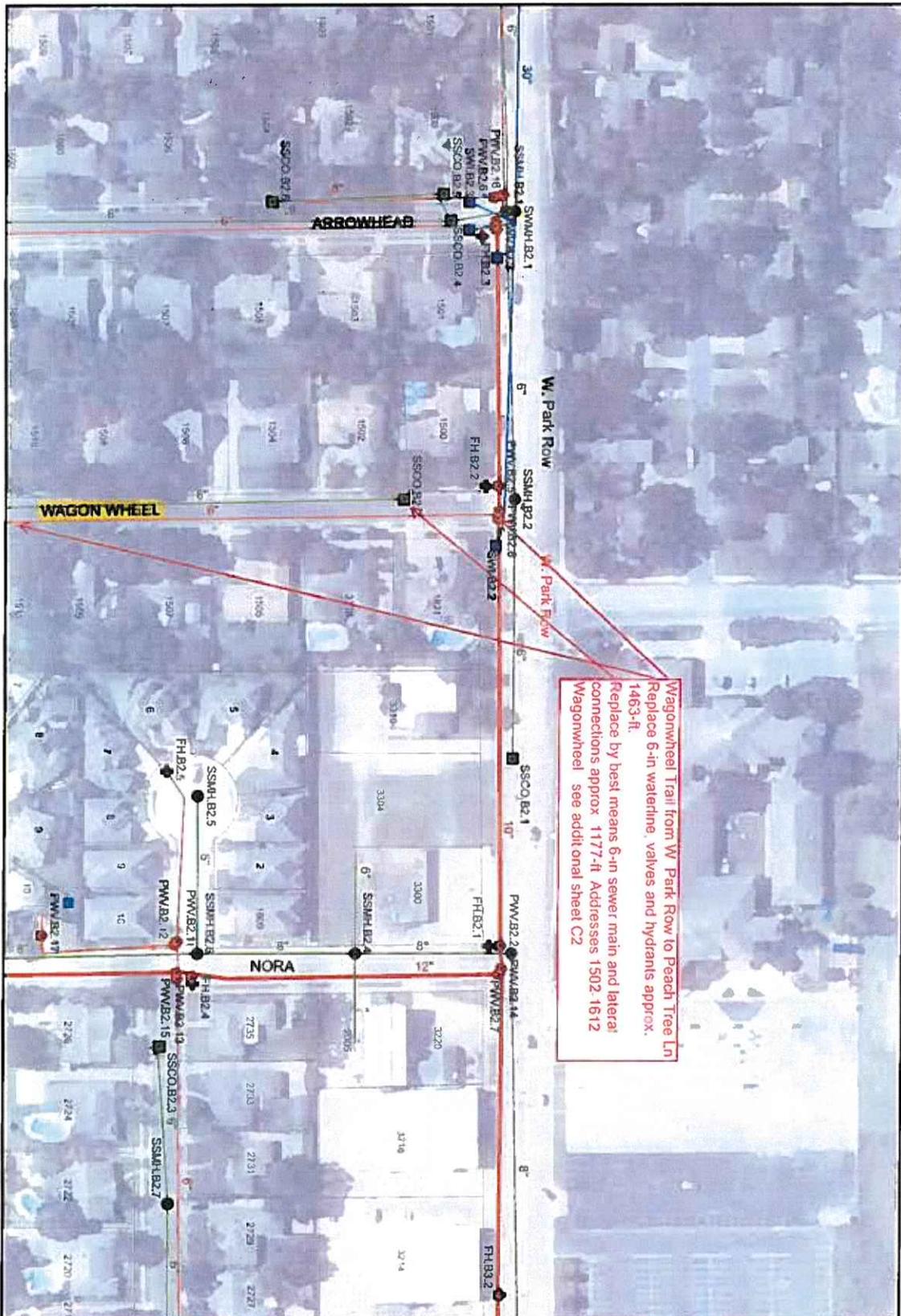


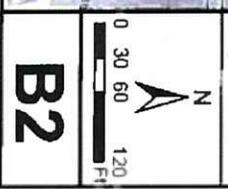
# EXHIBIT "A"

