DOUGLAS COUNTY

PURCHASING DEPARTMENT
1819 FARNAM STREET
902 CIVIC CENTER
OMAHA, NE 68183-0902
PHONE (402) 444-4954 FAX (402) 444-4992

December 2, 2015

NOTICE TO BIDDERS:

REQUEST FOR BID ON
OPW 52182
74th and Nina Lift Station Abandonment

Bid Opening Date: Wednesday, December 9, 2015, at 11:00 a.m. CST

ADDENDUM NO. 1:

NOTICE TO PLAN HOLDERS:

Notice to Plan Holders: The following revisions to the contract documents, special provisions, and plans shall be acknowledged on Page P-1 of the bidder's proposal.

Contract Documents, Special Provisions, and Plans:

See attached forty-nine (49) pages of clarifications and changes.

END OF ADDENDUM

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING BELOW AND RETURNING THIS ADDENDUM COVER SHEET WITH YOUR BID.

Eric J. Carlson - Purchasing Agent – City of Omaha/Douglas County Purchasing

Name of Firm

Signed By

Title

ADDENDUM NO. 1

DATE OF ISSUE **December 2, 2015**

DATE OF ADVERTISEMENT **November 11, 2015**

DATE OF BID OPENING **December 9, 2015**

PROJECT NO.

OPW 52182

74th and Nina Lift Station Abandonment

NOTICE TO PLAN HOLDERS:

The following revisions to the contract documents, special provisions, and plans shall be acknowledged on page P-1 of the bidder's proposal.

CONTRACT DOCUMENTS, SPECIAL PROVISIONS, AND PLANS

1. **See attached.**

CITY OF OMAHA
PUBLIC WORKS DEPARTMENT BY B. Decker for Project Engineer BY B. Decker for Environmental Services Manager

ADDENDUM NO. 1

DATE OF ISSUE: December 1, 2015

BID OPENING DATE: December 9, 2015

PROJECT NO: OPW 52182 – 74th and Nina Lift Station Abandonment

NOTICE TO PLAN HOLDERS:

The following revisions to the Project Manual and Plans shall be acknowledged on the first page of the bid form.

I. PROJECT MANUAL

A. Section 00100 – Instruction to Bidders. Paragraph 6.1, remove existing text and replace with the following:

Phone Number: 402-556-4504

B. Section 00301 – Bid Form, Paragraph 5, Schedule of Prices, Line Item 2, Total for Bid Item, add the following:

$2,500

C. Section 00301 – Bid Form, Paragraph 5, Schedule of Prices, Line Item 3, Total for Bid Item, add the following:

$2,500

D. Section 00301 – Bid Form, Paragraph 5, Schedule of Prices, Line Item 12, Unit, remove "EA" and replace with "LS."

E. Section 00301 – Bid Form, Paragraph 5, Schedule of Prices, Line Item 27, Bid Item, remove "201.300" and replace with "202.100."

F. Section 00301 – Bid Form, Paragraph 5, Schedule of Prices, Line Item 29, Bid Item, remove "401.405" and replace with "401.500."

G. Section 00301 – Bid Form, Paragraph 5, Schedule of Prices, Line Item 33, Unit, remove "TON" and replace with "LF."

H. Section 00301 – Bid Form, Paragraph 5, Schedule of Prices, add the following line item:

56	905.031	Install Permanent Paint Marking – 4" YELLOW	162	LF	$	$
TOTAL BASE BID (Line 1 through 56)						**$**

I. Section 01065 – Measure and Payment, Paragraph 1.2, sub-paragraph G, item 29, remove "Standard Bid Item 401.405" and replace with "Standard Bid Item 401.500."

J. Section 01065 – Measure and Payment, Paragraph 1.2, sub-paragraph G, add the following:

56. Item 905.031 – Install Permanent Paint Marking – 4" YELLOW:

1) Replace parking stall paint marking due to pavement replacement as required. Bid item shall conform with the requirements of section 905.

K. Section 01100 – Summary of Work and Coordination, Part 3, remove existing text and replace with the following:

PART 3 – PRODUCTS

L. S.P.-1 – Sequence of Construction, Item 8, remove existing text and replace with the following:

8. Commence bypass pumping of sanitary sewer flow from existing MH No. 2+50 to existing MH 1+45.

M. S.P.-1 – Sequence of Construction, Item 14, remove existing text and replace with the following:

14. Install Sanitary Sewer Pipe No. 24 and tap into existing MH No. 0+00*.

N. S.P.-1 – Sequence of Construction, Item 16, remove existing text and replace with the following:

16. Connect service connection from Apartment Building Address 7403 & 7401 into new Sanitary Sewer No. 24.

II. PLANS

A. Plan Sheet 2, Approximate Bid Quantities, Line item number 12, replace Unit "EA" with "LS."

B. Plan Sheet 2, Approximate Bid Quantities, Line item number 27, replace Bid Item "201.300" with "202.100."

C. Plan Sheet 2, Approximate Bid Quantities, Line item number 29, replace Bid Item "401.405" with "401.500."

D. Plan Sheet 2, Approximate Bid Quantities, Line item number 33, replace Unit "TON" with "LF."

E. Plan Sheet 2, Approximate Bid Quantities, Line item number 49, replace Approximate Quantity "30" with "1."

F. Plan Sheet 2, Approximate Bid Quantities, add the following:

56	**905.031**	**Install Permanent Paint Marking – 4" YELLOW**	**162**	**LF**	

G. Plan Sheet 5, Top of page, add note "Existing M.H. 2+50."

H. Plan Sheet 6, Top right of page, change scale from 1"=50' to 1"=10'.

I. Plan Sheet 9, Top right of page, change scale from 1"=50' to 1"=20'.

III. BIDDER'S QUESTIONS/ANSWERS

A. Several questions were received following the pre-bid meeting. Those questions are listed below:

1. **Q: The specifications (Section 02454, 1.4 and 3.9) mention monitoring plans for assessing ground movement (settlement or heave). Are we expected to somehow monitor Interstate 80, and if so, what will be the protocol for accessing the area?**

   A. *Monitoring the settlement of Interstate 80 will not be required as part of this project. Monitoring the settlement of apartment building 7403/7401 is required. Finished floor elevation and location elevation was taken is listed on plan sheet 3.*

2. **Q: S.P.-1, number 8 says to "Commence bypass pumping of sanitary sewer flow from existing MH No. 2+50 to existing MH No 1+48". Could you point out which manholes these are? The only one close in reference to either of these is the manhole at STA. 1+45 as shown on sheet 5 of the drawings.**

   A. *The note referring to manhole "No 1+48" should read as "No 1+45." The attached reissued plan sheet 5 indicates the locations of each manhole.*

Attachments

A. Pre-Bid Meeting Agenda
B. Minutes of Pre-Bid Meeting held on November 19, 2015
C. Geotechnical Exploration Report – 74th and Nina Lift Station Conversion
D. Reissued Bid Form – Bid Prices
E. Reissued Plan Sheet 2
F. Reissued Plan Sheet 5
G. Reissued Plan Sheet 6
H. Reissued Plan Sheet 9

END OF ADDENDUM

Respectfully Submitted,

Paula B Wells

Paula B Wells, P.E.

12/2/2015

Date

ATTACHMENT A
Pre-Bid Meeting Agenda

MEETING AGENDA

OPW 52182 – 74th and Nina Lift Station Abandonment

Pre-Bid Meeting

TO: **Tim Papstein– City Project Manager**
Heather Tippey Pierce – City General Services
Tom Glow – Construction Division Manager
Paula Wells – The Wells Resource, LLC
Charles Quigley – The Wells Resource, LLC
Adam Wilmes – City Sewer Design Group Manager

MEETING DATE: **November 19, 2015**
MEETING TIME: **9:00 am**
VENUE: **Douglas/Omaha Civic Center Room 603**

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1. Introductions
   a. City Project Manager: **Tim Papstein**
   b. Construction Manager: TBD
   c. Design Project Manager: **Paula Wells/Charles Quigley**
   d. Environmental Inspector: TBD
   e. Construction Division Manager: **Tom Glow**
   f. City General Services Manager: **Heather Tippey Pierce**

2. Bid Opening Date, Place and Time (Section 00020-Invitation To Bid)-Discussed by **Tim Papstein**
   - Bid opening to be held **Wednesday, December 9, 2015 at Omaha/Douglas Civic Center.** Time of opening **11 am.**
   - Mechanics for bid submittal see Specification Section 00020-Invitation to Bid.

   Discussion:
   -

3. Interpretations (Section 00100-Instructions to Bidders) -Discussed by **Tim Papstein.**
   - Reference Article 6.
   - Last addenda issued no later than 7 days before bid opening.
   - Last day for questions will be COB on **Monday, November 30, 2015**
   - Questions addressed to **Paula Wells** per listed contact information.
   - Copy of the minutes for this meeting will be included in addenda.

   Discussion:
   -

4. Contracting Requirements-Discussed by **Tim Papstein** and **Heather Tippey Pierce**
   - Funds for the Project will come from the general sewer use fund.
   - Small and Emerging Businesses (Instructions to Bidders 00100). Discussion by Heather Tippey Pierce.
   - Subcontractor listings on bid form.

   Discussion:

-

5. Project Overview and Coordination-Discussed by **Tim Papstein/Paula Wells**
   - Project involves the abandonment of existing lift station - salvage
   - Installation of new gravity piping under Interstate 80 west of 72nd Street
   - Access to Apartments and Business during construction.
   - Low Bridge for access to south.
   - Access From 72nd Street and I 80 on ramp.
   - Power Pole support.
   - Trees and bird surveys.

   Discussion:

6. Contract Times (Section 00500-Agreement)-Discussed by **Tim Papstein**
   - Reference Article 4.
   - Anticipated Notice-To-Proceed will be given **April 2016**
   - Substantial Completion will be **90 calendar** days after Notice-To-Proceed.
   - Final Completion will be **120 calendar** days after Substantial Completion.

   Discussion:

   -

7. Liquidated Damages (Section 00500-Agreement) -Discussed by **Tim Papstein**
   - Reference Article 4.3.
   - For Substantial Completion **three thousand dollars ($3,000.00)** per day.
   - For Final Completion **One thousand five hundred dollars ($1,500.00)** per day.

