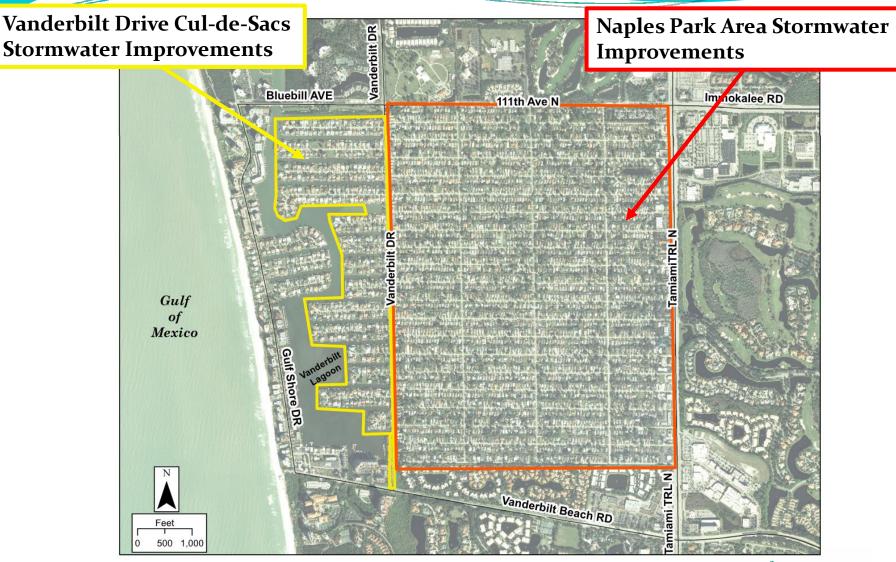
## **Collier County Stormwater Projects within the Cocohatchee Watershed**

### January 13, 2017

**Collier County Stormwater Planning** 









### Vanderbilt Drive Cul-de-Sacs SW Improvement Project

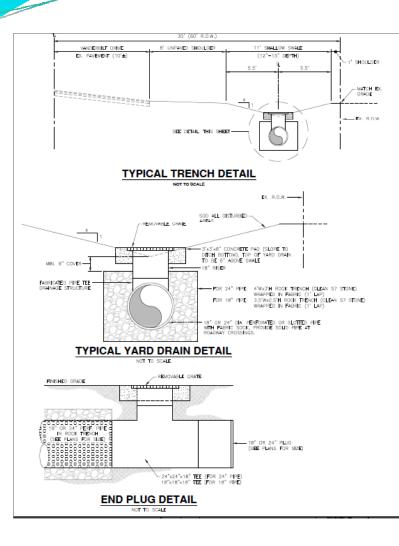
- Improvements along:
  - East side of Vanderbilt Drive from Bluebill Ave to Vanderbilt Beach Road
  - Fourteen (14) cul-de-sacs west of Vanderbilt Drive
- On-going construction
  - Contractor: Mitchell & Stark
  - Commencement: Oct-2016
  - Completion: Nov-2018 (expected)
- Coordinated effort between GMD and PUD
  - Water main replacements
  - Wastewater force main replacements



### Vanderbilt Drive Cul-de-Sacs SW Existing Conditions

- Vanderbilt Drive
  - Combination of open swales and pipes along the east side
  - Aged infrastructure of various materials and sizes (generally under sized)
  - Elevation issues causing inappropriate collection and conveyance of runoff
- Cul-de-sacs
  - Roadside drainage poorly graded and often non-existing swales
  - Driveways culverts of different sizes at improper elevations





### Vanderbilt Drive Cul-de-Sacs SW **Proposed Improvements**

- Vanderbilt Drive
  - Replace all existing stormwater infrastructure along the east side
  - Perforated pipe placed on gravel bedding to promote exfiltration. And shallow swale on top.
  - Catch basin with deep sumps to capture sediments before reaching Vanderbilt Lagoon.
- Cul-de-Sacs
  - Supplement the existing drainage system with:
    - HDPE mainline drain pipe
    - Yard drains
    - New swales
    - New driveway culverts County



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#### Naples Park Area SW **Improvement Project**

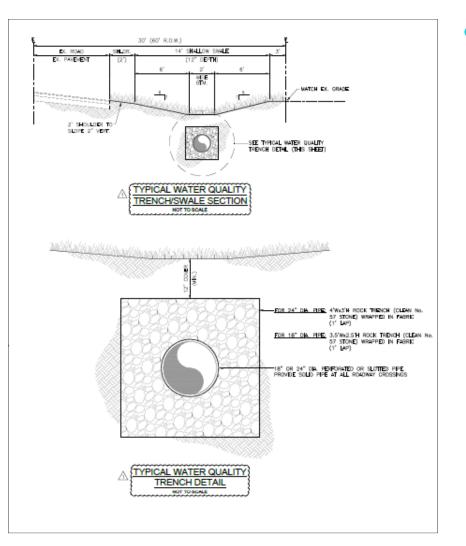
- Coordinated effort between GMD and PUD
  - Water main replacements
  - Wastewater force main replacements
  - Phase I:
    - Design and Bids completed
    - Construction commencement by Jan-2017 (expected)
  - Phase II:
    - Planning/design stage
    - Construction expected in 2018



### Naples Area SW Improvement Project

- Existing Conditions
  - Combination of open/enclosed swales and culverts
  - Aged infrastructure of various materials and sizes (generally under sized)
  - Elevation issues causing inappropriate collection and conveyance of runoff
- Phasing
  - Target two (2) streets per fiscal year (north to south)
    - Phase I & II Awarded \$750,000 as part of 2015-16 & 2016-17 Legislative Appropriations.
  - But, priority is given to streets presenting wastewater and water breakages/malfunctions

### Naples Area SW Improvement Project



- Proposed Improvements
  - Removed aged infrastructure
  - Installation of perforated pipe (18" and 24"), yard drains and sedimentation traps with deep sumps to capture sediments.
  - For Phase I: Sections between Vanderbilt Dr and 6<sup>th</sup> Street North will have perforated pipe placed in gravel water quality trench to allow runoff to percolate.



# Questions?





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