Administrative Manual for Implementation of the Stormwater Control Ordinance

Engineering and Infrastructure Department

February 13, 2012

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Table of Contents

Section 1.0 Introduction 1
1.1 Purpose of Administrative Manual 1
1.2 Impacts of Stormwater on Water Quality 1
1.3 City Engineer 2
1.4 Process for Amending the Administrative Manual 3
Section 2.0 Stormwater Control Ordinance 4
2.1 Purpose of Ordinance 4
2.2 Exemptions 5
2.3 Standards 5
2.4 Stormwater Fee Credits 6
Section 3.0 Infrastructure Permit 7
3.1 Purpose of Infrastructure Permit and Application 7
3.2 Infrastructure Permit Application Content and Form 8
3.3 Infrastructure Permit Application Submission and Review Process 9
3.4 Engineering Review Fee 11
Section 4.0 Operation and Maintenance Agreement 12
4.1 Purpose of Operation and Maintenance Agreement 12
4.2 Description of Operation and Maintenance Agreement 12
4.3 Description of Maintenance Requirements 14
4.4 Transfer of Maintenance Responsibilities to City of Fayetteville 15
4.5 Maintenance Access 16
Section 5.0 Final Plat Recordation 19
5.1 Purpose of a Final Plat 19
5.2 Notes on Final Plats 19
5.3 Approval Process 20
Section 6.0 Performance Guarantee Requirements 22
6.1 Purpose of a Performance Guarantee 22
6.2 Performance Guarantees for Installations 22
6.3 Performance Guarantees for Public Entities 24
Section 7.0 Record Drawing Surveys and Digital Submittals 25
7.1 Requirements for Submittal of Record Drawing Surveys and Approval Process 25
7.2 Process for Submittal of Digital Records 26
7.2.1 Digital Submittals of Record Drawings Surveys 27
Section 8.0 Inspection Process 28
8.1 Inspection Protocols 28
8.2 Penalty Assessment Process 29
8.3 Process for Appealing a Remedy or Penalty 32
8.4 BMP Inspection Fee 32
Section 9.0 Appeals and Variances 34
9.1 Appeal Process 34
9.2 Variance Process 34
9.3 Appeal and Variance Hearings Before the City Council 35
9.3.1 Hearing Procedures 35
9.3.2 Appeal Hearings 36
9.3.3 Variance Hearings 36

Section 10.0 Definitions..... 38

List of Appendices:

Appendix 1-1: Stormwater Control Ordinance Applicability and Plan Review and Construction Process Flowcharts..... 41
Appendix 1-2: Plan Submittal, Design Review and Inspection Process 46
Appendix 3-1: Developmental Plan Review Submission Form (Form #SCO1) 49
Appendix 3-2: BMP Plan Review Checklists..... 54
Appendix 4-1: Operation and Maintenance Agreement (Declaration of Covenants) (Form #SCO2) 63
Appendix 4-2: BMP Maintenance Plan (Form #SCO3)..... 73
Appendix 4-3: BMP Maintenance and Inspection Checklist (Form #SCO4)..... 84
Appendix 4-4: Transfer of Maintenance Responsibilities Agreement (Form #SCO5) 103
Appendix 5-1: Plat Checklist for Engineering and Infrastructure 108
Appendix 6-1: Bond Application Forms for Guaranteeing the Installation of BMPs (Form #SCO6) 111
Appendix 6-2: Performance Guarantee Release Checklist (Form #SCO7)..... 119
Appendix 6-3: Approval for Bond Release Form (Form #SCO8)..... 121
Appendix 7-1: Stormwater Control Ordinance and Storm Drainage Record Drawing Requirements (Form #SCO9) 123
Appendix 7-2: Notification of Record Drawing Approval and Digital Submittal Requirement (Form #SCO10) 126
Appendix 7-3: Notice of Site Compliance (Form #SCO11)..... 128
Appendix 7-4: Notice of Site Non-Compliance (Form #SCO12) 130
Appendix 8-1: Stormwater Control Ordinance Compliance Checklist 132
Appendix 8-2: Stormwater Control Ordinance Notice of Violation (NOV) Form (Form #SCO13) 142
Appendix 8-3: Notice of Violation with Immediate Penalty (NOVP) Form (Form #SCO14)... 144
Appendix 8-4: Continuing Notice of Violation (CNOV) Form (Form #SCO15) 147
Appendix 8-5: Stormwater Control Ordinance Penalty Assessment Guide (Form #SCO16).... 150
Appendix 8-6: Stormwater Control Ordinance Penalty Assessment Worksheet (Form #SCO17) 152
Appendix 8-7: Stormwater Control Ordinance Penalty Assessment Checklist (Form #SCO18)154
Appendix 8-8: Notice of Compliance and Penalty (NOCP) Form (Form #SCO19) 156
Appendix 9-1: Notice of Appeal (Form #SCO20)..... 159
Appendix 9-2: Notice of Petition for Variance Request (Form #SCO21)..... 165
Appendix 10-1: Stormwater Control Ordinance..... 173

Section 1.0 Introduction

1.1 Purpose of Administrative Manual

The purpose of this Administrative Manual is to provide guidance and information to the staff of the City of Fayetteville as well as the general public for the effective and efficient implementation and administration of the Stormwater Control Ordinance. The Administrative Manual includes application requirements and forms, submission schedules, fee schedule, maintenance agreements, criteria for recordation of documents, inspection report forms, requirements for submittal of bonds and where to obtain copies of the Stormwater Control Ordinance. The manual was developed by the City Engineer. In Appendix 1-1, there is a flowchart which can be used to determine whether or not an activity has to meet the requirements of the City's Stormwater Control Ordinance. If an activity is not exempt from the Ordinance, there are additional flowcharts depending on the type of development illustrating the plan review and construction process for the administration of the Stormwater Control Ordinance in Appendix 1-1. A description of the plan submittal, design review and inspection process as well as a plan review schedule is contained in Appendix 1-2.

1.2 Impacts of Stormwater on Water Quality

Stormwater runoff from urban and developing areas is a major source of water pollution and water quality degradation in the City of Fayetteville as shown in Photographs 1-1 and 1-2 on the next two pages. Oil, antifreeze and other automotive products deposited in parking lots, metals associated with tire and brake pad wear deposited along roadways, pesticides and fertilizers applied to lawns as well as a variety of other chemicals are picked up in stormwater runoff and carried to surface waters. The cumulative impact of these pollutants in an urban area is significant. In addition, urbanization results in an increase in the volume and velocity of stormwater runoff entering surface waters. In the City of Fayetteville, with our relatively permeable sandy soils, an inch of rainfall on an acre of forest does not generate any stormwater runoff. Instead, the rainwater is absorbed into the soil and taken up by plants or provides recharge for groundwater. If the trees are removed and replaced with an acre of impervious asphalt, a total of 27,000 gallons of stormwater runoff is generated by an inch of rainfall. In addition, this runoff typically enters surface waters through the piped storm sewer system resulting in increased velocity. This increased volume and velocity of stormwater runoff entering streams causes banks to erode and sediment to be discharged to surface waters, causing significant water quality degradation. The combined effect of increased pollutants due to urbanization, as well as increased stream channel erosion due to volume and velocity increases results in significant degradation of surface water resources. The increased volume and velocity of stormwater runoff can also cause significant downstream flooding problems. The Stormwater Control Ordinance is designed to control stormwater pollutants as well as increased stormwater volume and velocity from new development and redevelopment so that water quality is protected and downstream flooding is reduced. This Administrative Manual describes how the Ordinance shall be administered for the City of Fayetteville.

Photograph 1-1: Water pollution and water quality degradation as a result of local urbanization

1.3 City Engineer

The person responsible for administering and enforcing the Ordinance is the City Engineer. The City Engineer has the authority to render interpretations of the Stormwater Control Ordinance. Any person may request an interpretation by submitting a written request to the City Engineer who shall respond in writing within 30 days. The City Engineer shall keep on file a record of all written interpretations of the Ordinance. The contact information for the City Engineer is as follows:

City Engineer
Engineering and Infrastructure Department
City of Fayetteville
433 Hay Street
Fayetteville, NC 28301-5537
Phone: (910) 433-1656

Fax: (910) 433-1058
Website: www.cityoffayetteville.org

1.4 Process for Amending the Administrative Manual

The Administrative Manual may be amended from time to time, based on policy changes, etc. The City Engineer is responsible for all amendments to the Administrative Manual. Following the completion of modifications, the amended Administrative Manual shall go into effect. Notification of the modifications shall be made to the City staff and the general public. The amended document shall be made available via the aforementioned website.

Photograph 1-2: Water pollution and water quality degradation as a result of local urbanization

Section 2.0 Stormwater Control Ordinance

2.1 Purpose of Ordinance

The purpose of the Stormwater Control Ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-construction stormwater runoff as shown in Photograph 2-1 below and non-point source pollution associated with new development and redevelopment as shown in Photograph 2-2 on the next page. It has been determined that proper management of construction-related and post-construction stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, and general welfare, and protect water and aquatic resources. A copy of the Ordinance is contained in Appendix 10-1 as a quick reference. However, the Ordinance as contained in the Fayetteville City Code should always be consulted for the most current version. The Fayetteville City Code can be found at the Municode website www.municode.com.

Photograph 2-1: Street flooding due to increased post-construction stormwater runoff

Photograph 2-2: Non-point source pollution associated with new development and redevelopment

2.2 Exemptions

The Stormwater Control Ordinance for the City of Fayetteville has exemptions that exclude specific developments and redevelopments from Ordinance requirements. The exemptions are listed in Section 23-24 "Exemptions from requirements" of the Ordinance.

2.3 Standards

Section 23-31 "Minimum stormwater quantity control requirements" and Section 23-32 "Minimum stormwater quality control requirements" of the Stormwater Control Ordinance describe the specific criteria that all applicable development and redevelopment must meet in order to control stormwater quality, volume and velocity. These sections include:

1. Development standards for low-density projects.
2. Development standards for high-density projects.
3. Standards for stormwater control measures.

2.4 Stormwater Fee Credits

The City Code for the City of Fayetteville in Chapter 23 Stormwater Management, Article I In General, Section 23-7 Exemptions and Credits Applicable to Stormwater Service Charges has provisions whereby properties may be eligible for a reduction in their stormwater fees. In particular, properties with detention facilities or stormwater best management practices (BMPs) designed to meet certain requirements may be eligible for a reduction in their stormwater fees. To determine if a property is eligible for a stormwater fee credit, you should obtain a copy of the City's "Credit Manual for Stormwater Fees". This manual is available on the City's web site or by contacting the City's Stormwater Division at (910) 433-1656.

Section 3.0 Infrastructure Permit

3.1 Purpose of Infrastructure Permit and Application

The purpose of the Infrastructure Permit is to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for a development or redevelopment site consistent with the requirements of the Stormwater Control Ordinance, whether the approach consists of BMPs or other techniques such as low-impact or low-density design. An Infrastructure Permit is required for all development and redevelopment unless exempt pursuant to the Stormwater Control Ordinance Section 23-24. Land development activity, such as land clearing and grading, can be initiated for such development or redevelopment with a state issued erosion control permit. If site grading is anticipated prior to the issuance of an Infrastructure Permit, it is required that a Pre-Application or Consultation Meeting with the City staff be conducted to review and discuss the proposed stormwater management system for the development project. In particular, the land owner or the land owner's duly authorized agent should provide the City with a copy of the Grading Plan approved by NCDENR to obtain an erosion control permit during the Pre-Application or Consultation Meeting. If acceptable, the City Engineer shall provide the land owner or the land owner's duly authorized agent with approval to proceed with the land clearing and grading as authorized in the erosion control permit. However, an Infrastructure Permit must be issued by the City Engineer prior to construction of infrastructure and stormwater management devices. An Infrastructure Permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including BMPs and elements of site design for stormwater management other than BMPs. Compliance after project construction is assured by the maintenance provision of the Stormwater Control Ordinance.

The purpose of the Infrastructure Permit Application is to demonstrate how post-construction stormwater runoff shall be controlled and managed and how the proposed project shall meet the requirements of the Ordinance. A properly submitted, reviewed and approved Infrastructure Permit Application is required for the issuance of an Infrastructure Permit. Stormwater plans and reports that are incidental to the overall or ongoing site design shall be prepared by a registered North Carolina professional engineer, land surveyor or landscape architect. All other Stormwater plans and reports shall be prepared by a registered North Carolina professional engineer. In all cases, the professional engineer, land surveyor or landscape architect shall perform services only in their area of competence, and shall verify that the design of all BMPs and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies, and that the designs and plans ensure compliance with the Stormwater Control Ordinance.

A land owner or the land owner's duly authorized agent or anyone having interest in a property by reason of a written contract with the owner may request a Pre-Application or Consultation Meeting with the City staff to review and discuss the stormwater management system to be utilized in a proposed development project. The purpose of the meeting(s) would be to discuss any questions for stormwater management measures necessary for the proposed project, as well

as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering commences.

3.2 Infrastructure Permit Application Content and Form

Appendix 3-1 provides a blank Infrastructure Permit Application form (Form #SCO1, Developmental Plan Review Submission Form). The first page of this form is also shown in Figure 3-1 below. This form must be completed and submitted with the plans and calculations for an application to be considered complete.

City of Fayetteville North Carolina
ENGINEERING & INFRASTRUCTURE

Date Received: _____
Received by: _____
Payment Type: _____

DEVELOPMENTAL PLAN REVIEW SUBMISSION FORM

Select Type of Request:

- ❑ Comm. Dev. 1 acre or less **($200.00)**
- ❑ Comm. Dev. between 1&10 acres **($350.00)**
- ❑ Comm. Dev. in excess of 10 acres **($650.00)**
- ❑ Resubmittal Fee, commercial or residential, per submittal **($150.00)**
- ❑ Residential Subdivision 50 lots or less **($350.00)**
- ❑ Residential Subdivision 51 to 100 lots **($500.00)**
- ❑ Residential Subdivision in excess of 100 lots **($650.00)**

Note: A submittal without the submission form and the applicable fee will be considered incomplete and will not be reviewed. All plans and calculations that will be submitted for review shall be signed and sealed.

Provide ONLY 1 copy of plans and supplemental information for review. Prior to final approval issued, 4 copies will be requested.

Project name & address:	Design Firm & address (attach business card)
PIN:	Project Contact:
Deed Book & Page:	Phone Number / Fax number:
Plat Book & Page:	Email:

General Plan Requirements

The following is a checklist of items that shall be included with all plan submittals. This list represents the basic formats and plan standards that should be addressed when submitting plans for review.

Engineer	Reviewer	N/A	Item
❑	❑		The name, address, and phone number of the developer, property owner and design engineer shall be included on the Cover Sheet.
❑	❑		Plan shall bear the note: "All construction to be in accordance with all City of Fayetteville Standards and Specifications."
❑	❑		Vicinity Map
❑	❑		Sheets shall be no larger than 36" x 24" plan and profile paper.
❑	❑		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.
❑	❑		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.
❑	❑		All elevations shall be given in relation to mean sea level; elevations in profile shall be labeled in 10' intervals on the heavy lines (Ex. 350, 360)

City of Fayetteville
Rev. 02/21/2012

Development Plan Submittal for Engineering Review Checklist

1

Figure 3-1: First Page of Infrastructure Permit Application

3.3 Infrastructure Permit Application Submission and Review Process

The following is the process to be followed in the submission, review and approval of the Infrastructure Permit Application.

1. Prior to submission of an Infrastructure Permit Application, applicants may request a Pre-Application or Consultation Meeting with City staff. Applicants may submit a sketch or conceptual drawings for review during the Pre-Application or Consultation Meeting. If site grading is anticipated prior to the issuance of an Infrastructure Permit, the applicant shall provide the City with a copy of the Grading Plan approved by NCDENR to obtain an erosion control permit during the Pre-Application or Consultation Meeting. In those cases and if acceptable, the City Engineer shall provide the primary point of contact with approval to proceed with the grading as authorized in the erosion control permit.
2. Applicants shall submit completed Infrastructure Permit Applications, Form #SCO1 in Appendix 3-1. This form provides a list of items that must be provided for an application to be considered complete. Submit one (1) set of plans and one (1) set of calculations to: City Engineer, Engineering and Infrastructure Department, City of Fayetteville, 433 Hay Street, Fayetteville, NC 28301-5537.
3. The above application form and plans shall be received by the City Engineer. Payment of the Engineering Review Fee is required at the time of Plan submittal. A submittal without the above form or the applicable fee will be considered incomplete and will not be reviewed.
4. The City Engineer shall verify from the application that the proper Application/Permit Number and project information was entered into the Engineering database. Also, the date and time the application was received shall be entered onto the application form by the City Engineer in the top left hand corner.
5. The City Engineer shall conduct a completeness review within 7 calendar days of application package submittal. The primary point of contact listed in the submission form is notified regarding any deficiencies. A response by the applicant must be received within 30 days or the application package is considered withdrawn. Application package review does not commence until it is determined to be complete.
6. Once the complete application and plans are received, the City Engineer shall indicate such in the database and ensure that the proper Application/Permit Number appears on the form. The City Engineer shall also enter onto the form the date and time the complete application was received.
7. A hard copy of the application and plans shall be placed in the “Active” file.
8. Within 30 calendar days of receipt of a complete Infrastructure Permit Application, plan reviewers shall complete an evaluation of the application and plans for compliance with Stormwater Control Ordinance requirements. Appendix 3-2 contains checklists to be used by plan reviewers to ensure that BMP requirements are being met. This checklist must be completed and placed in the hard file with the plan. Deficiencies shall be noted by “redlines” on plans. The plan reviewer shall provide the redline plans and a completed review sheet to the City Engineer who shall enter the disapproval of the Infrastructure Permit Application in the Engineering database. The City Engineer shall send the completed review sheet to the applicant. The redline plans are kept on file for future reference. The plan reviewer shall also review the Operation and Maintenance Agreement and Maintenance Plan submitted with

the permit application for every BMP included in the project. These documents must be completed in accordance with the requirements in Section 4.0.

9. Applicant shall submit one (1) set of corrected plans to the City Engineer who shall enter this resubmittal into the Engineering database. The City Engineer shall also enter into the database the date the resubmittal was received. If a revised application is not re-submitted within forty-five (45) business days from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be required along with the appropriate fee. The submittal of an incomplete application shall not suffice to meet this 45 day deadline.
10. Within 15 calendar days of receipt of a resubmittal, plan reviewers shall complete an evaluation for compliance with Stormwater Control Ordinance requirements. If deficiencies are detected, redlines shall again be prepared by the plan reviewer and the resubmittal process shall continue. If the Infrastructure Permit Application is approved, the plan reviewer signs and dates the application form and indicates as approved, approved with modifications or approved with performance reservation. All modifications and performance reservations must be described in detail and attached to the application form. The plan reviewer shall forward this form along with the plans to the City Engineer who enters the approval into the Engineering database.
11. The City Engineer shall send written notification along with a hard copy of the signed Infrastructure Permit Application form and attachments to the applicant indicating that the plans and Infrastructure Permit have been approved. A hard copy of this notification and approved Infrastructure Permit Application and all attachments shall be placed in the Active file. The applicant shall forward four (4) sets of approved plans and one (1) set of calculations to the City Engineer.
12. Once approved and signed, the Infrastructure Permit Application form serves as an approved Infrastructure Permit. This permit conveys approval for the owner or his agent as shown on the approved plan to construct stormwater management devices and implement site designs in accordance with the applicable Stormwater Control Ordinance and related policies. This permit is valid until the project is complete or two (2) years from issuance of permit. If no work on the site in furtherance of the plan has commenced within the two-year period, the permit and plan approval shall become null and void and a new application shall be required to develop the site. Extensions or renewals of the plan approvals may be granted by the City Engineer upon written request by the person responsible for the development activity.
13. Issuance of the Infrastructure Permit concludes the Plan review process for compliance with Stormwater Control Ordinance requirements. The City Engineer shall check the Active file to ensure that it contains the following:
    - Infrastructure Permit Application and attachments;
    - One (1) set of approved plans (two sets shall be forwarded to the Inspectors in Construction Management and Stormwater);
    - Operation and Maintenance Agreement original (executed but not yet recorded) and Maintenance Plan for each BMP included in the project;
    - Copies of Performance Guarantees;
    - Driveway permits;
    - Erosion control permit;
    - 401/404 Permits (if applicable); and

- Any other plans, permits, letters or other information relative to the Stormwater Control Ordinance.

If any of the above is found to be missing, the City Engineer shall take the necessary action, including contacting the applicant when necessary, to ensure that the information listed above is obtained and placed into the file.

14. After the City Engineer has completed an inventory of the project file, the City Engineer shall forward a set of approved plans to the Construction Management and Stormwater Divisions for their use in inspection of the BMPs. Inspection activities associated with compliance with Stormwater Control Ordinance requirements are continued in Section 8.1 Inspection Protocols.

3.4 Engineering Review Fee

The Stormwater Management Plan Application fee is a component of the Fayetteville Engineering Review Fee, which covers all land development plan review costs. The amount of the fee is based on the staff resources necessary to review applications, conduct inspections and administer the stormwater permit requirements. The fee must be paid with the submittal of the Infrastructure Permit Application in order for the application to be considered complete for review. The Engineering Review Fee Schedule which includes the fee associated with the Ordinance is provided at the top of the Developmental Plan Review Submission Form (Form #SCO1) in Appendix 3-1.

Section 4.0 Operation and Maintenance Agreement

4.1 Purpose of Operation and Maintenance Agreement

An Operation and Maintenance Agreement is required for all BMPs. This requirement applies to all BMPs used for water quality control as well as for those BMPs used for the control of water quantity peak and volume. The purpose of this agreement is to ensure that each BMP receives adequate maintenance so that it can function satisfactorily. The agreement also designates the responsible party who shall be in charge of maintaining the BMP. It serves as a legal document to ensure maintenance and also outlines the routine maintenance schedule for each BMP.

4.2 Description of Operation and Maintenance Agreement

Prior to Engineering Plan Approval, an Operation and Maintenance Agreement must be submitted, approved, and executed for each BMP. The document shall be signed by the responsible party and notarized. The document shall also be signed by the City Engineer. Additionally, the Operation and Maintenance Agreement must be recorded prior to:

1) The issuance of a Certificate of Occupancy (see Figure 4-1 on the next page for an example) for non-residential or commercial properties, or
2) The recording of a Final Plat (see Figure 4-2 for an example).

For developments such as Office Parks that do not fall into either of the above two categories, the applicant shall consult with the City Engineer during the initial application process to determine how best to handle the Operation and Maintenance Agreement for such developments.

The Operation and Maintenance Agreement template can be found in Appendix 4-1 (Form #SCO2). This template is provided in two (2) formats, with one designed for use when water quality and water quantity control structures (BMPs) are owned and maintained by a property owners' association and the other for use with BMPs under single party ownership such as commercial developments.

A BMP Maintenance Plan must be attached as an addendum to the Operation and Maintenance Agreement which identifies the specific maintenance activities to be performed for each BMP (included in Appendix 4-2, Form #SCO3). A BMP Maintenance Plan consists of six parts as detailed in Appendix 4-2 and as follows:

1) General BMP Information – This is a table listing each of the BMPs. This table will need to be included in the BMP Maintenance Plan.
2) BMP Site Location Map – This is a small site plan map showing the general location of each of the BMPs listed in Number 1 above. This map will need to be included in the BMP Maintenance Plan.
3) Maintenance Annual Budget – This is a simple annual budget for maintenance of the BMPs and their funding source. This budget will need to be included in the BMP Maintenance Plan.
4) Escrow Account Activity – This provision will only apply to those BMPs located in single-family subdivisions where the facility is to be privately owned and maintained by

a property owners' association. If that is the case, documentation of the escrow account activity will need to be provided with each annual inspection report. This provision will need to be included in the BMP Maintenance Plan if applicable. The escrow account documentation will need to be included with the annual inspection reports if applicable.

5) Maintenance Inspection Report – Each year a maintenance inspection report is to be submitted to the City Engineer. The applicable form in Appendix 4-3 (Form #SCO4) is to be used for these reports. This provision will need to be included in the BMP Maintenance Plan. The report itself will need to be provided to the City Engineer on an annual basis.
6) Routine Maintenance Tasks and Schedule – This is the tasks and schedule for the applicable BMP in Appendix 4-2. The applicable BMPs will need to be included in the BMP Maintenance Plan.

CERTIFICATE OF COMPLETION AND OCCUPANCY

Reference: **Building Permit #:**
Building Permit Issue Date: **CO Issue Date:**

This is to certify that inspections have been made of the:

☐ Zoning ☐ Building ☐ Mechanical
☐ Electrical ☐ Landscaping ☐ Plumbing

of the structure at:

Number and Street:
Subdivision:
Lot/Block/Zone:

and the work authorized under the above numbered building permit has been completed in compliance with the North Carolina State Building Code.

Permission is hereby granted to to occupy and use the structure, land, and floor area of building, at the above location for the following purposes:

Type of Improvement:
Occupancy Type:
Type of Construction:
Occupancy Capacity:

Remarks:

Date Finaled: Signature: _____
Building Inspector:

If this Certificate of Completion and Occupancy is issued by the direction of the City/County's Board of Adjustment, it shall be subject to any and all conditions specified by the Board. If any of the conditions so specified or any part thereof shall be held void or invalid, or if any such conditions are not complied with, this Certificate shall be void and of no effect. This Certificate of Completion and Occupancy shall remain in force until such time that there is an alteration, addition, or change in use of this structure, or land, when it shall become void and a new Certificate must be issued.

Figure 4-1: Example Certificate of Occupancy

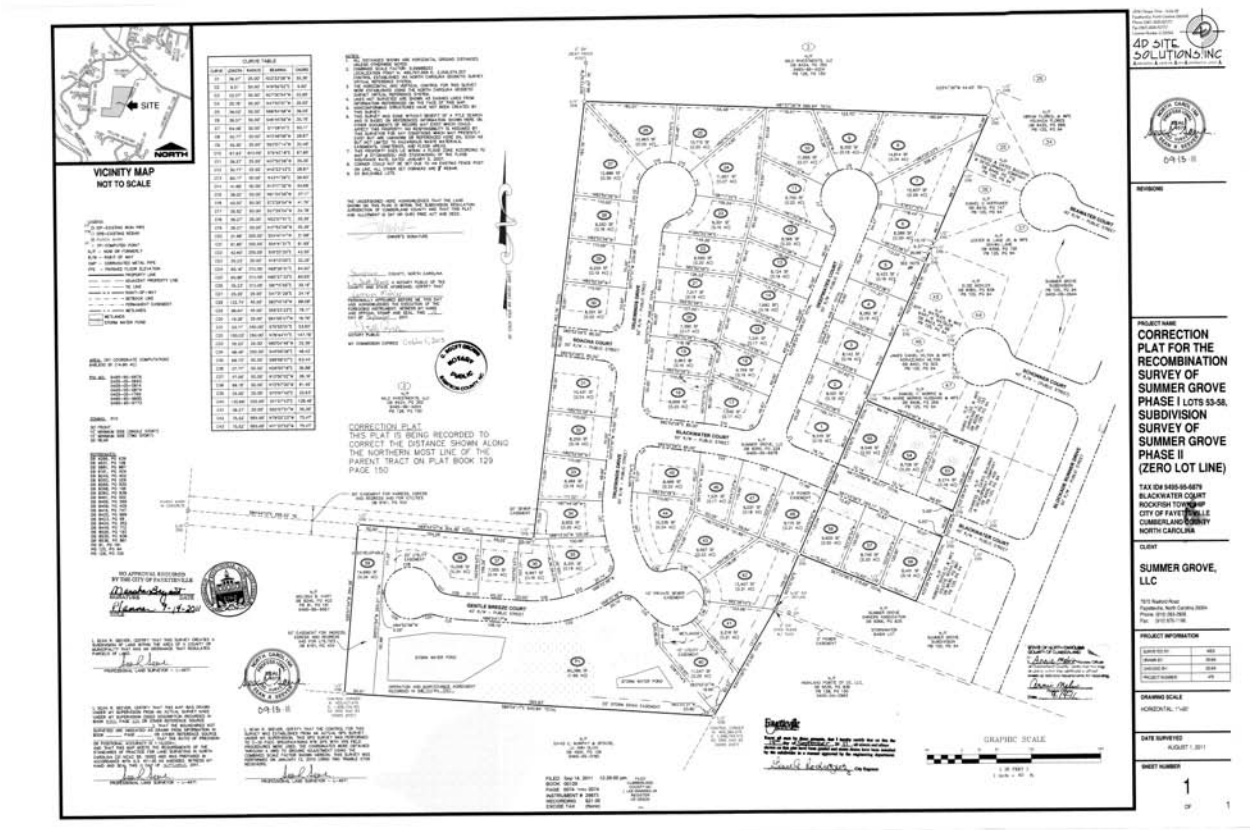


Figure 4-2: Example Final Plat

The Maintenance Plan shall identify each BMP using the following naming convention: "Project or subdivision name – BMP Type – Number". For example, "Stoneridge Phase I – Bioretention – 1". This naming convention should also mirror the BMP naming convention used on the approved design plans. Prior to the issuance of a Certificate of Occupancy for commercial properties or the recording of a Final Plat for a single-family subdivision, the Operation and Maintenance Agreement shall be recorded at the Cumberland County Register of Deeds Office with the corresponding approved Plat (see Section 5.0). Within fourteen (14) days of recordation, a copy of the recorded document shall be provided to the City Engineer for placement in the project file. Certificates of occupancy shall not be released until a copy of this recorded document is provided.

4.3 Description of Maintenance Requirements

The Operation and Maintenance Agreement requires that each BMP be inspected by a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance on an annual basis. An inspection report must be completed for each BMP indicating the status of each item inspected and any maintenance that was conducted. The inspection report must be completed on the form provided in Appendix 4-3 called the BMP Maintenance and Inspection Checklist (Form #SCO4). The

first inspection report is due to the City Engineer within one (1) year from the date of record drawing certification for the BMP and each year thereafter. The inspector shall certify on the Maintenance and Inspection Checklist that the BMP has been inspected and that at the time of the inspection the BMP was performing properly and was in compliance with the terms and conditions of the approved Operation and Maintenance Agreement and Maintenance Plan required by the Stormwater Control Ordinance. Therefore, the inspector should allow enough time before the end of the one year time period to conduct the necessary inspections(s) and complete the necessary maintenance and repairs prior to submittal of the report.

Within two (2) weeks following the completion of inspection and maintenance activities, the owner of the BMP shall forward the signed and certified Maintenance and Inspection Checklist to the City Engineer at the address below. If an escrow account is required by the Operation and Maintenance Agreement, documentation of escrow account activity must be attached to the Maintenance and Inspection Checklist submitted to the City Engineer in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months. If any of the maintenance items indicated on the Checklist are found to be unsatisfactory, corrective actions must be completed and documented on the Checklist or attached pages. Inspection forms submitted to the City Engineer shall be entered into a BMP database to track inspections and maintenance activities and the hard copy shall be placed in the BMP file. The owner of the BMP shall keep records of inspections, maintenance, and repairs for at least five (5) years from the date of creation of the record and shall submit the same upon reasonable request to the City Engineer.

City Engineer
Engineering and Infrastructure Department
City of Fayetteville
433 Hay Street
Fayetteville, NC 28301-5537

4.4 Transfer of Maintenance Responsibilities to City of Fayetteville

The City of Fayetteville shall accept maintenance responsibility of BMPs that are installed pursuant to all five criteria as listed in Section 23-38 (b) of the Stormwater Control Ordinance and following a warranty period of one (1) year from the date of the final approval of the BMP. Please be aware that during the one year warranty period the developer is still responsible for all maintenance of the BMP. The one year warranty period shall commence when NCDENR allows the erosion control measure to be converted to a BMP. Thus, the subdivision does not have to be completely built out for this to occur. NCDENR normally allows the erosion control measure to be discontinued when 75% of the lots in the subdivision have been built upon. When this occurs, the primary point of contact shall furnish the City Engineer with documentation from NCDENR that the site is suitable for closure.

The owner of the BMP shall still be responsible for routine maintenance of the easement area such as grass cutting, trash removal and landscaping. The following procedure shall be followed regarding the transfer of maintenance responsibilities:

1. After the one (1) year warranty period has expired and assuming the BMP meets the criteria above, the owner shall complete the Transfer of Maintenance Responsibilities Agreement and submit to the City Engineer, along with any attached Exhibits. The Transfer of Maintenance Responsibilities Agreement template can be found in Appendix 4-4 (Form #SCO5).
2. Upon receiving the above agreement, the City Engineer shall conduct an inspection of the subject BMP within 15 working days.
3. The inspector shall conduct a thorough inspection in accordance with Section 8.1 below and the BMP Inspection Procedures. Any deficiencies detected during the inspection shall be noted. An inspection report with instructions for correcting the deficiencies shall be mailed to the owner within five (5) working days of the inspection.
4. Upon notification by the owner that the deficiencies have been corrected, the inspector shall re-inspect the BMP within 15 working days. If the BMP is found to be in satisfactory condition and meets the criteria for BMP Transfer of Maintenance Responsibilities, then the Transfer of Maintenance Responsibilities Agreement shall be signed by the City Manager and returned to the owner. The owner shall record the completed agreement at the Cumberland County Register of Deeds Office.
5. Within fourteen (14) days of recordation, a copy of the recorded document shall be provided to the City Engineer at the address in Section 4.3 above for placement in the project file. Installation performance securities shall not be released until this recorded document has been received.
6. Upon receipt of the certified copy of the Transfer of Maintenance Responsibilities Agreement, the City becomes the only entity responsible for structural maintenance of the BMP.
7. The City Engineer shall update the BMP Database to indicate that the BMP has been accepted for maintenance. Notification shall be issued to the City of Fayetteville Stormwater Services.

A BMP Maintenance Plan must be attached as an addendum to the Transfer of Maintenance Responsibilities Agreement which identifies the “routine” maintenance activities such as grass cutting, trash removal, and landscaping to be performed for each BMP. The City shall be responsible for the “functional” maintenance of the BMPs once they have passed inspection. Therefore, the City shall be responsible for conducting the annual inspection and completing the Maintenance Inspection Report. The first inspection report is due within one (1) year from the City accepting functional maintenance for the BMP and each year thereafter. The Maintenance Plan shall identify each BMP using the following naming convention: “Project or subdivision name – BMP Type – Number”. For example, “Stoneridge Phase I – Bioretention – 1”. This naming convention should also mirror the BMP naming convention used on the approved design plans.

