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MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

Water Protection Program

**FORM W - CONCENTRATED ANIMAL FEEDING OPERATION
(CAFO) OPERATING PERMIT APPLICATION**

FOR OFFICE USE ONLY	
JETPAY CONFIRMATION / CHECK NUMBER: 2133	
DATE RECEIVED: 4-20-20	FEE SUBMITTED: \$150.00

Complete all applicable sections. Instructions for completing the form are located at the end of the form. Sign, date and return the form and all requested documents along with a check for the appropriate permit fee to the Missouri Department of Natural Resources. Make a copy of this completed form and keep it with your nutrient management plan.

PART 1 – PERMIT OWNERSHIP AND CONTACT INFORMATION

1.1 OPERATION NAME Tompkins Family Farms, LLC	CURRENT PERMIT NUMBER MO-	COUNTY Benton
PHYSICAL ADDRESS 15248 Hwy P	LEGAL DESCRIPTION Sec.: 8 Twn.: 59N Rng.: 24	TELEPHONE NUMBER WITH AREA CODE (636)375-8855
CITY Ionia	STATE MO	ZIP CODE 65335
1.2 OWNER (PROVIDE LEGAL NAME) Tompkins Family Farms, LLC	EMAIL ADDRESS Gary Tompkins <gtompkins@enterprisebank.com>	
MAILING ADDRESS P.O. Box 557	TELEPHONE NUMBER WITH AREA CODE (636)375-8855	
CITY Eldon	STATE MO	ZIP CODE 65026
1.3 CONTINUING AUTHORITY (IF DIFFERENT THAN THE OWNER)		
MAILING ADDRESS		TELEPHONE NUMBER WITH AREA CODE
CITY	STATE	ZIP CODE

PART 2 – PERMIT TYPE AND PERMIT ACTION

<p>2.1 PERMIT TYPE</p> <p><input type="checkbox"/> NPDES Site Specific Permit Request review of draft permit prior to public notice. <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> NPDES General Permit (MOG01)</p> <p><input checked="" type="checkbox"/> State No-Discharge General Permit (MOGS1)</p>	<p>2.2 PERMIT ACTION*</p> <p><input checked="" type="checkbox"/> New Permit Permit fees may be payed online by credit card or eCheck through a system called JetPay. Use the URL provided to make an online payment. NPDES Site Specific Permit - https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/591/ NPDES General Permit (MOG01) - https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/599/ State No-Discharge General Permit (MOGS1) - https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/742/</p> <p><input type="checkbox"/> Renewal</p> <p><input type="checkbox"/> Modification Permit fees may be payed online by credit card or eCheck through a system called JetPay. Use the URL provided to access JetPay and make an online payment. Modification fee: https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/596/</p> <p><input type="checkbox"/> Ownership Transfer</p> <p>_____ PREVIOUS OWNERS NAME</p> <p>_____ ADDRESS</p> <p>_____ CITY STATE ZIP CODE</p> <p>_____ SIGNATURE</p> <p>_____ DATE</p> <p>*See instructions for additional requirements and documents for the request permit action.</p> <p>Permit fees may be payed online by credit card or eCheck through a system called JetPay. Use the URL provided to access JetPay and make an online payment. Modification fee: https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/596/</p>
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PART 3 – DESIGN CAPACITY FOR MANURE STORAGE AND ANIMALS OF EACH CAFO FEATURE

3.1 STORAGE STRUCTURE TYPES, AMOUNT OF STORAGE, AND AMOUNT OF MANURE GENERATED PER YEAR.

Permitted Feature	Storage Structure Type(s)	Dry Manure Handling System		Wet Manure Handling System			
		Design Dry Process Waste (tons/yr.)	Days of Storage	Total Storage Capacity (gal)	Design Wastewater per Year (gal./yr.)	Days of Storage	Design Flow MGD
001	C			11,257,065	8,278,166	496	.023
002	G	96	410				
003							
004							
005							

