

March 13, 2009

Mr. Leu Lowrey
Pottawatomie County Public Works Department
612 E. Campbell
Westmoreland, KS 66549

Dear Mr. Lowrey:

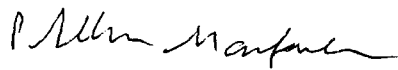
I have reviewed the proposed project to make improvements to the Blue Township Sewer District.

Based on the documents attached to your request, it does not appear that there are any potential geologic hazards worth noting that might impact this project.

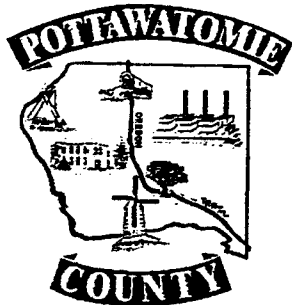
The above discussion represents our best assessment based on the information that the Kansas Geological Survey has about this locality and/or proposed project at the time of this writing. Other geologic conditions, not discussed herein, or for which the Kansas Geological Survey has no knowledge, may affect the viability or safe operation of this facility or property. The information provided in this letter is from regional or countywide studies and should not be used as a substitute for detailed site characterization by a licensed geologist or engineer. It is the responsibility of the applicant to provide any required site characterizations.

If you have questions please do not hesitate to contact me at my office (785 – 864-2068).

Sincerely yours,



P. Allen Macfarlane



Department of Public Works

March 9, 2009

William Harrison
Kanas Geological Survey
University of Kanas
1930 Constant Ave.
Lawrence, KS 66047

Re: Request for Environmental Review and Clearance (Project No. 1786-01)

Dear Mr. Harrison:

Pottawatomie County, on behalf of the Blue Township Sewer District, requests your assistance in reviewing a sewer improvement project located in Southwest Pottawatomie County. The project will eliminate a small 200,000 gpd wastewater treatment facility through the construction of two new pump stations and a force main to the City of Manhattan's Wastewater Treatment Plant.

The project involves the following in Sections 9, 10, & 16 T10S R8E:

1. Construction of a Primary Pump Station located on the West side of Excel Road, 1000 feet South of Highway 24. Pump station includes a mechanical bar screen and 3 submersible pumps with a rated capacity of 1200 gpm per pump.
2. Construction of a Satellite Pump Station located along the South Side of Highway 24, approximately 2200 feet East of the Blue River. This station replaces an existing pump station with less capacity. The new station has two submersible pumps with a rated capacity of 280 gpm.
3. Construction of a 12,500 foot 14 inch force main from primary pump station to the City of Manhattan's Wastewater Treatment Plant.
4. Construction of an 1800 foot 6 inch force main from satellite pump station to 14 inch force main.
5. Construction of 1824 feet of 24 inch gravity sewer pipe, 1690 feet of 18 inch

gravity sewer pipe and 830 feet of 8 inch gravity sewer pipe to connect the improvements to the existing sanitary sewer system.

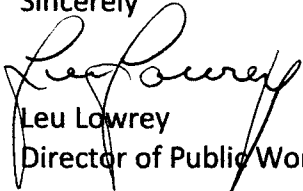
The two new pump stations and gravity sewer lines are located on land being developed for residential and commercial use. The sewer force mains are primarily located adjacent to the high banks of the Kansas and Blue Rivers on land being used for agricultural purposes. Enclosed for your review are the following.

1. Map of Blue Township Sewer District
2. Chapter 1 and Chapter 7 of the Blue Township Wastewater System Study by Bartlett & West Engineers, Inc.
3. Map of Proposed Sanitary Sewer Improvements.
4. Application for SRF Loan.

Pottawatomie County requests your assistance in the review of this project and providing your agency's clearance or comments within thirty days of the date of this letter. Please direct your response or questions to the following.

