

PUBLIC NOTICE
SPECIAL MEETING/WORKSHOP

AGENDA

LOCKHART CITY COUNCIL

TUESDAY, APRIL 13, 2021

CLARK LIBRARY ANNEX-COUNCIL CHAMBERS
217 SOUTH MAIN STREET, 3rd FLOOR
LOCKHART, TEXAS

6:00 P.M.

1. **CALL TO ORDER**
Mayor Lew White
2. **DISCUSSION/ACTION ITEMS**
A. Discussion and/or action regarding Downtown capital improvement projects.
3. **ADJOURNMENT**

Posted on the bulletin board in the Municipal Building, 308 West San Antonio Street, Lockhart, Texas,
on the 9th day of April 2021 at 3:30 p.m.



Downtown Improvements Project

Lockhart City Council Workshop

April 13, 2021

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Lockhart Downtown Improvements Project



- Project Overview
- Additional Scope Items to Consider
- Estimated Costs
- Work to Do / Schedule

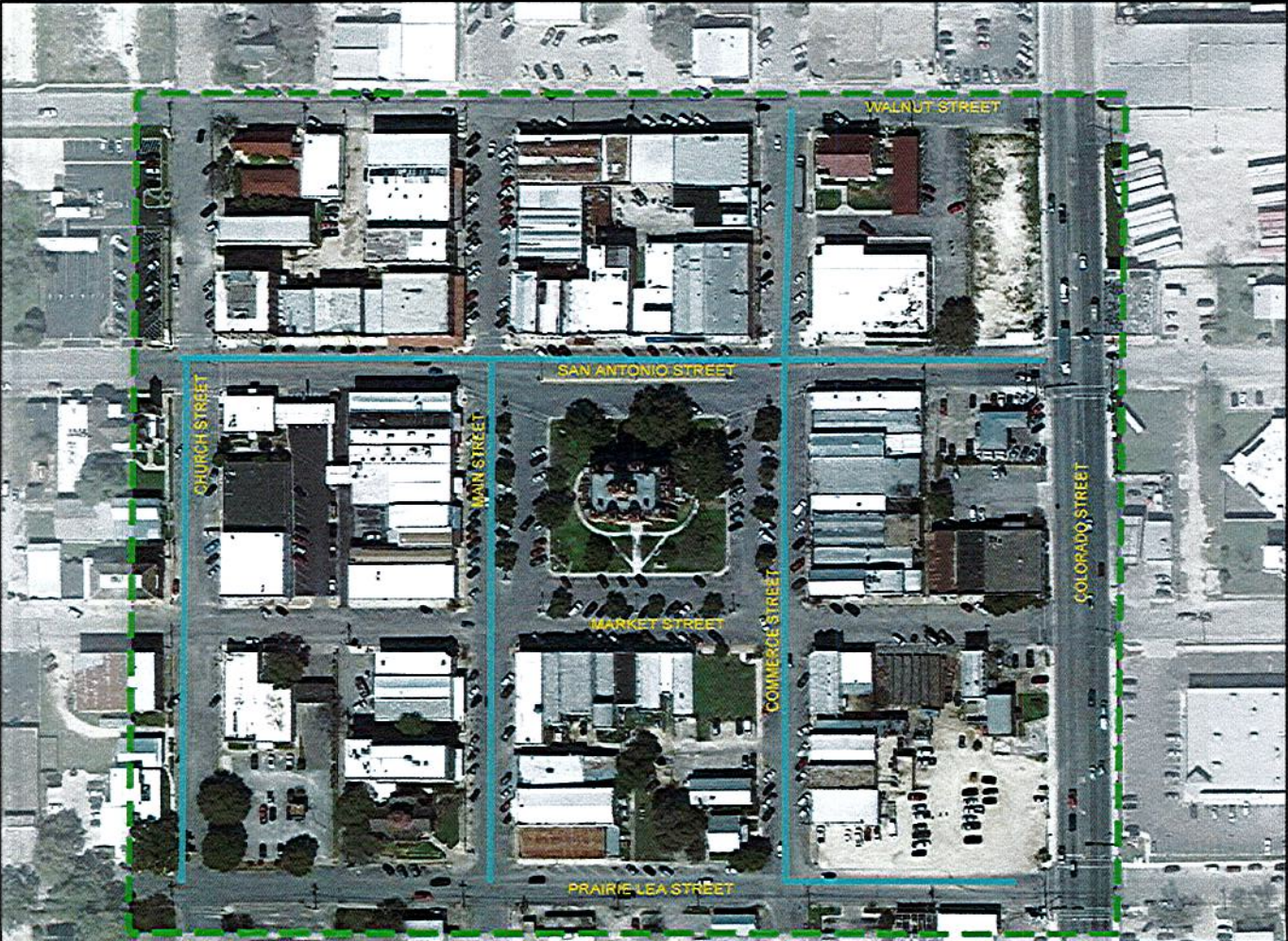
Project Overview



- 2015 Bond Program
 - 9 - 12 square block centered on Courthouse
 - Water Main Replacement
 - Sewer Main Replacement
 - Storm Drain Improvements
 - Street Improvements

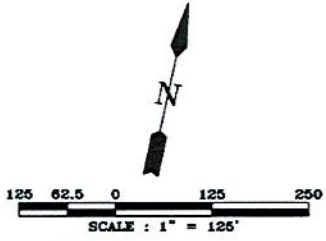


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 3 PROPOSED WATER
IMPROVEMENTS**



- LEGEND:**
- DOWNTOWN IMPROVEMENTS LIMITS
 - PROPOSED 8" WATER MAIN

Estimated Cost = \$650,000
(excluding engineering, surveying, and contingencies)



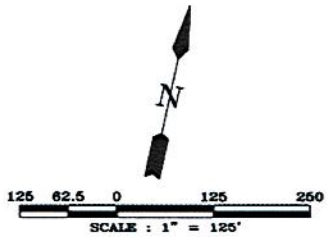
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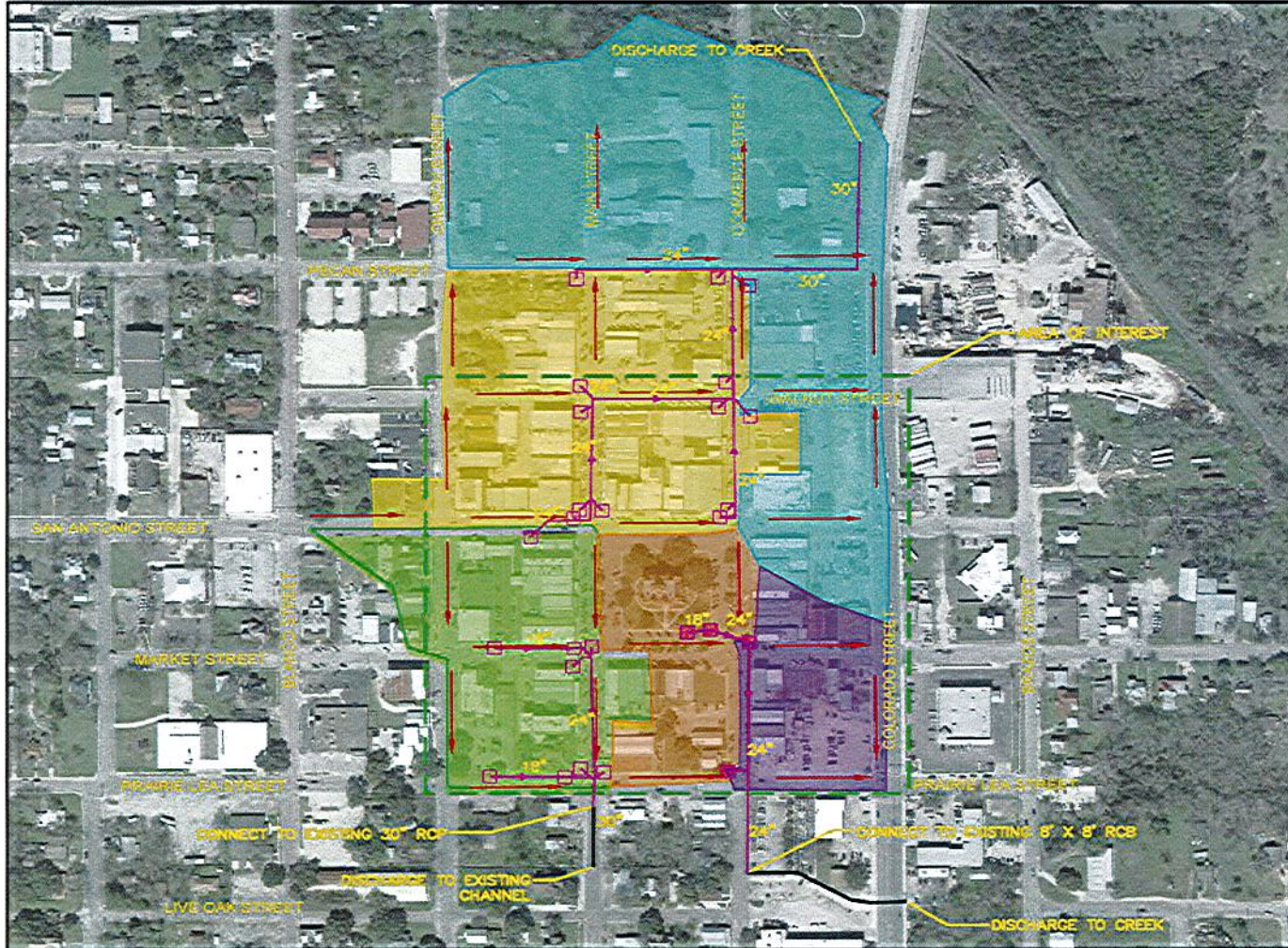
**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 5 PROPOSED SEWER
IMPROVEMENTS**

- LEGEND:**
- DOWNTOWN IMPROVEMENTS LIMITS
 - PROPOSED 8" SANITARY SEWER
 - EXISTING MANHOLE

Estimated Cost = \$680,000
(excluding engineering, surveying, and contingencies)













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**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 7 PROPOSED STORM SEWER
IMPROVEMENTS**

LEGEND:

-  PROPOSED CURB INLET
-  PROPOSED GRATE INLET
-  EXISTING STORM SEWER
-  PROPOSED STORM SEWER
-  EXISTING FLOW DIRECTION
-  DRAINAGE AREA 1
-  DRAINAGE AREA 2
-  DRAINAGE AREA 3
-  DRAINAGE AREA 4
-  DRAINAGE AREA 5

Estimated Cost = \$1,000,000
(excluding engineering, surveying, and contingencies)

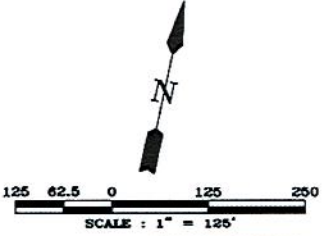


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 8 PROPOSED STREET
IMPROVEMENTS**



- LEGEND:**
- - - DOWNTOWN IMPROVEMENTS LIMITS
 - PROPOSED 3" MILL & OVERLAY
 - PROPOSED RECONSTRUCTION
 - PROPOSED CROSSWALK
 - X PEDESTRIAN REFUGE

Estimated Cost = \$1,400,000
(excluding engineering, surveying, and contingencies)





Opinion of Probable Cost

2015 Bond Program

- Water Main Replacement = \$650,000
- Sanitary Sewer Main Replacement = \$680,000
- Storm Drain Improvements = \$1,000,000
- Street Improvements = \$1,400,000

Construction Cost = \$3,730,000

- Contingencies, Engineering, Surveying (30%) = \$1,120,000

TOTAL PROJECT COST = \$4,850,000

Additional Scope Items to Consider

- **Sidewalk / Pedestrian Safety Improvements**
 - Sustainable Places Project
- **Lighting or other electrical design**
- Landscape design and other aesthetic improvements
 - Alleyway enhancements
 - Remove flagpoles?
 - Decorative street and wayfinding signs
- Public relations during design and construction
- On-site inspector during construction
- Construction phasing

