

MEMORANDUM

DATE: May 20, 2021

TO: Ben Small; Central Valley School District

FROM: John Haney, PE

RE: **Preferred Cleanup Option Following Gun Club Closure
Job No 150-014-004**

CC: Louis Huang; Spokane Gun Club

Introduction

This memorandum describes the preferred cleanup option for soil contaminated with lead and polycyclic aromatic hydrocarbons (PAHs), collectively referred to as contaminants of concern (COC), at the Spokane Gun Club (Gun Club) property located at 19615 East Sprague Avenue #9656 in Spokane Valley, Washington (herein referenced as “subject property”). The location of the subject property is shown on “Site Vicinity”, Figure 1. The subject property is owned by the Central Valley School District (CVSD) and the Gun Club (the former owner) leases the property to operate a trap and skeet range. The Gun Club is vacating the property but plans to recover lead shot from the range prior to leaving; however, at the end of lead recovery, soil contaminated with lead and PAHs from clay pigeon debris will remain on site. Some soil is contaminated with lead at hazardous/state dangerous waste concentrations and the remaining soil contains COC at concentrations greater than Washington State Department of Ecology Model Toxics Control Act (MTCA) unrestricted land use cleanup levels. A site plan showing the approximate limits of contaminated soil is presented in “Excavation Plan”, Figure 2.

As part of the purchase and sales agreement between the Gun Club and CVSD, the Gun Club set up an escrow account to partially pay for cleanup costs associated with soil contamination associated with their operations on the subject property. However, the cleanup costs likely will exceed the escrow account funds, at which point CVSD will be responsible for the remaining cleanup and associated costs. Therefore, it is imperative that the selected remedy is cost efficient, while achieving cleanup goals.

Corrective Action Objectives and Methods

The purpose of corrective action at the Subject Property is to reduce the potential risk to human health and the environment caused by COC-contaminated soil at and near the ground surface (approximately 0 to 10 feet below ground surface). The objective is to consolidate contaminated soil in an engineered,



capped, on-site repository on a parcel that then will have a restrictive covenant placed on the deed and recorded with the County of Spokane. This will be accomplished by implementing the following activities:

- Excavating contaminated soil until confirmation sample results indicate COC concentrations are less than MTCA Method A unrestricted or industrial land use cleanup levels.
- Stabilizing soil with lead concentrations greater than 3,250 milligrams per kilogram.
- Constructing a repository and backfilling this repository with treated soil and the soil containing COC concentrations greater than MTCA unrestricted land use cleanup levels.
- Covering contaminated materials in the repository with an engineered cap consisting of on-site borrow materials, base materials, and asphaltic paving (parking lot).
- Backfilling and grading remedial excavations with native soil excavated from the repository.
- Maintaining strict dust control during all earthwork and treatment activities.
- Placing institutional controls on the property containing the consolidated, capped materials.

During construction, a CVSD representative will: monitor and document the corrective action; monitor compliance with construction specifications; coordinate and communicate activities with regulators; obtain confirmation soil samples from excavated areas; collect performance samples of treated soil to document leachable lead-contaminated soil has been stabilized; and prepare necessary reports to Ecology (Voluntary Cleanup Program and Dangerous Waste Program).

Attachments:

Table 1 – Estimated Volumes of Contaminated Soil; Spokane Gun Club

Figure 1 – Site Vicinity

Figure 2 – Excavation Plan

TABLE 1 - Estimated Volumes of Contaminated Soil; Spokane Gun Club

Depth Interval (feet bgs)	Waste Designation	Volume (ft³)	Volume (ft³)	Volume (CY)
0 to 1	Hazardous Lead	151,986	151,986	5,629
	Non-hazardous Lead	168,679	1,649,728	61,101
	Non-hazardous Lead & PAH	908,740		
	Non-hazardous PAH	572,308		
1 to 2	Non-hazardous Lead	37,419	744,072	27,558
	Non-hazardous Lead & PAH	401,243		
	Non-hazardous PAH	305,410		
2 to 3	Non-hazardous Lead	43,516	414,479	15,351
	Non-hazardous Lead & PAH	32,780		
	Non-hazardous PAH	338,182		
3 to 4	Non-hazardous PAH	339,712	339,712	12,582
4 to 5		293,402	293,402	10,867
5 to 6		238,922	238,922	8,849
6 to 7		204,789	204,789	7,585
7 to 8		6,890	6,890	255
8 to 9		6,890	6,890	255
9 to 10		6,890	6,890	255
TOTALS		4,057,759		150,287
Notes				

