CITY OF DULUTH/MINNESOTA POWER 2023 1st AVENUE EASTRECONSTRUCTION PROJECT AGREEMENT

THIS AGREEMENT is between the CITY OF DULUTH (City), a Minnesota municipal corporation and MINNESOTA POWER (MP), a division of ALLETE, Inc., a Minnesota corporation, and is effective upon the date the Agreement is signed by the City Clerk.

WHEREAS, the City holds the public street easement for 1st Avenue East, and as a component of the easement, owns, maintains and operates in and below the surface of 1st Avenue East a 6-inch water main, a 3-inch natural gas main, sanitary sewers up to 18 inches, and storm sewers up to 24 inches (together the City Utilities); and

WHEREAS, the City holds the public alley easement for East 2nd Street Alley, and as a component of the easement, owns, maintains and operates in a below the surface of East 2nd Street Alley a 3-inch natural gas main and a ten-inch sanitary sewer (together the City Utilities); and

WHEREAS, the City intends to replace the City Utilities in 1st Avenue East and reconstruct the road surface; and

WHEREAS, MP owns and operates electrical distribution mains located in the 1st Avenue East right-of-way and desires to install a new duct bank including vaults as needed in the right-of-way; and

WHEREAS, MP intends to install new PE conduits within 2nd Street Alley where they do not currently own or maintain any infrastructure; and

WHEREAS, it is efficient for the City and MP to work together to design, construct, and fund the desired activities as a single project;

NOW THEREFORE, the parties agree:

1. Project Area and Activities.

- a. <u>Project Area.</u> The Project Area is 1st Avenue East from Superior Street to 3rd Street up to the next existing joints between concrete panels or within continuous bituminous surface boundaries, and East 2nd Street Alley between the Right-A-Way limits of 1st Avenue East and 2nd Avenue East.
- b. The Project. The Project includes the following activities within the Project Area.
 - i. <u>The City Project.</u> The City Project is demolition of 1st Avenue East from Superior Street to 3rd Street, installation of hot water piping for the Duluth Energy District, various Steam Utility improvements, gravity storm and sewer main replacements, and replacement of the existing 6-inch cast iron water main with an 8-inch HDPE water main. The City Project also includes installation of a concrete driving surface and sidewalks for demolished portions of the street.

- ii. <u>The MP Project.</u> The MP Project is design and installation of a new concrete electrical duct encasing four six-inch electrical conduits, as shown in the MP Project plans, installation of an electrical vault at the 2nd Street alley, and installation of six, six-inch electrical conduits in 2nd Street Alley
- iii. Excavation. The Project includes all necessary excavation of the subsurface in the Project Area. Excavation shall be done in a manner that protects existing City gas, storm, and sanitary infrastructure, the existing electrical distribution duct, and the new water main, hot water, storm, and sewer utilities.

 Backfilling and compacting of the excavation shall be done in conformance with standard City specifications, and shall be accomplished in a manner as to facilitate the installation of MP's duct bank work and vaults.

2. Plans.

- a. <u>Initial Plans.</u> MP shall contract for the design services of LHB Engineers and Architects, Inc. (LHB) to design the MP Project. The City has also contracted with LHB Engineers and Architects, Inc. to prepare plans and specifications for the entire Project including bid documents for the construction of the Project as a unitary project by a single contractor (the Initial Plans). LHB has provided plans and specifications for the construction of the MP Project, which plans and specifications have been incorporated into the Initial Plans by Addendum, and are on file in the Office of the Duluth City Engineer bearing City Job No. 2100 and dated March 15, 2023. The City and MP stipulate each has reviewed the Initial Plans and have accepted and approved the same for bidding and construction of the Project. The Initial Plans shall require that construction of the Project be completed no later than June 24, 2024.
- b. Changes to Initial Plans. If the City or MP determines a need to modify the Initial Plans including change-orders and field modifications, the party making such determination shall cause its design engineer to prepare, as expeditiously as possible, modified plans and specifications showing such proposed modification (the Modified Plans). The party proposing modifications shall present the Modified Plans to the other party's representative, designated in Paragraph 11 below (City Representative and MP Representative), for review and approval. The Modified Plans shall thereafter be deemed to be the "Plans" for the purposes of this Agreement.
 - i. <u>Allocation of Costs for Modifications</u>. If approved by the other party, allocation of any costs for modifications shall follow the process in Paragraph 4 below. However, if a compelling need of construction make it impractical to use the process in Paragraph 4, and the party responsible for the portion of the Project affected by the modification determines there is compelling need to do the proposed modification <u>and</u> determines the proposed modification will not have a deleterious effect on the other party's portion of the Project, said party may direct the contractor to construct the Project in accordance with the Modified Plans. Provided further, however, that in the event of such

a unilaterally-authorized modification of the Initial Plans, the non-approving party shall not be required to pay any of the costs associated with such modification without the subsequent approval of that party's designated representative.