4.5 Maintenance Access

Adequate access must be provided into all BMP areas for inspection, maintenance, and landscaping upkeep. A 20-foot wide permanent maintenance access easement from a public or private right-of-way must be provided for all BMPs. Driveways can serve as the 20-foot maintenance access for BMPs provided the owner of the driveway and BMP are one in the same.

The cleared access area within this easement must have a minimum stabilized width of 12 feet, maximum longitudinal grade of 15 percent, and maximum cross slope of 5 percent. The BMP shall be located entirely within a recorded permanent drainage easement. Additionally, the permanent drainage easement shall extend 10 feet around the perimeter of all BMPs to allow for adequate maintenance and repair. The 10-foot wide area of the permanent drainage easement around the perimeter of the BMP is to be relatively flat with a maximum cross slope of 2 percent.

In subdivisions where a stormwater BMP serves more than one lot, the BMP shall be located on a separate lot that is owned by the homeowner association. This lot shall have a minimum frontage of 20 feet.

Figure 4-3 on the following page shows an example for both the 20-foot wide permanent maintenance access easement (in red) to the BMP and the permanent drainage easement (in blue) located 10 feet beyond and around the perimeter of the BMP. In this particular case, the BMP in Figure 4-3 is a wet detention pond with a dam at the low end. Since the dam is an integral part of the BMP, the permanent drainage easement will need to be extended in the area of the dam to include the entire embankment, any emergency spillway, as well as any energy dissipator. For clarity, the required 10-foot wide maintenance shelf has been shown in green in Figure 4-3. All BMPs are to have similar maintenance access and drainage easements.

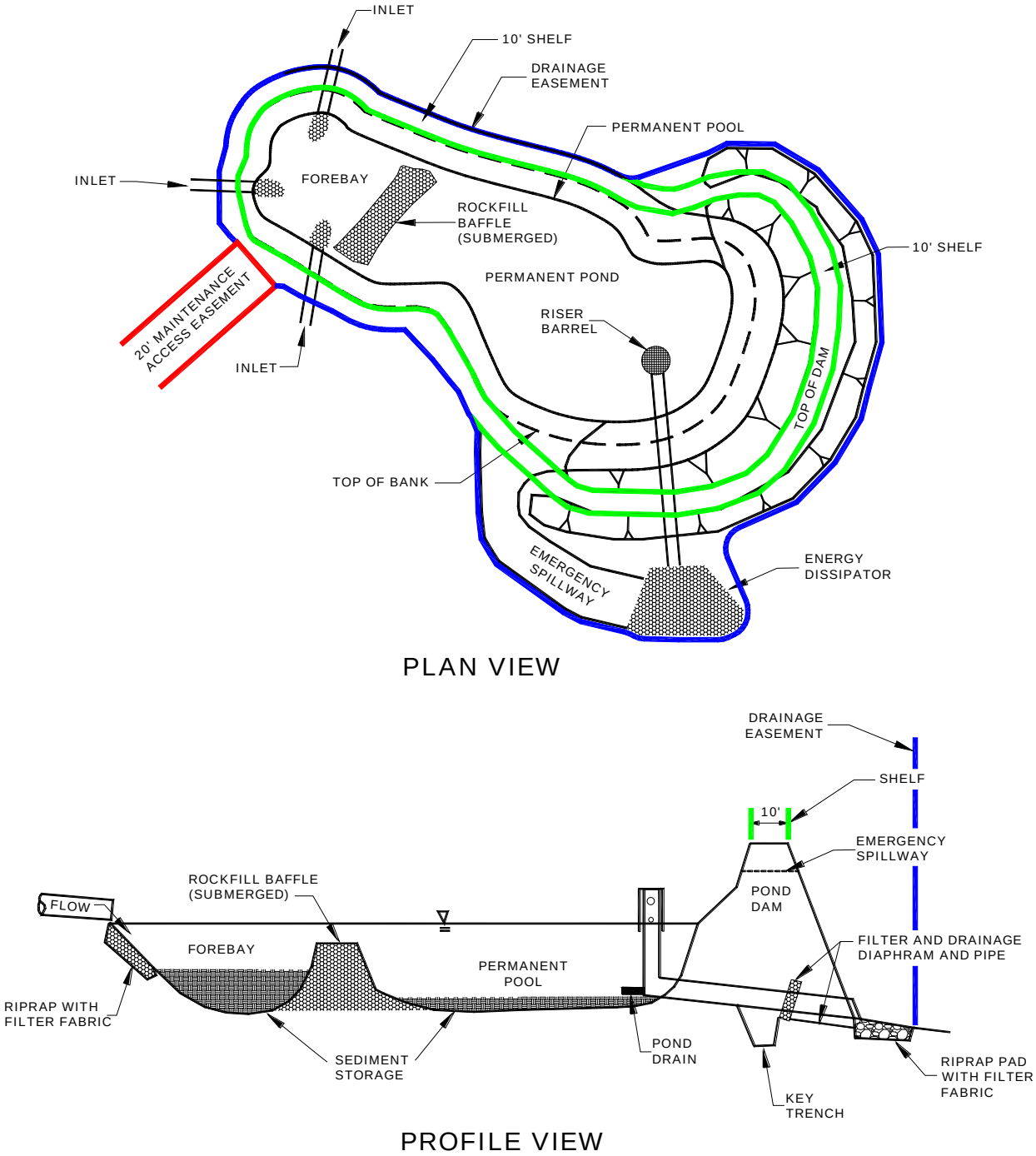


Figure 4-3: Example of Maintenance Access and Drainage Easements for a Wet Detention Pond

Section 5.0 Final Plat Recordation

5.1 Purpose of a Final Plat

Enforceable restrictions on property usage are required to run with the land to ensure that future development and redevelopment maintains the site in compliance with Ordinance requirements. This is achieved through specific notations on final plats as described below, which shall be reviewed and approved by the City of Fayetteville Engineering Department prior to recordation. The surveyor shall include applicable restrictions from the recorded final plat on each lot survey, which is provided to the purchaser at the time of closing. In this way, the new property owner is made aware of the restrictions and the measures necessary to ensure compliance with the Ordinance. Plats are required for all projects unless they meet all five of the following criteria:

1. Property for the project is not subdivided;
2. All BMPs are within the project's property boundary;
3. BMPs serve only the property where they are located;
4. BMPs are maintained by the property owner; and
5. Right of entry to inspect and maintain the BMPs is granted in a recorded covenant.

5.2 Notes on Final Plats

The following shall appear on all final plats and shall be recorded at the Cumberland County Register of Deeds Office. Appendix 5-1 contains the inter-office checklist used to ensure that a final plat is complete. Also, Figure 5-1 on the next page provides an example of a final plat with a BMP and the respective required easements.

1. The location and name of major streams and setback boundaries including the top of the stream bank (field located). The setback area shall be labeled as "Stream Setback".
2. The location of all best management practices (BMPs), including their corresponding NAD 83 (feet) coordinates. Dimensions of the BMP area and all maintenance easements with the corresponding BMP identification name/number. The following naming convention shall be used for all BMPs: "Project or subdivision name – BMP Type – Number". For example, "Stoneridge Phase I – Bioretention – 1".
3. The following language shall appear on the final plat regarding BMP maintenance: "This property contains a stormwater management facility that must be maintained according to the Operations and Maintenance Agreement and Plan recorded in Deed Book____ and Page _____."
4. Storm drainage easements around BMPs or leading to BMPs including access easements.

In some circumstances, plans for a development may indicate a built-upon area (BUA) slightly below the high density threshold for requiring BMPs in which case the plan reviewer may require impervious area restrictions for each lot to ensure that new construction as well as future expansions and additions do not exceed the BUA threshold. These restrictions must be shown on the final plat for each lot. The developer may elect to install BMPs rather than include these lot restrictions on plats.

In the event that BMPs are installed on private lots (which must always be strongly discouraged due to maintenance and access concerns), the BMP notations indicated in Appendix 5-1 must be placed on the deed for the lot and not on the final plat.

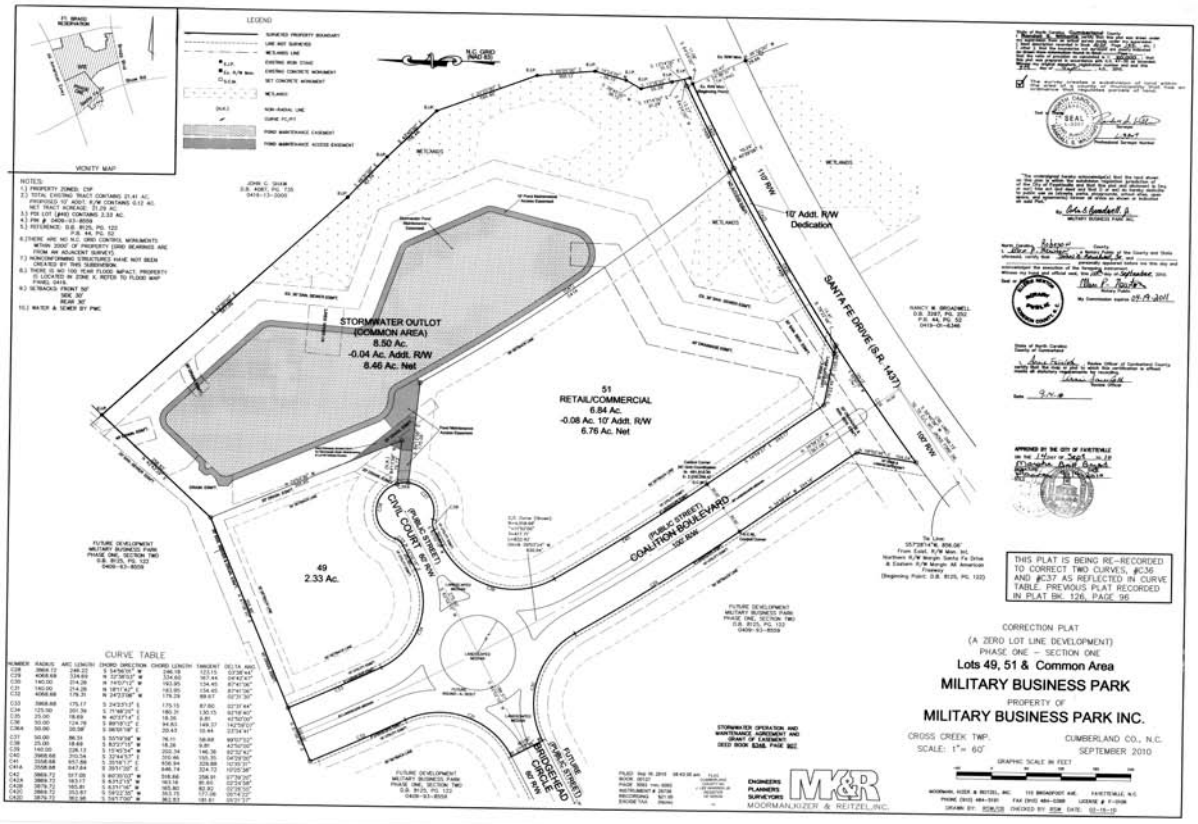


Figure 5-1: Example Final Plat showing the permanent maintenance access easement to the BMP as well as the permanent drainage easement around the BMP

5.3 Approval Process

One (1) Mylar copy of the final plat is to be submitted for review to:

Planning Director
City of Fayetteville
433 Hay Street
Fayetteville, NC 28301

Final plats shall not be approved until a copy of the **recorded** Operation and Maintenance Agreement and Maintenance Plan as described in Section 4.2 above have been received by the City Engineer. These documents were reviewed and signed by the City Engineer prior to Engineering Plan Approval (see Section 3.3). An exception is when the final plat and the Operation and Maintenance Agreement and Maintenance Plan are recorded concurrently or simultaneously. In those cases, all of these documents shall be reviewed and approved by the City Engineer prior to recording.

Prior to submitting the mylar copy of the final plat, the applicant is encouraged to provide the City Engineer with a digital copy of the final plat in a PDF to facilitate the review process. Engineering staff shall use the checklist provided in Appendix 5-1 to complete this review. The City Engineer shall notify the applicant that the final plat meets all Engineering and Infrastructure requirements or that revisions are needed prior to recording. Following approval, the final plat shall be signed and returned to the applicant for recording at the Cumberland County Register of Deeds Office. Within fourteen (14) days of recordation, a copy of the recorded document shall be provided to the City Engineer for placement in the project file. If infrastructure remains to be installed within the boundary of the plat, then a performance guarantee/bond is required as described in Section 6.0.

Section 6.0 Performance Guarantee Requirements

6.1 Purpose of a Performance Guarantee

The purpose of a performance guarantee is to provide the City of Fayetteville with financial resources to complete required public improvements in the event of developer default. For the Stormwater Control Ordinance, these performance guarantees are primarily used for BMPs and associated infrastructure. There are three (3) types of performance guarantees used by the City of Fayetteville, including:

- Cash Bond: A certified check made out to the City of Fayetteville or a Company Check made out to City of Fayetteville.
- Surety Bond: A contract among at least three (3) parties, including the principal (developer), oblige (City of Fayetteville), and the surety (bonding company) who ensures that the principal's obligations shall be performed.
- Letter of Credit: A document issued mostly by a financial institution which provides an irrevocable payment undertaking to a beneficiary against complying documents as stated in the credit. The letter of credit is issued through a credited, full service bank within the City of Fayetteville. In Appendix 6-1 (Form #SCO6), the letter of credit form can be used for subdivision or commercial (not subdivision) developments depending on the choice of the check box.

All performance guarantees are to be submitted as follows:

City Engineer
Engineering and Infrastructure Department
City of Fayetteville
433 Hay Street
Fayetteville, NC 28301-5537

6.2 Performance Guarantees for Installations

Final plat approval is oftentimes requested before the BMPs for a project are completed. In such situations, the developer is first required to obtain a performance guarantee. This performance guarantee is meant to provide the City with sufficient funds to complete the construction of the BMP(s) should the developer fail to do so. However, in the case of BMPs required by the Stormwater Control Ordinance, a performance guarantee for installation is required before plan approval (before building permit) for all new developments – single-family residential as well as commercial. Photograph 6-1 on the next page is an example of a BMP that would require a performance guarantee for installation prior to plan approval. During the application and permitting process and to assist the developer in obtaining contractor prices, the City can issue a letter stating that the plans will be approved upon receipt of the installation performance guarantee.

Photograph 6-1: Installation Performance Guarantees are required to ensure that BMPs such as this Infiltration Trench are installed properly

Blank performance guarantee application forms for guaranteeing the installation of BMPs are provided in Appendix 6-1 (Form #SCO6). This type of performance guarantee must be posted for all BMPs on all new developments and redevelopments.

The process for obtaining a performance guarantee is as follows:

1. During the plan review process, the engineer for the proposed development shall furnish the City Engineer with a certified cost estimate for constructing and/or installing the proposed BMPs.
2. The City Engineer shall review the cost estimate for accuracy. If acceptable, the City Engineer shall notify the engineer to that affect.
3. A performance guarantee shall be required for 75% of the total estimated construction cost of the BMPs approved under the permit. The developer shall secure the performance guarantee using the forms contained in Appendix 6-1 (Form #SCO6).
4. The developer shall provide the City Engineer with the original performance guarantee form.
5. Performance guarantees shall be kept in place until at least one year after final approval. In cases where the facility initially functions as an erosion control measure, the installation

performance guarantee shall remain in place until at least one year after the facility starts to function as a BMP.

The request to release a performance guarantee must be made in writing to the City Engineer. However, a performance guarantee shall not be released if the City has not been properly notified for the inspection of items covered by the performance guarantee. The Inspection protocol is outlined in Section 8.1. Also, performance guarantees shall not be completely released until record drawings have been received and approved and it has been determined through an on-site inspection that all BMPs have been installed and the project is in full compliance with approved plans and specifications and the requirements of the Stormwater Control Ordinance. Therefore, the City Engineer shall complete and approve the Performance Guarantee Release Checklist (see Appendix 6-2, Form #SCO7) prior to approving the release of any performance guarantee. An Approval for Bond Release Form must be completed by the inspector and provided to the City Engineer before the performance guarantee can be released (see Appendix 6-3, Form #SCO8).

6.3 Performance Guarantees for Public Entities

Public entities are not required to obtain performance guarantees for the installation of water quality BMPs provided a letter signed by the manager or director of the project provides suitable assurances that the necessary improvements will be installed and maintained in accordance with ordinance requirements. Public entities shall include but not be limited to Cumberland County Schools, City of Fayetteville, Fayetteville Public Works Commission, Fayetteville Stormwater Services, Cumberland County, Fayetteville State University, and the State and Federal government. The letter of assurance shall be addressed to the City Engineer and upon his or her approval the performance guarantee requirement will be waived and all holds/approvals for the project released.

Section 7.0 Record Drawing Surveys and Digital Submittals

7.1 Requirements for Submittal of Record Drawing Surveys and Approval Process

The responsible party as identified in the Infrastructure Permit shall certify that the completed project is constructed in accordance with the approved plans and specifications and shall submit record drawing surveys for all BMPs after final construction is completed. **Please note that in single-family residential subdivisions where the stormwater management facility initially functions as an erosion control measure, it will be necessary to provide a record drawing survey and certification letter at the completion of the drainage system minus the BMP. After the erosion control measure is converted to a stormwater management facility, it will be necessary to provide a record drawing survey and certification letter for the BMP only.** Failure to provide approved record drawing surveys within 30 calendar days following project completion may result in assessment of penalties as specified in Section 8.0.

Record drawing surveys (2 copies) shall be prepared by a North Carolina licensed professional as outlined in Section 23-35 of the Ordinance and shall show the final design specifications for all BMPs, including the field location, size, depth, etc. After reviewing the record drawing survey, the design engineer shall certify, under seal, that the BMPs are in compliance with the approved plans and specifications and with the requirements of the Stormwater Control Ordinance. Deviations from the approved plans may be approved by the City Engineer. In those cases, the design engineer shall provide documentation to the City Engineer that the BMP is functioning as designed and is in compliance with the requirements of the Stormwater Control Ordinance even with the deviations. Mylars are not required. A checklist for record drawing surveys is provided in Appendix 7-1 (Form #SCO9). Figure 7-1 on the next page provides an example of a record drawing survey.

All record drawings are to be submitted as follows:
City Engineer
Engineering and Infrastructure Department
City of Fayetteville
433 Hay Street
Fayetteville, NC 28301-5537

Upon receipt, the City Engineer will forward the record drawing survey to the Construction Management Division who will conduct a field inspection of all BMPs, detention structures, and other measures as necessary to ensure the field accuracy of the record drawing survey and compliance with the requirements of the Stormwater Control Ordinance (see Section 8.1 Inspection Protocols and Appendix 8-1 Stormwater Control Ordinance Compliance Checklist). The inspector will edit the record drawing survey as necessary and forward to the City Engineer to assess the accuracy of the design engineer's certification of the record drawing survey in comparison to the approved plans for the project. If the field inspection, record drawing survey, and engineer certification are in compliance with Ordinance requirements, the City Engineer will issue a written notice of site compliance to the primary point of contact (see Appendix 7-2, Form #SCO10). If noncompliance is identified, the City Engineer will issue written notification to the

primary point of contact describing the deficiencies detected and actions necessary to ensure compliance as well as specifying a time frame in which compliance is to be achieved (see Appendix 7-4, Form #SCO12). At the discretion of the City Engineer, certificates of occupancy may be withheld pending receipt of record drawing surveys and the completion of a final inspection and approval of a project. All approved record drawing surveys for BMPs shall be forwarded to the City Engineer for inclusion in the project file.

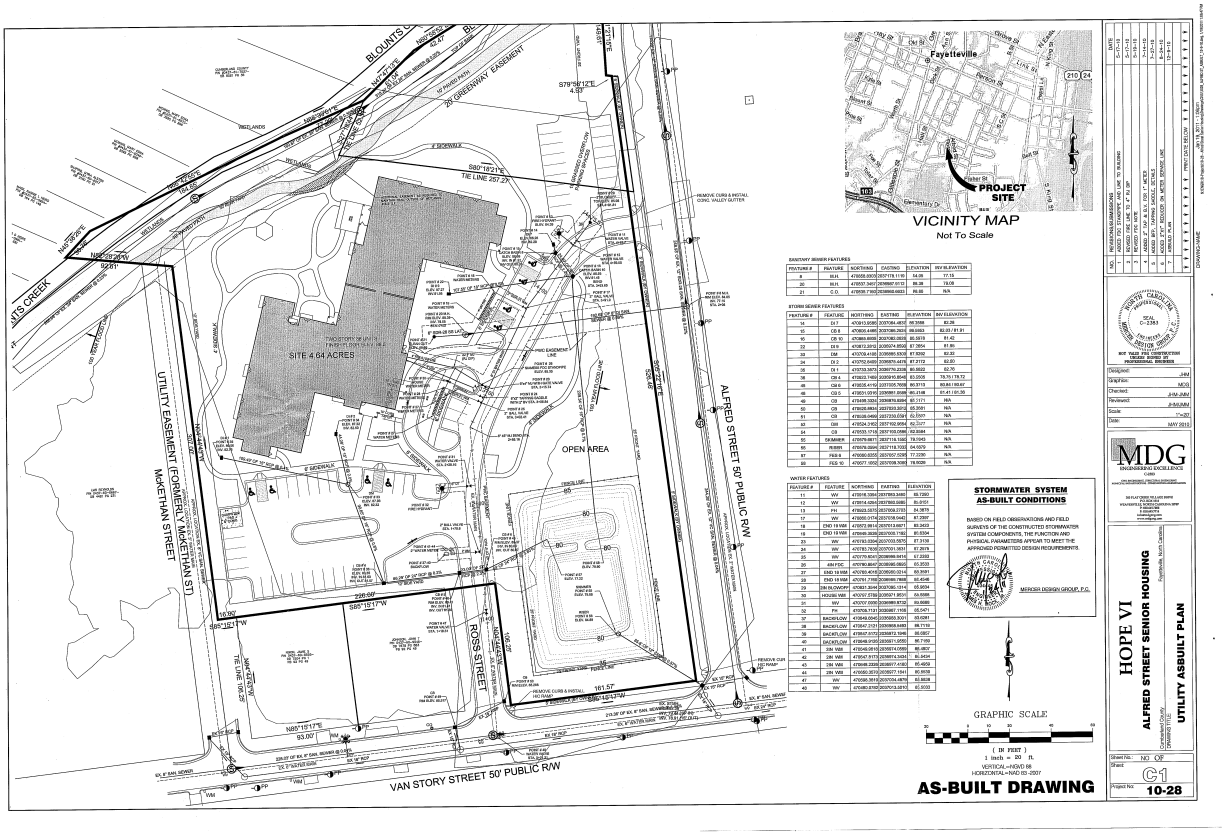


Figure 7-1: Example Record Drawing of new utilities including stormwater infrastructure as well as the stormwater BMP

7.2 Process for Submittal of Digital Records

A digital version of record drawing surveys must be submitted within 30 calendar days of approval of the hard copy record drawings.

All digital submittals must be made to the City Engineer. Professional seal and signature are <u>not</u> required on digital submittals. In lieu of a seal and signature, the digital submittals shall contain the following disclaimer: "This document originally issued and sealed by (name of sealer), (license number), on (date of sealing). This medium shall not be considered a certified document."

7.2.1 Digital Submittals of Record Drawings Surveys

Following approval of a record drawing survey by the City Engineer, the applicant will be issued written notification of approval. This notification will also indicate that a digital submittal of the record drawing survey is required prior to final approval of the project for compliance with Stormwater Control Ordinance requirements and the release of performance guarantees. The applicant shall be provided 30 calendar days to provide the digital submittal of the record drawing survey to the City Engineer at the address in Section 7.1 above as a separate City software compatible file (CAD (*.dwg) is required and GIS shape file if available) on a compact diskette (CD). Appendix 7-2 contains the form to be used to provide this notification (Form #SCO10). A hard copy of this notification shall be placed in the Active file. A digital file for the project shall be provided based on NC GRID with all BMPs shown. For the record drawing digital submittal, NAD 1983 (*tied to the North Carolina State Plane Coordinate System*) shall be the projection delivery format and each submission shall include the following layers:

- Name, location, size, and elevation (NAVD 88) of the BMPs actually constructed.
- Location of all drainage structures, pipe inverts (NAVD 88), and rim elevations.
- Distances between drainage structures.
- Mark through and redraw drainage structures when the as-built location deviates more than ten feet horizontally from the location indicated on the plans.

The locations for BMPs, and storm sewer system inlets and outlets shall be supplied as North Carolina State Plane X- and Y-coordinates. The title block and engineer's seal / signature do not need to be submitted electronically. In lieu of a seal and signature, the electronic submittals shall contain the following disclaimer: "This document originally issued and sealed by (name of sealer), (license number), on (date of sealing). This medium shall not be considered a certified document."

The City Engineer shall review the digital record drawing submittal to ensure proper integration with existing GIS data. Upon successful review, the City Engineer shall post the record drawing plans to the appropriate City of Fayetteville GIS SDE layers. The City Engineer shall send written notification of final approval of the project for compliance with Stormwater Control Ordinance requirements to the applicant. Appendix 7-3 contains the form to be used to provide this notification (Form #SCO11). A hard copy of this notification shall be placed in the Active file. Release of performance guarantees will be withheld pending receipt of the digital files. In addition, a failure to provide digital files is a violation of the Ordinance and is subject to penalties.

Section 8.0 Inspection Process

8.1 Inspection Protocols

The provisions of the Ordinance shall be enforced by the City Engineer, his or her designee, or any authorized agent of the City of Fayetteville. The City Engineer or designee shall have the authority, upon presentation of proper credentials, to enter and inspect any land, building, structure, or premises to ensure compliance with the Stormwater Control Ordinance, or rules or orders adopted or issued pursuant to the Ordinance, and to determine whether the activity is being conducted in accordance with the Ordinance and the approved stormwater management plan, and Administrative Manual and whether the measures required in the plan are effective. No person shall willfully resist, delay, or obstruct the City Engineer while inspecting or attempting to inspect an activity under the Ordinance. The City Engineer shall also have the power to require written statements, or the filing of reports under oath as part of an investigation.

The following is the process to be followed in conducting inspections:

1. The Construction Management and Stormwater Divisions shall each receive a set of approved plans for documenting inspection activities (see Section 3.3 Application Submission and Review Process). The Inspector shall thoroughly review all project data.
2. The Inspector **must be** contacted at (910) 433-1613 between 8:00 and 9:00 a.m. and an on-site pre-construction meeting scheduled at a minimum of 48 hours prior to starting construction of any BMP. The City's normal business hours are 8:00 a.m. to 5:00 p.m. Monday through Friday. Calls received on Friday will normally have inspections scheduled for Monday of the following week.
3. The Inspector **must be** contacted at (910) 433-1613 between 8:00 and 9:00 a.m. to schedule an inspection within the next 48 hours for any BMP. The City's normal business hours are 8:00 a.m. to 5:00 p.m. Monday through Friday. Calls received on Friday will normally have inspections scheduled for Monday of the following week.
4. The Inspector shall document inspections at the site for compliance with the approved plans, including the inspections of all BMPs, setbacks, volume and peak control, etc. Photograph 8-1 shows one of the Stormwater Inspectors conducting and documenting an inspection of a stormwater BMP during construction. Notices of violation issued for noncompliance as described below shall be kept in the project file. This project shall remain on the inspection list until inspections reveal that the site is in full compliance with Ordinance requirements including:
   - BMP construction has been completed in compliance with record drawing plans (see Section 7.1).
   - Setbacks are in compliance with applicable Ordinance or water supply watershed requirements.
   - Detention measures for volume and peak control have been completed in compliance with record drawing plans.

   Appendix 8-1 contains a checklist for compliance with Stormwater Control Ordinance requirements. This checklist shall be completed by the Inspector through field inspections and file reviews.

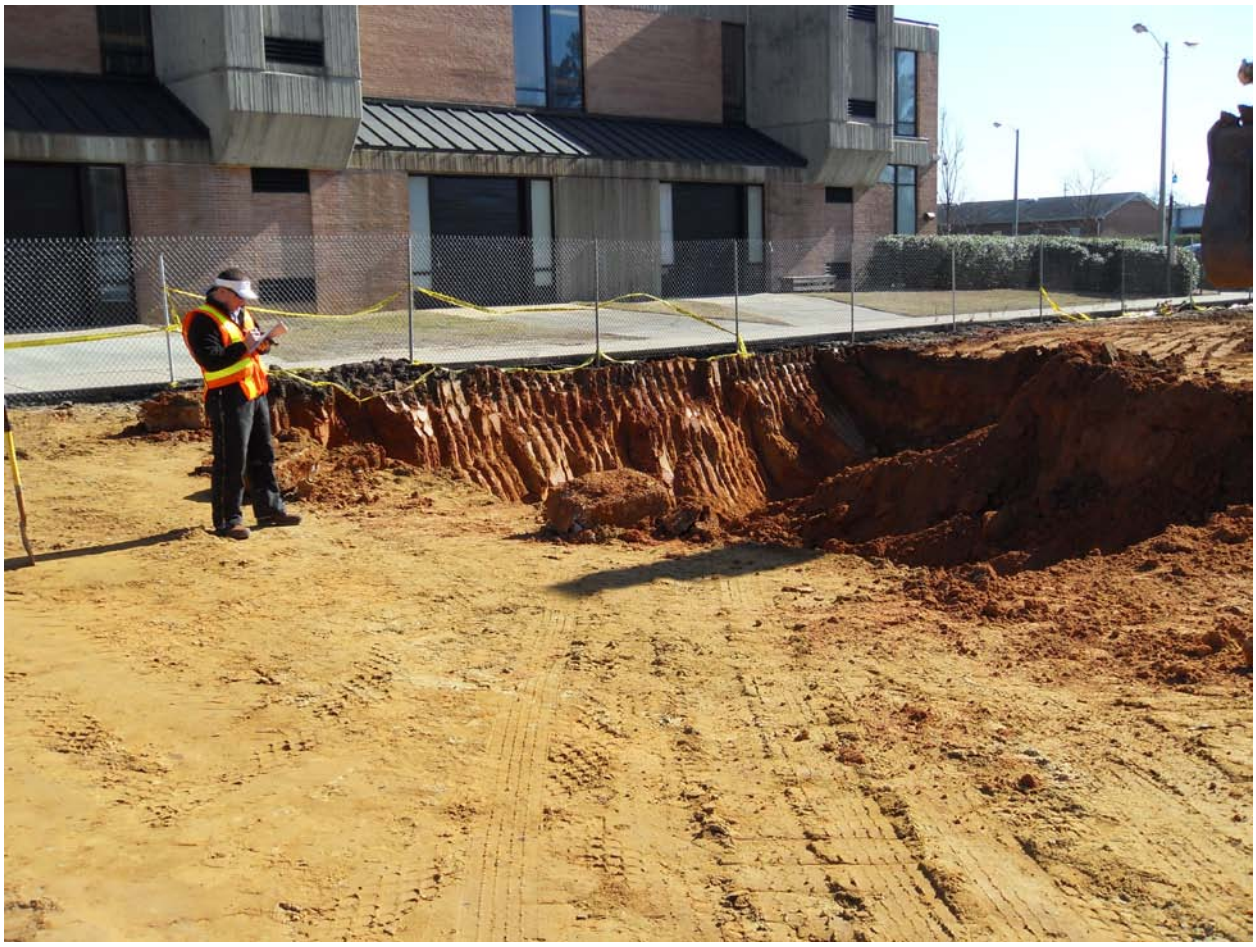
5. If inspections reveal noncompliance with the record drawing survey, approved plans/specification and/or Ordinance requirements, the owner shall be notified in writing of the specific deficiencies and given a time frame for compliance (see Appendix 7-4, Form #SCO12). An approved record drawing survey, a satisfactory final inspection and approval by the City Engineer are required before a project is determined to be in compliance with the Ordinance. At the discretion of the City Engineer, certificates of occupancy may be withheld pending receipt of record drawing plans and the completion of a final inspection and approval of a project. Copies of all written correspondence, including both compliance and noncompliance letters, shall be placed in the Active file.
6. Upon issuance of the compliance letter for the project by the City Engineer, the project file from the Inspector shall be submitted to the Director of Engineering and Infrastructure for review. A hard copy of the project file from the Inspector shall be placed in the file following approval and closure by the Director of Engineering and Infrastructure.
7. Future BMP inspections for compliance with Stormwater Control Ordinance requirements shall be documented on standard inspection forms. This inspection form shall be tied to the existing entity for the BMP. An inspection form shall be generated for every inspection. Hard copies of closed inspection forms shall be placed in the project file along with the annual inspection reports submitted by BMP owners. All correspondence, including NOVs, etc. associated with the BMP are to be placed in this file, which also contains all the original information from the approval of the project by the City, including the Infrastructure Permit, approved site plans, etc. All this information shall be maintained in this file.

When the City Engineer finds that any building, structure, or land is in violation of the Ordinance, the City Engineer shall issue a notice of violation (NOV) to the responsible person/entity (see Appendix 8-2 for a blank NOV Form #SCO13). The NOV shall indicate the nature of the violation and contain the address or other description of the site upon which the violation occurred or is occurring and order the necessary action to abate the violation. The notice shall specify a date by which the responsible person/entity must comply with the Ordinance, and advise that the responsible person/entity is subject to remedies and/or penalties. In determining the measures required and the time for achieving compliance, the City Engineer shall take into consideration the technology and quantity of work required, and shall set reasonable and attainable time limits. The City Engineer may deliver the notice of violation and correction order personally, by certified or registered mail, return receipt requested, or by any means authorized for the service of documents by Rule 4 of the North Carolina Rules of Civil Procedure.

8.2 Penalty Assessment Process

A violation of any of the provisions of the Ordinance may subject the violator to a civil penalty. A civil penalty may be assessed from the date the violation occurs. No penalty shall be assessed until the alleged violator has been notified of the violation except in situations where a delay in correcting a violation would seriously threaten the effective enforcement of the Ordinance or pose an immediate danger to the public health, safety, or welfare. In such cases, the City Engineer may order the immediate cessation of a violation. Any Person so ordered shall cease any violation immediately. The City Engineer may seek immediate enforcement, without prior written notice, through any remedy or penalty allowed by the Ordinance as described below.

