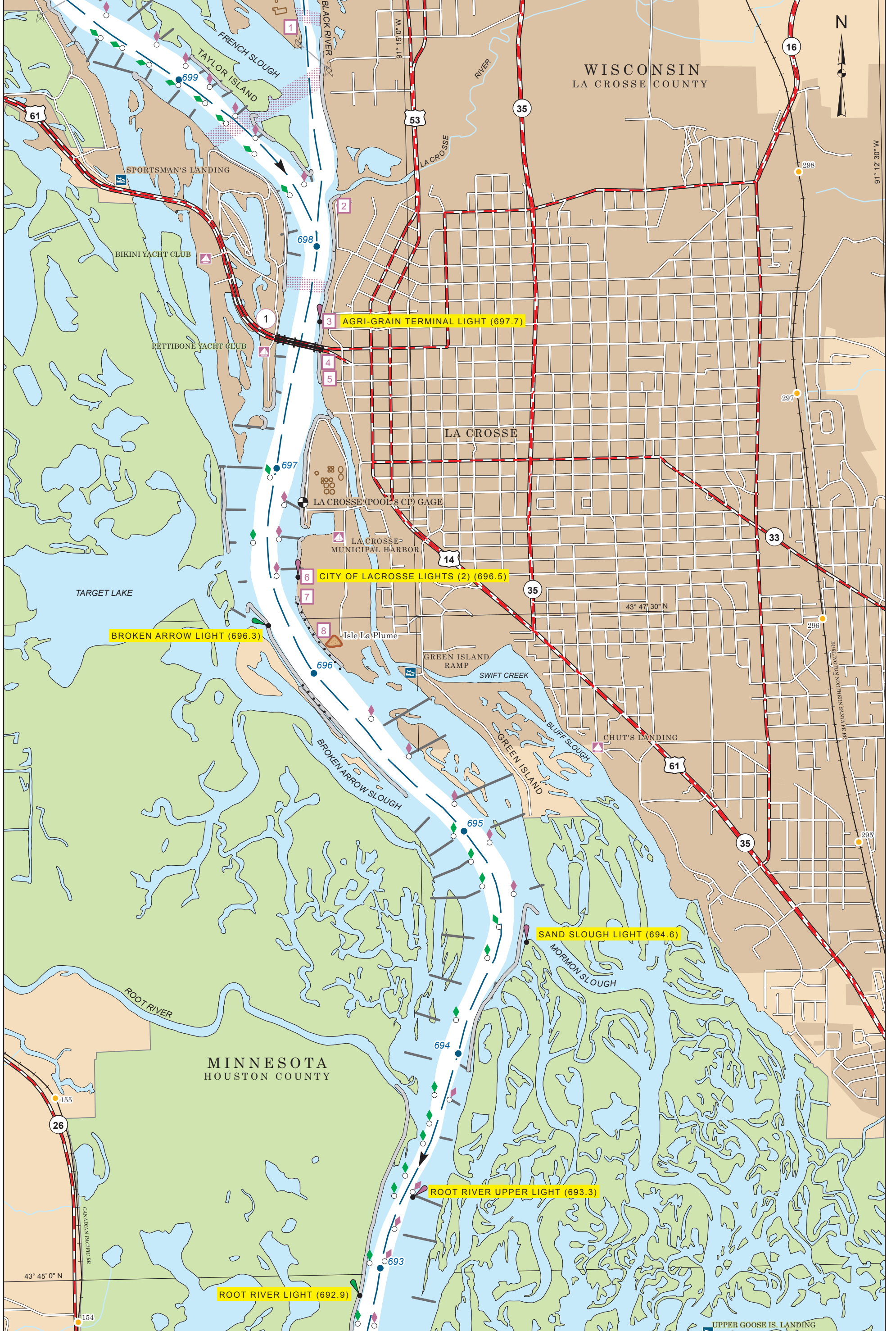
