EXHIBIT D

C and G Property

City of Kirkland, Washington

Preliminary Technical Information Report

Prepared for
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Blueline Job No. 11-070

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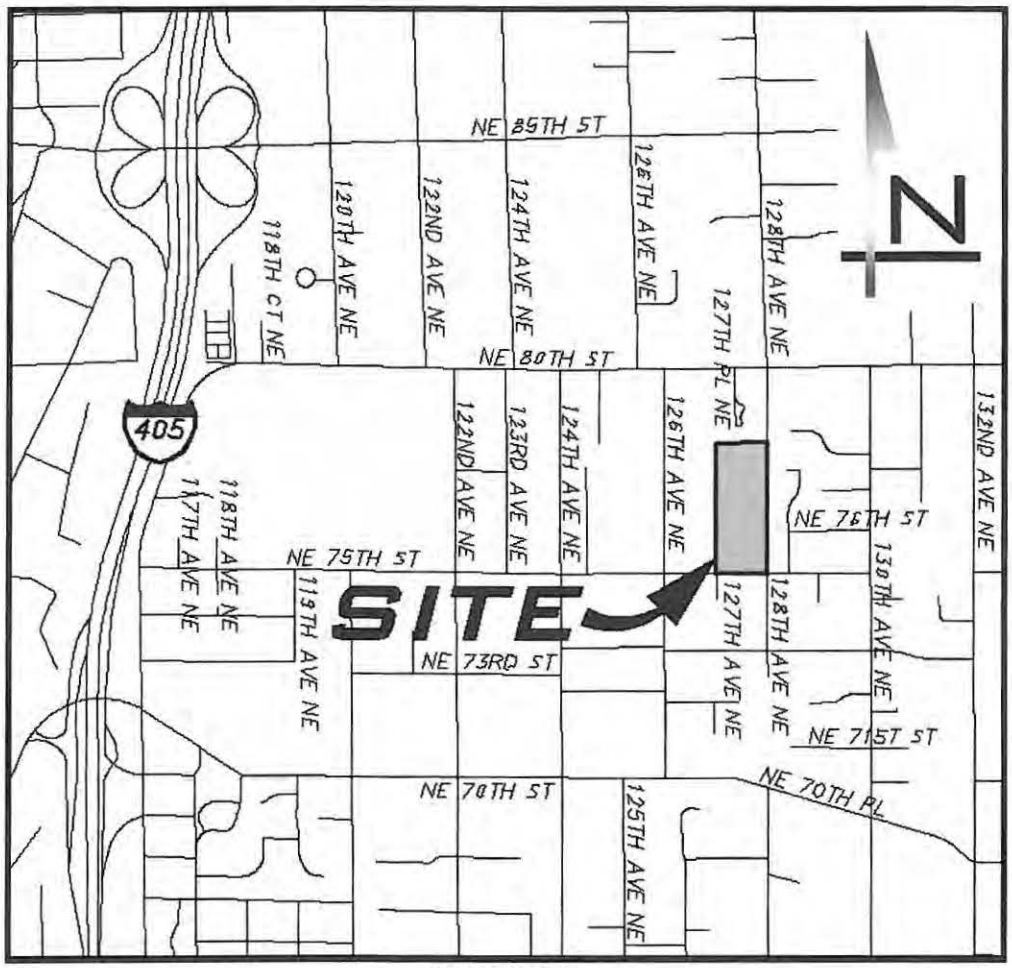
Section 1 Project Overview

The site address is 7707 128th Ave NE, Kirkland, Washington. The nearest cross streets are NE 75th Street and 128th Avenue NE. More generally, the site is located in North East ¼ of Section 9, Township 25 North, and Range 5 East, W.M. Please see the vicinity map below.



Vicinity Map
Not to Scale

The site consists of one parcel (#0925059010) totaling 6.38 acres. There are 4 small existing structures onsite all of which will be removed as part of the development. Currently, surface flow from the site flows north towards NE 127th Place, and into the street's conveyance system.

Proposed development will include the demolition of the existing structures and the creation of 35 lots with associated roadway, utilities, drainage tract, and open space tracts. As part of the development, frontage improvements along NE 75th Street will be installed along with offsite road improvements along 128th Avenue NE between the site and NE 80th Street.

