

**STORM WATER NARRATIVE
FOR
THE HARBOR SUBDIVISION
STATE HIGHWAY 16, LA CROSSE, WI**

EXISTING CONDITIONS

The existing land cover is deteriorated pavement and poorly vegetated soil. The site was a Holiday Inn that was demolishing between 2000 and 2002.

The land cover is approximately 70% open space with the remainder pavement. View the attached is a 2007 aerial image from La Crosse County showing the land cover. Attached is a soils map that describes the soil at "urban land, valley trains". The soils in the area are predominately fine sands. Soil borings will be obtained during the initial part of final design.

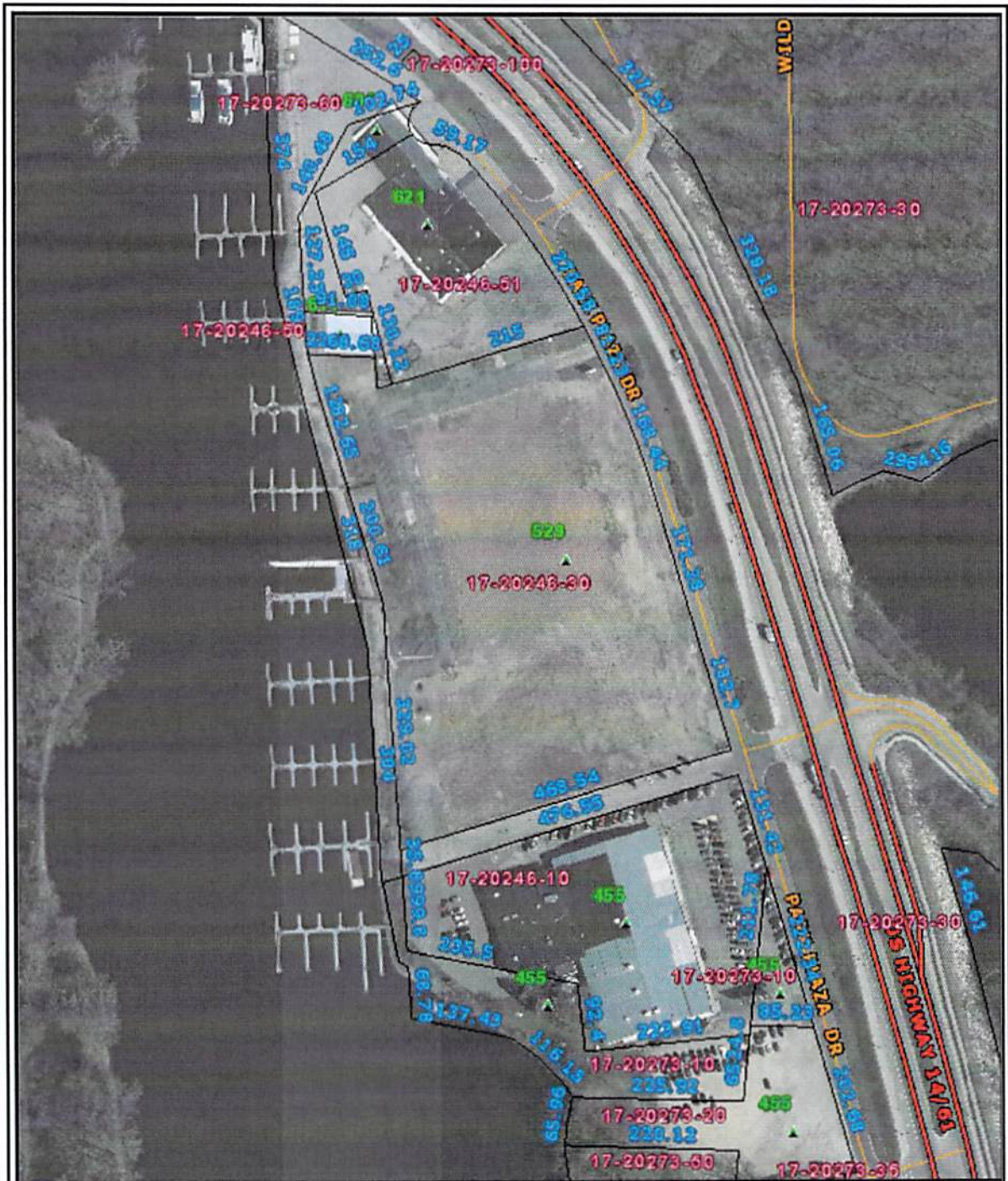
PROPOSED CONDITIONS

The proposed conditions are shown on the preliminary plat and associated preliminary utility, site, grading, and erosion control plans. One street is proposed that connects Park Plaza Drive to the unnamed east-west street on the north side of the Company Store. The street will reduce the total suspended solids per NR 151.122 with the over flow draining to the storm sewer. Two rain gardens with an underdrain are proposed to meet NR 151.122. The Preliminary Plat shows storm water easements dedicated for the rain gardens. You should note that the rain gardens are strategically placed so they can collect runoff from the existing streets too. The current size of the easement is for the proposed street called Harbor Street.

Each lot will provide individual rain gardens to reduce suspended solids and provide infiltration that will meet Wisconsin Administrative Code NR 151.12. The infiltration at each lot shall be designed to maintain or reduce the peak runoff for the 1-year and 2-year pre-development conditions if the soils are sandy. If the soils are not sandy than a small storm sewer will need to be installed in the street to collect the subsurface discharges from the rain gardens.

FLOODPLAIN

The floodplain elevation is 643.8 feet along the northern two-thirds of the site and 648.7 feet at the southern portion of the property. The lowest first floor elevation will be 1.5 feet above the street centerline or above an elevation of 646 feet, whichever is higher. Attached are portions of the Flood Insurance Study and Flood Insurance Rate Map.



