

## 2023 Sanitary Sewer Rehabilitation City of Montgomery

This proposal is submitted pursuant to and in accordance with that certain Professional Services Agreement dated May 25, 2021, by and between Ward, Getz & Associates, PLLC and the City of Montgomery (the “City”).

WGA understands the City plans to rehabilitate existing sanitary sewer lines located throughout City of Montgomery. The Sanitary Sewer Rehabilitation includes point repairs, pipe replacement, cured-in-place-pipe (CIPP) lining, manhole rehabilitation, and other miscellaneous repairs.

### SCOPE OF WORK

- *Preliminary & Design Phase Services*
  - *WGA will complete the conceptual design including boots on the ground review of the existing conditions.*
  - *WGA will prepare exhibits, repair tables, and specifications, and will prepare final opinions of probable cost for the work.*
  - *Prepare plan and profile drawings for the lines to be upsized.*
  - *Obtain approvals from TxDOT.*
  - *Design changes initiated by the Client after the design is complete may result in a request for additional authorization.*
  
- *Construction Administration*
  - *Coordinate advertising for bids, hold a pre-bid conference, answer questions from bidders, hold bid opening, prepare bid tabulation, and prepare recommendation of award.*
  - *Prepare construction contracts and coordinate execution of the same.*
  - *Issue notice to proceed and hold pre-construction meeting.*
  - *Review of construction submittals and RFIs.*
  - *Preparation of pay estimates, change orders, and other associated construction documents.*
  - *General oversight and coordination of construction contract.*
  
- *Field Project Representation*
  - *Onsite inspection by a Field Project Representative for approximately 12 hours per week (including travel time) for the duration of the projected contract period of performance (180 days).*
  - *Onsite inspection by the project team throughout the duration of the project to attend periodic site visits, final walkthrough inspections, etc.*



CONSULTING ENGINEERS

- *Additional Services*
  - *WGA will coordinate with the client, residents, property owners and/or contractor any services deemed necessary to complete the project that was not a part of the original scope of work.*
  - *WGA will coordinate with the contractor to ensure that the City Council and Community is aware of the construction status and impact.*
  - *Construction services over 20% of original contract period of performance.*
- *Video Review*
  - *WGA will review all pre and post rehabilitation videos, photos, and testing results to ensure the repairs were completed per the specifications.*
- *Reimbursable Expenses.*
  - *Any material expenses incurred as a part of this project including shipping, printing services, construction materials testing, and advertising fees.*

**ENGINEERING COST**

The cost to perform the scope of services described above is as follows:

Preliminary & Design Phase -	\$20,000	(Lump Sum)
Construction Administration -	\$30,000	(Time and Materials)
Field Project Representation -	\$40,000	(Time and Materials)
Surveying -	\$8,500	(Time and Materials)
Additional Services & Reimbursable Expenses -	\$24,000	(Time and Materials)

**WGA requests City Council’s authorization to proceed with the preparation of the design plans for the 2023 Sanitary Sewer Rehabilitation for the City of Montgomery on a lump sum and time and materials basis, as described above.**

**SCHEDULE**

Authorization to Proceed	1	calendar days*
Design & Approvals	90	calendar days
Bidding	30	calendar days
Contracts	30	calendar days
Construction	180	calendar days
<b>TOTAL DURATION</b>	<b>330</b>	<b>calendar days</b>

\*If approved, the effective start date is the following business day from the date of authorization.





