

ROCKDALE COUNTY PLANNING AND DEVELOPMENT

STORMWATER MANAGEMENT

PLAN REVIEW CHECKLIST



- Walk Through
- Drop-off, include a copy of this complete checklist. Allow up to 5 business days for review
- Section Re-review; include copy of comments and one set of plans. Allow up to 10 business days for re-review.
- An appointment can be scheduled with plan reviewer after plans have been revised to address all comments. Please call 770-278-7100 to schedule appointment

For more information contact:
Rockdale County Stormwater Department
Office: 770-278-7100
24 Hour Hotline: 770-278-7100, x3, x6
Website: www.rockdalecounty.org

STORMWATER MANAGEMENT REVIEW CHECKLIST

DEVELOPMENT NAME: _____ PHASE/UNIT: _____

REVIEWED BY: _____ ENGINEER PHONE: _____

DATE: _____ REVIEW NUMBER#: _____ PROJECT TYPE: R C I

Note: Plans must adhere to standards in the Georgia Stormwater Management Manual (GSMM) Volumes I and II, Floodplain Ordinance, and Post Development Stormwater Management Ordinances

A. GENERAL INFORMATION

1. ___ Development Name
2. ___ Engineer's seal, signature, address, and telephone number'
3. ___ Developer's name, address, and telephone number
4. ___ Date and vicinity map
5. ___ Include revision date
6. ___ Total site area; proposed and existing impervious area (include offsite area)
7. ___ Provide statement of existing pond/storm water drainage ownership
8. ___ Execute the Engineers Affidavit
9. ___ Provide floodplain statement of existence / absence of 100-year floodplain onsite, and FEMA Firm Panel number that was referenced for this determination.
10. ___ Provide the area of wetlands and show that the outfall will not cause water quality impact.
11. ___ Show and provide statement for any onsite and offsite easements.
12. ___ On front cover show which watershed the project is located in
13. ___ On front cover list total pervious, impervious , and detention area on property
14. ___ Provide scaled drawing showing the location of all existing and proposed topography, utilities, stream buffers, wetlands and floodplains; must also show 100-year limits and elevations for all structures.
15. ___ Details and construction notes for each proposed detention and water quality treatment facility, including volumes, elevations, depths, dimensions, materials, and as appropriate: orifice protection devices, trash racks, pretreatment structures, overflow structures, and fencing
16. ___ Show and provide complete description of storm sewer pipes and culverts. (slope, elevations, grade lines, pipe dimensions, pipe material)
17. ___ Additional details are to include design calculations, and construction notes for all proposed open channels, including dimensions, slopes, subgrade preparations, lining materials, flow rates, depths, and velocities

B. STORMWATER MANAGEMENT REPORT REQUIREMENTS

Note: Before project is accepted a Registered Engineer must submit written verification that he project was constructed with approved construction plans.

1. ___ Narrative explaining pre and post condition of the site, including area, soils, cover, existing structures, general topography, offsite flows across site, discharge points from site, downstream stormwater facilities, and receiving waters, any areas of concern?
2. ___ Narrative summarizing methodologies used to compute runoff quantities, water quality volume, and channel protection volume
3. ___ Narrative summarizing the rationale for exempting detention, water quality, and / or channel protection requirements, if applicable
4. ___ Narrative summarizing the rationale for claiming water quality credits, if applicable
5. ___ Narrative summarizing the results of the downstream (10%) analysis, and any impact the proposed development has on downstream properties and drainage facilities
6. ___ Narrative describing the location of all study points, including the 10% study point
7. ___ Summary table showing computed flow rates for the pre and post developed states of each drainage basin
8. ___ Description and details for each proposed detention and water quality facility, including volumes, elevations, depths, dimensions, materials, and as appropriate: orifice protection devices, trash racks, pretreatment structures, overflow structures, and fencing
9. ___ Detailed explanation of each pre and post developed drainage basin, including impervious area (categorized and overall), undisturbed area, disturbed pervious area, curve number assumed for each component area, composite curve number, travel time, and overall time of concentration
10. ___ Description of channel and pipe reaches used in time of concentration calculations, if applicable
11. ___ Detailed explanation of the procedure used and the results of the downstream (10%) analysis, including a detailed account of the impact of the proposed development on downstream properties and drainage facilities, and a detailed explanation of why the 10% study point is located upstream or downstream of the actual 10% point, if applicable
12. ___ Detailed explanation of the procedure used to compute the channel protection volume and release rate, and an explanation of how the

