



Emerald Greens Golf and Country Club Overview of the Proposed Core Area Drainage System

May 14, 2004

Background

The initial engineering to address the drainage design for the proposed Emerald Greens Core Area began in November, 2003. The “Core Area” (Core) consists of approximately 27 acres including the existing clubhouse, tennis courts/aquatics area and parking located south of North Village Drive and mostly east of Clubhouse Drive.

Objectives for the drainage design included:

- Meeting the drainage regulations for all applicable agencies including Hillsborough County and the Southwest Florida Water Management District (SWFWMD);
- Treatment of drainage for water quality improvement;
- On-site storage to prevent flooding;
- Assuring the Core development did not flood homeowners on or offsite; and,
- Improving the overall downstream stormwater condition.

Existing Drainage Condition

The drainage basin for the Core is in both the Brushy and Rocky Creek basins that flow through Carrollwood Village and continue south to Tampa Bay. The Core (in its predevelopment condition) does not have a storm water management system and therefore does not manage the rate of stormwater discharge or provide water quality treatment. The existing site was not required to manage stormwater because it was constructed before the stormwater regulations were enacted. The current stormwater that leaves the Core drains east and west to a series of existing ponds located on the Emerald Greens golf course.

Regulatory Requirements

Rate of Discharge

The applicable stormwater regulatory agencies, SWFWMD and Hillsborough County, require the post-development (after the new facilities are constructed) drainage condition not exceed the pre-development drainage condition with respect to rate of discharge. Rate of discharge is the rate at which drainage leaves the Core. A flow rate that is higher than is generated by existing conditions can cause flooding downstream from the Core. The regulations require that the post-development rate of discharge does not increase over the pre-development rate of discharge for a rainfall event up to a 25-year storm. This design storm is approximately 8 inches of rain over a 24-hour period and statistically should occur once every 25 years.

Water Quality Treatment

The regulations also require a drainage design that provides water quality treatment from the drainage resulting from the totally new facilities, such as townhomes but do not require treatment from existing facilities that are being remodeled or reconstructed such as the clubhouse. That means that the proposed design is not required to collect and treat stormwater from existing developed areas that will remain including the clubhouse, tennis courts, pool area, Clubhouse Drive, etc.

Proposed Drainage Condition

The proposed design for the Core will involve five water treatment ponds located about the perimeter of the Core. The drainage design will not only meet but surpass the regulatory requirements for storm water management. This higher standard is achieved because the new design will not only meet the rate of discharge requirement but will additionally capture and treat drainage from the totally new facilities as required by the regulations and a large portion of the existing developed areas, which do not require treatment by the regulations. The net result is additional drainage being held on site and treated before discharged offsite and therefore reducing the downstream flooding potential and improving water quality from the exiting condition.

Coordination with Hillsborough County Public Works

Our design has been discussed with the Hillsborough County Public Works staff that is working on the existing Carrollwood Village area flooding problems. The Hillsborough County Staff have concurred that our proposed activities in the Core, as proposed, will not have an adverse impact on the periodic flooding conditions in Carrollwood Village.

Summary

In summary, the net impact from the stormwater discharge from the proposed Core design will be an overall improvement to the current drainage condition and surpass both SWFWMD and Hillsborough County requirements.

We are very pleased to be able to provide a drainage plan that is in the best interest of Carrollwood Village residents as well as Emerald Greens Golf and Country Club.



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Date