

**Sec. 7.11 Bridge Data Sheets (Form LD-23, [See Figure 7-A](#))**

The bridge data sheet should be prepared on all proposed special design bridges and should be completed giving all of the pertinent information required on the sheet. Elevations of normal water and extreme high and low water should be given. The dates of extreme high water and sources of information are also required. For navigable streams the mean or average high and low tide should be determined, and care should be taken to ensure these levels check with the datum of the U.S. Geological or National Geodetic Survey. An estimate of the velocity of current in feet per second at high water and normal water should be made. In navigable streams, the velocity of current at mid flood and mid ebb tide should be obtained by the use of rods or floats. The character of the soil of the bed of the stream is often an index of the velocity during maximum flood conditions. This should always be noted.

Any evidence of erosion along the banks should be recorded, as such evidence affects the layout of the structure. The amount and character of drift and ice should be determined and noted. At locations over tidal streams, it is important to know the degree of brackishness of the water.

It will usually be necessary for the Survey Supervisor to have the assistance of the District Material Engineer in securing this data, but it should be shown in the "Remarks" at all tidal crossings. The "Remarks" should include a brief description of the current usage of the stream for navigation, by small boats, etc.

Emphasis should be placed on the importance of each and every item on the data sheet. This is often the only information available to design a costly structure and the time and effort expended to accurately determine all values is well spent.

Certain data required on bridge data sheets for stream and road crossings is superfluous for railroad grade separation structures and certain data for railroad crossings is needed that is not required on stream and road crossings. Only that portion applicable to the site plan being taken should be completed. This form is shown on [Figure 7-A](#).

On all bridge site surveys for bridges over navigable waters, a statement must be included on the bridge situation roll as to whether the proposed bridge and approaches to the bridge will require the use of any land from a public park, recreation area, wildlife and waterfowl refuge or historical site.

**Sec. 7-12 Securing and Storing High Water Information**

The Department established a procedure during the 1960's and 70's for securing and storing high water data immediately after a flood event. This program was implemented to assist both the surveyor and the designer for use at a later date when a bridge site survey was needed. In some cases, it has eliminated the need for a bridge site survey.