U.S. Army Corps of Engineers
Northwestern Division

Missouri River Navigation Charts

Sioux City, Iowa to Rulo, Nebraska

JULY 2011

NEBRASKAland Magazine/Nebraska Game and Parks Commission.

Requests for maps or information should be addressed to:

U.S. Army Engineer District, Omaha

Missouri River Project Office
9901 J. Pershing Drive
Omaha, NE 68112
402-996-3766

Additional marine mapping products can be found at:

U.S. Army Topographic Engineering Center

7701 Telegraph Road
Alexandria, VA 22315-3864
703-428-6816
http://www.agc.army.mil/echarts/index.html

Additional marine mapping products can be found at:

NOAA (National Oceanic and Atmospheric Administration)

14th Street & Constitution Avenue, N.W.
Room 6217
Washington, D.C. 20230
202-482-6090
http://www.noaa.gov

COAST GUARD UNIT

Commander
Eighth Coast Guard District
Hale Boggs Federal Building
500 Poydras Street
New Orleans, Louisiana 70130
Commander 504-671-2020

U.S. Coast Guard, Cutters' Cheyenne & Gasconade
Foot of Arsenal St.
Bldg. 17
St. Louis, MO 63108
Call Sign - Coast Guard Cutter Cheyenne or Gasconade

SECTOR UPPER MISSISSIPPI RIVER (08-37390)
1222 SPRUCE ST, SUITE 7.103
ST LOUIS, MO 63103
Primary Phone: 314-269-2500
Emergency Phone: 866-360-3386
Fax Number: 314-269-2734
URL: http://www.uscg.mil/d8/sectUMR
Quick Link http://homeport.uscg.mil/umr

USCG Navigation Center (NAVCEN)
7323 Telegraph Rd.
Alexandria, VA 22315
703-313-5900
http://www.navcen.uscg.gov
703-313-5900 (24 Hour Line)

US ARMY CORPS OF ENGINEERS

Omaha District Office
1616 Capitol Ave. Ste 9000
Omaha, Nebraska 68102-9000
Telephone: 402-995-2417

Missouri River Project Office
9901 John J. Pershing Drive
Omaha, Nebraska 68112-1500
Telephone: 402-995-3766

REPORT OIL AND CHEMICAL SPILLS ANY TIME TO THE NATIONAL RESPONSE CENTER AT:
(TOLL FREE) 1-800-424-8802, (DIRECT) 202-267-2675, (ONLINE) http://www.nrc.uscg.mil

POINTS OF CONTACT

NAVIGATION CHARTS
MISSOURI RIVER
OMAHA DISTRICT
SIOUX CITY, IOWA TO RULO, NEBRASKA

U.S. ARMY ENGINEER DISTRICT, OMAHA
EDWARD ZORINSKY FEDERAL BUILDING
1616 CAPITOL AVE.
OMAHA, NEBRASKA 68102

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GENERAL

These navigation charts were generated from field surveys conducted in 2008 by the U.S. Army Corps of Engineers offices and from aerial photography taken circa 2008-2010. Information presented on these charts can change and, therefore, anyone navigating on the Missouri River must exercise caution and acknowledge the ever-present hazards of this natural resource. Mariners are urged to submit any condition found to differ from those shown on the charts to call 402-995-2301.

PROCUREMENT OF NAVIGATION CHARTS

Navigation charts for the Federal navigation projects on the Western Rivers of the United States are available for purchase from the US Army Corps of Engineers. Navigation charts for the Missouri River can be procured from the following sources:
732 North Capitol Street NW
Washington, DC 20401-0001
202-512-1800
A list of locations for the purchase of navigation charts for other Corps' projects can be obtained from the following internet address:
http://bookstore.gpo.gov
Electronic navigation charts can be obtained from:
http://www.agc.army.mil/echarts/inlandnav

NAVIGATION NOTICES

Notices to Navigation Interests (Navigation Notice), containing data on channel conditions, lock closures, location of dredges, etc., are issued by the Corps of Engineers as occasions warrant. Distribution of the Navigation Notices for the Missouri River is by e-mail. Requests to be placed on the distribution list for the Missouri River need to contact:
U.S Army Corps of Engineers, Northwestern Division
Omaha District
9901 John J. Pershing Drive
Omaha, NE 68112-1500

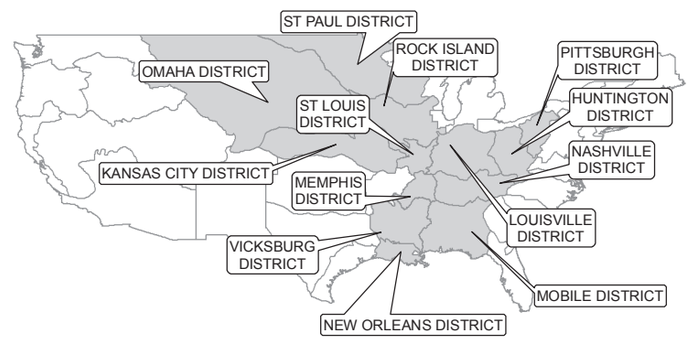
MILE POINTS

River mileage, as shown along the navigation project's sailing line, is measured from Rulo, Nebraska, river mile 498.4 and continues upstream to Sioux City, Iowa, river mile 739.9. The miles points do not represent actual distance along the sailing line. Generally, the mile points approximate a mile between the points; however, in areas where the alignment of the navigation channel has changed during its existence, the distance between mile points would tend to be greater or less than 1-mile in distance.

AUTHORIZED PROJECT

The Corps of Engineers has the responsibility under Congressional authorization for the construction, operation and maintenance of the Missouri River for navigation, flood control and related purposes, including flow regulation and bank protection. The navigation project extends from Sioux City, Iowa to the mouth, a distance of 735 miles. The completed project provides a continuous navigation channel 9' deep and 300' wide, which is designed to flow along the concave side of the bends and through the crossing between bends. The commercial navigation season is normally from latter March to latter November at Sioux City, and from the first of April to the first of December at the mouth. Ice conditions and low water preclude navigation the rest of the year. Specific minimum flow rates are required during the navigation season to provide adequate depths and width. To meet this, insufficient natural flows are augmented by releases from upstream reservoirs. A flow of 30,000 to 35,000 cubic feet per second is generally maintained at Sioux City and Omaha, and 35,000 to 40,000 cubic feet per second at Kansas City. During the navigation season, river stages vary from a range of about one foot at Sioux City to around 15 feet at Hermann, Mo., and the velocity of the flow varies from 4 to 5 miles per hour.

CORPS OF ENGINEERS JURISDICTIONS



BUOYS

Buoys that are used to mark channels on the Missouri River system conform to the standard lateral system of buoyage on the Western Rivers of the United States. All buoys are equipped with reflectors; buoys on the left descending side of the channel reflect red; buoys on the right descending side of the channel reflect green. Due to practical limitations of positioning and maintaining floating buoys in precise geographical locations, buoy position shown on these navigation charts are approximate positions only, if shown. Prevailing river conditions alter the actual locations of the buoys. They may be carried off position by currents, high stages, accumulation of drift, ice, sunk by collision or other causes. When carried off position, destroyed or removed to prevent loss, buoys are re-established at the earliest opportunity by the U.S. Coast Guard.

GAUGES

River gauges provide current river stage conditions. See gauge table for data specific to individual gauges.

WATER SURFACE ELEVATIONS

All water surface elevations referenced on these charts are referenced to mean seal level 1929 National Geodetic Vertical Datum (NGVD) unless otherwise noted in the gauge table. The project depths refer to data collected during 2008.

VERTICAL CLEARANCES

Vertical clearances under bridges are shown on the respective charts as well as in the vertical clearance table. The source for the clearances is the U.S Coast Guard Light List Volume 5 for the Mississippi River System (http://www.navcen.uscg.gov/).

PERMITS

In the administration of laws, enacted by Congress for the protection and preservation of navigation and the navigable waters of the United States, the U.S. Army Corps of Engineers exercises jurisdiction over the Missouri River and several of its tributary streams and wetlands. Anyone wishing to undertake a project in, under, over or adjacent to water (including wetlands) of the United States need to inquire at the appropriate Corps of Engineers District regarding permit requirements. Inquiries for such work or structures should be addressed to:

Wehrspann Field Office
8901 South 154th Street
Omaha, NE 68138-3635
Telephone: 402-896-0896
Fax: 402-896-0997

REGULATIONS

PERSCRIBED BY THE SECRETARY OF THE ARMY FOR OHIO RIVER, MISSISSIPPI RIVER ABOVE CAIRO, IL., AND THEIR TRIBUTARIES; USE, ADMINISTRATION AND NAVIGATION

(The following are excerpts)

THE LAW

Section 7 of the River and Harbor Act of August 8, 1917, provides as follows:

"That it shall be the duty of the Secretary of War to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property, or of operations of the United States in channel improvement, covering all matters not specifically delegated by law to some other executive department. Such regulations shall be posted, in conspicuous and appropriate places, for the information of the public; and every person and every corporation which shall violate such regulations shall be deemed guilty of a misdemeanor, and on conviction thereof in any district court of the United States within whose territorial jurisdiction such offense may have been committed, shall be punished by a fine not exceeding $500, or by imprisonment (in the case of a natural person) not exceeding six months, in the discretion of the court."

In pursuance of the law above quoted, the following regulations were prescribed to govern the use, administration, and navigation of the Ohio River, Mississippi River above Cairo, Illinois, and their tributaries.

THE REGULATIONS

Sec. 207.300 Ohio River, Mississippi River above Cairo, Ill., and their tributaries; use, administration, and navigation.

(a) *Authority of Lockmasters.*
The lockmaster shall be charged with the immediate control and management of the lock, and of the area set aside as the lock area, including the lock approach channels. He/she shall see that all laws, rules, and regulations for the use of the lock and lock area are duly complied with, to which end he/she is authorized to give all necessary orders and directions in accordance therewith, both to employees of the government and to any and every person within the limits of the lock and lock area, whether navigating the lock or not. No one shall cause any movement of any vessel, boat, or other floating thing in the lock or approaches except by or under the direction of the lockmaster or his/her assistants. In the event of an emergency, the lockmaster may depart from these regulations as he deems necessary. The lockmasters shall also be charged with the control and management of federally constructed mooring facilities.

(b) *Safety rules for vessels using navigation locks.*
The following safety rules are hereby prescribed for vessels in the locking process, including the act of approaching or departing a lock:
(1) *Tows with flammable or hazardous cargo barges, loaded or empty.*
(i) Stripping barges or transferring cargo is prohibited.
(ii) All hatches on barges used to transport flammable or hazardous materials shall be closed and latched, except those barges carrying a gas-free certificate.
(iii) Spark-proof protective rubbing fenders ("possums") shall be used.
(2) *All vessels.*
(i) Leaking vessels may be excluded from locks until they have been repaired to the satisfaction of the lockmaster.
(ii) Smoking, open flames, and chipping or other spark-producing activities are prohibited on deck during the locking cycle.
(iii) Painting will not be permitted in the lock chamber during the locking cycle.
(iv) Tow speeds shall be reduced to a rate of travel such that the tow can be stopped by checking should mechanical difficulties develop. Pilots should check with the individual lockmasters concerning prevailing conditions. It is also recommended that pilots check their ability to reverse their engines prior to beginning an approach. Engines shall not be turned off in the lock until the tow has stopped and been made fast.
(v) U.S. Coast Guard regulations require all vessels to have on board life saving devices for prevention of drowning. All crew members of vessels required to carry work vests (life jackets) shall wear them during a lockage, except those persons in an area enclosed with a handrail or other device which would reasonably preclude the possibility of falling overboard. All deckhands handling lines during locking procedure shall wear a life jacket. Vessels not required by Coast Guard regulations to have work vests aboard shall have at least the prescribed life saving devices, located for ready access and use if needed. The lockmaster may refuse lockage to any vessel which fails to conform to the above.

(c) *Reporting of navigation incidents.*
In furtherance of increased safety on waterways the following safety rules are hereby prescribed for all navigation interests:
(1) Any incident resulting in uncontrolled barges shall immediately be reported to the nearest lock. The report shall include information as to the number of loose barges, their cargo, and the time and location where they broke loose. The lockmaster or locks shall be kept informed of the progress being made in bringing the barges under control so that he can initiate whatever actions may be warranted.
(2) Whenever barges are temporarily moored at other than commercial terminals or established fleeting areas, and their breaking away could endanger a lock, the nearest lock shall be so notified, preferably the downstream lock.
(3) Sunken or sinking barges shall be reported to the nearest lock both downstream and upstream of the location in order that other traffic passing those points may be advised of the hazards.
(4) In the event of an oil spill, notify the nearest lock downstream, specifying the time and location of the incident, type of oil, amount of spill, and what recovery or controlling measures are being employed.

(5) Any other activity on the waterways that could conceivably endanger navigation or a navigation structure shall be reported to the nearest lock.
(6) Whenever it is necessary to report an incident involving uncontrolled, sunken or sinking barges, the cargo in the barges shall be accurately identified.

(d) *Precedence at locks.*
(1) The vessel arriving first at a lock shall normally be first to lock through, but precedence shall be given to vessels belonging to the United States. Licensed commercial passenger vessels operating on a published schedule or regularly operating in the "for hire" trade shall have precedence over cargo tows and like craft. Commercial cargo tows shall have precedence over recreational craft, except as described in paragraph (f) of this section.
(2) Arrival posts or markers may be established ashore above and/or below the locks. Vessels arriving at or opposite such posts or markers will be considered as having arrived at the locks within the meaning of this paragraph. Precedence may be established visually or by radio communication. The lockmaster may prescribe such departure from the normal order of precedence as in his judgment is warranted to achieve best lock utilization.

(e) *Unnecessary delay at locks.*
Masters and pilots must use every precaution to prevent unnecessary delay in entering or leaving locks. Vessels failing to enter locks with reasonable promptness when signaled to do so shall lose their turn. Rearranging or switching of barges in the locks or in approaches is prohibited unless approved or directed by the lockmaster. This is not meant to curtail "jackknifing" or set-overs where normally practiced.

(f) *Lockage of recreational craft.*
In order to fully utilize the capacity of the lock, the lockage of recreational craft shall be expedited by locking them through with commercial craft, *provided That both parties agree to joint use of the chamber*. When recreational craft are locked simultaneously with commercial tows, the lockmaster will direct, whenever practicable, that the recreational craft enter the lock and depart while the tow is secured in the lock. Recreational craft will not be locked through with vessels carrying volatile cargoes or other substances likely to emit toxic or explosive vapors. If the lockage of recreational craft cannot be accomplished within the time required for three other lockages, a separate lockage of recreational craft shall be made. Recreational craft operators are advised that many locks have a pull chain located at each end of the lock which signals the lockmaster that lockage is desired. Furthermore, many Mississippi River locks utilize a strobe light at the lock to signal recreational type vessels that the lock is ready for entry. Such lights are used exclusively to signal recreational craft.

(g) *Simultaneous lockage of tows with dangerous cargoes.*
Simultaneous lockage of other tows with tows carrying dangerous cargoes or containing flammable vapors normally will only be permitted when there is agreement between the lockmaster and both vessel masters that the simultaneous lockage can be executed safely. He shall make a separate decision each time such action seems safe and appropriate, provided:
(1) The first vessel or tow in and the last vessel or tow out are secured before the other enters or leaves.
(2) Any vessel or tow carrying dangerous cargoes is not leaking.
(3) All masters involved have agreed to the joint use of the lock chamber.

(h) *Stations while awaiting a lockage.*
Vessels awaiting their turn to lock shall remain sufficiently clear of the structure to allow unobstructed departure for the vessel leaving the lock. However, to the extent practicable under the prevailing conditions, vessels and tows shall position themselves so as to minimize approach time when signaled to do so.

(i) *Stations while awaiting access through navigable pass.*
When navigable dams are up or are in the process of being raised or lowered, vessels desiring to use the pass shall wait outside the limits of the approach points unless authorized otherwise by the lockmaster.

(j) *Signals.*
Signals from vessels shall ordinarily be by whistle; signals from locks to vessels shall be by whistle, another sound device, or visual means. When a whistle is used, long blasts of the whistle shall not exceed 10 seconds and short blasts of the whistle shall not exceed 3 seconds. Where a lock is not provided with a sound or visual signal installation, the lockmaster will indicate by voice or by the wave of a hand when the vessel may enter or leave the lock. Vessels must approach the locks with caution and shall not enter nor leave the lock until signaled to do so by the lockmaster. The following lockage signals are prescribed:
(1) *Sound signals by means of a whistle.* These signals apply at either a single lock or twin locks.
(i) Vessels desiring lockage shall on approaching a lock give the following signals at a distance of not more than one mile from the lock;
(a) If a single lockage only is required: One long blast of the whistle followed by one short blast.
(b) If a double lockage is required: One long blast of the whistle followed by two short blasts.
(ii) When the lock is ready for entrance, the lock will give the following signals:
(a) One long blast of the whistle indicates permission to enter the lock chamber in the case of a single lock or to enter the landward chamber in the case of twin locks.
(b) Two long blasts of the whistle indicates permission to enter the riverward chamber in the case of twin locks.
(iii) Permission to leave the locks will be indicated by the following signals given by the lock:
(a) One short blast of the whistle indicates permission to leave the lock chamber in the case of a single lock or to leave the landward chamber in the case of twin locks.
(b) Two short blasts of the whistle indicates permission to leave the riverward chamber in the case of twin locks.
(iv) Four or more short blasts of the lock whistle delivered in rapid succession will be used as a means of attracting attention, to indicate caution, and to signal danger. This signal will be used to attract the attention of the captain and crews of vessels using or approaching the lock or navigating in its vicinity and to indicate that something unusual involving danger or requiring special caution is happening or is about to take place. When this signal is given by the lock, the captains and crews of vessels in the vicinity shall immediately become on the alert to determine the reason for the signal and shall take the necessary steps to cope with the situation.
(2) *Lock signal lights.* At locks where density of traffic or other local conditions make it advisable, the sound signals from the lock will be supplemented by signal lights. Flashing lights (showing a one-second flash followed by a two-second eclipse) will be located on or near each end of the land wall to control use of a single lock or of the landward lock of double locks. In addition, at double locks, interrupted flashing lights (showing a one-second flash, a one-second eclipse and a one-second flash, followed by a three-second eclipse) will be located on or near each end of the intermediate wall to control use of the riverward lock. Navigation will be governed as follows:
(i) *Red light.* Lock cannot be made ready immediately. Vessel shall stand clear.
(ii) *Amber light.* Lock is being made ready. Vessel may approach but under full control.
(iii) *Green light.* Lock is ready for entrance.
(iv) *Green and amber.* Lock is ready for entrance but gates cannot be recessed completely. Vessel may enter under full control and with extreme caution.

(3) *Radio communications.* VHF-FM radios, operating in the FCC authorized Maritime Band, have been installed at all operational locks (except those on the Kentucky River and Lock 3, Green River). Radio contact may be made by any vessel desiring passage. Commercial tows are especially requested to make contact at least one half hour before arrival in order that the pilot may be informed of current river and traffic conditions that may affect the safe passage of his tow. All locks monitor 156.8 MHz (Ch. 16) and 156.65 MHz (Ch. 13) and can work 156.65 MHz (Ch. 13) and 156.7 MHz (Ch. 14) Ch. 16 is the authorized call, reply and distress frequency, and locks are not permitted to work on this frequency except in an emergency involving the risk of immediate loss of life or property. Vessels may call and work Ch. 13, without switching, but are cautioned that vessel to lock traffic must not interrupt or delay Bridge to Bridge traffic which has priority at all times.

(k) *Rafts.*
Rafts to be locked through shall be moored in such manner as not to obstruct the entrance of the lock, and if to be locked in sections, shall be brought to the lock as directed by the lockmaster. After passing the lock the sections shall be reassembled at such distance beyond the lock as not to interfere with other vessels.

(l) *Entrance to and exit from locks.* In case two or more boats or tows are to enter for the same lockage, their order of entry shall be determined by the lockmaster. Except as directed by the lockmaster, no boat shall pass another in the lock. In no case will boats be permitted to enter or leave the locks until directed to do so by the lockmaster. The sides of all craft passing through any lock shall be free from projections of any kind which might injure the lock walls. All vessels shall be provided with suitable fenders, and shall be used to protect the lock and guide walls until it has cleared the lock and guide walls.

(m) *Mooring*
(1) *At locks.*
(i) All vessels when in the locks shall be moored as directed by the lockmaster. Vessels shall be moored with bow and stern lines leading in opposite directions to prevent the vessel from "running" in the lock. All vessels will have one additional line available on the head of the tow for emergency use. The pilothouse shall be attended by qualified personnel during the entire locking procedure. When the vessel is securely moored, the pilot shall not cause movement of the propellers except in emergency or unless directed by the lockmaster. Tying to lock ladders is strictly prohibited.
(ii) Mooring of unattended or non-propelled vessels or small craft at the upper or lower channel approaches will not be permitted within 1200 feet of the lock.
(2) *Outside of locks.*
(i) No vessel or other craft shall regularly or permanently moor in any reach of a navigation channel. The approximate centerline of such channels are marked as the sailing line on Corps of Engineers' navigation charts. Nor shall any floating craft, except in an emergency, moor in any narrow or hazardous section of the waterway. Furthermore, all vessels or other craft are prohibited from regularly or permanently mooring in any section of navigable waterways which are congested with commercial facilities or traffic unless it is moored at facilities approved by the Secretary of the Army or his authorized representative. The limits of the congested areas shall be marked on Corps of Engineers' navigation charts. However, the District Engineer may authorize in writing exceptions to any of the above if, in his judgment, such mooring would not adversely affect navigation and anchorage.
(ii) No vessel or other craft shall be moored to railroad tracks, to riverbanks in the vicinity of railroad tracks when such mooring threatens the safety of equipment using such tracks, to telephone poles or power poles, or to bridges or similar structures used by the public.
(iii) Except in case of great emergency, no vessel or craft shall anchor over revetted banks of the river, and no floating plant other than launches and similar small craft shall land against banks protected by revetment except at regular commercial landings. In all cases, every precaution to avoid damage to the revetment works shall be exercised. The construction of log rafts along mattressed or paved banks or the tying up and landing of log rafts against such banks shall be performed in such a manner as to cause no damage to the mattress work or bank paving. Generally, mattress work extends out into the river 600 feet from the low water line.
(iv) Any vessel utilizing a federally constructed mooring facility (e.g., cells, buoys, anchor rings) at the points designated on the current issue of the Corps' navigation charts shall advise the lockmaster at the nearest lock from that point by the most expeditious means.

(n) *Draft of vessels.*
No vessel shall attempt to enter a lock unless its draft is at least three inches less than the least depth of water over the guard sills, or over the gate sills if there be no guard sills. Information concerning controlling depth over sills can be obtained from the lockmaster at each lock or by inquiry at the office of the district engineer of the district in which the lock is located.

(o) *Handling machinery.*
No one but employees of the United States shall move any lock machinery except as directed by the lockmaster. Tampering or meddling with the machinery or other parts of the lock is strictly forbidden.

(p) *Refuse in locks.*
Placing or discharging refuse of any description into the lock, on lock walls or esplanade, canal or canal bank is prohibited.

(q) *Damage to locks or other work.*
To avoid damage to plant and structures connected with the construction or repair of locks and dams, vessels passing structures in the process of construction or repair shall reduce their speed and navigate with special caution while in the vicinity of such work. The restrictions and admonitions contained in these regulations shall not affect the liability of the owners and operators of floating craft for any damage to locks or other structures caused by the operation of such craft.

(r) *Trespass of lock property.*
Trespass on locks or dams or other U.S. property pertaining to the locks or dams is strictly prohibited except in those areas specifically permitted. Parties committing any injury to the locks or dams or to any part thereof will be responsible therefor. Any person committing a willful injury to any U.S. property will be prosecuted. No fishing will be permitted from lock walls, guide walls, or guard walls of any lock or from any dam, except in areas designated and posted by the responsible District Engineer as fishing areas. Personnel from commercial and recreational craft will be allowed on the lock structure for legitimate business reasons; e.g., crew changes, emergency phone calls, etc.

(s) *Restricted areas at locks and dams.*
All waters immediately above and below each dam, as posted by the respective District Engineers, are hereby designated as restricted areas. No vessel or other floating craft shall enter any such restricted area at any time. The limits of the restricted areas at each dam will be determined by the responsible District Engineer and market by signs and/or flashing red lights installed in conspicuous and appropriate places.

(t) [Reserved]

(u) *Operations during high water and floods in designated vulnerable areas.*

Vessels operating on these waters during periods when river stages exceed the level of "ordinary high water", as designated on Corps of Engineers' navigation charts, shall exercise reasonable care to minimize the effects of their bow waves and propeller washes on river banks; submerged or partially submerged structures or habitations; terrestrial growth such as trees and bushes; and man-made amenities that may be present. Vessels shall operate carefully when passing close to levees and other flood protection works, and shall observe minimum distances from banks which may be prescribed from time to time in Notices to Navigation Interests. Pilots should exercise particular care not to direct propeller wash at river banks, levees, revetments, structures or other appurtenances subject to damage from wave action.

(v) *Navigation lights for use at all locks.*

(1) At locks at all fixed dams and at locks at all movable dams when the dams are up so that there is no navigable pass through the dam, the following navigation lights will be displayed during hours of darkness:

(i) Three green lights visible through an arc of 360 deg. arranged in a vertical line on the upstream end of the river (guard) wall unless the intermediate wall extends farther upstream. In the latter case, the lights will be placed on the upstream end of the intermediate wall.

(ii) Two green lights visible through an arc of 360 deg. arranged in a vertical line on the downstream end of the river (guard) wall unless the intermediate wall extends farther downstream. In the latter case, the lights will be placed on the downstream end of the intermediate wall.

(iii) A single red light, visible through an arc of 360 deg. on each end (upstream and downstream) of the land (guide) wall.

(2) At movable dams when the dam has been lowered or partly lowered so that there is an unobstructed navigable pass through the dam, the navigation lights indicated in the following paragraphs will be displayed during hours of darkness until lock walls and weir piers are awash.

(i) Three red lights visible through an arc of 360 deg. arranged in a vertical line on the upstream end of the river (guard) wall.

(ii) Two red lights visible through an arc of 360 deg. arranged in a vertical line on the downstream end of the river (guard) wall.

(iii) A single red light visible through an arc of 360 deg. on each end (upstream and downstream) of the land (guide) wall.

(3) After lock walls and weir piers are awash they will be marked as prescribed in paragraph (x) of this section.

(4) If one or more bear traps or weirs are open or partially open, and may cause a set in current conditions at the upper approach to the locks, this fact will be indicated by displaying a white circular disk 5 feet in diameter, on or near the light support on the upstream end of the land (guide) wall during the hours of daylight, and will be indicated during hours of darkness by displaying a white (amber) light vertically under and 5 feet below the red light on the upstream end of the land (guide) wall.

(5) At Locks No. 1 and 2, Green River, when the locks are not in operation because of high river stages, a single red light visible through an arc of 360 deg. will be displayed on each end (upstream and downstream) of the lock river (guard) will at which time the lights referred to above will not be visible.

(w) [No longer applicable]

(x) *Buoys at movable dams.*

(1) Whenever the river (guard) wall of the lock and any portion of the dam are awash, and until covered by a depth of water equal to the project depth, the limits of the navigable pass through the dam will be marked by buoys located at the upstream and downstream ends of the river (guard) wall, and by a single buoy over the end or ends of the portion or portions of the dam adjacent to the navigable pass over which project depth is not available. A red nun-type buoy will be used for such structures located on the left-hand side (facing downstream) of the river and a black can-type buoy for such structures located on the right-hand side. Buoys will be lighted, if practicable.

(2) Where powerhouses or other substantial structures projecting considerably above the level of the lock wall are located on the river (guard) wall, a single red light located on top of one of these structures may be used instead of river wall buoys prescribed above until these structures are awash, after which they will be marked by a buoy of appropriate type and color (red nun or black can buoy) until covered by a depth of water equal to the project depth. Buoys will be lighted, if practicable.

(y) *Vessels to carry regulations.* A copy of these regulations shall be kept at all times on board each vessel regularly engaged in navigating the rivers to which these regulations apply. Copies may be obtained from any lock office or District Engineer's office on request. Masters of such vessels are encouraged to have on board copies of the current edition of appropriate navigation charts.

NOTE: These regulations are those in effect 31 July 1975.

ACT OF MARCH 3, 1899

[As Amended Through P.L. 106–580, Dec. 29, 2000]

(Commonly Known as THE "RIVERS AND HARBORS APPROPRIATION ACT OF 1899")

(Sections 15, 16, 19 & 20)

CHAP. 425.—An Act Making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes.

* * * * * * *

SECTION 15

That it shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or craft; or to sink, or permit or cause to be sunk, vessels or other craft in navigable channels; or to float loose timber and logs, or to float what is known as sack rafts of timber and logs in streams or channels actually navigated by steamboats in such manners as to obstruct, impede, or endanger navigation. And whenever a vessel, raft, or other craft is wrecked and sunk in a navigable channel, it shall be the duty of the owner, lessee, or operator of such sunken craft to immediately mark it with a buoy or beacon during the day and a lighted lantern at night, and to maintain such marks until the sunken craft is removed or abandoned, and the neglect or failure of the said owner, lessee, or operator so to do shall be unlawful; and it shall be the duty of the owner, lessee, or operator of such sunken craft to commence the immediate removal of the same, and prosecute such removal diligently, and failure to do so shall be considered as an abandonment of such craft and subject the same to removal by the United States as hereinafter provided for. (33 U.S.C. 409)

SECTION 16

That every person and every corporation that shall violate, or that shall knowingly aid, abet, authorize, or instigate a violation of the provisions of sections 13, 14, 15, 19, and 20 of this Act shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of up to $25,000 per day, or by imprisonment (in the case of a natural person) for not less than thirty days nor more than one year, or by both such fine and imprisonment, in the discretion of the court; one-half of said fine to be paid to the person or persons giving information which shall lead to conviction. And any and every master, pilot, and engineer, or person or persons acting in such capacity, respectively, on board of any boat or vessel who shall knowingly ngage in towing any scow, boat, or vessel loaded with any material specified in section thirteen of this Act to any point or place of deposit or discharge in any harbor or navigable water, elsewhere than within the limits defined and permitted by the Secretary of War, or who shall willfully injure or destroy any work of the United States contemplated in section fourteen of this Act, or who shall willfully obstruct the channel of any waterway in the manner contemplated in section fifteen of this Act, shall be deemed guilty of a violation of this Act, and shall upon conviction be punished as hereinbefore provided in this section, and shall also have his license revoked or suspended for a term to be fixed by the judge before whom tried and convicted. And any boat, vessel, scow, raft, or other craft used or employed in violating any of the provisions of sections 13, 14, 15, 19, and 20 of this Act shall be liable for the pecuniary penalties specified in this section, and in addition thereto for the amount of the damages done by said boat, vessel, scow, raft, or other craft, which latter sum shall be placed to the credit of the appropriation for the improvement of the harbor or waterway in which the damage occurred, and said boat, vessel, scow, raft, or other craft may be proceeded against summarily by way of libel in any district court of the United States having jurisdiction thereof. (33 U.S.C. 411, 412)

SECTION 19

(a) That whenever the navigation of any river, lake, harbor, sound, bay, canal, or other navigable waters of the United States shall be obstructed or endangered by any sunken vessel, boat, water craft, raft, or other similar obstruction, and such obstruction has existed for a longer period than thirty days, or whenever the abandonment of such obstruction can be legally established in a less space of time, the sunken vessel, boat, water craft, raft, or other obstruction shall be subject to be broken up, removed, sold, or otherwise disposed of by the Secretary of War at his discretion, without liability for any damage to the owners of the same: *Provided,* That in his discretion, the Secretary of War may cause reasonable notice of such obstruction of not less than thirty days, unless the legal abandonment of the obstruction can be established in a less time, to be given by publication, addressed "To whom it may concern," in a newspaper published nearest to the locality of the obstruction, requiring the removal thereof: *And provided also,* That the Secretary of War may, in his discretion, at or after the time of giving such notice, cause sealed proposals to be solicited by public advertisement, giving reasonable notice of not less than ten days, for the removal of such obstruction as soon as possible after the expiration of the above specified thirty days' notice, in case it has not in the meantime been so removed, these proposals and contracts, at his discretion, to be conditioned that such vessel, boat, water craft, raft, or other obstruction, and all cargo and property contained therein, shall become the property of the contractor, and the contract shall be awarded to the bidder making the proposition most advantageous to the United States: *Provided*, That such bidder shall give satisfactory security to execute the work: *Provided further*, That any money received from the sale of any such wreck, or from any contractor for the removal of wrecks, under this paragraph shall be covered into the Treasury of the United States.

