

August 23, 2007

Donna J. Crawford
Governmental Assistance Services
905 Joseph Drive
Lawrence, Kansas 66049

Re: Water Storage Improvements - Onaga, KS

Dear Ms. Crawford:

The Kansas Geological Survey (KGS) has received Governmental Assistance Services' July 25, 2007, request for environmental comments. A standardized request for environmental comments form was not included with the submittal; therefore, this letter serves as the completed KGS review and response.

The City of Onaga is submitting a combination grant and loan request to the Kansas Department of Commerce and USDA Rural Development, respectively, for water line upgrades; removal of the City's existing water tower; and construction of a new water tower to meet current and future water supply demands of the City. Site plans indicate that two possible site locations are being considered for a new 150,000 gallon water tower north of the City. Waterline upgrades appear to include many of the streets within the incorporated area of the City.

A review of regional geologic information along with the cost estimate, site plans, topographic map, and aerial photo provided by Governmental Assistance Services indicates that there are no unduly adverse geologic conditions that should affect the water line upgrades or the construction of a new water tower at either location. Aerial photography of the proposed water tower locations indicates that the locations are undeveloped, rural land and therefore the environmental risk should be low.

Destruction and removal of the City's current water tank could potentially have environmental considerations associated with historical maintenance activities of the City's existing tank. 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. Because of its proximity to the existing tank, lead concentrations in the surface soil should be considered. Additionally, database records at the KGS indicate that there are numerous monitoring wells associated with environmental sites located within the City. Many of these wells are likely to have been completed in City street easements.

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August 23, 2007
Re: Water Storage Improvements - Onaga, KS
Page 2 of 2

Because of the relatively widespread nature of the waterline upgrade, some of the monitoring wells could potentially interfere with waterline upgrade activities and should be considered prior to construction. However for the purposes of the loan application, clearance of the project should be granted.

This letter is an assessment based on the regional geologic conditions available at the KGS at the time of writing 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 or safe operation of this facility or property. 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.

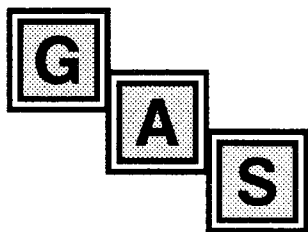
Sincerely,

A handwritten signature in black ink, appearing to read "Sh Lyle", is positioned below the word "Sincerely,".

Shane Lyle, RG
Geology Extension Coordinator

Enclosures

cc: Dan Suchy, KGS Data Resources Library



Governmental Assistance Services

905 Joseph Drive

Lawrence, Kansas 66049

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e-mail: gasdonnaa@sunflower.com

July 25, 2007

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

RE: Request for Environmental Comments - Onaga, KS Water System
Improvements Project

Dear Dr. Harrison:

The City of Onaga will be submitting an application for grant funds of \$400,000 from the Kansas Dept. of Commerce and \$3,306,908 from Rural Development in a combination of grant and loan funds.

I am attaching a project waterline improvements map, an estimate of costs explaining the improvements, project location and city map.

If you have additional questions please call Mark Bachamp, BG Consultants, Inc. at 785-537-7448, extension 113.

Please submit all comments to my office at Governmental Assistance Services, 905 Joseph Dr., Lawrence, KS 66049.

