CHARLOTTE

POST-CONSTRUCTION STORMWATER ORDINANCE

ADMINISTRATIVE MANUAL

July, 2016 Version

Charlotte-Mecklenburg STORM WATER Services

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1.0 GENERAL PROVISIONS

The City of Charlotte Post-Construction Stormwater Ordinance Administrative Manual, referred to hereafter as Administrative Manual, has been developed by the City of Charlotte Storm Water Administrator for the purpose of providing guidance and clarity for implementation of the Post-Construction Stormwater Ordinance within the City of Charlotte and its Extra-territorial Jurisdiction (ETJ). The Administrative Manual provides information such as applications, submittal checklists, maintenance agreements, inspection reports, maintenance schedules, application for appeals and variances, as well as other administrative activities.

Contact the City of Charlotte Storm Water Administrator for any additional information not provided in this manual or other questions concerning the Storm Water Management Permit Application.

A copy of this manual is available on the following website: http://stormwater.charmeck.org.

1.1 BACKGROUND

The Post-Construction Stormwater Ordinance, the Administrative Manual, and the Charlotte-Mecklenburg BMP Design Manual were adopted because it was determined that:

Development and Redevelopment alter the hydrologic response of local watersheds and increase storm water runoff rates and volumes, flooding, soil erosion, stream channel erosion, non-point source pollution, and sediment transport and deposition, as well as reduce groundwater recharge;

These changes in storm water runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology which are harmful to public health and safety as well as to the natural environment; and

These effects can be managed and minimized by applying proper design and well-planned controls to manage storm water runoff from Development and redevelopment.

Further, the Federal Water Pollution Control Act of 1972 (“Clean Water Act”) and federal Phase II Storm Water 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 the minimum storm water controls such as those included in this ordinance.

Therefore, these water quality regulations, water quantity regulations and associated manuals are adopted to meet the requirements of state and federal law regarding control of storm water runoff and discharge, as well as meeting locally defined goals of improving water quality throughout the jurisdiction.

1.2 PURPOSE

The purpose of this ordinance and the associated manuals 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 storm water runoff and non-point source pollution associated with Development and Redevelopment. It has been determined that proper management of construction-related and post-construction storm water 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.

1.3 IMPACTS OF STORM WATER ON WATER QUALITY

Storm water runoff from urban and developing areas is a major source of water pollution and water quality degradation in the City of Charlotte and the rest of Mecklenburg County. 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 storm water 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 storm water runoff entering surface waters. In the City of Charlotte and the rest of Mecklenburg County, even with our relatively impermeable clay soils, an inch of rainfall on an acre of forest does not generate a significant amount of 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 storm water runoff is generated by an inch of rainfall. In addition, this runoff typically enters surface waters through the piped storm water sewer system resulting in increased velocity. This increased volume and velocity of storm water 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 storm water runoff can also cause significant downstream flooding problems. The Post-Construction Stormwater Ordinance is designed to control storm water pollutants as well as increased storm water volume and velocity from new development and redevelopment so that water quality is protected and downstream flooding is reduced.

1.4 SPECIFIC OBJECTIVES

The ordinance seeks to meet its general purpose through the following specific objectives and means:

(1) Establishing decision-making processes for Development and Redevelopment that protect the integrity of watersheds and preserve the health of water resources;

(2) Minimizing changes to the pre-development hydrologic response for Development and Redevelopment in their post-construction state in accordance with the requirements of this ordinance for the applicable design storm in order to reduce flooding, streambank erosion, and non-point and point source pollution, as well as to maintain the integrity of stream channels, aquatic habitats and healthy stream temperatures;

(3) Establishing minimum post-construction storm water management standards and design criteria for the regulation and control of storm water runoff quantity and quality;

(4) Establishing design and review criteria for the construction, function, and use of structural storm water control facilities that may be used to meet the minimum post-construction storm water management standards;

(5) Establishing criteria for the use of better management and site design practices, such as the preservation of green space and other conservation areas;

(6) Establishing provisions for the long-term responsibility for and maintenance of structural and nonstructural storm water best management practices (BMPs) to ensure that they continue to function as designed, are maintained appropriately, and pose minimum risk to public safety; and

(7) Establishing administrative procedures for the submission, review, approval and disapproval of storm water management plans, for the inspection of approved projects, and to assure appropriate long-term maintenance.

1.5 APPLICABILITY AND JURISDICTION

(A) General

The requirements of this ordinance shall apply to all Development and Redevelopment within the corporate limits of this City and its extraterritorial jurisdiction, unless one of the following exemptions applies as of the effective date of this ordinance:

(1) Residential Development and Redevelopment, preliminary subdivision plan application or in the case of minor subdivisions, construction plan for required improvements, submitted and accepted for review;

(2) For nonresidential Development and Redevelopment, preliminary subdivision plan application submitted and accepted for review, provided that subdivision-wide water quality and quantity features required at the time of submittal are contained within the submittal and provided the plan is subsequently approved and all necessary easements are properly established;

(3) Zoning use application submitted and accepted for review for uses that do not require a building permit;

(4) Certificate of Building Code Compliance issued by the proper governmental authority;

(5) Valid building permit issued pursuant to G.S. § 153A-344 or G.S. § 160A-385(b)(i), so long as the permit remains valid, unexpired, and unrevoked;

(6) Common law vested right established (e.g., the substantial expenditure of resources (time, labor, money) based on a good faith reliance upon having received a valid governmental approval to proceed with a project); and/or

(7) A conditional zoning district (including those districts which previously were described variously as conditional district, conditional use district, parallel conditional district and parallel conditional use district) approved prior to the effective date of this ordinance, provided formal plan submission has been made and accepted for review either prior to 5 years from the effective date of this ordinance in the case of conditional zoning districts approved on or after November 15, 1999, or prior to 2 years from the effective date of this ordinance in the case of conditional zoning districts approved prior to November 15, 1999, and provided such plans encompass either a minimum of 22.5% of the area of the project, or any phase of a project so long as such phase is part of a project that includes project-wide water quality requirements to achieve 85% TSS removal from developed areas. If no such formal plan submission occurs within the above-described 5 or 2 year time frames, the requirements of this ordinance shall be applied to the project, except for total phosphorus removal, Natural Area and buffer requirements not in effect at the time of the approval of the conditional zoning district, all of which do not apply. Any changes to a conditional zoning district necessary to comply with the requirements of this ordinance shall be made through administrative amendment and not through a rezoning.

(B) Exemptions

The requirements of this ordinance shall not apply within the corporate limits or in the extraterritorial jurisdiction with respect to the following types of Development or Redevelopment activities:

(1) Residential Development and Redevelopment that cumulatively disturbs less than one acre and cumulatively creates less than 24% built upon area based on lot size or the lot is less than 20,000 square feet (lot must have been described by metes and bounds in a recorded deed prior to the effective date of the ordinance and cannot be part of a larger Development or Redevelopment);

(2) Commercial and industrial Development and Redevelopment that cumulatively disturbs less than one acre and cumulatively creates less than 20,000 square feet of built upon area (built upon area includes gravel and other partially impervious materials);

(3) Redevelopment that disturbs less than 20,000 square feet, does not decrease existing storm water controls and renovation and/or construction costs (excluding trade fixtures) do not exceed 100% of the tax value of the property; and

(4) Activities exempt from permit requirements of Section 404 of the federal Clean Water Act, as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities).

(C) No Development or Redevelopment Until Compliance and Permit

No development or redevelopment shall occur except in compliance with the provisions of the ordinance unless exempted. No development or redevelopment for which a Storm Water Management Permit, here after referred to as permit, is required pursuant to the ordinance shall occur except in compliance with the provisions, conditions, and limitations of said permit.

While it is important to provide water quality and quantity treatment when a site is redeveloped (most existing stream impairments are caused by runoff from existing impervious surfaces), it is also necessary for property owners to be able to maintain and upgrade existing structures and other facilities. It is also recognized that other ordinances may impact a site, and it is not the intent of this ordinance to be part of a "domino effect" generated by improving a façade to make a property more attractive or marketable. The purpose of the explanations below and the table in Appendix P are to give guidance on what is considered development, redevelopment, or maintenance in determining applicability of the Post-Construction Stormwater Ordinance.

Examples of development include the carrying out of any building activity that increases the amount of impervious area coverage (or BUA), such as the construction of buildings, parking areas or roads.

Redevelopment includes the demolition and reconstruction of a building, constructing a parking deck or other structure over an existing parking lot, or other exchange of existing impervious area with some other impervious area (or BUA). There are some situations where removing asphalt or other impervious surface may not be considered redevelopment but maintenance activities. Examples of maintenance activities include roof replacement, façade changes and pavement repair not associated with a larger redevelopment plan. Installation of underground utilities for existing developments and centers may be excluded from redevelopment requirements on a case by case basis.

A change in use of land or structure from a use within a specified category of use to another use in the same category or a change in the ownership or form of ownership of any parcel or structure are not considered development or redevelopment. Work involving the maintenance, renewal, improvement, or alteration of any structure, if the work affects only the color or decoration of the exterior of the structure or interior alterations that do not change the use for which the structure was constructed also shall not be considered development or redevelopment.

(D) Map

The Post-Construction Ordinance Map and the Post-Construction Stormwater Ordinance Watershed Matrix are included in Appendix A

2.0 ADMINISTRATION AND PROCEDURES

2.1 REVIEW AND DECISION MAKING ENTITIES

(A) STORM WATER ADMINISTRATOR

Section 2.0 of the ordinance makes provisions stated below for the Storm Water Administrator.

(1) Designation

The City Engineer has been designated as the Storm Water Administrator. The Storm Water Administrator and, or his designee, is authorized to administer and enforce these regulations.

(2) Powers and Duties

In addition to the powers and duties that may be conferred by other provisions of the City Code and other laws, the Storm Water Administrator shall have the following powers and duties under this ordinance:

(a) To review and approve or disapprove applications submitted pursuant to this ordinance.
(b) To make determinations and render interpretations of this ordinance.
(c) To establish application requirements and schedules for submittal and review of applications and appeals.
(d) To enforce this ordinance in accordance with its enforcement provisions.
(e) To maintain records, maps, and official materials as relate to the adoption, amendment, enforcement, or administration of this ordinance.
(f) To provide expertise and technical assistance upon request to the City Council and the Storm Water Advisory Committee (SWAC).
(g) To designate appropriate other person(s) who shall carry out the powers and duties of the Storm Water Administrator.
(h) To provide information and recommendations relative to variances and information as requested by SWAC in response to appeals.
(i) Prepare and make available to the public an administrative manual that includes: the Storm Water Management Permit application; submittal checklist; fee schedule; maintenance agreements; and a reference to the design manual.

(j) To take any other action necessary to administer the provisions of this ordinance.

The contact information for the City of Charlotte Storm Water Administrator is as follows:

City of Charlotte
Storm Water Administrator
Engineering and Property Management
14th Floor CMGC
600 East Fourth Street
Charlotte, NC 28202
Phone 704-336-2291
Fax 704-336-6586
Website: http://stormwater.charmeck.org

(B) POWERS AND DUTIES OF THE STORM WATER ADVISORY COMMITTEE

Section 2.0 of the ordinance makes provisions stated below for the Storm Water Advisory Committee (hereinafter referred to as SWAC), which shall have the following powers and duties:

(1) Administrative Review

To hear and decide appeals according to the procedures set forth in this Section, where it is alleged there is an error in any order, decision, determination, and interpretation made by the Storm Water Administrator in the enforcement of this ordinance, including assessments of remedies and/or penalties.

(2) Variances

To grant variances in specific cases from the terms of the ordinance according to the standards and procedures therein.

2.2 STORM WATER MANAGEMENT PERMIT & PLAN

A Storm Water Management Permit is required for all proposed Development and Redevelopment unless exempt pursuant to the ordinance. For the purpose of the ordinance, the final approved stormwater management plan as contained in the development or redevelopment plan shall constitute the Storm Water Management Permit.

A preliminary stormwater management plan developed in accordance with the specifications set forth in the ordinance, the Administrative Manual and the BMP Manual must be submitted to the planning staff or the Land Development Division of the City's Engineering and Property Management Department as part of the preliminary plan for development or redevelopment and will be reviewed in accordance with established procedures.

The general requirements for the content and form of the preliminary stormwater management plan are contained in Sections 6-9 of this manual. A fee shall accompany the submission of the

preliminary storm water management plan. A list of land development review fees may be found at the following website: http://landpermits.charmeck.org.

A preliminary Storm Water Management Plan will not be considered complete until it contains all elements required by the Storm Water Administrator, along with the appropriate fee. If the Storm Water Administrator finds that a preliminary storm water management plan is incomplete, the applicant shall be notified of the deficient elements and provided with an opportunity to correct the plan. No review of the Storm Water Management Plan will commence until the Storm Water Administrator has determined that the plan is complete.

3.0 ADMINISTRATIVE MANUAL AMENDMENT PROCESS

The administrative manual may require updates from time to time. The Storm Water Administrator will update all amendments to this manual and provide notice to interested parties on the following website: http://stormwater.charmeck.org. The most current version of this document is to be used for all new submittals.

It is the sole responsibility of the user to make sure the most current version of this manual is incorporated and followed in the design of a project being submitted to the City for approval. Any new project that has not been accepted for review prior to the most current revision date of this document is to follow the new requirements of this manual.

4.0 CHARLOTTE-MECKLENBURG BMP DESIGN MANUAL

The latest version of the Charlotte-Mecklenburg Best Management Practices Design Manual will be used to design and implement all features required by the Post-Construction Stormwater Ordinance in the City of Charlotte and ETJ. The Storm Water Administrator will provide interpretation for the material found in the design manual and guidance on how to apply the design parameters for the required Stormwater Control Measures (SCMs)[1]. A summary of Post-Construction Stormwater Ordinance standards by watershed district is provided in a matrix in the Appendix A. Appendix C (also found in the BMP Design Manual) provides a summary of approved SCMs, design values and pollutant efficiency. Appendix D (also found in the BMP Design Manual) provides a list of generalized storm water treatment train removal efficiencies.

A copy of the BMP Design Manual can be located on the following website: http://stormwater.charmeck.org.

[1]Traditionally, Best Management Practices (BMPs) has been used to describe structural devices that control stormwater runoff. The term Stormwater Control Measure (SCM) is a more specific term to describe structural best management practices and is becoming the industry standard. For the purposes of this manual, the term Best Management Practice and Stormwater Control Measure may be used interchangeably in most cases.

5.0 CONCEPTUAL PLAN CONFERENCE

A conceptual plan review conference can be scheduled by the applicant with the Land Development Services Division to discuss the Storm Water Management Permit process. All applicants must provide adequate notice prior to scheduling a conference. The conceptual plan conference should be used to assist the designer with site specific issues in regards to applying post-construction regulations appropriately only and not considered a pre-submittal review.

Projects proposing mitigation option methods are strongly encouraged to setup a conceptual plan meeting with the Land Development Service Division prior to submitting plans for processing. Projects with mitigation methods proposed will not be approved until all mitigation requirements are met.

6.0 STORM WATER MANAGEMENT PLAN

An overall Storm Water Management Plan sheet(s) will be included in the project plan submittal that shows all Post-Construction controls features (water quality and water quantity) on a separate sheet (at a minimum the entire project boundary) as described below.

- Identify and label all Undisturbed Natural Area for the project with a clear description of the type of area being designated. All Natural Area will be shown on the overall plan, including areas being proposed as replanted, undisturbed or mitigated.
- Offsite mitigation Undisturbed Natural Area will be identified by parcel identification number, address, owner name and plat description (map book and page) at the time of plan submittal. No plan approval will be provided until an acceptable recorded plat has been made available.
- SCMs will be located by NC Grid Coordinates (NAD 1983, US feet) and labeled.
- Detailed drainage area map will be provided with contours shown and labeled at a verifiable scale for all onsite and offsite areas contributing to each SCM facility.
- Each drainage boundary will be described by means of a table, included on the plan sheet for each area (includes acreages for all built upon units, impervious and pervious land use as well as percent of built upon area for the drainage boundaries).
- The Post-Construction Stormwater Ordinance (PCSO) reporting information, included in the Detention Worksheet and the SCM Inset Tables, will be completed in accordance with the final approved plan and shown on the Storm Water Management Plan Sheet (may be shown as a separate detail).

Approval will not be given to any plan submittal proposing mitigation until all required documentation has been provided and is deemed acceptable. This includes all offsite conservation easements, transfer of property with all easements recorded, mitigation payments in lieu or any other documentation necessary to convey the restriction of land use or ownership to the appropriate entity into perpetuity as required by the ordinance.

