

AGENCY REVIEW TRANSMITTAL FORM

Comments by: Kansas Geological Survey 15 July 2003

Project Title: City of Herington, Kansas
Sanitary Sewer Rehabilitation
KDHE Project No. C20 1203-01

Contact Person: Melissa Schlickbernd, I.E.
Project Engineer

Return To: Melissa Schlickbernd, I.E.
Wilson & Company, Inc.
1700 East Iron Avenue
P.O. Box 1640
Salina, KS 67401

This form provides notification and the opportunity for your agency to review and comment on the proposed project. Please complete Parts I and II as appropriate. Your response by **15 August 2003** will be appreciated.

PART I - AGENCY REVIEW COMMENTS:

Any adverse short-term impacts of construction should be offset by the benefits of the improved sanitary sewer system.

PART II - RECOMMENDED ACTION COMMENTS:

- ☒ Clearance of the project should be granted.
- ☐ Clearance of the project should not be granted.
- ☐ Clearance of the project should be delayed until the issues or questions have been clarified.
- ☐ Clearance of the project should not be delayed, but the applicant should (in final design and/or permit application) address and clarify the questions or concerns indicated above.
- ☐ Request the opportunity to review final design and plans.

Reviewer's Name: Donald Whittemore

Date: 7/28/03

WILSON & COMPANY

1700 East Iron Avenue
Salina, Kansas 67401
P.O. Box 1640 67402-1640
785-827-0433
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15 July 2003

Dr. Lee Gerhard
Kansas Geological Survey
University of Kansas
1930 Constant Avenue - Campus West
Lawrence KS 66047

Re: Environmental Clearance
Sanitary Sewer Rehabilitation
Herington, Kansas
KDHE Project No. C20 1203-01
WCI File: X3 410 033; Phase 02

The City of Herington is seeking funding through the Kansas Water Pollution Control Revolving Loan Fund as administered by the Kansas Department of Health and Environment's (KDHE) for the construction of improvements to the City's sanitary sewer collection system. The proposed improvements include sanitary sewer line replacement, re-lining of existing sanitary sewer lines utilizing trenchless technology, and rehabilitation of manholes. Additional description of the proposed improvements is attached. A copy of the cover sheet to the City's proposed loan application is also attached for reference.

As part of the Intergovernmental Review process, we are asking for your agency to review and comment on the proposed project. An Agency Review Transmittal Form is included for your convenience. Please complete Parts I and II, as appropriate, and return the form to my attention. Your response is requested by 15 August 2003.

WILSON & COMPANY



Melissa D. Schlickbernd, I.E.
Project Engineer

Enclosure

cc: Ken Almes, City Manager, City of Herington





KANSAS

DEPARTMENT OF HEALTH & ENVIRONMENT

BILL GRAVES, GOVERNOR

Clyde D. Graeber, Secretary

APPLICATION FOR LOAN ASSISTANCE

1. LEGAL APPLICANT/RECIPIENT a. Applicant Name - City of Herington, Kansas b. Organization Unit - City c. Street/P.O. Box - PO Box 31, 17 N. Broadway d. City - Herington e. County - Dickinson f. State - Kansas g. ZIP Code - 67449 h. Contact Person (Name & Telephone No.) - Ken Almes, City Manager (785) 258-2271		2. TYPE OF APPLICANT/RECIPIENT A. City B. County C. Other (Specify) Enter appropriate letter ☒ A	
3. TITLE OF APPLICANT'S PROJECT (Provide a summary description of the project). Sanitary Sewer Rehabilitation - Sewer Lines and Manholes		4. ESTIMATED NUMBER OF PERSONS BENEFITING 2685	
5. AREA OF PROJECT IMPACT (Names of cities, counties, etc.) City of Herington, Kansas		6. EMPLOYER IDENTIFICATION NUMBER 48-6018847	
7. CONGRESSIONAL DISTRICTS OF: a. APPLICANT First b. PROJECT First		8. TYPE OF APPLICATION A-New B-Revision C-Augmentation Enter appropriate letter ☒ A	
9. TYPE OF CHANGE (For 8B or 8C) A-Increase Dollars B-Decrease Dollars C-Increase Duration D-Decrease Duration E-Cancellation F-Other (Specify) Enter Appropriate Letter(s) ☐ ☐ ☐		10. PROJECT START DATE Year month day 2004 07 15	
11. PROPOSED FUNDING a. STATE \$ 475,000 .00 b. APPLICANT \$.00 c. LOCAL \$.00 d. OTHER (CDBG) \$ 400,000 .00 e. TOTAL \$ 875,000 .00		12. PROJECT DURATION 12 months	
13. DATE SUBMITTED Year month day 2003 07 11		14. AGENCY TO RECEIVE REQUEST - Kansas Department of Health & Environment a. ORGANIZATIONAL UNIT BUREAU OF WATER MUNICIPAL PROGRAMS SECTION b. ADMINISTRATIVE CONTACT (IF KNOWN) Rod Geisler	
15. IDENTIFICATION NUMBER C201203 01		16. REMARKS ADDED ☐ Yes ☒ No	
17. THE APPLICANT CERTIFIES THAT: To the best of my knowledge and belief, data in this preapplication/application are 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: _____	
18. CERTIFYING REPRESENTATIVE a. TYPED NAME AND TITLE Ken Almes City Manager		b. SIGNATURE	

