



## LOWER PLATTE SOUTH natural resources district

3125 Portia Street | P.O. Box 83581 • Lincoln, Nebraska 68501-3581  
P: 402.476.2729 • F: 402.476.6454 | www.lpsnrd.org

### Memorandum

**Date:** October 14, 2021  
**To:** Urban Subcommittee  
**From:** Jared Nelson, District Engineer *J.N.*  
**Subject:** Urban Subcommittee Meeting Minutes – October 2021

The Urban Subcommittee met virtually at 5:30pm, on Wednesday, October 13, 2021. Subcommittee members participating included Tom Green, Gary Aldridge, Bob Andersen, Christine Lamberty, Luke Peterson, Larry Ruth, Susan Seacrest, and Ray Stevens. Others participating included Board Chair Deb Eagan; NRD staff Paul Zillig, Dave Potter, Al Langdale, Mike Murren, Tracy Zayac and Jared Nelson; Ross Lawrence and Dan Fricke with JEO Consulting. Director Green called the meeting to order at 5:30pm. There were four items the Subcommittee took action on, as described below. See related attachments.

**(a.) Consideration of a Rain Ready Landscapes Program Request - Heun Rainscaping Phase 2 (Creek Channel)** – First, Zayac referred to her attached Memorandum dated September 29, 2021, regarding this item, the Heun Rainscaping Project – Phase 2. She discussed that the first Phase of the Huens project has been complete, and the Huens are now requesting assistance for Phase 2 during this current NRD Fiscal Year (the previous Phase 1 Project was requested in a different Fiscal Year). Zayac described that the Huens total project costs are estimated to be \$5,329; and the Huens are requesting the maximum cost-share available, which is \$2,000 under this Rain Ready Landscapes Program (RRLP). The Subcommittee discussed and considered this project and the Program, with Zayac providing responses.

**It was moved by Ruth, seconded by Seacrest, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Rain-Ready Landscapes Program cost-share request from Dan and Rebecca Heun, for the Heun Rainscaping Project – Phase 2, at a cost-share amount of 50% of the total cost, not to exceed \$2,000 NRD funds.**

**(b.) Consideration of Amendment No.1 to the Professional Services Agreement for the Antelope Creek Pipe Replacement Project - 26th St. to 57th St. (14 pipes)** – Next, Murren described how the Board recently approved the low bid for the Antelope Creek Pipe Replacement Project – 26th to 57th, for MC Wells Contracting to repair fourteen pipes. He described how the Contractor is slated to begin soon. He then referred to the proposal from JEO Consulting, to provide construction oversight for the construction phase of the project. (See attached letter dated October 8, 2021 from Ross Lawrence with the Amendment No. 1 proposal for \$57,035.) The Subcommittee reviewed and discussed the proposal. Lawrence also responded to Subcommittee members questions and described how JEO Consulting would

provide professional services during the construction phase of the project, including: construction observation, administration, survey staking, material testing, and post-construction (to document 'As-Built' conditions and warranty inspection).

**It was moved by Stevens, seconded by Andersen, and approved by the Subcommittee (with Green, Andersen, Lamberty, Peterson, Ruth, Seacrest, and Stevens voting yes, and Aldridge voting no) to recommend that the Board of Directors approve the Amendment #1 to the Professional Services Agreement between JEO Consulting Group and LPSNRD, in an amount not to exceed \$57,035, for engineering services for the Antelope Creek Pipe Replacement Project – 26th St to 57th St.**

**(c.) Consideration of Professional Services Agreement for the Salt Creek 10th to 14th Stream Stabilization Project (Left Bank) –** Next, Nelson described a problem occurring on the left bank of Salt Creek in Lincoln, from N 10th Street to N 14th Street (N Antelope Valley Pkwy), where its experiencing erosion and needs repair. He referred to the attached map, and pictures taken while inspecting. He further described how the area between N 13th St and N 14th St is especially concerning, with near vertical banks extending half-way up the bank (or approximately 15-FT up from the water's surface). Nelson said the situation is jeopardizing staff's ability to safely access the left bank of Salt Creek in this reach. The left bank of Salt Creek in this reach provides flood protection to adjacent properties, like a levee, and future erosion could lessen the flood protection provided.

Nelson referred to the attached letter and proposal for Professional Services, from Ross Lawrence dated October 14, 2021, for designing bank stabilization, from N 10th to N 14th. Nelson described how the proposal includes survey, geotechnical exploration, and slope stability analysis, in order to develop several concept designs from 10<sup>th</sup> to 14<sup>th</sup> St for the NRDs consideration. Additionally, the scope and fee also include time for final design and permitting for the specific stretch between 13<sup>th</sup> and 14<sup>th</sup> St. The final design plans developed for 13<sup>th</sup> to 14<sup>th</sup> as part of this proposal would then be bid for construction.

The Subcommittee reviewed and discussed the proposal with staff responding to questions.

**It was moved by Andersen, seconded by Stevens, and approved by the Subcommittee (with Green, Andersen, Lamberty, Peterson, Ruth, Seacrest, and Stevens voting yes, and Aldridge not voting) to recommend that the Board of Directors approve the Professional Services Agreement between JEO Consulting Group and LPSNRD, in an amount not to exceed \$115,180, for professional services for the Salt Creek 10th to 14th Stream Stabilization Project.**

**(d.) Reports. – The following reports and updates were given to the Subcommittee:**

1. Tracy Zayac gave a report on the status of various Community Assistance Program Projects and referred to her attached Memorandum dated September 28, 2021.
2. Jared Nelson gave a report on the City of Lincoln's Drainage Criteria Manual Updates process. He reported that after a recent Stakeholder Meeting on October 4<sup>th</sup>, 2021, the DCM Updates have been put on 'hold' while the City works with the development community and their opposition to the proposed updates to the DCM. Once the process moves out of the committee phase, it will

come before the NRD Board for their support, possibly in the winter of 2021/2022. (See attached handout from an October 4, 2021 Stakeholder Meeting.)

3. Staff updated the Subcommittee on the Salt Creek Resiliency Study next steps; that the City of Lincoln is in the process of submitting a Building Resilient Infrastructures and Communities (BRIC) Grant application, where 75% of the costs can be covered under federal cost-share.
4. Finally, staff gave an updated on the Deadmans Run Flood Reduction Project. Nelson and Zillig reported that the physical flume modeling and FYRAs modeling updates have reached a good milestone – with good information - whereas the actual components of the DMR project can now be fine-tuned and the design can begin to be developed and finalized by the USACE and project partners.

There being no further business the meeting adjourned at approximately 6:45 pm.

JN/jn



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## natural resources district

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### Memorandum

**Date:** September 29, 2021  
**To:** Urban Subcommittee  
**From:** Tracy Zayac, Stormwater/Watershed Specialist  
**Subject:** RRLP Project for consideration at October 2021 meeting

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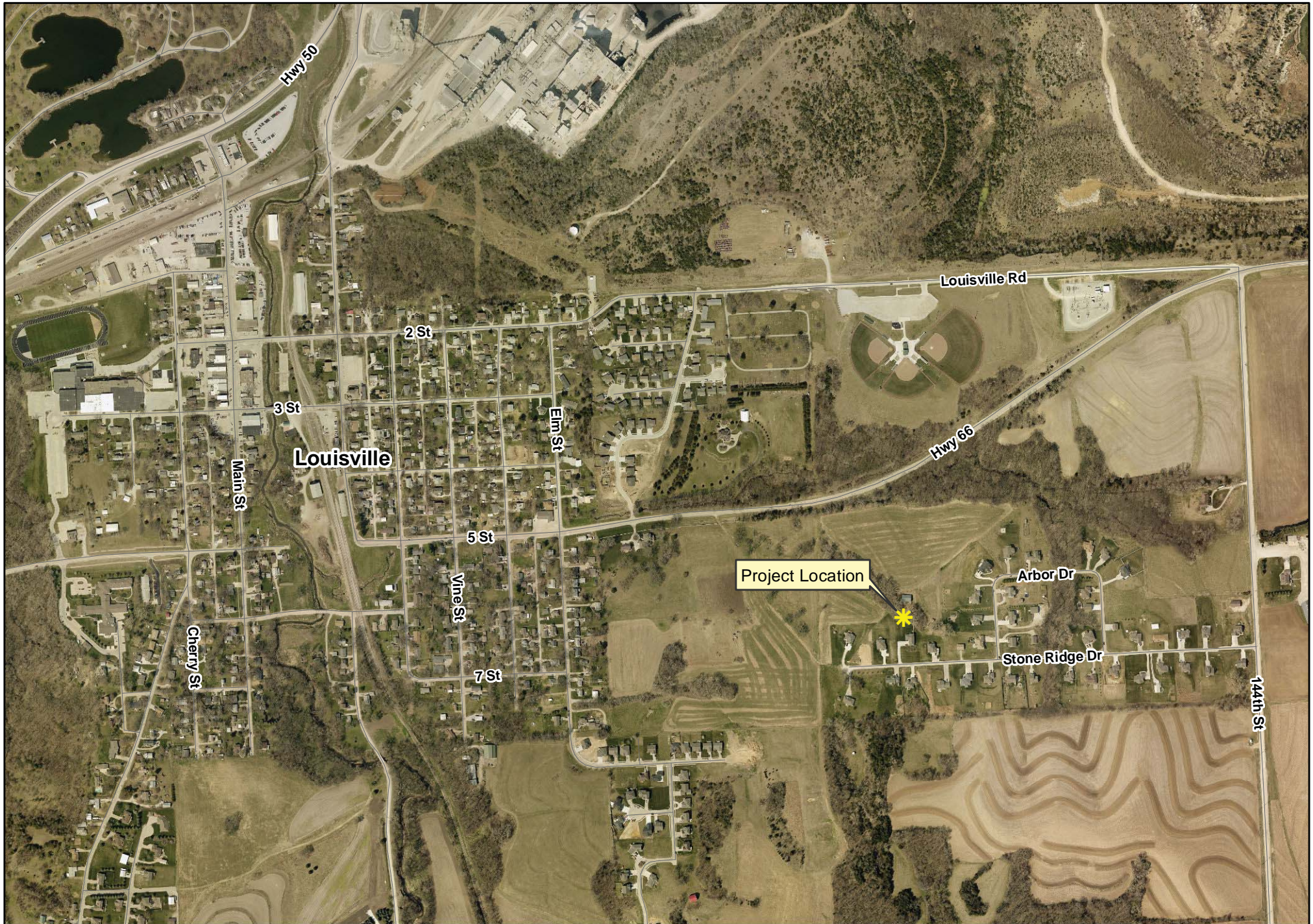
1. RRLP.2021.002 Heun creek channel: In August 2021, Dan and Rebecca Heun successfully completed the (first) rain garden of their multi-stage project to address drainage and runoff on their property, located just south of Louisville at 1278 Stone Ridge Drive. The back of their property sits at the receiving end of the drainage from their upstream subdivision neighbors, as well as some lands remaining in agricultural use. The developer of the subdivision did not install stormwater facilities to handle drainage from the properties in this neighborhood. The Heuns are moving forward with the second of the several small projects that will be designed to decrease the erosion that this drainage is currently causing on their property.

