

Impervious Surfaces and Stormwater



City Commission Priorities – Jan. 2018

ATLANTIC BEACH CITY COMMISSION PRIORITIES

ESTABLISHED JANUARY 12, 2018

NEIGHBORHOOD PRESERVATION

A CODES/LAND USE/PERMITTING AND QUALITY OF LIFE INITIATIVE TO REVIEW LAND DEVELOPMENT REGULATIONS, INCLUDING THE MAXIMUM IMPERVIOUS SURFACE RATIO, TO ENSURE THAT NEW DEVELOPMENT IS SUITED IN SCALE AND CHARACTER TO THE EXISTING NEIGHBORHOOD.

ACCOMPLISHED VIA STAFF RESEARCH, COMMUNITY DEVELOPMENT BOARD REVIEW, COMMISSION DECISION

Impervious Area Drainage Impact Analysis

Stormwater Masterplan – Jones Edmonds

- Nov. 19th Workshop
- Scenario Modeling

DRAFT

TECHNICAL MEMORANDUM *JonesEdmunds*

Impervious Area Drainage Impact Analysis

TO: Scott Williams, Public Works Director

FROM: Brian Icerman, PE; Jarrod Hirneise, PE

DATE: October 9, 2018

SUBJECT: Impervious Area Drainage Impact Analysis
Jones Edmonds Project No. 08505-003-02



Impervious Area Drainage Impacts

Scenario Modeling Results

- Local-scale surface flooding will worsen due to the increases in runoff volume and runoff rate from additional impervious surface coverage.
- The additional runoff adds stress to local-scale drainage features that have already met or exceeded their hydraulic capacities.
- Systems that are already at or exceeding capacity are prone to creating nuisance flooding.
- More frequent maintenance of the City's stormwater system will be required.

Sec. 24-17 Definitions

Impervious Surface – Surfaces that prevent the entry of water into the soil.

- Swimming pools shall not be considered impervious
- Pervious concrete or pavers receive 50% credit
- 50% maximum impervious surface limit for all new residential development

24-66 Stormwater, Drainage, Storage and Treatment Requirements

Summary and Issues

- No increase in the rate or volume of water flow offsite
- Requires pre and post construction topographic surveys
- Lots drain to their adjacent street
- Required for any addition or modification that increases the impervious surface area on a developed lot by ten (10) percent or four hundred (400) SF

