

\*If the survey task is going to exceed the duration indicated on the initial letter, another memorandum will need to be sent 15 days prior to the end of the initial letters date. Survey updates cannot be included in initial memorandum duration. Update surveys will trigger another memorandum letter to each landowner. The brochure "Let's Take a Look" must be sent with this memorandum.

The Survey Party Manager (Land Surveyor) or consultant should deliver personally or by mail a copy of this memorandum, a list of parcels affected (list each parcel by address or tax id number) and brochure to each property owner affected. In either case, a copy should be furnished to the Resident Engineer and/or Project Manager with a list of all property owners for which a memorandum and brochure was prepared. This will enable the Resident Engineer and/or Project Manager to be better prepared to handle inquiries that may be made as the survey progresses.

The Survey Party Manager or Consultants should also keep with him, or in his vehicles, while making a location survey, extra copies of this memorandum and brochure, if for any reason some property owner may have not received the memorandum and brochure.

#### *Sec. 4.04* **Horizontal Control Monumentation**

Permanent Horizontal Control Monuments shall be set on all surveys for highways for all systems, including closed surveys. Data available for setting horizontal control will be sent with the survey authorization, or as schedules permit the Global Positioning System (GPS) will be initiated by the State Survey Program Manager with the authorization memorandum. The District Survey Manager will assure that the Survey Party Manager (Land Surveyor) has sufficient data for control and/or will coordinate with the State Geodetic Survey Engineer the scheduling for setting GPS datum and will provide sufficient personnel to assist the State Geodetic Survey Engineer when securing GPS datum.

Standard VDOT disks are to be set in concrete with re-bar or other metal added to assist in relocation with a metal detector (see **Figure 10-D**). In addition to permanent monuments, additional swing ties to other objects should be obtained as evidence for re-establishment of a monument. A minimum of four (4) monuments should be set on each project regardless of the length of the project.

Monuments should be tied to the location centerline or baseline by right angle plus and distance and enough monuments placed that the alignment can be re-established readily, with State plane or project coordinate values shown to the nearest one thousandth foot (**0.001-ft**) and vertical control to the nearest one hundredth foot (**0.01-ft**). The maximum error for vertical control shall in no case be greater than plus or minus five hundredths foot (**±0.05-ft**) times the square root of the loop distance in miles.

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\* Rev. 7/15