- 3. <u>Basis for Cost Allocation.</u> The Bid Tabulation attached as Exhibit B shall be the basis for the allocation of the costs of the Project to the City Project and to the MP Project.
- 4. Bidding and Award of Project Contract. The City shall request bids for construction of the Project in accordance with the Initial Plans and shall award the contract for the construction of the Project to the lowest responsible bidder, all in conformance with City of Duluth competitive bidding procedures and the requirements of Article IV of Chapter 2 of the Duluth City Code, 1959, as amended. Bid documents for the Project shall require bidders to provide bids for all quantities and elements of the work such that City and MP can determine the relative costs associated with the City Project and the MP Project. The City is authorized to proceed to bid the construction of the Project and proceed with the construction in accordance with the Initial Plans and with the terms and conditions of this Agreement.

5. Control of Work.

- a. <u>LHB Design.</u> Management, supervision, and acceptance of the LHB design and of contractor's performance and work under the contract contemplated in Paragraph 4 are solely within the discretion of the City.
- b. <u>Inspection</u>. LHB shall provide construction inspection services for the City Project and the MP Project. MP shall provide a scope of inspection services to LHB for the MP Project.
- c. <u>Construction</u>. The City shall control construction of the Project and shall be responsible for the administration of construction. MP may observe the construction of the Project and shall have access to the Project site needed therefore. MP may bring to the attention of the City any deviations from the Plans that it may observe or otherwise determine to exist. If MP brings a deviation to the City's attention, the Director shall use best efforts to investigate any allegations to determine validity and, in the event of any such deviation, shall use best efforts to cause the deviation to be corrected.

6. MP Payment to City.

- a. <u>Apportionment of Contractor Request for Payment.</u> Upon receipt of a request for payment from the contractor for work performed on the Project, the City shall provide a copy of such request to the MP Representative for review as to work performed on the MP Project.
- b. <u>Dispute Process.</u> If MP disputes any portion of the payment request as it relates to the MP Project, MP shall notify the City in writing within five (5) business days of transmission of the request. The notice shall specify the disputed amount and include a statement of basis for the disputed amount. Upon receipt by the City of

- such notice of disputed amount, the City and MP shall promptly meet and negotiate in good faith to resolve the dispute.
- c. <u>Invoice</u>. If the City does not receive a notice of dispute from the MP Representative or if the dispute is resolved, the City may issue an invoice to MP for the MP amount contained in the request for payment.

7. MP Status as Independent Contractor.

- a. <u>Independent Contractor.</u> MP is an independent contractor and, as such, its officers, agents, contractors, and employees are not partners, agents, representatives, or employees of the City.
- b. <u>Workers' Compensation Insurance Required.</u> MP shall carry Workers' Compensation Insurance as required by state law throughout the duration of the Project.
- c. <u>City Not Responsible for Claims Against MP.</u> Any claim under the Minnesota Workers' Compensation Act related to the Project on behalf of an MP officer, agent, contractor, or employee shall in no way be the responsibility of the City. Any claim against MP arising out of employment or alleged employment, including claims of discrimination against MP, its officers, agents, contractors, or employees shall in no way be the responsibility of the City. MP and its officers, agents, contractors, and employees shall not be entitled to any compensation or rights or benefits of any hospital care, sick leave and vacation pay, Workers' Compensation, Unemployment Insurance, disability pay, or severance pay from the City. Furthermore, the City shall not, in any way, be responsible to defend, indemnify, or save harmless MP from liability or judgments arising out of the intentional or negligent acts or omissions of MP while performing the work specified by this Agreement.
- d. MP Not Responsible for Claims Against the City. Any officer, employee, or agent of the City shall not be considered an employee of MP. Any claim under the Minnesota Workers' Compensation Act related to the Project on behalf of a City officer, employee, or agent shall in no way be the responsibility of MP. Any claim against the City arising out of employment or alleged employment, including without limitation, claims of discrimination against the City, its officers, agents, contractors or employees shall in no way be the responsibility of MP. The City's officers, agents, contractors, and employees shall not be entitled to any compensation or rights or benefits of any hospital care, sick leave and vacation pay, Workers' Compensation, Unemployment Insurance, disability pay or severance pay from MP. Furthermore, MP shall not, in any way, be responsible to defend, indemnify or save harmless the City from liability or judgments arising out of the intentional or negligent acts or omissions of the City while performing the work specified by this Agreement.
- 8. <u>Contractor Insurance and Indemnity.</u> All contracts for design and construction of the Project shall include a requirement that the contractor agree to defend, indemnify, and insure the contracting party in the same manner and to the same extent that such contract requires the contractor to defend, indemnify, and insure the contracting party and that the minimum insurance requirements shall be those set forth in Exhibit A.

