LOWER PLATTE SOUTH
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Memorandum

Date: February 14, 2025

To: Urban Subcommittee

From: Drew Ratkovec, Projects Coordinator

Subject: Urban Subcommittee Meeting Minutes – February 2025

The Urban Subcommittee met on February 13, 2025, at the NRD Office, at 5:30 pm. Subcommittee members participating included Dave Landis- committee chair, Gary Aldridge, Stephanie Matejka, Susan Seacrest, and John Yoakum. Others participating included Director Bob Andersen, NRD staff Mike Sousek, David Potter, and Drew Ratkovec. Sara Mechtenberg from Houston Engineering and Justin Cermak from the Flatwater Group were also in attendance. Director Landis called the meeting to order at 5:28 pm. There were two (2) items the Subcommittee took action on. A quorum was present for the meeting.

Ratkovec presented background information on the 2024-2025 Work Plan for the Interlocal Agreement on Stormwater Management between LPSNRD and the City of Lincoln. This agreement establishes the framework and responsibilities for addressing stormwater quality and quantity in the City and authorizes the use of appropriate monies. The Comprehensive Watershed Master Plan implementation is one component of this agreement. The City and NRD develop a plan for improvement projects such as stream bed and bank stability measures, stormwater storage facilities, wetlands, engineering, etc. Two projects currently in the plan are Haines Branch Stream Stability Project #2 near South Folsom Street and Middle Creek Stream Stability Project #5 near SW 56th Street.

The LPSNRD, partnering with the City of Lincoln, sought qualifications for professional engineering and design services for stream stability projects within the district's watersheds. This was advertised on December 9th, 16th, and 23rd. Eight (8) firms submitted qualification proposals with Intuition & Logic, JEO, Houston Engineering, and The Flatwater Group being selected for an interview on January 6th. The selection committee was NRD staff Mike Sousek and Drew Ratkovec, City of Lincoln staff Jared Nelson, and NRD Engineering Consultant Tom Riley. Further discussion was a result of questions on the RFQ process and selection of firms. The results of the interviews and items are outlined below:

A. Consideration of an Agreement for Professional Services with Houston Engineering for Haines Branch Stream Stability Project #2 [ACTION]–
As a result of the stream stability request for qualifications process, Houston Engineering was chosen as the preferred firm for the Haines Branch Stream Stability Project #2. After discussions with NRD and City of Lincoln Staff, Houston developed a scope of work/fees for $194,223.00. It is located southwest of the intersection of West Van Dorn Street and South Folsom Street. Construction would consist of bank stabilization along the left bank with grade controls as needed.

- Work Type: Professional Services – Stream Stability
- Budget: Included in FY25 Budget
- Funding: NRD/City of Lincoln

- Proposal: $194,223.00– Houston Engineering Inc.
- Start: Upon Board Approval/February 2025
- Completion: FY26/ June 2026
- Bid Using Budget/List of Consultant's Hourly Rates & Tasks
- Delays: Weather, Permitting
- Permits: USACE 404 & 408 Permit, NDOT ROW Permit, Construction Permits
- Access: No Concerns
- Payers, Players, & Partners: NRD, City of Lincoln, Houston
- Legal Counsel Review: Ongoing
- Deliverables: Project management/Project Direction, Design, Permitting, Bid Phase, and Construction Phase.

It was moved by Yoakum, seconded by Seacrest, and approved 4-0-1 (4 yes, 0 no, 1 present) by the Subcommittee to recommend that the Board of Directors approve the Agreement for Professional Services with Houston Engineering for Haines Branch Stream Stability Project #2 in the amount of $194,233.00, pending Legal Counsel review.

B. Consideration of an Agreement for Professional Services with the Flatwater Group for Middle Creek Stream Stability Project #5 [ACTION]–

As a result of the stream stability request for qualifications process, The Flatwater Group was chosen as the preferred firm for the Middle Creek Stream Stability Project #5. After discussions with NRD and City of Lincoln Staff, Flatwater developed a scope of work/fees for $200,000.00. The project is located East of West 40th Street and North of West 'A' Street. Construction would consist of building grade control structures as needed to arrest stream bed degradation.

- Work Type: Professional Services – Stream Stability
- Budget: Included in FY 25 Budget
- Funding: NRD/City of Lincoln
- Proposal: $200,000.00- The Flatwater Group
- Start: Upon Board Approval/February 2025
- Completion: End of FY26/June 2026
- Bid Using Budget/List of Consultant's Hourly Rates & Tasks
- Delays: Weather, Permitting
- Permits: USACE 404 Permit, NDEQ 401, Construction Permits
- Access: No Concerns
- Payers, Players, & Partners: NRD, City of Lincoln, Flatwater
- Legal Counsel Review: Ongoing
- Deliverables: Project management/Project Direction, Design, Permitting, Bid Phase, and Construction Phase.

