Appendix M

GUIDELINES AND SAMPLE AGREEMENTS FOR STORMWATER MANAGEMENT

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APPENDIX M: GUIDELINES AND SAMPLE AGREEMENTS FOR STORMWATER MANAGEMENT

M.1 NEW DEVELOPMENT

This section provides general guidance for the operation and maintenance of new stormwater management facilities.

M.1.1 Purpose

The purpose for Operation and Maintenance of Stormwater Management Facilities is to protect, maintain and enhance the public health, safety, and general welfare, protect aquatic resources, and maintain water quality by establishing minimum requirements and procedures to control the adverse impacts associated with stormwater runoff.

Proper operation and maintenance to these facilities will minimize damage to public and private property, reduce the magnitude and frequency of flooding, siltation, and maintain post development stormwater runoff.

M.1.2 Definitions

Stormwater Management Facility: Includes detention/retention basins, rain gardens, bio-retention areas, riparian buffers, and associated inflow and outfall structures, pipes, pump stations, drainage swales and channels, and other associated storm drain facilities.

***Best Management Practice (BMP)*:** Schedules of activities, prohibitions of practices, installation of erosion control devices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

***Stormwater Management Plan*:** A set of drawings or other documents submitted by a person as a prerequisite to obtaining a stormwater management approval, which contain all of the information and specifications pertaining to stormwater facilities and maintenance.

Detention Basin: is a stormwater management facility installed on, or adjacent to, tributaries of rivers, streams, or lakes that is designed to protect against flooding and, in some cases, downstream erosion by storing water for a limited period of a time. These basins are also called “dry ponds”, “holding ponds” or “dry detention basins” if no permanent pool of water exists. Some detention ponds are also “wet ponds” in that they are designed to permanently retain some volume of water at all times.

Retention Basin: is a type of best management practice (BMP) that is used to manage stormwater runoff to prevent flooding and downstream erosion, and improve water quality in an adjacent river, stream, or lake.

Aeration Devices: Aeration devices to prevent pond stagnation, algae growth and foul odors shall be provided when applicable. Design calculations to substantiate the

effectiveness of these aeration devises shall be submitted with final engineering plans. Agreements for the perpetual operation and maintenance of aeration devises shall be prepared to the satisfaction of the City.

M.1.3 Applicability

It is the policy of the City of Grand Prairie that all stormwater management facilities which service a single lot or commercial or land development shall be privately owned and maintained. Inspection and maintenance agreements are therefore required in all cases where the owner is other than the City of Grand Prairie. The City of Grand Prairie is not responsible for the design, construction, operation, maintenance or use of any stormwater management facility to be developed, constructed or used by the owner or his successor, assigns or heirs. Owners shall indemnify and hold harmless the City of Grand Prairie, its officers, employees, and agents from any direct or indirect loss, damage, liability, or expense and attorney's fees for any negligence whatsoever, arising out of the design, construction, operation, maintenance, condition or use of the stormwater management facility including any non-performance of the foregoing. The owner shall require any successor, assigns or heirs in interest to accept full responsibility and liability for the stormwater management facility. All the above shall be covenants running with the land. It is expressly contemplated that the owner shall impose these covenants upon all lots abutting, adjacent or served by the stormwater management facility. It is also expressly contemplated that the owner shall impose these covenants upon any successor, assigns or heirs in interest the full obligation and responsibility of maintaining and operating said stormwater management facility.

An inspection and maintenance schedule shall be part of the stormwater management facility plan. An agreement which specifies the frequency of maintenance and which alerts the City of such maintenance activities will be required. The City will maintain an inventory of privately maintained stormwater management facilities, inspections and performance of required maintenance. The City will require, at a minimum, a yearly inspection report conducted by a registered engineer or landscape architect on privately maintained stormwater management facilities. The City requires detention and drainage easements around all detention and retention/stormwater management facilities.

The City will require the owner to maintain in perpetuity the stormwater management facilities in accordance with the approved Operation and Maintenance Plan listed in (1) below and in a manner that will permit the stormwater management facilities to perform the purposes for which they were designed and constructed, and in accordance with the standards by which they were designed and constructed, all as shown and described in the approved Stormwater Management Plan. The City will require the owner to sign an agreement with the City committing to these requirements and the agreement shall be filed with the County Deed Records so as to put on notice any successor, assigns or heirs in interest to accept full responsibility and liability for the stormwater management facility. This includes all pipes and channels built to convey storm water to the stormwater management facility, as well as structures, improvements and vegetation provided to control the quantity and quality of the storm water.

(1) The Owner shall provide an Operation and Maintenance Plan for each stormwater management facility addressing the maintenance items listed below. The Operation and Maintenance Plans shall include a schedule of operation and maintenance items and frequency of execution. The Owner shall maintain, update, and store the operation and maintenance records for the stormwater management facility.

