ORDINANCE

PURPOSE:

To amend, add and repeal certain sections of the Unified Land Development Code, specifically amend section 17-4044. Drainage Requirements, amend Section 17-4045. Drainage Design Criteria, amend Section 17-4050. Servitude Revocation, amend section 17-506. Protection of Existing Watersheds and Conveyance Systems, amend Section 17-506.1. Development in the Floodplain, add Section 17-506.2. Wetland Preservation, amend Section 17-507. Placement of Fill, amend Section 17-5012. Stormwater Conveyance System, amend Section 17-5013. Design Criteria, amend Section 17-5014. Drainage Servitudes, and repeal Section 17-5094. Implementation of September 2019 Changes, amend Section 17-40100. Definitions, and amend Attachment B, Drainage Impact Study Procedure.

WHEREAS, the Parish of Ascension desires to prohibit open ditches, channels, and swales in rear years of major subdivisions and to require rear-yard drainage improvements to be privately owned and maintained; and

WHEREAS, the Parish of Ascension desires to clarify drainage design criteria and make it consistent with other parts of the Unified Land Development Code; and

WHEREAS, the Parish of Ascension desires to clarify the requirements for servitude revocations; and

WHEREAS, the Parish of Ascension desires to require an additional ten (10) percent of water to be retained on-site post development, require the design basis for modifications to offsite conveyance systems to the 50-year storm and clarify for consistency with the drainage requirements for Subdivision Regulations; and

WHEREAS, the Parish of Ascension desires to clarify and provide consistency for Development in the Floodplain with other sections of the Unified Land Development Code; and

WHEREAS, the Parish of Ascension desires to enact guidelines for the preservation of wetlands; and

WHEREAS, the Parish of Ascension desires to clarify fill and excavation standards; and

WHEREAS, the Parish of Ascension desires to clarify that new conveyance systems and revisions to existing conveyance systems require approval by the Parish Engineer and further

require all conveyance be directed to a primary system onsite and not direct flow to adjacent properties; and

WHEREAS, the Parish of Ascension desires to require detention facilities to be designed to the 50-year storm, require post-development flow to be reduced by ten (10) percent, to increase the design of subsurface interior conveyance systems to the 25-year storm capacity design and relocate the design standards from Section 17-4045, Drainage: Design and Construction Criteria for consistency with the Unified Land Development Code; and

WHEREAS, the Parish of Ascension desires to relocate the servitude design requirements from Section 17-4045, Drainage: Design and Construction Criteria to for clarity and consistency; and

WHEREAS, the Parish of Ascension desires to repeal Section 17-5094. Implementation of September 2019 as the transitional application of this section is no longer warranted.

WHEREAS, the Parish of Ascension desires to supplement, clarify and make consistent, definitions applicable to the Subdivision Requirements; and

WHEREAS, the Parish of Ascension desires to require design requirements for a 50-year storm, require post-development standards to contain ten (10) percent more water than predevelopment for the Drainage Impact Study Procedure and for consistency with other sections of the Unified Land Development Code.

NOW THEREFORE, BE IT ORDAINED by the Ascension Parish Governing Authority of the

Parish of Ascension, State of Louisiana, that Unified Land Development Code be amended and supplemented as further described in Exhibit A attached hereto and made a part hereof:

REPEAL: All ordinances or parts of Ordinances in conflict herewith are hereby and henceforth repealed.

SEVERABILITY: If any provision of this Ordinance is held to be invalid, such invalidity shall not affect other provisions herein which can be given effect without the invalid provisions, and to this end the provisions of this Ordinance are hereby declared to be severable.

EFFECTIVE DATE: This Ordinance shall be in full effect as permitted by law. This ordinance having been submitted to a vote, the vote thereon was as follows: Yeas: Alvin Thomas, Joel Robert, Travis Turner, Dempsey Lambert, John Cagnolatti, Teri Casso,

Chase Melancon, Aaron Lawler, Dal Waguespack, Michael Mason

Nays: None	
Not Voting: None	
Absent: Corey Orgeron	

And this ordinance was passed on this <u>27th</u> day of <u>April</u>, 2022.

/s/ Cinnamon McKey	/s/ Clint Cointment
Secretary	President

Appendix IV – Subdivision Requirements

17-4044. – Drainage requirements.

- A. The subdivider shall plan all drainage using sound engineering design and in accordance with the general drainage plan of the East Ascension Gravity Drainage District #1 and the West Ascension Gravity Drainage District, the Louisiana Department of Transportation and Development, Division of Public Works and the U.S. Corp of Engineers (USACE). Major subdivision plats shall show drainage from the subdivision to an acceptable existing drainage artery and, where necessary to reach the nearest acceptable existing drainage artery, be accompanied by the necessary, Parish-approved and recorded rights-of-way from adjoining downstream property owners for drainage purposes to ensure drainage to a ditch, stream, drain or drainage canal is deemed adequate by the Department of Public Works.
- B. An existing ditch, stream, drain, or drainage canal used for public drainage shall not be modified in any way or relocated without first obtaining written permission from the Ascension Parish Department of Public Works.
- C. Whenever any stream or improved surface drainage course is located in an area that is being subdivided, the subdivider shall dedicate an adequate right-of-way along each side of the stream as determined by the Parish Engineer.
- D. Offsite drainage requirements may be required as determined by the Parish Engineer. The subdivider shall be required to construct drainage structures to the ultimate finished width but only to a depth sufficient for the subject subdivision unless construction has begun on the required offsite improvements. Sufficient right-of-way, however, must be dedicated for future finished width enlargement.
- E. New drainage channels and substantial alterations to existing drainage channels originating within the subdivision shall conform to requirements as determined by the Parish Engineer.
- F. Storm drainage shall be fully contained within the street right-of-way except for facilities' outfall needs or subdivision inter-connections, which shall be fully contained within adequate servitudes.
- G. Design shall be in accordance with the most recent version of the L.D.O.T.D. Hydraulics Manual as amended by these regulations.
- H. In the rear yards of lots in major subdivisions, the design of drainage improvements shall not require public maintenance of open ditches, swales, or channels within a public servitude. Such improvements shall be located underground and within enclosed pipes to the maximum extent practicable.