   Discussion:

   -

8. Construction Progress Schedule (Section 01320-Construction Progress Schedule) -Discussed by **Tim Papstein**
   - Development of acceptable baseline schedule is part of mobilization Bid Item 1.
   - Monthly update required as part of Payment Application process.

   Discussion:

   -

9. Payments and Retainage (Section 00500-Agreement) -Discussed by **Tim Papstein**
   - Reference Article 6.
   - Retainage will be ten percent of the cost of the work completed until 50% of the cost of the work is achieved.
   - Ten percent retainage for stored materials not incorporated into the Work.
   - Upon Substantial Completion, retainage may be reduced to 125 percent of the cost the remaining work on the contract as estimated by Engineer or CM.

   Discussion:

   -

10. Supplementary Reports (Section 00805-Supplemantary Conditions) -Discussed by **Tim Papstein**
    - Examples of Materials Handling Plan and Environmental Protection Plan are available for review at Issuing Office and are included on the reference CD.
    - Geotechnical Exploration Report prepared by Thiele Geotech, Inc. January 24, 2012

    Discussion:

    -

11. Project Property and Easement Status-Discussed by **Mark Thurber/Tim Papstein**
    - All work within easements and NDOR ROW.

    Discussion:

    -

12. Environmental Items Discussed by **Paula Wells/Charles Quigley/Timothy Papstein/Tom Glow**
    - Permits (Section 01561)
      A. Environmental Overview
         - Tim O'Bryan letter
         - Environmental overview of site
      B. Listed Permits to be obtained by Owner:
         - NDEQ Construction Permit – Received
         - NDEQ General (NPDES) Construction Stormwater Discharge Permit – Applied
         - City of Omaha Grading and Erosion Control Permit – Applied
         - City of Omaha Post Construction Stormwater Management Plan – Applied

- Nebraska Department of Roads (NDOR) – Utilities/ROW Occupation Permit/Appling for Extension of time.

C. Listed Permits to be obtained by Contractor:
   - NDEQ General (NPDES) Construction Dewatering Discharge Permit (if needed)
   - NDEQ General (NPDES) Hydrostatic Testing Water Discharge Permit (if needed)

D. Excavated Materials (Section 01560)

E. Environmental Allowance (Section 01065)

F. Temporary Environmental Protection (Section 01560-Temporary Environmental Controls)

G. Environmental Protection Plan.
   - Draft submitted no later than 15 days after Notice to Award.

H. Environmental Compliance Officer.

I. Traffic Control.

Discussion:

-

13. Survey Points Discussed by **Tim Papstein/Tom Glow**
    - Will be provided by Owner through Construction Manager

Discussion:

-

14. Project Meetings (Section 01200-Project Meetings) Discussed by **Tim Papstein/Tom Glow**
    - Preconstruction Conference.
    - Preliminary Progress Schedule Review Meeting.
    - Progress Meetings.
        - Weekly
        - Monthly
    - Coordination meetings with other contractors (If required).

Discussion:

-

15. Substitutions and "or Equals" (Section 00100-Instructions To Bidders) Discussed by **Tim Papstein**
    Reference Article 10.

Discussion:

-

16. Testing and Special Inspections (Section 01060-Special Conditions) Discussed by **Tim Papstein/Tom Glow**
    - Reference Article 1.7.

- City will hire third party testing firm for project.

Discussion:

-

17. Sales and Use Tax (Section 00100) Discussed by **Tim Papstein**
    - Reference Article 22.
    - Project exempt from Nebraska State Sales and Use Taxes on materials and equipment incorporated into Work.
    - City will provide Purchasing Agent Appointment and Exempt Sale Certificate, combined SF13 and 17 to successful contractor.

    Discussion:

    -

18. Administration of Construction Documentations Discussed by **Tim Papstein/Tom Glow**

    - Covers administration of shop drawings, samples and miscellaneous submittals.

    Discussion:

    -

ATTACHMENT B
Minutes of Pre-Bid Meeting

The Wells Resource LLC
3919 Cuming St.
Omaha, NE 68131
Phone: 402-556-4504

74th and Nina Lift Station Abandonment
OPW 52182, Pre-bid Meeting

November 19, 2015

Attendees:

Tim Papstein – City of Omaha Public Works
Gabe Astorino – City of Omaha
Heather Tippy Pierce – City of Omaha
Mark Thurber – City of Omaha Right-of-Way
Paula Wells – The Wells Resource LLC
Charles Quigley – The Wells Resource LLC
Dave Reyas – Graham Construction
Marty Misfeldt – Graham Construction
John R. Judds – Judds Bros.
Penny Korisko – Neuvirth Construction
Bob Johnson – Brunow Contracting
Doug Godown – Horizontal Boring
Tim Shaw – Erikson Construction

I. Introduction

- The Construction Manager for the City of Omaha will be Gabe Astorino.

II. Interpretations

- Questions need to be submitted in writing by Monday, November 30, 2015.

III. Contracting Requirements

- The bid items list is two pages. Make sure both pages are completed.
- If the total amount for the bid item does not match the unit price then the unit price controls and the total bid amount will be adjusted.
- 10% of the total cost of the project will need to be performed by a Small Emerging Business (SEB).

- The bid form needs to be remitted. Check article 7 to make sure the bid form has been completed.
- Make sure the 5% bid security has been included.
- The SEB that has been identified on the bid must be the SEB used during construction.
- A foreign corporation needs a Nebraska registration at the time of bid.

IV. Project Overview

- Contractors have been advised to go to the site and review the tight construction conditions.
- The City has obtained construction easements with both AmeriPride Linen & Apparel Services and the Ontario Place Apartments.
- The road to access the south side of the project site (D Street) has a restricted height conditions. Confirm that your equipment can pass without hitting the underside of the bridge.
- The City has obtained an access easement with NDOR to access the north side of the project from the I-80 westbound onramp. The permit is expired and will be extended by the City for the current construction timeframe.
- The project involves tunneling near existing structures so vibration monitoring will need to be performed.
- Depending on the time of the year the construction activities begin a bird survey may need to be performed prior to tree removal. This will be done by the City
- There are existing power poles near the tunneling locations that need to be protected.

V. Contract Times

- The current schedule has construction starting in April of 2016.
- Substantial completion must be met 90 calendar days after Notice-To-Proceed, and final completion 120 calendar days after Notice-To-Proceed.

VI. Construction Progress Schedule

- The contractor must submit a construction schedule and monthly updates after the contract has been awarded.

VII. Supplementary Reports

- The contractor will need to submit an Environmental Protection Plan.
- The geotech report will be included in the addendum.
- Make sure you have your SWPPP updated during construction.

VIII. Environmental

- Although it is not expected to be needed, the contractor will be responsible for dewatering and hydrostatic testing.
- The Environmental Allowance and SWPPP Allowance will be included in the addendum.
- Make sure you name a qualified Environmental Compliance Officer.

IX. Survey

- The City will provide the survey. Coordinate timing with the Construction Manager.

X. Project Meetings

- The pre-construction meeting will be held in the spring.

XI. Additional Items

- The sales tax exempt certificate will be supplied with the contract.
- Be aware that there is a new gang near the area. The contractor is responsible for removing any graffiti from the site. Also make sure appropriate measures are taken to reduce the chance of theft from the site, i.e. remove batteries from all equipment, and install a security fence around the staging area.
- The contractor will be responsible for replacing the sunken NDOR fence on the north side of the site.
- A list of salvage items associated with the lift station is included in the project manual.
- The pavement repair, seeding, sodding, etc. is part of the contract.
- Details about the access using the I-80 west bound ramp can be found in the special provisions.

City of Omaha Public Works
Utility Coordination Meeting - SIGN IN LIST
OPW 52182 - 74th and Nina Lift Station Abandonment
November 19, 2015 9:00AM

NAME	POSITION OR TITLE	COMPANY NAME	PHONE NUMBER	E:MAIL ADDRESS
TIM PAPSTEIN	City P.M.	City of Omaha PW	(402) 444-3590	TIM.PAPSTEIN@cityofomaha.org
Doug Godown	Horizontal Boring	Supt	402-266-5347	dougg@hbttrenchless.com
Paula Wells	PM	TWR	402-658-5202	paulabwells@aol.com
Charles Quigley	Civil Eng	TWR	402-556-4504	charlesmquigley@aol.com
Tim Show	PM	Erikson Const	402 426 3119	timse@eriksonconst.com
Dave Reed	PM	Graham	402-891-9651	grahamomaha@grahamus.com
Marty Mayfeldt	Estimator	Graham	402-891-9651	" "
Gabe Astorino	City CM	City of Omaha	402-813-5446	gabe.astorino@cityofomaha.org
Heather Tippey Pierce	SM-@PW		402-444-3280	HTPierce@cityofomaha.org
John R. Judds	CEO	Judds Bros	402 610-5420	jjudds@judsbros.com

PW_SIGNIN.DOC

City of Omaha Public Works
Utility Coordination Meeting - SIGN IN LIST
OPW 52182 - 74th and Nina Lift Station Abandonment
November 19, 2015 9:00AM

NAME	POSITION OR TITLE	COMPANY NAME	PHONE NUMBER	E:MAIL ADDRESS
M Penny Korisko	Estimator	Neuvirth Construction	402 455 2255	penny@neuvirth.com
Mark Thurber	ROW	CITY	402 444 5243	
Bob Johnson	Proj. Mgr.	Brown Contracting	402 960 9952	bobj@brownconstr[illegible]

PW_SIGNIN.DOC

ATTACHMENT C
Geotechnical Exploration Report

Thiele Geotech Inc

Geotechnical Exploration Report

74th and Nina Lift Station Conversion

74th & Nina Street
Omaha, Nebraska

Prepared for:
The Wells Resource LLC
3506 Hawthorne Avenue
Omaha, Nebraska 68131

January 24, 2012
TG Project No. 11659.00

PROFESSIONAL CIVIL ENGINEER
ROBERT K.
LAPKE
E-10089
STATE OF NEBRASKA

THIELE GEOTECH, INC.
13478 Chandler Road
Omaha, Nebraska 68138-3716
402.556.2171 Fax 402.556.7831
www.thielegeotech.com

GEOTECHNICAL ▪ MATERIAL ▪ ENVIRONMENTAL ▪ ENGINEERING

Geotechnical Exploration Report

74th and Nina Lift Station Conversion

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APPENDIX

INTRODUCTION

Thiele Geotech, Inc. has completed a geotechnical exploration study for the proposed lift station conversion project to be located near 74th and Nina Street in Omaha, Nebraska. The purpose of this study was to identify the general soil and ground water conditions underlying the site; to present the relevant engineering properties of the existing soils; to provide earthwork and site preparation recommendations; and to recommend design criteria and parameters for sewer installation.