Page Count: 11 sheets

- (2) Map pages B2 and C2 with annotations for the Wagonwheel waterline and Wagonwheel sewer line.
- (9) Structural review and photos of the Wagonwheel Bridge



Wagonwheel Trail from W Park Row to Peach Tree Ln  
 Replace 6-in waterline, valves and hydrants approx. 1463-ft.  
 Replace by best means 6-in sewer main and lateral connections approx. 1177-ft. Addresses 1502-1612  
 Wagonwheel see additional sheet C2

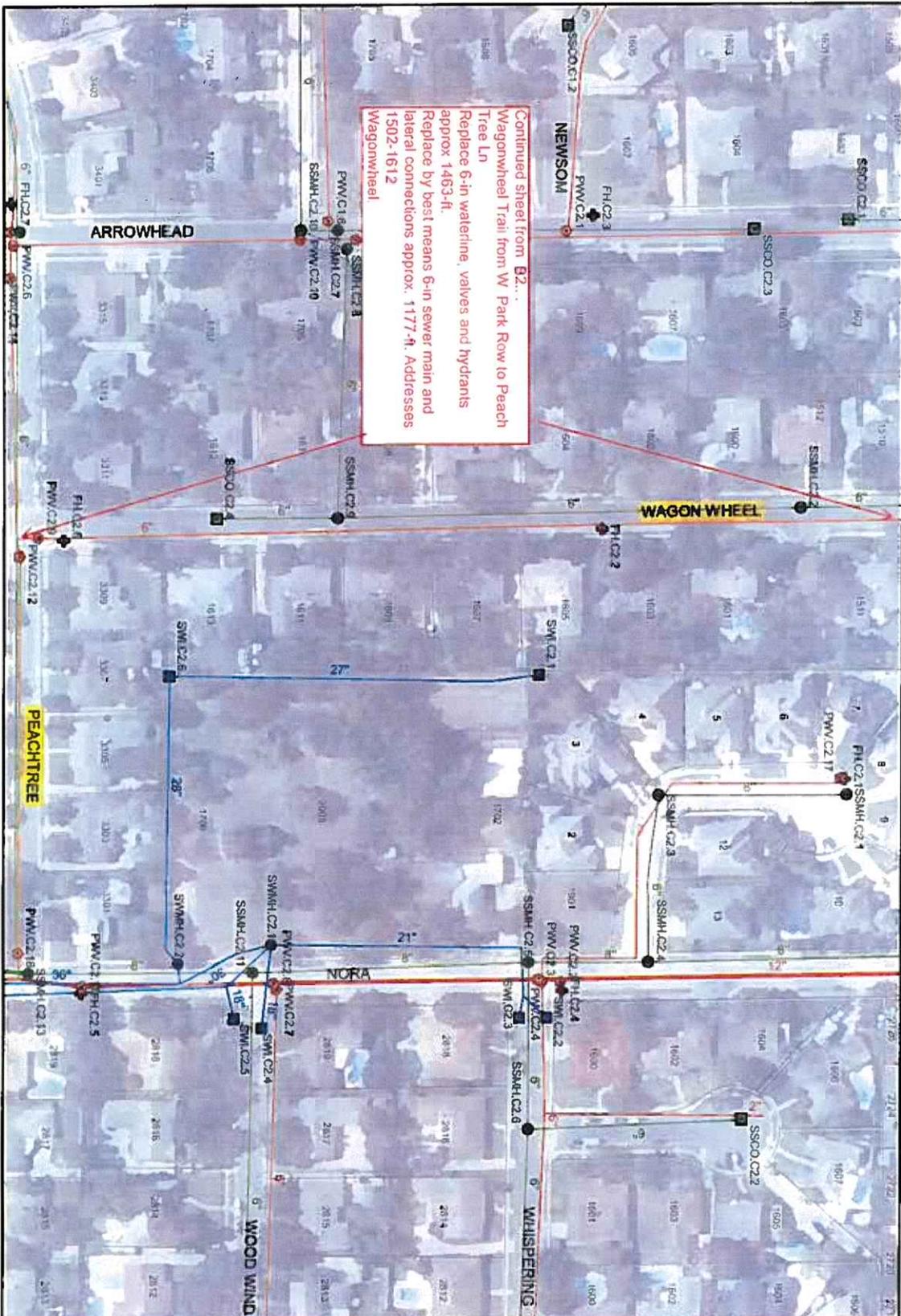


**B2**

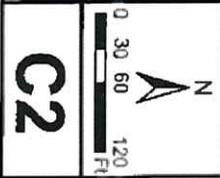
**TOWN OF PANTEGO**  
 September 2011



Legend		
● Sanitary Sewer Manholes	● Storm Sewer Manholes	⊕ Hydrants
■ Sanitary Sewer Cleanouts	■ Storm Sewer Inlets	⊗ Water Valves
Sanitary Sewer Lines		■ Wells
— 6"	— 8"	⊕ Elevated Storage Tank
— 10"	— 12"	⊕ Ground Storage Tank
— 15"	— 18"	
— 24"	— 30"	
Water Lines		
— < 8"		
— 8"		
— > 8"		



Continued sheet from B2...  
 Replace 6-in waterline, valves and hydrants  
 approx. 1463-ft.  
 Replace by best means 6-in sewer main and  
 lateral connections approx. 1177-ft. Addresses  
 1502-1612  
 Wagonwheel



**TOWN OF PANTEGO**  
 September 2011



Sanitary Sewer Lines		Water Lines	
●	Sanitary Sewer Manholes	●	Storm Sewer Manholes
■	Sanitary Sewer Cleanouts	■	Storm Sewer Inlets
—	Sanitary Sewer Lines	—	Storm Sewer Lines
—	Channels	—	Water Lines
—		—	Water Valves
—		—	Wells
—		—	Elevated Storage Tank
—		—	Ground Storage Tank

# Falkofske Engineering, Inc.

722 North Fielder  
Arlington, Texas 76012-3158

*Consulting Structural Engineers*

(817) 261-8100  
Fax (817) 261-0800

May 19, 2014

Mr. Chad Joyce, CBO  
Community Development Director  
Town of Pantego  
1614 S. Bowen Road  
Pantego, Texas 76013

Re: Structural Review of Bridge and Abutment Walls at Wagonwheel  