In addition to the plan sheet(s), a detail will be provided for each SCM facility as described below.

- Proposed grading contours shown at a reasonable scale (surface area and volume criteria provided),
- Maintenance access roads and easements clearly identified and labeled,
- Operation and Maintenance agreement,
- Construction sequence,
- Outlet structures, ditches, berms, planting plans, construction sequences, forebays, and outfalls, and
- Any other detailed information deemed appropriate by the Storm Water Administrator.

A detailed planting plan will accompany any SCM design that requires vegetation to be installed as a feature of that type of facility. This plan will show all planting zones with appropriate plant species identified with acceptable spacing (maybe shown and labeled as zones with planting descriptions identified).

The owner is encouraged to have a warranty and replacement guarantee from the vegetation contractor for all plantings in the SCM for protection of loss. This warranty or guarantee is to ensure vegetation establishment and maturity during the initial phase of the SCM life. Replacement of vegetation due to workmanship, plant quality, drought, or wildlife and water fowl destruction should be considered with the guarantee negotiation. It is important to remember that the owner will be held responsible for all SCM requirements including vegetation in regards to compliance with this ordinance including fines or penalties.

As part of the submittal process, the designer may be asked to provide an additional copy of all Storm Water Management Plans (matches final approved plan) described above, SCM worksheets, as-built plans with associated plats or as described on the Land Development gateway or review checklist. The information on these plans are required for purposes of tracking and reporting of Post-Construction controls information needed for future reference, maintenance and annual reporting. These requirements are to be met and provided to the City prior to approval of an as-built plan or certificate of occupancy (see As-Built Plan and SCM Construction Sections below). Failure to provide this material may delay the certificate of occupancy process.

7.0 STORM WATER MANAGEMENT PLAN REVIEW AND SUBMITTAL PROCESS

A Storm Water Management Plan will be required for all new development or redevelopment projects within The City of Charlotte or ETJ unless exempt from the requirements of the ordinance. The preliminary storm water management plan shall be prepared by a North Carolina licensed professional engineer or North Carolina registered landscape architect. The engineer or registered landscape architect shall certify that the design of all storm management facilities and practices meets the requirements of these regulations.

The preliminary storm water management plan developed in accordance with the specifications set forth in this Administrative Manual, the BMP Design Manual, and the Charlotte Land Development Standards Manual must be submitted to the Planning staff or Land Development Division as part of the preliminary plan for Development or Redevelopment and will be

reviewed in accordance with established procedures. For the purpose of the ordinance, the final approved storm water management plan as contained in the Development and Redevelopment plan shall constitute the Storm Water Management Permit. The grading (Accela) project number assigned by the subdivision or commercial plan submittal process will become the Storm Water Management Permit tracking number.

All Storm Water Management plan requirements will be reviewed by a Land Development Review Engineer as a component of the grading, erosion control, subdivision or commercial plan submittal process or any other development activity that prompts a review by the City. The plan review process will not commence until the gateway checklist requirements have been completed and satisfied. See the applicable checklists on the following Land Development Services Division website http://landpermits.charmeck.org. If the Storm Water Administrator finds that a preliminary storm water management plan is incomplete, the applicant shall be notified of the deficient elements and provided with an opportunity to correct the plan.

No grading permit(s) will be issued for projects that are applicable to these regulations until all requirements set forth in these regulations, BMP Design Manual, Charlotte Land Development Standards Manual, and the Administrative Manual have been satisfied.

If the Storm Water Administrator finds that the storm water management plan complies with the requirements of these regulations, the Storm Water Administrator shall approve the storm water management plan, which approval shall constitute the issuance of the Permit. The Storm Water Administrator may impose conditions of approval as needed to ensure compliance with this ordinance. The conditions shall be included in the permit as part of the approval.

The Permit issued under the provisions of this chapter shall remain valid for a period of three years from the date of approval. If no work on the site in furtherance of the plan has commenced within the three-year period, the permit and plan approval will become null and void and a new application will be required to develop the site. If work on the site in furtherance of the plan has commenced that involves any utility installations or street improvements except grading, the permit and plan shall remain valid and in force and the project may be completed in accordance with the approved plan.

If the Storm Water Administrator disapproves the preliminary storm water management plan, the grounds for such disapproval will be stated in writing to the applicant. This disapproval may be in the form of redlined plans. After such disapproval, an appeal from that decision may be taken to SWAC in accordance with Section 205 of the ordinance. SWAC may approve, disapprove, in whole or in part, or otherwise modify the action of the Storm Water Administrator. A final stormwater management plan approved by SWAC, after appeal from the decision of the Storm Water Administrator, will qualify as the Permit.

7.1 SCM CALCULATIONS

All Storm Water Management Plan calculations will be performed per the BMP Design Manual and provided with the submittal prior to acceptance for review. All Storm Water Management SCM calculations will be provided in a hard copy format and digital format (i.e., on a CD-ROM

or acceptable format determined by the Land Development Services staff) and made available at the time of the submittal.

7.2 PCSO SUMMARY TABLE, SCM WORKSHEETS & SCM INSET TABLES

A completed PCSO Summary Table must be submitted for each project and included on development plans. A completed SCM design worksheet and SCM inset table will be submitted for each stormwater SCM designed for a site prior to acceptance by the Land Development Services Division. The SCM design worksheet(s) can be incorporated into the design calculations packet. The SCM inset table for each SCM is to be included on the Stormwater Management Plan sheet(s) of the plan set. Failure to provide the completed PCSO Summary Table for the project or the SCM design worksheet and SCM inset table for each SCM will result in an incomplete submittal and will not be accepted for review. The PCSO Summary Table, SCM worksheets and SCM inset tables are available on the following Land Development Services Division website http://landpermits.charmeck.org under Resources on the Design Professionals webpage.

7.3 REVIEW CHECKLIST

The Storm Water Management Plan review will be performed by a City Land Development Services Division Engineer following the general guidelines of the section related to PCSO on the Site Review checklist(s). This checklist(s) can be obtained on the following City Land Development website http://landpermits.charmeck.org. This checklist may be updated from time to time to address changes in the industry or environmental requirements. It is the responsibility of the design engineer to ensure that the site design meets the requirements of the most updated version of the checklist at the time of submittal.

8.0 NATURAL AREA

Natural Areas should be free of invasive species or other conditions that can be detrimental to the health and longevity of these features. If any Natural Area proposed contains invasive species at the time of such proposal, and at the discretion of the Storm Water Administrator, such species must be removed prior to issuance of the final Certificate of Occupancy for commercial and multi-family properties or prior to the final plat approval for subdivisions. Invasive species are considered removed if they are no longer living in the tree canopy. Subsequent property owners are required to maintain this condition for compliance with the ordinance. Invasive species will be defined as English Ivy (Hedera helix), Chinese Wisteria (Wisteria sinensis), Japanese Wisteria (Wisteria floribunda), Japanese Honeysuckle (Lonicera japonica), Kudzu (Pueraria Montana).

Tree removal in a Natural Area other than pre-approved mitigation areas will only be allowed by approval of the Storm Water Administrator. In some cases it is important to identify tree save areas within a Natural Area that has more restrictive regulations prior to performing maintenance activities. Authorized alterations and maintenance authorized by the Storm Water Administrator of natural areas must be accomplished without mechanized equipment and constructed with organic, environmentally friendly materials.

Natural Areas cannot be located within ten (10) feet of the building envelope in back yards and within six (6) feet of the building envelope in side yards.

Natural Area Calculation

Natural area is only required for projects defined as "development." Natural Area calculation will typically be based on percentages specified in the PCSO (Section 18-173). To determine natural area requirements for a site:

(1) For projects where the existing site is undeveloped or is to be demolished and re-built (when project is considered "development"), utilize the entire site area

(2) For projects where a significant amount of existing BUA is to remain, divide the proposed BUA by the existing *pervious* coverage (i.e. total site area less the existing BUA).

(3) As an alternative for projects with small amounts of proposed BUA as compared with the total remaining pervious area, an incremental calculation approach is available (see "Alternative Incremental Approach Example" below).

(4) As speculative grading (i.e. clearing or pre-grading for future project) is a form of development (land disturbing activity that creates built upon area or that otherwise decreases the infiltration of precipitation into the soil), a minimum of 25% of the site must be set aside as Natural Area during this operation. Natural area does not need to be recorded during a speculative grading phase; it shall be recorded prior to certificate of occupancy release for commercial or multifamily projects or with final plat approval for subdivisions. Grading in buffers during this phase is not permitted without approval from all applicable review agencies.

Preferred Examples

New BUA on existing undeveloped site:
• 40 acre parcel is undeveloped and site will be 60% BUA.
Site has greater than 50% BUA, resulting in 10% required Natural Area, or 4 acres (only 1.6 acres of which may be disturbed and replanted as preapproved mitigation – See subsection D-2 under Natural Area Mitigation)

• 40 acre parcel is undeveloped and site will be 40% BUA.
Site has between 24% and 50% BUA, resulting in 17.5% Natural Area, or 7 acres

• 40 acre parcel is undeveloped and site will be 20% BUA.
Site has less than 24% BUA, resulting in 25% Natural Area, or 10 acres

Adding BUA to partially developed site:
• 40 acre parcel has 30 acres existing BUA and 6 acres new BUA are proposed.
Remaining site area has greater than 50% BUA (6/10 = 60% BUA), resulting in 10% Natural Area, or 1 acre

• 40 acre parcel has 30 acres existing BUA and 4 acres new BUA are proposed.
Remaining site area has between than 24% and 50% BUA (4/10 = 40% BUA), resulting in 17.5% Natural Area, or 1.75 acres

• 40 acre parcel has 30 acres existing BUA and 2 acres new BUA are proposed.
Remaining site area has less than 24% BUA (2/10 = 20% BUA), resulting in 25% Natural Area, or 2.5 acres

Removing and replacing existing BUA:
• 2 acre parcel is fully built upon and the entire BUA will be removed and replaced. While this parcel would be required to provide water quality, volume and peak controls, Natural Area is not required for redevelopment. Therefore, the Natural Area Requirement for this scenario is 0 acres. *Please see the revised Tree Ordinance for any tree save/planting requirements and the Zoning Ordinance for any applicable buffer requirements.

• 40 acre parcel has 20 acres existing BUA, 10 of which to be removed and replaced with 20 total acres of newly created BUA. [40 acres total - 10 acres exist. BUA to remain] = 30 undeveloped acres remaining for water quality BUA % calculations; BUA created = 20 Ac total. Proposed BUA % = (20 acres developed / 30 Acres remaining = 67%) for determining high density/low density applicability. However, only 10 acres of the BUA is considered as development for the purposes of Natural Area, so 10/20 = 50% , which would be high density and require 10% Natural Area on the existing 20 acres of non-BUA or 2 acres

Alternative Incremental Approach Example (for sites developing a relatively small percentage of total site pervious coverage):

• 40 acre parcel has 20 acres existing BUA and 2 acres new BUA are proposed. Remaining site area has less than 24% BUA (2/20 = 10% BUA), resulting in 25% Natural Area, or 4 acres. As this is larger than the actual new BUA, an incremental natural area determination method may be used.

To determine the amount of Natural Area required for the incremental method, the following calculation is to be used:

Required Natural Area = 0.25 * [Proposed BUA / (1 - 0.25)]
The 0.25 value represents 25% natural area, which is the only value for natural area when using the incremental approach.

For the example above, the Natural Area = 0.25 * [2 / (1-0.25)]. The required incremental natural area is 0.67 acres.

Please note it is recommended that a master plan be developed for the site to determine where future buildings, parking, SCMs, and etc will most likely be located to provide the most viable

natural area. This facilitates logical placement and design for a total site approach for natural area.

Using the incremental approach for natural area determination, 25% natural area must be used. Where the incremental approach will result in more natural area than the total site approach (i.e. 25% of the partial undeveloped site is larger than 10 or 17.5% of the entire undeveloped part of the site), the total site approach is required.

9.0 MITIGATION

Mitigation methods may be available for projects that are located in specific areas predetermined by the ordinance to allow flexibility for water quality features (see ordinance). The Storm Water Administrator will evaluate the proposed mitigation to ensure that the guidelines have been applied appropriately. As outlined in the conceptual plan review meeting section, all projects proposing a mitigation option should schedule a conference with the Land Development Services Division prior to submitting an application. Mitigation options have been made available for site specific conditions and should only be used as a last resort in lieu of providing water quality features on site.

All mitigation payments are to be made to the Land Development Services Division prior to plan approval and commencement of any grading activity. All Checks will be made payable to City of Charlotte, Storm Water Services and list the project number and Storm Water Management Permit Number.

9.1 TOTAL PHOSPHOROUS MITIGATION

There are two total phosphorous mitigation options available to Development and Redevelopment greater than or equal to 24% built-upon area, including off-site mitigation and a buy-down option. Both off-site and buy-down mitigation will result in the construction of retrofit SCMs in the same river basin (Catawba or Yadkin) as the mitigated site. In the Western Catawba District both forms of mitigation must occur in the watershed of the same named creek system for the purpose of ensuring a balance of total phosphorous loads to lake cove areas where phosphorous is a limiting pollutant with the exception that up to 30% of the total buy-down money can be spent outside the watershed of the same named creek. In addition, the buy-down option is available provided the City has projects and/or property available for mitigation. There is no total phosphorous requirement as yet in the Central Catawba District so the mitigation option is not necessary. The named creek systems referred to above include:

<u>Western Catawba:</u> Studman Branch, Porter Branch, Neal Branch, Stowe Branch, Beaverdam Creek, Little Paw Creek, Paw Creek, Long Creek, Gar Creek, and the Lower Mountain Island watershed.

<u>Yadkin-Southeast Catawba:</u> Six Mile Creek, Twelve Mile Creek, Caldwell Creek, McKee Creek, Reedy Creek, Fuda Creek, Back Creek, Mallard Creek, and Lower Clarke Creek.

9.1.1 Onsite (Buy-Down Option)

Total phosphorus mitigation is optional for all Development and Redevelopment on sites in all watershed districts except Six Mile Creek having a minimum of 24% built upon area or greater.

The buy down option only applies for the project site treatment loads between 50% and 70%. The money shall be used by the City to construct SCM retrofit projects designed to achieve an equivalent or greater net mass removal of total phosphorous as would be achieved by removing 70% of the total phosphorous from the proposed site.

The Storm Water Administrator shall receive, review, approve, disapprove or approve with conditions an "Application for Total Phosphorous Buy-Down." This form is Appendix X. This application shall be submitted with the storm water management permit application and shall at a minimum contain calculations showing the total load buy-down and all cost calculations as described below.

The buy-down option shall not be approved by the Storm Water Administrator unless projects and/or properties are available for mitigation, including SCM construction, SCM maintenance, SCM rehabilitation and stream restoration. There is no time constraint for the City to spend mitigation money; however, the City shall strive to spend buy-down monies in a timely and efficient manner such that a net improvement in water quality results.

The total phosphorus load and buy down payment will be calculated by the Storm Water Administrator using the Storm Water Services total phosphorus buy-down spreadsheet. The amount of the buy-down will be determined on a site by site basis using the following criteria:

- Determine the total pounds of TP per year to be "bought-down" (Loading at 50% reduction minus loading at 70% reduction using loading rates given below) and multiply by 20 years (reasonable service life of SCM).
- Multiply the resulting total pounds of TP by $1000.00 per pound to obtain the buy-down payment (per pound value may be adjusted from time to time by the Storm Water Administrator).
- Add $4,400.00 per acre of changed land use to cover the operation and maintenance costs of the retrofit SCM.
- Add 12% to the overall buy down payment to cover administrative costs.

Phosphorus Loading Rates**

Land Use	P (lb/acre/year)
Multi-Family (40% impervious)	1.68
Multi-Family High (70% impervious)	1.83
Commercial – Low (45% impervious)	1.88
Commercial – High (85% impervious)	2.85
Office-Industrial Low (30% impervious)	1.24
Office-Industrial High (70% impervious)	1.86
Industrial (65% impervious)	2.39
Institutional (40% impervious)	1.39
Mixed Use (60% impervious)	2.24
gh Density Mixed Use (70% impervious)	2.49

Ultra Mixed Use (90% impervious)	2.97

**Total Phosphorus loading rates taken from Tetra Tech Inc., 2005. *Post-Construction Ordinance Development Phase 1 Report*, Research Triangle Park, North Carolina.

