RESOLUTION 2018-40

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEALY, TEXAS APPROVING PRELIMINARY LAND USE ASSUMPTIONS AND CAPITAL IMPROVEMENT PLAN FOR THE CITY'S PROPOSED WATER AND WASTEWATER IMPACT FEE SERVICE AREA; REPEALING ANY PRIOR RESOLUTIONS, WRITTEN OR ORAL, INCONSISTENT OR IN CONFLICT HEREWITH; PROVIDING FOR SEVERABILITY; TO BE EFFECTIVE ON OCTOBER 24, 2018.

WHEREAS, Tex. Loc. Gov't Code Section 395.045 states that to impose water and wastewater impact fees, the City Council must, after holding a public hearing, approve land use assumptions and a capital improvement plan for the City's proposed water and wastewater impact fee service area; and

WHEREAS, a professional engineering report (the "Water and Wastewater Impact Fees Analysis") on land use assumptions and a capital improvements plan for the implementation of impact fees for the City's proposed water and wastewater impact fee service area (the "Wastewater Impact Fee Capital Improvement Plan") was prepared for and presented to the City on October 23, 2018; and

WHEREAS, the City Council finds and determines that the City has complied with the requirements in Tex. Loc. Gov't Code Sections 395.042 and 395.043 for publicizing the proposed land use assumptions and capital improvement plan before the public hearing on those reports; and

WHEREAS, the City Council held a public hearing on October 23, 2018 to consider the proposed land use assumptions and capital improvement plan associated with the possible imposition of impact fees for water and wastewater improvements attributable to new development in the impact fee service area.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEALY, TEXAS:

SECTION 1. Land Use Assumptions. The land use assumptions contained within the engineer's report (a copy of which is attached to this Resolution as Exhibit "A" and incorporated into this Resolution for all purposes) is approved as to the City's land use assumptions for the City's proposed water and wastewater impact fee service area.

SECTION 2. Capital Improvement Plan. The Water Impact Fee Capital Improvement Plan (a copy of which is attached to this Resolution as Exhibit "B" and incorporated into this Resolution for all purposes) is approved as to the City's capital improvements plan for the City's proposed water and wastewater impact fee service area.

SECTION 3. Public Hearing. Pursuant to Section 395.047 of the Texas Local Government Code, the City sets the date for the Public Hearing to discuss the imposition of impact fees for December 11, 2018, at 6:00 p.m. at 415 Main Street, Sealy, TX 77474.

SECTION 4. All resolutions and parts of resolutions, policies, rules, regulations, and practices, written or unwritten, of the City of Sealy inconsistent or in conflict herewith are hereby repealed.

SECTION 5. In the event any section, paragraph, subdivision, clause, phrase, provision, sentence, or part of this Resolution or the application of the same to any person or circumstance shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Resolution as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Sealy, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

SECTION 6. That this resolution shall be in full force and effect on October 24, 2018.

PASSED AND APPROVED this 24th day of October 2018.

SEAL P.

Janice Whitehead, Mayor

ATTEST:

Dayl Cooksey, City Secretary

CITY OF SEALY, TEXAS



LAND USE ASSUMPTION AND CAPITAL IMPROVEMENT PLAN

AUGUST 2018



203 South Jackson Street Brenham, Texas 77833 (P) 979-836-7937

August 21, 2018

Mr. Mark Pulos, Director of Public Works City of Sealy 405 Main Street Sealy, TX 77474

Summary and Opinion of Probable Construction Cost (OPCC) for Utility Extension Projects Re:

Dear Mr. Pulos:

Strand Associates, Inc.® (Strand) appreciates the opportunity to assist the City of Sealy (City) in preparing OPCC for five utility extension projects.

Over the next five years the City's population is expected to increase from 8,284 to 9,340 (approximately 15 percent) prompting the need to develop new areas on the edge of the city limits. The areas include residential, commercial, and industrial zones whose projected locations have been laid out by the City.

To estimate the wastewater flows from proposed development areas, factors were used from the Texas Commission on Environmental Quality (TCEQ) that broke down wastewater production based on development type, population, and area.

The new wastewater demand from these developments not only requires new infrastructure, but also the evaluation of current capacity to determine whether it is sufficient. Where necessary, upgrades of gravity lines, force mains, and lift stations are included in the summaries and OPCC of the project.

Water and gas utility extensions were designed to match the size and capacity of the lines they tie into. The scope of the five projects is as described in the following:

- Project #1-From Peschel Lane to V's Auto Gas 1.
 - Wastewater Infrastructure:
 - (1) New:
 - Installation of 3,760 feet (ft) of new 6-inch lines. (a)
 - Installation of 11,750 ft of new 8-inch lines. (b)
 - Installation of 5,850 ft of new 10-inch lines. (c)
 - Installation of 5,500 ft of new forcemain lines. (d)
 - Installation of new 700 gallons per minutes (gpm) lift station. (e)
 - Upgrades: (2)
 - Upgrade HW-90 lift station from 270 gpm to 700 gpm. (a)
 - Replace 1,500 ft of existing line with new 12-inch line. (b)
 - Replace 3,000 ft of existing line with new 15-inch line. (c)
- 2. Project #2-From I-10 to FM 3013
 - Wastewater Infrastructure:
 - New: Installation of 16,900 ft of new 8-inch lines. (1)
 - Upgrades: Upgrade Walmart DC lift station from 270 gpm to 320 gpm. (2)

- b. Water Infrastructure: New: Installation of 8,950 ft of new 12-inch lines.
- c. Gas Infrastructure: New: Installation of 2,000 ft of new 6-inch lines.
- 3. Project #3–From Columbus Eye Association to FM 3013
 - a. Wastewater Infrastructure: New:
 - (1) Installation of 2,650 ft of new 6-inch lines.
 - (2) Installation of 2,650 ft of new force main lines.
 - (3) Installation of new 200 gpm lift station.
 - b. Water Infrastructure: New: Installation of 2,650 ft of new 12-inch lines.
- 4. Project #4-From approximately FM 2187 to Jurica Road
 - a. Wastewater Infrastructure:
 - (1) New:
 - (a) Installation of 5,800 ft of new 6-inch lines.
 - (b) Installation of 2,951 ft of new force main lines.
 - (c) Installation of new 200 gpm lift station.
 - Upgrades: Replacement of 3,840 ft of existing lines with 8-inch lines.
 - b. Water Infrastructure: New: Installation of 4,800 ft of new 12-inch lines.
- 5. Project #5–From SH 36 to FM 1094
 - a. Wastewater Infrastructure
 - (1) New: Installation of 8,600 ft of new 8-inch lines.
 - (2) Upgrades:
 - (a) Replacement of 3,400 ft of existing lines with 8-inch lines.
 - (b) Replacement of 5,660 ft of existing lines with 12-inch lines.
 - (c) Upgrade 1420 FM 1094 lift station from 94 gpm to 600 gpm.
 - b. Water Infrastructure: New:
 - (1) New 1,000 gpm public water well.
 - (2) New 500,000-gallon welded steel ground storage tank.

The OPCC of these projects is broken down as follows:

- 1. Project #1: Wastewater Infrastructure
 - a. New:

\$3,179,627.64 (68 percent of total)

b. Upgrades:

\$1,496,295.36 (32 percent of total)

c. Project #1 Total:

\$4,675,923.00

- 2. Project #2:
 - Wastewater Infrastructure

(1) New:

\$1,651,884.15 (73 percent of wastewater total) \$610,970.85 (27 percent of wastewater total)

(2) Upgrades:

\$2,262,855.00

(3) Wastewater Total:b. Water Infrastructure: New:

\$874,590.00

c. Gas Infrastructure: New:

\$142,360.00

d. All Project Infrastructure: Project #2 Total:

\$3,279,805.00

3. Project #3:

a. Wastewater Infrastructure: New:

\$686,709.00

b. Water Infrastructure: New:

\$369,795.00

c. All Project Infrastructure: Project #3 Total: \$1,056,504.00

4. Project #4:

a. Wastewater Infrastructure:

(1) New: \$739,322.02 (48 percent of wastewater total)
(2) Upgrades: \$800,932.18 (52 percent of wastewater total)

(3) Wastewater Total: \$1,540,254.20 Water Infrastructure: New: \$926,170.00

c. All Project Infrastructure: Project #4 Total: \$2,466,424.20

5. Project #5:

b.

a. Wastewater Infrastructure:

(1) New: \$1,065,496.97 (31 percent of wastewater total)
(2) Upgrades: \$2,371,590.03 (69 percent of wastewater total)

(3) Total: \$3,437,087.00

b. Water Infrastructure: New: \$3,408,200.00

c. All Project Infrastructure: Project #5 Total: \$6,845,287.00

6. All Projects Combined: Grand Total: \$18,323,943.00

We estimate the developments within all 5 project areas to add 2,390 people over the course of the next 5 years, equivalent to an addition of 800single-family residential connections. The ultimate build-out of these 5 projects will add 10,258 people, equivalent to 3,420 single-family residential connections. See the table below for a breakdown on the additions.

