



FACILITIES PLAN

FOR

2022-2026

INFRASTRUCTURE IMPROVEMENTS

HURON, SOUTH DAKOTA

MARCH 2022

DGR Project No. 671126

DEVELOPMENT OF ALTERNATIVES

The following alternatives were developed to correct various deficiencies and inefficiencies in the system that were identified. Each alternative includes a description of the proposed project and cost estimate. The cost estimates include construction, contingencies, engineering, testing, legal and financing, as may be applicable.

ALTERNATIVE #1 - NO ACTION

The “No Action” alternative would consist of no improvements at this time and would not correct any of the deficiencies with the existing conditions or provide infrastructure for the continued growth.

ALTERNATIVE #2 – WATER MAIN REPLACEMENT

The City of Huron is working through a multiple phase approach to reconstructing existing water mains. There is a five-year plan in the Capital Improvement Plan (CIP) to replace the old cast iron and Asbestos Cement Pipe (ACP) with new Polyvinyl Chloride Pipe (PVC). The phased replacement of water mains throughout the City will replace over 24,000 LF of deteriorating pipe with new PVC mains and upsizing will take place as needed to improve pressures and flows while providing redundancy with better looping in various locations. A cost summary of the proposed improvements for each of the next five (5) years is detailed in the following pages:

DEVELOPMENT OF ALTERNATIVES

Preliminary Cost Estimate – Water Main Replacement

2022 Water Main Replacement

(Zone A & P)

Prepared by : City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	6" PVC Water Main & Fittings	Block	13.5	\$ 49,800.00	\$ 672,300.00
2	8" PVC Water Main & Fittings	Block	0	\$ 54,000.00	-
3	10" PVC Water Main & Fittings	Block	0	\$ 55,500.00	-
4	12" PVC Water Main & Fittings	Block	9	\$ 57,000.00	\$ 513,000.00
5	14" PVC Water Main & Fittings	Block	0	\$ 67,500.00	-
6	Water Service Pipe & Fittings	Service	106	\$ 3,600.00	\$ 381,600.00
7	Asphalt Trench Repair*	Block	13	\$ 7,800.00	\$ 101,400.00
8	Asphalt Street Overlay**	Block	13	\$ 11,500.00	\$ 149,500.00
Construction Subtotal:					\$ 1,817,800.00
Contingencies (20%):					\$ 364,000.00
Total Construction Cost:					\$ 2,181,800.00

Present Worth – Water Main Replacement

Present Worth for 2022 Water Main Replacement

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	6" PVC Water Main & Fittings	\$ 672,300	\$403,380	\$223,342	\$672,300
2	8" PVC Water Main & Fittings	-	\$0	\$0	\$0
3	10" PVC Water Main & Fittings	-	\$0	\$0	\$0
4	12" PVC Water Main & Fittings	\$ 513,000	\$307,800	\$170,421	\$513,000
5	14" PVC Water Main & Fittings	-	\$0	\$0	\$0
6	Water Service Pipe & Fittings	\$ 381,600	\$228,960	\$126,770	\$381,600
7	Asphalt Trench Repair*	\$ 101,400	\$0	\$0	\$101,400
8	Asphalt Street Overlay**	\$ 149,500	\$0	\$0	\$149,500
Contingencies (15%)		\$181,780	\$94,014	\$52,053	\$181,780
Total Construction Cost		\$1,999,580	\$1,034,154	\$572,586	\$1,999,580
Annual Operation and Maintenance Cost					
	Description	Annual Cost			Net Present Worth
	Equipment	\$0			\$0
	Supplies	\$1,200			\$17,853
	Utilities	\$1,000			\$14,877
	Labor	\$2,000			\$29,755
	Total Annual Cost	\$4,200			\$62,485
Total Net Present Worth					\$2,062,065
EUAC					\$138,603

DEVELOPMENT OF ALTERNATIVES

2023 Water Main Replacement

(Zone B, C, & M)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	6" PVC Water Main & Fittings	Block	3	\$ 49,800.00	\$ 149,400.00
2	8" PVC Water Main & Fittings	Block	6.5	\$ 54,000.00	\$ 351,000.00
3	10" PVC Water Main & Fittings	Block	5	\$ 55,500.00	\$ 277,500.00
4	12" PVC Water Main & Fittings	Block	1	\$ 57,000.00	\$ 57,000.00
5	14" PVC Water Main & Fittings	Block	0	\$ 67,500.00	\$ -
6	Water Service Pipe & Fittings	Service	47	\$ 3,600.00	\$ 169,200.00
7	Asphalt Trench Repair*	Block	15.5	\$ 7,800.00	\$ 120,900.00
8	Asphalt Street Overlay**	Block	15.5	\$ 11,500.00	\$ 178,250.00
Construction Subtotal:					\$ 1,303,250.00
Contingencies (30%):					\$ 391,000.00
Inflation (3%/year) Construction 2023					\$ 39,100.00
Total Construction Cost:					\$ 1,733,350.00

Present Worth for 2023 Water Main Replacement

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	6" PVC Water Main & Fittings	\$ 149,400	\$89,640	\$49,631	\$149,400
2	8" PVC Water Main & Fittings	\$ 351,000	\$210,600	\$116,604	\$351,000
3	10" PVC Water Main & Fittings	\$ 277,500	\$166,500	\$92,187	\$277,500
4	12" PVC Water Main & Fittings	\$ 57,000	\$34,200	\$18,936	\$57,000
5	14" PVC Water Main & Fittings	\$ -	\$0	\$0	\$0
6	Water Service Pipe & Fittings	\$ 169,200	\$101,520	\$56,209	\$169,200
7	Asphalt Trench Repair*	\$ 120,900	\$0	\$0	\$120,900
8	Asphalt Street Overlay**	\$ 178,250	\$0	\$0	\$178,250
Contingencies (15%)		\$130,325	\$60,246	\$33,357	\$130,325
Total Construction Cost		\$1,433,575	\$662,706	\$366,924	\$1,433,575
Annual Operation and Maintenance Cost					
Description		Annual Cost			Net Present Worth
Equipment		\$0			\$0
Supplies		\$1,100			\$16,365
Utilities		\$900			\$13,390
Labor		\$1,800			\$26,779
Total Annual Cost		\$3,800			\$56,534
Total Net Present Worth					\$1,490,109
EUAC					\$100,159

DEVELOPMENT OF ALTERNATIVES

2024 Water Main Replacement

(Phase 1 - Dakota Ave)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	6" PVC Water Main & Fittings	Block	1	\$ 49,800.00	\$ 49,800.00
2	8" PVC Water Main & Fittings	Block	0	\$ 54,000.00	-
3	10" PVC Water Main & Fittings	Block	1.5	\$ 55,500.00	\$ 83,250.00
4	12" PVC Water Main & Fittings	Block	10	\$ 57,000.00	\$ 570,000.00
5	14" PVC Water Main & Fittings	Block	0	\$ 67,500.00	-
6	Water Service Pipe & Fittings	Service	74	\$ 3,600.00	\$ 266,400.00
7	Asphalt Trench Repair*	Block	1.5	\$ 7,800.00	\$ 11,700.00
8	Asphalt Street Overlay**	Block	1.5	\$ 11,500.00	\$ 17,250.00
Construction Subtotal:					\$ 998,400.00
Contingencies (30%):					\$ 299,600.00
Inflation (3%/year) Construction 2024					\$ 60,000.00
Total Construction Cost:					\$ 1,358,000.00
Legal, Admin, & Testing (2%):					\$ 27,200.00
Engineering (15%):					\$ 203,700.00
Total Project Cost:					\$ 1,588,900.00

Present Worth for 2024 Water Main Replacement

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	6" PVC Water Main & Fittings	\$ 49,800	\$29,880	\$16,544	\$49,800
2	8" PVC Water Main & Fittings	-	\$0	\$0	\$0
3	10" PVC Water Main & Fittings	\$ 83,250	\$49,950	\$27,656	\$83,250
4	12" PVC Water Main & Fittings	\$ 570,000	\$342,000	\$189,357	\$570,000
5	14" PVC Water Main & Fittings	-	\$0	\$0	\$0
6	Water Service Pipe & Fittings	\$ 266,400	\$159,840	\$88,500	\$266,400
7	Asphalt Trench Repair*	\$ 11,700	\$0	\$0	\$11,700
8	Asphalt Street Overlay**	\$ 17,250	\$0	\$0	\$17,250
Contingencies (15%)		\$99,840	\$58,167	\$32,206	\$99,840
Total Construction Cost		\$1,098,240	\$639,837	\$354,262	\$1,098,240
Annual Operation and Maintenance Cost					
Description		Annual Cost			Net Present Worth
Equipment		\$0			\$0
Supplies		\$900			\$13,390
Utilities		\$600			\$8,926
Labor		\$1,200			\$17,853
Total Annual Cost		\$2,700			\$40,169
Total Net Present Worth					\$1,138,409
EUAC					\$76,519

DEVELOPMENT OF ALTERNATIVES

2025 Water Main Replacement

(Zone Q)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	6" PVC Water Main & Fittings	Block	9	\$ 49,800.00	\$ 448,200.00
2	8" PVC Water Main & Fittings	Block	0	\$ 54,000.00	-
3	10" PVC Water Main & Fittings	Block	0	\$ 55,500.00	-
4	12" PVC Water Main & Fittings	Block	0	\$ 57,000.00	-
5	14" PVC Water Main & Fittings	Block	8	\$ 67,500.00	\$ 540,000.00
6	Water Service Pipe & Fittings	Service	81	\$ 3,600.00	\$ 291,600.00
7	Asphalt Trench Repair*	Block	17	\$ 7,800.00	\$ 132,600.00
8	Asphalt Street Overlay**	Block	17	\$ 11,500.00	\$ 195,500.00
Construction Subtotal:					\$ 1,607,900.00
Contingencies (30%):					\$ 482,400.00
Inflation (3%/year) Construction 2025					\$ 144,800.00
Total Construction Cost:					\$ 2,235,100.00

Present Worth for 2025 Water Main Replacement

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	6" PVC Water Main & Fittings	\$ 448,200	\$268,920	\$148,894	\$448,200
2	8" PVC Water Main & Fittings	-	\$0	\$0	\$0
3	10" PVC Water Main & Fittings	-	\$0	\$0	\$0
4	12" PVC Water Main & Fittings	-	\$0	\$0	\$0
5	14" PVC Water Main & Fittings	\$ 540,000	\$324,000	\$179,391	\$540,000
6	Water Service Pipe & Fittings	\$ 291,600	\$174,960	\$96,871	\$291,600
7	Asphalt Trench Repair*	\$ 132,600	\$0	\$0	\$132,600
8	Asphalt Street Overlay**	\$ 195,500	\$0	\$0	\$195,500
Contingencies (15%)		\$160,790	\$76,788	\$42,516	\$160,790
Total Construction Cost		\$1,768,690	\$844,668	\$467,672	\$1,768,690
Annual Operation and Maintenance Cost					
Description		Annual Cost			Net Present Worth
Equipment		\$0			\$0
Supplies		\$1,400			\$20,828
Utilities		\$1,200			\$17,853
Labor		\$2,300			\$34,218
Total Annual Cost		\$4,900			\$72,900
Total Net Present Worth					\$1,841,590
EUAC					\$123,784

