Chapter 26 – Zoning and Development

ARTICLE I. GENERAL

Section 26-4. Definitions.

Community-type sewerage system: any system (excluding building plumbing), either publicly or privately owned, consisting of one (1) or more of the following: a) a collection system; b) pumping facility; and c) a means of final treatment and disposal; designed ~~for more than one (1) residential home~~ to service multiple parcels of land, such as in a subdivision, and which utilizes technology approved by the Louisiana Department of Health and Hospitals, Office of Public Health (LA DHH/OPH) and which conforms with the latest ~~adopted~~ edition of ~~"Standard Specifications and Details"~~ the Calcasieu Parish Police Jury Technical Standards and Specifications for Community-Type Wastewater Collection and Treatment Systems receiving the sanitary sewage and all Louisiana Department of Environmental Quality (LDEQ) permit requirements.

Conventional gravity sewer system: large networks of underground pipes that convey wastewater from individual households to a semi-centralized or centralized treatment facility using gravity and pumps, when necessary.

Engineer: individual who is qualified to practice engineering as evidenced by his licensure as such by the Louisiana Professional Engineering and Land Surveying Board. Term shall be synonymous with "Professional Engineer." ~~(1) One who is licensed by the state as a civil engineer; or (2) One who is a registered land surveyor in the state.~~

Extended aeration: a method of sewage treatment using modified activated sludge procedures. Typically used in prefabricated "package plants," it provides a longer mixing time with aged sludge offers a stable biological ecosystem better adapted for effectively treating waste load fluctuations from variable occupancy situations.

Professional of record: the engineer retained to undertake design work and field review of a development. Generally, it is identified by the engineering seal on the drawings.

Record drawings: drawings prepared by the professional of record, reflecting on-site changes as annotated by the contractor on the set of engineering plans during the course of construction. Drawings shall be stamped as "Record Drawings" on each sheet, and be signed and dated by the professional of record.

ARTICLE II. SUBDIVISIONS

Sec. 26-13. Procedure.

(a) *Applications.*

(1) Applications for review and approval of proposed subdivision plans shall be made to the board in accord with the procedure prescribed in this article. They shall be in writing on such forms as may be prescribed by the board, and signed by the land owner or his authorized agent.

(2) Applications and supporting documents shall be submitted in the number of copies reasonably required by the board for its own use and the use of the parish engineer.

(3) All materials submitted to the board become the property of the board and are not subject to return. Tracings and original drawings are not required.

(b) *Basis of approval or disapproval.* Approval or disapproval of any plan or application may be based only upon the provisions of this Code and comprehensive plans duly adopted by the police jury, and the laws of the state. Any plans published by the board but not adopted by the police jury may be used for guidance and coordination between the board and the developer, but they shall not have the effect of law and may not be the sole cause for disapproval of proposed subdivisions.

(c) *Phase development.* Notwithstanding any provisions to the contrary, any developer applying for approval of a proposed subdivision may, initially or at any stage during the processing of the application, elect to:

(1) Develop the subdivision in phases, by dividing it into two (2) or more distinct parts, and when such election has been made, subdivision approval shall be granted for such part for which the

requirements have been met, without regard to the status of any remaining parts of the entire proposed subdivision; and/or

(2) Sell, transfer, alienate or encumber the entirety of all or any of such parts of the subdivision.

(d) *Review process for subdivisions.*

(1) *Conceptual plan.*

a. The initial step in the application for subdivision approval shall be the submission of a conceptual plan to the director for consideration, on an informal basis, of the proposed land use, street layout and utility services. Conceptual plan review should be coordinated with permit submittals for U.S. Army Corps of Engineers' approval. A conceptual plan shall also be required in conjunction with any application for a zoning map amendment. The conceptual plan shall include:

1. The proposed subdivision name which may not duplicate, or be deceptively similar to, any existing subdivision in the parish, as determined by the director;

2. The legal description of the property to be subdivided;

3. A sketch of the entire tract to be subdivided showing boundaries at an appropriate scale, a vicinity map at a scale of one (1) inch equals two thousand (2,000) feet, approximate location of the public streets and roads adjoining or crossing the property, or in the absence thereof, the public street or road nearest the proposed subdivision property, and the location of proposed streets and roads, the approximate location of active or uncapped oil wells, gas wells, and water wells, servitudes for pipelines, utilities, drainage or other purposes, and other existing features affecting the proposed subdivision property;

4. The proposed intensity and use or uses for each area; and

5. The phasing schedule for development of subareas, if applicable.

b. The director shall render its letter of approval or denial within ten (10) working days, excluding legal holidays, after receipt of the conceptual plan.

c. A letter of denial of a conceptual plan shall state in detail the reasons for such denial. Reasons for denial may include inconsistency with the standards established in the Parish Code or failure to comply with other adopted development regulations.

d. If the conceptual plan is denied by the director, or if a letter of approval or denial has not been timely rendered, the applicant may present the conceptual plan to the next regularly-scheduled meeting of the planning and zoning board for its review and decision. Appeals from a denial by the board shall be handled in accordance with subsection 26-16(a).

e. Conceptual plan approval shall expire twenty-four (24) months after approval unless development is consistent with an approved phasing schedule.

(2) *Preliminary plat.*

a. After approval of the conceptual plan, the applicant shall submit a preliminary plat to the director, who will consider layouts and configuration of lots, streets, proposed drainage and easements, and their relationships with existing streets and easements which may join or cross the proposed subdivision. The preliminary plat shall also include:

1. The name of the proposed subdivision owner, applicant and developer;

2. The name of the planner or planning firm, if any;

3. The location of the property by reference to governmental section, township and range;

4. The legal description of the property;

5. The scale used for the map, at one (1) inch equals one hundred (100) feet or larger scale approved by the director of planning and development;

6. A north arrow;

7. Proposed street names, which may not duplicate or be substantially similar to any existing streets in the parish as determined by the director;

8. Lots and block numbers;

9. Alignment and dimensions of proposed lots, blocks, existing and proposed streets, and servitudes that adjoin, traverse, or are included in the proposed subdivision;

10. A vicinity map showing the property at a scale of one (1) inch equals two thousand (2,000) feet;

11. A drainage runoff management plan (RMP) as required by the drainage regulations of this Code; ~~and~~

12. The location and dimensions of all existing and proposed public easements outside of a street right-of-way. Proposed easements shall be labeled as "dedicated to public use" and indicate the name of the public owner of record.