This study included soil borings, laboratory testing, and engineering analysis. A series of two test borings was spaced across the project site at strategic locations. The field and laboratory data are presented in the Appendix, along with a description of investigative methods.

The drilling and testing performed for this study were conducted solely for geotechnical analysis. No analytical testing or environmental assessment has been conducted. Any statements or observations in this report regarding odors, discoloration, or suspicious conditions are strictly for the information of our client. If an evaluation of environmental conditions is desired, a separate environmental assessment should be conducted. This study did not include biological assessment (e.g. mold, fungi, bacteria) or evaluation of measures for their control.

It should also be noted that this report was prepared for design purposes only, and may not be sufficient for a contractor in bid preparation. Prospective contractors should evaluate potential construction problems on the basis of their own knowledge and experience in the local area and on similar projects, taking into account their own intended construction methods and procedures.

This report is an instrument of service prepared for use by our client on this specific project. The report may be duplicated as necessary and distributed to those directly associated with this project, including members of the design team and prospective contractors. However, the technical approach and report format shall be considered proprietary and confidential, and this report may not be distributed in whole or in part to any third party not directly associated with this project. By using and relying on this report, all other parties agree to the same terms, conditions, and limitations to which the client has agreed.

PROJECT DESCRIPTION

We understand the project to consist of eliminating the existing lift station located near 74th and Nina Street and converting the system to a gravity sewer that will direct flow under Interstate 80 where it will connect to an existing sanitary sewer along the south side of the interstate. The new sewer line will be an 8 inch sanitary pipe. Entry and receiving pits will be excavated on the north and south sides of the interstate, respectively. This will allow for installing a sewer below the interstate though jacking and boring. We understand the pits will be approximately 10 to 15 feet in depth. Some cut and cover construction is also planned.

SURFACE AND SUBSURFACE CONDITIONS

SITE CONDITIONS

The north end of the alignment begins at the south side of the Ontario Place apartments. The south side of the apartment complex consisted of grass cover. The alignment runs across both the north and south grass covered right of ways of Interstate 80. The sewer will be bored under the existing Interstate 80. The south end of the alignment will connect to the existing sewer located below concrete paved D Street. Across the proposed alignment approximately 16 feet of relief was noted.

LOCAL GEOLOGY

The surface geology of eastern Nebraska is Pleistocene in age and consists of eolian (wind-blown) deposits of Peoria and Loveland loess. The loess formed in dune-shaped hills west of the Missouri River. The Peoria loess typically consists of silty lean clays that are stiff when dry but become softer with increasing moisture content. The Peoria often exhibits low unit weight and is collapse susceptible. The Loveland loess is an older deposit, and typically consists of lean clays. The Loveland generally exhibits higher unit weights and shear strengths than the Peoria.

The loess overlies Pleistocene glacial deposits of Kansan and Nebraskan till. The till consists of lean to fat clays mixed with sand, gravel, and occasional cobbles. The glacial deposits are generally fairly deep, but are sometimes near the surface at lower elevations on steep slopes. Cretaceous sandstone or Pennsylvanian limestone and shale form the bedrock unit below the glacial deposits. The depth to bedrock is normally great, and rock is rarely encountered in construction.

Along drainageways, alluvial and colluvial deposits are typically present. These soils were formed by erosion of the adjoining loess-mantled hills. Alluvial deposits are generally present along creeks and in major drainageways. The upper several feet of alluvium are usually stiffer due to the effects of desiccation. Colluvial soils are usually located at the base of steep slopes and in upland draws, and are formed by local creep and sloughing.

SOIL CONDITIONS

The soils encountered in the test borings generally consisted of man-placed fill, Peoria loess, and Loveland loess.

Man-placed fill was encountered from the ground surface to a depth of 3 feet below grade in boring B-1. The fill was described as brown, moist, very hard, lean clay. Based on an assumed Standard Proctor, the fill had a compaction of 100 percent.

Peoria loess was encountered below the fill in boring B-1 and below the concrete in boring B-2. The Peoria extended to a depth of 22.5 feet below grade in boring B-1, and to a depth of 13 feet below grade in boring B-2. The Peoria was described as brown, moist to very moist, soft to firm, lean clay.

Loveland loess was encountered below the Peoria loess and extended to the bottom of both borings. The Loveland loess was described as reddish brown, brown, moist to very moist, firm, lean clay.

Ranges of engineering properties from laboratory tests on selected samples are presented in Table 1.

Table 1 - Laboratory Results

Soil Layer	Moisture Content (%)	Dry Unit Weight (pcf)	Unconfined Compressive Strength (tsf)	Classification *(LL/PI)*
Man-placed fill	21	108	4.2	CL (visual)
Peoria loess	24 to 29	89 to 94	0.6 to 1.2	CL (visual)
Loveland loess	23 to 28	91 to 98	0.8 to 1.3	CL (visual)

GROUND WATER OBSERVATIONS

Ground water was not encountered in any of the test borings during or at the end of the drilling operation. However, it must be noted that ground water levels may fluctuate due to seasonal variations and other factors.

ANALYSIS AND RECOMMENDATIONS

GENERAL

The soils encountered in our test borings consisted of well-compacted fill, moderate density Peoria loess, and moderate density Loveland loess. Fill was encountered within the upper 3 feet of boring B-1, and had a moderate moisture content. It appears that the proposed sewer alignment will be founded in natural soils, primarily the Peoria loess. The Peoria and Loveland loess soils were relatively firm and consistently had somewhat elevated moisture contents. No groundwater was encountered in our test borings. General sewer installation and pipe bedding recommendations are given in the following sections.

HORIZONTAL SEWER INSTALLATION

Bore and jack technology or microtunneling is planned to install the sanitary sewer pipe under Interstate 80. The bore and jack technology uses an auger to advance the horizontal alignment while simultaneously jacking the pipe or casing behind the auger. Microtunneling uses a computer controlled tunneling machine to maintain alignment and also a pneumatic ram to advance the casing behind the tunnel machine in a single pass.

Soils along these alignments are relatively firm and are comprised mostly of natural soils. No groundwater was encountered in our test borings. Normal installation methods are expected.

PIPE BEDDING

Minor amounts of cut and cover installation is planned near each bore pit. Soil bearing capacity is not of major concern because the installation of the pipe will not increase the net effective overburden pressure on the underlying soils. Therefore the main point of concern is constructability; the pipe bedding must support the pipe at proper line and grade during placement and compaction of earth backfill.

Where firm bottom conditions are present, normal bedding practices may be followed. For small diameter RCP or DIP (less than 30 inches), the pipe may be installed in a soil cradle excavated to fit the bottom 90° of the pipe circumference. For soft bottom conditions, overexcavation of 12 to 18 inches of soft foundation soil and replacement with 2½ inch crushed rock or recycled crushed concrete may be necessary.

EARTHWORK AND EXCAVATIONS

The excavated site soils will generally be suitable for reuse as structural fill, although some moisture conditioning may be required. Any off-site borrow should be a clean, inorganic silt or lean clay with a liquid limit less than 45 and a plasticity index less than 20. Borrow material should not contain an

appreciable amount of roots, rock, or debris, and should not contain any foreign material with a dimension greater than 3 inches.

All fills should be placed and compacted as structural fill. Fill should be placed in thin lifts not to exceed 8 inches loose thickness. Structural fill should be compacted with a sheepsfoot type roller to a minimum of 95 percent of the maximum dry density (ASTM D698, Standard Proctor). Moisture content should be controlled to between -3 and +4 percent of optimum.

Under paved areas, backfill soils in narrow utility trenches (less than 6 feet wide) below a depth of 5 feet should be compacted to a minimum of 92 percent of the maximum dry density at a moisture content between -3 and +6 percent of optimum (ASTM D698, Standard Proctor). Backfill within the upper 5 feet of narrow trenches, for the full depth of any wider trenches, and around manholes should be compacted to a minimum of 95 percent of the maximum dry density at a moisture content between -3 and +4 percent of optimum. For trenches more than 5 feet outside of paved areas, backfill should be compacted to a minimum of 90 percent of the maximum dry density at a moisture content that will permit compaction to that level. Lift thicknesses should be appropriately matched to the type of compaction equipment used.

Quality control testing is an important part of any earthwork operation. It is recommended that a representative of the geotechnical engineer periodically monitor earthwork operations to verify proper compliance with these recommendations, including compaction levels.

OSHA's Construction Standards for Excavations require that the contractor's excavation activities follow certain worker safety procedures. These include a requirement that excavations over 4 feet deep be sloped back, shored, or shielded. The soils encountered in the test borings generally classify as type B soils according to the OSHA standard. The maximum allowable slope for an unbraced excavation in these soils is 1H:1V, although other provisions and restrictions apply. Excavations over 20 feet deep require specific design by a licensed Professional Engineer. The contractor is solely responsible for site/excavation safety and compliance with OSHA regulations. The geotechnical engineer assumes no responsibility for site safety, and the above information is provided only for consideration by the designers.

LATERAL EARTH PRESSURES

Jacking and receiving pit walls will be subjected to lateral earth pressures due to an unbalanced soil height of up to 15 feet. The properties listed in Table 2 can be used in wall design.

Table 2 - Lateral Earth Pressure Values

Property	Coefficient	Drained Conditions	Undrained Conditions
Active Lateral Pressure	0.40	40 pcf (Equivalent Fluid)	85 pcf (Equivalent Fluid)
At-Rest Lateral Pressure	0.50	50 pcf (Equivalent Fluid)	90 pcf (Equivalent Fluid)
Passive Resistance	2.50	300 pcf (Equivalent Fluid)	150 pcf (Equivalent Fluid)
Soil Unit Weight (compacted backfill)		120 pcf	60 pcf
Base Adhesion *		500 psf	500 psf

** Multiply by contact area to determine lateral resistance, limited to ½ of the vertical load*
Note: Coefficients and equivalent fluid values are for level backfill. Sloping backfill adds significantly greater load to the wall. These values should be re-evaluated if sloping backfill conditions are present.

