# MEMORANDUM

TO: Programs, Projects, and Operations Subcommittee

FROM: Eric Williams, Natural Resources Planner

- SUBJECT: FY 2018 Urban Cost Share Programs
  - Urban Conservation Assistance Program
  - Urban Drainageway Program
  - Recreation Area Development Program
  - Trails Assistance Program
  - Lake Dredging Program
  - Flood Mitigation Assistance Program

DATE: April 7, 2017

The District solicited applications for the urban cost share programs (guidelines attached) from the various units of government in the District for the upcoming fiscal year. The following applications were received.

# Urban Conservation Assistance Program

The Urban Conservation Assistance Program (UCAP) cost shares with units of government to solve relatively minor erosion, flooding, and stormwater management problems within their jurisdiction. The Policy Manual allows for Management approval of all applications.

# Bennington, Johns-Born Bank Stabilization

Severe erosion has occurred on the south side of the Big Papio Creek near the new Papio Creek Pedestrian Bridge. Clearing and grubbing, grading, hydro-seeding, and reinforced mulch will be used to stabilize the slope and protect the bridge footing and trail from additional erosion in the future.

# Omaha, Ida Street at 99th Street Erosion Repair

The 99th and Ida Street Storm Sewer and Erosion Repair project is located east of the intersection of I-680 with Blair High Road. The 18-inch storm sewer pipe that runs under Ida Street has eroded the bank and pipe segments have fallen into the creek, which is a tributary to Thomas Creek. The erosion threatens to undermine a box culvert under Blair High Road (Highway 133) and a billboard located near the southwest part of the parking lot. The proposed solution includes repair of the existing storm pipe, filling the washout, stabilization of the surrounding area and dissipation measures to reduce the stormwater velocity to prevent this from reoccurring.

# Omaha, West Papio L Street Embankment

The embankment to the West Papio Creek in the vicinity of "L" Street has been eroding for some time. The erosion has undermined the slope on the west side of the west bridge pier, causing damage to the concrete pavers. The project will remove the concrete pavers, regrade the slope, and reinstall the pavers. Undermined sections of the trail will be removed and new fill brought in to fill the voids before pouring the concrete trail. Additional grading will be done on the uphill side of the trail to create swales to collect surface runoff and direct it to storm drainage structures that will carry the water under the trail and down into the creek.

# SID 190 (Sarpy County) Hickory Ridge, Channel Improvements

A tributary leading south from SID 190 toward the South Papio Creek has eroded, and is in need of stabilization. The section will be stabilized using Flex Mat, allowing for vegetation to grow between the modular concrete sections. A new gabion basket will be installed at the outlet of the culvert on the northern end of the channel to reduce flow velocity, and decrease the change of future erosion.

# SID 221 (Sarpy County) Cedar Hollow, Channel Improvements

An unnamed tributary has experienced active head-cutting north from the South Papio Creek, to the outlet of a box culvert under the BNSF railroad line. This has resulted in significant degradation of channel and bank erosion which is causing damage to personal property and threaten public infrastructure. Grade control structures, bank stabilization, and channel elevation and restoration are planned for this section.

# SID 225 (Sarpy County) Giles Ridge, South Papio Bank Stabilization

In the fall of 2016, the District worked with two SIDs, Sarpy County, and the City of Gretna to perform emergency stabilization of the south bank of the South Papio Creek, downstream of the BNSF rail line near 156<sup>th</sup> Street. Significant erosion threatened the sanitary sewer in this location, and bank grading and stabilization was determined to be the most effective solution. This project was completed with the understanding that all partners would arrange financial contributions, including cost share from the District.

The FY 2017 budget included \$207,384 for new projects in this program. The following table summarizes the FY 2018 applications.

Sponsor, Project	<b>Total Estimated Cost</b>	FY 2018 Cost Share
Bennington, Johns-Born Bank Stabilization	\$78,502	\$30,000
Omaha, Ida Street at 99th Street Erosion Repair	\$200,000	\$30,000
Omaha, West Papio L Street Embankment	\$118,500	\$30,000
SID 190 Hickory Ridge, Channel Improvements	\$80,000	\$30,000
SID 221 Cedar Hollow, Channel Improvements	\$90,000	\$30,000
SID 225 Giles Ridge, South Papio Stabilization	\$122,625	\$30,000
Total	\$689,627	\$180,000

• It is recommended that the Subcommittee recommend to the Board of Directors that the applications from Bennington for \$30,000, Omaha for \$30,000 and \$30,000, SID 190 for \$30,000, SID 221 for \$30,000, and SID 225 for \$30,000, for a total of \$180,000 be approved, subject to funding in the FY 2018 Budget.

# Urban Drainageway Program

The Urban Drainageway Program (UDP) cost shares with units of government to rehabilitate major urban drainageways within their jurisdiction. The cost share rate varies depending on the level of rehabilitation. This program was redefined by the Board in 2011. Board approval is required on all applications.

This project was previously approved by the Board with cost share components in FY 2018.

The <u>City of Omaha</u> has requested assistance for Hell Creek Rehabilitation at Westwood Lane, This project is now completed. Work included removing the broken and degrading concrete liner from the channel, and improving the ecological condition of the creek through biologically-based engineering practices. Replacement of four road culverts provides greater hydraulic capacity in the area. The total cost of this project is \$3,800,000 and an Interlocal Agreement with the City of Omaha indicates a total cost share of \$900,000, with \$300,000 in FY 2016, 2017, and 2018.

New program applications were received and are outlined below.

# Omaha, Blondo at 209th Street

Stormwater from the residential area to the south of 208th and Parker Street flows into a channel from a 72-inch storm sewer pipe with an impact basin at the outlet. Approximately 100 feet downstream of the storm sewer outlet, the channel has degraded and is showing evidence of bank erosion and channel downcutting. A 10-inch sanitary sewer line which crosses this channel is being threatened by the channel degradation. The proposed solution would include stabilizing the eroded channel, potentially with grade control structures that would have the dual benefit of stabilizing the channel and protecting existing infrastructure. The channel cross section downstream of the sanitary sewer crossing would be restored with stable side slopes to allow connection with the floodplain.

# SSC, Flatwater Crossing - East Side Drainage Way

An existing concrete-lined stormwater channel extends from the current end of 29<sup>th</sup> Street to the Missouri River. The channel was designed to be utilitarian in nature appropriate given the low visibility and use of the adjacent agricultural parcels. The concrete-lined channel is meant to move storm water quickly through the area, depositing it into the Missouri River with no treatment provided due to the lack of vegetation within lower portion of the channel. The goal of the project is to transform the channel from its current paved condition into a

natural storm water chain that will improve water quality for the regional storm water system. Channel restoration would involve removing the concrete from the base of the channel and regrading the waterway with a meandering alignment. Throughout the length of the new system, pockets of water of varying sizes will be provided to allow solids within the storm water chain to settle out before the water moves on to the next pond in the "chain." In this manner, both water quantity and quality concerns would be addressed as storm water moves from west to east through the system toward outfall into the Missouri River. This project application requested Level 1 funding at 75% of the total cost, and was adjusted to Level 2 at 60% of the total cost based on design characteristics of the drainageway.

The FY 2017 budget included \$1,072,153 for projects in this program. The following table summarizes the FY 2018 applications.

<u>Sponsor, Project</u>	Total Estimated Cost	FY 2018 Cost Share
Omaha, Blondo at 209th Street	\$300,000	\$120,000
SSC, Flatwater Crossing - East Side Drainage Way	\$745,800	\$447,480
Total	\$1,045,800	\$567,480

• It is recommended that the Subcommittee recommend to the Board of Directors that the applications from Omaha for \$120,000, and from South Sioux City for \$447,480 for a total of \$567,480 be approved, subject to funding in the FY 2018 Budget.

# **Recreation Area Development Program**

The Recreation Area Development Program (RAD) cost shares with communities to develop and improve recreation areas within their jurisdiction. The cost share rate is 50%. On projects requesting more than \$20,000, the Policy Manual requires Board approval. On all others, Management has approval authority.

# Bennington, Logemann Park Improvement Project

Logemann Park is a 12-acre park donated and annexed in February 2017. The park is currently on accessible or ADA compliant. Preliminary plans for the park include an an access road, much needed additional parking, two soccer fields, two ball fields, a picnic shelter, storage building, and playground area. These improvements will help provide the City of Bennington additional needed recreation space that can be accessed by all citizens.

# Blair, California Walking Trail

A 10-foot wide by 4,800-foot long rock walking trail is planned, extending from the east end of Lincoln Trail at the Missouri River, north into the California Bend Area. This request is for materials only, the work will be completed by Blair Public Works staff.

# Blair, Lions Park Restrooms

Lions Park serves as a hub for the city's bike trail system, and hosts many community events throughout the year. The existing Deerfield-Lions trail connects the park with the Blair Arboretum, and a small wetland project. The new year-round restroom facilities will serve as a trail head for the entire trail system. The current restroom facility does not meet ADA requirements, and does not have heat. The new restroom is designed to match the exterior features of the restored historic depot, which is also located in the park.

# Omaha, 3101 Florence – Sustainable Spaces

This projects is designed to meet a variety of needs and goals, including community betterment and environmental education opportunities. This former gas station site is at the center of the city's Neighborhood Strategy Revitalization Area (NRSA). The project is focused on community education regarding native plants and stormwater pollution prevention. The site will include native grasses, pollinator plants, and educational signage. The location is within walking distance from Lothrop Elementary and King Science magnet school.

# Omaha, Fontenelle Park Lagoon Fishing Access

This project proposes 12' x 20' concrete fishing access points around the Fontenelle Lagoon, providing "accessible" fishing locations. This work will be incorporated into the comprehensive park work which is already underway. The shoreline around the lake will be planted with wetland/emergent wetland plantings, including tall grasses to prevent the use of the lagoon by geese. This work will support the substantial changes and updates that have been completed at the park over the last 5 years.

# Omaha, Hanscom Park Recreation Improvements

Phase 2 of the improvements to Hanscom Park includes installing pedestrian trails to provide accessibility throughout the park, and removal/replacement of old picnic facilities. Trails will connect from 32<sup>nd</sup> Ave on the west, Woolworth Ave on the north, to/from the Dog Park, and throughout the central section of the park.

# Papillion, Halleck Park Arboretum Nature Trail

The Arboretum sits at the heart of Halleck Park in central Papillion. This project will upgrade the park with an 8' concrete interpretive trail to help provide better access and enjoyment of this Nebraska Statewide Arboretum recognized site. This project is submitted as a local recreation improvement, not directly connected with the main trail system, and was recommended in the Parks Master Plan in 2011.

# SSC, Orchard Education Center

The proposed Community Orchard Education Center will include a restroom, and serve as an education center, observatory, and resource center.

# Valley, RV Camper Pads and Electrical

City Park features a variety of amenities, and construction of camper pads with electrical connections will provide additional access to recreation. Adjacent features at the park include sports fields, playgrounds, a pool, and shelters.

The FY 2017 budget included \$52,500 for projects in this program. The following table summarizes the FY 2018 applications.

Sponsor, Project	Total Estimated Cost	FY 2018 Cost Share
Bennington, Logemann Park Improvement Project	\$203,950	\$50,000
Blair, California Walking Trail	\$26,000	\$13,000
Blair, Lions Park Restrooms	\$180,000	\$50,000
Omaha, 3101 Florence – Sustainable Spaces	\$33,210	\$16,210
Omaha, Fontenelle Park Lagoon Fishing Access	\$78,000	\$39,000
Omaha, Hanscom Park Recreation Improvements	\$254,395	\$50,000
Papillion, Halleck Park Arboretum Nature Trail	\$300,000	\$50,000
SSC, Orchard Education Center	\$61,858	\$30,929
Valley, RV Camper Pads and Electrical	\$14,450	\$7,225
Total	\$1,151,863	\$306,364

• It is recommended that the Subcommittee recommend to the Board of Directors that the applications from Bennington for \$50,000, Blair for \$13,000 and \$50,000, Omaha for \$16,210, \$39,000, and \$50,000, Papillion for \$50,000, South Sioux City for \$30,929, and Valley for \$7,225 for a total of \$306,364 be approved, subject to funding in the FY 2018 Budget.

# Trails Assistance Program

The Trails Assistance Program cost shares with sponsors on trail projects to provide recreation and active transportation opportunities in the District. The cost share rate is 50% of the local share. All projects require Board approval.

# Omaha, Fontenelle Park Walking Path

A concrete walkway is proposed around the perimeter of the Fontenelle Park Lagoon. The total length of the 6' trail would be over 1,700 feet. An existing walking path around the park perimeter is approximately 1.25 miles long, this new section would provide waterfront access to the lagoon, and allow increased interaction with the water quality, stormwater quantity, and natural resource features that area being constructed throughout the park.

# Omaha, Turner Blvd Trail on Pacific Street

The District has collaborated with the City of Omaha on a number of connected trail segments; Keystone Trail, South Omaha Trail Phase 1, Phase 2, Field Club Trail, and Turner Blvd Trail. This final connection will complete the dedicated trail from Karen Park, under I-80, through midtown, under I-480, onto Creighton University campus, and into downtown Omaha. The final short section will climb the hill on the south side of Pacific Street from the Field Club Trail, along the north edge of the golf course, and connect with the existing Turner Blvd trail at the northeast corner of 36<sup>th</sup> Street.

# Omaha, West Papio Trail Bent Creek Park

Erosion along the West Papio Creek has threatened the trail just south of Blond Street. The trail will be relocated away from the creek, and connect back to the ramp under and over Blondo Street. This trail relocation allows time for more comprehensive study, design, and construction of channel stabilization along the creek.

# Sarpy County, Ashford Hollow North Trail

This project will extend the Marv Holubar Trail from the north end of the Bellevue Soccer Complex to Raynor Parkway, and will connect to the 48<sup>th</sup> Street Trail. This connection will provide increased local access to the West Papio Trail, and close proximity to the Keystone Trail. The connection to the underpass at Hwy 370 will allow for significantly better crossing access for residents who are divided by the highway.

# SID 506 (Douglas County) Quail Run Valley, West Papio Trail Improvements

The West Papio Trail currently has missing sections as it follows the "North Branch" to the location of DS-15a. This section from the west side of 168<sup>th</sup> Street near Ames Ave, to the south side of Fort Street at HWS Cleveland Blvd will connect to the existing 168<sup>th</sup> Street underpass, and bring trail users to the entrance of the new recreation area. A bridge across the creek will connect the adjacent neighborhood.

# SSC, Atokad Trail

The City of South Sioux City in partnership with Dakota County, Nebraska seek to construct a 1.85 mile trail that would connect with the existing trail that runs to the High School/Middle School and then onto a number of the elementary schools in the community. The area that this trail will be located is considered a rural location that is partially in the city and partially in the county and would serve a trailer court that is home to a large number of students. The work to be performed would include the construction of a 6" deep, 10' wide pedestrian/bike trail that would travel the entire 1.85 miles. This project will also receive Safe Routes to School funding.

# <u>Tekamah, Tiger Trail Loop</u>

The Tiger Trail Loop is 4,400 feet long and will be constructed 10 feet wide of 6 inch concrete. The trail will begin adjacent to the existing parking lot in Memorial Park, proceed west and south around the edges of the park until it nears the Highway 75 right of way, to the northern limits of Memorial Park, and north to enter the public school property. On the school property the trail will proceed on the west side of the football/track to the northern property line where it will head east and then south along the east property line and re-enter Memorial Park. Once back in the park, the trail will stay outside the northern ball field and turn east between the two fields to tie back into the start at the parking lot. This trail is part of the recently updated Tekamah Master Trail Plan and will be the first trail constructed within the City of Tekamah.

The FY 2017 budget included \$556,513 for projects in this program. The following table summarizes the FY 2018 applications.

Sponsor, Project	Total Estimated Cost	FY 2018 Cost Share
Omaha, Fontenelle Park Walking Path	\$69,000	\$34,500
Omaha, Turner Blvd Trail on Pacific Street	\$167,224	\$83,612
Omaha, West Papio Trail Bent Creek Park	\$37,465	\$18,732
Sarpy County, Ashford Hollow North Trail	\$187,500	\$93,750
SID 506 Quail Run Valley, West Papio Trail	\$800,000	\$400,000
SSC, Atokad Trail	\$563,565	\$56,356
Tekamah, Tiger Trail Loop	\$322,821	\$36,410
Total	\$2,147,575	\$723,360

• It is recommended that the Subcommittee recommend to the Board of Directors that the applications from Omaha for \$34,500, \$83,612, and \$18,732, Sarpy County for \$93,750, SID 506 for \$400,000, South Sioux City for \$56,356, and Tekamah for \$36,410 for a total of \$723,360 be approved, subject to funding in the FY 2018 Budget.

# Lake Dredging Program

The Lake Dredging Program cost shares with communities to remove accumulated sediments form public recreation lakes. The cost share rate is 50%, up to a maximum of \$100,000. All applications require Board Approval.

# <u>Omaha, Hanscom Park</u>

This project will dredge the lagoon at Hanscom Park to provide a sustainable, year-around fishery. Comprehensive recreation, water quality, and stormwater work is being constructed at the park, and dredging will provide fishery habitat which would otherwise not be available. Lake depths will follow recommendations from Nebraska Game and Parks Commission (NGPC) to provide adequate depth for fish stocking purposes.

# SID 439 (Douglas County) West Bay Woods

West Bay Woods desires to clean out the sediment basin which is located upstream from Zorinsky Lake. Many areas are nearly full of accumulated silt. This location has been partially dredged in the past, with a portion of the project being reimbursed by the District.

The FY 2017 budget included \$100,000 for projects in this program. The following table summarizes the FY 2018 applications.

Sponsor, Project	Total Estimated Cost	FY 2018 Cost Share
Omaha, Hanscom Park	\$198,775	\$99,387
SID 439 (Douglas County) West Bay Woods	\$147,000	\$50,000
Total	\$345,775	\$149,387

• It is recommended that the Subcommittee recommend to the Board of Directors that the applications from Omaha for \$99,387, and SID 439 for \$50,000 for a total of \$149,387 be approved, subject to funding in the FY 2018 Budget.

# Flood Mitigation Assistance Program

The Flood Mitigation Assistance Program is an authorized program of the District to provide technical and financial assistance to municipalities and other units of government to mitigate flood losses through structural flood control projects in developed, urban areas. This program provides 50% cost sharing on all eligible costs of the project to a maximum amount of \$500,000. Board approval is required on all applications.

# Douglas County, Elk City Drainage Improvements

The vicinity of "Elk City" experienced substantial localized flooding in 2016, in some cases requiring 225<sup>th</sup> Street to be closed. Several concepts are being evaluated, and will be discussed with the local residents. The most likely plan includes ditches on both sides of the road, culverts under driveways, and water drained into existing field drains and channels.

The FY 2017 budget included \$250,000 for the second payment for a project in this program. The following table summarizes the FY 2018 applications.

Sponsor, Project	Total Estimated Cost	FY 2018 Cost Share
Douglas County, Elk City Drainage Improvements	\$126,854	\$63,427
Total	\$126,854	\$63,427

• It is recommended that the Subcommittee recommend to the Board of Directors that the applications from Douglas County for \$63,427 be approved, subject to funding in the FY 2018 Budget.

Agenda Item: 12.a.-f.

Urban Conservation Assistance Program – Application Form

PROJECT NAME:	Johns-Bohn Bank Stabilization Project
PROJECT LOCATION:	Johns-Bohn Park North of Bennington Road and West of the Papio Creek Pedestrian Bridge (location map attached)
PROJECT SPONSOR:	City of Bennington 15514 Warehouse Street PO Box 221 Bennington, NE 68007
CONTACT PERSON:	Mindi Laaker City Clerk
TELEPHONE:	1-402-238-2375
E-MAIL:	city@bennington ombcoxmail.com

### DESCRIPTION OF PROBLEM:

Severe erosion on the south side of the Papio Creek is nearing the new Papio Creek Pedestrian Bridge and a trail that is now located more near to the creek bank than when the bridge and trail was installed. The bank of the Papio Creek is constantly at risk of washing out when there are storm incidents. It is believed that large spring rains in 2016 attributed to the degradation.

# PROPOSED SOLUTION:

The bank stabilization project required clearing and grubbing just to gain access to the affected area along the south bank of the Papio Creek. Shortly after the Papio Creek Pedestrian Bridge construction was complete, a torrential rain caused near flood conditions. Subsequently, an elongated washout along the south bank near the bridge, trail and soccer fields made this project a high-priority emergency. The washout caused the bank to slope from the creek bottom to the top of the creek embankment to be too steep to sustain soil on its own. 540 ton of riprap (400 ton Type C and 140 ton Pit Run) was put in place. Additionally, to replace the soil void, 775 cubic yards in earthwork (stripping and top-soiling) as measured in embankment was added to stabilize the creek bank from additional water erosion. The extensive project area came with 6 inches of the new concrete pedestrian trail before it was stabilized. The project slope needs to be manageable and allow the soil and riprap to stay in place. The upper creek bank will be hydro-seeded with reinforcement mulch which is included in the hydro-seed mix to re-establish vegetation. The contractor will also be required to repair the affected surrounding area and adjoining soccer fields, impacted by the embankment work, to their original condition.

### TOTAL COST:

\$78,502

COST SHARE REQUESTED:

SIGNATURE/TITLE/DATE:

\$30,000





Agenda Item: 12.a.-f.

	A B	c	D	E	F	G	н	1	J	к	LI	M	N	0	P
1	Parks														
2	EXPENDI	TURES	Actuals	Actuals	Actuals	Actuals	Actuals	budget	Actuals	4th Qtr	EOY	Budget			
3	Acct #	Account Name	10/11	11/12	12/13	13/14	14/15	15/16	6-30-16	15/16	15/16	16/17			
4	PERSONNE	L					(						A 2% Cola +		
5	8971	Salaries Full-Time	\$11,954	\$11,350	\$0	\$14,232	\$21,061	\$20,320	\$14,568	\$5,750	\$20,318	\$40,237	5% perfor	mance	
6	New	OT Salaries for Exempt						\$0	\$0	\$0	\$0	\$4,080	employee	new FI	
7	8972	Salaries Part-time	\$6,530	\$10,572	\$20,164	\$16,047	\$14,922	\$12,500	\$6,470	\$7,646	\$14,116	\$14,524	195 to 496	Performance	<b>a</b>
8		Total Salaries	\$18,484	\$21,922	\$20,164	\$30,279	\$35,983	\$32,820	\$21,038	\$13,396	\$34,434	\$58,841	and	renormance	·
9	8962	Payroll Taxes	\$1,527	\$1,700	\$1,538	\$2,332	\$2,926	\$2,625	\$1,563	\$1,025	\$2,588	\$4,501	2% Cola		
10	8981	Pension	\$335	\$340	\$0	\$396	\$750	\$750	\$495	\$233	\$728	\$920			
11	8932	Insurance	\$3,712	\$2,446	\$0	\$0	\$3,232	\$4,168	\$3,461	\$1,042	\$4,503	\$4,823			
12		TOTAL PERSONNEL	\$24,058	\$26,408	\$21,702	\$33,007	\$42,891	\$40,363	\$26,557	\$15,696	\$42,253	\$69,085			
14	OPERATIN	3 EXPENSES											Mower-\$4,	,800	
15	8918	Equipment	\$1,414	\$1,250	\$26,941	\$15,974	\$25,949	\$0	\$2.512	\$0	\$2.512	\$32.800	Rpic Dmp	Trk-\$9000	
16	8928	Gas and Oil	\$1,829	\$2,316	\$2,308	\$4,249	\$1,673	\$1,250	\$676	\$400	\$1.076	\$1,250	Skid Loade	nder - \$5800 2r-\$2000	_
17	8935	Mileage	\$0	\$0	\$52	\$194	\$101	\$300	\$247	\$100	\$347	\$350	Drainage	rprs in old	1
18	8950	Repairs and Maintenance	\$6,165	\$12,970	\$12,220	\$16,730	\$15,801	\$45,000	\$14,969	\$1.333	\$16,302	\$187,000	fire bldg		J
19	8951	Rprs & Mntrice of City Buildings	na	na	na	\$0	\$74,105	\$0	\$0	\$0	\$0	\$0	Slough Re	ors \$110.000	
20	8954	Restroom Rental	\$4,116	\$4,440	\$5,975	\$2,747	\$4,173	\$4,000	\$2,775	\$1,300	\$4,075	\$4,100	Logeman	Prk Rd \$50,0	00
21	8978	Supplies	\$2,617	\$3,657	\$1,543	\$4,113	\$2,244	\$3,500	\$1,625	\$1,500	\$3,125	\$3,100	nrew Wal	il at Fire Bldg	e) 📃
22	8980	Telephone	\$264	\$197	\$435	\$688	\$456	\$700	\$535	\$180	\$715	\$813	\$7,000		
23	8982	Utilities	\$2,883	\$5,173	\$4,436	\$3,957	\$2,902	\$6,200	\$3,243	\$1,181	\$4,424	\$4,424	ļ		
24	8985	Ballfield Lights	\$1,889	\$1,726	\$1,829	\$1,609	\$1,848	\$2,000	\$1,137	\$379	\$1,516	\$40,616	new lig	hts on Trail-	
25	8900	Other	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$0	\$0	\$500	\$39,000	)	
26		TOTAL OPERATING EXPENSES	\$21,177	\$31,729	\$55,739	\$50,261	\$129,252	\$63,450	\$27,719	\$6,373	\$34,092	\$274,953			
28											1				
29		TOTAL PARK AND REC EXPENSES	\$45,235	\$58,137	\$77,441	\$83,268	\$172,143	\$103,813	\$54,276	\$22,069	\$76.345	\$344.038			
30					****		311 - 11	\$100 <u>1</u> 010	40 METO	Q22,000	\$1.0,040	<b>90</b> -1,000			
31	REVENUES														
33	5605	Misc Park and Streets Revenue	\$4,664	\$9,390	\$7,893	\$7,664	\$7,913	\$1,820	\$5,644	\$1,575	\$7,219	\$6,500			
34								1.04-00				11,500			
35		TOTAL REVENUE PARKS	\$4,664	\$9,390	\$7,893	\$7,664	\$7,913	\$1,820	\$5,644	\$1,575	\$7,219	\$6,500			

# AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between	City of Bennington, Nebraska	("Owner") and
Husker Engineering Inc. DBA Husker G	Grading	("Contractor").

Owner and Contractor hereby agree as follows:

#### ARTICLE 1 - WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: **Bank stabilization, earthwork, concrete trail.** 

#### **ARTICLE 2 - THE PROJECT**

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: 2016 Big Papillion Creek Slough Repair; Bennington, Nebraska; JEO Project No. 161177.00.

#### **ARTICLE 3 - ENGINEER**

- 3.01 The Project has been designed by <u>JEO Consulting Group, Inc.</u>
- 3.02 The Owner has retained JEO Consulting Group, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

#### **ARTICLE 4 – CONTRACT TIMES**

- 4.01 Time of the Essence
  - A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.02 Contract Times: Dates
  - A. The start date for the Work will be <u>immediately following issuance of the Notice to Proceed</u> <u>AND issuance of USACE 404 Permit</u> and the Work will be substantially completed on or before <u>April 1, 2017</u>, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before <u>May 1, 2017</u>.
- 4.03 Liquidated Damages
  - A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner If the Work is not completed on time. Accordingly, instead of

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requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Contractor shall pay Owner \$200.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above until the Work is substantially complete and completed and ready for final payment.

### ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For-all Work other than Unit Price Work, a lump sum of: \$\_\_\_\_\_\_

All-specific-cash-allowances-are-included-in-the-above-price-in-accordance-with-Paragraph 13.02 of the General Conditions.

B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

ltem No.	Description	Quantity	Unit	Unit Price	Total
	В	ASE BID			
1	Mobilization	1	LS		\$8,700.00
2	Clearing and Grubbing	1	LS		\$5,600.00
3	Erosion Control Measures	1	LS		\$3,800.00
4	Stripping and Topsoiling	1	LS		\$2,000.00
5	Earthwork, Measured in Embankment	hwork, Measured in 775 CY \$22.00		\$22.00	\$17,050.00
6	Remove and Replace Concrete Trail	82	SY	\$86.00	\$7,052.00
7	Riprap, Туре С	400	TON	\$51.00	\$20,400.00
8	Riprap, Pit Run	140	TON	\$47.00	\$6,580.00
9	Hydroseed & Mulch	0.50	AC	\$7,000.00	\$3,500.00
10	Site Restoration	1.	LS		\$2,700.00
11	Straw Wattles	280	LF	\$4.00	\$1,120.00
	TOTAL BASE BID				

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The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) \$78,502.00.

D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

#### **ARTICLE 6 – PAYMENT PROCEDURES**

- 6.01 Submittal and Processing of Payments
  - A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.
- 6.02 Progress Payments; Retainage
  - A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the <u>second Monday</u> of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
    - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
      - a. <u>90</u> percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
      - b. <u>90</u> percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
  - B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to <u>100</u> percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less <u>125</u> percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.
- 6.03 Final Payment
  - A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

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#### **ARTICLE 7 -- INTEREST**

7.01 All amounts not paid when due shall bear interest at the rate of 12 percent per annum.

#### **ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS**

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
  - A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
  - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
  - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary to the Site that have been identified in the Supplementary Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
  - E. Contractor has considered the information known to Contractor Itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
  - F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
  - G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
  - H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
  - I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
  - J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

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#### **ARTICLE 9 – CONTRACT DOCUMENTS**

#### 9.01 Contents

- A. The Contract Documents consist of the following:
  - 1. This Agreement (pages <u>1</u> to <u>7</u>, inclusive).
  - 2. Performance bond (pages <u>1</u> to <u>2</u>, inclusive).
  - 3. Payment bond (pages <u>1</u> to <u>2</u>, inclusive).
  - 4.---Other-bonds.

a.\_\_\_\_ (pages\_\_\_\_ to \_\_\_\_ inclusive).

