

KITTITAS COUNTY DEPARTMENT OF PUBLIC WORKS

GRADING PERMIT APPLICATION

Application for: Grading Permit \$1,215.00 Payment Method: Cash Check # 4190
 Credit Card

Owner Name Snopass SF Lofts LLC
Mailing Address 401 N 36th Street, Suite 201
Seattle, WA 98103
Phone Number 425-404-1811
Email Address ian@evolutionprojects.com

Permit # GP-21-00010

Applicant Name Snopass SF Lofts LLC
Mailing Address 401 N 36th Street, Suite 201
Seattle, WA 98103
Phone Number 425-404-1811
Email Address ian@evolutionprojects.com

DATE STAMP

Engineer Name Costa Philippides
Engineer Firm Encompass Engineering & Surveying
Mailing Address 165 NE Juniper St., Suite 201
Issaquah, WA 98027
Phone Number 425-392-0250
Email Address costap@encompasses.com

Tax Parcel Information

Situs Address: ###135 Cedar LN & ###135 Pine LN, Snoqualmie Pass
Map Number and Tax Parcel Number: 22-11-04052-0101 142436
Property size: 78,639 SF, 1.81 (acres)

Project Details

1. Is project within a Critical Area:

Floodplain Habitat Conservation Areas
 Wetland Geologic Hazardous Area

2. Is project within 200' of a Shoreline of the State: Yes No

3. Project Information:

Maximum fill depth: 31.5 (feet) Maximum cut depth: 28 (feet)
Quantity of fill: 20,000 (cubic yards) Quantity of excavation: 25,000 (cubic yards)
Maximum fill slope: 2:1 (feet) Maximum cut slope: 2:1 (feet)

Categories

Components

- Structure
- Road
- Bridge / Culvert
- Levee
- Stream Bank / Channel
- Irrigation Structure
- Habitat Enhancement
- Utilities
- Subdivision (new or expansion)

- Excavation
- Fill
- Channelization
- Grading
- Clearing
- Mining and Dredging
- Drilling
- Wetland Impact
- Other: _____

4. Grading plan type: Regular Engineered

*Please note that Grading Permits over 500 Cubic Yards require Engineered Plans for review by Public Works and a SEPA application through Community Development Services (CDS). Please contact CDS at 509-962-7506 to complete this application.

Dept. of Public Works

Grading plan checklist:

- Easily reproducible scale on the plan of appropriate size depicting location and details of all cuts and all fills including depth and finished slopes of all cuts and all fills.
- General vicinity map of the area.
- North arrow.
- Subject property boundary lines, existing and proposed roads or driveways, easements, natural or manmade bodies of water and drainages, critical areas, shorelines, floodplains, and any existing or proposed structures, wells or septic systems on the site, and the distance between such features.
- Bodies of water, critical areas, structures, wells and septic systems on adjacent property and lying within 50 feet of the subject grading activity boundary that could be affected by the proposed grading operations.
- Maps drawn with contour intervals that adequately depict existing and proposed slopes for the proposal.
- Total quantities, in cubic yards, and type of cut and fill material, including on-site grading material, and imported material.
- Cross section drawings that include:
 - Maximum depth of fill and maximum height of cuts.
 - Existing and proposed buildings and their setbacks from cut or fill slopes.
 - Existing grades extending a minimum of twenty (20) feet beyond the scope of work.
 - Finished grades of cuts and fills extending a minimum of twenty (20) feet beyond the scope of work.
 - Retaining walls and the adjacent grade at least twenty (20) feet on either side of the wall(s).
 - Grades of all existing cut and fill areas expressed as a ratio of horizontal to vertical slope.
- The disposal site for excavated material. Offsite disposal may require a separate grading permit.
- The location of proposed erosion and sedimentation control measures showing compliance with the requirements of WDOE Stormwater Management Manual for Eastern Washington.
- Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams, berms, settling ponds, or other water or erosion control devices to be utilized as a part of the proposed work.
- Any recommendations included in an engineering geology or geotechnical assessment or report for grading or developing the property. If required, assessment and reports shall be completed in compliance with KCC 17A Critical Areas.

5. List all applicable local, state, and federal permits and indicate whether they were issued, waived, denied or pending. NPDES Permit with DOE (Not yet applied for)

6. Project description and additional project information (attach additional sheets if necessary): This project proposes to grade the existing lots to create building pads for future houses. A new road and utilities will also be constructed as part of the project.

AUTHORIZATION

Application is hereby made for permit(s) to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed and or completed work. I also acknowledge that said fee for this application includes 5 hours of review and any work beyond hours included in said fee will be billed monthly at an hourly rate of \$243.00.

All correspondence and notices will be transmitted to the Land Owner of Record and copies sent to the authorized agent, as applicable.