M.1.4 Maintenance Items Specific to Stormwater Maintenance Facilities

Stormwater management facilities experience conditions which can lead to degraded efficiency and objectionable conditions. Areas of concern include: excessive vegetative growth, trash and debris removal, maintaining adequate vegetative cover, sedimentation, bank erosion, insect control, outlet stoppages, algal growth, fence maintenance, damaged outfall structures, rip rap displacement, outfall erosion, and damaged or nonfunctioning aeration devices.

M.1.5 Stabilization

Gradual slopes are necessary for establishing vegetation cover and for ease of mowing. Guidelines recommend a 4:1 slope or flatter. Slopes greater than 4:1 shall have a formal engineered design and specific maintenance plan and inspection schedule. Erosion and bare areas noted during site visits should be backfilled with topsoil, compacted, and re-seeded. These problems, if taken care of promptly, can help to avoid more costly repairs made necessary by continued erosion of unstabilized soils.

M.1.6 Inspections

Scheduled, periodic inspections should provide the foundation for a comprehensive maintenance program. Detailed inspections occurring, at least annually, should be conducted by a registered engineer or landscape architect to ensure that the facility is operating as designed and to provide a chance to schedule any maintenance that the facility may require. An inspection checklist is provided with this document to use in the inspection process. In addition to regularly scheduled inspections, the opportunity should be taken to note deficiencies during any visits by maintenance personnel. After major storm events the facility should be checked for clogging of the outlet structure/s.

M.1.7 Compatibility with Other Permit and Ordinance Requirements

This Guidance Document is not intended to interfere with, abrogate, or annul any other rule or regulation, stature, or other provision of law or ordinance. The requirements of this Guidance Document should be considered minimum requirements.

M.1.8 Additional Reference Materials

See **Inspection Check List**
See **Owner/Developer Inspection and Maintenance Agreement**

M.2 EXISTING STORMWATER MANAGEMENT FACILITIES

This section provides general guidance for the operation and maintenance of existing stormwater management facilities.

M.2.1 Purpose

The purpose for Operation and Maintenance of Stormwater Management Facilities is to protect, maintain and enhance the public health, safety, and general welfare, protect aquatic resources, and maintain water quality by establishing minimum requirements and procedures to help control pollution and erosion associated with stormwater runoff.

Proper operation and maintenance of these facilities will minimize damage to public and private property by reducing the magnitude and frequency of flooding, channel siltation, and erosion.

M.2.2 Definition

Stormwater Management Facility: Includes detention/retention basins, rain gardens, bio-retention areas, riparian buffers, and associated inflow and outfall structures, pipes, pump stations, drainage swales and channels, and other associated storm drain facilities.

***Aeration Devices*:** Aeration devices to prevent pond stagnation, algae growth, and foul odors, i.e., fountains, pumps and motors.

M.2.3 Applicability

It is the policy of the City of Grand Prairie that all stormwater management facilities which service a single lot or commercial or land development shall be privately owned and maintained. Inspection and maintenance agreements are therefore required in all new development where the owner is other than the City of Grand Prairie. The City of Grand Prairie is not responsible for the design, construction, operation, maintenance or use of any stormwater management facility to be developed, constructed or used by the owner or his successor, assigns or heirs in interest. The owner shall require any successor, assigns or heirs in interest to accept full responsibility and liability for the stormwater management facility. It is also expressly contemplated that the owner shall impose these obligations and responsibilities upon any successor, assigns or heirs in interest, Home Owners Association (HOA), or Public Improvement District (PID) the full obligation and responsibility of maintaining and operating said stormwater management facility.

M.2.4 Inspections

Stormwater management facilities experience conditions which can lead to degraded efficiency and objectionable conditions. Scheduled, periodic inspections should provide the foundation for a comprehensive maintenance program. Detailed inspections

occurring, at least annually, should be conducted by a registered engineer or landscape architect to ensure that the facility is operating as designed and to provide a chance to schedule any maintenance, which the facility may require. Inspections to the stormwater facility should include, but not limited to the following:

1) Excessive vegetative growth
2) Trash and debris accumulation
3) Inadequate vegetative cover
4) Sedimentation
5) Bank erosion (erosion and bare areas should be backfilled with topsoil, compacted, and re-seeded)
6) Insect control problems
7) Outlet stoppages
8) Algal growth
9) Fence damage
10) Damaged outfall structures
11) Rip rap displacement
12) Outfall erosion
13) Adequate mowing schedules
14) Damaged or nonfunctioning aeration devices (if applicable)

An inspection checklist is provided with this document to use in the inspection process. In addition to regularly scheduled inspections, the opportunity should be taken to note deficiencies during any visits by maintenance personnel. After major storm events the facility should be checked for clogging of the outlet structure/s.

M.2.5 Compatibility with Other Permit and Ordinance Requirements

This Guidance Document is not intended to interfere with, abrogate, or annul any other rule or regulation, stature, or other provision of law or ordinance. The requirements of this Guidance Document should be considered minimum requirements.