9.1.2 Off-site

The owner or designee of a proposed construction site that will include greater than or equal to 24% built-upon area shall construct a SCM retrofit project designed to achieve an equivalent or greater net mass removal of total phosphorous as would be achieved by removing 70% or the total phosphorous from the proposed site. Off-site mitigation is allowed only for total phosphorous removal above 50% by use of an offsite facility located in the same named creek system. On-site SCMs shall be constructed to achieve 50% removal of total phosphorous from the total site.

The Storm Water Administrator shall receive, review, approve, disapprove or approve with conditions an "Application for Off-Site Total Phosphorous Mitigation." This form is Appendix X. This application shall be submitted with the storm water management permit application and shall at a minimum contain a description of the SCM(s) to be constructed, including their type and size as well as the pollutant removal efficiencies to be achieved. The location of the site where the SCM(s) are to be constructed shall be described, including the size of the drainage are to be treated and percentage and type of existing built-upon area. The application must also include the pounds of total phosphorous being mitigated for and the pounds of total phosphorous reduced with the retrofit SCM(s). A legally valid instrument shall be submitted with the application to demonstrate that the applicant has land rights to perform the SCM retrofit on the property.

The criteria for approval of off-site total phosphorous mitigation by the Storm Water Administrator include, but are not limited to:

- SCM(s) must be constructed in accordance with 15A NCAC 2H.1008(c), as explained in the BMP Design Manual.
- SCM(s) must be sized for the corresponding watershed area according to the BMP Design Manual.
- SCM(s) must be inspected by the Storm Water Administrator and found to be in compliance with all approved plans and specifications prior to the release of occupancy permits for the mitigated site.
- Following approval from the Storm Water Administrator, SCM(s) may be installed and credits obtained for pounds of total phosphorous removed that can be applied to future projects. These credits can be accumulated or "banked" for a period of time as specified by the Storm water Administrator.
- All off-site mitigation SCMs shall be subject to the maintenance requirements as well as installation and maintenance performance securities specified in Section 6 of the ordinance.

The applicant will provide with the plan submittal a recorded plat for the proposed site parcel that shows permanent easements for the SCM facility and runoff conveyance to the SCM, and a maintenance agreement. The plat must demonstrate clear approval from the land owner of the project site to be used for total phosphorus treatment purposes. The recorded easements will be prepared the same as onsite easements which preserve the facility in perpetuity for uses as defined in the project Storm Water Management Plan. Design calculations will be required to document the treatment capabilities of the offsite facility and will be reviewed by the Land Development Services Division engineer prior to approval of the project plan.

9.2 NATURAL AREA MITIGATION

(1) Pre-Approved Onsite Natural Area (Residential, Commercial, and Multifamily uses)

40% of the required Natural Area for a project site is pre-approved for disturbance and re-vegetation methods (application not required)**.**

Designer will note the pre-approved re-vegetated Natural Area on all plan sheets.

(2)Payment-In-Lieu (Commercial and Multi-Family Only – application required)

Payment-in-lieu of Natural Area is only allowed for commercial and multi-family Development projects in excess of 50% built upon area.

The following process will be used for the Payment-In-Lieu method for Development and Redevelopment on Commercial or Multi-Family projects.

- Developer will schedule a conceptual plan review conference to discuss mitigation options prior to plan submittal.
- Plans are submitted to the Land Development Services Division with a completed Mitigation form for the plan review process.
- The plans must contain a note indicating Natural Areas being mitigated by means of Payment-In-Lieu to the Land Development Services Division and must show the acreage calculation of area being mitigated.
- The mitigation payment amount is determined by Land Development Services Division review engineer and payment will be collected after plan approval and prior to issuance of a grading permit (no land disturbing activity may commence until payment is provided to the City).
- When a project is utilizing Natural Area and Tree Save mitigation payment-in-lieu; typically the Tree Save payment amount will be larger. The payment for Tree Ordinance compliance will satisfy Natural Area mitigation payment-in-lieu requirements for PCSO.

The following criteria will be used to determine the mitigation payment amount:

- Fee paid to the City calculated as described below:

1.25 x Appraised Value (AVP) x Natural Area required (acres)

(Note: AVP equals Appraised Value of subject property (per acre) including intended uses without improvements as determined by an independent real estate appraiser.

Funds will be deposited into a mitigation banking account and used for the purpose of purchasing property and re-vegetate projects or set aside conservation easements all of which satisfy the goal of preserving natural area in the same watershed as the project site provided property and adequate funds are available. The Storm Water Administrator will determine where the funds will be used based on engineering judgment and maximizing water quality benefits.

(3) Off-Site Mitigation (Application Required)

The off-site mitigation will be in the form of an acceptance of property ownership or conservation easement for the protection of Natural Area. Off-site mitigation shall be located in the same named watershed as the project site or as designated by the Storm Water Administrator. The delineated watershed districts used for mitigation purposes are as follows: Sugar/Irwin, Little Sugar/Briar, McMullen, McAlpine, Four Mile, Six Mile, Twelve Mile, Clem, , Clear, Caldwell, McKee, Reedy, Back, Mallard, Lower Clarke, Gar, Long, Paw, Steele, Beaver Dam, Lower Mountain Island, Lake Wylie, Stowe Branch, and other direct tributaries of the Catawba River. The application for off-site mitigation will be provided with plan submittal and finalized prior to plan approval (no land disturbing activity until the documentation is complete, verified, and acceptable). Proof of ownership or conservation easement (record plats or deeds) for off-site Natural Area protection will be required prior to plan approval.

9.3 DEVELOPMENT AND REDEVELOPMENT MITIGATION

(A) Development and Redevelopment on a lot less than one acre in size is allowed to forego meeting the requirements of the ordinance, except for required stream buffers, provided the following conditions are satisfied:

- lot has been described by metes and bounds in a recorded deed or shown on a recorded plat prior to July 1, 2008;
- development and redevelopment on the lot are not part of a larger common plan of development or sale, even though multiple, separate or distinct activities take place at different times on different schedules;
- City is paid a mitigation fee prorated at $60,000 per acre for the untreated total of developed and redeveloped built upon area.

(B) Development and Redevelopment projects within transit station areas designated by the Planning Director based on Corridor Record of Decisions, Council Adopted Station Area Plan or distressed business districts (now referred to as the Business Corridor Revitalization Geography designated by the Neighborhood & Business Services Director are allowed by right to forego meeting the requirements of this ordinance, except for peak control and downstream analysis requirements on the increased BUA of the project site, and required stream buffers provided one (1) of the following three (3) measures are implemented on the site:

(1) Provide 85% TSS removal from first inch of rainfall for entire site, **or**

(2) Provide 1-year 24-hour volume control and 10-year 6-hour peak control for entire site (with a predeveloped condition of 50% woods and 50% percent pasture – see Section 2.5.1 of the BMP Design Manual), **or**

(3) Pay the City a mitigation fee of $60,000 per acre for the untreated total of developed and redeveloped BUA. The maximum untreated BUA eligible for the mitigation payment is the sum of all built upon area in existence prior to July 1, 2008 plus five (5) acres of new built upon area added after July 1, 2008. New BUA in excess of five (5) acres added after July 1, 2008 must comply with the ordinance.

(C) *Redevelopment not within transit station areas or business corridor revitalization geography.* Projects involving redevelopment of existing built-upon-area and the cumulative addition of less than 20,000 square feet of new built-upon-area are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided the city is paid a mitigation fee according to rates set forth in the administrative manual for the post-project built-upon-area and, if required, onsite controls are installed for stormwater quality, and detention (i.e. volume and peak control) as well as quality stream protection in accordance with the provisions described below.

(1) Onsite Controls: All onsite controls must be installed, inspected and maintained in accordance with the provisions of Charlotte's Post-Construction Stormwater Ordinance, Charlotte-Mecklenburg BMP Design Manual and/or this Administrative Manual. The failure to do so could result in ordinance violations that are subject to penalties as described in section 18 of this Administrative Manual.

A. When a downstream analysis performed in accordance with the procedures described in "(2) Quality Stream Analysis" below, including the application of the 10% rule, indicates a quality stream segment, the following onsite controls must be implemented:

1. Provide 1-year, 24-hour volume control and 10-year, 6-hour peak control for entire project; and
2. Fulfill two (2) of the following stormwater quality controls:

a. Sediment forebay installation - Provide 20% of the volume of a required detention basin for sediment storage. An altered sediment storage area will be detailed in the Charlotte-Mecklenburg BMP Design Manual. Sediment removal from the basin (pumping out and disposal of pollutants) will be required on a routine basis as specified in the Charlotte-Mecklenburg BMP Design Manual.

b. Parking lot/vehicular area sweeping - Perform sweeping/ vacuuming of areas that are exposed to rainfall and are subject to vehicular traffic at least twice monthly and report annually as specified in Appendix Q of this manual.

c. Built-upon-area reduction - Reduce built-upon-area by 10% at post-development compared to pre-development.

d. Parking lot/vehicular area reduction - Reduce parking lot/vehicular area

by 50% at post-development compared to pre-development, including installing parking decks in which case the top floor of the parking deck (if not covered) will be included in the area calculation as parking area.

e. Partial stormwater quality treatment - Treat a portion of the site using onsite controls from the Charlotte-Mecklenburg BMP Design Manual.

B. When a downstream analysis performed in accordance with established procedures described in Section 3 of the Charlotte-Mecklenburg BMP Design Manual, including the application of the 10% rule, indicates detention (i.e. volume and peak control) is required, the following onsite controls must be implemented:

1. Same as "A1" above; and
2. Same as "A2" above, except only one (1) of the stormwater quality controls is required.

C. When there is an increase in built-upon-area at post-development compared to pre-development, the following controls are required for the redeveloped built-upon area and any increase.

1. Same as "A1" above; and
2. Same as "A2" above with only one (1) stormwater quality control required, except the option for built-upon-area reduction in A2c above would not be applicable for use.

D. Reasons that may preclude the waiving of volume and peak control facilities for redevelopment include, but are not limited to:

1. Documented downstream structural flooding or street flooding
2. Inadequate infrastructure or channels downstream of the site
3. Extensive erosion problems associated with volume and velocity of stormwater runoff.

The downstream analysis requested by the Storm Water Administrator may include (but not limited to) a detailed survey by a licensed professional surveyor, modeling of drainage networks for capacity for various design storms, a hydraulic grade line analysis, and other relevant information. See section 3 of the Charlotte-Mecklenburg BMP Design Manual for further guidance.

(2) Quality Stream Analysis: The following procedures are for the determination of stream quality (submittal process based on section 7.0 of this Administrative Manual).

A. Desktop Assessment: To determine whether a field stream assessment is required:

1. Delineate the "zone of influence" for the site, which is the downstream point where the drainage area controlled onsite comprises 10% or less of the total drainage area.
2. Go to Virtual Charlotte (http://vc.charmeck.org) and turn on the layers within the Stormwater Group as well as the most recent aerial photograph.
3. Locate on the aerial where stormwater from the proposed redevelopment enters the first open channel. If this location is downstream of the zone of influence defined in "1" above, then a quality stream does not exist and the assessment is concluded. The aerial must be submitted to the Stormwater Administrator for verification.
4. If stormwater from the proposed redevelopment enters the first open channel upstream of the zone of influence, measure 500 feet down from this point to

identify the terminus point of the evaluation.

5. Measure a twenty (20) foot buffer on either side of the estimated centerline of the channel. The total buffer width (both sides of the channel combined) should average forty (40) feet (note: the average is taken to account for small segments that don't have a wooded buffer).

6. Answer the following questions. If you answered "No" to either of these questions, then a quality stream does not exist and the assessment is concluded. A copy of the aerial with site assessment area and determination of questions "a" and "b" below indicated must be submitted to the Stormwater Administrator for verification. If you answered "Yes" to both of these questions, a field visit is required as specified in "B" below.

a. Is there a continuous stretch of open channel for 500 feet?

Yes = Move to question "b" below

No = No field stream assessment required

b. Along this 500 foot open channel is there on average a 40-foot wooded buffer?

Yes = Field stream assessment required

No = No field stream assessment required

B. Field Stream Assessment: If a field stream assessment is required, the applicant can provide either "1" or "2" below to the Stormwater Administrator to demonstrate the project does not empty into a quality stream. The Stormwater Administrator may field verify the submittals. In addition, a copy of the aerial with site assessment area and determination of questions "a" and "b" above indicated along with photos or the North Carolina Stream Assessment Methodology (NCSAM) evaluation must be submitted to the Stormwater Administrator for verification that the stream is not a quality stream for purposes of the Ordinance. Unless verified by a Quality Stream Assessment, all streams are considered quality streams and must comply with the quality stream requirements specified in "(1)" above.

1. Provide photo documentation of the existing degraded channel conditions or proof that the open channel is not a jurisdictional stream. Photos should be clear and provide evidence that the channel would not be classified as a stream or would be ranked as a low quality stream according to NCSAM. A map locating where the photos were taken must accompany the submittal. The Stormwater Administrator will review the photos and reserves the right to request a NCSAM evaluation be performed before confirming the stream is not a quality stream segment.

2. Complete a NCSAM evaluation to document the quality of the open channel receiving stormwater from the proposed redevelopment. This form must be completed by an individual trained and certified to complete the NCSAM evaluations. If the NCSAM rating is medium or high, then the stream is consider a quality stream for the purposes of the Ordinance.

(3) Mitigation Fee

A. The base rate used to determine the applicable mitigation fee is set at the City's per

acre cost to provide offsite mitigation as established by the City Engineer (rounded up to the nearest $1,000). The applicable mitigation fee for each redevelopment project is determined by multiplying the base rate by the mitigation ratio or ratios listed in the Calculation Table below. These ratios increase as the built-upon-area created by the redevelopment increases in acreage. For example, at the current base fee rate a project that creates 1.5 acres of built-upon-area would require a fee of $120,000, which includes $75,000 for the first acre and $45,000 for the additional ½ acre that falls within the >1 acre and <2 acre category. All the fees are totaled to calculate the total mitigation fee required.

B. The base rate and mitigation fees are adjusted as necessary in March of every year based on the 3-year average total costs for the City to provide offsite mitigation. The types of projects to be included in this 3-year average total cost include all projects with a stormwater quality benefit, including stream restorations, SCM retrofits, new SCM installations, pond retrofits, etc. All costs will be included in the development of this average cost, including costs for property acquisition, design, construction, and project administration. Current fees will be maintained on the stormwater website. The Calculation Table below provides the current base rate, mitigation ratios and corresponding mitigation fees.

BUA Area Categories	Base Rate	Mitigation Ratio	Mitigation Fee
1st acre	$30,000	2.5:1	$75,000/first acre or portion thereof
>1 acre and ≤2 acres	$30,000	3.0:1	$90,000/first acre or portion thereof
>2 acre and ≤3 acres	$30,000	3.5:1	$105,000/first acre or portion thereof
>3 acres	$30,000	4.0:1	$120,000/first acre or portion thereof

C. Satisfying all the requirements for onsite controls as specified in this section, whether required or voluntary, including quality stream protection, detention and stormwater quality control, will result in a 25% reduction in the applicable total mitigation fee.

D. If the Stormwater Administrator determines that physical conditions at a site preclude compliance with the requirements for onsite controls, then quality stream protection, detention and stormwater quality control may be waived in which case there is no reduction in the applicable total mitigation fee.

E. For redevelopment of a portion of a larger site, the fee is calculated based on the new built-upon area cumulative since the date of adoption of Charlotte's Post-Construction Stormwater Ordinance (July 1, 2008).

F. Fees are charged per built-upon acre constructed since inception of this Section 18-161(c) of Charlotte's Post-Construction Stormwater Ordinance.

(D) All mitigation fees imposed for those redevelopment projects approved under Section 18-161 (C) of the Ordinance would be used on City water quality enhancement projects within the same named watershed (see Appendix A) that the redevelopment project is located; and must provide at least as much as, or more, water quality enhancements [primarily measured by TSS, which is currently the driving goal]. If there is no City water quality enhancement project available within the watershed of the proposed redevelopment project, then a higher mitigation fee (up to 1.5 times the normal mitigation fee) will be imposed on the proposed project. It is the City's intent to have a water quality enhancement project within each named watershed in which a mitigation fee is collected. The mitigation payment amount may be adjusted by the Storm Water Administrator based on local conditions, changes in industry costs, land value, maintenance costs and any other factor that impacts the costs for the City to construct and maintain a water quality feature to treat an equivalent pollutant load for the project site as determined by the Storm Water Administrator. As with all mitigation, the mitigation fee is expected to be paid to the City prior to plan approval and commencement of any grading activities, unless the Storm Water Administrator approves deferral of the mitigation payment The fee shall be received prior to certificate of occupancy for the first building to be constructed on the site. Deferral of the mitigation payment beyond plan approval and prior to certificate of occupancy requires approval of the Storm Water Administrator and submittal of the completed Letter of Intent (see Appendix N).