Sincerely,

Donna J. Crawford
Project Coordinator

Enc/ Estimate
Maps

City of Onaga, Kansas
City-wide Waterline, Tower and Sewer Lateral Improvements

Opinion of Probable Cost

July 25, 2007

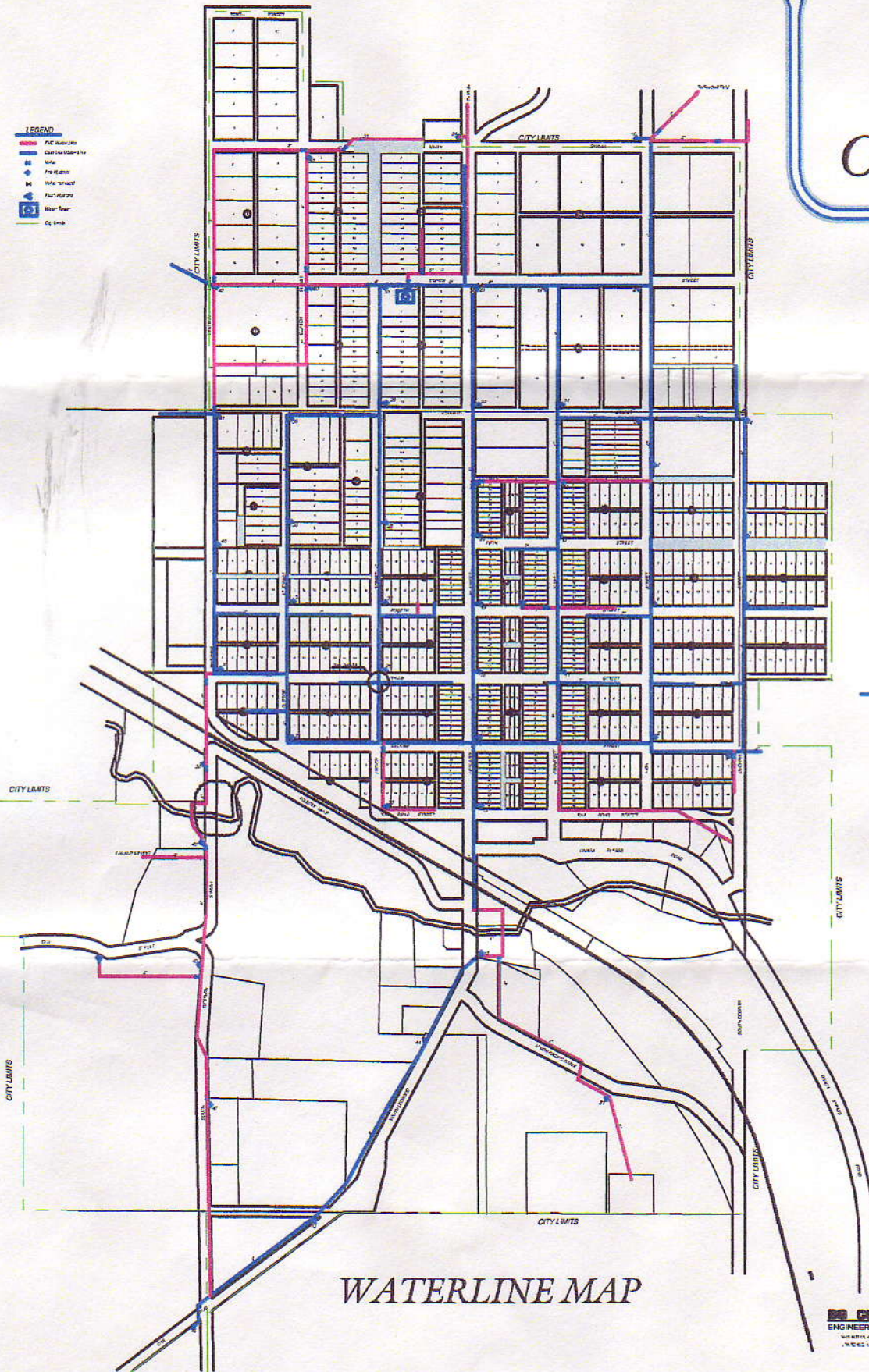
Description	Quantity	Units	Unit Price	Total Price
1 Clearing & Grubbing		Lump Sum	\$8,000.00	\$8,000.00
2 Mobilization		Lump Sum	15,000.00	15,000.00
3 8" PVC Waterline (In Place)	8,000	Lin. Ft.	28.00	224,000.00
4 6" PVC Waterline (In Place)	27,000	Lin. Ft.	24.00	648,000.00
5 5-1/4" Fire Hydrant Setting	50	Each	2,500.00	125,000.00
6 8" Gate Valve w/Box	10	Each	750.00	7,500.00
7 6" Gate Valve w/Box	70	Each	500.00	35,000.00
8 Connection to Exist. Waterline	15	Each	1,000.00	15,000.00
9 Bends	85	Each	300.00	25,500.00
10 8" x 8" x 6" Tee	10	Each	600.00	6,000.00
11 8" x 8" x 4" Tee	5	Each	400.00	2,000.00
12 6" x 6" x 6" Tee	30	Each	500.00	15,000.00
13 Service Blue Poly Line	12,000	Lin. Ft.	15.00	180,000.00
14 Casing for Service Line	7,000	Lin. Ft.	10.00	70,000.00
15 Water Service Connection (Meter size 5/8 x 3/4)	355	Each	900.00	319,500.00
16 Water Service Connection (Meter size 1")	2	Each	1,000.00	2,000.00
