



City of Alachua

Planning & Community Development Department Staff Report

Planning & Zoning Board Hearing Date:
Legislative Hearing

April 16, 2019

- SUBJECT:** A request to amend the City of Alachua Land Development Regulations (LDRs) as follows: amend Section 5.1.2, Table 5.1-2, Related to the Dimensional Standards within Residential Zoning Districts; amend Section 7.3.1 (B)(1), relating to required standard street improvements for subdivisions; amend Section 7.3.1 (B)(2), relating to design requirements for streets utilizing transitional swales; amend Section 10.2, creating a definition for “transitional swale”.
- APPLICANT/AGENT:** Gmuer Engineering, Inc.
- PROJECT PLANNERS:** Adam Hall, AICP
- RECOMMENDATION:** Staff recommends that the Planning & Zoning Board find the proposed Text Amendments to the City’s Land Development Regulations to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City’s Land Development Regulations and transmit such finding to the City Commission with a recommendation to approve.
- RECOMMENDED MOTION:** *This Board finds the proposed text amendments to the City’s Land Development Regulations to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City’s Land Development Regulations and transmits such finding to the City Commission with a recommendation to approve.*

SUMMARY

The proposed amendment to the City's Land Development Regulations seeks to permit the use of swales in developments that currently would require the use of curb and gutter. The swales would differ from a typical open (standard) swale as there would be certain performance standards the swales would have to meet by definition. Additionally, under the proposed amendment, the use of curb would still be required in those developments, however, swales for the treatment and conveyance of stormwater would be permitted. The proposed amendment would result in developments with decentralized stormwater facilities. The swale systems would be maintained by a single entity, such as the Developer or the Home Owner's Association.

In summary, the substantial changes being proposed as a part of this amendments are:

- ❖ Creation of a definition for "transitional swale" that is a swale that can meet certain pollutant removal standards
- ❖ Creates minimum lot size (10,000 square feet) for use of the transitional swale
- ❖ Creates minimum lot width (75') for use of transitional swale
- ❖ Requires that curbing still be provided with swale system
- ❖ Requires that the swale system be maintained by a single entity such as the Developer or Home Owner's Association

According to the Applicant, the purpose of this proposed amendment is to provide additional design options that will also allow developers to meet stormwater regulations.

Each proposed change and a staff comment further elaborating upon the purpose of the amendment is provided below. Added language is shown underlined; deleted language is shown with a ~~striketrough~~.

PROPOSED LDR TEXT AMENDMENTS

AMENDING SECTION 5.1.2; TABLE 5.1-2, TABLE OF DIMENSIONAL STANDARDS IN THE RESIDENTIAL ZONING DISTRICTS

5.1.2 *Dimensional standards in Residential Districts.* All primary and accessory structures in the residential zoning districts are subject to the dimensional standards set forth in Table 5.1-2, Table of Dimensional Standards in the Residential Zoning Districts. These standards may be further limited or modified by other applicable sections of these LDRs. Rules of measurement and permitted exceptions are set forth in Sections 5.2.1, Lots; 5.2.2, Setbacks and required yards; 5.2.3, Height; and 5.2.4, Bulk.

Table 5.1-2. Table of Dimensional Standards in the Residential Zoning Districts										
District and Use	Lots		Minimum Yards and Setbacks				Wetland and Water-course (ft.)	Max. Height (ft.)	Max. Lot Cover (incl. accessory structures)	Max. Gross Density (DU/acre) [3]
	Min. Area (sq. ft.)	Min. Width (ft.)	Front (ft.) [4]	Side (ft.)	Rear (ft.)					
RSF-1										
Dwelling, single-family, detached	40,000	100	30	15 for each	15	Sec. 5.2.2(B)	65	40%	1	
All other uses	None	None	35	25 for each	35			35%	N/A	
RSF-3 (District permitted only in areas with community water and sewer systems)										
Dwelling, single-family detached	10,000	50/75 ⁴	20	7.5 for each	15	Sec. 5.2.2(B)	65	40%	3	
All other uses	None	None	35	25 for existing; 30 for new	35			50%		
RSF-4 (District permitted only in areas with community water and sewer systems)										
Dwelling, single-family, detached	7,500	50/75 ⁴	20	7.5 for each	15	Sec. 5.2.2(B)	65	45%	4	

Dwelling townhouse, and two- to four-family	7,500 per unit for the first 2 units; 2,000 per unit for each addi- tional	50	15	5 for each building side	10		60%
All other uses	None	None	35	25 for existing; 30 for new	35		60%
REMAINDER OF TABLE UNCHANGED							

¹ Note. Where the use of Transitional Swales is proposed for subdivisions with lots between 10,000 square feet and 20,000 square feet the minimum lot width shall be 75ft.

⁴² Note. There are also use-specific regulations for such parks found in Article 4.

Staff Comment: The proposed change would require an increase in the minimum lot width from 50 feet to 75 feet in the RSF-3 and RSF-4 Zoning Districts where the “transitional swales” are proposed to be used. The purpose of the increase is to ensure adequate spacing between any culvert structures serving each residential lot.

AMENDING SECTION 7.3.1 (B)(1) RELATED TO WEARING SURFACE AND RIGHT-OF-WAY WIDTH STANDARDS WITHIN SUBDIVISIONS

7.3.1 (B)(1) Wearing surface width and right-of-way width standards

(c) Local streets.

(i) For street types/standards A, B and C.

- a. 24-foot wearing surface. The minimum street wearing surface width for local streets may be reduced by two feet on each side served by a sidewalk or multipurpose trail with a minimum width of eight feet.
- b. Minimum right-of-way width or easement width of 50 feet for streets with curb and gutter, or 60 feet for streets with swale.

c. For street type/standard B that incorporate Transitional Swales the minimum right-of-way width shall be 50 feet plus an additional 20 feet (10 feet for each side of the roadway) of private easement width for each Transitional Swale facility.