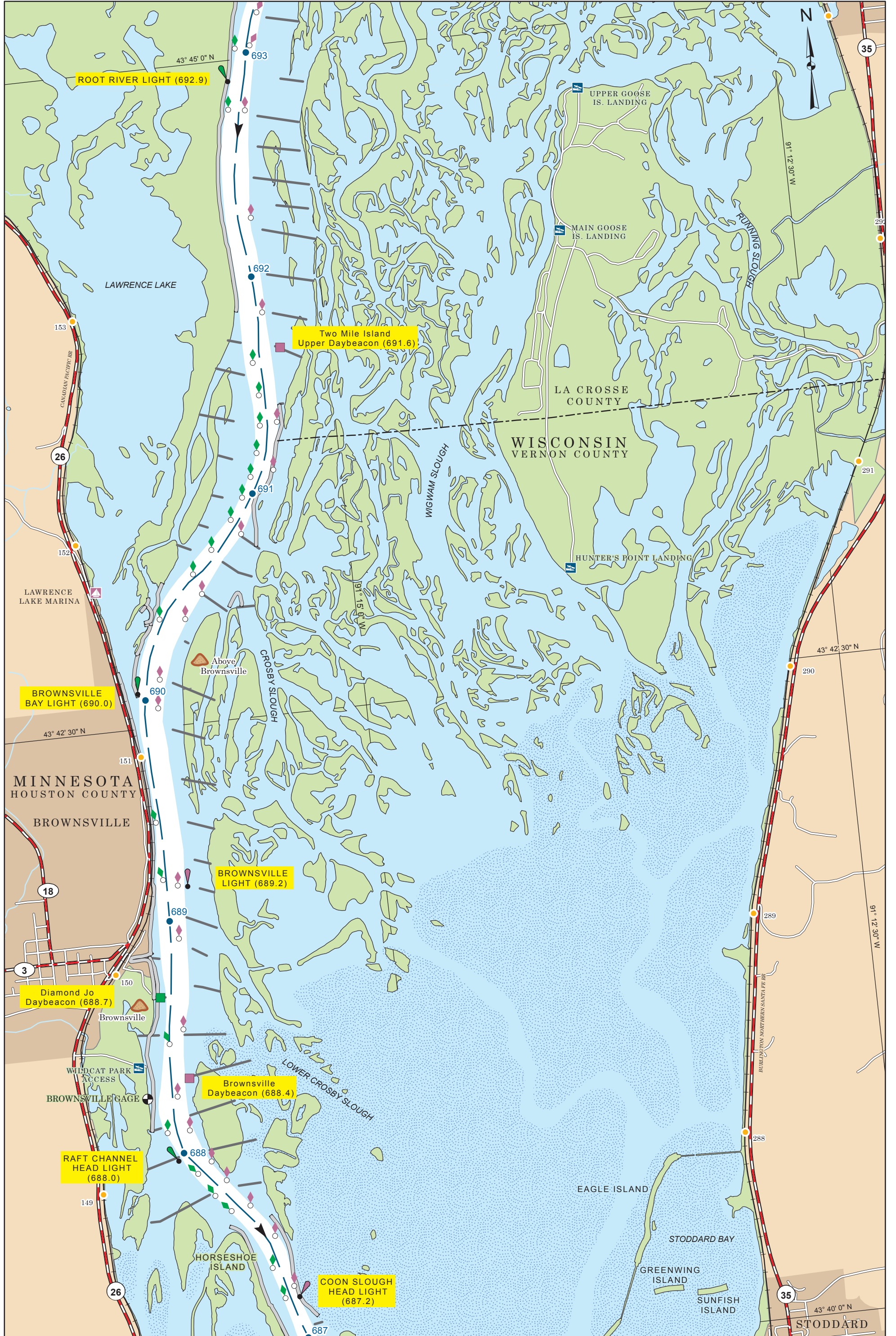