10.0 FINAL STORM WATER MANAGEMENT PLAT(S)

All SCM facilities will be located within a Post-Construction Controls Easement (PCCE) which encompasses the entire facility to ensure quality performance, and provide access for maintenance and inspection. All SCM facilities will be platted and recorded with the Mecklenburg County Register of Deeds. All SCM Plats will be recorded prior to approval of any as-built plan. Any publicly maintained SCM facility that is not adjacent to public right-of-way shall include a minimum (20) twenty foot wide PCCE extending to the nearest public rights-of-way to provide for maintenance and inspection practices or an executed unrestricted right of entry for maintenance activities and inspection to internal SCM facilities.

A copy of the final approved plat that includes a SCM facility or shows dedicated Undisturbed Natural Area will be created by the designer and provided to the Storm Water Administrator prior to the as-built plan approval or release of certificate of occupancy (other than single family subdivision projects).

The following notes will be provided on all plats submitted to the City of Charlotte that include a storm water SCM facility, maintenance access or PCSO stream buffer measured landward from the stream bank and at the applicable width required based on the ordinance:

Post-Construction Controls Easement
"*The purpose of the Post-Construction Controls Easement (PCCE) is to provide storm water conveyance and control and treatment of storm water runoff. Buildings or any other objects which impede storm water flow, system performance or system maintenance are prohibited. This easement also provides for unrestricted access for inspection and maintenance purposes to be performed on the SCM facility as required by the City of Charlotte Post-Construction Stormwater Ordinance. "*

Post-Construction Controls Stream Buffer Line
"The purpose of the Post-Construction Stream Buffer Line (PCSL) is to restrict all Built-Upon Area and define uses as described in the City of Charlotte Post-Construction Stormwater Ordinance."

11.0 OPERATION & MAINTENANCE AGREEMENT

An operation & maintenance (O&M) agreement(s) for all projects will be recorded for all SCM facilities prior to the release of a certificate of occupancy. For phased projects, the O&M agreement will be recorded with the initial plat of each phase for that SCM within the drainage area of that initial plat. The O&M agreement will run with the land ownership, except single family subdivisions being maintained by the City, as described in the O&M agreement provided in the appendix of this manual. Prior to the transfer of ownership, the Property Owner will provide to the transferee a Declaration of Transfer of Maintenance form, provided in the appendix of this manual, to be completed and filed within 30 days following the transfer of ownership with the Storm Water Administrator. The purpose of the Declaration of Transfer of Maintenance form is to insure that the Property Owner has appropriately informed the transferee of maintenance obligations and responsibilities for all SCM facilities

As stated in the ordinance, all SCM facilities shall be maintained by the Property Owner and will be inspected annually. Should any SCM facility not be in compliance with this ordinance due to unacceptable maintenance, the Property Owner will be notified and expected to bring the SCM facility back into compliance as outlined in the Notice of Violation. Failure to comply with this requirement may result in penalties and or fines.

12.0 AS-BUILT PLAN REQUIRMENTS

12.1 AS-BUILT PLAN REQUIREMENTS

The purpose of the as-built plan is to certify that the construction of the SCM facility has been completed and is acceptable. The Land Development Division will review and validate the as-built plan and forward an approved copy along with a digital copy to the Storm Water Administrator for processing.

An as-built plan will be provided by the project design professional for all storm systems and SCM facilities within a residential subdivision submittal. The approved as-built plan information will be made available for public viewing via a Storm Water Services website. The official drawing will be a hard copy with a Professional Land Surveyor signed and sealed certification that all storm system infrastructure information shown has been verified in the field and meets all City requirements. A supplemental digital file is needed for City records and will be provided in an AutoCAD format shown with the layer configurations described below. The digital file does not need to be sealed but will be verified to match the official approved copy. Failure to provide a correct digital copy of the as-built drawing may delay the approval process.

The digital as-built plan will be provided to the City and will be made available with the information, layers and line compositions as described below or per the review checklist. All as-built plans will be based on NAD 83/1986 and tied to the North Carolina State Plan Coordinates System (NC GRID) with all SCMs shown and located by x and y coordinates.

Once the complete set of as-built information is passed from Land Development Division to Storm Water Services, the appropriate “sign-off” in the Land Development permit tracking software will be made by Storm Water Services.

12.2 RESIDENTIAL SUBDIVISION AS-BUILT DRAWINGS

All as-built information submitted for review and approval will be accompanied by an approved plat for the same area of interest. All associated storm water easements will be shown on the as-built plat which agrees with the same easements shown on the approved plat. All storm water system information shown on the as-built drawing, including SCM facilities will be tied to NC Grid (NAD 83/1986), as described in more detail below for GIS purposes of tracking storm sewers and SCM facilities as per the NPDES Permit requirements.

- All storm system structures identified and labeled the same as the approved plan. All structure elevations are to include an invert elevation, a grate of top (at grade) elevation and any opening elevations used for storm water intake purposes (NAVD 88). All data is to be verified to the closest hundredth of a foot (0.01).
- All storm system pipes identified and labeled the same as the approved plan with upstream and downstream invert elevations (NAVD 88), the total length of the pipe run from end to end, with the calculated slope. All data is to be verified to the closest hundredth of a foot (0.01).
- Name, location, size and elevation (NAVD 88) of the SCM actually constructed (includes contours with in the SCM easement at no greater than two foot separation).

- As-built SCM Inset Table (provides area computations for all contours used for storage of runoff and freeboard
- Location and elevation (NAVD 88) of SCM storm water infrastructure inlets, outlets and locations of sizes of pipes and culverts within the facility.
- All Natural Area drawn with closed polygons (labeled as undisturbed, mitigated or re-vegetated Natural Area) and acreages labeled for all Natural Areas.
- S.W.I.M. Buffers drawn with closed polygons and acreages labeled for all Stream Buffer areas.

12.3 COMMERCIAL, MULTIFAMILY, AND ALL OTHER PROJECTS OTHER THAN RESIDENTIAL

All as-built information submitted for review and approval will be accompanied by an approved plat for the same area of interest. All associated storm water easements will be shown on the as-built plat which carries public runoff and has been captured in a public drainage easement which agrees with the same easements shown on the approved plat, as well as all required Post-Construction Controls Easements per the regulations as well as required Natural Areas. All storm water system information shown on the as-built drawing, including SCM facilities will be tied to NC Grid (NAD 83), as described in more detail below for GIS purposes of tracking storm sewers and SCM facilities as per the NPDES Permit requirements.

- All storm system structures identified and labeled the same as the approved plan. All structure elevations are to include an invert elevation, a grate of top (at grade) elevation and any opening elevations used for storm water intake purposes (NAVD 88). All data is to be verified to the closest hundredth of a foot (0.01).
- All storm system pipes identified and labeled the same as the approved plan with upstream and downstream invert elevations (NAVD 88), the total length of the pipe run from end to end, pipe material, pipe dimension (height, length or diameter), with the calculated slope All data is to be verified to the closest hundredth of a foot (0.01).
- Name, location, size and elevation (NAVD 88) of the SCM actually constructed (includes contours within the SCM easement at no greater than two foot separation).
- As-built SCM Inset Table (provides area computations for all contours used for storage of runoff and freeboard
- Location and elevation (NAVD 88) of SCM storm water infrastructure inlets, outlets and locations of sizes of pipes and culverts within the facility.
- All Natural Area drawn with closed polygons (labeled as undisturbed, mitigated or re-vegetated Natural Area) and acreages labeled for all Natural Areas.
- S.W.I.M. Buffers drawn with closed polygons and acreages labeled for all Stream Buffer areas.

12.4 AS-BUILT DRAWING DIGITAL LAYERS

The following listed layers are needed to capture and transfer associated project information to the City GIS tracking platform from the as-built (AutoCAD) drawing. Should the designer

use unique labels to show the following information on the digital file, then it would be acceptable to provide corresponding table to describe and link the used layer name that is associated with the layers below in lieu of creating a new layer.

LAYERS

- Structures
- Structures Text
- Pipe
- Pipe Text
- Channels
- Channels Text
- Natural Area
- Natural Area Text
- Stream Buffer Area
- Stream Buffer Text
- Storm Water Drainage Easements
- Post-Construction Controls Easements
- Lot lines (Parcel Boundary)
- Rights-of-way (with Centerline)
- Addresses

13.0 SCM CONSTRUCTION

SCMs should not be constructed until the drainage area to that SCM has been stabilized or adequate provisions have been implemented to prevent runoff from entering the facility. Should a SCM be constructed prior to adequate provisions being implemented, the responsibility of reconstruction, replanting or replacement of any contaminated amended soils is the responsibility of the owner/contractor. No certificate of occupancy will be released until all SCMs for a project are in compliance with these provisions, unless authorized otherwise by the Storm Water Administrator. Should one year pass since lot stabilization with no structural construction evident, the Storm Water Administrator may require the SCM to be constructed and put into operation within a specific time period. Additional provisions may be required by the Storm Water Administrator to address erosion and sedimentation control measures necessary during the interim time that the project is not complete.

SCM facilities for Residential Single Family Subdivisions are to be constructed once the drainage area to that SCM has been determined to be in a stable condition and has met at least one of the following provisions:

- Issuance of certificates of occupancy for seventy-five percent (75%) of all construction which might reasonably be anticipated to be built within the area which drains into the structural SCM allowing credit for improvements completed prior to the submission of the final plat, or
- One year has passed since lot stabilization with no structural construction in progress, or

- As otherwise deemed necessary by the Storm Water Administrator to address water quality provisions.

When structural SCM's are required under the high density option for subdivisions (single family residential use), the approval of the high density development permit will be subject to the owner filing a surety bond or letter of credit or making other financial arrangements which are acceptable to the Storm Water Administrator in an amount to be determined by the Storm Water Administrator, in a form which is satisfactory to the city attorney, guaranteeing the installation and maintenance of the required structural SCM prior to approval of the initial plat for the subdivision. The surety amount for the SCM will be held in full until such time the SCM has been constructed appropriately as determined by the Storm Water Administrator (some provisions may be allowed based on seasonal constraints) and successfully meets the standard for final inspection or in cases that seasonally restrictions limit the completion of the facility (plantings) at which time the Storm Water Administrator may allow a bond reduction until all deficiencies have been corrected and the final inspection requirements have been satisfied.

All SCMs for Development and Redevelopment, other than single family subdivision, will be constructed and achieve final inspection acceptance prior to the issuance of a certificate of occupancy. In cases where multiple certificates of occupancy are provided within the same development, the Storm Water Administrator may at his discretion hold a specific certificate of occupancy for a single address for the developer until such time all of the SCM requirements have been achieved and the developer will need to submit a letter of intent (LOI) approved by the Storm Water Administrator and the City Attorney, which clearly holds that responsible party liable for all construction, repairs or corrections for all deficiencies as a result of the SCM not being functional (form accepted to be determined by the Storm Water Administrator based on site specific constraints) or complete. In any case, the responsible party will be held liable for all erosion control practices and other pollutant removal practices to be maintained on the project site until such time the Storm Water Administrator instructs the responsible party to remove such devices and comply with the Post-Construction Stormwater Ordinance. It may also be necessary for the owner to implement additional erosion control practices as determined by the Land Development Division to protect the SCM from damages or downstream pollution.

All vegetative plantings should be installed and inspected prior to issuance of a certificate of occupancy unless seasonal constraints prohibit. In the case that the Storm Water Administrator has determined the required plantings for a SCM should be delayed due to seasonal planting restrictions, a letter of intent from the developer is to be issued to the Storm Water Administrator to guarantee that activity is to be completed by a specified date provided by the Storm Water Administrator. Should the planting requirement not be completed within the specified time, then the site will be considered to be out of compliance with this ordinance and violations are to be forth coming in the amount stated in the ordinance.

14.0 FEE SCHEDULE

City Land Development Services Division will post and administer any Storm Water Management Fees associated with the review and inspection costs as part of the City’s fee

schedule. These fees may be adjusted by the Storm Water Administrator and approved by City Council as needed to address reimbursement of costs associated with those tasks. All adjustments to fee schedules will be made available to the public prior to implementation and will apply to any submittal received on or after that applicable date. A list of the current fees may be found on the City Land Development website (http://charmeck.org/development/Pages/ReviewFees.aspx)

15.0 ANNUAL INSPECTIONS

SCM facilities constructed as a PCSO requirement will require the owner to submit an annual inspection report to the Storm Water Administrator which provides documentation of the condition of each SCM prior to each (no earlier than 30 days) anniversary date (beginning on the final construction inspection approval date) into perpetuity. All annual inspection reports are to be completed by a Professional Engineer or Registered Landscape Architect that has completed the certification program approved by the City.

15.1 PROFESSIONAL QUALIFICATIONS

All professionals preparing and submitting inspection reports to the City are required to attend a certification training session to perform these duties. As noted above, the qualifications to provide an inspection report to the City are as follows:

- Must be a current licensed Professional Engineer or Registered Landscape Architect with the State of North Carolina
- Be competent to inspect, evaluate and recognize SCM deficiencies in accordance with the City's Post-Construction Stormwater Ordinance and BMP Design Manual.
- Must have an understanding of the functionality of SCMs and be able to provide corrective actions for SCM deficiencies necessary to restore compliance in a safe manner that does not jeopardize water quality, safety, health and property.

15.2 ANNUAL INSPECTION CRITERIA

The City will provide inspection and maintenance guidelines for the professional to follow in making annual inspections. The purpose of the inspection is necessary to confirm that appropriate maintenance is being performed and to ensure that the SCM condition, as well as water quality is discharged in compliance with the City's regulations.

15.3 ANNUAL INSPECTION REPORT

The SCM annual inspection report required will be originated from the Storm Water Services website and be completed for each SCM by a Professional Engineer or Registered Landscape

Architect and submitted to the City prior to the anniversary date (no earlier than 30 days) of the SCM. The report will provide basic information about the condition of the SCM and additional comments to describe site specific deficiencies and corrective action to return the SCM into compliance with the ordinance.

It is the responsibility of the owner to provide the report on or before the anniversary date to avoid fines (no earlier than 30 days from the anniversary date). All follow up corrections and inspections will be the responsibility of the owner. All SCM deficiencies identified during the annual inspection are to be corrected promptly. The professional will submit a plan of action to correct all deficiencies to the Storm Water Administrator for review and comment prior to the anniversary date. The Storm Water Administrator will notify the professional of an acceptable plan of action and any deficiencies that are not completed in a timely manner may be subject to fines and penalties as defined in the ordinance.

The annual report will be accompanied by sufficient photographs to document the current condition and appearance of each SCM. The photographs should capture several angles of the SCM, as well as sediment/trash storage area(s). Pond type facilities will need to show all forebay(s), outlet structure(s) and outfall(s). The photographs must be adequate to document vegetation condition and location, sedimentation accumulation, erosion and other information to show that maintenance requirements have been performed. All photographs will be submitted digitally and become part of the annual report documentation to be made available to the public for future inspection purposes.

15.4 INSPECTION REPORT VIOLATION

Any owner that does not provide the required annual inspection report by the scheduled due date will be subject to penalties and fines as described in the ordinance. The City may take appropriate action to enter the property, perform the inspection, correct any deficiencies, and seek payment for all costs associated with the inspection and repairs or any additional work that is deemed necessary by the City to bring the facility into compliance with this ordinance. The owner may be subject to addition penalties and fines permissible by law for violation of this provision in addition to all costs associated with repairs.

16.0 VARIANCES

The Storm Water Advisory Committee (SWAC) hears all variance requests for the PCSO. Applications and forms for the variance process can be obtained in the appendix of this manual.

17.0 POST-CONSTRUCTION STORMWATER ORDINANCE

A digital copy of the PCSO can be obtained from the included link
http://charmeck.org/stormwater/Pages/default.aspx

18.0 PENALTY ASSESSMENT

The Storm Water Administrator or designee will administer violations as outlined in Section 7 of the ordinance.

The Storm Water Administrator will evaluate all violations based on the severity of the impact to the Health and Safety of the Public. SCM facilities that are found to have general conditions that are in violation of the ordinance will be issued a written notice to correct all deficiencies within a reasonable time period as determined by the Storm Water Administrator. Violations which pose negative impacts to the Health and Safety of the Environment or the Public will be dealt with on a more urgent manor, such as, a Notice of Violation Penalty and assessed fines and repair costs incurred by the City to restore compliance with the ordinance.

