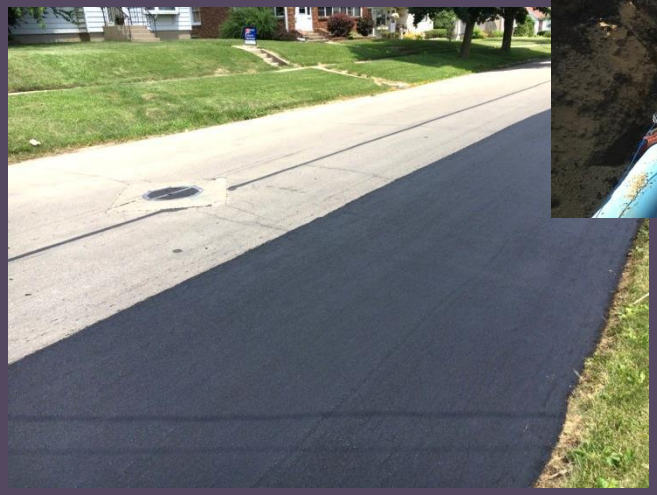
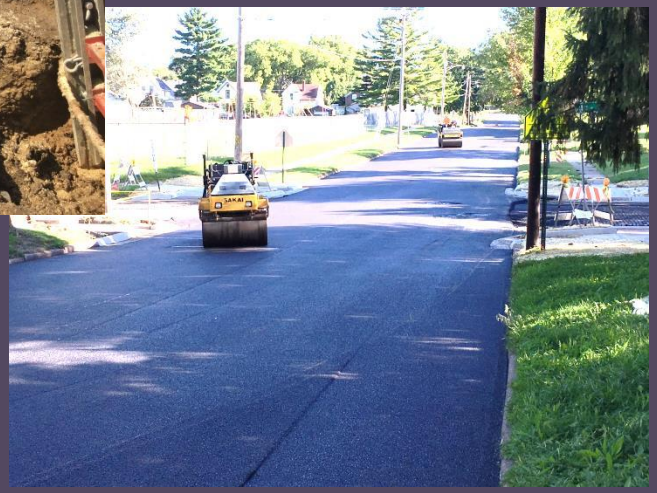
City of Freeport

Transportation & Utility Overview





Current City Stats

Transportation System

- MFT – 90 Local Miles & 26.5 FAU Miles
- STU – 26.5 Miles (requires 20% Match)
- 1 Vehicular & 3 Pedestrian Bridges

Current Programs:

- Crack Sealing
- Microsurfacing
- Mill and Overlay
- Reconstruction
- Patching

Annual $630,00 Funding = 95 Year Life Cycle

Water Distribution

- 137.5 Miles of Main
- 1572 Valves
- 1187 Hydrants
- 6 Wells
- 1 Filtration Plant
- 2 Water Towers

Sewer Collection

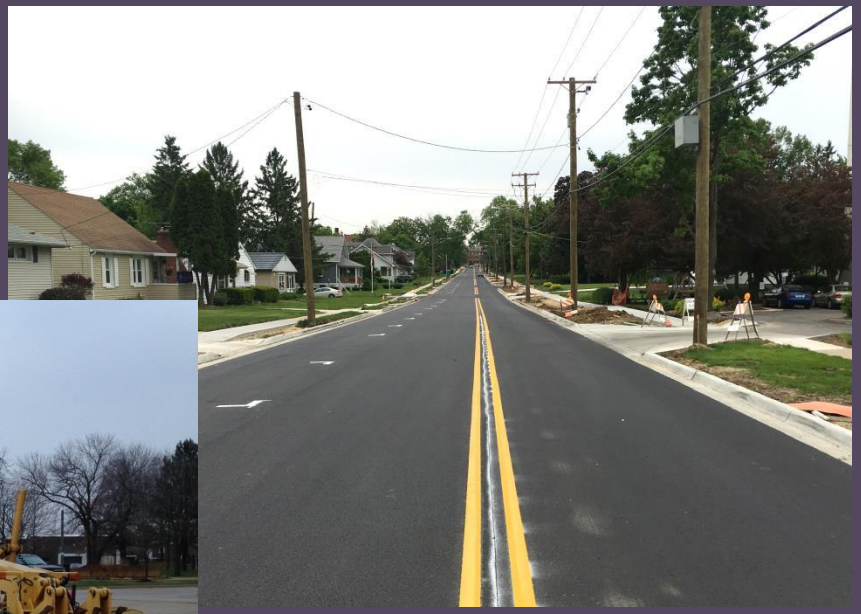
- 126.5 Miles of Sewer
- 2827 Manholes
- 9 Lift Stations
- 1 Treatment Plant

