



City of Graham Stormwater Permit Application

FOR OFFICE USE ONLY	
Review Fee:	_____
Permit No.:	_____
Date Issued:	_____
Date Paid:	_____
Check No.:	_____
Rec'd By:	_____

City of Graham Planning Department
 Telephone: (336) 570-6705
 Fax: (336) 570-6703

201 South Main St
 Graham, NC 27253

City web site:
www.cityofgraham.com

Section A. SUMMARY INFORMATION

DEVELOPMENT NAME: _____

LOCATION: _____

PARCEL ID NO.: _____

TOTAL ACRES: _____ TOTAL DWELLING UNITS (if applicable) : _____

TOTAL DU/Acre: _____ % Built Upon Area: _____ TOTAL Built Upon Area: _____

LOW DENSITY (no more than two dwelling units per acre or twenty-four percent built-upon area):

HIGH DENSITY (exceeds the low density thresholds for dwelling units per acre or built-upon area)

Section B. APPLICANT INFORMATION

Owner (Owner or Developer)

Owner: _____ Phone No.: _____

Company: _____ Fax No: _____

Address: _____

_____ Zip: _____

Fax No: _____ Email Address: _____

Consultant (Person to contact regarding questions or revisions to the plan)

Contact Name: _____ Phone No.: _____

Company: _____ Fax No.: _____

Address: _____

_____ Zip: _____

Fax No: _____ Email Address: _____

ALL ITEMS ON THIS APPLICATION MUST BE ADDRESSED PRIOR TO SUBMITTAL.

ALL INCOMPLETE SUBMITTALS WILL BE RETURNED.

Section C. REQUIRED ITEMS CHECKLIST

The following checklists outline submittal requirements. Initial in the space provided to indicate the following submittal requirements have been met and supporting documentation is attached.

General Requirements:

Applicant's initials

- _____ 1. Sheets shall be no larger than 36" x 24" plan and profile paper.
- _____ 2. Minimum text size shall be 1/8".
- _____ 3. Scale on plan view shall be no smaller than 1" = 50'; scale on profile view shall be no smaller than 1" = 50' horizontally and 1" = 5' vertically using a grid showing 1' intervals.
- _____ 4. All drawings to be in North Carolina State Plane coordinate system.
- _____ 5. Cover sheet shall have a vicinity map at a scale no smaller than 1" = 200'.
- _____ 6. Provide a legend indicating existing and proposed lines, features and symbols.
- _____ 7. Cover sheet shall include all general notes, owner's name, telephone number, and mailing address.
- _____ 8. All elevations shall be given in relation to mean sea level; elevations in profile view shall be labeled in 10' intervals on the heavy lines (Ex. 350, 360).
- _____ 9. Benchmark elevations and locations shall be shown on plan view.
- _____ 10. Plan views shall have a north arrow on each drawing.
- _____ 11. Each drawing shall have the following information in the title block: Street or project title, limits, horizontal and vertical scales, original date, revisions date, drawing number, checked by and drawn by. Recommended placement is lower right-hand corner.
- _____ 12. All drawings sealed, signed and dated by a NC Professional Engineer or Landscape Architect.
- _____ 13. A signed and sealed statement on the plans (if a high density project) certifying that the design of all stormwater management facilities and practices will control and treat the runoff from the from the first one inch of rain over the total drainage area, that the designs and plans are sufficient to comply with applicable standards and policies found in the *Stormwater BMP Design Manual*, and that the designs and plans ensure compliance with the City's Phase II Stormwater Ordinance.

- _____ 14. Plan view shall show all actual street names. State road numbers shall be shown if applicable. Plan view should also indicate whether street is asphalt, concrete, gravel or dirt. Proposed street & Right-of-way widths will be dimensioned back-to-back and labeled in plan view.
- _____ 15. Plan view shall show proposed and existing curb and gutter, pavement, storm sewers, drainage structures, driveway pipes, water mains, sanitary sewer mains, etc. All available elevations shall be shown on the profile view. Direction of flow shall be shown on plan view for all sanitary sewers and storm drains. Materials and pipe sizes shall be labeled.
- _____ 16. Existing utility lines shall be shown and labeled on plan view and indicated in the legend.
- _____ 17. Plans shall show final proposed locations and dimensions of all water, storm drain, and sanitary sewer lines, devices to be installed on the system, catch basins, culverts, ditches, including grades, pipes sizes, elevations, assumptions, calculations, invert elevations for all inlets and manholes and profiles of sanitary sewer lines.
- _____ 18. All existing and proposed water, storm drainage and sanitary sewer easements shall be shown on all applicable sheets.
- _____ 19. Number of dwelling units
- _____ 20. Existing and proposed topographic lines (minimum 2-foot intervals).
- _____ 21. City limits, county lines, and other jurisdiction lines, if any.
- _____ 22. Streams, ponds, wetlands, etc. on the project site and within 50 feet of the property lines.
- _____ 23. Location of floodplain and floodway (if applicable).
- _____ 24. Location of drainage ways and easements.