- 9. Cross Indemnity. The City and MP shall indemnify each other for liability arising out of their own acts or omissions and those of those of their officers, agents, representatives, and employees, provided that nothing herein shall create any additional liability for either party not otherwise existing under law. Provided further, that each party's liability to the other party shall be governed and limited by the provisions of Minnesota Statutes Chapter 466 (even though these statutory limitations would not normally apply to MP). For the avoidance of doubt, this indemnity does not apply to the acts or omissions of a party's third-party contractors for design, engineering or construction services, as contemplated by Paragraphs 2, 4 and 5. Each party agrees that any claims for indemnity, insurance, or warranty against such third-party contractors shall be against the applicable third-party contractor. Each party agrees to provide reasonable cooperation with the other party in the event of any such claim against a third-party contractor.
- 10. <u>Warranties.</u> Any contract entered into by either the City or MP for the design or construction of any portion of the Project shall specifically provide that the other party shall be deemed to be an intended third-party beneficiary of any warranties arising out of work performed pursuant to such contract to the extent of such party's interests.
- 11. <u>Default and Remedies.</u> Failure to perform an obligation under this Agreement shall be considered a default. The City or MP may give notice in writing to the other party of an alleged default. Such notice shall describe the circumstances of the alleged default and cite the applicable provision of this Agreement. After receiving a notice of alleged default, the receiving party shall immediately commence to cure the default or, if cure cannot reasonably be commenced immediately, shall commence and complete such cure as soon as reasonably practical. If cure of an alleged default is not commenced and completed or if the alleged default is disputed, the party alleging a default may seek damages or injunctive relief to compel performance of the alleged default.
- 12. <u>Notices</u>. Notices required under this Agreement shall be deemed sufficient if deposited in the U.S. Mail, postage prepaid to the address set forth below, or if sent by e-mail to the e-mail address set forth below unless a party has previously sent written notice to the other party directing that notices shall be sent to a different address or email:

For the City:	Director of Public Works and Utilities
---------------	--

City of Duluth

411 West First Street, Room 274

Duluth, MN 55802

JBenning@duluthmn.gov

For MP: Purchasing and Contracts

Minnesota Power, a division of ALLETE, Inc.

30 West Superior Street

Duluth, MN 55802 lholden@allete.com

in accordance with the laws of the St	tate of Minnesota.
IN WITNESS WHEREOF, the parties have	hereunto set their hands.
CITY OF DULUTH, a Minnesota	MINNESOTA POWER,
municipal corporation	a division of ALLETE, Inc., a Minnesota corporation
Ву:	Ву:
Mayor	lts:
Date:	Date:
Attest:	
Ву:	
City Clerk	
Date:	

13. Applicable Law. This Agreement is made in the State of Minnesota and shall be interpreted

Exhibit A

MP and Contractor Insurance Requirements

MP and any contractor working on the Project shall purchase and maintain insurance to protect the contractor and MP from claims which may arise out of performance of the Agreement, whether such claims arise from an act or failure to act by the contractor, MP, or any direct or indirect delegee, agent, appointee, or employee of either. Required insurance shall be in place until completion of the Project. MP and each contractor shall provide evidence of required insurance to the City prior to any work on the Project.

All insurance policies required of a contractor shall name each of the City and MP as an additional insured. All insurance policies required of MP shall name the City as an additional insured. All required insurance policies shall be issued by insurance companies that are (a) authorized to do business under the laws of Minnesota, and (b) be rated A- or better by A.M. Best rating service.

