FieldPath

YOUR FARM'S NAME

Small Town, NSW, Australia

COVERAGE PATH PLAN

CONTENTS

INTRODUCTION

ABOUT THIS REPORT

This report has been prepared by FieldPath to assist in the planning of tractor operations for the nominated field(s)/paddock(s). It contains one or more suggested coverage paths, based on the supplied field boundary identified via global imaging with the implement width specified. The primary aim is to reduce operational inefficiencies such as overlap, excess distance travelled, and turning time, while maintaining practical and accessible headland arrangements.

The preferred number of headlands has either been specified by the client or selected by FieldPath based on typical practice. Headlands are assumed to be applied evenly.

You will find a series of path options—typically straight, though curved options are included where field shape or topography warrants it. Each is designed to suit the stated implement width and headland configuration. Visual layouts and basic efficiency summaries are provided for each option, with a recommended layout clearly indicated.

This report is intended as a practical guide for use during field operations, equipment setup, or planning discussions. It can be shared with machine operators, contractors, or consultants. While based on geometric and operational principles, it is not a substitute for agronomic advice, machinery constraints, or local knowledge.

ASSUMPTIONS AND METHODOLOGY

- Field boundaries are interpreted from client-supplied data and/or verified through global imaging. Minor generalisations or smoothing may apply.
- A single implement width is assumed for each operation.
- Path planning assumes consistent ground conditions and average turning capabilities for conventional machinery.
- Efficiency gains depend on paddock shape, implement width, and prior work patterns. Estimated savings in distance and fuel are based on published studies and internal modelling.
- Where known, machine-specific factors such as turning radius, GPS capability, and implement configuration have been considered. If your equipment differs, an alternative plan can be prepared upon request.

MODIFICATIONS AND ADDITIONAL SERVICES

If you require plans for additional implement widths, different headland allocations, or further field operations, please contact FieldPath. Additional reports for the same field can be provided at reduced rates.

Contact
FieldPath | info@fieldpath.farm

FIELD SUMMARY

	Ploughing	Cultivating	Seeding	Rolling	Spraying	Spreading	Harvesting	Mowing	Raking	Mulching	Other
Old Aerodrome	⊗	⊗	✓	⊗	✓	⊗	✓	⊗	⊗	⊗	⊗
Manfield	⊗	✓	✓	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

OLD AERODROME

FIELD PROPERTIES

Shape: Irregular

Area: 9.67 ha

Perimeter: 1.73 km

OPERATION COVERAGE PATH PLAN

PLOUGHING

Not assessed

CULTIVATING

Not assessed

SEEDING

Implement Width: 4 m

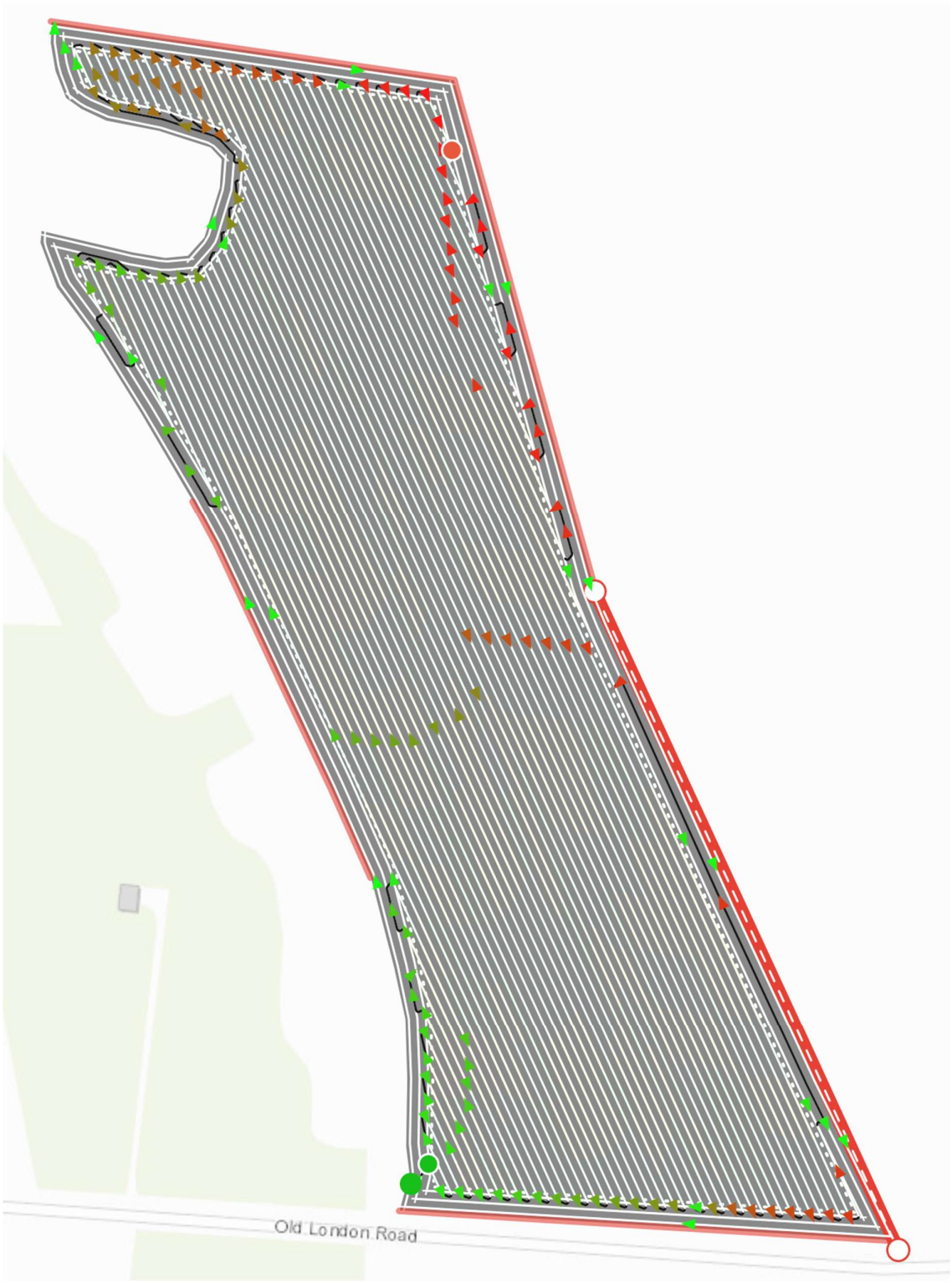
Number of Headlands Modelled: 3

Optimal Number of Headlands: 2.6

Recommended Angle: 155.177°

Plan	Angle (°)	No. Tracks	Track Distance (km)	Turn Distance (km)	Total Distance (km)	Area Overlap (ha)	Area Overlap (%)	Missed Area (ha)
Longest Edge	155.177	71	19.75	0.44	25.21	0.24	2.47	<0.01
Least No. of Tracks	155.177	71	19.75	0.44	25.21	0.24	2.47	<0.01
Shortest Distance	164.507	80	19.68	0.5	25.2	0.21	2.2	<0.01
Shortest Time	155.177	71	19.75	0.44	25.21	0.24	2.47	<0.01
Soil Loss	109	121	19.72	0.75	25.5	0.23	2.35	N/A
Other 1	98.2491	126	19.56	0.79	25.37	0.17	1.72	<0.01
Other 2	93.432	132	19.53	0.82	25.37	0.15	1.57	<0.01
Other 3	154.7361	73	19.84	0.45	25.31	0.28	2.86	<0.01

