
STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS

for Compliance with CZO Article 23: Landscape, Stormwater Management, & Screening

Please submit one hard copy and one digital copy of your SWMP. **Incomplete applications will not be accepted.**

Stormwater Management Plans shall be prepared by a registered landscape architect licensed by the Louisiana Horticulture Commission or a registered professional engineer licensed by the Louisiana Professional Engineering and Land Surveying Board (LAPELS). For all sites one (1) acre or more, a registered professional engineer must approve (stamp) all pertinent drainage and retention calculations. The CPC Executive Director reserves the right to require a registered landscape architect to approve (stamp) and/or delineate all pertinent green infrastructure BMP planting plans.

For all sites one (1) acre or more, a Stormwater Pollution Prevention Plan (SWPPP) is required to be prepared and submitted with the application per the standards of Louisiana Pollutant Discharge Elimination System (LPDES) Storm Water General Permits & Requirements.

ALL STORMWATER MANAGEMENT SITE PLANS SHALL INCLUDE THE FOLLOWING: BASE REQUIREMENTS

- Plans shall be submitted in BOTH digital and hard copy as a part of the Final Plan approval process:
 - HARD COPY: Site Plans shall be submitted on 24"x36", narratives shall be submitted on 8.5"x11"
 - AND-**
 - DIGITAL: Final Site Plans shall be submitted in both .pdf and .dxf, .dwg, or ESRI compatible file format; Final required descriptions and narratives shall be submitted in .pdf file format.
- Engineering Scale shall be 1"=20', 1"=30', 1"=40', or 1"=50'; if the project is too large, provide a sheet showing an overall plan, with separate pages showing detail at 1"=20'
- Project Title
- North Arrow
- Designer(s) company name, address, and telephone number
- Seal and signature of the engineer or landscape architect preparing the plans, and the date the plans were signed by the engineer, when applicable. Electronic files must be digitally stamped
- Blank space for approval in the lower right hand corner at least 5"x3" on the first sheet
- City-parish limit line, when located in or near the site
- Municipal address(es) of the petitioned property
- Petitioned property and adjacent right-of-ways
- Show the natural topography of the site, at a maximum of 1' elevation intervals. If the site is less than 2% slope, point elevations are required at a minimum of every 25' and at the property line and including any significant topographic features. NAVD88
- All above ground, surface and sub-surface infrastructure, including but not limited to drainage lines, water, sewer, electricity, and natural gas, cable, fiber, telephone.
- All existing and future dedicated easements

NAMING CONVENTIONS

- File names for SWMP documents submitted for review should correspond to the required SWMP component of this checklist. If multiples sheets of the same component are needed, place a decimal after the second number. For example, if multiple Existing Storm Drainage Site Plans are required, name as follows:

1.3.1 Existing Storm Drainage Site Plan

1.3.2 Existing Storm Drainage Site Plan – detail

- 1. SITE ASSESSMENT:** The location of the petitioned property and adjacent developments, to include all above ground, surface and sub-surface infrastructure, as well as existing site conditions, including a description and topographic map of land cover, contours, and a description and map of soil types.

Plan showing areas and capacities of all surface and subsurface detention, retention, and conveyance structures including existing drain lines, culverts, catch basins, headwalls, manholes, and stormwater Best Management Practices (BMPs) as articulated in CZO Article 23.

Minimum Requirements in addition to Base Requirements:

- ☐ **1.1 Existing Site Plan** (*Submitted in both .pdf and .dxf, .dwg, or ESRI compatible file format*)

- Location of the petitioned property
- Any existing buildings or structures, curb cuts, interior streets, driveways, parking areas and loading areas, square footage of the vehicular use area and other impervious surfaces
- All adjacent land uses
- Land cover type (pavement, rooftop, lawn, landscaping, etc)

- ☐ **1.2 Existing Storm Drainage Area Map** (*see example*)

- Delineate impervious versus pervious areas
- Chart of drainage calculations in gallons which will reference the Drainage Area Map and include analyses such as hydrologic assumptions, detention and runoff applications, and assessment hydraulic capacities for outfall structures. Calculations will include infiltration rate/time to drain

- ☐ **1.3 Existing Storm Drainage Site Plan** (*Submitted in both .pdf and .dxf, .dwg, or ESRI compatible file format*)

- All storm drainage systems and invert elevations, including but not limited to: existing drain lines, culverts, catch basins, headwalls, manholes, and stormwater Best Management Practices (BMPs).
- Location and size of existing sub-catchment basins
- USDA NRCS soil type

☐ **1.4** Existing Storm Drainage Conditions Description (*narrative*)

