



# 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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#### EVANSVILLE WATER & SEWER UTILITY CSO 004 Relief Sewer Project SRF PROJECT WW 14 21 82 16

**DATE: September 27, 2016**

**TARGET PROJECT APPROVAL DATE: October 27, 2016**

#### I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Fund (SRF) 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 SRF Clean Water Program 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 target approval 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:

**April Douglas**  
Senior Environmental Manager  
State Revolving Fund  
100 N. Senate Ave. IGCN 1275  
Indianapolis, IN 46204  
317-234-7294  
[adouglas@ifa.in.gov](mailto:adouglas@ifa.in.gov)

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# ENVIRONMENTAL ASSESSMENT

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## I. PROJECT IDENTIFICATION

Project Name and Address: **CSO 004 Relief Sewer Project**  
Evansville Water and Sewer Utility  
1 NW Martin Luther King Jr. Blvd., Room 104  
Evansville, IN 47740-0001

SRF Project Number: WW 14 21 82 16

Authorized Representative: Michael Labitzke, Deputy Director of Utilities

## II. PROJECT LOCATION

Evansville is located in southeastern Vanderburgh County in southwest Indiana. The Combined Sewer Overflow (CSO) 004 Relief Sewer project area is located in Pigeon Township on the Evansville South USGS Quadrangle in Township 6 South, Range 10 West, and sections 31 and 32. See Exhibit 1.

## III. PROJECT NEED AND PURPOSE

In November of 2010, the Evansville Water and Sewer Utility (EW&SU) agreed to terms of a Consent Decree (CD) with the Indiana Department of Environmental Management and U.S. EPA. This CD was subsequently approved by the Federal District Court for the Southern District of Indiana in 2011. The CD requires the Utility to implement and develop an Integrated Overflow Control Plan (IOCP) to address sewer system overflows (SSOs) and implement measures to properly operate and maintain the collection systems and wastewater treatment plants (WWTP). The IOCP encompasses three separate plans: a separate sanitary system remedial measures plan which addresses backups and SSOs; a facility plan to upgrade, as appropriate, the two WWTPs; and a Long Term Control Plan to address CSOs into the Ohio River, Bee Slough and Pigeon Creek.

CSO 004 lies within the Ohio River East/Downtown major sewer system that discharges into Bee Slough. The diversion structure for CSO 004 is located near the intersection of Shawnee Drive and Sunset Drive. During dry weather, sanitary flow is diverted to a 24-inch pipe that conveys the flow to the East WWTP via a wooden weir wall. During wet weather, the wooden weir wall is overtopped between 25 times and 30 times per year discharging the combined sewer flow directly into the Bee Slough via a 48-inch by 72-inch brick sewer. This leads to an approximate modeled volume of 50 million gallons (MG) annually.

The relief sewer project will capture the combined sewer discharge from CSO 004 and divert it to a future combined storage/treatment facility (i.e., vertical treatment unit [VTU]) scheduled for completion in 2033. However, during the interim, the new relief sewer will route the combined sewer discharges in the Bee Slough by way of a temporary lift station located between the end of the new relief sewer and the CSO 002 Diversion Structure. The wastewater will then be pumped

through the temporary lift station's 4-inch force main into an existing 60-inch combined sewer with a capacity of 105 million gallons per day (MGD). Drains will be installed so that the standing combined sewer discharge in Bee Slough can be diverted into the new 60-inch relief sewer. Additionally, the project will allow Bee Slough to be drained when the Ohio River is at an elevated stage and the K-4 Pump Station (owned by the Evansville-Vanderburgh Levee Authority) is not in operation.

**IV. PROJECT DESCRIPTION**

The proposed project includes: constructing a 3,000 linear feet of 60-inch reinforced concrete pipe (RCP) relief sewer; constructing a temporary lift station that will have a rated capacity of 153 gallons per minute (gpm); installing approximately 160 feet of 4-inch polyvinyl chloride (PVC) force main; constructing approximately 1,300 feet of 6-feet to 12-feet high retaining walls located approximately 12.5 feet (to back of wall) off the centerline of the proposed 60-inch relief sewer; extending an existing stabilized access pathway, consisting of compacted aggregate, to the temporary lift station site; modifying the diversion structures at CSOs 002 and 004; installing approximately nine precast manholes; and performing site work. See Exhibits 2, 3 and 4.

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

**A. Selected Plan Estimated Cost Summary**

**Construction Costs**

Mobilization/Demobilization	\$ 158,800
Maintenance of Traffic	15,000
Construction Engineering (Staking, Potholing)	39,700
Erosion and Sediment Controls	15,000
Temporary Bypassing	30,000
Site Clearing	24,000
Tree Protection and Trimming	1,750
60-inch RCP Sewer Pipe	2,915,100
6-inch PVC Service Lateral	3,000
4-inch PVC Force Main	12,000
Diversion Structure CSO 004 Modifications	117,000
Diversion Structure CSO 002 Modifications	10,000
Precast Manholes	200,000
Manhole Rehabilitation	35,000
New Lift Station & Controls	145,000
Asphalt Pavement Replacement	41,400
Concrete Sidewalk Replacement	5,100
Concrete Curb Replacement	6,600
Seeding	54,000
Retaining Walls	<u>354,750</u>
	\$4,183,200
<b>Contingency</b>	<u>418,320</u>
<b>Construction Sub-Total</b>	<b>\$ 4,601,520</b>
<b>Non-Construction Costs</b>	<b>\$ 583,320</b>
<b>Land &amp; Easement Costs</b>	<b><u>187,500*</u></b>
<b>Non-Construction Cost Subtotal Costs</b>	<b>\$ 770,820</b>
<b>Total Estimated Project Cost</b>	<b>\$ 5,372,340</b>

**\* Ineligible Cost for SRF Funding**

- B. Evansville Water & Sewer Utility will borrow approximately \$5,184,840 through a 20-year State Revolving Fund (SRF) loan at an interest rate to be determined at loan closing. The actual loan amount will depend on the bids received. The remaining \$187,500 will be paid with local funds. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

## VI. DESCRIPTION OF EVALUATED ALTERNATIVES

There were two alternatives evaluated including the No Action alternative.

### A. No Action Alternative

This alternative was rejected since CSO 004 would continue to discharge over 50 MG of combined sewer flow into Bee Slough on an annual basis, which would put the Utility in violation of their CD.