Required insurance shall be of the coverage types listed below and not less than the amounts listed below.

- 1. Worker's Compensation Insurance
 - a. Statutory limit amount
- 2. Employer's Liability Insurance
 - a. Limit coverage in the amount of not less than one million dollars (\$1,000,000) per occurrence and in the aggregate
- 3. Commercial General Liability Insurance
 - a. Occurrence form providing bodily injury, personal injury, and property damage liability coverage
 - Including, but not limited to Broad Form Property Damage with no explosion, collapse and underground (XCU) exclusions, and contractual liability coverage for the indemnity promise contained in this Agreement
 - c. Limit coverages of not less than two million dollars (\$2,000,000) per occurrence, four million dollars (\$4,000,000) aggregate
- 4. Comprehensive Automobile Liability Insurance
 - a. Combined single limit coverage of not less than two million dollars (\$2,000,000) per occurrence and in the aggregate
- 5. Professional Liability Insurance
 - a. Covering contractor or MP and any architect or engineer of contractor or MP
 - b. Covering errors, omissions, or negligent acts arising out of the performance of or failure to perform professional services as an architect or engineer

- c. Liability limit coverage of not less one million dollars (\$1,000,000) for each claim, and not less than five million dollars (\$5,000,000) in the aggregate
- d. Required coverage shall remain in effect for a period of two (2) years after the date on which the Project is complete.

All coverage set forth above shall include a cross liability and severability of interest clause.

All policies required of a contractor and MP shall (i) be endorsed to show that the insurers waive subrogation against the City.

All dollar amounts of coverage set forth above shall be per occurrence and in the aggregate and include a cross liability and severability of interest clause.

The policies described herein shall (i) be endorsed to show that the insurers waive subrogation against MP, its affiliates, directors, officers and employees, (ii) the insurance is primary and non-contributory, and (iii) not expire, terminate or otherwise discontinue coverage except upon not less than thirty (30) days prior written notice to the City.

Certificates of insurance acceptable to the City shall be filed with the City prior to commencement of the work. These certificates shall contain a provision that should coverages afforded under the policies be canceled before the expiration date thereof, notice will be delivered to the City. Notwithstanding the foregoing, contractors and MP have a continuing obligation to provide the insurance coverage described in this Exhibit A and none of the insurance required herein shall be canceled, changed or allowed to lapse until the period of Contractor's obligations under the Agreement has been completed. Such notices shall be sent to the City.

Insurance specified herein shall be minimum requirements and contractors are MP are responsible for providing any additional insurance deemed necessary to protect the interests of both contractors, MP, and the City from other hazards or claims in excess of the minimum coverage. The liability of contractors or MP under any warranty or indemnity provision contained in the Agreement is not limited to available insurance coverage.