If the top of the wall is able to deflect inward approximately 0.4% of the wall height, then active earth pressures can develop. However, if the shoring wall is braced or otherwise restricted from deflecting, then at-rest earth pressures should be used. Drainage measures should be incorporated in the wall to ensure drained conditions. Proper backfill compaction is also an important factor in long-term stability.

SEISMIC SITE CLASS

Seismic structural design requirements are dictated by a site classification based on average soil properties within the top 100 feet. Based on our local experience, the soil profile was estimated below the maximum boring depth. The average undrained shear strength was then estimated based on the actual laboratory testing and on assumed soil properties for the deeper soil profile.

The site classifies as Site Class D (stiff soil profile) according to Table 1613.5.2 of the 2009 International Building Code.

PAVEMENT RESTORATION

Following the installation of new sanitary sewer pipe within D Street, the pavement will need to be restored to its initial condition. Pavement performance is directly affected by the degree of compaction, uniformity, and stability of the subgrade. This is particularly important where traffic from heavy trucks is anticipated. The final subgrade should be reworked and compacted immediately prior to pavement construction. The subgrade should then be proof rolled, and any unstable areas should be excavated and replaced to create a uniform and stable subgrade.

For concrete pavements, it is recommended that the upper 12 inches of the subgrade be compacted to a minimum of 90 percent of the maximum dry density at a moisture content between -3 and +4 percent

of optimum (ASTM D1557, Modified Proctor). Subgrade preparation should extend a minimum of 2 feet laterally beyond the edge of the pavement.

Contraction joints are important to control the location of cracks in concrete pavement that result from stresses caused by normal drying shrinkage and thermal effects. A proper jointing system will enhance structural capacity and prolong the life span of a concrete pavement as well as improve ride quality. Contraction joints should be cut to a minimum of ¼ of the slab thickness (1/5 of the thickness for early entry saw method). Joints should be cut as soon as practical after the concrete has set sufficiently to support foot traffic, and must be cut before any shrinkage cracks form. Joints should be spaced no more than 24 times the thickness of the slab or 12½ feet maximum. Panels should be kept as square as possible, with the length to width ratio limited to 125 percent. Dowel bars should be used for load transfer across construction joints, and should be considered for contraction joints subjected to heavy truck traffic. Joints should be carefully planned and laid out to meet inlets, drainage structures, reentrant corners, and radiuses. Joints should be perpendicular to edges and radiuses, and should not form angles less than 45 degrees or over 225 degrees. Isolation joints should be provided around any structures. We recommend that joints be sealed to reduce moisture infiltration and to reduce the accumulation of non-compressible materials.

Backfill behind curbs should consist of relatively impervious cohesive soils. Backfill should be compacted to a minimum of 95 percent of the maximum dry density (ASTM D698) to minimize subsidence and to reduce moisture infiltration around the edges of the pavement. Granular soils should not be used for fill in islands as this can increase infiltration into the subgrade. Porous fills, including granular material and loosely placed clay soils, also act as a reservoir that can allow moisture to seep through cracks and joints onto the pavement surface, sometimes long after the water is trapped. This condition is especially pronounced when loose backfill consolidates and allows surface water to pond.

OTHER RECOMMENDATIONS

During detailed design, additional issues may arise and possible conflicts may occur with our recommendations. Such issues and conflicts should be resolved through dialogue between the geotechnical engineer and designers. It is recommended that the geotechnical engineer review the final design, including the plans and specifications, to verify that our recommendations are properly interpreted and incorporated into the design.

If any changes are made in the design of the project, including the nature or location of proposed facilities on the site or significant elevation changes, the analysis and recommendations of this report shall not be considered valid unless the changes are reviewed. The analysis and recommendations of this report should not be applied to different projects on the same site or to similar projects on different sites.

The analysis and recommendations in this report are based upon borings at specific locations. The nature and extent of variation between boring locations is impossible to predict. Because of this, geotechnical recommendations are preliminary until they have been confirmed through observation of site excavation and earthwork preparation. If variations appear during subsequent exploration or during construction, we may reevaluate our recommendations and modify them, if appropriate. The geotechnical engineer should be retained during construction to observe compliance with the recommendations of this report and to provide quality control testing of earthwork construction. If these services are provided by others, including the contractor, the entity that provides construction phase observation and testing shares responsibility as the geotechnical engineer of record for implementing or modifying these recommendations.

Respectfully submitted,
Thiele Geotech, Inc.

Prepared by,

Stephen P. Matychuk, E.I.

Prepared under the supervision of,

Robert K. Lapke, P.E.
Nebraska License E-10089

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APPENDIX

Subsurface Exploration Methods

Legend of Terms

Boring Location Plan

Boring Logs

Soil Test Summary

SUBSURFACE EXPLORATION METHODS

The fieldwork for this study was conducted on December 27, 2011. The exploratory program consisted of two test borings drilled at the approximate locations shown on the Boring Location Plan. Boring locations were selected to provide the desired site coverage and were adjusted to accommodate access conditions. The boring locations were laid out by estimating angles and measuring from existing site features. The boring locations should only be considered accurate to the degree implied by the methods used to define them.

Test borings were advanced using flight augers powered by a truck-mounted drill rig. Soil samples were obtained at selected depths as indicated on the boring logs. A 3-inch nominal diameter thin-walled sampler was hydraulically pushed to obtain undisturbed samples.

The boring logs were prepared based on visual classification of the samples and drill cuttings, and by observation of the drilling characteristics of the subsurface formations. The logs have been supplemented and modified based on the laboratory test results and further examination of the recovered samples. The stratification lines on the boring logs represent the approximate boundary between soil types, but the insitu transition may be gradual.

Water level observations were made at the times stated on the boring logs. The borings were backfilled with drill cuttings at the completion of the fieldwork.

The field boring logs were reviewed to outline the depths, thicknesses, and extent of the soil strata. A laboratory testing program was then developed to further classify the basic soils and to evaluate the engineering properties for use in our analysis.

Laboratory tests to further classify the soils included visual classification, moisture content, and dry unit weight. The shear strengths of cohesive samples were evaluated using the unconfined compression test.

The boring logs and related information in this report are indicators of subsurface conditions only at the specific locations and times noted. Subsurface conditions, including ground water levels, at other locations of the site may differ significantly from conditions that exist at the sampling locations. Also note that the passage of time may affect conditions at the sampling locations.

LEGEND OF TERMS

Soil Description Terms

Consistency - Fine Grained	Consistency - Coarse Grained	Moisture Conditions
Very Soft, Soft, Firm, Hard, Very Hard	Very Loose, Loose, Medium Dense, Dense, Very Dense	Dry, Slightly Moist, Moist Very Moist, Wet (Saturated)

Sample Identification

Sample Type	Sample Data	Laboratory Data
U -- Undisturbed (Shelby Tube)	No. -- Number	MC -- Moisture content
S -- Split barrel (disturbed)	SPT -- Standard penetration test	γ_d -- Dry unit weight
C -- Continuous sample	bpf -- blows per foot	q_u -- Unconfined compression
A -- Auger cuttings (disturbed)	Rec -- Recovery	LL/PI -- Liquid limit & plasticity index

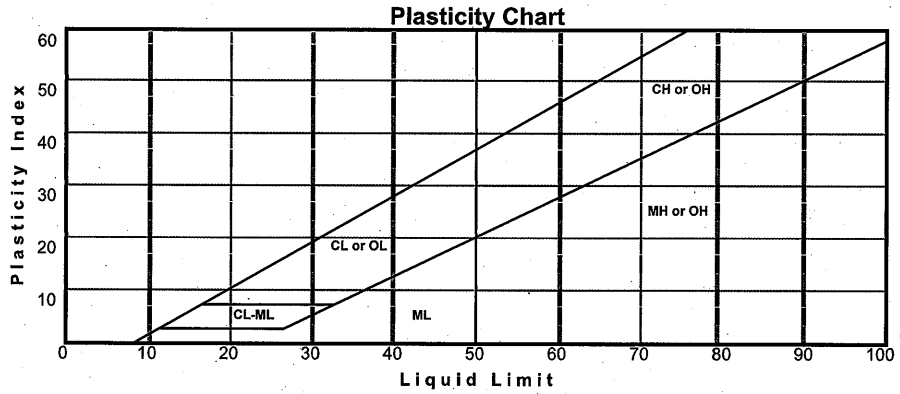
Unified Soil Classification System

Peat	Pt	Highly organic soils	50% or more smaller than No. 200 sieve
Fat Clay	CH	Clay - Liquid Limit > 50 *	
Elastic Silt	MH	Silt - Liquid Limit > 50 *	
Lean Clay	CL	Clay - Liquid Limit < 50 *	
Silt	ML	Silt - Liquid Limit < 50 *	
Silty Clay	CL-ML	Silty Clay *	
Clayey Sand	SC	Sands with 12 to 50 percent smaller than No. 200 sieve *	More than 50% larger than No. 200 sieve and % sand > % Gravel
Silty Sand	SM		
Poorly-Graded Sand with Clay	SP-SC	Sands with 5 to 12 percent smaller than No. 200 Sieve *	
Poorly-Graded Sand with Silt	SP-SM		
Well-Graded Sand with Clay **	SW-SC		
Well-Graded Sand with Silt **	SW-SM		
Poorly-Graded Sand	SP	Sands with less than 5 percent smaller than No. 200 sieve *	
Well-Graded Sand **	SW		
Clayey Gravel	GC	Gravels with 12 to 50 percent smaller than No. 200 Sieve *	More than 50% larger than No. 200 sieve and % gravel > % sand
Silty Gravel	GM		
Poorly-Graded Gravel with Clay	GP-GC	Gravels with 5 to 12 percent smaller than No. 200 sieve *	
Poorly-Graded Gravel with Silt	GP-GM		
Well-Graded Gravel with Clay **	GW-GC		
Well-Graded Gravel with Silt **	GW-GM		
Poorly-Graded Gravel	GP	Gravels with less than 5 percent smaller than No. 200 sieve *	
Well-Graded Gravel **	GW		

