ADDENDUM No. 1

ITB No. 4633

Southside Interceptor Sewer Lining Phase V

Bids Due: July 1, 2020 at 10:00AM (Local Time)

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes 34 pages.**

Bidder is to acknowledge receipt of this Addendum No. 1, including all attachments (if any) in its Bid by so indicating on page ITB-1 of the Invitation to Bid Form. Bids submitted without acknowledgment of receipt of this addendum may be considered nonconforming.

The following forms provided within the ITB document must be included in submitted bids:

- **City of Ann Arbor Prevailing Wage Declaration of Compliance**
- **City of Ann Arbor Living Wage Ordinance Declaration of Compliance**
- **Vendor Conflict of Interest Disclosure Form**
- **City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance**

Bids that fail to provide these forms listed above upon bid opening may be rejected as non-responsive and may not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

Changes to the Bid document which are outlined below are referenced to a page or Section in which they appear conspicuously. The Bidder is to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

Section/Page(s)	Change
Cover, IB-2	The bid due date and time have been changed to **Wednesday, July 1, 2020 at 10:00 AM**
BF-1 to BF-13	Items 7340 and 7440 have been added to the project. All Bid Form pages have been replaced in entirety.
Sewer Flow Control	The Special Provision for Sewer Flow Control has been modified to include available sewer flow information.
Sign-in Sheet	The sign-in sheet for the mandatory pre bid conference is included.
Bid Tabs	Bid tabulations for two prior phases of interceptor sewer lining are included.

II. QUESTIONS AND ANSWERS

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the ITB. Bidders are directed to take note in their review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: Could the City award some segments to one contractor, and some to another?
Answer 1: No. Only one contractor will be selected. The City intends to proceed with the work on all segments, but does reserve the right to omit segment(s) from the contract.

Question 2: What is the Engineer's Estimate for this project?
Answer 2: $1,800,000 with all styrene liner; $4,560,000 with all non styrene liner.

Question 3: Will all segments be lined with the same liner, that is all styrene or all nonstyrene?
Answer 3: No. The City may direct some segments to have the styrene liner, and others to have the nonstyrene liner.

Question 4: Will the Owner/Engineer please provide a copy of the current plan holders list?
Answer 4: The project included a mandatory pre-bid meeting. The sign in sheet from that meeting is included in this addendum.

Question 5: Will the Owner/Engineer please provide any previous itemized bid tabulations for projects of similar scope?
Answer 5: Bid Tabulations for two previous projects are included in this addendum.

Question 6: Will the Owner/Engineer please confirm if there are any prevailing wage requirements for this job?
Answer 6: Prevailing wages are required as stated in the ITB.

Question 7: Will the Owner/Engineer please provide the anticipated NTP date for this project?
Answer 7: Notice to Proceed should be anticipated in Fall 2020

Question 8: Will "Orange Safety / Snow Fence" be acceptable to the areas requiring protective fencing or will we be required to install steel construction type fencing in these areas?
Answer 8: Plastic orange snow fence is acceptable per note 17, sheet C1.

Question 9: Will the Owner/Engineer provide copies of existing CCTV files for pipe segments proposed rehabilitation?
Answer 9: The City will provide the selected contractor with available CCTV files.

Question 10: Will the City test the fire hydrant in the Arboretum to make sure it is operable and available for the contractor?
Answer 10: Yes. The fire hydrant in the valley area will be available as a water source to the contractor. The City will ensure the hydrant is operable in advance of the construction.

Question 11: Can the Huron River be used as a water source for curing the CIPP?
Answer 11: Yes. It would be the contractor's responsibility to obtain any State permit (if required); and provide written verification that warranty of the CIPP is not affected. The contractor would be responsible for any required filtering and for proper disposal. Disposal of filtered material into the sewer is not permissible.

Question 12: Can the owner provide flow data on the lines?
Answer 12: Available model data is included in table in Sewer Flow Control detailed specification, included in this addendum.

Question 13: There appears to be a fracture and signs of previous exfiltration in the 24-inch sewer. Can 24-inch pre liner be provided as a bid item for Segment 8?
Answer 13: A bid line item is included as a contingency on the bid form included in this addendum.

Question 14: Can you provide a pipe table with the CIPP MH to MH, diameter, lateral counts, depths on it?
Answer 14: Available information is shown on the plans. Lateral counts will be identified by the contractor's televising.

Question 15: Warranty Televise is required at the end of the 2 year warranty. Is bypass required as well or just Re-Televise?
Answer 15: Just televising. The City will divert most interceptor flow upstream of the hospital, near Glen street.

Question 16: No lateral grouting required correct?
Answer 16: None is anticipated

Question 17: Steam or water install – are both install methods approved?
Answer 17: Yes. Both are acceptable.

Question 18: Page C-30 has a Lateral Discharge Trench drawing – Will this be needed? And if so at what locations?
Answer 18: If for any reason the bypass pumping pipe needs to be buried due to pedestrian or vehicle traffic, this detail will need to be followed.

Bidders are responsible for any conclusions that they may draw from the information contained in the Addendum.

CITY OF ANN ARBOR
INVITATION TO BID

Southside Interceptor Sewer Lining Phase V

ITB No. 4633

Due Date: Wednesday, July 1, 2020 at 10:00 AM (Local Time)

Public Services/Engineering

Issued By:

City of Ann Arbor
Procurement Unit
301 E. Huron Street
Ann Arbor, MI 48104

not relieve the Bidder of the responsibility for complying with the terms thereof.

The City will not be bound by oral responses to inquiries or written responses other than written addenda.

Bid Submission

All Bids are due and must be delivered to the City of Ann Arbor Procurement Unit on or before **July 1, 2020 10:00 AM (local time).** Bids submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

Each Bidder must submit one (1) original Bid and two (2) Bid copies in a sealed envelope clearly marked: **ITB No. 4633 Southside Interceptor Sewer Lining Phase V.**

Bids must be addressed and delivered to:

City of Ann Arbor
Procurement Unit,
c/o Customer Services, 1st Floor
301 East Huron Street
Ann Arbor, MI 48104

All Bids received on or before the Due Date will be publicly opened and recorded immediately. No immediate decisions are rendered.

The following forms provided within this ITB Document must be included in submitted bids.

- **City of Ann Arbor Prevailing Wage Declaration of Compliance**
- **City of Ann Arbor Living Wage Ordinance Declaration of Compliance**
- **Vendor Conflict of Interest Disclosure Form**
- **City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance**

Bids that fail to provide these forms listed above upon bid opening will be rejected as non-responsive and will not be considered for award.

Hand delivered bids may be dropped off in the Purchasing drop box located in the Ann Street (north) vestibule of City Hall. The City will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time for submission of bids past the stated due date and time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the City determines in its sole discretion that circumstances warrant it.

Award

The City intends to award a Contract(s) to the lowest responsible Bidder(s). On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize alternatives offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved for the City. For unit price bids, the Contract will be awarded based upon the unit prices and the lump sum prices stated by the bidder for the work items specified in the bid documents, with

