



LOCATION: Front Range 2

DOCUMENT: Dust Mitigation Plan

Section 23, Township 6 North, Range 67 West

Lat: 40.466418, Long: 104.859778

Form 2A Doc No. 403691333

Weld County, Colorado

## **Background**

Carbon Storage Solutions seeks to develop a well that will support a Class VI Carbon Capture Sequestration program. This EPA required well will monitor pressure, temperature, and formation fluid sampling.

## **Introduction**

This Dust Mitigation Plan is intended to facilitate compliance with the Front Range 2 ECMC Rules and Regulations, Rule 304.c.(5) and 427.a. This document serves as the Dust Mitigation Plan for Form 2A. The location and equipment shall be operated in such a manner that dust does not constitute a nuisance or hazard to public welfare. Carbon Storage Solutions development of the Front Range 2 site necessitates earth disturbing activities and travel on unpaved roads which has the potential to produce fugitive dust emissions. Dust associated with site activities and traffic on Roads will be minimized throughout all phases of operations, including Construction and Drilling, such that there are minimal visible dust emissions from Sites and/or Roads to the maximum extent practicable given wind conditions.

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**Section 1**  
**Location Information**

This document provides site-specific information for the Front Range 2 Pad Form 2A. The information in this document relates specifically to the time during the construction and drilling one (1) proposed vertical wells on this location in section 23 of Township 6 North, Range 67 West.

The proposed pad will be located on Parcel 080723000015. The proposed Total Surface Disturbance Area will be 10.82 acres. This 10.82 acres is a combination of a 10.14 acre Location combined with a 0.68 acre Access Road that will be 60 feet wide and run 495 feet. Post Interim Reclamation, the approximate un-reclaimed acreage will amount to  $\pm 0.95$  acres. At the present time this parcel is zoned for agriculture, the surface owner utilizes this parcel for Cropland (Corn & Barley).

The proposed facility equipment for the Front Range 2 Pad will be located within the Working Pad Surface adjacent to the wells and will consist of Meter/Sales Building and *potentially* an Electric Generator.

PHASE	SUB PHASE	DURATION	ESTIMATED START DATE
Construction	Pad & lease Road (<500')	10 Days	3 <sup>rd</sup> Quarter (Aug 2024)
Construction	Set Conductor	1 Day	3 <sup>rd</sup> Quarter (Sept 2024)
Drilling (1 Well)	MIRU	3 Days	3 <sup>rd</sup> Quarter (Sept 2024)
Drilling	Drilling Operations	15 Days	4 <sup>th</sup> Quarter (Oct 2024)
Drilling	RDMO	2 Days	4 <sup>th</sup> Quarter (Oct 2024)
Completion	Wireline Prep	5 Days	4 <sup>th</sup> Quarter (Oct 2024)
Interim Reclamation	Operations	10 Days	4 <sup>th</sup> Quarter (October 2024) *

*\*Or first favorable growing season*

**Section 2**  
**Dust Mitigation Plan Specific Data**

a. Soil Type

- i. Construction Disturbance: Nunn Loam, 0 to 1 percent slopes (3.07 acres)  
Olney Fine Sandy Loam, 0 to 3 percent slopes (7.07 acres)  
*Total: 10.14 acres*
- ii. Working Pad Surface Disturbance: Weld Loam, 0 to 6 percent slopes (5.99 acres)

b. Proposed Vehicle Speed Limit to Minimize Dust

- i. The Haul Route includes a portion of unpaved Access Road Map in Section 23. The Operator will restrict speeds on the proposed *unpaved* access road to 5 MPH in order to reduce dust. Speeds will be enforced by Operator's personnel.
- ii. The length of the access road from the edge of the Operator's site to the working pad surface will be constructed of road base aggregate (crushed asphalt) material, which will serve as natural dust and mud mitigation. The Operator will construct native soils, as well as six (6) inches of road base, compacted to a total depth of four (4) inches.
- iii. The access road will be monitored daily by Operator's staff during regular operations.

c. Total Area of Disturbance

Construction Disturbance: 4.15 acres  
Working Pad Surface Disturbance: 5.99 acres  
*Total: 10.14 acres*

d. Truck Traffic

The estimated truck traffic is based upon a one well development program;

Estimated Pad Traffic					
	Daily Heavy	Daily Light	Days	Total Trips (per phase)	Average Trips (per day)
Pad Construction	52	14	16	377	24
Drilling Operations (1 Well)	71	7	20	288	15
Completion Operations (1 Well)	6	7	5	40	8

There is no production facility, anticipated to be 1 yearly truck trip per year (which is estimated to last for 25 years).

e. Dust Caused by Wind

Restriction of construction activity during high-wind days. On windy days or days when dust becomes fugitive (leaves or threatens to leave the site) construction or activities will be halted until either fresh water can suppress dust or dust is no longer viable.