This application covers the “creek channel” that will be graded, seeded, and bermed (with rock armoring to prevent erosion) to direct stormwater flow toward the newly-completed rain garden. Work will be completed in November 2021. The total cost of this phase of work is estimated to be \$5,328.78; the Omaha firm completing the work, Dee-sign Landscaping, has extensive experience with installing green infrastructure landscaping and is the same firm that completed the rain garden and preliminary work on the creek channel area. The Heuns are requesting the maximum cost-share available, which is \$2,000 under this program.

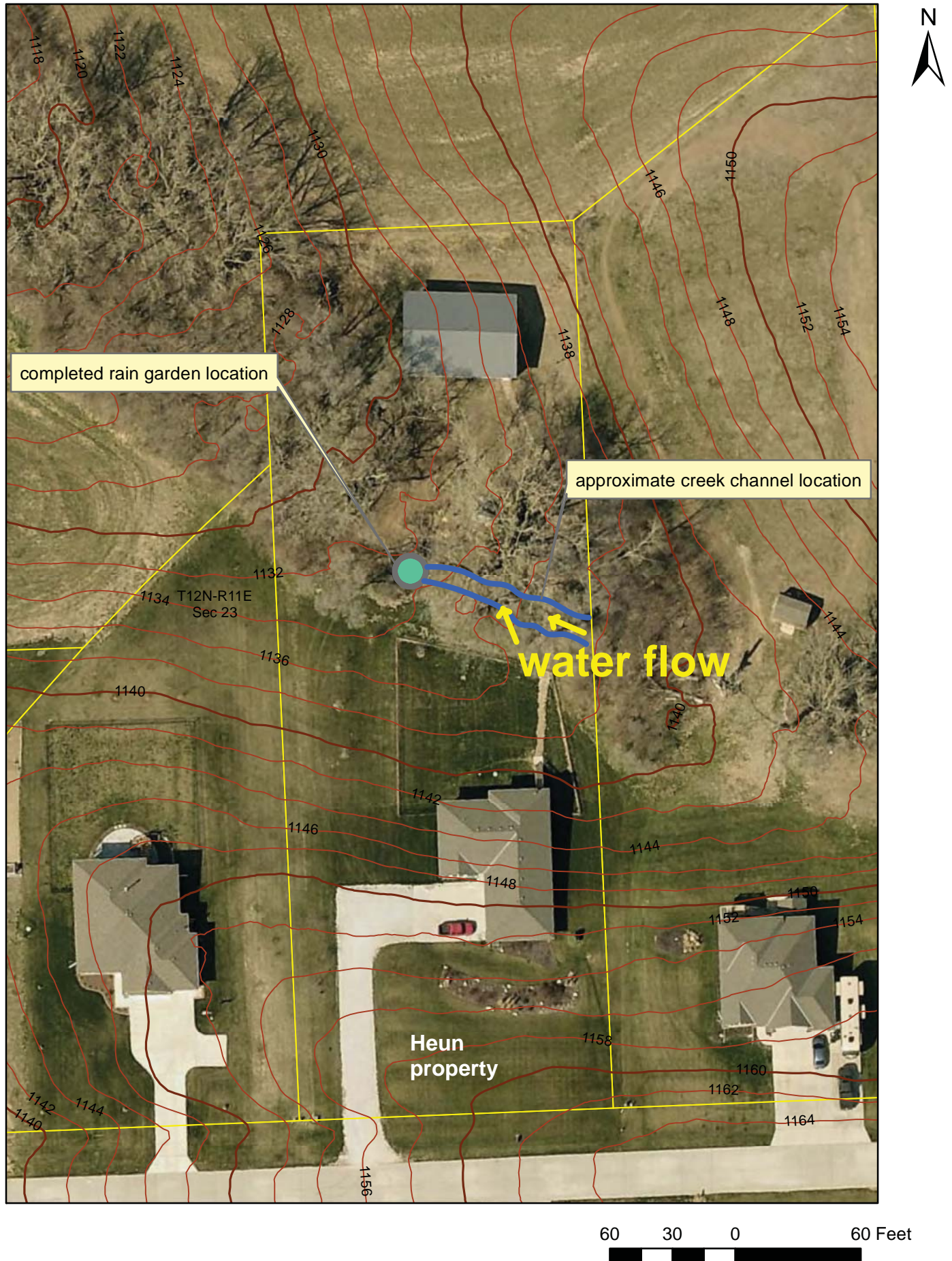
Enc.: Heun creek channel request information



# Rain Ready Landscapes - Heun Rainscaping Project, SE Louisville



# RRLP.2021.002 Heun rainscaping phase 2 (creek channel)



September 28, 2021

To Whom it May Concern

From: Daniel and Rebecca Heun

Re: Rain Ready Landscapes Program

As homeowners at 1278 Stone Ridge Drive in Louisville, NE we were excited to participate in the program during its initial year of operation. We have been thrilled to work with the program to facilitate improvements and to develop a multi-phase a plan of action to mediate the rainwater runoff issues that currently exist on our property.

**Project Description:**

The home on this property was built in 2016 in the subdivision known as “The Ridges”. We were informed by our neighbors’ post move in that the developers of the subdivision did not properly account for the flow of water and subsequent drainage throughout the neighborhood. Our property sits lower than many of our neighbors such that several of the neighboring properties’ runoff effectively drains through the wooded area of our backyard. During storm events, water forms temporary creeks and erodes the existing soil in multiple areas. In living here for the past year and a half, we’ve seen significant degradation of the soil resulting in various channels/ditches being formed and standing water for days after it rains. This has resulted in us being unable to access our shed or use our backyard for its intended purposes, for however long it takes for the area to dry out. The goal of our overall project is to remediate the erosion and pooling issues in our backyard in a sustainable manner.

Our project will be completed in several stages, and after holding discussions with our preferred contractor, we believe we have found a path forward to complete this project in several stages. Stage One of this project involved excavating, grading, and installing a large rain garden capable of absorbing a significant amount of water that flows through our property. This stage was successfully completed in early August 2021, and has since been reviewed by Tracy Zayac.

The stages that follow will result in re-channeling the flow of water throughout our property such that it leads into this large rain garden and future rain gardens, the creation of several dry creek beds with berm protection and stabilization to allow for this, and addressing some of the other erosion points on the property.

**Outline of Project Costs – Stage One:**

Total cost for installation of the completed rain garden was \$13,329.47. See below for finished pictures.







**View to the East, with temporary straw matting (for erosion) showing part of proposed dry creek bed #1. Berm to be secured is on the left of the straw in front of the large tree.**

**Outline of Project Costs – Phase Two:**

Phase two of the project will entail construction of the primary dry creek bed #1 on the property, in tandem with a boulder wall to protect a berm that leads into the rain garden from erosion. The dry creek bed is intended to collect and direct water flow from the property towards the rain garden and be constructed to minimize erosion and sediment flow into the rain garden. This phase of the project is estimated to cost \$5,328.78. Please see Estimate #1280 from Dee-sign Landscaping and Garden Shop for further cost breakdown. The estimate encompasses materials, labor, boulders/rocks for the berm protection and creek bed construction, and equipment rentals as required.

**Implementation Timeline:**

Phase Two is planned to take place the first week of November 2021, upon approval of this application. We feel we need to complete this phase prior to winter in order to ensure the integrity and proper functioning of the rain garden that was installed in Phase One.

**Landowner’s Contact Information:**

Daniel & Rebecca Heun  
1278 Stone Ridge Dr  
Louisville, NE 68037

Daniel	515-370-2939	<a href="mailto:dheun86@gmail.com">dheun86@gmail.com</a>
Rebecca	402-980-3809	<a href="mailto:becca.heun@gmail.com">becca.heun@gmail.com</a>

**Aerial Photograph with Project Location**



Figure 1 - Lot highlighted in Red, Rain Garden highlighted in Blue, Dry Creek Bed #1 in Red



Figure 2 - Drainage area, Rain Garden highlighted in Blue, Dry Creek Bed #1 in Red