- I. In the rear yards of lots in minor subdivisions, the design of drainage improvements shall not require public maintenance of open ditches, swales, or channels within a public servitude. Such improvements shall be located underground and within enclosed pipes to the maximum extent practicable unless otherwise recommended and approved by the Parish Engineer.
- J. New subdivisions designed as open-ditch, without curb and gutter, shall remain as open-ditch subdivisions in perpetuity until and unless adequate drainage infrastructure is constructed to replace the ditch system as determined by the Parish Engineer.

(SR07-01, 1/18/07; DC09-09, 12/17/09, <<insert ordinance #, date>>)

17-4045. – Drainage design criteria.

A. All drainage design shall comply with the design criteria in Section 17-5013.

(SR07-01, 1/18/07; DC09-09, 12/17/09; SR12-10, 7/19/12; SR12-17, 2/7/13; DR14-06, 10/02/14; SR 17-01, 6/15/17, <<<insert ordinance #, date>>)

17-4050. – Servitude revocation.

- A. On individual lots that are not part of a major subdivision, if a property owner desires that an existing utility, drainage or all-purpose servitude be relocated, reduced in size or eliminated completely, an application shall be submitted to the Planning Commission for review and recommendation to the Parish Council.
 - 1. At the time of filing the application with the Planning Commission, the applicant shall submit to the Department of Public Works a plat showing the existing utility or drainage servitude and the proposed relocation or re-shaping, if necessary, together with a written request giving the reasons supporting such revocation, re-shaping or relocation.
 - 2. The applicant shall submit to the Office of Planning and Development a fee to cover the cost of processing the application, together with all legal instruments, ordinances, etc., necessary to complete the revocation, reshaping or relocation. All of the legal instruments, ordinances, etc., shall be approved by the Parish Attorney, and the applicant shall supply such other information as may be deemed necessary by the Parish Attorney or the Office of Planning and Development.
 - 3. The applicant shall include with the application to the Office of Planning and Development, copies of the letter(s) of no objection to be included with the request to the Planning Commission and Parish Council.
- B. The Office of Planning and Development shall review the application and the letter(s) of no objection and determine to which of the following categories the servitude revocation, re-shaping or relocation applies:
 - 1. Category 1: Unused Servitude.
 - a. If the Office of Planning and Development determines that the servitude has not been used for a period of time equal to or greater than 15 years, then the request shall be automatically approved by the Planning Commission and shall be sent to the Parish Council for an introduction of an ordinance to revoke or relocate the servitude.
 - 2. Category 2: Unneeded Servitude.
 - a. If the Office of Planning and Development determines that the servitude is not needed, based on input from the Parish Engineer and letters of no objection from all of the interested parties, then the request shall be automatically approved by the

Planning Commission, and shall be sent to the Parish Council for an introduction of an ordinance to revoke or relocate the servitude.

- 3. Category 3: Reduction or Revision to Servitude.
 - a. If the Office of Planning and Development determines that the servitude is still needed, may be reduced in size or otherwise different than what the applicant requested, based on input from the Parish Engineer and letters of no objection or letters of objection, then the request shall be submitted to the Planning Commission for review and recommendation to the Parish Council.
- C. In cases where the application falls into category 3 above, the Planning Commission shall review the application, the letters of objection and/or no objection and hold a public hearing. The Planning Commission shall make a recommendation to the Parish Council on the application.
 - 1. There shall be no public noticing requirements for a servitude revocation request hearing before the Planning Commission.
- D. The Office of Planning and Development shall send the recommendation from the Planning Commission to the Parish Council for an introduction of the ordinance.
- E. Revoked servitudes shall be noted on any applicable plats. The note shall include the effective date and the ordinance number.
- F. Major subdivisions, having an approved drainage study, shall be exempt from requirements A through D above, and shall add the following note on the final plat:

"UPON APPROVAL AND RECORDATION OF THIS PLAT, ALL SERVITUDES PREVIOUSLY AFFECTING THE PROPERTY DESCRIBED BY THIS PLAT ARE DEEMED REVOKED AND SAID SERVITUDES SHALL NOW EXIST AS SHOWN BY AND EVIDENCED ON THIS PLAT."

(SR07-01, 1/18/07; DC09-09, 12/17/09; SR13-1, 3/19/13, <<insert ordinance #, date>>)

Appendix V – Drainage

17-506. – Protection of existing watersheds and conveyance systems.

- A. Drainage for proposed developments and redevelopments shall be designed to maintain the existing flow patterns established prior to proposed improvements at the site. Impacts to existing water surface profiles due to additional runoff shall be mitigated for all new development or redevelopment of existing sites except for the following:
 - 1. Redevelopment—Any proposed improvements to a commercial facility that result in a net increase in changed surface of less than 1,750 square feet, or the replacement of less than 3,500 square feet of existing impervious surface area.
 - 2. Any combination of new and replaced surface area totaling more than 3,500 square feet does not qualify for this exemption.
 - 3. All redevelopments are subject to items in section 17-507.
- B. For all new residential and commercial developments, storm water detention systems shall be required to detain ten percent more water onsite using the post-developed peak flow rate than currently detained by the existing condition peak flow rate.
- C. The natural ridgelines and drainage boundaries for a site shall be designated prior to any development and the developed condition shall maintain the drainage areas draining to each natural outfall as closely

as possible. Exceptions may be considered with approval by the Parish Engineer in instances where modifications are necessary to consolidate engineered storm system elements.