La Crosse County GIS
<http://www.co.la-crosse.wi.us/>



DISCLAIMER

La Crosse County strives to produce and publish the most accurate and up-to-date information. Due to variances in sources and update cycles, La Crosse County makes no representation or warranties, either express or implied regarding the accuracy and/or completeness of the information contained herein. THIS DATA IS SUBJECT TO CHANGE ON A DAILY BASIS.


Map Unit Name—La Crosse County, Wisconsin
(THE HARBOR)



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings


 Urban land, valley trains

 Not rated or not available

Political Features

 Cities

Water Features


 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

MAP INFORMATION

Map Scale: 1:1,450 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: La Crosse County, Wisconsin
Survey Area Data: Version 11, Jun 27, 2012

Date(s) aerial images were photographed: 6/19/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Name

Map Unit Name— Summary by Map Unit — La Crosse County, Wisconsin (W1063)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2020	Urban land, valley trains	Urban land, valley trains	6.1	100.0%
Totals for Area of Interest			6.1	100.0%

Description

A soil map unit is a collection of soil areas or nonsoil areas (miscellaneous areas) delineated in a soil survey. Each map unit is given a name that uniquely identifies the unit in a particular soil survey area.

Rating Options

Aggregation Method: No Aggregation Necessary

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

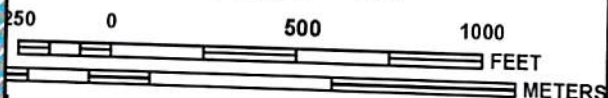
The majority of soil attributes are associated with a component of a map unit, and such an attribute has to be aggregated to the map unit level before a thematic map can be rendered. Map units, however, also have their own attributes. An attribute of a map unit does not have to be aggregated in order to render a corresponding thematic map. Therefore, the "aggregation method" for any attribute of a map unit is referred to as "No Aggregation Necessary".

