Lake Pointe
Municipal Utility District

Municipal Separate Storm Sewer System (MS4)

Stormwater Management Plan Implementation

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Table of Contents

Minimum Control Measures (MCM) Table of Contents……..MCM

Storm Water Management Program (SWMP) Cover Sheet

Section 1. Background 1
1.1 Purpose and Scope 1
1.2 Lake Pointe Municipal Utility District 2
1.3 Stormwater Management Program (SWMP) Requirements 3
1.4 Recordkeeping and Reporting Requirements 3
1.4.1 Annual Report 4
1.5 Definitions 5
1.6 SWMP Changes 5

Section 2. Plan Development Process 6
2.1 BMP Selection 6
2.1.1 Measurable Goals and Implementation Schedule 6
2.2 SWMP Development 6

Section 3. Minimum Control Measures (MCMs) 9
3.1 MCM 1: Public Education, Outreach, and Involvement 9
3.2 MCM 2: Illicit Discharge Detection and Elimination 9
3.3 MCM 3: Construction Site Storm Water Runoff Control 9
3.4 MCM 4: Post Construction Storm Water Management in New Development and Redevelopment 10
3.5 MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations 10
3.6 Storm Water Management Plan 10

EXHIBIT

MS4 Location and Outfall Map

APPENDICES: FORMS

A - Illicit Discharge Hotline Incident Tracking Sheet
B - Travis County Storm Water Management Program: Pond Inspection Form
C - Travis County Storm Water Management Program: Pond Interim Inspection Form
D - Outfall Reconnaissance Inventory/Sample Collection Field Sheet
E - Outfall Reconnaissance Inventory/Sample Collection Lab Sheet
F - Homebuilder's Construction Program Sheets
G - Pre-Construction SW3P Checklist
H - Inspection Report Template - Electronic Version
I - NCTCOG Storm Water Pollution Prevention Training Sign-In Sheet
J – Lake Pointe Municipal Utility District Storm Water Basin Maintenance Plan

LIST OF ABBREVIATIONS

EPA	Environmental Protection Agency
ORI	Outfall Reconnaissance Inventory
MCMs	Minimum Control Measures
SW3P	Storm Water Pollution Prevention Plan
SWMP	Storm Water Management Plan
TCEQ	Texas Commission for Environmental Quality
TNR	Transportation & Natural Resources
LPMUD	Lake Pointe Municipal Utility District

Minimum Control Measures

For each MCM, complete the table by entering the page number where the required element can be found in the SWMP

MCM 1: Public Education, Outreach, and Involvement

Table 1: Required Elements for MCM 1

MCM 1 Required Elements	SWMP page number
SWMP includes a stormwater education and outreach program to educate public employees, business, and the general public about hazards associated with the illegal discharges and improper disposal of waste and about the impact stormwater can have on water quality, and steps they can take to reduce pollutants in stormwater	9
Clearly define the goals and objectives of the program based on high-priority community-wide issues	9
Identify the target audiences	9
Develop or use appropriate educational material	9
Procedures to distribute educational material	11
Make the educational material available to the target audience at least annually	11
Post the SWMP and annual reports on the MS4's website, if the MS4 has a website	7
Include the MS4's website address where the SWMP and annual reports will be found, if the MS4 has a website	7
SWMP includes a program that complies with state and local public notice requirements	7
Include public input in the implementation of the program	7
Include opportunities for citizen to participate in implementation of control measures	7
Ensure the public can easily find information about the SWMP.	7
SWMP lists Best Management Practices (BMPs) used to fulfill this MCM. Examples of possible BMPs could be stream-clean-ups, storm drain stenciling, volunteer water quality monitoring, brochures, billboards, and websites.	11

MCM 1 Required Elements	SWMP page number
SWMP includes measurable goals that are clear, specific, and measurable, and the method of measurement, for addressing stormwater quality	11
SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from the general permit issuance date of January 24, 2019	11

MCM 2: Illicit Discharge Detection and Elimination

Table 2: Required Elements for MCM 2

MCM 2 Required Elements	SWMP page number
Description of the program that will be used to detect, investigate and eliminate illicit discharges. The program includes a plan to detect and address illicit discharges, including illegal dumping to the MS4 system.	9
MS4 map: The map includes: • Location of all small MS4 outfalls operated by the MS4 and that discharge into waters of the U.S.; • Location and name of all surface waters receiving discharge from the MS4s outfalls; • For Level 3 and 4 small MS4s: Location of MS4 owned or operated facilities and stormwater controls; and • For Level 4 small MS4s: Location of priority areas.	Exhibit
Methods for informing and training MS4 field staff	9 & 10
Procedures for tracing the source of an illicit discharge	11
Procedures for removing the source of the illicit discharge	11
Procedures to facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the small MS4	11
Procedures for responding to illicit discharges and spills	11
Procedures for inspections in response to complaints	11
For Level 2, 3, and 4 small MS4: Procedures to prevent and correct leaking on-site sewage disposal systems	NA
For Level 3 and 4 small MS4s: Procedures for follow-up investigation to verify that the illicit discharge has been eliminated	NA

MCM 2 Required Elements	SWMP page number
For Level 4 small MS4s: Procedures for identifying and creating a list of priority areas within the small MS4s likely to have illicit discharges	NA
For Level 4 small MS4s: Procedures for a dry weather field screening program to assist in detecting and eliminating illicit discharges to the small MS4. Dry weather field screening consists of (1) field observations and (2) field screening.	NA
For Level 4 small MS4s: Procedures to reduce the discharge of floatables in the small MS4	NA
SWMP lists BMPs used to fulfill this MCM. Examples of possible BMPs could be hazardous materials disposal opportunities, inspections of the storm sewer system, and dye testing.	11
SWMP includes measurable goals that are clear, specific, and measurable, and the method of measurement, for addressing stormwater quality	11
SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from the general permit issuance date of January 24, 2019	11

MCM 3: Construction Site Stormwater Runoff Control

Table 3: Required Elements for MCM 3

MCM 3 Required Elements	SWMP page number
Program requires operators of construction sites one acre and greater (including larger common plan) to select, install, implement, and maintain stormwater control measures	9
Description of ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state and local law	9
Program requires construction site operators to implement BMPs for erosion and sediment control	9
Program requires construction site operators to have procedures for initiating and completing soil stabilization measures	9
Program requires construction site operators to implement BMPs to control pollutants from equipment and vehicle washing and other wash waters	9

MCM 3 Required Elements	SWMP page number
Program requires construction site operators to implement BMPs to minimize exposure to stormwater of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials	11
Program requires construction site operators to implement BMPs to minimize the discharge of pollutants from spills and leaks.	11
Program ensures that the construction site has developed a stormwater pollution prevention plan in accordance with the TPDES Construction General Permit TXR150000	11
Program prohibits illicit discharges such as wash out wastewater, fuels, oils, soaps, solvents, and dewatering activities	11
Procedures for construction site plan review to consider water quality impacts	NA
Procedures for construction site inspections and enforcement of control measures, to the extent allowable under state and local law	11
Procedures for receipt and consideration of information submitted by the public	9
Procedures for MS4 staff training	10
For Level 3, and 4 small MS4s: Procedures to develop and maintain an inventory of all permitted active public and private construction sites greater than one acre (and sites that are less than one acre if part of larger common plan of development or sale)	NA
SWMP lists BMPs used to fulfill this MCM. Examples may include: notification to discharger of responsibilities under TPDES CGP; hire staff to review construction site plans; provide a web page for public input on construction activities; perform site inspections and enforcement; provide education and training for construction site operators; and mechanism to prohibit discharges into MS4 where necessary.	11
SWMP includes measurable goals that are clear, specific, and measurable, and the method of measurement, for addressing stormwater quality	11
SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from the general permit issuance date of January 24, 2019	11

MCM 4: Post Construction Stormwater Management in New Development and Redevelopment

Table 4: Required Elements for MCM 4

MCM 4 Required Elements	SWMP page number
Description of a program that will be developed, implemented and enforced, to control stormwater discharges from private and public new development and redeveloped sites that discharge into the small MS4 that disturb one acre or more (and sites that disturb less than one acre that are part of a larger common plan of development or sale)	10
Description of ordinance or other regulatory mechanism that is in place or planned which will regulate discharges from new development and redevelopment projects	10
Establish, implement, and enforce a requirement that owners or operators of new development and redeveloped sites design, install, implement, and maintain a combination of structural and non-structural BMPs appropriate for the community and that protects water quality	10
Procedures to document and maintain records of enforcement actions	11
Procedures to ensure long-term operation and maintenance of post construction stormwater control measures	11
Operation and maintenance of post construction stormwater control measures is documented	11
For Level 4 small MS4s: Develop and implement an inspection program to ensure that all post construction stormwater control measures are operating correctly and are being maintained. Inspections must be documented	NA
SWMP lists BMPs used to fulfill this MCM. Examples may include: local ordinance in place or planned; guidance document for developers to use; specific BMPs established for particular watersheds; list of appropriate BMPs provided to operators; elimination of curbs and gutters; incentives for use of permeable choices, such as porous pavement; requirements for wet ponds or other BMPs for certain size sites; and xeriscaping.	10
SWMP includes measurable goals that are clear, specific, and measurable, and the method of measurement, for addressing stormwater quality	11
SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from the general permit issuance date of January 24, 2019	11

MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

Table 5: Required Elements for MCM 5

MCM 5 Required Elements	SWMP page number
Description of an operation and maintenance (O&M) program, including an employee training component, to reduce/prevent pollution from municipal activities and municipally owned areas included but not limited to park and open space maintenance; street, road, or highway maintenance; fleet and building maintenance; stormwater system maintenance; new construction and land disturbances; municipal parking lots; vehicle and equipment maintenance and storage yards; waste transfer stations; and salt/sand storage locations	10
Develop and maintain an inventory of facilities and stormwater controls that are owned or operated by the MS4	10
Procedures to inform or train staff involved in implementing pollution prevention and good housekeeping practices. Maintain training attendance records	11
Procedures to remove and properly dispose of waste from the MS4	10
Contractors hired by the MS4 must be required to comply with operating procedures. Develop contractor oversight procedures	10
Evaluate O&M activities for their potential to discharge pollutants in stormwater for road and parking lot maintenance, bridge maintenance, cold weather operations, right-of-way maintenance, etc.	10
Identify pollutants of concern that could be discharged from the O&M activities	11
Develop and implement pollution prevention measures that will reduce discharge of pollutants from O&M activities	11
Conduct inspections of pollution prevention measures and maintain inspection log	11
Procedures for inspecting and maintaining structural controls	11
For Level 3 and 4 small MS4s: Develop and implement an O&M program to reduce the collection of pollutants in catch basins and other surface structures in the storm sewer system	NA
For Level 3 and 4 small MS4s: Develop a list of potential problem areas in the storm sewer system for increased inspection (for example, areas with recurring illegal dumping)	NA

MCM 5 Required Elements	SWMP page number
For Level 3 and 4 small MS4s: Implement an O&M program to reduce discharge of pollutants from roads that includes at least a street sweeping and cleaning program, or inlet protection. The program includes an implementation schedule and a waste disposal procedure	NA
For Level 3 and 4 small MS4s: Assess its facilities for their potential to discharge pollutants into stormwater and identify high priority facilities that have a high potential to generate stormwater pollutants. At a minimum, facilities include the MS4s maintenance yards, hazardous waste facilities, fuel storage locations, and any other facilities at which chemicals or other materials have a high potential to be discharged in stormwater. Document the results of the assessments	NA
For Level 3 and 4 small MS4s: Develop facility specific stormwater management Standard Operation Procedures for high priority facilities	NA
For Level 3 and 4 small MS4s: MS4 implements stormwater controls at high priority facilities that address good housekeeping; de-icing and anti-icing storage; fueling operations and vehicle maintenance; equipment and vehicle washing	NA
For Level 3 and 4 small MS4s: Develop and implement an inspection program that includes high priority facilities	NA
For Level 4 small MS4s: Develop an application and management program for pesticides, herbicides, and fertilizers used at public open spaces. Implement the following: educational activities, permits, etc. for applicators and distributors; encourage of non-chemical solutions for pest management; develop schedules that minimizes discharge of pollutants; ensure collection and proper disposal of unused pesticides, herbicides, and fertilizers	NA
For Level 4 small MS4s: Evaluate flood control projects. Design, construct, and maintain new flood control structures to provide erosion prevention and pollutant removal from stormwater. Retrofitting of existing structural flood control devices is implemented to the maximum extent practicable (MEP)	NA
SWMP lists BMPs used to fulfill this MCM. Examples may include: BMPs which address fleet vehicle maintenance/washing; BMPs which address parking lot and street cleaning; catch basin and storm drain system cleaning; landscaping and lawn care (e.g. xeriscaping); waste materials management; road salt application and storage practices; used oil recycling; pest management practices; fire training facilities; BMPs which address roadway and bridge maintenance; golf course maintenance/waste disposal; disposal of cigarette butts; and park maintenance (e.g., providing trash bags).	11
SWMP includes measurable goals that are clear, specific, and measurable, and the method of measurement, for addressing stormwater quality	11

MCM 5 Required Elements	SWMP page number
SWMP has been fully implemented, or includes a schedule of implementation not to exceed five (5) years from the general permit issuance date of January 24, 2019	11

Section 1. Background

Through the requirements of the Public Law 92-500, the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) is required to protect the water quality for natural waters throughout the country. Working to reduce or eliminate the pollutants from the waters of the U.S., the EPA established the program known as the National Pollutant Discharge Elimination System (NPDES) to identify water pollution sources.

The EPA has delegated responsibility for the NPDES program in Texas to the Texas Commission on Environmental Quality (TCEQ). In addition to issuing discharge permits to traditional *point sources*, such as wastewater treatment plants, TCEQ is also responsible for minimizing pollution from *non-point sources,* such as stormwater runoff from construction sites, industrial facilities and municipal storm sewer systems.

The TCEQ has issued requirements for minimizing stormwater pollution from construction sites and industrial facilities through the issuance of general permits. Sites and facilities comply with these requirements by developing and implementing site-specific stormwater pollution prevention plans (SWPPP).

To protect stormwater quality from pollution entering municipal separate storm sewer systems (MS4s) in highly populated areas, TCEQ has developed a general permit with specific conditions that apply to MS4s.

1.1 Purpose and Scope

The EPA issued regulations in 1999 intended to protect stormwater quality in small cities and urbanized areas. EPA delegated responsibility for implementing the regulations in Texas, commonly called the Phase II Stormwater Program, to the TCEQ. The regulations applied to cities with populations greater than 50,000, or those located within an urbanized area according to the 2000 Census.

The EPA required the TCEQ to develop stormwater quality permit conditions for regulated public entities that maintain municipal separate storm sewer systems (MS4). The first permit term for Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 ended on August 12, 2012. The second General Permit was issued on December 13, 2013 and applied to all cities and urbanized areas based on populations recorded in the 2010 Census. TCEQ reissued the Small MS4 General Permit TXR040000 on January 24, 2019 and the Lake Pointe Municipal Utility District (MUD) will be regulated by this stormwater program.

Lake Pointe MUD has developed a stormwater management program (SWMP) that includes a list of Best Management Practices (BMP's) that will be implemented by in order to achieve the regulatory standard of reducing pollutants to the "maximum extent practicable."

Measurable goals and an implementation schedule were developed for each of the BMP's in the SWMP. They were also selected based upon a general assessment of BMP effectiveness, applicability in the local environment, and costs associated with implementation of the BMPs. Effectiveness of the selected BMP's and success in achieving the selected measurable goals will be reviewed annually and summarized in an annual report.

1.2 Lake Pointe Municipal Utility District

Lake Pointe Municipal Utility District is located in Travis County and is part of the Austin urbanized area and is, therefore, eligible for coverage under TPDES general permit TXR040000 for Phase II (small) Municipal Separate Storm Sewer Systems (MS4s).

Climate for the area is characterized by a humid, subtropical, continental climate with hot summers and mild winters. Rainfall averages approximately 33 inches per year with most occurring in spring and early autumn

Lake Pointe MUD indirectly drains to Lake Austin and Barton Creek. Lake Pointe MUD is the consolidation of two Municipal Utility Districts, West Travis County MUD #3 and West Travis County MUD #5. These two MUDs were consolidated into the Lake Pointe MUD in the summer of 2018. Each MUD had their own SWMP.

<u>MUD #3</u>
CN # 600736326
RN # 105482012
Authorization # TXR 040563

<u>MUD #5</u>
CN # 601360746
RN # 105461982
Authorization # TXR 040425

The SWMP includes components from the MUD #3 and MUD #5 SWMPs.

1.3 Stormwater Management Program (SWMP) Requirements

The previous MUDs (MUD #3 and MUD #5) developed a SWMP in 2014 that described specific actions over a five-year period to reduce pollutants and protect stormwater quality. The MUDs prepared Annual Reports to summarize activities to remain in compliance with the General Permit.

Phase II MS4s are categorized by population:

- Level 1: Small MS4 operators that serve a population of less than 10,000 within an Urbanized Area (UA);
- Level 2: Small MS4 operators that serve a population of at least 10,000 but less than 40,000 within a UA;
- Level 3: Small MS4 operators that serve a population of at least 40,000 but less than 100,000 within a UA; and
- Level 4: Small MS4 operators that serve a population of 100,000 or more within a UA.

Implementation of the MEP standard requires the development and implementation of best management practices (BMPs) and the achievement of measurable goals to satisfy six minimum control measures (MCMs). It is expected that when these MCMs are addressed in concert, it will result in significant reductions of pollutants being discharged into receiving water bodies.

The six MS4 program MCMs are:

1. Public Education, Outreach, and Involvement.
2. Illicit Discharge Detection and Elimination (IDDE).
3. Construction Site Stormwater Runoff Control.
4. Post-Construction Stormwater Management in New Development and Redevelopment.
5. Pollution Prevention and Good Housekeeping for Municipal Operations.
6. Industrial Stormwater Sources (*required only of Level 4 MS4s*).

The sixth MCM (Industrial Stormwater Sources) is not required for Level 3 Small MS4 communities and an optional seventh minimum control measure, to address municipal construction activities through their SWMP, have not been selected for inclusion in this SWMP.

1.4 Recordkeeping and Reporting Requirements

A primary component of the MS4 general permit is recordkeeping that allows for periodic evaluation of the management plan and for annual reporting to the TCEQ on the status of the plan. Specifically, Phase II MS4s are required to:

- Retain all records, a copy of the TCEQ general permit, and records of all data used to complete the NOI for a period of three years or for the term of the TCEQ permit, whichever is longer.
- Retain a copy of the SWMP at a location accessible to the TCEQ.
- Make the records, including the Notice of Intent (NOI) and SWMP, available to the public if requested to do so in writing. The SWMP must be made available within ten (10) working days following a written request. Other records must be provided in accordance with the Texas Public Information Act.
- The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

The following subsections summarize the general reporting requirements for MS4s.

1.4.1 Annual Report

The MUD will submit a concise annual report to the executive director within 90 days of the end of each reporting year. The annual report must address the previous reporting year and the results of the annual review. The general permit provides three options for MS4 operators to designate as the reporting year: the permit year, the permittee's fiscal year or the calendar year. The Lake Pointe MUD has elected to use the calendar year as the reporting year, making **annual reports to TCEQ due by March 31 of the following year,** beginning March 31, 2020.

The annual report will include:

1. The status of the compliance with permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals;
2. A summary of the results of information collected and analyzed, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;
3. A summary of the stormwater activities the MS4 operator plans to undertake during the next reporting year;
4. Results of the annual review conducted on the previous year's SWMP
5. Proposed changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements;
6. Description and schedule for implementation of additional BMP's that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementation plans.

7. Notice that the MS4 operator is coordinating with local organizations on public education and outreach events and will summarize their activities (if performed);

The annual report will also include a summary of any proposed changes to the SWMP planned for the next reporting cycle.

1.5 Definitions

The definition of terms within this SWMP are those within TPDES General Permit TXR040000, Part I – Definitions.

1.6 SWMP Changes

This SWMP may be changed by Lake Pointe MUD at any time. According to the general permit, adding components, controls, or requirements to the SWMP, or replacing a BMP with an equivalent or better BMP only requires notification of TCEQ.

