

BOARD OF COUNTY COMMISSIONERS SARPY COUNTY, NEBRASKA

RESOLUTION FLOOD PLAIN DEVELOPMENT

**City of Lincoln Water Systems Department, Well 14-1 – 24301 Ruff Road, Well 14-2 –
23801 Ruff Road, Sarpy County Nebraska**

WHEREAS, pursuant to Neb. Rev. Stat. § 23-104 (Reissue 2012), the County has the power to do all acts in relation to the concerns of the County necessary to the exercise of its corporate powers; and,

WHEREAS, pursuant to Neb. Rev. Stat. § 23-103 (Reissue 2012), the powers of the County as a body are exercised by the County Board; and,

WHEREAS, the County Board of Commissioners has the authority to adopt a Zoning Regulation, which shall have the force and effect of law pursuant to Neb. Rev. Stat. § 23-114 (Reissue 2012); and,

WHEREAS, said Zoning Regulations require the County Board of Commissioners to approve applications for development permits within any Flood Plain District; and

WHEREAS, the City of Lincoln Water Systems Department applied for a Flood Plain Development Permit in order to construct a 16' wide private roadway in the flood fringe in order to access the public water utility pumps at 24301 Ruff Road (Well 14-1) and 23801 Ruff Road (Well 14-2); and,

WHEREAS, the Sarpy County Planning Department staff reviewed the City of Lincoln Water Systems Department's application for a Flood Plain Development Permit for compliance with the Zoning Regulations on the property described in the attached Exhibit A; and,

WHEREAS, said application is in compliance with Section 30, Flood Plain District of the Zoning Regulations and further, the Natural Resources District has no objection to the development permit; and,

WHEREAS, the Planning Department staff made a recommendation of approval as noted in the attached Exhibit A, which Exhibit A includes the Planning Department report, and the Natural Resources District comments.

NOW, THEREFORE, BE IT RESOLVED BY THE SARPY COUNTY BOARD OF COMMISSIONERS THAT the Flood Plain Development Permit Application for the property described in the attached Exhibit A is hereby approved.

The above Resolution was approved by a vote of the Sarpy County Board of Commissioners at a public meeting duly held in accordance with applicable law on the 17th day of September 2013.


Sarpy County Board Chairman



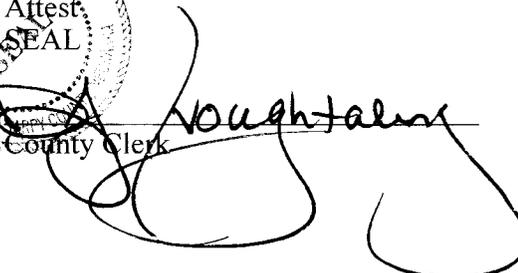

County Clerk

EXHIBIT A

Planning Department Report

City of Lincoln Water Systems Floodplain Development Permit Application (FDP 13-0020)

County Board Meeting Date: September 17, 2013

| Subject | Type | Prepared By |
|--|------------|---|
| Floodplain Development Permit for construction of a roadway to access two caisson well structures for the City of Lincoln Water Systems within the Platte River floodway (Sections 32, 32 Township 13N, Range 10E and Sections 04, 05 Township 12N, Range 10E, Sarpy County, NE) | Resolution | Bruce Fountain, AICP, EDFP Director, Planning & Building Dept. |

➤ **Application Overview**

- The City of Lincoln Water Systems Department has requested approval of a floodplain development permit to construct a 16' wide private roadway in the flood fringe in order to access the public water utility pumps at 24301 Ruff Road (Well 14-1) and 23801 Ruff Road (Well 14-2).

➤ **Comprehensive Development Plan**

- The Sarpy County Development Structure Plan (Future Land Use Map) indicates the area adjacent to the Platte River in this vicinity as Greenway

➤ **Zoning / Floodplain Regulations**

- The area adjacent to this location within the Platte River is zoned AG-FP (Agricultural - Floodplain)
- The property is located within the Floodway on the banks of the Platte River (see attached map).
- The permit is for the installation of roadways only.
- Modeling study results indicate the project will not impact the 100 year flood elevations, floodway elevations, or the floodway widths on the Platte River.
- This request as proposed is in conformance with the Sarpy County Floodplain and Zoning Regulations.