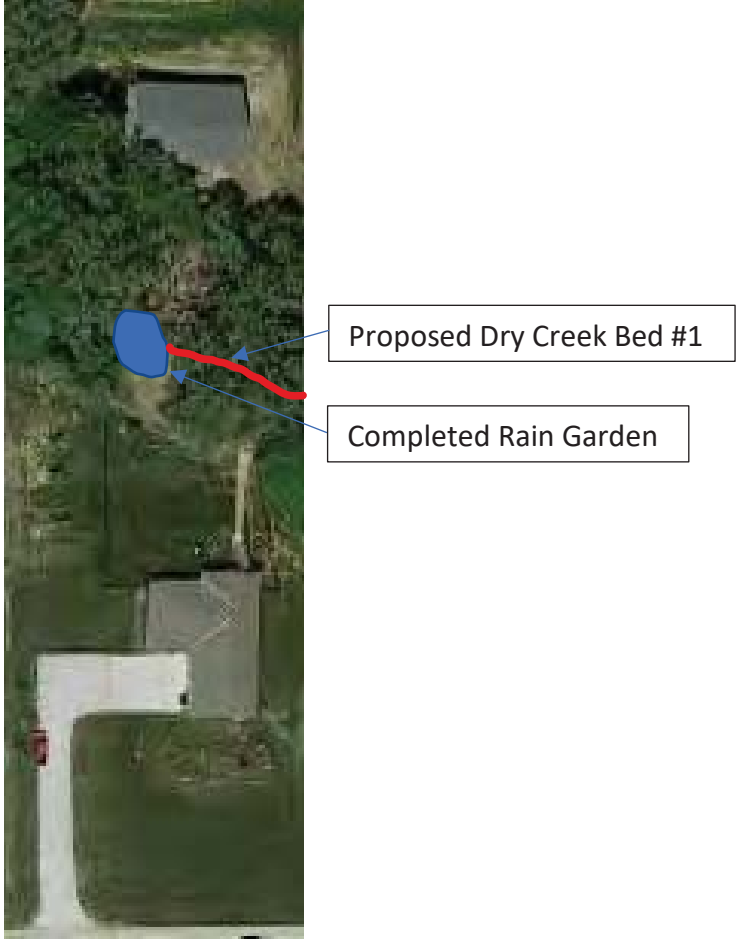
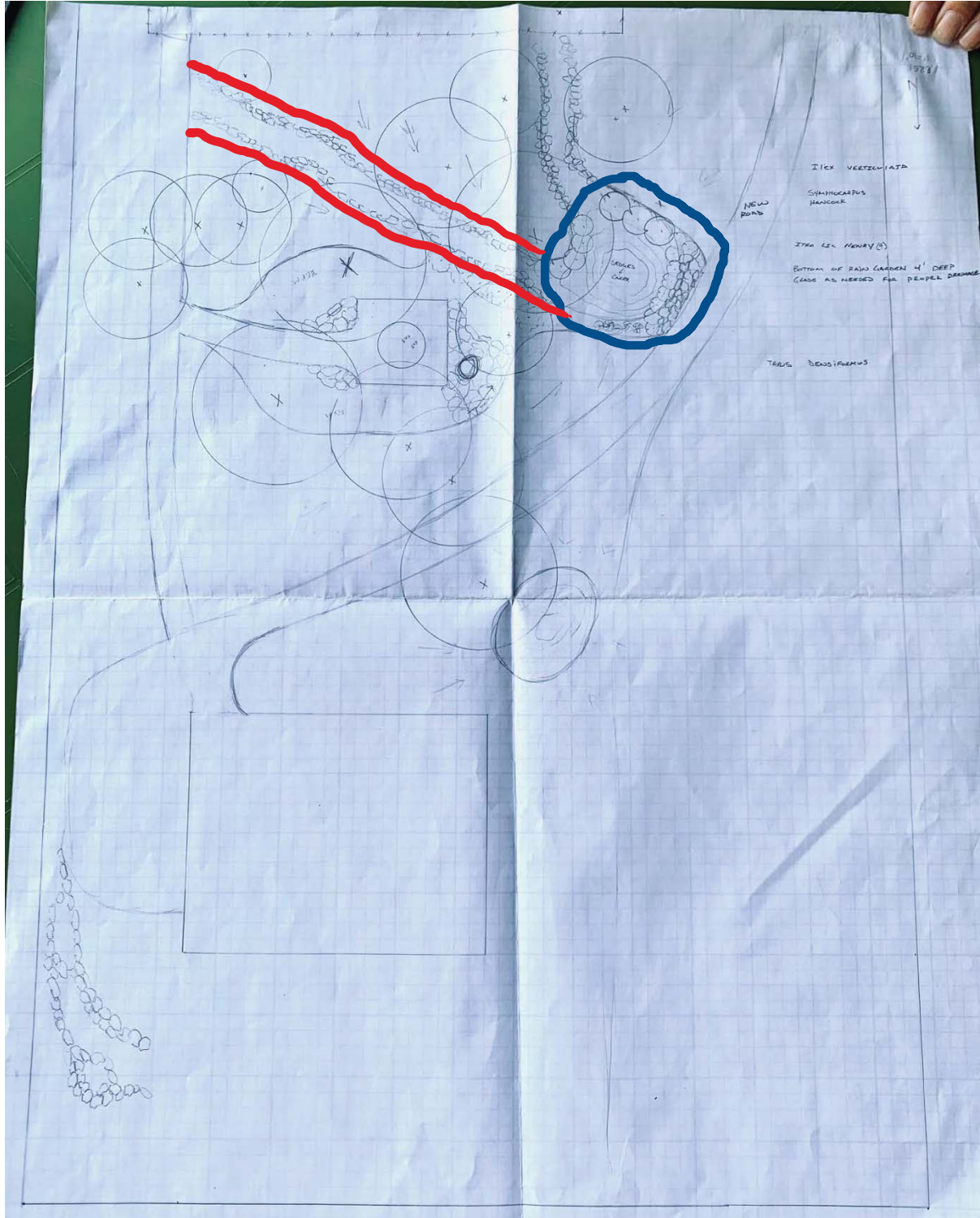


Figure 3 - Project Area

**Project Drawing:**

Please see the drawing below for the blue circled location of the completed rain garden, and the red highlighted area for proposed Dry Creek Bed #1. Top of picture is the South side of the property. Bottom of picture is the shed (north side of property).



**Proposed Contractor:**

Dee-sign Landscaping and Garden Shop  
8530 Blondo Street  
Omaha, NE 68134

One of the major points that drew us to Dee-sign is the fact that both Missy and Anna at Dee-sign are educated, qualified and certified in storm water management.

**Maintenance Plan:**

Weekly maintenance tasks:

- Rain Garden: water, weed, and inspect the rain garden. Water plants regularly during the first 1-2 growing seasons. Weed as needed and remove invasive species. Inspect for any damage, excessive sediment, and movement of sediment within the rain garden. Inspect during rain events and note any successes or issues.
- Dry Creek Bed #1: water newly seeded grass around the creek bed, remove sediment and any obstructions that build up in the creek bed, replace any rocks as needed.

Annual maintenance tasks:

- Rain Garden: mulching, pruning, re-planting, remove sediment, replacing materials. Mulch every year to maintain a 3" thick mulch layer. Prune plants every year to remove dead vegetation and direct plant growth. Remove accumulated sediment within the rain garden. Reposition or replace rocks as needed.
- Dry Creek Bed #1: replace any rocks that have moved due to water flow, remove any sediment build up as needed, evaluate effectiveness and plan for future additions or repairs as needed.

**Appendix 1: Image Gallery - Rain Garden (Phase 1), Dry Creek Bed #1, Future Dry Creek Beds**



Figure 4: View facing north toward the shed. Rain garden in blue. Natural flow of water shown; to be harnessed into dry creek beds in future phases.



View of Creek 1 facing South (toward the house); opposite from Figure 4 view.



Creek 1: Start of water pooling – runoff from neighboring properties uphill.



Creek 1: Water flow over stones (facing south toward our house uphill). Creek 1 starts on left.



Creek 1: Flow over stones into 1 of 2 main areas, later to converge into one main Creek 1.





Creek 1: Flowing toward main Creek 1 flow.



Creek 1: Flow from another region into main Creek 1 flow.



Creek 1: View of general drainage/water issues heading toward main Creek 1 flow.



Creek 2: Originates inside our fenced-in backyard from neighboring property, leads West across the yard to join the drainage coming down from our home on a hill. Water flows North and becomes Creek 2 as shown in Figure 4.

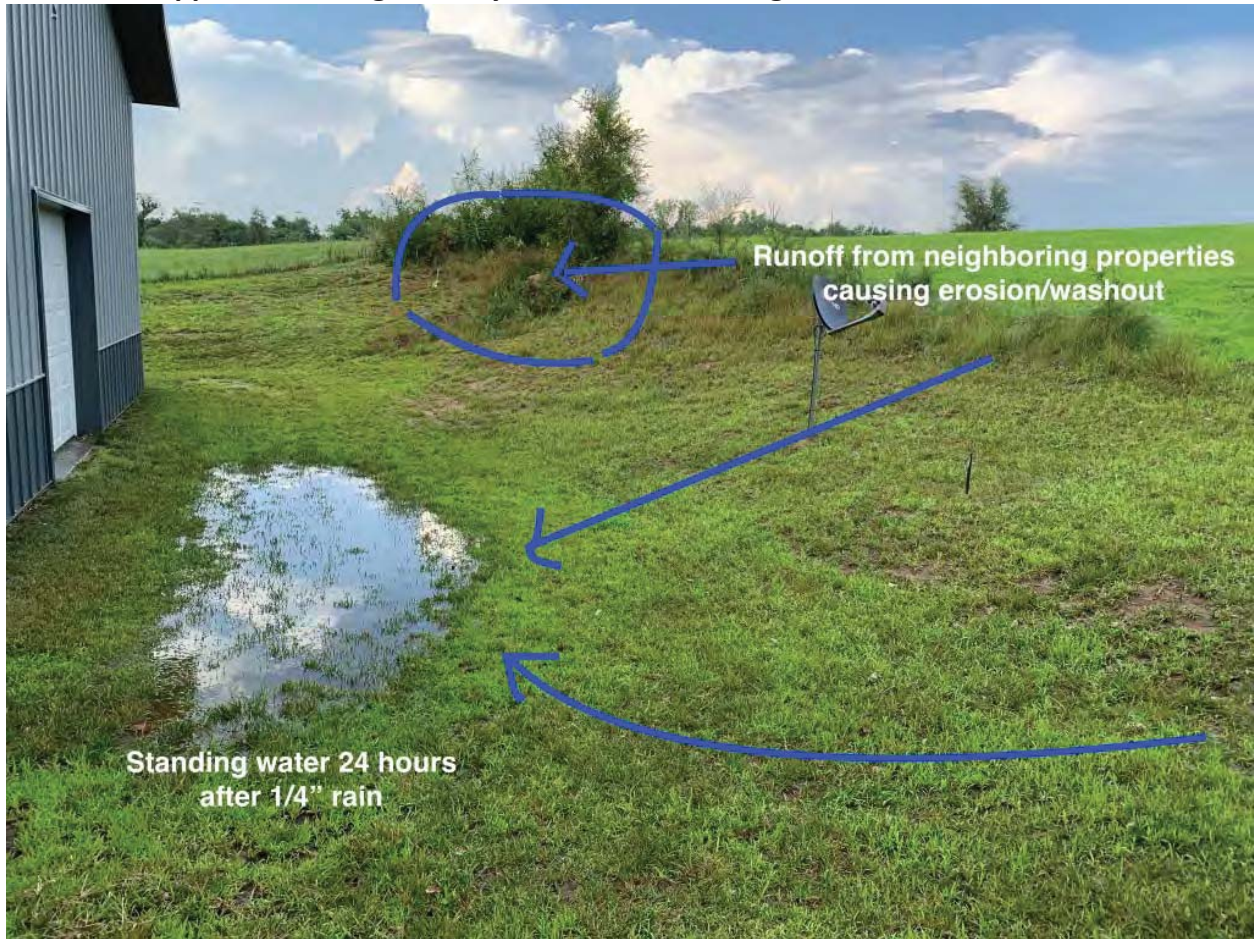


Figure 5: Proposed location of rain garden at the merging of Creek 1 and Creek 2. Update: now installed, see finished pictures above.



Standing water in area of proposed rain garden (pre-installation).

**Appendix 1: Image Gallery – Additional Drainage Issues – Future Phases**



Future projects to address runoff issues. Standing water to east of shed (future possible rain garden location); erosion to northeast of shed in corner of property (future retaining wall structure).



Standing water to the west of the shed, fed from Creek 3 which runs east to west in front of the shed. Possible future rain garden fed by dry creek bed.