3.2 LIST EACH TYPE OF ANIMAL IN CONFINEMENT AND THE NUMBER OF EACH ANIMAL TYPE.

Permitted Feature	Animal Category #1	Animal Numbers	Animal Category #2	Animal Numbers	Animal Category #3	Animal Numbers
001	5	8107	4	2360		
002						
003						
004						
005						

PART 4 – OPERATIONAL INFORMATION

4.1 OPERATIONAL INFORMATION (SEE INSTRUCTIONS)

SIC Code(s) 0213

CAFO Class Size ^{1B}

4.2 Is this an export-only operation?

Yes No

Completing PARTS 5 - 11 will meet the requirements of a Nutrient Management Plan (NMP) for an export only operation.

PART 5 – MANURE STORAGE

5.1 Do all manure storage structures have adequate storage, and operated and maintained as no discharge? Yes No

PART 6 – ANIMAL MORTALITY

6.1 PERMANENT METHOD OF DISPOSING OF ROUTINE ANIMAL MORTALITIES.

Composting Rendering Send to a Landfill Incineration Other (Describe)

6.2 DESCRIBE METHOD OF MORTALITY HANDLING AND STORAGE THROUGH ALL PHASES TO FINAL DISPOSAL. (EXAMPLE: MORTALITIES ARE COMPOSTED WITHIN 24 HOURS OF DEATH AND FINISHED COMPOST PRODUCT IS STORED UNDER ROOF UNTIL LAND APPLIED). ALSO DESCRIBE THE TYPE OF COMPOST STRUCTURE USED, IF APPLICABLE.

Mortalities are composted within 24 hours of death and finished compost is stored under roof until land applied.

PART 7 – DIVERSION OF CLEAN WATER

7.1 Is clean stormwater diverted from the production area? Yes No

7.2 IF YES, DESCRIBE CONTROLS AND MEASURES USED TO DIVERT STORMWATER.

Production areas are all under roof inside of barns. Storm water is diverted away from barns.

7.3 IF NO, DESCRIBE HOW CONTAMINATED STORMWATER IS CONTAINED AND INCLUDE THE STORAGE CAPACITY OF THE CONTAINMENT IF NOT PREVIOUSLY PROVIDED.

PART 8 – PREVENT DIRECT CONTACT OF ANIMALS WITH SURFACE WATERS

8.1 Do the animals have access to waters of the state within the production area? Yes No

8.2 LIST MEASURES USED TO PREVENT CONFINED ANIMAL FORM HAVING DIRECT CONTACT WITH WATERS OF THE STATE.

Animal are housed inside of barns.

PART 9 – CHEMICAL HANDLING

9.1 Are chemicals and other contaminants handled, managed, stored, and disposed of in accordance with 10 CSR 20-6.300(5)(E)?

Yes No

PART 10 – MANURE ANALYSIS TESTING

10.1 LIST EACH TYPE OF MANURE SOURCE TO BE TESTED ANNUALLY (i.e., MANURE, LITTER, COMPOST, WASTE WATER).

Deep-pit manure and mortality compost.

10.2 DESCRIBE PROCEDURES FOR ENSURING EACH MANURE SOURCE IS TESTED ANNUALLY.

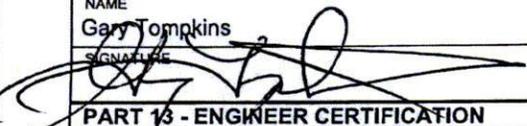
A manure and composite sample is collected annually and taken to a laboratory for testing.

PART 11 – RECORD KEEPING

11.1 Are records of all inspections, manure transfers, discharges and land application maintained? Yes No

PART 12 - CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME Gary Tompkins	TITLE Member
SIGNATURE 	DATE 4/23/20

PART 13 - ENGINEER CERTIFICATION

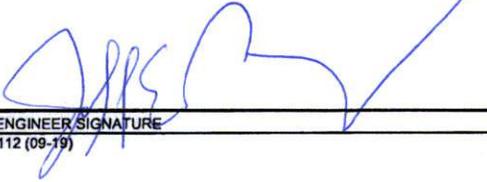
As of Aug. 28, 2013, construction permits are only required for the construction of an earthen storage structure to hold, convey, contain, store, or treat domestic, agricultural, or industrial process wastewater. Construction of all other point source systems designed to hold, convey, contain, store, or treat domestic, agricultural, or industrial process waste must be designed by a professional engineer registered in Missouri in accordance with design regulations.