Leu Lowrey
Pottawatomie County Public Works Department
612 E. Campbell
Westmoreland, Kansas. 66549
Ph. No. 785-457-3631

Sincerely



Leu Lowrey
Director of Public Works

WASTEWATER TREATMENT FACILITY PLAN

BLUE TOWNSHIP AREA

POTTAWATOMIE COUNTY

PREPARED FOR

COUNTY COMMISSIONERS

DECEMBER, 2005

**BARTLETT & WEST ENGINEERS, INC.
1200 SW EXECUTIVE DRIVE
TOPEKA, KANSAS 66615**

Project No. 14379.001

WASTEWATER TREATMENT FACILITY PLAN

BLUE TOWNSHIP AREA POTTAWATOMIE COUNTY

TABLE OF CONTENTS

SECTION 1 – INTRODUCTION	1-1
SECTION 2 – EXISTING FACILITIES	2-1
Wastewater Treatment Facility	2-1
Main Pumping Station	2-9
SECTION 3 – PLANT PERFORMANCE	3-1
Flow	3-2
Monthly Reports	3-2
Aeration Basin Loading	3-2
Blower Performance	3-6
Future Permit Requirements	3-8
Operation Costs.....	3-9
SECTION 4 – PROJECTED NEEDS.....	4-1
Blue Township	4-2
Regionalization of Facilities	4-4
Main Pumping Station	4-6
Connecting to Manhattan	4-7
SECTION 5 – TREATMENT ALTERNATIVES	5-1
New Main Pumping Station	5-1
Expansion of Existing Facility	5-1
Construct New Facility	5-1
Pump Wastewater to Manhattan	5-3

SECTION 6 – FINANCIAL CONSIDERATIONS	6-1
Introduction.....	6-1
Existing Finances	6-1
Present Worth Analysis.....	6-2
Expanded or New Treatment Facility	6-2
Connecting to Manhattan	6-3
Current Rate Impacts	6-4
Debt Impacts	6-6
SECTION 7 – CONCLUSIONS AND RECOMMENDATIONS	7-1
APPENDIX.....	A-1

NPDES Permit
July 11, 2005 Letter to St. George
August 22, 2005 Response Letter from St. George
November 14, 2005 Letter from Manhattan
Financial Data

LIST OF TABLES

Table 3-1: Monthly Average Flows.....	3-3
Table 3-2: Grab Sample Results	3-5
Table 3-3: Effluent Nutrient History.....	3-8
Table 4-1: Expected Connection Growth to the Blue Township Area	4-7
Table 5-1: Probable Costs for Expanded Treatment Facility.....	5-2
Table 5-2 Probable Costs for New Treatment Facility	5-3
Table 5-3: Probable Costs for Manhattan Connection.....	5-6
Table 6-1 Present Worth Analysis of Alternatives	6-4
Table 6-2 Revenue Projection Based Upon Current Rates and Fees.....	6-5
Table 6-3 \$2,200,000 Million Project Paid Over 10 Years	6-7
Table 6-4 \$2,200,000 Million Project Paid over 15 Years	6-8
Table 6-5 Operations Budget Impacts at \$3/1,000 Gallons.....	6-9
Table 6-6 \$2,064,000 Project Paid Over 15 Years	6-10

SECTION 1

INTRODUCTION

Western Pottawatomie County, particularly the area immediately east of the Blue River and along the Highway 24 corridor, is experiencing significant growth pressures. The recent announcements of Fort Riley's mission expansion and projected housing shortages for added personnel have raised questions concerning the existing infrastructure's ability to address the growth. An aerial photograph of the area is presented in Figure 1-1. Since this photograph was taken, significant additional residential development and in-fill has occurred.

The primary purpose of this report is to address the wastewater treatment needs to accommodate the projected growth in the Blue Township area. The report also covers the possibilities for regionalization of wastewater treatment along the Highway 24 corridor.

The Blue Township Wastewater Treatment Facility located on Fielding Road has a rated hydraulic capacity of 0.2 million gallons per day. Figure 1-2 is a photograph with the Office and Operations Building on the left and the treatment basins and UV Disinfection Building in the background. The facility is permitted to discharge treated effluent to the Kansas River under the requirements of the concurrent Kansas Department of Health and Environment Permit No. M-KS38-0005 and Federal National Pollutant Discharge Elimination System (NPDES) Permit No. KS0092274. A copy of the permit is included in the Appendix.