(d) Marginal access streets.

(i) For street types/standards A, B and C.

a. 20-foot minimum wearing surface.

b. Minimum right-of-way width or easement width of 40 feet for streets with curb and gutter, or 60 feet for streets with swales.

c. For street type/standard B that incorporate Transitional Swales the minimum right-of-way width shall be 40 feet plus an additional 20 feet (10 feet for each side of the roadway) of private easement width for each Transitional Swale facility.

(e) Wearing surface and right-of-way width summary table. These standards are summarized in the following Table 7.3-1, Wearing Surface standards, and Table 7.3-2, Minimum Right-of-Way Width Standards:

Classification	Street Type Standard	Minimum Wearing Surface Width (in feet) [1]	Number of Travel Lanes [2]
Arterial	All	2 × 24	4
Collector	All	24	2
Local	All	24	2
Marginal access	All	20	2

[1] The minimum street wearing surface width for local streets may be reduced by two feet on each side served by a sidewalk or multipurpose trail with a minimum width of eight feet.

[2] Individual travel lanes for streets shall be 12 feet wide, except for marginal access streets, which shall be a minimum ten feet in width.

Classification	Street Type Standard	Curb and Gutter Right-of-Way Minimum Width (ft.)	Transitional Swale Right-of-Way Minimum Width (private easement minimum width)(ft.)	Standard Swale Right-of-Way Minimum Width (ft.)
Arterial	All	100	N/A	120
Collector	All	60	N/A	80
Local	A, B, C	50	50 (20 total – 10 on each side of roadway)	60
Local	D	40	N/A	60
Marginal access	All	40	40 (20 total- 10 on each side of roadway)	60

Staff Comment: The proposed change would create right-of-way standards for those streets utilizing transitional swales. For local streets where the lots are between 10,000 and 20,000 square feet, transitional swales are proposed to be permitted where the right-of-way width is a minimum of 50 feet with ten feet of private easement on each side of the roadway for placement of the swale. For marginal access, the right-of-way minimum width is 40 feet with 10 feet of private easement required on each side of the street. A sample street cross section has been provided by the applicant and can be found in Exhibit "A".

AMENDING SECTION 7.3.1 (B)(2) RELATED TO STANDARDS FOR USE OF TRANSITIONAL SWALES WITHIN SUBDIVISIONS

7.3.1 (B)(2) *Curb and gutter.*

(a) Curb and gutter shall be provided on type A and B streets, but is not required on type C and D streets.

(b) For lots including and between 10,000 square feet and 20,000 square feet, Transitional Swales may be provided as an alternative to providing Curb and Gutter for Type B streets that are designated Local or Marginal Access.

(i) If Transitional Swales are utilized the subdivider shall provide data-analysis from a licensed stormwater engineer demonstrating that performance measures outlined in the definition of Transitional Swale will be met by the Transitional Swale system.

(ii) In all cases where Transitional Swales are provided swale facilities shall be located within a minimum 10 foot wide private easement on each side of any proposed roadway. Such easements and all associated swales, culverts, and other features of the Transitional Swale shall be privately maintained and will be the sole responsibility of the subdivider or any successive Home Owner's Association. The Transitional Swale facility must be owned in its entirety by a single entity.

(iii) In all cases where Transitional Swales are provided, an F-type, or similar style, curbing is required to line the outer edge of an associated paved roadway. Curb breaks allowing for spillway connections to the swale system are permitted.

~~(b)~~ (c) If curb and gutter is not required, the subdivider shall comply with the right-of-way width requirements for streets with swales in accordance with the following Table 7-3.2, Minimum Right-of-Way Width Standards:

Staff Comment: The proposed change would include standards for the transitional swales. The minimum lot size for use of transitional swales is proposed to be 10,000 square feet (.23 acres) with a minimum lot width of 75 feet. The proposed swale system would be located on private property, within an easement, and would be maintained by a single entity (the subdivider or the Home Owner's Association). The proposed amendment would not permit a true open swale system as a curb will still be required along roadway edges. The purpose of the curb is to ensure comfort of and protect any pedestrians utilizing the sidewalk system. The curb would also prevent roadside parking, which may damage landscaping and/ or proposed swale system.

AMENDING SECTION 10.2 CREATING A DEFINITION FOR TRANSITIONAL SWALE

10.2. – Definitions

Transitional Swale means a swale, designed as a part of a stormwater management system that meets the pollutant removal goals of Chapter 62-40 of the Florida Administrative Code through the following criteria:

(1) The average treatment efficiency of the areas treated and the areas not treated must achieve at least 80% reduction of the average annual load of pollutants that would cause or contribute to violations of state water quality standards for Class III waters.

(2) The average treatment efficiency of the areas treated and the areas not treated must achieve at least 95% reduction of the average annual load of pollutants that would cause or contribute to violations of state water quality standards for Class I, Class II, Outstanding Florida Waters, or Class III waters which are approved, conditionally approved, restricted, or conditionally restricted for shellfish harvesting.

Staff Comment: The proposed definition of transitional swale clarifies that the swale is intended for runoff treatment in addition to conveyance. The swale would be required to be designed to meet certain treatment standards, as certified by the designing engineer.

FINDINGS OF FACT: COMPLIANCE WITH LAND DEVELOPMENT REGULATIONS

Subsection 2.4.1(E)(1) of the Land Development Regulations (LDRs) states that, “in determining whether to approve a proposed text amendment to the Land Development Regulations, the City Commission shall find that an application is consistent with the following standards.” These standards are listed below, followed by Staff’s evaluation.

- (a) ***Consistent with Comprehensive Plan*** – *Whether and the extent to which the proposed amendment is consistent with the Comprehensive Plan.*

Evaluation & Findings: These amendments do not conflict with any Goals, Objectives, or Policies of the Comprehensive Plan.