RECOMMENDED TRACK START



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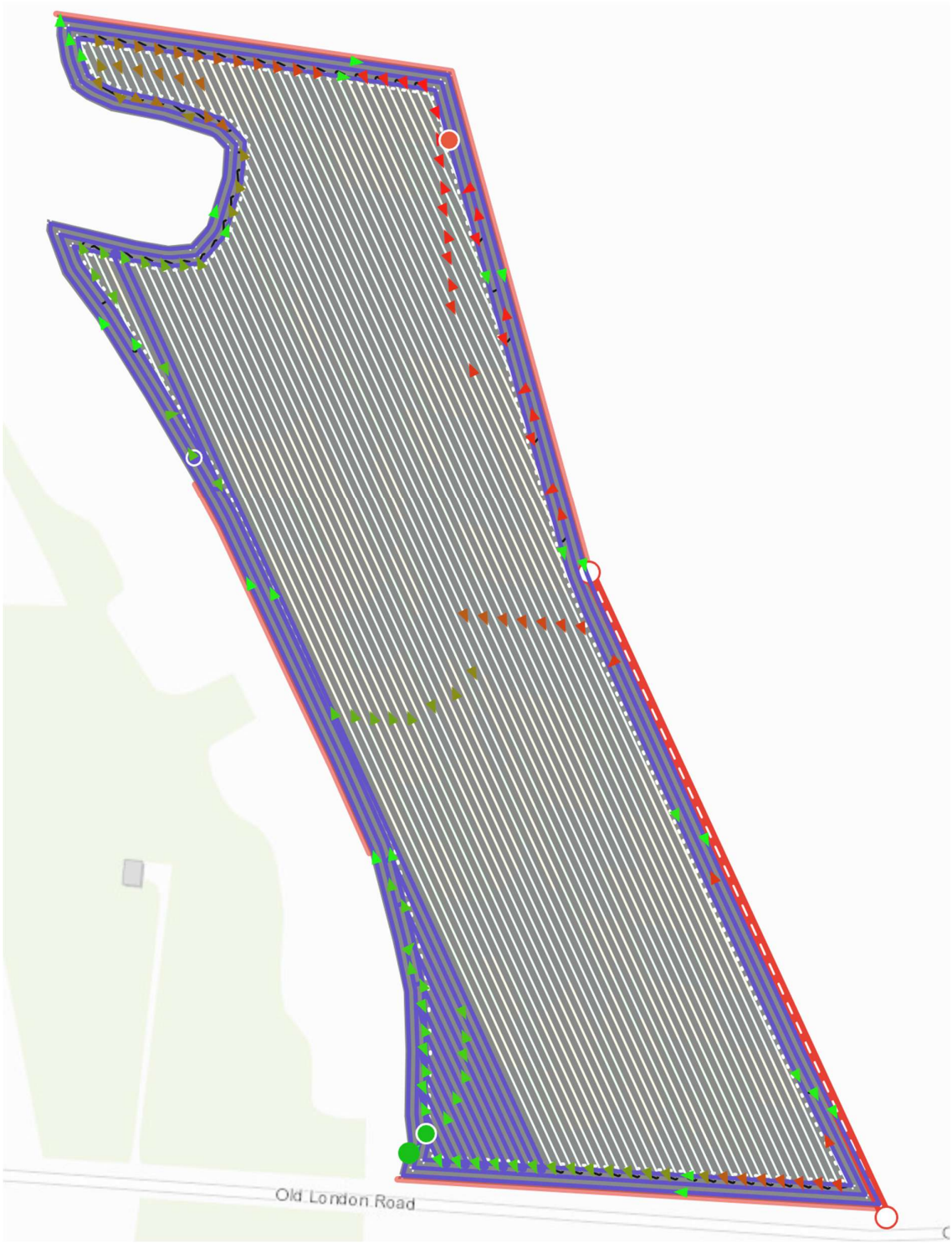

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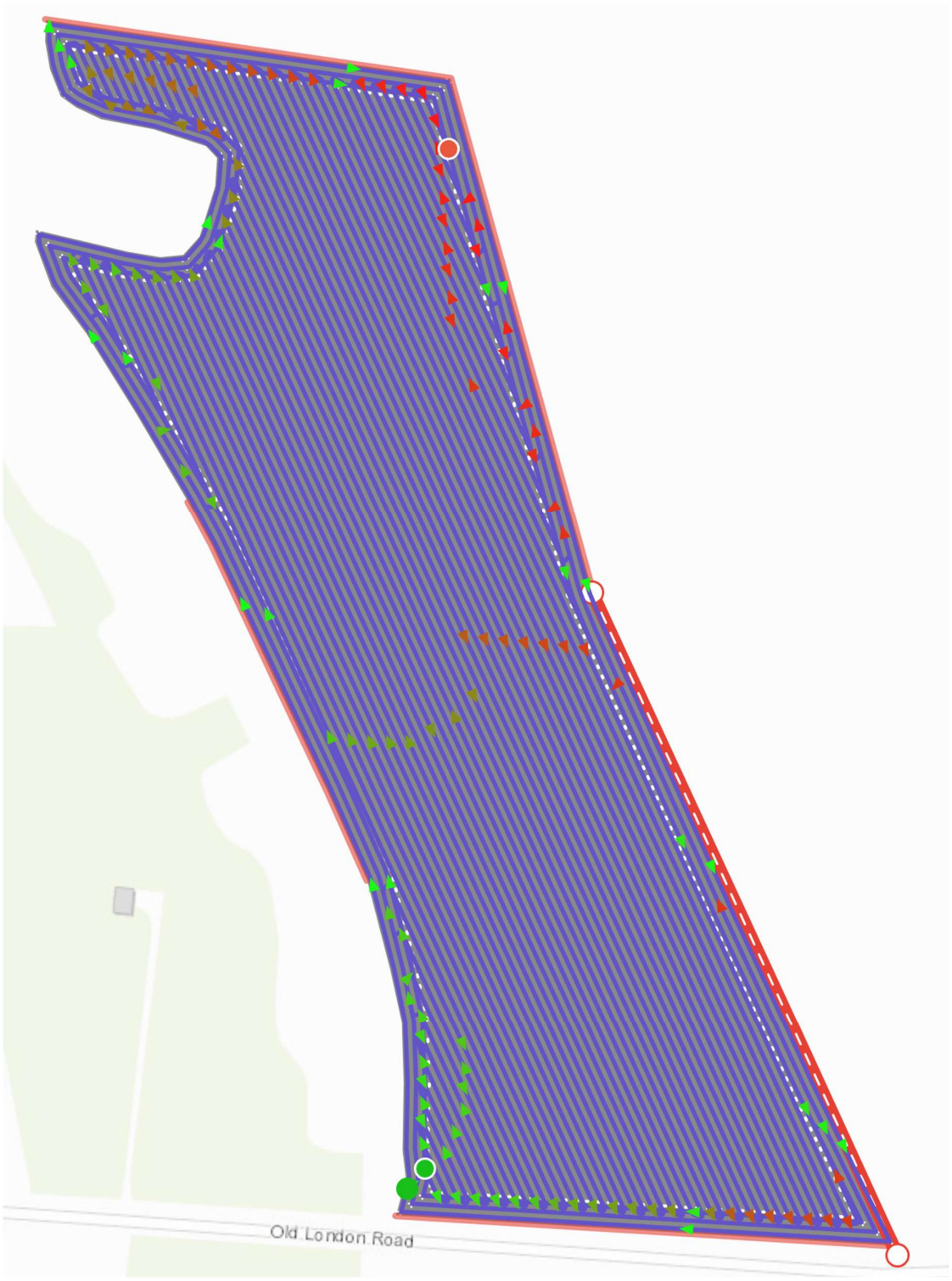
RECOMMENDED TRACK 75% COMPLETE