A Notice of Change (NOC) must be submitted to the TCEQ for review and approval when changing the SWMP to replace a BMP with an alternative BMP (*e.g.* replacing a structural BMP with a non-structural BMP). A NOC and TCEQ approval are not required for:

- Adding components, controls, or requirements to the SWMP.
- Adding areas such as annexing land, or otherwise acquire additional land that expands the boundary of the MS4 or subtracting areas such as by de-annexing lands.
- Making non-substantive changes, such as minor clarifications to the SWMP (for example, updating for department reorganization, minor clarifications of BMPs, or correction of typographical errors).
- Adding impaired water bodies that are identified pursuant to TPDES General Permit TXR040000 Part II.D.4
- Adding or subtracting areas such as by annexation or de-annexation.

Specific requirements for SWMP changes and documentation of plan updates involving changes in BMPs, measurable goals, or the implementation schedule can be found in the TCEQ general permit.

Section 2. Plan Development Process

2.1 BMP Selection

The Lake Point MUD has been conscientious about all types of pollution prevention programs and has been proactive in developing and implementing measures intended to protect the water quality of the receiving waters.

An important aspect of developing an effective, compliant, and cost efficient TPDES Small MS4 SWMP is to acknowledge these on-going programs and identify how each is related to the MCMs of the general permit. Details of the MUD's existing stormwater related programs were collected, summarized, and categorized into one of the five MCM's required by the general permit. These BMP's were selected to fulfill the requirements of the general permit. BMP's were evaluated for each of the five MCM's.

2.1.1 Measurable Goals and Implementation Schedule

Selection of the BMPs, measurable goals, and an implementation schedule was based on what was seen as necessary and achievable by the Lake Pointe MUD. Consideration was also given to whether or not inclusion of the activities in the SWMP would meet the permit requirements. Costs associated with implementing the various BMPs and measurable goals will be evaluated on an annual basis. Implementation of each BMP will be tracked, as required, during each year of the permit. Adjustments to the BMPs and implementation schedules will be made according to permit requirements.

The implementation schedule is based on the calendar year (ending December 31). Planning for BMP implementation for the subsequent calendar year is scheduled for the month of November in each calendar year.

2.2 SWMP Development

The Lake Pointe MUD will be responsible in the implementation, tracking, enforcement, and assessment of the SWMP.

In the development of the Stormwater Management Plan, Doucet and Associates reviewed the previous MUD 3 and MUD 5 SWMPs and coordinated with Lake Pointe MUD staff and board members that culminated in the development of the Stormwater Management Plan.

Public Notice Process for SWMP and NOI Submittal

The NOI will be submitted with this SWMP. The MUD will then publish notice of the preliminary decision on the NOI and SWMP in accordance with TCEQ requirements. Public access to both the draft and final SWMP will be maintained through the MUD's website.

As an applicant under the TPDES General Permit No. TXR040000, the MUD must adhere with the following public notice procedures described in Part II, Section E (12) of the general permit.

(a) The MUD must submit an NOI and SWMP to the Executive Director of TCEQ. The SWMP must include information about:
   1) BMPs the MUD will implement for each of the five MCMs, as appropriate;
   2) The measurable goals for each of the BMPs, including the years in which the applicant will take the required actions, including interim milestones and the frequency of the action; and
   3) The MUD will be responsible for implementing or coordinating the SWMP.

(b) After the MUD receives written instructions from the TCEQ's Office of Chief Clerk or within 60 calendar days of submittal of the NOI to TCEQ, the MUD must publish notice of the TCEQ's Executive Director's preliminary decision on the NOI and SWMP. The NOI and SWMP will be posted on the MUD's website which is www.lakepointemud.org.

(c) The notice will include the following information, at a minimum:
   1) The legal name of the MUD as the MS4 operator;
   2) Indication that the NOI is for a new authorization;
   3) The address of the MUD;
   4) A brief summary of the information included in the NOI, such as the general location of the small MS4 and a description of the classified receiving waters that receive the discharges from the small MS4;
   5) The location and mailing address where the public may provide comments to the TCEQ;
   6) The public location where copies of the NOI and SWMP, as well as the executive director's general permit and fact sheet, may be reviewed; and
   7) If required by the executive director, the date, time, and location of the public meeting.

(d) This notice must be published at least once in a newspaper of general circulation in the municipality or county where the MUD is located. This notice must provide opportunity for the public to submit comments on the NOI and SWMP. In addition, the notice must allow the public to request a public meeting. A public meeting will be held if the TCEQ determines that there is significant public interest.

(e) The public comment period begins on the first date the notice is published and lasts for at least 30 days. If a public meeting is held, the comment period will end at the closing of the public meeting (see paragraph (f) below). The public may submit written comments to the TCEQ Office of Chief Clerk during the comment period detailing how the NOI or SWMP for the small MS4 fails to meet the technical requirements or conditions of this general permit.

(f) If significant public interest exists, the executive director will direct the MUD to publish a notice of the public meeting and to hold the public meeting. The MUD must publish notice of a public meeting at least 30 days before the meeting and hold the public meeting in a county where the small MS4 is located. TCEQ staff will facilitate the meeting.

(g) If a public meeting is held, the MUD will describe the contents of the NOI and SWMP. The MUD will also provide maps and other data on the small MS4. The MUD will provide a sign in sheet for attendees to register their names and addresses and furnish the sheet to the executive director. A public meeting held under this general permit is not an evidentiary proceeding.

(h) The MUD will file with the Chief Clerk a copy and an affidavit of the publication of notice(s) within 60 days of receiving the written instructions from the Chief Clerk.

(i) The executive director, after considering public comment, will either approve, approve with conditions, or deny the NOI based on whether the NOI and SWMP meet the requirements of this general permit.

Section 3. Minimum Control Measures (MCMs)

3.1 MCM 1: Public Education, Outreach, and Involvement

General Permit Requirement: ***Part B.1.(a)***
All permittees shall develop, implement, and maintain a comprehensive stormwater education and outreach program to educate public employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges can have on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.

Target Audiences

Best management practices for public education are focused on residents, businesses, and visitors to the Lake Pointe MUD. Public involvement efforts are designed to engage residents and businesses in ongoing stormwater programs supported by the MUD. The MUD will coordinate education and outreach efforts as appropriate to maximize the program and cost effectiveness of the Public Education, Outreach, and Involvement Control Measure.

3.2 MCM 2: Illicit Discharge Detection and Elimination

General Permit Requirement: ***Part B.2.(a)***
All permittees shall develop, implement and enforce a program to detect, investigate, and eliminate illicit discharges into the small MS4. The program must include a plan to detect and address non-stormwater discharges, including illegal dumping to the MS4 system.

3.3 MCM 3: Construction Site Storm Water Runoff Control

General Permit Requirement: ***Part B.3.(a)***
All permittees shall develop, implement and enforce a program requiring operators of small and large construction activities, as defined in Part I of the general permit, to select, install, implement, and maintain stormwater control measures that prevent illicit discharges to the MEP. The program must include the development and implementation of an ordinance or other regulatory mechanism, as well as sanctions to ensure compliance to the extent allowable under state, federal, and local law, to require erosion and sediment control.

Lake Pointe MUD is in the Village of Bee Cave ETJ and Travis County. These two entities have ordinances that prescribe the design, implementation, and permitting of projects including construction site stormwater controls. Lake Pointe MUD staff will provide the pre-construction SW3P checklist (Form G) and the Storm Water Inspection Report (Form H) to contractors and builders. Lake Pointe MUD will provide reports to the Village of Bee Cave and Travis County when violations occur.

3.4 MCM 4: Post Construction Storm Water Management in New Development and Redevelopment

General Permit Requirement: ***Part B.4.(a)***
All permittees shall develop, implement and enforce a program, to the extent allowable under state, federal, and local law, to control stormwater discharges from new development and redeveloped sites that discharge into the small MS4 that disturb one acre or more, including projects that disturb less than one acre that are part of a larger common plan of development or sale. The program must be established for private and public development sites. The program may utilize an offsite mitigation and payment in lieu of components to address this requirement.

Lake Pointe MUD is in the Village of Bee Cave ETJ and Travis County. These two entities have ordinances that prescribe the design, implementation, and permitting of post construction storm water management in new development and redevelopment. Lake Pointe MUD is essentially built out with limited home construction remaining. At this point in time, Lake Pointe MUD and their contractors perform annual stormwater basin inspections, prepare reports, and coordinates with Travis County on maintenance activities. See Forms B and C in the Appendices.

The MUD's inspection and maintenance plan was recently approved by Travis County (see Appendix J). The MUD maintains wet ponds, extended detention basins, sedimentation filtration basins, and detention basins. The MUD maintains an inventory of the 12 twelve stormwater facilities that includes construction plans, photographs, and planned maintenance activities. The MS4 location map and outfalls also lists mowing and maintenance activities.

3.5 MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

General Permit Requirement: ***Part B.5.(a)***
All permittees shall develop and implement an operation and maintenance program, including an employee training component that has the ultimate goal of preventing or reducing pollutant runoff from municipal activities and municipally owned areas including but not limited to park and open space maintenance; street, road, or highway maintenance; fleet and building maintenance; stormwater system maintenance; new construction and land disturbances; municipal parking lots; vehicle and equipment maintenance and storage yards; waste transfer stations; and salt/sand storage locations.

The MUD has contracting procedures to ensure that proper erosion controls are installed and maintained and that the contractors adhere to the local regulations regarding water quality protection.

3.6 Storm Water Management Plan

See Storm Water Management Plan table on following page.

Lake Pointe MUD MCM Table

MCM	Description (BMP)	Measurable Goals (Parameter)	Implementation Schedule Calendar Year					FORM
			1	2	3	4	5	
1.1	Storm Water Quality Outreach Materials	Provide brochures at HOA meetings. Once/year. Materials can be from the City of Austin, Bee Cave, Travis County, LCRA and can address household hazardous waste, water quality, illicit dischrage, and other information.						
1.2	Storm Drain Marking	Install 20 inlet markers in Year 3.						
1.3	Recurring Public Comment Opportunity at Board meetings	Allow public comment regarding water quality items at each Board meeting.						
1.4	Update the Website with water quality information	Update the MUD website each year with information regarding cleanup activities, educational materials, etc.						
2.1	Storm Sewer/Outfall Mapping	Review annually and update as necessary with new, altered, and newly located storm sewer features.						
2.2	Illicit Discharge Detection Plan	Inspect all storm drain outfalls and stormwater basin outfalls once per year.						**D & E**
2.3	Illicit Discharge Enforcement	Enforcement of noncompliant property owners, contractors and home builders. Complete the Illicit Discharge Hotline Incident Tracking Sheet within 48 hours.						**A**
2.4	WTCPUA Reports	Request quarterly reports regarding wastewater treatment system and sanitary sewer overflows						
3.1	Homebuilder's Construction Program	Provide the Homebuilder's Construction Program form to the contractor for each construction project.						**F**
3.2	Pre-construction SW3P Checklist	Provide to contractors in advance of construction and have contractors return the form before construction begins.						**G**
3.3	Storm Water Inspection Report	To be completed by contractors for any new construction. To be used bi-weekly or within 24 hours of a 0.25" rainfall or greater.						**H**
4.1	Stormwater Management Basin Inspection	Annual inspections of all basins and complete appropriate forms.						**B & C**
4.2	Update Stormwater Management Basin Inspection Plan	Update current plan that was approved by Travis County						
4.3	Perform Stormwater Basin maintenance	Perform maintenance as identified per the inspections and document in the annual report						
5.1	Municipal Pollution Prevention Training	Provide training each year for current staff and new employees and maintain a record of each training.						**I**

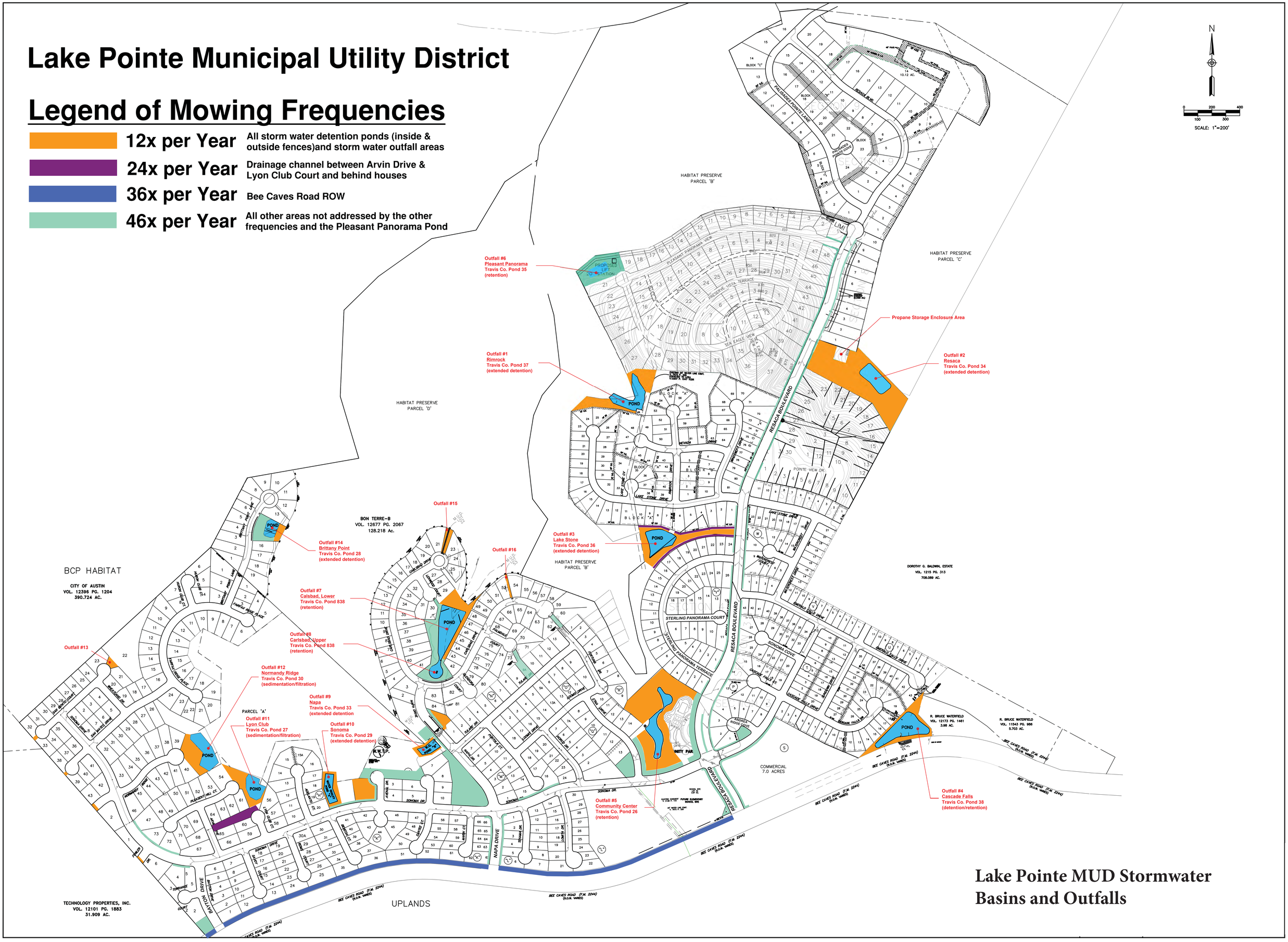
Exhibit

MS4 Location & Outfall Map

Lake Pointe Municipal Utility District

Legend of Mowing Frequencies

- **12x per Year** — All storm water detention ponds (inside & outside fences)and storm water outfall areas
- **24x per Year** — Drainage channel between Arvin Drive & Lyon Club Court and behind houses
- **36x per Year** — Bee Caves Road ROW
- **46x per Year** — All other areas not addressed by the other frequencies and the Pleasant Panorama Pond



Lake Pointe MUD Stormwater Basins and Outfalls

Appendices: Forms

A - Illicit Discharge Hotline Incident Tracking Sheet
B - Travis County Storm Water Management Program: Pond Inspection Form
C - Travis County Storm Water Management Program: Pond Interim Inspection Form
D - Outfall Reconnaissance Inventory/Sample Collection Field Sheet
E - Outfall Reconnaissance Inventory/Sample Collection Lab Sheet
F - Homebuilder's Construction Program Sheets
G - Pre-Construction SW3P Checklist
H - Inspection Report Template - Electronic Version
I - NCTCOG Storm Water Pollution Prevention Training Sign-In Sheet
J – Lake Pointe Municipal Utility District Storm Water Basin Maintenance Plan

Appendix A

Illicit Discharge Hotline Incident Tracking Sheet

TO BE USED FOR ILLICIT DISCHARGE REPORTS AND BE COMPLETED 48 HOURS AFTER REPORT

Illicit Discharge Hotline Incident Tracking Sheet

Incident ID:

Responder Information	
Call taken by:	Call date:
Call time:	Precipitation (inches) in past 24-48 hrs:
Reporter Information	
Incident time:	Incident date:

Caller contact information (*optional*):

Incident Location *(complete one or more below)*

Latitude and longitude:

Stream address or outfall #:

Closest street address:

Nearby landmark:

Primary Location Description	**Secondary Location Description:**		
☐ Stream corridor (*In or adjacent to stream)*	☐ Outfall	☐ In-stream flow	☐ Along banks
☐ Upland area *(Land not adjacent to stream)*	☐ Near storm drain	☐ Near other water source (storm water pond, wetland, etc.):	

Narrative description of location:

Upland Problem Indicator Description

☐ Dumping	☐ Oil/solvents/chemicals	☐ Sewage
☐ Wash water, suds, etc.	☐ Other: _____	

Stream Corridor Problem Indicator Description

Odor	☐ None	☐ Sewage	☐ Rancid/Sour	☐ Petroleum (gas)
	☐ Sulfide (rotten eggs); natural gas	☐ Other: Describe in “Narrative” section		
Appearance	☐ “Normal”	☐ Oil sheen	☐ Cloudy	☐ Suds
	☐ Other: Describe in “Narrative” section			
Floatables	☐ None:	☐ Sewage (toilet paper, etc)	☐ Algae	☐ Dead fish
	☐ Other: Describe in “Narrative” section			

Narrative description of problem indicators:

Suspected Violator (name, personal or vehicle description, license plate #, etc.):

TO BE USED FOR ILLICIT DISCHARGE REPORTS AND BE COMPLETED 48 HOURS AFTER REPORT

Illicit Discharge Hotline Incident Tracking Sheet

Investigation Notes	
Initial investigation date:	Investigators:
☐ No investigation made	Reason:
☐ Referred to different department/agency:	Department/Agency:
☐ Investigated: No action necessary	
☐ Investigated: Requires action	Description of actions:
Hours between call and investigation:	Hours to close incident:
Date case closed:	
Notes:	

Appendix B

Travis County Storm Water Management Program: Pond Inspection Form

TO BE USED FOR ANNUAL POND INSPECTIONS

Storm Water Management Program: Pond Inspection Form

Site Information:

Site Name _____ Site Address _____

TCAD Property ID _____ TCAD Parcel ID _____

Responsible Party (check one): Travis County ☐ Private ☐

Responsible Party/ Special District Name: _____

Contact Name _____ Contact Address _____

Contact Phone Number _____

Contact Email _____

Design Information:

Pond Type (check one): Detention ☐ Sedimentation ☐ Filtration ☐ Retention ☐ Other ☐

Please enter, **Yes**, **No**, **N/A** or **Not Sure** to the following design questions:

Detention Component? _____ Irrigation Discharge? _____ Constructed Wetland? _____

Sediment Forebay? _____Haz-Mat Trap? _____

If 'Haz-Mat Trap' present, what kind of outlet valve does it have (check one)? N/A ☐ Hand ☐ Siphon ☐ Both ☐ Not Sure ☐

Berm Height (check one): <6' ☐ >6' ☐

Inspection Information:

Inspection Type (check one): Routine ☐ Complaint ☐ Follow-Up ☐ Other ☐

Inspector's Name: _____ Inspection Date: _____

When was the last rain event relative to the inspection (check one)? <4 days ago ☐ >4 days ago ☐ Not Sure ☐

Pond must be restored to all design specifications as per approved plans or until in compliance with County code.

