Kentucky Transportation Cabinet
Expedited Bridge Replacement Study

PROJECT INFORMATION

County: Gallatin
Road Name: Little Sugar Creek
Route Number: CR-1001

Bridge ID: 039C00002N
Bridge MP: 1.134

Highway Plan Project Description:
Replace bridge on CR-1001 (Little Sugar Creek), 1.134 MI southeast of JCT US 42; (Structurally Deficient, SR = 49) 039C00002N

Milepoint: 1.134

- [x] Roadway classified as collector or local.
- [x] ADT less than 1,500.
- [x] Bridge replacement at current location or adjacent to existing bridge.
- [x] Temporary Traffic Control maintained on existing structure: part-width construction or adjacent temporary traffic control.
- [x] Existing structure's hydraulic performance is adequate.
- [x] Proposed project is not in a FEMA Zone AE regulatory area. Although the project is in a FEMA Zone AE, Central Office Drainage Branch has reviewed the site and approved its inclusion.

Categorical Exclusion Level 1

Potential for Effects Resulting from Project ☐ None ☑ Low ☐ High

(If effects potential is low or high, describe how project meets CE criteria and means to address outstanding issues)

Project meets the criteria of a CE due to the unlikelyhood of significant environmental impacts. This finding will require that the following will be conducted prior to construction: 1) Verification of the project in the TIP/STIP. 2) Completion of an IBPCMOA, which may include payment into the IBCF and/or tree clearing restrictions. 3) Habitat assessment for Running Buffalo Clover in Spring 2014 with BA, if necessary, conducted Spring 2015.

- [x] Reevaluation required prior to construction

The project described above has been determined to meet the Categorical Exclusion criteria established in 23 CFR 771.17 and the FHWA/KYTC Categorical Exclusion Agreement.

Approved by: Sharm Faylock — District Environmental Coordinator — 10/15/13 Date

- [x] Yes, this project meets the conditions for being an Expedited Bridge Replacement Project.

Recommended by: _____ District TEBM for Project Development

Approved by: _____ Director, Division of Planning

Programming Information

Item No: _____ *Federal Project No.:* _____

Program No.: _____ *UPN:* (Function) (County #) (Route) (MP to & from)

Kentucky Transportation Cabinet
Expedited Bridge Replacement Study

I. PROJECT DATA

County: Gallatin
Bridge ID: 039C00002N
Road Name: Little Sugar Creek
Bridge MP: 1.134
Route Number: CR-1001

Functional Class.: ☑ Local ☐ Collector ☐ Urban ☑ Rural

Route on ☐ NHS

Truck Class.: N/A **% Trucks:** N/A **Terrain:** Rolling

ADT (current): 273 (2009)

MPO Area: Not Applicable

Existing Bike Accommodations: None **Ped:** ☐ Sidewalk

Roadway Data:	**Existing**
No. of Lanes	1
Lane Width	14.5 ft.
Shoulder Width	0
Max. Superelevation	normal crown
Minimum Radius	Marginal
Maximum Grade	4%
Minimum Sight Dist.	Horizontal curve beyond west end of bridge
Sidewalk Width(urban)	N/A
Clear-zone	Power pole near 1 quadrant

Bridge Data:

Bridge Number	039C00002N	Existing Rdwy. Plans available?
Sufficiency Rating	46.7	☐ Yes ☑ No
Total Length	27.9 ft.	Year of Plans:
Width, curb to curb	15.1 ft.	
Span Lengths	(3) 8 ft. Dia. Pipes	
Year Built	1950	Existing Geotech data available?
Posted Weight Limit	15 Tons	☐ Yes ☑ No
Structurally Deficient?	Yes	
Functionally Obsolete?	Yes	

Notes: Bridge inspection comments: construct bridge a bit longer than existing.

II. PROJECT SUMMARY

A. Purpose, Need & Project Estimate

The project purpose is to replace the deficient bridge with a safe structure that provides connectivity.

Project Estimate

Phase	Estimate
Design	$100,000
R/W	$100,000
Utilities	$100,000
Const	$200,000
TOTAL	**$500,000**

B. Project Approach

New bridge to be parallel with existing road. Hold east side of new bridge on line with east side of existing bridge. Widening occurs to the west. Detour length is 8.5 miles.