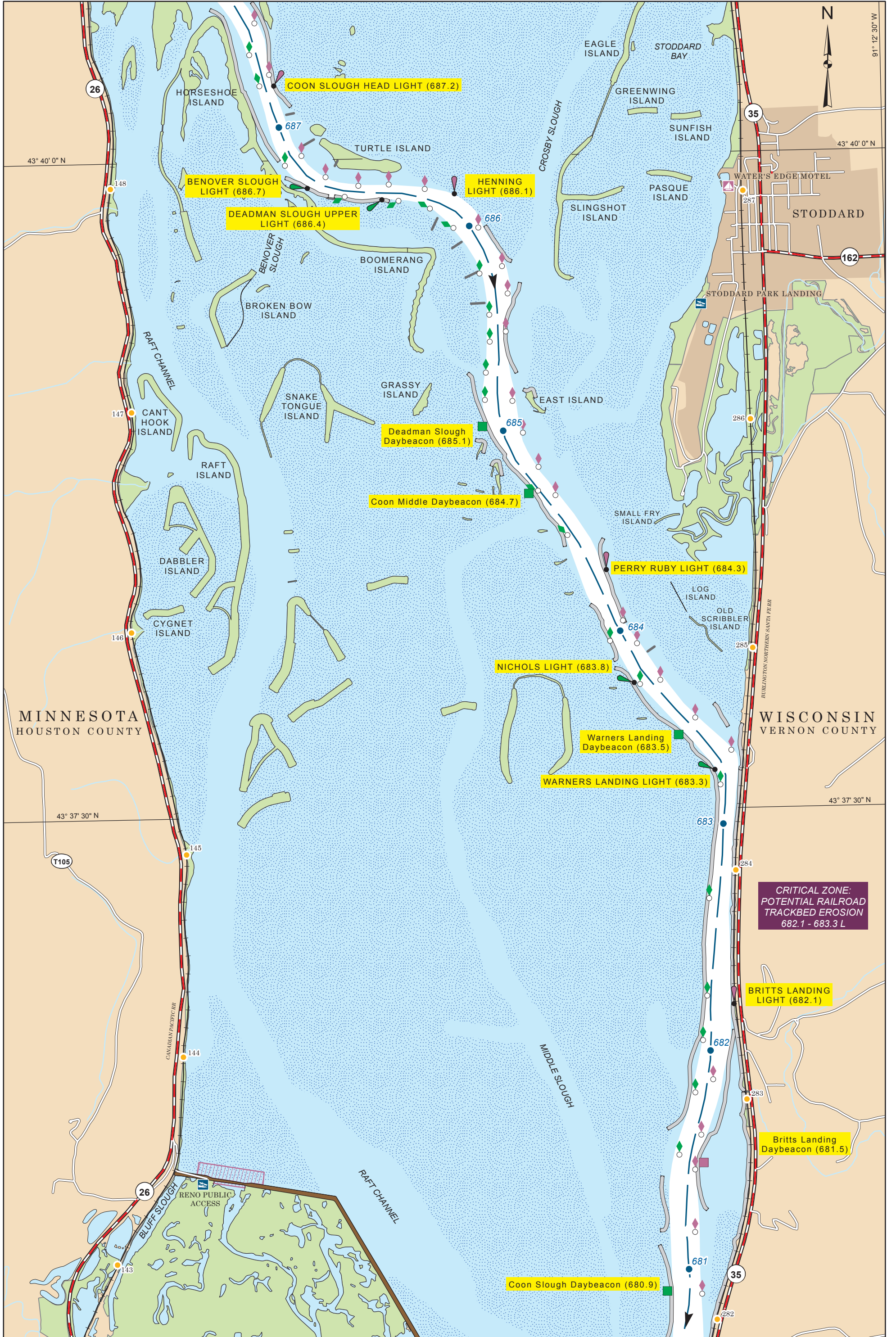
CRITICAL ZONE:
POTENTIAL RAILROAD
TRACKBED EROSION
702.5 - 705.0 R

MATCH WITH
CHART PAGE 36

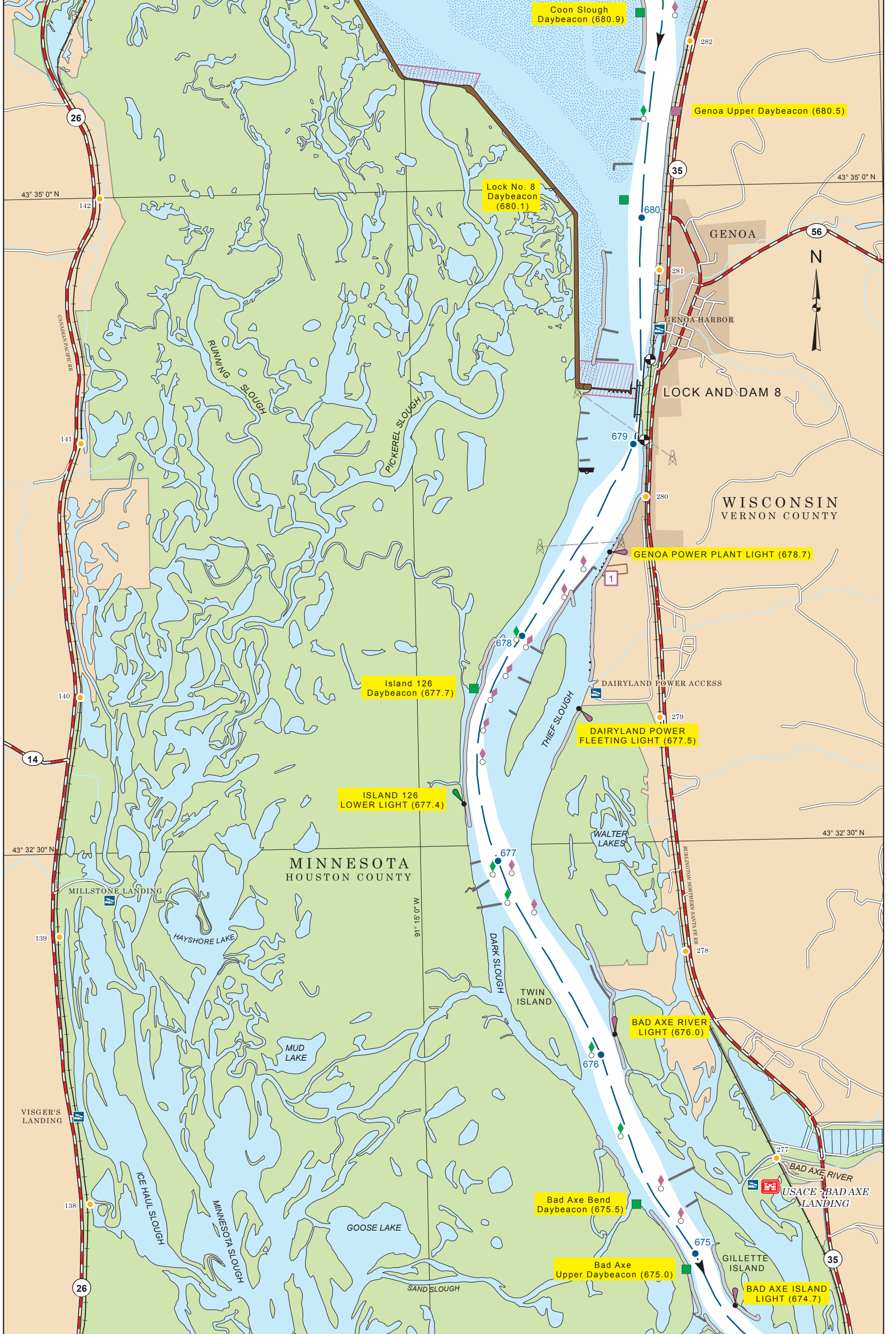
MILE 1.4 IS THE
UPSTREAM LIMIT OF
THE USACE NINE
FOOT CHANNEL PROJECT







CRITICAL ZONE: POTENTIAL RAILROAD TRACKBED EROSION 682.1 - 683.3 L



Aids To Navigation

Navigation Lights*	
Daybeacons*	
Lighted Buoys	
Channel Buoys**	
Wrecks/Obstructions	
Pile/Dolphin/Fender	
Mooring/Protection	
Gage Station	

Transportation

Interstate Highway	
Major Road/Highway	
Paved Road	
Unimproved Road	
Railroad (With Mile Marker)	

Boundaries

County Boundary	
State Boundary	
Corps of Engineers District Boundary	

Navigation Facilities

Ferry Crossing	
Marina	
Boat Ramp	
Gaming Boat	
Barge Facility Index Number	
Corps of Engineers District Office	
Building/Tank Footprint	
Dredged Material Placement Site	

