

No.	Description	Comments by Plan Preparer	Comments by Plan Reviewer
1	Common address and legal description.		
2	Vicinity map.		
	Design professional's seal, signature, address, and telephone number.		
	24-hour contact name and telephone number.		
	Identification of benchmarks used.		
	Total site area.		
	Total amount of on-site and off-site disturbed area(acres).		
	Total amount of existing and proposed impervious area(acres).		
	Statement regarding ownership of stormwater management system after construction is complete		
	Statement regarding the existence / absence of 100-year floodplain onsite, and FEMA FIRM number that was referenced for this determination		
	Statement regarding any offsite easements that may be necessary		
	Statement regarding any proposed facilities or uses that may be classified as a stormwater hotspot, including a description of the anticipated pollutants		
	Select appropriate Floodplain Note(s). Either select note a or b and select notes c and d as applicable.		
	a. There is no floodplain on this property from a water course with a drainage area exceeding 100 acres or floodplain per FIRM Panel _____ dated _____.		
	b. Floodplain on this property from all water courses with a drainage area exceeding 100 acres is shown.		
	c. Floodplain shown is from FIRM panel _____ dated _____.		
	d. Floodplain shown is from Floodplain study titled _____ by _____ dated _____.		
	Study was done as a part of project number XXX xxxx-xxxxx.		
	Select appropriate wetlands note(s). Select either a or b, if wetlands are being disturbed on the site select note c.		
	a. There are no wetlands being disturbed on this site.		
	b. All wetlands to be disturbed are delineated on this site.		
	c. The wetlands are being disturbed in accordance with permit _____.		

<p>Select the appropriate SWM note. a. Storm Water Management for this project is provided on-site. b. Storm Water Management for this site is provided off-site in project named _____ with case number XXX xxxx-xxxxx.</p>		
<p>Select appropriate state waters note(s). Select either a or b and if a state waters buffer is being disturbed on the site select note c. a. There are no stream buffers on this property. b. A 50-foot undisturbed buffer and a 75-foot impervious setback shall be maintained adjacent to all streams. c. Stream buffer variance number _____ was obtained to work in buffer as shown.</p>		
<p>Wetland certification: The design professional, whose seal appears hereon, certifies the following: 1) the National Wetland Inventory maps have been consulted; and, 2) the appropriate plan sheet [] does / [] does not (circle appropriate box) indicate areas of united states army corps of engineers jurisdictional wetlands as shown on the maps; and, 3) if wetlands are indicated, the land owner or developer has been advised that land disturbance of protected wetlands shall not occur unless the appropriate federal wetlands alteration (“section 404”) permit has been obtained.</p>		
<p>Source of topography is _____ and reference datum is (i.e. NGVD 1929, Mean Sea Level, etc.)</p>		
<p>Developer is to clean out accumulated silt in detention pond at end of construction when disturbed areas have been stabilized. Regular maintenance shall be the responsibility of the homeowners association or the property owner.</p>		
<p>Total wetland acres on site are _____.</p>		
<p>Add note to plans: Contractor shall provide positive drainage away from all buildings.</p>		
<p>Scaled drawing showing the location of all existing topography, utilities, impervious surfaces, wooded areas, stormwater facilities, wetlands, State Waters, buffers, setbacks, and floodplains</p>		
<p>Grading Plan</p>		
<p>Show existing stormwater conveyances and structural control facilities.</p>		
<p>Number all pipes and structures on plan. & Label structures as SWCB,DWCB,DI,WI,JB,HW,FES(SHOW THE SAME ON THE PIPE PROFILES).</p>		