(b) The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the cost of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this subsection to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of the United States. (33 U.S.C. 414)

SECTION 20

(a) That under emergency, in the case of any vessel, boat, water craft, or raft, or other similar obstruction, sinking or grounding, or being unnecessarily delayed in any Government canal or lock, or in any navigable waters mentioned in section nineteen, in such manner as to stop, seriously interfere with, or specially endanger navigation, in the opinion of the Secretary of War, or any agent of the United States to whom the Secretary may delegate proper authority, the Secretary of War or any such agent shall have the right to take immediate possession of such boat, vessel, or other water craft, or raft, so far as to remove or to destroy it and to clear immediately the canal, lock, or navigable waters aforesaid of the obstruction thereby caused, using his best judgment to prevent any unnecessary injury; and no one shall interfere with or prevent such removal or destruction: *Provided,* That the officer or agent charged with the removal or destruction of an obstruction under this section may in his discretion give notice in writing to the owners of any such obstruction requiring them to remove it: *And provided further,* That the actual expense, including administrative expenses, of removing any such obstruction as aforesaid shall be a charge against such craft and cargo; and if the owners thereof fail or refuse to reimburse the United States for such expense within thirty days after notification, then the officer or agent aforesaid may sell the craft or cargo, or any part thereof that may not have been destroyed in removal, and the proceeds of such sale shall be covered into the Treasury of the United States.

(c) The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the actual cost, including administrative costs, of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this subsection to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of the United States. (33 U.S.C. 415)

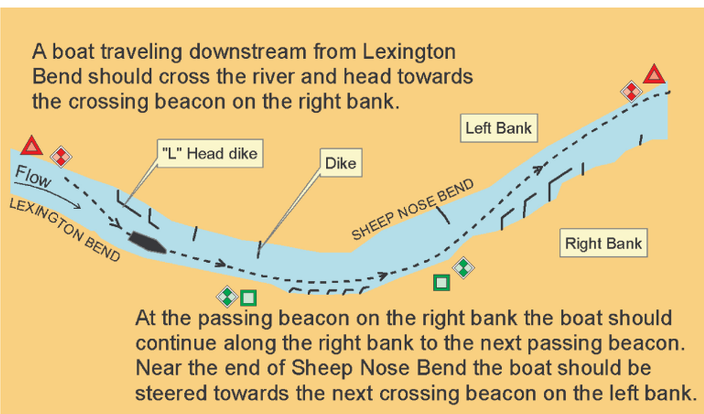
Boating & Safety on the Missouri River

This chart contains numerous safety tips and guidelines for boaters and other water recreationalists. Please use caution when boating on the river and keep safety in mind at all times.

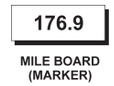
When Lewis and Clark traveled the river in 1804 they left no trace of their passage. We hope that all river users will respect the environment and “Leave no trace”.

Before putting a boat on the Missouri River you should become familiar with the system of aids to navigation established by the U.S. Coast Guard. These aids to navigation (signs, markers, and buoys) mark a 300’ wide by 9’ deep navigation channel maintained by the U.S. Army Corps of Engineers.

By constricting the majority of the river’s flow between sets of rock dikes located on both sides of the river, the navigation channel generally maintains a minimal depth of 9’. The dikes extend nearly perpendicular into the river and may have a downstream “L-head” on the end. The dikes are often submerged just under the surface of the water and can be a significant hazard to watercraft.

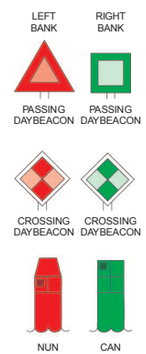


Aids to Navigation



Mile Marker Boards are useful navigation aids that help you locate your position on these navigation charts. Mile markers indicate the distance upstream from the mouth of the river (river mile 0), at the confluence of the Missouri and Mississippi Rivers. The boards are attached to beacons (see below) on the river banks and indicate distances in miles. The U.S. Army Corps of Engineers places additional black and white mile boards on trees or posts located along the banks.

Beacons are permanently fixed to a post or other structure along the bank. Lighted beacons are called lights and unlighted beacons are called day beacons or day boards. Because the navigable channel of the river swings back and forth from bank to bank as the river bends, the beacons indicate where to cross or where to stay to the bank. Beacons are located at the beginning and end of each bend and crossing.



Passing Beacon is found at the start and finish of a bend and indicates that you should stay on that side of the river until you reach a crossing beacon.

Crossing Beacon is found at the start and end of a crossing and indicates that you should cross the river and aim for the crossing beacon on the opposite shore.

Buoys are floating aids attached to the riverbed by concrete sinkers with chain or rope. Buoys are maintained by the U.S. Coast Guard during the navigation season, 1 April through 10 November.

Navigation buoys, looking downstream green "can" buoys mark the right descending channel and red "nun" buoys mark the left descending channel. Keep your boat between the green and red buoys and give them wide berth. Buoys are not always present and may be carried off position by high water, collisions, drift in the riverbed or other causes.

River Hazards

The Missouri River is deep in some areas, but other locations may have rock dikes, sandbars and shallow spots. Snags and floating debris also present hazards that may be difficult to see until you are right on top of them. Varying river levels can expose or submerge hazards within a short period of time.

As you travel the river, look for water areas with boils or ripples. This indicates sandbars, dikes or possible hazards close to the surface. Maps and charts may not necessarily show the location of sandbars because they shift with the flow of the river. At locations where the river narrows, or where there are obstacles in the river, tongues of relative glassy water form inverted 'V's downstream of the obstruction.

Rock dikes are numerous. There is a possibility of submerged dikes that create a hazard for boaters. The location of these dikes are indicated on these navigation charts. Mile markers (white with black numbers) make it easy to track your location. These are placed on the bank you should be favoring. Navigation Markers are provided whenever the channel crosses from one side to another. A rule of thumb is to stay toward the outside of every bend and the dikes should give you no trouble.

Boating and Alcohol

The combination of boating and alcohol can prove to be deadly. Alcohol impairs judgment and reaction time and decreases your body's ability to defend itself from hypothermia.

Alcohol greatly increases the risk of dehydration.

Bring along plenty of drinking water. The rule of thumb is one gallon of water per twenty-four hour period per person.

Planning Your Trip

First time Missouri River boaters should become informed of the hazards and challenges associated with boating in swift current.

When you plan your trip, note the area names and public lands along your route on the map. Then use the information on SHEET L to contact the agency and secure detailed maps, information and regulations.

Boaters should prepare a trip plan and inform another person of their travel plans including their destination and estimated time of arrival.

Take a boat safety course and get a free boat safety check from the Coast Guard Auxiliary or U.S. Power Squadron.

Inspect your boat to make sure you have all of the required boat safety equipment.

Planning Your Trip (cont'd)

Fuel is scarce on the lower Missouri River. Locate fuel sources before you begin your trip and plan accordingly. Upstream boaters should expect a 15-80 percent reduction in speed and corresponding increase in fuel consumption due to the 4-7 mph current of the river.

Swimming

Swimming and tubing on the Missouri is extremely dangerous and is strongly discouraged. A fast river current (normally 4-7 mph) can quickly exhaust even the strongest swimmer. Inner tubes should never be used on the river. There's no way to control them in the current and they pose problems with boats and tugs especially on holidays and weekends when recreational traffic peaks.

Never swim in floodwaters, the main river channel, around structures like wing dikes or around moored barges. Strong hidden currents, drop-offs, and hidden obstacles make these areas extremely hazardous to swimmers. Swimmers and waders should always wear a life jacket.

Equipment

"Life jackets float … you don't". Life jackets (also referred to as Personal Floatation Devices or PFDs) do save lives and are the most important piece of safety equipment in your boat. Make sure you follow the boating rules for your state regarding life jackets. Be sure they fit snugly to avoid the PFD coming off if you should accidentally fall in the water. Frayed or damaged PFD's should be replaced. Smaller children should wear PFD's made for them. The U.S. Coast Guard label affixed to the PFD will aid in selecting the appropriate type and size.

Boats must be equipped with appropriate emergency equipment (i.e., first aid kit, oars and paddles, anchor, sound device, fire extinguisher, navigation lights, and 100 feet of line or rope).

If your boat capsizes, do not attempt to swim to shore. Stay with the craft until the boat can be safely beached. Remember, hypothermia is a possibility during most of the year. Life jackets help to minimize loss of body heat.

Avoid sunburn, wear a wide brimmed hat, long sleeved shirt, long trousers and use sunscreen. Sunscreen alone is not sufficient for long exposure to the sun.

Always carry a change of clothing in a waterproof container. Dry clothes could save your life by preventing hypothermia if the clothes you are wearing become wet. It does not have to be "cold" for hypothermia to strike.

Respect Private Property

Most land along the lower Missouri is privately owned. You'll see by looking at the green shading on the map that public lands are very limited. Camping should be done only if you know who's land you are on and have the landowners permission.

Be especially careful not to moor to drainage structures or to trees that might damage or imperil private levees.

Boating & Barges

It is not necessary to get off the river because a barge is approaching. You should move toward the off channel shore (the inside of a bend) and be alert for rock dikes which are located there. Move as far away from the barge as possible and position the bow of your boat perpendicular to the wake. Never turn your boat broadside to the wake created by barges and tugs, they can easily swamp a small boat. Remember, barges have the right-of-way.

Pilots of towboats have a blind spot in front of their vessels and it could take a barge and tow up to 1 ½ miles to stop. These barges also create extreme turbulence up to ½ mile behind the tow. The strong wake may lift your boat onto the rocks, dikes or other hazards. Hydraulics generated by barges can suck under objects including smaller craft so it's best to give them a wide berth. Playing games with this kind of vessel can result in serious injury or even death.

Permits are required for regattas and special events on the river. The U.S. Coast Guard (314-269-2332) or Missouri Water Patrol (573-751-3333) should be contacted to obtain these permits.

Stewardship & Endangered Species

Human disturbance can disrupt bird nesting, fish spawning, and other wildlife activities. Avoid dragging your boat across gravel bars or through spawning areas. Launch and land only on designated sites. Keep pets under control.

Minimize campfire impacts and dispose of all waste properly. Pack out all of your trash and pick up litter left by others.

If artifacts or fossils are found, leave them in place and undisturbed. Photograph or sketch rock art, but do not touch.

Check your boat and clean for zebra mussels before taking it from the Missouri River to any other body of water. Signs at launch ramps will provide further instruction.

Mooring & Anchoring

Never set an anchor in the fast flowing river channel. Current can pull you under and debris (e.g. logs) floating under the surface can hook your line and draw you under in an instant. It can also be difficult to unhook the anchor from submerged obstacles you can't see. Be sure you can quickly cut or detach the anchor line on your boat if you need to.

If you do anchor in the river, pick your anchorage carefully out of the channel and current. Remember to use a bowline and keep your bow into the wind or current. This will minimize the risk of being swamped by water coming over the transom or back of the boat. The anchor line should be at least seven times as long as the depth of the water in which the boat is moored.

Never attempt to moor to stationary objects such as dikes and moored barges and never approach these objects from upstream. Swift water flowing over, under, and around these objects creates very strong turbulence and undertow currents that may overturn your boat and pull you under.

When stopping, make every attempt to turn your boat upstream into the current and cut the throttle to an idle. The throttle setting will vary with the speed of the current.

Always land your boat facing upstream and pull in parallel to the riverbank. If you try landing facing downstream or perpendicular to the bank, the current will pivot the boat to position the bow upstream and parallel to the bank. A two-point tie off should be used to keep the prop out of the rock and prevent its contact with the bank.

Camping

Camping at designated camping sites only, is the rule for most public lands. Contact the managing agency for regulations. If you choose to camp elsewhere along the river, you should have permission of the private land owner in advance.

Watch for biting insects, poisonous plants and snakes. They can ruin a trip. Have a first-aid kit on board.

Weather

Monitor the local weather forecast before you begin your journey and throughout your trip. In the Midwest, storms may emerge abruptly. These storms are often accompanied by strong winds that can easily capsize a small craft. Lightning, heavy rain or hail can turn a pleasant trip into disaster. Watch the sky and be aware of your surroundings for signs of inclement weather. Carry foul weather gear for unexpected storms.

High winds create very hazardous conditions and it is best to exit the river as soon as possible. Facing downstream in a crosswind can be dangerous. Always keep your boat straight into or away from the wind (parallel with the wind) as you head toward the shore.

Carry a portable radio or weather radio and tune it to the National Weather Service for up-to-date forecasts.

Beware of travel on a rising river which often results in large quantities of floating debris that can cause serious boat damage.

Emergencies

Emergency numbers for each county are listed on the following sheet, SHEET L, and county boundaries are designated on the charts. The county sheriff's office will contact the proper authorities to deal with the emergency.

File a float plan - let a reliable person know where you are going, when and where you plan on departing and arriving, your route and other pertinent information that will enable someone to find you. We never plan on accidents but they do happen. Filing and adhering to a float plan will help if emergency personnel need to locate you.

Administer first aid to accident victims immediately and then call or send for help.

Boaters are advised to carry a marine radio and cell phone or satellite phone for emergency communication with the local Sheriff's office or other emergency response agencies and be familiar with these phone numbers. Cell coverage may not be 100% in rural areas.

Help Stop Zebra Mussels

The zebra mussel poses a multibillion-dollar threat to North America's industrial, agricultural, and municipal water supplies. First discovered in 1988 in the Great Lakes, this invader has spread throughout the Mississippi and Ohio River basins in just 10 years. Public assistance in reporting zebra mussel sightings at new locations is essential in preventing its spread.

Zebra mussels look like small clams with a yellowish or brownish "D" shaped shell. They usually have alternating dark and light stripes. Zebra mussels are relatively small, with adults ranging from 1/4 to 1 1/2 inches long. Zebra mussels usually grow in clusters. They are the only freshwater mollusk that can firmly attach to objects. They are commonly found on rocks, dock pilings, boat hulls, and water intake pipes.

Zebra mussel juveniles, called veligers, are microscopic and invisible to the naked eye. You can prevent the spread of zebra mussels by routinely decontaminating your boat and equipment by power washing with water heated to 140- degrees Fahrenheit or by allowing everything to completely dry before using in another body of water. Drain water from your motor, live well, bilge and transom wells before leaving the recreation area. Empty bait buckets in land based receptacles and do not take bait from one body of water to another.

If you find a zebra mussel, note the date and precise location where the mussel was found. Take the mussel with you and store in rubbing alcohol. Immediately contact the nearest state wildlife department.

For more information please visit these websites:
www.100thmeridian.org
www.protectyourwaters.net
www.anstaskforce.gov

Emergency Numbers

Nebraska County Sheriff's Department

Burt County…402-374-2900
Cass County…402-296-9370
Dakota County…402-987-2170
Douglas County…402-444-6641
Nemaha County…402-274-3139
Otoe County…402-873-9560
Richardson County…402-245-2479
Sarpy County…402-593-2288
Thurston County…402-385-3018
Washington County…402-426-6866

Iowa County Sheriff's Department

Fremont County…712-374-2673
Harrison County…712-644-2244
Mills County…712-527-4871
Monona County…712-423-1414
Pottawattamie County…712-328-5737
Woodbury County…712-279-6010

Missouri County Sheriff's Department

Atchison County…660-744-6271
Holt County…660-446-3300

South Dakota County Sheriff's Department

Union County…605-356-2679

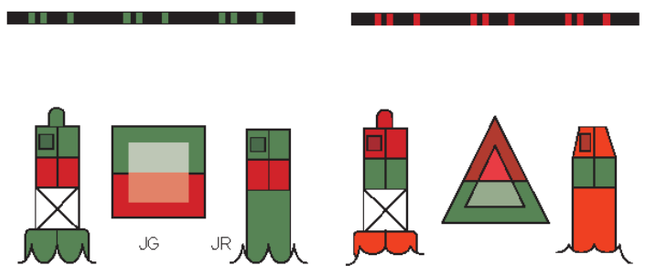
Additional Information Links…

Iowa Department of Natural Resources: www.iowadnr.gov
Missouri River Communities Network: www.moriver.org
Missouri State Parks: www.mostateparks.com
Missouri Water Patrol: www.mswp.dps.mo.gov
Nebraska Department of Natural Resources: www.dnr.state.ne.us
Nebraska Game and Parks Commission: www.ngpc.state.ne.us
State of Iowa: www.state.ia.us or www.traveliowa.com
State of South Dakota: www.sd.gov or www.travelsd.com
State of Kansas: www.accesskansas.org or www.travelks.com
State of Missouri: www.missouritourism.com
State of Nebraska: www.visitnebraska.org or www.state.ne.us
South Dakota Game, Fish & Parks: www.gfp.sd.gov
U.S. Coast Guard: www.uscg.mil
U.S. Geological Survey Missouri River Information: infolink.cr.usgs.gov
Zebra Mussels and other Aquatic Nuisance Species: www.anstaskforce.gov

U.S. AIDS TO NAVIGATION SYSTEM
on the Western River System
AS SEEN ENTERING FROM SEAWARD

PREFERRED CHANNEL
TO STARBOARD
TOPMOST BAND GREEN
Fl (2+1) G

PREFERRED CHANNEL
TO PORT
TOPMOST BAND RED
Fl (2+1) R



TYPICAL INFORMATION AND REGULATORY MARKS

INFORMATION AND REGULATORY MARKERS

WHEN LIGHTED, INFORMATION AND REGULATORY MARKS MAY DISPLAY ANY LIGHT RHYTHM EXCEPT QUICK FLASHING, Mo(a) AND FLASHING (2)

NW ☐ WHITE LIGHT ONLY

BOAT EXCLUSION AREA

EXPLAINATION MAY BE PLACED OUTSIDE THE CROSSED DIAMOND SHAPE, SUCH AS DAM, RAPIDS, SWIM AREA, ETC.

DANGER

THE NATURE OF DANGER MAY BE INDICATED INSIDE THE DIAMOND SHAPE, SUCH AS ROCK, WRECK, SHOAL, DAM, ETC.

CONTROLLED AREA

TYPE OF CONTROL IS INDICATED IN THE CIRCLE, SUCH AS SLOW, NO WAKE, ANCHORING, ETC.

INFORMATION

FOR DISPLAYING INFORMATION SUCH AS DIRECTIONS, DISTANCES, LOCATIONS, ETC.

BUOY USED TO DISPLAY REGULATORY MARKERS

MAY SHOW WHITE LIGHT
MAY BE LETTERED

DAYBOARDS HAVING NO LATERAL SIGNIFICANCE

MAY BE LETTERED ☐ WHITE LIGHT ONLY

MOORING BUOY
WHITE WITH BLUE BAND

MAY SHOW WHITE REFLECTOR OR LIGHT

STATE WATERS

INLAND (STATE) WATERS OBSTRUCTION MARK
MAY SHOW WHITE REFLECTOR OR QUICK FLASHING WHITE LIGHT

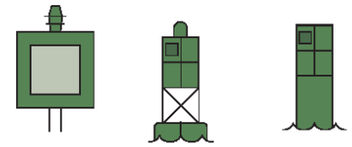
BLACK-STRIPED WHITE BUOY

Used to indicate an obstruction to navigation, extends from the nearest shore to the buoy. This means "do not pass between the buoy and the nearest shore." This aid is replacing the red and white striped buoy within the USWMS, but cannot be used until all red and white striped buoys on a waterway have been replaced.

PORT SIDE
OR RIGHT DESCENDING BANK

GREEN OR ☐ WHITE LIGHTS

FLASHING
ISO

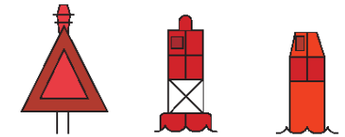


LIGHT LIGHTED BUOY CAN

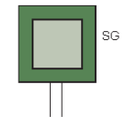
STARBOARD SIDE
OR LEFT DESCENDING BANK

RED OR ☐ WHITE LIGHTS

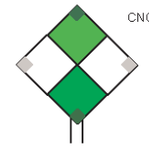
FLASHING (2)
ISO



LIGHT LIGHTED BUOY NUN

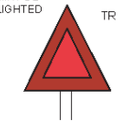


PASSING DAYBEACON

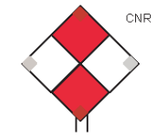


CROSSING DAYBEACON

MAY BE LIGHTED



PASSING DAYBEACON



CROSSING DAYBEACON

176.9
MILE BOARD

123.5
MILE BOARD

SPECIAL MARKS - MAY BE LETTERED

UNLIGHTED LIGHTED

SHAPE: OPTIONAL--BUT SELECTED TO BE APPROPRIATE FOR THE POSITION OF THE MARK IN RELA TION TO THE NAVIGABLE WATERWAY AND THE DIRECTION OF BUOYAGE.

YELLOW LIGHT ONLY
FIXED
FLASHING

BRIDGES/OVERHEAD FEATURES

- Bridge
- Pier Support
- Cable-overhead
- Pipeline-Overhead

SUBMERGED CROSSING

- Cable-submerged
- Pipeline-Submerged

OBSTRUCTIONS

- Marine Obstruction
- Wreck-Visible

UTILITY

- Water Intake
- Water Outfall

COMMERCIAL

- Dock/Pier
- Conveyor

SMALL CRAFT

- Boat Ramp

CULTURAL

- Coast Guard Station
- USACE Building
- Tower
- Grid Line
- County Boundary
- State Boundary
- Built Up Areas
- Casino Boats
- Land-Public Land

HYDRAULIC STRUCTURES

- Flow Control Structures
- Levee/ Flood Wall

HYDRAULICS

- Gauge - USGS

HYDROLOGY

- Match Line
- River/ Stream
- Lakes
- Rivers

TOPOGRAPHY

- Bedrock Outcrop
- Land

NAVIGATIONAL AIDS

- River Mile
- Light- Green, Private
- Light- Red, Private
- Light- Green
- Light- Red
- Light- White
- Daymark- NG Nun Buoy Green
- Daymark- NR Nun Buoy Red
- Daymark- SG Square Daymark Junction Aid
- Daymark- TR Triangle Daymark Red

- Flow Arrow

TRANSPORTATION

- Airport
- Railroad
- Road
- Sailing Line Primary
- Authorized Channel Area

Highway Marker Labels

- Interstate Highway
- Interstate Business Loop
- U.S. Route Highway
- State Route Highway

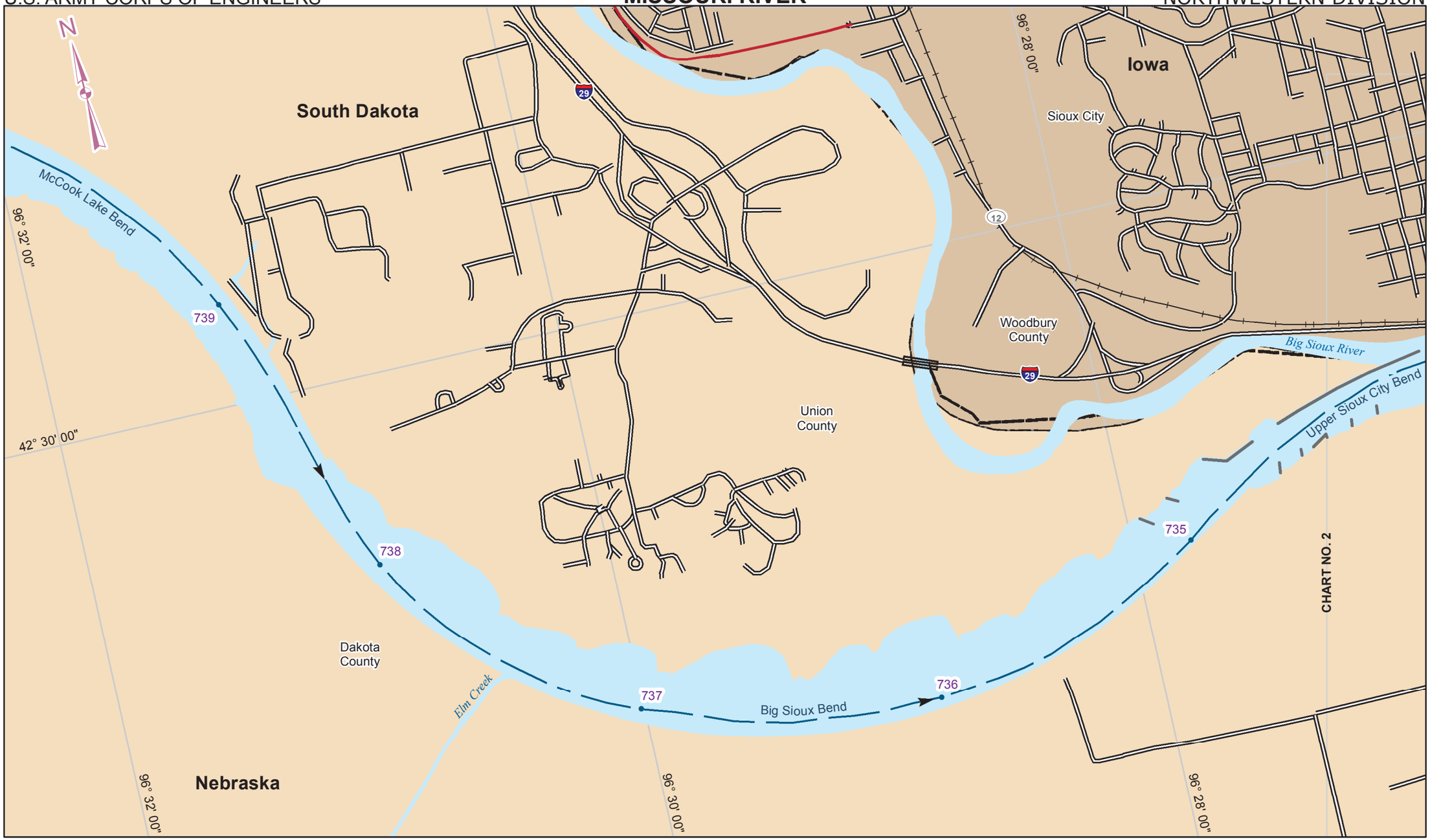
LEGEND

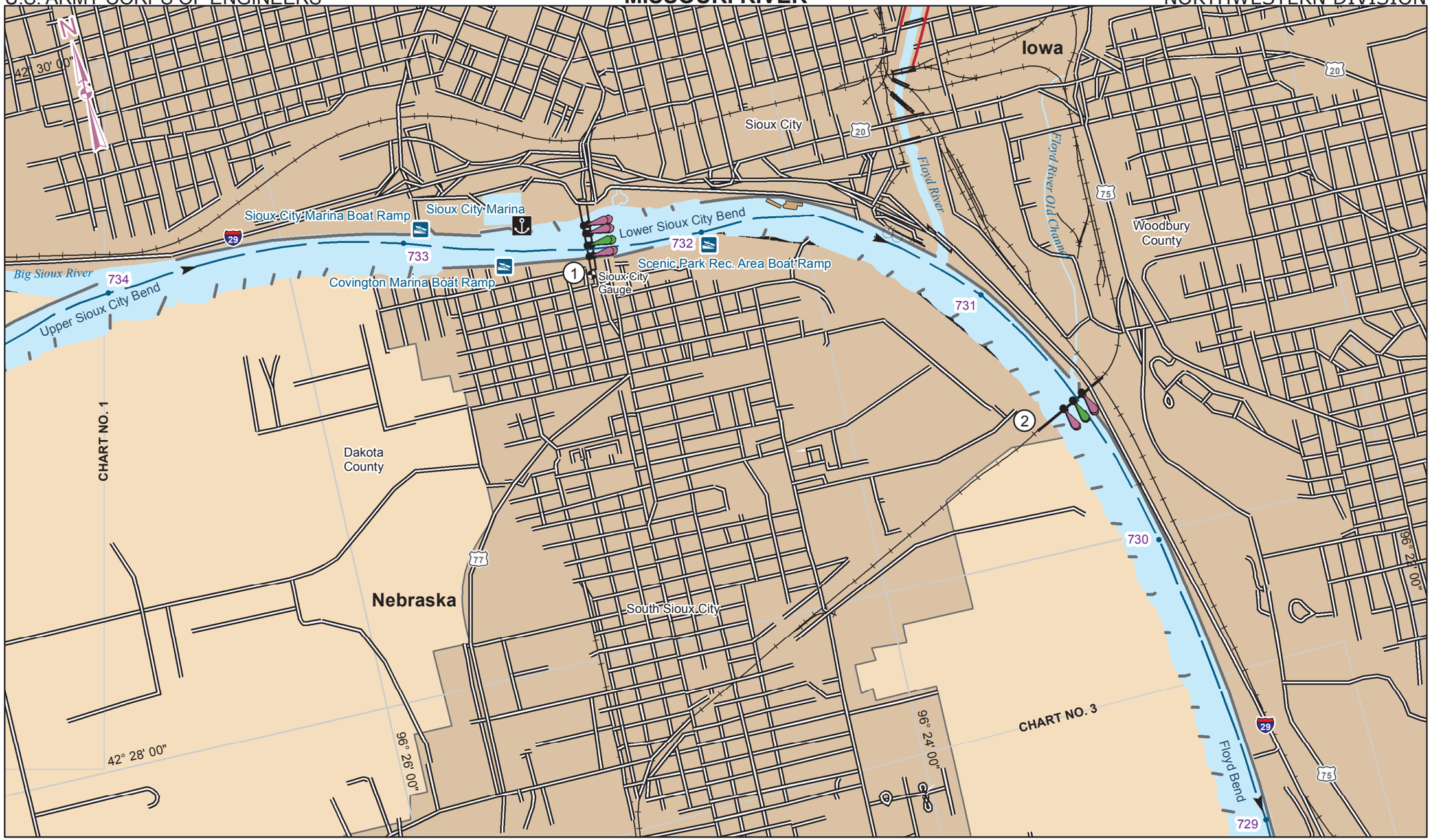
CHART NO.	RIVER MILE	FEATURES / LOCALITY
1	734.1 - 739.9	Big Sioux Bend
2	729.0 - 734.3	Sioux City, IA
3	724.1 - 729.5	Dakota City, NE
4	719.0 - 724.4	Lower Dakota Bend
5	714.3 - 719.4	Browners Bend
6	708.6 - 714.7	Glovers Point Bend
7	703.2 - 708.8	Upper Omaha Mission Bend
8	698.6 - 703.9	Upper Monona Bend
9	693.9 - 699.0	Blackbird Bend
10	688.3 - 694.3	Decatur, NE
11	682.8 - 688.6	Lower Decatur Bend
12	677.1 - 682.9	Upper Blencoe Bend
13	672.1 - 677.4	Upper Little Sioux Reach
14	665.8 - 672.3	Little Sioux Bend
15	661.1 - 666.3	Soldier River
16	655.6 - 661.5	Peterson Cutoff
17	649.9 - 655.8	Tysons Bend
18	644.1 - 650.3	Blair, NE
19	639.6 - 644.8	Desoto Cutoff
20	634.2 - 639.9	Lower Calhoun Bend
21	629.6 - 634.7	Lower Rockport Bend
22	623.8 - 630.0	Lower Pigeon Creek Bend
23	619.7 - 624.6	Omaha, NE
24	614.4 - 620.4	Omaha, NE & Council Bluffs, IA
25	609.1 - 615.1	Omaha & Bellevue, NE, Council Bluffs, IA
26	602.5 - 610.3	Bellevue, NE
27	597.7 - 602.6	Upper Bellevue Reach
28	592.4 - 597.9	Platte River
29	586.7 - 592.6	Plattsmouth, NE
30	581.5 - 586.9	Rock Bluff Bend
31	575.7 - 581.7	Pin Hook Bend
32	570.6 - 575.8	Upper Civil Bend
33	565.7 - 570.9	Upper Copeland Bend
34	561.0 - 566.0	Nebraska City, NE
35	556.0 - 561.3	Frazers Bend
36	550.7 - 556.5	Upper Hamburg Bend
37	544.5 - 550.9	Lower Barney Bend
38	539.6 - 545.0	Nishnabotna Bend
39	534.9 - 540.3	Brownville, NE
40	529.9 - 535.2	Lower Brownville Bend
41	523.7 - 530.2	Nemaha, NE
42	518.3 - 524.0	Lincoln Bend
43	513.1 - 518.4	Corning, MO
44	507.6 - 513.4	Upper Cottier Bend
45	502.3 - 508.2	Upper Arago Bend
46	497.5 - 502.6	Rulo, NE