Refusal to accept a notice or failure to notify the City Engineer of a change of address shall not relieve the violator's obligation to comply with the Ordinance or to pay such a penalty.



Photograph 8-1: City of Fayetteville Stormwater Inspector completing an inspection form as he inspects a stormwater BMP during construction

The civil penalty for each violation of this ordinance may be up to the maximum allowed by law. Each day of continuing violation shall constitute a separate violation. The City Engineer is authorized to vary the amount of the per diem penalty based on relevant mitigating and aggravating factors including, but not limited to, the effect, if any, of the violation; the degree and extent of harm caused by the violation; the cost of rectifying the damage; whether the violator saved money through noncompliance; whether the violator took reasonable measures to comply with this Ordinance; whether the violation was committed willfully; whether the violator reported the violation to the City Engineer; and the prior record of the violator in complying or failing to comply with this Ordinance or any other post-construction ordinance or law. Civil penalties collected pursuant to the Ordinance shall be credited to the City of Fayetteville's general fund as non-tax revenue.

Other remedies available to the City Engineer for the correction of violations of the Ordinance include those listed in Section 23-46 “Enforcement”.

The Ordinance allows for issuance of immediate penalties for the following:
1. Failure to submit a stormwater management plan.
2. Performing any land development activities except for land clearing and grading as allowed per an erosion control permit issued by NCDENR without an approved stormwater management plan.
3. Obstructing, hampering or interfering with an authorized representative who is in the process of carrying out official duties.
4. Willful violation of the Ordinance.
5. Failure to install or maintain best management practices per the approved plan.
6. A repeated violation for which a notice was previously given on the same project and to the same responsible person/entity responsible for the violation.

The remedies and penalties provided for violations of the Ordinance, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

When an immediate penalty is to be assessed, a notice of violation with immediate penalty (NOVP) letter shall be issued (see Appendix 8-3 for a blank NOVP Form #SCO14). The NOVP contains the same information as the NOV except it indicates that a penalty shall be assessed once it has been determined that the site is in compliance. The NOVP shall further indicate that the penalty amount shall be determined based upon aggravating and mitigating circumstances, including the violator’s willingness and urgency toward implementing corrective actions. All NOVPs are signed by the City Engineer.

If a violation is not corrected within a reasonable period of time, as provided in the notification, the City Engineer may assess penalties or administer other remedies (apply occupancy or permit holds) as necessary to correct and abate the violation and to ensure compliance with the Ordinance. In these situations, a continuing notice of violation (CNOV) shall be issued (see Appendix 8-4 for a blank CNOV Form #SCO15). The CNOV contains the same information as the NOV except it indicates that the violations are of a continuing nature and a penalty is being considered. Additionally, if a bond, letter of credit or other such security has been posted, then such security may be forfeited at the request of the City Engineer because of the continuing violation.

A responsible person/entity who receives a NOV or NOVP as described above, or the owner of the land on which the violation occurs, may submit to the City Engineer prior to the compliance date specified in the NOV or NOVP a written request for an extension of time for correction of the violation. Such an extension request shall not be considered for a CNOV. On determining that the request includes enough information to show that the violation cannot be corrected within the specified time limit for reasons beyond the control of the responsible person/entity requesting the extension, the City Engineer may extend the time limit as is reasonably necessary to allow timely correction of the violation, up to, but not exceeding 60 days. The City Engineer may grant 30-day extensions in addition to the foregoing extension if the violation cannot be corrected within the permitted time due to circumstances beyond the control of the responsible

person/entity violating the Ordinance. The City Engineer may grant an extension only by written notice of extension. The notice of extension shall state the date prior to which correction must be made, after which the violator shall be subject to the penalties described in the notice of violation and correction order.

Once compliance with the Ordinance has been achieved, the City Engineer shall determine the amount of the civil penalty based on criteria contained in the Penalty Assessment Guide in Appendix 8-5 (Form #SCO16). The Penalty Assessment Worksheet contained in Appendix 8-6 (Form #SCO17) shall be completed and attached to the Penalty Assessment Guide as documentation of the factors taken into consideration in setting the penalty amount. The City Engineer shall compile a file of penalty information following the Penalty Assessment Checklist contained in Appendix 8-7 (Form #SCO18). Written notice shall be issued to the violator that compliance has been confirmed and a penalty assessed, including the amount of the penalty and the reason for assessing the penalty. A notice of compliance with penalty or NOCP (see Appendix 8-8 for a blank NOCP Form #SCO19) shall serve as the standard form for providing this notice. This notice shall be served by certified mail or other means authorized under North Carolina General Statute 1A-1, Rule 4 and shall direct the violator to either pay the assessment or file an appeal within 30 days of receipt of the notice.

If a violator does not pay a civil penalty within 30 days after it is due, or does not request a hearing, the City Engineer shall request the initiation of a civil action to recover the amount of the assessment. The civil action shall be brought in Cumberland County Superior Court or in any other court of competent jurisdiction. A civil action must be filed within three (3) years of the date the assessment was due. An assessment that is appealed is due at the conclusion of the administrative and judicial review of the assessment.

8.3 Process for Appealing a Remedy or Penalty

The issuance of a notice of assessment of a civil penalty by the City Engineer shall entitle the responsible party or entity to an appeal before the City Council if such person submits written demand for an appeal hearing to the City Clerk within 30 days of the receipt of a notice of assessment of a civil penalty. The appeal of a notice of assessment of a civil penalty shall be conducted as described in Section 23-45 of the Ordinance.

8.4 BMP Inspection Fee

The BMP Inspection Fee covers the cost of all inspections of BMPs during the construction process including the final inspection conducted by City personnel. The amount of the fee is based on the staff resources necessary to conduct these inspections. The fee must be paid following the final inspection and prior to the issuance of the Notice of Site Compliance (Form #SCO11) in Appendix 7-3. As a matter of fact, the City will not issue the Notice of Site Compliance for the project until the BMP Inspection Fee has been paid in full. A reminder that the BMP Inspection Fee is due and payable has been incorporated into the Notification of Record Drawing Approval for the BMP and Digital Submittal Requirement (Form #SCO10) in Appendix 7-2. This form is sent following the final inspection and after the approval of the

record drawings. The amount of the BMP Inspection Fee can be found in the City's Schedule of Fees approved by the City Council.

Section 9.0 Appeals and Variances

9.1 Appeal Process

An appeal may be initiated by any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of the Stormwater Control Ordinance. A notice of appeal shall be filed with the City Clerk contesting any order, decision, determination or interpretation within 15 days of written notice of disapproval or modification of a Stormwater Design Plan, or determination of either noncompliance or failure to maintain, or within 30 days of the receipt of a notice of assessment of a civil penalty, made or rendered by the City Engineer in the enforcement of the Ordinance. Failure to timely file such notice shall constitute a waiver of any rights to appeal under the Ordinance. Appendix 9-1 (Form #SCO20) contains the procedures and forms for filing a notice of appeal.

Upon receipt of a notice of appeal, the City Clerk shall transmit to the City Council copies of all administrative papers, records, and other information regarding the subject matter of the appeal. The filing of such notice shall stay any proceedings in furtherance of the contested action, except the City Engineer may certify in writing to the City Council that because of facts stated in the certificate, a stay imposes an imminent peril to life or property or would seriously interfere with the enforcement of the Ordinance. In that case, proceedings shall not be stayed except by a restraining order, which may be granted by the City Council or by a court of record on application, on notice to the City Engineer from whom the appeal is taken and on due cause shown. The City Council shall, in accordance with the rules adopted by it for such purposes, hold public hearings on any notice of appeal which comes before it. The City Council shall, prior to the hearing, mail written notice of the time, place and subject of the hearing to the person or persons filing the notice, and to the owners of the subject property. The hearing shall be conducted in the nature of a quasi-judicial proceeding with all findings of fact supported by substantial, competent, and material evidence.

9.2 Variance Process

A petition for variance from the requirements of the Ordinance may be initiated by the owner of the affected property, an agent authorized in writing to act on the owner's behalf, or a person having written contractual interest in the affected property. A petition for variance, in the form prescribed by the City Council, shall be filed with the City Clerk accompanied by a nonrefundable $500 filing fee established by City Council as well as a list of adjoining properties including tax parcel numbers and the name and address of each owner. Appendix 9-2 (Form #SCO21) contains the procedures and forms for filing a variance petition.

Upon receipt of a variance petition, the City Clerk shall transmit to the City Council copies of all information regarding the variance. The City Council shall, in accordance with the rules adopted by it for such purposes, hold public hearings on any variance petition which comes before it. The City Council shall, prior to the hearing, mail written notice of the time, place and subject of the hearing to the person or persons filing the petition, to the owners of the subject property and to the owners of property adjacent to the subject property. The hearing shall be conducted in the

nature of a quasi-judicial proceeding with all findings of fact supported by competent, material evidence.

9.3 Appeal and Variance Hearings Before the City Council

9.3.1 Hearing Procedures

All hearings shall be conducted according to the City Council bylaws and procedures and pursuant to the North Carolina General Statutes. Photograph 9-1 below shows the Fayetteville City Council.

Photograph 9-1: Fayetteville City Council shall conduct all hearings on stormwater appeals and variances

It is the expectation of the Fayetteville City Council that hearings shall be heard by the City Council during the next regularly scheduled meeting of the City Council following the filing of a complete application package for a notice of appeal or request for a variance. In the event that a

conflict is known at the time the hearing is scheduled, the City Clerk has the authority to reschedule the hearing for the next date for which there is no conflict. If a conflict arises between the time of initial scheduling and the hearing date, the appellant must file a written request for continuance with the City Clerk, stating the nature of the conflict. The City Clerk, in consultation with the City Council Attorney, may reschedule the hearing for good cause.

Requests for a continuance on the day of the scheduled hearing must be made to the City Council in person by Petitioner or his agent. A continuance shall be granted only upon a majority vote of the members of the City Council present for the meeting. If Petitioner or his/her agent does not appear to make the request, or if the request is denied, the hearing shall proceed in accordance with the notice given by the City Clerk.

9.3.2 Appeal Hearings

At the conclusion of the hearing, the City Council shall render its decision regarding the appeal based on the evidence submitted.

1. If, after considering the evidence presented at the hearing, the City Council concludes by a preponderance of the evidence that the grounds for the actions by the City Engineer with regard to either disapproving or modifying a proposed Plan, issuing a notice of violation, assessing a civil penalty or ordering restoration are true and substantiated, the City Council shall uphold the action on the part of the City Engineer.
2. If, after considering the evidence presented at the hearing, the City Council concludes by a preponderance of the evidence that the grounds for the actions by the City Engineer are not true and substantiated, the City Council shall, as it sees fit either reverse or modify any order, requirement, decision or determination of the City Engineer.

9.3.3 Variance Hearings

Before granting a variance, the City Council shall have made all the following findings:

1. Unnecessary hardships would result from the strict application of the Ordinance.
2. The hardships result from conditions that are peculiar to the property, such as the location, size or topography of the property.
3. The hardships did not result from actions taken by the petitioner.
4. The requested variance is consistent with the spirit, purpose, and intent of the Ordinance; shall secure public safety and welfare; and shall preserve substantial justice.

The City Council may impose reasonable and appropriate conditions and safeguards upon any variance it grants. The City Council shall grant or deny the variance or shall reverse, affirm or modify the order, decision, determination or interpretation under appeal by recording in the minutes of the meeting the reasons that the City Council used and the findings of fact and conclusions of law made by the City Council to reach its decision. The City Council shall refuse to hear an appeal or variance petition which has been previously denied unless it finds there have been substantial changes in the conditions or circumstances relating to the matter.

Every decision of the City Council shall be subject to Superior Court review by proceedings in the nature of certiorari. Petition for review by the Superior Court shall be filed with the Clerk of Superior Court within thirty (30) days after the later occurring of the following:

1. The decision of the City Council is filed; or
2. A written copy thereof is delivered to every aggrieved party who has filed a written request for such copy with the City Council at the time of its hearing of the case.

Section 10.0 Definitions

When used in this Administrative Manual, the following words and terms shall have the meaning set forth in this section, unless other provisions specifically indicate otherwise.

1. Administrative Manual
   A manual developed by the City Engineer and distributed to the public to provide information for the effective administration of the Stormwater Control Ordinance, including but not limited to application requirements, submission schedule, fee schedule, maintenance agreements, criteria for recordation of documents, inspection report forms, requirements for submittal of bonds, and a copy of the Ordinance.

2. Best Management Practices (BMPs)
   A structural management facility used singularly or in combination for stormwater quality and quantity treatment to achieve water quality protection goals.

3. BMP Manual
   The latest version of the "Stormwater Best Management Practices Manual" as provided by the North Carolina Division of Water Quality.

4. Built-Upon Area (BUA)
   That portion of a development project that is covered by impervious or partially impervious surface including, but not limited to, buildings; pavement and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. "Built-upon area" does not include a wooden slatted deck or the water area of a swimming pool.

5. City Engineer
   The City Engineer of the City of Fayetteville, North Carolina, or his/her designee.

6. Commercial Development
   Any development that is not residential development as defined herein.

7. Developer
   A person who builds on land or alters the use of an existing building for some new purpose. Also, see the definition for Owner.

8. Development
   New development created by the addition of built-upon area to land void of built-upon area as of the effective date of the Stormwater Control Ordinance.

9. Drainage Area
   That area of land that drains to a common point on a project site.

10. Floodplain
    The low, periodically-flooded lands adjacent to streams. For land use planning purposes, the regulatory floodplain is usually viewed as all lands that would be inundated by the Regulatory Flood.

11. Infrastructure Permit
    A permit required for all development and redevelopment unless exempt pursuant to the Stormwater Control Ordinance and which demonstrates compliance with that Ordinance.

12. Larger common plan of development or sale
    Any contiguous area where multiple separate and distinct construction or land disturbing activities shall occur under one plan. A plan is any announcement or piece of documentation (including but not limited to public notice or hearing, drawing, permit application, zoning request, or site design) or physical demarcation (including but not limited to boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot.

13. Non-Point Source (NPS) Pollution
    Forms of pollution caused by sediment, nutrients, organic and toxic substances originating from land use activities and carried to lakes and streams by surface runoff.

14. Owner
    The legal or beneficial owner of land, including but not limited to a fee owner, mortgagee or vendee in possession, receiver, executor, trustee, or long-term or commercial lessee, or any other person or entity holding proprietary rights in the property or having legal power of management and control of the property. "Owner" shall include long-term commercial tenants; management entities, such as those charged with or engaged in the management of properties for profit; and every person or entity having joint ownership of the property. A secured lender not in possession of the property does not constitute an owner, unless the secured lender is included within the meaning of "owner" under another description in this definition, such as a management entity.

15. Person(s)
    Any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

16. Redevelopment
    Any development on previously developed land, other than a rebuilding activity that results in no net increase in built-upon area and provides equal or greater stormwater control than the previous development.

17. Residential Development
    A development containing dwelling units with open yards on at least two sides where land is sold with each dwelling unit.

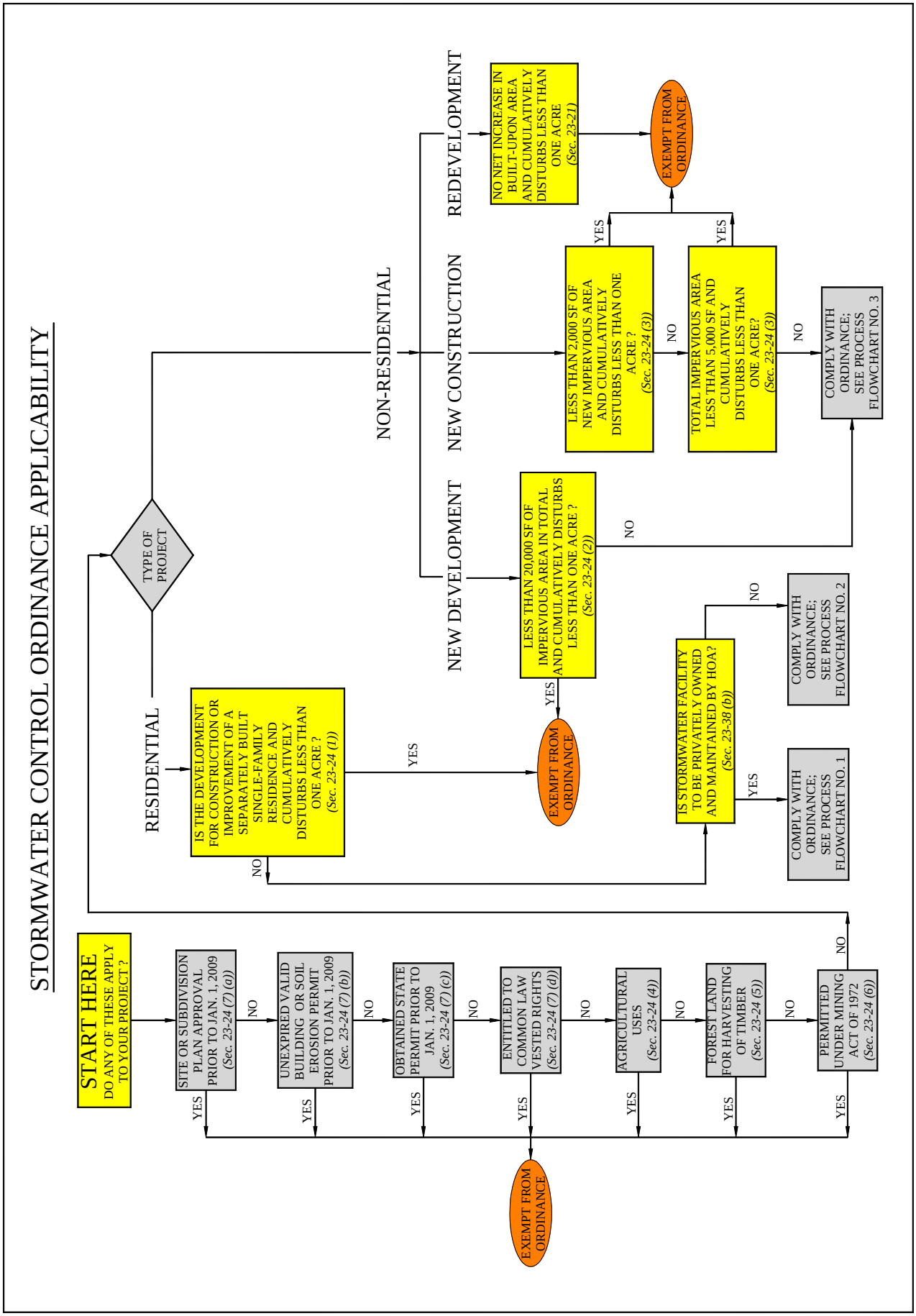
18. Setback
    A natural or vegetated area where built-upon area is prohibited.

19. Setback Widths
    Viewed aerially, the stream setback width is measured horizontally on a line perpendicular to the surface water, landward from the top of the bank on each side of the stream.

20. Top of Bank
    The landward edge of the stream channel during high water or bankfull conditions at the point where the water begins to overflow onto the floodplain.

Appendix 1-1: Stormwater Control Ordinance Applicability and Plan Review and Construction Process Flowcharts

NOTE: Flowcharts that outline the overall process are located in the following Appendix of this Administrative Manual. Digital file copies have been equipped with active hyperlinks to the applicable sections of the Stormwater Control Ordinance, and applicable sections and appendices of this Administrative Manual. Place your cursor over the desired hyperlink and then left click to proceed to that location.


STORMWATER CONTROL ORDINANCE APPLICABILITY
START HERE
DO ANY OF THESE APPLY TO YOUR PROJECT ?
SITE OR SUBDIVISION PLAN APPROVAL PRIOR TO JAN. 1, 2009 (Sec. 23-24 (7) (a))
UNEXPIRED VALID BUILDING OR SOIL EROSION PERMIT PRIOR TO JAN. 1, 2009 (Sec. 23-24 (7) (b))
OBTAINED STATE PERMIT PRIOR TO JAN. 1, 2009 (Sec. 23-24 (7) (c))
ENTITLED TO COMMON LAW VESTED RIGHTS (Sec. 23-24 (7) (d))
AGRICULTURAL USES (Sec. 23-24 (4))
FOREST LAND FOR HARVESTING OF TIMBER (Sec. 23-24 (5))
PERMITTED UNDER MINING ACT OF 1972 (Sec. 23-24 (6))
YES
NO
EXEMPT FROM ORDINANCE
TYPE OF PROJECT
RESIDENTIAL
NON-RESIDENTIAL
IS THE DEVELOPMENT FOR CONSTRUCTION OR IMPROVEMENT OF A SEPARATELY BUILT SINGLE-FAMILY RESIDENCE AND CUMULATIVELY DISTURBS LESS THAN ONE ACRE ? (Sec. 23-24 (1))
NEW DEVELOPMENT
NEW CONSTRUCTION
REDEVELOPMENT
LESS THAN 20,000 SF OF IMPERVIOUS AREA IN TOTAL AND CUMULATIVELY DISTURBS LESS THAN ONE ACRE ? (Sec. 23-24 (2))
LESS THAN 2,000 SF OF NEW IMPERVIOUS AREA AND CUMULATIVELY DISTURBS LESS THAN ONE ACRE ? (Sec. 23-24 (3))
TOTAL IMPERVIOUS AREA LESS THAN 5,000 SF AND CUMULATIVELY DISTURBS LESS THAN ONE ACRE? (Sec. 23-24 (3))
NO NET INCREASE IN BUILT-UPON AREA AND CUMULATIVELY DISTURBS LESS THAN ONE ACRE (Sec. 23-21)
IS STORMWATER FACILITY TO BE PRIVATELY OWNED AND MAINTAINED BY HOA? (Sec. 23-38 (b))
COMPLY WITH ORDINANCE; SEE PROCESS FLOWCHART NO. 1
COMPLY WITH ORDINANCE; SEE PROCESS FLOWCHART NO. 2
COMPLY WITH ORDINANCE; SEE PROCESS FLOWCHART NO. 3

PROCESS FLOWCHART NO. 1

STORMWATER CONTROL ORDINANCE PLAN REVIEW AND CONSTRUCTION PROCESS

RESIDENTIAL - PRIVATELY OWNED AND MAINTAINED

STORMWATER DESIGN PLAN SUBMITTED FOR APPROVAL
(Ordinance Sec. 23-26)
(Manual Sec. 3.3 and Appendix 3-1)

MAINTENANCE PLAN INCLUDED
(Ordinance Sec. 23-27 (12))
(Manual Sec. 4.2 and Appendix 4-2)

OPERATION AND MAINTENANCE AGREEMENT EXECUTED
(Ordinance Sec. 23-27 (12) and 23-39 (b))
(Manual Sec. 4.2 and Appendix 4-1)

DRAINAGE EASEMENT WITH MAINTENANCE NOTE FOR FACILITY
(Ordinance Sec. 23-27 (6) and 23-38 (a))
(Manual Sec. 4.5)

POSTING OF INSTALLATION PERFORMANCE GUARANTEE
(Ordinance Sec. 23-41 (a))
(Manual Sec. 6.2 and Appendix 6-1)

ENGINEERING PLAN APPROVAL
(Ordinance Sec. 23-33 (a))
(Manual Sec. 3.3)

SUBDIVISION CONSTRUCTED WITH EROSION CONTROL MEASURE
(Ordinance Sec. 23-37)
(Manual Sec. 8.1)

HARD COPY RECORD DRAWINGS OF SYSTEM WITH CERTIFICATION LETTER TO CITY
(Ordinance Sec. 23-37 (e))
(Manual Sec. 7.1 and Appendix 7-1)

FINAL INSPECTION OF SYSTEM BY CITY
(Ordinance Sec. 23-37 (d))
(Manual Sec. 8.1)

DIGITAL RECORD DRAWINGS OF SYSTEM TO CITY
(Ordinance Sec. 23-37 (e))
(Manual Sec. 7.2 and Appendix 7-2)

OPERATION AND MAINTENANCE AGREEMENT RECORDED WITH COPY TO CITY
(Ordinance Sec. 23-39 (a) (2))
(Manual Sec. 4.2 and Appendix 4-1)

FINAL PLAT APPROVED WITH REFERENCE TO OPERATION AND MAINTENANCE AGREEMENT
(Ordinance Sec. 23-33 (b) and 23-42)
(Manual Sec. 5.2 and Appendix 5-1)

EROSION CONTROL MEASURE CONVERTED TO STORMWATER MANAGEMENT FACILITY
(Ordinance Sec. 23-39 (a))
(Manual Sec. 8.1)

AFTER ONE YEAR: INSPECTION REPORT PROVIDED BY DEVELOPER
(Ordinance Sec. 23-38 (c))
(Manual Sec. 4.3 and Appendix 4-3)

HARD COPY RECORD DRAWINGS OF BMP WITH CERTIFICATION LETTER TO CITY
(Ordinance Sec. 23-38 (c))
(Manual Sec. 7.1 and Appendix 7-1)

DEVELOPER PETITION CITY TO RELEASE PERFORMANCE GUARANTEE
(Ordinance Sec. 23-41 (c) (4))
(Manual Sec. 6.2)

FINAL INSPECTION OF BMP BY CITY
(Ordinance Sec. 23-41 (c) (4))
(Manual Sec. 8.1 and Appendix 8-1)

DEVELOPER PAYS 15% OF CONSTRUCTION COST INTO ESCROW ACCOUNT
(Ordinance Sec. 23-39 (b) (3))
(Manual Sec. 4.3 and Appendix 4-1)

DIGITAL RECORD DRAWINGS OF BMP TO CITY
(Ordinance Sec. 23-37 (e))
(Manual Sec. 7.2 and Appendix 7-2)

CITY RELEASE PERFORMANCE GUARANTEE
(Ordinance Sec. 23-41 (c) (4) (a))
(Manual Sec. 6.2 and Appendix 6-3)

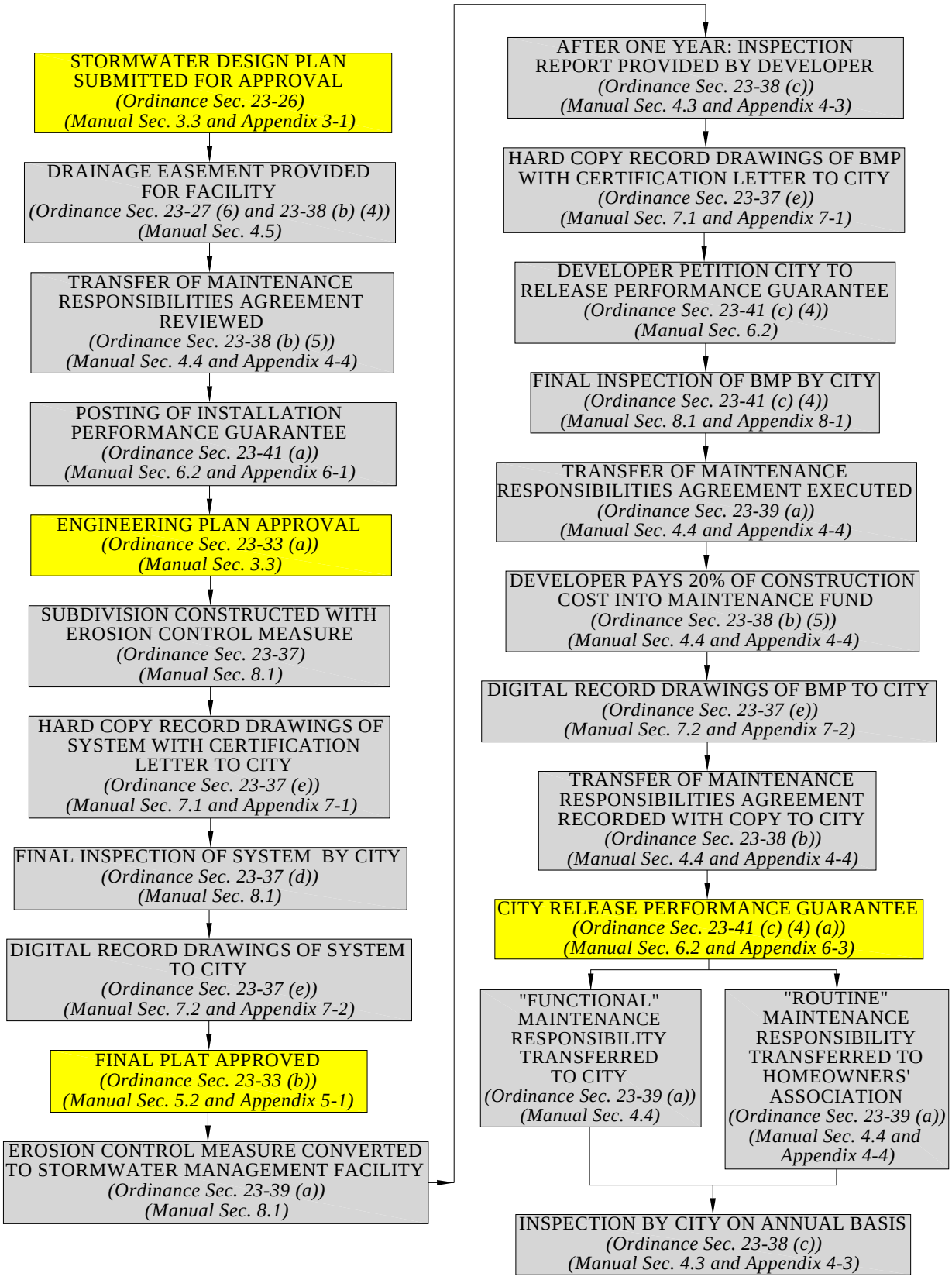
MAINTENANCE RESPONSIBILITY TRANSFERRED TO HOMEOWNERS' ASSOCIATION
(Ordinance Sec. 23-39 (a))
(Manual Sec. 4.3 and Appendix 4-1)

INSPECTION REPORT PROVIDED BY HOMEOWNERS' ASSOCIATION ON ANNUAL BASIS
(Ordinance Sec. 23-38 (c))
(Manual Sec. 4.3 and Appendix 4-3)

PROCESS FLOWCHART NO. 2

STORMWATER CONTROL ORDINANCE PLAN REVIEW AND CONSTRUCTION PROCESS

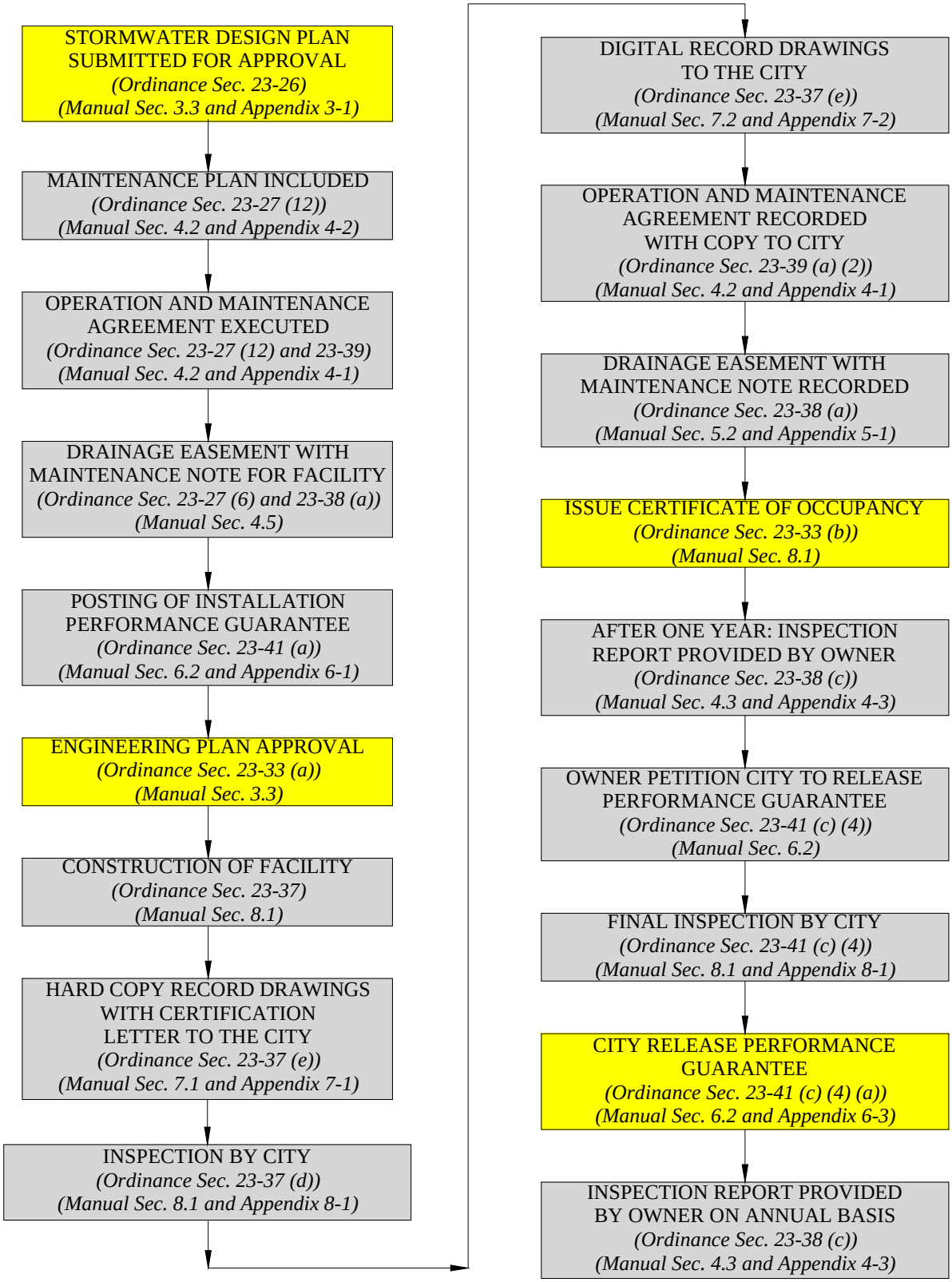
RESIDENTIAL - CITY TO ACCEPT FUNCTIONAL MAINTENANCE



PROCESS FLOWCHART NO. 3

STORMWATER CONTROL ORDINANCE PLAN REVIEW AND CONSTRUCTION PROCESS

NON-RESIDENTIAL (COMMERCIAL)



Appendix 1-2: Plan Submittal, Design Review and Inspection Process

Plan Submittal, Design Review and Inspection Process

Infrastructure Permit Application Submittal & Review Process

See Section 3.3 for the details of the submittal and review process.