The subject project's drainage facilities were designed using the guidelines and requirements established in the 2009 King County Surface Water Design Manual (2009 KCSWDM) as adopted by the City of Kirkland. "Level 2 Flow Control" and "Basic Water Quality Treatment" are required.

Section 2 Conditions and Requirements Summary

CONDITIONS OF APPROVAL

1. All public improvements associated with this project including street and utility improvements, must meet the City of Kirkland Public Works Pre-Approved Plans and Policies Manual. A Public Works Pre-Approved Plans and Policies manual can be purchased from the Public Works Department, or it may be retrieved from the Public Works Department's page at the City of Kirkland's web site at www.ci.kirkland.wa.us.

2. This project will be subject to Public Works Permit and Connection Fees. At the pre-application stage, the fees can only be estimated. It is the applicant's responsibility to contact the Public Works Department by phone or in person to determine the fees. The fees can also be review the City of Kirkland web site at www.ci.kirkland.wa.us. The applicant should anticipate the following fees:

o Water and Sewer connection Fees (paid with the issuance of a Building Permit)

o Side Sewer Inspection Fee (paid with the issuance of a Building Permit)

o Septic Tank Abandonment Inspection Fee (if required)

o Water Meter Fee (paid with the issuance of a Building Permit)

o Right-of-way Fee

o Review and Inspection Fee (for utilities and street improvements).

o Traffic, Park and School Impact Fee (paid with the issuance of Building Permit). For additional information, see notes below.

3. All street and utility improvements shall be permitted by obtaining a Land Surface Modification (LSM) Permit. If a Building Permit for a new house is applied for prior to applying for the LSM Permit, the Building Permit will not be issued until a complete LSM Permit is applied for.

4. Prior to submittal of a Building or Zoning Permit, the applicant must apply for a Concurrency Test Notice. Contact Thang Nguyen, Transportation Engineer, at 425-587-3869 for more information. A separate Concurrency Permit will be created.

5. Building Permits associated with this proposed project will be subject to the traffic, park, and school impact fees per Chapter 27 of the Kirkland Municipal Code. The impact fees shall be paid prior to issuance of the Building Permit(s).

6. All civil engineering plans which are submitted in conjunction with a building, grading, or right-of-way

permit must conform to the Public Works Policy titled ENGINEERING PLAN REQUIREMENTS. This policy is contained in the Public Works Pre-Approved Plans and Policies manual.

7. All street improvements and underground utility improvements (storm, sewer, and water) must be designed by a Washington State Licensed Engineer; all drawings shall bear the engineers stamp.

8. All plans submitted in conjunction with a building, grading or right-of-way permit must have elevations which are based on the King County datum only (NAVD 88).

9. The required tree plan shall include any significant tree in the public right-of-way along the property frontage.

10. All subdivision recording mylar's shall include the following note:

Utility Maintenance: Each property owner shall be responsible for maintenance of the sanitary sewer or storm water stub from the point of use on their own property to the point of connection in the City sanitary sewer main or storm water main. Any portion of a sanitary sewer or surface water stub, which jointly serves more than one property, shall be jointly maintained and repaired by the property owners sharing such stub. The joint use and maintenance shall "run with the land" and will be binding on all property owners within this subdivision, including their heirs, successors and assigns.

Public Right-of-way Sidewalk and Vegetation Maintenance: Each property owner shall be responsible for keeping the sidewalk abutting the subject property clean and litter free. The property owner shall also be responsible for the maintenance of the vegetation within the abutting landscape strip. The maintenance shall "run with the land" and will be binding on all property owners within this subdivision, including their heirs, successors and assigns.

Sanitary Sewer Conditions:

1. There is existing sewer main on the north and south end of this property. The developer shall design a sewer main extension(s) that provides a 6-inch minimum gravity side sewer connection to each lot.

2. If the sewer main extension is outside of the public right-of-way, it shall be encompassed in a 20 foot wide public sanitary sewer easement.

Water System Conditions:

1. There is inadequate fire flow in and around the project site. A fire flow analysis will need to be conducted, but it appears that at a minimum, the 6-inch water mains along NE 75th Street and 128th Ave. NE will need to be replaced with new 8-inch water mains; this includes the existing 6-inch main along the east property line. When the new water system is designed, the new access road shall contain an 8-inch minimum main that loops through between NE 75th St and NE 80th St.

2. Provide a separate 1" minimum water service from the water main to the meter for each lot; City of Kirkland will set the water meter.