It was moved by Yoakum, seconded by Seacrest, and approved 4-0-1 (4 yes, 0 no, 1 present) by the Subcommittee to recommend that the Board of Directors approve the Agreement for Professional Services with The Flatwater Group for Middle Creek Stream Stability Project #5 in the amount of $200,000.00, pending Legal Counsel review.

The meeting adjourned at 5:58 pm.

cc: Bob Andersen
Corey Wasserburger

A.

Exhibit C - Attachment 2
Engineer's Fee Estimate
Haines Branch Sites 2 Stream Stabilization
Lower Platte South Natural Resources District
Lincoln, Nebraska

		Houston Engineering													
		Principal Eng - Technical Lead	Quality Control	Project Manager	Env Engineer	Prj Engineer	Prj Engineer	Prj Engineer	EI	EI	Admin				
		Gregalunas	Rogers	Mechtenberg	Kaufman	Miller	Suing	Van Hove	Winkel	Huscroft	Stratton				
Tasks		$269	$269	$248	$260	$227	$206	$183	$164	$156	$125	Expenses	**Subtotal Hours**	**Subtotal Fees**	**Task Total**
1	**Project Management**														
1.1	Project Meetings with LPSNRD and City of Lincoln	12		8	4							$350	24	$ 6,602.00	
1.2	Monthly Invoicing, Coordination Meetings and Schedule Updates	4		15	2						6		27	$ 6,066.00	
	Project Management Task Total	$4,304	$0	$5,704	$1,560	$0	$0	$0	$0	$0	$750	$350			$12,668
2	**Data Collection and Site Investigations**														
2.1	Channel Survey, Inspections, and Documentation	6		1	4	2		16		16		$500	45	$ 9,280.00	
2.2	Geotechnical Borings and Analysis	8				48						$8,000	56	$ 21,048.00	
2.3	Data Processing and Basemap Development			2						12			14	$ 2,368.00	
	Data Collection and Site Investigations Task Total	$3,766	$0	$744	$1,040	$11,350	$0	$2,928	$0	$4,368	$0	$8,500			$32,696
3	**Alternatives Analysis and Optimization**														
3.1	Hydrologic Analysis	1								8			9	$ 1,517.00	
3.2	Hydraulic Analysis	4								40			44	$ 7,316.00	
3.3	Develop Alternatives for HB-2	4		2	1	6		8					21	$ 4,658.00	
3.4	Drafting Concept Level Schematics			4						12			16	$ 2,864.00	
3.5	Preliminary Cost Estimates for Viable Alternatives	2		6						8			16	$ 3,274.00	
	Alternatives Analysis and Optimization Task Total	$2,959	$0	$2,976	$260	$1,362	$0	$1,464	$0	$10,608	$0	$0			$19,629
4	**Permitting**														
4.1	Wetland Delineation, Ordinary High Water Mark Determination, and Stream Assessments and Reports				12		7		68			$250	87	$ 15,964.00	
4.2	Pre-Application Meeting with USACE Regulatory				3				2				5	$ 1,108.00	
4.3	404 Permit Application(s)				16				24				40	$ 8,096.00	
4.4	Construction Permits			4					12				16	$ 2,960.00	
4.5	NDOT ROW Permit		2						8				10	$ 1,850.00	
	Permitting Task Total	$0	$538	$992	$8,060	$0	$1,442	$0	$18,696	$0	$0	$250			$29,978
5	**Final Design and Construction Documents**														
5.1	Final Design of Selected Alternatives	8	2	4	2	12		8					36	$ 8,390.00	
5.2	Construction Plans and Drafting	4	4	20				8		40			76	$ 14,816.00	
5.3	Construction Specifications and Front End Documents		4	8				12		4			28	$ 5,880.00	
5.4	Final Cost Estimate		2	4				8		16			30	$ 5,490.00	
	Final Design Task Total	$3,228	$3,228	$8,928	$520	$2,724	$0	$6,588	$0	$9,360	$0	$0			$34,576
6	**Project Bidding and Construction Observation**														
6.1	Pre-Bid Coordination and Meeting			8					12				20	$ 3,952.00	
6.2	Project Bidding and Preparation of Construction Contract Documents			8					4				12	$ 2,640.00	
6.3	Bi-Weekly Construction Meetings			12					8				20	$ 4,288.00	
6.4	Construction Observation and Walk Throughs	12		18					200			$2,340	230	$ 42,832.00	
6.5	Reporting, Change Orders, and Pay Applications			12					16				28	$ 5,600.00	
6.6	Project As-Builts			4					16	8		$500	28	$ 5,364.00	
	Bidding and Construction Observation Task Total	$3,228	$0	$15,376	$0	$0	$0	$0	$41,984	$1,248	$0	$2,840			$64,676
	Subtotal Hours	65	14	140	44	68	7	60	370	164	6	$11,940			
	Subtotal Costs	$17,485	$3,766	$34,720	$11,440	$15,436	$1,442	$10,980	$60,680	$25,584	$750	$11,940		$194,223	**$194,223**

HOUSTON engineering, inc.

