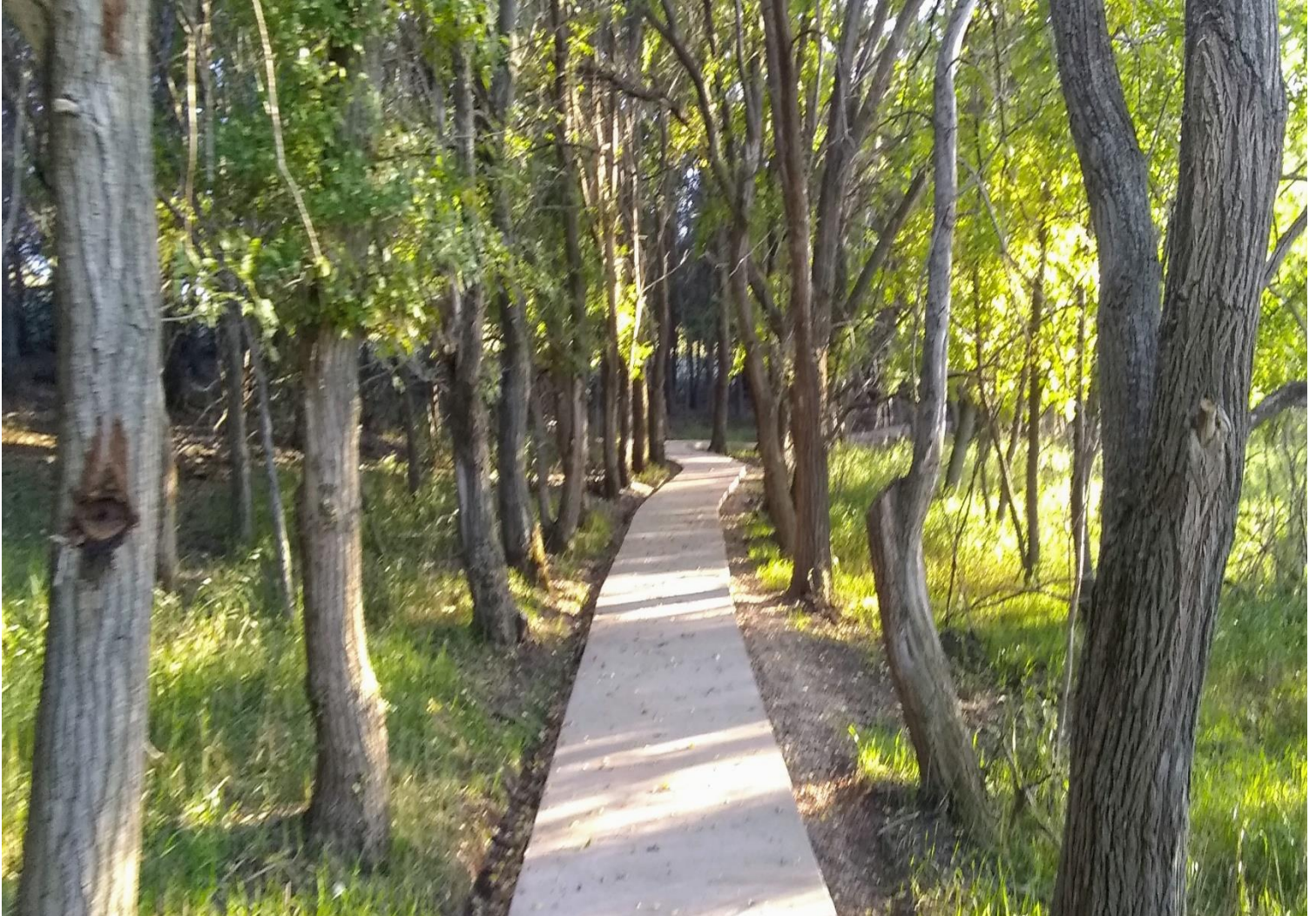


**Audubon National Wildlife Refuge
Owl Site, Prairie Trail
Contract #140F0619C0015
Project As-Built information**



General Information

Owner: U.S. Fish & Wildlife Service

Project: Audubon National Wildlife Refuge, Owl Site, Prairie Trail

Contracting Officer: Timothy A. Officer

Project Engineer: Michael Wandersee, PE

On-site Inspector: Jackie Jacobson, FWS

Contractor: Green Dream International, LLC

Project Manager: Timothy D. Steinke, GDI

Subcontractor: Creative Concrete, Devin Hunter

Start Date: August 15, 2019

Completion date: September 25, 2019

General Description

The project consisted of replacing a portion of an existing 5.0 ft wide gravel base trail with a 5.0 ft wide x 4.0-inch-thick continuous reinforced concrete trail.

Approximately 450 ft of existing trail was abandon as shown on the As-built plan. See figure #1 in appendix.

All work provided followed the plans, specifications and standards of work (S.O.W.) as set forth by the U.S Fish & Wildlife Service Engineering Department, unless noted otherwise. (U.N.O.)

The plans & specifications are included within the Appendix of this report. The As-built information provided is broken down into six sections. Each section is shown on the Aerial photo as provided. (See Figure #1).

Trail Summary Information

Trail Length & % Slopes

Total length of trail = 3024 ft.

Total length of abandon trail = 450 ft +/-

Total length of trail exceeding 8% slope = 0.0 ft

Total **Running** feet of Trail between 5% and 8% slope = 593ft +/-

Note: Every foot of trail was measured in 4 foot increments, if the elevation change was = or > 2.4 inches the Running feet were measured and recorded.

Running feet of Trail % ($>$, = 5%) = $593/3024 = 18.9\%$ +/-

Concrete trail cross slope = $\frac{1}{4}$ "/ft

Concrete

Concrete: 4000psi, See Appendix for mix design.

Concrete Color: Solomon Colors, Inc. Dry Pigment Ready Mix Color: 238 Doeskin

Gravel Base Course

Compaction material: Class 5 compaction gravel. See Specifications in Appendix.

Reinforcing

Longitudinal Reinforcing: 3 - #4 bars (fiber reinforcing) (Alternate #1)

Traverse reinforcing: #4 bars @ 36" O.C. (fiber reinforcing)

Note: Alternate #2 Reinforcing: Fiber bars, see Appendix

Concrete Expansion & Control Joints

Concrete Expansion Joints: per plans & specifications. (Alternate #3a) changed from 8 ft to every 200ft.

Concrete Control joints: 7.5 feet O.C. (Alternate #3b) Approved to place control joints every 8' or less.

Existing Gravel Trail

The existing gravel trail consisted of approximately 4" of gravel base over a fabric underlayment. The condition of the existing trail was in excellent condition.

General Construction

Trail construction over existing trail

Typical construction was to place a 5 ft wide x 4" thick continuous reinforced concrete slab upon 2 - 3 inches of compacted gravel used as a leveling course, over the existing gravel trail. See figure #1.

New trail construction

New trail was cut through a portions of Sections #2, #3, #4, #5 where the trail was excavated a minimum of 6 inches below grade. And a 5ft wide x 4" thick continuous reinforced concrete slab was placed upon a compacted 4" gravel base. See Figure #1