EXHIBIT B: ESTIMATED DISTRIBUTION OF MINNESOTA POWER EXPENSES

City of Duluth	Fngineering	Project No. 2100 Bid Results						
Line No.		Description	Unit Of	Quantity	Unit Price	Extension	MN Power	MN Power
	орос по.		Measure	~			Quantity	Expense
1	2011.601	AS BUILT	LUMP SUM	1	\$3,500.00	\$3,500.00		
2		MOBILIZATION	LUMP SUM	1	\$605,243.00			\$24,209.72
3	2104.502	REMOVE LIGHTING UNIT	EACH	21	\$320.00	\$6,720.00		
4	2104.502	REMOVE MANHOLE OR CATCH BASIN	EACH	23	\$450.00	\$10,350.00		
5	2104.502	REMOVE HYDRANT	EACH	3	\$625.00	\$1,875.00		
6	2104.502	REMOVE SIGN	EACH	9	\$52.00	\$468.00		
7		REMOVE SIGNAL SYSTEM	EACH	1	\$12,500.00	\$12,500.00		
8		REMOVE LIGHT FOUNDATION	EACH	21	\$500.00			
9		REMOVE SIGN PANEL	EACH	11	\$52.00			
10		SALVAGE PEDESTRIAN PUSH BUTTON STATION	EACH	1	\$110.00	·		
11		SALVAGE SIGN	EACH	6				
12		SALVAGE SIGN PANEL	EACH EACH	9		·		
14		SALVAGE SIGN PANEL TYPE SPECIAL SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	1,219	\$78.00 \$2.60			
15		SAWING CONCRETE PAVEMENT (FOLL DEPTH) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	461	\$1.95	\$898.95		
16		REMOVE WATER MAIN	LIN FT	849	\$1.93			
17		REMOVE SEWER PIPE (STORM)	LIN FT	1,501	\$27.00			
18		REMOVE CURB	LIN FT	672	\$3.50			
19		REMOVE CURB & GUTTER	LIN FT	1,207	\$5.00			
20		REMOVE RETAINING WALL	LIN FT	137	\$14.00			
21		REMOVE HANDRAIL	LIN FT	136	\$4.00	\$544.00		
22		REMOVE SIDEWALK	SQ FT	15,562	\$3.00	\$46,686.00		
23	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ FT	3,051	\$2.00	\$6,102.00		
24	2104.518	REMOVE PAVEMENT	SQ YD	6,575	\$9.00	\$59,175.00		
25	2104.518	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ FT	1,434	\$2.00	\$2,868.00		
26	2104.601	REMOVE CONDUIT SYSTEM	LUMP SUM	1	\$3,500.00	\$3,500.00		
27	2104.602	REMOVE PARKING METER POST	EACH	9	\$30.00	\$270.00		
28		REMOVE ABANDONED GAS	LIN FT	844	\$10.50			
29		EXCAVATION - COMMON	CU YD	2,802	\$25.00			
30		EXCAVATION - ROCK	CU YD	92	\$175.00			
31		GRANULAR EMBANKMENT (CV)	CU YD	420				
32		SELECT GRANULAR EMBANKMENT MOD 7% (CV)	CU YD	2,540	\$45.00			
33		GEOTEXTILE FABRIC TYPE 9	SQ YD	5,061	\$5.00			
34 35		COMMON LABORERS 0.5 CU YD SHOVEL	HOUR HOUR	20	\$95.00 \$200.00			
36		12 CU YD TRUCK	HOUR	20				
37		AGGREGATE BASE (CV) CLASS 5	CU YD	1,792	\$65.00			
38		INTEGRANT CURB DESIGN B6	LIN FT	10		\$580.00		
39		CONCRETE PAVEMENT 8.0"	SQ YD	1,494	\$67.00			
40		STRUCTURAL CONCRETE	CU YD	332	\$180.00			
41	2301.508	SUPPLEMENTAL PAVEMENT REINFORCEMENT	POUND	1,809	\$6.00	\$10,854.00		
42	2301.602	DRILL AND GROUT DOWEL BAR (EPOXY COATED)	EACH	104	\$28.00	\$2,912.00		
43	2301.602	DRILL & GROUT REINF BAR (EPOXY COATED)	EACH	83	\$14.00	\$1,162.00		
44	2301.603	PAVEMENT END ANCHOR	LIN FT	121	\$115.00	\$13,915.00		
45	2302.502	DOWEL BAR	EACH	885	\$16.00			
46	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)	TON	453	\$130.00	\$58,890.00		
47		TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C)	TON	502	\$120.00			
48		STRUCTURAL CONCRETE (1G52)	CU YD	63	\$1,200.00			
49		STRUCTURAL CONCRETE (1P62)	CU YD	10	·	, -,		
50		STRUCTURAL CONCRETE (3G52)	CU YD	75				
51		STRUCTURE EXCAVATION CLASS E	CU YD	1,285				
52		STRUCTURE EXCAVATION CLASS R	CU YD POUND	7 104				
53 54		REINFORCEMENT BARS REINFORCEMENT BARS (EPOXY COATED)	POUND	7,104 8,766				
55		DRAINAGE SYSTEM	LUMP SUM	8,766	\$4,200.00			
56		GRANULAR BACKFILL (CV)	CU YD	3,303	\$4,200.00			
57		COURSE AGGREGATE BEDDING (CV)	CU YD	140				
58		STRUCTURE EXCAVATION CLASS R	CU YD	85				
59		ORNAMENTAL METAL RAILING	LIN FT	176	·			
60		4" PERF PVC PIPE DRAIN	LIN FT	1,592	\$13.50			
61		10" PVC PIPE SEWER	LIN FT	33				
62		8" DUCTILE IRON PIPE SEWER	LIN FT	28				
63	2503.503	12" RC PIPE SEWER DESIGN 3006	LIN FT	687	\$77.00			
64	2503.503	21" RC PIPE SEWER DESIGN 3006	LIN FT	498	\$106.00	\$52,788.00		
65	2503.503	24" RC PIPE SEWER DESIGN 3006	LIN FT	494	\$119.00	\$58,786.00		
66	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	7	\$1,175.00	\$8,225.00		
67		CONNECT SEWER SERVICE	EACH	11	\$1,100.00			
68		SANITARY TRACER BOX	EACH	14				
69		6" PVC SANITARY SERVICE PIPE	LIN FT	385	\$49.00			
70		8" PVC SANITARY SERVICE PIPE	LIN FT	102	\$59.00			
71	2504.601	TEMPORARY WATER SERVICE	LUMP SUM] 1	\$39,800.00	\$39,800.00		

