

September 26, 2025

Suwannee River Water Management District
9225 CR 49
Live Oak, FL 32060**RE: Circle K- Lake City
Drainage Statement
4706 US Highway 90
Lake City, FL 32055
Parcel/ Tax ID No: 34-3S-16-02465-010
DECPC NO: 2451-24-03904
Columbia County**

To Whom It May Concern,

On behalf of our clients, HSCCK, LLC and Circle K Stores, Inc, please accept this drainage statement as part of our request for a Permit Modification for the subject project. This statement has been prepared to evaluate and define the stormwater drainage conditions anticipated as a result of the proposed site improvements in comparison to the overall previously approved master permit issued as Suwannee River Water Management District (SRWMD) Environmental Resource Permit (ERP) No. 08-0030. All elevations referenced herein utilize the North American Vertical Datum of 1988 (NAVD-88).

The Applicant proposes to re-develop the ± 1.783 -acre property as a gas station with a 5 multi-product-dispenser (MPD) fueling canopy and $\pm 3,956$ SF convenience store (the 'Project') and thereby proposing to modify the existing SRWMD ERP Permit No. 08-0030. Associated site improvements include associated parking, landscaping, and site infrastructure including a stormwater management system. The proposed on-site stormwater management system consists of concrete flumes, swales, interconnected pipes, inlets, and mitered end sections to promote stormwater flow to the proposed dry detention area located east of the building.

The project site falls under the jurisdiction of Lake City, Suwannee River Water Management District (SRWMD), Columbia County, and Florida Department of Transportation (FDOT). The site is currently developed as an Olive Tree Farm. Within the 'Stonegate Landing Unit 2' development, approved under SRWMD Permit No. **08-0030**, the site is further defined as a portion of the 2.07-acre property drawn as 'Parcel 1B' on the master development plans. This statement quantifies the area to be permitted as ± 1.783 -acres due to the ± 0.29 -ac portion of 'Parcel 1B' being previously subdivided for the installation of the existing driveway from US Highway 90, which serves the shopping center. This existing driveway is located immediately east of the subject site.

The master stormwater system for the shopping center consists of interconnected pipes, swales, inlets, and manholes that convey stormwater to the onsite detention pond located within the southern portion of the overall system. This system retains water from the Normal Water elevation of 156.00' and up to the control structure that includes a 6" orifice at elevation 161.00' and a primary overflow discharge weir at elevation 162.50'.

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The master stormwater management system was designed to serve 10.29-acres of impervious surface on a total project area of 19.18-acres. 'Parcel 1B' was designed for a total impervious area of 53% (± 1.097 -acres). In existing conditions, 'Parcel 1B' has been subdivided into the ± 1.783 -ac subject property and a ± 0.29 -ac lot, which contains the private driveway serving the shopping center from US Highway 90. The subject property thereby has an allowable impervious area of ± 0.945 -ac (53% of ± 1.783 -ac). See Table 1 – Land Use Calculations for a breakdown of the pre-development versus post-development conditions for the remaining ± 1.783 -acre subject property.

Table 1 – Land Use Calculations

Land Use	Pre-Development (ac.)	Post Development (ac.)	<u>Delta</u> <u>(ac.)</u>
Impervious Area (incl. bldg.)	0	0.986	+0.986
Pervious Area	1.783	0.677	-1.106
Dry Detention	0	0.043	+0.043
Dry Banks	0	0.077	+0.077
Total	1.783	1.783	0

Water Quality:

The master detention pond has been designed to treat the 100-year storm events for the overall shopping center development.

In proposed conditions, the stormwater runoff generated by the site sheet flows to the proposed concrete flumes and is then conveyed via swales and interconnected pipes to the dry detention area located east of the proposed building. This on-site detention area connects to the master stormwater system via piped connection to the existing 15" RCP stub located in the shared private roadway.