CHART NO.	RIVER MILE	FEATURE
2	732.9	Sioux City
2	732.7	Covington
2	732.0	Scenic Park
3	725.6	Dakota City
4	721.9	Woodbury County
7	708.6	Winnebago
10	691.3	Decatur
10	690.8	Dock Memorial
12	681.0	Huff Access & Campground
13	672.7	Pelican Point State
14	669.7	Little Sioux
16	659.7	Iowa Access
17	654.3	Tysons Bend Access
18	648.4	Blair Optimist Park
19	641.0	Wilson Island
22	627.3	Dodge Park 1
22	627.3	Dodge Park 2
24	619.2	The Narrows River Access
24	617.9	Anchor Inn
26	607.4	Lake Manawa
27	601.0	Haworth Park
29	591.5	Plattsmouth
31	580.8	Shenandoah Boat Access
34	563.2	Riverview Park
36	554.5	Hamburg
38	542.1	Peru Boat Access
40	535.0	Brownville
40	530.6	Langdon Access
43	518.3	Indian Cave State Park
44	508.7	Thurnau Wildlife

10 0 10 20 30 Miles

10 0 10 20 30 Miles

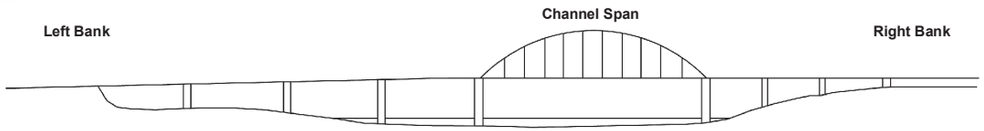

N
South Dakota
Iowa
Sioux City
McCook Lake Bend
96° 32' 00"
96° 28' 00"
42° 30' 00"
96° 30' 00"
739
738
737
736
735
29
12
Woodbury County
Union County
Big Sioux River
Upper Sioux City Bend
Dakota County
Elm Creek
Big Sioux Bend
Nebraska
CHART NO. 2



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

1

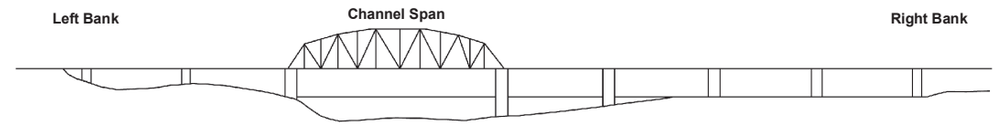


Sioux City
Highway Bridge

Mile 732.4

CLEARANCES: Horizontal, 415.0 feet;
vertical, 57.8 feet above zero on Sioux City
W.B. gage at Mile 732.3.

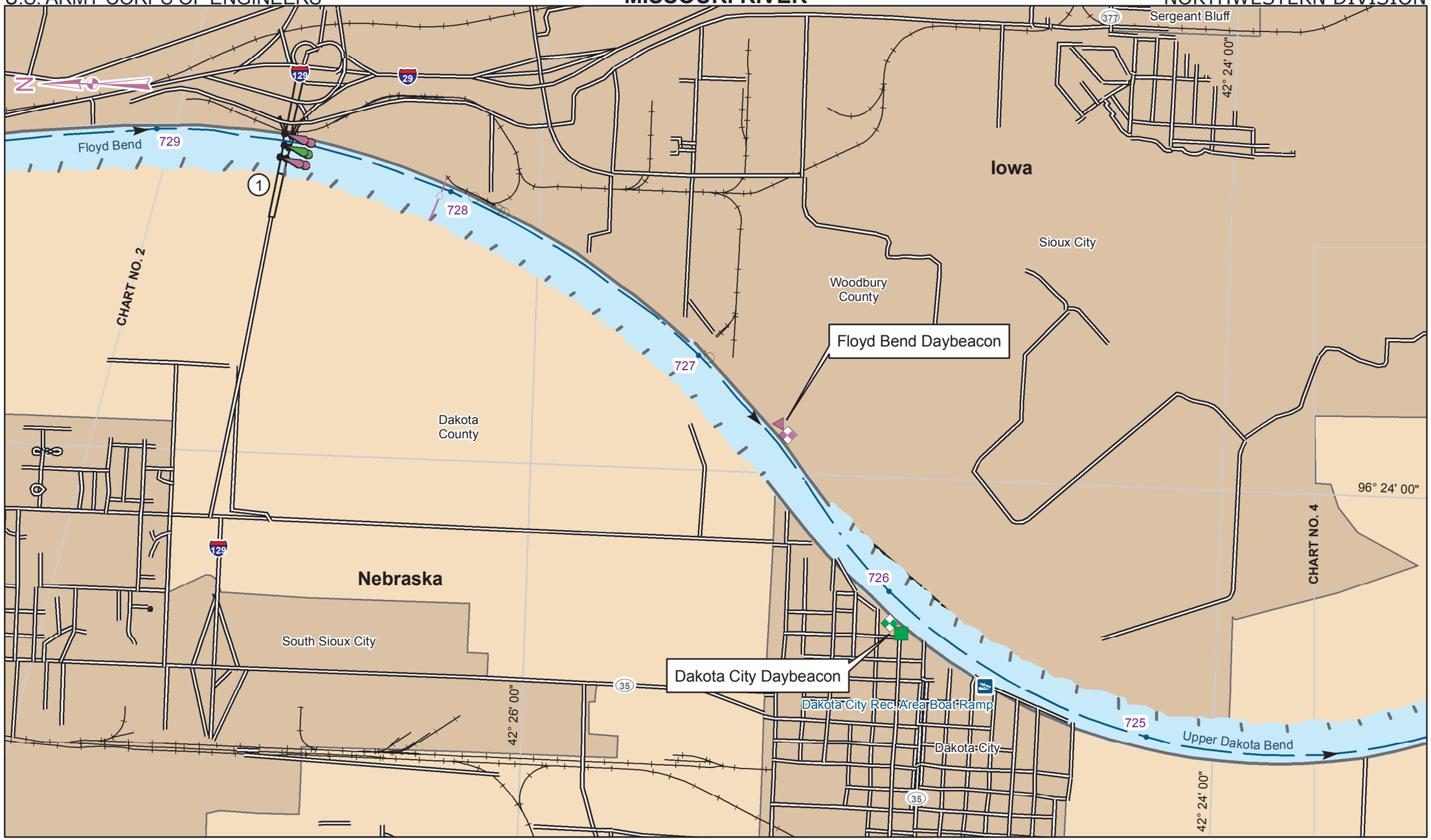
2



B. N. R.R. Bridge

Mile 730.5

CLEARANCES: Horizontal, 400.0 feet;
vertical, 61.0 feet above zero on Sioux City
W.B. gage at mile 732.3.



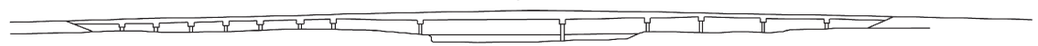
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

1

Left Bank

Right Bank

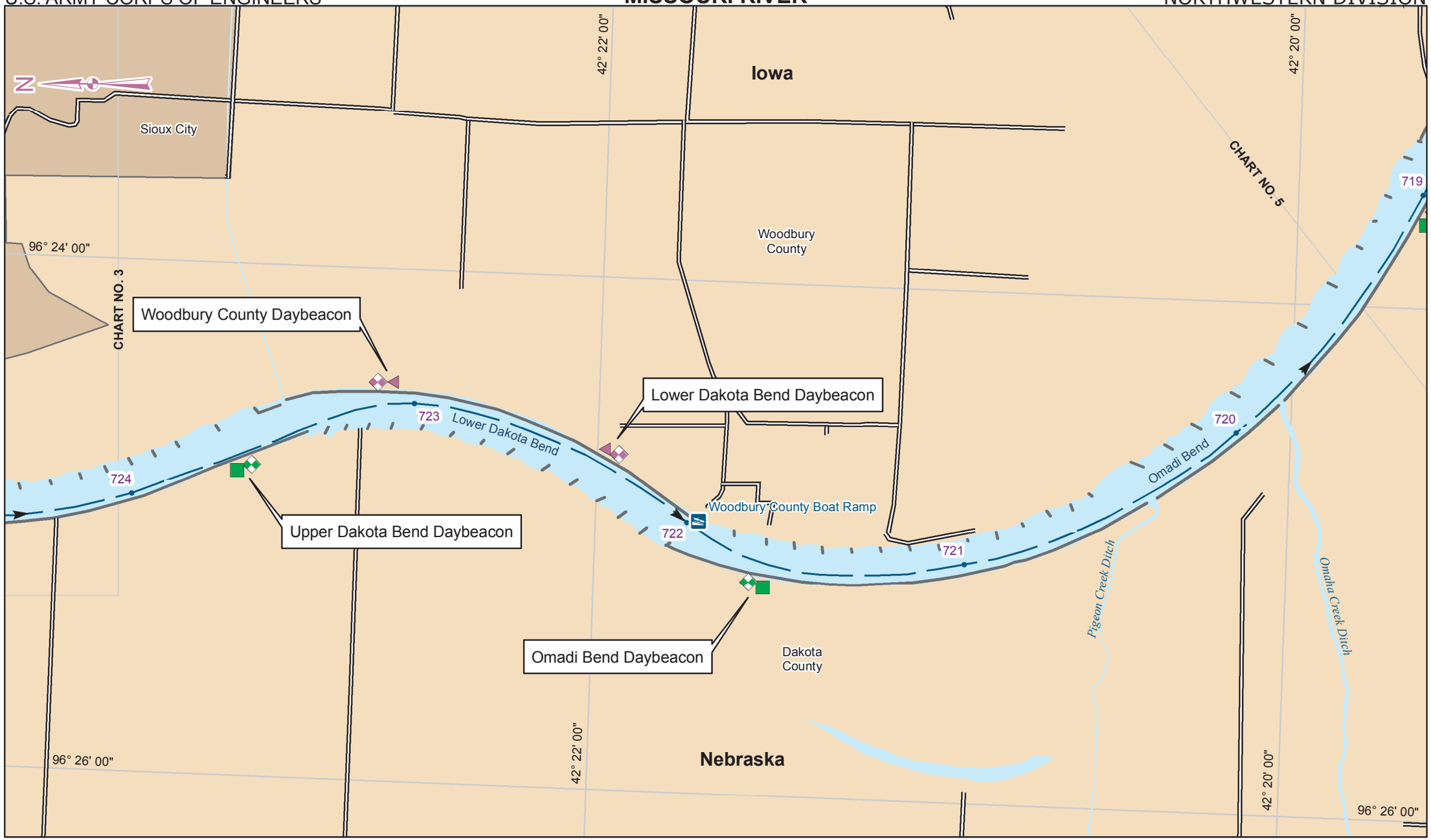
Channel Span



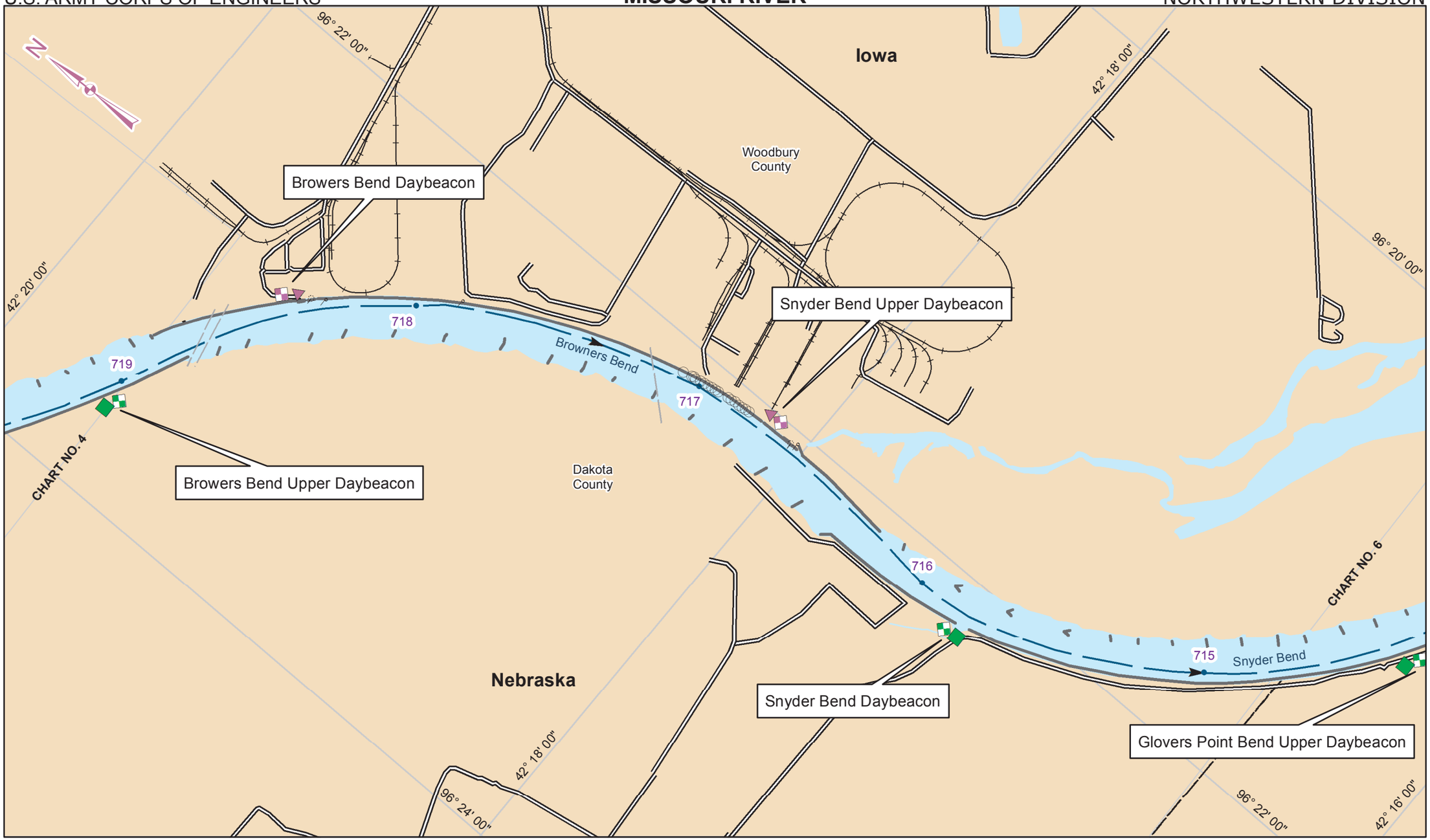
Sergeant Floyd Bridge

Mile 728.6

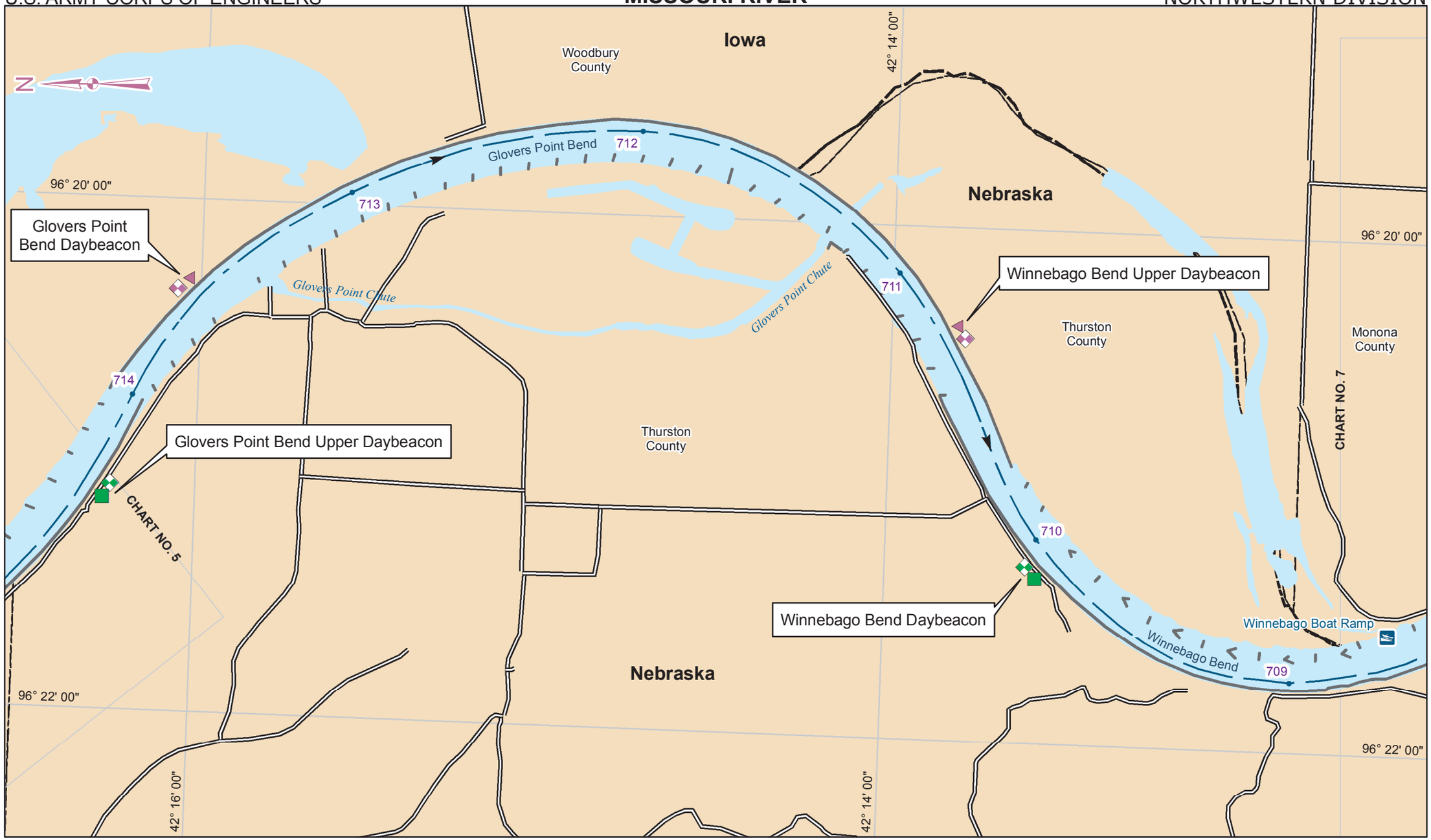
CLEARANCES: Minimum 52.0 feet; horizontal, 400.0 feet between right descending channel pier and left bank revetment; vertical, for mid-350 feet of channel span, 57.5 feet above zero on Sioux City W.B. gage at mile 732.3.



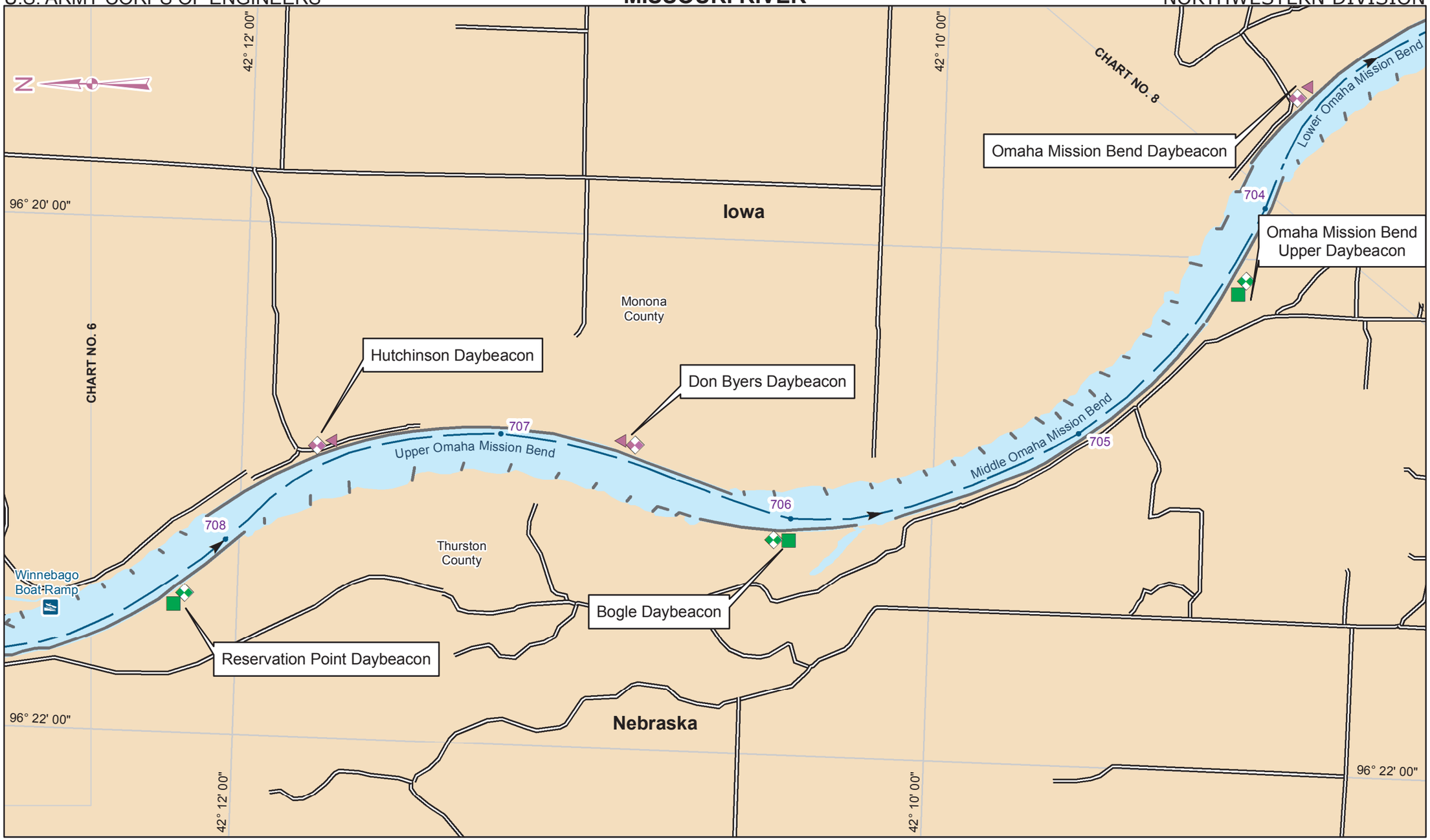
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

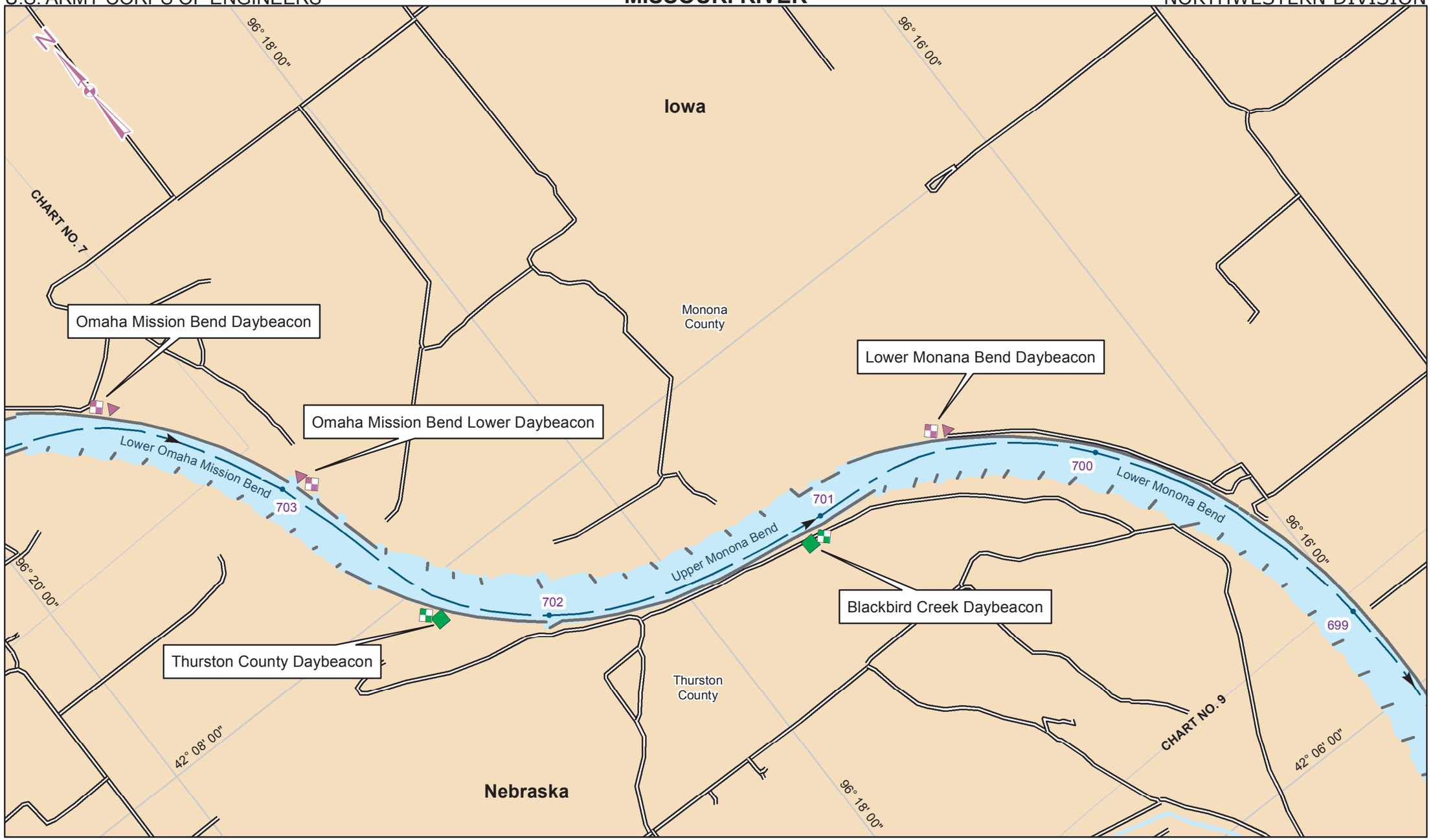


SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



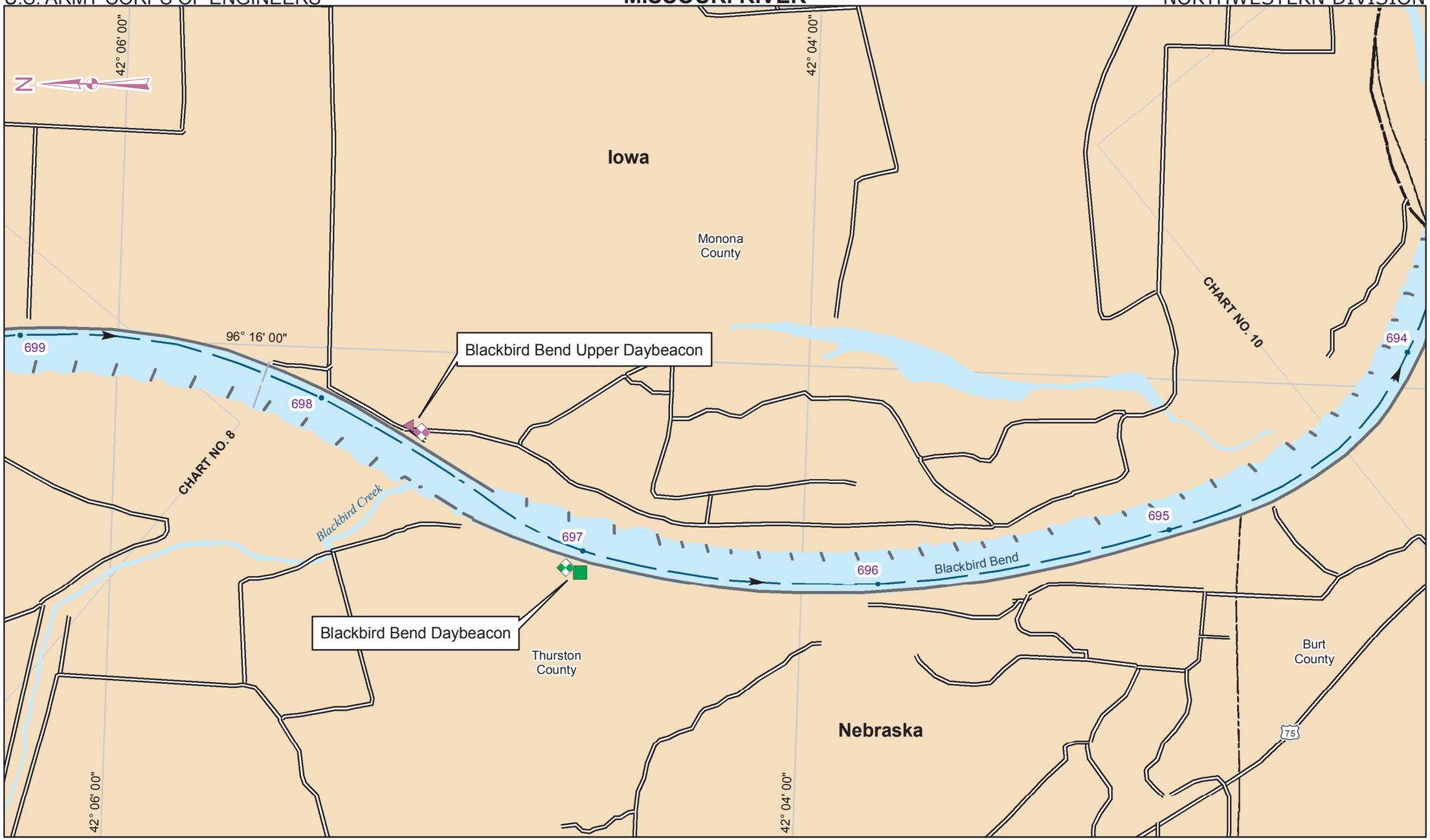
SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