Design Criteria: Rural Local Roads, Exhibit 700-01, ADT: 250-400; 30 mph min design speed, rolling terrain

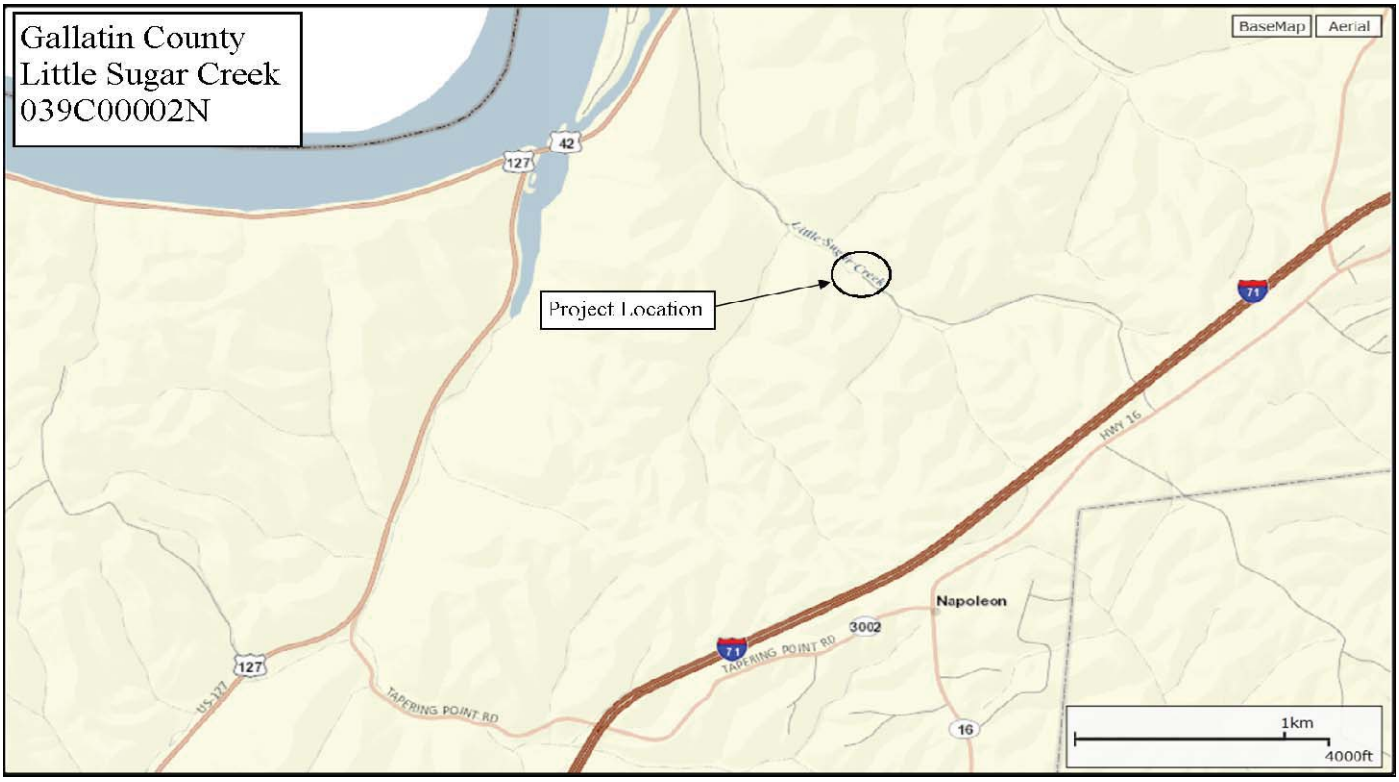
Pavement Width:	18 ft.
Min. Graded Shoulder:	2 ft.
Design Speed:	30 mph
Min. Radius (eMax = 4%)	300 ft.
Norm. X-slopes:	2%
Norm. Shldr. X-slopes:	4%
Max. Grade:	10%
Min. SSD:	200 ft.
Min. PSD:	1090 ft.

Proposed Bridge Structure:

Bridge curb to curb:	22 ft.
Bridge deck width:	25 ft.
Bridge length:	40 ft.

D6 Structural Engineer recommends longer bridge than existing. Assume 40 feet.