Process for Conducting Inspections for Compliance with the Ordinance

See Section 8.1 for the details of the submittal and review process.

Submission and Plan Review Requirements and Schedule

Infrastructure Permit Application:

1. Engineering Review of Initial Submittal of Infrastructure Permit Application for Compliance with Ordinance = 30 calendar days
2. Resubmittal of Revised Infrastructure Permit Application = 45 business days
3. Review of Resubmittal of Revised Infrastructure Permit Application = 15 calendar days

Performance Guarantees:

1. Performance Guarantee for installation of BMPs required for issuance of Infrastructure Permit

Digital Submittals:

1. Digital version of record drawings required within 30 calendar days of approval of the hard copy record drawings to be in compliance with Ordinance requirements

Compliance Inspections:

1. Issuance of written notice by the City Engineer of site compliance to the primary point of contact
2. Written demand for an appeal hearing to the City Clerk within 15 days of the receipt of notice or within 30 days of the receipt of a civil penalty

Quick Guide for Submissions

1. Infrastructure Permit Application along with Maintenance Agreement and attached Maintenance Plan for each BMP, plans and calculations are to be submitted as follows:
   Submit one (1) set of plans and one (1) set of calculations initial review. Submit four (4) sets of plans and one (1) set of calculations following approval to:
   City Engineer
   Engineering and Infrastructure Department
   City of Fayetteville
   433 Hay Street
   Fayetteville, NC 28301-5537

2. Performance Guarantees are to be submitted to the attention of the City Engineer as follows:
   City Engineer
   Engineering and Infrastructure Department
   City of Fayetteville
   433 Hay Street
   Fayetteville, NC 28301-5537

3. Final plats and associated easements are to be submitted to the attention of the Planning Director as follows:
   Planning Director
   City of Fayetteville
   433 Hay Street
   Fayetteville, NC 28301

4. Record drawing surveys are to be submitted to the attention of the City Engineer as follows (record drawings for all BMPs are to be forwarded to the City Engineer for inclusion in the permanent project file):
   City Engineer
   Engineering and Infrastructure Department
   City of Fayetteville
   433 Hay Street
   Fayetteville, NC 28301-5537

5. Digital versions of record drawing surveys are to be submitted to the attention of the City Engineer as follows:
   City Engineer
   Engineering and Infrastructure Department
   City of Fayetteville
   433 Hay Street
   Fayetteville, NC 28301-5537

6. Copy of recorded final plat and Maintenance Agreement with attached Maintenance Plan are to be submitted as follows:
   City Engineer
   Engineering and Infrastructure Department
   City of Fayetteville
   433 Hay Street
   Fayetteville, NC 28301-5537

7. Requests for appeals and variances or any ruling or determination regarding the application of the Stormwater Control Ordinance and any responses to notices of violation, etc. are to be submitted to the attention of the City Clerk as follows:
   City Clerk
   City of Fayetteville
   433 Hay Street
   Fayetteville, NC 28301-5537

Appendix 3-1: Developmental Plan Review Submission Form (Form #SCO1)

Date Received: _____
Received by: _____
Payment Type: _____

City of Fayetteville North Carolina
ENGINEERING & INFRASTRUCTURE

DEVELOPMENTAL PLAN REVIEW SUBMISSION FORM

Select Type of Request:

- ❑ Comm. Dev. 1 acre or less **($200.00)**
- ❑ Comm. Dev. between 1&10 acres **($350.00)**
- ❑ Comm. Dev. in excess of 10 acres **($650.00)**
- ❑ Resubmittal Fee, commercial or residential, per submittal **($150.00)**
- ❑ Residential Subdivision 50 lots or less **($350.00)**
- ❑ Residential Subdivision 51 to 100 lots **($500.00)**
- ❑ Residential Subdivision in excess of 100 lots ($**650.00)**

Note: A submittal without the submission form and the applicable fee will be considered incomplete and will not be reviewed. All plans and calculations that will be submitted for review shall be signed and sealed.

Provide ONLY 1 copy of plans and supplemental information for review. Prior to final approval issued, 4 copies will be requested.

Project name & address:	Design Firm & address (attach business card)
PIN:	Project Contact:
Deed Book & Page:	Phone Number / Fax number:
Plat Book & Page:	Email:

General Plan Requirements

The following is a checklist of items that shall be included with all plan submittals. This list represents the basic formats and plan standards that should be addressed when submitting plans for review.

Engineer	Reviewer	N/A	Item
☐	☐		The name, address, and phone number of the developer, property owner and design engineer shall be included on the Cover Sheet.
☐	☐		Plan shall bear the note: "All construction to be in accordance with all City of Fayetteville Standards and Specifications."
☐	☐		Vicinity Map
☐	☐		Sheets shall be no larger than 36" x 24" plan and profile paper.
☐	☐		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.
☐	☐		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.
☐	☐		All elevations shall be given in relation to mean sea level; elevations in profile shall be labeled in 10' intervals on the heavy lines (Ex. 350, 360)

☐	☐		Benchmark elevations and locations shall be shown on plan view.
☐	☐		Plan view shall have a north arrow on each drawing.
☐	☐		Show building setback lines on plan view.
☐	☐		All driveways and parking lots shall be shown.
☐	☐	☐	Houses, building numbers and property owners shall be shown on existing property, especially when utility lines are proposed to be close to these structures.
☐	☐		Plan view shall show all property lines rights-of-way and easements. All street rights-of-way and easement widths shall be clearly labeled.
☐	☐		Plan view shall show all actual street names if known. State road numbers shall be shown if applicable.
☐	☐		Set of plans shall include a separate sheet for existing conditions and demolition.
☐	☐	☐	100-year floodplain boundaries and elevations shall be shown on all plans and profiles, where applicable.
☐	☐	☐	Delineated wetlands shall be surveyed and shown all plans, where applicable.
☐	☐		Plan view shall show proposed and existing curb and gutter, storm sewers, drainage structures, driveway pipes, water mains, sanitary sewers, etc. All existing and proposed pipes shall have clearly labeled the material, size, class, slope, and length. Direction of flow shall be shown on plan view for all storm sewers.
☐	☐	☐	Plan views shall show all existing and proposed utility layout, including fiber optic, electric, gas, and cablevision facilities located on the right-of-way.
☐	☐	☐	All curb radii at street intersections shall be clearly labeled.
☐	☐	☐	All sidewalks shall be shown on plan view with sidewalk access ramp locations noted. Sidewalks shall be 5’ wide – 5” thick along city and state roads, 4’ wide – 5” thick on subdivisions (required on one side of the street and cul-de-sacs longer than 500 ft).
☐	☐	☐	Station beginning 0+00 shall be labeled every 100’ on plan view and profile view. Stations shall be labeled on plan view along survey baseline.
☐	☐	☐	Profile view shall show existing centerline elevations, proposed centerline elevations and slopes, and left and right top of curb or edge of pavement elevations.
☐	☐	☐	Profile view shall show the station, type, top elevation, invert elevation and size of all existing and proposed manholes and structures. All existing and proposed pipes shall have the material, size, class, slope, and length clearly labeled.
☐	☐	☐	Match lines between sheets shall be shown (Ex.: See Sheet 3 of 10)
☐	☐	☐	Complete street curve data shall be shown on all plans. This information shall include but is not limited to: intersection radii, length of all arcs, internal angles, sight triangles, intersection centerlines, super elevation rates, if any, along with top of curb or edge of pavement profiles, vertical curve length, rate of vertical curvature (K), PVI, PVC, and PVT station and elevation, horizontal curve length, tangent, centerline radius, and delta.
☐	☐	☐	Street typical sections shall be provided that will include street and right-of-way width, sidewalk location, cross-slopes, street width (measured to back of curb) and pavement design.
☐	☐		Dimensions and construction details of all pertinent items including (but not limited to): curb and gutters, handicap ramps, sidewalks, catch basins, manholes, outlet protection, erosion control measures and headwalls.

Storm Drainage Design Requirements

Provide the following engineering design calculations where applicable. Refer to the City Storm Drainage Minimum Design Standards for specific requirements. See the City of Fayetteville Storm Drainage Manual for preferred submittal forms.

Engineer	Reviewer	N/A	Item
☐	☐		Narrative describing how water entering, traveling within, and leaving site will be controlled and to what extent the development will impact existing conditions on-site and off-site.
☐	☐		Topographic maps (min. 2' contours) clearly showing limits of the site. These maps shall extend a minimum of 1000 feet beyond the site boundaries or to the ridgelines of the contributing areas if less than 1000 feet. Existing and proposed contours needs to be shown.
☐	☐	☐	All roof drains shall be connected to the storm drain system unless documentation is provided that the downspouts of the roof drain system will not cause a problem for the adjacent property owner. Include in your calculations.
☐	☐	☐	Gutter spacing and spread calculations.
☐	☐	☐	Pipe sizing calculations including proposed flows and velocities.
☐	☐	☐	Calculation and exhibit of hydraulic grade line for 10 year (HGL must stay within system).
☐	☐		Drainage area maps, pre & post development drainage areas; including time of concentration flow paths and land uses with corresponding acreage.
☐	☐		Soils map with site and drainage area delineated.
☐	☐		Post development discharges for the specified design storm at all outlets.
☐	☐	☐	Culvert sizing calculations and headwater analysis.
☐	☐	☐	Open channel sizing calculations including proposed flows and velocities.
☐	☐	☐	Where applicable, 100-year flood routing calculations through channel system. Provide post-development 100-year flood elevations on plan.
☐	☐	☐	25-year, and 100-year flood routing analysis through all detention/retention facilities
☐	☐	☐	BMP routing calculations including stage/storage, draw down time, volume required and provided, etc.
☐	☐	☐	BMP drawings including details, cross sections, etc.
☐	☐	☐	Geotechnical Report (required for all BMP's) including boring logs with soil classification, soil properties, infiltration rate, water table elevation, etc.
☐	☐	☐	Outfall protection design and detail w/ dimensions and filter cloth.
☐	☐	☐	BMP Maintenance access easement from public ROW. Access easement must be a minimum of 20' wide and no ditches may occupy the access easement area. BMP must be located entirely within drainage easement and the easement is to extend 10' beyond and around perimeter of BMP.
☐	☐	☐	Trash racks must be 3D, no flat trash racks.

If a 100-year floodplain analysis is required, provide the following:

☐	☐	☐	100-year flood elevations
☐	☐	☐	100-year floodplain limits
☐	☐	☐	Location and Elevation of lowest floor in all proposed and existing buildings adjacent to the floodplain
☐	☐	☐	Summary of impacts from 100-year flood

Provide the following information where applicable:

☐	☐		Operation & Maintenance Plan signed by the owner for all Stormwater facilities
☐	☐		Name and address of entity responsible for maintenance
☐	☐	☐	Landscaping details for Stormwater management
☐	☐	☐	Approved Wetland Impact Permit
☐	☐	☐	Performance Guarantee for Installation (Sec 23-41 - Chapter 23 of the code of Ordinances for the City of Fayetteville). A cost estimate must be provided for review and approval.

Provide the following site information. For proposed residential subdivisions use planned average house sizes to determine proposed impervious area.

		Percentage of Total Site	☐ Low density Development	
Total Parcel Area	_____ac		☐ High density Development	
Existing Impervious Area	_____ac	_____%	☐ New Construction	☐ Addition
Proposed Impervious Area	_____ac	_____%	$Q_{pre =}$	$C_{pre =}$
Percentage increase in Impervious Area	_____%		$Q_{post =}$	$C_{post =}$

Requirements are not limited by above mentioned checklist and notes. The reviewer can require additional information, drawings, calculations, etc. before approval and acceptance of submitted drawings and related materials. The submittal shall be in full compliance with the most recent version of the following documents and/or drawings: Chapter 23 of the code of Ordinances for the City of Fayetteville, minimum design standard for storm drainage, BMP Manual, etc.

NOTE:

1. **The permittee shall provide record drawings (as-builts) signed and sealed by a registered professional to be submitted upon completion of the stormwater management facilities included in the stormwater design plan. The record drawings shall be referenced to North Carolina State Plane Coordinates and shall be provided in hard copy form as well as a digital file which is compatible with the city's software (Sec 23-37 - Chapter 23 of the code of Ordinances for the City of Fayetteville).**
2. **The person responsible for the maintenance of any stormwater management facility shall submit to the city engineer an inspection report beginning one year from the date of record-drawing certification and each year thereafter on or before the date of the record-drawing certification (Sec 23-38 - Chapter 23 of the code of Ordinances for the City of Fayetteville).**
3. **The City of Fayetteville Inspectors shall be notified by phone at 910.433.1613, PRIOR to construction.**
4. **A stamped approved copy of the plans will be returned to design engineer. A copy of plans shall be kept onsite at all times.**

Comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Appendix 3-2: BMP Plan Review Checklists

NOTE: The Checklists in the following Appendix are generally taken from the North Carolina Division of Water Quality's "Stormwater Best Management Practices Manual". The Checklists are not intended to be all inclusive but are a compilation of the major design elements. Also, the State's BMP Manual is designed to change and be revised as new design data and information becomes available. Thus, if you have questions about the following checklists, please also check the State's BMP Manual for the most up to date design information. If there is a conflict between the following and the State's BMP Manual, the State's BMP Manual will rule.

BMP Plan Review Checklist

February 2012

Wet Detention Basin:

_____ Average depth between 3 feet and 7.5 feet.
_____ Permanent pool.
_____ Side slopes not to exceed 3:1.
_____ 10-foot littoral shelf (no steeper than 10:1), no more than 24 inches below normal pool surface elevation.
_____ 1.5:1 minimum length to width ratio.
_____ Design detention time of 48 to 120 hours.
_____ Outlet structure.
_____ Anti-clogging device at pond outlet.
_____ Anti-seep collar on outlet barrel.
_____ Bottom pipe one pipe size larger than necessary to release pool volume in 24-hours.
_____ 1-foot freeboard on embankment elevation above 10-year peak.
_____ Embankment & spillway designed in accordance with N.C. Dam Safety Law.
_____ Plant selection for littoral shelf.
_____ No swimming/fishing warning signs.
_____ No utilities in pond area.
_____ Setback requirements.

BMP Plan Review Checklist

February 2012

Dry Extended Detention Basin:

_____ Maximum depth of 10 feet.
_____ Volume sized 1.25 times the required volume to account for sediment accumulation.
_____ Side slopes not to exceed 3:1.
_____ 1.5:1 minimum length to width ratio.
_____ Design detention time a minimum of 48 hours to a maximum of 120 hours.
_____ Outlet structure.
_____ Basin design must include a drain.
_____ 2 feet between bottom of basin and high water table.
_____ A minimum of 1 foot of freeboard shall be provided between the design flow pool elevation and the emergency overflow invert.
_____ A forebay is required if the design flow to the facility is over 10 acre-inches.
_____ A sediment depth indicator must be provided.
_____ Plant selection.

BMP Plan Review Checklist

February 2012

Stormwater Wetlands:

_____ Drainage area with positive water balance computation.
_____ A minimum volume of 3,630 cubic feet.
_____ 1.5:1 minimum length to width ratio.
_____ Maximum shallow land depth (temporary pool) shall be 1 foot.
_____ Sediment forebay.
_____ Design detention time of 48 to 120 hours.
_____ Outlet structure.
_____ Bottom pipe one pipe size larger than necessary to release pool volume in 24-hours.
_____ Embankment & spillway designed in accordance with NC Dam Safety Law.
_____ Plant selection.
_____ No utilities in pond area.
_____ Setback requirements.
_____ Forebay is required.

BMP Plan Review Checklist

February 2012

Bioretention:

_____ 5 acres maximum per inflow point.
_____ 12-inch maximum ponding depth.
_____ 2-foot minimum depth of soil mixture (4-foot minimum depth if trees proposed).
_____ Pretreatment such as grass buffers or swales, filter strip, forebay, or gravel diaphragm.
_____ Sheet flow into basin, no more than 1 fps for mulch cells or 3fps for grass cells.
_____ Design detention time of 24-48 hours.
_____ No dry weather flow into basin. 2 feet between bottom of basin and high water table.
_____ 4–inch minimum perforated PVC underdrain, use more than one.
_____ 6-inch PVC cleanout pipes, 1 per every 1000sf.
_____ Non-woven filter fabric & gravel around underdrain pipe.
_____ 3-inch deep double-hammered hardwood mulch layer, aged 6 months or more.
_____ Overflow spillway.
_____ Plant selection.
_____ 3:1 side slopes.
_____ Slopes are 20% or less.
_____ The geometry of the cell should be such that no dimension is less than 10 feet (width, length, or radius).
_____ Minimum of 100 ft from water supply wells.
_____ Minimum of 50 ft from Class SA waters.
_____ Minimum of 30 ft from surface water.
_____ Following installation, the media must be tested to determine the actual drainage rate.

BMP Plan Review Checklist

February 2012

Sand Filter:

_____ Maximum drainage area 5-acre.
_____ Design detention time of 40 hours.
_____ No dry weather flow.
_____ 2 feet between bottom of basin and high water table for surface sand filters.
_____ Minimum 18-inch sand filter media.
_____ Cleanouts for underdrain system 1 for every 1,000 square feet.
_____ Minimum of 100 feet from private well.
_____ Minimum of 30 feet from surface waters.
_____ Minimum of 50 feet from Class SA waters.

BMP Plan Review Checklist

February 2012

Infiltration Devices:

_____ 5-acre maximum drainage area.
_____ Soils in drainage area have a minimum hydraulic conductivity of 0.52 in/hr.
_____ Trench depth of 3 to 8 feet.
_____ 25-foot maximum trench width.
_____ Flat bottom.
_____ Pretreatment such as forebay, sediment chamber, grass swale, or filter strip.
_____ Geotextile filter fabric on sides of trench.
_____ Geotextile filter fabric, 2 to 6 inches below surface of trench.
_____ Uniform aggregate 1.5-2.5 inches in size.
_____ 4-inch sand bed at bottom of trench.
_____ No dry weather flow, 2 feet between bottom of trench and high water table.
_____ Capped observation wells, 4 to 6-inch perforated PVC pipe with floating marker.
_____ Side slopes not to exceed 3:1.
_____ Maximum design detention time of 120 hours.
_____ Not installed on fill material.
_____ Installed within 15 feet downgradient of any structure.
_____ Minimum of 100 feet from private well.
_____ Minimum of 30 feet from surface waters.
_____ Minimum of 50 feet from Class SA waters.
_____ Prior to installation, the in-situ soil must be tested to determine its infiltration rate.
_____ Following installation, the infiltration device must be tested to determine the actual infiltration rate.

BMP Plan Review Checklist

February 2012

Grassed Swales:

_____ Minimum 150 feet long.
_____ Trapezoidal shape with 2 feet to 8 feet bottom width.
_____ Side slopes not to exceed 3:1.
_____ Effective slope of 2% or less but maximum slopes are 5%.
_____ Non-erosive velocities in 10-year storm.
_____ Ponding time of 30 minutes to 48 hours.
_____ Maximum velocities as allowed in the Erosion and Sediment Control Manual.
_____ Grass selection.

BMP Plan Review Checklist

February 2012

Level Spreader – Vegetative Filter Strip System:

_____ Less than 5% slope preferred for vegetative filter strip.
_____ Level spreader must have a uniform slope of 0% (or level).
_____ Level spreader must be constructed of concrete (or other permanently stable material) with a blind swale immediately upslope and aggregate stone immediately downslope.
_____ Minimum length of level spreader shall be 10 feet and maximum length shall be 100 feet.
_____ Level spreader must be straight or convex.
_____ Minimum width of vegetative filter strip shall be 30 feet.
_____ Forebay is required when receiving flow directly from the drainage area. Forebay can be omitted if swale is lined with riprap.
_____ 2 fps maximum velocity in 10-year storm.

Appendix 4-1: Operation and Maintenance Agreement (Declaration of Covenants) (Form #SCO2)

(This form for use with property owner associations.)

(INSERT PROJECT NAME must match plat title)
DECLARATION OF COVENANTS
For Maintenance of Stormwater Structural Controls
City of Fayetteville

THIS DECLARATION OF COVENANTS, made this _____ day of_____, 20_____, by _____ hereinafter referred to as the "Developer" to and for the benefit of the City of Fayetteville and its successors and assigns.

WITNESSETH:

WHEREAS, the City of Fayetteville is authorized to minimize the downstream impacts from increased stormwater runoff and prevent surface water quality degradation from development or redevelopment activities within its jurisdiction as set forth in the City of Fayetteville Stormwater Management Ordinance: and

WHEREAS, the Developer is the owner of a certain tract or parcel of land more particularly described as:_____ being all or part of the land which it acquired by deed dated _____ from _____ grantors, and recorded with the Cumberland County Register of Deeds Office , in Book _____ at Page _____ such property being hereinafter referred to as "the property;" and

WHEREAS, the Developer desires to construct certain improvements on its property regulated by the City of Fayetteville Stormwater Management Ordinance; and

WHEREAS, in order to construct certain improvements on its property, the Developer desires to build and maintain at its expense, a stormwater structural control more particularly described and shown on plans titled: _____ and further identified under Infrastructure Permit Number _____ ; and

WHEREAS, the City of Fayetteville or its designee have reviewed and approved the plans associated with the Infrastructure Permit subject to the execution of this agreement.

NOW THEREFORE, in consideration of the benefits received by the Developer as a result of approval by the City of Fayetteville or its designee of these plans, the Developer, with full authority to execute deeds, mortgages, other covenants, and all rights, title and interest in the property described above, does hereby covenant with the City of Fayetteville as follows:

1. The Developer shall develop and attach to this "DECLARATION OF COVENANTS" for recording at the Cumberland County Register of Deeds Office a "MAINTENANCE PLAN" that has been reviewed and approved by the City of Fayetteville or its designee. This Maintenance Plan shall describe the specific maintenance practices to be performed for the above referenced stormwater structural control and include a schedule for implementation of these practices. The Plan shall indicate that the stormwater structural control shall be inspected by a qualified professional at least annually to ensure that it is operating properly. The Plan shall specify the name, mailing address and phone number of the party responsible for the fulfillment of the Maintenance Plan and describe the mechanism by which the funding for the performance of this maintenance shall be secured through the use of an (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER).

2. The Developer shall establish an (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER), which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the above referenced stormwater structural control. If the stormwater structural control is not performing adequately or as intended or is not properly maintained, the City of Fayetteville, in its sole discretion, may remedy the situation, and in such instances the City of Fayetteville shall be fully reimbursed from the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER). Funds may be spent by the Developer for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the stormwater structural control, provided that the City of Fayetteville shall first consent to the expenditure.

3. Both contributions by the Developer and contributions to an escrow account fund from either the Developer or a property owners' association shall fund the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER). Prior to the release of the installation performance guarantee, the Developer shall pay into the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER) an amount equal to fifteen (15) per cent of the initial construction cost of the stormwater structural control ((INSERT DOLLAR AMOUNT EQUAL TO 15%)). Two-thirds (2/3) of the total initial construction cost ((INSERT DOLLAR AMOUNT EQUAL TO 2/3)) shall be deposited into the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER) within the first five (5) years and the full amount ((INSERT DOLLAR AMOUNT EQUAL TO THE FULL AMOUNT)) shall be

deposited within ten (10) years following initial construction of the stormwater structural control. Funds shall be deposited each year into the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER). A portion of the annual assessments of the property owners' association shall include an allocation into the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER). Any funds drawn down from the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER) shall be replaced in accordance with the schedule of anticipated work used to create the escrow account budget.

4. The percent of Developer contribution and lengths of time to fund the (INSERT "ESCROW ACCOUNT" OR OTHER FUNDING SOURCE AS APPROVED BY THE CITY ENGINEER) may be varied by the City of Fayetteville depending on the design and materials of the stormwater structural control.

5. The Developer shall construct and perpetually operate and maintain, at its sole expense, the above-referenced stormwater structural control in strict accordance with the attached Maintenance Plan approved by the City of Fayetteville or its designee.

6. The Developer shall, at its sole expense, make such changes or modifications to the stormwater structural control as may, at the discretion of the City of Fayetteville or its designee, be determined necessary to ensure that the facility and system is properly maintained and continues to operate as designed and approved.

7. The City of Fayetteville, its agents, employees and contractors shall have the perpetual right of entry to inspect, monitor, maintain, repair and reconstruct the stormwater structural control.

8. The Developer agrees that should it fail to correct any defects in the above described stormwater structural control within ten (10) days from the issuance of written notice, or shall fail to maintain the structure in accordance with the attached Maintenance Plan and with the law and applicable executive regulation or, in the event of an emergency as determined by the City of Fayetteville or its designee in its reasonable discretion, the City of Fayetteville or its designee is authorized to enter the property to make all repairs, and to perform all maintenance, construction and reconstruction as the City of Fayetteville or its designee deems necessary. The City of Fayetteville or its designee shall then recover from the Developer any and all costs the City of Fayetteville expends to maintain or repair the stormwater structural control or to correct any operational deficiencies. Failure to pay the City of Fayetteville or its designee all of its expended costs, after forty-five days written notice, shall constitute a breach of the agreement. The City of Fayetteville or its designee shall thereafter be entitled to bring an action against the Developer to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.

9. The Developer shall not obligate the City of Fayetteville to maintain or repair any stormwater structural control, and the City of Fayetteville shall not be liable to any person for the condition or operation of any stormwater structural control.

10. The Developer shall not in any way diminish, limit, or restrict the right of the City of Fayetteville to enforce any of its ordinances as authorized by law.

11. The Developer shall indemnify, save harmless and defend the City of Fayetteville or its designee from and against any and all claims, demands, suits, liabilities, losses, damages and payments including attorney fees claimed or made by persons not parties to this Declaration against the City of Fayetteville or its designee that are alleged or proven to result or arise from the Developer's construction, operation, or maintenance of the stormwater structural control that is the subject of this Covenant.

12. The covenants contained herein shall run with the land and the Developer further agrees that whenever the property shall be held, sold and conveyed, it shall be subject to the covenants, stipulations, agreements and provisions of this Declaration, which shall apply to, bind and be obligatory upon the Developer hereto, its heirs, successors and assigns and shall bind all present and subsequent owners of the property served by the stormwater structural control. Upon the sale and conveyance by the owner of the Property (or any portion thereof) of its entire interest therein, such owner shall automatically be deemed to be released of all future obligations thereafter arising under this Declaration; and as to any future owner of the Property, or any portion thereof, such future owner shall automatically be subject and bound by the terms and provisions of this Declaration upon its acquisition of fee simple title to the Property (or portion thereof) in the same manner as the owner of the Property as of the date hereof is presently bound under this Declaration.

13. The Developer shall promptly notify the City of Fayetteville or its designee when the Developer legally transfers any of the Developer's responsibilities for the stormwater structural control. The Developer shall supply the City of Fayetteville or its designee with a copy of any document of transfer, executed by both parties.

14. The provisions of this Declaration shall be severable and if any phrase, clause, sentence or provisions is declared unconstitutional, or the applicability thereof to the Developer is held invalid, the remainder of this Covenant shall not be affected thereby.

15. The Declaration and the exact boundary of all stormwater structural controls (as shown on final plats prepared by a registered surveyor) shall be recorded at the Cumberland County Register of Deeds Office at the Developer's expense.

16. In the event that the City of Fayetteville or its designee shall determine at its sole discretion at future time that the stormwater structural control is no longer required, then the City of Fayetteville or its designee shall at the request of the Developer execute a release of this Declaration of Covenants which the Developer shall record at its expenses.

IN WITNESS WHEREOF, the Developer has executed this Declaration of Covenants as of this _____ day of_____, 20_____.

ATTEST: FOR THE COVENANTER(S)

_____ _____
(Signature) (Signature)

_____ _____
(Printed Name) (Printed Name and Title)

STATE OF _____:

COUNTY OF _____:

On this _____ day of _____, 20_____, before me, the undersigned officer, a Notary Public in and for the State and County aforesaid, personally appeared _____, who acknowledged himself to be_____, of _____, and he as such authorized to do so, executed the foregoing instrument for the purposes therein contained by signing his name as _____ for said _____.

WITNESS my hand and Notarial Seal

My commission expires _____ _____
Notary Public

Seen and approved

_____
(City Engineer)

(This form for use with commercial establishments under single ownership.)

<u>INSERT PROJECT NAME (must match plat title)</u>
DECLARATION OF COVENANTS
For Maintenance of Stormwater Structural Controls
City of Fayetteville

THIS DECLARATION OF COVENANTS, made this _____ day of_____, 20_____, by_____ hereinafter referred to as the "Owner" to and for the benefit of the City of Fayetteville and its successors and assigns.

WITNESSETH:

WHEREAS, the City of Fayetteville is authorized to minimize the downstream impacts from increased stormwater runoff and prevent surface water quality degradation from development or redevelopment activities within its jurisdiction as set forth in the City of Fayetteville Stormwater Control Ordinance: and

WHEREAS, the Owner is the owner of a certain tract or parcel of land more particularly described as: _____ being all or part of the land which it acquired by deed dated _____ from _____ grantors, and recorded with the Cumberland County Register of Deeds Office , in Book _____ at Page _____ such property being hereinafter referred to as "the property;" and

WHEREAS, the Owner desires to construct certain improvements on its property regulated by the City of Fayetteville Stormwater Control Ordinance; and

WHEREAS, in order to construct certain improvements on its property, the Owner desires to build and maintain at its expense, a stormwater structural control more particularly described and shown on plans titled: _____ and further identified under Infrastructure Permit Number _____ ; and

WHEREAS, the City of Fayetteville or its designee have reviewed and approved the plans associated with the Infrastructure Permit subject to the execution of this agreement.

NOW THEREFORE, in consideration of the benefits received by the Owner as a result of approval by the City of Fayetteville or its designee of these plans, the Owner, with full authority to execute deeds, mortgages, other covenants, and all rights, title and interest in the property described above, does hereby covenant with the City of Fayetteville as follows:

1. The Owner shall develop and attach to this "DECLARATION OF COVENANTS" for recording at the Cumberland County Register of Deeds Office a "MAINTENANCE PLAN" that has been reviewed and approved by the City of Fayetteville or its designee. This Maintenance Plan shall describe the specific maintenance practices to be performed for the above referenced stormwater structural control and include a schedule for implementation of these practices. The Plan shall indicate that the stormwater structural control shall be inspected by a qualified professional at least annually to ensure that it is operating properly. The Plan shall specify the name, mailing address and phone number of the party responsible for the fulfillment of the Maintenance Plan and describe the mechanism by which the funding for the performance of this maintenance shall be secured.

2. The Owner shall construct and perpetually operate and maintain, at its sole expense, the above-referenced stormwater structural control in strict accordance with the attached Maintenance Plan approved by the City of Fayetteville or its designee.

3. The Owner shall, at its sole expense, make such changes or modifications to the stormwater structural control as may, at the discretion of the City of Fayetteville or its designee, be determined necessary to ensure that the facility and system is properly maintained and continues to operate as designed and approved.

4. The City of Fayetteville, its agents, employees and contractors shall have the perpetual right of entry to inspect, monitor, maintain, repair and reconstruct the stormwater structural control.

5. The Owner agrees that should it fail to correct any defects in the above described stormwater structural control within ten (10) days from the issuance of written notice, or shall fail to maintain the structure in accordance with the attached Maintenance Plan and with the law and applicable executive regulation or, in the event of an emergency as determined by the City of Fayetteville or its designee in its reasonable discretion, the City of Fayetteville or its designee is authorized to enter the property to make all repairs, and to perform all maintenance, construction and reconstruction as the City of Fayetteville or its designee deems necessary. The City of Fayetteville or its designee shall then recover from the Owner any and all costs the City of Fayetteville expends to maintain or repair the stormwater structural control or to correct any operational deficiencies. Failure to pay the City of Fayetteville or its designee all of its expended costs, after forty-five days written notice, shall constitute a breach of the agreement. The City of Fayetteville or its designee shall thereafter be entitled to bring an action against the Owner to pay, or

foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.

6. The Owner shall not obligate the City of Fayetteville to maintain or repair any stormwater structural control, and the City of Fayetteville shall not be liable to any person for the condition or operation of any stormwater structural control.

7. The Owner shall not in any way diminish, limit, or restrict the right of the City of Fayetteville to enforce any of its ordinances as authorized by law.

8. The Owner shall indemnify, save harmless and defend the City of Fayetteville or its designee from and against any and all claims, demands, suits, liabilities, losses, damages and payments including attorney fees claimed or made by persons not parties to this Declaration against the City of Fayetteville or its designee that are alleged or proven to result or arise from the Owner's construction, operation, or maintenance of the stormwater structural control that is the subject of this Covenant.

9. The covenants contained herein shall run with the land and the Owner further agrees that whenever the property shall be held, sold and conveyed, it shall be subject to the covenants, stipulations, agreements and provisions of this Declaration, which shall apply to, bind and be obligatory upon the Owner hereto, its heirs, successors and assigns and shall bind all present and subsequent owners of the property served by the stormwater structural control. Upon the sale and conveyance by the owner of the Property (or any portion thereof) of its entire interest therein, such owner shall automatically be deemed to be released of all future obligations thereafter arising under this Declaration; and as to any future owner of the Property, or any portion thereof, such future owner shall automatically be subject and bound by the terms and provisions of this Declaration upon its acquisition of fee simple title to the Property (or portion thereof) in the same manner as the owner of the Property as of the date hereof is presently bound under this Declaration.

10. The Owner shall promptly notify the City of Fayetteville or its designee when the Owner legally transfers any of the Owner's responsibilities for the stormwater structural control. The Owner shall supply the City of Fayetteville or its designee with a copy of any document of transfer, executed by both parties.

11. The provisions of this Declaration shall be severable and if any phrase, clause, sentence or provisions is declared unconstitutional, or the applicability thereof to the Owner is held invalid, the remainder of this Covenant shall not be affected thereby.

12. The Declaration and the exact boundary of all stormwater structural controls (as shown on final plats prepared by a registered surveyor) shall be recorded at the Cumberland County Register of Deeds Office at the Owner's expense.

