Illinois Department of Natural Resources
CONSERVATION PLAN

(Application for an Incidental Take Authorization)
Per 520 ILCS 10/5.5 and 17 Ill. Adm. Code 1080

150-day minimum required for public review, biological and legal analysis, and permitting

SUBMITTED TO:	Ms. Jenny Skufca Incidental Take Authorization Coordinator Illinois Department of Natural Resources One Natural Resources Way Springfield, IL 62702 DNR.ITAcoordinator@illinois.gov
PROJECT APPLICANT:	Edgar County Highway Department on behalf of Elbridge Township Attn: Aaron Lawson; Edgar County Engineer 12637 East 950th Rd Paris, IL 61944
PROJECT NAME:	TR 345 over Sugar Creek- Low water crossing replacement County Section 12-04126-00-BR IDOT PMA Seq #21116
COUNTY:	Edgar
AREA OF IMPACT:	0.73

The incidental taking of endangered and threatened species shall be authorized by the Illinois Department of Natural Resources (IDNR) only if an applicant submits a conservation plan to the IDNR Incidental Take Coordinator that meets the following criteria:

1. A description of the impact likely to result from the proposed taking of the species that would be covered by the authorization, including but not limited to –

   A) **Identification of the area** to be affected by the proposed action, include a legal description and a detailed description including street address, map(s), and GIS shapefile. Include an indication of ownership or control of affected property. Attach photos of the project area.

   The area to be affected is TR 345 (commonly known as 275 Staley Road) over Sugar Creek in unincorporated Elbridge Township. The site is more specifically located 0.8 miles southeast of Elbridge, Illinois T12N, R10W 2nd PM, Section 6. See attached Appendix A and B-location map and aerial photo, Appendix C-project site photographs, and Appendix D-preliminary plan sheet for additional information. The existing bridge and roadway are under jurisdiction of Elbridge Township. Elbridge

Township in cooperation and agreement with Edgar County support the project and the proposed improvement. The area of salamander impact is under private ownership; Edgar County and Elbridge Township are currently in the process of acquiring the Right-of-Way (ROW) necessary to complete the proposed improvement; Edgar County will provide the Illinois Department of Conservation conformation that all Right of Way acquisitions and or easements are executed prior to issuance of the Incidental Take authorization.

The National Wetlands Inventory (NWI) describes Sugar Creek at the project location as a RU2BH; permanently flooded, unconsolidated bottom, lower perineal, riverine. The NWI describes the area around Sugar Creek at the project location as a PFO1A; temporarily flooded, broad-leaved deciduous, forested, palustrine wetland; see Appendix J.

The construction activities for the low-water crossing replacement will take place on a new alignment and require the acquisition of new right-of-way from adjacent landowners.

B) **Biological data** on the affected species including life history needs and habitat characteristics.
Attach all pre-construction biological survey reports.

The Environmental Survey Request (ESR) process for the proposed low-water crossing replacement involved coordination with IDNR for the presence of threatened and endangered species. As a result, the attached IDNR consultation letter dated August 13, 2018 (Appendix E) identified the presence of the following protected resource occurring near the project area and proposed action:

State-threatened Jefferson Salamander, *Ambystoma jeffersonianum*,

The most recent biological survey was performed on March 20, 2018 by the Illinois Natural History Survey (INHS) (Appendix F); a total of 1 individual Jefferson Salamander was collected during the survey; see table 1 and Figure C1 in Appendix F.

The Jefferson Salamander is a long (up to 17 cm TL), brown or dark gray salamander with spindly limbs. Their usual habitat consists Upland deciduous forest, especially beech-maple forests of extreme eastern Illinois.

C) **Description of project activities** that will result in taking of an endangered or threatened species, including practices and equipment to be used, a timeline of proposed activities, and any permitting reviews, such as a USFWS biological opinion or USACE wetland review. Please consider all potential impacts such as noise, vibration, light, predator/prey alterations, habitat alterations, increased traffic, etc.

A new bridge spanning Sugar Creek and new roadway east and west of the bridge will be constructed on a new alignment north of the existing roadway and low-water crossing; clean earth fill material will be placed along the new roadway alignment to raise the roadway out of the floodplain. During construction, the existing roadway and low-water crossing will remain in place for use by the traveling public until the new bridge and roadway are completed; upon completion of the new structure and

roadway, the existing low-water crossing and existing roadway pavement for approximately 1000 feet west and 500 feet east of the low-water crossing will be removed; see Appendix D.

The existing low-water crossing is a single concrete slab approximately 12 feet wide; no thickness information is available. Several corrugated metal pipes are cast in the crossing allowing water to flow through during normal water levels. The low water crossing will most likely be broken up and removed by mechanical means; excavator, jack hammers, etc.

The new structure will consist of a three-span bridge on pile bent integral abutments and piers supporting a continuous steel superstructure. The new roadway east and west of the bridge will be a 20-foot-wide oil and chip surface with 4-foot shoulders.

All tree removal debris associated with the project will be taken from the site and disposed of in accordance with those applicable sections of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction adopted April 1, 2016 and the Illinois Department of Transportation Bureau of Design and Environment Manual, Chapter 27, 27-2.

Due to the nature and location of the new bridge and new roadway, impacts to salamander habitat is unavoidable; however, the contractor will take measures to complete the proposed construction with minimal impact to salamander habitat outside the construction limits.

D) Explanation of the anticipated **adverse effects on listed species**;

- How will the proposed actions impact the species life cycle stages?

In a letter dated August 13, 2018 IDNR made a determination that the removal of the low-water crossing, existing roadway, construction of the new bridge, roadway and bridge approaches is likely to have an adverse impact on the state listed threatened Jefferson Salamander (*Ambystoma jeffersonianum*); see Appendix E.

- Describe potential impacts to individuals and the population. Include information on the species life history strategy (life span, age at first reproduction, fecundity, recruitment, survival) to indicate the most sensitive life history stages

Jefferson Salamanders are mole salamanders; they spend most of their life underground, but occasionally can be found in leaf litter and under logs. The Jefferson is one of the earliest amphibians to breed; breeding season typically occurs during rains in January through March. The salamanders emerge from their Subterranean dwellings and migrate several hundred meters to congregate and breed in scattered vernal woodland ponds or fish-free permanent ponds. Females can lay up to as many as 280 (2-2.5 mm diameter) eggs in one breeding season; the eggs are enclosed within a jelly-like mass which may contain up to 14-22 eggs per mass; the eggs are attached to twigs and stems in the water. After breeding ends, adults migrate back to their upland subterranean homes. Eggs hatch in less than a month and larvae remain in the pond 2-3

months where they prey on invertebrates and other amphibian larvae; for additional information, see Appendix G.

Any established individuals or juveniles that remain in the project limits after breeding season may be crushed or smothered by construction activities; those activities include but are not limited to removal of the existing low-water crossing and associated roadway, tree removal and construction of a new bridge, bridge approaches and roadway on earth fill on a new alignment.

- Identify where there is uncertainty, place reasonable bounds around the uncertainty, and describe how the bounds were determined. For example, indicate if it is uncertain how many individuals will be taken, make a reasonable estimate with high and low bounds, and describe how those estimates were made.

  The number of individual Jefferson Salamander to be taken is uncertain. Data collected from an INHS 2018 survey of two ponds in Clark County was used to estimate population density; these ponds share similar habitat to the Staley Road site.

  Pond 1 yielded 210 individuals (52 female, 158 males) and pond 2 yielded 228 individuals (64 females, 164 males). In some populations; some proportion of adults do not breed in any given year; to account for this, in those populations that males typically travel to the ponds to breed every year, but females may regularly skip years between breeding events, the number of females should be doubled. Comparing this to other populations where approximately 75% of known adults breed every year regardless of sex; both scenarios provide approximately the same number of adult salamanders for these 2 ponds ~ 260 to ~290 adult salamanders.

  Juvenile numbers will need to be added to these estimates; to account for juveniles, the average clutch size of 160 eggs (120 to 240 eggs/female) was multiplied by the number of females breeding a year (60 in the 2018 pond study) and multiply by survival rates of 1% (estimates range from 0.01 to <25%) from egg to adulthood; this would add another 90-100 salamanders per year. If it is estimated to take on average 2 (1-3 typical) years to reach maturity, an additional 180-200 salamanders would be added to the estimate. Simplifying the math, round to 500 individuals per pond and then assume that salamanders are evenly distributed within an 850' radius of a pond; this generates an estimate of 1 salamander per 4539 square feet or approximately 9.5 salamanders/acre. The total area of salamander habitat impact for this project is 0.73 acres; which yields approximately 6.9 salamanders being taken; see Appendix H.

2. Measures the applicant will take to minimize and mitigate that impact and the funding that will be available to undertake those measures, including, but not limited to –

A) Plans to minimize the area affected by the proposed action, the estimated number of individuals of each endangered or threatened species that will be taken, and the amount of habitat affected (please provide an estimate of area by habitat type for each species).

According to the Illinois Endangered Species Act (520 ILCS 10/2), the term "take" means, in reference to animals, to harm, hunt, shoot, pursue, lure, wound, kill, destroy, harass, gig, spear, ensnare, trap, capture, collect, or to attempt to engage in such conduct. The work area has been minimized to reduce impact to salamander habitat and salamander individuals as much as practical. The amount of habitat impacted is equal to the ROW required to remove the existing low-water crossing and associated pavement and construction of a new roadway and bridge on a new alignment and tree removal. The total area of habitat impacted will be approximately 31,798 ft² (0.73 acres); see Appendix H.

B) Plans for management of the area affected by the proposed action that will enable continued use of the area by endangered or threatened species by maintaining/re-establishing suitable habitat (for example, native species planting, invasive species control, use of other best management practices, restored hydrology, etc.).

The Resident Engineer (RE), acting as the county's representative, will be responsible for the management of the project, including the measures outlined in this conservation plan and in the construction plans and documents. Similar habitat of equal quality exists both north and south of the impacted project area; this area will provide ample habitat for salamander existence during construction. During construction, the Jefferson Salamander will be excluded from entering the impact area by placement of silt fence along the Right-of Way line. Upon completion of the project, the area of impact, excluding the new roadway, shoulders and bridge will be seeded with Class 4A seeding as specified in the IDOT Standard Specifications for Road and Bridge construction; see Appendix I. The plans and specifications will identify areas of tree replacement, tree species and density will be determined in consultation with the Illinois Department of Natural Resources. The plans will also provide for construction of shallow depressions within the areas of tree planting for habitat replacement and continued use by the Jefferson Salamander. After work is completed, the silt fence will be removed, the salamander and salamander habitat will no longer be affected by the construction work.

C) Description of all measures to be implemented to avoid, minimize, and mitigate the effects of the proposed action on endangered or threatened species.

- Silt fence will be erected along the entire length of Right of Way along the north and south side of the project; this will serve two purposes; 1) to keep salamanders from entering the work area during construction and 2) to delineate where no parking of vehicles or equipment and storage of material or equipment will be allowed.
- Due to indications that the Jefferson Salamander is in decline and loss of habitat due to the proposed improvement, the following mitigation calculation was used to determine the mitigation value for the Jefferson Salamander:

0.73 Acres x 5.5 (E/T habitat ratio) = 4.01 mitigation acres x $4,800/acre (cost for unimproved land in Edgar County) = $19,272

- Edgar County and Elbridge Township agree to make a one-time payment of $19,272 to the IDNR Wildlife Preservation Fund.

D) Plans for monitoring the effects of the proposed actions on endangered or threatened species, such as monitoring the species' survival rates, reproductive rates, and habitat before and after construction, include a plan for follow-up reporting to IDNR. Monitoring surveys should be targeted at reducing the uncertainty identified in Section 1.D.

A salamander survey shall be conducted at the habitat previously identified within he project area in year one (1) and year three (3) following completion of the proposed project; completion shall be defined as the first day the new bridge is open for use by the general public. The County shall contact the IDOT within one week of completion of the project to task follow-up surveys. The INHS will complete the surveys on behalf of the county. All salamanders shall be identified by species and enumerated. A report on the numbers and species of salamanders found shall be provided to IDOT and the IDNR within 90 days of the completion of the survey. This report shall also include a qualitative evaluation of the habitat and the manner, if any, in which the habitat has changed since the previous survey.

E) Adaptive management practices that will be used to deal with changed or unforeseen circumstances that may affect the endangered or threatened species.

Adaptive management is a way to make decisions in the face of uncertainty by monitoring the uncertain element over time and adjusting to the new information. Adaptive management requires identifying objectives and uncertainties, thinking through a range of potential outcomes, developing triggers that will lead to different actions being taken, and monitoring to detect those triggers.
Consider environmental variables such as flooding, drought, and species dynamics as well as other catastrophes. Management practices should include contingencies and specific triggers. Note: Not foreseeing any changes does not quality as an adaptive management plan.

During construction activities that were described previously in the impact area, the installation and effectiveness of exclusion methods will be implemented and monitored daily by the RE. If through daily monitoring of the site, the exclusion method (silt fence) is observed leaning, dislodged from the ground, openings under the silt fence, etc., all work within the impact area will stop until the effectiveness of the exclusion method has been restored. If live or dead salamanders are found within the impact area during construction, all work within the impact area a will stop and the INHS and IDNR will be contacted to coordinate the next course of action.

F) Verification that adequate funding exists to support and implement all minimization and mitigation activities described in the conservation plan. This may be in the form of bonds, certificates of insurance, escrow accounts, or other financial instruments adequate to carry out all aspects of the conservation plan.

The project is funded through the following:

Township Bridge Program:	%80
Local Funds:	%20

3. A description of alternative actions the applicant considered that would reduce take, and the reasons that each of those alternatives was not selected. A "no-action" alternative shall be included in this description of alternatives. Please describe the economic, social, and ecological tradeoffs of each action.

    - Consideration of alternative actions is an important tool in conservation planning as it allows for thinking of other options and evaluating the potential outcomes in terms of all relevant objectives. However, to be useful it requires creativity in developing alternatives and systematic analysis in evaluating the alternatives.
    - In evaluating alternatives, describe the economic, social, and ecological tradeoffs of each.

    Alternative A – "No-Action":
    The only alternative which does not result in the taking of the state listed species is to leave the existing low-water crossing and associated roadway in place, or the "no-action" alternative. The low-water crossing would continue to deteriorate, requiring the local agency to spend funds to maintain the deficient structure or close the road. Fatalities at the low-water crossing have occurred in the past due to the public driving into flood waters; continued use of the low-water crossing will contribute to potential future fatalities posing a serious health and safety risk to the traveling public. The no-action alternative is not considered feasible for this project.

    Alternative B – "Rehabilitation":
    One alternative would be rehabilitation of the existing low-water crossing. A rehabilitation alternative will not address the narrow crossing width and serious health and safety risk to the traveling public due to flooding. This alternative is not considered feasible for this project.

    Alternative C – "Construction of a bridge on the existing alignment".
    Another alternative would be to construct a new bridge utilizing the existing roadway alignment. The existing alignment has multiple curves and comes very close to an existing house south and east of the crossing. Utilizing the existing alignment would not address the geometric deficiencies of the curves and due to roadway widening, the road would be closer to the house. The amount of ROW required for construction of a new bridge on the existing alignment is almost equal to the amount of ROW required for a new alignment, therefore, the amount of impacts is equal. Additionally, the wider roadway on the existing alignment will place the roadway closer to the breeding habitat of the salamander. There will still be potential to harm the species. At this location, the "Construction of a bridge on the existing alignment" alternative is not practical or economical and has the same negative impact to the salamander and will not address safety concerns.