III. Photos and/or Maps



Bridge barrel culverts

Looking toward the west

IV. Categorical Exclusion Level 1
Summary

Effects Potential (scale of effects and potential to influence project schedule)

None	Potential to significantly affect Air Quality
None	Potential to significantly affect any cultural or archaeological resources
None	Potential to affect historic properties or other Section 4(f) resources
	☐ can be addressed through standard practices (programmatic agreements, deminimis, etc.)
Low	Potential to significantly impact any federally listed, threatened or endangered species
None	Potential to significantly effect properties with hazardous materials concerns
None	Potential to significantly impact Waters of the U.S. or Commonwealth
None	Potential to significantly affect traffic noise
None	Potential to require relocations or other significant socioeconomic impacts (travel patterns, land use, or planned growth)

A. Air Quality

Project is in: ☐ Attainment area ☐ Nonattainment or Maintenance Area ☐ PM 2.5 County

☑ No potential to significantly affect Air Quality (attach PM 2.5 and MSAT documentation, as appropriate or note below intent to complete prior to construction)

This project is considered an exempt project per 40 CFR 93.126 (Safety - Reconstructing Bridge) and also because it has no meaningful impact on traffic volumes or traffic mix, and therefore, has no potential for meaningful MSAT impacts. This project has not yet been added to a TIP or STIP, however verification of the project's inclusion into the TIP or STIP will be done prior to construction.

B. Archaeology

	Yes	No
1) Is all area to be affected by the project previously disturbed or within existing ROW? (If YES, STOP- Bridge is unlikely to adversely affect archaeological resources)	☐	☑
2) Are known archaeological sites present (project may potentially affect archaeological resources; Discuss with SME and provide comment below)	☐	☑

☑ No effect to archaeological resources

☐ Archaeological resources may be present; investigation to be completed during detailed design. Impacts to archaeological resources are not expected and should not impede project development.

☐ Archaeological impacts are of such potential complexity project schedule is likely to be adversely affected.

Archaeology cleared through SME coordination. No previously recorded sites.

C. Threatened and Endangered Species

	Yes	No
1) Is the bridge over a KY DOW Special Use Water or within designated critical habitat? (If YES, STOP- Not eligible for EBRP; If NO, continue)	☐	☑
2) Does the county have federally listed fish and mussel species? (If NO, STOP; If YES, continue)	☑	☐
3) Does the bridge cross a stream with perennial flow? (If NO, STOP - No effect for mussels/fish species; If YES, continue)	☐	☑
4) Are any of the mussel/fish species typically found in smaller rivers and streams? (If NO, STOP; if YES, requires SME review to conduct Habitat Assessment)	☐	☐

Additional Information required for possible effects assessment:
1) Will the bridge be replaced in the same location as existing?
2) Will the new bridge clear-span the stream?

- [x] Biological concerns unlikely to impede project development (For all appropriate species, conduct Habitat Assessment/Biological Assessment prior to construction)
- [ ] Biological concerns are of such complexity that project schedule is likely to be adversely impacted

DEA SME determined no effect for mussels through site visit. IBPCMOA to be used to address Indiana Bat habitat. Habitat assessment for Running Buffalo Clover to be conducted Spring 2014 and BA Spring 2015.

D. Hazardous Materials

	Yes	No
1) Are potentially contaminated sites present?	☐	☑
2) Does bridge require inspection for asbestos containing materials?	☑	☐

- [x] Hazardous materials concerns are non-existent or routine in nature, will be addressed during detailed design and should not impede project development.
- [ ] Hazardous materials concerns are of such complexity that the project schedule is likely to be adversely affected.

E. Permitting

Check all that may apply: ☑ Waters of the US ☐ MS4 area ☑ Floodplain Impacts ☐ Navigable Waters Impacted

Are 401/404 Permits likely to be required? ☑ Yes ☐ No Impacts to: ☐ Wetlands ☑ Stream/Lake/Pond

☑ ACE LON ☐ ACE NW ☐ General WQC ☐ TVA

	Yes	No
1) Will the project affect more than 300 lf of stream? (If YES, STOP- Not eligible for EBRP; If NO, continue)	☐	☑
2) Will the project effect more than ½ acre of potential wetland? (If YES, STOP- Not eligible for EBRP; If NO, water related impacts not likely to impede project development)	☐	☑

- [x] Will not significantly impact Waters of the U.S. or Commonwealth. Stream and wetland impacts, if any, are routine in nature and will not require individual permits; Any required permits will be acquired during detailed design. Project development should not be impeded.
- [ ] Stream and/or wetland impacts exceed nationwide and general WQC thresholds. Project schedule is likely to be adversely impacted (Not eligible for EBRP).