### B. Construct a 60-inch Relief Sewer

This alternative consists of constructing a 60-inch relief sewer between CSO 004 Diversion Structure and the future site of the VTU. Scheduled for 2033. Refer to the last paragraph in Section III above for a more detailed description. **This is the selected alternative.**

## VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

### A. Direct Impacts of Construction and Operation

**Disturbed/Undisturbed Land:** The project site is situated in a strip of land consisting of a mix between grassy and wooded area between Bee Slough and a residential area which fronts S.E. Riverside Drive. A portion of the project will be constructed in a lot owned by EWSU located at 5 East Riverside Drive.

**Structural Resources** (Exhibit 5): In terms of buildings and structures, the PER identified the following historic district listed in the National Register of Historic Places within the probable area of potential effects:

*Riverside Historic District, listed November 14, 1978*

In regard to buildings and structures, the PER identified the following property (per the Henry County Interim Report) within the probable area of potential effects, and we believe that it meets the criteria of eligibility for inclusion in the National Register of Historic Places due to its historical and architectural significance:

Franklin-Wisheart House, 5th Street, Site #065-409-22008

Additionally, we have identified the following properties listed in the National Register

John W. Hedrick House, 506 High Street (Site #065-409-22027), listed December 27, 1984  
Middletown Commercial Historic District, listed March 31, 2010

**Surface Waters:** Bee Slough is a concrete drainage channel that runs parallel to the project site. The project will not adversely affect outstanding state resource waters listed in 327 IAC 2-1.3-3(d), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), or Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3) or streams on the Outstanding River List for Indiana.

**Wetlands:** Wetlands will not be impacted by the construction or operation of the project.

**Floodplain:** Construction will occur in a levee protected floodway. If necessary and possible, above ground components will be placed at elevations to minimize any flooding hazards.

**Groundwater:** The project will not impact a drinking water supply or sole source aquifer.

**Plants and Animals:** The Preliminary Engineering Report (PER) states:  
*Approximately 2 acres of wooded area will be cleared as part of this project. The width of the clearing will be approximately 50' on both sides of the proposed 60" relief sewer. All trees within the identified corridor will be removed. Trees within the wooded area vary in both species and size.*

*The construction and operation of the project may negatively impact state or federal-listed threatened or endangered species or their habitat. The project will be implemented to minimize impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.*

**Prime Farmland:** The project will not convert prime farmland.

**Air Quality:** Construction activities may generate some noise, fumes and dust, but should not significantly affect air quality.

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

**Lake Michigan Coastal Program:** The project will not affect the Lake Michigan Coastal Zone.

**National Natural Landmarks:** Construction and operation of the proposed project will not affect National Natural Landmarks.

## **B. Indirect Impacts**

Evansville Water and Sewer Utility's PER states: *The City through the authority of its Council, Board of Directors of Evansville Water and Sewer Utility, or other means will ensure 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**

In correspondence dated July 25, 2016, the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology stated:

*Pursuant to IC 13-18-21 and 327 IAC 14 and Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials dated and received by the Indiana SHPO on June 24, 2016, as well as additional information*

*received via e-mail on July 7, 2016, for the above indicated project in Evansville, Vanderburgh County, Indiana.*

*In terms of archaeology, no currently known archaeological resources eligible for inclusion in the National Register of Historic Places have been recorded within the proposed project area. No archaeological investigations appear necessary provided that all project activities remain within areas disturbed by previous construction and ground disturbing activities.*

*In terms of buildings and structures, we have noted the following historic district listed in the National Register of Historic Places within the probable area of potential effects:*

*Riverside Historic District, listed November 14, 1978*

*Based on the information provided to our office, it was not clear whether there may be effects on the characteristics of the above identified historic district that qualify it for inclusion in or eligibility for the National Register (see 36 C.F.R § 800.16[i]). It appears from the additional information received via e-mail on July 7, 2016 that more trees will be removed than the "construction limits and tree clearing corridor" indicated on the graphics received June 24, 2016. The property located at 20 Shawnee Drive is a notable resource and contributes to the Riverside Historic District. The graphics indicate that many of the trees located on the 20 Shawnee Drive property will be removed. Although the trees do not likely date from the period of significance, they do demonstrate that the relationship of the historic building to the roadway has not been significantly changed since their construction. Currently, the property is mostly secluded from the busy Veterans Memorial Parkway.*

*Since they plan to remove most (or all) of the trees it would be helpful if we have further clarification regarding the tree removal. Is it possible to receive a site plan and rendering showing exactly what trees will be removed, what trees will remain, as well as where the double row of evergreens will be planted specifically for the 20 Shawnee Drive property? The western portion of the National Register boundary for the property roughly lines up with the western edge of Sunset Avenue. Is it possible to keep at least all of the trees located within the National Register boundary and still plant the additional evergreens? Also, I assume the homeowner is aware of the tree removal, do they have any concerns?*

*Once the indicated information is received, the Indiana SHPO will resume identification and evaluation procedures for this project. Please keep in mind that additional information may be requested in the future.*

Please see the attached response to the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology dated August 29, 2016.

In correspondence dated September 19, 2016, the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology stated:

*Pursuant to IC 13-18-21 and 327 IAC 14 and Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials dated and received by the Indiana SHPO on August 29, 2016, for the above indicated project in Evansville, Vanderburgh County, Indiana.*

*Thank you for providing the requested information. As previously stated in terms of archaeology, no currently known archaeological resources eligible for inclusion in the*

*National Register of Historic Places have been recorded within the proposed project area. No archaeological investigations appear necessary provided that all project activities remain within areas disturbed by previous construction and ground disturbing activities.*

*As previously stated in terms of buildings and structures, we have noted the following historic district listed in the National Register of Historic Places within the probable area of potential effects:*

*Riverside Historic District, listed November 4, 1978*

*Based on the information provided to our office, we do not believe the characteristics that qualify the above identified historic property for inclusion in the National Register will be diminished as a result of this project provided that the concerns of the property owner for 20 Shawnee Drive are addressed.*

*If any prehistoric or historic archaeological artifacts are uncovered during construction, demolition, or earthmoving activities, 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 (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.*

In correspondence dated August 1, 2016, the United States Fish and Wildlife Service stated:

*This responds to your email of July 26, 2016 requesting U.S. Fish and Wildlife Service (FWS) review of a proposed wastewater improvements project for Evansville Water and Sewer Utility in Vanderburgh County, Indiana.*

*These comments are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.*

*Your letter states that the proposed project includes construction of approximately 3,000 linear feet of 60-inch relief sewer. In addition, a walkway and retaining walls will be built in the area once the project is complete. Approximately 2 acres of tree clearing will be required for the sewer line installation.*

