

City of Maryville
Grading & Construction Site Pollution
Management
Policies & Procedures Manual



RESIDENTIAL
COMMERCIAL
BUSINESS
INDUSTRIAL



Welcome to the City of Maryville, a progressive city located in the foothills of the Great Smoky Mountains. Maryville strives to be the best location for your business interest by placing the right amount of emphasis on development requirements which set high standards to ensure quality development and planning growth. Careful attention is given to erosion and pollutant control during construction which results in a distinctively pleasing community to live, work and play.

This policy statement is designed to give developers, architects, engineers and contractors general guidance, policies and procedures pertaining to Maryville's Grading Permit program. This statement defines the policies, processes and tools (e.g., checklists, flowcharts) that support Maryville's Grading and Construction Site Pollution Management ordinance.

This document provides general procedural guidance for Maryville's Grading Permit Program. Therefore, it comprises Maryville's Standard Operating Procedure for the program's compliance with the State of Tennessee Municipal Separate Storm Sewer (MS4) permit. The objectives of Maryville's construction site stormwater management program are:

- To protect streams within Maryville from sedimentation and other pollutants that may result from construction activities;
- To rely first on erosion controls and phasing to reduce the potential for off-site sedimentation;
- To mirror, to the extent practical, the requirements of the State of Tennessee Construction General Permit (TN-CGP); and
- To comply with the requirements of the State of Tennessee Municipal Separate Storm Sewer System (MS4) permit.

Contact the City of Maryville Engineering and Public Works Department (865-273-3302) if you have questions prior to preparing erosion prevention and sediment control plans and applying for a Grading Permit.



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Acronyms

BMP – Best Management Practice for purpose of Erosion Prevention and Sediment Control

EPSC – Erosion Prevention and Sediment Control

EPW – City of Maryville Engineering and Public Works

MS4 – Municipal Separate Storm Sewer System

NOC – Notice of Coverage

NOI – Notice of Intent

NPDES – National Pollutant Discharge Elimination System

TDEC – Tennessee Department of Environment and Conservation

TMDL – Total Maximum Daily Load

TN-CGP – Tennessee Construction General Permit



Definitions

Applicant - Person submitting the application for a grading permit. Typically, this is the owner or operator of the land-disturbing activity.

Construction related waste - Waste that is generated through construction, land development and land-disturbing activities that may cause adverse impacts to water quality. Construction related waste includes, but is not limited to, discarded building materials, concrete truck washout, chemicals, litter, hazardous materials, oil and sanitary waste at the construction site.

Developer - The person, firm, partnership, or corporation authorized by the owner to carry out the development of the land.

Development - The process of grading, clearing, filling, quarrying, construction, or reconstruction to improved or unimproved real estate or other similar activities when not excluded by exemptions from this chapter.

Director of Engineering and Public Works - Directs Stormwater operations for the City of Maryville, TN.

Erosion - The wearing away of land by action of wind, water, ice, or gravity.

Erosion prevention and sediment control plan or EPSC plan - A formal plan for the control of soil erosion and sediment resulting from land-disturbing activity. The plan shall be reviewed and approved before a grading permit may be issued. The plan may be included as part of a site plan required under another city ordinance or a separate plan following the specifications set out in this chapter.

Grading - Any operation or occurrence by which the existing site elevations are changed by cutting, filling, borrowing, stock piling, or where any ground cover, natural or man-made, is removed, or any building or other structures are removed or any water course or body of water, either natural or man-made, is relocated on any site, thereby creating an unprotected area. "Grading" shall be synonymous with "land-disturbing activity."

Grading permit - A permit issued to authorize excavation and/or fill to be performed under the guidelines of this chapter.



Land-disturbing activity - Any activity on private or public land that may result in soil erosion and the movement of sediments. Land disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, logging and/or tree chipping operations, haul roads associated with the development, and excavation.

NPDES - National Pollutant Discharge Elimination System

Operator - In the context of stormwater associated with construction activity, operator means any person associated with a construction project that meets either of the following two criteria:

- (a) This person has operational control over construction plans and specifications, including the ability to authorize modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project; or
- (b) This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a site plan, EPSC plan or sketch plan for the site or other permit conditions. This person is typically a contractor or commercial builder and is often authorized to direct workers at a site to carry out activities required by approved plans or comply with other permit conditions.

Owner - The legal owner of the property as recorded in the Blount County Register of Deeds office at the time of application of the grading permit.

Priority construction activity - Any land-disturbing activity that is one (1) acre or greater that discharges into, or upstream of, waters the State of Tennessee recognizes as impaired for siltation or high quality waters. Also, priority construction activities can include land-disturbing activities of any size that, in the judgment of the Director of Engineering and Public Works or his/her designee, require coordination with adjacent construction activities or have conditions that indicate a higher than normal risk for discharge of sediment or other construction related wastes.

Project - The entire proposed development regardless of the size of the area of land to be disturbed.

Sediment - Solid material, both inorganic (mineral) and organic, that is in suspension, is being transported, or has been moved from the site of origin by wind, water, gravity, or ice as a product of erosion.

Sedimentation - The action or process of forming or depositing sediment.



Sketch plan - An erosion prevention and sediment control plan required for land-disturbing activities that are greater than one-tenth (0.1) acre and less than one (1) acre.

Slope - The degree of deviation of a surface from the horizontal, usually expressed in percent or degrees.

Tennessee Construction General Permit (TN-CGP) – The construction permit formally titled as the State of Tennessee General NPDES Permit for Discharges of Storm Water Associated with Construction Activities.