	Total Added Population & Connections Breakdown										
		All Commerc	ial Zones								
Acreage	5-Yr Added Population	5-Year Equiv. Res. Connections	Ultimate Added Population	Ultimate Equiv. Res. Connections							
1400	1043	350	6965	2322							
		All Industria	al Zones								
Acreage	5-Yr Added Population	5-Year Equiv. Res. Connections	Ultimate Added Population	Ultimate Equiv. Res. Connections							
860	315	105	315	105							
		Operation States of the Control of		公本的是第二人的							
	All Residential Zones										
Acreage	5-Yr Added Population	5-Year Equiv. Res. Connections	Ultimate Added Population	Ultimate Equiv. Res. Connections							
500	1032	345	2978	993							

Please see enclosures for more information on the detailed OPCC.

Sincerely,

STRAND ASSOCIATES, INC.®

Roddy J. Williams, Ph.D., P.E.

Senior Vice President



203 South Jackson Street Brenham, Texas 77833 (P) 979-836-7937

August 21, 2018

Mr. Mark Pulos, Director of Public Works City of Sealy 405 Main Street Sealy, TX 77474

Re: Summary and Opinion of Probable Construction Cost (OPCC) for Utility Extension Project #1

Dear Mr. Pulos:

Strand Associates, Inc.® (Strand) appreciates the opportunity to assist the City of Sealy (City) in preparing OPCC for the utility extension project from Peschel Lane to V's Auto Gas.

Over the next five years the City's population is expected to increase from 8,284 to 9,340 (approximately 15 percent) prompting the need to develop new areas on the edge of the city limits. The project area includes commercial and industrial zones whose projected locations have been laid out by the City.

To estimate the wastewater flows from proposed development areas, factors were used from the Texas Commission on Environmental Quality (TCEQ) that broke down wastewater production based on development type, area, and population.

The new wastewater demand from these developments not only requires new infrastructure, but also the evaluation of current capacity to determine whether it is sufficient. In this project, there are upgrades of gravity lines and lift stations that are included in the summaries and OPCC of the project. Water and gas utility extensions were designed to match the size and capacity of the lines they tie into.

The scope of the project is as follows:

- 1. Wastewater Infrastructure
 - a. New:
 - (1) Installation of 3,760 feet (ft) of new 6-inch lines.
 - (2) Installation of 11,750 ft of new 8-inch lines.
 - (3) Installation of 5,850 ft of new 10-inch lines.
 - (4) Installation of 5,500 ft of new force main lines.
 - (5) Installation of new700 gallons per minute (gpm) lift station.
 - b. Upgrades:
 - (1) Upgrade HW-90 lift station from 270 gpm to 700 gpm.
 - (2) Replace 1,500 ft of existing line with new12-inch line.
 - (3) Replace 3,000 ft of existing line with new 15-inch line.

The OPCC of this project is broken down as follows:

Wastewater Infrastructure:

a. New: \$3,179,627.64 (68 percent of total)

b. Upgrades: \$1,496,295.36 (32 percent of total)

> c. Total:

\$4,675,923.00

We estimate the developments within the project area to add 810 people over the course of the next 5 years, equivalent to an addition of 270 single-family residential connections. The ultimate build-out of these developments will add 4,200 people, equivalent to 1,400 single-family residential connections.

Please see enclosures for more information on the detailed OPCC.

Sincerely,

STRAND ASSOCIATES, INC.® July Julelo

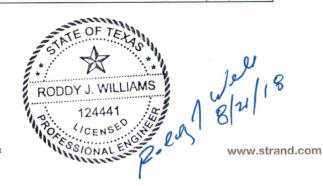
Roddy J. Williams, Ph.D., P.E.

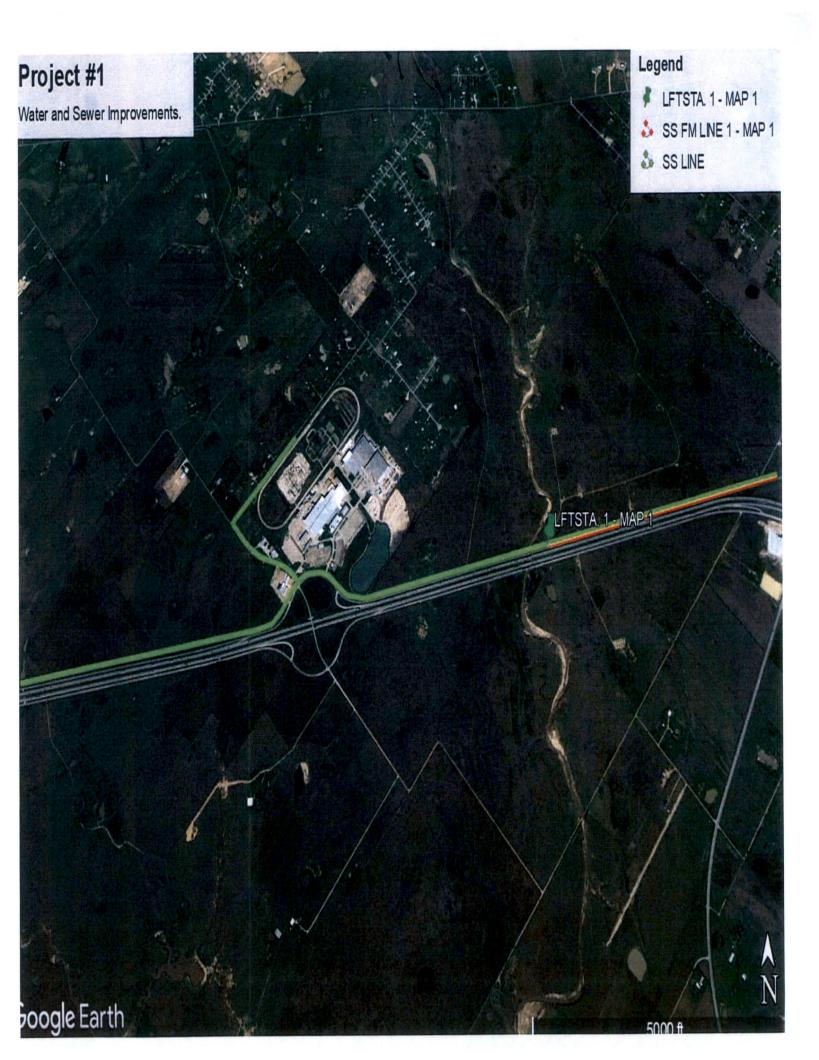
Senior Vice President

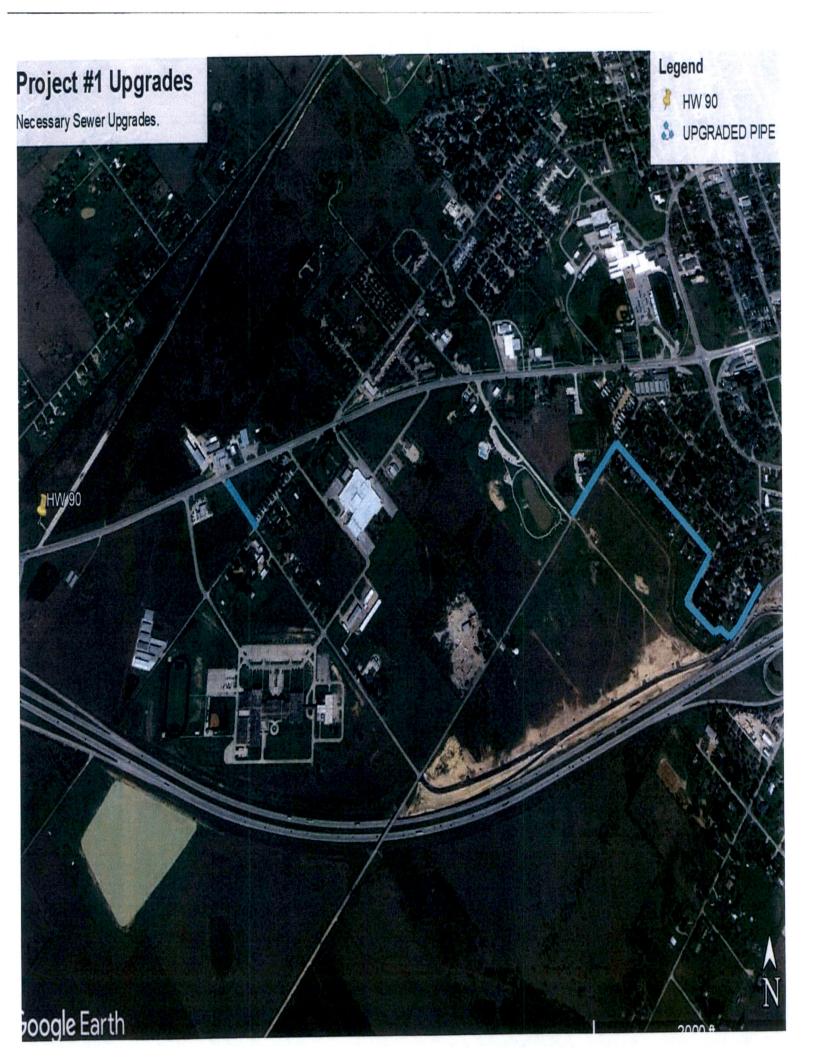
CITY OF SEALY WASTEWATER EXTENSION ALONG IH-10 (MAP-1) FROM PESCHEL LANE TO V'S AUTO GLASS ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057 August 21, 2018