Figure 1-2: Office and Operations Building.



SECTION 7

CONCLUSIONS AND RECOMMENDATIONS

The review of the existing Blue Township wastewater treatment facility and an assessment of the required improvements to address the projected wastewater treatment demands from the area have yielded the following conclusions and recommendations:

1. While some hydraulic capacity remains, the organic treatment capacity of the existing facility is rapidly being approached. The existing blowers cannot provide sufficient air to reliably maintain the process. The blowers should be replaced with new blowers that will fit into the new treatment scheme if continued treatment at the site is the selected alternative..
2. KDHE's long-term permit effluent requirements will require the facility to reliably remove ammonia and also reduce total nitrogen and phosphorus concentrations.
3. The existing user rate and connection fee structure will generate enough revenue to finance any of the considered alternatives.
4. If connection to the City of Manhattan is selected as the best long-term alternative for treatment of the area's wastewater, negotiations for acceptable terms should begin immediately.
5. Engineering design for the selected improvements should also begin immediately in order to be in place to serve the anticipated growth. To save implementation time, if statutes and County procurement policies will allow, consideration should be given to construct the new facilities using a design-build project delivery system.
6. Further discussions should be held with other wastewater dischargers in the area, including the City of St. George, to determine the feasibility of constructing joint use facilities.

Kansas Department of Health and Environment

APPLICATION FOR SRF LOAN ASSISTANCE		New	Amendment
Project Number	C 20- - 1786-01	Application Type	X

1. Legal Applicant / Recipient Applicant Name: Blue Township Sewer District Organization Unit: Pottawatomie County Street / PO Box: 207 N. First, PO Box 187 City: Westmoreland County: Pottawatomie County State / Zip code: Kansas/66549 Contact Person Name: Robert Reece Telephone Number: 785-457-3455	2. Type of Applicant / Recipient A. City B. County C. Other (Specify) Enter Appropriate Letter: B
--	---

3. Title of applicants project	Blue Township Sewer Improvements
4. Type of Project	Pump Station, Force Main, & Gravity Sewer Lines
5. Employer Identification Number	486024894
6. Area of project impact (Names of cities, counties, etc)	Pottawatomie County & City of Manhattan
7a. Congressional District / Applicant	2nd
7b. Congressional District / Project	2nd