Notes

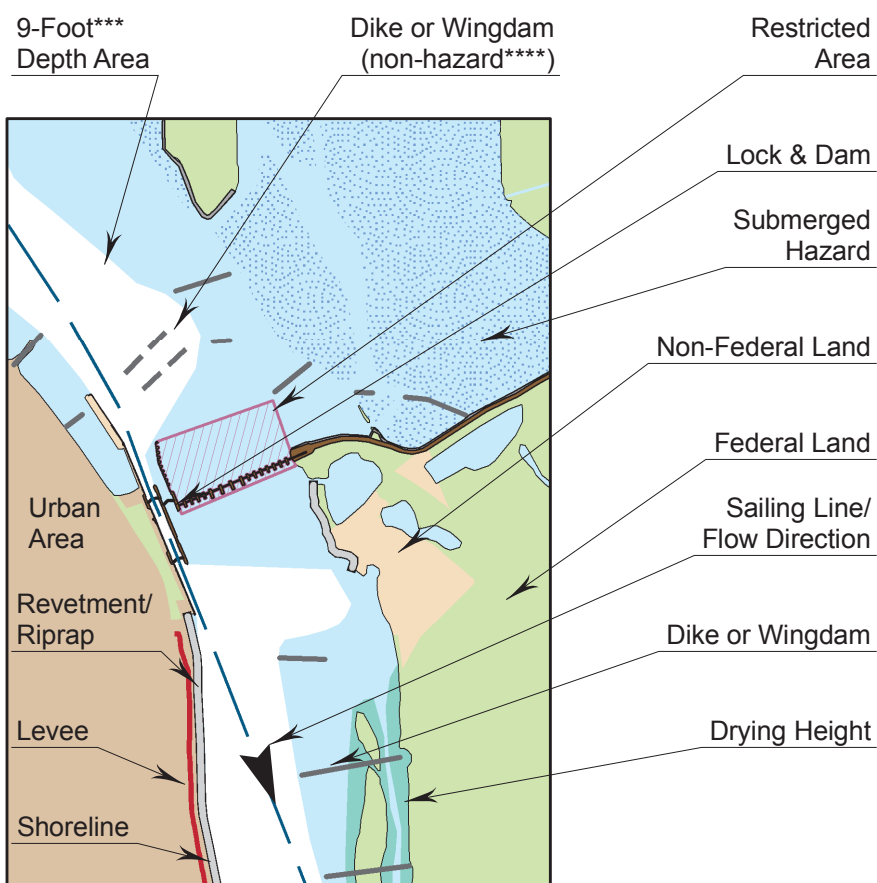
* Lights and Daybeacons are labeled as they appear in the US Coast Guard Light List. Navigation lights may contain daybeacons as well as a light. Check the Light List for full characteristics of a light.

** Buoy positions represented on these charts are approximate. Positioning of buoys are subject to change depending on river stages and channel obstructions. Buoy positions on these charts are from Summer 2010.

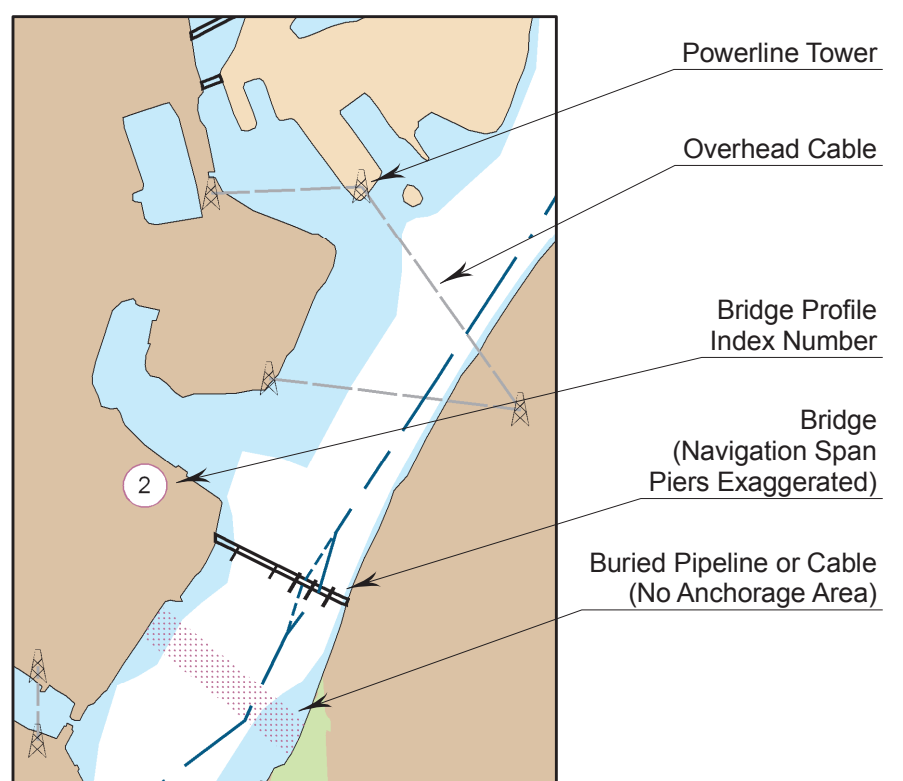
*** Area in river that generally meets project depth dimensions (i.e. 9-foot or greater) under prevailing river conditions. This area is subject to change as a result of scour or deposition of sediment. The area shown in these charts represents conditions as of the latest survey at the time of publishing.