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	GENERAL CONTRACT ITEMS				
10	General Conditions	LS	1	$ _____	$ _____
20	Audiovisual Recording	LS	1	$ _____	$ _____
30	Construction Notification Signs	EA	4	$ _____	$ _____
40	Contingency – Tree, Rem, 6-inch to 18-inch	EA	1	$ _____	$ _____
50	Erosion Control, Silt Fence	LF	970	$ _____	$ _____
60	Public Notification Signage	EA	4	$ _____	$ _____
70	Seeding, Fescue Lawn Mixture	LB	625	$ _____	$ _____
80	Minor Traffic Devices, Modified	LS	1	$ _____	$ _____
90	Removal and Disposal of Sludge and Debris Material	Ton	120	$ _____	$ _____
100	Project Clean-up and Restoration	LS	1	$ _____	$ _____
	Subtotal General Contract Items (10 - 100)				$ _____
	SEGMENT 1				
1010	Sewer Segment 1 - Protective Fencing	LF	1000	$ _____	$ _____
1020	Sewer Segment 1 MOT - Sign, Type B, Temp, Prismatic, Furn	SF	124	$ _____	$ _____
1030	Sewer Segment 1 MOT - Sign, Type B, Temp, Prismatic, Oper	SF	124	$ _____	$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENT 1 (continued)				
1040	Sewer Segment 1 MOT – Sign Cover	EA	7	$ _____	$ _____
1050	Sewer Segment 1 MOT - Barricade, Type II, High Intensity, Lighted, Furn	EA	1	$ _____	$ _____
1060	Sewer Segment 1 MOT - Barricade, Type II, High Intensity, Lighted, Oper	EA	1	$ _____	$ _____
1070	Sewer Segment 1 MOT - Barricade, Type III, High Intensity, Lighted, Furn	EA	2	$ _____	$ _____
1080	Sewer Segment 1 MOT - Barricade, Type III, High Intensity, Lighted, Oper	EA	2	$ _____	$ _____
1090	Sewer Segment 1 MOT – Channelizing Device, 42-inch, Furn	EA	75	$ _____	$ _____
1100	Sewer Segment 1 MOT – Channelizing Device, 42-inch, Oper	EA	75	$ _____	$ _____
1110	Sewer Segment 1 MOT – Lighted Arrow, Type C, Furn	EA	1	$ _____	$ _____
1120	Sewer Segment 1 MOT – Lighted Arrow, Type C, Oper	EA	1	$ _____	$ _____
1130	Fence – Remove and Replace, 6-ft tall chain link, Segment 1 – Washington Heights	LF	10	$ _____	$ _____
1140	Fence – Remove and Replace, 4-ft tall chain link, Segment 1 – Washington Heights	LF	10	$ _____	$ _____
1150	Level 2 MACP Inspect Manhole	EA	5	$ _____	$ _____
1160	Clean 10-inch Dia. San. Sewer (Segment 1 – Washington Heights, MH 71-69220 to MH 71-69271)	LF	904	$ _____	$ _____
1170	PACP Televise 10-inch Dia. San. Sewer (Segment 1 – Washington Heights, MH 71-69220 to MH 71-69271)	LF	904	$ _____	$ _____
1180	Contingency Manhole/Riser Remove and Replace (in Pavement, including restoration) Segment 1 – Washington Heights	EA	1	$ _____	$ _____
1190	Sewer Flow Control (Segment 1 – Washington Heights)	LS	1	$ _____	$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENT 1 (continued)				
	Alternate 1 - Styrene Liner				
1310	CIPP Line 10-inch Dia. San. Sewer (Segment 1 – Washington Heights, MH 71-69220 to MH 71-69271,)	LF	904	$ _____	$ _____
	Subtotal, Segment 1, Alternate 1 (Items 1010 - 1190, and 1310)				$ _____
	Alternate 2 - Non-Styrene Liner				
1410	CIPP Line 10-inch Dia. San. Sewer (Segment 1 – Washington Heights, MH 71-69220 to MH 71-69271,)	LF	904	$ _____	$ _____
	Subtotal, Segment 1, Alternate 2 (Items 1010 - 1190, and 1410)				$ _____
	SEGMENTS 2 & 3				
2010	Sewer Segments 2 & 3 – Protective Fencing	LF	832	$ _____	$ _____
2020	Sewer Segments 2 & 3 MOT - Sign, Type B, Temp, Prismatic, Furn	SF	287	$ _____	$ _____
2030	Sewer Segments 2 & 3 MOT - Sign, Type B, Temp, Prismatic, Oper	SF	287	$ _____	$ _____
2040	Sewer Segments 2 & 3 – Sign Cover	EA	24	$ _____	$ _____
2050	Sewer Segments 2 & 3 MOT - Barricade, Type III, High Intensity, Lighted, Furn	EA	7	$ _____	$ _____
2060	Sewer Segments 2 & 3 MOT - Barricade, Type III, High Intensity, Lighted, Oper	EA	7	$ _____	$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENTS 2 & 3 (continued)				
2070	Sewer Segments 2 & 3 MOT – Channelizing Device, 42-inch, Furn	EA	51	$ _____	$ _____
2080	Sewer Segments 2 & 3 MOT – Channelizing Device, 42-inch, Oper	EA	51	$ _____	$ _____
2090	Level 2 MACP Inspect Manhole	EA	14	$ _____	$ _____
2100	Clean 8-inch Dia. San. Sewer (Segment 2 – Geddes Heights, MH 71- 69198 to MH 71-70032)	LF	1049	$ _____	$ _____
2110	Clean 8-inch Dia. San. Sewer (Segment 2 – Harvard PL., MH 71-70027 to MH 71-70032)	LF	402	$ _____	$ _____
2120	Clean 8-inch Dia. San. Sewer (Segment 3 – W. Ridgeway St., MH 71-70020 to MH 71-70038)	LF	519	$ _____	$ _____
2130	Clean 8-inch Dia. San. Sewer (Segment 3 – E. Ridgeway St., MH 71- 70023 to MH 71-70039)	LF	437	$ _____	$ _____
2140	PACP Televise 8-inch Dia. San. Sewer (Segment 2 – Geddes Heights, MH 71- 69198 to MH 71-70032)	LF	1049	$ _____	$ _____
2150	PACP Televise 8-inch Dia. San. Sewer (Segment 2 – Harvard PL., MH 71- 70027 to MH 71-70032)	LF	402	$ _____	$ _____
2160	PACP Televise 8-inch Dia. San. Sewer (Segment 3 – W. Ridgeway St., MH 71-70020 to MH 71-70038)	LF	519	$ _____	$ _____
2170	PACP Televise 8-inch Dia. San. Sewer (Segment 3 – E. Ridgeway St., MH 71- 70023 to MH 71-70039)	LF	437	$ _____	$ _____
2180	Contingency Manhole/Riser Remove and Replace (in Pavement, including restoration) Segment 2 – Geddes Heights	EA	1	$ _____	$ _____
2190	Contingency Manhole/Riser Remove and Replace (in Grass, including restoration) Segment 2 – Harvard Place	EA	1	$ _____	$ _____
2200	Contingency Manhole/Riser Remove and Replace (in Pavement, including restoration) Segment 3 – W. Ridgeway Street	EA	1	$ _____	$ _____
2210	Contingency Manhole/Riser Remove and Replace (in Pavement, including restoration) Segment 3 – E. Ridgeway Street	EA	1	$ _____	$ _____
2220	Sewer Flow Control (Segments 2 & 3 – Geddes Heights, E. & W. Ridgeway St. and Harvard Pl.)	LS	1	$ _____	$ _____