Objective 3.5.a.3 of the Community Facilities and Natural Groundwater Recharge Element states that “Swale conveyances shall be used to the greatest extent possible” within high aquifer recharge areas.

- (b) ***Consistent with Ordinances*** – *Whether the proposed amendment is in conflict with any provision of these LDRs or the City Code of Ordinances.*

Evaluation & Findings: These amendments do not conflict with any provisions of the LDRs or the City Code of Ordinances.

- (c) **Changed Conditions** – *Whether and the extent to which there are changed conditions that require an amendment.*

Evaluation & Findings: The proposed amendment would allow Developer's a potential avenue to meet the Alachua County Stormwater Treatment program, which took effect January 1, 2019. According to the applicant, all new development within Alachua County is now required to demonstrate that at least one Low Impact Design (LID) element has been incorporated into the storm water management system and that nutrient loading will be reduced.

- (d) **Community Need** – *Whether and the extent to which the proposed amendment addresses a demonstrated community need.*

Evaluation & Findings: These amendments would address community need by providing additional development design options for residential subdivisions while generally maintaining the urban form and character of existing development.

- (e) **Compatible with Surrounding Uses** – *Whether and the extent to which the proposed amendment is consistent with the purpose and intent of the zone districts in these LDRs, or will improve compatibility among uses and will ensure efficient development within the City.*

Evaluation & Findings: To the extent of the applicability of this standard, these amendments would not adversely affect compatibility among uses or result in inefficient development.

- (f) **Development Patterns** – *Whether and the extent to which the proposed amendment would result in a logical and orderly development pattern.*

Evaluation & Findings: These amendments would result in a logical and orderly development pattern.

- (g) **Effect on Natural Environment** – *Whether and the extent to which the proposed amendment would result in significantly adverse impacts on the natural environment, including but not limited to water, air, noise, storm water management, wildlife, vegetation, wetlands, and the natural functioning of the environment.*

Evaluation & Findings: These amendments would not have adverse impacts on the natural environment, and will give developers additional options for meeting the County Stormwater Program requirements.

- (h) **Public Facilities** – *Whether and the extent to which the proposed amendment would result in development that is adequately served by public facilities (roads, potable water, sewage, storm water management, parks, and solid wastes).*

Evaluation & Findings: These amendments would have no impact to the provision of public facilities.

EXHIBIT "A" TO STAFF REPORT – SAMPLE ROADWAY CROSS SECTION



TRANSITIONAL SWALE STREET CROSS SECTION

ITEM	CRITERIA
STREET CATEGORY	LOCAL / RESID
DESIGN SPEED	30 MPH
HORIZONTAL CURVES	MIN 33%
VERTICAL CURVES REQUIRED	+ 1.00% DELTA
MIN V. SAG	5'
MIN V. CREST	5'
MIN VERT CURVE LENGTH	50'
TRAVEL LANE WIDTH	12'
SHOULDER ZONE	5'
MIN GRADED SHOULDER	2'
GRADED SHOULDER SLOPE	5% MIN
ACCESS TYPE	DIRECT
STREET TREES	NO
CURB AND OUTLET	NO
SEWERAGE	6" DIA. SDR
MAX ROADSIDE SLOPE	4:1
MAX BACKSLOPE	3:1
MEDIAN	NO
BIKE LANES	NO
CALCULATED PARKING	NO
MINIMUM ROADWIDTH	50'

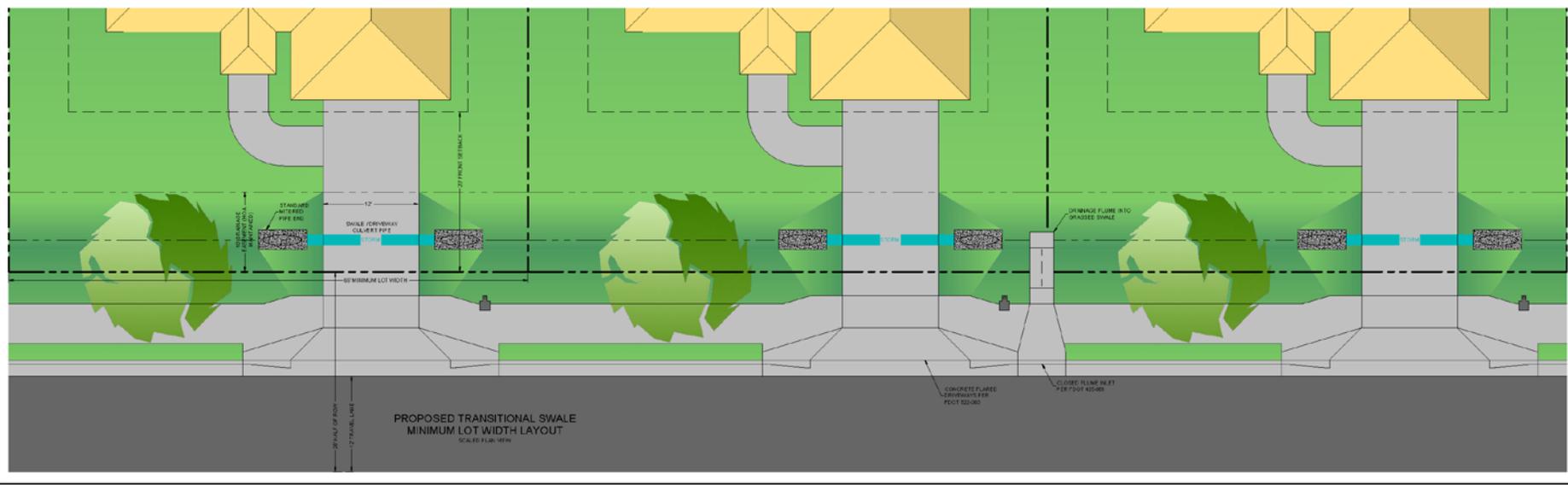
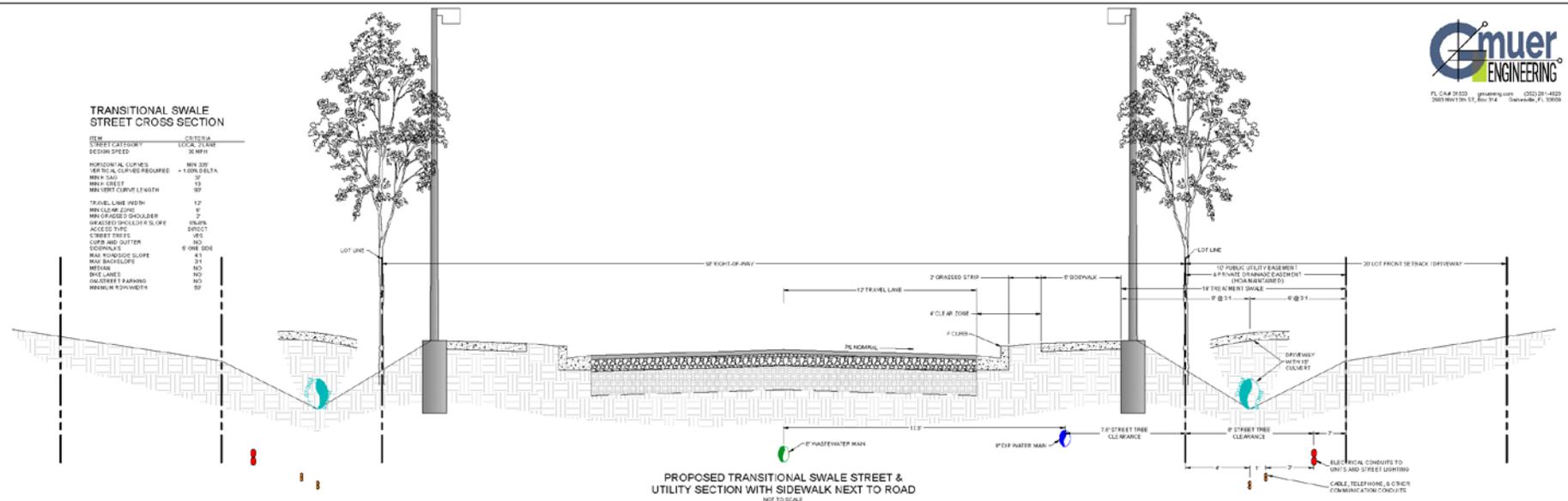