➤ **Natural Resources District**

- The Papio Missouri River Natural Resources District (NRD) concurs with the no-rise certification that the proposed project will not impact the 100-year flood elevations, floodway elevations, or floodway widths on the Platte River at published sections in the current effective Flood Insurance Study for Sarpy County and will not impact the 100-year flood elevations, floodway elevations, or floodway width at unpublished cross-sections in the vicinity of the propose project.
- The NRD has no objections to the proposed application. Their review letter is attached.

➤ **Recommendation**

- Staff recommends the Floodplain Development Permit for this project be approved as it is in compliance with the Sarpy County Zoning and Floodplain Regulations and the PMNRD has no objections to the project.

September 6, 2013

Bruce Fountain, Director
Sarpy County Planning Department
1210 Golden Gate Drive
Papillion, NE 68046



RE: City of Lincoln Application for Floodplain Development

Dear Mr. Fountain:

The District received information regarding the proposed roadway to access two caisson structures for horizontal water collector wells along the Platte River south of Highway 6 in Sarpy County, Nebraska. According to the Flood Insurance Rate Map for Sarpy County, Panel 31153C 0145 G, effective December 2, 2005, this project is located in the Zone AE floodway of the Platte River.

The District has reviewed a no-rise certification prepared by Carter Hubbard, P.E., dated August 13, 2013, along with the project plans and hydraulic model and offers the following comments:

- This permit is for the installation of the roadways only. No other structures will be built at this time.
- The District concurs with the no-rise certification that the proposed project will not impact the 100-year flood elevations, floodway elevations, or floodway widths on the Platte River at published sections in the current effective Flood Insurance Study for Sarpy County and will not impact the 100-year flood elevations, floodway elevations, or floodway widths at unpublished cross-sections in the vicinity of the proposed project.

The District has no objections to this project. If you have any questions or concerns, please contact me at (402) 444-6222 or at llaster@papionrd.org.

Sincerely,

Lori Ann Laster, CFM
Stormwater Management Engineer

Cc: Marlin Petermann, Amanda Grint, P-MRNRD



August 13, 2013

Mr. Bruce Fountain
Sarpy County
Planning and Building Department
1210 Golden Gate Drive
Papillion, Nebraska 68046

RE: City of Lincoln
Lincoln Water Systems: Water Supply Upgrade
Floodplain Development Permit
OA Project #: 013-0604

Dear Mr. Fountain:

On behalf of the City of Lincoln, I am submitting a Floodplain Development Permit. The purpose of the project is to provide roadway access to Lincoln Water System's two proposed horizontal collector wells. The project is located along the Platte River, between Interstate 80 and Highway 6, on Raasch Island and the East bank. The project consists of working near the channel to construct each roadway.

The project lies within FEMA's 100-year regulatory floodplain and floodway as illustrated on the Flood Insurance Rate Map (FIRM, No. 31153C0145G, effective date December 2, 2005). Hydraulic modeling has been completed for this project and the results show the new roadways will not create an increase in the base flood elevations of the floodplain or the floodway. The roadways have a low flood-damage potential that will not obstruct flood flows. I certify that this project will not create an increase in the base flood elevations along the Platte River.

Enclosed with this letter is a Floodplain Development Permit application, a \$100 check for application fees, copies of the FIRM maps, copy of the Flood Insurance Study, multiple copies of the construction plans, site area maps, and property information.

We look forward to the approval of this permit and anticipate starting construction as soon as we obtain your permission. Please feel free to call me at 402.458.5948 should you have any questions about this permit request.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carter Hubbard', written over a horizontal line.

Carter Hubbard, PE, CFM

08-28-13A10:14 RCVD

cc: File

F:\Projects\013-0604_WTRS\Roadway\FloodplainDevelopmentPermit.docx



SARPY COUNTY PLANNING & BUILDING DEPT.