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Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENTS 2 & 3 (continued)				
	Alternate 1 - Styrene Liner				
2310	CIPP Line 8-inch Dia. San. Sewer (Segment 2 – Geddes Heights, MH 71- 69198 to MH 71-70032)	LF	1049	$ _____	$ _____
2320	CIPP Line 8-inch Dia. San. Sewer (Segment 2 – Harvard PL., MH 71- 70027 to MH 71-70032)	LF	402	$ _____	$ _____
2330	CIPP Line 8-inch Dia. San. Sewer (Segment 3 – W. Ridgeway St., MH 71-70020 to MH 71-70038)	LF	519	$ _____	$ _____
2340	CIPP Line 8-inch Dia. San. Sewer (Segment 3 – E. Ridgeway St., MH 71- 70023 to MH 71-70039)	LF	437	$ _____	$ _____
	Subtotal, Segments 2 & 3, Alternate 1 (Items 2010 - 2220, and 2310 - 2340)				$ _____
	Alternate 2 - Non-Styrene Liner				
2410	CIPP Line 8-inch Dia. San. Sewer (Segment 2 – Geddes Heights, MH 71- 69198 to MH 71-70032)	LF	1049	$ _____	$ _____
2420	CIPP Line 8-inch Dia. San. Sewer (Segment 2 – Harvard PL., MH 71- 70027 to MH 71-70032)	LF	402	$ _____	$ _____
2430	CIPP Line 8-inch Dia. San. Sewer (Segment 3 – W. Ridgeway St., MH 71-70020 to MH 71-70038)	LF	519	$ _____	$ _____
2440	CIPP Line 8-inch Dia. San. Sewer (Segment 3 – E. Ridgeway St., MH 71- 70023 to MH 71-70039)	LF	437	$ _____	$ _____
	Subtotal, Segments 2 & 3, Alternate 2 (Items 2010 - 2220, and 2410 - 2440)				$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENT 4				
4010	Sewer Segment 4 - Protective Fencing	LF	2404	$ _____	$ _____
4020	Sewer Segment 4 MOT - Sign, Type B, Temp, Prismatic, Furn	SF	130	$ _____	$ _____
4030	Sewer Segment 4 MOT - Sign, Type B, Temp, Prismatic, Oper	SF	130	$ _____	$ _____
4040	Sewer Segment 4 MOT – Sign Cover	EA	15	$ _____	$ _____
4050	Sewer Segment 4 MOT - Barricade, Type III, High Intensity, Lighted, Furn	EA	9	$ _____	$ _____
4060	Sewer Segment 4 MOT - Barricade, Type III, High Intensity, Lighted, Oper	EA	9	$ _____	$ _____
4070	Level 2 MACP Inspect Manhole	EA	7	$ _____	$ _____
4080	Clean 8-inch Dia. San. Sewer (Segment 4 – Arboretum Main Valley, MH 71-70032 to MH 71-70046)	LF	1387	$ _____	$ _____
4090	PACP Televise 8-inch Dia. San. Sewer (Segment 4 – Arboretum Main Valley, MH 71-70032 to MH 71-70046)	LF	1387	$ _____	$ _____
4100	Sewer Flow Control (Segment 4 – Arboretum Main Valley)	LS	1	$ _____	$ _____
	Alternate 1 - Styrene Liner				
4310	CIPP Line 8-inch Dia. San. Sewer (Segment 4 – Arboretum Main Valley, MH 71-70032 to MH 71-70046)	LF	1387	$ _____	$ _____
	Subtotal, Segment 4, Alternate 1 (Items 4010 - 4100, and 4310)				$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENT 4 (continued)				
	Alternate 2 - Non-Styrene Liner				
4410	CIPP Line 8-inch Dia. San. Sewer (Segment 4 – Arboretum Main Valley, MH 71-70032 to MH 71-70046)	LF	1387	$ _____	$ _____
	Subtotal, Segment 4, Alternate 2 (Items 4010 - 4100, and 4410)				$ _____
	SEGMENT 5				
5010	Sewer Segment 5 – Protective Fencing	LF	1091	$ _____	$ _____
5020	Sewer Segment 5 MOT - Sign, Type B, Temp, Prismatic, Furn	SF	283	$ _____	$ _____
5030	Sewer Segment 5 MOT - Sign, Type B, Temp, Prismatic, Oper	SF	283	$ _____	$ _____
5040	Sewer Segment 5 MOT – Sign Cover	EA	23	$ _____	$ _____
5050	Sewer Segment 5 MOT - Barricade, Type III, High Intensity, Lighted, Furn	EA	7	$ _____	$ _____
5060	Sewer Segment 5 MOT - Barricade, Type III, High Intensity, Lighted, Oper	EA	7	$ _____	$ _____
5070	Sewer Segment 5 MOT - Channelizing Device, 42-inch, Furn	EA	25	$ _____	$ _____
5080	Sewer Segment 5 MOT - Channelizing Device, 42-inch, Oper	EA	25	$ _____	$ _____
5090	Fence – Remove and Replace, 6-ft tall chain link, Segment 5 – Regent Dr.	LF	80	$ _____	$ _____
5100	Level 2 MACP Inspect Manhole	EA	7	$ _____	$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENT 5 Continued				
5110	Clean 8-inch Dia. San. Sewer (Segment 5 – Regent Dr., MH 71-69945 to MH 71-70046)	LF	923	$ _____	$ _____
5120	PACP Televise 8-inch Dia. San. Sewer (Segment 5 – Regent Dr., MH 71- 69945 to MH 71-70046)	LF	923	$ _____	$ _____
5130	Contingency Manhole/Riser Remove and Replace (in Pavement, including restoration) Segment 5 – Regent Drive	EA	1	$ _____	$ _____
5140	Sewer Flow Control (Segment 5 – Regent Dr.)	LS	1	$ _____	$ _____
5150	Manhole – Adjust to Grade MH 71- 69944	EA	1	$ _____	$ _____
5160	Manhole – Drop Connection Removal (2) MH 71-69944	EA	1	$ _____	$ _____
	Alternate 1 - Styrene Liner				
5310	CIPP Line 8-inch Dia. San. Sewer (Segment 5 – Regent Dr., MH 71-69945 to MH 71-70046)	LF	923	$ _____	$ _____
	Subtotal, Segment 5, Alternate 1 (Items 5010 - 5160, and 5310)				$ _____
	Alternate 2 - Non-Styrene Liner				
5410	CIPP Line 8-inch Dia. San. Sewer (Segment 5 – Regent Dr., MH 71-69945 to MH 71-70046)	LF	923	$ _____	$ _____
	Subtotal, Segment 5, Alternate 2 (Items 5010 - 5160, and 5410)				$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENT 6				
6010	Sewer Segment 6 – Protective Fencing	LF	2075	$ _____	$ _____
6020	Sewer Segment 6 MOT - Sign, Type B, Temp, Prismatic, Furn	SF	199	$ _____	$ _____
6030	Sewer Segment 6 MOT - Sign, Type B, Temp, Prismatic, Oper	SF	199	$ _____	$ _____
6040	Sewer Segment 6 – Sign Cover	EA	17	$ _____	$ _____
6050	Sewer Segment 6 MOT - Barricade, Type III, High Intensity, Lighted, Furn	EA	6	$ _____	$ _____
6060	Sewer Segment 6 MOT - Barricade, Type III, High Intensity, Lighted, Oper	EA	6	$ _____	$ _____
6070	Sewer Segment 6 MOT - Channelizing Device, 42-inch, Furn	EA	58	$ _____	$ _____
6080	Sewer Segment 6 MOT - Channelizing Device, 42-inch, Oper	EA	58	$ _____	$ _____
6090	Aggregate Maintenance Pad, MH 71- 69899	EA	1	$ _____	$ _____
6100	Aggregate Maintenance Pad, MH 71- 69900	EA	1	$ _____	$ _____
6110	Level 2 MACP Inspect Manhole	EA	4	$ _____	$ _____
6120	Clean 8-inch Dia. San. Sewer (Segment 6 – Arboretum, MH 71-70046 to MH 71-69895)	LF	894	$ _____	$ _____
6130	PACP Televise 8-inch Dia. San. Sewer (Segment 6 – Arboretum, MH 71-70046 to MH 71-69895)	LF	894	$ _____	$ _____
6140	Contingency Sewer Location Services (Between MH 71-70046 and MH 71-69899)	LS	1	$ _____	$ _____
6150	Contingency Exploratory Excavation (Between MH 71-70046 and MH 71-69899)	EA	1	$ _____	$ _____
6160	Contingency Manhole Installation (Between MH 71-70046 and MH 71-69899)	EA	1	$ _____	$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENT 6 (continued)				
6170	Contingency Sewer Location Services (Between MH 71-69899 and MH 71-69894)	LS	1	$ _____	$ _____
6180	Contingency Exploratory Excavation (Between MH 71-69899 and MH 71-69894)	EA	1	$ _____	$ _____
6190	Contingency Manhole Installation (Between MH 71-69899 and MH 71-69894)	EA	1	$ _____	$ _____
6200	Contingency Sewer Location Services (Between MH 71-69894 and MH 71-69900)	LS	1	$ _____	$ _____
6210	Contingency Exploratory Excavation (Between MH 71-69894 and MH 71-69900)	EA	1	$ _____	$ _____
6220	Contingency Manhole Installation (Between MH 71-69894 and MH 71-69900)	EA	1	$ _____	$ _____
6230	Sewer Flow Control (Segment 6 – Arboretum)	LS	1	$ _____	$ _____
	Alternate 1 - Styrene Liner				
6310	CIPP Line 8-inch Dia. San. Sewer (Segment 6 – Arboretum, MH 71-70046 to MH 71-69895)	LF	894	$ _____	$ _____
	Subtotal, Segment 6, Alternate 1 (Items 6010 - 6230, and 6310)				$ _____
	Alternate 2 - Non-Styrene Liner				
6410	CIPP Line 8-inch Dia. San. Sewer (Segment 6 – Arboretum, MH 71-70046 to MH 71-69895)	LF	894	$ _____	$ _____
	Subtotal, Segment 6, Alternate 2 (Items 6010 - 6230, and 6410)				$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENTS 7 & 8				
7010	Sewer Segments 7 & 8 – Protective Fencing	LF	5088	$ _____	$ _____
7020	Sewer Segments 7 & 8 MOT - Sign, Type B, Temp, Prismatic, Furn	SF	155	$ _____	$ _____
7030	Sewer Segments 7 & 8 MOT - Sign, Type B, Temp, Prismatic, Oper	SF	155	$ _____	$ _____
7040	Sewer Segments 7 & 8 MOT – Sign Cover	EA	15	$ _____	$ _____
7050	Sewer Segments 7 & 8 MOT - Barricade, Type III, High Intensity, Lighted, Furn	EA	7	$ _____	$ _____
7060	Sewer Segments 7 & 8 MOT - Barricade, Type III, High Intensity, Lighted, Oper	EA	7	$ _____	$ _____
7070	Sewer Segments 7 & 8 MOT - Channelizing Device, 42-inch, Furn	EA	19	$ _____	$ _____
7080	Sewer Segments 7 & 8 MOT - Channelizing Device, 42-inch, Oper	EA	19	$ _____	$ _____
7090	Contingency Aggregate Maintenance Pad, MH 71-69896	EA	1	$ _____	$ _____
7100	Level 2 MACP Inspect Manhole	EA	7	$ _____	$ _____
7110	Clean Dual 24-inch Dia. San. Sewer (Segment 8 – Interceptor, MH 71-70073 to MH 71-70071 – 173 lf & 170 lf)	LF	343	$ _____	$ _____
7120	Clean 36-inch Dia. San. Sewer (Segment 7 – Interceptor, MH 71-69896 to MH 71-70073)	LF	1740	$ _____	$ _____
7130	PACP Televise Dual 24-inch Dia. San. Sewer (Segment 8 – Interceptor, MH 71-70073 to MH 71-70071 – 173 lf &170 lf)	LF	343	$ _____	$ _____
7140	PACP Televise 36-inch Dia. San. Sewer (Segment 7 – Interceptor MH 71-69896 to MH 71-70073)	LF	1740	$ _____	$ _____
7150	Manhole/Riser Remove and Replace (in Prairie Area, includes regrading, restoration by others) Segment 7 & 8 – Interceptor	EA	5	$ _____	$ _____
7160	Manhole/Riser Remove and Replace (in Pavement, including restoration) Segment 7 & 8 – Interceptor	EA	1	$ _____	$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENTS 7 & 8 (continued)				
7170	Contingency Sewer Location Services (36-inch Sewer, Fitting 69-57654)	LS	1	$ _____	$ _____
7180	Contingency Exploratory Excavation (36-inch Sewer, Fitting 69-57654)	EA	1	$ _____	$ _____
7190	Contingency Manhole Installation (36-inch Sewer, Fitting 69-57654)	EA	1	$ _____	$ _____
7200	Sewer Flow Control (Segments 7 & 8 – Interceptor)	LS	1	$ _____	$ _____
7210	Manhole – Replace Casting MH 71- 70073	EA	1	$ _____	$ _____
	Alternate 1 - Styrene Liner				
7310	CIPP Line Dual 24-inch Dia. San. Sewer (Segment 8 – Interceptor, MH 71-70073 to MH 71-70071 – 173 lf &170 lf)	LF	343	$ _____	$ _____
7320	CIPP Line Televise 36-inch Dia. San. Sewer (Segment 7 – Interceptor MH 71-69896 to MH 71-70073)	LF	1740	$ _____	$ _____
7330	Pre-line 36-inch Dia. Sa. Sewer	LF	1740	$ _____	$ _____
7340	Contingency Pre-line 24-inch Dia. Sa. Sewer	LF	343	$ _____	$ _____
	Subtotal, Segments 7 & 8, Alternate 1 (Items 7010 - 7210, and 7310 - 7340)				$ _____