    Alternative D – "Construction of a new bridge on a new alignment":
    The final option would be the Construction of a new bridge on a new alignment option. This option is the most economical alternative and will provide a minimal impact to property and the state listed species also addressing safety concerns. A

new structure and new roadway will straighten out curves eliminating geometric deficiencies, place the roadway at an elevation out of the flood plain, move the roadway farther away from the house south and east of the existing crossing, move the roadway farther away from existing salamander bereding habitat, eliminate a serious safety hazard by eliminating a low -water crossing that is prone to flooding and provide for lower future maintenance costs.

4. Data and information to indicate that the proposed taking will not reduce the likelihood of the survival of the endangered or threatened species in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species existence in Illinois.

   Although the Jefferson Salamander is listed as "state threatened", it is a common species in southeastern Edgar County and Clark County Illinois which is at its western most range; it is not broadly found in the entire state. The project location is known to be associated with essential habitat for the Jefferson Salamander in Illinois.
   The permanent loss of habitat for this project is estimated to be the impacted Jefferson Salamander Habitat limits of 31,798 ft^2 (0.73 acres).

5. An implementing agreement, which shall include, but not be limited to (on a separate piece of paper containing signatures):

   A) Names and signatures of all participants in the execution of the conservation plan;

   _____ Michael McConkey,
   Elbridge Township Road Commissioner

   _____ Aaron Lawson,
   Edgar County Engineer

   B) The obligations and responsibilities of each of the identified participants with schedules and deadlines for completion of activities included in the conservation plan and a schedule for preparation of progress reports to be provided to the IDNR;

      The Edgar County Highway Department is responsible for securing authorization for incidental take of state-listed species, obtaining and securing all necessary state and local permits, and inspection of the work and contractor's compliance with the design contract documents. A progress report will be submitted to the IDNR within 90 days of completion of the project (completion shall be defined as: the first day the new bridge is open for use by the general public).

      Project construction is anticipated to begin after May 1, 2019, with a completion by the end of calendar year 2020.

   C) Certification that each participant in the execution of the conservation plan has the legal authority to carry out their respective obligations and responsibilities under the conservation plan;

      The Illinois Department of Natural Resources shall be responsible for the review of this Conservation Plan and for subsequent issuance of the Incidental Take Authorization.

This project is authorized by the Illinois Department of Transportation, who oversees the use of state-distributed funding among local agencies.

D) Assurance of compliance with all other federal, State and local regulations pertinent to the proposed action and to execution of the conservation plan;

The Edgar County Highway Department, as directed by the Illinois Department of Transportation, exclusively abides by the National Environmental Policy Act and all associated state environmental laws in carrying out its mission of performing the most environmentally sensitive methods of transportation planning and engineering.

E) Copies of any final federal authorizations for a taking already issued to the applicant, if any.

Not applicable. The Jefferson Salamander is not federally threatened or endangered.

Enclosures:

Appendix A- Location Map/Aerial Photo
Appendix B- Overall Location Exhibit
Appendix C- Site Photographs
Appendix D- Preliminary Plan Sheets
Appendix E- IDNR Consultation Letter
Appendix F- INHS Salamander Survey Report
Appendix G- Jefferson Salamander Species Fact Sheet
Appendix H_ Jefferson Salamander Habitat Impact Exhibit
Appendix I- IDOT Class 4A Seed mix
Appendix J- INHS Wetland Delineation Report
Appendix K- US Army Corps of Engineers Permit

PLEASE SUBMIT TO:

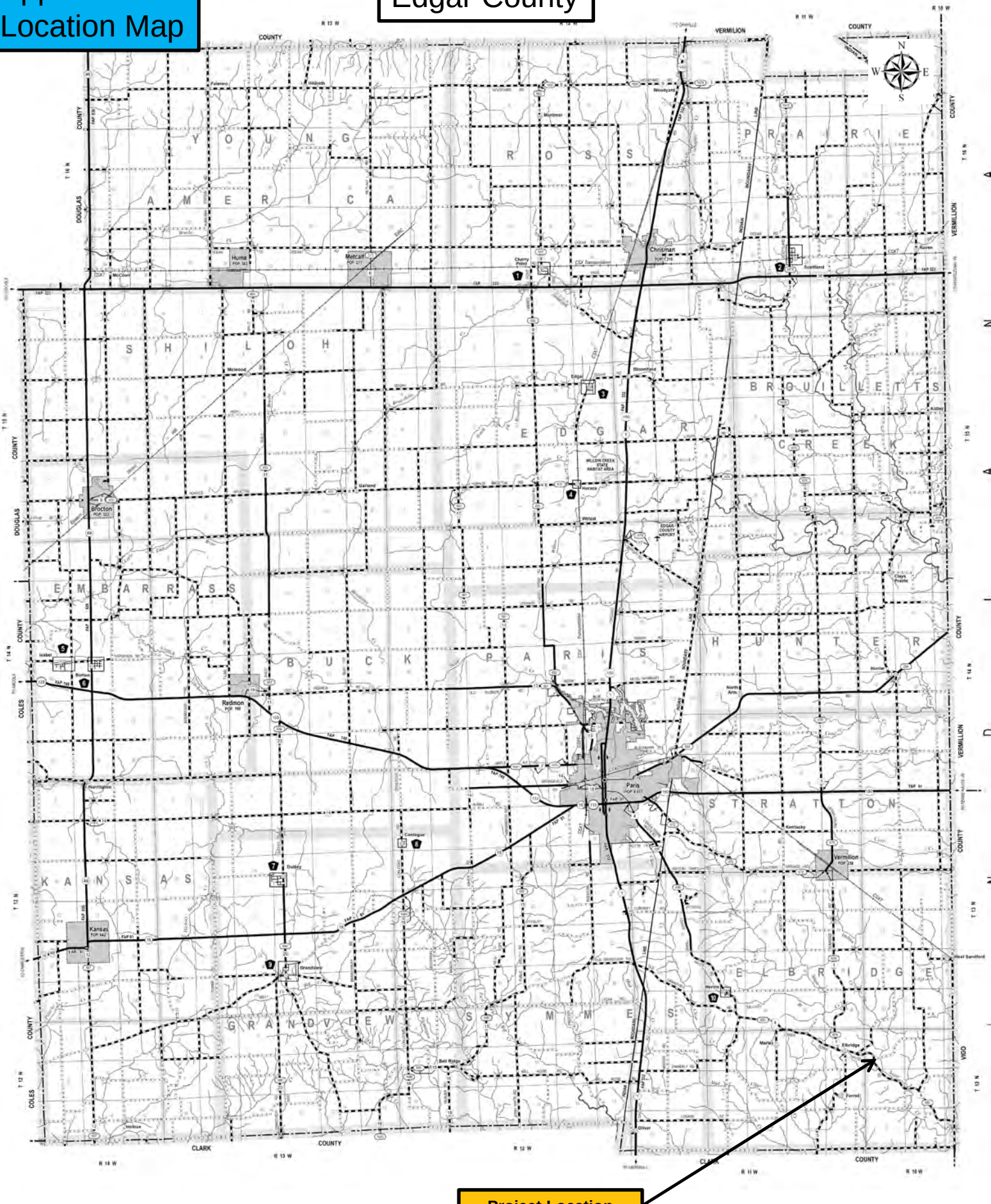
Incidental Take Authorization Coordinator, Illinois Department of Natural Resources, Division of Natural Heritage, One Natural Resources Way, Springfield, IL, 62702

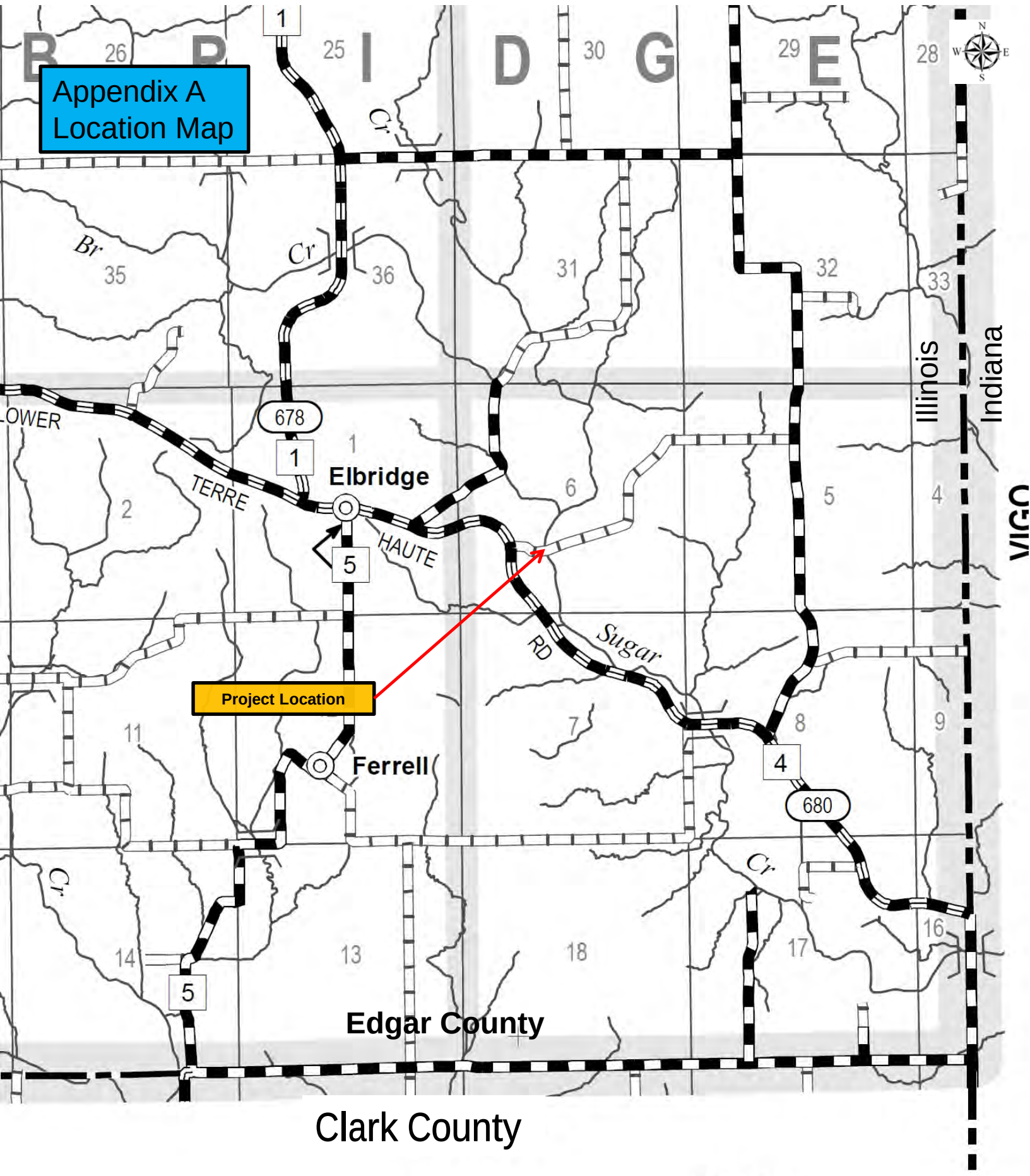
OR

DNR.ITAcoordinator@illinois.gov

Appendix A
Location Map

Edgar County



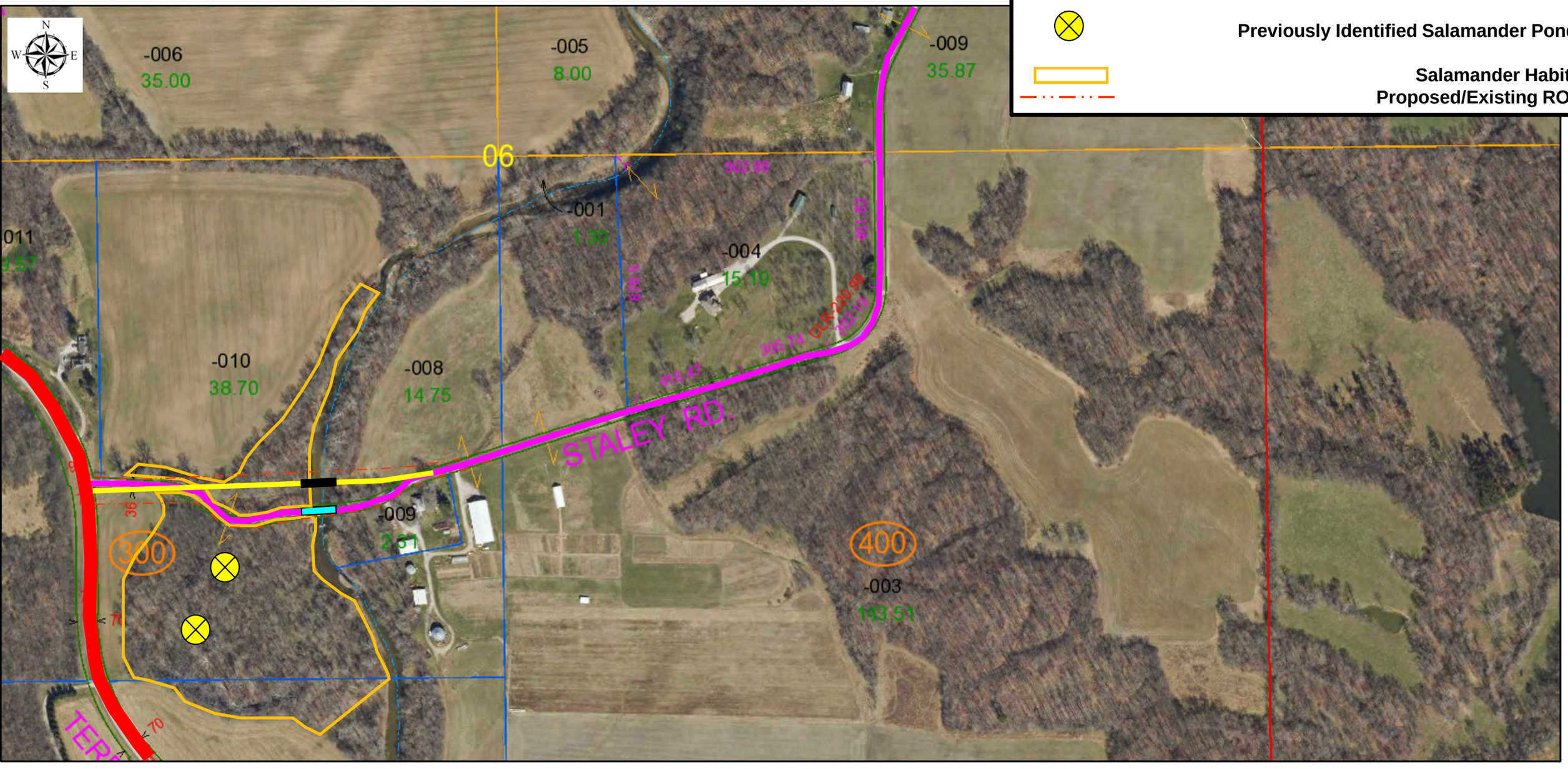

Appendix A
Location Map
Elbridge
Ferrell
Project Location
Edgar County
Clark County
Illinois
Indiana
VIGO
R 10 W
TERRE
HAUTE
Sugar
RD
678
680
1
4
5


