

FEASIBILITY REPORT

Princeton Industrial Street & Utility Project

019795-000

FOR THE
CITY OF PRINCETON, MINNESOTA

April 27, 2023

Prepared By:



April 27, 2023

Honorable Mayor and City Council
City of Princeton
705 2nd Street N
Princeton, MN 55371

Re: Feasibility Report
Industrial Park Street and Utility Project
City of Princeton, MN
WSB Project No. 019795-000

Dear Honorable Mayor and City Council Members:

Attached for your review is a feasibility study which addresses improvements associated with the Industrial Park Street and Utility Project.

I would be happy to discuss this report with you at your convenience. Please contact me at 612.219.3500 if you have any questions or concerns.

Sincerely,

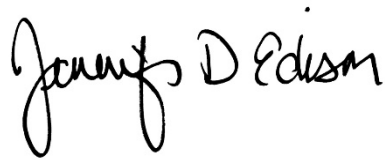
WSB



Jennifer Edison, PE
City Engineer

CERTIFICATION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the State of Minnesota.



Name, PE

Date: March 27, 2023

Lic. No. 51721

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LETTER OF TRANSMITTAL
CERTIFICATION SHEET
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1. EXECUTIVE SUMMARY

The following Engineer's report has been prepared to outline the street and utility improvements needed for the Industrial Park Expansion Project in the City of Princeton, Minnesota. The Industrial Park Expansion requires the construction of new access roads, sanitary sewer mains, water mains, and storm sewer improvements.

The City's current industrial park is reaching capacity and is nearly sold out. The City only has 1.71 acres of vacant industrial space in its current park and needs to develop additional industrial space for the city's continued growth. With the current and proposed expansions area's proximity to a major transportation route, State Highway 169, continued growth is expected.

The proposed Industrial Park Expansion area includes six parcels (with right-of-way) totaling 54-acres located in the southwest quadrant of the County Road 31 and 21st Avenue South Intersection. The City of Princeton Economic Development Authority (EDA) owns Lots 1-4, Block 1 of the Princeton Business Park Plat and Lot 1, Block 1 of the Princeton Business Park 2nd Addition Plat. Lot 5 of the Princeton Business Park Plat is owned by the City of Princeton and serves as the Public Safety building that houses the City's police and fire departments.

In 2022, the City extended 21st Avenue South to connect the proposed Industrial Park Expansion to the city's existing industrial park. This extension provided connectivity of the two Industrial Park areas and also provided a continuous traffic route on the west side of Highway 169. This project provided a connection from the south via the Rum Rover Drive S interchange, and the airport will be accessible from the north at the TH 95 interchange.

2. INDUSTRIAL PARK EXPANSION

2.1 Road Extensions

As part of the platting process, the City retained 66-foot right-of-way for the extension of two new access roads into the new park. One road will extend south from CSAH 31 and the other road will extend west from 21st Avenue South. Both roads will be built with an urban section design and will be 36-feet wide from curb to curb. There will be a 12-foot driving lane with a 6-foot shoulder in each direction. Figure 3 shows the typical section of the proposed roads. The pavement design will be based on a 10-ton roadway with strength to support potential heavy truck loading from business development.

2.2 Storm Sewer

Storm sewer will be installed in the proposed streets to collect and convey water to a connection with the existing storm sewer system along 21st Avenue South. The need for approximately 1,400-feet of storm sewer pipe is anticipated. Storm sewer improvements included in this report are designed for the street and right-of-way. Storm sewer improvements to accommodate future site development should be addressed as part of the development as they are proposed.

Currently, storm sewer along 21st Avenue South drains south and outlets from a 30-inch apron into the drainage pond located directly south of the public safety building. Stormwater from the pond outlets through an apron on the south side of the pond and is carried by a 30-inch storm sewer pipe east to a drainage swale that exits into a wetland to the east. It will also be necessary to expand the existing drainage pond to create more volume for stormwater treatment.

2.3 Sanitary Sewer and Water Main

Approximately 550-feet of 8-inch sanitary sewer will be extended from an existing 8-inch stub from CSAH 31. Each lot will receive a 6-inch sewer service stub.

The new watermain is proposed to be 8-inch and will connect at both CSAH 31 and 21st Avenue South in order to provide the new industrial park a “looped” system for water quality and fire protection purposes.

Both sanitary sewer and watermain will be extended to the west property line on CSAH 31 in preparation of future development connections.