Current Programs:

- Completing Phase B
- Completing Big Four
- Responding to Emergencies
- Replacing Equipment

Annual $538,000 Funding = 235 Year Replacement of Existing Depreciated Assets

Transportation



Aging Roadways Waste Money

- Damage to public and private vehicles
- Increase accidents
- Reduce Public Works efficiency
- Prolong hazardous winter conditions
- Increase crime and lower investment
- Increase fuel consumption
- Depreciates other routes faster

OVER 10% OF CITY STREETS QUALIFY FOR RECONSTRUCTION

2 BRIDGES IN NEED OF REPLACEMENT

2016 – Year Review

Section No. 16-00000-00-GM

2016 Mill & Overlay Program	
Engineering	$0.00
Construction	$443,462.44
Inspection	$0.00
Testing	$1,655.40
Total Cost	**$445,117.84**
Total Length (FT)	6,934
Cost/FT	$64.19

2016 Crack Sealing Program	
Engineering	$0.00
Construction	$38,532.52
Inspection	$0.00
Testing	$0.00
Total Cost	**$38,532.52**
Total Length (FT)	24,959
Cost/FT	$1.54

2016 Micro-Surfacing Program	
Engineering	$0.00
Construction	$103,490.90
Inspection	$0.00
Testing	$0.00
Total Cost	**$103,490.90**
Total Length (FT)	11,457
Cost/FT	$9.03

Covered roughly 73 Blocks or 7.2% of the City

Total = $587,141.26 of which $432,485.81 came from MFT

Transportation – 50 Year Plan

MFT/City Revenue	**$ 72,350,000**	**% of Budget**
Reconstruct 15 Miles of Street	$ 23,100,000	32.0%
Replace Hancock Ave. Bridge	$ 5,700,000	7.9%
Replace Gladewood Bridge	$ 1,600,000	2.2%
Mill & Overlay 55 Miles of Street	$ 23,400,000	32.3%
Micro-Surface the entire City	$ 6,600,000	9.1%
Crack Seal the entire City	$ 750,000	1.0%
Patching	$ 3,650,000	5.0%
Contingency	$ 2,150,000	3.0%
Engineering	$ 5,400,000	7.5%
Total Cost	**$ 72,350,000**	**100%**

Transportation– 5 Year Plan

MFT/City Revenue	**$ 7,235,000**	**% of Budget**
Reconstruct 1.5 Miles	$ 2,310,000	32.0%
Mill & Overlay 5.5 Miles	$ 2,340,000	32.3%
Micro-surface 11.5 Miles	$ 660,000	9.1%
Patching as Needed	$ 250,000	3.5%
Crack Sealing 10 Miles	$ 75,000	1.0%
Public Works Materials	$ 115,000	1.6%
Bridge Replacements	$ 730,000	10.0%
Engineering	$ 540,000	7.5%
Contingency	$ 215,000	3.0%
Total Cost	**$ 7,235,000**	**100%**

Requires $607,000 in additional annual funding

Water & Sewer Utility

Aging Utilities Waste Money

- Additional pumping & treating expenses
- Emergency repairs and overtime
- Accelerated depreciation on existing infrastructure
- Loss of service to customers
- Damage to other utilities and public and private property