17 Water Service Connection (Meter size 1-1/2")	5	Each	1,500.00	7,500.00
18 Water Service Connection (Meter size 2")	1	Each	2,000.00	2,000.00
19 Water Service Connection (Meter size 3")	1	Each	3,000.00	3,000.00
20 PRV (Individual)	120	Each	65.00	7,800.00
21 * Flowable Fill	2,400	Cu. Yd.	75.00	180,000.00
22 Replace Surfacing, Asphalt	1,000	Sq. Yd.	35.00	35,000.00
23 Seeding		Lump Sum	15,000.00	15,000.00
24 Traffic Control		Lump Sum	10,000.00	10,000.00
25 Railroad Bore	80	Lin. Ft.	200.00	16,000.00
26 Water Tower (150,000 gallon)	1	Each	500,000.00	500,000.00
27 Removal of Existing Water Tower	1	Each	20,000.00	20,000.00
28 8" x 8" x 4" Sanitary Sewer Wye	25	Each	800.00	20,000.00
29 4" Sewer Lateral	1,400	Lin. Ft.	25.00	35,000.00
30 4" Sewer Cleanout	25	Lin. Ft.	250.00	6,250.00
31 Replace Surfacing, AB-3	500	Sq. Yds.	25.00	12,500.00
33 Right of Way and Easements		Lump Sum	25,000.00	25,000.00
Subtotal				\$2,592,550.00
10% Construction Contingency				\$259,255.00
Total				\$2,851,805.00
Design, Const. Adm., Legal, etc.				\$855,102.93
Opinion of Probable Cost				\$3,706,907.93