2.4 Bituminous Trail

An 8-foot bituminous trail is proposed to be extended along the west side of 21st Avenue South from CSAH 31 south to connect to the existing trail just south of the City of Princeton Public Safety Building. The proposed bituminous trail will provide a non-vehicle transportation route for employees in the industrial park businesses to commute to work either by walking or with a bicycle.

2.5 Other utilities

Electric power is proposed to be installed along the new road corridors to serve the proposed industrial park lots. The owner of the electric will be the Princeton Public Utilities. Approximately 1800-feet of three phase power would be installed. Transformers will be part of the new services for each lot and will be the responsibility of the new service owners. Transformer sizes will vary based on how much load the potential business will use.

Streetlights will also be installed through the road corridors. Approximately 1200-feet of secondary wire is anticipated. The streetlights would be 30-feet tall and aluminum with an LED fixture.

4.5 Permits

Permits required as part of the proposed improvements are anticipated as follows:

- MPCA General Stormwater Permit (NPDES)
- Minnesota Department of Health
- MPCA Sanitary Sewer Extension Permit
- Mille Lacs County Construction Permit

5. FINANCING

5.1 Opinion of Probable Cost

A detailed opinion of probable cost for the proposed improvements can be found in Appendix B of this report. These opinions of probable cost incorporate anticipated 2024 construction costs and include 15% indirect costs. The indirect costs include legal, engineering, administrative, and financing items. A summary table of the proposed project costs for the utility and street extension into the Industrial Park is shown below in Table 1. The estimated project cost totals **\$1,842,026**.

TABLE 1
Proposed Project Costs
Utility and Street Extension Project

SCHEDULE	TOTAL
Schedule A – Sanitary Sewer	\$353,194
Schedule B – Watermain	\$456,431
Schedule C – Bituminous Trail	\$57,805
Schedule D – Lighting	\$170,518
Schedule E – Street / Storm Sewer	\$804,078
TOTAL PROJECT COST –	\$1,842,026

5.2 Funding

A summary of the proposed funding is presented below in **Table 2**.

TABLE 2
Proposed Project Funding

	Sanitary Sewer Trunk	Watermain Trunk	City Funds	Assessments	Total
Sanitary Sewer	\$55,611		\$148,791	\$148,792	\$353,194
Watermain		\$83,417	\$186,507	\$186,507	\$456,431
Bituminous Trail			\$28,735	\$29,070	\$57,805
Lighting			\$84,565	\$85,953	\$170,518
Street /Storm Sewer			\$401,905	\$402,173	\$804,078
TOTAL	\$55,611	\$83,417	\$850,503	\$852,495	\$1,842,026

6. SCHEDULE

The proposed schedule is as follows:

City Council Accepts Feasibility Report and Orders Project	April 27, 2023
Award Contract	April 27, 2024
Preconstruction Meeting	May 2024
Begin Construction	May 2024
Substantial Completion	September 2024
Assessment Hearing	October 2024
Final Completion	June 2025

7. FEASIBILITY AND RECOMMENDATION

It is the recommendation of City staff that this project is feasible, necessary, and cost-effective from an engineering standpoint.

APPENDIX A

Figure 1 – Assessment Parcels
Figure 2 – Preliminary Assessment Roll
Figure 3 – Opinion of Probable Cost

