

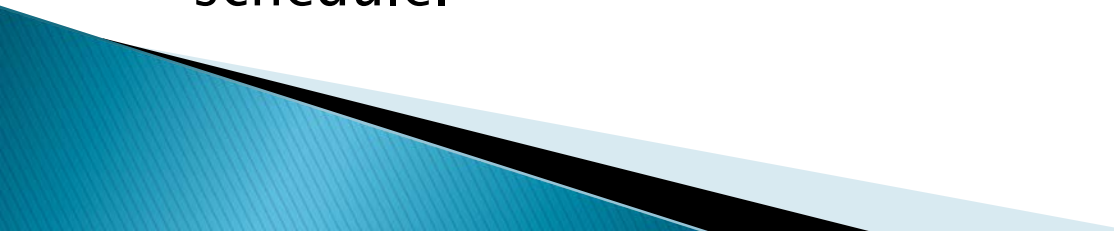
# Surface Water Maintenance Program

Public Works Department



# *Neighborhood Drainage Systems*

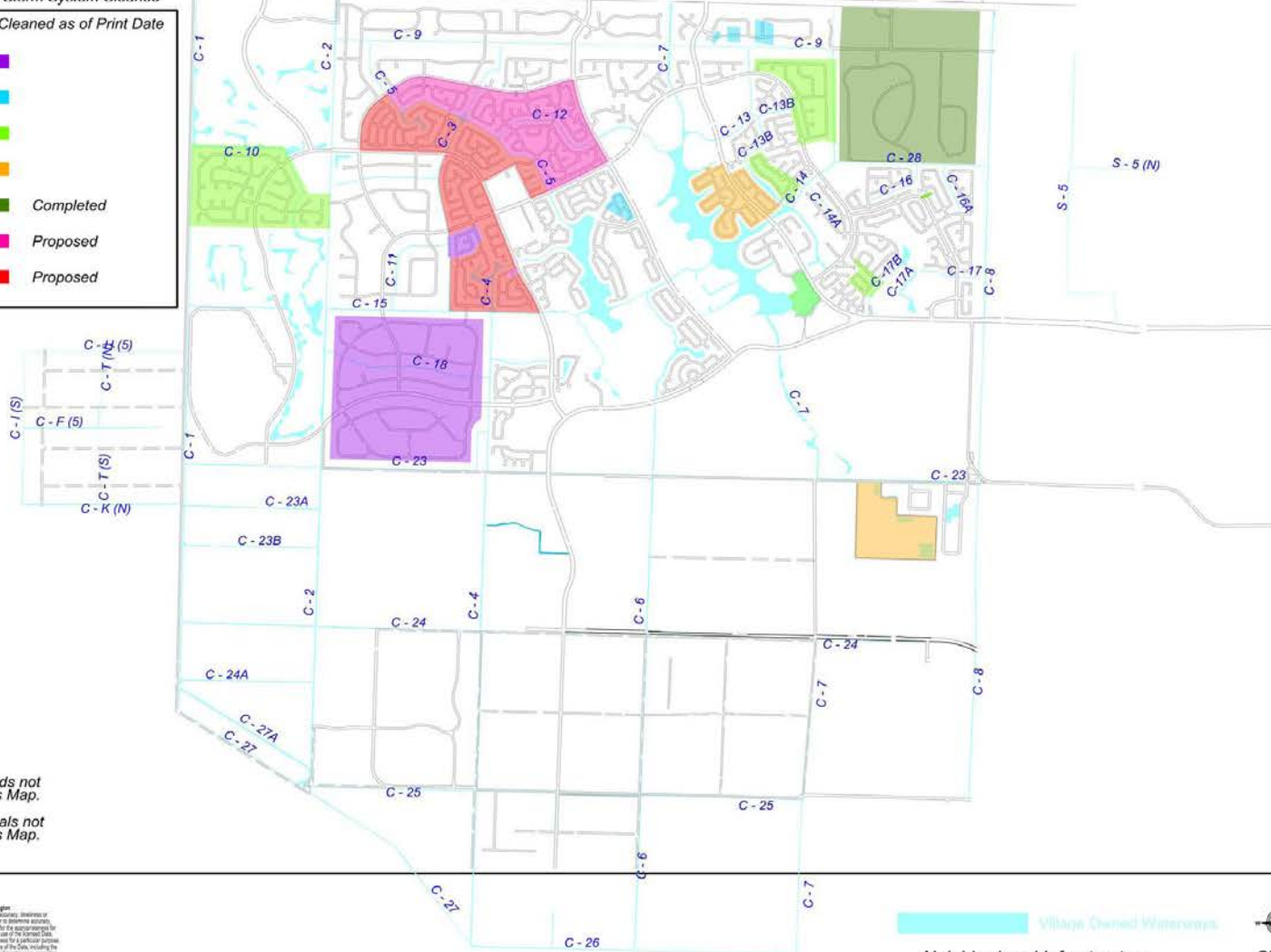
# *Neighborhood Drainage Systems*

- ▶ Wellington's drainage system was permitted in 1972 and construction began shortly thereafter .
  - ▶ In 2009, inspections uncovered several areas of concern including clogged pipes and obstructed outfalls, limiting carrying capacity to 50 to 75 percent.
  - ▶ Repairs have included canal clearing, culvert replacement, vegetation removal, creation of storage and pump station upgrades.
  - ▶ Ultimate goal is to pump down, clean, inspect, and repair 100% of Wellington's drainage system.
  - ▶ The following map outlines progress to date and future schedule.
- 

# Neighborhood Storm System Cleaned

Inspected and Cleaned as of Print Date

- 2010 ■
- 2011 ■
- 2012 ■
- 2013 ■
- 2014 ■ Completed
- 2014 ■ Proposed
- 2015 ■ Proposed



\* Private Roads not shown on this Map.  
\* Private Canals not shown on this Map.

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## Neighborhood Drainage Systems

*Program consists of cleaning, video taping, documenting, and repair as necessary all inlets and drainage piping.*









