



®

**U.S. Army Corps
Of Engineers**
Huntington District

Kanawha River Navigation Charts

Point Pleasant to Alloy, West Virginia

December 2012



BUILDING STRONG®

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KANAWHA RIVER NAVIGATION CHARTS

HUNTINGTON DISTRICT
POINT PLEASANT TO ALLOY, WEST VIRGINIA
REVISED December 2012

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THESE CHARTS INCLUDE KNOWN NAVAGATIONAL FEATURES, AVAILABLE DATA, AND INFORMATION AS OF THE DATE SHOWN ABOVE. MAJOR CHANGES ARE PUBLISHED IN "NOTICE TO NAVIGATION INTERESTS". CHART REVISIONS ARE ANTICIPATED AT TWO-YEAR INTERVALS. ANY INFORMATION CONCERNING CHANGES, CORRECTIONS, OR ADDITIONS TO THIS CHART BOOK SHOULD BE ADDRESSED TO:

U.S. ARMY CORPS OF ENGINEERS
ATTN: REBEKAH BOOTON
CELRH-OR-TW
502 EIGHTH STEET
HUNTINGTON, WV 25701

PERMITS - JURISDICTION

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 Ohio River and several of its tributary streams. Work or structures in, under, or over the Kanawha River or any navigable tributary, between the limits of the ordinary high water lines on both banks of the stream require prior authorization. Inquiries regarding permits for such work or structures should be addressed to:

Chief, Regulatory Branch
U.S. Army Engineer District, Huntington
Attn: CELRH-RD
502 Eighth Street
Huntington, WV 25701-2070

Inquires may be made by telephone to:
(304) 399-5610

VERTICAL CLEARANCE

Vertical clearances under bridges and aerial crossings are shown on their respective charts at normal pool stage and at 1861, 1878, 1913, or 1937 high water (H.W.) stages.

Existing clearances may be determined at open river stages, with reasonable accuracy, by the method outlined in "EXAMPLE" below:

EXAMPLE: St. Albans - Nitro Hwy Bridge, St. Albans, WV

CHART 19

(All Clearances are in Feet)

Winfield Dam Upper Gage:

1861 H.W. Reading	34.45
Existing Reading	28.20
Difference	6.25

St. Albans - Nitro Hwy Bridge:

1861 H.W. Clearance	29.50
Existing Clearance	35.75

H.W. READINGS

Upper Gage Readings <i>(All Readings are in Feet)</i>	
Winfield Dam	*34.45
Marmet Dam	*37.00
London Dam	**35.40
*1861, **1878	

KANAWHA RIVER NAVIGATION CHART INDEX TABLE

CHART NO.	RIVER MILE	FEATURES / LOCALITY	CHART NO.	RIVER MILE	FEATURES / LOCALITY	CHART NO.	RIVER MILE	FEATURES / LOCALITY
R.C. BYRD L&D POOL			WINFIELD L&D POOL (Cont')			MARMET L&D POOL (Cont')		
1	0.0 - 2.2	Point Pleasant, Crooked Creek	16	36.8 - 39.5	Raymond City	31	74.3 - 76.7	Watsons Island
2	2.2 - 4.5	Three Mile Creek	17	39.5 - 41.8	Poca	32	76.7 - 79.2	Kelly's Creek
3	4.5 - 7.1	Brighton Light/Daymark	18	41.8 - 44.5	Nitro	33	79.2 - 82.1	Old Lock # 3
4	7.1 - 9.6	Eight Mile Creek	19	44.5 - 46.8	Coal River	34	82.1 - 84.6	London Locks
5	9.6 - 11.9	Ten Mile Creek	20	46.8 - 49.5	Institute			
6	11.9 - 14.4	Little Sixteen Mile Daymark	21	49.5 - 51.8	Upton Creek Light	LONDON L&D POOL		
7	14.4 - 16.6	Arbuckle	22	51.8 - 54.4	Dunbar, Wilson Island	35	84.6 - 87.7	Wheeler Island
8	16.6 - 19.2	Eighteen Mile Creek	23	54.4 - 56.5	Blaines Island	36	87.7 - 90.5	Armstrong Creek
9	19.2 - 21.5	Cross Creek Light	24	56.5 - 59.1	Elk River	37	90.5 - 91.0	End of Navigation
10	21.5 - 23.9	Buffalo	25	59.1 - 61.6	State Capitol, Charleston			
11	23.9 - 26.4	Lower Buffalo Bridge	26	61.6 - 64.0	Snow Hill, Kanawha City			
12	26.4 - 28.8	Buffalo Creek	27	64.0 - 66.5	Malden, South Malden			
13	28.8 - 31.5	Winfield Locks and Dam	28	66.5 - 69.3	Marmet Locks			
WINFIELD L&D POOL			MARMET L&D POOL			TRIBUTARY – ELK RIVER		
14	31.5 - 34.5	Red House, Winfield	29	69.3 - 71.4	Witcher Island	24A	0.0 – 2.2	Charleston / Etowah Dock
15	34.5 - 36.8	Winfield Highway Bridge	30	71.4 - 74.3	Slaughters Creek			

KANAWHA RIVER NAVIGATION CHARTS

Revised December 2012

NAVIGATION CHARTS AND NOTICES

Navigation charts for the KANAWHA RIVER, within the limits of the HUNTINGTON DISTRICT, are available on our website at:

www.lrh.usace.army.mil/missions/navigation for viewing and printing. Spiral-bound books are also available for purchase on the U.S. Government Printing Office website:
<http://bookstore.gpo.gov>.

Notices to Navigation Interests, Containing data on channel conditions and location of dredges, are issued as occasions demand. They may be viewed on our website at:

www.lrh.usace.army.mil/missions/navigation.

Request to be placed on the mailing list to receive these notices by writing to:

U.S. Army Corps of Engineers
Attn: CELRH-OR-TW
502 Eighth Street
Huntington, WV 25701-2070

HUNTINGTON DISTRICT: KANAWHA RIVER
MILE 0.0 – 91.0

Mile points are shown on the charts at one mile intervals beginning with Mile 0.0 at Point Pleasant, WV.

BUOYS

Buoys used to mark channels in the Mississippi River System conform to the standard lateral system of buoys on the Western Rivers of the United States. Generally, the unlighted buoys in the Kanawha River are equipped with radar reflectors. All buoys are equipped with reflective material. Buoys on the left descending side of the channel reflect red. Buoys on the right descending side of the channel reflect green.

Buoys are set to mark maximum navigation channel available considering channel alignment, the prevailing river stage, and obstructions. Due to ever-changing environmental conditions, the location and number of buoys on-site do not necessarily coincide with these charts.

The locations of printed buoys are approximate. The height of the highest fixed points Buoys should always be given as wide a berth in passing as possible consistent with the length and width of vessel or tow and width of the bend or crossing.

Buoys should always be used with caution. They may be carried off position by high water, accumulation of drift, ice, or sunk by collision or other causes. When carried off position, destroyed, or removed to prevent loss, buoys are replaced at the earliest opportunity.

Navigation lights and daybeacons are also shown in approximate locations. For additional information on lights, daymarks, daybeacons, and buoys, see the U.S. Coast Guard Light List, COMDTINST M16502, current edition.

FEDERAL MOORING BUOYS

Federal mooring buoys are for emergency use only, except where noted. These buoys shall not be used for recreational use or fleeting operations. Vessels using emergency buoys shall contact the nearest downstream lock upon mooring and again after departure.

DAMS

On the various parts of the locks and dams are shown in feet above the zero of the pass sill gage. Exceptions are noted on pages facing the page containing the dam to which they apply.

WARNING:
TO PLEASURE BOATERS AND FISHERMAN
WHO NAVIGATE ON THE KANAWHA RIVER

Areas immediately upstream and downstream of the navigation dams in the Huntington District have been designated **Restricted Areas**. See the Legend (Sheet K) for symbols that mark Restricted and Danger Areas.

In recent years, there have been several **boating accidents and fatalities** as a result of vessels, particularly small fishing craft, operating too closely to navigation structures. Most of these accidents have occurred when boats approach too near the downstream side of a gated dam. Powerful reverse currents, commonly called **backlash**, draw boats in an upstream direction into the dam where there are capsized or smashed against the structure. Furthermore, an additional hazard exists in the vicinity of the lock discharge structures, which are located adjacent to the downstream river wall of the lock chamber. When the water in the locks is released during each locking operation, **sudden turbulent boils** are created which can capsize a boat venturing too near. This turbulence becomes more severe as the downstream pool falls to lower elevations.

On the upstream side of the dam, there is a **strong undertow** created by the flow of water through the gated section of the dam. Boats approaching too closely from the upstream side are in danger of being **lodged against the dam or capsized** by the undertow.

The nature of these river conditions emphasizes the serious danger to boaters and fishermen who operate their craft near either the upstream or downstream side of a dam. Vessel operators who enter these areas risk their lives and property and often preclude necessary gate operations of the locks and dams. Fishermen often fish in the tail waters below the dam gates because the fishing is good. They must understand, however, that fishing from a boat in these **waters can be fatal**.

To supplement the **restricted areas**, the remaining area downstream of each dam, extending to the end of the long wall has been established as a **Danger Area**. All boaters and fishermen are urged to wear **Personal Floatation Devices (PFDs)** within this area, since these waters are frequently turbulent. Vessel operators should also heed the warning

sirens which indicate that project personnel will be increasing flow from the dam or releasing water within the lock discharge areas. These sirens will be operated for a period of 30 seconds, after which, there will be a 3-minute delay prior to a release of water.

Navigators should become fully aware of the **Restricted and Danger Area boundaries** prior to operating their craft within the vicinity of a lock and dam facility. The **Restricted Areas** are shown in the current publication of the U.S. Army Corps of Engineers, Huntington District, "Kanawha River Navigation Charts; Point Pleasant, WV to Alloy, WV." Navigators should also observe all **warning signs** or **marker buoys** located within the area of each locks and dam structure. The marker buoys are illustrated with reflective orange bands and waterway symbols, and black wording on the white background. Buoys with the words "**KEEP OUT**" have, as their symbol, a cross enclosed within a diamond. Buoys designated as "**DANGER DAM**" are denoted with a diamond symbol.

The **regulations** pertaining to the **Restricted Areas** are contained within the U.S. Army Corps of Engineers' "Regulations Prescribed by the Secretary of the Army for Ohio River, Mississippi River above Cairo, IL and their tributaries; Use, Administration, and Navigation" (Blue Book). These regulations are as follows:

33 CFR 207.300 "(s) Restricted Areas at Locks and Dam. 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 Areas at any time. The limits of the restricted areas at each dam will be determined by the responsible District Engineer and marked by signs and/or flashing red lights installed in conspicuous and appropriate places."

Lockmasters will enforce adherence to these regulations, and, if required, solicit **aid from local law enforcement officers**. In the interest of the public safety, please tell other boaters or fishermen about the dangers of boating near lock and dam structures.

**REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY
FOR THE OHIO RIVER ABOVE CAIRO, IL AND ITS TRIBUTARIES
USE, ADMINISTRATION, AND NAVIGATION**

Section 7 of the River and Harbor Act of August 8, 1917

“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 above Cairo, IL and its tributaries.

Use, Administration, and Navigation

207.300 Ohio River, above Cairo, IL, 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 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 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 or 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 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.

(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 energies 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 procedures 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.

**REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY
FOR THE OHIO RIVER ABOVE CAIRO, IL AND ITS TRIBUTARIES
USE, ADMINISTRATION, AND NAVIGATION**

(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 these 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

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).

(2) Arrival posts or markers maybe established 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 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.

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. III) All masters involved have agreed to the joint use of the lock chamber.

h) Stations While Awaiting 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.

**REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY
FOR THE OHIO RIVER ABOVE CAIRO, IL AND ITS TRIBUTARIES
USE, ADMINISTRATION, AND NAVIGATION**

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 vessels 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 crew 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:

Red Light – Lock cannot be made ready immediately. Vessel shall stand clear. Amber Light – Lock is being made ready. Vessels may approach but under full control. Green Light – Lock is ready for entrance. Green and Amber Lights – Lock is ready for entrance but gates cannot be recessed completely. Vessel may enter under full control and with extreme caution. III) Radio Communication VHF-FM radios, operating in the FCC authorized Maritime Band, have been installed at all operational locks, (except those at 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 Channel 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.

**REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY
FOR THE OHIO RIVER ABOVE CAIRO, IL AND ITS TRIBUTARIES
USE, ADMINISTRATION, AND NAVIGATION**

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.

(2) Outside of Locks

(i) No vessels or other craft shall regularly or permanently moor in any reach of a navigation channel. The approximate centerline of such channels is 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 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 matted 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 that from point by the most expeditious means.

n) Draft of Vessels

No vessels 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 gates 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.

**REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY
FOR THE OHIO RIVER ABOVE CAIRO, IL AND ITS TRIBUTARIES
USE, ADMINISTRATION, AND NAVIGATION**

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 such craft.

r) Trespass on Lock Property

Trespass on locks or dams or other United States property pertaining to the locks and dams is strictly prohibited except in those areas specifically permitted. Parties committing any injury to the locks and dams or to any part thereof will be responsible therefore. Any person committing a willful injury to any United States 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 water 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 marked by signs and/or flashing red lights installed in conspicuous and appropriate places.

t) Statistical Information

(1) Masters of vessels shall furnish to the lockmaster such statistics of passengers or cargo as may be requested.

(2) The owners or masters of vessels sunk in the navigable waters of the United States shall provide the appropriate District Engineer with a copy of the sunken vessel report furnished to the U.S. Coast Guard Marine Inspection Office in accordance with Code of Federal Regulations Title 33 Subpart 64.10-1.

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 effect 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 manmade 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 prescribe 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 and Dams

(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 degrees 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 degrees 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 degrees on each end (upstream and downstream) of the land (guide) wall.

**REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY
FOR THE OHIO RIVER ABOVE CAIRO, IL AND ITS TRIBUTARIES
USE, ADMINISTRATION, AND NAVIGATION**

(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 degrees arranged in a vertical line on the upstream end of the river (guard) wall.

(ii) Two red lights visible through an arc of 360 degrees 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 degrees 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) below.

(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.

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, 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 green 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 maybe 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 green 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 current edition of appropriate navigation charts.

EFFECTIVE 31 JULY 1975

EXTRACT FROM THE RIVER AND HARBOR ACT OF 1899

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 manner 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 to do so 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 (30 St. 1152; 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 thirteen, fourteen, and fifteen of this act shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding twenty-five hundred dollars nor less than five hundred dollars, 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 (30 Stat. 1153; 33 U.S.C. §411). 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 engage in towing any scow, boat, or vessel loaded with any material specified in section thirteen of this Act to any point or place or 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 thirteen, fourteen, and fifteen 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 of the harbor or waterway in which the damage occurred, and said boat, vessel, scow, raft, other craft may be proceeded against summarily by way of libel in any district court of the United States having jurisdiction thereof (30 Stat. 1153; 33 U.S.C. §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 an sunken vessel, boat, watercraft, 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 watercraft, raft, or other obstruction shall be subject to be broken up, removed, sold, or otherwise disposed of by the newspaper established 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 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, watercraft, 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 (30 Stat. 1154; 33 U.S.C. § 414).

EXTRACT FROM THE RIVER AND HARBOR ACT OF 1899

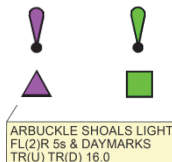
(b) The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the cost of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered 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.

SECTION 20

(a) That under emergency in the case of any vessel, boat, watercraft, raft, or 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 specifically 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 watercraft, 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 obstruction requiring them to remove it; AND PROVIDED FURTHER, That the expense of removing any such obstruction as aforesaid shall be a charge against such craft and cargo; and if the owners thereof fall or refuse to reimburse the United States for such expense within thirty days after notification, then the officer or agent or 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 (30 Stat. 1154; 33 U.S.C. §415).

(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.

U.S. Navigation Lights
Daymarks
Mile Board



Buoys:

- Can (Green)**
- Nun (Red)**
- Junction (Red/Green)**
- Hazard (Lighted)**

Land Above Project Pool



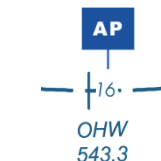
Water, with Less Than 9' Depth at Project Pool



Water, with 9' or More Depth at Project Pool



Arrival Point for Lockage
Sailing Line & Mile Marker
Ordinary High Water Elevation



Flow



Aerial Crossing



Pipeline Crossing



Cable Crossing



Dike



Wreck



Restricted Area



Fleeting Area



No Anchorage/Caution Area



Underwater Rock



Gages



Commercial Docks



Mooring Cells



Mooring Buoys



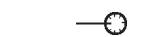
Federal Mooring Cells



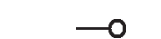
Ties (Tri/Quad)



Intake



Outfall Pipe



Launching Ramp



Dock or Marina



U.S. Coast Guard Station



Tank



Tower



CHARACTERISTICS OF NAVIGATION LIGHTS

Lights in the Eighth Coast Guard District show simple characteristics, allocated by color or other features to the left and right descending banks, see examples below:

Left Descending Bank

- F.W. Fixed White
- F.R. Fixed Red
- FL(2)W5s. Group Flashing White
(5 sec., 2 flashes)
- FL(2)R5s. Group Flashing Red
(5 sec., 2 flashes)

Right Descending Bank

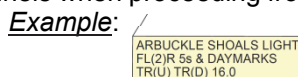
- F.W. Fixed White
- F.G. Fixed Green
- FL W4s. Flashing White
(4 sec.)
- FL G4s. Flashing Green
(4 sec.)

DAYMARK DESCRIPTIONS

There are many standard designations for the appearance and purpose of all daymarks used in the U.S. Waterways System. Below is a description for daymarks used on the Kanawha River, miles 0 – 90.5 (a tributary of the Ohio River) and its tributaries. For all other daymark, buoy, or navigation light descriptions on the Kanawha River that are not shown here, refer to the most current United States Coast Guard Light List for the Mississippi River System by visiting: <http://www.navcen.uscg.gov/pubs/lightlists/2008volume5.pdf>.

Designations:

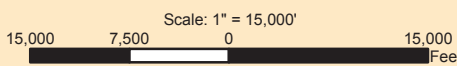
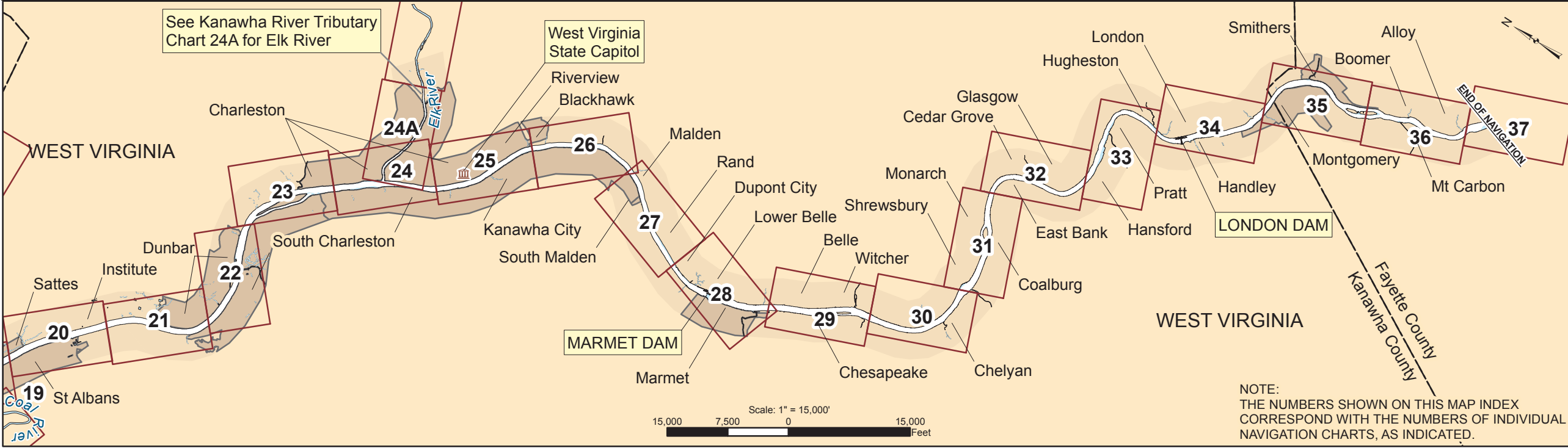
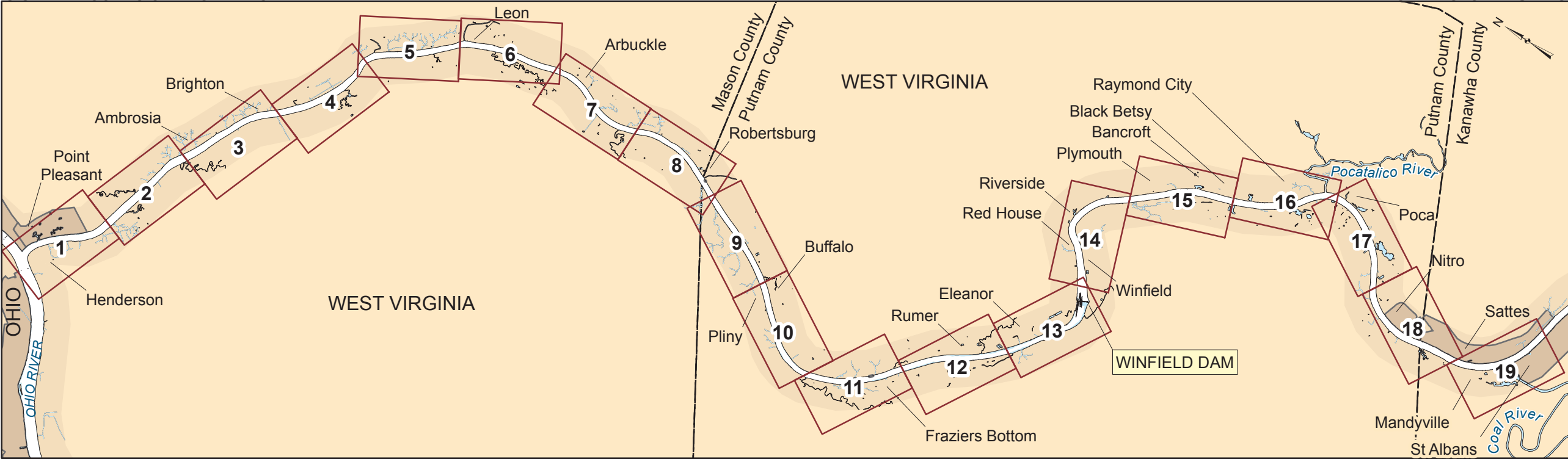
1. First letter – Shape or purpose
 S: Square used to mark the port (left) side of channels when proceeding from seaward.
 T: Triangle used to mark the starboard (right) side of channels when proceeding from seaward.
2. Second letter – Key Color
 G – Green R – Red



Descriptions:

- SG: Square green daymark with a green reflective border.
- TR: Triangular red daymark with a red reflective border.
- (U): Situated Up
- (D): Situated Down

Description:
 This daymark has a red light that flashes 2 times every 5 seconds and is situated both up and down on the left descending bank at mile 16.0.



NOTE:
THE NUMBERS SHOWN ON THIS MAP INDEX
CORRESPOND WITH THE NUMBERS OF INDIVIDUAL
NAVIGATION CHARTS, AS INDICATED.



①

SILVER MEMORIAL HIGHWAY BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	607.52'
VERTICAL CLEARANCE AT POOL STAGE	69.52'
VERTICAL CLEARANCE AT 1913 & 1937 HIGH WATER	30.8'
HORIZONTAL CLEARANCE	870.0'

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
③	Television	608.7'	71.3'	18.6'
④	Power	629.7'	92.3'	39.6'
⑥	Power	627.0'	89.0'	50.2'



②

BARTOW JONES HIGHWAY BRIDGE
(LOOKING DOWNSTREAM)

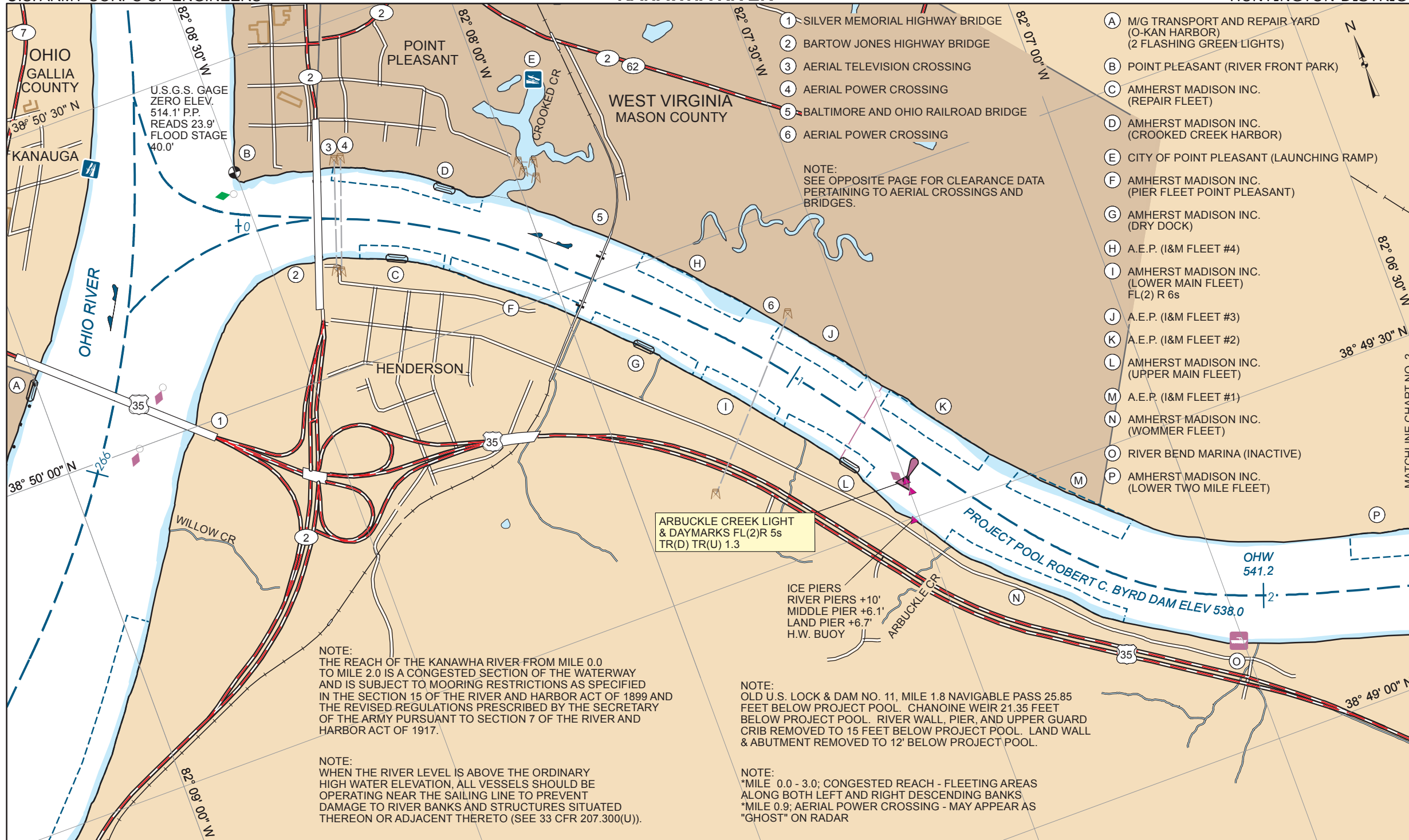
ELEVATION OF LOW STEEL	615.2'
VERTICAL CLEARANCE AT POOL STAGE	77.2'
VERTICAL CLEARANCE AT 1913 & 1937 HIGH WATER	45.2'
HORIZONTAL CLEARANCE	600.0'



