



# State Revolving Fund Loan Programs

## Drinking Water, Wastewater, Nonpoint Source

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### ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

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#### CITY OF CHARLESTOWN HIGHVIEW/LAKEVIEW SEWER INSTALLATION STATE REVOLVING FUND PROJECT WW 09 02 10 01

**DATE:** December 8, 2009

**TARGET PROJECT APPROVAL DATE:** January 8, 2010

#### I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Fund (CWSRF) Loan Program for a loan to finance all or part of the wastewater project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed at <http://www.in.gov/ifa/srf/>.

#### II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The CWSRF has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

#### III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

**Max Henschen**  
Senior Environmental Manager  
State Revolving Fund  
100 N. Senate Ave., IGCN 1275  
Indianapolis, IN 46204  
317-232-8623; mhensche at ifa.in.gov

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# ENVIRONMENTAL ASSESSMENT

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## I. PROJECT IDENTIFICATION

Project Name: **Highview/Lakeview Sewer Installation**  
City of Charlestown  
304 Main Cross St.  
Charlestown, IN 47111

SRF Project Number: WW09 02 10 01

Authorized Representative: G. Robert Hall, Mayor  
City of Charlestown

## II. PROJECT LOCATION

The Highview/Lakeview Subdivision project area is located in Clark County in southeast Indiana within the corporate limits of Charlestown. The subdivision is in Grant #135 of the Clark Military Grant in Charlestown Township in the Charlestown USGS Quadrangle; see Figure 1. The project area is not within the boundary of the Indiana Army Ammunition Plant. The Highview/Lakeview Subdivision study area and 20-year service area are one and the same.

## III. PROJECT NEED AND PURPOSE

The project proposes to provide the residents of the project area with sanitary sewers to replace existing septic systems that have failed or have the potential to fail. Areas throughout the subdivision have reported ponding as well as unpermitted direct discharges into ditches and lakes. The Clark County Health Department no longer permits the use of septic systems within this subdivision for new construction or as replacement for existing systems. In correspondence dated February 26, 2009, the Clark County Health Department indicated its "complete support" for Charlestown to connect any homes to the Charlestown wastewater system and eliminate "the present public health issues."

Due to recurring wet weather sanitary overflows in three areas of Charlestown's collection system, the city has entered into an Agreed Order with the Indiana Department of Environmental Management (IDEM). Charlestown is currently working with IDEM to adopt a Compliance Plan and has begun eliminating point sources of inflow and infiltration in an effort. Currently, Charlestown is not under a sewer ban.

Wastewater from the Highview/Lakeview project area will be sent to the Danbury Oaks Subdivision. The Danbury flows pass through an area where overflows regularly occur. However, the relatively low amount of flow from the Highview/Lakeview project and the distance to the overflow point minimize this project contributing to wet weather overflow problems. The IDEM has granted the city a Variance for Sanitary Sewer Connection for the connection of 140 single family homes with an average flow of 43,400 gallons per day.

The city's wastewater treatment facility currently operates well under the design capacity of the plant and has capacity to accept the flows from this project.

#### IV. PROJECT DESCRIPTION

The proposed project will provide for municipal sanitary sewer service to 140 homes in the Highview/Lakeview area and send the flow to connections in the Danbury Oaks Subdivision. The proposed layout of the system is shown on figures 2 and 3.

The proposed Highview/Lakeview Area sanitary sewer system includes:

1. Approximately 12,060 feet of 8-inch polyvinyl chloride (PVC) sanitary sewer;
2. Approximately 3,200 feet of 4-inch PVC force main;
3. Approximately 900 feet of 1.5-inch PVC low pressure sewer;
4. Approximately 105, 8-inch by 6-inch wyes;
5. Approximately 2,600 feet of 6-inch PVC service laterals
6. Three grinder lift stations, to be owned & maintained by Charlestown
7. Two conventional lift stations;
8. Approximately 53 manholes.

The proposed collection system is designed to accept flows from future connections. The 20-year planning period flows for the project are 48,608 gpd average design flow and 194,432 gpd peak flow. However, until the sanitary overflow problems are resolved in the area where the project's flows will travel, approval from IDEM will be required for additional connections for the flows beyond 43,400 gpd.

