

December 18, 2008

Don Hellar, P.E.
EBH & Associates, P.A.
306 S. Main St.
Pratt, KS 67124

Re: Water Storage Improvement project – Anthony, Kansas

Dear Mr. Hellar,

The Kansas Geological Survey (KGS) has received your November 18, 2008 letter requesting us to review the above referenced project. The project consists of replacing the City's water storage tanks, replacing 8000 ft of water transmission lines, work on Well No. 1 building, and providing emergency power supply for the high service pump station.

A review of regional geologic information and project information provided by you indicates that there are no unduly adverse geologic conditions that should affect this project. However, the KGS WWC-5 database indicates the presence of monitoring wells at a potential environmental site or sites in NW NW SW Sec. 25, T.33S., R.7W. Because the exact well locations and nature of the contamination (if any) cannot be determined, the past history and use of the site may need to be considered by the applicant.

Removal of the City's current water tanks could potentially have environmental considerations associated with historical maintenance activities. For example, refurbishing and painting the exterior of old, large painted structures can displace lead paint, if present, sometimes leading to elevated lead levels in the surface soil around the structure. Lead concentrations in the surface soil should be considered. A completed project review form is enclosed.

This letter is an assessment based on information about the regional geologic conditions available via the KGS and cannot be used in substitute of a detailed site characterization. Other geologic conditions, not discussed herein, or for which the KGS has no knowledge, may affect the viability of the project. It is the responsibility of the applicant to provide any necessary characterization, geotechnical or environmental testing, or design by a licensed professional geologist or engineer to complete the project.

Sincerely,



David P. Young,
Hydrologist

Encl

cc: Dan Suchy, KGS Data Resources Library

AGENCY REVIEW TRANSMITTAL FORM

Comments by: D. Young

12/18/08
Transmittal Date

Anthony Water Storage Improvements

PROJECT TITLE:

☐ Notification of Int.
☒ Pre-application
☐ Final Application
☐ Direct Development

CONTACT PERSON:

Don Hellar, P.E.

This form provides notification and the opportunity for your agency to review and comment on this proposed project as required by Executive Order 12372. Please complete Parts II & III as appropriate. Your prompt response will be appreciated.

RETURN TO:

EBH & Associates
306 S. Main St.
Pratt, KS 67124

PART I

REVIEW AGENCIES/COMMISSIONS

☐ Aging	☐ Education	☐ State Forester
☐ Agriculture- DWR	☒ Geological Survey, KS	☐ Transportation
☐ Biological Survey, KS	☐ Health & Environment	☐ Water Office, KS
☐ Conservation Comm.	☐ Historical Society	☐ Wildlife & Park
☐ Corporation Comm.	☐ Human Resources	☐
☐ Commerce	☐ Social & Rehab. Serv.	☐

PART II (To be completed by review agency and returned to contact person)

AGENCY REVIEW COMMENTS

COMMENTS:

Please see cover letter.

PART III (To be completed by review agency and returned to contact person)

RECOMMENDED ACTION COMMENTS

☒ Clearance of the project should be granted;

☐ Clearance of the project should not be delayed but the Applicant should (in the final application) address clarify the questions or concerns indicated above.

☐ Clearance of the project should not be granted.

☐ Clearance of the project should be delayed until the issues or questions have been clarified.

☐ Request the opportunity to review final application prior to submission to the federal funding agency.

☐ Request a State Process

Recommendation in concurrence with above comments.

DIVISIONS/AGENCY/COMMISSION

Reviewer's Name D. Young

KGS

Date
12/18/08

EBH & Associates

Evans - Bierly - Hutchison & Associates, P.A.