Appendix A
Location Map/Aerial Photo
N
W
E
S
Midwestern Gas St
Elbridge
Staley Rd
275 Staley Rd
Project Location
Google earth
© 2018 Google
N
3000 ft

Appendix B

LEGEND

- Lower Terre Haute Road
- Existing Staley Road Alignment
- Existing Low Water Crossing removal
- Proposed New Roadway Alignment
- Proposed Bridge
- Previously Identified Salamander Ponds
- Salamander Habitat
- Proposed/Existing ROW



1:4,000

0 255 510 1,020 ft

0 75 150 300 m

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Intersection of Staley Road and the Lower Terre Haute Road (West end of project looking east)

Intersection of Staley Road and the Lower Terre Haute Road (West end of project looking east)

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Intersection of Staley Road and the Lower Terre Haute Road (West end of project looking east down proposed alignment

Looking easterly towards salamander habitat that contains breeding ponds

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking westerly toward west end of existing and proposed roadway

Looking easterly along Staley Road towards curves

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking westerly along Staley Road

Looking easterly along Staley Road in curve area east of low-water crossing

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking westerly along Staley road from curves. Powerline is approximate location of proposed roadway alignment

Looking easterly along powerline easement east of low-water crossing

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking easterly along Staley Road in curves

Looking westerly along Staley Road from curves east of low-water crossing

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Staley Road east of low-water crossing looking east

Staley Road east of low-water crossing looking west

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Just east of the low-water crossing looking east

Looking east across low-water crossing

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking north (upstream) from low-water crossing

Looking south (downstream) from low-water crossing

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking southwesterly from low-water crossing toward salamander habitat that contains breeding ponds south of Staley Road

Looking northwesterly from low-water crossing toward salamander habitat north side of Staley Road

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking west across low-water crossing

Sideview of downstream side of low-water crossing

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Sideview of downstream side of low-water crossing

East end of low-water crossing looking east

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Just east of low-water crossing looking east along Staley Road

East of low-water crossing looking west along Staley Road

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

East of low-water crossing looking westerly along powerline easement (approximate location of new roadway alignment)

Looking easterly along powerline easement toward east end of project

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Near east end of project looking west along Staley Road

Near east end of project looking east along Staley Road

Contract: NA
Route: TR 354 (Staley Road)
Section: 12-04126-00-BR
Job No. NA
Edgar County
PMA 21116

Appendix C

Looking westerly along powerline easement

FOR INDEX OF SHEETS, SEE SHEET 2
FOR SUMMARY OF QUANTITIES, SEE SHEETS 3–5

Appendix D

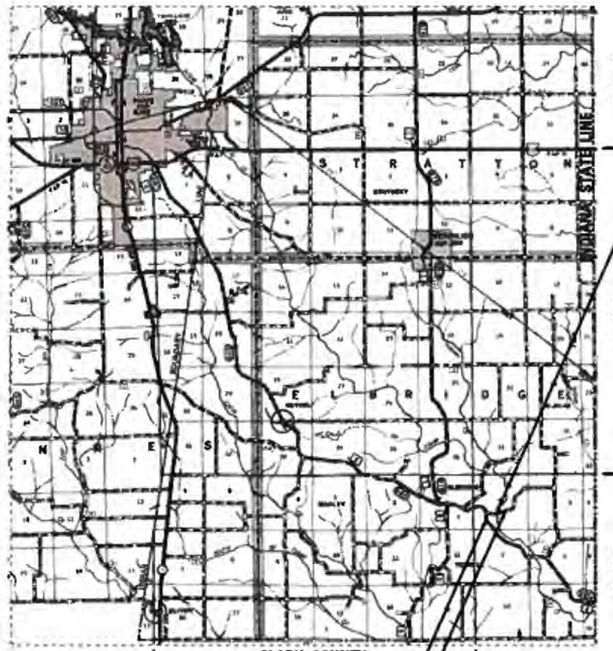
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 345	12-04126-00-BR	EDGAR	62	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

T.R. 345
SECTION 12–04126–00–BR
EDGAR COUNTY
PROPOSED STRUCTURE NO. 023–4324
FUNDING:

DRAFT



MAP NOT TO SCALE

TR 345 OVER SUGAR CREEK
PROPOSED STRUCTURE NO. 023–4324
STATION 7+97.41
THREE SPAN W27 STEEL BEAM BRIDGE
140'-0" BACK TO BACK ABUTMENT
SKEWED 0 DEGREES

SECTION 12–04126–00–BR
BEGINS STATION 0+15.00

SECTION 12–04126–00–BR
ENDS STATION 16+50.00

GROSS LENGTH = 1,635.00 FT. = 0.310 MILE
NET LENGTH = 1,635.00 FT. = 0.310 MILE

LOCATION OF SECTION INDICATED THUS: –

APPROVED:

Edgar County Engineer — Date

PASSED ____ 20 ____

DISTRICT FIVE ENGINEER OF
LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review ____ 20 ____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

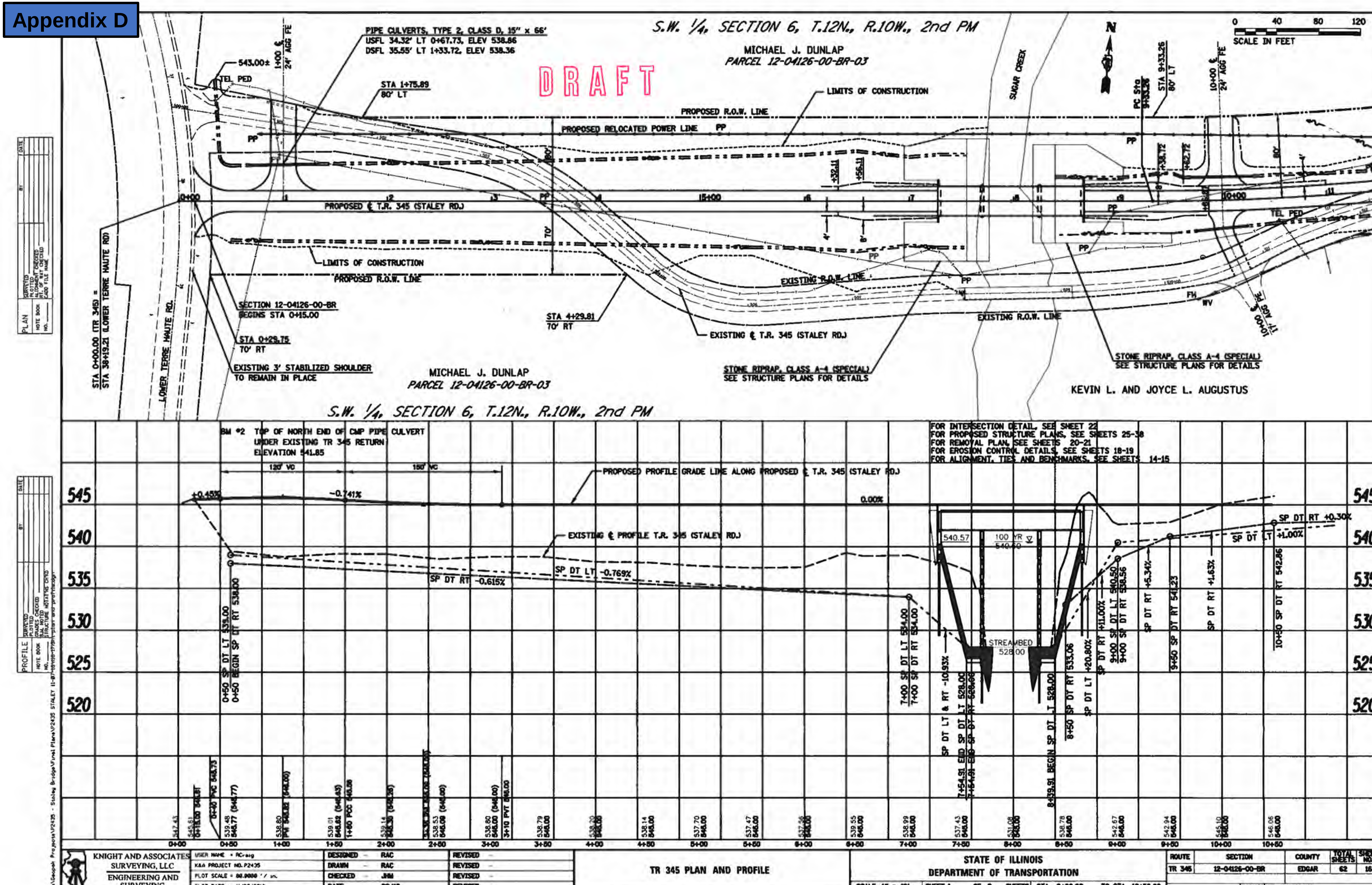
KNIGHT AND ASSOCIATES
SURVEYING, LLC
ENGINEERING AND
SURVEYING

JERRY W. CEARLOCK — DATE
REGISTERED PROFESSIONAL ENGINEER
NO. 062-040877 EXPIRES 11-30-2019

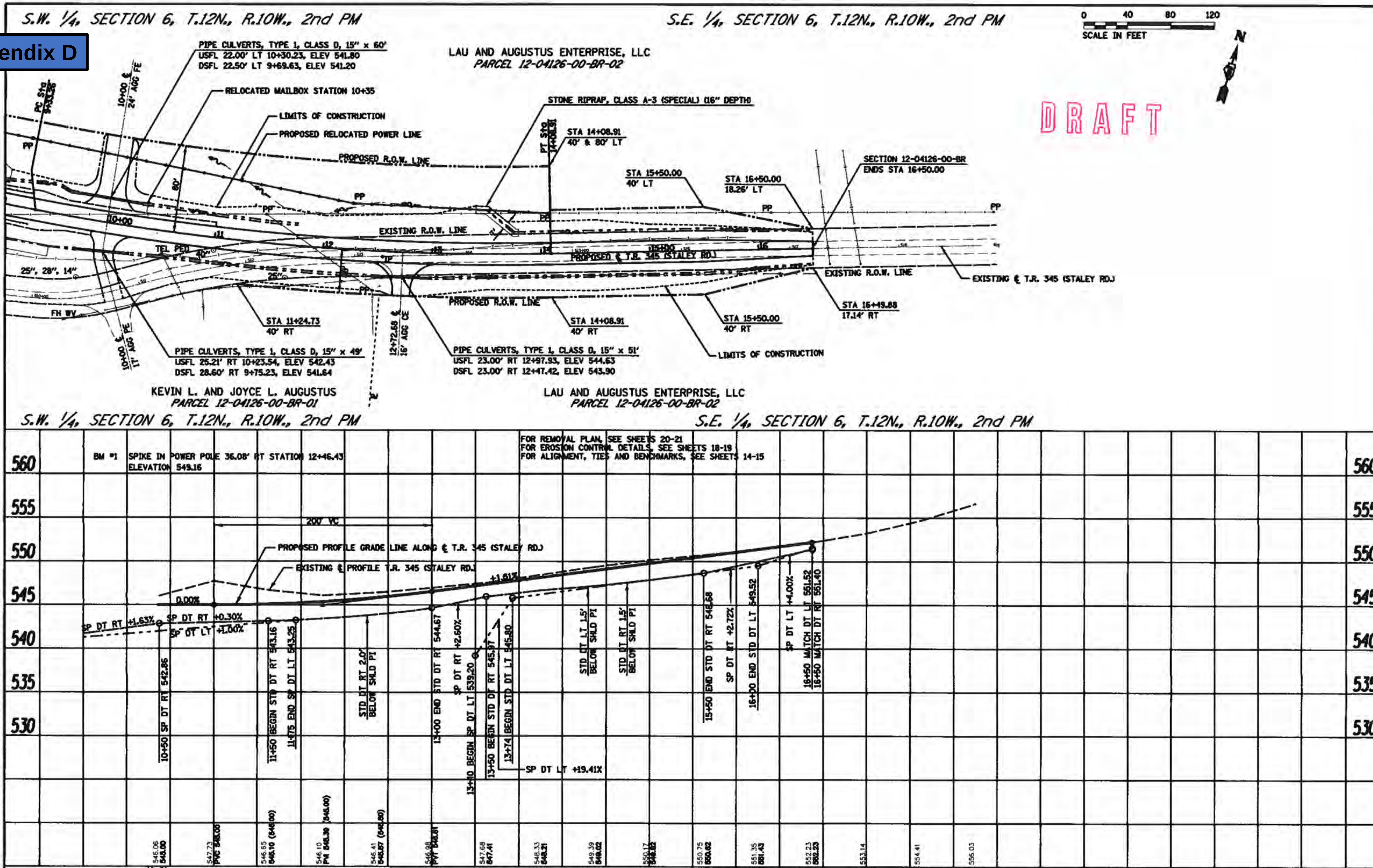
EDGAR COUNTY
DESCRIPTION: BRIDGE CONSTRUCTION STALEY ROAD
T.R. 345
SECTION: 12–04126–00–BR

D:\Design Projects\P2435 - Staley Bridge\Final Plans\P2435 STALEY 11-07-18\11SH\1-Cover.dgn

Appendix D


S.W. 1/4, SECTION 6, T.12N., R.10W., 2nd PM
MICHAEL J. DUNLAP
PARCEL 12-04126-00-BR-03
DRAFT
PIPE CULVERTS, TYPE 2, CLASS D, 15" x 66'
USFL 34.32' LT 0+67.73, ELEV 538.86
DSFL 35.55' LT 1+33.72, ELEV 538.36
STA 1+75.89
80' LT
LIMITS OF CONSTRUCTION
PROPOSED R.O.W. LINE
PROPOSED RELOCATED POWER LINE
PROPOSED ℄ T.R. 345 (STALEY RD.)
SUGAR CREEK
SCALE IN FEET
0 40 80 120
STA 9+33.26
80' LT
10+00 ℄
24' AGG FE
TEL PED
543.00±
1+00 ℄
24' AGG FE
EXISTING R.O.W. LINE
EXISTING ℄ T.R. 345 (STALEY RD.)
SECTION 12-04126-00-BR
BEGINS STA 0+15.00
STA 0+29.75
70' RT
STA 4+29.81
70' RT
EXISTING 3' STABILIZED SHOULDER
TO REMAIN IN PLACE
STONE RIPRAP, CLASS A-4 (SPECIAL)
SEE STRUCTURE PLANS FOR DETAILS
KEVIN L. AND JOYCE L. AUGUSTUS
STA 0+00.00 (TR 345) =
STA 38+19.21 (LOWER TERRE HAUTE RD)
LOWER TERRE HAUTE RD.
10+00 ℄
17' AGG FE
S.W. 1/4, SECTION 6, T.12N., R.10W., 2nd PM
BM #2 TOP OF NORTH END OF CMP PIPE CULVERT
UNDER EXISTING TR 345 RETURN
ELEVATION 541.85
120' VC
150' VC
PROPOSED PROFILE GRADE LINE ALONG PROPOSED ℄ T.R. 345 (STALEY RD.)
EXISTING ℄ PROFILE T.R. 345 (STALEY RD.)
FOR INTERSECTION DETAIL, SEE SHEET 22
FOR PROPOSED STRUCTURE PLANS, SEE SHEETS 25-38
FOR REMOVAL PLAN, SEE SHEETS 20-21
FOR EROSION CONTROL DETAILS, SEE SHEETS 18-19
FOR ALIGNMENT, TIES AND BENCHMARKS, SEE SHEETS 14-15
+0.45%
-0.741%
0.00%
SP DT RT -0.615%
SP DT LT -0.769%
SP DT RT +0.30%
SP DT LT +1.00%
540.57
100 YR
540.50
STREAMBED
528.00
545
540
535
530
525
520
KNIGHT AND ASSOCIATES SURVEYING, LLC
ENGINEERING AND SURVEYING
DESIGNED - RAC
DRAWN - RAC
CHECKED - JHM
DATE - 09/18
TR 345 PLAN AND PROFILE
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
SCALE: 1" = 40'
SHEET 1 OF 2 SHEETS
STA. 0+00.00 TO STA. 10+50.00
ROUTE TR 345
SECTION 12-04126-00-BR
COUNTY EDGAR
TOTAL SHEETS 62
SHEET NO. 16