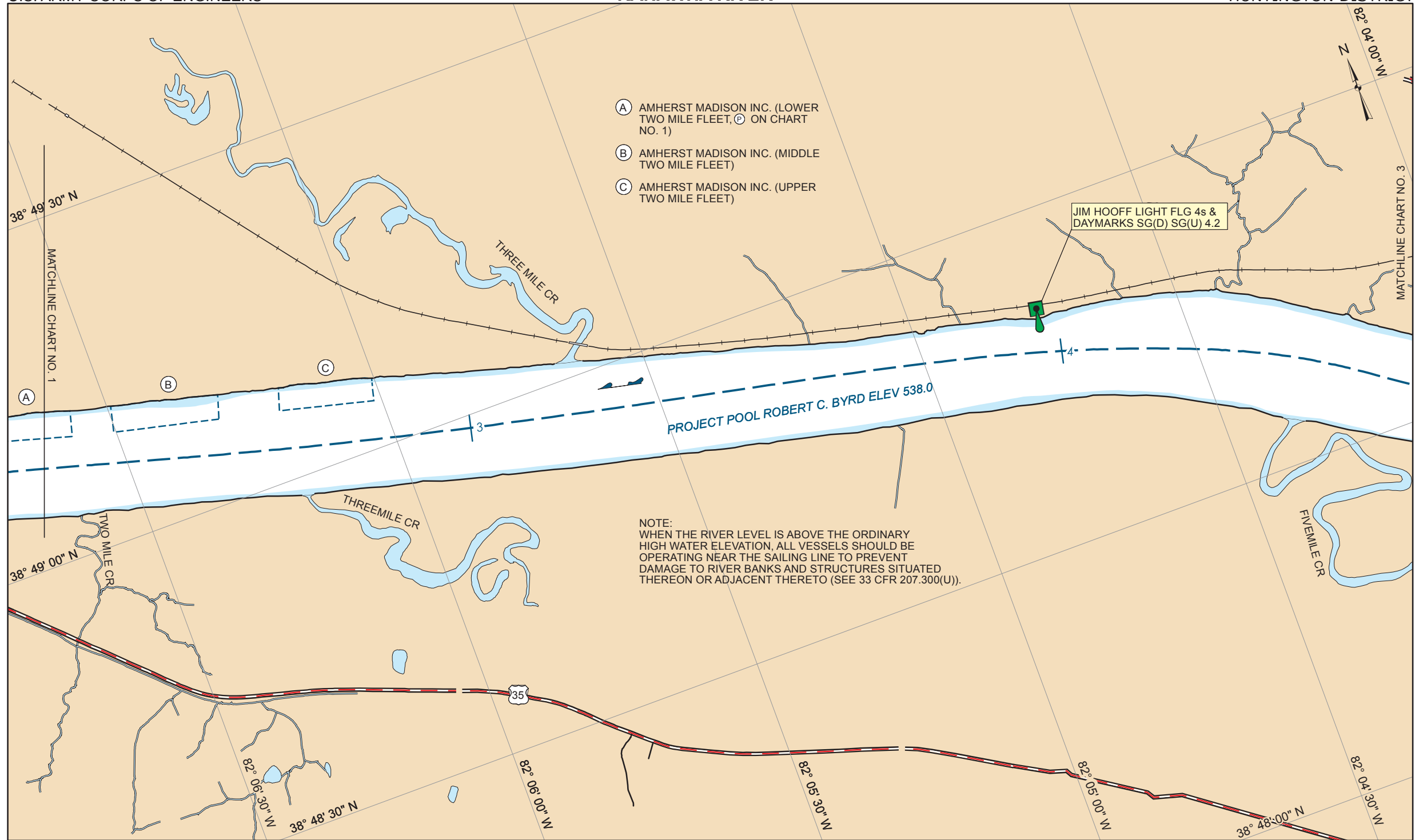
⑤

BALTIMORE & OHIO RAILWAY BRIDGE
(LOOKING DOWNSTREAM)

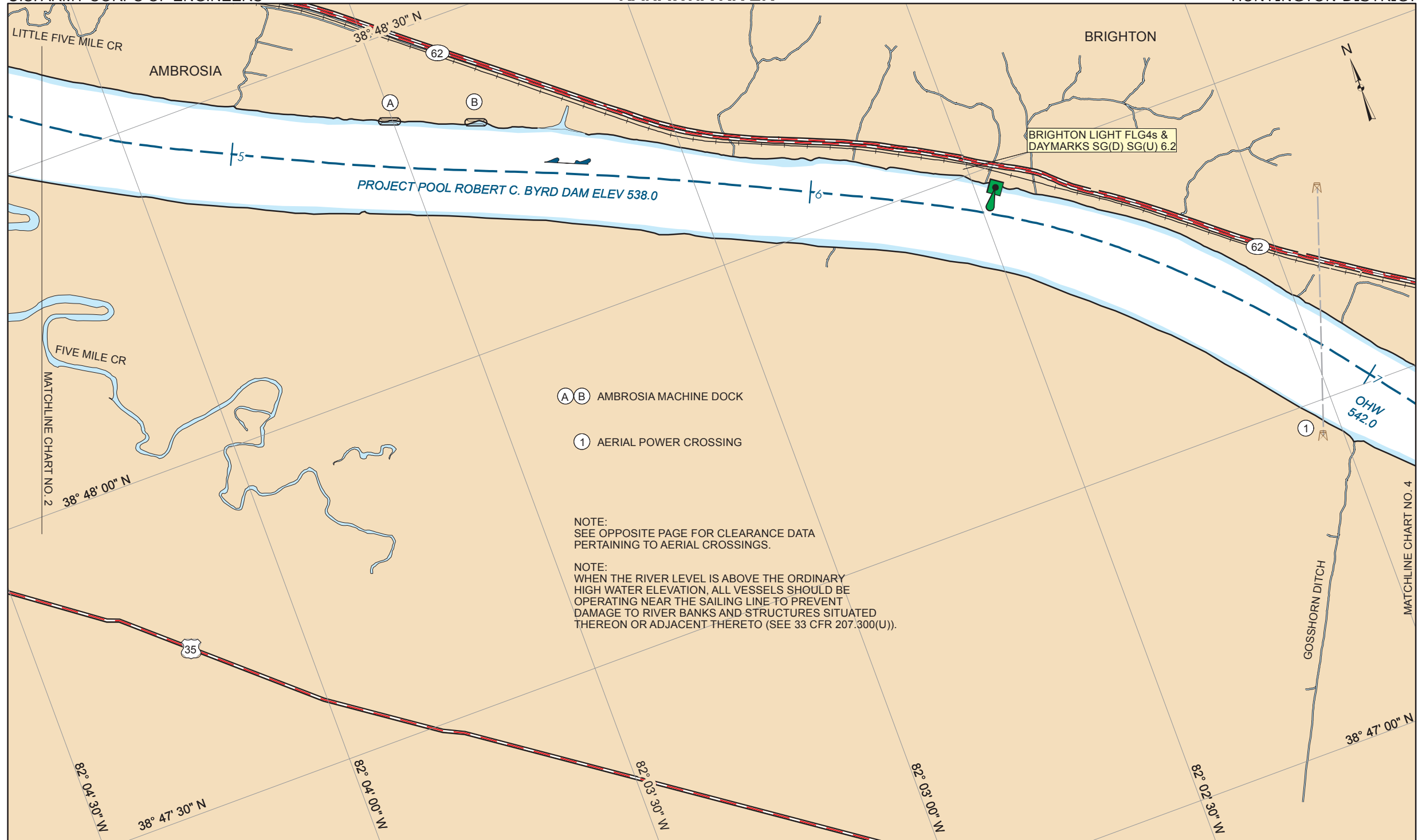
ELEVATION OF LOW STEEL	604.0'
VERTICAL CLEARANCE AT POOL STAGE	66.0'
VERTICAL CLEARANCE AT 1913 & 1937 HIGH WATER	27.3'
HORIZONTAL CLEARANCE	459.6'



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AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	640.0'	102.0'	63.0'



PROJECT POOL ROBERT C. BYRD DAM ELEV 538.0

BRIGHTON LIGHT FLG4s & DAYMARKS SG(D) SG(U) 6.2

OHW 542.0

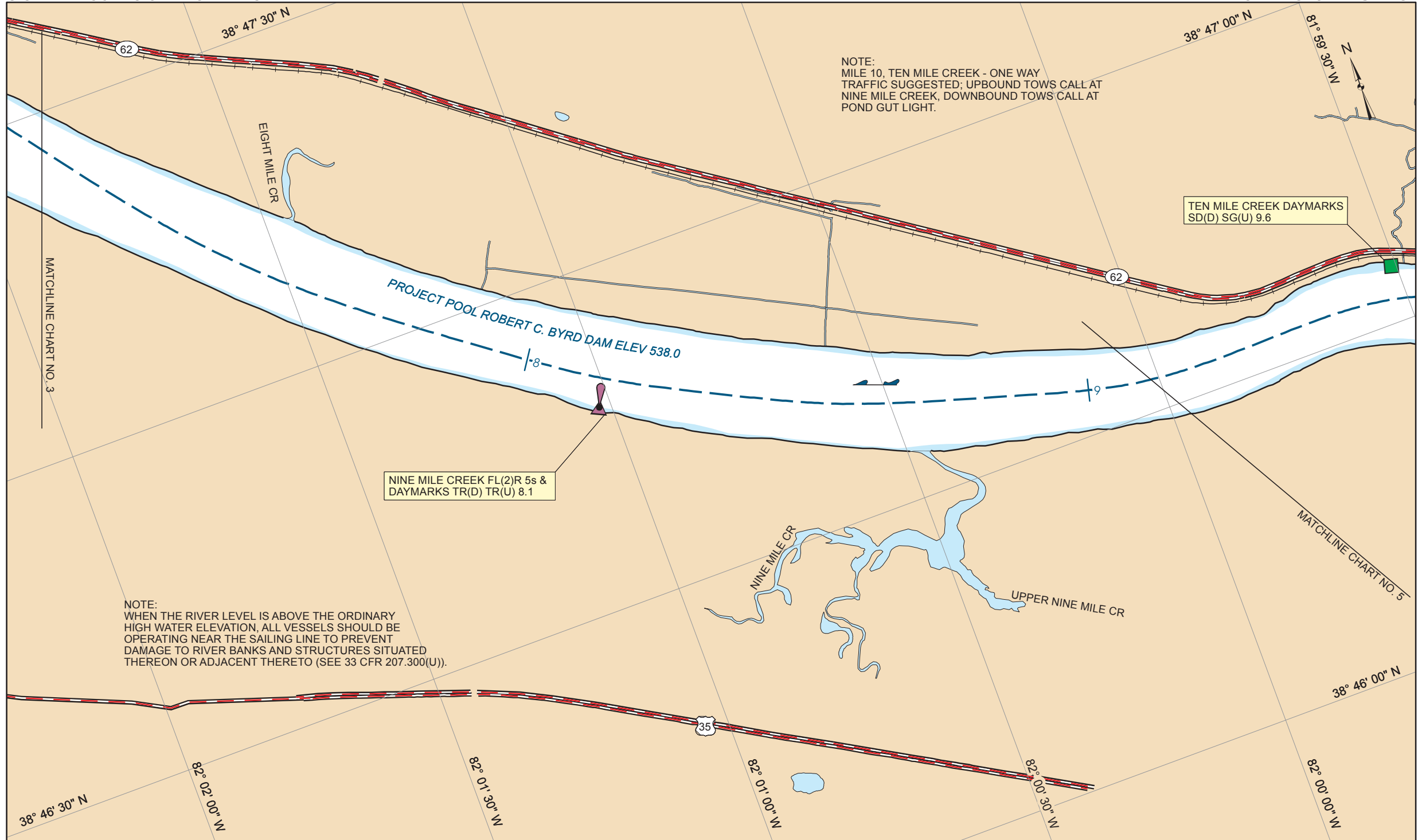
(A) (B) AMBROSIA MACHINE DOCK

(1) AERIAL POWER CROSSING

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA PERTAINING TO AERIAL CROSSINGS.

NOTE: WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 207.300(U)).

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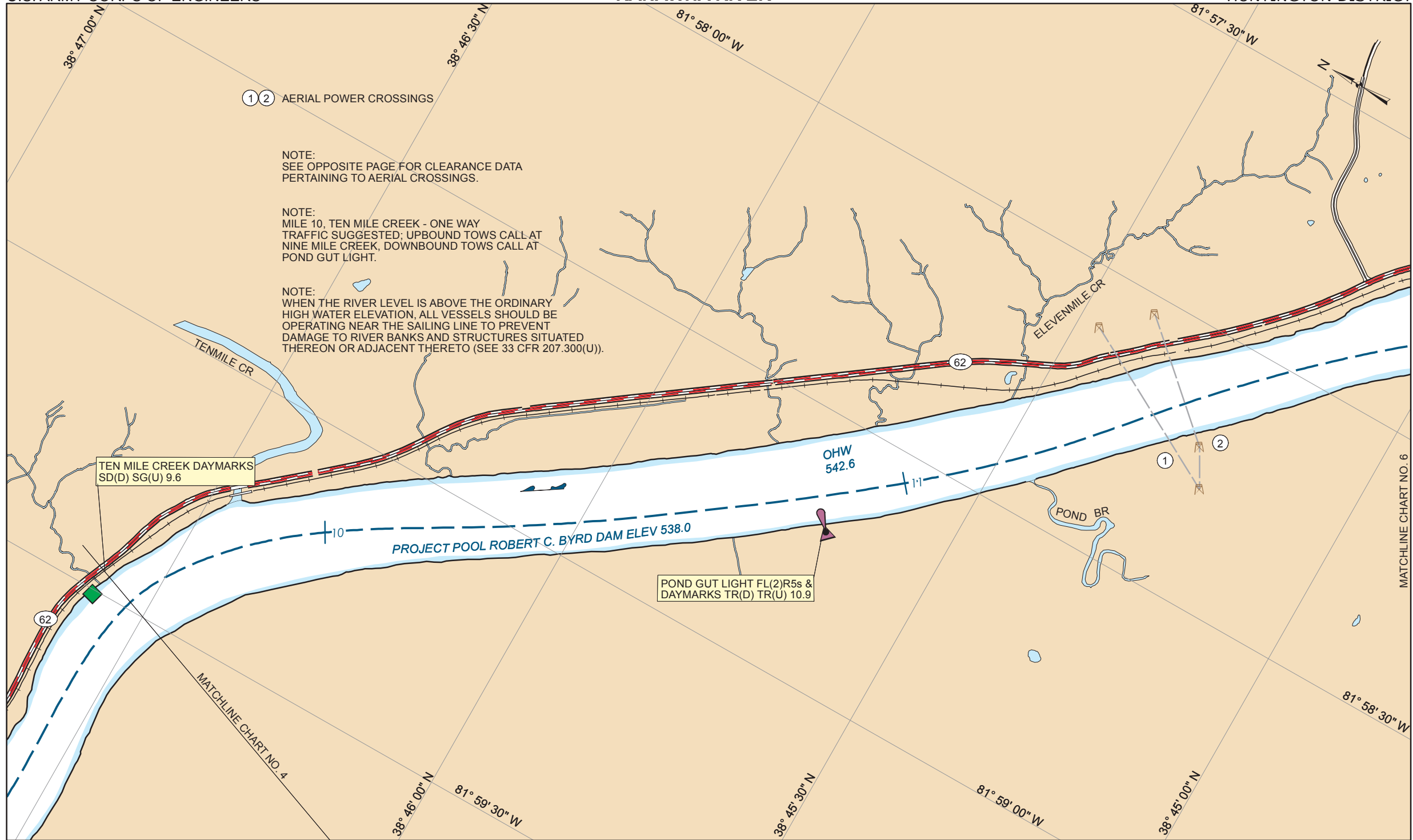
NOTE:
 MILE 10, TEN MILE CREEK - ONE WAY
 TRAFFIC SUGGESTED; UPBOUND TOWS CALL AT
 NINE MILE CREEK, DOWNBOUND TOWS CALL AT
 POND GUT LIGHT.

TEN MILE CREEK DAYMARKS
 SD(D) SG(U) 9.6

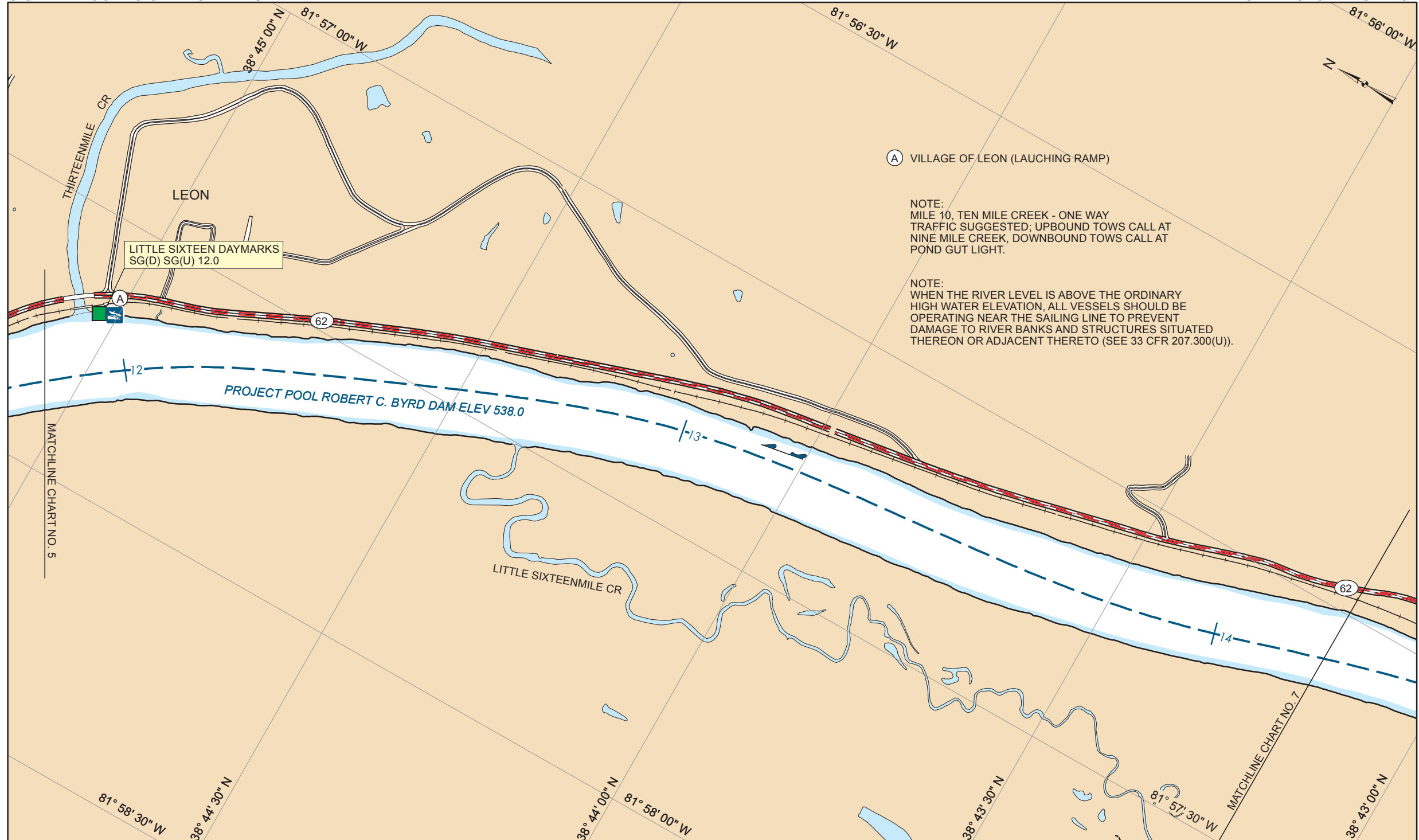
NINE MILE CREEK FL(2)R 5s &
 DAYMARKS TR(D) TR(U) 8.1

NOTE:
 WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY
 HIGH WATER ELEVATION, ALL VESSELS SHOULD BE
 OPERATING NEAR THE SAILING LINE TO PREVENT
 DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
 THEREON OR ADJACENT THERETO (SEE 33 CFR 207.300(U)).

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	657.0'	119.0'	80.0'
②	Power	644.8'	106.8'	67.8'



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(A) VILLAGE OF LEON (LAUNCHING RAMP)

NOTE:
MILE 10, TEN MILE CREEK - ONE WAY TRAFFIC SUGGESTED; UPBOUND TOWS CALL AT NINE MILE CREEK, DOWNBOUND TOWS CALL AT POND GUT LIGHT.

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 207.300(U)).

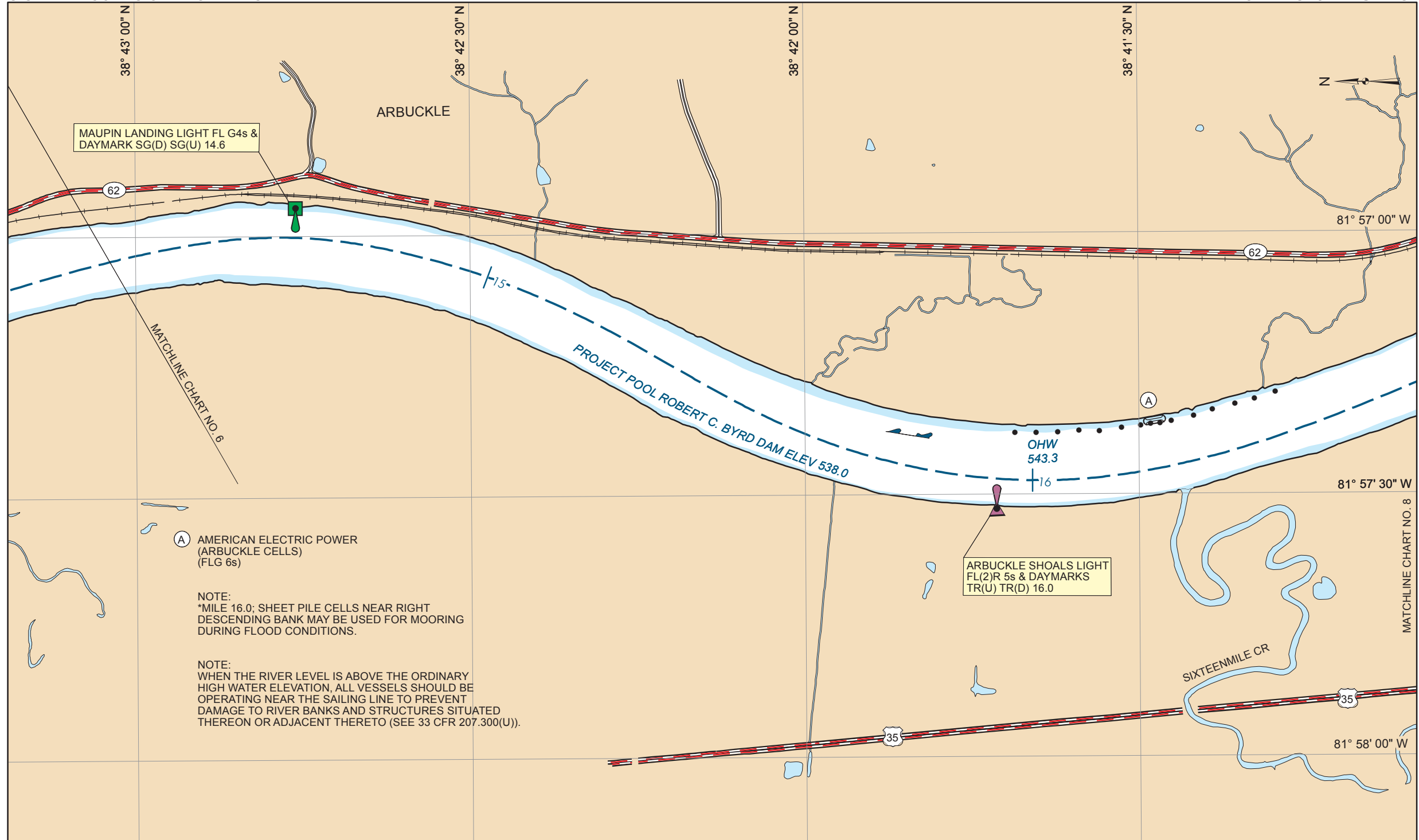
LITTLE SIXTEEN DAYMARKS
SG(D) SG(U) 12.0

PROJECT POOL ROBERT C. BYRD DAM ELEV 538.0

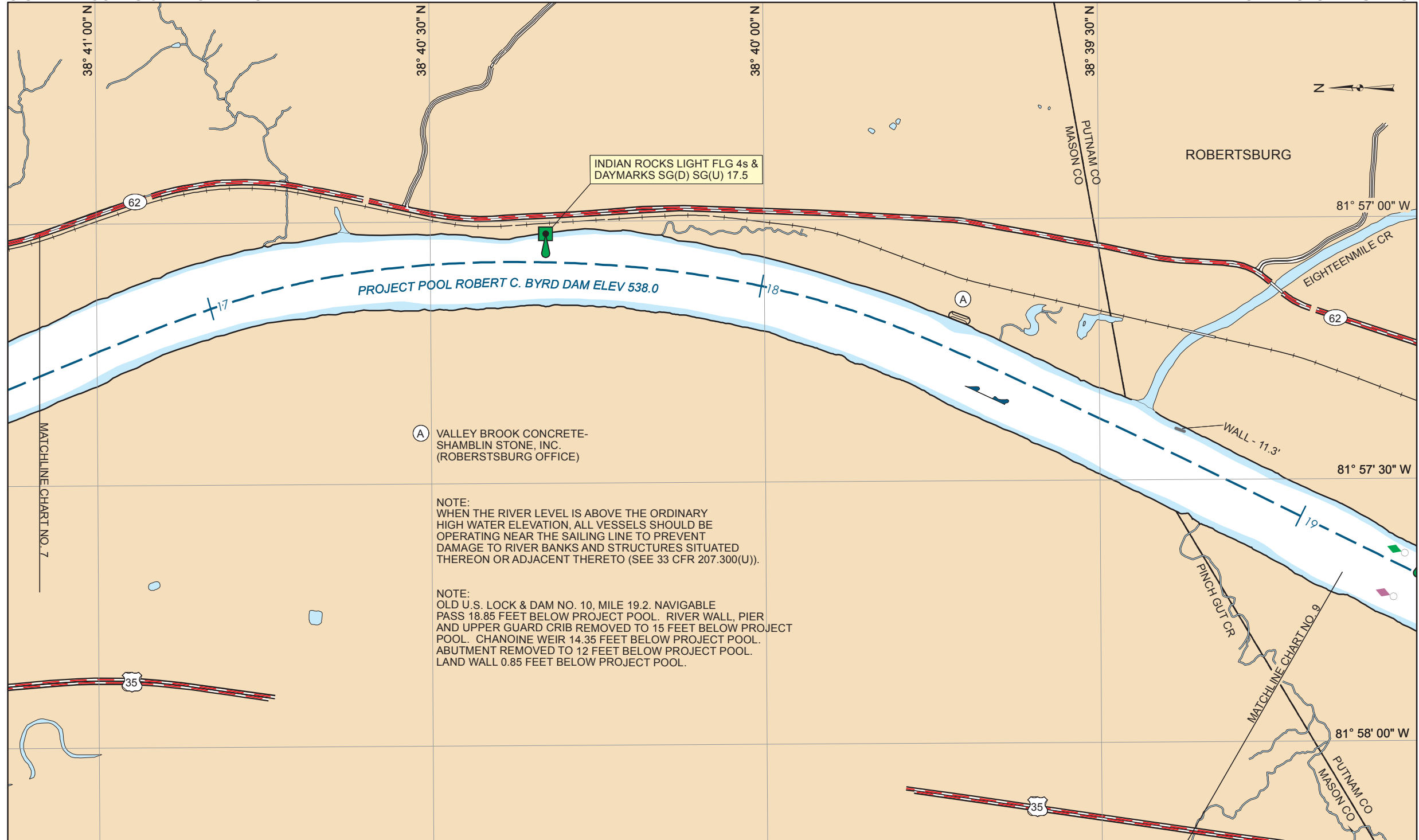
MATCHLINE CHART NO. 5

MATCHLINE CHART NO. 7

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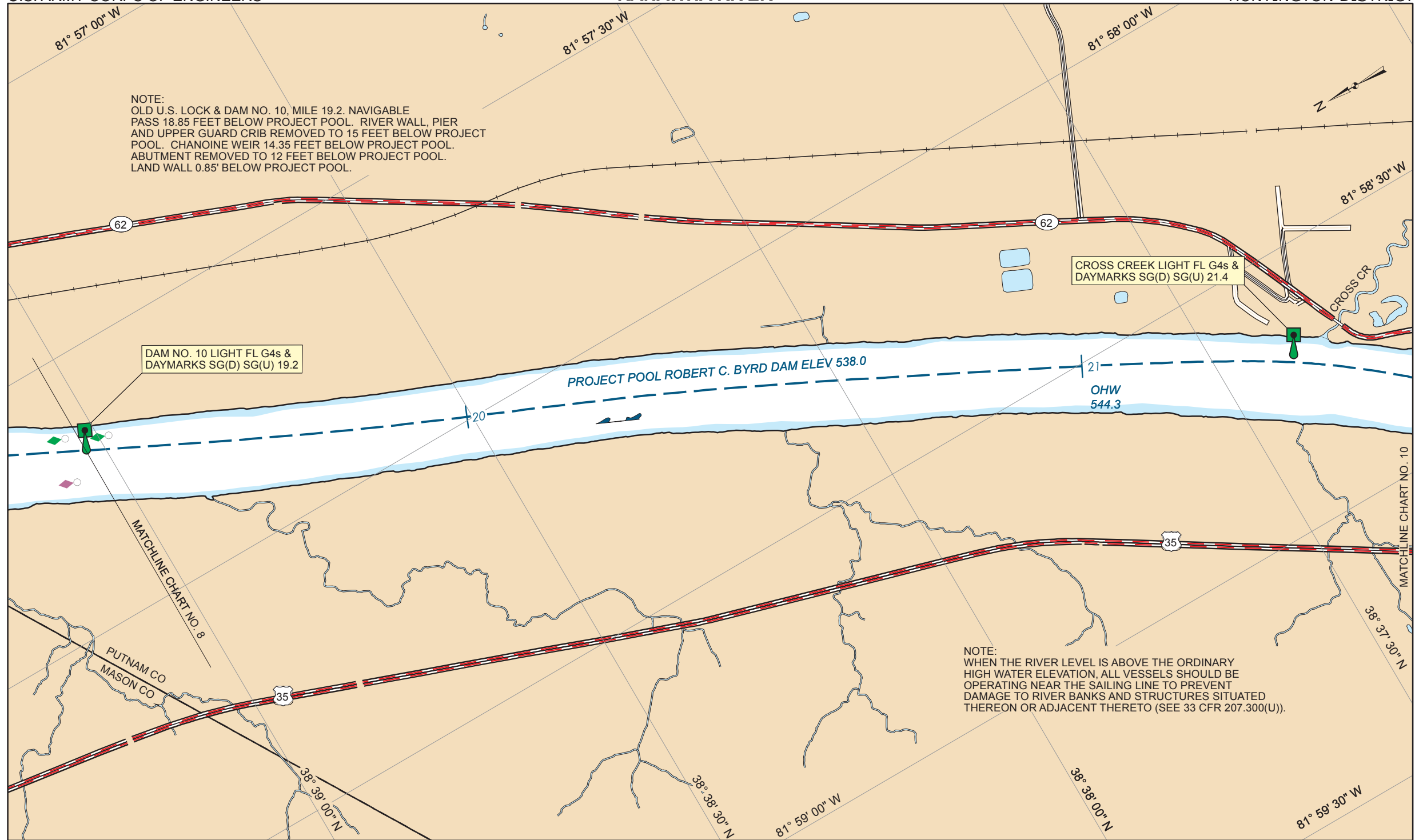


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NOTE:
 OLD U.S. LOCK & DAM NO. 10, MILE 19.2. NAVIGABLE
 PASS 18.85 FEET BELOW PROJECT POOL. RIVER WALL, PIER
 AND UPPER GUARD CRIB REMOVED TO 15 FEET BELOW PROJECT
 POOL. CHANOINE WEIR 14.35 FEET BELOW PROJECT POOL.
 ABUTMENT REMOVED TO 12 FEET BELOW PROJECT POOL.
 LAND WALL 0.85' BELOW PROJECT POOL.



