

County of Orange Monumentation Policy

(Latest Update: April 1, 2019)

General Statement

The purpose of this document is to define the County of Orange Monumentation Policy. The information herein is to be used in conjunction with the County of Orange Subdivision Manual and the OC Survey Standards Manual. References made herein to “surveyor” refer to a licensed land surveyor or registered civil engineer authorized to practice land surveying in the State of California. References made herein to “County Surveyor” refer to the Orange County Surveyor or the designated representative.

Monumentation Policy

In accordance with Section 9 of the [County of Orange Subdivision Manual](#), which defines the monumentation policy with relation to subdivision maps located in the unincorporated territory of Orange County, all set monuments shall conform to the requirements as established in Sections “A” through “D” below. In accordance with the *OC Survey Standards Manual*, all monuments set as control points during the course of a survey shall conform to the requirements as established in Section “E” below. Any deviation in the character or positional requirements of set monuments must be approved by the County Surveyor.

A. Boundary Corners

Monuments set at boundary corners for Tract Maps or Parcel Maps, or on any interior lot or parcel lines to be further subdivided, or for future subdivision Records of Survey, shall meet the following criteria:

- Monuments which fall in the surface of concrete paving shall consist of a tag secured in a lead plug.
- Monuments which fall in the surface of asphalt paving shall consist of a durable spike (minimum 4 inches in length) with a washer.
- Monuments which fall in non-paved areas shall consist of a 2 inch diameter iron pipe with a tag or disk.
- All tags/washers/disks referenced above shall be stamped with the agency name or the license number of the surveyor in responsible charge.
- Tags set in iron pipes shall be of a diameter less than that of the inside diameter of the pipe. Disks affixed to iron pipes shall be of a diameter equal to that of the outside diameter of the pipe.
- Under no circumstances are plastic plugs to be used with iron pipe.

B. Lot and Parcel Corners

Monuments set at lot and parcel corners for Tract Maps, Parcel Maps, Records of Survey, Corner Records, Lot Line Adjustments, and Certificates of Compliance, shall meet the following criteria:

- Monuments which fall in the surface of concrete paving shall consist of a tag secured in a lead plug.
- Monuments which fall in the surface of asphalt paving shall consist of a durable spike (minimum 4 inches in length) with a washer.
- Monuments which fall in non-paved areas shall consist of a 1 inch diameter iron pipe with a tag.
- All tags/washers referenced above shall be stamped with the agency name or the license number of the surveyor in responsible charge.
- Tags set in iron pipes shall be of a diameter less than that of the inside diameter of the pipe.
- Under no circumstances are plastic plugs to be used with iron pipe.

C. Street Centerline Points

Monuments set at street intersections, the controlling points along the centerlines of streets, and where boundary lines are produced to intersect street centerlines, shall meet the following criteria:

- Monuments which fall in the surface of concrete paving shall consist of a tag secured in a lead plug.
- Monuments which fall in the surface of asphalt paving shall consist of a durable spike (minimum 4 inches in length) with a washer. A Survey Monument Type “A” (monument well), per [OC Public Works Standard Plan 1405](#), may be set in lieu of spike and washer described above. The number and location of Type “A” monuments shall be as directed by the County Surveyor.
- Monuments which fall in non-paved areas shall consist of a 1 inch diameter iron pipe with a tag. A Survey Monument Type “B”, per [OC Public Works Standard Plan 1406](#), may be set in lieu of iron pipe and tag described above. The number and location of Type “B” monuments shall be as directed by the County Surveyor.
- All tags/washers referenced above shall be stamped with the agency name or the license number of the surveyor in responsible charge.
- Tags set in iron pipes shall be of a diameter less than that of the inside diameter of the pipe.
- Under no circumstances are plastic plugs to be used with iron pipe.

D. Reference Points (Tie Points)

Monuments which represent tie points set for the purpose of monument perpetuation and/or preservation shall meet the following criteria:

- Monuments which fall on concrete curbs or in the surface of concrete paving shall consist of a tag secured in a lead plug and countersunk so as to be flush with the concrete surface.
- Monuments which fall on asphalt dikes or in the surface of asphalt paving shall consist of a spike or “MAG” nail (minimum 1-1/2 inches in length) with a washer.
- Monuments which fall in non-paved areas shall consist of a 1 inch diameter iron pipe with a tag.

- All tags/washers referenced above shall be stamped with the agency name or the license number of the surveyor in responsible charge.
- Tags set in iron pipes shall be of a diameter less than that of the inside diameter of the pipe.
- Under no circumstances are plastic plugs to be used with iron pipe.

Any untagged tie points which are found during the course of the survey shall be reconstructed and tagged in the original location as follows:

- Found lead and tack: tack is removed and a tag is secured in the existing lead plug.
- Found lead plug with hole (tack and tag missing): tag is secured in the existing lead plug.
- Found Ramset or Hilti nail: nail is removed and a tag is secured in a lead plug.
- Found chiseled cross: tag is secured in a lead plug at the center of the cross.
- Tags referenced above shall be stamped with the agency name or the license number of the surveyor in responsible charge.

E. Control Points

Monuments set as control points during the course of a survey shall meet the following criteria:

- Monuments which fall on concrete curbs or in the surface of concrete paving shall consist of a tag secured in a lead plug.
- Monuments which fall on asphalt dikes or in the surface of asphalt paving shall consist of a spike or "MAG" nail (minimum 1-1/2 inches in length) with a washer.
- Monuments which fall in non-paved areas shall consist of an iron pipe with a tag or disk, or a rebar with an aluminum cap. Rebar must be set a minimum of 3 inches below the ground surface.
- All tags/washers/disks/caps referenced above shall be stamped with the agency name or the license number of the surveyor in responsible charge, and shall also be stamped "CP" or "CONTROL POINT".
- Tags set in iron pipes shall be of a diameter less than that of the inside diameter of the pipe. Disks affixed to iron pipes shall be of a diameter equal to that of the outside diameter of the pipe.
- Under no circumstances are plastic plugs to be used with iron pipe or rebar.