Wagonwheel Bridge  
Wagonwheel Trail Bridge between La Costa Ct. and Country Club Rd.  
Pantego, Texas  
Falkofske Engineering Job No. 170.14  
Texas Registered Engineering Firm #F-4038

Dear Mr. Joyce:

On April 17, 2014 I visited the above noted site at the request of Ms. Joyce Stanton, P.E. of Di Sciuolo-Terry, Stanton & Associates, Inc. I was accompanied on site by Ms. Stanton and by Mr. Chad Joyce, CBO of the Town of Pantego. The purpose of the visit was to review the condition of the Wagonwheel Trail Bridge located between La Costa Court and County Club Road. It is my understanding that it is planned to re-top this bridge and address any long-term structural concerns with the bridge and abutment walls.

## Observations

- In my review of the bridge I did not note any signs of structural distress. The bridge in general looks to still be serviceable in my professional opinion.
- I noted some spalling of concrete and wear at the intersection of the stem walls and the slab supporting the bridge.
- I noted some damage to the concrete at the intersection of the wing walls on the upstream side.
- I noted some rebar exposed and heavily rusted at the intersection of the upstream wing walls and the bridge.
- I noted a crack on the downstream wing wall on the north.
- I noted weep holes on the downstream wing walls were clogged.
- I noted weep holes on the downstream wing walls were weeping water.
- I did not note any signs of sliding of the wing walls.
- I did not note any signs of overturning of the wing walls.
- I noted the sidewalk had settled fairly significantly where it adjoins the bridge, especially on the north side.
- I noted voids under the sidewalk where it has settled and cracked.