13. In the event that the City of Fayetteville or its designee shall determine at its sole discretion at future time that the stormwater structural control is no longer required, then

the City of Fayetteville or its designee shall at the request of the Owner execute a release of this Declaration of Covenants which the Owner shall record at its expenses.

IN WITNESS WHEREOF, the Owner has executed this Declaration of Covenants as of this _____ day of_____, 20_____.

ATTEST: FOR THE COVENANTER(S)

_____ _____
(Signature) (Signature)

_____ _____
(Printed Name) (Printed Name and Title)

STATE OF _____:

COUNTY OF _____:

On this _____ day of _____, 20_____, before me, the undersigned officer, a Notary Public in and for the State and County aforesaid, personally appeared _____, who acknowledged himself to be_____, of _____, and he as such authorized to do so, executed the foregoing instrument for the purposes therein contained by signing his name as _____ for said _____.

WITNESS my hand and Notarial Seal

My commission expires _____ _____
Notary Public

Seen and approved

_____
(City Engineer)

Appendix 4-2: BMP Maintenance Plan (Form #SCO3)

BMP Maintenance Plan

[Name of Development Project as indicated on approved plans]
City of Fayetteville
[Date]

[This document must be recorded as an Addendum to the Operation & Maintenance Agreement]

I. General BMP Information [Complete this table with each BMP that is planned within the development. Use the same naming system used on the approved plans, i.e. Stoneridge Phase I – Bioretention – 1]

BMP ID Name	Street with Block Number	Parcel Tax ID

II. BMP Site Location Map (attached) [Attach a small site plan map coinciding with the table above to show the general location of each BMP within the development.]

III. Maintenance Annual Budget [Provide a simple annual budget for maintenance and inspection of BMPs and list the source of funding, i.e. owner, trust, HOA, etc. Edit chart below as necessary]

Budget for BMP Maintenance / Inspections		
Expenses	**Estimated Costs**	**Source**
Routine inspections		
Sediment removal		
Plant management / weed control		
Replacement supplies, rock, plants, soil media, mulch		
Mowing and litter removal		
Seeding		
Miscellaneous		
[Other]		
Total	$	

IV. Escrow Account Activity

Provide documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, deposits and withdraws for the previous 12 months.

V. Maintenance Inspection Reports

As indicated in the Stormwater Control Ordinance, annual maintenance inspection reports shall be submitted to the City Engineer. The first report shall be submitted one year following the final approval date of the BMP and each year thereafter on or before the approval anniversary date. All maintenance activities and inspection reports shall be documented using the forms contained in the Administrative Manual. Annual maintenance inspection reports shall be performed by a qualified professional as defined in Section 23-38 of the Ordinance. These inspections shall be discontinued only if the BMPs are accepted for maintenance by the City of Fayetteville.

VI. Routine Maintenance Tasks and Schedule

[The following pages outline the specific maintenance tasks and frequency for each type of BMP in tables. For the recorded document, simply discard the pages (tables) that are not needed according to the types of BMPs within the development.]

Wet Detention Basin Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Forebay observation and cleanout	Monthly
Bank mowing and observation / stabilization of eroded areas	Monthly
Outlet / inlet observation and cleanout	Monthly
Unwanted vegetation and trash removal	Monthly
Visual observation of water quality	Monthly
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Inspect / exercise all mechanical devices, valves, etc	Yearly
Inspect for structural damage, leaks, etc	Yearly
Inspect the embankment	Yearly
Forebay inspection and cleanout	Yearly – Remove sediment every 7 years or whenever the sediment volume exceeds 50% of storage volume
Volume measurement	Yearly – Dredging needed every 20 years or when 25% of permanent pool volume has been lost
Rodent management	As needed
Security	As needed

Important maintenance procedures:

- Immediately after the wet detention basin is established, the plants on the vegetated shelf and perimeter of the basin should be watered twice weekly if needed, until the plants become established (commonly six weeks).
- No portion of the wet detention pond should be fertilized after the first initial fertilization that is required to establish the plants on the vegetated shelf.
- Stable groundcover should be maintained in the drainage area to reduce the sediment load to the wet detention basin.
- If the basin must be drained for an emergency or to perform maintenance, the flushing of sediment through the emergency drain should be minimized to the maximum extent practical.

Dry Extended Detention Basin Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Forebay observation and cleanout	Monthly
Bank mowing and observation / stabilization of eroded areas	Monthly
Outlet / inlet observation and cleanout	Monthly
Unwanted vegetation and trash removal	Monthly
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Inspect for structural damage, leaks, etc	Yearly
Inspect / exercise all mechanical devices, valves, etc	Yearly
Inspect the embankment	Yearly
Forebay inspection and cleanout	Yearly – Remove sediment every 7 years or when sediment volume exceeds 50% of storage volume
Evaluate sediment level	Yearly – Remove as needed
Security	As needed

Important maintenance procedures:

- The drainage area should be managed to reduce the sediment load to the dry extended detention basin.
- Immediately after the dry extended detention basin is established, the vegetation should be watered twice weekly if needed, until the plants become established (commonly six weeks).
- No portion of the dry extended detention pond should be fertilized after the first initial fertilization that is required to establish the vegetation.
- The vegetation in and around the basin should be maintained at a height of approximately six inches.

Stormwater Wetlands Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Forebay observation and cleanout	Monthly
Bank mowing and stabilization of eroded areas	Monthly
Outlet / inlet observation and cleanout	Monthly
Trash removal	Monthly
Visual observation of water quality	Monthly
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Invasive species control / vegetation management and replanting to maintain design densities	Semi-Annual
Inspect for structural damage, leaks, etc.	Yearly
Inspect the embankment	Yearly
Forebay inspection and cleanout	Yearly – Remove sediment every 7 years or when sediment volume exceeds 50% of storage volume
Evaluate sediment level	Yearly – Remove at 20 years or when plants are being impacted
Rodent and mosquito management	As needed
Security	As needed

Important maintenance procedures:

- Immediately following construction of the stormwater wetland, biweekly inspections should be conducted and wetland plants should be watered biweekly until vegetation becomes established (commonly six weeks).
- No portion of the stormwater wetland should be fertilized after the first initial fertilization that is required to establish the wetland plants.
- Stable groundcover should be maintained in the drainage area to reduce the sediment load to the wetland.

Bioretention Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Sedimentation prevention	Monthly observation and watch on surrounding drainage areas such as out parcels and parking lots
Drop box clean off	Monthly
Perimeter mowing	Monthly (maintain 3 – 6 inch height)
Observe for proper drawdown / clogging	Monthly
Stabilization of eroded areas	Monthly
Trash removal	Monthly
Observe plants, replace as necessary	Monthly
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Pruning	Yearly
Mulch renewal	Yearly
Conduct soil test of the soil media	Yearly
Mulch replacement	Every 2 years
Test P Index of soil media and replace if over 50 ppm	Every 2 years
Replace pea gravel diaphragm	As needed
Remove sediment	As needed

Important maintenance procedures:

- Immediately after the bioretention cell is established, the plants should be watered twice weekly if needed until the plants become established (commonly six weeks).
- Snow, mulch or any other material should NEVER be piled on the surface of the bioretention cell.
- Heavy equipment should NEVER be driven over the bioretention cell.
- Special care should be taken to prevent sediment from entering the bioretention cell.

Sand Filter Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Trash removal	Monthly
Observe outlet for obstructions	Monthly
Observe for clogging	Monthly
Observe inlet grates	Monthly
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Skim sand media	Yearly
Pump oil and grit from sedimentation chamber	Yearly or at 50% full
Clean out sedimentation chamber or forebay	As needed (whenever sediment depth exceeds six inches)
Replace sand media	As needed (whenever it fails to function properly after maintenance; expect 3 years)

Important maintenance procedures:

- The drainage area should be carefully managed to reduce the sediment load to the sand filter.

Infiltration Devices Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Trash removal	Monthly
Remove unwanted vegetation	Monthly
Check observation wells following precipitation events to ensure proper infiltration	Monthly
Record water level in the monitoring wells	Monthly and after every storm event greater than 1.0 inch
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Maintain stone or mulch top surface	Yearly
Clean forebay if present	Yearly or at 50% full

Important maintenance procedures:

- The drainage area of the infiltration trench should be carefully managed to reduce the sediment load to the sand filter.

Grassed Swales Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Trash removal	Weekly – Monthly (prior to mowing)
Mowing	Weekly – Monthly (as needed to retain 3 – 6 inch height)
Stabilization of eroded areas	Monthly
Observe for clogging (enhanced swale)	Monthly
Observe pea gravel diaphragm and replace / repair as necessary	Monthly
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Inspect condition of dispersion devices and check dams	Yearly
Reseed	Yearly
Removal of sediment	Yearly

Important maintenance procedures:

- The drainage area of the grassed swale should be carefully managed to reduce the sediment load to the grassed swale.
- After the first time fertilization to establish the grass in the swale, fertilizer should not be applied to the grass swale.

Level Spreader – Vegetative Filter Strip System Maintenance and Schedule	
TASK	**SCHEDULE**
Mowing of grass (harvest clippings)	Weekly – Monthly (as needed to retain minimum 3 – 5 inch height)
Stabilization of eroded areas throughout the filter strip and below the flow dispersion device	Monthly
Check outlet pipes on berms (if present) for clogging	Monthly
Remove debris / unwanted vegetation from behind lip of level spreader	Monthly
Repair flow dispersion device to prevent formation of channels in filter strip	Monthly as needed
Overall facility observation	Within 24 hours after every storm event greater than 1.0 inch
Inspect gravel diaphragm (if present) and remove sediment	Yearly
Reseeding of grass to maintain a dense growth of vegetation	Yearly
Clean forebay (if present)	Yearly or at 50% full
Aerate soil	Yearly as needed
Test soil pH and add lime	Yearly as needed

Important maintenance procedures:

- Immediately after the filter strip is established, any newly planted vegetation should be watered twice weekly if needed until the plants become established (commonly six weeks).
- Stable groundcover should be maintained in the drainage area to reduce the sediment load to the vegetation.

Appendix 4-3: BMP Maintenance and Inspection Checklist (Form #SCO4)

BMP Maintenance and Inspection Checklist
Wet Detention Basin
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Vegetation Management			
Banks / surrounding areas mowed			
Unwanted vegetation present			
Condition of wetland plants			
3. Erosion			
Evidence of soil erosion on banks or contributing drainage areas and outlet			
4. Sedimentation			
Forebay sediment inspection (cleanout every 7 years or when 50% full)			
Pond volume measurement (dredge every 20 years or when 25% of permanent pool volume lost)			
5. Energy dissipators			
Condition of dissipater at inlets			
Condition of dissipater at outfall			
6. Inlet			
Condition of pipe and / or swale (cracks, leaks, sedimentation, woody vegetation)			
7. Outlet			
Condition of orifice (drawdown device)			
Condition of riser outlet and trash rack			
8. Emergency spillway and dam			
Condition of spillway			

Condition of dam (i.e. leaks, holes, woody vegetation)			
9. Mechanical devices			
Inspection of all valves, etc. (should be exercised yearly)			
10. Visual Inspection			
Appearance of water (i.e. sheen, muddy, oily, clear, algae, etc)			
Mosquito larvae			
11. Forebay embankment			
Condition of forebay embankment (breached?)			
12. Water elevation			
Is pond at normal pool elevation?			
13. Miscellaneous			

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____
_____
_____
_____
_____

Additional Comments:

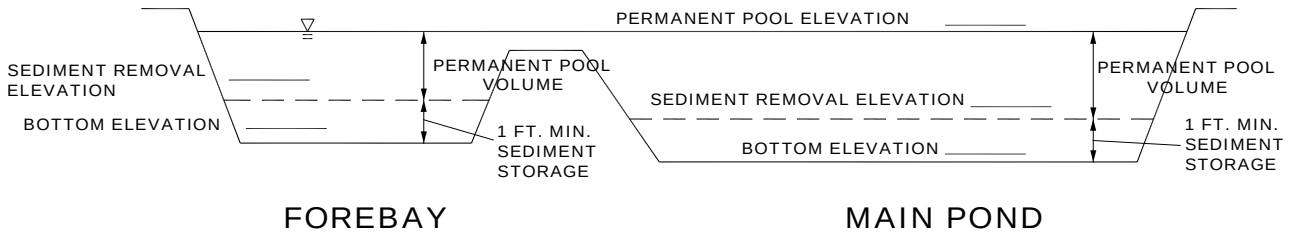
_____
_____
_____
_____
_____

The measuring device used to determine the sediment elevation shall be such that it will give an accurate depth reading and not readily penetrate into accumulated sediments.

When the permanent pool depth reads _____ feet in the main pond, the sediment should be removed.

When the permanent pool depth reads _____ feet in the forebay, the sediment should be removed.

BASIN DIAGRAM
(FILL IN THE BLANKS)



FOREBAY MAIN POND

Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

BMP Maintenance and Inspection Checklist
Dry Extended Detention Basin
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Vegetation Management			
Banks / surrounding areas mowed			
Unwanted vegetation present			
3. Erosion			
Evidence of soil erosion on banks, contributing drainage areas or bottom of pond			
4. Sedimentation			
Forebay (if present) sediment inspection (cleanout every 7 years or when 50% full)			
Sediment level in pond			
5. Energy dissipators			
Condition of dissipater at inlets			
Condition of dissipater at outfall			
6. Outlet / Inlet			
Condition of orifice (drawdown device) / trash rack			
Condition of outlet			
Condition of inlet			
7. Mechanical devices			
Inspection of all valves, etc. (exercise yearly)			
8. Dewatering			
Evidence of standing water			
9. Structural Integrity			

Evidence of structural damage (leaks, cracks, etc)			
10. Emergency Spillway & Dam			
Condition of spillway			
Condition of dam			
11. Miscellaneous			

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____
_____
_____
_____
_____
_____

Additional Comments:

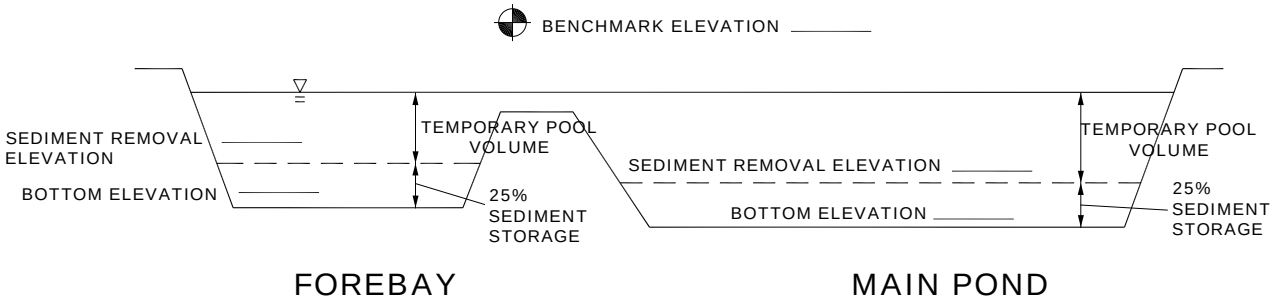
_____
_____
_____
_____
_____
_____

The measuring device used to determine the sediment elevation shall be such that it will give an accurate depth reading and not readily penetrate into accumulated sediments.

When the sediment removal elevation is _____ feet in the main pond, the sediment should be removed.

When the sediment removal elevation is _____ feet in the forebay, the sediment should be removed.

BASIN DIAGRAM
(FILL IN THE BLANKS)



Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

BMP Maintenance and Inspection Checklist
Stormwater Wetlands
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Vegetation Management			
Banks / surrounding areas mowed			
Unwanted vegetation present (replant semi-annually to maintain design densities)			
Condition of wetland plants			
3. Erosion			
Evidence of soil erosion on banks or contributing drainage areas and outlet			
4. Sedimentation			
Forebay sediment inspection (cleanout every 7 years or when 50% full)			
Sedimentation level in stormwater wetlands (cleanout every 20 years or when plants are being impacted)			
5. Energy dissipators			
Condition of dissipater at inlets			
Condition of dissipater at outfall			
6. Inlet			
Condition of pipe and / or swale (cracks, leaks, sedimentation, woody vegetation)			
7. Outlet			
Condition of orifice (drawdown device)			
Condition of outlet			
8. Mechanical devices			

Inspection of all valves, etc. (should be exercised yearly)			
9. Visual water inspection			
Appearance of water (i.e. sheen, muddy, oily, clear, algae, etc)			
Mosquito larvae			
Water level maintained at permanent pool			
10. Dam / Embankment			
Seepage through embankment			
Woody vegetation on embankment			
11. Miscellaneous			

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____

_____

_____

Additional Comments:

_____

_____

_____

Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

BMP Maintenance and Inspection Checklist
Bioretention
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Vegetation Management			
Banks / surrounding areas mowed			
Unwanted vegetation present			
Condition of plants			
Condition of mulch - Must be double hammered hardwood, 3 inches deep (replace at least every 2 years and renew yearly)			
3. Erosion			
Evidence of soil erosion on banks or contributing areas			
4. Sedimentation			
Forebay (if present) sediment inspection (cleanout when 50% full)			
Evidence of sediment in bioretention cell			
5. Energy dissipators			
Inspect pea gravel diaphragm (replace as needed)			
Condition of dissipater at inlets			
Condition of dissipater at outfall			
6. Inlet			
Condition of pipe of swale (cracks, leaks, sedimentation, woody vegetation)			
7. Outlet			
Condition of outlet / drop box			

8. Dewatering (drawdown must be between 48 hours and 120 hours)			
Evidence of standing water			
9. Overall functionality			
Evidence of bypass			
P Index test results for soil media (indicate test results and date last tested)			
10. Miscellaneous			

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____
_____
_____
_____

Additional Comments:

_____
_____
_____
_____

Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

BMP Maintenance and Inspection Checklist
Sand Filter
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Erosion			
Evidence of soil erosion around contributing areas			
3. Sedimentation chamber			
Sediment level in chamber (pump yearly or when 50% full)			
4. Sand media			
Condition of media (skim annually, replace as necessary)			
5. Outlet / Inlet			
Condition of outlet			
Condition of inlets and grates			
6. Mechanical devices			
Inspection of all valves, etc.			
7. Dewatering			
Evidence of filter clogging			
8. Structural Integrity			
Evidence of structural damage (leaks, cracks, etc)			
9. Overall functionality			
Evidence of odors			
Evidence of bypass			
10. Miscellaneous			

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____
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_____
_____

Additional Comments:

_____
_____
_____
_____
_____

Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

Maintenance and Inspection Checklist
Infiltration Devices
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Vegetation Management			
Banks / surrounding areas mowed			
Unwanted vegetation present			
3. Erosion			
Evidence of soil erosion around contributing areas			
4. Sedimentation			
Forebay sediment inspection (cleanout yearly or when 50% full)			
Evidence of sediment in trench			
5. Energy dissipators			
Condition of dissipater at inlets			
Condition of dissipater at outfall			
6. Surface aggregate			
Condition of stone or mulch			
7. Dewatering			
Evidence of standing water			
Check water level in observation well			
8. Overflow spillway			
Condition of spillway			
9. Overall functionality			
Evidence of bypass			

10. Miscellaneous

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____
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Additional Comments:

_____
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_____
_____
_____

Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

BMP Maintenance and Inspection Checklist
Grassed Swales
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Vegetation Management			
Grass height (maintain 3–6 inch height)			
Unwanted vegetation present			
Ground cover well established (yearly reseeding needed)			
3. Erosion			
Evidence of soil erosion in swale or contributing areas			
4. Dewatering			
Evidence of standing water			
5. Sedimentation			
Sediment accumulation			
6. Energy dispersion / check dams			
Inspect pea gravel diaphragm and replace / repair as necessary			
Condition of dispersion devices			
Condition of check dams			
7. Miscellaneous			

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____
_____
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_____
_____
_____
_____
_____
_____

Additional Comments:

_____
_____
_____
_____
_____

Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

BMP Maintenance and Inspection Checklist
Level Spreader – Vegetative Filter Strip System
[Note: a separate form must be used for each BMP]

Project Name: _____
Project Address: _____
Owner's Name: _____
Owner's Address: _____
Recorded Book and Page Number of the Lot: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____
Inspector Address/Phone Number: _____
Date Last Inspected: _____

Maintenance Item	Satisfactory	Unsatisfactory	Comments/Actions Required
1. Debris Cleanout			
Clear of trash and debris			
2. Vegetation Management			
Grass height (minimum 3–5 inch height)			
Unwanted vegetation present			
Ground cover well established (yearly reseeding needed)			
3. Erosion			
Evidence of soil erosion in filter strip and below dispersion device			
4. Drainage			
Evidence of standing water			
Evidence of bypass			
Check outlet pipes for clogging			
5. Sedimentation			
Sediment accumulation			
Sediment in gravel diaphragm (if present)			
6. Energy dispersion / check dams			
Condition / functionality of dispersion devices			
Debris on dispersion devices			
Condition of check dams / forebay			
Inspect pea gravel diaphragm (replace as needed)			

7. Miscellaneous

<u>If applicable:</u> Attach to this form documentation of BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdraws for the previous 12 months.

Maintenance Actions Taken: [If any of the above items were marked "U" for unsatisfactory, explain the actions taken and time table for correction. Attach additional pages as necessary.]

_____
_____
_____
_____
_____
_____

Additional Comments:

_____
_____
_____
_____
_____

Based upon my inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in substantial compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Stormwater Control Ordinance.

Certification:

_____ _____

Inspector's Signature **Date**

[Note: The Stormwater Control Ordinance requires that inspections be conducted of all BMPs beginning within one (1) year from the date of record drawing certification and each year thereafter and that these inspections be completed by a qualified professional as defined in Section 23-38 of the Ordinance. All inspections must be documented and submitted using this form. The inspection form must be signed by the inspector and mailed to the City Engineer at the following address: City of Fayetteville, City Engineer, 433 Hay Street, Fayetteville NC 28301]

Appendix 4-4: Transfer of Maintenance Responsibilities Agreement (Form #SCO5)

Parcel ID #: _____

DECLARATION OF COVENANTS
INSPECTION/MAINTENANCE OF STORMWATER
MANAGEMENT FACILITY, TRANSFER OF MAINTENANCE RESPONSIBILITIES

THIS DECLARATION, made this _____ day of _____, 20_____, between _____, hereinafter referred to as the "Covenantor," owner(s) of the following property: _____
_____
_____,
and the City of Fayetteville, North Carolina, hereinafter referred to as the "City".

WITNESSETH:

The Covenantor, with full authority to execute deeds, mortgages, other covenants, and all rights, titles and interest in the property described above, does hereby covenant with the City as follows:

1. Prior to the release of the installation performance guarantee, the Developer shall pay into a Maintenance Fund used to maintain stormwater management facilities in the future an amount equal to twenty (20) percent of the initial construction cost of the stormwater management facility ((INSERT DOLLAR AMOUNT EQUAL TO 20%)) serving the Property.

2. The Covenantor must maintain the Easement Area(s) depicted in **Exhibit A** (Final Plat) by providing trash removal, grass cutting, and landscaping on the Property and performing other nonfunctional maintenance, described in **Exhibit B** (Maintenance Plan). Therefore, the Covenantor shall develop and attach to this "DECLARATION OF COVENANTS" for recording at the Cumberland County Register of Deeds Office a "MAINTENANCE PLAN" that has been reviewed and approved by the City of Fayetteville or its designee. This Maintenance Plan shall describe the nonfunctional maintenance practices to be performed for the above referenced stormwater management facility and include a schedule for implementation of these practices. The Plan shall specify the name, mailing address and phone number of the party responsible for the fulfillment of the Maintenance Plan.

3. The City must provide routine inspection and structural maintenance for the BMP(s) as needed to ensure that the BMP(s) remain(s) in proper working condition in accordance with approved design standards. The City shall undertake all reasonable measures to return the Easement Area(s) to its original condition whenever the City undertakes repairs and maintenance in accordance with this Covenant.

4. The Covenantor must provide and maintain perpetual access from public rights-of-way to the BMP(s) for the City, its agents and its contractors.

5. The Covenantor must grant the City, its agents and its contractors a right of entry to the BMP(s) for the purpose of inspecting, operating, monitoring, installing, constructing, reconstructing, modifying, altering or repairing the BMP(s).

6. Except in the case of an emergency, the City shall provide not less than seven (7) days prior notice to the Covenantor before performing any structural maintenance or repair of the BMP(s) in accordance with this Covenant. The City shall also notify the Covenantor after completing the maintenance or repair work specified in the notice.

7. If, after reasonable notice by the City, the Covenantor fails to maintain the Easement Area(s) in accordance with this Covenant, the City may perform any nonfunctional maintenance needed to correct a condition that impacts the effectiveness of routine structural maintenance and collect any costs incurred as a result from each owner of the BMP(s) and in the same manner as real property taxes are collected. In addition, the City may seek reimbursement under any other method legally available to collect debts owed to the City.

8. The Covenantor agrees to indemnify and save the City harmless, including the City's elected officials, employees, agents, successors, and assigns, from any and all liability and any and all claims for any personal injury or property damage arising from maintenance of the Easement Area(s) in accordance with this Covenant. The City agrees to indemnify and save the Covenantor harmless from any and all liability and any and all claims for any personal injury or property damage caused by any act, omission or negligence of the City during the routine inspection and functional maintenance of the BMP(s). Either party's obligation under this paragraph is subject to and contingent upon the other party providing it with notice of any and all claims upon which the party shall rely for indemnification. A party's failure to provide timely notice of any claim shall cause this indemnification to be void and of no further force or effect as to the event for which the party seeks protection under the indemnification.

9. The Covenantor must promptly notify the City when the Covenantor legally transfers any of the Covenantor's responsibilities for the BMP(s). The Covenantor must provide the City a certified copy of any fully executed document of transfer.

10. The covenants contained herein shall run with the land and shall bind the City, the Covenantor and the Covenantor's successors and assignees, and shall bind all present and subsequent owners of property served by the BMP(s).

11. This Covenant shall be recorded in the Cumberland County Register of Deeds Office of Cumberland County, North Carolina.

12. This Covenant runs to the benefit of the City and may not be released or modified except by written consent of the City.

IN WITNESS WHEREOF, the Covenantor and the City have executed this Declaration of Covenants on the date first above written.

ATTEST:	FOR THE COVENANTOR(S)
_____	_____
Signature	Signature
_____	_____
Printed Name	Printed Name
	_____
	Title
	CITY OF FAYETTEVILLE, NORTH CAROLINA
_____	_____
Signature	Signature
_____	_____
Printed Name	Printed Name City Manager

(Jurats follow)

STATE OF
COUNTY OF : ss

I hereby certify that on this _____ day of _____, 20___, before the subscriber, a Notary Public of the State of _____, and for the County of _____, personally appeared _____, known to me (or satisfactorily proven) to be the person(s) described in the foregoing instrument, who did acknowledge that (he)(she)(they), having been properly authorized, executed the same in the capacity therein stated and for the purposes therein contained.

IN TESTIMONY WHEREOF, I have affixed my hand and official seal.

_____
NOTARY PUBLIC

My Commission Expires _____

STATE OF
COUNTY OF : ss

I hereby certify that on this _____ day of _____, 20___, before the subscriber, a Notary Public of the State of _____, and for the County of _____, personally appeared _____, City Manager, known to me (or satisfactorily proven) to be the person described in the foregoing instrument, who did acknowledge that (he) (she), having been properly authorized, executed the same on behalf of Fayetteville, North Carolina in the capacity therein stated and for the purposes therein contained.

IN TESTIMONY WHEREOF, I have affixed my hand and official seal.

_____
NOTARY PUBLIC

My Commission Expires _____

Appendix 5-1: Plat Checklist for Engineering and Infrastructure

Engineering and Infrastructure Department

PLAT CHECKLIST
February 2012

Project Name: _____ File #: _____

Reviewer: _____ Date Reviewed: _____ Phone #: _____

Surveyor: _____ Contact Person: _____ Phone #: _____

This is an internal document generated to facilitate consistent plat reviews. Additional information may be necessary based on site-specific conditions.

Initial review takes place during the subdivision review and approval process. For final plats, one mylar is submitted to the Planning Department. Plats will not be signed until bond, Guarantee of Installation and other information as required is received.

GENERAL PLAT REQUIREMENTS:

	REQUIRED	COMMENTS & REQUIRED NOTES
☐	All storm drainage easements (SDEs) with proper dimensions/widths	**REQUIRED NOTE:** "The purpose of the storm drainage easement (SDE) is to provide stormwater conveyance. Buildings or permanent structures are not permitted in the easement area. Any other objects which impede stormwater flow or system maintenance are also prohibited."
☐	35x35 & 10x70 sight triangles	
☐	Minimum 20' radii at all intersections or as approved on driveway permit	
☐	Dedication of minimum R/W on existing roads	**REQUIRED NOTE:** "Right of way dedicated to City of Fayetteville."
☐	Roads and sidewalks	**COMMENT:** If not built, bond shall be posted.

NOTATIONS:

☐	"The subdivided property is considered a larger common plan of development and therefore will be subject to the applicable portions of the City of Fayetteville Stormwater Control Ordinance during development and redevelopment (including expansion)."	**COMMENT:** When property is subdivided without building activity this notation serves to inform future "owners" or developers that the lot is part of a larger common plan of development and needs to be evaluated for Stormwater Control Ordinance requirements when developed.
☐	"Compliance with the Stormwater Control Ordinance is required."	**COMMENT:** This note must be placed on all Minor Subdivision Plats not associated with building activities at time of recordation.

FLOODWAY:

☐	Creek Name (label centerline)	
☐	Floodway cross-section (number and location)	
☐	Minimum finished floor elevation (per lot)	

☐	FEMA Floodway Fringe Line	
☐	FEMA Floodway Encroachment Line	
☐	Benchmark (BM) (description, elevation referenced to NGVD 1988)	
☐	Flood Hazard Area Statement	**REQUIRED NOTE:** "This plat contains lots located within a special flood hazard area as designated on firm community panel_____ zone_____ dated_____."

SETBACKS ALONG CREEKS:

☐	Major Stream Name	**COMMENT:** The location and name of major streams must be shown on the plat.
☐	Top of Bank Labeled	**COMMENT:** The top of the bank must be field located by a registered surveyor and shown on the plat.
☐	Stream Setbacks (30 feet, 50 feet, 75 feet)	**COMMENT:** The location of stream setbacks must be shown on the plat.

BMPs (BEST MANAGEMENT PRACTICES)

☐	All BMPs shall be shown on plat and named	**COMMENT:** All BMPs must be named as follows: Project or subdivision name – BMP Type – Number. Example: Stoneridge Phase I – Bioretention – 1.
☐	Permanent 20' wide maintenance access easement to BMP BMP located entirely within permanent drainage easement with easement extending 10' beyond and around perimeter of BMP	**REQUIRED NOTE:** "The maintenance access easement must extend to the BMP and the drainage easement must be around the BMP and, to the extent feasible, allow vehicles to turn around."
☐	Dimensions around BMP	
☐	Copy of the Operations and Maintenance Agreement and BMP Maintenance Plan stamped by register of deeds office	**COMMENT:** The Operations and Maintenance Agreement and BMP Maintenance Plan must be recorded and a copy provided for plat approval.
☐	BMP Maintenance Statement	**REQUIRED NOTE:** "This property contains stormwater management facilities that must be maintained according to the Operations and Maintenance Agreement and Plan recorded in Deed Book____ and Page _____."

Please inform the reviewer if you need a bond estimate at the time of plat review. A bond is required before the plat is released by the City when subdivision improvements have not yet been completed, inspected and approved.

City of Fayetteville Staff ***Date***

Appendix 6-1: Bond Application Forms for Guaranteeing the Installation of BMPs (Form #SCO6)

CASH BOND TO GUARANTEE THE INSTALLATION OF IMPROVEMENTS AS REQUIRED BY STORMWATER CONTROL ORDINANCE

Date of Issue:_____ Check Number: _____

Obligee: City of Fayetteville
433 Hay Street, Fayetteville, North Carolina 28301
Attention: City Engineer

Principal / Developer:
Address:
City, State, Zip:
Phone Number: (_____)_____

Principal/Developer, is firmly bound unto the City of Fayetteville in the sum of ($_____) _____ Dollars which amount, in cash or by certified check has been deposited with the City of Fayetteville this the _____ day of _____, 20__.

This agreement is made in accordance with the City of Fayetteville Stormwater Control Ordinance (the Ordinance), so that prior to the completion of the improvements required by the Ordinance, _____ (insert principal / developer name), may obtain from the City of Fayetteville Engineering Division its final approval of the Subdivision Plats for _____ (insert plat name being bonded). The bond is in an amount determined by the City Engineering Staff/Certified Engineer to be sufficient to guarantee the installation of the improvements specified in the plans approved by the City of Fayetteville Engineering Division and which provide that the improvements shall be completed by the _____ day of _____, 20__.

The condition of this bond is such that if the Principal/Developer shall faithfully complete the specified improvements within the time period prescribed above and the City of Fayetteville Engineering Division has caused an inspection to be made, then the Principal/Developer must request in writing the release of the security in accordance with the provisions set forth in Section 23-41 of the Fayetteville City Code. Once the City authorizes the release of the security, this bond shall be null and void and the funds deposited with the City shall be returned to the Principal/Developer.

In the event that the Principal/Developer defaults under its obligation to install the required improvements, the City of Fayetteville may complete these improvements using the funds available from the cash bond. Said funds can be used to pay any and all expenses which may be incurred by the City as the result of actions taken by the City after default to require the Principal/Developer to complete the improvements or which may be incurred by the City in connection with the completion of the improvements by the City, including but not limited to construction costs, engineering supervision costs, mobilization costs, and legal fees. Upon completion of the improvements, the City shall refund any unused portion of the funds.

The Principal/Developer hereby stipulates and agrees that no modifications, conditions or omissions in or to the plans or specifications herein referred to or any extension of time shall in any way affect the agreement.

WITNESS our hands and seals this, the _____ day of _____, 20__.