BID FORM

Section 1 - Schedule of Prices

Project: Southside Interceptor Sewer Lining, Phase V

File # 2017-037 Bid # 4633

Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	SEGMENTS 7 & 8 (continued)				
	Alternate 2 - Non-Styrene Liner				
7410	CIPP Line Dual 24-inch Dia. San. Sewer (Segment 8 – Interceptor, MH 71-70073 to MH 71-70071 – 173 lf & 170 lf)	LF	343	$ _____	$ _____
7420	CIPP Line Televise 36-inch Dia. San. Sewer (Segment 7 – Interceptor MH 71-69896 to MH 71-70073)	LF	1740	$ _____	$ _____
7430	Pre-line 36-inch Dia. Sa. Sewer	LF	1740	$ _____	$ _____
7440	Contingency Pre-line 24-inch Dia. Sa. Sewer	LF	343	$ _____	$ _____
	Subtotal, Segments 7 & 8, Alternate 2 (Items 7010 - 7210, and 7410 - 7440)				$ _____

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
SEWER FLOW CONTROL

a. Description.- The work covered by this Detailed Specification shall consist of furnishing all labor, supervision, tools, equipment, appliances, materials, incidental items, and the installation, operation, and maintenance needed to perform all operations in connection with the diversion of flow and bypass pumping of sanitary sewage for cleaning and inspecting of sewers and manholes, and sewer rehabilitation procedures. The purpose of which is to provide un-interrupted sewerage service at all times and to prevent sewage overflows.

It is the intent of this project to divert dry weather flow upstream of the 36-inch sanitary sewer within the work zone to other City of Ann Arbor (City) sanitary sewers by installing a plug in the sewer system. The flows from the various laterals to the smaller diameter sewers connected to the 36-inch sanitary sewer in the work zone shall be bypass pumped to a manhole either upstream of the plugs or downstream of the work zone. The design, installation, and operation of the temporary sewer flow control system shall be the Contractor's sole responsibility.

When working inside manholes or sewer, the Contractor shall exercise caution and comply with Occupational Safety and Health Administration (OSHA) and City requirements for working in confined spaces.

The Contractor shall manage, plan, and execute their operations such that there will be no backups, leaks, or unauthorized discharges of sewerage. The Contractor shall be completely responsible for the proper clean-up and any environmental remediation as may be required by the City, the University of Michigan (U of M), or the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for any backup, leak, spill, or sanitary sewerage overflow.

b. Submittals.- The Contractor shall provide a detailed Sewer Flow Control Plan to the Engineer for review and acceptance prior to the start of any flow control work. This plan must include descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing flow. The Sewer Flow Control Plan must be specific, including such items as schedules, locations, elevations, capacities of the equipment, materials, and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of existing structures and pipes, and compliance with the requirements and conditions specified in these Contract Documents. The flow control plan shall be submitted to the Engineer for review and approval in accordance with Section 104.02 of the 2012 edition of the Michigan Department of Transportation Standard Specifications for Construction. No construction

shall begin until all provisions and requirements have been reviewed and accepted by the Engineer.

For each submittal and re-submittal, the Contractor shall allow at least 14 calendar days from the date of the submittal to receive the Engineer's acceptance or request for revisions. The Engineer's comments shall be incorporated into the re-submitted plans, calculations, and descriptions. The Engineer's acceptance of the plan is required before beginning the work. Re-submittals shall be reviewed and returned to the Contractor within 14 calendar days. Required revisions will not be a basis of payment for additional compensation, extra work, or an extension of contract time. The Contractor shall include time for this entire review process in their schedule.

Sewer Flow Control Plan submittal shall include at a minimum:

1. Overall flow control plan and sequence of construction;

2. Flow control schedule including times when the flow control system shall be temporarily shut down and flow allowed to return to normal operations;

3. Overall plan for removal of flow control system during wet weather events and/or emergency situations;

4. Plan for providing redundancy for all aspects of the system especially the plugs;

5. Plan for providing noise control of pumping and power generation equipment;

6. Safety Program for confined space entry and procedure for entering manholes and installing plugs under live flow conditions;

7. Emergency clean-up plan should a spill occur or backups in the system occur. The plan should include contact names and 24-hour phone numbers;

8. Procedure for continuous (24-hour) monitoring of system, including verifying that plugs are sealed and lateral bypass pumping system is operating. The plan is to include type and location of level sensors, method of installation, set elevations of sensors, and continuous monitoring system. Monitoring of the system shall be performed and documented at each installation. Records of the system monitoring shall be submitted to the Engineer;

9. Video recording of the sewer televising of the portions of the sanitary sewer between MHs 71-70046 and 71-69899, 71-69899 and 71-69894, 71-69894 and 71-69900, 71-70014 and 71-70075, a 360° view of the buried fittings, and location of buried fittings as measured from the downstream manhole;

10. Maintenance of traffic plan for plug installation and removal in public roadways;

11. Sewer plug types, method of installation and removal, anchors and restraints, and hydraulic head limits;

12. Lateral bypass pump sizes, capacities, power requirements, and number of each size to be provided at each manhole including redundancy;

13. Calculations giving flow capacity provided by each pump given the system's Total Dynamic Head (TDH), including the calculations that are used to derive the system TDH. This data should also include the calculations determining what the Net Positive Suction Head available is in comparison to the Net Positive Suction Head required by each pump. Pump curves shall be submitted;

14. Number, size, material, and location of lateral bypass pumping suction and discharge piping, procedure for protecting lines, and location of bypass pumping discharge manhole;

15. Lateral bypass pumping system flushing and drainage plan;

16. Buried bypass pipe locations and details;

17. Environment protection including pump containment and leak detection;

18. Method of protecting discharge manholes or structures from erosion and damage;

19. Method of noise control for each pump and generator;

20. Secondary noise control barrier (mandatory); and,

21. Design plans for access to bypass pumping locations indicated on the Drawings.

c. Flow Diversion Equipment.- Provide materials and equipment suitable for, and known to be reliable to meet, the flow diversion requirements as shown on the Drawings and as needed for the Contractor's operations.

The plug shall be a temporary plug that allows for quick removal in case of emergency or wet weather situation and re-installation after wet weather event has passed. Plugs shall be capable of withstanding minimum static head pressure of 15 feet. Plugs shall include form or bracing, anchoring, or restraint to keep plugs properly installed. Plugs should be of the type capable of being installed under live flow conditions and in depths exceeding 35 feet as shown on the Drawings. Plugs should be able to be installed in either the incoming or outgoing pipe in a manhole and allow for quick removal under surcharged conditions.

Pressure gages shall be installed with the plugs to continuously monitor the plugs and adjust the air pressure as needed to maintain full blockage of flow.

Ultrasonic level sensors shall be installed, at a minimum, at each bypass pumping location. The Contractor may elect to install sensors in other locations at their expense if they so choose. The Contractor shall be responsible for the installation and maintenance of the sensors. The level sensors shall provide continuous level readings that the Contractor shall be able to review remotely to monitor the level in the system during flow diversion. The level sensors shall provide notifications and alarms to allow the Contractor time to remove the plugs should an emergency or a wet weather event occur.

d. Sewer Bypass Pumping Equipment.- Provide materials and equipment suitable for, and known to be reliable to meet, the bypass pumping requirements.