Site Drainage Features:

- _____ 25. Existing and planned drainage patterns (include off-site areas that drain through project) .
- _____ 26. Any existing stormwater control systems.
- _____ 27. Sub-watershed delineation showing drainage areas.
- _____ 28. Show extent and number of disturbed acres.
- _____ 29. Proposed impervious areas.
- _____ 30. Soil information: type, special characteristics.
- _____ 31. Name and classification of receiving water course.

Permanent Stormwater Control Measures (High Density only):

- _____ 32. Type of BMP (wet pond, rain-garden, etc.).
- _____ 33. Designer's certification.
- _____ 34. Narrative description of proposed stormwater system (where runoff originates (e.g. roofs, roads, parking lots etc.), its conveyance within the project, its treatment, and its conveyance from the project to the receiving water body).
- _____ 35. Profile along the centerline of the principal spillway/outfall pipe extending below the protected outfall or to the downstream structure.
- _____ 36. Elevations of the "water quality" surface, temporary storage water surface, and the 10 and 100 year storms.
- _____ 37. Stage-storage table for each BMP.
- _____ 38. If BMP is to be used to treat construction site runoff, provide steps necessary to restore BMP to original design condition.
- _____ 39. All necessary construction specifications.
- _____ 40. Sequence of construction.
- _____ 41. Individual drainage areas for each stormwater BMP.
- _____ 42. Construction drawings and details for permanent measures.
- _____ 43. Size and location of culverts.
- _____ 44. Size and location of subsurface drainage conveyances.
- _____ 45. Disclosure of party ultimately responsible for operation and maintenance of the stormwater system.

Stormwater Calculations:

- _____ 46. Narrative description of calculations (methods, variables, assumptions, etc.) and results.
- _____ 47. Stormwater BMPs designed in accordance with North Carolina Department of the Environment and Natural Resources-Division of Water Quality's *Manual of Stormwater Best Management Practices*.
- _____ 48. Time of concentration for pre/post development conditions.
- _____ 49. Pre-construction and post-construction runoff calculations for each outlet from the site (at peak discharge points).
- _____ 50. Pre-construction and post-construction design calculations and hydrographs.
- _____ 51. Design calculations of culverts and storm sewers.

- _____52. Discharge and velocity calculations for open channel and ditch flows (easement & right-of-ways).
- _____53. Design calcs of cross sections and method of stabilization of existing and planned channels (include temporary linings).
- _____54. Design calcs and construction details of energy dissipators below culvert and storm sewer outlets (diameters & apron dimensions).
- _____55. Amount and type of existing and proposed land use.

Operation and Maintenance Manual (for each BMP, High Density only):

- _____56. Narrative description of the purpose and operation of the BMP.
- _____57. Detailed list, description, and procedure of routine maintenance items.
- _____58. Detailed list, description, and procedure of non-routine maintenance items.
- _____59. Maintenance schedule.
- _____60. Steps needed to restore BMP in the event of a failure.
- _____61. Maintenance checklist and inspection form.
- _____62. BMP construction drawings. Replace with record drawings when BMP is complete.
- _____63. Latitude and longitude of each stormwater BMP.

Section D. ATTACHMENTS

- 3 sets of plans
- 1 set of calculations
- Operation and Maintenance Manual
- Application Fee

Section E. APPLICANT'S CERTIFICATION

Designer Certification:

I hereby certify that the design-related information submitted with this application for permit coverage was prepared under my direction or supervision and that the information is, in the exercise of my reasonable professional judgment, true, accurate and complete. I also hereby certify that the stormwater collection, treatment and control system design submitted with this application complies with all requirements of the City's Phase II Stormwater Ordinance.

Original Signature of Stormwater Designer

Title

Type or Print Name

Owner Certification:

I hereby certify that I have read this application and agree to abide by the terms of any Stormwater Permit issued by the City of Graham.

Original Signature of Owner or Authorized Agent

Title

Type or Print Name