EXHIBIT “B”

TO

**LAND DEVELOPMENT REGULATIONS (LDR) TEXT
AMENDMENT STAFF REPORT**



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

February 20, 2019

Christopher Gmuer, P.E.
President, Gmuer Engineering, LLC.
2603 NW 13th St
Box 314
Gainesville, FL 32609

Also submitted electronically to chrisg@gmuereng.com.

RE: Revised Application for a Proposed Text Amendment to the City of Alachua Land Development Regulations (Transitional Swales)

Dear Mr. Gmuer:

On January 31, 2018 the City of Alachua received your revised submission for the above referenced application. The original application was received on October 8, 2018. The application was reviewed by the City's Development Review Team (DRT), and meetings were held to discuss the application's deficiencies on October 29, 2018 and on January 10, 2019.

The revised application referenced above has been reviewed by the City's DRT. Upon review of the application and materials, the following remaining insufficiencies must be addressed. Please address all insufficiencies in writing and provide an indication as to how they have been addressed by **5:00 PM on Thursday, March 7, 2019**. A total of four (4) copies of the application package, plans, and a CD containing a PDF of all application materials and plans must be provided by this date.

Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved before the item may be scheduled for a public hearing before the Planning and Zoning Board and City Commission. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time. If your revised application is received by the date specified above, and if your response adequately addresses the following comments, a hearing before the Planning & Zoning Board (PZB) may be scheduled for April 16, 2019.

Deficiencies to be Addressed

** Unless otherwise noted, references to code sections are to the City of Alachua Land Development Regulations. **

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations.

1. Consistency with Section 2.4.1 (E)(1), City of Alachua LDRs
 - a. *Consistent with Comprehensive Plan.*

- i. Future Land Use Element Objective 1.2 Residential states that the “City of Alachua shall establish three Residential land use categories to ensure an **orderly urban growth pattern**...” [emphasis added]. Staff finds that the provision of “transitional swales”, as defined in the application materials, would not contribute to an orderly urban growth pattern as swales could be provided at densities far greater than what is currently allowed under the Land Development Regulations.

Remaining Comment: Proposed lot size minimum of 7,500 square feet and minimum lot width of 65’ are found to not be appropriate for development without curb and gutter (swale). Lot sizes must be a minimum of 10,000 square feet with a minimum lot width of 75’.

b. *Consistent with Ordinances.*

- i. Section 7.1.1 *Purpose* provides the following standards for subdivisions.
- (A) Economically sound community. To encourage the development of an economically sound and stable community.
- (B) Provision of streets, utilities, and other facilities. To ensure the provision of required streets, utilities and other facilities and services for development.
- (C) Safe and convenient access and circulation. To ensure the adequate provision of safe and convenient access and circulation, both vehicular and pedestrian, and to help ensure that all lots will be accessible to firefighting equipment and other emergency and service vehicles.
- (F) Safe and healthy environment. To promote a safe and healthy environment.

Staff has concerns that this amendment would permit development that would not be economically sound for the City of Alachua, would not provide safe and convenient access or circulation for vehicles and pedestrians, and would not contribute a safe and healthy environment for the City of Alachua.

Remaining Comment: The presence of curbs helps protect pedestrians from auto drivers. Without curbs, additional protections from automobiles are required. These protections include larger “recovery areas”, planting strips, landscaping or relocation of sidewalk. The proposed cross section shows a one foot grassed area between travel lane and the five foot wide sidewalk. This may increase pedestrian discomfort and result in discouraging the use of the pedestrian facilities. The Federal Highway Administration recommends a minimum of 2’ separation for curbed streets, and placement of sidewalk behind swale when present.