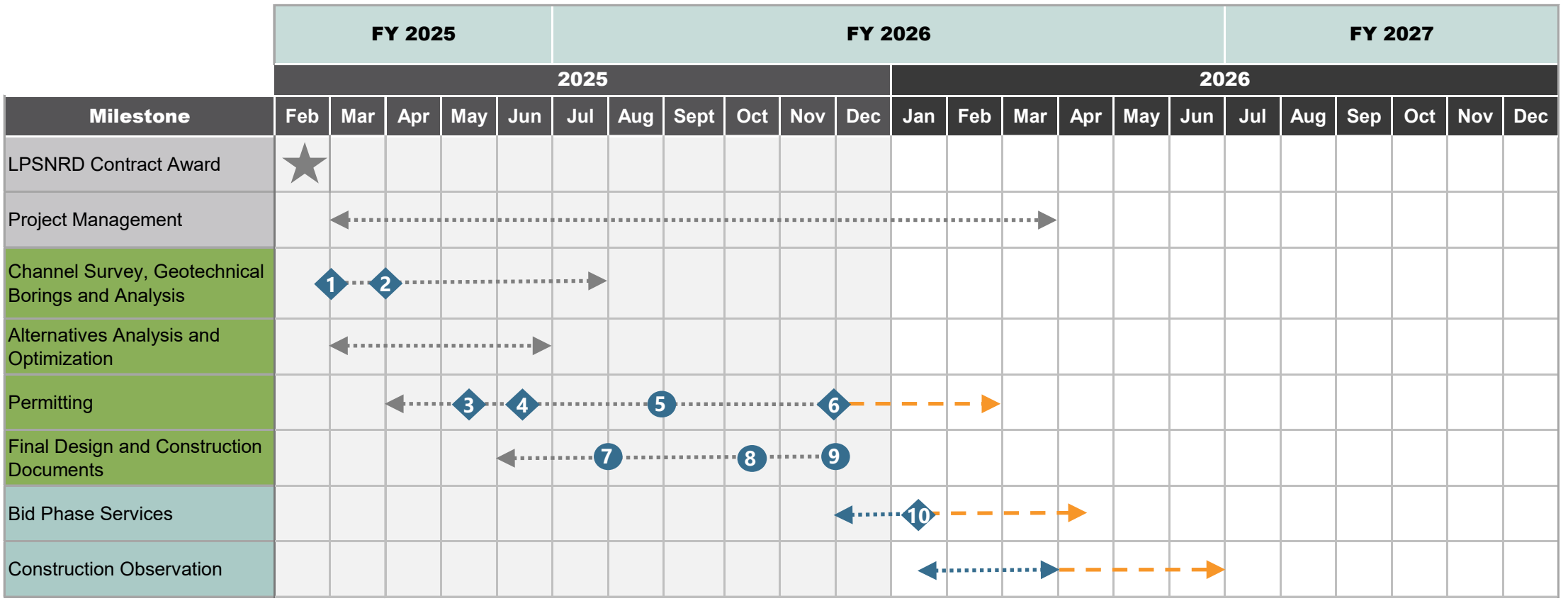
Engineer's Fee Estimate
Haines Branch Site 2 Stream Stabilization
Lower Platte South Natural Resources District
Lincoln, Nebraska

0	**Additional Services for Potential 408 and NEPA Requirements**														
0.1	USACE 408 Permission	8	8	24	100		24		40				204	$ 47,760.00	
0.2	Environmental Assessment			40	120		40		100				300	$ 65,760.00	
0.3	Cultural Resource Field Analysis and Report			2	8							$8,000	10	$ 10,576.00	
0.4	EO 11988 Floodplain Compliance Memo	4	12	6	2								24	$ 6,312.00	
0.5	Coordination with NGPC, Nebraska SHPO, and USFWS				24				12				36	$ 8,208.00	
	Task Total	$3,228	$5,380	$17,856	$66,040	$0	$13,184	$0	$24,928	$0	$0	$8,000			$138,616

Assumptions:

1.1	Includes up to three (2) in-person meetings including a project kick-off meeting, and meetings during/after the site investigation/alternatives analysis, and final design phases. Includes attendance of one subcommittee meeting. Bidding and construction meetings will be included in the Bidding and Construction phase of the project.
1.2	Monthly invoicing throughout the life of the project and monthly virtual check in meetings through the design and permitting tasks. It is anticipated that the project duration will be approximately 14 months.
2.1	Channel survey includes GPS survey and total station as needed. Inspection of Haines Branch channel stability, existing rock grade controls and Folsom bridge conditions; documentation of observations to provide to NDOT.
2.2	Includes one (1) geotechnical boring near West Van Dorn Street and standard soil testing for the borings. Assumes borings are available for Folsom St Bridge for HB1 grade control structure design. Includes slope stability analysis along VanDorn St for HB2 and creation of USACE 408 compliant deliverable
2.3	Includes review of gage data, FEMA FIS report, and any existing H&H data/models.
3.1	Includes review of existing hydrology with USGS B17C Gage Analysis. Will include events up to the 500-year for analysis.
3.2	Includes updating an HEC-RAS 1D model using survey and LiDAR data. Assumes model is available from City of Lincoln or FEMA. No-rise assessment for floodplain compliance.
3.3 through 3.6	Will look at a variety of viable alternatives internally and then work with the LPSNRD and City of Lincoln to determine the desired alternatives to carry forward into final design.
4	Task assumes no 408 coordination or permissions are required.
4.1	Includes wetland delineation and NeSCAP field assessments and reports of existing conditions. Includes determination and calculation of NeSCAP future conditions of the alternative brought forward for final design.
4.2	Includes preparation for and attendance at one pre-application meeting with USACE Regulatory (virtual).
4.3	Assumes project falls within limitations of nationwide permit(s). Does not include a mitigation plan or design for wetland or stream impacts. Does not include field assessments for threatened, endangered, or sensitive species or cultural resources. Includes up to two (2) additional meetings with USACE (virtual) to ensure permit compliance. Includes requests for environmental review from NeSHPO, USFWS, and NGPC. Does not include mitigation efforts for cultural resources or threatened, endangered, or sensitive species.
4.4	Permitting includes development of a Stormwater Pollution Prevention plan, NOI for disturbed areas greater than 1 acre, and a floodplain development permit.
4.5	The permit fee associated with the NDOT ROW permit is not included in this scope of services since it is anticipated that NDOT will waive the ROW permit fee for LPSNRD and City of Lincoln.
5.1	Assumes design of four outfall protections and one grade control structure at HB-1; improvements and stabilization of VanDorn St embankment and two grade controls structures.
5.3	Assumes 60%, 90% and Final submittals
5.4	
5.5	
6.1	
6.2	
6.3	Assumes half virtual, half in-person meetings
6.4	Construction observation is based on an estimated six (6) weeks construction timeline and part time field observation. Includes substantial and final completion walk throughs, and up to three (3) post-construction site inspections for site monitoring and SWPP closeout.
6.5	Includes weekly reporting provided to LPSNRD and City of Lincoln
0.1	Additional services will be required if the USACE determines that 408 permissions for HB-2 project components.
0.2 through 0.5	Additional services will be required if the USACE requires an Environmental Assessment for NEPA compliance instead of a CatEx

Exhibit C - Attachment 2
Project Schedule
Haines Branch Sites 2 Stream Stabilization
Lower Platte South Natural Resources District
Lincoln, Nebraska



1 Channel Inspections and Survey
2 Soil Borings
3 Stream Assessments and Delineations
4 USACE 404 Pre-Application Meeting
5 USACE 404 Applications Submittal
6 USACE 404 Permit Issuance (3 month review assumption)
7 60% Construction Plan Submittal
8 90% Construction Plan Submittal
9 Final Construction and Bid Documents Submittal
10 Bid Opening
Potential Extension do to USACE Review (6 month assumption)

Haines Branch: Bank Stabilization & Grade Controls | HB-2

SW of Van Dorn St. & Folsom St.

Problem description: Bank erosion along main stem HBR005 is threatening W Van Dorn St about 1,050 feet southwest of the intersection of W Van Dorn St and S Folsom St. Potentially affected parcels are public and within the State right-of-way. Close coordination between the City, LPSNRD and NDOT will be required for the completion of this project.

Recommendation: Construct bank stabilization along the left descending bank with associated grade controls as needed to protect W Van Dorn St.

Impact to Special Areas and Water Quality: Project is located in the Prairie Corridor. Bank stabilization and grade controls will help protect this special area. Consideration during design and construction should be provided to minimize disturbance to special areas and reduce impacts to water quality to the greatest extent practical.

Estimated Project Cost: $530,473

FOR MORE INFORMATION

Visit lincoln.ne.gov/watershed or email watershed@lincoln.gov

**Refer to the original Master Plan for all Figure and Table Callouts*

TFG EXHIBIT A: SCOPE OF WORK

The 2015 Middle Creek Watershed Master Plan identified a Capital Improvement Project (MC-05) to construct four to six grade control structures on Middle Creek to arrest stream bed degradation between S Coddington Ave and SW40th St. This scope of work is presented to provide the Lower Platte South NRD engineering design services to further investigate the need for these structures; conduct hydrologic, hydraulic and geomorphic investigations to develop engineering design parameters; prepare construction plans, specifications and cost estimates; and assist with project bidding and construction management.

