

Island Strategic Action Committee

Subcommittee Report Regarding Infill Houses on North Padre Island

Committee Members

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The Problem- Construction of infill houses flooding adjacent properties.

FEMA redrew the floodplain map of North Padre Island. As a result of FEMA's new map, FEMA increased the elevation at which new homes must be built above the floodplain. The City of Corpus Christi adopted the increase from the existing level to one-foot above FEMA's new elevation. Therefore, new homes built next to or between two existing homes are elevated above the older homes ground level. The increased elevation causes rainwater runoff to inundate or flood the adjacent property. Home builders often use huge amounts of fill dirt to raise the building site to the new FEMA required level. As a result of the massive fill dirt, the slope between a new house and the neighboring property line can exceed 30 degrees with the Island's typical 5 foot setbacks. Consequently, the exaggerated slope causes the rainwater runoff to flood the neighboring property. Thus, the problem is abiding by FEMA requirements and not flood adjacent properties.

ISAC Subcommittee

The above-described problem was brought to the attention of the ISAC committee. Subsequently, the ISAC formed a subcommittee to study and review the infill flooding problem. The committee was charged with researching the issues, compiling a report, and, if appropriate, offering an ISAC recommendation to the City Management. Furthermore, a Resolution for presentation to the City Council will be offered.

Methods

1. Interviews

- a. Michael Dice, Assistant Director | Development Services
- b. Kathleen Chapa, Floodplain & Coastal Protection Manager | Public Works
- c. John Pope, New Home Builder | New Castle Homes
- d. Dan Suckley, City Council | District Four
- e. Sandy Graves, Homeowner
- f. Steve Popielski, Homeowner

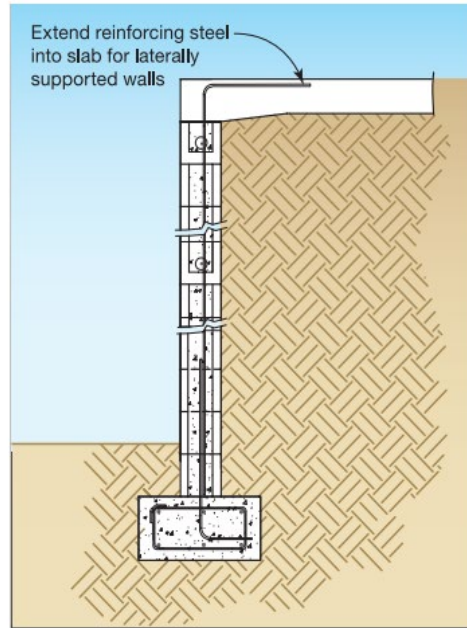
2. Documents
 - a. Uniform Building Code
 - b. Texas Water Code
 - c. Coastal Construction Manual
3. Observations
 - a. Survey Island infill properties
 - b. Photographs of slopes of 30 percent or more
4. State Law
 - a. Texas Water Code, Section 11.086, “(a) No person may divert or impound the natural flow of surface waters in the state, or permit a diversion or impounding by him to continue, in a manner that damages the property of another by the overflow of the water diverted or impounded.”
5. UDC Section 7.3 16A12, Landscape Plan

Recommendations

1. The City revise the Unified Development Code (UDC) to limit side and rear yard runoff slopes to 10% max (a 6” drop over a 60” setback).
2. The City implements inspections during the construction of infill houses to enforce the 10% rule.
3. The City increases inspection of the engineered drainage plan to ensure the plan is being followed.
4. The City reemphasizes UDC Section 7.3.16A12, Landscape Plan Submittal Requirement, which states, “Landscaping for properties located within a floodplain shall be evaluated for consistency with the City’s Flood Hazard Prevention Code for rising water, diversion of water and impact on adjoining properties.”
5. The diagram below illustrates a recommended stem wall foundation, which, by encapsulating fill dirt, is a method that reduces runoff slope to 10% or less.

Figure 10-16.
Stem wall foundation
design

SOURCE: ADAPTED FROM
FEMA P-550, CASE F



The Subcommittee recognizes that other foundation construction methods can be used to meet the 10% max runoff requirement. This method is featured as certain Island builders have already adopted stem wall.