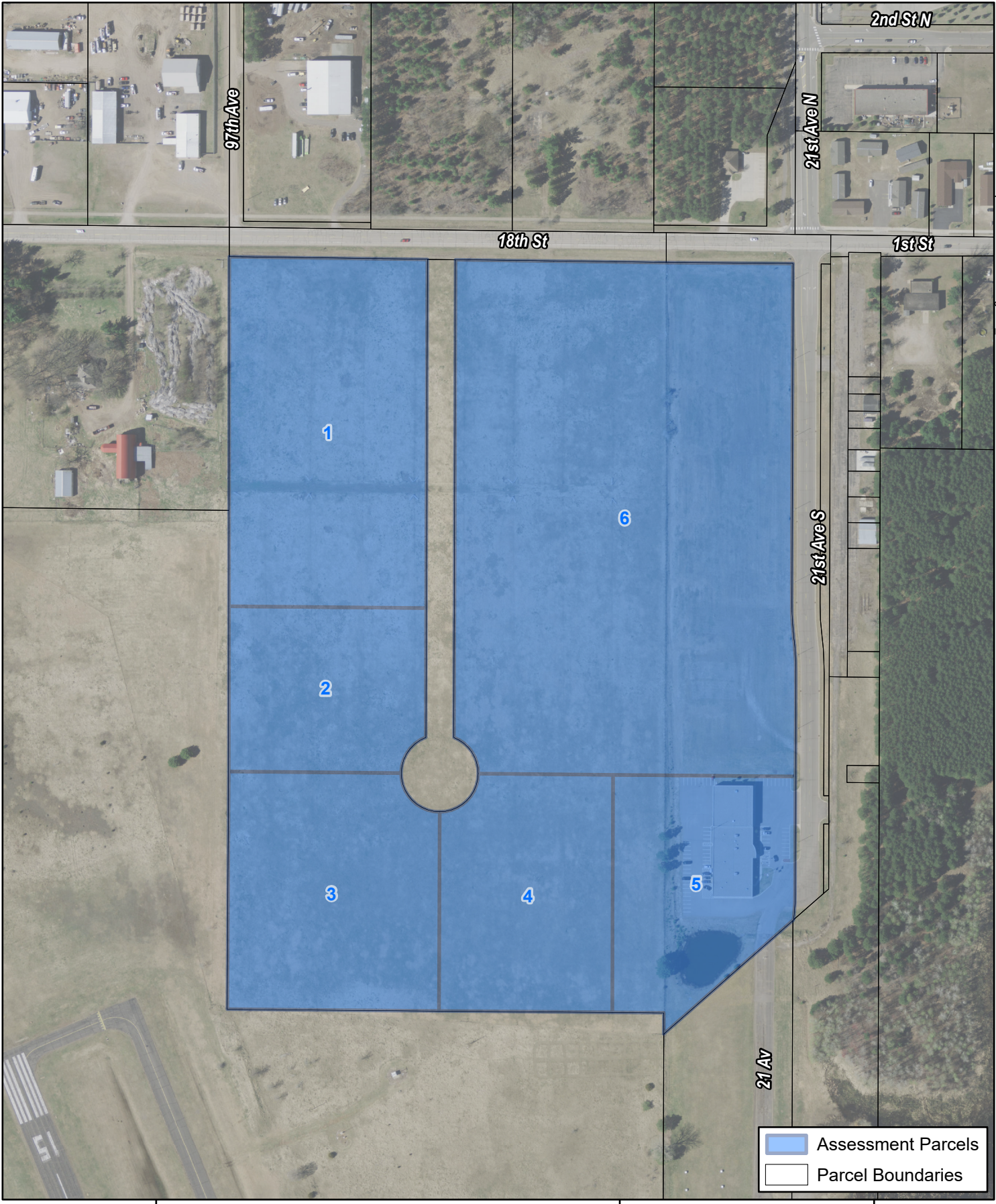


Figure 1 - Assessment Parcels

Princeton Business Park 2nd Addition
City of Princeton, Minnesota



0 300
Feet
1 inch = 300 feet



PRELIMINARY ASSESSMENT ROLL														
No.	PID	OWNER NAME	OWNER ADDRESS	AC	ROADWAY ASSESSMENT	FF (TRAIL)	TRAIL ASSESSMENT	FF (LIGHTING)	LIGHTING ASSESSMENT	SANITARY LOT	SANITARY SEWER ASSESSMENT	WATER LOT	WATERMAIN ASSESSMENT	TOTAL ASSESSMENT
1	24-687-0010	PRINCETON ECONOMIC DEVELOPMENT AUTHORITY	705 2ND STREET NORTH, PRINCETON, MN 55371	8.596	\$70,703.00		\$0.00	812.00	\$17,052.00	1.00	\$37,198.00	1	\$31,084.50	\$156,037.50
2	24-687-0020	PRINCETON ECONOMIC DEVELOPMENT AUTHORITY	705 2ND STREET NORTH, PRINCETON, MN 55371	3.977	\$32,711.00		\$0.00	408.00	\$8,568.00	1.00	\$37,198.00	1	\$31,084.50	\$109,561.50
3	24-687-0030	PRINCETON ECONOMIC DEVELOPMENT AUTHORITY	705 2ND STREET NORTH, PRINCETON, MN 55371	6.112	\$50,272.00		\$0.00	142.00	\$2,982.00	1.00	\$37,198.00	1	\$31,084.50	\$121,536.50
4	24-687-0040	PRINCETON ECONOMIC DEVELOPMENT AUTHORITY	705 2ND STREET NORTH, PRINCETON, MN 55371	4.988	\$41,027.00		\$0.00	454.00	\$9,534.00	1.00	\$37,198.00	1	\$31,084.50	\$118,843.50
5	24-687-0050	PRINCETON ECONOMIC DEVELOPMENT AUTHORITY	705 2ND STREET NORTH, PRINCETON, MN 55371	4.793	\$39,423.00	330.00	\$6,270.00	425.00	\$8,925.00		\$0.00	1	\$31,084.50	\$85,702.50
6	24-691-0010	PRINCETON ECONOMIC DEVELOPMENT AUTHORITY	705 2ND STREET NORTH, PRINCETON, MN 55371	20.43	\$168,037.00	1200.00	\$22,800.00	1852.00	\$38,892.00		\$0.00	1	\$31,084.50	\$260,813.50
				0	48.90		\$402,173.00		\$29,070.00		\$85,953.00		\$148,792.00	\$852,495.00

