

PROJECT NARRATIVE

PROPOSED DEVELOPMENT OVERVIEW

The subject property is located south of the southeast corner of State Road 54 and Little Road, in Pasco County, Florida, in Section 25, Township 26 South, Range 16 East. The area of proposed construction is currently developed, and contains 31,275 square feet of impervious area. The proposed development under this permit application includes demolition of the existing impervious areas. Also included is the construction of one commercial building with associated parking, landscaping, utilities, and surface water management facilities. All perimeter landscaping shall remain undisturbed. New foundation and interior parking lot landscaping will be installed.

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EXISTING SITE CONDITIONS

Existing site conditions are reflected on the enclosed topographic survey performed by Extreme Surveying of Florida dated 11/13/2014. Elevations on the topographic survey are relative the North American Vertical Datum of 1988 (NAVD88). All elevations reported in this document (and the associated construction plans) refer to NAVD88. No wetlands or floodplain exist within the construction area. Additionally the site is completely landscaped per Pasco County LDC.

On-Site Soils:

According to the Pinellas County NRCS Soil survey, the site contains Adamsville Fine Sand. Based on the soil characteristics reported by the project geotechnical engineer, the on-site soils are assumed to be in hydrologic soil group C. The project geotechnical engineer, Universal Engineering Sciences, verified the following aquifer data in the area of the proposed pond:

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Depth to seasonal high groundwater = approximately 3-4 feet.
Depth to confining layer = Greater than 20 feet

Runoff Coefficient (C Value):

The 'C' Value for the existing pervious areas is 0.20. The 'C' Value for impervious surface is 0.95. The 'C' Value for open water / pond is 1.00.

Time of Concentration:

The time of concentration is assumed to be the standard minimum of 10 minutes.

Floodplain & Wetland:

FEMA Flood Insurance Rate Map 12103C0086G dated 08/03/03 shows the property lying in Flood Zone X. Neither floodplain nor wetlands exist on the site.

POST-DEVELOPMENT CONDITIONS

The proposed improvements include two (2) onsite stormwater retention areas that can accommodate the treatment and attenuation requirements for runoff from the proposed development. Also included are two (2) underground retention areas to provide the remaining attenuation volume required. All perimeter landscaping shall remain undisturbed. New foundation and interior parking lot landscaping will be installed per Pasco County LDC.

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Runoff Coefficient (C Value):

The 'C' Value for the existing pervious areas is 0.20. The 'C' Value for impervious surface is 0.95. The 'C' Value for open water / pond is 1.00. See the attached calculations

Post Developed Discharge Volume:

The entire drainage basin area of 1.07 acres will drain to four (4) existing ditch bottom inlets, then discharge to an existing drainage system behind the shopping center. The discharge volume will be slightly higher than the existing discharge volume in the 100 year design storm event as follows:

$$\text{POST-DEV 'C' VALUE} = 33,320 \text{ SF IMP} \times 0.95 + 13,462 \text{ sf PERV} \times 0.20 / 46,782 \text{ SF} = 0.734$$

$$\text{PRE-DEV 'C' VALUE} = 31,275 \text{ SF IMP} \times 0.95 + 15,507 \text{ sf PERV} \times 0.20 / 46,782 \text{ SF} = 0.701$$

$$0.734 - 0.701 = 0.033; Q = 0.033 \times 8.5 \times 1.07 \text{ AC} = 0.300 \text{ CFS};$$

0.300 CFS x 10 MIN x 60 SEC = 180 CF; THEREFORE THE SITE GENERATES AN ADDITIONAL 180 CF OF RUNOFF VOLUME IN THE 100 YEAR DESIGN STORM.

180 CF / 160,000 SF (EXISTING POND) = 0.001 FT OF INCREASE TO THE EXISTING DHW EL.

Floodplain:

The property lies in Flood Zone X. No floodplain or wetland encroachment is proposed.

CONCLUSION

The proposed surface water management system has been designed to meet the requirements of Pasco County and SWFWMD as the increase is negligible. Additionally all setbacks, buffers and landscaping shall meet Pasco County LDC.