- 5. General Conditions (pages <u>1</u> to <u>65</u>, inclusive).
- 6. Supplementary Conditions (pages <u>1</u> to <u>11</u>, inclusive).
- 7. Specifications as listed in the table of contents of the Project Manual.
- Drawings (not attached but incorporated by reference) consisting of <u>8</u> sheets with each sheet bearing the following general title: <u>2016 Big Papillion Creek Slough Repair</u>, <u>Bennington, Nebraska, JEO Project No. 161177.00</u>.
- 9. Addenda (numbers \_\_\_\_ to \_\_\_\_, inclusive).
- 10. Exhibits to this Agreement (enumerated as follows):
  - a. Contractor's Bid (pages <u>1</u> to <u>7</u>, inclusive).
  - b. Project References (4 pages) attached to bid.
- 11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
  - a. Notice to Proceed.
  - b. Work Change Directives.
  - c. Change Orders.
  - d. Field Orders.
- 12. Equipment Assessment Certification
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

#### **ARTICLE 10 – MISCELLANEOUS**

- 10.01 Terms
  - A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

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#### 10.02 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 10.03 Successors and Assigns
  - A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

#### 10.04 Severability

A. Any provision or part of the Contract Documents held to be vold or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents 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.

#### 10.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
  - "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  - "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  - "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### 10.06 Other Provisions

A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC<sup>®</sup> C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee<sup>®</sup>, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

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B. If Owner is a public entity in the State the Project is located, then Contractor 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 of the Project is located. Contractor shall require the same of each subcontractor.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on December 12, 2016 (which is the Effective Date of the Contract).

OWNER: City of Bennington, Nebraska CONTRACTOR: Husker Engineering Inc. **DBA Husker Grading** (sign) Matt John By: By: (print) Title: Mayor Title: (If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.) city clerk Attest: Attest: Title: Admin. Assistan Title: Address for giving notices: Address for giving notices: 15514 Warehouse St 367 Valley Vista Dr PO Box 221 PO Box 505 Bennington NE 68007 Burwell NE 68823 844323 License No.: (where applicable

# Urban Conservation Assistance Program – Application Form



Project name	OPW 5309	OPW 53096 - 99th and Ida Storm Sewer and Erosion Repair					
Project location (atta	ch location map)	99th and Ida S	treets				
Sponsor organization City of Omaha (Public Works Department)							
Sponsor address 1819 Farnam St, Suite 600							
City	Omaha		State	NE	ZIP	68183	
Contact person	Ned Tramp	0					
Title	Civil Engin	eer II					
Email address	d.tramp@cityofom	aha.org	Daytime	phone	402-	444-4966	

Description of problem (attach additional sheets as needed)

Pipe failure and severe erosion near 99th and Ida Streets in northwest Omaha.

# Proposed solution (attach additional sheets as needed)

Repair the pipe, fill in the washout, stabilize the area and dissipate the velocity of flow from the storm sewer pipe to prevent this from reoccurring.

Total estimated cost \$ 200,000	Cost share request	\$ 30,000
Ind Theiles, P.E.	3/24/2017	
Signature	Date	
ASSISTANT DIRECTOR Title - POBLIC NORKS - ENVIRENME	mra	

Updated 2015-02-12



ORO.



City of Omaha Jean Stothert, Mayor

March 24, 2017

Mr. Eric Williams Natural Resources Planner Papio-Missouri River Natural Resources District 8901 S. 154<sup>th</sup> Street Omaha, NE 68138-3621

RE: OPW 53096 - 99<sup>th</sup> & Ida Storm Sewer and Erosion Repair Project NRD Urban Conservation Assistance Program Grant Application Submittal

Dear Mr. Williams,

Enclosed please find the following material intended for the application of the District's Urban Conservation Assistance Program grant for the above-referenced project in Omaha:

Public Works Department Omaha/Douglas Civic Center 1819 Farnam Street, Suite 601 Omaha, Nebraska 68183-0601

Robert G. Stubbe, P.E.

Public Works Director

(402) 444-5220 Fax (402) 444-5248

- 1. Completed Application Form for the Urban Conservation Assistance Program
- 2. Attachment A: Location map
- 3. Attachment B: LiDAR information for the project area

#### **Description of the Problem**

The 99<sup>th</sup> and Ida Street Storm Sewer and Erosion Repair project is located east of the intersection of I-680 with Blair High Road (See Attachment A). The 18-inch storm sewer pipe that runs under Ida Street has eroded the bank and pipe segments have fallen into the creek, which is a tributary to Thomas Creek (See Attachment A and Photo 1). The storm sewer collects stormwater runoff from a small area (approximately 2-3 acres) near the intersection of 99<sup>th</sup> and Ida Streets, and conveys the runoff northwest approximately 280 feet where it discharges. The erosion threatens to undermine a box culvert under Blair High Road (Highway 133) and a billboard located near the southwest part of the parking lot for the Tractor Supply Company (See Attachment B and Photos 2 and 3). Another contributing factor to the erosion is likely channel downcutting in the tributary to the Thomas Creek.

1



Photo 1. Looking northwest at NDOR box culvert and pipe segments that have fallen into the channel.



Photo 2. Looking southwest at eroded bank. Blair High Road/Highway 133 is in the upper left corner.



Photo 3. Looking east at eroded channel and billboard.

#### **Proposed Solution**

This project is in a relatively early stage and has not undergone a detailed study. The City of Omaha Public Works Department has contracted with E & A Consulting Group to complete the surveying and engineering design services needed for the project. The proposed solution includes repair of the existing storm pipe (reimbursement for this construction would not be requested because it is not eligible under the program guidelines), filling the washout, stabilization of the surrounding area and dissipation measures to reduce the stormwater velocity to prevent this from reoccurring.

#### **Cost Estimate**

The current cost estimate is based on a very preliminary estimate of the quantity of storm sewer reconstruction, grading and stabilization that will be necessary. The estimate is \$200,000. It's expected that this estimate will change as detailed design alternatives are developed; however, the maximum NRD cost share contribution for this assistance program is 60% of the actual costs, up to a maximum of \$30,000. The maximum amount of \$30,000 is being requested because the actual project costs will certainly be greater than \$50,000.

#### **Construction Implementation Schedule**

The City of Omaha Public Works Department has included this project in its anticipated list of construction projects for the 2018 construction season, but will move forward with construction in 2017 if funding is available.

#### **Preliminary Survey and Design Information**

E & A Consulting Group will perform a topographic survey of the project area. The 2010 LiDAR data for the project area is being used for preliminary surface information, and has been included as Attachment B.

#### **Additional Sponsor Responsibilities**

The City of Omaha Public Works Department will administer the engineering design contract with E & A Consulting Group. We will obtain temporary and permanent easements as necessary for the construction and maintenance of the project area. We will comply with all local, state and federal laws and obtain any permits necessary for construction of this project. We also concur that the City shall hold and save the District free from damages or claims due to the design, construction, operation and maintenance of this project as required from the subsequent agreement between the City and the District. The City also agrees to provide all future operation and maintenance of the channel and storm sewer at no cost to the District.

If you have any questions on this application, or would like to visit the site, please don't hesitate to contact me at 402-444-4966 or Ned.Tramp@cityofomaha.org.

Sincerely,

Ned h. Thank

Ned Tramp, P.E. City of Omaha Public Works

4

25

# Urban Conservation Assistance Program – Application Form



Project name	West Papie	West Papio Creek Embankment Restoration				
Project location (attach location map)		West Papio Trail and "L" Street, Omaha, NE				
Sponsor organiza	tion Omaha Pa	Omaha Parks, Recreation & Public Property Department				
Sponsor address	1819 Farna	1819 Farnam Street, Suite 701				
Cit	y Omaha		State	NE	ZIP	68183
Contact person	Dennis E.	Dennis E. Bryers, FASLA, PLA				
Title	Landscape Architect - Park & Recreation Planner					
Email address	dennis.bryers@cityofomaha.org		Daytime phone		402-444-3798	

Description of problem (attach additional sheets as needed)

Embankment has eroded undermining the slope pavers covering the embankment and undermining the West Papio Trail.

Proposed solution (attach additional sheets as needed)

Restoration of the embankment on the creekside of the trail and regrading of the area to better control runoff and reduce future embankment erosion.

Total estimated cost \$ 118,500	Cost share request \$ <u>30,000</u>
Commi E. Bru	March 24, 2017
Signature	Date
Landscape Arch/Park & Rec Planner	

Title

# **Project Description**

The embankment to the West Papio Creek in the vicinity of "L" Street has been eroding for some time. The erosion has undermined the slope on the west side of the west bridge pier, causing the concrete pavers to settle and in some cases washed downstream. The erosion has also reached the West Papio Trail, eroding under the trail and leaving a couple of rail post footings hanging in midair.

The project would remove the concrete pavers, regard the slope and reinstall the pavers. Undermined sections of the trail would be removed and new fill brought in to fill the voids before pouring the concrete trail. Additional grading would be done on the uphill side of the trail to create swales to collect surface runoff and direct it to storm drainage structures that would pipe the water under the trail and into the creek.

# **Project Schedule**

Bids were opened on this project on January 11, 2017. The low bidder was Bayshore Contractors, LLC with a bid of \$84,500.00. Construction will begin in mid to late April 2017 and will be completed by mid-summer of this year.



Looking South from under the "L" Street Bridge.



Looking North from south side of "L" Street Bridge.



Looking North from south side of "L" Street Bridge.



Looking South from under the "L" Street Bridge.



North side of Bridge Pier showing eroded Paver Slope.



Erosion of Paver Slope at Bridge Pier.

S. SOUTH E. EAST

W. WEST SQ. SQUARE FT. FEET

-;; ЦСНТ РОLЕ

SIGN

SECONDS R.O.W. RIGHT OF WAY BK. BOOK PG. PAGE

VALVE O BOLLARD DEGREES MINUTES OR FEET







31





QUANTITIES				
	ITEM	UNIT	AMOUNT	
1	CLEARING AND GRUBBING-GENERAL	LS	1	
2	REMOVE BRICK SURFACE	SY	45	
3	EMBANKMENT-BORROW	CY	45	
4	CONSTRUCT 6-INCH PCC RECREATIONAL TRAIL	SF	1120	
5	CONSTRUCT 15" CMP	LF	105	
6	CONSTRUCT 54" I.D. STORM MANHOLE (2 EA)	VF	32	
7	INSTALL SEEDING-TYPE B	SF	3560	
8	INSTALL SEEDING-TYPE CHANNEL SEED	SF	2375	
9	INSTALL TURF REINFORCEMENT MAT, TYPE C	SY	265	
10	PAVERS, EROSION CONTROL	SY	55	
11	GEOTEXTILE FABRIC, UNDERLAIN EROSION CONTROL PAVERS	SY	55	
12	BASE COURSE, UNDERLAIN EROSION CONTROL PAVERS	TONS	10	
13	TIMBER PILE PIPE SUPPORT	EA	2	
14	REMOVE AND DISPOSE OF PCC RECREATIONAL TRAIL	SY	125	
15	NEENAH TRENCH DRAIN	LF	48	
16	SILT FENCE	LF	125	

INDEX OF SHEETS

- COVER SHEET REMOVALS GRADING
- EROSION CONTROL PAVERS 4.
- TRAIL PAVEMENT
- STORM SEWER / TRENCH DRAIN
- SEEDING
- 8 DETAILS













# L PAVEME



5

8

NT	E-13389 16 OF NEBRISS
	SHEET

Т	RAIL
OMAHA	

Locations (Typical)	Depth Below Pavement or Finished Grade	Minimum Compaction Requirement	Acceptable Moisture Range	
Under and within 4' of edge of rigid pavement; under driveways, recreational trails, sidewalks*	Bottom of pavement to 1'below pavement	90% of Maximum Dry Density (MOD) (ASTM D1557)	3% Below to 4% Above Optimum Moisture Content (Typical)	
esses require 6" subgrade preparation.				

PROPOSED 6" TRAIL, SG65 OR L6 CONCRETE




#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 S. 154th Street 0maha, Ne 60138-3621 402-444-6222 www.papionrd.org

# Urban Conservation Assistance Program – Application Form

Project name SIE Project location (attach location Sponsor organization Sponsor address 114		SID 190, Hickory Ridge - 2017 Channel Improvements					
		tion map)	17904 Storage	Road, On	naha, NE		
		SID 190, Hickory Ridge 11440 West Center Road					
Contact person Title		Robert Czerv	vinski				
		Municipal Services Dept. Manager					
Email address	bczerwinski@eacg.con		]	Daytime phone		402.5	10.1329

Description of problem (attach additional sheets as needed)

An intermittent tributary has experienced significant channel erosion.

See attached		······································	
		· · · · · · · · · · · · · · · · · · ·	
Total estimated cost	\$ <u>80,000.00</u>	Cost share request \$ 30,000.0	0
Robert F. Czerwinski		3/16/2017	
Signature	· · · · · · · · · · · · · · · · · · ·	Date	
Municipal Services Dep	ot. Manager		
Title			

## 2017 CHANNEL IMPROVEMENTS, HICKORY RIDGE - NARRATIVE

## **PROJECT SOLUTION**

The proposed solution is to stabilize an eroding intermittent tributary by installing 2,470 square feet of flex mat along the bottom of approximately 240 linear feet of the intermittent tributary. This flex mat would be used to stabilize the tributary. The flex mat will be designed so that vegetation can grow through the openings within the mat. Soil would be placed within the tributary to bring the channel back to its original grade prior to the placement of the flex mat. A concrete gabion basket would be installed at the northern culvert on the property in order to further slowdown potential channel erosion.



Agenda Item: 12.a.-f.



Project Mgr: BLJ	Project No. P1997.015.000			Vicinity Map	Exh.
Drawn By: BLJ	Scale 1" = 900'	(e.	a)	Hickory Ridge SID#190 / Lite Industrial Ltd.	
		E & A CONSULTIN	IG GROUP, INC.	Drainage Stabilization Project	1
ZAJ	P1997.015.000- E1	Engineering	g Answers	17904 Storage Road Omaha, Sarpy County, Nebraska	
Approved By:	Date: 8/4/16	10909 Mill Valley Road	OMAHA, NE 68154		
ZAJ		PH. (402) 895-4700	41		





#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 S. 154th Street Omaha, NE 68138-3621 402-444-6222 www.papionrd.org

# Urban Conservation Assistance Program – Application Form

Project name		SID 221, C	edar Hollow - 2	2017 Channe	l Improv	vements		input ion along
Project location (	attach loca	tion map)	17338 Sout	h Creek Circl	е			
Sponsor organiza	ation	SID 221, C	edar Hollow					
Sponsor address		11440 Wes	t Center Road					
Cit	y	Omaha		State	NE	ZIP	68144	
Contact person		Robert Cze	erwinski					
Title		Municipal S	Services Dept.	Manager				
Email address	bczerwins	ki@eacg.co	om	Daytime	phone	402	.510.1329	
See attache	n (attach ac	dditional she	ets as needed)					
Total estimated o	cost	\$ <u>90,000.0</u>	0	Cost share r	equest	\$ <u>30,00</u>	00.00	
Robert F. Czerwin	ski			3/16/2017				
Signature				Date				
Municipal Servio	ces Dept. N	lanager						
Title								

## 2017 CHANNEL IMPROVEMENTS, CEDAR HOLLOW - NARRATIVE

#### DESCRIPTION OF PROBLEM

An unnamed tributary has experienced active head-cutting resulting in significant degradation of channel and bank erosion which is causing damage to personal property.

## PROJECT SOLUTION

The proposed solution is to stabilize the eroding unnamed tributary by installing grade control, channel restoration, and bank stabilization. Grade control would include the installation of sheet pile weir structures. Flex mat would be used to stabilize the tributary. The flex mat will be designed so that vegetation can grow through the openings within the mat. Soil would be placed within the tributary to bring the channel back to its original grade prior to the placement of the flex mat. The bank stabilization will include installation of concrete block with placement and compaction of embankment material to return bank to original condition.





ONLY, ITF	LECEND         AMS DEPICTED IN LEGEND MAY NOT APPEAR ON PLANS.         SECTION CORNER         PROPERTY CORNER FOUND (AS NOTED)         PROPERTY CORNER SET (5/8" REBAR)         BUILDING         POWER RISER         POWER POLE         GUY WIRE         LICHT POLE         TELEPHONE RISER         CABLE TV RISER         FIRE HYDRANT         UTILITY VALVE (WATER)         MANHOLE	E & A CONSULTING GROUP, INC. Engineering • Planning • Environmental & Field Services	10909 Mill Valley Road, Suite 100 ● Omaha, NE 68154 Phone: 402.895.4700 ● Fax: 402.895.3599 www.eacg.com
■ X G W GP TV SS ST FO	FLARED END SECTION (SIZE NOTED) CURB INLET UTILITY VALVE (GAS) SIGN FENCE LINE GAS LINE WATER LINE POWER LINE (OVERHEAD) POWER LINE (OVERHEAD) COMMUNICATION LINE (TELEPHONE, TV) SANITARY SEWER LINE STORM SEWER LINE FIBER OPTICS LINE	CEDAR HOLLOW	SARPY COUNTY, NEBRASKA <b>E &amp; A CONSULTING GROUP, INC.</b> <i>Engineering Answers</i>
T FRONT AY LINE O = 1114.22' NT THE SO HOLLOW, ( NTROL PO] = 1113.65'	CORNER OF LOTS 1 AND 2, ON NORTH F SOUTH CREEK CIRCLE. CONTROL POINT # 2046. UTHWEST LOT CORNER OF LOTS 1 AND OUTLOT ON NORTH RIGHT-OF-WAY LINE OF SOUTH CREEK INT # 2047.	TOPOGRAPHIC SURVEY	
		ц	

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM OBSERVED EVIDENCE TOGETHER WITH EVIDENCE FROM PLANS OBTAINED FROM UTILITY COMPANIES OR PROVIDED BY CLIENT, AND MARKING BY UTILITY COMPANIES AND OTHER APPROPRIATE SOURCES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES.



#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 S. 154th Street 0maha, NE 66138-3621 402-444-6222 www.papionrd.org

## **Urban Conservation Assistance Program – Application Form**

Project name	South	Papillion Creek Ba	nk Stabilizati	on - 2016			
Project location (	attach location ma	p)156th & Tin	nberlane Driv	e			
Sponsor organiza	tion SID 22	25, Giles Ridge					
Sponsor address	11440	West Center Road	3				
City	/ Omaha	a	State	NE	_ ZIP	68144	
Contact person	Robert	Czerwinski					
Title	Munici	pal Services Depa	rtment Manaç	ger		۶	
Email address	bczerwinski@ead	cg.com	_ Daytime	phone	402.5	510.1329	
Proposed solutior See attache	(attach additional ad sheet	sheets as needed)					
Total estimated co	ost <u>\$ 123,0</u>	000	Cost share re	equest \$	30,000	0.00	
ROBERT F. CZE	RWINSKI		3/15/2017				
Signature			Date				
Municipal Service	es Dept. Manager						
Title	1999)), ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (						

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## **URBAN CONSERVATION ASSISTANCE PROGRAM – APPLICATION FORM**

Description of problem –

A segment of South Papillion Creek bordering Giles Ridge (SID 225) has experienced significant bank sloughing and erosion on the south bank. Further bank erosion is anticipated, jeopardizing the sanitary sewer, as well as adjacent private property owners.

Proposed solution –

The proposed solution consists of the placement of rip rap along the south back water line establishing a hard armor toe of slope. Existing vertical banks will be regarded to a 2.5:1 slope, matted and seeded.

#### Agenda Item: 12.a.-f. Jochim Precast Concrete Inc

## 666 Gruenther Road Papillion NE 68046

# Invoice

Date	Invoice #
12/27/2016	011067

Bill To		
Giles Ridge %E&A <b>ろ-エ、の</b>	225	

		P.O. No.	Terms		Project
			1 Marca - 1		
Quantity Description				Rate	Amount
9 95 1,900 100 95 550 5,340 321 321	CREEK BANK REPAIR AT 156TH & CHANDLER Install 2 temporary fences - Cut & load out trees - reinstal 1.5 rolls of 140 inch filter fabric 9 loads of trees hauled to dump includes dump fee Install drainage fingers with 2/3 inch crushed rock hours of labor for all of the above square yards of matting-with 4 boxes of staples for mattir lbs of city/county seed mix with 56 lbs of winter wheat ton of 1/2 inch rock tons of Type C Rip Rap cubic yards of dirt - this includes trucking, loading and ha hours of operators running equipment Equipment rental - 2 Cat Long Reach Excavators - 1 Cat 3 excavator - 2 Cat 966 4 yard loaders - 1 Cat 815 Compact & welder Sales Tax	1 1 permanent wooden f ng 322 with thumb - 1 Cat or - 1 Tool Truck with t	ience - mini orches	$\begin{array}{c} 0.00\\ 522.24\\ 100.00\\ 0.00\\ 55.00\\ 0.48974\\ 2.637\\ 14.00\\ 35.25\\ 9.00\\ 55.00\\ 85.00\\ 55.50\%\end{array}$	$\begin{array}{c} 0.00\\ 522.24\\ 900.00\\ 0.00\\ 5,225.00\\ 930.51\\ 263.70\\ 1,330.00\\ 19,387.50\\ 48,060.00\\ 17,655.00\\ 27,285.00\\ 1,066.31\end{array}$
Thank you for you	ir business.		Tot	al	\$122.625.26
ALL IN A REAL PROPERTY AND					



# SOUTH PAPILLION CREEK BANK STABILIZATION



52

SID NO. 225 SARPY COUNTY, NEBRASKA



1.	All project procedures, materials, bonds and reserves shall conform to the City of Omaha Specifications for Public Works Construction 2014, and any additions thereto. It will be the responsibility of the Contractor to be aware of the contents of the aforementioned specifications. The aforementioned publication can be found at: <u>http://www.cityofomaha.org/pw/index.php/contractors-consultants2/contractors/standard-plates-curb-ramps-and-specification</u>
2.	Barricades shall conform to Omaha Public Works "Barricading Standards, Specifications, Methods & Materials", and/or the "Manual on Uniform Traffic Control Devices", and any additions thereto. The aforementioned publications can be found at <u>http://cityofomaha.org/pwredo/images/stories/pdfs/City%20of%20Omaha%20Barricading%20Standards.pdf</u>
3.	Utilities are shown as a convenience for the Contractor. The locations of all aerial and underground utilities may or may not be indicated in these plans. The Contractor shall notify all utility companies before work is started to verify utility locations. No excavation will be permitted in the area until all utilities have been located and and identified to the satisfaction of all parties and then, only with extreme care to avoid any possibility of damage. The Contractor will be responsible for repair of utilities damaged during construction.
4.	The CONTRACTOR shall maintain drainage in existing road ditches and culverts draining into the project area.
5.	Payment for earthwork shall be based upon the Bid Items "EARTHWORK (COMMON EXCAVATION)" and "EARTHWORK (HAULIN)". This quantity is the fixed plan volume determined by a comparison of the proposed grade surface to the existing grade topographic survey surface. The Bid Item "EARTHWORK (COMMON EXCAVATION)" shall include onsite cut and respective fill placement. The Bid Item "EARTHWORK (HAUL IN)" shall include haul in from offsite necessary to complete the fixed plan fill. THERE IS NO SHRINK FACTOR INCLUDED WITHIN THESE QUANTIFIES. There will be no deviation from this pay quantity without a written change order resulting from a plan revision or field change. Work shall include excavation, haul, placing and compacting earthwork necessary for a completed project for this fixed established quantity.
6.	Following clearing and grubbing operations and removal of any observed unsuitable soils, the exposed soils shall be proofrolled with a fully loaded, tandem axled dump truck providing a minimum gross weight of 25 tons, or other equipment with an equivalent subgrade loading. Unsuitable soils observed during proofrolling shall be improved by scarifaction to a 9" depth and recompacted. Scarified soils which cannot be recompacted to ther recommended degree shall be undercut and replaced with stable fill.
7.	Fill placed on a slope steeper than a 5H:1V shall be benched before placing fill, with a maximum riser height on the order of 2', separated by horizontal steps that are wide enough to accomodate compaction equipment.
8.	All fill and backfill shall be placed in lifts of 9" or less in loose thickness. All fill shall be compacted to a minimum 95% of the maximum dry density at a moisture content 3% below to 4% above optimum as determined by ASTM D698 (Standard Proctor) or as Recommended by a Geotechnical Engineer.
9.	<ul> <li>Fill and Backfill shall be inspected and tested periodically at the discretion of the Engineer for adherence to material, compaction, and moisture specifications.</li> <li>a. Fill or backfill failing to meet compaction and moisture content specifications shall be reworked and retested at the Contractors expense.</li> <li>b. Material deemed unsuitable by the Engineer shall be removed and replaced. Reimbursement for removal and unsuitable materials will be made at the contract unit price for, "Common Excavation".</li> </ul>
13.	Fill and backfill material shall be impervious material (clay/silt) free of frost, snow, ice, concrete, brick, stone, refuse, cinder ashes, organic matter, or any other material deemed unsuitable by the Engineer.
14.	Diversion berms and ditches shall be constructed as necessary throughout the term of the project to properly control sediment erosion and protect adjacent properties as directed by the Engineer. This work will not be paid for directly but shall be subsidiary to items for which direct payment is made.
15.	Construct Diversion Ditches in Accordance with Section 9.5.8 "Temporary Diversion Dike" found in the 2006 Omaha Regional Stormwater Design Manual.
16.	Existing Ditches and eroded areas shall be undercut a minimum of 12 inches on all bottoms and sides prior to placement of any fill. Separate payment will not be made for undercutting.
17.	The CONTRACTOR shall install silt fencing if necessary or as directed by the Engineer. Payment will be made at the fixed unit price of \$3.00 per lineal foot. (See the Erosion Control Feature Maintenance Schedule).
18.	No tree removal shall occur between April 1st and October 15, unless a migratory bird inventory has been completed and no nesting of migratory birds are found.
19.	Seeding shall be United Seeds Low Grow Grass Mixture applied at 25 lbs./Ac. Fertilizer (20-10-10) shall be applied at 50lbs per Acre
20.	The CONTRACTOR shall Maintain and preserve utilities traversing and servicing premises as long as same are required.
21.	All rubbish, unsuitable material, debris, equipment, etc., resulting from demolition work shall be disposed of properly and in a legal manner.
22.	The CONTRACTOR shall control dust during demolition and removals.
92	All demolition, removals, well closing, clearing and grubbing shall be paid in a lump sum











## Urban Drainageway Program – Application Form

Project name	209th and	209th and Blondo Stream Stabilization Project					
Project location (a	ttach location map)	20804 Parker	Street	18			
Sponsor organizat	ion City of Om	of Omaha (Public Works Department)					
Sponsor address	1819 Farna	am Street, Suite	600				
City	Omaha	Omaha		NE	ZIP	68183	
Contact person	Sarah And	erson					
Title	Civil Engin	eer II					
Email address	sarah.anderson@city	ofomaha.org	Daytime phone		402-	444-3390	

Description of problem (attach additional sheets as needed)

Stream degradation has caused bank erosion and has caused previously buried sanitary sewer line to be exposed.

## Proposed solution (attach additional sheets as needed)

Stabilize eroded channel, restore channel cross-section and protect exposed sanitary sewer crossing.

Level of Design	Level 1	Level 2		Level 3		
Total estimated cost	\$	Cost s	share re	quest \$	120,000	
Juneo ET Joignature	heir, Pi	<b>E</b> , <u>3/24/</u> Date	/2017		-	
ASSISTANT DE Title PUBLIC NOC	rector. 2KS - ENVIRON	novital				

Form 17.17 A



ATTACHMENT A: 209TH & BLONDO STREAM STABILIZATION - LOCATION MAP



City of Omaha Jean Stothert, Mayor

March 24, 2017

Mr. Eric Williams Natural Resources Planner Papio-Missouri River Natural Resources District 8901 S. 154<sup>th</sup> Street Omaha, NE 68138-3621

RE: 209<sup>th</sup> and Blondo Stream Stabilization Project NRD Urban Drainageway Program Grant Application Submittal

Dear Mr. Williams,

Enclosed please find the following material intended for the application of the District's Urban Drainageway Program grant for the above-referenced project in Omaha:

Public Works Department Omaha/Douglas Civic Center 1819 Farnam Street, Suite 601 Omaha, Nebraska 68183-0601

Robert G. Stubbe, P.E.

Public Works Director

(402) 444-5220 Fax (402) 444-5248

- 1. Completed Application Form for the Urban Drainageway Program
- 2. Attachment A: Location map with LiDAR information for the project area
- 3. Attachment B: Project location relative to the West Papillion Creek

#### **Description of the Problem**

The proposed channel stabilization project is located within a tributary to the West Papillion Creek, and is located north of the intersection of 208<sup>th</sup> and Parker Streets (See Attachments A and B). A small portion of the project area is located within City of Omaha property in Greenbriar Park. Stormwater from the residential area to the south flows into the channel from a 72-inch storm sewer pipe with an impact basin at the outlet (See Attachment B). Approximately 100 feet downstream of the storm sewer outlet, the channel has degraded and is showing evidence of bank erosion and channel downcutting (See Figure 1). The banks are steep and the channel has widened due to sloughing of the banks. A 10-inch sanitary sewer line which crosses this channel is being threatened by the channel degradation. This sanitary sewer, which was originally below the channel flowline, has been exposed and is visible across

1

the channel (See Figure 2). Continued channel erosion and degradation will cause further bank failure, vegetation loss, and will threaten an existing utility as described above.



Figure 1. Looking south (upstream) in tributary.



Figure 2. Looking southwest (upstream) in tributary. Exposed sanitary sewer can be seen across channel in photo.

#### **Proposed Solution**

This project is in a very early stage, and has not undergone a detailed study. The proposed solution would include stabilizing the eroded channel, potentially with grade control structures that would have the dual benefit of stabilizing the channel and protecting existing infrastructure. The channel cross-section downstream of the sanitary sewer crossing would be restored with stable side slopes to allow connection with the floodplain.

#### **Cost Estimate**

The current cost estimate is a preliminary estimate based on the anticipated clearing, grading, and stabilization that will be necessary. That estimate is \$300,000. Because no detailed plans have been developed yet, this estimate is likely to change as design progresses. Based on past history of similar projects, this estimate is believed to be representative of the scope of the project.

#### **Construction Implementation Schedule**

The City of Omaha Public Works Department has included this project in its anticipated list of construction projects for the 2018 construction season.