Existing Sidewalk



Commerce St across from Courthouse



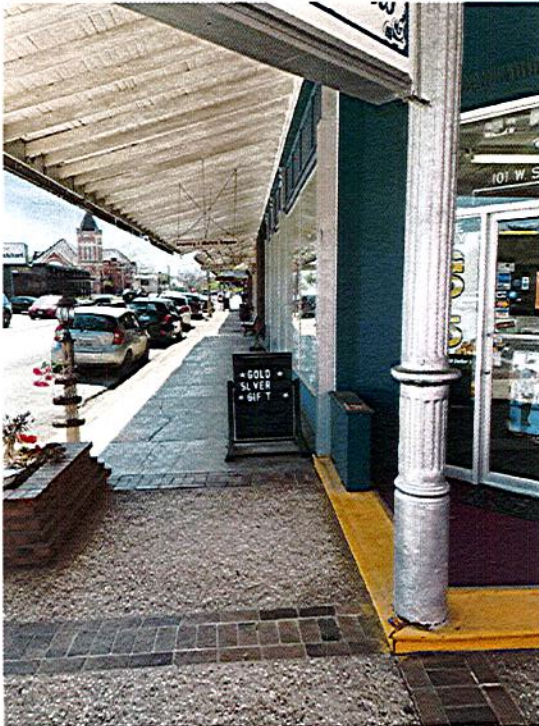
Corner of Commerce and San Antonio



Existing Sidewalk



**Corner of Main and San Antonio –
Looking West**



**Corner of Main and San Antonio –
Looking North**



Existing Sidewalk



**Corner of Commerce and Prairie
Lea – Looking North**



**Corner of Main and Prairie Lea –
Looking North**



Existing Crosswalk



Corner of Commerce and San Antonio – Looking West



Corner of Commerce and San Antonio – Looking West



Existing Crosswalk



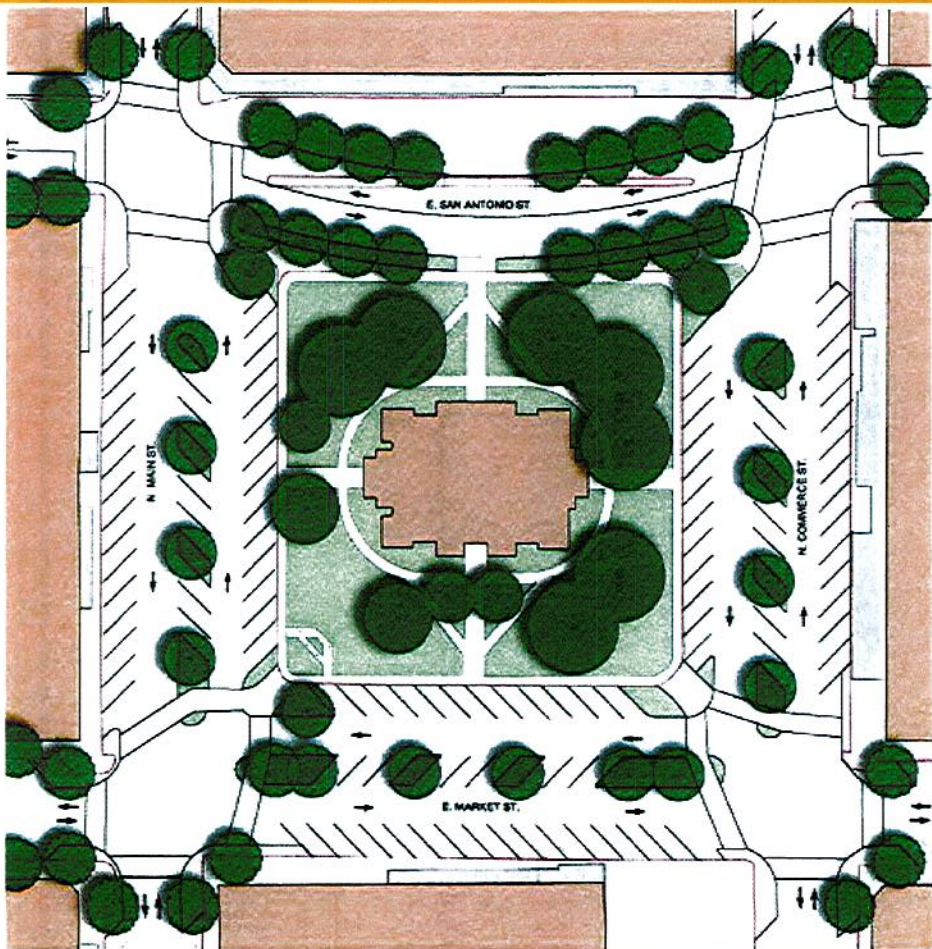
**Corner of Main and Market –
Looking East**



**Corner of Commerce and Market –
Looking West**



The Sustainable Places Project – Planning Study

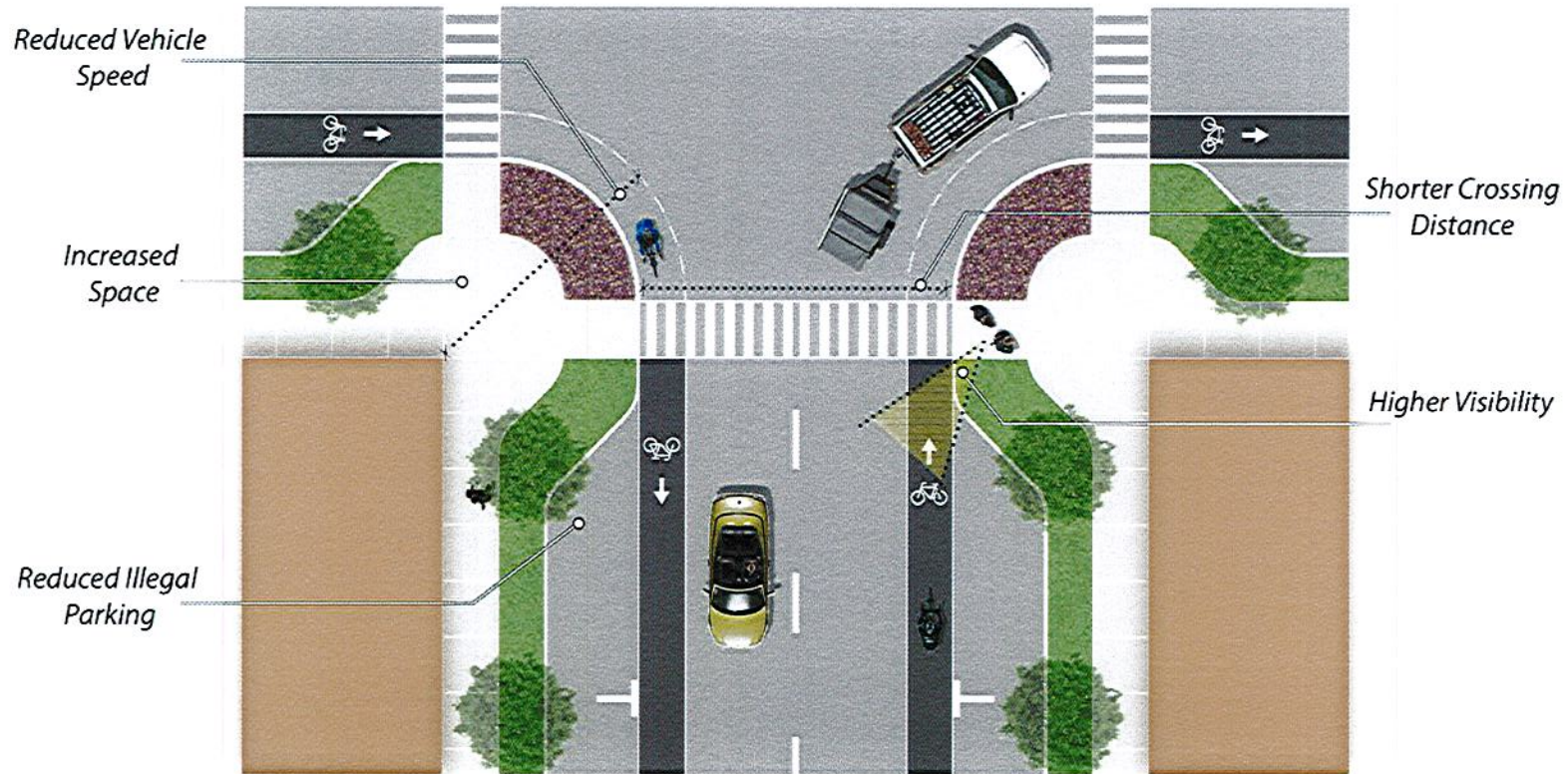


■ Recommended Plan for Courthouse Square

Pros	Cons
Revitalize Downtown	Added cost
Encourage Visitors to Stay Longer – Economic Impact	Some loss of parking (approx. 9 spots)
Changes traffic pattern on San Antonio St	Changes traffic pattern on San Antonio St
Increased Pedestrian Safety / Accessibility Improvements	Requires license agreements or rights-of-way adjustment
Creates Public Plaza	
Supported by TxDOT – Increased Vehicular Safety	

*Also recommends coordination w/ TxDOT to prohibit truck through traffic between SH 130 and US183 on San Antonio

Sidewalk Improvements – Common Curb Bulb Outs



Sidewalk Improvements – Curb Bulb Outs



Sidewalk Improvements – Pedestrian Refuges



Sidewalk Improvements – Pedestrian Refuges



Pedestrian Scale Lighting



- Lighting that is mounted less than 15 feet above ground
- Improves Pedestrian Safety
 - Reduces traffic injuries
 - Reduces crime
 - Improved perceived walking comfort
- Expensive relative to other pedestrian safety improvements
- Other considerations:
 - Uniformity
 - Glare
 - Aesthetic
 - Color
 - Light Trespass



Pedestrian Scale Lighting - Examples



Pedestrian Scale Lighting - Examples



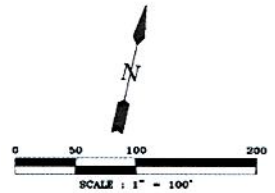


**CITY OF LOCKHART
SIDEWALK QUANTITIES
AND PEDESTRIAN LIGHTING
OPTION 1**

LEGEND:

- EXISTING SIDEWALK
- PROPOSED BULBOUTS
- EXISTING CURB
- PEDESTRIAN REFUGE
- ◆ PEDESTRIAN LIGHTING

SDWLK AREA FOR DEMO	3000	SY
CURB FOR DEMO	3040	LF
PROP SDWLK AREA (BULBOUTS)	2500	SY
PROP CURB (BULBOUTS)	2000	LF
PROP SDWLK (REFUGE)	120	SY
PROP CURB (REFUGE)	260	LF
PROP PEDESTRIAN LIGHTS	53	N/A



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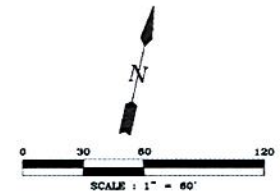


**CITY OF LOCKHART
SIDEWALK QUANTITIES
AND PEDESTRIAN LIGHTING
OPTION 1**

LEGEND:

- EXISTING SIDEWALK
- PROPOSED BULBOUTS
- EXISTING CURB
- PEDESTRIAN REFUGE
- ⊗ PEDESTRIAN LIGHTING

SDWLK AREA FOR DEMO	3000	SY
CURB FOR DEMO	3040	LF
PROP SDWLK AREA (BULBOUTS)	2500	SY
PROP CURB (BULBOUTS)	2000	LF
PROP SDWLK (REFUGE)	120	SY
PROP CURB (REFUGE)	260	LF
PROP PEDESTRIAN LIGHTS	53	N/A



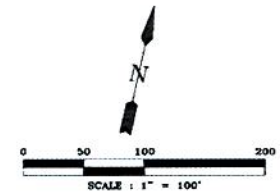


CITY OF LOCKHART SIDEWALK QUANTITIES AND PEDESTRIAN LIGHTING OPTION 2

LEGEND:

- EXISTING SIDEWALK
- PROPOSED BULBOUTS
- EXISTING CURB
- PEDESTRIAN REFUGE
- ◆ PEDESTRIAN LIGHTING

SDWLK AREA FOR DEMO	2700	SY
CURB FOR DEMO	2700	LF
PROP SDWLK AREA (BULBOUTS)	1200	SY
PROP CURB (BULBOUTS)	1500	LF
PROP SDWLK (REFUGE)	185	SY
PROP CURB (REFUGE)	400	LF
PROP PEDESTRIAN LIGHTS	53	N/A