Concrete Trail Sections

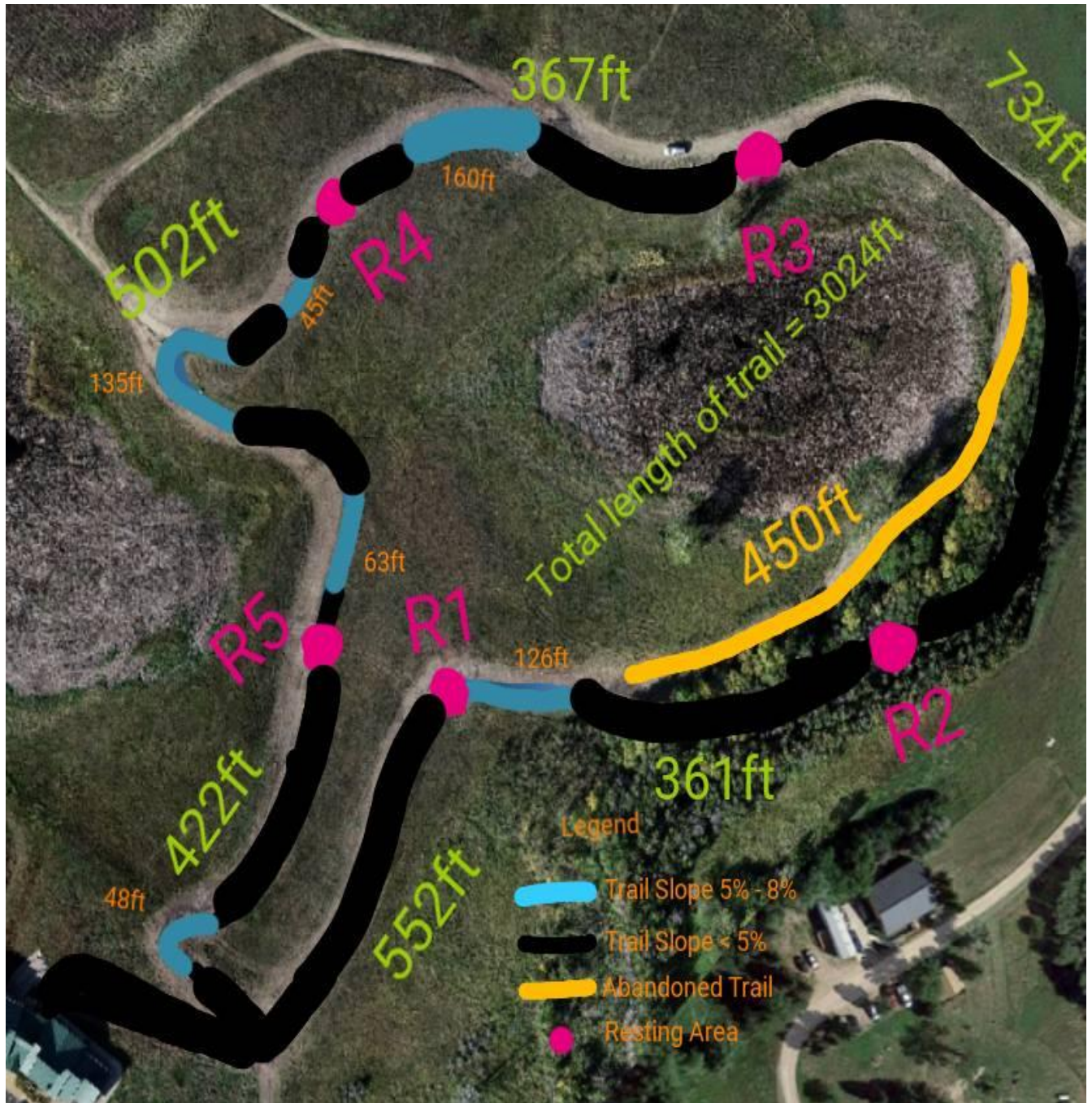


Figure #1

Section #1

From Audubon center to rest area #1

Total Length = 552 ft

Length of section #1 w/ running Slope $\geq 5\% = 0.0$ ft

See Figure #1

Section 2

Rest area #1 - #2

Total Length = 361 ft

Total Length of section #2 w/ running Slope $\geq 5\% = 126$ ft

Begins at Rest area #2 & descends for the first 126ft

See Figure #1

Section 3

Extends from rest area #2 - #3

Total length = 734 ft

Total Length of section #3 w/ running Slope $\geq 5\% = 0.0$ ft

See Figure #1 in appendix.

Section 4

Extends from rest area #3 - #4

Total length = 367ft

Total Length of section #4 w/ running Slope $\geq 5\% = 160$ ft

Begins on the East side of the crossover for the first 160ft +/-

See Figure #1

Section 5

Extends from rest area #4 - #5

Total length = 502ft

Total Length of section #5 w/ running Slope $\geq 5\%$ = 243ft

Descending from rest area #4 for 180 ft, & ascends for the last 63ft to rest area #5.

See Figure #1

Section 6

Rest area #5 - intersection of trail head.

Total length = 422ft

Total Length of section #6 w/ running Slope $\geq 5\%$ = 48ft

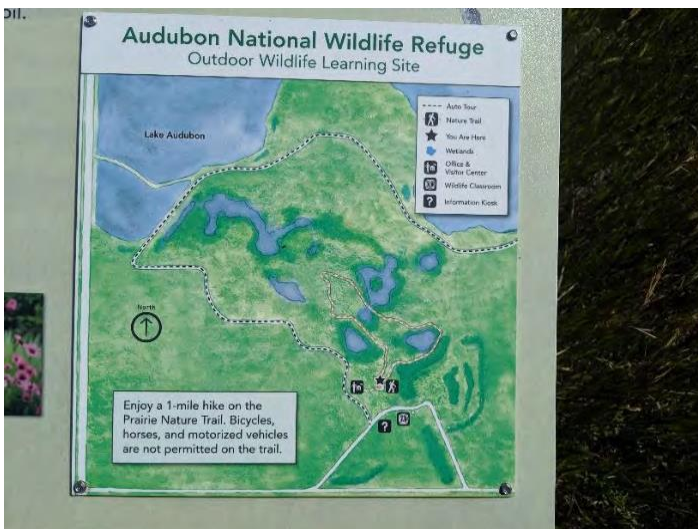
Begins at the switchback for next 48ft. See Figure #1

Creative Concrete is responsible for and must provide ALL records, as may be required in support of any information, as may be provided herein.

By: Timothy Steinke

Project Manager, GDI

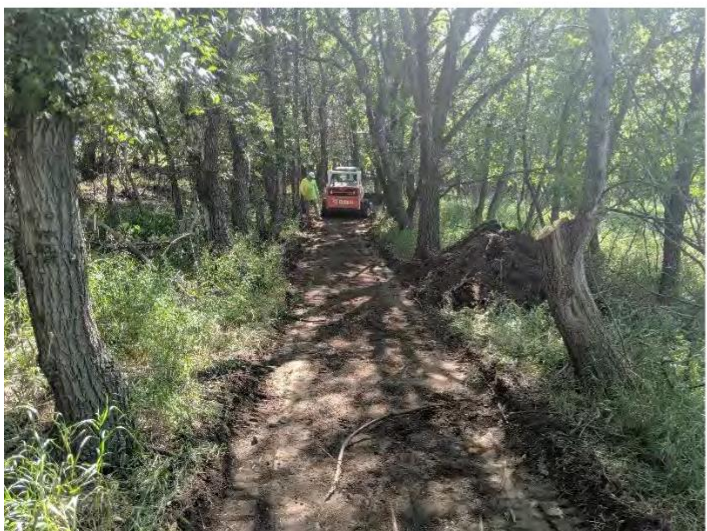
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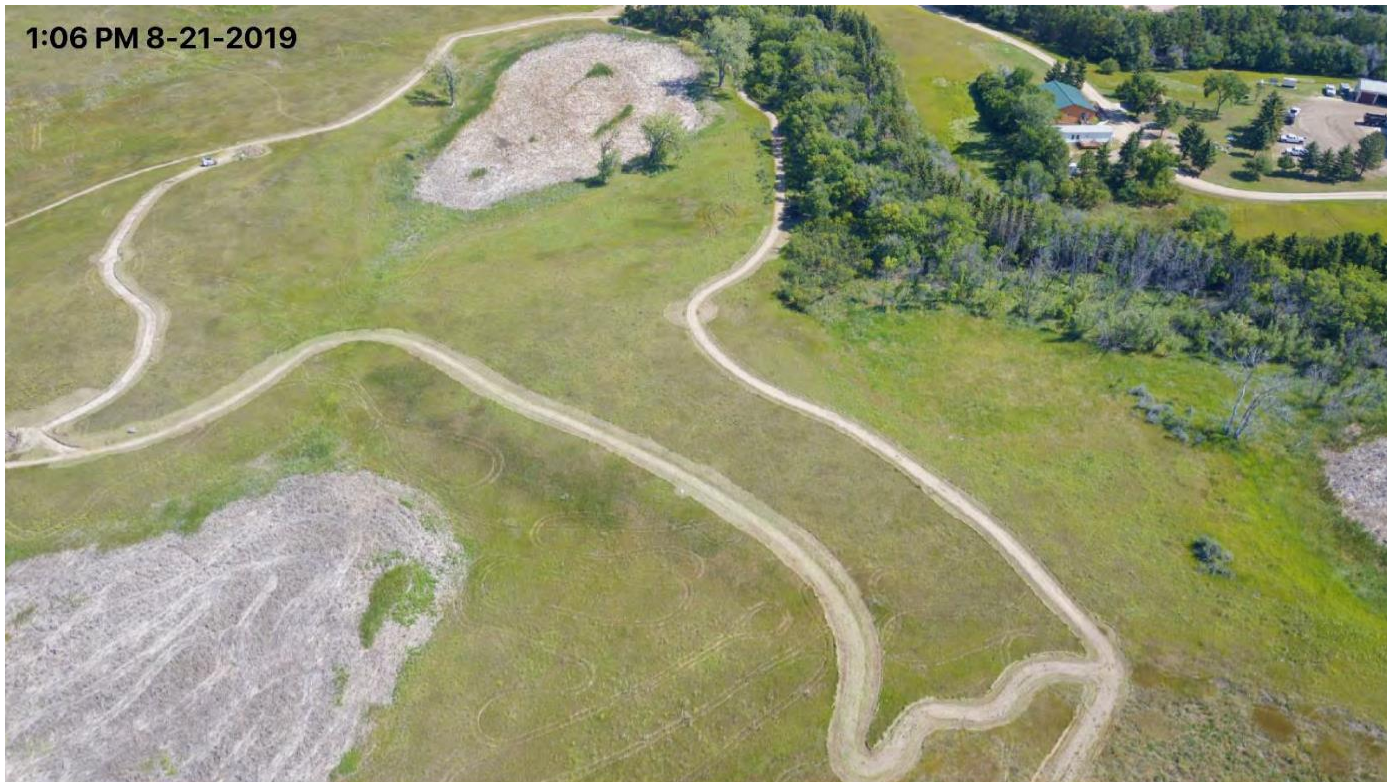