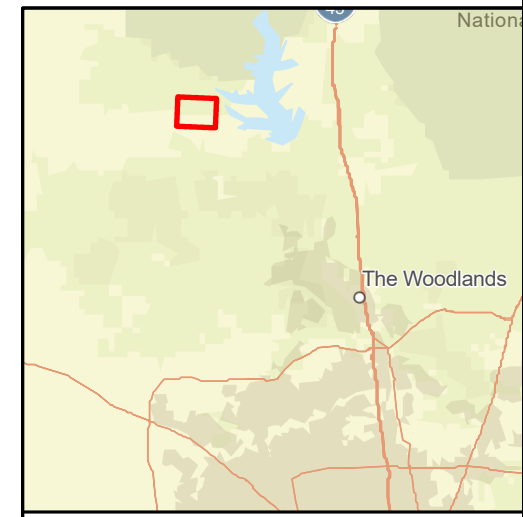
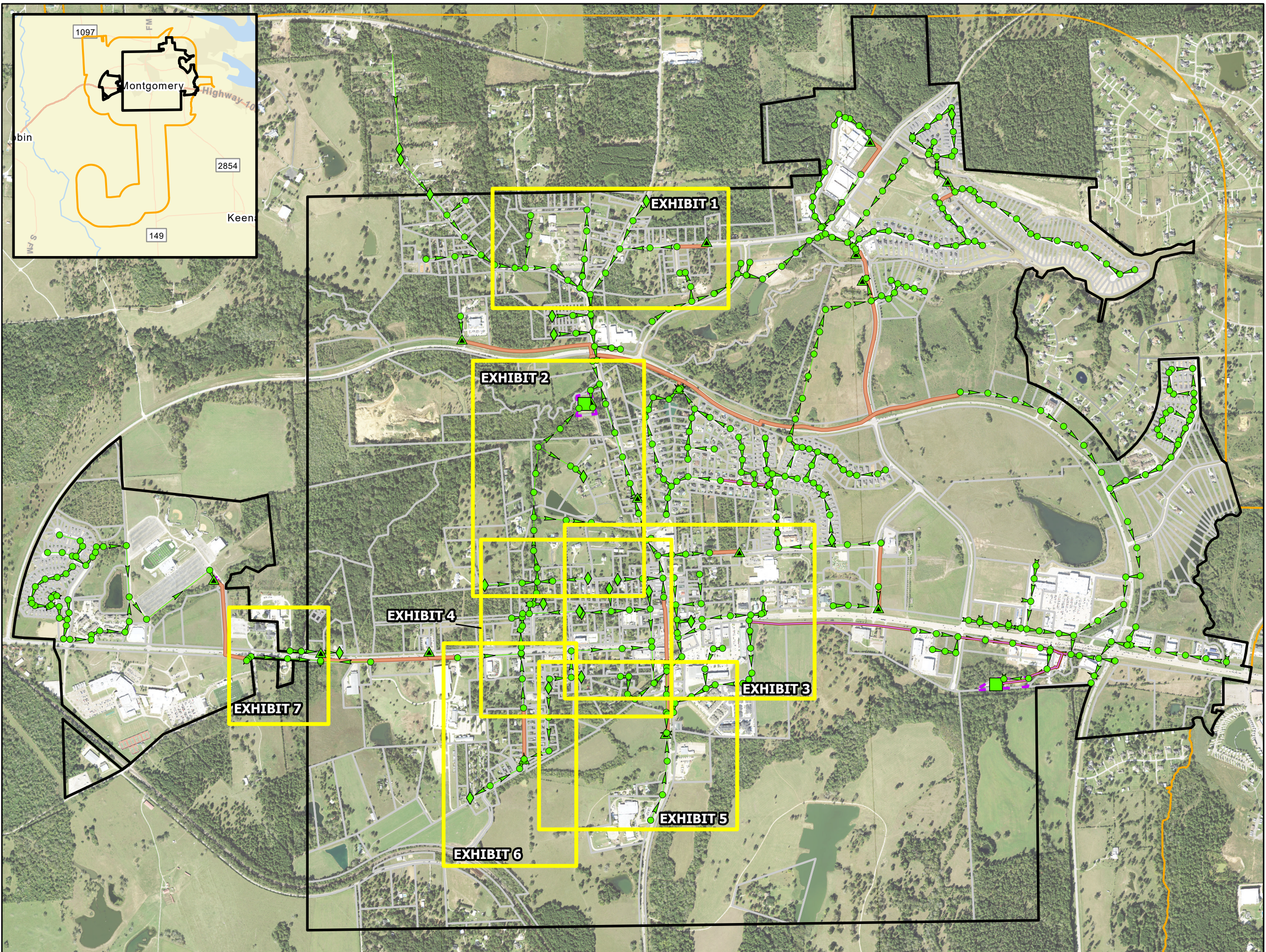
**PRELIMINARY CONSTRUCTION COST ESTIMATE  
SANITARY SEWER REHABILITATION  
FOR  
CITY OF MONTGOMERY  
October 21, 2022**

<b>Item No. Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Total</b>
<b><u>UNIT A: GENERAL</u></b>				
1 Move-in, Bonds & Insurance	LS	1	\$ 35,000	\$ 35,000
			<b>TOTAL UNIT A:</b>	<b>\$ 35,000</b>
<b><u>UNIT B: SANITARY LINE REPAIRS</u></b>				
2 Removal of Roots/Fixed Obstructions	EA	8	400	3,200
3 Heavy Cleaning of 6-Inch Pipe	LF	156	10	1,600
4 Heavy Cleaning of 8-Inch Pipe	LF	134	10	1,300
5 Removal of Protruding Leads	EA	9	700	6,300
6 6-inch Point Repairs (Standard 6-ft)	EA	2	4,500	9,000
7 8-inch Point Repairs (Standard 6-ft)	EA	8	4,750	38,000
8 12-inch Point Repairs (Standard 6-ft)	EA	7	5,500	38,500
9 Additional Linear Footage for 6-Inch Point Repair	LF	2	90	200
10 8-Inch Pipe Replacement	LF	135	110	14,900
11 8-Inch to 12-Inch Pipe Bursting	LF	759	180	136,600
12 Lead Repairs	EA	3	2,250	6,800
13 6-inch CIPP	LF	216	40	8,600
14 8-inch CIPP	LF	4,172	40	166,900
15 12-inch CIPP	LF	868	50	43,400
16 Reconstruction of Service Leads after CIPP	EA	87	50	4,400
			<b>TOTAL UNIT B:</b>	<b>\$ 479,700</b>
<b><u>UNIT C: MANHOLE REPAIRS</u></b>				
17 Replace Manhole Ring & Lid	EA	3	700	2,100
18 Re-Seal Manhole Ring & Throat <sup>(2)</sup>	EA	15	1,600	24,000