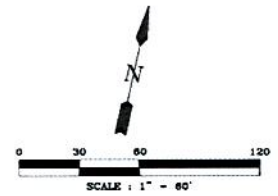


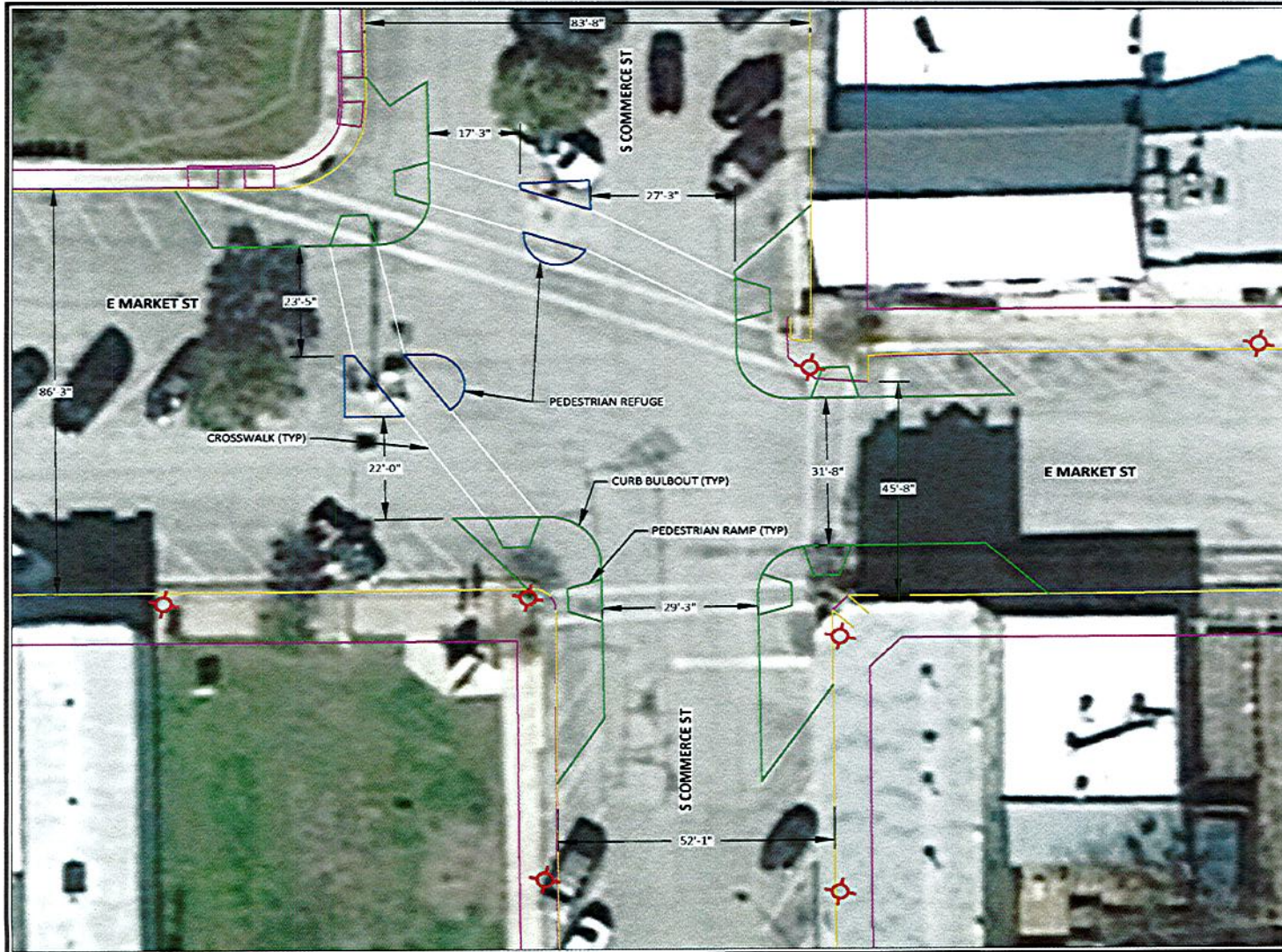
**CITY OF LOCKHART
SIDEWALK QUANTITIES
AND PEDESTRIAN LIGHTING
OPTION 2**

LEGEND:

- EXISTING SIDEWALK
- PROPOSED BULBOUTS
- EXISTING CURB
- PEDESTRIAN REFUGE
- ★ PEDESTRIAN LIGHTING

SDWLK AREA FOR DEMO	2700	SY
CURB FOR DEMO	2700	LF
PROP SDWLK AREA (BULBOUTS)	1200	SY
PROP CURB (BULBOUTS)	1500	LF
PROP SDWLK (REFUGE)	185	SY
PROP CURB (REFUGE)	400	LF
PROP PEDESTRIAN LIGHTS	53	N/A

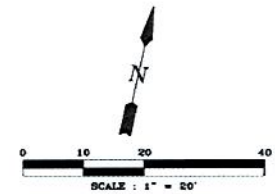




**CITY OF LOCKHART
COMMERCE/MARKET
INTERSECTION**

LEGEND:

- EXISTING SIDEWALK
- PROPOSED BULBOUTS
- EXISTING CURB
- PEDESTRIAN REFUGE
- ★ PEDESTRIAN LIGHTING



TRC
TRC ENGINEERS, INC.
 905 E. HUNTLAND DRIVE, STE. 200 AUSTIN, TX 78752
 T.H.P.P. FIRM REGISTRATION # E-36052
 (512) 454-8716

Engineer's Opinion of Probable Cost (Conceptual)

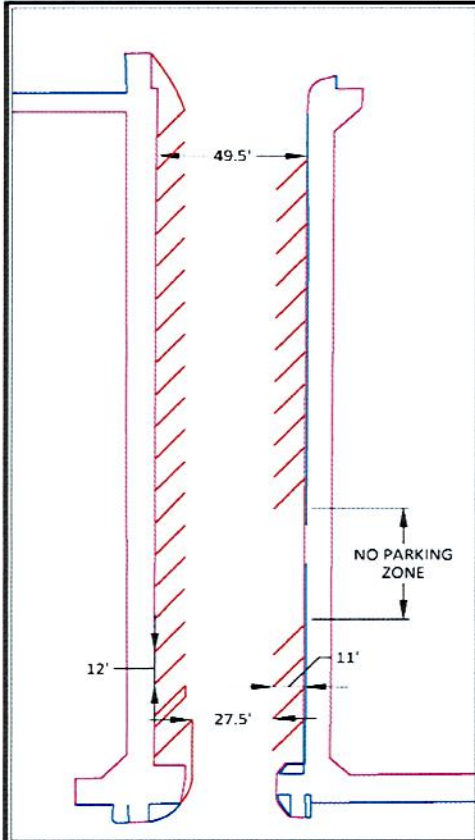


- Sidewalk Option 1 (Sustainable Places / Plaza on San Antonio) = \$1,600,000
- Sidewalk Option 2 (No Plaza) = \$1,060,000
- Total Sidewalk Replacement + Plaza = \$2,740,000
- Just Bulbouts = \$600,000

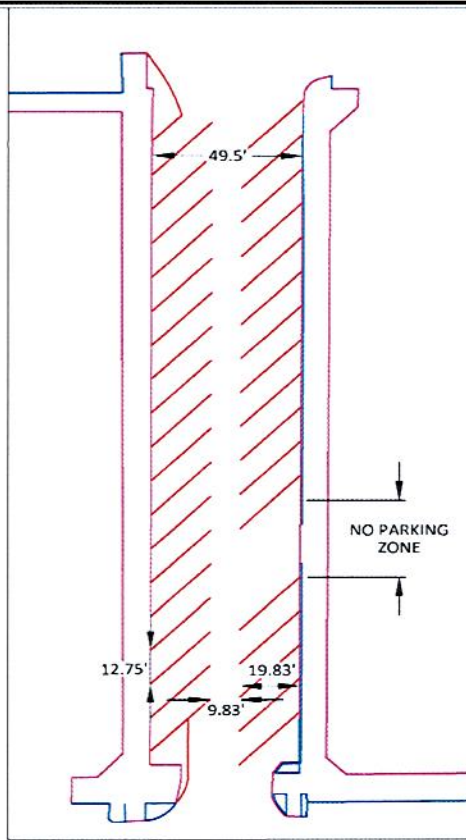
- Electrical
 - Street Lights = \$670,000
 - Remove OH Pole at N Main St = \$190,000

N Main Street Parking





EXISTING STRIPING (NON-STD 45° SPACES)
 33 PARKING SPOTS
 27.5 FT TRAVEL WIDTH

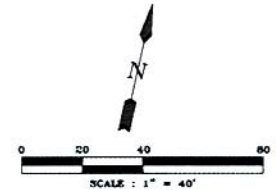


PROPOSED STANDARD 45° PARKING STRIPING
 33 PARKING SPOTS
 9.83 FT TRAVEL WIDTH

CITY OF LOCKHART
 N MAIN ST
 PARKING OPTIONS
 EXHIBIT 1

- LEGEND:
- EXISTING SIDEWALK
 - EXISTING CURB
 - PARKING STRIPING

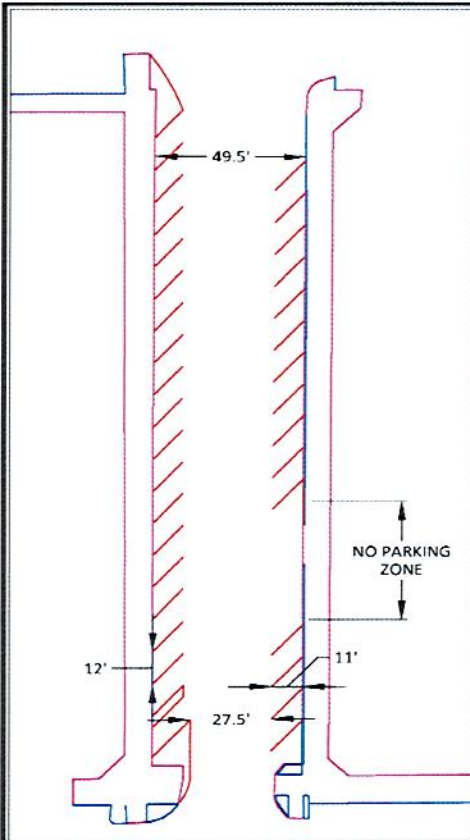
Could also consider one-way traffic on
 N Main and N Commerce



CITY OF LOCKHART
 N MAIN ST
 PARKING OPTIONS
 EXHIBIT 2

LEGEND:

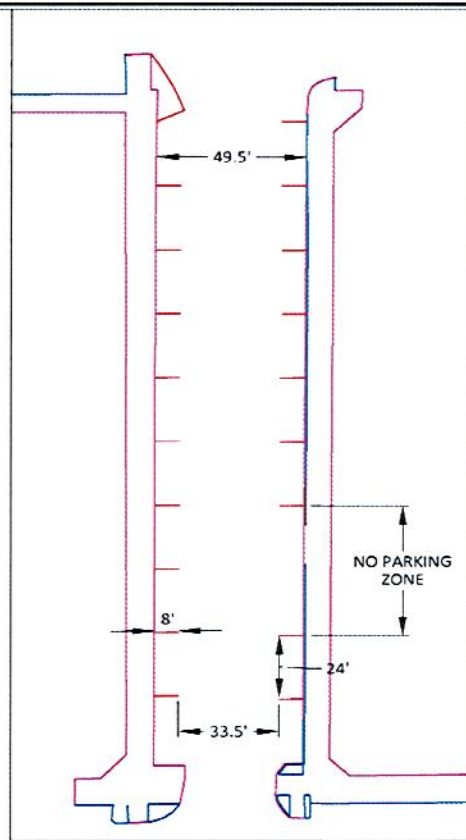
-  EXISTING SIDEWALK
-  EXISTING CURB
-  PARKING STRIPING



EXISTING STRIPING (NON-STD 45° SPACES)

33 PARKING SPOTS

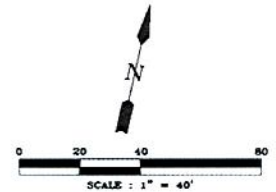
27.5 FT TRAVEL WIDTH



PROPOSED PARALLEL STRIPING

18 PARKING SPOTS

33.5 FT TRAVEL WIDTH



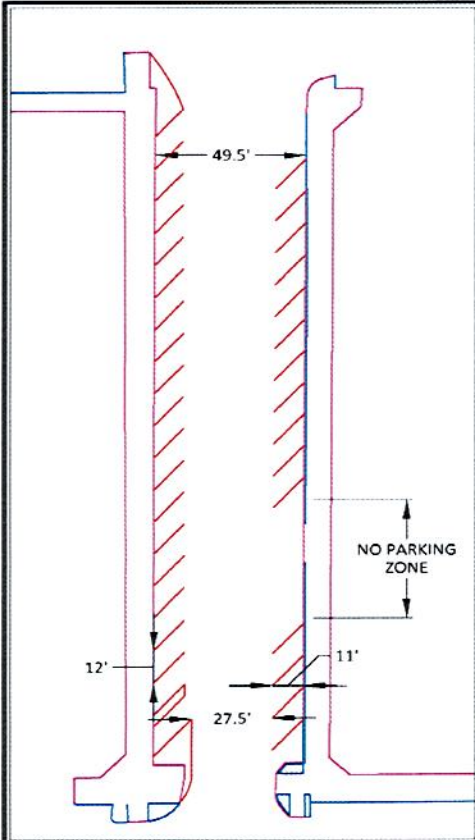

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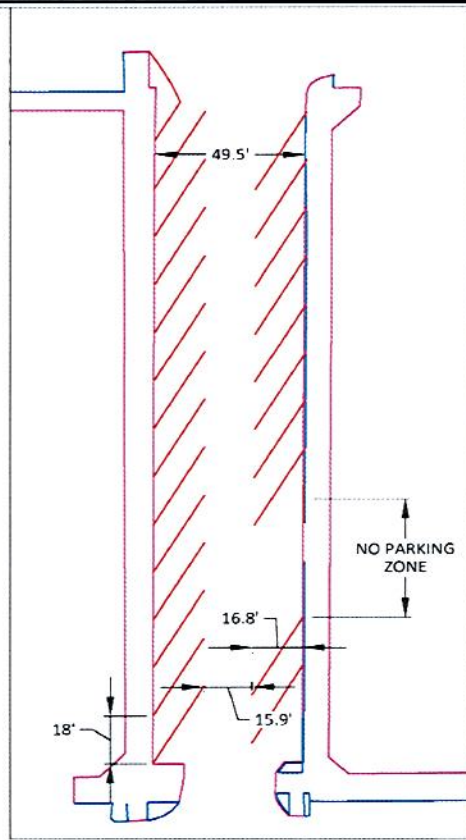
CITY OF LOCKHART
 N MAIN ST
 PARKING OPTIONS
 EXHIBIT 3