72	2504.602	DESCRIPTION OF THE SERVICE	Is a cit		44 435 00	67.425.00	
72		RECONNECT TO EXISTING WATER MAAIN	EACH	5	. ,		
73 74		CONNECT TO EXISTING WATER MAIN ADJUST VALVE BOX	EACH EACH	5	7 .,	\$22,000.00 \$1,350.00	
75		6" GATE VALVE AND BOX	EACH	9		\$27,900.00	
76		8" GATE VALVE AND BOX	EACH	4	, -,	\$16,200.00	
77		12" GATE VALVE AND BOX	EACH	2		\$13,800.00	
78		INSTALL 8"X6" TAPPING TEE W/ELECTROFUSION SADDLE	EACH	9	1 - 7	\$5,490.00	
79		WATER TRACER BOX	EACH	21		\$5,880.00	
80	2504.602	HYDRANT ASSEMBLY	EACH	4		\$48,000.00	
81	2504.602	CONCRETE ENCASED VALVE BOX COVER IN ROADWAY	EACH	14	\$945.00	\$13,230.00	
82	2504.603	8" DIPS HDPE WATER MAIN SDR 11	LIN FT	678	\$92.00	\$62,376.00	
83	2504.603	12" DIPS HDPE WATER MAIN SDR 11	LIN FT	81	\$240.00	\$19,440.00	
84	2504.603	16" DIPS HDPE WATER MAIN SDR 11	LIN FT	90	\$220.00	\$19,800.00	
85		6" HDPE SDR 11 SERVICE PIPE	LIN FT	233	\$63.00	\$14,679.00	
86		3" POLYSTYRENE INSULATION	SQ YD	14		\$980.00	
87		CONSTRUCT DRAINAGE STRUCTURE DESIGN G	EACH	5	, -,	\$19,500.00	
88		CONSTRUCT DRAINAGE STRUCTURE DESIGN H	EACH	16		\$41,600.00	
89		CASTING ASSEMBLY	EACH	16		\$16,800.00	
90		ADJUST FRAME AND RING CASTING	EACH	12		\$6,300.00	
91 92		CONST DRAINAGE STRUCTURE DES 48-4020	LIN FT LIN FT	85 16	·	\$51,850.00 \$18,400.00	
93		CONST DRAINAGE STRUCTURE DES 60-4020 CONCRETE ENCASED CASTING COLLAR	EACH	19		\$32,965.00	
93		CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	2		\$2,300.00	
95		MANHOLE FRAME SEAL	EACH	9	, ,	\$4,050.00	
96		CONNECT TO EXISTING HWP	EACH	2		\$7,300.00	
97		INSTALL 2"/5.5" HOT WATER ISOLATION VALVE	EACH	8	, -,	\$4,840.00	
98		INSTALL 4"/8" HOT WATER ISOLATION VALVE	EACH	2		\$1,460.00	
99		INSTALL 6"/10" HOT WATER ISOLATION VALVE	EACH	2		\$1,940.00	
100		INSTALL 12"/20" HOT WATER ISOLATION VALVE	EACH	4		\$4,860.00	
101	2508.602	1" RECIRCULATION ASSEMBLY	EACH	2	\$6,065.00	\$12,130.00	
102	2508.602	FURNISH AND INSTALL 2'X3' FLASH CHAMBER	EACH	3	\$2,035.00	\$6,105.00	
103	2508.602	FURNISH AND INSTALL 24" FLASH CHAMBER	EACH	1	\$1,800.00	\$1,800.00	
104	2508.602	CONNECT TO EXISTING STEAM TUNNEL	EACH	1	\$4,850.00	\$4,850.00	
105		CONNECT TO STORM STRUCTURE	EACH	3	· · · · · · · · · · · · · · · · · · ·	\$2,325.00	
106		CONNECT TO EXISTING CONDUIT	EACH	1	· · · · · · · · · · · · · · · · · · ·	\$230.00	
107		INSTALL 24"X36" HANDHOLE	EACH	6		\$3,840.00	
108		INSTALL 1"/4" HWP	LIN FT	30	· · · · · · · · · · · · · · · · · · ·	\$6,000.00	
109 110		INSTALL 2"/5.5" HWP	LIN FT	80		\$17,200.00	