Signature of Authorized Agent:
(REQUIRED if indicated on application)

Date:

X _____

Signature of Land Owner of Record
(Required for application submittal):

Date:

X Byrce Phillips
6/8/2021 8:25:40 AM PDT

06/08/2021



DRAINAGE REPORT

For

Ski Acres Estates Lots 6-11 & 23-24

June 4, 2021



**Prepared by:
Ian Dahl**

Encompass Engineering Job No. 20264

Prepared For:

**Bryce Phillips
Snopass SF Lofts LLC
401 North 36th Street, Suite 201
Seattle, WA 98103**

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Appendix A

Operation and Maintenance Manual

I. PROJECT OVERVIEW

Project: Ski Acres Lots 6-11 & 23-24
Site Address: 538135 Cedar Ln Snoqualmie Pass
 548135 Cedar Ln Snoqualmie Pass
 398135 Pine Ln Snoqualmie Pass
 388135 Pine Ln Snoqualmie Pass
 378135 Pine Ln Snoqualmie Pass
 408135 Pine Ln Snoqualmie Pass
 418135 Pine Ln Snoqualmie Pass
 368135 Pine Ln Snoqualmie Pass
Kittitas County Tax Parcel: 538135, 548135, 398135, 388135, 378135, 408135, 418135, 368135
Site Area: 78,639 SF (1.81 Acres)
Zoning District: LAMIRDs Type 1- Residential

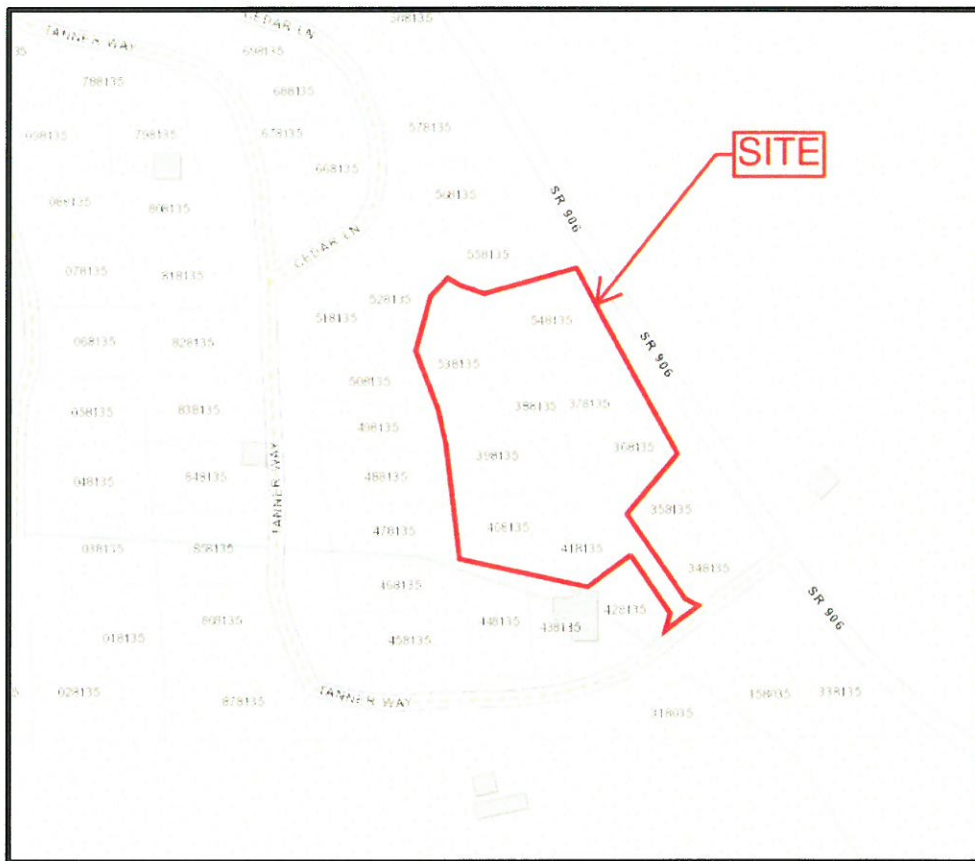


Figure 1: Vicinity Map

Existing Site Conditions:

This project is located in unincorporated Kittitas County on eight lots zoned as LAMIRDs Type 1- Residential located near Snoqualmie Pass, Washington. The site is located on the north side of Tanner Way, adjacent to a gravel parking area near the Silver Fir Lodge at the Summit at Snoqualmie ski resort. All of the lots are undeveloped, and currently in a forested condition. Slopes on the site are steep in some locations, ranging from 5-50% with a high point located in the central portion of the site.

Stormwater on the project site leaves the site in three drainage basins which converge within ¼ mile downstream. Runoff from the western portion of the site enters Tunnel Creek in a forested ravine and flows off-site to the south through two 36" culverts. Runoff from the central and northeastern portion of the site is collected in a small seasonal stream and enters a 24" concrete culvert which flows off-site to the east under SR 906 and eventually enters Coal Creek. Runoff from the southeastern portion of the site sheet flows onto a gravel parking area, and eventually enters Tunnel Creek. For more information on the existing downstream drainage patterns of the site, see Section III of this report.

Soils: The soils on site have been classified by the United States Geological Survey (USGS) Web Soils Survey as Chinkmin ashy sandy loam, 5 to 30 percent slopes (see Figure 2 below).