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#### **Environmental Acceptability Statement**

A review of the EPA's NEPAssist mapping tool did not show any EPA facilities or sites that are subject to environmental regulation in the project area. During design, the engineer will further investigate environmental resources on the site at a more detailed level.

#### Preliminary Survey and Design Information

A traditional topographic survey of the area has not yet been performed. The 2010 LiDAR data for the project area is being used for preliminary surface information, and has been included as Attachment B. This data is useful for conceptual-level design and for determining tributary drainage areas, but more detailed information will be necessary for final design and construction. The City of Omaha will undertake a topographic survey of the area in conjunction with project design.

#### Additional Sponsor Responsibilities

The City of Omaha Public Works Department will administer the engineering design contract. We will obtain temporary and permanent construction easements as necessary for construction and permanent access to the improvements. We will comply with all local, state and federal laws and obtain any permits necessary for construction of this project. We also concur that the City shall hold and save the District free from damages or claims due to the design, construction, operation and maintenance of this project as required from the subsequent agreement between the City and the District. The City also agrees to provide all future operation and maintenance of the channel and storm sewer at no cost to the District.

Thank you for your consideration – the City hopes that the District's Board of Directors and application reviewers look favorably on this project. Please feel free to contact me at (402) 444-3390 or <u>sarah.anderson@cityofomaha.org</u> if you have any questions or require additional information for this grant request.

Sincerely,

Jarah anderson

Sarah Anderson, P.E. City Project Manager

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## Urban Drainageway Program – Application Form

Project name Flatwate Project location (attach location map)		Flatwater Crossing - Water Channel Quality						
		ion map)	East Side Drain	age Way				
Sponsor organization		City of South Sioux City						
Sponsor address		1615 1st Avenue						
City Contact person		South Sioux City		State	NE	ZIP	68776	
		Lance Hedquist						
Title		City Administ	rator					
Email address Ihedquist@southsiouxc		ity.org	Daytime phone		402-494-7517			

Description of problem (attach additional sheets as needed)

Please see attached problem descriptions and images of the problem.

Proposed solution (attach additional sheets as needed)

Please see the attached propose solution, pictorial descriptions and details.

Level of Design	Level 1	Level 2	Level 3	
Total estimated cost	\$	Cost share rec	uest \$	559,350
Signature	1	<u>323</u>	7	
Rod Koch, Ma Title	ujov			

PAPIO-MISSOURI RIVER

NATURAL RESOURCES DISTRICT

8901 S. 154th Street Omaha, NE 68138-3621 402-444-6222 www.papionrd.org

#### **Description of the Problem**

The existing storm water channel extends east from the current end of 29<sup>th</sup> Street to the Missouri River. The channel conveys the storm water from the adjacent neighborhood to the Missouri River. The invert of the channel is 10 feet wide and paved with concrete. The sides of the channel are grass. A detention basin is located at the east end of the channel prior to the discharge to the Missouri River. The current design of the detention basin does not result in the detention of water at this location. The outfall for the channel is set at the same invert elevation as the channel resulting in storm water quickly exiting the channel without backup of water within the basin. A flap gate is located on the outfall. The outfall pipe is not equipped with a sluice gate.

The channel was designed to be utilitarian in nature appropriate given the low visibility and use of the adjacent agricultural parcels. The concrete-lined channel is meant to move storm water quickly through the area, depositing it into the Missouri River with no treatment provided due to the lack of vegetation within lower portion of the channel. The channel, in its current state, does not add any functional value to the regional storm water system or provide aesthetic significance to the surrounding area.

#### **Proposed Solution**

The goal of the project is to transform the channel from its current paved condition into a natural storm water chain that will improve water quality for the regional storm water system. (An initial concept plan for the chain is attached for reference.) The chain, with a meandering channel, sporadic pools, and wetland vegetation, would not only convey storm water and filter out solids, but it will provide a high degree of aesthetic value and become an amenity for the planned Flatwater Crossing neighborhood and example of innovative storm water solutions for future area developments.

Channel restoration would involve removing the concrete from the base of the channel and regrading the waterway with a meandering alignment. Throughout the length of the new system, pockets of water of varying sizes will be provided to allow solids within the storm water chain to settle out before the water moves on to the next pond in the "chain." In this manner, both water quantity and quality concerns would be addressed as storm water moves from west to east through the system toward outfall into the Missouri River.

The three waterway conditions within the new chain would be wetland pools, secondary ponds, and vegetative channels. Each treatment would involve extensive wetland plantings and storm water BMP features, including gabion check dams and retaining walls. Vegetation would transition from water-tolerant species near the water to more native grasses, forbs, small shrubs, and perennials further up the channel's side slopes. Native ledgestone outcroppings will be utilized at various locations within the native grass swaths to provide areas of topographic relief.

The north and south edges of the channel area will be bounded by one-way streets meant to be paired as the extension of 29th Street into the Flatwater Crossing development. The street-side landscape will be more urban and formal in nature matching the rest of the neighborhood's streetscape aesthetic. The existing trail will be preserved along the entire north side of the channel and connect into the neighborhood's pedestrian network. In addition, an accessible path will run along the chain's entire length, traversing up-and-down the side slopes allowing pedestrians the opportunity to experience the waterway and storm water treatment up-close. The path will transition to a raised boardwalk of durable material at waterway crossings. Interpretive signage will be utilized occasionally along the path as informative markers for pedestrians. The trail and path in tandem will provide an important link for residents both in the new neighborhood and adjacent existing neighborhoods to the west to the Missouri River and the planned greenway trails proposed along the riverfront.

#### SOUTH SIOUX CITY STORM WATER CHANNEL TRANSFORMATION

#### PRELIMINARY OPINION OF PROBABLE PROJECT COSTS March 15, 2017

Item No.	Description	EST QTY	UNIT	UNIT PRICE	TOTAL
Demolition	and Clearing				
1	Mobilization	1	LS	\$20,000.00	\$20,000
2	Clearing and Grubbing	1	LS	15,000.00	\$15,000
3	Remove Concrete	43,000	SF	5.00	\$215,000
		Subtotal I	– Subtotal Demolition and Clearing		\$250,000
		Er	\$25,000		
		Total Demolition and Clearing Costs			\$275,000
Grading					
1	Topsoil Removal/Replacement	45,000	SY	2.50	\$112,500
2	Earthwork	20,000	CY	6.50	\$130,000
3	Topsoil amendment	45,000	SY	2.00	\$90,000
4	Erosion Control	1	LS	10,000.00	\$10,000
5	Gabion Basket Dams	150	CY	60.00	\$9,000
			Subtotal Grading		\$351,500
		Er	Engineering/Design (10%)		\$35,150
			Tota	I Grading Costs	\$386,650
Landscapin	g				
1	Native Grass Seeding	5	AC	2,500.00	\$12,500
2	Wetlands Seeding	4	AC	6,000.00	\$24,000
3 We	Wetlands Plugs	10,000	EA	4.00	\$40,000
			Subtot	al Landscaping	\$76,500
		Er	Engineering/Design (10%)		\$7,650
		Total Land		dscaping Costs	\$84,150
		Sub	Subtotal without Amenities		\$745,800
1	Accessible Concrete Path	9,000	SF	7.00	\$63,000
2	Accessible Stone Path	1,000	SF	8.00	\$8,000
3	Boardwalk	3,000	SF	15.00	\$45,000
4	Overlook Paving	4,000	SF	10.00	\$40,000
5	Pedestrian Bridge	1	LS	80,000.00	\$80,000
6	Retaining Wall	500	SF	18.00	\$9,000
7	Ledgestone	200	SF	20.00	\$4,000
8	Handrails	800	LF	12.00	\$9,600
-			Subtotal Amenities		\$258,600
		Er	Engineering/Design (10%)		\$25,860
			Total A	menities Costs	\$284,460
	Total Opinion of Probable Costs				\$1,030,260





# **KEY SITE OBSERVATIONS**



The site is relatively flat.



The neighborhood should capture views of adjacent iconic structures





Views of the river will require strategic clearing.



The river should be a key site amenity.



The trail on the site is also a key site amenity.







Foundry Road will need to be reconstructed to accommodate urban devlopment and increased traffic.

Existing riverfront trails could also be improved to become key site amenities.

The stormwater facility could also be turned into a key site amenity.

# FLATWATERCROSSING

## 2. 29th Street Stormwater Chain / Floyd Monument Vista

The existing stormwater channel south of the north Ho Chunk parcel was designed to be utilitarian in nature. It is currently an open-air, grass and concrete-lined swale that terminates in the large detention area near the Missouri River. Of note, the 29th Street corridor and stormwater channel are aligned and on axis with the Sergeant Floyd Monument located to the east, across the Missouri River from the site. As Flatwater Crossing develops, the channel should be converted into an amenity for the future development that will front onto it. By removing the concrete from the base of the channel and re-grading the channel into a meandering stormwater chain, it would allow wetlands and pockets of water to be located throughout the length of the channel, where solids within the stormwater would settle out before the water moves on to the next pond in the "chain." In this manner, both water quantity and quality concerns would be addressed as stormwater moves from west to east through the system. In addition, the stormwater chain, 29th Street streetscape, and associated landscaping could provide a nice "frame" for views to the Floyd Monument in the distance. In recent years, funding at the state and local (NRD) levels has been appropriated for these types of "green" solutions.

## 3. 29th Street Phasing

29th Street is designed to be a grand boulevard, with a large median containing the stormwater chain and a grand vista looking east to the Sergeant Floyd Monument. Over time, it will be lined by both mixed-use and apartment buildings. However, it will not be constructed all at once. Initial construction will occur on Ho-Chunk property. Three lanes (two for traffic and one for parking) will be built on the north side of the stormwater chain. This will allow for a through lane in each direction and a parking lane serving the new uses on the north side of the street.

As demand warrants, and the property owner on the south side of the stormwater chain initiates development, three more lanes (one traffic and two parking) will be built on the south side of the stormwater chain. The through lane will be for eastbound traffic. At the same time, the lanes on the north side will be re-striped, to one westbound through lane and two parking lanes. When complete, 29th Street will be a grand boulevard, terminating on the east at Flatwater Commons.










#### i. Missouri River Greenway

The Missouri River is the primary amenity for Flatwater Crossing. With nearly a mile of river frontage, the river is a constant presence on the site. For the most part, the topography of the neighborhood site is relatively flat. As you approach the river, the topography falls towards the river. Here, in the floodplain and woodland habitat, is an entirely different world characterized by dense underbrush, majestic trees, and the sounds of nature. ATV riders have been busy in this area, creating informal pathways through the vegetation. These pathways could be formalized and transformed into an extension of the city's riverfront trail network, providing residents with fantastic views of the river and allowing them to experience nature at its finest. The surface of these new trails could be concrete, crushed limestone, mulch, and/or other natural surface materials. Select underbrush could be cleared out from underneath overstory trees in order to provide a sense of safety, and trees damaged during the floods of 2011 should be removed in order to accentuate certain view corridors. If done correctly, this area could be transformed into an amenity not just for Flatwater Crossing, but for the entire metropolitan area.



## ii. 29th Street Stormwater Chain

As mentioned in the Key Initiatives section, the existing stormwater channel that extends east from the current terminus of 29th Street should be transformed into a stormwater chain. If done correctly, with a meandering channel, sporadic pools, and wetland vegetation, this channel will not only convey stormwater and filter out solids, but it will provide a high degree of aesthetic value and become an amenity upon which the neighborhood will front. Lined with sidewalks and trees and crossed occasionally with bridges, this feature can move beyond the functional realm and become a cherished neighborhood feature. In addition, it also provides a much needed open space link between the homes on the west side of the neighborhood and the Missouri River. Funding for such a transformation should be sought out from the State and Natural Resource District (NRD).



# FLATWATERCROSSING

#### Agenda Item: 12.a.-f.







Inspirational Photos of Stormwater Solutions from Around the Country



Recreation Area Development Program – Application Form

PROJECT NAME: Logemann Park Improvement Project

PROJECT LOCATION: Logemann Park West of North Second St. and Ball Field Complex and North of Bennington Road and Papio Creek (location map attached)

PROJECT SPONSOR: City of Bennington 15514 Warehouse Street PO Box 221 Bennington, NE 68007

CONTACT PERSON: Mindi Laaker City Clerk

TELEPHONE: 1-402-238-2375

E-MAIL: city@bennington.omhcoxmail.com

#### DESCRIPTION OF PROJECT:

Logemann Park is a 12-acre park donated and annexed in February 2017. The park is currently not accessible or ADA compliant. Preliminary plans for the park include an access road, much needed additional parking, two soccer fields, two ball fields, a picnic shelter, storage building and playground area. These improvements will help provide the City of Bennington additional needed recreation space that can be accessed by all citizens.

Attached please find: Preliminary Plans; Property Records; Location Information; 2008 Bennington Parks and Recreation Master Plan prepared by JEO Consulting, Inc. Exhibit 8-9 Focus Group Suggestions Full View Exhibit 8-11 Focus Group Suggestions Zoomed in to City Limits; Estimated Total Costs; and

Comprehensive Plan Reference.

The Implementation Schedule is a 90-day construction timeline once contracts are executed.

TOTAL ESIMATED COST: \$203,950

COST SHARE REQUESTED:

SIGNATURE/TITLE/DATE:

\$50,000 May Bernuth, NE



location map



s and Recreation Master Plan - Appendix

Recreation Development Plan



## Facility Evaluation





# location map

Bennington Parks and Recreation Master Plan

ENGIN	VEER'S CONCEPTUAL OPINION OF PROBABLE COST				<b>10</b>
2017-:	2018 Logemann Park Improvement Project				$\mathbf{O}$
BENN	INGTON, NE		Date Prepared	d:	
JEO P	roject No. 090034.00		March 17, 201	17	
	ESTIM	ATE OF OLIANTITIES		.,	All control of the second
ltem #	# Description	Unit	Quantity	Unit Price	Total
BASE	BID	N	LICENS & CONST		All and a set of the set
1.	Mobilization	LS	1	\$10,600,00	\$10,600
2.	Crushed Rock Surface Course	TONS	215	\$45.00	\$9,680
3.	Excavation, Established Quantity	CY	10,000	\$10.00	\$100,000
4.	Area Inlet with Grate	EA	1	\$2,750.00	\$2,750
5.	18" RCP, Class III	LF	219	\$50.00	\$10,950
6.	18" RCP Flared End Section	EA	2	\$700.00	\$1,400
7.	Clearing and Grubbing	LS	1	\$5,000.00	\$5,000
8.	Remove Tree	EA	13	\$900.00	\$11,700
		Const	ruction Subtota	Base Bid	\$152 100
			Contingenc	y 15%	\$22,900
		Total	Opinion of Con	struction Cost	\$175,000
PROF	ESSIONAL SERVICES	AND DESCRIPTION OF THE OWNER	(allestaria parta		
1.	Design Ser	rvices (Engineering, Surv	ey, Architecture	) 17%	\$25,900
2.		Overhead (L	egal, Fiscal, Etc.	) 2%	\$3.050
				Subtotal	\$28,950
			Total Opinion	of Project Cost	\$202.050

IEO Consulting Group Inc.'s (IEO) Opinions of Probable Cost provided for herein are to be made on the basis of JEO's experience and qualifications and represent JEO's best Judgment. However, since IEO has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, JEO cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from Opinions of Probable Cost prepared by IEO.

A	8	C	D	E	F	G	н		J	ĸ	L	M	N	0	
1	Parks														
2	EXPEND	TURES	Actuals	Actuals	Actuals	Actuals	Actuals	budget	Actuals	4th Qtr	EOY	Budget			
3	Acct #	Account Name	10/11	11/12	12/13	13/14	14/15	15/16	6-30-16	15/16	15/16	16/17			
4 F	PERSONNE	EL.											× 2% Cola		
5	8971	Salaries Full-Time	\$11,954	\$11,350	\$0	\$14,232	\$21,061	\$20,320	\$14,568	\$5,750	\$20,318	\$40,237	5% perfo	rmance	
6	New	OT Salaries for Exempt						\$0	\$0	\$0	\$0	\$4,080	employee	+ new F1	
7	8972	Salaries Part-time	\$6,530	\$10,572	\$20,164	\$16,047	\$14,922	\$12,500	\$6,470	\$7,646	\$14,116	\$14,524	196 10 49	Performance	2
8		Total Salaries	\$18,484	\$21,922	\$20,164	\$30,279	\$35,983	\$32,820	\$21,038	\$13,396	\$34,434	\$58,841	and	renormance	
9	8962	Payroll Taxes	\$1,527	\$1,700	\$1,538	\$2,332	\$2,926	\$2,625	\$1,563	\$1,025	\$2,588	\$4,501	2% Cola	r	1
10	8981	Pension	\$335	\$340	\$0	\$396	\$750	\$750	\$495	\$233	\$728	\$920			
11	8932	Insurance	\$3,712	\$2,446	\$0	\$0	\$3,232	\$4,168	\$3,461	\$1,042	\$4,503	\$4,823			
12		TOTAL PERSONNEL	\$24,058	\$26,408	\$21,702	\$33,007	\$42,891	\$40,363	\$26,557	\$15,696	\$42,253	\$69,085			
14 0	PERATIN	GEXPENSES			ľ						1		Mower-\$4	,800	T
15	8918		\$1.414	\$1.250	\$26 941	\$15 974	\$25.949	\$0	\$2.512	\$0	\$2.512	\$32,800	Rplc Dmp	Trk-\$9000	E
16	8928	Gas and Oil	\$1,829	\$2 316	\$2 308	\$4 249	\$1.673	\$1.250	\$676	\$400	\$1,076	\$1,250	Stump Gr	Inder - \$5800 er-\$2000	F
17	8935	Mileage	\$0	\$0	\$52	\$194	\$101	\$300	\$247	\$100	\$347	\$350	Drainage	rprs in old	
18	8950	Repairs and Maintenance	\$6 165	\$12,970	\$12 220	\$16,730	\$15.801	\$45,000	\$14 969	\$1.333	\$16 302	\$187,000	fire bldg		F
19	8951	Rprs & Mntnce of City Buildings		na	na	\$0	\$74.105	\$0	\$0	\$0	\$0	\$0	Ded Bride	Dom \$110	
20	8954	Restroom Rental	\$4 116	\$4 440	\$5 975	\$2 747	\$4 173	\$4 000	\$2 775	\$1 300	\$4.075	\$4.100	Logeman	Prk Rd \$50,00	ю
21	8978	Supplies	\$2 617	\$3,657	\$1.543	\$4 113	\$2 244	\$3,500	\$1,625	\$1,500	\$3 125	\$3,100	Normal F	&M - 20,000	
22	8980	Telephone	\$264	\$197	\$435	\$688	\$456	\$700	\$535	\$180	\$715	\$813	\$7,000		
23	8982	Utilities	\$2,883	\$5 173	\$4 436	\$3,957	\$2,902	\$6,200	\$3 243	\$1,181	\$4 424	\$4 424	-L		
24	8985	Ballfield Lights	\$1,889	\$1 726	\$1,829	\$1,609	\$1.848	\$2,000	\$1 137	\$379	\$1.516	\$40.616	<	abts on Trail-	
25	8900	Other	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$0	\$0	\$500	\$39,00	0	
26		TOTAL OPERATING EXPENSES	\$21,177	\$31,729	\$55,739	\$50,261	\$129 252	\$63,450	\$27,719	\$6 373	\$34.092	\$274 953			
AT I												1-1.10-0-0			_
28			A 15 005	050 407			A170 (10	<b>6</b> 100.010							
29 30		TOTAL PARK AND REC EXPENSES	\$45,235	\$58,137	\$77,441	\$83,268	\$172,143	\$103,813	\$54,276	\$22,069	\$76,345	\$344,038			
31 F	REVENUES														_
32	ECOE	Miss Back and Streats Bayanya	64.004	e0 200	\$7.900	67.604	67.040	64.000	<b>AE 044</b>	\$4 E75	#7 C10	00.534			_
33	5605	IVIISC Park and Streets Revenue	\$4,664	29,390	\$7,893	\$7,664	\$7,913	\$1,820	\$5,644	\$1,575	\$7,219	\$6,500			_
															_

Agenda Item: 12.a.-f.

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Project name		California Walking Trail						
Project location (	attach lo	ocation map)						
Sponsor organization		City of Blair, Nebraska 218 South 16th Street						
Contact person Title		Al Schoemaker						
		Director of Public Works						
Email addressARS@I		blairnebraska.org	Daytime phone		402-426-4191			

Description of project (attach additional sheets as needed)

Blair is planning on constructing a 10 feet wide by 4800 feet long rock walking trail extending from the east end of Lincoln Trail at the Missouri River north into the California Bend Area.

Total estimated cost

s 26,000

Cost share request  $\$ \frac{13}{2}$ 

\$ 13,000

an Signature

March 7, 2017

Date

Director of Public Works

Title



# Y OF BLA



March 7, 2017

Eric Williams Papio-Missouri River Natural Resources District 8901 South 154<sup>th</sup> Street Omaha, NE 68138-3621

**RE:** Trail Connectors Funding Application

Dear Eric:

Enclosed is a funding application under the Recreation Area Development Program for half the cost of constructing a rock walking trail from the eastern end of the Blair Lincoln Trail at the Missouri River edge north 4800 lineal feet into the California Bend area. The funding request is for materials only as the Blair Public Works staff will construct the walking trail. It is the hope that this is the first of a few phases of this trail to allow the public to walk or bike into the California Bend area enjoying all that the California Bend has to offer including the river and nature in its many forms.

The materials to construct this trail segment is estimated at \$\$26,000. We are planning on placing filter fabric on the graded trail, then place 3 inches of <sup>3</sup>/<sub>4</sub> inch crusher run limestone, and finally place a final 3 inches of limestone chip as the surface of the trail. This will allow for stability of the trail for both maintenance trucks and trail users alike.

Blair looks forward to making this walking trail a reality this summer and would appreciate the PMRNRD consideration in providing half the funding for the necessary materials to construct this trail segment. If there are any questions, please do not hesitate to call me at 402-426-4191.

Sincerely,

Allen Schoemaker **Public Works Director** 





#### PAPIO-MISSOURI RIVER NATURAL NATURAL RESOURCES DISTRICT 8901 S. 154th Street Omaha, NE 68138-3621 402-444-6222 www.papionrd.org

## **Recreation Area Development Program – Application Form**

Project name		Lions Park Improvements							
Project location (attach location map)		ion map)	1541 Park St, Blair, NE 6008 - See attached map						
Sponsor organization		City of Blair							
Sponsor address		218 S 16th St.							
City		Blair		State	NE	ZIP	68008		
Contact person (		CJ Heaton							
Title Assistan		Assistant Sup	perintendent Cen	netery and	l Parks				
Email address Cheaton@blairnebrask		a.org	Daytime phone		402 533 8589				

Description of project (attach additional sheets as needed)

Construct a year-round restroom facility to serve the needs of Lions park, the city trail system, and the depot in the park facility. Please see attached sheets for more informtaion

Total estimated cost

s 180,000.00

Cost share request \$ 50,000.00

<u>Charles</u> Heaton Signature

3/24/17

Date

Asst. Superintendent Cemetery & Parks

Title

#### Lions Park & Bike Trail Restroom Project

Location:	Lions Park 1541 Park Street Blair, NE 68008
Sponsor Organization:	City of Blair
Sponsor Address:	218 S 16 <sup>th</sup> Street Blair, NE 68008
Contact Person:	CJ Heaton – Assistant Superintendent of Cemetery and Parks
Email & Phone:	Cheaton@blairnebrska.org, 402 426 5244

#### **Description of Project:**

The City of Blair has recently completed a Parks and Trails Master Plan. In keeping with the city's slogan, A Promise of Quality, the Parks Department has been working to implement the recommendations from the master plan. One of the most used and a highlight of the parks system is Lions Park, centrally located in Blair Nebraska. Lions Park serves as a hub for the city's bike trail system and hosts many community events throughout the year. In 2013 the city completed restoration of a late 1800's train depot, to be used for community events, as well as space for groups to have meetings, weddings, and gatherings. At that time a new section of trail was completed in the park. In 2016 a new playground was installed at the park increasing the draw and attraction of Lions Park.

The Deerfield-Lions trail connects the park with the Blair Arboretum, and a small wetland project near Arbor Park school. This area has ample opportunity for viewing birds and native vegetation. With a proper restroom facility, the City of Blair can increase the use of our natural resources and conservation efforts by attracting citizens to use the parks and trail system. Lions Park, with a year-round restroom, will serve as the trail head for the city trail system. Future trail projects will connect with trails that run to the Missouri river, and Boyer Chute National Wildlife Refuge, adding to the recreation and conservation benefits of the trail system.

With the increased use and demands on the popular park and trail system, we have outgrown the current seasonal restroom facility. The current facility was determined in the master plan to not meet ADA requirements and does not have heat. Due to the age of the building, it is obsolete and should be replaced. By our Master plan, we are planning the construction of a new, year-round, facility. Not only will the new restroom facility serve the park and the depot during community events, but it will also serve as a central rest stop for our ever-expanding trail system. During the master planning process, it was noted that a lack of restrooms on the trail system was an issue.

Our current estimate for this project is \$180,000.00; we plan to use as many energy efficient options in the new facility as possible. We are seeking \$50,000.00 through the Recreation Area Development Program to help us offset the cost to the city. The new restroom facility will be a year-round facility, with both men's and women's restroom, as well as a family restroom. Initial

work has begun on dirt work at the proposed location, and city staff will install water and sewer lines to the location. The new restrooms will also have the same exterior features as the depot structure, keeping the style in line with the theme of the park.

Thank-you for your time, and consideration of our project. We are looking forward to completing this project and finishing our Lions park improvements.

#### **Estimated Costs:**

City of Blair funds:	\$130,000.00
Recreation Area Development Program funds:	<u>\$50,000.00</u>
Total:	\$180,000.00

#### **Anticipated Implementation Schedule:**

April 25, 2017	City Council approval for bid requests
May 23, 2017	City Council approval of bid
June 12, 2017	Begin construction
September 15, 2017	Finalize project

CJ Heaton

Charles Heaton Assistant Superintendent Cemetery and Parks

Enclosures: Recreation Area Development Program application Lions Park Master Plan Location map Facility drawings Cost breakdown



#### PRELIMINARY OPINION OF PROBABLE COST For LION'S PARK RESTROOM FACILITY 105216 Blair, Nebraska March 23, 2017

Item		<u>Cost</u>
1.	Footings / Slab on Grade	\$ 15,000
2.	Masonry Walls	\$ 40,000
3.	Roof Trusses, Sheathing, Shingles, and Ornamental Brackets	\$ 17,000
4.	Siding to Match Depot	\$ 10,000
5.	Insulation	\$ 8,000
6.	Steel Doors and Frames	\$ 12,000
7.	Toilet Partitions	\$ 10,000
8.	Painting, Finishes	\$ 14,000
9.	Plumbing and Fixtures	\$ 15,000
10.	Furnace and Duct Work, No Air Conditioning	\$ 10,000
11.	Lighting and Power	<u>\$ 12,000</u>
Subte	otal	\$ 163,000
Cont	ingency and Fees	<u>\$ 10,000</u>
Tota	l	\$ 173,000

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#### **Lions Park**

#### **Description:**

Lions Park is a classic neighborhood park with a large number of features. It is located just north of downtown and serves as a community gathering space. A historic railroad depot was relocated to the park's southeast corner, and restored for use by the community. The depot can be rented for public and private events. A large deck surrounds the depot, providing spill-out space from the interior spaces



during nice weather. The deck on the depot's north side is wider and serves as a stage for open-air music performances. Two additional open-air picnic shelters provide covered space for events. Large shade trees create a pleasant "city square" setting. The Deerfield Lions Park Trail begins in the park, extending to Blair's northwest neighborhoods.

The Lions Club of Blair has a long relationship with the City and Lions Park. The club provided funding for use in construction of both open-air picnic shelters. Members have undertaken a number of park improvement projects in both Lions and Ralph Steyer Parks in the past. In recent years, the club has provided cash donations to fund materials purchases for projects undertaken by city parks staff members.

**Park type:** Neighborhood park that serves a site for community-wide events **Size:** 2.65 acres

#### Community Events & Festivals held in Lion's Park:

Gateway to the West Days – Taste of Blair, June Jam & Car Show Blair Community Band concerts Musical events

#### **Constraints:**

Renovation of the depot didn't include a modern restroom because one did not historically exist in the depot. Portable toilets are being used temporarily, to serve the depot until a modern year-round restroom facility can be constructed near the depot.

The park's existing restroom is located in its northeast corner. The restroom lacks heating, so it is only available for use during the warm months of the year. The current restroom does not conform to American with Disabilities space guidelines and cannot be cost-effectively modified to meet them. Due to the building's age, it is functionally obsolete and should be replaced.





The park's playground is immediately north of the depot. This severely limits the space available for audiences to watch performances on the depot's north deck. Due to the playground's close location to the depot, noise from children playing on the equipment detracts from performances.

Five horseshoe pits exist near the park's center. These pits have existed in the park for a long time.

When the Deerfield Lions Parks Trail was extended through the park, it was routed just west of the horseshoe pits. The west-most pit is too close to the bike trail and creates a potential hazard for trail visitors when the pits are in use. A need exists for horseshoe pits in a public park, yet the current location is no longer satisfactory.

The surface slopes on both the accessible parking stalls on Park Street, as well as the access route from the parking stalls to the Lion's Shelter, exceed ADA design guidelines. The most cost effective manner to address this issue is to construct new accessible parking stalls, and lengthen the route between them and the shelter to meet ADA guidelines.

#### **Opportunities:**

Lions Park is an important community gathering space for public events, as well as daily use by nearby neighbors. The park's master plan should leverage existing park features that are important for these community events, while retaining basic park amenities that serve nearby residents.

Thoughtfully changing the locations of a few existing park features will resolve most of the park's existing incompatibilities. Relocating the playground area to the northwest, where the horseshoe pits are now located, will increase audience space for performances and decrease noise issues associated with playground use during performances. This new location places the playground adjacent to the bike trail, providing an excellent pedestrian and bicycle connection to the neighborhoods along the Deerfield Lions Parks Trail.

