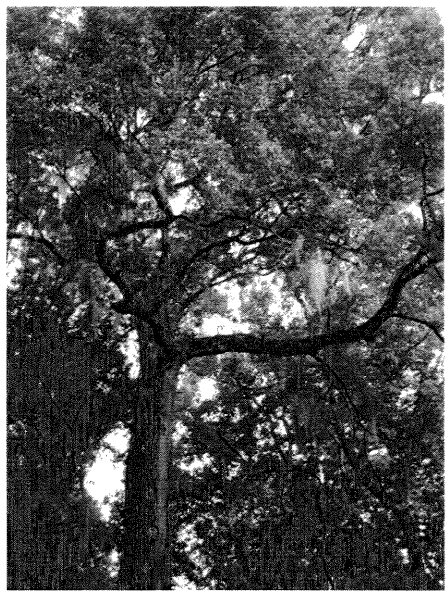
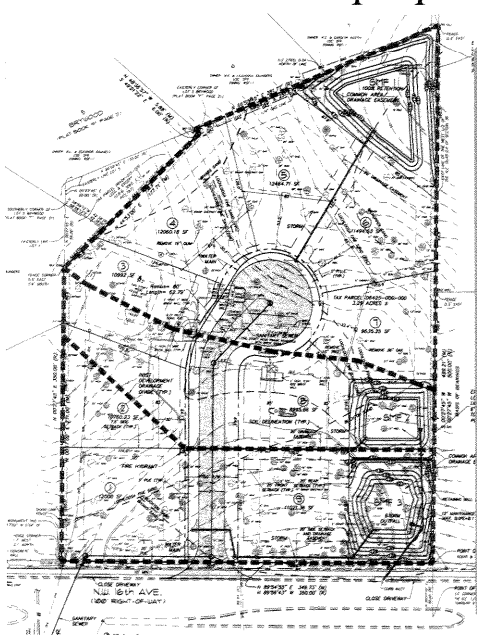
050367P

Statistics for <u>existing</u> condition of 3.29 acre parcel



- 170 live trees ranging from 5 to 42 inches in diameter identified from plat
- Existing <u>undisturbed</u> soils range from unconsolidated fine sand to sandy loam with a thick organically-rich topsoil layer and vegetated ground cover ; soil types listed contain some iron and expansive clays
- Slopes: 1.6% (mild) to 10% (steep)
- Rainfall-runoff naturally managed as part of hydrologic and ecological cycles by (1) interception, evapotranspiration (evaporation from vegetation) from copious vegetation and tree canopy; (2) infiltration into **<u>undisturbed</u>** porous sandy soils with organically-rich top soil layer
- Impervious area of 0.22 acres ***(7% of existing 3.29 acres)***

Statistics for proposed Hampton Lane

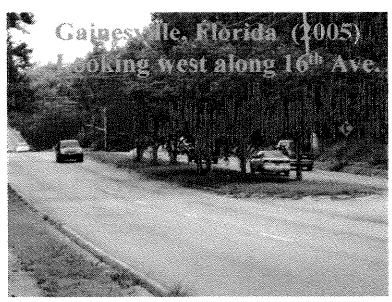


- Development area: 3.29 acres
- Existing and proposed zoning: RSF-1
- Proposed design illustrates 9 lots, but as of 2 Sept. 05 Commission Clerk indicates a change to 8 lots; therefore the basis for all our analyses is 8 lots
- Approximately 100 of the 170 live trees (identified from plat) will be cleared based on the proposed site design (8 lots)
- Disturbed area will be 2.4 acres (73% of developed area) and disturbed soils will be compacted/densified without a top soil layer and vegetated cover; increasing runoff and erosion
- Slopes: 1.6% (mild) to 10% (steep)
- Rainfall-runoff collected by storm sewers/pavement; piped to temporary or permanent on-site impoundments
- Proposed impervious area: 0.94 acres ***(29 % of 3.29 acres)***