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
187	Chinkmin ashy sandy loam, 5 to 30 percent slopes	1.5	100.0%
Totals for Area of Interest		1.5	100.0%

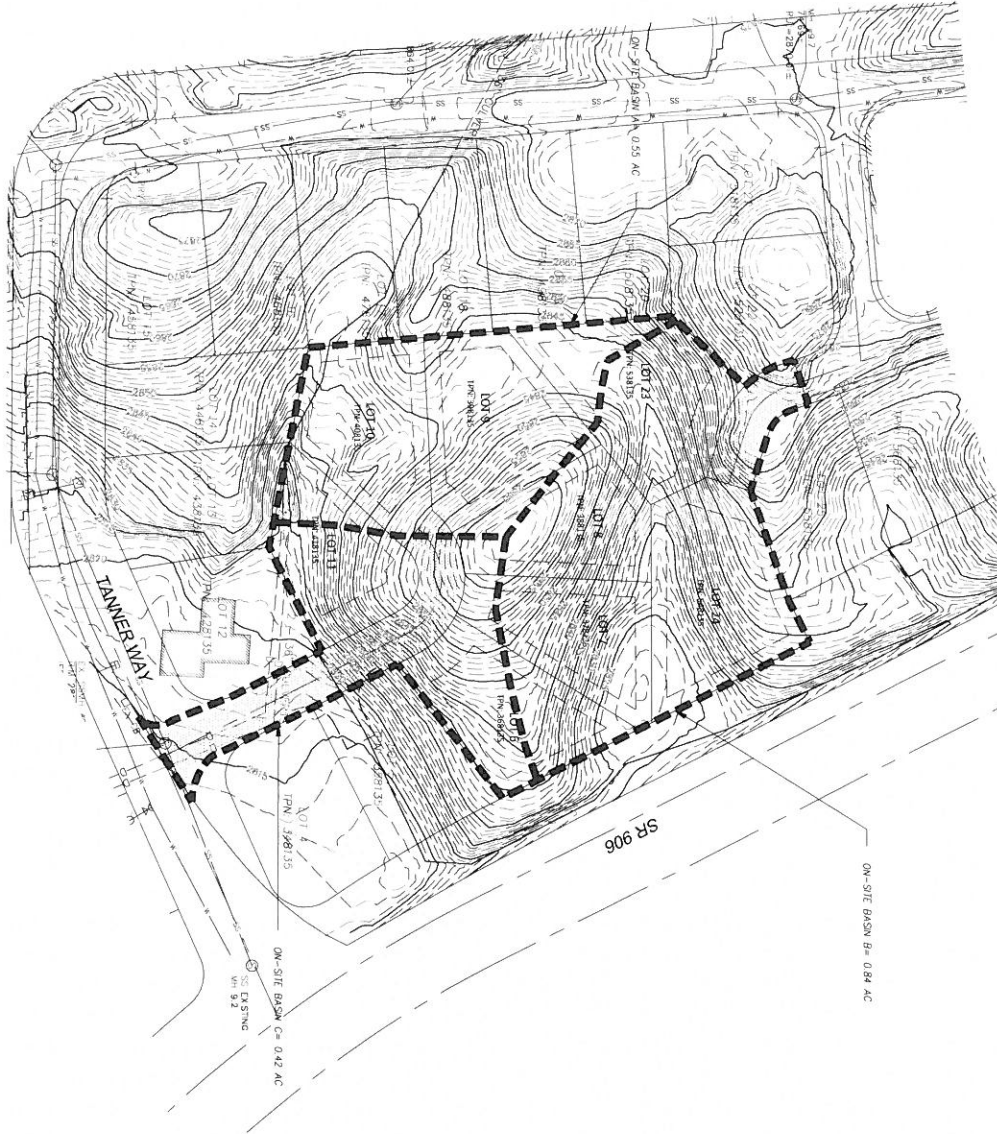
Figure 2: Soils Map and Legend

Developed Site Conditions:

This project proposes the construction of single-family residences on each of the eight lots, as well as associated clearing and grading. The six lots on the southern portion of the site will be accessed by a new residential road, Pine Lane, which will connect to Tanner Way at the southern limit of the site. The two lots on the northern portion of the site will be accessed from an extension of Cedar Lane, an existing residential road just to the north of the site. Impervious surfaces include 9,856 SF of rooftop, 3,718 SF of driveway, 8,265 SF of roadway. The total proposed impervious surface is 21,839 SF.

Stormwater runoff from driveways on the six southern lots as well as the paved roadway on Pine Lane will be collected and conveyed to a water quality treatment vault, before being released into an existing 36" storm culvert near Tanner Way. Stormwater runoff from the proposed rooftop areas will be mitigated with the use of gravel filled infiltration trenches under the driplines of the residences. A Postdeveloped Basin Map is provided as Figure 4 at the end of this Chapter.

SILVER FIR
 SW 1/4 OF SE 1/4 OF SECTION 9, T. 22 N., R. 11 E., W.M.
 KITTITAS COUNTY, STATE OF WASHINGTON



EXISTING CONDITIONS AREAS	
PERMITS =	76,639 SF
TOTAL SITE AREA =	76,639 SF (1.81 AC)
PREDEVELOPED MODELED AREA	
PERMITS (PERMITS) =	1.81 AC
TOTAL AREA =	1.81 AC



KITTITAS COUNTY
 PUBLIC PLANS MAY BE REVIEWED BY ANY MEMBER OF THE PUBLIC.
 KITTITAS COUNTY HAS BEEN ADVISED THAT THIS PLAN IS NOT A FINAL PLAN.
 DIRECTOR OF PUBLIC WORKS