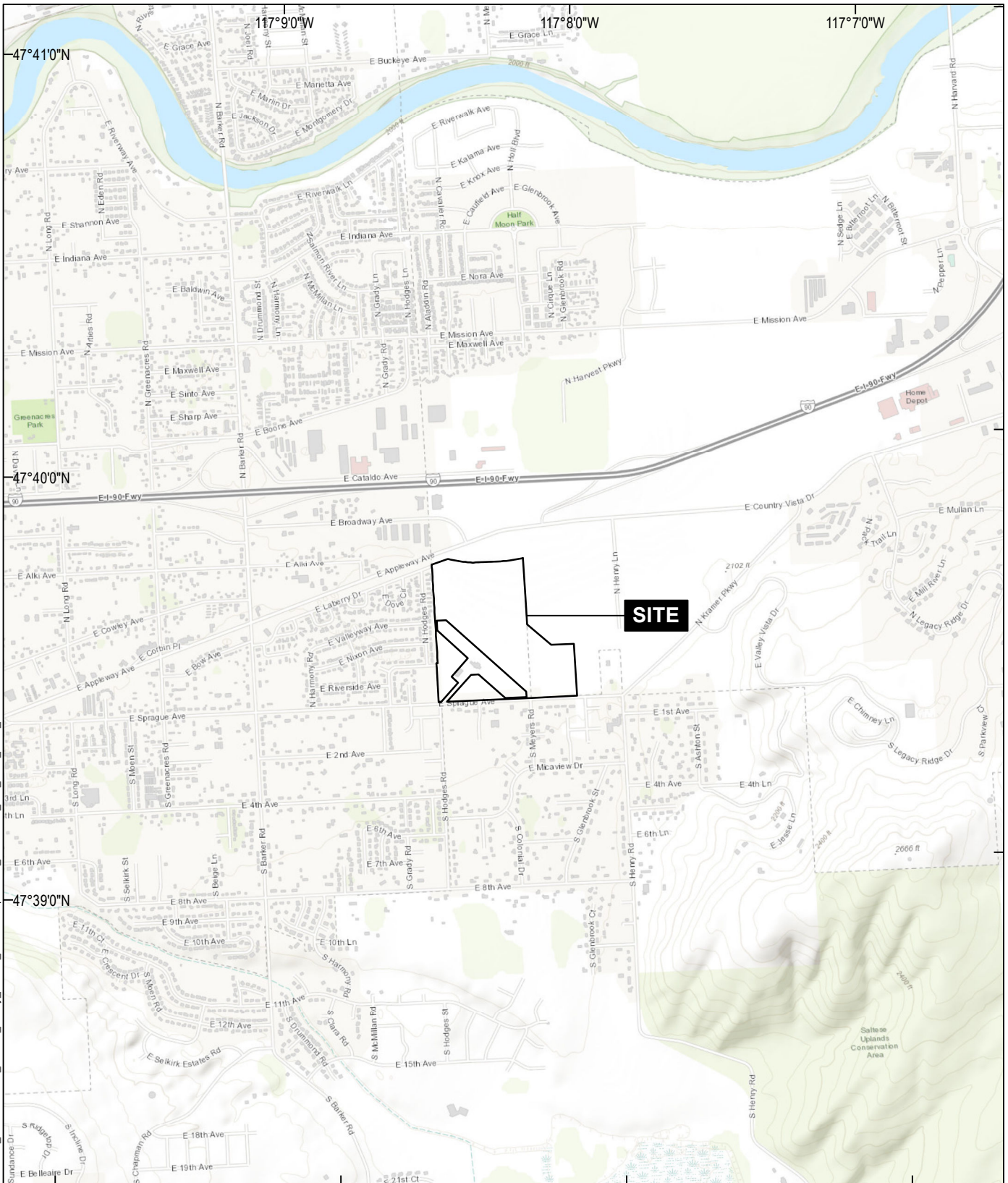
Notes

bgs = below ground surface

CY = bank cubic yards

ft³ = bank cubic feet

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SPOKANE GUN CLUB
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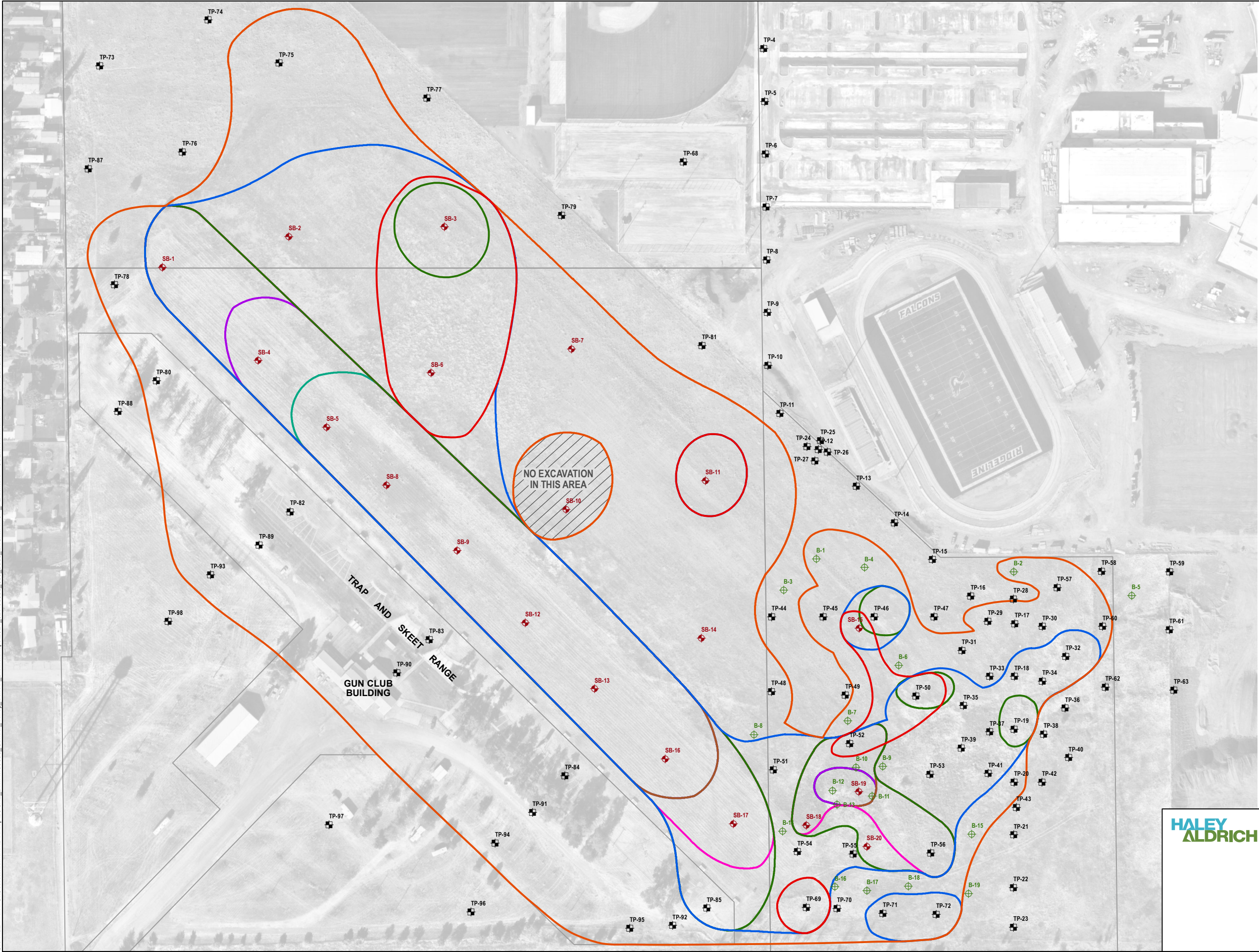
SITE VICINITY

APPROXIMATE SCALE: 1 IN = 2000 FT
NOVEMBER 2020

FIGURE 1

MAP SOURCE: ESRI
SITE COORDINATES: 47°39'34"N, 117°08'22"W

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LEGEND

- PUSH PROBE BORING
- SONIC BORING
- TEST PIT
- 0 TO 1 FT BGS - HAZARDOUS
- 0 TO 1 FT BGS - NON-HAZARDOUS
- 1 TO 2 FT BGS - NON-HAZARDOUS
- 2 TO 3 FT BGS - NON-HAZARDOUS
- 3 TO 4 FT BGS - NON-HAZARDOUS
- 4 TO 5 FT BGS - NON-HAZARDOUS
- 5 TO 6 FT BGS - NON-HAZARDOUS
- 6 TO 7 FT BGS - NON-HAZARDOUS
- 7 TO 10 FT BGS - NON-HAZARDOUS
- NO EXCAVATION
- PARCEL BOUNDARY

NOTES

1. FT BGS = FEET BELOW GROUND SURFACE

2. AERIAL IMAGERY SOURCE: NEARMAP, 30 SEP 2020

**THIS IS A MULTI-LAYER PDF;
TURN MAP LAYERS ON/OFF IN
THE LAYERS PANEL**



0 180 360
SCALE IN FEET

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SPOKANE GUN CLUB
GREENACRES, WASHINGTON

EXCAVATION PLAN

MAY 2021

FIGURE 2