#### V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

##### A. Selected Plan Estimated Cost Summary

<b>Construction Items</b>	<b><u>Estimated Cost</u></b>
Gravity sewers & connection	\$ 828,900
Sanitary sewer manhole	169,600
Wye branch	7,900
Grinder lift station	36,000
Sewer Laterals	177,000
Force Main, 1.5" pressure line & connection	108,300
Pump Station – Locust Drive	112,000
Pump Station – Dillon Road	150,000
Electrical service	1,700
Asphalt surface street repair	195,000
Remove, reset & protection of disturbed areas	18,500
Project photographs & drawings	2,500

Mobilization	35,000
Demobilization	2,000
Erosion control materials	<u>3,200</u>
Subtotal	\$ 1,847,600
Contingency	<u>184,800</u>
Estimated Construction Cost	\$ <b>2,032,400</b>

**Non Construction Items**

Design Engineering	\$ 150,000
Property & construction surveying	36,000
Construction engineering	49,000
Bond counsel, legal, financial	70,600
SRF trustee fees	<u>1,000</u>
Estimated Non-Construction Cost	\$ <b><u>306,600</u></b>

**Estimated Project Cost \$ 2,339,000**

- B. Charlestown will finance the project through a 20-year loan from the State Revolving Fund (SRF) Loan Program at a fixed interest rate to be determined at loan closing. Rates and charges may need to be analyzed to determine if adjustments are required for loan repayment. Homeowners will be responsible for abandoning septic tanks according to guidelines of the State Department of Health.

**VI. DESCRIPTION OF EVALUATED ALTERNATIVES**

No-Action: The No-Action alternative was eliminated from consideration since failing on-site septic systems would continue to discharge inadequately treated sewage into nearby streams or ditches and cause a potential public health problem.

Install a Collection System: Gravity sewers were the only alternative evaluated for the collection system alternative. Three grinder pumps will be installed to service homes where elevation changes preclude the use of gravity lines.

**VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES**

**A. Direct Impacts of Construction and Operation**

**Disturbed and Undisturbed Areas**: The proposed project will affect land apparently suitable to contain archaeological materials. However, an archaeological survey did not find such resources.

**Historical/Architectural Sites** (Figure 4): The proposed projects will not alter, demolish or remove historic properties. If any visual or audible impacts to historic sites occur, they will be temporary and will not alter the characteristics that qualify historic properties for inclusion in or eligibility for the State or National Registers. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected." If any archaeological artifacts, features, or human remains are uncovered during construction, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two business days.

**Plant and Animals:** Limited tree or shrub removal may be required to implement the project; post-project vegetation over sewer lines will be limited to grass.

**Prime Farmland and Local Geology:** This project will not adversely affect prime farmland, nor will it be affected by local geology.

**Wetlands (Figure 5):** The project will not affect wetlands in the project area.

**100-Year Floodplain (Figure 6):** The project is not within the 100-year floodplain.

**Surface Waters:** The project will not affect Natural, Scenic and Recreational Rivers and Streams, Exceptional Use Streams, or Outstanding State Resource Waters.

**Groundwater:** The project will not affect groundwater.

**Air Quality:** Construction activities will generate dust and noise.

**Open Space and Recreational Opportunities:** The proposed project's construction will neither create nor destroy open space and/or recreational opportunities.

This project will not affect National Natural Landmarks.

## **B. Secondary Impacts**

The District's Preliminary Engineering Report (PER) states: *The City of Charlestown will ensure, through local zoning laws or other means, that future development, as well as future collection system or treatment works projects connecting to SRF-funded facilities, will not adversely impact wetlands, archaeological/historical/structural resources, or other sensitive environmental resources. The City will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.*

## **C. Comments from Environmental Review Authorities**

The U.S. Fish and Wildlife Service and the IDNR Environmental Unit commented in 2005 on an previous aspect of this project; since the project has changed, the SRF is asking those authorities to review the project and provide comments again.

The IDNR Division of Historic Preservation and Archaeology has not yet responded to the SRF's December 3 request for comment.

