



Neighborhood Reinvestment Project 1:

Sanitary Sewer Collection System Rehabilitation within SE Lake Wellington Area; White Pine & 12th Fairway, French Quarter, Sunset Point, Lakeshore Heights, Channing Villas & Park Place



Proposed Sanitary Sewer System Improvements:

The proposed sanitary sewer system improvements within this project primarily consist of cured in place pipe lining (CIPP), mechanical cleaning, lateral cleaning, lateral repairs and other miscellaneous repairs. The proposed sanitary sewer system improvements have been depicted on the "Proposed Sanitary Sewer Repairs Exhibit" and have been described per phase below:

White Pine & 12th Fairway Area

- The heavy solids within sewer main segment 004086-004085 should be mechanically removed.
- Service Laterals – Several of the service laterals that were inspected were found to have large amounts of grease and traces of sediments in laterals. Due to the high number of laterals observed with heavy grease, we are recommending to clean and video each of the service laterals within this area. Additional improvements such as lateral lining may be required once the laterals are cleaned and assessed. 64 service lateral repairs were included within the cost estimate for this project.

French Quarter

- The heavy tuberculation found within main segment 002048-002021 should be mechanically removed then the pipe segment should be lined with CIPP.
- The fracture / longitudinal crack found in the main should be repaired by CIPP, although the crack could easily be replaced with a spot repair, it appears to be located underneath an FP&L transformer and within the right-of-way of Wellington Trace.
- The ½" PVC pipe in the lateral protruding in the main should be mechanically removed.



Sunset Point

- The tuberculation found within the 25' section of Cast Iron within main segment 075008-075007 should be mechanically removed then the Cast Iron portion of the segment should be lined with CIPP.

Lakeshore Heights

- The corroding DIP/CAS service wyes found with main segment 002031-002030 should be repaired by replacing the service wyes and laterals or CIPP lining of the mains and laterals. T-liners may be considered but need to be confirmed that they cover the entire limits of the corrosive materials with the main and the service wye.

Channing Villas

- The heavy tuberculation found within main segment 004142-004141 should be mechanically removed then the pipe segment should be lined with CIPP.

Park Place

- The DIP/CAS service wyes found to be corroding should be repaired by replacing the service wyes and laterals or CIPP lining of the mains and laterals. T-liners may be considered but need to be confirmed that they cover the entire limits of the corrosive materials with the main and the service wye.
- The lateral located at 11946 Donlin Drive should either be cleaned and lined or replaced. A cleanout will be installed at the right-of-way line.



SE Lake Wellington Area Water and Sewer Condition Assessment
Neighborhood Reinvestment Project 1:
White Pine & 12th Fairway



VILLAGE OF WELLINGTON

Proposed Sanitary Sewer Repairs














Pipe Material (Current Area)
PVC = Polyvinyl Chloride



 KESHAVARZ
ASSOCIATES

Legend

- | | | |
|--|---|--|
|  Lift Station |  Ex. Sanitary Gravity Main |  Proposed Gravity Main Repair (Priority 4) |
|  Ex. Sanitary Force Main |  Ex. Sanitary Gravity Main (To be Lined) |  Proposed Gravity Main Repair (Priority 5) |
|  Ex. Sanitary Manhole |  Ex. Sanitary Gravity Main (Out of Area) |  Proposed Sanitary Lateral Repair (Priority 4) |
|  Ex. Sanitary Manhole (Out of Area) | |  Proposed Sanitary Lateral Repair (Priority 5) |



SE Lake Wellington Area Water and Sewer Condition Assessment
Neighborhood Reinvestment Project 1:
French Quarter



VILLAGE OF WELLINGTON

Proposed Sanitary Sewer Repairs



Pipe Material (Current Area)

CAS = Cast Iron

PVC = Polyvinyl Chloride



KESHAVARZ
ASSOCIATES

Legend

- | | | |
|------------------------------------|---|---|
| Lift Station | Ex. Sanitary Gravity Main | Proposed Gravity Main Repair (Priority 4) |
| Ex. Sanitary Force Main | Ex. Sanitary Gravity Main (To be Lined) | Proposed Gravity Main Repair (Priority 5) |
| Ex. Sanitary Manhole | Ex. Sanitary Gravity Main (Out of Area) | Proposed Sanitary Lateral Repair (Priority 4) |
| Ex. Sanitary Manhole (Out of Area) | | Proposed Sanitary Lateral Repair (Priority 5) |



SE Lake Wellington Area Water and Sewer Condition Assessment
Neighborhood Reinvestment Project 1:
Sunset Point & Lakeshore Heights