19.0 APPENDICES

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Appendix A
Post-Construction Controls Ordinance Watershed Matrix

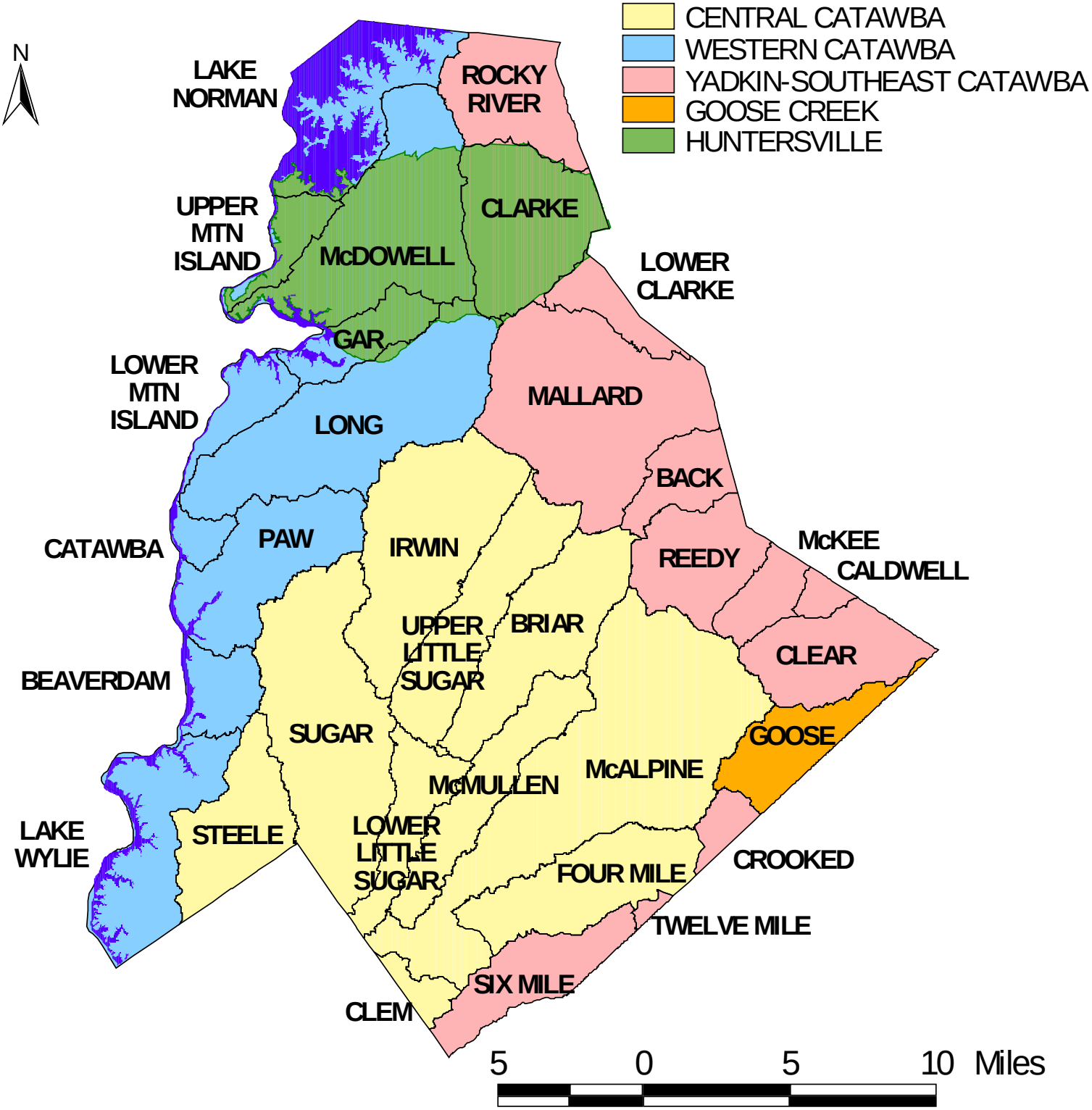
Watershed District	Structural Water Quality SCMs	Buffers	Volume & Peak Control	Natural Area Requirements
Central Catawba Note - *See Transit Station Areas and Distressed Business Districts if applicable*	>24% BUA requires 85% TSS removal for runoff from 1st inch of rainfall; LID optional. <24% BUA requires vegetated conveyances to the maximum extent practicable and buffers.	30 ft. vegetated, no build zone on all intermittent and perennial streams draining less than 50 acres, including a 10 foot zone adjacent to bank. If this zone is disturbed, it must be revegetated and the banks stabilized with approved bioengineering techniques. 35 ft. (2 zones) on intermittent and perennial streams draining ≥50 and <300 acres. 50 ft (3 zones) on streams draining ≥300 and <640 acres 100 ft + 50% of floodfringe on streams draining ≥640 acres	Volume (Commercial & Residential): >24% BUA control entire volume for 1-yr, 24-hr storm except I-1 and I-2 zoned developments, which are exempt from this requirement. Drawdown shall be between 48 and 120 hours. Peak for Residential: >24% BUA perform a downstream flood analysis to determine whether peak control is needed and if so, for what level of storm frequency (i.e., 10, 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 10-yr and 25-yr, 6-hr storms Peak for Commercial: >24% BUA control the peak for the 10-yr, 6-hr storm **AND** perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency (i.e., 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 10-yr and 25-yr, 6-hr storms Peak for I-1 and I-2 Zoned Developments: >24% BUA control the peak for the 2-yr and 10-yr, 6-hr storm **AND** perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency (i.e., 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 2-yr, 10-yr and 25-yr, 6-hr storms **Special note**: More than 20,000 square feet of impervious since 1978 for non-single family residential requires adherence to the requirements of the detention provisions of the Zoning Ordinance (12.601) - control the peak for the 2-yr and 10-yr storms for impervious coverage created after 1978.	≤24% BUA = 25% Natural Area >24% and <50% BUA = 17.5% Natural Area ≥50% BUA = 10% Natural Area I-1 and I-2 zoned developments are exempt from Natural Area requirements in this watershed.

Watershed District	Structural Water Quality SCMs	Buffers	Volume & Peak Control	Natural Area Requirements
Western Catawba Note - *See Transit Station Areas and Distressed Business Districts if applicable*	>12% BUA requires 85% TSS and 70% TP removal** for runoff from 1st inch of rainfall (I-1 and I-2 zoned developments are exempt from TP removal requirement, but shall implement a pesticide and fertilizer management plan); LID optional; BUA area caps apply in water supply watersheds <12% BUA requires vegetated conveyances to the maximum extent practicable and buffers. ** - ≥ 24% BUA is eligible for Total Phosphorous Mitigation per Section 307	30 ft. vegetated, no build zone on all intermittent and perennial streams draining less than 50 acres, including a 10 foot zone adjacent to bank. If this zone is disturbed, it must be revegetated and the banks stabilized with approved bioengineering techniques. 35 ft. (2 zones) on intermittent and perennial streams draining ≥50 and <300 acres. 50 ft (3 zones) on streams draining ≥300 and <640 acres 100 ft + 50% of floodfringe on streams draining ≥640 acres	Volume (Commercial & Residential): >12% BUA control entire volume for 1-yr, 24-hr storm except I-1 and I-2 zoned developments, which are exempt from this requirement. Drawdown shall be between 48 and 120 hours. Peak for Residential: >12% BUA perform a downstream flood analysis to determine whether peak control is needed and if so, for what level of storm frequency (i.e., 10, 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 10-yr and 25-yr, 6-hr storms Peak for Commercial: >12% BUA control the peak for the 10-yr, 6-hr storm **AND** perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency (i.e., 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 10-yr and 25-yr, 6-hr storms Peak for I-1 and I-2 Zoned Developments: >12% BUA control the peak for the 2-yr and 10-yr, 6-hr storm **AND** perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency (i.e., 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 2-yr, 10-yr and 25-yr, 6-hr storms **Special note**: More than 20,000 square feet of impervious since 1978 for non-single family residential requires adherence to the requirements of the detention provisions of the Zoning Ordinance (12.601) - control the peak for the 2-yr and 10-yr storms for impervious coverage created after 1978.	<24% BUA = 25% Natural Area >24% and <50% BUA = 17.5% Natural Area >50% BUA = 10% Natural Area I-1 and I-2 zoned developments are exempt from Natural Area requirements in this watershed.

Watershed District	Structural Water Quality SCMs	Buffers	Volume & Peak Control	Natural Area Requirements
Yadkin-Southeast Catawba (Includes Six Mile Creek Watershed) Note - *See Transit Station Areas and Distressed Business Districts if applicable*	>10% BUA requires 85% TSS and 70% TP removal** for runoff from 1st inch of rainfall (I-1 and I-2 zoned developments are exempt from TP removal requirement, but shall implement a pesticide and fertilizer management plan); LID optional <10% BUA requires vegetated conveyances to the maximum extent practicable and buffers. ** - ≥ 24% BUA is eligible for Total Phosphorous Mitigation per Section 307	50 ft undisturbed forested buffer on all intermittent and perennial streams draining less than 50 acres 100 ft undisturbed forested buffers plus entire floodplain on all intermittent and perennial streams draining ≥50 acres **Six Mile Creek Watershed Only:** 100 ft. undisturbed forested buffer on all intermittent and perennial streams draining less than 50 acres 200 ft. undisturbed forested buffer plus entire floodplain on all intermittent and perennial streams draining ≥50 acres	Volume (Commercial & Residential): >10% BUA control entire volume for 1-yr, 24-hr storm except I-1 and I-2 zoned developments, which are exempt from this requirement. Drawdown shall be between 48 and 120 hours. Peak for Residential: >10% BUA perform a downstream flood analysis to determine whether peak control is needed and if so, for what level of storm frequency (i.e., 10, 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 10-yr and 25-yr, 6-hr storms Peak for Commercial: >10% BUA control the peak for the 10-yr, 6-hr storm **AND** perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency (i.e., 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 10-yr and 25-yr, 6-hr storms Peak for I-1 and I-2 Zoned Developments: >10% BUA control the peak for the 2-yr and 10-yr, 6-hr storm **AND** perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency (i.e., 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 2-yr, 10-yr and 25-yr, 6-hr storms **Special note**: More than 20,000 square feet of impervious since 1978 for non-single family residential requires adherence to the requirements of the detention provisions of the Zoning Ordinance (12.601) - control the peak for the 2-yr and 10-yr storms for impervious coverage created after 1978.	<24% BUA = 25% Natural Area >24% and <50% BUA = 17.5% Natural Area >50% BUA = 10% Natural Area

Special District	Structural Water Quality SCMs	Buffers	Quality Treatment, Volume Control, Peak Control, Mitigation	Natural Area Requirements
Transit Station Areas and Distressed Business Districts	>24% BUA within the Central Catawba, >12% BUA within the Western Catawba, >10% BUA within the Yadkin-Southeast Catawba requires storm water quality treatment, storm water volume control, storm water peak control, and/or mitigation payment (see Quality Treatment, Volume Control, Peak Control, Mitigation column to the right) <24% (or 12%, 10%) BUA requires vegetated conveyances to the maximum extent practicable and buffers. Detention ordinance may apply.	See PCSO Buffer requirements per applicable watershed and S.W.I.M. Buffer requirements (Chapter 12 of the Zoning Ordinance).	**Meet Peak requirements:** Peak for Single Family Residential: Perform a downstream flood analysis to determine whether peak control is needed and if so, for what level of storm frequency (i.e., 10, 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed control the peak for the 10-yr and 25-yr, 6-hr storms for new built upon area created since July 1, 2008. Peak for non-Single Family Residential: Control the peak for the 10-yr, 6-hr storm **AND** perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency (i.e., 25, 50 or 100-yr, 6-hr) **OR** if a downstream analysis is not performed, control the peak for the 10-yr and 25-yr, 6-hr storms for new built upon area created since July 1, 2008. **AND one of the following options:** 1) Provide 85% TSS removal from the first inch of rainfall for the entire site, **OR** 2) Provide 1-year 24-hour volume control and 10-year 6-hour peak control (using predeveloped conditions as 50% woods and 50% pasture per Section 2.5.1 of the BMP Manual), **OR** 3) Pay the City a mitigation fee according to rates set forth in the Administrative Manual for the untreated total of developed and redeveloped built upon area. The maximum untreated built upon area eligible for the mitigation payment is the sum of all built upon area in existence prior to July 1, 2008 plus five (5) acres of new built upon area added after July 1, 2008. New built upon area in excess of 5 acres must comply with the ordinance. **Special note**: More than 20,000 square feet of impervious since 1978 for non-single family residential requires adherence to the requirements of the detention provisions of the Zoning Ordinance (12.601) - control the peak for the 2-yr and 10-yr storms for impervious coverage created after 1978.	Natural Area is not required in Transit Station Areas and Distressed Business Districts (Also see latest Tree Ordinance for any applicable tree save requirements).

Special Provisions	Structural Water Quality SCMs	Buffers	Quality Treatment, Volume Control, Peak Control, Mitigation	Natural Area Requirements
Redevelopment (<20,000sf increase of built upon area coverage)	>24% redeveloped BUA within the Central Catawba, >12% redeveloped BUA within the Western Catawba, >10% redeveloped BUA within the Yadkin-Southeast Catawba requires storm water runoff treatment and/or mitigation payment per the standards listed to the right (see Quality Treatment, Volume Control, Peak Control, Mitigation column to the right) <24% (or 12%, 10%) BUA requires vegetated conveyances to the maximum extent practicable and buffers. Detention ordinance may apply.	See PCSO Buffer requirements per applicable watershed and S.W.I.M. Buffer requirements (Chapter 12 of the Zoning Ordinance).	Projects involving redevelopment of existing built-upon-area and the cumulative addition of less than 20,000 square feet of new built-upon-area are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided the city is paid a mitigation fee according to rates set forth in the administrative manual for the post-project built-upon-area and, if required, onsite controls are installed for stormwater quality, and detention (i.e. volume and peak control) as well as quality stream protection in accordance with the provisions described in section 9.3(C) of this manual. **Special note**: More than 20,000 square feet of impervious since 1978 for non-single family residential requires adherence to the requirements of the detention provisions of the Zoning Ordinance (12.601) - control the peak for the 2-yr and 10-yr storms for impervious coverage created after 1978.	Natural Area is not required in Redevelopment. Additional built upon area coverage up to 20,000 sf will require natural area: <u><24% BUA</u> = 25% Natural Area <u>>24% and <50% BUA</u> = 17.5% Natural Area <u>>50% BUA</u> = 10% Natural Area (Also see latest Tree Ordinance for any applicable tree save requirements).