- Size and location of the site and brief description of adjacent property
- Existing structures
- All above ground, surface and sub-surface infrastructure
- Existing topography
- Land cover type (pavement, rooftop, lawn, landscaping, etc)
- USDA NRCS Soil Type
- Existing drainage infrastructure, including both green and grey infrastructure types and invert elevations
- Applicant will indicate the receiving drainage catchment basin. Please reference Louisiana State Plumbing Code (LSPC) Part XIV (LAC51:XIV) pursuant to the Sewerage and Water Board Plumbing Code Section 16.1

☐ **1.5** Infiltration test, signed and sealed by an engineer

- *See attachment for infiltration test standards*

2. SITE DESIGN: The location of the proposed development, any structures, and adjacent developments, to include all above ground, surface and sub-surface infrastructure, as well as proposed site conditions topographic map of land cover, contours, and a description and map of soil types. Plan showing areas and capacities of all surface and subsurface detention, retention, and conveyance structures including proposed drain lines, culverts, catch basins, headwalls, manholes, and stormwater Best Management Practices (BMPs) identified in Article 23 of the CZO.

Minimum Requirements in addition to Base Requirements:

☐ **2.1** Proposed Site Plan (*Submitted in both .pdf and .dxf, .dwg, or ESRI compatible file format*)

- All proposed buildings and structures, curb cuts, interior streets, driveways, parking areas and loading areas, square footage of the vehicular use area and other impervious surfaces
- All adjacent properties
- Land cover type (pavement, rooftop, lawn, landscaping, etc.)

☐ **2.2** Proposed Storm Drainage Area Map (*See example*)

- Delineate impervious versus pervious areas
- Chart of drainage calculations in gallons which will reference the Drainage Area Map and include analyses such as hydrologic assumptions, detention and runoff applications, and assessment hydraulic capacities for outfall structures. Calculations will include infiltration rate/time to drain

☐ **2.3** Proposed Storm Drainage Site Plan *(Submitted in both .pdf and .dxf, .dwg, or ESRI compatible file format)*

- All storm drainage systems and invert elevations, including but not limited to: proposed drain lines, culverts, catch basins, headwalls, manholes, and stormwater Best Management Practices (BMPs).
- Location and size of proposed sub-catchment basins
- USDA NRCS soil type

☐ **2.4** Typical details in section views of each Stormwater BMP type. Capacities of BMPs shall show surface and sub-surface volumes (in aggregate, chambers, cisterns, etc.) in gallons. *(Submitted in both .pdf and .dxf, .dwg, or ESRI compatible file format)*

- Total depth
- Compositional layers indicating drainage media
- Location, capacity, and invert elevation of overflow

☐ **2.5** Proposed Storm Drainage Conditions Description *(narrative)*

- Size and location of the site and brief description of adjacent property
- Proposed structures
- All above ground, surface and sub-surface infrastructure
- Proposed topography/grading
- Land cover type (pavement, rooftop, lawn, landscaping, etc.)
- Landscaping elements
- USDA NRCS soil type
- Proposed drainage infrastructure, including both green and grey infrastructure types, and invert elevations
- Applicant will indicate the receiving drainage catchment basin. Please reference Louisiana State Plumbing Code (LSPC) Part XIV (LAC51:XIV) pursuant to the Sewerage and Water Board Plumbing Code Section 16.1
- Description of safeguards to prevent short-circuiting of permanent stormwater BMPs

3. CALCULATIONS: All pertinent calculations and specifications used in the design and construction of the permanent stormwater BMPs to retain, detain, and filter the first one and one quarter (1.25) inch of stormwater runoff during each rain event. For all currently developed sites, calculations must demonstrate that the post-development runoff rate is less than the pre-development runoff rate. *These calculations shall be submitted in excel format using the Calculator provided by the City of New Orleans.*

Minimum Requirements:

☐ **3.1** Calculations showing that the post-development runoff rate is less than the pre-development runoff rate *(Submitted in excel format using the Calculator provided by the City of New Orleans)*

☐ **3.2** Empirically estimated existing and expected pollutant load *(Submitted in excel format using the Calculator provided by the City of New Orleans)*

- 4. IMPLEMENTATION TIMELINE and COST ESTIMATE:** SWMP Plan construction, implementation and anticipated timeline and the estimated and itemized cost of proposed drainage and temporary and permanent stormwater BMPs.

Minimum Requirements:

- ☐ **4.1** Description or chart of the phases of the SWMP implementation. This must include an anticipated timeline
- ☐ **4.2** Description or chart of construction methods for all site BMPs used to reduce site compaction and ensure proper functioning
- ☐ **4.3** Chart of estimated and itemized cost of proposed drainage and temporary and permanent stormwater BMPs and associated annual maintenance cost

- 5. OPERATIONS & MAINTENANCE PLAN:** A ten (10) year Operations and Maintenance (O&M) Plan or Program for all site BMPs.