M.2.6 Additional Reference Material

***See* Inspection Check List**

Continue on Next Page …

M.3 Stormwater Detention Basin Maintenance Inspection

Date of Inspection:	
Inspector Name:	
Location of Inspection:	
Owner/Manager:	
Type of Basin:	☐ ***Wet Detention*** ☐ ***Dry Detention***

Inspection Item	Date Removed/Repaired/ Completed	N/A	Comments	
Remove trash and debris from detention pond area				**Detention Basin Maintenance**
Remove woody vegetative growth from pond area including embankments				
Remove trash and debris around discharge structures				
Remove obstructions from pipes, inlets, or outlets				
Mow grassed slopes (wet detention) and basin floor (dry detention)				
Repair erosion to outfalls, spillways, structures, pipes, and embankments				**Detention Basin Structural Maintenance**
Repair and/or replace damaged or non-operational structures, such as risers, pipes, headwalls and aeration devices				
Remove vegetation overgrowth and debris from overflow spillway and grates				
Inspect and remove invasive plants				
Observe and note sedimentation levels				
Dredge pond on a 5-10 year cycle to retain design capacity				

M.4 Owner/Developer Inspection and Maintenance Agreement

State of Texas

County of _____

THIS AGREEMENT, made and entered into this ___ day of _____, 20___, by and between (Insert Full Name of Owner) _____ hereinafter called the "Landowner", and the city of Grand Prairie, Texas hereinafter called the "City". ***WITNESSETH***, that ***WHEREAS***, the Landowner is the owner of certain real property described as (Map/Parcel Identification Number) _____ as recorded by deed in the land records of _____ County, Texas, Deed Book _____ Page _____, hereinafter called the "Property." ***WHEREAS***, the Landowner is proceeding to build on and develop the property; and

WHEREAS, the Site Plan/Subdivision Plan known as _____, (Name of Plan/Development) hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City, provides for stormwater management facilities within the confines of the property; and

WHEREAS, the City and the Landowner, its successors, assigns and heirs in interest, including any Homeowners Association or Planned Improvement District (PID) hereafter referred to as Owner agree that the health, safety, and welfare of the residents of Grand Prairie, Texas require that on-site stormwater management facilities be constructed and maintained on the Property; and

WHEREAS, the City requires that on-site stormwater management facilities as shown on the Plan be constructed and adequately maintained by the Owner.

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

1. The on-site stormwater management facilities shall be constructed by the Owner in accordance with the plans and specifications identified in the Plan.

2. The Owner shall adequately maintain the stormwater management facilities. This includes all pipes and channels built to convey storm water to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the storm water. Adequate maintenance is herein defined as good working condition so that these facilities are performing their design functions.

3. The Owner shall inspect the stormwater management facility and submit an inspection report annually. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, and deficiencies shall be noted in the inspection report.

4. The Owner hereby grants permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the stormwater management facilities whenever the City deems necessary. The purpose of inspection is to follow-up on reported deficiencies and/or to respond to citizen complaints. The City shall provide the Owner copies of the inspection findings and a directive to commence with the repairs if necessary.

5. In the event the Owner fails to maintain the stormwater management facilities in good working condition acceptable to the City, the City may enter upon the Property and take whatever steps necessary to correct deficiencies identified in the inspection report and to charge the costs of such repairs to the Owner. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Owner outside of the easement for the stormwater management facilities. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.

6. The Owner shall perform the work necessary to keep these facilities in good working order as appropriate. In the event a maintenance schedule for the stormwater management facilities (including sediment removal) is outlined on the approved plans, the schedule shall be followed.

7. In the event the City pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Owner shall reimburse the City upon demand.

8. This Agreement imposes no liability of any kind whatsoever on the City and the Owner agrees to hold the City harmless for the design, construction, operation, maintenance or use of any stormwater management facility to be developed, constructed or used by the owner or his successor, assigns or heirs. Owners shall indemnify and hold harmless the City, its officers, employees, and agents from any direct or indirect loss, damage, liability, or expense and attorney's fees for any negligence whatsoever, arising out of the design, construction, operation, maintenance, condition or use of the stormwater management facility including any non-performance of the foregoing. The owner shall require any successor, assigns or heirs in interest to accept full responsibility and liability for the stormwater management facility. All the above shall be covenants running with the land. It is expressly contemplated that the owner shall impose these covenants upon all lots abutting, adjacent or served by the stormwater management facility. It is also expressly contemplated that the owner shall impose these covenants upon any successor, assigns or heirs in interest the full obligation and responsibility of maintaining and operating said stormwater management facility.

WITNESS the following signatures and seals:

_____

Company/Corporation/Partnership Name (Seal)

By: _____

_____
(Type Name)

_____
(Type Title)

STATE OF _____

COUNTY OF _____

The foregoing Agreement was acknowledged before me this ____ day of _____, 20___, by

_____.

NOTARY PUBLIC _____

My Commission Expires: _____

City of Grand Prairie, Texas

By: _____

_____
(Type Name)

_____
(Type Title)

STATE OF _____

COUNTY OF _____

The foregoing Agreement was acknowledged before me this ____ day of _____, 20___, by

_____.

NOTARY PUBLIC _____

My Commission Expires: _____

Approved as to Form:

_____
(City Attorney / Date)