TO BE USED FOR ANNUAL POND INSPECTIONS

Storm Water Management Program: Pond Inspection Form

Inspection Checklist (check one for each maintenance item below):

Sediment Buildup: Unknown ☐ <6" ☐ *>6" ☐

Erosion: None ☐ Minor ☐ Moderate ☐ *Significant ☐

Structural Integrity: Satisfactory ☐ Partially Impaired ☐ *Significantly Impaired ☐

Adequate Vegetation: Bare areas <10 sf ☐ *Bare areas >10 sf ☐

Standing Water? No ☐ *Yes ☐ *Evidence ☐

Trash/ Debris: None ☐ Minor ☐ Moderate ☐ *Significant ☐

Vegetation Overgrowth? <18" ☐ *>18" ☐

Designed Vegetation present and adequate? N/A ☐ Yes ☐ *No ☐ Not Sure ☐

Riser pipe/ trash rack, clogged/ impaired? N/A ☐ Fully Functional ☐ Partially Impaired ☐ *Significantly Impaired ☐

Filtration PVC piping impaired? N/A ☐ Fully Functional ☐ Partially Impaired ☐ *Significantly Impaired ☐

Are Inlets clogged/ impaired? N/A ☐ Fully Functional ☐ Partially Impaired ☐ *Significantly Impaired ☐

Are outlets clogged/ impaired? N/A ☐ Fully Functional ☐ Partially Impaired ☐ *Significantly Impaired ☐

Access Difficulties? No ☐ *Yes ☐

Is maintenance and/ or a letter warranted at this site? No ☐ *Yes ☐

Fee status (privately owned BMPs only): N/A ☐ Current ☐ Not Current ☐ Not Sure ☐

Photos taken at time of inspection? Yes ☐ No ☐

*** Follow up Items:**

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

Pond must be restored to all design specifications as per approved plans or until in compliance with County code.

Appendix C

Travis County Storm Water Management Program: Pond Interim Inspection Form

TO BE USED FOR POND INSPECTION FOLLOW-UPS

Storm Water Management Program: Pond Inspection Follow-Up Form

Site Information:

Site Name _____ Site Address _____

TCAD Property ID _____ TCAD Parcel ID _____

Responsible Party (check one): Travis County ☐ Private ☐

Responsible Party/ Special District Name: _____

Contact Name _____ Contact Address _____

Contact Phone Number _____ Contact Email _____

Design & Inspection Information:

Pond Type (check one): Detention ☐ Sedimentation ☐ Filtration ☐ Retention ☐ Other ☐

Inspector's Name: _____ Inspection Date: _____

When was the last rain event relative to the inspection (check one)? <4 days ago ☐ >4 days ago ☐ Not Sure ☐

What items are being reviewed for follow up?

Description: _____ Priority: _____

Was this issue addressed, if so, how: _____

Description: _____ Priority: _____

Was this issue addressed, if so, how: _____

Description: _____ Priority: _____

Was this issue addressed, if so, how: _____

Description: _____ Priority: _____

Was this issue addressed, if so, how: _____

Items to review include, but are not limited to: Sediment Buildup, Erosion, Structural Integrity, Adequate/Overgrown Vegetation, Standing Water, Trash/ Debris, Clogged/ Impaired Riser Pipe/ Trash Rack, Impaired Filtration PVC Piping, Clogged/ Impaired inlets or outlets, and, Access Difficulties

Where Photos taken at time of inspection? Yes ☐ No ☐

Remaining Follow up Items:

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

_____ Priority 1 ☐ Priority 2☐ Priority 3☐ Watch ☐

Pond must be restored to all design specifications as per approved plans or until in compliance with County code.

Appendix D

Outfall Reconnaissance Inventory/Sample Collection Field Sheet

TO BE USED FOR ANNUAL ILLICIT DISCHARGE OUTFALL RECONISSANCE

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known):

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No ***If No, Skip to Section 5***				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐Flow #2	Flow depth		In	Tape measure
	Flow width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

TO BE USED SEMI-ANNUALLY FOR ILLICIT DISCHARGE OUTFALL RECONISSANCE

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes	☐ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Appendix E

Outfall Reconnaissance Inventory/Sample Collection Lab Sheet

TO BE USED FOR ANNUAL OUTFALL INSPECTIONS

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION LAB SHEETS

OUTFALL RECONNAISANCE INVENTORY/SAMPLE COLLECTION LAB SHEET				
Subwatershed:			Outfall ID:	
Today's Date:			Duplicate? (yes/no):	
Analysis Technician:			Form Completed By:	
PARAMETER	**RESULT**		**UNIT**	**EQUIPMENT**
Ammonia			mg/L	Spectrophotometer
Fluoride			mg/L	Photometer
Potassium (salinity must = 0)			ppm	Compact Ion Meter
Detergents (salinity must = 0)			Ppm	Chemets kits
Bacteria	Count	Dilution (1:1 or 1:100)		
Red w/gas			CFUs	Petrifilm Plate
Blue w/gas			CFUs	Petrifilm Plate

OUTFALL RECONNAISANCE INVENTORY/SAMPLE COLLECTION LAB SHEET				
Subwatershed:			Outfall ID:	
Today's Date:			Duplicate? (yes/no):	
Analysis Technician:			Form Completed By:	
PARAMETER	**RESULT**		**UNIT**	**EQUIPMENT**
Ammonia			mg/L	Spectrophotometer
Fluoride			mg/L	Photometer
Potassium (salinity must = 0)			ppm	Compact Ion Meter
Detergents (salinity must = 0)			Ppm	Chemets kits
Bacteria	Count	Dilution (1:1 or 1:100)		
Red w/gas			CFUs	Petrifilm Plate
Blue w/gas			CFUs	Petrifilm Plate

OUTFALL RECONNAISANCE INVENTORY/SAMPLE COLLECTION LAB SHEET				
Subwatershed:			Outfall ID:	
Today's Date:			Duplicate? (yes/no):	
Analysis Technician:			Form Completed By:	
PARAMETER	**RESULT**		**UNIT**	**EQUIPMENT**
Ammonia			mg/L	Spectrophotometer
Fluoride			mg/L	Photometer
Potassium (salinity must = 0)			ppm	Compact Ion Meter
Detergents (salinity must = 0)			Ppm	Chemets kits
Bacteria	Count	Dilution (1:1 or 1:100)		
Red w/gas			CFUs	Petrifilm Plate
Blue w/gas			CFUs	Petrifilm Plate

TO BE USED SEMI-ANNUALLY
FOR POND INSPECTIONS

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION LAB SHEETS

OUTFALL RECONNAISANCE INVENTORY/SAMPLE COLLECTION LAB SHEET				
Subwatershed:			Outfall ID:	
Today's Date:			Duplicate? (yes/no):	
Analysis Technician:			Form Completed By:	
PARAMETER	**RESULT**		**UNIT**	**EQUIPMENT**
Ammonia			mg/L	Spectrophotometer
Fluoride			mg/L	Photometer
Potassium (salinity must = 0)			ppm	Compact Ion Meter
Detergents (salinity must = 0)			Ppm	Chemets kits
Bacteria	Count	Dilution (1:1 or 1:100)		
Red w/gas			CFUs	Petrifilm Plate
Blue w/gas			CFUs	Petrifilm Plate

OUTFALL RECONNAISANCE INVENTORY/SAMPLE COLLECTION LAB SHEET				
Subwatershed:			Outfall ID:	
Today's Date:			Duplicate? (yes/no):	
Analysis Technician:			Form Completed By:	
PARAMETER	**RESULT**		**UNIT**	**EQUIPMENT**
Ammonia			mg/L	Spectrophotometer
Fluoride			mg/L	Photometer
Potassium (salinity must = 0)			ppm	Compact Ion Meter
Detergents (salinity must = 0)			Ppm	Chemets kits
Bacteria	Count	Dilution (1:1 or 1:100)		
Red w/gas			CFUs	Petrifilm Plate
Blue w/gas			CFUs	Petrifilm Plate

OUTFALL RECONNAISANCE INVENTORY/SAMPLE COLLECTION LAB SHEET				
Subwatershed:			Outfall ID:	
Today's Date:			Duplicate? (yes/no):	
Analysis Technician:			Form Completed By:	
PARAMETER	**RESULT**		**UNIT**	**EQUIPMENT**
Ammonia			mg/L	Spectrophotometer
Fluoride			mg/L	Photometer
Potassium (salinity must = 0)			ppm	Compact Ion Meter
Detergents (salinity must = 0)			Ppm	Chemets kits
Bacteria	Count	Dilution (1:1 or 1:100)		
Red w/gas			CFUs	Petrifilm Plate
Blue w/gas			CFUs	Petrifilm Plate

Appendix F

Homebuilder's Construction Program Sheets

TO BE USED ONCE AT BEGINNING OF PROJECT

Homebuilder's Construction Program
Lake Pointe MUD

Builder Name: _____

Date of Inspection: _____

Service Address: _____

Date Deposit* Paid: _____

The failure of Homebuilders to remove trash, debris and other construction materials that come from the construction of homes within the boundaries of the District create a substantial threat to health and safety in the District, to the safety of all property that the District controls and can subject the District's drainage and water quality systems to harm, damage or failure. The board, therefore, finds the adoption and implementation of the following rules will preserve the health and safety condition of all property that the District controls and will prevent the harm, damage or failure of the drainage and water quality systems that the District owns or controls. All construction within the boundary limits of the District must comply with the following:

Parameter	Compliant	Not-Compliant
During Construction		
Installation/ placement of pre-construction Erosion Control and Environmental Protection (e.g. silt fence, inlet protection). See Pre-Construction SW3P Checklist for more information on applicable environmental controls.	☐	☐
Construction dumpster/secure container on-site at convenient location to activity.	☐	☐
All construction debris, litter and other refuse in containers.	☐	☐
No concrete placed or disposed of on property (except as approved structural placements)	☐	☐
No trash, debris or foreign material on any property, easement or facility within District and Habitat Preserve (including builder's contractors and sub-contractors). Lunch materials, beer bottles, car oil and antifreeze containers must be continued in such a manner as to prohibit its blowing off site.	☐	☐
No trash, debris or foreign material (beer bottles, car oil, etc.) in the drainage system.	☐	☐
After Construction		
All containers, construction debris and rubbish must be removed from the site.	☐	☐
Any damage to the District's easements, drainage systems or facilities must be repaired at the expense of the builder.	☐	☐
All non-permanent erosion and sedimentation controls have been removed.	☐	☐
Varies		
Any form of human excreta placed, deposited or discharged onto any property, easement or facility within the District, including the Habitat Preserve, other than as described in the Sanitation and Environmental Quality Section 341.014 of the State Health Code.	☐	☐
No foreign materials or debris including motor oil, grass, leaves or tree clippings, trash, construction debris or silt into the District's drainage systems (storm sewer inlets).	☐	☐

Prior to formal enforcement, the District shall provide notice in writing, via hand-delivery, certified mail or electronic format such as e-mail. The homebuilder must achieve compliance within three (3) working days or receipt of Notice of Violation, after which the District may commence enforcement action. Upon commencement of enforcement action, the District will also initiate steps to correct the violation and draw down on the Homebuilder Deposit. The District may also collect any penalties or fines by draw down of the Homebuilder Deposit.

* $5000 ($4500 refundable if not needed)

Appendix G

Pre-Construction SW3P Checklist

TO BE USED ONCE AT BEGINNING OF PROJECT

PRE-CONSTRUCTION SW3P CHECKLIST

A. GENERAL SITE DATA

1. PROJECT LIMITS: (Same as stated on the Title Sheet)
   Begin Project Coordinates: Latitude (N): XX.XXXXXX Longitude (W): XX.XXXXXX
   (Latitude & Longitude - Go to http://www.latlong.net/ or Google Earth for coordinates)

2. PROJECT SITE MAPS:
   A. Project Location Map: The Title Sheet
   B. Drainage Patterns: Drainage Area Maps
   C. Slopes Anticipated After Major Gradings or Areas of Soil Disturbance: Typical Sections
   D. Location of Erosion and Sediment Controls: SW3P Site Maps
   E. Surface Waters and Discharge Locations: Drainage and Culvert Layouts
   F. Project Specific Location(s) (PSL): To be determined by the project Construction Personnel Location(s) shown on SW3P Site Map (If PSL location(s) is within one mile of project) and information located in project SW3P Binder (Reference Item #10 below).

3. PROJECT DESCRIPTION:
   (Same description as stated on Title Sheet)

4. MAJOR SOIL DISTURBING ACTIVITIES:
   (Provide description of disturbing activities in sequence of construction)

5. EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER:
   (Provide description of soil types, condition, vegetative cover and percentage)

6. TOTAL PROJECT AREA:
   XXX.XX Acres

7. TOTAL AREA TO BE DISTURBED:
   XXX.XX Acres (XX %)

8. WEIGHTED RUNOFF COEFFICIENT
   BEFORE CONSTRUCTION: X.XX
   AFTER CONSTRUCTION: X.XX

9. NAME OF RECEIVING WATERS:
   (Provide description of receiving waters)
   (Provide Segment Numbers)

10. PROJECT SW3P Binder:
    A. For projects disturbing one to five acres, WTCMUD5 will maintain a SW3P Binder which contains the following: Index Sheet, TCEQ Signature Authority, TCEQ Small Construction Site Notice, Contractor Certification of Compliance, SW3P Inspector Qualification Statements, Inspection and Maintenance Reports (Form 2118), EPIC Sheet, SW3P Sheet, Site Location Maps, Stored Material Lists specifying associated control measures and the Appendix which contains the TPDES Construction General Permit, MS4 Operator Notification(s) and the Construction PSL Permits per all applicable requirements.
    B. For projects disturbing 5 acres or more, WTCMUD5 will follow the actions listed in (10.A.) above with the addition of the following: Notice of Intent (N.O.I.) and Fee Payment Form, TCEQ Large Construction Site Notice (to be used instead of Small Site Notice), and TPDES Permit Coverage Notice.
    C. For projects disturbing less than one acre, actions described in (10.A.) and (10.B.) above are not required. Acreage is calculated by adding Total Area to Be Disturbed Acres on project (See #7 above) and the PSL(s) acreage located within one mile of project.

NOTE: Contractor to fill out all highlighted areas in form.

TO BE USED ONCE AT BEGINNING OF PROJECT

PRE-CONSTRUCTION SW3P CHECKLIST

B. EROSION AND SEDIMENT CONTROLS

1. SOIL STABILIZATION PRACTICES: (Select T = Temporary or P = Permanent, as applicable)

	T	P		T	P
PRESERVATION OF NATURAL RESOURCES	☐	☐	SOIL RETENTION BLANKET	☐	☐
TEMPORARY SEEDING	☐	☐	COMPOST MANUFACTURED TOPSOIL	☐	☐
FLEXIBLE CHANNEL LINER	☐	☐	SEEDING	☐	☐
MULCHING (Hay or Straw)	☐	☐	VERTICAL TRACKING	☐	☐
RIGID CHANNEL LINER	☐	☐	SODDING	☐	☐
BUFFER ZONES	☐	☐	OTHER (Specify Practice):	☐	☐
PLANTING	☐	☐			

2. STRUCTURAL PRACTICES: (Select T = Temporary or P = Permanent, as applicable)

	T	P		T	P
SILT FENCES	☐	☐	TIMBER MATTING AT CONSTRUCTION EXIT	☐	☐
EROSION CONTROL LOGS	☐	☐	CHANNEL LINERS	☐	☐
EROSION CONTROL COMPOST BERMS (Low Velocity)	☐	☐	SEDIMENT TRAPS	☐	☐
ROCK FILTER DAMS	☐	☐	SEDIMENT BASINS	☐	☐
DIVERSION, INTERCEPTOR, OR PERIMETER DIKES	☐	☐	STORM INLET SEDIMENT TRAP	☐	☐
DIVERSION, INTERCEPTOR, OR PERIMETER SWALES	☐	☐	STONE OUTLET STRUCTURES	☐	☐
DIVERSION DIKE AND SWALE COMBINATIONS	☐	☐	CURBS AND GUTTERS	☐	☐
PIPE SLOPE DRAINS	☐	☐	STORM SEWERS	☐	☐
PAVED FLUMES	☐	☐	VELOCITY CONTROL DEVICES	☐	☐
ROCK BEDDING AT CONSTRUCTION EXIT	☐	☐	OTHER (Specify Practice):	☐	☐

NOTE: TOP OF BMP'S SHOULD NOT BE HIGHER THAN ROADWAY ELEVATION AS NOT TO FLOOD ROADWAY UNLESS PRIOR APPROVAL FROM ENGINEER IS OBTAINED.

3. STORM WATER MANAGEMENT: (Example below - May be used as applicable or revised)
   A. Storm water drainage will be provided by ditches, inlets, and storm water systems which carry drainage within the R.O.W. to the lows within the roadway and project site which drains to natural facilities.
   B. Other permanent erosion controls include hydraulic design to limit structure outlet velocities and grading design generally consisting of 4:1 or flatter slopes with permanent vegetative cover.

4. STORM WATER MANAGEMENT ACTIVITIES: (Sequence of Construction)
   Designer: Describe Storm Water Management Activities by Phases.

5. NON-STORM WATER DISCHARGES:
   Filter non-storm water discharges, or hold in retention basins, before being allowed to mix with storm water. These discharges consist of, but not limited to, non-polluted ground water, spring water, foundation or footing drain water, water used for dust control or pavement washing and vehicle wash water containing no detergents.

NOTE: Contractor to fill out all highlighted areas in form.

TO BE USED ONCE AT BEGINNING OF PROJECT

PRE-CONSTRUCTION SW3P CHECKLIST

C. OTHER REQUIREMENTS & PRACTICES

1. MAINTENANCE:

Maintain all erosion and sediment controls in good working order. Perform any necessary cleaning/repairs/replacements at the earliest possible date prior to next rain event, but no later than 7 calendar days. Ensure the surrounding ground has dried sufficiently to prevent damage from equipment. "Too Wet" is the only reason for not adhering to timeframes described. When construction activities permanently or temporarily cease and are not expected to resume for 14 or more days on a disturbed portion of the site, stabilization measures must be initiated immediately.

2. INSPECTION:

A WTCMUD5 Inspector will perform a regularly scheduled SW3P inspection every 7 calendar days. An Inspection and Maintenance Report, signed by the WTCMUD5 Inspector and the Contractor, will be filed for each inspection. Revise/clean/repair/replace each BMP control device in accordance with the current Inspection Report and Item 1 (Maintenance) above.

3. WASTE MATERIALS:

On a daily basis, or as may be directed, collect all waste materials, trash and debris from the construction site and deposit into a metal dumpster having a secure cover and which meets all state and local city solid waste management requirements. Empty the dumpster as required by regulation, or as may be directed, at a local approved landfill site. Do not bury construction waste on the construction project site.

4. HAZARDOUS WASTE & SPILL REPORTING:

As a minimum, any products in the following categories are considered to be hazardous: Paints, Acids, Solvents, Fuels, Asphalt Products, Chemical Additives for Soil Stabilization, and Concrete Curing Compounds or Additives. When storing hazardous material on the project site, or at a Project Specific Location, take all practicable precaution to prevent and/or contain any spillage of these materials. In the event of a spill, contact the spill coordinator immediately.

5. SANITARY WASTE:

Use a licensed sanitary waste management contractor to collect all sanitary waste from portable units as may be required by local regulation, or as directed.

6. CONSTRUCTION VEHICLE TRACKING:

On a regular basis, or as may be directed, dampen haul roads for dust control and stabilize construction entrances/exits. Provide for a motorized broom or vacuum type sweeper to be available on a daily basis, or as may be directed, to remove sediment from paved roadways abutting or traversing the project site.

7. MANAGEMENT PRACTICES:

A. Construct disposal areas, stockpiles, haul roads and PSL's in a manner that will minimize and control the amount of sediment that may enter receiving waters. Do not locate disposal areas in any wetland, waterbody or streambed.
B. Locate construction staging areas, vehicle maintenance and PSL's areas in a manner to minimize the runoff of pollutants.
C. When working in or near a wetland, install and maintain operating soil erosion and sediment controls at all times during construction and isolate the work from the wetland.
D. Clear all waterways as soon as practicable of temporary embankment, temporary bridges, matting, falsework, piling, debris or other obstructions placed during construction operations that are not a part of the finished work.
E. Procedures and/or practices should be taken to control dust.
F. Sediment to be removed from roadways daily or when work begins after weather events if construction activities have ceased due to weather event.