AVERAGE WATER LOSS = 23%

INFLOW / INFILTRATION = 137%

2016 – Year Review

Phase B Water Improvement Project

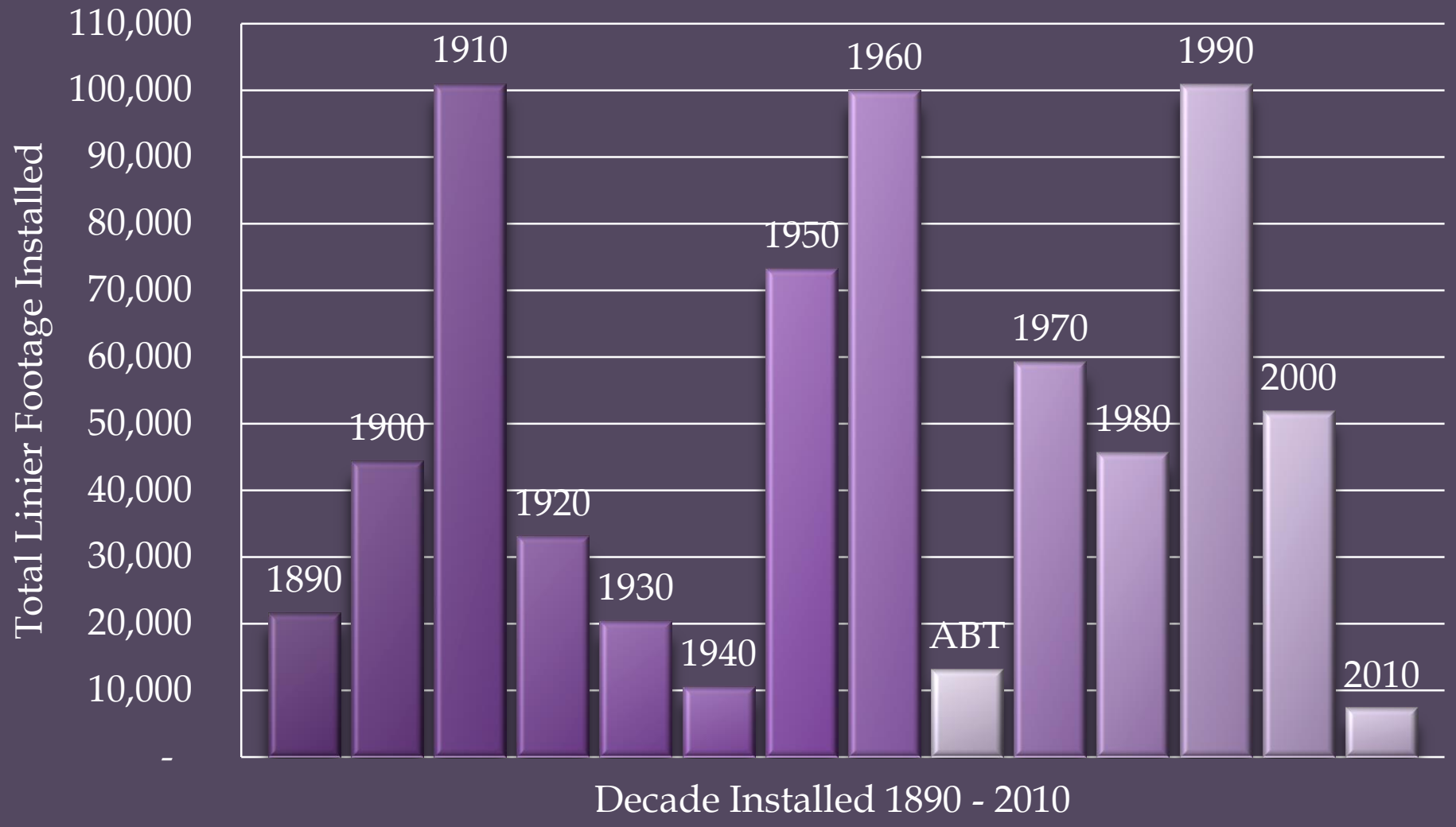
Contract 1		Contract 2		Contract 3	
Engineering	$102,632.64	Engineering	$172,026.3	Engineering	$308,481.06
Construction	$1,233,990.87	Construction	$1,165,802.27	Construction	$3,711,395.66
Inspection/Testing	$40,953.59	Inspection/Testing	$68,643.80	Inspection/Testing	$123,093.46
% Complete	98%	% Complete	98%	% Complete	95%
Total Cost	**$1,377,577.10**	**Total Cost**	**$1,406,472.37**	**Total Cost**	**$4,142,970.17**
Total Length (FT)	5,174.5	Total Length (FT)	8,651.5	Total Length (FT)	15,538.5
Cost/FT	$266.22	Cost/FT	$162.56	Cost/FT	$266.62