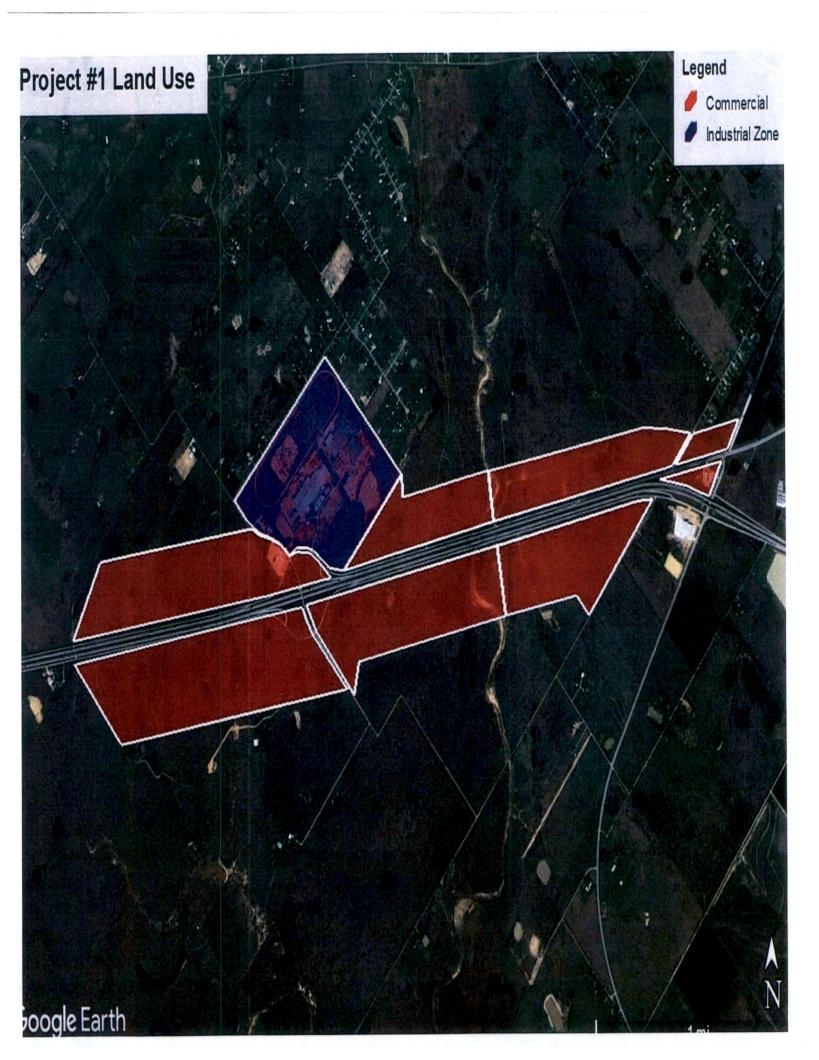
CONSTRUCTION				
SANITARY SEWER				
6-inch PVC Sanitary Sewer	3,560 LF	\$	33.00	\$ 117,480.00
6-inch PVC Sanitary Sewer By Bore	200 LF	\$	77.00	\$ 15,400.00
8-inch PVC Sanitary Sewer	11,400 LF	\$	65.00	\$ 741,000.00
8-inch PVC Sanitary Sewer By Bore	350 LF	\$	175.00	\$ 61,250.00
10-inch PVC Sanitary Sewer	5,420 LF	\$	68.00	\$ 368,560.00
10-inch PVC Sanitary Sewer By Bore	200 LF	\$	185.00	\$ 37,000.00
10-inch PVC in 20-inch Welded Steel Casing	230 LF	\$	300.00	\$ 69,000.00
12-inch PVC Sanitary Sewer	1,000 LF	\$	70.00	\$ 70,000.00
12-inch PVC Sanitary Sewer By Bore	500 LF	\$	200.00	\$ 100,000.00
15-inch PVC Sanitary Sewer	2,500 LF	\$	80.00	\$ 200,000.00
15-inch PVC Sanitary Sewer By Bore	500 LF	\$	250.00	\$ 125,000.00
PVC Force Main	5,500 LF	\$	60.00	\$ 330,000.00
Lift Station (700 gpm)	2 LS	\$	600,000.00	\$ 1,200,000.00
4-inch Service By Open-Cut	250 LF	\$	50.00	\$ 12,500.00
4-inch Service By Bore	250 LF	\$	100.00	\$ 25,000.00
6-inch Service By Open-Cut	250 LF	\$	60.00	\$ 15,000.00
Service Wye and Tie-in to Existing Service	35 EA	\$	750.00	\$ 26,250.00
Service Cleanout	35 EA	\$	250.00	\$ 8,750.00
Tie-In to Existing Sanitary Sewer	1 EA	\$	500.00	\$ 500.00
Manholes	63 EA	\$	3,500.00	\$ 219,520.00
MISC				
Seeding	1 LS	\$	20,000.00	\$ 20,000.00
Trench Safety	31,360 LF	\$	2.00	\$ 62,720.00
Traffic Control	1 LS	\$	10,000.00	\$ 10,000.00
Subtotal Construction Costs				\$ 3,834,930.00
Contingencies				\$ 383,493.00
TOTAL CONSTRUCTION COST				\$ 4,218,423.00
ENGINEERING				
Basic Services				\$ 400,000.00
Design Surveys				\$ 10,500.00
TxDOT Permitting				\$ 2,500.00
Construction Staking				\$ 34,500.00
Inspection				\$ 10,000.00
TOTAL ENGINEERING COST				\$ 457,500.00
TOTAL ENGINEER'S OPINION OF PROBABLE	CONSTRUCTION	ON CO	OST	\$ 4,675,923.00

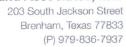
Strand Associates, Inc. $^{\textcircled{0}}$ (TBPE No. F-8405) Roddy Williams, Ph.D., P.E.













August 21, 2018

Mr. Mark Pulos, Director of Public Works City of Sealy 405 Main Street Sealy, TX 77474

Re: Summary and Opinion of Probable Construction Cost (OPCC) for Utility Extension Project #2

Dear Mr. Pulos:

Strand Associates, Inc.® (Strand) appreciates the opportunity to assist the City of Sealy (City) in preparing OPCC for the utility extension project from IH-10 to FM 3013.

Over the next five years, the City's population is expected to increase from 8,284 to 9,340 (approximately 15 percent) prompting the need to develop new areas on the edge of the city limits. The project area includes commercial and industrial zones whose projected locations have been laid out by the City.

To estimate the wastewater flows from proposed development areas, factors were used from the Texas Commission on Environmental Quality (TCEQ) that broke down wastewater production based on development type, area, and population.

The new wastewater demand from these developments not only requires new infrastructure, but also the evaluation of current capacity to determine whether it is sufficient. In this project, there are upgrades of gravity lines and lift stations that are included in the summaries and OPCC of the project.

Water and gas extension line sizes were chosen to match existing tie-in infrastructure.