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



MAP SCALE 1" = 500'



FLOOD HAZARD INFORMATION IS NOT SHOWN ON THIS MAP IN AREAS OUTSIDE OF LA CROSSE COUNTY

PANEL 0234D

FIRM

FLOOD INSURANCE RATE MAP
LA CROSSE COUNTY,
WISCONSIN
AND INCORPORATED AREAS

PANEL 234 OF 425
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LA CROSSE, CITY OF	555562	0234	D
LA CROSSE COUNTY	550217	0234	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



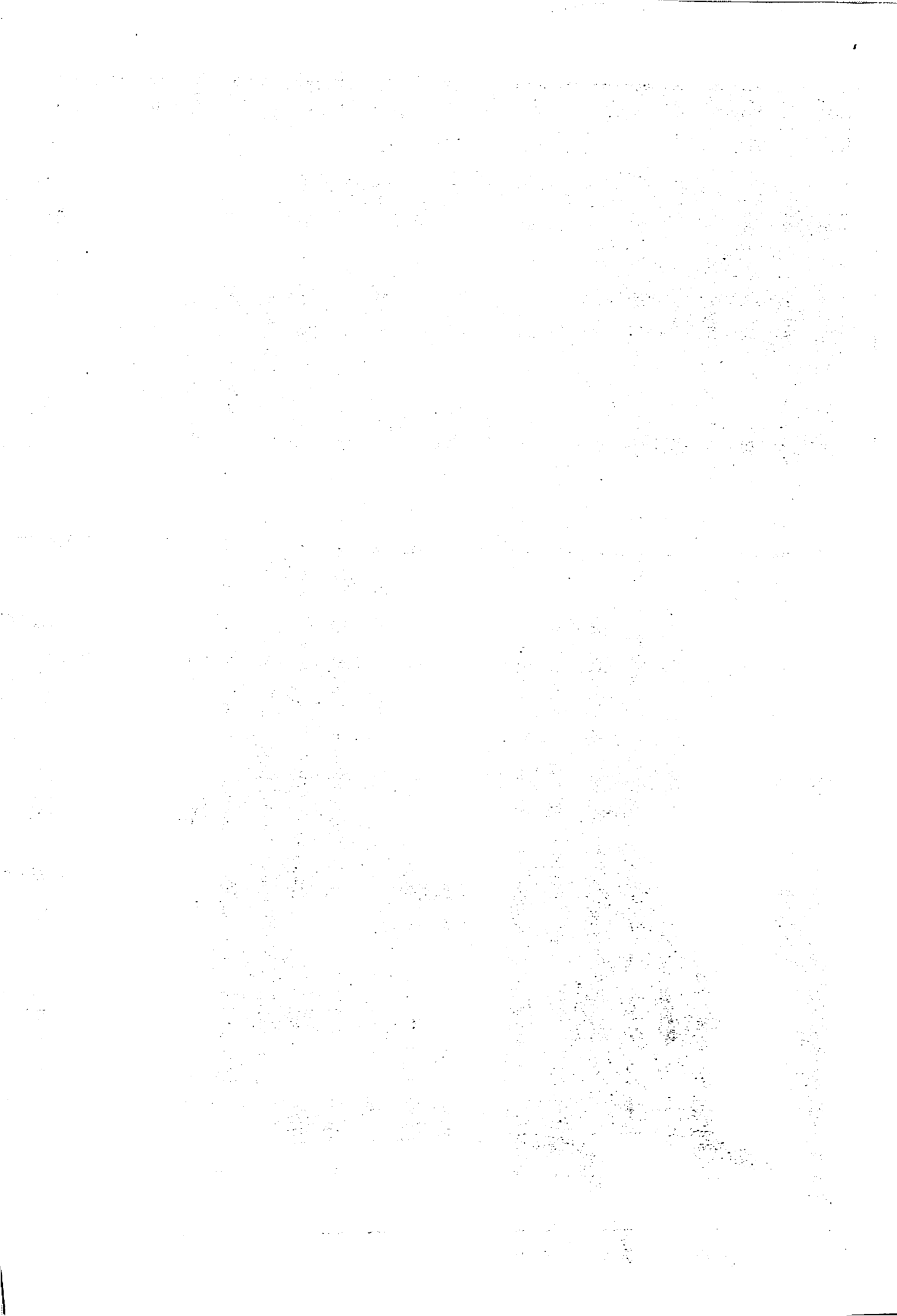
MAP NUMBER
55063C0234D
MAP REVISED
JANUARY 6, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