The pumps must be capable of passing a minimum of a 3-inch solid. All pumps must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows.

Equipment used for bypass pumping shall be sufficient to handle anticipated average and peak flows from each sewer. The Contractor shall maintain sanitary sewer flows within their bypass pumping system, including all wet weather flows.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
SEWER FLOW CONTROL

The locations and approximate flow rates for each of the sewer segments is as follows:

	MH ID	**Location**	**Bypass Pump from**	**Pump & Haul**	**Dry Weather Flow (CFS)**
Sewer Segment 1	71-69222	Washington Hts	Y	-	0.05
	71-69221	By the Reader Center	Y	-	
	71-69252	Parking lot of U of M (By the temp Trailer)	y	-	(unknown)
	71-69254	U/S from Segment 1 interceptor connection	-	-	17.5
	Segment Total				
Sewer Segments 2 & 3	71-70021	Ridgeway St	-	y	
	71-70023	Ridgeway St	-	y	
	71-70026	Harward Place	-	Y	0.01
	71-70028	28 Harvard Pl	-	y	0.01
	71-70040	22 Harvard PL	-	y	0.01
	71-70042	26 Harvard PL	-	y	0.01
	71-70035	Arb	-	y	
	71-70057	Ridgeway St	-	y	
	Segment Total				?
Sewer Segments 4, 5 & 6	71-70038	Arb	y	-	0.01
	71-70039	Arb	y	-	0.01
	71-70032	Arb	y	-	0.02
	71-70044	Arb	y	-	0.02
	71-69946	Regent Dr	y	-	0.01
	71-69898	Arb	y	-	0.01
	71-69893	Arb	y	-	17.9
	71-70046	Arb	y	-	0.02
	Segment Total				?

Sewer Segment 7 & 8	71-69895	Arb	y	-	18.0
	71-70012	Arb	y	-	
	71-69897	Arb	y	-	
	71-70074	Riverview Ct	y	-	
	71-69919	Pineview CT	y	-	0.1
	71-69254	Hospital connection to interceptor	n/a	n/a	0.1
	71-70050	Segment 1 connection to interceptor	n/a	n/a	0.36
	71-68799	u/s MH from 21" connection to interceptor	n/a	n/a	
	Segment Total				

The Contractor shall take into account seasonal variations and include a safety factor above the indicated peak flow values in sizing pumping equipment.

For sanitary sewerage, bypass piping shall be PVC Schedule 80, or equivalent, with solvent welded joints; or HDPE with butt fused joints. The Contractor shall perform hydrostatic testing of bypass pump discharge pipes in accordance with ASTM F2164 for HDPE or ASTM F2261 for PVC pipe, prior to operating bypass pumping system to ensure structural integrity of pipeline. Any defects or leaks found during testing shall be repaired and the pipeline shall be re-tested until results are satisfactory in accordance with the ASTM standard, and as acceptable to the Engineer.

1. **Redundant Equipment.-** The Contractor shall have redundant flow diversion equipment including, but not limited to, plugs and level sensors, available for immediate use at the job site at all times in the event of a failure.

Any damage to the Contractor's equipment, sewer system, or delays to the Contractor's operations due to equipment or plug failure/leakage shall be the Contractor's sole responsibility and no additional payment shall be made for these occurrences. The Contractor shall take all necessary precautions to verify that the plugs and flow diversion plan is operational prior to performing the work.

The Contractor shall have redundant lateral bypass pumping equipment installed and ready for immediate operation and use in the event of an emergency or primary system breakdown or failure. The standby system shall be capable of pumping dry weather and peak flow. The standby pump(s) shall not be considered as any part of

the primary system as designed for peak flow. The Contractor shall also furnish and have available onsite, and ready for operation, redundant pumping ancillary equipment in case of any failure of the pumping system including piping, electrical equipment, pipe appurtenances, etc. Redundant pumping facilities shall also include having a backup power generator in case the primary power source fails.

The Contractor shall not obstruct flows in the sewer unless the primary and redundant equipment is onsite and in operable condition and authorization has been granted by the Engineer.

e. Residential Flow Diversion.- Residential sewer lateral location data for the project area is limited. The Contractor shall verify and document the sewer lateral locations as part of the sewer cleaning and televising process. The Contractor should assume each residence within the project area is connected to a sanitary sewer and must account for each residence abutting the respective sewer segments. With the exception of the Caretakers Residence, there are no known sanitary sewer laterals located within the Arboretum.

The Owner will permit water use restrictions to be used to reduce bypassed flows. Use restrictions proposed by the Contractor shall be reviewed and approved by the Owner.

The Contractor shall develop a flow diversion plan that permits the work to be completed with the least disruption of service to the residents.

Plans reflect collecting sanitary flows and hauling them to a remote, Owner approved location for disposal. This is a recommendation only; the Contractor is not required to use this bypass method. Contingency bid items for removing manhole casting and cone sections are included for use if it is determined that pumping and lining operations need to be performed from the same manhole.

Bypass pumping from manholes on Geddes Heights, East Ridgeway Street, West Ridgeway Street, and Harvard Place to manholes on Geddes Avenue is not prohibited but subject to many restrictions. Including but not limited to the following:

1. Two-way traffic must be maintained at all times.

2. The manholes on Geddes Avenue are located in the approximate center of the road. Manholes shall not be permitted to remain uncovered. The Contractor

shall be required to fabricate a manhole covering that allows for connection of the bypass piping.

3. All bypass piping crossing roads or driveways shall be placed in a traffic load rated crossing ramp or Owner approved equal.

4. Crossing ramps shall not be permitted during winter months when plowing of Geddes Avenue is required. Actual dates to be determined by the Owner based upon the Contractor's schedule and weather forecasts.

5. Excavating Geddes Avenue to install temporary piping shall not be permitted.

Bypass pumping from the Regent Drive cul-de-sac to manholes on Highland Road shall be subject to the same restrictions outlined above.

f. Washington Heights Flow Diversion.- The exact location of the sanitary lateral servicing Ronald McDonald House (RMH) is unknown. It is presumed to be located between MH 71-69222 and MH 71-69220. RMH provides 31 rooms for families ranging in size from 4 to 5 persons. This includes 12 guest rooms on the lower level. All guest rooms have restroom facilities. The facility if usually full, operating on a waiting list basis. Due to excessive pedestrian traffic, the work on Washington Heights must be performed at night. Therefore, noise control is of great concern. All bypass pumping and power generating equipment shall have primary and secondary sound attenuation in place before the start of any work.

Plans indicate bypass pumping from MH 71-69221. The only known sanitary contributions to this manhole are from the Nichols Arboretum Reader Center. The Reader Center is closed during evening hours. If the Contractor can verify that there is no contributing flow at this manhole then bypass pumping will not be required. The Contractor shall bid based upon providing the pumping.

Two options are available for bypass pumping from MH 71-69219 and MH 71-69252. The Contractor may route pump discharge piping down the slope to MH 71-70050. Alternately, the Contractor may also route pump discharge piping to MH 71-69236. If the Contractor elects to use the alternate discharge location the following restrictions shall apply:

1. Contractor shall not close any portion on East Medical Center Drive.

2. Bypass pump discharge piping shall be routed behind the sidewalk west of the tree line. Piping shall not be placed in the road or on the sidewalk. The sidewalk shall remain open.

3. Temporary fencing shall be placed between the sidewalk and the piping.

g. Interceptor Flow Diversion.- Flows enter the 36-inch Southside Interceptor Sanitary Sewer flowing through Nichols Arboretum through four sewers. The first is the 42-inch reach of the Southside Interceptor Sewer located in Fuller Street that reduces to the 36-inch Nichols Drive Sewer. The second sewer is a 21-inch sewer that collects flows from the U of M Hospital Complex and connects to the 36-inch Southside Interceptor in the Nichols Arboretum through a buried manhole. The third is a 10-inch sewer connecting to the interceptor at MH 71-69254. The fourth sewer is the 10-inch sewer located along Washington Heights/East Medical Center Drive (Sewer Segment 1) at MH 71-70050.

The Contractor shall divert flows from the 42-inch Fuller Street Sewer by installing a plug on the downstream side of the 42-inch pipe flowing east at MH 71-71813 and diverting the flow north into the 42-inch bypass sewer at MH 71-71953. The east/west 42-inch pipe passes through the manhole with the top half of the pipe removed. The east/west 42-inch pipe is approximately 3.6 feet higher than the 42-inch pipe to the north.

All remaining flows (21-inch, 2 each 10-inch) must be bypass pumped at MH 71-69893.

The Contractor shall note that average dry weather flow in the 36-inch sanitary sewer averaged between 9 and 17 cubic feet per second (cfs) based on flow monitoring data from August 24 through September 7, 2016. The split of flow between the 42-inch sewer from Fuller Street and the 21-inch sewer from the hospital is unknown. The Contractor is to take all necessary precautions when installing the plugs in these sewers under live flow conditions.