In correspondence dated June 9, 2005, the Natural Resources Conservation Service stated: *It has been determined that this project will not cause a conversion of prime farmland.*

In correspondence dated May 23, 2005, the Indiana Geological Survey stated that the project *should not be affected by, nor have an effect on the geology of the area.*

## VIII. MITIGATION MEASURES

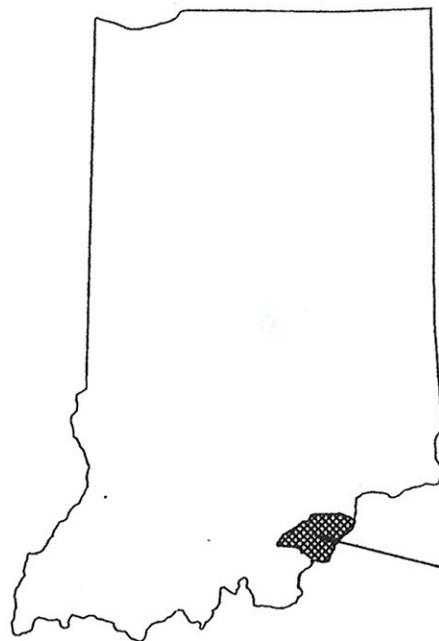
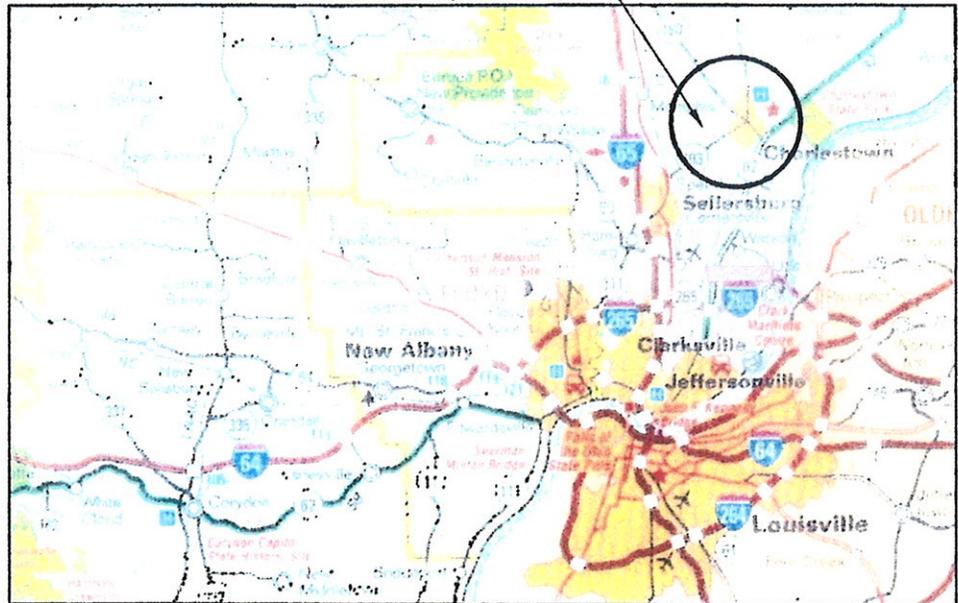
The District's PER states: *An IDEM Rule 5 Permit has been obtained and necessary erosion control measures have been implemented as a part of the final design erosion control features will ensure that no silt-laden runoff from the construction site will enter surface waters or be discharged into karst features.*

*To alleviate adverse dust affects, exposed soils and unpaved roadways may be periodically wetted to reduce the suspension of particle. Adverse affects of construction noise may be reduced by limiting work activities to normal daytime hours.*

## IX. PUBLIC PARTICIPATION

A properly publicized public hearing was held at 7:00 p.m., on March 16, 2009, at the City Hall. Attendees raised questions about cost, payment, timeline, and abandonment of the septic tanks.

HIGHVIEW / LAKEVIEW



PROJECT LOCATION  
CLARK, COUNTY



NO SCALE

**Figure 1**  
**PROJECT LOCATION MAP**  
**HIGHVIEW / LAKEVIEW SEWER IMPROVEMENTS PROJECT**  
 CITY OF CHARLESTOWN  
 NOVEMBER, 2004