F. Noise

	Yes	No
1) Are existing or planned noise sensitive receptors adjacent to the proposed project? (If NO, STOP- No effect for Noise Impacts; If YES continue)	☑	☐
2) Is this considered a "Type I Project" according to the KYTC Noise Analysis and Abatement Policy?	☐	☑

- [x] No noise related impacts predicted for the project
- [ ] Noise related impacts are unlikely but will be further assessed during detailed design prior to construction. Further assessment should not impede project development.
- [ ] Noise related impacts are of such complexity that project schedule is likely to be adversely affected.

G. Socioeconomic

	Yes	No
1) Are there any relocations required for construction of the project? (If YES, STOP- Does not meet criteria for EBRP; If NO Continue)	☐	☑
2) Will project require more than approximately one acre of fee simple R/W? (If YES, STOP- Project Does not meet criteria for EBRP; If NO, continue)	☐	☑

	Yes	No
3) Is ROW required from any federal agency?	☐	☑
4) Will project cause disproportionately high and adverse effects on any minority or low-income population in accordance with the provision of E.O. 12898 and FHWA Order 6640.23	☐	☑
5) Will project significantly affect land use, travel patterns or planned growth?	☐	☑

☑ Will have no significant Socioeconomic impacts

☐ Socioeconomic impacts are unlikely but will be further assessed during detailed design prior to construction. Further assessment should not impede project development.

☐ Socioeconomic impacts are of such complexity that project schedule may be adversely affected.

H. Section 106, 4(f) or 6(f) Resources

The following are present on the project:	Yes	No
1) Does the project affect a park, wildlife refuge or recreation area (If YES, STOP- Not eligible for EBRP; If NO continue)	☐	☑
2) Is the bridge a truss (If YES, STOP- Not eligible for EBRP; if NO continue)	☐	☑
3) Is the bridge or do any of the surrounding properties appear to be greater than 50 years old? (If YES continue; If NO, STOP: No Effect to Historic Properties)	☑	☐
4) Was the bridge constructed after 1945? (If YES continue; If No, STOP- project will require SME review; If YES, continue)	☑	☐
5) Is the bridge of a common type covered by the FHWA Program Comment? (If YES continue; If NO, STOP-project will require SME review)	☐	☑
6) Are there any buildings or potentially important features (wells, barns, cemeteries, etc.) of the surrounding property that are more than 50 years old that will be impacted by the project (If YES, STOP - project will require SME review; If NO, STOP: No Effect/No Adverse Effect to historic properties)	☐	☑

☑ No potential to affect cultural historic resources, Section 4(f) or Section 6(f) resources

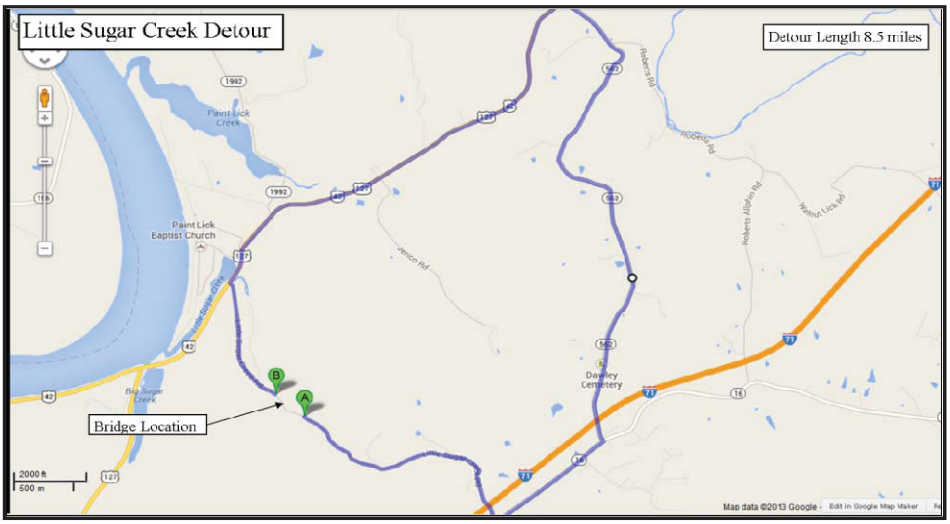
☐ No Potential to affect Section 4(f) or Section 6(f) resources other than cultural historic resources, which can be addressed through standard practices (Programmatic 4(f), deminimis, etc.) and should not impede project development

