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Stormwater Operation and Maintenance Manual

For

I-65 South Logistics Center

State Road 44 & Forest Road
Franklin, IN 46131

Prepared For:

GDI Construction

9775 Crosspoint Boulevard, Suite 105
Indianapolis, IN 46256

Prepared By:

American Structurepoint, Inc.

9025 River Road, Suite 200
Indianapolis, Indiana 46240
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Submitted: December 3, 2020

Revised: January 8, 2021

Revised: April 7, 2021

TABLE OF CONTENTS

OWNER ACKNOWLEDGMENT AGREEMENT (“AGREEMENT”)

SECTION I

Owner Information

SECTION II

Site Information

SECTION III

Storm Structure Maintenance

SECTION IV

Conveyance Maintenance (Storm Sewer)

SECTION V

Wet Detention System

SECTION VI

Inspection and Maintenance Schedule

SECTION VII

BMP Map

SECTION VIII

Inspection Checklist Forms

Operation & Maintenance Manual

For

I-65 South Logistics Center

State Road 44 & Forest Road

Franklin, IN 46131

BMP OWNER NAME

GDI Construction

9775 Crosspoint Boulevard, Suite 105

Indianapolis, IN 46256

Representative: Phil Gross

Business Phone: 317-567-6106

E-mail: PGross@GDIConstruction.com

GENERAL INFORMATION

The purpose of water quality Best Management Practices is to filter the first flush of rainwater before it enters the downstream lakes and streams. Through the use of these Best Management Practices, the sediment and pollutant load in stormwater runoff is reduced, and in many cases the quantity of stormwater water runoff generated is also reduced. The use of Best Management Practices also helps to reduce hydrocarbons, trash and debris from entering waterways.

OWNER RESPONSIBILITY

The BMP Owner shall be responsible for all maintenance and costs associated with the proposed BMPs. In addition, it is the owner's responsibility to perform and/or pay for inspections and maintenance as recommended below.

RIGHT OF ENTRY

City of Franklin representatives have the right to enter the property to inspect and, if required, maintain the BMPs at any time.

ANNUAL INSPECTION REPORTS

Annual inspection reports shall be submitted to City of Franklin for each BMP. The first report is due one year after construction is completed, with subsequent reports due each year within the same month of the initial report. If there are any deficiencies found during the inspection, these should be addressed. If the inspection report is not received within the month it is due, if there are deficiencies which were not included in the report, or if any deficiencies included in the report are not addressed in a timely manner, the BMP owner faces enforcement action from City of Franklin.



Owner Acknowledgement Agreement (“Agreement”)

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned owner (“Owner”) hereby submits this Operation and Maintenance Manual (“Manual”) to City of Franklin, Indiana (“City”) as written acknowledgement of Owner’s warranty and agreement to institute, maintain, and follow the water quality Best Management Practices (“BMPs”) listed below, and to follow and abide by the inspection schedule and maintenance activities listed in this Manual. The Owner also hereby agrees to provide, at Owner’s cost, all additional maintenance, repair and/or replacement services reasonably necessary to maintain the function and longevity of the BMPs from and including the date this Agreement is executed by Owner to and including the date on which a new Agreement is filed with the City by another party who assumes all of the obligations and responsibilities of Owner as set forth herein.

BMPs: Detention pond

Owner Signature

Date _____

Printed Name

Company

STATE OF _____)
)
COUNTY OF _____)

SS:

BEFORE ME, the undersigned a Notary Public in and for said County and State,
personally appeared _____, Owner, subscribed and sworn
before this _____ day of _____, _____.

County of Residence

Commission Expiration Date

Signature

Printed Name

SECTION I

OWNER INFORMATION

OWNER INFORMATION:

GDI Construction
9775 Crosspoint Boulevard, Suite 105
Indianapolis, IN 46256
Representative: Phil Gross
Business Phone: 317-567-6106
E-mail: PGross@GDIConstruction.com

OWNER RESPONSIBILITY:

The Owner is responsible for all maintenance, including cost, associated with inspecting and maintaining the infrastructure included within this manual.

SECTION II

SITE INFORMATION

The site contains 1 Best Management Practice (BMP) for the purpose of sediment removal. This BMP is a Wet Detention Pond. The Wet Detention Pond is located at the east boundary of the project.

See the attached site exhibits for BMP and storm sewer locations.

City of Franklin will require annual inspection reports of the water quality BMPs.



SECTION III

STORM STRUCTURE MAINTENANCE

Storm structures are set at storm sewer pipe connections. Unless you have OSHA approved training and equipment, never enter a manhole.

Inspection

All inlet castings should be inspected monthly and after each rainfall event. More frequent inspections should be performed in areas where there is higher potential for trash or litter (e.g. retail establishments) and during the fall when leaves are present on the ground. Check the frame and lid for cracks and wear, such as rocking lids or lids moved by traffic.