DAM NO. 10 LIGHT FL G4s &
 DAYMARKS SG(D) SG(U) 19.2

CROSS CREEK LIGHT FL G4s &
 DAYMARKS SG(D) SG(U) 21.4

PROJECT POOL ROBERT C. BYRD DAM ELEV 538.0

OHW
 544.3

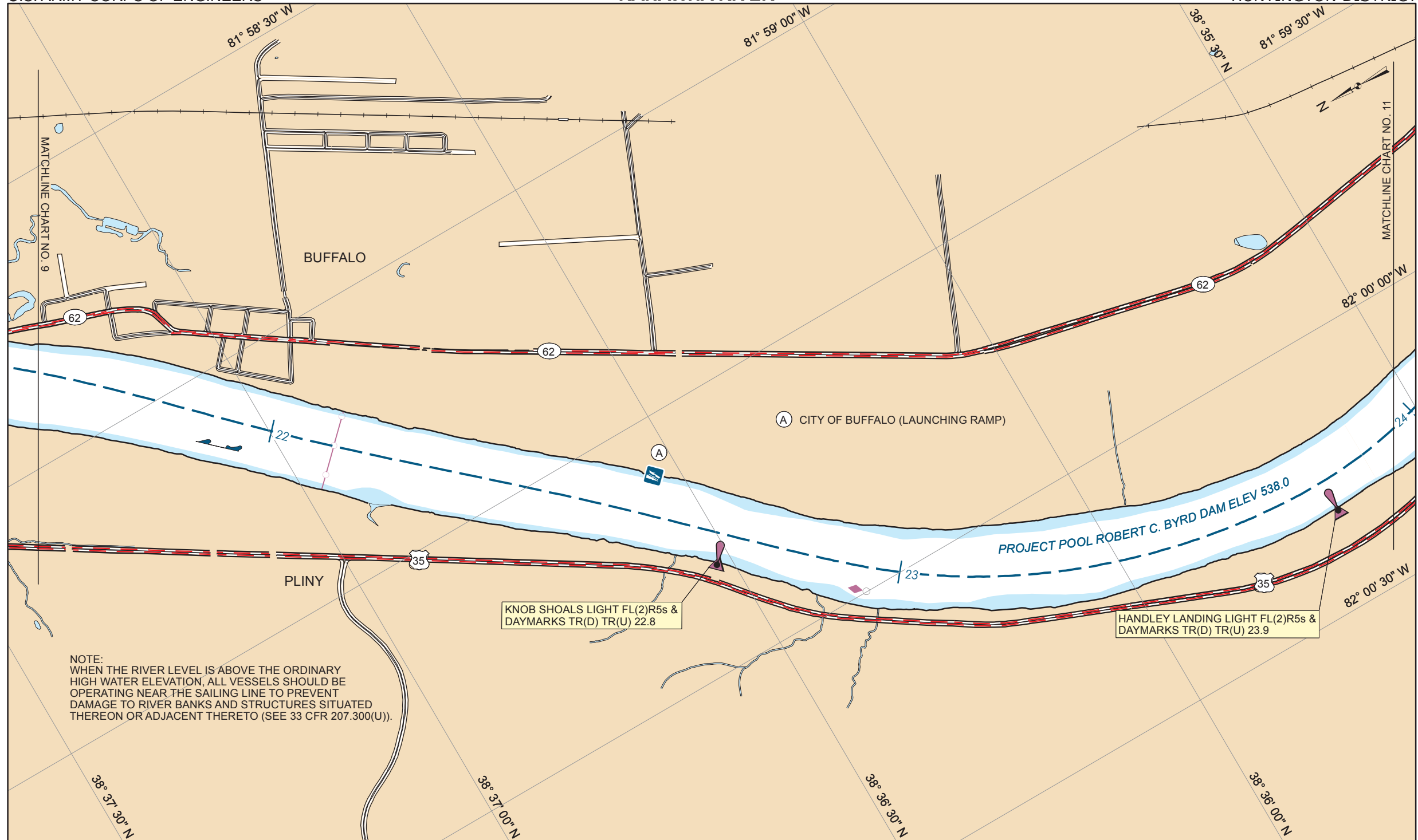
MATCHLINE CHART NO. 8

PUTNAM CO
 MASON CO

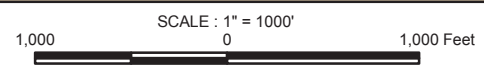
NOTE:
 WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY
 HIGH WATER ELEVATION, ALL VESSELS SHOULD BE
 OPERATING NEAR THE SAILING LINE TO PREVENT
 DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
 THEREON OR ADJACENT THERETO (SEE 33 CFR 207.300(U)).

MATCHLINE CHART NO. 10

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NOTE:
 WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY
 HIGH WATER ELEVATION, ALL VESSELS SHOULD BE
 OPERATING NEAR THE SAILING LINE TO PREVENT
 DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
 THEREON OR ADJACENT THERETO (SEE 33 CFR 207.300(U)).



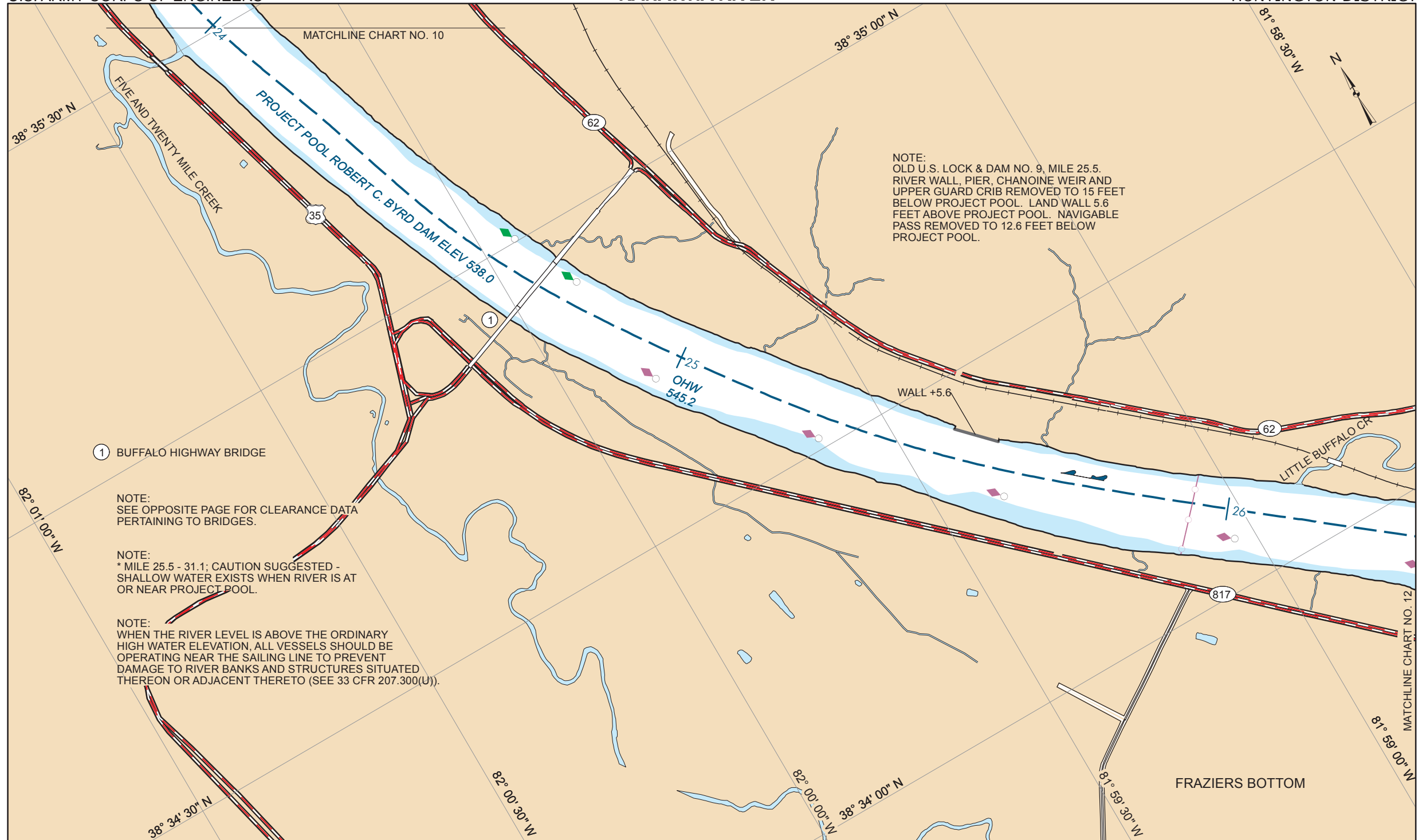


①

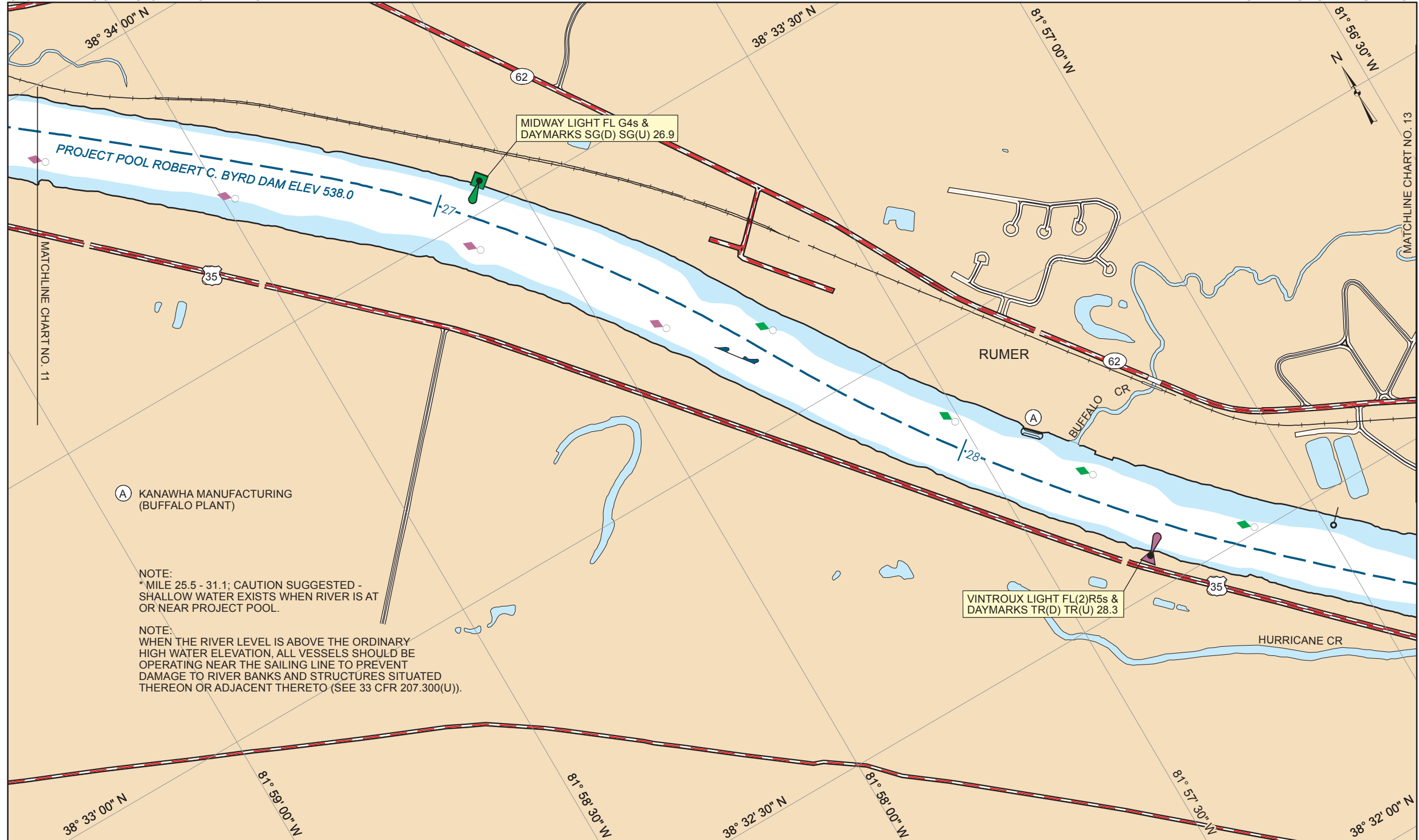
BUFFALO HIGHWAY BRIDGE

(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	604.3'
VERTICAL CLEARANCE AT POOL STAGE	66.0'
VERTICAL CLEARANCE AT 1913 HIGH WATER	30.2'
HORIZONTAL CLEARANCE	500.0'



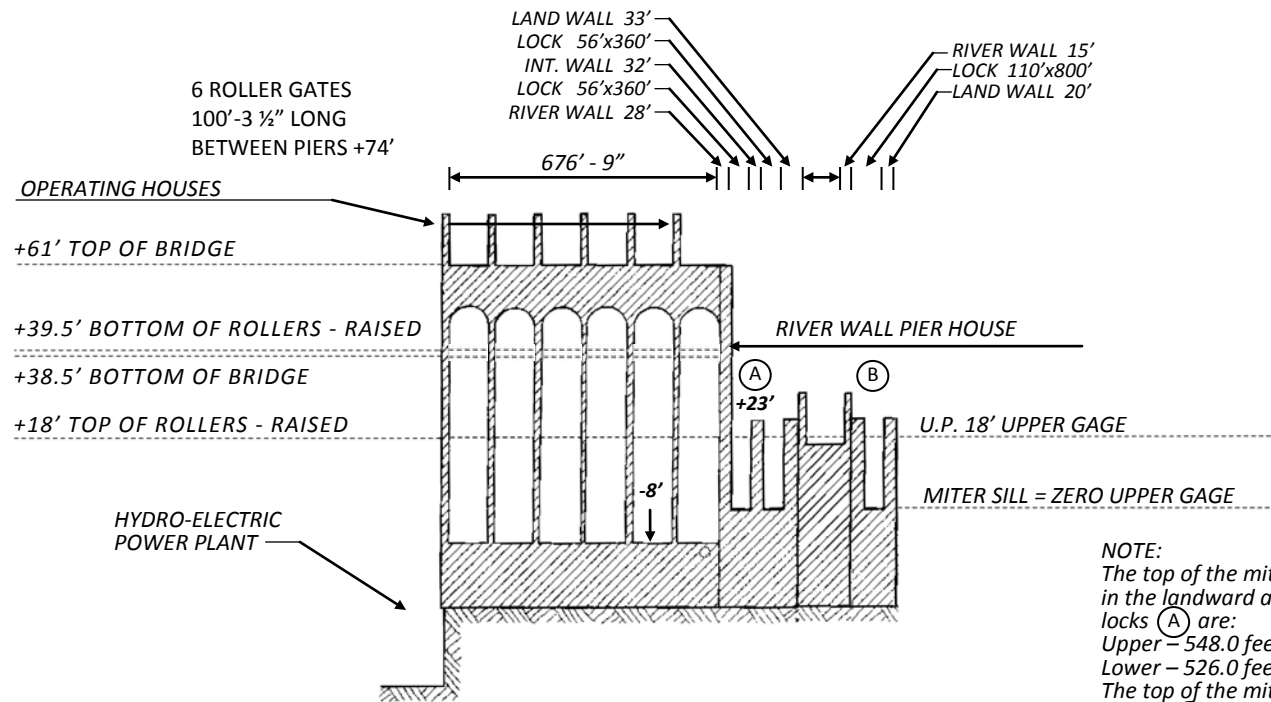
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(A) KANAWHA MANUFACTURING (BUFFALO PLANT)

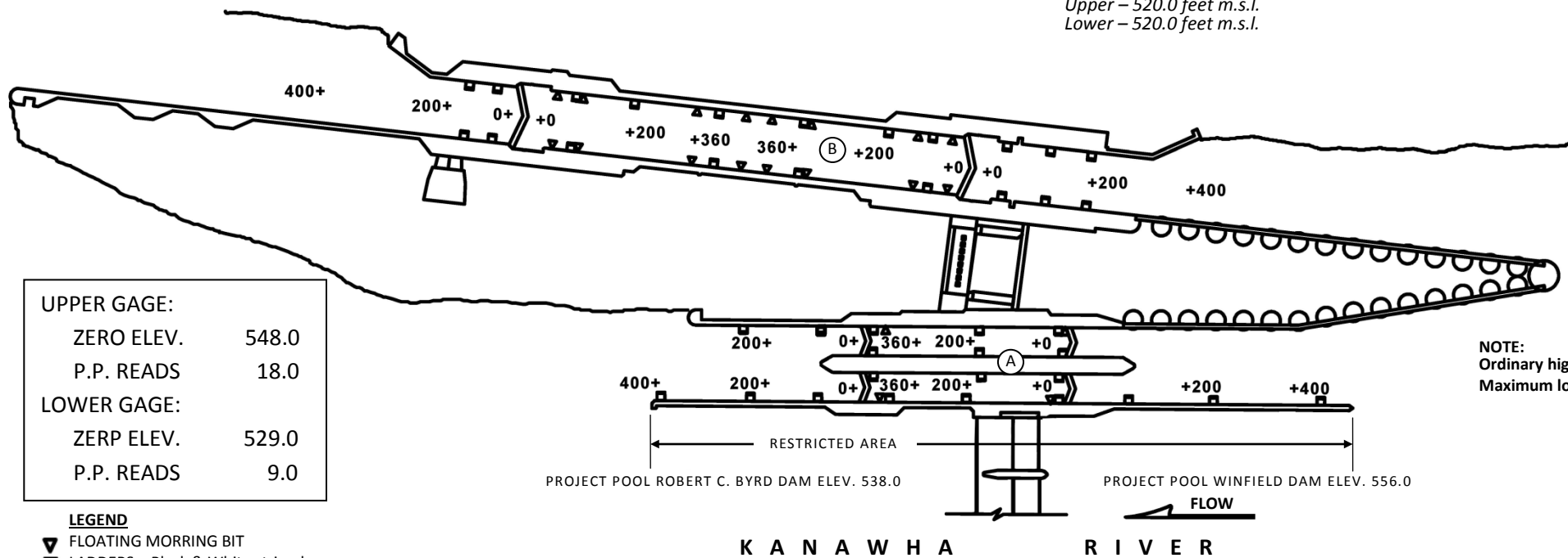
NOTE:
 * MILE 25.5 - 31.1; CAUTION SUGGESTED - SHALLOW WATER EXISTS WHEN RIVER IS AT OR NEAR PROJECT POOL.

NOTE:
 WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 207.300(U)).



AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	640.0'	102.0'	45.8'

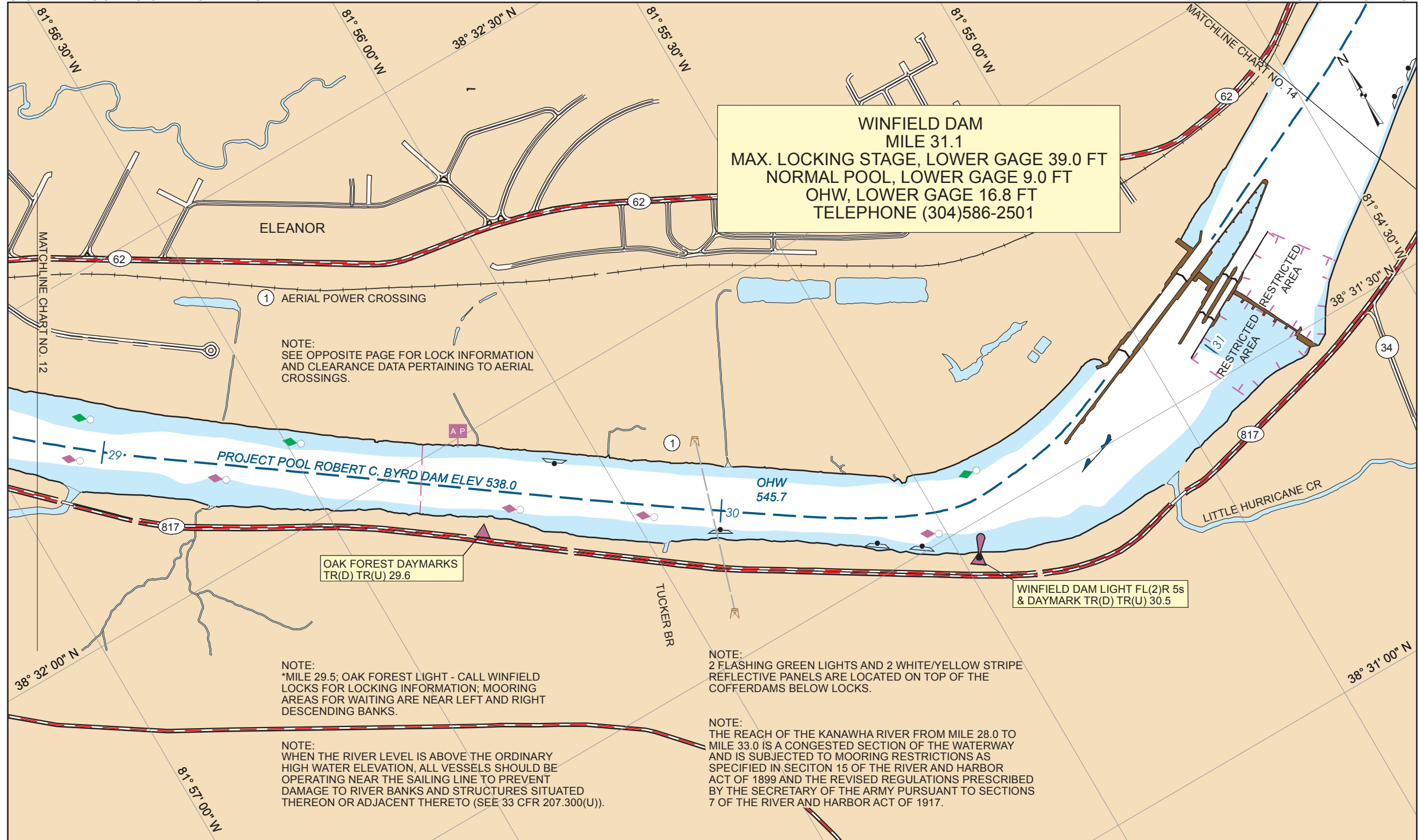
NOTE:
 The top of the miter gate sills in the landward and riverward locks (A) are:
 Upper - 548.0 feet m.s.l.
 Lower - 526.0 feet m.s.l.
 The top of the miter gate sills in lock (B) are:
 Emergency - 548.0 feet m.s.l.
 Upper - 520.0 feet m.s.l.
 Lower - 520.0 feet m.s.l.



UPPER GAGE:	
ZERO ELEV.	548.0
P.P. READS	18.0
LOWER GAGE:	
ZERP ELEV.	529.0
P.P. READS	9.0

LEGEND
 ▼ FLOATING MORRING BIT
 ▣ LADDERS - Black & White striped.
 Distance in feet from gate.