Operation Name Tompkins family Farms, LLC
Address P.O. Box 557
City Eldon, MO 65026

Engineer Firm Allied Engineering Services, LLC
Address P.O. Box 22
City State Zip Code Silex, MO 63377

ENGINEER SEAL

I, Project Engineer, certify that above described systems have been designed in accordance with Missouri CAFO design regulations in 10 CSR 20-8.300





PROJECT ENGINEER SIGNATURE
MO 780-2112 (09-19)

PIT BARN CALCULATION SHEET

Tompkins Family Farms, LLC
 Gestation Barn w/Farrowing & GDU

Calculation of Available Volume in 12' Deep Pit Barn:

Effective Inside width of pit = 168'2"

Inside length of pit = 866'4"

Useable Depth = 10'4"

Volume at 10'4" deep = 168'2" X 866'4" X 10'4" = 1,504,955 cu ft = 11,257,065 gallons

Calculation of waste volume stored in 12' Deep Pit Gestation Barn:

From MWPS 18, Table 7

	Number	lbs/yr/hd	gal/yr/hd	gal/yr
Nursery	2360	1000	119.9	282,897
Grower	784	2500	299.7	234,949
Farrowing	1008	11500	1,378.5	1,389,554
Gestation	6315	9100	1,090.8	6,888,613
				8,278,166

	N	NH3N	P2O5	K2O
Nursery	25	14	19	22
Grower	58	39	44	40
Farrowing	15	8	12	11
Gestation	25	12	25	24
Wt'd Avg	26	14	25	24

Days Storage = 496

TOMPKINS FAMILY FARMS, LLC NARRATIVE SUMMARY OF DESIGN

This facility is located in the SW $\frac{1}{4}$ of Section 25, Township 43N, Range 23W, in Benton County Missouri.

This farm will be a three-building sow farm producing weaned pigs. The farm will include the construction of a new 183'1" wide x 440'0" long farrowing barn, a 169'10" wide x 868'0" long breeding/gestation barn and a 126'3" wide x 180'0" long gilt development (GDU) barn. Proposed animal numbers are 1008 sows & litters, 6,315 breeding/gestating sows & boars, 784 gilts and 2,360 nursery pigs. An office will be constructed on the north side of the farrowing barn.

All barns are slatted type buildings where hog manure generated from production falls beneath the floor into concrete pits. The farrowing barn and GDU barn will have two-foot pits which are periodically drained to the adjacent breeding/gestation barn via permanent sewer pipes underground. The breeding/gestation barn will have a twelve foot deep-pit which stores the manure laden wastewater until it can be pumped to nearby farm fields.

The proposed farm will be designed and constructed to meet the current standards of the Missouri Department of Natural Resources. The entire nutrient handling and storage structures operate as a no discharge system. Dead animals will composted on-farm in a 50' x 80' compost barn with a concrete floor and roof. The compost barn will be located south of the breeding/gestation barn.

The plugs in the farrowing and GDU barns are pulled approximately once per week. The building pits are not recharged which is typical in farms operated in this manner. The total calculated manure and process water expected to be collected and stored in the gestation barn pit from all barns based on MWPS 18 table 7 is 8,278,166 gallons.

Land Application

All manure and mortality compost will be land applied on nearby farm fields. Drag hoses with an injection system, an irrigation pump and/or tank wagon will be utilized to apply wastewater to the land application fields.

Dead Animals

Dead animals will be disposed of in accordance with the Missouri Department of Agriculture regulations. Mortalities from this operation will be composted on-farm in a building with a concrete floor. The compost building will be located south of the production barns.