Appendix D


S.W. 1/4, SECTION 6, T.12N., R.10W., 2nd PM
S.E. 1/4, SECTION 6, T.12N., R.10W., 2nd PM
0 40 80 120
SCALE IN FEET
N
DRAFT
PIPE CULVERTS, TYPE 1, CLASS D, 15" x 60'
USFL 22.00' LT 10+30.23, ELEV 541.80
DSFL 22.50' LT 9+69.63, ELEV 541.20
LAU AND AUGUSTUS ENTERPRISE, LLC
PARCEL 12-04126-00-BR-02
RELOCATED MAILBOX STATION 10+35
LIMITS OF CONSTRUCTION
PROPOSED RELOCATED POWER LINE
PROPOSED R.O.W. LINE
STONE RIPRAP, CLASS A-3 (SPECIAL) (16" DEPTH)
STA 14+08.91
40' & 80' LT
STA 15+50.00
40' LT
STA 16+50.00
18.26' LT
SECTION 12-04126-00-BR
ENDS STA 16+50.00
EXISTING R.O.W. LINE
PROPOSED ℄ T.R. 345 (STALEY RD.)
EXISTING R.O.W. LINE
EXISTING ℄ T.R. 345 (STALEY RD.)
TEL PED
25", 28", 14"
FH WV
PROPOSED R.O.W. LINE
STA 11+24.73
40' RT
STA 14+08.91
40' RT
STA 15+50.00
40' RT
STA 16+49.88
17.14' RT
LIMITS OF CONSTRUCTION
10+00 ℄
17' AGG PE
10+00 ℄
24' AGG FE
12+72.68 ℄
16' AGG CE
PIPE CULVERTS, TYPE 1, CLASS D, 15" x 49'
USFL 25.21' RT 10+23.54, ELEV 542.43
DSFL 28.60' RT 9+75.23, ELEV 541.64
PIPE CULVERTS, TYPE 1, CLASS D, 15" x 51'
USFL 23.00' RT 12+97.93, ELEV 544.63
DSFL 23.00' RT 12+47.42, ELEV 543.90
KEVIN L. AND JOYCE L. AUGUSTUS
PARCEL 12-04126-00-BR-01
LAU AND AUGUSTUS ENTERPRISE, LLC
PARCEL 12-04126-00-BR-02
BM #1 SPIKE IN POWER POLE 36.08' RT STATION 12+46.43
ELEVATION 549.16
FOR REMOVAL PLAN, SEE SHEETS 20-21
FOR EROSION CONTROL DETAILS, SEE SHEETS 18-19
FOR ALIGNMENT, TIES AND BENCHMARKS, SEE SHEETS 14-15
560
555
550
545
540
535
530
200' VC
PROPOSED PROFILE GRADE LINE ALONG ℄ T.R. 345 (STALEY RD.)
EXISTING ℄ PROFILE T.R. 345 (STALEY RD.)
+1.61%
0.00%
SP DT RT +1.63%
SP DT RT +0.30%
SP DT LT +1.00%
SP DT LT +19.41%
10+50 SP DT RT 542.86
11+50 BEGIN STD DT RT 543.16
11+75 END SP DT LT 543.25
STD DT RT 2.0' BELOW SHLD PI
13+00 END STD DT RT 544.67
SP DT RT +2.60%
13+10 BEGIN SP DT LT 539.20
13+50 BEGIN STD DT RT 545.97
13+74 BEGIN STD DT LT 545.80
STD DT LT 1.5' BELOW SHLD PI
STD DT RT 1.5' BELOW SHLD PI
15+50 END STD DT RT 548.68
SP DT RT +2.72%
16+00 END STD DT LT 549.52
SP DT LT +4.00%
16+50 MATCH DT LT 551.52
16+50 MATCH DT RT 551.40
10+50
11+00
11+50
12+00
12+50
13+00
13+50
14+00
14+50
15+00
15+50
16+00
16+50
17+00
17+50
18+00

KNIGHT AND ASSOCIATES SURVEYING, LLC ENGINEERING AND SURVEYING	USER NAME = RC-aug	DESIGNED - RAC	REVISED -	TR 345 PLAN AND PROFILE	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	K&A PROJECT NO. P2435	DRAWN - RAC	REVISED -			TR 345	12-04126-00-BR	EDGAR	62	17
	PLOT SCALE	CHECKED - JHM	REVISED -		SCALE: 1" = 40' SHEET 2 OF 2 SHEETS STA. 10+50.00 TO STA. 18+00.00					
	PLOT DATE = 11/20/2018	DATE - 09/18	REVISED -			ILLINOIS FED. AID PROJECT				

Illinois Department of
Natural Resources
One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor
Wayne A. Rosenthal, Director

August 13, 2018

Vince Hamer
Illinois Department of Transportation - Bureau of Design & Environment
2300 South Dirksen Parkway
Room 330
Springfield, IL

RE: Staley Road Realignment and New Bridge over Sugar Creek
Project Number(s): 1809294 (21116)
County: Edgar

Dear Mr. Hamer:

This letter concerns the Endangered Species Consultation for the project noted above located in Edgar County. The proposed project involves a new alignment for Staley Road and a new three span bridge over Sugar Creek. The new alignment will require the removal of two acres of trees in the wooded area. This project was submitted for consultation in accordance with the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

Records for the state-threatened Jefferson Salamander (*Ambystoma jeffersonianum)* occur in the vicinity. The Illinois Natural History Survey (INHS) was tasked to conduct a survey for the presence of this species, which occurred during their breeding season on February 20 and 21st, 2018. Traps were placed in two seasonal wetlands in the wooded area immediately south of Staley Road. One Jefferson Salamander was caught in the wetland closest to Staley Road. According the INHS survey report dated March 20, 2018 and considering the records for the species in the vicinity, the project area should be considered occupied by the state-threatened Jefferson Salamander.

Given the project will involve significant alteration of the wooded area with road realignment and a new bridge over Sugar Creek, the Department has determined that "take" of Jefferson Salamander is likely to occur. Therefore, the Department recommends the Illinois Department of Transportation seek an Incidental Take Authorization (ITA) from our Office of Resource Conservation for the Jefferson Salamander. All matters pertaining to ITA should be directed to Jenny Skufca with our Office of Resource Conservation.

Consultation under 17 Ill. Adm. Code Part 1075 is complete. In accordance with 17 Ill. Adm. Code 1075.40(h), please notify the Department of your decision regarding this recommendation.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are

identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Nathan Grider
Assistant Manager, Consultation Services
Division of Real Estate Services and Consultation
Illinois Dept. of Natural Resources
One Natural Resources Way
Springfield, IL 62702-1271

cc: Jenny Skufca, Incidental Take Authorization Coordinator, IDNR

Appendix F

ILLINOIS
Illinois Natural History Survey
PRAIRIE RESEARCH INSTITUTE

Aquatic
Survey Report

Survey for Jefferson Salamander, *Ambystoma jeffersonianum*, at Staley Road (IDOT TR 345) and Sugar Creek in Edgar County, Illinois

IDOT Sequence Numbers: 21116

Prepared by:
Andrew R. Kuhns

INHS/IDOT Statewide Biological Survey & Assessment Program
2018: 17

20 March 2018

Appendix F

PROJECT SUMMARY

This report details results of a trapping survey for Jefferson Salamander, *Ambystoma*, *jeffersonianum*, for the replacement of the structure carrying Staley Road (IDOT TR 345) over Sugar Creek (IDOT Sequence No. 21116) in Edgar County, Illinois. Information on the natural history and ecology of the Jefferson Salamander, a species known near the project area can be found in **Appendix A**. Surveys were conducted by INHS Further Studies Ecologist A.R. Kuhns from 20 through 21 February 2018 by INHS Herpetologists A.R. Kuhns and C.A. Phillips. Surveys were conducted under IDNR State Threatened and Endangered Species Permit 05-11S. Survey methods are detailed in **Appendix B** and are approved under University of Illinois IACUC protocol 16-057. The project area and trap locations can be seen in **Appendix C: Figure C.1**. The spatial data shown in **Appendix C: Figure C.1** were digitally uploaded to the Further Studies Illinois Site Assessment Tracking System (http://frostycap.isgs.uiuc.edu/idot_extranet/further_studies) and are herein referenced as **Appendix D.** The Jefferson Salamander was detected in one of the ponds in the vicinity of the project area. All closed canopy habitat on the west side of Sugar Creek in the vicinity of Staley Road should be considered occupied suitable habitat for the species.

Approved By: Kevin Cummings, Further Studies Aquatics Group Coordinator-Malacologist

Surveys Conducted By: Andrew R. Kuhns — Herpetologist
Christopher A. Phillips — Herpetologist

Edited by: Mark J. Wetzel, Oligochaetologist — Emeritus

GIS Layers: Janet L. Jarvis, GIS and Remote Sensing Specialist

University of Illinois
Prairie Research Institute
Illinois Natural History Survey
Statewide Biological Survey and Assessment Program
1816 South Oak Street
Champaign, Illinois 61820

Appendix F

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Cover Photo: Wetland 344 near the realignment of Staley Road (IDOT TR 345) and replacement of the Sugar Creek culvert (IDOT Sequence No. 21116) ESE of the town of Elbridge in Edgar County, Illinois. Photograph by A.R. Kuhns.

INTRODUCTION

In a transmittal dated 17 October 2017 Vincent Hamer of the Illinois Department of Transportation (IDOT) Bureau of Design and Environment tasked the Illinois Natural History Survey (INHS) to conduct herpetofaunal surveys for the state threatened Jefferson Salamander, *Ambystoma jeffersonianum*, at Staley Road (IDOT TR 345) and Sugar Creek (IDOT Sequence No. 21116, Section No. 12-04126-00-BR), located 0.9 mi ESE of the town of Elbridge in Edgar County Illinois. The project entails a new alignment for Staley Road (IDOT TR 345) and the removal of an overflow culvert carrying Staley Road over Sugar Creek. The culvert will be replaced with a three span continuous steel superstructure with pile bent substructure. Information on the natural history and ecology of the Jefferson Salamander can be found in **Appendix A**.

PROJECT AREA

This project spans 0.31 miles along Staley Road (IDOT TR 345), 0.9 miles ESE of the town of Elbridge in Edgar County, Illinois (Township 12N, Range 10 West, Section 6 of the Sandford, IL 7.5' U.S.G.S. topographic quadrangle map; **Appendix C: Figure C.1**). The environmental survey request was for 800' west of the crossing of Sugar Creek to 850' east of the crossing located at 39.509899, -87.566393. The majority of the project area is undeveloped secondary growth woods and row-crop agriculture.

METHODS

Database Review

The Illinois Natural Heritage Database maintained by the Illinois Department of Natural Resources (IDNR) was queried for Element Occurrence Records (EOR) of threatened and endangered amphibians and reptiles within a mile of the project boundary. Each EOR may be subdivided into multiple Element of Occurrence Identification numbers (EOID) to record separate identification events or sub-locations. Additionally, a search of both vouchered and un-vouchered specimens in the Illinois Natural History Survey (INHS), University of Illinois Museum of Natural History (UIMNH), and non-INHS Illinois Amphibian and Reptile databases maintained by the Illinois Natural History Survey was conducted. Together these databases are merged and accessed through the All_IL_Herps database at INHS and are updated semi-annually. The locations of any results were plotted onto aerial photographs of the ESR corridor and examined to search for suitable habitat for the species (**Appendix C: Figure C.1**).

Field Methods

The project area was visited on 20 February by INHS Further Studies Herpetologist A.R. Kuhns and INHS Herpetologist C.A. Phillips, and John A. Crawford, Terrestrial Ecologist with the National Great Rivers Research and Education Center (NGRREC). Two small seasonal wetlands (Wetlands 344 & 345) were found to be extant south of Staley Road (IDOT TR 345), and west of Sugar Creek (**Appendix D; Plate D.1**). A third small wetland east of Sugar Creek and north of Staley road has been drained. Seven traps were placed in the smaller wetland closer to Staley

Road and three traps were placed in the larger shallow wetland. Additional information on sampling methods can be found in **Appendix B**.

RESULTS

Database Review

Jefferson Salamanders have been documented from 1.5 miles Northeast of Elbridge, IL by Brian Lau in 1991 (Southern Illinois University Herpetology collection; SIU-H 4059). The populations were re-sampled in 2008 by Kuhns and Crawford. Only one of the original ponds identified by Lau was found to be extant in 2008 and Jefferson Salamanders were documented from the pond (INHS 20778).

Field Surveys

Ten traps were set on 20 February 2018. While setting traps we encountered and collected for voucher one Boreal Chorus Frog (INHS Field 24019) and one Smallmouth Salamander (INHS Field 24017) at wetland 344 and observed hundreds of spermatophores in wetland 344, indicating the presence of a large number of salamanders. We checked and retrieved traps on 21 February 2018. We captured 39 Smallmouth Salamander, *Ambystoma texanum*, one Jefferson Salamander (INHS Field 24020) and one Boreal Chorus Frog, *Pseudacris maculata* in wetland 344, and nine Smallmouth Salamander in wetland 345 (**Table 1**).

Table 1. Dates, location, effort, and amphibian captures by species for two wetlands sampled the night of 21-22 February 2018 at the realignment of Staley Road (IDOT TR 345) and replacement of the Sugar Creek culvert (IDOT Sequence No. 21116), ESE of the town of Elbridge in Edgar County, Illinois. Table key: *Ambystoma texanum* (*A. tex*); *A. jef* (*Ambystoma jeffersonianum*); *P. mac* (*Pseudacris maculata*).

	Latitude	Longitude	Date set	Date pulled	# Traps	*A.tex*	*A.jef*	*P.mac*
Wetland 344	39.50925	-87.567579	2/21/2018	2/22/2019	7	39	1	21
Wetland 345	39.50872	-87.567817	2/21/2018	2/22/2019	3	9	0	0

DISCUSSION

The Jefferson Salamander reaches its western range limits in Illinois where it occurs only in Clark and Edgar Counties. The species breeds in fishless (often vernal) wetlands located in closed canopy woodlands. Salamanders typically inhabit an area within 650 to 850 feet of their breeding wetlands but has been found up to 1 mile from known breeding wetlands (**Appendix A**). The Jefferson Salamander is listed as state threatened in Illinois where fewer than 50 breeding wetlands have been identified (Peterman et al. 2013). There is some indication that population levels have decreased from historical numbers, predominantly due to increasing population isolation due to habitat fragmentation (Crawford et al. 2016).