**WINFIELD
 LOCKS and DAM
 MILE 31.1**



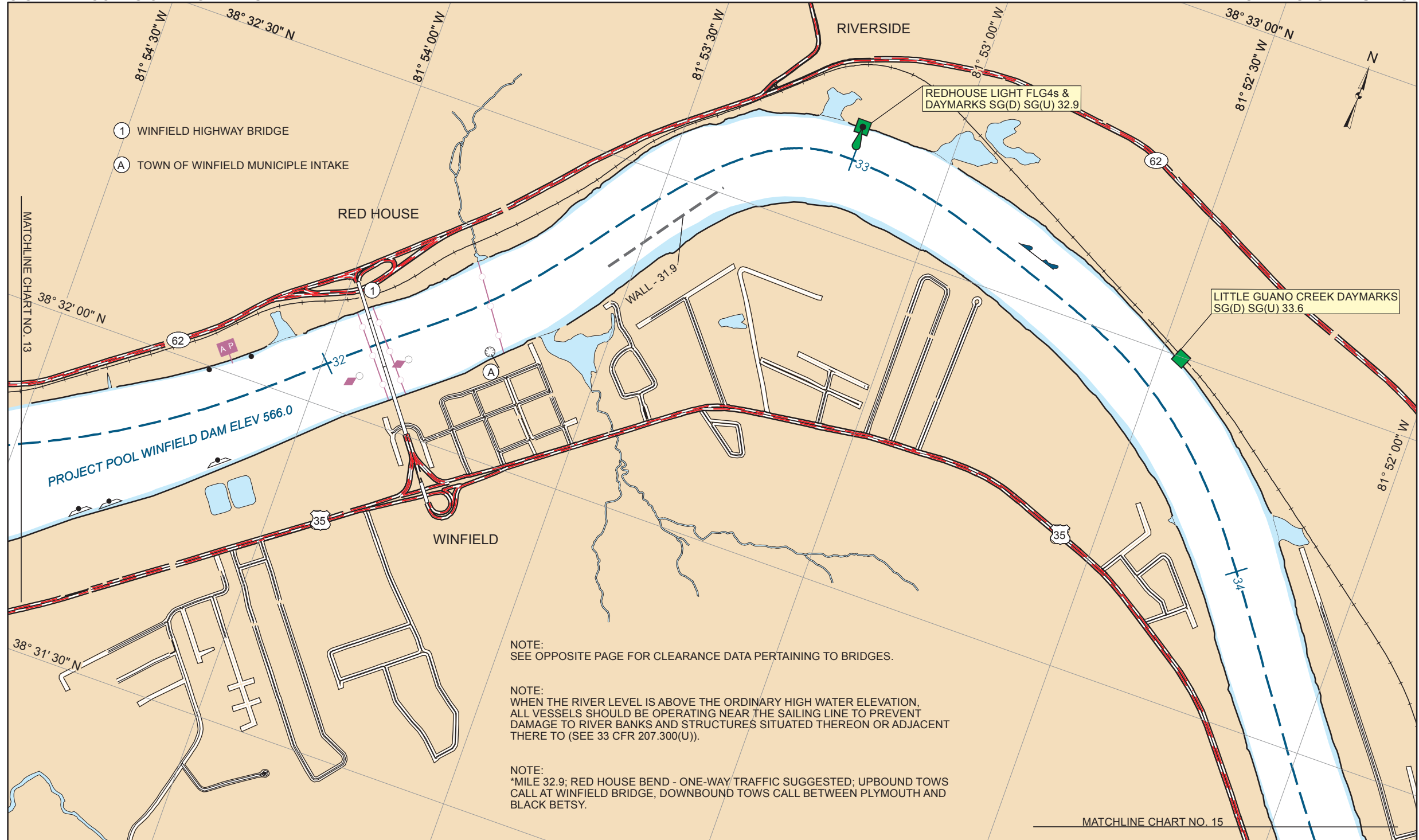


①

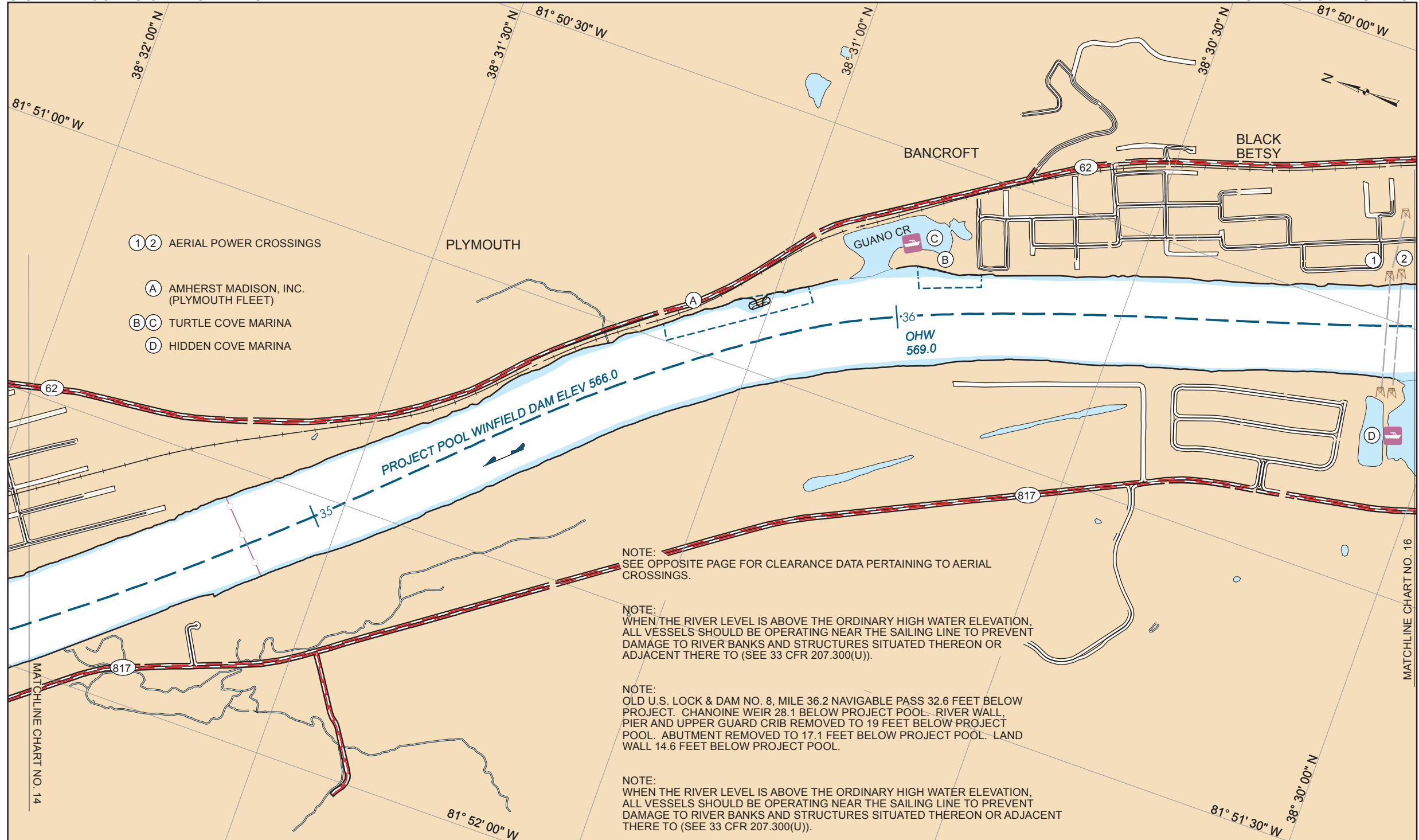
WINFIELD HIGHWAY BRIDGE

(LOOKING DOWNSTREAM)

	AT CENTER	450' WIDE
ELEVATION OF LOW STEEL	630.4'	626.0'
VERTICAL CLEARANCE AT POOL STAGE	64.4'	60.0'
VERTICAL CLEARANCE AT 1861 HIGH WATER	47.4'	43.0'
HORIZONTAL CLEARANCE	450.0'	



AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	649.0'	83.0'	61.3'
②	Power	683.5'	117.5'	95.8'



AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	671.0'	105.0'	84.1'
②	Telephone	607.0'	41.0'	17.0'
③	Power	586.3'	20.3'	3.7'



④

**ROUTE 62 HIGHWAY BRIDGE -
POCATALICO RIVER**
(LOOKING DOWNSTREAM)

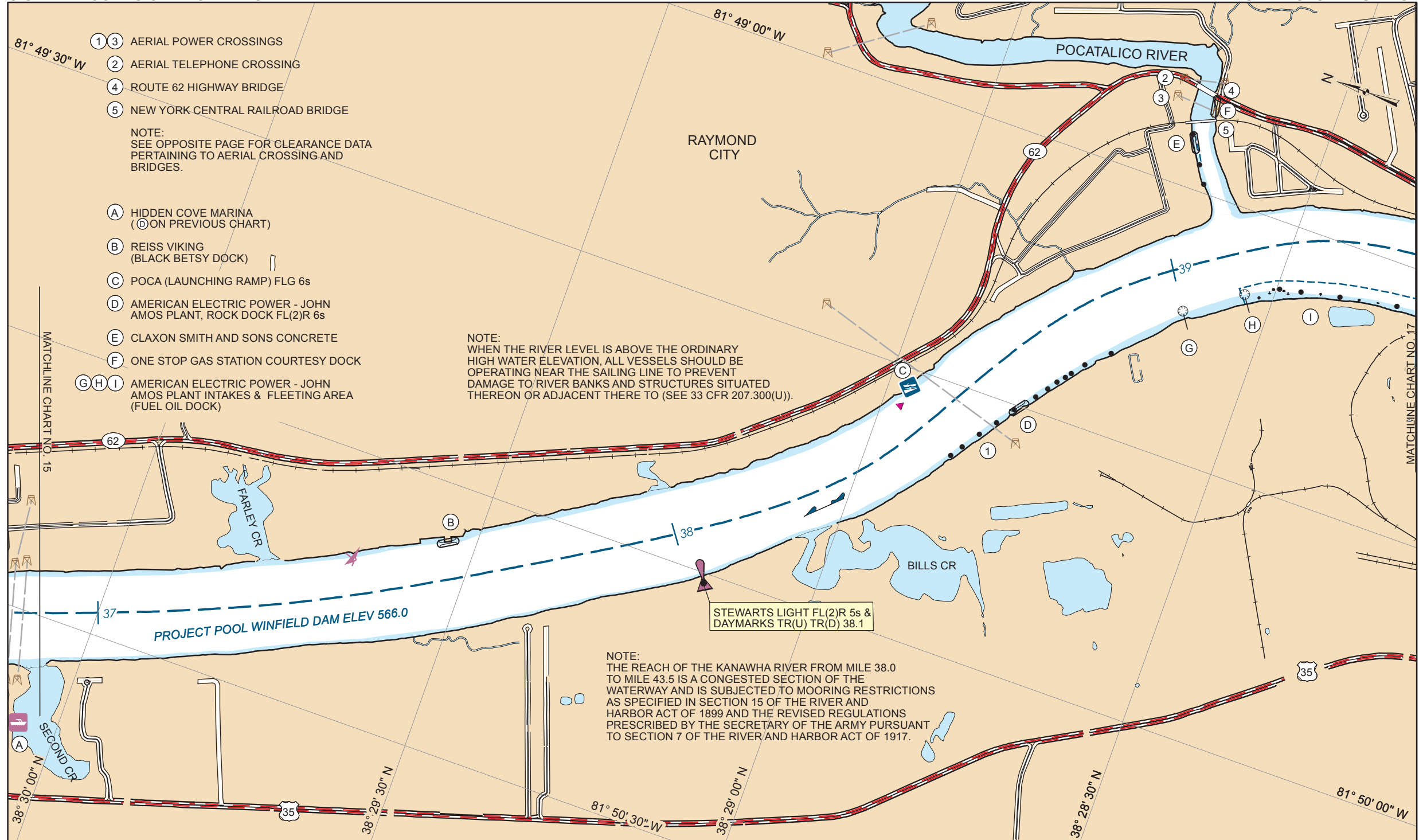
ELEVATION OF LOW STEEL 576.8'
VERTICAL CLEARANCE AT POOL STAGE 11.4'
HORIZONTAL CLEARANCE 73.02'



⑤

**NEW YORK CENTRAL RAILROAD BRIDGE -
POCATALICO RIVER**
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL 584.0'
VERTICAL CLEARANCE AT POOL STAGE 18.6'
HORIZONTAL CLEARANCE 114.3'

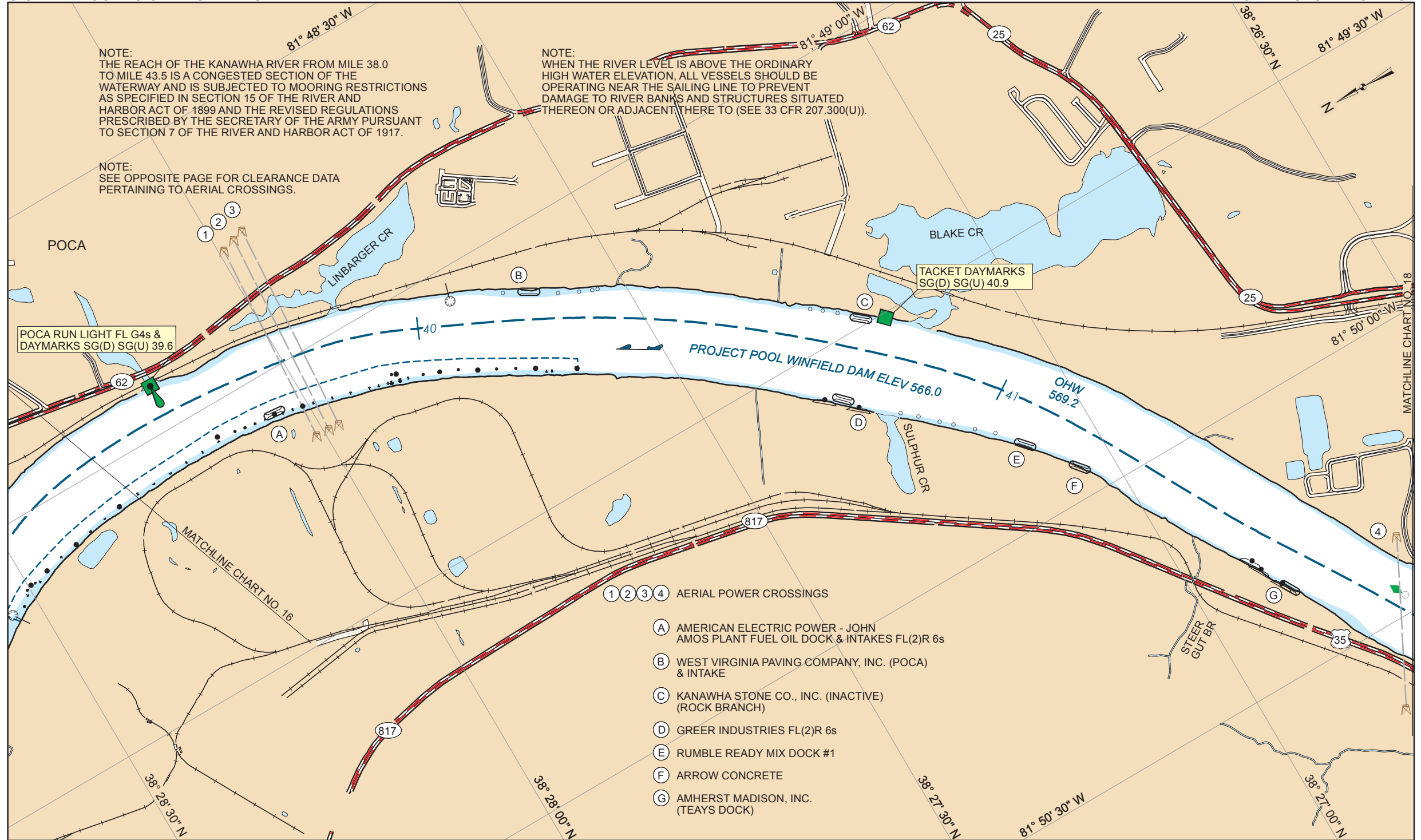


AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	656.0'	90.0'	65.1'
②	Power	648.0'	82.0'	57.1'
③	Telephone	648.0'	82.0'	57.1'
④	Power	646.5'	80.5'	53.7'

NOTE:
 THE REACH OF THE KANAWHA RIVER FROM MILE 38.0 TO MILE 43.5 IS A CONGESTED SECTION OF THE WATERWAY AND IS SUBJECTED TO MOORING RESTRICTIONS AS SPECIFIED IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND THE REVISED REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY PURSUANT TO SECTION 7 OF THE RIVER AND HARBOR ACT OF 1917.

NOTE:
 SEE OPPOSITE PAGE FOR CLEARANCE DATA PERTAINING TO AERIAL CROSSINGS.

NOTE:
 WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERE TO (SEE 33 CFR 207.300(U)).



- ① ② ③ ④ AERIAL POWER CROSSINGS
- (A) AMERICAN ELECTRIC POWER - JOHN AMOS PLANT FUEL OIL DOCK & INTAKES FL(2)R 6s
- (B) WEST VIRGINIA PAVING COMPANY, INC. (POCA) & INTAKE
- (C) KANAWHA STONE CO., INC. (INACTIVE) (ROCK BRANCH)
- (D) GREER INDUSTRIES FL(2)R 6s
- (E) RUMBLE READY MIX DOCK #1
- (F) ARROW CONCRETE
- (G) AMHERST MADISON, INC. (TEAYS DOCK)

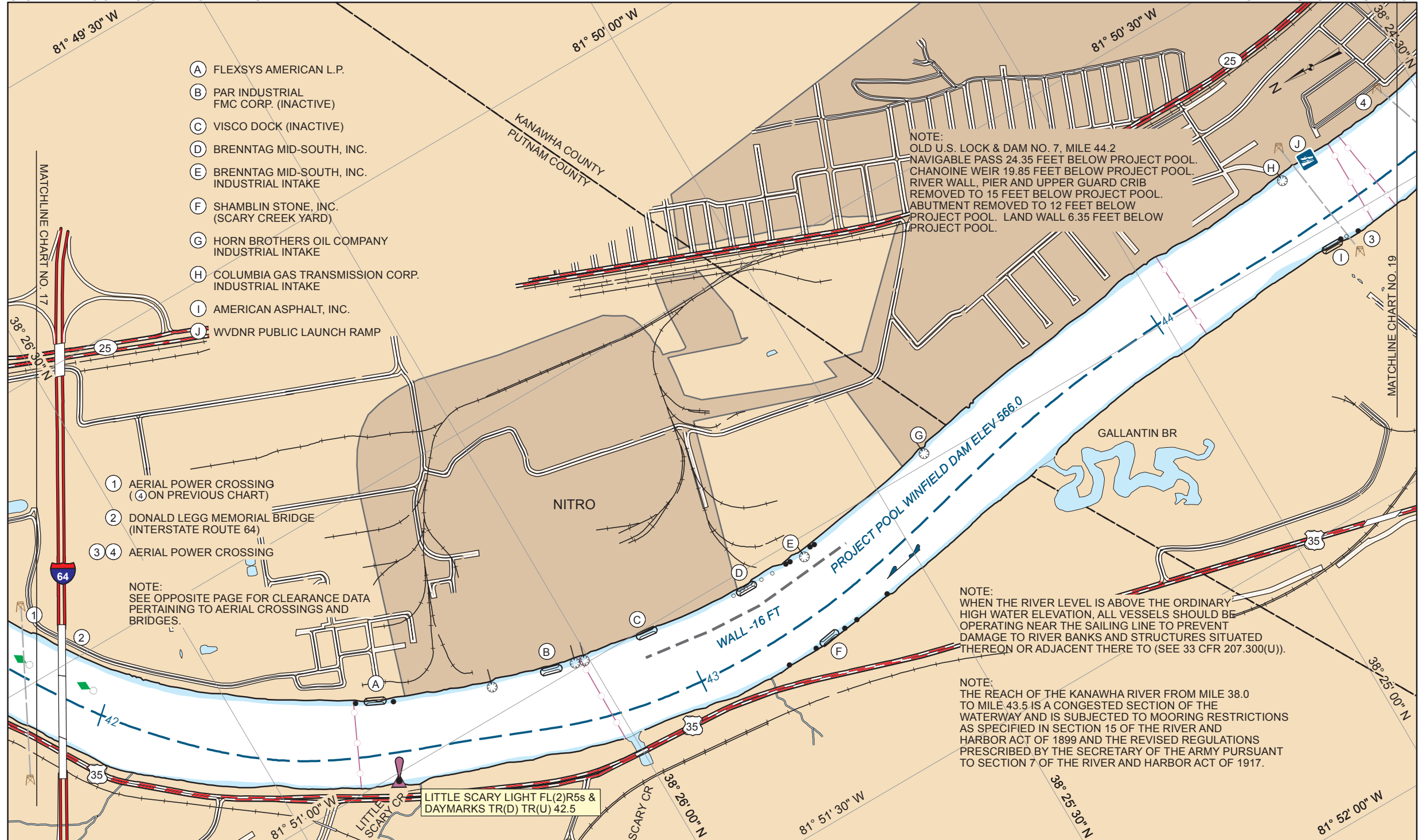
AERIAL POWER LINES			CLEARANCES	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	646.5'	80.5'	53.7
③	Power	632.8'	66.8'	37.7'
④	Power	649.0'	83.0'	53.7'



②

DONALD LEGG MEMORIAL BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	631.0'
VERTICAL CLEARANCE AT POOL STAGE	65.0'
VERTICAL CLEARANCE AT 1913 & 1937 HIGH WATER	38.0'
HORIZONTAL CLEARANCE :	
RIGHT ANGLE TO CHANNEL	453.5'
ACTUAL	548.5'



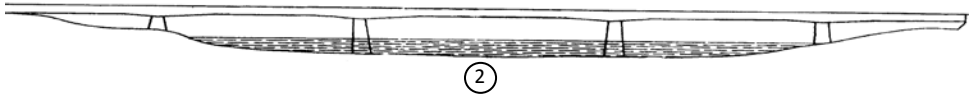
AERIAL POWER CROSSINGS			CLEARANCES	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	649.0'	83.0'	53.7'
③	Telephone	600.7'	34.7'	4.7'
⑤	Power	617.5'	51.5'	21.5'
⑦	Telephone	596.5'	30.5'	0.5'
⑧	Communications	634.2	68.2	38.2
⑩	Communications	652.7	86.7	56.7



⑨

SAINT ALBANS – NITRO BRIDGE
(LOOKING DOWNSTREAM)

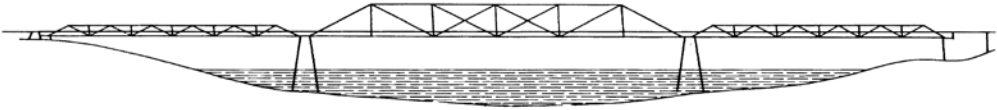
ELEVATION OF LOW STEEL	626.5'
VERTICAL CLEARANCE AT POOL STAGE	60.5'
VERTICAL CLEARANCE AT 1861 HIGH WATER	29.5'
HORIZONTAL CLEARANCE	430.0'



②

SAINT ALBANS HIGHWAY BRIDGE (COAL RIVER)
(LOOKING UPSTREAM)

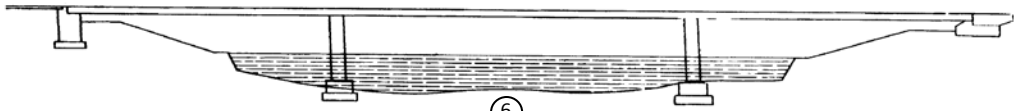
ELEVATION OF LOW STEEL	587.5'
VERTICAL CLEARANCE AT POOL STAGE	21.5'
VERTICAL CLEARANCE AT 1861 HIGH WATER	-8.5'
HORIZONTAL CLEARANCE	111.0'



④

C. & O. RAILROAD BRIDGE (COAL RIVER)
(LOOKING UPSTREAM)

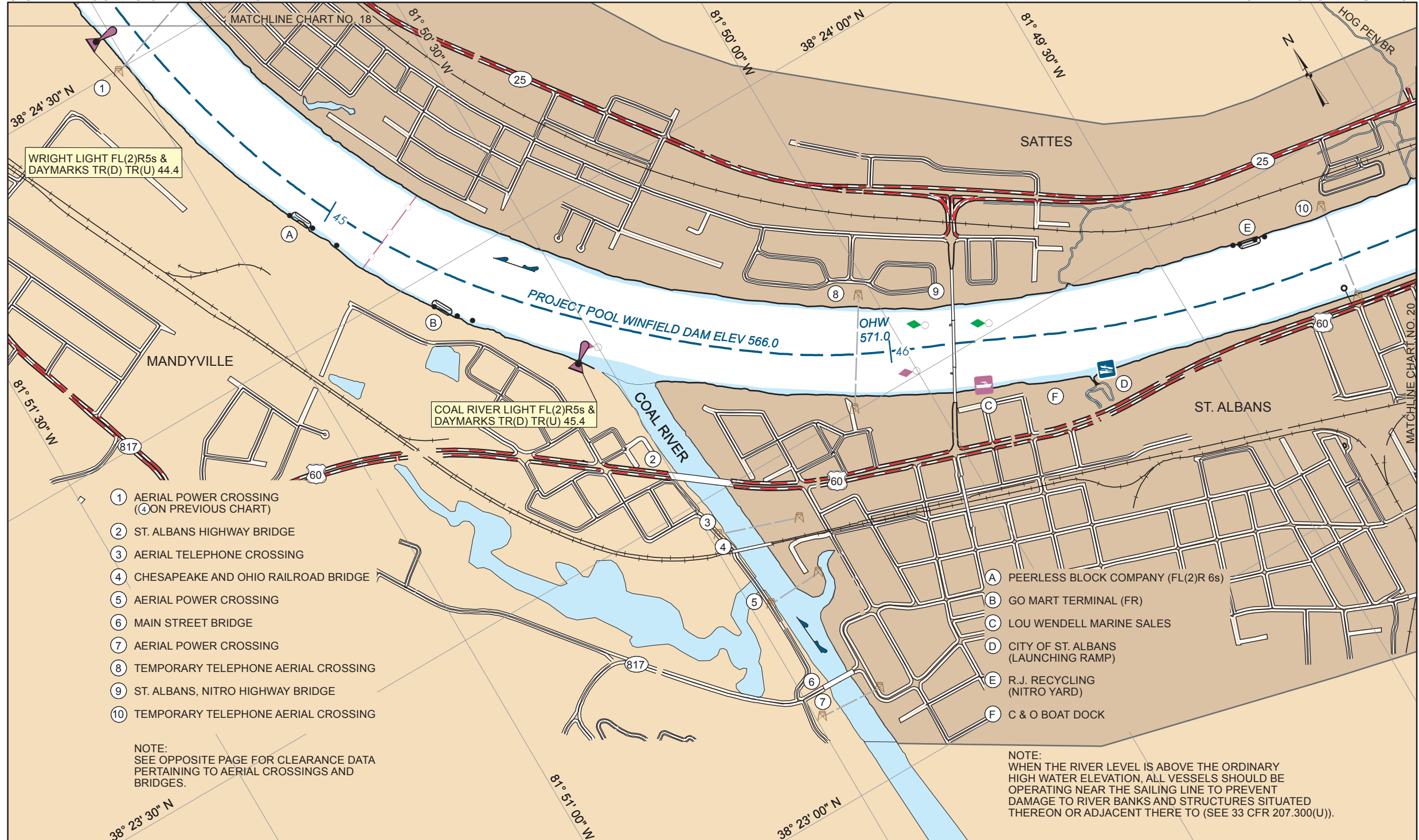
ELEVATION OF LOW STEEL	590.9'
VERTICAL CLEARANCE AT POOL STAGE	24.9'
VERTICAL CLEARANCE AT 1861 HIGH WATER	5.1'
HORIZONTAL CLEARANCE	144.5'



⑥

MAIN STREET BRIDGE (COAL RIVER)
(LOOKING UPSTREAM)

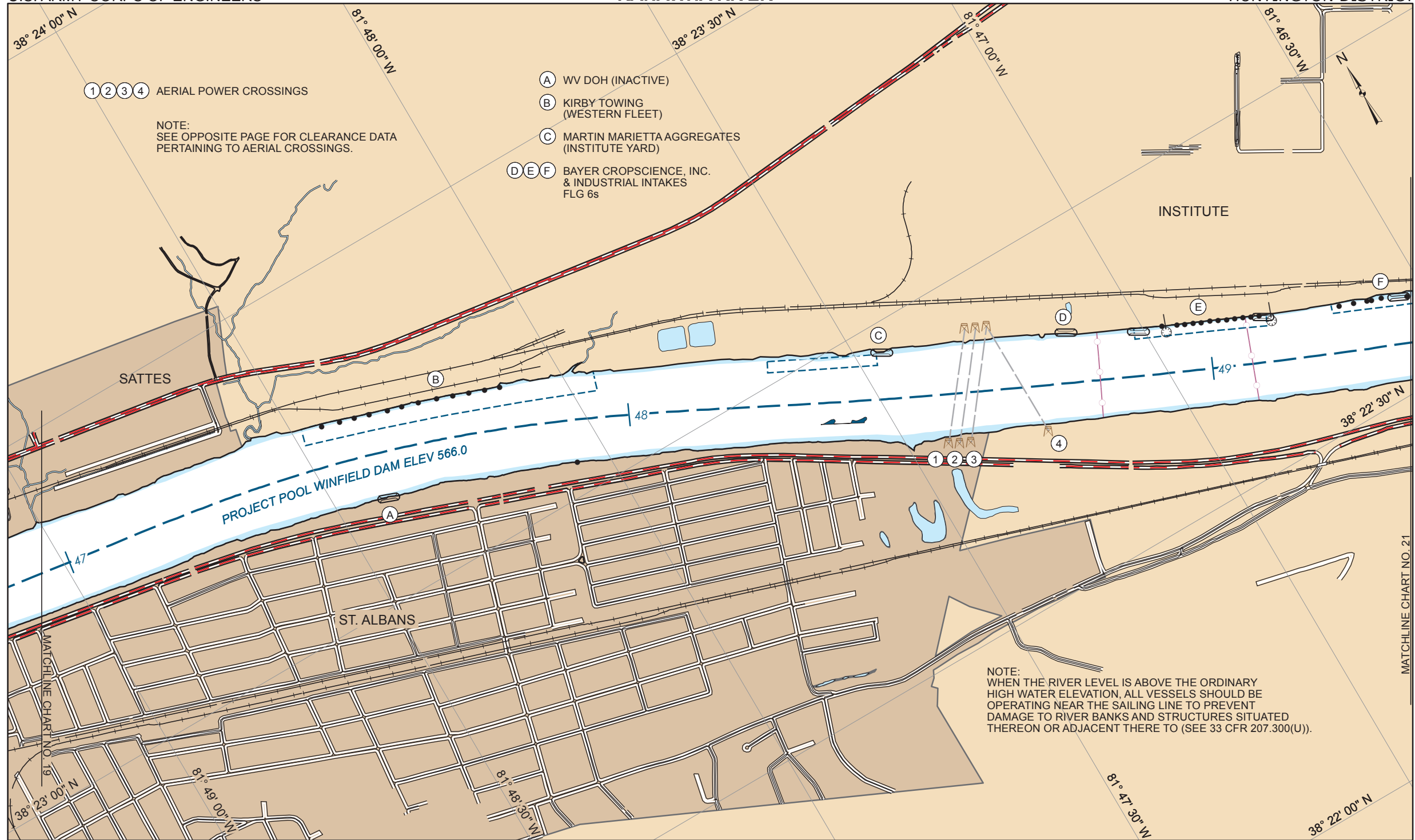
ELEVATION OF LOW STEEL	587.5'
VERTICAL CLEARANCE AT POOL STAGE	21.5'
VERTICAL CLEARANCE AT 1861 HIGH WATER	8.5'
HORIZONTAL CLEARANCE	110.0'



- 1 AERIAL POWER CROSSING (4 ON PREVIOUS CHART)
- 2 ST. ALBANS HIGHWAY BRIDGE
- 3 AERIAL TELEPHONE CROSSING
- 4 CHESAPEAKE AND OHIO RAILROAD BRIDGE
- 5 AERIAL POWER CROSSING
- 6 MAIN STREET BRIDGE
- 7 AERIAL POWER CROSSING
- 8 TEMPORARY TELEPHONE AERIAL CROSSING
- 9 ST. ALBANS, NITRO HIGHWAY BRIDGE
- 10 TEMPORARY TELEPHONE AERIAL CROSSING

- A PEERLESS BLOCK COMPANY (FL(2)R 6s)
- B GO MART TERMINAL (FR)
- C LOU WENDELL MARINE SALES
- D CITY OF ST. ALBANS (LAUNCHING RAMP)
- E R.J. RECYCLING (NITRO YARD)
- F C & O BOAT DOCK

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	663.0'	97.0'	64.7'
②	Power	654.9'	88.9'	56.6'
③	Power	658.9'	92.9'	60.6'
④	Power	641.0'	75.0'	42.7'



1 2 3 4 AERIAL POWER CROSSINGS

NOTE:
SEE OPPOSITE PAGE FOR CLEARANCE DATA
PERTAINING TO AERIAL CROSSINGS.