13. The identification of public agency to be responsible for operation and maintenance of the water and sewer utility; and

14. Other information that the applicant wishes to submit to demonstrate compliance with the Parish Code.

b. Attached to the application shall be a letter from a public and/or private electric utility company verifying its capacity and intention to provide utility service to the subdivision.

c. Attached to the application shall be a letter from the applicable water and sewer service provider verifying the following: ~~its capacity and intention to provide service to the subdivision.~~

1. The provider is capable of supplying and will supply service to the subdivision upon the acceptance by the Police Jury;

2. The provider will accept the applicable utility infrastructure into its system for operation and maintenance, once built to specified criteria; and

3. Documentation from the Louisiana Department of Health approving the proposed system, configuration, layout design, and operation in accordance with Louisiana standards.

d. Minor variations in lot arrangements or sizes resulting from final field survey shall not constitute an addendum, for filing fee purposes, and no charge shall be made therefor.

e. Areas shown on the preliminary plat that do not meet the standards listed above in (a.) shall be deemed as future development, labeled as such, and subject to a separate preliminary plat approval.

f. The director shall recommend approval, approval subject to conditions, or denial of the plat within twenty (20) working days, of each complete submittal excluding legal holidays, after receipt of the preliminary plat.

g. After reviewing the director's recommendations and input from the public hearing, the planning and zoning board may approve, approve subject to conditions, or deny the preliminary plat.

h. Appeals to the decision of the planning and zoning board shall be in accordance with procedures previously adopted for due process through the fourteenth judicial court system.

i. Unless superseded by section 26-3 vested development, the preliminary plat approval shall remain valid as long as the applicant receives final plat approval within four (4) years from the date of action by the planning and zoning board. This may be extended for one (1) year by decision of the director after receipt of a written request and valid reason from the applicant. Any further extensions thereafter may be granted by action of the planning and zoning board, or included in a valid development agreement as defined in subsection 26-13(e)(1).

j. For phased development, preliminary plat approval shall expire within eight (8) years from the date of action by the planning and zoning board. Failure to submit the final plat for the final phase within this timeframe shall make the approval of the preliminary plat null and void. This may be extended for two (2) years by decision of the director after receipt of a written request and valid reason from the applicant. Any further extensions thereafter may be granted by action of the planning and zoning board, or included in a valid development agreement as defined in subsection 26-13(e)(1).

k. If a preliminary plat is given conditional approval by the planning and zoning board with requirements for completion of an RMP, traffic impact analysis, or standard requirements as described within this ordinance, the preliminary plat shall not be considered approved until each of these items is provided to and approved by the Calcasieu Parish director of planning and development. Developer is encouraged not to begin engineering documents until requirements of the conditional approval are met.

(3) *Engineering plans.*

a. After approval of the preliminary plat, the applicant shall submit engineering plans to the director and secure approval of those plans prior to submitting an application for final plat approval.

b. The engineering plan shall include:

1. Copies of the detailed layout and construction plans and specifications for the proposed subdivision;

2. The name of the proposed subdivision and the name of the owner, developer and applicant;

3. The name of the individuals who surveyed the property and prepared, stamped, signed and sealed the plans and specifications;

4. A copy of the approved preliminary plat, reflecting required amendments;

5. The location and description of existing and proposed sewerage facilities, if any central sewerage collection, treatment and disposal system is planned;

6. Plans showing the proposed vertical and horizontal alignments of water, sewer, gas, electrical and telecommunications, and the proposed locations of light standards and fire hydrants, in accordance with the “Space Allocations for Utilities in New Construction” in the appendix:

i. Waivers from the adopted space allocations for utilities may be granted by the parish engineer based upon unforeseen circumstances;

ii. Requests for waiver must be submitted in writing by the developer's engineer and be accompanied by a revised space allocation plan for review and approval;

The space allocation plan does not relieve utility companies or individuals from complying with any applicable utility codes.

7. Specifications of the proposed improvements, including typical street cross-sections, utilities, and the materials to be used in such improvements;

8. Details of plans for sewerage disposal, tie-in to existing collection systems, construction of a new collection and disposal system, use of lagoons, lift stations, force mains, etc.;

9. Information required to demonstrate compliance with the drainage regulations of this Code; and

10. Copies of the proposed covenants or restrictions governing the use of the property and the construction of improvements in the subdivisions.

c. The director shall render a letter of approval or denial within twenty (20) working days of each complete submittal, excluding legal holidays, after receipt of the engineering plans. Denial of engineering plans shall relate in detail the reasons for the denial.

d. Resubmittals of plans with modifications or corrections shall be clearly labeled revised and shall clearly illustrate~~d~~ the required changes from the previous submittal.

(4) *Authorization to proceed with construction.* Construction shall not begin until the applicant has been issued a development permit in accordance with section 26-176.

(5) *Inspections during construction.* The parish will inspect features of all new subdivision on items for public dedication at critical milestones in the construction process. The developer shall submit prior to construction a schedule for construction and critical milestones for inspection scheduling, and shall contact the parish for required inspections no less than five (5) calendar days in advance of inspection checkpoints so that an inspector can be scheduled to be on site. If inspection does not occur within five (5) calendar days of notice given to the parish, the project will not be delayed. Rather, the inspection will be deferred until the next scheduled progress inspection or final inspection. Inspections shall be completed during normal working hours for the parish. Standardized checklists based on ASCE and industry inspection standards will be provided to the developer during the plan approval process.

(6) *Final plat.* (Complete after construction as the final step in the development process).

a. After approval of engineering plans and completion of required improvements, the applicant shall submit a final plat and as-built drainage layout plan to the director. The director shall review and make recommendations to the police jury, which will consider the director's recommendations, public testimony, and staff reports on the status improvements or assurances of the completion of the subdivision in accordance with the approved engineering plans before deciding to approve, approve with conditions or deny the final plat and as-built drainage layout plan. Following adoption of the resolution adopting the final plat and as-built drainage layout plan, the director of planning and development or designee shall file the final plat and as-built drainage layout plan with the clerk of court who shall record the final plat.

b. Except as provided in paragraph (d) of this section, no lot or other parcel of land in the proposed subdivision may be sold until the final plat is filed in records of the clerk of court by the director of planning and development or designee.

c. No subdivision plat may be filed in the records of the clerk of court until approved by the police jury.

d. Review criteria. No final plat will be approved by the police jury until the following requirements have been met:

1. The applicant has submitted to the board a subdivision plat, including a complete legal description of the subdivision property, including, without limitation, the designation of the government section, township and range, and complying with all laws of Louisiana for the preparation and filing of subdivision plats, particularly R.S. 33:5051 et seq., and reflecting the location of servitudes as required to serve all lots in the subdivision.