RECOMMENDED TRACK 100% COMPLETE



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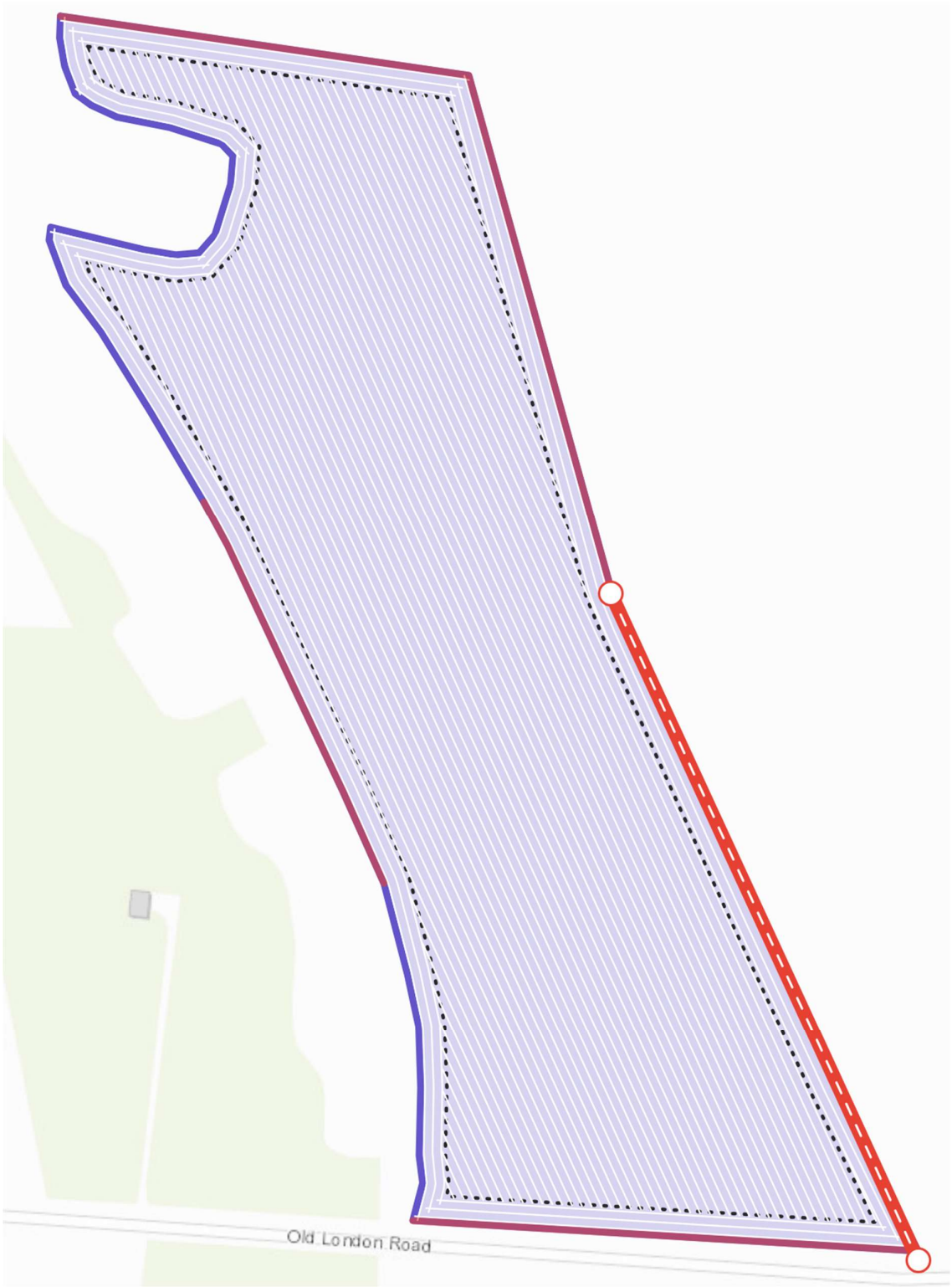

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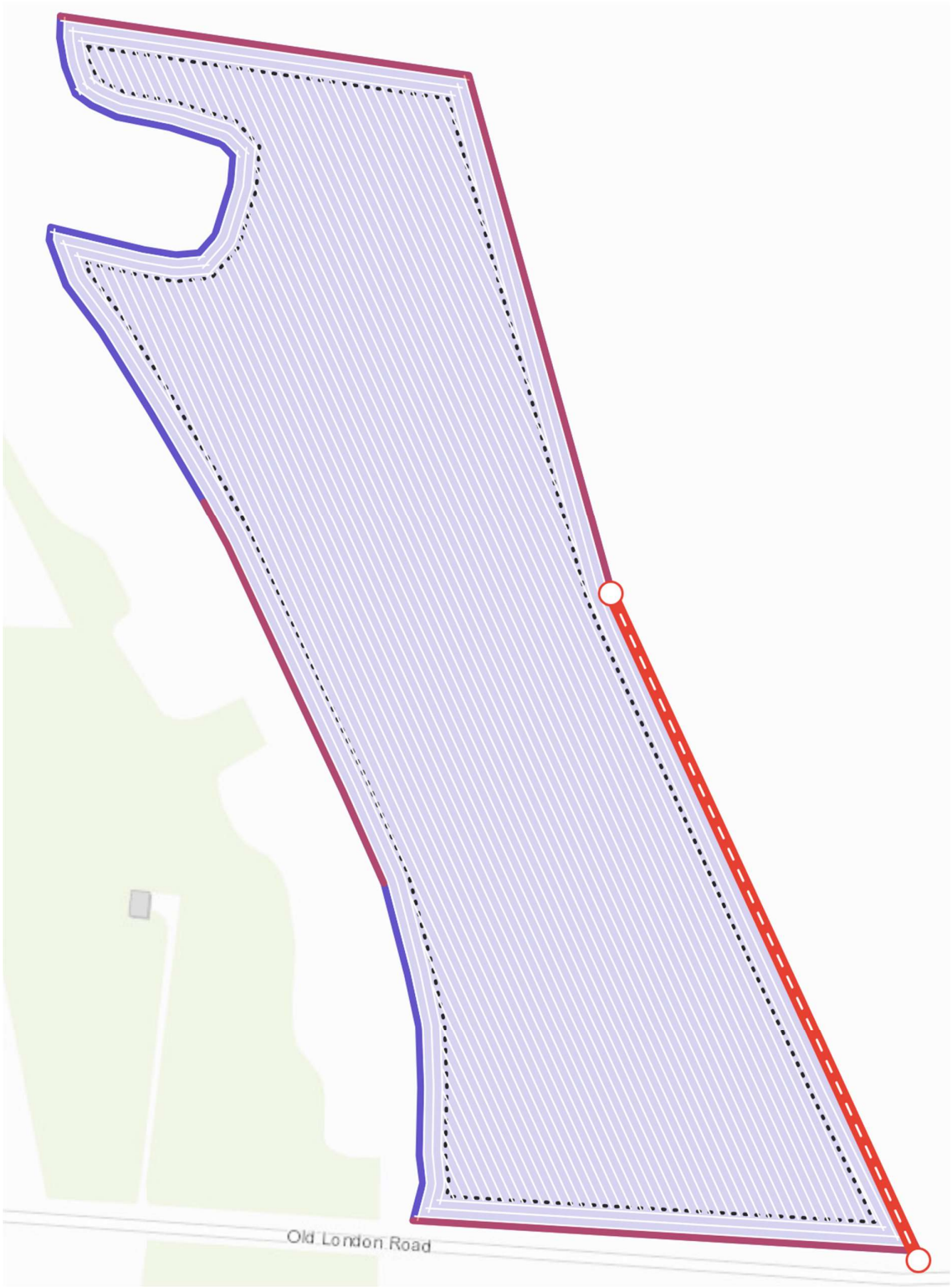