LEGEND:

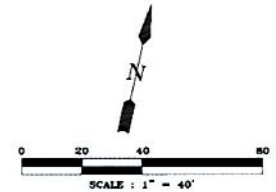
-  EXISTING SIDEWALK
-  EXISTING CURB
-  PARKING STRIPING



EXISTING STRIPING (NON-STD 45° SPACES)
 33 PARKING SPOTS
 27.5 FT TRAVEL WIDTH



PROPOSED 30 DEGREE STRIPING
 21 PARKING SPOTS
 15.9 FT TRAVEL WIDTH




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 505 F. HUNTLAND DRIVE, STE. 250 AUSTIN, TX 78752
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Thank You

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he



Downtown Improvements Project

Lockhart City Council Workshop

January 19, 2021

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Lockhart Downtown Improvements Project



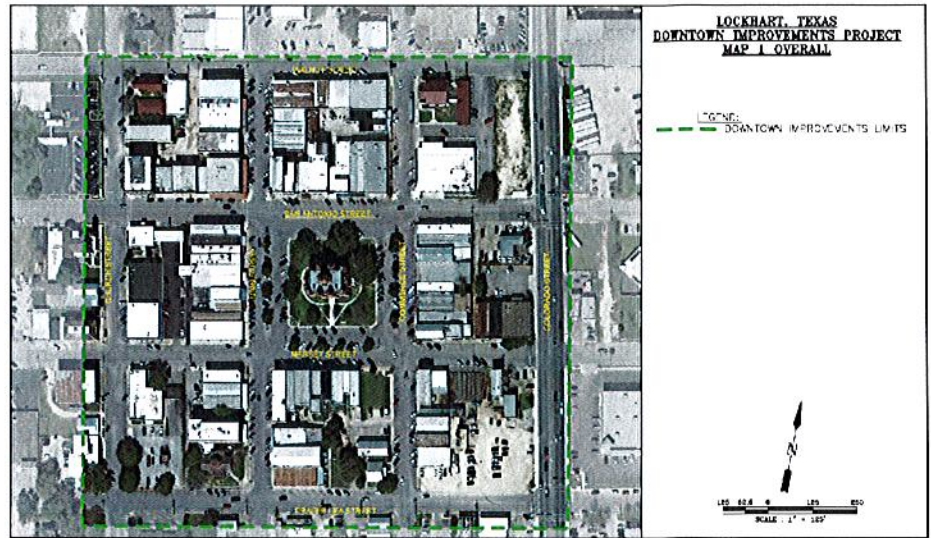
- Project Overview
 - Work Completed
 - Additional Scope Items to Consider
 - Estimated Costs
 - Work to Do / Schedule
-

Project Overview



- Capital Improvements Program (CIP)

- 9 - 12 square block centered on Courthouse
- Water Main Replacement
- Sewer Main Replacement
- Storm Drain Improvements
- Street Improvements



Project Overview



- TxDOT Safe Routes to School (SRTS) Grant
 - SH 142 / San Antonio Street @ Courthouse
 - Pedestrian + Vehicular Mobility Improvements
 - Encourage safe pedestrian access
 - Improve vehicle circulation and turning movements
 - Sidewalk improvements
 - Drainage and Street Improvements

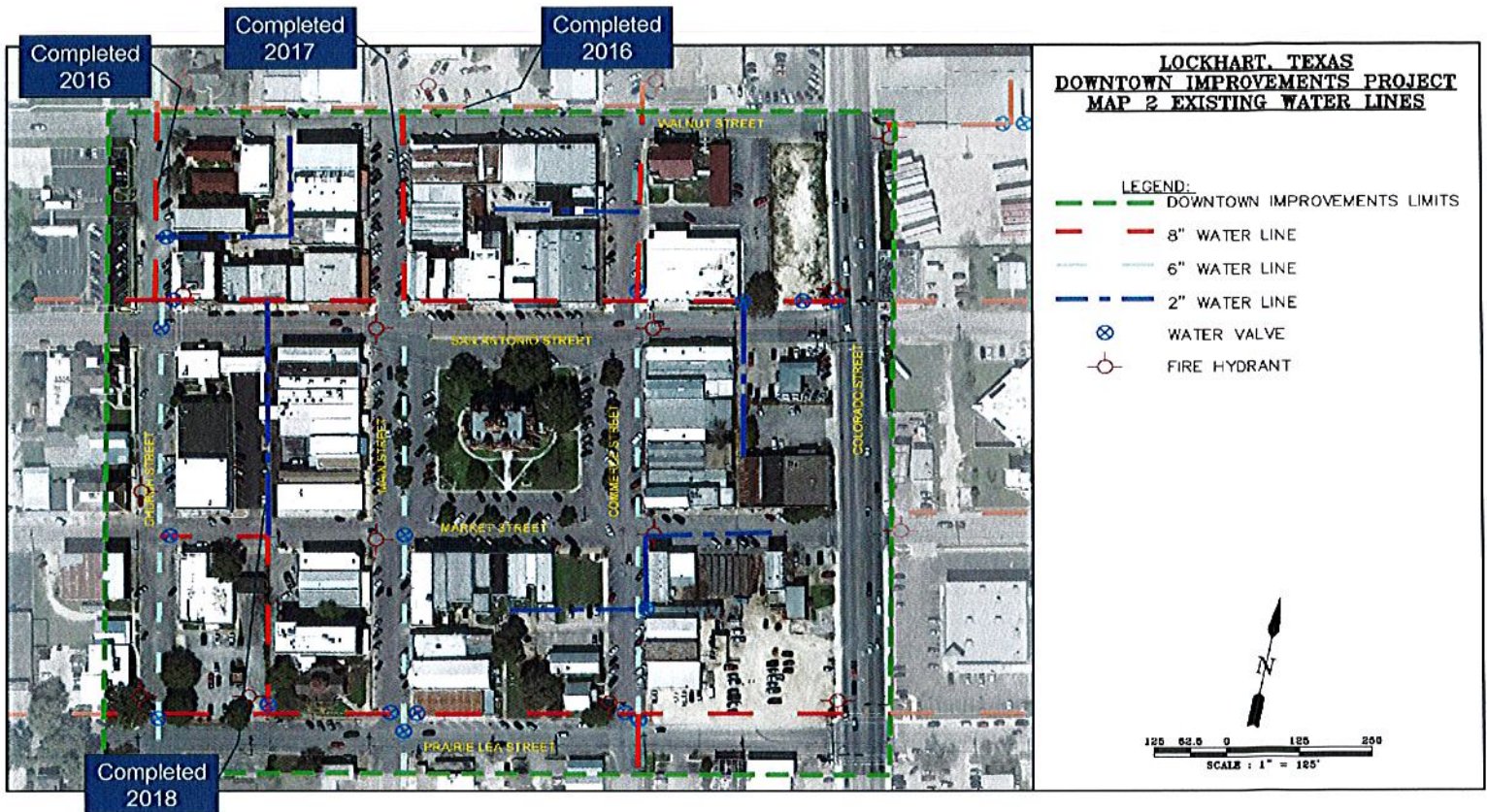


Work Completed to Date

- CIP
 - Attended planning meetings w/ City
 - Topographical Survey
 - Updated Preliminary Layouts
 - Updated Opinions of Probable Cost
 - Completed Preliminary Drainage Design + Report – January 2020

 - TxDOT SRTS Grant
 - Attended planning meetings w/ City and Landscape Architects
 - Updated Opinion of Probable Cost
 - City Submitted Preliminary Application in April 2019
 - City Submitted Final Application in August 2019
 - City notified it was not awarded the grant in February 2020

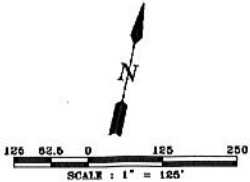
 - Development of Final Design Scope
 - February – March 2020
 - COVID – March 2020
-



**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 3 PROPOSED WATER
IMPROVEMENTS**

- LEGEND:**
--- DOWNTOWN IMPROVEMENTS LIMITS
--- PROPOSED 8" WATER MAIN

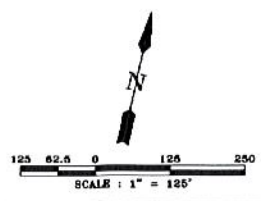
Estimated Cost = \$650,000
(excluding engineering, surveying, and contingencies)



**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 4 EXISTING SEWER MAINS**



- LEGEND:**
- DOWNTOWN IMPROVEMENTS LIMITS
 - 8" SEWER LINE
 - 6" SEWER LINE
 - CLEAN-OUT
 - MANHOLE

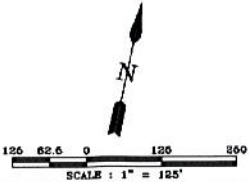


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 5 PROPOSED SEWER
IMPROVEMENTS**



- LEGEND:**
- DOWNTOWN IMPROVEMENTS LIMITS
 - PROPOSED 8" SANITARY SEWER
 - EXISTING MANHOLE












Estimated Cost = \$680,000
(excluding engineering, surveying, and contingencies)

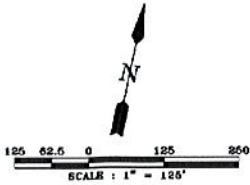


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 6 EXISTING STORM SEWER**







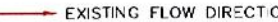





LEGEND:

-  DOWNTOWN IMPROVEMENTS LIMITS
-  8" CMP STORM SEWER
-  10" CMP STORM SEWER
-  12" CMP STORM SEWER
-  18" RCP STORM SEWER
-  24" CMP STORM SEWER
-  22" X 36" RCP STORM SEWER
-  30" RCP STORM SEWER
-  GRATE INLET
-  CURB INLET
-  COMBINATION INLET

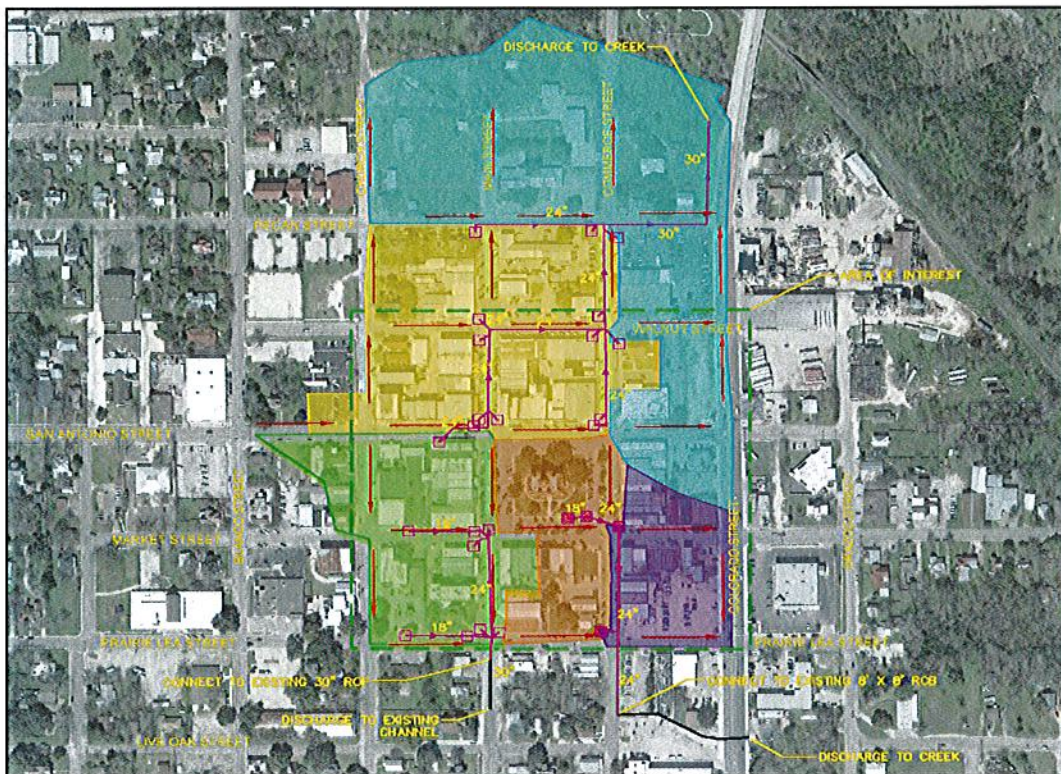
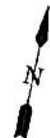


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 7 PROPOSED STORM SEWER
IMPROVEMENTS**