Total Maximum Daily Load (TMDL) - A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the source(s) of the pollutant.

Vegetative buffer - The area of land adjacent to waters of the state in its undeveloped state of vegetation, which facilitates the protection of water quality and aquatic habitat. Buffer requirements can be found in the Stormwater Quality Management and Vegetated Buffers ordinance.



1.0 General Information

In general, the City of Maryville's requirements for erosion prevention and sediment control (EPSC) on construction sites mirror the State of Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activities. The State regulation is henceforth referred to as the Tennessee Construction General Permit (TN-CGP). The TN-CGP is administered by the Tennessee Department of Environment and Conservation (TDEC).

The TN-CGP requires that the owner or operator for each construction site that disturbs one or more acres, or sites that disturb less than one acre but are part of a larger plan of development or sale, obtain coverage under the TN-CGP. A Notice of Intent (NOI) to obtain coverage under the TN-CGP and a copy of the Stormwater Pollution Prevention Plan (SWPPP) must be submitted to, and approved by, TDEC. Once approved, TDEC will issue a Notice of Coverage (NOC) to the applicant.

The Grading Permit process in Maryville is regulated via the Maryville Grading and Construction Site Pollution Management Ordinance. Grading permits are issued by the Director of Engineering and Public Works or his/her designee prior to grading or other land-disturbing activities on a site. An approved grading permit will allow the developer to begin such activities, but only in accordance with the specifications and details presented in the EPSC Plan or the Sketch Plan that has been approved for the site. The purpose of the grading permit is to require and document proper planning before beginning the land disturbing activity and to reduce or eliminate the potential for erosion or the discharge of sediment or other construction-related waste off-site. A flowchart that depicts the City of Maryville's grading permit approval, enforcement and construction inspection process is presented in Figure 1.

The Maryville Grading and Construction Site Pollution Management Ordinance requires that the design, installation, maintenance and inspection of best management practices (BMPs) used for erosion prevention and the control of construction site sediments and other construction-related wastes be done in accordance with the TN-CGP, the *Tennessee Erosion and Sediment Control Handbook*, and this policy statement.

Since construction site stormwater management requirements of the State and the City of Maryville are so similar, much of the information that is submitted by the applicant to TDEC for compliance with the TN-CGP can be used to apply for a grading permit in the City of Maryville. For example, many of the required elements of the EPSC plan that must be submitted to the City of Maryville are the



same as what is required on the SWPPP submitted to TDEC. *It is important to note that City of Maryville requirements are more stringent than TN-CGP requirements in several areas. Therefore, it should not be assumed that a SWPPP that is compliant with TN-CGP requirements will be compliant with City of Maryville requirements.*

Responsibilities

- **Director of Engineering and Public Works** – The Director of Engineering and Public Works or his/her designee is responsible for enforcement of the Maryville Grading and Construction Site Management Ordinance and implementation of the policies and standard procedures that are presented in this document. The Director of Engineering and Public Works or his/her designee will enforce the ordinance through:
 - ✓ review of EPSC or sketch plans that are submitted by the applicant for compliance with the ordinance, policies and processes. Prior to the start of the land-disturbing activity, enforcement of the ordinance will be performed via the plans review and approval process.
 - ✓ oversight of Construction Site Inspectors (see responsibilities below) and the City's erosion prevention and sediment control inspection program;
 - ✓ oversight, and participation as necessary, in enforcement actions during the land-disturbing activity (e.g., construction activity).

The Director of Engineering and Public Works or his/her designee is also responsible for maintaining or modifying the ordinance and policies and procedures in this document as required to maintain an efficient and effective erosion prevention and sediment control program that is compliant and/or consistent with relevant State or local permits, regulations and Total Maximum Daily Loads (TMDLs).

- **City Construction Site Inspector** - After receiving an approved set of plans from the Director of Engineering and Public Works or his/her designee, the Construction Site Inspector (typically, this will be an employee of the City of Maryville) is responsible for enforcement of the Maryville Grading and Construction Site Pollution Management Ordinance at the site of the land-disturbing activity. Enforcement will include implementing the policies and procedures that are discussed in this document. The City Construction Site Inspector will enforce the ordinance through:
 - ✓ performance of the pre-construction inspection;
 - ✓ inspection of permitted land-disturbing activities for compliance with the approved EPSC or sketch plans;
 - ✓ completion of the City of Maryville Construction Inspection Report (discussed later in this document);
 - ✓ the initiation of corrective actions, enforcement actions and penalties, as defined in and per the terms of the Maryville Grading and Construction Site Management Ordinance.



- **Owner/Operator** – Prior to approval of a grading permit, the owner/operator may also be called the “applicant”. After approval of a grading permit, the owner/operator may also be called the “permittee”. The owner/operator is responsible for compliance with the Maryville Grading and Construction Site Management Ordinance and the policies and processes discussed in this document. Specific tasks that will be performed by the applicant or his/her designee to achieve compliance include, but are not limited to,:
 - ✓ preparation and submittal of an EPSC or sketch plan;
 - ✓ contacting the Director of Engineering and Public Works or his/her designee to schedule the pre-construction inspection;
 - ✓ inspection of permitted land-disturbing activities for compliance with the approved EPSC or sketch plans;
 - ✓ maintaining documentation of such inspections;
 - ✓ cooperating fully with the Construction Site Inspector, and for being truthful and answering inspector questions to the best of their recollection;
 - ✓ notifying the Director of Engineering and Public Works or his/her designee of modifications or amendments to the approved EPSC or sketch plan;
 - ✓ timely compliance of any and all corrective actions that are required by the City Construction Inspector and/or enforcement actions or penalties as defined in the ordinance.