_____
Principal/Developer

_____
Print

By: _____ (SEAL)
Title

Attest: _____

SURETY BOND TO GUARANTEE INSTALLATION OF IMPROVEMENTS AS REQUIRED BY THE STORMWATER CONTROL ORDINANCE

Date of Issue:_____ Surety Bond #: _____

Obligee: City of Fayetteville
433 Hay Street, Fayetteville, North Carolina 28301
Attention: City Engineer

SURETY BOND given by:

Principal:	**Surety Company Name:**
Address:	**Address:**
City, State, Zip	**City, State, Zip**
Phone Number: ( )	**Phone Number**: ( )

WHEREAS, _____, has applied for final approval of
(insert principal name)
the subdivision plat in connection with _____ to the Planning Board
(insert project name)
pursuant to the terms of the Ordinance, prior to the improvements required in such Ordinance having been completed; and

WHEREAS, such Ordinance requires the giving of a bond and filing the same with the City of Fayetteville Engineering Division, guaranteeing the installation of the required improvements; and

WHEREAS, said Principal shall by _____ make all improvements as set forth to be
(insert 2 year date)
done and performed in accordance with the Stormwater Control Ordinance for the development and improvements of _____ Subdivision.
(insert final plat name)

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS: That we _____ as Principal, and
(insert principal name)
_____ as Surety are held and firmly bound unto the City of
(insert surety company name)
Fayetteville, in the full sum of ($_____) _____ Dollars, for the payment whereof, well and truly be made, said Principal and Surety bound themselves, their heirs, administrators, successors and assigns jointly and severally by these presents.

NOW, THEREFORE, the condition of this obligation is such that if the above bound Principal shall fully and faithfully perform all work specified to be done and performed under such application for subdivision approval, and within the time prescribed above, such application plans being incorporated herein by reference, then in accordance with the provisions set forth in Section 23-41 of the Fayetteville City Code, this obligation shall be void upon the delivery to the Principal of a statement signed by the City of Fayetteville Engineering Division certifying the completion of said improvements to the satisfaction of the City, but otherwise this obligation shall remain in full force and effect; subject to the condition that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

In the event the Principal defaults under its obligation to install the improvements, as referred to herein, Surety shall (a) within thirty (30) days of notification of such default, take over and assume completion of said improvements, or (b) pay to the City of Fayetteville in cash the reasonable costs of completion. The cost of completion shall include reimbursement to the City of Fayetteville of any and all expenses which may be incurred after the default of the Principal, in the connection with the completion of the improvements, including but not limited to construction costs, administrative costs, engineering supervision costs, mobilization costs, and legal fees. Should the City of Fayetteville and the Surety not agree as to the costs of completion, the same shall be fixed by taking bids by the City of Fayetteville after advertisement as provided by law for public contracts covering similar installations. Provided, however that the liability of the Surety to the obligee shall not exceed the amount of the bond. The Surety shall make such payment within ten (10) days after the costs of completion have been determined.

The Surety hereby stipulates and agrees that no modifications, conditions, or omissions in or to the plans or specifications herein referred to, or any extension of time in any wise effect the publications of Surety on its bond.

WITNESS our hands and seals this, the _____ day of _____ 20 _____.

PRINCIPAL: _____

Principal:

By:

_____

Principal (authorized signature)

_____

Principal (printed name and title)

WITNESS for Principal:

_____

(signature)

_____

(printed name)

Principal:

By:

_____

Principal (authorized signature)

_____

Principal (printed name and title)

WITNESS for Principal:

_____

(signature)

_____

(printed name)

Surety:

By:

_____

Surety (authorized signature)

_____

Surety (printed name and title)

WITNESS for Surety:

_____

(signature)

_____

(printed name)

AGREEMENT SECURED BY LETTER OF CREDIT TO GUARANTEE THE INSTALLATION OF IMPROVEMENTS AS REQUIRED BY STORMWATER CONTROL ORDINANCE

Date of Issue:_____ Letter of Credit #:_____

Obligee: City of Fayetteville
433 Hay Street, Fayetteville, North Carolina 28301
Attention: City Engineer

Principal / Developer:	**Bank Issuing Letter of Credit:**
Address:	**Address:**
City, State, Zip	**City, State, Zip**
Phone Number: ( )	**Phone Number**: ( )

Principal/Developer, is firmly bound unto the City of Fayetteville in the sum of ($_____) _____ Dollars which amount is secured by Irrevocable Letter of Credit Number _____ delivered to the City of Fayetteville this the _____ day of _____, 20__.
(insert number)

This agreement is made in accordance with the City of Fayetteville Stormwater Control Ordinance (the Ordinance), so that prior to the completion of the improvements required by the Ordinance, _____, may obtain from the City of Fayetteville Engineering Division its approval of (check only one):
(insert principal / developer name)

❑ the subdivision plat(s) for _____.
(insert plat name being bonded)

❑ occupancy for _____ located at
(insert project name)
_____.
(insert project address)

This bond is in an amount determined by the City Engineering Staff/Certified Engineer to be sufficient to guarantee the installation of the improvements specified in the plans approved by the City of Fayetteville Engineering Division and which provide that the improvements shall be completed by the _____ day of _____, 20__.

The condition of this bond is such that if the Principal/Developer shall faithfully complete the specified improvements within the time period prescribed above and the City of Fayetteville Engineering Division has caused an inspection to be made, then the Principal/Developer must

request in writing the release of the security in accordance with the provisions set forth in Section 23-41 of the Fayetteville City Code. Once the City authorizes the release of the security, this bond shall be null and void and the Letter of Credit delivered to the City shall be returned to the Principal/Developer.

In the event the Letter of Credit expires while this bond is in effect, the Principal/Developer shall deliver to the City of Fayetteville a new Letter of Credit in the same principal amount as the Letter of Credit referred to above, or other security acceptable to the City of Fayetteville Attorney. The expiration of the Letter of Credit shall not affect the conditions of this bond.

In the event that the Principal/Developer defaults under its obligation to install the required improvements, the City of Fayetteville may complete these improvements using the funds available from the Letter of Credit. Said funds can be used to pay any and all expenses which may be incurred by the City as the result of actions taken by the City after default to require the Principal/Developer to complete the improvements or which may be incurred by the City in connection with the completion of the improvements by the City, including but not limited to construction costs, engineering supervision costs, mobilization costs, and legal fees. Upon completion of the improvements, the City shall refund any unused portion of the funds.

The Principal/Developer hereby stipulates and agrees that no modifications, conditions or omissions in or to the plans or specifications herein referred to or any extension of time shall in any way affect the agreement.

WITNESS our hands and seals this, the _____ day of _____, 20__.

_____
Principal/Developer

_____
Print

By: _____ (SEAL)
Title

Attest: _____

Appendix 6-2: Performance Guarantee Release Checklist (Form #SCO7)

City of Fayetteville North Carolina
ENGINEERING & INFRASTRUCTURE

PERFORMANCE GUARANTEE RELEASE CHECKLIST

PROJECT NAME: _____

NOTE: Performance securities are not available for release until <u>one year</u> after:

1) ***The issuance of a Certificate of Occupancy for commercial properties, or***
2) ***The conversion of an Erosion Control Measure to a Stormwater Management Facility in a single-family subdivision.***

- ❑ **Date: ____/____/____**
  - **Certificate of Occupancy**
  - **Conversion to BMP**
- ❑ **Operation and Maintenance Agreement recorded (must have been recorded prior to certificate of occupancy or final plat)**
- ❑ **Transfer of Maintenance Responsibilities Agreement recorded (if applicable)**
- ❑ **Drainage Easement / Access Easement recorded (appropriate references)**
- ❑ **Record Drawings and Engineer's Certification**
  - **Hard copy – prior to Final Inspection**
  - **Digital**
- ❑ **Annual Inspection Report after first year**
- ❑ **Request for release of performance guarantee in writing**
- ❑ **Escrow Account of 15% / Maintenance Fund of 20% (for single-family subdivisions only)**
- ❑ **Final Inspection of BMP by the City**
- ❑ **Payment of BMP Inspection Fee**
- ❑ **City Engineer's Approval**

_____ _____
City Engineer Date

Additional Comments:

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

Appendix 6-3: Approval for Bond Release Form (Form #SCO8)

ENGINEERING & INFRASTRUCTURE

FINAL
BOND RELEASE FORM

BOND FILE #:_____ AMOUNT: $ _____

BOND TYPE: LETTER OF CREDIT _____ SURETY_____ CASH_____

PROJECT NAME: _____
(AS IT APPEARS ON BOND LIST)

COVERAGE: (LOT & BLOCK #) _____

_____

****

We the undersigned, have made a Final Inspection on the above project, and have found **ALL WORK** to be completed in accordance with the approved plans, and the City of Fayetteville Stormwater Control Ordinance requirements:

We recommend the bond covering this project be released:

_____ _____
Construction Management Inspector Date

_____ _____
City Engineer Date

BOND RELEASE INFORMATION

_____ _____
Principal/Developer Phone #

_____ _____
Company Name FAX #

_____
Address

_____ _____ _____
City State Zip

To be picked up: _____ To be mailed: _____

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

Appendix 7-1: Stormwater Control Ordinance and Storm Drainage Record Drawing Requirements (Form #SCO9)

CITY OF FAYETTEVILLE
Engineering and Infrastructure Department

Stormwater Control Ordinance and Storm Drainage Record Drawing Requirements

Two (2) copies of plans must be signed and sealed by a North Carolina licensed professional as outlined in Section 23-35 of the Ordinance and certified by the designer that the completed project and record drawing plans are in compliance with approved stormwater management plans and designs and the requirements of the Stormwater Control Ordinance. Mylars are not required but the submitted plans must be clearly identified as "Record Drawings".

Please note that in single-family residential subdivisions where the stormwater management facility initially functions as an erosion control measure, it will be necessary to provide a record drawing survey and certification letter at the completion of the drainage system minus the BMP. After the erosion control measure is converted to a stormwater management facility, it will be necessary to provide a record drawing survey and certification letter for the BMP only.

Storm Drainage Pipe and Inlet Information

- ❑ Slopes
- ❑ Pipe length and size
- ❑ Pipe material
- ❑ Pipe location
- ❑ Inlet rim elevations
- ❑ Invert elevations
- ❑ Verify special requirements (such as Class IV pipe or o-ring joints)

Storm Drainage Ditch Information

- ❑ Typical cross-section for all designed ditches. Indicate location of changes if cross-section varies from the typical

Water Quality Facilities[(1)]

- ❑ BMP Type (Wet detention basin, Stormwater Wetlands, Bioretention, etc.)
- ❑ BMP Name (Project or subdivision name – BMP Type – Number) as shown on plat
- ❑ Field location
- ❑ State plane coordinates of each water quality facility and structure
- ❑ Wet detention basin elevation for high water mark (full pond)
- ❑ Surface area and depth
- ❑ Length of swales
- ❑ Elevations of all outlet structures
- ❑ Size of all discharge features
- ❑ Verify existence of drawn-down valves, when required
- ❑ Spillway and weir cross-sections
- ❑ Areas of planted vegetation (planted shelf, etc.)
- ❑ Plant substitutions, if applicable

Stream Setbacks

- ❑ Major creek name
- ❑ Top of bank labeled (field located)
- ❑ Setback delineation (30 feet, 50 feet, 75 feet)

Digital Submittal

- ❑ Submit City software compatible file of record drawing condition (CAD (*.dwg) is required and GIS shape file if available)

(1) Record drawings shall show the final design specifications for all BMPs and the field location, size, depth, and areas of planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the record drawing stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this Ordinance.

Comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Appendix 7-2: Notification of Record Drawing Approval and Digital Submittal Requirement (Form #SCO10)

City of Fayetteville North Carolina
ENGINEERING & INFRASTRUCTURE

DATE

(Insert delivery method, US MAIL, CERTIFIED, ELECTRONIC MAIL, or FACSIMILE)
NAME AND TITLE OF PRIMARY POINT OF CONTACT
Company Name
Mailing Address

Re: **PROJECT NAME**
Notice of Requirement for Digital Submittal and Payment of BMP Inspection Fee
City of Fayetteville Stormwater Control Ordinance
Permit # _____

Dear **NAME OF PRIMARY POINT OF CONTACT**:

Please be advised that a review has been completed of record drawings and a site inspection conducted on (**INSPECTION DATE**) revealing that the above referenced project is in satisfactory compliance with approved plans and specifications. To satisfy Stormwater Control Ordinance requirements, you must provide this Office with a digital submittal of the record drawings as a separate City software compatible file. It is requested that this digital submittal be provided by _____ (30 calendar days). The digital submittal must be provided to the City Engineer's office. A digital file for the project shall be provided based on NC GRID with all BMPs shown. For this record drawing digital submittal, NAD 1983 (*tied to the North Carolina State Plane Coordinate System*) shall be the projection delivery format and shall include the following layers:

- Name, location, size, and elevation (NAVD 88) of the BMPs actually constructed
- Location and elevation (NAVD 88) of stormwater infrastructure inlets
- Location and elevation (NAVD 88) of stormwater infrastructure outlets

The locations for BMPs, and Storm Sewer System Inlets and Outlets shall be supplied as North Carolina State Plane X- and Y-coordinates. The title block and engineer's seal / signature do not need to be submitted electronically.

Along with the digital submittal, please provide payment of the City's BMP Inspection Fee which is (**INSERT FEE**) per BMP. With a total of _____ (number of BMPs) BMPs for the above referenced project, please submit a payment of _____ (total fee).

If you fail to provide the digital record drawing submittal, bonds shall be withheld and certificates of occupancy shall not be released. In addition, a failure to provide digital files is a violation of the Ordinance and is subject to penalties.

If you have any questions, please give me a call at (910) 433-1656.

Sincerely,

_____
City Engineer

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

Appendix 7-3: Notice of Site Compliance (Form #SCO11)

ENGINEERING & INFRASTRUCTURE

DATE

NAME AND TITLE OF PRIMARY POINT OF CONTACT
Company Name
Mailing Address

Re: **PROJECT NAME**
Notice of Site Compliance
City of Fayetteville Stormwater Control Ordinance
Permit # _____

Dear **NAME OF PRIMARY POINT OF CONTACT**:

Please be advised that a review has been completed of record drawing plans and a site inspection conducted on (**INSPECTION DATE**) revealing that the above referenced project is in satisfactory compliance with plans and specifications and the requirements of the City of Fayetteville Stormwater Control Ordinance. In order to ensure continued compliance with Ordinance requirements, all structural best management practices (BMPs) must be maintained in accordance with the recorded Operation and Maintenance Agreement and attached Maintenance Plan. The City of Fayetteville Stormwater Control Ordinance requires that all BMPs be inspected by a qualified professional as outlined in Section 23-38 of the Ordinance on an annual basis. An inspection report must be completed for each BMP indicating the status of each item inspected and any maintenance that was conducted. Maintenance that was not completed but is planned should include a timeline for completion. The inspection report must be completed on the forms provided by my Office. The first inspection report must be submitted to my Office no later than one (1) year following the BMP's final approval date and each year thereafter. Therefore, the inspection reports should be submitted no later than (**INSERT DATE**) of each year. After inspections and maintenance have been performed, a copy of the Maintenance and Inspection Checklist shall be forwarded by the owner to my Office within two (2) weeks of the inspection. The owner of the BMP shall keep records of inspections, maintenance, and repairs for at least five (5) years from the date of creation of the record and shall submit the same upon reasonable request by this Office.

If you have any questions, please give me a call at (910) 433-1656.

Sincerely,

_____
City Engineer

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

Appendix 7-4: Notice of Site Non-Compliance (Form #SCO12)

ENGINEERING & INFRASTRUCTURE

DATE

CERTIFIED MAIL (RETURN RECEIPT REQUIRED)
NAME AND TITLE OF PRIMARY POINT OF CONTACT
Company Name
Mailing Address

Re: **PROJECT NAME**
Notice of Site Noncompliance
City of Fayetteville Stormwater Control Ordinance
Permit # _____

Dear **NAME OF PRIMARY POINT OF CONTACT**:

Please be advised that a review has been completed of record drawings and a site inspection conducted revealing that the above referenced project is in noncompliance with the requirements of the City of Fayetteville Stormwater Control Ordinance as specified below:
1.

2.

3.

In order to bring the site into compliance with Ordinance requirements, it shall be necessary to complete the following on or before **DATE**:
1.

2.

3.

Please be advised that the City of Fayetteville Stormwater Control Ordinance provides for penalties up to the maximum allowed by law. Each day of continuing violation shall constitute a separate violation. Additionally, if a bond, letter of credit or other such security has been posted with this office, then **SUCH SECURITY MAY BE FORFEITED** at our request because of your continuing violation of the Ordinance. You shall be advised if penalties are assessed or securities forfeited.

Please contact me at (910) 433-1656 if you have any questions.

Sincerely,

_____
City Engineer

Form #SCO12

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

Appendix 8-1: Stormwater Control Ordinance Compliance Checklist

Stormwater Control Ordinance
Compliance Checklist

The following must be confirmed for verification of compliance with Stormwater Control Ordinance requirements.

Project Name: _____

Project Address: _____

Owner's Name: _____

Owner's Address: _____

Date of Compliance Verification: _____

Inspector: _____

Best Management Practices (BMPs) for Water Quality and Peak Control

- ❑ Record drawing survey properly completed and sealed as per Form #SCO9 (Appendix 7-1 in Administrative Manual)
- ❑ Engineer's certification stating that the stormwater facilities have been constructed as per the approved Stormwater Design Plan and specifications
- ❑ Installation of BMP(s) in full compliance with Ordinance requirements (field verification required)
- ❑ Complete the attached forms for the BMP(s) used for compliance with Ordinance requirements
- ❑ Payment of BMP Inspection Fee

Recordations

- ❑ Final plat approved and recorded
- ❑ Operation and Maintenance Agreement and Maintenance Plan recorded for each BMP
- ❑ Transfer of Maintenance Responsibilities Agreement recorded (if applicable)
- ❑ Drainage Easement / Access Easement recorded (appropriate references)

Digital Submittal

- ❑ Record drawing plans submitted digitally as a separate file **after** the final inspection and approval of the project. A digital file for the project shall be provided based on NC GRID with all BMPs shown.

Comments:

_____

_____

_____

_____

_____

_____ _____

Signature **Date**

BMP Inspection Checklist
Wet Detention Basin
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Adequate maintenance access			
Clear of trash and debris			
Banks / surrounding areas mowed			
Unwanted vegetation present			
Littoral shelf (10-foot minimum)			
Condition & quantity of wetland plants			
Evidence of soil erosion on banks or contributing drainage areas and outlet			
Forebay present & sediment accumulation			
Condition of inlet pipes, dissipators and / or swale (cracks, leaks, sedimentation, woody vegetation)			
Condition of outlet orifice			
Condition of riser outlet, trash rack, outlet drain valve & dissipators			
Condition of spillway			
Condition of dam (i.e. leaks, holes, woody vegetation)			
Is pond at normal / permanent pool elevation?			
Property line setback of 10 feet			
Other (specify)			

Additional Comments:

_____
_____
_____
_____

_____ _____
Inspector's Signature **Date**

BMP Inspection Checklist
Dry Detention Pond
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Clear of trash and debris			
Banks / surrounding areas mowed			
Unwanted vegetation present			
Evidence of soil erosion on banks, contributing drainage areas or bottom of pond			
Forebay (if present) sediment inspection			
Sediment level in pond			
Condition of dissipater at inlets			
Condition of dissipater at outfall			
Condition of orifice / trash rack			
Condition of outlet			
Condition of inlet			
Condition of all valves, etc			
Evidence of standing water			
Condition of outlet structure (leaks, cracks, clogs, damage, etc.)			
Condition of spillway			
Condition of dam			
Other (specify)			

Additional Comments:

_____
_____
_____
_____
_____

_____ _____
Inspector's Signature **Date**

BMP Inspection Checklist
Stormwater Wetlands
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Adequate maintenance access			
Clear of trash and debris			
Banks / surrounding areas mowed			
Unwanted vegetation present			
Littoral shelf (10-foot minimum)			
Condition & quantity of wetland plants			
Evidence of soil erosion on banks or contributing drainage areas and outlet			
Forebay present & sediment accumulation			
Condition of inlet pipes, dissipators and / or swale (cracks, leaks, sedimentation, woody vegetation)			
Condition of outlet orifice			
Condition of riser outlet, trash rack, outlet drain valve & dissipaters			
Condition of spillway			
Condition of dam (i.e. leaks, holes, woody vegetation)			
Is pond at normal / permanent pool elevation?			
Low marsh & high marsh elevations verses permanent pool elevation			
Property line setback of 10 feet			
Other (specify)			

Additional Comments:

_____

_____

_____ _____

Inspector's Signature **Date**

BMP Inspection Checklist
Bioretention
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Clear of trash and debris			
Sodded side slopes			
Unwanted vegetation present			
Condition & quantity of plants			
Condition of mulch - Must be double hammered hardwood, 3 inches deep			
Evidence of soil erosion on banks or contributing areas			
Forebay sediment accumulation			
Evidence of sediment in bioretention cell			
Condition of dissipater at inlets			
Condition of dissipater at outfall			
Condition of pea gravel diaphragm			
Condition of inlet pipe or swale (cracks, leaks, sedimentation, woody vegetation)			
Condition of outlet / drop box			
Underdrain cleanout(s) present			
Presence of screen or other device to reduce outlet clogging			
Evidence of standing water			
Evidence of bypass			
P Index test results for soil media, required for bioretention BMPs used for TP removal (attach test results)			

Additional Comments:

_____

_____

_____ _____

Inspector's Signature **Date**

BMP Inspection Checklist
Sand Filter
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Clear of trash and debris			
Evidence of soil erosion around contributing areas			
Sediment level in sedimentation chamber			
Condition of filter media			
Debris screen present			
Condition of outlet			
Condition of inlets and grates			
Inspection of all valves, etc.			
Evidence of filter clogging			
Evidence of structural damage (leaks, cracks, etc)			
Evidence of odors			
Underdrain cleanout(s) present			
Observation manholes present (for underground BMPs)			
P Index test results for soil media, required for sand filter BMPs used for TP removal (attach test results)			
Other (specify)			

Additional Comments:

_____
_____
_____

_____ _____
Inspector's Signature **Date**

BMP Inspection Checklist
Infiltration Devices
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Clear of trash and debris			
Banks / surrounding areas mowed			
Unwanted vegetation present			
Evidence of soil erosion around contributing areas			
Forebay sediment accumulation			
Evidence of sediment in trench			
Condition of dissipater at inlets			
Pea gravel layer present			
Condition of dissipater at outfall			
Condition of stone or mulch			
Evidence of standing water			
Observation well present			
Condition of spillway			
Evidence of bypass			
Other (specify)			

Additional Comments:

_____
_____
_____
_____
_____

_____ _____
Inspector's Signature **Date**

BMP Inspection Checklist
Grassed Swales
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Ground cover well established			
Grass height (maintain 3-6 inch height)			
Unwanted vegetation present			
Ground cover well established			
Evidence of soil erosion in swale or contributing areas			
Sediment accumulation			
Condition of dispersion devices			
Minimum 2-foot flat bottom			
Maximum side slope of 3:1			
Length of channel or swale (minimum length of 100 feet)			
Maximum slope of 2% in direction of flow			
Check dam condition (if required)			
Underdrain cleanout(s) present, for grassed swales			
Other (specify)			

Additional Comments:

_____
_____
_____
_____
_____

_____ _____
Inspector's Signature **Date**

BMP Inspection Checklist
Level Spreader – Vegetative Filter Strip
[Note: a separate form must be used for each BMP]

Project Name: _____
BMP Name and Location: _____
Inspection Date: _____
Inspector: _____

Compliance Item	Satisfactory	Unsatisfactory	Comments
Record drawing survey prepared and reviewed			
Clear of trash and debris			
Grass height, if present (minimum 3-5 inch height)			
Condition of wooded buffer, if present			
Unwanted vegetation present			
Ground cover well established			
Evidence of soil erosion in filter strip and below dispersion device			
Evidence of standing water			
Evidence of bypass			
Check outlet pipes for clogging			
Sediment accumulation			
Sediment in gravel diaphragm (if present)			
Condition / functionality of dispersion devices			
Debris on dispersion devices			
Condition of check dams / forebay, if present			
Pea gravel diaphragm, if present			
Length of filter / wooded buffer strip (in direction of flow)			
Slope of filter / wooded buffer strip (max. of 8% for a filter strip and 5% for a wooded buffer strip)			
Other (specify)			

Additional Comments:

_____
_____
_____

_____ _____
Inspector's Signature **Date**

Appendix 8-2: Stormwater Control Ordinance Notice of Violation (NOV) Form (Form #SCO13)

ENGINEERING & INFRASTRUCTURE

DATE

CERTIFIED MAIL (RETURN RECEIPT REQUIRED)
NAME AND TITLE OF PRIMARY POINT OF CONTACT
Company Name
Mailing Address

Re: **PROJECT NAME**
Notice of Violation
City of Fayetteville Stormwater Control Ordinance
Permit # _____

Dear **NAME OF PRIMARY POINT OF CONTACT**:

On (**INSPECTION DATE**), an inspection conducted by the City of Fayetteville revealed that you and/or your firm is in violation of the Stormwater Control Ordinance as specified below.
1.

2.

3.

In order to bring the site into compliance with Ordinance requirements, it shall be necessary to complete the following on or before **DATE**:
1.

2.

3.

Please be advised that the Stormwater Control Ordinance provides for penalties up to the maximum allowed by law. Each day of continuing violation shall constitute a separate violation. Additionally, if a bond, letter of credit or other such security has been posted with this Office, then **SUCH SECURITY MAY BE FORFEITED** at our request because of your continuing violation of the Ordinance. You shall be advised if penalties are assessed or securities forfeited.

Please contact me at (910) 433-1613 if you have any questions.

Sincerely,

_____
(NAME OF INSPECTOR)

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

Appendix 8-3: Notice of Violation with Immediate Penalty (NOVP) Form (Form #SCO14)

ENGINEERING & INFRASTRUCTURE

DATE

CERTIFIED MAIL (RETURN RECEIPT REQUIRED)
NAME AND TITLE OF OWNER / DEVELOPER
Company Name
Mailing Address

Re: **PROJECT NAME**
Notice of Violation with Immediate Penalty
City of Fayetteville Stormwater Control Ordinance
Case # _____
Permit # _____ (if issued)

Dear **NAME OF OWNER / DEVELOPER**:

On (**INSPECTION DATE**), an inspection conducted by the City of Fayetteville revealed that you and/or your firm is in violation of the Stormwater Control Ordinance as specified below.
1.

2.

3.

In order to bring the site into compliance with Ordinance requirements, it shall be necessary to complete the following on or before **DATE**:
1.

2.

3.

The Stormwater Control Ordinance allows for immediate penalties of up to the maximum allowed by law for **(choose from the following: failure to submit a Infrastructure Permit application; performing activities without an approved Infrastructure Permit; obstructing, hampering or interfering with an authorized representative who is in the process of carrying out official duties; willful violation of the Ordinance; failure to install or maintain best management practices per the approved plan).** Since the penalty shall accrue for each day the site remains in violation, corrective action must be taken immediately. When corrective actions are completed, you must notify (**NAME OF INSPECTOR**) at (910) 433-1613 or by mobile phone at (**MOBILE #**) so that the work can be inspected. Another compliance inspection shall be conducted no later than (**INSERT DATE**). The penalty amount shall be determined after compliance has been attained and shall vary based upon aggravating and mitigating circumstances, including your willingness and urgency in correcting the

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

violation. You should not assume that the property is in compliance with Ordinance requirements until this Office has so notified you.

Additionally, if a bond, letter of credit or other such security has been posted with this Office, then such security may be forfeited at our request because of your continuing violation of the Stormwater Control Ordinance.

Please contact me at (910) 433-1656 if you have any questions.

Sincerely,

_____

City Engineer

Appendix 8-4: Continuing Notice of Violation (CNOV) Form (Form #SCO15)

ENGINEERING & INFRASTRUCTURE

DATE

CERTIFIED MAIL (RETURN RECEIPT REQUIRED)
NAME AND TITLE OF PRIMARY POINT OF CONTACT
Company Name
Mailing Address

Re: **PROJECT NAME**
Continuing Notice of Violation
City of Fayetteville Stormwater Control Ordinance
Case # _____
Permit # _____

Dear **NAME OF PRIMARY POINT OF CONTACT**:

On (**NOV DATE**), you received a Notice of Violation from the City of Fayetteville indicating that you and/or your firm is in violation of the Stormwater Control Ordinance as specified below.
1.

2.

3.

On **DATE**, an inspection was conducted at the above referenced site indicating that the violations have not been corrected. In order to bring the site into compliance with Ordinance requirements, it shall be necessary to complete the following on or before **DATE**:
1.

2.

3.

Corrective action must be taken immediately. Please be advised that because the violations were not corrected before the previously specified deadline, this matter has been referred for enforcement, and a *civil penalty* is being considered. Penalties are assessed from the date the violations were noted until all violations are corrected and the site is brought into compliance with the Stormwater Control Ordinance. When corrective actions are completed, you should notify (**NAME OF INSPECTOR**) at (910) 433-1613 or by mobile phone at (**MOBILE #**) so that the site can be inspected. Another compliance inspection shall be conducted no later than (**INSERT INSPECTION DATE**). You should not assume that the property is in compliance with the Ordinance until this Office has so notified you.

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

Additionally, if a bond, letter of credit or other such security has been posted with this Office, then such security may be forfeited at our request because of your continuing violation of the Stormwater Control Ordinance.

Please contact me at (910) 433-1656 if you have any questions.

Sincerely,

_____

City Engineer

Appendix 8-5: Stormwater Control Ordinance Penalty Assessment Guide (Form #SCO16)

Stormwater Control Ordinance
Penalty Assessment Guide

Internal Use Only

Adjustments to Daily Fine

• Failure to Obtain Permit:	Up to $5,000/day
• First Offense:	
Off-site impacts documented	$3,000/day
No off-site impacts documented	$1,000/day
• Second Offense (within 2 years):	
Off-site impacts documented	$5,000/day
No off-site impacts documented	$3,000/day
• Over Two Offenses (within 2 years)	
All violations	$5,000/day

Note: No adjustment shall be made for violations that damage protected waters or wetlands. Protected waters would include 303(d) listed streams and other waters with special State designation.

Adjustments to Number of Days of Noncompliance

The amount of a penalty is based on the amount of the daily fine multiplied by the number of days of noncompliance. The number of days of noncompliance is calculated by totaling the days from the day the violation was noted until the day compliance was achieved (count the day the violation was noted but not the compliance date). For example, if a violator received an NOV on the 10th, a CNOV on the 15th, and achieved compliance on the 20th, the total number of days of noncompliance is ten (10). The number of days of noncompliance shall be reduced as follows:

- Deduct days between when the NOV was sent and received by the responsible party's office if no verbal notification was given.
- Deduct for staff delays in the issuance of the CNOV (deduct each day beyond two (2) business days between reinspection and CNOV).
- Other days due to staff actions.
- Deduct days of inclement weather that delayed erosion control installation and maintenance or restoration of damaged areas (only if weather is the actual cause of the delay).
- Holidays: two (2) days for the Fourth of July, Thanksgiving and Christmas unless the owner or contractor was negligent in taking responsible steps to protect the site before the holiday.

Restoration

In addition to the charges specified above, the owner/developer/builder may also be required to restore damaged property, including streams, wetlands, lakes and other surface waters. The penalty can also be increased to reflect costs saved by noncompliance.

Appendix 8-6: Stormwater Control Ordinance Penalty Assessment Worksheet (Form #SCO17)

Stormwater Control Ordinance
Penalty Assessment Worksheet

Project Name: _____
Location(s): _____
Owner / Developer: _____
Date of Notice of Violation: _____
Deadline for Compliance: _____
Date of Continuing Notice of Violation: _____
Date of Compliance: _____
Number of Days from Initial Violation to Compliance Date: _____
Adjustment in Violation Days due to Circumstances beyond Owner / Developer's Control: ____
Explanation for Adjustment: _____
_____
_____

Per Day Penalty Amount:

- Failure to Obtain Permit: Up to $5,000/day

- First Offense:
  Off-site impacts documented $3,000/day
  No off-site impacts documented $1,000/day

- Second Offense (within 2 years):
  Off-site impacts documented $5,000/day
  No off-site impacts documented $3,000/day

- Over Two Offenses (within 2 years)
  All violations $5,000/day

  Note: No adjustment shall be made for violations that damage protected waters or wetlands. Protected waters would include 303(d) listed streams and other waters with special State designation.

If necessary, include an explanation of aggravating and mitigating circumstances on the back of this sheet.
Did violator save money through non-compliance? If so, how much: _____

Total Penalty = _____ days x $_____ penalty per day = $_____.

_____ _____
Signature of Authorized Person Date

Appendix 8-7: Stormwater Control Ordinance Penalty Assessment Checklist (Form #SCO18)

Stormwater Control Ordinance Penalty Assessment Checklist

The following information must be contained in a penalty assessment file for all Stormwater Control Ordinance penalty assessments. These files should contain the following information in the order listed below from the back of the file to the front:

- ☐ Inspection Reports
- ☐ Pictures (showing violations and compliance) – All pictures must be dated
- ☐ Notices of Violation (NOV)
- ☐ Continuing Notices of Violation (CNOV)
- ☐ Notice of Violation with Immediate Penalty (NOVP) – Signed by City Engineer
- ☐ Penalty Worksheet
- ☐ Penalty Assessment Guide
- ☐ Notice of Compliance with Penalty (NOCP) – Signed by City Engineer
- ☐ Documentation of Penalty Assessment Conference
- ☐ Request for Remission of the Civil Penalty
- ☐ Check for Payment of Penalty

Note: All notices are to be sent certified mail. In the file, return receipts must be attached to all notices verifying that the notice was received.

Appendix 8-8: Notice of Compliance and Penalty (NOCP) Form (Form #SCO19)

ENGINEERING & INFRASTRUCTURE

DATE

CERTIFIED MAIL (RETURN RECEIPT REQUIRED)
NAME AND TITLE OF PRIMARY POINT OF CONTACT
Company Name
Mailing Address

Re: **PROJECT NAME**
Notice of Compliance/Penalty
City of Fayetteville Stormwater Control Ordinance
Case # _____
Permit # _____

Dear **NAME OF PRIMARY POINT OF CONTACT**:

Pursuant to the attached Notice of Violation (NOV), an inspection of the subject project was made by the City of Fayetteville on (**DATE OF INSPECTION**). The inspection revealed that the actions required by the attached NOV have been completed, which brings the site into compliance with the Stormwater Control Ordinance.