It is also recommended that following construction the Owner be prepared to perform periodic (twice per year) site inspections and necessary maintenance for the project improvements. In the event of extreme weather events (e.g., damaging high winds, significant snow or rainfall, etc.) it is recommended that the Owner provide an immediate inspection of the project site/interventions. Design interventions for stream stability projects are intended to provide lasting benefits; however, routine inspection and maintenance are necessary and provide an economic benefit to the overall success of the project.

Task 100: Project Management/Team Coordination*. Meet with the project sponsors to identify project priorities, needs, issues, and potential problems:* The project initiation phase will establish the foundation for the development of the project. It is under this project task that the team will coordinate with the project sponsors to review identified goals and objectives, determine if these goals and objectives need to be expanded or modified, and begin to build a consensus on the approach for the project design. The project initiation will establish team contacts and lines of communication for consistent coordination throughout the project. This task will also include project contracting, historical file review, and preliminary agency consultation/notification.

Task 101: Project Contracting. Coordination of fully executed contract with LPSNRD.
Task 102: Project Management. Project management will be ongoing throughout the duration of the project and will include team management, client correspondence and coordination, and development of all periodic (monthly) invoicing and associated progress reports.
Task 103: LPSNRD Notice to Proceed. The official notice to proceed will be initiated by LPSNRD and TFG will not proceed with tasks and team direction until receipt of notice to proceed.
Task 104: Project Kickoff Meeting. Upon issuance of an official Notice-To-Proceed, TFG will contact LPSNRD Project Manager to establish a kickoff meeting date and finalize any additional project kickoff efforts. The kickoff meeting will be in-person, with a virtual option.
Task 105: Kickoff Meeting Minutes/Documentation. TFG will prepare kickoff meeting minutes and documentation to the project team.
Task 106: Preliminary Agency Consultation. TFG will assist LPSNRD in coordinating with the USACE-Regulatory, and other permitting authorities for preliminary consultation. This task will include documentation of key contacts and procedural steps for agency review.

Task 100 – Key Understandings: The project initiation/kickoff effort is considered a formal milestone meeting necessary to arrive at an appropriate project solution. It is anticipated that general team coordination will be an ongoing effort throughout the design project. The preliminary agency consultation task is only initial contact and project description, permit activities will be completed under Task 600.
Task 100 – Task Deliverables: Project contract, kickoff meeting agenda, project file request list, follow-up minutes, project team and agency correspondence documentation.

Task 200*: Data Collection. Provide site survey focused on individual intervention priorities discussed during pre-scoping, quantities, maps, drawings, estimates, etc. needed to complete design for the intervention alternatives developed from team coordination:* This task will include identifying and reviewing existing information to determine limited additional data needs. Benchmarks will be established during the data collection task that can be used during the construction phase.

Task 201: Survey. TFG will perform GPS, total station, and drone flight surveys to establish local benchmarks and obtain existing conditions/project site topography and associated features for the stream stability improvements.
Task 202: Utility Coordination. Utilities will be drawn from surveying above ground features, including markings by utility companies resulting from the locate request. Information supplied by utility companies will be used to complete the placement of existing underground utilities on the plans. Locations from utility plans will be transferred into the topographic survey. Where available, above-ground features will be used to improve accuracy. TFG will add a disclaimer to the drawings with respect to the approximate / undetermined location of underground utilities.
Task 203: Data Reduction. Conduct survey data reduction and analysis, including incorporation of existing and available bathymetric data. Survey data will be used to develop project maps, drawings, and details to determine construction quantities for development of detailed project cost estimates.
Task 204: **Geotechnical Investigation.** Twelve (12) soil samples will be collected and lab tested to provide representative soil physical measurements at anticipated grade control structure locations. Based on the results of these measurement, two (2) soil borings will be conducted in key locations to provide geotechnical information for structure location and design.
Task 205: Geomorphic Assessments. Perform qualitative rapid geomorphic assessments (RGA) of stream conditions at approximately 20 locations previously evaluated in the Middle Creek Watershed Mater Plan. RGA includes a ranking of geomorphic indicators such as bank shape, erosion, vegetation, soil types, etc…. This evaluation will be used to determine channel evolution stage and compare current conditions to those evaluated in the Master Plan.

Task 200 – Key Understandings: The survey / LiDAR data collection effort will be focused on intervention areas/structures. Geotechnical investigation and geomorphic assessments will be conducted to inform engineering design parameters.
Task 200 – Task Deliverables: Survey data, base maps, geotechnical information, RGA assessment data sheets

Task 300: Engineering Design Investigations. ***Conduct hydrologic, hydraulic and geomorphic investigations to inform engineering design parameters:*** An understanding of watershed hydrology is crucial to understanding the flow regimes that drive channel morphology. TFG will provide a tailored hydraulic assessment to design channel stabilization structures that address long-term degradation concerns, variations in flow regime driven by urbanization and climate change, concerns related to scour erosion during high events and flanking, and constraints related to adjacent public infrastructure. TFG will develop new hydrologic and hydraulic models for the project and/or work with the established models derived through Lincoln's Watershed Master Plans and other government led studies.