*We do not anticipate significant impacts on fish and wildlife resources from this project, but we recommend the following mitigation measures to minimize impacts.*

- 1. Avoid or minimize removal of mature native hardwood trees within the construction corridor.*
- 2. Implement temporary erosion and siltation control devices as necessary.*
- 3. Revegetate all disturbed soil areas with native plant species suitable for riparian areas immediately upon project completion. We recommend seed mixes that include species of nectar-producing plants and milkweed native to the area where the mix is applied.*

*Wetland and stream impacts may require permits from the US Army Corps of Engineers, the Indiana Department of Environmental Management's Water Quality Certification program and the Indiana Department of Natural Resources. Wetland impacts should be avoided, and any unavoidable impacts should be compensated for in accordance with the Corps of Engineers mitigation guidelines.*

## *Endangered Species*

*Vanderburgh County is within the range of the federally endangered Indiana bat (*Myotis sodalis*), fat pocketbook mussel (*Potamilus capax*) and sheepsnose mussel (*Plethobasus cyphus*), and the federally threatened northern long-eared bat (*M. septentrionalis*). The mussel species' range is limited to the Ohio River. Since the river will not be impacted, we concur that the proposed project is not likely to adversely affect these mussel species.*

*There is suitable summer habitat for the bats within the project area. There are no current records of Indiana or northern long-eared bats near the site but to our knowledge the area has not been surveyed. The project will not eliminate enough habitat to affect these species, but to avoid incidental take from removal of an occupied roost tree we recommend that tree-clearing be avoided during the period April 1 - September 30. If this measure is implemented we concur that the proposed project is not likely to adversely affect these species.*

*Thank you for the opportunity to review this proposed project. This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act. If project plans are changed significantly, please contact our office for further consultation.*

In correspondence dated August 25, 2016, the Department of Natural Resources Environmental Unit Stated:

*The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.*

*If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.*

*Regulatory Assessment: Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.*

*Natural Heritage Database: The Natural Heritage Program's data have been checked. The managed lands and species below have been documented within ½ mile of the sites indicated.*

### *I. All Sites*

#### *A. MANAGED LANDS (Evansville Department of Parks and Recreation):*

- 1. Sunset Park*
- 2. Sunrise Park*
- 3. Goosetown Park*
- 4. Goosetown Mini Park*

#### *B. ANIMALS:*

- 1. Peregrine Falcon (*Falco peregrinus*), state special concern*
- 2. Great Egret (*Ardea alba*), state special concern*
- 3. American Badger (*Taxidea taxus*), state special concern*

### *II. Site 3-7A*

#### *A. MANAGED LANDS:*

- 1. Riverfront Plaza, Evansville Department of Parks and Recreation*
- 2. Bicentennial Plaza, Evansville DMD*

III. Site 3-7B and 3-7C

A. MANAGED LANDS: Caldwell Park, Evansville Department of Parks and Recreation

*Fish & Wildlife Comments: Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:*

1) *Animal Species:*

- a. *BIRDS: The Peregrine falcon nest is more than 4000' from the project and will likely not be disturbed. Likewise, Great egrets can no longer nest in the project area as they prefer to nest in wetlands with low disturbance, which does not characterize the suburban forested habitat found in the project area. Therefore, we do not foresee any impacts to these species as a result of this project.*

*However, because two acres of woodlands are being removed, this project may have significant negative impacts on any tree or shrub nesting species that are federally protected by the Migratory Bird Treaty Act. It is recommended that either: 1) the area is surveyed for nesting birds and monitored to make sure that any active nests are not disturbed, and work will be completed after any active nest has failed or successfully fledged chicks; or 2) work occurs outside of the breeding season, during the period from early September to early March to avoid disturbing nesting bird species.*

*AMERICAN BADGER: Badgers are a wide ranging species that prefer an open, prairie-type habitat, with Indiana being at the eastern edge of their natural range. The range of the badger continues to expand as a result of land-use changes from forest to farmland and open pastureland. Impacts to the American badger or its preferred habitat are unlikely as a result of this project.*

- 2) *Bank Stabilization: Restoration of the disturbed streambanks and any bank protection should be done using bioengineering bank stabilization methods. Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>. Stream bank slopes after project completion should be restored to stable-slope steepness (not steeper than 2:1).*
- 3) *Riparian Habitat: Minimize the removal of trees and brush. In the southeast half of the Bee slough segment where the east bank is grassy, the Division of Fish and Wildlife recommends placing the line adjacent to the channel instead of placing it landward of the channel where there is forested habitat.*

*We recommend a mitigation plan be developed if habitat impacts will occur. The DNR's Floodway Habitat guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf>. The mitigation site should be located in the floodway preferably as close to the impact site as possible and adjacent to existing forested riparian habitat.*

*Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or*

*greater (5:1 mitigation based on the number of large trees). Impacts to wetland habitat should also be mitigated at the appropriate ratio.*

*The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:*

- 1. Revegetate all bare and disturbed areas with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants (e.g. crown-vetch), invasive plants or cultivars.*
- 2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.*
- 3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.*
- 4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark or with cracks, crevices, or cavities) from April 1 through September 30.*
- 5. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.*
- 6. Post "Do Not Mow or Spray" signs along the right-of-way.*
- 7. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.*
- 8. Seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with biodegradable heavy-duty erosion control blankets (follow manufacturer's recommendation for installation); seed and apply mulch on all other disturbed areas.*
- 9. Plant five trees, at least 2 inches in diameter-at-breast height, for each tree which is removed that is ten inches or greater in diameter-at-breast height.*

## **VIII. MITIGATION MEASURES**

Evansville Water and Sewer Utility's PER states:

*Siltation and erosion will be kept to a minimum. Any mitigation measures cited in comment letters or mandated by authorized reviewing agencies to reduce or eliminate siltation, erosion and waterway contamination will be implemented. Mitigation measures to limit erosion and siltation will include the following:*

- 1. Erosion and sediment control measures required by the project specifications will require that the contractor provide a schedule for clearing, grading, excavating, and restoring disturbed areas, along with a description of measures to be used during construction to ensure erosion/sediment control. The program shall meet all applicable federal, state, and local requirements.*
- 2. Natural vegetation will be retained wherever feasible.*
- 3. Excavations will be limited to existing rights-of-way and easements.*