DATE	2024
SCALE	1" = 60'
DESIGNED	JD
CHECKED	JD
APPROVED	JD
SHEET	1 OF 1

Encompass
 ENGINEERING & SURVEYING
 Western Washington Division
 165 NE Impact Blvd., Suite 201 • Everett, WA 98207 • Phone: 425-397-0230
 Eastern Washington Division
 807 Switzinger Blvd. • Cle Elum, WA 98922 • Phone: 509-674-7443

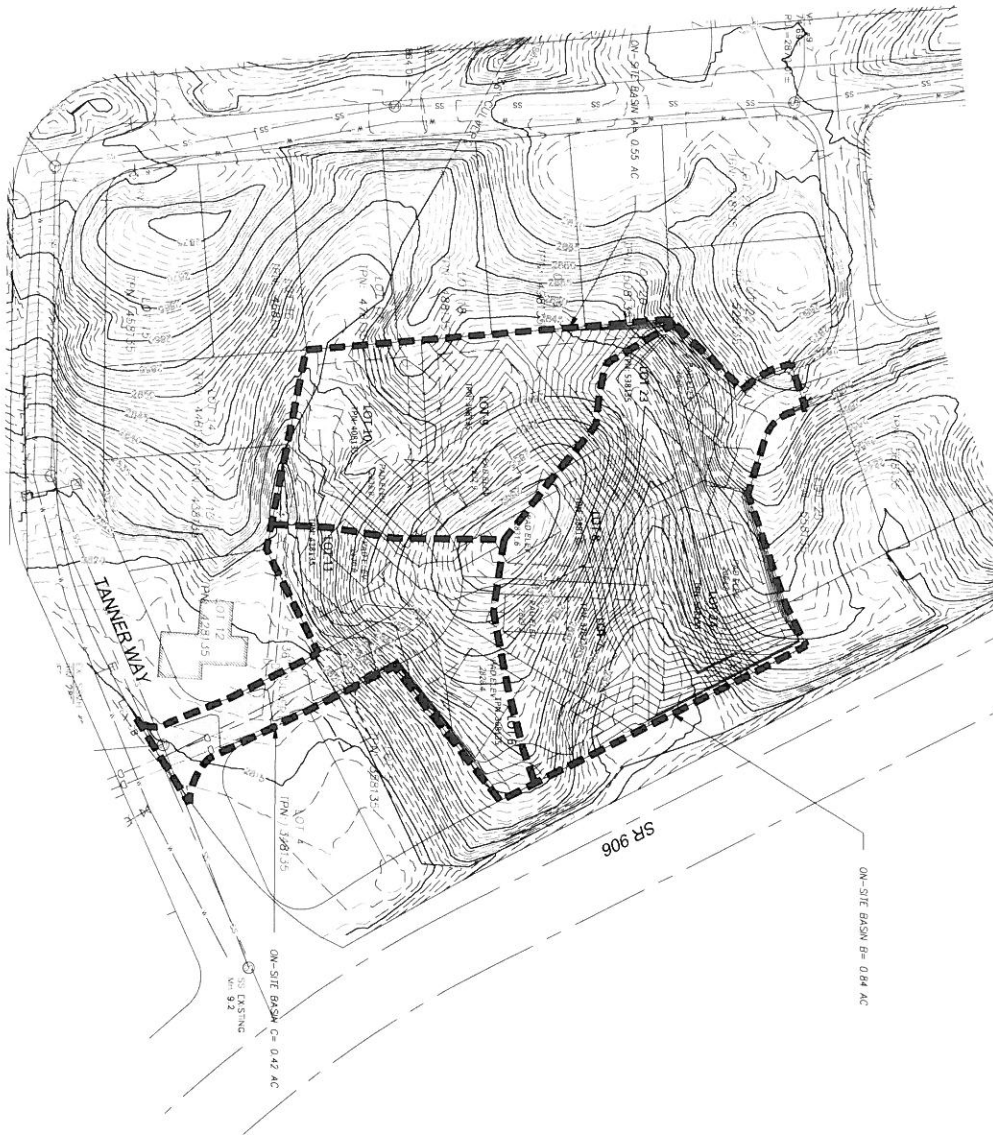
SILVER FIR
 FIGURE 3
PREDEVELOPED CONDITIONS MAP



REVISIONS		
DESCRIPTION	BY	DATE

THE PLANS SET FORTH ON THIS SHEET ARE AND SHALL REMAIN THE PROPERTY OF ENCOMPASS ENGINEERING & SURVEYING.

SILVER FIR
 SW 1/4 OF SE 1/4 OF SECTION 9, T. 22 N., R. 11 E., W.M.,
 KITITAS COUNTY, STATE OF WASHINGTON



POSTDEVELOPED CONDITIONS AREAS	
ROAD TYPE	9.88 AC
ROADWAY	1.18 AC
PERVIOUS	56,800 SF
TOTAL SITE AREA *	78,839 SF (0.81 AC)

POSTDEVELOPED MODELED AREA	
ROAD TYPE	0.21 AC
ROADWAY	0.19 AC
PERVIOUS	0.19 AC
TOTAL AREA*	1.59 AC



KITITAS COUNTY
 APPROVED FOR CONSTRUCTION
 THE PLANS SET FORTH ON THIS SHEET ARE AND SHALL REMAIN THE PROPERTY
 OF THE ENGINEER AND SHALL BE KEPT ON FILE AT THE OFFICE OF THE ENGINEER
 407 S. WASHINGTON ST. SUITE 200, BELLINGHAM, WA 98221
 KITITAS COUNTY