DIVISION OF ENVIRONMENT,
Bureau of Water

City of Herington, Kansas

Sanitary Sewer Line Rehabilitation

Project Description

Background

Historically, the City of Herington has experienced inflow and infiltration (I/I) into their municipal sanitary sewer system, mainly due to high groundwater. Inflow is typically direct storm water runoff into the sewer system and infiltration is typically caused by high groundwater levels after extended wet weather periods. The City of Herington's Wastewater Treatment Plant was constructed in 1934 in conjunction with the sewer collection system. The primary materials used within the collection system were vitrified clay pipe and brick-lined manholes. Through the years, many factors have contributed to the system's decay: creek flooding, tree root intrusion, shifting soils and corrosive environment just to name a few. These factors have caused major I/I within the collection system, which puts undue hydraulic stress on the collection system and the wastewater treatment plant. Figure 1 is a copy of a portion of a USGS map, which identifies the location of the City of Herington. The City provides sewer service to all areas within the City limits. The location of the proposed sanitary sewer line improvements are shown on this map.

Inflow and Infiltration Evaluation

Potential inflow and infiltration sources and locations within the City's sewer system have been identified based on flow monitoring data and video television logs. Within the past few years the City of Herington has cleaned their entire sanitary sewer system and videotaped certain problem areas, which has helped identify major problems within the sanitary sewer lines. Feasible improvements for I/I reduction have been identified for I/I reduction and prioritized.

Project Description

The City of Herington has a total of approximately 120,000 L.F. of sanitary sewer lines. A majority of the gravity sewer lines are clay and show signs of deterioration. There are a few sections of pipeline, including manholes, which are located within a drainage way and are known to be a major source of infiltration. These sections of sewer need to be relocated out of the drainage way. There are other sections of the sewer system that the pipeline is either deteriorated, broken, cracked, and/or have heavy root problems, which were detected through video television logs. These sections of pipeline will need to be rehabilitated, by utilizing trenchless technology, to reduce infiltration.

Defective manholes are another major contributor of excessive I/I in a sanitary sewer system. The City of Herington has a total of approximately 400 manholes with a majority of them being old, deteriorated brick manholes. Within the past few years the City has had approximately 40 manholes rehabilitated utilizing a spray-on fibrous concrete liner. Approximately 25 additional manholes show signs of being a major I/I source problem and are in need of immediate structural rehabilitation.