Space exists just northwest of the depot on the west side of the Deerfield Lions Parks Trail to add a year-round restroom that can serve the entire park. This will eliminate the need for portable restrooms and replace the outdated seasonal restroom in the park's northeast corner. The building will extend into a portion of the rain garden completed as part of the depot restoration project. The garden appears to be oversized, yet a review of the estimated runoff treated by the garden from the depot project and the proposed restroom, should be completed during design of the restroom building.



Two accessible parking stalls could be added east of the existing parking on Park Street to provide accessible parking and an access route that conforms to ADA design guidelines.

A new underground electric service for the Lions and East shelters could be extended north from the ground-mounted transformer serving the depot. By directionally boring this new service line instead of trenching it, damage to the root systems of the park's mature trees could be eliminated.

#### Future Uses at Lions Park:

Continued development within Lions Park should focus on enhancing existing facilities that serve community events while accommodating the needs of nearby residents. The park's playground should be relocated to the approximate location of the horseshoe pits. The area where the playground now exists should be backfilled to grade and seeded to turfgrass, so it can serve as audience space.

A new modern, year-round restroom should be constructed northwest of the depot on the west side of the Deerfield Lions Parks Trail. Once the new restroom is in place, the existing park restroom should be demolished and the parking along Park Street extended east to create 10 new parking stalls. Two of the new parking stalls should be designed and designated



Proposed restroom floor plan

to provide accessible parking for the Lions and East shelters. As part of this project, the accessible curb ramp on the park's northeast corner should be replaced to include a detectable warning strip.

By relocating the playground to the northwest, a large open space will exist for people to watch performances. Where proposed, the new restroom on the park's western edge can easily serve performance patrons with additional portable restrooms placed along the park's eastern or northern edges. The two open-air picnic shelters located north of the depot allows them to be used for support services, like food and drink services, during events or performances.

The reconfigured park will be enhanced to serve large community events while still serving everyday activities.

#### Park Project Cost Summary:

Year-round Restroom	\$233,760
Playground	\$148,924
Picnic Shelter Improvements	\$ 12,282
Expand North Parking Area	\$ 10,507
Pavement Repair & Replacement	<u>\$ 1,120</u>
Subtotal	\$406,593

#### Master Plan Drawing





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### **Recreation Area Development Program – Application Form**



Project name	Sustainable	Sustainable Spaces: Growing Education, Community, and Native Plants						
Project location (attach loc	ation map)	ation map)3101 Florence Blvd Omaha, NE 68110City of Omaha Planning Dept/Housing and Community Development Divis						
Sponsor organization	City of Omal							
Sponsor address	1819 Farnam St. Suite 1111							
City	Omaha	8	State	NE	ZIP	68183		
Contact person	Meridith Dillon		2		5 + 6323			
Title Environment Email address meridith.dillon@cityofor		tal Planner						
		maha.org	Daytime phone		402-444-5150 ext 2067			

Description of project (attach additional sheets as needed)

# Project Description and Budget Attached

Total estimated cost

s 33,210

Cost share request \$ 16,210

March 23, 2017

Date

Signature

Environmental Planner

Title





COST ESTIMATES	Cost per unit		Units	Total cost
Construction				
Tree trimming/removal	\$2,200/day		1	\$2,200
Landscape Desgin				\$2,010
Landscape materials				
ADA Cetified Path				
permeable pavement	Green Life gardens			\$11,500+
Plant materials				
plugs/plants (30%)	average of \$4.16		3,000	\$12,500
Furnishings				
Curzon educational signage & install		\$2,000	2 (36x24 )	\$4,000
Interactive Plant ID Signs (4.75x 3.35)		\$6	Estimated 75	\$450
Plant ID Stakes (12")		\$5	75	\$340
rain collection system		\$200	1	\$200
Total Project Cost				\$33,210

In-Kind and Grant Dollars and Designated Funds

Current Grant Dollars	Greener Towns Nebraska Grant	\$16,000	
Designated Budget Dollars	Keep Omaha Beautiful	\$1,000	
Total Funds Secured		\$17,000	

Requested NRD Recreation Area Grant Dollars	\$16,210

#### **Sustainable Spaces Project Description**

The *Sustainable Spaces: Growing Education, Community, and Native Plants* project is designed to meet a variety of needs and goals of the multiple partners involved. The ultimate desired outcomes of the project are to achieve community betterment and provide environmental education opportunities.

The location of the Sustainable Spaces project is 3101 Florence Boulevard, and is currently owned by the City of Omaha. The City of Omaha has been pursuing options for redevelopment of the site, which was formerly a gas station. Redevelopment options have been limited because of former contamination of soil ten feet or more below the surface of the property (NDEQ Spill No: UG#122492-NM-1400). Although there are no environmental issues that pose a threat to use and/or construction above ground, design and construction of homes would be difficult based on the location of previously contaminated soil.

3101 Florence Blvd is located in the center of the City of Omaha's northern Neighborhood Strategy Revitalization Area (NRSA). The neighborhood has been designated for revitalization based on a number of factors including median income, unemployment rates, and other economic development issues including access to resources. City planners have been searching for another use for the site, and eventually approached Keep Omaha Beautiful about collaborating with neighborhood leaders to convert the lot into a community space, modeling the use of native and pollinator plants in urban areas, and providing environmental education and additional engagement opportunities for nearby schools and residents. The Sustainable Spaces project could play a role in revitalization by providing a space in a distressed community that could be used to increase positive community engagement, opportunities for youth and families to be exposed to STEM concepts, and even potential job skills training in horticulture fields.

The project is focused on community education regarding native plants and stormwater pollution prevention. The project design includes showcasing native grasses of the tall grass prairie and pollinator plants vital to ecosystems that support bees and butterflies. Educational signage will be a centerpiece of the site and help engage residents with environmental education. The long term plan for the management and maintenance of the Sustainable Spaces site after the completion of project includes the City of Omaha granting conditional ownership of the property to Keep Omaha Beautiful. This conditional agreement will be contingent on the upkeep of the site.

The location is within walkable distance from Lothrop elementary and King Science magnet schools which have a concentration in science. The area would be a natural space for kinesthetic learning about native plants and sustainable landscapes. The project site is also located directly in between both E.R. Danner and Kountze Park neighborhoods. The neighborhood associations have been engaged in the planning of the project and believe that the recreation area would be an asset to the community and the growing number of young families who have recently moved into the neighborhood. An important feature of the project, which will help to make the space inclusive for all, will be the installation of an ADA certified permeable pavement path. This will ensure that persons will disabilities, as well as elderly residents or families with strollers can enjoy the community space.

In addition, because the property is currently vacant, it has become a target for litter and illegal dumping. Photos enclosed show tires, bottles, and plastic bags on the site. Research shows that decreasing litter also decreases crime and increases community pride (Branas et. al, 2011). The Sustainable Spaces project allows for local residents to participate in the beautification of their community and potentially increase the health and safety of both the people and environment of their neighborhood.

The Sustainable Spaces project has recently received a grant through the Nebraska Forest Service and Statewide Arboretum Greener Towns Nebraska program. The grant received will cover the cost of the site design and plant

material for the site. Additional funding is still needed for the permeable pavement path, educational signage, and materials for water collection. As part of the Greener Towns Nebraska program, the project group will receive professional design services including site design; however, we do not have the professional design available at the time of the NRD grant deadline. We have included a design created based on discussions between project partners. We would commit to providing a professional design as soon as it is available.

\*Branas, C. C., Cheney, R. A., MacDonald, J. M., Tam, V. W., Jackson, T. D., & Ten Have, T. R. (2011). A Differencein-Differences Analysis of Health, Safety, and Greening Vacant Urban Space. American Journal of Epidemiology, 174(11), 1296–1306. http://doi.org/10.1093/aje/kwr273.

#### **Partnerships and Responsibilities**

Multiple partners from including the city government, public schools, local non-profits, and neighborhood associations will work to engage the local community in the Sustainable Spaces project. Groups already committed to participating in the Sustainable Spaces project include:

- City of Omaha Housing and Community Development Division
- City of Omaha Stormwater Program
- Lothrop Elementary School

- Keep Omaha Beautiful
- The Big Garden
- E.R. Danner and Kountze Park Neighborhood Association

City planners in the Housing and Community Development (HCD) division have been working to create a planned for the City owned property that will benefit the neighborhood. Meridith Dillon, Environmental Planner in HCD connected with Keep Omaha Beautiful and E.R. Danner and Kountze Park neighborhoods with the Sustainable Spaces project idea. HCD is working on the project plan, helping to establish roles for project partners, and will participate in the site development and community engagement.

Keep Omaha Beautiful (KOB) has many roles in the Sustainable Spaces project. KOB is the primary contact for the Greener Towns Nebraska grant and responsible for managing funds, tracking, and reporting details relevant to the grant. Keep Omaha Beautiful will recruit volunteer groups to maintain the site. These volunteers will also have an opportunity to access the educational material and learn more about native plants and stormwater pollution. One of the key pillars of KOB's mission is education. The site will likely be incorporated into KOB's education and outreach to neighborhood schools and neighborhood associations. Once the project is completed, KOB will take ownership of the property and become the responsible party for the project site.

Andy Szatko, of Omaha Stormwater, is currently working on curriculum related to stormwater and native plants that meet state science standards. Andy's goal is to provide teachers with lessons designed to be used outside of a traditional classroom and allow students who have access to areas with stormwater management and/or green infrastructure to utilize the spaces for learning. Pending project approval, Andy would coordinate with Lothrop Magnet School to provide this new curriculum.

E.R. Danner and Kountze Park Neighborhood Association are applying for the 2017 Mayor's Grant to help with signage and marketing engagement events for the Sustainable Spaces project. Neighbors will be encourage to participate in planting days during the construction and development of the site, seed collection workshops annually, and other types of education opportunities hosted by the various project partners.

Students, parents, and administrators at Lothrop Magnet Elementary will be contacted about events regarding the "Community Native Plant Education Project". Justina Tibbs, Lothrop's science magnet coordinator, will encourage teachers and students to use the site at 3101 Florence Blvd as an option for outdoor learning or STEM related curriculum. Ms. Tibbs is already incorporating horticulture and outdoor learning in her science curriculum. The school has a greenhouse on site which can be used to propagate native plants after seed collection events in the fall. Because many of the students at Lothrop live in the neighborhood surrounding the school, the site for the project will also provide an opportunity for students to involve other family members in their learning, by visiting the site.

The Big Garden, a local non-profit generally focused on food security and community garden issues, is currently partnering with Lothrop Elementary to provide summer programming for students. The Big Garden has committed to assist Lothrop with the propagation of native plants at both the school's greenhouse, and their own greenhouse when necessary. The Big Garden will also host the first seed collection workshop for the site in either fall of 2018 depending on the project completion dates and establishment of the native plants.

If grant funding is awarded, KOB will take ownership of the property and become the responsible party for the project site. In addition to managing the grant funds and reporting, Keep Omaha Beautiful (KOB) will recruit volunteer groups to maintain the site. These volunteers will also have an opportunity to access the educational material and learn more about native plants and stormwater pollution. One of the key pillars of KOB's mission is education. The site will likely be incorporated into KOB's education and outreach to neighborhood schools and neighborhood associations. Long term education project would include creating a plant guide and site maintenance best practices guide for the Sustainable Spaces site.

#### PROJECT ACTIVITIES/MILESTONE SCHEDULE

Date	Activity	Responsible Party
Weeks 1-4	Confirm dates for construction of permeable path at project site and	City of Omaha and Keep Omaha
	removal of dead trees and branches from the project site	Beautiful (KOB)
Weeks 1-4	Notify landscape design team of award and solidify project plan for site	City of Omaha and KOB
	and timeline	
Weeks 5-7	Determine how many students/classes will be involved in the project and	Justina Tibbs, Lothrop Elementary School
	for what activities/hours.	Science Magnet Educator
Weeks 7-10	Recruit and create a team of volunteers from Keep Omaha Beautiful	КОВ
	(KOB) database and resources based on need (number of additional	
	volunteers needed will depend on how many participants will be involved	
	from both Lothrop and Neighborhood Associations)	
Weeks 7-10	Confirm plant schedule and availability of plants for project site with	КОВ
	design team	
Week 7	Removal of dead trees and canopy cleaning for remaining trees at site	American Arborist (KOB oversight)
Weeks 9-10	Install of permeable path at site; pending contractor availability	Green Life Gardens (KOB oversight)
Week 18-22	Weather Pending-Install of native grasses and seeding of any pollinators	KOB employees and volunteers, The Big
	for dormant planting	Garden, Omaha Stormwater and HCD,
		Lothrop students, Neighborhood
		Association partners
Week 22-25	Weather pending installation of educational signage at site	Curzon graphics (oversight by KOB and
		Omaha Stormwater)
Weeks 25-35	Creating curriculum for green infrastructure education for Lothrop	Omaha Stormwater Program
	Elementary students	
Weeks 25-35	Confirm planting detail and planning of community events and dates for	KOB, Omaha Stormwater, City of Omaha
	spring grand opening	HCD
Week 42-44	Initial volunteer workshop: planting	KOB, Stormwater Program, The Big
		Garden
Week 44-46	Presentations to Lothrop about water pollution prevention and	Keep Omaha Beautiful
	stormwater (April is stormwater awareness month)	
Weeks 44-46	Weather pending, install of any additional plugs and small containers of	KOB employees and volunteers, The Big
	native/pollinator plants at site.	Garden, City of Omaha Stormwater and
		HCD, Lothrop students, Neighborhood
		Association partners
Week 44-50	Promoting Sustainable Spaces Grand Opening (community event with	KOB employees and volunteers, The Big
	Lothrop students, community partners, neighborhood residents)	Garden, City of Omaha Stormwater and
		HCD, Lothrop students, Neighborhood
		Association partners
Week 48-50	Second volunteer training: sustainable landscape maintenance	KOB and Omaha Stormwater Program
May 2018	Weather and plant establishment pending- Grand Opening of Sustainable	KOB employees and volunteers, The Big
	Spaces project site. Additionally, this event will be used to recruit	Garden, City of Omaha Stormwater and
	additional volunteers for the maintenance of the project site.	HCD, Lothrop students, Neighborhood
		Association partners, Omaha Residents
Summer 2018	Summer school students work on photographs for plant guide for project	The Big Garden, KOB, Lothrop
	site	
Fall 2018	First Annual Fall Seed Collection Event	The Big Garden, KOB, and Lothrop
Spring 2019	First Annual Spring Planting Event	Lothrop, KOB, City of Omaha



Andy Szatko

Omaha, NE 68183

5023 Shannon Drive Papillion, NE 68133 www.greenlifegardens.com (402)593-7651

City of Omaha - Public Works Dept.

1819 Farnam St. Suite 600

# Estimate

#### Date Estimate #

1/9/2017

208114

#### Work Site

City of Omaha - Public Works Dept. Andy Szatko 1819 Farnam St. Suite 600 Omaha, NE 68183

		<u>Prepared by</u>	<u>Project Name</u>
		CSW	Pourous Hardscape
Description	<u>Qty</u>	<u>Rate</u>	<u>Total</u>
Cost options for Permeable Path			
1. Crushed aggregate with a crushed rock base and aluminum edging - \$11 - 13.00 installed.			
2. Porous Pave - \$17-20.00 sf installed.			
3. Pourous Pavers - \$18-22.00 sf installed.			

 Deposit:
 o

 Subtotal
 \$0.00

 Signature
 Date
 Sales Tax (0.0%)
 \$0.00

 Please sign and return one copy with deposit. The balance will be due upon completion
 Total
 \$0.00

**Recreation Area Development Program – Application Form** 

#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 5. 154th Street Omaha, NE 68138-3621 402-444-6222

							402-444-6222 www.papionrd.org	
Project name	FONTENELLE PARK LAGOON FISHING ACCESS							
Project location (attach loc	ation map)	Fontenelle	Park, 4401 Fo	ontenell	e Bouleva	ırd		
Sponsor organization	City of Oma	City of Omaha Parks and Recreation						
Sponsor address	1819 Farnam Street, Ste. 701							
City	Omaha		State	NE	ZIP	6818	3	
Contact person	John Willian	าร						
Title	Park Planne	r II / Landsca	ape Architect					
Email address john.willi	ams@cityofomaha.org		Daytime	Daytime phone		402.444.5943		
See attached								
Total estimated cost	\$		Cost share re	equest	\$	0.00	2 	
John William	~	_	March 23, 2	2017				
Signature			Date					

Park Planner II / Landscape Architect

Title

#### FONTENELLE PARK LAGOON FISHING ACCESS

This project proposes to install fishing access points around the perimeter of the Fontenelle Park lagoon. These access points will enable the public to gain direct access to the water's edge for fishing. These are needed as much of the lagoon perimeter will be vegetated with taller wetland/emergent wetland plantings. When established the shoreline plantings will be three or so feet tall and access so the shoreline will not be easy to see or access. The tall plantings are needed to limit the use of the lagoon by geese.

The fishing access points are constructed of concrete paving areas and are combined with natural stone outcroppings. The concrete fishing pads are approximately 12' x 20' and will provide 'accessible' fishing locations. It is planned that there will be three areas around the lagoon where the fishing areas will be constructed. The attached plan and other drawings provide an illustration on the nature of the fishing areas. The request for funding from the Recreation Area Development Program will be used to pay for 50% of the construction drawing preparation (estimated at \$8,000) and 50% of the construction (estimated at \$70,000). The cost share request is \$39,000.00.

The fishing points will be incorporated into the current CSO project that is currently underway. Storm sewers from upstream areas of Fontenelle Park will be separated and diverted into the lagoon. To accommodate the increase of storm water the lagoon is being enlarged by about 30%. Wetlands and forebay areas will clean the water of sediment and other debris before it enters the main lagoon area. The lagoon itself will be completely renovated and made deeper. Some areas will be as deep as ten feet, which will support fish to a much greater extent. The city received a grant from the NRD for this work as well!

Fontenelle Park has undergone several changes over the past five years. The golf course within the park was closed in 2012 and the area was converted entirely to park open space. At that time, a master plan (included for reference) for the redevelopment of the park was completed and this has served as the road map for making this park a premiere open space area of North Omaha. Since the course closing, the city has removed the perimeter golf course fencing, installed a walking trail that loops around the park, installed a new parking area and picnic shelter (the NRD provided partial funding of the picnic shelter) and partnered with a local artist and Omaha by Design and installed four Native American themed sculptures. All of these improvements were included in the master plan.

Agenda Item: 12.a.-f.



# **EXISTING FONTENELLE PARK**




1 - "



![](_page_110_Picture_1.jpeg)

FONTENELLE PARK CONCEPT PLAN

![](_page_110_Picture_3.jpeg)

![](_page_110_Picture_4.jpeg)

Title

#### **Recreation Area Development Program – Application Form**

Park Planner II

Recreation Area Deven	pmentrog		, in torm			8901 S. 154ti Omaha, NE 6813 402-44 www.papio	a Street 8-3621 4-6222 nrd.org
Project name	Hanscom P	Park Recreation Ir	nproveme	ents - Pha	se 2		
Project location (attach loc	cation map)	32nd and Woo	worth Ave	es.			
Sponsor organization	City of Oma	aha - Parks, Recr	eation and	d Public F	Property		
Sponsor address	1819 Farna	m St., Suite 701					
City	Omaha		State	NE	ZIP	68183	
Contact person	Patrice Slav	/en					

pat.slaven@cityofomaha.org 402-444-3977 Email address Daytime phone

Description of project (attach additional sheets as needed)

Phase 2 of the Hanscom Park Recreation Improvements includes installing pedestrian trails to provide accessibility throughout the park, and upgrading old picnic facilities. continued...

Total estimated cost <u>\$</u> 254,395	Cost share request \$ 50,000
Patrice Slaver	3/15/2017
Signature	Date
Park Planner II	

Title

PAPIO-MISSOURI RIVER

NATURAL RESOURCES

#### Continuation sheet

The specific trails shown on the master plan that are part of the Phase 2 project include the Woolworth Connector Trail, the Hanscom Park Trail, and the 32nd Ave and Center Street Park Entrance Trail. These will provide safe routes through the park where there are very few existing walks, often forcing visitors to walk in the road. These 3 trails were considered to be the top priorities out of 6 possible routes presented to the public.

City funding will come from Park Bonds designated for Hanscom Park in the City's Capital Improvement Program (attached pages pertain to Hanscom Park). Public meetings were held and the park trails were considered to be the highest priority after replacing the old, outdated playground.

Project timeline is to design and bid the project by June 30, 2017 and implement the project by December 31, 2017.

![](_page_113_Picture_1.jpeg)

## 2016 PARK IMPROVEMENTS

## HANSCOM PARK REHABILITATION

![](_page_113_Picture_4.jpeg)

![](_page_113_Picture_5.jpeg)

![](_page_113_Picture_6.jpeg)

MAY 23, 2016

#### **Opinion of Probable Construction Costs**

#### Hanscom Park Rehabilitation - Phase 2 Omaha Department of Parks, Recreation and Public Property

Design Firm: Big Muddy Workshop, Inc.