* *See Plasticity Chart for definition of silts and clays*

** *See Criteria for Sands and Gravels for definition of well-graded*

Plasticity Chart

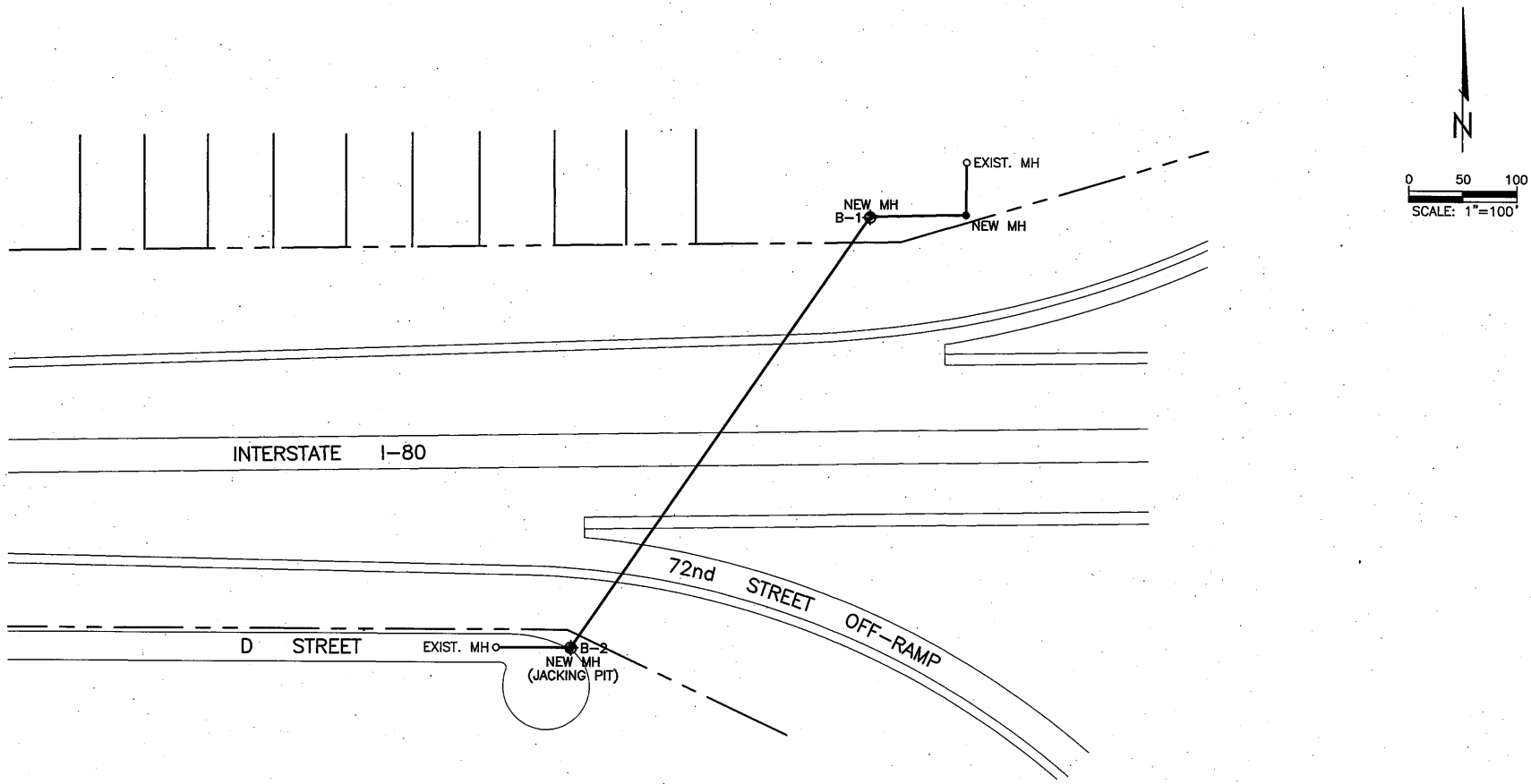


Criteria for Sands and Gravels

Boulders	Cobbles	Coarse Gravel	Fine Gravel	Coarse Sand	Medium Sand	Fine Sand	FINES (silt or clay)
Sieve size 10"		3"	¾"	#4	#10	#40	#200

Well-graded sands (SW) $C_u=D_{60}/D_{10}\geq 6$ and $C_c=(D_{30})^2/(D_{10} \times D_{60}) \leq 3$ and ≥ 1

Well-graded gravels (GW) $C_u=D_{60}/D_{10}\geq 4$ and $C_c=(D_{30})^2/(D_{10} \times D_{60}) \leq 3$ and ≥ 1



LEGEND

◆ BORING LOCATION

Thiele Geotech Inc

PROJECT

74th & NINA LIFT STATION
74th & NINA STREET
OMAHA, NEBRASKA

JOB # 11659.00 DATE: 1/24/12

BORING LOCATION PLAN

Thiele Geotech Inc

BORING LOG

WATER LEVEL OBSERVATIONS		PROJECT	DRILLER	LOGGER	JOB NO.	DATE
During Drilling	N/E	74th & Nina Lift Station Conversion	Epley	Gorham	11659.00	12/27/11
End of Drilling	N/E	LOCATION	DRILLING METHOD		DRILL RIG	BORING NO.
(none encountered)		74th & Nina Street, Omaha, NE	6" flight augers		CME 45B	B-1
		LOCATION OF BORING	TYPE OF SURFACE		ELEVATION	DEPTH
boring backfilled with cuttings		see Boring Location Plan	grass			30'

DEP (ft.)	VISUAL/MANUAL DESCRIPTION: COLOR	MOIST.	CONSIST.	SOIL TYPE	GEOLOGIC ORIGIN	REMARKS	SAMPLE DATA: NO. & TYPE	SPT (bpf)	REC (in.)	LABORATORY DATA: MC (%)	γ_d (pcf)	q_u (tsf)	LL/PI CLASS	DEP (ft.)
	brown	moist	very hard	lean clay	fill	roots some concrete rubble	U-1		10	20.6	108.1	4.17		
5	brown	very moist	soft	lean clay	Peoria loess	iron & carbon deposits	U-2		12	29.2	91.8	0.62		5
10							U-3		12	25.2	94.4			10
			firm											
15							U-4		12	26.5	90.4	0.76		15
20							U-5		12	27.5	89.1	1.16		20
	reddish brown	very moist	firm	lean clay	Loveland loess	iron & carbon deposits								
25							U-6		12	27.8	91.9	0.82		25

Thiele Geotech Inc

BORING LOG

WATER LEVEL OBSERVATIONS		PROJECT	DRILLER	LOGGER	JOB NO.	DATE
During Drilling	N/E	74th & Nina Lift Station Conversion	Epley	Gorham	11659.00	12/27/11
End of Drilling	N/E	LOCATION	DRILLING METHOD		DRILL RIG	BORING NO.
(none encountered)		74th & Nina Street, Omaha, NE	6" flight augers		CME 45B	B-1 (cont.)
		LOCATION OF BORING	TYPE OF SURFACE		ELEVATION	DEPTH
boring backfilled with cuttings		see Boring Location Plan	grass			30'

DEP (ft.)	VISUAL/MANUAL DESCRIPTION						SAMPLE DATA			LABORATORY DATA				DEP (ft.)
	COLOR	MOIST.	CONSIST.	SOIL TYPE	GEOLOGIC ORIGIN	REMARKS	NO. & TYPE	SPT (bpf)	REC (in.)	MC (%)	γ_d (pcf)	q_u (tsf)	LL/PI CLASS	
	reddish brown	very moist	firm	lean clay	Loveland loess	iron & carbon deposits								
30							U-7		12	25.4	95.7	0.80		30
						bottom of hole @ 30'								
35														35
40														40
45														45
50														50

Thiele Geotech Inc

BORING LOG

WATER LEVEL OBSERVATIONS		PROJECT	DRILLER	LOGGER	JOB NO.	DATE
During Drilling	N/E	74th & Nina Lift Station Conversion	Epley	Gorham	11659.00	12/27/11
End of Drilling	N/E	LOCATION	DRILLING METHOD		DRILL RIG	BORING NO.
(none encountered)		74th & Nina Street, Omaha, NE	6" flight augers		CME 45B	B-2
		LOCATION OF BORING	TYPE OF SURFACE		ELEVATION	DEPTH
boring backfilled with cuttings		see Boring Location Plan	concrete			30'

DEP (ft.)	VISUAL/MANUAL DESCRIPTION: COLOR	MOIST.	CONSIST.	SOIL TYPE	GEOLOGIC ORIGIN	REMARKS	SAMPLE DATA: NO. & TYPE	SPT (bpf)	REC (in.)	LABORATORY DATA: MC (%)	γ_d (pcf)	q_u (tsf)	LL/PI CLASS	DEP (ft.)
						8" concrete								
	brown	very moist	firm	lean clay	Peoria loess	iron & carbon deposits	U-1		12	25.8	89.0	1.08		
		moist					U-2		12	23.7	94.4	1.15		5
5														
		very moist					U-3		12	25.5	90.5	0.83		10
10														
	reddish brown	very moist	firm	lean clay	Loveland loess	iron & carbon deposits	U-4		12	25.6	91.3	1.00		15
15														
		moist					U-5		12	23.3	98.3	1.32		20
20														
		very moist					U-6		12	27.0	92.6	0.78		25
25														

Thiele Geotech Inc

BORING LOG

WATER LEVEL OBSERVATIONS		PROJECT	DRILLER	LOGGER	JOB NO.	DATE
During Drilling	N/E	74th & Nina Lift Station Conversion	Epley	Gorham	11659.00	12/27/11
End of Drilling	N/E	LOCATION	DRILLING METHOD		DRILL RIG	BORING NO.
(none encountered)		74th & Nina Street, Omaha, NE	6" flight augers		CME 45B	B-2 (cont.)
		LOCATION OF BORING	TYPE OF SURFACE		ELEVATION	DEPTH
boring backfilled with cuttings		see Boring Location Plan	concrete			30'