Dee-sign Landscaping  
 8530 Blondo St  
 Omaha, NE 68134 US  
 402-392-1444  
 deesign111@gmail.com  
 www.dee-signlandscaping.com

# Estimate



ADDRESS
Rebecca & Daniel Heun 1278 Stone ridge dr. Louisville, NE 68037

SHIP TO
Rebecca & Daniel Heun Rebecca & Daniel Heun 1278 Stone ridge dr. Louisville, NE

ESTIMATE #	DATE
1280	09/22/2021

DATE	ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
		Install boulder wall side of birm install one dry creek bed the other will need to be installed next season 90 feet of dry creek bed			
	<b>Omar Hardscape</b>	Omar Hardscape Installation	19	60.00	1,140.00
	<b>Install Hardscape</b>	Installation Crew, Hardscape	19	50.00	950.00
	<b>Anna Hardscape</b>	Anna Hardscape	9.50	60.00	570.00
	<b>Premium Hardwood</b>	Premium Hardwood Mulch no charge	1	0.00	0.00T
	<b>River Boulders/Glacier Boulders</b>	River Boulders/Glacier Boulders: Specify size at order	5	300.00	1,500.00T
	<b>River rock 2"- 4"</b>	River rock 2"-4" per ton	1.75	120.00	210.00T
	<b>River Rock</b>	Standard River Rock	2	85.00	170.00T
	<b>River Bed Mix</b>	River Bed Mix (per ton)3"to6"	1	125.00	125.00T
	<b>Weed Mat</b>	Commercial grade weed mat per square foot	360	0.28	100.80T
	<b>Staples</b>	Weed mat staples per 100 sq. foot	4	4.79	19.16T
	<b>Note- tool tax note</b>	Note: The following tools are needed to complete the job. They are itemized to avoid charging you tax.	1	0.00	0.00T
	<b>Backhoe rental per day</b>	Backhoe per hour	8	40.00	320.00
	<b>Omar's truck and skid trailer</b>	Omar's truck and trailer	4	23.52	94.08T
	<b>Wheelbarrow</b>	Wheelbarrow	12	0.09	1.08
	<b>Garden Rake</b>	Garden Rake/Hard Rake	4	0.07	0.28
	<b>Leaf Rake</b>	Leaf Rake/Soft Rake	1	0.09	0.09
	<b>Mallet</b>	Mallet	8	0.60	4.80

DATE	ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
	<b>Spade Shovel</b>	Spade Shovel/Flat Edge	8	0.09	0.72
	<b>Point Shovel</b>	Point Shovel	8	0.09	0.72

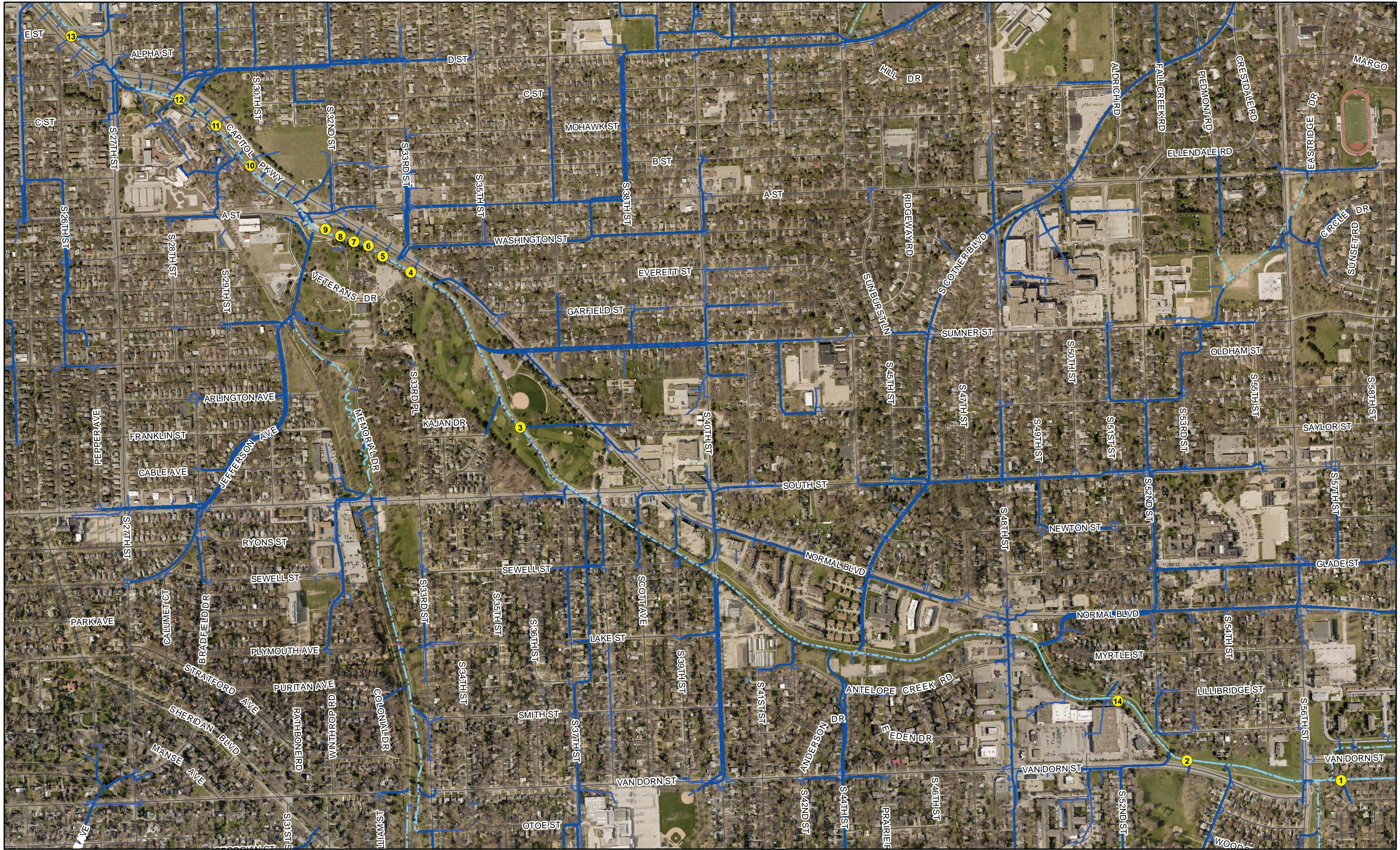
SUBTOTAL	5,206.73
TAX (5.5%)	122.05
<b>TOTAL</b>	<b>\$5,328.78</b>

Accepted By

Accepted Date



# Antelope Creek Pipe Replacement Locations







October 8, 2021

Lower Platte South NRD  
Attn: Mike Murren  
3125 Portia St  
Lincoln, NE 68521

RE: Amendment #1 – Construction Services  
Antelope Creek Pipe Replacement  
JEO Project No. 201376.00

Dear Mr. Murren:

Enclosed is Amendment #1 for the Antelope Creek Pipe Replacement Project. The project design is complete, and a Contractor (MC Wells) was selected to construct the project. This amendment is for JEO services during the construction phase of the project. The estimated start date for Construction is October 18<sup>th</sup> and the project is to be substantially completed by May 15, 2022, and completed and ready for final payment by June 1, 2022.

The attached scope of services outlines the JEO tasks included in this amendment. Please review and return a signed copy at your convenience. Thank you for the opportunity to continue working on this project.

If you have any questions, please feel free to contact me at 402-474-8751 or at [rlawrence@jeo.com](mailto:rlawrence@jeo.com)

Sincerely,

A handwritten signature in blue ink that reads 'Ross E. Lawrence'.

Ross E. Lawrence, PE, CFM  
Project Manager

Enclosure

**Amendment #1**  
**Lower Platte South NRD – Antelope Creek Pipe Replacement**  
**JEO Project No. 201376.00**

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**Project Understanding:**

JEO proposes to amend the Agreement signed September 23, 2020 and provide engineering services to assist the Lower Platte South NRD (Owner) with construction services for the Antelope Creek Pipe Replacement project. The project has been designed and a contractor has been selected to construct the project.

**Scope of Services:**

In addition to the existing tasks in the original Agreement, JEO proposes to provide the following Scope of Services.

**6 – Construction Services**

**6.1 – Resident Project Representative (RPR)**

- JEO will provide part-time RPR services to observe construction of the project. RPR services include:
  - o Facilitate a pre-construction meeting
  - o Review of the contractor’s work for general compliance with the plans and specifications
  - o Review, coordinate, and document construction progress
  - o Complete field reports and collect photographs to document the work
  - o Facilitate progress meetings
  - o Facilitate punch list walk-throughs

**6.2 – Construction Administration**

- JEO will provide construction administration services including:
  - o Contractor and NRD coordination
    - JEO to provide regular status updates to NRD at least twice a month, regardless of construction progress.
  - o City of Lincoln Watershed Management, Right of Way, and Parks and Recreation coordination
  - o Review of shop drawings and material certifications
  - o Review of material testing results
  - o Review of payment requests
  - o Processing change orders, if needed
  - o Develop punch list
  - o Project close-out and substantial completion documentation

### **6.3 – Survey Staking**

- JEO will provide construction staking to establish reference points and the general layout of the work
- Staking of the proposed improvements is assumed to be completed during nine (9) trips.

### **6.4 – Material Testing**

- JEO will subcontract with a third party for construction material testing
- Material testing is proposed for quality control of earthen backfill, subgrade compaction, and concrete sampling and strength testing. Testing is anticipated to include:
  - o 7 standard proctors (sample collection and laboratory testing)
  - o 20 trench backfill compaction tests
  - o 16 pavement/sidewalk subgrade compaction tests
  - o 16 concrete sample collections and laboratory testing

### **6.5 – Post Construction**

- JEO will assist the Owner during the 12-month warranty period with questions and coordination with the Contractor for warranty period correction items.
- Issue 11-month warranty letter to the Owner and Contractor. Conduct field reviews of the project should a field inspection be necessary.
- Issue a warranty period correction letter to the Contractor for warranty repair items, if necessary.
- Preparation of as-built plans (record drawings) to document as-constructed locations and elevations of features. Record drawings may include accurate field measurements provided by the Contractor and/or RPR and select survey information. Not all features will be surveyed for record drawing preparation.

#### **Meetings:**

- Pre-construction meeting (1 meeting)
- Routine on-site meetings with the Contractor and Owner during construction
- Progress meetings with Contractor, Owner, and City of Lincoln (2 meetings)
- Punch list walk-through with Owner (4 meetings)
- Final walk-through with the Contractor and Owner when construction is complete (2 meetings)

#### **Task Deliverables:**

- Pre-Construction meeting agenda and notes
- Reviewed shop drawings
- Reviewed payment requests
- Change orders, if necessary
- Construction photos
- Punch list
- Certificate of Substantial Completion
- Record drawings

**Key Understandings/Assumptions:**

- Assumes construction is substantially complete on or before May 15, 2022 and completed and ready for final payment on or before June 1, 2022. Post-construction services are assumed to be complete within 12 months of substantial completion date.
- Assumes RPR and Construction Administration (Task 6.1 and Task 6.2) will be limited to 233 total hours. Regular inspections are estimated to account for 204 hours and were estimated from a 17-week construction timeframe, assuming 3 visits per week, and 4 hours per visit (including travel and reporting). Planned meetings, such as pre-construction meeting, scheduled progress meetings, and punch list walk-throughs account for 29 hours.
- Survey staking is estimated at 9 trips for a total of 36 hours.
- Board meeting attendance is not included but can be added if desired.
- If construction duration exceeds the anticipated schedule or additional oversight is needed, an amendment to the contract may be required and will be coordinated with the Owner.