4. *Appropriate agronomic practices (sediment basins, seeding, mulching) will be provided to control runoff, including shoreline and stream crossings, if applicable.*
5. *Drainage systems, including surface and subsurface drainage, will be returned to their natural state as soon as possible, if disturbed.*
6. *Roadways and parking lots will remain stabilized during construction to the extent possible.*
7. *When possible, construction activities will be scheduled to avoid excessively wet conditions.*
8. *Where possible, excavated material will be kept to the upland side of the excavation. Excess material will be used elsewhere on the project.*
9. *The existing topsoil will be reused during the restoration process.*
10. *If necessary, discharge from dewatering may be directed to sedimentation basins prior to discharging into surrounding surface waters.*

*The adverse impacts caused by dust may be alleviated by periodically wetting the exposed soil and unpaved roadways to reduce the suspension of particles.*

*To reduce noise impacts, work activities can be limited to normal daytime hours.*

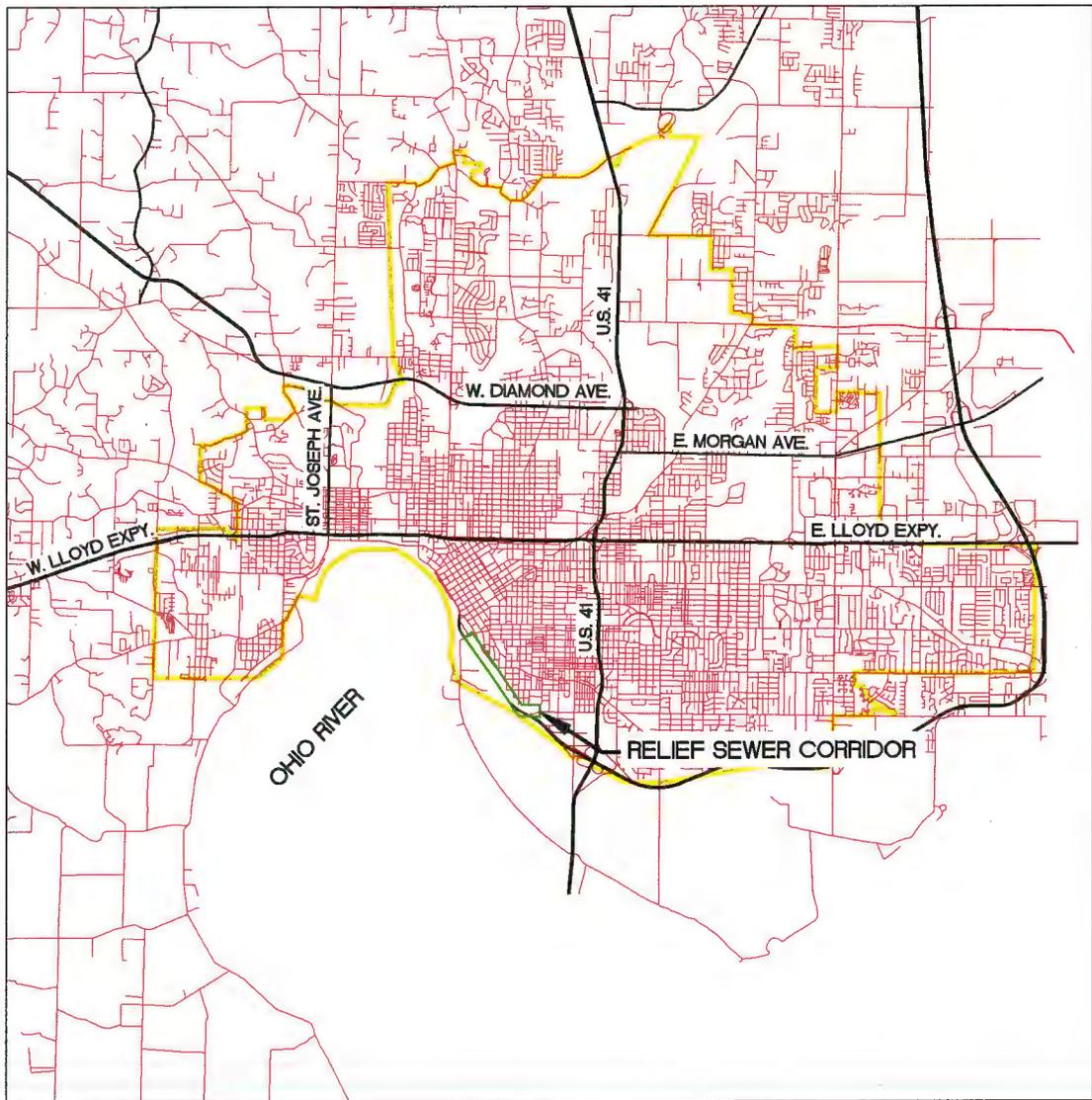
*If necessary, dewatering will be employed during construction with the flow directed to a sedimentation basin prior to being discharged to surrounding surface waters.*

## **IX. PUBLIC PARTICIPATION**

A properly noticed public hearing was held on July 28, 2016, at 6:30 pm at the Evansville/Vanderburgh Public Library – Central Library to discuss the PER. Concerns from the public meeting addressed:

- Questions were raised regarding Bee Sough and what it will look like upon project completion;
  - City encourages public to attend upcoming meetings to discuss this issue;
- Homeowner concerned about the project being close to his house and causing damage due to construction vibrations cause any damage ;
  - City stated the existing conditions will be documented and if any damages occur to report them immediately;
- Question if the retaining wall will run the entire length of the relief sewer;
  - City and engineer stated it will not and that there will be gaps in the retaining wall to allow wildlife to move about freely;
- residents concerned about not maintaining sewer service;
  - City said that sewer service will be maintained;
- residents inquiring about being responsible for documenting the inside of their homes;
  - City encouraged them to do their own independent documentation alongside the contractor;
- and residents are concerned about odors;
  - City explained that improvements in the odor should be realized when the effluent lift station is in operation in 2023 and the VTU in operation in 2033.

No written comments were received during the 5-day comment period following the hearing.