Statistics for Surrounding Neighborhood

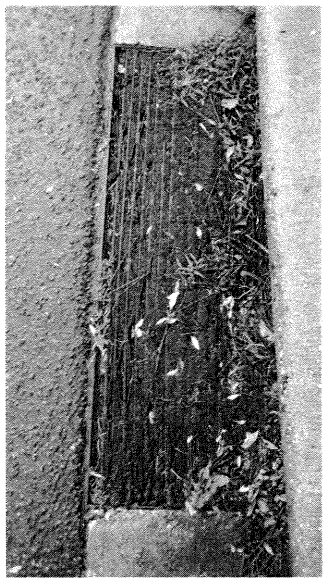
- This picture (taken from the road) of two adjacent homes (seen through vegetation) that are adjacent to proposed subdivision illustrates the existing character of neighborhood. Notice the mature vegetation that surrounds, shades, buffers and controls neighborhood hydrology and ecology.
- Mature vegetation, protected during the design, site construction and home-building; serves as a significant natural low impact development (LID) attribute that mitigates impervious area impact
- Existing neighborhood zoning: RSF-1
- Lot size statistics for existing parcels indicate neighborhood lots within 400 feet of proposed development have a mean lot size (area) of 0.82 acres (based on 26 lots)
- ***Imperviousness for existing parcels: 11%***

Safety, traffic and cyclists on 16th Avenue



- Within 500 feet of the proposed Hampton Lane there currently exist 4 subdivision intersections
- Proposed Hampton Lane would add a 5th subdivision intersection within the 500 feet
- What is the increased probability of a vehicle-vehicle accident, a vehicle-pedestrian or vehicle-cyclist accident or fatality due to a 5th subdivision intersection within 500 feet?
- Vehicular speeds on 16th Ave. are high, to the point that the road is dangerous for pedestrians and cyclists; there should be more of a focus on safety, noise pollution reduction and alternative modes of transport
- Why are there no bike paths on 16th Avenue ?

Maintenance and Environmental Risk: The "Achilles Heel" of stormwater conveyance and control components

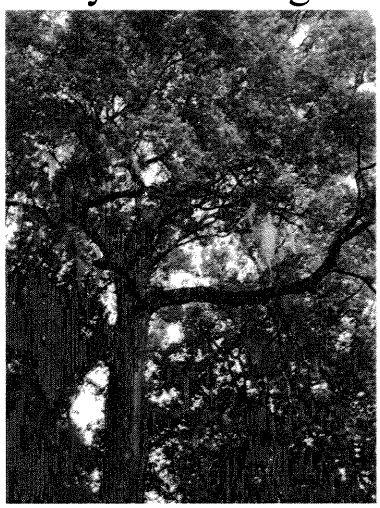


- The photo is a clogged stormwater catch basin inlet grate on steep slope of NW 22nd Street
- If an inlet grate, on a steep slope with high velocity flows can clog with sediment/biological growth, it does not require a leap of faith to accept that a soil lining a stagnant impoundment will rapidly clog
- In addition, consider the clogging impact of even small levels of expansive clay and anthropogenic sediments on the infiltration capacity of SMF 1. With no outlet, what occurs when SMF 1 cannot infiltrate flows and overflows the impoundment ?
- Who will maintain, rehabilitate, monitor and support proper functioning of proposed impoundments ?
- Who is responsible for West Nile vectors, long-term contaminant legacy (metals, pesticides)? How does local government monitor viability and maintenance of many hundred such BMPs in the City/County ?

Hampton Lane as proposed **violates** Goals and Objectives of the Comprehensive Plan

1. Goal 3 of the Future Land Use Element identifies "***land development practices that minimize detrimental impacts to land, natural resources and urban infrastructure.***"
2. More specifically, Policies 3.6.2 and 3.6.3 require development to preserve "***the natural terrain, drainage, and vegetation of the City***" and "***to minimize alteration of existing natural topography.***"
3. Goal 4 requires that development "***protect neighborhoods***" and "***preserve tree canopy of the City.***"
4. More specifically, Objective 4.1 indicates the City will consider "***carefully construed proposals that are in keeping with the surrounding character and environmental conditions of specific sites.***"
5. Goal 1 of the Stormwater Management Element states "***Design, construct and maintain stormwater management systems that reduces the incidence of flooding, and protects, preserves, and enhances desirables water quality conditions, and to the maximum extent feasible, preserves and utilizes the existing natural systems.***"

Example of **annual** hydrologic consequences **(per lot basis)** of proposed 8-lot Hampton Lane based only on clearing 12 mature (> 6" dia.) trees per lot



- Rainfall loading 610,000 gal.
- *Unrealized* interception 110,000 gal.
- *Unrealized* evapotranspiration 210,000 gal.