DEP (ft.)	VISUAL/MANUAL DESCRIPTION						SAMPLE DATA			LABORATORY DATA				DEP (ft.)
	COLOR	MOIST.	CONSIST.	SOIL TYPE	GEOLOGIC ORIGIN	REMARKS	NO. & TYPE	SPT (bpf)	REC (in.)	MC (%)	γ_d (pcf)	q_u (tsf)	LL/PI CLASS	
	reddish brown	very moist	firm	lean clay	Loveland loess	iron & carbon deposits								
	brown													
30							U-7		12	27.7	94.8	0.80		30
						bottom of hole @ 30'								
35														35
40														40
45														45
50														50

Thiele Geotech Inc

SOIL TEST SUMMARY

Project: 74th & Nina Lift Station Conversion

Job No.: 11659.00

Location: 74th & Nina Street, Omaha, NE

Date: 1/3/2012

BORING NO.	SAMPLE NO.	SAMPLE DEPTH (ft.)	SAMPLE DIA. (in.)	MOISTURE CONTENT (%)	UNIT WEIGHT WET (pcf)	UNIT WEIGHT DRY (pcf)	VOID RATIO (e)	SAT. (%)	UNCONFINED COMPRESSION q_u (tsf)	UNCONFINED COMPRESSION STRAIN (%)	SOIL CLASSIFICATION ATTERBERG LIMITS LL	ATTERBERG LIMITS PL	ATTERBERG LIMITS PI	PASS #200 (%)		REMARKS
B-1	U-1	0.5-2	2.85	20.6	130.4	108.1	0.558	100	4.17	10.7						
	U-2	3.5-5	2.85	29.2	118.7	91.8	0.835	94	0.62	11.2						
	U-3	8.5-10		25.2	118.2	94.4	0.785	87								
	U-4	13.5-15	2.85	26.5	114.4	90.4	0.864	83	0.76	3.1						
	U-5	18.5-20	2.85	27.5	113.6	89.1	0.891	83	1.16	2.0						
	U-6	23.5-25	2.85	27.8	117.5	91.9	0.832	90	0.82	3.9						
	U-7	28.5-30	2.85	25.4	120.1	95.7	0.760	90	0.80	4.8						
B-2	U-1	0.5-2	2.85	25.8	111.9	89.0	0.894	78	1.08	2.9						
	U-2	3.5-5	2.85	23.7	116.7	94.4	0.785	81	1.15	3.8						
	U-3	8.5-10	2.85	25.5	113.6	90.5	0.861	80	0.83	3.9						
	U-4	13.5-15	2.85	25.6	114.6	91.3	0.845	82	1.00	2.1						
	U-5	18.5-20	2.85	23.3	121.2	98.3	0.714	88	1.32	2.9						
	U-6	23.5-25	2.85	27.0	117.7	92.6	0.819	89	0.78	2.0						
	U-7	28.5-30	2.85	27.7	121.1	94.8	0.777	96	0.80	5.1						

PROFESSIONAL CIVIL ENGINEER
ROBERT K.
LAPKE
E-10089
STATE OF NEBRASKA

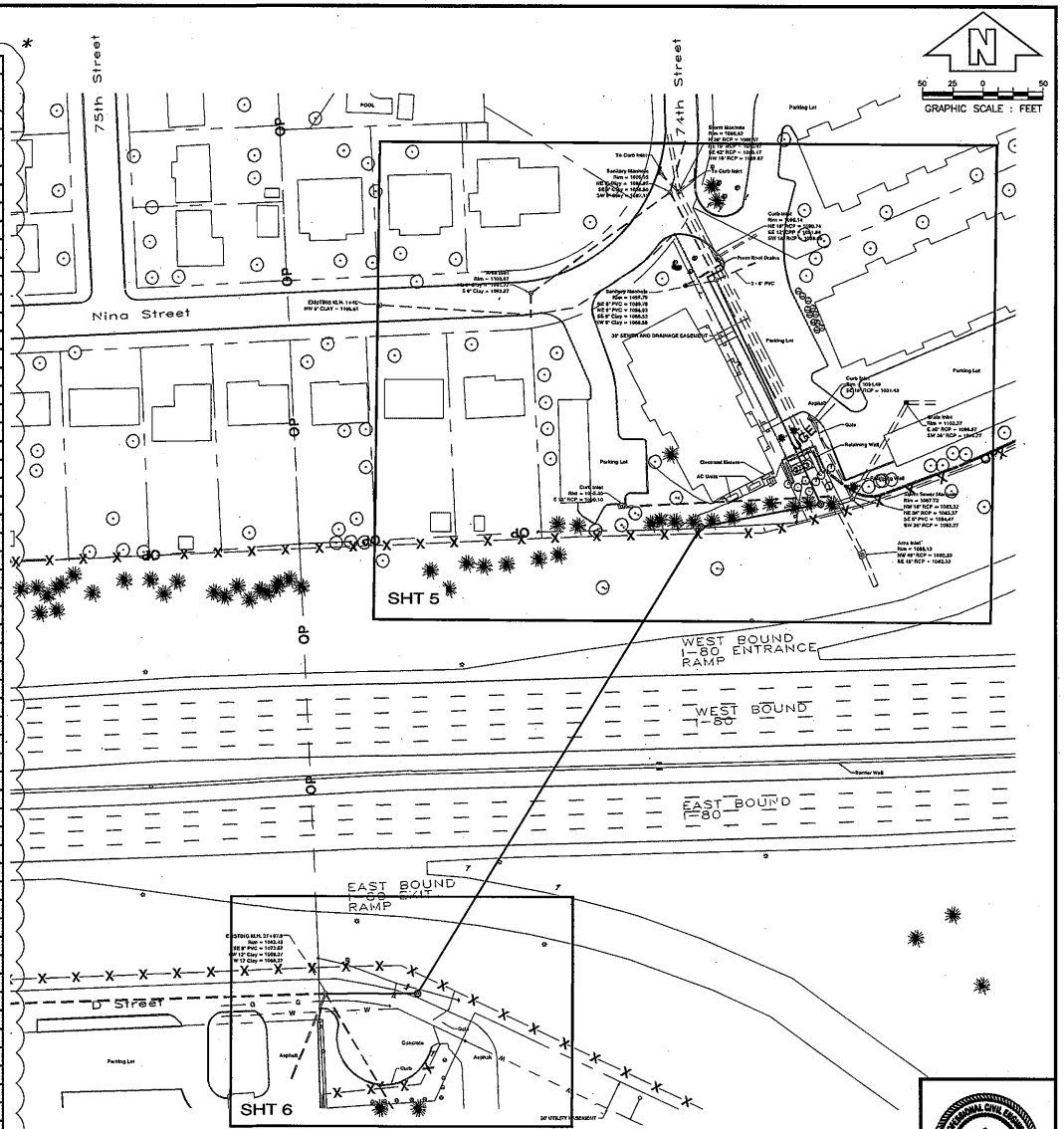
ATTACHMENT D
Reissued Bid Form – Bid Prices

LINE ITEM	STANDARD BID ITEM	ITEM DESCRIPTION	BID QUANTITY	UNIT	UNIT COST	TOTAL FOR BID ITEM
1	8000.001	Mobilization, Permits, Bonds and Insurance	1	LS	$	$
2	8000.002	Stormwater Pollution Prevention Plan (SWPPP) Maintenance Allowance	1	LS	$2,500	$2,500
3	8000.003	Environmental Allowance	1	LS	$2,500	$2,500
4	101.000	Install Silt Fence	1165	LF	$	$
5	101.010	Install Area Inlet Protection	1	EA	$	$
6	101.020	Install Curb Inlet Protection	2	EA	$	$
7	101.040	Install Construction Entrance	3	EA	$	$
8	8000.006	Concrete Washout	2	EA	$	$
9	8000.017	Bypass Pumping	1	LS	$	$
10	8000.036	SWPPP Notification Sign	1	EA	$	$
11	8000.037	Project Identification Sign	1	EA	$	$
12	8000.039	Contractor Field Office	1	LS	$	$
13	102.000	Clearing and Grubbing - General	1	LS	$	$
14	102.010	Clearing and Grubbing Trees Over 9" To 18" Diameter	11	EA	$	$
15	103.001	Remove 12" Or Smaller Sewer Pipe	12	LF	$	$
16	103.150	Remove Concrete Retaining Wall	135	SF	$	$
17	103.400	Remove Fence	60	LF	$	$
18	103.420	Remove and Reinstall Fence	250	LF	$	$
19	104.020	Abandon Lift Station	1	EA	$	$
20	104.100	Abandon 12" Or Smaller Pipe	650	LF	$	$
21	105.100	Remove Pavement	82	SY	$	$
22	105.110	Remove Driveway	48	SY	$	$
23	105.190	Grind Existing Curb	33	LF	$	$
24	105.200	Saw Cut - Full Depth	232	LF	$	$
25	106.170	Remove Combination Curb And Gutter	78	LF	$	$
26	201.000	Excavation On-Site	39	CY	$	$
27	202.100	Subgrade Preparation	625	SY	$	$
28	401.015	Construct Asphalt Surface Course SPR Pg64-34 W/RAP	625	SY	$	$
29	401.500	Construct Asphaltic Concrete For Pavement Repair	8.5	TON	$	$
30	9000.030	Construct 10-Inch Concrete Driveway (Type L65)	39	SY	$	$
31	502.100	Construct 6-Inch Combination Curb and Gutter	111	LF	$	$

