along the Webb Street base line to the Western end of the Reservation line passing through the Town of Pendleton is 10400 ft. and from the center of Main Street as measured along the same base line Eastward the distance is 5626' 3/8", hence the entire distance along the base line is, $10400 + 5626' 3/8" = 16026' 3/8"$

The Western end of the Reserve line being 341 feet distant from the base line and the Eastern end 686' 3/8" the departure at the East end will be $686' 3/8" - 341 = 345' 3/8"$ which being divided by the distance on the base line we have $345' 3/8" \div 16026' 3/8" = .0215447 =$ tangent $1' 14"$, hence the course of the Reserve line is S. 68° 10' E. the base line being S. 66° 24' E.

To obtain the length of the Reserve line I assume the Western end to be the center of a circle whose radius equals the length of the Reserve line, and as an angle of $1' 14"$ will intercept an arc $345' 3/8"$ long when described with this radius and as the angle intercepted by the perpendicular to the Reserve line drawn through the Eastern end and the chord which is $345' 3/8"$ long is the half of $1' 14" = 0' 37"$ we have the sin. $0' 37" \times 345' 3/8" = 3' 8 1/2"$ feet which being added to $16026' 3/8" = 16030$ feet the length of the Reserve line.

The departure of the Reserve line from the base line for each 100 ft. measured along the base line is 2.1545 feet, for each block of 200 feet it is 4.3090 feet, for each 600 foot street it is 12.926 feet

By means of these rates of departure the Reserve line West of Main Street was located from the Webb St. base line at all required points.

From the proposition $16026' 3/8" : 4410 :: 345' 3/8" : x$ we have $x = 95' 0 1/4"$ which being added to 341 we have $436' 0 1/4"$ the distance to the Reserve line as measured on a line at right angles to the base line from the point established on the Webb Street base line S. 66° 24' W. and 5990 feet from the point in Main and Webb Streets. Having established this point on the Reserve line $432' 0 1/4"$ distant from the base line, I set a stone $14" \times 14" \times 32"$ upon the top of which a cross mark was cut and the letters R. B. 11 on the top.

This monument is on the North West corner of the Reservation Addition, and is 4411 feet distant

the Western end of the Reserve line.

In order to obtain the boundary lines and area of the Goodwin Claim, I proceed next to establish the South East corner of the North West quarter of the North West quarter of the section 11 T. 20. Range 32 East.

By reference to the recorded plat in the Clerks Office of Umatilla County, I find that a legal subdivision of section 11 was made by Dept. County Surveyor, W. D. Chapman in 1880 establishing the four corners of the North West quarter of section 11 also rock monuments placed at the middle points on the North and West sides of said quarter section and a post at the middle point on the South side of said quarter section.

To continue the subdivision I begin at the quarter corner between sections 2 and 11 and run South on the true line 2642 ft. to the established corner thence North on true line 1321 feet, and establish point, thence West on true line to the South West corner of North West quarter of the North West quarter of said section 11, at 1320 feet set temporary point.

Beginning at the North East corner of the North West quarter of the North West quarter of said section 11, I run South along the East side of the Goodwin claim on the true line, at 279' 6 3/4" cross Reserve line at 929' 11 3/8" intersect the Webb street base line. Measuring the angle at this point intercepted by my line and the base line, I find it $66' 56"$, the base line being S. 66° 24' W. gives the course of my line S. 0° 32' E. continuing my line to 1318' 5 1/4" intersect the South line of the Goodwin claim where I established a point for the South East corner of North West quarter of the North West quarter of said section 11. Thence S. 89° 52' W. along the South side of the Goodwin claim on true line 1520' 4 1/2" intersect stone monument on the section line, at 2241 feet intersect Reserve line. The course of line on the East side of the Goodwin claim being S. 0° 32' W. and the South side S. 89° 52' W. the enclosed angle is $89' 20"$, hence having the two sides and the included angle of the triangle whose two sides are $1038' 10 3/8"$ and 2241 feet and included angle equal to $89' 20"$ the Area = $\frac{1038' 10 3/8" \times 2241}{2} \times \text{sine } 89' 20" = 1163963.82$ square feet which being divided by 43560 the number of square feet in an acre we have 26.7209 acres in the Goodwin claim.

I next proceed to ascertain the area of the land owned by the Oregon Railway and Navigation Com-