March 13, 2017

PICNIC AREA IMPROVEMENTS           Remove picnic table & footings         30         EA         \$100.00         \$3,000           Remove picnic table & footings         1         EA         \$75.00         \$3150           Remove cinic table & footings         1         EA         \$150.00         \$150           Remove concrete pavement         300         SY         \$12.00         \$36.00           Disposal of pavement and debris         50         CY         \$15.00         \$1750           Tree protection fencing         450         LF         \$4.00         \$18.00           Silt fencing         160         LF         \$4.00         \$18.00           Suprade preparation for concrete pavement:         \$10.09         \$10.09         \$10.09           Subgrade preparation for concrete pavement         310         SY         \$1.00         \$51.00           Subgrade preparation for concrete pavement         2.100         SF         \$4.50         \$9.450           Si accessible picnic table         4         EA         \$13.50.00         \$13.500           B' accessible picnic table         10         EA         \$13.50.00         \$2.760           Drinking fountain         1         Allow         \$4.00         \$2.760	ITEM	QTY.	UNIT	UNIT COST	ITEM TOTAL
PICNIC AREA IMPROVEMENTS           Remova picinic table & footings         30         EA         \$100.00         \$3,000           Remove picinic table & footings         1         EA         \$75.00         \$150           Remove dinking fountain & footings         1         EA         \$150.00         \$3100           Remove dinking fountain & footings         1         EA         \$150.00         \$3150           Remove dinking fountain & footings         1         EA         \$150.00         \$3160           Disposal of pavement and debis         50         CY         \$15.00         \$31.800           Silt fencing         160         LF         \$4.00         \$18.000           Earthwork & Drainage Improvements:         Stip and stockpile topsoil         510         \$Y         \$1.000         \$11.000           Subgrade preparation for concrete pavement         310         SY         \$3.00         \$930         \$2.20					
Remove princi         abs         form	PICNIC AREA IMPROVEMENTS				
Namove print & footings         50         EA         \$10,000         \$10,000         \$10,000         \$10,000         \$150           Remove drinking fountain & footings         1         EA         \$75,00         \$150         \$150           Remove drinking fountain & footings         1         EA         \$75,00         \$150         \$150           Remove concrete pavement and debris         50         CY         \$15.00         \$750           Tree protection fencing         450         LF         \$4.00         \$640           Silt fencing         160         LF         \$4.00         \$10,090           Earthwork & Drainage Improvements:         \$110,090         \$10,000         \$10,000         \$10,000           Subgrade preparation for concrete pavement         310         SY         \$2.00         \$400           Site Improvements:         Concrete walk pavement         2,100         \$5         \$4.50         \$9,450           8' picin table         4         EA         \$1,350.00         \$53,500         \$2,750           9' picin table         10         EA         \$4,500.00         \$2,750           9' picin table         1         Allow         \$4,000.00         \$4,873           10% Project Contingency <td>Removals &amp; Preparation:</td> <td>30</td> <td></td> <td>\$100.00</td> <td>\$3.000</td>	Removals & Preparation:	30		\$100.00	\$3.000
Network glink in Journian & footings         1         EA         \$15.0.0         \$150           Remove concrete pavement         300         SY         \$12.00         \$3.600           Disposal of pavement and debris         50         CY         \$15.00         \$750           Tree protection fencing         450         LF         \$4.00         \$1.800           Silt fencing         160         LF         \$4.00         \$1800           Earthwork & Drainage Improvements:         510         SY         \$1.00         \$510.00           Strip and stockpile topsoil         510         SY         \$1.00         \$510.00         \$51.00           Supgrade preparation for concrete pavement         310         SY         \$2.00         \$400           Ste Improvements:         Concrete walk pavement         2.100         SF         \$4.50         \$9,450           Barbeque grill wi / footing         5         EA         \$550.00         \$2.750           Drinking fountain         1         Allow         \$4,000.00         \$4.000           Gurgrass seeding fountain         1         Allow         \$4,000.00         \$35.800           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$35.800         \$35.800         \$35.800	Remove arill & footing	50		\$100.00 \$75.00	\$3,000 \$150
Remove concrete pavement         300         SY         \$12.00         \$3,800           Disposal of pavement and debris         50         CY         \$15.00         \$750           Tree protection fencing         450         LF         \$4.00         \$510.00         \$640           Silt fencing         160         LF         \$4.00         \$510.00         \$640           Earthwork & Drainage Improvements:         Strip and stockpile topsoil         510         SY         \$1.00         \$510           Subgrade preparation for concrete pavement         310         SY         \$3.20         \$400           Site Improvements:         Concrete walk pavement         2,100         SF         \$4.50         \$9,450           S'accessible picnic table         4         EA         \$1,350.00         \$5,400         \$2,840           Barbeque grill w/ footing         5         EA         \$550.00         \$2,760         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,840         \$2,00         \$2,000         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2,800         \$2	Remove drinking fountain & footings	2	ΕA	\$150.00	\$150
Disposal of pavement and debris         50         CY         \$15.00         \$750           Tree protection fencing         450         LF         \$4.00         \$640           Silt fencing         160         LF         \$4.00         \$640           Silt fencing         160         LF         \$4.00         \$640           Strip and stockpile topsoil         510         SY         \$11.00         \$11.00           Supgrade preparation for concrete pavement         310         SY         \$2.00         \$400           Ste Improvements:         Concrete walk pavement         2,100         SF         \$4.50         \$9,450           Staccessible picnic table         10         EA         \$1,350.00         \$53,00         \$2,840           Barbeque grill w/ footing         5         EA         \$550.00         \$2,2760         \$2,840           Stirgrass seeding         200         SY         \$2.00         \$4000.00         \$4,000           Barbeque grill w/ footing         5         EA         \$550.00         \$2,750         \$5000         \$2,750           Drinking fountain         1         Allow         \$4,000.00         \$4,000         \$40,000         \$4,000         \$400         \$1,000         \$35,800 <td>Remove concrete pavement</td> <td>300</td> <td>SY</td> <td>\$12.00</td> <td>\$3,600</td>	Remove concrete pavement	300	SY	\$12.00	\$3,600
Tree protection fencing         450         LF         \$4.00         \$1,800           Sitt fencing         160         LF         \$4.00         \$640         \$10,090           Earthwork & Drainage Improvements:         510         SY         \$1.00         \$510         \$Y         \$1.00         \$510           Bough grading         100         CY         \$10.00         \$510.00         \$1000         \$930         \$930         \$930         \$930         \$930         \$1000         \$2,840         \$2,860         \$2,750         \$2,500         \$5500         \$2,500         \$5500         \$2,500         \$5500	Disposal of pavement and debris	50	CY	\$15.00	\$750
Silt fencing         160         LF         \$4.00         \$\$640           Earthwork & Drainage Improvements:         \$\$10,090         \$\$10,090         \$\$10,090           Strip and stockpile topsoil         510         SY         \$\$1.00         \$\$510           Rough grading         100         CY         \$\$10.00         \$\$11,000           Subgrade preparation for concrete pavement         310         SY         \$\$3.00         \$\$930           Site Improvements:         Concrete walk pavement         \$\$2,840         \$\$2,840         \$\$2,840           Site Improvements:         Concrete walk pavement         \$\$2,840         \$\$2,840         \$\$2,840           Barbeque grill w/ footing         5         EA         \$\$13,500         \$\$3,500           Barbeque grill w/ footing         5         EA         \$\$550.00         \$\$2,750           Drinking fountain         1         Allow         \$4,000.00         \$\$4,000           Turfgrass seeding         200         SY         \$\$2.50         \$\$550           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$\$48,730         \$\$48,730           0% Project Contingency         \$\$4,873         \$\$804           Bonds @ 1.5%         \$\$54,407         \$\$54,407           PEDESTRIAN TR	Tree protection fencing	450	LF	\$4.00	\$1,800
Earthwork & Drainage Improvements:         \$10,090           Strip and stockpile topsoil         510         SY         \$1.00         \$510           Rough grading         100         CY         \$10.00         \$100         \$100           Subgrade preparation for concrete pavement         310         SY         \$3.00         \$930           Finish grading         200         SY         \$2.00         \$400           Site Improvements:         Concrete walk pavement         2,100         SF         \$4.50         \$9,450           8' accessible picnic table         4         EA         \$1,350.00         \$5,400           8' accessible picnic table         10         EA         \$1,350.00         \$2,760           Drinking fountain         1         Allow         \$4,000.00         \$4,000           Turfgrass seeding         200         SY         \$1.00         \$200           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$35,800         \$335,800           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$44,000         \$4,407           PEDESTRIAN TRAILS         \$44,073         \$804           Woolworth Connector Trail         Remove asphalt pavement         460         SY         \$8,50         \$3,910	Silt fencing	160	LF	\$4.00	\$640
Earthwork & Drainage Improvements:         510         SY         \$1.00         \$510           Strip and stockpile topsoil         510         SY         \$1.00         \$510           Rough grading         100         CY         \$10.00         \$1,000           Subgrade preparation for concrete pavement         310         SY         \$3.00         \$930           Finish grading         200         SY         \$2.00         \$400           Site Improvements:					\$10,090
Strip and stockpile topsoil         510         SY         \$1.00         \$510           Rough grading         100         CY         \$10.00         \$1,000         \$1000         \$110         \$100         \$1100         <	Earthwork & Drainage Improvements:				. ,
Rough grading         100         CY         \$10.00         \$1,000           Subgrade preparation for concrete pavement         310         SY         \$3.00         \$\$300           Finish grading         200         SY         \$2.00         \$\$400           Site Improvements:         200         SF         \$4.50         \$\$9,450           Concrete walk pavement         2,100         SF         \$\$4.50         \$\$9,450           8' accessible picnic table         4         EA         \$\$1,350.00         \$\$13,500           Barbeque grill w/ footing         5         EA         \$\$550.00         \$\$2,750           Drinking fountain         1         Allow         \$4,000.00         \$\$4,000           Turfgrass seeding         200         SY         \$\$1.00         \$\$200           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$\$48,730         \$\$35,800         \$\$33,800           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$\$48,730         \$\$4,873         \$\$604           Total Picnic Area Construction Costs         \$\$54,407         \$\$48,730         \$\$35,800           PEDESTRIAN TRAILS         \$\$00         \$\$1,550         \$\$1,155         \$\$7         \$\$10.00         \$\$1,550           Strip and slockpile topsoil         1,	Strip and stockpile topsoil	510	SY	\$1.00	\$510
Subgrade preparation for concrete pavement         310         SY         \$3.00         \$9300           Finish grading         200         SY         \$2.00         \$400           Site Improvements:         \$2,840         \$2,840         \$2,840           Site Improvements:         200         SF         \$4.50         \$9,450           8' accessible picnic table         4         EA         \$1,350.00         \$13,500           9' picnic table         10         EA         \$1,350.00         \$13,500           Barbeque grill w/ footing         5         EA         \$550.00         \$2,750           Drinking fountain         1         Allow         \$4,000.00         \$4,000           Turfgrass seeding         200         SY         \$1.00         \$200           Erosion control blanket         200         SY         \$1.00         \$200           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$304         \$304           Total Picnic Area Construction Costs         \$54,407         \$497.30         \$1,155           PEDESTRIAN TRAILS         \$804         \$300         LF         \$4.00         \$2,400           Siti fencing         300         LF         \$4.00         \$2,400	Rough grading	100	CY	\$10.00	\$1,000
Finish grading       200       SY       \$2.00       \$400         Site Improvements:       200       SF       \$4.50       \$2,840         Concrete walk pavement       2,100       SF       \$4.50       \$9,450         8' accessible picnic table       4       EA       \$1,350.00       \$5,400         8' accessible picnic table       10       EA       \$1,350.00       \$2,750         Drinking fountain       1       Allow       \$4,000.00       \$4,000         Turfgrass seeding       200       SY       \$1.00       \$200         Erosion control blanket       200       SY       \$2.50       \$500         SUBTOTAL PICNIC AREA IMPROVEMENTS       \$48,730       \$35,800       \$35,800         SUBTOTAL PICNIC AREA IMPROVEMENTS       \$44,730       \$4,873         Bonds @ 1.5%       \$54,407       \$804       \$804         Total Picnic Area Construction Costs       \$54,407       \$804         PEDESTRIAN TRAILS       \$804       \$804       \$804         Woolworth Connector Trail       Remove asphalt pavement       460       \$Y       \$8.50       \$3,910         Disposal of pavement and debris       77       CY       \$15.00       \$1,1200       \$1,200       \$Y	Subgrade preparation for concrete pavement	310	SY	\$3.00	\$930
Site Improvements:         \$2,840           Concrete walk pavement         2,100         SF         \$4.50         \$9,450           6' accessible picnic table         4         EA         \$1,350.00         \$5,400           8' picnic table         10         EA         \$1,350.00         \$5,400           8' picnic table         10         EA         \$1,350.00         \$2,750           Drinking fountain         1         Allow         \$4,000.00         \$4,000           Turfgrass seeding         200         SY         \$1.00         \$2500           Erosion control blanket         200         SY         \$1.00         \$200           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$35,800         \$35,800           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$3604         \$3500           10% Project Contingency         \$48,730         \$48,730         \$3604           Total Picnic Area Construction Costs         \$54,407         \$804         \$804           Total Picnic Area Construction Costs         \$54,407         \$400         \$2,400           Bits fencing         600         LF         \$4.00         \$2,400           Sitig rading         600         LF         \$4.00 <td>Finish grading</td> <td>200</td> <td>SY</td> <td>\$2.00</td> <td>\$400</td>	Finish grading	200	SY	\$2.00	\$400
Site Improvements:         2,100         SF         \$4.50         \$9,450           8' accessible picnic table         4         EA         \$1,350.00         \$5,400           8' picnic table         10         EA         \$1,350.00         \$2,750           Drinking fountain         1         Allow         \$4,000.00         \$4,000           Turfgrass seeding         200         SY         \$1.00         \$2200           Erosion control blanket         200         SY         \$2.50         \$550.00           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$35,800         \$35,800           Total Picnic Area Construction Costs         \$554,407         \$48,873         \$804           Total Picnic Area Construction Costs         \$54,407         \$15.00         \$1,155				_	\$2,840
Concrete walk pavement         2,100         SF         \$4.50         \$9,450           8' accessible picnic table         4         EA         \$1,350.00         \$5,400           8' picnic table         10         EA         \$1,350.00         \$2,750           Drinking fountain         1         Allow         \$4,000.00         \$4,000           Turfgrass seeding         200         SY         \$1.00         \$200           Erosion control blanket         200         SY         \$1.00         \$200           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$35,800         \$35,800           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$804         \$804           Total Picnic Area Construction Costs         \$54,407         \$804         \$804           Total Picnic Area Construction Costs         \$54,407         \$2.400         \$1,155           PEDESTRIAN TRAILS         \$600         LF         \$4.00         \$2,400           Silt fencing         300         LF         \$4.00         \$1,200           Silt fencing         300         LF         \$4.00         \$1,200           Strip and stockpile topsoil         1,200         SY         \$1.00         \$1,300           Su	Site Improvements:				
8' accessible picnic table       4       EA       \$1,350.00       \$5,400         8' picnic table       10       EA       \$1,350.00       \$13,500         Barbeque grill w/ footing       5       EA       \$550.00       \$2,750         Drinking fountain       1       Allow       \$4,000.00       \$4,000         Turfgrass seeding       200       SY       \$1.00       \$200         Erosion control blanket       200       SY       \$2.50       \$550         SUBTOTAL PICNIC AREA IMPROVEMENTS       \$48,730       \$35,800       \$35,800         SUBTOTAL PICNIC AREA IMPROVEMENTS       \$48,730       \$804       \$804         Total Picnic Area Construction Costs       \$54,407       \$54,407         PEDESTRIAN TRAILS       \$54,407       \$54,407         PEDESTRIAN TRAILS       \$54,407       \$54,407         Pichering       600       LF       \$4.00       \$2,400         Silt fencing       300       LF       \$4.00       \$1,200         Strip and stockpile topsoil       1,200       SY       \$1.00       \$1,200         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY	Concrete walk pavement	2,100	SF	\$4.50	\$9,450
8' picnic table       10       EA       \$1,350.00       \$13,500         Barbeque grill w/ footing       5       EA       \$550.00       \$2,750         Drinking fountain       1       Allow       \$4,000.00       \$4,000         Turfgrass seeding       200       SY       \$1.00       \$200         Erosion control blanket       200       SY       \$1.00       \$35,800         SUBTOTAL PICNIC AREA IMPROVEMENTS       \$48,730       \$48,730         10% Project Contingency       \$48,730       \$48,473         Bonds @ 1.5%       \$804       \$804         Total Picnic Area Construction Costs       \$54,407         PEDESTRIAN TRAILS       \$804         Woolworth Connector Trail       \$600       LF       \$4,00       \$1,150       \$1,155         Tree protection fencing       600       LF       \$4,00       \$2,400         Silt fencing       300       LF       \$4,00       \$1,200         Strip and stockpile topsoil       1,200       SY       \$1,00       \$1,200         Rough grading       35       CY       \$1,00       \$350         Subgrade preparation for concrete pavement       550       SY       \$3,00       \$1,650         Finish gra	8' accessible picnic table	4	EA	\$1,350.00	\$5,400
Barbeque grill w/ footing       5       EA       \$550.00       \$2,750         Drinking fountain       1       Allow       \$4,000.00       \$4,000         Turfgrass seeding       200       SY       \$1.00       \$200         Erosion control blanket       200       SY       \$1.00       \$200         SUBTOTAL PICNIC AREA IMPROVEMENTS       \$48,730       \$48,730         10% Project Contingency       \$4,873       \$804         Total Picnic Area Construction Costs       \$544,077         PEDESTRIAN TRAILS       \$54,407         Woolworth Connector Trail       Remove asphalt pavement       460       SY       \$8.50       \$3,910         Disposal of pavement and debris       77       CY       \$15.00       \$1,155         Tree protection fencing       600       LF       \$4.00       \$2,400         Siti fencing       300       LF       \$4.00       \$1,200         Strip and stockpile topsoil       1,200       SY       \$1.00       \$1,200         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF	8' picnic table	10	EA	\$1,350.00	\$13,500
Drinking fountain         1         Allow         \$4,000.00         \$4,000           Turfgrass seeding         200         SY         \$1.00         \$200           Erosion control blanket         200         SY         \$1.00         \$200           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$35,800         \$35,800           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$44,873           Bonds @ 1.5%         \$44,873         \$804           Total Picnic Area Construction Costs         \$54,407           PEDESTRIAN TRAILS         \$54,407           Woolworth Connector Trail         Remove asphalt pavement         460         SY         \$8.50         \$3,910           Disposal of pavement and debris         77         CY         \$15.00         \$1,155           Tree protection fencing         600         LF         \$4.00         \$2,400           Siti fencing         300         LF         \$4.00         \$1,200           Strip and stockpile topsoil         1,200         SY         \$3.00         \$1,200           Rough grading         35         CY         \$10.00         \$350           Subgrade preparation for concrete pavement         550         SY         \$2.00         \$1,300	Barbeque grill w/ footing	5	EA	\$550.00	\$2,750
Turfgrass seeding         200         SY         \$1.00         \$200           Erosion control blanket         200         SY         \$2.50         \$500           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$48,730           10% Project Contingency         \$4,873           Bonds @ 1.5%         \$804           Total Picnic Area Construction Costs         \$54,407           PEDESTRIAN TRAILS         \$54,407           Woolworth Connector Trail         \$600         LF         \$4.00         \$1,155           Tree protection fencing         600         LF         \$4.00         \$1,200           Silt fencing         300         LF         \$4.00         \$1,200           Strip and stockpile topsoil         1,200         SY         \$100         \$1,200           Rough grading         35         CY         \$10.00         \$350           Subgrade preparation for concrete pavement         550         SY         \$3.00         \$1,650           Finish grading         650         SY         \$2.00         \$1,300         \$4.60           Concrete walk pavement         4,940         SF         \$4.50         \$22,230           Turfgrass seeding         650         SY         \$1.00	Drinking fountain	1	Allow	\$4,000.00	\$4,000
Erosion control blanket         200         SY         \$2.50         \$500           SUBTOTAL PICNIC AREA IMPROVEMENTS         \$48,730         \$4,873           10% Project Contingency         \$4,873           Bonds @ 1.5%         \$804           Total Picnic Area Construction Costs         \$54,407           PEDESTRIAN TRAILS         \$54,407           Woolworth Connector Trail         \$77           Remove asphalt pavement         460         SY         \$8.50           Disposal of pavement and debris         77         CY         \$15.00         \$1,155           Tree protection fencing         600         LF         \$4.00         \$2,400           Silt fencing         300         LF         \$4.00         \$1,200           Strip and stockpile topsoil         1,200         SY         \$1.00         \$1,200           Rough grading         35         CY         \$10.00         \$350           Subgrade preparation for concrete pavement         550         SY         \$2.00         \$1,300           Concrete walk pavement         4,940         SF         \$4.50         \$22,230           Turfgrass seeding         650         SY         \$1,00         \$650           Erosion control blanket	Turfgrass seeding	200	SY	\$1.00	\$200
SUBTOTAL PICNIC AREA IMPROVEMENTS         \$35,800           10% Project Contingency         \$48,730           Bonds @ 1.5%         \$48,730           Total Picnic Area Construction Costs         \$54,407           PEDESTRIAN TRAILS         \$54,407           Woolworth Connector Trail         \$77           Remove asphalt pavement         460         SY         \$8.50           Disposal of pavement and debris         77         CY         \$15.00         \$1,155           Tree protection fencing         600         LF         \$4.00         \$2,400           Silt fencing         300         LF         \$4.00         \$1,200           Strip and stockpile topsoil         1,200         SY         \$1.00         \$1,200           Rough grading         35         CY         \$10.00         \$350           Subgrade preparation for concrete pavement         550         SY         \$2.00         \$1,300           Concrete walk pavement         4,940         SF         \$4.50         \$22,230           Turfgrass seeding         650         SY         \$1.00         \$650           Erosion control blanket         650         SY         \$1.00         \$37,657	Erosion control blanket	200	SY	\$2.50	\$500
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Bonds @ 1.5%\$804State Construction CostsPEDESTRIAN TRAILSWoolworth Connector Trail460SY\$8.50\$3,910Disposal of pavement and debris77CY\$15.00\$1,155Tree protection fencing600LF\$4.00\$2,400Silt fencing300LF\$4.00\$1,200Strip and stockpile topsoil1,200SY\$100\$1,200Rough grading35CY\$10.00\$350Subgrade preparation for concrete pavement550SY\$2.00\$1,300Finish grading650SY\$2.00\$1,300Concrete walk pavement4,940SF\$4.50\$22,230Turfgrass seeding650SY\$2.50\$1,625Erosion control blanket650SY\$2.50\$1,625	10% Project Contingency				\$4 873
Total Picnic Area Construction Costs\$54,407PEDESTRIAN TRAILSWoolworth Connector TrailRemove asphalt pavement460SY\$8.50\$3,910Disposal of pavement and debris77CY\$15.00\$1,155Tree protection fencing600LF\$4.00\$2,400Silt fencing300LF\$4.00\$1,200Strip and stockpile topsoil1,200SY\$1.00\$1,200Rough grading35CY\$10.00\$350Subgrade preparation for concrete pavement550SY\$2.00\$1,300Finish grading650SY\$2.00\$1,300Concrete walk pavement4,940SF\$4.50\$22,230Turfgrass seeding650SY\$1.00\$650Erosion control blanket650SY\$2.50\$1,625	Bonds @ 1.5%				\$804
PEDESTRIAN TRAILS Woolworth Connector TrailRemove asphalt pavement460SY\$8.50\$3,910Disposal of pavement and debris77CY\$15.00\$1,155Tree protection fencing600LF\$4.00\$2,400Silt fencing300LF\$4.00\$1,200Strip and stockpile topsoil1,200SY\$1.00\$1,200Rough grading35CY\$10.00\$350Subgrade preparation for concrete pavement550SY\$3.00\$1,650Finish grading650SY\$2.00\$1,300Concrete walk pavement4,940SF\$4.50\$22,230Turfgrass seeding650SY\$1.00\$650Erosion control blanket650SY\$2.50\$1,625	Total Picnic Area Construction Costs				\$54,407
PEDESTRIAN TRAILS           Woolworth Connector Trail           Remove asphalt pavement         460         SY         \$8.50         \$3,910           Disposal of pavement and debris         77         CY         \$15.00         \$1,155           Tree protection fencing         600         LF         \$4.00         \$2,400           Silt fencing         300         LF         \$4.00         \$1,200           Strip and stockpile topsoil         1,200         SY         \$1.00         \$1,200           Rough grading         35         CY         \$10.00         \$350           Subgrade preparation for concrete pavement         550         SY         \$2.00         \$1,300           Concrete walk pavement         4,940         SF         \$4.50         \$22,230           Turfgrass seeding         650         SY         \$1.00         \$650           Erosion control blanket         650         SY         \$2.50         \$1,625					
Woolworth Connector Trail           Remove asphalt pavement         460         SY         \$8.50         \$3,910           Disposal of pavement and debris         77         CY         \$15.00         \$1,155           Tree protection fencing         600         LF         \$4.00         \$2,400           Silt fencing         300         LF         \$4.00         \$1,200           Strip and stockpile topsoil         1,200         SY         \$1.00         \$1,200           Rough grading         35         CY         \$10.00         \$350           Subgrade preparation for concrete pavement         550         SY         \$3.00         \$1,650           Finish grading         650         SY         \$2.00         \$1,300           Concrete walk pavement         4,940         SF         \$4.50         \$22,230           Turfgrass seeding         650         SY         \$1.00         \$650           Erosion control blanket         650         SY         \$1.00         \$650	PEDESTRIAN TRAILS				
Remove asphalt pavement       460       SY       \$8.50       \$3,910         Disposal of pavement and debris       77       CY       \$15.00       \$1,155         Tree protection fencing       600       LF       \$4.00       \$2,400         Silt fencing       300       LF       \$4.00       \$1,200         Strip and stockpile topsoil       1,200       SY       \$10.00       \$1,200         Rough grading       35       CY       \$10.00       \$350         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$2.50       \$1,625	Woolworth Connector Trail	100	<b>O</b> ) (	<b>*</b> • <b>•</b> •	<b>*</b> ****
Disposal of pavement and debris       77       CY       \$15.00       \$1,155         Tree protection fencing       600       LF       \$4.00       \$2,400         Silt fencing       300       LF       \$4.00       \$1,200         Strip and stockpile topsoil       1,200       SY       \$10.00       \$1,200         Rough grading       35       CY       \$10.00       \$350         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$2.50       \$1,625	Remove asphalt pavement	460	SY	\$8.50	\$3,910
Tree protection fencing       600       LF       \$4.00       \$2,400         Silt fencing       300       LF       \$4.00       \$1,200         Strip and stockpile topsoil       1,200       SY       \$1.00       \$1,200         Rough grading       35       CY       \$10.00       \$350         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$2.50       \$1,625	Disposal of pavement and debris	//	CY	\$15.00	\$1,155
Slit fencing       300       LF       \$4.00       \$1,200         Strip and stockpile topsoil       1,200       SY       \$1.00       \$1,200         Rough grading       35       CY       \$10.00       \$350         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$2.50       \$1,625	I ree protection fencing	600		\$4.00	\$2,400
Strip and stockpile topsoil       1,200       SY       \$1.00       \$1,200         Rough grading       35       CY       \$10.00       \$350         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$2.50       \$1,625	Slit fencing	300		\$4.00	\$1,200
Rough grading       35       CY       \$10.00       \$350         Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$2.50       \$1,625	Strip and stockpile topsoli	1,200	SY	\$1.00	\$1,200
Subgrade preparation for concrete pavement       550       SY       \$3.00       \$1,650         Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$2.50       \$1,625	Rough grading	35	CY	\$10.00	\$35U
Finish grading       650       SY       \$2.00       \$1,300         Concrete walk pavement       4,940       SF       \$4.50       \$22,230         Turfgrass seeding       650       SY       \$1.00       \$650         Erosion control blanket       650       SY       \$1.625		000	SI	\$3.00 \$3.00	\$1,000 ¢1,000
Concrete wark pavement         4,940         SF         \$4.50         \$22,230           Turfgrass seeding         650         SY         \$1.00         \$650           Erosion control blanket         650         SY         \$2,20         \$1,625	Fillish grading Concrete welk nevement	000	51 67	\$2.UU ¢4.E0	\$1,300 ¢aa aao
Erosion control blanket       650       SY       \$1.00       \$650         \$37.670		4,940	or ev	\$4.5U ¢4.00	¢∠∠,∠3U
LIUSION CONTROL DIAINEL 000 ST \$2.00 \$1,020 \$37.670	rungrass seeung Erosion control blanket	000	JI CV	す1.00 まつ EO	0500 ¢1 605
		000	51	φ2.00_	\$37 670

#### **Opinion of Probable Construction Costs**

#### Hanscom Park Rehabilitation - Phase 2 Omaha Department of Parks, Recreation and Public Property

Design Firm: Big Muddy Workshop, Inc.

March 13, 2017

ITEM	QTY.	UNIT	UNIT COST	ITEM TOTAL
Hanscom Park Trail - 32nd & Woolworth to Dog Park				
Sawcut existing pavement	60	LF	\$8.00	\$480
Remove concrete pavement	49	SY	\$12.00	\$588
Remove asphalt pavement	85	SY	\$8.50	\$723
Remove concrete curb & gutter	32	LF	\$8.00	\$256
Disposal of pavement and debris	5	CY	\$15.00	\$75
Remove trees	4	EA	\$600.00	\$2,400
Tree protection fencing	1,000	LF	\$4.00	\$4,000
Strip and stockpile topsoil	1,075	SY	\$1.00	\$1,075
Rough grading	20	CY	\$10.00	\$200
Subgrade preparation for concrete pavement	620	SY	\$3.00	\$1,860
Finish grading	460	SY	\$2.00	\$920
Concrete walk pavement	5,570	SF	\$4.50	\$25,065
Curb ramp w/ detectable warning surface	5	EA	\$750.00	\$3,750
Turfgrass seeding	460	SY	\$1.00	\$460
Erosion control blanket	460	SY	\$2.50	\$1,150
				\$43,002
Hanscom Park Trail - Dog Park to Hanscom Park Pavilion				
Sawcut existing pavement	21	LF	\$8.00	\$168
Remove concrete pavement	9	SY	\$12.00	\$108
Remove concrete curb & gutter	16	LF	\$8.00	\$128
Remove limestone retaining wall	1	Allow	\$1,500.00	\$1,500
Disposal of pavement and debris	5	CY	\$15.00	\$75
Remove trees	3	EA	\$600.00	\$1,800
Tree protection fencing	500	LF	\$4.00	\$2,000
Strip and stockpile topsoil	1,240	SY	\$1.00	\$1,240
Rough grading	25	CY	\$10.00	\$250
Subgrade preparation for concrete pavement	534	SY	\$3.00	\$1,602
Finish grading	706	SY	\$2.00	\$1,412
Concrete walk pavement	4,800	SF	\$4.50	\$21,600
Curb ramp w/ detectable warning surface	2	EA	\$750.00	\$1,500
Turfgrass seeding	706	SY	\$1.00	\$706
Erosion control blanket	706	SY	\$2.50	\$1,765
				\$35,854
32nd & Center Park Entrance Trail	7		¢0.00	¢EG
Sawcul existing pavement	7		φο.00 ¢ο.00	φ50 Φ56
Remove concrete curb & guiler	1		\$0.00 ¢15.00	0C¢
Disposal of pavement and debris	1		\$15.00	\$15 ¢0 400
Remove trees	4	EA	\$600.00	\$2,400
l ree protection tencing	1,000		\$4.00	\$4,000
Slit tencing	670		\$4.00	\$2,680
Strip and stockpile topsoli	2,500	SY	\$1.00	\$2,500
Import topsoli Device gradient	150		\$15.00	\$2,250
Rough grading	350		\$10.00	\$3,500
Subgrade preparation for concrete pavement	//5	SY	\$3.00	\$2,325
⊢inisn grading	1,700	SY	\$2.00	\$3,400

#### **Opinion of Probable Construction Costs**

#### Hanscom Park Rehabilitation - Phase 2

Omaha Department of Parks, Recreation and Public Property

Design Firm: Big Muddy Workshop, Inc.

March 13, 2017

ITEM	QTY.	UNIT	UNIT COST	ITEM TOTAL
Concrete walk pavement	6,120	SF	\$4.50	\$27,540
Curb ramp w/ detectable warning surface	2	EA	\$750.00	\$1,500
8' accessible picnic table	2	EA	\$1,350.00	\$2,700
Turfgrass seeding	1,700	SY	\$1.00	\$1,700
Erosion control blanket	1,700	SY	\$2.50	\$4,250
				\$60,872
SUBTOTAL PEDESTRIAN TRAIL IMPROVEMENTS			<u>_</u>	\$177,507
10% Project Contingency				\$19,526
Bonds @ 1.5%				\$2,955
Total Pedestrian Trail Improvements Construction C	osts			\$199,988

TOTAL PHASE 2 RECREATION IMPROVEMENTS PROJECT COSTS

\$254,395

#### Recreation Area Development Program – Application Form

PAPIO-MIS	Souri River
	NATURAL
	RESOURCES
	DISTRICT
	8901 S. 154th Street Omaha, NE 68138-3621 402-444-6222 www.papionrd.org

Project name	HALLECK PARK ARBORETUM NATURE TRAIL
Project location (attach locatio	I map) HALLECK PARK, PAPILLION, NE.
Sponsor organization	CITY OF PAPILLION
Sponsor address	122 E. 32 ST.
City	PAPILLION State NE ZIP 68046
Contact person	ANTHONY GORMAN
Title	PANKS AND FACILITIES DIRECTOR
Email address	epapillion.org Daytime phone 402-597-2049

Description of project (attach additional sheets as needed)

OUR REQUEST IS TO BUILD A 8' WIDE INTERPETIVE NATURE TRAIL, OUT OF CONCRETE, IN OUR ANGORETUM, FORMALLY RECOGNIZED AS A STATEWIDE ARGINETUM SITE, BY THE NEGRASIKA STATEWIDE ANGORETUM. THIS PROJECT HAS BEEN RECOMMENDED BY ROG CONSULTANTS AND IS CURRENTLY IN THE CITY OF PAPILLION CAPITAL IMPROVEMENTS PROGRAM.

Total estimated cost

\$ 300,000.00

Cost share request \$ \_ 50,000.00

Signature

3/23/2017

Date

FACILITIES DIRECTOR PARKS AND

Title

![](_page_118_Picture_1.jpeg)

#### CITY OF PAPILLION David P. Black, Mayor

Anthony Gowan, Parks & Facilities Director

305 East Lincoln Street Papillion, Nebraska 68046 Office: 402-597-2049 Cell: 402-669-5897 E-Mail: tgowan@papillion.org

March 23, 2017

Papio-Missouri River NRD

Attn: Eric Williams

8901 S. 154<sup>th</sup> Street

Omaha, NE. 68138

Mr. Williams,

Please find attached our application for the installation of a new 8 foot wide, concrete nature trail through our certified Arboretum here in Halleck Park in central Papillion. If approved, we would like to begin construction in spring of 2018, with a completion date no later than early summer of 2018.

As you will see in the attached documents, the Arboretum sits in the heart of Halleck Park here in central Papillion. One of the documents shows that it is a recommended project by the consulting firm RDG in the Parks Papillion Parks Plan, authored back in 2011. You will also note one of the attachments is a page from part of the City Council approved Capital Improvements Program here at the city.

Please let me know if you need any further clarification. This project is an internal trail, not connected to any other trails associated with the NRD trail system.

Respectfully,

Tony Gowan Parks and Facilities Director **Sarpy County Property Information** 

![](_page_119_Picture_2.jpeg)

f# PK-II						Type	Improvement
	-008					Useful Life	50 years
t Name Hallec	k Park Trail Rep	lacement				Category	Park Improvement
						Priority	3 Important
de de la com					Total P	roject Cost:	\$300.000
ription		0				rojeer costi	
ication	of Halleck Park is starti	ing to see signi	ficant deteriora	tion of the six f	oot wide walki	ng trail. Ren	lacing the trail v
ication ery popular area o de concrete trail	of Halleck Park is starti will match those trails	ing to see signi now in place a	ficant deteriora long the Papio	tion of the six f Creek and the F	oot wide walki Halleck Lake ar	ng trail. Rep ea.	lacing the trail v
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ication ery popular area of ide concrete trail Expendi Constructi Funding Federal Fu	of Halleck Park is starti will match those trails tures on/Maintenance Total Sources unds	ing to see signi now in place a '15/'16	ficant deteriora long the Papio '16/'17 '16/'17	tion of the six f Creek and the F '17/'18 300,000 300,000 '17/'18 240,000	oot wide walki Halleck Lake ar '18/'19 '18/'19	ng trail. Rep ea. '19/'20 '19/'20	lacing the trail v <b>Total</b> 300,000 <b>300,000</b> <b>Total</b> 240,000
ication ery popular area of ide concrete trail Expendi Constructi Funding Federal Fo General F	of Halleck Park is starti will match those trails tures on/Maintenance Total Sources unds und	ing to see signi now in place a '15/'16 '15/'16	ficant deteriora long the Papio '16/'17 '16/'17	tion of the six f Creek and the F '17/'18 300,000 300,000 '17/'18 240,000 30,000	oot wide walki Halleck Lake ar '18/'19 '18/'19	ng trail. Rep ea. '19/'20 '19/'20	lacing the trail v Total 300,000 300,000 Total 240,000 30,000
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![](_page_121_Picture_1.jpeg)

#### The Park System: Existing and Future Needs

#### Halleck Park (con't)

Recommendations:

- Phase II of Pond renovations.

- Walkway system, 6 feet wide, 1 mile long.

- General improvements to passive area including picnicking and playground.

- Park entry and edges improvements including internal signage improvements.

- Tree, shrub and grass plantings.
- Improvements to the restrooms.
- Fricke Field Improvements.
- Improvements to main shelter.
- Expansion of the park to 72nd Street.
- Relocation of the maintenance facility.

![](_page_121_Picture_15.jpeg)

Halleck Park

### Recreation Area Development Program – Application Form

Project name	C	Orchard Educ	cation Center				
Project location (a	attach locatic	on map)	South Sioux City	/ Commur	nity Orchar	d (East	17th Street)
Sponsor organiza	tion <u>C</u>	ity of South	Sioux City				
Sponsor address	1	615 1st Avei	nue				
City	, S	South Sioux C	City	State	NE	ZIP	68776
Contact person	G	Gene Maffit					
Title	Р	arks and Re	creation Directo	٢			
Email address gmaffit@southsiouxcity.o		org	Daytime phone		402-494-7540		

Description of project (attach additional sheets as needed)

The City of South Sioux City proposes to build a Community Orchard Educational Center. The facility will include a restroom and serve as an educational center, observatory, and resource center.

Total estimated cost	\$
Signature	h

Cost share request \$ 20,000

23 Date

Rod Koch, Mayor

![](_page_122_Picture_13.jpeg)

#### Map 2-7 South Sioux City - Trails System

Мар

![](_page_123_Figure_3.jpeg)

South Sioux City Trails Master Plan

South Sioux City Comprehensive Plan

Page 58

4.