EPSC Guiding Principles

The following paragraphs clarify some guiding principles for the management of land disturbing activities of any size, which support the objectives for Maryville’s construction site management program stated on the first page. In general, these guiding principles are implemented through the use of appropriate best management practices.

- **Erosion prevention is the first line of defense to prevent off-site sedimentation.** In the past, erosion within a construction site has been considered acceptable and part of the overall construction process, and emphasis was placed on the control of eroded sediments. However, erosion increases the potential for off-site sedimentation and increases site grading costs. Relying first on erosion prevention measures reduces the potential for enforcement actions resulting from off-site discharges of sediment, the maintenance requirements for sediment control measures, and overall grading costs.
- **Minimize the area that is disturbed.** Developers and contractors should disturb only building envelopes, leaving the surrounding areas undisturbed thereby maintaining pre-development infiltration rates and runoff coefficients.



If water quality buffers and natural areas will be used as post-construction water quality controls, limiting the disturbed area will be required in those areas at a minimum.

- **Sequence land disturbing activities to minimize the amount of time that disturbed areas are exposed to storm events.** For example, if a development will ultimately disturb 75 acres, the land disturbing activities should be phased or sequenced into smaller, more manageable sections with EPSC measures prescribed for each section.
- **Construction pollution must be retained on-site.** Construction and land-disturbing activities inherently cause sediment migration. Sediment and pollution controls must be designed to retain sediment and other pollutants on the development site and prevent them from discharging onto adjacent property, into a stream, into the storm drain system, or into the street.
- **All disturbed areas must be permanently stabilized after construction has ceased.** To prevent the potential for ongoing erosion and sedimentation, permanent ground cover must be provided on all areas that were disturbed during construction. The permanent ground cover can consist of any of the following: permanent grasses or other permanent vegetative cover; asphalt or concrete pavement; riprap or other hard armor for channels and slopes; or buildings.

General Policies

1. The policies provided herein are intended to compliment and support the City of Maryville Grading and Construction Site Pollution Management ordinance. These policies will be implemented by the Director of Engineering and Public Works or his/her designee as necessary to enforce the terms of the ordinance.
2. This policy document can be modified by the Director of Engineering and Public Works or his/her designee as necessary to ensure that the City of Maryville Grading and Construction Site Pollution Management program is compliant and/or consistent with relevant State or local permits, regulations and Total Maximum Daily Loads (TMDLs).
3. All references to the TN-CGP and *Tennessee Erosion and Sediment Control Handbook* shall pertain to the permit and handbook that are valid and in-use at the time that the grading permit application is submitted. The Director of Engineering and Public Works or his/her designee has the authority to invoke



more stringent requirements for grading and construction site pollution management where necessary.

4. When the provisions of the ordinance, this policy statement, and/or another local or State regulation conflict or overlap, that provision which is more restrictive or imposes higher standards or requirements must be followed.



2.0 Grading Permit Approval Process

In the City of Maryville, the grading permit process generally follows four-steps: 1) EPSC/sketch plan preparation and submittal in accordance with Section 6 of the Maryville Grading and Construction Site Pollution Management ordinance; 2) EPSC/sketch plan review and approval; 3) Pre-construction inspection (in some cases) and grading permit issuance; and 4) Land disturbing activities, site inspection, and plan enforcement. Key points in this process are shown in the grading permit flowchart (Figure 1).

City of Maryville policies relevant to the grading permit approval process are listed below. Note: These policies are intended to compliment and support the Maryville Grading and Construction Site Pollution Management ordinance. It is assumed that the reader has a solid understanding of the requirements contained in that ordinance; requirements stated in the ordinance are generally not repeated in this document.

Policies

1. A grading permit will **NOT** be issued for a land-disturbing activity that requires coverage under the TN-CGP until a copy of the NOC for that land-disturbing activity is provided to the City of Maryville. The NOC shall be provided with the EPSC or sketch plan.
2. A grading permit will **NOT** be issued for a land disturbing activity until the grading permit applicant has met relevant permit application requirements of the City of Maryville Grading and Construction Site Pollutant Management ordinance and this policy statement.
3. A grading permit will **NOT** be issued for a land disturbing activity that requires submittal of an EPSC plan or a sketch plan until such plan has been approved **IN ITS ENTIRETY**.
4. A grading permit will **NOT** be issued for a new residential subdivision until road and drainage plans have been approved.
5. EPSC/sketch plans shall be submitted to the City of Maryville Engineering and Public Works Department (EPW). Plan review fees shall also be submitted at that time. The Director of Engineering and Public Works or his/her designee will review the plans for compliance with the Maryville Grading and Construction Site Pollution Management Ordinance and other applicable local regulations.