NOTE: Contractor to fill out all highlighted areas in form.

Appendix H

Inspection Report Template - Electronic Version

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Inspection Report Template – Electronic Version

Purpose

This Inspection Report Template (or "template") was designed to assist you in preparing inspection reports for EPA's 2012 Construction General Permit (CGP). If you are covered under the 2012 CGP, this template will enable you to create an inspection report form that is customized to the specific circumstances of your project and that complies with the minimum reporting requirements of Part 4.1.7 of the permit. Note that the use of this form is optional; you may use your own inspection report form provided it includes the minimum information required in Part 4.1.7 of the CGP.

If you are covered under a state CGP, this template may be helpful in developing a form that can be used for that permit; however it will need to be modified to meet the specific requirements of that permit. If your permitting authority requires you to use a specific inspection report form, you should not use this form.

Notes:

While EPA has made every effort to ensure the accuracy of all instructions and guidance contained in the Inspection Report Template, the actual obligations of regulated construction activities are determined by the relevant provisions of the permit, not by the template. In the event of a conflict between the Inspection Report Template and any corresponding provision of the 2012 CGP, you must abide by the requirements in the permit. EPA welcomes comments on the Inspection Report Template at any time and will consider those comments in any future revision of this document. You may contact EPA for CGP-related inquiries at cgp@epa.gov.

Overview of Inspection Requirements

Construction operators covered under the 2012 CGP are subject to the following requirements in Part 4:

Inspection Frequency (see Part 4.1.4)

You are required to conduct inspections either:

- Once every 7 calendar days; or
- Once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater.

Your inspection frequency is increased if the site discharges to a sensitive water. See Part 4.1.3. Your inspection frequency may be decreased to account for stabilized areas, or for arid, semi-arid, or drought-stricken conditions, or for frozen conditions. See Part 4.1.4.

Areas That Need to Be Inspected (see Part 4.1.5)

During each inspection, you must inspect the following areas of your site:

- Cleared, graded, or excavated areas of the site;
- Stormwater controls (e.g., perimeter controls, sediment basins, inlets, exit points etc.) and pollution prevention practices (e.g., pollution prevention practices for vehicle fueling/maintenance and washing, construction product storage, handling, and disposal, etc.) at the site;
- Material, waste, or borrow areas covered by the permit, and equipment storage and maintenance areas;
- Areas where stormwater flows within the site;
- Stormwater discharge points; and
- Areas where stabilization has been implemented.

What to Check For During Your Inspection (see Part 4.1.6)

During your site inspection, you are required to check:

- Whether stormwater controls or pollution prevention practices require maintenance or corrective action, or whether new or modified controls are required;
- For the presence of conditions that could lead to spills, leaks, or other pollutant accumulations and discharges;
- Whether there are visible signs of erosion and sediment accumulation at points of discharge and to the channels and streambanks that are in the immediate vicinity of the discharge;
- If a stormwater discharge is occurring at the time of the inspection, whether there are obvious, visual signs of pollutant discharges; and
- If any permit violations have occurred on the site.

Inspection Reports (see Part 4.1.7)
Within 24 hours of completing each inspection, you are required to complete an inspection report that includes:

- Date of inspection;
- Names and titles of persons conducting the inspection;
- Summary of inspection findings;
- Rain gauge or weather station readings if your inspection is triggered by the 0.25 inch storm threshold; and
- If you determine that a portion of your site is unsafe to access for the inspection, documentation of what conditions prevented the inspection and where these conditions occurred on the site

Instructions for Using This Template
This Electronic Version of the Inspection Report Template is intended to be filled out electronically. If you will be filling out the Inspection Report Template by hand (i.e., you will be filling this form out in the field), please use the Field Version of the Inspection Report Template available at www.epa.gov/npdes/stormwater/swppp.

Keep in mind that this document is a template and not an "off-the-shelf" inspection report that is ready to use without some modification. You must first customize this form to include the specifics of your project in order for it to be useable for your inspection reports. The template includes text fields that direct you to populate the form with your specific site information (e.g., specific BMPs installed at your site, specific locations where they are installed). Once you have entered all of your site-specific information into these fields, you may use the completed form to complete inspection reports.

The following tips for using this template will help you ensure that the minimum permit requirements are met:

- **Review the inspection requirements.** Before you start developing your inspection report form, read the CGP's Part 4 inspection requirements. This will ensure that you have a working understanding of the permit's underlying inspection requirements.
- **Complete all required text fields.** Fill out all text fields (marked with blue font). Only by filling out all fields will the template be compliant with the requirements of the permit. (Note: Where you do not need the number of rows provided in the template form for your inspection, you may delete these as you see fit. Or, if you need more space to document your findings, you may insert additional rows.) Specific instructions on what information to include in each text field is included in each text field. The fields were developed so that the instructions disappear once you start typing.
- **Use your site map to document inspection findings.** In several places in the template, you are directed to specify the location of certain features of your site, including where stormwater controls are installed and where you will be stabilizing exposed soil. You are also asked to fill in location information for unsafe conditions and the locations of any discharges occurring during your inspections. Where you are asked for location information, EPA encourages you to reference the point on your SWPPP site map that corresponds to the requested location on the inspection form. Using the site map as a tool in this way will help you conduct efficient inspections, will assist you in evaluating problems found, and will ensure proper documentation.
- **Sign and certify each inspection report.** Each inspection report must be signed and certified by the permittee to be considered complete. Where your inspections are carried out by a contractor or subcontractor, it is recommended that you also have the form signed and certified by the inspector, in addition to the signature and certification required of the permitted operator. The template includes a signature block for both parties.
- **Include the inspection form with your SWPPP.** Once your form is complete, make sure to include a copy of the inspection form in your SWPPP in accordance with Part 7.2.12.4 of the CGP.
- **Retain copies of all inspection reports with your records.** You must also retain in your records copies of all inspection reports in accordance with the requirements in Part 4.1.7.3 of the 2012 CGP. These reports must be retained for at least 3 years from the date your permit coverage expires or is terminated.

Section-by-Section Instructions
You will find specific instructions corresponding to each section of the report form at the end of this template. These instructions provide you with more details in terms of what EPA expects to be documented in these reports.

Inspection Report for [Insert project name]
CGP Tracking No.: [Insert tracking number assigned by EPA when CGP coverage provided]
Inspection Date: [Insert Date: _ _ / _ _ / _ _]

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

General Information	
Inspector Name, Title & Contact Information	[Enter the inspector's name, title, and contact information (company name, address, email, and phone).]
Present Phase of Construction	[Specify the current phase of the project.]
Inspection Location	[If multiple inspections are required for this project, specify location where this inspection is being conducted. If necessary, complete additional forms for each location.]

Inspection Frequency *(Note: you may be subject to different inspection frequencies in different areas of the site. Check all that apply.)*

Standard Frequency: ☐ Weekly ☐ Every 14 days and within 24 hours of a 0.25" rain

Increased Frequency: ☐ Every 7 days and within 24 hours of a 0.25" rain (for areas of sites discharging to sediment or nutrient-impaired waters or to waters designated as Tier 2, Tier 2.5, or Tier 3)

Reduced Frequency:
- ☐ Once per month (for stabilized areas)
- ☐ Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)
- ☐ Once per month (for frozen conditions where earth-disturbing activities are being conducted)

Was this inspection triggered by a 0.25" storm event? ☐ Yes ☐ No

If yes, how did you determined whether a 0.25" storm event has occurred?

☐ Rain gauge on site ☐ Weather station representative of site. Specify weather station source: [Enter the source for your weather station data.]

Total rainfall amount that triggered the inspection: [Specify rainfall amount (in inches)]

Unsafe Conditions for Inspection

Did you determine that any portion of your site was unsafe for inspection per CGP Part 4.1.5? ☐ Yes ☐ No

If "yes", complete the following:
- Describe the conditions that prevented you from conducting the inspection in this location: [Provide short description of the conditions preventing the inspection.]
- Location where conditions were found: [Specify location(s) on the site where unsafe conditions were found.]

Inspection Report for [Insert project name]
CGP Tracking No.: [Insert tracking number assigned by EPA when CGP coverage provided]
Inspection Date: [Insert Date: _ _ / _ _ / _ _]

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Condition and Effectiveness of Erosion and Sediment (E&S) Controls (CGP Part 2.1)				
Type/Location of E&S Control [add add'l rows if applicable]	**Repairs or Other Maintenance Needed?***	**Corrective Action Required?***	**Date on Which Maintenance or Corrective Action First Identified?**	**Notes**
1. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
2. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
3. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
4. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
5. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
6. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
7. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
8. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
9. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
10. [E&S control] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]

*** Note:** The permit differentiates between conditions requiring repairs and maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition and requires repairs if controls are not operating as intended. Corrective actions are triggered only for specific, more serious conditions, which include: 1) A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3; 2) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 3) One of the prohibited discharges in Part 2.3.1 is occurring or has occurred; or 4) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.2. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at www.epa.gov/npdes/stormwater/swppp. See Part 5 of the permit for more information.

Inspection Report for [Insert project name]
CGP Tracking No.: [Insert tracking number assigned by EPA when CGP coverage provided]
Inspection Date: [Insert Date: _ _ / _ _ / _ _]

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Condition and Effectiveness of Pollution Prevention (P2) Practices (CGP Part 2.3)				
Type/Location of P2 Practices [insert additional rows if applicable]	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Date on Which Maintenance or Corrective Action First Identified?**	**Notes**
1. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
2. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
3. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
4. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
5. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
6. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
7. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
8. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
9. [P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]
10.[P2 practice] [Location]	☐Yes ☐No	☐Yes ☐No	[Enter date]	[Enter notes here]

*** Note:** The permit differentiates between conditions requiring repairs and maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition and requires repairs if controls are not operating as intended. Corrective actions are triggered only for specific, more serious conditions, which include: 1) A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3; 2) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 3) One of the prohibited discharges in Part 2.3.1 is occurring or has occurred; or 4) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.2. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at www.epa.gov/npdes/stormwater/swppp. See Part 5 of the permit for more information.

Inspection Report for [Insert project name]
CGP Tracking No.: [Insert tracking number assigned by EPA when CGP coverage provided]
Inspection Date: [Insert Date: _ _ / _ _ / _ _]

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Stabilization of Exposed Soil (CGP Part 2.2)			
Stabilization Area [insert additional rows if applicable]	**Stabilization Method**	**Have You Initiated Stabilization?**	**Notes**
1. [Specific location that has been stabilized or to be stabilized]	[Specify type of stabilization]	☐ YES [Enter date] ☐ NO	[Enter notes here]
2. [Specific location that has been stabilized or to be stabilized]	[Specify type of stabilization]	☐ YES [Enter date] ☐ NO	[Enter notes here]
3. [Specific location that has been stabilized or to be stabilized]	[Specify type of stabilization]	☐ YES [Enter date] ☐ NO	[Enter notes here]
4. [Specific location that has been stabilized or to be stabilized]	[Specify type of stabilization]	☐ YES [Enter date] ☐ NO	[Enter notes here]
5. [Specific location that has been stabilized or to be stabilized]	[Specify type of stabilization]	☐ YES [Enter date] ☐ NO	[Enter notes here]

Description of Discharges (CGP Part 4.1.6.6)	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? ☐ Yes ☐ No **If "yes", provide the following information for each point of discharge:**	
Discharge Location [insert additional discharge locations if applicable]	**Observations**
1. [Specify locations on the site where a discharge is occurring.]	Describe the discharge: [Enter text here.] At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue: [Enter text here.]
1. [Specify locations on the site where a discharge is occurring.]	Describe the discharge: [Enter text here.] At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue: [Enter text here.]

Inspection Report for [Insert project name]
CGP Tracking No.: [Insert tracking number assigned by EPA when CGP coverage provided]
Inspection Date: [Insert Date: _ _ / _ _ / _ _]

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Contractor or Subcontractor Certification and Signature
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Contractor or Subcontractor:** _____ **Date:** **Printed Name and Affiliation:** _____

Certification and Signature by Permittee
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Permittee or "Duly Authorized Representative":** _____ **Date:** **Printed Name and Affiliation:** _____

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Instructions for Filling Out "General Information" Section on Page 1

Inspector Name, Title & Contact Information
Provide the name of the person(s) (either a member of your company's staff or a contractor or subcontractor) that conducted this inspection. Provide the inspector's name, title, and contact information as directed in the form.

Present Phase of Construction
If this project is being completed in more than one phase, indicate which phase it is currently in.

Inspection Location
If your project has multiple locations where you conduct separate inspections, specify the location where this inspection is being conducted. If only one inspection is conducted for your entire project, enter "Entire Site." If necessary, complete additional inspection report forms for each separate inspection location.

Inspection Frequency
Check the box that describes the inspection frequency that applies to you. Note that you may be subject to different inspection frequencies in different areas of your site. If your project does not discharge to a "sensitive water" (i.e., impaired for sediment or nutrients, or listed as Tier 2, 2.5, or 3 by your state or tribe) and you are not affected by any of the circumstances described in CGP Part 4.1.4, then you can choose your frequency based on CGP Part 4.1.2 – either weekly, or every other week <u>and</u> within 24 hrs of a 0.25 in storm event. For any portion of your site that discharges to a sensitive water, your inspection frequency is fixed under CGP Part 4.1.3 at weekly <u>and</u> within 24 hrs of a 0.25 in storm event. If portions of your site are stabilized, are located in arid, semi-arid, or drought-stricken areas, or are subject to frozen conditions, consult CGP Part 4.1.4 for the applicable inspection frequency. Check all the inspection frequencies that apply to your project.

Was This Inspection Triggered by a 0.25 Inch Storm Event?
If you were required to conduct this inspection because of a 0.25 inch (or greater) rain event, indicate whether you relied on an on-site rain gauge or a nearby weather station (and where the weather station is located). Also, specify the total amount of rainfall for this specific storm event.

Unsafe Conditions for Inspection
Inspections are not required where a portion of the site or the entire site is subject to unsafe conditions. See CGP Part 4.1.5. These conditions should not regularly occur, and should not be consistently present on a site. Generally, unsafe conditions are those that render the site (or a portion of it) inaccessible or that would pose a significant probability of injury to applicable personnel. Examples could include severe storm or flood conditions, high winds, and downed electrical wires.

If your site, or a portion of it, is affected by unsafe conditions during the time of your inspection, provide a description of the conditions that prevented you from conducting the inspection and what parts of the site were affected. If the entire site was considered unsafe, specify the location as "Entire site"

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Instructions for Filling Out the "Erosion and Sediment Control" Table on Page 2

Type and Location of E&S Controls

Provide a list of all erosion and sediment (E&S) controls that your SWPPP indicates will be installed and implemented at your site. This list must include at a minimum all E&S controls required by CGP Part 2.1.2. Include also any natural buffers established under CGP Part 2.1.2.1. Buffer requirements apply if your project's earth-disturbing activities will occur within 50 feet of a surface water. You may group your E&S controls on your form if you have several of the same type of controls (e.g., you may group "Inlet Protection Measures", "Perimeter Controls", and "Stockpile Controls" together on one line), but if there are any problems with a specific control, you must separately identify the location of the control, whether repairs or maintenance or corrective action are necessary, and in the notes section you must describe specifics about the problem you observed.

Repairs or Other Maintenance Needed?

Answer "yes" if the E&S control requires a repair of any kind (due to normal wear and tear, or as a result of damage) or requires maintenance in order for the control to continue operating effectively. At a minimum, maintenance is required in the following specific instances: (1) for perimeter controls, whenever sediment has accumulated to ½ or more the above-ground height of the control (CGP Part 2.1.2.2.b); (2) where sediment has been tracked-out onto the surface of off-site streets or other paved areas (CGP Part 2.1.2.3.d); (3) for inlet protection measures, when sediment accumulates, the filter becomes clogged, and/or performance is compromised (CGP Part 2.1.2.9.b); and (4) for sediment basins, as necessary to maintain at least ½ of the design capacity of the basin (CGP Part 2.1.3.2.b). Note: In many cases, "yes" answers are expected and indicate a project with an active operation and maintenance program. You should also answer "yes" if work to fix the problem is still ongoing from the previous inspection.

Corrective Action Needed?

Answer "yes" if during your inspection you found any of the following conditions to be present (CGP, Part 5.2.1): (1) a required E&S control was never installed, was installed incorrectly or not in accordance with the corresponding CGP Part 2 or 3 requirement; (2) you become aware that the inadequacy of the E&S control has led to an exceedance of an applicable water quality standard; or (3) EPA requires corrective action for an E&S control as a result of a permit violation found during an inspection carried out under Part 4.2. If you answer "yes", you must take corrective action and complete a corrective action report, found at www.epa.gov/npdes/stormwater/swppp. Note: You should answer "yes" if work to fix the problem from a previous inspection is still ongoing.

Date on Which Maintenance or Corrective Action First Identified?

Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition's discovery.

Notes

For each E&S control and the area immediately surrounding it, note whether the control is properly installed and whether it appears to be working to minimize sediment discharge. Describe any problem conditions you observed such as the following, and why you think they occurred as well as actions (e.g., repairs, maintenance, or corrective action) you will take or have taken to fix the problem:

1. Failure to install or to properly install a required E&S control
2. Damage or destruction to an E&S control caused by vehicles, equipment, or personnel, a storm event, or other event
3. Mud or sediment deposits found downslope from E&S controls
4. Sediment tracked out onto paved areas by vehicles leaving construction site
5. Noticeable erosion at discharge outlets or at adjacent streambanks or channels
6. Erosion of the site's sloped areas (e.g., formation of rills or gullies)
7. E&S control is no longer working due to lack of maintenance

For buffer areas, make note of whether they are marked off as required, whether there are signs of construction disturbance within the buffer, which is prohibited under the CGP, and whether there are visible signs of erosion resulting from discharges through the area.

If repairs, maintenance, or corrective action is required, briefly note the reason. If repairs, maintenance, or corrective action have been completed, make a note of the date it was completed and what was done. *If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.*

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Instructions for Filling Out the "Pollution Prevention (P2) Practice" Table on Page 3

Type and Location of P2 Controls
Provide a list of all pollution prevention (P2) practices that are implemented at your site. This list must include all P2 practices required by Part 2.3.3, and those that are described in your SWPPP.

Repairs or Other Maintenance Needed?
Answer "yes" if the P2 practice requires a repair of any kind (due to normal wear and tear, or as a result of damage) or requires maintenance in order for the control to continue operating effectively. Note: In many cases, "yes" answers are expected and indicate a project with an active operation and maintenance program.

Corrective Action Needed?
Answer "yes" if during your inspection you found any of the following conditions to be present (CGP, Part 5.2.1): (1) a required P2 practice was never installed, was installed incorrectly or not in accordance with the corresponding CGP Part 2 requirement; (2) you become aware that the inadequacy of the P2 practice has led to an exceedance of an applicable water quality standard; (3) one of the "prohibited discharges" listed in CGP Part 2.3.1 is occurring or has occurred, or (4) EPA requires corrective action for a P2 practice as a result of a permit violation found during an inspection carried out under Part 4.2. If you answer "yes", you must take corrective action and complete a corrective action report, found at www.epa.gov/npdes/stormwater/swppp. Note: You should answer "yes" if work to fix the problem from a previous inspection is still ongoing.

Date on Which Maintenance or Corrective Action First Identified?
Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition's discovery.