CENTRAL CATAWBA
WESTERN CATAWBA
YADKIN-SOUTHEAST CATAWBA
GOOSE CREEK
HUNTERSVILLE
N
LAKE NORMAN
ROCKY RIVER
UPPER MTN ISLAND
McDOWELL
CLARKE
LOWER CLARKE
GAR
LOWER MTN ISLAND
LONG
MALLARD
BACK
CATAWBA
PAW
IRWIN
REEDY
McKEE
CALDWELL
UPPER LITTLE SUGAR
BRIAR
CLEAR
BEAVERDAM
SUGAR
GOOSE
McALPINE
McMULLEN
LAKE WYLIE
STEELE
LOWER LITTLE SUGAR
FOUR MILE
CROOKED
TWELVE MILE
SIX MILE
CLEM
5 0 5 10 Miles

Appendix B
Current Transit Station Area and Distressed Business District (Now referred to as the Business Corridor Revitalization District) Maps

http://vc.charmeck.org/ldx

1. **Click on Map Content in the window to the left.**
2. **Distressed Business District is in the Neighborhood section. Click in the Neighborhood box. Then click in the Business Corridor Revitalization Geography box.**
3. **Transit Station Areas are in the Planning section. Click in the Planning box. Then click in the Transit Station Regulatory box.**

Appendix E
Natural Area Mitigation Form

CITY OF CHARLOTTE
POST-CONSTRUCTION CONTROLS
NATURAL AREA MITIGATION FORM
Form # PCO-001

For office use only
Storm Water Management Permit Number: _____
Date Approved: _____ Approved by: _____
Comment: _____

Owner/Contact Information (Completed by Applicant)
Owner's Name: _____
Owner's Address: _____
(Street Address and Number) *(City, State, Zip Code)*
Phone Number: _____
Email Address: _____
Design Firm Name: _____
Design Firm Address: _____
(Street Address and Number) *(City, State, Zip Code)*
Design Professional: _____

Project Information (Completed by Applicant)
Project Name: _____
Project Address _____Charlotte, NC _____
(Street Address and Number) *(Zip Code)*

Watershed District: ☐ Western Catawba, ☐ Central Catawba, ☐ Yadkin/Southeast Catawba
Creek/Stream Basin: _____
Tax Parcel(s) _____
Zoning: _____
Total Site (acres) _____ Built-Upon Area (acres) _____
Natural Area required (acres): _____ Natural Area Pre-Approved (acres) _____
Natural Area Mitigated (acres): _____Onsite (acres): _____ Offsite (acres): _____
Comments:_____
_____
_____
_____

Offsite Mitigation
Type of Mitigation ☐ Land Dedication, ☐ Land Conservation Easement

Plat/Deed enclosed ☐ Yes, ☐ No (Grading Not Approved)
Offsite Parcel Identification: _____
Owner's Name: _____
Site Address: _____Charlotte, NC _____
(Street Number and Name) (Zip Code)
Offsite Parcel Number: _____

Appendix F
Total Phosphorus Mitigation Form

CITY OF CHARLOTTE
POST-CONSTRUCTION CONTROLS
TOTAL PHOSPHORUS MITIGATION FORM
Form # PCO-002

For office use only
Storm Water Management Permit Number: _____
Date Approved: _____ Approved by: _____
Comment: _____

Owner/Contact Information (Completed by Applicant)
Owner's Name: _____
Owner's Address: _____
(Street Address and Number) *(City, State, Zip Code)*
Phone Number: _____
Email Address: _____
Design Firm: _____
Design Professional Name: _____
Design Firm Address: _____
(Street Address and Number) *(City, State, Zip Code)*

Project Information (Completed by Applicant)
Project Name: _____
Project Address _____Charlotte, NC _____
(Street Address and Number) *(Zip Code)*

Watershed District: ☐ Western Catawba, ☐ Central Catawba, ☐ Yadkin/Southeast Catawba
Creek/Stream Basin: _____
Tax Parcel(s) _____
Zoning: _____
Total Site (acres) _____ Built-Upon Area (acres) _____
Total Phosphorus (lbs.): _____ Total Phosphorus Treated Onsite (lbs.) _____
Total Phosphorus Mitigated Offsite/Buy down (lbs.): _____
Other: _____

Type of Mitigation ☐ Offsite, ☐ Buy Down

Offsite Only

Plat/Deed enclosed (Offsite Only) ☐ Yes, ☐ No (Grading Not Approved)
Offsite Parcel Identification: _____
Owner's Name: _____
Site Address: _____Charlotte, NC _____
(Street Number and Name) (Zip Code)

Buy Down Only

TP Buy Down Spreadsheet Report Attached ☐ Yes ☐ No
Amount Paid: $_____

Appendix G1

Post-Construction Stormwater
Best Management Practices
Operations and Maintenance Agreement
and
Easement Agreement

Above Space Reserved for Recording

After recording, return to:

TAX CODE NOS.: _____

SITE ADDRESSES: _____

Post-Construction Stormwater Best Management Practices Operations and Maintenance Agreement and Easement Agreement

This Post-Construction Stormwater Best Management Practices Operations and Maintenance Agreement and Easement Agreement (the "Agreement") is entered into and agreed upon as of _____, _____,(the "Effective Date") by and between _____ (the "Property Owner"), and the **CITY OF CHARLOTTE**, a municipal corporation organized under the laws of the State of North Carolina (the "City").

The term "Property Owner" as used herein means the owner(s) of the Property (as hereinafter defined), together with their successors and assigns who take or succeed to ownership of the Property (or any portion thereof).

WHEREAS, the Property Owner is the current owner of certain real property more particularly described by deed recorded with the Register of Deeds of Mecklenburg County, North Carolina, in Deed Book _____ at Page _____ , having tax parcel ID # _____, and located at _____(hereinafter referred to as "the Property"); and

WHEREAS, the City of Charlotte ("the City") and the Property Owner, its administrators, executors, successors, heirs, or assigns, (the "Parties"), agree that the health, safety and welfare of the citizens of the City require that the Best Management Practices facility or facilities (collectively, the "BMP Facilities") shown on the approved development plans and specifications for the Property must be constructed and maintained for the Property, and,

WHEREAS, the City of Charlotte Post-Construction Stormwater Ordinance (Sections 18-101 *et seq*. of the Charlotte City Code of Ordinances, hereinafter called the "PCSO") requires that the stormwater BMP Facilities shown on the approved development plans and specifications be constructed and maintained by the Property Owner; and.

WHEREAS, pursuant to the provisions of the PCSO, the City requires that Property Owner execute and record this Agreement and convey the easements and rights described herein as a condition to the City issuing Certificates of Occupancy for Property Owner's development on the Property;

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the Parties hereto agree as follows:

1. The BMP Facilities shall be constructed by the Property Owner in accordance with the PCSO and the approved development plans and specifications for the Property.

2. The Property Owner shall maintain the BMP Facilities in good working condition acceptable to the City and in accordance with the Operations and Maintenance Tasks and Schedules found in the PCSO Administrative Manual ("the Administrative Manual").

3. The Property Owner hereby gives, grants, and conveys to the City a post-construction control maintenance easement ("PCCE") as shown on the attached Exhibit or in Map Book:_____ and Page:_____ which will allow the City to inspect, monitor, maintain, repair or reconstruct the BMP Facilities. This PCCE shall include twenty (20) foot wide access that will connect the BMP Facilities to a public right-of- way, which will allow the City the access it requires to inspect, monitor, maintain, repair or reconstruct the BMP Facilities.

4. The Property Owner hereby grants permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the BMP Facilities whenever the City deems it necessary. Whenever possible, the City shall provide notice to the Property Owner prior to entry. The right of entry in no way confers an obligation on the City to assume responsibility for the BMP Facilities.

5. In the event the Property Owner fails to maintain the BMP Facilities as described in the PCSO and the Administrative Manual or approved development plans and specifications for the Property, the City, after reasonable notice to the Property Owner, may assess fines and enter the Property and take whatever steps the City deems necessary to return the BMP Facilities to good working condition acceptable to the City. It is expressly understood and agreed by the Parties that the City is under no obligation to construct, maintain or repair the BMP Facilities and in no event shall this Agreement be construed to impose any such

obligation on the City.

6. The Property Owner shall be fully responsible for having the BMP Facilities inspected annually by a qualified inspector, as determined by the Storm Water Administrator, and shall provide to the City, at no additional costs to the City, an Annual Maintenance and Inspection Report as provided in the Administrative Manual (see Appendix D). The Property Owner's failure to provide to the City said Annual Maintenance and Inspection Report within the appropriate time as defined in the Administrative Manual may result in fines to the Property Owner. The Storm Water Administrator at his/her discretion may make annual inspections of the BMP Facilities to insure that the required maintenance has been conducted appropriately and the performance of the BMP Facilities is in compliance with the PCSO.

7. In the event the City, pursuant to the Agreement, performs work of any nature to the BMP Facilities, or expends any funds in the performance of said work for labor, use of equipment, supplies, materials, and the like, the Property Owner shall reimburse the City, or shall forfeit any required bond upon demand, within thirty (30) days of receipt from the City of a list for all the costs incurred by the City hereunder. If the Property Owner has not reimbursed the City within the above mentioned time period, the City shall secure a lien against the Property in the amount of said costs. The actions described in this paragraph are in addition to and not in lieu of any and all legal remedies available to the City as a result of the Property Owner's failure to maintain the BMP Facilities.

8. It is the intent of the Parties to insure the proper maintenance of the BMP Facilities by the Property Owner; provided, however, that this Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or caused by storm water runoff in addition to any such liability otherwise existing under applicable law.

9. Sediment accumulation and other waste materials resulting from the normal operation of the BMP Facilities shall be removed by the Property Owner. The Property Owner will make arrangements at the Property Owner's expense for the removal and off-site disposal of all accumulated sediments and other waste materials.

10. In the event a Property Owner sells or transfers the Property, the transferring Property Owner shall provide to the City, a Declaration of Transfer of Inspection/Maintenance Responsibilities of Stormwater BMP Facilities as provided in the PCSO Administrative Manual (see Appendix "O") signed by the transferring Property Owner and the transferee and witnessed by a public notary to document that all maintenance responsibilities have been transferred and communicated to such transferee. Upon such transfer or conveyance of the Property by the transferring Property Owner, all obligations of the transferring property Owner hereunder shall automatically be transferred and assigned to, and assumed by transferee and such transferee shall be and become the "Property Owner" under this Agreement.

11. The Property Owner hereby agrees to indemnify and hold harmless the City and its authorized agents and employees for any and all damages, accidents, casualties, occurrences

or claims that might arise or be asserted against the City from the construction, operation, repair, presence, existence or maintenance of the BMP Facility or BMP Facilities. In the event a claim is asserted against the City, its authorized agents or employees, the City shall promptly notify the Property Owner and the Property Owner shall defend the City, its authorized agents or employees at the Property Owner's own expense against any such claim. If any judgment or claims against the City, its authorized agents or employees shall be allowed, the Property Owner shall pay for all costs and expenses, including attorneys' fees, in connection therewith.

12. This Agreement shall be recorded by the Property Owner among the deed records of the Mecklenburg County Register of Deeds and shall constitute a covenant running with the land and shall be binding on the Property Owner The City may choose to withhold the release of any certificates of occupancy for the Property until such time that this Agreement has been recorded by the Property Owner with the Register of Deeds in Mecklenburg County

13. This Agreement may be enforced by proceedings at law or in equity by or against the Parties hereto and their respective successors in interest.

14. Invalidation of any one of the paragraphs of this Agreement shall in no way affect any other paragraphs and all other paragraphs shall remain in full force and effect.

16. In such cases where development has been deemed single family residential by definition, the Property Owner may petition the City to accept major maintenance responsibilities for the Best Management Practices for that development only after a two year warranty period has expired and the City has determined that the BMP Facilities meet the design requirements of the BMP Design Manual and Land Development Standards, and that all maintenance responsibilities have been upheld during this two year period successfully. It is further understood that the Property Owner will continue to provide routine maintenance activities as identified in the Administrative Manual after the City has agreed to accept the BMP Facilities for maintenance. Should at any time the City discover that the Property Owner has not performed the routine maintenance activities identified in the Administrative Manual in an acceptable manor; the City may impose all fines and remedies allowed by law.

IN WITNESS WHEREOF, Property Owner acknowledges and agrees to the terms of this agreement as of this _____day of _____,

ATTEST:	PROPERTY OWNER
_____	_____
(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

SEAL

My commission expires _____

Notary Public

Appendix G2

Post-Construction
Stormwater Control Measure
Operations and Maintenance Tasks and Schedules

Wet Pond Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Forebay inspection and cleanout	Monthly inspection. 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
Bank mowing and inspection / stabilization of eroded areas	Monthly
Outlet / inlet inspection and cleanout	Monthly
Unwanted vegetation and trash removal	Monthly
Visual inspection of water quality	Monthly
Inspect / exercise all mechanical devices, valves, etc	Yearly
Inspect for structural damage, leaks, etc	Yearly
Rodent management	As needed
Security	As needed

Dry Pond Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Forebay inspection and cleanout	Monthly inspection. Remove sediment every 7 years or when sediment volume exceeds 50% of storage volume
Bank mowing and inspection / stabilization of eroded areas	Monthly
Outlet / inlet inspection and cleanout	Monthly
Unwanted vegetation and trash removal	Monthly
Inspect for structural damage, leaks, etc	Yearly
Inspect / exercise all mechanical devices, valves, etc	Yearly
Evaluate sediment level (remove as needed)	Yearly
Security	As needed

Wetland Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Forebay cleanout	Monthly inspection. Remove sediment every 7 years or when sediment volume exceeds 50% of storage volume
Invasive species control / vegetation management and replanting to maintain design densities	Semi-Annual
Bank mowing and stabilization of eroded areas	Monthly
Outlet / inlet inspection and cleanout	Monthly
Trash removal	Monthly
Inspect for structural damage, leaks, etc	Yearly
Visual inspection of water quality	Monthly
Rodent and mosquito management	As needed
Evaluate sediment level (remove at 20 yrs. or when plants are being impacted)	Yearly
Security	As needed

Bioretention Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Sedimentation prevention	Monthly inspection and watch on surrounding drainage areas such as out parcels and parking lots
Drop box clean off	Monthly
Perimeter mowing	Monthly (maintain 2 – 6 inch height)
Inspect for proper drawdown / clogging	Monthly
Stabilization of eroded areas	Monthly
Trash removal	Monthly
Pruning	Yearly
Mulch renewal	Yearly
Mulch replacement	Every 3 years
Inspect plants, replace as necessary	Monthly
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
Perimeter mowing	Monthly

Sand Filter Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Street sweep parking lot	Quarterly
Trash removal	Monthly
Inspect outlet for obstructions	Monthly
Inspect for clogging	Monthly
Inspect inlet grates	Monthly
Skim sand media	Yearly
Pump oil and grit from sedimentation chamber	Yearly or at 50% full
Replace sand media	As needed (expect 3 years)

Infiltration Trench Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Maintain stone or mulch top surface	Yearly
Clean forebay if present	Yearly or at 50% full
Trash removal	Monthly
Remove unwanted vegetation	Monthly
Check observation wells following precipitation events to ensure proper infiltration	Monthly

Grassed Channels / Enhanced Swales Maintenance Tasks and Schedule	
TASK	**SCHEDULE**
Mowing	Weekly – Monthly (as needed to retain 2-6 inch height)
Inspect condition of dispersion devices and check dams	Yearly
Trash removal	Weekly – Monthly (prior to mowing)
Reseed	Yearly
Stabilization of eroded areas	Monthly
Removal of sediment	Yearly
Inspect for clogging (enhanced swale)	Monthly
Inspect pea gravel diaphragm and replace / repair as necessary	Monthly

Filter Strip with Flow Dispersion Maintenance and Schedule	
TASK	**SCHEDULE**
Mowing of grass	Weekly – Monthly (as needed to retain 2-6 inch height)
Stabilization of eroded areas throughout the filter strip and below the flow dispersion device.	Monthly
Inspect gravel diaphragm (if present) and remove sediment	Yearly
Check outlet pipes on berms (if present) for clogging	Monthly
Remove debris / unwanted vegetation from behind lip of level spreader (if present)	Monthly
Repair flow dispersion device to prevent formation of channels in filter strip	Monthly as needed
Reseeding of grass	Yearly

Appendix G3

Post-Construction Stormwater
Stormwater Control Measure
Maintenance and Inspection Checklists

City of Charlotte SCM Maintenance and Inspection Check List
Grassed Channels / Swales
[Note: a separate form must be used for each SCM]

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

Type of Inspection: Visual

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

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____
_____
_____
_____
_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following

address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

City of Charlotte SCM Maintenance and Inspection Check List
Wet Pond
[Note: a separate form must be used for each SCM]

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

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

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

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____

_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following

address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

City of Charlotte SCM Maintenance and Inspection Check List
Wetland
[Note: a separate form must be used for each SCM]

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

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

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

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____

_____

_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following

address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

City of Charlotte SCM Maintenance and Inspection Check List
Bioretention
[Note: a separate form must be used for each SCM]

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

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

Condition of outlet / drop box			M	
8. Dewatering (drawdown must be between 48 hours and 120 hours)				
Evidence of standing water			M	
9. Overall functionality				
Evidence of bypass			M	
P Index test results for soil media (indicate test results and date last tested)			Y2	
10. Miscellaneous				

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly, Y2=every 2 yrs. (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____
_____
_____
_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following

address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

City of Charlotte SCM Maintenance and Inspection Check List
Dry Pond
[Note: a separate form must be used for each SCM]

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

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

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

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____
_____
_____
_____
_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following

address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

City of Charlotte SCM Maintenance and Inspection Check List
Sand Filter
[Note: a separate form must be used for each SCM]

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

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

Evidence of bypass			M	
11. Miscellaneous				

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____
_____
_____
_____
_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following

address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

City of Charlotte SCM Maintenance and Inspection Check List
Infiltration Trench
[Note: a separate form must be used for each SCM]

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

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

10. Miscellaneous

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____
_____
_____
_____
_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

City of Charlotte SCM Maintenance and Inspection Check List
Filter Strips with Flow Dispersion
[Note: a separate form must be used for each SCM]

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

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

7. Miscellaneous

W=Weekly, M=Monthly, Q=Quarterly, Y=Yearly (revision 6/07)

<u>If applicable:</u> Attach to this form documentation of SCM 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:

_____
_____
_____
_____
_____

I do hereby certify that I conducted an inspection of the SCM described herein. I further certify that at the time of my inspection said SCM was performing properly and was in compliance with the terms and conditions of the approved maintenance agreement required by the Post-Construction Stormwater Ordinance.

