

Technical Memo

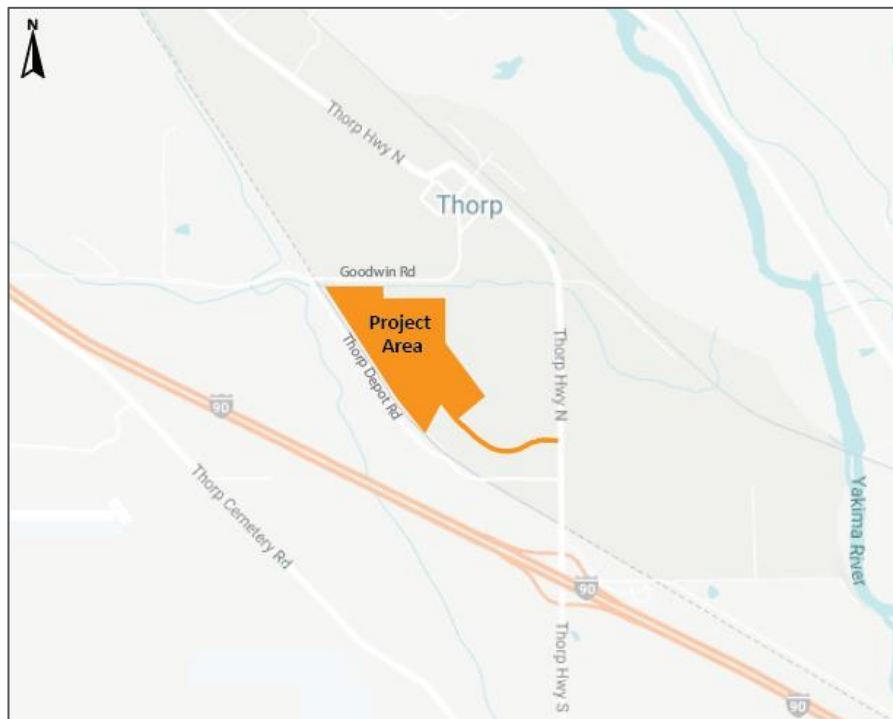
To: Joel Greear, Thorp Landing, LLC
From: Ryan Shea, PTP
Date: May 11, 2023
Project: Thorp Landing
Subject: Trip Generation and Distribution Memo

Introduction

Thorp Landing, LLC is proposing to construct a 10-unit single family subdivision in Kittitas County, Washington. This project is located north of I-90 along Thorp Depot Road and Goodwin Road. This trip generation and distribution memo identifies the potential traffic that could be added by the proposed project.

Figure 1 illustrates the site vicinity and the transportation network serving the project area.

Figure 1. Site Vicinity



Proposed Development

The proposed Thorp Landing project will develop vacant land as a new 10-unit single-family residential plat. The project site is located north of I-90 along Thorp Depot Road and Goodwin Road, located within the unincorporated community of Thorp in Kittitas County. The total project site is approximately 54 acres.

Site access is expected to be provided via one intersection on Thorp Highway N. Regional access will be provided via I-90 which intersects Thorp Highway south of the project site.

A preliminary site plan for the project is attached to the report.

Project Traffic Characteristics

The two project-related characteristics having the most effect on area traffic conditions are peak hour trip generation and the directional distribution of traffic volumes on the surrounding roadway network. These are discussed in the following paragraphs.

Site Generated Traffic Volumes

Vehicle trip generation was estimated using the trip generation rates contained in the 11th edition of the *Trip Generation Manual* by the Institute of Transportation Engineers (ITE). The land-use category “Single-Family Detached Housing” (land-use code 210) with the variable of dwelling units was determined to be the most applicable to this project. For this analysis, the “fitted-curve” equation was used to estimate trips in preference to using a specific trip rate as this approach was recommended by ITE.

The trip generation rates used for the proposed project are shown in **Table 1**.

**Table 1 Trip Generation Rates -
Single-Family Detached Housing (Land-Use Code 210)**

Time Period	Variable	Trip Rate	Enter %	Exit %
AM Peak Hour	Dwelling Units	0.92	26%	74%
PM Peak Hour	Dwelling Units	1.14 ¹	63%	37%
Daily	Dwelling Units	12.13 ¹	50%	50%

1. Fitted Curve Equation Rate

The total trip generation expected from this project is calculated by applying the unit measure (dwelling units) to the appropriate trip generation rate. The AM peak hour, PM peak hour and daily trip generation for the proposed Thorp Landing project is shown in **Table 2** below.

