

CITY OF ROLLINGWOOD
ORDINANCE NO. 2016-11-09

**AN ORDINANCE ADDING NEW ARTICLE 3.09 TO THE CITY CODE OF
ORDINANCES AND REPEALING SECTION 3.02.012 TO PROVIDE FOR
COMPREHENSIVE DRAINAGE REGULATIONS; PROVIDING SEVERABILITY AND
AN EFFECTIVE DATE**

WHEREAS, drainage conditions in the City continue to pose substantial risks of flooding and damage to property in the City;

WHEREAS, re-development in residential areas of the City is resulting in much more impervious cover in the City and greater need for regulation of drainage;

WHEREAS, existing regulations provide for inadequate precision and notice of requirements regarding drainage features and measures for protection against increasing flows of storm water from re-developed properties; and

WHEREAS, the City Council desires to provide for clear and fair requirements regarding the regulation of storm water runoff that protect the interests of re-developing property owners and surrounding properties; now, therefore,

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ROLLINGWOOD,
TEXAS:**

SECTION 1. New Article 3.09 is added to the City Code of Ordinances to provide as follows:

Sec. 3.09.001 Purpose of Drainage Regulations/Applicability

The regulations provided in this Article and the design criteria incorporated in this Article establish storm water drainage standards for the protection of the public and of property and to provide technical regulations for use in engineering the solution of drainage problems and proper conveyance and disposal of storm water. Responsibility for proposing the design of drainage features and facilities remains primarily with the design engineer representing an applicant for development of property. The intent of these drainage regulations is to implement design principles and practices for the control of runoff from all development, during and after construction. The standard of compliance with these regulations is that development shall not result in additional or increased adverse flooding impacts to other properties. Any development that causes an increase in storm water runoff requires mitigation by providing drainage analysis and a drainage plan performed by a Professional Engineer licensed in the State of Texas. This Article 3.09 shall apply to all property located within the city limits of the City of Rollingwood.

Sec. 3.09.002 Drainage Criteria Manual

Storm drainage facilities shall be designed and constructed in compliance with this Article 3.09, the City of Austin, Texas (COA) Drainage Criteria Manual Sections 2- 8 in effect on September 9, 2014 (the “COA DCM Regulations”) and the City of Rollingwood Drainage Criteria Manual (Rollingwood DCM) attached to this Article as Appendix 3.09 A, and incorporated herein by reference. No amendments made to the COA-DCM Regulations by the COA shall become effective unless adopted by the Rollingwood City Council. In the event of a conflict between a requirement of the COA DCM Regulations, the Rollingwood DCM, or this Ordinance the more stringent regulation shall be applicable.

Sec. 3.09.003 Conveyance of Storm Water

The developer shall be responsible for the conveyance of all storm water drainage flowing through or originating from the subject property. When required by the city engineer, such conveyance shall be demonstrated at the time of submission of an application for a building permit.

Sec. 3.09.004 Drainage Analysis Required

If development activity includes any of the following, a drainage analysis shall be submitted by a professional engineer licensed in the state of Texas:

1. Increase of impervious cover.
2. Change in topography that redirects and/or increases storm water runoff to neighboring properties.
3. Change in roofline that redirects stormwater runoff to neighboring properties.
4. Any development activity, grading, or landscaping affecting the conveyance of storm water runoff to or from a drainage facility required as a condition of a development permit in a manner as to cause such facility to fail to perform to the standard provided in such permit.

Sec. 3.09.005 Drainage Plan/Permit Required

- (a) If development activity that requires a drainage analysis pursuant to Section 3.09.004 would cause an increase of storm water runoff at any point along the perimeter of the property boundary, a drainage plan is required and a building permit for the proposed development must be obtained prior to commencement of the development activity. (Only one building permit is required for combined improvements and drainage facilities.) A hydrologic analysis, computations, and design of drainage facilities shall be provided in accordance with COA DCM Regulation Sections 2-8. HEC-HMS with SCS curve number loss method and SCS unit hydrograph transform method shall be used for hydrologic modeling.
- (b) For development that includes a net increase of impervious cover less than 250 square feet a drainage plan may be prepared by other than a professional engineer.