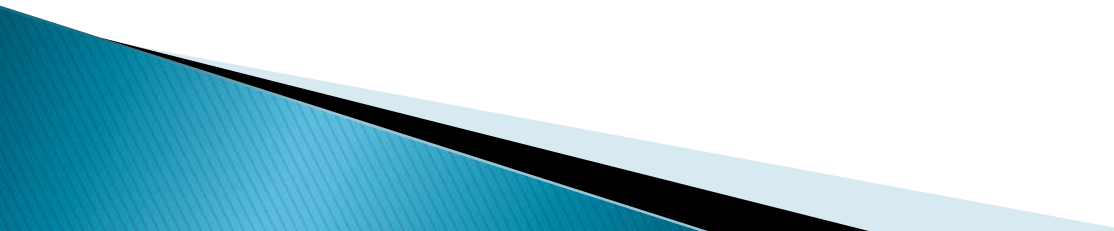


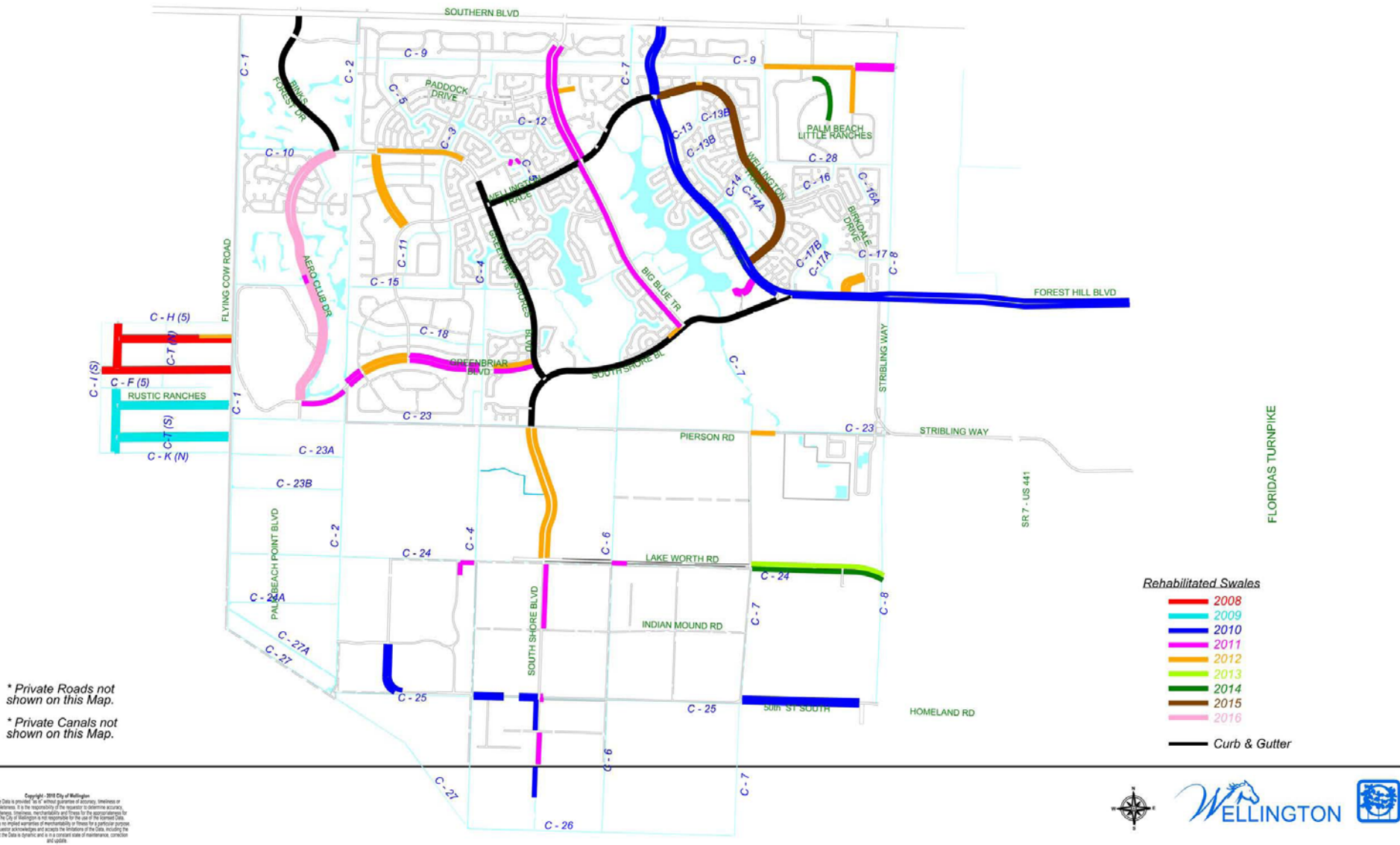




# *Roadway Swale Rehabilitation*

# *Roadway Swale Rehabilitation*

- ▶ Wellington's swale system is designed to convey rainwater into our canal system.
  - ▶ Swales also remove pollutants
  - ▶ Swale maintenance includes reconstruction/retrofitting of roadside swales
  - ▶ Swales also improve water quality by removing pollutants as water runs through the grass.
  - ▶ The following slide outlines progress to date and future program schedule.
- 

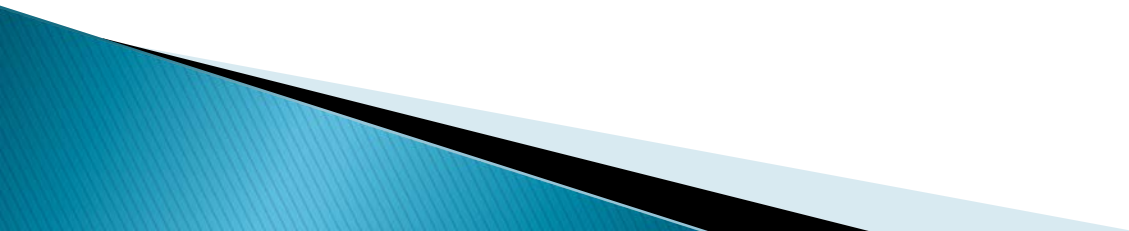


## Roadway Swale Rehabilitation

Program consists of reconstructing all open drainage swales throughout the Village to maintain stormwater conveyance and water quality.