Task 301: Watershed Master Plan and Drainage Study Review. TFG identified the following task items to complete the Middle Creek Watershed Master Plan (Master Plan) and Drainage Study Review: 1) Correspond with the City of Lincoln to determine the current status of effective drainage studies at the project site location, and 2) review the Middle Creek Watershed Master Plan, effective hydrologic and hydraulic models, and applicable drainage studies.
Task 302: Hydrologic Analysis. The following tasks items were identified to complete a Hydrologic Analysis for the project. TFG's analysis will be based on the Master Plan / FEMA effective HEC-HMS model. Two (2) scenarios will be considered, a "duplicate effective" model that is consistent with the Master Plan and an "updated climate" model that applies current NOAA Atlas 14 climate data. The models will be run to derive peak flood discharges and hydrographs for the 1-, 2-, 10-, 50- and 100-year flood frequency events for each scenario.
Task 303: Geomorphic Analysis. TFG identified the following geomorphic analysis task items to facilitate determination of equilibrium slopes and stable channel design parameters. Hydrologic analysis results from Task 302 will be evaluated to identify channel forming discharges and estimate impacts from climate change. Comparison of current and historic topographic survey, LiDAR data, and aerial imagery will inform long term stream degradation estimates and identification of reference reaches. Collectively, reference reaches, channel forming discharges, and soil engineering

properties will be evaluated to estimate equilibrium slope for grade control spacing design. These results will be incorporated into Task 304 Hydraulic Analysis to identify stable channel design parameters.

Tasks 304: Hydraulic Analysis. TFG identified the following task items to facilitate grade control structure design and demonstrate that the proposed project will have no-adverse impact to the FEMA regulatory floodway and floodplain. TFG's analysis will be based on the Master Plan / FEMA effective HEC-RAS model. Three (3) scenarios will be considered, a "duplicate effective" model that is consistent with the Master Plan, and "1D Post Project" that will be used to demonstrate no-rise (<0.00ft) in the FEMA floodway and no-net-rise in the FEMA floodplain (<0.05ft), and a "2D Post Project" model that will be used to further develop engineering design parameters. These models will incorporate the hydrologic results from Task 302 and geomorphic results from Task 303 where appropriate. Collectively, these models will identify key elevations and slopes for the grade control structures and size depths and limits of excavations.

Task 305: Present Findings and Prepare Technical Memorandum. TFG will summarize the work completed Task 300 in a technical memorandum.

Task 306: Review Meeting. TFG will host a review meeting.

Task 300 – Key Understandings: Hydrologic, hydraulic and geomorphic analyses will build up the existing models and effort completed in the Master Plan. These analyses will inform engineering design parameters for the grade control structures, including but not limited to, grade control spacing, long term degradation, structure size and materials.

Task 300 – Task Deliverables: TFG will prepare a technical memorandum that details key findings from the analyses and recommended design concepts. Upon completion of Task 700 Final design, the memorandum will be updated to provide a no adverse impact certification to support floodplain development permitting.

Task 400: Interim Design. ***Provide all necessary drawings, technical specification list, etc. to complete the interim design (60% design).*** The interim design and development task will use the information from the concept design to develop a comprehensive design project. This task will include calculating necessary design elevations, material types, and other parameters.

Task 401: Data Review. Review of all data to verify necessary information has been collected to prepare preliminary design.

Task 402: Design Calculations and Prepare Technical Memorandum. Prepare technical memorandum containing interim design calculations and data analysis (e.g., geotechnical, geomorphic, hydrologic, and hydraulic analyses) to achieve design parameters.

Task 403: Design Review QA (Internal). Review design assumptions, calculations, and analyses.

Task 404: Develop and prepare interim drawings. TFG will prepare interim plan sheets at the 60% stage. TFG will provide electronic sets of the 60% stage drawings to LPSNRD. Electronic plans will be distributed to LPSNRD 10 days in advance of the project team review meeting. 60% construction cost estimate will be included as part of the submittal.

Task 405: Cost Estimate. TFG will prepare 60% stage construction cost estimate.

Task 406: 60% Review Meeting. TFG will host and conduct the Interim Plan (60%) review meeting. TFG will prepare agenda, meeting materials and follow-up meeting minutes.

Task 400 – Key Understandings: Interim (60% stage) submittal will be electronic file submission. The 60% review meeting is a formal milestone meeting necessary to arrive at appropriate design solutions. TFG expects written comments from LPSNRD at the 60% review stage.