Week 2





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8:12 AM 8-23-19



8:51 AM 8-23-19



10:09 AM 8-22-19



12:09 PM 8-23-19



1:08 PM 8-23-19



2:05 PM 8-23-19



3:27 PM 8-23-19



4:12 PM 8-23-19



5:00 PM 8-23-19



6:47 PM 8-23-19





Week 3

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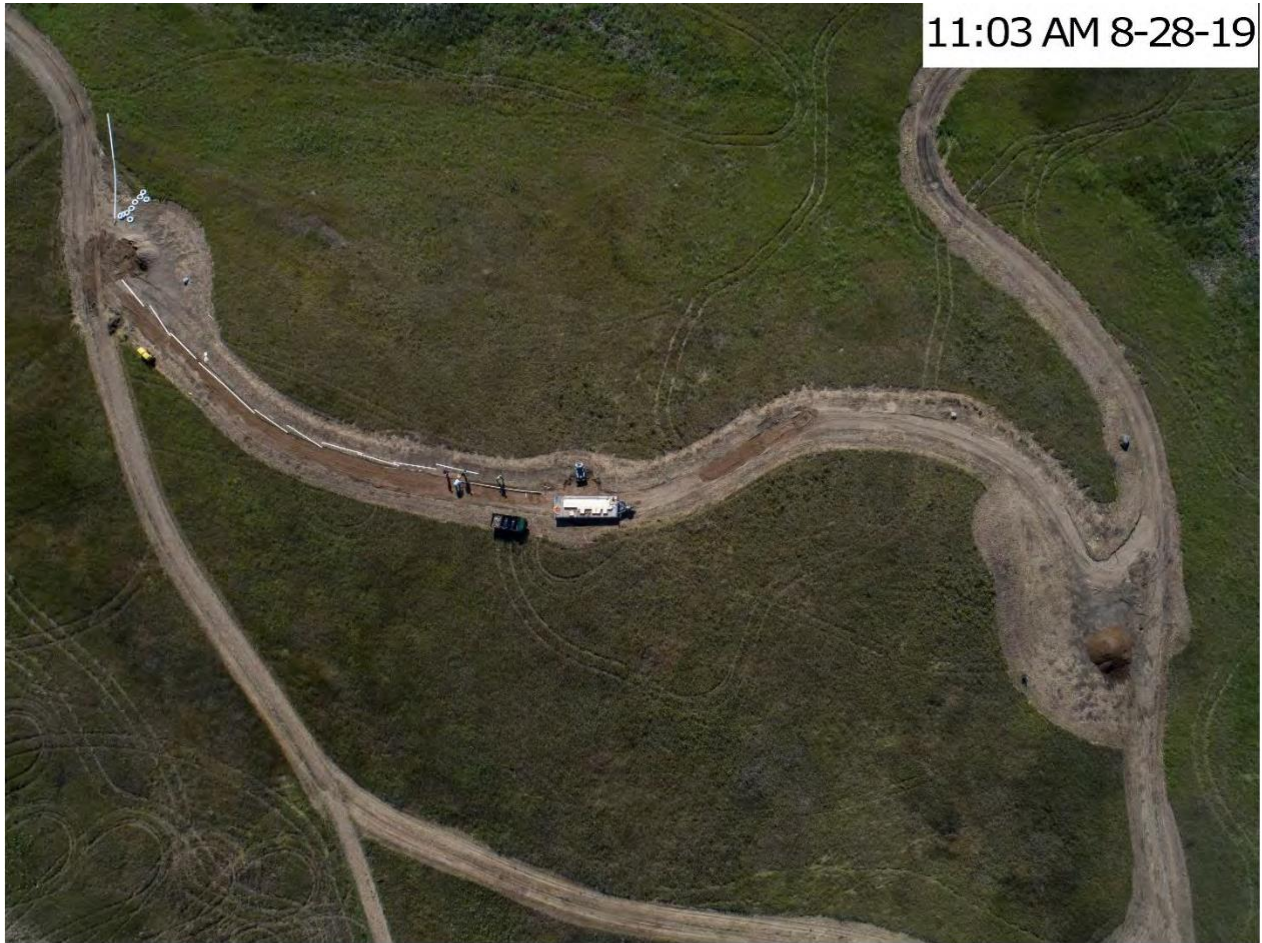












