

Sec. 5.03 Targets

Aerial targets are the preferred means to mark control point locations for Photogrammetry.

Prior to the placement of any aerial targets or Photogrammetry control, the District Survey Manager or their representative should notify the respective Resident Engineer responsible for the region where the project is located. The District Survey Manager or their representative should inform the Resident Engineer of the aerial targeting/control activity that will occur. When contacting the Resident Engineer, the following information should be provided: Name and number of the project; a brief description of what action is taking place; the expected duration that the aerial targets will be in place; the expected date when the aerial targets will be removed by VDOT personnel; and the importance of non-disturbance of the aerial targets until removed by VDOT personnel. This information will assist the Resident Engineer when responding to citizen inquiries regarding the targets and the presence of VDOT Survey personnel.

The most effective targets are made in the shape of a cross with the control point to be measured, placed in the center of the cross. The legs of the cross should be straight and placed on level ground or ground having a consistent slope. The target should have good contrast with its background. The standard, printed, forty inch by forty inch (**40 in x 40 in**) cloth target works well against any background, and may be used in open areas for **1:3600** scale and larger scale photography.

When placing targets in the woods, extension legs six inches (**6 in**) wide and five feet (**5 ft**) long or longer should be added. [Figure 5-A](#) provides standard specifications for target dimensions based on photo scale and existing site conditions. [Figure 5-B](#) illustrates a typical target configuration.

Targets painted on the pavement or sidewalk should be in the form of a cross with an overall length of four feet (**4 ft**) and a width of four inches (**4 in**) for aerial photography scales **1:3600** (1"=300') or larger. Using white paint on new asphalt and black paint on new concrete make excellent targets. On worn and discolored surfaces, it is often necessary to outline a white target with black paint or vice versa.

Target Dimensions

<u>Photo Scale</u>	<u>Open Areas</u>		<u>Wooded Areas</u>	
	<u>L</u> <u>Length (ft)</u>	<u>W</u> <u>Width (in)</u>	<u>L</u> <u>Length (ft)</u>	<u>W</u> <u>Width (in)</u>
1:3000 (1"=250')	4	4	8	6
1:3600 (1"=300')	4	4	8	6
1:4200 (1"=350')	4	6	8	6
1:6000 (1"=500')	10	9	12	9
1:8400 (1"=700')	10	9	14	9
1:12000 (1"=1000')	15	12	20	12
1:16800 (1"=1400')	20	12	25	18
1:24000 (1"=2000')	30	18	40	36