Minimum Requirements

- ☐ **5.1** Narrative and Chart showing:
 - Maintenance actions that will be performed for each stormwater BMP or drainage structure
 - Contact information for the property owner, property manager, and people or department responsible for maintenance
 - Frequency of maintenance actions
- ☐ **5.2** Estimate for a Performance Bond in the amount of 25% of the initial combined costs.
- ☐ **5.3** Operations and Maintenance Agreement

- 6. SWPPP:** For all sites one (1) acre or more, a Stormwater Pollution Prevention Plan (SWPPP) is required to be prepared and submitted with the application per the standards of Louisiana Pollutant Discharge Elimination System (LPDES) Storm Water General Permits & Requirements.

Minimum Requirements:

- ☐ **6.1** Stormwater Pollution Prevention Plan (SWPPP) shall also be prepared and submitted at the time of permitting, in accordance with all state and federal water quality regulations.

7. LANDSCAPE PLAN REQUIREMENTS: All SWMP's shall meet or exceed the requirements of the Landscape Plan.

Minimum Requirements:

- ☐ **7.1** Landscape plans shall be prepared by a registered landscape architect licensed by the Louisiana Horticulture Commission. A horticulturist/landscape contractor licensed in Louisiana may be used for projects that do not require a stormwater management plan. A landscape plan shall contain the following information:
1. The location and dimensions of all existing and proposed structures, property lines, servitudes, parking lots and drives, roadways and rights-of-way, sidewalks, signs, refuse disposal and recycling areas, sidewalks, bicycle paths and parking facilities, fences, electrical equipment, recreational facilities, drainage facilities, and other freestanding structures, as determined necessary by the Executive Director of the City Planning Commission.
 2. The location, quantity, size, botanical name, and condition, both botanical and common, of all existing plant materials and trees, and a description of all tree preservation measures.
 3. The location, quantity, size, botanical name, and condition of all plant material and trees in the right-of-way, and indicating plant material and trees to be retained and removed.
 4. The location, quantity, size, and botanical name, both botanical and common, of all proposed plant material including, but not limited to, shade and evergreen trees, shrubs, groundcover, annuals, perennials, and turf.
 5. The existing and proposed grading of the site indicating contours at one (1) foot intervals.
 6. Building elevations of all proposed fences, walls, steps, and fixed retaining walls (cast concrete, unitized walls) on the site.
 7. Landscape plans and specifications shall be designed following sustainability principles as set forth in the sustainable landscaping Louisiana Yards and Neighborhoods (LYN) Program published by the LSU AgCenter, latest edition.
 8. Other details as deemed necessary by the Executive Director of the City Planning Commission.

ATTACHMENT 1:

INFILTRATION RATE EVALUATION GUIDELINES

An evaluation of infiltration rate is necessary to determine if infiltration is feasible and to establish design infiltration rates for stormwater Best Management Practices (BMP). There are three basic steps for evaluating a site's infiltration rate:

A. Desktop Study

Desktop resources such as soil survey maps, published reports, or other available data is appropriate for screening to assess the feasibility and desirability of infiltration. The infiltration rate can be derived from the hydraulic conductivity listed in the U.S. Department of Agriculture National Resources Conservation Service Soil Survey for the location and soil type reported for the site. Geotechnical data from previous site studies or nearby representative locations may also be used. If a range of hydraulic conductivity values is available, estimate the infiltration rate as the geometric mean. Porous Pavement for Pedestrian Use may be designed without additional field verification or sampling. Additional field sampling or testing is required for other infiltration-dependent controls.

B. Field Sampling

The purpose of field sampling is to evaluate the depth and texture of soil at the location of the proposed water quality control. Field sampling activities must be conducted under the direction of a licensed Landscape Architect or Engineer. Soil depth and texture within the proposed footprint of the control must be evaluated via test pits, probes, borings, or similar means at a minimum frequency of one test location per 1,000 square feet. The probe or hole must extend to the minimum soil depth required for the proposed control. For example, the depth to an impermeable layer must be at least 2 feet below the bottom of a rain garden. If the bottom of the proposed rain garden is 1.5 feet below existing ground, the probe or hole must extend a minimum depth of 3.5 feet. Soil samples must be collected and evaluated at a depth below the expected bottom of the infiltration BMP (i.e., in the layer of underlying soil where infiltration will occur). Soil texture of representative samples may be classified in the field or by laboratory methods such as sieve and hydrometer analysis. Based on the soil texture determined in the field, a representative infiltration rate can be estimated from desktop resources (as described above). In the event that soil textures in the field differ from published references, additional testing and analysis must be conducted to establish a representative infiltration rate.