DIRECTION OF PUBLIC WORKS _____ DATE _____



DATE	DESCRIPTION
6/24/21	DESIGNED
7-1-21	CHECKED
7-1-21	APPROVED

SHEET 1 OF 1

Encompass
 ENGINEERING & SURVEYING
 Western Washington Division
 143 N. Longfellow Street, Suite 201 • Bellingham, WA 98221 • Phone: (425) 397-0250
 Eastern Washington Division
 407 S. Washington Blvd. • Cle Elum, WA 98922 • Phone: (509) 674-7431

SILVER FIR
 FIGURE 4
 POSTDEVELOPED CONDITIONS MAP



REVISIONS	DESCRIPTION	
	BY	DATE

II. CORE ELEMENTS

The 2019 Stormwater Management Manual for Eastern Washington (SWMMEW) was used to determine and address the eight core elements.

Core Elements

Core Element #1: Preparation of a Stormwater Site Plan

This Drainage Report, in addition to the Silver Fir Civil Plans complete the Stormwater Site Plan (SSP) in accordance with Chapter 3 of the SWMMEW.

Core Element #2: Construction Stormwater Pollution Prevention

A Construction Stormwater Pollution Prevention Plan (SWPPP) in accordance with Chapter 7 of the SWMMEW will be prepared and submitted under separate cover prior to final approval.

Core Element #3: Source Control of Pollution

Source control BMP's have been selected and included with an Operation and Maintenance Manual in accordance with Chapter 8 of the SWMMEW.

Core Element #4: Preservation of Natural Drainage Systems

Runoff from the proposed development will follow natural drainage patterns and discharge at the predeveloped locations. Stormwater on the project site leaves the site in three drainage basins which converge within ¼ mile downstream. For more information on the existing downstream drainage patterns of the site, see Section III of this report.

Core Element #5: Runoff Treatment

Runoff from 5,865 SF of proposed roadway surface on Pine Lane and 3,013 SF of driveway from the southern six lots will be conveyed to a water quality treatment vault before being released to the existing 36" storm culvert located at the intersection of Pine Ln and Tanner Way. The sizing of this vault will utilize the Water Quality Design Flow Rate as described in Section 2.7.6 of the SMMEW.

Core Element #6: Flow Control

Flow control for rooftop areas will be provided with the use of infiltration trenches located under roof driplines per BMP F6.22 of the 2019 SMMEW. As this project was previously platted for the development of Pine Lane and the extension of Cedar Lane, runoff from these road areas is proposed to discharge directly to their respective natural discharge locations. See Section IV of this Drainage Report for further discussion.

Core Element #7: Operation and Maintenance

An Operation and Maintenance manual will be included with final engineering and will be attached as Appendix A.

Core Element #8: Local Requirements

A snow storage plan is required by the Kittitas County and will be included in the Civil planset.

I. OFF-SITE ANALYSIS

An offsite analysis, per Appendix 3-A of the SWMMEW, has been prepared for the project and is included in this section. The property is located in the Keechelus Lake Drainage Basin, in the Upper Yakima Watershed, and contains three individual drainage basins on-site. A Predeveloped Basin Map is included as Figure 4.

Task 1: Define and Map the Study Area

The area of analysis extends from the site discharge points at the eastern and southern limits of the site to approximately a quarter-mile downstream where Tunnel Creek converges with Coal Creek. A Downstream Map is provided as Figure 5 below.