The attached NOV establishes (**DATE**) as the initial date of the violation. A subsequent inspection found the site to be in compliance on (**DATE**), resulting in a delinquent period of (**NUMBER**) days. Please be advised that a civil penalty has been assessed against (**OWNER / DEVELOPER**) in the amount of $(**AMOUNT**) per day for (**NUMBER**) days for a total of $(**AMOUNT**) for the aforementioned violation of the Stormwater Control Ordinance.

The undersigned, as City Engineer and acting by authority delegated by the City of Fayetteville, has assessed this penalty pursuant to the Stormwater Control Ordinance. In determining the amount of the penalty, the following aggravating and mitigating factors have been taken into account.

- The effect and extent of harm, if any, of the violation:
  (**LIST EFFECTS, POSSIBLY INCLUDING SEDIMENT IN WATER SUPPLY SURFACE WATERS, SEDIMENT IN SURFACE WATERS, OFF-SITE SEDIMENT, FISH KILL, ETC.**);
- The degree and extent of the violation:
  (**DESCRIBE SEVERITY INCLUDING SIZE, LOCATION, WATER SUPPLY WATERSHED, ETC.**);
- Weather conditions during the violation and their effect on efforts to bring the site into compliance:
  (**DESCRIBE WEATHER CONDITIONS THAT MAY HAVE AFFECTED REACHING COMPLIANCE**);

433 HAY STREET
FAYETTEVILLE, NC 28301-5537
(910) 433-1656/FAX: (910) 433-1058

- The amount of staff time employed to rectify the damage:
  (**COST AND TIME TO TAXPAYERS TO INSPECT AND PROCESS VIOLATION**);
- Whether the violators saved money by noncompliance:
  (**EVIDENCE OF MONEY SAVED**);
- Degree of cooperation and whether the violators took reasonable measures to bring the site into compliance:
  (**WAS THE VIOLATOR COOPERATIVE AND DELIBERATE IN ATTEMPTING TO CORRECT VIOLATIONS**);
- Whether the violation was committed willfully:
  (**EVIDENCE OF DISREGARD FOR NOVS, CNOVS, VERBAL COMMUNICATIONS, ETC.**);
- The prior record of the violator in complying or failing to comply with the Ordinance:
  (**CITE PREVIOUS CIVIL PENALTIES, CNOVS AND NOVS WITHIN THE LAST 24 MONTHS**).

Within thirty (30) days of receipt of this notice, you must:

1. Submit full payment of the assessed penalty in the form of a check payable to the City of Fayetteville; or
2. Submit a written request for a hearing before the City Council, including in your request a statement of the factual or legal issues in dispute. Relief from an adverse determination by the City Council is by appeal to the Superior Court of Cumberland County.

Before requesting a hearing, if you wish to discuss any additional facts which should have been considered by the City Engineer prior to assessment, or your inability to pay the penalty, please contact the City Engineer's office at (910) 433-1656.

Your payment or request for a hearing before the City Council should reference the Case Number from the first page of this letter. It should be mailed to:

City Engineer
Engineering & Infrastructure Department
City of Fayetteville
433 Hay Street
Fayetteville, NC 28301-5537

Please be aware that payment of the penalty shall not foreclose further enforcement action against any other continuing or new violations.

Failure to exercise one of the aforementioned options shall result in the initiation of civil action to collect the penalty. In addition, the City of Fayetteville may seek an injunction to prevent further activity at the site and/or criminal penalties against those persons responsible for the violations of the Stormwater Control Ordinance.

Sincerely,

_____

City Engineer
Attachments: (**ATTACHMENTS**)

Appendix 9-1: Notice of Appeal (Form #SCO20)

Notice of Appeal Request
Stormwater Control Ordinance

INSTRUCTIONS FOR FILING AN APPEAL

This Appeal must be filed within thirty (30) calendar days of receipt of an Assessment of a Civil Penalty, or within fifteen (15) calendar days of receipt of a Notice of Violation, Order of Restoration, Disapproval or Modification of Proposed Plan, or any decision, order, requirement, or determination relating to the interpretation or application of the Ordinance by the City Engineer. The applications are placed on the agenda according to the date they are received subject to the availability of parties concerned and other factors.

Copies of the Stormwater Control Ordinance are available from the City Engineer's office or on the Internet at: www.cityoffayetteville.org/stormwater.

It is necessary for the Appellant to complete every portion of this application form. Please read each item carefully and supply the information based upon your particular factual situation. Should you have any questions concerning the meaning of any portion of these questions, you may consult with the City Clerk. You will be contacted before your hearing date and given the date, time and place of the appeal hearing.

The City of Fayetteville shall comply with the American with Disabilities Act (ADA), which prohibits discrimination on the basis of disability. Anyone needing special accommodations when attending this meeting and/or if this information is needed in an alternative format because of a disability, please contact the City Clerk at least 72 hours prior to the meeting.

Appeal Hearing Notes

1. It is recommended that the appellant meet with City staff before the appeal hearing to negotiate a settlement. In many cases, this negotiation process is successful and less burdensome for all parties than an appeal hearing.
2. After hearing the appeal case, the City Council shall review the testimony and render a decision. This is usually done immediately following the hearing.
   - You may remain present during the deliberations, but no further testimony may be presented; or,
   - You may call the staff attorney after the hearing to receive the decision of the City Council.
3. All exhibits should be numbered and must remain with the City Council. Please hand them first to the City Clerk. You may show other materials, but do not hand them to the City Council unless you are prepared to leave them.
4. If you feel there is a conflict of interest of any member of the City Council, or an association that would prejudice your case, please let it be known at the start of your case.
5. This is a quasi-judicial proceeding for which only sworn testimony is accepted.
6. All appeal hearings held before the City Council are recorded and meeting minutes are prepared.

7. Any party aggrieved by the decision of the City Council with regard to the disapproval or modification of a Plan, issuance of a notice of violation, assessment of a civil penalty or order of restoration shall have thirty (30) days from the receipt of the decision of the City Council to file a petition for review in the nature of certiorari in Superior Court with the Clerk of Cumberland County Superior Court.

STORMWATER CONTROL ORDINANCE

REQUEST FOR APPEAL
TO THE CITY COUNCIL
FROM A DECISION
OF THE CITY STAFF

Date Filed:_____ Case Number:_____ Received By:_____

This Appeal must be filed within thirty (30) days of receipt of an Assessment of a Civil Penalty, or within fifteen (15) days of receipt of a Notice of Violation, Order of Restoration, Disapproval or Modification of Proposed Plan. The applications are placed on the agenda according to the acceptance date.

_____	)	
_____	)	
(print your name)	)	
	)	
PETITIONER,	)	
	)	
vs.	)	REQUEST FOR APPEAL
	)	
FAYETTEVILLE ENGINEERING AND	)	
INFRASTRUCTURE DEPARTMENT	)	
	)	
RESPONDENT.	)	

I hereby ask for a hearing as provided for by the Stormwater Control Ordinance to review the decision of City staff as stated in the:

- ☐ Assessment of a Civil Penalty
- ☐ Notice of Violation
- ☐ Order of Restoration
- ☐ Plan Disapproval or Modification
- ☐ Decision, Order, Requirement, or Determination relating to the interpretation of the Ordinance

dated: _____,

_____

for the property located at:

_____

(Address)

and activity known under the project name of:

_____

Briefly state facts showing how you believe you have been harmed by the City of Fayetteville.

_____

_____

_____

_____

_____

_____

_____

Parties involved in the land disturbing activities:

Owner _____

Developer / Builder _____

Contractor conducting the activity _____

Any changes in information on this application must be presented to the City Clerk at least seven days before the appeal hearing.

SIGNATURE PAGE

I certify that all of the information presented by me in this application is accurate to the best of my knowledge and belief.

_____
Signature of Applicant

_____
Type or print applicant's name

_____
Applicant's title

_____
Company Name

_____
Address

_____
City, State, Zip Code

_____
Date

_____
Telephone Number

_____
Fax Number

_____
Email Address

Appendix 9-2: Notice of Petition for Variance Request (Form #SCO21)

Notice of Petition for Variance Request
Stormwater Control Ordinance

INSTRUCTIONS FOR FILING A PETITION FOR VARIANCE

Instructions

1. **Fill out all forms completely**. Because the City Council must find evidence to support each of the questions/statements, the answer "not applicable" is generally not acceptable and shall delay your request. Incomplete applications cannot be accepted.

2. In order for the City Council to grant a variance, **a land hardship must be demonstrated**. Only the following conditions shall constitute a hardship (all three must be met):

   a. The difficulty or hardship would result only from these regulations and from no other cause, including the actions of the owner or previous owners of the property; and

   b. The difficulty or hardship is peculiar to the property in question and is not generally shared by other properties in the same neighborhood and/or used for the same purposes; and

   c. The difficulty or hardships resulting from the application of these regulations would prevent the owner from securing a reasonable return or making a reasonable use of the property. The fact that the property could be utilized more profitably or conveniently with the variance than without the variance shall not be considered as grounds for granting the variance.

Checklist

☐ If applicable, attach a copy of your permit or plan review comments if this variance resulted from a permit or plan denial.

☐ A survey or to scale site plan must be included. The survey or site plan should include:
- all existing buildings and structures on the property
- all easements for streets, utilities, driveways and others
- all proposed improvements should be drawn on the survey or site plan to scale
- shade in the map to highlight the portion of the improvements that are subject to the requested variance (i.e. for a setback variance, the portion of the structure beyond the setback line)

☐ Nonrefundable filing fee of $500

Additional Information:

1. If construction has started, no further work shall be done on those portions of the project in violation of the Stormwater Control Ordinance.

2. If this variance request is a result of a Notice of Violation, no further enforcement action shall be taken until the City Council makes a decision regarding your case.

3. Once a case has been heard, the City Council may not hear the same case again unless it finds there have been substantial changes in the conditions or circumstances relating to the matter.

Variance Hearing Notes:

1. After hearing the variance case, the City Council shall review the testimony and render a decision. This is usually done immediately following the hearing.
    - You may remain present during the deliberations, but no further testimony may be presented; or,
    - You may call the staff attorney after the hearing to receive the decision of the City Council.
2. All exhibits should be numbered and must remain with the City Council. Please hand them first to the City Clerk. You may show other materials, but do not hand them to the City Council unless you are prepared to leave them.
3. If you feel there is a conflict of interest of any member of the City Council, or an association that would prejudice your case, please let it be known at the start of your case.
4. This is a quasi-judicial proceeding for which only sworn testimony is accepted.
5. All variance hearings held before the City Council are recorded and meeting minutes are prepared.
6. Any party aggrieved by the decision of the City Council with regard to the petition for variance shall have thirty (30) days from the receipt of the decision of the City Council to file a petition for review in the nature of certiorari in Superior Court with the Clerk of Cumberland County Superior Court.

Notice of Petition for Variance Request – Form #1
City Council

Stormwater Control Ordinance

Date Filed:_____ Case Number:_____ Received By:_____

INSTRUCTIONS FOR FILING A PETITION FOR VARIANCE

This form must be filled out completely. Please attach the appropriate additional form depending on your request type along with required information as outlined in the appropriate checklist. Please type or print legibly. All property owners must sign and consent to this application, attach additional sheets if necessary. If the application is not the owner, the owners must sign the Designation of Agent section at the bottom of this form.

The Applicant Hereby requests a variance from the provisions of the Stormwater Control Ordinance as stated on Form #2.

Applicant or Agent's Name:_____

Mailing Address:_____

City, State, Zip:_____

Daytime Telephone:_____ Home Telephone:_____

Interest in this Case (Please circle one): Owner Adjacent Owner Other

Property Owner(s) [if other than applicant/agent]:_____

Mailing Address:_____

City, State, Zip:_____

Daytime Telephone:_____ Home Telephone:_____

Property Address:_____

Tax Parcel Number:_____ Zoning District:_____

Subdivision Name:_____ Conditional District: YES NO

Applicant Certification and Designation of Agent

I (we) certify that the information in this application, the attached form(s) and documents submitted by me (us) as part of this application are true and correct. In the event any information given is found to be false, any decision rendered may be revoked at any time. I (we) hereby appoint the person named above as my (our) agent to represent me (us) in this application and all proceedings related to it. I (we) further certify to have received, read and acknowledged the information and requirements outlined in this packet.

_____	_____
Property Owner	Date
_____	_____
Property Owner	Date

Notice of Petition for Variance Request – Form #2
City Council

Stormwater Control Ordinance

Date Filed:_____ Case Number:_____ Received By:_____

Has work started on this project? YES ☐ NO ☐
If yes, did you obtain a building permit? YES ☐ NO ☐ If yes, attach a copy.
Have you received a Notice of Violation for this project? YES ☐ NO ☐ If yes, attach a copy.
Has this property been rezoned? YES ☐ NO ☐ If yes, Petition Number: _____

(1) What section numbers from the Stormwater Control Ordinance are you seeking a variance from? Please list each section, the requirement and the requested variance.

Item	Code Section	Code Requirement	Variance Request
A			
B			
C			
D			
E			

(2) Please describe why the variances requested are necessary.

(3) <u>THERE ARE PRACTICAL DIFFICULTIES OR UNNECESSARY HARDSHIPS IN THE WAY OF CARRYING OUT THE STRICT LETTER OF THE ORDINANCE</u>. The courts have developed three rules to determine whether, in a particular situation, "practical difficulties of unnecessary hardships" exist. State facts and arguments in support of each of the following:

(a) If the property owner/applicant complies with the provisions of the Ordinance, the property owner can secure no reasonable return from, or make no reasonable use of his property. (It is <u>not</u> sufficient that failure to grant the variance simply makes the property less valuable.)

(b) The hardship of which the Applicant complains results from unique circumstances related to the Applicant's land. (Note: Hardships common to an entire neighborhood, resulting from overly restrictive ordinance requirements, should be referred to the City Staff. Also, unique personal or family hardships are irrelevant since a variance, if granted, runs with the life of the land.)

(c) The hardship is not the result of the Applicant's own actions.

(4) THE VARIANCE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE AND PRESERVES ITS SPIRIT. (State facts and arguments to show that the requested variance represents the least possible deviation from the letter of the Ordinance to allow a reasonable use of the land; and, that the use of the property, if the variance is granted, shall not substantially detract from the character of the neighborhood.)

(5) THE GRANTING OF THE VARIANCE SECURES THE PUBLIC SAFETY AND WELFARE AND DOES SUBSTANTIAL JUSTICE. (State facts and arguments to show that, on balance, if the variance is denied, the benefit to the public shall be substantially outweighed by the harm suffered by the Applicant.)

Appendix 10-1: Stormwater Control Ordinance

NOTE: The Stormwater Control Ordinance in the following Appendix is that which was approved by the Fayetteville City Council on February 13, 2012. Ordinances by their very nature are dynamic and subject to change from time to time. Thus, the Stormwater Control Ordinance in the following Appendix has been included primarily as a quick reference and may or may not be the most current. The most current Stormwater Control Ordinance along with all City of Fayetteville ordinances can be found at the Municode website www.municode.com. Thus, you are strongly encouraged to always visit this website if you have any questions regarding the most current requirements as contained in the Stormwater Control Ordinance. If there is a conflict between the following and the Stormwater Control Ordinance located on the Municode website, the Ordinance on the Municode website will rule.

ARTICLE III. - STORMWATER CONTROL

Sec. 23-20. - Title, purpose, application.
Sec. 23-21. - Definitions.
Sec. 23-22. - Scope of article.
Sec. 23-23. - Powers of the department.
Sec. 23-24. - Exemptions from requirements.
Sec. 23-25. - Scope of stormwater design plans.
Sec. 23-26. - Stormwater design plans and approval process.
Sec. 23-27. - Plan requirements.
Sec. 23-28. - Plan hydrologic criteria.
Sec. 23-29. - Plan land use conditions criteria.
Sec. 23-30. - Plan wetlands criteria.
Sec. 23-31. - Minimum stormwater quantity control requirements.
Sec. 23-32. - Minimum stormwater quality control requirements.
Sec. 23-33. - Approval and permit requirements.
Sec. 23-34. - Building permit or street plan approval suspension and revocation.
Sec. 23-35. - Professional registration requirements.
Sec. 23-36. - Fees.
Sec. 23-37. - Construction and inspection.
Sec. 23-38. - Ownership and maintenance of stormwater management facilities.
Sec. 23-39. - Operation and maintenance agreement.
Sec. 23-40. - Inspection program.
Sec. 23-41. - Performance guarantee for installation.
Sec. 23-42. - Notice to owners; deed recordation and indications on plat.
Sec. 23-43. - Records of installation and maintenance activities.
Sec. 23-44. - Variances from requirements.
Sec. 23-45. - Appeals.
Sec. 23-46. - Enforcement.
Sec. 23-47. - Relationship to other laws, regulations, and private agreements.
Sec. 23-48. - Severability.
Sec. 23-49. - Effective date.

Sec. 23-20. - Title, purpose, application.

(a) The provisions of this article shall constitute and be known as the "Stormwater Control Ordinance of Fayetteville, North Carolina".

(b) The purpose of this article is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse effects of the increase in stormwater quantity and the stormwater runoff quality associated with both future land development and consideration of existing developed land within the City of Fayetteville. Proper management of the quantity and quality of stormwater runoff will minimize damage to public and private property, prevent personal damage and bodily harm, ensure a functional drainage system, reduce the effects of development on land and stream channel erosion, promote the attainment and maintenance of water quality standards, enhance the local environment associated with the drainage system, reduce local flooding, and maintain as nearly as possible the predeveloped runoff characteristics of the area, and facilitate economic development while mitigating associated flooding and drainage impacts. Additionally, the purpose of this article is to comply with the post construction stormwater requirements as per the city's NPDES stormwater discharge permit.

(c) Further, the Federal Water Pollution Control Act of 1972 ("Clean Water Act") and federal Phase II Stormwater Rules promulgated under it, as well as rules of the North Carolina Environmental Management Commission promulgated in response to federal Phase II requirements, compel certain urbanized areas, including this jurisdiction, to adopt minimum stormwater controls such as those included in this article.

(d) The application of this article and the provisions expressed herein, shall be the minimum stormwater management requirements and shall not be deemed a limitation or repeal of any other powers granted by state statute. In addition, if site characteristics indicate that complying with these minimum requirements will not provide adequate designs or protection for local property or residents, it is the designer's responsibility to exceed the minimum requirements as necessary. The city engineer or designee shall be responsible for the coordination and enforcement of the provisions of this article.

(e) Compliance with all applicable local, state, and federal regulations and permits shall be the responsibility of the applicant. Other stormwater regulations to consider when complying with this article include, but are not limited to, the following:

(1) Water supply watershed regulations, chapter 29 of this Code of Ordinances;

(2) Federal wetland permits;

(3) Water quality certifications; and

(4) Sediment and erosion control requirements.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-21. - Definitions.

For the purpose of this article, the following terms, phrases, and words, and their derivatives, shall have the meaning given herein:

Adequate channel shall mean a natural or manmade channel or pipe which is capable of conveying the runoff from the design storm events without flooding existing structures or causing property damage.

Best management practice (BMP) shall mean a wide range of management procedures, schedules of activities, prohibitions on practices, and other management practices which have been demonstrated to effectively control the quality and/or quantity of stormwater runoff and which are compatible with the planned land use.

Built-upon area shall mean that portion of a development project that is covered by impervious or partially impervious surface including, but not limited to, buildings; pavement and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. Built-upon area does not include a wooden slatted deck, the water area of a swimming pool, or pervious or partially pervious paving material to the extent that the paving material absorbs water or allows water to infiltrate through the paving material.

City shall mean the City of Fayetteville, North Carolina.

City clerk shall mean the City Clerk of the City of Fayetteville, North Carolina, or his/her designee.

City council shall mean the duly elected Governing Body of the City of Fayetteville, North Carolina.

City engineer shall mean the City Engineer of the City of Fayetteville, North Carolina, or his/her designee.

City engineering and infrastructure department shall mean the Engineering and Infrastructure Department of the City of Fayetteville, North Carolina.

City manager shall mean the City Manager of the City of Fayetteville, North Carolina, or his/her designee.

Cross-drain culvert shall mean a structure designed to convey a watercourse under a roadway, railway, pedestrian walk, or through an embankment.

Design report shall mean the report that accompanies the stormwater design plan and includes data used for engineering analysis, results of all analysis, design and analysis calculations (including results obtained from computer programs), and other engineering data that would assist the city engineer in evaluating proposed stormwater management facilities.

Design storm events shall mean the frequency storm used for the design of stormwater management facilities.

Designer shall mean a registered professional who is permitted to prepare plans and studies required by this article.

Detention structure shall mean a permanent stormwater management structure whose primary purpose is to temporarily store stormwater runoff and release the stored runoff at controlled rates.

Developed land use conditions shall mean the land use conditions according to the current city land use map or proposed site plan. Also, the conditions which exist following the completion of the land disturbing activity in terms of topography, vegetation, land use and rate, quality, volume or direction of stormwater runoff.

Development shall (to the extent permitted by law) mean any of the following actions undertaken by a public or private individual or entity:

(1) All land altering activities associated with the division of a lot, tract, or parcel of land into two or more lots plots, sites, tracts, parcels or other divisions by plan or deed;

(2) The construction, installation, or alteration of a structure, impervious surface, or drainage facility;

(3) Any land change including, without limitation to, clearing, tree removal, grubbing, stripping, dredging, grading, excavating, transporting and filling of land; or

(4) Adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging, or otherwise disturbing the soil, vegetation, and mud, sand or rock of a site.

Easement shall mean a grant or reservation by the owner of land for the use of such land by others for a specific purpose or purposes, and which must be included in the conveyance of land affected by such easement.

Erosion shall mean the process by which ground surface is worn away by the action of wind and/or water.

Exemption shall mean those development activities that are not subject to the stormwater requirements contained in this article.

Existing land use condition shall mean the land use conditions existing at the time the design plans are submitted for approval.

FEMA-designated floodplain shall mean the 100-year floodplain shown on the most current FEMA flood insurance rate map or flood boundary and floodway map. This shall include both the detailed 100-year floodplain which shows a 100-year flood elevation and the approximate 100-year floodplain.

Functional maintenance shall mean any action necessary to preserve stormwater management facilities in proper working condition, in order to serve the intended purposes set forth in this article, and to prevent structural failure of such facilities. Functional maintenance shall not include actions taken solely for the purpose of enhancing the aesthetics aspects associated with stormwater management facilities.

Grading shall mean excavating, filling (including hydraulic fill), or stockpiling of earth material, or any combination thereof, including the land in its excavated or filled condition.

Impervious shall mean the condition of being impenetrable by water.

Imperviousness shall mean the degree to which a site is impervious.

Infiltration shall mean the passage or movement of water into the soil subsurface.

Interior culvert shall mean a culvert that is not located under a roadway, railway, or pedestrian walk.

Maintenance (as relates to BMPs or other stormwater management facilities). See "functional maintenance" or "routine maintenance".

100-year frequency storm shall mean a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in one 100 years. It also

may be expressed as an exceedance probability with a one percent chance of being equaled or exceeded in any given year.

On-site stormwater management shall mean the design and construction of a facility necessary to control stormwater runoff within and for a single development.

One-year frequency storm shall mean a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in one year. It also may be expressed as an exceedance probability with a 100 percent chance of being equaled or exceeded in any given year.

Predevelopment conditions shall mean those which existed on the site at the time this article became effective.

Preliminary plat shall mean the preliminary plat of a subdivision submitted pursuant to the subdivision regulations of the city.

Pervious pavement shall mean concrete and asphalt paving materials that allow for infiltration of stormwater into a storage area with void spaces that provide temporary storage.

Record drawings shall mean a set of engineering or site drawings that delineate the specific permitted stormwater management facility(ies) as actually constructed.

Redevelopment shall mean any development on previously developed land, other than a rebuilding activity that results in no net increase in built-upon area and provides equal or greater stormwater control than the previous development.

Regional stormwater management shall mean the design and construction of a facility necessary to control stormwater runoff for more than one development.

Regulated floodplain shall mean the floodplain area designated by FEMA regulations or designated by the city.

Retention structures shall mean a permanent structure whose primary purpose is to permanently store a given volume of stormwater runoff. Release of the given volume is by infiltration and/or evaporation.

Routine maintenance shall mean any action to enhance the aesthetics aspects associated with stormwater management facilities. Routine maintenance shall include actions such as grass cutting, trash removal, and landscaping.

Site shall mean any lot, plot, parcel or tract of land.

Stormwater design plan shall mean the set of drawings and other documents that comprise all of the information and specifications for the drainage systems, structures, concepts and techniques that will be used to control stormwater as required by this article. Also included are the supporting engineering calculations and results of any computer analysis.

Stormwater management shall mean the collection, conveyance, storage, treatment and disposal of stormwater runoff in a manner to minimize accelerated channel erosion, increased flood damage, and/or degradation of water quality and in a manner to enhance and ensure the public health, safety, and general welfare which shall include a system of vegetative or structural measures, or both, that control the increased volume and rate of stormwater runoff caused by manmade changes to the land.

Stormwater management facilities shall mean those structures and facilities that are designed for the collection, conveyance, storage, treatment and disposal of stormwater runoff into and through the drainage system. This includes all stormwater quantity and quality facilities.

Stormwater runoff shall mean the direct response of a watershed to precipitation and includes the surface and subsurface runoff that enters a ditch, stream, storm drain, or other concentrated flow during and following precipitation.

Subdivision shall mean that which is defined in chapter 25, Subdivisions, of this Code of Ordinances; and G.S. 160A-376.

Ten-year frequency storm shall mean a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in ten years. It may also be expressed as an exceedance probability with a ten percent chance of being equaled or exceeded in any given year.

Thoroughfare shall mean all numbered routes and all roads with four or more travel lanes.

25-year frequency storm shall mean a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in 25 years. It may also be expressed as an exceedance probability with a four percent chance of being equaled or exceeded in any given year.

Variance shall mean the modification of the minimum stormwater management requirements for specific circumstances where strict adherence of the requirements would result in practical difficulties or undue hardship and not fulfill the intent of this article.

Water quality shall mean those characteristics of stormwater runoff that relate to the physical, chemical, biological, or radiological integrity of water.

Water quantity shall mean those characteristics of stormwater runoff that relate to the rate and volume of the stormwater runoff to downstream areas resulting from land disturbing activities.

Watershed shall mean the drainage area contributing stormwater runoff to a single point.

Wetland shall mean those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal

circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include swamps, marshes, bogs, and similar areas as determined by the U.S. Army Corps of Engineers.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-22. - Scope of article.

(a) No person shall develop any land without having provided for appropriate stormwater management measures that control or manage stormwater runoff, in compliance with this article, unless exempted in section 23-24 below.

(b) The provisions of this article shall apply throughout the incorporated areas in the City of Fayetteville, North Carolina.

(c) The city engineering and infrastructure department shall be responsible for the coordination and enforcement of the provisions of this article, and shall have the authority to enforce this article in accordance with the enforcement provisions.

(d) The application of this article and the provisions expressed herein shall be the minimum stormwater management requirements and shall not be deemed a limitation or repeal of any other local requirements authorized by state statute. Where other requirements are more stringent those shall apply. This article does not eliminate the necessity for obtaining other permits as may be required by other governmental entities.

(e) This article shall apply to both public and privately owned or maintained drainage systems, and stormwater management facilities.

(f) *Map*. The provisions of this article shall apply within the areas designated on the map titled “Stormwater Map of Fayetteville, North Carolina”, which is adopted simultaneously herewith. The Stormwater Map and all explanatory matter contained thereon accompanies and is hereby made a part of this article.

The Stormwater Map shall be kept on file by the city engineer and shall be updated to take into account changes in the land area covered by this article and the geographic location of all stormwater management facilities permitted under this article. In the event of a dispute, the applicability of this article to a particular area of land shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-23. - Powers of the department.

(a) The city engineering and infrastructure department shall have the power to administer and enforce all regulations and procedures adopted to implement this article, including the right to maintain an action or procedure in any court of competent jurisdiction to compel compliance with or restrain any violation of this article, and to enforce the provisions of this article in accordance with its enforcement provisions.

(b) The city engineering and infrastructure department can:

(1) Administer, coordinate, and oversee design, construction, and operation and maintenance of city stormwater facilities and conveyances;

(2) Implement or oversee implementation of development standards and guidelines;

(3) Determine the manner in which stormwater facilities should be operated;

(4) Inspect private systems which discharge to a public drainage system;

(5) Require compliance with maintenance requirements;

(6) Advise the other city departments on issues related to stormwater;

(7) Protect facilities and properties controlled by the city and prescribe how they are used by others; and

(8) Require proposed developments, not exempt from this article, to comply with the terms of this article.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-24. - Exemptions from requirements.

The following development activities are exempt from the provisions of this article and the requirements of providing stormwater management measures. Even if exempt from this article, the following as well as all development activity is not allowed to divert water to adjacent property to cause a nuisance and/or property damage and should comply with the intent of this article.

(1) Construction or improvement of a single-family residence (single-family residence - separately built) or their accessory buildings that is separately built and not part of multiple construction or a subdivision development approved under this article and that cumulatively disturbs less than one acre. If included in a subdivision plan, all development activities must follow the stormwater management plan that has been approved for the subdivision.

(2) New developments that do not include more than 20,000 square feet of impervious area in total and that cumulatively disturb less than one acre.

(3) New construction to existing development that does not include more than 2,000 square feet of new impervious area and that cumulatively disturbs less than one acre. If the new construction to existing development exceeds 2,000 square feet of new impervious area but the total impervious area for the property does not exceed 5,000 square feet of impervious area and that cumulatively disturbs less than one acre, the development shall also be exempt.

(4) Land disturbing activities for agricultural uses.

(5) Land disturbing activities undertaken on forest land for the production and harvesting of timber and timber products where all of the following occur:

a. The growing of trees;

b. The harvesting of timber, leaves, or seeds;

c. The regeneration of either timely replanting of trees or natural generation;

d. The application of applicable "best management practices", including the N.C. Department of Environment and Natural Resources "Forest Practice Guidelines Related to Water Quality"—Title 15A North Carolina Administrative Code subchapter 11, sections 1.010—.0209 and all successor documents; and

e. A forest management plan is prepared or approved either by a professional forester registered in the State of North Carolina or by the Division of North Carolina Forest Resources. Copies of the forest management plan shall be provided to the city upon request.

(6) Land disturbing activities for which a permit is required under the Mining Act of 1972; G.S. Ch. 74, Article 7.

(7) Projects which commenced prior to the application of this article, such as:

a. Approved subdivisions and site plans. However, if the approved subdivision or site plan is modified or changed after the effective date of this article, the proposed development would have to comply with all requirements of this article in its entirety.

b. Projects which have an outstanding unexpired valid building permit in compliance with either G.S. 160A-422 or G.S. 153A-357 or have an outstanding unexpired valid soil erosion permit in compliance with G.S. 160A-458; provided that, upon application of any impervious surfaces, the exemption based on a valid soil erosion permit shall not apply.

c. Projects which have obtained a state permit, such as landfills and land application of residuals.

d. Projects which have continuing vested rights in compliance with G.S. 160A-385.1 or G.S. 153A-344.1.

Phased developments do not constitute separate developments and the total area of all phases will be used to determine exemption requirements.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-25. - Scope of stormwater design plans.

(a) The following items relate to the general scope of plans required by this article:

(1) In developing plans for subdivisions, individual lots in a residential development shall not be considered to be separate development activities and shall not require individual permits. Instead the subdivision development, as a whole, shall be considered to be a single development activity. Hydrologic parameters that reflect the ultimate subdivision development shall be used in all engineering calculations.

(2) For developments that have different planned phases of development, if all phases are covered by the approved stormwater design plan, one permit will be given for the entire development so that new permits will not be needed for each phase of development.

(b) In subdivisions, lots should generally be graded in such a manner that surface runoff does not cross more than two lots before it is collected in a system of open channels, closed conduits, or a combination of both.

(c) For all development activities, concentrated stormwater runoff leaving a development site must be discharged directly into a well-defined, natural or manmade off-site receiving channel or pipe. If the receiving channel or pipe is found to be inadequate, the developer must incorporate measures to either improve the receiving channel or pipe to an adequate condition, or detain/retain runoff on the site to a level that can be accommodated by the receiving channel or pipe. Newly constructed channels or pipes shall be designed as adequate channels or pipes.

The development site should be designed to maximize the amount of rainfall that infiltrates into the soils and minimize the amount of direct flow into public drainage facilities, adjoining streets, waterbodies, watercourses, and wetlands, to the extent feasible.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-26. - Stormwater design plans and approval process.

(a) Unless granted an exemption from this article, a stormwater design plan (as part of the construction plans) for each development activity shall be submitted for review by the city engineer for the entire development activity, or any portion thereof. If granted an exemption from this article, those development activities are still required to submit a stormwater design plan for review by the city engineer to ensure that all other city minimum requirements have been satisfied.

(b) *Permit required*. A stormwater permit is required for all development and redevelopment unless exempt pursuant to this article. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to the administrative manual.

(c) *Consultation meeting*. A land owner or developer may request a consultation meeting with the city engineer to review and discuss the stormwater management system to be utilized in a proposed *development* project. The purpose of the meeting(s) is to discuss any questions for stormwater management measures necessary for the

proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering commences.

(d) All stormwater design plans as required by this article shall be submitted to the city engineering and infrastructure department for review and approval. The applicant shall submit three copies of the final plans. Within 30 calendar days from and after receipt of the plans, the city engineer shall issue a decision approving, rejecting, or conditionally approving the plans with modifications. The review and approval time frames for all subsequent submittals on the same plans, if required, shall be 15 calendar days.

(e) All preliminary plats of the development shall be consistent with the stormwater design plan required in subsection (a) of this section.

(f) Should any stormwater design plan involve any stormwater management facilities or land to be dedicated to public use, the same information shall also be submitted for review and approval to the department having jurisdiction over the land or other appropriate departments or agencies identified by the city engineer for review and approval. This stormwater design plan shall serve as the basis for all subsequent construction.

(g) A stormwater design plan shall not be considered approved without the inclusion of an approval stamp with a signature and date on the plans. The stamp of approval on the plans is solely an acknowledgement of satisfactory compliance with the requirements of these regulations. The approval stamp does not constitute a representation or warranty to the applicant or any other person concerning the safety, appropriateness, or effectiveness of any provision, or omission from the stormwater design plan.

(h) Following approval of stormwater design plans, an owner shall have a vested right to develop the property in accordance with the conditions of approval for two years. Extensions or renewals of the plan approvals may be granted by the city engineer upon written request by the person responsible for the development activity.