VILLAGE OF WELLINGTON

Proposed Sanitary Sewer Repairs



Pipe Material (Current Area)

CAS = Cast Iron

PVC = Polyvinyl Chloride

Legend

- | | | |
|------------------------------------|---|---|
| Lift Station | Ex. Sanitary Gravity Main | Proposed Gravity Main Repair (Priority 4) |
| Ex. Sanitary Force Main | Ex. Sanitary Gravity Main (To be Lined) | Proposed Gravity Main Repair (Priority 5) |
| Ex. Sanitary Manhole | Ex. Sanitary Gravity Main (Out of Area) | Proposed Sanitary Lateral Repair (Priority 4) |
| Ex. Sanitary Manhole (Out of Area) | | Proposed Sanitary Lateral Repair (Priority 5) |



SE Lake Wellington Area Water and Sewer Condition Assessment
Neighborhood Reinvestment Project 1:
Channing Villas



VILLAGE OF WELLINGTON

Proposed Sanitary Sewer Repairs



Pipe Material (Current Area)












CAS = Cast Iron

PVC = Polyvinyl Chloride



 KESHAVARZ ASSOCIATES

Legend

- | | | |
|--|---|--|
|  Lift Station |  Ex. Sanitary Gravity Main |  Proposed Gravity Main Repair (Priority 4) |
|  Ex. Sanitary Force Main |  Ex. Sanitary Gravity Main (To be Lined) |  Proposed Gravity Main Repair (Priority 5) |
|  Ex. Sanitary Manhole |  Ex. Sanitary Gravity Main (Out of Area) |  Proposed Sanitary Lateral Repair (Priority 4) |
|  Ex. Sanitary Manhole (Out of Area) | |  Proposed Sanitary Lateral Repair (Priority 5) |



SE Lake Wellington Area Water and Sewer Condition Assessment
Neighborhood Reinvestment Project 1:
Park Place



VILLAGE OF WELLINGTON

Proposed Sanitary Sewer Repairs



Pipe Material (Current Area)

CAS = Cast Iron

PVC = Polyvinyl Chloride



KESHAVARZ
ASSOCIATES

Legend

- | | | |
|------------------------------------|---|---|
| Lift Station | Ex. Sanitary Gravity Main | Proposed Gravity Main Repair (Priority 4) |
| Ex. Sanitary Force Main | Ex. Sanitary Gravity Main (To be Lined) | Proposed Gravity Main Repair (Priority 5) |
| Ex. Sanitary Manhole | Ex. Sanitary Gravity Main (Out of Area) | Proposed Sanitary Lateral Repair (Priority 4) |
| Ex. Sanitary Manhole (Out of Area) | | Proposed Sanitary Lateral Repair (Priority 5) |



Neighborhood Reinvestment Project No. 1

**Sanitary Sewer Collection System Rehabilitation within SE Lake Wellington Area; White Pine & 12th
Fairway, French Quarter, Sunset Point, Lakeshore Heights, Channing Villas & Park Place**



Item No. General	Item	Quantity	Unit	Unit Price	Cost \$
101	Mobilization	1	LS	\$ 30,000.00	\$ 30,000.00
102	M.O.T.	1	LS	\$ 12,000.00	\$ 12,000.00
103	NPDES (Storm Inlet Protection, Misc. Erosion Control)	1	LS	\$ 1,500.00	\$ 1,500.00
104	Survey Layout & Record Drawings	1	LS	\$ 1,500.00	\$ 1,500.00
105	Geotechnical Testing Allowance	1	LS	\$ 3,000.00	\$ 3,000.00
SUBTOTAL=					\$ 48,000.00

Wastewater Collection

301	8" Sewer Main CIPP Lining (Incl. Testing and Cleaning)	2,905	EA	\$ 40.00	\$ 116,200.00
302	Mechanical Root, Grease or Tuberculation Removal	135	LF	\$ 30.00	\$ 4,050.00
303	Sewer Lateral Repair	64	EA	\$ 4,500.00	\$ 288,000.00
304	Clean and Video Laterals	5,000	LF	\$ 6.00	\$ 30,000.00
305	Remove Obstruction at Manhole	2	EA	\$ 500.00	\$ 1,000.00
SUBTOTAL=					\$ 439,250.00

Summary

CONSTRUCTION SUBTOTAL=				\$	487,250.00
CONTINGENCY (20%) =				\$	97,450.00
SUB-TOTAL=				\$	584,700.00
SOFT COSTS (20%)=				\$	116,940.00
TOTAL=				\$	701,640.00