* Flowable Fill is based on trench width of 3 feet for the water and 4 feet for the sewer laterals

Items 28-32 are required because the sewer lateral and water service lines are in the same trench from 2nd to 4th street on Leonard Street

LEGEND

	PAC Water Info
	Chlorine Water-line
	Well
	Pre-Planned
	Water Serviced
	Plant Storage
	Water Tower
	Cg Limb

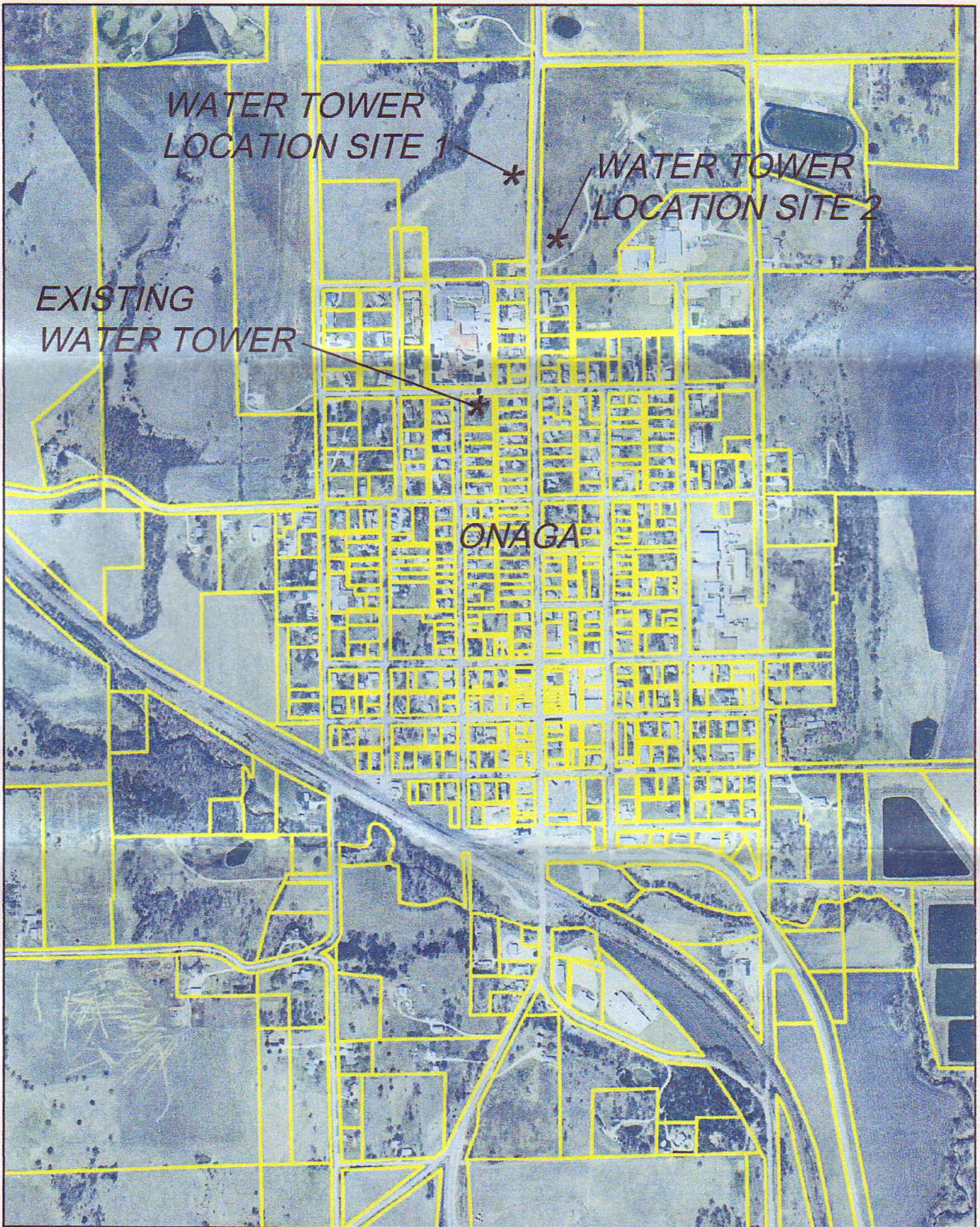


WATERLINE MAP

BO CONSULTANTS, INC.
ENGINEERS-ARCHITECTS-SURVEYORS
1000 WEST 10TH AVENUE
SUITE 1000
LITTLE ROCK, AR 72201
LITTLE ROCK OFFICE
PHON: 501-782-1000
FAX: 501-782-1001