Certification:

_____ _____

Inspectors Signature **Date**

(seal)

[Note: The Post-Construction Stormwater Ordinance requires that inspections be conducted of all SCMs beginning within one (1) year from the date of as-built certification and each year thereafter and that these inspections be completed by a North Carolina Professional Engineer or Landscape Architect. All inspections must be documented and submitted using this form. The inspection form must be signed and sealed by the inspector and mailed to the Storm Water Administrator at the following address: Storm Water Administrator, Charlotte Storm Water Services, 600 East Fourth Street, Charlotte, NC 28202.]

Appendix H
Notice of Compliance Penalty

CHARLOTTE

NOTICE OF COMPLIANCE PENALTIES

POST-CONSTRUCTION STORMWATER ORDINANCE

CERTIFIED MAIL

Notice Date:	Notice of Violation Date:
Parcel Number:	Compliance Date:
Owner/Responsible Party:	Days out of Compliance:
Address:	Civil Penalty Amount: $

Case Number:

Pursuant to the attached Notice of Violation, an inspection has been completed for the subject parcel and the appropriate measures have been completed which brings the parcel into compliance with the City of Charlotte's Post-Construction Stormwater Ordinance.

This letter serves to inform you that a civil penalty in the amount shown above has been issued for the non-compliance time period calculated since the date of the Notice of Violation. Please submit a check or money order made payable to the City of Charlotte directed to the attention of the Storm Water Administrator, Storm Water Services, 600 East Fourth Street 14th Floor, Charlotte, NC 28202.

If you have any questions or feel there is an error in the assessment of this penalty, please contact me at the phone number listed below or an appeal hearing can be requested per Section 205 of the ordinance. If you wish to appeal the penalty, please send a request in writing along with a $100.00 filing fee to the Clerk of SWAC, Mecklenburg County, 700 North Tryon Street, Charlotte, NC 28202. The Clerk of SWAC will schedule a hearing at the next scheduled meeting of the Storm Water Advisory Committee. If payment is not received or a hearing has not been scheduled within thirty (30) days of the date of this notice, the matter will be referred to the City Attorney for institution of a judicial civil action to collect the penalty

If you have any questions regarding this notice, please contact me at the phone number listed below.

Issued By:

Storm Water Administrator
Phone 704-336-2291

cc: City Attorney

Appendix I
Notice of Violation

CHARLOTTE

NOTICE OF VIOLATION

POST-CONSTRUCTION STORMWATER ORDINANCE

CERTIFIED MAIL

Notice Date: Compliance Date:
Parcel Number:
Owner/Responsible Party:
Address:

Case Number:

You are on record as the owner or responsible party for the water quality feature(s) on the subject parcel which has been identified as being out of compliance with the City of Charlotte's Post-Construction Stormwater Ordinance. The attached inspection report document outlines the specifics of the violation and the corrective action necessary to bring the parcel into compliance.

If these requirements are not met and inspected by this office on or before the date noted above as compliance date, you will be liable for civil penalties as determined by the Post-Construction Stormwater Ordinance, Section 703, in the amount of up to the maximum allowed by law. Each day that a violation continues shall constitute a separate and distinct violation of the offense.

The City of Charlotte will take any steps deemed necessary to secure compliance with these requirements and this matter requires your immediate attention. Should you have questions or wish to arrange for an inspection, contact me at 704-336-2291.

You should not assume the property is in compliance with the ordinance until being notified in writing by the Storm Water Administrator.

Issued By:

Storm Water Administrator
Phone 704-336-2291

Appendix J
Notice of Violation Penalty

CHARLOTTE.

NOTICE OF VIOLATION PENALTY

POST-CONSTRUCTION STORMWATER ORDINANCE

CERTIFIED MAIL

Notice Date:
Parcel Number:
Owner/Responsible Party:
Address:

Case Number:

You are on record as the owner or responsible party for the water quality feature(s) on the subject parcel which has been identified as being out of compliance with the City of Charlotte's Post-Construction Stormwater Ordinance. The attached inspection report document outlines the specifics of the violation and the corrective action necessary to bring the parcel into compliance.

This notice serves to inform you that at this time you are liable for civil penalties as determined by the Post-Construction Stormwater Ordinance, Section 703, in the amount of up to the maximum allowed by law. Each day that a violation continues shall constitute a separate and distinct violation of the offense.

The City of Charlotte will take any steps deemed necessary to secure compliance with these requirements and this matter requires your immediate attention. Should you have questions or wish to arrange for an inspection, contact me at 704-336-2291.

You should not assume the property is in compliance with the ordinance until being notified in writing by the Storm Water Administrator.

Issued By:

Storm Water Administrator
Phone 704-336-2291

cc: City Attorney

Appendix K
Notice of Inspection

CHARLOTTE.

POST-CONSTRUCTION STORMWATER ORDINANCE

NOTICE OF INSPECTION
STORMWATER CONTROL MEASURE

To: Date:

Re: Post-Construction Stormwater Ordinance
SCM Maintenance Inspection

Property Owner:

This letter serves to notify you that the Storm Water Administrator for the City of Charlotte has performed an inspection of you property and found the Stormwater Control Measure feature(s) required by the Post-Construction Stormwater Ordinance maintenance agreement filed with the Mecklenburg County Register of Deeds is not in compliance with the ordinance.

You have (15) fifteen days from the date of this notice to respond to the Storm Water Administrator with your intent to correct the deficiencies noted in the included inspection report. You may contact this office if you feel that this notice has been issued incorrectly or if you need additional information regarding this request.

You must contact our office to schedule a follow up inspection to verify that the deficiencies have been corrected and compliance has been restored. Do not assume that correcting the deficiencies without notification will restore compliance. Failure to follow this procedure may result in a Notice of Violation with Penalties and fines. You should not assume that the property is in compliance with the ordinance until being notified in writing by the Storm Water Administrator.

Storm Water Administrator
City of Charlotte
Engineering and Property Management
Storm Water Services
600 East Fourth Street, 14th Floor
Charlotte, NC 28202
Phone 704-336-2291

Appendix L
Storm Water Advisory Committee Appeal

POST-CONSTRUCTION STORMWATER ORDINANCE

REQUEST FOR APPEAL
TO STORM WATER ADVISORY COMMITTEE
FROM A DECISION
OF THE CITY ENGINEERING STAFF

Date Filed: _____

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

_____	)	
_____	)	
(print your name)	)	
PETITIONER,	)	
	)	
vs.	)	REQUEST FOR APPEAL
	)	
CITY OF CHARLOTTE	)	
ENGINEERING DEPARTMENT	)	
	)	
RESPONDENT.	)	

I hereby ask for a hearing as provided for by the City of Charlotte Post-Construction Controls Ordinance to review the decision of the City of Charlotte Engineering Department as stated in the

- ❑ Assessment of a Civil Penalty
- ❑ Notice of Violation
- ❑ Order of Restoration
- ❑ Plan Disapproval or Modification

dated: _____,

for the property located at:

_____

(Address)

and activity known under the project name

of:_____.

_____

❑ Payment of the $100 filing fee is enclosed and payable to Mecklenburg County.

Briefly state facts showing how you believe you have been harmed by the decision or action of the Storm Water Administrator and your contention of the issues to be determined.

_____

_____

_____

_____

_____

_____

_____

_____

❑ Check here if you plan to have legal representation at the appeal.
Please provide the attorney's name, mailing address, phone number, fax number, & e-mail address on the signature page of this application.

Parties involved in the land-disturbing activities:

Financial Responsible Party/ Owner _____

Developer/Builder _____

Contractor conducting the activity _____

On-site Field Superintendent _____

Any changes in information on this application must be presented to the Clerk to the Storm Water Advisory Committee 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	Represented by (Signature):
_____	_____
Type or print applicant's name	Type or print representative's name
_____	_____
Applicant's title	Representative's title
_____	_____
Company Name	Company Name
_____	_____
Address	Address
_____	_____
City, State, Zip Code	City, State, Zip Code
_____	_____
Date	Date
_____	_____
Telephone Number	Telephone Number
_____	_____
Fax Number	Fax Number
_____	_____
E-mail Address	E-Mail Address

Appendix M
Request for Variance

Types of Variance/Appeal Requests

There are two types of requests handled by Storm Water Services staff and the Storm Water Advisory Committee as authorized by Post-Construction Stormwater Ordinances for all jurisdictions except the Towns of Huntersville and Cornelius. Below, please find a brief description of each request type.

1. **Variance Request – (Submit forms 1and 2 only)**
   This is a request to vary the standards of the Post-Construction Stormwater Ordinance. One common variance request is for an applicant to seek relief from a requirement of one part of the Ordinance by providing alternate means of meeting the Ordinance.

   Example: An applicant requests to reduce the Channel Protection Volume being held by treating a greater amount of impervious area for the Water Quality Volume.

   Decision Maker: Storm Water Advisory Committee

   Requirements (all four must be true):
   a. Unnecessary hardships would result from the strict application of this ordinance; and
   b. The hardships result from conditions that are peculiar to the property, such as the location, size or topography of the property; and
   c. The hardships did not result from the actions taken by the petitioner; and
   d. The requested variance is consistent with the spirit, purpose, and intent of this ordinance; will secure public safety and welfare; and will preserve substantial justice.

2. **Appeal Request – (Submit forms 1 and 3 only)**
   This type of request is initiated when an applicant feels that the storm water administrator, enforcement officer or plans reviewer has made an error in applying the standards of the Post-Construction Controls Ordinance. One common appeal results from a disagreement between an applicant and enforcement officer when a Notice of Violation has been issued for an alleged violation of the ordinance.

   Example: An applicant receives a Notice of Violation for not maintaining a Stormwater Control Measure (SCM); however, the applicant claims that the SCM is functioning as it should.

   Decision Maker: Storm Water Advisory Committee

   Requirements: An error in the application of the ordinance must be found in order to reverse the decision of the Storm Water Ordinance Administrator, enforcement officer or plans reviewer.

Application Procedures and Instructions

The following is the general instructions for filing any of the two requests discussed above. Specific application submittal checklists and instructions are included later for each of the forms described below:

Submission of Application Forms

a. **Pre-meeting Requirement.** A pre-meeting with storm water services staff is required prior to the submission of any type of application. The Petitioner is encouraged to contact the appropriate Storm Water Administrator to set up an appointment.

b. **Application Deadlines**. Applications must be submitted in accordance with the Schedule of Meetings and Submission Deadlines of the SWAC Schedule of Meetings and Submission Deadlines. Note - a request for an appeal must be filed within 30 days of the date the decision was rendered.

c. Application Types

i. **For a variance request**, forms 1 and 2 must be completed and submitted with the required materials indicated on the Variance Request Checklist.

ii. **For an appeal request**, forms 1 and 3 must be completed and submitted with the required materials indicated on the Appeal Request Checklist.

d. **Fees.** A non-refundable fee of $100 is required to be paid when submitting the application form to the Clerk. Checks are made payable to MECKLENBURG COUNTY.

e. **Application Filing.** Completed applications shall be delivered to:

Ms. Vivian love
Clerk to the Charlotte-Mecklenburg Storm Water Advisory Committee
Mecklenburg County LUESA
Water & Land Resources
700 N. Tryon St., HMSC Suite 205
Charlotte, NC 28202

f. **Signature Required.** Each form is to be properly signed. Unsigned applications cannot be accepted.

g. **Completeness Requirement**. Illegible and incomplete applications cannot be accepted. Applicants are strongly encouraged to type their applications. Electronic versions of these applications are available at Storm Water Services website.

h. **Variance Hearing Date.** Applications are placed on the Charlotte-Mecklenburg Storm Water Advisory Committee agenda according to the date they are received, subject to the availability of the parties and other relevant factors. The Clerk shall send notice to the applicant at least 10 days before the variance hearing date and inform the applicant of the date, time and place of the variance hearing. Adjacent property owners shall be notified at the same time as the Committee of the variance/appeal hearing in advance so that they may offer comments to the Committee through the Storm Water Administrator.

i. **Questions.** Should there be any questions concerning the application or the application process, the Clerk may be contacted at 704-336-6171 or by e-mail, Vivian.Love@mecklenburgcountync.gov.

Application Processing by Staff

The following describes how staff handles your application once submitted:

Staff Processing

a. **Check for Completeness.** Staff will ensure that the application is complete and signed by the appropriate parties.

b. **Schedule the Case**. The Clerk will assign a hearing date.

c. **Alternatives Analysis.** Staff will review the complete application and the ordinance to determine if any alternatives exist during your pre-application meeting.

d. **Site Visit**. Staff may visit the site and take photographs for use at the hearing.

e. **Adjacent Property Owner Notification.** The Storm Water Administrator will prepare and the Clerk will mail hearing notices to adjoining property owners, the applicant and agent.

f. **Packets Sent to Storm Water Advisory Committee Members.** Meeting agendas and application packets are mailed to Storm Water Advisory Committee members approximately 10 days prior to the hearing date.

g. **Staff Report.** Staff will prepare a staff report and make a recommendation on the request.

h. **Public Hearing.** A public hearing is held for all cases that require Storm Water Advisory Committee action. Meetings occur on the third (3rd) Thursday of every month.

Hearing Procedures

The following describes how the Storm Water Advisory Committee conducts appeal and variance hearings:

1. **Order for each Storm Water Advisory Committee Agenda Item**:

a. The chairman will ask all those wishing to speak on an item to stand and be sworn in. All testimony must be given under oath.
b. A Storm Water Services staff member will explain why a permit was denied, or why a variance is requested and offer staff's recommendation.
c. The Committee may question the staff member, and then the Applicant may question the staff member.
d. The Applicant presents his testimony for this case.
e. The Committee may question the Applicant, and the staff member may question the Applicant.
f. The Applicant may present sworn witnesses. They will be subject to questioning.
g. Other parties wishing to speak, pro or con, will be given reasonable time to present sworn testimony.
h. The staff and then the Applicant will be given an opportunity for rebuttal and final comments.

2. **Sworn Testimony**. The Committee is acting in a quasi-judicial capacity for purposes of this hearing and can accept only sworn testimony. While the Committee will not specifically exclude hearsay evidence, it is only given limited weight.

3. **Legal Representation.** If the option is chosen, an attorney may represent any party at the hearing at your expense.

4. **Speaker Registration.** All parties who plan to give testimony, pro or con, must complete the signup form to speak. The signup form is available in the meeting room.

3. **Committee Decision**. After hearing all cases, the Committee will review each case and render a decision. This is
usually done during the Committee meeting.
However, the Committee may elect to take up to thirty working (30) days to render a decision.
a. Any interested party may remain present during the deliberations, or
b. The interested party may call the Storm Water Services staff after the session to receive the decision of the Committee.

4. **Exhibits**. All exhibits must remain with the Committee. At the hearing, the presenter must first hand exhibits to the clerk for tagging, the presenter may then proceed to present the exhibit to the Committee. If the case is not appealed to Superior Court thirty (30) days after the Committee's decision is filed, the presenter may pick up the exhibits. Exhibits not picked up will be destroyed.

5. **Conflict of Interest.** If the presenter feels there is a conflict of interest of any Member of the Committee or an association that would prejudice the case, the presenter needs to bring this to the attention of the committee at the start of the case.

6. **Appeals.** Appeal from this Committee is to the Mecklenburg County Superior Court. An appeal must be filed within thirty (30) days from the date of the Committee's written decision.

7. **All cell phones, pagers, PDAs, and other electronic devices need to be turned off during the hearing**.

8. To h**elp the Committee run an efficient meeting**:
a. All testimony is to be kept to the relevant facts of the case. Committee members review the application packet prior to the meeting so they will be familiar with the request.

b. Testimony should not be repeated.
c. Hearsay evidence can be given only limited weight. Applicants and witnesses should have first hand knowledge of the situation.

Mecklenburg County and The City of Charlotte will comply with the American with Disabilities Act (ADA), which prohibits discrimination on the basis of disability. If you need special accommodations to attend and participate in the meeting or need this information in an alternative format because of your disability, please contact the Clerk at 704-336-6171 at least 72 hours prior to the meeting.