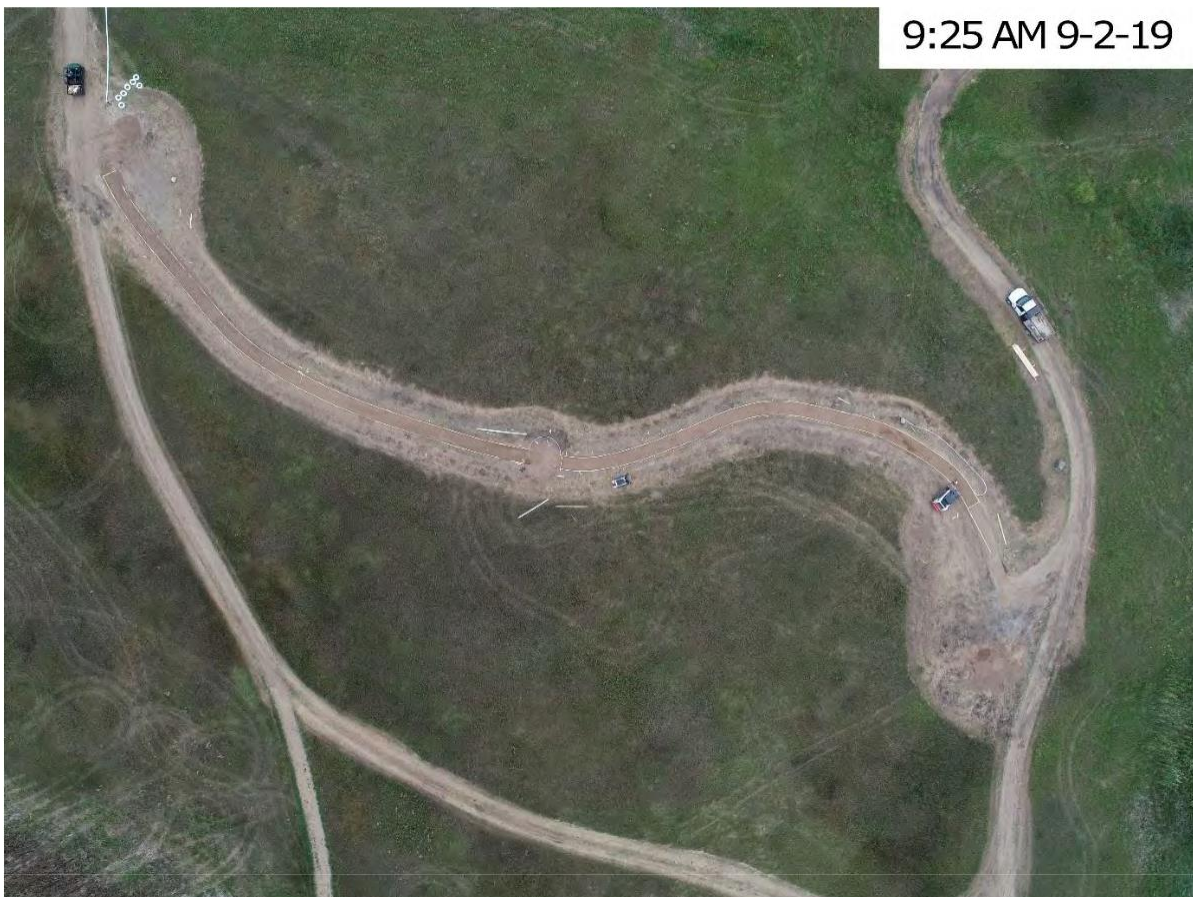
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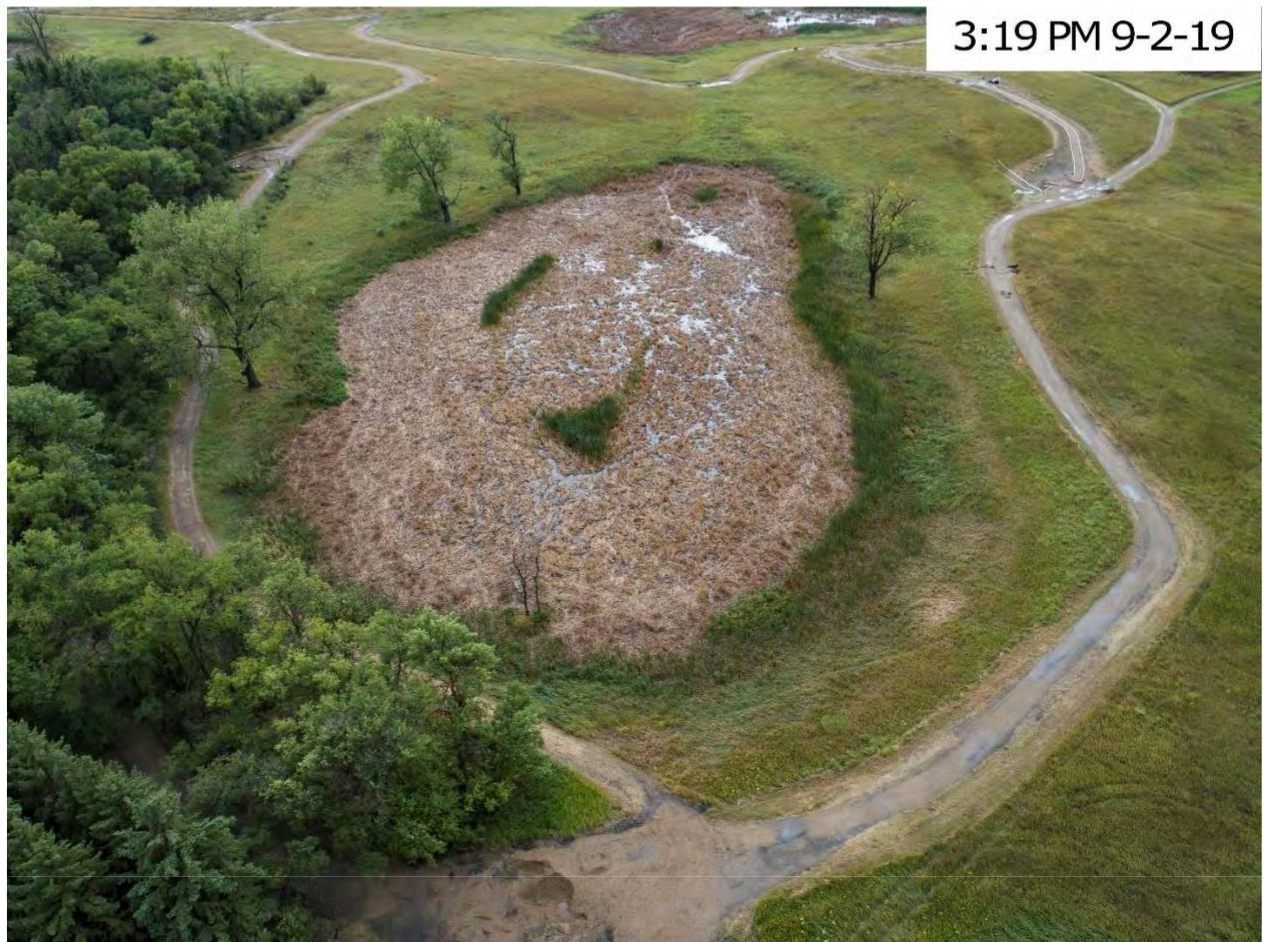


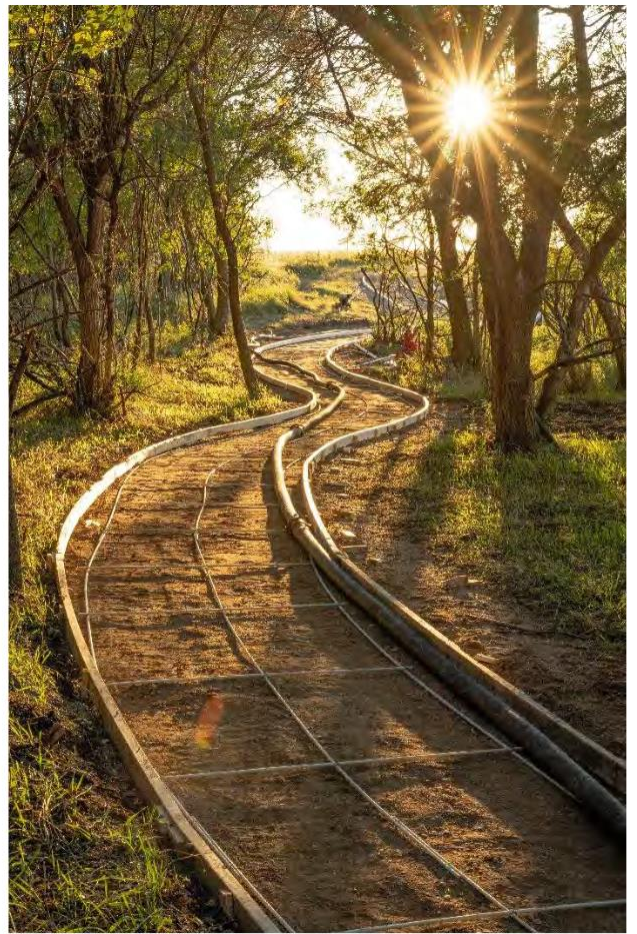
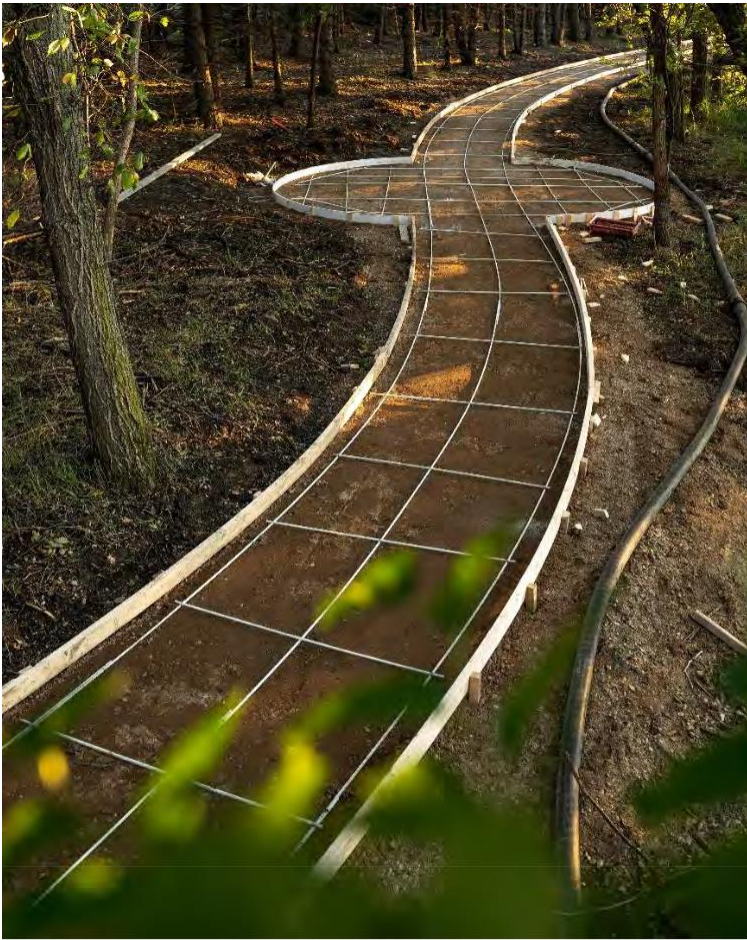
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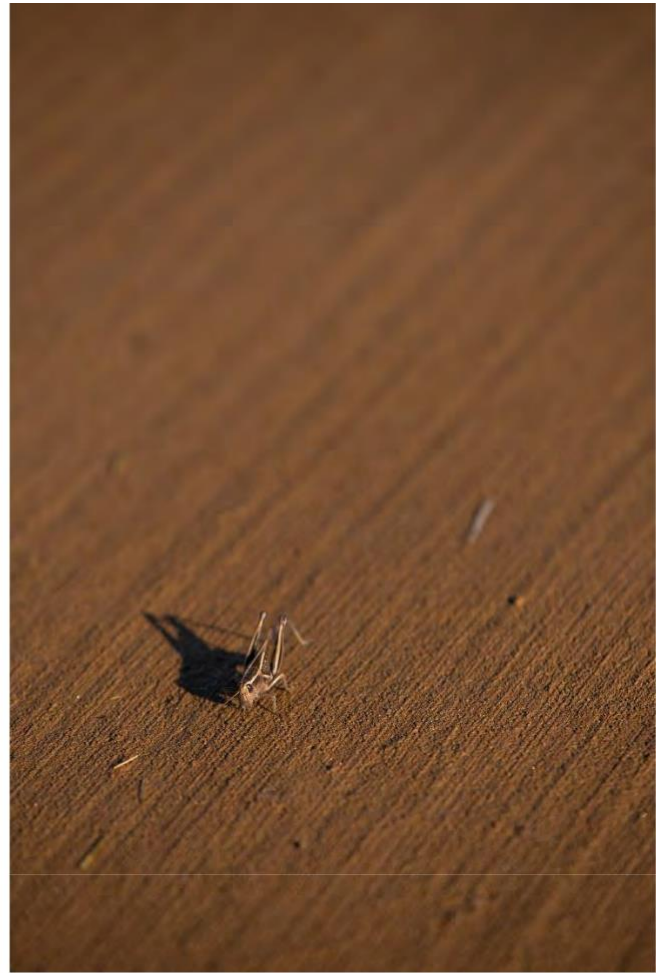
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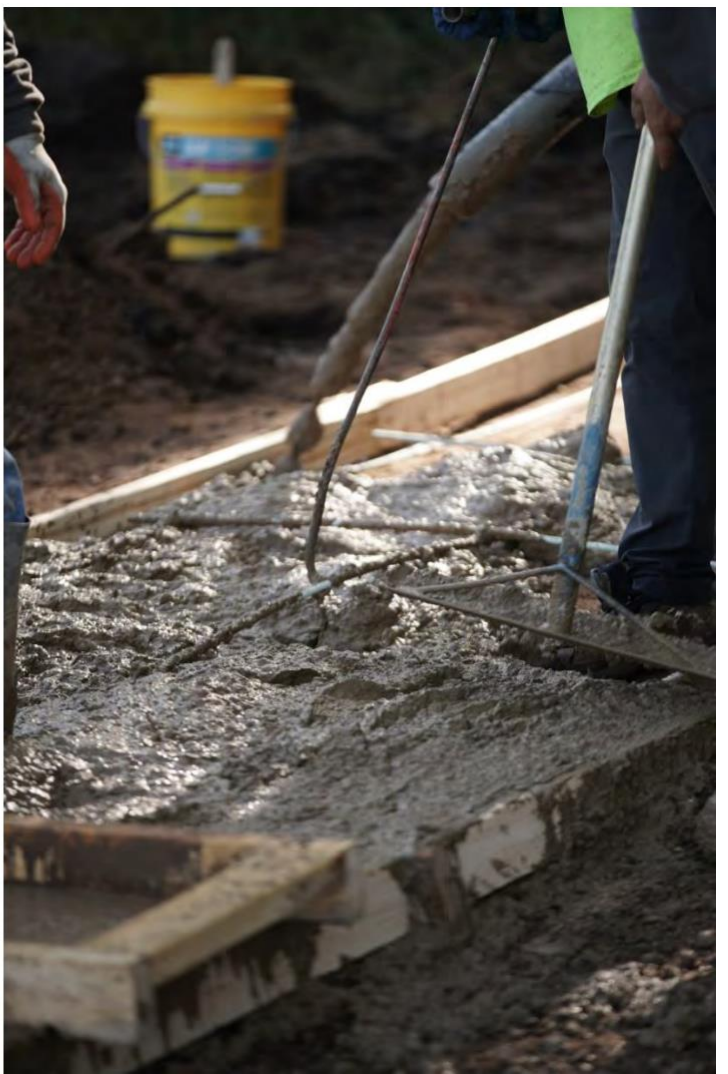