In this survey, one adult female Jefferson Salamander was captured in wetland 344 (**Appendix C: Figure C.1**). Given the detection of the species in the pond, all closed canopy habitat within 850' of the pond should be considered as suitable and occupied by the species.

ACKNOWLEDGMENTS

John Crawford, Terrestrial Ecologist at National Great Rivers Research and Education Center, assisted in sampling on 20 February 2018.

LITERATURE CITED

Crawford, J.A., W.E. Peterman, A.R. Kuhns, and L.S. Eggert. 2016. Altered functional connectivity and genetic diversity of a threatened salamander in an agroecosystem. Landscape Ecology 31: 2231-2244.

Peterman, W.E., J.A. Crawford, and A.R. Kuhns. 2013. Using species distribution and occupancy modeling to guide survey efforts and assess species status. Journal for Nature Conservation 21: 114-121.

APPENDIX A

Natural History of the Jefferson Salamander, *Amystoma jeffersonianum*

SYNOPSIS

This appendix contains information on amphibian and reptile species listed as threatened or endangered in the State of Illinois that may occur near the realignment of Staley Road (IDOT TR 345) and replacement of the Sugar creek culvert (IDOT Sequence No. 21116) in Edgar County, Illinois. The species account includes: diagnostic characters, range in Illinois, habitat requirements, spatial ecology and activity, reproduction, and the suitable sampling season in Illinois. Standard and scientific names follow Crother (2012).

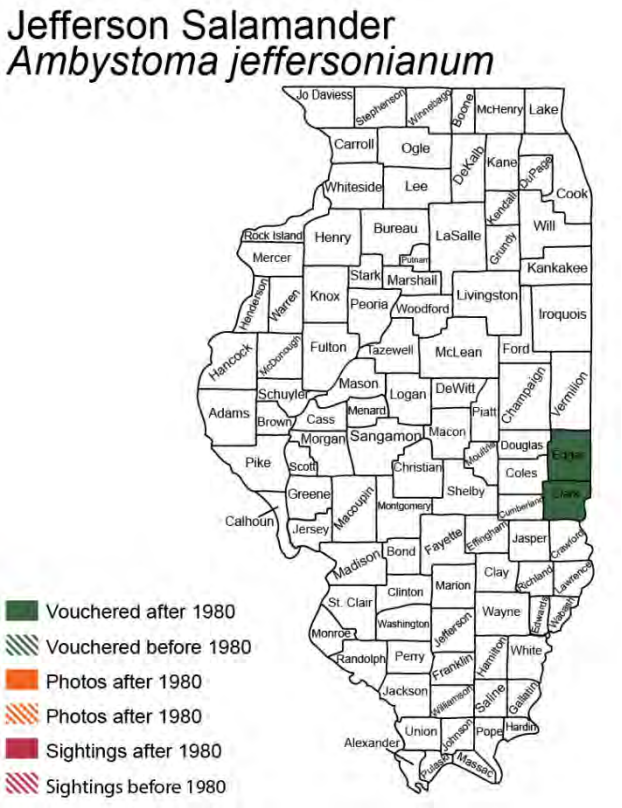
Species range maps were created by Ethan J. Kessler. Maps were based upon data in the Illinois Natural History Survey's All_IL_Herps Database which contains records of vouchered and un-vouchered specimens in the Illinois Natural History Survey (INHS), University of Illinois Museum of Natural History (UIMNH), and amphibian and reptile specimens from ~30 other scientific museums. The database is maintained by the INHS/UIMNH Amphibian and Reptile Curator Christopher A. Phillips, with records from other institutions updated annually.

LITERATURE CITED

Crother, B.I. 2012. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. 7th Edition. SSAR Herpetological Circular. 39: 1–101.

JEFFERSON SALAMANDER, *AMBYSTOMA JEFFERSONIANUM*

General Description for Identification: The Jefferson Salamander, *Ambystoma jeffersonianum* is member of the mole salamander family and can be distinguished from other mole salamanders in Illinois, by having a head wider than its neck, long slender toes, a lower jaw that does not extend past the upper jaw, blue/grey flecks on its lower sides, and a venter that is usually surrounded by a grey color (Petranka, 1998; Phillips, 1999).



Range and Illinois Distribution: Within Illinois, Jefferson Salamander are only found in the Wabash Borders Natural Division of Edgar and Clark Counties, in extreme eastern Illinois (Phillips et al. 1999).

Suitable Habitat: Adults are terrestrial and inhabit undisturbed well-drained upland forests typically within 650 to 825 feet of the vernal woodland ponds and other fishless wetlands in which they breed (Phillips et al. 1999).

Spatial ecology and activity: Adults have been observed up to 1 mile from known breeding ponds. At Lincoln Trail State Recreation Area, Clark County, Illinois; ponds that had been constructed 6 months prior had breeding adults in them the following spring. These ponds were approximately 0.7 miles from any known breeding ponds, suggesting that adults travel great distances from the breeding pools (Kuhns et al. 2010).

Reproduction: Jefferson Salamanders are the first salamander species to arrive in their breeding ponds – with the first warm rains or heavy snow melts of late winter. Males typically move into the ponds before females, often traversing frozen ground to reach the ponds. Once females arrive, they breed and attach egg masses of 140 to 280 eggs to sub-surface structures such as stems, twigs, grasses, or leaves. The eggs hatch in 3 to 14 weeks, depending on environmental factors, and larvae remain in the ponds for 2 to 4 months. In Illinois, larvae typically undergo metamorphosis and exit the ponds by late June to early July (A.R. Kuhns, pers. obs.).

Suitable Sampling Seasons: Jefferson Salamanders are best sampled from their breeding pools in late February to early April. Larvae will remain in the ponds through the spring and can be identified to species with a trained eye.

Illinois Status and Distribution: The Jefferson Salamander was not documented in Illinois until 1990, and was subsequently listed as a threatened species due to its restricted range and dependence on rare or vulnerable habitat within a highly fragmented landscape (Illinois Endangered Species Protection Board 2015; Mankowski 2012).

Literature Cited

Illinois Endangered Species Protection Board. 2015. Checklist of Endangered and Threatened Animals and Plants of Illinois. Illinois Endangered Species Protection Board, Springfield, Illinois. pp. 18. Published online at http://dnr.state.il.us/iespb/index.htm

Kuhns, A.R., J.A. Crawford, and W.E. Peterman. 2010. Assessing the Distribution of a secretive species using ecological niche and occupancy models. INHS Technical Report 2010(22): 1-15.

Mankowski, A. 2012. The Illinois Endangered Species Protection Act at Forty: a review of the Act's provisions and the Illinois List of Endangered and Threatened Species. Illinois Endangered Species Protection Board, Springfield, IL. 152 pp. Published online at: http://www.dnr.illinois.gov/ESPB/Pages/default.aspx.

Petranka, J.W. 1998. Salamanders of the United States and Canada. Smithsonian Institution Press. Washington D.C., p. 587.

Phillips, C.A., R.A. Brandon, and E.O. Moll. 1999. Field Guide to Amphibians and Reptiles of Illinois. Illinois Natural History Survey Manual 8: 1-300.

APPENDIX B

Sampling methods appropriate for the detection of amphibians and reptiles listed as endangered or threatened in the state of Illinois.

Appendix F

Table B.1. Species of amphibians and reptiles listed as threatened or endangered in Illinois and potential sampling methods for their detection.

		State Listed Herptiles	Threatened	Endangered	Dip-Net	Minnow Trap	Call Survey	Visual Encounter	Hoop Trap	Fyke Net	Seine	Drift Fence	Coverboard
AMPHIBIANS	SALIENTIA	*Ambystoma jeffersonianum*	X		■	■		■				■	
		Ambystoma platineum		X	■	■		■				■	
		Cryptobranchus alleganiensis		X				■					
		Desmognathus conanti		X	■			■					
		Hemidactylium scutatum	X					■				■	
		Necturus maculosus	X		■	■		■			■		
	ANURA	*Hyla avivoca*		X	■	■	■	■					
		Pseudacris streckerii		X	■	■	■	■				■	
		Gastrophryne carolinensis	X		■	■	■	■				■	
REPTILES	TESTUDINES	*Apalone mutica*		X				■	■	■			
		Clemmys guttata		X				■	■				
		Emydoidea blandingii		X				■	■				
		Kinosternon flavescens		X				■	■				
		Macrochelys temminckii		X					■				
		Pseudemys concinna		X				■		■			
		Terrapene ornata	X					■				■	
	SERPENTES	*Clonophis kirtlandii*	X					■				■	■
		Crotalus horridus	X					■				■	
		Pantherophis emoryi		X				■				■	■
		Heterodon nasicus	X					■				■	■
		Masticophis flagellum		X				■				■	■
		Nerodia fasciata		X				■				■	■
		Nerodia cyclopion	X					■				■	■
		Sistrurus catenatus		X				■				■	
		Tantilla gracilis	X					■				■	■
		Thamnophis sauritus	X					■				■	■
		Tropidoclonion lineatum	X					■				■	■

Appendix F

Sampling Methods for the Detection of State Listed Amphibians and Reptiles in Illinois

ACTIVE SAMPLING METHODS

Call Survey**.** This method is only effective for anurans during the breeding season. The researcher either visits wetlands in the evening hours to listen to the frog chorus, or places an audio recording device at the wetland during the day and returns the following morning to retrieve the recording. In either case, the researcher must be familiar with the calls of frogs and toads in the area in order to identify the species based only upon the calls in the chorus. To be effective, the researcher must also be familiar with the ecology of the target species and sample during its breeding season in habitats where it is likely to reside.

Dip Netting. A dip net is useful for sampling aquatic animals and can be used to capture individuals observed or as a means of blindly sampling for aquatic organisms in vegetation choked or turbid water. Typically, a researcher will pull the net along the substrate and through the water column for approximately 3 feet, and then finish the net sweep by pulling the net up and out of the water with the net opening facing upward. The researcher can then remove any substrate or detritus from the net and search for captured animals.

Seine. A seine is a fishing net that hangs vertically in the water column suspended by floats with the bottom edge held down by weights. The net is dragged along the bottom of aquatic habitats and captures aquatic amphibians and reptiles when it is drawn onto shore or scooped out of the water. In many ways, it functions much like a large dip net when used for amphibian and reptile sampling.

Visual Encounter Survey (VES). Visual encounter surveys involve searching appropriate habitat (mainly turning cover items such as logs, rocks and miscellaneous debris and also visually scanning open habitats) and recording all species encountered. Surveys can be regimented such as by walking pre-defined grid patterns and time limits, or in a more haphazard wandering pattern. This method is most effective if the researcher is familiar with the target species ecology and can focus on habitat areas where the species is most likely to be encountered, as well as time of day and seasons when the species is most active. A thorough explanation of this technique can be found in Heyer et al. (1994).

PASSIVE SAMPLING METHODS

Drift Fence**.** A drift fence is any object that is placed perpendicular to the ground surface as a way to intercept animals that may be passing through. It is often constructed of hardware cloth or silt fencing buries a few inches into the ground to prevent burrowing; but natural cover items such as large logs or rock formations may also function as a drift fence. Animals are captured by travelling parallel to the fence until they fall into a receptacle, such as a bucket or coffee can,

which has been buried flush with the substrate. Similarly, funnel traps can be placed along the drift fence to capture animals that are walking along the fence. This technique is covered in Heyer et al. (1994) and McDiarmid et al. (2012).

Coverboards**.** Coverboards are essentially any item sitting flush with the substrate under which an amphibian or reptile may seek refuge. Artificial coverboards are often made of plywood or corrugated tin and are placed in areas likely to harbor the species of interest. Coverboards often attract small mammals and invertebrates as well, which may enhance their ability to attract amphibians and reptiles. Well-seasoned artificial cover objects with little vegetation underneath them seem to work better in attracting herptiles, therefore their use most effective for long term projects when they can be set out many months in advance of surveys.

Minnow Trap**.** Traps may be constructed of rope, monofilament, or steel and may have funnels or throats, at one or both ends, which allow the animal to enter into the trap body but prevent them from easily exiting the trap. Minnow traps may be cylindrical or rectangular and can be baited or not depending on the target species. If baited, the bait is refreshed every 2 to 4 days. Traps are usually placed so that a portion of the trap placed in water is emergent so that captured animals have access to air and will not drown. However, in riverine environments, where there is little to no probability of capturing non-gilled species, the traps may be fully submerged. Effort is recorded in trap hours (i.e., number of traps multiplied by the number of hours the traps were deployed). Results are reported as the numbers of each species captured.

Hoop Trap**.** These traps work on the same principal as minnow traps but are larger in diameter and have larger throats to allow for the capture of larger animals such as turtles (Legler 1960). All hoop traps are placed such that at least 5cm of the trap is above the surface of the water to ensure captured turtles have access to air. Traps are tied via string or rope to surrounding vegetation to ensure that captured turtles do not roll traps into deeper water and drown. Traps are placed parallel to either the shoreline or potential basking sites. Traps are baited (usually with sardines canned in spring water or oil). Traps are checked daily and bait is changed every 2 to 4 days. Effort is recorded in trap hours (i.e., number of traps multiplied by the number of hours the traps were deployed). Results are reported as the numbers of each species captured.

Fyke Net**.** This trapping method is essentially a combination of a Drift Fence and a Hoop Trap. It consists of a hoop trap body with a single throat, and long wings and a lead that extend out from the throat in a double V formation (**Figure B.1**). Wings and leads have a lead-line that makes them hang vertically in the water column. This essentially extends the reach of the throat and works well for turtle species that are not attracted to readily available baits. It can be used to intercept turtles entering a cove or attempting to access a popular basking site, by funneling them into the trap body where the throat prevents them from escaping. A description of Fyke Nets can be found in Vogt (1980).