The scope of the project is as follows:

- Wastewater Infrastructure
 - a. New: Installation of 16,900 feet (ft) of new 8-inch lines.
 - b. Upgrades: Upgrade Walmart DC lift station from 270 gallons per minutes (gpm) to 320 gpm.
- 2. Water Infrastructure: New: Installation of 8,950 ft of new 12-inch lines.
- 3. Gas Infrastructure: New: Installation of 2,000 ft of new 6-inch lines.

The OPCC of this project is broken down as follows:

Wastewater Infrastructure

a. New:

\$1,651,884.15 (73 percent of wastewater total)

b. Upgrades:

\$610,970.85 (27 percent of wastewater total)

c. Total:

\$2,262,855.00

2. Water Infrastructure: New: \$874,590.00

3. Gas Infrastructure: New: \$142,360.00

4. All Project Infrastructure: Project Total: \$3,279,805.00

We estimate the developments within the project area to add 345 people over the course of the next 5 years, equivalent to an addition of 115 single-family residential connections. The ultimate build-out of these developments will add 1,750 people, equivalent to 584 single-family residential connections.

Please see enclosures for more information on the detailed OPCC.

Sincerely,

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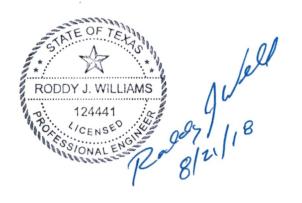
Roddy J. Williams, Ph.D., P.E.

Senior Vice President

CITY OF SEALY WASTEWATER EXTENSION ALONG FM 3538 (MAP-2) FROM IH-10 TO FM 3013

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057 August 21, 2018

CONSTRUCTION				
SANITARY SEWER				
8-inch PVC Sanitary Sewer	16,400 LF	\$	65.00	\$ 1,066,000.00
8-inch PVC Sanitary Sewer By Bore	500 LF	\$	175.00	\$ 87,500.00
4-inch Service By Open-Cut	20 LF	\$	50.00	\$ 1,000.00
4-inch Service By Bore	80 LF	\$	100.00	\$ 8,000.00
Service Wye and Tie-in to Existing Service	5 EA	\$	750.00	\$ 3,750.00
Service Cleanout	5 EA	\$	250.00	\$ 1,250.00
Lift Station (320 gpm)	1 EA	\$	500,000.00	\$ 500,000.00
Tie-In to Existing Sanitary Sewer	2 EA	\$	500.00	\$ 1,000.00
Manholes	34 EA	\$	3,500.00	\$ 119,000.00
MISC				
Seeding	1 LS	\$	18,000.00	\$ 18,000.00
Trench Safety	16,900 LF	\$	2.00	\$ 33,800.00
Traffic Control	1 LS	\$	10,000.00	\$ 10,000.00
Subtotal Construction Costs				\$ 1,849,300.00
Contingencies				\$ 184,930.00
TOTAL CONSTRUCTION COST				\$ 2,034,230.00
ENGINEERING				
Basic Services				\$ 190,000.00
Design Surveys				\$ 5,000.00
TxDOT Permitting				\$ 2,500.00
Construction Staking				\$ 21,125.00
Inspection				\$ 10,000.00
TOTAL ENGINEERING COST				\$ 228,625.00
TOTAL ENGINEER'S OPINION OF PROBA	BLE CONSTRU	CTIC	N COST	\$ 2,262,855.00



Strand Associates, Inc.º

CITY OF SEALY WATER LINE EXTENSION ALONG FM 3538 (MAP-2) FROM IH-10 TO FM 3013

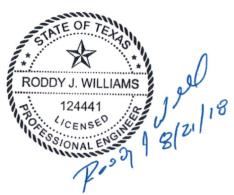
ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057 August 21, 2018

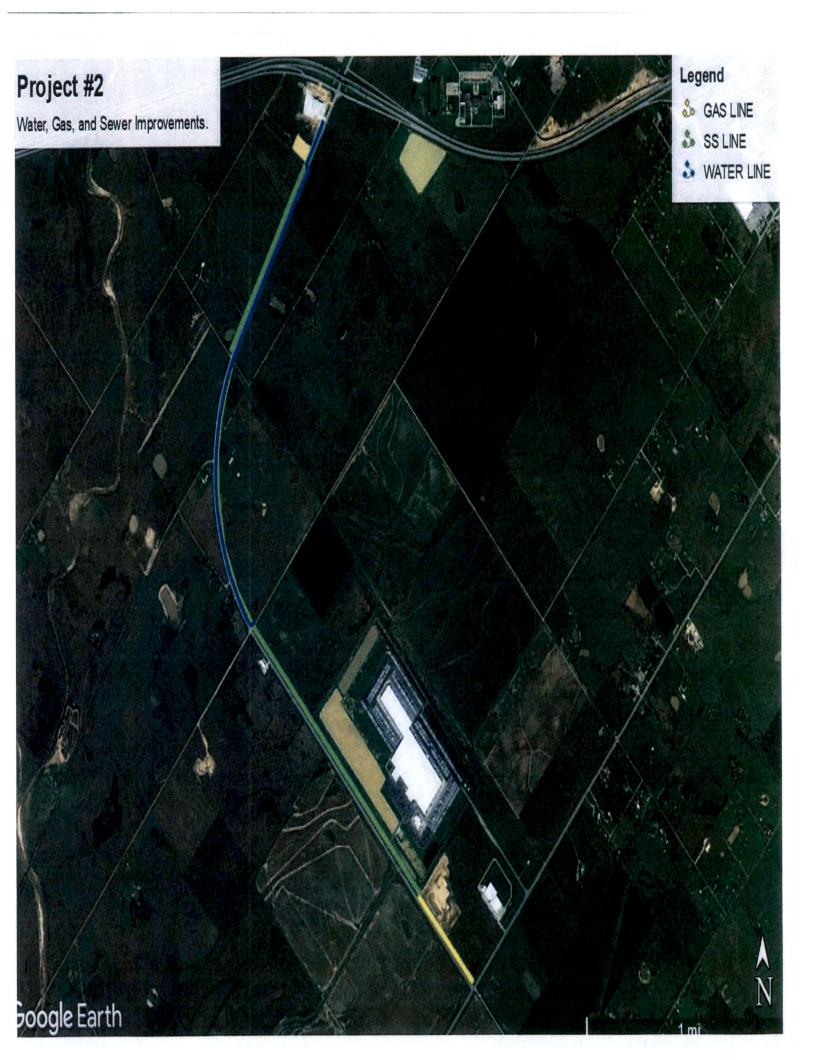
CONSTRUCTION				
WATER				
12-inch C-900 PVC Water Line	8,650 LF	\$	60.00	\$ 519,000.00
12-inch PVC Water Line By Bore	200 LF	\$	180.00	\$ 36,000.00
12-inch PVC in 20-inch Welded Steel Casing By Bore	100 LF	\$	350.00	\$ 35,000.00
Air Release Valves	1 EA	\$	2,500.00	\$ 2,500.00
Tie-In to Existing 12-inch Water Line	1 EA	\$	3,000.00	\$ 3,000.00
Fire Hydrant Units	9 EA	\$	4,500.00	\$ 40,500.00
Ductile Iron Fittings	1 LS	\$	27,000.00	\$ 27,000.00
MISC				
Seeding	1 LS	\$	11,000.00	\$ 11,000.00
Trench Safety	8,950 LF	\$	2.00	\$ 17,900.00
Traffic Control	1 LS	\$	10,000.00	\$ 10,000.00
Subtotal Construction Costs				\$ 701,900.00
Contingencies				\$ 70,190.00
TOTAL CONSTRUCTION COST				\$ 772,090.00
ENGINEERING				
Basic Services				\$ 70,000.00
Design Surveys				\$ 5,000.00
TxDOT Permitting				\$ 2,500.00
Construction Staking				\$ 15,000.00
Inspection				\$ 10,000.00
TOTAL ENGINEERING COST				\$ 102,500.00
TOTAL ENGINEER'S OPINION OF PROBABLE	CONSTRU	CTIO	N COST	\$ 874,590.00