Task 400 – Task Deliverables: Interim drawings will be submitted electronically. 60% stage materials will include drawings, technical specification list, and construction cost estimate, and will be submitted in electronic file. Additional deliverables will include review meeting agenda, follow-up minutes, project team and agency correspondence documentation.

Task 500: Permit Compliance. Identify existing conditions and environmental constraints within the project. TFG will incorporate feedback from initial agency consultation (Task 106).

Task 501: Environmental Checklist. TFG will prepare an environmental checklist (tabular form).
Task 502: **Wetland Delineation.** TFG will perform wetland delineation as required by USACE Regulatory.
Task 503: **Stream Assessment Tool**. TFG will coordinate with the USACE Regulatory branch personnel and complete the stream assessment tool requirements (NeSCAP) for the project.
Task 504: Prepare SWPPP. TFG will prepare a SWPPP document to support application for NPDES Construction Stormwater Permit.
Task 505: **Permit Applications.** TFG will assist LPSNRD with applications for USACE 404, NDEQ401, NPDES (SWPP) and floodplain development.

Task 500 – Key Understandings: TFG will perform wetland delineation using USACE approved standards. This scope does not include an environmental assessment. TFG recommends LPSNRD request database review from NeSHPO for review of Historical and Cultural Resources. This scope of work does not include a cultural resource survey.
Task 500 – Task Deliverables: General environmental checklist, wetland delineation, USACE 404 permit application, and NeSCAP documentation.

Task 600: Final Design. This task will include final calculations for design elevations, slopes, extents, material types, and other parameters. After the design calculations and parameters have been developed, the overall final design will be completed.

Task 601: Design Calculations. TFG will complete final design calculations.
Task 602: Develop and Prepare Final Drawings. TFG will prepare final plan sheets at the final submittal stage. This task would include preparation of any ROW easement maps needed to complete the project.
Task 603: Develop and prepare 90% completion design. TFG will provide LPSNRD with complete electronic design drawings and construction specifications. These plans will follow the direction of review from the 60% submittal and review meeting. Drawings will be prepared in the latest version of AutoCAD. TFG will prepare 90% completion construction cost estimate and deliver with the drawings and specifications.
Task 604: Final Technical Specifications. TFG will develop final technical specifications.
Task 605: Final Cost Estimate. TFG will prepare final stage construction cost estimate.
Task 606: Final Review Meeting. TFG will host and conduct the Final Plan (90%) review meeting. TFG will prepare agenda, meeting materials and follow-up meeting minutes.
Task 607: 100% Submittal. The final submittal will include electronic copies of all drawings (pdf file format) and technical specifications (pdf format).

Task 600 – Key Understandings: The final submittal will be final bid documents.
Task 600 – Task Deliverables: Final plans, specifications, and construction cost estimate. Final bid documents and all task meeting minutes/correspondence.

Task 700: Bidding Services. TFG will submit the contract documents to LPSNRD for advertisement and provide bidding services for the construction project.

Task 701: Advertisement. Assist LPSNRD with preparation of advertisement to bid and submit to local news outlets.
Task 702: Respond to Bidder Questions. TFG will respond to bidder questions and provide documentation.
Task 703: Bid Opening. TFG will attend the bid opening hosted by LPSNRD.
Task 704: Bid Recommendation. TFG will provide written recommendation of bid award.

Task 700 – Key Understandings: The final submittal will be final bid documents. This scope of work does not include a pre-bid conference. TFG will be available to respond to bidder questions during the bid period (anticipated at three (3) weeks).
Task 700 – Task Deliverables: Documentation of bidder questions and Bid recommendation letter.

Task 800: Construction Related Services. ***Provide construction related services:*** TFG will review contractor payment request forms and will track and separate out all funding sources by various funding programs involved to keep accounting current and accurate.

Task 801: Pre-Construction Conference. TFG will organize and conduct an on-site pre-construction conference with the selected construction contractor. TFG will prepare meeting agenda and follow-up meeting documentation.
Task 802: Review and Approve Payment Request Applications. TFG will review and approve monthly payment request applications made by the construction contractor (anticipated 6 months). Documentation will be provided to LPSNRD.
Task 803: **Shop Drawing Review/Approval.** TFG will review shop drawings and provide approval to construction contractor.
Task 804: Change Order Preparation. TFG will coordinate any request for change order with LPSNRD and prepare proper documentation for owner-approved change orders.

Task 800 – Key Understandings: Depending on weather and timing of Notice-to-Proceed, a six (6) month construction window is anticipated.
Task 800 – Task Deliverables: Pre-construction conference agenda, payment request approval documentation, and change orders.

Task 900: Construction Observation/Inspection. ***Provide construction observation services:*** TFG will provide observation visits during construction activities to ensure planned construction activities meet the design and specification standards.