Notice of Petition for Variance Request
City of Charlotte Post-Construction Stormwater Ordinance

INSTRUCTIONS FOR FILING A PETITION FOR VARIANCE

Instructions

1. **Fill out all application forms completely**. Because the Charlotte-Mecklenburg Storm Water Advisory Committee 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. Completed applications shall be delivered to:

   Ms. Vivian Love
   Clerk to the Charlotte-Mecklenburg Stormwater Advisory Committee
   Mecklenburg County LUESA
   Water & Land Resources
   700 N. Tryon ST, HMSC Suite 205
   Charlotte, NC 28202

3. A $100 Filing Fee is required to be paid when submitting the application form to the Clerk. Make checks payable to MECKLENBURG COUNTY.

4. Applications are placed on the Charlotte-Mecklenburg Stormwater Advisory Committee agenda according to the date they are received, subject to the availability of the parties and other relevant factors. The Clerk shall contact you at least three weeks before your variance hearing date and inform you of the date, time and place of the variance hearing.

5. Should you have any questions concerning the application or the application process, you may consult with the Clerk, at 704-336-6171 or by e-mail, Vivian.love@mecklenburgcountync.gov.

6. In order for the Charlotte-Mecklenburg Storm Water Advisory Committee to grant a variance, a hardship, as defined in the Post-Construction Stormwater Ordinance must be demonstrated. Only under the following conditions shall a hardship be granted (all must be met per Section 205 of the Ordinance):

   a. Unnecessary hardships would result from the strict application of this ordinance;

   b. The hardships result from conditions that are peculiar to the property, such as the location, size or topography of the property;

   c. The hardships did not result from actions taken by the petitioner;

   d. The requested variance is consistent with the spirit, purpose, and intent of this ordinance; will secure public safety and welfare; and will preserve substantial justice.

Checklist

- ☐ If applicable, attach a copy of your permit or plan review comments if this variance request 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; and
  - shade in the map to highlight the portion of the improvements that are subject to the requested variance.

- ☐ Any exhibits, calculations, analysis, and documentation to substantiate the variance request.

Additional Information:

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

2. If this variance request is a result of a Notice of Violation, no further enforcement action shall be taken until the Charlotte-Mecklenburg Storm Water Advisory Committee makes a decision regarding your case.

3. Once a case has been heard, the Charlotte-Mecklenburg Storm Water Advisory Committee 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. The Charlotte-Mecklenburg Storm Water Advisory Committee meets on the third Thursday of the month.
2. It is **strongly** recommended that the variance applicant meet with the City of Charlotte Storm Water Administrator at least thirty (30) days before the variance hearing to discuss the case.
3. If you feel any member of the Charlotte-Mecklenburg Storm Water Advisory Committee has a conflict of interest of, or an association that would prejudice your case, please let it be known at the start of your variance hearing.
4. The variance hearing is a quasi-judicial proceeding for which only sworn testimony is accepted.
5. All of your hearing exhibits should be numbered and must remain with the Charlotte-Mecklenburg Storm Water Advisory Committee. Please hand your exhibits to the Clerk when you arrive for the variance hearing. You may show other materials, but do not hand them to the Committee unless you are prepared to leave them.
6. After hearing the variance request, the Charlotte-Mecklenburg Storm Water Advisory Committee shall review the testimony and render a decision. This is usually, but not always, done immediately following the hearing. If a decision is not rendered at such time, you may call the staff attorney after the hearing to receive the decision of the Committee.
7. You may remain present during the Charlotte-Mecklenburg Storm Water Advisory Committee's deliberations, but no further testimony may be presented by the parties.

8. All variance requests held before the Charlotte-Mecklenburg Storm Water Advisory Committee are recorded by a certified court reporter and a verbatim transcript of the hearing may be purchased from the court reporter.
9. Any party aggrieved by the decision of the Charlotte-Mecklenburg Storm Water Advisory Committee with regard to the disapproval of the variance request shall have thirty (30) days from the receipt of the decision of the Charlotte-Mecklenburg Storm Water Advisory Committee to file a petition for review in the nature of certiorari in Superior Court with the Clerk of Mecklenburg County Superior Court.

Notice of Petition for Variance Request – Form #1
Charlotte-Mecklenburg Storm Water Advisory Committee

City of Charlotte Post-Construction Stormwater 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 applicant is not the owner, the owners must sign the Designation of Agent section at the bottom of this form.

The Applicant Hereby (check all that apply):

☐ Requests a variance from the provisions of the City of Charlotte Post-Construction Stormwater Ordinance as stated on Form 2.

☐ Appeals the determination of the Storm Water Administrator as stated on Form 3.

Applicant or Agent's Name:

Mailing Address:

City, State, Zip:

Daytime Telephone: Home Telephone:

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

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

Mailing Address:

City, State, Zip:

Daytime Telephone: Home Telephone:

Property Address (if available):

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
Charlotte-Mecklenburg Storm Water Advisory Committee

City of Charlotte Post-Construction Stormwater 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 City of Charlotte Post-Construction Stormwater 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) THERE ARE PRACTICAL DIFFICULTIES OR UNCESSARY HARDSHIPS IN THE WAY OF CARRYING OUT THE STRICT LETTER OF THE ORDINANCE. 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 not 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 Charlotte-

Mecklenburg Storm Water Advisory Committee. 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 create adverse environmental impacts or cause flooding of downstream and surrounding properties.)

(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.)

Notice of Petition for Variance Request – Form #3
Charlotte-Mecklenburg Storm Water Advisory Committee
City of Charlotte Post-Construction Stormwater 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 City of Charlotte Post-Construction Stormwater Ordinance do you allege were applied in error? Please list each section, the requirement and the requested variance.

Item	Section	Requirement	Variance Request
A			
B			
C			
D			
E			

(2) Please describe why you believe the Ordinance sections listed above were applied in error. Inform the Committee as to what you believe is the appropriate application of each section.

A. Section

B. Section

C. Section

D. Section

E. Section

Appendix N
Letters of Intent

LETTER OF INTENT

RE: _____

This Letter of Intent ("LOI") is made by and between _____, Inc., a corporation doing business in North Carolina and the owner of a development site referred to as _____, located on a tract of land at _____ (the "Property") and the City of Charlotte, a North Carolina municipal corporation located in Mecklenburg County, North Carolina (the "City").

TERMS

1. _____ is the owner of the Property.

2. The undersigned, _____, (hereinafter, Financially Responsible Party)is executing this document on behalf of the owner and represents to the City that as the _____ (*e.g.*, *Executive Manager*) he/she is authorized to sign this LOI for and on behalf of _____. The undersigned further acknowledges and agrees that this LOI is binding upon _____ and any subsidiaries or successors in interest to _____ regardless of whether _____ is the fee-simple owner of the Property as of the effective date of this LOI.

3. The Financially Responsible Party has, in accordance with the City of Charlotte's Post-Construction Stormwater Ordinance ("PCO"), endeavored to manage stormwater runoff at the Property, as described in Attachment A to this LOI.

4. The Financially Responsible Party has fully or partially completed construction of the stormwater management features per the approved plan. Partially completed features include: ____i.e. Vegetation, mulching, or final approved inspection _____.

5. The Financially Responsible Party agrees to complete the construction, inspection, and approval of the abovementioned features by _____. Completion and approval will be determined through an inspection by the City in accordance with provisions of the PCO. This approval will mark the beginning of a 2 year warranty period on items covered in the inspection as described in Attachment A.

6. The Financially Responsible Party agrees to operate, inspect, maintain, establish, repair, and make functional the features required in the ordinance (i.e. SCM's) for the two(2) year warranty period. An inspection must be scheduled by the Financially Responsible Party, and the required features must pass inspection by the City prior to final approval and acceptance of the features required by ordinance by the City.

7. The Financially Responsible Party also agrees to secure an official Letter of Credit from its bank in the amount of $_____ that will be affixed to this document as Attachment B. Should the Financially Responsible Party default upon its obligations under paragraph 5 or 6, the City shall present the official Letter of Credit to the bank for remittance of the $_____, and may exercise other enforcement

actions as described in the PCO. Should, after the City has completed the construction, repair, or establishment of the features listed in paragraph 4, any remaining funds shall be returned to the Financially Responsible Party. Reasonable documentation of the costs and expenses will be provided upon request.

EFFECTIVE DATE: This the _____ day of _____, 200___.

IN WITNESS WHEREOF, the Parties have executed this Letter of Intent as of the date first written above.

FOR _____, INC.

BY:_____

NAME:_____

TITLE:_____

DATE:_____

FOR THE CITY OF CHARLOTTE

BY:_____

NAME:_____

TITLE:_____

DATE:_____

LETTER OF INTENT

RE: _____

This Letter of Intent ("LOI") is made by and between _____, Inc., a corporation doing business in North Carolina and the owner of a development site referred to as _____, located on a tract of land at _____ (the "Property") and the City of Charlotte, a North Carolina municipal corporation located in Mecklenburg County, North Carolina (the "City").

TERMS

1. _____ is the owner of the Property.

2. The undersigned, _____, (hereinafter, Financially Responsible Party)is executing this document on behalf of the owner and represents to the City that as the _____ (*e.g.*, *Executive Manager*) he/she is authorized to sign this LOI for and on behalf of _____. The undersigned further acknowledges and agrees that this LOI is binding upon _____ and any subsidiaries or successors in interest to _____ regardless of whether _____ is the fee-simple owner of the Property as of the effective date of this LOI.

3. The Financially Responsible Party has, in accordance with the City of Charlotte's Post-Construction Stormwater Ordinance ("PCO"), agreed to pay a stormwater runoff mitigation fee in lieu of building a stormwater control measure at the Property, as described in the site plan (that includes PCO Summary Table) attached hereto as Exhibit A.

4. The Financially Responsible Party or owner will provide funds in the amount of $_____ and a receipt of payment evidencing the same will be affixed to this document as Attachment B prior to the issuance of a Certificate of Occupancy. These funds shall be used by the City, to the extent practicable, to provide a stormwater stormwater control measure within the same named watershed.

5. The aforementioned payment does not remove responsibility of the owner to pay a stormwater fee assessed on the property.

EFFECTIVE DATE: This the _____ day of _____, 200___.

IN WITNESS WHEREOF, the Parties have executed this Letter of Intent as of the date first written above.

FOR _____, INC.

BY:_____

NAME:_____

TITLE:_____

DATE:_____

FOR THE CITY OF CHARLOTTE

BY:_____

NAME:_____

TITLE:_____

DATE:_____

Appendix O
Declaration of Transfer of SCM Inspection/Maintenance Responsibilities

DECLARATION OF
TRANSFER OF INSPECTION/MAINTENANCE
RESPONSIBILITIES OF STORMWATER
SCM FACILITIES

THIS DECLARATION, made this _____ day of _____, 20_____, between _____, hereinafter referred to as the "Property Owner," of the following property:_____
_____
_____,(the "Property") and _____, hereinafter referred to as the "Transferee" of said Property.

WITNESSETH:

The Property Owner, having fulfilled all necessary recordation requirements of a Post-Construction Stormwater Best Management Practices Operation and Maintenance Agreement and Easement Agreement ("Agreement") recorded with the Mecklenburg County Register of Deeds office at Book ____, Page _____,for one or more stormwater Best Management Practices facility or facilities (collectively, the "SCM Facilities") for the Property listed above, does hereby transfer inspection and maintenance responsibilities of said SCM Facilities to the Transferee as required by the Agreement when ownership of the property is transferred. By acknowledgement below, the Transferee acknowledges its assumption of the responsibilities of the SCM Facilities as required of the Property Owner and subsequent owners in the Agreement.

Upon the transfer or conveyance of the Property by the transferring Property Owner, all obligations of the transferring Property Owner automatically are transferred and assigned to, and assumed by Transferee and such Transferee becomes the "Property Owner" under the Agreement.

The Transferee agrees to indemnify and hold harmless the City of Charlotte, its authorized agents and employees ("City,"), from any and all claims for damages to persons or property arising from inspection and/or maintenance of the SCM Facilities as set forth in the Agreement.

The Property Owner must promptly notify the City when the Property Owner transfers any of the Property Owner's responsibilities for the SCM Facilities. The Property Owner must submit to the Stormwater Administrator a certified copy of any fully executed revised Declaration of Transfer for the SCM Facilities.

Declaration of Transfer of Inspection/Maintenance Responsibilities of Stormwater SCM Facilities (Page 2)

IN WITNESS WHEREOF, the Property Owner and the Transferee have executed this Declaration of Transfer on the date first above written.

_____	_____
Signature	Signature
_____	_____
Printed Name	Printed Name
_____	_____
Title Property Owner	Title Transferee

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 _____, Chief Administrative Officer, 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 Town of [Insert Town], 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 P
Built-Upon Area Guidance

Built-Upon-Area Guidance				
Is it considered New Built-Upon-Area (BUA), Routine Maintenance Activity, or Exempt?				
Information in this table is based on interpretations made by Storm Water Administrator and/or PCCO Tech Team and is only to be used as a guide.				
	Exempt from PCCO? (no treatment req'd)	Considered a routine maintenance activity? (no treatment req'd)	Considered New BUA? (Requires Treatment)	Notes
Site				
Proposed impervious area on existing undeveloped site			NEW BUA	
Expansion of an existing impervious area			NEW BUA	
New gravel areas			NEW BUA	
Complete removal of existing impervious surface and replacement with BUA in same location on site			NEW BUA	
Complete removal of impervious surface and placement of BUA in other location (same amount or less impervious placed somewhere else on site)			NEW BUA	
Parking				
Parking lot reconfiguration required due to compliance with Tree Ordinance for parking lot due to façade changes to a building, no other changes	EXEMPT			No increase in Built-Upon-Area
Gravel parking area being converted to asphalt with no removal of existing gravel and no increase in parking area size		MAINTENANCE		Note: Must be evaluated for applicability of Zoning Ordinance Stormwater Detention Provisions
Removal of pavement and replacement of pavement for underground utility placement		MAINTENANCE		
Removal of pavement and replacement for existing underground storage tank replacement or removal		MAINTENANCE		
Milling of asphalt course only and repaving of existing parking lot		MAINTENANCE		
Milling of asphalt to stone base and paving of existing parking lot		MAINTENANCE		If gravel base below existing asphalt is unknown, include note on plans to call site inspector prior to installation of any new pavement for limits of stone verification. Selective base course repairs allowed.
Wedging of new asphalt over existing asphalt to replace deteriorated or damaged asphalt and re-establish drainage patterns as originally intended		MAINTENANCE		
Complete removal and replacement of a parking lot in conjunction with building redevelopment			NEW BUA	
Surface parking lot being converted to parking deck or building			NEW BUA	
Permeable Pavers, concrete grid pavers, porous concrete, porous asphalt, or plastic turf reinforcing			NEW BUA	Credit for Peak Attenuation and Volume Capture is possible
Building				
Façade changes on building, no other major changes to building or site. Internal upfits allowed.	EXEMPT			Note: Façade Renovations may trigger Tree Ordinance requirements
Roof removal and replacement		MAINTENANCE		
Building removal and replacement for purpose of replacement due to accident or disaster		MAINTENANCE		Example --> Fast Food restaurant destroyed by fire was replaced with the same restaurant. Minor reconfiguration is allowable on case by case basis to replace old design with current mass-produced design.
Building removal and replacement for purpose of redeveloping (new pad)			NEW BUA	See Zoning Ordinance definition of "redevelopment"
Building removal and replacement for purpose of redeveloping (same pad)			NEW BUA	See Zoning Ordinance definition of "redevelopment"
Recreation Facilities				
Grass multi-use fields	EXEMPT			
Wooden Slatted Deck	EXEMPT			
Water area of a swimming pool	EXEMPT			
Synthetic turf with an underdrain system designed to enhance displacement of runoff			NEW BUA	
Tennis courts (including clay courts)			NEW BUA	

Appendix Q
Parking Lot/Vehicular Area Sweeping Guidelines

Street sweeping of vehicular areas on a redevelopment site can be used for compliance within section 18-161(c) of the PCSO. The street sweeping activities must comply with the following guidelines:

1. Must use one of the following devices:
    a. Vacuum sweeper
    b. Regenerative air sweeper
    c. Mechanical broom sweeper
2. Sweeping must be performed no less than twice monthly
3. Annual reports must include documentation that sweeping was performed twice monthly
4. The following note shall be shown on approved plans when vehicular area sweeping is to be utilized as a compliance mechanism: *"Property owner agrees to submit annual reports for parking lot/vehicular area sweeping confirming appropriate actions were performed at least twice monthly."*