19 Re-Seal Pipe Connection	EA	1	400	400
20 Insert Infiltration Dish	EA	3	400	1,200
21 Vertical Adjustment of Ring & Lid to Grade	EA	1	750	800
22 Grout Manhole Exterior	EA	3	450	1,400
23 Epoxy Coat Manhole <sup>(2)</sup>	VF	22	150	3,300
24 Reseal Manhole Joints	EA	6	500	3,000
25 Cementitious Grout <sup>(2)</sup>	VF	21	130	2,700
26 Cementitious Grout & Epoxy Coating <sup>(2)</sup>	VF	6	250	1,500
27 Heavy Clean Manhole	EA	1	1,600	1,600
			<b>TOTAL UNIT C:</b>	<b>\$ 42,000</b>
<b><u>UNIT D: MISCELLANEOUS</u></b>				
28 Traffic Control Plan	LS	1	20,000	20,000
29 Final Project Report	LS	1	2,000	2,000
			<b>TOTAL UNIT D:</b>	<b>\$ 22,000</b>
<b><u>UNIT E: ALTERNATE REPAIRS</u></b>				
30 8-inch CIPP	LF	2,298	40	91,900
31 Re-Seal Manhole Ring & Throat <sup>(2)</sup>	EA	5	1,600	8,000
32 Insert Infiltration Dish	EA	4	400	1,600
33 Epoxy Coat Manhole <sup>(2)</sup>	VF	25	150	3,800
34 Reseal Manhole Joints	EA	6	500	3,000
35 Cementitious Grout <sup>(2)</sup>	VF	25	130	3,300
			<b>TOTAL UNIT E:</b>	<b>\$ 111,600</b>
			Subtotal (Units A-D only)	\$ 578,700
			Subtotal (Units A-E)	\$ 690,300
			Contingencies (10%)	69,000
			Engineering	20,000
			Construction Administration	30,000
			Field Project Representation	40,000
			Reimbursable Expenses	32,500
			<b>TOTAL (Base Bid Only)</b>	<b>\$ 770,200</b>
			<b>TOTAL (Base + Alternates)</b>	<b>\$ 881,800</b>

