

STORMWATER CONVEYANCE

OPERATION & MAINTENANCE MANUAL

LOT 4, BLOCK 3 – JESSE'S BLUFF 1ST ADDITION

Spokane County Plat No. P-1631A

CLC No. S030155

August 2003

By
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STORMWATER CONVEYANCE AND DRAINAGE PONDS OPERATION & MAINTENANCE MANUAL

1.00 PURPOSE

This document is intended to provide general operations and maintenance guidelines for the drainage conveyance system located on Lots 4 & 5 of Block 3 of Jesse's Bluff 1st Addition and Tract B of Jesse's Bluff. Implementation of these guidelines will insure that the drainage system installed will function as intended in the design.

2.00 INTRODUCTION

The drainage system was designed to remove closed depression drainage from Lots 4,5 & 6 of Block 3 of Jesse's Bluff 1st Addition. The drainage system consists of 4 Nyoplast 12" inline drains and 10" HDPE storm pipe. The system collects storm water and conveys it northeasterly to southwesterly direction into Pond B located in Tract B of Jesse's Bluff. The drainage facilities are straight forward, and it is of the utmost importance to provide adequate operations and maintenance activities to insure that the drainage system remains silt or dirt free, as this silt or dirt loading will affect the performance of the system. If these facilities were to become completely clogged, the only remedy would be complete reconstruction of the drainage facilities. Periodic maintenance will ensure a continually functioning system. A full set of engineering drawings is available for review at Spokane County Public Works under County file P-1631A. A site layout exhibit is provided in the Appendix of this document.

3.00 GENERAL OPERATIONAL CHARACTERISTICS

The drainage system is generally, straight forward, functional, with low maintenance requirements. A periodic visual inspection of the facilities will identify most of the required maintenance. Most maintenance will consist of keeping the pipes and structures free of debris and sediment. A specific inspection schedule is recommended. See Section 4.0 for recommended maintenance schedules.

3.10 Drainage Structures and Storm Pipes

The drainage system consists of Nyoplast inline drains and 10" HDPE storm pipe. The inlets and stormpipe convey the closed depression storm water collected in lots 4 & 5 to Pond B located in Tract B of Jesse's Bluff. See site layout exhibit for specific design information.

4.00 MAINTENANCE REQUIREMENTS AND SCHEDULES

Below is a maintenance description for each of the drainage system elements contained within Lots 4 & 5 of Jesse's Bluff 1st Addition and Pond B in Tract B of Jesse's Bluff. The drainage system located in Lots 4 & 5 of Block 3 of Jesse's Bluff 1st Addition and Tract B of

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Jesse's Bluff is to be maintained by the homeowner of Lot 4, Block 3 of Jesse's Bluff 1st Addition. The drainage system is to be constructed within an easement so that the maintenance can be accomplished on Lot 5 and Tract B of Jesse's Bluff 1st Addition and Jesse's Bluff.

The homeowner shall provide to Spokane County Engineers Office the name, address, and 24-hour telephone number for the entity responsible for performing routine and emergency maintenance inspections and repairs. This information shall be confirmed on a yearly basis. The homeowner shall provide notice of any changes to Spokane County Engineers Office within 15 days of said changes.

4.10 General

Proper maintenance procedures are necessary for the continued functioning of the drainage facilities. Improper maintenance, or lack of attentive maintenance measures, may result in negative drainage impacts.

Generally, maintenance consists of a visual inspection of the drainage facilities immediately following a substantial rainfall event or snowmelt event. Substantial events include.

- Noticeably hard rain for a short period (30 minutes or more),
- Steady rain for a long period (6 hours or more), or
- Significant rainfall and/or snowmelt when the ground is frozen.

For long duration storms, (longer than 24 hours), inspection of the drainage system is recommended periodically during the storm event to identify any developing problems and correct them before they become major problems. The above noted storm related visual inspections are in addition to the maintenance schedules noted below for each item.