8. Type of change	Increase dollars	\$ -
	Decrease dollars	\$ -

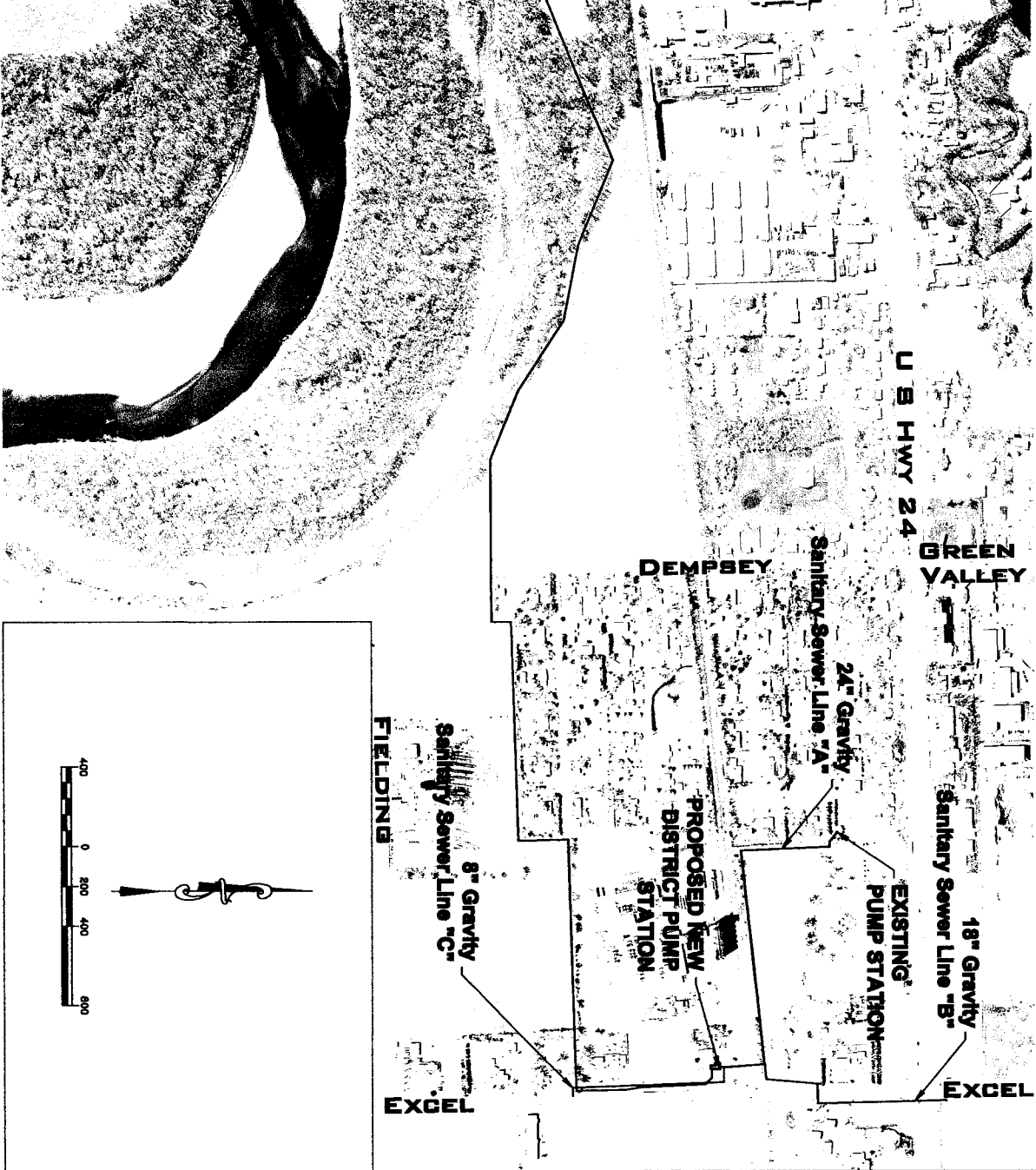
9. Proposed Funding		10. Project Start Date	July09
SRF Loan 9a.	\$ 5,000,000 -	(Estimated)	
Applicant 9b.	\$ -	11. Project Duration	10
CDBG 9c.	\$ -	(Months)	
EPA 9d.	\$ -	12. Date Submitted	N/A
EDA 9e.	\$ -	(To KDHE)	
Other 9f.	\$ -		
Total	\$ -		

13. Requested Loan Repayment Period (Must not be over 20 years)	20
--	-----------

14. The applicant certifies that: To the best of my knowledge and belief, data in this pre-application / application is true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved	This notice of intent / preapplication / application was made available to the state executive order 12372 process for review on: Date 3-06-09
--	--

15. Certifying Representative Name: Robert Reece Title: Pottawatomie County Administrator	Signature
--	--------------------------

Mail completed application to: Kansas Department of Health and Environment Bureau of Water / Attn: Rod Geisler Municipal Programs Section, Suite 420 1000 SW Jackson Street Topeka, KS 66612-1367	If you need assistance please contact: Bill Mond Administrative / Finance Section, Suite 420 1000 SW Jackson Street Topeka, KS 66612-1367 785-296-4049
---	--