## Conclusions and Recommendations:

- Based on my site review I believe the settlement of the soil and sidewalk is an erosion issue. I believe water is getting in behind the upstream wing walls during high water events and traveling behind the bridge wall and weeping through the weep holes on the downstream wing walls. Water is getting behind the upstream wing walls through the cracks and damage at the intersection of the wing wall and bridge, see the attached pictures. I anticipate that soil has been eroded even under the road at the intersection of the road and the bridge, but the structural capabilities of the road have limited the amount of cracking here. However, some cracking of the road is occurring at this location as well.

# Falkofske Engineering, Inc.

Consulting Structural Engineers

Mr. Chad Joyce, CBO  
Wagonwheel Bridge  
Pantego, Texas

May 19, 2014

Page 2

I recommend opening up a portion of the road just behind the bridge wall to expose the condition of the soil here. It is likely that this portion of road will have to be removed and the soil replaced in this area before re-topping the bridge. I would also recommend the upstream wing walls be removed and replaced, with special attention paid to the connection detail of the existing bridge wall and the new wing walls. The weep holes for the downstream wing walls should be cleaned.

- The intersection of the stem walls and foundation slab under the bridge should be waterproofed. This should be done to protect the rebar that connects the walls to the foundation slab. While this rebar could not be seen I did not note any signs that suggested it has been compromised. At this time it should be protected for long-term performance.
- The downstream wing walls seemed to be performing as originally intended. At this time I do not see any reason to replace these walls. I did note a crack in the face of one of these walls this crack seemed cosmetic in nature and may be repaired if desired.

If there are any further questions with regards to this matter, please call.

Sincerely,

FALKOFSKE ENGINEERING, INC.



5-19-14

Aaron Berkes, M.C.E., P.E.

AMB:TJW

Attachments: Pictures from site visit on 04-17-14



Reviewed By:



Thomas Whitecotton, M.C.E., P.E.

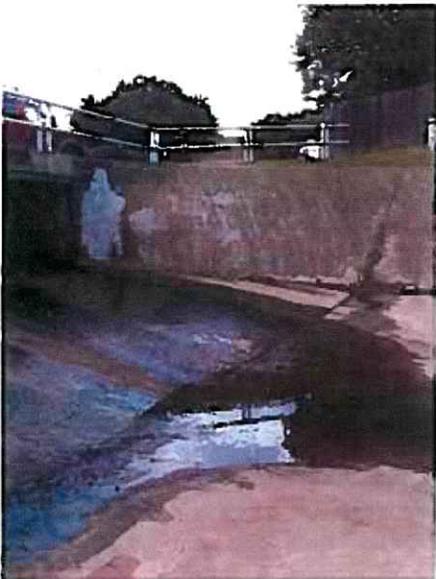
**Pictures from Field Review 4-17-14**



Picture 1 – A picture of the downstream wing wall on the north. Note the cosmetic crack near the bridge.



Picture 3 – A picture of one of the clogged weep holes.



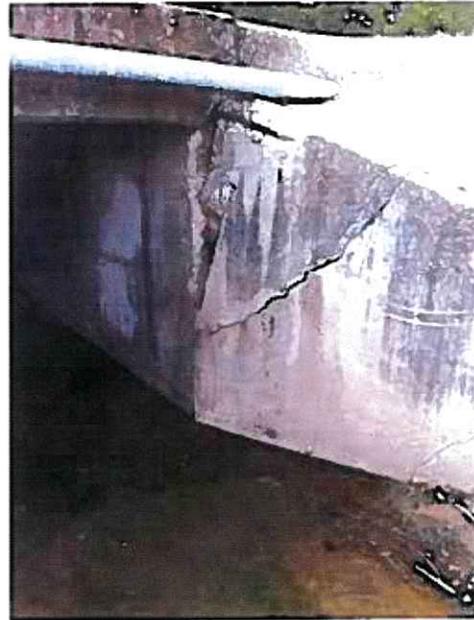
Picture 2 – A picture of the downstream wing wall on the south side.