- ii. Section 7.2.5 (A) states “[t]he arrangement, **character**, extent, width, grade, and location of all street shall be consistent with the Comprehensive Plan, where applicable, and shall be considered in **relation to existing and planned streets**, topographical conditions, **safety, public convenience**, and the **uses of land** to be served by the streets” [emphasis added]. The use of “transitional swales”, as defined in the application materials, is associated with large lot residential (1/2 acre or larger) or rural roads and would not match the character of higher density residential uses, such as those developments with 6,000 square foot lots with a 50’ foot minimum width. A development of this nature, which would be permitted under the proposed amendment, would result in driveway culverts in close proximity to each other with only a small area available for the open swale. Because RSF-3, RSF-4, and RSF-6 properties often exist in close proximity to each other, the proposed amendment could potentially result in a patchwork development pattern with some subdivisions having curb and gutter, and other subdivisions having the transitional swale system, as defined in the application materials. Further, for reasons that will be discussed in

greater detail below, Staff has concerns about the safety and public convenience issues that may result if this proposed amendment were to be adopted.

Comment: See above comments.

f. *Development Patterns.*

- i. Historic and current residential development patterns within the City of Alachua typically consist of open swale systems on larger lot (1/2 acre or larger) or rural subdivisions. Those subdivisions with lots smaller than 1/2 acre have generally had a curb and gutter system to handle stormwater. This pattern is also prevalent regionally. Staff has not been able to identify any subdivisions within the State that utilize “transitional swales”, as defined in the application materials, with lots less than 20,000 square feet.

Comment: See above comments.

g. *Public Facilities*

- i. Based on information provided by the City of Alachua Public Services Department there are numerous concerns about the impacts to public facilities.
 1. Stormwater System Maintenance: Frequency, cost, and responsibility for maintenance of swales, culverts, and other features of the “transitional swale”. Both proposed sections show all or a portion of the swale area within City right-of-way. The City historically does not maintain DRAs, but would maintain the stormwater piping to them. Culvert maintenance would also be problematic: depending on type of construction the useful life of the culvert may be up to 50% less than the useful life of a concrete stormwater drain/inlet typically found in a curb and gutter development.

Remaining Comment: Proposed cross section shows a portion of the culvert vertical wall within right-of-way. For clarity of maintenance responsibility, culvert vertical wall must be located completely within drainage easement.

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com.

Sincerely,



Adam Hall, AICP
Planner

- c: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

January 3, 2019

Christopher Gmuer, P.E.
President, Gmuer Engineering, LLC.
2603 NW 13th St
Box 314
Gainesville, FL 32609

Also submitted electronically to chrisg@gmuereng.com.

RE: Revised Application for a Proposed Text Amendment to the City of Alachua Land Development Regulations (Transitional Swales)

Dear Mr. Gmuer:

On December 10, 2018 the City of Alachua received your revised submission for the above referenced application. The original application was received on October 8, 2018. The application was reviewed by the City's Development Review Team (DRT), and a meeting was held to discuss the application's deficiencies on October 29, 2018.

The revised application referenced above has been reviewed by the City's DRT. Upon review of the application and materials, the following remaining insufficiencies must be addressed. Please address all insufficiencies in writing and provide an indication as to how they have been addressed by **5:00 PM on Thursday, January 17, 2019**. A total of four (4) copies of the application package, plans, and a CD containing a PDF of all application materials and plans must be provided by this date.

Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved before the item may be scheduled for a public hearing before the Planning and Zoning Board and City Commission. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time. If your revised application is received by the date specified above, and if your response adequately addresses the following comments, a hearing before the Planning & Zoning Board (PZB) may be scheduled for March 12, 2019.