4.20 Drainage Structures and Storm Pipes

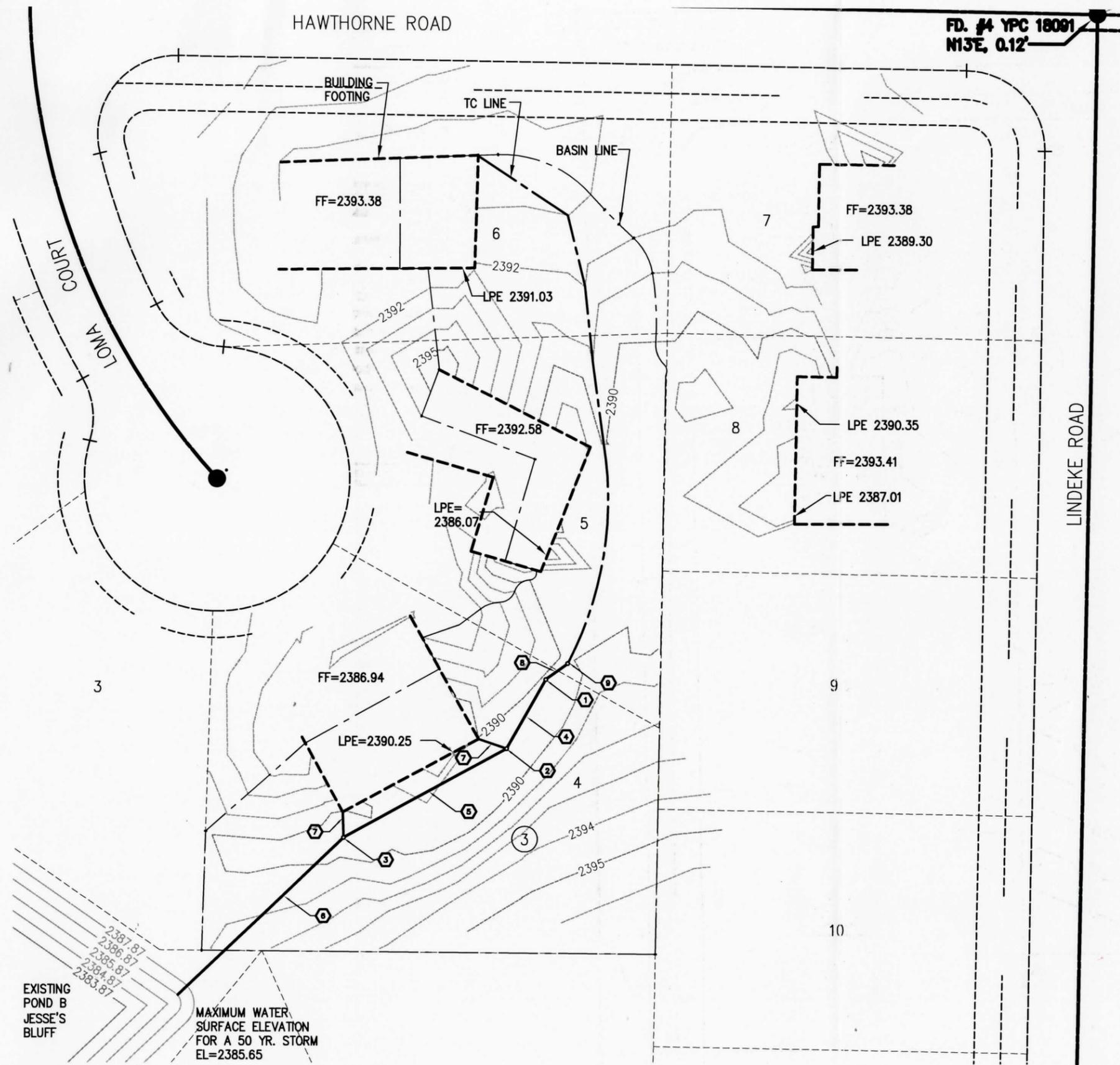
Inline drains and storm pipes should be inspected every 3 months, or after every significant storm event (½") and/or snowmelt event, whichever is more frequent. Visually inspect the pipes, inlets and outlets, making sure they are clear of debris and checking that the pipe is in good condition, without breaks or cracks. If there is any obstruction present it should be removed immediately. A flow test in the pipe can be used to readily detect major obstructions or breaks in the pipe. This test requires a water source (household water spigot and hose) and a person at the downstream end of the pipe observing the flow exiting out of the pipe section. All inline drains should be flushed every 6 months and checked for blockage.

**STORMWATER CONVEYANCE AND DRAINAGE PONDS
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TECHNICAL APPENDIX

OVERALL SITE PLAN

J:\LAND PROJECTS\010376\dwg\Loma Court\drainage solution.dwg, 08/19/2003 11:40:52 AM, NATHANPR, 1:2.1569



FD. #4 YPC 18091
N13E, 0.12'

LEGEND

BASIN LINE	---
TC LINE	----
BUILDING FOOTING	-----
PROPERTY LINE	=====

CONSTRUCTION NOTES

- 1 8" NYLOPLAST INLINE DRAIN BY ADVANCED DRAINAGE SYSTEMS. RM=2389.80, E=2387.57.
- 2 8" NYLOPLAST INLINE DRAIN BY ADVANCED DRAINAGE SYSTEMS. RM=2389.80, E=2387.42.
- 3 8" NYLOPLAST INLINE DRAIN BY ADVANCED DRAINAGE SYSTEMS. RM=2389.70, E=2387.07.
- 4 30 L.F. OF 10" HDPE. IE(E)=2387.57, IE(W)=2387.42.
- 5 70 L.F. OF 10" HDPE. IE(SE)=2387.42, IE(NW)=2387.07.
- 6 85 L.F. OF 10" HDPE. IE(SE)=2387.07, IE(NW)=2386.65.
- 7 DOWNSPOTS TO BE TIGHTLINED TO THE INLINE DRAINS.
- 8 9 L.F. OF 10" HDPE. IE(SE)=2387.82, IE(NW)=2387.57.
- 9 8" NYLOPLAST INLINE DRAIN BY ADVANCED DRAINAGE SYSTEMS. RM=2389.80, E=2387.82.

NOTES

CONTRACTOR TO VERIFY EXISTING GROUND ELEVATIONS AND SET RIM ELEVATIONS TO EXISTING GROUND ELEVATIONS.



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ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

DRAINAGE PLAN
DNA CONSTRUCTION

SPOKANE COUNTY, WA



EXPRES 9/24/
PREPARED UNDER THE
DIRECT SUPERVISION OF
TODD R. WHIPPLE
WASHINGTON REGISTRATION
NO. 25462 FOR AND ON
BEHALF OF CLC ASSOCIATES

DATE: 05/19/03
DESCRIPTION: ORIGINAL PREPARATION

DRAINAGE PLAN

PROJECT #: 030155
DRAWN BY: NAP
DESIGNED BY: SKM
CHECKED BY: TRW

NAVD 88 DATUM

CALL UTILITY NOTIFICATION
CENTER OF SPOKANE
456-8000

CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

CAUTION: NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

DEVELOPER'S APPROVAL

DATE



SHEET 1