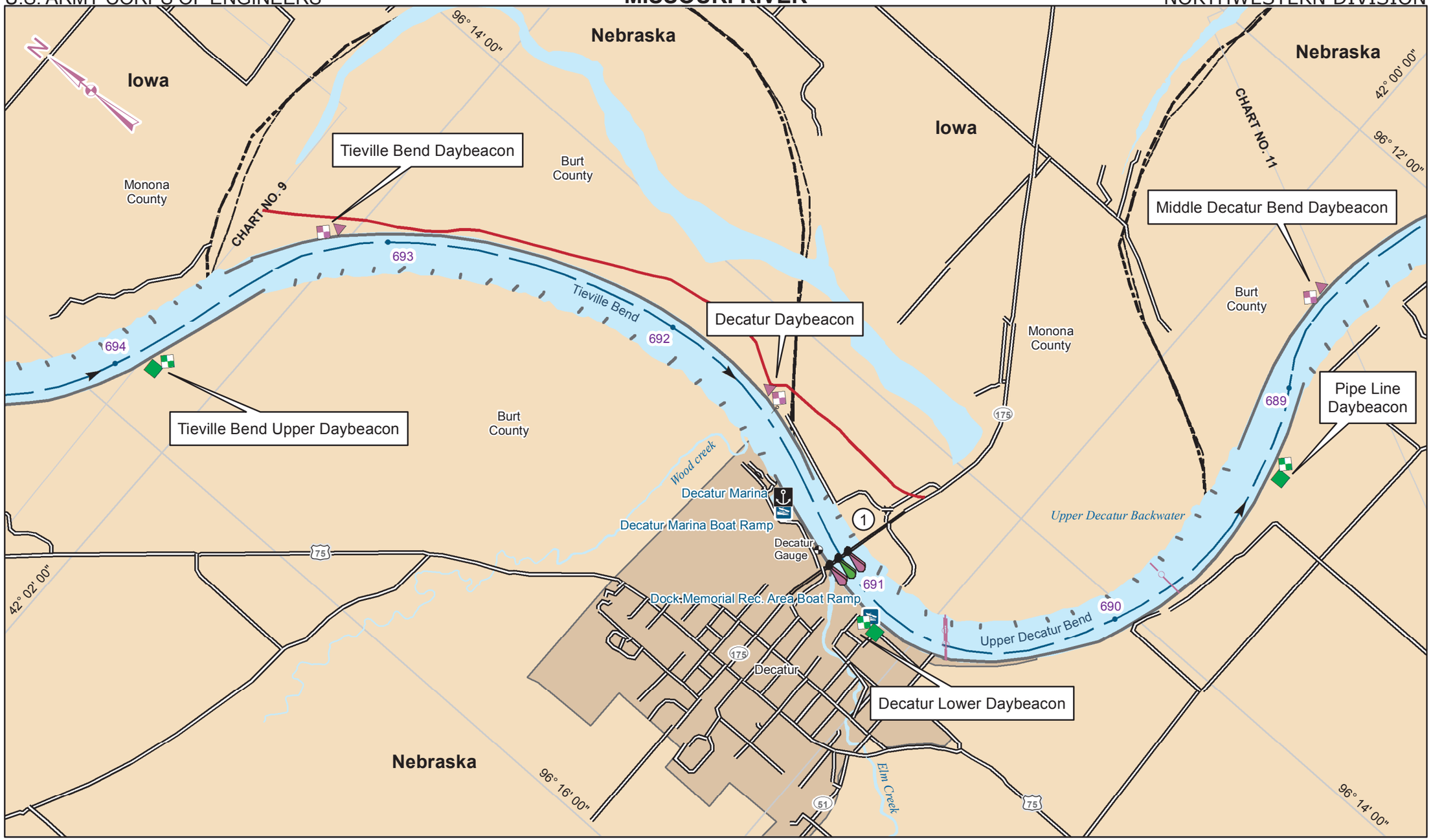


SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



REVISED JULY 2011

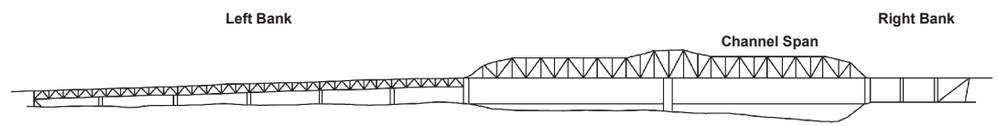
SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

CHART NO. 10

River Mile 688.3 to 694.3

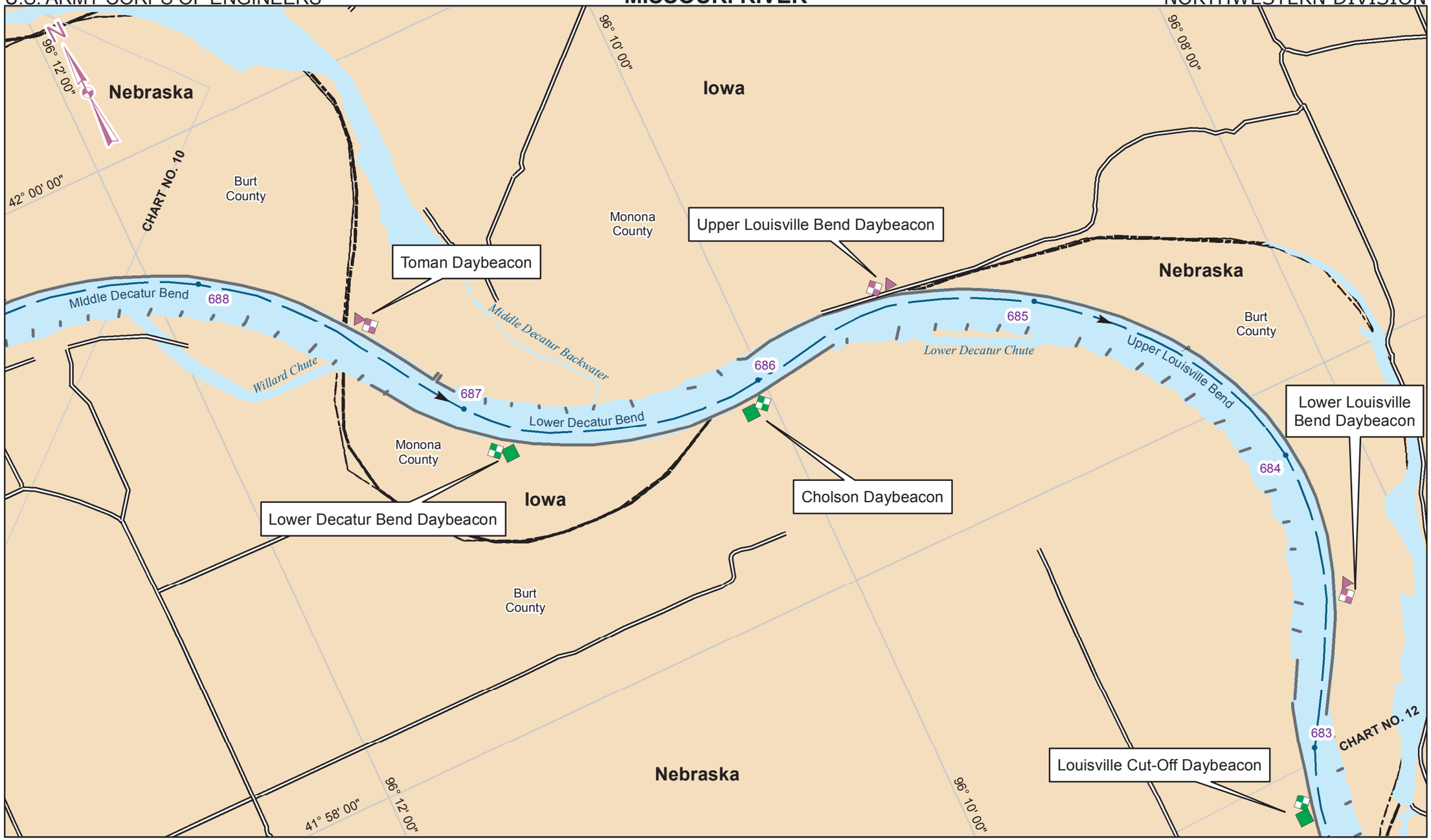
1



Decatur Bridge

Mile 691.0

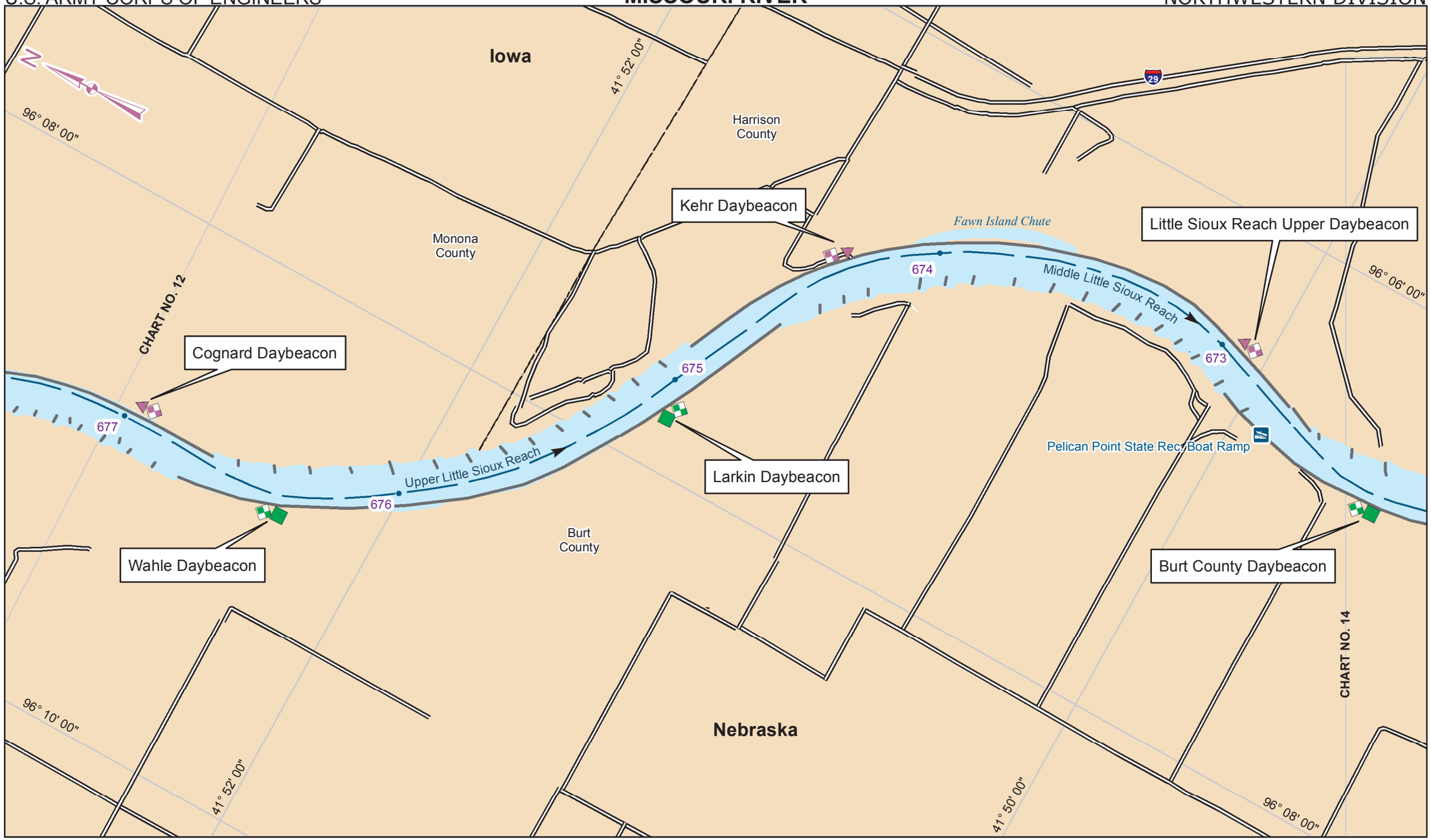
CLEARANCES: Horizontal, both channel spans, 400.0 feet; vertical, 66.0 feet above zero on gage of this bridge.



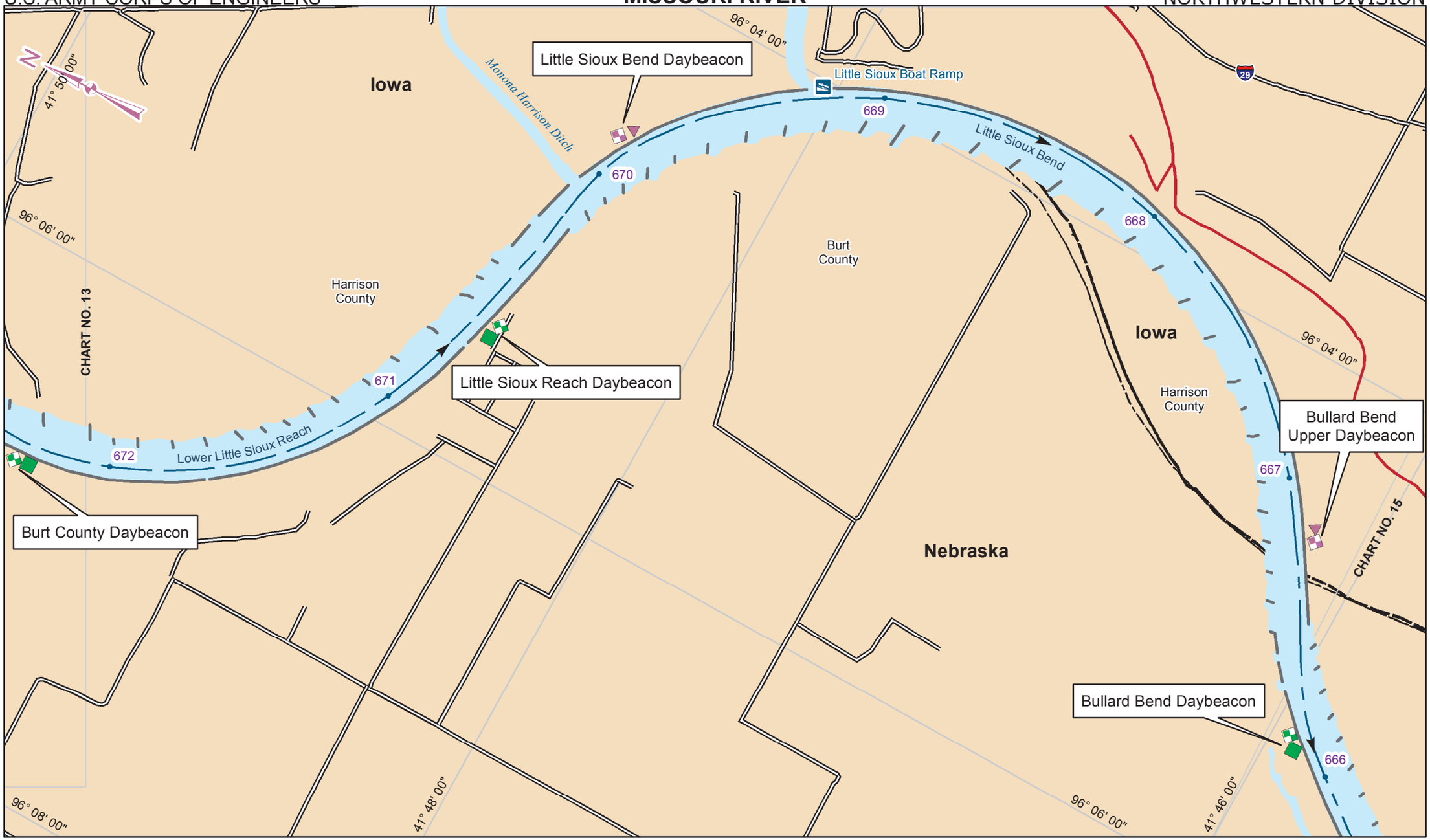
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

SCALE : 1" = 2000'

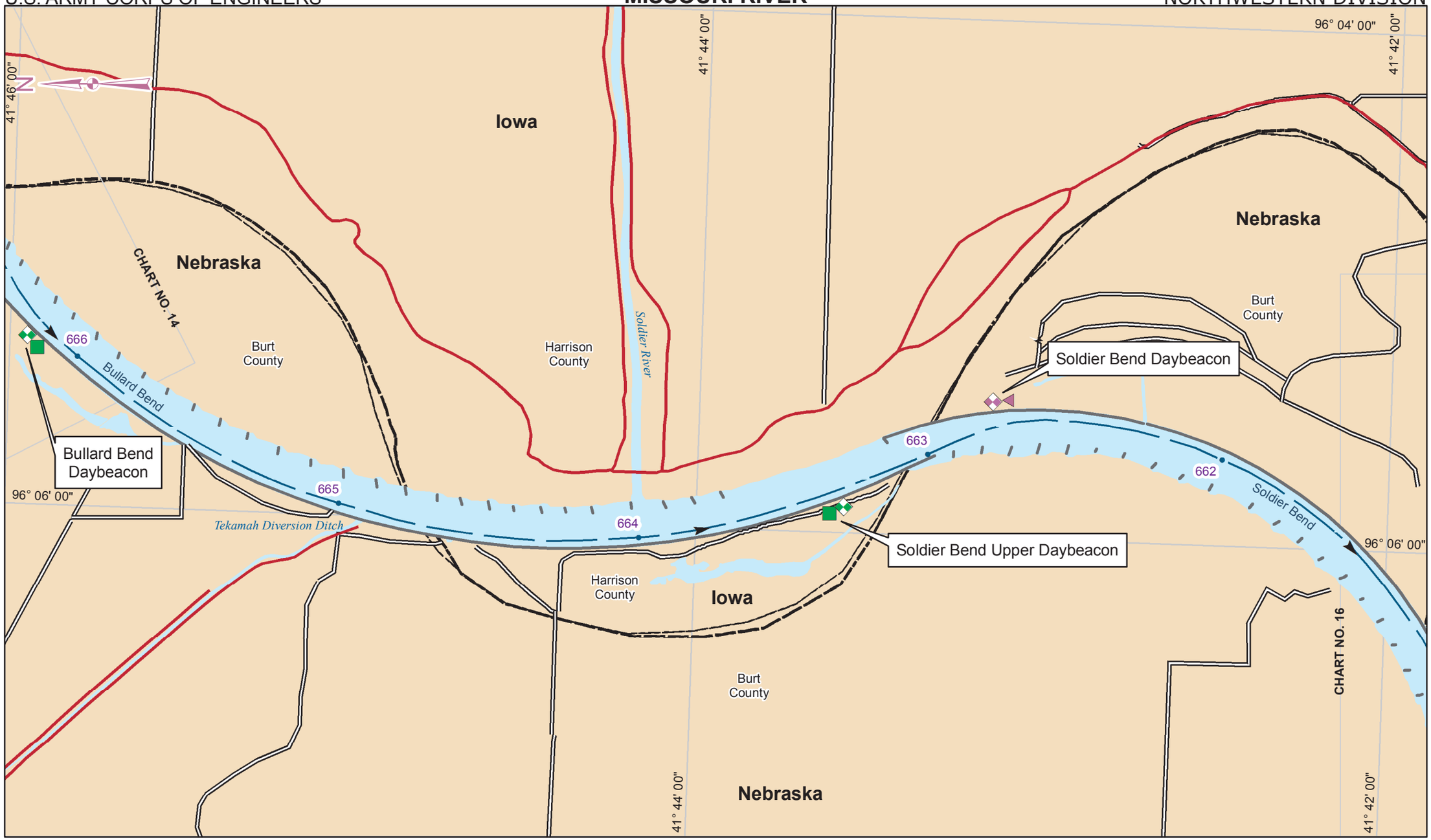
1,000 0 1,000 2,000 3,000 Feet

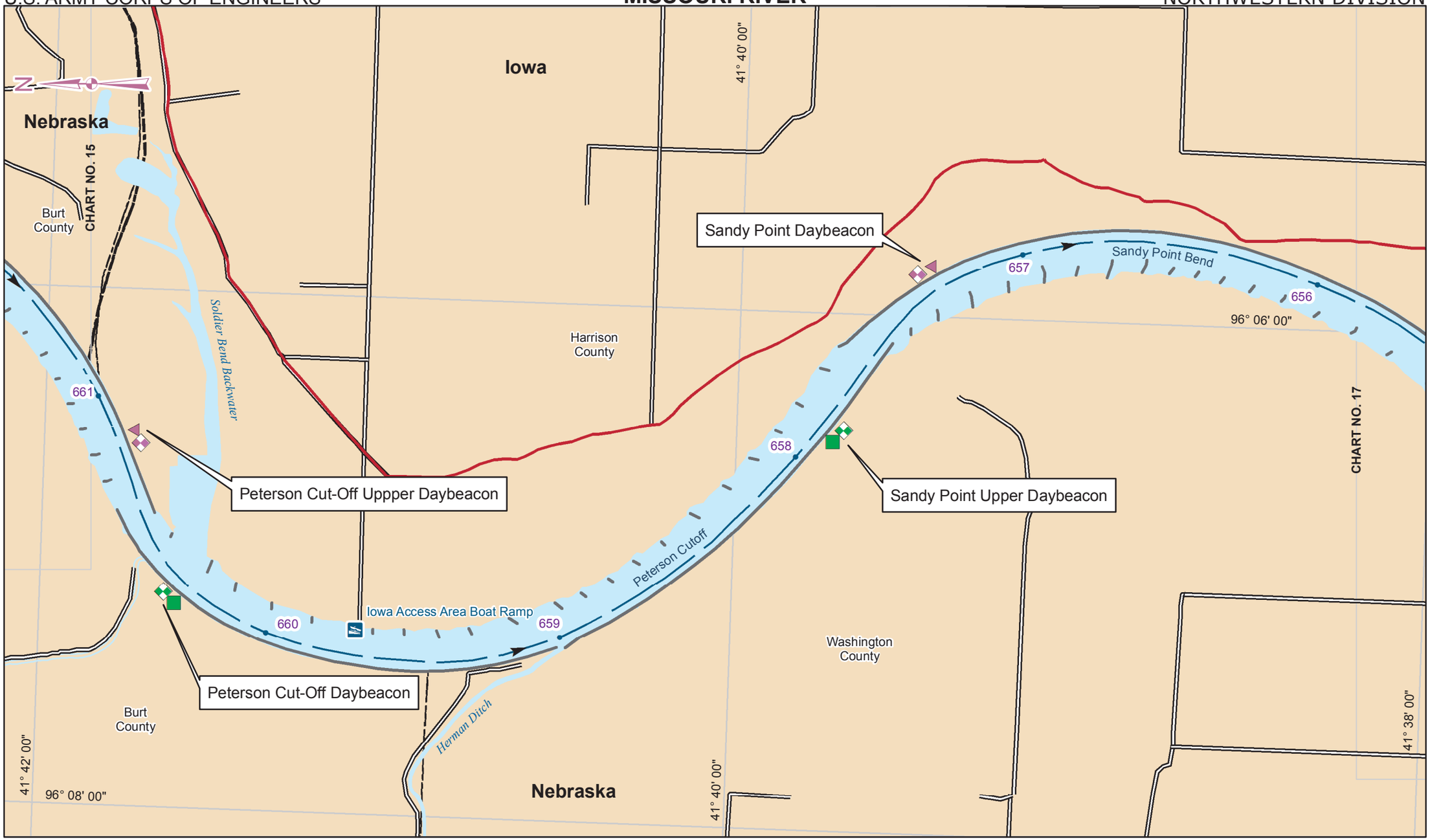


SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

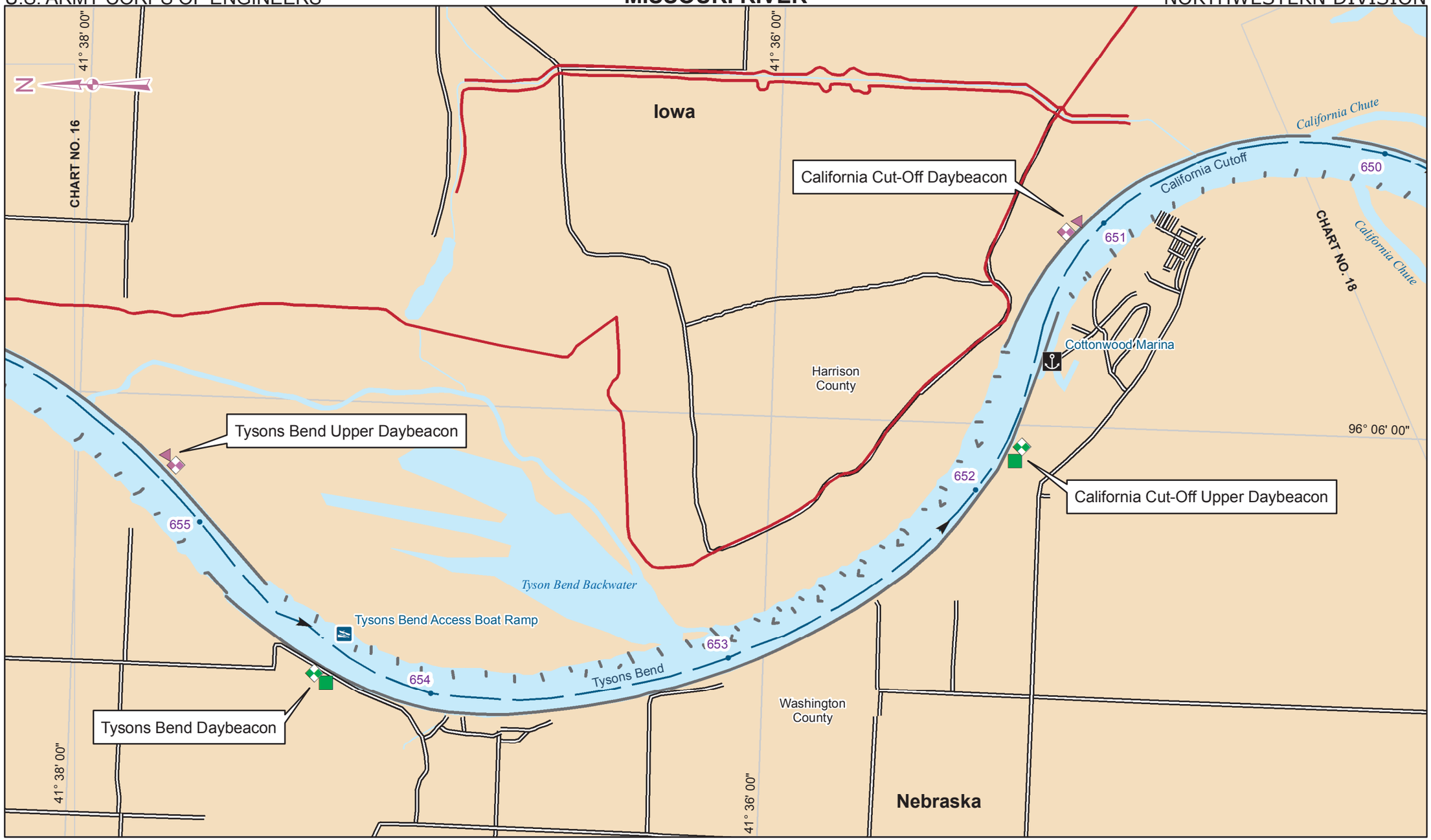


SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

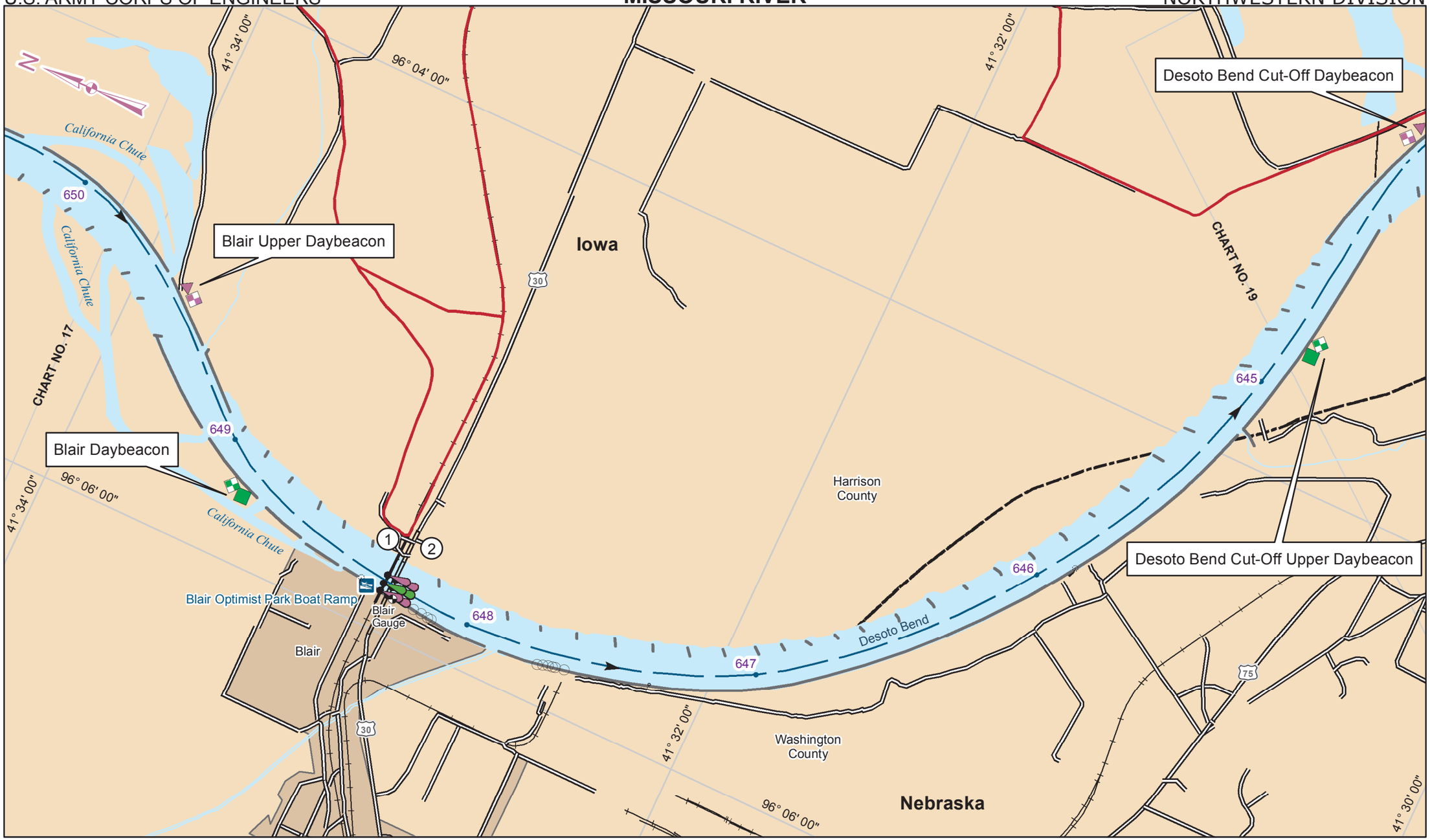

Iowa
Nebraska
Nebraska
Burt County
Harrison County
Soldier River
Burt County
Harrison County
Iowa
Burt County
Nebraska
CHART NO. 14
CHART NO. 16
Bullard Bend
Soldier Bend
Tekamah Diversion Ditch
666
665
664
663
662
Bullard Bend Daybeacon
Soldier Bend Daybeacon
Soldier Bend Upper Daybeacon
41° 46' 00"
41° 44' 00"
41° 42' 00"
96° 04' 00"
96° 06' 00"
96° 06' 00"
41° 44' 00"
41° 42' 00"



SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



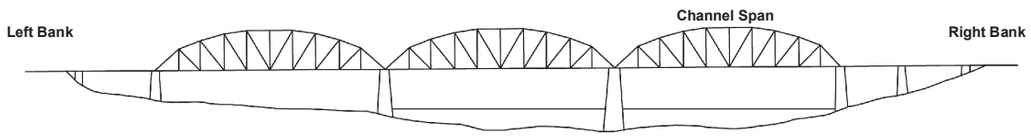
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

1

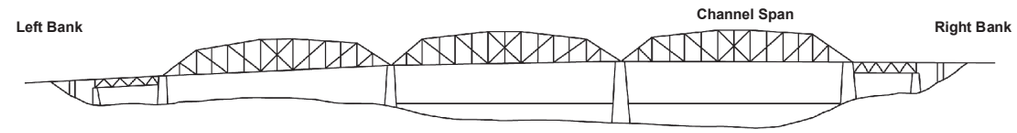


C. & N. W. R.R. Bridge

Mile 648.3

CLEARANCES: Horizontal, channel spans, right, 318.0 feet, center, 321.0 feet, left, 319.0 feet; vertical, 64.7 feet above zero on Blair W.B. gage on this bridge.