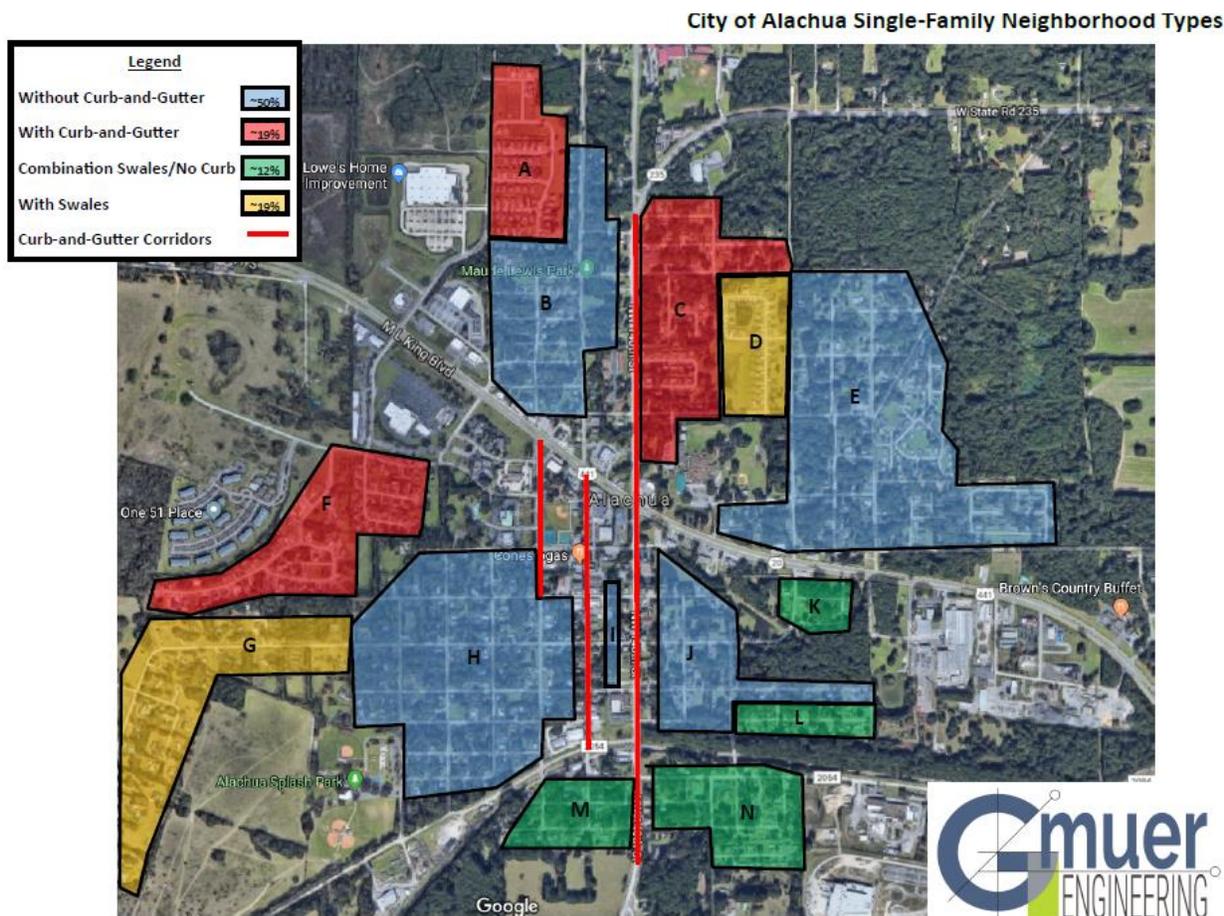
Deficiencies to be Addressed

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1. Consistency with Section 2.4.1 (E)(1), City of Alachua LDRs
 - a. *Consistent with Comprehensive Plan.*

- i. Future Land Use Element Objective 1.2 Residential states that the “City of Alachua shall establish three Residential land use categories to ensure an **orderly urban growth pattern**...” [emphasis added]. Staff finds that the provision of “transitional swales”, as defined in the application materials, would not contribute to an orderly urban growth pattern as swales could be provided at densities far greater than what is currently allowed under the Land Development Regulations.



Comment: Response indicates that curb and gutter systems are limited to new development and that a majority of existing development has developed without curb and gutter. As support for this, information has been provided showing existing subareas (Districts) and identifying if they have curb and gutter, swale, or some combination.

In Districts B, H, and J (identified in the above graphic), which are areas without curb and gutter, a majority of the parcels/ lots are significantly larger than the proposed 6,000 square foot size found in the proposed language. A majority of parcels within District B are 75' wide, .25 acre (10,890 square feet) lots. A majority of parcels within District J are 80' to 100' wide, .2 acre (8,712 square feet) lots. And a majority of lots within District H are 63' to 100' wide, .3 acre (13,068 square feet) lots. District E has a variety of lot sizes and widths, but 80' to 100' wide, .25 acre (10, 890 square feet) lots are not uncommon in that District.

Proposed lot size minimum of 6,000 square feet and minimum lot width of 50' are less than a majority of existing historic lots with a swale or combination system in place. Proposed

minimum lot size and minimum lot width must be adjusted such that they are appropriate for development without curb and gutter (swale).

Additionally, the provided sample developments are not applicable as they are either older plats, or were part of PD/PUDs. Please provide examples of transitional swale development as described in the application from developments approved within the past ten years.

b. *Consistent with Ordinances.*

- i. Section 7.1.1 *Purpose* provides the following standards for subdivisions.
 - (A) Economically sound community. To encourage the development of an economically sound and stable community.
 - (B) Provision of streets, utilities, and other facilities. To ensure the provision of required streets, utilities and other facilities and services for development.
 - (C) Safe and convenient access and circulation. To ensure the adequate provision of safe and convenient access and circulation, both vehicular and pedestrian, and to help ensure that all lots will be accessible to firefighting equipment and other emergency and service vehicles.
 - (F) Safe and healthy environment. To promote a safe and healthy environment.

Staff has concerns that this amendment would permit development that would not be economically sound for the City of Alachua, would not provide safe and convenient access or circulation for vehicles and pedestrians, and would not contribute a safe and healthy environment for the City of Alachua.

Comment: The presence of curbs helps protect pedestrians from auto drivers. Without curbs, additional protections from automobiles are needed. These protections include larger “recovery areas”, planting strips, landscaping or relocation of sidewalk. The proposed cross section shows a one foot grassed area between travel lane and the five foot wide sidewalk. This may increase pedestrian discomfort and result in discouraging the use of the pedestrian facilities. The Federal Highway Administration recommends a minimum of 2’ separation for curbed streets, and placement of sidewalk behind swale when present.

Additionally, because there is no grade separation between sidewalk and travel lane, cars parking on street will more than likely park on sidewalk, reducing its use further, potentially causing damage to any landscaping and to the sidewalk. A potential solution may be to place any required sidewalk within a private easement (the sidewalks would be privately maintained) located behind the swale.

- ii. Section 7.2.5 (A) states “[t]he arrangement, **character**, extent, width, grade, and location of all street shall be consistent with the Comprehensive Plan, where applicable, and shall be considered in **relation to existing and planned streets**, topographical conditions, **safety, public convenience**, and the **uses of land** to be served by the streets” [emphasis added]. The use of “transitional swales”, as defined in the application materials, is associated with large lot residential (1/2 acre or larger) or rural roads and would not match the character of higher density residential uses, such as those developments with 6,000 square foot lots with a 50’ foot minimum width. A development of this nature, which would be permitted under the proposed amendment, would result in driveway culverts in close proximity to each other with only a small area available for the open swale. Because RSF-3, RSF-4, and RSF-6 properties often exist in close proximity to each other, the proposed amendment could potentially result in a patchwork development pattern with some subdivisions having curb and gutter, and other subdivisions having the transitional swale system,

as defined in the application materials. Further, for reasons that will be discussed in greater detail below, Staff has concerns about the safety and public convenience issues that may result if this proposed amendment were to be adopted.