2. The applicant's ~~engineer~~ professional of record certifies that all construction has been completed in accordance with the plans and specifications outlined in the engineering plan, has submitted satisfactory quality control documentation as required, and has submitted a set of record drawings, ~~shall provide a signed and sealed letter certifying that all construction has been completed in accordance with the plans and specifications outlined in the engineering plan~~ or has proffered a development agreement that is acceptable by the police jury in accordance with subsection 26-13(e)(1) (development agreements) of this Code.

4. The applicant has submitted documentation of acceptance of improvements by any other service provider, as applicable.

4. The division of engineering and public works has certified to its inspection and the completion of all construction, proposed for acceptance by the parish, in accordance with the plans and specifications contained in the engineering plans. The division of engineering and public works shall complete the inspection and report to the division of planning and development within ten (10) working days of each request, excluding legal holidays, after receipt of written request therefor from the applicant.

5. In lieu of meeting the requirements of subparagraphs a. and b. above, the applicant may elect to seek approval of the subdivision plat by furnishing a performance bond with adequate surety in accordance with subsection 26-13(e)(1)(development agreements) of this Code.

6. The following statements concerning dedication of rights-of-way and methods of sewage disposal shall be affixed to the plat with appropriate signatures:

   i. *Dedication.* The right-of-way of streets shown hereon, if not previously dedicated, is hereby dedicated to the perpetual use of the public. All areas shown as servitudes are granted to the public for use of utilities, drainage, sewage removal or other proper purpose for the general use of the public. No building, structure, or fence shall be constructed, nor shrubbery planted within the limits of any servitude, so as to prevent or unreasonably interfere with any purpose for which the servitude is granted.

   ii. *Sewerage disposal.* No person shall provide a method of sewage disposal, except connection to an approved sanitary sewer system, until the method of sewage treatment and disposal has been approved by the health unit of Calcasieu Parish.

   Signature
   Printed Name
   Title
   Company

   This is to certify that this plat is made in accordance with R.S. 33:5051 et seq., and conforms to all parish ordinances governing the subdivision of land.

   Signature
   Printed Name
   Title
   Company
   Professional Certification or License

7. All applicable fees and assessments have been paid by the developer.

8. In addition to other statutorily required information, the final plat shall include the following:

   i. The as-built elevation within the proposed building lines of each lot in accordance with the drainage layout plan;

   ii. The base flood elevations and required freeboard elevation for each lot;

   iii. The applicable flood zones; and

   iv. A statement that development of individual lots shall remain consistent with the approved engineering plans and "as-built" drainage layout plan.

Sec. 26-14. Standards for development; all subdivisions.

(h) *Sanitary sewer.*

(1) When an existing, public street is located adjacent to a proposed subdivision and new sanitary sewer infrastructure is proposed to be installed adjacent to that street, reasonable efforts shall be taken to coordinate the new design with any prior development which is adjacent to that street's right-of-way, within the limits of the proposed sewer infrastructure. Said coordination shall include the strategic placement of sanitary sewer manholes. It shall also include the installation of mainline service tee connections with up to seven (7) feet of capped/plugged service line for future connections. The future connections shall be by others to service platted lots that do not otherwise have access to a community-type sanitary sewer system. The depth of the service fitting shall be sufficient to provide gravity sewer service to the platted lot. Reasonable coordination shall not require an increase in collection main depths by more than two (2) feet over the depth as required without coordination.

(2) Sanitary sewer lines shall not be located in rear or side lot servitudes. All new infrastructure shall be located in the required utility easements adjacent to public road rights-of-way.

(3) Sewer collection and transport shall utilize conventional means. Flow shall be by gravity through buried piping from the various sources to a central treatment, transport, or transfer facility. Manifold low pressure transport mains (force mains with multiple low pressure sources) between transfer stations shall not be utilized.

ARTICLE VII. TECHNICAL DESIGN STANDARDS

DIVISION 2. SEWERAGE DISPOSAL STANDARDS

Sec. 26-191. Plans and specifications.

(a) A professional engineer, registered in the State of Louisiana, shall prepare the plans and specifications for the installation of a community-type system and for any alterations, modifications or expansion of an existing system. Plans and specifications shall be in conformance with the latest edition of the Calcasieu Parish Police Jury Technical Standards and Specifications for Community-Type Wastewater Collection and Treatment Systems ~~parish's "standard specifications and details for community-type systems."~~ Plans and specifications must be submitted for review and approval prior to initiating construction in accordance with established subdivision design and development requirements. An approved LA DHH/OPH Design Summary package along with LDEQ approval to discharge sanitary sewer must also be submitted with the plans and specifications.

(b) The owner/developer shall provide adequate right-of-way in accordance with standard plans and specifications adopted by the parish to allow for the future connection of the community-type wastewater collection and treatment system to a future municipal transport main. Right-of-way shall be established in accordance with the latest edition of the parish wastewater system master plan unless otherwise approved by the parish engineer.

(c) Utility easements containing gravity sewer mains are subject to variable width requirements based on the depth of the sewer main. Variable utility easement widths are represented in the parish's Space Allocation for Utilities in New Construction, as prepared by the division of engineering and public works.

(d) The location of treatment facilities and pumping stations shall be coordinated with and acceptable to the parish. Consideration shall be given to impact on adjacent property, dedicated all-weather access, reduction in the number of pump stations, and ease of future maintenance and expansion activities.

Sec. 26-197. Management of facilities and transfer of ownership to the parish.

(a) Calcasieu Parish intends to assume ownership and accept responsibility for the perpetual maintenance and operations of newly installed, extended aeration, community-type wastewater treatment systems, according to the criteria listed. All systems, public or private, shall be ~~provided that the system is~~ installed in accordance with all applicable guidelines established herein~~, and a~~After a favorable final inspection is completed for qualifying systems~~,~~ Calcasieu Parish will assume ownership, operation and maintenance at no direct cost to the parish for transfer. Said system will be transferred to the parish at the same time as the acceptance of the subdivision or other qualifying development and other public infrastructure improvements. Said community system shall be subject to construction inspections by the parish, both during and after installation to the degree necessary to assure proper operations before acceptance. Liens and debt owed on the collection and treatment systems shall be paid off in full before transfer of ownership takes place. Applicant shall be required to certify that there are no liens and that no debt is owed.

(1) Transfer of ownership to the parish is mandatory for any new/required residential community-type sewerage system. Transfer of ownership for land uses other than residential shall be subject to restrictions in consideration of the nature of the development, the characteristics of the wastewater, and the parish's ability to adequately address those characteristics. Based on those considerations, the restrictions may include parish refusal to accept ownership.