**Notes:**

- This estimate represents my best judgement as a design professional familiar with the construction industry. WGA has no control over the cost of labor, materials, or equipment; over the Contractor's methods of determining bid prices; or over competitive bidding or market conditions. Accordingly, we cannot and do not guarantee that bids will vary from this cost estimate.
- (1)
- (2) Quantities are incomplete due to manhole survey data provided not including all manhole depths. Vertical lengths to be field verified during construction by contractor.





### VICINITY MAP

Relative Scale: 1 inch equals 20 Miles

- Cleanout
- Manhole
- Lift Station
- 6-Inch Sanitary Sewer
- 8-Inch Sanitary Sewer
- 10-Inch Sanitary Sewer
- 12-Inch Sanitary Sewer
- Cured-In-Place Process Lining
- Heavy Cleaning
- Pipe Replacement
- Point Repair
- Remove Roots/Obstruction

## 2023 Sanitary Sewer Rehabilitation Overall Exhibit

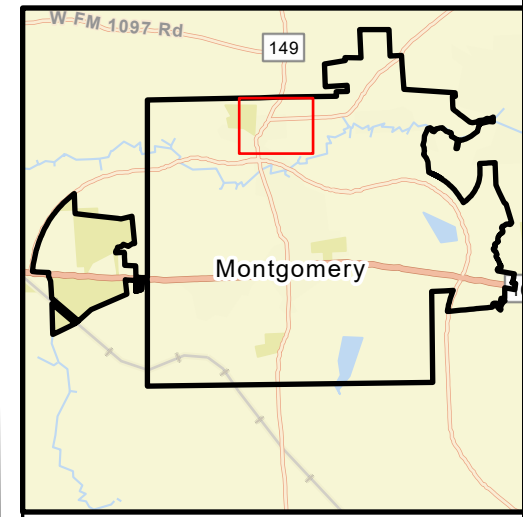
CITY OF MONTGOMERY  
MONTGOMERY COUNTY, TEXAS

WGA

0 2,000 Feet

1 inch equals 1,333 Feet





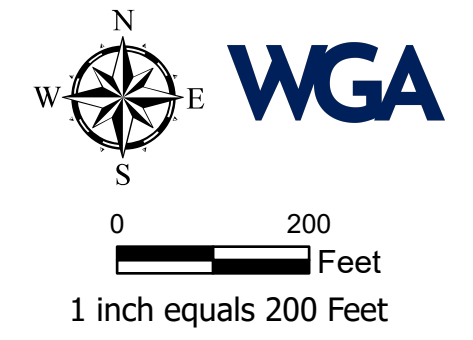
**VICINITY MAP**

Relative Scale: 1 inch equals 1 Mile

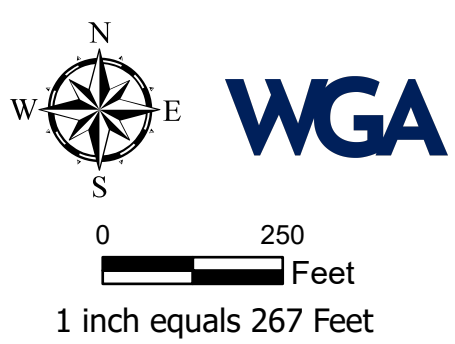
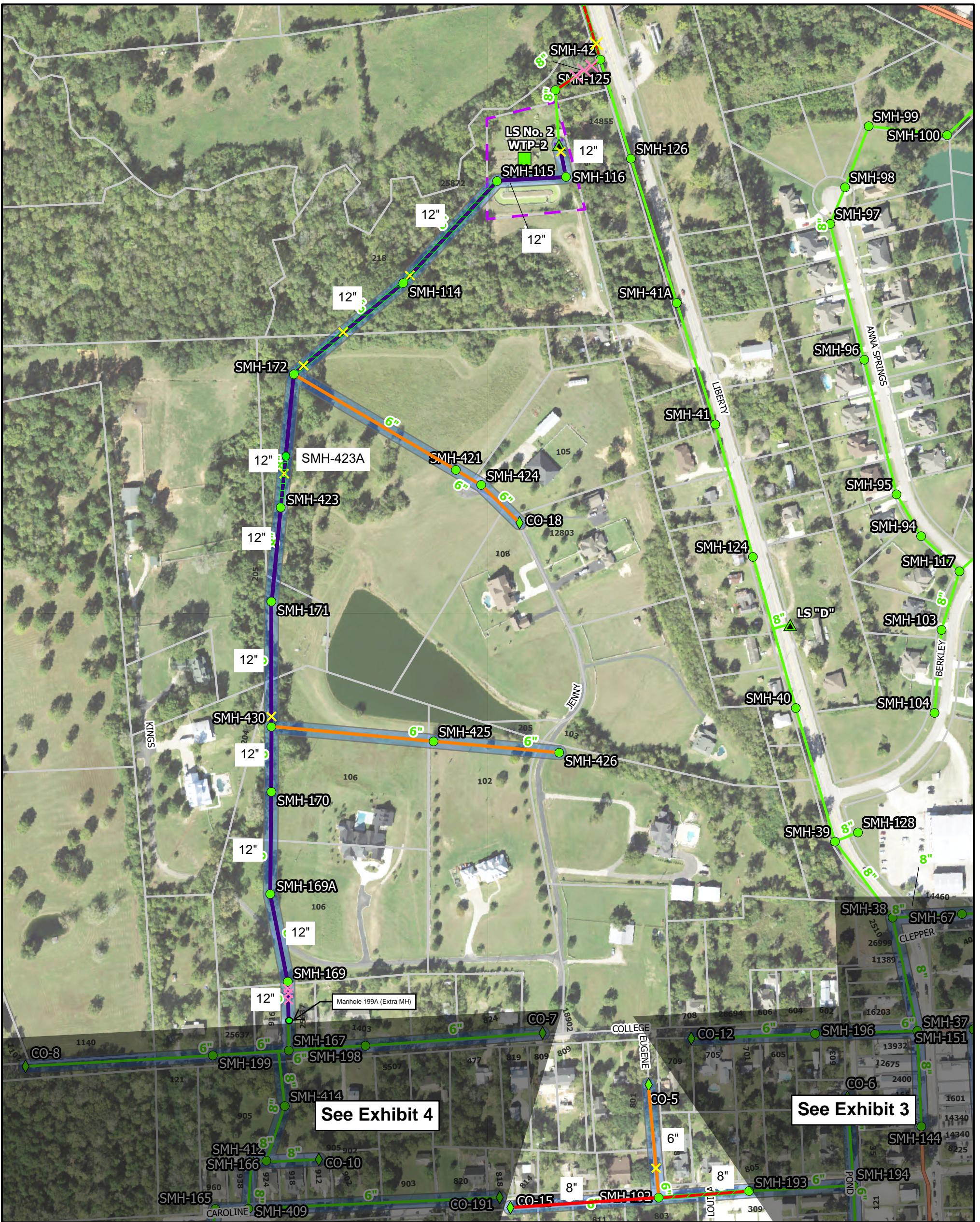
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**2023 Sanitary Sewer Rehabilitation Exhibit 1**