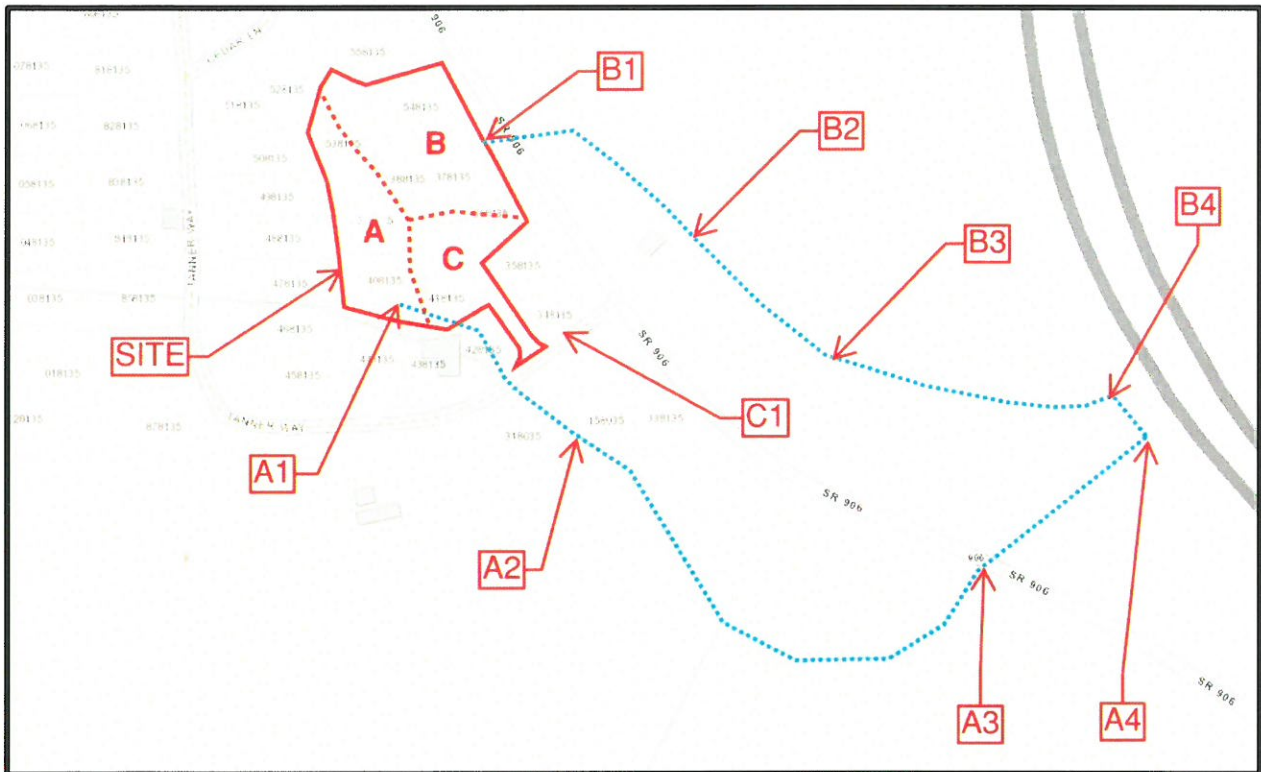


Figure 5: Downstream Map

Task 2: Review All Available Information on the Study Area

Kittitas County COMPAS as well as USGS topographic maps have been reviewed to identify downstream drainage patterns, critical areas, and other relevant information. Tunnel Creek runs through a portion of the site in its southwest corner. No other mapped critical areas were identified.

Task 3: Field Inspect the Study Area

A field inspection was performed by Encompass Engineering & Surveying on Wednesday June 2nd, 2021. The analysis was performed at approximately 9:00 AM under clear conditions with a temperature of about 75°. Soil conditions were observed to be moderately wet in spots, with some snow still remaining on the site. Information collected during this study is included in the Task 4 system description.

Task 4: Describe the Drainage System

Runoff leaves the site in three separate drainage basins, which converge in under ¼ mile downstream. Runoff from Basin A generally sheet flows to the south and west towards Tunnel Creek, which runs through the southwest corner of the site. At a low point in the topography, Tunnel Creek enters two 36" CMP culverts (A1) which conveys the creek off-site to the southeast under Tanner Way and a gravel parking area. The culverts discharge on the south side of the parking area, and the creek continues to the south (A2). At approximately 600 feet downstream of the site, Tunnel Creek converges with Hyak Creek, and the combined creek turns to the northeast and crosses under a bridge on SR 906 (A3). The creek flows to the northeast for another 300 feet before converging with Coal Creek, just to the west of I-90. This is where runoff from Basin A converges with Basin B, at just under ¼ mile downstream of the site.

Runoff from Basin B leaves the eastern portion of the site in a small seasonal stream in a forested ravine. The stream enters a 24" Concrete culvert (B1) and flows to the southeast under SR 906 where it discharges on the east side of the roadway. The stream flows to the south for approximately 250 feet, where it enters an almost completely buried 18" CMP culvert (B2) and flows to the south under a gravel parking area. The culvert discharges south of the parking area, and the stream continues to flow to the south and southeast (B3). This area was not accessible by foot, so the stream was assumed to follow natural contours and deposit into Coal Creek (B4), just upstream of its confluence with Tunnel Creek.

Runoff from Basin C sheet flows down steep slopes on the southeast portion of the site and deposits onto a gravel parking area (C1) near the intersection of SR 906 and Tanner Way, or a roadside ditch along the west side of SR 906 which deposits into the same gravel parking area. No drainage features were identified in this area, and ponding of stormwater likely occurs during storm events. Stormwater will eventually reach the southern side of the parking area, and follow natural features towards Tunnel Creek.

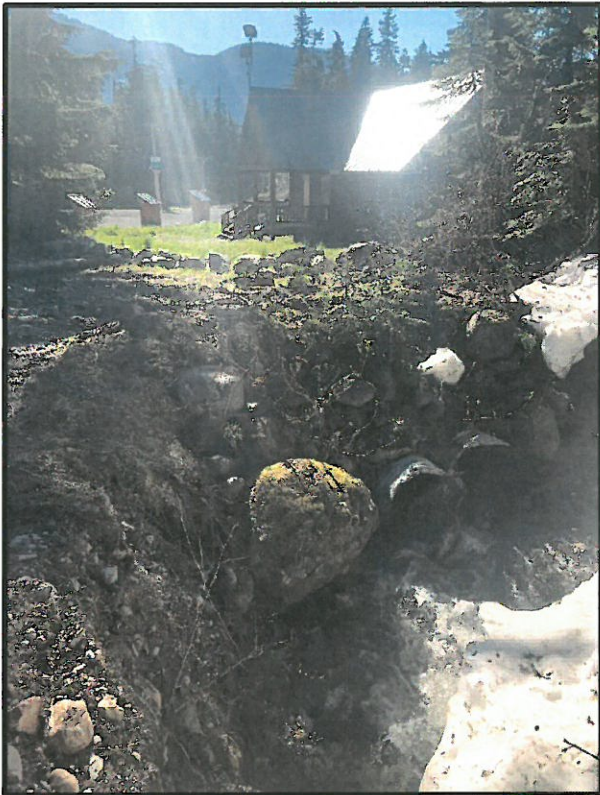
Off-site Analysis Drainage System Table

BASIN:	Keechelus Lake		SUBBASIN NAME:		Basin A	SUBBASIN NUMBER:	N/A
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	%	1/4 Mile = 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
A1	2 CULVERTS	36" CMP	3%	DISCHARGE POINT	NONE	NONE	
A2	CREEK	TUNNEL CREEK	5-25%	200'	NONE	NONE	