The Contractor is responsible for obtaining any approvals and permits for lane closures and placement of temporary equipment within public ways from the Agency having jurisdiction. The Contractor shall provide the City a minimum of 7 days advance notice for flow diversions/installation of plugs and consequent lane closures. Work within the Fuller Street/Glen Court intersection shall be limited to the hours of 9:00 a.m. to 3:30 p.m. Due to the location of MH 71-68799, the Contractor shall be required to

coordinate access to this manhole with the U of M Hospital Complex staff and shall avoid unnecessary traffic obstructions; this will require the work needed to perform the installation(s) be completed by early morning (prior to 7:00 a.m.) or shall not begin until late night (after 7:00 p.m.) and shall be as approved by U of M. Should a wet weather event occur, the Contractor will be allowed to enter East Medical Center Drive after providing notice to the Engineer.

The Contractor shall install temporary traffic control measures as indicated on the maintenance of traffic plans and as approved by the Engineer.

Copies of the record drawings from the U of M Hospital Replacement Project and the associated utility work have been included with the set of Drawings for the Contractor's reference. The City has video inspection of MH 71-68799 available to the Contractor upon request.

The Contractor shall install plugs and level sensors as shown on the Drawings and test the system for a minimum of 48 hours prior to the start of any other work onsite. The Contractor, City, and Engineer shall review the flow diversion during the testing period, including flow levels in the manholes. The Contractor shall not start any other work onsite until acceptance of the diversion test.

h. Lateral Bypass Pumping.- At no time shall plugging and/or blocking of flow from the U of M Hospital Complex service connections be permitted.

The Contractor shall construct and maintain bypass pumping facilities as needed that will pump the flow rates as specified elsewhere herein. The Contractor shall provide the City and U of M with a minimum of 7 days advance notice prior to initiating the sanitary sewer bypass pumping system.

The Contractor is responsible for obtaining any approvals for placement of the temporary equipment and/or piping within public ways from the Agency having jurisdiction.

The Contractor shall provide an adequate labor force and have designated personnel onsite for maintenance and operation, and emergency back-up service, of the bypass pumping facility 24 hours per day 7 days per week during bypass operations.

Anytime bypass pumping operations cease as required due to weather conditions described in Detailed Specification "Extension of Time, Additional Compensation" or as

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required by the Engineer, the Contractor shall drain the bypass pump discharge line back into the sanitary system as described in the Sewer Flow Control Plan and as directed by the Engineer to avoid freezing of the pipeline. Under no circumstances shall sanitary sewage within the bypass discharge line be drained to the Huron River.

The Contractor is to arrange for and provide all necessary temporary power, electrical service, board switches, etc. as required by DTE Energy and the National Electrical Code (NEC) current edition to provide temporary bypass pumping.

All bypass pumping discharge pipes shall be protected from the pipe header to the discharge structure. The discharge pipe shall be routed along the west/south (non-river) side of Nichols Drive and shall be routed to avoid adversely impacting all wetlands. The Contractor shall provide necessary fittings or deflection in pipe to route pipe as necessary to minimize environmental impact and conflict with pedestrian, construction, and emergency vehicle traffic. When the bypass pipeline crosses drives or trails, or when pipeline is within any Contractor work zone/staging area, the Contractor shall place the bypass pipeline in a casing pipe and bury in temporary trenches with compacted backfill as indicated on the Drawings, as required for the Contractor's operations, and as approved by the Engineer. All work associated with temporary bypass discharge pipe trench, including piping, fittings, deflections, casing, spacers, trenching, and backfill shall be included in the contract pay item "Sewer Flow Control."

1. **Wet Weather Event.-** A wet weather event is defined as an event that causes the flow in the system to surcharge to the following elevations:

Level Sensor 1 – MH 71-71813: 782.00 feet

When a wet weather event occurs, the Contractor shall cease all operations in the sewer system, remove all three plugs, and allow sewage to flow back into the Southside Interceptor Sewer located in the Nichols Arboretum. The plugs shall be removed as not to cause a surge downstream. At no time is the flow in the system allowed to raise to the following elevations due to the Contractor's operations:

Level Sensor 1 – MH 71-71813: 784.00 feet

It is the Contractor's responsibility to monitor the weather and verify weather conditions prior to the start of any work that could have an impact on the capacity of the affected sewers. Any damage to the Contractor's equipment, sewer system, or

delays to Contractor's operations due to wet weather conditions shall be the Contractor's sole responsibility and no additional payment shall be provided.

The only exception to that is if the temporary removal of the flow diversion plugs and lateral bypass pumping system occurred after the sewers had been cleaned, televised, prepped for lining, and approved by the Engineer before the sewers were lined. In such an event, the Contractor may request compensation for the re-cleaning of the pipes only. The re-cleaning must first be approved by the Engineer prior to the work beginning.

No compensation shall be provided for the removal and re-installation of the plugs due to wet weather events as described in Detailed Specification "Working in the Rain."

i. Noise Control.- All noise generated by the bypass pumping operation shall not exceed the sound limits and shall follow necessary procedures as required for temporary exemptions, as defined in Detailed Specification "Hours of Work." The Contractor shall provide a secondary sound barrier for both the primary and back-up pumps and any power generating equipment.

j. Flow Diversion and Bypass Pumping Completion.- At the end of the flow control operation, and after receipt of written permission from the Engineer, the Contractor shall remove all flow diversion and bypass pumping equipment, including level control system, temporary power equipment, and suction/discharge piping in a manner that permits the sewage flow to return to normal without overflowing to the environment, surcharging, or causing other major disturbances downstream. The Contractor shall restore all disturbed areas and structures, and restore all pavement in accordance with Detailed Specification, "Project Clean-Up and Restoration, Special" and as directed by the Engineer.

The duration of the bypass pumping shall be determined by the Contractor as needed to perform the work under this contract while maintaining un-interrupted sewage service.

k. Flow Control Precautions.- When flow in a sewer line is bypassed or plugged, sufficient precautions must be taken to protect the sewer liner and the Contractor's operations from damage that might result from sewer surcharging. Further, precautions must be taken to ensure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved. At no time

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shall sewage be pumped in or allowed to flow into a catch basin, storm sewer, or open watercourse.

I. Measurement and Payment.- The completed work shall be paid for at the contract unit price for the following contract pay item:

Contract Pay Item	**Pay Unit**
Sewer Flow Control (Segment 1 – Washington Heights)	Lump Sum
Sewer Flow Control (Segments 2 & 3 – East and West Ridgeway Street, and Harvard Place)	Lump Sum
Sewer Flow Control (Segment 4 – Arboretum Main Valley)	Lump Sum
Sewer Flow Control (Segment 5 – Regent Drive)	Lump Sum
Sewer Flow Control (Segment 6 – Arboretum)	Lump Sum
Sewer Flow Control (Segments 7 & 8 – Interceptor)	Lump Sum

The contract unit price for this item shall include all labor, supervision, tools, permits, shop drawing submittals, materials, equipment, operation, any incidental items, and all other work as noted on the Drawings and as specified herein to allow the Contractor to perform the work of diverting and bypass pumping flows as detailed herein.

The installation, maintenance, operation, monitoring, and removal of the level sensors shall not be paid for separately, but shall be included in the item of work “Sewer Flow Control (Segments 7 & 8 – Interceptor).”

The cost for the sewer flow control shall be paid for as a Lump Sum item regardless of the duration, number of, and/or duration of the wet weather events encountered, flow encountered, weather conditions, or number of times flow control system is temporarily removed and re-installed.

30% of the lump sum shall be paid for Sewer Flow Control following the initial installation, 48-hour test, and acceptance of the system by the Engineer. The remainder of the cost shall be paid for at the conclusion of all flow diversion activities and after the removal of all equipment from the site.