CITY OF MONTGOMERY  
MONTGOMERY COUNTY, TEXAS



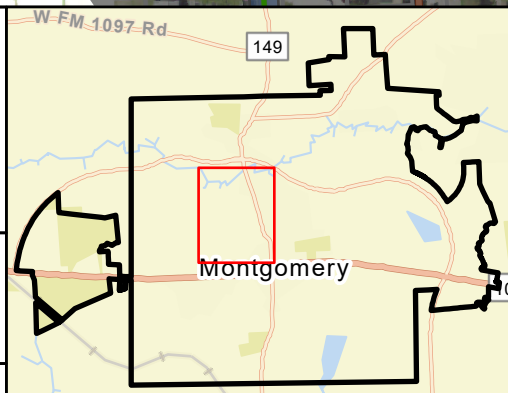




**2023 Sanitary Sewer Rehabilitation  
Exhibit 2**

**CITY OF MONTGOMERY**  
MONTGOMERY COUNTY, TEXAS

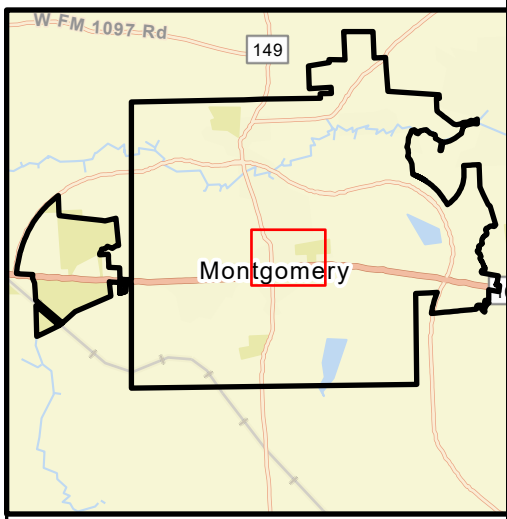
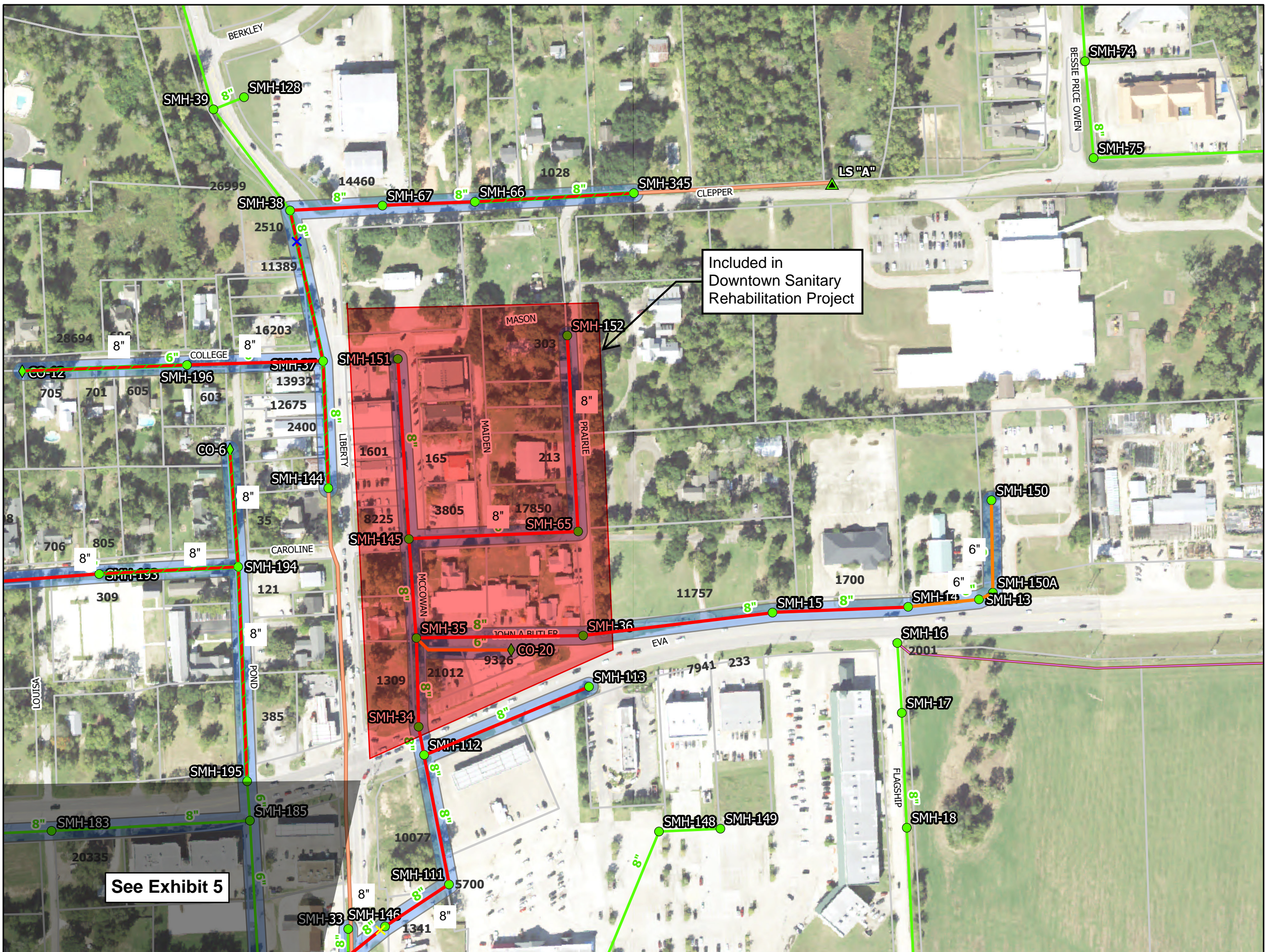
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|--|--------------|--|------------------------|--|-------------------------------|
|  | Cleanout     |  | 6-Inch Sanitary Sewer  |  | Cured-In-Place Process Lining |
|  | Manhole      |  | 8-Inch Sanitary Sewer  |  | Heavy Cleaning                |
|  | Lift Station |  | 10-Inch Sanitary Sewer |  | Pipe Replacement              |
|  | Point Repair |  | 12-Inch Sanitary Sewer |  | Remove Roots/Obstruction      |