Clean Water Diversion

This farm is graded to divert storm water away from buildings, animal confinement areas and manure storage areas.

A potential source of unplanned waste from animal confinement facilities is from storm water coming into contact with pollutants. The pollutants that could potentially contaminate the water are the hogs, manure, mortalities, feed, diesel fuel, and oils and lubricants for farm equipment. All of these potential pollutants are kept under roof at this farm. They do not come into contact with clean rainwater or add to the contaminated waste on the farm.

A common way for clean water to become contaminated is by contacting ventilated dust on the ground around the barn. To treat rainwater that becomes contaminated by this dust, the barn will be

surrounded by grass. The grass acts as a filter and helps prevent erosion around the barns reducing suspended solids in the runoff.

Other operations at this farm that could potentially contribute to exposed pollutants are the loading and unloading of pigs, feed, manure, and mortalities. When these sources are handled messes can occur. Care should be taken to not create a mess around the door of the barns, the manure pumping ports, or at the base of the feed bins. If messes occur during these operations they will be cleaned up immediately.

Prevention of Direct Contact of Confined Animals to Waters of the State

All confined animals are housed under roof in buildings with no outside access. They have no direct access to waters of the state.

Chemical Handling

All chemicals are handled, managed, stored and disposed of in accordance with 10CSR 20-6.300(5)(E).

Soils / Design

During planning and design test pits were dug across the proposed gestation barn pit location to determine soil type, suitability and potential groundwater depth. The locations of these pits were dug specifically relative to the gestation barn at depths to 2' below the proposed floor. The soils were found to be silty clay loam, fat clay and sandy clay over sandstone. No groundwater was encountered during excavations.

The proposed barn foundations and manure pits for this farm have been designed for the soils found in the test pits performed across the building site per (10 CSR 20-8.300(6)(A)).

These barns will set at an elevation > than 2' above groundwater per (10 CSR 20-8.300(6)(A)).

The manure storage pit has been designed with a perimeter tile that will be drained to "daylight" and backfilled with granular material per (10 CSR 20-8.300(6)(D)).

These barns and manure storage structures have been designed according to MWPS 36, 2nd Edition "Rectangular Concrete Manure Storages", per (10 CSR 20-8.300(6)(F)).

All manure pits have been designed to be watertight per (10 CSR 20-8.300(6)(G)).

Swine Mortality Composter Land Application Area Worksheet

Operation Name **Tompkins family Farms, LLC**
 County **Benton**

Application ID Number

1. Operation and Animal Data:

Operation Type	Animal	Number	Avg. Wt	% Mortality	No. Turns/yr.
Farrow only <input checked="" type="checkbox"/>	Breeding Stock	<input type="text" value="7323"/>	<input type="text" value="400"/>	<input type="text" value="6.0"/>	<input type="text" value="1.0"/>
Farrow - Nursery <input type="checkbox"/>	Nursery Pigs	<input type="text" value="2360"/>	<input type="text" value="30"/>	<input type="text" value="1.4"/>	<input type="text" value="7.9"/>
Farrow to Finish <input type="checkbox"/>					
Nursery Only <input type="checkbox"/>	Finishing Hogs	<input type="text" value="784"/>	<input type="text" value="170"/>	<input type="text" value="3.2"/>	<input type="text" value="2.0"/>
Finish only <input type="checkbox"/>					
% Recycled Compost Material =					<input type="text" value="50"/> %

Use actual values for numbers, mortality weights, mortality percentages and No. of Turns if known. Table 1 gives typical values.
 Breeding stock always present with constant number. Use Number of turns per year = 1
 Average weight is in pounds % Mortality is a whole number
 Experience has shown up to 50 % of the fresh sawdust requirements may be replaced by finished compost material.