Task 901: Construction Observation. TFG will perform construction observation and inspection. TFG will prepare observation reports and provide bi-weekly email reports to LPSNRD during the construction phase. TFG will host monthly zoom meetings with the Owner.
Task 902: Substantial Completion Notification. TFG will notify LPSNRD by email when the project is nearing Substantial Completion.
Task 903: Prepare Final Punch List. TFG will prepare a final punch list of items to complete. TFG will see that all punch list items are completed.
Task 904: Provide Redlined Construction Drawings. TFG will provide a red-lined set of construction drawings at the completion of the construction that indicate major field changes or change orders to reflect as-built conditions.

Task 900 – Key Understandings: TFG will perform twenty four (24) observation visits/trips during construction (estimated construction window at 6 months).
Task 900 – Task Deliverables: Email reports, substantial completion notice, and final punch list.

APPENDIX A

Lower Platte South NRD - Middle Creek Watershed Stream Stability Project
Professional Engineering Services - Fee Estimate Summary

TASK NO.	PROJECT HOURS by TASK	
100	Project Management	92
200	Site Analysis and Data Collection	152
300	Hydrologic and Hydraulic Analysis	190
400	Interim Design	134
500	Permitting (404, 401, BNSF, SWPPP)	134
600	Final Design	110
700	Bidding Services	44
800	Construction Related Services	68
900	Construction Management	116
	Total Project Hours	**1040**

TASK NO.	PROJECT COST by TASK	
100	Project Management	$18,420.00
200	Site Analysis and Data Collection	$38,930.00
300	Hydrologic and Hydraulic Analysis	$35,110.00
400	Interim Design	$25,700.00
500	Permitting (404, 401)	$21,580.00
600	Final Design	$19,510.00
700	Bidding Services	$9,200.00
800	Construction Related Services	$14,640.00
900	Construction Management	$18,620.00
	Total Project Cost	**$201,710.00**
	Say	**$200,000.00**

THE FLATWATER GROUP INC.

Middle Creek: Grade Controls | MC-5

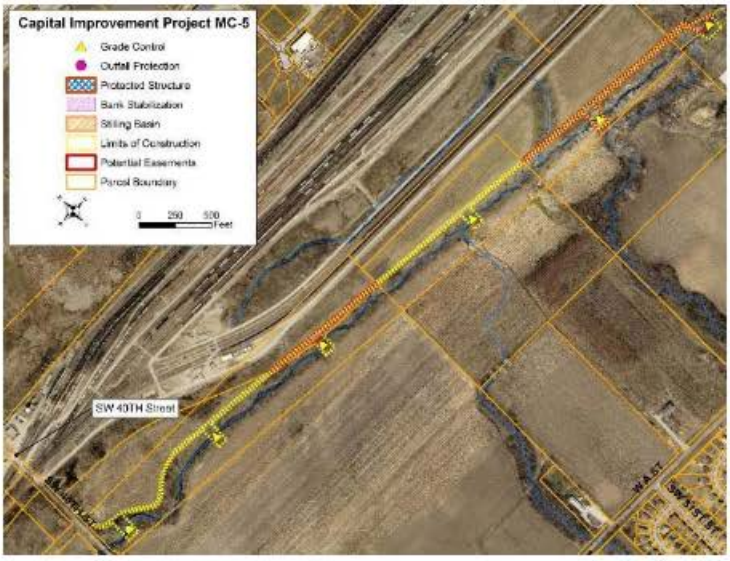
East of W. 40th St. north of W. A St.

Problem Description: The main stem MCR020 along this reach has incised and transitioned into widening. Center bars and active slumps are still present throughout this reach, however this reach also exhibits signs of transition from widening to a stable sediment transport, as indicated by the presence of riffles. The stability appears tenuous based on the presence of multiple knickpoints along the reach. Securing the knickpoints with engineered grade controls will help stabilize this reach by preventing future incision caused by the knickpoints propagating upstream. The reach extends 5,400 feet east of SW 40th St. The access is approximately 0.25 miles north of SW 40th St and West F St. Potentially affected parcels are both publicly and privately owned property. The profile grade is at 1,145 feet at the upstream limits of the project reach and 1,139 feet at the downstream limits. 4 to 6 grade controls appear sufficient to accommodate this 5 feet of grade change.

Recommendation: Recommend installing 4 to 6 engineered grade controls along 5,400 feet of channel along the main stem to halt future incision along this reach. An additional rock grade control is recommended at the tributary on the left descending bank to provide a stabilized construction access. This project will be a joint City, County, NRD and Burlington Northern Santa Fe Railroad project and will need participation of all parcel owners.

Impact to Special Areas and Water Quality: No special area impacts are anticipated. Consideration during design and construction should be provided to reduce impacts to water quality to the greatest extent practical.

Estimated Project Cost: $652,039



FOR MORE INFORMATION

Visit lincoln.ne.gov/watershed or email watershed@lincoln.gov

**Refer to the original Master Plan for all Figure and Table Callouts*