6. The Maryville EPSC Plan Checklist provides a listing of the required components of an EPSC Plan. The checklist is presented in Appendix A of this policy statement. The EPSC Plan Checklist, accurately completed, shall be included with the grading permit application and EPSC plan that is submitted to the EPW Department.
7. The Maryville Sketch Plan Checklist provides a listing of the required components of a Sketch Plan. The checklist is presented in Appendix B of this policy statement. The Sketch Plan Checklist, accurately completed, shall be included with the grading permit application and Sketch plan that is submitted to the Maryville EPW Department.
8. All required components of an EPSC Plan or Sketch Plan, as provided for in the appropriate "Checklist", must be included with the submitted plan. Components that are not applicable to the land-disturbing activity (and therefore not included on the plan) must be identified as "N/A" on the checklist. All listed elements that are not applicable must be justified for non-applicability. For example, stream buffers are not applicable on plans for land-disturbing activities that have no streams located on-site.
9. **Only complete plans will be accepted for review. Omission of any required components renders the plans incomplete and they will be returned to the applicant** prior to review by the Director of Engineering and Public Works or his/her designee for re-submittal of a complete plan.
10. If a plan is determined insufficient, the Director of Engineering and Public Works or his/her designee shall inform the applicant of deficiencies with the plan in the form of a site plan review sheet or written notification. The applicant shall then revise the plan to comply with the ordinance and submit a revised plan to the City or may submit documentation to substantiate the validity of the design.
11. The Director of Engineering and Public Works and/or his/her designee shall review complete EPSC/sketch plans and determine whether the plan is compliant with the Maryville Grading and Construction Site Pollution Management Ordinance within ten (10) working days from submittal of the complete plan.

3.0 Construction Site Inspection and Enforcement Process

The grading permit flowchart (Figure 1) shows that inspections of the construction site will be performed throughout the life of the land-disturbing activity. The Maryville Grading and Construction Site Pollution Management ordinance requires the site owner/operator to perform regulation inspections. As well, the State of Tennessee requires that the City of Maryville perform regular inspections of land-disturbing activities, through the provisions of the State of Tennessee Small Municipal Separate Storm Sewer System (MS4) permit and applicable Total Maximum Daily Loads (TMDLs) that identify the City of Maryville as a discharger of sediment.

The purposes of construction site inspections are to evaluate compliance with the approved EPSC/sketch plan, to evaluate whether the approved BMPs are adequate for the minimization of erosion and the control of sediment and construction-related pollutants, and to enforce the requirement that all BMPs are installed, maintained and functioning properly.

City of Maryville policies relevant to the construction site inspection process are listed below. Note: These policies are intended to compliment and support the Maryville Grading and Construction Site Pollution Management ordinance. It is assumed that the reader has a solid understanding of the requirements contained in that ordinance; requirements stated in the ordinance are generally not repeated in this document.

Policies

1. **Pre-construction inspection:** Prior to issuance of a grading permit, the City shall perform a pre-construction inspection of the permitted site to determine whether perimeter erosion control measures have been installed according to the approved EPSC or sketch plan, and whether measures are adequate to minimize erosion and control sediment and/or other construction-related pollutants and are otherwise in compliance with the Maryville Grading and Construction Site Pollution Management ordinance and this policy statement. If the pre-construction inspection indicates compliance, the City shall issue a grading permit and allow construction work to commence. The pre-construction inspection is scheduled when the developer is ready to obtain a grading permit. *It is the responsibility of the developer to schedule and attend the inspection, and to ensure the attendance of the contractor for the site.* The City of Maryville EPW Department may be contacted at 865-273-3302.



2. **Inspections performed by the permittee:** The permittee or his/her designee shall perform documented routine inspections and conduct maintenance of BMPs to ensure compliance with the approved EPSC/sketch plan and to ensure that BMPs are maintained and functioning properly, and that no off-site discharges of sediment or other construction-related pollution are occurring. Inspections shall be performed on all areas of active construction, including areas that have not been stabilized, areas used for storage of materials or stockpiles, exits and entrances for construction traffic, outfall points from the project, and structural controls. These areas should be inspected for signs of erosion, sedimentation, or the discharges of other pollutants from the site.
3. **Inspection frequency:** Inspections by the permittee or his/her designee shall be performed at the following frequency:
 - a. At least twice every calendar week; and,
 - b. These inspections must be performed at least 72 hours apart.
4. **Inspector qualifications:** Inspectors must have successfully completed the TDEC-sponsored "Fundamentals of Erosion Prevention and Sediment Control" course, or an equivalent course, for individuals involved in land-disturbing activities which provides a working knowledge of erosion prevention and sediment controls.
5. **Inspection documentation:** Inspections performed by the permittee or his/her designee shall be documented in accordance with the TN-CGP. Documentation should include a measure of the functionality of each BMP as well as any maintenance needs. The city of Maryville encourages the use of the Construction Inspection Report, presented in Appendix C, to document twice weekly inspections.
6. **Inspections performed by the City:** The City will perform inspections of erosion prevention and sediment control measures as required by the State of Tennessee MS4 Permit, TMDLs, or as deemed necessary by the Director of Engineering and Public Works or his/her designee. The Maryville Grading and Construction Site Pollution Management Ordinance gives the Director of Engineering and Public Works (or his/her designated representative) the authority and right to enter private property to inspect for compliance with approved plans. During the normal course of the property development process, this is a common occurrence. Failure of a property owner to allow entry by the Director of Engineering and Public Works or his/her designee for purposes of an inspection shall be cause for the issuance of a stop work order, withholding of a certificate of occupancy, and/or civil penalties and/or damage assessments.



City Inspectors will document activities at the site using the Sketch Plan Checklist and the Construction Inspection Report presented in Appendices B and C and will note any corrective actions that are needed at the site and the required time for completion of the corrective action.

7. **Permittee responsibilities during and after City inspections:** The permittee and his/her on-site designee, the permittee's inspector(s), developer(s), and/or contractor(s) are responsible for cooperating with City construction inspection staff during inspections, and for being truthful and answering questions posed by inspectors to the best of their recollection. The permittee shall also comply with corrective action recommendations within the time frame required by the City Inspector.