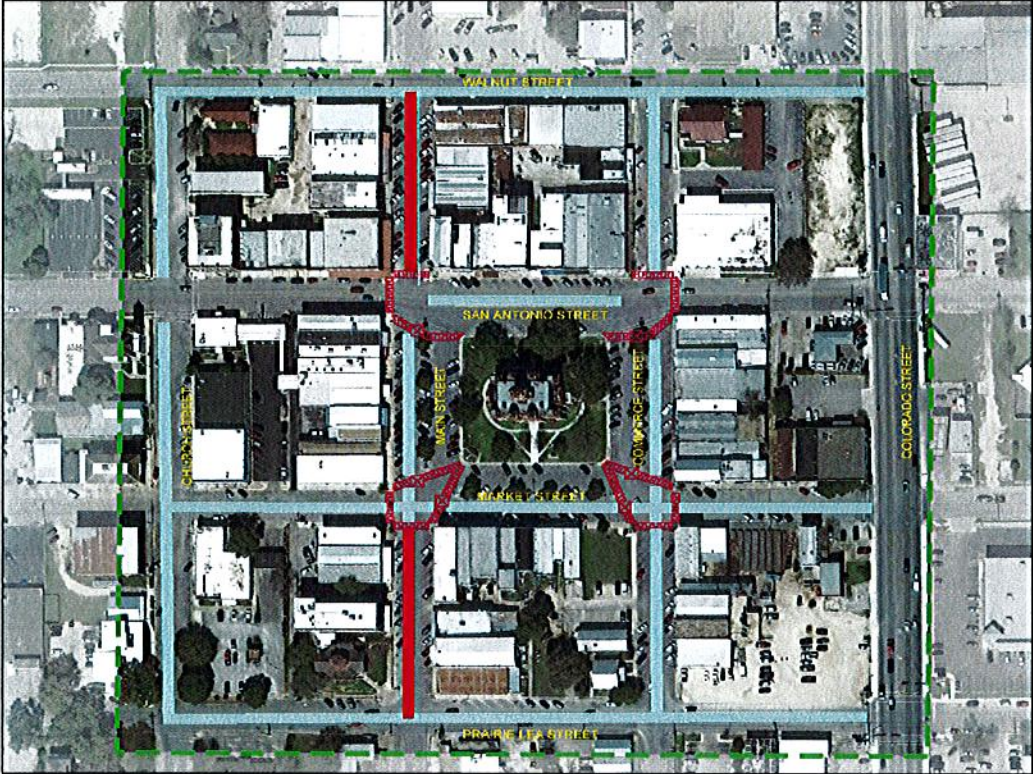
LEGEND:

-  PROPOSED CURB INLET
-  PROPOSED GRATE INLET
-  EXISTING STORM SEWER
-  PROPOSED STORM SEWER
-  EXISTING FLOW DIRECTION
-  DRAINAGE AREA 1
-  DRAINAGE AREA 2
-  DRAINAGE AREA 3
-  DRAINAGE AREA 4
-  DRAINAGE AREA 5

Estimated Cost = \$1,000,000
(excluding engineering, surveying, and contingencies)

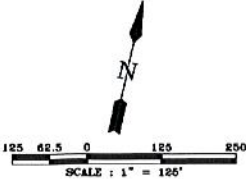


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 8 PROPOSED STREET
IMPROVEMENTS**



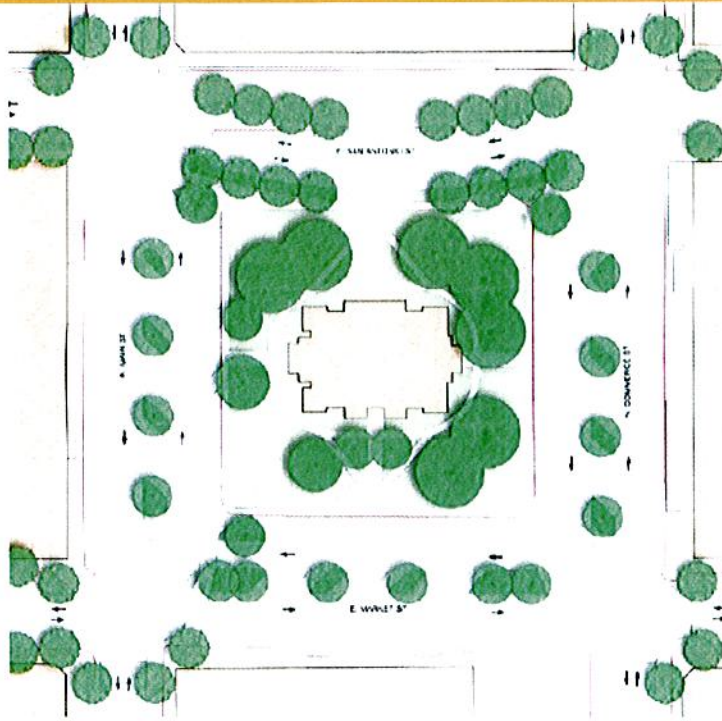
- LEGEND:**
- - - DOWNTOWN IMPROVEMENTS LIMITS
 - PROPOSED 3" MILL & OVERLAY
 - PROPOSED RECONSTRUCTION
 - PROPOSED CROSSWALK
 - X PEDESTRIAN REFUGE

Estimated Cost = \$1,400,000
(excluding engineering, surveying, and contingencies)



Additional Scope Items to Consider

- Lighting or other electrical design
 - SRTS / Sustainable Places Projects Improvements
 - Plaza on San Antonio Street
 - Improved Vehicular and Pedestrian Mobility
 - Use of pavers for crosswalks or traditional striping
 - Landscape design and improvements
 - Sidewalk improvements for all or a portion of the sidewalks within project limits
 - Project representative during design for public relations
 - On-site inspector during construction
 - Construction Phasing
-



Pedestrian Supportive Design



- Striped Crosswalks
- Pedestrian Refuge / Raised Median
- Curb Extensions / Bulb-outs



Construction Concerns

- Goal: Minimize disruptions to local business
 - Project Phasing
 - 1 block at a time: 1-2 months per block
 - Contractor Incentives
 - Liquidated Damages
 - Bonus for Early Finish
 - Public Relations / Stakeholder Engagement
 - Project listening sessions
 - Seek comments from downtown businesses and residents
-

Opinion of Probable Cost



- CIP
 - Est. Total Project Cost = \$4.9 million
 - Only covers infrastructure improvements in CIP

- TxDOT SRTS Grant
 - Est. Total Project Cost = \$1.6 million
 - Only applied to San Antonio Street improvements
 - Would have removed \$560,000 from CIP

- Additional Improvements
 - Not covered in CIP
 - Sidewalk, Lighting, Landscaping, Public Relations, Construction Phasing, Inspections
 - Est. Costs = \$1 - \$3 million



Work To Do / Schedule



- Finalize Scope of Improvements
 - Final Design: 9 – 12 months*
 - Bidding / Construction: 18 – 24 months*
 - *Start date and length of time pending inclusion of additional scope items
-

Thank You

Jeff Dahm, PE
979.324.9999
jdahm@trccompanies.com

Lockhart Downtown Improvements Project



Lockhart

BBQ Capitol of Texas

PREPARED BY:



TRC ENGINEERS, INC.

505 EAST HUNTLAND DR., SUITE 250

AUSTIN, TEXAS 78752

(512) 454-8716

T.B.P.E. FIRM REGISTRATION # F-8632

TRC Project No. 292342



JANUARY 2020

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Map 6 Existing Storm Drain	
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Map 8 Proposed Street Improvements	
Appendix B	
Opinion of Probable Construction Costs	

Introduction

The Downtown Drainage Project is part of a Capital Improvements Program (CIP) that focuses on improvements in a nine square block area centered around the Lockhart Courthouse, as shown in Map 1 of Appendix A. The project area is located in downtown Lockhart between Walnut Street to Prairie Lea Street and Church Street to Colorado Street. The improvements include water and wastewater replacements in addition to street and storm drain improvements. The primary reasons for the CIP are to update aging water and wastewater infrastructure, modernize the streetscapes and drainage, and improve pedestrian and traffic safety around the County Courthouse. In addition to the CIP, the City of Lockhart has applied for a TxDOT Safe Routes to School (SRTS) Grant to improve pedestrian mobility on San Antonio Street at the Courthouse.

Water Main Improvements

The water lines to be replaced within the project area include 6" and 8" cast iron pipes that are between fifty to seventy years old, as shown in Map 2 of Appendix A. The Public Works Department has replaced or installed approximately 1,220 linear feet of the water lines in the project area within the last several years. In 2016, the Public Works Department installed approximately 970 linear feet of 8" water line along Church Street and Walnut street and in 2017 they installed 250 linear feet of 8" along Main Street. In 2018, a 2" water line was installed in the alley between Church Street and Main Street. The remaining water lines to be replaced within the project area consist of approximately 3,120 linear feet of 8" PVC pipe shown in Map 3 of Appendix A. The portion of work completed by the City has reduced the cost of the CIP project by eliminating the fees for bonds, insurance, labor and other costs associated with hiring a contractor to complete the work. The Engineer's opinion of probable construction cost for the remaining water main improvements is \$650,000, excluding survey, design and contingencies. It is estimated that the work performed by the City reduced the cost of water line replacements by approximately \$100,000.

Wastewater Main Improvements

The existing wastewater mains in the downtown area consist mainly of aging 6" and 8" vitrified clay or cast-iron pipe, as shown in Map 4 of Appendix A. The proposed infrastructure improvements would replace approximately 3,300 linear feet of wastewater with new 8" SDR 26 PVC pipe, as shown in Map 5 of the Appendix A. The Engineer's opinion of probable construction cost for the wastewater main improvements is \$680,000, excluding survey, design and contingencies.

Drainage Improvements

Most of the existing drainage infrastructure in the downtown area is comprised of at-grade culverts under pedestrian ramps as shown in Map 6 of Appendix A. The proposed

improvements would move much of the drainage below ground, modernize the streetscape and remove potential trip and fall hazards caused by the existing culverts.

As part of this scope, the downtown area was surveyed extensively by TRC and analyzed to determine the existing runoff and drainage patterns. The results of the survey were used to develop the preliminary design for the proposed storm drain system. First, the proposed storm drain alignments were laid out to provide an effective and cost-efficient system based on existing drainage patterns. Then the north and south drainage basins were delineated into smaller areas based on proposed inlets located throughout the system. This information was input into Autodesk Storm and Sanitary Analysis 2018, a stormwater analysis software, to determine the sizing of the proposed drainage inlets and pipes based on a design capacity of a 25-year storm event, per City Code. The proposed storm drains and the drainage areas are shown in Map 7 of Appendix A. In general, everything north of the courthouse will drain north and discharge to Town Branch Creek at Colorado Street and everything south of the courthouse will drain south to the existing drainage channel north of Live Oak Street. The results of the modeling indicate that the proposed storm drain improvements are optimally sized to convey stormwater runoff to the north and south discharge locations. The Engineer's opinion of probable construction cost for the storm drain improvements is \$1,000,000, excluding survey, design and contingencies.

Street Improvements

The streets in the downtown area are in need of repairs. Most of the streets will receive a 3" mill and be repaved. Portions of Main Street will be entirely reconstructed, as shown in Map 8 of Appendix A. These sections of Main Street will be raised to reduce the vertical distance between the top of curb and pavement. Improvements will also include reworking the crosswalks and possible addition of pedestrian refuges. Possible improvements to the crosswalks include striping or using hardscape materials such as bricks and stone pavers. Crosswalks across San Antonio street will only be included as part of the TxDOT grant, should it be awarded. The Engineer's opinion of probable construction cost for the street improvements is \$1,400,000, excluding survey, design and contingencies.

TxDOT SRTS Grant

In addition to the CIP Program, the City has applied for the TxDOT Safe Routes to School grant. The grant will cover the costs of street reconstruction, sidewalks and drainage on San Antonio Street between Commerce and Main Streets, and costs for design. The grant will not require a cost match from the City. The sidewalks on the north side of San Antonio Street will be widened to create a plaza like area for businesses to use. Curb bulb-outs would be added at the corners of San Antonio Street to reduce the length of crosswalks, shown below in Figure 1. The estimated project cost is approximately \$1,600,000. It is estimated that the grant could cover up to approximately \$540,000 of improvements to San Antonio Street and the storm drain system that are included in CIP OPCC.

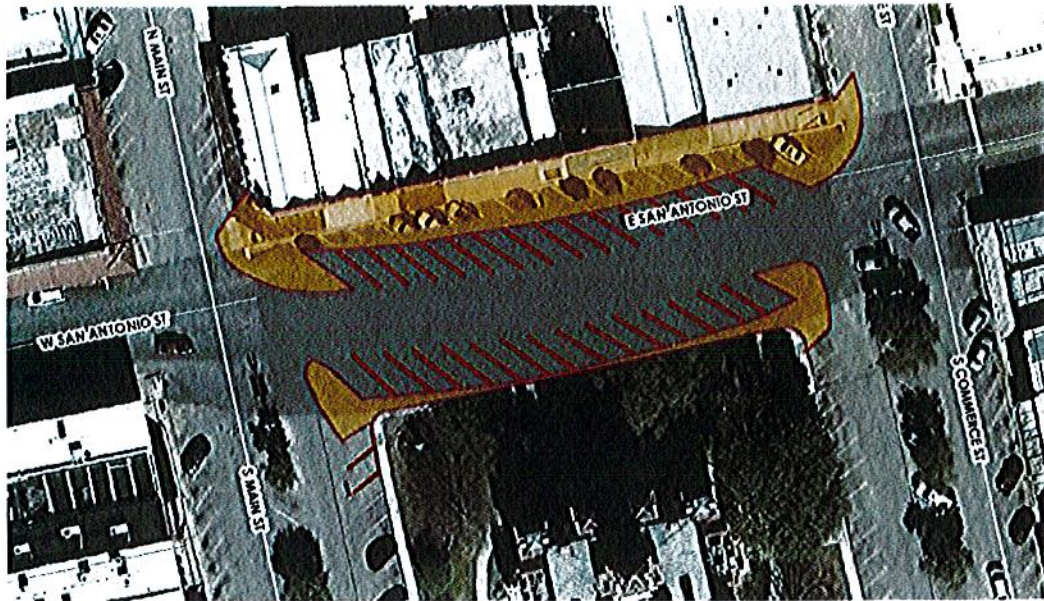


Figure 1 – San Antonio Street Layout

Additional Improvements

Improvements that would not be covered in the CIP such as sidewalks and landscaping could have a wide range of additional costs. It is estimated that these types of improvements could range between an additional \$1 to \$3 million depending on the desired materials and scope of the improvements.