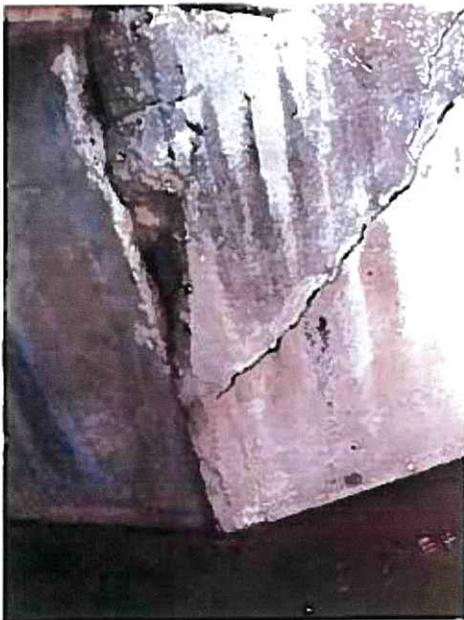
Picture 4 – A picture of the stem wall connection to the slab.



Picture 5 – A picture of the stem wall connection to the slab.



Picture 7 – Another picture of the upstream wingwall on the north side.



Picture 6 – A picture of the upstream wingwall on the north connection to the bridge. Note the significant spalling and damage.



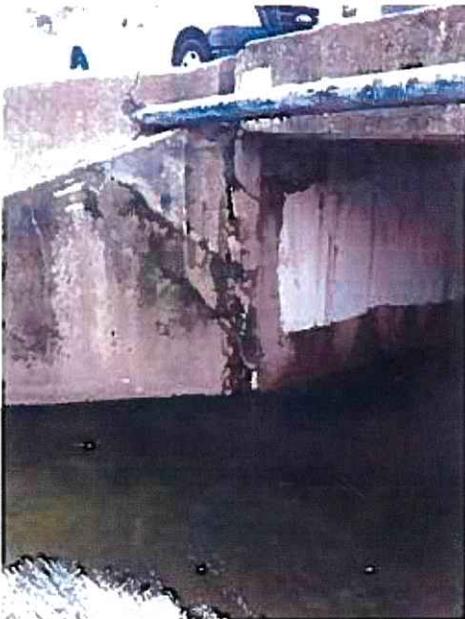
Picture 8 – Another picture of the upstream wingwall on the north side. Note the completely rusted rebar.



Picture 9 – A picture of the upstream wing wall on the south at the connection to the bridge.



Picture 11 – A picture of one of the areas where soil has eroded under the sidewalk.



Picture 10 – Another picture of the upstream wing wall on the south at the connection to the bridge.



Picture 12 – A picture of the sidewalk showing the settlement.



Picture 13 – Another picture of one of the areas where soil has eroded under the sidewalk.



Picture 15 – Another picture of the drive along where soil is eroding. Note the crack in the pavement along this intersection.



Picture 14 – A picture of the drive along where soil is eroding. Note the crack in the pavement along this intersection.