DEVELOPMENT OF ALTERNATIVES

2026 Water Main Replacement

(Zone Q & U)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	6" PVC Water Main & Fittings	Block	9.5	\$ 49,800.00	\$ 473,100.00
2	8" PVC Water Main & Fittings	Block	0	\$ 54,000.00	-
3	10" PVC Water Main & Fittings	Block	0	\$ 55,500.00	-
4	12" PVC Water Main & Fittings	Block	3	\$ 57,000.00	\$ 171,000.00
5	14" PVC Water Main & Fittings	Block	0	\$ 67,500.00	-
6	Water Service Pipe & Fittings	Service	73	\$ 3,600.00	\$ 262,800.00
7	Asphalt Trench Repair*	Block	11.5	\$ 7,800.00	\$ 89,700.00
8	Asphalt Street Overlay**	Block	11.5	\$ 11,500.00	\$ 132,250.00
Construction Subtotal:					\$ 1,128,850.00
Contingencies (30%):					\$ 338,700.00
Inflation (3%/year) Construction 2026					\$ 135,500.00
Total Construction Cost:					\$ 1,603,050.00

Present Worth for 2026 Water Main Replacement

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	6" PVC Water Main & Fittings	\$ 473,100	\$283,860	\$157,166	\$473,100
2	8" PVC Water Main & Fittings	-	\$0	\$0	\$0
3	10" PVC Water Main & Fittings	-	\$0	\$0	\$0
4	12" PVC Water Main & Fittings	\$ 171,000	\$102,600	\$56,807	\$171,000
5	14" PVC Water Main & Fittings	-	\$0	\$0	\$0
6	Water Service Pipe & Fittings	\$ 262,800	\$157,680	\$87,304	\$262,800
7	Asphalt Trench Repair*	\$ 89,700	\$0	\$0	\$89,700
8	Asphalt Street Overlay**	\$ 132,250	\$0	\$0	\$132,250
Contingencies (15%)		\$112,885	\$54,414	\$30,128	\$112,885
Total Construction Cost		\$1,241,735	\$598,554	\$331,405	\$1,241,735
Annual Operation and Maintenance Cost					
Description		Annual Cost			Net Present Worth
Equipment		\$0			\$0
Supplies		\$1,000			\$14,877
Utilities		\$750			\$11,158
Labor		\$1,500			\$22,316
Total Annual Cost		\$3,250			\$48,352
Total Net Present Worth					\$1,290,087
EUAC					\$86,714

DEVELOPMENT OF ALTERNATIVES

ALTERNATIVE #3 – WATER METER UPGRADES

The water meters that are currently in use throughout Huron are aging and will require replacement. The City intends to have water meters replaced in phases over the course of two years. The new water meters will allow automatic reading and real-time reading and can be controlled by the City to allow them to shut them off remotely in the event that a leak occurs to prevent property damage and water loss. One benefit of the automatic reading is the ability of the City to notice when someone has a small consistent water use such as what you would experience from a leaking toilet flapper or seal. The City can get notified of this type of water usage and alert the residents to the issue so that they can fix the problem and conserve water and save themselves on their water bill. Leaks in sprinkler systems can be another area that is not easily identified by the property owner but can be caught through the use of the new water meters.

Preliminary Cost Estimate – Water Meter Upgrades

Phase 1 Water Meter Replacement

(2022 - Industrial Meters)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	Ecoder for 3/4" Residential Meters	EA	200	\$ 160.00	\$ 32,000.00
2	Ecoder for 1" Residential Meters	EA	200	\$ 160.00	\$ 32,000.00
3	1-1/2" T-10 Industrial Meter	EA	74	\$ 700.00	\$ 51,800.00
4	2" T-10 Industrial Meter	EA	119	\$ 885.00	\$ 105,315.00
5	2" Compound Industrial Meter (Low/High Flow)	EA	1	\$ 1,925.00	\$ 1,925.00
6	3" Compound Industrial Meter (Low/High Flow)	EA	8	\$ 2,650.00	\$ 21,200.00
7	4" Compound Industrial Meter (Low/High Flow)	EA	1	\$ 3,425.00	\$ 3,425.00
8	3" Turbine Industrial Meter	EA	19	\$ 1,595.00	\$ 30,305.00
9	4" Turbine Industrial Meter	EA	5	\$ 1,800.00	\$ 9,000.00
10	6" Turbine Industrial Meter	EA	4	\$ 3,150.00	\$ 12,600.00
				Construction Subtotal:	\$ 299,600.00
				Contingencies (30%):	\$ 89,900.00
				Total Project Cost:	\$ 389,500.00

DEVELOPMENT OF ALTERNATIVES

Present Worth – Water Meter Upgrades

Present Worth for Phase 1 Water Meter Replacement

Capital Cost				Present Worth	Net Present
Item	Description	Price	Salvage Value	of Salvage Value	Worth
1	Ecoder for 3/4" Residential Meters	\$ 32,000	\$19,200	\$19,200	\$32,000
2	Ecoder for 1" Residential Meters	\$ 32,000	\$19,200	\$19,200	\$32,000
3	1-1/2" T-10 Industrial Meter	\$ 51,800	\$31,080	\$31,080	\$51,800
4	2" T-10 Industrial Meter	\$ 105,315	\$63,189	\$63,189	\$105,315
5	2" Compound Industrial Meter (Low/High Flow)	\$ 1,925	\$1,155	\$1,155	\$1,925
6	3" Compound Industrial Meter (Low/High Flow)	\$ 21,200	\$12,720	\$12,720	\$21,200
7	4" Compound Industrial Meter (Low/High Flow)	\$ 3,425	\$2,055	\$2,055	\$3,425
8	3" Turbine Industrial Meter	\$ 30,305	\$18,183	\$18,183	\$30,305
9	4" Turbine Industrial Meter	\$ 9,000	\$5,400	\$5,400	\$9,000
10	6" Turbine Industrial Meter	\$ 12,600	\$7,560	\$7,560	\$12,600
Contingencies (15%)		\$29,957	\$17,974	\$17,974	\$29,957
Total Construction Cost		\$329,527	\$197,716	\$197,716	\$329,527
Annual Operation and Maintenance Cost					
Description		Annual Cost		Net Present Worth	
Equipment		\$0		\$0	
Supplies		\$1,000		\$14,877	
Utilities		\$0		\$0	
Labor		\$1,500		\$22,316	
Total Annual Cost		\$2,500		\$37,194	
				Total Net Present Worth	\$366,721
				EUAC	\$24,649

DEVELOPMENT OF ALTERNATIVES

Phase 2 Water Meter Replacement

(2024 - Residential Meters)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	Meter Computer System	LS	1	\$ 205,000.00	\$ 205,000.00
2	Residential Meters & Radios	Each	5000	\$ 276.00	\$ 1,380,000.00
3	Meter Installation	LS	1	\$ 450,000.00	\$ 450,000.00
Construction Subtotal:					\$ 2,035,000.00
Contingencies (30%):					\$ 610,500.00
Inflation (3%/year) (2024 Construction)					\$ 122,100.00
Total Construction Cost:					\$ 2,767,600.00

Present Worth for Phase 2 Water Meter Replacement

Capital Cost				Present Worth	Net Present
Item	Description	Price	Salvage Value	of Salvage Value	Worth
1	Meter Computer System	\$ 205,000	\$123,000	\$123,000	\$205,000
2	Residential Meters & Radios	\$ 1,380,000	\$828,000	\$828,000	\$1,380,000
3	Meter Installation	\$ 450,000	\$0	\$0	\$450,000
Contingencies (15%)		\$203,500	\$95,100	\$95,100	\$203,500
Total Construction Cost		\$2,238,500	\$1,046,100	\$1,046,100	\$2,238,500
Annual Operation and Maintenance Cost					
Description		Annual Cost	Net Present Worth		
Equipment		\$1,500	\$22,316		
Supplies		\$1,200	\$17,853		
Utilities		\$0	\$0		
Labor		\$4,000	\$59,510		
Total Annual Cost		\$6,700	\$99,679		
				Total Net Present Worth	\$2,338,179
				EUAC	\$157,162

ALTERNATIVE #4 – SANITARY SEWER COLLECTION IMPROVEMENTS

The City has included a five-year CIP project to allow for replacement or lining of aging sanitary sewer pipes and manholes. A large majority of the sanitary sewer lines in Huron are old, Vitrified Clay Pipes (VCP). The VCP pipes were made in small sections and the material used for the seals between pipe segments deteriorate over time and allow infiltration into the sewer system as well as intrusion of roots which causes issues with the flow in the lines and leads to build up and backups. Many of the manholes are old brick manholes that are starting to deteriorate and create the potential for failure or to cause backups as material delaminates and drops into the pipe inverts in the structures. The existing sewer lines will be replaced if there are structural failures or problems with grade such as sags in the line but if the lines are in reasonably good condition the City will have the sewer mains and manholes lined. Lining of the pipes and structures can be beneficial in many ways. Financially, lining of sewer mains can save the City money by eliminating the excavation for pipe replacement which includes removal of the pavement and the potential to damage other utilities and incur additional costs. There is also a greatly reduced impact to the residents and traveling public when the mains are lined rather than dug up and replaced. Lining of the manholes yields similar savings both financially and from disruption to the residents. A cost summary of the proposed improvements each of the next five (5) years is detailed in the following pages:

DEVELOPMENT OF ALTERNATIVES

Preliminary Cost Estimate – Sanitary Sewer Collection Improvements

2023 Sewer Lining & Manhole Lining

(North & West Zone)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	8" CIPP Sewer Lining	Block	3.5	\$ 16,800.00	\$ 58,800.00
2	10" CIPP Sewer Lining	Block	9.3	\$ 18,500.00	\$ 172,050.00
3	12" CIPP Sewer Lining	Block	8	\$ 20,100.00	\$ 160,800.00
4	15" CIPP Sewer Lining	Block	1.5	\$ 23,000.00	\$ 34,500.00
5	18" CIPP Sewer Lining	Block	3	\$ 26,000.00	\$ 78,000.00
6	21" CIPP Sewer Lining	Block	1.5	\$ 29,000.00	\$ 43,500.00
7	48" Manhole Lining	Vert Ft	814	\$ 240.00	\$ 195,360.00
8	8" Sanitary Sewer Replacement	LF	0	\$ 120.00	\$ -
9	10" Sanitary Sewer Replacement	LF	0	\$ 145.00	\$ -
10	12" Sanitary Sewer Replacement	LF	0	\$ 170.00	\$ -
11	48" Manhole Replacement	Each	0	\$ 4,800.00	\$ -
12	Sewer Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00
Construction Subtotal:					\$ 753,010.00
Contingencies (30%):					\$ 226,000.00
Inflation (3%/year) Construction 2023					\$ 22,600.00
Total Construction Cost:					\$ 1,002,000.00