Replaced 5.6 Miles of Watermain and 432 Water Services

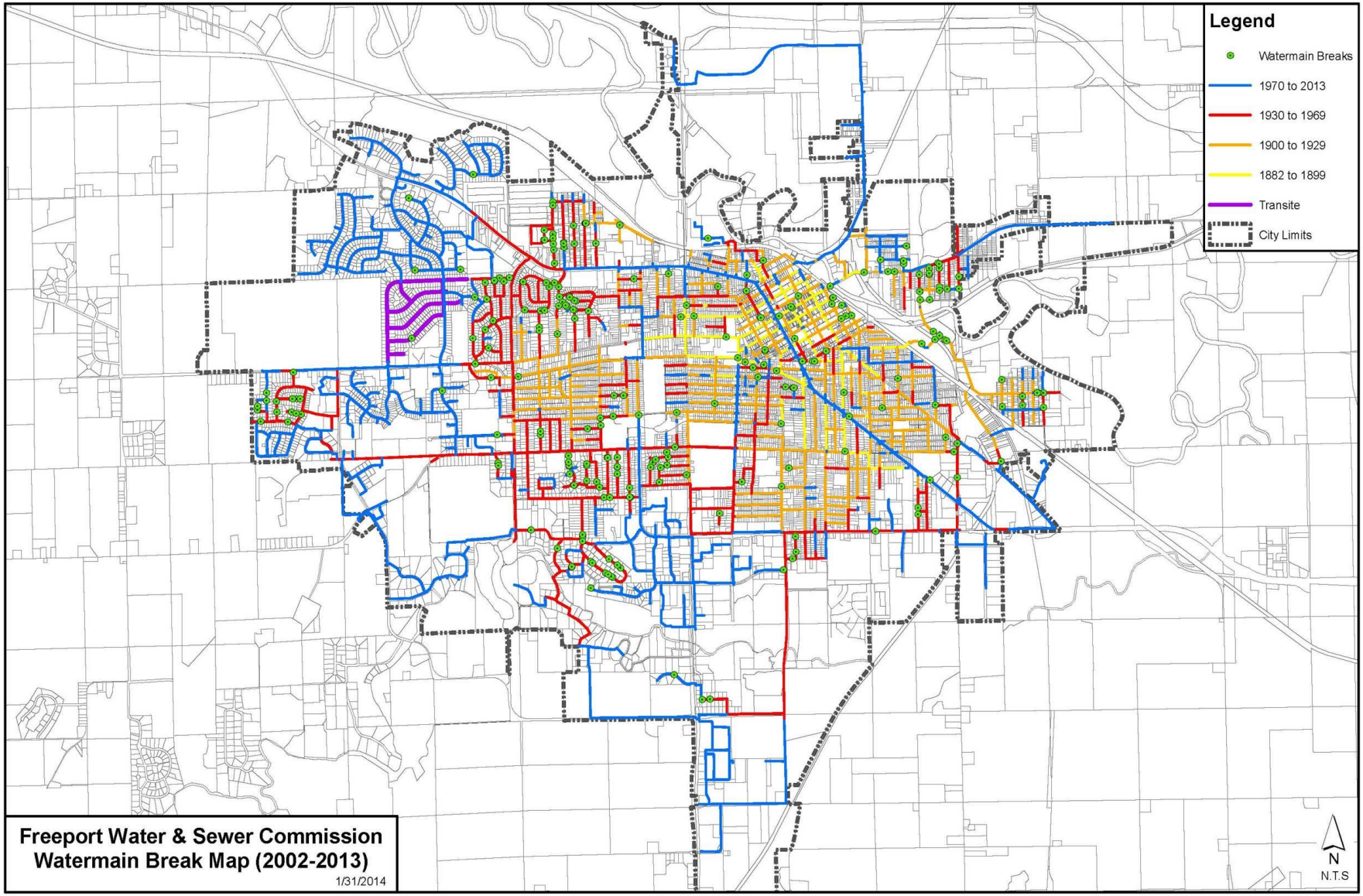
Total = $7,169,714.49 of $8,750,000 or 18.1% Under Budget