- (A) WV DOH (INACTIVE)
- (B) KIRBY TOWING (WESTERN FLEET)
- (C) MARTIN MARIETTA AGGREGATES (INSTITUTE YARD)
- (D E F) BAYER CROPSCIENCE, INC. & INDUSTRIAL INTAKES FLG 6s

PROJECT POOL WINFIELD DAM ELEV 566.0

SATTES

INSTITUTE

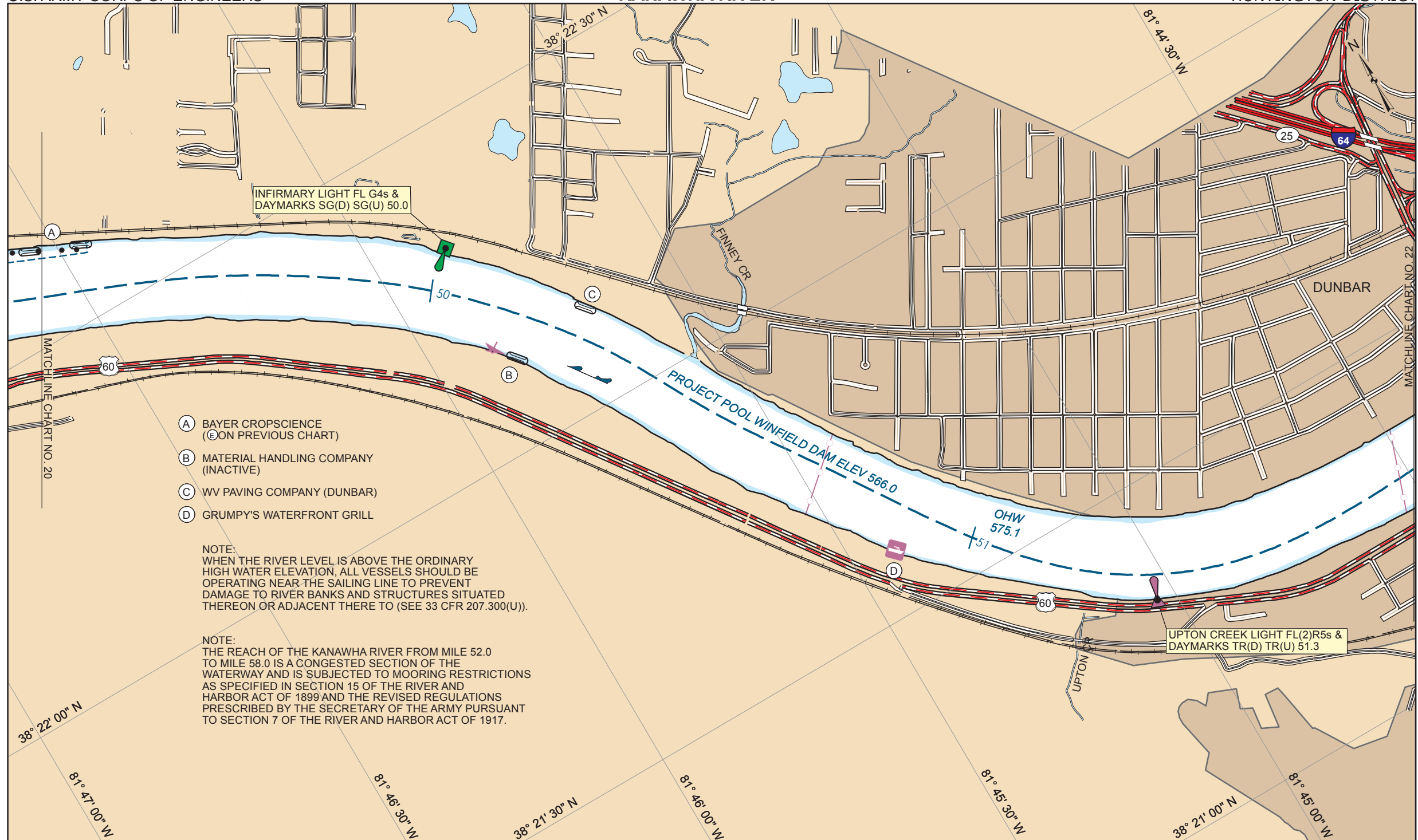
ST. ALBANS

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY
HIGH WATER ELEVATION, ALL VESSELS SHOULD BE
OPERATING NEAR THE SAILING LINE TO PREVENT
DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
THEREON OR ADJACENT THERE TO (SEE 33 CFR 207.300(U)).

MATCHLINE CHART NO. 21

MATCHLINE CHART NO. 19

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- (A) BAYER CROPSCIENCE
(⊙ ON PREVIOUS CHART)
- (B) MATERIAL HANDLING COMPANY
(INACTIVE)
- (C) WV PAVING COMPANY (DUNBAR)
- (D) GRUMPY'S WATERFRONT GRILL

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY
HIGH WATER ELEVATION, ALL VESSELS SHOULD BE
OPERATING NEAR THE SAILING LINE TO PREVENT
DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
THEREON OR ADJACENT THERE TO (SEE 33 CFR 207.300(U)).

NOTE:
THE REACH OF THE KANAWHA RIVER FROM MILE 52.0
TO MILE 58.0 IS A CONGESTED SECTION OF THE
WATERWAY AND IS SUBJECT TO MOORING RESTRICTIONS
AS SPECIFIED IN SECTION 15 OF THE RIVER AND
HARBOR ACT OF 1899 AND THE REVISED REGULATIONS
PRESCRIBED BY THE SECRETARY OF THE ARMY PURSUANT
TO SECTION 7 OF THE RIVER AND HARBOR ACT OF 1917.



①

DUNBAR HIGHWAY BRIDGE
(LOOKING DOWNSTREAM)

	AT CENTER	400' WIDTH
ELEVATION OF LOW STEEL	635.5'	630.5'
VERTICAL CLEARANCE AT POOL STAGE	69.5'	64.5'
VERTICAL CLEARANCE AT 1861 HIGH WATER	34.9'	29.9'
HORIZONTAL CLEARANCE	441.0'	



②

INTERSTATE ROUTE SIXTY-FOUR BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	630.5'
VERTICAL CLEARANCE AT POOL STAGE	64.5'
VERTICAL CLEARANCE AT 1861 HIGH WATER	39.5'
HORIZONTAL CLEARANCE	400.0'



③

INTERSTATE ROUTE SIXTY-FOUR BRIDGE
(LOOKING UPSTREAM)

ELEVATION OF LOW STEEL	630.5'
VERTICAL CLEARANCE AT POOL STAGE	64.5'
VERTICAL CLEARANCE AT 1861 HIGH WATER	39.5'
HORIZONTAL CLEARANCE	400.0'

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
④	Power	664.5'	98.5'	62.3'

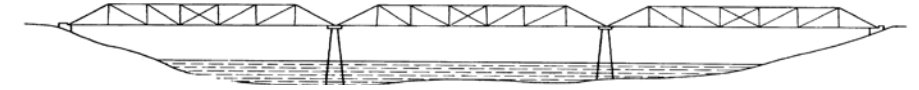


⑧

**PATRICK STREET BRIDGE
(LOOKING DOWNSTREAM)**

ELEVATION OF LOW STEEL 632.1'
 VERTICAL CLEARANCE AT POOL STAGE 66.1'
 VERTICAL CLEARANCE AT 1861 HIGH WATER 28.1'
 HORIZONTAL CLEARANCE 400.0'

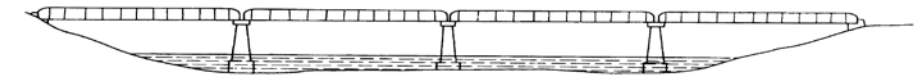
AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	667.4'	101.4'	64.8'
②	Power	667.4'	101.4'	64.8'
③	Power	636.7'	70.7'	33.8'
⑥	Power	652.0'	86.0'	48.4'
⑦	Power	657.0'	91.0'	53.8'



④

**DOW INC. BRIDGE (BACK CHANNEL)
(LOOKING DOWNSTREAM)**

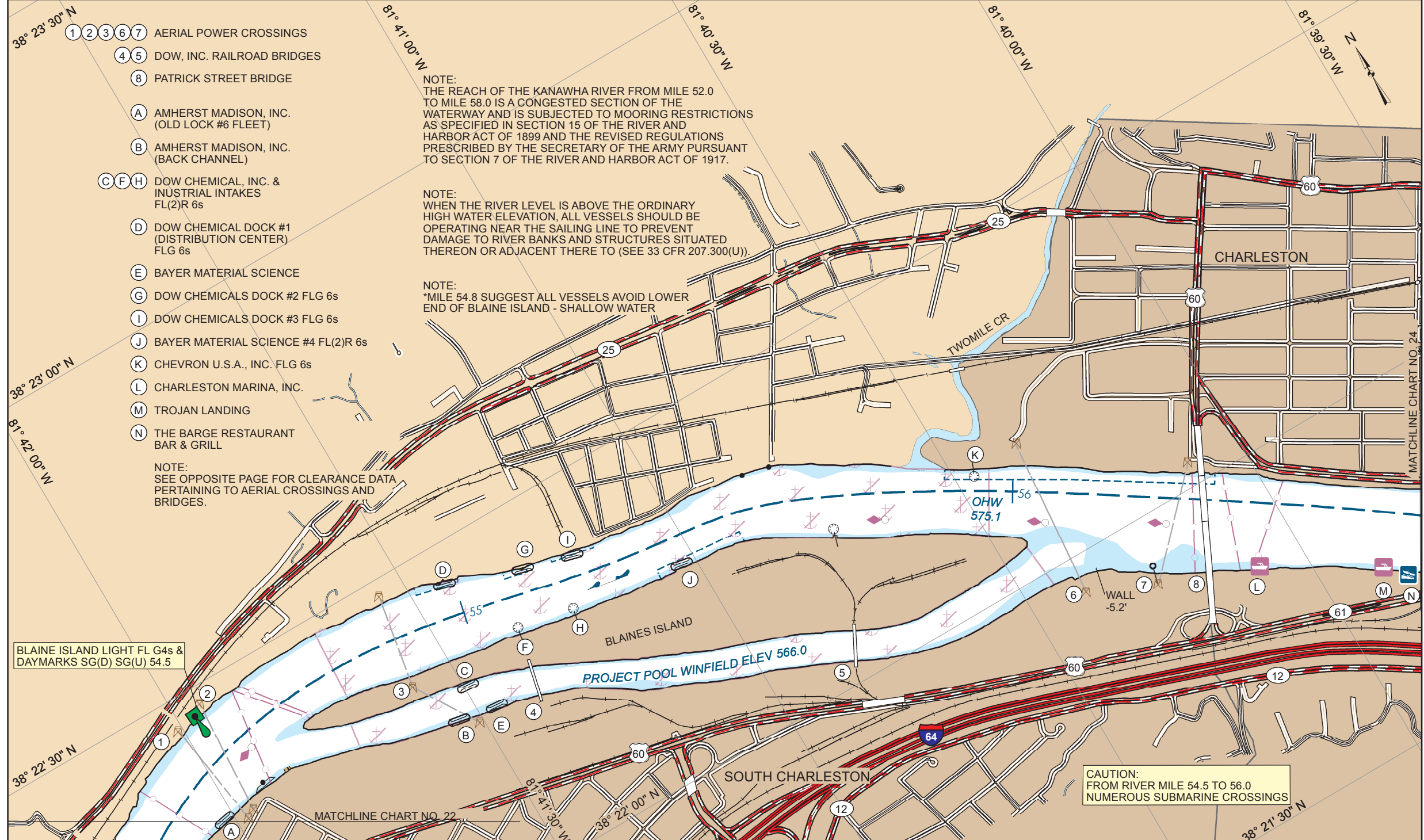
ELEVATION OF LOW STEEL 600.1'
 VERTICAL CLEARANCE AT POOL STAGE 34.1'
 VERTICAL CLEARANCE AT 1861 HIGH WATER -2.9'
 HORIZONTAL CLEARANCE 126.0'



⑤

**DOW INC. RAILROAD BRIDGE (BACK CHANNEL)
(LOOKING DOWNSTREAM)**

ELEVATION OF LOW STEEL 599.4'
 VERTICAL CLEARANCE AT POOL STAGE 33.4'
 VERTICAL CLEARANCE AT 1861 HIGH WATER -4.0'
 HORIZONTAL CLEARANCE 90.0'





①

**C. & O. RAILWAY BRIDGE
(LOOKING DOWNSTREAM)**

ELEVATION OF LOW STEEL	634.4'
VERTICAL CLEARANCE AT POOL STAGE	69.1'
VERTICAL CLEARANCE AT 1861 HIGH WATER	30.8'
HORIZONTAL CLEARANCE	404.7'



②

**INTERSTATE 64 HIGHWAY BRIDGE
(LOOKING DOWNSTREAM)**

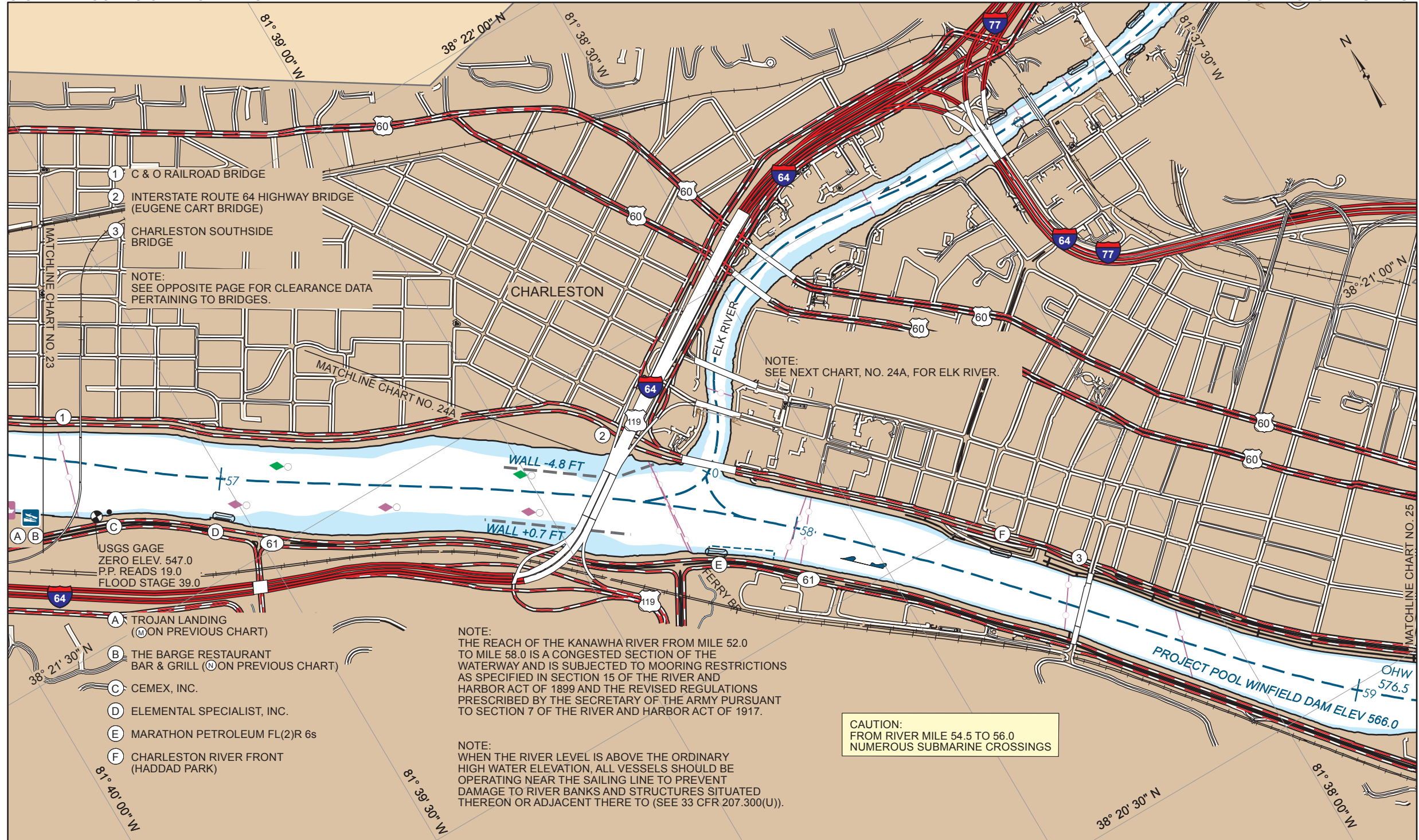
ELEVATION OF LOW STEEL	633.0'
VERTICAL CLEARANCE AT POOL STAGE	67.0'
VERTICAL CLEARANCE AT 1861 HIGH WATER	28.0'
HORIZONTAL CLEARANCE	400.0'



③

**CHARLESTON SOUTHSIDE BRIDGE
(LOOKING DOWNSTREAM)**

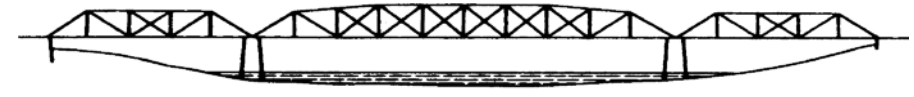
ELEVATION OF LOW STEEL	635.7'
VERTICAL CLEARANCE AT POOL STAGE	69.0'
VERTICAL CLEARANCE AT 1861 HIGH WATER	29.4'
HORIZONTAL CLEARANCE	400.0'





①

KANAWHA BOULEVARD BRIDGE
(LOOKING UPSTREAM)



⑧

CHARLESTON INTERURBAN BRIDGE
(LOOKING UPSTREAM)



③

VIRGINIA STREET BRIDGE
(LOOKING UPSTREAM)



⑨

NEW YORK CENTRAL RAILROAD BRIDGE
(LOOKING UPSTREAM)



④

QUARRIER STREET BRIDGE
(LOOKING UPSTREAM)



⑩

SPRING STREET BRIDGE
(LOOKING UPSTREAM)



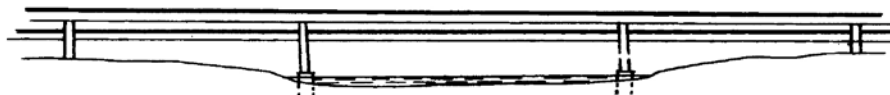
⑤

LEE STREET BRIDGE
(LOOKING UPSTREAM)



⑥

WASHINGTON STREET BRIDGE
(LOOKING UPSTREAM)

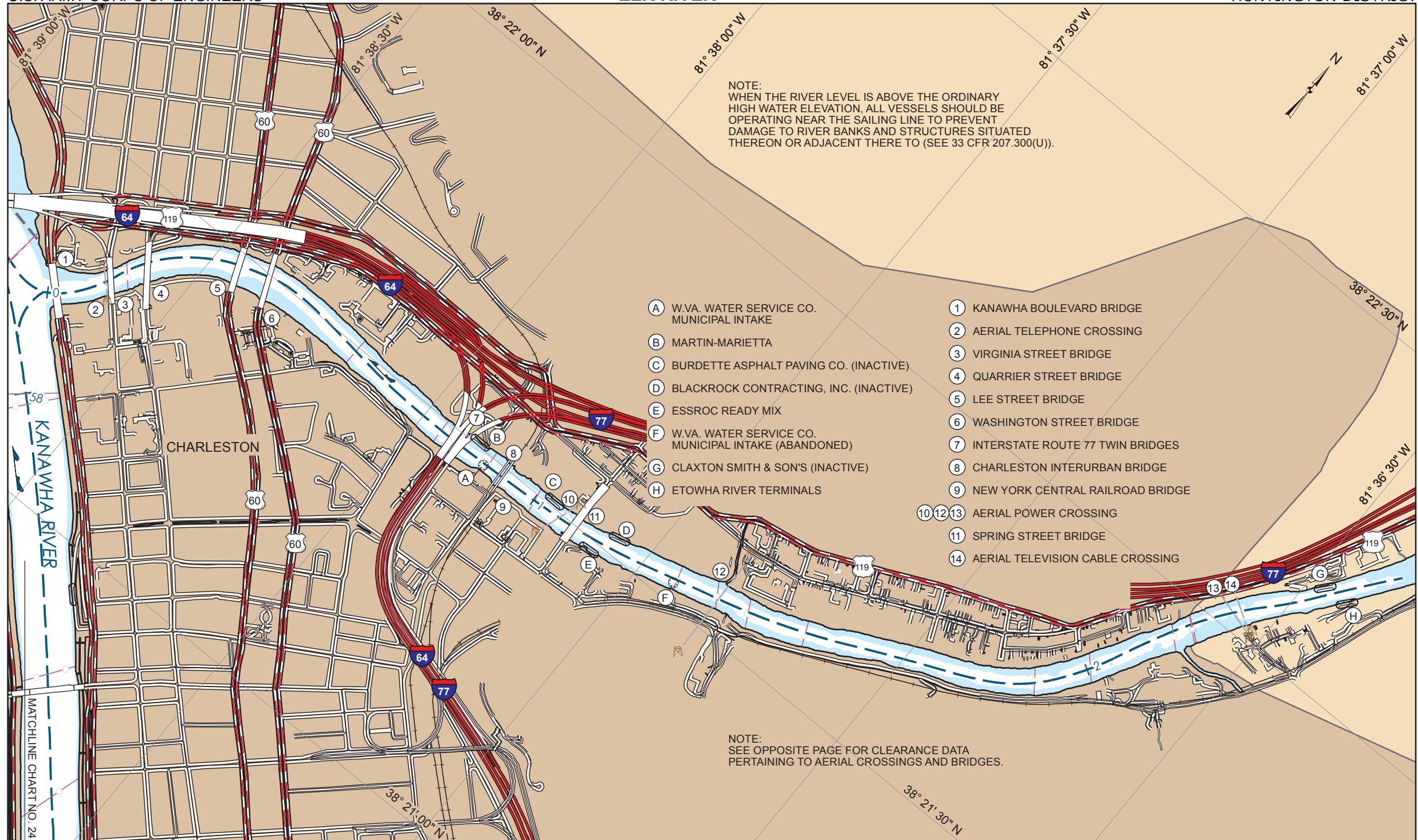


⑦

INTERSTATE ROUTE SEVENTY-SEVEN TWIN BRIDGES
(LOOKING UPSTREAM)

AERIAL / BRIDGE CROSSING			CLEARANCES		
No.	TYPE	ELEV. LOW STEEL OR LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER	HORIZONTAL
1	Bridge	606.0'	40.0'	1.3'	238.6'
2	Telephone	606.0'	40.0'	1.0'	-
3	Bridge*	600.3'	34.3'	-5.6'	215.0'
4	Bridge	601.0'	35.0'	-3.9'	209.2'
5	Bridge	600.7'	34.7'	-4.4'	225.3'
6	Bridge	601.0'	35.0'	-5.8'	210.0'
7	Bridge	610.5'	44.5'	4.7'	210.0'
8	Bridge	600.8'	34.8'	-5.0'	200.8'
9	Bridge	600.8'	34.8'	-5.1'	200.8'
10	Power	626.3'	60.3'	21.4'	-
11	Bridge	601.1'	35.1'	-5.0'	215.0'
12	Power	641.3'	75.3'	35.1'	-
13	Power	631.8'	65.8'	24.8'	-
14	Television	631.8'	65.8'	24.8'	-

*15" Water line suspended under bridge considered in vertical clearance.





①

35TH STREET BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	633.0'
CLEARANCE AT POOL STAGE	67.0'
VERTICAL CLEARANCE AT 1861 HIGH WATER	26.9'
HORIZONTAL CLEARANCE	402.0'

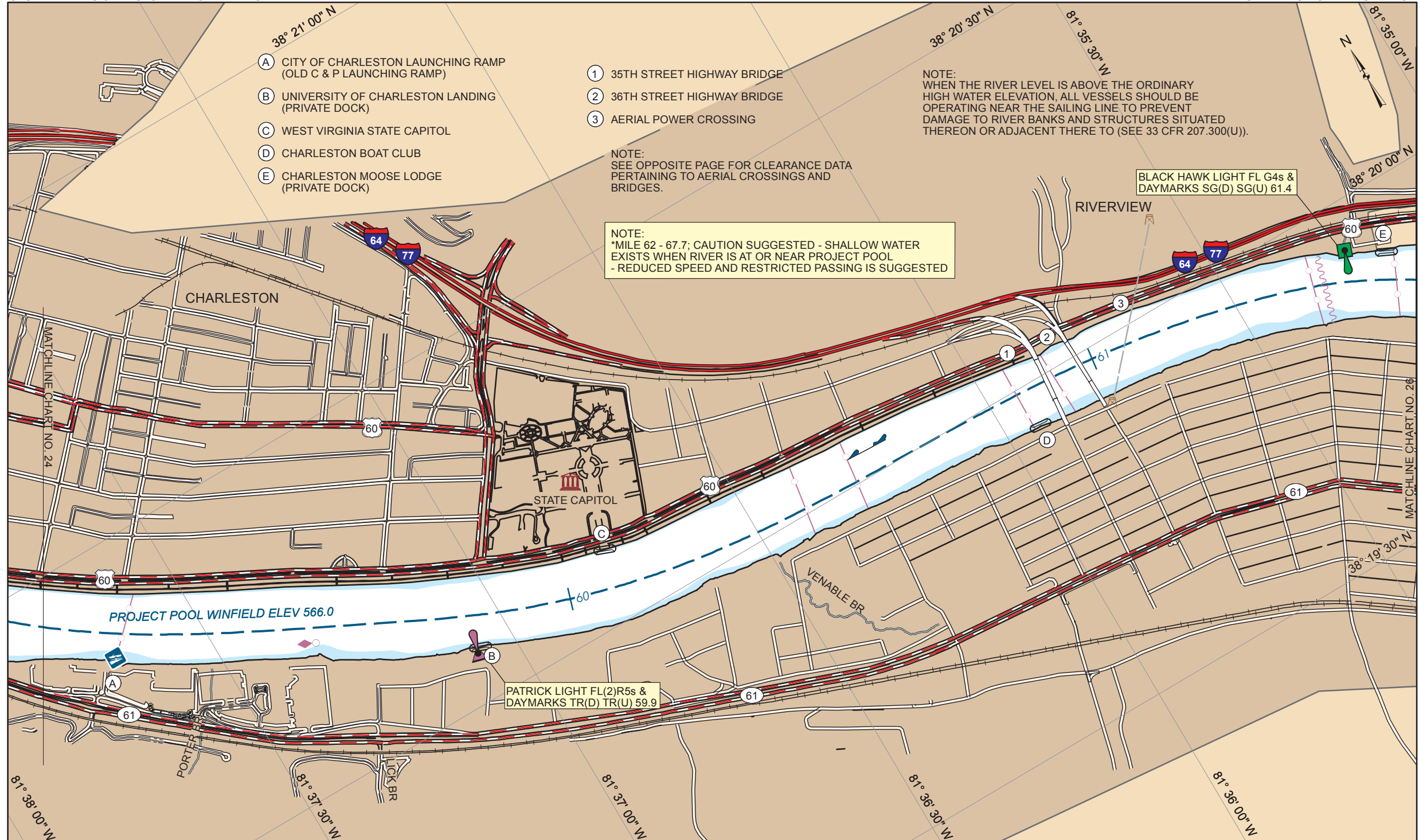


②

36TH STREET BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	633.0'
CLEARANCE AT POOL STAGE	67.0'
VERTICAL CLEARANCE AT 1861 HIGH WATER	26.9'
HORIZONTAL CLEARANCE	402.0'

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
③	Power	666.2'	100.2'	59.7'



- (A) CITY OF CHARLESTON LAUNCHING RAMP (OLD C & P LAUNCHING RAMP)
- (B) UNIVERSITY OF CHARLESTON LANDING (PRIVATE DOCK)
- (C) WEST VIRGINIA STATE CAPITOL
- (D) CHARLESTON BOAT CLUB
- (E) CHARLESTON MOOSE LODGE (PRIVATE DOCK)

- (1) 35TH STREET HIGHWAY BRIDGE
- (2) 36TH STREET HIGHWAY BRIDGE
- (3) AERIAL POWER CROSSING

NOTE:
SEE OPPOSITE PAGE FOR CLEARANCE DATA PERTAINING TO AERIAL CROSSINGS AND BRIDGES.