Storm structures and the surrounding areas should be inspected annually for pollutants such as leaks from dumpsters, minor spills, and oil dumping. Take action to have the pollutant source removed.

Cleaning

Clean structures when there is a blockage of a water flow path or when sediment depth reaches 6". Cleaning should be performed in a way that ensures removed sediment and water is not discharged back into the storm sewer.

Safety

Work inside underground structures requires special OSHA-required confined space equipment and procedures. The most practical option may be to contract with a sewer cleaning contractor.

Materials Handling

Disposal of waste from maintenance of drainage facilities shall be conducted in accordance with federal, state, and local regulations. Removed sediment must be disposed in the garbage as solid waste. Water should be disposed of in a sanitary sewer after oils are removed using oil absorbent materials or other mechanical means. Used oil absorbents should be recycled or disposed according to the manufacturer's instructions.

Repairs

Repair all security and access features so they are fully functional. This includes locking lids, covers, and ladder rungs. Replace broken parts or lids that rock or are moved by traffic.



SECTION IV

CONVEYANCE MAINTENANCE (STORM SEWER)

Storm sewer pipes convey stormwater. Pipes are built from many materials and are sometimes perforated to allow stormwater to infiltrate into the ground. Storm pipes are cleaned to remove sediment or blockages when problems are identified. Storm pipes must be clear of obstructions and breaks to prevent localized flooding.

Inspection

Pipes are difficult to inspect requiring special equipment and training. Usually, if a problem occurs the owner needs to call a sewer or plumbing contractor to inspect, repair or clean pipelines.

Cleaning

Clean pipes when sediment depth is greater than $\frac{1}{4}$ of pipe diameter, with a maximum sediment depth of 6". When cleaning a pipe, minimize sediment and debris discharges from pipes to the storm sewer. Install downstream debris traps (where applicable) before cleaning and then remove material. Generally, use mechanical methods to remove root obstructions from inside storm sewer pipes. Do not put root-dissolving chemicals in storm sewer pipes. If there is a problem, remove the vegetation over the line.

Safety

Work inside underground structures requires special OSHA-required confined space equipment and procedures. The most practical option may be to contract with a sewer--cleaning contractor.

Materials Handling

Sediment and debris from pipes should be disposed in the garbage as solid waste. Pick out any rocks first.

Repairs

Repair or replace pipes when a dent or break closes more than 20 percent of the pipe diameter. Repair or replace pipes damaged by deterioration.



SECTION V

WET DETENTION SYSTEM

The site contains a wet-detention systems on the east boundary of the project area.

Detention facilities are designed to hold and slowly release stormwater by use of a pond and a specially designed control structure.

Inspection

Inspect the facility for oil and other pollutants and remove any pollutants greater in volume than a surface sheen. Inspect sediment sump if present. Identify and report pollutant sources to the facility. Inspect vegetation and perform maintenance activities if necessary. Review construction plans for any original planting plan.

Cleaning

Remove trash and sediment as necessary.