Latitude and longitude of all proposed detention and water quality treatment facilities		
Show topography at a 2' contour interval or less.		
Show drainage easement on pipes consistent with table in the Rockdale County's ordinance Sec. 332-16.		
Provide spot elevations for high points and areas shown having split drainage.		
Show 100-year ponding limit and elevation above inlets and provide a well defined contour around the inlet to provide proper drainage		
Show regulatory and 100-year floodplain contour, elevation and floodway limits and indicate information source.		
Indicate minimum floor elevation of building on plans & provide spot elevations to around the corners of the building to ensure runoff will drain away from the building		
Standard landscaping and landscaping requirements that are part of zoning conditions are not permitted within designated drainage or BMP easements.		
For commercial projects, provide a cleared access easement to the detention pond from a public street.		
Provide the top width of the detention pond's earthen dam. Provide a callout on the grading sheet.		
Provide the 100-year ponding elevation of the detention pond & provide a callout		
Energy dissipation shall be located entirely within the project site, no closer than 20 feet from any property line and not encroach upon any required buffer.		
Provide the top and bottom elevation of all retaining walls		
Details, design calculations, and construction notes for all proposed open channels, including dimensions, slopes, subgrade preparations, lining materials, flow rates, depths, and velocities		
Stormwater Management Details		
Provide a detailed profile of the ocs for all of the proposed swm facilities. Profile must include top of ocs elevation, earthen dam elevation, invert of the outlet pipe, & the bottom of the pond elevation		
Provide a detail and cross section for all stormwater ponds that have a wall acting as the control structure. Provide whether the wall will be a monolithic pour, also ensure no leakage at the joints.		
Provide Outlet Control Detail & cross section for Dry & Extended Dry Detention Ponds.		

	Provide Outlet Control Detail and a cross section for Wet Ponds, Wet-Extended Ponds & Micropools.		
	Provide Outlet Control Structure and the manufacturer's details, cross section, maintenance details, for an Underground Detention Facility.		
	Forebay equaling 10% of the water quality volume must be provided for each inlet to the pond. Provide calculations within report and show grading details on plans. (provide the forebay volume on the grading sheets).		
	Provide forebay cross section Detail.		
	If feasible and hydraulically possible, do not place the ocs in the bottom of the swm pond (inspector must be able to safely reach the structure).		
	Ocs profile must reflect the actual field conditions as shown on the grading sheet. Provide freeboard for earthen dams at least 1.5 feet above 100-year ponding elevation and 1 feet for non-earthen, walled dams.		
	Provide a cross section of the swm facility(section will reflect actual field conditions with all elevations, structures, embankment, spillway, ocs, outlet pipe, forebay, trashrack).		
	Inlet and outlets should be at opposite ends of the pond to maximize flow length. Baffles or islands may be installed to increase the flow path length and to minimize short-circuiting.		
	Provide the cross sections for all of the proposed SWM BMP. Cross sections will reflect actual field conditions as shown on the grading sheet.(include: top of bank elevations, ponding depths,underdrain size & elevation, width, side slopes, filter fabric, landscape filter strip, overflow structure, washed stone, planting media etc..)		
	Provide the 100-year ponding elevation of the detention pond & provide a callout		
	Provide a drainage easement and access easement around the stormwater management facility. Provide the drainage easement a minimum 10-feet outside of the 100-year ponding limits of the stormwater management facility.		
	Provide orifice protection via end caps or other methods and provide a trash rack if deemed necessary.		
	Provide a fence around the facility (fence requirements must adhere to Rockdale County's Ordinance Sec. 310-36.		
	Scaled drawing, details, and construction notes showing the location, species, spacing, installation, and protection of all proposed plantings for water quality facilities		
	Pipes and Channel Profiles		

	Minimum pipe's diameter in public owned right-of-way shall be a minimum of 18" in diameter		
	Provide pipe profiles. Show existing and proposed ground surface profiles, pipe lengths, slopes, inverts, and 25-year hydraulic grade lines.		
	Provide channel profiles. Show existing and proposed ground surface profiles, channel lengths, 25-year normal flow depth and slopes. Include the channel cross-sections.		
	25-year hydraulic grade line must be at least 1 foot below the gutter line or top of grate.		
	Channel velocities for the fully developed 25-year flow shall not exceed the non-erosive velocity.		
	Minimum slope for storm drain pipe is 0.50% (provide a note for all pipes that will have a lower slope. Note must state that the conveyance system will require additional maintenance due to the slope)		
	Per GSMM Minimum Velocity (V25) for storm pipe is 2.5fps (flowing full). Provide a note if the velocity will be lower.		
	Minimum pipe cover shall be two feet.		
	Cross drain culverts or pipe systems designed to convey water from one side of a public right-of-way to the other shall be designed to pass the fully developed peak flow associated with a 100-year storm. Required 1.5 feet of freeboard between the 100-yr. ponding elevation and the centerline of the road, without raising the 100-yr. flood elevation on upstream properties.		