1210 GOLDEN GATE DRIVE PAPILLION, NE 68046

PHONE: 402-593-1555 FAX: 402-593-1558

E-MAIL: PLANNING@SARPY.COM

FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

In order for your application to be considered **COMPLETE**, please answer all applicable questions and provide the following:

1. Completed Floodplain Development Permit Application
2. Non-refundable fee of \$100.00 made payable to Sarpy County Treasurer
3. Two (2) full size site/construction plan drawings
4. Two (2) reduced size site/construction plan drawings (8.5 x 11)
5. One (1) electronic copy of the site/construction plan drawings in PDF form
6. A completed FEMA National Flood Insurance Program (NFIP) Elevation Certificate certified, signed and sealed by land surveyor, engineer, or architect authorized by law to certify elevation information.

PLANNING STAFF USE ONLY:

APPLICATION #: 08 FPD 13-0020
08 28 13 A10:15 RCVD

DATE RECEIVED: 08-28-13 A10:15 RCVD

APPLICATION FEE: \$ 100.00 RECEIPT NO. 722474

RECEIVED BY: BF

NOTES: _____

RECOMMENDATIONS:

PLANNING & BUILDING DEPT: APPROVAL DENIAL

SARPY COUNTY BOARD: APPROVAL DENIAL

RESOLUTION #: _____ DATE: _____

PROPERTY OWNER INFORMATION: (If multiple owners, please attach separate sheet)

NAME: City of Lincoln (Jerry Obrist) E-MAIL: jobrist@lincoln.ne.gov

ADDRESS: 2021 N. 27th Street CITY/STATE/ZIP: Lincoln, NE 68503

MAILING ADDRESS: _____ CITY/STATE/ZIP: _____
(IF DIFFERENT)

PHONE: 402.441.5930 FAX: 402.441.8493

ENGINEERING/SURVEYING OR OTHER CONSULTING PROFESSIONAL'S INFORMATION:

NAME: Olsson Associates (Carter Hubbard) E-MAIL: chubbard@olssonassociates.com

ADDRESS: 1111 Lincoln Mall, Suite 111 CITY/STATE/ZIP: Lincoln, NE 68508

MAILING ADDRESS: _____ CITY/STATE/ZIP: _____
(IF DIFFERENT)

PHONE: 402.458.5948 FAX: 402.474.5160

CONSTRUCTION INFORMATION: (This individual/company is responsible for meeting building code regulations.)

NAME: _____ E-MAIL: _____

ADDRESS: _____ CITY/STATE/ZIP: _____

MAILING ADDRESS: _____ CITY/STATE/ZIP: _____
(IF DIFFERENT)

PHONE: _____ FAX: _____

PROJECT DESCRIPTION: Describe the project in detail, including physical features of the site, proposed improvements, proposed uses or business, operating hours, number of employees, anticipated customers, etc. – Attach additional sheets if necessary.

PLEASE NOTE: A detailed project description is essential to the reviewing process of this request.

A proposed roadway system will be constructed near the Platte River in Sarpy County to gain access to Lincoln Water System's two proposed horizontal water collector wells. The roadway system will allow access to the public water utility pumps at 24301 Ruff Road (Well 14-1) and 23801 Ruff Road (Well 14-2). The top roadway widths are 16-feet wide and are raised with a cohesive fill material to elevations ranging from 1,054 to 1,060 feet. The roadway slopes are a maximum of 0.067% and have 3:1 side slopes beneath a gravel surface. Rip rap barriers are included around well sites at a 3:1 side slope. Tree removal is also required within the Limits of Construction (LOC) while still maintaining a vegetative buffer. HEC-RAS modeling results indicate the roadway system does not comprise a significant obstruction to flows and does not increase upstream flood elevations; thus, the proposed structure is in conformance with no-rise criteria and has low-flood damage potential.

PROJECT SITE INFORMATION: Complete each section in its entirety. If a question is not applicable to your project, please indicate this to show that each question has been carefully considered.