(2) Transfer of ownership is not intended for undivided, commercial, institutional, or public use developments such as manufactured home parks (rental spaces), schools and public use campuses, recreational vehicle parks (rental spaces) and similar developments or those with private roads.

(3) Oxidation ponds are not qualifying systems.

(b) ~~Posting of bonds~~ Acceptance and warranty. Once the community-type sewer collection and treatment system has been properly installed, the ~~developer and/or owner~~ applicant shall contact the parish. An on-site final inspection shall be completed to ~~i~~ensure that the system(s) has been installed and is operable. Final inspection shall include a written certification from the ~~developer's engineer~~ professional of record that the system has been constructed and installed in accordance with the approved plans and specifications. If upon inspection, the parish determines that such system(s) is not found to be built according to specifications, the ~~owner/developer~~ applicant shall be required to make the appropriate corrections at his or her expense before final acceptance can be made. After completion of all items required in the plans and specifications, the ~~developer's contractor~~ applicant shall submit to the parish a

one-time, non-refundable, operational and maintenance impact fee. The amount of this fee shall be equal to triple the total of the monthly sewer fees, in accordance with the latest utility fee schedule, for all service connections proposed for acceptance by the parish. The applicant shall also submit a copy of all manufacturers' warranties and warrant the improvements for 12 months from the date of acceptance of the final plat that includes the improvements. The developer shall secure and present all fees and warranties to the parish prior to making application for acceptance of the subdivision's final plat. ~~maintenance bond in the amount of fifty (50) percent of the community system contract amount, guaranteeing workmanship and materials of all public improvements for a minimum period of one (1) year or until the entire system is functioning at a normal load adequate to test the performance of the system. All warranty/maintenance bonds shall be obtained from an accredited financial institution recognized to be in good standing by the Parish of Calcasieu. The release of warranty/maintenance bonds shall follow established parish procedures.~~

(c) Existing systems (privately operated). The parish may choose to accept into its system those community-type sewer systems meeting the criteria in (a) of this section and satisfying additional quality control requirements. While it is not intended to achieve "like new" condition, nor full compliance with current specifications for new construction, it is intended to address operational, mechanical, functional, and regulatory deficiencies, as well as apparent pending maintenance needs. Any acceptance shall be of an entire system (treatment, transport, and collection), not selective portions. The procedure for evaluations is as follows:

(1) Application. Applicant submits a written request and applicable fees to the division of planning and development for parish acceptance of donated community-type sewer system. Request shall include a description of the facilities, design capacities, wastewater characteristics, property description and plat of the service area, description of land use and other such information as may be required to evaluate the applicability of the request. Based on this representation, the division shall advise the applicant if criteria in (a) of this section is satisfied. Satisfaction of those criteria does not indicate that a transfer of ownership will be successfully achieved. Should the criteria not be satisfied, the division's review of the application will be terminated. The division will complete its review and advise the applicant of its findings within 15 working days of receipt of a complete application. A revised application may be submitted no sooner than 180 calendar days from the date of notification. Applicant is cautioned to review the required quality control testing that occurs toward the end of the procedure. The scope of work to meet the requirements may impact the applicant's request.

(2) Users list submittal. Applicant shall prepare and submit to the division a list of users of the Community Treatment Sewer System (CTSS). The list shall indicate users' names, addresses, and billing information. An acceptable explanation for exclusion shall be provided for any parcel within the service area for which no user is assigned or indicated. Attached to the list shall be a statement from each user, acknowledging the proposed transfer of the facility from the applicant to the parish. Acknowledgement shall include a statement indicating the user is aware of the existing user fee being paid and the subsequent fee that will be charged following the transfer. It shall further include a statement from the user indicating their support or objection to proceeding with the transfer. Should less than 2/3 of the listed users support the transfer, the application shall be denied. Applicant may appeal the denial to the wastewater committee of the Calcasieu Parish Police Jury. The division's findings will be provided to the applicant within ten (10) working days of receipt of a complete and accurate users list. The ten (10) working days shall not begin prior to the release of findings related to the application.

(3) Preliminary engineering report. After approval of the application and users list, the applicant shall submit a Preliminary Engineering Report (PER) to the division for consideration. The PER shall be stamped and signed by a professional engineer. It shall include the following:

a. Design summary describing the facilities and indicating the capacities of the various components and their current loading.

b. Descriptions of all mechanical and routine "wear and tear" equipment, indicating condition of equipment.

c. Engineer's findings from an initial, independent inspection of the facilities, including, but not limited to, the following:

i. General inspection results.

ii. Representation of the gradient that collection lines are installed at and the justification for that representation.

iii. Estimate of system's response to rainfall events and quantification of infiltration/inflow resulting from those events.

iv. Evaluation of internal condition of collection system pipe: roundness, structural integrity, deviation from grade, water tightness, etc.

v. Evaluation of internal condition of manholes: corrosion, water tightness, structural integrity, etc.

vi. Evaluation of force mains for water tightness.

d. Findings from a joint inspection held with parish representatives. (If the joint inspection reveals the initial inspection was superficial, the joint inspection shall be terminated and the engineer's independent inspection shall be repeated. Applicant is not to rely on parish for findings.)

e. Recommended response to all findings. Recommendation shall include whether to accept the finding as is, as repaired, as replaced, or as to be subsequently provided or installed. Justifications for recommendations shall be provided.

f. Recommended action plan. Plan shall include a brief description of the intended scope of work related to addressing all findings. Action plan shall include any additional efforts that may be outside of the findings, required to bring the facility into regulatory compliance, provide industry-standard operational features, and prepare for required quality control testing and operational period. A schedule shall be included indicating calendar days required for various tasks and the estimated total calendar days required to execute the work described in the action plan. Action plan shall also address each of the following as to a recommended response and brief description as to the scope of required work.

i. Flushed and cleaned lift station wet walls, manholes, collection lines, disinfection facilities, trash traps, and other such features.

ii. Performance testing all pumps, motors, blowers, and other mechanical equipment under load for proper sequencing, operation, amperage draw, and other performance measures.

iii. Provision of a measuring device and Supervisory Control and Data Acquisition (SCADA) system at the treatment facility at a location and manner acceptable to the parish.

iv. Provision of SCADA equipment at all lift stations.

v. Provision of security fencing at all lift station and treatment facility sites, using the current parish standards as a guide.

vi. Provision of permanent easements, dedicated to the parish for public use for all utilities located outside of a public street right-of-way.

vii. Provision of all-weather access to all lift station and treatment facility sites, located in permanent access easements or rights-of-way.

viii. Provision of sites, dedicated to the parish, associated with all pump stations and treatment facilities, of sufficient size for operation, maintenance, and expansion activities.

ix. Lining of all lift station wet well interiors and manhole interiors at corrosion-susceptible locations. Such locations include those with drop inlets, manholes receiving force main discharge, and manholes immediately upstream of treatment facilities or lift stations.

x. Provision of other operational or maintenance features as are specified for new installations as may be reasonably expected, given any site development constraints.

g. Service provider acknowledgement. Attached to the PER shall be a letter from the division of engineering and public works stating its intention relative to assuming ownership and operational responsibilities of the infrastructure, subject to all criteria, findings, and quality control requirements being satisfied.

h. The division's findings relative to the PER and action plan shall be provided to the applicant within 30 calendar days of receipt of a complete PER and action plan.