306 S. Main
Pratt, Kansas 67124
(620) 672-1112
FAX (620) 672-1909

ENGINEERS • SURVEYORS

E-Mail: alanl@ebhengineering.com

November 18, 2008

Dr. William Harrison
Kansas Geological Survey
University of Kansas
1930 Constant Ave., Campus West
Lawrence, KS 66047 0

Re: City of Anthony, Kansas
Water Storage Improvements

Dear Sir,

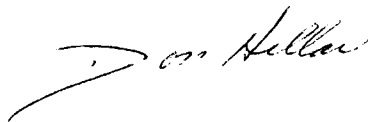
The City of Anthony, Kansas is preparing an application to the United States Department of Agriculture for a Rural Development loan and grant for a Water Storage Improvement project. The Project Description, Site Map, Opinion of Probable Cost and Project Review Form are enclosed.

We would appreciate your review of the project description and location, and any comments you may have, by December 19, 2008. A project review form is enclosed for your use.

Please return the Project Review Form to me at:
EBH & Associates, P.A.
306 S. Main St.
Pratt, KS 67124

Please call me at 620-672-1112 if you have any questions.

Sincerely,



Don Hellar, P.E.
EBH Engineers

encl.

EBH & Associates

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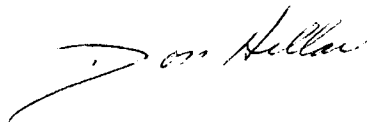
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Don Hellar, P.E.
EBH Engineers

encl.

Project Description

Replace Water Storage Tanks-

The City of Anthony currently has two ground water storage tanks and one elevated storage tank. The first tank is the north (Harper) tank and is located approximately 8 miles north of the City, near the water well field. This is a 90,000 gallon tank that was installed in 1953. This tank had been in service at another location prior to being installed at this location and its total age is unknown.

The second tank is the south tank located in the southwest part of the City of Anthony. It is a 2.5 million gallon riveted steel tank that was erected in 1932.

The elevated water tower is within the City and the current configuration of the water tower does not meet OSHA standards.

Replace 8000 Ft. of Water Transmission Line-

An 18" diameter concrete water transmission line was installed in 1953 from the north tank to the south tank. This concrete waterline has had many problems since it was installed causing large water leaks. Approximately 8000 feet of this line will be replaced with 16" PVC waterline as part of this project