Address **1809 Wagonwheel Trail**

Address is approximate

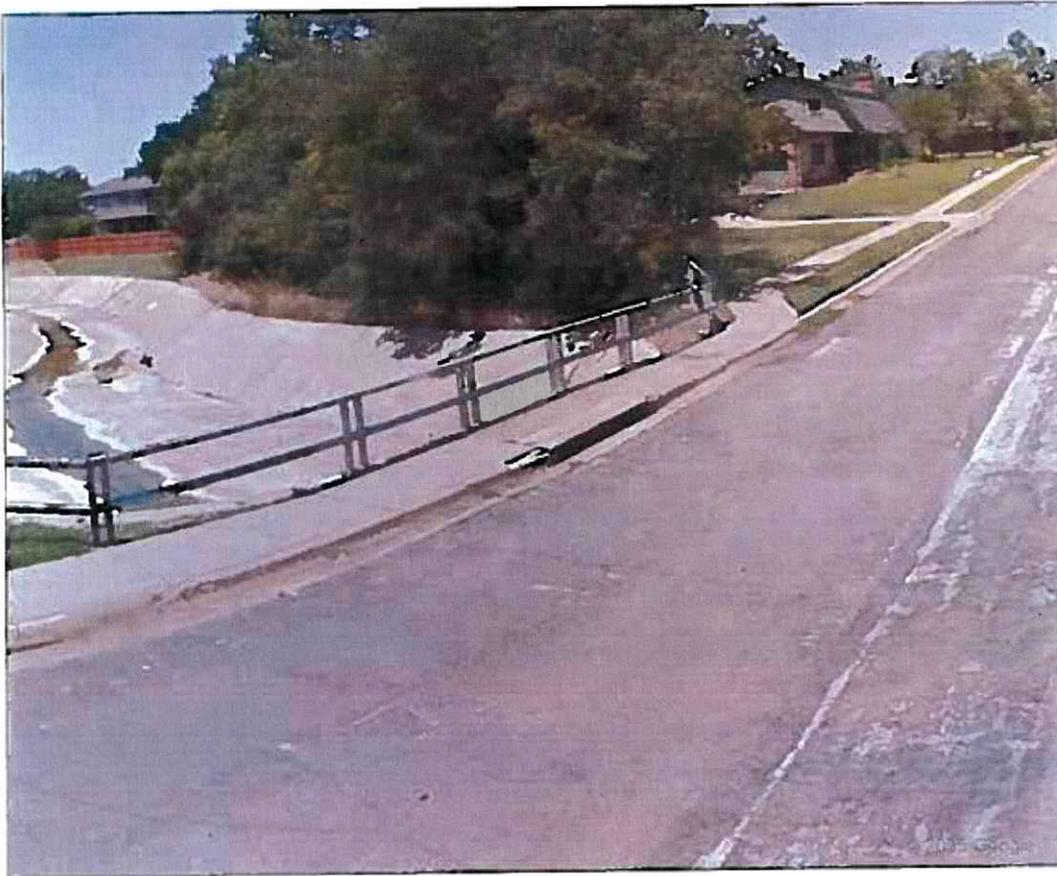
Residential area: **Wagonwheel Bridge Rehabilitation**