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERE TO (SEE 33 CFR 207.300(U)).

NOTE:
*MILE 62 - 67.7; CAUTION SUGGESTED - SHALLOW WATER EXISTS WHEN RIVER IS AT OR NEAR PROJECT POOL - REDUCED SPEED AND RESTRICTED PASSING IS SUGGESTED

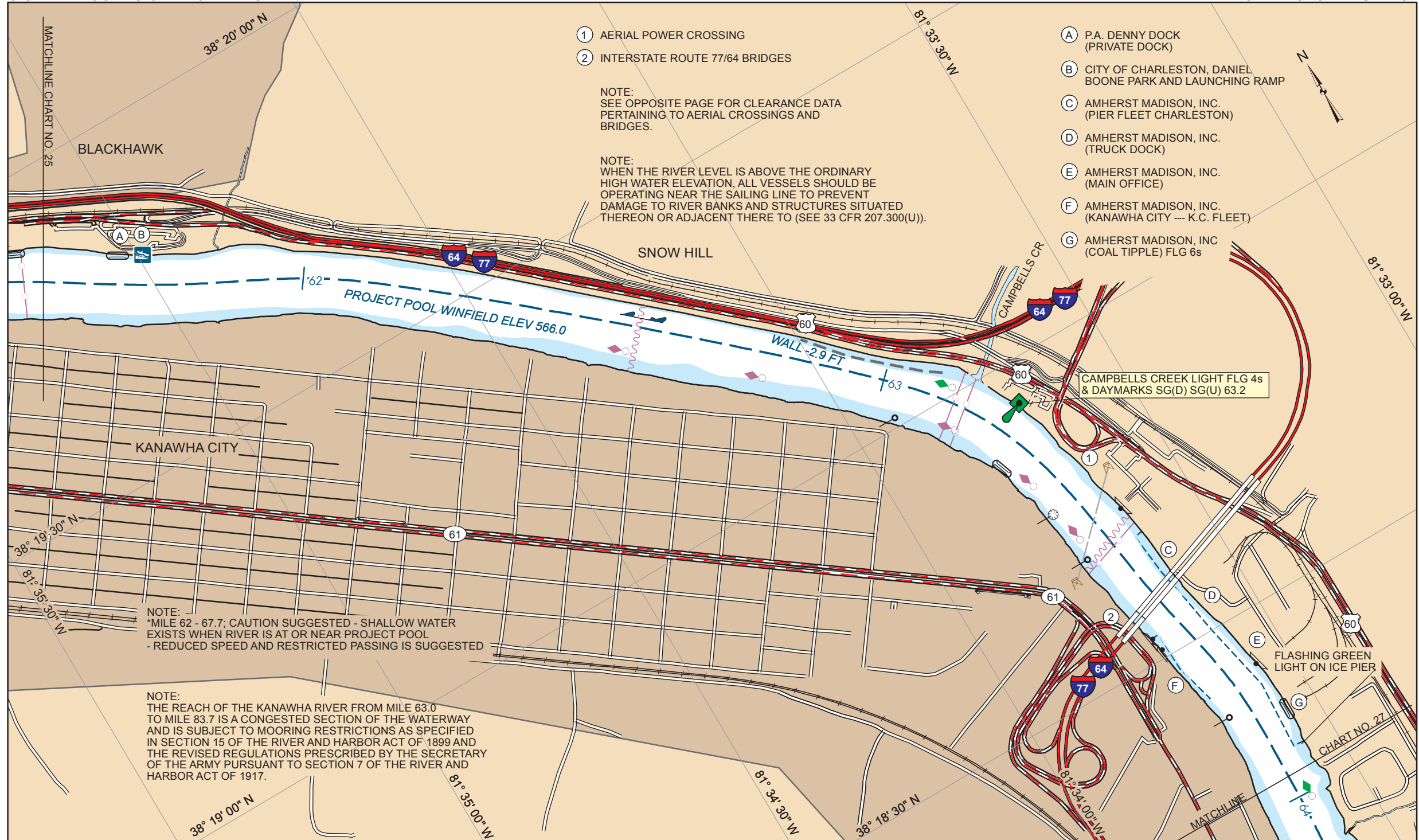


②

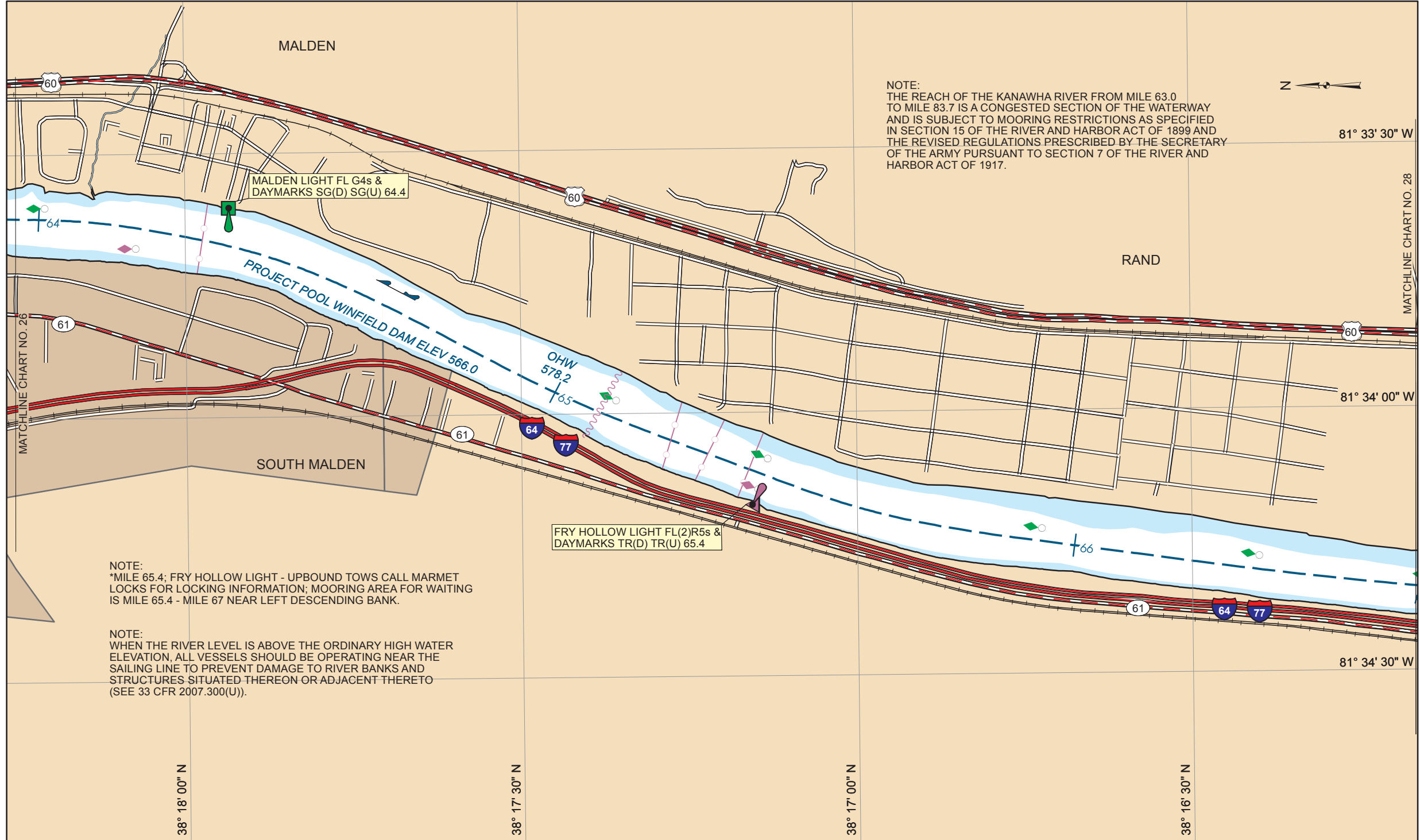
INTERSTATE ROUTE 77/64 BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	638.5'
VERTICAL CLEARANCE AT POOL STAGE	72.5'
VERTICAL CLEARANCE AT 1861 HIGH WATER	31.0'
HORIZONTAL CLEARANCE	450.0'

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	677.0'	111.0'	69.6'



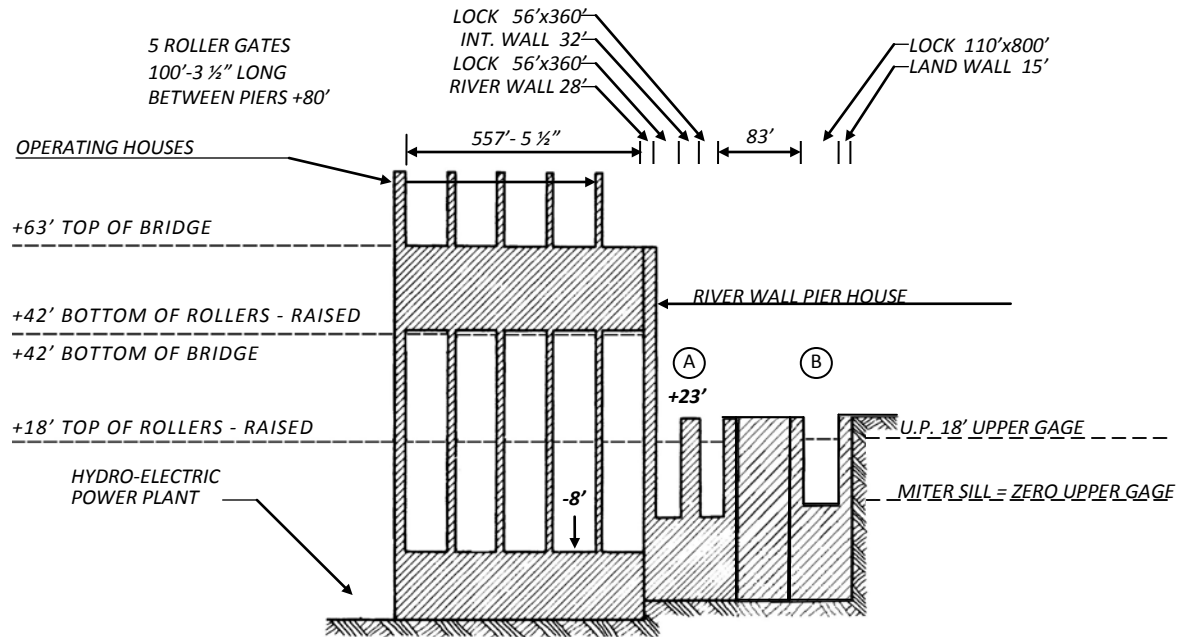
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NOTE:
 THE REACH OF THE KANAWHA RIVER FROM MILE 63.0 TO MILE 83.7 IS A CONGESTED SECTION OF THE WATERWAY AND IS SUBJECT TO MOORING RESTRICTIONS AS SPECIFIED IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND THE REVISED REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY PURSUANT TO SECTION 7 OF THE RIVER AND HARBOR ACT OF 1917.

NOTE:
 *MILE 65.4; FRY HOLLOW LIGHT - UPBOUND TOWS CALL MARMET LOCKS FOR LOCKING INFORMATION; MOORING AREA FOR WAITING IS MILE 65.4 - MILE 67 NEAR LEFT DESCENDING BANK.

NOTE:
 WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).

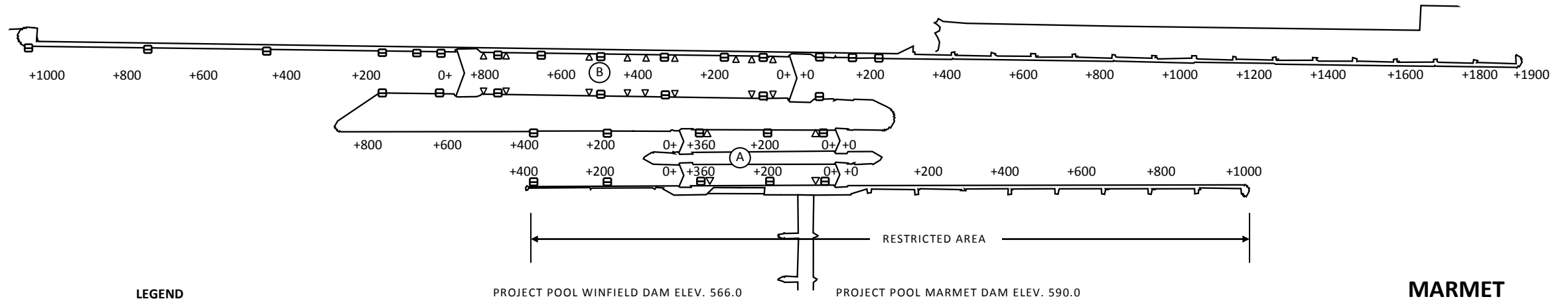


AERIAL POWER CROSSINGS			CLEARANCES	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	673.7'	83.7'	63.7
②	Power	652.6'	62.6'	42.6'
③	Power	670.0'	80.0'	60.0'

NOTE:
Ordinary high water lower gage – 16.8'.
Maximum locking stage 39.0' lower gage.

NOTE:
The top of the miter gate sills in the landward and riverward locks (A) are:
Upper – 572.0 feet m.s.l.
Lower – 554.0 feet m.s.l.
The top of the bulkhead and miter gate sills in lock (B) are:
Upper Bulkhead – 555.0 feet m.s.l.
Upper Miter – 572.0 feet m.s.l.
Lower Miter – 544.0 feet m.s.l.
Lower Bulkhead – 548.0 feet m.s.l.

UPPER GAGE:	
ZERO ELEV.	572.0 ft
P.P. READS	18.0 ft
LOWER GAGE:	
ZERO ELEV.	557.0 ft
P.P. READS	9.0 ft



LEGEND
▽ FLOATING MORRING BIT
▣ LADDERS – Black & White striped.
Distance in feet from gate.

K A N A W H A R I V E R



**MARMET
LOCKS and DAM
MILE 67.7**

81° 33' 00" W

NOTE:
MILE 62 - 67.7; CAUTION SUGGESTED - SHALLOW WATER EXISTS WHEN RIVER IS AT OR NEAR PROJECT POOL - REDUCED SPEED AND RESTRICTED PASSING IS SUGGESTED.

NOTE:
THE REACH OF THE KANAWHA RIVER FROM MILE 63.0 TO MILE 83.7 IS A CONGESTED SECTION OF THE WATERWAY AND IS SUBJECT TO MOORING RESTRICTIONS AS SPECIFIED IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND THE REVISED REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY PURSUANT TO SECTION 7 OF THE RIVER AND HARBOR ACT OF 1917.

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).

NOTE:
OLD U.S. LOCK & DAM NO. 5, MILE 67.6, NAVIGABLE PASS 8.35 FT BELOW PROJECT POOL. RIVER WALL, PIER, UPPER GUARD CRIB AND LOWER GUIDE CRIB REMOVED TO 8 FEET BELOW PROJECT POOL. CHANOINE WEIR 8 FEET BELOW PROJECT POOL.

81° 33' 30" W

81° 34' 00" W

81° 34' 30" W

MATCHLINE CHART NO. 27

DUPONT CITY

LOWER BELLE

MARMET

RUSH CREEK LIGHT FL(2)R5s & DAYMARKS TR(D) TR(U) 67.0

- (A) MARMET COAL CO. (INACTIVE)
- (B) THE RUSTY COVE
- (C) E.I. DUPONT DENEMOURS (FLEETING AREAS, DOCKS, & INDUSTRIAL INTAKES)
- (D) KANAWHA RIVER TERMINALS, INC. LOWER AND UPPER DAVIS FLEET) FL(2)R 6s
- (E) (F) E.I. DUPONT DENEMOURS (FLEETING AREAS, DOCKS, & INDUSTRIAL INTAKES)
- (G) KANAWHA RIVER DOCK (MARMET DOCK) FL(2)R 6s
- (H) (I) E.I. DUPONT DENEMOURS (FLEETING AREAS, DOCKS, & INDUSTRIAL INTAKES)
- (J) RIVER POINT, LLC (MARMET DOCK) FL(2)R 6s

(1)(2)(3) AERIAL POWER CROSSINGS

NOTE:
SEE OPPOSITE PAGE FOR CLEARANCE DATA PERTAINING TO AERIAL CROSSINGS.

MARMET DAM
MILE 67.7
 MAX. LOCKING STAGE, LOWER GAGE 34.0 FT
 NORMAL POOL, LOWER GAGE 9.0 FT
 OHW, LOWER GAGE, 23.4 FT
 TELEPHONE (304)949-1175

NOTE:
*MILE 67.7; MARMET LOCKS - WIRE CABLES PROVIDED ON OUTSIDE LOWER RIVER WALL FOR VESSELS AWAITING LOCKAGE.

*MILE 69; MARMET LOCKS - DOWNBOUND TOWS CALL MARMET FOR LOCKING INFORMATION.

*MILE 62 - 67.7; CAUTION SUGGESTED - SHALLOW WATER EXISTS WHEN RIVER IS AT OR NEAR PROJECT POOL - REDUCED SPEED AND RESTRICTED PASSING IS SUGGESTED

38° 16' 00" N

38° 15' 30" N

38° 15' 00" N

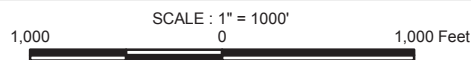
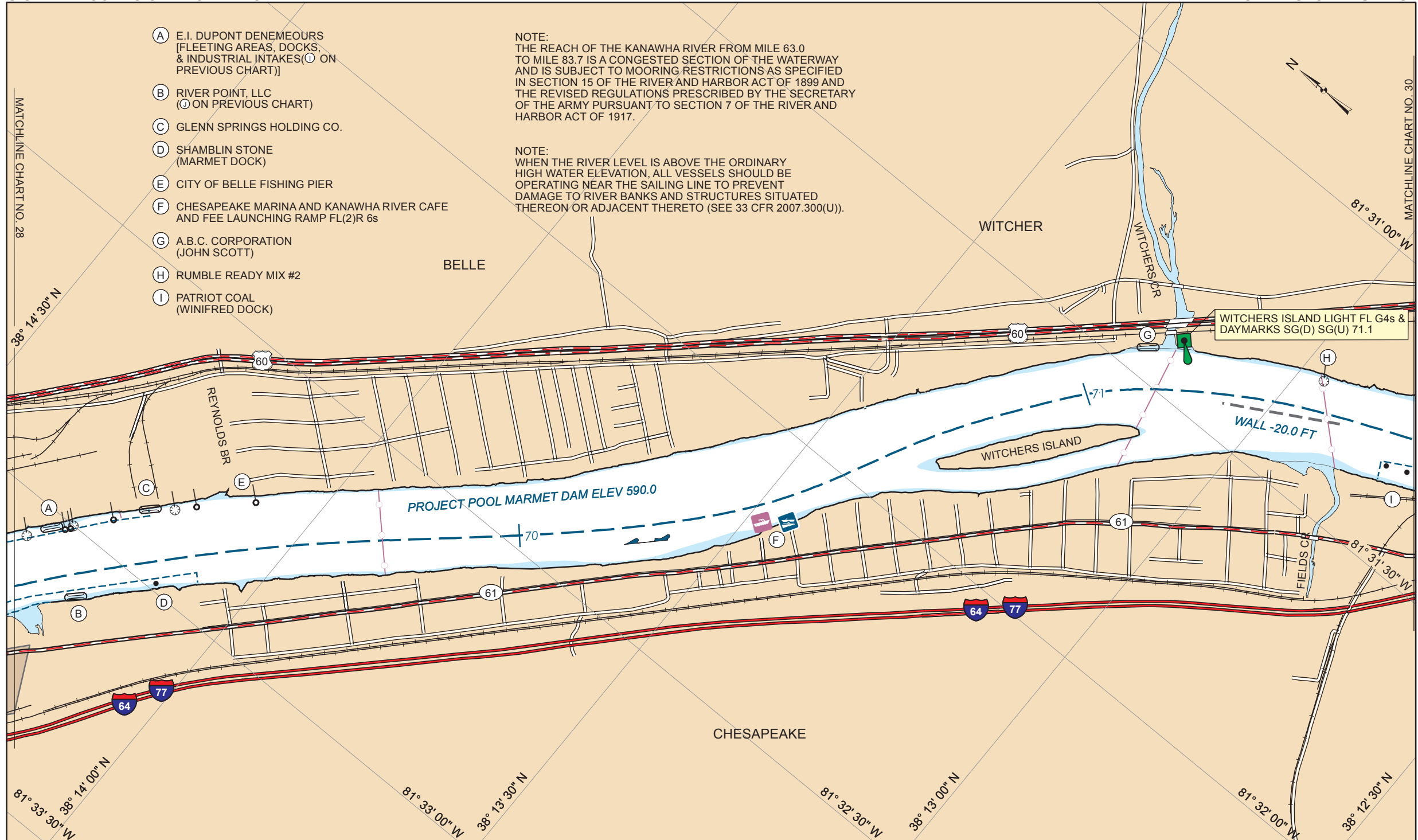
38° 14' 30" N

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- (A) E.I. DUPONT DENEMEOURS
[FLEETING AREAS, DOCKS,
& INDUSTRIAL INTAKES(① ON
PREVIOUS CHART)]
- (B) RIVER POINT, LLC
(① ON PREVIOUS CHART)
- (C) GLENN SPRINGS HOLDING CO.
- (D) SHAMBLIN STONE
(MARMET DOCK)
- (E) CITY OF BELLE FISHING PIER
- (F) CHESAPEAKE MARINA AND KANAWHA RIVER CAFE
AND FEE LAUNCHING RAMP FL(2)R 6s
- (G) A.B.C. CORPORATION
(JOHN SCOTT)
- (H) RUMBLE READY MIX #2
- (I) PATRIOT COAL
(WINIFRED DOCK)

NOTE:
THE REACH OF THE KANAWHA RIVER FROM MILE 63.0
TO MILE 83.7 IS A CONGESTED SECTION OF THE WATERWAY
AND IS SUBJECT TO MOORING RESTRICTIONS AS SPECIFIED
IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND
THE REVISED REGULATIONS PRESCRIBED BY THE SECRETARY
OF THE ARMY PURSUANT TO SECTION 7 OF THE RIVER AND
HARBOR ACT OF 1917.

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY
HIGH WATER ELEVATION, ALL VESSELS SHOULD BE
OPERATING NEAR THE SAILING LINE TO PREVENT
DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).





①

CHELYAN HIGHWAY BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	660.5'
VERTICAL CLEARANCE AT POOL STAGE	70.5'
VERTICAL CLEARANCE AT 1937 HIGH WATER	45.3'
HORIZONTAL CLEARANCE	550.0'

MATCHLINE CHART NO. 31

NOTE:
 THE REACH OF THE KANAWHA RIVER FROM MILE 63.0 TO MILE 83.7 IS A CONGESTED SECTION OF THE WATERWAY AND IS SUBJECT TO MOORING RESTRICTIONS AS SPECIFIED IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND THE REVISED REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY PURSUANT TO SECTION 7 OF THE RIVER AND HARBOR ACT OF 1917.

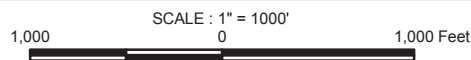
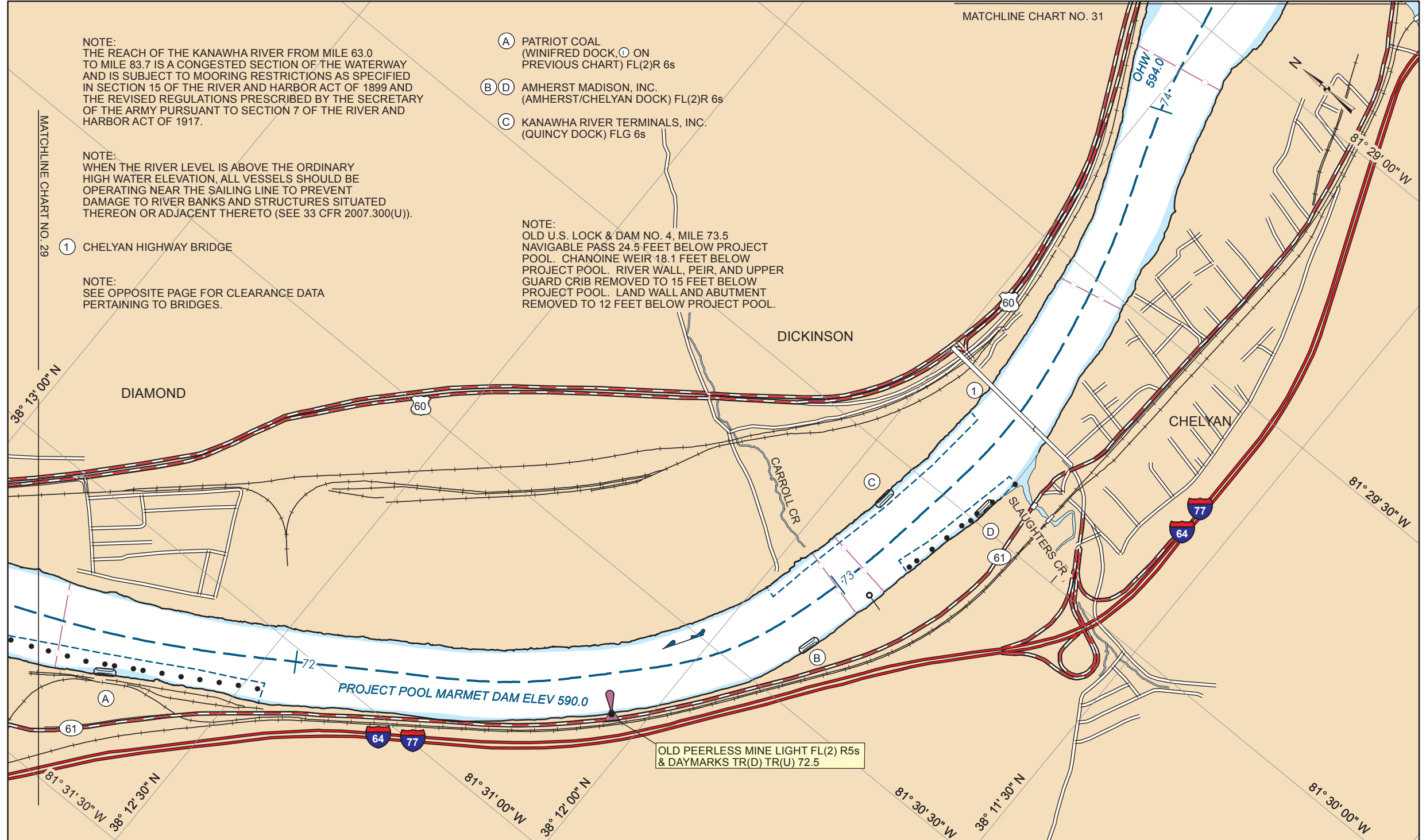
NOTE:
 WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).