Appendix F

LITERATURE CITED

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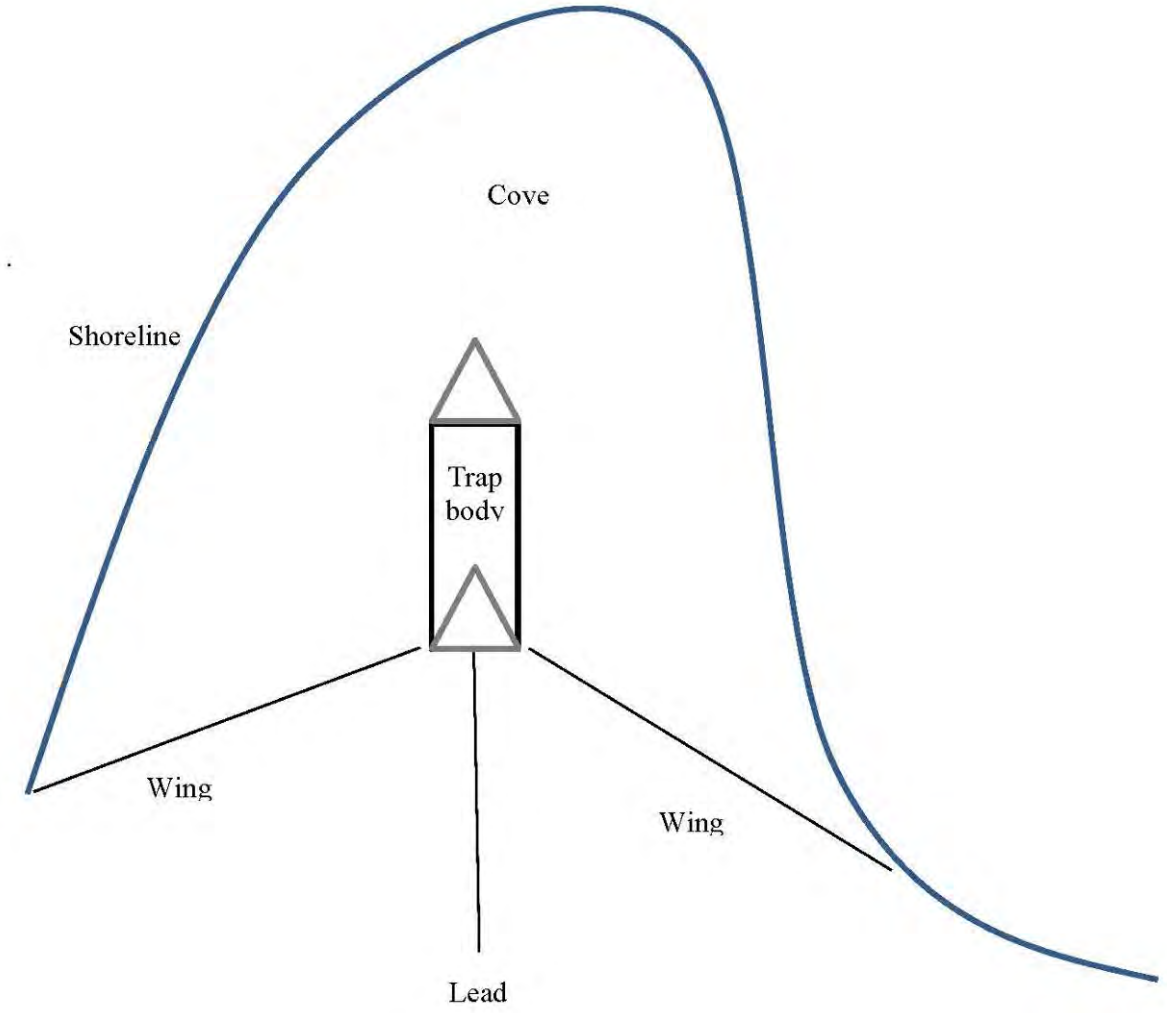
Vogt, R.C. 1980. New methods for trapping aquatic turtles. Copeia 1980:368-371.

Figure B.1. Fyke Net set to capture turtles attempting to enter a cove (as viewed from above).



APPENDIX C

Figures relevant to the realignment of Staley Road (IDOT TR 345) and replacement of the Sugar Creek Culvert (IDOT Sequence No. 21116) ESE of the town of Elbridge in Edgar County, Illinois.

Appendix F

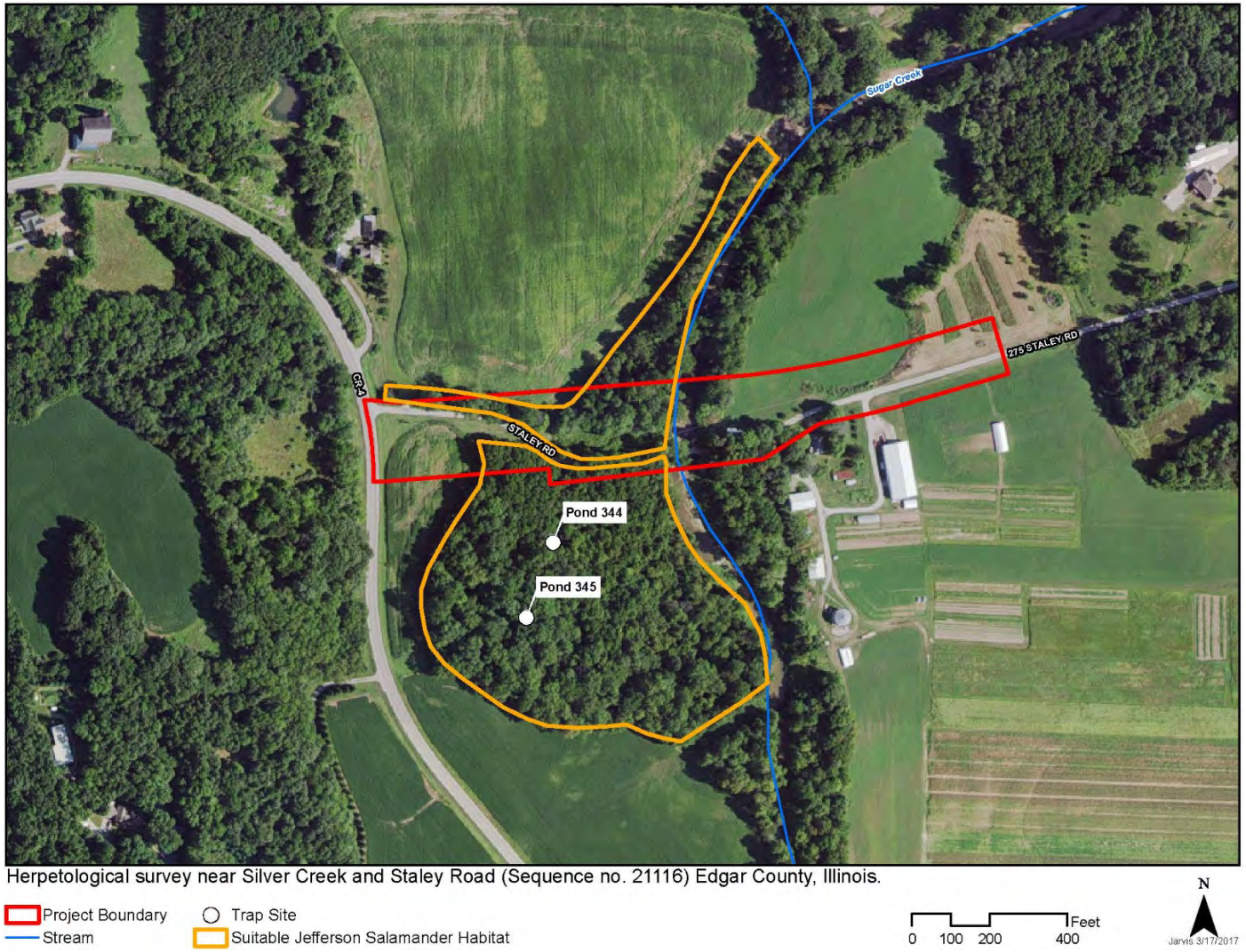


Figure C.1. Project boundary, wetland locations, and suitable habitat for the Jefferson Salamander, *Ambystoma jeffersonianum*, near the realignment of Staley Road (IDOT TR 345) and replacement of the Sugar Creek culvert (IDOT Sequence No. 21116) ESE of the town of Elbridge in Edgar County, Illinois.

APPENDIX D

Arc-GIS Shapefiles

An ArcGIS folder <21116_Herp_Survey_GIS.zip > containing an Arc-GIS shapefile of the suitable habitat and wetland locaitons constitutes this appendix. The ArcGIS shapefile and this report will be submitted to IDOT via the IDOT Site Assessment Tracking System extranet website [Frostycap].

Jefferson salamander

Ambystoma jeffersonianum

Kingdom:	Animalia
Division/Phylum:	Chordata
Class:	Amphibia
Order:	Caudata
Family:	Ambystomatidae

ILLINOIS STATUS

threatened, native

adult

FEATURES

The Jefferson salamander averages about four to seven inches in length. It has long toes, a long snout and a slender body. The body may be brown or gray with a lighter belly. The limbs and lower body may have blue flecks.

BEHAVIORS

The Jefferson salamander may be found in Edgar and Clark counties in east central Illinois. This salamander lives in damp woodlands, near ponds. The Jefferson salamander spends much of the year underground, coming out for a few days to reproduce. The female may deposit up to 20 egg masses of 15 eggs each. Eggs are attached to underwater vegetation and hatch in 30 to 45 days. Transformation to a land animal occurs from July to September. The Jefferson salamander eats earthworms and other invertebrates.

ILLINOIS RANGE

Aquatic Habitats

none

Woodland Habitats

upland deciduous forest

Prairie Habitats

none

Appendix H

S.W. 1/4, SECTION 6, T.12N., R.10W., 2nd PM

LEGEND

- TREE REMOVAL ACRES WITHIN HABITAT AREAS
- NON-IMPACT AREA
- SALAMANDER HABITAT AREA

TOTAL AREA OF TREE REMOVAL IMPACT WITHIN HABITAT = 0.73 AC. +/-
TOTAL AREA OF NON-IMPACT WITHIN HABITAT = 0.53 AC. +/-

SCALE IN FEET: 0 40 80 120

N

SALAMANDER HABITAT AREA

EXISTING 15" x 30' CMP TO BE REMOVED

1+00 ~ 24' AGG FE

2+41.25 70' LT

3+00 58' LT

4+36.5 70' LT

4+74 70' LT

TREE REMOVAL ACRE LIMITS

LIMITS OF CONSTRUCTION

PROPOSED R.O.W. LINE

7+74 70' LT

SUGAR CREEK

8+45 60' LT

8+67.41 60' LT

PC Sta 9+53.26

9+05 ~ 37' LT

10+00 ~ 24' AGG FE

11+00

11+00 20' RT

AREA=0.10 AC.+/-

AREA=0.56 AC.+/-

AREA=0.07 AC.+/-

AREA=0.53 AC.+/-

3+20 ~ 3+44

4+00 20' LT

5+20 17' RT

7+61 17' RT

0+00 1 2 3 4 5 6 7 8 9 10+00 11

PROPOSED CENTERLINE T.R. 345 (STALEY RD.)

EXISTING R.O.W. LINE

LOWER TERRE HAUTE RD.

SECTION 12-04126-00-BR
BEGINS STA 0+15.00

2+75 25' & 52' RT

4+09 52' RT

7+36 71.7' RT

8+40 80' RT

9+33 74' RT

10+00 45' RT

17+00 ~ AGG FE

EXISTING CENTERLINE T.R. 345 (STALEY RD.)

SALAMANDER HABITAT AREA

S.W. 1/4, SECTION 6, T.12N., R.10W., 2nd PM

KNIGHT AND ASSOCIATES SURVEYING, LLC ENGINEERING AND SURVEYING	USER NAME = $USER$	DESIGNED – JHM	REVISED – _____	SALAMANDER HABITAT EXHIBIT	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN – JHM	REVISED – _____		SCALE: 1" = 40' SHEET 1 OF 1 SHEET STA. 0+15.00 TO STA. 10+50.00
	PLOT SCALE = $SCALE$	CHECKED – _____	REVISED – _____		
	PLOT DATE = $DATE$	DATE – 11/18	REVISED – _____		

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR. 345	12-04126-00-BR	EDGAR	____	____
		ILLINOIS FED. AID PROJECT		

Appendix I

Class 4A Seed mix per:
Illinois Department of Transportation
Standard Specifications for Road And Bridge Construction
Adopted April 1, 2016

4A	Low Profile Native Grass 6/, 8/	Andropogon Scoparius (Little Blue Stem) 5/	5 (5)
		Bouteloua Curtipendula (Side-Oats Grama) 5/	5 (5)
		Elymus Canadensis (Canada Wild Rye) 5/	1 (1)
		Sporobolus Heterolepsis (Prairie Dropseed) 5/	0.5 (0.5)
		Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)

Appendix J

ILLINOIS
Illinois Natural History Survey
PRAIRIE RESEARCH INSTITUTE

WETLAND
DETERMINATION REPORT

Staley Road (TR 345) over Sugar Creek
Edgar County, Illinois

IDOT Sequence Number: 21116

Prepared by:
Laura Carr, Ian Kenney, Julie Nieset and Jeannine Adomaitis

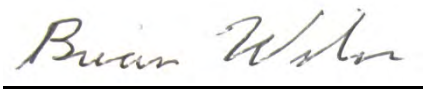
INHS/IDOT Wetland Science Program

July 2018

Appendix J

Project Summary

A wetland survey was conducted for proposed work on Staley Road (TR 345) in Edgar County, Illinois. All potential wetlands within the specified project area were examined. No sites met the three criteria of a wetland established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* [U.S. Army Corps of Engineers (USACE) 2010]. Summary information regarding the wetland determination sites is presented in the wetland project report. Wetland determination forms are found in Appendix A. The spatial data have been digitally uploaded to the Illinois Site Assessment Tracking System (https://frostycap.isgs.illinois.edu/authenticate/login.asp). Locations of determination sites were overlaid on a digital aerial orthophoto using ArcGIS; the resulting figure is included in Appendix B. Additional maps and figures are also included in Appendix B. Bat Bridge Assessment information is included in Appendix C.

Signed:  Date: July 6, 2018

Brian W. Wilm
INHS/IDOT Wetlands Program
Leader and Principal Investigator

Conducted By:

Laura Carr and Julie Nieset (Vegetation, Hydrology, and GNSS)
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University of Illinois
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Illinois Natural History Survey
Wetland Science Program
1816 South Oak Street
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lstas@illinois.edu (217) 300-2472 (Nieset)

Appendix J

Table of Contents

Cover Photo: On Staley Road facing east, view of existing low water crossing at Sugar Creek.

Staley Road (TR 345) over Sugar Creek
Edgar County, Illinois

Introduction

A wetland survey was conducted on June 26, 2018, for proposed work on the Staley Road (TR 345) crossing over Sugar Creek in Edgar County, Illinois. Planned improvements include the removal of an approximately 80 linear foot low water stream crossing (concrete overflow culvert). The crossing will be replaced with a three span continuous steel bridge with pile bent supports. The crossing may be slightly realigned to achieve the final bridge design and is anticipated to include incidental approach work. Culvert removal and new bridge construction will require in-stream work. The project area began at the intersection of Staley Road and East Terre Haute Road (County Hwy 4) and extended approximately 1,650 feet east along Staley Road. The width of the study area averaged approximately 200 feet, for a total project area of 7.33 acres.

Methods

All potential wetlands within the specified study area were examined. Characteristics of vegetation, soils, hydrology, and topography were evaluated during field investigation and on-site wetland determination. Locations of observation points for wetland determinations were selected based on plant community borders and topographic changes. The following sources were examined while surveying the project corridor to determine wetland locations and boundaries: aerial photographs; U.S. Geological Survey topographic map (Sandford, IN-IL 7.5 minute quadrangle); National Wetlands Inventory (NWI) website (USFWS 2017); the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987); the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010); the USDA-NRCS *Official Series Descriptions*; and the USDA-NRCS *Web Soil Survey*. Positional inaccuracies are known to occur with downloaded sources of digital data listed above. As presented on maps and figures in this report, data can be shifted from their actual position when compared to modern aerial photography.