24-66 Stormwater, Drainage, Storage and Treatment Requirements

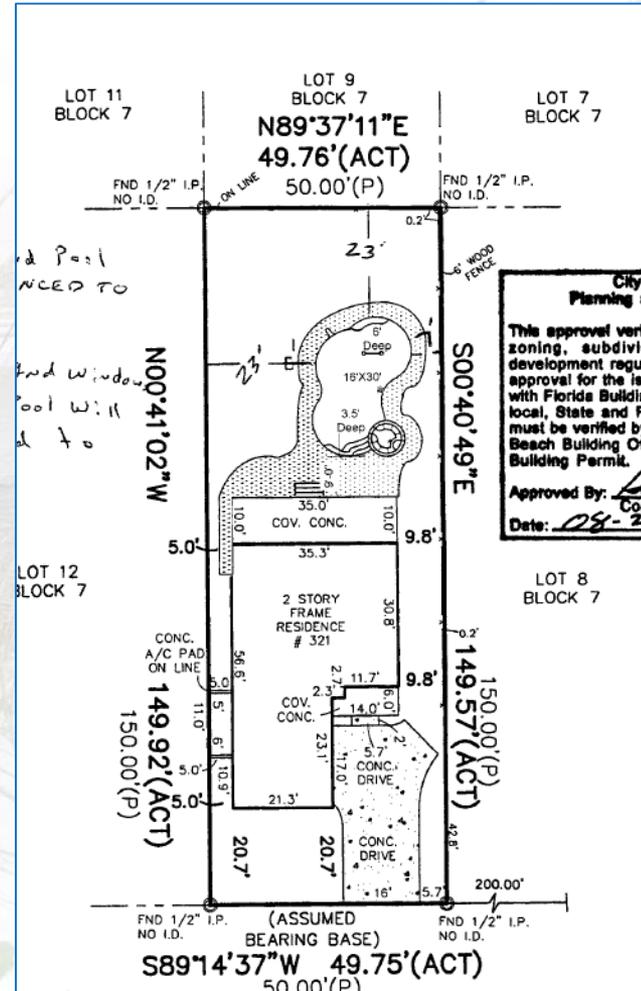
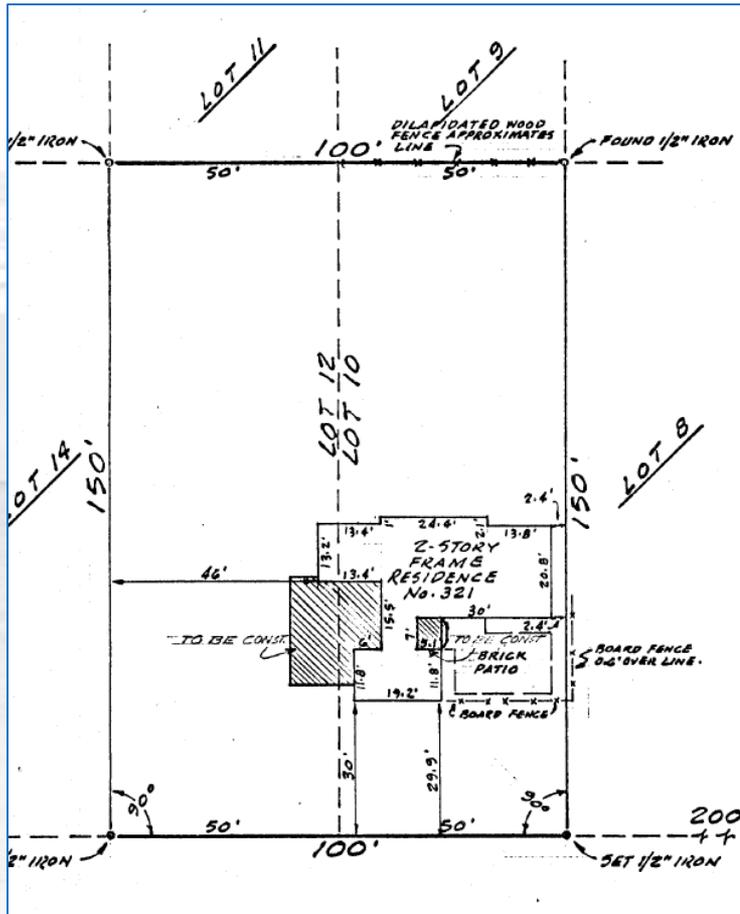
Summary and Issues (continued)

- May be waived by director of public works
- Credit given for previous structures when calculating required storage
- Drainage plan requires as-built survey signed and sealed by a licensed FL surveyor, not an engineer
- No city access for inspections after Certificate of Occupancy – impervious added without permits and storage areas filled.

Onsite Stormwater Storage

Calculating Storage

- Original Home Sq. Ft. grandfathered when calculating onsite storage for redevelopment



Impervious Surface Timeline

- 1982
 - Impervious surface definition added which included uses such as driveways and walkways.
 - 35% residential
 - 65% commercial limited
 - No max for other commercial
- 1985
 - Accessory uses such as driveways and walkways removed from the definition
 - No change in ratios
- 1986
 - Elimination of maximum impervious
 - Allowed setbacks to control lot coverage
- 1998
 - 50% for residential added
 - No maximum for commercial and industrial

Impervious Surface Timeline

- 2001

- New impervious definition added to include rooftops, driveways, parking lots and similar surfaces but not pools.
- 70% maximum for commercial and industrial
- 50% maximum for residential

- 2003

- 50% pervious credit added to definition
- 70% maximum for commercial and industrial
- 50% maximum for residential
- No maximum for redevelopment or infill
- Added stormwater management requirement for infill

- 2006

- Language on permeable pavers added
- Language added on redevelopment and preconstruction impervious surface limits

Commission Direction

- **October 22, 2018 City Commission Workshop**
 - Eliminate 50% pervious paver credit
 - Remove exemption for pools
 - Eliminate grandfathering of impervious surfaces
 - Reduce sq. ft. threshold to 150 before requiring onsite stormwater management
 - Remove waiver for director of public works
 - Require drainage plans by a licensed engineer
 - Allow variance requests to the Community Development Board
 - Allow staff access for inspections after CO issued
- **November 26, 2018 City Commission Meeting**
 - Reduce residential impervious surface ratio from 50% to 45%

Questions?