(i) All requirements for sites located in water supply watersheds as set forth in the Code of Ordinances must be met. In addition, all state and/or federal requirements such as U.S. Army Corps of Engineers wetland permits must be met, if required.

(j) Administrative manual. For applications required under this article, the city engineering and infrastructure department shall compile the application requirements, submission schedule, fee schedule, a copy of this article, and information on how and where to obtain the latest version of the "Stormwater Best Management Practices Manual" as provided by the North Carolina Division of Water Quality in an Administrative Manual, which shall be made available to the public.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-27. - Plan requirements.

Stormwater design plans shall include as a minimum the following:

(1) A vicinity map indicating a north arrow, scale, boundary lines of the site, and other information necessary to locate the development site.

(2) The maximum scale shall be one inch equals 100 feet.

(3) The existing and proposed topography of the development site except for individual lot grading plans in single-family subdivisions. Profiles of proposed streets in single-family subdivisions shall be provided showing existing and proposed grades.

(4) Physical improvements on the site, including present development and proposed development.

(5) Location, dimensions, elevations, and characteristics of all existing and proposed stormwater management facilities.

(6) Stormwater design plans shall include designation of all easements needed for inspection and emergency maintenance of the stormwater management facilities along with those easements needed for the maintenance of the drainage system conveying public water. As a minimum, easements shall have the following characteristics:

a. Provide adequate access to all stormwater management facilities for inspection and emergency maintenance. Provide a minimum 20-foot permanent maintenance access easement from a public or private right-of-way to all stormwater management facilities. Provide a minimum 10-foot permanent drainage easement around the perimeter of all stormwater management facilities. The perimeter shall be the edge of facilities such as sand filters or bioretention areas. For wet and dry extended detention basins and similar facilities, the perimeter shall be the top of bank where the stormwater is stored. Any fences constructed around such facilities shall be outside of the 10-foot permanent drainage easement.

b. Provide adequate access to all parts of the public drainage system and structures.

c. Provide a minimum 20-foot easement for closed pipe systems. The required easement width shall be computed as follows:

Width = 10 feet + (the diameter or total outside width for multiple pipes) + (2 times the invert depth).

The easement width should be rounded to the nearest five-foot increment.

Drainage easements associated with culverts should be centered over the culvert but may be offset as long as a minimum of ten feet is provided on both sides.

d. Provide easements centered on watercourses with the minimum widths based on the following:

Easement Widths for Open Channels

Drainage Area, acres	Easement Width, feet
< 10 acres	10 feet on each side
10 to < 25 acres	20 feet on each side
25 to < 50 acres	30 feet on each side
50 to < 100 acres	40 feet on each side
> 100 acres	Greater of the floodway width or 50 feet

e. Restriction on easements shall include prohibiting all fences without gates and structures which would interfere with access to the easement areas and/or the maintenance function of the drainage system. If an obstruction (fence, wall, landscaping, etc.) is located in a drainage easement and inhibits access to the drainage system, the city shall remove the obstruction as necessary but will not be obligated to replace it.

(7) In subdivisions where a stormwater management facility serves more than one lot, the facility shall be located on a separate lot that is owned by the homeowner association. This lot shall have a minimum frontage of 20 feet.

(8) The stormwater design plan shall include all engineering calculations needed to design the system and associated structures including existing and developed velocities, peak rates of discharge, and hydrographs of stormwater runoff at all existing and proposed points of discharge from the site.

(9) Description of site conditions around points of all surface water discharge including vegetation and method of flow conveyance from the development activity.

(10) Construction and design details for structural controls.

(11) If there are FEMA-designated floodplains, they must be shown. All construction in the FEMA-designated floodplain must conform to chapter 12, Flood Damage Prevention, of this Code of Ordinances. A separate floodplain submittal may be required.

(12) A plan for maintenance of privately owned stormwater management facilities shall be included as part of the stormwater design plan which as a minimum shall specify the following:

a. Types of maintenance activities which should be anticipated so that the proposed drainage system and stormwater management facilities will operate as designed.

b. The frequency and amount of maintenance that should be anticipated.

c. The equipment that will be required to perform the needed maintenance.

d. Name, address, and telephone number of the party responsible for maintenance.

Section 23-39 outlines the requirements for the operation and maintenance agreement which must be executed on all privately owned stormwater management facilities. The city shall provide a standard agreement for this purpose.

(13) Any existing wetlands on the property shall be delineated on both the stormwater design plan as well as the final plat.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-28. - Plan hydrologic criteria.

(a) The hydrologic criteria to be used for the stormwater design plans shall be as follows:

Description	Design Storm
Permanent Storage Facilities	1 and 10
Roadway Inlets	5-year
Swales	10-year
Storm Drainage Systems	10-year
Open Channels	25-year
Culverts (Subdivision streets)	25-year
Culverts (Thoroughfare roads)	50-year
Emergency Spillways	100-year
Energy Dissipaters	Same as Outlet System

(b) All hydrologic analysis will be based on land use conditions as specified in section 23-29, below.

(c) For the design of storage facilities, a secondary outlet device or emergency spillway shall be provided to discharge the excess runoff in such a way that no danger of loss of life or facility failure is created.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-29. - Plan land use conditions criteria.

For all stormwater management facilities, a hydrologic-hydraulic study shall be done showing how the drainage system will function with the proposed facilities. For such studies the following land use conditions shall be used.

(1) For the design of the facility outlet structure, use developed land use conditions for the area within the proposed development and existing land use conditions for upstream areas draining to the facility.

(2) For any analysis of flood flows downstream from the proposed facility, use existing land use conditions for all downstream areas.

(3) All stormwater management facilities, emergency spillways shall be checked using the 100-year storm and routing flows through the facility and emergency spillways. For this analysis, developed land use conditions representing ultimate build-out conditions shall be used for all areas draining to the facility.

(4) The effects of existing upstream detention facilities can be considered in the hydrologic-hydraulic study only if such facilities have been constructed and maintained, as detention facilities, as required by this article.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-30. - Plan wetlands criteria.

Wetland areas shall not be disturbed until documentation is provided to the city engineer to show that the applicant has received approval from the U.S. Army Corps of Engineers regarding appropriate permits and approval of development activities. Stormwater design plans shall not be approved until this documentation has been provided to the city engineer. The city does have the option of providing conditional approval of the stormwater design plans that stipulate the documentation shall be provided prior to any disturbance of wetland areas.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-31. - Minimum stormwater quantity control requirements.

(a) Install stormwater management facilities to limit the one-year and ten-year developed peak discharge rates to predeveloped peak discharge rates or to the amount that can be accommodated by the receiving downstream drainage system, whichever is more restrictive.

(b) Watersheds that have well documented water quantity problems may have more stringent, or modified, design criteria [such as controlling the 25-year developed peak discharge rate to the predeveloped peak discharge rate] determined by the city engineer that is responsive to the specific needs of that watershed.

(c) Stormwater management facilities may include both structural and nonstructural elements. Natural swales and other natural runoff conduits shall be retained where practicable.

(d) Stormwater design plans can be rejected by the city engineer if they incorporate structures and facilities that are not easily maintained.

(e) The drainage system and all stormwater management structures within the city (including both public and private portions) will be designed to the same engineering and technical criteria and standards. The design and construction must be sealed by a registered professional (as outlined in section 23-35) as meeting or exceeding public drainage system standards. The city engineering and infrastructure department's review

will be the same whether the portion of the drainage system will be under public or private control or ownership.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-32. - Minimum stormwater quality control requirements.

(a) *General standards.* All development and redevelopment to which this article applies shall comply with the standards of this section.

(b) *Development standards for low-density projects.* Low-density projects shall comply with each of the following standards:

(1) No more than two dwelling units per acre or 24 percent built-upon area.

(2) Stormwater runoff from the development shall be transported from the development by vegetated conveyances to the maximum extent practicable.

(3) Built-upon area shall be at a minimum of 30 feet landward of all perennial and intermittent surface waters draining less than or equal to 640 acres. Built-upon area shall be at a minimum of 75 feet landward of all perennial and intermittent surface waters draining greater than 640 acres. This distance shall be measured from the top of bank on both sides of the perennial and intermittent surface waters. For all perennial and intermittent surface waters, constructed BMPs shall be located at a minimum of 30 feet landward. A perennial or intermittent surface water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using division of water quality approved methodology.

(4) The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as a recorded deed restriction or protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

(5) A project with an overall density at or below the low-density thresholds, but containing areas with a density greater than the overall project density, may be considered low density as long as the project meets or exceeds the post construction model practices for low-density projects and locates the higher density in upland areas and away from surface waters and drainageways to the maximum extent practicable.

(c) *Development standards for high-density projects.* A project not consistent with the requirements for a low-density project may be permitted as a high-density project and shall implement stormwater control measures that comply with each of the following

standards:

(1) The measures shall control and treat runoff from the first inch of rain. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.

(2) High-density projects must discharge the storage volume at a rate equal to or less than the predevelopment discharge rate for the one year, 24-hour storm.

(3) All structural stormwater treatment systems used to meet these requirements shall be designed to have a minimum of 85 percent average annual removal for Total Suspended Solids (TSS).

(4) For BMPs that require a separation from the seasonal high water table, the separation shall be provided by at least 12 inches of naturally occurring soil above the seasonal high water table.

(5) General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c).

(6) Built-upon area shall be at a minimum of 50 feet landward of all perennial and intermittent surface waters draining less than or equal to 640 acres. Built-upon area shall be at a minimum of 75 feet landward of all perennial and intermittent surface waters draining greater than 640 acres. This distance shall be measured from the top of bank on both sides of the perennial and intermittent surface waters. For all perennial and intermittent surface waters, constructed BMPs shall be located at a minimum of 30 feet landward. A perennial or intermittent surface water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using division of water quality approved methodology.

(7) The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as a recorded deed restriction or protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

(d) *Standards for stormwater control measures.*

(1) *Evaluation according to contents of Stormwater Best Management Practices Manual.* All stormwater control measures and stormwater treatment practices required under this article shall be evaluated by the city engineer according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the latest version of the "Stormwater Best Management Practices Manual" as provided by the North

Carolina Division of Water Quality. The city engineer shall determine whether proposed BMPs will be adequate to meet the requirements of this article.

(2) *Determination of adequacy; presumptions and alternatives.* Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the latest version of the "Stormwater Best Management Practices Manual" as provided by the North Carolina Division of Water Quality will be presumed to meet the minimum water quality and quantity performance standards of this article. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the latest version of the "Stormwater Best Management Practices Manual" as provided by the North Carolina Division of Water Quality, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this article. The city engineer may require the applicant to provide the documentation, calculations, and examples necessary for the city engineer to determine whether such an affirmative showing is made.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-33. - Approval and permit requirements.

(a) No final site plan or subdivision plan approval shall be issued or modified without the following items:

(1) An approved stormwater design plan;

(2) An executed operation and maintenance agreement, if required, in accordance with section 23-39;

(3) The posting of an installation performance guarantee;

(4) An approved erosion control plan, if applicable;

(5) Right of entry given to the city for city personnel to enter property for emergency maintenance if necessary; and

(6) Any off-site easements needed.

(b) No final certificate of occupancy permit shall be issued pursuant to chapter 7 of this Code of Ordinances or final plat approved without the following:

(1) All final inspection requirements as per section 23-37 are met;

(2) Receipt of record drawings as outlined in section 23-37; and

(3) A recorded operation and maintenance agreement, if required, in accordance with section 23-39

(c) All land clearing, construction, development and drainage shall be done in accordance with the approved stormwater design plan or previously approved revisions.

(d) Submittal and/or approval of stormwater design plans does not preclude the applicant from obtaining all other necessary permits and compliance with appropriate regulations including, but not limited to, the following:

(1) Water supply watershed regulations, chapter 29 of this Code of Ordinances;

(2) Federal wetland permits;

(3) Water quality certifications; and

(4) Sediment and erosion control requirements.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-34. - Building permit or street plan approval suspension and revocation.

(a) The following conditions shall represent grounds for suspension and/or revocation for building permit(s) and/or street plan approval(s):

(1) Any violation(s) of the conditions of the stormwater design plan approval;

(2) Construction not in accordance with the approved plans;

(3) Approval of a stormwater design plan has not been obtained;

(4) Noncompliance with correction notice(s); or

(5) The existence of an immediate danger in a downstream area.

(b) If one or more of these conditions are found, a written notice of violation shall be served upon the owner or authorized representative and the time in which to correct the deficiencies shall be specified. The notice shall set forth the measures necessary to achieve compliance with the plan. Correction of these violations must be started immediately or the owner shall be deemed in violation of this article.

(c) If appropriate remedial actions as outlined in the written notice are not completed within the specified time period, a building permit or street plan approval will be suspended or revoked within seven days. The suspension or revocation will then be in force until the development is in compliance with this article.

(d) If a violation of this article is occurring that will cause significant damage to downstream property or structures, the city engineer can issue an immediate suspension or revocation.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-35. - Professional registration requirements.

(a) Stormwater design plans and design reports that are incidental to the overall or ongoing site design shall be prepared, and stamped/sealed by a qualified registered professional engineer, land surveyor or landscape architect, using acceptable

engineering standards and practices. All other stormwater design plans and design reports shall be prepared, and stamped/sealed by a qualified registered professional engineer, using acceptable engineering standards and practices.

(b) The engineer, surveyor, or landscape architect shall perform services only in areas of his/her competence, and shall undertake to perform engineering or land surveying assignments only when qualified by education and/or experience in the specific technical field. In addition, the engineer, surveyor, or landscape architect must verify that the plans have been designed in accordance with this article and the standards and criteria stated or referred to in this article.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-36. - Fees.

The initial fees associated with the operation of this article shall be set annually by city council as part of the annual budget ordinance, or by an amendment thereto. If no amendment to the prior year's fees is proposed or adopted by city council as part of the budget ordinance, then the prior year's fees shall continue in full force and effect. A list of the fees proposed at the enactment of this article for plan review and other fees associated with this article may be obtained from the city engineering and infrastructure department.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-37. - Construction and inspection.

(a) The owner or his representative shall notify the city engineer before commencing any work to implement the stormwater design plan, at key milestones noted during plan approval, and upon completion of the work.

(b) Any portion of the construction which does not comply with the stormwater design plan shall be promptly corrected by the permittee.

(c) The city engineer will notify the person responsible for the development activity in writing when violations are observed describing the following:

(1) Nature of the violation;

(2) Required corrective actions; and

(3) The time period for violation correction.

(d) A final inspection shall be conducted by the city engineer upon completion of the work included in the approved stormwater design plan to determine if the completed work is constructed in accordance with the plan.

(e) The permittee shall provide record drawings signed and sealed by a registered professional (as outlined in section 23-35) to be submitted upon completion of the stormwater management facilities included in the stormwater design plan. The record

drawings shall be referenced to North Carolina State Plane Coordinates and shall be provided in hard copy form as well as a digital file which is compatible with the city's software. The registered professional shall state on the record drawings that:

(1) The facilities have been constructed as shown on the record drawings; and

(2) The facilities meet the approved stormwater design plan and specifications.

(f) As a minimum, the record drawings shall contain the following:

(1) Mark through and redraw drainage structures when the as-built location deviates more than ten feet horizontally from the location indicated on the plans.

(2) Show all drainage structures, pipe inverts, and rim elevations.

(3) Show distances between drainage structures on the plan view as well as the profile.

(4) Show the final design specifications for all stormwater management facilities and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-38. - Ownership and maintenance of stormwater management facilities.

(a) All stormwater management facilities shall be privately owned and maintained unless the city accepts the facility for city ownership and maintenance. The owner thereof shall grant to the city a right of entry which allows for inspection and emergency repair, in accordance with the terms of the operation and maintenance agreement set forth in section 23-39, hereof.

(b) Single-family residential stormwater management facilities accepted for maintenance. The city shall accept functional maintenance responsibility of structural stormwater management facilities that are installed pursuant to this article following a warranty period of one year from the date of record-drawing certification described in section 23-37, or from the date the facility ceases to function as an erosion control measure and starts to function as a stormwater management facility, whichever is later, provided the stormwater management facility:

(1) Only serves a single-family detached residential development or townhomes all of which have public street frontage;

(2) Is satisfactorily maintained during the one-year warranty period by the owner or designee;

(3) Meets all the requirements of this article;

(4) Includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection, maintenance, repair, or reconstruction; and

(5) Prior to the release of the installation performance guarantee as outlined in section 23-41, the developer shall pay into a maintenance fund used to maintain such facilities in the future an amount equal to 20 percent of the initial construction cost of the stormwater management facilities related to detention ponds or other BMPs constructed to meet the requirements of this article.

The city engineer must receive an application for transfer of maintenance responsibilities for the structural stormwater management facility along with the stormwater design plan submittal.

(c) The person responsible for maintenance of any stormwater management facility installed pursuant to this article and not covered under subsection (b) above, shall submit to the city engineer an inspection report from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance. The inspection report shall contain all of the following:

(1) The name and address of the landowner;

(2) The recorded book and page number of the lot of each stormwater management facility;

(3) A statement that an inspection was made of all stormwater management facilities;

(4) The date the inspection was made; and

(5) A statement that all inspected stormwater management facilities are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this article.

All inspection reports shall be on forms supplied by the city engineer. An original inspection report shall be provided to the city engineer beginning one year from the date of record-drawing certification and each year thereafter on or before the date of the record-drawing certification.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-39. - Operation and maintenance agreement.

(a) *In general.* At the time record drawings are provided to the city engineer as described in section 23-37 and prior to final approval of a project for compliance with this article, but in all cases prior to placing the stormwater management facilities into service, the applicant or owner of the site must execute an operation and maintenance agreement that shall be binding on all current and subsequent owners of the site, portions of the site, and lots or parcels served by the stormwater management facility. Failure to execute an operation and maintenance agreement within the timeframe

specified by the city engineer may result in assessment of penalties as specified in section 23-46. For single-family residential subdivisions, the original owner or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement for a period of one year from the date of record-drawing certification described in section 23-37, or for a period of one year from the date the facility ceases to function as an erosion control measure and starts to function as a stormwater management facility, whichever is later. At the end of the one-year timeframe, the stormwater management facility shall be inspected as outlined in section 23-41 in order to release the performance guarantee. Once the stormwater management facility has passed inspection, primary responsibility for carrying out the provisions of the maintenance agreement shall be transferred to a homeowners' association, property owners' association, or similar entity. In cases where the city is accepting functional maintenance responsibility, such responsibility shall be transferred to the city once the stormwater management facility has passed inspection. A homeowners' association, property owners' association, or similar entity shall still be responsible for routine maintenance such as mowing the grass and picking up litter.

(1) The operation and maintenance agreement shall require the owner or owners to maintain, repair, and, if necessary, reconstruct the stormwater management facility, and shall state the terms, conditions, and schedule of maintenance for the stormwater management facility. In addition, it shall grant to the city a right of entry in the event that the city engineer has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the stormwater management facility; however, in no case shall the right of entry, of itself, confer an obligation on the city to assume responsibility for the stormwater management facility.

(2) The operation and maintenance agreement must be approved by the city engineer prior to final approval, and it shall be referenced on the final plat and shall be recorded with the Cumberland County Register of Deeds upon final plat approval. A copy of the recorded maintenance agreement shall be given to the city engineer within 14 days following its recordation.

(b) *Special requirement for homeowners' and other associations.* For all stormwater management facilities required pursuant to this article and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity in a single-family residential subdivision, the required operation and maintenance agreement shall include all of the following provisions:

(1) Acknowledgment that the association shall continuously operate and maintain the stormwater control and management facilities.

(2) Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the stormwater management facilities. If stormwater management facilities are not performing adequately or as intended or are not properly maintained, the city, in its sole discretion, may remedy the situation, and in such instances the city shall be fully reimbursed from the escrow account. Escrowed funds may be spent by the association for sediment removal, structural, biological

or vegetative replacement, major repair, and reconstruction of the stormwater management facilities.

(3) Both developer and homeowners' association contributions shall fund the escrow account. Prior to the release of the installation performance guarantee as outlined in Section 23-41, the developer shall pay into the escrow account an amount equal to 15 percent of the initial construction cost of the stormwater management facilities. Two-thirds (2/3) of the total initial construction cost shall be deposited into the escrow account within the first five years and the full amount shall be deposited within ten years following initial construction of the stormwater management facilities. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the escrow account budget.

(4) The percent of developer contribution and lengths of time to fund the escrow account may be varied by the city depending on the design and materials of the stormwater control and management facility.

(5) Granting to the city a right of entry to inspect, monitor, maintain, repair, and reconstruct stormwater management facilities.

(6) Allowing the city to recover from the association and its members any and all costs the city expends to maintain or repair the stormwater management facilities or to correct any operational deficiencies. Failure to pay the city all of its expended costs, after 45 days' written notice, shall constitute a breach of the agreement. In case of a deficiency, the city shall thereafter be entitled to bring an action against the association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both, in case of a deficiency. Interest, collection costs, and attorney fees shall be added to the recovery.

(7) A statement that this agreement shall not obligate the city to maintain or repair any stormwater management facilities, and the city shall not be liable to any person for the condition or operation of stormwater management facilities.

(8) A statement that this agreement shall not in any way diminish, limit, or restrict the right of the city to enforce any of its ordinances as authorized by law.

(9) A provision indemnifying and holding harmless the city for any costs and injuries arising from or related to the stormwater management facility, unless the city has agreed in writing to assume the maintenance responsibility for the stormwater management facility and has accepted dedication of any and all rights necessary to carry out that maintenance.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-40. - Inspection program.

(a) Inspections and inspection programs by the city may be conducted or established on any reasonable basis, including, but not limited to, routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, and material or water in stormwater management facilities; and evaluating the condition of stormwater management facilities.

(b) If the owner or occupant of any property refuses to permit such inspection, the city engineer shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2, or its successor. No person shall obstruct, hamper or interfere with the city engineer while carrying out his or her official duties.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-41. - Performance guarantee for installation.

(a) *Shall be required.* The city shall require the submittal of a performance guarantee or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in order to ensure that the stormwater management facilities are installed by the permit holder as required by the approved stormwater design plan.

(b) *Amount.* The amount of an installation performance guarantee shall be equal to at least 75 percent of the total estimated construction cost of the stormwater management facilities approved under the permit. The installation performance guarantee shall remain in place until at least one year after final approval. In cases where the facility initially functions as an erosion control measure, the installation performance guarantee shall remain in place until at least one year after the facility starts to function as a stormwater management facility.

(c) *Use of performance guarantee.*

(1) *Forfeiture provisions.* The performance guarantee shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or owner in accordance with this article, approvals issued pursuant to this article, or an operation and maintenance agreement established pursuant to this article.

(2) *Default.* Upon default of the owner to construct, maintain, repair and, if necessary, reconstruct any stormwater management facility in accordance with the applicable permit or operation and maintenance agreement, the city engineer shall obtain and use all or any portion of the guarantee to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the owner to comply with the permit or maintenance agreement.

(3) *Costs in excess of performance guarantee.* If the city takes action upon such failure by the applicant or owner, the city may collect from the applicant or owner the difference between the amount of the reasonable cost of such action and the amount of the guarantee held, in addition to any other penalties or damages due.

(4) *Refund.* No sooner than one year after final approval, the applicant may petition the city to release the value of the performance guarantee. For single-family residential subdivisions, the one-year timeframe shall be as outlined in section 23-39. Upon receipt of such petition, the city engineer shall inspect the stormwater management facility to determine whether the controls are performing as designed and intended. The city engineer shall present the petition, inspection report, and recommendations to the director of the city engineering and infrastructure department.

a. If the director of the city engineering and infrastructure department approves the report and accepts the petition, the city may release the installation performance guarantee upon execution by the applicant of an indemnification agreement in favor of the city which shall be a covenant upon the property and run with the land.

b. If the director of the city engineering and infrastructure department does not accept the report and rejects the petition, the director of the city engineering and infrastructure department shall provide the applicant with instruction to correct any deficiencies and all steps necessary for the release of the installation performance guarantee.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-42. - Notice to owners; deed recordation and indications on plat.

The applicable operations and maintenance agreement pertaining to every stormwater management facility shall be referenced on the final plat and shall be recorded with the Cumberland County Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the operations and maintenance agreement shall be recorded with the Cumberland County Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles. For condominiums, the operations and maintenance agreement shall be recorded with the association documents.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-43. - Records of installation and maintenance activities.

The owner of each stormwater management facility shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record of inspection and shall submit the same upon reasonable request to the city engineer.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-44. - Variances from requirements.

(a) The city council may grant a variance from the requirements of this article if:

(1) There are exceptional circumstances applicable to the site such that strict adherence to the provisions of this article will result in unnecessary hardship and not fulfill the intent of this article;

(2) The variance is in harmony with the general purpose and intent of this article; and

(3) In granting this variance, water quality has been protected, public safety and welfare has been assured, and substantial justice has been done.

(b) A written request for a variance shall be submitted to the city clerk and shall state the specific variance sought and the reasons, with supporting data, for their granting. The request shall include descriptions, drawings, calculations and any other information that is necessary to evaluate the proposed variance.

(c) The city engineer will conduct a review of the request for a variance and submit a report to the city council.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-45. - Appeals.

The disapproval or required modification of any proposed stormwater design plan, or the determination by the city of noncompliance, or failure to maintain shall entitle the aggrieved person to appeal this decision or lack of action to the city council. Such appeal must be made in writing to the city clerk and the city manager within 15 days of written notice of disapproval or modification of a stormwater design plan, or determination of either noncompliance or failure to maintain or within 30 days of the receipt of a notice of assessment of a civil penalty, made or rendered by the city engineer in the enforcement of this article.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-46. - Enforcement.

(a) *General.*

(1) *Authority to enforce.* The provisions of this article shall be enforced by the city engineer, his or her designee, or any authorized agent of the city. Whenever this section refers to the city engineer, it includes his or her designee as well as any authorized agent of the city.

(2) *Violation unlawful.* Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this article, or the terms or conditions of any permit or other development or redevelopment approval or authorization granted pursuant to this article, is unlawful and shall constitute a violation of this

article.

(3) *Each day a separate offense.* Each day that a violation continues shall constitute a separate and distinct violation or offense.

(4) *Responsible persons/entities.* Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair or maintain any structure, practice, or condition in violation of this article shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein, may include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this article, or fails to take appropriate action, so that a violation of this article results or persists; or an owner, any tenant or occupant, or any other person, who has control over, or responsibility for, the use or development of the property on which the violation occurs. For the purposes of this section, responsible person(s) shall include, but not be limited to:

a. *Person maintaining condition resulting in or constituting violation.* An architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this article, or fails to take appropriate action, so that a violation of this article results or persists.

b. *Responsibility for land or use of land.* The owner of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, development or redevelopment of the property.

(b) *Remedies and penalties.* The remedies and penalties provided for violations of this article, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

(1) *Remedies.*

a. *Withholding of certificate of occupancy.* The city engineer or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein. This remedy shall not apply to buildings in a single-family residential subdivision.

b. *Disapproval of subsequent permits and development approvals.* As long as a violation of this article continues and remains uncorrected, the city engineer or other authorized agent may withhold, and the city council may disapprove, any request for permit or development approval or authorization

provided for by this article or the zoning, subdivision, and/or building regulations, as appropriate, for the land on which the violation occurs.

c. *Injunction, abatements, etc.* The city engineer, with the written authorization of the city manager, may institute an action in a court of competent jurisdiction for a mandatory or prohibitory injunction and order of abatement to correct a violation of this article. Any person violating this article shall be subject to the full range of equitable remedies provided in the general statutes or at common law.

d. *Correction as public health nuisance, costs as lien, etc.* If the violation is deemed dangerous or prejudicial to the public health or public safety and is within the geographic limits prescribed by G.S. 160A-193, the city engineer, with the written authorization of the city manager, may cause the violation to be corrected and the costs to be assessed as a lien against the property.

(2) *Civil penalties.*

a. *Violations of article.* A violation of any of the provisions of this article or rules or other orders adopted or issued pursuant to this article may subject the violator to a civil penalty. A civil penalty may be assessed from the date the violation occurs. No penalty shall be assessed until the person alleged to be in violation has been notified of the violation. Refusal to accept the notice or failure to notify the city engineer of a change of address shall not relieve the violator's obligation to comply with this article or to pay such a penalty.

b. *Amount of penalty.* The civil penalty for each violation of this article may be up to the maximum allowed by law. Each day of continuing violation shall constitute a separate violation. In determining the amount of the civil penalty, the city engineer shall consider any relevant mitigating and aggravating factors including, but not limited to, the effect, if any, of the violation; the degree and extent of harm caused by the violation; the cost of rectifying the damage; whether the violator saved money through noncompliance; whether the violator took reasonable measures to comply with this article; whether the violation was committed willfully; whether the violator reported the violation to the city engineer; and the prior record of the violator in complying or failing to comply with this article or any other post construction article or law. The city engineer is authorized to vary the amount of the per diem penalty based on criteria specified in the administrative manual and based on relevant mitigating factors. Civil penalties collected pursuant to this article shall be credited to the city's general fund as nontax revenue.

c. *Notice of assessment of civil penalty.* The city engineer shall determine the amount of the civil penalty and shall notify the violator of the amount of the penalty and the reason for assessing the penalty. This notice of assessment of civil penalty shall be served by any means authorized under G.S. 1A-1, Rule 4, and shall direct the violator to either pay the assessment or file an appeal within 30 days of receipt of the notice as specified in subsection (2)e., below.

d. *Failure to pay civil penalty assessment.* If a violator does not pay a civil penalty assessed by the city engineer within 30 days after it is due, or does not request a hearing as provided in subsection (2)e., below, the city engineer shall request the initiation of a civil action to recover the amount of the assessment. The civil action shall be brought in Cumberland County Superior Court or in any other court of competent jurisdiction. A civil action must be filed within three years of the date the assessment was due. An assessment that is appealed is due at the conclusion of the administrative and judicial review of the assessment.

e. *Appeal of remedy or penalty.* The issuance of a notice of assessment of a civil penalty by the city engineer shall entitle the responsible party or entity to an appeal before the city council if such person submits written demand for an appeal hearing to the city clerk within 30 days of the receipt of a notice of assessment of a civil penalty. The demand for an appeal shall be accompanied by a filing fee as established by city council. The appeal of a notice of assessment of a civil penalty shall be conducted as described in section 23-45 of this article.

(3) *Criminal penalties.* A violation of this article may be enforced as a misdemeanor subject to the maximum fine permissible under North Carolina law.

(c) *Procedures.*

(1) *Authority to inspect.* The city engineer shall have the authority, upon presentation of proper credentials, to enter and inspect any land, building, structure, or premises to ensure compliance with this article, or rules or orders adopted or issued pursuant to this article, and to determine whether the activity is being conducted in accordance with this article and the approved stormwater design plan, and whether the measures required in the plan are effective. No person shall willfully resist, delay, or obstruct the city engineer while the city engineer is inspecting or attempting to inspect an activity under this article.

(2) *Notice of violation and order to correct.* When the city engineer finds that any building, structure, or land is in violation of this article, the city engineer shall notify in writing the responsible person/entity. The notification shall indicate the nature of the violation, contain the address or other description of the site upon which the violation occurred or is occurring, order the necessary action to abate the violation, and give a deadline for correcting the violation. The notice shall, if required, specify a date by which the responsible person/entity must comply with this article, and advise that the responsible person/entity is subject to remedies and/or penalties or that failure to correct the violation within the time specified will subject the responsible person/entity to remedies and/or penalties as described in this section of this article. In determining the measures required and the time for achieving compliance, the city engineer shall take into consideration the technology and quantity of work required, and shall set reasonable and attainable time limits. The city engineer may deliver the notice of violation and correction order personally, by the Fayetteville Police, by certified or registered mail, return receipt requested, or

by any means authorized for the service of documents by Rule 4 of the North Carolina Rules of Civil Procedure.

If a violation is not corrected within a reasonable period of time, as provided in the notification, the city engineer may take appropriate action under this article to correct and abate the violation and to ensure compliance with this article.

(3) *Extension of time.* A person who receives a notice of violation and correction order, or the owner of the land on which the violation occurs, may submit to the city engineer a written request for an extension of time for correction of the violation. On determining that the request includes enough information to show that the violation cannot be corrected within the specified time limit for reasons beyond the control of the person requesting the extension, the city engineer may extend the time limit as is reasonably necessary to allow timely correction of the violation, up to, but not exceeding 60 days. The city engineer may grant 30-day extensions in addition to the foregoing extension if the violation cannot be corrected within the permitted time due to circumstances beyond the control of the person violating this article. The city engineer may grant an extension only by written notice of extension. The notice of extension shall state the date prior to which correction must be made, after which the violator will be subject to the penalties described in the notice of violation and correction order.

(4) *Enforcement after time to correct.* After the time has expired to correct a violation, including any extension(s) if authorized by the city engineer, the city engineer shall determine if the violation is corrected. If the violation is not corrected, the city engineer may act to impose one or more of the remedies and penalties authorized by this article.

(5) *Emergency enforcement.* If delay in correcting a violation would seriously threaten the effective enforcement of this article or pose an immediate danger to the public health, safety, or welfare, then the city engineer may order the immediate cessation of a violation. Any person so ordered shall cease any violation immediately. The city engineer may seek immediate enforcement, without prior written notice, through any remedy or penalty authorized by this article.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-47. - Relationship to other laws, regulations, and private agreements.

(a) *Conflict of laws.* This article is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this article are in addition to the requirements of any other article, rule, regulation or other provision of law. Where any provision of this article imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human or environmental health, safety, and welfare shall control.

(b) *Private agreements.* This article is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this article are

more restrictive or impose higher standards or requirements than such an easement, covenant, or other private agreement, the requirements of this article shall govern. Nothing in this article shall modify or repeal any private covenant or deed restriction, but such covenant or restriction shall not legitimize any failure to comply with this article. In no case shall the city be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-48. - Severability.

If any term, requirement, or provision of this article or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this article or the application of such terms, requirements and provisions to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby and each term, requirement or provision of this article shall be valid and be enforced to the fullest extent permitted by law.

(Ord. No. S2008-020, § 1, 10-27-2008)

Sec. 23-49. - Effective date.

This article shall become effective on January 1, 2009.

(Ord. No. S2008-020, § 1, 10-27-2008)