Wetland determinations were conducted using definitions and guidelines established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010). Since this project has a total area greater than five acres, it was sampled using the transect methodology outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). Data from these determinations were recorded on U.S. Army Corps of Engineers' Wetland Determination Data Forms – Midwest Region (Appendix A); a data form was completed for each wetland sampling point. All potential wetlands, including all areas mapped as wetlands by the NWI, were described using at least one sampling point. Results of these determinations are summarized in the following text.

Sampling point location data were recorded using a Trimble Global Navigation Satellite System (model GeoExplorer 6000 Series GeoXT), with a presumed accuracy of +/- 0.5 m under optimal field conditions. Spatial data were digitally uploaded to the Illinois Site Assessment Tracking System (https://frostycap.isgs.illinois.edu/authenticate/login.asp). Locations of determination sites were overlaid on a digital aerial orthophoto and approximate area was determined for each wetland site using ArcGIS Desktop 10.6 (ESRI 2017). Site location, with respect to the nearest road, was measured from the edge of the pavement and is reported to the nearest foot.

Botanical nomenclature follows *Vascular Flora of Illinois* (Mohlenbrock 2002), while wetland indicator status for each species follows *National Wetland Plant List, version 3.3* (USACE 2016, Lichvar et al. 2016).

Wetland Determination Site Summary

Site Number: 1

Community type: **Mesic floodplain forest**

National Wetlands Inventory code**: PFO1A (temporarily flooded, broad-leaved deciduous, forested, palustrine wetland)**

Site location: **Approximately 490 feet east of E. Terre Haute Road (County Hwy 4) on the northern side of Staley Road. Approximately 340 feet east of E. Terre Haute Road (County Hwy 4) on the southern side of Staley Road.**

Hydrophytic Vegetation? **Yes** Hydric Soils? **No** Wetland Hydrology? **No**

Is this site a wetland? **No**

Stream Description

Site name: **Sugar Creek**

Site location: **Crosses under Staley Road approximately 770 ft east of the intersection with E. Terre Haute Road (County HWY 4)**

Community type: **Stream**

National Wetlands Inventory code: **R2UBH (permanently flooded, unconsolidated bottom, lower perennial, riverine)**

USGS 8-Digit Hydrologic Unit Code (HUC): **05120111 (Middle Wabash - Busseron)**

Watershed area: **60 mi^2 (U.S. Geological Survey 2017)**

Riffles observed? **See remarks below** ** Pools observed? **See remarks below** **

Mussel shell material observed? **See remarks below** **

Is the stream or body of water perennial/intermittent/ephemeral? **Perennial**

Is the stream identified by IDNR (2008) as a biologically significant stream? **No**

Stream Integrity Rating: **None** Stream Diversity Rating: **None**

Additional remarks: **Approximately 0.2 inches of rainfall occurred on the day of the site assessment. High water levels and elevated suspended sediments prevented the ability to observe riffles and pools or the presence of mussel shell material.

Bat Bridge Assessment

Bridge assessment for the presence of suitable summer roosting sites for the Indiana bat and the northern long-eared bat was conducted using definitions and guidelines established in *2017 Range-wide Indiana Bat Summer Survey Guidelines* (USFWS 2017), *User's Guide for the Range-wide Programmatic Informal Consultation for Indiana Bat and Northern Long-eared Bat (Version 4.0)* (USFWS 2016b), and *Federal Transportation Agency/State Department of Transportation (DOT) Preliminary Bat Assessment Guidelines for Bridges/Structures* (USFWS 2016a). Assessment results can be found within forms located in Appendix C.

The existing structure on Staley Road at Sugar Creek is a concrete slab/culvert, which appears to be near or at grade, and is designed as a low water crossing. Given this design, the structure is completely submerged during high flow events. Although the structure may contain openings underneath the concrete slab to allow for water passage, regular and complete inundation of the structure would preclude it from suitable roosting habitat. It is noted that 0.2 inches of rain was recorded on the day of the site assessment, and the structure was completely submerged at that time. Photographs taken on the afternoon of June 26, 2018 document conditions following the 0.2 inch rainfall (Appendix C). Given the likely regular inundation of the structure, it was not found to provide potential roosting sites.

Threatened/Endangered Species and Natural Communities of Special Interest

No species listed as threatened or endangered federally or in Illinois were found during our wetland survey within the project corridor. Also, no natural communities of special interest were noted.

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Appendix J

APPENDIX A

Wetland Determination Forms

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point 1A/T2P3

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 39.50985 Long: -87.56789 Datum: NAD 83

Soil Map Unit Name: Stonelick FSL, 0-2% slopes, occ. fld. NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is mesic floodplain forest.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	40	Yes	FACU
2. *Acer negundo*	30	Yes	FAC
3. *Celtis occidentalis*	10	No	FAC
4. *Ulmus americana*	5	No	FACW
5.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Lonicera maackii*	60	Yes	UPL
2.			
3.			
4.			
5.			
	60	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Asarum canadense*	40	Yes	FACU
2. *Laportea canadensis*	35	Yes	FACW
3. *Elymus virginicus*	15	No	FACW
4. *Equisetum laevigatum*	5	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1. *Toxicodendron radicans*	2	No	FAC
2. *Parthenocissus quinquefolia*	1	No	FACU
	3	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix J

SOIL

Sampling Point: 1A/T2P3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					SIL	
8-12	10YR 4/3	100					LFS	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point 1B/T1P4

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None

Slope (%): 0-3 Lat: 39.51019 Long: -87.56718 Datum: NAD 83

Soil Map Unit Name: NRCS mapped Shoals SIL, 0-2% slopes, frq. fld.; revised to Stonelick FSL NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is mesic floodplain forest.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Celtis occidentalis*	20	Yes	FAC
2. *Acer negundo*	15	Yes	FAC
3. *Juglans nigra*	10	No	FACU
4. *Platanus occidentalis*	10	No	FACW
5. *Prunus serotina*	5	No	FACU
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Lonicera maackii*	30	Yes	UPL
2. *Asimina triloba*	5	No	FAC
3.			
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Laportea canadensis*	55	Yes	FACW
2. *Elymus virginicus*	35	Yes	FACW
3. *Asarum canadense*	3	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	93	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☑ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix J

SOIL

Sampling Point: 1B/T1P4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					SIL	
8-12	10YR 4/3	100					LFS	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T1P1

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): 20 Lat: 39.51021 Long: -87.56908 Datum: NAD 83

Soil Map Unit Name: Senachwine SIL, 5-10% slopes, eroded NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Bromus tectorum*	45	Yes	UPL
2. *Campsis radicans*	15	No	FACU
3. *Setaria glauca*	7	No	FAC
4. *Plantago lanceolata*	5	No	FACU
5. *Poa pratensis*	5	No	FAC
6. *Erigeron annuus*	3	No	FACU
7. *Ampelamus albidus*	2	No	FAC
8. *Calystegia sepium*	2	No	FAC
9. *Plantago rugelii*	2	No	FAC
10. *Oxalis stricta*	1	No	FACU
	87	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix J

SOIL

Sampling Point: T1P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					SIL	Restricted by gravel

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches):

Water Table Present? No Depth (inches):

Saturation Present? (includes capillary fringe) No Depth (inches):

Wetland Hydrology Present? No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T1P2

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 39.51024 Long: -87.56807 Datum: NAD 83

Soil Map Unit Name: Stonelick FSL, 0-2% slopes, occ. fld. NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is mesic floodplain forest.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	30	Yes	FACU
2. *Acer negundo*	20	Yes	FAC
3. *Platanus occidentalis*	20	Yes	FACW
4. *Celtis occidentalis*	10	No	FAC
5. *Ulmus americana*	3	No	FACW
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Lonicera maackii*	40	Yes	UPL
2. *Acer negundo*	15	Yes	FAC
3. *Liriodendron tulipifera*	3	No	FACU
4.			
5.			
	58	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Elymus virginicus*	40	Yes	FACW
2. *Ageratina altissima*	10	No	FACU
3. *Verbesina alternifolia*	10	No	FACW
4. *Glechoma hederacea*	7	No	FACU
5. *Geum canadense*	5	No	FAC
6. *Calystegia sepium*	2	No	FAC
7.			
8.			
9.			
10.			
	74	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1. *Vitis riparia*	7	Yes	FACW
2. *Parthenocissus quinquefolia*	3	No	FACU
	13	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☑ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

Additional species are present in one or more strata, therefore the total cover may be greater than the sum of the individual cover values listed on this form.

Appendix J

SOIL

Sampling Point: T1P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					SIL	
8-12	10YR 4/4	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches):

Water Table Present? No Depth (inches):

Saturation Present? (includes capillary fringe) No Depth (inches):

Wetland Hydrology Present? No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T1P3

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 39.51017 Long: -87.56766 Datum: NAD 83

Soil Map Unit Name: Stonelick FSL, 0-2% slopes, occ. fld. NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Festuca arundinacea*	70	Yes	FACU
2. *Poa pratensis*	10	No	FAC
3. *Glechoma hederacea*	7	No	FACU
4. *Lysimachia nummularia*	5	No	FACW
5. *Viola pratincola*	5	No	FACW
6. *Calystegia sepium*	2	No	FAC
7. *Persicaria vulgaris*	1	No	FACW
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix J

SOIL

Sampling Point: T1P3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T1P5

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex

Slope (%): 6 Lat: 39.51026 Long: -87.56553 Datum: NAD 83

Soil Map Unit Name: Camden SIL, 2-5% slopes NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is cropland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Medicago sativa*	50	Yes	FACU
2. *Setaria glauca*	30	Yes	FAC
3. *Plantago lanceolata*	5	No	FACU
4. *Taraxacum officinale*	5	No	FACU
5. *Trifolium repens*	3	No	FACU
6. *Conyza canadensis*	1	No	FACU
7.			
8.			
9.			
10.			
	94	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix J

SOIL

Sampling Point: T1P5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100					SIL	
5-12	10YR 4/4	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches):

Water Table Present? No Depth (inches):

Saturation Present? (includes capillary fringe) No Depth (inches):

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T1P6

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): 4 Lat: 39.51063 Long: -87.56391 Datum: NAD 83

Soil Map Unit Name: St. Charles SIL, 2-5% slopes NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Setaria glauca*	40	Yes	FAC
2. *Poa pratensis*	15	Yes	FAC
3. *Festuca arundinacea*	10	No	FACU
4. *Trifolium pratense*	10	No	FACU
5. *Daucus carota*	5	No	UPL
6. *Trifolium repens*	5	No	FACU
7. *Plantago rugelii*	3	No	FAC
8. *Taraxacum officinale*	3	No	FACU
9. *Aster pilosus*	1	No	FACU
10. *Rudbeckia hirta*	1	No	FACU
	94	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☑ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

Additional species are present in one or more strata, therefore the total cover may be greater than the sum of the individual cover values listed on this form.

Appendix J

SOIL

Sampling Point: T1P6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					SIL	
6-12	10YR 4/4	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T2P1

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): 3 Lat: 39.51005 Long: -87.56910 Datum: NAD 83

Soil Map Unit Name: NRCS mapped Shoals SIL, 0-2% slopes, frq. fld.; revised to Orthents NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Festuca arundinacea*	55	Yes	FACU
2. *Calystegia sepium*	20	Yes	FAC
3. *Glechoma hederacea*	7	No	FACU
4. *Poa pratensis*	7	No	FAC
5. *Bromus tectorum*	5	No	UPL
6. *Cirsium discolor*	2	No	FACU
7. *Solanum carolinense*	1	No	FACU
8.			
9.			
10.			
	97	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix J

SOIL

Sampling Point: T2P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					SIL	
6-12	10YR 4/3	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches):

Water Table Present? No Depth (inches):

Saturation Present? (includes capillary fringe) No Depth (inches):

Wetland Hydrology Present? No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T2P2

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): 0-2 Lat: 39.51003 Long: -87.56893 Datum: NAD 83

Soil Map Unit Name: NRCS mapped Shoals SIL, 0-2% slopes, frq. fld.; revised to Orthents NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is cropland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Glycine max*	75	Yes	UPL
2. *Dactylis glomerata*	10	No	FACU
3. *Equisetum arvense*	7	No	FAC
4. *Cirsium discolor*	3	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Native vegetation appeared to have been affected by herbicide, based on color and curling. Soybeans (Glycine max) appeared healthy and were not stunted.

Appendix J

SOIL

Sampling Point: T2P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/3	100					SIL	
10-12	10YR 4/3	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Staley Road (TR 345) over Sugar Creek City/County: Edgar Sampling Date: 6/26/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point T2P4

Investigator(s): Carr, Nieset, Kenney Section, Township, Range: Sec. 6, T12N, R10W

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): 2 Lat: 39.51035 Long: -87.56435 Datum: NAD 83

Soil Map Unit Name: Camden SIL, 2-5% slopes NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Festuca arundinacea*	60	Yes	FACU
2. *Plantago rugelii*	10	No	FAC
3. *Poa pratensis*	10	No	FAC
4. *Plantago lanceolata*	7	No	FACU
5. *Trifolium repens*	3	No	FACU
6. *Medicago sativa*	2	No	FACU
7. *Taraxacum officinale*	2	No	FACU
8. *Oxalis stricta*	1	No	FACU
9.			
10.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix J

SOIL

Sampling Point: T2P4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/3	100					SIL	
4-12	10YR 4/4	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix J

APPENDIX B

Figures

Figure 1 – Project Location Map
Figure 2 – National Wetlands Inventory Map
Figure 3 – Wetland Determination Map