**VICINITY MAP**

Relative Scale: 1 inch equals 1 Mile



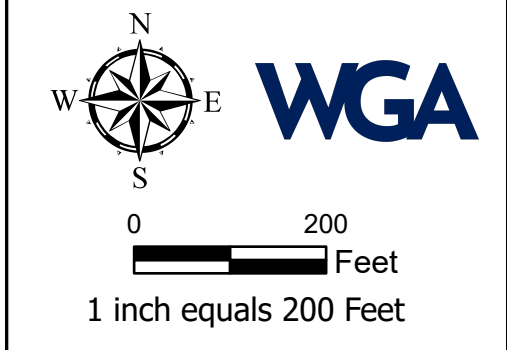


**VICINITY MAP**  
Relative Scale: 1 inch equals 1 Mile

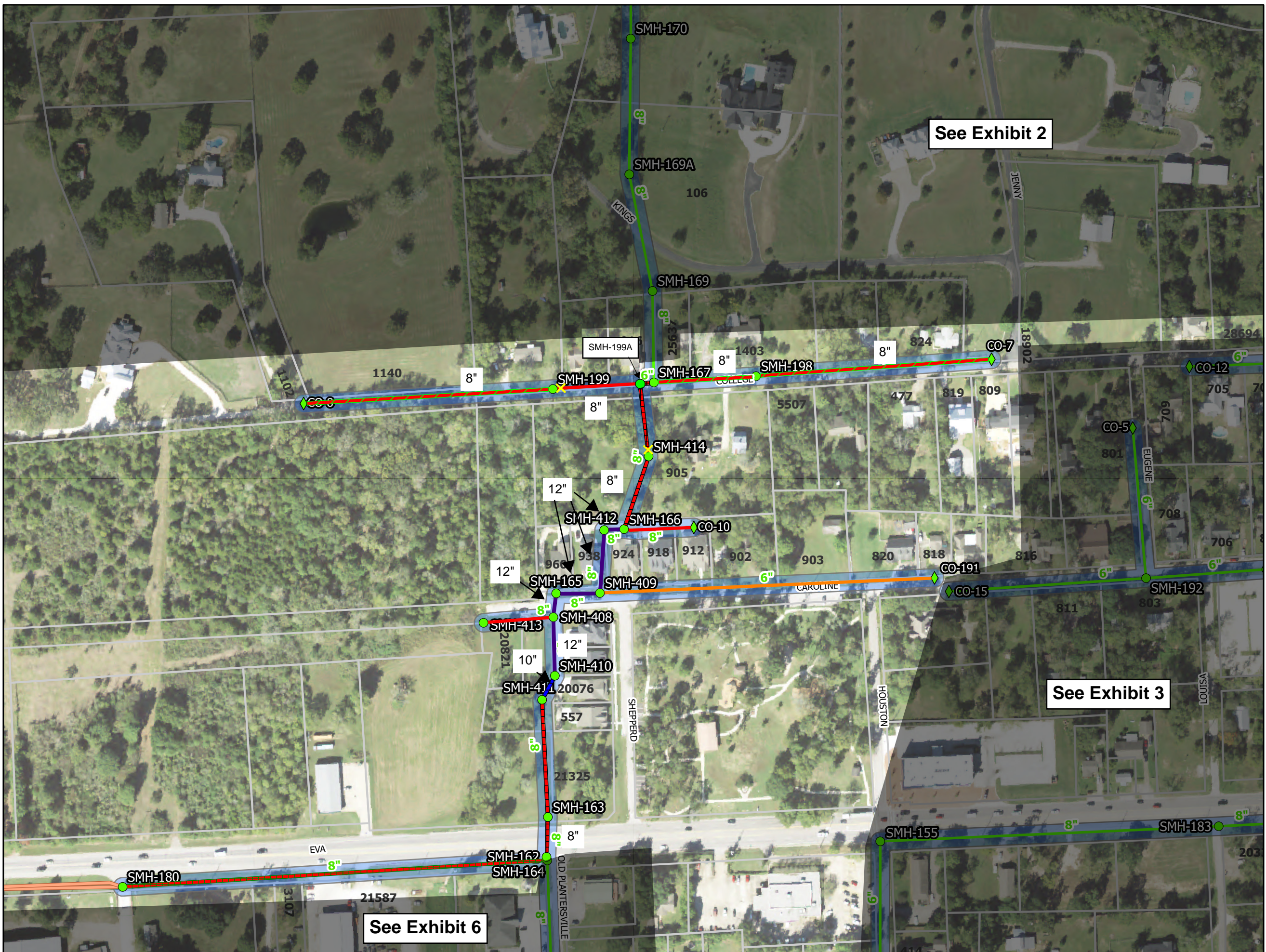
- Cleanout
- Manhole
- Lift Station
- 6-Inch Sanitary Sewer
- 8-Inch Sanitary Sewer
- 10-Inch Sanitary Sewer
- 12-Inch Sanitary Sewer
- Cured-In-Place Process Lining
- Heavy Cleaning
- Pipe Replacement
- Point Repair
- Lead Repair
- Remove Roots/Obstruction