(4) Action plan. Based upon the division's review of the PER, a mutually agreeable action plan shall be defined. An amended PER will be submitted as necessary with any revised action plan. The action plan, PER, and users list shall then be presented to the wastewater committee of the Calcasieu Parish Police Jury (committee) for consideration. Absent a mutually agreeable action plan, the division's review will be terminated. After favorable consideration of the action plan by the committee, the applicant may prepare and submit a preliminary plat as may be applicable.

(5) Preliminary plat. After approval of the action plan, the applicant shall submit a preliminary plat for consideration of layouts and easements, and their relationships with existing streets and easements that may join or cross the development. Any submitted plat shall conform to current platting requirements for preliminary plats and include legal descriptions of proposed transfers of property (treatment sites, pump station sites, utility easements, etc.), title opinions, and certification of lien-free status.

(6) Implementation. Improvements shall be made to the facility at the applicant's expense to fully execute the accepted action plan and prepare for the required quality control testing and 90-day operational period, following acceptance of the preliminary plat. Improvements shall be completed within the overall schedule of the action plan. The division may grant extensions as reasonably justified. Failure to complete the work within 90-days of the overall schedule, as may be amended, shall result in the requirement of an updated PER. The updated PER shall reevaluate the entire facility, including independent and joint inspections as previously conducted, and result in an updated action plan, subject to review and the division's acceptance.

(7) Acceptance. After completion of the improvements included in the action plan, applicant shall submit to the division an updated PER and conduct required quality control testing.

a. The updated PER shall list all items in the action plan, the actual means of resolution, and all documentation supporting satisfactory execution of the described work. Included shall be the engineer's statement that the work has been completed as described, meeting the intent of the action plan and that the facilities are reasonably expected to be in condition to pass the required acceptance testing. A joint inspection shall be held confirming the readiness of the facilities. Upon concurrence of readiness, the quality control testing may be scheduled.

b. In the presence of the division, quality control testing of the facilities shall be conducted. These tests are not for the benefit of the applicant in defining the required work effort. Acceptable results of these tests shall indicate compliance with the applicable specified requirements. The following are required as a minimum:

i. All flexible gravity sewer collection pipes shall be tested with a rigid mandrel (go/no go) sized at 92.5% of the internal pipe diameter. In any area where pipe deflections exceed 7.5%, the pipe shall be repaired. No repair resulting in any joint length being less than seven (7) feet in length is acceptable. No repair resulting in any pipe segment having more than one connection accomplished with repair fittings is acceptable. Mandrel shall be hand-pulled with no mechanical assistance. Repaired sections shall be retested no sooner than 30 days after the repair and backfill.

ii. All gravity collection lines and service lines shall be tested for infiltration/inflow by nontoxic smoke testing. Smoke bombs are not permitted. Blower shall be 4500 cfm (minimum). Continuity of testing shall be demonstrated by observed smoke from vent stacks along the entire reach being tested. Breaks in continuity shall be noted and satisfactorily addressed. Reaches tested simultaneously are limited to maximum pipe footage of 800 feet. Points of smoke exfiltration shall be marked, photographed, exposed, identified, and repaired. No repair resulting in any joint length being less than seven (7) feet in length is acceptable. No repair resulting in any pipe segment having more than one connection accomplished with repair fittings is acceptable. As a guide in evaluating the effectiveness of repairs, infiltration/inflow in excess of 1,500 gallons per day per inch diameter per mile of pipe shall be an indicator of excessive infiltration/inflow. Values below this level shall not be a waiver for correction of defects located by smoke testing or other means.

iii. All visible signs of infiltration/inflow at manholes shall be corrected, including the raising or modification of covers.

iv. All gravity collection pipes shall be internally inspected by closed-circuit television (CCTV). Lines shall be flushed, cleaned, and flooded prior to inspection. Sags in excess of 33% of the pipe diameter, as evidenced by standing water, shall be addressed to the division's satisfaction and shall result in that line being inspected again with the standing water removed sufficiently for pipe wall inspection. Sources of potential infiltration/inflow shall be repaired. Protruding taps or other potential blockages shall be repaired. Pipe wall structural defects, including those caused by unsatisfactory repair techniques, shall be repaired.

v. All force main routes shall be inspected for evidence of leakage during pump operation. Any noted signs of leakage shall be investigated and appropriately addressed. No repair resulting in any joint length being less than seven (7) feet in length is acceptable. No repair resulting in any pipe segment having more than one connection accomplished with repair fittings is acceptable.

vi. Performance test all pumps, motors, blowers, and other mechanical equipment under load for proper sequencing, operation, amperage draw, and other performance measures.

c. Following the documentation of compliance with specified requirements, a 90-day operational period shall be initiated. Operational period shall not begin prior to the demonstration of compliance nor without prior notice and parish authorization. The test shall be conducted at current demand loading and include all mechanical equipment, including the lift stations located in the collection system. All influent at the treatment facility shall be metered. The test must indicate satisfactory performance for the full test period. Satisfactory performance is considered to include a lack of mechanical malfunctions. Any interruption in the test period shall result in the cause of the interruption being corrected and the initiation of a new ten (10) consecutive calendar day test period.

d. Costs associated with operational periods, testing, additions, modifications, repairs, and other actions required as part of the quality control testing and transfer shall be borne by the applicant.

e. At the conclusion of a successful 90-day operating period, a Final Engineering Report (FER) shall be submitted. The FER shall be an update of the PER and include all findings and the means of resolution, all documentation of quality control testing, operational and reporting records, records from the 90-day operational period, and a statement from the professional of record that the quality control criteria for acceptance have been met.