**HANNUM, WAGLE & CLINE**  
 engineering

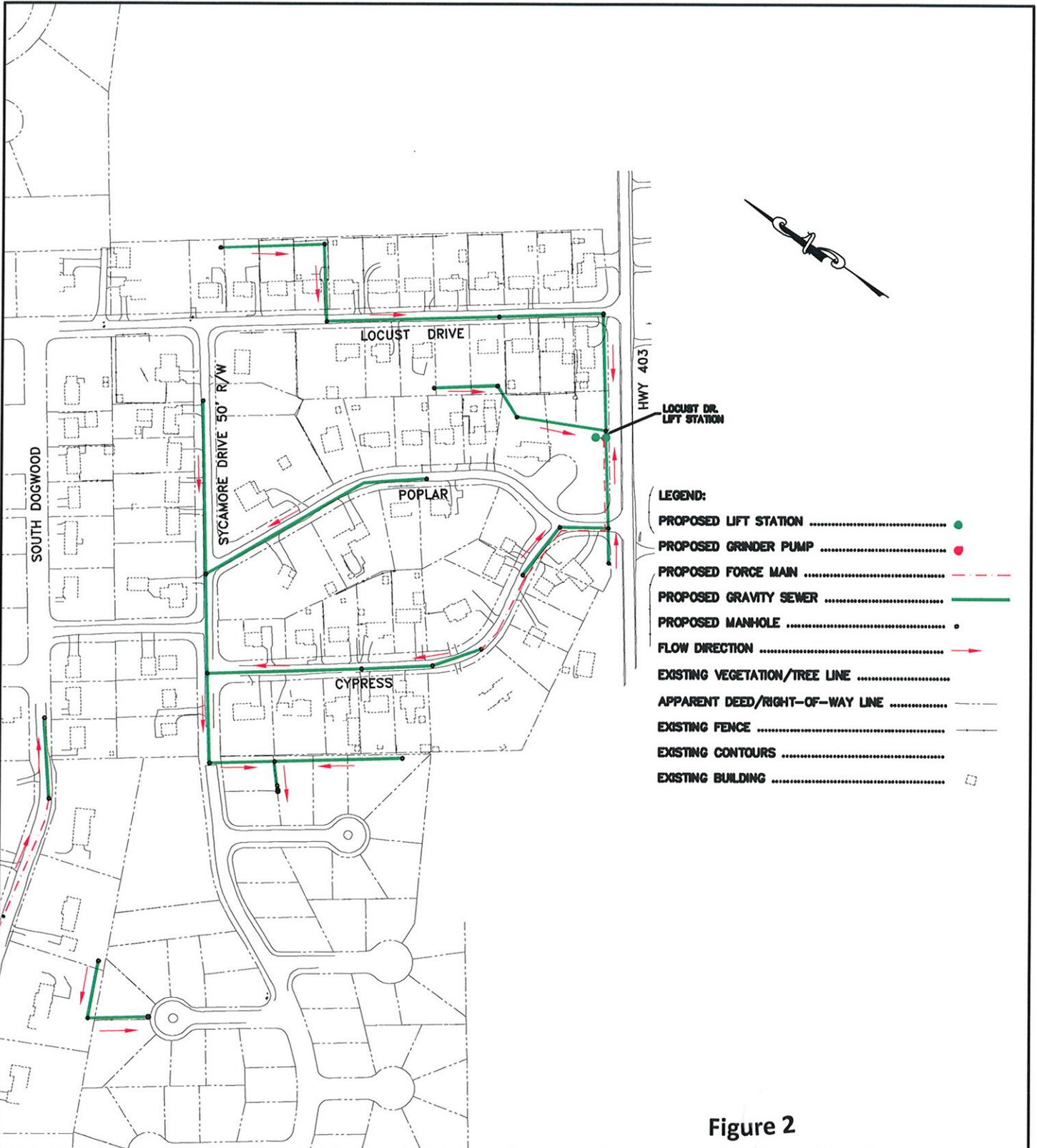


Figure 2

CITY OF CHARLESTOWN  
 HIGHVIEW & LAKEVIEW  
 SANITARY SEWER PROJECT  
 FINAL DESIGN (EAST)

Drawn By: J.S.S. - M.R.S.  
 Checked By: W.A.S - J.D.H.