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12:34 PM 9-4-19











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Edit

Title

Untitled

September 3, 2019

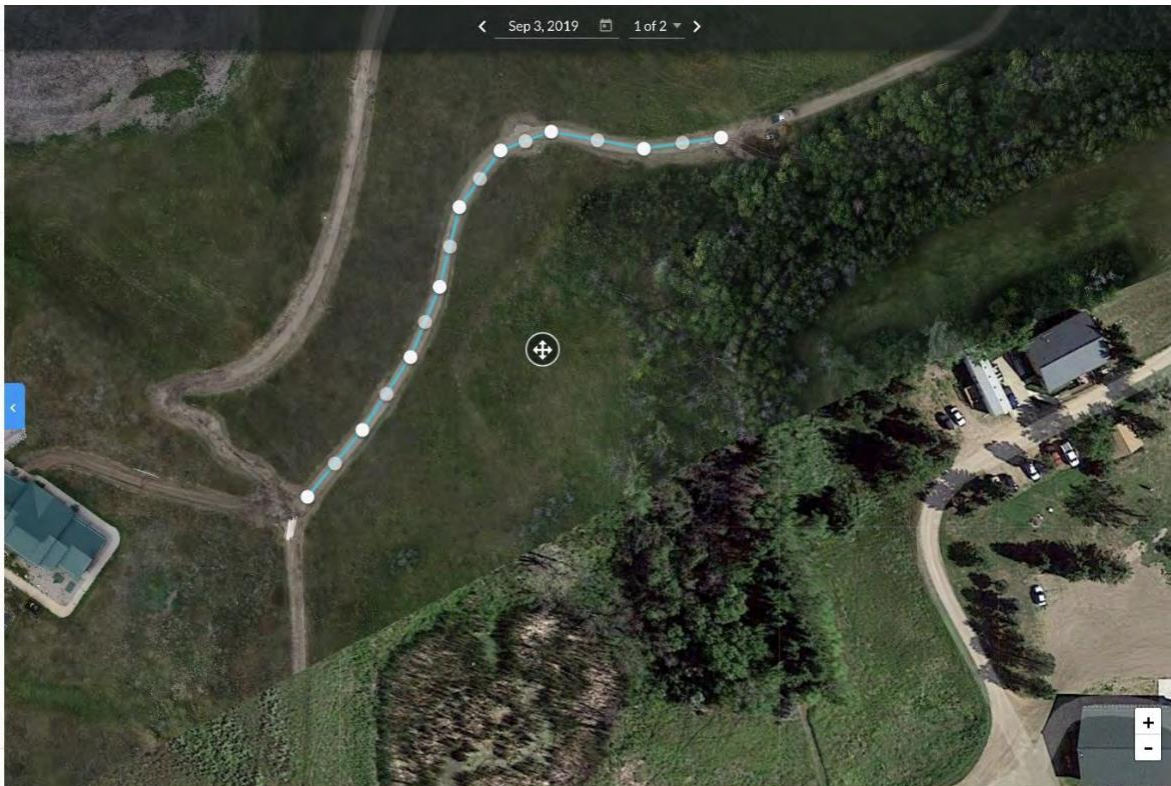
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Cross section data only supported for single segment lines.

Have a conversation about this annotation with DroneDeploy users you share this map with.