- D. Where an existing storm water conveyance system traverses through or near a proposed development and accommodates off-site drainage areas, any alterations to the existing system shall be made such that no increase in the existing water surface profile will be caused by the development.
 - 1. An existing condition water surface profile shall be modeled based upon the natural channel, culverts, bridges, and other natural features through the property to be developed. Approved methods of analysis and required supporting documentation for existing condition modeling are outlined in the Ascension Parish Drainage Impact Study Procedure (Appendix IV, Subdivision Regulations, Attachment B)).
 - 2. A developed condition water surface profile shall be modeled based upon the proposed condition and shall account for all existing features to remain, the new channel geometry, proposed culverts or storm drain systems, and any fill placed within the over bank flow section in the existing channel sections. Approved methods of analysis and required supporting documentation for proposed condition modeling are outlined in the Ascension Parish Drainage Impact Study Procedure (Appendix IV, Subdivision Regulations, Attachment B).
 - 3. The water surface profile elevation at the upstream and downstream property lines of the development during the peak runoff period for the sub-basin shall not be greater than the existing condition water surface profile elevation at those points. The Director of Planning and Development in consultation with the Parish Engineer may allow for minimal increases in profile in cases where the development may be restricted from making improvements to lower the water surface profile.
 - 4. For major streams as defined by the Department of Public Works or the appropriate drainage district, the Office of Planning and Development shall require the analysis to be based upon a 50-year event.
- E. An existing ditch, stream, drain, or drainage canal used for public drainage of off-site upstream or downstream areas, within an existing public drainage servitude, shall not be modified or relocated in any way without first obtaining written permission from the Ascension Parish Department of Public Works. This provision does not apply to routine maintenance of existing drainage systems.

(Ord.# DR07-01, 9/6/07; DR09-01, 716/09; DC09-09, 12/17/09; SR13-14, 1/09/14; DR19-05, 9/5/19)

17-506.1. – Development in the floodplain.

- A. This section applies to any developments that contain areas within the 100-year floodplain.
 - 1. The developer of a site shall apply for a permit from the Office of Planning and Development by submitting mitigation plans or a Statement of No Mitigation Required. Such plans shall be signed and stamped by a Registered Professional Engineer for the State of Louisiana and be accompanied by all other required forms included in the permit package. Mitigation plans shall certify that the proposed development will not diminish the storage volume of the special flood hazard area (SFHA).
 - 2. Mitigation and fill requirements are located in Section 17-507.
 - 3. The holder of the development permit cannot introduce fill to the site until an engineering certification is provided that indicates that all mitigation excavation has been completed or that fill is only placed as it is excavated (below the BFE and above normal pool elevation) from the mitigation area.

- 4. Prior to completion of the project and/or occupancy of a structure, the holder of the development permit shall provide certification that the mitigation plans and development permit have been followed.
- B. When a regulatory floodway has not been designated, the floodplain administrator shall require that no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1—30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community. This certification shall be signed and stamped by a Professional Engineer registered in the State of Louisiana.

(DR19-05, 9/5/19)

17-506.2 – Wetland preservation. [New Section]

- A. Major Residential and Commercial Subdivisions exceeding 20 acres or 50 lots.
 - 1. For developments exceeding 20 acres in size or exceeding 50 lots for all phases of development, the Parish hereby requires the preservation of hydrologically connected wetlands and/or wetlands greater than one acre as natural open areas for increased stormwater retention, groundwater recharge areas and outdoor recreation uses. All Corps of Engineers 'jurisdictional wetlands' shall be identified on all subdivision plats and are generally to be preserved as undeveloped Stormwater Management Areas, with no draining or filling of such, subject to the exceptions provided through Section 10 of the Rivers and harbors Act and Section 404 of the Clean Water Act and those exceptions recognized by the Corps' Regional and Nationwide Permits and by the standards adopted herein by the Parish. The applicant or subdivision developer is also to indicate all FEMA identified Special Flood Hazard Areas (A, AE, X zones) on the subdivision plat and indicate the source of this information.
 - i. Use of jurisdictionally defined and "permitted," compensated wetlands (subject to the Army Corps of Engineers and/or State DNR requirements) may be used for primarily road and utility crossings with proper road and cross drains provided and for other Parish-approved uses in an amount not to exceed fifteen percent (40%) of the designated wetlands acreage shown in the wetlands determination. If the maximum fifteen percent 40% of wetlands acreage must be exceeded because of unavoidable adverse impacts or unusual property topography in which practicable avoidance and minimization has been analyzed, then the applicant or developer may bring this issue to the Parish's Planning and Development Director for consideration of a waiver.
 - ii. A 25' minimum, 50'average undisturbed perimeter buffer zone along the edge of existing hydrologically connected wetlands and/or wetlands greater than one acre is to be protected.

17-507. – Placement of fill.

- A. A Certificate of Elevation shall be submitted for any proposed structure to be built or placed on any lot (including those designated as zones A1-30, AE, and X), prior to any permit being issued. The certificate shall include the following information:
 - 2. Address.
 - 3. Contractor's name.
 - 4. Proposed elevation.
 - 5. FIRM panel number.