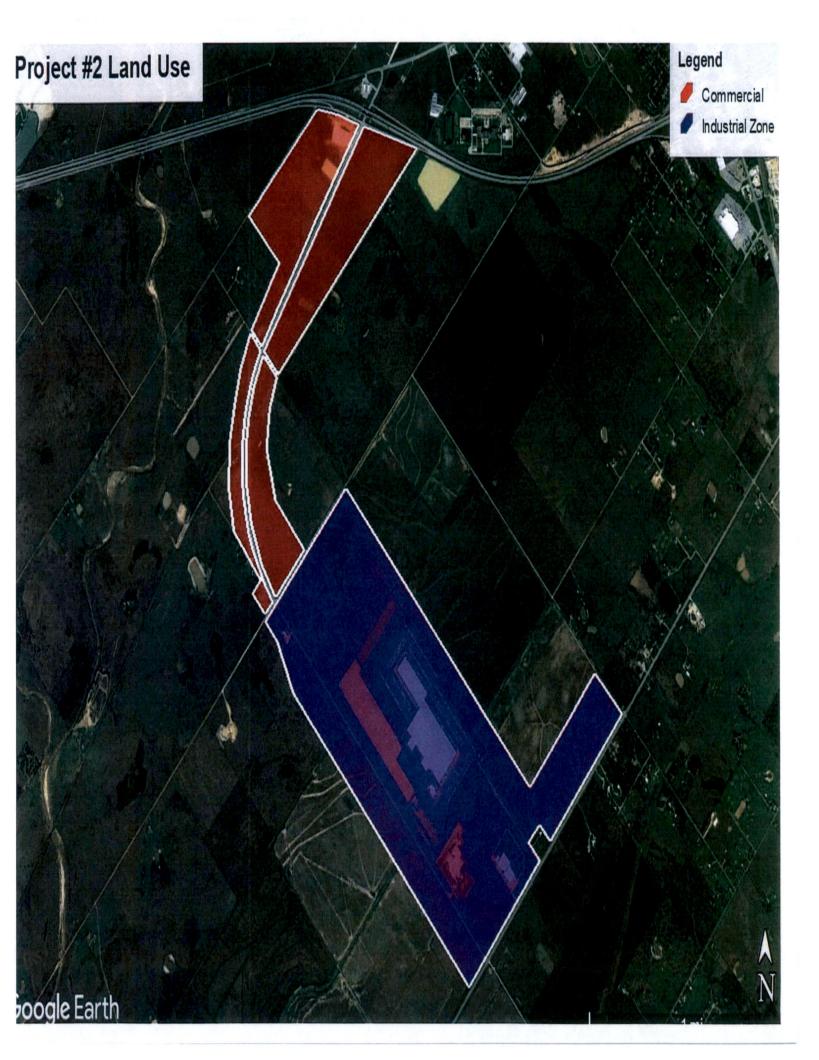
CITY OF SEALY GAS LINE EXTENSION ALONG FM 3538 (MAP-2) FROM IH-10 TO FM 3013 ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057 August 21, 2018

CONSTRUCTION				
GAS				
6-inch Poly Gas Line	2,000 LF	\$	40.00	\$ 80,000.00
6-inch Poly Gas Valve	2 EA	\$	1,500.00	\$ 3,000.00
6-inch Tie-In to Existing Gas Main	1 EA	\$	2,500.00	\$ 2,500.00
6-inch Poly Cap	1 EA	\$	200.00	\$ 200.00
Gas Pipeline Marker	2 EA	\$	200.00	\$ 400.00
MISC				
Seeding	1 LS	\$	3,500.00	\$ 3,500.00
Trench Safety	2,000 LF	\$	2.00	\$ 4,000.00
Traffic Control	1 LS	\$	10,000.00	\$ 10,000.00
Subtotal Construction Costs				\$ 103,600.00
Contingencies				\$ 10,360.00
TOTAL CONSTRUCTION COST				\$ 113,960.00
ENGINEERING				
Basic Services				\$ 11,400.00
Design Surveys				\$ 2,500.00
TxDOT Permitting				\$ 2,500.00
Construction Staking				\$ 2,000.00
Inspection				\$ 10,000.00
TOTAL ENGINEERING COST				\$ 28,400.00
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TOTAL ENGINEER'S OPINION OF PROB	ABLE CONSTRUC	CTIO	N COST	\$ 142,360.00









203 South Jackson Street Brenham, Texas 77833 (P) 979-836-7937

August 21, 2018

Mr. Mark Pulos, Director of Public Works City of Sealy 405 Main Street Sealy, TX 77474

Summary and Opinion of Probable Construction Cost (OPCC) for Utility Extension Project #3 Re:

Dear Mr. Pulos:

Strand Associates, Inc.® (Strand) appreciates the opportunity to assist the City of Sealy (City) in preparing OPCC for the utility extension project from Columbus Eye Associates to FM 3013.

Over the next five years, the City's population is expected to increase from 8,284 to 9,340 (approximately 15 percent) prompting the need to develop new areas on the edge of the city limits. The project area includes residential and commercial zones whose projected locations have been laid out by the City.

To estimate the wastewater flows from proposed development areas, factors were used from the Texas Commission on Environmental Quality (TCEQ) that broke down wastewater production based on development type, area, and population.

The new wastewater demand from these developments not only requires new infrastructure, but also the evaluation of current capacity to determine whether it is sufficient. In this project, there are upgrades of gravity lines and lift stations that are included in the summaries and OPCC of the project.

Water and gas extension line sizes were chosen to match existing tie-in infrastructure.

The scope of the project is as follows:

- 1. Wastewater Infrastructure: New:
 - Installation of 2,650 feet (ft) of new 6-inch lines.
 - Installation of 2,650 ft of new force main lines. b.
 - Installation of new 200 gallons per minutes (gpm) lift station.
- Water Infrastructure: New: Installation of 2,650 ft of new 12-inch lines. 2.

The OPCC of this project is broken down as follows:

\$686,709.00 1. Wastewater Infrastructure: New: \$369,795.00 2. Water Infrastructure: New: \$1,056,504.00 All Project Infrastructure: Project Total: 3.

We estimate the developments within the project area to add 95 people over the course of the next 5 years, equivalent to an addition of 32 single-family residential connections. The ultimate build-out of these developments will add 614 people, equivalent to 205 single-family residential connections.

Please see enclosures for more information on the detailed OPCC.

Sincerely,

STRAND ASSOCIATES, INC.®

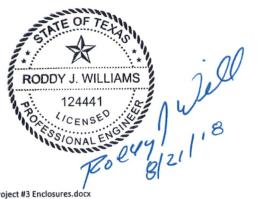
Roddy J. Williams, Ph.D., P.E. Senior Vice President

CITY OF SEALY

WASTEWATER EXTENSION ALONG STATE HIGHWAY 36 SOUTH (MAP-3) Sociates, Inc. FROM COLUMBUS EYE ASSOCIATES TO FM 3013 ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

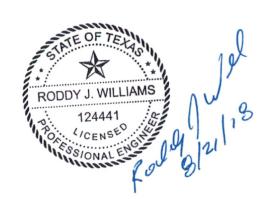
STRAND PROJECT NO. 3903.057 August 21, 2018