Address **Wagonwheel Trail**

Address is approximate





Address Wagonwheel Trail

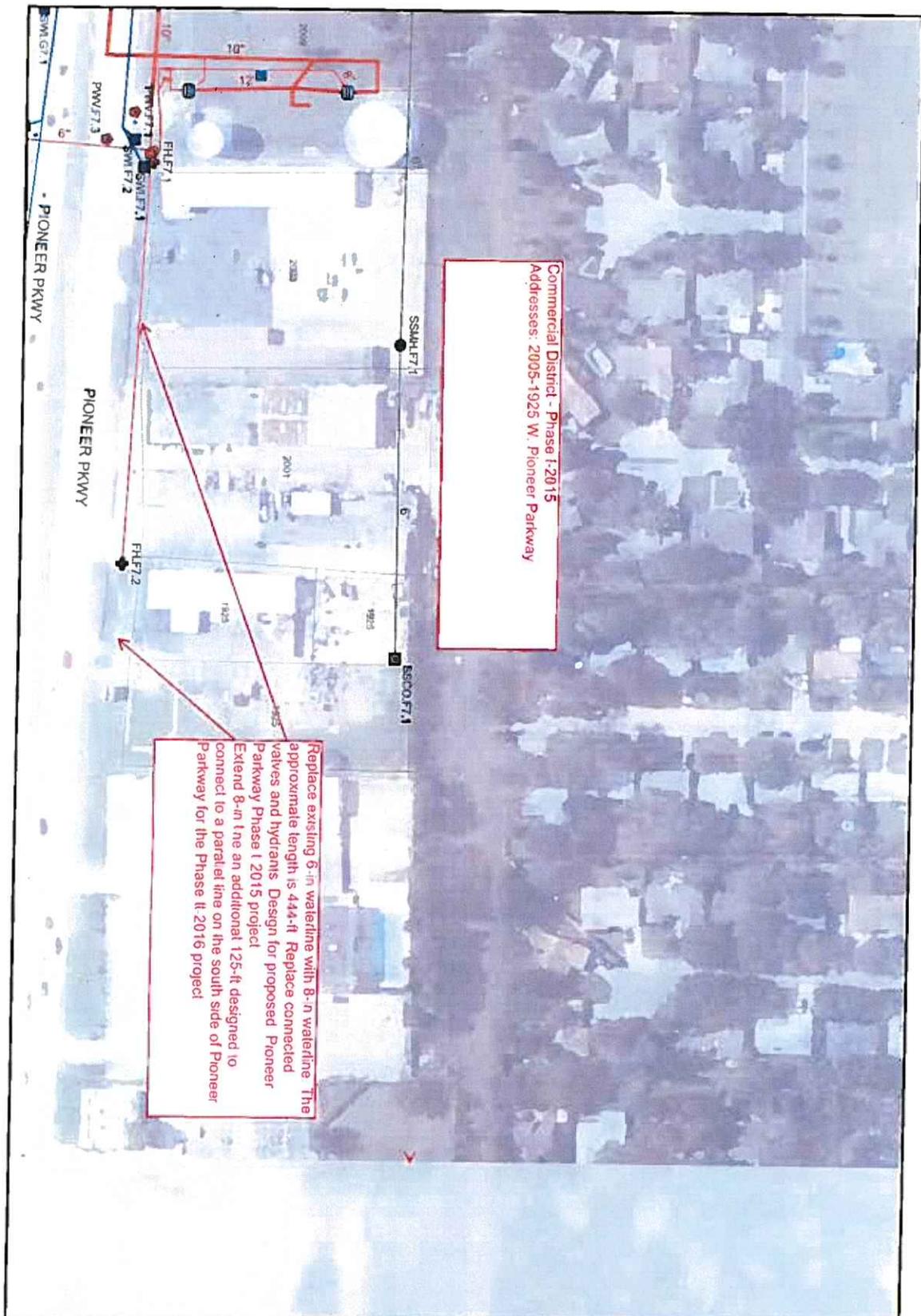
Address is approximate



# EXHIBIT "B"

Page Count: 1 sheet

- Map pages F7 with annotations for the Phase I-2015 waterline replacement and reference to engineering design for the Phase II-2016 waterline installation/connection.



Commercial District - Phase I: 2015  
 Addresses: 2005-1925 W. Pioneer Parkway

Replace existing 6-in wastewater with 8-in wastewater. The approximate length is 444-ft. Replace connected valves and hydrants. Design for proposed Pioneer Parkway Phase I 2015 project.  
 Extend 8-in line an additional 125-ft designed to connect to a parallel line on the south side of Pioneer Parkway for the Phase II: 2016 project.

	<p><b>TOWN OF PANTEGO</b> September 2011</p>	<p><b>Legend</b></p>	
		<p><b>Sanitary Sewer Lines</b></p> <ul style="list-style-type: none"> <li>● Sanitary Sewer Manholes</li> <li>■ Sanitary Sewer Cleanouts</li> <li>— &gt; 8"</li> <li>— &lt; 8"</li> </ul>	<p><b>Water Lines</b></p> <ul style="list-style-type: none"> <li>● Storm Sewer Manholes</li> <li>■ Storm Sewer Inlets</li> <li>— Storm Sewer Lines</li> <li>— Channels</li> <li>— &lt; 8"</li> <li>— &gt; 8"</li> </ul>

**F7**