Present Worth – Sanitary Sewer Collection Improvements

Present Worth for 2023 Sewer Lining & Manhole Lining

Item	Description	Capital Cost		Present Worth	Net Present
		Price	Salvage Value	of Salvage Value	Worth
1	8" CIPP Sewer Lining	\$ 58,800	\$35,280	\$19,534	\$58,800
2	10" CIPP Sewer Lining	\$ 172,050	\$103,230	\$57,156	\$172,050
3	12" CIPP Sewer Lining	\$ 160,800	\$96,480	\$53,419	\$160,800
4	15" CIPP Sewer Lining	\$ 34,500	\$20,700	\$11,461	\$34,500
5	18" CIPP Sewer Lining	\$ 78,000	\$46,800	\$25,912	\$78,000
6	21" CIPP Sewer Lining	\$ 43,500	\$26,100	\$14,451	\$43,500
7	48" Manhole Lining	\$ 195,360	\$58,608	\$32,450	\$195,360
8	8" Sanitary Sewer Replacement	\$ -			\$0
9	10" Sanitary Sewer Replacement	\$ -			\$0
10	12" Sanitary Sewer Replacement	\$ -			\$0
11	48" Manhole Replacement	\$ -			\$0
12	Sewer Bypass Pumping	\$ 10,000	\$0	\$0	\$10,000
		Contingencies (15%)	\$75,301	\$38,720	\$21,438
		Total Construction Cost	\$828,311	\$425,918	\$235,820
Annual Operation and Maintenance Cost					
		Description	Annual Cost	Net Present Worth	
		Equipment	\$500	\$7,439	
		Supplies	\$1,000	\$14,877	
		Utilities		\$0	
		Labor	\$2,500	\$37,194	
		Total Annual Cost	\$4,000	\$59,510	
				Total Net Present Worth	\$887,821
				EUAC	\$59,676

DEVELOPMENT OF ALTERNATIVES

2024 Sewer Lining & Replacement

(Phase 1 - Dakota Ave & NW Zone)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	8" CIPP Sewer Lining	Block	36	\$ 16,800.00	\$ 604,800.00
2	10" CIPP Sewer Lining	Block	0	\$ 18,500.00	\$ -
3	12" CIPP Sewer Lining	Block	0	\$ 20,100.00	\$ -
4	15" CIPP Sewer Lining	Block	0	\$ 23,000.00	\$ -
5	18" CIPP Sewer Lining	Block	0	\$ 26,000.00	\$ -
6	21" CIPP Sewer Lining	Block	0	\$ 29,000.00	\$ -
7	48" Manhole Lining	Vert Ft	488	\$ 240.00	\$ 117,120.00
8	8" Sanitary Sewer Replacement	LF	100	\$ 120.00	\$ 12,000.00
9	10" Sanitary Sewer Replacement	LF	0	\$ 145.00	\$ -
10	12" Sanitary Sewer Replacement	LF	0	\$ 170.00	\$ -
11	48" Manhole Replacement	Each	3	\$ 4,800.00	\$ 14,400.00
12	Sewer Bypass Pumping	LS	1	\$ 15,000.00	\$ 15,000.00
Construction Subtotal:					\$ 763,320.00
Contingencies (30%):					\$ 229,000.00
Inflation (3%/year) Construction 2024					\$ 45,800.00
Total Construction Cost:					\$ 1,038,200.00

Present Worth for 2024 Sewer Lining & Manhole Lining

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	8" CIPP Sewer Lining	\$ 604,800	\$362,880	\$200,918	\$604,800
2	10" CIPP Sewer Lining	\$ -	\$0	\$0	\$0
3	12" CIPP Sewer Lining	\$ -	\$0	\$0	\$0
4	15" CIPP Sewer Lining	\$ -	\$0	\$0	\$0
5	18" CIPP Sewer Lining	\$ -	\$0	\$0	\$0
6	21" CIPP Sewer Lining	\$ -	\$0	\$0	\$0
7	48" Manhole Lining	\$ 117,120	\$35,136	\$19,454	\$117,120
8	8" Sanitary Sewer Replacement	\$ 12,000	\$7,200	\$3,986	\$12,000
9	10" Sanitary Sewer Replacement	\$ -	\$0	\$0	\$0
10	12" Sanitary Sewer Replacement	\$ -	\$0	\$0	\$0
11	48" Manhole Replacement	\$ 14,400	\$8,640	\$4,784	\$14,400
12	Sewer Bypass Pumping	\$ 15,000	\$0	\$0	\$15,000
Contingencies (15%)		\$76,332	\$41,386	\$22,914	\$76,332
Total Construction Cost		\$839,652	\$455,242	\$252,056	\$839,652
Annual Operation and Maintenance Cost					
	Description	Annual Cost			Net Present Worth
	Equipment	\$500			\$7,439
	Supplies	\$1,000			\$14,877
	Utilities				\$0
	Labor	\$2,500			\$37,194
	Total Annual Cost	\$4,000			\$59,510
				Total Net Present Worth	\$899,162
				EUAC	\$60,438

DEVELOPMENT OF ALTERNATIVES

2025 Sewer Lining & Manhole Lining

(Southwest Zone)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	8" CIPP Sewer Lining	Block	21.5	\$ 16,800.00	\$ 361,200.00
2	10" CIPP Sewer Lining	Block	3	\$ 18,500.00	\$ 55,500.00
3	12" CIPP Sewer Lining	Block	5	\$ 20,100.00	\$ 100,500.00
4	15" CIPP Sewer Lining	Block	1	\$ 23,000.00	\$ 23,000.00
5	18" CIPP Sewer Lining	Block	0	\$ 26,000.00	\$ -
6	21" CIPP Sewer Lining	Block	0	\$ 29,000.00	\$ -
7	48" Manhole Lining	Vert Ft	0	\$ 240.00	\$ -
8	8" Sanitary Sewer Replacement	LF	0	\$ 120.00	\$ -
9	10" Sanitary Sewer Replacement	LF	0	\$ 145.00	\$ -
10	12" Sanitary Sewer Replacement	LF	0	\$ 170.00	\$ -
11	48" Manhole Replacement	Each	0	\$ 4,800.00	\$ -
12	Sewer Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00
Construction Subtotal:					\$ 550,200.00
Contingencies (30%):					\$ 165,100.00
Inflation (3%/year) Construction 2025					\$ 49,600.00
Total Construction Cost:					\$ 764,900.00

Present Worth for 2025 Sewer Lining & Manhole Lining

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	8" CIPP Sewer Lining	\$ 361,200	\$216,720	\$119,993	\$361,200
2	10" CIPP Sewer Lining	\$ 55,500	\$33,300	\$18,437	\$55,500
3	12" CIPP Sewer Lining	\$ 100,500	\$60,300	\$33,387	\$100,500
4	15" CIPP Sewer Lining	\$ 23,000	\$13,800	\$7,641	\$23,000
5	18" CIPP Sewer Lining	\$ -	\$0	\$0	\$0
6	21" CIPP Sewer Lining	\$ -	\$0	\$0	\$0
7	48" Manhole Lining	\$ -	\$0	\$0	\$0
8	8" Sanitary Sewer Replacement	\$ -	\$0	\$0	\$0
9	10" Sanitary Sewer Replacement	\$ -	\$0	\$0	\$0
10	12" Sanitary Sewer Replacement	\$ -	\$0	\$0	\$0
11	48" Manhole Replacement	\$ -	\$0	\$0	\$0
12	Sewer Bypass Pumping	\$ 10,000	\$0	\$0	\$10,000
Contingencies (15%)		\$55,020	\$32,412	\$17,946	\$55,020
Total Construction Cost		\$605,220	\$356,532	\$197,403	\$605,220
Annual Operation and Maintenance Cost					
Description		Annual Cost		Net Present Worth	
Equipment		\$500		\$7,439	
Supplies		\$800		\$11,902	
Utilities				\$0	
Labor		\$2,500		\$37,194	
Total Annual Cost		\$3,800		\$56,534	
				Total Net Present Worth	\$661,754
				EUAC	\$44,480

DEVELOPMENT OF ALTERNATIVES

2026 Sewer Lining & Replacement

(Phase 2 - Dakota Ave)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	8" CIPP Sewer Lining	Block	29.8	\$ 16,800.00	\$ 500,640.00
2	10" CIPP Sewer Lining	Block	1.5	\$ 18,500.00	\$ 27,750.00
3	12" CIPP Sewer Lining	Block	0	\$ 20,100.00	-
4	15" CIPP Sewer Lining	Block	0	\$ 23,000.00	-
5	18" CIPP Sewer Lining	Block	0	\$ 26,000.00	-
6	21" CIPP Sewer Lining	Block	0	\$ 29,000.00	-
7	48" Manhole Lining	Vert Ft	0	\$ 240.00	-
8	8" Sanitary Sewer Replacement	LF	400	\$ 120.00	\$ 48,000.00
9	10" Sanitary Sewer Replacement	LF	1200	\$ 145.00	\$ 174,000.00
10	12" Sanitary Sewer Replacement	LF	400	\$ 170.00	\$ 68,000.00
11	48" Manhole Replacement	Each	10	\$ 4,800.00	\$ 48,000.00
12	Sewer Bypass Pumping	LS	1	\$ 25,000.00	\$ 25,000.00
Construction Subtotal:					\$ 891,390.00
Contingencies (30%):					\$ 267,500.00
Inflation (3%/year) Construction 2026					\$ 107,000.00
Total Construction Cost:					\$ 1,265,900.00
Engineering (15%):					\$ 189,900.00
Total Project Cost:					\$ 1,455,800.00

Present Worth for 2026 Sewer Lining & Manhole Lining

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	8" CIPP Sewer Lining	\$ 500,640	\$300,384	\$166,315	\$500,640
2	10" CIPP Sewer Lining	\$ 27,750	\$16,650	\$9,219	\$27,750
3	12" CIPP Sewer Lining	-	\$0	\$0	\$0
4	15" CIPP Sewer Lining	-	\$0	\$0	\$0
5	18" CIPP Sewer Lining	-	\$0	\$0	\$0
6	21" CIPP Sewer Lining	-	\$0	\$0	\$0
7	48" Manhole Lining	-	\$0	\$0	\$0
8	8" Sanitary Sewer Replacement	\$ 48,000	\$28,800	\$15,946	\$48,000
9	10" Sanitary Sewer Replacement	\$ 174,000	\$104,400	\$57,804	\$174,000
10	12" Sanitary Sewer Replacement	\$ 68,000	\$40,800	\$22,590	\$68,000
11	48" Manhole Replacement	\$ 48,000	\$28,800	\$15,946	\$48,000
12	Sewer Bypass Pumping	\$ 25,000	\$0	\$0	\$25,000
Contingencies (15%)		\$89,139	\$51,983	\$28,782	\$89,139
Total Construction Cost		\$980,529	\$571,817	\$316,601	\$980,529
Annual Operation and Maintenance Cost					
Description		Annual Cost			Net Present Worth
Equipment		\$500			\$7,439
Supplies		\$1,000			\$14,877
Utilities					\$0
Labor		\$3,000			\$44,632
Total Annual Cost		\$4,500			\$66,949
Total Net Present Worth					\$1,047,478
EUAC					\$70,407

DEVELOPMENT OF ALTERNATIVES

ALTERNATIVE #5 – LIFT STATION REPLACEMENT

The City of Huron has more than 30 lift stations that are currently in service throughout the City; all are planned for replacement. The existing lift stations are showing their age and need to have the pumps and controls replaced to provide better and more efficient service. The soils in Huron are also very corrosive and causing significant corrosion to the structures of the lift stations necessitating the complete replacement. The City intends to replace one lift station almost every year in an effort to proactively upgrade the system as well as to be fiscally conscious developing a replacement cycle that fits the annual budget and prevents the need to replace multiple lift stations in a short time period.