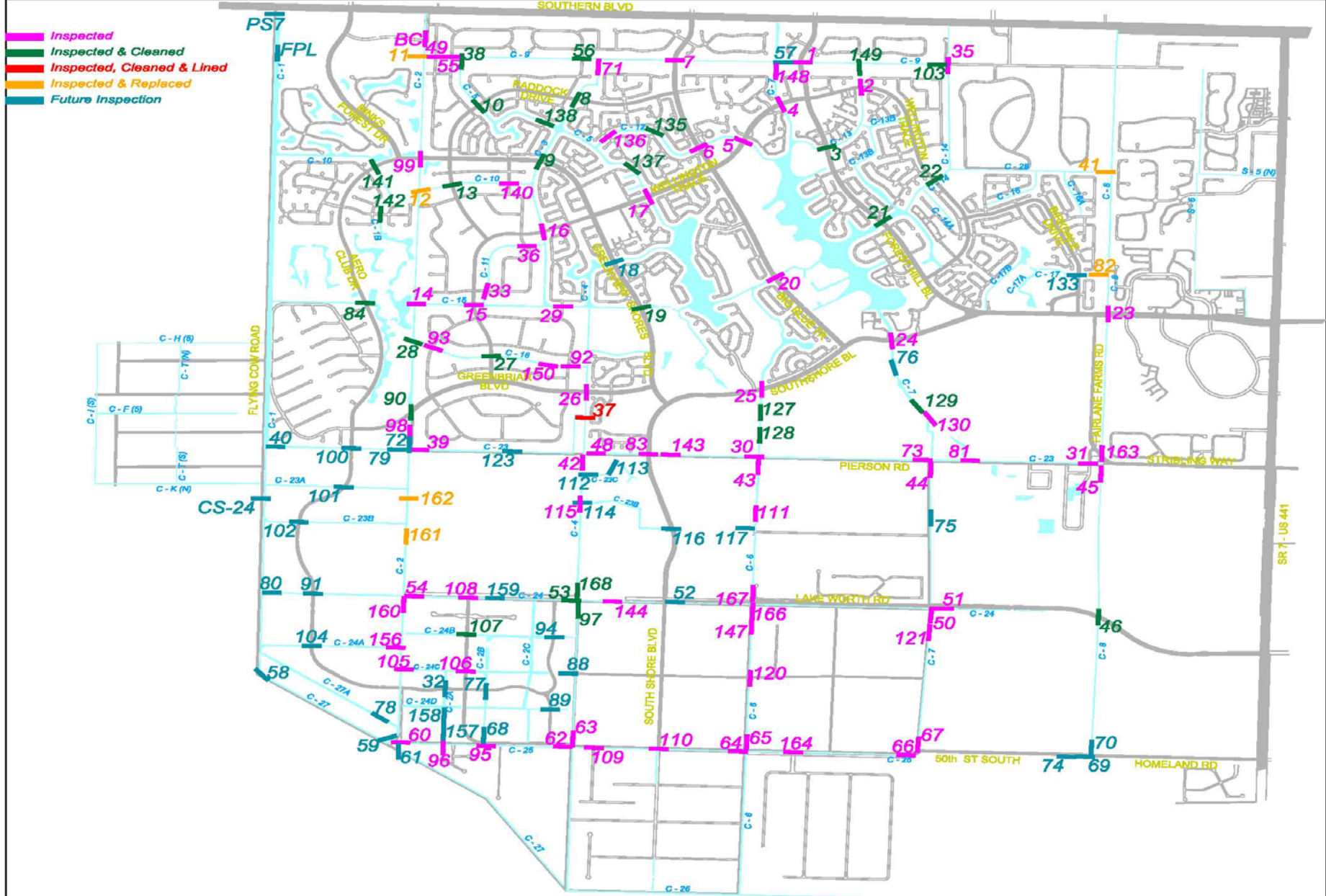


# *Stormwater Conveyance*



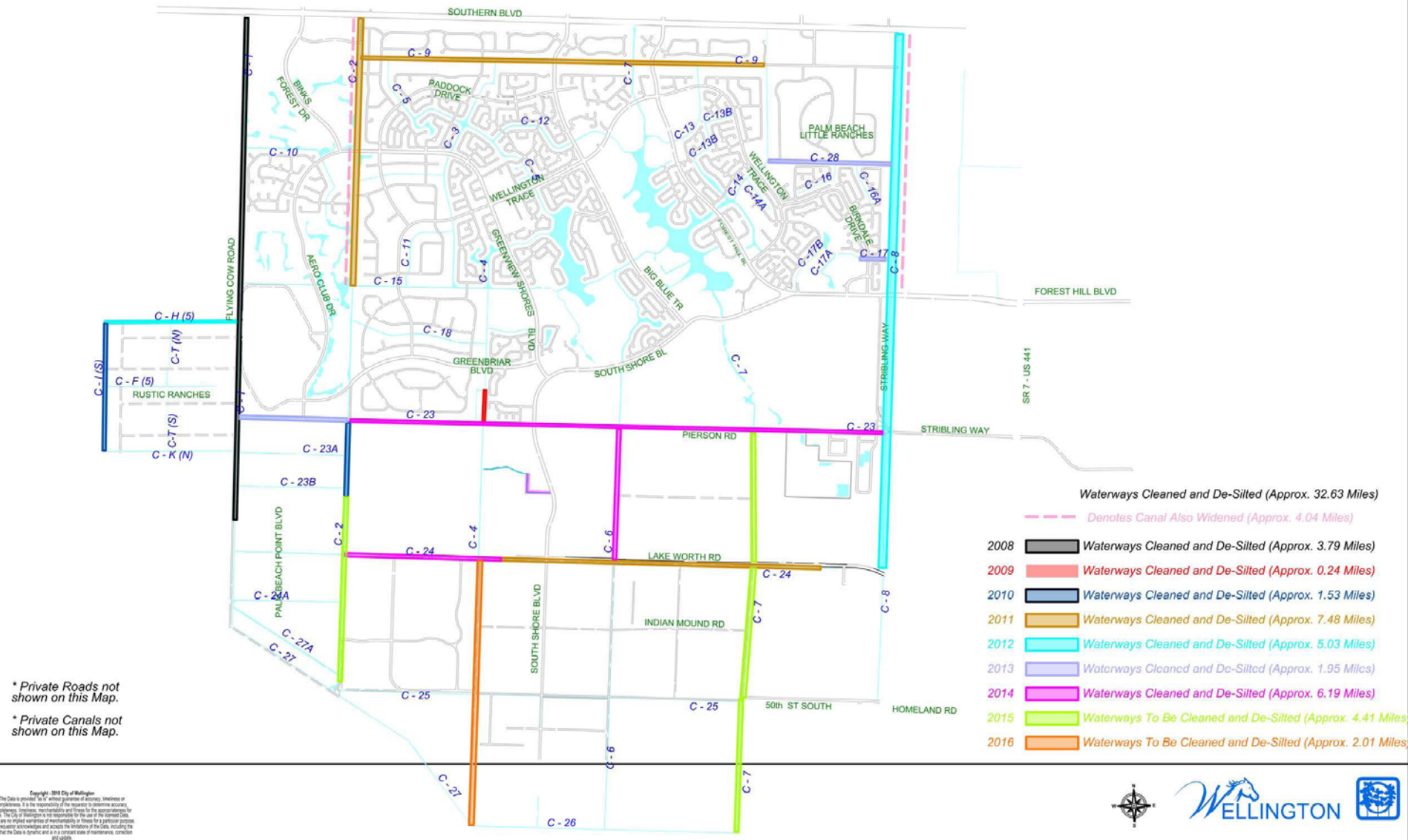
# *Stormwater Conveyance Culverts*

- ▶ Over 150 primary and secondary culvert crossings under roadways allow stormwater to travel Wellington's canal system to the C-51
- ▶ The following maps outline progress to date and future schedule.



## Stormwater Conveyance Culverts

Program consists of inspecting, cleaning, documenting, and repair as needed, all primary and secondary conveyance culverts.



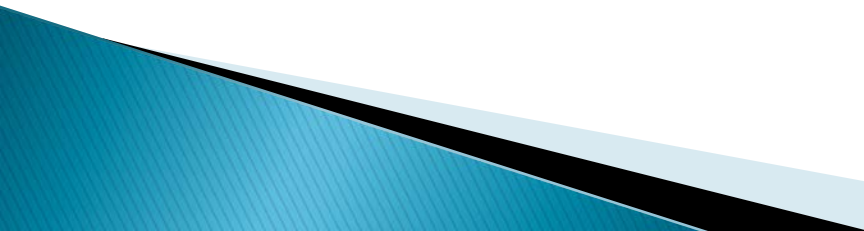
# Stormwater Conveyance Canals

Program consists of cleaning (desilting), widening, where applicable and restoring/stabilizing slope and bank to enhance maintenance activities with stormwater conveyance being top priority.