Table 2. Project Trip Generation

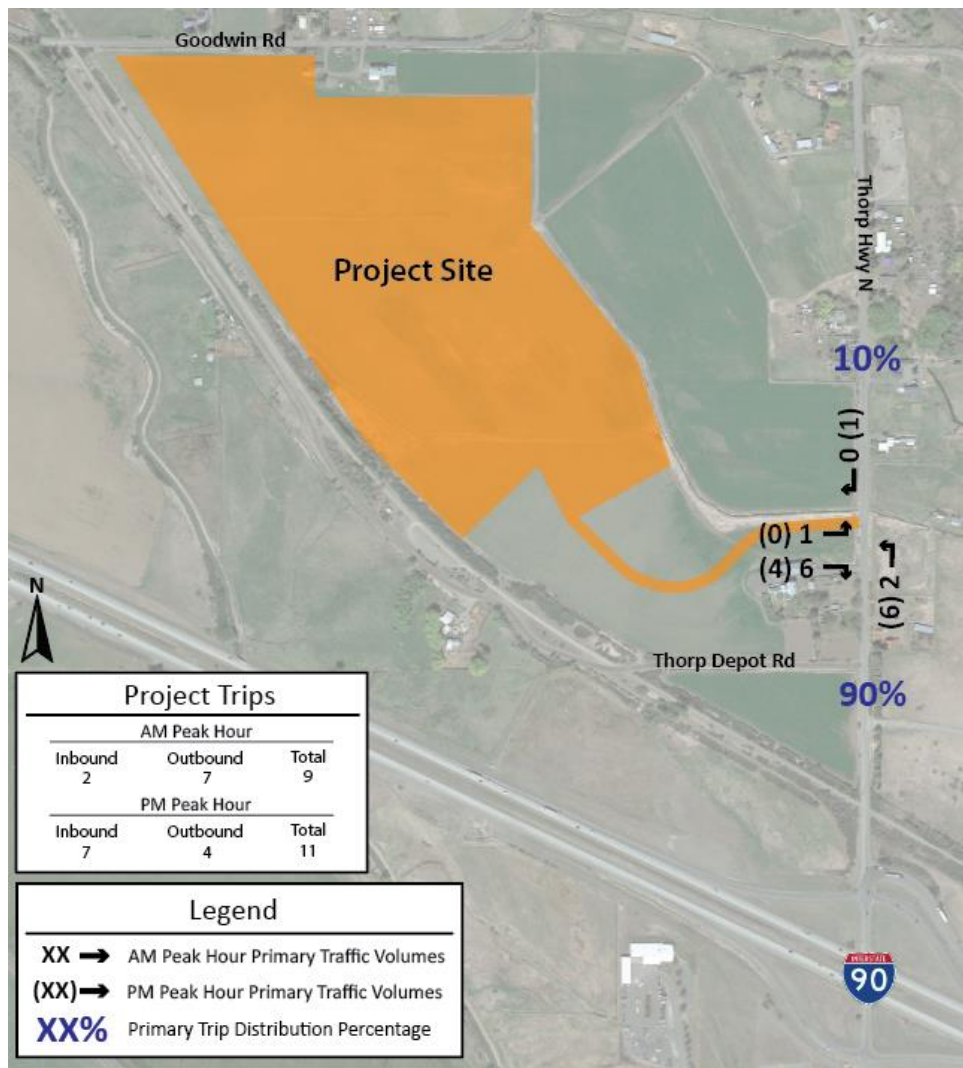
Time Period	Size	Total Trips	Enter	Exit
AM Peak Hour	10	9	2	7
PM Peak Hour	10	11	7	4
Daily	10	121	61	60

It should be noted that previously the project site was two separate parcels that would have each been expected to contain one single-family home. While the project proposes to construct 10 homes, this is ultimately only a net increase of 8 homes from what was previously constructable. However, as these homes were not constructed, this letter presents the traffic associated with all 10 proposed homes.

Site Traffic Distribution and Assignment

For this study, the regional distribution of traffic to and from the proposed project was estimated based on the existing roadway system. It is expected that most of the project traffic will travel to/from the south to I-90. The regional traffic distribution percentages and site traffic assignment for the proposed development for the AM peak hour and PM peak hour is shown on **Figure 2**

Figure 2. Site Traffic Distribution and Assignment





SCJ ALLIANCE
CONSULTING SERVICES

The proposed Thorp Landing project is estimated to generate 9 trip ends during the AM peak hour and 11 trip ends during the PM peak hour. Due to the relatively low trip generation, it is not expected that further traffic analysis related to potential project impacts is necessary.