Surface Water Conditions:

2009 KCSWDM - The entire drainage report shall be submitted with the PUD application.

1. Provide temporary and permanent storm water control per the 2009 King County Surface Water Design Manual and the Kirkland Addendum. See Policies D-2 and D-3 in the PW Pre-Approved Plans for drainage review information, or contact city of Kirkland Surface Water staff at (425) 587-3800 for help in determining drainage review requirements. Summarized below are the levels of drainage review based on site and project characteristics:

" Full Drainage Review
" A full drainage review is required for any proposed project, new or redevelopment, that will:
" Add or replaces 5,000ft^2 or more of new impervious surface area,
" Propose 7,000ft^2 or more of land disturbing activity, or,
" Be a redevelopment project on a single or multiple parcel site in which the total of new plus replaced impervious surface area is 5,000ft2 or more and whose valuation of proposed improvements (including interior improvements but excluding required mitigation and frontage improvements) exceeds 50% of the assessed value of the existing site improvements.

2. Evaluate the feasibility and applicability of dispersion, infiltration, and other stormwater low impact development facilities on-site (per section 5.2 in the 2009 King County Surface Water Design Manual).

If feasible, stormwater low impact development facilities are required. See PW Pre-Approved Plan Policy L-1 for more information on this requirement.

3. Because this project site is one acre or greater, the following conditions apply:
" Amended soil requirements (per Ecology BMP T5.13) must be used in all landscaped areas.
" If the project meets minimum criteria for water quality treatment (5,000ft2 pollution generating impervious surface area), the enhanced level of treatment is required if the project is multi-family residential, commercial, or industrial. Enhanced treatment targets the removal of metals such as copper and zinc.
" The applicant is responsible to apply for a Construction Stormwater General Permit from Washington State Department of Ecology. Provide the City with a copy of the Notice of Intent for the permit. Permit Information can be found at the following website:
http://www.ecy.wa.gov/programs/wq/stormwater/construction/
o Among other requirements, this permit requires the applicant to prepare a Storm Water Pollution Prevention Plan (SWPPP) and identify a Certified Erosion and Sediment Control Lead (CESCL) prior to the start of construction. The CESCL shall attend the City of Kirkland PW Dept. pre-construction meeting with a completed SWPPP.
" Turbidity monitoring by the developer/contractor is required if a project contains a lake, stream, or wetland.
" A Stormwater Pollution Prevention and Spill (SWPPS) Plan must be kept on site during all phases of construction and shall address construction-related pollution generating activities. Follow the guidelines in the 2009 King County Surface Water Design Manual for plan preparation.

4. The storm water detention system shall be designed to Level II standards. Historic (forested) conditions shall be used as the pre-developed modeling condition.

5. Storm detention calculations for the entire site are required.

6. Any off-site storm water must by-pass the on-site storm water detention system or accounted for in the design of the detention system.

7. The developer has been given notice that the Army Corps of Engineers (COE) has asserted jurisdiction over upland ditches draining to streams. Either an existing Nationwide COE permit or an Individual COE permit may be necessary for work within ditches, depending on the project activities. Applicants should

obtain the applicable COE permit; information about COE permits can be found at: U.S. Army Corps of Engineers, Seattle District Regulatory Branch
http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_NWPs

Specific questions can be directed to: Seattle District, Corps of Engineers, Regulatory Branch, CENWS-OD-RG, Post Office Box 3755, Seattle, WA 98124-3755, Phone: (206) 764-3495

8. Provide an erosion control report and plan with Building or Land Surface Modification Permit application. The plan shall be in accordance with the 2009 King County Surface Water Design Manual.

9. Construction drainage control shall be maintained by the developer and will be subject to periodic inspections. During the period from May 1 and September 30, all denuded soils must be covered within 7 days; between October 1 and April 30, all denuded soils must be covered within 12 hours. Additional erosion control measures may be required based on site and weather conditions. Exposed soils shall be stabilized at the end of the workday prior to a weekend, holiday, or predicted rain event.

10. Provide collection and conveyance of right-of-way storm drainage

11. Unless the lot is not connected to the storm system (it is using infiltration instead), then as part of the roof and driveway drainage conveyance system for each new house, each lot shall contain a 10 ft. long (min.) perforated tight line connection with an overflow to the public storm drain system (COK Plan No. CK-D.39). The tight line connections shall be installed with the individual new houses.