3' 45"

91° 16' 52.5"



FLOOD INSURANCE STUDY



LA CROSSE COUNTY, WISCONSIN AND INCORPORATED AREAS

Community Name	Community Number
BANGOR, VILLAGE OF	550218
HOLMEN, VILLAGE OF	550219
LA CROSSE, CITY OF	555562
LA CROSSE COUNTY (UNINCORPORATED AREAS)	550217
ONALASKA, CITY OF	550221
ROCKLAND, VILLAGE OF	550222
WEST SALEM, VILLAGE OF	550560



January 6, 2012



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER

55063CV001B

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH ² (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MISSISSIPPI RIVER (CONTINUED)								
S	696.94	1,735/9,059	125,236	2.0	642.3	642.3	642.3	0.0
T	697.22	2,706/8,898	123,908	2.0	642.5	642.5	642.5	0.0
U	697.38	2,670/7,374	102,073	2.4	642.6	642.6	642.6	0.0
V	697.42	3,141/4,490	66,132	3.7	642.7	642.7	642.7	0.0
W	697.47	1,972/2,334	51,890	4.7	642.8	642.8	642.8	0.0
X	697.52	1,865/2,233	46,206	5.3	642.8	642.8	642.8	0.0
Y	698.37	4,175/4,578	62,116	3.3	643.6	643.6	643.6	0.0
Z	699.06	4,735/5,132	61,623	3.3	644.2	644.2	644.2	0.0
AA	699.36	3,942/4,722	83,513	2.5	644.5	644.5	644.5	0.0
AB	699.74	1,720/3,048	64,843	3.2	644.5	644.5	644.5	0.0
AC	699.80	1,499/2,783	58,690	3.5	644.6	644.6	644.6	0.0
AD	700.06	3,164/5,582	85,064	2.4	644.8	644.8	644.8	0.0
AE	700.17	3,461/6,028	92,548	2.2	644.8	644.8	644.8	0.0
AF	700.22	3,681/6,321	95,707	2.1	644.8	644.8	644.8	0.0
AG	700.37	4,574/7,451	109,626	1.9	645.0	645.0	645.0	0.0
AH	700.85	4,755/7,766	115,242	1.8	645.1	645.1	645.1	0.0
AI	701.28	5,390/6,205	102,288	2.0	645.3	645.3	645.3	0.0

¹Miles above confluence with the Ohio River

²Width within La Crosse County/Total Width

TABLE 13

FEDERAL EMERGENCY MANAGEMENT AGENCY

**LA CROSSE COUNTY, WI
AND INCORPORATED AREAS**

FLOODWAY DATA

MISSISSIPPI RIVER

FLOOD INSURANCE STUDY



LA CROSSE COUNTY, WISCONSIN AND INCORPORATED AREAS

Community Name	Community Number
BANGOR, VILLAGE OF	550218
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January 6, 2012