Preliminary Cost Estimate – Lift Station Replacement

12th & Kansas Ave LS Replacement

(2023)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	Mobilization	LS	1	\$ 30,000.00	\$ 30,000.00
2	Site Restoration	LS	1	\$ 10,000.00	\$ 10,000.00
3	Demolition of Existing Lift Station	LS	1	\$ 10,000.00	\$ 10,000.00
4	Electrical	LS	1	\$ 25,000.00	\$ 25,000.00
5	Can Lift Station & Pumps	LS	1	\$ 200,000.00	\$ 200,000.00
6	Lift Station Controls	LS	1	\$ 40,000.00	\$ 40,000.00
7	Sewer Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00
				Construction Subtotal:	\$ 325,000.00
				Contingencies (30%):	\$ 97,500.00
				Inflation (3%/year) Construction 2023	\$ 9,800.00
				Total Construction Cost:	\$ 432,300.00
				Legal, Admin, & Testing (2%):	\$ 8,700.00
				Engineering (15%):	\$ 64,900.00
				Total Project Cost:	\$ 505,900.00

DEVELOPMENT OF ALTERNATIVES

Present Worth – Lift Station Replacement

Present Worth for 12th & Kansas Ave LS Replacement

Capital Cost				Present Worth	Net Present
Item	Description	Price	Salvage Value	of Salvage Value	Worth
1	Mobilization	\$ 30,000	\$0	\$0	\$30,000
2	Site Restoration	\$ 10,000	\$0	\$0	\$10,000
3	Demolition of Existing Lift Station	\$ 10,000	\$0	\$0	\$10,000
4	Electrical	\$ 25,000	\$15,000	\$15,000	\$25,000
5	Can Lift Station & Pumps	\$ 200,000	\$120,000	\$120,000	\$200,000
6	Lift Station Controls	\$ 40,000	\$24,000	\$24,000	\$40,000
7	Sewer Bypass Pumping	\$ 10,000	\$0	\$0	\$10,000
Contingencies (15%)		\$32,500	\$15,900	\$15,900	\$32,500
Total Construction Cost		\$357,500	\$174,900	\$174,900	\$357,500
Annual Operation and Maintenance Cost					
	Description	Annual Cost		Net Present Worth	
	Equipment	\$0		\$0	
	Supplies	\$750		\$11,158	
	Utilities	\$0		\$0	
	Labor	\$2,500		\$37,194	
	Total Annual Cost	\$3,250		\$48,352	
				Total Net Present Worth	\$405,852
				EUAC	\$27,280

DEVELOPMENT OF ALTERNATIVES

5th & Wisconsin Ave LS Replacement

(2025)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	Mobilization	LS	1	\$ 30,000.00	\$ 30,000.00
2	Site Restoration	LS	1	\$ 10,000.00	\$ 10,000.00
3	Demolition of Existing Lift Station	LS	1	\$ 10,000.00	\$ 10,000.00
4	Electrical	LS	1	\$ 25,000.00	\$ 25,000.00
5	Can Lift Station & Pumps	LS	1	\$ 200,000.00	\$ 200,000.00
6	Lift Station Controls	LS	1	\$ 40,000.00	\$ 40,000.00
7	Sewer Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00
Construction Subtotal:					\$ 325,000.00
Contingencies (30%):					\$ 97,500.00
Inflation (3%/year) Construction 2024					\$ 19,500.00
Total Construction Cost:					\$ 442,000.00
Legal, Admin, & Testing (2%):					\$ 8,900.00
Engineering (15%):					\$ 66,300.00
Total Project Cost:					\$ 517,200.00

Present Worth for 5th & Wisconsin Ave LS Replacement

Item	Capital Cost Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	Mobilization	\$ 30,000	\$0	\$0	\$30,000
2	Site Restoration	\$ 10,000	\$0	\$0	\$10,000
3	Demolition of Existing Lift Station	\$ 10,000	\$0	\$0	\$10,000
4	Electrical	\$ 25,000	\$15,000	\$15,000	\$25,000
5	Can Lift Station & Pumps	\$ 200,000	\$120,000	\$120,000	\$200,000
6	Lift Station Controls	\$ 40,000	\$24,000	\$24,000	\$40,000
7	Sewer Bypass Pumping	\$ 10,000	\$0	\$0	\$10,000
Contingencies (15%)		\$32,500	\$15,900	\$15,900	\$32,500
Total Construction Cost		\$357,500	\$174,900	\$174,900	\$357,500
Annual Operation and Maintenance Cost					
Description		Annual Cost			Net Present Worth
Equipment		\$0			\$0
Supplies		\$750			\$11,158
Utilities		\$0			\$0
Labor		\$2,500			\$37,194
Total Annual Cost		\$3,250			\$48,352
Total Net Present Worth					\$405,852
EUAC					\$27,280

DEVELOPMENT OF ALTERNATIVES

29th & Arizona Ave LS Replacement

(2026)

Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	Mobilization	LS	1	\$ 30,000.00	\$ 30,000.00
2	Site Restoration	LS	1	\$ 10,000.00	\$ 10,000.00
3	Demolition of Existing Lift Station	LS	1	\$ 10,000.00	\$ 10,000.00
4	Electrical	LS	1	\$ 25,000.00	\$ 25,000.00
5	Can Lift Station & Pumps	LS	1	\$ 200,000.00	\$ 200,000.00
6	Lift Station Controls	LS	1	\$ 40,000.00	\$ 40,000.00
7	Sewer Bypass Pumping	LS	1	\$ 10,000.00	\$ 10,000.00
Construction Subtotal:					\$ 325,000.00
Contingencies (30%):					\$ 97,500.00
Inflation (3%/year) Construction 2025					\$ 29,300.00
Total Construction Cost:					\$ 451,800.00
Legal, Admin, & Testing (2%):					\$ 9,100.00
Engineering (15%):					\$ 67,800.00
Total Project Cost:					\$ 528,700.00

Present Worth for 29th & Arizona Ave LS Replacement

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	Mobilization	\$ 30,000	\$0	\$0	\$30,000
2	Site Restoration	\$ 10,000	\$0	\$0	\$10,000
3	Demolition of Existing Lift Station	\$ 10,000	\$0	\$0	\$10,000
4	Electrical	\$ 25,000	\$15,000	\$15,000	\$25,000
5	Can Lift Station & Pumps	\$ 200,000	\$120,000	\$120,000	\$200,000
6	Lift Station Controls	\$ 40,000	\$24,000	\$24,000	\$40,000
7	Sewer Bypass Pumping	\$ 10,000	\$0	\$0	\$10,000
		Contingencies (15%)	\$32,500	\$15,900	\$32,500
		Total Construction Cost	\$357,500	\$174,900	\$357,500
Annual Operation and Maintenance Cost					
		Description	Annual Cost	Net Present Worth	
		Equipment	\$0	\$0	
		Supplies	\$750	\$11,158	
		Utilities	\$0	\$0	
		Labor	\$2,500	\$37,194	
		Total Annual Cost	\$3,250	\$48,352	
				Total Net Present Worth	\$405,852
				EUAC	\$27,280

DEVELOPMENT OF ALTERNATIVES

ALTERNATIVE #6 – SCADA IMPROVEMENTS

The City has been working through a plan that was implemented for SCADA improvements throughout the City. They are in the final phase which involves replacement of the control panels and radio equipment within all of the existing well houses and lift stations. These improvements are needed to replace outdated equipment which is no longer supported by the equipment manufacturers. The new equipment that will be installed will provide for improved controls and also allow for better monitoring of the equipment and systems status.

Preliminary Cost Estimate – SCADA Improvements

SCADA Improvements Prepared by: City of Huron

Item	Description	Unit	Qty	Unit Cost	Total Cost
1	System SCADA Upgrade	LS	1	\$807,500.00	\$807,500.00
2	Excise Tax (4.5%)	LS	1	\$ 37,000.00	\$37,000.00
Construction Subtotal					\$844,500.00
Contingencies (20%)					\$169,000.00
Inflation (3%/year) Construction 2024					\$50,670.00
Total Construction Cost:					\$1,065,000.00
Clean Water (50%):					\$532,500.00
Drinking Water (50%):					\$532,500.00

***Note - SCADA Costs to be split 50/50 between Clean Water and Drinking Water**

Present Worth – SCADA Improvements

Present Worth for SCADA Improvements

Item	Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1	System SCADA Upgrade	\$ 807,500	\$484,500	\$484,500	\$807,500
2	Excise Tax (4.5%)	\$ 37,000	\$0	\$0	\$37,000
		Contingencies (15%)	\$84,450	\$48,450	\$84,450
		Total Construction Cost	\$928,950	\$532,950	\$928,950
Annual Operation and Maintenance Cost					
		Description	Annual Cost	Net Present Worth	
		Equipment	\$0	\$0	
		Supplies	\$500	\$7,439	
		Utilities	\$0	\$0	
		Labor	\$2,000	\$29,755	
		Total Annual Cost	\$2,500	\$37,194	
				Total Net Present Worth	\$966,144
				EUAC	\$64,940

ALTERNATIVE #7 – FAIRGROUNDS STORM SEWER

The fairgrounds storm sewer project is needed to provide adequate drainage for the new Dakota Events Complex (DEX). The DEX is being built to replace the Beef Complex that burned down in 2020 along with the Sheep Barn that has outlived its useful life. The Beef Complex was a 96,000 square foot facility and the Sheep Barn is a 37,000 square foot facility. These two former buildings will be replaced by the DEX, which will be a state-of-the-art facility containing two full sized equestrian arenas, hold up to 7,000 fans, and will be used for local, regional, and national events. Due to the footprint of the new structure, utilities need to be upgraded in the area and because of the size there is a larger impact to drainage and relocation of existing storm sewer to facilitate construction of the new complex. The existing storm sewer is 54” Corrugated Metal Pipe (CMP) which is severely corroded and in need of replacement. The old storm sewer will be replaced in conjunction with the State Fair project and will be relocated to be outside the footprint of the new building. A cost estimate that includes a breakout of the City’s storm sewer portion of the cost (approximately \$720,000) is detailed as follows:

DEVELOPMENT OF ALTERNATIVES

As-Bid Construction Cost Estimate – Fairgrounds Storm Sewer

Item	Description	Qty	Unit	Unit Cost	Total Cost	OSE/BUILDING		STATE FAIR WATER		STATE FAIR SAN./STORM		CITY STORM	
						Qty	Total	Qty	Total	Qty	Total	Qty	Total
1A	Mobilization BP-2.1, Midland	1	LS	\$ 255,000.00	\$ 255,000.00	0.31	\$ 79,050.00	0.26	\$ 66,300.00	0.29	\$ 73,950.00	0.14	\$ 35,700.00
1B	Mobilization BP-2.2, Rexwinkle	1	LS	\$ 12,000.00	\$ 12,000.00	0.31	\$ 3,720.00	0.26	\$ 3,120.00	0.29	\$ 3,480.00	0.14	\$ 1,680.00
1C	Mobilization BP-2.3, Traffic Solutions	1	LS	\$ 1,500.00	\$ 1,500.00	0.31	\$ 465.00	0.26	\$ 390.00	0.29	\$ 435.00	0.14	\$ 210.00
1D	P&P Bonds, BP-2.1, Midland	1	LS	\$ 22,650.00	\$ 22,650.00	0.31	\$ 7,021.50	0.26	\$ 5,889.00	0.29	\$ 6,568.50	0.14	\$ 3,171.00
1E	P&P Bonds, BP-2.2, Rexwinkle	1	LS	\$ 11,000.00	\$ 11,000.00	0.31	\$ 3,410.00	0.26	\$ 2,860.00	0.29	\$ 3,190.00	0.14	\$ 1,540.00
1F	P&P Bonds, BP-2.3, Traffic Solutions	1	LS	\$ 100.00	\$ 100.00	0.31	\$ 31.00	0.26	\$ 26.00	0.29	\$ 29.00	0.14	\$ 14.00
2	Remove Fence Posts	4	Each	\$ 100.00	\$ 400.00	4	\$ 400.00	0	\$ -	0	\$ -	0	\$ -
3	Remove Concrete Surfacing	7503	SY	\$ 6.50	\$ 48,769.50	1393	\$ 9,054.50	4570	\$ 29,705.00	1430	\$ 9,295.00	110	\$ 715.00
4	Remove Asphalt Surfacing	390	SY	\$ 6.50	\$ 2,535.00	0	\$ -	390	\$ 2,535.00	0	\$ -	0	\$ -
5	Remove Retaining Wall	120	Ft	\$ 15.00	\$ 1,800.00	120	\$ 1,800.00	0	\$ -	0	\$ -	0	\$ -
6	Remove Tree	1	Each	\$ 6,000.00	\$ 6,000.00	1	\$ 6,000.00	0	\$ -	0	\$ -	0	\$ -
7	Remove Storm Sewer Pipe	2150	Ft	\$ 35.40	\$ 76,110.00	0	\$ -	0	\$ -	2150	\$ 76,110.00	0	\$ -
8	Remove Storm Basins/Box	17	Each	\$ 1,647.03	\$ 27,999.51	0	\$ -	0	\$ -	17	\$ 27,999.51	0	\$ -
9	Remove Wash Rack Inlets	3	Each	\$ 885.02	\$ 2,655.06	0	\$ -	0	\$ -	3	\$ 2,655.06	0	\$ -
10	Remove Hydrant	3	Each	\$ 462.00	\$ 1,386.00	0	\$ -	3	\$ 1,386.00	0	\$ -	0	\$ -
11	Remove Yard Hydrant	5	Each	\$ 173.25	\$ 866.25	1	\$ 173.25	4	\$ 693.00	0	\$ -	0	\$ -
12	Remove Water Shut Off	11	Each	\$ 462.00	\$ 5,082.00	0	\$ -	11	\$ 5,082.00	0	\$ -	0	\$ -
13	Remove Water Pipe	1600	Ft	\$ 21.40	\$ 34,240.00	0	\$ -	1600	\$ 34,240.00	0	\$ -	0	\$ -
14	Remove Sanitary Sewer Pipe	1255	Ft	\$ 20.35	\$ 25,539.25	0	\$ -	0	\$ -	1255	\$ 25,539.25	0	\$ -
15	Remove Sanitary Sewer Structure	5	Each	\$ 1,173.77	\$ 5,868.85	0	\$ -	0	\$ -	5	\$ 5,868.85	0	\$ -
16	Remove Sign for Reset (Midland)	2	Each	\$ 100.00	\$ 200.00	2	\$ 200.00	0	\$ -	0	\$ -	0	\$ -
17	Remove & Reset Fence	136	Ft	\$ 50.00	\$ 6,800.00	136	\$ 6,800.00	0	\$ -	0	\$ -	0	\$ -
18	Unclassified Excavation	6710	CuYd	\$ 6.75	\$ 45,292.50	4790	\$ 32,332.50	1920	\$ 12,960.00	0	\$ -	0	\$ -
19	Contractor Furnished Topsoil	630	CuYd	\$ 25.00	\$ 15,750.00	630	\$ 15,750.00	0	\$ -	0	\$ -	0	\$ -
20	Incidental Work Utilities	1	LS	\$ 17,325.00	\$ 17,325.00	0.31	\$ 5,370.75	0.26	\$ 4,504.50	0.29	\$ 5,024.25	0.14	\$ 2,425.50
21	Incidental Work Grading	1	LS	\$ 20,000.00	\$ 20,000.00	0.31	\$ 6,200.00	0.26	\$ 5,200.00	0.29	\$ 5,800.00	0.14	\$ 2,800.00
22	Scarify and Recompact Subgrade	1200	CuYd	\$ 4.50	\$ 5,400.00	0	\$ -	1200	\$ 5,400.00	0	\$ -	0	\$ -
23	6" Gravel Surfacing	3470	Ton	\$ 22.00	\$ 76,340.00	3270	\$ 71,940.00	200	\$ 4,400.00	0	\$ -	0	\$ -
24	Aggregate Base Course	4400	Ton	\$ 22.00	\$ 96,800.00	1370	\$ 30,140.00	2960	\$ 65,120.00	0	\$ -	70	\$ 1,540.00
25	30" Drive Over Curb and Gutter	2050	Ft	\$ 26.75	\$ 54,837.50	0	\$ -	2050	\$ 54,837.50	0	\$ -	0	\$ -
26	30" Drive Over BL Curb and Gutter	420	Ft	\$ 27.00	\$ 11,340.00	0	\$ -	420	\$ 11,340.00	0	\$ -	0	\$ -
27	6" Concrete Surfacing	4642	SqYd	\$ 62.50	\$ 290,125.00	2352	\$ 147,000.00	1090	\$ 68,125.00	1200	\$ 75,000.00	0	\$ -
28	8" PCC Fillet Corner with Rollover Curb	200	SqYd	\$ 106.00	\$ 21,200.00	0	\$ -	200	\$ 21,200.00	0	\$ -	0	\$ -
29	8" Non-Reinforced PCC Pavement	4321	SqYd	\$ 72.55	\$ 313,488.55	0	\$ -	4211	\$ 305,508.05	0	\$ -	110	\$ 7,980.50
30	Dowel Bar	2304	Each	\$ 15.00	\$ 34,560.00	0	\$ -	2304	\$ 34,560.00	0	\$ -	0	\$ -
31	6" Concrete Sidewalk	1722	SF	\$ 6.55	\$ 11,279.10	0	\$ -	1722	\$ 11,279.10	0	\$ -	0	\$ -
32	Arena Soil Mix	11112	SY	\$ 15.65	\$ 173,902.80	11112	\$ 173,902.80	0	\$ -	0	\$ -	0	\$ -
33	Erosion Control	1	LS	\$ 10,000.00	\$ 10,000.00	0.31	\$ 3,100.00	0.26	\$ 2,600.00	0.29	\$ 2,900.00	0.14	\$ 1,400.00
34	Inlet Protection	22	Each	\$ 250.00	\$ 5,500.00	22	\$ 5,500.00	0	\$ -	0	\$ -	0	\$ -
35	Temporary Tracking Control	1	LS	\$ 3,000.00	\$ 3,000.00	0.31	\$ 930.00	0.26	\$ 780.00	0.29	\$ 870.00	0.14	\$ 420.00
36	8" Storm Pipe, F&I	224	Ft	\$ 61.71	\$ 13,823.04	0	\$ -	0	\$ -	224	\$ 13,823.04	0	\$ -
37	10" Storm Pipe, F&I	1410	Ft	\$ 78.58	\$ 110,797.80	0	\$ -	0	\$ -	1410	\$ 110,797.80	0	\$ -
38	12" Storm Pipe, F&I	111	Ft	\$ 73.43	\$ 8,150.73	0	\$ -	0	\$ -	111	\$ 8,150.73	0	\$ -
39	18" Storm Pipe, F&I	599	Ft	\$ 81.42	\$ 48,770.58	0	\$ -	0	\$ -	599	\$ 48,770.58	0	\$ -
40	36" Storm Pipe, F&I	247	Ft	\$ 176.53	\$ 43,602.91	0	\$ -	0	\$ -	247	\$ 43,602.91	0	\$ -
41	42" Storm Pipe, F&I	291	Ft	\$ 232.27	\$ 67,590.57	0	\$ -	0	\$ -	291	\$ 67,590.57	0	\$ -
42	54" Storm Pipe, F&I	1104	Ft	\$ 377.13	\$ 416,351.52	0	\$ -	0	\$ -	0	\$ -	1104	\$ 416,351.52
43	2x3' Drop Inlet w/ Frame & Grate	4	Each	\$ 5,675.13	\$ 22,700.52	0	\$ -	0	\$ -	4	\$ 22,700.52	0	\$ -
44	2x2' Junction Box w/ Frame & Grate	2	Each	\$ 6,536.63	\$ 13,073.26	0	\$ -	0	\$ -	2	\$ 13,073.26	0	\$ -
45	4x4' Junction Box w/ Frame & Grate	3	Each	\$ 9,725.00	\$ 29,175.00	0	\$ -	0	\$ -	3	\$ 29,175.00	0	\$ -
46	5x5' Junction Box w/ Frame & Grate	1	Each	\$ 13,500.00	\$ 13,500.00	0	\$ -	0	\$ -	1	\$ 13,500.00	0	\$ -
47	84" Dia. Manhole	9	Each	\$ 19,475.00	\$ 175,275.00	0	\$ -	0	\$ -	2	\$ 38,950.00	7	\$ 136,325.00
48	Downspout Connection	27	Each	\$ 5,464.87	\$ 147,551.49	0	\$ -	0	\$ -	27	\$ 147,551.49	0	\$ -
49	Manhole Frame and Lid	9	Each	\$ 1,038.23	\$ 9,344.07	0	\$ -	0	\$ -	2	\$ 2,076.46	7	\$ 7,267.61
50	Connect to Existing Storm Sewer	6	Each	\$ 3,577.62	\$ 21,465.72	0	\$ -	0	\$ -	3	\$ 10,732.86	3	\$ 10,732.86
51	Connect to Proposed Storm Sewer	2	Each	\$ 5,422.73	\$ 10,845.46	0	\$ -	0	\$ -	2	\$ 10,845.46	0	\$ -