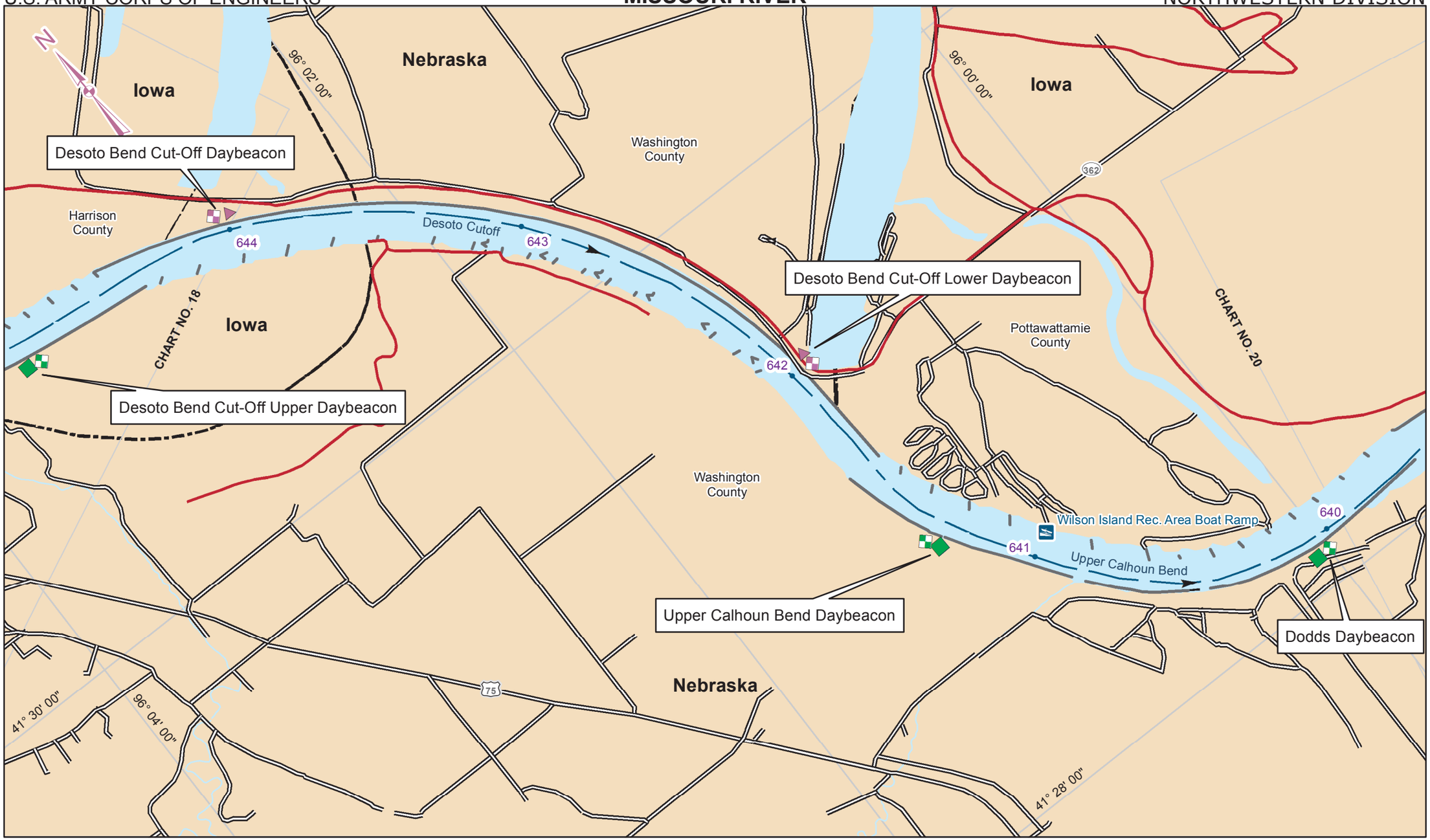
2



Blair (U.S. 30) Highway Bridge

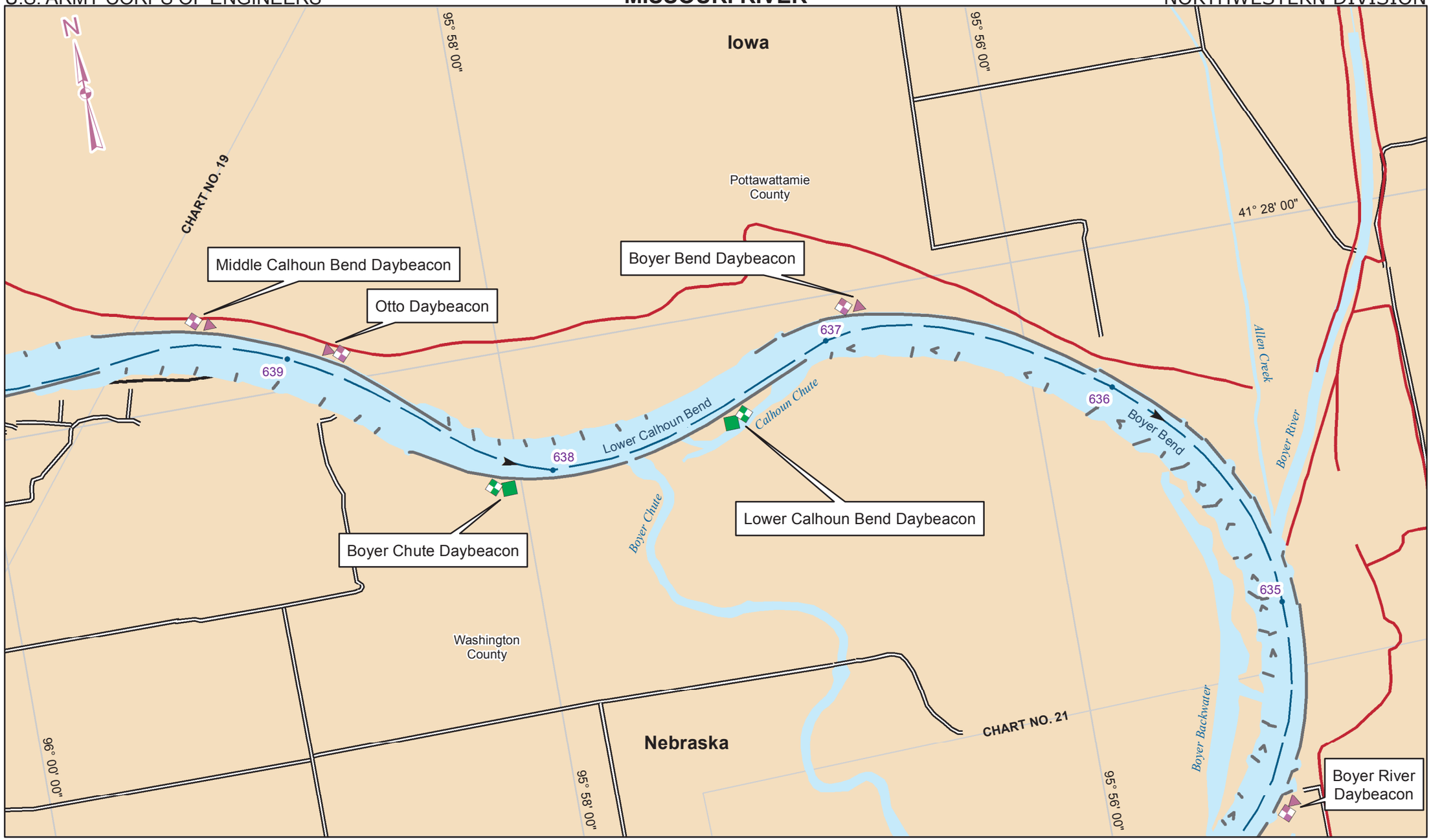
Mile 648.3

CLEARANCES: Horizontal, 325.0 feet; vertical, 52.2 feet minimum for mid-274 feet above elev. 1003.0 feet m.s.l., 2% flowline, 68.9 feet minimum for mid-274 feet above elev. 986.3 feet, m.s.l., standard low water.

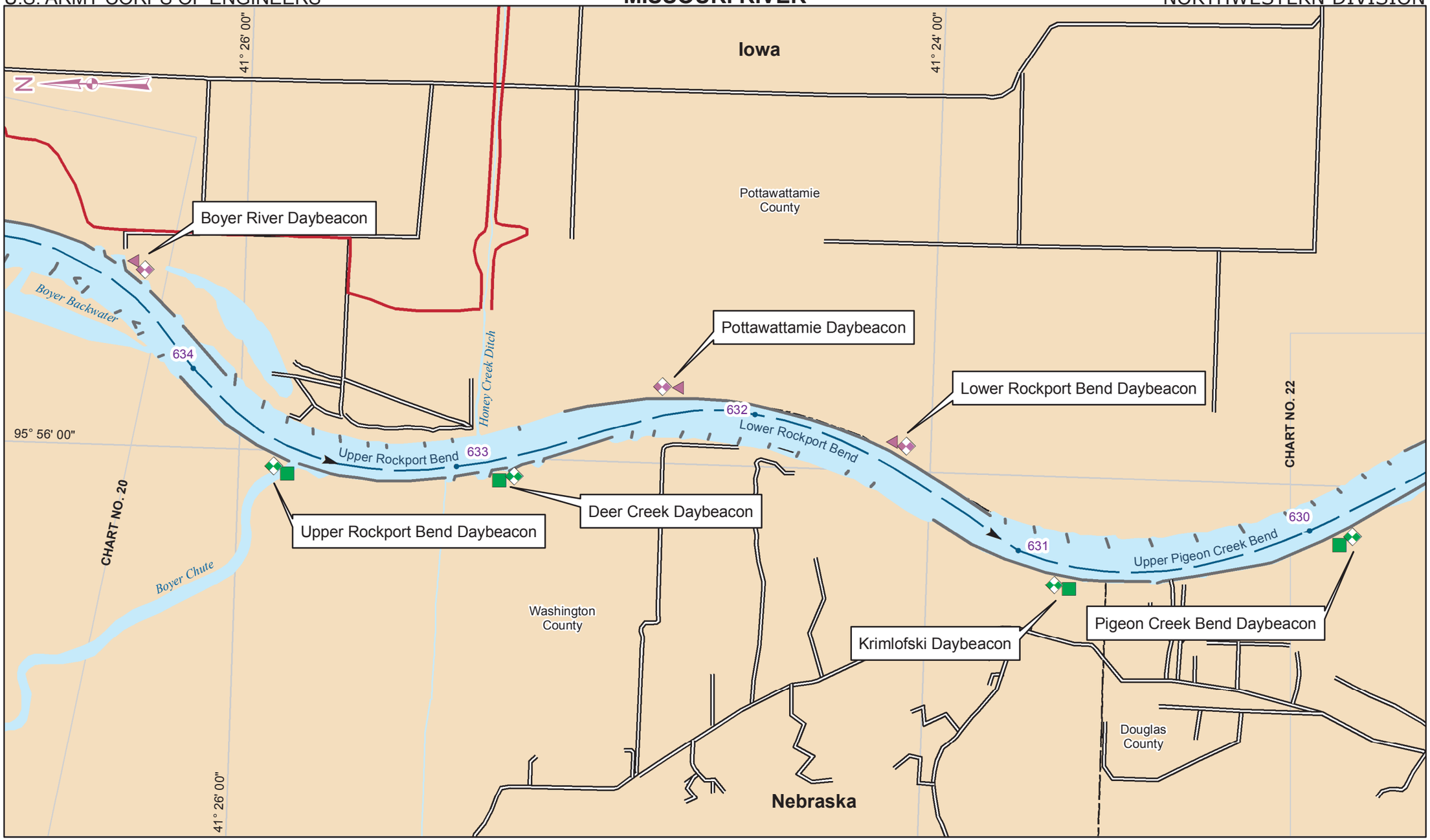


SCALE : 1" = 2000'

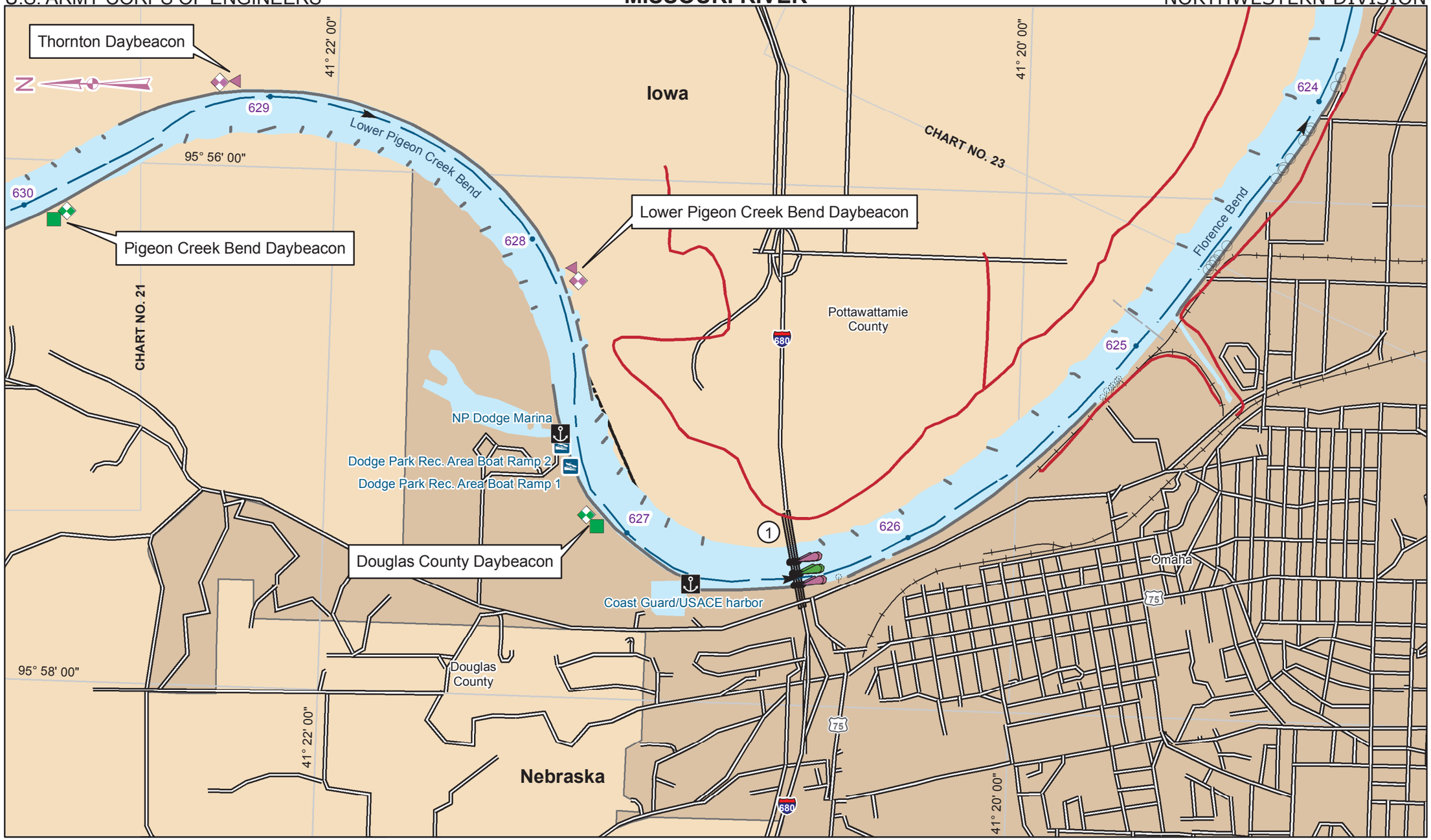
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



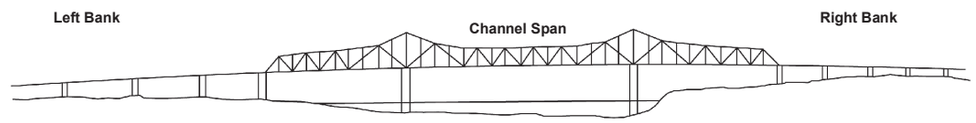
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

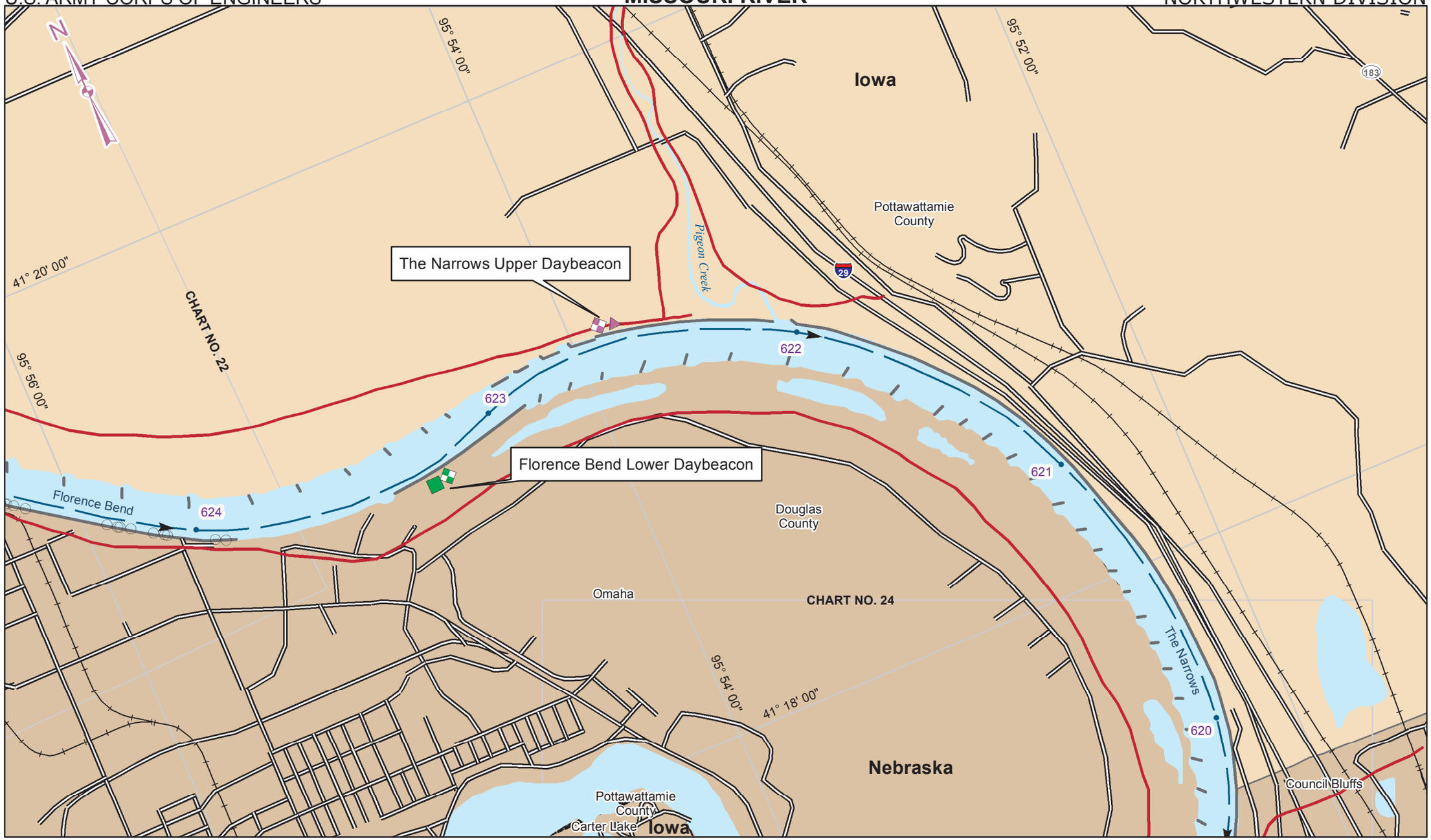
1



Mormon Trails Dual Highway Bridge

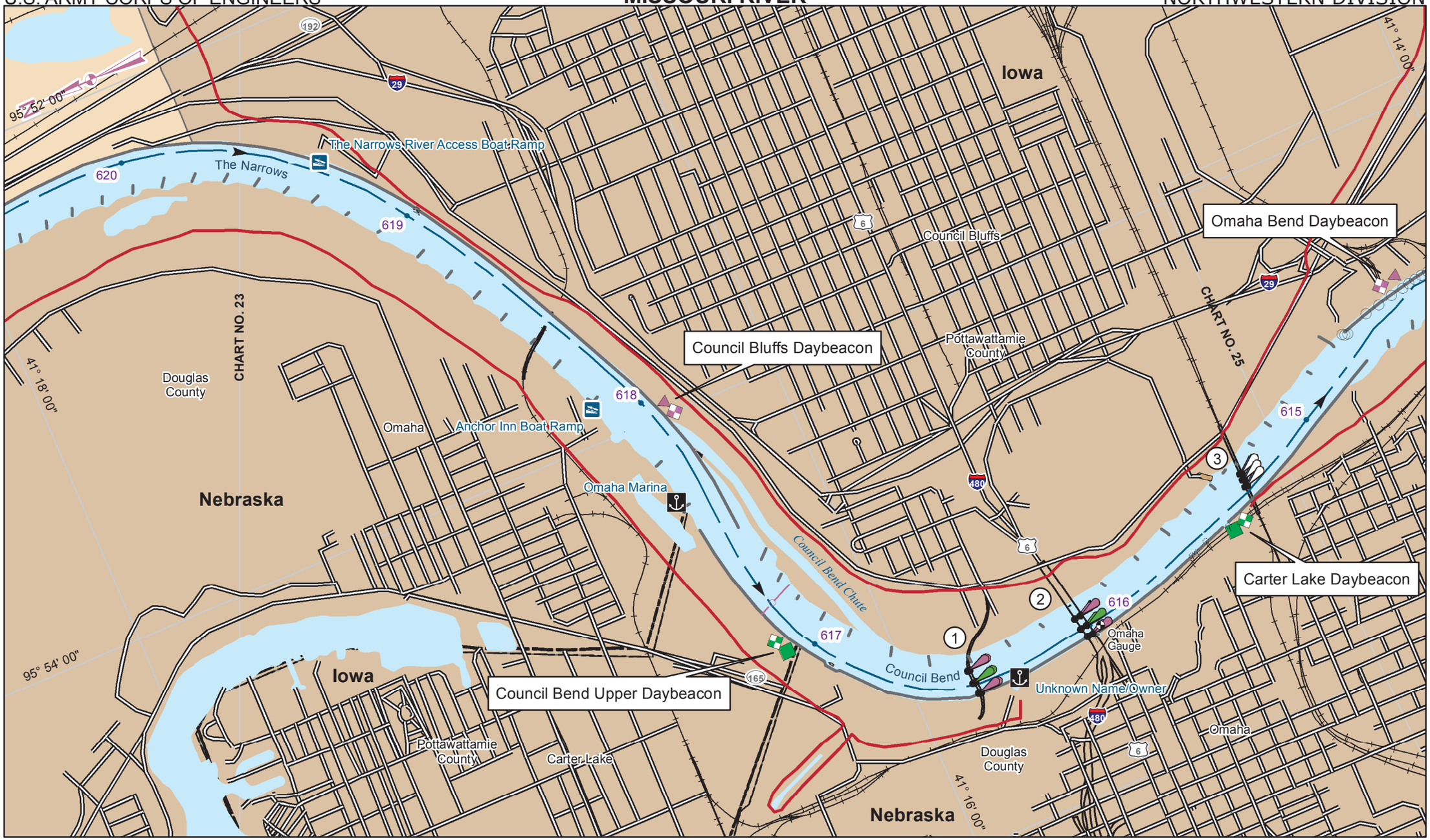
Mile 626.5

CLEARANCES: Horizontal, 402.5 feet; vertical, 74.9 feet for mid-350.0 feet of channel span above zero on Omaha W.B. gage at mile 615.9.



SCALE : 1" = 2000'

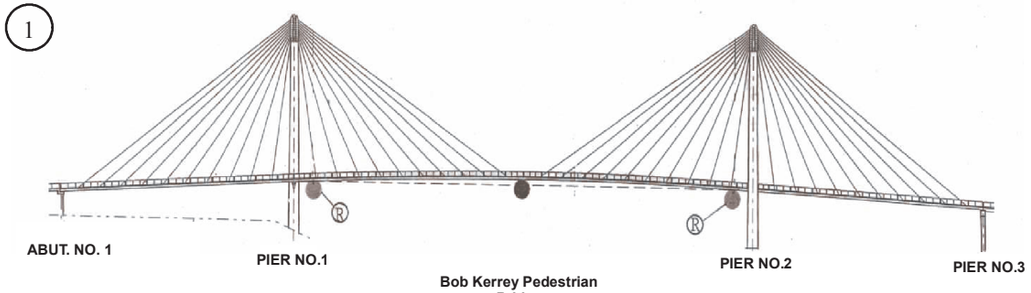
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

1

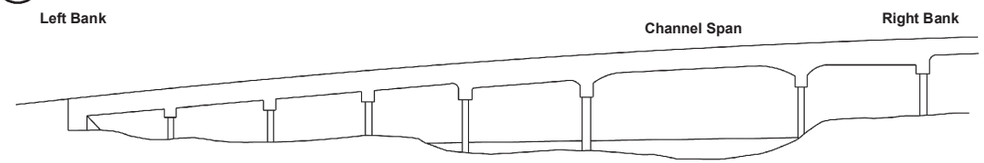


Bob Kerrey Pedestrian Bridge

Mile 617.0

CLEARANCES: Horizontal, 484.8 feet; Vertical 77.4 feet above zero on Omaha W.B. gauge at mile 615.9

2

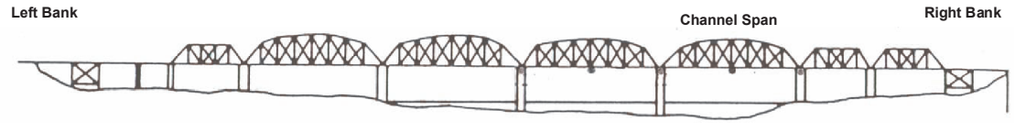


I-480 Bridge

Mile 615.9

CLEARANCES: Horizontal, 400.0 feet; vertical, 62.1 feet above zero on Omaha W.B. gage at this mile.