LEGEND

-  EVANSVILLE CORPORATE LIMITS
-  RELIEF SEWER CORRIDOR



SCALE: 1" = 10000'

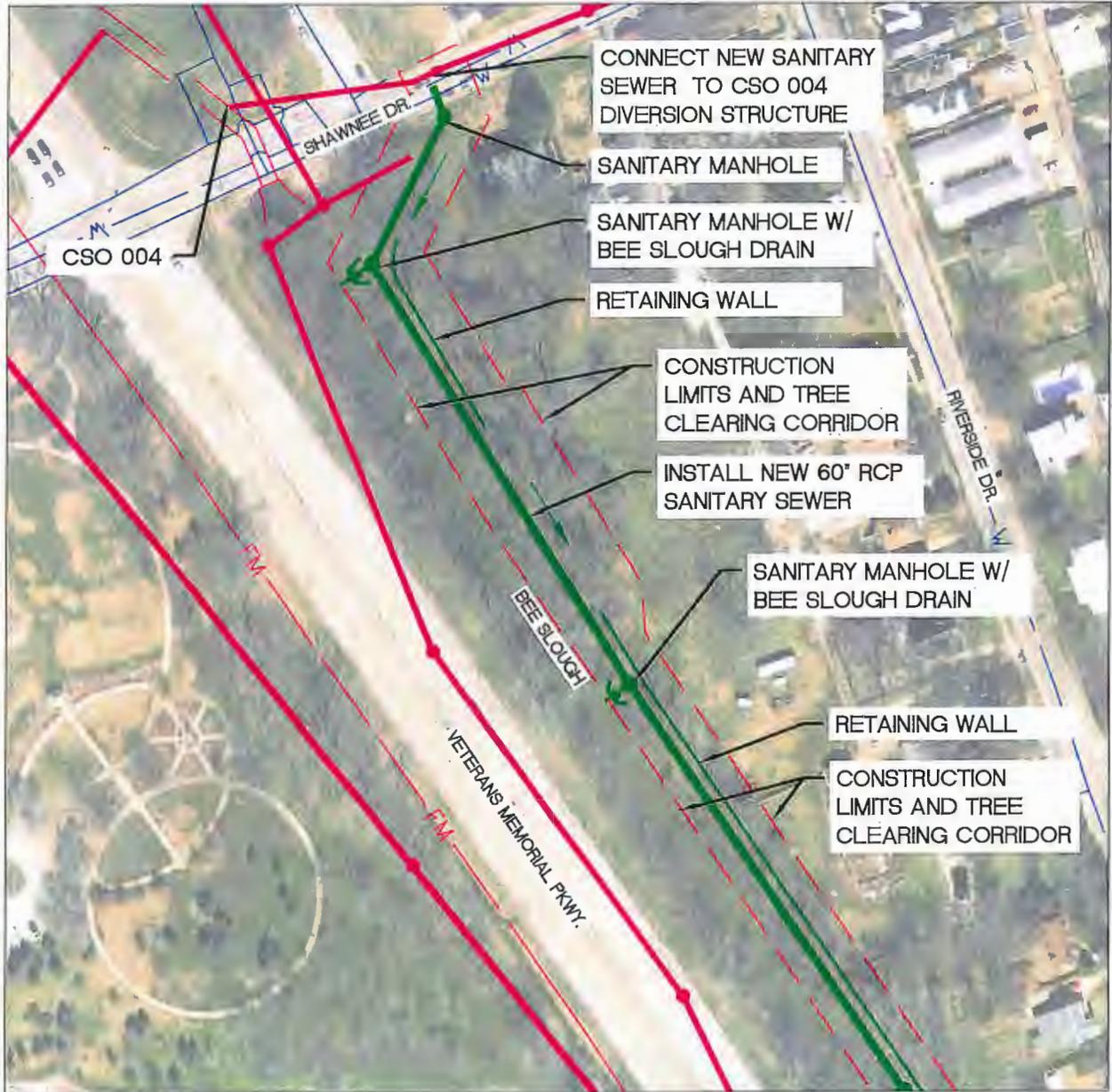
DIRECTOR: SA 02/14/14-3120 DWSU PARTS E & F PLUMBING EXHIBITS/VS G EXHIBITS/CSO 004A 1/20/16-1  
 PROJECT: CSO 004 RELIEF SEWER PROJECT  
 PLOTTED BY: JLD  
 DATE: May 27, 2016 - 4:58pm


**VS ENGINEERING, INC.**  
 915 MAIN STREET, SUITE 205, EVANSVILLE, INDIANA 47708  
 TEL: (812) 401-0303 FAX: (317) 293-4737

CITY OF EVANSVILLE WATER AND SEWER UTILITY  
 PRELIMINARY ENGINEERING REPORT "G", PROJECT No. 1  
 CSO 004 RELIEF SEWER PROJECT

OVERALL LOCATION MAP

EXHIBIT  
**1**

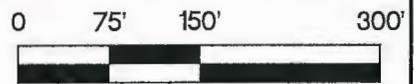


AERIAL: WINTER 2013

**LEGEND**

- FM — EXIST. FORCEMAIN
- EXIST. COMB. SEWER
- EXIST. MANHOLE
- W — EXIST. WATER LINE
- PROP. 72" SANITARY SEWER
- - - CONSTRUCTION LIMITS
- PROP. SANITARY MANHOLE

**KEY MAP**



SCALE: 1" = 150'

**VS ENGINEERING, INC.**  
 915 MAIN STREET, SUITE 205, EVANSVILLE, INDIANA 47708  
 TEL: (812) 401-0303 FAX: (317) 293-4737