**Amendment Fee**

JEO proposes to perform the described services at an hourly not-to-exceed fee as included in the following schedule:

Task 6.1 – RPR.....	\$16,590
Task 6.2 – Construction Administration.....	\$16,380
Task 6.3 – Survey Staking.....	\$4,460
Task 6.4 – Material Testing.....	\$16,500
Task 6.5 – Post Construction.....	\$3,105

**Amendment Total**            **\$57,035**

Original Agreement            \$94,490

Project Total            \$151,525

\*The Project Fee schedule is an estimate of the fee distribution between tasks. JEO reserves the right to invoice in excess of the individual task amount, provided the total fee does not exceed the project total.

Amendment Accepted:

Owner

\_\_\_\_\_ Lower Platte South NRD \_\_\_\_\_

By: \_\_\_\_\_

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Engineer

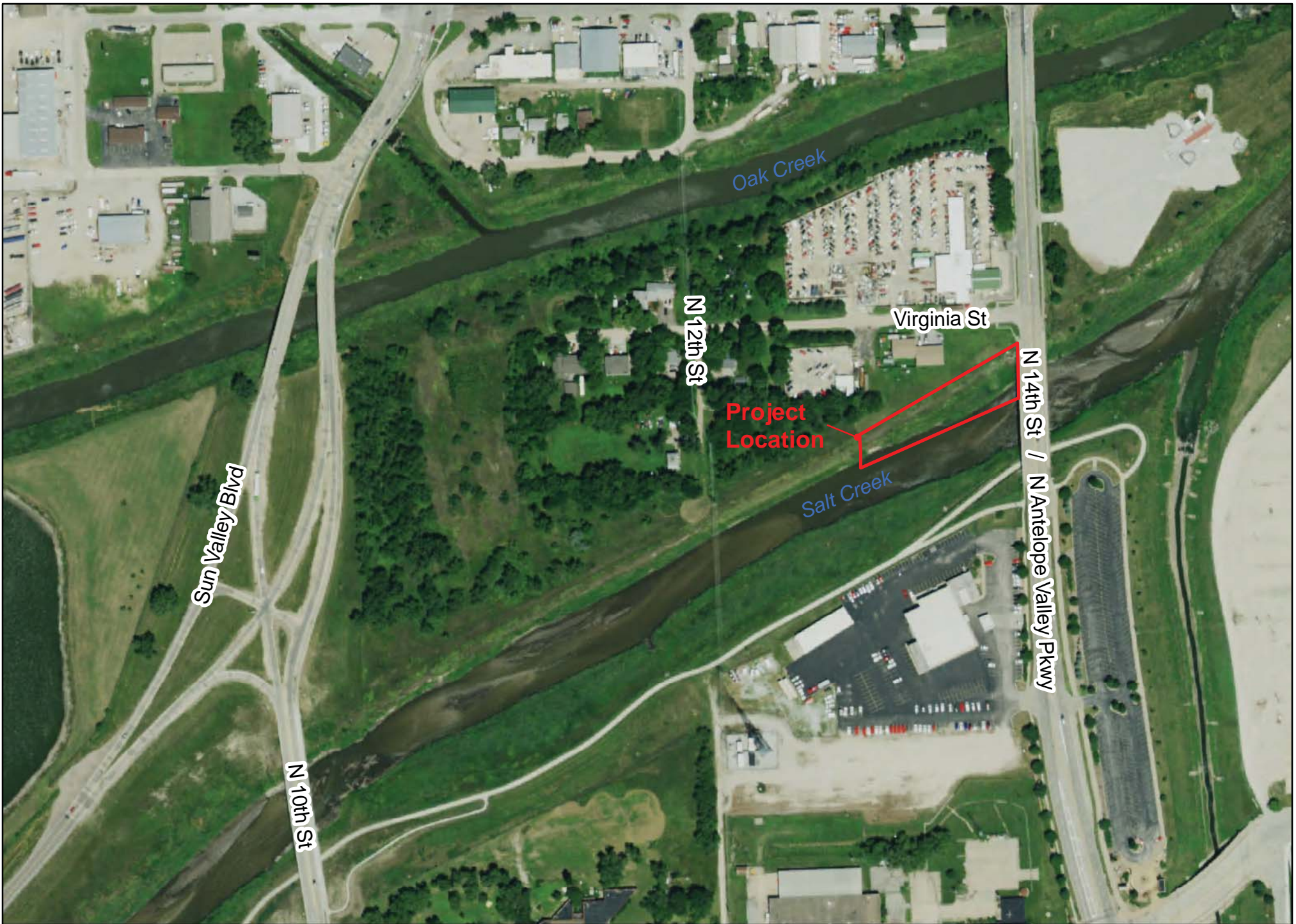
\_\_\_\_\_ JEO Consulting Group, Inc. \_\_\_\_\_

By: \_\_\_\_\_ Ross Lawrence \_\_\_\_\_

Signed:  \_\_\_\_\_

Title: \_\_\_\_\_ Project Manager \_\_\_\_\_

Date Signed: \_\_\_\_\_ 10-08-2021 \_\_\_\_\_



Salt Creek, left bank, downstream of 10th St.



Salt Creek, looking northeast  
at left bank, near 12th St





Salt Creek, looking north  
at left bank, near 13th St



Salt Creek, left bank near 13th St,  
looking downstream at 14th St bridge





October 12, 2021

Lower Platte South NRD  
Attn: Jared Nelson  
3125 Portia St  
Lincoln, NE 68521

RE: Agreement  
Salt Creek 10<sup>th</sup> to 14<sup>th</sup> Stream Stabilization  
JEO Project No. 211468.00

Dear Mr. Nelson:

Enclosed is the Agreement for professional services for the Salt Creek 10<sup>th</sup> to 14<sup>th</sup> Stream Stabilization Project. JEO will provide the NRD with survey, geotechnical analysis, design, permitting, and bidding services, as outlined in the included Scope of Services. JEO is ready to start on this project right away and understands the NRD intends to begin construction as early as July 2022.

Please review the attached documents and if you have any questions, please feel free to contact me at 402-474-8751 or [rlawrence@jeo.com](mailto:rlawrence@jeo.com). Thank you for the opportunity to work on this project.

Sincerely,

A handwritten signature in blue ink that reads "Ross E. Lawrence".

Ross E. Lawrence, PE, CFM  
Project Manager

Enclosure



**AGREEMENT  
BETWEEN OWNER AND ENGINEER  
FOR  
PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of October 21, 2021 ("Effective Date") between Lower Platte South Natural Resources District ("Owner") and JEO Consulting Group, Inc. ("Engineer").

Owner's project, of which Engineer's services under this Agreement are a part, is generally identified as follows:

Salt Creek 10<sup>th</sup> to 14<sup>th</sup> Stream Stabilization ("Project").

JEO Project Number: 211468.00

Owner and Engineer further agree as follows:

**ARTICLE 1 - SERVICES OF ENGINEER**

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**1.01 Scope**

- A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

**ARTICLE 2 - OWNER'S RESPONSIBILITIES**

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**2.01 Owner Responsibilities**

- A. Owner responsibilities are outlined in Section 3 of Exhibit B.

**ARTICLE 3 - COMPENSATION**

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**3.01 Compensation**

- A. Owner shall pay Engineer as set forth in Exhibit A and per the terms in Exhibit B.
- B. The hourly not-to-exceed fee for the Project is: \$115,180
- C. The Standard Hourly Rates Schedule shall be adjusted annually (as of approximately January 1st) to reflect equitable changes in the compensation payable to Engineer. The current hourly rate schedule can be provided upon request.

**ARTICLE 4 - EXHIBITS AND SPECIAL PROVISIONS**

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**4.01 Exhibits**

Exhibit A – Scope of Services  
Exhibit B – General Conditions

**4.02 Total Agreement**


- A. This Agreement (consisting of pages 1 to 2 inclusive, together with the Exhibits identified as included above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

Owner: Lower Platte South NRD

Engineer: JEO Consulting Group, Inc.

\_\_\_\_\_

  
\_\_\_\_\_

By: \_\_\_\_\_

By: Ross Lawrence

Title: \_\_\_\_\_

Title: Project Manager

Date Signed: \_\_\_\_\_

Date Signed: 10-12-2021

Address for giving notices:

Address for giving notices:

\_\_\_\_\_

JEO Consulting Group, Inc.

\_\_\_\_\_

1937 N Chestnut Street

\_\_\_\_\_

Wahoo, NE 68066

\_\_\_\_\_

\_\_\_\_\_

**Scope of Services**  
**Lower Platte South NRD – Salt Creek 10<sup>th</sup> to 14<sup>th</sup> Stream Stabilization**  
**JEO Project No. 211468.00**

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**Project Understanding:**

JEO proposes to provide engineering services to assist the Lower Platte South NRD (Owner) with survey, geotechnical analysis, design, permitting, and bidding assistance for streambank repairs and stabilization along Salt Creek left (north) bank in Lincoln, NE. The reach of Salt Creek from the 10<sup>th</sup> Street bridge to the 14<sup>th</sup> Street (Antelope Valley Pkwy) bridge (approximately 1,800 linear feet) is in a varying state of bank evolution and failure. The left bank of Salt Creek in this area is considered high ground/high bank (not levee) but does provide flood risk reduction benefits to the residents and businesses in the area. (Note the opposite/right bank does have levee). The original construction/modification of Salt Creek resulted in steep slopes constructed using material with geometrics and physical properties that are susceptible to erosion and periodic failure. Multiple high-water events in a relatively recent timeframe (2015 to present) have resulted in progressive streambank failures and erosion. JEO has been tasked with conducting an evaluation and development of conceptual design alternatives for the entire reach (**study area**) to allow the NRD to effectively plan and budget for repairs/improvements. The most downstream portion of this reach, from approximately 13<sup>th</sup> to 14<sup>th</sup> Streets (approximately 350 linear feet), is the most severely damaged and in need of repair. The NRD will review the overall conceptual design alternatives and opinions of cost and choose a preferred alternative. JEO will continue forward with the design and permitting of the preferred alternative and will develop final design drawings and specifications for construction of the proposed improvements for the area of 13<sup>th</sup> Street to 14<sup>th</sup> Street (**focus area**). Design drawings and specifications will be sealed and signed by a professional engineer and associated permits will be obtained. Construction services are not included in this Scope of Services and can be added as needed at a later date.