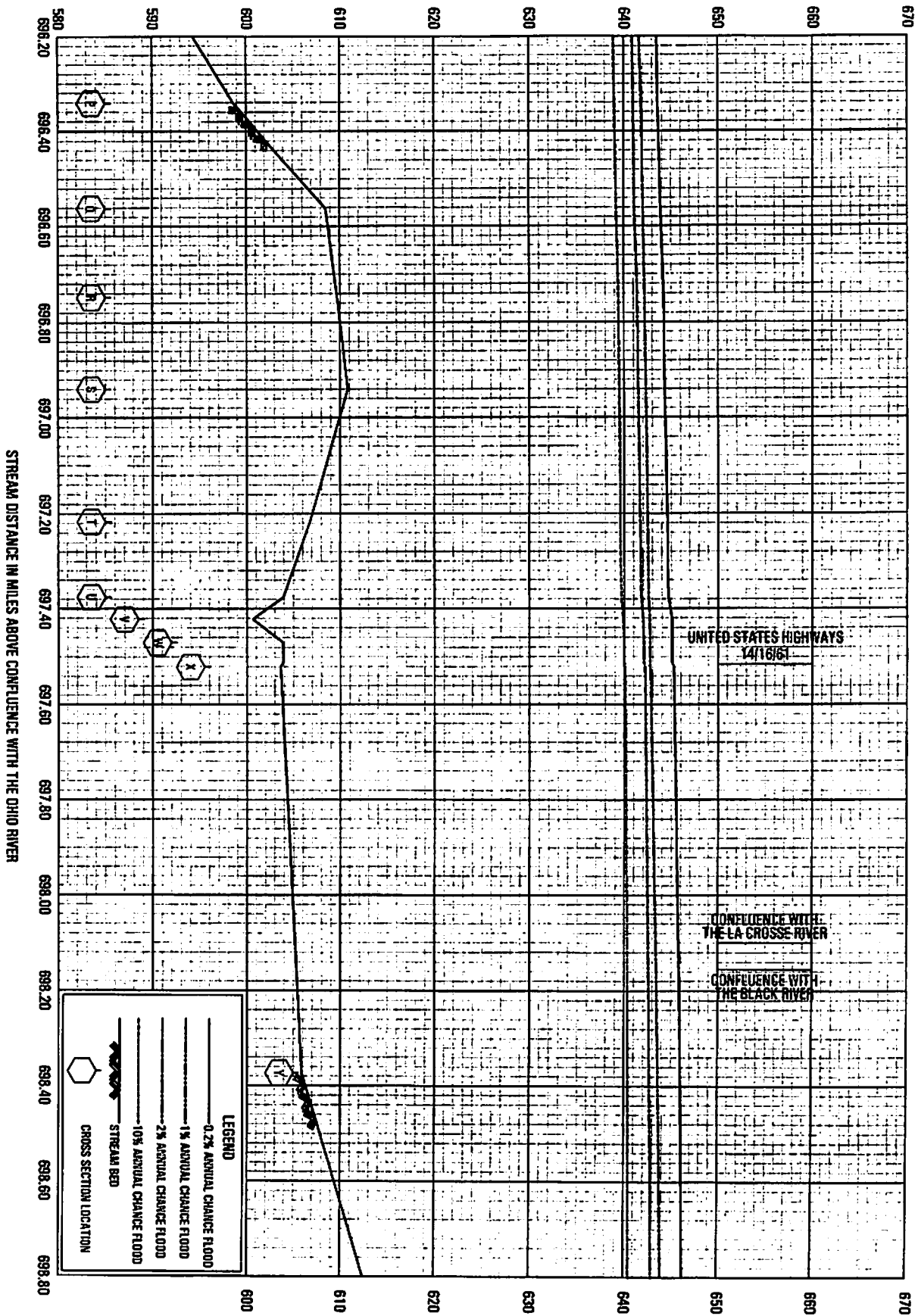


Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER

55063CV002B

ELEVATION IN FEET (NAVD)



STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH THE OHIO RIVER

LEGEND

- 0.2% ANNUAL CHANCE FLOOD
- - - 1% ANNUAL CHANCE FLOOD
- · · 2% ANNUAL CHANCE FLOOD
- · - 10% ANNUAL CHANCE FLOOD
- STREAM BED
- ⬡ CROSS SECTION LOCATION

FEDERAL EMERGENCY MANAGEMENT AGENCY
 LA CROSSE COUNTY, WI
 AND INCORPORATED AREAS

FLOOD PROFILES
 MISSISSIPPI RIVER

64P