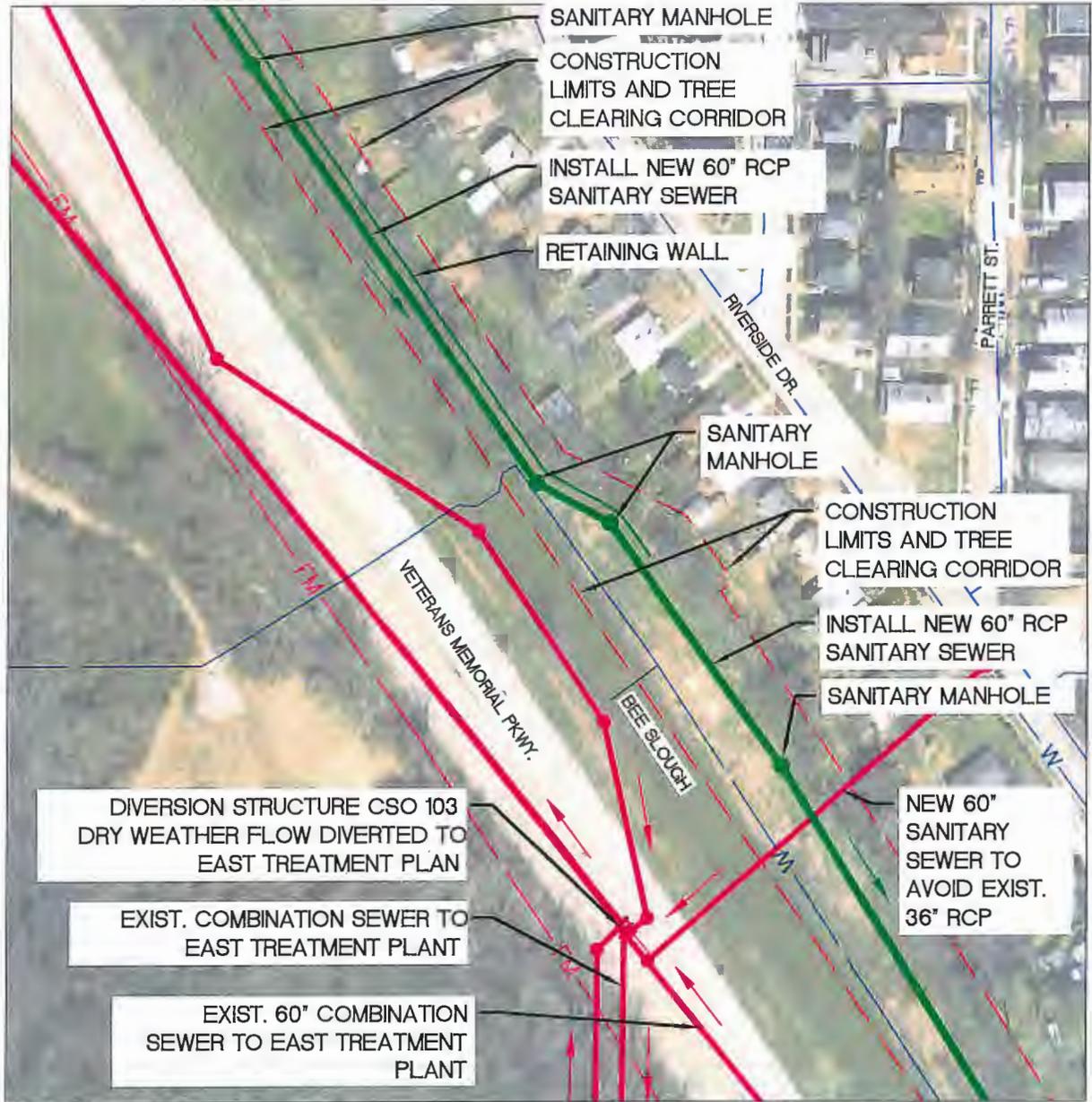
CITY OF EVANSVILLE WATER AND SEWER UTILITY  
 PRELIMINARY ENGINEERING REPORT "G", PROJECT No. 1  
 CSO 004 RELIEF SEWER PROJECT

**PROPOSED SITE LAYOUT**

**EXHIBIT  
2**

REVISED 8/26/2016

DIRECTORY: D:\EVANSVILLE\2016\ENR\PP2'S & PLAN\ENR\DWG\CSO04\CSO04.dwg  
 PLOTTED BY: TAYLOR, JESSIE  
 DATE: 8/26/2016 10:00am



AERIAL: WINTER 2013

**KEY MAP**



**LEGEND**

- PROP. 72" SANITARY SEWER
- - - EXIST. FORCEMAIN
- EXIST. COMB. SEWER
- EXIST. MANHOLE
- - - EXIST. WATER LINE
- - - CONSTRUCTION LIMITS
- PROP. SANITARY MANHOLE



SCALE: 1" = 150'

DIRECTORY... 2014 (A) 14-3120 (S) 10/15/14 PER'S C & PLANNING EXHIBITS FOR 0 COUNTY (CAD DATA) L1SCALE...  
 FILED IN: 2016\_08\_05\_10:00 AM SITE.dwg  
 DATE: 08/23/2016 10:00am

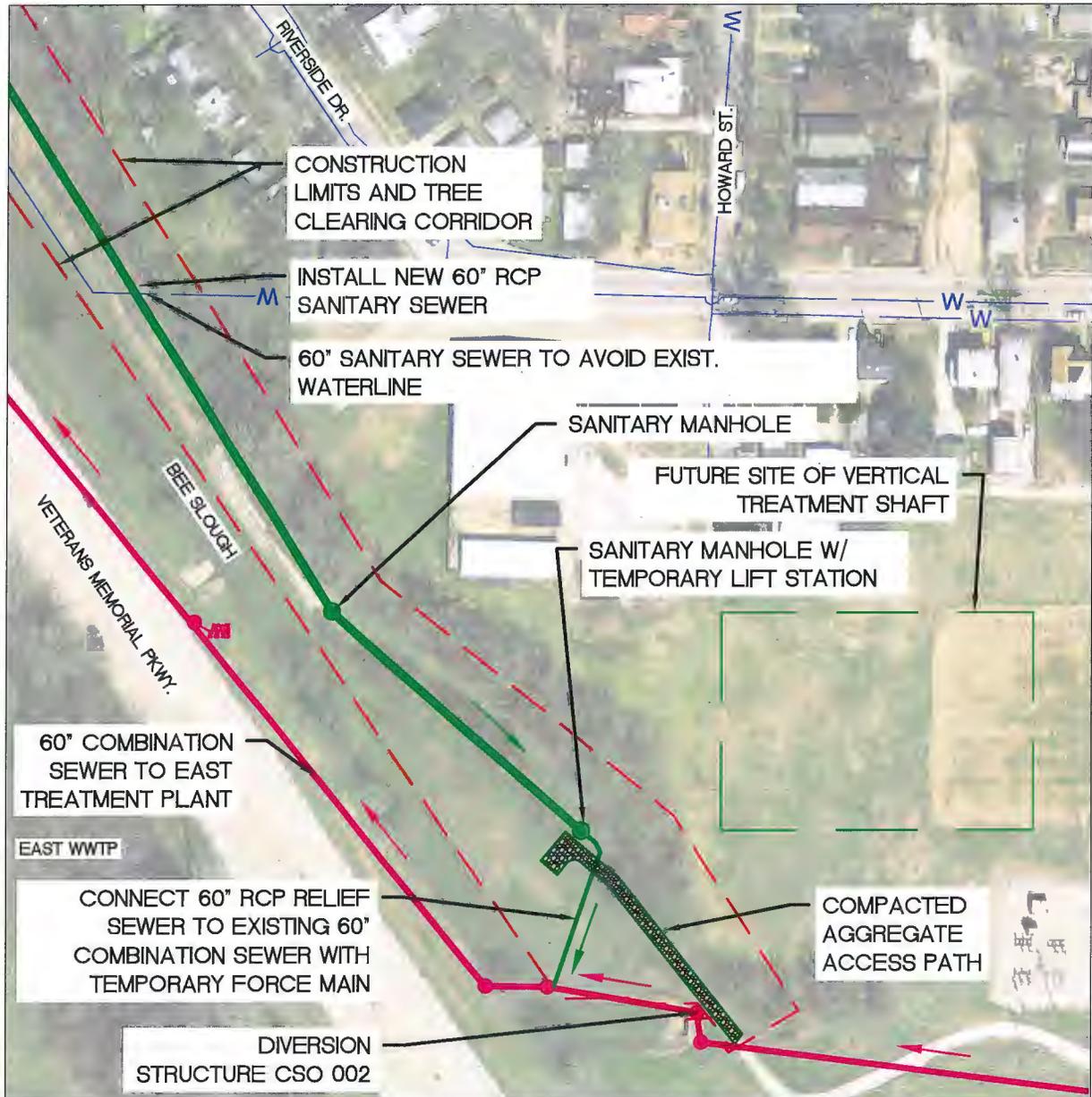
**VS ENGINEERING, INC.**  
 915 MAIN STREET, SUITE 205, EVANSVILLE, INDIANA 47708  
 TEL: (812) 401-0303 FAX: (317) 293-4737