![](_page_124_Figure_0.jpeg)

FIRST FLOOR PLAN SCALE: 1'=1/2"

![](_page_125_Figure_0.jpeg)

SOUTH ELEVATION SCALE: 1'=1/2"

# SOUTH SIOUX CITY COMMUNITY ORCHARD EDUCATIONAL CENTER

![](_page_126_Picture_1.jpeg)

121 - 1 . 1. 38

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![](_page_127_Picture_2.jpeg)

![](_page_128_Picture_0.jpeg)

![](_page_129_Picture_0.jpeg)

![](_page_129_Picture_1.jpeg)

		Original								2016			
ID	Description	Original	/	Apr			Мау	/			Ju	une	
		Duration	16	23	30	6	13	20	27	4	11	18	25
				Contracts									
10	Contracts	0									Construction	on	
20	Construction Manager (On-Site)	56		Grad	ling & E	Building Perm	nits						
30	Grading & Building Permits	5			Site Wo	ork							
40	Site Work	3			Fine	Grade							
50	Fine Grade	1		·	Filler Filler	ootings							
60	Footings	2			-	Foundatic	on Walls						
70	Foundation Walls	2				Concret	e Slabs						
80	Concrete Slab	2				<b>v</b>	Insta	II CLT Panel	S				
90	Install CLT Panels	8						Install Roof	CLT Pane	ls			
100	Install Roof CLT Panel	3						Roof	ing				
110	Roofing	4	1					<b>V</b>	Exte	rior Finish			
			1 !							line .	1		

**Electrical Final** 

Final Walk-through

Move-in

Cleaning

Project Finish

![](_page_130_Figure_2.jpeg)

ltem	Qty Unit	Qty Unit Cost		Unit Amount		
General Fees						
Gene- Supervisor	2	\$0.00	/mo	\$0.00		
General Requirements	2	\$800.00	/mo	\$1,600.00		
Temporary Toilet	2	\$80.00	/mo	\$160.00		
Temporary Waste	2	\$425.00	/ea	\$850.00		
Final Cleaning Fee	1	\$400.00	-	\$400.00		
TOTAL				\$3,010.00		
Sitework & Construction Labor						
Site Work	1,860.00	\$3.51	/sf	\$6,528.60		
Termite soil treatment	2	95	/ea	\$190.00		
Construction Labor	???		/ea	#VALUE!		
TOTAL				\$6,718.60		
Reinforcing Concrete						
Slab Rebar- #4	8	\$5.31	/20' piece	\$42.48		
Curb Rebar- #4	8	\$5.31	/20' piece	\$42.48		
Footing Rebar- #5	13	\$8.89	/20' piece	\$115.57		
#4 Rebar Ties- J Bar	4	\$5.31	/20' piece	\$21.24		
Wire Mesh	256	\$0.15	/sf	\$38.40		
Concrete- Footings	15.47	\$225.00	/cy	\$3,480.75		
Concrete- Slab on Grade	256	\$3.50	/sf	\$896.00		
Brick Pavers	1,500.00	\$0.00	/brick	\$0.00		
Crushed Concrete/ Gravel	6	\$25.00	.5/cy	\$150.00		
Sand	25	\$30.00	.5/cy	\$750.00		
TOTAL				\$5,536.97		

Structure

CLT Panels	1.00	\$27,000.00	/sf	\$27,000.00
Freight	1	\$3 <i>,</i> 800.00	/item	\$3,800.00
Furring Strips- Ash	139	\$0.00	/8'pc	\$0.00
Furring Strips- Pine 1x2	139	\$0.92	/8'pc	\$127.88
TOTAL				\$30,927.88
Fasteners				
Timberlock 8" Screws	10	\$42.00	/50pc	\$420.00
Siding Screws- Deck Mate -#9 3" star flat head	20	\$23.48	/393pc	\$469.60
Wood Dowels for Pegs	539	\$1.75	/ea	\$943.25
TOTAL				\$1,832.85
Steel Work for Doors				
Rivers Metals: 1x1x15GA Square Tube 24'	3	\$24.96	/24' section	\$74.88
Rivers Metals: 1.5x1x14GA Rect Tube 24'	3	\$65.81	/24' section	\$197.43
.25"x2" Hot Roll Flat 20'	1.35	\$35.99	/20' section	\$48.59
5/8" Cold Roll Bar 20'	0.15	\$26.55	/20' section	\$3.98
Discount	1	(\$48.14)		(\$48.14)
Gas Spring	14	\$35.00	/ea	\$490.00
Hinges	5	\$20.00	/ea	\$100.00
Bolts	14	\$10.00	/ea	\$140.00
Self tapping screws	1	\$10.00	/120 box	\$10.00
steel cable	1	\$30.00	/ea	\$30.00
TOTAL				\$1,046.74
Thermal & Moisture Protection				
Ash Cladding	1,237.00	\$0.00	/sf	\$0.00
TWP 100 Series Clear- 5gal	<sup>132</sup> <b>1</b>	269.96	/ea	\$269.96

TWP 100 Series Clear- 1gal	1	45	/ea	\$45.00
14' Corrugated Galvanized Steel	12	\$20.82	/sheet	\$249.84
Metal Flashing	76	\$7.50	/lf	\$570.00
Tyvek HomeWrap	3	\$62.95	/roll	\$188.85
Amerimax Aluminum Gutter	2	\$12.98	/10' section	\$25.96
Amerimax Aluminum Downspout	2	\$12.56	/10' section	\$25.12
Amerimax Aluminum Downspout Clip	4	\$1.48	/ea	\$5.92
Amerimax Gutter Hanger	10	\$2.14	/ea	\$21.40
Clear Sealant for Exterior Wood	1,237.00	\$0.20	/sf	\$247.40
TOTAL				\$1,649.45
Windows & Doors				
Fakro Manuel Venting Skylight (22.5x37.625)	2	\$481.27	/ea	\$962.54
Fakro Fixed Skylight (22.5x37.625)	2	\$203.10	/ea	\$406.20
Student Built Screen Windows	4	\$20.00	/ea	\$80.00
Venting Skylight Flashing- High Profile	2	\$94.49	/ea	\$188.98
Fixed Skylight Flashing- High Profile	2	\$95.49	/ea	\$190.98
36" door	1	\$40.00	/ea	\$40.00
30" door	1	\$40.00	/ea	\$40.00
TOTAL				\$1,908.70
Electrical				
Designers Edge Weather Tight Industrial Incandescent	9	\$33.97	/ea	\$305.73
150 Watt CFL Bulbs	9	\$6.00	/ea	\$54.00
Electrical Wire	1	\$56.00	/250'	\$56.00
1/2" EMT Conduit	12	\$2.38	/10'	\$28.56
Electrical Labor	1	\$0.00	/hr	\$0.00
TOTAL				\$444.29

Plumbing Material	10	\$5.00	/sf	\$50.00
Glacier Bay Toilet 128 GPF High Efficiency	1	\$189.00	/ea	\$189.00
American Standard Wall Sink 0321026	1	\$50.00	/ea	\$50.00
36 in. x 1-1/2 in. Concealed Screw Grab Bar in Brushed	1	\$25.45	/ea	\$25.45
42 in. x 1-1/2 in. Concealed Screw Grab Bar in Brushed	1	\$32.86	/ea	\$32.86
Glacier Bay 24 in. L x 30 in. W Beveled Wall Mirror	1	\$19.98	/ea	\$19.98
Toilet paper holder	1	\$7.00	/ea	\$7.00
Paper Towel Holder	1	\$20.00	/ea	\$20.00
Plumbing Labor	4	\$65.00	/hr	\$260.00
TOTAL				\$654.29
Hardware				
Door Handles	3	\$20.00	/ea	\$60.00
TOTAL				\$60.00
				<u>.</u>
CONSTRUCTION TOTAL				<b>\$53,789.72</b>
Fees				
Contingency Fee				\$8,068.46
Architect Fee				\$0.00
Engineer Fee				\$0.00
Project Total				\$61,858,18
				ŶŨŦĴŬĴŬ.ŦŬ
Gross SF				512
Cost per SF	133			\$120.82

#### **Recreation Area Development Program – Application Form**

Papio-Mis	SOURI RIVER
	NATURAL
	RESOURCES
	DISTRICT
	8901 S. 154th Street
	402-444-6222
	www.papionrd.org

Project name		City P	ark Cam	per	Pads						
Project location	(attach loca	tion map)	400	W.	Vass	St.	Val	ley,	NE	68064	
Sponsor organiza	ation	City o	f Valle	y							
Sponsor address		203 N.	Spruce	Str	eet	P.O.	Box	682			
Cit	ty	Valley			State	e NE		ZIP	680	64-0682	2
Contact person		Ken Gr	imm								
Title		Public	Works S	uper	cinten	dent				_	
Email address	kgrimm@v	alley.omhc	oxmail.	com	Dayt	ime phoi	ie '	402-3	510-1	1623	

#### Description of project (attach additional sheets as needed)

Install 5 camper pads and power pedestals in city park

to allow overnight camping. Excavate ground and place asphalt

chips for drive and camper pads.

Total estimated cost

\$ 14,450.00

Cost share request \$ 7,225.00

and Imith

3/17/17

Date

Signature

Mayor

Title

![](_page_133_Picture_17.jpeg)

![](_page_134_Picture_2.jpeg)

![](_page_134_Picture_3.jpeg)

Imagery ©2016 Google, Map data ©2016 Google 50 ft

![](_page_134_Picture_5.jpeg)

Location of camper pad site.

Excavation for 5 camper pads Install road and top all with asphalt chips	\$8850.00
Install 200 amp overhead elelctrical service and underground feeders to 5 electrical pedestals	\$5600.00
Electrical permit City of Valley	No charge
TOTAL	\$14,450.00

135

![](_page_135_Picture_2.jpeg)

![](_page_135_Picture_3.jpeg)

Valley, Nebraska Street View - Aug 2007

![](_page_135_Picture_6.jpeg)

Camper pad site View from park entrance road

Agenda Item: 12.af. Delta Electric LLC 872 Little Salt Road	Estimate 1426					
Greenwood, NE 68366 402-250-6270 deltaelectricllc@gmail.com	DATE 10/12/2016	TOTAL \$5,600.00	EXPIRATION DATE 10/12/2016			
ADDRESS City of Valley 203 N. Spruce St P.O. Box 682 Valley, Ne 68064 USA						
Please detach top portion and re	eturn with your payment.					
JOB City park						
ACTIVITY	QTY	RATE	AMOUNT			
Add power in city park for 5 camper pads per discussion with Ken Grimm. 200amp overhead service, underground feeder to pedestal at each pad with a 20a 120v, 30a 120v, and 50a 240v outlets. Includes materials and labor complete						
Electrical & Lighting	1	5,600.00	5,600.00			
	TOTAL		\$5,600.00			
ίλ.			THANK YOU.			

Accepted By

Accepted Date

Agenda Item: 12.af.	1			284			
CITY OF VALLEY			P.O. Bo Valley, N Phone: 402-359- Fax-402-3	x 682         Offi           E 68064         Perm           2251 Ext. 306         □ Cl           59-2610         □ Cl	cial Use On nit Number neck □ Ca	ash □ Cre	dit Card
		]	Business Hours 9	am – 5 pm M-F	ck #0 ]	3 (16	roge
	El	ECTF	RICAL PERM	<b><i>IT APPLICATION</i></b>			
	a or Two Fa	mily Dwe	lling Multi-fa	mily Building	ial / Pupingo	_	
Describe work being done:	Elecs	tric	meter	\$ 5 pedes	als	3	
Address of project	HMD	AL	1/700	Sil			
Address or project	100		Vass	ST.			
Legal Description:	Lot)	l	Subdivision	City Park			
Owner of City of	Jalle	6	.0.				
*Electrical		S (Ac	ldress)	(City, State, Zip	)	(	Phone)
Contractor <u>Delta Elec</u> (Name)	thic s	72 L (Ac	HLSaltRd Idress)	Greenwood NE ( (City, State, Zip	683106 4	102-510	-0702 Phone)
Electrical License Number			Expiration D	ate: loouing A	thority		
* Only a homeowner that reside	s in dwelling	where wor	k is being done is pen	mitted to act as contractor. All othe	r projects requir	e Licensed Ele	ctrician.
Commercial / Multi-Family	Eco ¢	OTV	0 Tatal	Deddardal (D. 1.1)		1	
Number of Branch Circuits	2.75	QII	\$ 10tal	Residential / Remodeling	Fee \$	QTY	\$ Total
1 – 100 Amp	13.00	5	13.15	Garage Square Footage	.03		
101 – 200 Amp	18.00	1	1000	Switches Outlets and Fixtures	.02		_
201 – 300 Amp	30.00	_/	10,00	Ungrade Residential Service	30.00		
301 – 400 Amp	42.00			240 Volt Annaratus	3.00		
401 – 500 Amp	55.00			Residential Swimming Pool	60.00		
501 – 600 Amp	67.00			Residentiat Bwinning 1001	00.00	The optimized sector of the	ALC: NO DE LA COMPANY
601 – 700 Amp	80.00			Temporary Service	15.00		- anitas mine-
701 – 800 Amp	92.00			Miscellaneous	10.00		Any
801 – 900 Amp	105.00			Signs	15.00		
901 – 1000 Amp	117.00			Re-inspection / After Hours	10.00		WORT
Over 1000 each additional 100 Amp	13.00			Electrical Issuance Fee	15.00		15.00
Fire Alarm System	15.00			Total Electrical Permit Fee	15.00	-	15.00
e provisions of the building codes or zoning onstruction to be in compliance with all appli ays from date of issuance or if work has con own on the approved plans. Any changes to other permit application. No permit is refund	ordinances er cable code pro nmenced then o the construct dable if work h	forced by the visions during stopped for r ion plans the as commence	is jurisdiction, state or fee ig field inspections. This nore than 180 days. This it effect area or scope of ed or if work has not cor	ognize that the issuance of this building deral law; and that this permit shall not permit shall become null and void if no s building permit is issued for the expre work shall be approved by the building nmenced and more that 180 days has	g permit shall not g prevent the buildi construction work ss purpose of wor official's prior to o elapsed after issu	grant approval to ng official from has has commence k stated on this a construction and lance date.	violate any of quiring dwithin 180 application and may require
pplicant Name (Print clearly):	USTN	140	Si Si	griature //		Date: 10	5-11-
contact Name (Print clearly):	STA G	CACOC and other c	CA Single	one: 402-510-0707	LFax:	Date:_//O	-3-/6
ontact Name (Print clearly):	iction drawings		CA SI Code compliance issues. TRECI/CP	one: 402-510-0709 8 MAIL. COM	L_Fax:	Date:_/O	<u>-3-76</u>
Applicant Name (Print clearly):	STEN &	eAcoc and other or eacles	CA SI Code compliance issues. CRECI/CR IMR	one: 402-510-0709 8 MAIL. COM	Fax:	Date: //	<u>-3-76</u>

Agenda Item: 12. WIDHELM TRUCKING 621470 ORDER NO. 8427 512 W. Valley Street Valley, NE 68064 H (402) 359-2574 C- (402) 312-4082 Statement TERMS City of Valley **CITY OF VALLEY** 3 N. Spruce Street IN ACCOUNT WITH PO 842 Nebraska 68064-0682 Pads for ilers at Park 8850 00 PRICE AMOUNT se Roa ŕ. 3 as 8850 8850 th aspha 23 57 OCT 1 2 2016 #2321 BY: 46802 001-042-550-0000 CURRENT OVER 30 DAYS OVER 60 DAYS TOTAL AMOUNT 8850 0 adams DC 812 09-10 H. 1h. DALL APPROVED BY

Order not valid unless signed.

![](_page_139_Figure_0.jpeg)

![](_page_140_Picture_1.jpeg)

#### Trails Assistance Program – Application Form

Project name FONTENELLE PARK WALKING PATH								
Project location (attach loca	tion map)	Fontenelle F	Park, 4401 Fo	ontenelle	Boulevar	rd		
Sponsor organization	City of Omah	na Parks and	Recreation		14	÷		
Sponsor address	1819 Farnam Street, Ste. 701							
City	Omaha	1	State	NE	ZIP	68183		
Contact person	John William	S						
Title	Park Planner	r II / Landsca	be Architect					
Email address john.willia	ams@cityofon	naha.org	Daytime	phone	402.4	44.5943		
Description of project (attack See attached	h additional sh	eets as neede	d)					
Total estimated cost	\$ <u>69,000.00</u>		Cost share re March 23, 2	equest	\$ <u>34,500</u>	).00		
Signature	er <b>-</b> - on R	-	Date					

Park Planner II / Landscape Architect

Title

#### FONTENELLE PARK WALKING PATH

This project proposes to install a concrete walkway around the perimeter of the Fontenelle Park lagoon. The walkway will connect to other existing walks that provide access to the lagoon and around the perimeter of the park. Once complete, the walkway around the lagoon will provide a 3,520 lineal foot (2/3 of a mile) walking path around the renovated lagoon. This will be a nice compliment to the existing walking path around the park perimeter that is approximately 1.25 miles.

The proposed walkway will be six foot wide concrete. There are two separate sections of walkway that make up this application. Their combined length is approximately 1,710 lineal feet. The proposed concrete walkway will be incorporated into the CSO project that is currently underway. Already included with the CSO project is a walkway system that will provide access to the lagoon from the existing picnic area and parking lot on the east side of the park. This walkway system also doubles as the maintenance access to key features around the lagoon that will require frequent maintenance. The attached plan provides an illustration on the approximate location for the planned walkway. The request for funding from the Trails Assistant Program will be used to pay for 50% of the construction drawing preparation (estimated at \$7,000) and 50% of the construction (estimated at \$62,000). The cost share request is \$34,500.00

Fontenelle Park has undergone several changes over the past five years. The golf course within the park was closed in 2012 and the area was converted entirely to park open space. At that time, a master plan (included for reference) for the redevelopment of the park was completed and this has served as the road map for making this park a premiere open space area of North Omaha. Since the course closing, the city has removed the perimeter golf course fencing, installed a walking trail that loops around the park, installed a new parking area and picnic shelter (the NRD provided partial funding of the picnic shelter) and partnered with a local artist and Omaha by Design and installed four Native American themed sculptures. All of these improvements were included in the master plan. The walkway around the lagoon is also part of the Park Master Plan.

<u>Summary of the CSO project under way:</u> Storm sewers from upstream areas of Fontenelle Park will be separated and diverted into the lagoon. To accommodate the increase of storm water the lagoon is being enlarged by about 30%. Wetlands and forebay areas will clean the water of sediment and other debris before it enters the main lagoon area. The lagoon itself will be completely renovated and made deeper. Some areas will be as deep as ten feet, which will support fish to a much greater extent. The city received a grant from the NRD for this work as well!

![](_page_142_Picture_1.jpeg)

#### **EXISTING FONTENELLE PARK**

![](_page_143_Picture_1.jpeg)


## FONTENELLE PARK CONCEPT PLAN





#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 5. 154th Street Omaha, NE 68138-3621 402-444-6222 www.papiond.org

### Trails Assistance Program – Application Form

Project name	Turner Blvd	Turner Blvd Trail - Field Club Trail to 36th Street				
Project location (attach location map)		Pacific Street - Field Club Trail to S. 36th Street				
Sponsor organizat	tion Omaha Par	Omaha Parks, Recreation & Public Property Department 1819 Farnam Street, Suite 701				
Sponsor address	1819 Farna					
City	, Omaha		State	NE	ZIP	68183
Contact person Dennis		ennis E. Bryers, FASLA, PLA				
Title Landscape Architect - Park & Recreation Planner						
Email address	dennis.bryers@cityof	omaha.org	_ Daytime phone		402-	444-3798

Description of project (attach additional sheets as needed)

Construction of 0.3 mile section of 8 foot wide, concrete trail from the Field Club Trail to S. 36th Street along the south side of Pacific Street

Total	estimated	cost
1 ocur	countracea	0000

Signature

\$ 167,224.00

Cost share request \$ 83,6

83,612.00

March 24, 2017

Date

Landscape Arch/Park & Rec Planner Title

### **Project Description**

When the original section of the Turner Boulevard Trail was constructed it stopped at the intersection of South 36<sup>th</sup> and Pacific Streets, just three tenths of a mile short of the Field Club Trail to the west. This project would construct the final three tenths of a mile to make that connection. Trail would be constructed on the south side of Pacific Street and follow the grade of the existing street. Trail would be 8 feet wide concrete trail.

With the completion of this three tenths of a mile section there would be a continuous paved trail from the Keystone Trail in the west at Karen Park to Midtown Crossing and Creighton University.

### **Project Schedule**

Intent is to begin construction in the fall of 2017 and wrap up any miscellaneous items in the spring of 2018 if necessary..

#### Preliminary Opinion of Probable Construction Costs Turner Boulevard Trail South 36th Street to Field Club Trail Big Muddy Workshop, Inc.

Date: August 14, 2015

BID ITEM	Qty.	Unit	Unit Cost	Item Total
Mobilization	1	LS	\$10,000.00	\$10,000.00
Tree protection fencing	357	LF	\$3.50	\$1,249.50
Tree armor	2	EA	\$150.00	\$300.00
General clearing and grubbing	1	LS	\$1,000.00	\$1,000.00
Tree and stump removal, 8" dia.	1	EA	\$500.00	\$500.00
Tree and stump removal, 12" dia.	4	EA	\$550.00	\$2,200.00
Tree and stump removal, 24" dia.	3	EA	\$650.00	\$1,950.00
Tree and stump removal, 30" dia.	1	EA	\$850.00	\$850.00
Tree and stump removal, 42" dia.	1	EA	\$1,000.00	\$1,000.00
Stump removal, 12" dia.	1	EA	\$150.00	\$150.00
Relocate street sign	3	EA	\$100.00	\$300.00
Adjust manhole to grade	1	EA	\$250.00	\$250.00
Relocate street light	5	EA	\$1,500.00	\$7,500.00
Relocate guy pole	2	EA	\$750.00	\$1,500.00
Strip & stockpile topsoil	2,960	SY	\$1.25	\$3,700.00
Trail bed grading	985	CY	\$7.00	\$6,895.00
Subgrade preparation	2,960	SY	\$1.50	\$4,440.00
Spread topsoil & finish grade	1,315	SY	\$2.50	\$3,287.50
6" concrete trail	1,366	SY	\$29.00	\$39,614.00
6" imprinted colored concrete	4,950	SF	\$7.00	\$34,650.00
Segmental retaining wall	690	FSF	\$25.00	\$17,250.00
Trail signs	9	EA	\$500.00	\$4,500.00
Extra sign panels	4	EA	\$75.00	\$300.00
Erosion control blanket	1,020	SY	\$2.25	\$2,295.00
Silt fence	1,530	LF	\$3.50	\$5,355.00
Seeding	1,315	SY	\$0.75	\$986.25
SUBTOTAL CONSTRUCTION COSTS				\$152,022
10% Project Contingency				\$15,202
TOTAL CONSTRUCTION COSTS				\$167,224



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TURNER BOULEVARD TRAIL FIELD CLUB TRAIL TO SOUTH 36TH STREET OMAHA, NEBRASKA



#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 S. 154th Street Omaha, NE 68138-3501 402-444-6222 www.papionrd.org

### **Trails Assistance Program – Application Form**

Project name	West Papio	West Papio Trail Relocation in Bent Creek Park					
Project location (at	tach location map)	West Papio Trail at North end of Bent Creek ParkOmaha Parks, Recreation & Public Property Department1819 Farnam Street, Suite 701					
Sponsor organizati	on Omaha Par						
Sponsor address	1819 Farna						
City	Omaha		State	NE	ZIP	68183	
Contact person	Dennis E. B	Bryers, FASLA, I	PLA				
Title	Landscape	Architect - Park & Recreation Planner					
Email address	dennis.bryers@cityofomaha.org		_ Daytime phone		402-444-3798		

Description of project (attach additional sheets as needed)

<u>Creek embankment has eroded to within 5 feet of the trail.</u> Project will relocate a portion of the existing concrete trail moving it farther from the creek embankment.

Total estimated cost \$	37,465.00	Cost share request	\$ 18,732.00
Jenni E. Bar		March 24, 2017	
Signature		Date	

Landscape Arch/Park & Rec Planner Title

## **Project Description**

The embankment to the West Papio Creek just south of Blondo Street has been eroding for some time. It recently has come to within five feet of a portion of the West Papio Trail. Hiring an engineering firm to develop plans to stabilize the embank would take some time and would be expensive. After studying the problem the City has decided that the more prudent thing to do right now is move the trail farther from the embankment. This will buy the City some time to develop an approach to stabilize the embankment, cost lee money at this time and help prevent having to close this portion of the West Paio Trail for an extended period of time as the City had to do further south in Barrington Park.

Preliminary plans call shifting approximately 375 linear feet of 10 foot ide concrete trail to the east. The new section of trail would be six inch thick, poured concrete and be ten feet wide. Another benefit of this relocating of the trail will be a smoother curve transition to the trail as you head north and under the Blondo Street bridge.

### **Project Schedule**

Intent is to begin construction in the late summer of 2017 and wrap up the project before the end of the year.

## **ESTIIMATED COSTS**

Removal of Existing Conc Trail New Conc Trail Drainage Improvements Fine Grading & Seeding ESTIMATED TOTAL COST 3,750 SF x \$1.50/SF = \$5,625.00 3,620 SF x \$7.00/SF = \$25,340.00 Lump Sum = \$5,000.00 Lump Sum = \$1,500.00 = \$37,465.00



### PROPOSED TRAIL RELOCATION WEST PAPIO TRAIL IN BENT CREEK PARK







Looking South from Blondo Street



Close view of trail and eroded embankment.

#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 5. 154th Street Omaha, NE 66138-3621 402-444-6222 www.papiond.org

## **Trails Assistance Program – Application Form**

Project name	Ashford Ho	Ashford Hollow North Trail Improvements					
Project location (attach location map)		Raynor Parkway and 42nd Street, near Bellevue, NE					
Sponsor organiza	tion SID No. 23	SID No. 238 of Sarpy Co. and Sarpy County Public Works Dept					
Sponsor address	15100 S 84	15100 S 84th Street					
City	Papillion		State	NE	ZIP	68046	
Contact person	Patrick M.	Patrick M. Dowse, PE					
Title	Engineerin	Engineering Manager					
Email address pdowse@sarpy.com			Daytime phone		402-	402-537-6917	

Description of project (attach additional sheets as needed)

Project will extend the Marv Holubar Trail extension built in 2014 from the north end of the Bellevue Soccer Complex to Raynor Parkway, and will connect Raynor Parkway to the 48th Street Trail.

Total estimated cost

s 187,500

Cost share request

\$ 93,750

3/24/17

Signature

Date

Engineering Manager

Title





6" P.C.C. TRAIL

5" P.C.C. SIDEWALK

- 1. SECTION SHOWN ON SHEET 2 OF 6 IS TYPICAL FOR RAYNOR PARKWAY WITH SIDEWALK ON NORTH SIDE AND TRAIL ON SOUTH SIDE. 42ND STREET SHALL ONLY HAVE TRAIL ON NORTH/EAST SIDE WITH NO SIDEWALK ON WEST SIDE.
- 2. TRAIL/SIDEWALK ELEVATIONS SHALL BE ADJUSTED AS REQUIRED TO KEEP LIMITS OF GRADING TO WITHIN RIGHT-OF-WAY ON RAYNOR PARKWAY. GRADING LIMITS ON 42ND TO BE KEPT WITHIN
- RIGHT-OF-WAY/EASEMENT/LIMITS OF CONSTRUCTION AS SHOWN. 3. ANY EXISTING MANHOLES ENCOUNTERED SHALL BE ADJUSTED TO GRADE AS REQUIRED (NO PAY ITEM - SUBSIDIARY TO WORK FOR WHICH PAYMENT IS MADE).





thompson, dreessen & dorner, inc. 10836 Old Mill Rd Omaha, NE 68154 p.402.330.8860 www.td2co.com

Project Name

# Ashford Hollow North Sidewalk and Trail Improvements

## Client Name Sanitary and Improvement District No. 238, Sarpy County, Nebraska

Professional Seal



Revision Dates				
No	Description	MM-DD-YY		
2	Modified per Sarpy County Comments	3-14-17		
1	Modified per Sarpy County Comments	12-29-16		

Drawn By: DOH Reviewed By: DEK Job No.: 1920-107

Date: 11-23-16

Sheet Title Paving Plan West

Sheet 4 OF 6

Sheet Number



## LEGEND



5" P.C.C. SIDEWALK

6" P.C.C. TRAIL

NOTES:

- 1. SECTION SHOWN ON SHEET 2 OF 6 IS TYPICAL FOR RAYNOR PARKWAY WITH SIDEWALK ON NORTH SIDE AND TRAIL ON SOUTH SIDE. 42ND STREET SHALL ONLY HAVE TRAIL ON NORTH/EAST SIDE WITH NO SIDEWALK ON WEST SIDE.
- 2. TRAIL/SIDEWALK ELEVATIONS SHALL BE ADJUSTED AS REQUIRED TO KEEP LIMITS OF GRADING TO WITHIN RIGHT-OF-WAY ON RAYNOR PARKWAY. GRADING LIMITS ON 42ND TO BE KEPT WITHIN
- RIGHT-OF-WAY/EASEMENT/LIMITS OF CONSTRUCTION AS SHOWN. 3. ANY EXISTING MANHOLES ENCOUNTERED SHALL BE ADJUSTED TO GRADE AS REQUIRED (NO PAY ITEM SUBSIDIARY TO WORK FOR WHICH PAYMENT IS MADE).



thompson, dreessen & dorner, inc. 10836 Old Mill Rd Omaha, NE 68154 p.402.330.8860 www.td2co.com

# Ashford Hollow North Sidewalk and Trail Improvements



Project Name

Sanitary and Improvement District No. 238, Sarpy County, Nebraska



Rev	ision Dates	
No	. Description	MM-DD-Y
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	an m	
2	Modified per Sarpy County Comments	3-14-17
1	Modified per Sarpy County Comments	12-29-16

Drawn By: DOH Reviewed By: DEK

Job No.: 1920-107 Date: 11-23-16

Sheet Title Paving Plan East

Sheet Number

Sheet 5 OF 6





3/15/2017 9:17 AM DON HEINE H:\1900\1920-107 SID #238 (Ashford Hollow) Raynor Road Trail\Drawings\1920-107 CN.dwg



## XSECTION 2



XSECTION 4

engineering & surveying

thompson, dreessen & dorner, inc. 10836 Old Mill Rd Omaha, NE 68154 p.402.330.8860 www.td2co.com

Project Name

# Ashford Hollow North Sidewalk and Trail Improvements

## Client Name Sanitary and Improvement District No. 238, Sarpy County, Nebraska

Professional Seal



No	. Description	MM-DD-YY
	an m	
	50 M	
2	Modified per Sarpy County Comments	3-14-17
1	Modified per Sarpy County Comments	12-29-16

Job No.: 1920-107

Drawn By: DOH Reviewed By: DEK Date: 11-23-16

Sheet Title Paving Plan 42nd Street

Sheet Number

Sheet 6 OF 6



## Trails Assistance Program – Application Form

Project name	SID 471, Qu	SID 471, Quail Run - 2017 Trail Improvements				
Project location (attach location map)		168th & Fort, Omaha, N	IE			
Sponsor organizatio	n SID 471, Qu	SID 471, Quail Run				
Sponsor address	11440 West	11440 West Center Road				
City	Omaha	State	NE	ZIP	68144	
Contact person	Robert Czer	winski				
Title	Municipal S	Municipal Services Dept. Manager				
Email address bczerwinski@eacg.com		m Daytim	Daytime phone		402.510.1329	

Description of project (attach additional sheets as needed)

To complete the trail system making a more complete trail that will connect to the DS-15A once open to the public. The estimated project completion will be Fall 2017.