- (c) Permanent storm water detention designed for post-construction, along with any other drainage facilities in combination, shall be designed such that post-development peak flows do not exceed pre-development peak flows along the perimeter of the subject property for 2, 10, 25, and 100 year storm events. Drainage calculation methods shall be based on the COA DCM (Supplement 9 – 2014) Sections 2-8. Storm water detention facilities shall be designed and sealed by a Texas licensed professional engineer.
- (d) Exceptions for storm water detention requirements may be granted for properties that are adjacent to Eanes Creek or as determined by the City Engineer for a specific instance related solely to beneficial storm water runoff flows due to specific topographical site conditions. The city's soil erosion and sedimentation standards still apply for these sites.
- (e) Proposed drainage improvements for a site development shall be installed prior to any construction. If it is demonstrated to be impracticable to install the permanent drainage facilities prior to construction, temporary drainage facilities, such as rough cuts of detention ponds, temporary berms or obstruction and other temporary facilities are allowed with the approval of the City Engineer and shall be designed with the same storm water drainage control criteria as the permanent drainage facility.

Sec. 3.09.006 Maintenance of Drainage Facilities/Subsequent Action Affecting Performance

- (a) Drainage facilities required or approved in connection with a permit for development shall be maintained and used to perform to the standard provided in the permit issued for development of the property. Drainage facilities located on private property shall be maintained by the property owner. For developments that include drainage improvements, the City may provide an Operations and Maintenance (O&M) plan and schedule for routine inspection and maintenance of the drainage facilities to ensure proper functionality. The owner of the affected property is responsible for complying with any such O&M requirements. Compliance with specific O & M plans may be made a condition of a building permit as determined by the city engineer. In all cases, the property owner shall inspect on a routine basis, and after heavy rainfalls, all drainage facilities including inlets, storage tank, outlets, etc. for any garbage, trash, debris, sediment, etc. and remove as necessary to ensure proper functionality.
- (b) Development that includes drainage improvements shall be maintained so that all drainage improvements perform to the standard required in the applicable building permit. When an Operation and Maintenance (O&M) plan is provided, the owner is responsible for complying with the O&M requirements.
- (c) As a condition to issuance of a permit pursuant to this Article 3.09, the city engineer or other designated agent of the city may, for the purpose of investigating flooding or changes in drainage conditions, enter the property and

visually inspect a drainage facility permitted pursuant to this Article 3.09. Any such inspection shall be conducted only after reasonable advance written or verbal notice has been provided to the owner or occupant of the affected property. If a permitted drainage facility is found not to comply with applicable regulations or conditions of the permit, the designated official shall provide written notice of non-compliance by certified mail forwarded to the address of the permitted facility. The owner shall make all repairs and corrections to make the facility fully compliant. The designated official shall conduct an inspection to verify timely compliance.

Sec. 3.09.007 Coordination of Water Quality Facilities

The regulations of this Article 3.09 are separate from the requirements of TCEQ Edwards Aquifer Recharge Zone - Chapter 213 Rules and any other applicable regulations pertaining to water quality. Facilities and features installed or constructed for compliance with such water quality regulations shall be separated from drainage facilities required by these regulations unless approved by the City Engineer.

Sec. 3.09.008 Permit

- (a) When a permit is required pursuant to this Article 3.09, an applicant's design engineer shall prepare and seal and submit with an application for a permit construction drawings in compliance with all applicable regulations of this Article 3.09 and accepted engineering practices. Only one building permit shall be necessary for construction of all proposed improvements. If no building permit is otherwise required for other improvements, a building permit applicable only to proposed drainage facilities must be obtained. For developments requiring drainage facilities, construction plans and all associated documents shall be provided to the city and shall conform to the requirements of this Article 3.09. Drainage facilities located on private property shall be maintained by the property owner. Construction or installation of facilities required by this Article 3.09 and/or by any building permit issued pursuant to this Article 3.09 shall constitute a condition to the issuance of the building permit and a condition to lawful occupancy of improvements that are the subject of such required facilities. An owner is responsible to provide notice of all maintenance requirements to subsequent purchasers of any part of the affected property.
- (b) Alternative methods of design of drainage facilities may be considered where performance is demonstrated through sound engineering practices to meet the performance requirements of this Article 3.09. If any condition requiring some additional measure of protection is identified as necessary to conform to the purpose identified in Section 3.09.001, the applicant's engineer shall make provision therefor in the design of the development.
- (c) Accepted principles of surface drainage engineering and information obtainable

from professionally recognized sources of hydrology, hydraulics and water resources may be considered in the application of the regulations provided in this Article 3.09.