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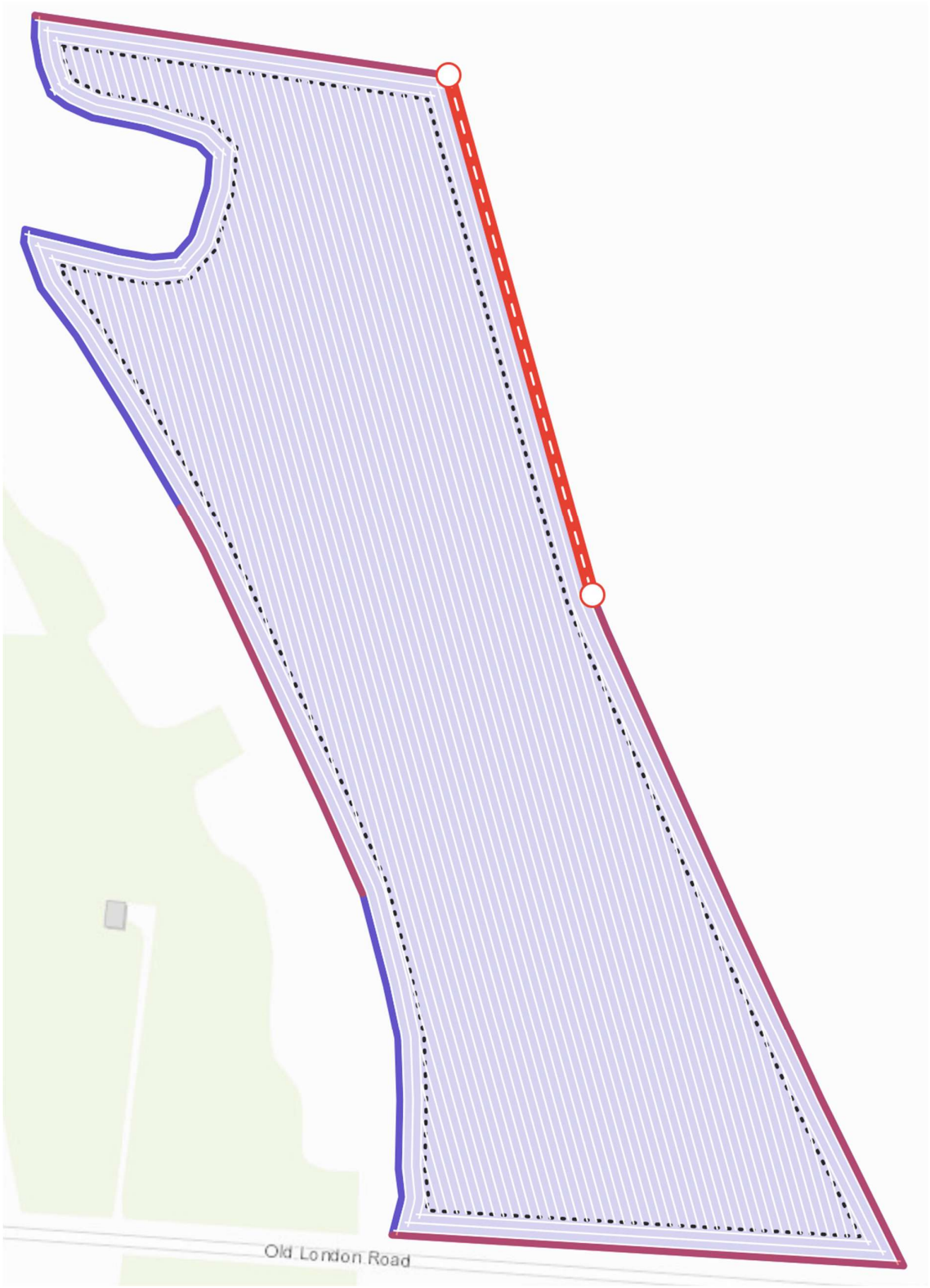