CITY OF EVANSVILLE WATER AND SEWER UTILITY  
 PRELIMINARY ENGINEERING REPORT "G", PROJECT No. 1  
 CSO 004 RELIEF SEWER PROJECT

**PROPOSED SITE LAYOUT**

**EXHIBIT**  
**3**

REVISED 8/26/2016



AERIAL: WINTER 2013

**KEY MAP**



**LEGEND**

- FM EXIST. FORCEMAIN
- EXIST. COMB. SEWER
- EXIST. MANHOLE
- EXIST. WATER LINE
- PROP. 72" SANITARY SEWER
- PROP. 24" SANITARY SEWER
- CONSTRUCTION LIMITS
- PROP. SANITARY MANHOLE
- COMPACTED AGGREGATE ACCESS PATH



0 75' 150' 300'



SCALE: 1" = 150'



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**PROPOSED SITE LAYOUT**

**EXHIBIT**

**4**

REVISED 8/26/2016





## State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

### MEMORANDUM

To: Section 106 Review Team  
Department of Natural Resources  
Division of Historic Preservation and Archaeology  
402 West Washington St., Room W 274  
Indianapolis, Indiana 46204-2739

From: April Douglas; [adouglas@ifa.in.gov](mailto:adouglas@ifa.in.gov); (317) 234-7294  
Senior Environmental Manager  
SRF Programs, IGCN 1275

Date: August 29, 2016

Re: Evansville, Vanderburgh County, Pigeon Township  
PER G Project # 1  
CSO 004 Relief Sewer Project  
State Revolving Fund Project WW14 21 82 16, DHPA #19470

This memo is in response to the letter from SHPO dated July 25, 2016. Please find the answers to the following questions from the State Historic Preservation Officer:

a. Is it possible to receive a site plan and rendering showing exactly what trees will be removed, what trees will remain, as well as where the double row of evergreens will be planted specifically for the 20 Shawnee Drive property?

A Planting plan has not been developed. However, a sketch identifying which trees will be removed and which trees remain specific to 20 Shawnee Drive has been included in this submission.

b. Is it possible to keep at least all of the trees located within the National Register boundary and still plant the additional evergreens?

Tree removal as previously described (See Exhibits 1-12A thru C) and the exhibit specific to 20 Shawnee Drive are required to construct the project.

c. Has the homeowner of the 20 Shawnee Drive property been notified of the tree removal? Do they have any concerns?

The owner of 20 Shawnee Drive attended the public hearing where tree removal and planting was discussed. All concerns raised by the property owner are documented in the public hearing transcript and is included as an attachment.

Based on the attached material, as well as the DHPA website information, the SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected." We ask that your office review the enclosed material and notify us of your comments on the project within 30 days. Comments should be sent to me. Please include the project name in your reply.

**Federal Funding Source:** EPA through the Indiana State Revolving Fund (SRF)

**Authorized Representative:** Allen Mounts, Director, Water and Sewer Utility, 1 NW Martin Luther King Jr. Blvd., Room 104; 812-436-4560; [amounts@ewsu.com](mailto:amounts@ewsu.com)

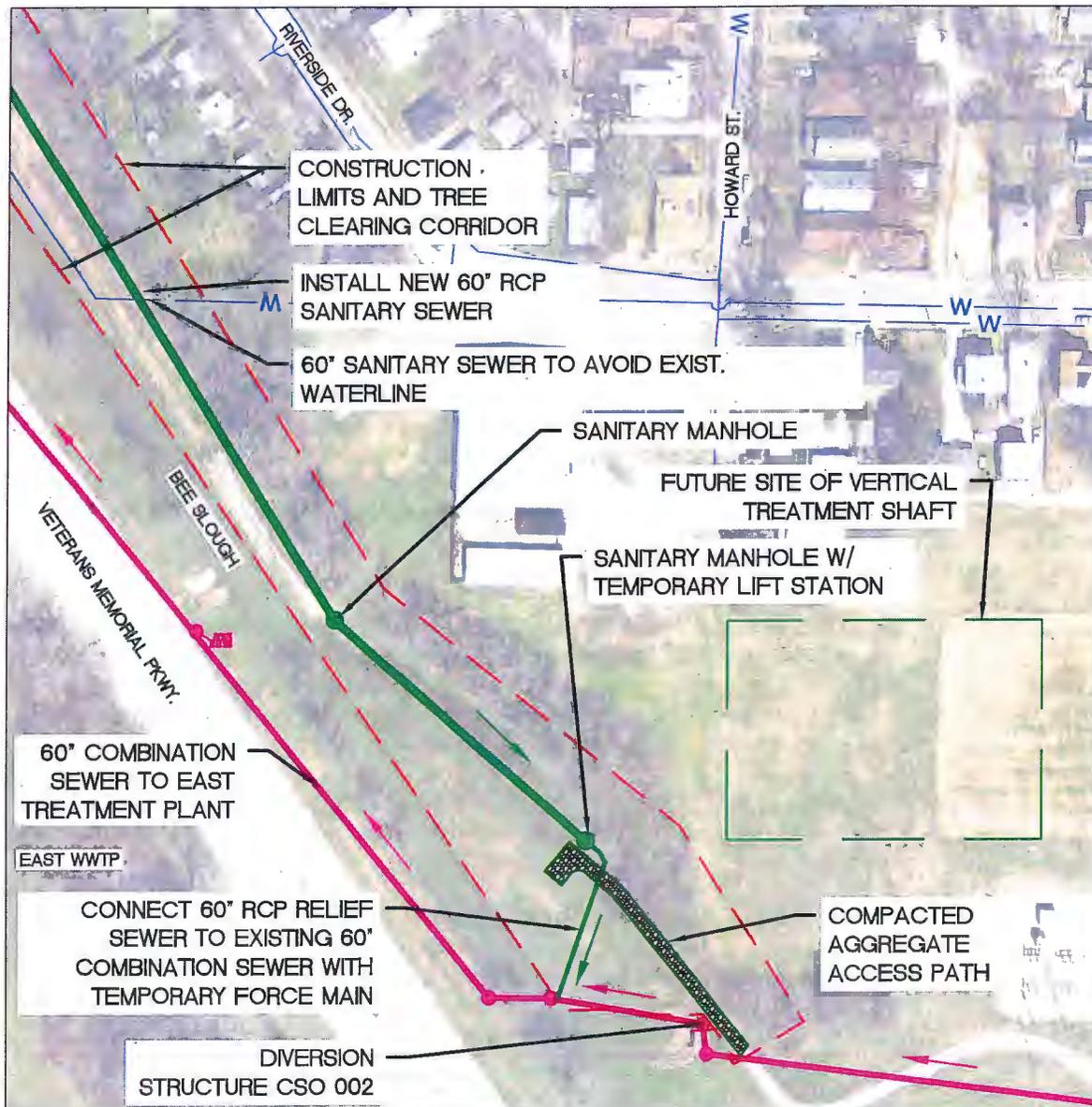
**Consultant:** VS Engineering, 915 Main St., Suite 205, Evansville, 47708; contact Nick Jahn, 812-402-0303; [nrjahn@vsengineering.com](mailto:nrjahn@vsengineering.com)

