

# Report to the Environmental Review Commission

## Pursuant to S.L. 2014-120, Sec. 29 REFORM AGENCY REVIEW OF ENGINEERING WORK

January 14, 2015

Name of Local Government Unit: City of Monroe

Approved/delegated program subject to reporting requirements:

☒ Sedimentation/erosion control

☒ Stormwater

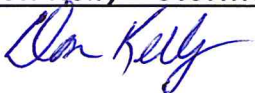
☐ Water/sewer

☐ Cross-connection

☐ 401 certifications

☐ Other Type program name

Don Kelly – Stormwater & Land Development Engineer



January 13, 2015

Date

Submit this report electronically to Mariah Matheson, Commission Assistant,  
Environmental Review Commission, at [Mariah.Matheson@ncleg.net](mailto:Mariah.Matheson@ncleg.net).

Name of local government unit: City of Monroe

*\*\*Please attach any written procedures that may have been developed to implement the provisions of this law.\*\**

☒ Check to indicate that this plan review program implemented procedures whereby plan reviewers distinguish between plan changes that are required by statutory or other legal authority and those that the reviewer offers as suggestions for improvement. Refer to S.L. 2014-120, Section 29.(b)(1) for further details about this requirement.

☒ Check to indicate that this plan review program identifies the statutory or regulatory authority for any revisions or requests for additional information that are required by the program in order to grant the requested plan permit, approval, or license. Refer to S.L. 2014-120, Section 29.(b)(2) for further details about this requirement.

☒ Check to indicate that this plan review program implemented procedures for local governments to follow when (1) a Professional Engineer submits a sealed design or practice that is not in the local government's guidance, manuals, or standard operating procedures, and (2) the submitting Professional Engineer requests additional internal review of that design or practice. Refer to S.L. 2014-120, Section 29.(c)(1) for further details about this requirement.

☒ Check to indicate that this plan review program established a procedure whereby the plan reviewer's supervisor OR the approving/delegating state agency can provide further review and oversight of these design details. Refer to S.L. 2014-120, Section 29.(c)(1) for further details about this requirement.

☒ Check to indicate that this plan review program either employs a Professional Engineer who can conduct further review of these innovative designs, or maintains a list of consulting Professional Engineers of the local government unit's choice that may conduct this review, if requested by and paid for by the submitting Professional Engineer. Refer to S.L. 2014-120, Section 29.(c)(1) for further details about this requirement.

☒ Check to indicate that this plan review program established an informal internal process to address disputes when a plan reviewer identifies a change to the plans as being "required" under a specific, identified legal authority. Refer to S.L. 2014-120, Section 29.(c)(2) for further details about this requirement.

☒ Check to indicate that this plan review program discontinued use of the word "engineer" in the job titles of all program employees whose responsibilities include review of plans in affected programs, *unless* those employees hold Professional Engineer licenses. Refer to S.L. 2014-120, Section 29.(h) for further details about this requirement.

Name of local government unit: City of Monroe

☒ Check to indicate that this plan review program reviewed the titles of all employees conducting plan reviews for this program. Refer to S.L. 2014-120, Section 29.(h)(1) for further details about this requirement.

☐ Check to indicate that this plan review program proposed revisions to those employees' job titles in order to eliminate use of the word "engineer" when publicly identifying those employees, if those employees do not hold Professional Engineer licenses. Refer to S.L. 2014-120, Section 29.(h)(2) for further details about this requirement.

**Additional information:**

Stormwater Management Post Construction Program procedures (attached)

Erosion and Sedimentation Control Plan Review procedures (attached)

# CITY OF MONROE

## PLAN REVIEW PROGRAM

### EROSION AND SEDIMENTATION CONTROL

#### Purpose:

The purpose of the Erosion and Sedimentation plan review program is to provide direction and procedures to be used during routine plan reviews pursuant to S.L. 2014-120, Section 29, Reform Agency Review of Engineering Work, and the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Energy, Mineral, and Land Resources.

#### Qualifier

In accordance with Title XV, of the City of Monroe Code of Ordinances, Chapter 158 Erosion and Sedimentation Control, any person requesting a grading permit in association with a land disturbing activity on a tract which involves the uncovering of more than twelve thousand (12,000) square feet of land or more than one (1) acre for residential construction, shall be required to obtain an approved Erosion and Sedimentation Control Plan from the City of Monroe.