Notes
For each P2 control and the area immediately surrounding it, note whether the control is properly installed, whether it appears to be working to minimize or eliminate pollutant discharges, and whether maintenance or corrective action is required. Describe problem conditions you observed such as the following, and why you think they occurred, as well as actions you will take or have taken to fix the problem:

1. Failure to install or to properly install a required P2 control
2. Damage or destruction to a P2 control caused by vehicles, equipment, or personnel, or a storm event
3. Evidence of a spill, leak, or other type of pollutant discharge, or failure to have properly cleaned up a previous spill, leak, or other type of pollutant discharge
4. Spill response supplies are absent, insufficient, or not where they are supposed to be located
5. Improper storage, handling, or disposal of chemicals, building materials or products, fuels, or wastes
6. P2 practice is no longer working due to lack of maintenance

If repairs, maintenance, or corrective action is required, briefly note the reason. If repairs, maintenance, or corrective action have been completed, make a note of the date it was completed and what was done. *If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.*

Instructions for Filling Out the "Stabilization of Exposed Soil" Table on Page 4

Stabilization Area

List all areas where soil stabilization is required to begin because construction work in that area has permanently stopped or temporarily stopped (i.e., work will stop for 14 or more days), and all areas where stabilization has been implemented.

Stabilization Method
For each area, specify the method of stabilization (e.g., hydroseed, sod, planted vegetation, erosion control blanket, mulch, rock).

Have You Initiated Stabilization
For each area, indicate whether stabilization has been initiated.

Notes
For each area where stabilization has been initiated, describe the progress that has been made, and what additional actions are necessary to complete stabilization. Note the effectiveness of stabilization in preventing erosion. If stabilization has been initiated but not completed, make a note of the date it is to be completed. If stabilization has been completed, make a note of the date it was completed. If stabilization has not yet been initiated, make a note of the date it is to be initiated, and the date it is to be completed.

Instructions for Filling Out the "Description of Discharges" Table on Page 4

You are only required to complete this section if a discharge is occurring at the time of the inspection.

Was a Stormwater Discharge Occurring From Any Part of Your Site At The Time of the Inspection?
During your inspection, examine all points of discharge from your site, and determine whether a discharge is occurring. If there is a discharge, answer "yes" and complete the questions below regarding the specific discharge. If there is not a discharge, answer "no" and skip to the next page.

Discharge Location (repeat as necessary if there are multiple points of discharge)
Location of discharge. Specify the location on your site where the discharge is occurring. The location may be an outlet from a stormwater control or constructed stormwater channel, a discharge into a storm sewer inlet, or a specific point on the site. Be as specific as possible; it is recommended that you refer to a precise point on your site map.

Describe the discharge. Include a specific description of any noteworthy characteristics of the discharge such as color; odor; floating, settled, or suspended solids; foam; oil sheen; and other obvious pollution indicators.

Are there visible signs of erosion or sediment accumulation? At each point of discharge and the channel and streambank in the immediate vicinity, visually assess whether there are any obvious signs of erosion and/or sediment accumulation that can be attributed to your discharge. If you answer "yes", include a description in the space provided of the erosion and sediment deposition that you have found, specify where on the site or in the surface water it is found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue.

Instructions for Signature/Certification on Page 5

Each inspection report must be signed and certified to be considered complete.

TO BE USED BI-WEEKLY OR WITHIN 24 HOURS OF 0.25" RAIN FOR CONSTRUCTION INSPECTIONS

Contractor or Subcontractor Signature and Certification
Where a contractor or subcontractor is relied on to carry out the inspection and complete the inspection report, you should require the inspector to sign and certify each report. Note that this does not relieve the permitted operator of the requirement to sign and certify the inspection report as well.

Signature and Certification by Permittee
At a minimum, the inspection report must be signed by either (1) the person who signed the NOI, or (2) a duly authorized representative of that person. The following requirements apply to scenarios (1) and (2):

If the signatory will be the person who signed the NOI for permit coverage, as a reminder, that person must be one of the following types of individuals:

- *For a corporation*: A responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- *For a partnership or sole proprietorship*: A general partner or the proprietor, respectively.
- *For a municipality, state, federal, or other public agency*: Either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

If the signatory will be a duly authorized representative, the following requirements must be met:

- The authorization is made in writing by the person who signed the NOI (see above);
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

Appendix I

NCTCOG Storm Water Pollution Prevention Training Sign-In Sheet

TO BE USED SEMI-ANNUALLY OR AS NEEDED FOR MUNICIPAL POLLUTION PREVENTION TRAINING

Storm Water Pollution Prevention Training

Organization Name _____ Date _____

Employee Name	Department	Signature

Training Topics Covered: _____

_____

Trainer's Name _____ Signature _____

Appendix J

Lake Pointe MUD Stormwater Basin Maintenance Plan

Lake Pointe Municipal Utility District

Stormwater Basin Maintenance Plan

December 20, 2018

Prepared by Doucet and Associates, Inc.

7401 Highway 71 West, Suite 160

Austin, Texas 78735

Texas PE Firm Registration No. F

Project No. 1840-001

LAKE POINTE MUNICIPAL UTILITY DISTRICT
STORMWATER BASIN MAINTENANCE PLAN

TABLE OF CONTENTS

I. PLAN SUMMARY/LETTER TO TRAVIS COUNTY

II. STORMWATER BASIN MAP

III. MAINTENANCE PLAN SCHEDULE

IV. MAINTENANCE PLAN

V. LYON CLUB COURT BASIN REHABILITATION PLAN

Lake Pointe Municipal Utility District
PO Box 1220,
Dripping Springs, Texas 78620

December 18, 2018

Robert Quinlan, CESSWI
Travis County TNR-EQ
700 Lavaca Street
PO Box 1748
Austin, Texas 78767

RE: Proposed Stormwater Basin Maintenance Plan

Dear Mr. Quinlan:

Pursuant to the Travis County letter dated October 8, 2018, and our email exchange dated November 2, 2018 (attached), please find the Stormwater Basin Maintenance Plan to address your Pond Inspection Reports for all 12 of the Lake Pointe Municipal Utility District ("MUD") basins. As noted in the November 2, 2018 email, you concurred with the MUD's approach of submitting a detailed maintenance plan to you by December 28, 2018.

The proposed Maintenance Plan includes the following:

- Stormwater basin location map
- Maintenance schedule
- Proposed Maintenance Plan

Based on the inspection reports and our field inspection, we prioritized basin maintenance to align with available MUD funding to perform the basin upgrades over a three-year period. The District's fiscal year starts on October 1 and ends on September 30 of the subsequent year. I have summarized the plan below:

- In Year 1, beginning in early 2019, the MUD will construct drainage maintenance improvements at the Lyon Club Court basin to address existing flooding issues and also remove sediment from the basin. This includes the removal and replacement of the existing gabions. In addition, the MUD will mow the remaining basins 12 times in 2019 with cut vegetation removed from the pond. The MUD will remove and properly dispose of any sediment found at the pond inflow points.

- In Year 2, five basins as noted in the attached schedule will receive the necessary maintenance improvements. Construction plan/permit amendments at the Community Center (Etna Drive, site # 26) basin will also occur such that the pond performance in the field aligns with the permitted documents. In addition, regular maintenance will continue 12 times per year at all 12 basins.

Lake Pointe Municipal Utility District
PO Box 1220,
Dripping Springs, Texas 78620

- In Year 3, six basins as noted in the attached schedule will receive the necessary maintenance improvements. Construction plan/permit amendments at the Pleasant Panorama (site #35) and Carlsbad (site #838) basins will also occur such that the pond performance in the field aligns with the permitted documents. In addition, regular maintenance will continue 12 times per year at each basin.

The MUD Board believes that this approach will allow the basins to continue to perform as effective water quality and stormwater management measure and that when the three-year plan is complete, the ponds will be restored to near initial construction conditions. The MUD Board also commits to ongoing mowing and sediment removal in the years subsequent to the three-year maintenance program outlined above.

We appreciate the County coordinating with the MUD and will keep you fully informed on our upcoming maintenance activities. If you have any questions, please contact me at 512-810-3207 or Tom Hegemier at 512-583-2635 or by email at thegemier@doucetengineers.com.

Sincerely,

Steven Knuff, President
Lake Pointe Municipal Utility District

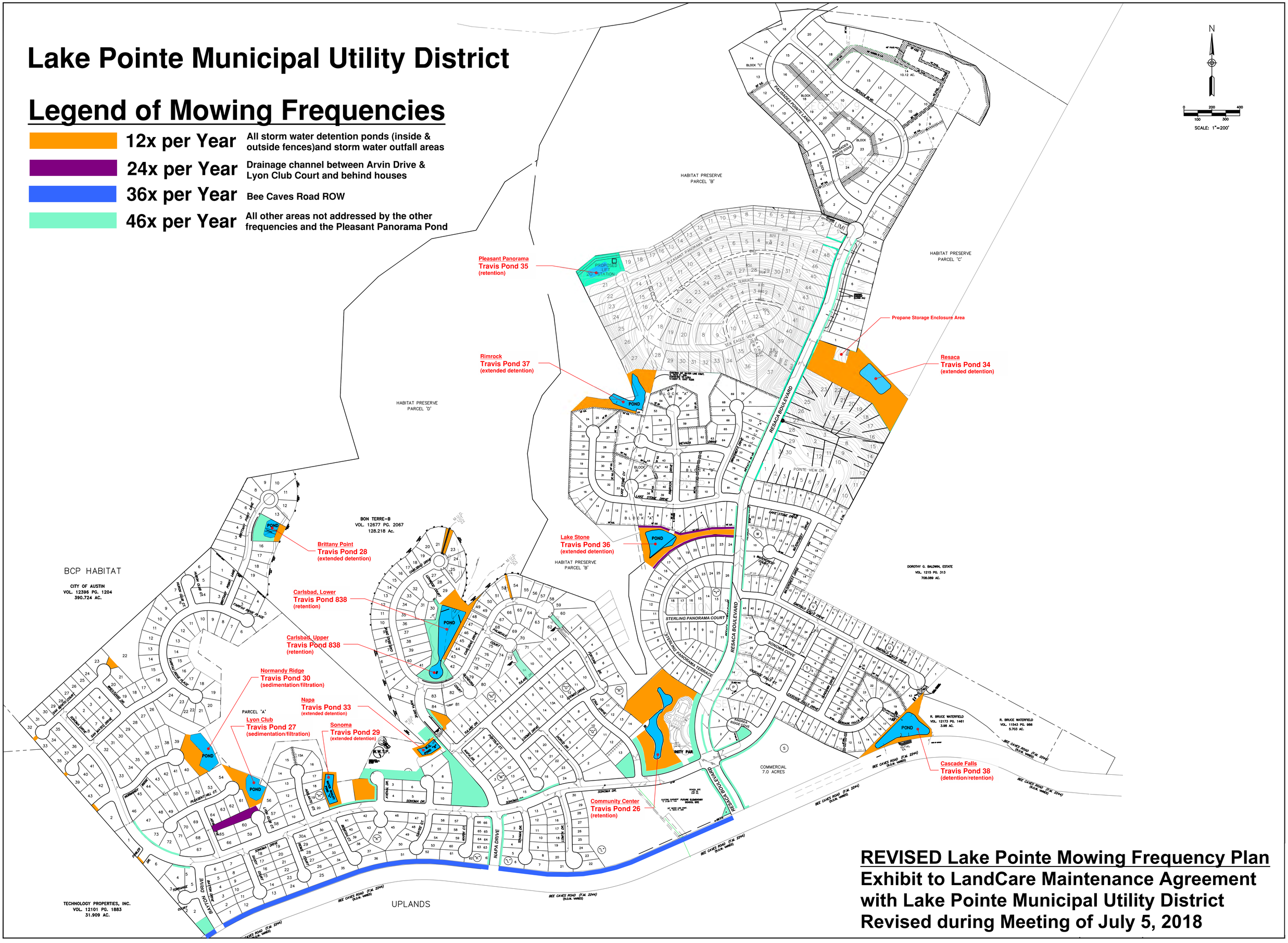
Signature

12/13/18
Date

Lake Pointe Municipal Utility District

Legend of Mowing Frequencies

- **12x per Year** — All storm water detention ponds (inside & outside fences)and storm water outfall areas
- **24x per Year** — Drainage channel between Arvin Drive & Lyon Club Court and behind houses
- **36x per Year** — Bee Caves Road ROW
- **46x per Year** — All other areas not addressed by the other frequencies and the Pleasant Panorama Pond

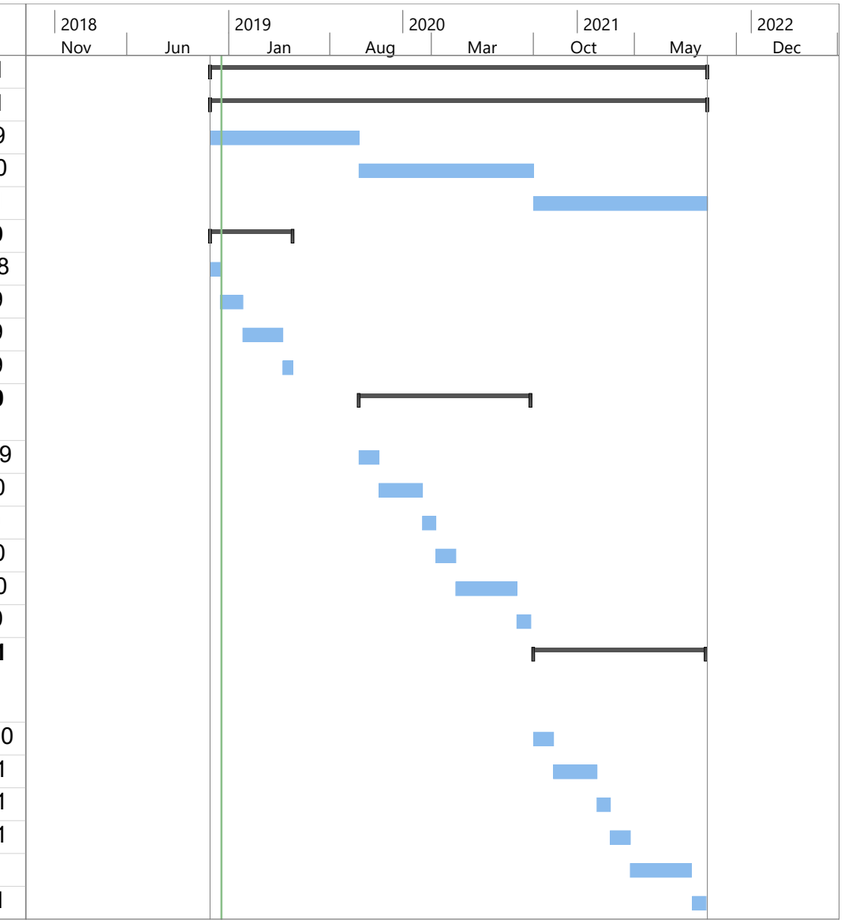


REVISED Lake Pointe Mowing Frequency Plan
Exhibit to LandCare Maintenance Agreement with Lake Pointe Municipal Utility District
Revised during Meeting of July 5, 2018

Lake Pointe Municipal Utility District
Maintenance & Rehabilitation of 12 District Storm Water Quality Ponds

Baseline Program Schedule

ID	Unique ID	Task Name	Duration	Start	Finish
1	**1**	**Maintenance & Rehabilitation of 12 District Storm Water Quality Ponds**	**722 days**	**Fri 11/23/18**	**Thu 9/30/21**
2	**83**	**General/Regular Maintenance of District's 12 Ponds**	**722 days**	**Fri 11/23/18**	**Thu 9/30/21**
3	85	First Year Maintenance (12 ponds)	215 days	Fri 11/23/18	Mon 9/30/19
4	84	Second Year Maintenance (12 ponds)	254 days	Tue 10/1/19	Wed 9/30/20
5	86	Third Year Maintenance (12 ponds)	253 days	Thu 10/1/20	Thu 9/30/21
6	**2**	**Travis County Pond 27; Lyon Club Court (repair & rehabilitatation)**	**119 days**	**Fri 11/23/18**	**Tue 5/14/19**
7	43	Design & Bid Documents	14 days	Fri 11/23/18	Thu 12/13/18
8	42	Advertisement, Bidding, Selection & Contract Execution	30 days	Fri 12/14/18	Tue 1/29/19
9	41	Construction	60 days	Wed 1/30/19	Tue 4/23/19
10	40	Close-Out	15 days	Wed 4/24/19	Tue 5/14/19
11	**27**	**Five First-Group Rehabilitations (Ponds 26, 30, 33, 34 & 37; Community Center, Normandy Ridge, Napa, Resaca & Rim Rock))**	**250 days**	**Tue 10/1/19**	**Thu 9/24/20**
12	28	Design Documents	30 days	Tue 10/1/19	Mon 11/11/19
13	79	Reviews, Approvals & Permits	60 days	Tue 11/12/19	Mon 2/10/20
14	80	Bid Documents	20 days	Tue 2/11/20	Mon 3/9/20
15	30	Advertisement, Bidding, Selection & Contract Execution	30 days	Tue 3/10/20	Mon 4/20/20
16	31	Rehabilitate Five Ponds	90 days	Tue 4/21/20	Wed 8/26/20
17	32	Close-Out	20 days	Thu 8/27/20	Thu 9/24/20
18	**33**	**Six Second-Group Rehabilitations (Ponds 28, 29, 35, 36, 38 & 838; Brittany Point, Sonoma, Pleasant Panorama, Lake Stone, Cascade Falls & Carlsbad)**	**250 days**	**Thu 10/1/20**	**Mon 9/27/21**
19	73	Design & Bid Documents	30 days	Thu 10/1/20	Wed 11/11/20
20	71	Reviews, Approvals & Permits	60 days	Thu 11/12/20	Wed 2/10/21
21	81	Bid Documents	20 days	Thu 2/11/21	Wed 3/10/21
22	82	Advertisement, Bidding, Selection & Contract Execution	30 days	Thu 3/11/21	Wed 4/21/21
23	70	Rehabilitate Six Ponds	90 days	Thu 4/22/21	Fri 8/27/21
24	69	Close-Out	20 days	Mon 8/30/21	Mon 9/27/21



Lake Pointe MUD Pond Maintenance Plan

2921 Etna Dr

Section: Phase I A **Site:** 26 **Pond Type:** Retention

Maintenance Area: 10,000 ft^2

Corrective Actions:

- Install rock rip rack to prevent further erosion
- Repair eroded areas
- Remove excess sediment at inlet pipe

Plan Revision:

- Update record drawings to indicate permanent pool, plugged low-flow pipe in weir, (2) fountain aerators/water pump
- Provide water quality calculations to prove modifications do not negate design intent

3400 Lyon Club Ct

Section: Phase II **Site:** 27 **Pond Type:** Detention w/ sedimentation filtration

Sand Filtration Bed Area: 7,300 ft^2 **Channel Maintenance Area:** 7,900 ft^2

Landscape Maintenance Area:** 6,300 ft^2

Corrective Actions:

- Remove excess sediment at south inlet pipe
- Cut and remove woody vegetation over 18 in
- Repair eroded areas and install rock riprap
- Remove and replace gabion L = 70 ft

Plan Revision: No

** Landscape Maintenance Area does not include sand filtration bed

2909 Brittany Point Ln

Section: Phase IV B **Site:** 28 **Pond Type:** Extended Detention

Sediment Removal Area: 150 ft^2 **Landscape Maintenance Area**: 5,500 ft^2

Corrective Actions:

- Remove sediment and vegetation from splitter box and rock rip rap pad
- Cut and remove vegetation over 18 in
- Remove sediment within RCP and on concrete apron
- Remove sediment and re-vegetate Forebay

Plan Revision: No

12104 Sonoma Drive

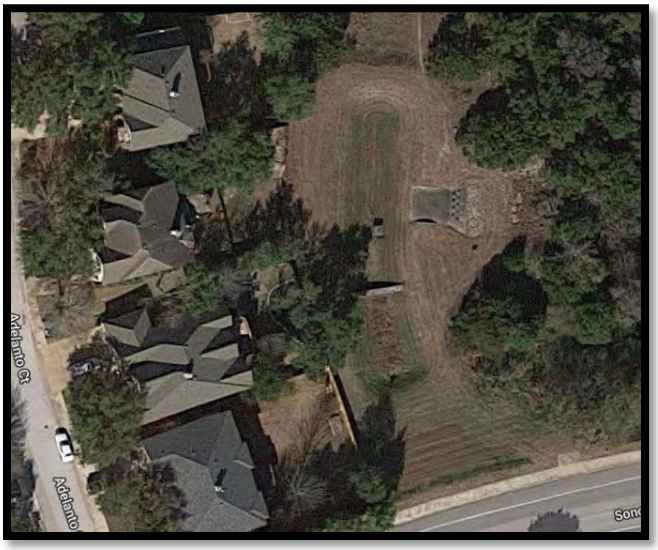
Section: Phase I B **Site:** 29 **Pond Type:** Extended Detention