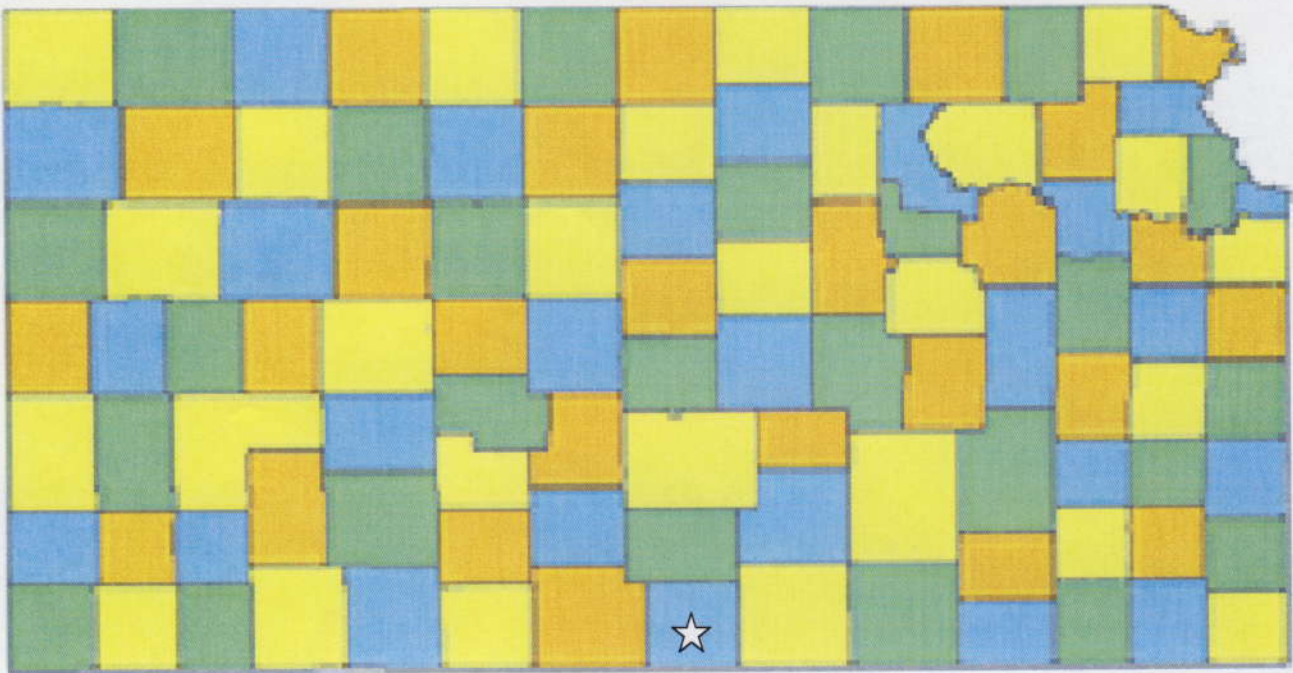
Work on Well No. 1 building-

The City injects chlorine into the water line between the wells and the north tank. The chlorine room is located in Well #1 building and does not meet KDHE standards. The chlorine room lacks proper ventilation and other safety items required by KDHE when gas chlorine is in use.

Provide Emergency Power Supply-

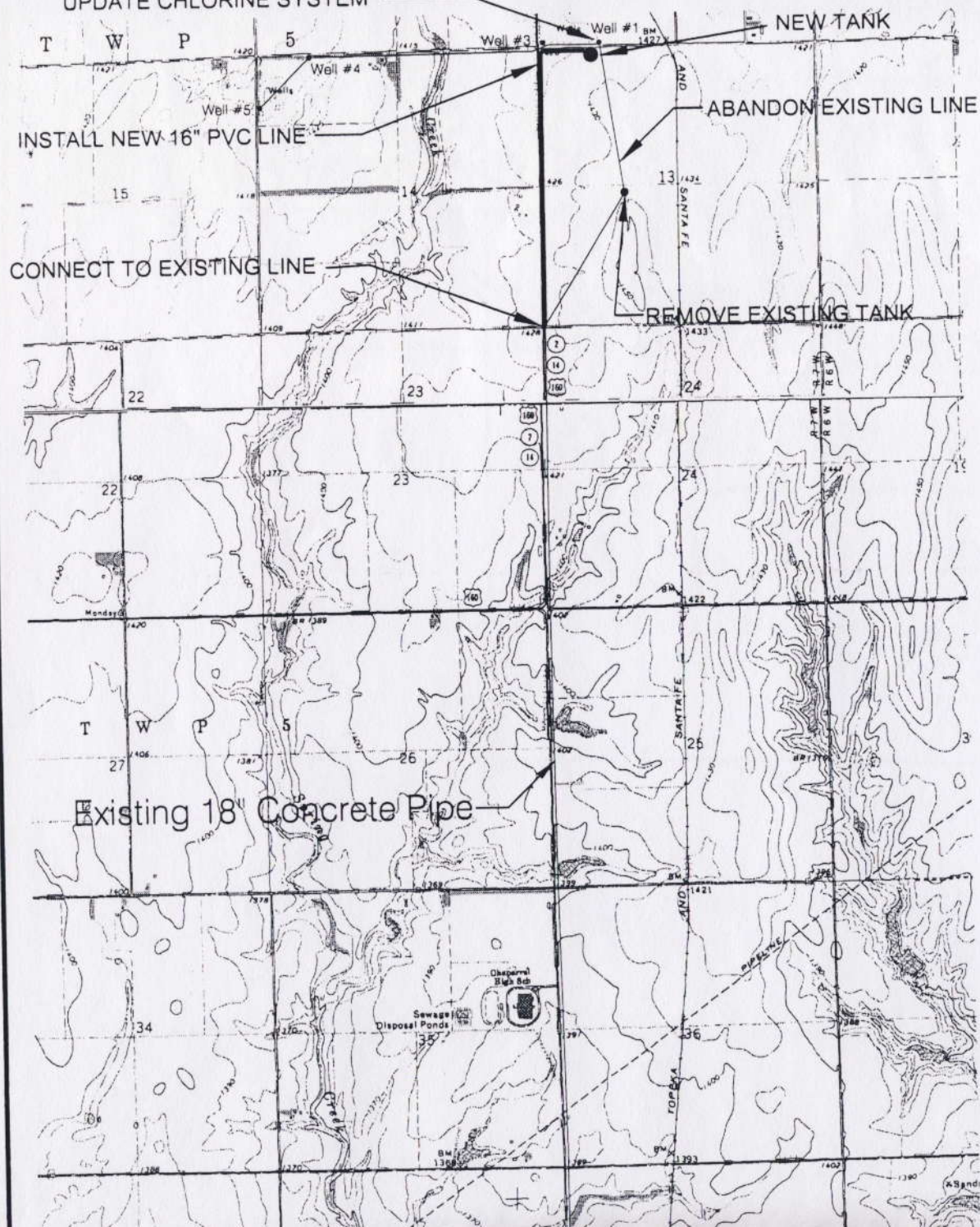
The City does not have an emergency power supply for the high service pump station which pumps water from the south tank into the elevated storage tank. If electricity is lost to the high service pumps, the City would not have any way to fill the elevated storage tank or the distribution system and could result in an unsafe condition.