C. In-situ Testing

In-situ infiltration testing methods provide the most accurate estimate of infiltration rate. A variety of in-situ tests are available for measuring the infiltration capacity of the soil. Laboratory tests are not recommended because typical laboratory samples are less representative of field conditions.

In-situ testing must be conducted under the direction of a registered professional engineer licensed by the Louisiana Professional Engineering and Land Surveying Board (LAPELS). Testing must be conducted at a **minimum of two times within each proposed infiltration BMP area**¹. When more than one infiltration test is conducted for a single control, a representative infiltration rate may be calculated as the geometric mean of the test results. Such tests should be conducted at a minimum depth of two feet below the proposed infiltration interface of the BMP (the lowest elevation where infiltration is proposed). Based on observed field conditions, the designer may elect to modify the proposed bottom elevation of the control. Personnel conducting infiltration tests should be prepared to adjust test locations and depths depending on observed conditions.

Designers should be aware of the difference between percolation tests and infiltration tests when determining the infiltration rate. A measured infiltration rate can be determined from a single or double ring infiltrometer test. However, a percolation rate determined from the simple open pit percolation test is related to the infiltration rate but tends to overestimate infiltration rates due to both downward and horizontal movement of water. Infiltration rates correspond only to the downward movement of water.

Testing methods that may be used but not discussed in detail in this section include:

- Single Ring Infiltrometer Test (ASTM D5126).
- Double Ring Infiltrometer Test (ASTM D3385).
- Guelph Permeameter.
- Constant Head Permeameter (Amoozemeter or USBR Procedure 7300-89).
- Other analysis methods at the discretion of the designer and approval of the Executive Director of the City Planning Commission.

¹ For small BMPs or innovative approaches, the Executive Director may reduce or waive this requirement.

INFILTRATION RATE EVALUATION GUIDELINES (cont.)

D. Percolation Test Protocol

The percolation test is geared towards investigating smaller infiltration facilities (i.e., facilities with drainage areas 2 acres or less and maximum ponding depths 12 inches or less). The test can be conducted using simple tools and manual labor, and does not require extensive excavation.

1. Test Preparation

- The test hole opening shall be between 8 and 12 inches in diameter or between 7 and 11 inches on each side if square.
- The bottom elevation of the test hole shall correspond to the bottom elevation of the proposed control (infiltration surface).
- Place approximately 2 inches of gravel in the bottom of the hole to protect the soil from scouring (optional).
- If horizontal infiltration is to be allowed, scarify the sides of the test hole.
- Pre-soak the hole by carefully filling it with water. If the hole has not drained completely within 24 hours, then an infiltration design is not recommended. Testing may commence after all of the water has percolated or after 15 hours has elapsed since initiating the pre-soak. However, to approximate saturated conditions, testing must commence no later than 26 hours after all pre-soak water has percolated through the test hole.
- Place a bar over the top of the hole or a nail near the top of the hole to serve as a datum from which depth measurements will be made.
- Measure the depth and diameter of the test hole.

2. Test Procedure

- Carefully fill the hole with water to a level greater than or equal to the maximum ponding depth of the rain garden. Measure this water elevation and the time it was taken.
- Measure the water surface elevation as it drops, and record the time of each measurement. Measurements shall be taken with a precision of 0.25 inches or better. The number of measurements, and thus time required to conduct the testing, will depend on the infiltration rate of the soil and the time available. Refill the hole as necessary to extend the test to at least 2 hours. The test can be terminated when near steady-state conditions (i.e., when the rate of drop is approximately constant). Alternatively, terminate the test when the test hole is empty (this may require a much longer test period).
- Calculate the percolation rate using representative steady-state data points from the latter stages of test where the rate of drop is approximately constant. The percolation rate is the change in water elevation (in inches) by the corresponding time interval (in hours).
- Convert the steady-state percolation rate (p) to a representative infiltration rate (i) using the reduction factor (R_f) as follows:

$$i = p/R_f$$

The reduction factor (R_f) is given by:

$$R_f = ((2d_1 - \Delta d)/D) + 1$$

Where:

D_1 = water depth at start of representative time interval (in.)

Δd = water level drop during representative time interval (in.)

D = diameter of percolation hole (in.)

The reduction factor accounts for water losses through the sides of the percolation hole. It assumes that the percolation rate is affected by the depth of water in the hole and that the hole is located in uniform soil. If there are deviations from these assumptions, then other adjustment may be necessary.