**Scope of Services:**

JEO proposes to provide the following Scope of Services

**1 – Project Management**

- Perform routine project management tasks
- Prepare and update a project schedule
- Prepare progress reports
- Attend up to one (1) NRD board meeting
- Communicate with Owner’s representative to collaborate and collect data and key input, outside of formal meetings

**Meetings:**

- One (1) NRD board meeting

**Task Deliverables:**

- Project schedule

## Exhibit A

- Project invoices
- Meeting support material

### **Key Understandings/Assumptions:**

- The Owner will provide a dedicated project lead point of contact for project communication
- Project invoices will be provided monthly

## **2 – Survey**

- Survey the edge of water of Salt Creek (both banks) for the study area from 10<sup>th</sup> to 14<sup>th</sup> Streets for the purpose of measuring erosion (or deposition), when compared to previous survey data
- For the focus area from 13<sup>th</sup> to 14<sup>th</sup> Streets, supplement previously collected survey information with limited topographic field survey to collect elevation and location of the landscape and drainage feature data necessary to design improvements and develop construction quantities
  - o See attached map for general survey limits
- Request a utility locate and survey underground utilities that are marked in the field by others
- Incorporate previously collected boundary (property) survey information and available City of Lincoln/Lancaster County GIS parcel lines, to be used as approximate property limits for planning purposes

### **Meetings:**

- None

### **Task Deliverables:**

- Topographic survey data to be included on design drawings
  - o Survey data will be used to determine construction quantities and cost opinion

### **Key Understandings/Assumptions:**

- Easement research and property corner field searches and survey will be necessary if proposed design encroaches on private property
- If property impacts are identified during the design phase that may require additional property boundary investigation, JEO will discuss with the Owner prior to proceeding

## **3 – Permitting (13<sup>th</sup> to 14<sup>th</sup> Street)**

### **3.1 – Floodplain**

- Perform hydraulic modeling of Salt Creek in the project area for the purpose of supporting local floodplain requirements and USACE Section 408 review
- JEO will prepare a floodplain development permit application and the necessary supporting information and will submit to the City of Lincoln/Lancaster County Building & Safety Department. The permit application will include evaluation/explanation of Salt Creek Flood Storage areas, if needed.

## Exhibit A

- The project improvements are within a regulatory floodway and will require a 'no-rise certification'
- In addition to satisfying local floodplain regulations for the 1% annual chance event, it is anticipated the USACE will request/require modeling/analysis of various discharges on Salt Creek to support the adequacy of the proposed design in comparison to the original authorized capacity of the channel

### **3.2 – U.S. Army Corps of Engineers (USACE) Section 404**

- Perform wetland delineation at the select location in accordance with the 1987 USACE Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)
- Compile and analyze field data and prepare a wetland delineation report that includes:
  - o Site Map
  - o Summary of desktop review
  - o Identification and mapping boundaries for all recorded Waters of the U.S. (WOUS) and wetlands
  - o Calculation of acreage of, and impacts to, WOUS, including wetlands (to the nearest 0.01 acre)
  - o Photographs of each sample point and all WOUS, including wetlands
  - o USACE Wetland Determination Data Forms
- Prepare and submit preliminary coordination letters to the U.S. Fish and Wildlife Service (USFWS), Nebraska Game and Parks Commission (NGPC), and History Nebraska that summarize the results of the wetland delineation and request effect determinations and project guidance, as appropriate
- Prepare and submit a pre-construction notification (i.e. permit application) packages to the USACE to obtain a Section 404 authorization via Nationwide Permit (NWP)
- Although it is anticipated that permanent, unavoidable impacts to wetlands will be less than 0.1 acre, thus avoiding the requirement for compensatory mitigation, this may change based on the results of the wetland delineations and project design

### **3.3 – U.S. Army Corps of Engineers (USACE) Section 408**

- It is anticipated the proposed design will require Section 408 coordination and authorization. JEO will develop a project narrative and submittal packet necessary for USACE review and approval. The submittal packet is anticipated to include:
  - o Description of the existing levee system
  - o Description of the proposed alteration
  - o Draft (60% +) design drawings and specifications
  - o Geotechnical exploration and analysis results
  - o Hydraulic evaluation
  - o Tiered NEPA document for categorical permissions
  - o Real estate assessment
  - o Operation and maintenance
  - o Project schedule



### **3.4 – National Pollutant Discharge Elimination System (NPDES)**

- Submit Notice of Intent (NOI) to Nebraska Department of Environment and Energy (NDEE)
- Prepare Stormwater Pollution Prevention Plan (SWPPP) for contractor use during construction
- Submit Notice of Termination (NOT) at project completion

#### **Meetings:**

- None

#### **Task Deliverables:**

- Floodplain development permit package
- Wetland delineation and report
- Section 404 permit application
- Section 408 submittal
- SWPPP

#### **Key Understandings/Assumptions:**

- Owner will be responsible for all permit fees
- All permitting activities are for the design focus area (13<sup>th</sup> to 14<sup>th</sup> Street) only
- It will not be necessary to conduct interior drainage flow calculations, capacity analysis, and delineate ponding areas
- It will not be necessary to coordinate with City of Lincoln Right-of-Way
- As this is generally a channel (not levee) modification project it is anticipated that USACE coordination will be limited and completed via submitted information. JEO will work with Owner if additional USACE coordination is necessary.
- It is assumed a Nationwide Permit (NWP 13 or 31) will be obtained requiring no mitigation. Other 404 permit types or mitigation would require an amendment for additional services.
- NEPA requirements will be satisfied through the Categorical Permitted Alterations to Existing U.S. Army Corps of Engineers Civil Works Projects

## **4 – Concept Design (10<sup>th</sup> to 14<sup>th</sup> Street)**

### **4.1 – Concept Design Alternatives**

- Utilize previously collected topographic and boundary information to prepare (up to three) concept level design alternatives for the study area from 10<sup>th</sup> to 14<sup>th</sup> Street. Drawings are anticipated to include:
  - o Plan viewing showing existing features/terrain and proposed toe of slope and top of bank. Grading plan is not included.
  - o Typical sections of proposed alternatives
- Develop conceptual quantities and cost opinion for each alternative
  - o If private properties are impacted, real estate cost will be estimated from available county assessor data
- Evaluate stream hydraulics to support concept design alternatives

## Exhibit A

- Develop a brief technical memorandum outlining the proposed alternatives including preliminary geotechnical evaluation results and consideration of geomorphology and hydraulics
- NRD will select a preferred design alternative and JEO will implement the preferred design for the focus area of 13<sup>th</sup> St to 14<sup>th</sup> St and continue design and permitting

### **5 – Design (13<sup>th</sup> to 14<sup>th</sup> Street)**

#### **5.1 – 60% Design**

- Prepare engineering design drawings for the focus area of 13<sup>th</sup> St to 14<sup>th</sup> St. Drawings are anticipated to include:
  - o Project vicinity maps
  - o Survey control
  - o Existing site plans with topographic survey information
  - o Property lines where surveyed or approximate property lines (from City GIS database)
  - o Proposed site and grading plan
  - o Details and typical sections
- Design elements are anticipated to include:
  - o Grading/earthwork
  - o Riprap placement
  - o Sheet pile or other wall construction
  - o Slope stabilization features
  - o Seeding and erosion control
- Develop 60% design drawings and opinion of cost
  - o Submit 60% design documents to Owner for review and meet with Owner's representative at the project site to review 60% draft design documents

#### **5.2 – 95% Design**

- Incorporate 60% review comments and internal QA/QC into development of 95% design drawings
- Develop 95% design drawings, specifications complete with bidding and contract documents and opinion of cost
  - o Submit 95% design documents to Owner for review

#### **5.3 – Final Design**

- Incorporate 95% review comments and internal QA/QC into development of final documents (drawings, specifications, opinion of cost, and contract documents) signed and sealed by a professional engineer registered in the State of Nebraska

#### **Meetings:**

- One (1) 60% review meeting (at project site)

#### **Task Deliverables:**

- Draft (60%) design drawings and cost opinion

## Exhibit A

- Draft (95%) design drawings, specifications, and cost opinion
- Final design drawings, specifications, and cost opinion

### **Key Understandings/Assumptions:**

- Design, specifications, and bid documents will be for one bid package

## **6 – Geotechnical Evaluation (10<sup>th</sup> to 14<sup>th</sup> Street)**

### **6.1 – Data Review and Site Investigation**

- Geotechnical staff will review available existing data and coordinate a subsurface investigation for the north bank of Salt Creek between 10<sup>th</sup> St and 14<sup>th</sup> St
- A subsurface investigation consisting of three soil borings drilled to a depth of 45 feet along the crest of the slope will be performed
- Laboratory testing will be conducted on soil samples to aid in geotechnical evaluation of the slope

### **6.2 – Geotechnical Evaluation and Alternatives Analysis**

- A geotechnical evaluation will be completed for (up to three) alternatives that can be implemented to stabilize the slope
- The alternatives will be evaluated and discussed at a conceptual level for the slope from 10<sup>th</sup> St to 14<sup>th</sup> St, in support of concept design development (Task 4.1)

### **6.3 – Final Analysis and Reporting**

- Once a preferred alternative is selected, the evaluation will be finalized for the focus area of 13<sup>th</sup> St to 14<sup>th</sup> St to support final design drawing and specification development (Tasks 5.1-5.3)
- Prepare a geotechnical report summarizing the evaluation and recommendations

## **7 – Bidding and Advertising (13<sup>th</sup> to 14<sup>th</sup> Street)**

- Assist the Owner in advertising and letting the project
- Prepare bidding documents and facilitate delivery to prospective bidders
- Prepare forms for contract documents including proposals, advertisements for bids, construction contracts, and payment and performance bonds as required (subject to approval by Owner)
- Respond to questions from potential bidders
- Attend bid letting; attended by JEO Project Manager or Project Engineer

### **Meetings:**

- Bid letting

### **Task Deliverables:**

- Bid documents

Exhibit A

- Bid recommendation

**Key Understandings/Assumptions:**

- There will be one bid package

**Project Fee**

JEO proposes to perform the described services at an hourly not-to-exceed fee as included in the following schedule:

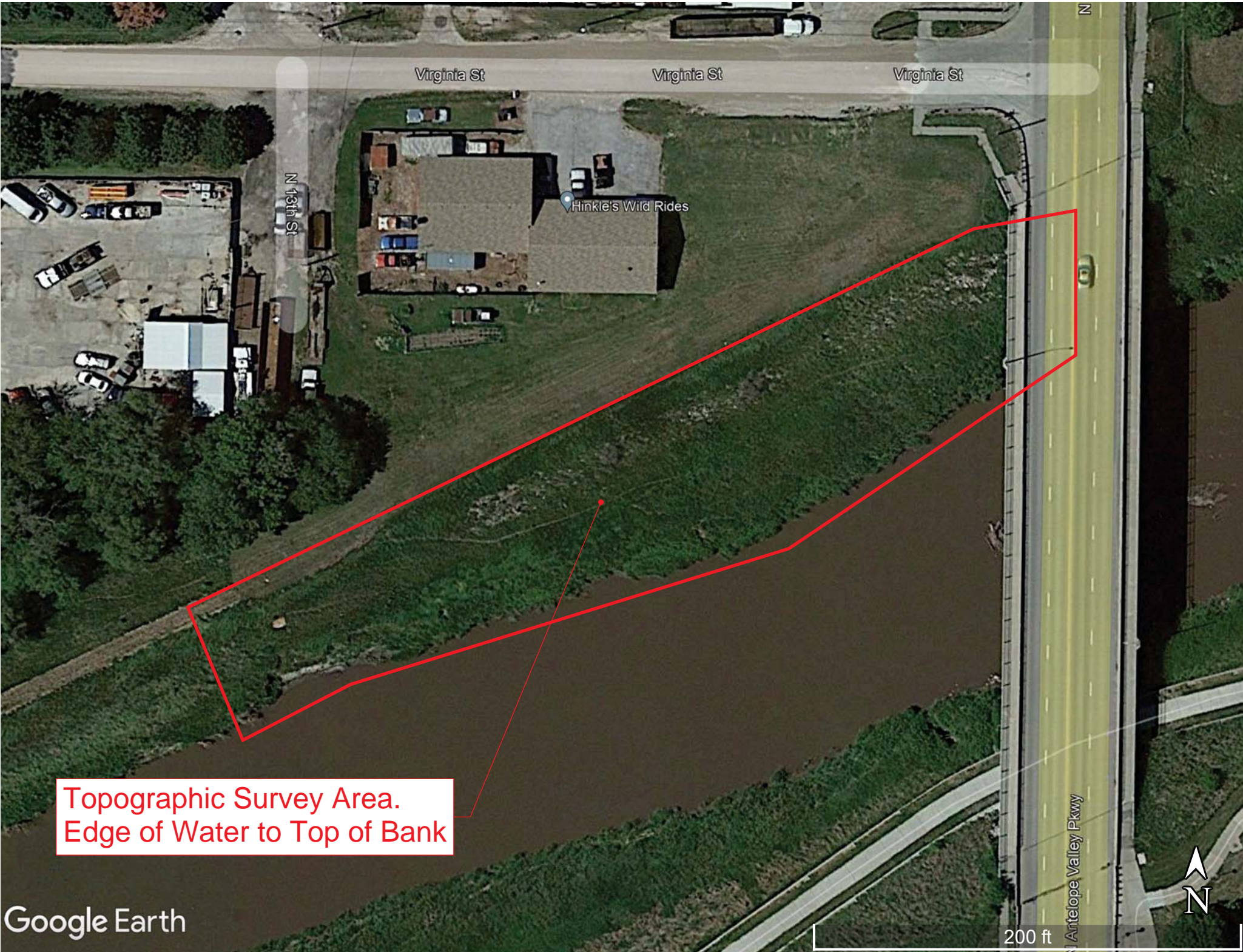
Task 1 – Project Management.....	\$9,750
Task 2 – Survey.....	\$4,740
Task 3 – Permitting.....	\$15,750
Task 4 – Concept Design (10 <sup>th</sup> to 14 <sup>th</sup> ).....	\$8,730
Task 5 – Design (13 <sup>th</sup> to 14 <sup>th</sup> ).....	\$33,360
Task 6 – Geotechnical Evaluation.....	\$39,500
Task 7 – Bidding and Advertising.....	\$3,350

**Project Total     \$115,180**

\*The Project Fee schedule is an estimate of the fee distribution between tasks. JEO reserves the right to invoice in excess of an individual task amount, provided the total fee does not exceed the project total without Owner authorization.

**Project Schedule**

The proposed project is expected to take approximately seven (7) months upon receipt of Notice to Proceed. Project duration in excess of 7 months (beyond control of JEO) may require an amendment to the Scope of Services.



Virginia St

Virginia St

Virginia St

N 13th St

Hinkle's Wild Rides

Antelope Valley Pkwy

Topographic Survey Area.  
Edge of Water to Top of Bank



## JEO CONSULTING GROUP INC ■ JEO ARCHITECTURE INC

**1. SCOPE OF SERVICES:** JEO Consulting Group, Inc. (JEO) shall perform the services described in Exhibit A. JEO shall invoice the owner for these services at the fee stated in Exhibit A.

**2. ADDITIONAL SERVICES:** JEO can perform work beyond the scope of services, as additional services, for a negotiated fee or at fee schedule rates.

**3. OWNER RESPONSIBILITIES:** The owner shall provide all criteria and full information as to the owner's requirements for the project; designate and identify in writing a person to act with authority on the owner's behalf in respect to all aspects of the project; examine and respond promptly to JEO's submissions; and give prompt written notice to JEO whenever the owner observes or otherwise becomes aware of any defect in work.

Unless otherwise agreed, the owner shall furnish JEO with right-of-access to the site in order to conduct the scope of services. Unless otherwise agreed, the owner shall also secure all necessary permits, approvals, licenses, consents, and property descriptions necessary to the performance of the services hereunder. While JEO shall take reasonable precautions to minimize damage to the property, it is understood by the owner that in the normal course of work some damage may occur, the restoration of which is not a part of this agreement.

**4. TIMES FOR RENDERING SERVICES:** JEO's services and compensation under this agreement have been agreed to in anticipation of the orderly and continuous progress of the project through completion. Unless specific periods of time or specific dates for providing services are specified in the scope of services, JEO's obligation to render services hereunder shall be for a period which may reasonably be required for the completion of said services.

If specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided, and if such periods of time or date are changed through no fault of JEO, the rates and amounts of compensation provided for herein shall be subject to equitable adjustment. If the owner has requested changes in the scope, extent, or character of the project, the time of performance of JEO's services shall be adjusted equitably.

**5. INVOICES:** JEO shall submit invoices to the owner monthly for services provided to date and a final bill upon completion of services. Invoices are due and payable within 30 days of receipt. Invoices are considered past due after 30 days. Owner agrees to pay a finance charge on past due invoices at the rate of 1.0% per month, or the maximum rate of interest permitted by law.

If the owner fails to make any payment due to JEO for services and expenses within 30 days after receipt of JEO's statement, JEO may, after giving 7 days' written notice to the owner, suspend services to the owner under this agreement until JEO has been paid in full all amounts due for services, expenses, and charges.

**6. STANDARD OF CARE:** The standard of care for all services performed or furnished by JEO under the agreement shall be the care and skill ordinarily used by members of JEO's profession practicing under similar circumstances at the same time and in the

same locality. JEO makes no warranties, express or implied, under this agreement or otherwise, in connection with JEO's services.

JEO shall be responsible for the technical accuracy of its services and documents resulting therefrom, and the owner shall not be responsible for discovering deficiencies therein. JEO shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in owner furnished information.

**7. REUSE OF DOCUMENTS:** Reuse of any materials (including in part plans, specifications, drawings, reports, designs, computations, computer programs, data, estimates, surveys, other work items, etc.) by the owner on a future extension of this project, or any other project without JEO's written authorization shall be at the owner's risk and the owner agrees to indemnify and hold harmless JEO from all claims, damages, and expenses including attorney's fees arising out of such unauthorized use.

**8. ELECTRONIC FILES:** Copies of Documents that may be relied upon by the owner are limited to the printed copies (also known as hard copies) that are signed or sealed by JEO. Files in electronic media format of text, data, graphics, or of other types that are furnished by JEO to the owner are only for convenience of the owner. Any conclusion or information obtained or derived from such electronic files shall be at the user's sole risk.

a. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it shall perform acceptance tests or procedures within 30 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 30 day acceptance period shall be corrected by the party delivering the electronic files. JEO shall not be responsible to maintain documents stored in electronic media format after acceptance by the owner.

b. When transferring documents in electronic media format, JEO makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by JEO at the beginning of the project.

c. The owner may make and retain copies of documents for information and reference in connection with use on the project by the owner.

d. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

e. Any verification or adaptation of the documents by JEO for extensions of the project or for any other project shall entitle JEO to further compensation at rates to be agreed upon by the owner and JEO.

**9. SUBCONSULTANTS:** JEO may employ consultants as JEO deems necessary to assist in the performance of the services. JEO shall not be required to employ any consultant unacceptable to JEO.

**10. INDEMNIFICATION:** To the fullest extent permitted by law, JEO and the owner shall indemnify and hold each other harmless and their respective officers, directors, partners, employees, and consultants from and against any and all claims, losses, damages, and expenses (including but not limited to all fees and charges of

## JEO CONSULTING GROUP INC ■ JEO ARCHITECTURE INC

engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) to the extent such claims, losses, damages, or expenses are caused by the indemnifying parties' negligent acts, errors, or omissions. In the event claims, losses, damages, or expenses are caused by the joint or concurrent negligence of JEO and the owner, they shall be borne by each party in proportion to its negligence.

**11. INSURANCE:** JEO shall procure and maintain the following insurance during the performance of services under this agreement:

- a. Workers' Compensation: Statutory
- b. Employer's Liability
  - i. Each Accident: \$500,000
  - ii. Disease, Policy Limit: \$500,000
  - iii. Disease, Each Employee: \$500,000
- c. General Liability
  - i. Each Occurrence (Bodily Injury and Property Damage): \$1,000,000
  - ii. General Aggregate: \$2,000,000
- d. Auto Liability
  - i. Combined Single: \$1,000,000
- e. Excess or Umbrella Liability
  - i. Each Occurrence: \$1,000,000
  - ii. General Aggregate: \$1,000,000
- f. Professional Liability:
  - i. Each Occurrence: \$1,000,000
  - ii. General Aggregate: \$2,000,000
- g. All policies of property insurance shall contain provisions to the effect that JEO and JEO's consultants' interests are covered and that in the event of payment of any loss or damage the insurers shall have no rights of recovery against any of the insureds or additional insureds thereunder.
- h. The owner shall require the contractor to purchase and maintain general liability and other insurance as specified in the Contract Documents and to cause JEO and JEO's consultants to be listed as additional insured with respect to such liability and other insurance purchased and maintained by the contractor for the project.
- i. The owner shall reimburse JEO for any additional limits or coverages that the owner requires for the project.

**12. TERMINATION:** This agreement may be terminated by either party upon 7 days prior written notice. In the event of termination, JEO shall be compensated by owner for all services performed up to and including the termination date. The effective date of termination may be set up to thirty (30) days later than otherwise provided to allow JEO to demobilize personnel and equipment from the site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble project materials in orderly files.

**13. GOVERNING LAW:** This agreement is to be governed by the law of the state in which the project is located.

**14. SUCCESSORS, ASSIGNS, AND BENEFICIARIES:** The owner and JEO each is hereby bound and the partners, successors, executors, administrators and legal representatives of the owner and JEO are hereby bound to the other party to this agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, with respect to all covenants, agreements and obligations of this agreement.

a. Neither the owner nor JEO may assign, sublet, or transfer any rights under or interest (including, but without limitation, monies that are due or may become due) in this agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment shall release or discharge the assignor from any duty or responsibility under this agreement.

b. Unless expressly provided otherwise in this agreement: Nothing in this agreement shall be construed to create, impose, or give rise to any duty owed by the owner or JEO to any contractor, contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.

c. All duties and responsibilities undertaken pursuant to this agreement shall be for the sole and exclusive benefit of the owner and JEO and not for the benefit of any other party.

**15. PRECEDENCE:** These standards, terms, and conditions shall take precedence over any inconsistent or contradictory language contained in any proposal, contract, purchase order, requisition, notice to proceed, or like document regarding JEO's services.