DEVELOPMENT OF ALTERNATIVES

52	4" PVC Water Main w/ Bedding Material	104	Ft	\$ 46.62	\$ 4,848.48	0	\$ -	104	\$ 4,848.48	0	\$ -	0	\$ -
53	6" PVC Water Main w/ Bedding Material	104	Ft	\$ 58.30	\$ 6,063.20	0	\$ -	104	\$ 6,063.20	0	\$ -	0	\$ -
54	10" PVC Water Main w/ Bedding Material	2200	Ft	\$ 84.24	\$ 185,328.00	0	\$ -	2200	\$ 185,328.00	0	\$ -	0	\$ -
55	6"x4" MJ Tee	1	Each	\$ 926.15	\$ 926.15	0	\$ -	1	\$ 926.15	0	\$ -	0	\$ -
56	10"x4" MJ Tee	1	Each	\$ 1,519.83	\$ 1,519.83	0	\$ -	1	\$ 1,519.83	0	\$ -	0	\$ -
57	10"x6" MJ Tee	2	Each	\$ 1,774.70	\$ 3,549.40	0	\$ -	2	\$ 3,549.40	0	\$ -	0	\$ -
58	10"x10" MJ Tee	7	Each	\$ 2,225.87	\$ 15,581.09	0	\$ -	7	\$ 15,581.09	0	\$ -	0	\$ -
59	10"x4" MJ Reducer	1	Each	\$ 1,056.38	\$ 1,056.38	0	\$ -	1	\$ 1,056.38	0	\$ -	0	\$ -
60	4" MJ Cap	1	Each	\$ 713.80	\$ 713.80	0	\$ -	1	\$ 713.80	0	\$ -	0	\$ -
61	6" MJ Cap	1	Each	\$ 775.37	\$ 775.37	0	\$ -	1	\$ 775.37	0	\$ -	0	\$ -
62	4" Gate Valve with Box	1	Each	\$ 2,015.08	\$ 2,015.08	0	\$ -	1	\$ 2,015.08	0	\$ -	0	\$ -
63	6" Gate Valve with Box	2	Each	\$ 2,576.98	\$ 5,153.96	0	\$ -	2	\$ 5,153.96	0	\$ -	0	\$ -
64	8" Gate Valve with Box	1	Each	\$ 3,400.00	\$ 3,400.00	0	\$ -	1	\$ 3,400.00	0	\$ -	0	\$ -
65	10" Gate Valve with Box	6	Each	\$ 5,110.33	\$ 30,661.98	0	\$ -	6	\$ 30,661.98	0	\$ -	0	\$ -
66	4" MJ Bend	1	Each	\$ 643.70	\$ 643.70	0	\$ -	1	\$ 643.70	0	\$ -	0	\$ -
67	10" MJ Bend	11	Each	\$ 2,031.50	\$ 22,346.50	0	\$ -	11	\$ 22,346.50	0	\$ -	0	\$ -
68	4" MJ Sleeve	2	Each	\$ 771.21	\$ 1,542.42	0	\$ -	2	\$ 1,542.42	0	\$ -	0	\$ -
69	6" MJ Sleeve	1	Each	\$ 1,270.96	\$ 1,270.96	0	\$ -	1	\$ 1,270.96	0	\$ -	0	\$ -
70	10" MJ Sleeve	4	Each	\$ 1,478.73	\$ 5,914.92	0	\$ -	4	\$ 5,914.92	0	\$ -	0	\$ -
71	Connect to Existing Water Main	6	Each	\$ 2,040.00	\$ 12,240.00	0	\$ -	6	\$ 12,240.00	0	\$ -	0	\$ -
72	2" Curb Stop with Box	7	Each	\$ 1,890.38	\$ 13,232.66	0	\$ -	7	\$ 13,232.66	0	\$ -	0	\$ -
73	2" Corp Stop with Tapping Saddle	7	Each	\$ 1,968.25	\$ 13,777.75	0	\$ -	7	\$ 13,777.75	0	\$ -	0	\$ -
74	2" Copper Service	165	Ft	\$ 70.89	\$ 11,696.85	0	\$ -	165	\$ 11,696.85	0	\$ -	0	\$ -
75	Standard Fire Hydrant	4	Each	\$ 7,267.90	\$ 29,071.60	0	\$ -	4	\$ 29,071.60	0	\$ -	0	\$ -
76	Yard Hydrant	1	Each	\$ 2,038.45	\$ 2,038.45	0	\$ -	1	\$ 2,038.45	0	\$ -	0	\$ -
77	Adjust Water Valve Box	8	Each	\$ 700.00	\$ 5,600.00	0	\$ -	8	\$ 5,600.00	0	\$ -	0	\$ -
78	4" Force Main Pipe	322	Ft	\$ 40.00	\$ 12,880.00	0	\$ -	0	\$ -	322	\$ 12,880.00	0	\$ -
79	6" Sanitary Sewer Pipe	1320	Ft	\$ 63.71	\$ 84,097.20	0	\$ -	0	\$ -	1320	\$ 84,097.20	0	\$ -
80	8" Sanitary Sewer Pipe	13	Ft	\$ 79.36	\$ 1,031.68	0	\$ -	0	\$ -	13	\$ 1,031.68	0	\$ -
81	6" Pipe Bend	2	Each	\$ 71.32	\$ 142.64	0	\$ -	0	\$ -	2	\$ 142.64	0	\$ -
82	8" Pipe Bend	2	Each	\$ 176.53	\$ 353.06	0	\$ -	0	\$ -	2	\$ 353.06	0	\$ -
83	6"x6" Pipe Wye	8	Each	\$ 179.53	\$ 1,436.24	0	\$ -	0	\$ -	8	\$ 1,436.24	0	\$ -
84	6" Pipe Sleeve	2	Each	\$ 700.00	\$ 1,400.00	0	\$ -	0	\$ -	2	\$ 1,400.00	0	\$ -
85	Cleanout Assembly	3	Each	\$ 1,200.00	\$ 3,600.00	0	\$ -	0	\$ -	3	\$ 3,600.00	0	\$ -
86	Connect to Existing Sewer Main	2	Each	\$ 816.01	\$ 1,632.02	0	\$ -	0	\$ -	2	\$ 1,632.02	0	\$ -
87	Adjust Manhole Casting	10	Each	\$ 1,043.85	\$ 10,438.50	0	\$ -	0	\$ -	10	\$ 10,438.50	0	\$ -
88	48" Sanitary Manhole w/ Frame & Lid	5	Each	\$ 4,512.00	\$ 22,560.00	0	\$ -	0	\$ -	5	\$ 22,560.00	0	\$ -
89	Manhole Construction Plate Marker	13	Each	\$ 577.50	\$ 7,507.50	0	\$ -	0	\$ -	13	\$ 7,507.50	0	\$ -
90	Sanitary Sewer Exfiltration and Deflection Test	1333	Ft	\$ 2.90	\$ 3,865.70	0	\$ -	0	\$ -	1333	\$ 3,865.70	0	\$ -
91	Manhole Exfiltration/Vacuum Test	5	Each	\$ 202.12	\$ 1,010.60	0	\$ -	0	\$ -	5	\$ 1,010.60	0	\$ -
92	2,000 Gallon Separator Tank	1	Each	\$ 35,000.00	\$ 35,000.00	0	\$ -	0	\$ -	1	\$ 35,000.00	0	\$ -
93	Lift Station	1	Each	\$ 109,400.00	\$ 109,400.00	0	\$ -	0	\$ -	1	\$ 109,400.00	0	\$ -
94	Pipe Insulation	8000	SF	\$ 3.30	\$ 26,400.00	0	\$ -	0	\$ -	8000	\$ 26,400.00	0	\$ -
95	Traffic Control, Miscellaneous	1	LS	\$ 7,858.00	\$ 7,858.00	0.31	\$ 2,435.98	0.26	\$ 2,043.08	0.29	\$ 2,278.82	0.14	\$ 1,100.12
96	Construction Staking	1	LS	\$ 31,500.00	\$ 31,500.00	0.31	\$ 9,765.00	0.26	\$ 8,190.00	0.29	\$ 9,135.00	0.14	\$ 4,410.00
97	Building Structural Excavation & Backfill	1	LS	\$ 772,300.00	\$ 772,300.00	1	\$ 772,300.00	0	\$ -	0	\$ -	0	\$ -
98	Mass Building Demolition and Disposal	1	LS	\$ 15,000.00	\$ 15,000.00	1	\$ 15,000.00	0	\$ -	0	\$ -	0	\$ -
99	Sanitary Trench Drains	1	LS	\$ 78,000.00	\$ 78,000.00	0	\$ -	0	\$ -	1	\$ 78,000.00	0	\$ -
				Subtotal	\$ 4,515,041.21	Subtotal	\$ 1,409,792.28	Subtotal	\$ 1,151,241.76	Subtotal	\$ 1,318,224.06	Subtotal	\$ 635,783.11
				Contingencies	\$ 226,458.79	Contingencies	\$ 70,207.72	Contingencies	\$ 57,758.24	Contingencies	\$ 65,775.94	Contingencies	\$ 32,716.89
				Engineering	\$ 288,500.00	Engineering	\$ 64,000.00	Engineering	\$ 84,000.00	Engineering	\$ 89,000.00	Engineering	\$ 51,500.00
				Total	\$ 5,030,000.00	Total	\$ 1,544,000.00	Total	\$ 1,293,000.00	Total	\$ 1,473,000.00	Total	\$ 720,000.00

DEVELOPMENT OF ALTERNATIVES

Present Worth – Fairgrounds Storm Sewer

Item	Capital Cost Description	Price	Salvage Value	Present Worth of Salvage Value	Net Present Worth
1A	Mobilization BP-2.1, Midland	\$255,000.00	\$0	\$0	\$255,000.00
1B	Mobilization BP-2.2, Rexwinkle	\$12,000.00	\$0	\$0	\$12,000.00
1C	Mobilization BP-2.3, Traffic Solutions	\$1,500.00	\$0	\$0	\$1,500.00
1D	P&P Bonds, BP-2.1, Midland	\$22,650.00	\$0	\$0	\$22,650.00
1E	P&P Bonds, BP-2.2, Rexwinkle	\$11,000.00	\$0	\$0	\$11,000.00
1F	P&P Bonds, BP-2.3, Traffic Solutions	\$100.00	\$0	\$0	\$100.00
2	Remove Fence Posts	\$400.00	\$0	\$0	\$400.00
3	Remove Concrete Surfacing	\$48,769.50	\$0	\$0	\$48,769.50
4	Remove Asphalt Surfacing	\$2,535.00	\$0	\$0	\$2,535.00
5	Remove Retaining Wall	\$1,800.00	\$0	\$0	\$1,800.00
6	Remove Tree	\$6,000.00	\$0	\$0	\$6,000.00
7	Remove Storm Sewer Pipe	\$76,110.00	\$0	\$0	\$76,110.00
8	Remove Storm Basins/Box	\$27,999.51	\$0	\$0	\$27,999.51
9	Remove Wash Rack Inlets	\$2,655.06	\$0	\$0	\$2,655.06
10	Remove Hydrant	\$1,386.00	\$0	\$0	\$1,386.00
11	Remove Yard Hydrant	\$866.25	\$0	\$0	\$866.25
12	Remove Water Shut Off	\$5,082.00	\$0	\$0	\$5,082.00
13	Remove Water Pipe	\$34,240.00	\$0	\$0	\$34,240.00
14	Remove Sanitary Sewer Pipe	\$25,539.25	\$0	\$0	\$25,539.25
15	Remove Sanitary Sewer Structure	\$5,868.85	\$0	\$0	\$5,868.85
16	Remove Sign for Reset	\$200.00	\$0	\$0	\$200.00
17	Remove & Reset Fence	\$6,800.00	\$0	\$0	\$6,800.00
18	Unclassified Excavation	\$45,292.50	\$0	\$0	\$45,292.50
19	Contractor Furnished Topsoil	\$15,750.00	\$0	\$0	\$15,750.00
20	Incidental Work Utilities	\$17,325.00	\$0	\$0	\$17,325.00
21	Incidental Work Grading	\$20,000.00	\$0	\$0	\$20,000.00
22	Scarify and Recompact Subgrade	\$5,400.00	\$0	\$0	\$5,400.00
23	6" Gravel Surfacing	\$76,340.00	\$45,804	\$45,804	\$76,340.00
24	Aggregate Base Course	\$96,800.00	\$58,080	\$58,080	\$96,800.00
25	30" Drive Over Curb and Gutter	\$54,837.50	\$32,903	\$32,903	\$54,837.50
26	30" Drive Over BL Curb and Gutter	\$11,340.00	\$6,804	\$6,804	\$11,340.00
27	6" Concrete Surfacing	\$290,125.00	\$174,075	\$174,075	\$290,125.00
28	8" PCC Fillet Corner with Rollover Curb	\$21,200.00	\$12,720	\$12,720	\$21,200.00
29	8" Non-Reinforced PCC Pavement	\$313,488.55	\$188,093	\$188,093	\$313,488.55
30	Dowel Bar	\$34,560.00	\$20,736	\$20,736	\$34,560.00
31	6" Concrete Sidewalk	\$11,279.10	\$6,767	\$6,767	\$11,279.10
32	Arena Soil Mix	\$173,902.80	\$0	\$0	\$173,902.80
33	Erosion Control	\$10,000.00	\$0	\$0	\$10,000.00
34	Inlet Protection	\$5,500.00	\$0	\$0	\$5,500.00
35	Temporary Tracking Control	\$3,000.00	\$0	\$0	\$3,000.00
36	8" Storm Pipe, F&I	\$13,823.04	\$8,294	\$8,294	\$13,823.04
37	10" Storm Pipe, F&I	\$110,797.80	\$66,479	\$66,479	\$110,797.80
38	12" Storm Pipe, F&I	\$8,150.73	\$4,890	\$4,890	\$8,150.73
39	18" Storm Pipe, F&I	\$48,770.58	\$29,262	\$29,262	\$48,770.58
40	36" Storm Pipe, F&I	\$43,602.91	\$26,162	\$26,162	\$43,602.91
41	42" Storm Pipe, F&I	\$67,590.57	\$40,554	\$40,554	\$67,590.57
42	54" Storm Pipe, F&I	\$416,351.52	\$249,811	\$249,811	\$416,351.52
43	2'x3' Drop Inlet w/ Frame & Grate	\$22,700.52	\$13,620	\$13,620	\$22,700.52
44	2'x2' Junction Box w/ Frame & Grate	\$13,073.26	\$7,844	\$7,844	\$13,073.26
45	4'x4' Junction Box w/ Frame & Grate	\$29,175.00	\$17,505	\$17,505	\$29,175.00
46	5'x5' Junction Box w/ Frame & Grate	\$13,500.00	\$8,100	\$8,100	\$13,500.00
47	84" Dia. Manhole	\$175,275.00	\$105,165	\$105,165	\$175,275.00
48	Downspout Connection	\$147,551.49	\$0	\$0	\$147,551.49
49	Manhole Frame and Lid	\$9,344.07	\$5,606	\$5,606	\$9,344.07
50	Connect to Existing Storm Sewer	\$21,465.72	\$0	\$0	\$21,465.72
51	Connect to Proposed Storm Sewer	\$10,845.46	\$0	\$0	\$10,845.46