*Total includes PRV install project not shown

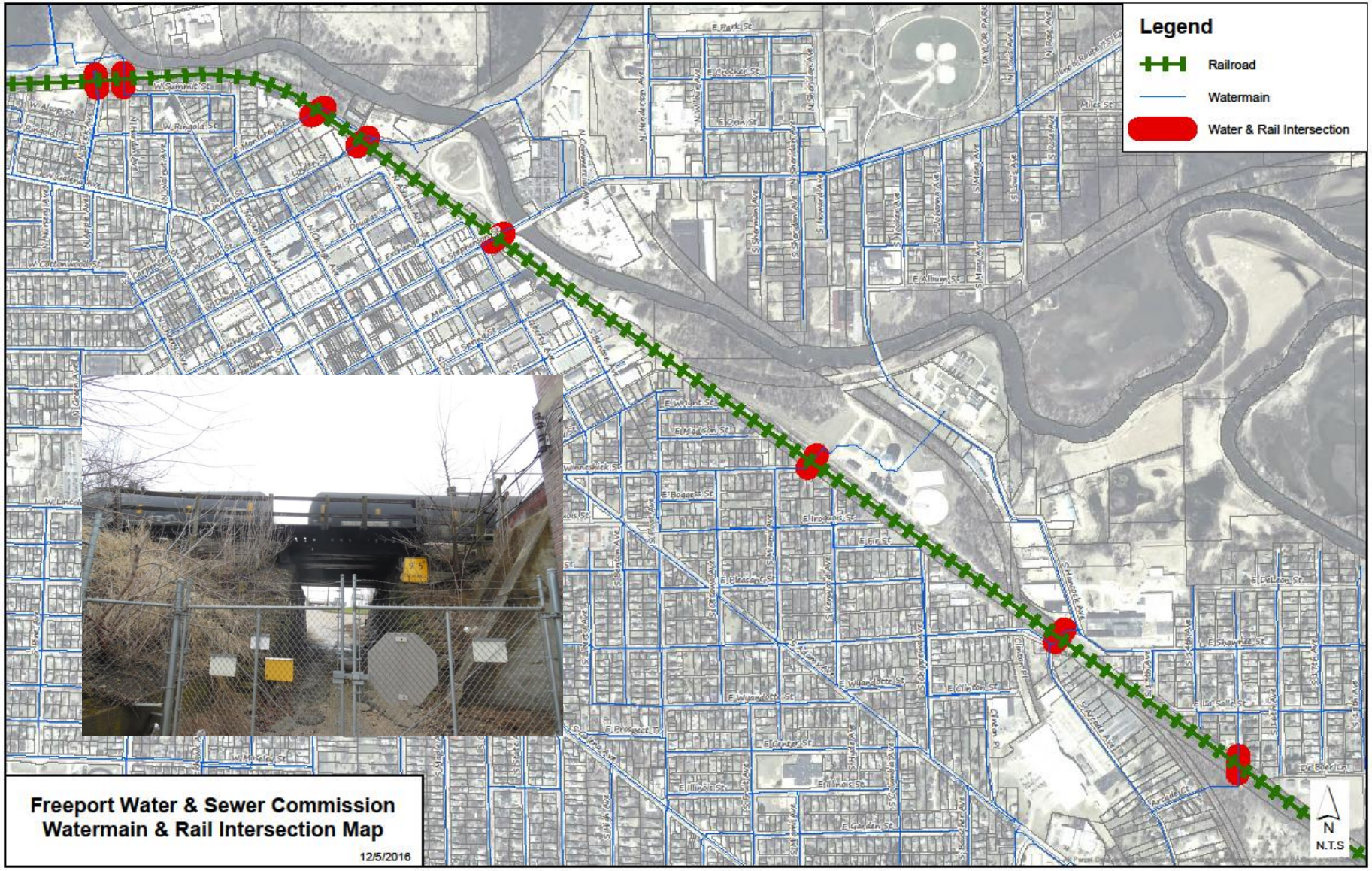
Generations of Freeport Watermain & Life Expectancy