### **Section 3**

#### **Mitigation Measures and Best Management Practices**

The Operator shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, automation of wells and facilities, regular road maintenance, and restriction of construction activity during high-wind days.

The Operator will stabilize the topsoil stockpiles utilizing vehicle tracking perpendicular to slope angle for short term stabilization and drill seed/crimped straw mulch application for longer term stabilization measures to suppress fugitive dust caused solely by wind.

The Operator will minimize the amount of fugitive dust through the use of speed restrictions. All vehicles will be subject to a speed limit of 5 MPH on all lease roads to minimize dust.

The Operator will mitigate the creation of fugitive dust through regular road maintenance as coordinated through agreements with Relevant Local Governments or Agencies with road jurisdiction. The access road will be covered with a minimum of 2" of road base material for stabilization and to mitigate dust. The Operator will utilize water or magnesium chloride will be used to mitigate dust impacts during initial construction of the drill site and may be restricted or limited during high-wind days.

The Operator will minimize fugitive dust caused by their operations, or dust originating from areas disturbed by their operations that become windborne.

The Operator will not use any of the following fluids for dust suppression:

- Produced water.
- E&P Waste or hazardous waste
- Crude oil or any oil not specifically designed for road maintenance.
- Solvents
- Any process Fluids

The Operator will use only fresh water (potable or non-potable) to conduct dust suppression activities within 300 feet of the ordinary high-water mark of any water body. The access road will be watered or treated with a commercial dust suppressant if necessary.

The Operator will maintain safety data sheets ("SDS") for any chemical-based dust suppressant and make the SDS available immediately upon request to the Director and to the Local Government. Operators will maintain SDS for any chemical-based dust suppressant until the site passes final site Reclamation and transfer the records upon transfer of property ownership.

**Section 4**  
**Cumulative Dust Impacts**

The estimated number of anticipated truck trips for the Facility seeking Commission approval combined with the number of anticipated truck trips at any other Oil and Gas Locations within a 1-mile radius during the same time period is below, calculated with all locations with anticipated construction and drilling dates between Q3 2024 and Q4 2024.

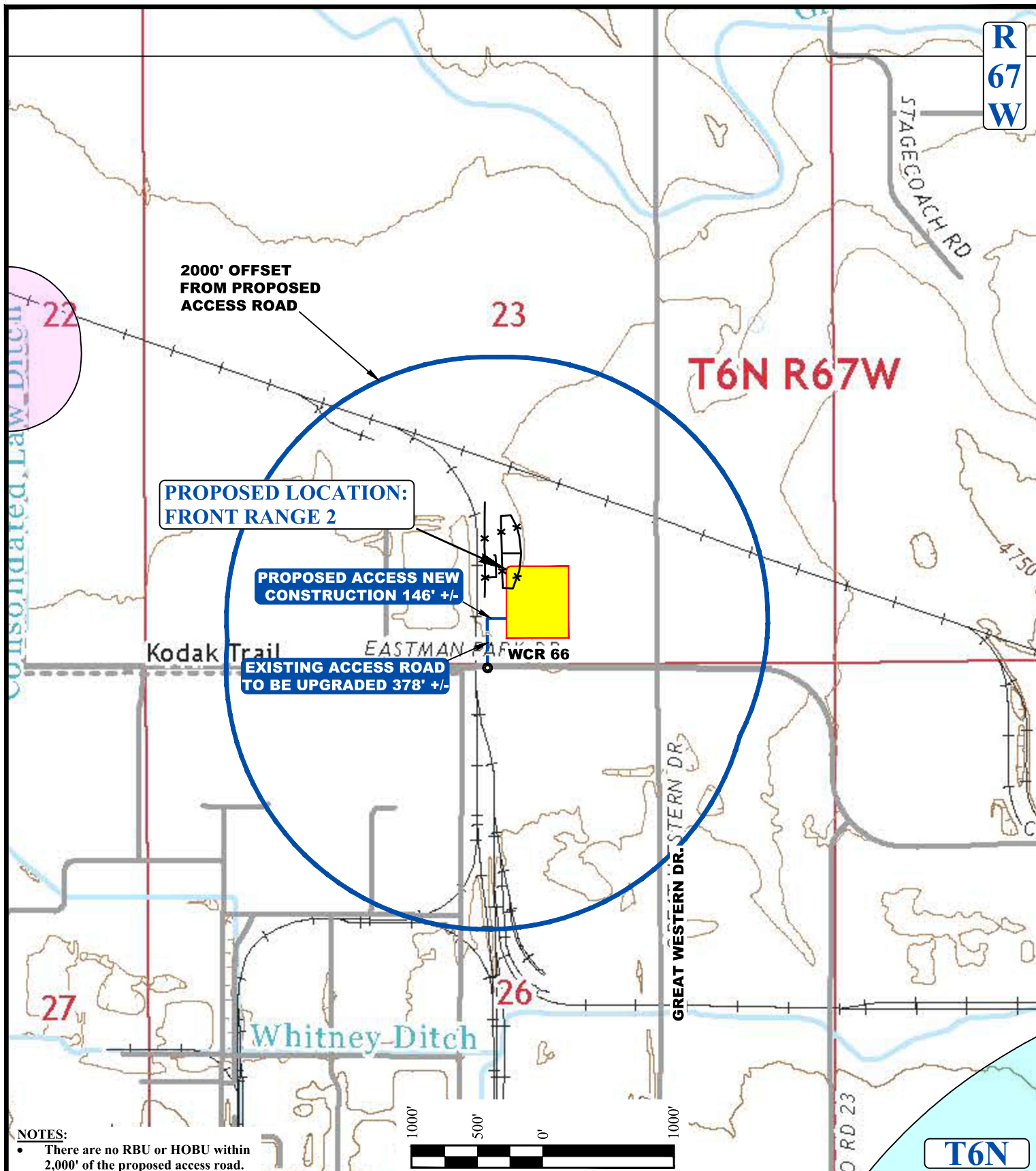
There are no sites not built with approved permits anticipated to have construction dates within the proposed time frame.