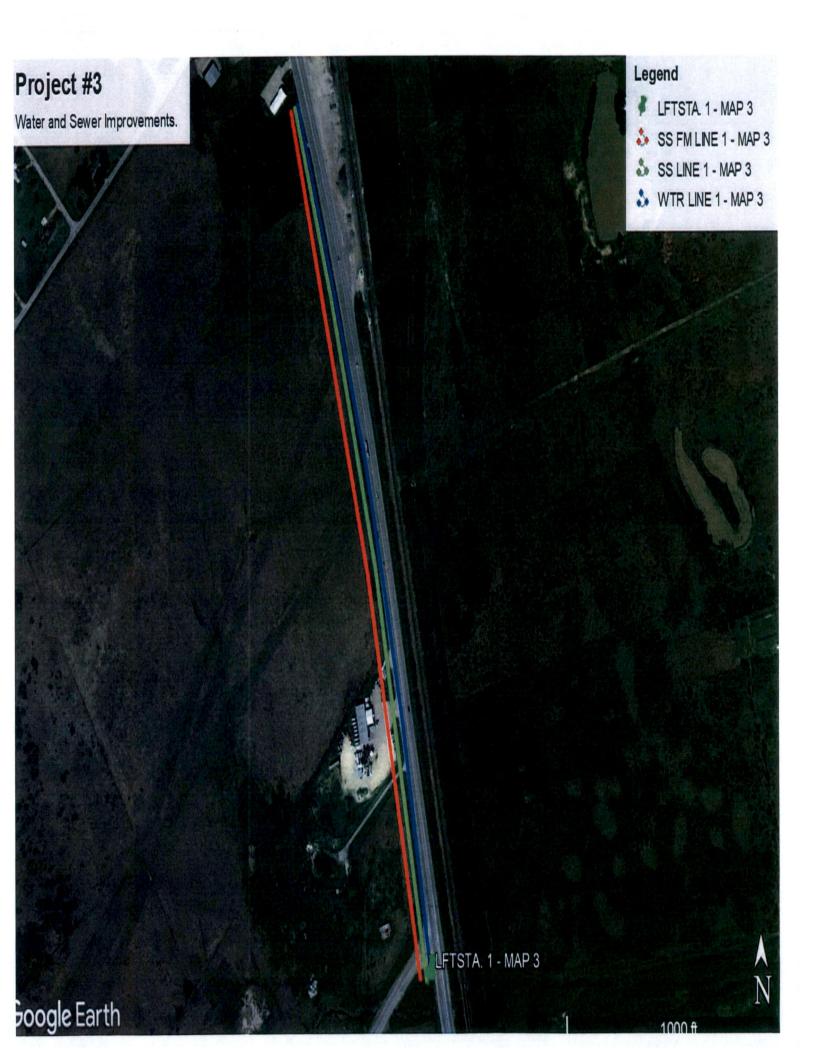
SANITARY SEWER			
6-inch PVC Sanitary Sewer	2,390 LF	\$ 33.00	\$ 78,870.00
6-inch PVC Sanitary Sewer By Bore	160 LF	\$ 77.00	\$ 12,320.00
6-inch PVC in 20-inch Welded Steel Casing By Bore	100 LF	\$ 142.00	\$ 14,200.00
PVC Force Main	2,390 LF	\$ 60.00	\$ 143,400.00
PVC Force Main By Bore	260 LF	\$ 180.00	\$ 46,800.00
4-inch Service By Open-Cut	100 LF	\$ 50.00	\$ 5,000.00
Service Wye and Tie-in to Existing Service	2 EA	\$ 750.00	\$ 1,500.00
Service Cleanout	2 EA	\$ 250.00	\$ 500.00
Lift Station (200 gpm)	1 LS	\$ 200,000.00	\$ 200,000.00
Tie-In to Existing Sanitary Sewer	1 EA	\$ 500.00	\$ 500.00
Manholes	7 EA	\$ 3,500.00	\$ 24,500.00
<u>MISC</u>			
Seeding	1 LS	\$ 7,000.00	\$ 7,000.00
Trench Safety	5,300 LF	\$ 2.00	\$ 10,600.00
Traffic Control	1 LS	\$ 10,000.00	\$ 10,000.00
Subtotal Construction Costs			\$ 555,190.00
Contingencies			\$ 55,519.00
TOTAL CONSTRUCTION COST			\$ 610,709.00
ENGINEERING			
Basic Services			\$ 55,000.00
Design Surveys			\$ 1,500.00
TxDOT Permitting			\$ 2,500.00
Construction Staking			\$ 7,000.00
Inspection			\$ 10,000.00
TOTAL ENGINEERING COST			\$ 76,000.0

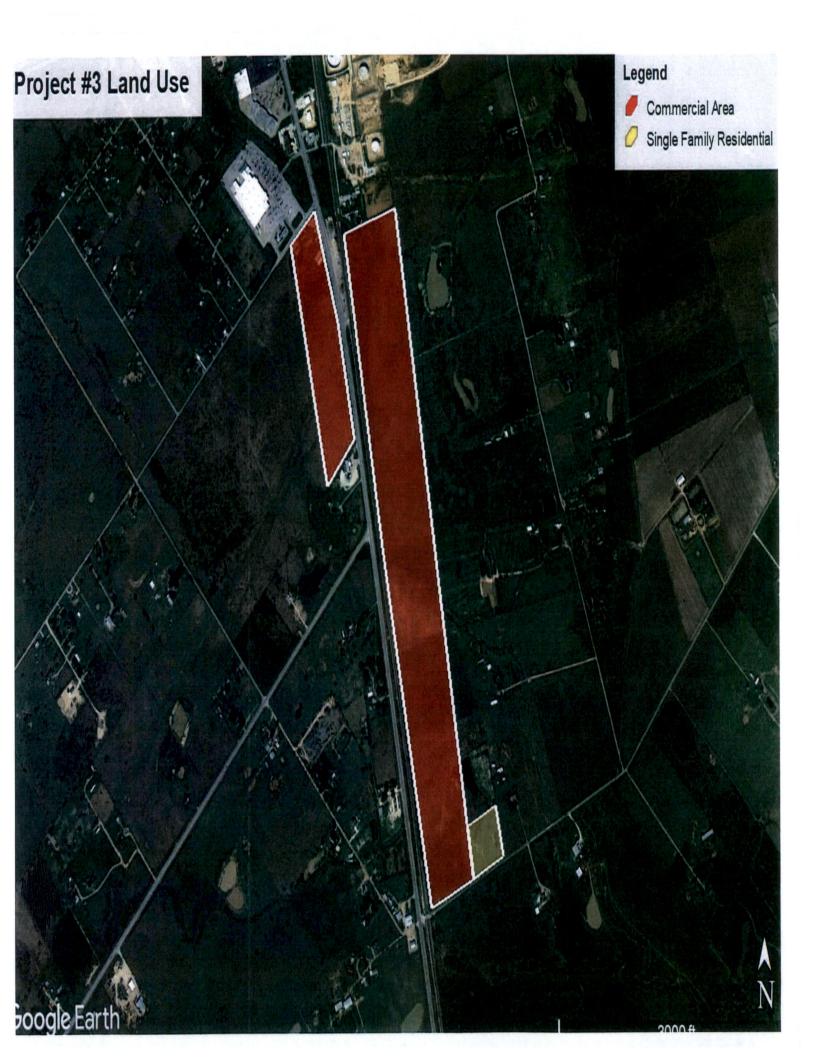


CITY OF SEALY WATER LINE EXTENSION ALONG STATE HIGHWAY 36 SOUTH (MAP-3) FROM COLUMBUS EYE ASSOCIATES TO FM 3013 ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057 August 21, 2018

CONSTRUCTION				
WATER				
12-inch C-900 PVC Water Line	2,390 LF	\$	60.00	\$ 143,400.00
12-inch PVC Water Line By Bore	160 LF	\$	180.00	\$ 28,800.00
12-inch PVC in 20-inch Welded Steel Casing By Bore	100 LF	\$	350.00	\$ 35,000.00
Air Release Valves	1 EA	\$	2,500.00	\$ 2,500.00
Tie-In to Existing 12-inch Water Line	1 EA	\$	3,000.00	\$ 3,000.00
Install Service Connection	1 EA	\$	750.00	\$ 750.00
Install Service Line	100 LF	\$	20.00	\$ 2,000.00
Fire Hydrant Units	10 EA	\$	4,500.00	\$ 45,000.00
End of Line Blow-Off	1 LS	\$	2,500.00	\$ 2,500.00
Ductile Iron Fittings	1 LS	\$	8,000.00	\$ 8,000.00
MISC				
Seeding	1 LS	\$	7,000.00	\$ 7,000.00
Trench Safety	2,750 LF	\$	2.00	\$ 5,500.00
Traffic Control	1 LS	\$	10,000.00	\$ 10,000.00
Subtotal Construction Costs				\$ 293,450.00
Contingencies				\$ 29,345.00
TOTAL CONSTRUCTION COST				\$ 322,795.00
ENGINEERING				
Basic Services				\$ 30,000.00
Design Surveys				\$ 1,000.00
TxDOT Permitting				\$ 2,500.00
Construction Staking				\$ 3,500.00
Inspection				\$ 10,000.00
TOTAL ENGINEERING COST				\$ 47,000.00
TOTAL ENGINEER'S OPINION OF PROBABLE	PROJEC	T COS	ST	\$ 369,795.00









203 South Jackson Street Brenham, Texas 77833 (P) 979-836-7937

August 21, 2018

Mr. Mark Pulos, Director of Public Works City of Sealy 405 Main Street Sealy, TX 77474

Re: Summary and Opinion of Probable Construction Cost (OPCC) for Utility Extension Project #4

Dear Mr. Pulos:

Strand Associates, Inc.® (Strand) appreciates the opportunity to assist the City of Sealy (City) in preparing OPCC for the utility extension project from approximately FM 2187 to Jurica Road.

Over the next five years, the City's population is expected to increase from 8,284 to 9,340 (approximately 15 percent) prompting the need to develop new areas on the edge of the city limits. The project area includes commercial and industrial zones whose projected locations have been laid out by the City.

To estimate the wastewater flows from proposed development areas, factors were used from the Texas Commission on Environmental Quality (TCEQ) that broke down wastewater production based on development type, area, and population.

The new wastewater demand from these developments not only requires new infrastructure, but also the evaluation of current capacity to determine whether it is sufficient. In this project, there are upgrades of gravity lines and lift stations that are included in the summaries and OPCC of the project.