PREBID MEETING SIGN-IN SHEET

PROJECT: Southside Interceptor Sewer Lining
ITB #4633
Tuesday, June 09, 2020

PLEASE PRINT

NAME	REPRESENTING	MAILING ADDRESS	TELEPHONE	EMAIL
Brian Slizewski	City of Ann Arbor - Engineering	Address: 301 E. Huron Street, P.O. Box 8647 City, State: Ann Arbor, MI Zip: 48107-8647	Office: (734) 794-6410, x43607 Cell: (734) 231-6376	bslizewski@a2gov.org
Doug Dunn	Fishbeck	Address: 39500 Mackenzie Dr City, State: Novi, MI Zip: 48377	Office: 248-324 1240 Cell: 248-310-7620	ddunn@fishbeck.com
NATHAN BICKFORD	IPR-GREAT LAKES	Address: 7100 HURON RIVER DR. City, State: DEXTER Zip: 48130	Office: Cell: 313 316 0421	nbickford@teamipr.com
BEN HILLEBRAND	GRANITE LINER	Address: 28529 GODDARD RD STE. 106 City, State: ROMULUS, MI Zip: 48174	Office: Cell: 734-787-5491	benjamin.hillebrand@gcare.com
KORY BATES	SAK CONSTRUCTION	Address: 864 HOFF ROAD City, State: O'FALLON, MO Zip: 63366	Office: 636-385-1000 Cell: 248-930-8524	kbates@sakcon.com
Chad Crippin	Insituform	Address: 1088 Victory Dr City, State: Howell, MI Zip: 48843	Office: (517) 546-4107 Cell: (313) 410-0328	ccrippin@aegion.com
		Address: City, State: Zip:	Office: Cell:	
		Address: City, State: Zip:	Office: Cell:	

Nichols Arboretum Sewer and Siphon Rehabilitation - Tabulation of Bids
City File No. 2016-026; ITB No. 4461 Addenda Nos. 1 and 2 issued
Bid Date: November 15, 2016; 10:00 a.m., e.s.t.;

					LiquiForce Services (USA), Inc. **28529 Goddard Rd., Ste. 106** **Romulus, Michigan 48174**		**Ric-Man Construction, Inc.** **6850 Nineteen Mile Road** **Sterling Heights, Michigan 48314**		**Lanzo Trenchless Technologies, North** **28135 Groesbeck Highway** **Roseville, Michigan 48066**		**SAK Construction, LLC** **864 Hoff Road** **O'Fallon, Missouri 63366**	
Item Number	**Description**	**Unit**	**Estimated Quantity**	**Engineer's Estimate**	**Total**	**Unit Price**	**Total**	**Unit Price**	**Total**	**Unit Price**	**Total**	**Unit Price**	**Total**
130	Protective Fencing	LF	3,396	$5.00	$16,980.00	$13.20	$44,827.20	$4.00	$13,584.00	$12.00	$40,752.00	$6.00	$20,376.00
200	General Conditions, Max. $104,000	Lump Sum	1	$104,000.00	$104,000.00	$39,862.20	$39,862.20	$104,000.00	$104,000.00	$52,000.00	$52,000.00	$104,000.00	$104,000.00
201	Audiovisual Recording	Lump Sum	1	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$6,200.00	$6,200.00	$5,800.00	$5,800.00	$5,500.00	$5,500.00
202	1" x 3" Aggregate, 12 inch	SY	535	$20.00	$10,700.00	$70.00	$37,450.00	$27.00	$14,445.00	$3.00	$1,605.00	$70.00	$37,450.00
203	Seeding, Fescue Lawn Mixture	LB	25	$6.00	$150.00	$70.00	$1,750.00	$200.00	$5,000.00	$15.00	$375.00	$70.00	$1,750.00
204	Seeding, Mesic Woodland Mixture	LB	10	$90.00	$900.00	$275.00	$2,750.00	$200.00	$2,000.00	$15.00	$150.00	$260.00	$2,600.00
205	Minor Traf Devices, Modified	Lump Sum	1	$12,500.00	$12,500.00	$1,000.00	$1,000.00	$3,200.00	$3,200.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00
206	Topsoil Surface, Furn, 4-inch	SY	1,473	$3.00	$4,419.00	$9.00	$13,257.00	$2.00	$2,946.00	$6.00	$8,838.00	$9.00	$13,257.00
207	Topsoil Surface, Furn, 1-inch, Modified	SY	292	$2.00	$584.00	$7.00	$2,044.00	$5.00	$1,460.00	$3.00	$876.00	$6.00	$1,752.00
208	Swing Gate	Ea	1	$8,000.00	$8,000.00	$10,000.00	$10,000.00	$4,500.00	$4,500.00	$2,500.00	$2,500.00	$9,000.00	$9,000.00
209	Sewer Flow Control	Lump Sum	1	$100,000.00	$100,000.00	$50,000.00	$50,000.00	$70,000.00	$70,000.00	$50,000.00	$50,000.00	$300,000.00	$300,000.00
210	Clean 36-inch Dia. Sanitary Sewer	LF	1,967	$55.00	$108,185.00	$44.40	$87,334.80	$45.00	$88,515.00	$40.00	$78,680.00	$50.00	$98,350.00
211	Clean 24-inch Dia. Siphon Pipe	LF	1,256	$65.00	$81,640.00	$79.20	$99,475.20	$85.00	$106,760.00	$80.00	$100,480.00	$100.00	$125,600.00
212	PACP Televise 24-inch Dia. Sanitary Sewer	LF	1,967	$5.00	$9,835.00	$2.40	$4,720.80	$2.00	$3,934.00	$4.00	$7,868.00	$5.00	$9,835.00
213	PACP Televise 24-inch Dia. Siphon Pipe	LF	1,256	$6.00	$7,536.00	$4.80	$6,028.80	$5.00	$6,280.00	$6.00	$7,536.00	$10.00	$12,560.00
214	Level 2 MACP Inpsect Manhole or Chamber	Ea	10	$3,000.00	$30,000.00	$90.00	$900.00	$191.00	$1,910.00	$500.00	$5,000.00	$100.00	$1,000.00
215	Special Clean & Inspect - Chamber 71-69893	LS	1	$25,000.00	$25,000.00	$1,800.00	$1,800.00	$1,900.00	$1,900.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00
216	Special Clean & Inspect - Chamber 71-69895	LS	1	$25,000.00	$25,000.00	$1,800.00	$1,800.00	$1,900.00	$1,900.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00
217	Removal and Disposal of Sludge and Debris Material	Ton	100	$500.00	$50,000.00	$24.00	$2,400.00	$25.00	$2,500.00	$30.00	$3,000.00	$25.00	$2,500.00
218	Removal and Replacement of Chamber Roof Slab - MH 71-70049	Lump Sum	1	$20,000.00	$20,000.00	$4,968.00	$4,968.00	$61,000.00	$61,000.00	$10,000.00	$10,000.00	$50,000.00	$50,000.00
219	Removal and Replacement of Chamber Roof Slab - MH 71-69895	Lump Sum	1	$25,000.00	$25,000.00	$6,276.00	$6,276.00	$61,000.00	$61,000.00	$12,000.00	$12,000.00	$50,000.00	$50,000.00
220	CIPP Line 36-inch Dia. Sanitary Sewer	LF	1,627	$250.00	$406,750.00	$210.00	$341,670.00	$175.00	$284,725.00	$309.00	$502,743.00	$340.00	$553,180.00
221	Preline 36-inch Dia. Sanitary Sewer	LF	500	$50.00	$25,000.00	$1.00	$500.00	$10.00	$5,000.00	$16.00	$8,000.00	$7.00	$3,500.00
222	Project Clean-up and Restoration, Special	Lump Sum	1	$15,000.00	$15,000.00	$10,000.00	$10,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$150,000.00	$150,000.00
2020004	Tree Rem, 6 inch to 18 inch	Ea	9	$500.00	$4,500.00	$100.00	$900.00	$510.00	$4,590.00	$1,200.00	$10,800.00	$625.00	$5,625.00
2080036	Erosion Control, Silt Fence	FT	1,644	$4.00	$6,576.00	$6.00	$9,864.00	$6.00	$9,864.00	$5.00	$8,220.00	$6.00	$9,864.00
2080010	Erosion Control, Aggregate Cover	SY	444	$20.00	$8,880.00	$65.00	$28,860.00	$8.00	$3,552.00	$3.00	$1,332.00	$60.00	$26,640.00
3020020	Aggregate Base, 8 inch	SY	305	$16.00	$4,880.00	$75.00	$22,875.00	$33.00	$10,065.00	$5.00	$1,525.00	$65.00	$19,825.00
3060010	Aggregate Surface Cse, 6 inch	SY	665	$12.00	$7,980.00	$30.00	$19,950.00	$17.00	$11,305.00	$4.00	$2,660.00	$30.00	$19,950.00
4021230	Sewer Bulkhead, 12 inch	Ea	1	$350.00	$350.00	$1,000.00	$1,000.00	$850.00	$850.00	$5,000.00	$5,000.00	$1,500.00	$1,500.00
4021232	Sewer Bulkhead, 18 inch	Ea	1	$500.00	$500.00	$1,000.00	$1,000.00	$950.00	$950.00	$5,000.00	$5,000.00	$2,000.00	$2,000.00
8120022	Barricade, Type III, High Intensity, Lighted, Furn	Ea	25	$80.00	$2,000.00	$200.00	$5,000.00	$19.00	$475.00	$2.00	$50.00	$200.00	$5,000.00
8120023	Barricade, Type III, High Intensity, Lighted, Oper	Ea	25	$7.00	$175.00	$300.00	$7,500.00	$12.00	$300.00	$3.00	$75.00	$40.00	$1,000.00
8120030	Channelizing Device, 42 inch, Furn	Ea	100	$14.00	$1,400.00	$10.00	$1,000.00	$25.00	$2,500.00	$5.00	$500.00	$65.00	$6,500.00
8120031	Channelizing Device, 42 inch, Oper	Ea	100	$1.00	$100.00	$10.00	$1,000.00	$13.00	$1,300.00	$5.00	$500.00	$40.00	$4,000.00
8120090	Culv, Temp	Ea	2	$3,000.00	$6,000.00	$1.00	$2.00	$4,100.00	$8,200.00	$5,000.00	$10,000.00	$1,500.00	$3,000.00
8120140	Lighted Arrow, Type C, Furn	Ea	1	$400.00	$400.00	$1,000.00	$1,000.00	$1,900.00	$1,900.00	200	200	$6,000.00	$6,000.00
8120141	Lighted Arrow, Type C, Oper	Ea	1	$50.00	$50.00	$1,000.00	$1,000.00	$1,300.00	$1,300.00	500	500	$800.00	$800.00
8120310	Sign Cover	Ea	10	$50.00	$500.00	$5.00	$50.00	$32.00	$320.00	$50.00	$500.00	$15.00	$150.00
8120350	Sign, Type B, Temp, Prismatic, Furn	SF	460	$4.00	$1,840.00	$6.00	$2,760.00	$6.00	$2,760.00	$5.00	$2,300.00	$25.00	$11,500.00
8120351	Sign, Type B, Temp, Prismatic, Oper	SF	460	$0.50	$230.00	$6.00	$2,760.00	$2.00	$920.00	$3.00	$1,380.00	$5.00	$2,300.00
8160028	Mulch Blanket, High Velocity	SY	1,473	$3.00	$4,419.00	$5.00	$7,365.00	$4.00	$5,892.00	$8.00	$11,784.00	$5.00	$7,365.00
8160037	Seeding, Mixture TDS	LB	15	$5.00	$75.00	$80.00	$1,200.00	$165.00	$2,475.00	$15.00	$225.00	$80.00	$1,200.00
					$1,143,034.00		**$890,900.00**		**$934,277.00**		**$981,754.00**		**$1,695,429.00**