- 6. FIRM zone base flood elevation or adjacent base flood elevation.
- 7. Elevation of the lowest adjacent grade.
- 8. Explanation of how the elevation of the proposed structure is going to be achieved (fill, piers, chain-wall, or other mitigation.).
- 9. Elevation of the top of the nearest sanitary sewer manhole, if applicable.
- B. For Existing or Proposed Individual Lots.
 - 1. Average fill on an existing or proposed individual lot shall not exceed 36 inches unless a chain wall is constructed per subparagraph (a)(iv) below.
 - a. For individual lots where fill is placed below the 100-year base flood elevation.
 - i. Any volume of fill placed below the 100-year base flood elevation shall be compensated for and balanced by a hydraulically equivalent volume to a 100year storm event. The certification of "zero net fill" shall be submitted by an Engineer licensed by the State of Louisiana.
 - ii. Fill shall be from the same property or the same watershed provided a permanent servitude is obtained from the property owner where the mitigated fill is obtained, and it must be mitigated by a hydraulically equivalent volume to a 100-year storm event. The certification of "zero net fill" shall be submitted by a Professional Engineer licensed by the State of Louisiana.
 - iii. Fill shall be limited to the foundation of the structure(s) and shall not extend more than 24 inches horizontally beyond the limits of the foundation before it begins to slope.
 - iv. If the structure(s) must be elevated beyond the capacity to mitigate, piers or a chain-wall shall be constructed to comply with elevation requirements. All fill shall be subject to the mitigation requirements as outlined above.
 - (I) The homeowner may choose to combine fill and piers or a chain-wall to achieve the desired elevation; however, in no instance shall the fill height be greater than 36 inches at any location on the lot using earth fill outside of a chain wall.
 - (II) Should the homeowner choose to use chain wall foundation/construction, a maximum of 24 inches shall be allowed for chain wall height (calculated from the top of the 36 inches maximum fill height allowed to the top of the finished slab) to achieve the required elevation.
 - 2. Side slope of fill under the structure(s) shall not be steeper than a 3-foot horizontal to a one-foot vertical slope.
 - 3. Fill shall not be placed closer than ten feet to any property line, regardless of setbacks.
 - 4. Compaction tests shall be required when the footer of the proposed structure does not extend at least 12 inches into undisturbed soil. Compaction test requirements:
 - i. There shall be one compaction test per 12 inches lift per 1,000 square feet of fill.
 - ii. The fill shall meet one of the following standards:
 - (I) Ninety percent modified proctor.
 - (II) Ninety-five percent standard proctor.

- C. For major and minor subdivisions, large-scale developments, townhouse subdivisions, condominiums and PUDS.
 - 1. Average fill shall not exceed 36 inches throughout the development and shall not exceed 36 inches on any individual lot within the development. Any volume of fill placed below the base flood elevation shall be mitigated to a hydraulically equivalent volume as would be necessary to offset a 100-year storm event. No offsite mitigation shall be allowed to achieve the necessary freeboard as required by this section. The certification of "zero net fill" shall be submitted by an Engineer licensed by the State of Louisiana.
 - 2. Compaction tests shall be required in the areas where structures are to be placed.
 - a. Compaction test requirements.
 - i. There shall be one compaction test per 12 inches lift per ten percent of the total number of lots in the proposed subdivision. Refer to the Ascension Parish Subdivision Construction Specifications, Section 1, Part 3.3 "Fill and Compaction."
 - 3. Fill shall not be placed closer than ten feet to any perimeter property line.
 - 4. Side slope of fill under the structure(s) shall not be steeper than a three-foot horizontal to a one-foot vertical slope.
- D. For Commercial Lot Development.
 - 1. Average fill shall not exceed 36 inches across a commercial development. Any volume of fill placed below the 100-year base flood elevation shall be mitigated to a hydraulically equivalent volume of excavation taken from below the base flood elevation and above the normal pool water level for a 100-year storm event.
 - 2. Compaction tests shall be required in the areas where structures are to be placed.
 - a. Compaction test requirements.
 - i. There shall be one compaction test per 12 inches lift per 1,000 sq. ft. of fill for structures less than or equal to 5,000 sq. ft.
 - ii. For structures greater than 5,000 sq. ft. but not more than 10,000 sq. ft., there shall be one compaction test per 12 inches lift per 2,500 sq. ft. or portion thereof.
 - iii. For structures greater than 10,000 sq. ft. but not more than 25,000 sq. ft., there shall be one compaction test per 12 inches lift per 5,000 sq. ft. or portion thereof.
 - iv. For structures greater than 25,000 sq. ft., there shall be one compaction test per 12 inches lift per 10,000 sq. ft. or portion thereof.
 - v. The fill shall meet one of the following standards:
 - (I) Ninety percent modified proctor; or
 - (II) Ninety-five percent standard proctor.
 - vi. Fill shall not be placed closer than ten feet from any property line for individual commercial lots.
 - vii. Fill shall not be placed closer than ten feet from any perimeter property line for major and minor commercial subdivisions.