DEVELOPMENT OF ALTERNATIVES

52	4" PVC Water Main w/ Bedding Material	\$4,848.48	\$2,909	\$2,909	\$4,848.48
53	6" PVC Water Main w/ Bedding Material	\$6,063.20	\$3,638	\$3,638	\$6,063.20
54	10" PVC Water Main w/ Bedding Material	\$185,328.00	\$111,197	\$111,197	\$185,328.00
55	6"x4" MJ Tee	\$926.15	\$556	\$556	\$926.15
56	10"x4" MJ Tee	\$1,519.83	\$912	\$912	\$1,519.83
57	10"x6" MJ Tee	\$3,549.40	\$2,130	\$2,130	\$3,549.40
58	10"x10" MJ Tee	\$15,581.09	\$9,349	\$9,349	\$15,581.09
59	10"x4" MJ Reducer	\$1,056.38	\$634	\$634	\$1,056.38
60	4" MJ Cap	\$713.80	\$428	\$428	\$713.80
61	6" MJ Cap	\$775.37	\$465	\$465	\$775.37
62	4" Gate Valve with Box	\$2,015.08	\$1,209	\$1,209	\$2,015.08
63	6" Gate Valve with Box	\$5,153.96	\$3,092	\$3,092	\$5,153.96
64	8" Gate Valve with Box	\$3,400.00	\$2,040	\$2,040	\$3,400.00
65	10" Gate Valve with Box	\$30,661.98	\$18,397	\$18,397	\$30,661.98
66	4" MJ Bend	\$643.70	\$386	\$386	\$643.70
67	10" MJ Bend	\$22,346.50	\$13,408	\$13,408	\$22,346.50
68	4" MJ Sleeve	\$1,542.42	\$925	\$925	\$1,542.42
69	6" MJ Sleeve	\$1,270.96	\$763	\$763	\$1,270.96
70	10" MJ Sleeve	\$5,914.92	\$3,549	\$3,549	\$5,914.92
71	Connect to Existing Water Main	\$12,240.00	\$0	\$0	\$12,240.00
72	2" Curb Stop with Box	\$13,232.66	\$7,940	\$7,940	\$13,232.66
73	2" Corp Stop with Tapping Saddle	\$13,777.75	\$8,267	\$8,267	\$13,777.75
74	2" Copper Service	\$11,696.85	\$7,018	\$7,018	\$11,696.85
75	Standard Fire Hydrant	\$29,071.60	\$17,443	\$17,443	\$29,071.60
76	Yard Hydrant	\$2,038.45	\$1,223	\$1,223	\$2,038.45
77	Adjust Water Valve Box	\$5,600.00	\$0	\$0	\$5,600.00
78	4" Force Main Pipe	\$12,880.00	\$7,728	\$7,728	\$12,880.00
79	6" Sanitary Sewer Pipe	\$84,097.20	\$50,458	\$50,458	\$84,097.20
80	8" Sanitary Sewer Pipe	\$1,031.68	\$619	\$619	\$1,031.68
81	6" Pipe Bend	\$142.64	\$86	\$86	\$142.64
82	8" Pipe Bend	\$353.06	\$212	\$212	\$353.06
83	6"x6" Pipe Wye	\$1,436.24	\$862	\$862	\$1,436.24
84	6" Pipe Sleeve	\$1,400.00	\$840	\$840	\$1,400.00
85	Cleanout Assembly	\$3,600.00	\$2,160	\$2,160	\$3,600.00
86	Connect to Existing Sewer Main	\$1,632.02	\$0	\$0	\$1,632.02
87	Adjust Manhole Casting	\$10,438.50	\$0	\$0	\$10,438.50
88	48" Sanitary Manhole w/ Frame & Lid	\$22,560.00	\$13,536	\$13,536	\$22,560.00
89	Manhole Construction Plate Marker	\$7,507.50	\$0	\$0	\$7,507.50
90	Sanitary Sewer Exfiltration and Deflector	\$3,865.70	\$0	\$0	\$3,865.70
91	Manhole Exfiltration/Vacuum Test	\$1,010.60	\$0	\$0	\$1,010.60
92	2,000 Gallon Separator Tank	\$35,000.00	\$21,000	\$21,000	\$35,000.00
93	Lift Station	\$109,400.00	\$65,640	\$65,640	\$109,400.00
94	Pipe Insulation	\$26,400.00	\$15,840	\$15,840	\$26,400.00
95	Traffic Control, Miscellaneous	\$7,858.00	\$0	\$0	\$7,858.00
96	Construction Staking	\$31,500.00	\$0	\$0	\$31,500.00
97	Building Structural Excavation & Backfill	\$772,300.00	\$0	\$0	\$772,300.00
98	Mass Building Demolition and Disposal	\$15,000.00	\$0	\$0	\$15,000.00
99	Sanitary Trench Drains	\$78,000.00	\$46,800	\$46,800	\$78,000.00

Contingencies (15%)

Total Construction Cost **\$4,515,041** **\$1,572,933** **\$1,572,933** **\$4,212,791**

Annual Operation and Maintenance Cost

Description	Annual Cost	Net Present Worth
Equipment	\$0	\$0
Supplies	\$1,500	\$22,316
Utilities	\$0	\$0
Labor	\$1,500	\$22,316
Total Annual Cost	\$3,000	\$44,632

Total Net Present Worth **\$4,257,424**

EUAC **\$286,166**

IMPLEMENTATION SCHEDULE

The City intends utilize City ARPA funds towards the selected alternatives. They will follow the capital improvements plan that they have developed to keep them on track with progress and their finances. The developed alternatives are planned to be constructed in phases over multiple years as financing allows. As stated previously, the City of Huron is taking a balanced approach to address aging infrastructure and supporting the growth of the city.

Alternative #2 – Water Main Replacement – 2022, 2023, 2024, 2025 & 2026

Phase 1 Design:	2021
Phase 1 ARPA Funding Application:	April 1, 2022
Phase 1 Bidding:	May 2022
Phase 1 Construction:	Construction Season 2022
Phase 2 ARPA Funding Application:	April 1, 2022
Phase 2 Design:	2022
Phase 2 Bidding:	March 2023
Phase 2 Construction:	Construction Season 2023
Phase 3 ARPA Funding Application:	April 1, 2022
Phase 3 Design:	2023
Phase 3 Bidding:	March 2024
Phase 3 Construction:	Construction Season 2024
Phase 4 ARPA Funding Application:	April 1, 2022
Phase 4 Design:	2024
Phase 4 Bidding:	March 2024
Phase 4 Construction:	Construction Season 2025

DEVELOPMENT OF ALTERNATIVES

Phase 5 ARPA Funding Application:	April 1, 2022
Phase 5 Design:	2024
Phase 5 Bidding:	March 2024
Phase 5 Construction:	Construction Season 2026

Alternative #3 – Water Meter Upgrades – 2022 & 2024

Phase 1 & 2 ARPA Application:	April 1, 2022
Phase 1 Bidding:	May 2022
Construction:	Construction Season 2022
Phase 2 Bidding:	April 2024
Phase 2 Construction:	Construction Season 2024

Alternative #4 – Sanitary Sewer Collection Improvements – 2023, 2024, 2025 & 2026

Preliminary Design:	Completed 2020
Final Design:	2021-2022
ARPA Funding Application:	April 1, 2022
Bidding:	May 2023
Construction:	Construction Season 2023-2026

Alternative #5 – Lift Station Replacement – 2023, 2025 & 2026

Final Design:	2021-2022
ARPA Funding Application:	April 1, 2022
Bidding:	Summer 2023
Construction:	2023-2026

Alternative #6 – SCADA Improvements

ARPA Funding Application:	April 1, 2022
Bidding:	May 2024
Construction:	2024-2026

Alternative #7 – Fairgrounds Storm Sewer

Preliminary & Final Design:	2021 - 2022
ARPA Funding Application:	April 1, 2022
Bidding:	March 2022
Construction:	2022-2023