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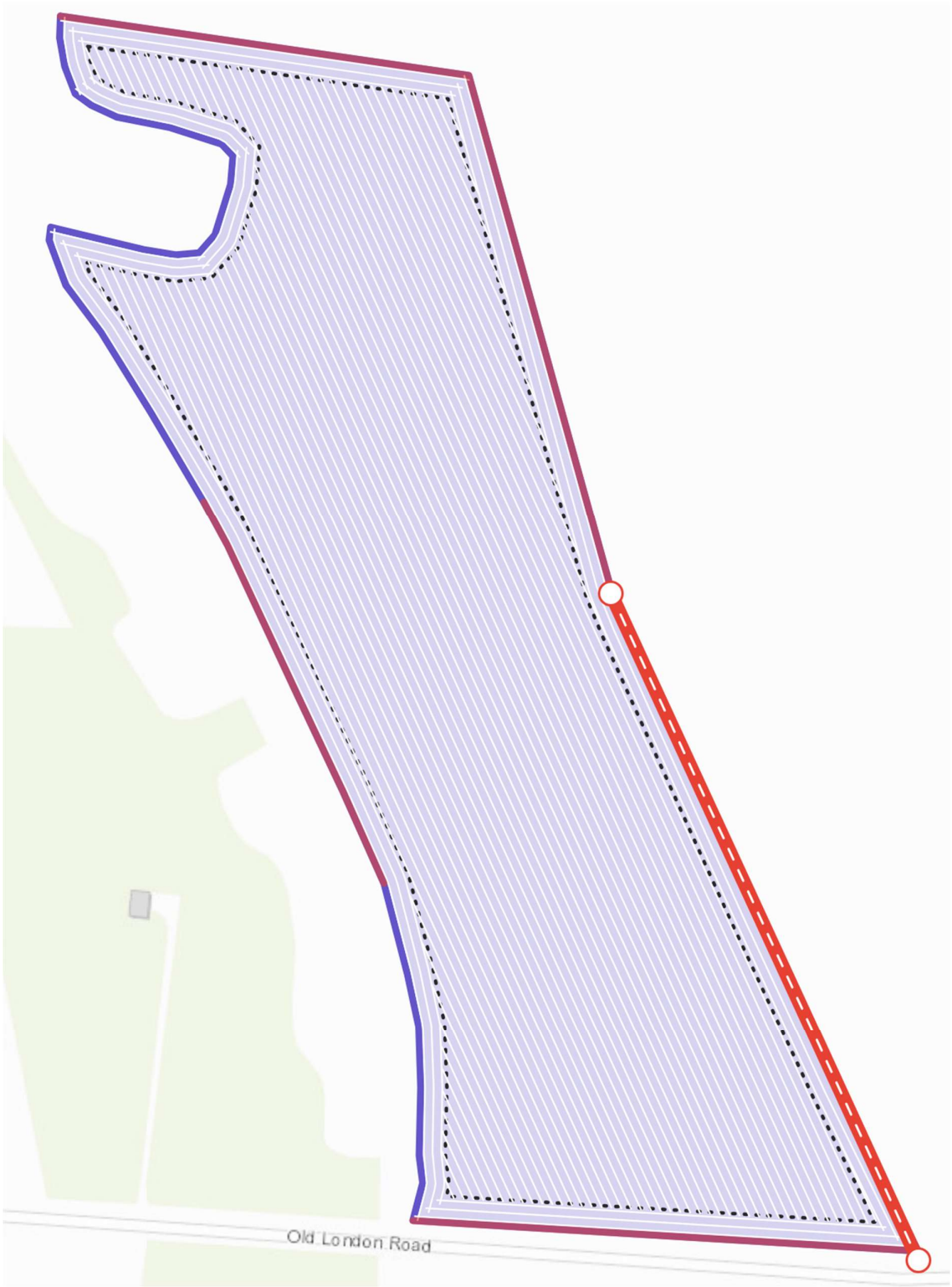
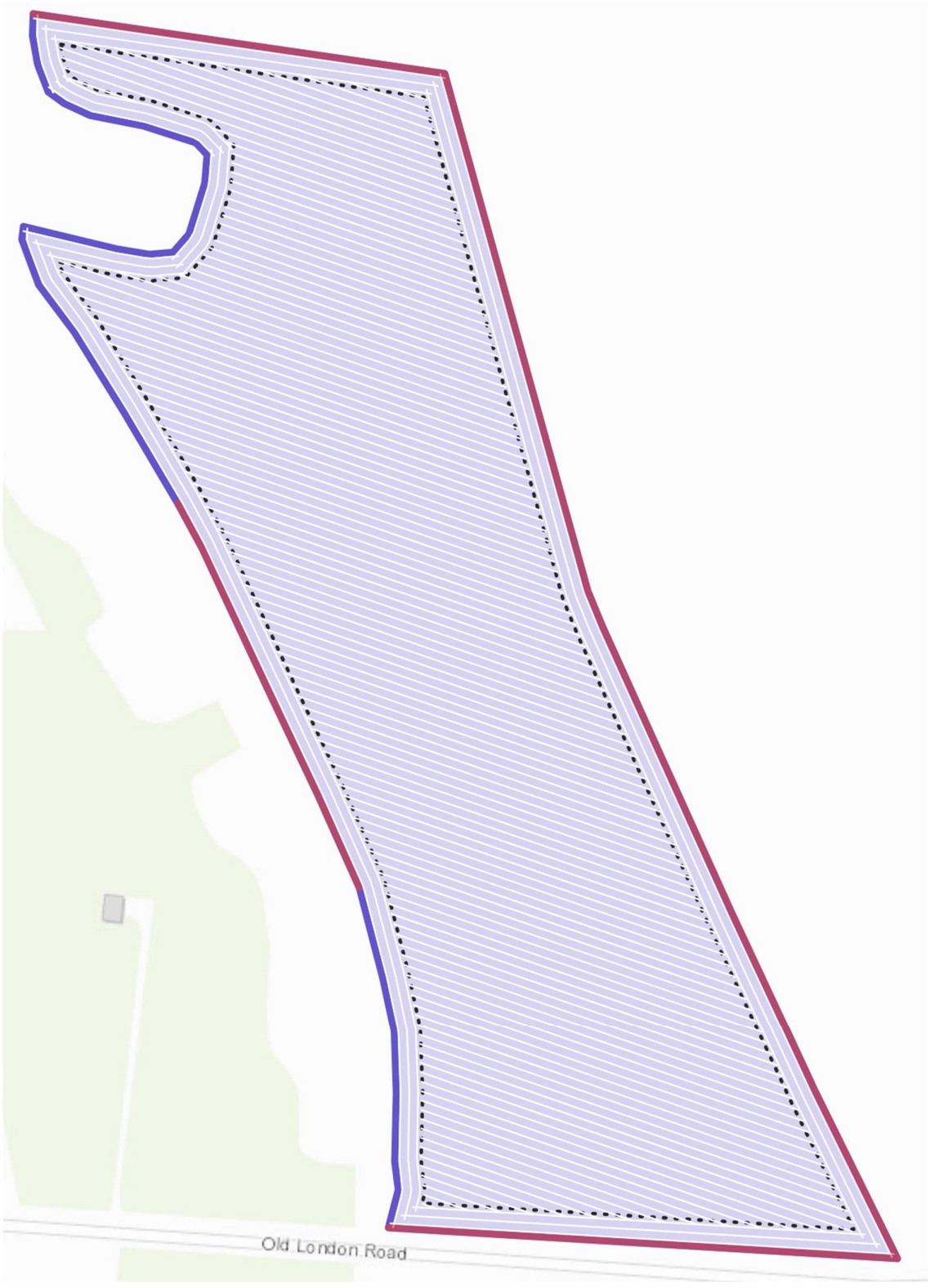


SOIL LOSS



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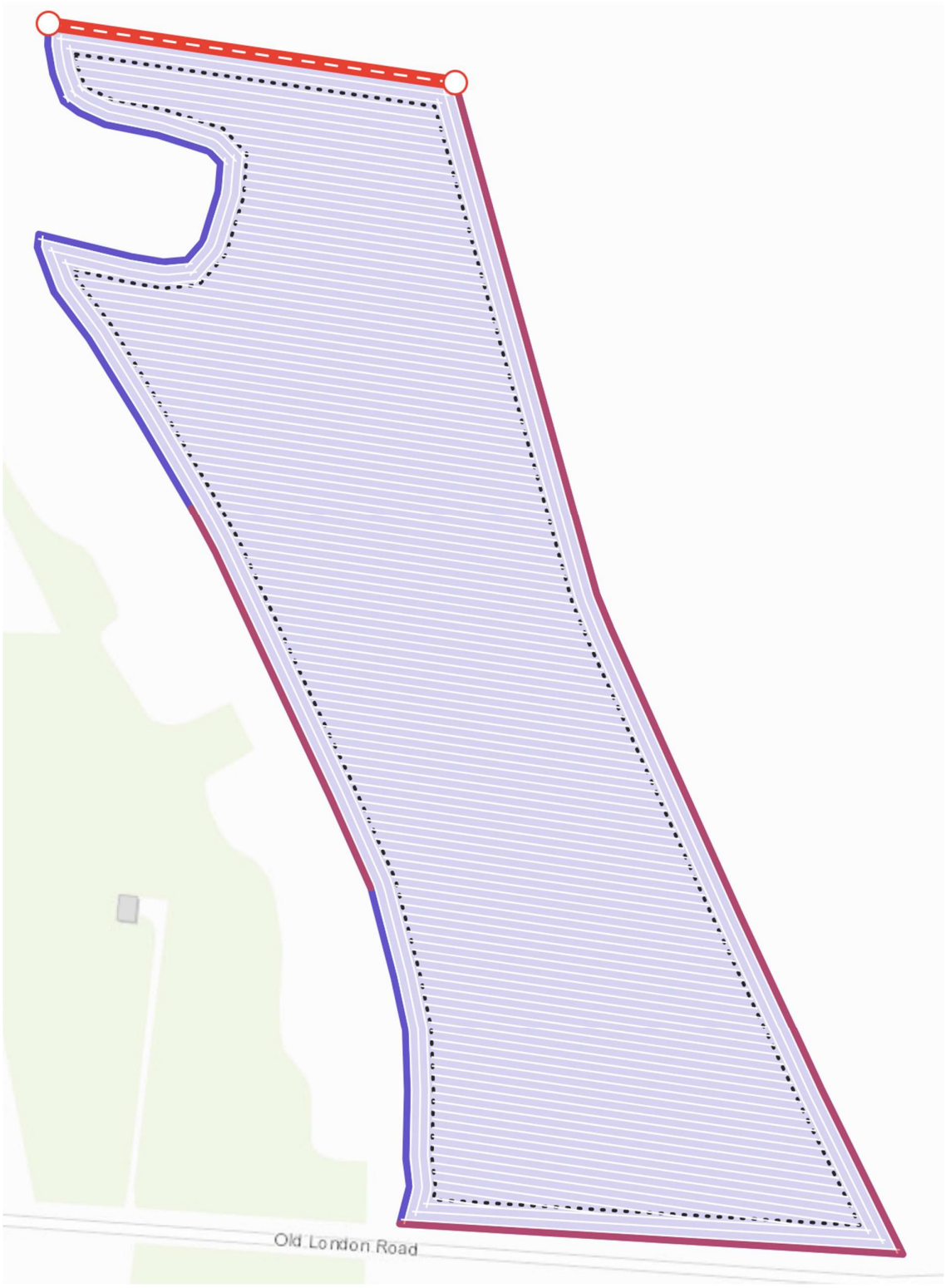