During or after an inspection by the City, the permittee may be required to provide the City Inspector with copies of the approved plan(s), inspection report(s) and permit documentation to verify compliance with the approved plan and that inspections and maintenance are being performed. In the event that a maintenance need or concern is identified during an inspection by the City of Maryville, the City will require the permittee to perform the maintenance activity and will establish a completion date in writing. Failure to perform the maintenance by the completion date could result in further enforcement action.

8. **Violations and Penalties:** If it is determined that the grading permit holder has failed to properly install, maintain or use proper structural erosion and sedimentation control measures or other erosion control measures violations and penalties will be assessed to the permittee in accordance with Section 22 of the City of Maryville Grading and Construction Site Management Ordinance.

Appendix A
EPSC Plan Checklist



**CITY OF MARYVILLE, TENNESSEE
EROSION PREVENTION AND SEDIMENT CONTROL PLAN CHECKLIST**

Date: _____ Project name: _____

Project Address: _____

Owner Name: _____ Owner Phone Number: _____

Owner Address: _____

Owner Email Address: _____

This checklist presents the required elements of an erosion prevention and sediment control (EPSC) plan. This checklist shall be submitted to the City of Maryville Engineering and Public Works Department along with the EPSC plan. Each element presented in this list shall be checked "Yes", as applicable to the site. Checks placed under the "No" column shall be justified in a written statement attached to this checklist. Elements of the EPSC plan that are not applicable for the site shall be marked as "N/A".

Yes No N/A

1. Date of EPSC plan and date of any revision(s) on plan sheets

Yes No N/A

2. Seal/signature of responsible plan preparer

Yes No N/A

3. Vicinity map including:

Yes No N/A

a. North arrow

Yes No N/A

b. Scale

Yes No N/A

c. Adjacent roadways

Yes No N/A

d. Boundary lines of site

Yes No N/A

e. Onsite and nearby watercourses

Yes No N/A

f. Other necessary information to locate the development site

Yes No N/A

4. Owner Contact Information

Yes No N/A

a. Name

Yes No N/A

b. Address

Yes No N/A

c. Email address

Yes No N/A

d. Phone number

5. Operator contact information, if different from owner

Yes No N/A

a. Name

Yes No N/A

b. Address

Yes No N/A

c. Email address

Yes No N/A

d. Phone number

6. Land use and drainage

Yes No N/A

a. Description of the existing and proposed land use/project or the reason for grading

Yes No N/A

b. Drainage patterns

Yes No N/A

c. Drainage problems

Yes No N/A

d. Floodplain status within the development

7. Maps (to scale) which clearly show the following items:

Yes No N/A

a. A priority construction activity notation, if applicable. If the site is considered a priority construction activity, the following statement must be included on all map pages: "**This site is a Priority Construction Activity.**" See page 5 for definition.

Yes No N/A

b. The following lines with accurate bearings and distances:

Yes No N/A

- Property boundaries

Yes No N/A

- Lot lines

Yes No N/A

- Right-of-way lines of streets

Yes No N/A

- Utility access or other easements

Yes No N/A

c. Topographic contours

Yes No N/A

- Existing topographic contours presented at a 2-foot interval

Yes No N/A

- Proposed topographic contours presented at a 2-foot interval

Yes No N/A

- Spot elevations or 1-foot contour intervals where 2-foot contours do not adequately depict the grading

Yes No N/A

d. Soil types and drainage classes

Yes No N/A

e. Wetlands

Yes No N/A

f. Watercourses

Yes No N/A

g. Water bodies

Yes No N/A

h. Sinkholes

Yes No N/A

i. Springs

Yes No N/A

j. Intermittent conveyances

Yes No N/A

k. Wet-weather conveyances

Yes No N/A

Yes No N/A



7. Maps (to scale) which clearly show the following items (continued) :

- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A

- I. Location of :
 - 100-year floodplain
 - 500-year floodplain
 - 100-year regulatory floodway
 - any buffers that will remain after land disturbing activities cease
- m. EPSC measures for each phase of grading
- n. Location(s) of any existing and proposed stormwater management structures or facilities
- o. Limits of proposed clearing, grading, filling and/or other land disturbing activities
- p. Location(s) of vegetative areas and areas that will be preserved/conserved as buffers or natural space after construction
- q. Outfall points for stormwater discharges from the site
- r. Established benchmark of known elevation to which every other elevation is referenced
- s. Horizontal control

8. A general description of:

- Yes No N/A
- Yes No N/A
- Yes No N/A

- a. Existing soil types and characteristics
- b. Any anticipated soil erosion and sedimentation problems resulting from existing characteristics

9. The calculations for peak discharges for existing stormwater runoff leaving any portion of the site for the 2-year, 24-hour storm event. For priority construction activities, peak discharges must be shown for the 5-year, 24-hour storm event. Include an estimate of the runoff coefficient of the site before construction.

- Yes No N/A

10. The calculations for peak discharges for stormwater runoff leaving any portion of the site after construction is complete for the 2-year, 24-hour storm event. For priority construction activities, peak discharges must be shown for the 5-year, 24-hour storm event. Include an estimate of the runoff coefficient of the site after construction is complete.

- Yes No N/A

11. The design calculations, construction and maintenance details for: EPSC / BMPs, including sediment basins, silt fencing, check dams, channels and ditches, pipe outlets, construction entrances and other BMPs.

- Yes No N/A

12. Seeding and stabilization specifications, including temporary and permanent groundcovers, mulch and mulching rates, soil amendments, and methods for anchoring mulch.