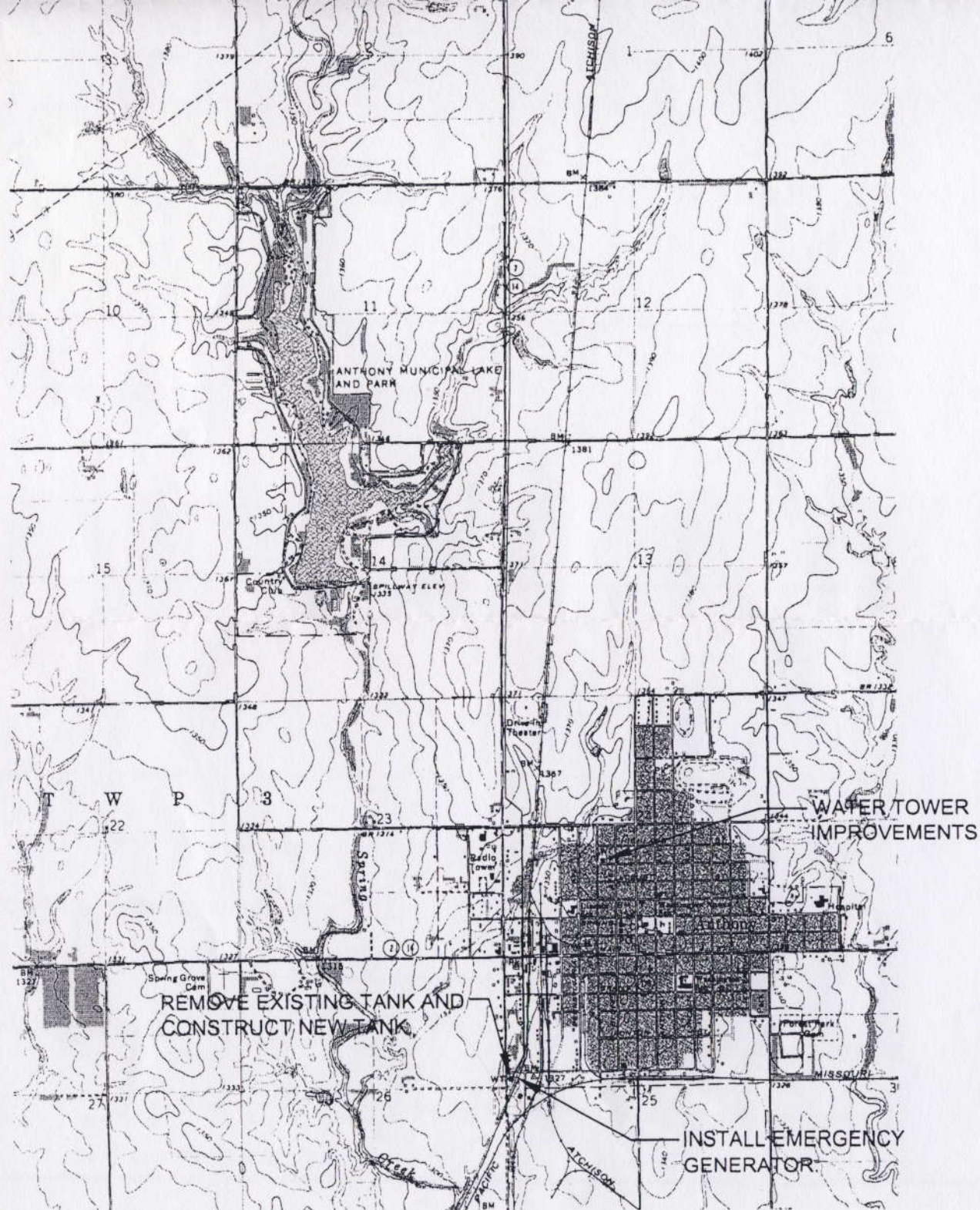
**Water Storage Improvements
Anthony, Kansas**