Materials Handling

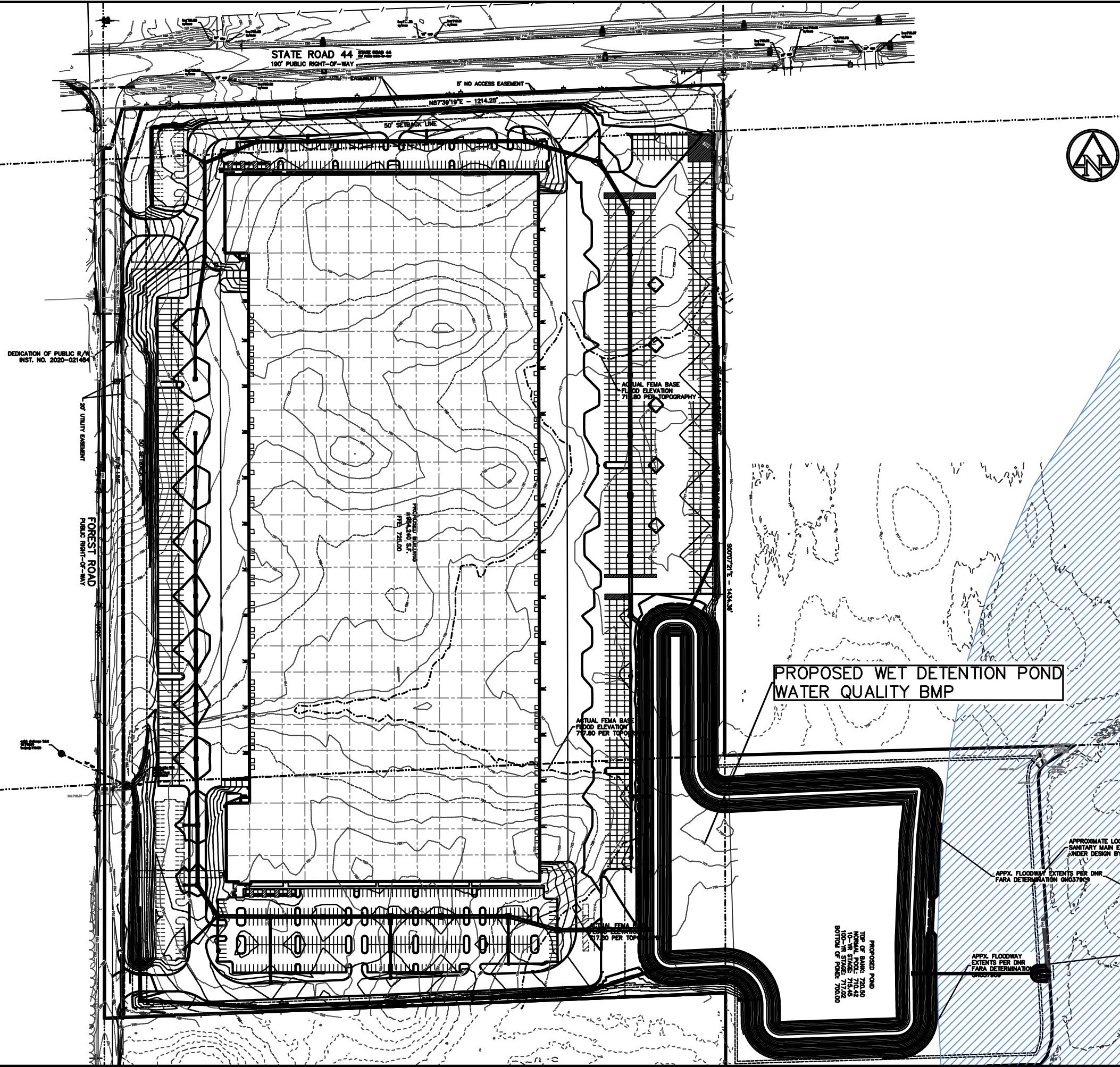
Disposal of waste from maintenance of drainage facilities shall be conducted in accordance with federal, state, and local regulations. Removed sediment must be disposed in the garbage as solid waste.

Repairs

Repair and seed bare areas. Repair eroded slopes when rills form, where the cause of damage is present, or there is the potential for future erosion. If berms or dams show signs of settlement or sinkholes, serious problems may be occurring. Spillway areas should be completely covered by established vegetation.

SECTION VI
INSPECTION AND MAINTENANCE SCHEDULE

Structure/Unit	Inspection	Maintenance
Storm Structure Maintenance	Monthly & after rain events	Accumulate 6" of sediment
Conveyance Maintenance (Storm Sewer)	When problems occur	Accumulate 6" of sediment
Wet Detention System	Every 6 months	When trash and litter are present



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**I-65 SOUTH
LOGISTICS CENTER
LOT 1**

81/89 Forest Road
Franklin, Indiana

REGISTERED PROFESSIONAL ENGINEER
No. PE11800804
STATE OF INDIANA
Justin Stahl
CERTIFIED BY

ISSUANCE INDEX		
DATE:		
03/25/2021		
PROJECT PHASE:		
CONSTRUCTION DOCUMENTS		

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

Project Number 2019.02798
BMP MAP

PLOT DATE: 3/19/2021 11:25 AM
PLOT SCALE: 1"=50'-0"
DRAWING FILE: P:\2019\201902798\I-65 South Logistics Center\2019.02798.dwg
EDIT DATE: 3/19/2021
ENTERED BY: MERVINS

Storm Sewer Structure Operation, Maintenance, and Management Inspection Checklist for BMP Owners

Project: _____ Owner Change since last inspection? Y N

Owner Name, Address, Phone: _____

Number: _____

Location: _____

Site Status _____

Date: _____

Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
Storm Casting and Grate (Inspect monthly and after major storms)		
1. Trash/Debris obstructing inflow		
Affected Structures:		
2. Silt/Sediment accumulation		
Affected Pipes:		
3. Other (describe)		
Structure Sump (Inspect annually and after major storms)		
1. Sediment/Debris in sump		
Affected Structures:		
2. Other (describe)		
Headwall Structures (Inspect annually and after major storms)		
1. Vegetation around headwall		
2. Erosion around headwall		
3. Animal burrows		
4. Headwall clear of obstructions		
5. Sediment Accumulation		
Affected Structures:		
6. Other (describe)		

Additional Comments:

Actions to be taken:

Timeframe:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Storm Sewer Pipes Operation, Maintenance, and Management Inspection Checklist for BMP Owners

Project: _____ Owner Change since last inspection? Y N
Owner Name, Address, Phone: _____
Number: _____
Location: _____
Site Status _____
Date: _____
Time: _____
Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
Storm sewer pipes (Inspect annually and after major storms)		
1. Trash/Debris obstructing inflow		
Affected Pipes:		
2. Silt/Sediment accumulation		
Affected Pipes:		
3. Other (describe)		

Additional Comments:

Actions to be taken:

Timeframe:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____