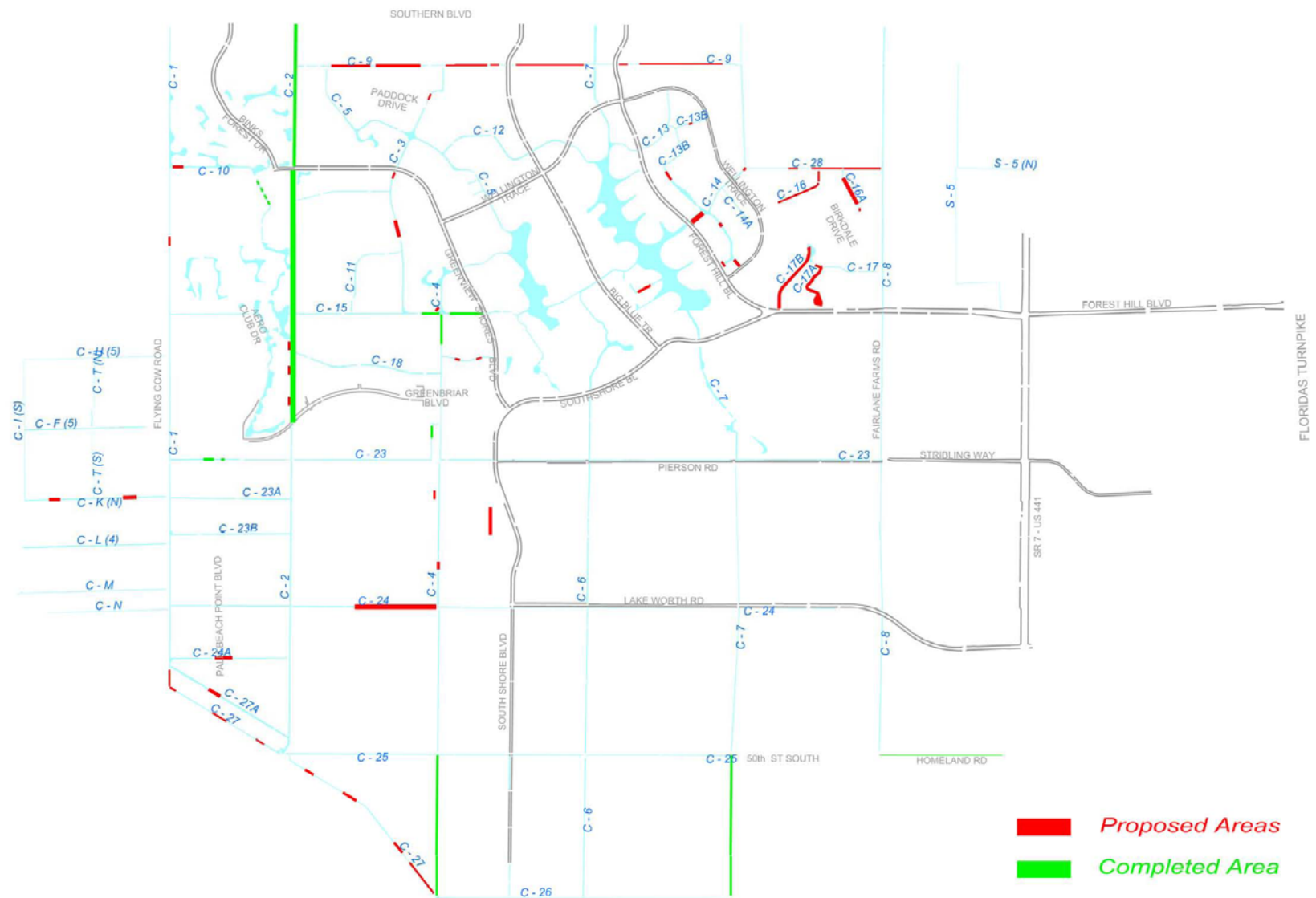
*Canal Bank R.O.W.  
Clearing*



# *Canal Bank R.O.W. Clearing*

- ▶ Program implemented to begin clearing of Acme canal banks (Right of Ways) with a minimum 25' buffer.
  - ▶ Phases I and II have been completed and ROW obstructions removed/relocated.
  - ▶ Phase III is in process.
  - ▶ Phases IV and V are also scheduled for FY14.
  - ▶ The following map outlines proposed and completed ROW clearing areas.
  - ▶ Photos depict areas containing significant ROW obstructions.
- 





*Canal Bank R.O.W. Clearing*  
 Program consists of removing all obstructions  
 from rights of way and easements.