Construction Concerns

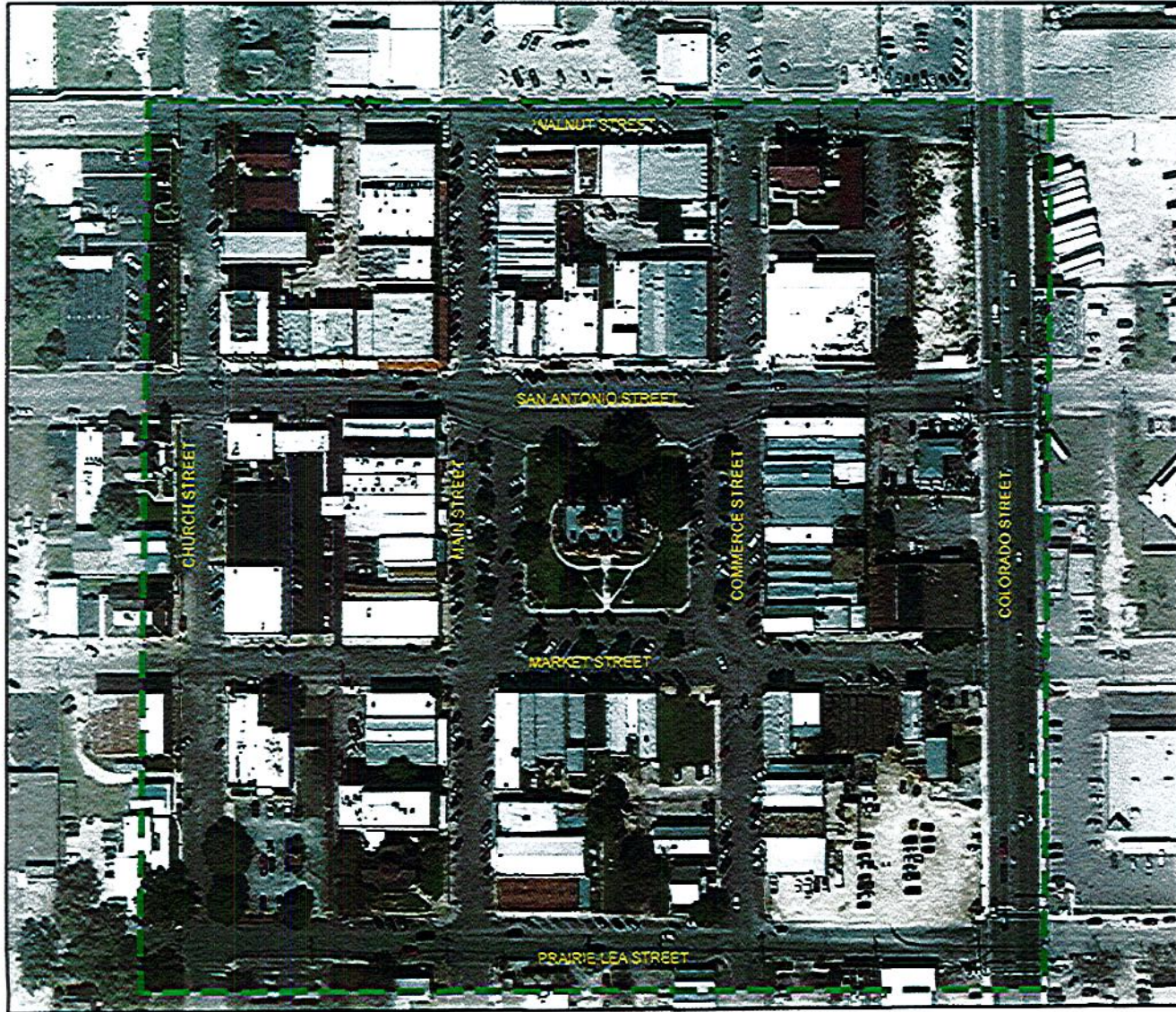
The City has expressed concerns about the effect this project could have on the downtown area and the disruptions it may cause to local businesses and events. Part of the scope of the design process will include public relations and engagement of the affected businesses whose input will be considered during design. Construction can be phased so that only one block is shut down at a time to limit interruptions to business and the disruption of traffic. It is anticipated that each block will take approximately one to two months, meaning construction could take up to two years to complete. Special attention will be given to traffic control and pedestrian safety due to the amount of vehicular and foot traffic in the downtown area. Existing utilities could potentially cause construction issues due to the historical nature of the downtown area and possible unknown abandoned utilities.

Conclusion

The Lockhart Downtown Improvements Project will focus on infrastructure improvements around the Lockhart County Courthouse. Consideration will be given to concerns of local business and the public during the design process. The proposed Downtown

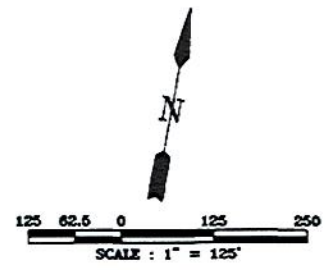
Improvements Project is estimated to cost a total \$4.85 million. A breakdown of the costs can be found in Appendix B. This cost may be reduced if the City is awarded the TxDOT SRTS grant to improve San Antonio Street.

APPENDIX A
PROJECT MAPS

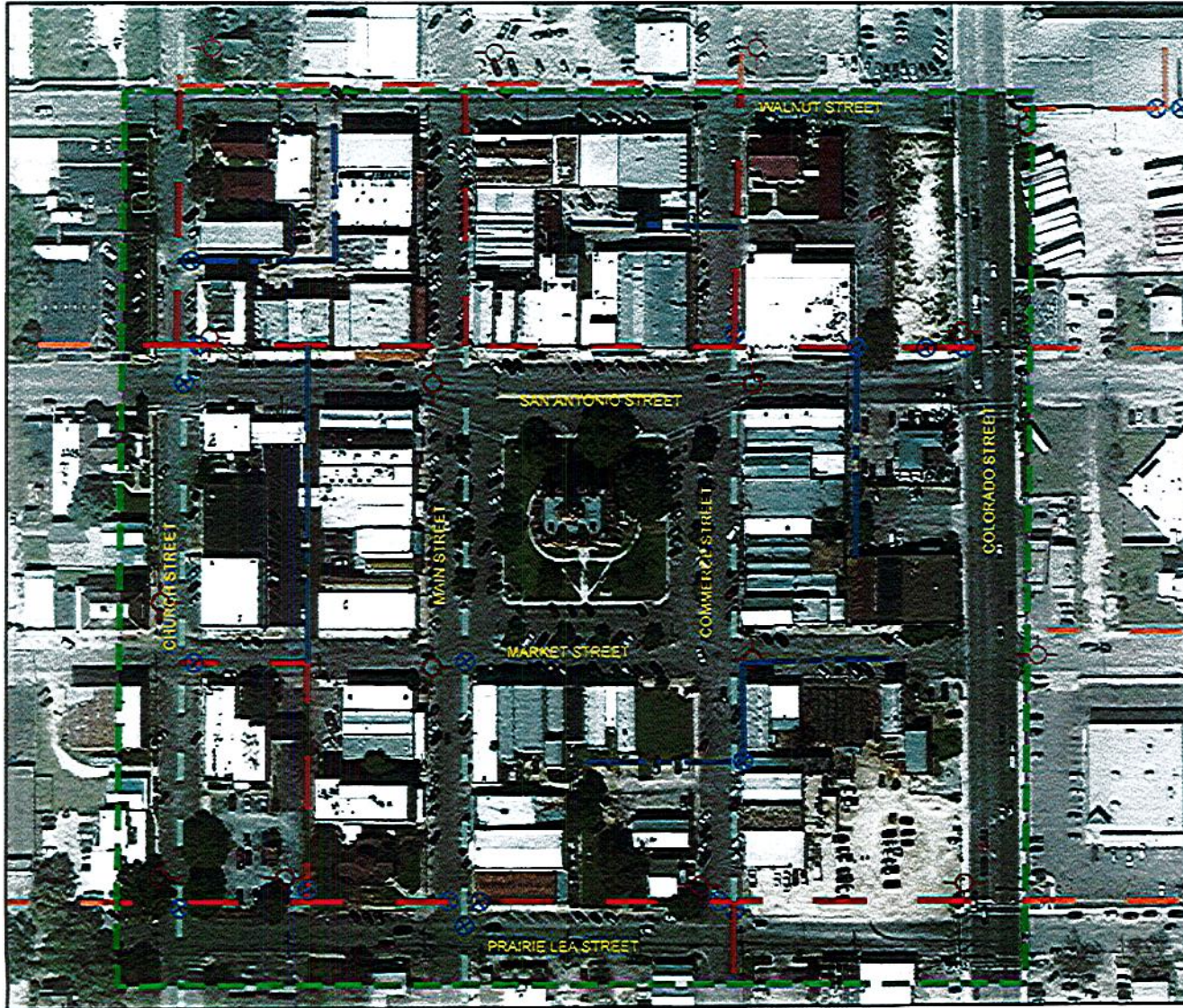


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 1 OVERALL**

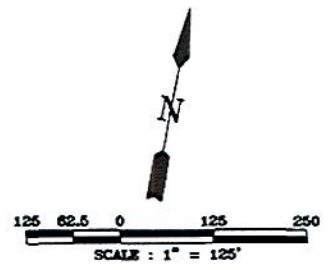
LEGEND:
--- DOWNTOWN IMPROVEMENTS LIMITS



LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 2 EXISTING WATER LINES





- LEGEND:**
- DOWNTOWN IMPROVEMENTS LIMITS
 - 8" WATER LINE
 - 6" WATER LINE
 - 2" WATER LINE
 - ⊗ WATER VALVE
 - FIRE HYDRANT



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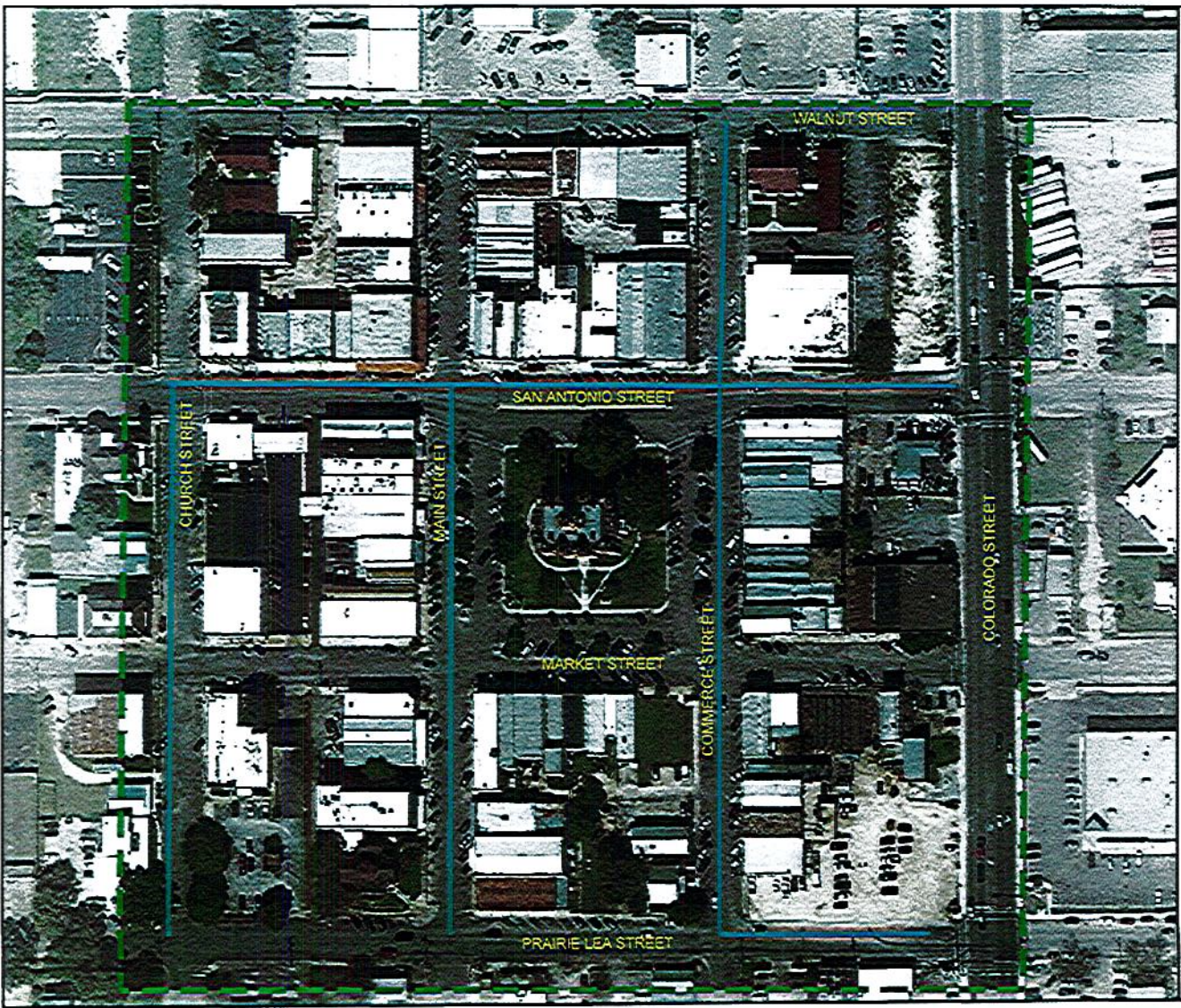
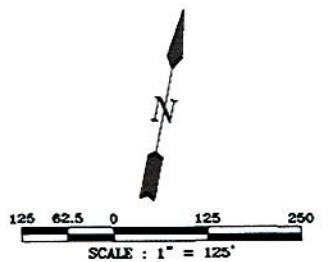
**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 3 PROPOSED WATER
IMPROVEMENTS**