OPINION OF PROBABLE COST

WSB Project: Industrial Park Street and Utilities
 Project Location: Princeton, MN
 City Project No.:

Design By: SG
 Checked By: KK

WSB Project No: 019795-000

Date: 4/21/2023

Item No.	MnDOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
A. Industrial Park						
1	2021.501	MOBILIZATION	LS	1	\$36,000.00	\$ 36,000.00
2	2101.502	CLEARING	EACH	9	\$250.00	\$ 2,250.00
3	2101.502	GRUBBING	EACH	9	\$50.00	\$ 450.00
4	2104.502	REMOVE SIGN	EACH	1	\$50.00	\$ 50.00
5	2104.502	SALVAGE HYDRANT	EACH	2	\$1,500.00	\$ 3,000.00
6	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	L F	50	\$7.00	\$ 350.00
7	2104.503	REMOVE PIPE CULVERTS	L F	62	\$15.00	\$ 930.00
8	2104.503	REMOVE CURB & GUTTER	L F	174	\$2.00	\$ 348.00
9	2104.504	REMOVE BITUMINOUS PAVEMENT	S Y	50	\$5.00	\$ 250.00
10	2106.507	EXCAVATION - COMMON (P)	C Y	3,464	\$2.70	\$ 9,352.80
11	2106.507	EXCAVATION - CHANNEL AND POND (P)	C Y	3,480	\$4.25	\$ 14,790.00
12	2106.507	GRANULAR EMBANKMENT (CV) (P)	C Y	1,820	\$9.25	\$ 16,835.00
13	2106.507	COMMON EMBANKMENT (CV) (P)	C Y	5,146	\$2.20	\$ 11,321.20
14	2106.601	DEWATERING	LS	1	\$75,000.00	\$ 75,000.00
15	2112.519	SUBGRADE PREPARATION	RDST	21.75	\$330.00	\$ 7,177.50
16	2123.510	COMMON LABORERS	HOUR	20	\$90.00	\$ 1,800.00
17	2123.610	SKID LOADER	HOUR	20	\$140.00	\$ 2,800.00
18	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	20	\$160.00	\$ 3,200.00
19	2123.610	1.5 CU YD BACKHOE	HOUR	20	\$180.00	\$ 3,600.00
20	2130.523	WATER	M GAL	100	\$85.00	\$ 8,500.00
21	2211.507	AGGREGATE BASE (CV) CLASS 5 (P)	C Y	3,302	\$14.20	\$ 46,888.40
22	2360.509	TYPE SP 12.5 WEARING COURSE MIX (3,C)	TON	1,825	\$83.00	\$ 151,475.00
23	2501.502	15" RC PIPE APRON	EACH	2	\$1,300.00	\$ 2,600.00
24	2501.502	18" RC PIPE APRON	EACH	1	\$1,850.00	\$ 1,850.00
25	2501.502	21" RC PIPE APRON	EACH	1	\$2,000.00	\$ 2,000.00
26	2501.503	15" RC PIPE CULVERT	L F	60	\$83.00	\$ 4,980.00
27	2503.503	12" RC PIPE SEWER DES 3006 CL V	L F	244	\$57.00	\$ 13,908.00
28	2503.503	15" RC PIPE SEWER DES 3006 CL V	L F	302	\$63.00	\$ 19,026.00
29	2503.503	18" RC PIPE SEWER DES 3006 CL V	L F	632	\$68.00	\$ 42,976.00
30	2503.503	21" RC PIPE SEWER DES 3006 CL V	L F	782	\$81.00	\$ 63,342.00
31	2503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	1	\$10,000.00	\$ 10,000.00
32	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	1	\$3,000.00	\$ 3,000.00
33	2503.603	8" PVC PIPE SEWER	L F	1,829	\$100.00	\$ 182,900.00
34	2503.603	6" PVC SANITARY SERVICE PIPE	L F	410	\$46.00	\$ 18,860.00
35	2504.602	CONNECT TO EXISTING WATER MAIN	EACH	2	\$6,000.00	\$ 12,000.00
36	2504.602	HYDRANT	EACH	5	\$6,000.00	\$ 30,000.00