- viii. Side slope of fill under the structure(s) and parking lots shall not be steeper than a three-foot horizontal to a one-foot vertical slope.
- E. For Open Channels/Ditches.
 - 1. Fill shall not be placed in any area in which doing so might impede the natural floodplain of open channels/ditches.
 - 2. Unless approved for channel/ditch relocation and/or servitude revocation according to Parish ordinances, the following limits shall be applied to named or open channels/ditches within the parish:
 - a. Fill shall not be placed within ten feet of the top bank of channels with a top width greater than ten feet.
 - b. Fill shall not be placed within 15 feet of the top bank of channels with a top width greater than 20 feet.
 - c. Fill shall not be placed within 20 feet of the top bank of channels with a top width greater than 30 feet.
 - d. Fill shall not be placed within 25 feet of the top bank of channels with a top width greater than 40 feet.
- F. If after construction, it is determined by the Parish Engineer that an adjacent property owner is experiencing an increase in off-site runoff due to the construction, then the property owner shall construct a swale sufficient enough in size as stated by the Parish Engineer to collect and convey the runoff away from the impacted property.
- G. The determining criteria for land subject to the requirements of 100-year flood plain restrictions:
 - 1. All land below the base flood elevation as determined by actual on-the-ground contours prior to any fill being placed on-site, referenced to the official Parish benchmark system, regardless of whether the FEMA flood insurance rate maps (FIRM) depict the property in question to be in a recognized flood zone.
 - 2. Where lakes are excavated, the volume of dirt removed below the normal pool water level of the lake cannot be credited as compensatory storage.
 - 3. Compensatory storage excavations shall have an equivalent hydraulic conveyance to the floodplain as the area being filled. Compensatory storage that is hydraulically disconnected from the watershed will not be credited towards fill mitigation.
 - 4. If the compensating storage is derived from an off-site source (not applicable to section 17-507(C)) that is not a part of the proposed development it shall be located in the same watershed as the proposed development and the base flood elevation at the off-site source shall not be greater than one foot higher than or one foot lower than the base flood elevation of the developed site.
 - 5. Excess storage credits may be created by a development and transferred to another development if it meets the criteria of this subsection (G). If excess credits are created by a development, the Office of Planning and Development shall issue a credit letter that may be transferred to another project in the same watershed within five years of the issuance of the letter. An extension of the five-year timeframe may be granted by the Office of Planning and Development if it is determined by the Parish that such credits are still valid and would not result in any adverse impacts to any properties within the Parish.
- H. No fill greater than 48 inches in height shall be allowed at any location within any property in the Parish. Fill required to bring natural or previously man-made ponds, ditches or depressions back to the

surrounding top of bank grade shall be exempt from this requirement; however, such fill shall be accounted for in the required mitigation calculations.

I. Modifications to the requirements of section 17-507 may be allowed on a case-by-case basis based on recommendations by the Parish Engineer if approved by the Director of the Office of Planning and Development and the appropriate drainage district. Modifications shall be based only on technical merit.

(Ord.# DR07-01, 9/6/07; DR09-01, 716/09; DC09-09, 12/17/09; DR13-11, 12/05/13; DR19-05, 9/5/19; DR20-01, 5/7/20, <<insert ordinance #, date>>)

17-5012. – Stormwater conveyance systems.

- A. The following criteria and requirements shall apply to all proposed storm water conveyance systems:
 - 1. All new stormwater conveyance systems and revisions to existing stormwater conveyance systems shall meet the standards of Sections 17-4044 and 17-5013 and shall be reviewed and approved by the Parish Engineer prior to constructing or altering such systems.
 - 2. All stormwater conveyance systems shall be designed and constructed so that stormwater throughout the development is directed to a main conveyance system or detention facility and is not otherwise directed to adjacent properties.
 - 3. Open ditches: Existing open ditches may be used to convey offsite water through a proposed development or to convey water from a subsurface collection system to its ultimate outfall or detention area. No new open ditches shall be allowed within a proposed development. Alterations to an existing open ditch requires approval by the Parish Engineer.
 - 4. For new proposed developments, subsurface storm water systems shall be used to collect runoff from proposed roadways and individual lots for conveyance to an outfall ditch or detention pond.
 - 5. Subsurface systems installed to convey off-site water require proper analysis be performed in accordance with section 17-506 to ensure that no negative impact is caused to adjoining property owners.
 - 6. Swales used to direct stormwater to drainage inlets shall have side slopes not exceeding 5:1.
 - 7. For new proposed developments, effluent from individual sanitary sewer treatment systems must ultimately outfall into an enclosed storm drainage system if such storm drainage system abuts the subject site.

(Ord.# DR07-01, 9/6/07; DR09-01, 716/09; DC09-09, 12/17/09)

17-5013. – Design criteria.

- A. Storm drainage design, shall use 10-, 25-, 50-, and 100-year rainfalls of 7.8, 9.6, 11.1, and 12.6 inches of rainfall respectively in 24 hours as determined by NOAA Atlas 14, Volume 9, Version 2, by the National Weather Service. The 50-year storm shall be used to design drainage features and stormwater detention for proposed developments. The resulting post-development outflow from proposed development sites for the 50-year storm shall be limited to 10 percent reduction the outflow that would occur for the 10-year 24-hour duration storm and pre-development conditions.
- B. The natural drainage within a subdivision shall be followed to the maximum extent practicable. Streets and lots shall be arranged to minimize relocation of drainage canals.
- C. Drainage pipes shall meet the requirements of the Ascension Parish Subdivision Construction Specifications.

- D. Open canals shall have side slopes of three to one (3:1) if not lined with concrete. Slope grades of one and one-half to one (1.5:1) may be used for concrete-lined open canals.
- E. When a proposed ditch must discharge into a major unlined canal, the subdivider shall be required to enclose the ditch, (under the access strip of the major canal), in a metal pipe. The pipe shall extend four feet into the canal beyond the side slope, and shall discharge into a concrete flume that extends a minimum of five feet into the bottom of the canal. Flume shall be constructed immediately after conduit is installed.
- F. Unless drainage channels are being dedicated or developed for recreational or other public or private open space use, the subdivider shall construct a five-foot chain link fence along channels referred to in Section 17-5014(E).
- G. The Parish Engineer shall operate under the direction of and be subject to the control of and follow regulations established by the Parish planning commission.
- H. Hydraulic calculations shall be stamped by a Professional Engineer and submitted with Construction Plans.
- I. Improvements on lots created along MAJOR drainage channels shall not encroach on the drainage servitude or right-of-way.
- J. Drainage impact studies shall:
 - 1. Be prepared in accordance with the latest revision of the drainage impact study procedure (Appendix IV, Subdivision Regulations, Attachment B), as established by the Ascension Parish Planning Commission.
 - 2. If no development has begun within 24 months following the acceptance of the drainage impact study by the Ascension Parish Office of Planning and Development, the owner, subdivider and/or developer shall resubmit a new drainage impact study for review.
- K. All drainage impact studies, construction plans, and final drainage calculations for residential subdivisions and commercial developments submitted to the Office of Planning and Development shall be performed under the direction of and sealed by a Professional Engineer licensed to practice Civil Engineering in the State of Louisiana. Exceptions may be considered by the Planning Director in consultation with the Parish Engineer for cases showing a clear reduction in total impervious area and no modifications to existing drainage elements.
- L. Upon completion of the project, the design engineer for the project is required to submit a signed and sealed letter of certification that states that the project was completed in accordance with the construction plans that were submitted, reviewed and approved by the Parish. Final approval will not be granted until this letter has been received.
- M. The Parish Floodplain Administrator shall require a flood elevation certificate from a Professional Land Surveyor or Professional Engineer for residential and commercial structures.
- N. Interior subsurface stormwater system conveyance shall be designed based upon the 25-year storm event.