LEGEND:

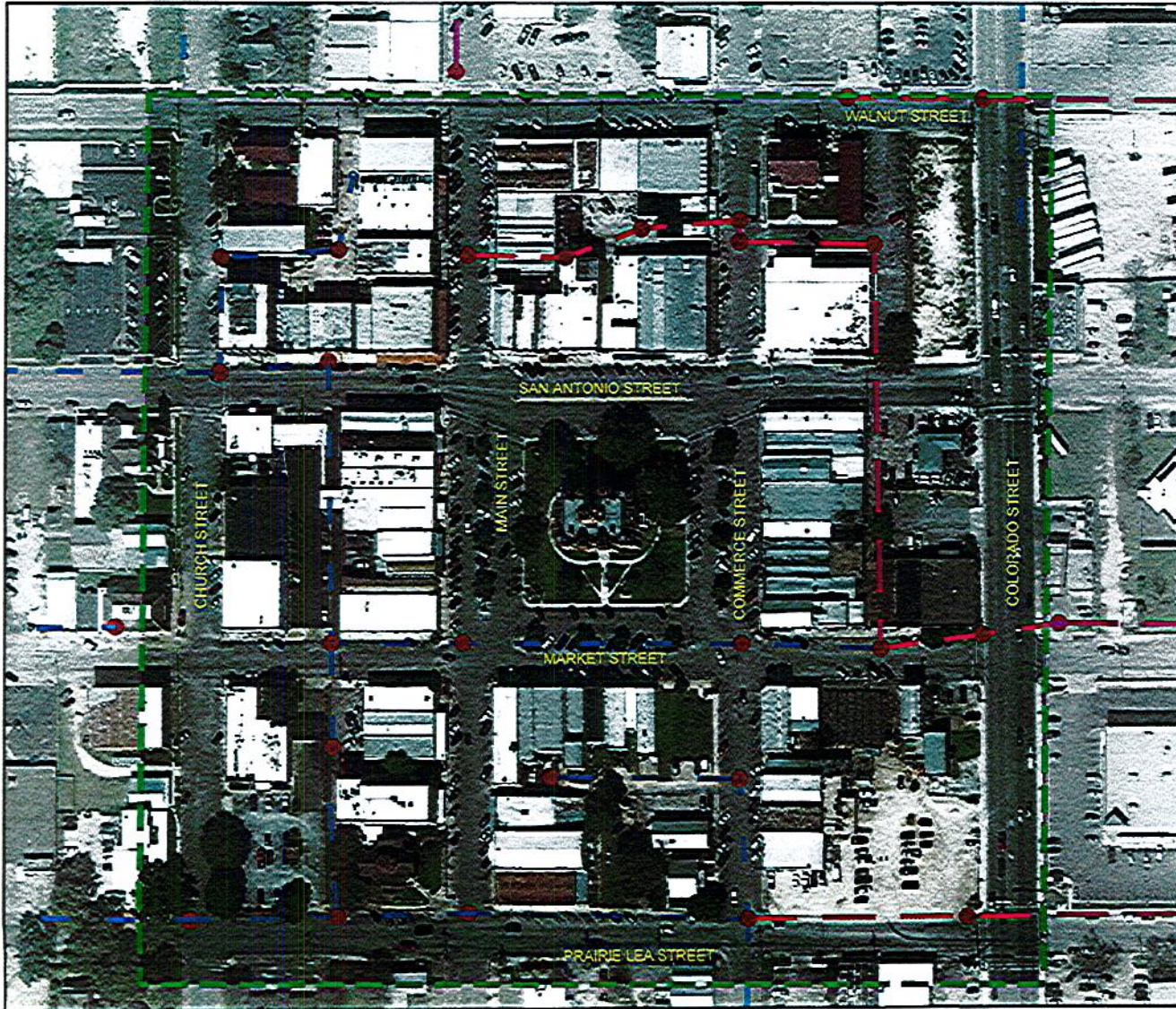
-  DOWNTOWN IMPROVEMENTS LIMITS
-  PROPOSED 8" WATER MAIN

OPINION OF PROBABLE COST		
Item Description	Quantity (LF)	Item Cost
Water Main Replacement	3120	\$650,000.00

COST DOES NOT INCLUDE CONTINGENCIES, ENGINEERING, AND SURVEY.








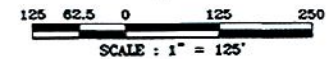
6-9



LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 4 EXISTING WASTEWATER MAINS

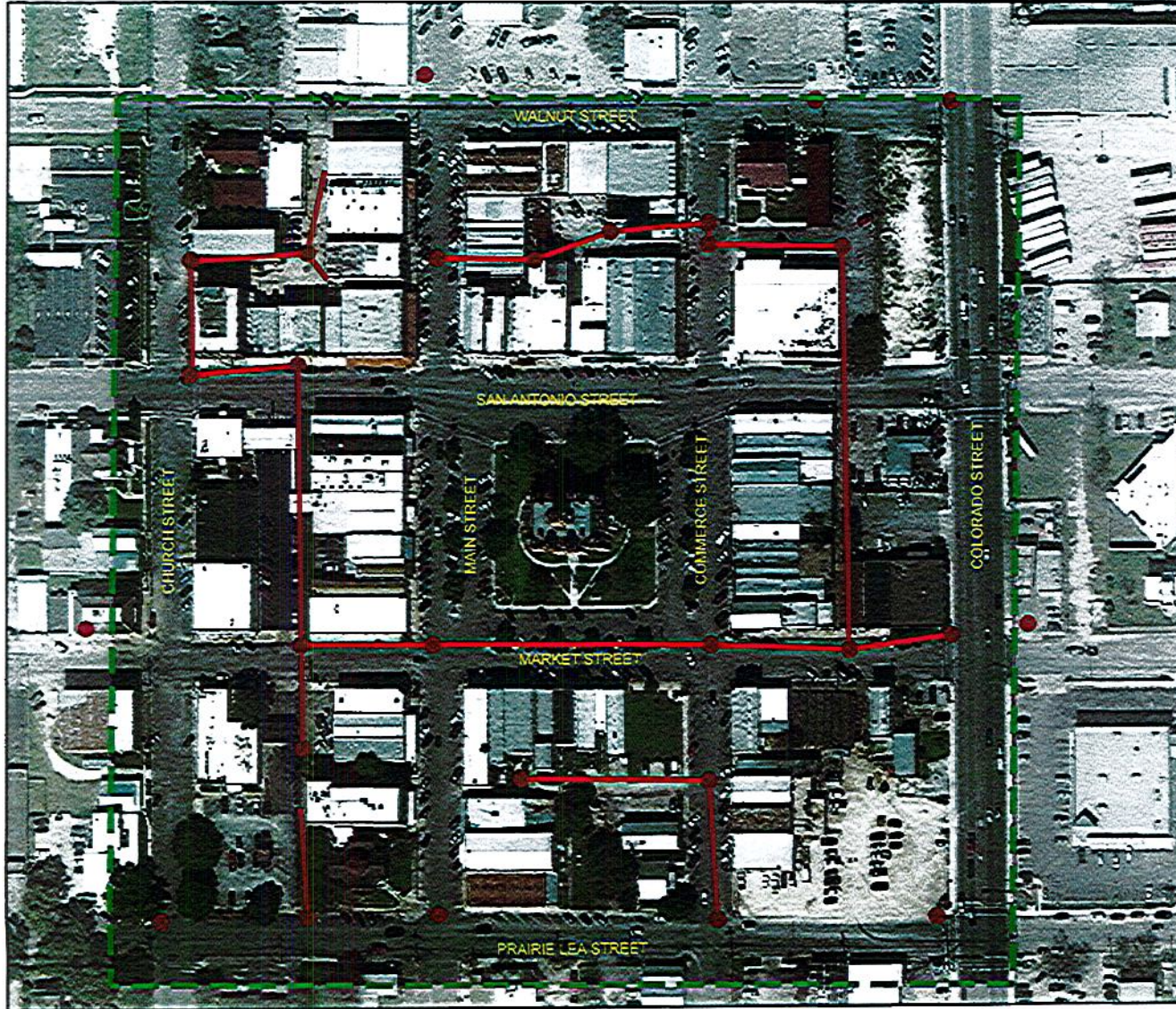
LEGEND:

-  DOWNTOWN IMPROVEMENTS LIMITS
-  8" WASTEWATER LINE
-  6" WASTEWATER LINE
-  CLEAN-OUT
-  MANHOLE



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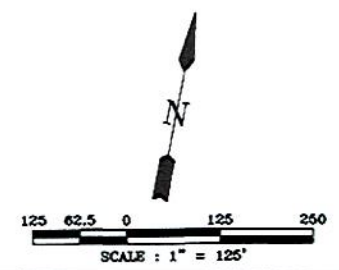
**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 5 PROPOSED WASTEWATER
IMPROVEMENTS**



- LEGEND:**
- - - DOWNTOWN IMPROVEMENTS LIMITS
 - PROPOSED 8" WASTEWATER
 - EXISTING MANHOLE

OPINION OF PROBABLE COST		
Item Description	Quantity (LF)	Item Cost
Wastewater Main Replacement	3300	\$680,000.00

COST DOES NOT INCLUDE CONTINGENCIES, ENGINEERING, AND SURVEY.



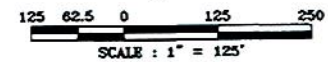
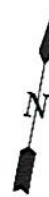
50

**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 6 EXISTING STORM DRAIN**



LEGEND:











- DOWNTOWN IMPROVEMENTS LIMITS
- 8" CMP STORM DRAIN
- 10" CMP STORM DRAIN
- 12" CMP STORM DRAIN
- 18" RCP STORM DRAIN
- 24" CMP STORM DRAIN
- 22" X 36" RCP STORM DRAIN
- - - 30" RCP STORM DRAIN
- ⊠ GRATE INLET
- CURB INLET
- ⊠ COMBINATION INLET