3.09.009 **Appeal**

(a) An applicant may appeal a determination or requirement of the city engineer in connection with an application for a building permit pursuant to this Article 3.09 by submitting a written notice of appeal with the city secretary not later than ten (10) days following the date of written notice to the applicant of the determination or requirement. Only the following determinations or requirements are subject to such appeal:

(1) a rejection of materials proposed for a drainage facility for compliance with aesthetic requirements of the Rollingwood DCM;

(2) a rejection of an alternative means of compliance pursuant to Section 3.09.008(b); or

(3) a rejection of any other means of compliance that is within the discretion of the city engineer to allow.

(b) The city council shall hear the appeal at the next regular city council meeting that is at least ten (10) days after submission of the notice of appeal. At the hearing of the appeal, the applicant may submit evidence in support of its appeal, and the city engineer may provide any information relevant to the appeal. Others that may be affected by the decision may also present information. The city council may rule on the relevance of information and may reasonably restrict the presentation of information at the hearing.

(c) The decision of the city council in an appeal shall be final. In deciding the appeal, the city council shall consider all applicable requirements of the City Code of Ordinances and criteria manuals, applicable conditions to the exercise of any discretion by the city engineer, the primary purpose of which is to prevent adverse effects of storm water runoff on surrounding property, any other impact on surrounding properties and uses, the orderly development of property in the area, the impact on the applicant of the subject determination or requirement, and any other information found by the city council to be relevant to its decision. Written notice of the city council decision shall be provided to the applicant.

Sec. 3.09.010 **Definitions**

(a) *Best Management Practice* (BMP) means a practice, or combination of practices, that is determined to be an effective and practicable (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level

compatible with water quality goals and/or for controlling stormwater runoff to the required standard.

- (b) *Construction activity* means the disturbance of soils associated with clearing, grading, grubbing, demolition or excavating activities or other construction activities.
- (c) *Conveyance* refers to streams, channels, drainage ways, floodplains, storm drainage systems, watercourse, waterways and other means to convey runoff.
- (d) *Development activity* means the construction of any improvements; an alteration of topography; or, a disturbance of soils or surface features or obstruction that will cause a permitted drainage facility to fail to perform to the standard required in the affected permit.
- (e) *Discharge* means any addition or introduction of storm water, pollutants, sediment, or any other substance whatsoever into the municipal separate storm sewer system (MS4) or conveyances.
- (f) *Design Engineer* means the engineer responsible for performing engineering design for construction plans or engineering studies.
- (g) *Detention Pond* means a low lying area that is designed to temporarily hold a set amount of water while slowly releasing the water at a controlled rate.
- (h) *Drainage Facility* means any structure, installation, or activity, the purpose of which is to serve to convey or control storm water runoff.
- (i) *EPA* means the United States Environmental Protection Agency and any federal department, agency, regional office, or commission under the authority and authorized official of the EPA.
- (j) *EAPP* means Edwards Aquifer Protection Plan and is an outline of best management practices that will be implemented and maintained – both during and after construction activities – to prevent contaminants found in storm water reaching the Edwards Aquifer. The EAPP may include: a water pollution abatement plan, organized sewage collection system plan, underground storage tank facility plan, aboveground storage tank facility plan, contributing zone plan, or a modification, exception, or extension granted by the executive director.
- (k) *HEC-HMS* means Hydrologic Engineering Centers Hydrologic Modeling System designed by the US Army Corps of Engineers to simulate the complete hydrologic processes of dendritic watershed systems.
- (l) *HEC-RAS* means Hydrologic Engineering Centers River Analysis System designed by the US Army Corps of Engineers to perform one-dimensional steady flow, unsteady flow, sediment transport/mobile bed computations, and water temperature modeling.
- (m) *Impervious Cover* means impermeable, constructed, or installed coverage of natural ground surfaces and includes only the footprint on a horizontal plane (vertical walls are not included).
- (n) *Regulated Activity* means (per TCEQ) any construction-related activity or post construction activity on the recharge zone of the Edwards Aquifer having the potential for polluting the Edwards Aquifer or hydrologically connected surface streams. Activities include: construction of buildings, utility stations, utility

lines, roads, highways, or railroads; clearing, excavation, or other disturbances of topography, geologic characteristics, or existing recharge characteristics of a site; any installation of aboveground or underground storage tanks, or any other activity that may pose a potential for contaminating the Edwards Aquifer or hydrologically connected surface streams.