☐ Affects to cultural historic resources are of such complexity that the project schedule may be adversely affected

Bridge is over 50 years old and based upon SME consultation, does not appear eligible for National Register. No other sites greater than 50 years old in project area.

V. Additional Photos and/or Maps

Detour Map



	Kentucky Transportation Cabinet Federal Highway Administration **No Effect Finding**		
KYTC Item No:	-	**Route:**	**CR-1001 (Little Sugar Creek Road)**
Quadrangle(s):	**Patriot**	**County(ies):**	**Gallatin**

Project Description: (Type of improvement, areas to be impacted, crossroad improvements, easements, etc.)

This project has been identified as a potential bridge replacement project to be included in the Expedited Bridge Program. Project will replace the current bridge at its present location.

Listed Species: (Attach copy of USFWS county list, KSNPC web site and KDFWR web site)

Indiana Bat *(Myotis sodalis)* (USFWS)
Clubshell Mussel *(Pleurobema clava)* (USFWS, KSNPC, KDFWR)
Orangefoot Pimpleback Mussel *(Plethobasus cooperianus)* (USFWS)
Pink Mucket *(Lampsilis abrupt)* (USFWS)
Fanshell Mussel *(Cyprogenia stegaria)* (USFWS)
Rough Pigtoe Mussel *(Pleurobema plenum)* (USFWS)
Ring Pink Mussel *(Obovaria retusa)* (USFWS)
Sheepnose Mussel *(Plethobasus cyphysus)* (USFWS)
Rayed Bean Mussel *(Villosa fabalis)* (KSNPC)
Running Buffalo Clover *(Trifolium stoloniferum)* (USFWS, KSNPC)

Methodologies: (Methods of assessment, who, what, when, resources, etc.)

ArcMap layers, field visits.
District environmental staff and KYTC biologist made site visits on 9/25/2013 to investigate potential habitat for listed species within the project area.

Results: (Compare habitat used by listed species with available habitat)

Since the project is not located near any caves, sinkholes, or deep mine activities, the site visit focused solely on *Myotis sodalis* (Indiana bat) summer habitat, characterized by any tree ≥ 3" dbh that possess exfoliating bark, dead or dying trunk/branches, cavities or fissures. Removal of the loss of these trees will be addressed with an IB PCMPA.

Most mussels listed for Gallatin County are associated with the Ohio River, while some can occur in larger streams to river size. All listed mussels require clean, coarse substrate in which to live. They cannot handle backwater or polluted water conditions. The Ohio River has a history of pollution, and that is why most of the mussels are listed as T/E. This bridge replacement site was determined to have unsuitable habitat for listed mussels and therefore, there will be No Effect on any of the listed mussel species.

Trifolium stoloniferum (running buffalo clover) occurs in moderately moist habitats on limestone soils, in partial to filtered sunlight and where there is a prolonged pattern of moderate, periodic disturbance. In Kentucky, all existing populations are associated with some form of local disturbance in a wooded or partially wooded areas, wooded fencerows, or old homesteads or cemeteries containing trees. There is potential for RBC habitat in an area that is northwest of the bridge. A habitat assessment and biological assessment will be conducted if this area will be impacted by this project.

Determinations:

Indiana Bat *(Myotis sodalis)*: Potential impacts to IB habitat will be addressed prior to construction through the use of the IBPCMOA.

Running Buffalo Clover *(Trifolium stoloniferum):* A habitat assessment and biological assessment if needed will be conducted prior to construction.