12. Provide a separate storm drainage connection for each lot.

Street and Pedestrian Improvement Conditions:

1. The subject property abuts NE 75th Street, a Neighborhood Access type street. In addition, the project requires a public road for access built to Neighborhood Access design standards. Zoning Code sections 110.10 and 110.25 require the applicant to make half-street improvements in rights-of-way abutting the subject property. Section 110.30-110.50 establishes that this street must be improved with the following:

NE 75th St

A. Widen the street to 28 ft. from the existing curb on the south side of the street to the new face of curb; the new curb should align with the existing curb to the east.

B. Install storm drainage, curb and gutter, a 4.5 ft. planter strip with street trees 30 ft. on-center, and a 5 ft. wide sidewalk.

C. Dedicate right-of-way to encompass the said improvements.

New Access Road

D. Dedicate a minimum of 45 ft of right-of-way through the property and install a 24 ft wide street (R-24 standard) with storm drainage, curb and gutter, landscape strip with street trees 30 ft on-center, and 5 ft wide sidewalks each side.

E. The new access road shall connect NE 75th Street to NE 80th Street. The portion of the connection that will be located in the 128th Ave. NE ROW shall be improved with same improvements as noted within the project.

F. The intersections at NE 80th Street and NE 75th Street shall be analyzed within the traffic study.

2. The proposed private access tracts shall meet the standards within chapter 105 of the KZC.

3. A 2-inch asphalt street overlay will be required where three or more utility trench crossings occur within 150 lineal ft. of street length or where utility trenches parallel the street centerline. Grinding of the existing asphalt to blend in the overlay will be required along all match lines.

4. The driveway for each lot shall be long enough so that parked cars do not extend into the access easement or right-of-way (20 ft. min.)

5. All street and driveway intersections shall not have any visual obstructions within the sight distance triangle. See Public Works Pre-approved Policy R.13 for the sight distance criteria and specifications.

6. Prior to the final of the building or grading permit, pay for the installation of stop and street signs at the new intersections.

7. The City may require the installation of "NO PARKING ANYTIME" signs along one side of the new street depending on driveway locations.

8. Install new monuments at the new intersections and all other points as directed by the land surveyor.

9. It shall be the responsibility of the applicant to relocate any above-ground or below-ground utilities which conflict with the project associated street or utility improvements.

10. Underground all new and existing on-site utility lines and overhead transmission lines.

11. New street lights may be required per Puget Power design and Public Works approval. Contact the INTO Light Division at PSE for a lighting analysis. If lighting is necessary, design must be submitted prior to issuance of a grading or building permit.

Fire Department Conditions

1. Fire department access roads are required when any portion of exterior wall of first story is located more than 150 feet from fire apparatus access.

Requirements for the new main access shall be as determined by the Public Works Department. For those access tracts serving 3 or 4 lots, the unobstructed paved width shall be 20 feet minimum. If this cannot be provided, the houses on those lots may be sprinklered.

2. Additional hydrants shall be installed to meet the requirements of Kirkland Fire Department Operating Policy 4. There shall be a hydrant within 300 feet of the front of any building lot. All hydrants, both existing and new, which will serve the property shall be equipped with 5" Stortz adapters.

Fire flow in the area is less than 1,000 gpm and is inadequate. Upgrades to the water system which are required in order to improve fire flow to adequate levels shall be determined by the Public Works Department.

CORE REQUIREMENTS

Core Requirement #1: Discharge at the Natural Location

Discharge from the site is to the existing natural discharge location. See Section 3 of this report for the downstream Analysis.

Core Requirement #2: Off-site Analysis

See Section 3 of this Report for the offsite analysis.

Core Requirement #3: Flow Control

See Section 4 of this Report for design of the flow control facility. See Preliminary Civil Plans under separate cover for location of the flow control facility.

Core Requirement #4: Conveyance System

Sizing of the proposed conveyance system will be completed during final design. A preliminary layout of the conveyance system is shown on the Preliminary Civil Plans under separate cover.

Core Requirement #5: Erosion and Sediment Control

This Core Requirement will be address during final design.

Core Requirement #6: Operations and Maintenance

This Core Requirement will be address during final design.

Core Requirement #7: Financial Guarantees and Liability

This Core Requirement will be address during final design.