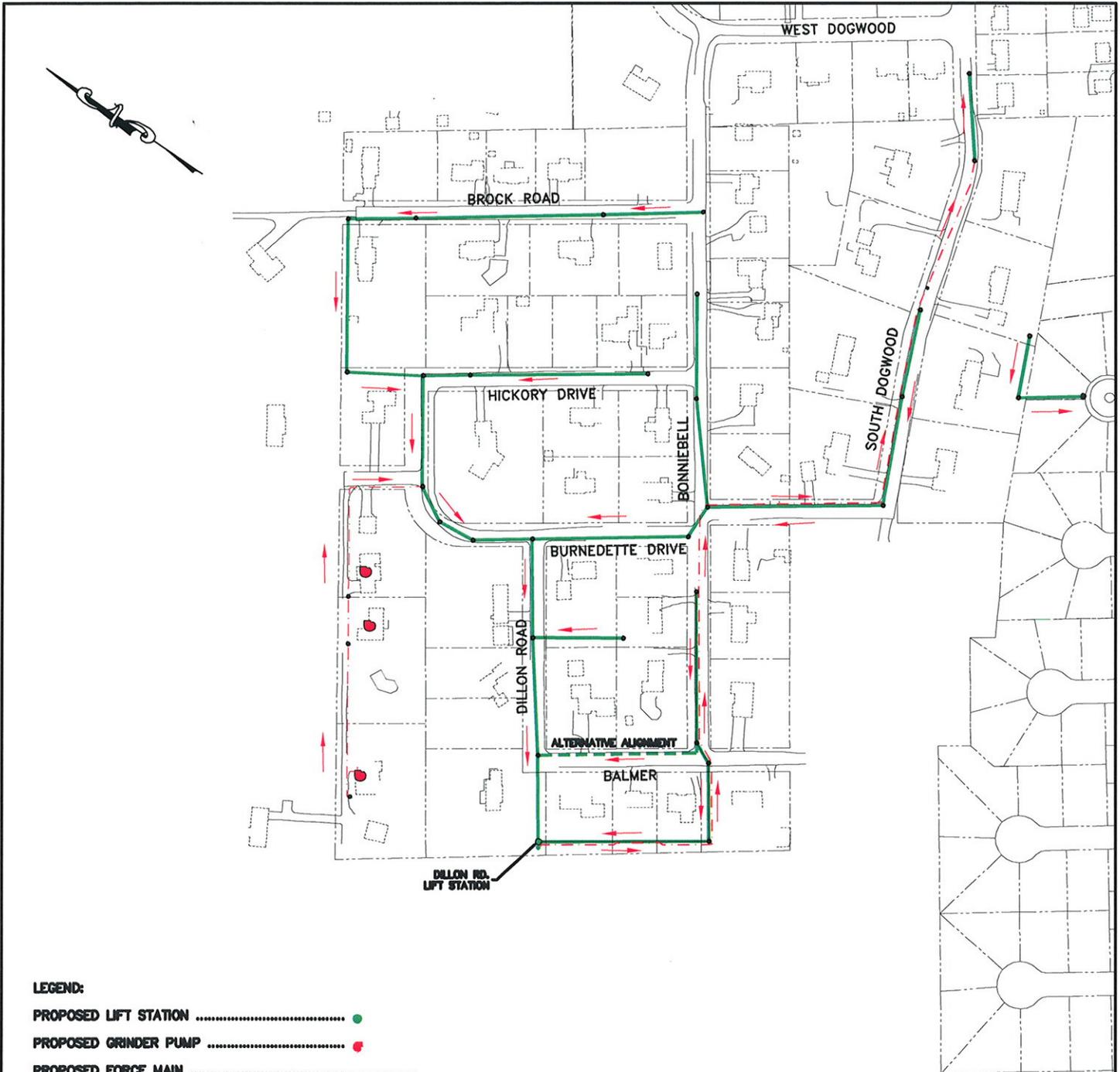
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Date: 12/02/09

Sheet No.: 1 OF 2

SAEGESSER ENGINEERING, INC.  
 88 West McClain Ave. Scottsburg, Indiana 47170  
 Phone: (812)752-8123 Fax: (812)752-7271



