

ENGINEER'S REPORT

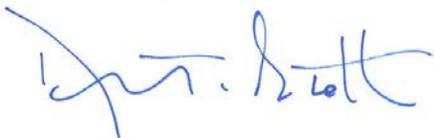
The undersigned is the engineer for the City of West Fargo, Cass County, North Dakota, and submits the following report to the Board of City Commissioners of said city:

Street Improvement District No. 2241 will involve the construction of improvements consisting of water mains, storm sewer, asphalt streets, curb and gutter, street lights, sidewalks, multi-use paths, storm water retention pond, and other miscellaneous installations.

Based upon the estimate of the probable cost, attached hereto and made a part thereof, and the engineering information and studies, the work proposed in said district is feasible.

Dated this 1st day of May, 2017.

Dustin Scott
Moore Engineering, Inc.
West Fargo ND



Engineer for the City of West Fargo, ND

**STREET IMPROVEMENT DISTRICT NO. 2241
5TH STREET WEST EXTENSION TO 27TH AVE W
WEST FARGO ND**

Engineer's Opinion of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
<u>Sanitary Sewer Items</u>				
1. Sanitary Sewer Manhole - Adjust Existing	Each	1	\$250.00	\$250.00
2. Sanitary Sewer Manhole - Adjust Existing Special	Each	1	\$1,500.00	\$1,500.00
<u>Water Main Items</u>				
1. Tapping Sleeve & Valve - 16" x 10"	Each	1	\$6,000.00	\$6,000.00
2. Water Main - Connect To Existing	Each	1	\$1,000.00	\$1,000.00
3. Water Main - 8" PVC C900	LF	66	\$25.00	\$1,650.00
4. Water Main - 10" PVC C900	LF	578	\$30.00	\$17,340.00
5. Specials	Lbs	589	\$5.00	\$2,945.00
6. Gate Valve & Box - 6"	Each	1	\$1,200.00	\$1,200.00
7. Gate Valve & Box - 10"	Each	1	\$2,500.00	\$2,500.00
8. Hydrant - 11.5'	Each	1	\$4,100.00	\$4,100.00
9. Hydrant Lead - 6" PVC C900	LF	6	\$28.00	\$168.00
<u>Storm Sewer Items</u>				
1. Storm Sewer - 4" Perforated PVC - Connect To Existing	Each	2	\$30.00	\$60.00
2. Storm Sewer - 4" Perforated PVC	LF	1,255	\$4.00	\$5,020.00
3. Storm Sewer - Connect To Existing	Each	2	\$1,000.00	\$2,000.00
4. Storm Sewer - 12" PP	LF	36	\$40.00	\$1,440.00
5. Storm Sewer - 15" RCP	LF	232	\$38.00	\$8,816.00
6. Storm Sewer - 24" RCP	LF	50	\$41.00	\$2,050.00
7. Storm Sewer - 66" RCP	LF	221	\$200.00	\$44,200.00
8. Storm Sewer Plug	Each	1	\$50.00	\$50.00
9. Storm Sewer Manhole - 48"	Each	2	\$2,045.00	\$4,090.00
10. Storm Sewer Manhole - 60"	Each	1	\$4,400.00	\$4,400.00
11. Storm Sewer Manhole - 108"	Each	1	\$11,000.00	\$11,000.00
12. Storm Sewer Control Structure	Each	1	\$12,000.00	\$12,000.00
13. Storm Sewer Catch Basin - 2' x 3'	Each	2	\$2,400.00	\$4,800.00
14. Storm Sewer Catch Basin - 30"	Each	1	\$1,600.00	\$1,600.00
15. Rock Bedding - 1.25"	LF	8	\$5.00	\$40.00
16. Flared End Section - Remove	Each	1	\$300.00	\$300.00
17. Flared End Section - Remove & Reset	Each	1	\$1,500.00	\$1,500.00
18. End Section - 15" RCP Flared	Each	1	\$1,600.00	\$1,600.00
19. End Section - 66" RCP Flared	Each	1	\$2,750.00	\$2,750.00
20. Riprap & Fabric - 18" Class III	CY	17	\$50.00	\$850.00
<u>Roadway Items</u>				
1. Excavation - Unclassified	CY	209	\$4.00	\$836.00
2. Embankment	CY	209	\$4.00	\$836.00
3. Clay Borrow - Provided	CY	1,273	\$4.00	\$5,092.00
4. Clay Borrow - Unsecured	CY	10,780	\$9.25	\$99,715.00
5. Subgrade Preparation	SY	2,942	\$1.40	\$4,118.80
6. Reinforcement Fabric	SY	5,848	\$1.60	\$9,356.80
7. Gravel - 12" NDDOT Class 5	CY	980	\$36.00	\$35,280.00
8. Curb & Gutter - Saw Full Depth	LF	5	\$5.00	\$25.00
9. Curb & Gutter - Remove	LF	21	\$10.00	\$210.00
10. Curb & Gutter - Connect To Existing	Each	2	\$25.00	\$50.00
11. Curb & Gutter - Highback Inflow	LF	1,161	\$18.00	\$20,898.00
12. Curb & Gutter - Mountable Inflow	LF	34	\$25.00	\$850.00
13. Asphalt Pavement - Saw Full Depth	LF	119	\$5.00	\$595.00
14. Asphalt Base Course - 3.5"	SY	2,398	\$18.00	\$43,164.00
15. Tack Coat	Gal	124	\$2.00	\$248.00
16. Asphalt Wear Course - 2"	SY	2,398	\$9.00	\$21,582.00
17. Concrete Pavement - Saw Full Depth	LF	85	\$5.00	\$425.00