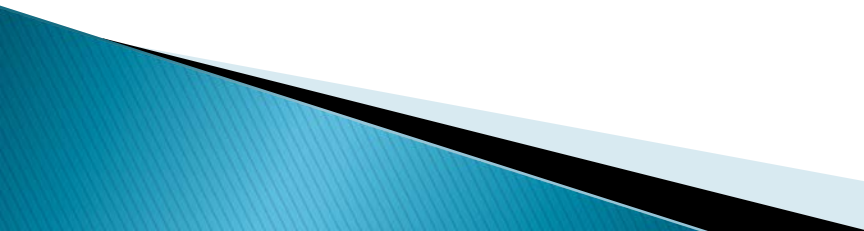


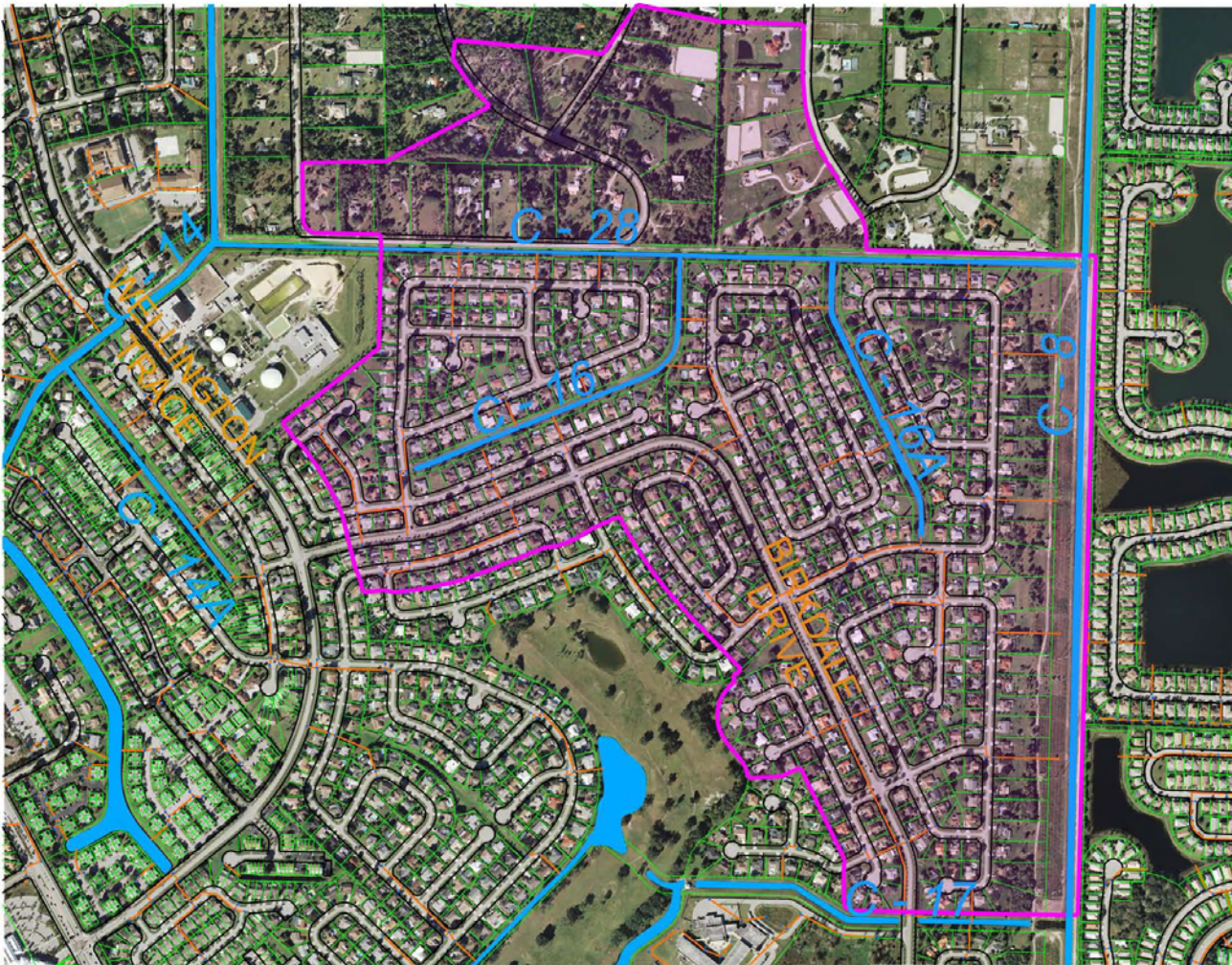







## *Canal Bank R.O.W. Clearing – PH IV C-16, C-16A and C-28 Canals*

- ▶ The property along the canal bank is a Village owned right of way which is generally 25' from water's edge to property line.
  - ▶ One tree or other obstruction can block access to several thousand feet of canal bank.
  - ▶ These right of ways provide access to the canal bank for regular canal maintenance, storm related debris removal and assurance of necessary stormwater flow
  - ▶ Of the 115 +/- homes that are along these banks there are 41 of them that have plantings in the proposed 25' maintenance strip.
- 



 Drainage Areas Affecting C-16, C-16A & C-28

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Canal Maintenance Study - Eastwood

# *Canal Bank R.O.W. Clearing, PH IV* *C-16, C-16A and C-28 Canals*





**C-16 & C-28 Canals**





**C-16 A & C-28 Canals**





**C-16 A & C-28 Canals**





C-16 & C-28 Canals



# *Canal Bank R.O.W. Clearing – PH IV*

## *C-16, C-16A and C-28 Canals*

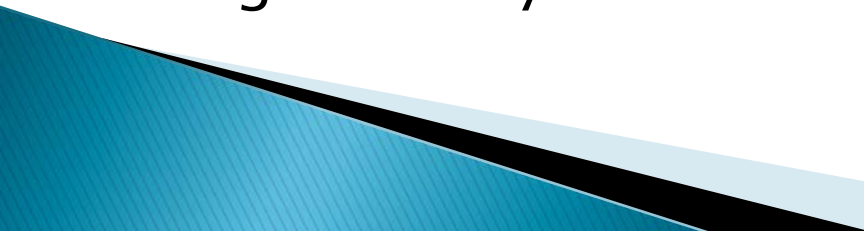
### *continued....*

- ▶ Aerial water main crossings exist at the outfall ends of the C-16 and C-16A.
- ▶ Approximately six (6) drainage outfalls enter canals with damaged ends in need of repair.