**LEGEND:**

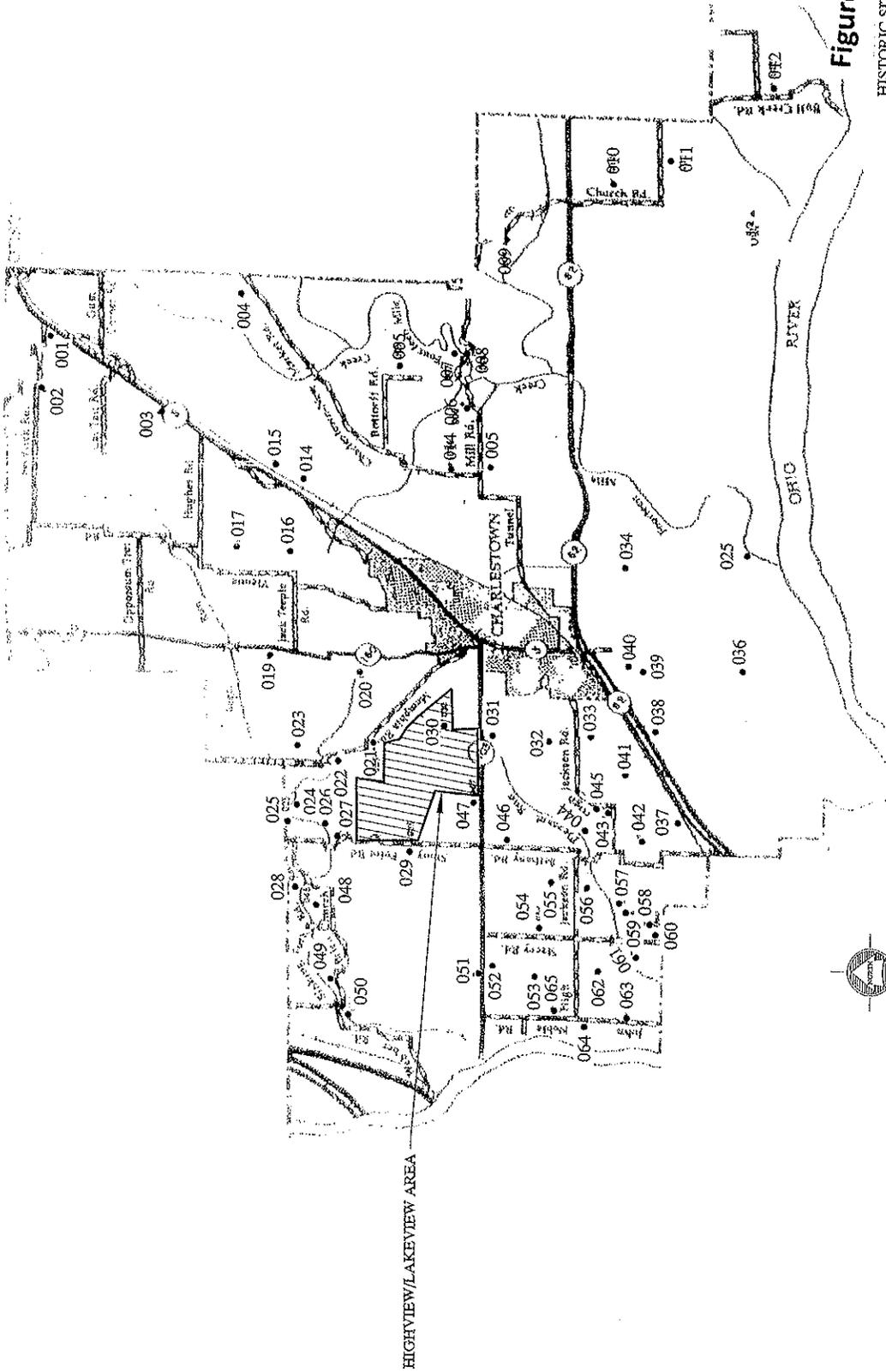
- PROPOSED LIFT STATION ..... ●
- PROPOSED GRINDER PUMP ..... ●
- PROPOSED FORCE MAIN ..... - - - - -
- PROPOSED GRAVITY SEWER ..... ———
- PROPOSED MANHOLE ..... ○
- FLOW DIRECTION ..... →
- APPARENT DEED/RIGHT-OF-WAY LINE ..... - · - · -
- EXISTING BUILDING ..... □

**Figure 3**

**CITY OF CHARLESTOWN  
HIGHVIEW & LAKEVIEW  
SANITARY SEWER PROJECT  
FINAL DESIGN (WEST)**

Drawn By: M.R.S.	File Name: Per Layout Graphics/West.dwg/8 x 11	Checked By: W.A.S. - J.D.H.	
Drawing Scale: 1"=300'	Date: 12/02/09	Sheet No.: 2 OF 2	