Add a comment

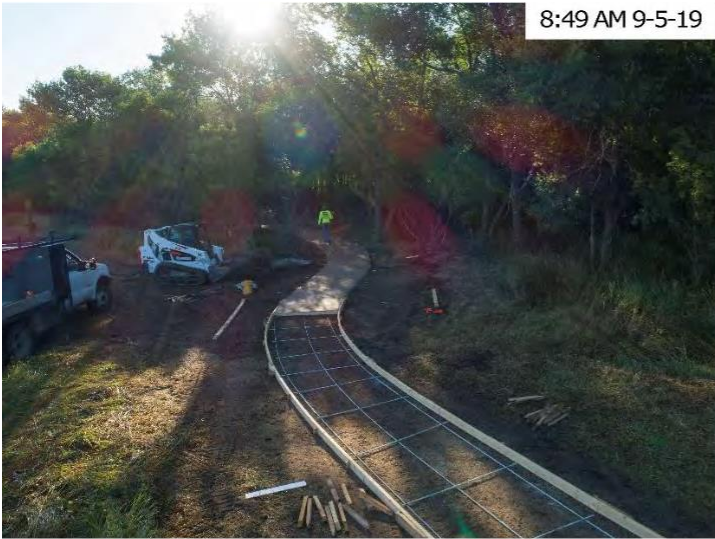




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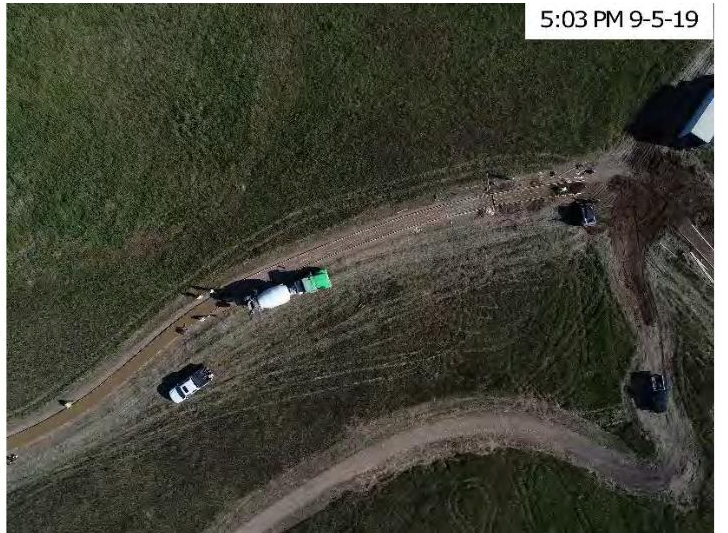
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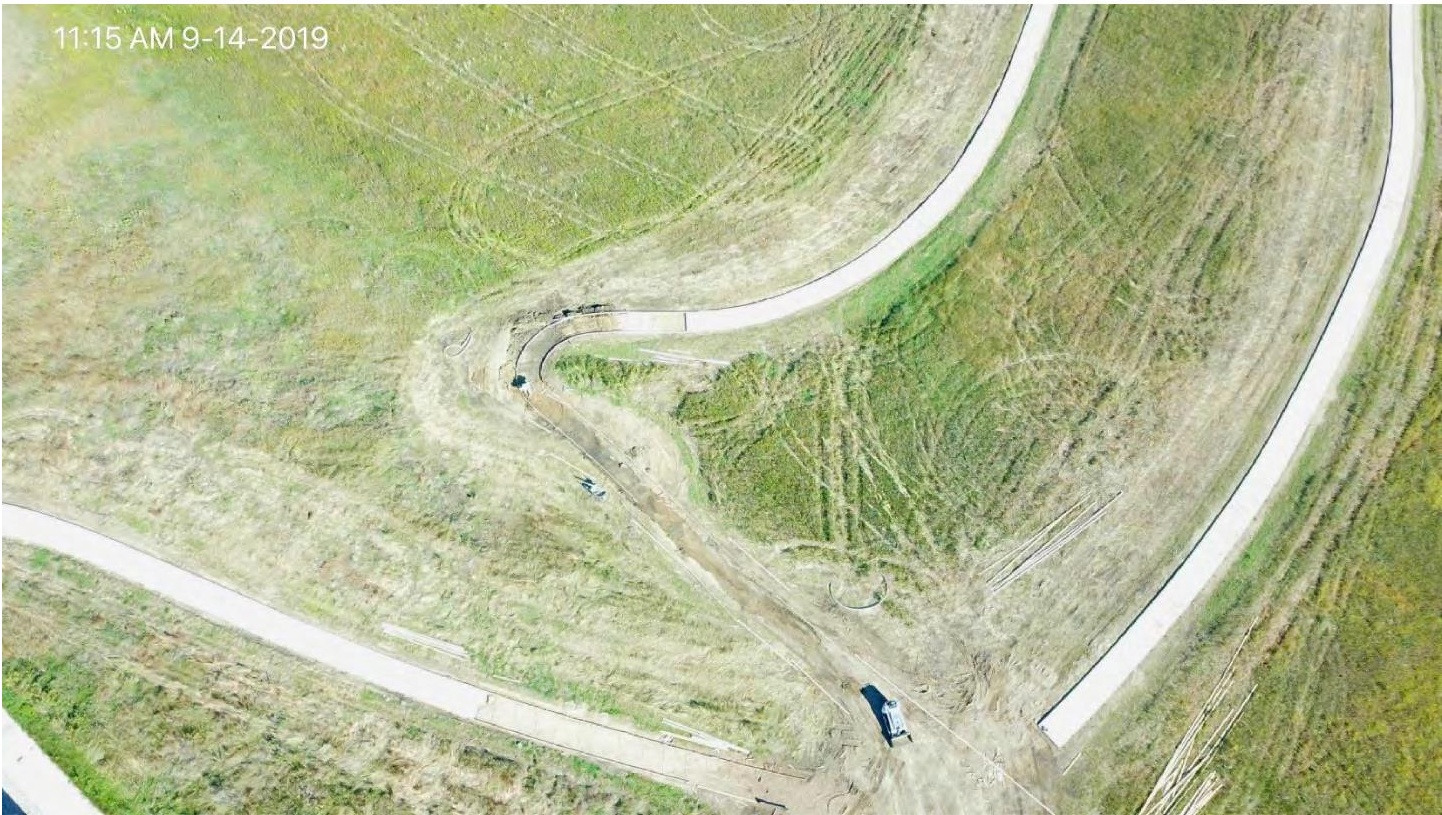