General Location Map

UPDATE CHLORINE SYSTEM





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REVISION	CITY OF ANTHONY, KANSAS
Revised 11/17/2008	PROPOSED IMPROVEMENTS
DATE NOV. 2007	EBH & ASSOCIATES ENGINEERS, PLANNERS & SURVEYORS
JOB NO. 7207092	Evans-Blerly-Hutchison & Associates, P.A. Office in Kansas Great Bend, Cimarron, Goodland, Hutchinson & Shawnee

FIGURE 2

EBH & Associates

Evans - Bierly - Hutchison & Associates, P.A.

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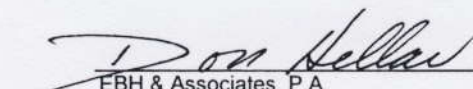
ENGINEERS • SURVEYORS

E-Mail: alanl@ebhengineering.com

Opinion of Probable Costs **Anthony Water Improvements 2008**

Relocate north tank, replace pipe to intersection south of wells, replace water storage tank in town, piping to high service pumps, work on elevated water storage tank, work on Well No. 1 and appurtenances.

Item	Description	Unit	Quantity	Unit Price	Total
1	Remove existing 90,000 gallon north water tank	LS	1	\$ 10,000.00	\$ 10,000.00
2	Install new 90,000 gallon painted water tank	LS	1	\$ 250,000.00	\$ 250,000.00
3	Connection piping to new tank	LS	1	\$ 40,000.00	\$ 40,000.00
1	Install 16" PVC	LF	8000	\$ 41.00	\$ 328,000.00
2	16" Valve	Ea	3	\$ 3,000.00	\$ 9,000.00
3	Remove existing 2.5M gallon tank	LS	1	\$ 20,000.00	\$ 20,000.00
4	Install 1.5M tank	LS	1	\$ 1,300,000.00	\$ 1,300,000.00
5	Connection to new 1.5M tank	LS	1	\$ 50,000.00	\$ 50,000.00
6	New high service pump suction piping	LS	1	\$ 50,000.00	\$ 50,000.00
7	Controlls	LS	1	\$ 40,000.00	\$ 40,000.00
8	Work on elevated storage tank	LS	1	\$ 150,000.00	\$ 150,000.00
9	Generator	LS	1	\$ 70,000.00	\$ 70,000.00
10	Work on Well 1	LS	1	\$ 25,000.00	\$ 25,000.00
Total Construction					<u>\$ 2,342,000.00</u>
Contingencies					\$ 234,200.00
Land					\$ 6,000.00
Engineering Fees-Design					\$ 198,000.00
Other Engineering Fees					\$ 111,600.00
Inspection					\$ 228,000.00
Administration					\$ 100,000.00
Legal					\$ 65,000.00
Total					<u>\$ 3,284,800.00</u>


EBH & Associates, P.A.