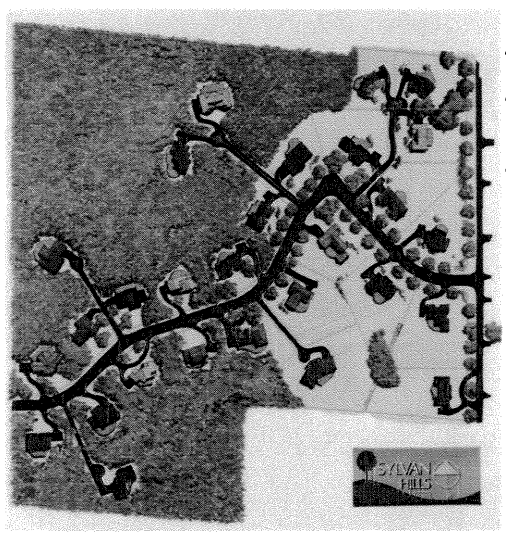
Annual rainfall balance 290,000 gal.

➔ The 12 mature trees that will be cleared from each lot have the potential to passively manage approximately 50% of the total annual rainfall volume ("*unrealized*" entries)

➔ The balance of the rainfall is predominately infiltrated, stored and transported in and through the **undisturbed** (un-compacted) organically-rich very porous topsoil layer and porous fine sand and sandy loam subsoil

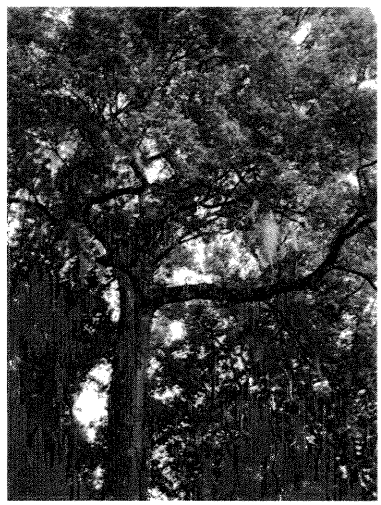
➔ LID materials and methods preserve mature vegetation, promote infiltration, minimize impervious area and apply systems such as porous pavement to restore hydrology

Example of ecological development that works



- Residential infill in a developed area of ½ acre lots along I-275 at U.S. 27
- 29 homes on 35 acres
- Property zoned for 1/2 acre lots, allowing the potential of 70 homes
- No net loss of trees, trees up to 10-inches in diameter moved and re-planted; streets lined every 200 feet with 3" red maples
- LID systems such as vegetated infiltration systems, low impervious area, preservation of mature trees and vegetation, minimal soil disturbance were all used instead of concentrating stormwater into impoundments
- Net benefit to neighborhood, developer and County

Conclusions and Observations



- Given ecological/hydrologic benefits of the mature trees, soils and vegetation; resulting from fewer lots, why would the Developer put forth the plan as proposed ?
- At best, proposed Hampton Lane plan is unenlightened and violates the Comprehensive Plan; and at worst it is a potential decimation of the natural benefits that the soil, habitat, vegetation and canopy provide for the 3.29 ac.
- If 8 lots are required for the Developer to make a profit; potentially at the expense of the neighborhood, City, the ecology, the habitat (including human), & local hydrology; we must question the impetus, rationale and long term cost to citizens & City. Development may not make economic/ecological sense now.
- If developed, hydrology/ecology/neighborhood environs clearly indicate 4 to 5 lots with LID