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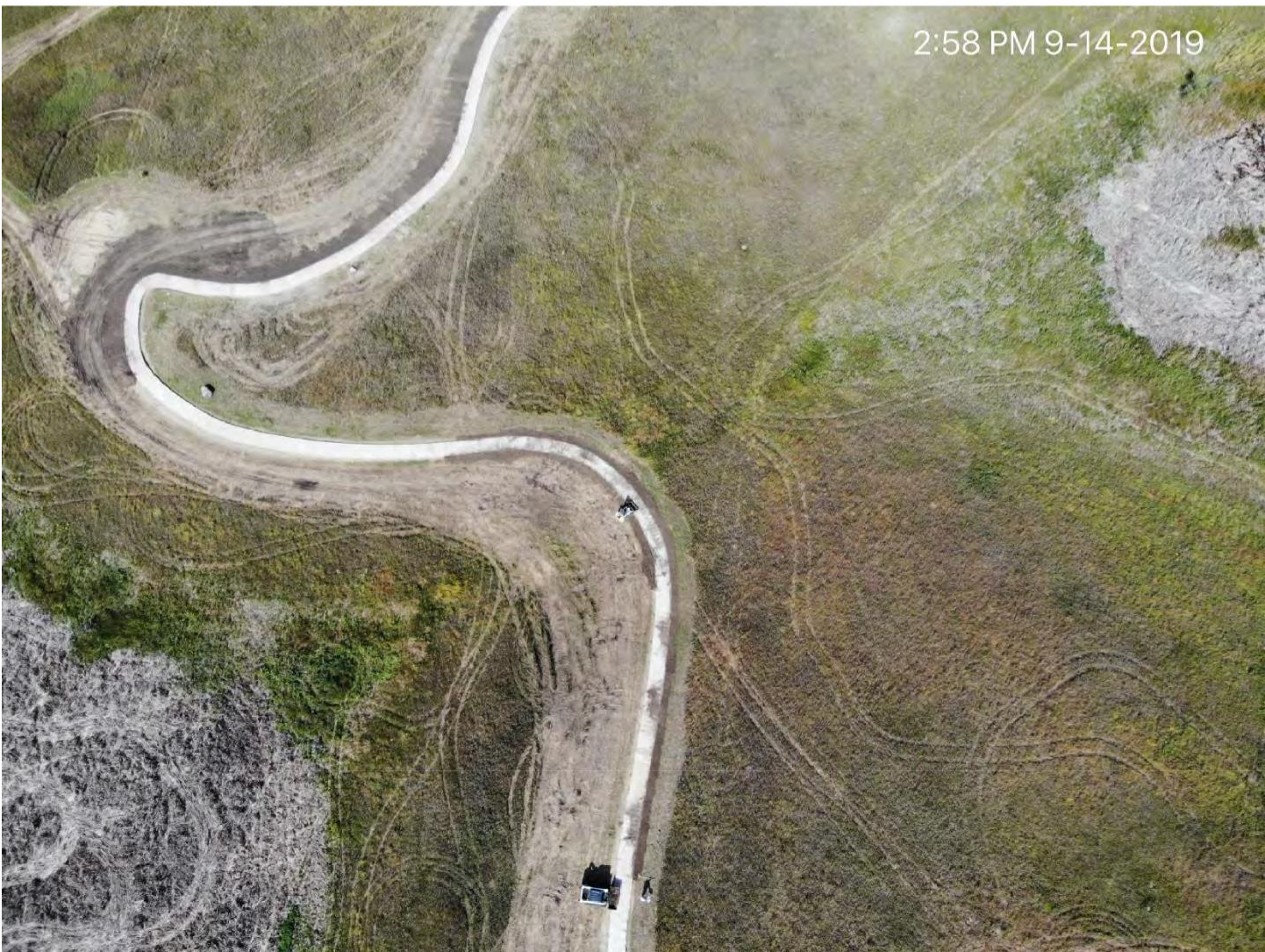
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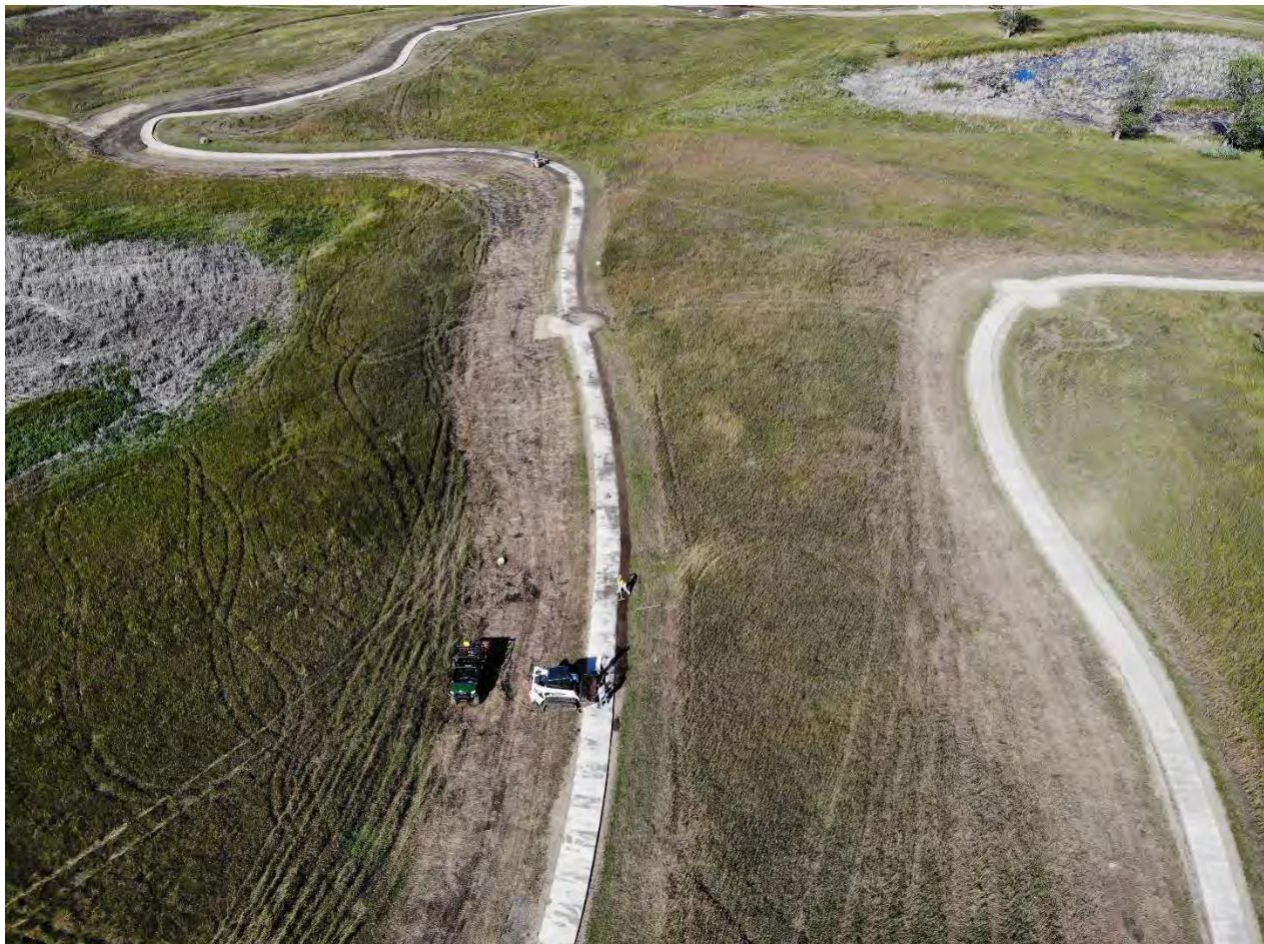
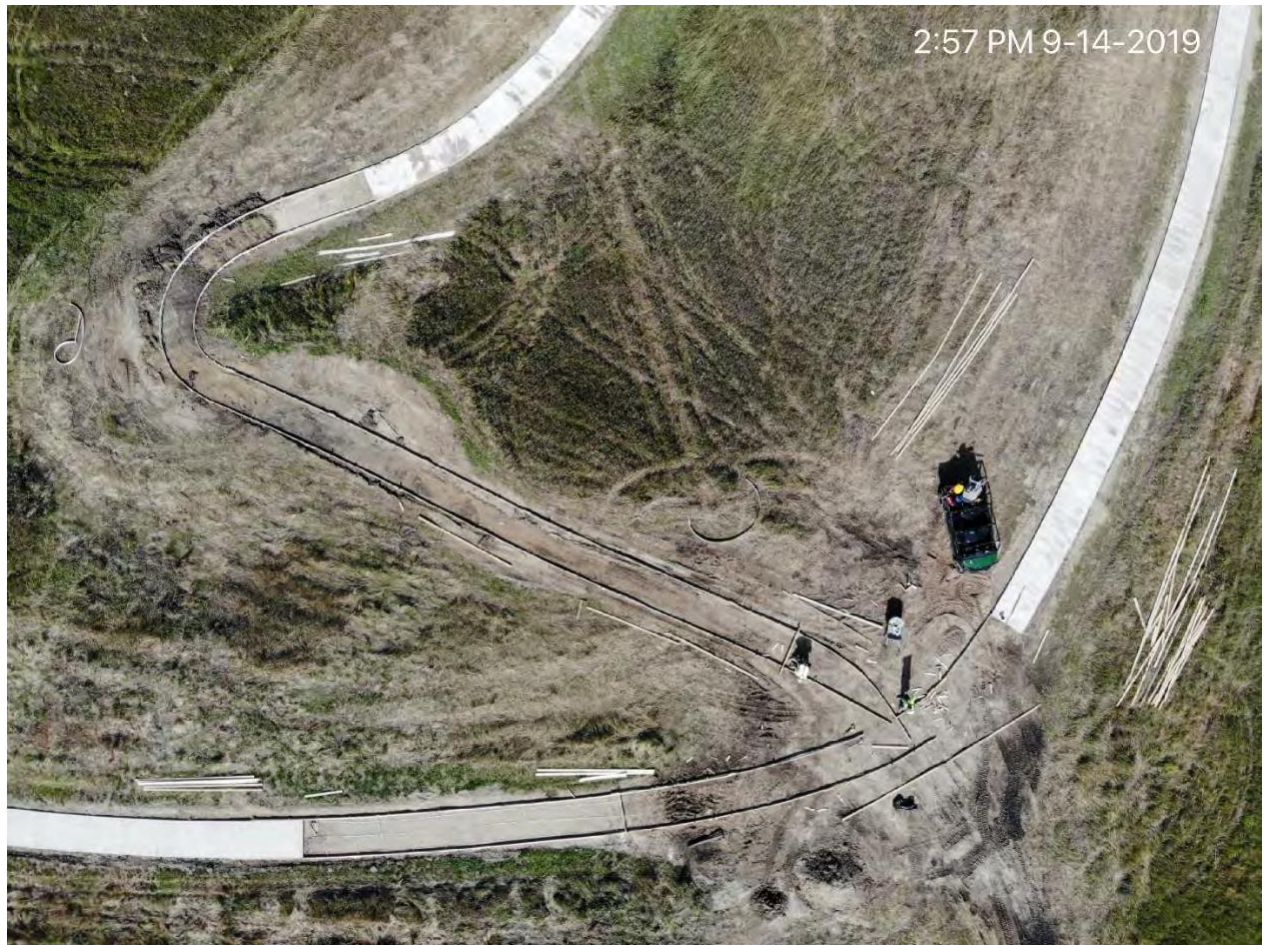
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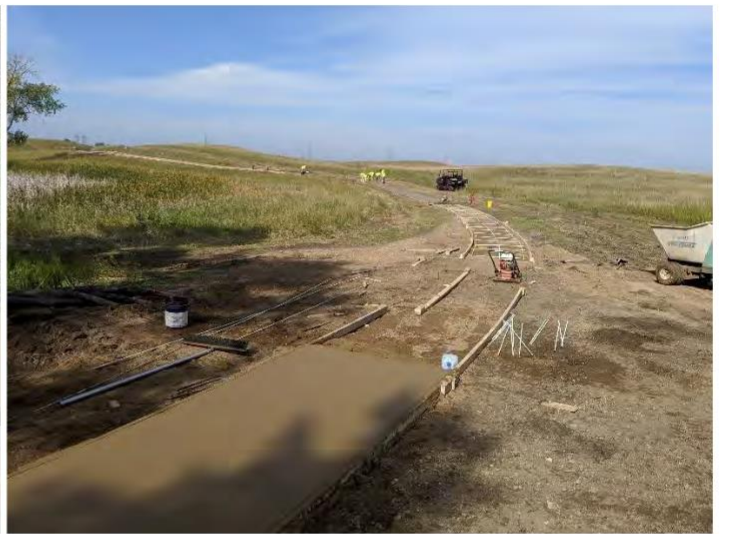