OPERATIONS AND MAINTENANCE AGREEMENT FOR POST-CONSTRUCTION STORMWATER BEST MANAGEMENT PRACTICES

BACKGROUND

THIS OPERATIONS & MAINTENANCE AGREEMENT FOR POST-CONSTRUCTION STORMWATER BEST MANAGEMENT PRACTICES ("Agreement") made and entered into this _____ day of _____, by _____ (hereafter referred to as the "Owner"), together with its successors and assigns, and in favor of the City of New Orleans (hereafter referred to as the "City"), together with its successors and assigns, acting through the City Planning Commission (hereafter referred to as the "CPC"),

WHEREAS, the Property Owner is the owner of certain real property at

New Orleans, Louisiana, Orleans Parish Assessor's Office Tax Bill Number(s): _____, as described more particularly in Legal Description in Exhibit A attached hereto do incorporate by reference (hereafter referred to as the "Property");

WHEREAS, the Property Owner is developing or redeveloping the Property pursuant to approved plans for _____, recorded with Mortgage and Conveyance Records for the Parish of Orleans on _____, Instrument Number: _____;

WHEREAS, pursuant to **Article 23. Landscape, Stormwater Management, and Screening** of the Comprehensive Zoning Ordinance, Property Owner is required to construct and maintain on-site stormwater best management practices in order to reduce the volume of stormwater runoff into the municipal stormwater system by retaining, detaining and filtering the first one and one quarter (1.25) inch of stormwater runoff during each rain event, and improve water quality by promoting filtration, plant uptake, absorption, and infiltration into sub-soils.

WHEREAS, the City requires that on-site stormwater best management practices as listed in Exhibit B, attached hereto do incorporate by reference, be constructed and adequately maintained by the Property Owner in order to protect public health, safety and welfare, reduce stormwater runoff, and improve water quality.

WHEREAS, to comply with Article 23, Section 23.2 of the City of New Orleans Comprehensive Zoning Ordinance, pertaining to this project, the Owner has agreed to maintain the stormwater Best Management Practices in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing Background, which is incorporated herein as if set forth below in full, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

AGREEMENT

1. Construction.

- (a) Property Owner shall construct the on-site stormwater best management practices ("BMPs") in strict accordance with the Stormwater Management Plan that was approved by the CPC on _____, recorded with the Mortgage and Conveyance Records for

the Parish of Orleans on _____, Instrument Number: _____.

2. Operation & Maintenance Responsibility.

- (a) This Agreement shall serve as the signed statement by the Owner accepting responsibility for operation and maintenance of the Property's BMPs as set forth in this Agreement until the responsibility is legally transferred to another person (mutual or juridical), as provided in 2(b) below.
- (b) This Agreement shall serve as notice to all successors and assigns of the title to Property of the obligations herein set forth. At such time as the Property is transferred, the new owner of the Property shall have the rights and responsibilities of the Owner under this Agreement.
- (c) The Owner shall provide an Operation and Maintenance Plan, attached to this agreement as Exhibit C do incorporate by reference to, for all of the Post-Construction Best Management Practices located on the Property as identified within this agreement with the City. The Operation and Maintenance Plan shall contain the following:
 - i. Identify the entity responsible for Best Management Practice inspection and maintenance responsibilities;
 - ii. The maintenance tasks to be undertaken;
 - iii. A schedule for the owner-required inspection and maintenance;
 - iv. Any necessary legally binding maintenance easements and agreements; and
 - v. A site plan showing the location of the Best Management Practices and all access and maintenance easements.
- (d) Owner, at Owner's sole expense, and for the duration of this agreement, agrees to maintain the Best Management Practices in accordance with the approved Operation and Maintenance Plan described above and in Exhibit C attached hereto, in a manner that will permit the Best Management Practices 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 CPC approved Stormwater Management Plan pertaining to the Property. This includes all pipes and channels built to convey stormwater to the Best Management Practices, as well as structures, improvements, and vegetation provided to control the quantity and quality of the stormwater runoff.
- (e) The Owner shall perform all maintenance in accordance with the Operation and Maintenance Plan and shall complete all repairs identified through regular inspections, and any additional repairs as requested in writing by the City.

3. Destruction and Removal; Changes and Alterations

- (a) Owner shall not destroy or remove or allow to be destroyed or removed the BMPs from the Property or modify the BMPs in a manner that materially lessens their effectiveness.
- (b) Owner covenants and agrees that for the term of this Agreement, no change in grades or other alterations within the lines of the BMPs area shall be made and that no buildings and/or other structures either overhead, underground or upon the surface, shall be constructed within the lines of or abutting the BMPs area unless the plans for such changes of grades, alterations or structures shall first be submitted to and approved in writing by the CPC.