8. Final plat.

a. After approval of the FER, the applicant shall submit a final plat to the director. The director shall review and make recommendations to the police jury, which will consider the director's recommendations, public testimony, and staff reports on the status of improvements or assurances of condition of the facility in accordance with the approved action plan before deciding to approve, approve with conditions, or deny the final plat. Following adoption of the resolution adopting the final plat, the director of planning and development or designee shall file the final plat with the clerk of court who shall record the final plat.

b. No plat, transferring of property or responsibilities to the parish may be filed in the records of the clerk of court until approved by the police jury.

c. Review criteria. No final plat will be approved by the police jury until the following requirements have been met:

i. The applicant has submitted to the board a subdivision plat, including a complete legal description of the subdivision property, including, without limitation, the designation of the government section, township, and range, and complying with all laws of Louisiana for the preparation and filing of subdivision plats, particularly R.S. 33:5051 et seq., and reflecting the location of servitudes as required to serve all lots in the subdivision.

ii. The applicant's professional of record certifies that all construction and quality control testing has been satisfactorily completed as documented in the FER.

iii. The division of engineering and public works has certified to its inspection and the completion of all construction in accordance with the FER.

iv. The following statements concerning dedication of rights-of-way and methods of sewerage disposal shall be affixed to the plat with appropriate signatures:

a. Dedication. The right-of-way of streets shown hereon, if not previously dedicated, is hereby dedicated to the perpetual use of the public. All areas shown as servitudes are granted to the public for use of utilities, drainage, sewage removal, or other proper purpose for the general use of the public. No building, structure, or fence shall be constructed, nor shrubbery planted, within the limits of any servitude so as to prevent or unreasonably interfere with any purpose for which the servitude is granted.

b. Sewerage disposal. No person shall provide a method of sewage disposal, except connection to an approved sanitary sewer system, until the method of sewage treatment and disposal has been approved by the Louisiana Department of Health.

Signature
Printed name
Title
Company

This is to certify that this plat is made in accordance with R.S. 33:5051 et seq., and conforms to all parish ordinances governing the subdivision of land.

Signature
Printed name
Title
Company
Professional certification or license

DIVISION 4. DRAINAGE STANDARDS

Sec. 26-215. Drainage impact analysis.

(a) *Scope.* This article applies to all new developments within the unincorporated area of Calcasieu Parish, however, the study limits may extend into incorporated areas. Requirements of this article shall apply in addition to any state and federal provisions.

(b) *Purpose*. This article will establish the requirements for a runoff management plan (RMP) and the guidelines for preparation and submittal of said plan. The standards of this article shall constitute the basic RMP standards and are intended to minimize the risk of flooding and watershed impacts resulting from a development and to preserve the floodplain storage capacity. RMPs should provide a detailed design and explanation of mitigation measures required to meet the watershed performance standards established in this code.

(c) *When required.* An RMP is required for all new subdivision developments, and all new commercial and industrial site developments requiring a building or grading permit. Waivers for RMP submittals shall be approved in accordance with subsection (d). Said RMP shall be submitted to the parish engineer for review and approval. Cover page of said RMP shall be stamped and signed by a licensed Louisiana civil engineer. No development shall be approved for construction without an approved RMP or obtaining a waiver. However, the planning and zoning board may grant preliminary approval to a proposed subdivision or development contingent on later submission of the RMP, or in accordance with the latest regulations. In any case, the RMP must receive the parish engineer or designee's review and approval before any development improvements begin.

(d) *Waivers.*

(1) New commercial and industrial site developments shall be granted a waiver from the RMP requirements when one (1) of the following conditions below is met:

a. Will not alter the existing natural characteristics of the site;

b. Will not result in more than twenty (20) percent impervious area that results in direct drainage runoff; and

c. Is less than two (2) acre development.

(2) New residential subdivisions shall be granted a waiver from preparing and submitting a full RMP study and report as described within section 26-215 when the average lot size is greater than or equal to three (3) acres and when the residential subdivision meets the qualifications for a minor subdivision. For residential subdivisions meeting these criteria, the abbreviated RMP shall provide at a minimum, the following information:

a. Written project summary with development description;

b. Watershed boundary map showing existing drainage flow paths and ground cover conditions based upon the most recent Calcasieu Parish Police Jury lidar;

c. All major, intermediate, and minor watercourse, utilizing the labeling program adopted by the parish stormwater management plan; and

d. 100-year flood zones, if applicable, including all regulatory floodways and coastal high hazard areas.

Additional requests for waivers will be considered where supporting data is submitted indicating no adverse impact on surrounding properties. Proposed developments within or partially within any existing regulatory floodway shall not be considered for an RMP waiver. In any case, the developer must submit adequate information to support the criteria of the waiver being requested. All new commercial and industrial site developments receiving an RMP waiver shall be required to pay a fee in lieu of detention based on impervious area created. This fee in lieu of detention shall be in accordance with the latest revised fee schedule adopted by the police jury and shall be added to existing development permit fees schedule.

Sec. 26-216. Drainage design standards.

(i) *Hydraulic design criteria*.

(1) All drainage facilities shall be designed and constructed in accordance with the latest edition of the LaDOTD Hydraulics Manual and Louisiana Standard Specifications for Roads and Bridges unless otherwise stated herein.

(2) Developments shall be designed and constructed in a manner to accommodate completely enclosed storm sewers. The hydraulic grade line analysis for a closed conduit system shall include all junction/manhole and friction losses and should assume, at a minimum, junctions and catch basin spacing as described in this section. However, streets may be permanently designated as open ditch. Where designated as permanently open ditch, the ditches will not be allowed to be enclosed at any time. Only driveway crossing shall be allowed. A statement of such, including the maximum driveway width of thirty (30) feet, shall be noted on the final plat and as-built drainage layout plan.

(3) Public infrastructure constructed or modified as part of a new development shall be designed as follows:

a. *Storm sewer design*.

1. The design storm frequency to be utilized for drainage design shall be as follows:

Local street	5-year
Collector street	10-year
Minor watercourse	5-year
Intermediate watercourse	10-year
Major watercourse	25-year

2. The minimum size of pipe, or round equivalent, to be used in a storm sewer system shall be eighteen (18) inches. The parish engineer may grant a minimum size reduction where dictated by site conditions.

3. The storm sewer shall be designed and constructed to operate full with a minimum self-cleansing velocity of three (3) feet per second, where possible. No storm sewer system should be designed to produce velocities in excess of ten (10) feet per second.

5. Storm sewers shall be designed with catch basins located at lot lines with a maximum spacing of three hundred (300) feet. Catch basins shall have a minimum twenty-four-inch diameter opening and meet AASHTO-HS-20 loading.