Core Requirement #8: Water Quality

See Section 4 of this Report for design of the water quality treatment facility. See Preliminary Civil Plans under separate cover for location of the water quality treatment facility.

Section 3 Offsite Analysis

Resource Review

The best available resource information was reviewed for existing or potential problems. The following is a summary of the findings.

- The site does not contain any identified Wetlands.
- The site is located near Streams and/or Flood Plains.
- The site is not located in an Erosion Hazard Area.
- The site is not located in a Landslide Hazard Area.
- The site is not located in a Seismic Hazard Area.
- Drainage complaints dated prior to 1996 have been archived and were not immediately available from DDES. There is one drainage complaint immediately past the ¼ mile downstream point. This complaint has been closed as it was due to a maintenance issue. The following is a brief description of the downstream drainage complaints.

  1978-0053: Fill material blocking the natural drainage swale.

Upstream Basin

There is an upstream basin to the site that totals approximately 4.84 acres. All upstream flows are conveyed to the site via a 24" culvert that discharges onto the south end of the middle portion of the site. This culvert is over 80% buried. The upstream flows shall be collected and bypassed to the natural discharge location at the north end of the site in the developed condition

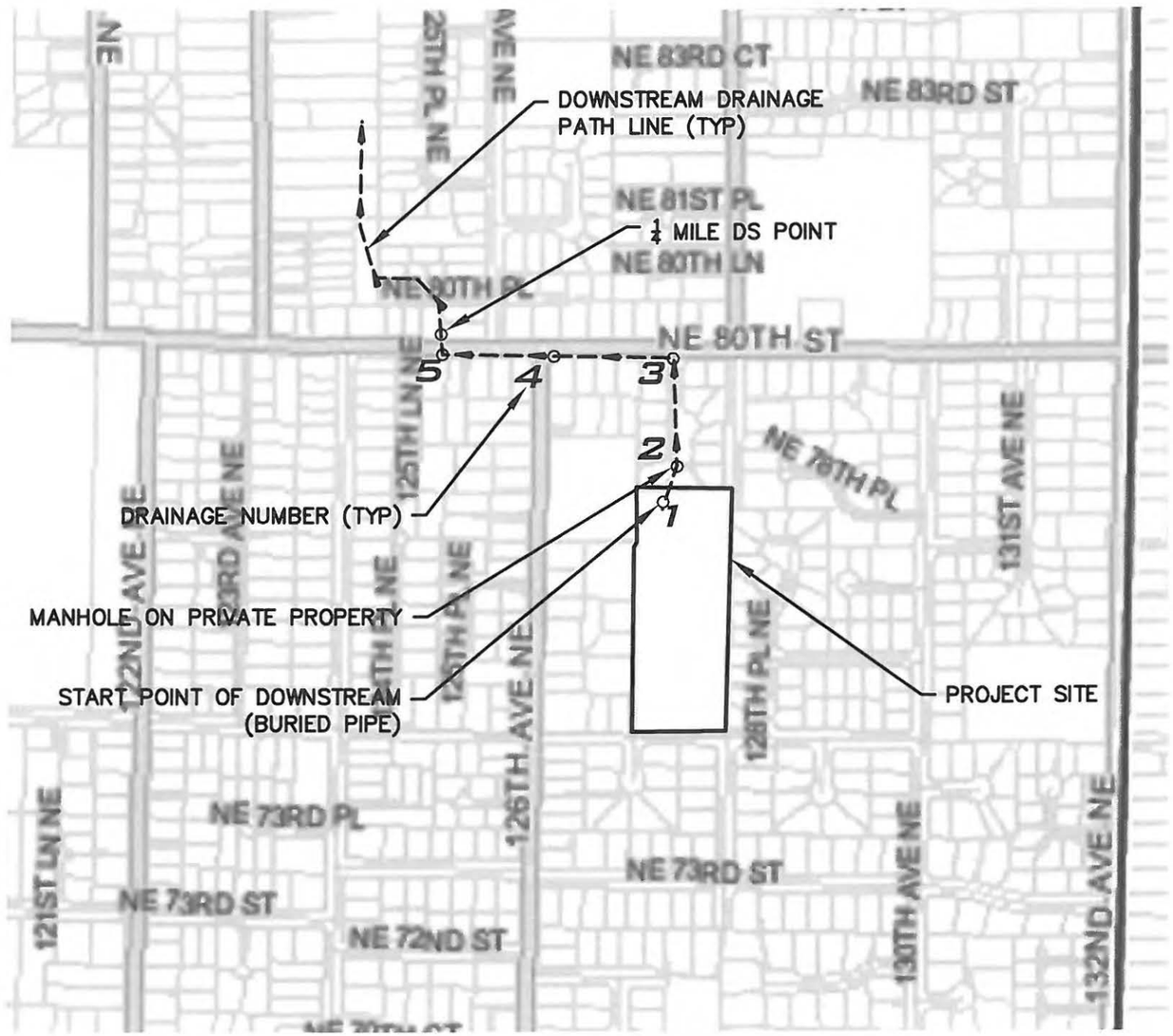
Field Investigation

A field investigation was conducted on Tuesday, February 28th, 2012, on an overcast and cold day with a temperature of approximately 41 degrees.

The existing ground cover is predominantly lawn with a few groupings of trees on the north and south end of the project. In the existing conditions, drainage generally flows towards the northern portion of the subject property where it is collected by a buried 12" concrete pipe located centrally at the north end of the subject site.

This 12" concrete pipe conveys the flows north approximately 20 feet north to a manhole on the south end of the cul-de-sac on 127th Place NE. From here the flows travel 520 feet north through a series of