(Ord.# DR07-01, 9/6/07; DR09-01, 716/09; DC09-09, 12/17/09; DR15-01, 9/3/15; DR15-09, 12/3/15; DR19-05, 9/5/19)

17-5014. – Drainage servitudes.

- A. Drainage servitudes are dedicated to the Parish for the exclusive purpose of maintaining adequate storm water drainage. Any encroachment into a dedicated servitude is prohibited.
- B. Any encroachments into a dedicated servitude shall be removed by the landowner within ten days from the date of notice by the Department of Public Works and/or the appropriate drainage district.
- C. If the landowner fails to remove an encroachment within the ten-day period, they shall be assessed a penalty of \$100.00 per day until the encroachment is removed and verified by the Department of Public Works and/or the appropriate drainage district.
- D. When imminent flooding or damage from storm events are possible, as determined by the Department of Public Works and/or the appropriate drainage district, the Parish shall have the right to enter the property and remove the encroachment. The property owner shall be assessed all costs incurred in the removal of the encroachment.
- E. The following servitude criteria shall be required for each ditch, canal, and storm sewer:
 - 1. Proposed swale ditches with a maximum depth of 1.5 feet and with maximum side slopes of 5H:1V require a minimum seven and one-half foot servitude on each side of the centerline of the swale. Existing ditches that meet these dimensional criteria will not be required to provide additional servitude.
 - 2. Existing or proposed ditches or canals with a top width less than 20 feet require a minimum of ten-foot servitude from the top bank on each side.
 - 3. Existing or proposed ditches or canals with a top width greater than 20 feet require a minimum 15-foot servitude from the top bank of each side.
 - 4. Existing or proposed ditches or canals with a top width greater than 30 feet require a minimum 20-foot servitude from the top bank on each side.
 - 5. Existing or proposed ditches or canals with a top width in excess of 40 feet require a minimum of 25-foot servitude on both sides.
 - 6. For subsurface drainage pipes smaller than 60 inches in diameter, a 7.5-foot drainage servitude is required on each side of the outer wall of the pipe.
 - 7. For drainage pipes 60 inches in diameter and larger and box culverts wider than 60 inches, the servitude width shall be a minimum of four times the diameter of the pipe or four times the width of the box culvert.
 - 8. For double runs of pipe or other special circumstances, the Parish Engineer shall establish the width of servitude.
 - 9. Stormwater ponds/lakes require a 30-foot servitude from the inlet to the outlet of the pond/lake. Privately owned and maintained stormwater ponds/lakes shall be exempt from this 30-foot servitude requirement.

(Ord.# DR07-01, 9/6/07; DR09-01, 716/09; DC09-09, 12/17/09)

17-5094. – Implementation of September 2019 changes.

17-40100. – Definitions.

Development means the division of a parcel of land into two or more parcels with associated earthwork, the construction of a new major or minor subdivision, multi-residential or commercial building or structure, the relocation or enlargement of any commercial building or structure, the construction of parking surfaces for commercial developments or the clearing, grading, filling, or movement of land.

Maximum extent practicable means that under the circumstances, reasonable efforts are taken to comply with the requirement or standard, the costs of compliance with the requirement or standard clearly outweigh the benefits to the Parish or would unreasonably burden the project, and that reasonable steps are taken to minimize adverse impacts in lieu of compliance with the subject requirement or standard.

Open ditch means any uncovered natural or dedicated area which provides the containment or flow of water from rain or adjacent drainage areas of waterways such as streams, creeks, ponds, lakes or rivers.

Parish Engineer means a professional engineer licensed in the State of Louisiana, within the Office of the Parish Engineer, the Department of Public Works, the Designated Review Agency, or another Parish designee. In some cases, depending on the type of application or decision being made, Parish Engineer may include the Drainage Board.