Appendix J

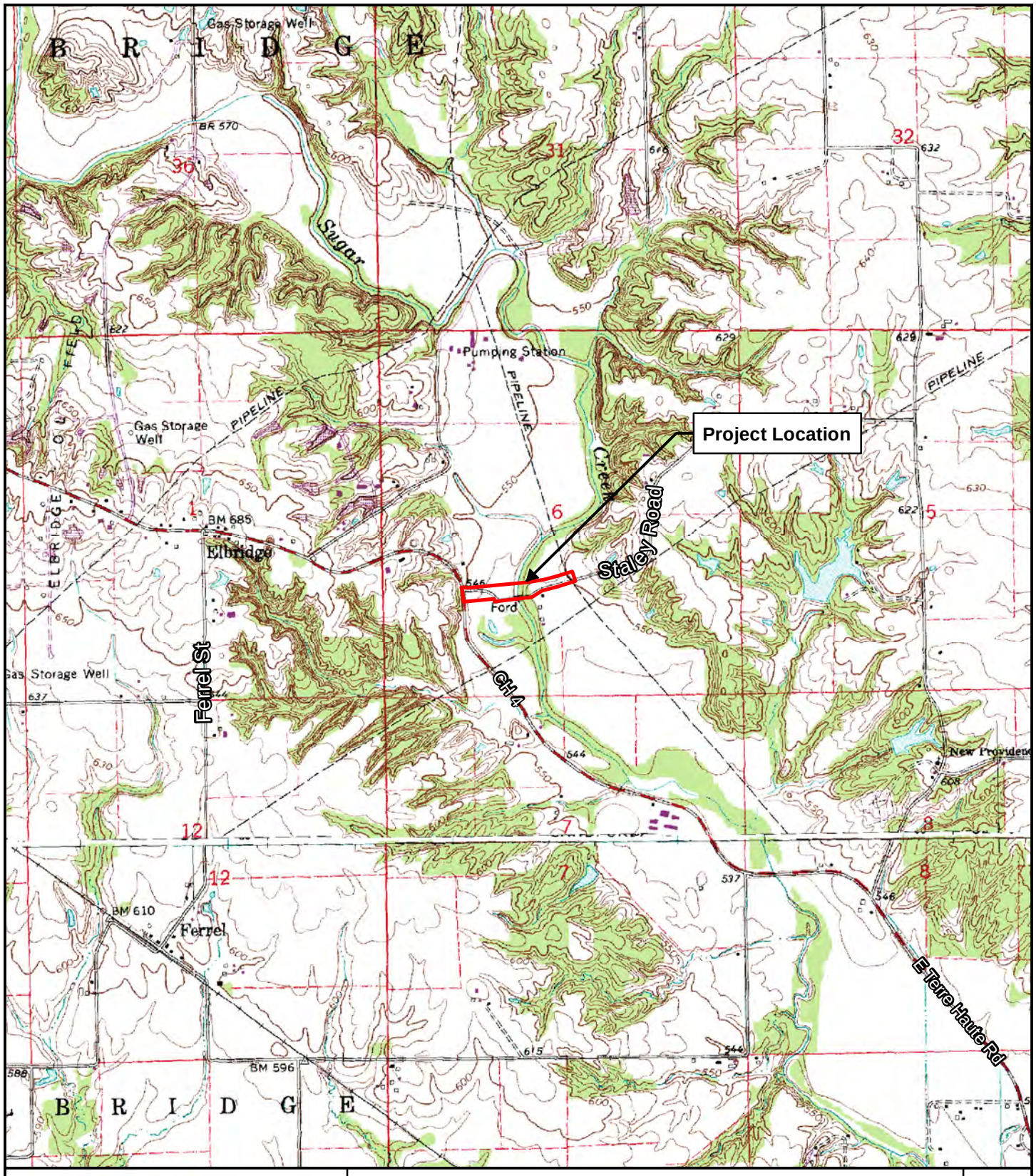

Figure 1
Project Location Map
Staley Road (TR 345) over Sugar Creek
Edgar County

Seq. No: 21116

ILLINOIS
Illinois Natural History Survey
PRAIRIE RESEARCH INSTITUTE

INHS/IDOT Wetland Science Program
1816 South Oak Street
Champaign, Illinois 61820

Meters 0 500 Feet 0 2,000

July 2018

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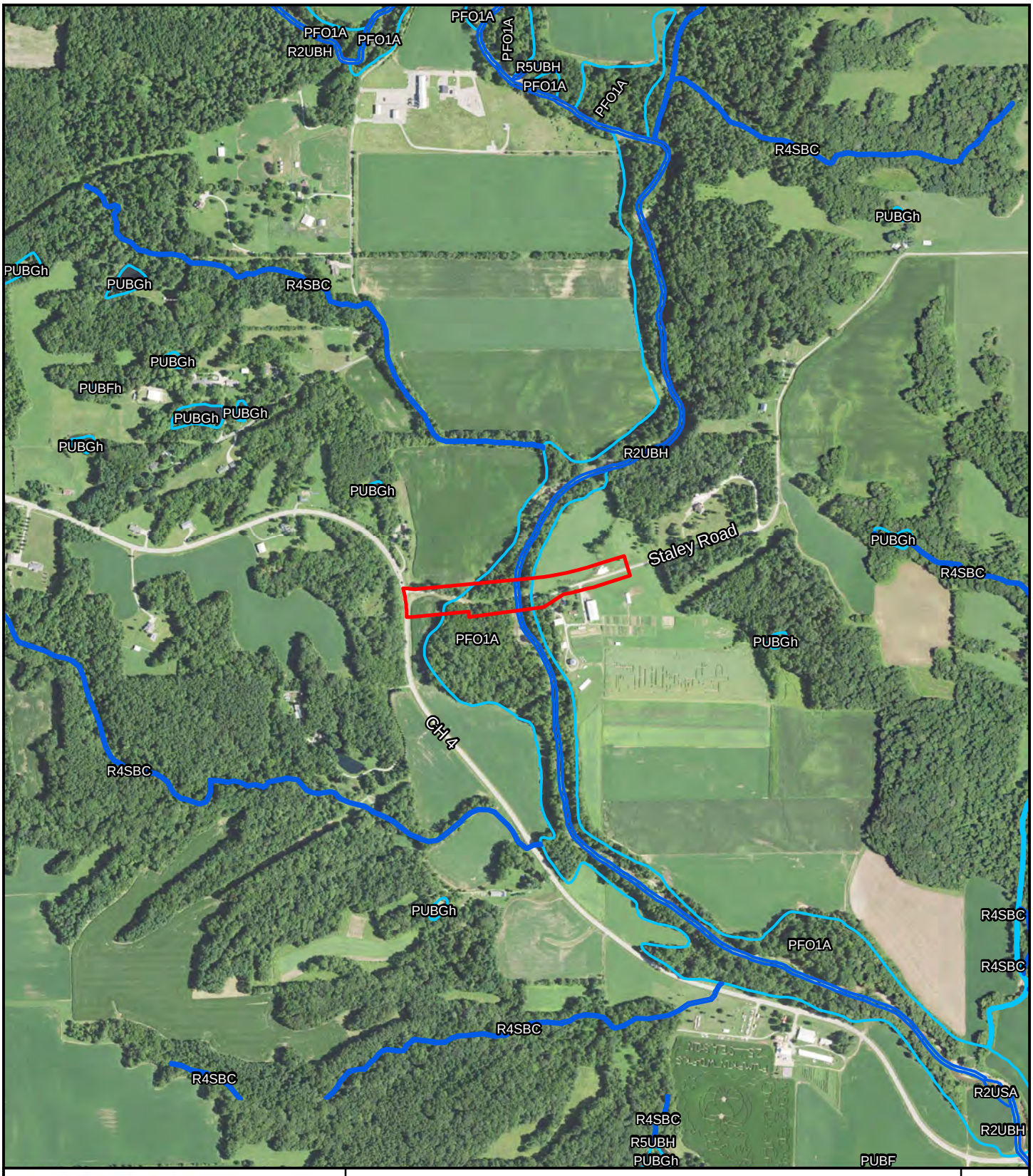


ILLINOIS
Illinois Natural History Survey
PRAIRIE RESEARCH INSTITUTE

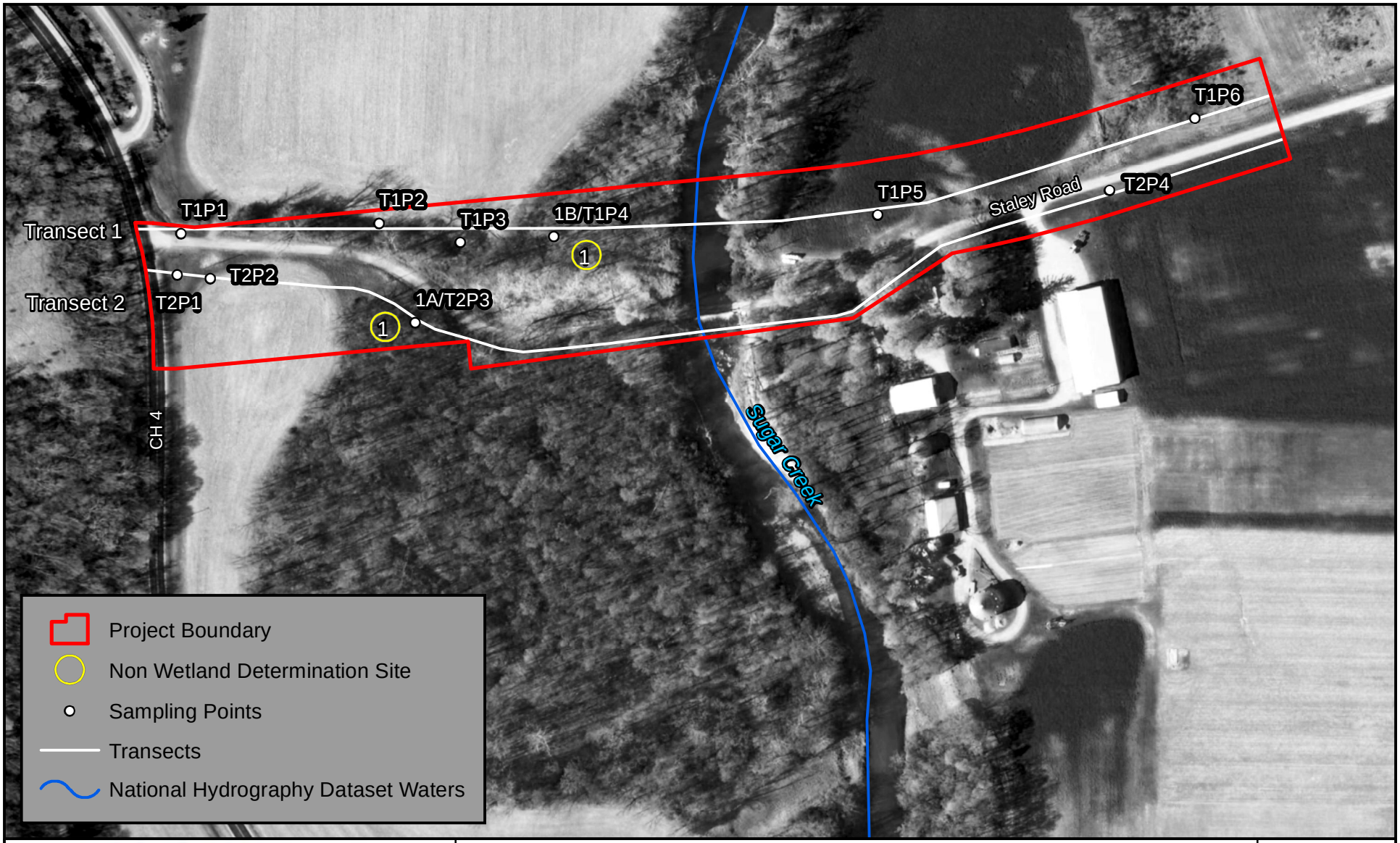
INHS/IDOT Wetland Science Program
1816 South Oak Street
Champaign, Illinois 61820

Figure 2
National Wetlands Inventory Map
Staley Road (TR 345) over Sugar Creek
Edgar County

Seq. No: 21116

0 Meters 300 0 Feet 1,000

July 2018



ILLINOIS
Illinois Natural History Survey
PRAIRIE RESEARCH INSTITUTE

INHS/IDOT Wetland Science Program
1816 South Oak Street
Champaign, Illinois 61820

Figure 3
Wetland Determination Map
Staley Road (TR 345) over Sugar Creek
Edgar County

Seq. No: 21116

Meters: 0 — 60
Feet: 0 — 200

July 2018

N
W E
S

Appendix J

APPENDIX C

Bat Bridge Assessment Form

Appendix J

Appendix J

Bridge/Structure Assessment Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside; from activities above that bore down to the underside; from activities that could impact expansion joints; from deck removal on bridges; or from structure demolition for bridges/structures within 1000 feet of suitable bat habitat.

DOT Project #	**Water Body**	**Date/Time of Inspection**	**Within 1,000 ft of suitable bat habitat?**
21116	Sugar Creek	06/26/2018 1:00PM	Yes

Route:	**County:**	**Federal Structure ID:**
TR 345	Edgar	N/A

If the bridge/structure is 1,000 feet or more from suitable bat habitat (e.g., an urban or agricultural area without suitable foraging habitat or corridors linking the bridge to suitable foraging habitat), check box and STOP HERE. No assessment required.
Please submit to the U.S. Fish and Wildlife Service.

Areas Inspected (Check all that apply)

Bridges		**Culverts/Other Structures**		**Summary Info**	
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep	N/A	**Crevices, rough surfaces or imperfections in concrete**	See Notes	**Human disturbance or traffic under bridge/in culvert or at the structure**	See Notes
All crevices >12" deep & not sealed	N/A	**Spaces between walls, ceiling joists**	See Notes	**Possible corridors for netting**	Excellent
All guardrails	N/A				
All expansion joints	N/A				
Spaces between concrete end walls and the bridge deck	N/A				
Vertical surfaces on concrete I-beams	N/A				

Appendix J

Evidence of Bats (Underline all that apply) Presence of one or more indicators is sufficient evidence that bats may be using the structure.

None

Visual (e.g., survey, thermal, emergent etc.)

Live 0 seen

Dead 0 seen

Photo documentation No

Audible

Guano

Odor No

Photo documentation No

Staining definitively from bats

Photo documentation No

Additional Notes: The concrete overflow culvert (low water crossing) was completely submerged at the time of assessment.

Assessment Conducted By: Carr, Laura **Signature(s):** Laura Carr

District Environmental Use Only: Date Received by District Environmental Manager: _____

DOT Bat Assessment Form Instructions

1. Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges, regardless of whether assessments have been conducted in the past.
2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has coordinated with the USFWS. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Any questions should be directed to the District Environmental Manager.

Last Revised June 2017

Appendix J

Bat Bridge Assessment Photographs

On Staley Road facing east; existing low water crossing (overflow culvert) under water.

Facing northeast; downstream face of existing low water crossing (overflow culvert).

Appendix K

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE KY 40201-0059
FAX: (502) 315-6677

November 3, 2017

Regulatory Division
North Branch
ID No. LRL-2017-1059

Aaron Lawson, County Engineer
Edgar County Highway Department
12673 950th Road
Paris, Illinois 61944

Dear Mr. Lawson:

This is in regard to your application received October 12, 2017, requesting authorization to replace a bridge. Impacts below the Ordinary High Water Mark (OHWM) of Sugar Creek include 400 cubic yards of rip-rap and concrete along 180 linear feet of stream bank over an area of 0.2 acre. The project is identified as the TR 345 Stanley Road over Sugar Creek (Sec. 12-04126-00-BR) Bridge Replacement Project. The project is located just east of the intersection of East Terre Haute Road and Staley Road, Elbridge, Edgar County, Illinois (Latitude: 39.50991°; Longitude: -87.56639°). The information supplied by you was reviewed to determine whether a Department of the Army (DA) permit will be required under the provisions of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.

You project is considered a discharge of backfill or bedding material for a road crossing. The project is authorized under the provisions of 33 CFR 330 A. Nationwide Permit (NWP) No. 14, Linear Transportation Projects, as published in the Federal Register January 6, 2017. Under the provisions of this authorization you must comply with the enclosed Terms and General Conditions for Nationwide Permit No. 14, the State 401 Water Quality Certification from the State of Illinois Environmental Protection Agency (ILEPA) dated February 27, 2017.

This verification is valid until March 18, 2022. The enclosed Compliance Certification must be submitted to the District Engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later. Note that we also perform periodic inspections to ensure compliance with our permit conditions and applicable Federal laws. A copy of this letter is being sent to your agent and to the ILEPA (see enclosure for addresses).

Appendix K

If you have any questions, please contact this office by writing to the above address, ATTN: CELRL-RDN, or by calling me at (502) 315-6710. All correspondence pertaining to this matter should refer to our ID No. LRL-2017-1059-jlt.

Sincerely,

Original Signed

Jim Thomas
Project Manager, North Branch
Regulatory Division