Comment: See above comments.

f. *Development Patterns.*

- i. Historic and current residential development patterns within the City of Alachua typically consist of open swale systems on larger lot (1/2 acre or larger) or rural subdivisions. Those subdivisions with lots smaller than 1/2 acre have generally had a curb and gutter system to handle stormwater. This pattern is also prevalent regionally. Staff has not been able to identify any subdivisions within the State that utilize “transitional swales”, as defined in the application materials, with lots less than 20,000 square feet.

Comment: See above comments.

g. *Public Facilities*

- i. Based on information provided by the City of Alachua Public Services Department there are numerous concerns about the impacts to public facilities.
 1. Stormwater System Maintenance: Frequency, cost, and responsibility for maintenance of swales, culverts, and other features of the “transitional swale”. Both proposed sections show all or a portion of the swale area within City right-of-way. The City historically does not maintain DRAs, but would maintain the stormwater piping to them. Culvert maintenance would also be problematic: depending on type of construction the useful life of the culvert may be up to 50% less than the useful life of a concrete stormwater drain/inlet typically found in a curb and gutter development.

Comment: Proposed Section 7.3.1 (B)(2)(b)(ii) includes language states that the transitional swale shall be maintained and be the sole responsibility of the subdivider, home owner’s association, or private land owner. As previously discussed, individual ownership and responsibility for the transitional swale is not acceptable and will lead to maintenance and code enforcement issues in the future.

Additionally, proposed cross section shows a portion of the culvert headwall within right-of-way. For clarity of maintenance responsibility, headwall must be located completely within drainage easement.

2. Other Comments:

- c. Proposed new Section 7.3.1 (1)(c)(i)c. indicates right of way width of 50’ with 10’ easement, however, proposed column shows 10’ easement with 60’ of right of way. Cross Sections also show 2 10’ easements- one on each side of the street.

Comment: Cross section shows 9’ easement for private drainage easement.

3. New Comments

- a. **Verify newly renumbered sections would maintain referential integrity.**

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com.

Sincerely,



Adam Hall, AICP
Planner

c: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File

DEVELOPMENT REVIEW TEAM SUMMARY

PROJECT NAME: Transitional Swales/ Subdivision Standards (Sections 7.3 and Article 10)

APPLICATION TYPE: Land Development Regulations (LDR) Text Amendment

APPLICANT: Christopher Gmuer, P.E., Gmuer Engineering, Inc.

DRT MEETING DATE: October 29, 2018

DRT MEETING TYPE: Applicant

PROJECT SUMMARY: Currently, Article 7 of the City's Land Development Regulations requires curb and gutter (C & G) for Type A and Type B streets. Type A standards apply to subdivisions with business, public, or institutional uses. Type B standards apply to subdivision with residential uses where **any** lot is less than 20,000 square feet (.44 acre). The proposed LDR text amendment would permit "transitional swales" on local roads and marginal access roads for subdivisions with lots between 6,000- 20,000 square feet, subject to certain easement provisions and performance standards for pollutant removal for the swales. Effectively, this would permit a portion of the development's overall stormwater treatment to be distributed throughout the development area instead of being concentrated into larger stormwater management facilities.

RESUBMISSION DUE DATE: All data, plans, and documentation addressing the comments identified below must be received by the Planning Department on or before **5:00 PM on Tuesday, November 13, 2018.**

Comments

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations.

1. Consistency with Section 2.4.1 (E)(1), City of Alachua LDRs
 - a. *Consistent with Comprehensive Plan.*
 - i. Future Land Use Element Objective 1.2 Residential states that the "City of Alachua shall establish three Residential land use categories to ensure an **orderly urban growth pattern...**"[emphasis added]. Staff finds that the provision of "transitional swales", as defined in the application materials, would be contrary to an orderly urban growth pattern as swales could be provided at dwelling unit densities far greater than what is currently allowed under the Land Development Regulations. Therefore this amendment would not ensure an orderly urban growth pattern and would not be consistent with the City of Alachua Comprehensive Plan.
 - b. *Consistent with Ordinances.*
 - i. Section 7.1.1 *Purpose* provides the following standards for subdivisions:
 - (A) Economically sound community. To encourage the development of an economically sound and stable community.
 - (B) Provision of streets, utilities, and other facilities. To ensure the provision of required streets, utilities and other facilities and services for development.

(C) Safe and convenient access and circulation. To ensure the adequate provision of safe and convenient access and circulation, both vehicular and pedestrian, and to help ensure that all lots will be accessible to firefighting equipment and other emergency and service vehicles.

(F) Safe and healthy environment. To promote a safe and healthy environment.

This amendment would permit development that would not be economically sound for the City of Alachua, would not provide safe and convenient access or circulation for vehicles and pedestrians, and would not contribute to a safe and healthy environment for the City of Alachua.

- ii. Section 7.2.5 (A) states “[t]he arrangement, **character**, extent, width, grade, and location of all street shall be consistent with the Comprehensive Plan, where applicable, and shall be considered in **relation to existing and planned streets**, topographical conditions, **safety, public convenience**, and the **uses of land** to be served by the streets” [emphasis added]. The use of “transitional swales”, as defined in the application materials, is associated with large lot residential (1/2 acre or larger) or rural roads and would not match the character of higher density residential uses, such as those developments with 6,000 square foot lots with a 50’ foot minimum width. This text amendment would result in driveway culverts in close proximity to each other with only a small area available for the open swale. Because RSF-3, RSF-4, and RSF-6 properties often exist in close proximity to each other, the proposed amendment would allow a patchwork development pattern with some subdivisions having curb and gutter, and other subdivisions having the transitional swale system, as defined in the application materials. This development pattern does not foster safety and public convenience within a subdivision.

c. *Changed Conditions.*

- i. No changed conditions identified.