Landscape Maintenance Area: 64,800 ft^2 **Forebay Area:** 480 ft^2

Corrective Actions:

- Remove sediment and vegetation from Forebay
- Cut vegetation over 18 in
- Re-vegetate disturbed areas

Plan Revision: No



3307 San Mateo Dr

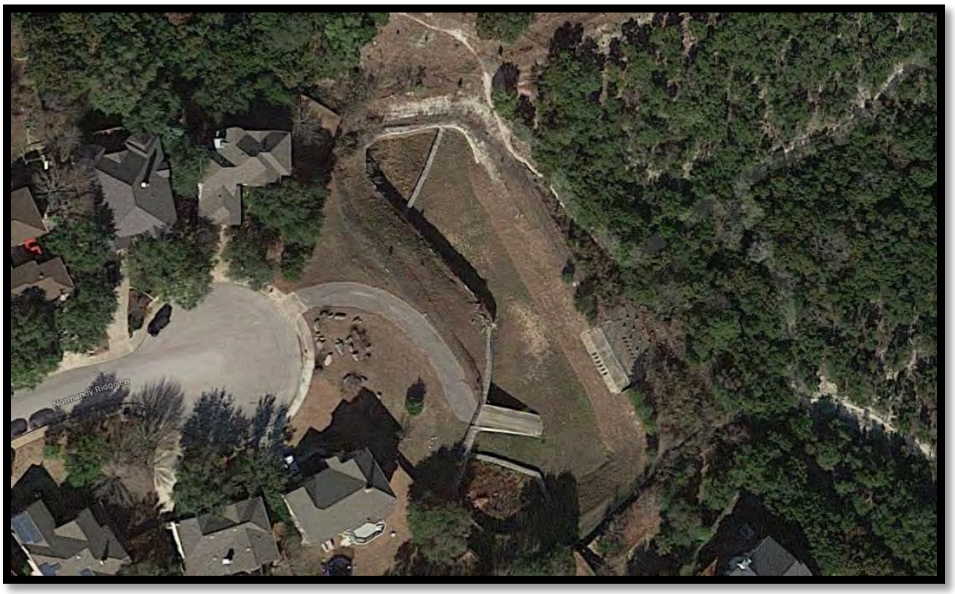
Section: Phase II **Site**: 30 **Pond Type:** Sediment-Filtration

Sand Filtration Bed Area: 13,150 ft^2 **Landscape Maintenance Area**:** 48,500 ft^2

Corrective Actions:

- Remove sediment from concrete apron and rock riprap pad
- Remove accumulated sediment and vegetation from Forebays
- Re-vegetate disturbed areas
- Cut and remove vegetation over 18 in

Plan Revision: No



** Landscape Maintenance Area does not include sand filtration bed

3204 Napa Dr

Section: Phase I B **Site:** 33 **Pond Type:** Extended Detention

Landscape Maintenance Area: 88,100 ft^2

Corrective Actions:

- Cut and remove vegetation blocking access
- Remove sediment and vegetation from splitter box
- Cut and remove all vegetation over 18 in
- Remove accumulated sediment from inlets and Forebay
- Remove accumulated sediments and vegetation from basin and culverts

Plan Revision: No

10533 Point View Dr

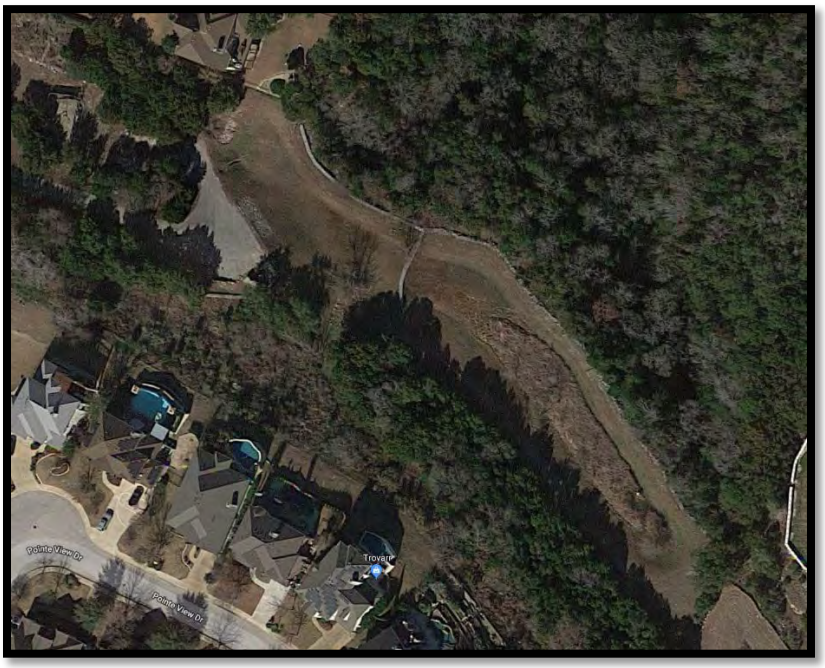
Section: Section 6 **Site:** 34 **Pond Type:** Extended Detention

Landscape Maintenance Area: 30,300 ft^2

Corrective Actions:

- Remove excess vegetation and sediment
- Repair rock rip rap mattress and gabions, modify riser structure to better drain basin
- Remove trash and debris

Plan Revision: No



12112 Pleasant Panorama

Section: Section 7 **Site:** 35 **Pond Type:** Detention but permitted as a retention

Landscape Maintenance Area: 10,00 ft^2

Corrective Actions:

- Remove excess sediment and vegetation from Forebay
- Clean out and repair Gabion basket
- Re-establish wetland plantings

Plan Revision: Yes

- Update records to reflect on-site, change to detention pond
- Perform water quality calculations for modification

Lake Stone Dr

Section: Section 5 **Site:** 36 **Pond Type:** Extended Detention

Rock Rip Rap Area: 1,400 ft^2 **Landscape Maintenance Area:** 22,700 ft^2

Corrective Actions:

- Remove excess sediment at inlet
- Repair rock riprap
- Remove excess sediment and vegetation from Forebay
- Remove excess sediment/vegetation and repair rock berms
- Clean out and repair trash rack
- Inspect riser pipes, repair as needed
- Remove woody vegetation not original to design

Plan Revision: No

Nevada Drive

Section: Section 5 **Site:** 37 **Pond Type:** Extended Detention

Rock Rip Rap Area: 1,720 ft^2 **Landscape Maintenance Area:** 79,500 ft^2

Corrective Actions:

- Cut and remove excess vegetation exceeding 18 in from perforated riser pipe
- Remove excess sediment and vegetation from trickle channel
- Clean out and repair rock rip rap

Plan Revision: No

2810 FM 2244 Rd

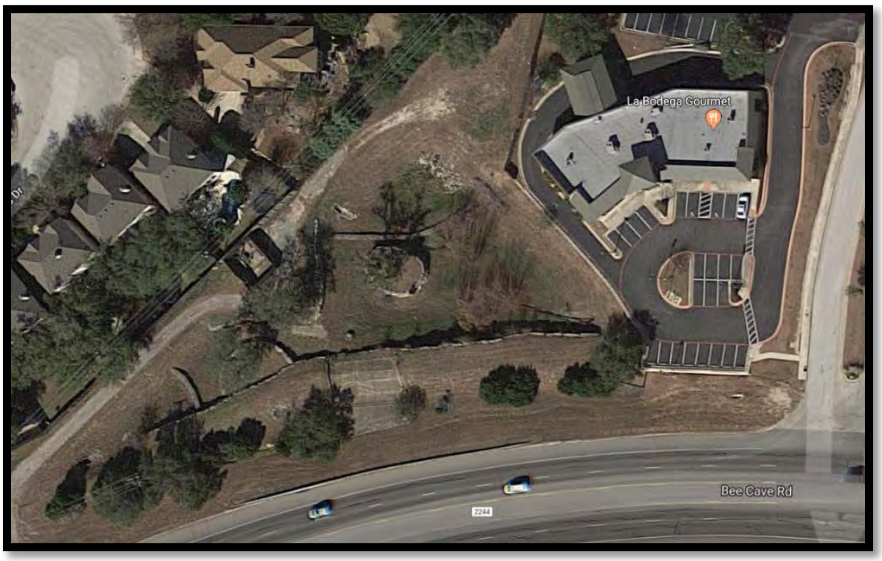
Section: Section 3 **Site:** 38 **Type:** Detention

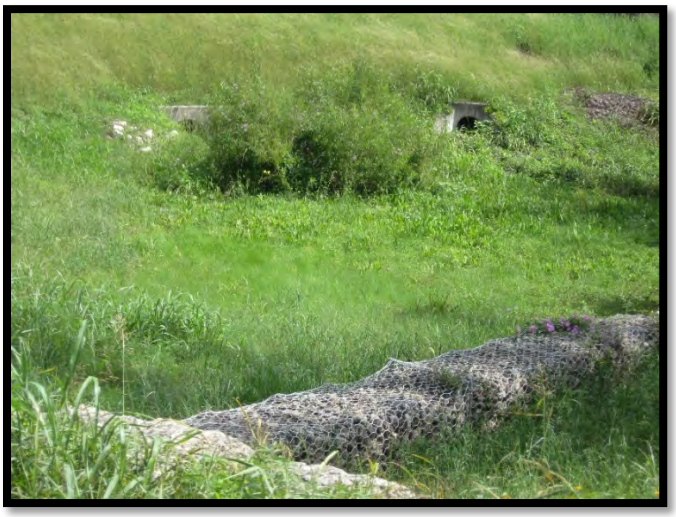
Landscape Maintenance Area: 22,600 ft^2

Corrective Actions:

- Remove excess sediment build up
- Repair and cleanout rock rip rap
- Cut and remove excess vegetation

Plan Revision: No





12402 Carlsbad Dr

Section: Phase IV A **Site:** 838 **Type:** Retention

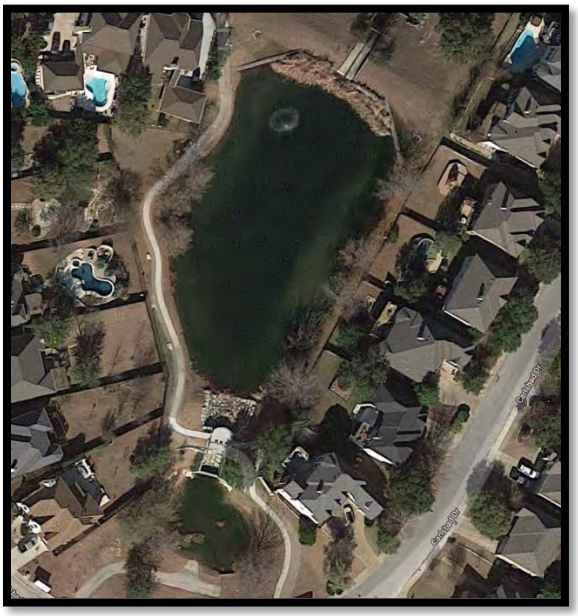
Concrete Apron Area: 1,600 ft^2 **Landscape Maintenance Area:** 13,900 ft^2

Corrective Actions:

- Remove sediment from concrete aprons and rock rip rap pads
- Remove invasive cattail plants

Plan Revision:

- Update record drawings to reflect on-site, which does not include rock rubble weir and wooden deck
- Provide water quality calculations to prove modifications do not negate design intent

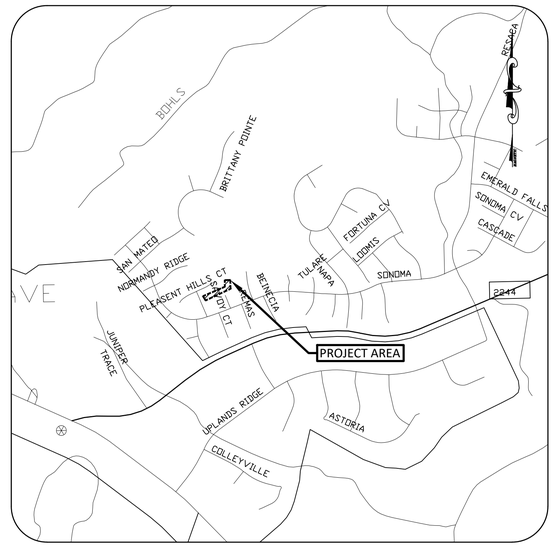


LYON CLUB COURT

STORMWATER BASIN REHABILITATION
LAKE POINTE

PROPERTY OWNER: LAKE POINTE MUNICIPAL UTILITY DISTRICT
ADDRESS: 10801 POINTE VIEW DRIVE
AUSTIN, TEXAS 78738

PROJECT ENGINEER: DOUCET + CHAN, A DIVISION OF DOUCET & ASSOCIATES, INC.
ADDRESS: 7401B HWY 71 WEST, SUITE #160 AUSTIN, TX. 78735
PHONE NO.: (512) 583-2600 FAX NO. (512) 583-2601



LOCATION MAP
NOT-TO-SCALE

MAPSCO - PAGE 550Q
GRID NUMBER - WZ26

SHEET LIST TABLE	
	SHEET TITLE
1	COVER SHEET
2	GENERAL SITE IMPROVEMENTS & EROSION & SEDIMENTATION CONTROL PLAN
3	CHANNEL IMPROVEMENTS PLAN & PROFILE
4	DETAILS SHEET 1
5	DETAILS SHEET 2

APPROVED BY: _____
TRAVIS COUNTY DATE

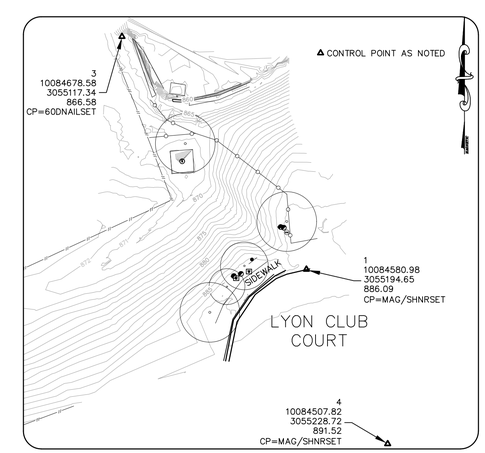
APPROVED BY: _____
CITY OF BEE CAVE DATE

EXHIBIT 482.301C TRAVIS COUNTY STANDARD CONSTRUCTION NOTES FOR SUBDIVISION DEVELOPMENT STREETS, DRAINAGE, WATER AND WASTEWATER