	<p>Provide complete pipe chart including the following: (include OCS outlet pipe) ___ Upstream Structure Type (DWCB, SWCB, DI, etc.) ___ Pipe numbers/Pipe Structures ___ Pipe size (in) ___ Pipe length (lf) ___ Pipe slope (%) ___ Design discharge (cfs) ___ Contributing drainage area (ac) ___ Rainfall Intensity (in/hr) ___ Runoff coefficient(C) ___ Pipe material/coating ___ Velocity (fps) *(Pipes shall sized for the 25-yr design storm; culverts for the 100 yr design storm)</p>		
	<p>Provide complete channel chart indicating the following: ___ Open channel numbers ___ Contributing drainage area ___ Runoff coefficient ___ Conveyance size/dimensions ___ Channel lining material ___ Channel length ___ Channel slope (Maximum 10%.) ___ Velocity (fps) ___ Design discharge (cfs) ___ Normal flow depth *(Channels shall sized for the 25-yr design storm)</p>		
	<p>Cross-drains on public streets must be sized for 100-yr storm. Longitudal pipes on public streets may be sized for 25-yr storm. Maximum gutter spread at catch basin is 8 feet.</p>		
	<p>Provide at least 1.5 feet of cover over all storm sewer pipes under unpaved areas, and at least 2.0 feet of cover over all storm sewer pipes under paved areas. Otherwise, provide special design information.</p>		

<p>Show all utility crossings in the profiles & label the pipe size and material & ensure there is a min 18" vertical separation.</p>		
<p>Soil Erosion and Sedimentation Control Plans</p>		
<p>Must submit Erosion, Sedimentation & Pollution Control Plans Checklist on plans. Plan shall conform to the design guidelines in the 2016 Manual for Erosion and Sediment Control in Georgia and the Rockdale County Soil Erosion and Sedimentation Control Ordinance Chapter 306</p>		
<p>Erosion control maps, drawings, and supportive computations shall bear the signature, date of signature, and seal of a registered or certified professional in engineering, architecture, landscape architecture, land surveying, or erosion and sediment control.</p>		
<p>Provide graphic scale and north point or arrow indicating magnetic north.</p>		
<p>Provide boundary line survey information.</p>		
<p>Location and boundaries of natural feature protection and conservation areas such as wetlands, lakes, ponds, and other setbacks (stream buffers, drinking water well setbacks, septic setbacks, etc.)</p>		
<p>Show all proposed structures or additions to existing structures.</p>		
<p>For projects in Big Haynes Creek watershed inside the 7 mile radius to Black Shoals Reservoir, on perennial streams shown on the USGS quad maps, show a minimum 100 foot buffer and 150 foot no-impervious surface setback. See the zoning resolution for exempt activities.</p>		
<p>Locate the erosion and sediment control measures on the plan using the uniform coding symbols from chapter 6 of the Manual for Erosion and Sediment Control in Georgia.</p>		
<p>Discharge of water from sediment basins and impoundments must utilize outlet structures that withdraw water from the surface. Add detail Sk.</p>		
<p>After consulting the National Wetlands Inventory Map, it appears that wetlands exist on the project property. These wetland areas must be indicated on the site plan. NWI Maps are also available on the internet at http://www.fws.gov/wetlands/Data/Mapper.html</p>		
<p>Any work proposed in the stream bed will require authorization from the US Army Corps of Engineers.</p>		
<p>Rockdale County will not issue a land disturbance permit until we receive documentation from the Corps of Engineers that an Individual Permit or a Letter of Permission authorizes the proposed encroachment in wetland areas. If the encroachment is authorized under a Nationwide Permit, we must receive documentation from the applicant's engineer about which Nationwide Permit is applicable and why the encroachment meets the conditions of that Nationwide permit. We also must receive a copy of the approved PCN letter from the Corps of Engineers, if applicable. T</p>		