4. Inspection by Property Owner.

- (a) Property Owner shall conduct inspections of the stormwater BMPs, as needed, but not less than once per year. The purpose of the inspection is to ensure safe and proper

functioning of the stormwater BMPs. The inspection shall cover all BMPs and all BMPs-associated structures and areas, including, but not limited to, all berms, outlet structures, ponds, and access roads.

- (b) Inspection reports shall be prepared for each Best Management Practice located at the Property and include the following information at a minimum:
 - i. Project address and docket number
 - ii. Inspection date
 - iii. Indicate the Best Management Practice inspected and identify the inspected components
 - iv. Summary of inspection results including necessary repairs and maintenance
 - v. Best Management Practice pictures taken during the time of the inspection

5. Recordkeeping.

Owner shall retain a record of maintenance activities and inspections related to BMPs for a period of at least ten (10) years beyond the termination of this agreement. Such records shall verify that inspection and maintenance have been conducted pursuant to this Agreement. The City may request at any time that the Owner provide copies of any or all maintenance and inspection documentation prepared during the prior ten (10) years. Owner shall comply with any such requests within thirty (30) business days after receipt of such request.

6. Inspection by City.

The Owner hereby grants permission to the City and the City's authorized agents and employees to enter upon the Property and to inspect all aspects of the stormwater BMPs whenever the City deems necessary in order to ensure BMPs are being adequately maintained and are continuing to perform the designed function. Inspection includes monitoring, sampling, testing and examination to determine proper operation of the BMPs. The City shall have the right to temporarily install and/or place on or near any BMPs such devices as are necessary to conduct monitoring, sampling and/or testing of the discharges from the BMPs or the BMP's effects. For those portions of the site that are not generally open to the public, the City shall notify the Owner of the inspection fourteen (14) days prior to the inspection.

7. Failure of Owner to Maintain BMP.

- (a) Nuisance. Owner agrees that failure to adequately maintain BMPs may constitute a public nuisance that is a threat to public health and safety and to the environment.
- (b) City may Perform Maintenance. In addition to any rights the City may have under law or this Agreement, if the City determines that the Owner has failed to adequately maintain the BMPs in good working condition as determined by the City, the City may notify the Owner in writing of any deficiencies. If Owner fails to take action to correct those deficiencies within thirty (30) business days of receipt of such notice, the City and its authorized agents and employees may enter upon the Property and take whatever steps reasonably necessary to correct deficiencies identified and charge the reasonable costs (including administrative costs) thereof to the Owner. Where deficiencies cause imminent threat to public health, safety or the environment, the City may take immediate steps necessary to protect public health, safety and/or the environment and charge the costs (including administrative costs) thereof to the Owner. When the City charges its costs to the Property Owner pursuant to this Section, such charges shall be due within thirty (30) days of the date the bill is received. Owner has the ability to appeal the

accuracy of the cost amount at an administrative hearing pursuant to Article 6 of the Code of Ordinances of the City of New Orleans.

- (c) Right to Lien. In the event the Owner fails to reimburse the City within thirty (30) days after receipt of demand under paragraph 7(b) or request an appeal, the City may place a lien on the Property for the entire amount due pursuant to Article 6 of the Code of Ordinances of the City of New Orleans.

8. No Waiver.

No delay or failure on the part of the City to exercise any rights, powers, or remedies herein provided shall be construed as a waiver thereof or acquiescence of such breach or of any future breach.

9. No Obligation by City.

Despite any other provisions of this Agreement, this Agreement does not obligate the City to appropriate or spend money at any time or for any reason. It is expressly understood and agreed that the City is under no obligation to routinely inspect, maintain or repair the BMPs, and in no event shall this Agreement be construed to impose any such obligation on the City.

10. Covenant Running with Land.

The Owner agrees whenever the Property is held, sold, conveyed or otherwise transferred, the Property shall be subject to this Agreement which shall apply to, bind and be obligatory to all current and future owner(s) of Property. This Agreement shall constitute a real covenant running with the land in perpetuity, and shall be binding on the Property Owner, its administrators, executors, heirs, assigns, and any other successors in interest, including, without limitation, any successors in title to the Property or any part thereof, whether or not they have actual notice of this Agreement and whether or not the deed of transfer specifically states that the transfer is under and subject to this Agreement.

11. Agreement to be Recorded.

The Owner shall record this Agreement in Mortgage and Conveyance Records for the Parish of Orleans at the Owner's expense and provide a copy of the recorded agreement to the City Planning Commission prior to occupancy. The City shall be the sole beneficiary of the agreements, covenants, and restrictions set forth herein and such agreements, covenants, and restrictions shall run with the land in favor of the City. Failure to record this Agreement shall not diminish the effect of this Agreement.