Attachment: Project graphics and public comments from public hearing









AERIAL: WINTER 2013

**KEY MAP**

**LEGEND**

- PROP. 72" SANITARY SEWER
- PROP. 24" SANITARY SEWER
- FM — EXIST. FORCEMAIN
- EXIST. COMB. SEWER
- EXIST. MANHOLE
- PROP. SANITARY MANHOLE
- W — EXIST. WATER LINE
- CONSTRUCTION LIMITS
- COMPACTED AGGREGATE ACCESS PATH



SCALE: 1" = 150'

PROJECT: CSO 004 RELIEF SEWER PROJECT'S E & F PLANING CHARTERS FOR A PRELIMINARY G&M  
 DRAWING: PRELIMINARY ENGINEERING REPORT 'G', PROJECT No. 1  
 DATE: 8/26/2016  
 DRAWN BY: J. B. BROWN  
 CHECKED BY: J. B. BROWN  
 PROJECT NO.: 15-0000-004

**VS ENGINEERING, INC.**  
 915 MAIN STREET, SUITE 205, EVANSVILLE, INDIANA 47708  
 TEL: (812) 401-0303 FAX: (317) 293-4737

CITY OF EVANSVILLE WATER AND SEWER UTILITY  
 PRELIMINARY ENGINEERING REPORT 'G', PROJECT No. 1  
 CSO 004 RELIEF SEWER PROJECT

**PROPOSED SITE LAYOUT**

**EXHIBIT  
 1-12C**

REVISED 8/26/2016

Mr. Jahn described the selected alternative for the following project(s):

- Project #1: CSO 004 Relief Sewer Project
- Project #2: Bee Slough Advanced Facility Plan

II. Remarks and Concerns from the Public

**Q:** Will the relief sewer discharge directly to Bee Slough?

**A:** Mr. Jahn responded that the relief sewer will not discharge directly to Bee Slough. It will discharge into an existing combination sewer that leads to the East Wastewater Treatment Plant via a temporary pump station up until the point that the vertical treatment unit is constructed. Once the vertical treatment unit comes online, the relief sewer will discharge directly into it.

**Q:** What will the final look of Bee Slough be?

**A:** Mr. Labitzke responded that the final look of Bee Slough has not yet been decided and that it will evolve as the plan is implemented over the next 13 years. Mr. Labitzke encouraged the public to attend public meetings to provide input on these types of items, beginning with the first one that will be held on Monday, August 1 at 5 p.m. in this very room.

**Q:** I am concerned that the angle of the upstream segment (of relief sewer) is too close to my house (20 Shawnee Drive) and construction vibrations will cause issues.

**A:** Mr. Labitzke responded that there is always the possibility that damage can occur during construction and he cannot guarantee that something will not happen, but it is always the goal to avoid damaging adjacent structures. Mr. Labitzke added that existing conditions of the home will be documented and any damages should be reported immediately.

**Q:** Will fence be placed along the length of the relief sewer?

**A:** Mr. Labitzke responded that right-of-way fence will not be placed along the entire length of the project, but safety fence would be placed on top of any retaining walls. Mr. Labitzke added that any existing fences that are damaged during construction would be replaced.

**Q:** Will the retaining wall run the entire length of the relief sewer?

**A:** Mr. Jahn responded that the retaining wall will not run the entire length of the relief sewer and that it will only be placed where necessary to provide grade breaks between the final grades above the sewer and existing grade between the sewer and residences. Mr. Labitzke added that gaps in the retaining wall will also allow wildlife to move about freely. Mr. Labitzke also noted that coniferous screens will be placed above retaining walls. Multiple species of coniferous trees were chosen from the City of

Evansville's tree specification such that the trees are green year round.

**Q:** Will sewer service be maintained to residences?

**A:** Mr. Labitzke responded that all sewer services will be maintained during construction.

**Q:** What will the vertical treatment unit connect to?

**A:** Mr. Labitzke responded that the CSO 002 and 004 will be connected to the Vertical Treatment Unit and the Vertical Treatment Unit will then discharge to both the East Wastewater Treatment Plant and Bee Slough. The first 2.5 Million gallons of combined sewage that enter the Vertical Unit will eventually be sent to the East Wastewater Treatment Plan. Anything over 2.5 Million gallons of combined sewage will receive treatment, to primary equivalency or better, and be discharged back into Bee Slough.

**Q:** When will the smell go away?

**A:** Mr. Labitzke responded that the odors will go away once the Vertical Treatment Unit is constructed; however, improvements in odor should be realized as soon as the effluent pump station is constructed. The effluent pump station is schedule to be completed in 2018.

**Q:** Am I responsible for documenting the existing condition of my house?

**A:** Mr. Labitzke responded that the Contractor will be responsible for documenting the conditions of adjacent structures through video and pictures. Mr. Labitzke added that he strongly encourages residences to allow the Contractor in their homes to document the inside as well and also for the homeowner to do their own independent documentation alongside the Contractor.