**2023 Sanitary Sewer Rehabilitation Exhibit 3**

CITY OF MONTGOMERY  
MONTGOMERY COUNTY, TEXAS



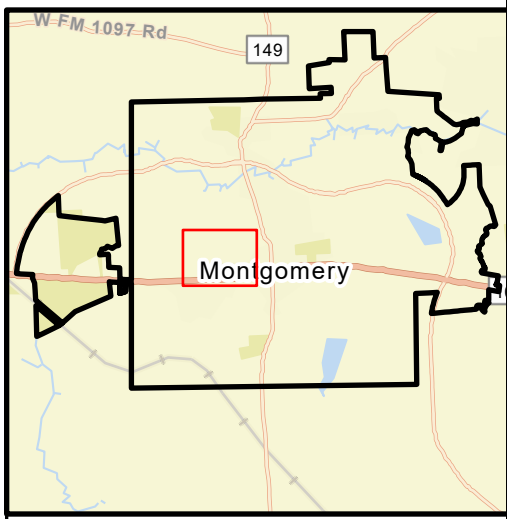




See Exhibit 2

See Exhibit 3

See Exhibit 6



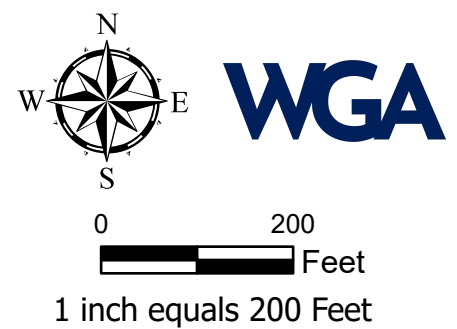
### VICINITY MAP

Relative Scale: 1 inch equals 1 Mile

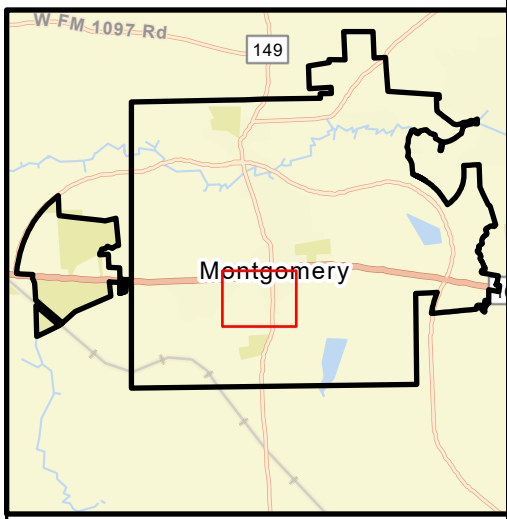
- Cleanout
- Manhole
- Lift Station
- 6-Inch Sanitary Sewer
- 8-Inch Sanitary Sewer
- 10-Inch Sanitary Sewer
- 12-Inch Sanitary Sewer
- Cured-In-Place Process Lining
- Heavy Cleaning
- Pipe Replacement
- Point Repair
- Remove Roots/Obstruction

## 2023 Sanitary Sewer Rehabilitation Exhibit 4

CITY OF MONTGOMERY  
MONTGOMERY COUNTY, TEXAS







### VICINITY MAP

Relative Scale: 1 inch equals 1 Mile

- Cleanout
- Manhole
- Lift Station
- 6-Inch Sanitary Sewer
- 8-Inch Sanitary Sewer
- 10-Inch Sanitary Sewer
- 12-Inch Sanitary Sewer
- Cured-In-Place Process Lining
- Heavy Cleaning
- Pipe Replacement
- Point Repair
- Remove Roots/Obstruction

