

City of Palm Coast, Florida Agenda Item

Agenda Date: December 12, 2023

Department CITY ADMINISTRATION Division	Amount Account #
Subject: PRESENTATION - INFILL LOT DRAINAGE	
Presenter: Lynn Stevens, Deputy Director of Stormwater & Engineering and Carl Cote, Director of Stormwater & Engineering	
Attachments: 1. Presentation	
Background: This presentation is to provide an update on infill lot drainage issues.	
Recommended Action: FOR PRESENTATION	

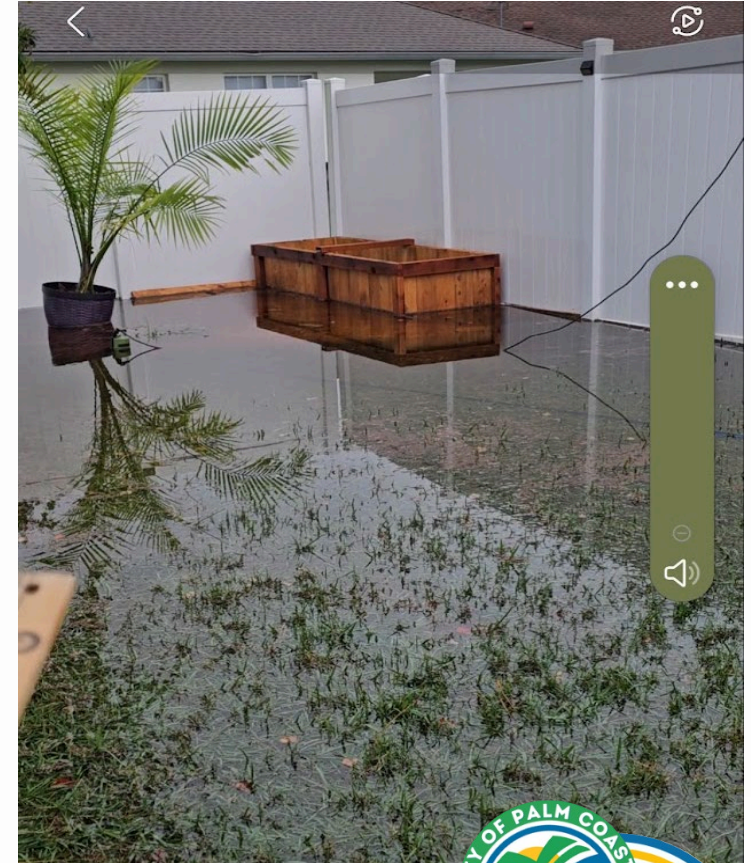


Stormwater Infill Lot Update

December 12, 2023

Steps Taken

- Review & Propose changes in Technical Manual
- Developed category in PCC for infill lot drainage issues
- Created workflow procedure
- Created Infill Lot Task Force



Workflow Procedure

- Review the complaint
- Contact the Resident and make a site visit
- Gather information and research the drainage plans, surveys, etc. of the new and surrounding lots
- Work with resident on findings





Some Identified Issues

- Older homes built to drain onto vacant lots
- Existing homes are now retaining their own stormwater
- Natural ground compaction
- Homeowner modifications
 - Clearing previous natural areas
 - Removing trees
 - Resodding/dead grass
 - Relandscaping



Current Requirements

- Finished floor elevation must be a minimum of 12 inches above crown of the road
- Lots that don't back up to a canal or ditch, must grade so water moves from the back of the lot to the front of the lot
- The front property line next to the swale must be the same elevation as the crown of the road
- Grade must be 4 inches below finished floor for block homes and 6 inches below for wood structures (FL building code)



Current Requirements (continued)

- Grade must drop a minimum of 6 inches within the first 10 feet from the house (FL building code)
- No slope on property can be more than 4:1
- All stormwater must be retained on the property and not run off onto adjacent properties

Next Steps

- Finalize Technical Manual revisions
- Legal review regarding property rights
- Contacting insurance companies for input
- Develop an informational pamphlet
- Setting stakeholder meeting through HBA



CITY OF PALM COAST TECHNICAL MANUAL
ENGINEERING DESIGN STANDARDS

- Location of PEP tank shall be shown on the LGP and may not impede the drainage conveyance.
- Gutters and downspouts connected to undergrounds pipes to ensure proper drainage conveyance may be required.
- (3) For residential construction including one- and two-family dwellings, the proposed FFE (Finished Floor Elevation) of the structure shall demonstrate compliance with Florida Building Code-Residential (current edition) Sections R401.3 "Drainage", R403.1.7.3 "Foundation Elevation", R404.1.6 "Height above finished grade" and R318.7 "Inspection for termites" (note Exceptions).
 - Elevation at the front property line shall match the edge of pavement elevation.
 - NOTE: FFE shall not be less than 12 inches above the crown of the road or meet R403.1.7.3 whichever is greater. All FFE within a subdivision must match the platted elevation for that subdivision.
 - NOTE: FFE shall be no higher than 22 inches over the crown of the road, unless specifically reviewed and approved by the City Engineer.
 - NOTE: FFE shall be no more than 10 inches different than the lowest adjacent lot's FFE, unless specifically reviewed and approved by the City Engineer.
 - NOTE: FFE of homes within newly platted subdivisions shall be within 0.2 of a foot of the COPC approved Preliminary Plat.
- (4) Proposed swale and culvert elevations must meet the minimum requirements of the swale plan.
- (5) The proposed elevations shall be shown at all locations of existing elevations per the topographic survey.
- (6) Identify how the rear yard will be drained. The rear yard is required to drain to the front yard swale, unless the Topographic Survey/Lot Grading Plan demonstrates a rear yard drainage system with an appropriate outfall. Draining onto adjacent properties will not be allowed outside of the platted 5' drainage easement.
- (7) All hard elevations are to be expressed to the nearest 0.01 foot. All soft/ground elevations can be expressed to the nearest 0.1 foot.
- (8) The proposed slopes on the property shall not exceed 4:1 and all slopes must adjoin existing property lines at no greater than a 4:1. Slopes along developable vacant lots shall have a stabilized slope of no greater than 2:1 in expectation that the vacant lot will be graded to match the adjoining property elevation (Common Swale).
 - Where an adjacent developed lot does not have a clearly defined swale along the edge of the property, the new lot must utilize a "W" swale as part of their proposed grading plan.
- (9) Backfilling against existing fencing on an adjacent or rear property is not permitted.
- (10) The Lot Grading Plan must identify how any low spots on the property (including property lines) are drained.
- (11) A grade elevation profile drawing is required when the proposed structure is on a saltwater canal lot.
- (12) Permanent Flat work, i.e., slabs, walkways, hardscaping, patios, or any other obstructions to the drainage flow are not allowed in the 5-foot utility easement.
- d. Formboard Survey
 - (1) A Formboard Survey shall be submitted for review prior to pouring the slab.
 - (2) The FFE must be within 0.2 of a foot of the FFE that was approved and stated on the LGP. If the FFE varies more than 0.2 of a foot higher or lower from what was originally proposed, then a corrected LGP will be required.

Future inspections are contingent upon an approved Formboard Survey