**16. SEVERABILITY:** Any provision or part of the agreement held to be void or unenforceable shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the owner and JEO, who agree that the agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

**17. NON-DISCRIMINATION CLAUSE:** Pursuant to Neb. Rev. Stat. § 73-102, the parties declare, promise, and warrant that they have and will continue to comply fully with Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C.A § 1985, et seq.) and the Nebraska Fair Employment Practice Act, Neb. Rev. Stat. § 48-1101, et seq., in that there shall be no discrimination against any employee who is employed in the performance of this agreement, or against any applicant for such employment, because of age, color, national origin, race, religion, creed, disability or sex.

**18. E-VERIFY:** JEO shall register with and use the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee pursuant to the Immigration Reform and Control Act of 1986, to determine the work eligibility status of new employees physically performing services within the state where the work shall be performed. Engineer shall require the same of each consultant.



# LOWER PLATTE SOUTH natural resources district

3125 Portia Street | P.O. Box 83581 • Lincoln, Nebraska 68501-3581  
P: 402.476.2729 • F: 402.476.6454 | [www.lpsnrd.org](http://www.lpsnrd.org)

## Memorandum

**Date:** September 28, 2021  
**To:** Urban Subcommittee  
**From:** Tracy Zayac  
**Subject:** Status update on current projects

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### Community Assistance Program:

1. Weeping Water Gospel Run bank stabilization Phase 2 (approved 10/21/2020): Project is complete. Inspected the project site on 8/6/2021 and closed out the project on 9/23/2021. See before and after photos on attached pages.
2. Edenton North pond bank rehab (approved 1/20/2021): Project is complete. Inspected the project site on 7/12/2021 and closed out the project on 8/23/2021.
3. Hickman 68<sup>th</sup> Street bike trail underpass (approved 3/17/2021): Project currently in design phase. City is planning to send out for bid this fall.

### Other projects:

1. Wyuka stormwater conceptual design (approved 2/17/2021): Planning process will be wrapping up within the next month. Consultant plans to hold another meeting with City and NRD stakeholders to review the preferred alternative for stormwater handling.



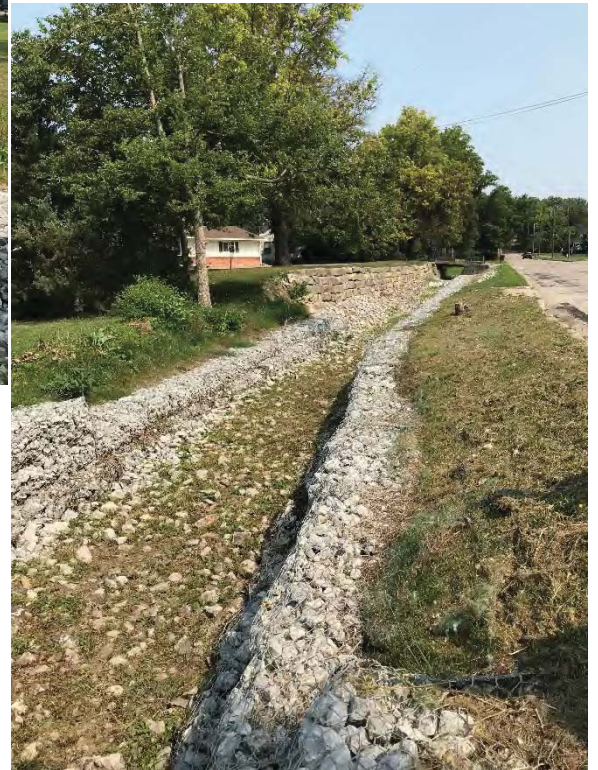
## Weeping Water Gospel Run bank stabilization CAP project

Before project: vertical, eroding stream banks



## Weeping Water Gospel Run bank stabilization CAP project

After project: Banks stabilized with gabions





# CITY OF LINCOLN – SALT CREEK RESILIENCY / LINCOLN DRAINAGE CRITERIA MANUAL

## Stakeholder Meeting

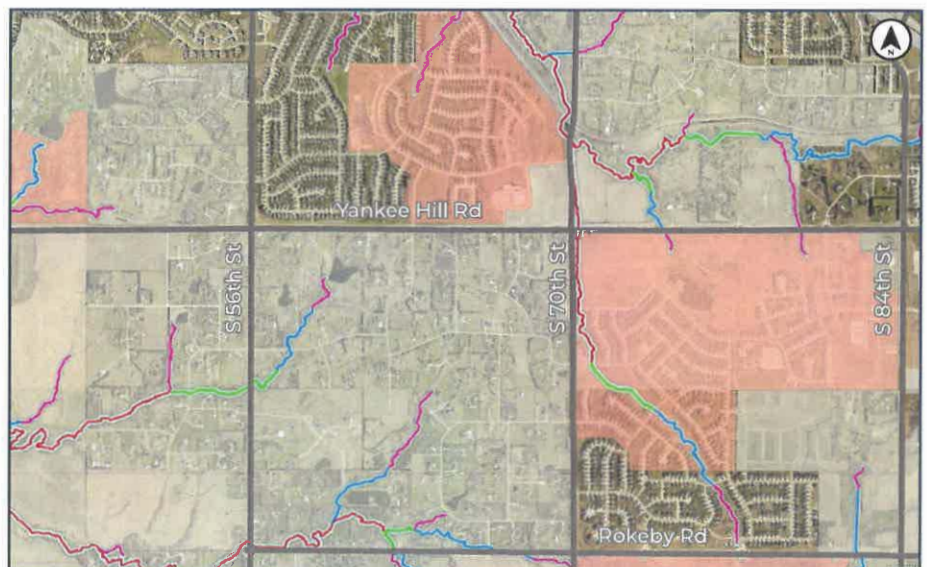
Monday, October 4, 2021

### NEED FOR UPDATES IN 2021

The City of Lincoln is proposing changes to the City's Drainage Criteria Manual (DCM). These changes are based on updated precipitation data, recommendations provided in the Salt Creek Resiliency Study, increased regulatory standards, and guidelines from the City's draft Climate Action Plan. Lincoln's Drainage Criteria Manual was first established in February 2000 and revised in 2004, 2007 and 2014.

### BENEFITS

The proposed revisions are designed to protect people and property by reducing flood impacts to future developments and structures in, and adjacent to, floodplains and other flood prone areas. The changes will lower post-construction costs and ensure that improvements are functional and maintainable prior to being transferred to homeowner associations. Revisions will also help the City of Lincoln keep and obtain Community Rating System (CRS) points which provide a reduction in flood insurance premiums to residents with federal flood insurance whose property is located in the floodplain.



# WHAT ARE THE MOST SIGNIFICANT PROPOSED DCM CHANGES AND ASSOCIATED COSTS?

The most significant impacts include the need for larger detention ponds and higher freeboard requirements when building in the floodplain. It will require more time up front in design to ensure that items like street grades, detention ponds, stormwater quality facilities and any amended channels are designed and built to lessen maintenance costs and/or cause fewer issues for future homeowner's/neighborhood/business associations.



## REVISED RAINFALL AMOUNTS

Lincoln's underlying rainfall amounts have been updated from values established in the 1960's. Revised amounts are mostly higher and will mean higher runoff rates. Generally, for more frequent flood events (2-, 5- and 10-year), increases are minor, and, in fact, the 10-year event represents a slight decrease. As a result, there will be no significant increases from urban underground drainage systems which are typically designed for 5- or 10-year flood events.

There is an increase in rainfall amounts for less frequent storm events (50- and 100-year). For this reason, revised rainfall amounts will cause an increase in detention sizing, which are projected to range from 5 to 30%. Generally, detention ponds draining large areas (100 acres) will have larger increases in sizing compared to those with smaller drainage areas (10 acres).



## INCREASED FREEBOARD

Updates include a proposed increase in freeboard requirements from one-foot to two-feet for structures in the floodplain. This will impact development by requiring an extra foot of fill or higher foundations due to the additional foot of freeboard. This is an upfront cost but will reduce future costs as the current federal floodplain underrepresents current flood impacts. It is also highly probable that future flood mapping will increase flood heights.



## MINIMUM CORRIDOR FOR DRAINAGEWAYS

Revisions to minimum corridor standards provide a clear and more objective method to delineate minimum corridors for drainageways. More information on the [revised minimum corridor methodology](#) and related [data](#) can be found at [www.lincoln.ne.gov/city/ltu/watershed/dcm/revisions](http://www.lincoln.ne.gov/city/ltu/watershed/dcm/revisions) under "Minimum Stream Corridor".



## SURETIES

Sureties for stormwater quality BMPs and amended channels will be required. There will be increased costs for periodic surety payments (typically 1% per year of surety) and increased engineering costs for maintenance plans. These are offset elsewhere by ensuring that homeowner's associations have improvements (detention ponds, stormwater quality BMPs and amended channels) that are functional, maintainable and that the associations will have a clear understanding of their necessary maintenance.



## UPDATES TO THE EROSION AND SEDIMENT CONTROL STANDARDS

Maintenance plans will be required for detention ponds and amended channels. There is no direct cost increase other than possible engineering costs to allow necessary time for reviewing revised standards. However, there will be increased costs and consequences for non-compliance.



## MINIMUM STREET GRADES OF 1%

Increased costs arise with the need for more grading within relatively flat developments to maintain a 1% grade in the street. This is offset by decreased public maintenance costs and less homeowner complaints due to standing water, ice patches and slick mossy areas, all due to low street grades that do not drain well.



## ADDITIONAL, STANDARD STORMWATER QUALITY BMPs

Two additional BMPs are provided for standard use in buffer areas and for soil conditioning. Reduced costs are projected due to the need for less documentation and more flexibility.



## RECORDED AGREEMENTS

Recorded agreements for stormwater quality BMPs within new developments will no longer be required. This will result in a savings of both time and money.



## NEXT STEPS

Final revisions will go before the Planning Commission for review and approval and then to the City Council for review and approval. The City expects to complete this process yet in 2021. The City will continue efforts on the Comprehensive Watershed Master Plan and the Lincoln Floodplain Master Plan and has submitted a notice of intent for benefit/cost analysis of Salt Creek structural controls. The City is also working to obtain funding in fiscal years 2022-2023 and 2023-2024 for floodplain remapping.

## FREQUENTLY ASKED QUESTIONS

### Is the City evaluating structural measures to protect people and property from flood events?

Structural measures noted in the Salt Creek Resiliency study have been concepted, but not fully considered. Proposed Drainage Criteria Manual updates provide would provide stormwater regulations that meet the City's current needs. The City is planning to evaluate structural measures in greater detail, including a cost/benefit analysis as part of a future study along Salt Creek.

### Will these changes impact existing developments?

Proposed Drainage Criteria Manual updates will not be retroactive. Proposed requirements would need to be met and will affect any redevelopments or new developments. Based on updated rainfall amounts, new developments may require larger detention ponds. Proposed updates will help ensure that when people build in the future, that they are out of harm's way.

### Is the City updating its FEMA floodplain map?

Current efforts do not include updating floodplain maps. However, the City is planning to update this information in the future. The goal is to provide a floodplain map that reflects actual flood risk to people and property.

### Who can I contact for more information?

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