1. EACH DRIVEWAY MUST BE CONSTRUCTED IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.302(G), AND EACH DRAINAGE STRUCTURE OR SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, UNLESS OTHER DESIGN CRITERIA ARE APPROVED BY TRAVIS COUNTY.
2. BEFORE BEGINNING ANY CONSTRUCTION, THE OWNER MUST OBTAIN A TRAVIS COUNTY DEVELOPMENT PERMIT AND POST THE DEVELOPMENT PERMIT, THE TCEQ SITE NOTICE, AND ANY OTHER REQUIRED PERMITS AT THE JOB SITE.
3. CONSTRUCTION MAY NOT TAKE PLACE WITHIN TRAVIS COUNTY RIGHT-OF-WAY UNTIL AFTER THE OWNER HAS SUBMITTED A TRAFFIC CONTROL PLAN TO TRAVIS COUNTY AND OBTAINED WRITTEN APPROVAL OF THE TRAFFIC CONTROL PLAN FROM TRAVIS COUNTY.
4. THE CONTRACTOR AND PRIMARY OPERATOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION AND THE SWP3 IN THESE APPROVED PLANS. THE CONTRACTOR AND PRIMARY OPERATOR SHALL REQUEST TRAVIS COUNTY INSPECTION AT SPECIFIC MILESTONES IN THE SEQUENCE OF THE CONSTRUCTION OF THE SITE DEVELOPMENT CORRESPONDING TO THE PRIORITY INSPECTIONS SPECIFIED IN CONSTRUCTION SEQUENCING NOTES IN THESE APPROVED PLANS. DEVELOPMENT OUTSIDE THE LIMITS OF CONSTRUCTION SPECIFIED IN THE APPROVED PERMIT AND CONSTRUCTION PLANS IS PROHIBITED.
5. BEFORE BEGINNING ANY CONSTRUCTION, ALL STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENTS SHALL BE MET, AND THE FIRST PHASE OF THE TEMPORARY EROSION CONTROL (ESC) PLAN INSTALLED WITH A SWP3 INSPECTION REPORT UPLOADED TO MYPERMITNOW.ORG. ALL SWP3 AND ESC PLAN MEASURES AND PRIMARY OPERATOR SWP3 INSPECTIONS MUST BE PERFORMED BY THE PRIMARY OPERATOR IN ACCORDANCE WITH THE APPROVED PLANS AND SWP3 AND ESC PLAN NOTES THROUGHOUT THE CONSTRUCTION PROCESS.
6. BEFORE STARTING CONSTRUCTION, THE OWNER OR CONTRACTOR OR THEIR DESIGNATED REPRESENTATIVES SHALL SUBMIT A REQUEST VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY TO REQUEST AND SCHEDULE A MANDATORY PRECONSTRUCTION CONFERENCE AND ESC INSPECTION. IF FURTHER ASSISTANCE IS NEEDED, THE TNR PLANNING AND ENGINEERING DIVISION STAFF OR TNR STORM WATER MANAGEMENT PROGRAM STAFF CAN BE CONTACTED BY TELEPHONE AT 512-854-9383.
7. THE CONTRACTOR SHALL KEEP TRAVIS COUNTY TNR ASSIGNED INSPECTION STAFF CURRENT ON THE STATUS OF SITE DEVELOPMENT AND UTILITY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY TRAVIS COUNTY AND REQUEST PRIORITY INSPECTIONS THROUGH THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY IN ACCORDANCE WITH THE SPECIFIC MILESTONES IN THE CONSTRUCTION SEQUENCING NOTES IN THESE APPROVED PLANS.
8. CONTOUR DATA SOURCE: SURVEY PERFORMED BY DOUCET & ASSOCIATES.
9. FILL MATERIAL MUST BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS SPECIFIED IN THE APPROVED PLANS, SWP3, AND THE TRAVIS COUNTY CODE. THE CONTRACTOR SHALL STOCKPILE FILL AND CONSTRUCTION MATERIALS ONLY IN THE AREAS DESIGNATED ON THE APPROVED PLANS AND NOT WITHIN THE 100-YEAR FLOOD PLAIN, WATERWAY SETBACK, CRITICAL ENVIRONMENTAL FEATURE SETBACK, OR OUTSIDE THE LIMITS OF CONSTRUCTION. DISPOSAL OF SOLID WASTE MATERIALS, AS DEFINED BY STATE LAW (E.G., LITTER, TIRES, DECOMPOSABLE WASTES, ETC.) IS PROHIBITED IN PERMANENT FILL SITES.
10. BEFORE DISPOSING ANY EXCESS FILL MATERIAL OFF-SITE, THE CONTRACTOR OR PRIMARY OPERATOR MUST PROVIDE THE COUNTY INSPECTOR DOCUMENTATION THAT DEMONSTRATES THAT ALL REQUIRED PERMITS FOR THE PROPOSED DISPOSAL SITE LOCATION, INCLUDING TRAVIS COUNTY, TCEQ NOTICE, AND OTHER APPLICABLE DEVELOPMENT PERMITS, HAVE BEEN OBTAINED. THE OWNER OR PRIMARY OPERATOR MUST REVISE THE SWP3 AND ESC PLAN IF HANDLING OR PLACEMENT OF EXCESS FILL ON THE CONSTRUCTION SITE IS REVISED FROM THE EXISTING SWP3. IF THE FILL DISPOSAL LOCATION IS OUTSIDE TRAVIS COUNTY OR DOES NOT REQUIRE A DEVELOPMENT PERMIT, THE CONTRACTOR OR PRIMARY OPERATOR MUST PROVIDE THE COUNTY INSPECTOR THE SITE ADDRESS, CONTACT INFORMATION FOR THE PROPERTY OWNER OF THE FILL.
11. THE DESIGN ENGINEER IS RESPONSIBLE FOR THE ADEQUACY OF THE CONSTRUCTION PLANS. IN REVIEWING THE CONSTRUCTION PLANS, TRAVIS COUNTY WILL RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
12. IN THE EVENT OF ANY CONFLICTS BETWEEN THE CONTENT IN THE SWP3 SITE NOTEBOOK AND THE CONTENT IN THE CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY, THE CONSTRUCTION PLANS SHALL TAKE PRECEDENCE.
13. A MINIMUM OF TWO SURVEY BENCHMARKS SHALL BE SET, INCLUDING DESCRIPTION, LOCATION, AND ELEVATION; THE BENCHMARKS SHOULD BE TIED TO A TRAVIS COUNTY CONTROL BENCHMARK WHEN POSSIBLE.
14. ANY EXISTING PAVEMENT, CURBS, SIDEWALKS, OR DRAINAGE STRUCTURES WITHIN COUNTY RIGHT-OF-WAY WHICH ARE DAMAGED, REMOVED, OR SILTED, WILL BE REPAIRED BY THE CONTRACTOR AT OWNER OR CONTRACTOR'S EXPENSE BEFORE APPROVAL AND ACCEPTANCE OF THE CONSTRUCTION BY TRAVIS COUNTY.
15. CALL THE TEXAS EXCAVATION SAFETY SYSTEM AT 8-1-1 AT LEAST 2 BUSINESS DAYS BEFORE BEGINNING EXCAVATION ACTIVITIES.
16. ALL STORM SEWER PIPES SHALL BE CLASS III RCP, UNLESS OTHERWISE NOTED.
17. CONTRACTOR IS REQUIRED TO OBTAIN A UTILITY INSTALLATION PERMIT IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.901(A)(3) BEFORE ANY CONSTRUCTION OF UTILITIES WITHIN ANY TRAVIS COUNTY RIGHT-OF-WAY.
18. THIS PROJECT IS LOCATED ON FLOOD INSURANCE RATE MAPS 48453C0420H, EFFECTIVE ON 09/26/2008.
19. TEMPORARY STABILIZATION MUST BE PERFORMED IN ALL DISTURBED AREAS THAT HAVE CEASED CONSTRUCTION ACTIVITIES FOR 14 DAYS OR LONGER, IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN THE SWP3 AND ESC PLAN SHEET NOTES.
20. PERMANENT SITE STABILIZATION/RE-VEGETATION MUST BE PERFORMED IMMEDIATELY IN ALL SITE AREAS WHICH ARE AT FINAL PLAN GRADE AND IN ALL SITE AREAS SPECIFIED IN THE APPROVED PLANS FOR PHASED RE-VEGETATION, IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN THE SWP3 AND ESC PLAN SHEET NOTES.
21. ALL TREES WITHIN THE RIGHT-OF-WAY AND DRAINAGE EASEMENTS SHALL BE SAVED OR REMOVED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS. TRAVIS COUNTY TREE PRESERVATION STANDARDS IN TRAVIS COUNTY CODE SECTION 482.973, INCLUDING INSTALLATION AND MAINTENANCE OF ALL SPECIFIED TREE PROTECTION MEASURES, MUST BE FOLLOWED DURING CONSTRUCTION.
22. AN ENGINEER'S CONCURRENCE LETTER IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.953 MUST BE SUBMITTED VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY WHEN CONSTRUCTION IS SUBSTANTIALLY COMPLETE. THE ENGINEER'S CONCURRENCE LETTER MUST BE SUBMITTED BEFORE THE CONTRACTOR OR PRIMARY OPERATOR REQUESTS A FINAL INSPECTION BY TRAVIS COUNTY.
23. SITE IMPROVEMENTS MUST BE CONSTRUCTED IN CONFORMANCE WITH THE ENGINEER'S CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY. NON-CONFORMANCE WITH THE APPROVED PLANS WILL DELAY FINAL INSPECTION APPROVAL BY THE COUNTY UNTIL PLAN CONFORMANCE IS ACHIEVED OR ANY REQUIRED PLAN REVISIONS ARE APPROVED.
24. FINAL SITE STABILIZATION. ALL AREAS DISTURBED BY THE CONSTRUCTION MUST BE PERMANENTLY REVEGETATED AND ALL TEMPORARY SEDIMENT CONTROLS AND ACCUMULATED SEDIMENTATION MUST BE REMOVED BEFORE THE COUNTY WILL ISSUE A CERTIFICATE OF COMPLIANCE FOR FINAL SITE STABILIZATION AS PART OF FINAL INSPECTION AND PROJECT COMPLETION. A DEVELOPERS CONTRACT, AS DESCRIBED IN THE SWP3 AND ESC NOTES SHEET MAY BE EXECUTED WITH TRAVIS COUNTY FOR CONDITIONAL ACCEPTANCE OF A PROJECT FOR WHICH HAS ESC FISCAL SECURITY POSTED AND FOR WHICH ALL ITEMS ARE COMPLETE.
25. ALL SUBDIVISION LOTS AND AREAS OUTSIDE THE RIGHT-OF-WAY WHICH ARE DISTURBED DURING THE CONSTRUCTION PROCESS MUST BE INCLUDED IN THE FINAL STABILIZATION/REVEGETATION PLAN OF THE SUBDIVISION FOR FINAL INSPECTION APPROVAL, EXCEPT FOR SUBDIVISION LOTS THAT ARE SUBJECT TO SEPARATE TRAVIS COUNTY DEVELOPMENT PERMIT(S), SWP3 NOTICE(S), AND ESC PLAN(S).
26. SOIL DATA SOURCES: N/A
27. THE OWNER, UTILITY CONTRACTOR, OR A DESIGNATED REPRESENTATIVE SHALL SUBMIT A NOTICE OF CONSTRUCTION VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION. IF FURTHER ASSISTANCE IS NEEDED, THE TNR PLANNING AND ENGINEERING DIVISION STAFF CAN BE CONTACTED BY TELEPHONE AT 512-854-9383.
28. THE WORK WILL NOT BE ACCEPTED AND THE ONE-YEAR WARRANTY PERFORMANCE PERIOD WILL NOT BEGIN UNTIL AFTER THE CONTRACTOR HAS OBTAINED TNR APPROVAL OF THE CONSTRUCTION.
29. THE CONTRACTOR SHALL INSTALL ALL TRAFFIC MARKINGS, BARRICADES, AND SIGNAGE IN ACCORDANCE WITH THE LATEST EDITION OF TXDOT'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PRIOR TO TNR APPROVAL OF THE ROADWAY CONSTRUCTION.

REVISIONS / CORRECTIONS

NO.	DESCRIPTION	REVISE (R) ADD (A) VOID (V) SHEET NO.'S	TOTAL # SHTS. IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ./FT.)/ [%]	CITY OF AUSTIN APPROVAL / DATE	DATE IMAGED



BENCHMARK INFORMATION
NOT-TO-SCALE

CONTROL NOTES:

HORIZONTAL COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, CENTRAL ZONE (4203), NORTH AMERICAN DATUM OF 1983. OBSERVED USING THE LEICA SMARTNET NETWORK. ALL COORDINATES AND DISTANCES ARE GRID VALUES. UNITS: U.S. SURVEY FEET.

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988, USING GEOID 12B, OBSERVED USING THE LEICA SMARTNET NETWORK.

DOUCET & ASSOCIATES
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Firm Registration Number: 3937

COVER SHEET

LYON CLUB COURT
STORMWATER BASIN REHABILITATION
LAKE POINTE, TX.

STATE OF TEXAS
THOMAS EDWARD HEGEMIER
62216
LICENSED PROFESSIONAL ENGINEER
Thomas Edward Hegemier
12/20/2018

Designed: ZX
Drawn: OF
Reviewed: TH
Date: 12/20/2018

SHEET
1
OF 5

Project No.: 1840-002

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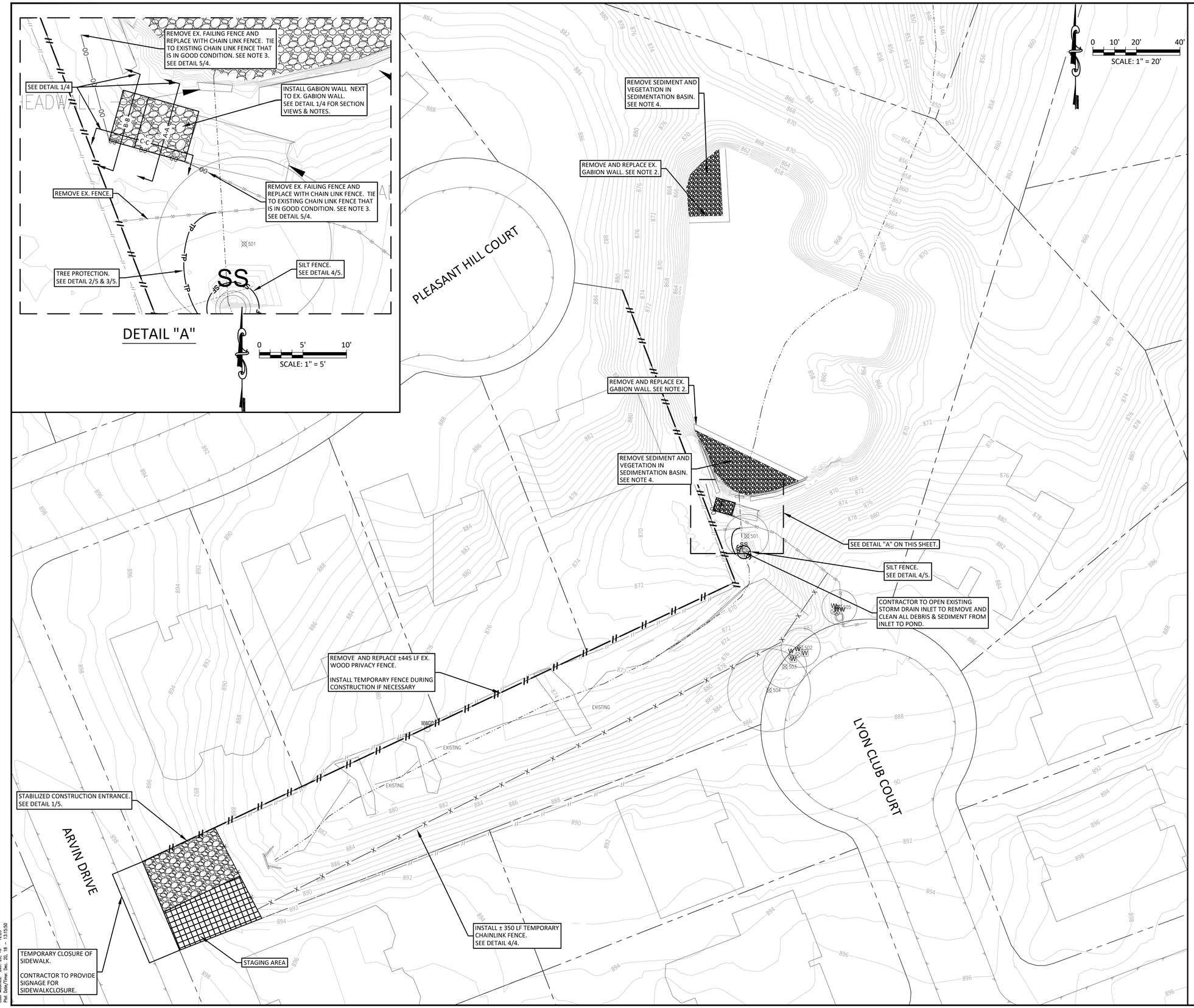

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

NOTES:

1. ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASS PER CITY OF AUSTIN SPECIFICATION ITEM 609S. SOIL RETENTION BLANKET (LANDLOK TRM 450 OR APPROVED EQUAL) SHALL BE INSTALLED TO ASSIST WITH REVEGETATION PER CITY OF AUSTIN SPECIFICATION ITEM 605S.
2. GABION WALL SHALL COMPLY WITH CITY OF AUSTIN SPECIFICATION ITEM 594S. TOP OF NEW GABION WALL SHALL MATCH EXISTING CONDITION AND SHALL HAVE A MINIMUM BURY DEPT OF 18". SEE DETAIL 2/4.
3. REPLACEMENT CHAIN LINK FENCE SHALL BE OF THE SAME MATERIAL, STYLE, AND COLOR AS THE EXISTING FENCE.
4. REMOVE SEDIMENT AND VEGETATION IN SEDIMENTATION BASIN UP TO 18" BELOW EXISTING POND BOTTOM. INSTALL 18" ROCK RIPRAP IN SEDIMENTATION POND AREA.
5. ALL ROCK, SEDIMENT, AND SAND SHALL BE DISPOSED AT CITY OF AUSTIN OR APPROVED EQUAL LICENSED & APPROVED LANDFILL.

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www.douceteng.com
Firm Registration Number: 3937

GENERAL SITE IMPROVEMENTS & EROSION & SEDIMENTATION CONTROL PLAN

LYON CLUB COURT STORMWATER BASIN REHABILITATION

LAKE POINTE, TX.

STATE OF TEXAS
THOMAS EDWARD HEGEMIER
62216
LICENSED
PROFESSIONAL ENGINEER
Thomas Edward Hegemier
12/20/2018

Scale:	1" = 20'
Designed:	ZX
Drawn:	OF
Reviewed:	TH
Date:	12/20/2018

SHEET 2 OF 5

Project No.: 1840-002

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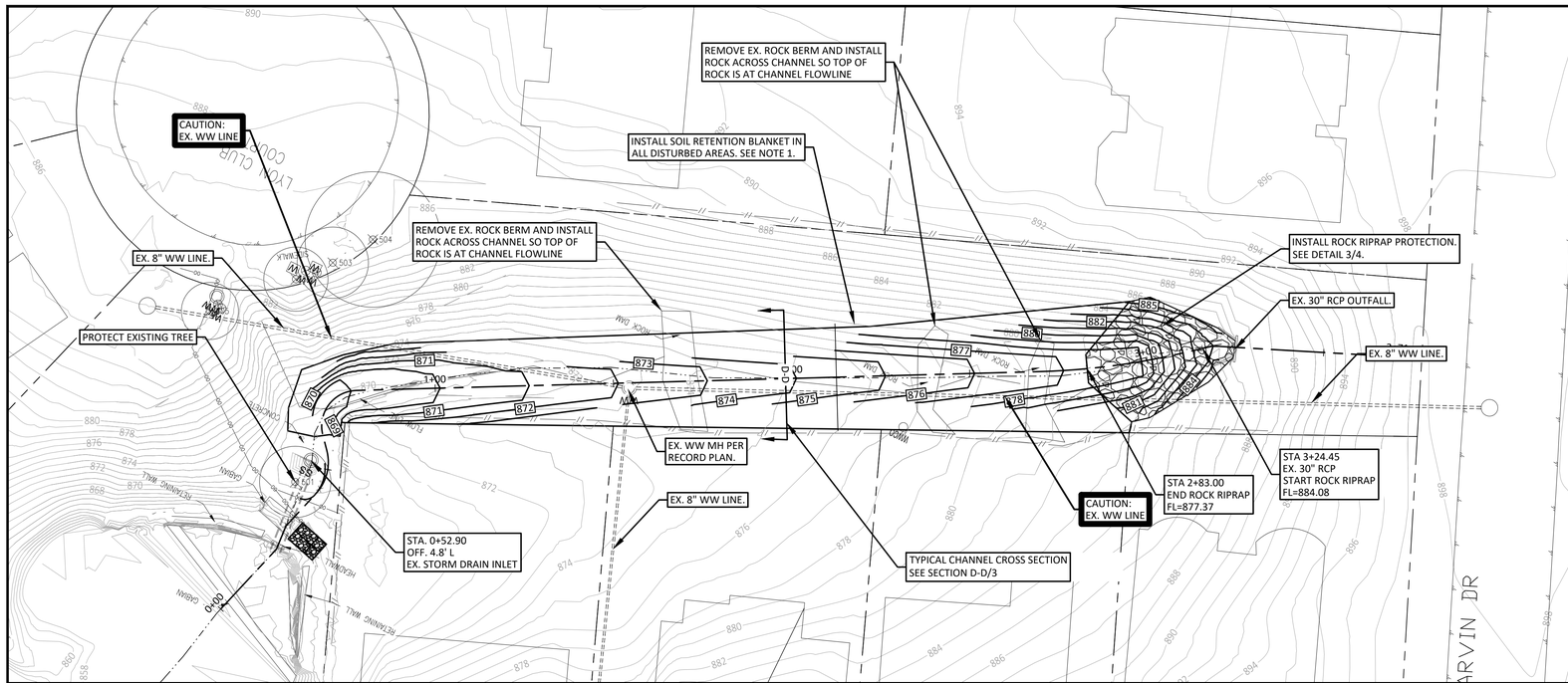
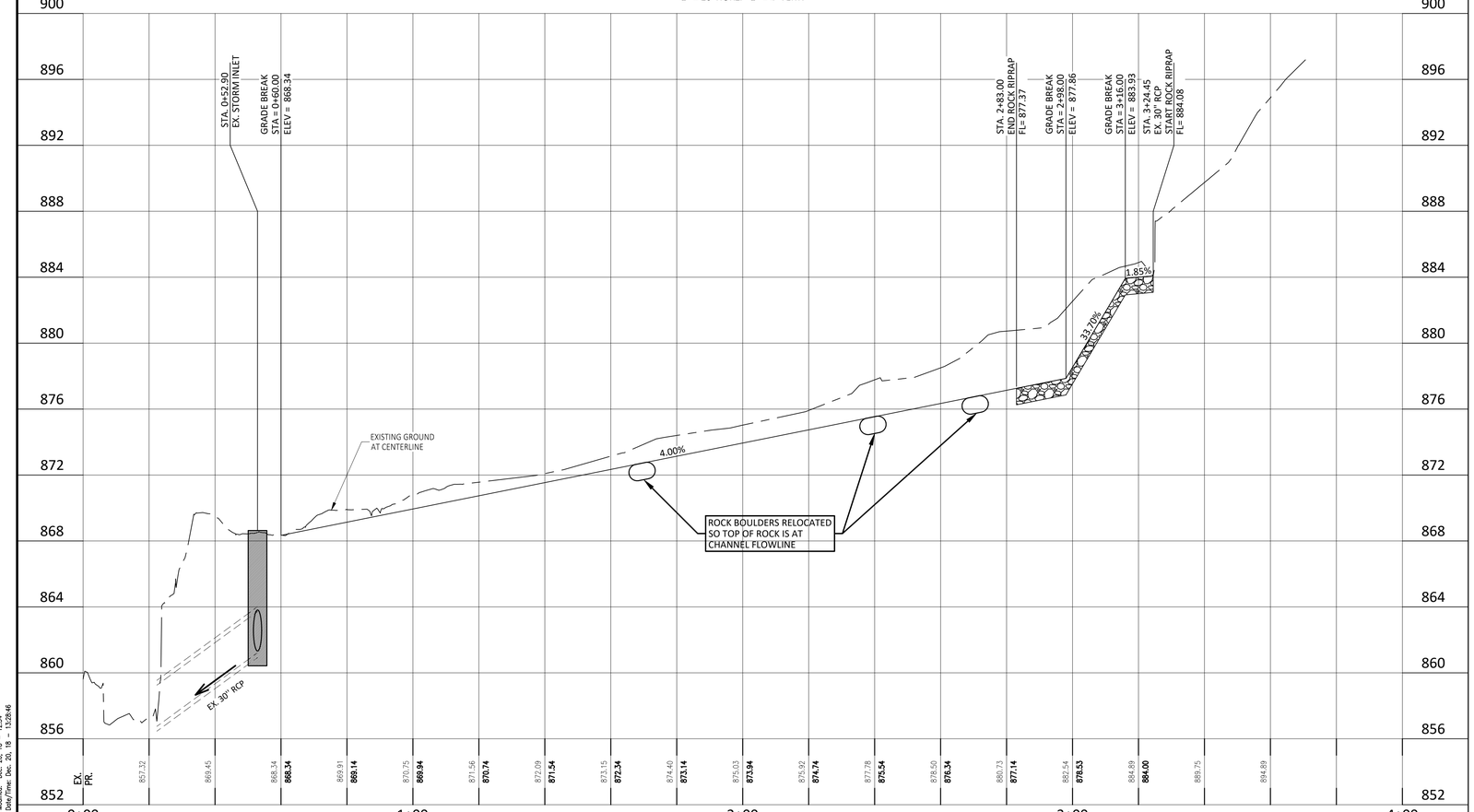
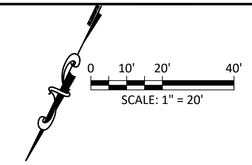


CHANNEL IMPROVEMENTS

1" = 20' HORZ. - 1" = 4' VERT.