Total estimated cost	\$ 800,000.00	Cost share request	\$ 400,000.00
Robert. F. Czerwinski		3/23/2017	
Signature	gnature		
Municipal Services Dept	. Manager		

Title



10909 Mill Valley Road, Suite 100 • Omaha, NE 68154-3950 P 402.895.4700 • F 402.895.3599 www.eacg.com

> File No. \_\_\_\_\_ 2000.166.007 Sheet \_\_\_\_\_ 1 Date: \_\_\_\_\_ 3/23/2017 Estimator: \_\_\_ RFC

#### ENGINEER'S ESTIMATE

#### SID 471, QUAIL RUN - 2017 TRAIL IMPROVEMENTS

BID NO.	ITEM	APPROX. QUANTITIES	UNIT	UNIT PRICE	AMOUNT
1	10' X 6" PCC TRAIL (W/ SUBGRADE PREP)	36,000	SF	5.00	\$180,000.00
2	6' X 5.5" PCC TRAIL (W/ SUBGRADE PREP)	11,100	SF	5.00	\$55,500.00
3	SITE GRADING (AS EMBANKMENT)	2,500	CY	15.00	\$37,500.00
4	CONSTRUCT PEDESTRIAN BRIDGE	1	LS	220,000.00	\$220,000.00
5	HP 10 X 42 PILE	555	LF	30.00	\$16,650.00
6	REMOVABLE BOLLARDS	6	EA	400.00	\$2,400.00
7	ROCK RIPRAP, TYPE "B"	1,565	TON	60.00	\$93,900.00
8	ORNAMENTAL TREES	19	EA	300.00	\$5,700.00
9	SEEDING - TYPE A	2.5	AC	3,500.00	\$8,750.00
10	SOIL CONDITIONING	90	CY	80.00	\$7,200.00
11	INSTALL NORTH AMERICAN GREEN S-75 EROSION CONTROL BLANKET	3000	SY	2.00	\$6,000.00
12	INSTALL SILT FENCE	294	LF	4.50	\$1,323.00

TOTAL CONSTRUCTION COSTS \$ 634,923.00

SOFT COSTS (26%) \$ 165,077.00

TOTAL PROJECT COSTS \$ 800,000.00





Bob Czerwinski 3/27/2017 10:19 AM K:\Projects\2000/166\p00\Park Pkns\2017 Trail Improvemer



## **Trails Assistance Program – Application Form**

Project name	Atokad Trail					
Project location (attach loca	tion map)	Atokad Trailer F	ark area			
Sponsor organization	City of South	Sioux City				
Sponsor address	1615 1st Ave	nue				
City	South Sioux	City	State	NE	ZIP	68776
Contact person	Gene Maffit					
Title	Parks and Re	ecreation Directo	r			
Email addressgmaffit@s	southsiouxcity	org	Daytime p	hone	402-4	94-7540

Description of project (attach additional sheets as needed)

Construction of a 1.85 mile trail. See attached for more detailed project information.

Total estimated cost

s 563,565

Cost share request

\$ 56,356.50

Date

Signature Rod Koch, Mayor Title

#### **Atokad Trail Application**

#### **Project Description**

The City of South Sioux City in partnership with Dakota County, Nebraska seek to construct a 1.85 mile trail that would connect with the existing trail that runs to the High School/Middle School and then onto a number of the elementary schools in the community. The area that this trail will be located is considered a rural location that is partially in the city and partially in the county and would serve a trailer court that is home to a large number of students. The work to be performed would include the construction of a 6" deep, 10' wide pedestrian/bike trail that would travel the entire 1.85 miles. At Atokad Drive a signaled pedestrian crossing would be installed to ensure safe crossing for the students. A fence will be installed along Atokad Drive between the trail and the embankment to provide additional protection for the students and pedestrians utilizing the trail. Additionally, because this area is dark and not well lit, additional lighting will also be installed in the area to provide additional safety for students and pedestrians using the trail. Aside from the initial safety measures, clearing, grubbing and seeding will be included as part of the project, as well as, installation of signs providing direction and location markers for those utilizing the trail.



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CONSTRUCTION COSTS						
ITEM	QUANTITY	UNIT		PRICE		TOTAL
6" Concrete Biketrail (4000'X10')	SY	4500	\$	30.00	\$	135 000 00
Surface Aggregate (100'X10'X0.25')	TON	25	\$	40.00	\$	1 000 00
Embankment (3500'X20'X2.5')	CY	4000	ŝ	10.00	ŝ	40,000,00
Barrier Rail	LF	200	S	65.00	ŝ	13,000,00
Clearing & Grubbing	LS	1	S	10,000,00	\$	10.000.00
Seeding (3500'X12')	Acre	1	\$	4,500.00	Ŝ	4,500.00
Signs	EA	20	\$	300.00	\$	6,000.00
Pedestrian Crossing on Atokad Drive	LS ·	1	\$	20,000.00	\$	20,000.00
Install Light Poles	EA	12	\$	750.00	\$	9,000.00
Install Electric Lines	LF	3500	\$	14.00	\$	49,000.00
Silt Fence	LF	3000	\$	5.50	\$	16,500.00
Retaining wall under bridge	SF	650	\$	30.00	\$	19,500.00
Slope Pretection	SY	250	\$	55.00	\$	13,750.00
Traffic Control	LS	1	\$	6,000.00	\$	6,000.00
Construction Subtotal					\$	343,250.00
Mobilization (8%)					\$	27,460.00
<b>Construction Costs Total</b>					\$	370,710.00
ENGINEERING COSTS						
Preliminary Engineering (30%)					¢	111 213 00
Construction Engineering/Contingency (20%)					e e	74 142 00
NDOR Project Representative Costs					9 6	74, 142.00
Engineering Total Costs					9	192 855 00
Engineering Total Costs					Ψ	192,000.00
TOTAL PROJECT COSTS					\$	563,565.00



S. 1. 2

#### **RESOLUTION 2013-237**

### RESOLUTION AUTHORIZING APPLICATION FOR A NEBRASKA DEPARTMENT OF ROADS GRANT FOR SAFE ROUTES TO SCHOOL PROGRAM.

WHEREAS, the City of South Sioux City, Nebraska, a municipal corporation, is proposing a Nebraska Department of Roads grant application for which it would like to obtain funds for the Safe Routes to Schools Program constructing a trail from the Atokad trailer court and surrounding homes to connect with the middle school/high school and onto the perspective elementary schools; and,

WHEREAS, the City of South Sioux City, Dakota County, Nebraska, a municipal corporation, intends to apply for a grant for said purpose; and,

WHEREAS, the City of South Sioux City, Nebraska, a municipal corporation, understands that it must strictly follow all federal, state and local laws, rules, regulations, policies and guidelines applicable to funding of this project; and,

WHEREAS the City of South Sioux City, Nebraska estimates the cost of said project to be \$1,100,000.00 for which 100% funding is being sought.

NOW THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF SOUTH SIOUX CITY, NEBRASKA:

The Mayor be authorized and directed to sign and proceed with the formulation of any and all contracts, documents or other memoranda between the City of South Sioux City, Dakota County, Nebraska and Safe Routes to Schools Program constructing a trail from the Atokad trailer court and surrounding homes to connect with the middle school/high school and onto the perspective elementary schools.

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PASSED AND APPROVED this 9<sup>th</sup> day of December, 2013.

this All Inter

MAYOR

ATTEST:

ha Jungof, 「山山

#### RESOLUTION

#### SUPPLEMENTAL PROJECT PROGRAM AGREEMENT NO. 1 - BN1409

City of South Sioux City

Resolution No. 2015-74

**Whereas:** City of South Sioux City and Nebraska Department of Roads (NDOR) have previously executed Project Program Agreement BN1409 for a transportation project for which the Local Public Agency (LPA) would like to obtain Federal funds;

**Whereas:** City of South Sioux City understands that it must continue to strictly follow all Federal, State and local laws, rules, regulations, policies and guidelines applicable to the funding of the Federal-aid project; and

**Whereas:** City of South Sioux City and NDOR wish to enter into Supplemental Project Program Agreement No. 1 setting out modifications and/or additional duties and/or funding responsibilities for the Federal-aid project.

Be It Resolved: by the City Council of the City of South Sioux City, Nebraska that:

Rod Koch, Mayor of the City of South Sioux City, Nebraska is hereby authorized to sign the attached Project Program Supplemental Agreement No. 1 between the City of South Sioux City and the NDOR.

City of South Sioux City is committed to providing local funds for the project as required by the Project Program Agreement and any Supplemental Project Program Agreements.

NDOR Project Number: SRTS-22(34)

NDOR Control Number: 32251

Project Location: South Sioux City Atokad Trail

Adopted this _	llth	day of _	May	, 2015 at	South	Sioux	City	Nebraska.
			(Month)					_

The City Council of the City of South Sioux City, Nebraska

Bruce Davis, Jason Bowman, Carol Schuldt, John Sanders,

Dan Bousquet, Oscar Gomez, Dennis Nelson. Absent: Bill McLarty.

Passed and approved on May 11, 2015

Rod Koch, Mayor

Kou Koch, Mayor

Board/Council Member Davis

Moved the adoption of said resolution Member <u>Bowman</u> Seconded the Motion Roll Call: <u>7</u> Yes <u>0</u> No <u>0</u> Abstained <u>1</u> Absent Resolution adopted, signed and billed as adopted

Attest:

you her Signature of City Clerk



Pete Ricketts Governor

## STATE OF NEBRASKA

DEPARTMENT OF ROADS Kyle Schneweis, P.E., Director 1500 Highway 2 • PO Box 94759 • Lincoln NE 68509-4759 Phone (402) 471-4567 • FAX (402) 479-4325 • www.roads.nebraska.gov

Date: July 6, 2015

Gene Maffit City of South Sioux City 1615 1<sup>st</sup> Avenue South Sioux City, NE 68776

RE: South Sioux City Atokad Trail, CN32251; Project No. SRTS-22(34) Supplemental Agreement #1 to the Program Agreement Change project funding allocation

Dear Gene:

Enclosed you will find one fully executed copy of the Supplemental Agreement #1 to the Program Agreement. Please retain this agreement in your project file.

If you have any questions, please do not hesitate to contact me. Thanks!

Sincerely,

Deana Mckinstry

Deana McKinstry Project Coordinator NDOR Local Projects Division Phone: 402-479-3645 Email: deana.mckinstry@nebraska.gov

cc: Project File

Enclosure(s)

#### SUPPLEMENTAL AGREEMENT #1 PROJECT PROGRAM AGREEMENT

CITY OF SOUTH SIOUX CITY NEBRASKA DEPARTMENT OF ROADS PROJECT NO. SRTS-22(34) CONTROL NO. 32251 SOUTH SIOUX CITY ATOKAD TRAIL

THIS SUPPLEMENTAL AGREEMENT is between the City of South Sioux City ("LPA") and Nebraska Department of Roads ("STATE"), collectively referred to as the "Parties".

WHEREAS, LPA and State entered into a project program agreement ("Program Agreement") BN1409 for LPA's Federal Aid Project Number No. SRTS-22(34), and

WHEREAS, the Parties wish to modify the funding responsibilities of the program agreement, and

WHEREAS, LPA has agreed to modify the program agreement as evidenced by the

attached Resolution, identified as Exhibit "A" hereby incorporated by this reference.

**NOW THEREFORE**, in consideration of these facts and mutual promises, the Parties agree as follows:

#### **SECTION 1.**

The Program Agreement provided for the following project funding allocation for all work phases:

Safe Routes to Sc	hool (SRTS)
Federal	Local
100 %	0 %

The project funding allocation of the Program Agreement for all work phases is **superseded** by this Supplemental Agreement. **The project funding allocation for this project is now**:

Transportation Alternatives Program (TAP)FederalLocal80%20%

#### SECTION 2. ENTIRE AGREEMENT

The Original Agreement, any and all other previous supplements thereto, and this Supplemental Agreement, constitute the entire agreement ("The Agreement") between the Parties. The Agreement supersedes any and all other previous communications, representations, or other understandings, either oral or written; all terms and conditions of the

Project No. SRTS-22(34) Control No. 32251

Agreement No. BN1409 Supplement No. 1 Agenda Item: 12.a.-f.

EXECUTED by the LPA this  $11^{th}$  day of  $Maid_{day}$ , 2015.

WITNESS: Sue Murray-Lee CITY OF SOUTH SIOUX CITY Rod Koch

LPA Clerk

EXECUTED by the State this  $\underline{\mathscr{P}}^{\mathscr{R}}$ 

May

wayor

this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 2015.

STATE OF NEBRASKA DEPARTMENT OF ROADS Mick Syslo, P.E.

Materials and Research Division Engineer

Project No. SRTS-22(34) Control No. 32251

Agreement No. BN1409 Supplement No. 1 Agenda Item: 12.a.-f.

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## **Trails Assistance Program – Application Form**

Project name	Tekamah Tiger Trail L	.oop			www.papionid.org
Project location (attach loca	tion map) City of T	Fekamah NE - Me	emorial	Park	
Sponsor organization	City of Tekamah				
Sponsor address	1315 K Street, PO Bo	x 143			
City	Tekamah	State	NE	ZIP	68061
Contact person	Karolyn McElroy, Cit	y Clerk			-
Title	City Clerk				
Email addresstekcity@	tekamah.net	Daytime pł	none	402	.374.2521
Total estimated cost	\$	Cost share requ	uest \$	36,410	
Rondelhass		3-10-17			
Signature		Date			
Mayor, City of Tekamah	9				
Title					
					85- S
			D	MAR	1 5 2017

#### **Project Description:**

The Tiger Trail Loop is 4,400 feet long and will be constructed 10 feet wide of 6 inch concrete. The trail will begin adjacent to the existing parking lot in Memorial Park. The trail will proceed to the west and then south around the edges of the park until it nears the Highway 75 right of way. At this location it will head northerly and pass near the existing historical marker located on Highway 75 to the northern limits of Memorial Park where it will head back to the east and then north to enter the public school property. On the school property the trail will proceed on the west side of the football/track to the northern property line where it will head east and then south along the east property line and re-enter Memorial Park. Once back in the park, the trail will stay outside the northern ball field and turn east between the two fields to tie back into the start at the parking lot.

This trail is part of the recently updated Tekamah Master Trail Plan and will be the first trail constructed within the City of Tekamah. A copy of the master trail plan can be provided upon request of the NRD.

#### **Project Schedule (tentative):**

<u>TASK:</u>	COMPLETED BY:
Execute Agreement with NGPC	April 14, 2017 (estimated)
Complete Engineering RFQ process (includes executing agreement)	May 12, 2017
NEPA Document Approved	August 2017
Design and Permitting (NPDES only permit needed at this time)	October 2017
Complete Easement Agreement with Tekamah Public Schools	October/November 2017
Bidding of Project	December 2017
Award Project	January 2018
Construction of Project	By September 2018

Agenda Item: 12.a.-f.

#### Tiger Trail Loop

CONSTRUCTION COSTS			1-3	141 Sta		ANC IS A
Item	Unit	No. Req'd	1	Unit Cost		Cost
Clearing & Grubbing	Acres	2.5	\$	2,000.00	\$	5,000
Earthwork (Cut & Fill)	Cu. Yd.	900	\$	10.00	\$	9,000
Seeding with mulch	Acres	1.5	\$	3,000.00	\$	4,500
Silt Fence (erosion control)	Lin Ft	100	\$	2.75	\$	275
Erosion Control Matting	Sq Yd	0	\$	2.50	\$	-
Large Tree Removal	Each	1	\$	600.00	\$	600
Detecable Warning Panels	Sq Ft	0	\$	20.00	\$	-
6" Concrete Bikeway- 10 ft wide	Sq Ft	44,000	\$	4.50	\$	198,000
8" Concrete Bikeway- 10 ft wide	Sq Ft	0	\$	5.00	\$	-
Subgrade Preparation	Sq Yd	4,889	\$	1.50	\$	7,333
Area Inlet	Each		\$	3,000.00	\$	-
18" CMP	Lin Ft	60	\$	40.00	\$	2,400
18" Metal FES	Each	4	\$	350.00	\$	1, <b>40</b> 0
Signage (MUTCD)	Each	6	\$	175.00	\$	1,050
Crosswalk Pavement Marking (paint)	Each	0	\$	1,500.00	\$	-
Rock Riprap, Type B	Tons	0	\$	60.00	\$	<u>_</u>
					\$	-
					\$	-
Construction Co	sts Subtotals				\$	229,558
PRIVATE/PUBLIC UTILITY RELOCATION CO:	STS	Constanting in			-	
Light/Power Pole Relocation	Each		\$	1,500.00	\$	-
Utility Pedestal Relocation	Each		\$	500.00	\$	5
Fire Hydrant Relocation	Each		\$	2,500.00	-\$	Ξ.
Adjust Water Valve Box to Grade	Each		\$	250.00	\$	-
Utility Relocatio	n Costs Total				\$	-
Construction & Utilit	ly Costs Subtot	al			\$	229,558
Mobilization	Lump Sum	1		8%	\$	18,365
Construction	Costs Total			6	\$	247,923
ENGINEERING COSTS				andra andra		
Preliminary Engineering	Lump Sum	1		11%	\$	27,272
NEPA Documentation & Wetland Delineation	Lump Sum	1		3%	\$	7,438
Migratory Bird Survey	Each	1	\$	2,500.00	\$	2,500
Construction Engineering	Lump Sum	1		10%	\$	24,792
Engineering and Construction Advertisements	Lump Sum	1	\$	500.00	\$	500
Contingency	Lump Sum	1		5%	\$	12,396
Engineering (	Costs Total				\$	74,898
Total Project Costs (Construction+U	Itility Relocatio	n+Engineerii	ng (	Costs)	\$	322,821
Force Account Work					1.40	
					\$	-
TOTAL FORCE AC	COUNT WORK				\$	-
FUNDING SOURCES (6)		100000000000	200		1	S. 17
Force Account Work	0%		120	a la solution	¢	
Dontaione	0%				é	-
Panio Missouri NRD	11 2%				é	36 410
City of Tekemeh	11.3/0				é	36 410
	77 4%	Maximum	of ¶	250 000	ŝ	250.000
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#### Notes:

This Project Cost Estimate was reviewed by Julie Ogden of JEO Consulting Group. This review was completed to compare project estimated costs against comparable project bid costs and to review bid items to verify that all required items are included in estimate.

Qs ( Jzl

Julie Ogden, PE Project Engineer



## Lake Dredging Program – Application Form

Lake Dredging Program – Application Fo	orm		8901 S. 154th Street Omaha, NE 68138-3621 402-444-6222 www.papionrd.org
Project name			
Project location (attach location map)			
Sponsor organization			
Sponsor address			
City	State	ZIP _	
Contact person			
Title			
Email address	Daytime phone		
Original capacity of lake/basin	Ac-ft		
Proposed excavation amount	Ac-ft		
Total estimated cost \$	Cost share request	\$	
Signature	Date		

Title

**PAPIO-MISSOURI RIVER** 

NATURAL RESOURCES DISTRICT

#### Description of the Project

The Hanscom Park Lagoon Improvements project is associated with the Hanscom Park Green Infrastructure (OPW 52456) Combined Sewer Overflow (CSO) Program Project (Project). The Project is located in a City of Omaha (City) public park and is an important community resource and amenity that will provide regional green infrastructure, water quality benefits, and flood control in the Leavenworth watershed, which ultimately drains to the Jones (CSO 121) and Leavenworth (CSO 109) outfalls. The purpose of this application is to request Lake Dredging Program grant funds from the Papio-Missouri River Natural Resources District to provide enhanced urban fishery habitat in the lagoon, which the CSO Program cannot fund. For the Project location please see the attached location map.

The Project is one of several Green Infrastructure pilot projects voluntarily being implemented by the City to complement other projects required in the City's CSO Long Term Control Plan (LTCP). The Green Infrastructure pilot projects are not required explicitly by the LTCP, and the City will determine whether to implement these projects based on several factors, including if the Green Infrastructure projects contribute to the reduction of CSO volumes and/or frequencies and can be constructed within the overall CSO Program budget.

This Project will help achieve the goals of downstream CSO projects required in the LTCP as part of an overall plan that includes sewer separation elsewhere in the sewer system and infrastructure improvements to lift stations, force mains, and wastewater treatment capacity downstream of the Project. The main goals of the overall plan include reduction of the wet weather inflow to the combined sewers to help reduce combined sewer overflows to the Missouri River. Design of pre-treatment components of the Hanscom Park Green Infrastructure Project upstream of the approximately 1.3 acre Hanscom Park lagoon were based on improving water quality and providing flood storage to infiltrate and attenuate the incoming stormwater inflows while maintaining the recreational opportunities and user experience of the lagoon. Reducing the peak stormwater flows leaving the lagoon will help increase the capacity and effectiveness of existing and proposed infrastructure downstream of the park.

The overall Hanscom Park Green Infrastructure Project includes conveying separated stormwater from previous non-CSO Program sewer separation projects and small additional areas adjacent to the park separated as part of this Project, pre-treatment features within the park to capture trash and sediment prior to getting to the lagoon, a new lagoon outlet structure, an extended walking trail, wetland, bioretention and infiltration features, and improved water quality in the lagoon - all funded by the CSO Program. The new outlet structure in the lagoon will attenuate and reduce the peak flows being conveyed downstream to existing combined sewers without changing the appearance of the existing lagoon to the public. The existing lagoon has a limestone rock perimeter used by anglers for access to the water (see photos below).

Throughout the design of the CSO Project the City's Public Works, CSO Program Management Team, and the Project design team have coordinated with the City's Parks, Recreation, and Public Property Department and the surrounding neighborhood organizations (through the recently-completed community-based master plan) to assure that the functions and aesthetics of the park are maintained or enhanced. The Parks Department and the neighborhood goals were to enhance the lagoon function, maintain the current aesthetics of the lagoon, and provide for an improved urban fishery. Greater lagoon depths achieved through additional dredging will provide enhanced urban fisheries habitat for park users to benefit from while fishing at the lagoon. However, this dredging cannot be funded by the

1

CSO Program because it is not necessary to achieve the CSO project goals. Grant funds requested with this application would be applied to costs associated with providing these greater lagoon depths.

The attached grading plan is conceptual in nature and has been provided to demonstrate rough quantities. The final grading plan will be designed to achieve the target percentages below, as recommended by the Nebraska Game and Parks Commission (NGPC) to provide adequate depth for fish stocking purposes.

- · Less than 25% of the lagoon will be less than 4-ft deep
- At least 50% of the lagoon will be at least 8-ft deep
- · At least 25% of the lagoon will be at least 12-ft deep

In addition, the final lagoon bottom contours will be designed to provide underwater trenches and terraces for fish habitat. Final grading design will be coordinated with NGPC staff to ensure good fish habitat.

#### Additional Information

The last time the lagoon was dredged was about twenty-three years ago in 1994, and at that time the intent was to deepen the water from about 3 feet to about 6 feet. The design that was constructed at that time had a three feet deep area along the rock perimeter (about 20% of lake footprint) that acted as a safety shelf before deepening to about 7 to 8 feet maximum depths (about 80% of lake footprint).

The intent in 1994 was that the lagoon would support a "put and take" fishery, which means fish need to be stocked in the pond on a regular basis to maintain a fishery and no natural reproduction occurs in the pond. By deepening the lagoon, this would create a pond in which fish could survive the cold of winter and the heat of summer. The greater water volume also makes it possible to have some natural reproduction take place in the pond. Therefore, grant funds are being requested to remove sediment accumulated since 1994 and further increase the water depth to help support a year-round fishery.

With funding from the NRD grant, the Project can include excavation of approximately 7,440 cubic yards of solids from the deeper parts of the existing lagoon footprint, leaving the three foot deep shallow water depth along the rock perimeter for safety. Disposal of excavated material will be per City's Department of Public Works' standards.

Increasing the depth of the lagoon by removing accumulated sediment, increasing the flushing rate by adding separated storm flows to the lagoon, and enhancing the trash and sediment capture from the upstream watershed with the Green Infrastructure best management practices (BMPs) will improve the lagoon's water quality, success as an urban fishery, and benefit downstream sewer infrastructure. In addition, removal of existing sediment and capture of suspended solids upstream through trash screens and sedimentation BMPS will reduce the nutrient loading and algae growth in the lagoon. Calculations demonstrating the anticipated improvement to impaired water quality are attached. A draft maintenance plan for the entire Project is available on request.

### Papio-Missouri River Natural Resources District – Lake Dredging Grant Hanscom Park Lake Dredging



Hanscom Park Lagoon, Existing Conditions



Debris, trash, and algae in Hanscom Park Lagoon



Existing Outlet Structure, east end of lagoon



Existing rock ledge along Hanscom Park Lagoon




#### Papio-Missouri River Natural Resources District – Lake Dredging Grant Hanscom Park Lake Dredging Water Quality Improvement Calculations

The green infrastructure (GI) on the west side of Hanscom Park provides pretreatment to the lagoon, which is popular as an urban fishery. While the Project intends to create more volume and use the lagoon as the last leg in the stormwater treatment train, most all pollutants of concern will be greatly reduced by the time the water reaches the lagoon. There are two facilities that precede the lagoon. After going through a hydrodynamic separator which primarily removes gross solids and trash, the stormwater flow enters a hybrid bioretention and dry detention basin with an overall storage volume of about 336,000 gallons. This GI stormwater practice is estimated to provide the water quality benefits shown in Table 1.

GI Stormwater Practice Type	Metals (lb/yr)				N	Sediment (lb/yr)			
	Total Copper	Total Lead	Total Zinc	Nitrate [NO3]	Total Kjeldahl Nitrogen [TKN]	Total Nitrogen	Dissolved Phosphorus	Total Phosphorus	Total Suspended Solids [TSS]
Hybrid Dry Detention / Bioretention	1.6	2.2	8.9	14.3	47.8	57.8	2.2	13.9	3679

 Table 1: Water Quality Benefits for the Hybrid Dry Detention / Bioretention stormwater treatment system.

The next treatment train is a bioretention and gravel wetland system that receives flow from the internal park road and the effluent from the upstream hybrid system. This stormwater practice has a treatment capacity of about 275,000 gallons. The estimated water quality benefits for this system are shown in Table 2.

	Metals (lb/yr)				N	Sediment (lb/yr)			
GI Stormwater Practice Type	Total Copper	Total Lead	Total Zinc	Nitrate [NO3]	Total Kjeldahl Nitrogen [TKN]	Total Nitrogen	Dissolved Phosphorus	Total Phosphorus	Total Suspended Solids [TSS]
Hybrid Gravel Wetland / Bioretention	1.2	1.7	6.5	5.2	22.7	27.0	2.0	8.8	2190

Together, these pretreatment systems are expected to remove approximately 5,870 pounds of sediment per year as well as provide substantial reductions in nutrients (phosphorous and nitrogen species) that can lead to algal blooms, as well as several metals species, which can be harmful to fish. These pretreatment systems will help to improve water quality within the lagoon providing improved ecosystem benefits and sustainability making this urban fishery a more valuable public resource.