Attachment B – Drainage Impact Study Procedure

ATTACHMENT B. DRAINAGE IMPACT STUDY PROCEDURE

- A. A proposed development shall not be considered for approval until the applicant has submitted a drainage impact study stamped by a Professional Engineer licensed by the State of Louisiana. Such study shall confirm the ability of existing watercourse channels, storm sewers, culverts and other improvements pertaining to drainage for flood control within the development to handle additional runoff which will be generated by the proposed development. The Drainage Impact Study shall comply with the minimum requirements as indicated in the remainder of this Attachment B.
- B. Site Location and Description
 - 1. Describe location of subject property; locate by Section, Township, and Range.
 - 2. Identify adjacent developments, major drainage outfalls, streets, highways, assessor's map page number; and provide a vicinity map.
 - 3. Describe the predominate existing and planned land use in the project watershed (Parish Land Use Data, aerial photos, etc.).
 - 4. Describe the proposed development, soil types, vegetative cover, and watershed slopes and provide an estimate of percent of impervious area for pre and post development conditions.
 - 5. Provide photos of existing channels, ditches, natural drains, proposed outfall structures and drainage structures.
 - 6. Include Project Drainage Information Form with data if provided by the Development of Public Works.
- C. Pre-Development Map
 - 1. Provide pre-development work map that includes existing surveyed onsite contours at one-foot intervals, development boundaries, roadways, pre-development watercourses with labeled entry and exit points, the off-site drainage area acreage, floodway and drainage servitudes, and on- and off-site overbank slopes.
 - 2. Pre-development work maps shall include determined existing peak ten-year, 25-year, 50-year, and 100-year runoff rates at entry and exit points.
 - 3. Pre-development work maps shall delineate the existing inundation area for the ten-year, 25year, and 50-year events, and 100-year event based on existing FIS study or other Parish information, if available.
- D. Post-Development Map
 - 1. The post development work map shall contain the full drainage area including the proposed onsite drainage system with labeled entry and exit points, identifying drainage ditches, culverts, and storage ponds, proposed major drainage structures, channel realignments, and cross section locations.
 - 2. Post development work maps of the development shall include determined peak ten-year, 25year, 50-year, and 100-year runoff rates at entry and exit points.
 - 3. Post-development work maps shall delineate the post development inundation area for the ten-year, 25-year, and 50-year events, and 100-year event based on existing FIS study or Parish information, if available.
 - 4. Delineate the 100-year overflow route for onsite drainage for areas within the floodplain.
- E. Watershed Map

- 1. The watershed map shall indicate the location of existing channels, ditches, natural drains, proposed major drainage structures, channel realignments, and cross section locations.
- 2. The latest U.S.G.S. 7.5-minute quadrangle map or better, at a scale of one inch = 500 feet of less, may be used as the base for delineating watersheds for large off-site areas.
- 3. The location of the site on a FEMA FIRMette panel with base flood elevations identified where available shall be provided.
- F. Hydrologic Design
 - 1. The drainage impact analysis shall include hydrological calculation determining existing condition peak ten-year, 25-year, 50-year, and 100-year flow rates at the development entry and exit points. The drainage impact analysis shall include hydrological calculations determining future condition peak ten-year, 25-year, 50-year, and 100-year flow rates at the development exit points.
 - 2. The 50-year storm shall be used to design drainage features and storm water detention for proposed developments. The resulting post-development outflow from proposed development sites for the 50-year storm shall be limited to the outflow that would occur for the ten-year 24-hour duration storm and shall be a minimum of ten percent less than outflow from pre-development conditions.
 - 3. The impact of the 100-year design storm shall be checked for maximum water surface elevation, and total site runoff peak discharge rates to allow the Parish Engineer to assess impact on properties and infrastructure.
 - 4. Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds" (frequently called the SCS method) shall be used to produce pre- and post-development runoff hydrographs. The computations shall be based on ten-year, 25-year, 50-year, and 100-year Type III rainfall distributions producing totals of 7.8, 9.6, 11.1, and 12.6 inches of rainfall respectfully in 24 hours. The shape factor when using SCS method can be lowered to a minimum of 323 rather than using the default 484. The pre-development times of concentration can be determined by either the lag or TR-55 worksheet methods but the post development times of concentration must be determined by the TR-55 worksheet method. Other methods may be used to calculate pre- and post-development runoff hydrographs, if approved by the Parish Engineer prior to performing the drainage impact analysis. Rainfall data on other frequency events is found in NOAA Atlas 14 volume 9 version 2.
- G. Hydraulic Capacities
 - 1. On-site capacity: Indicate capacity of any existing drainage outfall facility (ditch, canal, culvert, bridge, or other facility) within the proposed development site and required type, size, and capacity of any proposed outfall facilities as defined above.
 - 2. Off-site capacity: Determine capacity of existing downstream outfall facilities (ditch, canal, culvert, bridge, or other facility) that will be used to convey flow from the downstream limits of the proposed development to the main outfall as identified by the Parish Engineer. An inventory of downstream structures including size, type, invert elevation, and over topping elevation shall be made. Channel cross-sections at upstream and downstream limits of the proposed development at structure locations and at intermediate canal locations shall be provided to adequately define existing channel capacities.
 - 3. Design water levels: Indicate design water levels for site at the upstream and downstream boundaries. Ten-year, 25-year, 50-year, and 100-year 24-hour duration design water surface elevations shall be provided.

- 4. The 50-year storm shall be used to design drainage features and storm water detention for proposed developments. The resulting post-development outflow from proposed development sites for the 50-year storm shall be limited to the outflow that would occur for the ten-year 24-hour duration storm and shall be a minimum of ten percent less than outflow from pre-development conditions.
- 5. The impact of the 100-year design storm shall be checked for maximum water surface elevation, and total site runoff peak discharge rates to allow the Parish Engineer to assess impact on properties and infrastructure.
- H. Special Site Conditions
 - 1. Special conditions that exist within the proposed development site shall be clearly identified including, but not limited to:
 - a. Special Flood Hazard Areas (FIRM Zones A and AE);
 - b. Regulatory Floodway;
 - c. Fill placement location and mitigation requirements. Mitigation is to consider impact to local drainage and floodplain fill;
 - d. Potential wetland sites;
 - e. Churches, schools, cemeteries or parks;
 - f. Landfills and Hazardous Waste Sites; and/or
 - g. Existing houses with relatively low slab elevations or any known existing flowing conditions that are located near the new development boundary.
- I. Study Conclusions and Recommendations
 - 1. The Drainage Impact Study shall clearly identify the results of the computation, state a conclusion to the analysis and provide recommendations of any required action(s) to mitigate any potential adverse impacts to surrounding properties.
 - 2. The rate of run-off that existed prior to development shall not be increased unless the developer/subdivider can demonstrate that the existing downstream drainage is adequate to handle and maintain the anticipated flow resulting for the proposed development to the satisfaction of the Parish Engineer.
 - 3. The Drainage Impact Study shall clearly state how the reduction in the post-development peak rate of runoff from 50-year post-development to ten-year pre-development conditions (minus ten percent) will be achieved. If the reduction is proposed to be achieved by a detention system, the detention system shall be sized to safely accept and route the 50-year 24-hour design storm through the detention system without overtopping the levee or earthen embankment. The 50-year 24-hour flow shall be controlled by a pipe and/or control structure. The 100-yr event shall be checked to ensure the emergency weir is properly sized to prevent pond overtopping and to safely convey overflow to the receiving body of water. The 100-year 24-hour flow shall also be checked to estimate impact on upstream and downstream boundaries due to the development.
 - 4. Run-off from the proposed development shall be detained onsite by using storage, swales, ponds and/or basins or other accepted methods, as approved by the Parish and released at rate of flow that does not exceed the rate of flow as described above.
 - 5. The upstream water surface elevation shall not be increased from the elevation that existed prior to development unless the developer/subdivider can demonstrate that the increase will not adversely affect any property to the satisfaction of the Parish Engineer.