800 EX. CONTOUR

800 PR. CONTOUR

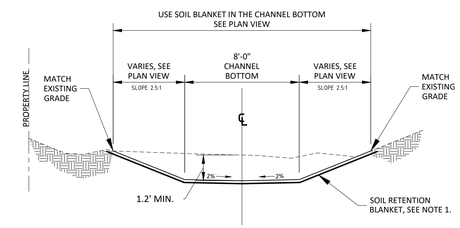
CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

NOTES:

1. ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASS PER CITY OF AUSTIN SPECIFICATION ITEM 609S. SOIL RETENTION BLANKET (LANDLOK TRM 450 OR APPROVED EQUAL) SHALL BE INSTALLED TO ASSIST WITH REVEGETATION PER CITY OF AUSTIN SPECIFICATION ITEM 605S.
2. GABION WALL SHALL COMPLY WITH CITY OF AUSTIN SPECIFICATION ITEM 594S. TOP OF NEW GABION WALL SHALL MATCH EXISTING CONDITION AND SHALL HAVE A MINIMUM BURY DEPT OF 18". SEE DETAIL 2/4.
3. REPLACEMENT CHAIN LINK FENCE SHALL BE OF THE SAME MATERIAL, STYLE, AND COLOR AS THE EXISTING FENCE.
4. REMOVE SEDIMENT AND VEGETATION IN SEDIMENTATION BASIN UP TO 18" BELOW EXISTING POND BOTTOM. INSTALL 18" ROCK RIPRAP IN SEDIMENTATION POND AREA.
5. ALL ROCK, SEDIMENT, AND SAND SHALL BE DISPOSED AT CITY OF AUSTIN OR APPROVED EQUAL LICENSED & APPROVED LANDFILL.



CHANNEL SECTION D-D

8.0' BOTTOM WITH 2.5:1 SIDE SLOPES

SCALE: NTS

Q_{25} = 50.4 CFS Q_{100} = 60.7 CFS

V_{25} = 6.33 FPS V_{100} = 6.71 FPS

d_{25} = 0.85 FT d_{100} = 0.94 FT

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Firm Registration Number: 3937

CHANNEL IMPROVEMENTS PLAN & PROFILE

LYON CLUB COURT STORMWATER BASIN REHABILITATION

LAKE POINTE, TX.

STATE OF TEXAS
THOMAS EDWARD HEGEMIER
62216
LICENSED
PROFESSIONAL ENGINEER

Thomas Edward Hegemier
12/20/2018

Scale: 1" = 20'
Designed: ZX
Drawn: OF
Reviewed: TH
Date: 12/20/2018

SHEET 3 OF 5

Project No.: 1840-002

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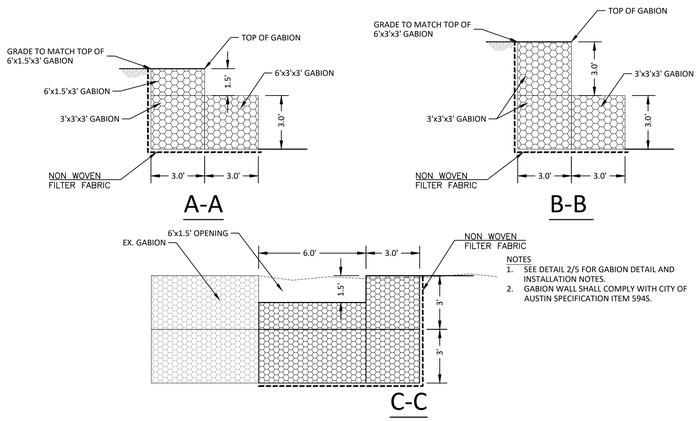
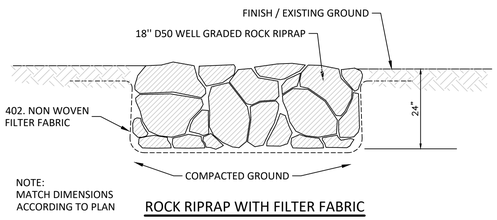


NOTES
1. SEE DETAIL 2/5 FOR GABION DETAIL AND INSTALLATION NOTES.
2. GABION WALL SHALL COMPLY WITH CITY OF AUSTIN SPECIFICATION ITEM 594S.

1/4 GABION SECTION

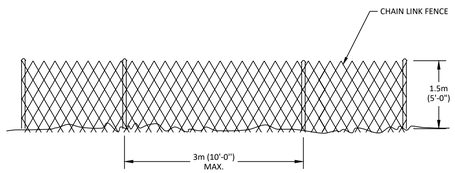
SCALE: NONE



NOTE:
MATCH DIMENSIONS ACCORDING TO PLAN

3/4 ROCK RIPRAP DETAIL

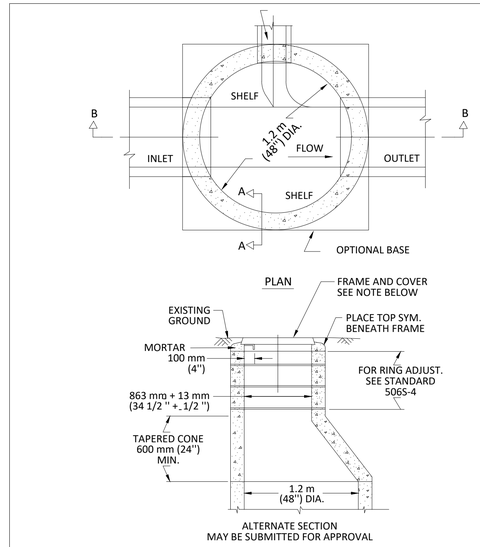
SCALE: NONE CUST-001



CHAIN LINK FABRIC SHALL COMPLY WITH CITY OF AUSTIN SPECIFICATION 7015.3.A AND POST SHALL BE TUBULAR STEEL SUPPORT POLES OR "T" POSTS.

4/4 TEMPORARY CHAIN LINK FENCE DETAIL

SCALE: NONE

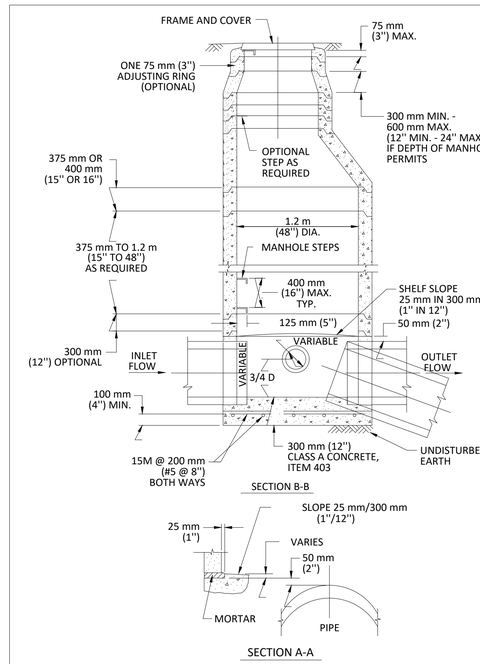


NOTE:
USE 800 mm (32'') FRAME AND COVER.

MINIMUM MANHOLE DIA.	MINIMUM PIPE SIZE
1.2 m (4')	450 TO 600 mm (18 TO 24'')
1.5 m (5')	750 mm TO 1.1 m (30 TO 42'')
1.8 m (6')	1.2 TO 1.4 m (48 TO 54'')
2.1 m (7')	1.5 TO 1.7 m (60 TO 66'')

SIZE TO BE USED IS DEPENDENT ON DRAIN ANGLES.

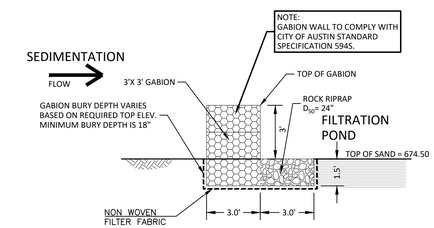
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		PRE-CAST CONCRETE STORM DRAIN MANHOLE	
RECORD COPY SIGNED BY GEORGE E. OSWALD	2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 1 OF 2



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		PRE-CAST CONCRETE STORM DRAIN MANHOLE	
RECORD COPY SIGNED BY GEORGE E. OSWALD	2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 2 OF 2

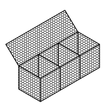
6/4 CITY OF AUSTIN PRE-CAST CONCRETE STORM DRAIN MANHOLE

SCALE: NONE



Gabions

Also available in P.V.C. coated wire



Installation

1) Level the base where the gabions will be placed to a smooth finish and the right elevation.

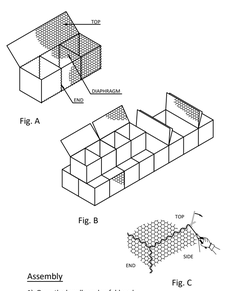
2) Each unit should be securely wired to the adjacent units along the top and the vertical edges prior to placing the 4" to 8" stone. To achieve better alignment and finish, the gabions can be stretched before filling.

3) Where permitted by the thickness of the structure, the gabions can be placed back to back and front to front to facilitate the filling and closing of the lids. Fig. B.

4) During the filling operation connecting wires shall be inserted in the following manner:
a) Each cell of the 36" high gabion shall be filled to a depth of one third after which connecting wires are placed one in each direction with the ends looped around two meshes at each end. This operation shall be repeated when the gabion is two thirds full.
b) For thinner gabions, connecting wires are not necessary unless the 18" are used to build vertical structures and in this case two wires, one in each direction at 9" from the base, must be placed as above.

5) After filling has been completed, the top is folded shut and wired to the ends, sides and diaphragms. (Fig. C)

6) Empty gabions placed on top of a completed row must be wired to the filled gabions at front and back.



Assembly

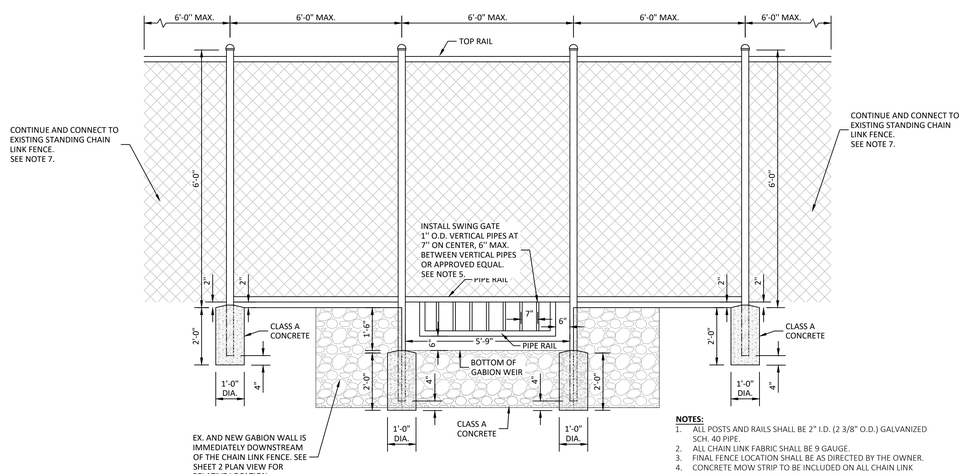
1) Open the bundle and unfold each unit.

2) Lift the sides, the ends and diaphragms into vertical position, Fig. A.

3) Wire the four corners together and the edges of the diaphragms to the gabion sides, Fig. A.

2/4 GABION DETAIL

SCALE: NONE DT652-RC CREATED: 1:1



NOTES:
1. ALL POSTS AND RAILS SHALL BE 2" I.D. (2 3/8" O.D.) GALVANIZED SCH. 40 PIPE.
2. ALL CHAIN LINK FABRIC SHALL BE 9 GAUGE.
3. FINAL FENCE LOCATION SHALL BE AS DIRECTED BY THE OWNER.
4. CONCRETE MOW STRIP TO BE INCLUDED ON ALL CHAIN LINK FENCING WITHIN THE SITE AND SHALL BE SUBSIDIARY TO CHAIN LINK FENCE.
5. **CONTRACTOR TO SUBMIT SWING GATE PRODUCT INFORMATION FOR ENGINEER/OWNER APPROVAL PRIOR TO INSTALLATION.**
6. ALL POSTS AND RAILS AND CHAIN LINK FABRIC SHALL BE GREEN PVC COATED TO MATCH EXISTING CHAIN LINK FENCE COLOR.
7. NEW CHAIN LINK FENCE (±75 LF) SHALL CONNECT, ON BOTH ENDS, TO EXISTING CHAIN LINK FENCE POSTS THAT ARE STANDING UPRIGHT AND IN GOOD CONDITION.

5/4 6 FT. CHAIN LINK AT SWALE CROSSING

SCALE: NONE CUST-421

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DETAILS
SHEET 1

LYON CLUB COURT STORMWATER BASIN REHABILITATION

LAKE POINTE, TX.

STATE OF TEXAS
THOMAS EDWARD HEGEMIER
62216
LICENSED
PROFESSIONAL ENGINEER
12/20/2018

Designed: ZX
Drawn: OF
Reviewed: TH
Date: 12/20/2018

SHEET 4 OF 5

Project No.: 1840-002

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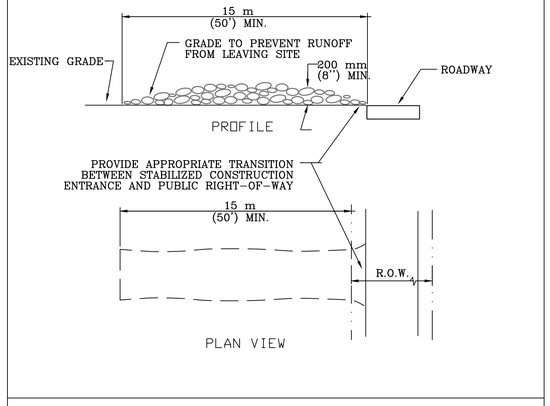
Plot Date/Time: Dec. 20, 18 - 12:57:37

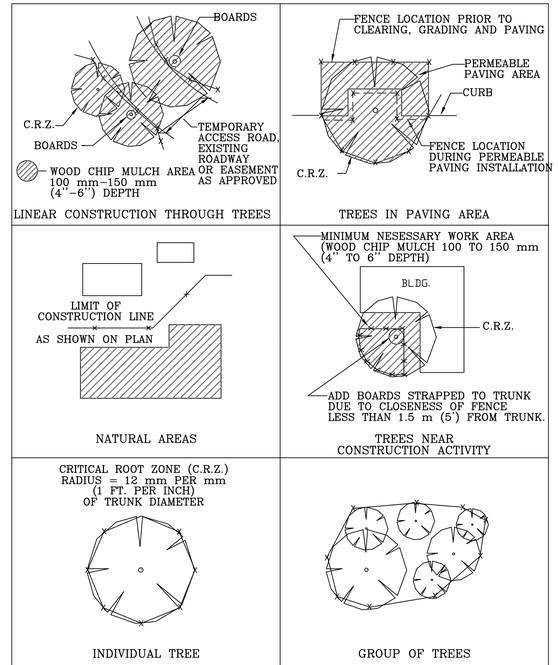


NOTES:
1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

1/5 STABILIZED CONSTRUCTION ENTRANCE

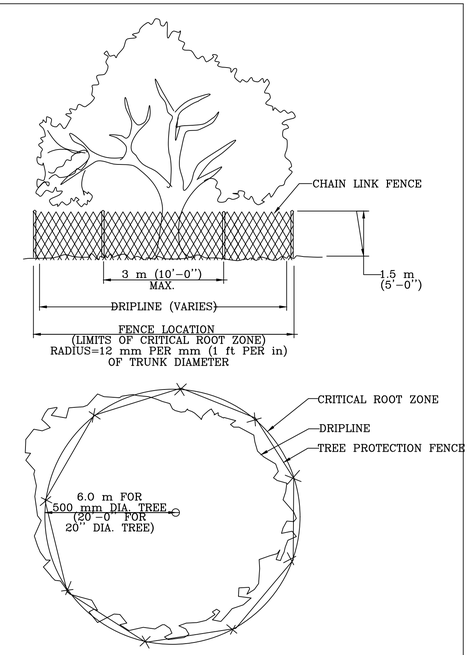
SCALE: NONE



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE LOCATIONS	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1

2/5 TREE PROTECTION FENCE LOCATIONS

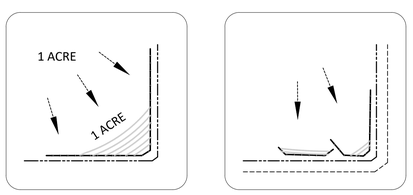
SCALE: NONE



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROPTECTION FENCE TYPE A – CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2

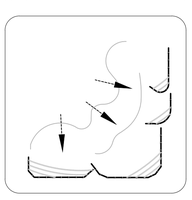
3/5 TREE PROTECTION FENCE TYPE A - CHAIN LINK

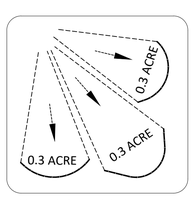
SCALE: NONE



INCORRECT - DO NOT LAYOUT "PERIMETER CONTROL" SILT FENCES ALONG PROPERTY LINES. ALL SEDIMENT LADEN RUNOFF WILL CONCENTRATE AND OVERWHELM THE SYSTEM

CORRECT - INSTALL "J"-HOOKS



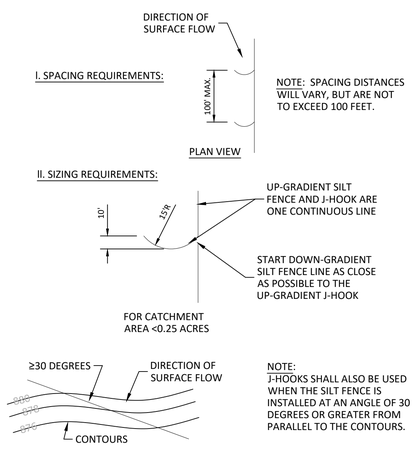


DISCREET SEGMENTS OF SILT FENCES, INSTALLED WITH "J"-HOOKS OR "SMILES" WILL BE MUCH MORE EFFECTIVE

SILT FENCE PLACEMENT FOR PERIMETER CONTROL

CUST 456

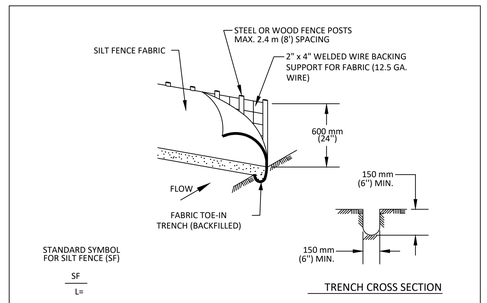
SCALE: NONE COA DETAIL: ECM FIGURE 1.4.5.G.3



SILT FENCE "J" - HOOK DETAIL

SCALE: NONE (COA DETAIL: ECM FIGURE 1.4.5.G.4)

CUST 388



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1

4/5 SILT FENCE

SCALE: NONE

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Firm Registration Number: 3937

DETAILS
SHEET 2

LYON CLUB COURT STORMWATER BASIN REHABILITATION

LAKE POINTE, TX.

STATE OF TEXAS
THOMAS EDWARD HEGEMIER
62216
LICENSED
PROFESSIONAL ENGINEER
Thomas Edward Hegemier
12/20/2018

Designed: ZX
Drawn: OF
Reviewed: TH
Date: 12/20/2018

SHEET
5
OF 5

Project No.: 1840-002

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