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Sun Valley subdivision:

1. ✔ **5165 Walton Ave.** (PID# 22-35-28-01-55-18) | St. Johns River (Canaveral Marshes to Wekiva) Mitigation Basin | Hydric Soil | WET | Titusville Area of Critical Concern | Flood Zone A
2. ✔ **4960 Walton Ave.** (PID# 22-35-28-01-17-52) | St. Johns River (Canaveral Marshes to Wekiva) Mitigation Basin | Aquifer Soil | Titusville Area of Critical Concern
3. ✔ **4950 Walton Ave**. (PID# 22-35-28-01-17-51) | St. Johns River (Canaveral Marshes to Wekiva) Mitigation Basin | Aquifer Soil | Titusville Area of Critical Concern
4. ✔ **5160 Volusia Ave.** (PID# 22-35-28-01-55-13) | Farmton (or TM-Econ) Mitigation Bank (Wetlands?) | Aquifer Soil | Titusville Area of Critical Concern | Flood Zone A
5. ✔ **5175 Walton Ave.** (PID# 22-35-28-01-55-17) | St. Johns River (Canaveral Marshes to Wekiva) Mitigation Basin | Aquifer Soil | Titusville Area of Critical Concern | Flood Zone A
6. ✔ **4970 Walton Ave.** (PID# 22-35-28-01-17-53) | St. Johns River (Canaveral Marshes to Wekiva) Mitigation Basin | Aquifer Soil | Titusville Area of Critical Concern
7. ✔ **4980 Walton Ave.** (PID# 22-35-28-01-17-54) | St. Johns River (Canaveral Marshes to Wekiva) Mitigation Basin | Aquifer Soil | Titusville Area of Critical Concern
8. ✔ **2041 Sun Valley St.** (PID# 22-35-28-01-36-6) | Farmton (or TM-Econ) Mitigation Bank (Wetlands?) | Hydric Soil | WET | Titusville Area of Critical Concern | Scrub Jay | Flood Zone A
9. ✔ **5170 Volusia Ave.** (PID# 22-35-28-01-55-14) | Farmton (or TM-Econ) Mitigation Bank (Wetlands?) | Aquifer Soil | Titusville Area of Critical Concern | Flood Zone A

What is "Titusville Area of Critical Concern"?

The Area of Critical Concern (ACC) is an **aquifer protection area** specifically designated within the City of Titusville to safeguard groundwater resources. **(https://www.titusville.com/2786/FAQ---Community-Development)**

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https://search.brave.com/search?q=what+is+%22hydric+soil%22%3F+Can+you+build+a+house+on+it%3F&summary=1&conversation=08f8078668e265b3c1c1e04bf501795acfc6

What is Hydric Soil and Can You Build A House on it?

Hydric soil is defined as soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part, favoring the growth of hydrophytic vegetation. (https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/hydric-soils) These soils are typically found in wetlands, marshes, and areas with high water tables, characterized by prolonged saturation, gray or blue hues, and high organic matter content.

Yes, you can build a house on hydric soil, but it is often difficult, expensive, and heavily regulated. Construction on these soils requires careful engineering to address structural risks like uneven settlement and instability caused by moisture fluctuations. Additionally, because hydric soils often indicate the presence of protected wetlands, builders must comply with strict federal, state, and local regulations, including obtaining permits from agencies like the U.S. Army Corps of Engineers and the EPA.

Key challenges and requirements for building on hydric soil include:

- **Structural Risks:** The soil's tendency to change volume with moisture levels can lead to foundation settlement, cracking, and potential landslides if not properly managed.
- **Regulatory Hurdles:** Disturbing these soils usually requires a wetland delineation and specific permits; in some cases, building may be restricted to areas set back a specific distance (e.g., 50 feet) from the soil boundary.
- **Engineering Solutions:** Successful projects often require deep foundations (such as piers or piles), effective drainage systems, and moisture-resistant building materials to ensure structural integrity.
- **Cost Implications:** Due to the need for specialized geotechnical surveys, environmental assessments, and complex foundation work, building on hydric soil can significantly increase development costs compared to standard sites.