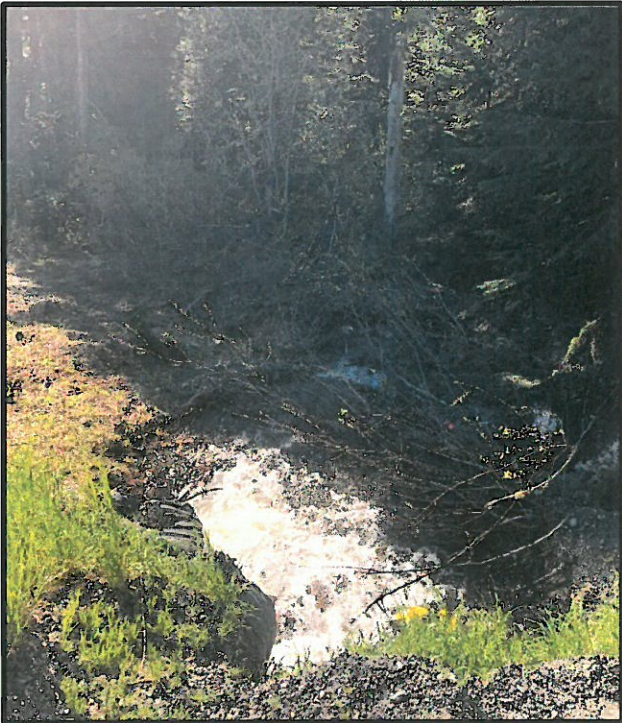
A3	BRIDGE	TUNNEL CREEK FLOWS UNDER SR 906	5%	1000'	NONE	NONE	
A4	CREEK	CONFLUENCE OF TUNNEL AND COAL CREEK	5%	1300'	NONE	NONE	

BASIN:	Keechelus Lake		SUBBASIN NAME:		Basin B		SUBBASIN NUMBER:	N/A
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	%	1/4 Mile = 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	
B1	CULVERT	24" CONCRETE	2%	DISCHARGE POINT	NONE	NONE		
B2	CULVERT	18" CMP	5%	275'	INLET ALMOST COMPLETELY BURIED	FURTHER BLOCKAGE		
B3	STREAM	UNNAMED	5-25%	400'	NONE	NONE		
B4	CREEK	COAL CREEK	2-5%	900'	NONE	NONE		

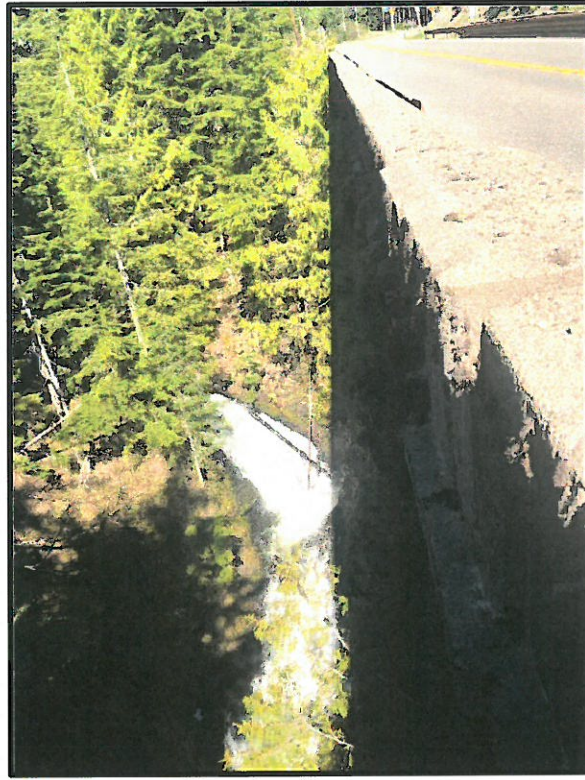
BASIN:	Keechelus Lake		SUBBASIN NAME:		Basin C		SUBBASIN NUMBER:	N/A
SYMBOL	DRAINAGE COMPONENT TYPE, NAME, AND SIZE	DRAINAGE COMPONENT DESCRIPTION	SLOPE	DISTANCE FROM SITE DISCHARGE	EXISTING PROBLEMS	POTENTIAL PROBLEMS	OBSERVATIONS OF FIELD INSPECTOR, RESOURCE REVIEWER, OR RESIDENT	
(See map)	Type: sheet flow, swale, stream, channel, pipe, pond; Size: diameter, surface area	Drainage basin, vegetation, cover, depth, type of sensitive area, volume	%	1/4 Mile = 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	
C1	SHEET FLOW	GRAVEL DRIVEWAY	0-2%	DISCHARGE POINT	LOW POINT WITH NO OUTLET	PONDING	NO DRAINAGE FEATURES FOUND IN GRAVEL LOT	