#### Procedure

1. Plans are received and logged in at the City Permit Center. Each submittal must include as a minimum:
  - a. Seven sets of drawings;
  - b. Supporting calculations;
  - c. Erosion control permit fee;
  - d. Check-off list;
  - e. Financial responsibility form;
  - f. Financial bond;
  - g. Permission and agency letters (as applicable).
2. Three sets of the plans and accompanying documents are given to the City of Monroe Erosion and Sedimentation Control plan reviewer. The remaining plan sets are distributed throughout the other City departments for comment, and a file is set up and maintained in the office of the plan reviewer.
3. Plans are inspected for conformance with the City of Monroe and NCDENR required standards. Discrepancies are explained in a comment letter to the applicant and are arranged showing both required changes and suggested changes. Any required changes are identified by reference to their legal authority. The City may elect to coordinate a review with any State or Federal agency as needed. Completion of the review should be accomplished within 10 days from receipt of the drawings based upon receiving a complete submittal package.
4. If a dispute concerning required changes occurs, all design drawings, calculations, and other relevant information shall be submitted to the Director of Engineering for determination.

# STORMWATER MANAGEMENT POST-CONSTRUCTION PROGRAM

## Purpose:

The purpose of the Stormwater Management Post-Construction Program is to provide oversight and procedures during plan reviews, inspections during and after construction, insuring that post-construction management plans are properly implemented in accordance with the Stormwater Management Ordinance.

## Procedures for Plan Review:

1. At the request of the design engineer, developer, property owner and/or Engineering Department staff, the plan reviewer and Stormwater and Land Development Engineer or Stormwater Supervisor shall meet with the design engineer, developer, and/or property owner to discuss the concept plan(s) for the proposed project.
2. The Stormwater Management Permit application package and fee shall be routed through the Permit Center.
3. The plan reviewer shall check to make sure the Stormwater Management Permit application package is complete prior to reviewing the proposed project. A complete Stormwater Management Permit application package shall include at a minimum the following information:
  - a. Stormwater Management Permit application;
  - b. Stormwater plan review fee;
  - c. 3 sets of construction drawings;
  - d. 2 sets stormwater calculations; and
  - e. Stormwater checklist (07.06.03)
4. The plan reviewer shall setup a project file folder (yellow file folder) for the proposed project. The project file folder shall be labeled with the proposed project address. The plan reviewer is responsible for maintaining the project review file as it relates to the review and permitting of the project. With the exception of the Post-Construction checklist, the project file should include the following correspondence filed in chronological order from back to front:
  - a. Stormwater Management Permit application
  - b. Approval/Disapproval letters
  - c. Stormwater calculations
  - d. All mailed correspondences, letters, emails and faxes
  - e. Recorded Stormwater Maintenance agreement
  - f. Notice of Violation(s)
  - g. As-built drawing(s)
5. The Post-Construction checklist shall be stapled on the left interior side of the folder. The Post-Construction checklist shall be updated as each task is completed (see SW Post Cont checklist template in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*).
6. The plan reviewer should complete the plan reviews within **10 calendar days** but no later than:
  - a. 30 calendar days after initial Stormwater Management Permit application is submitted.
  - b. 15 calendar days after revised Stormwater Management Permit application is submitted.

Plan reviews that exceed the 10 calendar day turnaround shall notify the Engineering Director.

## **STORMWATER MANAGEMENT POST-CONSTRUCTION PROGRAM**

7. If the plan reviewer finds that the Stormwater Management Permit application, construction drawings and stormwater calculations do not comply with the standards of the Stormwater Management Ordinance, the plan reviewer shall send written notification to the applicant and shall indicate how the Stormwater Management Permit application failed to comply with the City's Stormwater Management Ordinance and NC DENR- DWQ Stormwater BMP manual. In addition, the plan reviewer shall include in the written notification the items needed prior to issuing a certificate of occupancy for the proposed project. See Stormwater Disapproval letter template in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*.

**Note:**

- a. For stormwater calculations and construction drawings comments, the plan reviewer must distinguish between changes that are statutory requirements (City ordinance(s), State regulation(s) and / or Federal regulation(s)) and offered/suggested comments for improvements. For statutory requirements, the plan review must identify the legal authority (ex. City Stormwater Management Ordinance Chapter 159-400). For offered / suggested comments, the plan reviewer may suggest or make recommendation comment(s) to the submitting applicant for their consideration.
  - b. If the plan reviewer is not a Professional Engineer and the Engineer of Record submitting the application has an disagreement regarding whether the statutory or regulatory authority identified by the plan reviewer for revisions or requests for additional information designated as "required", the Stormwater Management Permit application, construction drawings and /or stormwater calculations shall be submitted to the Engineering Director for determination. Per Chapter 159-206 (appeals) of the City's Stormwater Management Ordinance, "Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this Ordinance made by the Stormwater Administrator, may file an appeal to the Board of Adjustment within 30 days."
  - c. If the Engineer of Record submitting the Stormwater Management Permit Application submits an innovative design that is neither in the City's Detail manual nor in the NC DENR Stormwater BMP manual requests that further review, the plan reviewer shall submit the innovative design calculations and construction drawings to the Engineering Director for review.
  - d. The City staff may elect to consult with NC DENR regarding statutory requirements and / or innovative design when City staff feels that is it warranted.
8. If the plan reviewer finds that the Stormwater Management Permit application, construction drawings and stormwater calculations complies with the standards of the Stormwater Management Ordinance, the plan reviewer shall send written notification of the Stormwater Management Permit application approval. See Stormwater Approval letter template in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*. The plan reviewer shall sign the Stormwater Management Permit application and stamp and sign the approved construction drawings. Once the Stormwater Management Permit application is approved, the plan reviewer shall send the applicant the following:
- a. Approval letter including items required prior to release of the certificate of occupancy;
  - b. Signed copy of the Stormwater Management Permit application; and
  - c. One set of approved construction drawings.