- Yes No N/A

13. The manufacturer's installation and maintenance guidance for proprietary EPSC BMPs that are proposed for use.

- Yes No N/A

14. A construction sequence addressing the following:

- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A
- Yes No N/A

- a . All major construction activities indicating the anticipated start and completion dates of development
- b . The sequence of land disturbance activities and subsequent stabilization
- c . The phasing of land-disturbing activities for the project
- d . The perimeter measures that will be installed prior to commencing land-disturbing activities
- e . Installation and maintenance of all EPSC BMPs at each phase of grading

15. A description of controls to be implemented on-site to manage construction related wastes. Such details should include, but are not limited to: the construction/location of vehicle wash pads; litter and waste materials control; sanitary and chemical waste control, and concrete truck washout areas.

- Yes No N/A

16. A general description of the method(s) used to ensure that natural areas and buffers that will be preserved after construction will remain undisturbed during grading and construction.

- Yes No N/A

17. A copy of the Tennessee Construction General Permit Notice of Coverage and Stormwater Pollution Prevention Plan (if not the same as the EPSC Plan) submitted to TDEC for the land disturbing activities detailed in the EPSC plan.

- Yes No N/A

18. A listing of any legally protected State or Federally listed threatened or endangered fauna and/or critical habitat that may be impacted by the development, and the BMPs that will be utilized to eliminate impacts. Note: the potential for endangered species impacts must be determined by and BMPs must be approved by the United States Fish & Wildlife Service.

- Yes No N/A

19. Any other information deemed necessary and appropriate by the permit applicant, owner or operator or as requested by the Director of Engineering and Public Works or his/her designee.

- Yes No N/A

20. The following statement is required on all EPSC plans:

"Adequate drainage, erosion and sediment control measures, best management practices, and/or other stormwater management facilities shall be provided and maintained at all times during construction. Damages to adjacent property and/or the construction site caused by the contractor's or property owner's failure to provide and maintain adequate drainage and erosion/sediment control for the construction area shall be the responsibility of the grading permittee."

- Yes No N/A

21. Stamp of professional engineer licensed to practice in the State of Tennessee.

Appendix B
Sketch Plan and Sketch Plan Inspection
Checklist



CITY OF MARYVILLE SKETCH PLAN
(For land disturbance between 0.10 and 1 acre)

Grading Permit No. _____

Date: _____ Project Name: _____
Project Address: _____
Applicant Name: _____ Applicant Phone Number: _____
Applicant Address: _____
Applicant Email Address: _____

A grading permit WILL NOT BE ISSUED until this form is filled out completely.

Please choose the most appropriate answer.

For land disturbing activities between 0.10 and 1 acre, choose one of the options provided on the backside of this application. EPSC measures must be implemented in accordance with the chosen option.

The most appropriate EPSC sketch plan is option ___ or a combination of options ___ & ___ as indicated on the back of this form.

The City of Maryville requires **water quality vegetative buffers** along all streams, wetlands, ponds and other water bodies within the City's jurisdiction.

Are vegetative buffers required on this site? Yes No

If yes, locate the water feature and approximate boundary of the associated buffer on the option chosen on the back side of this form.

The City of Maryville Grading and Construction Site Pollution Management Ordinance requires that anyone conducting land-disturbing activities must prevent sediment from leaving the site. **Furthermore, conducting any land-disturbing activity of one acre or more requires an approved Erosion Prevention and Sediment Control Plan (EPSC) Submittal Package before initiating land-disturbing activities. This includes project-related fill material and borrow, waste or stockpile areas in addition to the building site.** Land disturbing activity means any activity on a property that results in a change in the existing soil and/or the existing soil topography. Land disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, logging and/or tree chipping operations, haul roads associated with the development, and excavation. In addition, the Director of Engineering and Public Works or his/her designee may require development of a complete EPSC Plan Submittal Package, as set forth in the City of Maryville Grading and Construction Site Pollution Management Ordinance. This document will be used by the City of Maryville to inspect the EPSC measures selected from options A-G on the back side of this document.

Failure to install and maintain EPSC measures may result in violations and/or fines.

The undersigned hereby certifies that he/she has read this form in its entirety and is aware of the stated requirements of the City of Maryville Grading and Construction Site Pollution Management Ordinance and the City of Maryville Grading and Construction Site Pollution Management Policies and Procedures Manual. The applicant must comply with all regulations and policies provided in these documents.