- (o) *Release* means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the MS4 or conveyances.
- (p) *Site* means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.
- (q) *Storm water Runoff* means precipitation from rain events that flows over land or impervious surfaces and does not percolate into the ground.
- (r) *SWPPP* means Storm Water Pollution Prevention Plan and is a plan required by the construction general permit or industrial general permit which describes and ensures the implementation of practices that are to be used to reduce the pollutants in storm water discharges associated with the construction of the development.
- (s) *TCEQ* means Texas Commission on Environmental Quality or any duly authorized official of said agency.
- (t) *TPDES* means Texas Pollutant Discharge Elimination System and is a program delegated to the State of Texas by EPA pursuant to 33 USC 1342(b).
- (u) *Trash/Garbage/Debris* means any solid waste consisting of combustible materials such as paper, rags, cartons, furniture, synthetic materials, yard clippings, twigs, or noncombustible materials such as sediment, dirt, rock, gravel, sand, glass, and any metal waste.
- (v) *WPAP* means Water Pollution Abatement Plan and is a plan that outlines the best management practices that will be implemented in order to protect water quality when a regulated activity is conducted in the Edwards Aquifer recharge zone.
- (w) *Water Quality* means a standard, as set by TCEQ 31 Tex. Admin. Code Ch. 307, created to maintain the quality of water in the state consistent with public health and enjoyment, and propagation and protection of terrestrial and aquatic life. Water Quality is also regulated by Ch. 213 Edwards Aquifer, created to regulate activities having the potential for polluting the Edwards Aquifer and hydrologically connected surface streams in order to protect existing and potential uses of groundwater and maintain Texas Surface Water Quality Standards.
- (x) *Water Quality Facility* means permanent BMP's that are designed for water quality control for total suspended solids (TSS) reduction. Typically BMP's include basins for capturing the first flush of storm water runoff from upgradient drainage areas.

Sec. 3.09.011 **Enforcement.**

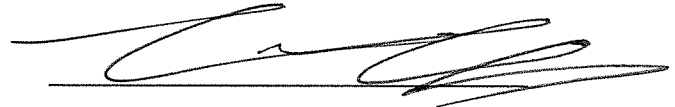
- (a) A failure to comply with any requirement of this Article 3.09 shall constitute a class C misdemeanor, punishable by a fine of not less than \$1.00 and not more than \$2,000.00.
- (b) A failure to comply with any requirement or condition of a building permit pertaining to the regulation of storm water runoff pursuant to this Article 3.09 shall constitute a class C misdemeanor, punishable by a fine of not less than \$1.00 and not more than \$2,000.00.
- (c) A failure to maintain a drainage facility to perform to the standard or capacity required by this Article 3.09 or any building permit issued pursuant to this Article 3.09 shall constitute a class C misdemeanor, punishable by a fine of not less than \$1.00 and not more than \$2,000.00.
- (d) Each day that an offense described in subsections (a) – (c) continues shall constitute a separate offense.

SECTION 2. Subsection (b) of Section 3.02.012 is repealed.

SECTION 3. If any provision of this Ordinance is found by a court of competent jurisdiction to be void or unenforceable, such void or unenforceable provision shall be severed as though it never formed a part of this Ordinance, and all other provisions hereof shall remain in full force and effect.

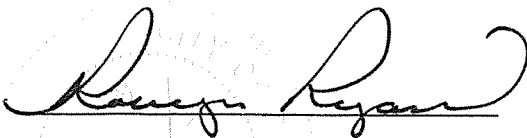
SECTION 4. This Ordinance shall take effect and shall be in force immediately upon approval and adoption by the City Council.

PASSED AND APPROVED this 9th day of November, 2016.



Thom Farrell, Mayor

ATTEST:



Robyn Ryan, City Secretary