Thank you for reviewing the enclosed materials. If you have any questions or comments, please contact me or

Respectfully,

SCJ Alliance

Ryan Shea, PTP, Senior Transportation Planner

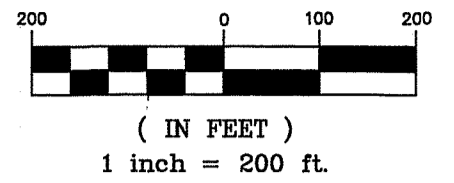
Attachments:

Preliminary Site Plan

N:\Projects\6319 Central Paving LLC\23-000120 Thorp Landing\04 - Dels\Reports\2023-0511 Thorp Landing Trip Gen.docx

THORP LANDING
PART OF SECTION 11, T. 18 N., R. 17 E., W.M.
KITTITAS COUNTY, WASHINGTON
- PRELIMINARY PLAT -

P-22-0?



LEGEND

- x — FENCE
- ⊙ WELL
- ⊕ POINT OF DIVERSION

OWNER:

THORP LANDING LLC
 1401 W DOLARWAY RD STE 301
 ELLENSBURG, WA 98926
 (509) 929-3980

TOTAL ACREAGE: 54.39 ACRES
 NO. OF LOTS: 10
 ZONE: AG 5
 ASSESSOR'S NO. 493233 & 443233

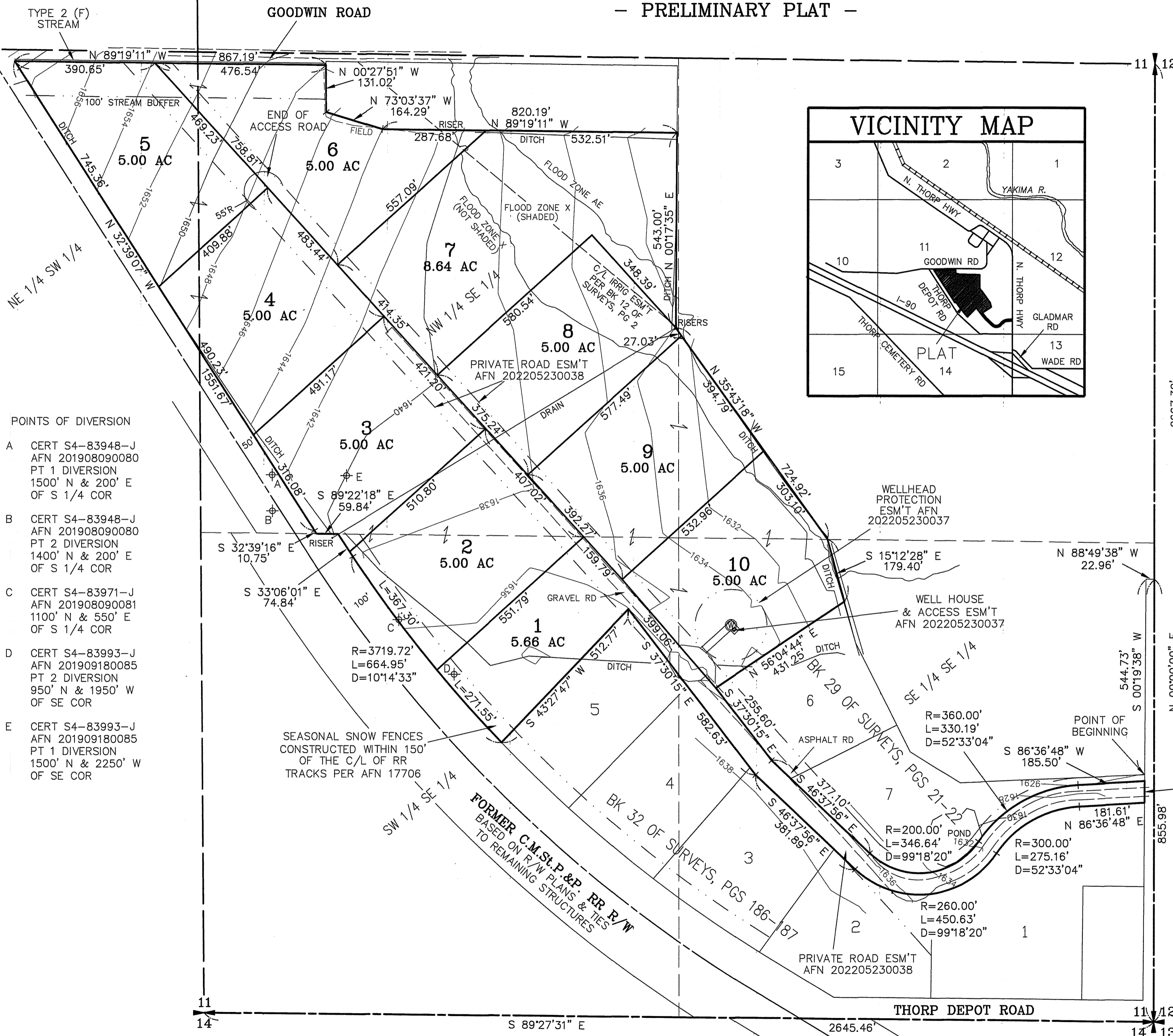
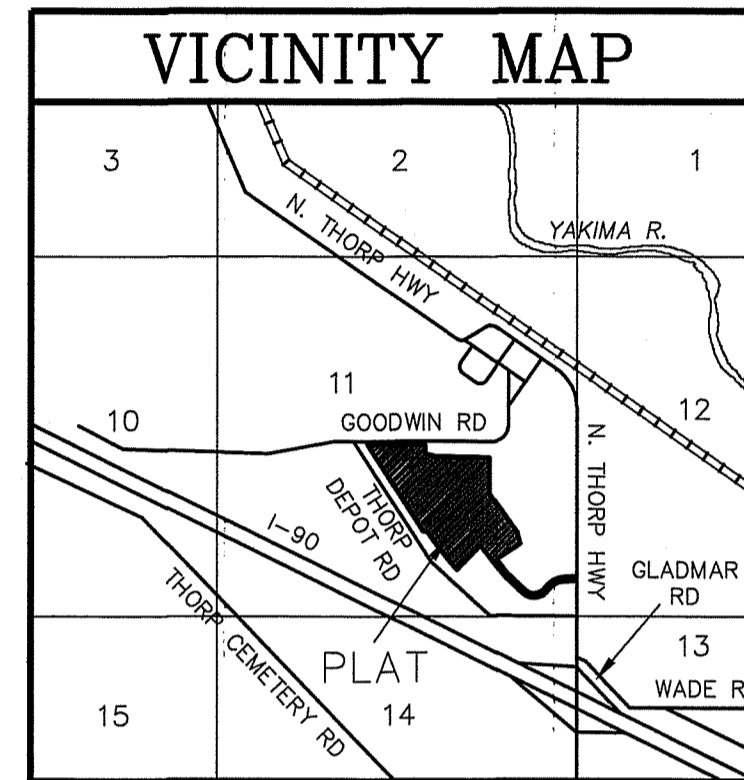
SOURCE OF WATER: GROUP B WATER SYSTEM