**** Rock dikes, or wing dams, can be partially or completely submerged, depending on water levels and should be avoided. Wing dams that are low enough relative to water surface elevations to allow safe navigation over them in all conditions are considered non-hazards.

Land Cover



Crossings



How to Calculate Bridge Clearances

All bridge spans crossing the navigation channel have corresponding profile drawings, like the example below, shown on supplemental sheets. Each profile drawing lists the following key pieces of information:

- (A) Channel or Navigation Span
- (B) Name
- (C) River Mile
- (D) Elevation of Bridge for Clearance
- (E) Elevation of Reference Water Surface (*Pooled Reaches*)
- (F) Vertical and Horizontal Clearances
- (G) Reference Gage for Actual Vertical Clearance

Vertical clearance values at "pool stage" are the maximum possible clearance at the location where low steel could impact a vessel in the designated channel or navigation span. The location of low steel within the navigation span varies from bridge to bridge, and actual clearances will be lower than the "vertical clearance at pool stage".

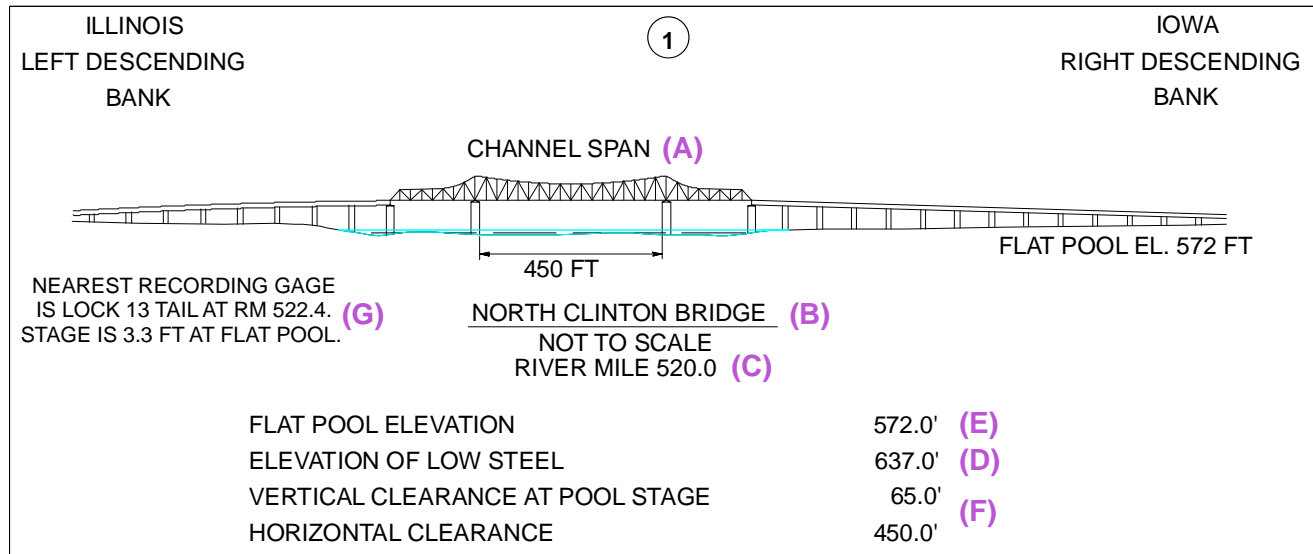
To estimate actual vertical clearance based on a reporting gage value:

$$\text{(Pool Stage Clearance) - ((Gage reading) - (Flat Pool Stage))}$$

(F) (G)

For the example bridge profile below, if the stage at L&D 13 Tail was 11.3 ft, then the actual vertical clearance would be:

$$65' - (11.3' - 3.3') = 57'$$



Notes on Chart Production and Use

- Maps were prepared from the latest IENC data by Corps of Engineers offices.
- Geodetic positions refer to North American Datum 1983.
- Shorelines and depth areas are from the most recent aerial photography and survey data available at the time of production.
- Charts are oriented to show the river channel from upstream to downstream, from the top of the page to the bottom.
- River miles start at zero at the confluence of the Ohio and Mississippi Rivers near Cairo, IL, and they increase going upstream.