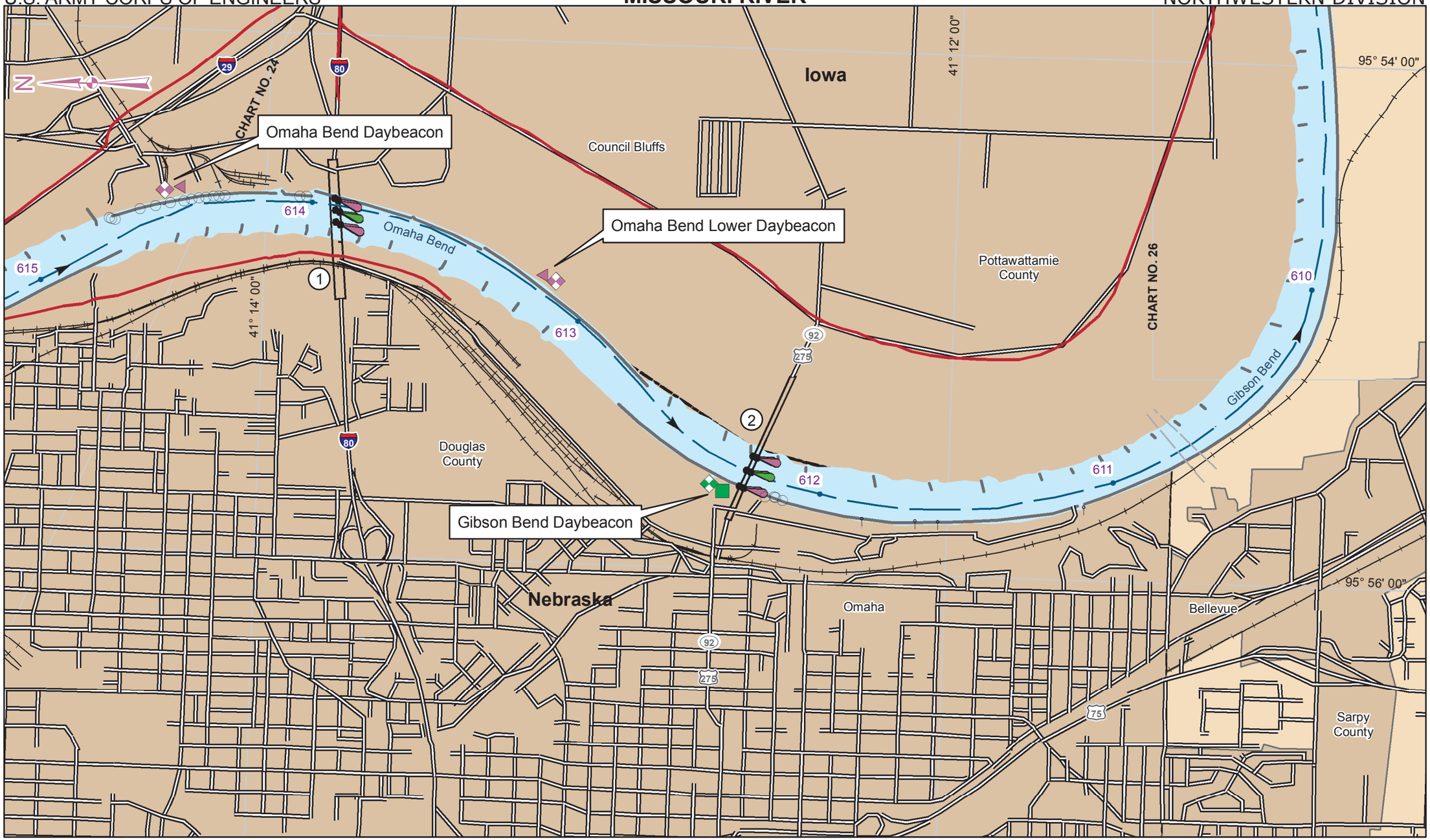
3



Union Pacific Railroad Bridge

Mile 615.2

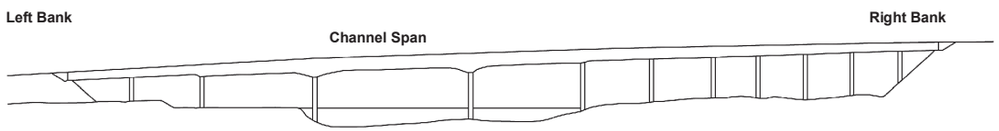
CLEARANCES: Horizontal, channel spans, 238.0 feet; vertical, 68.2 feet above zero on Omaha W.B. gage at mile 615.9.



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

1



I-80 Bridge

Mile 613.9

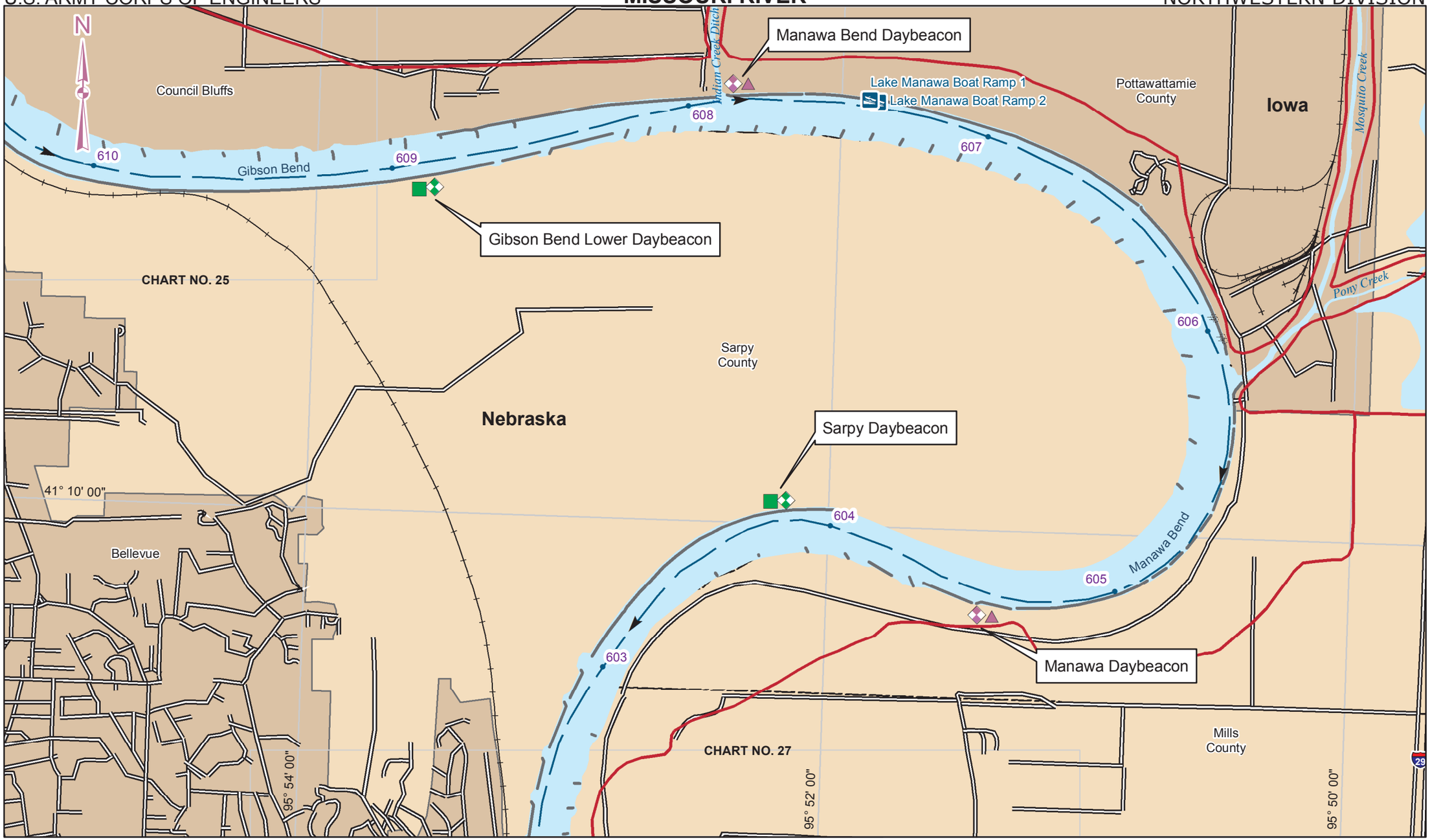
CLEARANCES: Horizontal, 400.0 feet; vertical, 62.7 feet for mid-350 feet above zero on Omaha W.B. gage at mile 615.9.

2

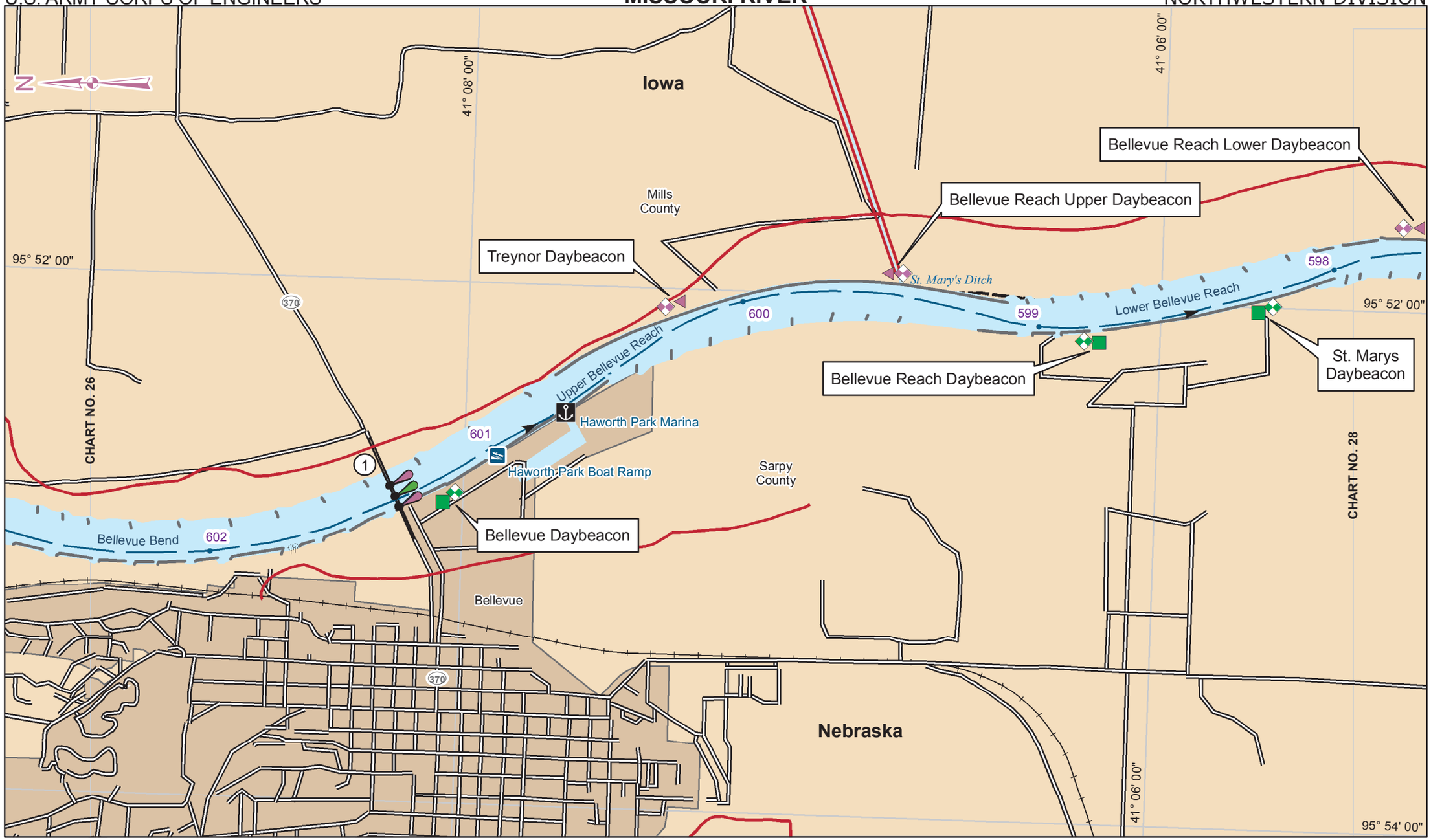
South Omaha Veterans Memorial Bridge

Mile 612.2

CLEARANCES: Horizontal, 617.0 feet; vertical, 72.0 feet above zero on W.B. gage at mile 615.9 (zero = 948.2 M.S.L.)

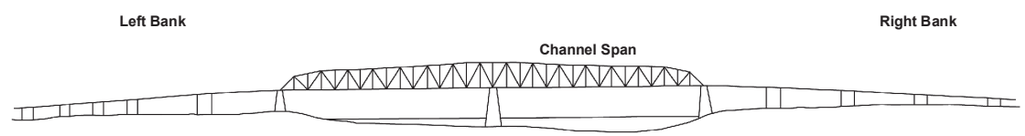


SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

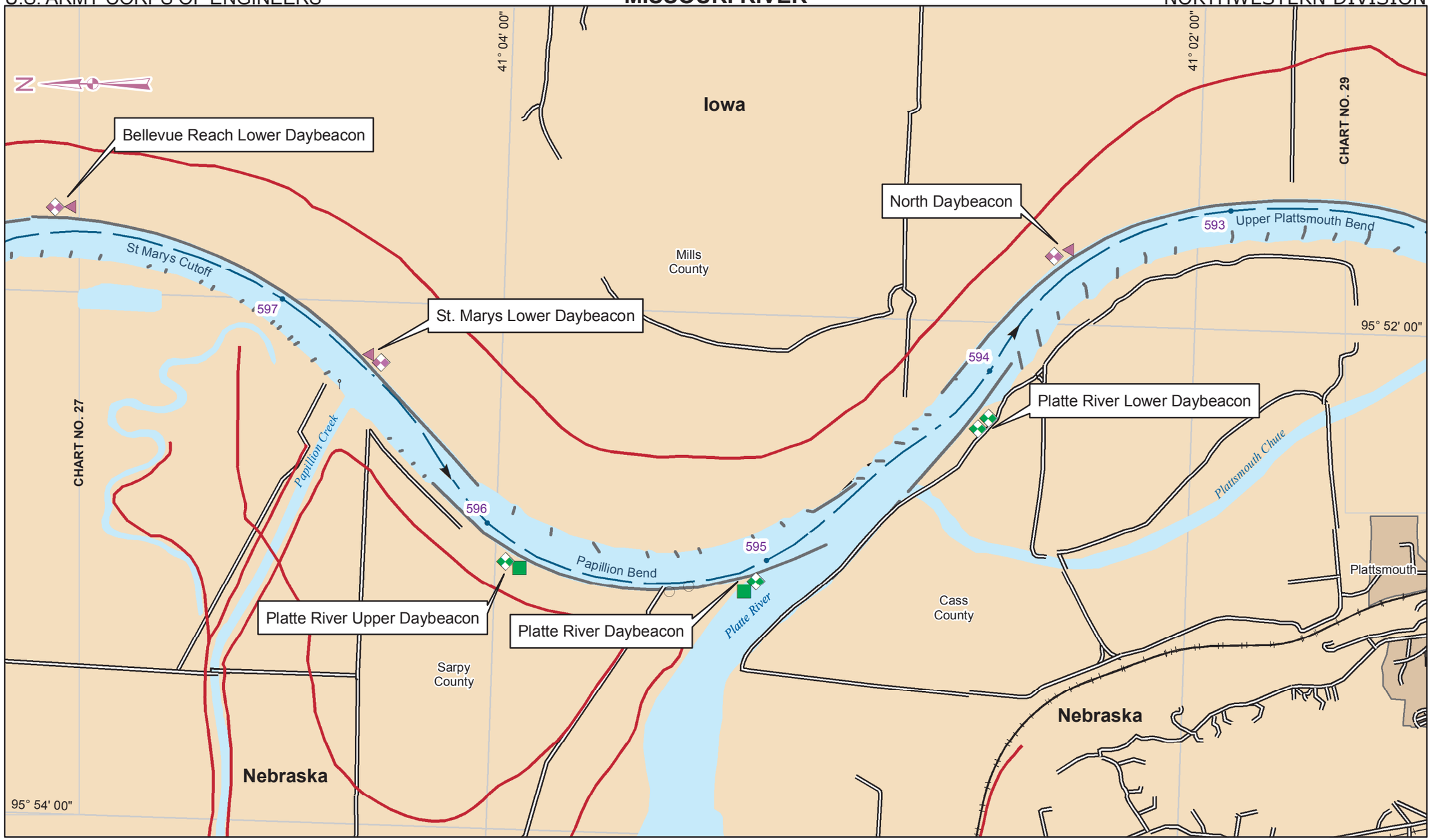
1



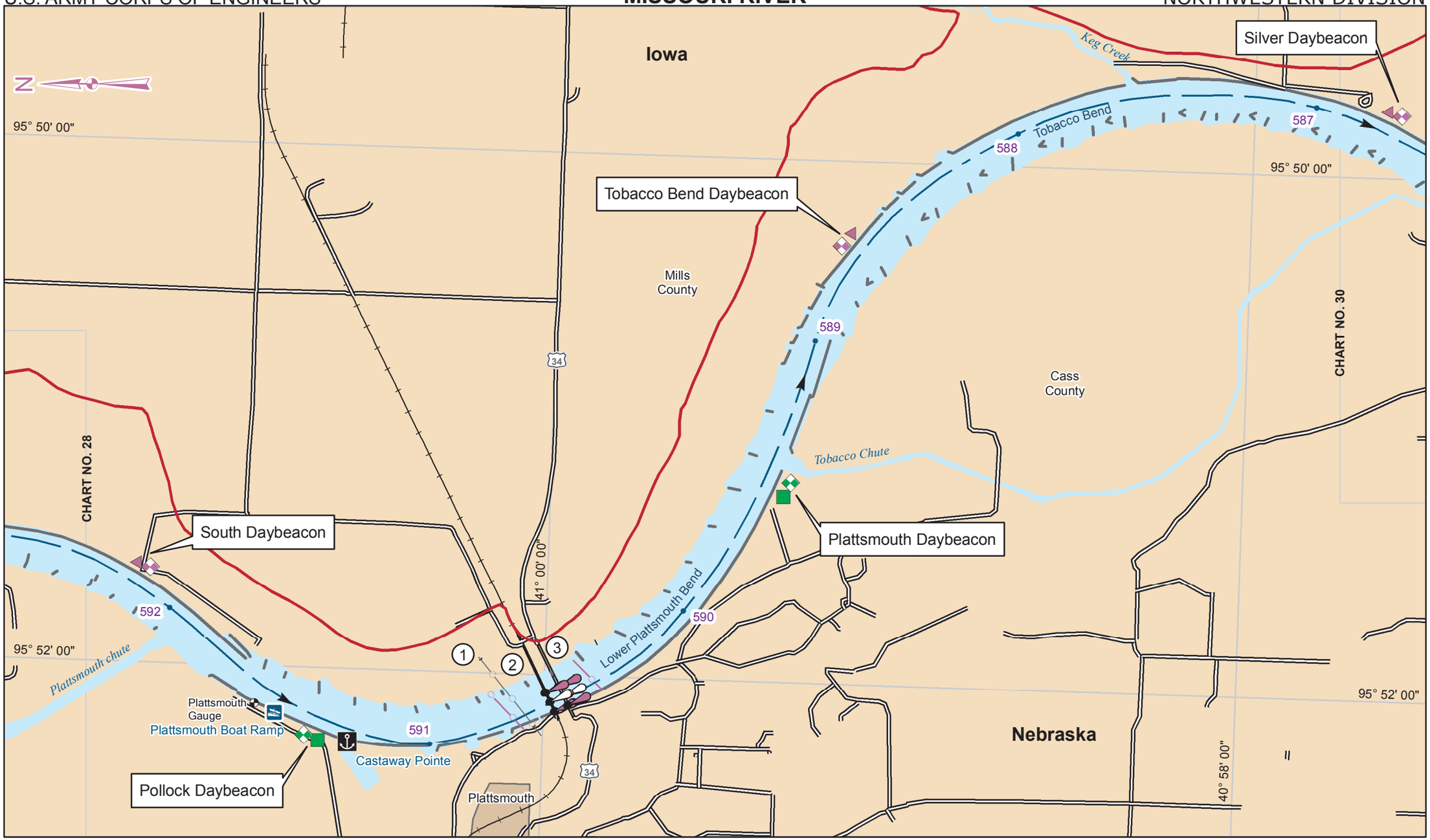
Bellevue Bridge

Mile 601.4

CLEARANCES: Horizontal, channel spans, 400.0 feet; vertical, 57.0 feet above zero on W.B. gage at mile 615.9.



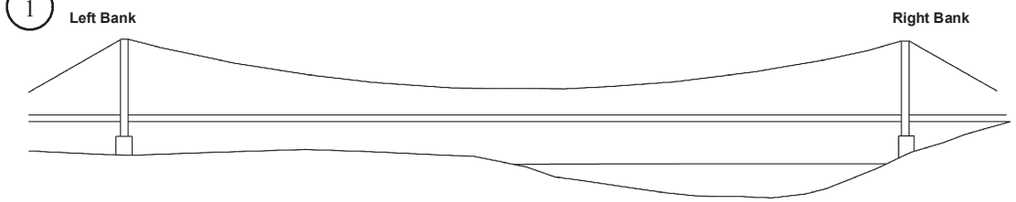
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

1

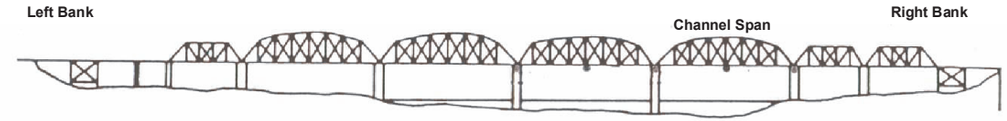


Northern Natural Gas Pipe Line Bridge

Mile 590.7

CLEARANCES: Horizontal, 1,500.0 feet between piers, 700.0 feet available channel clearance at mid span; vertical 123.0 feet above zero on gage at Plattsmouth Highway bridge.

2

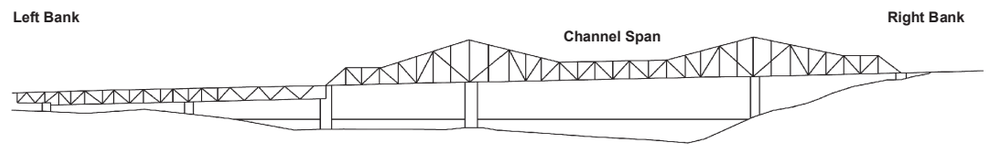


Burlington Northern Railroad Bridge

Mile 590.6

CLEARANCES: Horizontal, 385.0 feet; vertical, 107.9 feet above zero on gage at Plattsmouth Highway Bridge, 53.6 feet above 2% flowline.

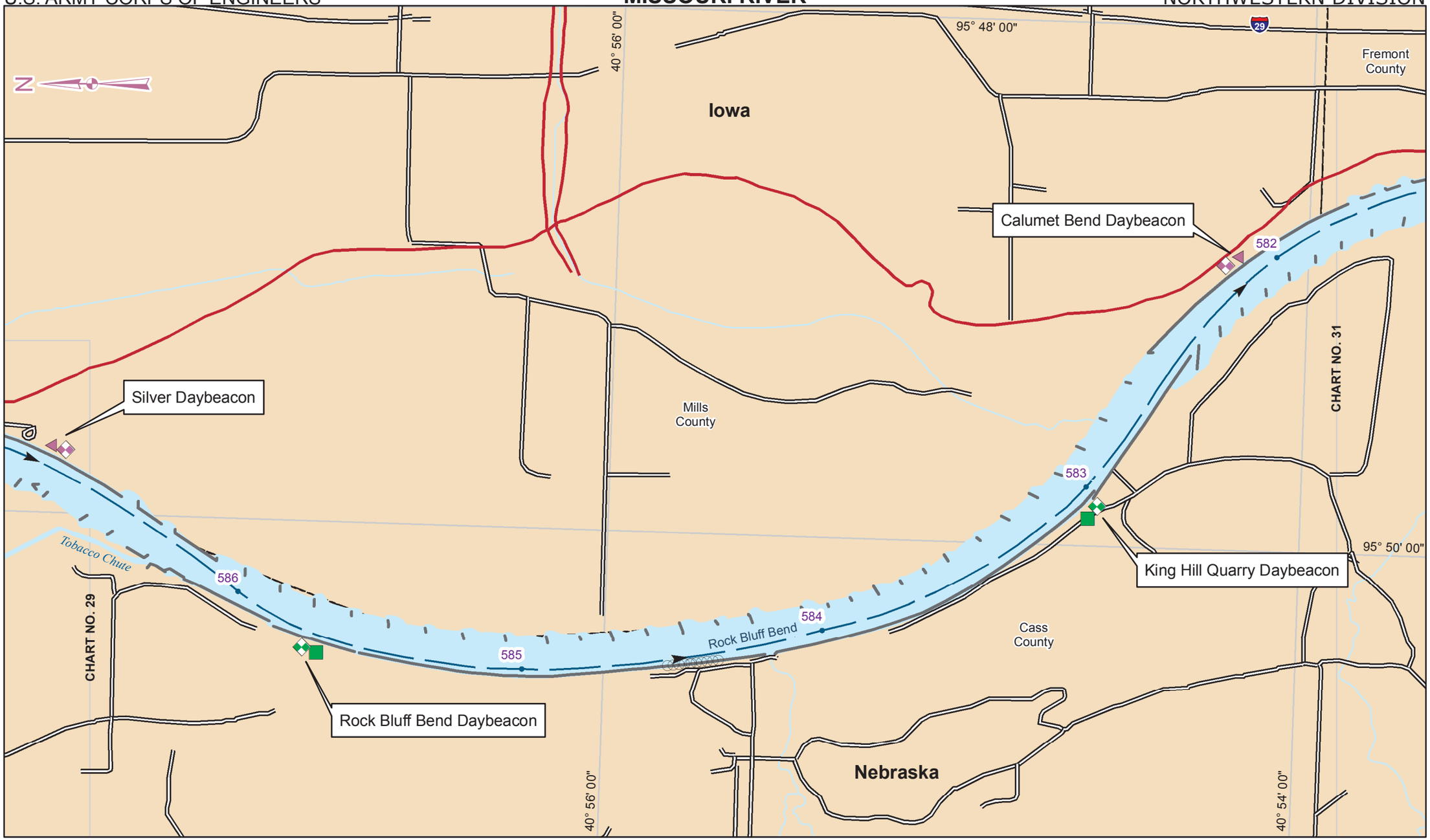
3



Plattsmouth Highway Bridge

Mile 590.5

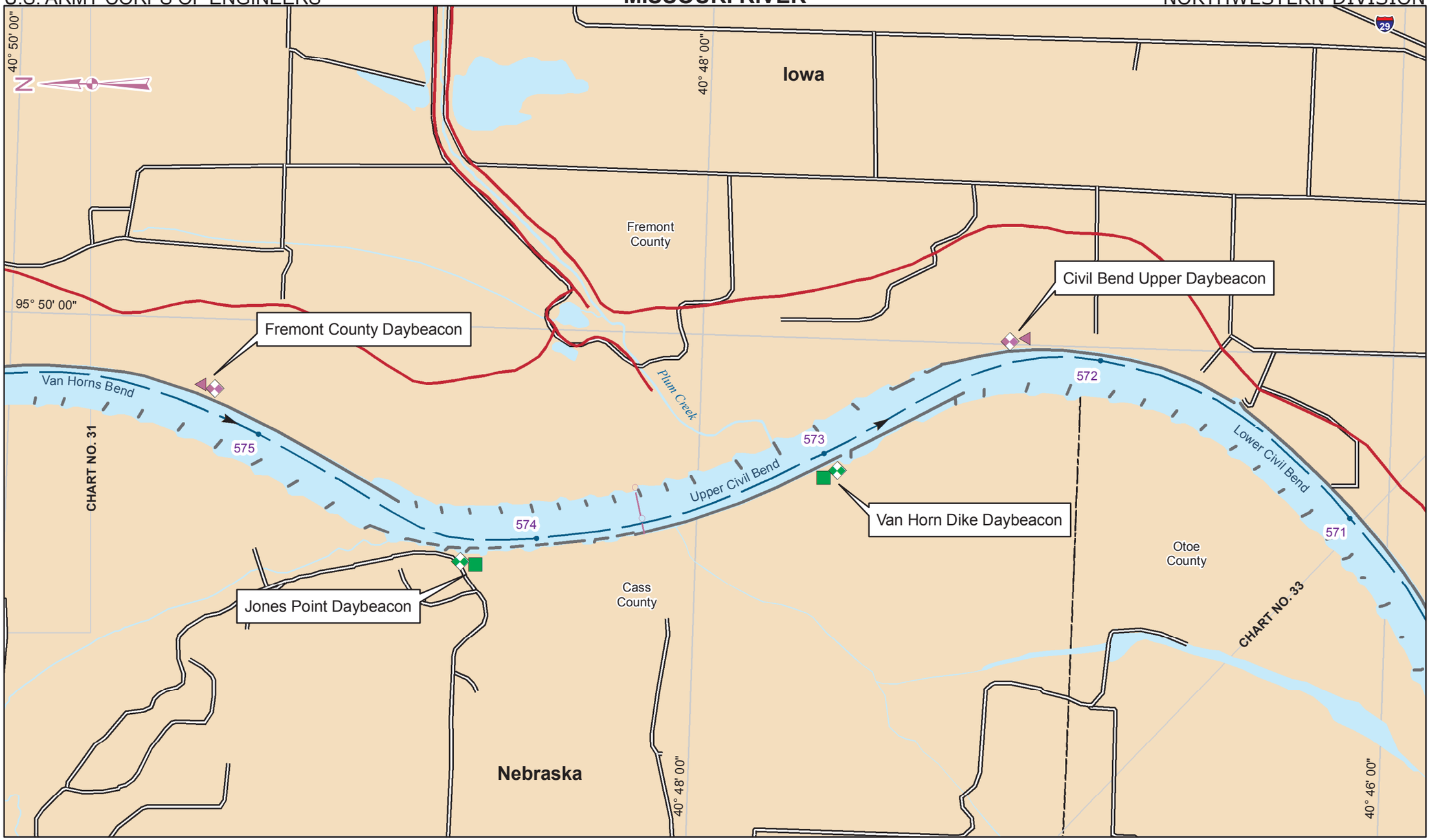
CLEARANCES: Horizontal, 392.0 feet; vertical, 107.9 feet above zero on gage at Plattsmouth Highway Bridge.