DATE	DESCRIPTION	BY

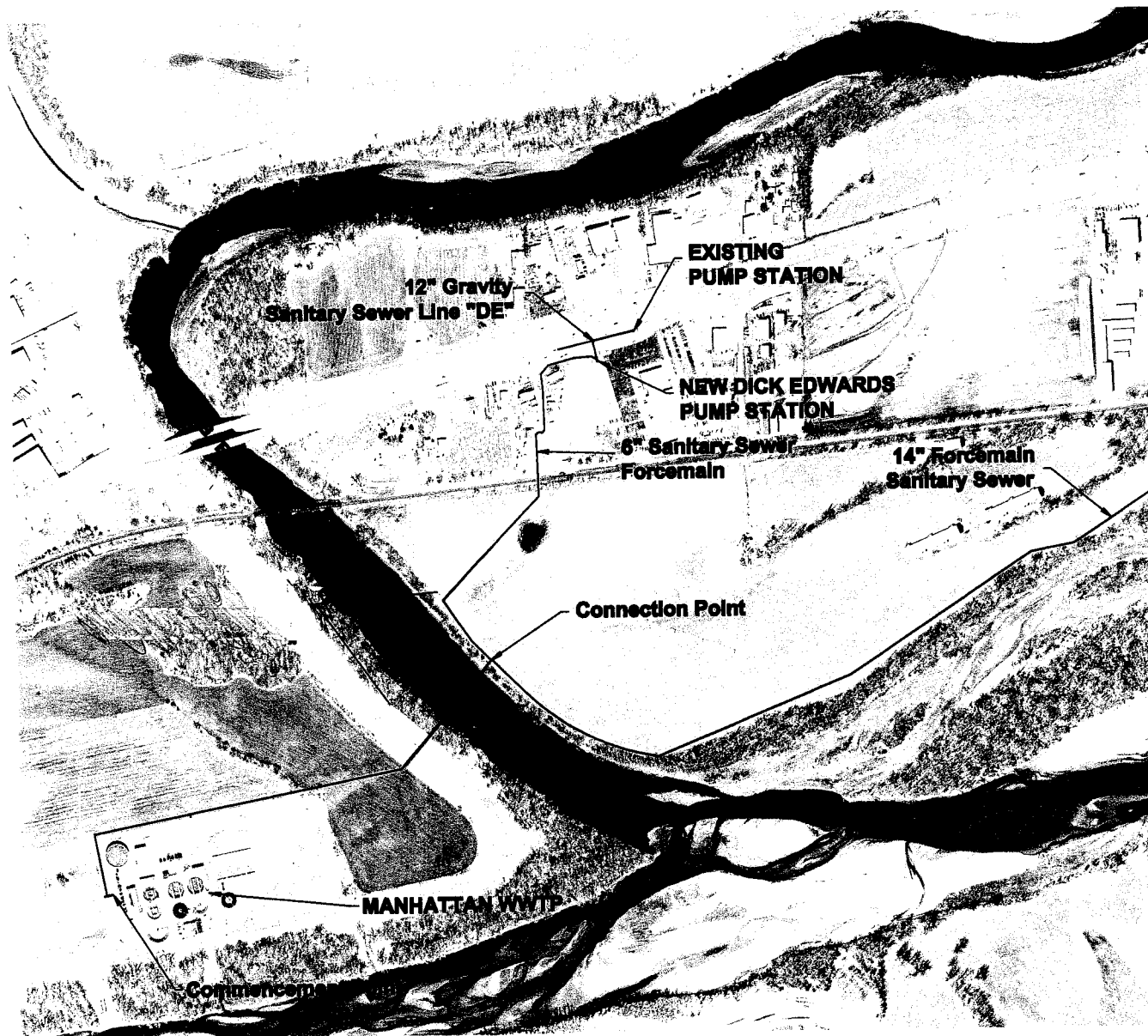
RABTI LTD

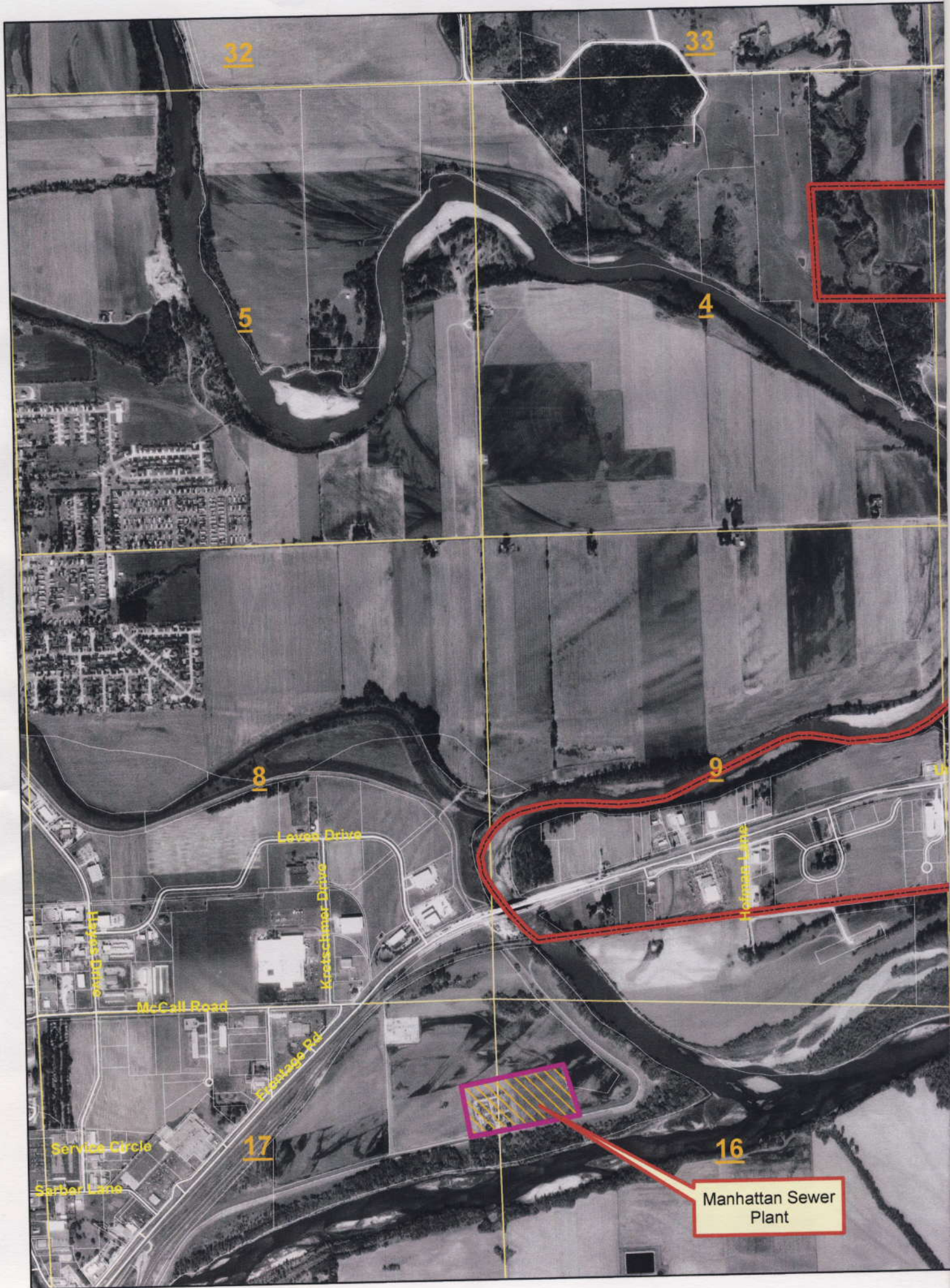
**EXHIBIT A
OVERALL PROJECT LAYOUT**

DESIGNED
DRAWN BY
APPROVED
WORK ON
CONSULT
SCALE
DATE
DRAWING
EXI
SHEET 12

EXHIBIT "A"