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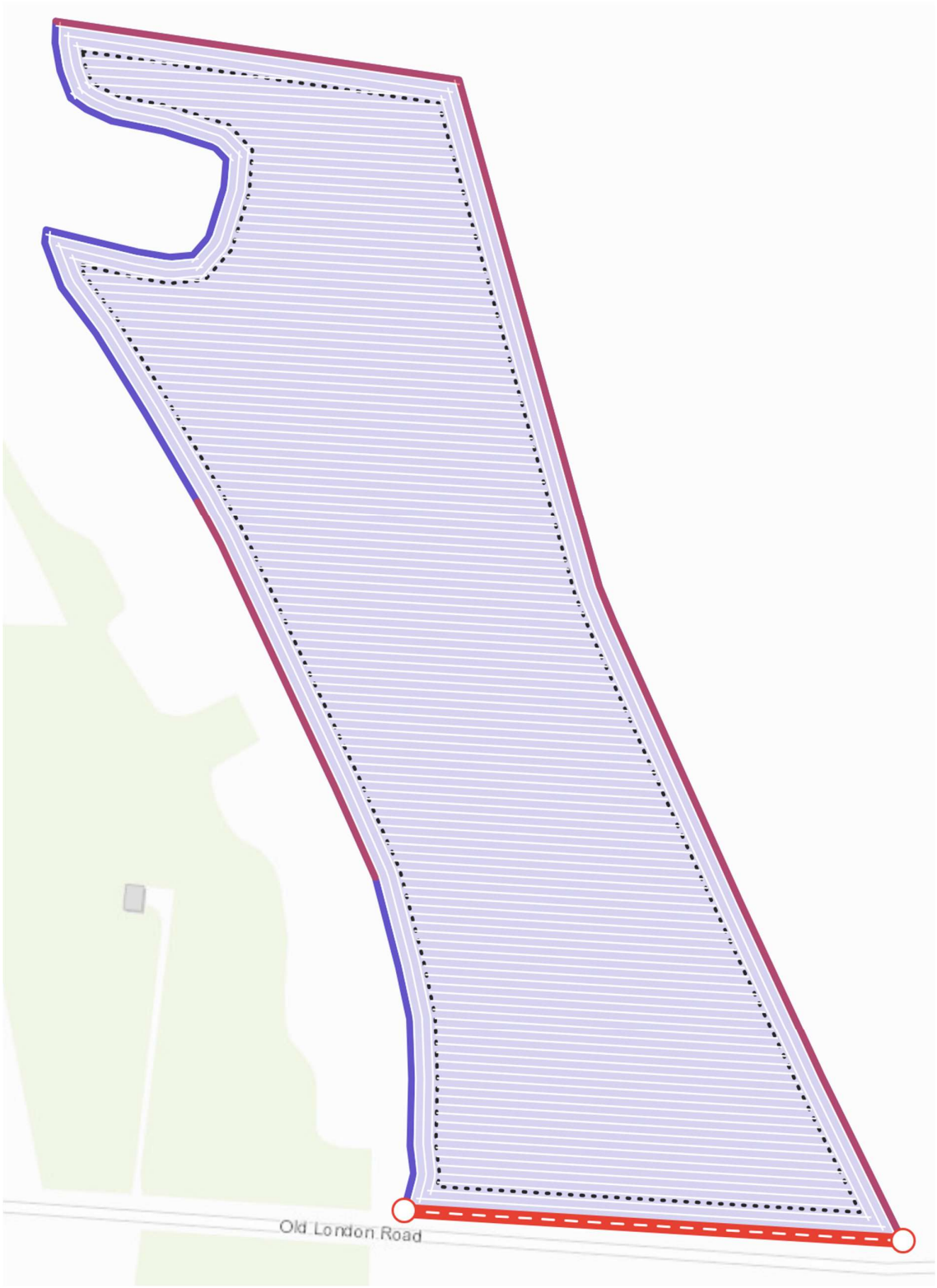