- proposed development satisfies these requirements; or a detailed explanation of the rationale used to exempt the channel protection criterion
13. ___ Detailed explanation of the procedure used to compute the water quality volume, credits, and release rate, and an explanation of how the proposed development satisfies these requirements; or a detailed explanation of the rationale used to exempt the water quality criterion
 14. ___ Completed copy of the Stormwater Quality Site Development Review Tool showing that the proposed development satisfies the 80% TSS removal criterion
 15. ___ Description, details, and calculations for proposed culverts, channels, and energy dissipating structures
 16. ___ Documentation showing proper design of storm sewer system, including proposed rim elevations, throat elevations, invert elevations, pipe dimensions, pipe materials, pipe slopes, inlet sizes, drainage areas, runoff coefficients, times of concentration, rainfall intensities, runoff flow rates, capture flow rates, bypass flow rates, cumulative pipe flow rates, hydraulic grade line elevations, and velocities; must also show 100-year ponding elevations at all inlets in sump
 17. ___ Documentation showing that gutter spreads throughout the proposed development do not exceed County standards
 18. ___ Description, details, and calculations for proposed sediment storage facilities, including volumes, elevations, dimensions, materials, and maintenance specifications
 19. ___ The stormwater hotspot locations, the designer is required to provide a detailed pollution management plan.
 20. ___ Provide Stormwater Pollution Prevention Plan
 21. ___ Scaled maps for each predeveloped and developed drainage basin, showing basin limits, time of concentration flow lines (segmented according to flow regime), basin names, drainage areas, travel times, overall times of concentration, and composite curve numbers
 22. ___ Scaled maps for the predeveloped and developed downstream (10%) analysis basins, showing basin limits, time of concentration flow lines (segmented according to flow regime), basin names, drainage areas, travel times, overall times of concentration, and composite curve numbers
 23. ___ Graphical hydrographs for each predeveloped and developed drainage basin, detention facility, channel reach, pipe reach, and flow junction; must include hydrograph name, event year, and time-discharge relationship
 24. ___ Tabular information for each detention and water quality facility showing storage elevations, contour areas, and volumes; weir / orifice dimensions, elevations, and discharge coefficients; outlet pipe dimensions, length, slope, invert elevations, and material. Also show stage-storage and stage-discharge relationships.

25. ___ Operation, Inspection, and Maintenance Program Report for all water quality and detention facilities, including tasks, schedules, responsible parties, funding, and access / safety issues

C. AS-BUILTS STORMWATER MANAGEMENT REPORT, PLAN, AND CERTIFICATON REQUIREMENT

1. ___ After construction, designer shall submit a scaled drawing, detailed report, and letter of certification confirming that all water quality, channel protection, detention, and flood prevention measures proposed in the original design are constructed and operating as designed, and that the development will not adversely affect any onsite or downstream structures, properties, drainage facilities, streams, wetlands, ponds, lakes, wildlife, or roadways

D. CONSTRUCTION PLAN AND STORMWATER MANAGEMENT REPORT COMMENTS

1. Report areas to an accuracy of at least 0.01 acre. _____
2. Reevaluate the drainage basin limits of _____
3. Reevaluate the area of _____
4. Report times of concentration in minutes _____
5. Reevaluate the time of concentration of _____
6. Report volumes in cubic feet. _____
7. Reevaluate the volume of _____
8. Developed flow rates exceed the predeveloped flow rates. _____
9. Channel protection criterion is not satisfied. _____
10. Water quality criterion is not satisfied. _____
11. The 100-year storm event is not safely conveyed. _____
12. Reevaluate the downstream (10%) analysis. _____
13. The following structures do not conform to Georgia Stormwater Management Manual standards: _____

14. The following structures require adequately-sized pretreatment facilities:

15. The following structures require appropriate trash racks and / or orifice protection devices: _____

16. The following structures do not have sufficient freeboard

17. The following structures must be fenced

18. Provide at least 1.5 feet of cover over all storm sewer pipes under unpaved areas.

- 19. Provide at least 2.0 feet of cover over all storm sewer pipes under paved areas.
- 20. Provide structural loading calculations for the following structures; provide additional cover and / or specify stronger materials as required:

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- 21. Provide at least 1.5 feet of separation between storm sewer pipes and other utilities.
 - 22. The following structures require a drainage easement that conforms to the chart below:

Drainage Structure
water quality or detention facility
proposed channel or natural drainageway
pipes 18" to 36", up to 2 feet of cover
pipes 42" to 72", up to 2 feet of cover
pipes larger than 72", or with more than 2 feet of cover
multiple pipes

- 23. Design storm sewer so that the crowns (not inverts) of differently-sized pipe match at junctions. All storm sewer pipes must have a velocity of at least 2.5 feet per second for the 25-year event. The following storm sewer structures are not adequately designed for the 25-year and / or 100-year storm events:

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- 24. Energy dissipation measures are required at the outlet end of all storm sewer pipes, and must be designed according to standards within the Manual for Erosion and Sediment Control in Georgia and the Georgia Stormwater Management Manual.
 - 25. The following open channels require modification (geometry, slope, lining, etc.) and / or the addition of check dams to prevent erosion.
 - 26. Sediment storage facilities do not satisfy the standards within the Manual for Erosion and Sediment Control in Georgia.
 - 27. No proposed disturbance is permitted within 50 feet of any stream bank without variance.
 - 28. No proposed impervious area is permitted within 75 feet of any stream bank without variance.
 - 29. Add note to plans: Contractor shall provide positive drainage away from all buildings.