Table 1. Average weights and percen mortality in swine production

Production Phase	Weight Range lbs.	Avg. Wt. lbs.	% Mortality			Turns/yr.		
			low	avg.	high	low	avg.	high
Swine Herd F+B+G	350 - 400	375	2.7	6.8	10.9	1.0	1.0	1.0
Nursery	13 - 50	32	1.4	3.4	5.4	6.3	7.1	7.9
Finishing	50 - 250	150	1.7	4.2	6.7	2.4	2.7	3.0

a/ Data taken with permission from PigCHAMP (division of Swine Graphics, Weber City, IA) database of performance statistics for swine. Low, average and high represent the 10th, 50th and 90th percentiles of performance respectively.

2. Weight of mortalities composted annually:

$$\text{Annual Kwt Composted} = \{[(\text{Number of animals}) \times (\text{c/ Average weight}) \times (\text{d/ \%Mortality}) \times (\text{a/ No. Turns/yr})] / 100,000\}$$

a. Breeding Stock	Annual Weight Composted =	<input type="text" value="175.75"/> Kwt.
b. Nursery pigs	Annual Weight Composted =	<input type="text" value="7.83"/> Kwt.
c. Finishing Hogs	Annual Weight Composted =	<input type="text" value="8.53"/> Kwt.

Total Annual Weight Composted (2a. + 2b. + 2c.) = = = > Kwt.

3. Annual finished compost weight and volume:

Annual Tons Finished Compost = (Annual Weight Composted) x [1 - (% recycled)] x (1 ton)
 Annual Cubic Feet Finished Compost = [(Tons Finished Compost) x (2000 lb per ton)] / (30 lbs per cu. ft.)
 Annual Cubic Yards Finished Compost = (Cubic Feet Finished Compost) / (27 Cubic Feet per Cubic Yard)

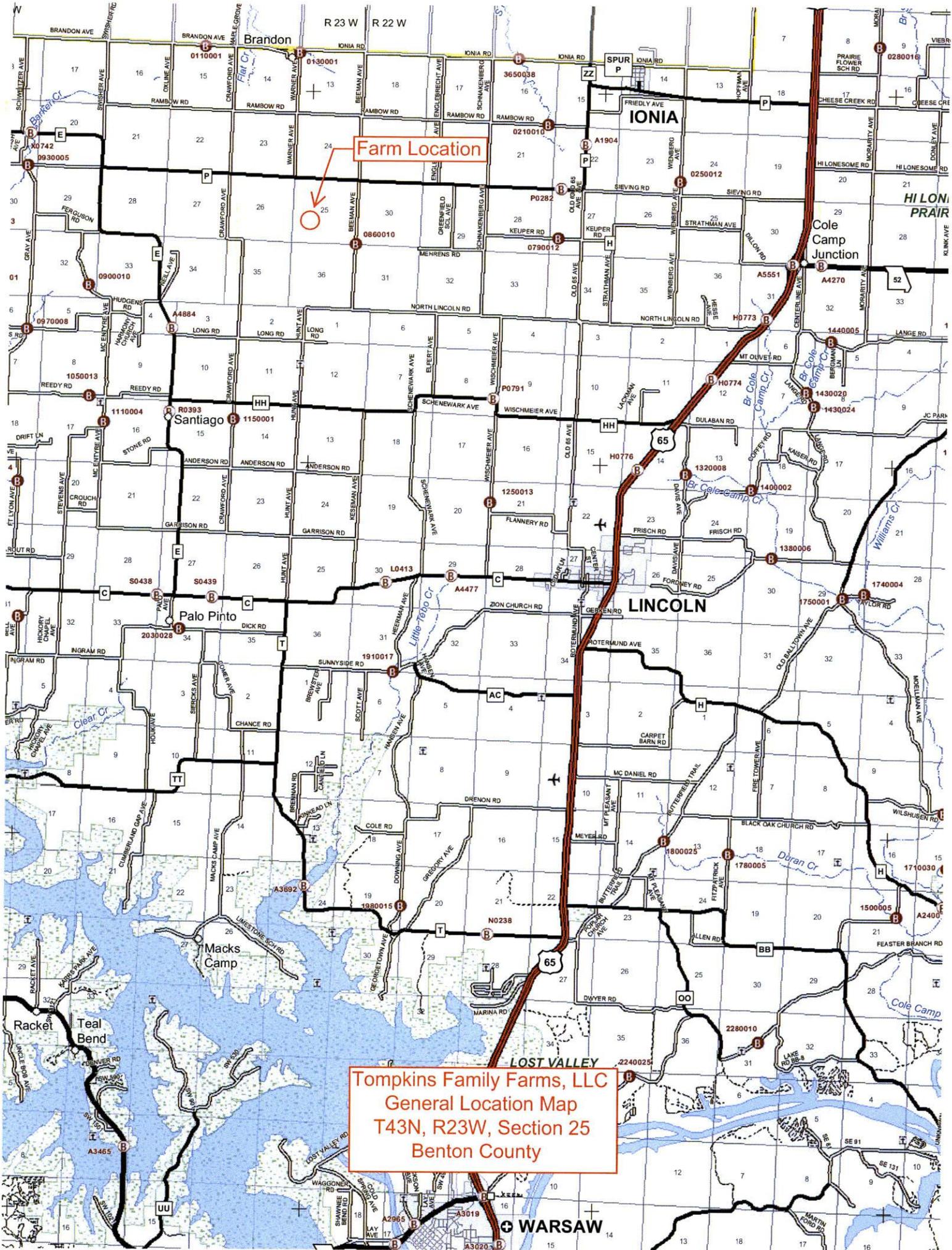
Annual Finished Compost = tons = cu. ft. = cu. yd.