**Note:** The plan reviewer shall notify the developer/property owner that a bond/performance security, letter of credit or cashier's check for 110% of the estimated construction cost of the proposed stormwater BMP(s) is required prior to releasing the approved Stormwater Management Permit application.

# STORMWATER MANAGEMENT POST-CONSTRUCTION PROGRAM

9. After receiving the bond/performance security/letter of credit/cashier's check for the proposed stormwater BMP(s), the plan reviewer shall complete the Performance Bond Refund form (see Performance Bond Refund – Receipt template in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*). After completing the Performance Bond Refund form, the plan reviewer shall place the bond/performance security/letter of credit/cashier's check and the Performance Bond Refund form in the envelope found in the Accounting Department vault.
10. After each plan review is completed, regardless if the Stormwater Management Permit application is approved; approved with conditions; or disapproved, the plan reviewer shall perform the following task:
  - a. Update the proposed project in HTE.
  - b. Update plan review spreadsheet (*I:\Engineering Reviews\Plan Tracking 2000-20xx\Plan Review Tracking 2012.xls – 20xx Stormwater Reviews tab*)
  - c. Update Post-Construction spreadsheet (*I:\Stormwater\Watershed\annual inspections\Post Construction BMP\Post Const BMP Location.xls – Post-Const Plan Review fees tab*)
11. The plan reviewer shall distribute the approved construction drawings as follows:
  - a. One set to engineer of record
  - b. One set to the erosion control specialist (ECS)
  - c. One set to the Stormwater staff (office copy)
12. The plan reviewer shall submit a copy of the Stormwater Management Permit application to the Stormwater Engineering Technician for stormwater utility billing purposes.
13. After the Stormwater Management Permit application and construction drawings have been approved, all administration of the project will become the responsibility of the ECS. This will allow for the project to have one contact person and minimize any confusion with the contractor(s) and/or engineer of record calling various City staff members.

## Procedures during construction:

1. The ECS will be responsible for maintaining project inspection files that include:
  - a. All mailed documents pertaining to inspection of stormwater BMP(s)
  - b. Inspection report of the stormwater BMP(s)
  - c. Certification form 1-04
2. During the pre-construction meeting, the ECS shall notify the contractor, owner and engineer of record what post-construction stormwater forms/items are required before the issuance of certificate of occupancy.
3. The ECS shall advise that all calls, questions, correspondence and requests from the project representatives (engineer of record, contractor, owner, owner representatives, architect, landscapers, etc.) shall be forwarded to their attention.
4. Revision to the approved stormwater management construction drawings due to field condition are to be initiated by the owner and their contractor through the engineer of record and will require

# STORMWATER MANAGEMENT POST-CONSTRUCTION PROGRAM

approval from the plan reviewer. The ECS does not have the authority to approve revisions or waive requirements identified by the approved stormwater management construction drawings.