12. Release of Agreement.

In the event that the City determines that the BMPs located on the Property are no longer required, then the City, at the request of Owner, shall execute a release of this Agreement, which the Owner shall record in the Mortgage and Conveyance Records for the Parish of Orleans. The BMPs shall not be removed from the Property unless such a release is so executed and recorded.

15. Amendments.

This Agreement may only be amended, revised or modified by a written document

signed by the Owner and the City.

16. Remedies; Enforcement.

Owner understands, acknowledges and agrees as follows:

- (a) *Enforcement.* The City is an interested party to this Agreement and Owner consents to enforcement by the City administratively or at law or equity, of the restrictions, covenants, obligations and agreements contained herein.
- (b) *Injunctions.* Monetary damages would not be adequate or sufficient to compensate the City for a breach of any of the restrictions, covenants, obligations and/or agreements of this Agreement. Accordingly, in addition to any other remedies available to the City administratively, at law or equity, under this Agreement or otherwise, the City may obtain a mandatory and/or prohibitory injunction compelling the Owner to specifically perform and observe the restrictions, covenants, obligations and agreements contained in this Agreement or to remedy any failure on the part of the Owner to perform or observe any such restriction, covenant, obligation or agreement.
- (c) *Exclusivity.* No right or remedy conferred upon the City in this Agreement is intended to be exclusive of any other right or remedy contained in this Agreement or at law or equity. Every such right or remedy shall be cumulative and shall be in addition to each other right and remedy contained in this Agreement now or hereafter available to the City at law, in equity, by statute or otherwise.
- (d) *Remedies Cumulative.* The description of City's remedies in this Section 16 does not preclude the City from exercising any other right or remedy that at any time be available to the City under federal, state, or local laws or regulations. If the City chooses to exercise one remedy, the City may nevertheless choose to exercise one or more of the other rights or remedies available to the City at the same time or at any other time.

17. Notices.

All notices, requests, demands, and other communications required or permitted under this Agreement shall be in writing and sent to the party to be notified, at the following addresses:

Owner:

City: City Planning Commission
 Stormwater Plan Review
 1300 Perdido Street, Suite 7W03
 New Orleans, LA 70112

or to such other address as either party may give by notice to the other party. Owner is obliged to provide updated notification and contact information. All such communications shall be sent by United States first-class mail, return receipt requested, or a nationally-recognized delivery service, in each case with all delivery and postage charges prepaid, and shall be deemed to have been received three (3) business days after deposit in the United States mail, or a nationally-recognized delivery service.

18. Miscellaneous.

- (a) *Headings.* The headings in this Agreement are for convenience only and are not a part of this Agreement. The headings do not in any way define, limit, describe or amplify the provisions of this Agreement or the scope or intent thereof.
- (b) *Governing Law.* This Agreement shall be governed in accordance with the laws of the State of Louisiana without regard to the conflicts of law doctrines thereof. The parties to this Agreement agree to submit to the jurisdiction of courts, whether federal or state, located in New Orleans, Louisiana.
- (c) *No Joint Venture.* Nothing in this Agreement shall be construed as creating a joint venture or partnership between the City and the Owner.
- (d) *No Third-Party Beneficiaries.* Nothing in this Agreement is intended to confer a third-party beneficiary right upon any person or entity other than the City.
- (e) *Waiver of Jury Trial.* IT IS MUTUALLY AGREED BY AND BETWEEN THE CITY AND THE OWNER THAT THEY HEREBY WAIVE TRIAL BY JURY IN ANY ACTION PROCEEDING OR COUNTER-CLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT.
- (f) *Severability and Partial Invalidity.* The provisions of this Agreement shall be severable. In the event that one or more provisions of this Agreement or the application thereof for any reason or in any circumstance shall to any extent be held to be invalid, illegal or unenforceable in any respect, such provision shall be severed and shall be inoperative, and the remainder of this Agreement shall remain in force to the fullest extent permitted by law.
- (g) *Background incorporated.* The Background recited above is hereby incorporated into and made a part of this Agreement.
- (h) *Exhibits incorporated.* All exhibits attached to this Agreement are hereby incorporated into and made a material part of this Agreement.
- (i) *Entire Agreement.* This Agreement sets forth all agreements and understandings between the City and the Owner relating to the BMPs and there are no agreements or understandings, either oral or written, between them other than as are set forth in this Agreement. Any agreement hereafter made shall be ineffective to change, modify or amend this Agreement in whole or part unless such agreement is in writing and has been executed by both the City and Owner. No oral representations, whenever made, by any City or CPC official, employee or agent, or by any employee, agent or contractor of Owner shall be effective to modify the terms of this Agreement.
- (j) *Approval by City.* No review, approval and/or inspection by the City of any plans, designs, specifications, drawings, work or other materials submitted or performed by the Property Owner in connection with the Project shall constitute a representation, warranty or guaranty by the City as to the substance or quality of the matter reviewed or approved.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Owner has caused the Agreement to be duly executed the day and year first above written.