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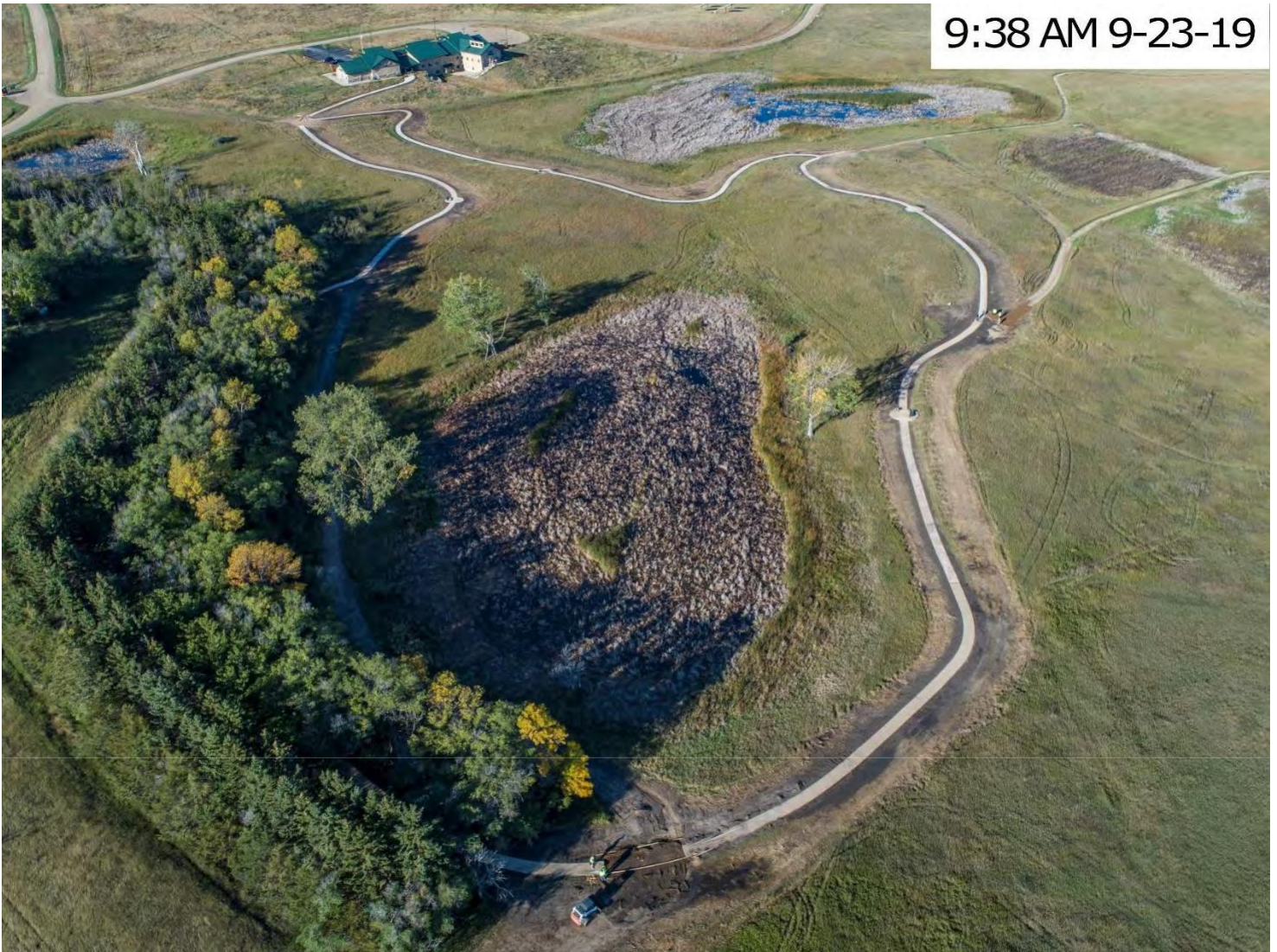








Week 7

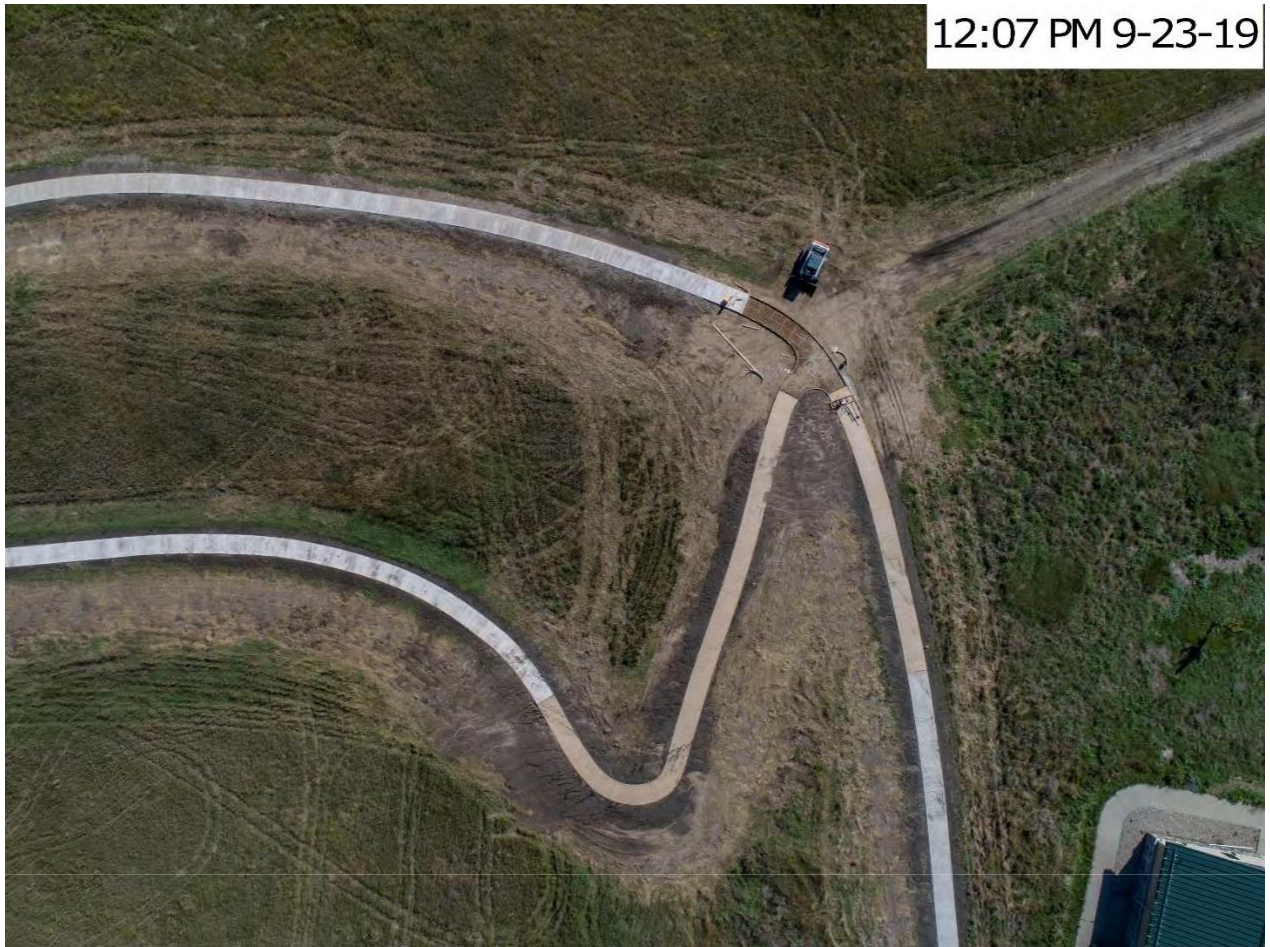




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