**Section 5**  
**Exhibits**

## Truck Trips (Estimated)

Phase	Sub - Phase Description	Days	Passenger Trucks (per day)	Trucks (per day)	Total Trips (per phase)
<b><u>Construction</u></b> <b>(Daylight Only)</b>	<b>Pad &amp; Short Lease Road ( &lt; 500 ft)</b>	10		13	130
	If need gravel/rock	4		28	112
	Crews & Supervisor	10	6		60
	<b>Sound Walls</b>	5		9	45
	Crews & Supervisor	5	5		25
	<b>Set Conductor</b>	1		2	2
	Crews & Supervisor	1	3		3
<b>Total Construction</b>		<b>16</b>	<b>14</b>	<b>52</b>	<b>377</b>
<b><u>Drilling</u></b>	<b>MIRU</b>				
	Rig (Based on Precision 460, winter loads)	3		18	54
	Support Equipment (camps, rental tanks, etc.)	3		8	24
	Crews & Supervisors	3	2		6
	<b>Drilling Operations</b>				
	Daily Ops (Fuel, water, disposal, etc.)	15		4	60
	Daily Ops (Small deliveries, toll hands, etc.)	15	2		30
	1-Time Ops (Cement, Casing, Logging, etc.)	15		2	30
	<b>RDMO</b>				
	Rig (Based on Precision 460, winter loads)	2		25	50
	Support Equipment (camps, rental tanks, etc.)	2		11	22
	Drilling Mud	2		3	6
	Crews & Supervisors	2	3		6
<b>Total Drilling Operations</b>		<b>20</b>	<b>7</b>	<b>71</b>	<b>288</b>
<b><u>Completion</u></b>	<b>Wireline Prep (w/crane)</b>	1		2	2
	Supervisor	1	2		2
	Completion Ops (w/MIRU & RDMO)	4		4	16
	Crew, toolhands, & Supervisors	4	5		20
<b>Total Completion Operations</b>		<b>5</b>	<b>7</b>	<b>6</b>	<b>40</b>





#### LEGEND:

- EXISTING ROAD
- PROPOSED ACCESS ROAD
- EXISTING FENCE
- 2000' OFFSET
- WORKING PAD SURFACE
- BALD EAGLE ROOST SITE
- AQUATIC SPORTSFISH MANAGEMENT WATERS