110		INSTALL 4"/9" HWP INSTALL 6"/11" HWP	LIN FT LIN FT	352 2,084	\$255.00 \$265.00	\$89,760.00 \$552,260.00	
112		INSTALL 8"/14" HWP	LIN FT	40		\$14,600.00	
113		INSTALL 12"/20" HWP	LIN FT	996		\$473,100.00	
114		FURNISH AND INSTALL 6" DIP CL 52	LIN FT	77	·	\$6,545.00	
115		FURNISH AND INSTALL 2" SCH80 PVC CONDUIT	LIN FT	3,605	\$10.00	\$36,050.00	
116	2508.603	FURNISH AND INSTALL FIBER-OPTIC CABLE	LIN FT	3,747	\$2.15	\$8,056.05	
117	2509.601	REMOVE & REPLACE EXISTING STEAM VAULT LID	LUMP SUM	1	\$35,000.00	\$35,000.00	
118	2509.601	REMOVE VENT PIPES	LUMP SUM	1	\$2,425.00	\$2,425.00	
119	2509.601	REMOVE EXPANSION JOINT	EACH	8	\$1,930.00	\$15,440.00	
120	2509.602	FURNISH AND INSTALL STEAM MANHOLE	EACH	1	\$35,400.00	\$35,400.00	
121		INSTALL EXPANSION JOINTS	EACH	8		\$40,800.00	
122		CONNECT CONDENSATE DRAIN TO STORM STRUCTURE	EACH	2		\$3,300.00	
123		REMOVE ASBESTOS CONTAINING PIPE INSULATION TYPE D	LIN FT	80		\$3,360.00	
124		4" 316SS CONDENSATE DRAIN PIPE	LIN FT	30		\$16,950.00	
125		FURNISH AND INSTALL VENT PIPES	LIN FT	70	·	\$19,250.00	
126		GEOTEXTILE FILTER TYPE 3	SQ YD	75		\$525.00	
127		RANDOM RIPRAP CLASS II	CU YD	22 270	·	\$2,160.00	
128 129		6" CONCRETE WALK 6" CONCRETE WALK SPECIAL	SQ FT SQ FT	22,370 308		\$223,700.00 \$5,852.00	
130		CONCRETE WALK SPECIAL CONCRETE CURB AND GUTTER DESIGN B624	LIN FT	1,776	· · · · · · · · · · · · · · · · · · ·	\$5,852.00	
131		CONCRETE CORB AND GOTTER DESIGN 8524	LIN FT	413		\$20,237.00	
132		8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	388		\$35,308.00	
133		CONCRETE CURB DESIGN V	LIN FT	71		\$3,550.00	
134		TRUNCATED DOMES	SQ FT	219	· · · · · · · · · · · · · · · · · · ·	\$12,921.00	
135		FURNISH AND INSTALL PARKING METER POST	EACH	29		\$15,950.00	
136		LIGHTING UNIT TYPE SPECIAL 1	EACH	10	· · ·		
137	2545.502	LIGHTING UNIT TYPE SPECIAL 2	EACH	1	\$11,000.00	\$11,000.00	
138		LIGHT FOUNDATION DESIGN E MODIFIED	EACH	11		\$13,200.00	
139		SERVICE CABINET	EACH	1		\$9,350.00	
140		EQUIPMENT PAD	EACH	1		\$1,700.00	
141		HANDHOLE	EACH	4	. ,	\$8,400.00	
142		1" NON-METALLIC CONDUIT	LIN FT	131		\$1,179.00	
143		2" NON-METALLIC CONDUIT	LIN FT	1,443		\$14,430.00	
144 145		UNDERGROUND WIRE 1/C 2 AWG	LIN FT LIN FT	721 8 224	\$4.00	\$2,884.00	
145		UNDERGROUND WIRE 1/C 6 AWG OUTDOOR FIBER SPLICE ENCLOSURE	EACH	8,324 2		\$16,648.00 \$4,000.00	
147		1.5" NON-METALLIC CONDUIT	LIN FT	1,210			
	2330.303	1.5 INILIMELIC CONDON	period in the	1,210	J9.30	7±1,733.00	