SCALE : 1" = 2000'

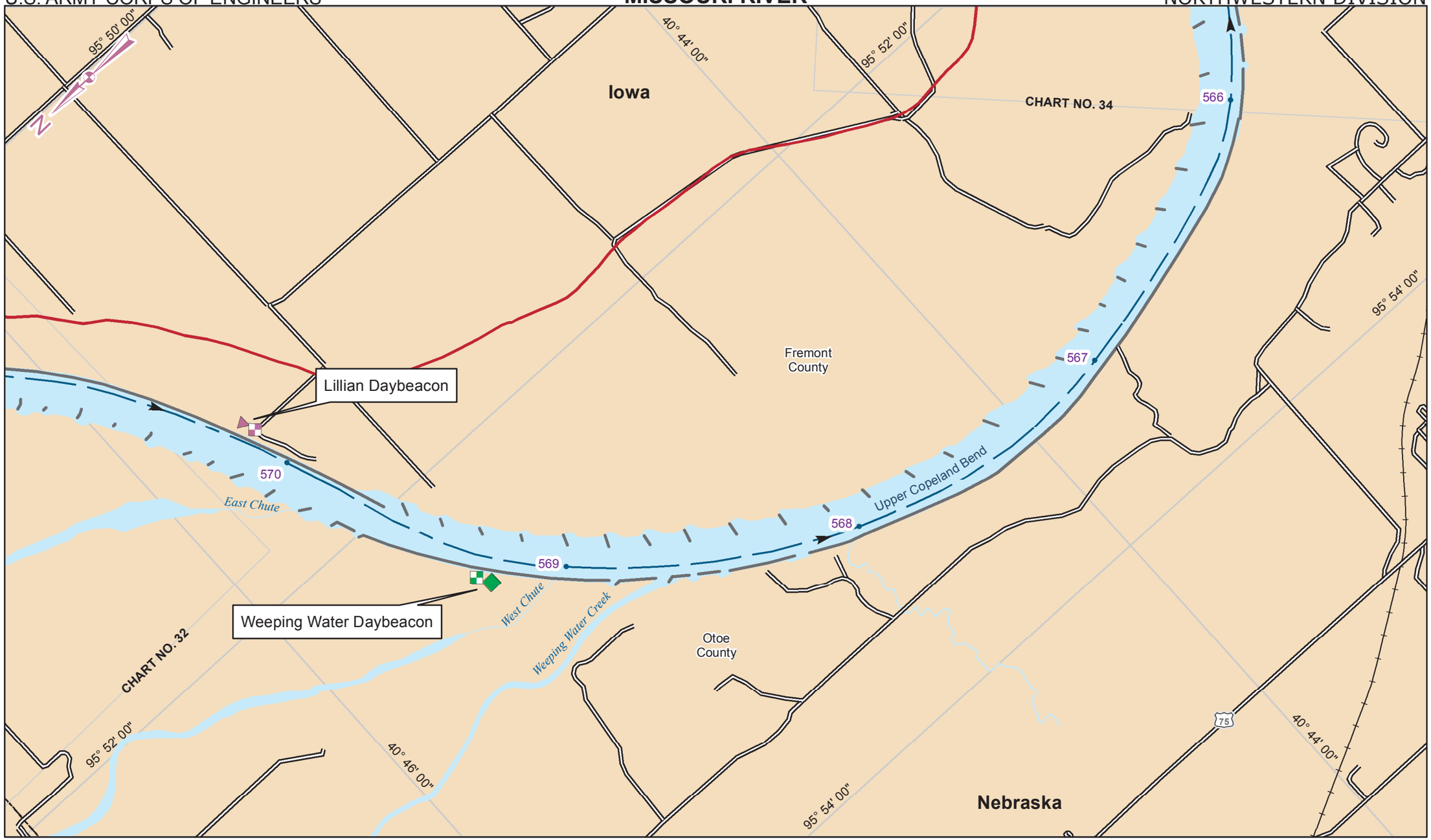
1,000 0 1,000 2,000 3,000 Feet

SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

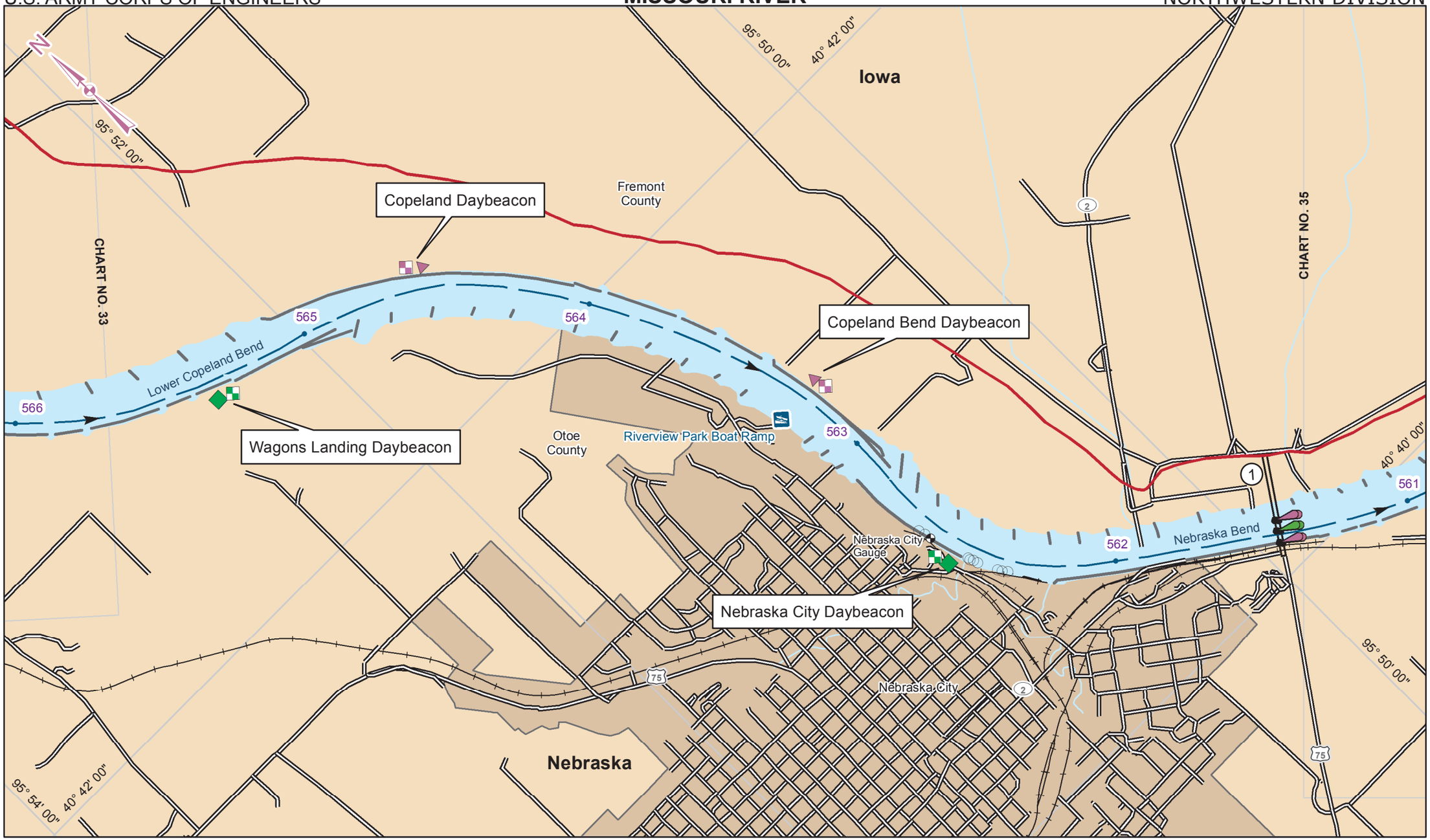


SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet



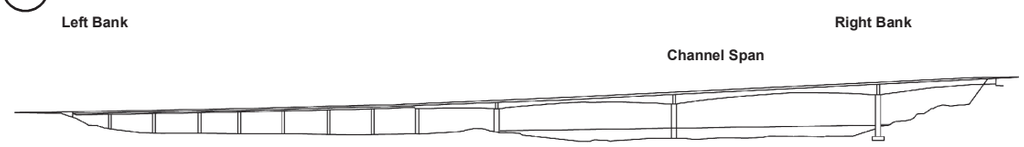
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

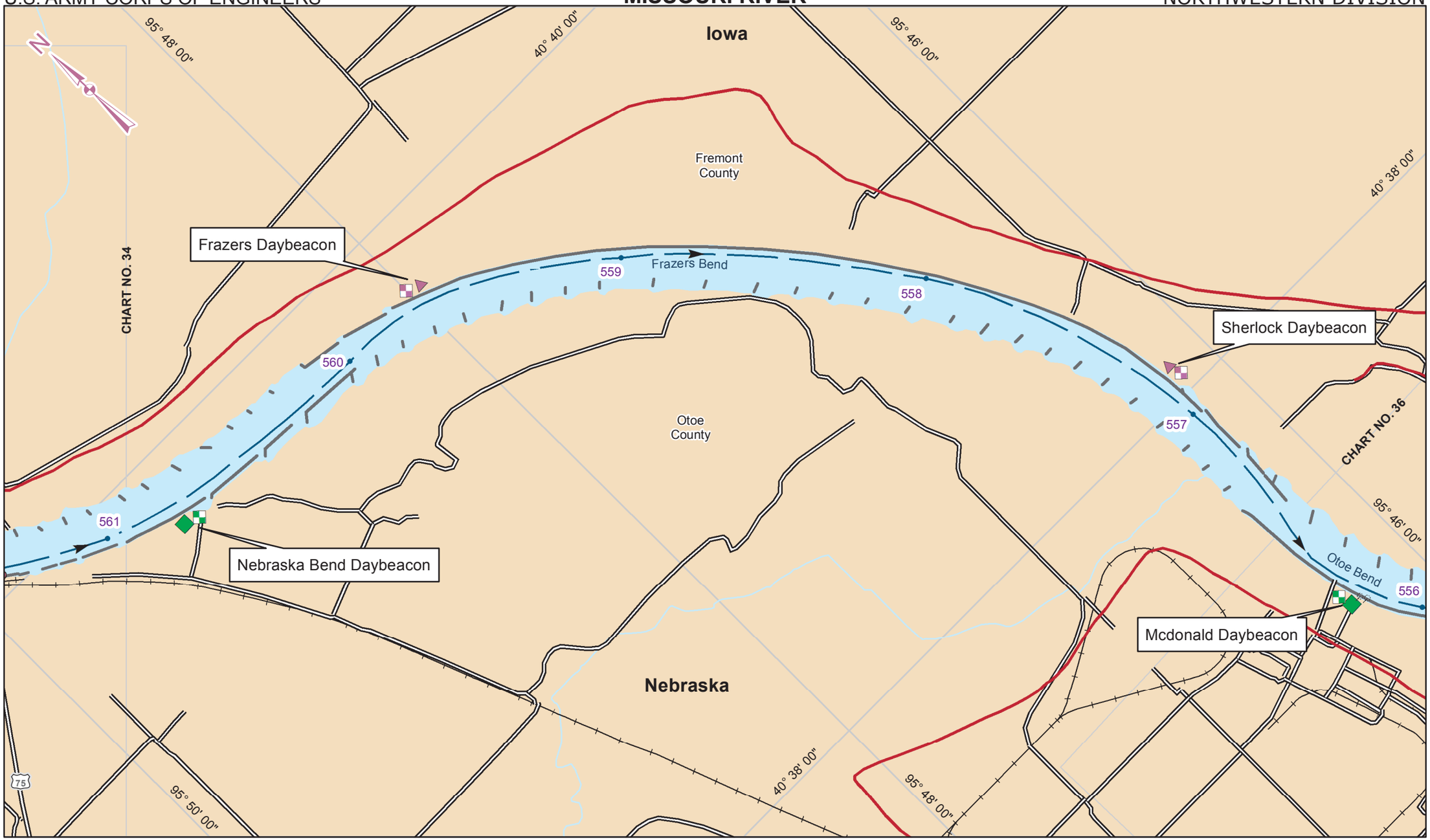
1



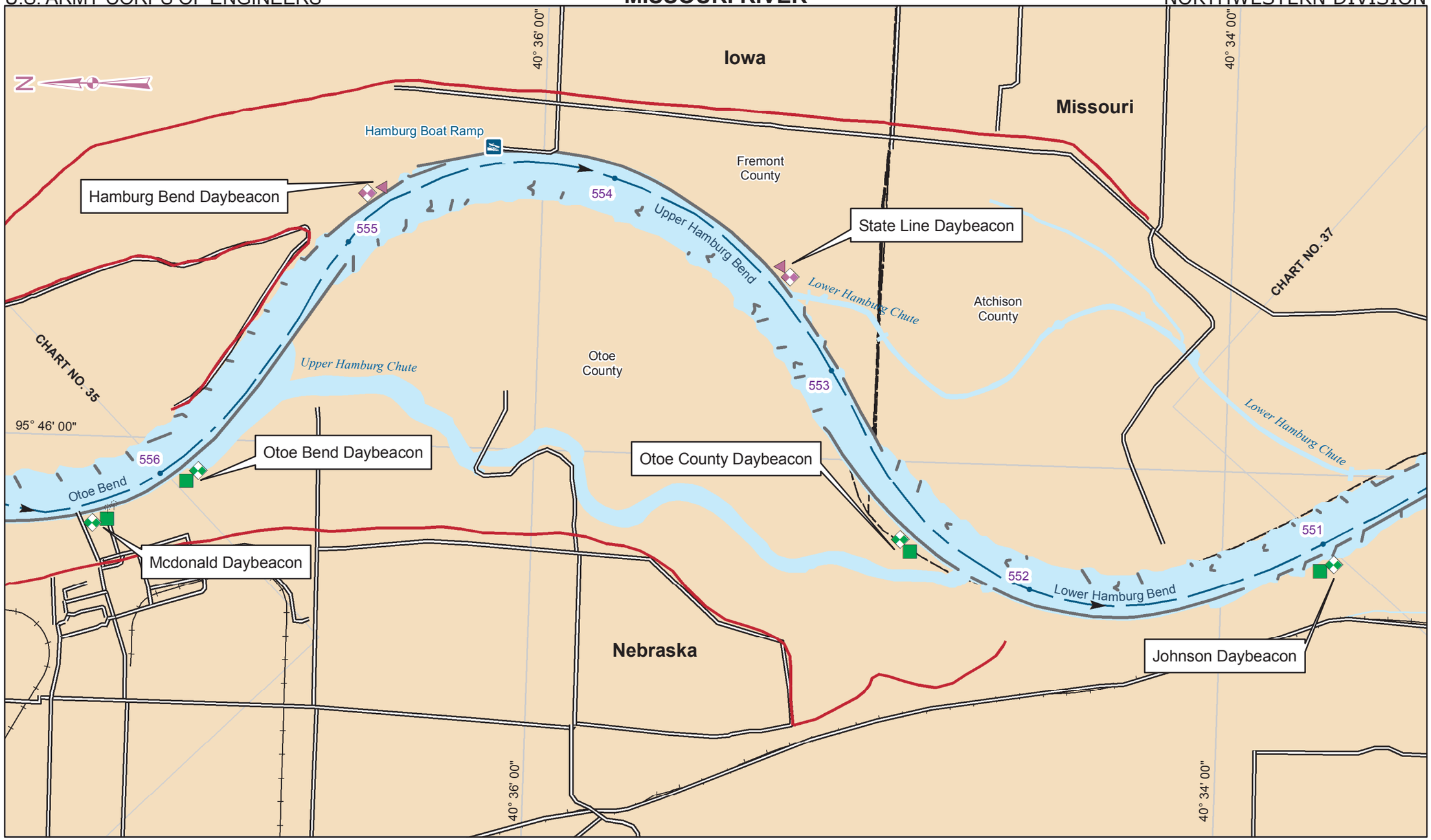
Nebraska City Bridge

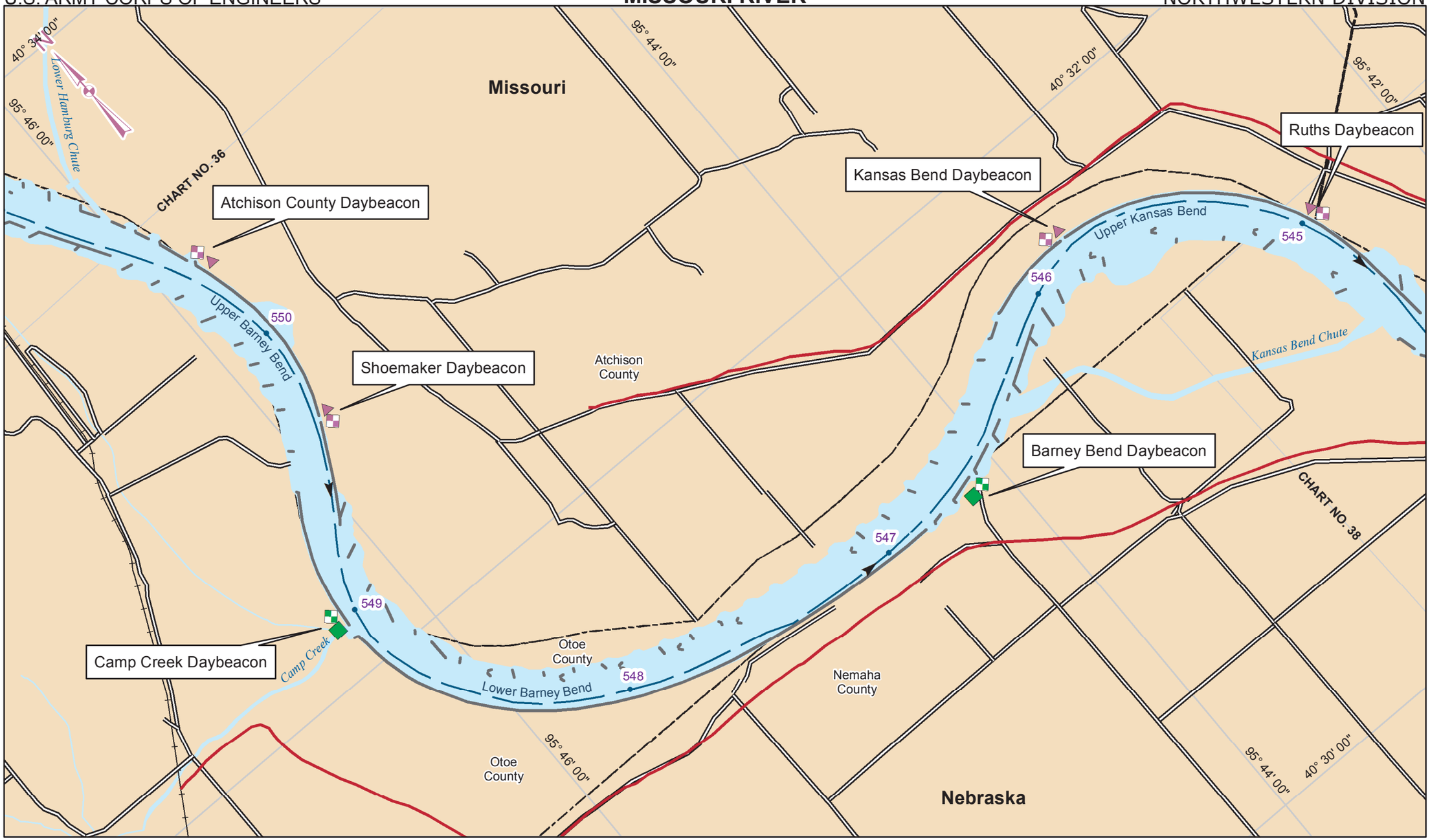
Mile 561.4

CLEARANCES: Horizontal, 407.0 feet; vertical, 53.7 feet above 2% flow elevation 922.0 feet MSL.



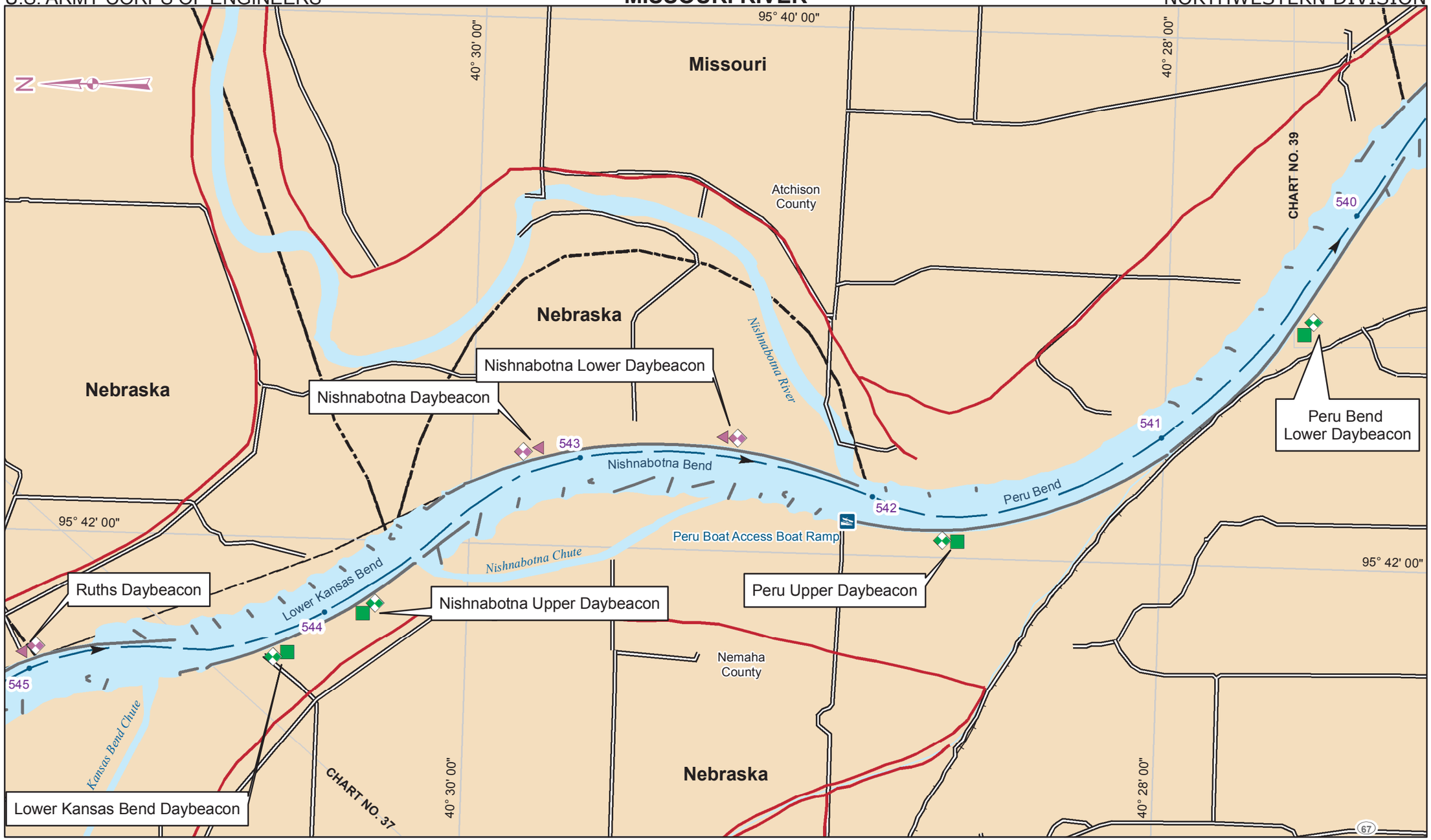
SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet

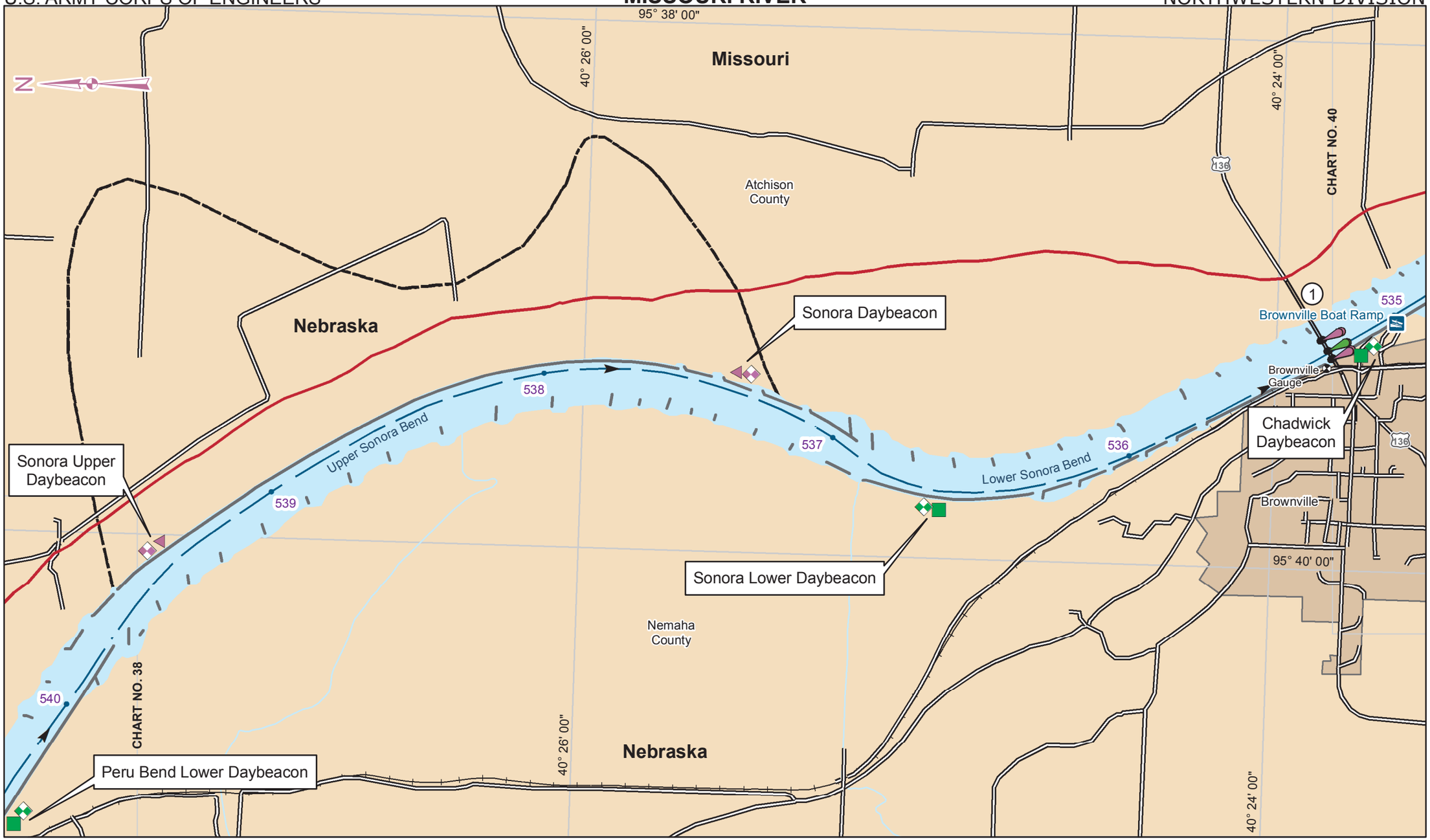

N
Iowa
Missouri
Nebraska
40° 36' 00"
40° 34' 00"
95° 46' 00"
Hamburg Boat Ramp
Hamburg Bend Daybeacon
State Line Daybeacon
Otoe Bend Daybeacon
Otoe County Daybeacon
Mcdonald Daybeacon
Johnson Daybeacon
Fremont County
Atchison County
Otoe County
Upper Hamburg Bend
Lower Hamburg Bend
Upper Hamburg Chute
Lower Hamburg Chute
Otoe Bend
554
555
556
553
552
551
CHART NO. 35
CHART NO. 37



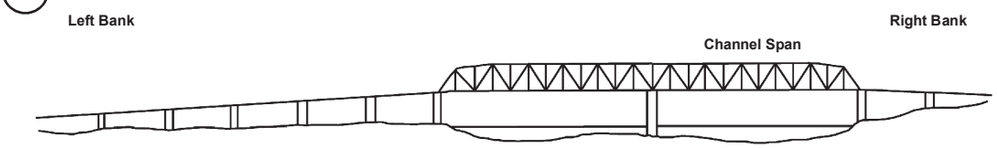
SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet


N
95° 40' 00"
40° 30' 00"
40° 28' 00"
Missouri
Atchison County
CHART NO. 39
540
Nebraska
Nishnabotna River
Nishnabotna Lower Daybeacon
Nishnabotna Daybeacon
Nebraska
543
Nishnabotna Bend
541
Peru Bend Lower Daybeacon
542
Peru Bend
95° 42' 00"
Peru Boat Access Boat Ramp
Nishnabotna Chute
95° 42' 00"
Ruths Daybeacon
Lower Kansas Bend
Nishnabotna Upper Daybeacon
Peru Upper Daybeacon
544
Nemaha County
545
Kansas Bend Chute
CHART NO. 37
40° 30' 00"
Nebraska
40° 28' 00"
Lower Kansas Bend Daybeacon
67


95° 38' 00"
40° 26' 00"
Missouri
40° 24' 00"
CHART NO. 40
Atchison County
Nebraska
Sonora Daybeacon
1
Brownville Boat Ramp
535
Brownville Gauge
Chadwick Daybeacon
538
537
536
Upper Sonora Bend
Lower Sonora Bend
539
Sonora Upper Daybeacon
Brownville
95° 40' 00"
Sonora Lower Daybeacon
Nemaha County
540
CHART NO. 38
40° 26' 00"
Nebraska
Peru Bend Lower Daybeacon
40° 24' 00"

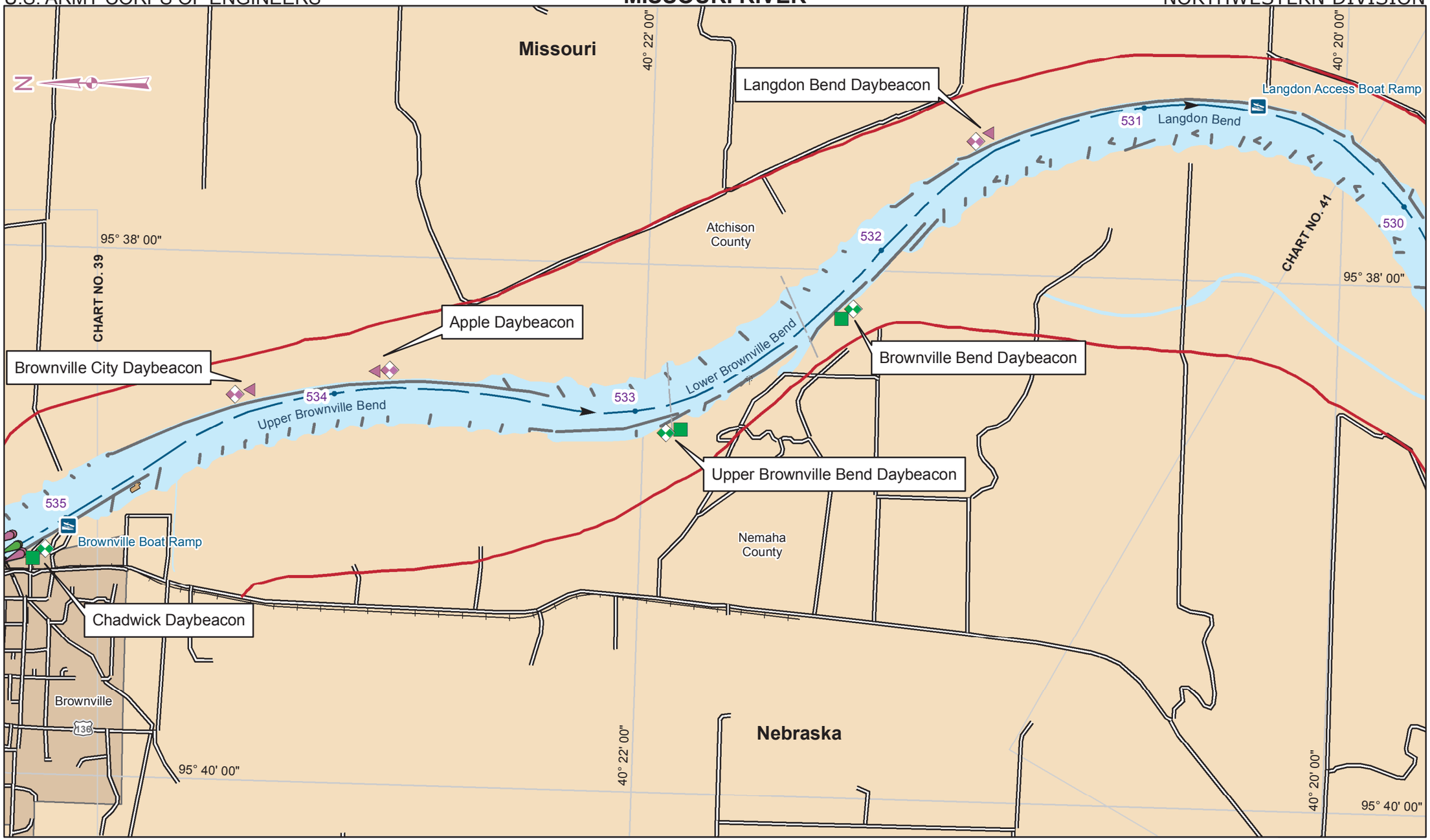
1



Brownville Bridge

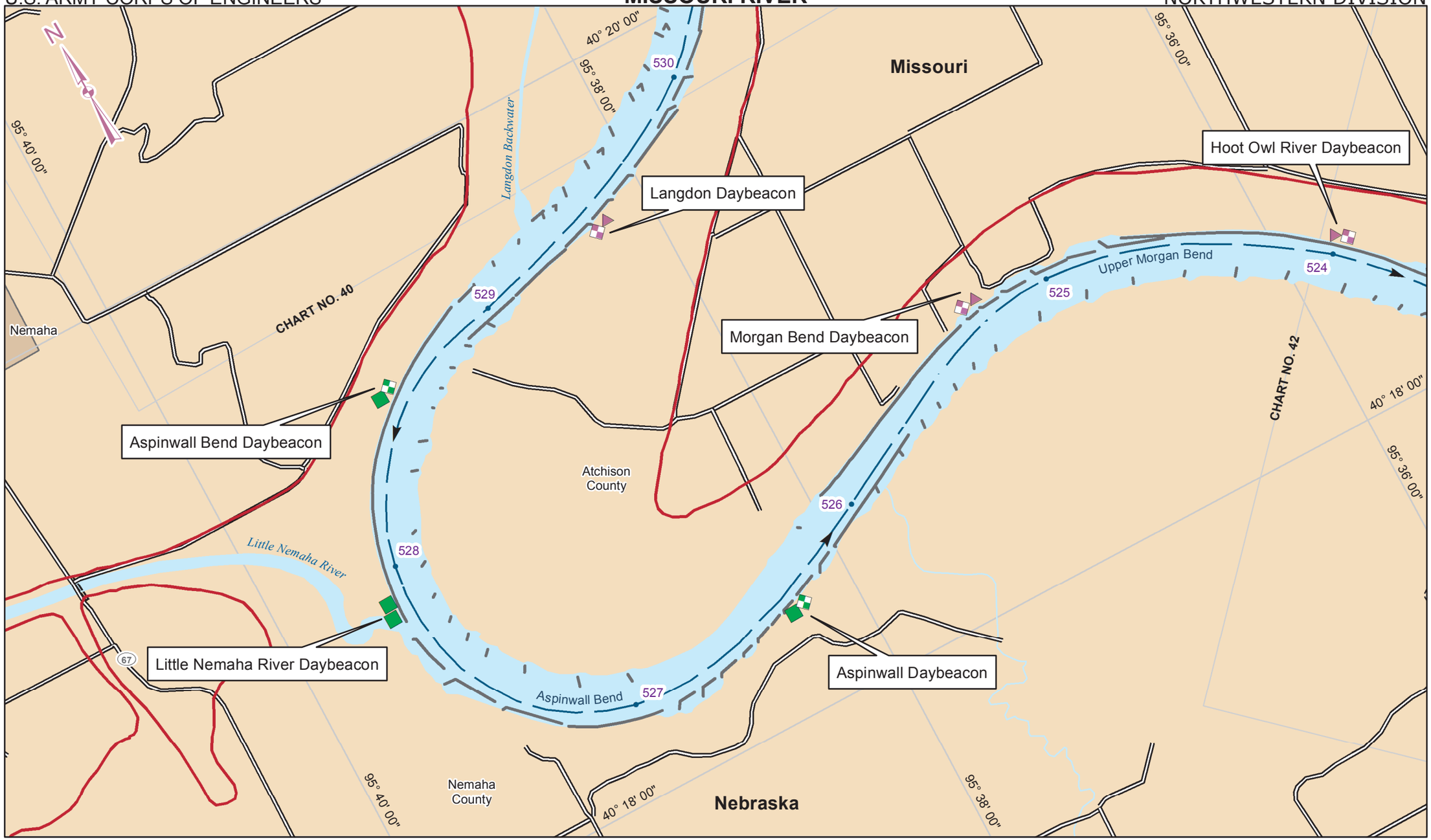
Mile 535.3

CLEARANCES: Horizontal, channel spans, 400.0 feet; vertical, 141.8 feet above zero on gage at this bridge.