- (A) PATRIOT COAL (WINIFRED DOCK, ① ON PREVIOUS CHART) FL(2)R 6s
- (B) (D) AMHERST MADISON, INC. (AMHERST/CHELYAN DOCK) FL(2)R 6s
- (C) KANAWHA RIVER TERMINALS, INC. (QUINCY DOCK) FLG 6s

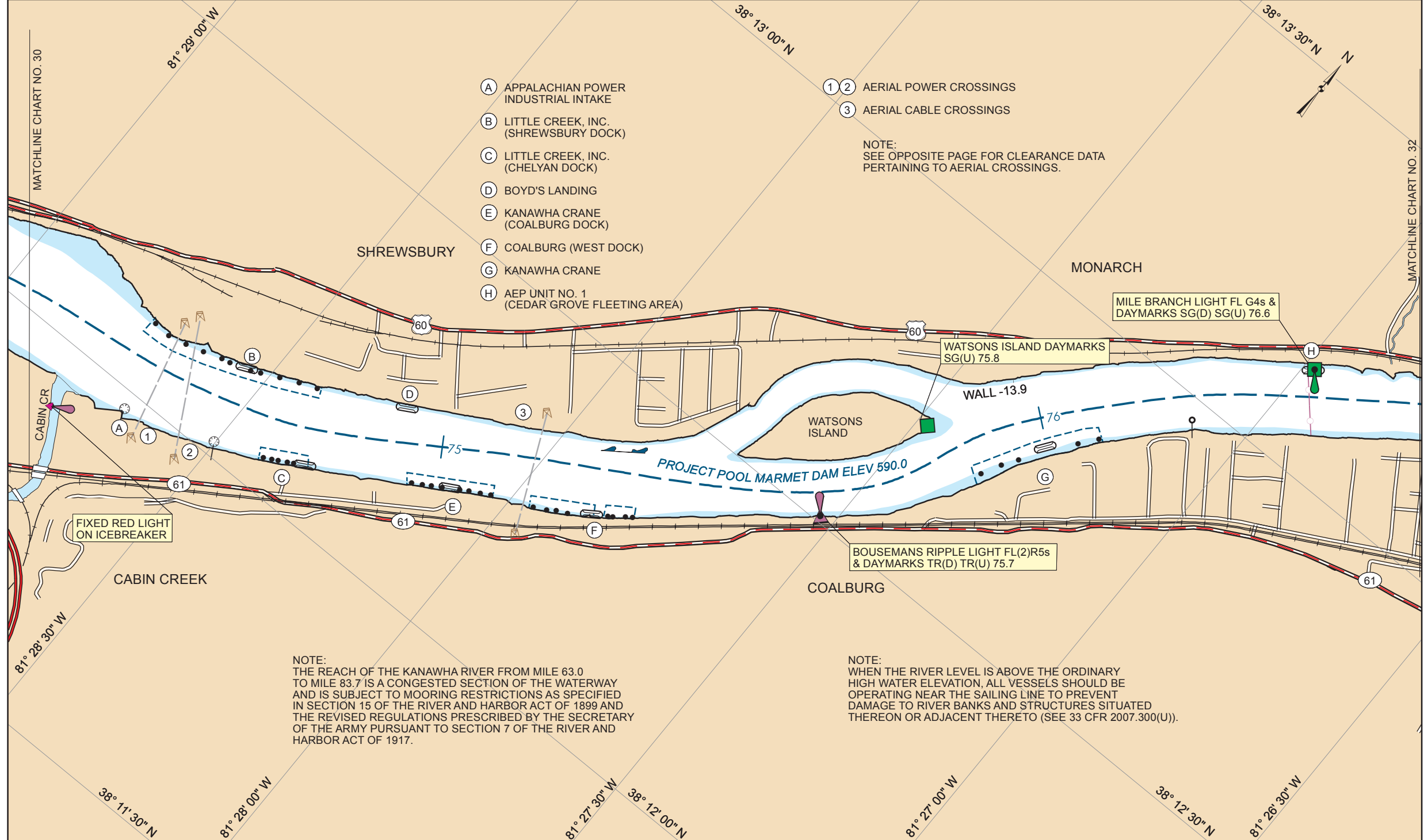
NOTE:
 OLD U.S. LOCK & DAM NO. 4, MILE 73.5 NAVIGABLE PASS 24.5 FEET BELOW PROJECT POOL. CHANOINE WEIR 18.1 FEET BELOW PROJECT POOL. RIVER WALL, PEIR, AND UPPER GUARD CRIB REMOVED TO 15 FEET BELOW PROJECT POOL. LAND WALL AND ABUTMENT REMOVED TO 12 FEET BELOW PROJECT POOL.

① CHELYAN HIGHWAY BRIDGE

NOTE:
 SEE OPPOSITE PAGE FOR CLEARANCE DATA PERTAINING TO BRIDGES.



AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	655.0'	65.0'	37.6'
②	Power	655.0'	65.0'	37.6'
③	Cable	691.4'	101.4'	76.0'



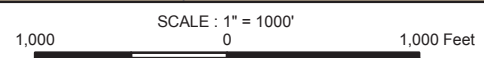
- (A) APPALACHIAN POWER INDUSTRIAL INTAKE
- (B) LITTLE CREEK, INC. (SHREWSBURY DOCK)
- (C) LITTLE CREEK, INC. (CHELYAN DOCK)
- (D) BOYD'S LANDING
- (E) KANAWHA CRANE (COALBURG DOCK)
- (F) COALBURG (WEST DOCK)
- (G) KANAWHA CRANE
- (H) AEP UNIT NO. 1 (CEDAR GROVE FLEETING AREA)

- (1) (2) AERIAL POWER CROSSINGS
- (3) AERIAL CABLE CROSSINGS

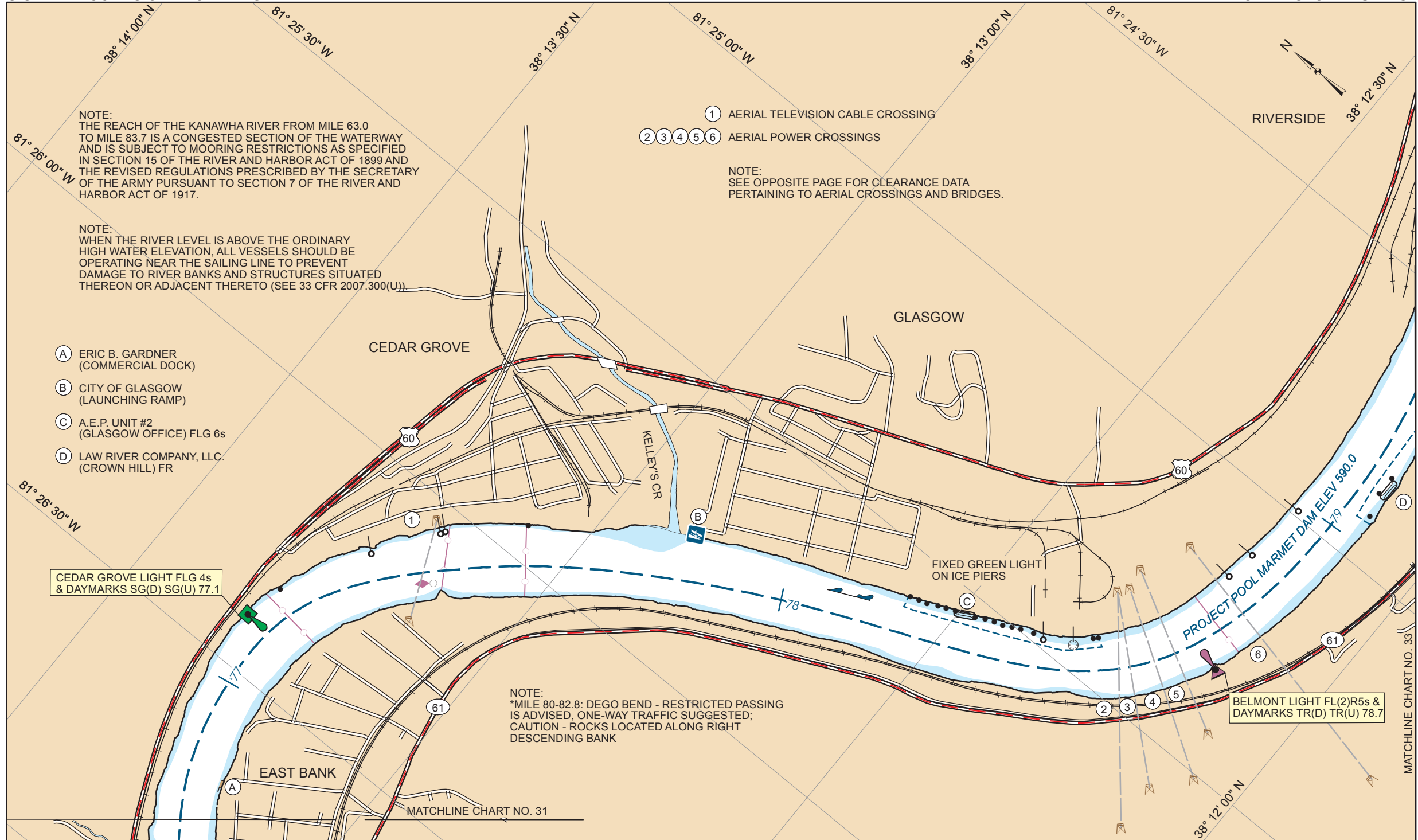
NOTE:
SEE OPPOSITE PAGE FOR CLEARANCE DATA
PERTAINING TO AERIAL CROSSINGS.

NOTE:
THE REACH OF THE KANAWHA RIVER FROM MILE 63.0 TO MILE 83.7 IS A CONGESTED SECTION OF THE WATERWAY AND IS SUBJECT TO MOORING RESTRICTIONS AS SPECIFIED IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND THE REVISED REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY PURSUANT TO SECTION 7 OF THE RIVER AND HARBOR ACT OF 1917.

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).



AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Television	657.5'	67.5'	35.5'
②	Power	677.0'	87.0'	53.4'
③	Power	677.0'	87.0'	53.4'
④	Power	677.0'	87.0'	53.4'
⑤	Power	677.0'	87.0'	53.4'
⑥	power	681.5'	91.5'	57.5'



NOTE:
THE REACH OF THE KANAWHA RIVER FROM MILE 63.0 TO MILE 83.7 IS A CONGESTED SECTION OF THE WATERWAY AND IS SUBJECT TO MOORING RESTRICTIONS AS SPECIFIED IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND THE REVISED REGULATIONS PRESCRIBED BY THE SECRETARY OF THE ARMY PURSUANT TO SECTION 7 OF THE RIVER AND HARBOR ACT OF 1917.

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH WATER ELEVATION, ALL VESSELS SHOULD BE OPERATING NEAR THE SAILING LINE TO PREVENT DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).

① AERIAL TELEVISION CABLE CROSSING

②③④⑤⑥ AERIAL POWER CROSSINGS

NOTE:
SEE OPPOSITE PAGE FOR CLEARANCE DATA PERTAINING TO AERIAL CROSSINGS AND BRIDGES.

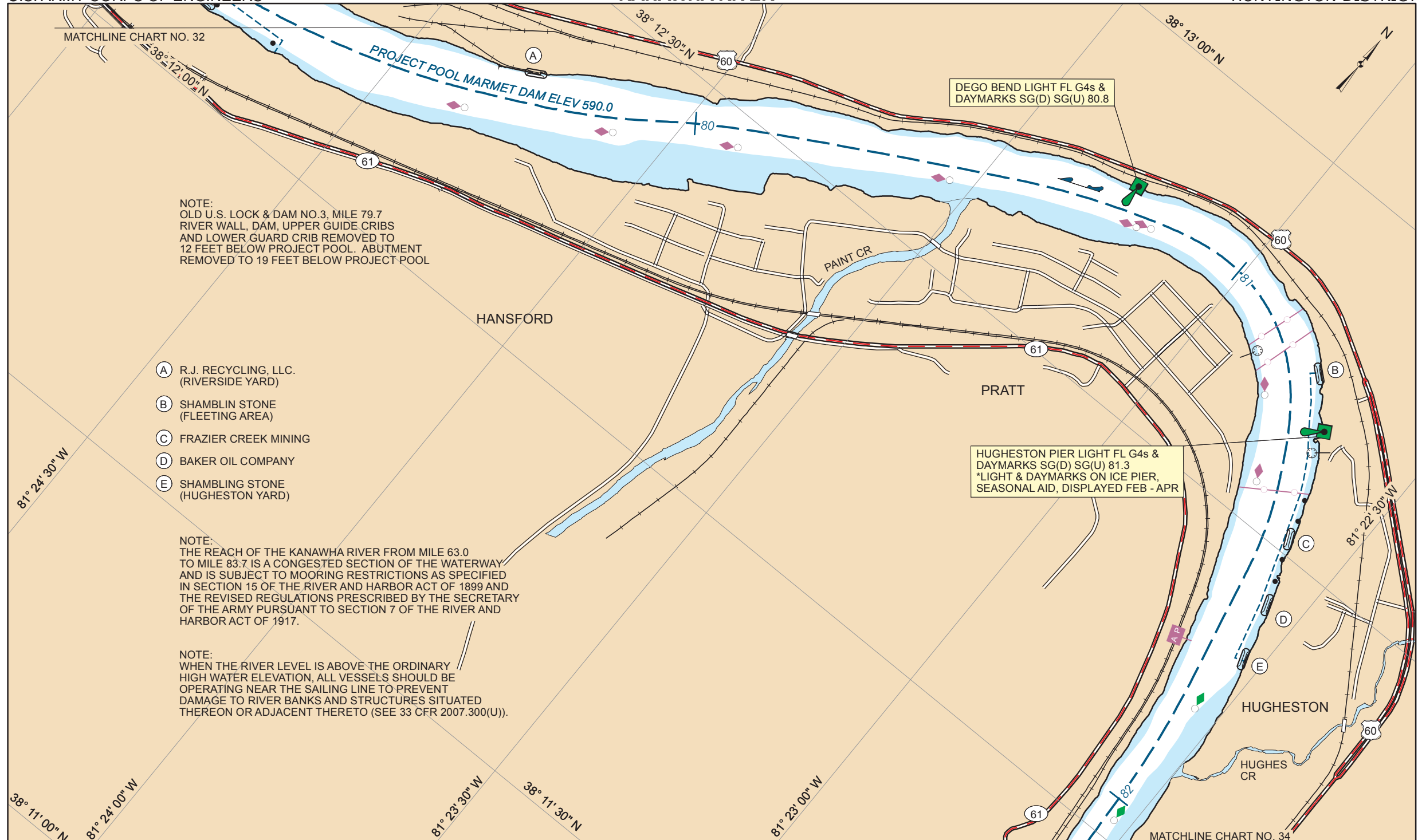
- Ⓐ ERIC B. GARDNER (COMMERCIAL DOCK)
- Ⓑ CITY OF GLASGOW (LAUNCHING RAMP)
- Ⓒ A.E.P. UNIT #2 (GLASGOW OFFICE) FLG 6s
- Ⓓ LAW RIVER COMPANY, LLC. (CROWN HILL) FR

CEDAR GROVE LIGHT FLG 4s & DAYMARKS SG(D) SG(U) 77.1

NOTE:
*MILE 80-82.8: DEGO BEND - RESTRICTED PASSING IS ADVISED, ONE-WAY TRAFFIC SUGGESTED; CAUTION - ROCKS LOCATED ALONG RIGHT DESCENDING BANK

BELMONT LIGHT FL(2)R5s & DAYMARKS TR(D) TR(U) 78.7

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MATCHLINE CHART NO. 32

38° 13' 00" N

NOTE:
 OLD U.S. LOCK & DAM NO.3, MILE 79.7
 RIVER WALL, DAM, UPPER GUIDE CRIBS
 AND LOWER GUARD CRIB REMOVED TO
 12 FEET BELOW PROJECT POOL. ABUTMENT
 REMOVED TO 19 FEET BELOW PROJECT POOL

- (A) R.J. RECYCLING, LLC.
(RIVERSIDE YARD)
- (B) SHAMBLIN STONE
(FLEETING AREA)
- (C) FRAZIER CREEK MINING
- (D) BAKER OIL COMPANY
- (E) SHAMBLING STONE
(HUGHESTON YARD)

NOTE:
 THE REACH OF THE KANAWHA RIVER FROM MILE 63.0
 TO MILE 83.7 IS A CONGESTED SECTION OF THE WATERWAY
 AND IS SUBJECT TO MOORING RESTRICTIONS AS SPECIFIED
 IN SECTION 15 OF THE RIVER AND HARBOR ACT OF 1899 AND
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NOTE:
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 OPERATING NEAR THE SAILING LINE TO PREVENT
 DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
 THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).

DEGO BEND LIGHT FL G4s &
 DAYMARKS SG(D) SG(U) 80.8

HUGHESTON PIER LIGHT FL G4s &
 DAYMARKS SG(D) SG(U) 81.3
 *LIGHT & DAYMARKS ON ICE PIER,
 SEASONAL AID, DISPLAYED FEB - APR

81° 24' 30" W

38° 11' 00" N

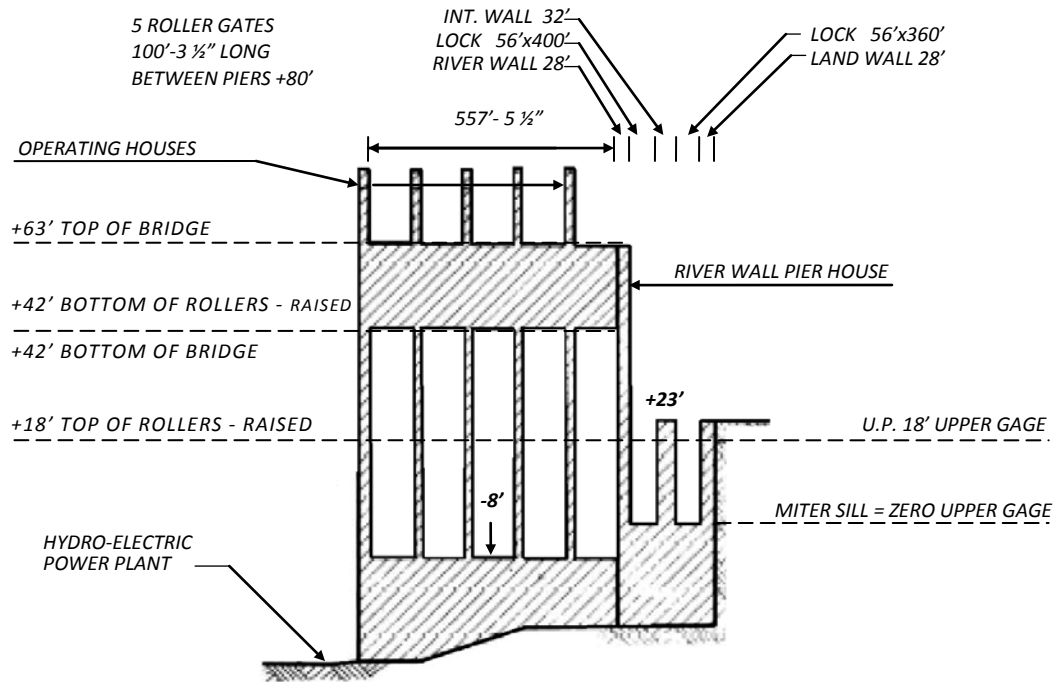
81° 24' 00" W

81° 23' 30" W

38° 11' 30" N

81° 23' 00" W

81° 22' 30" W

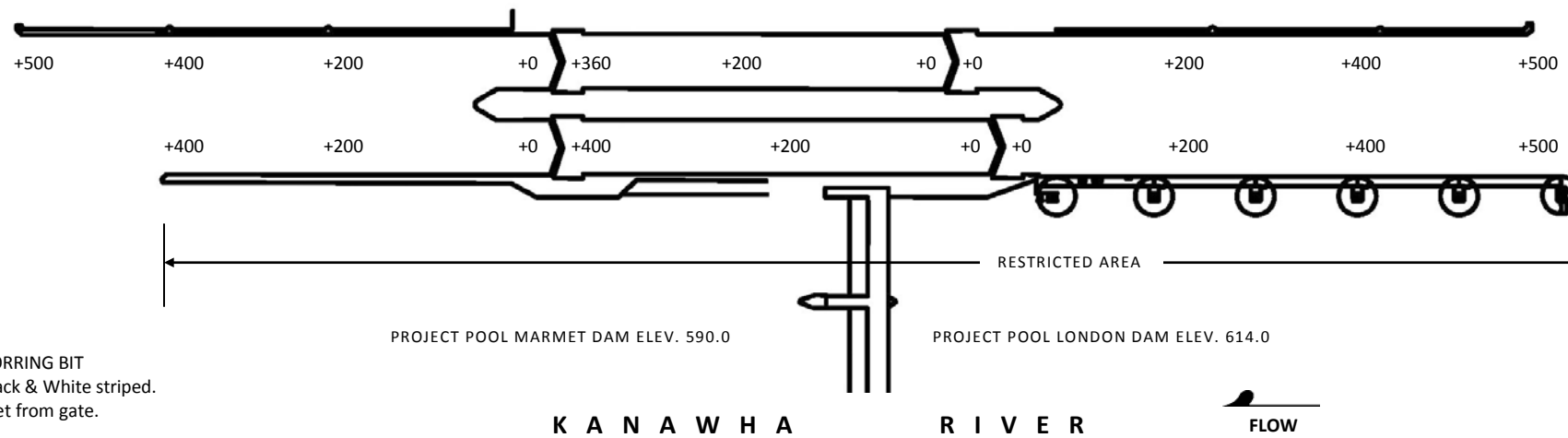


AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	696.0'	106.0'	64.6'
②	Power	697.4'	107.4'	66.0'
③	Power	694.2'	104.2'	63.0'

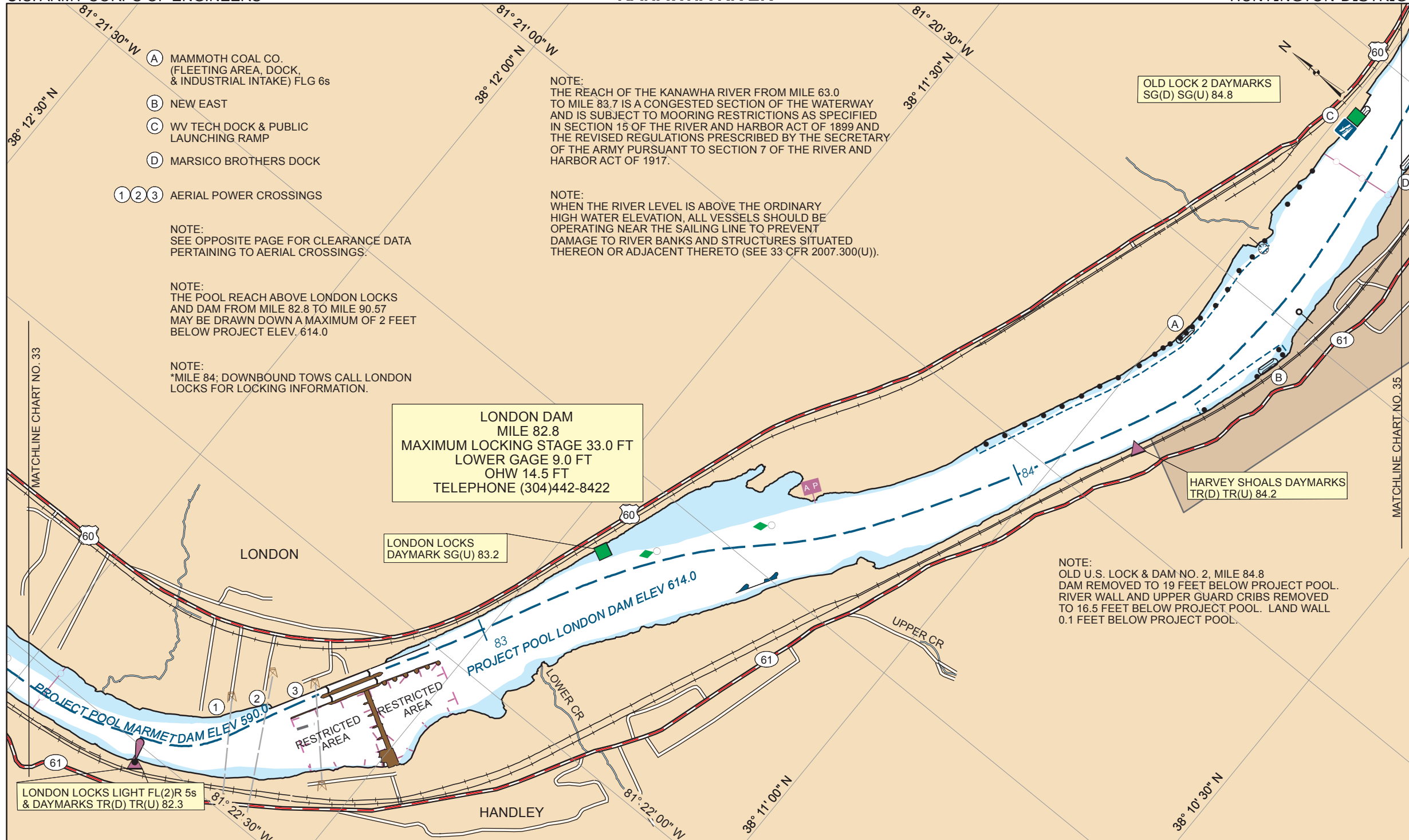
NOTE:
The top of the miter gate sills in the landward and riverward locks are:
Upper - 596.0 feet m.s.l.
Lower - 578.0 feet m.s.l.

UPPER GAGE:	
ZERO ELEV.	596.0
P.P. READS	18.0
LOWER GAGE:	
ZERP ELEV.	581.0
P.P. READS	9.0

NOTE:
Ordinary high water lower gage - 14.5'
Maximum locking stage 33.0' lower gage.