148	2550.503	CAT 6 CABLE	LIN FT	162	\$5.50	\$891.00		
149	2550.601	FIBER OPTIC CABLE TESTING	LUMP SUM	1	\$6,500.00	\$6,500.00		
150	2550.602	FIBER OPTIC SPLICE / PATCH PANEL	EACH	2	\$1,650.00	\$3,300.00		
151	2550.602	FIBER OPTIC PIGTAIL TERMINATION	EACH	2	\$1,700.00	\$3,400.00		
152	2550.602	FIBER OPTIC CABLE SPLICING	EACH	3	\$1,500.00	\$4,500.00		
153	2550.602	PULL VAULT	EACH	3	\$5,700.00	\$17,100.00		
154	2550.602	CONNECT INTO EXISTING ELECTRICAL MANHOLE NO. 283	EACH	1	\$5,600.00	\$5,600.00	1	\$5,600.00
155	2550.602	CONNECT INTO EXISTING ELECTRICAL MANHOLE NO. 283	EACH	1	\$3,600.00	\$3,600.00	1	\$3,600.00
156	2550.602	ELECTRICAL MANHOLE	EACH	1	\$35,400.00	\$35,400.00	1	\$35,400.00
157	2550.603	FIBER OPTIC TRUNK CABLE 144SM	LIN FT	1,605	\$5.50	\$8,827.50		
158	2550.603	ELECTRICAL DUCT BANK TYPE 1	LIN FT	376	\$280.00	\$105,280.00	376	\$105,280.00
159	2550.603	ELECTRICAL DUCT BANK TYPE 2	LIN FT	60	\$305.00	\$18,300.00	60	\$18,300.00
160	2550.603	6" NON-METALLIC CONDUIT ELECTRICAL DUCT (DIRECTIONAL	LIN FT	588	\$235.00	\$138,180.00	588	\$138,180.00
161	2563.601	TRAFFIC CONTROL	LUMP SUM	1	\$75,800.00	\$75,800.00	0.04	\$3,032.00
162	2564.502	INSTALL SIGN PANEL TYPE SPECIAL	EACH	1	\$52.00	\$52.00		
163	2564.602	INSTALL SIGN	EACH	6	\$260.00	\$1,560.00		
164	2564.602	INSTALL SIGN PANEL	EACH	9	\$52.00	\$468.00		
165	2564.618	SIGN	SQ FT	77	\$135.00	\$10,395.00		
166	2564.618	SIGN PANEL	SQ FT	21	\$99.00	\$2,079.00		
167	2565.501	EMERGENCY VEHICLE PREEMPTION SYSTEM	LUMP SUM	1	\$13,800.00	\$13,800.00		
168	2565.516	TRAFFIC CONTROL SIGNAL SYSTEM	SYSTEM	1	\$315,000.00	\$315,000.00		
169	2565.602	INSTALL APS PEDESTRIAN PUSH BUTTON STATION	EACH	1	\$350.00	\$350.00		
170	2565.603	FIBER OPTIC TRUNK CABLE 12SM	LIN FT	305	\$3.50	\$1,067.50		
171	2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1	\$1,000.00	\$1,000.00		
172	2573.502	STORM DRAIN INLET PROTECTION	EACH	48	\$235.00	\$11,280.00		
173	2573.503	SEDIMENT CONTROL LOG TYPE ROCK	LIN FT	32	\$12.00	\$384.00		
174	2575.501	TURF ESTABLISHMENT	LUMP SUM	1	\$2,600.00	\$2,600.00		
175	2582.503	4" SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	496	\$18.50	\$9,176.00		
176	2582.503	4" DOUBLE SOLID LINE MULTI-COMPONENT GROUND IN (WF	LIN FT	886	\$5.50	\$4,873.00		
177	2582.518	CROSSWALK PREFORM THERMOPLASTIC GROUND IN CONTR	SQ FT	1,836	\$24.00	\$44,064.00		

Total: \$5,635,100.00 **MP Total:** \$333,601.72