- ▶ The Eastwood area drainage system is in excess of 30 years old.
- ▶ The C-16 and C-16A canals flow north into the C-28 Canal, a direct route to Pump Station #6 and Control Structure #35.
- ▶ Obstructions in flow will ultimately affect the drainage for approximately 530 acres and 1,037 homes.

# *Canal Bank R.O.W. Clearing - PH IV*

## *C-16, C-16A and C-28 Canals*

### *continued...*

- ▶ Access for backhoe's and dump trucks via a canal bank right of way allows for canal bottom excavation and cleaning to ensure proper stormwater flow.
  - ▶ Drainage easements between homes are consistently blocked by landscaping, fencing, etc.
  - ▶ ROW obstructions significantly limit our ability to properly and adequately maintain Wellington's stormwater system to prevent potential flooding.
  - ▶ Most right of way obstructions including Palm trees (including Pony Tails) can be transplanted behind the right of way line or buffer with excellent survivability.
- 



# Drainage Easement Locations



## Legend

Canals

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1 Inch Equals 376.17 Feet

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## Notes





**Anhinga Drive**



Larch Way





Anhinga Drive





Larch Way







**Sanderling Drive**





Sanderling Drive



Summerwood Circle







**Summerwood Circle**



# ► Questions and Answers

*Thank you!*