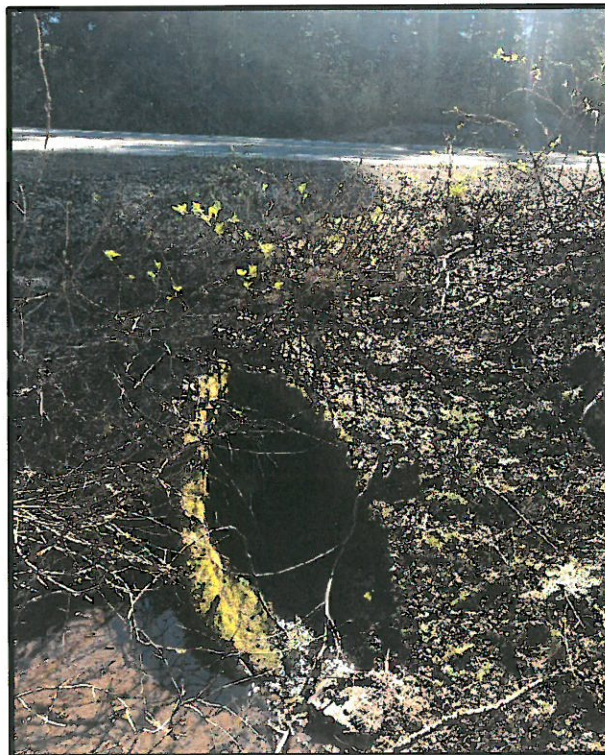
Element A1: Tunnel Creek enters two 36" CMP Culverts



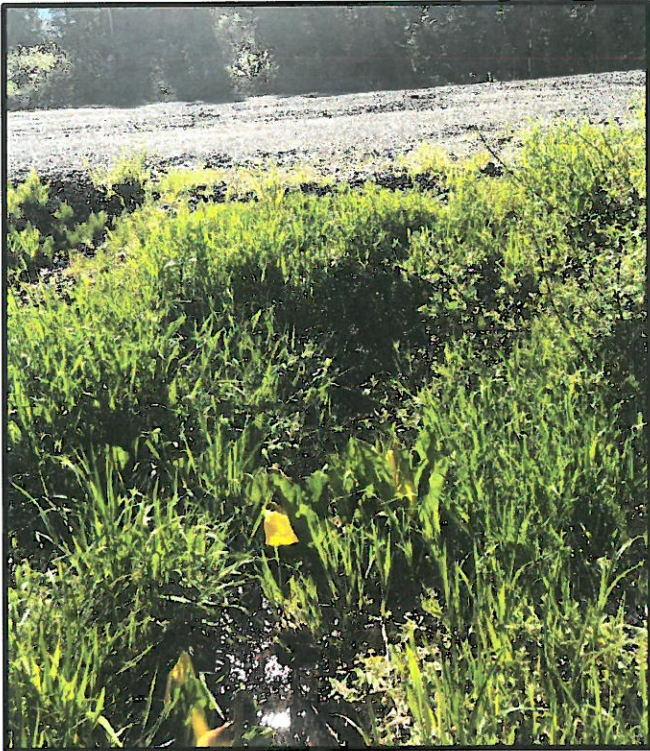
Element A2: CMP culverts discharge to Tunnel Creek



Element A3: Tunnel Creek passes below SR 906 bridge



Element B1: Seasonal creek enters 24" concrete culvert under SR 906



Element B2: Creek enters partially buried 18" CMP culvert



Element C1: Flat gravel parking area at intersection of Tanner Way and SR 906

IV. FLOW CONTROL ANALYSIS AND DESIGN

Flow control for the 9,856 SF rooftop areas on the project site will be provided through the use of gravel filled infiltration trenches. As rooftops in this area do not utilize gutters or downspouts due to the large quantity of snow during winter months, runoff from roof areas will sheet flow directly onto the trench beneath the dripline of the roof overhang and infiltrate into underlying soils. The geotechnical engineering report for the site is not available at this time; therefore, infiltration trenches have not been sized with design infiltration rates. Autodesk Storm & Sanitary Sewer Analysis (SSA) stormwater modeling software will be used to size infiltration facilities for a final design.

As this project was previously platted for the development of Pine Lane and the extension of Cedar Lane, runoff from these road areas is proposed to discharge directly to their respective natural discharge locations. Runoff from Pine Lane and associated driveways will be collected and conveyed to a Type 2 Catch Basin which will discharge to an existing 36" CMP culvert after passing through a water quality vault. Site restrictions such as steep slopes and limited usable area make the installation of a flow control facility in this location infeasible. Runoff from the extension of Cedar Lane and associated driveways will be collected and conveyed to a low point in the topography, where runoff will flow towards the existing 24" concrete culvert on the eastern limit of the site. Flow control facilities for this road area are also infeasible due to site restrictions such as steep slopes and limited usable area.

Conveyance:

Conveyance calculations for proposed storm pipes will provided with Final Engineering.

Appendix A

Operation and Maintenance Manual