Note: The Engineer's Estimate varies from the value previously quoted as there were minor revisions to the final quantities.

Prepared by: Michael G. Nearing, P.E.
Senior Project Manager
November 28, 2016

				Engineer's Estimate		Ric-Man Construction, Inc. 6850 Nineteen Mile Road Sterling Heights, MI 48314		Lanzo Trenchless Technologies, North 28135 Groesbeck Highway Roseville, MI 48066		Inland Water Pollution Control, Inc. 4086 Michigan Avenue Detroit, MI 48210	
Item	**Description**	**Unit**	**Estimated Quantity**	**Unit Price**	**Cost**	**Unit Price**	**Cost**	**Unit Price**	**Cost**	**Unit Price**	**Cost**
130	Protective Fencing	LF	800.0	$4.00	$3,200.00	$3.00	$2,400.00	$1.50	$1,200.00	$10.00	$8,000.00
140	Exploratory Excavation (0-10' deep), Trench Detail I, Modified	Each	6.0	$1,200.00	$7,200.00	$3,500.00	$21,000.00	$4,000.00	$24,000.00	$4,000.00	$24,000.00
141	Exploratory Excavation (0-10' deep), Trench Detail VI	Each	6.0	$1,100.00	$6,600.00	$5,000.00	$30,000.00	$4,000.00	$24,000.00	$4,500.00	$27,000.00
201	General Conditions, Max. $ 85,000	LS	1.0	$85,000.00	$85,000.00	$85,000.00	$85,000.00	$72,000.00	$72,000.00	$65,000.00	$65,000.00
202	Digital Audio Visual Coverage	LS	1.0	$2,000.00	$2,000.00	$5,000.00	$5,000.00	$4,000.00	$4,000.00	$5,800.00	$5,800.00
203	Minor Traffic Control, Modified, Max. $10,000	LS	1.0	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$5,000.00	$5,000.00	$10,000.00	$10,000.00
204	Clean-Up & Restoration, Special	LS	1.0	$8,000.00	$8,000.00	$7,500.00	$7,500.00	$5,000.00	$5,000.00	$26,000.00	$26,000.00
205	"No Parking" Signs	Each	10.0	$70.00	$700.00	$100.00	$1,000.00	$20.00	$200.00	$105.00	$1,050.00
211	Remove and Replace 4 inch or 6 inch Sanitary Sewer Lead	LF	50.0	$31.00	$1,550.00	$75.00	$3,750.00	$200.00	$10,000.00	$320.00	$16,000.00
215	Sewer Cleaning and Video Inspection, 36 inch	LF	4933.0	$40.00	$197,320.00	$7.00	$34,531.00	$7.00	$34,531.00	$7.50	$36,997.50
216	Sewer Cleaning and Video Inspection, 42 inch	LF	4944.0	$55.00	$271,920.00	$7.50	$37,080.00	$8.00	$39,552.00	$8.00	$39,552.00
217	Manhole Cleaning and Video Inspection	Each	29.0	$60.00	$1,740.00	$175.00	$5,075.00	$150.00	$4,350.00	$290.00	$8,410.00
220	Sewer Preliner, 36 inch	LF	1230.0	$30.00	$36,900.00	$3.00	$3,690.00	$20.00	$24,600.00	$6.00	$7,380.00
221	Sewer Preliner, 42 inch	LF	1240.0	$40.00	$49,600.00	$4.00	$4,960.00	$20.00	$24,800.00	$8.00	$9,920.00
222	Sewer Lining, CIPP, 36 inch	LF	4933.0	$90.00	$443,970.00	$130.00	$641,290.00	$148.00	$730,084.00	$168.00	$828,744.00
223	Sewer Lining, CIPP, 42 inch	LF	4944.0	$110.00	$543,840.00	$180.00	$889,920.00	$188.00	$929,472.00	$215.00	$1,062,960.00
225	Manhole Rehabilitation	Each	29.0	$1,200.00	$34,800.00	$1,000.00	$29,000.00	$1,250.00	$36,250.00	$1,500.00	$43,500.00
226	Manhole Lining	VF	275.0	$95.00	$26,125.00	$150.00	$41,250.00	$140.00	$38,500.00	$326.00	$89,650.00
244	Structure Covers, Modified	LBS	11600.0	$3.00	$34,800.00	$1.50	$17,400.00	$1.75	$20,300.00	$5.50	$63,800.00
271	Portable, Changeable Message Sign, Furnish & Operate	Each	2.0	$3,000.00	$6,000.00	$1,500.00	$3,000.00	$1,000.00	$2,000.00	$500.00	$1,000.00
272	Plastic Drum - Lighted, Furnish and Operate	Each	25.0	$30.00	$750.00	$5.00	$125.00	$35.00	$875.00	$4.00	$100.00
274	Temporary Type B Signs	SF	357.0	$7.00	$2,499.00	$3.00	$1,071.00	$5.00	$1,785.00	$6.00	$2,142.00
276	Lighted, High Intensity, Channelizing Device, 42 inch Furnish & Operate	Each	30.0	$30.00	$900.00	$25.00	$750.00	$50.00	$1,500.00	$18.00	$540.00
299	Temporary Access Road	LF	740.0	$125.00	$92,500.00	$105.00	$77,700.00	$20.00	$14,800.00	$73.00	$54,020.00
326	36 inch Class IV RCP Trench Detail VI	LF	100.0	$150.00	$15,000.00	$160.00	$16,000.00	$90.00	$9,000.00	$750.00	$75,000.00
327	42 inch Class IV RCP Trench Detail VI	LF	100.0	$170.00	$17,000.00	$190.00	$19,000.00	$133.00	$13,300.00	$925.00	$92,500.00
362	Type I Manhole 0-10 feet Deep 6 foot dia	Each	5.0	$7,500.00	$37,500.00	$7,000.00	$35,000.00	$2,500.00	$12,500.00	$21,000.00	$105,000.00
363	Type I Manhole Additional Depth, 6 foot dia	VF	6.0	$2,550.00	$15,300.00	$330.00	$1,980.00	$250.00	$1,500.00	$2,100.00	$12,600.00
386	Sewer Structure Abandonment	Each	2.0	$325.00	$650.00	$1,800.00	$3,600.00	$3,500.00	$7,000.00	$8,800.00	$17,600.00
564	Reconstruct Manhole	Each	4.0	$2,800.00	$11,200.00	$2,000.00	$8,000.00	$4,500.00	$18,000.00	$5,000.00	$20,000.00
566	Adjust Structure Cover	Each	10.0	$900.00	$9,000.00	$500.00	$5,000.00	$700.00	$7,000.00	$450.00	$4,500.00
703	Inlet Filter	Each	6.0	$120.00	$720.00	$200.00	$1,200.00	$100.00	$600.00	$1,200.00	$7,200.00
800	Silt Fence	LF	3300.0	$3.00	$9,900.00	$2.00	$6,600.00	$1.00	$3,300.00	$4.00	$13,200.00
					$1,984,184.00		$2,048,872.00	*	$2,120,999.00		$2,779,165.50

*Correct bid amount after math error was found.