(Data on composting mortalities with sawdust shows 1 ton of finished compost produced for each Kwt of animals composted.)
 (The average bulk density of finished compost material is approximately 30 pounds per cubic foot per available research data)

4. Annual pounds of nitrogen in finished compost:

Total Annual lbs N in Compost = (Total annual compost weight in Kwt) x (18 lb N per Kwt composted)

Total Annual Compost N = Pounds



Farm Location

Tompkins Family Farms, LLC
General Location Map
T43N, R23W, Section 25
Benton County

WARSAW

RECEIVED
APR 30 2020
Water Protection Program

TOMPKINS FAMILY FARMS, LLC

MISSOURI CAFO OPERATING PERMIT APPLICATION
FOR
TOMPKINS FAMILY FARMS, LLC
BENTON COUNTY MISSOURI
(636)375-8855

Prepared By:
ALLIED ENGINEERING SERVICES, LLC
P.O. Box 22
Silex, Missouri 63377
PHONE: 573-324-6860
jeff@alliedengineering.us

April 2020

THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH CURRENT
STATE OF MISSOURI REGULATIONS



ALLIED ENGINEERING SERVICES, LLC

Engineering—Surveying

April 24, 2020

RECEIVED

APR 30 2020

Water Protection Program

Heather Peters
Water Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176

Dear Heather,

Enclosed please find the general operating permit application for Tompkins Family Farms, LLC in Benton County. This farm will be a new sow farm producing weaned pigs. I have enclosed a usb flash drive with a copy of the permit documents.