What is Aquafir Soil and Can You Build A House on it?

https://search.brave.com/search?q=what+is+%22aquafir+soil%22+in+FL%3F+Can+you+build+a+house+on+it%3F&summary=1&conversation=08f81b6a8c69268cd8f32fd26ce697216bd4

There is no official soil classification known as "aquifer soil" in Florida; the term likely refers to **Histosols** (wet, organic peat soils found in the Everglades) or **Entisols** and **Spodosols** (sandy soils with high water tables and organic layers), which are common in the state. According to USDA.gov, a histol is soil that is dominantly organic and most histols are **saturated year-round**. Histols are mostly soils that are commonly called bogs, moors, or peats and mucks. (https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/histosols) Building a house directly on **Histosols** (peat) is generally **not feasible** without extensive ground improvement, as these soils are unstable, compressible, and prone to settling, while **sandy soils** (Entisols/Spodosols) are common but require specific foundation designs to handle the high water table and potential sinkholes.

Key considerations for building on Florida's soil types include:

- **Peat (Histosols):** These organic soils are acidic, nutrient-rich, and hold excessive water, making them unsuitable for standard construction without significant stabilization or removal.
- **Sandy Soils (Entisols/Spodosols):** While abundant and well-draining, these soils often have a high water table and may contain a dense, hard "spodic horizon" layer that complicates excavation and foundation depth.
- **Foundation Requirements:** The Florida Building Code mandates that footings be at least **12 inches below ground level** to reach stable soil, and in areas with high water tables or weak soils, **slab-on-grade** foundations often require reinforced footings, **soil stabilization**, or **helical piers**.
- **Sinkhole Risks:** In many parts of Florida, it is critical to hire a professional to survey the lot for sinkholes before building, as the dissolution of underlying limestone can create voids in sandy or organic substrates.

Soil Type	Characteristics	Buildability
Histosols (Peat)	Wet, organic, acidic, high water retention	**Poor:** Requires removal or extensive stabilization

Entisols/Spodosols	Sandy, rapid drainage, high water table	**Moderate:** Requires deep footings and erosion control
Sandy Clay Loam	Mixed texture, better drainage than pure sand	**Good:** Suitable for standard foundations with proper drainage

Building on these soils is possible but requires adherence to strict **Florida Building Code** regulations, including **soil testing**, **compaction**, and the use of engineered foundation systems like **chemical polyurethane injection** or **deep piles** to ensure structural integrity against moisture and shifting earth.

What is a "Mitigation Basin" in Brevard County? (Geographic Water Area)

A **Brevard County mitigation basin** is a **designated wetland** or water management area approved by the St. Johns River Water Management District (SJRWMD) and the U.S. Army Corps of Engineers to offset environmental impacts caused by development. These basins, such as the **Mary A Ranch**, **Green Wing**, and **Lake Washington Mitigation Banks**, are specifically designed to restore, enhance, or preserve wetlands, thereby providing **mitigation credits** that developers can purchase to comply with regulations when they impact natural resources.

What is a mitigation basin vs mitigation bank in Brevard County?

A mitigation bank (physical site/entity that sells the credits) in Brevard County is a large, pre-approved natural area that has been restored, enhanced, or preserved to compensate for unavoidable wetland impacts elsewhere, selling credits to developers within a defined service area.

The term mitigation basin is not a standard regulatory term in the provided context; instead, the relevant concept is the drainage basin (or watershed), which dictates the service area where credits can be used. Mitigation credits must generally be used within the same drainage basin where the impact occurs, such as Basin 20 (Southern St. Johns River) or Basin 21 (Indian River Lagoon), to ensure ecological compensation happens within the same regional ecosystem.