12" concrete pipe and catch basins until it reaches NE 80th St. From here the flows turn west and travel approximately 490 feet via catch basins and 12" concrete pipe. From here, the flows continue west in a 12" corrugated metal pipe (CMP). The flows then meet at a catch basin with tributary flows to the west, turn north via 12" CMP, and drain to a manhole. This manhole has a restrictor in place, with an overflow that sheetflows on to adjacent properties. This manhole marks the end of the ¼ mile downstream point. There was no other evidence of erosion or overtopping along the downstream drainage path to the ¼ mile downstream point.



N

SCALE: 1" = 500'

0 125 250 500

BLUELINE

DOWNSTREAM DRAINAGE EXHIBIT
C AND G PROPERTY
KIRKLAND, WA

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SCALE	1" = 500'
PROJECT MANAGER	TODD OBERG, PE
DESIGNED BY	CORY TAYLOR, EIT
DRAWN BY	CORY TAYLOR, EIT
DATE	06/11/2012

JOB NUMBER: 11-070

FIGURE: DS

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Drainage Course Pictures

Looking East at the northern part of the site, mostly pervious land near the buried outlet pipe.

Looking South at the manhole that connects the buried 12" concrete pipe

Looking NorthWest on 80th St.

Looking West on 8-0th St where the 12" Concrete pipe changes to 12" CMP.

Looking North on NE 80th St.

OFF-SITE ANALYSIS DRAINAGE SYSTEM TABLE
SURFACE WATER DESIGN MANUAL, CORE REQUIREMENT #2

Basin: Juanita Creek **Subbasin Name:** Cedar River / Lake Washington **Subbasin Number:** 8

Symbol	Drainage Component Type, Name, and Size	Drainage Component Description	Slope	Distance from site discharge	Existing Problems	Potential Problems	Observations of field inspector, resource reviewer, or resident
see map	Type: sheet flow, swale, stream, channel, pipe, pond; Size: diameter, surface area	drainage basin, vegetation, cover, depth, type of sensitive area, volume	%	¼ ml = 1,320 ft	constrictions, under capacity, ponding, overtopping, flooding, habitat or organism destruction, scouring, bank sloughing, sedimentation, incision, other erosion		tributary area, likelihood of problem, overflow pathways, potential impacts
See Map (1)	Interflow catchment	Vegetated Cover; Interflow to be caught by the buried pipe underground.	-	0 ft	None Observed	None	None
See Map (2)	12" Concrete Pipe	Starts onsite, and proceeds north; Covered by 7th Place NE	0-2%	520 ft	None Observed	None	None
See Map (3)	12" Concrete Pipe	NE 80th Street	0-2%	520-1,010 ft	None Observed	None	None
See Map (4)	12" Corrugated Metal Pipe (CMP)	NE 80th Street	0-2%	1,010-1325 ft (this concludes the ¼ mile downstream point)	None Observed	None	None
See Map (5)	18" CMP	NE 80th Street		1,325–1,385 ft	None Observed	None	None

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