**LONDON
LOCKS and DAM
MILE 82.8**





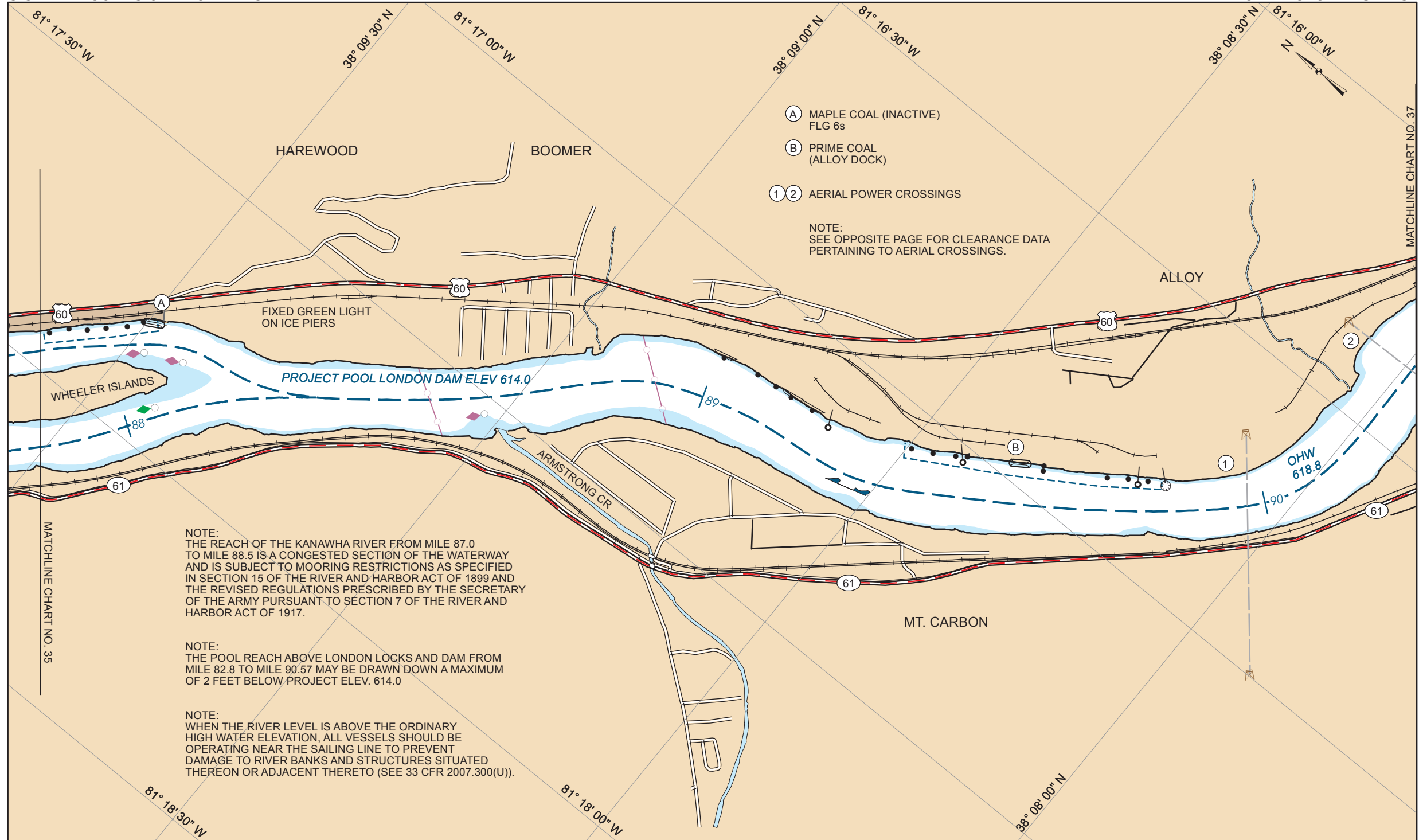
②

MONTGOMERY HIGHWAY BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	666.0'
VERTICAL CLEARANCE AT POOL STAGE	52.0'
VERTICAL CLEARANCE AT 1937 HIGH WATER	28.0'
HORIZONTAL CLEARANCE :	
ACTUAL	474.0'
RIGHT ANGLE TO CHANNEL	445.0'

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	686.0'	72.3"	48.4'
③	Power	690.0'	55.0'	48.7'

AERIAL POWER CROSSING			CLEARANCE	
No.	TYPE	ELEV. LOW POINT OF SAG	PROJECT POOL	1861 HIGH WATER
①	Power	698.1'	84.1'	50.0'
②	Power	694.6'	80.6"	45.5'



MATCHLINE CHART NO. 35

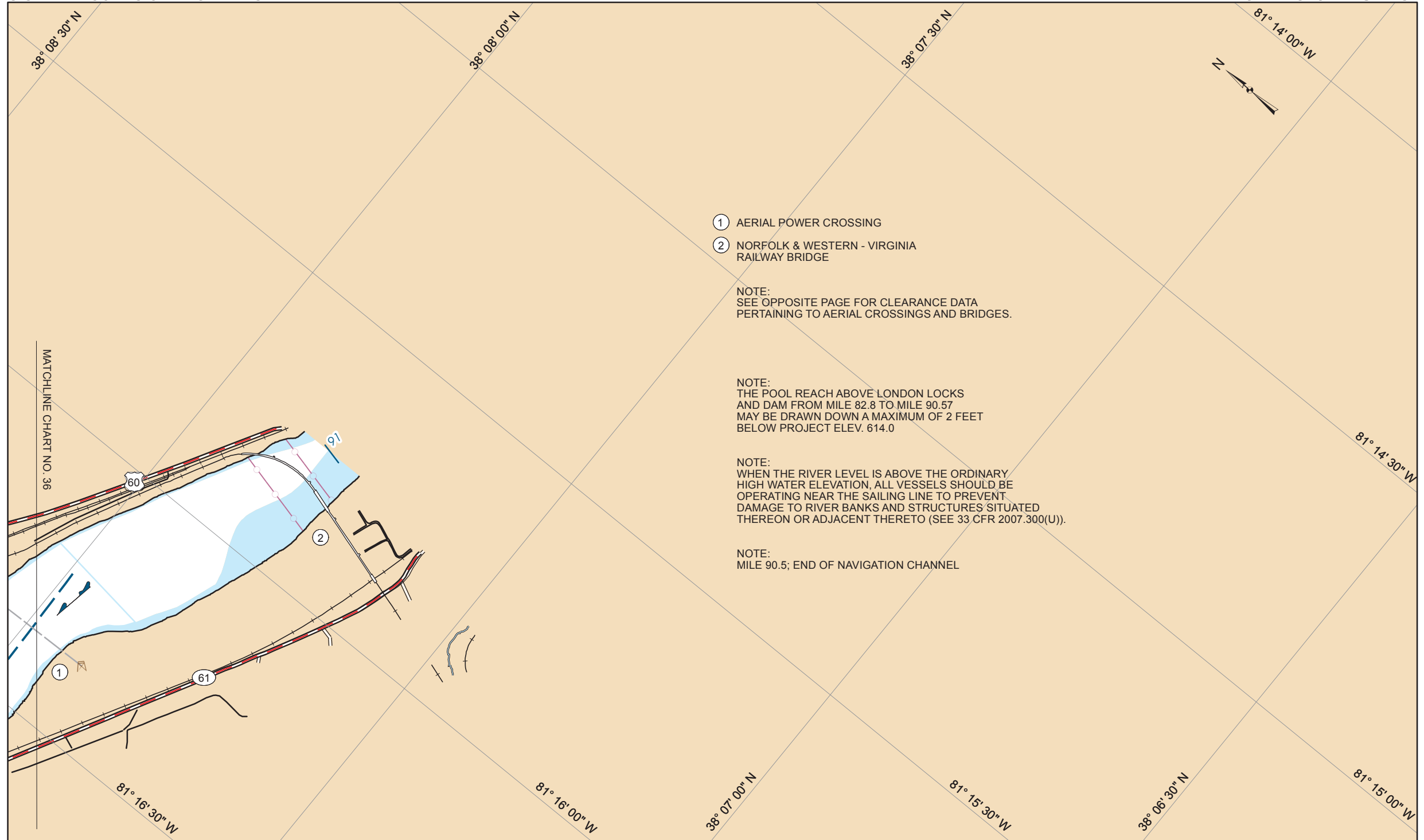
MATCHLINE CHART NO. 37



①

NORFOLK & WESTERN - VIRGINIA RAILWAY BRIDGE
(LOOKING DOWNSTREAM)

ELEVATION OF LOW STEEL	661.3'
VERTICAL CLEARANCE AT 1878 HIGH WATER	10.0'
HORIZONTAL CLEARANCE	200.0'



- ① AERIAL POWER CROSSING
- ② NORFOLK & WESTERN - VIRGINIA RAILWAY BRIDGE

NOTE:
SEE OPPOSITE PAGE FOR CLEARANCE DATA
PERTAINING TO AERIAL CROSSINGS AND BRIDGES.

NOTE:
THE POOL REACH ABOVE LONDON LOCKS
AND DAM FROM MILE 82.8 TO MILE 90.57
MAY BE DRAWN DOWN A MAXIMUM OF 2 FEET
BELOW PROJECT ELEV. 614.0

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY
HIGH WATER ELEVATION, ALL VESSELS SHOULD BE
OPERATING NEAR THE SAILING LINE TO PREVENT
DAMAGE TO RIVER BANKS AND STRUCTURES SITUATED
THEREON OR ADJACENT THERETO (SEE 33 CFR 2007.300(U)).

NOTE:
MILE 90.5; END OF NAVIGATION CHANNEL

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Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
<u>KANAWHA RIVER COMMERCIAL DOCKS</u>						
0.2L	Henderson	Amherst Madison Inc. (Repair Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
0.3R	Pt. Pleasant	Amherst Madison Inc. (Crooked Creek Harbor) (304) 926-1140	None	None	None	Fleeting Harbor
0.4L	Henderson	Amherst Madison Inc. (Pier Fleet Point Pleasant) (304) 926-1140	None	None	None	Fleeting Harbor
0.5L	Henderson	Amherst Madison Inc. (Dry Dock) (304) 926-1140	None	None	None	Fleet Harbor / Dry Dock
0.5R	Pt. Pleasant	A.E.P. I & M Fleet # 4 (304) 926-1140	None	None	None	Fleeting Harbor
0.9L	Henderson	Amherst Madison Inc. (Lower Main Fleet) (304) 926-1140	None	None	None	Fleeting Harbor

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
1.1R	Pt. Pleasant	A.E.P. I & M Fleet # 3 (304) 926-1140	None	None	None	Fleeting Harbor
1.3R	Pt. Pleasant	A.E.P. I & M Fleet # 2 (304) 926-1140	None	None	None	Fleeting Harbor
1.3L	Henderson	Amherst Madison Inc. (Upper Main Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
1.4R	Pt. Pleasant	A.E.P. I & M Fleet # 1 (304) 926-1140	None	None	None	Fleeting Harbor
1.6L	Henderson	Amherst Madison Inc. (Wommer Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
2.2R	Pt. Pleasant	Amherst Madison Inc. (Lower Two Mile Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
2.5R	Pt. Pleasant	Amherst Madison Inc. (Middle Two Mile Fleet) (304) 926-1140	None	None	None	Fleeting Harbor

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
2.8R	Pt. Pleasant	Amherst Madison Inc. (Upper Two Mile Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
5.3R	Pt. Pleasant	Ambrosia Machine (304) 675-1722	None	None	None	(Inactive)
16.3R	Robertsburg	A.E.P. (Arbuckle Cells) (304) 675-4709	None	None	None	Mooring Cells
18.4R	Robertsburg	Valley Brook Concrete ---- Shamblim Stone Inc. (Roberstsburg Office) (304) 937-3410	None	None	None	Unloading is Performed by Crane and Spud Barge
28.1R	Eleanor	Kanawha Manufacturing (Buffalo Plant)	Structural Fabrication of Steel Products	None	None	Steel Piling Dock (Inactive)
31.1	Red House	U.S. Army Corps of Engineer Winfield Lock and Dam (304) 586-2501				
35.7R	Plymouth	Amherst Madison Inc. (Plymouth Fleet) (304) 926-1140	None	None	None	Fleeting Harbor

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
37.6R	Black Betsy	Reiss Viking (Black Betsy Dock) (304) 586-0958	None	Yes	None	Embedded Barge and Overhead Crane Structure
38.6L	Scary	John Amos Plant (Heavy-Lift and Rock Dock) (304) 759-3112 Unit # 2	None	None	None	Steel Sheet Pile Mooring Cells
39.1R	<u>POCATALICO RIVER</u>	(see sheet 14)				
39.5L	Scary	John Amos Plant) (Fuel Oil Dock) (304) 759-3112 Unit # 2	Fuel Oil	None	Gantry Crane	Steel Sheet Pile Mooring Cells
40.1R	Poca	West Virginia Paving (304) 755-3217 (Poca)	Sand & Gravel	None	Crane and Conveyor	Loading and Unloading Dock
40.7R	Poca	Kanawha Stone (Rock Branch) (304) 755-8271	Alum. Nitrate, Limestone, Gravel	None	Crane and Conveyor	Embedded Barge (Inactive)
40.7L	Poca	Greer Industries (304) 755-2809	Rock	None	None	Unloading is Performed by Crane and Spud barge

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
41.1L	Scary	Rumble Ready Mix Dock # 1 (304) 755-2595				
41.6L	Scary	Arrow Concrete (304) 755-5300	Sand, and Gravel	None	Crane and conveyor	Cells, Loading and Unloading Dock
41.7L	Scary	Amherst Madison Inc. Teays Dock (304) 926-1140	Sand, Gravel and Slag	None	None	Spud Barge
42.4R	Nitro	Flexsys American L. P. (304) 759-4400	Chemicals	None	Pipeline	Steel Sheet Pile Mooring Cells
42.7R	Nitro	Par Industrial FMC Corp.	Coal & Acid	None	Crane & pipeline	Steel Sheet Pile Mooring Cells (Inactive)
43.0R	Nitro	Visco Dock				Unloading Dock (Inactive)
43.2R	Nitro	Brenntag Mid-South Inc. (304) 755-8622	Coal, Acid Liquid Sulphur	None	Crane & Pipelines	Wood Piles & Steel Sheet Mooring Cells
43.2L	Nitro	Shamblin Stone, Inc. (Scary Creek Yard) (304) 755-3482	Sand & Gravel	None	Derrickboat & crower crane	Tri-Ties

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
44.4 L	St. Albans	American Asphalt Inc. (304) 727-6197				
44.8L	St. Albans	Peerless Block Company (304) 727-4301	Sand & Gravel	None	Crane	Wood Mooring Piles
45.2L	St. Albans	Go Mart Terminal (304) 727-5423	Petroleum Products	None	Pipeline	Two Mooring Piles
46.6R	Nitro	R. J. Recycling (Nitro Yard) (304) 727-8251	Scrap Metal	None	Traveling crane	Dock & Wood Mooring Piles
47.8R	Institute	Kirby Towing (Western Fleet) (304) 727-1091	Chemicals	None	None	Fleeting Area
48.5R	Institute	Martin Marietta Aggregates (Institute Yard) (304) 727-4314	Chemicals	None	Pipeline	Steel Sheet Pile Mooring Cells
49.0R	Institute	Bayer Cropscience (304) 767-6279	Chemicals	None	Crane	Steel Sheet Pile Mooring Cells
49.1R	Institute	Bayer Cropscience (304) 767-6279	Chemicals	None	Crane	Steel Sheet Pile Mooring Cells
49.3R	Institute	Bayer Cropscience (304) 767-6279	None	None	Pipeline	Steel Sheet Pile Mooring Cells

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
50.2R	Dunbar	WV. Paving Co. (Dunbar) (304) 755-3217	Sand, Gravel and Slag	None	Crawler crane	Embedded Barge Anchored by Steel Piling
52.3R	Dunbar	River Service (304)9892774	None	None	None	New Docks - Dock Repair and Boat Repair
53.1R	Wilson Island	Shamblin Stone Inc. (Wilson Island) (304) 766-7316	Sand & gravel	None	Derrick boat & Crawler Crane	Loading and Unloading
53.6L	South Charleston	South Charleston Industrial Park (304) 744-1551				
53.8L	South Charleston	Clearon Corp. (304) 746-3080	Chemicals	None	Crane	Loading and Unloading
54.1R	North Charleston	Amherst Madison Inc. (Tyler Fleet) (304) 926-1140	None	None	None	Steel Sheet Pile Mooring Cells
54.5L	South Charleston	Amherst Madison Inc. (Old Lock # 6 Fleet) (304) 926-1140	None	None	Pipeline	Steel Sheet Pile Mooring Cells
54.9L	South Charleston	Amherst Madison Inc. (Back Channel) (304) 926-1140				
54.9R	North Charleston	Dow Chemicals Dock (Back Channel)	Chemicals	None	Pipeline	Loading platforms, two pile cluster and two steel cells

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
		(304) 747-2969				
54.9R	North Charleston	Dow Chemicals Dock # 1 Distribution Center (304) 747-2969	Chemicals	None	Pipeline	Loading platforms, two pile cluster and two steel cells
55.2R	North Charleston	Dow Chemicals Dock # 2 (304) 747-2381	Gasoline and Chemicals	None	Pipeline	Steel Sheet Pile Mooring Cells and Unloading Barge
55.3R	North Charleston	Dow Chemicals Dock # 3 (304) 747-2493	Chemicals	None	Pipeline	Steel Sheet Pile Mooring Cells and Unloading Barge
55.4L	Blaine Island	Bayer Material Science (304) 455-4400	Chemicals	None	Pipeline	Steel Sheet Pile Mooring Cells and Unloading Barge
55.6R	North Charleston	Chevron U.S.A.Inc.	None	None	Pipeline	Cell and TRI - Ties
56.8L	Charleston	Cemex (304) 345-2031	Cement	None	Truck crane and pipeline	Loading Dock & Mooring Cells
57.8R	<u>ELK RIVER</u>	(see sheet 15)				
57.9L	Charleston	Marathon Petroleum (304) 347-1053	Gasoline	None	Pipeline	Steel Sheet Pile Mooring Cells
63.5R	Charleston	Amherst Madison Inc. (Pier Fleet Charleston) (304) 926-1140	None	None	None	Fleeting Harbor
63.7R	Port Amherst	Amherst Madison Inc. (Truck Dock)	None	None	None	Fleeting Harbor

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
		(304) 926-1140				
63.8R	Port Amherst	Amherst Madison Inc. (Main Office) (304) 926-1140	Coal	None	Conveyor	Fleeting Harbor
63.8L	Charleston	Amherst Madison Inc. (Kanawha City--K.C. Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
63.9R	Port Amherst	Amherst Madison Inc. (Coal Tipple) (304) 926-1140	Coal	None	Conveyor	Wood mooring piles
67.7	Marmet	U.S. Army Corps of Engineer Marmet Locks and Dam (304) 949-1175				
68.4L	Marmet	Kanawha River Terminals Inc. (Lower Davis Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
68.4L	Marmet	Kanawha River Terminals Inc. (Upper Davis Fleet) (304) 926-1140	None	None	None	Fleeting Harbor
68.4R	Belle	E. I. DuPont DeNemours (304) 357-1259/1000 Dock # 1	Chemicals	None	Pipeline	Steel Dock & Wood Mooring Piles

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
68.5L	Marmet	Marmet Dock (304)949-1002 (Massy)	None	None	None	Fleeting Harbor
68.7R	Belle	E. I. DuPont DeNemours and Company (304) 357-1259/1000 Dock # 2	Chemicals	None	Crane	Steel Sheet Pile Mooring Cells
68.8R	Belle	E. I. DuPont DeNemours and Company (304) 357-1259/1000 Dock # 3	Chemicals	None	Crane	Steel Sheet Pile Mooring Cells
68.9L	Marmet	Kanawha River Terminals (Marmet Dock) (304) 949-3336	Coal	None	Conveyor	Wood Mooring Piles
69.1R	Belle	E. I. DuPont DeNemours and Company (304) 357-1259/1000 Dock # 4	Chemicals	None	Pipeline	Wood Mooring Piles
69.1L	Belle	River Point Processing LLC (304) 949-6242	Coal			Mooring Barges
69.2R	Belle	Gleen Springs Holdings Co. (304) 949-4516	None	None	Pipeline	Wood Mooring Piles
69.5L	Marmet	Shambling Stone (Marmet Dock) (304) 949-5614				Fleeting Area

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
71.1R	Belle	A.B.C. Corporation (John Scott) (304) 949-1511				Fleeting Area
71.4R	Diamond	Rumble Ready Mix # 2 (304) 949-5700	Sand-Gravel	None		Wood Mooring Piles
71.7L	Chesapeake	Patriot Coal (Winifred Dock) (304) 949-3333	Coal	None	Conveyor	Fleeting Area
73.1L	Chelyan	Amherst Madison Inc. Fleeting (Amherst / Chelyan Dock) (304) 926-1140	None	None	None	Wood Mooring Piles Cells
73.1R	Shrewsbury	Kanawha River Terminals Inc. (Quincy Dock) (304) 526-0741	Coal	None	Conveyor	Steel Sheet Pile Mooring
73.1L	Chelyan	Mountain Edge				

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
74.5R	Shrewsbury	Little Creek Inc. (Shrewsbury Dock) (304) 595-6292	Coal	None	Conveyor	Wood Mooring Piles
74.5L	Chelyan	Little Creek Inc. (Chelyan Dock) (304) 595-2783	Coal	None	Conveyor	Wood Mooring Piles
74.7L	Chelyan	Kanawha Crane (Coalburg Dock) (304)546-8077	None	None	None	Commercial Fleeting Area
74.8R	Shrewsbury	Boyd's Landing (304) 561-8077	None	None	None	Commercial Fleeting Area
75.2L	Coal burg	Kanawha Crane (East Bank Dock) (304) 546-4634 / 4636	None	None	Conveyor	Steel Tri-Ties Fleeting Area
76.0L	Coal burg	I.G.C. Eastern, LLC	None	None	None	(Inactive)
76.5R	Monarch	A.E.P. Unit # 2 (304) 353-3547	None	None	None	Fleeting Area

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
76.8 L	East Bank	Eric B. Gardner Dock (304) 595-6991	None	None	None	Commercial Fleeting Area
77.7R	Kelley's Creek	Kelley's Creek & Northwestern RR Co.	None	None	None	Steel Sheet Pile Mooring Cells (Inactive)
78.3R	Glasgow	AEP Unit # 1 (Kanawha River Office) (304) 353-3546	Coal	None	Crane and Conveyor	Wood Mooring Piles
79.2 L	Crown Hill	Law River Company LLC (Crown hill) (304) 595-1452	Coal, Sand and Gravel	None	Conveyor	Fleeting Area
79.6R	Riverside	R. J. Recycling (Riverside Yard) (304) 595-6449	Scrap Metal	None	RR track – top of bank to river	Old Lock wall
81.2R	Hugheston	Shamblin Stone Fleeting Area (304) 442-9487	None	None	Crane	Fleeting Area
81.5R	Hugheston	Frazier Creek Mining (606) 794-6984	Coal	None	None	Fleeting Area
81.6R	Hugheston	Baker Oil Company (304) 442-2439	Gasoline	None	Pipeline	Fleeting Area
81.7R	Hugheston	Shamblin Stone (Hugheston Yard) (304) 442-9487	Sand & Gravel	None	Crawler Crane	Unloading is Performed by Crane Flat and Spud Barge

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
82.8	London	U.S. Army Corps of Engineer London Locks and Dam (304) 442-8422				
84.4R	London	Mammoth Coal (Massy) (304) 442-7201 Ext.103 After Hours (304) 442-8168	Coal	None	Conveyor	3 Spudded Barges & 40 x 40 Deck Barge
84.5L	Montgomery	Kanawha Crane (304) 546-4634 / 4636	None	None	None	Wood Mooring Piles
84.7L	Montgomery	Marsico Brothers (304) 442-9331	Sand & Gravel	None	Crane	Unloading is Performed by Crane Flat and Spud Barge
87.1L	Eagle	Imperial Pacific Penston Coal Company (304) 347-8207	Coal	None	Conveyor	Steel Mooring Cells (Inactive)
87.9 R	Bommer	Maple Coal Co. (304) 442-2316	None	None	None	Wood Mooring Piles
89.7R	Alloy	Prime Coal (Alloy Dock) (304) 252-7429	Scrap Metal	None	Crane, RR track Conveyor top of bank to the river	Steel Dock & Mooring Cells
<u>POCATALICO RIVER COMMERCIAL</u>						
0.1R	Poca	Claxon Smith & Son's Concrete (304) 727-5000	Sand & gravel	None	Crane	Wharf & Cluster Piles

Mile	Location	Name	Commodities	Shelter	Facilities	Remarks
<u>ELK RIVER COMMERCIAL</u>						
0.9R	Charleston	Martin Marietta Aggregates (Charleston Dock) (304) 343-4571	Sand & Gravel	None	Crane	Unloading is Performed by Crane and Spud Barge
1.1L	Charleston	Essroc Ready Mix (Down Town Charleston Plant) (304) 346-8131	Ready Mix	None	Conveyor	Sheet Pile Dock & Mooring Cell
2.5L	Etowah	Etowah River Terminal (304) 345-0967	Chemicals	None	Pipeline	Wood & Steel Mooring Piles

Mile	Facility & Address	Fuel	Restaurant	Groceries	Over Night Mooring	Lodging	Remarks
<u>KANAWHA RIVER RECREATIONAL DOCKS</u>							
0.5R	<u>CROOKED CREEK</u> (See Sheet (19)						
1.9 L	River Bend Marina (304) 675-3010						Inactive
7.8R	Kanawha River Camp Ground						
12.OR	Village of Leon (Launching Ramp) (304) 458-1715 (City Hall)	No	No	No	No	No	Launching Ramp and Parking
22.5R	Village of Buffalo (Launching Ramp) (304) 937-2041 (City Hall)	No	No	No	No	No	Launching Ramp and Parking
36.0R	<u>Guano Creek</u> (See Sheet (19)						
36.9L	<u>Second Branch</u> (See Sheet (19)						
38.5R	Poca Fishing Pier and Launching Ramp (304) 755-5061 (VFW)	No	No	No	No	No	Launching Ramp

Mile	Facility & Address	Fuel	Restaurant	Groceries	Mooring	Lodging	Remarks
39.1 R	Pocatalico River (See Sheet (20)						
44.3R	WVDNR (Launching Ramp)	No	No	No	No	No	Launching Ramp & Parking
46.2L	Lou Wendell Marine Sales (304) 722-7144	Yes	No	No	No	No	Launching Ramp, Repair Facilities, 200 lb. Hoist Open Year Round
46.4L	City of St. Albans (Launching Ramp) (304) 727-2971 (City Hall)	No	No	No	No	No	Launching Ramp, Restrooms (Closed 1-5 July – River Fest)
50.9L	Grumpy's Water Front Grill (304) 201-2071	No	Yes	No	No	No	Boat Dock
52.2R	River Service (304) 989-2774						Boat and Dock Repair ---- New Docks
53.6R	Huck Finns Bar and Grill (304) 766-8007	No	Yes	No	No	No	
53.8L	Old West Virginia Dock						(Inactive)
54.2R	Lock 6 Marina (304) 766-8007	No	No	No	No	No	Boat Dock
56.4L	Charleston Marine Inc. (304) 744-3324	No	No	No	No	No	Pleasure Boat Repair

Mile	Facility & Address	Fuel	Restaurant	Groceries	Mooring	Lodging	Remarks
56.8L	Trojan Landing (304) 744-8300	No	No	No	No	No	High Lift-Dry Rack and Boat Ramp
56.9L	The Barge Grill and Restaurant (304) 744-2628	No	Yes	No	Yes	No	Boat Dock
58.4R	Charleston River Front (Haddad Park) (304) 389-3446						
59.3L	City of Charleston (304) 348-6860 (Old C&P Launching Ramp)	No	No	No	No	No	Launching Ramp & Parking
60.9L	Charleston Boat Club (304) 925-6571	Yes	No	No	Yes	No	Refreshments
60.9R	P.A. Denny Boat Dock						
61.6R	City of Charleston (304) 348-6860 (Daninel Boone Park and Launching Ramp)	No	No	No	No	No	Launching Ramp, Parking & Restrooms
67.5	Fishing Pier						
68.2L	The Rusty Cove (304) 347-1053	No	No	No	No	No	Wharf

Mile	Facility & Address	Fuel	Restaurant	Groceries	Mooring	Lodging	Remarks
69.7R	City of Belle Fishing Pier (304) 949-3841	No	No	No	No	No	Fishing Pier
70.4L	Chesapeake Marina and Kanawha River Café (304) 949-1440	Yes	No	No	Yes	No	Launching Ramp Fee \$5.00, Parking, Restrooms Open Year Round Tuesday-Sunday
77.8R	City of Glasgow (Launching Ramp) (304) 595-1015 (City Hall)	No	No	No	No	No	Launching Ramp
84.7R	WV Tech Dock (Launching Ramp) (304) 442-3014	No	No	No	No	No	Launching Ramp / Small Boat Dock
85.9L	City of Montgomery (Launching Ramp) (304) 442-5181 (City Hall)	No	No	No	No	No	Launching Ramp and Parking
<u>CROOKED CREEK</u>							
0.2L	City of Point Pleasant (Launching Ramp) (304) 675-2360 (City Hall)	No	No	No	No	No	Launching Ramp and Parking
<u>GUANO CREEK</u>							
0.1L	Turtle Cove Marina (304) 586-2442	No	No	No	Yes	No	Launching Ramp
<u>SECOND BRANCH</u>							

Mile	Facility & Address	Fuel	Restaurant	Groceries	Mooring	Lodging	Remarks
0.1L	Hidden Cove Marina (304) 755-0137	Yes	No	No	Yes	No	Launching Ramp, Refreshments and Restrooms Open Year Round
<u>POCATALICO RIVER</u>							
0.1L	One Stop Gas Station (Courtesy Dock) (304) 755-5916	Yes	No	Yes	Yes	No	Tie - up to Dock, walk to Gas station Bath Rooms and Phone

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Requests for maps or information should be addressed to:

U.S. Army Engineer District, Pittsburgh

200 William S. Moorhead Federal Building,
100 Liberty Avenue
Pittsburgh, PA 15222-4186
Phone: (412) 395-7500
Fax: (412) 644-2811
<http://www.lrp.usace.army.mil/nav/nav.htm>

Areas of Operation:

Ohio River Mile 0 – 127, Allegheny River, Monongahela River

Requests for maps or information should be addressed to:

U.S. Army Engineer District, Huntington

502 Eighth Street
Huntington, WV 25701
Phone: (304) 399-5353
Fax: (304) 399-5159
<http://www.lrh.usace.army.mil/navigation>

Areas of Operation:

Ohio River Mile 127 – 437, Kanawha River, Big Sandy River

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600 Martin Luther King Place
Louisville, KY 402002
Phone: (502) 315-6766
<http://www.lrl.usace.army.mil/optm/default.asp?mycategory=41>

Areas of Operation:

Ohio River Mile 437-981, Green River Mile 0-108

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Nashville, TN 37202-1070
Phone: (615) 736-7161
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Areas of Operation:

Cumberland River Mile 0 – 381, Tennessee River Mile 0 – 652,
Hiwassee River Mile 0 – 22, Clinch River Mile 0 – 62,
Tenn-Tombigbee Waterway Mile 444.5 - 450

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