5. During construction, the ECS shall monitor the installation of stormwater BMP(s).

## Procedures after construction:

1. Documents required before certificate of occupancy can be released by stormwater staff:
  - a. Stormwater Maintenance Agreement with sketch map and \$25 recording fee;
  - b. Certification Form 1-04;
  - c. As-built survey of the stormwater BMP(s);
  - d. Engineer of record certification that the stormwater BMP(s) is functioning as designed;
  - e. Watershed Post-Construction Checklist for Retention and Detention Ponds (07.12), if applicable; and
  - f. Post-Construction Checklist (07.11), if applicable.
2. Upon completion of a project and before a certificate of occupancy shall be released, the plan reviewer shall review the required stormwater management documents. If plan reviewer finds that the stormwater management package is incomplete, the plan reviewer shall notify the engineer of record, contractor and / or property owner in writing what items are missing. In addition, the plan reviewer shall notify the Permitting Center to hold the certificate of occupancy until all stormwater issues have been resolved.
3. The plan reviewer shall review the as-built survey with ECS to verify the stormwater BMP(s) was constructed according to the approved plans.
4. The review of stormwater management documents shall be completed within **3 calendar days**.
5. After the plan reviewer has completed reviewing the required post-construction documents and found them acceptable, the plan reviewer shall send the owner a letter of acceptance with the annual inspection due date (*Post Construction – acceptance letter template in I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*). In addition, the plan reviewer shall return the bond/performance security/letter of credit/ cash escrow to the property owner either via certified mail or in person. In addition, the plan reviewer shall notify the Permitting Center that all stormwater issues have been resolved and the Permit Center can release stormwater's hold on the certificate of occupancy.
6. The plan reviewer shall route the stormwater maintenance agreement to City Management office for their approval. After the City Management office has approved the stormwater maintenance agreement, the plan reviewer shall have the stormwater maintenance agreements recorded in the Union County Register of Deeds office. A copy of the recorded stormwater maintenance agreement shall be placed in the project file.
7. The plan reviewer shall request that the stormwater engineering technician identify the stormwater BMP(s) in the City GIS database by using a GPS system.

## Procedures for Annual Stormwater BMP Inspection:



## **STORMWATER MANAGEMENT POST-CONSTRUCTION PROGRAM**

1. The Stormwater Supervisor shall review the list of post-construction stormwater BMPs spreadsheet the first of every month (*I:\Stormwater\Watershed\annual inspections\Post Construction BMP\Post Const BMP Location.xls – Post-Constr Annual fees tab*).
2. Three months prior to annual inspection date, the Stormwater Supervisor shall send a reminder letter to the property owner or their designated contractor regarding the annual inspection requirements and due date (see Post Construction – reminder letter template in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*).
3. If the annual inspection report and fee is not received within **7 calendar days** past the annual inspection due date, the Stormwater Supervisor shall send a status letter to the property owner or their designated contractor (see *Post Construction – Status letter template in I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*).
4. If the annual inspection report and fee is not received within **45 calendar days** past the annual inspection due date, the Stormwater Supervisor shall send a Notice of Violation (NOV) letter to the property owner or their designated contractor (see Post Construction – Past Due letter template in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*). Prior to sending NOV letter, the Stormwater Supervisor will notify the Engineering Director that the property owner is in violation of the Stormwater Management ordinance.
5. After receiving the annual inspection report and fee, the Stormwater Supervisor shall review the annual inspection report. The Stormwater Supervisor will give to the permit center the annual inspection fee for depositing into the stormwater account (520-0000-350.20-08). A copy of the deposit will be placed into the project file.
6. The Stormwater Supervisor shall randomly select a site for a Post-Construction stormwater BMP(s) to be inspected by City staff.
7. After finding the annual inspection report acceptable, the Stormwater Supervisor shall send the property owner or their designated contractor an acceptance letter with the next annual inspection report due date (see Post Construction – acceptance letter in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*).
8. If the annual stormwater inspection report is found unacceptable, the Stormwater Supervisor shall send the property owner or their designated contractor a written notification regarding the maintenance issue with the stormwater BMP(s) and a timeline to correct the maintenance issues (see Post Construction – acceptance letter in *I:\Stormwater\Watershed\annual inspections\Letter Templates\Post Construction letter*).

5. Should the submittal be made by a Professional Engineer which contains an innovative design (i.e., is not contained in the City's design manuals or is not a standard operating procedure), the City's licensed Professional Engineer(s) will perform an internal review of the design details for acceptability. A comment letter will be issued as being approved or disapproved.
6. After submittal and review by each individual department, comments are collectively discussed during the City's Technical Review Committee meeting, which is comprised of the various department representatives, and attended by the applicants or other interested parties, at their discretion. After the Technical Review Committee meeting, the applicants and interested parties are given the opportunity to ask review questions concerning their individual projects.
7. After corrections are made per the comment letter and any other comments required as a result of the Technical Review Committee review, seven corrected sets of the plans are re-submitted to the Permit Center for distribution back to the various departments, with three sets being routed to the City of Monroe Erosion and Sedimentation Control plan reviewer.
8. The following items, as a minimum, must be completed prior to submittal approval, along with any outstanding correction comments:
  - a. Payment of all fees;
  - b. Bonds received;
  - c. All required forms;
  - d. All requested permission and agency letters (as applicable).
9. When the submittal package is deemed approved, an approval letter is sent to the applicant explaining the procedures for setting up a pre-construction meeting in the field with the City's Erosion and Sedimentation Control inspector and other interested parties, such as the grading contractor and the applicant.