Applicant's Signature

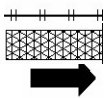
Applicant's Printed Name

Date

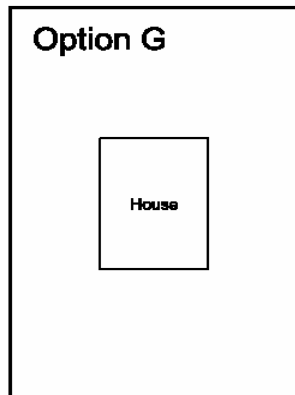
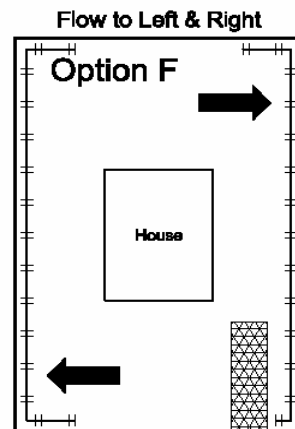
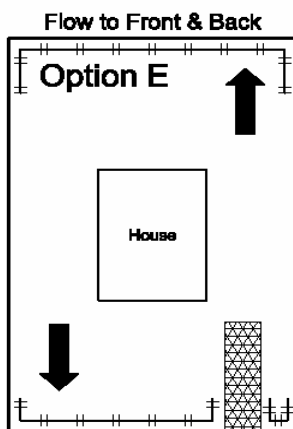
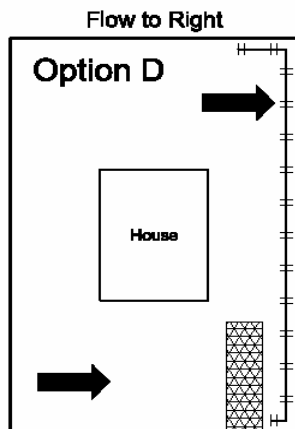
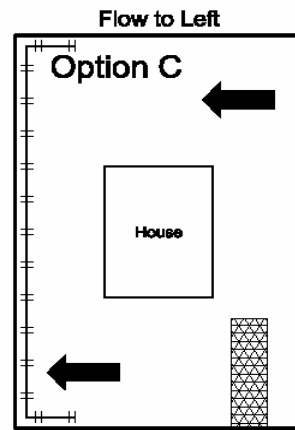
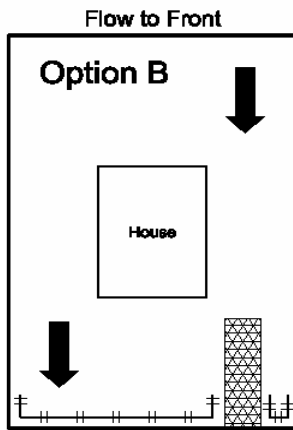
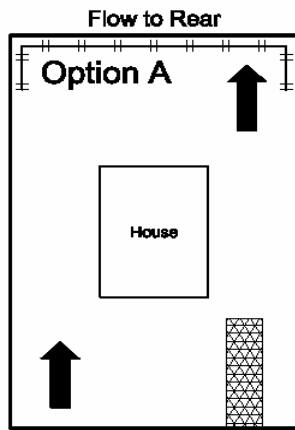
EROSION PREVENTION & SEDIMENTATION CONTROL (EPSC) PLAN OPTIONS FOR GRADING PERMITS

INSTRUCTIONS: Identify one or any combination of letters for the EPSC schematic that best describes the measures that will be used on this property during construction. If Options A-F do not adequately reflect site conditions, add flow lines and EPSC measures to Option G, as appropriate.

Legend



Sediment barrier, such as silt fence or straw wattles
Stabilized construction entrance
Direction of Flow (points downhill)



If Options A-F do not adequately reflect site conditions, show runoff direction lines and EPSC measures to Option G, as appropriate.

Additional Requirements:

If catch basins, wetlands, sinkholes, streams, or other stormwater conveyance systems are located on or within 100 feet of the property, the applicant must locate the area on the chosen option and describe how these areas will be protected from sediment deposition.



SKETCH PLAN INSPECTION CHECKLIST CITY OF MARYVILLE, TENNESSEE

Date/Time of Inspection: _____ Grading Permit No.: _____

Project Name: _____ Schematic Option: _____

Location: _____

Site Conditions: _____

Instructions: This inspection checklist is to be completed by the City of Maryville and covers the basic erosion prevention and sediment control and other stormwater construction requirements for land disturbing activities between 0.10 and 1 acre. Ideally, each element presented in this list should be checked "Yes", if it is applicable to the site. Questions that are not applicable for the site must be marked as "N/A". Checks placed under the "No" column require a written explanation and/or a written corrective action and required completion date in the "Comments and Corrective Actions" section of this form.

I. EPSC Measures

- | | Yes | No | N/A | |
|-----|--------------------------|--------------------------|--------------------------|--|
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the approved sketch plan need to be modified to reflect major changes that have been made on-site? |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC measures retaining sediment on site? |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC measures adequately preventing visible erosion on-site? |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the approved plan describe and identify the EPSC measures for the site? |
| 5. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If 4 above is yes, has the approved sketch plan been updated to reflect current EPSC measures for the site? |
| 6. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are discharge points correctly indicated in the approved plan? |
| 7. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are sediment deposits present at any of the site discharge points? |
| 8. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are adjacent or downstream properties protected from sediment? |
| 9. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all surface waters leaving the site at the stabilized outlet points noted on the approved plan? |
| 10. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are sediment controls (e.g. sediment traps, silt fences, sedimentation ponds, etc) filled to greater than 50% of the height of the control measure? |
| 11. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC controls installed around material storage areas (e.g. masonry materials, waste material stockpiles, topsoil stockpiles, etc) and concrete truck washout areas? |
| 12. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the site free of litter, construction, debris, or construction chemicals that could be carried offsite by wind or anticipated storm events? |
| 13. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are streams, ditches, and stormwater conveyances adequately protected? |
| 14. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is construction equipment in working order and free of leaks? |
| 15. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are storm drain inlets properly protected? |
| 16. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are temporary construction entrances installed at each access point to the site? |
| 17. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has offsite sediment tracking been minimized? |

COMMENTS AND CORRECTIVE ACTIONS

Please provide an explanation and/or corrective action for all "No" responses in Sections II through VIII. Corrective actions must include the location of the problem or action, a statement of the action needed/required, and a deadline for completion.