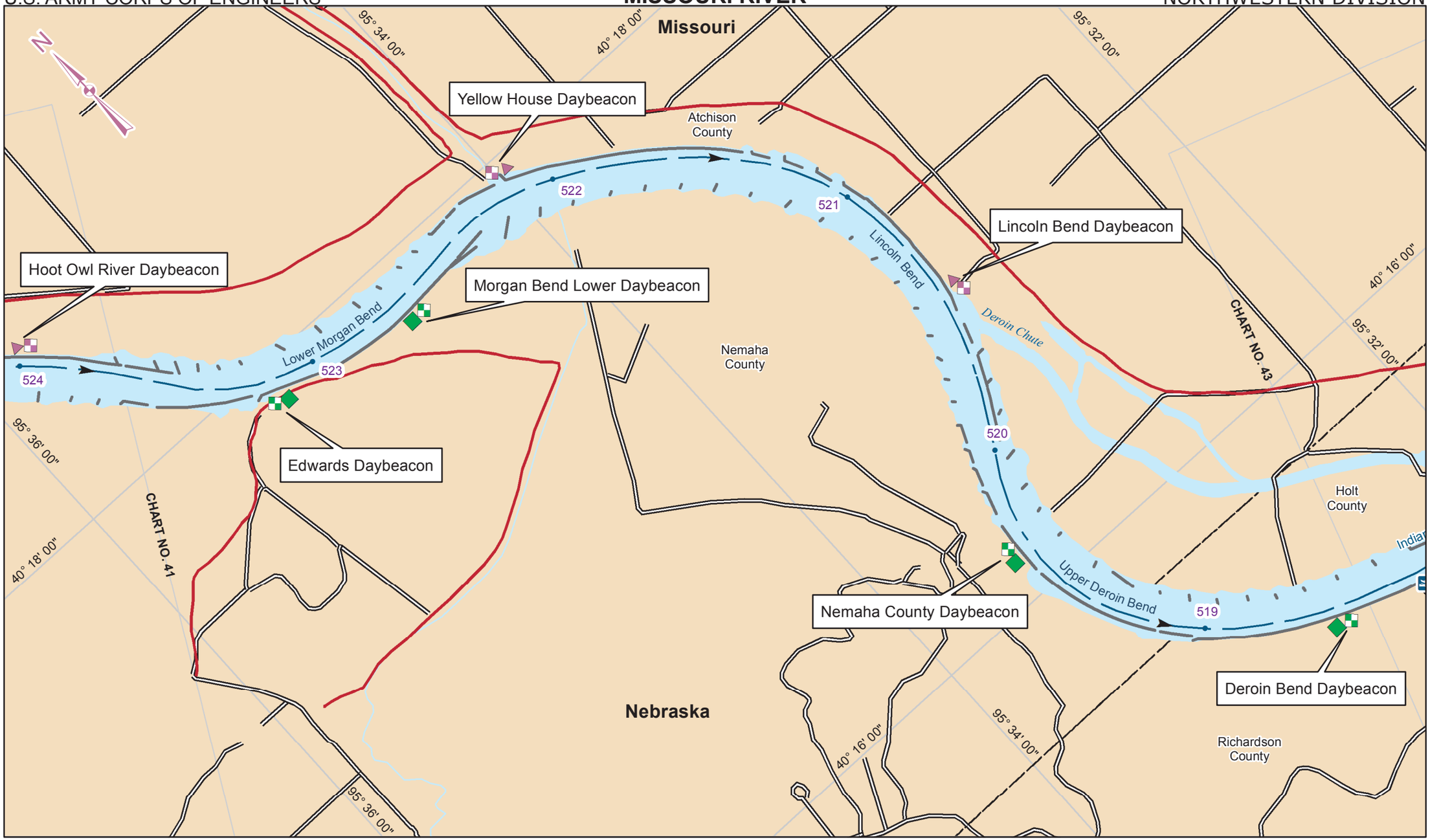


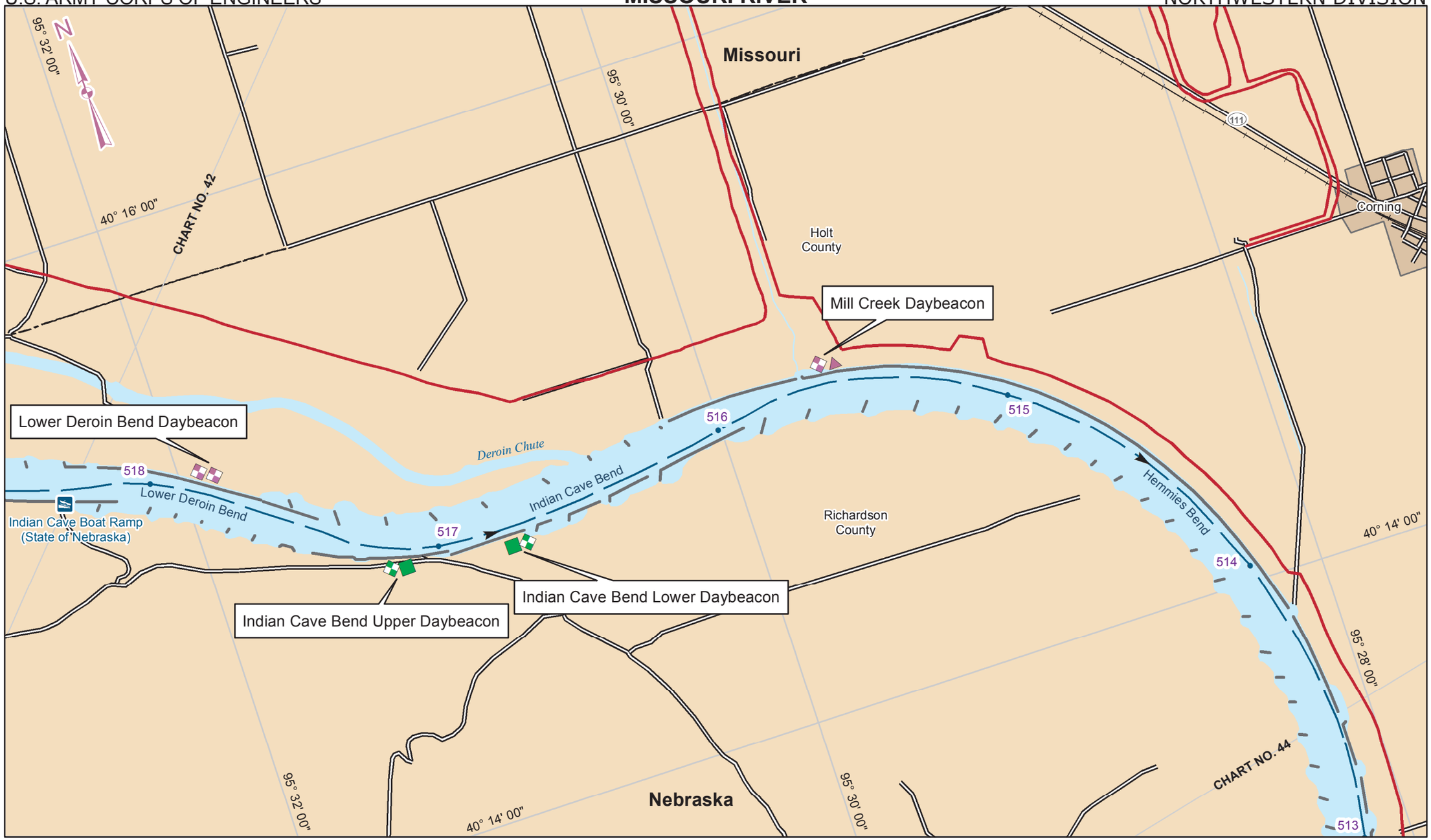
SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

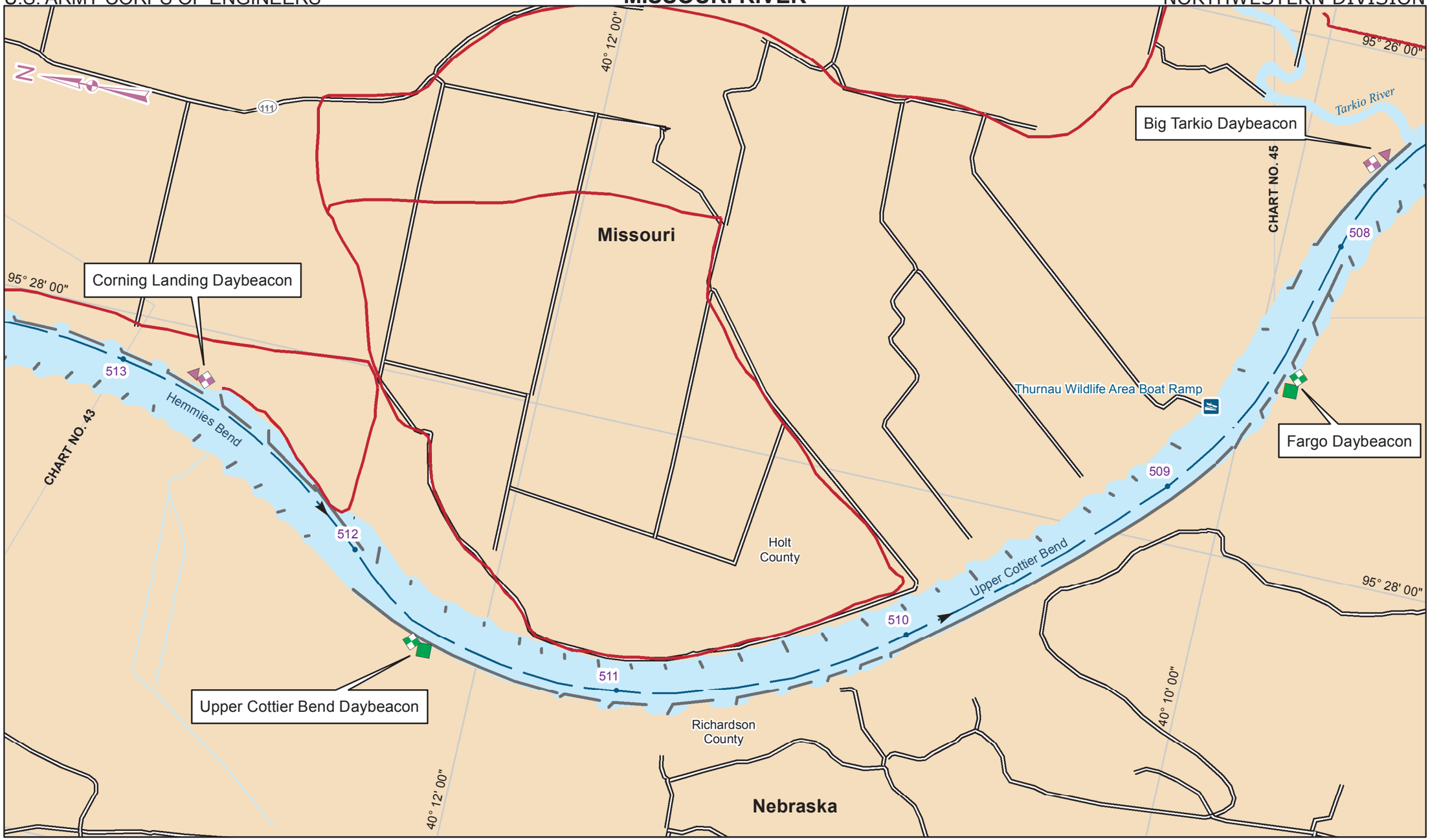


SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet


Missouri
Nebraska
Yellow House Daybeacon
Hoot Owl River Daybeacon
Morgan Bend Lower Daybeacon
Edwards Daybeacon
Lincoln Bend Daybeacon
Nemaha County Daybeacon
Deroin Bend Daybeacon
Atchison County
Nemaha County
Holt County
Richardson County
Lower Morgan Bend
Lincoln Bend
Deroin Chute
Upper Deroin Bend
524
523
522
521
520
519
CHART NO. 41
CHART NO. 43
95° 34' 00"
40° 18' 00"
95° 32' 00"
40° 16' 00"
95° 36' 00"

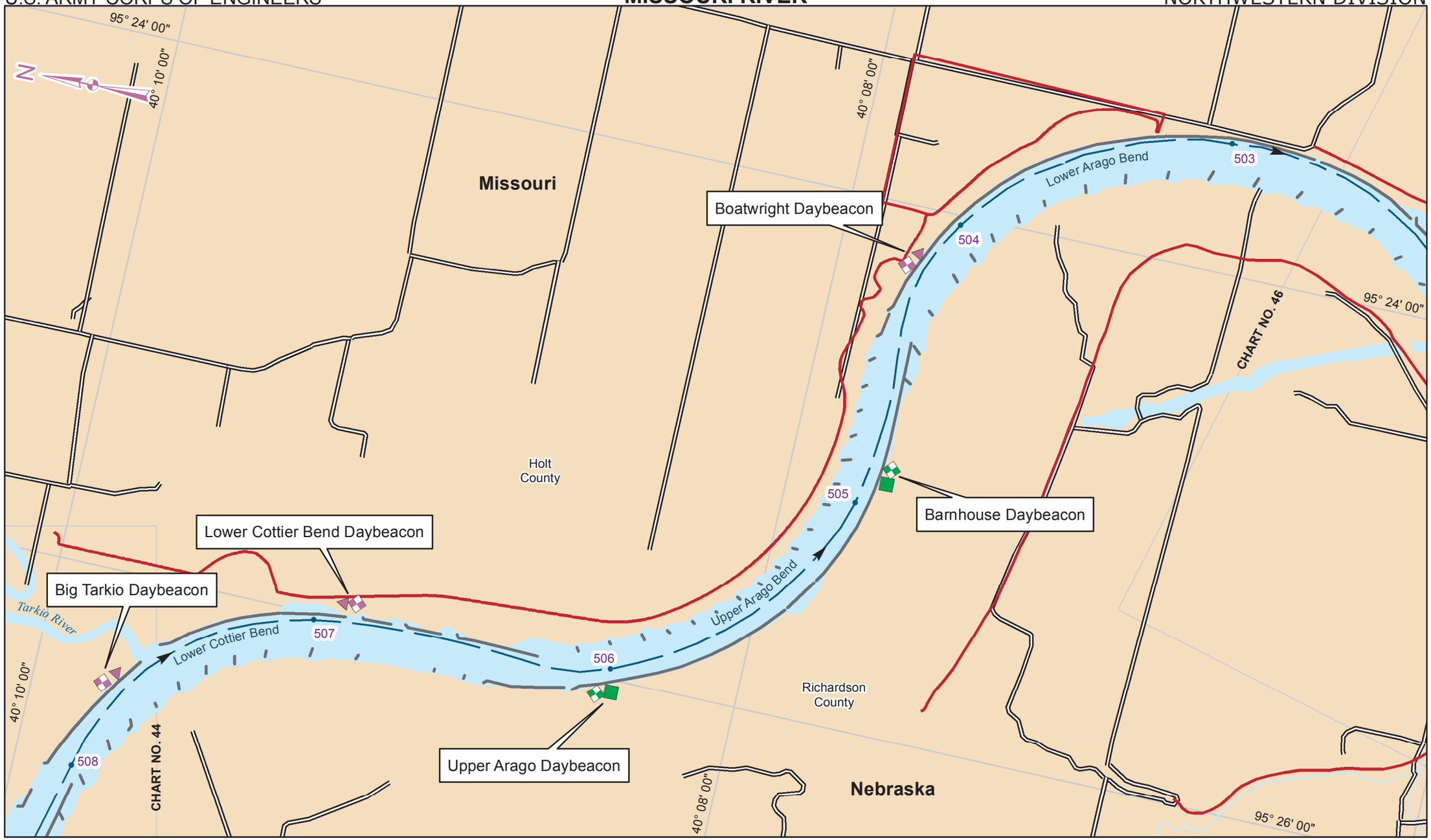


SCALE : 1" = 2000'
1,000 0 1,000 2,000 3,000 Feet



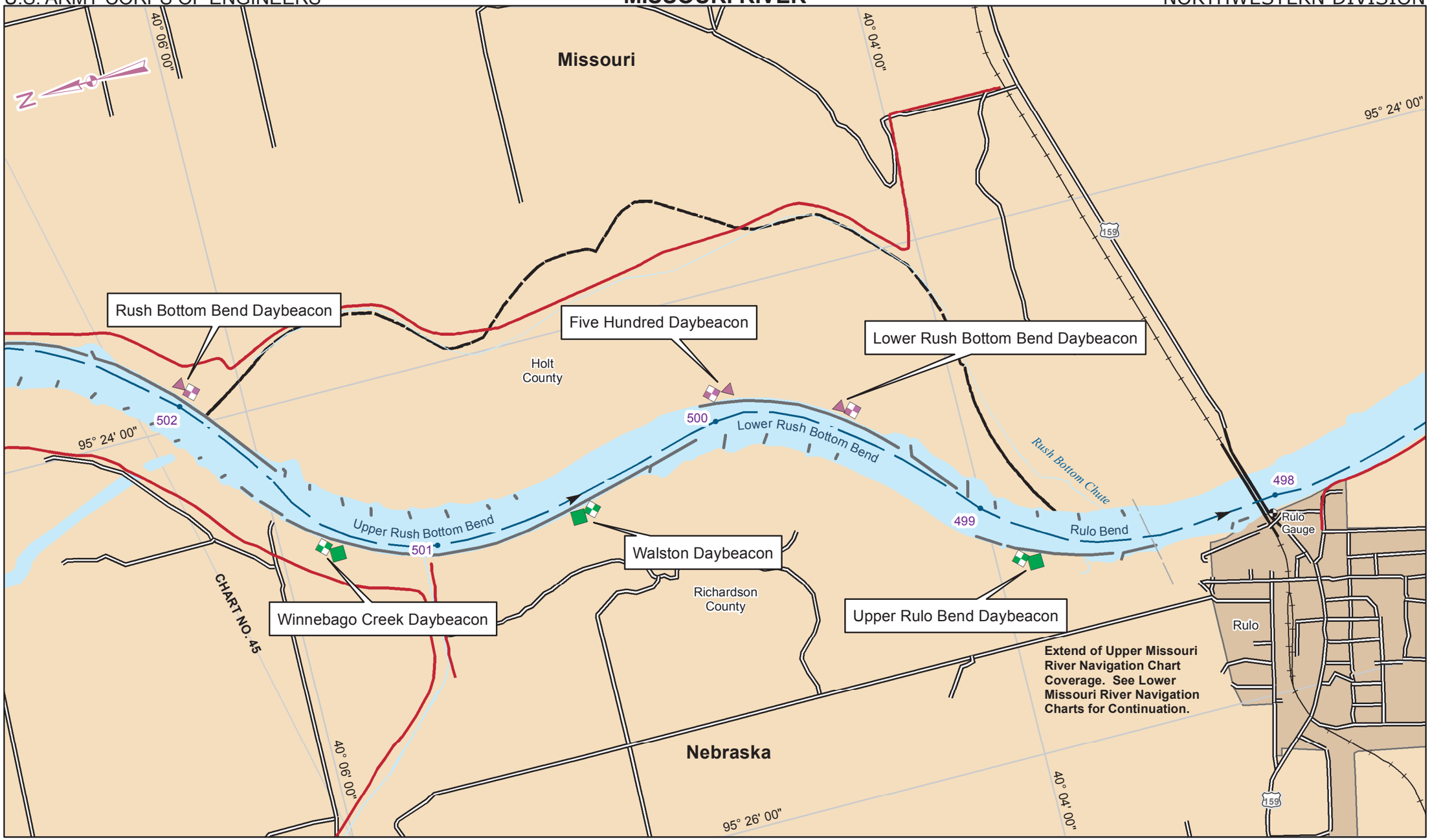
SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet



SCALE : 1" = 2000'

1,000 0 1,000 2,000 3,000 Feet

Bridge Name	River Mile	Vertical Clearance	Horizontal Clearance	Horizontal Clearance Left Descending Bank	Horizontal Clearance Right Descending Bank	2 Percent Flowline Clearance	Gauge Clearance	Gauge Reference	Standard Low Water Clearance	Reference Elevation
Rulo Highway Bridge	498.1	71.3	366.0				71.3	Zero at Rulo W.B. gauge		837.2
Burlington Northern Railroad Bridge	498.1	71.2	365.0				71.2	Zero at Rulo W.B. gauge		837.2
Brownville Bridge	535.3	141.8	400.0				141.8	Zero at this bridge (Brownville)		
Nebraska City Bridge	561.4	53.7	407.0			53.7	53.7	922.0 feet m.s.l (2% flow line)		922.0
Plattsmouth Highway Bridge	590.5	107.9	392.0				107.9	Zero at Plattsmouth		
Burlington Northern Railroad Bridge	590.6	107.9	385.0			53.6	107.9	Zero at Plattsmouth		
Northern Natural Gas Pipe Line Bridge	590.7	123.0	1500.0				123.0	Zero at Plattsmouth Highway Bridge		
Bellevue Bridge	601.4	57.0	400.0				57.0	Zero at Omaha W.B. gage		
South Omaha Bridge	612.1	72.0	617.0				72.0	Zero at Omaha W.B. gage		
I-80 Bridge	613.9	62.7	400.0				62.7	Zero at Omaha W.B. gage		
Union Pacific Railroad Bridge	615.2	68.2	400.0				68.2	Zero at Omaha W.B. gage		
I-480 Bridge	615.9	62.1	400.0				62.1	Zero at Omaha W.B. gage		
Illinois Central Gulf Railroad Drawbridge	618.3		236.0					Always open - rail line closed.		
Mormon Trails Dual Highway Bridge	626.5	74.9	402.5				74.9	Zero at Omaha W.B. gage		
Blair (U.S. 30) Highway Bridge	648.3	52.5	325.0			52.5	52.5	1003.0 feet m.s.l. (2% flow line)		
Chicago and North Western Railroad Bridge	648.3	64.7	321.0	319.0	318.0		64.7	Zero at Blair W.B. gage		
Decatur Bridge	691.0	66.0	400.0				66.0	Zero at this bridge (Decatur)		
Sergeant Floyd Bridge	728.6	57.5	350.0		400.0		57.5	Zero at Sioux City W.B. gage		
Burlington Northern Railroad Bridge	730.5	61.0	400.0				61.0	Zero at Sioux City W.B. gage		
Sioux City Highway Bridge	732.3	57.8	415.0				57.8	Zero at Sioux City W.B. gage		

Missouri River Commercial Terminals and Facilities Omaha District

Terminal	Facility	Town	River Mile	Bank	Contact	Phone	Address
Kay Dee Feed Co.	Molasses Unloading (Dormant)	Sioux City, IA	731.2	Left	Tom Lohry, Eric Lohry	(712) 277-2011	1919 Grand Ave, Sioux City, IA 51107
Big Soo Terminal	Fertilizer, Steel Unloading	Sioux City, IA	727.8	Left	Kevin Knepper	(712) 258-0537 (712) 253-3929 cell (712) 277-2429 home	P.O. Box 3809, Sioux City, IA 51102 Kevin@BigSoo.com
Jebro, Inc.	Asphalt Unloading	Sioux City, IA	727.5	Left	Dennis Bligh	(712) 277-8855	2303 Bridgeport Dr., P.O. Box 2303 Sioux City, IA 51111
Darling International Inc.	Barge dock is closed. Dock Site Remains Open	Sioux City, IA	727.0	Left	Bradley Frost	(712) 258-7524	P.O. Box 1824, Sioux City, IA 51102 bfrost@darlingii.com
Terra Industries	Fertilizer Unloading	Sioux City, IA	718.7	Left	Kelli Harris	(712) 277-1340	600 4th, Sioux City, IA 51101 webmanager@terraindustries.com
Ag Processing (AGP)	Loading	Sioux City, IA	717.0	Left	Wayne Johnson	(712) 943-4282 (800) 798-4282 AGP	P.O. Box 200, Sergeant Bluff, IA 51054 WayneJohnson@AGP.com
Farmland Industries, Inc.	Fertilizer Unloading	Sioux City, IA	717.0	Left	Bill Johnson	(712) 943-5624	P.O. Box 490, 2735 Port Neal Circle Sergeant Bluff, IA 51054
Consolidated Blenders, Inc.	Barge Loading	Blair, NE	648.5	Right	Lonnie Penry Mike Olson	(402) 426-4504 (402) 533-3703 cell (402) 463-3191 (402) 870-0554 cell	P.O. Box 251, 550 Marina Dr, Blair, NE 68008 CBI, PO Box 609 Hastings, NE 68902 mikeo@morent.net
Lafarge Corporation	Cement Unloading	Omaha, NE	624.2	Right	Kevin Krull	(402) 453-6433	1106 Ida, Omaha, NE 68112
Kinder Morgen Inc.	Fertilizer Unloading	Omaha, NE	624.0	Right	Jeff Chapman, Mgr	(402) 341-1300	6801 No. 9th St., Omaha, NE 68112
Cargill	Loading - Grain & Fertilizer	Council Bluffs, IA	614.4	Left	Matt Wallace	(712) 325-2700	2401 So. 37th St, Council Bluffs, IA 51501
Warren Performance Packaging	Anti-Freeze Unloading	Council Bluffs, IA	614.1	Left	Lisa Gochenour	(800) 825-1235 (402) 977-5786	2850 River Road, Council Bluffs, IA 51501 safety@wd-wpp.com
American Commercial Terminal	Fertilizer Unloading	Nebraska City, NE	562.6	Right	Jeff Chapman	(402) 341-1300	contact: Kinder Morgan, Omaha
De Bruce Fertilizer, Inc.	Fertilizer Unloading	Nebraska City, NE	562.3	Right	Ed Hunt	(402) 873-3434	200 Central Ave., Nebraska City, NE 68410-2552 ehunt@debruce.com
DeBruce Grain, Inc.	Grain Loading	Nebraska City, NE	561.8	Right	Darrin Hanson	(402) 873-6684	500 First Terrace, NE City 68410 dhanson@debruce.com
Bartlett & Co. Grain	Grain Loading	Nebraska City, NE	562.4	Right	Caleb Dohrman	(712) 382-1238	408 Washington, PO Box 157, Hamburg, IA 51640
Bartlett Grain	Grain Loading	Brownville, NE	535.5	Right	Wyatt Karl	(800) 564-6339	P.O. Box 217, Brownville, NE 68321
Farmers Cooperative	Grain Loading	Brownville, NE	535.25	Right	Tucker Boss	(402) 825-3351	P.O. Box 65, 110 S. Wharf St., Brownville 68321

Gauge Name	River Mile	Gauge Zero	Gauge Datum	Gauge Website	Gauge Code	X Coordinate	Y Coordinate
Decatur	691.10	1010.00	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=dctn1	DCTN1	-96.241	42.007
Blair	648.30	977.58	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=blan1	BLAN1	-96.096	41.534
Plattsmouth	591.60	N/A	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=ptmn1	PTMN1	-95.868	41.016
Omaha	615.90	977.58	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=omhn1	OMHN1	-96.096	41.534
Brownville	535.30	860.00	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=bron1	BRON1	-95.653	40.399
Sioux city	732.30	1056.98	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=sscn1	SSCN1	-96.414	42.486
Nebraska city	562.60	905.36	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=nebn1	NEBN1	-95.847	40.682
Rulo	498.00	837.23	NGVD 29	http://water.weather.gov/ahps2/hydrograph.php?wfo=oax&gage=ruln1	RULN1	-95.422	40.054