6. Storm sewer alignment between manholes or structures shall be straight, unless otherwise approved by the parish engineer or designee. All changes in alignment or pipe size shall require the use of a structure, such as a catch basin, junction box, or manhole. Catch basins located at intersections shall be pre-cast or cast in place, constructed with

reinforced concrete, and shall meet LaDOTD standards. All other catch basins located within the parish right-of-way shall meet AASHTO-HS-20 loading.

7. Yard drains are supplemental small drain basins that may be used to connect to the roadside subsurface drain systems and serve as local lot drainage inlets.

Pipe Size	Yard Drain Diameter
Less than 18 inches	12-inch
18 inches and above	15-inch

8. Catch basin and yard drain inlets shall be at least six (6) inches below the edge of pavement.

9. The storm sewer grade should be such that a minimum cover to withstand loading on the pipe is maintained. The minimum cover requirements will depend on the size and type of pipe and the bedding conditions, but should not be less than twelve (12) inches for all sizes and types. All pipe to be installed in the road right-of-way shall meet or exceed the parish engineer's approved requirements.

10. A minimum clearance of twelve (12) inches either above or below shall be maintained between the storm sewer and underground utilities unless otherwise required by a utility permit. For conflicts where minimum clearances cannot be maintained, a conflict box may be constructed if applicable to the utility in conflict.

11. Manning's roughness coefficients utilized for the design of storm sewers and culverts shall be in accordance with the latest edition of the LaDOTD Hydraulics Manual. To expedite review and provide consistent application of the methods, all calculation for peak discharge runoff shall follow the parish approved design process and variable sheet.

12. All storm sewer facilities must be designed taking into consideration the water surface elevation of the receiving conveyance system, pond or lake. The design tail water condition shall be based on a ten-year stage in the receiving system.

13. The storm sewer system shall be designed to convey the peak design flow based on full-flow conditions. The storm sewer capacity and velocity shall be based on Manning's formula. The storm sewer system shall be designed so that the hydraulic grade line does not exceed the edge of pavement of the proposed road.

14. The hydraulic grade line shall be computed beginning at the outlet end of the system and systematically working upstream, accounting for all friction losses in each storm sewer segment and minor losses at each junction. The computed hydraulic grade line shall be plotted on the development plan-profile sheets for review and approval.

15. For streets with curb and/or grate inlets, a detailed inlet spacing and capacity analysis shall be completed in accordance with the LaDOTD Hydraulics Manual. An exception allowing a maximum width of lane flooding of eleven (11) feet for local streets shall be granted.

b. *Open channel design*.

1. Hydraulic analysis shall be required to identify the adequacy of natural channels and to define the water surface profile for both natural and constructed drainage channels. The hydraulic analysis must include friction losses and effects of bridges, culverts, transitions, ineffective flow areas, etc. Sufficient cross sections of a natural channel must be taken to define its physical characteristics and the limits of the natural floodplain. The hydraulic analysis of open channels shall be based on either uniform or gradually varied flow. For the design of a proposed channel with a uniform cross section, uniform flow is normally assumed. For the evaluation of natural non-uniform channels, channels with over-bank flow, and channels subject to backwater, a standard step backwater analysis for gradually varied flow must be utilized.

2. Open channels shall be designed based on the following frequencies:

Local street	5-year
Collector street	10-year
Minor watercourse	5-year
Intermediate watercourse	10-year
Major watercourse	25-year

3. Hydraulic analysis of major watercourses shall be completed in accordance with the parish HEC-RAS modeling standards utilized in the stormwater planning models.

4. Alignment of proposed open channel outfalls shall follow existing ditches and low areas to minimize cut, reduce conflicts and maintain natural drainage patterns. Side slopes shall be a minimum of 3:1.

5. Where channel velocities are expected to be greater than five (5) feet per second, adequate erosion protection shall be required at all bends, confluences and outfalls of laterals.

6. Starting water surface elevation for water surface profiles of tributary streams should begin at normal depth, unless coincident design floods on the tributary and mainstream are likely. For this condition, the tributary water surface profile shall be plotted to reflect the results of the normal depth analysis or the level of backwater from the mainstream, whichever is greater. For conditions where coincident design floods can be expected, a backwater profile shall be calculated for the tributary stream starting at the coincident flood elevation of the main stream.

7. Miscellaneous design criteria for open channels which may not have been specifically addressed in the preceding sections are summarized below:

   (i) A minimum freeboard below top of bank to the design water surface of one (1) foot for channel depths of eight (8) feet or less, and two (2) feet for depths greater than eight (8) feet shall be required.

   (ii) A minimum radius of curvature of three (3) times the top width is recommended for earthen channels. This minimum may be reduced to 1.2 times the top width for erosion-protected channels. For earthen channels not meeting the recommended radius of curvature, erosion protection shall be required along the outer channel bank, extending a minimum of one hundred (100) feet upstream and downstream of the bend.

   (iii) The maximum intersection angle at confluence shall be ninety (90) degrees. Erosion protection shall be required at all intersections, which are not required to be enclosed.

   (iv) The utility line crossings of channels must be designed to minimize channel obstructions. For lines that pass under a channel, the top of the utility line shall be a minimum of ten (10) feet below the ultimate channel flow line and twenty (20) feet measured horizontally from the side slope, unless otherwise approved by the gravity drainage district.

   (v) The parish engineer or designee shall approve, in advance, design standards for concrete lined channels or permanent cross section channels.

   (vi) Channel blocks shall be installed at the confluence of all existing and proposed open channels regardless of the elevation difference in accordance with the LaDOTD Hydraulics Manual. Outfall pipe shall be properly protected against scour and erosion at both ends of the pipe.

   (vii) Lateral ditches from the street to an outfall channel that traverse lots shall be enclosed with storm drain pipe. Lateral ditches shall be protected from scour or erosion at both ends.

   (viii) Open ditches for roadside drainage shall be designed in accordance with LaDOTD Hydraulics Manual unless noted otherwise herein.

c. *Culvert design*.

1. The design storm frequency for cross drains shall be designed based on the following frequencies:

Local street	5-year
Collector street	10-year
Minor watercourse	5-year
Intermediate watercourse	10-year
Major watercourse	25-year

2. Side drains shall be designed based on a five-year design storm frequency.

3. The minimum size culvert for a side drain shall be eighteen (18) inches in diameter and eighteen (18) inches in diameter for a cross-drain unless approved by the parish engineer or designee. The parish engineer shall have the authority to consider a minimum fifteen (15) inch diameter culvert on upstream terminal segments that are not placed under publicly maintained roads such as when design standards for minimum velocity cannot be maintained or when all roadway crossings are privately maintained. Any requests for waiver from this requirement shall be accompanied by drainage calculations.