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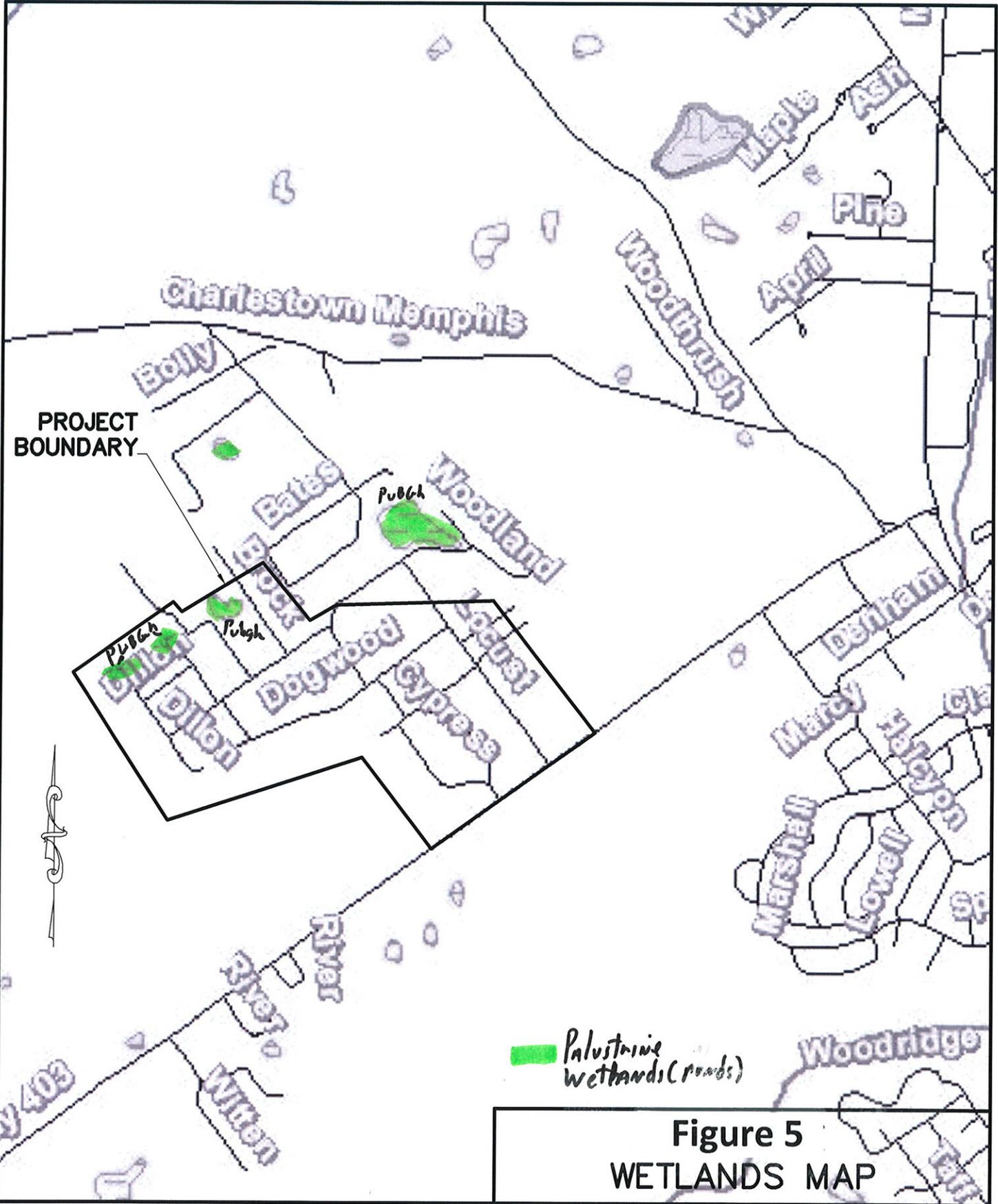
**Figure 4**

HISTORIC SITES MAP  
CHARLESTOWN WATER IMPROVEMENTS PROJECT  
CITY OF CHARLESTOWN  
NOVEMBER 2004

HANNUM, WAGLE & CLINE  
e n g i n e e r i n g

NO SCALE

**Charlestown Township (35001-065), p. 32**  
**from Clark County Interim Report of Historic Sites & Structures**  
**Indiana Historic Sites and Structures Inventory**