02-554

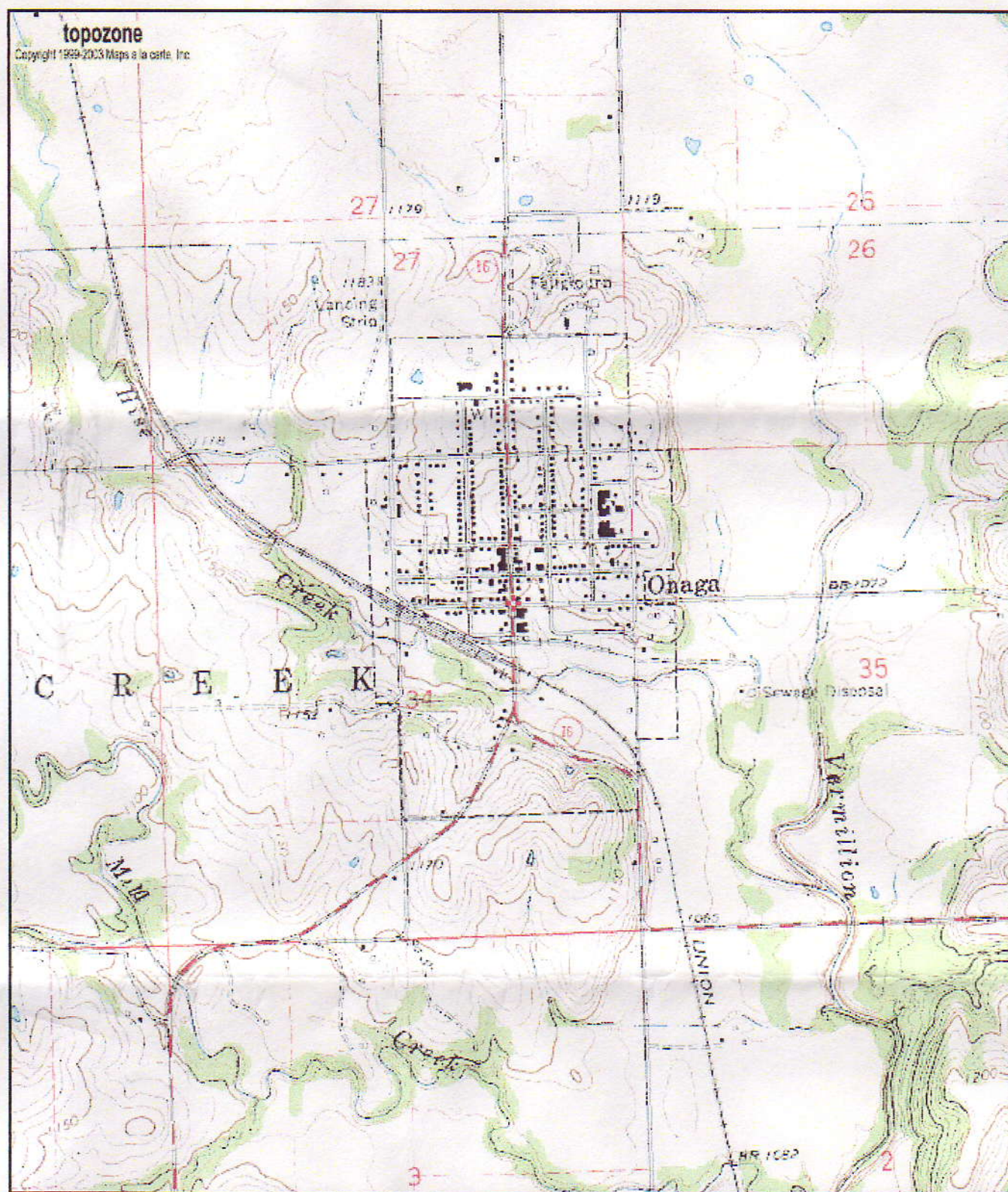


WATER TOWER
LOCATION SITE 1

WATER TOWER
LOCATION SITE 2

EXISTING
WATER TOWER

ONAGA



0 0.3 0.6 0.9 1.2 1.5 km
0 0.2 0.4 0.6 0.8 1 mi

UTM 14 743409E 4374647N (NAD27)

Onaga, USGS Onaga (KS) Quadrangle

Projection is UTM Zone 14 NAD83 Datum

*M
G
M=4.299
G=1.801