Water and gas extension line sizes were chosen to match existing tie-in infrastructure.

The scope of the project is as follows:

- Wastewater Infrastructure:
 - a. New:
 - (1) Installation of 5,800 feet (ft) of new 6-inch lines.
 - (2) Installation of 2,951 ft of new force main lines.
 - (3) Installation of new 200 gallons per minute (gpm) lift station.
 - b. Upgrades: Replacement of 3,840 ft of existing lines with 8-inch lines.
- 2. Water Infrastructure: New: Installation of 4,800 ft of new 12-inch lines.

The OPCC of this project is broken down as follows:

1. Wastewater Infrastructure

a. New: \$739,322.02 (48 percent of wastewater total)

b. Upgrades: \$800,932.18 (52 percent of wastewater total)

c. Total: \$1,540,254.20

2. Water Infrastructure: New: \$926,170.00

3. All Project Infrastructure: Project Total: \$2,466,424.20

We estimate the developments within the project area to add 180 people over the course of the next 5 years, equivalent to an addition of 60 single-family residential connections. The ultimate build-out of these developments will add 694 people, equivalent to 232 single-family residential connections.

Please see enclosures for more information on the detailed OPCC.

Sincerely,

STRAND ASSOCIATES, INC.®

Roddy J. Williams, Ph.D., P.E.

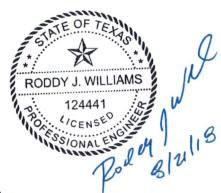
Senior Vice President

CITY OF SEALY

WASTEWATER EXTENSION ALONG STATE HIGHWAY 36 NORTH (MPAP 4) sociates, Inc." FROM APPROXIMATELY FM 2187 TO JURICA ROAD ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057

August 21, 2018

CONSTRUCTION				
SANITARY SEWER				
6-inch PVC Sanitary Sewer	5,000 LF	\$	33.00	\$ 165,000.00
6-inch PVC Sanitary Sewer By Bore	700 LF	\$	77.00	\$ 53,900.00
6-inch PVC in 20-inch Welded Steel Casing By Bore	100 LF	\$	142.00	\$ 14,200.00
8-inch PVC Sanitary Sewer	3,400 LF	\$	65.00	\$ 221,000.00
8-inch PVC Sanitary Sewer By Bore	340 LF	\$	175.00	\$ 59,500.00
8-inch PVC in 20-inch Welded Steel Casing By Bore	100 LF	\$	275.00	\$ 27,500.00
PVC Force Main	2,451 LF	\$	60.00	\$ 147,060.00
PVC Force Main By Bore	500 LF	\$	180.00	\$ 90,000.00
4-inch Service By Open-Cut	2,000 LF	\$	50.00	\$ 100,000.00
Service Wye and Tie-in to Existing Service	50 EA	\$	750.00	\$ 37,500.00
Service Cleanout	50 EA	\$	250.00	\$ 12,500.00
Lift Station (200 gpm)	1 EA	\$	200,000.00	\$ 200,000.00
Tie-In to Existing Sanitary Sewer	1 EA	\$	500.00	\$ 500.00
Manholes	19 EA	\$	3,500.00	\$ 67,480.00
MISC				
Seeding	1 LS	\$	13,000.00	\$ 13,000.00
Trench Safety	12,591 LF	\$	2.00	\$ 25,182.00
Traffic Control	1 LS	\$	10,000.00	\$ 10,000.00
Subtotal Construction Costs				\$ 1,244,322.00
Contingencies				\$ 124,432.20
TOTAL CONSTRUCTION COST				\$ 1,368,754.20
ENGINEERING				
Basic Services				\$ 130,000.00
Design Surveys				\$ 9,000.00
TxDOT Permitting				\$ 2,500.00
Construction Staking				\$ 20,000.00
Inspection				\$ 10,000.00
TOTAL ENGINEERING COST				\$ 171,500.00
TOTAL ENGINEER'S OPINION OF PROBABLI	E CONSTRI	UCTI	ON COST	\$ 1,540,254.20

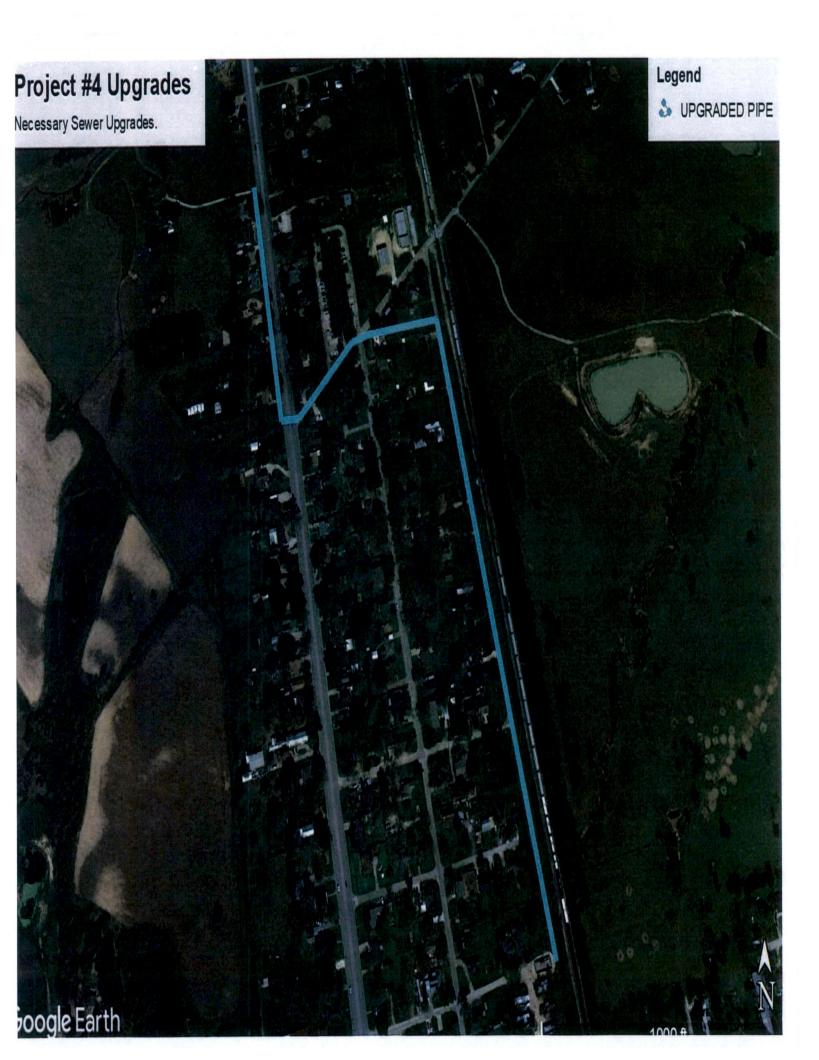


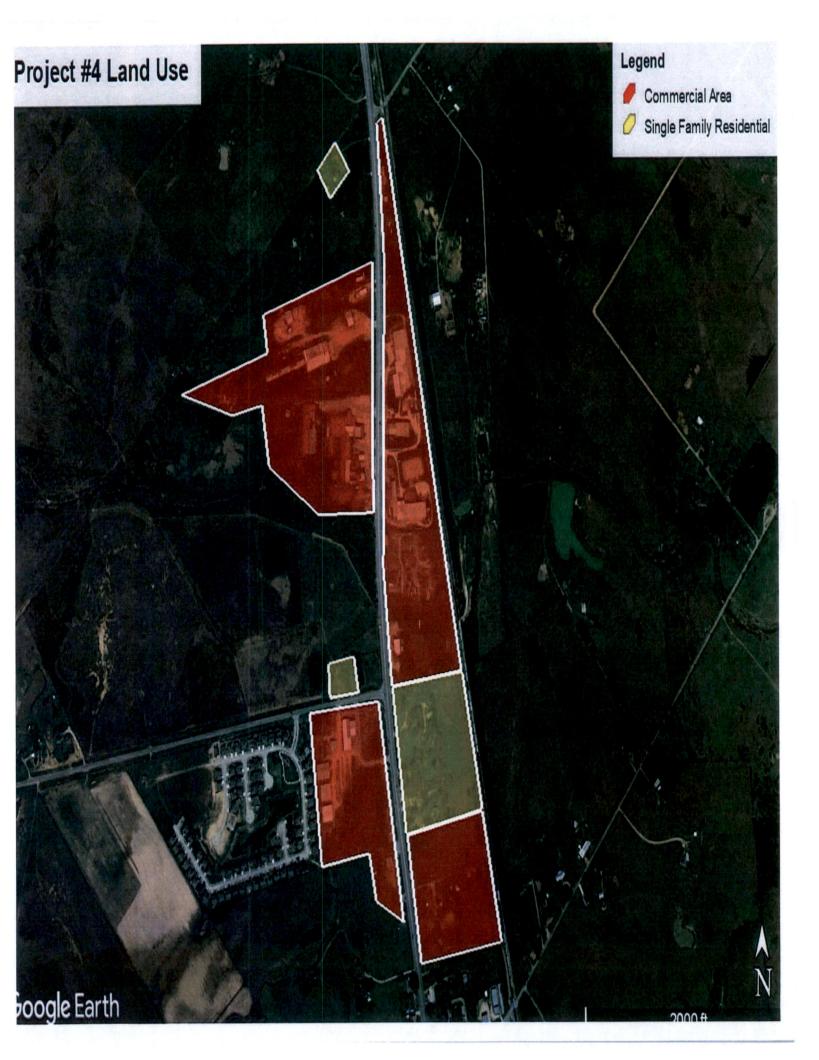
CITY OF SEALY WATER LINE EXTENSION ALONG STATE HIGHWAY 36 NORTH (MAP-4) FROM APPROXIMATELY FM 2187 TO JURICA ROAD ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057 August 21, 2018