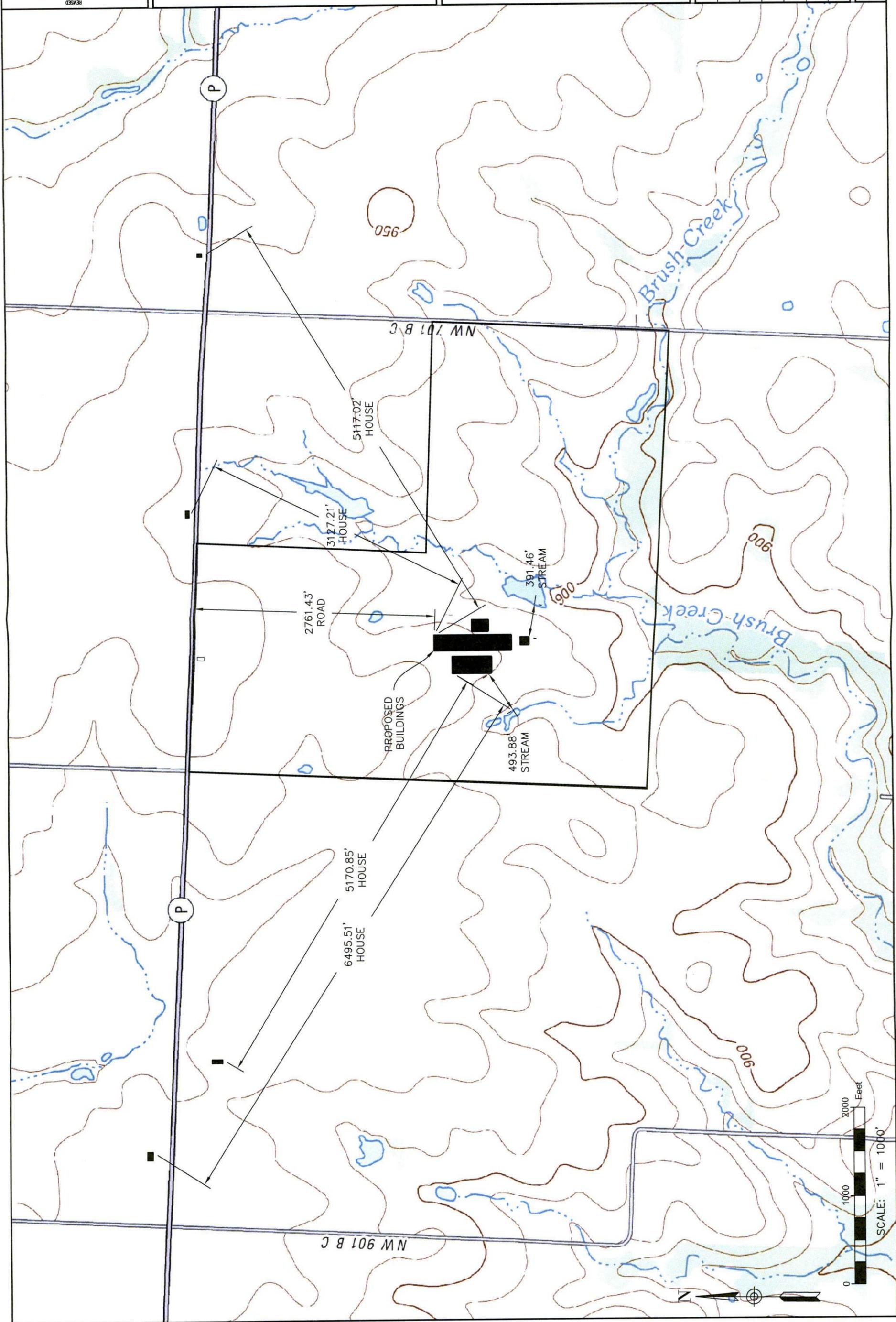
If you have any questions or need any additional information, please feel free to contact me.