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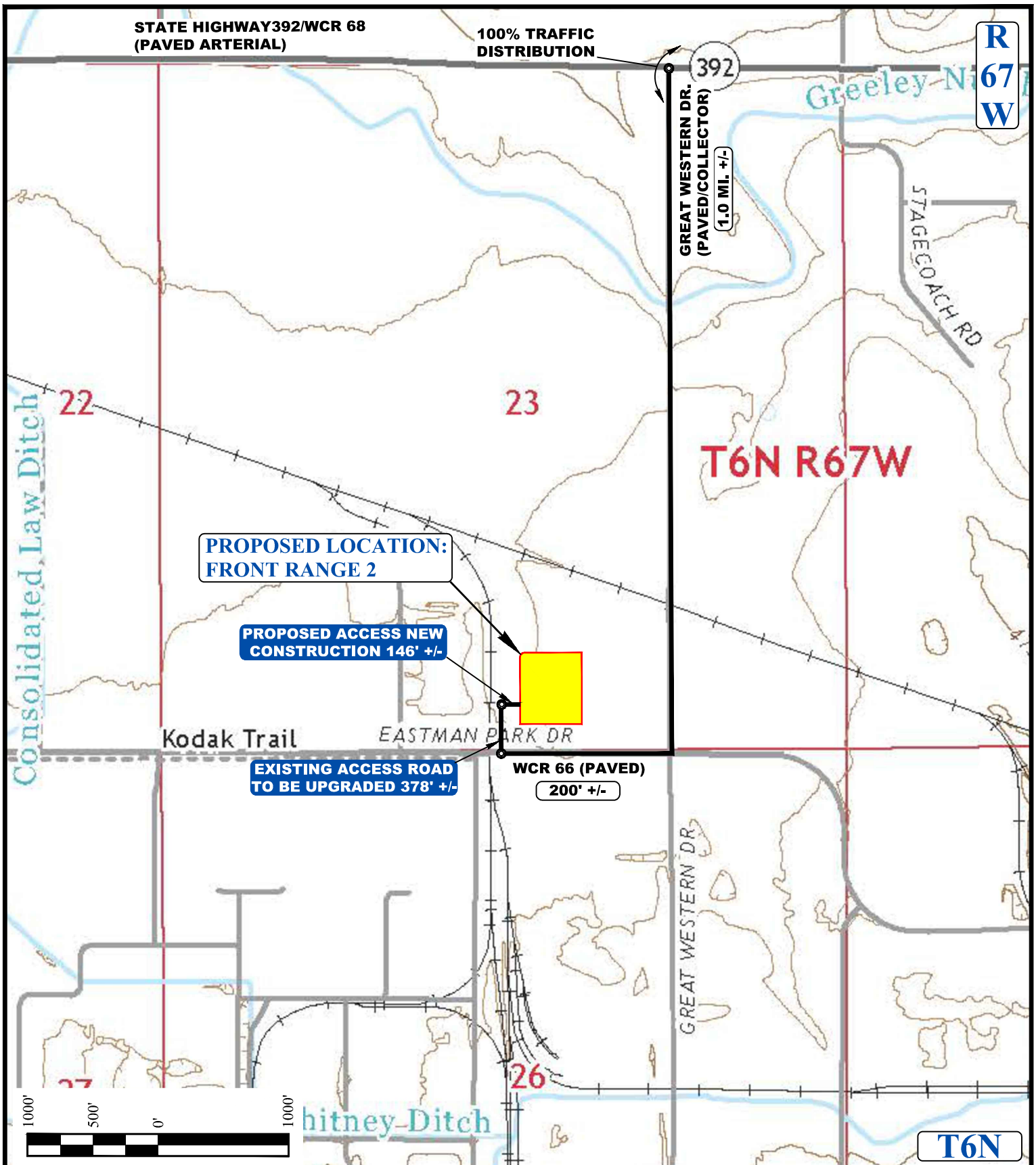