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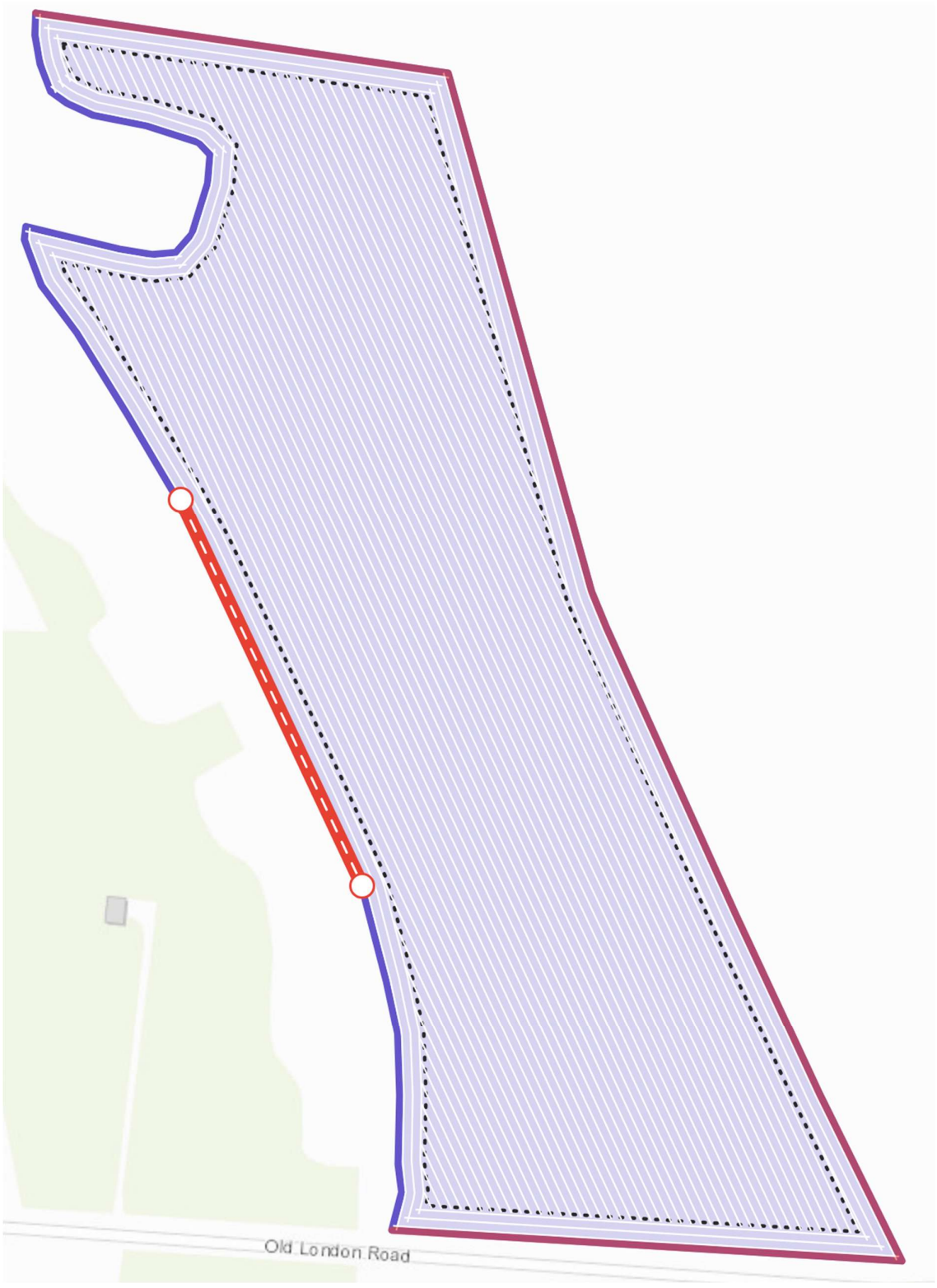


ROLLING

Not assessed

SPRAYING

Implement Width: 24 m

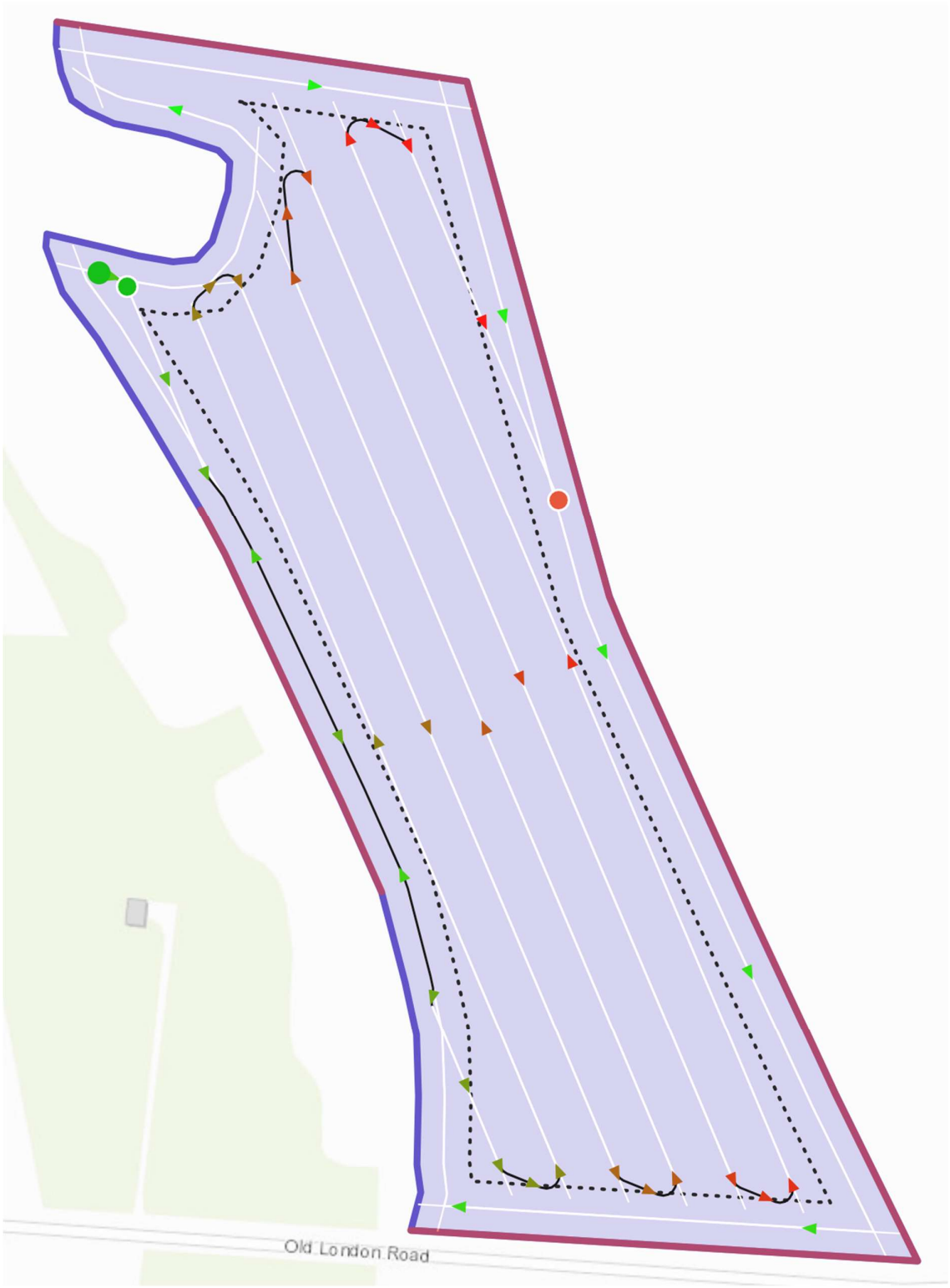
Number of Headlands Modelled: 1

Optimal Number of Headlands: 1.1

Recommended Angle: 157°

Plan	Angle (°)	No. Tracks	Track Distance (km)	Turn Distance (km)	Total Distance (km)	Area Overlap (ha)	Area Overlap (%)	Missed Area (ha)
Longest Edge	155.177	9	2.97	0.3	4.89	1.3	13.47	0.03
Least No. of Tracks	157	8	2.85	0.26	4.73	0.98	10.11	N/A
Shortest Distance	157	8	2.85	0.26	4.73	0.98	10.11	N/A
Shortest Time	157	8	2.85	0.26	4.73	0.98	10.11	N/A
Soil Loss	98.2491	20	2.78	0.72	5.11	0.85	8.78	0.03
Other 1	164.507	9	2.84	0.3	4.75	0.98	10.16	0.04
Other 2	93.432	21	2.75	0.75	5.11	0.76	7.84	0.03
Other 3	154.7361	9	3.07	0.3	4.98	1.52	15.84	0.03