PROPERTY ADDRESS: _____

ASSESSOR'S PARCEL NUMBER: 010420894, 010398597 **ADDITIONAL PARCEL NUMBERS** 011586549, 010420924, 01040300

GENERAL LOCATION: Ruff Road, Sections 32, 33 Township 13N Range 10E and Sections 04, 05 Township 12N Range 10E
(example 189th & Giles Rd – include subdivision name)

LEGAL DESCRIPTION: (Describe property to wit:) _____

SIZE OF PROPERTY: _____ *acres/sq. ft.* **CURRENT ZONING:** AG FP

NAME OF ADJACENT WATERWAY: Platte River

PROPERTY LIES WITHIN: FLOODWAY: FLOOD FRINGE: FLOOD ZONE DESIGNATION: Floodway (B)

LOWEST FLOOR ELEVATION IS TO BE _____ **FEET ABOVE MEAN SEA LEVEL.** (including Basement)

SOURCE OF UTILITY SERVICES: Water - _____ Sewer - _____

Gas - _____ Electric - _____

ADDITIONAL INFORMATION: Please use this space to provide any other information you feel is appropriate for Sarpy County to consider during review of your application. Attach extra sheets if necessary.

The raised roadway accommodates a 54" (Island) and 42" (East Bank) diameter transmission pipe beneath surface. A detention basin is located next to each well site that is used for detention of well blowoff and outfall; not flood storage.

PLEASE NOTE THE FOLLOWING PROCEDURES:

1. The Planning Department will review the application material along with other appropriate departments and/or agencies and provide a recommendation report to the County Board.
2. County Board will hold a public hearing and make a final decision on the Floodplain Development Permit.
3. Prior to the final building inspection a Finished Construction Elevation Certificate or other verification will be required to be submitted to the Planning & Building Department to assure compliance with the Floodplain Development Permit.

The applicant (or authorized agent) has prepared this application and certifies that the facts stated herein and exhibits attached hereto are true and correct.



Applicant Signature

08/13/2013

Date

I, the undersigned, understand a sign will be posted on my property and will remain until the public hearing process at the Planning Commission and County Board is complete. I further understand the Floodplain Development Permit process as stated above and I authorize Sarpy County staff to enter the property for inspection related to the specific request during this process.

Owner Signature (or authorized agent)

Date

Owner Signature (or authorized agent)

Date



Site Data:

Location: Section 04, Township 12N, Range 10E

NFIP Panel: 31153C0145G

Type of Development: Non-residential New Construction

Description of Development:

City of Lincoln is upgrading the Lincoln Water Systems water supply with two roadways to provide access to the two proposed horizontal collection well sites. The proposed wells are located near Raasch Island between Interstate 80 and Highway 6 on the Platte River. The proposed roadway grading width is approximately 30 feet wide with a 16 foot top width with 3:1 side slopes.

Name of Flooding Source: Platte River



Hydraulic modeling Results:

| <i>Upstream Project</i> | STATION 140950 | WSE ₁₀₀ - ft. NGVD29 | WSE ₁₀₀ - ft. NAVD88 | WSE _{FW} - ft. NGVD29 | WSE _{FW} - ft. NAVD88 | Q ₁₀₀ - cfs |
|--|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|------------------------|
| | Flood Insurance Study ¹ | | - | | - | - |
| | Existing Conditions ² | 1061.56 | 1061.89 | 1061.89 | 1062.22 | 187,000 |
| | Proposed Conditions ² | 1061.52 | 1061.85 | 1061.85 | 1062.18 | 187,000 |
| <i>East Roadway</i> | STATION 139100 | WSE ₁₀₀ - ft. NGVD29 | WSE ₁₀₀ - ft. NAVD88 | WSE _{FW} - ft. NGVD29 | WSE _{FW} - ft. NAVD88 | Q ₁₀₀ - cfs |
| FIS Z | Flood Insurance Study ¹ | | 1061.5 ³ | | 1061.9 ³ | 187,000 |
| | Existing Conditions ² | 1060.99 | 1061.32 ³ | 1061.40 | 1061.73 ³ | 187,000 |
| | Proposed Conditions ² | 1060.93 | 1061.26 | 1061.36 | 1061.69 | 187,000 |
| <i>East Roadway West Roadway</i> | STATION 137300 | WSE ₁₀₀ - ft. NGVD29 | WSE ₁₀₀ - ft. NAVD88 | WSE _{FW} - ft. NGVD29 | WSE _{FW} - ft. NAVD88 | Q ₁₀₀ - cfs |
| | Flood Insurance Study ¹ | | - | | - | - |
| | Existing Conditions ² | 1060.57 | 1060.90 | 1061.05 | 1061.38 | 187,000 |
| | Proposed Conditions ² | 1060.50 | 1060.83 | 1060.99 | 1061.32 | 187,000 |
| <i>Well 14 - 1 East Roadway West Roadway</i> | STATION 135700 | WSE ₁₀₀ - ft. NGVD29 | WSE ₁₀₀ - ft. NAVD88 | WSE _{FW} - ft. NGVD29 | WSE _{FW} - ft. NAVD88 | Q ₁₀₀ - cfs |
| | Flood Insurance Study ¹ | | - | | - | - |
| | Existing Conditions ² | 1060.22 | 1060.55 | 1060.75 | 1061.08 | 187,000 |
| | Proposed Conditions ² | 1060.22 | 1060.55 | 1060.75 | 1061.08 | 187,000 |
| <i>East Roadway West Roadway</i> | STATION 134300 | WSE ₁₀₀ - ft. NGVD29 | WSE ₁₀₀ - ft. NAVD88 | WSE _{FW} - ft. NGVD29 | WSE _{FW} - ft. NAVD88 | Q ₁₀₀ - cfs |
| | Flood Insurance Study ¹ | | - | | - | - |
| | Existing Conditions ² | 1059.30 | 1059.63 | 1059.95 | 1060.28 | 250,000 |
| | Proposed Conditions ² | 1059.29 | 1059.62 | 1059.94 | 1060.27 | 250,000 |
| <i>Well 14 - 2 East Roadway</i> | STATION 132900 | WSE ₁₀₀ - ft. NGVD29 | WSE ₁₀₀ - ft. NAVD88 | WSE _{FW} - ft. NGVD29 | WSE _{FW} - ft. NAVD88 | Q ₁₀₀ - cfs |
| FIS Y | Flood Insurance Study ¹ | | 1059.3 ³ | | 1059.6 ³ | 250,000 |
| | Existing Conditions ² | 1058.49 | 1058.82 ³ | 1059.32 | 1059.65 ³ | 250,000 |
| | Proposed Conditions ² | 1058.49 | 1058.82 | 1059.32 | 1059.65 | 250,000 |
| <i>Downstream Project</i> | STATION 130875 | WSE ₁₀₀ - ft. NGVD29 | WSE ₁₀₀ - ft. NAVD88 | WSE _{FW} - ft. NGVD29 | WSE _{FW} - ft. NAVD88 | Q ₁₀₀ - cfs |
| U/S Interstate 80. | Flood Insurance Study ¹ | | - | | - | - |
| | Existing Conditions ² | 1057.70 | 1058.03 | 1058.20 | 1058.53 | 250,000 |
| | Proposed Conditions ² | 1057.70 | 1058.03 | 1058.20 | 1058.53 | 250,000 |