#### CARBON STORAGE SOLUTIONS

**FRONT RANGE 2**  
450' FSL 2325' FEL  
SW 1/4 SE 1/4, SECTION 23, T6N, R67W, 6th P.M.  
WELD COUNTY, COLORADO

SURVEYED BY	O.R., J.F.	11-20-23	SCALE
DRAWN BY	K.C.	01-17-24	1 : 12,000

**ACCESS ROAD MAP**



#### LEGEND:

- WORKING PAD SURFACE
- EXISTING ROAD
- PROPOSED ACCESS ROUTE



#### CARBON STORAGE SOLUTIONS

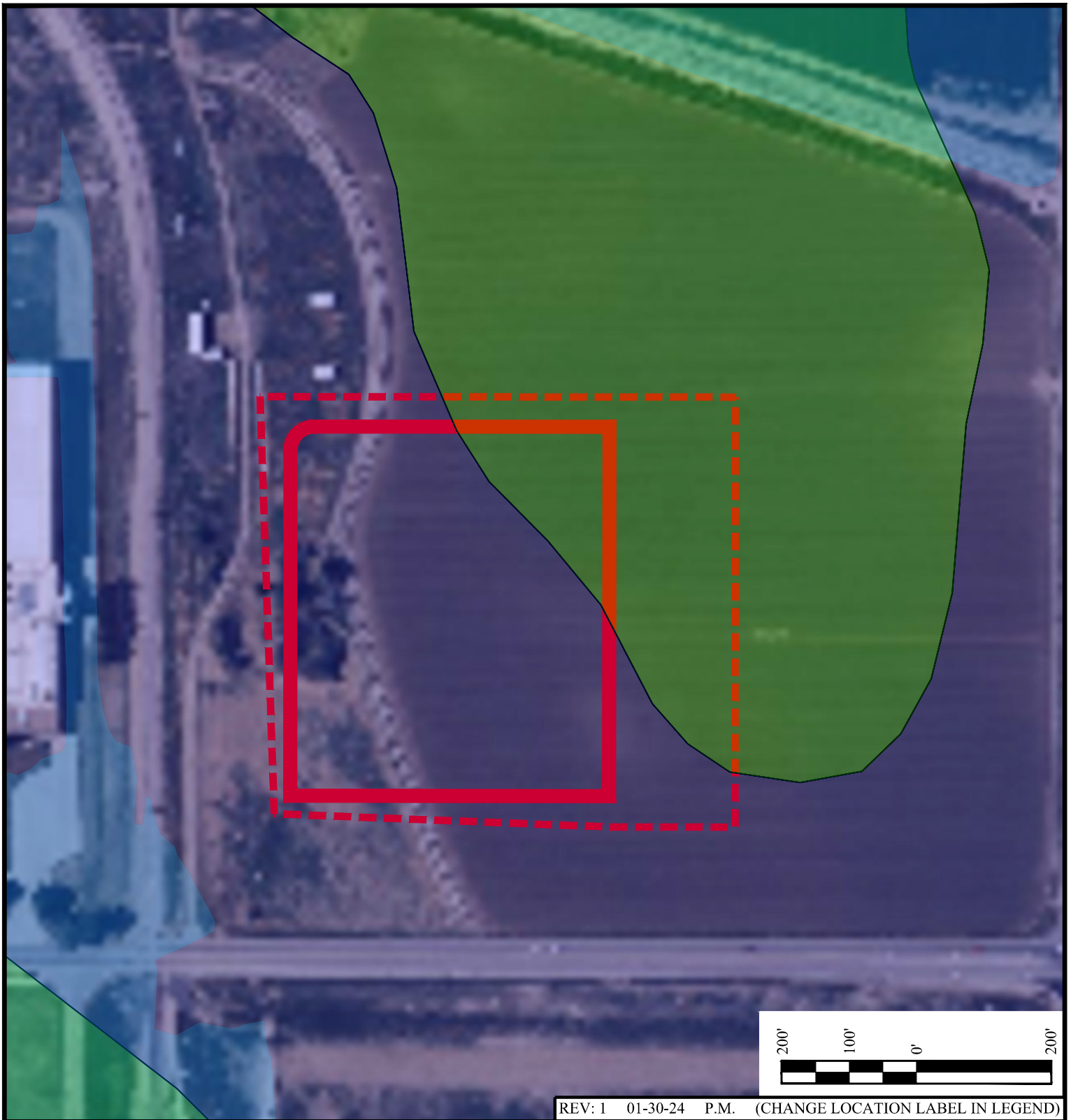
**FRONT RANGE 2**  
**450' FSL 2325' FEL**  
**SW 1/4 SE 1/4, SECTION 23, T6N, R67W, 6th P.M.**  
**WELD COUNTY, COLORADO**

SURVEYED BY	O.R., J.F.	11-20-23	SCALE
DRAWN BY	K.C.	01-17-24	1:12,000

#### HAUL ROUTE MAP



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REV: 1 01-30-24 P.M. (CHANGE LOCATION LABEL IN LEGEND)

**LEGEND:**

- LOCATION
- WORKING PAD SURFACE
- NUNN CLAY LOAM, 0 TO 1 PERCENT SLOPES (3.07 ACRES)
- OLNEY FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES (7.07 ACRES)



**CARBON STORAGE SOLUTIONS**

FRONT RANGE 2  
450' FSL 2325' FEL  
SW 1/4 SE 1/4, SECTION 23, T6N, R67W, 6th P.M.  
WELD COUNTY, COLORADO

SURVEYED BY	ORION RICE	11-20-23	SCALE
DRAWN BY	K.C.	01-17-24	1" = 200'

**SOILS SITE DIAGRAM**



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