Sincerely,



Jeff E. Browning, PE

Enclosures



SHEET NUMBER
1 of 1

DATE
4-2-20

JOB NUMBER
20-3841

PROJECT ENGINEER
JEB

CHECKED BY
TRD

DRAWN BY
TRD

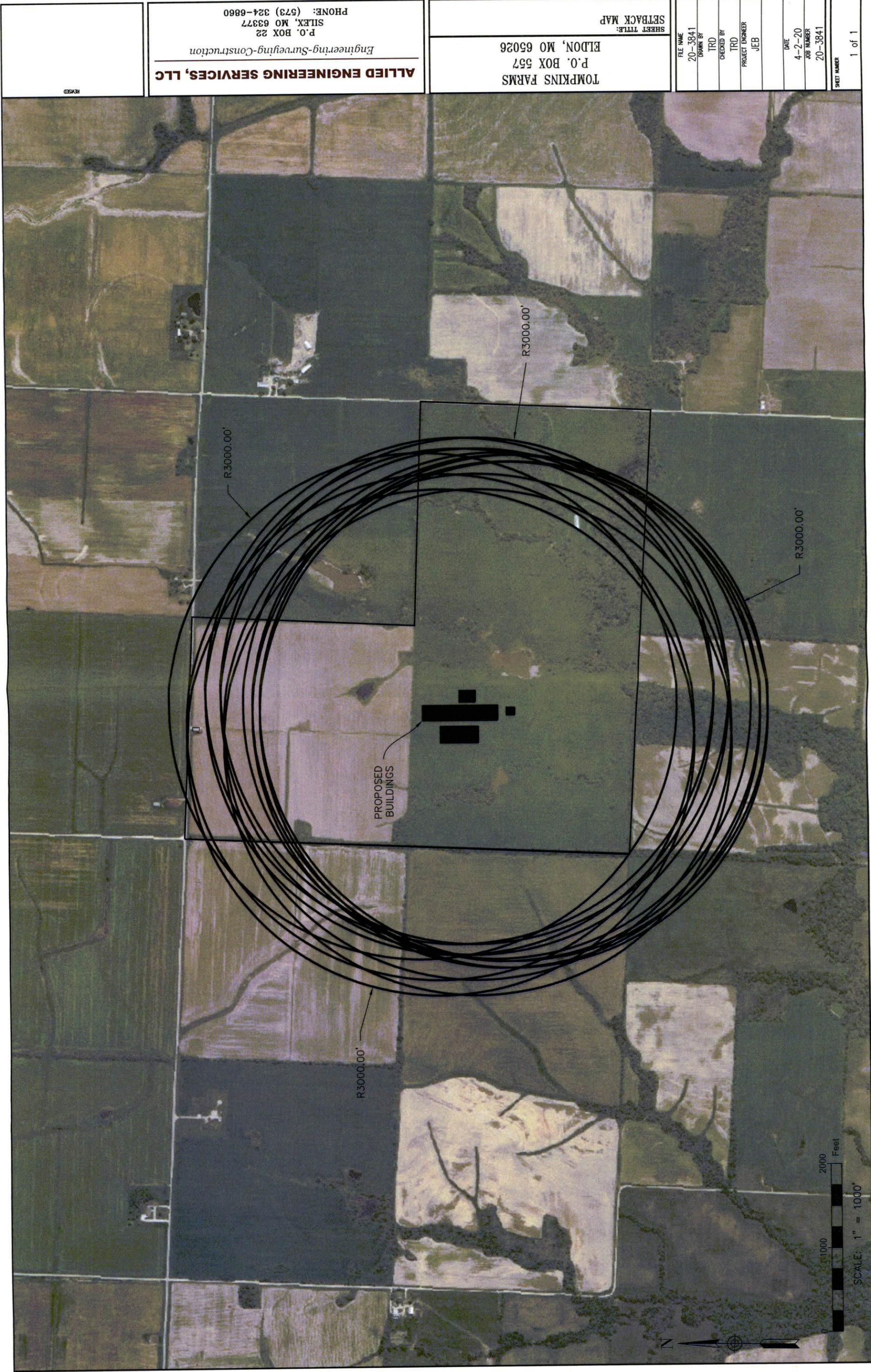
FILE NAME
20-3841

SHEET TITLE:
SETBACK MAP

TOMPKINS FARMS
P.O. BOX 557
ELDON, MO 65026

ALLIED ENGINEERING SERVICES, LLC
Engineering-Surveying-Construction
P.O. BOX 22
SILEX, MO 63377
PHONE: (573) 324-6860

REVISION



SHEET NUMBER
1 of 1

JOB NUMBER
20-3841

DATE
4-2-20

PROJECT ENGINEER
JEB

CHECKED BY
TRD

DRAWN BY
TRD

FILE NAME
20-3841

SHEET TITLE:
FEMA MAP

TOMPKINS FARMS
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REVISIONS