Total Watermain 50 Years or Older = 76.7 of 137.5 Miles (55%)



255 Watermain Breaks over 10 Years



7 Locations for Watermain Failure at Rail Crossings

Water & Sewer – 30 Year Plan

CIP Revenue	$ 155,750,000	% of Budget
Replace 87 Miles of Watermain	$ 75,000,000	48.2%
Line 25 Miles of Sanitary Sewer	$ 25,500,000	16.4%
Replace 3000 Lead Services	$ 4,000,000	2.6%
Replace 7 Water/Rail Crossings	$ 1,000,000	0.6%
Replace 4.5 Miles of Forcemain	$ 3,000,000	1.9%
Carroll Tank Rehabilitation	$ 750,000	0.5%
New Water Filtration Plant	$ 10,000,000	6.4%
Upgrade Wastewater Plant	$ 10,000,000	6.4%
Equipment/Tech Replacements	$ 15,000,000	9.5%
Engineering	$ 11,750,000	7.5%
Total CIP Cost	**$ 155,750,000**	**100%**

Water & Sewer – 5 Year Plan

CIP Revenue	**$ 23,400,000**	**% of Budget**
Replace 14.5 Miles of Watermain	$ 12,500,000	53.4%
Line 4 Miles of Sanitary Sewer	$ 4,250,000	18.2%
Replace 500 Lead Services	$ 900,000	3.8%
Replace 7 Water/Rail Crossings	$ 1,000,000	4.3%
Replace 4.5 Miles of Forcemain	$ 3,000,000	12.8%
Engineering	$ 1,750,000	7.5%
Total CIP Cost	**$ 23,400,000**	**100%**

$20,710,000 / 11,500 Accounts / 5 Years /
12 months = $30.01 per Month

Summary

- The current funding levels for both Transportation and Water & Sewer are not sustainable and continue to lose ground every year.
- Water & Sewer and City Street projects must be coordinated together to reduce overlapping costs.
- Large one-time projects (BIG Four & Phase B) put additional strain on City staff requiring assistance from private Consultants, whereas smaller annual projects can be coordinated by existing staff with minimal overhead.
- Investments in energy efficiencies and expiring debt service will help offset long-term inflation costs.
- Revenue increases may come from multiple sources, including prioritizing existing revenues, grants, energy efficiency investments, rate increases, user taxes, fines and collections.
- Upgrades are required, the only variables are time and money.

Key Points

- Is our infrastructure a priority worth additional investments?

- Are these plans acceptable or do they need modification?
  - Adjust Time?
  - Adjust Money?

- What is the timeline for moving forward?
  - Every year we wait, we fall further behind
  - Design money needed to front project development