As the master system provides treatment and attenuation for 53% of 'Parcel 1B', the proposed dry detention area is designed to store the 100-year, 3-day storm event for the delta of the proposed impervious area by the Circle K development versus the permitted condition. This delta is defined as 0.041-ac (approximately 1,800 SF).

Table 2 –Permitted Versus Proposed Conditions

Land Use	Permitted Conditions % (ac.)	Post-Development % (ac.)	<u>Delta</u> <u>% (ac.)</u>
Total Impervious Area (incl. bldg.)	53% (0.945)	55% (0.986)	+2% (+0.041)
Total Pervious Area	47% (0.838)	45% (0.797)	-2% (-0.041)
Total	100% (1.783)	100% (1.783)	

Storage Calculations:

For the 100-year, 3-day storm event:

Storage Volume Required: $V_{\text{REQUIRED}} = DA * P$

Where $P = 12.9\text{-in}$; $DA = 1,800 \text{ SF } (0.041\text{-ac})$

$V_{\text{REQUIRED}} = 1,800 \text{ SF} * 12.9\text{-in} * (1/ 12) = \mathbf{1,935 \text{ CF}}$

Volume Provided at 162.45' Stage: 0.068 AC-FT = 2,963 CF

The proposed dry detention area is designed to provide adequate treatment for the impervious delta. The stormwater is contained within the dry detention area until elevation 162.45, before leaving the site.

Water Quality Calculations:

Required Treatment Volume Calculations for Delta of Imperviousness:

For 2.5" times the percentage of proposed imperviousness:

$V_{\text{REQUIRED}} = 0.041\text{ac}(\text{Delta}) * 2.5\text{-in} * (2.5/ 12) = \mathbf{0.0085 \text{ ac-ft}}$

Volume required for dry detention treatment (75% of wet detention treatment volume):

$0.75 * 0.0085 \text{ ac-ft} = \mathbf{0.0064 \text{ ac-ft} = 278 \text{ CF}}$

Provided Treatment Volume Calculations for Delta of Imperviousness:

Volume Provided at Dry Detention Outfall Invert, 162.45': **2,963CF**

Total Volume Provided at Top of Pond, 164.00': 4,194 CF

Therefore, the required treatment volume is provided at 161.15'. Refer to the attached Exhibit-1 "Stage-Storage Areas".

In existing conditions, portions of the site sheet flow to both the US Highway 90 and Pinemount Boulevard rights-of-way. In the post-development condition, the stormwater runoff generated by the site is conveyed to the onsite detention facility; thus improving the drainage pattern. Refer to the attached Pre-Development and Post-Development Drainage Basin Maps.

The proposed development has been designed to comply with the master permit to promote the safe and efficient management of stormwater runoff, without negatively impacting existing drainage patterns, adjacent roadways, or neighboring parcels. We respectfully request your review and approval of the requested Permit Modification for the proposed project.

Please feel free to contact the undersigned by phone 561.921.8570 or email mmiles@dynamicec.com with any questions or concerns you might have, or should you require additional information.

Thank you for your time and consideration and we look forward to your favorable review.

Sincerely,

Dynamic Engineering Consultants, P.C.

Michael D. Miles, P.E.
Regional Manager/Senior Principal
FL Professional Engineer License No. 81313

Attachments:

- Appendix A. Master Permit ERP08-0030 for 'Stonegate Landing – Unit 2'
- Appendix B. Master Permit Plans
- Appendix C. Master Permit Drainage Calculations
- Appendix D. Stage-Storage Areas Exhibit
- Appendix E. Pre-Development Drainage Basin Map
- Appendix F. Post-Development Drainage Basin Map

Appendix A. Master Permit ERP08-0030 for 'Stonegate Landing – Unit 2'

Appendix B. Master Permit Plans

Appendix C. Master Permit Drainage Calculations

Appendix D. Stage-Storage Areas Exhibit

Appendix E. Pre-Development Drainage Basin Map

Appendix F. Post-Development Drainage Basin Map