#### Hanscom Park Lake Dredging Chlorophyll A Concentration Reduction calculations

Bp Phosporus Potential Chlorophyll A concen	tion p <sup>1.37</sup> /4.88		Comments
p = phosphorus concentration, mg/m3	Existing Conditions 100	Proposed Conditions 100	Assumed as no water quality data collected. Assume simlar to Fontenelle
Bp (mg/m <sup>3</sup> )	112.6	112.6	
Fs Summary Flushing Rate = Inflow/Volume	Existing Conditions	Proposed Conditions	

			1 ac ft is assumed as inflow since only existing
			flow is local runoff. Based on the drainage report,
			the inflow from pipe 201 into the lagoon is 13.5
Inflow (ac-ft)	1	16.8	CFS
			From Hydraulic report lagoon is 0.5 MG and
Volume (ac-ft)	1.5	2.0	dredging will increase it by 30 % to 0.65 MG
FS (year <sup>-1</sup> )	0.65	8.41	

G	(Kinetic Factor Used in	Chlorophyll A Mode	el) = 7mix (0 19+0 0042	Fs)
0		child opinyil A mouc	(0, 1) = 21111X (0, 1) + 0.00 + 2	

	Existing Conditions	Proposed Conditions	
Zmix, (m)	1	2	Assumed consistent with Fontenelle
FS (year <sup>-1</sup> )	0.65	8.41	
G	0.19	0.45	

B (Chlorophyll a Concentration)			
	Existing	Proposed	
	Conditions	Conditions	
CB Calibration Factor	1	1	Assumed consistent with Fontenelle
Bp (mg/m <sup>3</sup> )	112.6	112.6	
G	0.193	0.451	
a - nonalgal Turbidity (m <sup>-1</sup> )	0.61	0.61	Assumed consistent with Fontenelle
B (mg/m <sup>3</sup> )	65.3	38.9	

Existing Lagoon	65.3
Proposed Lagoon	38.9
% Reduction =	40%

# Hanscom Park Lake Dredging Opinion of Probable Costs

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
EXCAVATION ON-SITE	7440	СҮ	\$4	\$29,760
EXCAVATION HAUL-OFF	7440	СҮ	\$12	\$89,280
DEWATERING	1	LS	\$25,000	\$25,000
SUBTOTAL				\$144,040
20% CONTINGENCY				\$28,808
15% ENGINEERING				\$25,927
TOTAL				\$198,775

#### PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT 8901 S. 154th Street Omaha, NE 68138-3621 402-444-6222 www.papionrd.org

## Lake Dredging Program – Application Form

Project name		Woods - 2017 Lake Dredging							
Project location (attach location map)			186th Ave & Van Camp Drive						
Sponsor organiza	tion	SID 439, West Bay Woods							
Sponsor address	_	11440 West Center Road							
City	y .	Omaha		State	NE	ZIP	68144		
Contact person		Robert F. Cz	erwinski						
Title		Municipal Se	rvices Dept. M	anager					
Email address	bzerwinski	i@eacg.com		Davtime r	ohone	402.5	510.1329		
				, , , , , , , , , , , , , , , , , , ,					
See attache	ed sheef	t							
Original capacity of	of lake/basii	n 7.6		Ac-ft					
Proposed excavat	ion amount	nt <u>2.8</u>		Ac-ft					
Total estimated cost \$ 147,000.0		3	) (	Cost share red	quest	\$ 50,000	.00		
Robert F. Czerwinski				3/15/2017					
Signature			D	Date					
Municipal Service	es Dept. Ma	anager							

Title

#### 2017 LAKE DREDGING PLAN, WEST BAY WOODS - NARRATIVE

#### <u>Overview</u>

SID 439, (West Bay Woods) desires to clean out the Water Quality Basin, a permanent detention facility, located just upstream from Zorinsky Lake, before SID 439 is annexed by the City of Omaha. Many areas of the basin are nearly full of accumulated silt. The project, originally constructed in 1998 was partially dredged in 2011. At that time 10,000 C.Y. of silt was planned to be remove but only 4,320 C.Y. of silt was removed to fill an adjacent temporary silt basin and \$30,600.00 or 50% of construction costs were reimbursed by the NRD.

The SID desires to clean out the remaining silt by hydraulic dredging. Bid plans attached.

#### **Cost Estimate and Allocation**

Maximum NRD cost share is \$100,000.00. In 2011, SID 439 was reimbursed \$30,600.00

SID 439 is requesting \$50,000.00 to complete dredging of water quality basin to help protect Zorinsky Lake.

SID 439 is requesting a reimbursement of \$50,000 or approximately 34% of construction costs. Bid tab attached.

#### Schedule

The intent is to commence work in May 2017 or as soon as water temperature allows.

#### Bid Tabulations SID: 439 Subdivision: West Bay Woods Project Type: 2017 Lake Dredging

Bid Date: 2/14/17 E&A Project No. P1998.023.012 Engineer's Est: \$267,550.00 Page 1 of 1

				Drvin Associates LLC dba Sediment Removal Solution PO Box 23129 Dearborn, MI 48123		Blade Masters PO Box 167 Bennington, NE 68007		Masters ox 167 n, NE 68007			
Bid Item	Description	Quantity	Unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1	1.5' OF SEDIMENT REMOVAL (30' PERIMETER)	102,150	SF	1.05	107,257.50*	0.85	86,827.50				
2	1.5' OF SEDIMENT REMOVAL (SW END)	19,600	SF	1.05	20,580.00	0.85	16,660.00				
3	SEDIMENT TUBES (60' X 100')	3	EA	5,170.00	15,510.00	46,570.00	139,710.00				
4	SEDIMENT TUBES (60' X 50')	1	EA	3,390.00	3,390.00	24,220.00	24,220.00				
	TOTAL BASE BID (ITEMS 1-04, INCLUSIVE)				\$146,737.50**		\$267,417.50				

\* Corrected Extension \*\*Corrected Total Base Bid

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# WEST BAY WOODS 2017 LAKE DREDGING

## APPROXIMATE BID QUANTITIES

ITEM	DESCRIPTION	QUANTITY	UNIT
1	1.5' OF SEDIMENT REMOVAL (30' PERIMETER, ESTABLISHED QUANTITY)	102150	SF
2	1.5' OF SEDIMENT REMOVAL (SW END, ESTABLISHED QUANTITY)	19600	SF
3	SEDIMENT TUBES (60' X 100')	3	EA
4	SEDIMENT TUBES (60' X 50')	1	EA



S. & I. D. 439 DOUGLAS COUNTY, NEBRASKA



Site Location

## GENERAL NOTES

- aforementioned specifications.





## GENERAL NOTES

- 1. All OPERATORS/CONTRACTORS must confirm with the APPLICANT that any and all applicable governmental approvals have been received prior to the start of work.
- 2. BMP's may not be removed without INSPECTOR and applicable government approval.
- The APPLICANT, INSPECTOR, and CONTRACTORS/OPERATORS must adhere to all Good 3. Housekeeping BMP's presented within the Omaha Regional Stormwater Design Manual Chapter 9 Section 9.6. Good Housekeeping BMP's focus on keeping the work site clean and orderly while handling materials and waste in a manner that eliminates the potential for pollutant runoff. Good Housekeeping BMP's such as Sanitary Waste Management (9.6.2), Solid Waste Management (9.6.3), Material Delivery & Storage (9.6.4), Street Cleaning/Sweeping (9.6.5), and Vehicle & Equipment Fueling (9.6.6) must be addressed when applicable. The aforementioned publications can be found at http://www.omahastormwater.org.
- The SWPPP documents (e.g., NDEQ-NPDES, SWPPP-SM, SWPPP-N, etc.) are essential and a 4. requirement in one part is as binding as though occurring in all. The SWPPP documents are complementary. The documents describe and provide the complete SWPPP. The APPLICANT, INSPECTOR, and/or CONTRACTORS/OPERATORS may not take advantage of any apparent SWPPP errors or omissions. The INSPECTOR shall notify the APPLICANT, DESIGNER, and CONTRACTORS/OPERATORS promptly of any omissions or errors. The APPLICANT shall instruct the DESIGNER to make any corrections necessary to fulfill the overall intent of the SWPPP Documents (e.g., Grading Permit Modification Form). In the case of a discrepancy between parts of the SWPPP documents, the most stringent requirement shall rule.
- Contractor shall limit land disturbance to only those areas where dredging operations are current. 5. Contractor shall stabilize disturbed areas with temporary or permanent seeding within 14 days of no further disturbances or operations.

### STANDARD DETAILS

NUMBER	NAME	LOCATION
9.5.2	Construction Entrance	Omaha Regional Stormwater Design Manual
9.5.7	Temporary Diversion Dike	Omaha Regional Stormwater Design Manual
9.5.16	Dust Control	Omaha Regional Stormwater Design Manual
9.5.20	Permanent Seeding	Omaha Regional Stormwater Design Manual
9.6.2	Sanitary Waste Management	Omaha Regional Stormwater Design Manual
9.6.3	Solid Waste Management	Omaha Regional Stormwater Design Manual
9.6.4	Material Delivery And Storage	Omaha Regional Stormwater Design Manual
9.6.5	Street Cleaning/Sweeping	Omaha Regional Stormwater Design Manual
9.6.6	Vehicle And Equipment Fueling	Omaha Regional Stormwater Design Manual
9.6.7	SWPPP Notification Sign	Omaha Regional Stormwater Design Manual

The Omaha Regional Stormwater Design Manual can be found at: http://www.omahastormwater.org

## ACTIVITY

Install all BMP's needed and associated Prior to any stripping of existing vegetation with the Grading Phase construction entrances diversions, terraces, etc (BY OTHERS)

Proceed with sediment disturbing no more than

Implement the installat Seeding. (BY OTHERS

Proceed with removal of (BY OTHERS)

# **CONSTRUCTION ACTIVITIES & SCHEDULING**

## SCHEDULE

se such as stabilized s, silt fence, tcetera.	grading or dredging.
t removal while an is necessary.	After Installing all BMP's needed and associated with the Sediment Removal Phase. Furthermore, INSPECTOR approval must be obtained before the start of any sediment removal.
tion of Permanent S)	Stabilization measures must be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.
of BMP's.	BMP's may not be removed until each all Sediment has been removed and site restored and fully developed. Full development shall mean installation of landscaping, and fully established permanent seeding. Furthermore, INSPECTOR approval must be obtained before the removal of any BMP's.

# **(NO) GRADING & EROSION CONTROL (BY OTHERS)**

CONST	<b>RUCT STONE CONSTRUCTION ENTRANCE -</b> See Figur
CE 1	Construct Stone Construction Entrance
CONST	RUCT TEMPORARY DIVERSION - See Figures 9.5.8 & 9.
D 1	Diversion, 230 LF
D 2	Diversion, 370 LF
CONST	RUCT SILT FENCE - See Detail, Maximum of 100 Ft. Leng
SF 1	Silt Fence, 650 LF

SF 2 Install Rock Check or Double Lines of Silt Fence within 10' of Waterline of Lake





#### Flood Mitigation Assistance Program – Application Form

Project name	Elk City Dra	inage Improvem	ents	منفر وغرار ومراجعه الافار والرابعي ومراجعها		
Project location (a	attach location map)	Vicinity of 225t	h and Elk	City Drive		
Sponsor organiza	tion Douglas Co	ounty	er erse den sider stalestate false som enne e	ata mang gana mana mang aman anya anya sajar sajar		
Sponsor address	1819 Farna	m St., Ste. LC-2				
City	y Omaha		State	NE	ZIP	68183
Contact person	Dan Kutilek					
Title	Engineering	and Planning M	anager		12	
Email address	dan.kutilek@douglasc	county-ne.gov	Daytime	phone	402-4	44-6460

Description of problem (attach additional sheets as needed)

The vicinity of 225th and Elk City Drive experienced substantial localized flooding in 2016; in some cases requiring 225th St., ap primary road between Highways 36 and 64, to be closed at times.

Proposed solution (attach additional sheets as needed)

EA Engineering, retained by the County, has proposed several potential concepts to improve the drainage. The County is currently reviewing those concepts (attached).

Total estimated cost	\$ <u>126,854</u>	Cost share request \$ <u>\$63,427</u>	
Gade	US P.E.	3/23/2017	
Signature		Date	
ENER. MAN	AGER		
Title			

17 March 2017

Dan Kutilek Engineering and Planning Manager Douglas County Engineer's Office 15505 West Maple Road Omaha, Ne 68116-5173

#### RE: Elk City Drainage Improvements Project Conceptual Design Memo

EA Engineering, Science, and Technology, Inc., PBC (EA) is pleased to submit this letter report summarizing concepts for the Elk City Drainage Improvements Project. This report presents two conceptual conveyances split up among four potential target areas to improve the drainage in Elk City. Each alternative includes a conceptual layout and a conceptual level cost estimate.

#### **Project Overview**

The main objective of the project is to improve drainage for Elk City. In particular, EA is looking to improve drainage along Elk City Drive and North 225<sup>th</sup> Street.

#### Site Assessment

EA investigated Elk City's existing conditions and collected survey data of the roads of concern and the areas surrounding them. LiDAR data from the Douglas County GIS website was also used to assess the site and potential concepts.

Based on observations during field data collection effort, the following are conclusions regarding the existing drainage conditions:

- Portions of the terrain have adequate slope to direct drainage.
- Two driveways on Elk City Drive have culverts installed. No driveways on North 225<sup>th</sup> Street have culverts installed.
- Ditches are not uniform in size, shape, or depth along the roads.

From speaking with a stakeholder it was learned that several basements along North 225<sup>th</sup> Street had flooding issues during the spring and summer of 2016. Improved drainage could reduce the risk of saturated soils forcing water into basements.

#### **Basis of Design**

The Elk City Drainage Improvements Project needs to meet the following objectives:

- Improve drainage conditions near Elk City.
- Maintain the positive aesthetics in the areas of design.

The following open channel design criteria was used to develop the design:

• A 10 year design storm is used.

- Minimum open channel slope of 0.2%
- Ditch design is based on Figure 001.20 Typical Cross Sections of Improvement for Rural Roads from the Nebraska Minimum Design Standards.
  - 2 foot minimum depth
  - o 2 foot minimum bottom width
  - o 4 foot minimum shoulder width
  - o 3:1 or flatter side slopes
    - Side slopes were designed at 4:1 when adequate space was available as 3:1 slopes are more difficult to mow.

The following closed conduit design criteria was used to develop the design:

- A 10 year design storm is used.
- Dual wall High Density Polyethylene (HDPE) is utilized.
- Pipes are sized based on runoff rates calculated using the Rational Method and the Manning's value provided by pipe manufacturers.
- Minimum pipe slope is 0.2%
- Minimum pipe cover is 1 foot.
- Prefabricated plastic drains are utilized to allow runoff to enter the pipes as they drain the water to their outlets.

#### **Conceptual Layouts**

Two alternative conceptual stormwater conveyances, in four potential target zones have been designed to meet the project objectives. The four areas are split up by flow direction and sides of road. The first area is the western most 400 feet of Elk City Drive, area two is the eastern remainder of Elk City drive, area three is the west side of North 225<sup>th</sup> Street, and area four is the eastern side of North 225<sup>th</sup> Street.

All concepts strive to maintain the general characteristics of the vegetation, structures, and utilities surrounding Elk City Drive and North 225<sup>th</sup> Street. Minor changes from the current conditions may be necessary to meet project objectives. All concepts also include actions to prevent further erosion at the outfall of the existing culvert crossing Elk City Drive to the south of the cemetery. Noticeable erosion is already present so any water naturally draining to this area or additional water routed to the area by Concepts 1 and 3 could cause additional issues. It is proposed that riprap and grading be used as needed to stabilize this area of concern regardless of the Concept pursued.

#### Concept #1

Ditches and culverts are utilized to convey the stormwater along the roads and under driveways to specified outlets. This concept includes drainage for Elk City Dr. and N 225<sup>th</sup> St. The project is divided into four separate areas.

#### Area 1

Area 1is the ditch south of the western portion of Elk City Dr. The drainage of Area 1 is described as follows:

- Sufficient average slope is available to flow water through the existing ditches toward the west.
- Minor grading of the ditches is required to meet the open channel design criteria.
- A culvert is needed at 1 driveway to provide proper drainage.
- The ditch outlets into the trees south of the cemetery.
  - The outlet area is severely eroded.

#### Area 2

Area 2 is the ditch south of the eastern portion of Elk City Dr. The drainage of Area 2 is described as follows:

- The ditch generally slopes to the east.
- The western half of Area 2 has sufficient slope to promote flow, but minor grading to shape the ditch is still be needed.
- More significant grading is required for the eastern half of Area 2 to provide proper drainage.
- Culverts are needed at 5 driveways to provide proper drainage. Existing culverts at two driveways are not in line with the elevation and shape of the ditch design and therefore will be replaced.
- Two concrete retaining walls will be needed to prevent relocation of power poles and electrical boxes and maintain suitable ditch slopes.
- A 150' long concrete retaining wall will be needed to prevent relocation of a resident's fence and maintain suitable ditch slopes.

#### Area 3

Area 3 is the ditch on the west side of 225<sup>th</sup> Street. The drainage of Area 3 is described as follows:

- The ditch generally slopes to the south with a nearly flat section in the southern most third
- Most of area three does not appear to have the minimum 0.2% slope needed.
  - To grade the ditch for proper drainage the ditch flowline will be lowered 3 feet at the southern outlet.
    - A 120 feet long section of trees and brush located 400 feet south of the Elk City Dr. and 225<sup>th</sup> St. intersection will need to be cleared for grading.
    - The ditch will outlet approximately 800 feet north of Bennington Road into a wooded area that drains away from the road and Elk City to the west.
- Culverts are needed at 10 driveways to provide proper drainage.
- Five concrete retaining walls will be needed to prevent relocation of power poles and electrical boxes and maintain suitable ditch slopes.

#### Area 4

Area 4 is the ditch on the east side of 225<sup>th</sup> Street. The drainage of Area 4 is described as follows:

- The ditch generally slopes to the south.
- The north half of Area 4 has adequate slopes for proper drainage
- The southern half of Area 4 does not have adequate slope for proper drainage so grading will be needed.
  - To grade the ditch for proper drainage the ditch flowline will be lowered 1 foot at the southern outlet.
  - The ditch will outlet by joining the natural flow of runoff in the field to the south and east of the drainage area.
  - Culverts are needed at 10 driveways and at the entrance to the Ponderosa Bar.
- Two concrete retaining walls will be needed to prevent relocation of power poles and electrical boxes and maintain suitable ditch slopes.

#### Concept #2

Ditches and culverts are utilized to convey the stormwater along the roads and under driveways to specified outlets. This concept includes drainage for N 225<sup>th</sup> St.

The project is divided into two separate areas.

#### Area 3

Area 3 is the ditch on the west side of 225<sup>th</sup> Street. The drainage of Area 3 is described as follows:

- The ditch generally slopes to the south with a nearly flat section in the southern most third
- Most of area three does not appear to have the minimum 0.2% slope needed.

- To grade the ditch for proper drainage the ditch flowline will be lowered 1 foot at the southern outlet.
  - A 120 feet long section of trees and brush located 400 feet south of the Elk City Dr. and 225<sup>th</sup> St. intersection will need to be cleared for grading.
  - The ditch will outlet approximately 800 feet north of Bennington Road into a wooded area that drains away from the road and Elk City to the west.
- Culverts are needed at 10 driveways to provide proper drainage.

#### Area 4

Area 4 is the ditch on the east side of 225<sup>th</sup> Street. The drainage of Area 4 is described as follows:

- The ditch generally slopes to the south.
- The north half of Area 4 has adequate slopes for proper drainage
- The southern half of Area 4 does not have adequate slope for proper drainage so grading will be needed.
  - To grade the ditch for proper drainage the ditch flowline will be lowered 1 foot at the southern outlet.
  - The ditch will outlet by joining the natural flow of runoff in the field to the south and east of the drainage area.
  - Culverts are needed at 10 driveways and at the entrance to the Ponderosa Bar.
- Two concrete retaining walls will be needed to prevent relocation of power poles and electrical boxes and maintain suitable ditch slopes.

#### Concept #3

Inlet drains and dual wall HDPE pipes are utilized to collect the stormwater from existing low areas and convey the flow to specified outlets. This concept includes drainage for Elk City Dr. and N 225<sup>th</sup> St.

The project is divided into four separate areas.

#### Area 1

Area 1 is the ditch south of the western portion of Elk City Dr. The drainage of Area 1 is described as follows:

- Area 1 generally slopes west.
- Working with existing slopes in Area 1 and maintaining a minimum cover of one foot results in an average pipe slope of 1.4%.
- An 8" pipe is adequate to convey the design storm.
- 1 area inlets to collect surface water are needed.

#### Area 2

Area 2 is the ditch south of the eastern portion of Elk City Dr. The drainage of Area 2 is described as follows:

- Area 1 generally slopes east.
- Working with existing slopes in Area 1 and maintaining a minimum cover of one foot results in an average pipe slope of 0.3%.
- A12" pipe is adequate to convey the design storm.
- 6 area inlets to collect surface water are needed.
- 2 driveway culverts will be removed to allow for drainage pipe installation. Surface inlets will be installed to provide adequate drainage.

#### Area 3

Area 3 is the ditch west of 225<sup>th</sup> St. The drainage of Area 3 is described as follows:

• Area 3 generally slopes south.

- Working with existing slopes in Area 1 and maintaining a minimum cover of one foot results in an average pipe slope of 0.3%.
- A 12" pipe is adequate to convey the design storm.
- 7 area inlets to collect surface water are needed.
- The drainage pipe will outlet approximately 800 feet north of Bennington Road into a wooded area that drains away from the road and Elk City to the west.
- A 120 feet long section of trees and brush located 400 feet south of the Elk City Dr. and 225<sup>th</sup> St. intersection will need to be cleared for grading.

#### Area 4

Area 4 is the ditch east of 225<sup>th</sup> St. The drainage of Area 4 is described as follows:

- Area 4 generally slopes south.
- Working with existing slopes in Area 1 and maintaining a minimum cover of one foot results in an average pipe slope of 0.4%.
- A 12" pipe is adequate to convey the design storm.
- 7 area inlets to collect surface water are needed.
- The drainage pipe will outlet by joining the natural flow of runoff in the field to the south and east of the drainage area.
- Approximately 800 feet north of Bennington Road into a wooded area that drains away from the road and Elk City to the west.
- A 120 feet long section of trees and brush located 400 feet south of the Elk City Dr. and 225<sup>th</sup> St. intersection will need to be cleared for grading.

#### Concept #4

Inlet drains and dual wall HDPE pipes are utilized to collect the stormwater from existing low areas and convey the flow to specified outlets. This concept includes drainage for N 225<sup>th</sup> St.

The project is divided into two separate areas.

#### Area 3

Area 3 is the ditch west of 225<sup>th</sup> St. The drainage of Area 3 is described as follows:

- Area 3 generally slopes south.
- Working with existing slopes in Area 1 and maintaining a minimum cover of one foot results in an average pipe slope of 0.3%.
- A 12" pipe is adequate to convey the design storm.
- 7 area inlets to collect surface water are needed.
- The drainage pipe will outlet approximately 800 feet north of Bennington Road into a wooded area that drains away from the road and Elk City to the west.
- A 120 feet long section of trees and brush located 400 feet south of the Elk City Dr. and 225<sup>th</sup> St. intersection will need to be cleared for grading.

#### Area 4

Area 4 is the ditch east of 225<sup>th</sup> St. The drainage of Area 4 is described as follows:

- Area 4 generally slopes south.
- Working with existing slopes in Area 1 and maintaining a minimum cover of one foot results in an average pipe slope of 0.4%.
- A 12" pipe is adequate to convey the design storm.

- 7 area inlets to collect surface water are needed.
- The drainage pipe will outlet by joining the natural flow of runoff in the field to the south and east of the drainage area.
- Approximately 800 feet north of Bennington Road into a wooded area that drains away from the road and Elk City to the west.
- A 120 feet long section of trees and brush located 400 feet south of the Elk City Dr. and 225<sup>th</sup> St. intersection will need to be cleared for grading.

#### Advantages and Disadvantages

The following is a list of the advantages and disadvantages associated with each Concept:

Advantage of Concept #1:

- Second lowest cost option
- Anticipated to require less work time
- Velocity at outlet will be lower and less likely to cause erosion

Disadvantages of Concept #1:

- Ditches may create permanent changes to properties along the road
- Runoff will flow above the ground surface so minor ponding may occur in heavy rain events
- Runoff flow will be slower resulting in longer times required to drain
- Largest area within limits of disturbance
- Most retaining walls needed
- A retaining wall along 150 feet of fencing needed

Advantage of Concept #2:

- Lowest cost option
- Anticipated to require least work time
- Velocity at outlet will be lower and less likely to cause erosion
- Ditches will have less change from existing grade than Concept 1
- Only 2 retaining walls needed

Disadvantages of Concept #2:

- Ditches may create permanent changes to properties along the road
- Runoff will flow above the ground surface so minor ponding may occur in heavy rain events
- Runoff flow will be slower resulting in longer times required to drain
- Does not include stormwater management for Elk City Drive

Advantages of Concept #3:

- Since the pipe will be buried the final grade will be closer to the existing
- The runoff will flow faster through the pipes, allowing water to drain faster
- No retaining walls needed
- Disadvantages of Concept #3:
  - Most expensive option
  - Expected to require more construction time
  - Higher erosion risk at outlet due to faster velocity

Advantages of Concept #4:

- Since the pipe will be buried the final grade will be closer to the existing
- The runoff will flow faster through the pipes, allowing water to drain faster
- Smallest area within limits of disturbance
- No retaining walls needed

Disadvantages of Concept #4:

- Second most expensive option
- Expected to require more construction time
- Higher erosion risk at outlet due to faster velocity
- Does not include stormwater management for Elk City Drive

#### **Cost Estimate**

A rough estimate of concept costs are provided in Attachment 1. Costs can fluctuate based on many factors and may vary at the time of bidding. A 30% contingency has been added to attempt to capture any unforeseen costs at this early stage of design. However, EA cannot guarantee that concepts will not exceed the total estimated construction cost.

#### Recommendations

Concept #2 will cost the least and Concept #3 will cost the most costly option. Concepts #1 and #3 provide drainage along both roads while Concepts #2 and #4 focus on N 225<sup>th</sup> St. Concept #1 will create the most noticeable changes to the existing features through grade changes and retaining wall requirements. Concepts #3 and #4 will restore the area to near initial conditions after completion. All concepts will have similar limits of disturbance but Concept #4 has the least.

Due to the cost of closed conduit conveyance it is recommended that the ditch design is pursued for further design. Concept #2 is recommended over Concept #1. Concept #1 will result in the most significant changes to the aesthetics of Elk City without providing major stormwater management aid. The main drainage problem has been noted to be along N 225<sup>th</sup> St so the lack of stormwater management along Elk City Dr should not present a major concern. Concept #2 will provide adequate stormwater management while keeping costs and temporary and long-term disturbances low.

If you have any questions or would need additional information, please do not hesitate to call me at (402) 476-3766.

Sincerely,

Kohl

Robb Lutz, P.E. Project Manager

#### Concept #1

Engineer's Cost Estimate for Construction

Base Bid Items Estimated Unit Price Estimated Total Price Unit Estimated Quantity No. Item LS 1 \$13,000.00 \$13,000 1 Mobilization/ Demobilization LS 1 \$500.00 \$500 2 Erosion and Sediment Control \$10.00 \$50,000 3 Channel Excavation CY 5,000 LF 715 \$75.00 \$53,625 4 Driveway Culverts and Driveway Restoration \$2,500.00 \$2,500 5 150' Long Concrete Retaining Wall on Elk City Drive LS 1 EA 9 \$700.00 \$6,300 6 Concrete Retaining Walls for Power Poles and Electrical Boxes 7 Rip Rap for Outlet Protection TON \$85.00 \$680 8 8 Seeding and FGM AC 1 \$15,000.00 \$18,750 Estimated Construction Cost Subtotal \$145,355 9 Contingency LS 1 30% \$43,607 Total Estimated Project Cost \$188,962

Concept #2 Engineer's Cost Estimate for Construction

Bas	e Bid Items				
No.	Item	Unit	Estimated Quantity	Estimated Unit Price	Estimated Total Price
1	Mobilization/ Demobilization	LS	1	\$9,000.00	\$9,000
2	Erosion and Sediment Control	LS	1	\$500.00	\$500
3	Channel Excavation	CY	3,200	\$10.00	\$32,000
4	Driveway Culverts and Driveway Restoration	LF	570	\$75.00	\$42,750
5	Concrete Retaining Walls	EA	2	\$700.00	\$1,400
6	Rip Rap for Outlet Protection	TON	8	\$85.00	\$680
7	Seeding and FGM	AC	1	\$15,000.00	\$11,250
			Estimated Cons	struction Cost Subtotal	\$97,580
8	Contingency	LS	1	30%	\$29,274
			Total	Estimated Project Cost	\$126,854

#### Concept #3

Engineer's Cost Estimate for Construction

Base Bid Items Estimated Unit Price Estimated Total Price Unit Estimated Quantity No. Item LS 1 \$23,000.00 \$23,000 1 Mobilization/ Demobilization LS 1 \$500.00 \$500 2 Erosion and Sediment Control \$10.00 \$15,000 3 Channel Excavation CY 1,500 LF 212 \$75.00 \$15,900 4 Driveway Culverts and Driveway Restoration \$85.00 \$680 5 Rip Rap for Outlet Protection TON 8 6 8" HDPE Pipe LF 5,525 \$30.00 \$165,750 7 HDPE Inlet Structures EA 21 \$966.00 \$20,286 8 Outlet Sections with Bar Guards EA 3 \$400.00 \$1,200 9 Seeding and FGM AC 1 \$15,000.00 \$11,250 Estimated Construction Cost Subtotal \$253,566 30% 10 Contingency LS 1 \$76,070 \$329,636 Total Estimated Project Cost

#### Concept #4

Engineer's Cost Estimate for Construction

Base Bid Items Estimated Unit Price Estimated Total Price Unit Estimated Quantity No. Item LS 1 \$19,000.00 \$19,000 1 Mobilization/ Demobilization LS \$500.00 \$500 2 Erosion and Sediment Control 1 \$10.00 \$10,000 3 Channel Excavation CY 1,000 LF \$75.00 \$42,750 4 Driveway Culverts and Driveway Restoration 570 \$85.00 \$680 5 Rip Rap for Outlet Protection TON 8 6 8" HDPE Pipe LF 3,875 \$30.00 \$116,250 7 HDPE Inlet Structures EA 14 \$966.00 \$13,524 8 Outlet Sections with Bar Guards EA 2 \$400.00 \$800 9 Seeding and FGM AC 1 \$15,000.00 \$7,500 Estimated Construction Cost Subtotal \$211,004 30% 10 Contingency LS 1 \$63,301 \$274,305 Total Estimated Project Cost



CONCEPTUAL

	FIGURE:	4	
CONCEPT 2	SHEET NUMBER:	4 OF 7	
	PROJECT NUMBER:	6310501	
	DATE:	MARCH 2017	
as county K city Irainage study <sup>M, nebraska</sup>	PROJECT MGR .:	RJL	
ETK CILLA D ETK CILLA D DONCT	CHECKED BY:	RJL	
	DRAWN BY:	MML	
EA Engineering, Science, and Technology, Inc.	DESIGNED BY:	MML	



JND	SU	RF	ACE	

- FINAL BACKFILL

- INITIAL BACKFILL

- BEDDING - FOUNDATION

				IE				
EA Engineering, Science, and Technology, Inc.		ELK CITY DI ELK CITY DI ELK CITY DI	AS COUNTY K CITY FRAINAGE STUDY Y, NEBRASKA			DETAILS		
DESIGNED BY: MML	DRAWN BY: MML	CHECKED BY: RJL	PROJECT MGR.: RJL	DATE: MARCH 2017	PROJECT NUMBER: 6310501	SHEET NUMBER: 7 OF 7	FIGURE: 7	
CONCE	PTUAL							