

## SECTION 19 – MONUMENTS AND GOVERNMENT BENCH MARKS

### 19.1 MONUMENTS AND GOVERNMENT BENCHMARKS *(Rev. 01-21-14)*

The subject of monuments with respect to Congressional Township and Section Corners, and any other established corners, is covered in detail in Section 3 of these instructions. To repeat, do not fail to follow the procedure outlined in Section 3 of this manual and take every precautionary step to assure that the Department has fulfilled the statutory requirements with respect to the preservation and perpetuation of established corners.

The Department has an established system of permanent benchmarks within the State. In addition, the following governmental agencies maintain benchmark systems with which you may be concerned:

- U.S. National Geodetic Survey (NGS)
- National Oceanic and Atmospheric Administration (NOAA)
- U.S. Coast and Geological Survey
- U.S. Army Corp of Engineers
- Indiana Flood Control and Water Resources System

Normally these benchmarks will be revealed by the original survey, and will be indicated on the completed plans. However, there are occasions when a benchmark is discovered in the field that has not been included in the plans. Under these conditions, the following procedure should be followed by the PE/S.

As soon as it is discovered that a benchmark must be moved, contact should be made with the agency involved, stating the necessity for moving the mark and giving its designation. The DCD, AE, DDC, and PM should be copied in this correspondence. The designation consists of the letters and numbers that have been stamped with dies on the disk and it is desirable to furnish a rubbing of this information in the correspondence. A rubbing can be made by placing a piece of medium weight paper over the disk and then rubbing over the paper with the lead of a hard pencil to bring out the legend and designation cast in the disk.

Upon receipt of this information, the agency will provide instructions necessary for the establishment of the new mark and the transfer of elevation. The procedure, in most cases, is to establish the new mark in a safe place nearby and transfer the elevation from the old mark to the new one and all readings are made to three decimal places in order to preserve the accuracy of the original elevation. An assumed elevation for the old mark may be used in the transfer, since we are primarily concerned with the difference in elevation between the old and the new marks. The old mark should not be disturbed until the observer or the recorder has verified the measurements involved in the transfer.

After the new mark has been established and the elevation transferred to it, the old disk should be broken out and returned to the agency if requested. A complete report on the action taken, including a description of the location in which the new mark is established and a copy of the field notes involved in the transfer of elevation should also be forwarded.

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