Project Costs

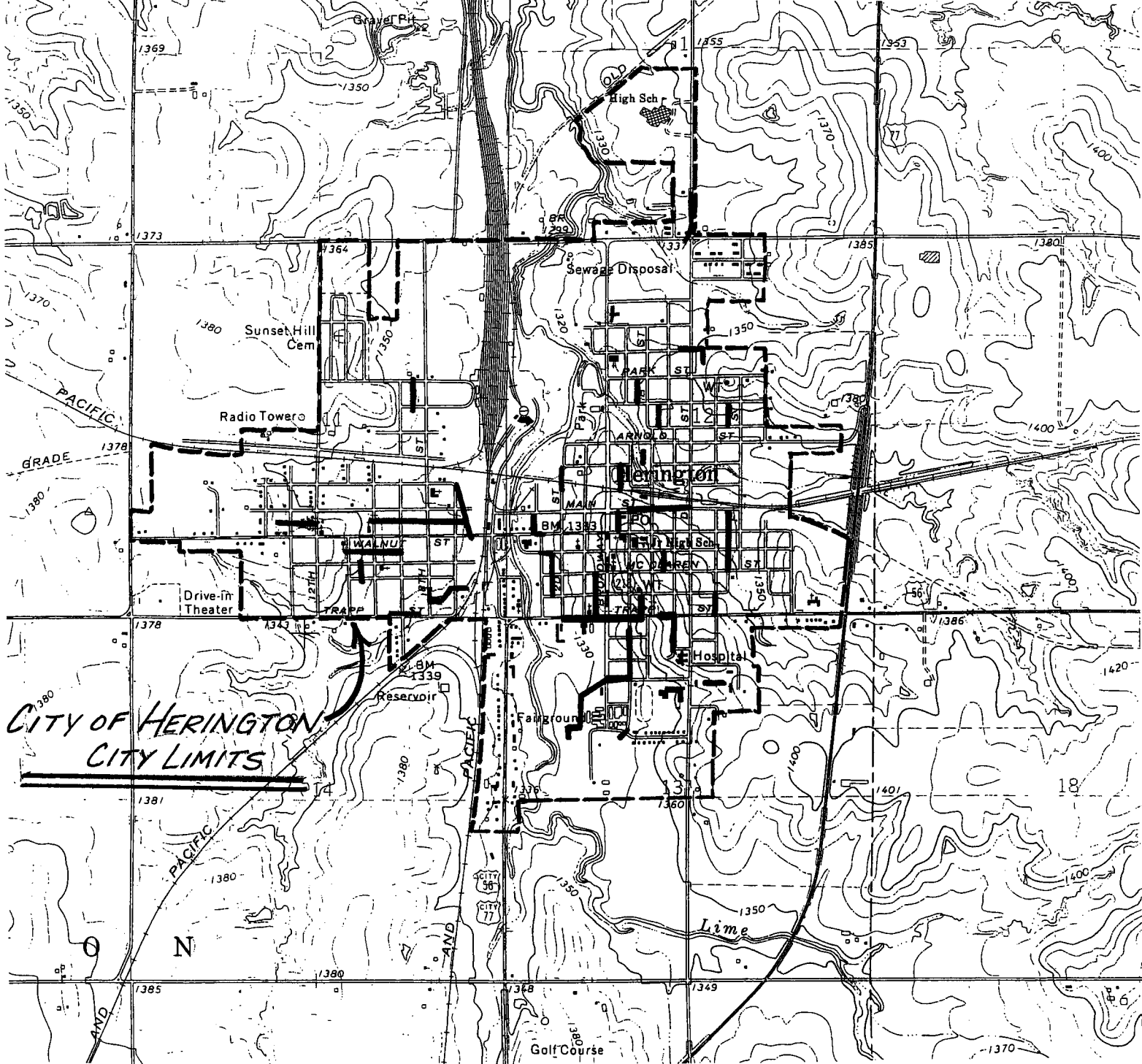
The current opinion of probable costs for the proposed improvements is:

Item	Description	Quantity	Unit	Unit Price	Extension
1	Remove and Replace Gravity Sewer, 8" PVC	750	LF	\$60.00	\$45,000
2	Remove and Replace Gravity Sewer, 10" PVC	1,000	LF	\$80.00	\$80,000
3	New Manholes	4	EA	\$3,000.00	\$12,000
4	Relining of Gravity Sewer, 8"	13,500	LF	\$35.00	\$472,500
5	Relining of Gravity Sewer, 10"	1,500	LF	\$38.00	\$57,000
6	Relining of Gravity Sewer, 15"	350	LF	\$50.00	\$17,500
7	Rehabilitation of Manholes	25	EA	\$1,750.00	\$43,750
Total Probable Construction Cost					\$727,750
Engineering and Inspection Costs					\$109,250
Legal, Administrative, and Other Costs					\$27,500
Permanent Easements (0.8 acre)					\$10,000
Total Probable Project Cost					\$874,500

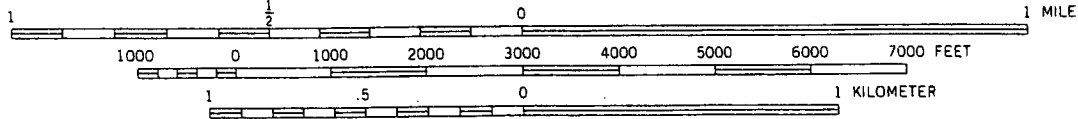
Project Financing

As partial financing for the proposed improvements, the City intends to apply for low interest loan funding through the Kansas Water Pollution Control Revolving Loan Fund (KWPCRLF) as administered by KDHE. The loan fund money can be obtained for terms up to twenty years at lower interest rates than commercially available. Loan repayments begin one year after construction completion and can be generated through sewer user charges, sales tax, or general obligation bonds.

In an effort to minimize the amount of loan funding necessary, the City also intends to apply for grant funding through the Community Development Block Grant (CDBG) program as administered by the Kansas Department of Commerce and Housing.



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

Figure 1: USGS Map

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
AND BY THE STATE GEOLOGICAL SURVEY, LAWRENCE, KANSAS 66044
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

**WILSON
& COMPANY**