OVERALL PROJECT LAYOUT





32

33

5

4

8

9

17

16

Leves Drive

Kretschmer Drive

McCall Road

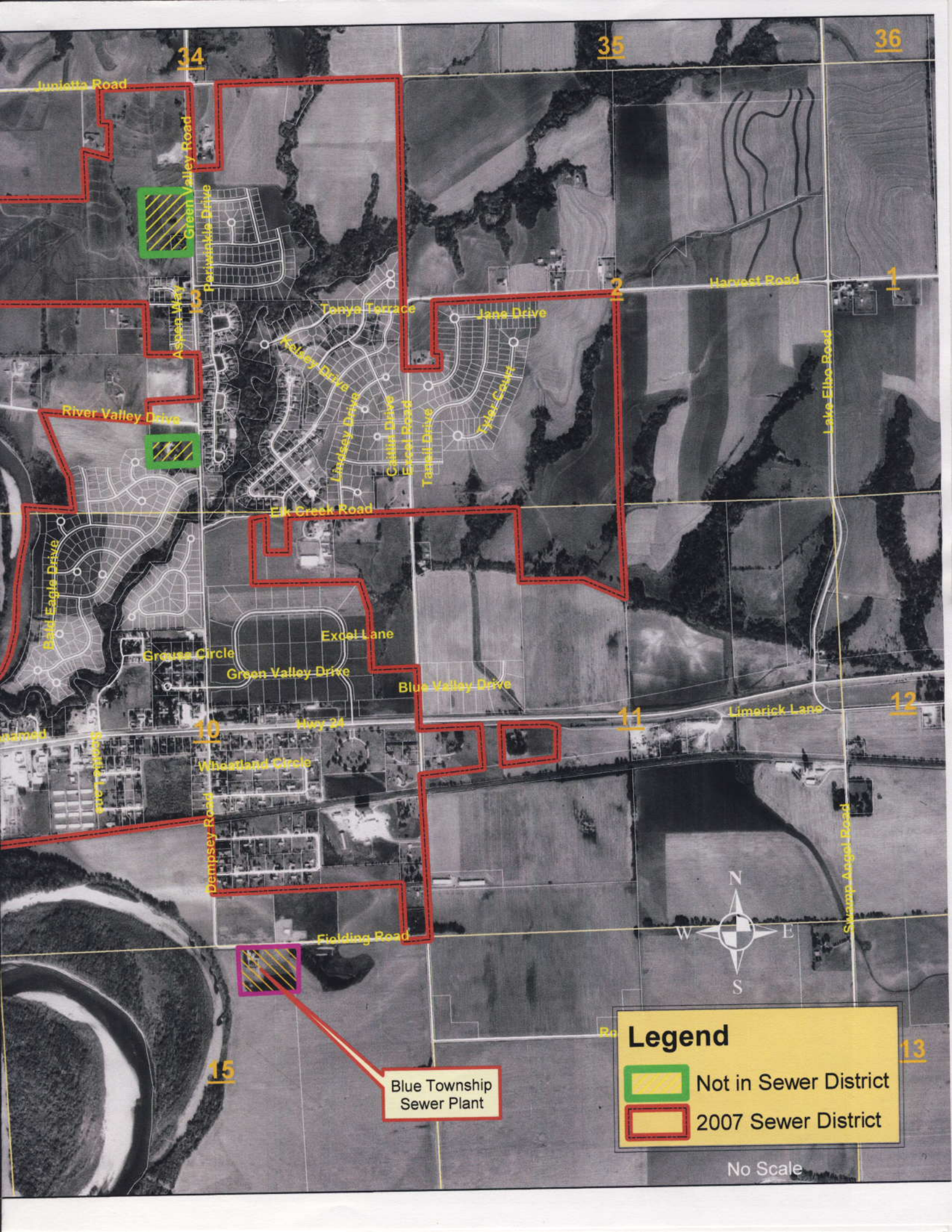
Exchange Rd

Service Circle

Sorber Lane

Holman Lane

Manhattan Sewer Plant



Junietta Road

34

35

36



Green Valley Road

Aspen Way

Periwinkle Drive

Tanya Terrace

Lane Drive

Harvest Road

1

River Valley Drive



Kelsey Drive

Lindsey Drive

Curtis Drive

Excel Road

Tanahill Drive

Sher Court

Elk Creek Road

Dale Eagle Drive

Groves Circle

Excel Lane

Green Valley Drive

Blue Valley Drive

Hwy 24

Wheatland Circle

Limerick Lane

12

Dempsey Road

Fielding Road

15

11



Swamp Angel Road

13

Legend



Not in Sewer District



2007 Sewer District

Blue Township
Sewer Plant

No Scale