4. The allowable headwater or differential head across the structure, at the design frequency, shall follow guidelines specified in the LaDOTD Hydraulics Manual.

d. *Bridge design*. The design and placement of bridges shall be coordinated with the parish engineer or designee. To be accepted by the parish, bridges must be constructed to LaDOTD standards. It is recommended that a pre-design conference be held before proceeding with any bridge design.

e. *Detention pond design*.

1. All detention ponds shall be designed for a full spectrum of frequencies as established in the watershed performance standards. All facilities must also be checked for the 100-year frequency to assure adequate performance during major rain events. All facilities shall be designed with a 100-year frequency emergency spillway to control the location of overtopping of the facility.

2. All detention facilities shall be established offline and shall not be incorporated into an existing watercourse.

3. Basins shall be designed with a minimum side slopes of 5:1 embankment slopes shall be stabilized to prevent erosion. The minimum embankment top width of six (6) feet shall be provided on all basins.

4. For wet detention basins, a minimum permanent pool depth of five (5) feet is required. Sewer effluent discharge shall not be routed through any wet detention basin. For wet detention basins where individual treatment plants may be allowed by other development standards, the use of individual treatment plants will not be permitted unless appropriate water quality criteria have been addressed as part of the plan review process and where appropriate measures are put in place and included within the development of the subdivision.

5. For dry basins, a low-flow drainage channel to control flow and direct it to the outlet structure shall be provided. Said low-flow channel shall have a minimum capacity of 0.15 cubic feet per second per acre drained and a minimum design slope of 0.1 percent graded towards the outlet structure. Sewer effluent discharge shall not be routed through any dry detention basins unless concrete lined or enclosed low flow channels are provided.

6. Pond outlet structures shall be designed to be as maintenance free as possible and protected from clogging. For this purpose, only open top weir outlets are desired. Weir outlet structures shall be designed and constructed with reinforced concrete. Shop drawings, cross sections and plan details shall be required for approval. Weir outlets shall be designed to resist overturning, settlement or failure. Alternate outlet structures may be approved by the parish engineer if dictated by site specific circumstances.

7. For all basins, the time to drain the facility and to re-establish full storage capacity from the peak of the storm event shall not be longer than thirty (30) hours.

8. For approval, the developer's engineer shall submit design calculations, which include, but are not limited to the following:

    i. A stage-storage and stage-discharge relationship for the basin.

    ii. The development inflow hydrographs for the full spectrum of design frequencies, and all parameters and assumptions utilized to develop the hydrographs. In flow hydrographs shall be developed using the methods specified herein.

    iii. The routing calculations and outflow hydrographs for full spectrum of design frequencies.

    iv. All necessary outlet structure details, including detailed engineering construction drawings and specifications with reference to mean sea level elevations at invert and overtopping locations, for the structure. Weir coefficients and/or friction coefficients shall be provided if applicable.

f. *Fill mitigation requirements*.

1. No fill of any type shall be placed on or over any portion of a regulatory floodway, coastal high hazard area or any areas of special flood hazard or the floodplain, existing watercourse which, alone or cumulatively with other such activities, would cause or result in a barrier that will adversely affect the efficiency of, or restrict the flow or capacity of, a designated floodway or watercourse so as to cause foreseeable damage to others, wherever located. For the purpose of fill mitigation requirements, site specific stage-storage curves for the pre and post development conditions shall be prepared and compared for consistency, conformance and balance so that no net loss in stage-storage relationship results for the development for both the 10-year and 100-year storms. Fill mitigation plan should fully compensate for any fill or potential to be deposited with in the delineated floodplain. Developer may decide to limit future fill placement in restricted areas to reduce mitigation requirements. The fill proposed under the requirements of this section does not necessarily need to be placed at the time of subdivision construction, but this proposed fill is intended to include the complete requirements for future development including limit and quantities of allowable fill that may be placed later. All fill must be pre-mitigated unless the final plat includes restrictions on placement of additional fill in excess of the mitigation plan.

2. A fill mitigation plan shall be submitted by a certified licensed Louisiana engineer and is subject to review and approval or denial by the floodplain administrator, the parish engineer or designee.

3. Submittal requirements. (Information for fill mitigation shall be incorporated into the required site grading plan for review and approval.)

    i. Delineated 100-year floodplain elevation on predevelopment construction one-foot contour intervals.

    ii. Post development one-foot contours.

    iii. Post development fill volume to be deposited below the designated 100-year flood elevation.

    iv. Location of proposed fill credits to mitigate the fill volume below the delineated 100-year flood elevation with cross-sections.

    v. Watershed boundaries are to be included.

4. *Additional requirements*.

    i. Where detention ponds are to be excavated, the volume of dirt removed below the normal pool water surface level of the required minimum pond size cannot be credited as compensating fill mitigation volume.

    ii. If the compensating storage for fill mitigation is derived from an off-site source that is not part of the development, the storage must be located in the same watershed as the development. Additionally, the base flood elevation at the off-site source shall

not be greater than one (1) foot above or below the base flood elevation of the development site.

iii. Fill required for new construction, building pads or any development shall meet the following standards:

(A) Fill above natural ground should not be placed any closer than five (5) feet to any property line in order to facilitate the collection and transportation of any runoff via side-yard swales where necessary.

5. *Fill mitigation exemption*.

i. The parish engineer or designee shall issue a waiver for either partial or full fill mitigation requirements based on one (1) of the following (Developer may only use either option 1 or 2 when determining required fill mitigation volumes):

(A) Minimal fill utilized for filling of depressions or regrading the site to promote positive drainage shall not be required to be measured for fill mitigation purposes if it does not exceed 6-inches above the prevailing natural ground;

(B) Ten (10) percent of total calculated fill volume calculated in preparation of the overall fill mitigation plans may be exempted from the total required mitigation volume to account for variations in ground conditions.

ii. On a case by case basis, due to a developer's inability to generate fill credits, the parish engineer may issue a waiver for fill mitigation requirements based on the developer providing adequate information that credits are not obtainable and/or alternate design construction techniques cannot be utilized.

iii. <u>On a case by case basis, the Parish Engineer may issue a waiver for fill mitigation requirements if the project site is located within the designated/definable storm surge based flood zone as identified by the latest FEMA Flood Insurance Study (FIS) mapping. All fill placed in accordance with this exemption shall be placed in a manner such that it will not cause or result in a barrier or restrict the flow of a designated floodplain.</u>

APPENDIX

<u>Replace “Space Allocations for Utilities in New Construction,” dated January 11, 2012, with update.</u>

Underline = Addition, ~~Strikethrough~~ = Deletion