	Provide the GSWCC Level 2 Design Pro Cert. & include the issued and expiration dates.		
	Provide the water monitoring and sampling locations(adhere to the requirements of the NPDES GAR Permits).		
	Show all perennial and/or intermittent streams.		
	Stormwater Management Report		
	Stormwater Management Report shall be prepared in accordance with the current Georgia Stormwater Management Manual & the Rockdale County Post Development Stormwater Management Ordinance Chapter 310.		
	Professional Engineer seal, signature and date.		
	Provide a table of contents and either provide page numbers or tabs referencing sections for the following. 1) Narrative 2) Hydrology 3) Water quality 4) Floodplain 5) Environmental permits 6) Annotated checklists.		
	Narrative of existing site conditions, proposed project and post-construction stormwater management measures.		
	Mandated Model Ordinance requires 100% Runoff Reduction. See Rockdale County's Ordinance Sec. 310-36. Provide a runoff reduction infeasibility report if the requirements are not meet. See Rockdale County's webiste under the Stormater Management Department for the report.		
	Provide Energy Dissipation Sheet.		
	Provide Downstream receiving conveyance velocity summary sheet.		
	Provide Time of Concentration Summary Sheet. .		
	Provide Curve Number Summary Sheet.		
	Provide Gutter Spread Calculations Summary Sheet.		
	Calculations determining the capacity of existing pipe to carry the proposed discharges.		
	Calculations showing discharge of concentrated flows into the streets do not exceed the flow rates in Rockdale County's Ordinance.		
	Show Time of Concentration calculations for all hydrographs. Follow the procedures set forth in the Georgia Stormwater Management Manual (GSMM)		

	Curve Number calculations for both pre-developed and post-developed conditions for all hydrographs. Follow the procedures set forth in the Georgia Stormwater Management Manual (GSMM)		
	Provide Energy dissipater calculations/designs for outlet headwalls of pipes and detention ponds.		
	Analyze downstream watercourses and receiving conveyances to determine 25-yr. flow channel velocities. If the non-erosive velocity of the stream is exceeded, detention may be required. Provide calculations with cross-section, depth of flow and velocity in channel.		
	Analyze existing pipe systems and culverts for compliance with current development regulation design criteria. Culverts should pass Q100. If existing pipes are not adequate for increased 100-year flow, detention may be required.		
	Hydrograph comparisons for the 1, 2, 5, 10, and 25, 50 and 100-year storms for both the downstream property line study point and the point where the drainage basin equals 10 times the project area.		
	A detailed written description of the first 500 feet off site; at least one photograph looking downstream with some object included in the photograph for scale shall be included.		
	Post-developed peak flows at every location where run-off will leave the development must be less than or equal to pre-developed flows, unless meeting the conditions.		
	Provide cross-section of all proposed BMP's (detention ponds, bioretention etc.). Where applicable should include but not limited to outlet pipe, emergency spillway, embankment slopes, minimum embankment top width, outlet control structures, headwalls, soil media, underdrains, aggregate base, riprap outlet protection, etc. Verify that minimum 1'-6" freeboard above maximum water surface elevation is provided for earthen dams.		
	<p>Prior to approval of the report, the applicant shall certify and provide all corresponding documentation and all other applicable environmental permits required for the site.</p> <p>a) NOI-Notice of Intent b) USACE 404 Permit (wetlands) Variance c) Ga. EPD Stream Buffer</p>		
	Provide the 24-hour rainfall depths for the 1, 2, 5, 10, 25, 50 and 100-year design storms. Rainfall values can be obtained from NOAA Atlas 14		
	Provide a scale on all drainage maps in the Stormwater Management report.		

	Provide a table that summarizes land use distribution for each drainage basin shown on the pre-developed drainage maps in the Stormwater Management Report.		
	Provide a table that summarizes land use distribution for each drainage basin shown on the post-developed drainage map in the Stormwater Management Report.		
	<p>All selected BMP's shall be designed in accordance with the design guidelines provided in the GSMM.</p> <p>Show detailed design calculations for each proposed BMP and reference section in the GSMM where design calculations can be found. Include an annotated checklist that shows proposed BMP meets all design requirements outlined in the GSMM.</p>		
	Provide calculations for the required water quality and channel protection volumes for the proposed BMP's based on the unified sizing criteria in the GSMM.		
	Provide water quality and channel protection orifice sizing calculations.		
	Dam safety and breach analysis if applicable.		
	Provide the web soil survey information		
	Provide calculations showing emergency spillway is designed to pass the 100-year storm event and that freeboard for earthen dams is at least 1 feet above 100-year ponding elevation.		
	Provide the geotechnical testing documentation to support the soil infiltration rate of a min 0.5in/hr (testing must be performed by a licensed professional Geotechnical Engineer and the documents must be signed and sealed).		
	Detain the runoff from the 1-year storm for 24 hours. Use the SCS runoff equation to size the volume required.		
	24-hour detention of the 1-year storm is required if water quality is required. Provide channel protection.		
	Size the outlet orifice for a 24-hour drawdown time. Provide the correct method of analysis(average head or maximum head method per GSMM).		
	The peak flow summary sheet must include the pre dev, post dev, routed flows from pond, bypass, combined post dev at the study points, 10% pre dev, and 10% post dev.		
	For stormwater hotspot locations, the designer is required to provide a detailed pollution management plan. Pollution managementn plan must include detailed information regarding the various pollutants expected and the methods used for the collection, storage, and disposal of those pollutants.		