Inspector Signature: _____ Date: _____

Appendix C
Construction Inspection Report



CONSTRUCTION INSPECTION REPORT CITY OF MARYVILLE, TENNESSEE

Date/Time of Inspection: _____ TN-CGP Permit No.: _____ Grading Permit No.: _____

Project Name: _____ Location: _____

Site Conditions: _____

Instructions: This checklist covers the basic erosion prevention and sediment control and other stormwater construction requirements for developments in the city of Maryville, TN. Ideally, each element presented in this list should be checked "Yes", if it is applicable to the site. Questions that are not applicable for the site must be marked as "N/A". Checks placed under the "No" column require a written explanation and/or a written corrective action and required completion date in the "Comments and Corrective Actions" section of this form.

Note: The word "plan" refers to the Erosion Prevention and Sediment Control [EPSC] Plan that has been approved for the site by the city of Maryville, TN Engineering and Public Works Department.

I. TDEC Construction General Permit Requirements

- | | Yes | No | N/A | |
|-----|--------------------------|--------------------------|--------------------------|---|
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is a copy of the TDEC Notice of Coverage and the Maryville grading permit posted at the construction site? |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have operators and subcontractors been observed on-site that are not listed on the Notice of Coverage? |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is an up-to-date copy of the signed SWPPP retained at the construction site? |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is any stormwater or other fluid discharging to an improved sinkhole? |
| 5. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If 4 above is yes, is a Class V injection well permit on-site? |
| 6. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is work occurring in or does the project discharge to a body of water or wetland? |
| 7. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If 6 above is yes, is an approved permit onsite authorizing this work? |
| 8. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are the dates of major grading activities documented? |
| 9. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are the dates when construction activities temporarily or permanently cease documented? |
| 10. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are the dates when stabilization practices were initiated documented? |
| 11. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are inspections being performed and documented twice a week and at least 72 hours apart? |
| 12. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are inspections being performed by a qualified person? |
| 13. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are discharge locations correctly indicated in the approved plan? |
| 14. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has the plan been kept current to reflect major changes that have been made on-site? |
| 15. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the approved plan describe and identify the EPSC measures for the site? |
| 16. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has the approved plan been updated to reflect site conditions? |
| 17. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is a rain gauge located on the site and precipitation amounts recorded daily? Note: It is acceptable to record the precipitation amount from a suitable reference location. |

II. EPSC Measures

- | | Yes | No | N/A | |
|-----|--------------------------|--------------------------|--------------------------|---|
| 18. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the approved plan need to be modified to reflect major changes that have been made on-site? |
| 19. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC measures installed in accordance with the <i>TDEC Erosion and Sediment Control Handbook</i> ? |
| 20. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC measures installed before beginning land-disturbing activities on each phase of construction? |
| 21. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC measures retaining sediment on site? |
| 22. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC measures adequately preventing visible erosion on-site? |
| 23. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the approved plan describe and identify the EPSC measures for the site? |
| 24. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If 23 above is yes, has the approved plan been updated to reflect current EPSC measures for the site? |
| 25. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the approved plan contain an adequate construction schedule for EPSC BMPs? |
| 26. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are discharge points correctly indicated in the approved plan? |
| 27. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are sediment deposits present at any of the site discharge points? |
| 28. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is sediment-laden water pumped from any excavation or work area filtered or held in a settling basin prior to its discharge to surface waters? |
| 29. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are adjacent or downstream properties protected from sediment? |
| 30. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all surface waters leaving the site at the stabilized outlet points noted on the approved plan? |
| 31. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are sediment controls (e.g. sediment traps, silt fences, sedimentation ponds, etc) filled to greater than 50% of the height of the control measure? |



II. EPSC Measures (continued)

- | | Yes | No | N/A | |
|-----|--------------------------|--------------------------|--------------------------|--|
| 32. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are EPSC controls installed around material storage areas (e.g. masonry materials, waste material stockpiles, topsoil stockpiles, etc) and concrete truck washout areas? |
| 33. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the site free of litter, construction, debris, or construction chemicals that could be carried offsite by wind or anticipated storm events? |
| 34. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are perimeter EPSC measures installed around the individual lots prior to groundbreaking? |
| 35. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are streams, ditches, and stormwater conveyances adequately protected? |
| 36. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is construction equipment in working order and free of leaks? |
| 37. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are storm drain inlets properly protected? |
| 38. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are temporary construction entrances installed at each access point to the site? |
| 39. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has offsite sediment tracking been minimized? |
| 40. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are finalized slopes ready for stabilization free from rill or gully erosion? |
| 41. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has temporary stabilization been applied to areas that have been inactive for greater than 15 days? |
| 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has permanent stabilization been applied to any areas of the site? |
| 43. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If 40 above is yes, has permanent vegetative cover been established over at least 70% of the site? |
| 44. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the approved plan contain an adequate construction schedule for EPSC and stormwater BMPs? |

III. Post-construction Buffer Information

- | | Yes | No | N/A | |
|-----|--------------------------|--------------------------|--------------------------|---|
| 45. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are streams, wetlands, ponds or lakes located partially or completely within the site boundaries? |
| 46. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If 45 above is yes, are vegetative buffers being maintained per the approved EPSC plan. |
| 47. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If the site has an approved Buffer Enhancement Plan, are the EPSC and revegetation measures described in the plan being followed? |
| 48. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Does the project conform to the requirements of the Corps of Engineers 404, TDEC ARAP or 401 permits and/or TVA 26A permits? |

IX. COMMENTS AND CORRECTIVE ACTIONS

Please provide an explanation and/or corrective action for all "No" responses in Sections II through VIII. Corrective actions must include the location of the problem or action, a statement of the action needed/required, and a deadline for completion.

Site operator contacted during inspection: _____

Inspector Name: _____