LINE ITEM	STANDARD BID ITEM	ITEM DESCRIPTION	BID QUANTITY	UNIT	UNIT COST	TOTAL FOR BID ITEM
32	9000.032	Reconstruct Sanitary Manhole Invert	2	EA	$	$
33	701.200	Construct Aggregate Bedding For 8" VCP Sewer Pipe	16	LF	$	$
34	703.210	Construct Sanitary Sewer Manhole Tap	2	EA	$	$
35	703.230	Reconnect Sanitary Service	1	LF	$	$
36	703.260	Construct 54" I.D. Sanitary Manhole	28.7	VF	$	$
37	703.301	Construct 8" Diameter Drop Connection	5.5	VF	$	$
38	703.310	Install External Frame Seal	3	EA	$	$
39	704.000	Tunnel 16" Steel Casing W/8" Sanitary Sewer	452	LF	$	$
40	9000.040	Tunnel 8" Sanitary Sewer	382	LF	$	$
41	801.000	Remove Topsoil	575	SY	$	$
42	801.100	Place Topsoil	645	SY	$	$
43	8000.024	Install Seeding - Type A	3898	SY	$	$
44	803.000	Install Rolled Erosion Control, Type 1	3898	SY	$	$
45	804.000	Install Sodding	645	SY	$	$
46	8000.026	Install Temporary Safety Fence	452	LF	$	$
47	8000.027	Install Temporary Security Fence	1	LS	$	$
48	808.003	Construct 72" Chain Link Fence	30	LF	$	$
49	808.103	Construct 72" Chain Link Fence Gate	1	EA	$	$
50	9000.050	Remove And Reinstall Traffic Posts and Signs	2	EA	$	$
51	906.210	Provide Temporary Traffic Control	1	LS	$	$
52	1002.001	Repair Pavement - Small Area	19	SY	$	$
53	1002.020	Repair Driveway	9	SY	$	$
54	1102.000	Remove and Install New Sprinkler System Head	2	EA	$	$
55	1102.010	Remove and Install New Sprinkler System Trunk Line	10	LF	$	$
56	905.031	Install Permanent Paint Marking – 4" YELLOW	162	LS	$	$
					TOTAL BASE BID (Lines 1 through 56)	$

ATTACHMENT E
Reissued Plan Sheet 2

APPROXIMATE BID QUANTITIES					
LINE ITEM NUMBER	BID ITEM	ITEM DESCRIPTION	APPROXIMATE QUANTITY	UNIT	FINAL QUANTITY
1	8000.001	MOBILIZATION, PERMITS, BONDS AND INSURANCE	1	LS	
2	8000.002	STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MAINTENANCE ALLOWANCE	1	LS	
3	8000.003	ENVIRONMENTAL ALLOWANCE	1	LS	
4	101.000	INSTALL SILT FENCE	1165	LF	
5	101.010	INSTALL AREA INLET PROTECTION	1	EA	
6	101.020	INSTALL CURB INLET PROTECTION	2	EA	
7	101.040	INSTALL CONSTRUCTION ENTRANCE	3	EA	
8	8000.006	CONCRETE WASHOUT	2	EA	
9	8000.017	BYPASS PUMPING	1	LS	
10	8000.036	SWPPP NOTIFICATION SIGN	1	EA	
11	8000.037	PROJECT IDENTIFICATION SIGN	1	EA	
12	8000.039	CONTRACTOR FIELD OFFICE	1	LS	
13	102.000	CLEARING AND GRUBBING - GENERAL	1	LS	
14	102.010	CLEARING AND GRUBBING TREES OVER 9" TO 18" DIAMETER	11	EA	
15	103.001	REMOVE 12" OR SMALLER SEWER PIPE	12	LF	
16	103.150	REMOVE CONCRETE RETAINING WALL	135	SF	
17	103.400	REMOVE FENCE	60	LF	
18	103.420	REMOVE AND REINSTALL FENCE	250	LF	
19	104.020	ABANDON LIFT STATION	1	EA	
20	104.100	ABANDON 12" OR SMALLER PIPE	650	LF	
21	105.100	REMOVE PAVEMENT	82	SY	
22	105.110	REMOVE DRIVEWAY	48	SY	
23	105.190	GRIND EXISTING CURB	33	LF	
24	105.200	SAW CUT - FULL DEPTH	232	LF	
25	106.170	REMOVE COMBINATION CURB AND GUTTER	78	LF	
26	201.000	EXCAVATION ON-SITE	39	CY	
27	202.100	SUBGRADE PREPARATION	625	SY	
28	401.015	CONSTRUCT ASPHALT SURFACE COURSE SPR PG64-34 W/RAP	625	SY	
29	401.500	CONSTRUCT ASPHALTIC CONCRETE FOR PAVEMENT REPAIR	8.5	TON	
30	9000.030	CONSTRUCT 10-INCH CONCRETE DRIVEWAY (TYPE L65)	39	SY	
31	502.100	CONSTRUCT 6-INCH COMBINATION CURB AND GUTTER	111	LF	
32	9000.032	RECONSTRUCT SANITARY MANHOLE INVERT	2	EA	
33	701.200	CONSTRUCT AGGREGATE BEDDING FOR 8" VCP SEWER PIPE	16	LF	
34	703.210	CONSTRUCT SANITARY SEWER MANHOLE TAP	2	EA	
35	703.230	RECONNECT SANITARY SERVICE	1	LF	
36	703.260	CONSTRUCT 54" I.D. SANITARY MANHOLE	28.7	VF	
37	703.301	CONSTRUCT 8" DIAMETER DROP CONNECTION	5.5	VF	
38	703.310	INSTALL EXTERNAL FRAME SEAL	3	EA	
39	704.000	TUNNEL 16" STEEL CASING W/8" SANITARY SEWER	452	LF	
40	9000.040	TUNNEL 8" SANITARY SEWER	382	LF	
41	801.000	REMOVE TOPSOIL	575	SY	
42	801.100	PLACE TOPSOIL	645	SY	
43	8000.024	INSTALL SEEDING - TYPE A	3898	SY	
44	803.000	INSTALL ROLLED EROSION CONTROL, TYPE 1	3898	SY	
45	804.000	INSTALL SODDING	645	SY	
46	8000.026	INSTALL TEMPORARY SAFETY FENCE	452	LF	
47	8000.027	INSTALL TEMPORARY SECURITY FENCE	1	LS	
48	808.003	CONSTRUCT 72" CHAIN LINK FENCE	30	LF	
49	808.103	CONSTRUCT 72" CHAIN LINK FENCE GATE	1	EA	
50	9000.050	REMOVE AND REINSTALL TRAFFIC POSTS AND SIGNS	2	EA	
51	906.210	PROVIDE TEMPORARY TRAFFIC CONTROL	1	LS	
52	1002.001	REPAIR PAVEMENT - SMALL AREA	19	SY	
53	1002.020	REPAIR DRIVEWAY	9	SY	
54	1102.000	REMOVE AND INSTALL NEW SPRINKLER SYSTEM HEAD	2	EA	
55	1102.010	REMOVE AND INSTALL NEW SPRINKLER SYSTEM TRUNK LINE	10	LF	
56	905.031	INSTALL PERMANENT PAINT MARKING - 4" YELLOW	162	LF	



SITE PLAN

TWR	The Wells Resource LLC 3919 Cuming Street Omaha, NE 68131	*	ADDENDUM NO. 1	12/1/15	
		**			
		***			

CITY OF OMAHA
PUBLIC WORKS DEPARTMENT

OPW 52182

SHEET 2 / 14

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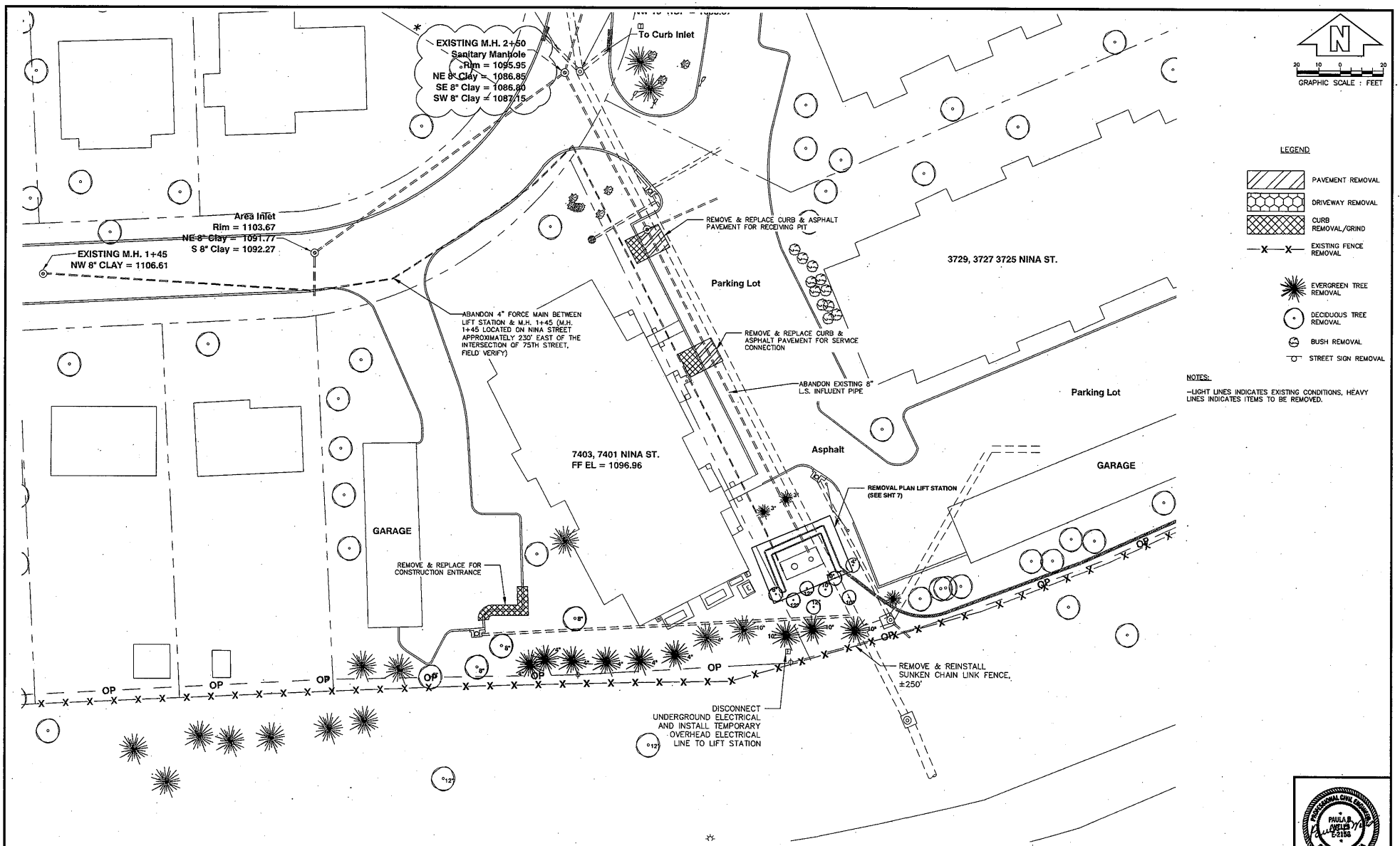
ATTACHMENT F
Reissued Plan Sheet 5