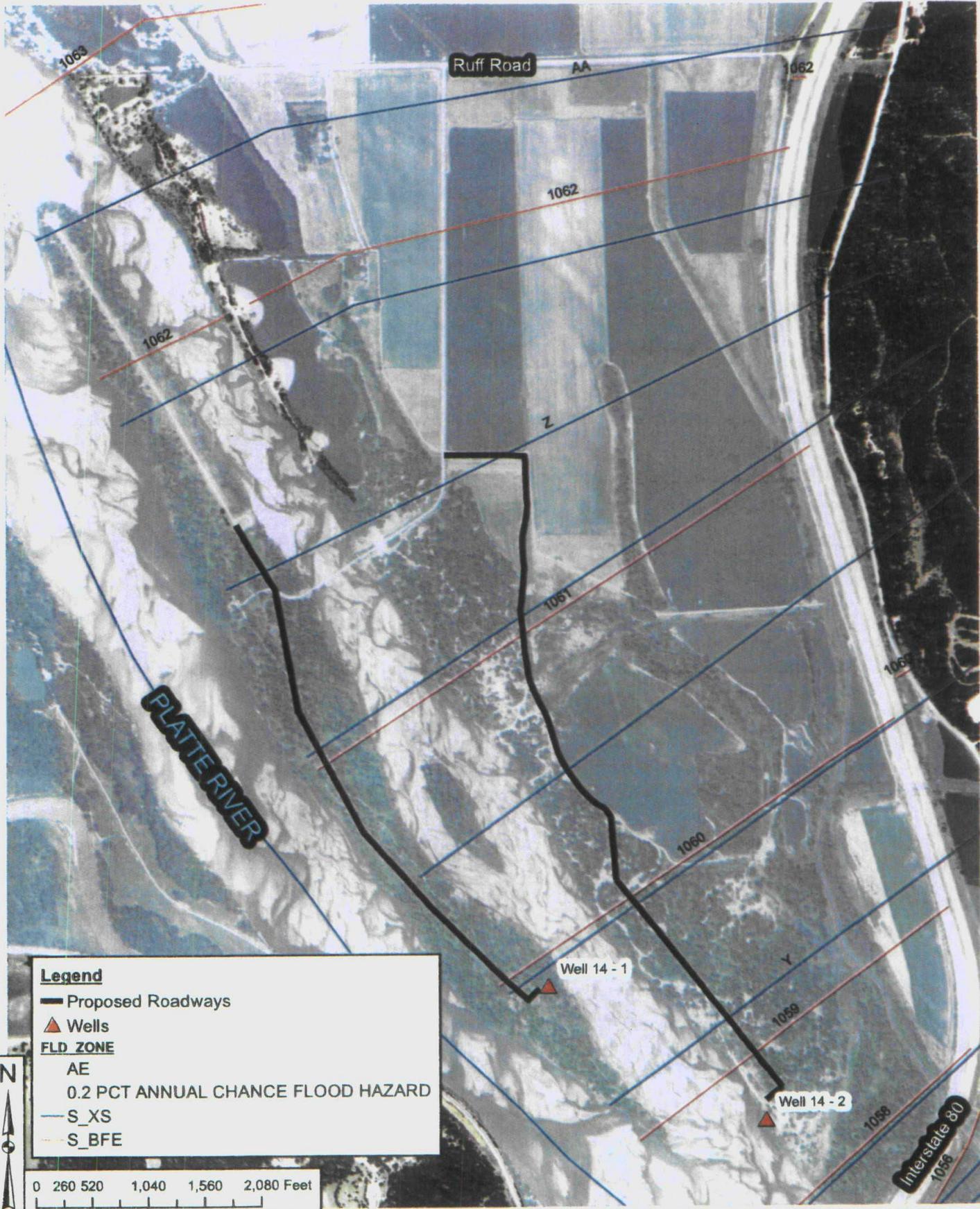
¹Flood Insurance Study based on NAVD88 datum

²Existing and Proposed models created in HEC-RAS using regulatory HEC-2 model based on NGVD29 datum

* Conversion from NGVD29 to NAVD88 is approximately 0.33ft for Sarpy County

³Existing HEC-RAS model within 0.5ft of regulatory Flood Insurance Study

PATH: F:\Projects\013-0604_WTR\GIS\Roadways\EX1.mxd USER: rfarum DATE: Jun 11, 2013



Legend

— Proposed Roadways

▲ Wells

FLD_ZONE

AE

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

— S_XS

— S_BFE



0 260 520 1,040 1,560 2,080 Feet

PROJECT: 013-0604

DRAWN BY: RGF

CHECKED BY: CMH

DATE: June 11, 2013

HORIZONTAL COLLECTOR WELL ROADWAYS
 Lincoln Water Systems: Water Supply Upgrade
 Ashland, Nebraska