Property Owner

By:
Name

Title

ACKNOWLEDGEMENT

STATE OF LOUISIANA

•

: SS.

PARISH OF ORLEANS

:

On this _____ day of _____, _____, before me, a Notary Public for the State of Louisiana, the undersigned Officer personally appeared _____, who acknowledged himself/herself to be the _____ of _____, and that s/he, as such _____, being authorized so to do, executed the foregoing instrument for the purposes therein contained by executing the same by her/himself as such _____.

IN WITNESS WHEREOF, I hereunto set my hand and Notarial Seal.

Notary Public

Exhibit A
(Attach Legal Description of Property)

Exhibit B

(Attach Stormwater Drainage Site Plan showing all storm drainage systems and invert elevations, including but not limited to: proposed drain lines, culverts, catch basins, headwalls, manholes, and stormwater Best Management Practices (BMPs), and location and size of proposed sub-catchment basins)

Exhibit C

(Insert Operations & Maintenance Plan)

Exhibit D

SAMPLE INSPECTION REPORT

GENERAL INFORMATION

Inspection Date: _____ Inspector Name: _____

Project Address: _____

Best Management Practice (BMP) Inspected: _____

Instructions:

One inspection report shall be prepared for each Best Management Practice (BMP). Identify the BMP inspected as indicated on the Site Plan if multiple BMPs are present on-site. Please sign and date the inspection report. Please provide pictures taken during the inspection and attach them to the report.

PLANTINGS & VEGETATION

- ☐ The BMP being inspected does not incorporate vegetation.
- ☐ No additional maintenance is recommended at this time.
- ☐ Several of the plants provided with the original construction of the facility appear to have died. These plants shall be removed and replaced.

Comments: _____

- ☐ The facility appears to have become overgrown. As such, the vegetation in the facility shall be thinned out.

Comments: _____

- ☐ Invasive plant species are present and need to be removed.

Comments: _____

- ☐ Additional items/comments:

INLET AND OUTLET STRUCTURES

- ☐ No additional maintenance is recommended at this time.
- ☐ The inlet/outlet areas or slopes have eroded or are structurally unsound. These eroded areas shall be stabilized and repaired.

Comments: _____

- ☐ Trash, sediment, or other debris is blocking the inlet/outlet channel. This material shall be removed.

Comments: _____

- ☐ It appears that the overflow structure is malfunctioning. Any trash, sediment, or other debris blocking the entry or passage of stormwater through the structure shall be removed.

Comments: _____

- ☐ Additional items/comments:

PERMEABLE PAVING

- ☐ Permeable paving is not utilized on the site.
- ☐ No additional maintenance is recommended at this time.
- ☐ Pavement is not draining properly and pools of standing water are present after rain events. Vacuum sweep the pavement to reduce the risk of clogging by frequently removing fine sediments before they can clog the pavement and subsurface layers.

Comments: _____

- ☐ Vegetation growth is present on pavement surface. Remove vegetation growth.

Comments: _____

- ☐ There is missing sand, gravel or other material in spaces between pavers. Replace as needed.

Comments: _____

- ☐ Additional items/comments:

CISTERNS / RAIN HARVESTING SYSTEMS

- ☐ Cisterns or other rain harvesting is not utilized on the site.
- ☐ No additional maintenance is recommended at this time.
- ☐ There are leaks in the cistern, associated pipes or valves. Repair any leaks.

Comments: _____

- ☐ There is sediment or other debris in the gutters or downspout filters. Remove accumulated sediment or debris as needed.

Comments: _____

- ☐ Screens, spigots, valves, or level sensors (if present) are in need of replacement. Replace as needed.

Comments: _____

- ☐ Pumps and electrical equipment are functioning. Replace as needed.

Comments: _____

☐ Additional items/comments:

GREEN / BLUE ROOFS

☐ Green roof is not utilized on the site.

☐ No additional maintenance is recommended at this time.

☐ There are leaks in the roofing membrane or roofing system. Repair any leaks.

Comments:

☐ Drainage paths are clogged. Remove accumulated sediment or debris as needed.

Comments:

☐ There is evidence of erosion or damage to vegetation. Remediate or replace features as needed.

Comments:

☐ Pumps and electrical equipment are malfunctioning. Replace as needed.

Comments:

☐ Additional items/comments:

- Comments: _____

- [illegible]

☐ No

Date _____