Project Phasing and Funding Breakdown by Year

City of Huron 2022-2026

Project	Year	2022			2023			2024			2025			2026						
		Total Cost	CWSRF	DWSRF	DEX (OSE Funded)	Total Cost	CWSRF	DWSRF	Total Cost	CWSRF	DWSRF	Total Cost	CWSRF	DWSRF	Total Cost	CWSRF	DWSRF			
Alt. 2 Water Main Replacement		\$ 2,181,800.00		\$ 2,181,800.00		\$ 1,733,350.00		\$ 1,733,350.00		\$ 1,588,900.00		\$ 1,588,900.00		\$ 2,235,100.00		\$ 2,235,100.00		\$ 1,603,050.00		\$ 1,603,050.00
Alt. 3 Water Meter Upgrades		\$ 389,500.00		\$ 389,500.00		\$ -		\$ -		\$ 2,767,600.00		\$ 2,767,600.00		\$ -		\$ -		\$ -		\$ -
Alt. 4 Sanitary Sewer Collection Improvements						\$ 1,002,000.00		\$ 1,002,000.00		\$ 1,038,200.00		\$ 1,038,200.00		\$ 764,900.00		\$ 764,900.00		\$ 1,455,800.00		\$ 1,455,800.00
Alt. 5 Lift Station Replacement						\$ 505,900.00		\$ 505,900.00		\$ -		\$ -		\$ 517,200.00		\$ 517,200.00		\$ 528,700.00		\$ 528,700.00
Alt. 6 SCADA Improvements		\$ -				\$ -		\$ -		\$ 1,065,000.00		\$ 532,500.00		\$ 532,500.00		\$ -		\$ -		\$ -
Alt. 7 Fairgrounds Storm Sewer		\$ 5,030,000.00	\$ 720,000.00		\$ 4,310,000.00	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Totals		\$ 7,601,300.00	\$ 720,000.00	\$ 2,571,300.00	\$ 4,310,000.00	\$ 3,241,250.00	\$ 1,507,900.00	\$ 1,733,350.00	\$ 6,459,700.00	\$ 1,570,700.00	\$ 4,889,000.00	\$ 3,517,200.00	\$ 1,282,100.00	\$ 2,235,100.00	\$ 3,587,550.00	\$ 1,984,500.00	\$ 1,603,050.00			

Total Capital Improvements Projects Cost	\$ 24,407,000.00
Total DEX CWSRF Eligible Costs	\$ 720,000.00
Total CWSRF Eligible Costs	\$ 6,345,200.00
Total DWSRF Eligible Costs	\$ 13,031,800.00
Total OSE Funded	\$ 4,310,000.00

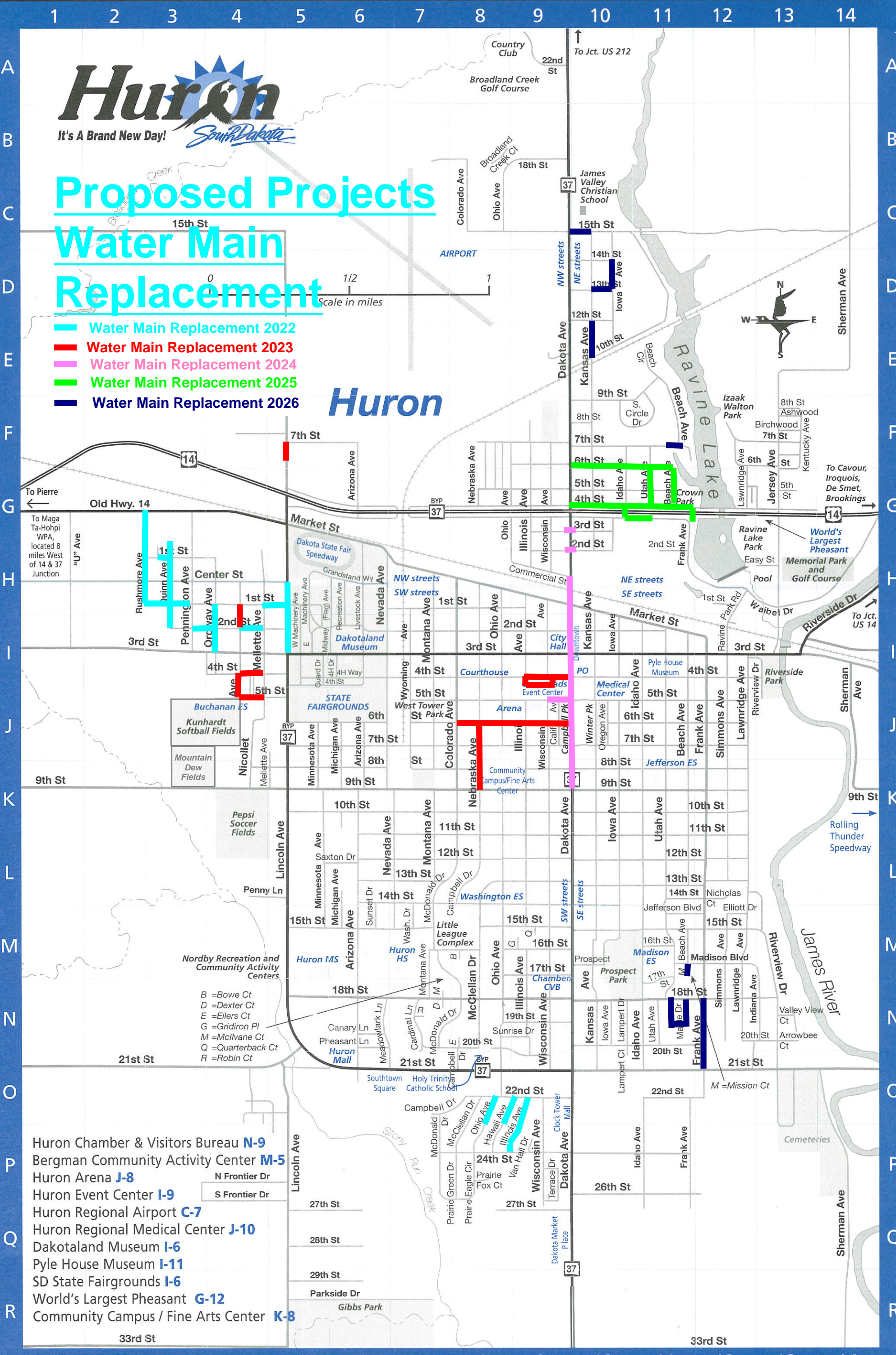
YOUR GUIDE TO HURON



Proposed Projects Water Main Replacement

- Water Main Replacement 2022
- Water Main Replacement 2023
- Water Main Replacement 2024
- Water Main Replacement 2025
- Water Main Replacement 2026

Huron



- B =Bowe Ct
- D =Dexter Ct
- E =Eilers Ct
- G =Gridiron Pl
- M =McIlvane Ct
- Q =Quarterback Ct
- R =Robin Ct

- Huron Chamber & Visitors Bureau **N-9**
- Bergman Community Activity Center **M-5**
- Huron Arena **J-8**
- Huron Event Center **I-9**
- Huron Regional Airport **C-7**
- Huron Regional Medical Center **J-10**
- Dakotaland Museum **I-6**
- Pyle House Museum **I-11**
- SD State Fairgrounds **I-6**
- World's Largest Pheasant **G-12**
- Community Campus / Fine Arts Center **K-8**

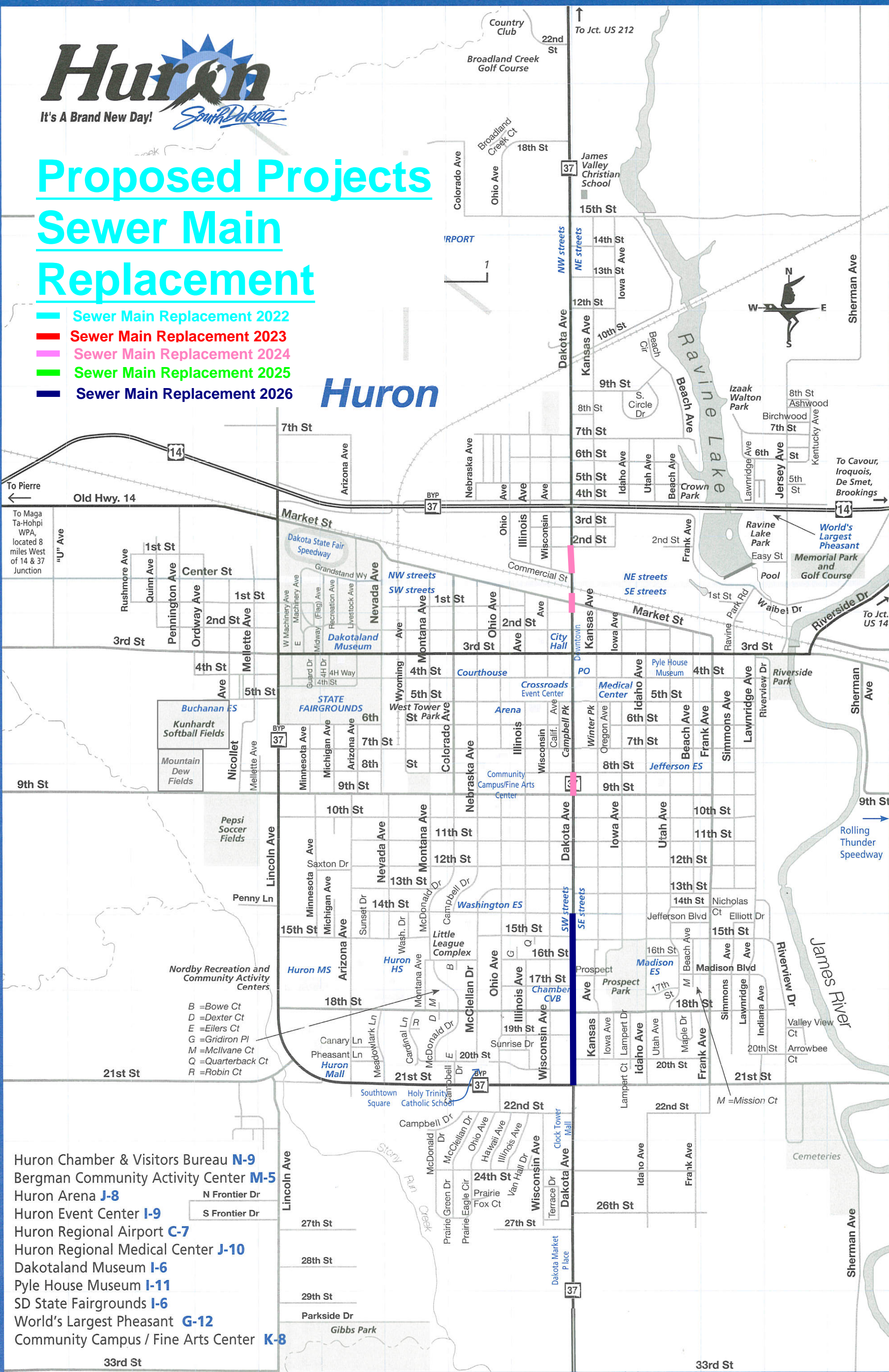
YOUR GUIDE TO HURON



Proposed Projects Sewer Main Replacement

- Sewer Main Replacement 2022
- Sewer Main Replacement 2023
- Sewer Main Replacement 2024
- Sewer Main Replacement 2025
- Sewer Main Replacement 2026

Huron



- B =Bowe Ct
- D =Dexter Ct
- E =Eilers Ct
- G =Gridiron Pl
- M =McIlvane Ct
- Q =Quarterback Ct
- R =Robin Ct

- Huron Chamber & Visitors Bureau **N-9**
- Bergman Community Activity Center **M-5**
- Huron Arena **J-8**
- Huron Event Center **I-9**
- Huron Regional Airport **C-7**
- Huron Regional Medical Center **J-10**
- Dakotaland Museum **I-6**
- Pyle House Museum **I-11**
- SD State Fairgrounds **I-6**
- World's Largest Pheasant **G-12**
- Community Campus / Fine Arts Center **K-8**