CONSTRUCTION				
WATER				
12-inch PVC Water Line	3,700 LF	\$	60.00	\$ 222,000.00
12-inch PVC Water Line by Bore	1,100 LF	\$	180.00	\$ 198,000.00
12-inch Gate Valve and Valve Box	16 EA	\$	3,500.00	\$ 56,000.00
Fire Hydrant Unit	36 EA	\$	5,000.00	\$ 180,000.00
Service Connection	26 EA	\$	750.00	\$ 19,500.00
Service Line	1,300 LF	\$	20.00	\$ 26,000.00
Air Release Valves	2 EA	\$	2,500.00	\$ 5,000.00
Tie in to Ex. 12-inch Water Line	1 EA	\$	3,000.00	\$ 3,000.00
Ductile Iron Fittings	1 LS	\$	10,000.00	\$ 10,000.00
MISC				
Seeding	1 LS	\$	8,000.00	\$ 8,000.00
Trench Safety	6,100 LF	\$	2.00	\$ 12,200.00
Traffic Control	1 LS	\$	10,000.00	\$ 10,000.00
Subtotal Construction Costs				\$ 749,700.00
Contingencies				\$ 74,970.00
TOTAL CONSTRUCTION COST				\$ 824,670.00
ENGINEERING				
Basic Services				\$ 75,000.00
Design Surveys				\$ 6,000.00
TxDOT Permitting				\$ 2,500.00
Construction Staking				\$ 8,000.00
Inspection				\$ 10,000.00
TOTAL ENGINEERING COST				\$ 101,500.00
TOTAL ENGINEER'S OPINION OF PRO	BABLE CONSTI	RUCT	ON COST	\$ 926,170.00











203 South Jackson Street Brenham, Texas 77833 (P) 979-836-7937

August 21, 2018

Mr. Mark Pulos, Director of Public Works City of Sealy 405 Main Street Sealy, TX 77474

Summary and Opinion of Probable Construction Cost (OPCC) for Utility Extension Project #5 Re:

Dear Mr. Pulos:

Strand Associates, Inc.® (Strand) appreciates the opportunity to assist the City of Sealy (City) in preparing OPCC for the utility extension project from SH 36 to FM 1094.

Over the next five years, the City's population is expected to increase from 8,284 to 9,340 (approximately 15 percent) prompting the need to develop new areas on the edge of the city limits. The project area includes residential and commercial zones whose projected locations have been laid out by the City.

To estimate the wastewater flows from proposed development areas, factors were used from the Texas Commission on Environmental Quality (TCEQ) that down wastewater production based on development type, area, and population.

The new wastewater demand from these developments not only requires new infrastructure, but also the evaluation of current capacity to determine whether it is sufficient. In this project, there are upgrades of gravity lines and lift stations that are included in the summaries and OPCC of the project.

The scope of the project is as follows:

- 1. Wastewater Infrastructure
 - New: Installation of 8,600 feet (ft) of new 8-inch lines.
 - b. Upgrades:
 - Replacement of 3,400 ft of existing lines with 8-inch lines. (1)
 - Replacement of 5,660 ft of existing lines with 12-inch lines. (2)
 - Upgrade 1,420 FM 1094 lift station from 94 gallons per minute (gpm) to (3)600 gpm.
- Water Infrastructure: New: 2.
 - New 1,000 gpm public water well.
 - New 500,000-gallon welded steel ground storage tank.

The OPCC of this project is broken down as follows:

Wastewater Infrastructure 1.

New:

\$1,065,496.97 (31 percent of wastewater total)

Upgrades: b.

\$2,371,590.03 (69% of wastewater total)

Total: c.

\$3,437,087.00

2. Water Infrastructure: New: \$3,408,200.00

3. All Project Infrastructure: Project Total: \$6,845,287.00

We estimate the developments within the project area to add 960 people over the course of the next 5 years, equivalent to an addition of 320 single-family residential connections. The ultimate build-out of these developments will add 3,000 people, equivalent to 1,000 single-family residential connections.

Please see enclosures for more information on the detailed OPCC.

Sincerely,

STRAND ASSOCIATES, INC.®

Roddy J. Williams, Ph.D., P.E. Senior Vice President

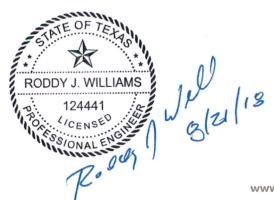
CITY OF SEALY

WASTEWATER EXTENSION ALONG FM 2187 (MAP-5) Strand Associates, Inc.º FROM STATE HWY 36 TO FM 1094

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.057

August 21, 2018

\$ 65.00	\$	715,000.00
\$ 175.00	\$	175,000.00
\$ 70.00	\$	192,850.00
\$ 200.00	\$	551,000.00
\$ 350.00	\$	52,500.00
\$ 50.00	\$	125,000.00
\$ 100.00	\$	250,000.00
\$ 750.00	\$	37,500.00
\$ 250.00	\$	12,500.00
\$ 500,000.00	\$	500,000.00
\$ 500.00	\$	500.00
\$ 3,500.00	\$	140,000.00
\$ 7,000.00	\$	7,000.00
\$ 2.00	\$	35,320.00
\$ 10,000.00	\$	10,000.00
	\$	2,804,170.00
	\$	280,417.00
	\$	3,084,587.00
	\$	300,000.00
	\$	10,000.00
	\$	2,500.00
	\$	30,000.00
	\$	10,000.00
	\$	352,500.00
CTION COST	\$	3,437,087.00
CTIC	ON COST	ON COST \$



CITY OF SEALY FUTURE WELL IMPROVEMENTS ON NORTH SIDE ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST STRAND PROJECT NO. 3903.039 August 21, 2018

CONSTRUCTION COST				\$	3,408,200.00
TOTAL ENGINEER'S OPINION OF I	PROBABLE				
TOTAL ENGINEERING COST		-		\$	298,500.00
Inspection				\$	-
Construction Staking				\$	3,500.00
Boundary Survey				\$	2,500.00
Design Surveys				\$	2,500.00
Basic Services				\$	290,000.00
ENGINEERING				_	
TOTAL CONSTRUCTION COST				\$	3,109,700.00
Contingencies				\$	282,700.00
Subtotal Construction Costs				\$	2,827,000.00
Seeding	1 LS	\$	10,000.00	\$	10,000.00
Sitework	1 LS	\$	60,000.00	\$	60,000.00
Booster Pumps	1 LS	\$	152,000.00	\$	152,000.00
Pump House	1 LS	\$	162,000.00	\$	162,000.00
Chlorine Equipment and Building	1 LS	\$	162,000.00	\$	162,000.00
Standby Generator	1 LS	\$	152,000.00	\$	152,000.00
SCADA Improvements	1 LS	\$	51,000.00	\$	51,000.00
Electrical Improvements	1 LS	\$	405,000.00	\$	405,000.00
Yard Piping Improvements	1 LS	\$	253,000.00	\$	253,000.00
New 500,000-Gallon Welded Steel Ground Storage Tank	1 LS	\$	660,000.00	\$	660,000.00
New 1,000 gpm Public Water Well	1 LS	\$	760,000.00	\$	760,000.00
CONSTRUCTION	4.7.0	Φ.	760,000,00	Φ.	760,000,00