- J. Consideration for Protecting Existing Watersheds and Conveyance Systems
 - 1. There are four conditions that shall be mitigated to protect existing watersheds and conveyance systems.
 - a. Existing Watershed Flow Pattern

For measurement of obstruction of flow patterns where all drainage flows including overland flow which normally would flow unimpeded through the site are blocked by site shall be mitigated. Such mitigation shall be achieved by designed channels through or around the site, without increasing flooding upstream of the site or along the flow path through or around the site.

b. <u>Conveyance System</u>

For measurement of the impact of conveyance change, a continuous backwater model such as HEC-RAS shall be performed. The following river stations shall be included in the model and analysis.

- i. A convenient location at least 200 feet or further downstream of the downstream development boundary section.
- ii. 50 to 100 feet downstream of the development boundary section. This will be the beginning of a transition to a section containing "fill."
- iii. Downstream boundary section which will contain "fill" in the post development model.
- iv. Intermediate sections along the proposed development at no more than 500foot intervals (minimum of one) which will contain "fill" in the post development model.
- v. Upstream boundary section which will contain "fill" in post development model.
- vi. 50 to 100 feet upstream of the upstream development boundary section to mark the end of transition to pre-development conditions.
- vii. The channels in these sections may be interpolated from surveyed sections upstream and downstream of the development. Overbank conditions may use LiDar or site survey data extended to sub-basin ridgelines.
- viii. The post-development "fill" shall be adjusted until the model documents that there is no adverse impact from any increase in water surface elevation at the upstream section or potential impacts upstream of that section.
- ix. Cross sections shall be provided at the upstream and downstream property lines.
- x. An exhibit shall be provided with the submittal of the HEC-RAS model that shows the location of the cross sections on exhibits showing same info as the pre-developed and post-developed drainage area maps.
- c. <u>Storm water Detention</u>
 - i. For measurement of storm water detention, the inflow hydrograph must be for a 24-hour or longer storm event. The detention pond shall be designed to contain the post-development 50-year 24-hour storm volume without overtopping the pond's rim. The pond shall be designated such that the 50year storm outflow leaving the developed portion of a site does not exceed 10 percent less than the pre-development ten-year storm outflow.

- ii. The computation shall be based on Dynamic Discharge (tail water of the receiving stream and the effect of the outfall conduit).
- iii. The maximum stage within the pond shall be compared with the roadway elevations, building foundations, and storm water conduits within the development. A separate analysis will be prepared for the 100-year storm event. This analysis will be used to compare the maximum stage within the pond to roadways, building foundations, storm water conduits, and pond levee confinement heights.
- d. Placement of Fill

For measurement of compensatory fill, any volume placed below the Base Flood Elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the Base Flood Elevation and above the normal pool water level. The volume of water below such elevation is considered Dead Storage.

- i. The determining criteria for land subject to this requirement shall be all land below the Base Flood Elevation as determined by actual on-the-ground contours referenced to the official Parish benchmark system, regardless of whether the FEMA Flood Insurance Rate Maps (FIRM) depict the property in question to be in a recognized flood zone.
- ii. Where lakes are excavated, the volume of dirt removed below the normal pool level of the lake cannot be credited as compensatory storage.
- iii. Compensatory storage must have an equivalent hydraulic conveyance to the floodplain as the area being filled. Compensatory storage that is hydraulically disconnected will not be credited towards fill mitigation.
- iv. If the compensatory storage is derived from an off-site source that is not a part of the proposed development and the base flood elevation at the off-site source shall not be greater than one-foot higher than or one-foot lower than the base flood elevation of the developed site.
- v. If the storage pond is to be adjacent to a stream, the excavation must be storage oriented rather than become an increase in stream conveyance (physically separated from the stream).
- vi. Storage pond volume for detention to attenuate local runoff shall not include the required storage needed for fill mitigation. The two shall be accounted for separately but can be in the same pond.
- vii. Site specific floodplain state-storage curves for the pre- and postdevelopment conditions shall be prepared and compared for consistency, conformance, and balance so that no net loss in storage occurs at any stage as a result of the development.
- 2. Any request for deviation from specific submittal requirements of the Ascension Parish Drainage Impact Study Procedure may be approved by the Parish Engineer on a case-by-case basis if the applicant can clearly demonstrate that the proposed project meets the requirements of the Ascension Parish Drainage Ordinance. Approval from the Parish Engineer to deviate from a specific submittal requirement does not relieve the applicant from meeting the requirements of the Ascension Parish Drainage Ordinance or from providing a Drainage Impact Study when required.