## 2023 Sanitary Sewer Rehabilitation Exhibit 5

CITY OF MONTGOMERY  
MONTGOMERY COUNTY, TEXAS

0 200 Feet  
1 inch equals 200 Feet

**WGA**



See Exhibit 4

See Exhibit 5



**WGA**

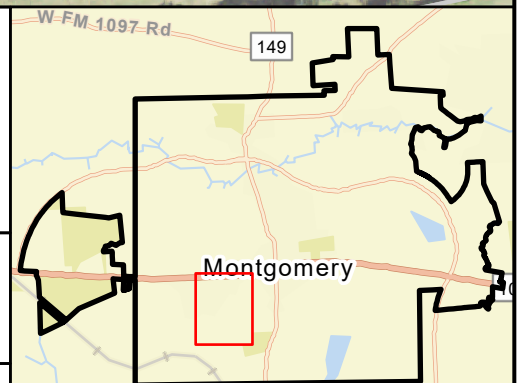
0 250 Feet

1 inch equals 200 Feet

## 2023 Sanitary Sewer Rehabilitation Exhibit 6

CITY OF MONTGOMERY  
MONTGOMERY COUNTY, TEXAS

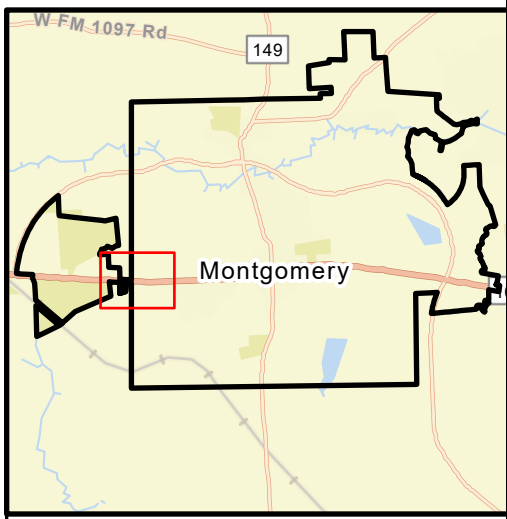
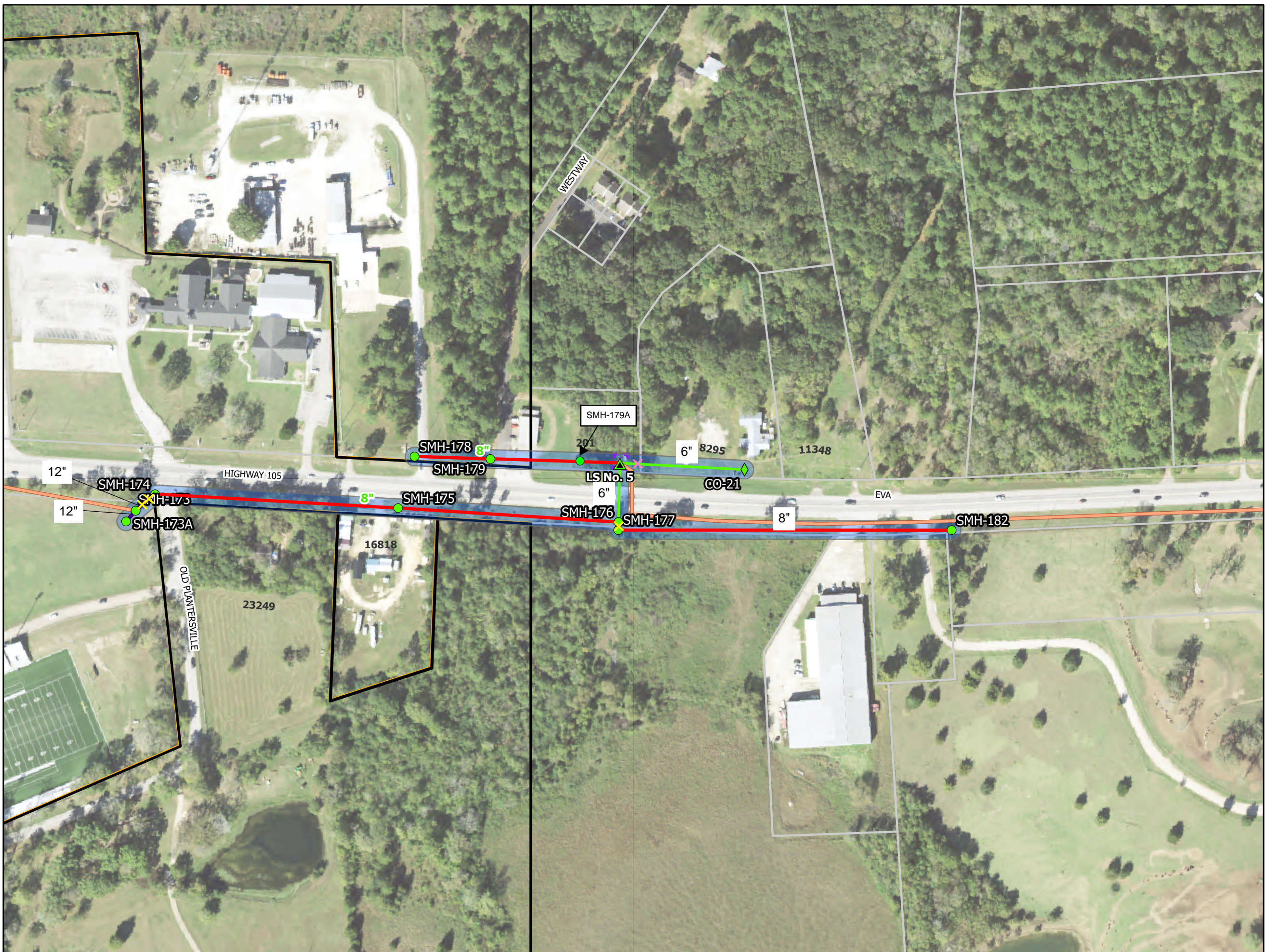
- |                |                          |                                 |
|----------------|--------------------------|---------------------------------|
| ◆ Cleanout     | — 6-Inch Sanitary Sewer  | — Cured-In-Place Process Lining |
| ● Manhole      | — 8-Inch Sanitary Sewer  | — Heavy Cleaning                |
| ▲ Lift Station | — 10-Inch Sanitary Sewer | — Pipe Replacement              |
| ✕ Point Repair | — 12-Inch Sanitary Sewer | ✕ Remove Roots/Obstruction      |



### VICINITY MAP

Relative Scale: 1 inch equals 1 Mile





**VICINITY MAP**

Relative Scale: 1 inch equals 1 Mile

- Cleanout
- Manhole
- Lift Station
- 6-Inch Sanitary Sewer
- 8-Inch Sanitary Sewer
- 10-Inch Sanitary Sewer
- 12-Inch Sanitary Sewer
- Cured-In-Place Process Lining
- Heavy Cleaning
- Pipe Replacement
- Point Repair
- Remove Roots/Obstruction

**2023 Sanitary Sewer Rehabilitation Exhibit 7**

CITY OF MONTGOMERY  
MONTGOMERY COUNTY, TEXAS