NO EFFECT:

Clubshell Mussel *(Pleurobema clava),* Orangefoot Pimpleback Mussel *(Plethobasus cooperianus)*, Pink Mucket *(Lampsilis abrupt)*, Fanshell Mussel *(Cyprogenia stegaria)*, Rough Pigtoe Mussel *(Pleurobema plenum)*, Ring Pink Mussel *(Obovaria retusa)*, Sheepnose Mussel *(Plethobasus cyphysus),* Rayed Bean Mussel *(Villosa fabalis),*

The project has been assessed in accordance with the provisions of Section 7 of the Endangered Species Act. As a designated representative of the FHWA, the KYTC has determined that the project will have No Effect on all listed mussel species or their critical habitat, and further Section 7(a)(2) consultation with the Service is not required.

Sharon Laylock

KYTC Signature

10/14/2013

Date

Sharon Laylock

Print Name

EATS updated

Name Date

County Report of Endangered, Threatened, and Special Concern Plants, Animals, and Natural Communities of Kentucky
Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences E	H	F	X	U
Gallatin	Vascular Plants	*Sida hermaphrodita*	Virginia Mallow	T /	G3 / S2S3	0	0	1	0	0
Gallatin	Vascular Plants	*Trifolium stoloniferum*	Running Buffalo Clover	T / LE	G3 / S2S3	1	0	0	0	0
Gallatin	Aquatic Snails	*Lioplax sulculosa*	Furrowed Lioplax	S /	G5 / S3S4	0	1	0	0	0
Gallatin	Freshwater Mussels	*Pleurobema clava*	Clubshell	E / LE	G1G2 / S1	0	0	0	2	0
Gallatin	Freshwater Mussels	*Simpsonaias ambigua*	Salamander Mussel	T / SOMC	G3 / S2S3	2	1	1	0	0
Gallatin	Freshwater Mussels	*Villosa fabalis*	Rayed Bean	X / LE	G2 / SX	0	0	0	1	0
Gallatin	Fishes	*Ictiobus niger*	Black Buffalo	S /	G5 / S3	1	0	0	0	0
Gallatin	Amphibians	*Rana pipiens*	Northern Leopard Frog	S /	G5 / S3	0	1	0	0	0
Gallatin	Breeding Birds	*Pooecetes gramineus*	Vesper Sparrow	E /	G5 / S1B	0	0	0	0	1
Gallatin	Communities	*Riparian forest*		N /	GNR / S5	1	0	0	0	0
Gallatin County Total:						**5**	**3**	**2**	**3**	**1**

U.S. Fish & Wildlife Service
Kentucky Ecological Services Field Office

U.S. Fish & Wildlife Service
330 West Broadway, Rm 265
Frankfort, KY 40601
Phone: 502-695-0468
Fax: 502-695-1024

Endangered, Threatened, & Candidate Species in _____GALLATIN_____ County, KY

Group	Species	Common name	Legal* Status	Known** Potential	Special Comments
Mammals	*Myotis sodalis*	Indiana bat	E	P	
Mussels	*Pleurobema clava*	clubshell	E	K	
	Cyprogenia stegaria	fanshell	E	P	
	Lampsilis abrupta	pink mucket	E	P	
	Obovaria retusa	ring pink	E	P	
	Plethobasus cooperianus	orangefoot pimpleback	E	P	
	Plethobasus cyphyus	sheepnose	C	P	
	Pleurobema plenum	rough pigtoe	E	P	
Plants	*Trifolium stoloniferum*	running buffalo clover	E	P	

NOTES:

* Key to notations: E = Endangered, T = Threatened, C = Candidate, CH = Critical Habitat

**Key to notations: K = Known occurrence record within the county, P = Potential for the species to occur within the county based upon historic range, proximity to known occurrence records, biological, and physiographic characteristics.

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Species Information
KDFWR Maps
Public Hunting Area Maps
Game Maps
Download GIS Data

Species Information

Federal Threatened, Endangered, and Candidate Species observations for selected counties

Linked life history provided courtesy of NatureServe Explorer.
Records may include both recent and historical observations.
US Status Definitions Kentucky Status Definitions

List Federal Threatened, Endangered, and Candidate Species observations in 1 selected county.
Selected county is: Gallatin.

Scientific Name and Life History	Common Name and Pictures	Class	County	US Status	KY Status	WAP	Reference
Pleurobema clava	Clubshell	Bivalvia	Gallatin	LE	E	Yes	Reference

1 species are listed