e. *Compatible with surrounding land uses*

- i. As stated above, the proposed amendment would result in a patchwork development pattern with some subdivisions having curb and gutter, and other subdivisions having the transitional swale system, as defined in the application materials. Therefore, this would result in incompatible land uses adjacent to each other.

f. *Development Patterns.*

- i. Historic and current residential development patterns within the City of Alachua typically consist of open swale systems on larger lot (1/2 acre or larger) or rural subdivisions. Those subdivisions with lots smaller than 1/2 acre have generally had a curb and gutter system to handle stormwater. This pattern is also prevalent regionally. Application cites City of Newberry Land Development Code (Section 5.26) as a comparable code example. However, it appears that the use of swales is only permitted for subdivisions where lots

are larger than 20,000 square feet, which is consistent with what the City of Alachua currently permits. Therefore, the proposed amendment would not foster existing development patterns within the City of Alachua.

g. Public Facilities

- i. Based on information provided by the City of Alachua Public Services Department, this amendment would have numerous negative impacts to the public facilities of the City of Alachua.
 1. Stormwater System Maintenance: Frequency, cost, and responsibility for maintenance of swales, culverts, and other features of the “transitional swale”. Both proposed sections show all or a portion of the swale area within City right-of-way. The City historically does not maintain drainage retention areas (DRAs), but the City does maintain stormwater piping to them. Culvert maintenance would also be problematic: the use of culverts would increase the maintenance obligation of the City of Alachua as their useful life may be up to 50% less than the useful life of a concrete stormwater drain/inlet typically found in a curb and gutter development.
 2. Pavement Maintenance: In smaller lot subdivisions, there tends to be a greater prevalence of street parking. Street parking degrades the pavement at a much higher rate without curb and gutter system in place. Therefore, there would be a higher impact to the public facilities of the City of Alachua.

2. Other Comments:

- a. Application states in several locations that this amendment would apply to Tara Forest East. This amendment will apply to all development within the City of Alachua. The zoning designation for the Tara Forest property is RSF-3, which has a minimum lot size of 10,000 square feet, however, proposed text amendment applies to subdivisions where lots are between 6,000 and 20,000 square feet.
- b. Proposed new Section 7.3.1 (1)(c)(i)c. indicates right of way width of 50’ with 10’ easement, however, proposed column shows 10’ easement with 60’ of right of way. Cross Sections also show 2 10’ easements- one on each side of the street.
- c. Proposed new section 7.3.1 (B)(2)(b) cites section 18-4 for definition, but this should reference Section 10.2, City of Alachua Land Development Regulations.
- d. Label for proposed transitional swale street and utility section with sidewalk next to road appears to potentially be mislabeled.

ALL COMMENTS AND REQUIREMENTS LISTED ABOVE MUST BE COMPLIED WITH AND PROVIDED TO CITY STAFF ON OR BEFORE 5:00 PM ON THE RESUBMISSION DATE OF NOVEMBER 13, 2018.



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

October 11, 2018

Christopher Gmuer, P.E.
President, Gmuer Engineering, LLC.
2603 NW 13th St
Box 314
Gainesville, FL 32609

Also submitted electronically to chrisg@gmuereng.com.

RE: Completeness Review for Land Development Regulation Text Amendment Application

Dear Mr. Gmuer:

On October 8, 2018 the City of Alachua received your application for an amendment to the City of Alachua Land Development Regulations which proposes to amend Section 7.3, relating to required street standards/types for subdivisions.

According to Section 2.2.6 of the Land Development Regulations (LDRs), upon receipt of an application, a completeness review shall be conducted to determine that the application contains all the necessary information and materials, is in proper form and of sufficient detail, and is accompanied by the appropriate fee. The Planning Department has reviewed the aforementioned application for completeness and finds that the application is complete, conditional upon submission of certain information found below.

Please note, the comments below are based solely on a preliminary review of your application for completeness. The contents of the applications **have not** been thoroughly reviewed. An in-depth review of the content of the application will be performed subsequently and any further issues with content will be provided to you at the Development Review Team meeting, which will be scheduled separately from this letter.

Please address the following:

- **Application Attachment C.3**
Section 2.4.1 (E)(1) of the City Land Development Regulations lists specific factors which must be addressed. While several of these factors have been addressed in the analysis submitted, such as Comprehensive Plan consistency, other factors were not explicitly addressed. Please review and respond to each of the following factors:

Continues on next page

- (a) *Consistent with Comprehensive Plan.* Whether and the extent to which the proposed amendment is consistent with the Comprehensive Plan.
- (b) *Consistent with ordinances.* Whether the proposed amendment is in conflict with any provision of these LDRs or the City Code of Ordinances.
- (c) *Changed conditions.* Whether and the extent to which there are changed conditions that require an amendment.
- (d) *Community need.* Whether and the extent to which the proposed amendment addresses a demonstrated community need.
- (e) *Compatible with surrounding uses.* Whether and the extent to which the proposed amendment is consistent with the purpose and intent of the zone districts in these LDRs, or will improve compatibility among uses and will ensure efficient development within the City.
- (f) *Development patterns.* Whether and the extent to which the proposed amendment would result in a logical and orderly development pattern.
- (g) *Effect on natural environment.* Whether and the extent to which the proposed amendment would result in significantly adverse impacts on the natural environment, including but not limited to water, air, noise, stormwater management, wildlife, vegetation, wetlands, and the natural functioning of the environment.
- (h) *Public facilities.* Whether and the extent to which the proposed amendment would result in development that is adequately served by public facilities (roads, potable water, sewage, stormwater management, parks, and solid wastes).

Should you have any questions, please feel free to contact me at (386) 418-6100, ext. 108 or via email at ahall@cityofalachua.com.

Sincerely,



Adam Hall, AICP
Planner

c: Kathy Winburn, AICP, Planning Director
Justin Tabor, AICP, Principal Planner
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