37	2504.602	INSTALL HYDRANT	EACH	2	\$2,250.00	\$ 4,500.00
38	2504.602	6" GATE VALVE & BOX	EACH	9	\$1,950.00	\$ 17,550.00
39	2504.602	8" GATE VALVE & BOX	EACH	5	\$2,850.00	\$ 14,250.00
40	2504.603	6" WATERMAIN DUCTILE IRON CL 52	L F	384	\$60.00	\$ 23,040.00
41	2504.603	8" WATERMAIN DUCTILE IRON CL 52	L F	2,687	\$70.00	\$ 188,090.00
42	2504.603	8" WATERMAIN HDPE (DIRECTIONAL DRILLE	L F	135	\$185.00	\$ 24,975.00
43	2504.608	DUCTILE IRON FITTINGS	LB	2280	\$11.00	\$ 25,080.00
44	2506.502	CONST DRAINAGE STRUCTURE DESIGN SPB	EACH	7	\$2,600.00	\$ 18,200.00
45	2506.502	CASTING ASSEMBLY	EACH	10	\$900.00	\$ 9,000.00
46	2506.502	CASTING ASSEMBLY (SANITARY SEWER)	EACH	8	\$1,200.00	\$ 9,600.00
47	2506.503	CONST DRAINAGE STRUCTURE DES 48-402	L F	46	\$560.00	\$ 25,760.00
48	2506.503	CONST DRAINAGE STRUCTURE DES 60-402	L F	18	\$1,010.00	\$ 18,180.00
49	2506.603	CONSTRUCT 48" DIA SANITARY MANHOLE	L F	123.8	\$415.00	\$ 51,377.00
50	2511.507	RANDOM RIPRAP CLASS II	C Y	4.7	\$150.00	\$ 705.00
51	2521.518	6" CONCRETE WALK	SF	1252	\$7.60	\$ 9,515.20
52	2521.518	3" BITUMINOUS WALK	S F	9,200	\$3.50	\$ 32,200.00
53	2531.503	CONCRETE CURB & GUTTER DESIGN B618	L F	4,575	\$19.75	\$ 90,356.25
54	2531.604	7" CONCRETE VALLEY GUTTER	S Y	73	\$100.00	\$ 7,300.00
55	2531.618	TRUNCATED DOMES	S F	90	\$55.00	\$ 4,950.00
56	2545.502	LIGHTING UNIT TYPE SPECIAL	EACH	13	\$8,300.00	\$ 107,900.00
57	2545.502	SERVICE CABINET -TYPE L1	EACH	1	\$10,750.00	\$ 10,750.00
58	2545.503	2" NON-METALLIC CONDUIT	L F	2,215	\$5.55	\$ 12,293.25
59	2545.503	UNDERGROUND WIRE 1/C 6 AWG	L F	8,860	\$1.55	\$ 13,733.00
60	2563.601	TRAFFIC CONTROL	LS	1	\$2,150.00	\$ 2,150.00
61	2564.518	SIGN PANELS TYPE C	S F	22.5	\$60.00	\$ 1,350.00
62	2564.602	INSTALL SIGN PANEL SPECIAL	EACH	4	\$220.00	\$ 880.00
63	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1	\$2,500.00	\$ 2,500.00
64	2573.502	STORM DRAIN INLET PROTECTION	EACH	23	\$200.00	\$ 4,600.00
65	2573.503	SILT FENCE, TYPE MS	L F	6,699	\$2.15	\$ 14,402.85
66	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBE	L F	400	\$4.50	\$ 1,800.00
67	2574.507	COMMON TOPSOIL BORROW	C Y	1,680	\$19.00	\$ 31,920.00
68	2574.508	FERTILIZER TYPE 1	LB	1,050	\$1.10	\$ 1,155.00
69	2575.504	ROLLED EROSION PREVENTION CATEGORY	S Y	1,239	\$1.90	\$ 2,354.10
70	2575.505	SEEDING	ACRE	4	\$500.00	\$ 2,000.00
71	2575.508	SEED MIXTURE 25-121	LB	183	\$6.50	\$ 1,189.50
72	2575.508	HYDRAULIC STABILIZED FIBER MATRIX	LB	9,200	\$1.20	\$ 11,040.00
73	2582.503	4" DBLE SOLID LINE PAINT	L F	2,175	\$0.60	\$ 1,305.00
CONSTRUCTION TOTAL \$						1,601,761.05
INDIRECT COST TOTAL (15%) \$						240,264.16
TOTAL \$						1,842,026.00