**Figure 5**  
**WETLANDS MAP**

Drawn By: JDH  
Checked By: WAS

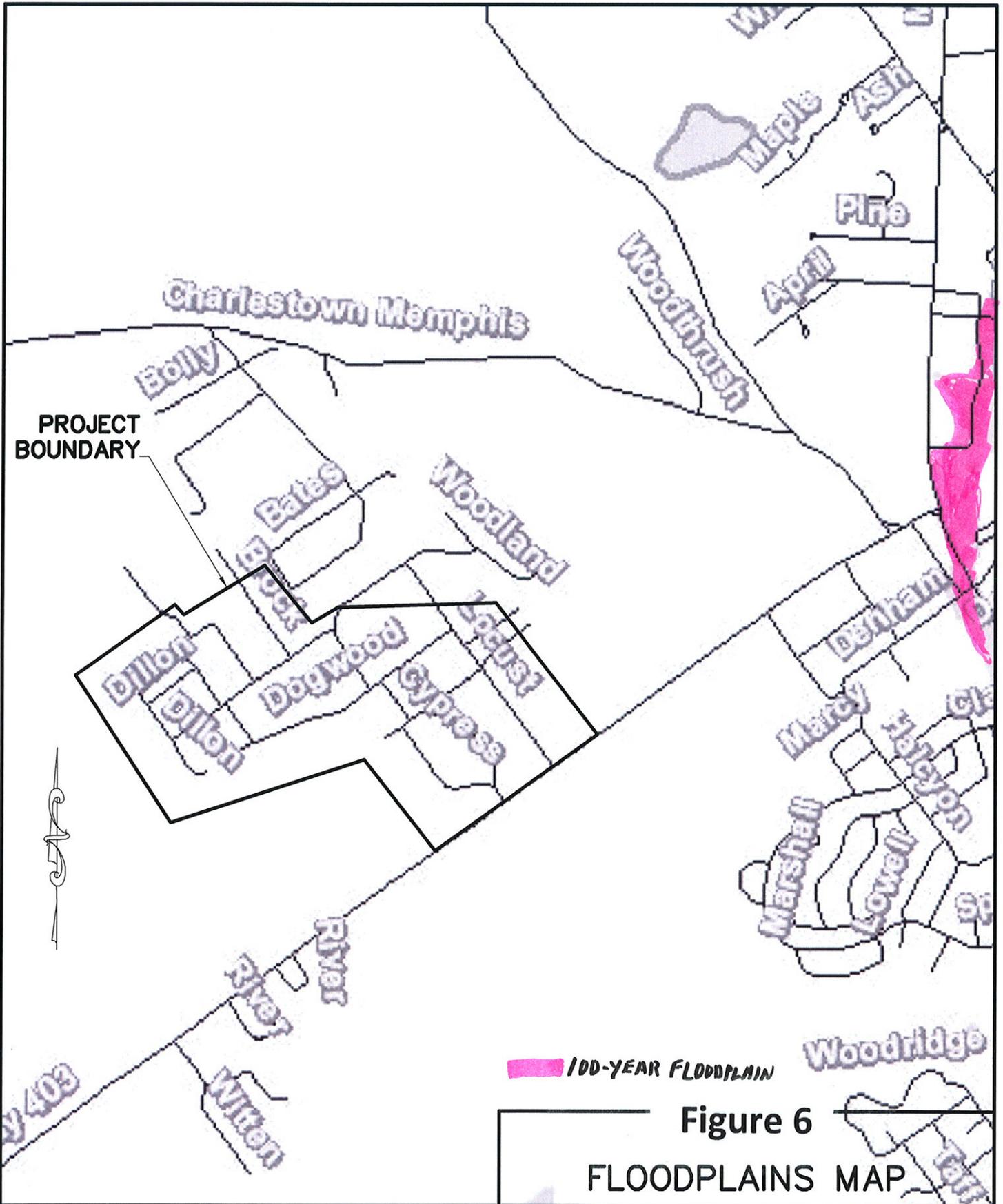
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**100-YEAR FLOODPLAIN**

**Figure 6**  
**FLOODPLAINS MAP**

Drawn By: JDH  
Checked By: WAS

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Drawing Scale: 1"=1000'

Date: 02/20/09

Sheet No.: EXHIBIT F

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