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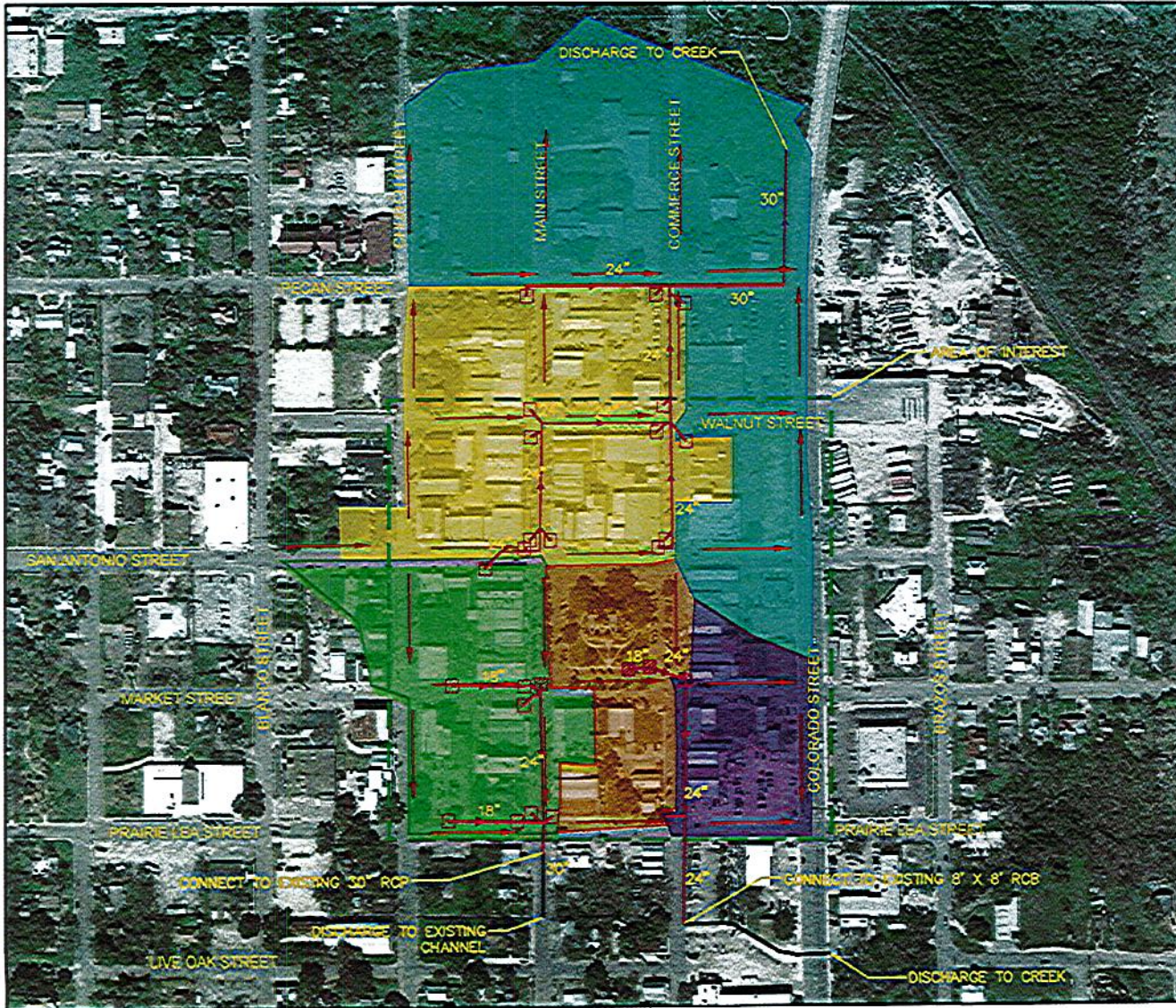
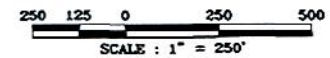
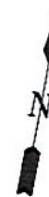
**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 7 PROPOSED STORM DRAIN
IMPROVEMENTS**

LEGEND:

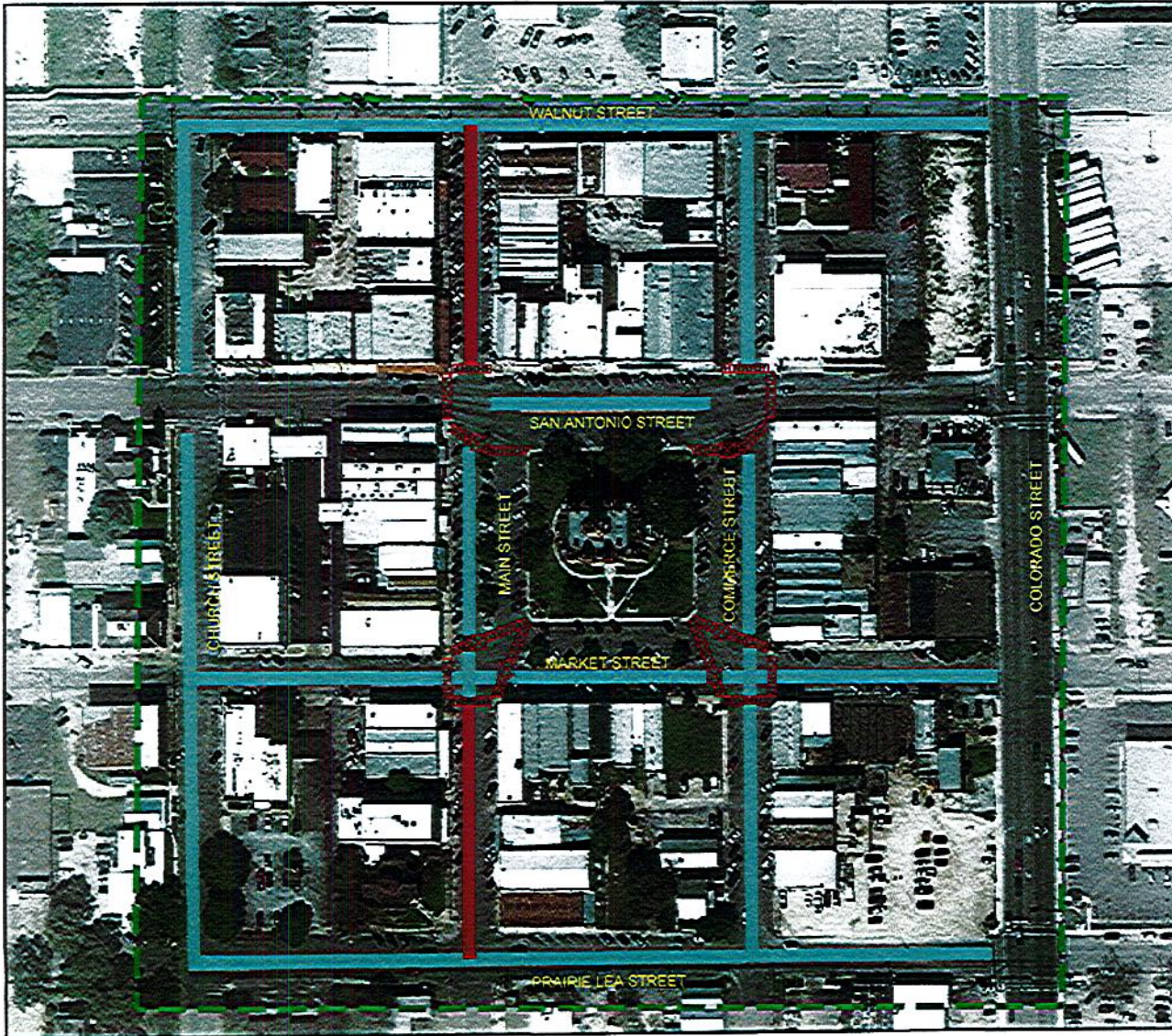
-  PROPOSED CURB INLET
-  PROPOSED GRATE INLET
-  EXISTING STORM DRAIN
-  PROPOSED STORM DRAIN
-  EXISTING FLOW DIRECTION
-  DRAINAGE AREA 1
-  DRAINAGE AREA 2
-  DRAINAGE AREA 3
-  DRAINAGE AREA 4
-  DRAINAGE AREA 5

OPINION OF PROBABLE COST		
Item Description	Quantity (LF)	Item Cost
Storm Drain Improvements	4560	\$1,000,000.00

COST DOES NOT INCLUDE CONTINGENCIES, ENGINEERING, AND SURVEY.

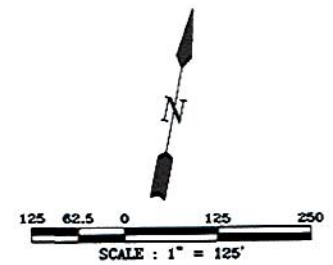


**LOCKHART, TEXAS
DOWNTOWN IMPROVEMENTS PROJECT
MAP 8 PROPOSED STREET
IMPROVEMENTS**



- LEGEND:**
- DOWNTOWN IMPROVEMENTS LIMITS
 - PROPOSED 3" MILL & OVERLAY
 - PROPOSED RECONSTRUCTION
 - PROPOSED CROSSWALK
 - PEDESTRIAN REFUGE

OPINION OF PROBABLE COST		
Item Description	Quantity (LF)	Item Cost
Street Reconstruction/Paving	10665	\$1,400,000.00
COST DOES NOT INCLUDE CONTINGENCIES, ENGINEERING, AND SURVEY.		



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APPENDIX B

OPINION OF PROBABLE CONSTRUCTION COSTS

Engineer's Opinion of Probable Construction Costs

	Description	UNITS	Total	Unit Price	Subtotal	
Storm Sewer Improvements	Remove 22" x 36" RCP	LF	0	\$50.00	\$0.00	
	Remove 36" CMP	LF	60	\$50.00	\$3,000.00	
	Remove 24" RCP	LF	180	\$50.00	\$9,000.00	
	Remove 18" RCP	LF	0	\$50.00	\$0.00	
	Remove 12" CMP	LF	70	\$50.00	\$3,500.00	
	Remove 10" RCP	LF	0	\$50.00	\$0.00	
	Remove 8" RCP	LF	0	\$50.00	\$0.00	
	Remove Grate Inlet	EA	1	\$50.00	\$50.00	
	Install Standard 10' Curb Inlet	EA	16	\$4,500.00	\$72,000.00	
	Install Standard 5' Curb Inlet	EA	7	\$4,000.00	\$28,000.00	
	Gate Inlet	EA	3	\$3,500.00	\$10,500.00	
	Junction Box	EA	6	\$4,000.00	\$24,000.00	
	Install 36" RCP	LF	0	\$172.00	\$0.00	
	Install 30" RCP	LF	840	\$155.00	\$130,200.00	
	Install 24" RCP	LF	2,540	\$150.00	\$381,000.00	
	Install 21" RCP	LF	0	\$145.00	\$0.00	
	Install 18" RCP	LF	1,180	\$140.00	\$165,200.00	
	Install 12" RCP	LF	0	\$130.00	\$0.00	
	Connect to Ex Storm Sewer	EA	0	\$1,300.00	\$0.00	
	Construct Outfall	EA	0	\$3,900.00	\$0.00	
	OSHA Trench Protection	LF	4,550	\$2.00	\$9,100.00	
	Street Repair	LF	4,550	\$35.00	\$159,250.00	
	Storm Sewer Improvements Total =					\$1,000,000.00
	Water Main Improvements	Install 8" Water Main	LF	3,120	\$50.00	\$156,000.00
		Install 8" Water Main (By City)	LF	1,220		\$0.00
Install 6" Water Main		LF	0	\$44.00	\$0.00	
Install 2" Water Main		LF	0	\$30.00	\$0.00	
Connect to Ex 8"		EA	7	\$4,000.00	\$28,000.00	
Connect to Ex 6"		EA	0	\$3,500.00	\$0.00	
Connect to Ex 2"		EA	2	\$3,000.00	\$6,000.00	
Fire Hydrant		EA	13	\$4,100.00	\$53,300.00	
Install 8" Gate Valve		EA	8	\$2,500.00	\$20,000.00	
Install 6" Gate Valve		EA	0	\$1,045.00	\$0.00	
Fittings		TDN	10	\$7,000.00	\$70,000.00	
2" Water Services		EA	81	\$2,150.00	\$174,150.00	
3/4" Water Services		EA	12	\$2,000.00	\$24,000.00	
Remove Fire Hydrant		EA	13	\$1,000.00	\$13,000.00	
OSHA Trench Protection		LF	3,120	\$2.00	\$6,240.00	
OSHA Trench Protection (CITY)		LF	1,217		\$0.00	
Street Repair (CITY)		LF	1,217		\$0.00	
Street Repair	LF	2,834	\$35.00	\$99,190.00		
Water Main Improvements Total =					\$650,000.00	
Wastewater Improvements	8" Sanitary Sewer	LF	3,300	\$80.00	\$264,000.00	
	6" Sanitary Sewer	LF	0	\$56.00	\$0.00	
	Manhole	EA	21	\$4,500.00	\$94,500.00	
	Connect to Existing 6"	EA	2	\$1,500.00	\$3,000.00	
	Connect to Existing Manhole	EA	4	\$1,000.00	\$4,000.00	
	Cleanout	EA	2	\$1,000.00	\$2,000.00	
	4" Sewer Services	EA	79	\$2,400.00	\$189,600.00	
	OSHA Trench Protection	LF	3,300	\$2.00	\$6,600.00	
	Street Repair	LF	3,300	\$35.00	\$115,500.00	
Sanitary Sewer Improvements Total =					\$680,000.00	
Street Improvements	3" Mill and Overlay 90' wide (courthouse)	LF	833	\$300.00	\$249,900.00	
	3" Mill and Overlay 50' wide	LF	4,855	\$165.00	\$801,075.00	
	Main Street Reconstruction 55' wide	LF	498	\$500.00	\$249,000.00	
	Cross walk Pavers	SF	4,479	\$6.50	\$29,113.50	
	Adjust Manhole Tops	EA	19	\$1,200.00	\$22,800.00	
	Adjust Water Valves	EA	40	\$800.00	\$32,000.00	
Storm Water Pollution Plan	LS	1	\$15,000.00	\$15,000.00		
Street Improvements Total =					\$1,400,000.00	

Construction Cost = \$3,730,000.00
 Contingencies (15%) = \$560,000.00
 Engineering/Surveying (15%) = \$560,000.00
PROJECT COST = \$4,850,000.00

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