<p>Show that water quality treatment provided achieve 80% TSS goal by providing calculations or a completed copy of the Stormwater Quality Site Development Review Tool form (download from http://www.northgeorgiawater.com).</p>		
<p>Provide a downstream hydrologic analysis (pre- and post- peak flows and peak timing) to the point in the watershed where the area of the site comprises 10% (or less than 10%) of the total drainage area. Show all confluences downstream, to and including the 10% point on a topo/basin map.</p>		
Drainage Basins		
<p>A map showing drainage areas used for pipe design.</p>		
<p>A map showing drainage areas for all hydrographs.</p>		
<p>A map showing all on-site drainage areas, off-site drainage areas, and all pond bypass areas considered in detention calculations.</p>		
<p>Show hydraulic flow path, CN, Tc and Acreage for all Pre- and Post Developed Drainage Basins.</p>		
<p>Describe in combination with a topographic map, all culverts, obstructions, existing and potential erosion problems, elevations of existing improvements, and existing drainage complaints, between the downstream property line and the 10% point.</p>		
<p>Provide the correct delineation of the drainage basins</p>		
<p>Provide the point of analysis for each basin-POA is the location where the water discharges off the site(show on the site boundary).</p>		
<p>Provide the topography on the pre and post developed maps.</p>		
<p>Post development map delineation must match the proposed grading on the civil site plans.</p>		
<p>Provide the overland sheet flow, shallow concentrated flow, and open channel flow information on pre/post dev maps(tc calculations should match the map info).</p>		
Water Quality Performance		
<p>Use the Georgia Stormwater Management Manual – Stormwater Quality Site Development Review Tool-provide additional informatin that supports the swm system will achieve the 80% TSS removal rate.</p>		
<p>Minimum reduction in TSS Loading shall be 80% based on the averaged rainfall depth of 1.2" in Georgia.</p>		
<p>Provide a map delineating the different land use types for the water quality analysis purposes. (i.e. Impervious Area, Disturbed Pervious Area, Undisturbed Upland Area, Undisturbed Stream Buffer Area)</p>		
<p>Provide a print-out of the complete Stormwater Quality Site Development Review Tool. Printout should include both input and output files.</p>		

	Provide a bmp and water quality map-map must match the proposed bmps shown in the review tool. Provide the impervious total, acre total, for each proposed bmp on.		
	Provide the runoff reduction infeasibility report if the requirement is not meet. Report must be submitted to the Stormwater Management Department prior to the initial plan review submittal.		

Flood Study Review - Only use if Flood Area is on Property	Comments by Plan Preparer	Comments by Plan Reviewer
<p>All locations with FEMA floodplain and Rockdale County's future floodplain located on the lot must submit a FEMA Elevations Certificate prior to the issuance of the Building Permit.</p>		
<p>Per Rockdale County's Ordinance Sec. 320-3. Permit Procedures and Requirements: No owner or developer shall perform any development activities on a site where an area of special flood hazard or area of future-conditions flood hazard is located without first meeting the requirements of this chapter prior to commencing the proposed activity.</p>		
<p>An application for a development project with any area of special flood hazard or area of future-conditions flood hazard located on the site shall include a floodplain management/flood damage prevention plan.</p>		
<p>The floodplain management/flood damage prevention plan. The plan shall include all items listed in Ordinance Sec. 320-3 (b).</p>		
<p>For all new construction and substantial improvements on sites with a floodplain management/flood damage prevention plan, the permit holder shall provide to the floodplain manager a certified as-built elevation certificate or floodproofing certificate for nonresidential construction including the lowest floor elevation or floodproofing level immediately after the lowest floor or floodproofing is completed. A final elevation certificate shall be provided after completion of construction including final grading of the site. Any lowest floor certification made relative to mean sea level shall be prepared by or under the direct supervision of a licensed land surveyor or professional engineer and certified by same. When floodproofing is utilized for nonresidential structures, said certification shall be prepared by or under the direct supervision of a licensed professional engineer or architect and certified by same using the FEMA floodproofing certificate. This certification shall also include the design and operation/maintenance plan to assure continued viability of the floodproofing measures.</p>		