OLSSON[®]
 ASSOCIATES

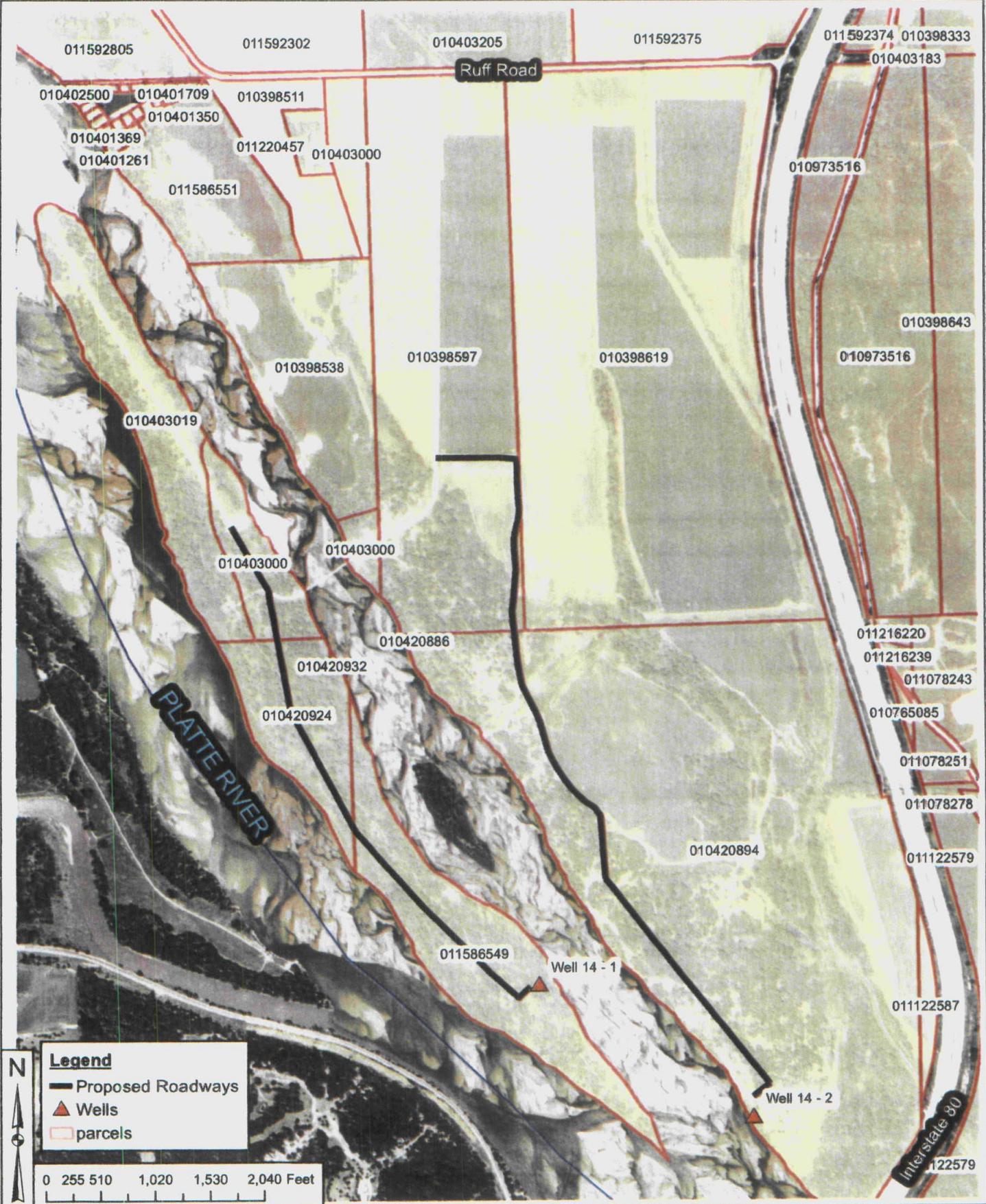
1111 Lincoln Mall, Suite 111
 P.O. Box 84808
 Lincoln, NE 68501-4808

TEL 402.474.8311
 FAX 402.474.5180
 www.olssonassociates.com

EXHIBIT

1

PATH: F:\Projects\013-0604_WTRs\GIS\Roadways\EX2.mxd USER: rsmum DATE: Jun 11, 2013



Legend

- Proposed Roadways
- Wells
- parcels

Scale: 0 255 510 1,020 1,530 2,040 Feet

| | |
|---------------------|-----------------|
| PROJECT: 013-0604 | |
| DRAWN BY: RGF | CHECKED BY: CMH |
| DATE: June 11, 2013 | |

HORIZONTAL COLLECTOR WELL ROADWAYS
 Lincoln Water Systems: Water Supply Upgrade
 Ashland, Nebraska

OLSSON ASSOCIATES

1111 Lincoln Mall, Suite 111
 P.O. Box 84608
 Lincoln, NE 68501-4608

TEL 402.474.8311
 FAX 402.474.8160
 www.olssonassociates.com

EXHIBIT
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