REMOVAL PLAN NORTH

TWR	The Wells Resource LLC 3919 Cuming Street Omaha, NE 68131	*	ADDENDUM NO. 1	12/1/15	
		**			
		***			

CITY OF OMAHA
PUBLIC WORKS DEPARTMENT

OPW 52182

SHEET 5/14

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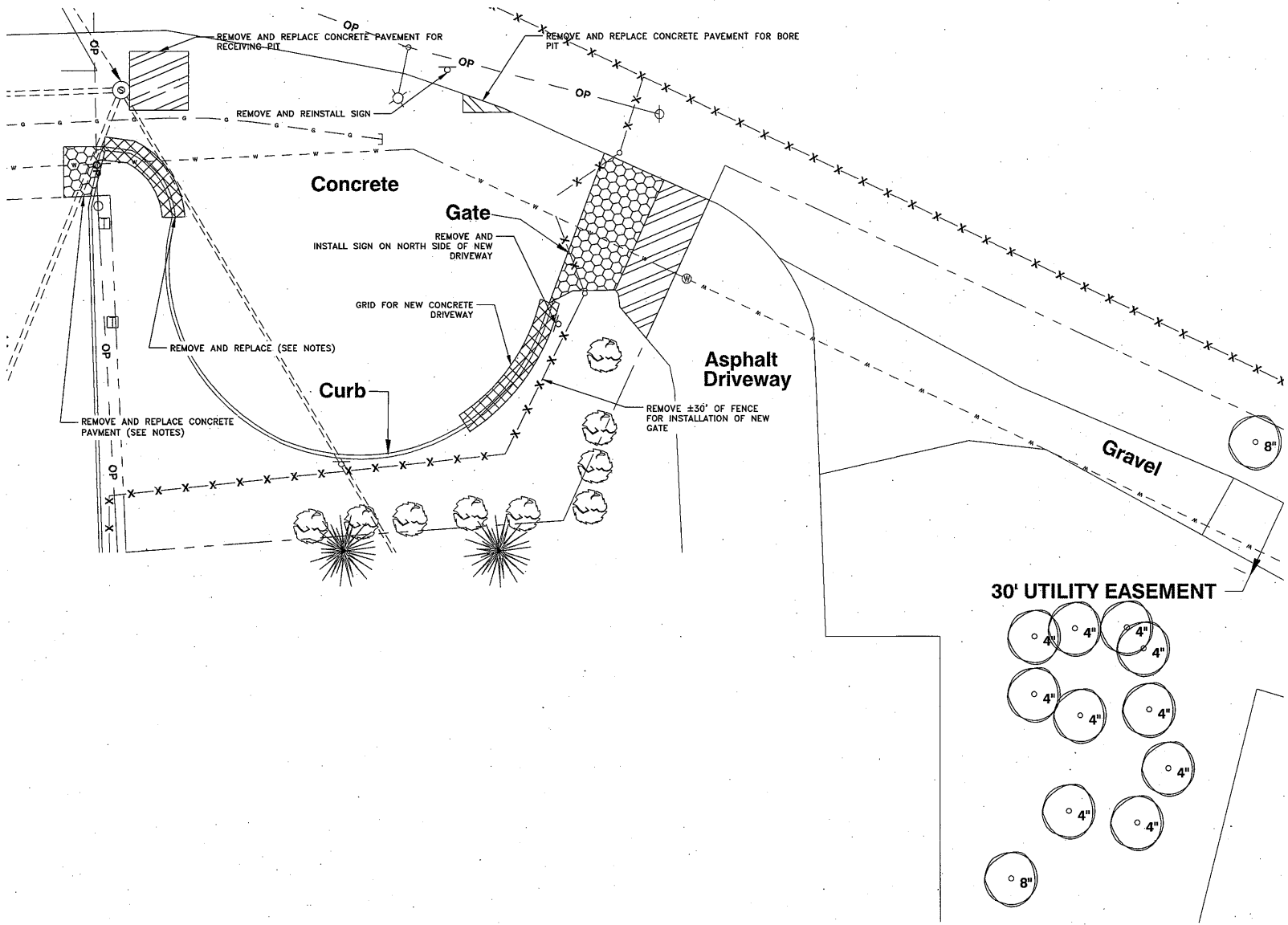
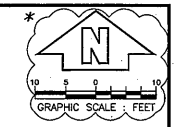
ATTACHMENT G
Reissued Plan Sheet 6





LEGEND

- PAVEMENT REMOVAL
- DRIVEWAY REMOVAL
- CURB REMOVAL/GRIND
- EXISTING FENCE REMOVAL
- EVERGREEN TREE REMOVAL
- DECIDUOUS TREE REMOVAL
- BUSH REMOVAL
- STREET SIGN REMOVAL

NOTES:

-LIGHT LINES INDICATES EXISTING CONDITIONS, HEAVY LINES INDICATES ITEMS TO BE REMOVED.
-REMOVE CURB AND PAVEMENT AND INSTALL GRAVEL PAVEMENT TO FACILITATE 20' WIDE ACCESS FOR TRUCK PASSAGE. CONSTRUCT GRAVEL PAVEMENT ACCORDING TO CONSTRUCTION ENTRANCE, STANDARD PLATE 100-04.

PROFESSIONAL CIVIL ENGINEER PAULA B. KNELLS E-2158 STATE OF NEBRASKA

REMOVAL PLAN SOUTH

TWR	The Wells Resource LLC 3919 Cuming Street Omaha, NE 68131	*	ADDENDUM NO. 1	12/1/15		CITY OF OMAHA PUBLIC WORKS DEPARTMENT	OPW 52182	SHEET 6/14
		**					
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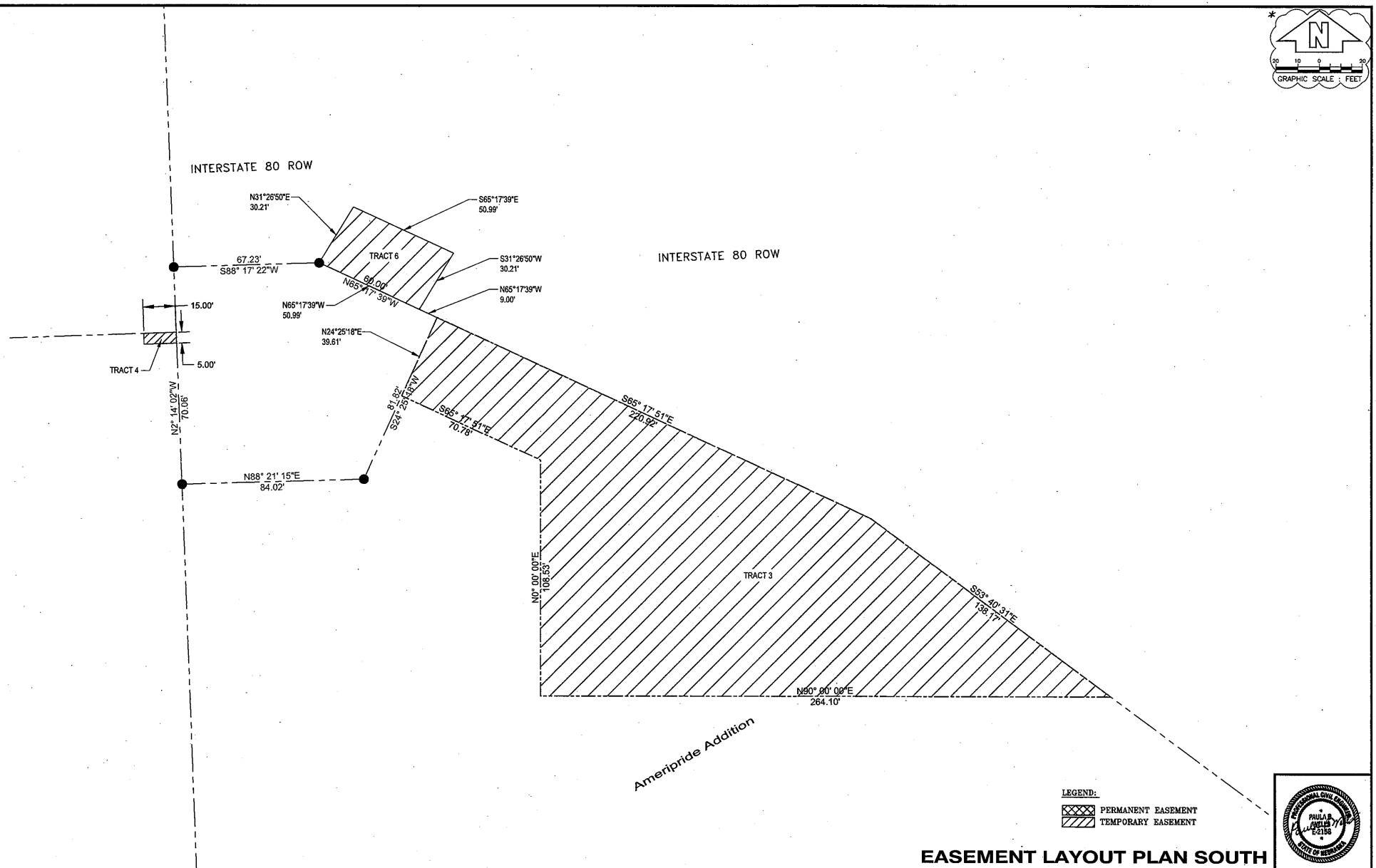
ATTACHMENT H
Reissued Plan Sheet 9



EASEMENT LAYOUT PLAN SOUTH

TWR	The Wells Resource LLC 3919 Cuming Street Omaha, NE 68131	*	ADDENDUM NO. 1	12/1/15		CITY OF OMAHA PUBLIC WORKS DEPARTMENT	OPW 52182	SHEET 9/14
		**						
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