18.	Concrete Pavement - Remove	SY	826	\$10.00	\$8,260.00
19.	Sidewalk - Saw Full Depth	LF	11	\$5.00	\$55.00
20.	Sidewalk - Remove	SY	21	\$10.00	\$210.00
21.	Sidewalk - Connect To Existing	Each	2	\$25.00	\$50.00
22.	Sidewalk - 4" Concrete	SY	607	\$42.00	\$25,494.00
23.	Driveway - 6" Concrete	SY	30	\$49.00	\$1,470.00
24.	Driveway - 8" Concrete	SY	117	\$55.00	\$6,435.00
25.	Sign Anchor - In Ground	Each	8	\$50.00	\$400.00
26.	Sign Post	LF	67	\$5.30	\$355.10
27.	Signing - Standard	SF	17	\$33.00	\$561.00
28.	Signing - 9"	LF	17	\$32.00	\$544.00
29.	Message - White Grooved Plastic	SF	64	\$51.50	\$3,296.00
30.	Striping - 4" Yellow Grooved Plastic	LF	126	\$4.00	\$504.00
31.	Striping - 8" White Grooved Plastic	LF	126	\$10.00	\$1,260.00
32.	Striping - 24" White Grooved Plastic	LF	18	\$19.70	\$354.60

Pond Items

1.	Seeding - Type II	Acre	0.3	\$2,000.00	\$500.00
2.	Mulch - Type A - Permanent Straw	Acre	0.2	\$260.00	\$52.00
3.	Erosion Control Blanket - Straw	SY	394	\$1.90	\$748.60
4.	Topsoil Replacement - 4"	CY	135	\$13.00	\$1,755.00
5.	Temporary Pumping	LSum	1	\$3,500.00	\$3,500.00
6.	Temporary Cofferdam	LSum	1	\$10,000.00	\$10,000.00
7.	Pond - Refill	LSum	1	\$3,000.00	\$3,000.00

General Items

1.	Cleaning	LSum	1	\$500.00	\$500.00
2.	Storm Water Management	LSum	1	\$500.00	\$500.00
3.	Traffic Control	LSum	1	\$500.00	\$500.00
4.	Mowing	Acre	1.6	\$220.00	\$341.00
5.	Watering	Each	6	\$110.00	\$660.00
6.	Excavation - 6" Topsoil Stripping	CY	1,664	\$3.20	\$5,324.80
7.	Topsoil Replacement - 4"	CY	256	\$5.00	\$1,280.00
8.	Rear Yard Grading	SY	511	\$3.00	\$1,533.00
9.	Inlet Protection Device	Each	5	\$110.00	\$550.00
10.	Rock Check	Each	3	\$400.00	\$1,200.00
11.	Sedimentation Control Wattle - 9"	LF	18	\$1.90	\$34.20
12.	Stabilized Construction Entrance	Each	1	\$500.00	\$500.00
13.	Seeding - Type II	Acre	1.3	\$2,000.00	\$2,500.00
14.	Mulch - Type B - Hydromulch	Acre	0.4	\$5,500.00	\$1,925.00
15.	Mulch - Type A - Permanent Straw	Acre	0.9	\$260.00	\$234.00
16.	Mulch - Type A - Temporary Straw	Acre	2.9	\$300.00	\$855.00
17.	Temporary Access	LSum	1	\$1,000.00	\$1,000.00
18.	Tree - Remove & Reset	Each	17	\$250.00	\$4,250.00

Electrical Items

1.	Conductor - #6 USE/Cu.	LF	1,710	\$1.35	\$2,308.50
2.	Tracer Wire - #12	LF	570	\$0.27	\$153.90
3.	Innerduct - 1.5" PVC	LF	570	\$4.50	\$2,565.00
4.	Concrete Base - 5'	Each	4	\$450.00	\$1,800.00
5.	Light Standard - Single LED and 14' Post	Each	4	\$4,225.00	\$16,900.00

Construction Subtotal	\$506,719.30
Contingencies	\$50,880.70
Total Construction	\$557,600.00

Engineering	\$61,336.00
Legal & Administration	\$55,760.00
Bond Discount	\$22,304.00

TOTAL PROJECT	\$697,000.00
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