SEWER SYSTEM: SEPTIC TANKS
 DRAINAGE: AS PER KITTITAS CO. STANDARDS
 ACCESS: PRIVATE ACCESS ROAD &
 COUNTY ROAD R/W

FLOOD ZONES SHOWN HEREON BASED ON FEMA
 FIRM PANELS 53037C 1033D & 1041D.

VERT. DATUM = NAVD88 BASED ON TIES TO
 NGS MONUMENT AA5991.

CONTOURS BASED ON FIELD LOCATES COMPLETED
 11/17/22 AND ARE ACCURATE TO 1' CONTOUR
 INTERVAL.



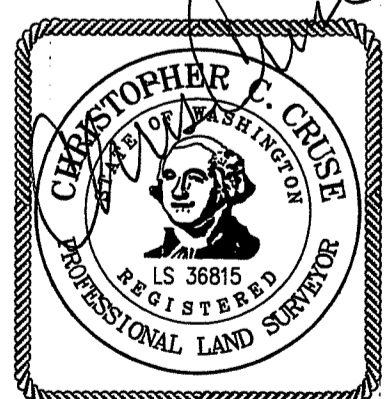
POINTS OF DIVERSION

- A CERT S4-83948-J
 AFN 201908090080
 PT 1 DIVERSION
 1500' N & 200' E
 OF S 1/4 COR
- B CERT S4-83948-J
 AFN 201908090080
 PT 2 DIVERSION
 1400' N & 200' E
 OF S 1/4 COR
- C CERT S4-83971-J
 AFN 201908090081
 1100' N & 550' E
 OF S 1/4 COR
- D CERT S4-83993-J
 AFN 201909180085
 PT 2 DIVERSION
 950' N & 1950' W
 OF SE COR
- E CERT S4-83993-J
 AFN 201909180085
 PT 1 DIVERSION
 1500' N & 2250' W
 OF SE COR

SEASONAL SNOW FENCES
 CONSTRUCTED WITHIN 150'
 OF THE C/L OF RR
 TRACKS PER AFN 17706

FORMER C.M. St. P. & P. RR R/W
 BASED ON R/W PLANS & TIES
 TO REMAINING STRUCTURES

THORP HIGHWAY
 ASSIGNED BASIS OF BEARINGS



1/25/2023

CRUSE & ASSOCIATES
 PROFESSIONAL LAND SURVEYORS
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 Ellensburg, WA 98926 (509) 962-8242