RECOMMENDED TRACK START



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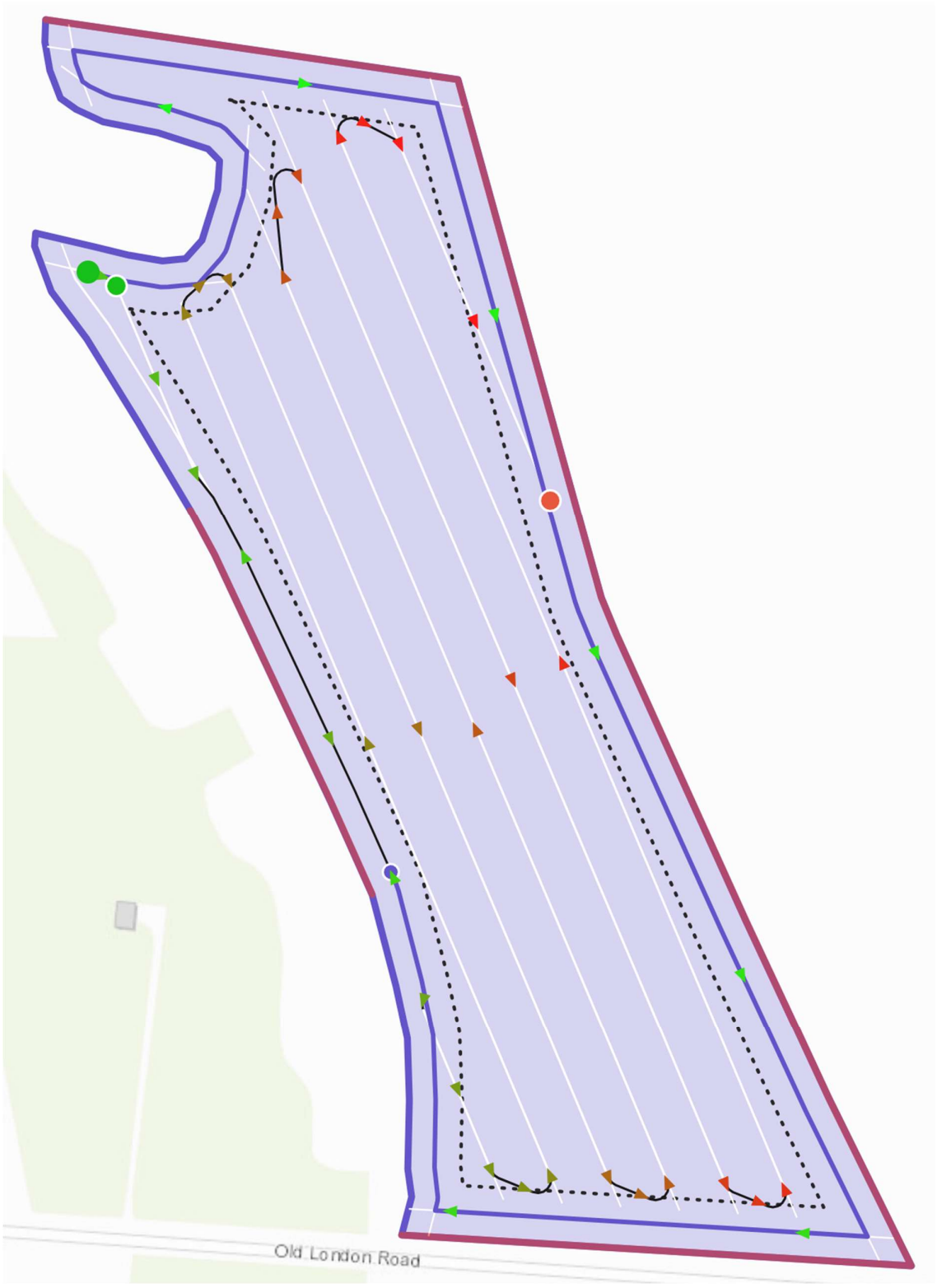

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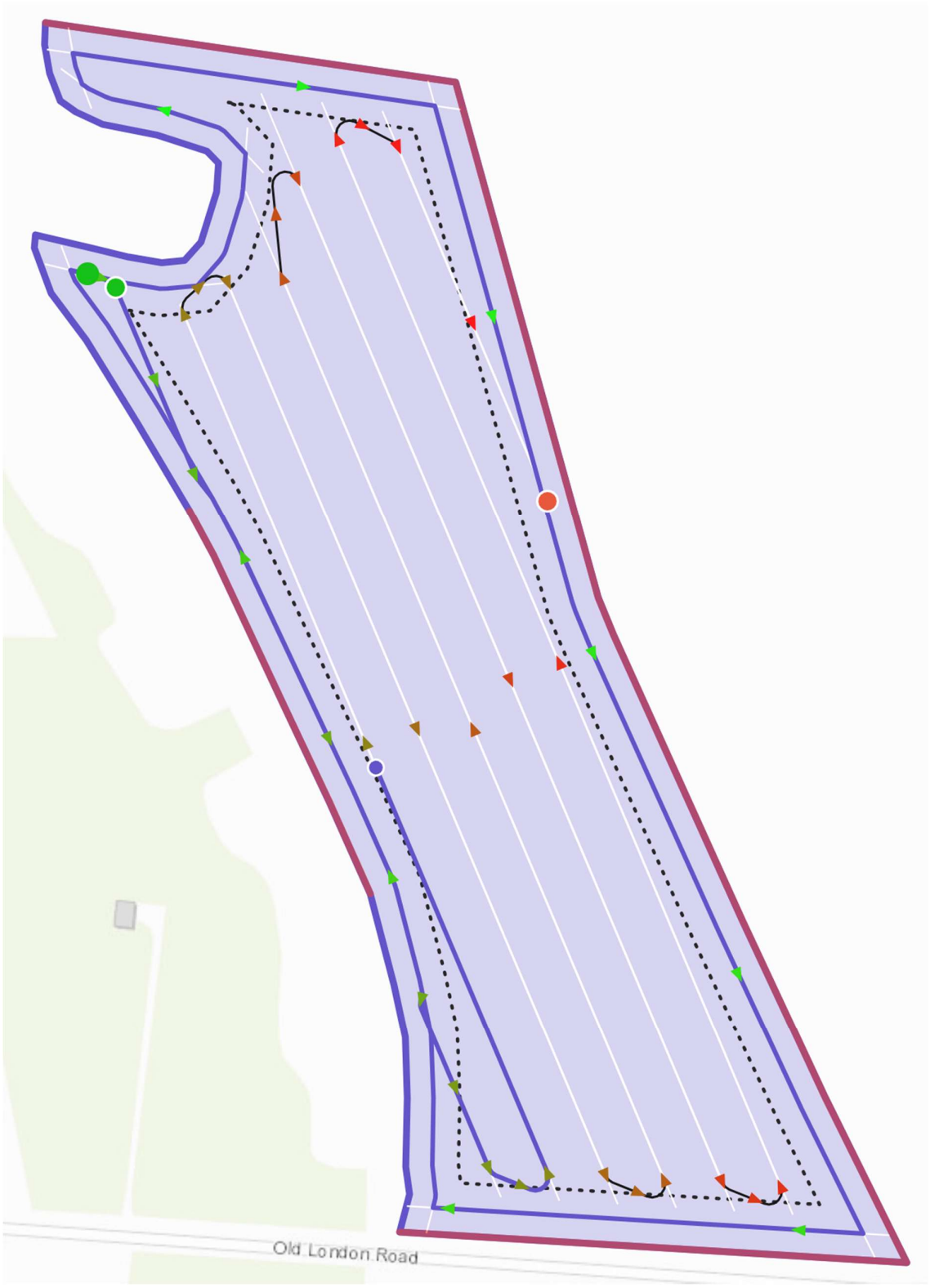

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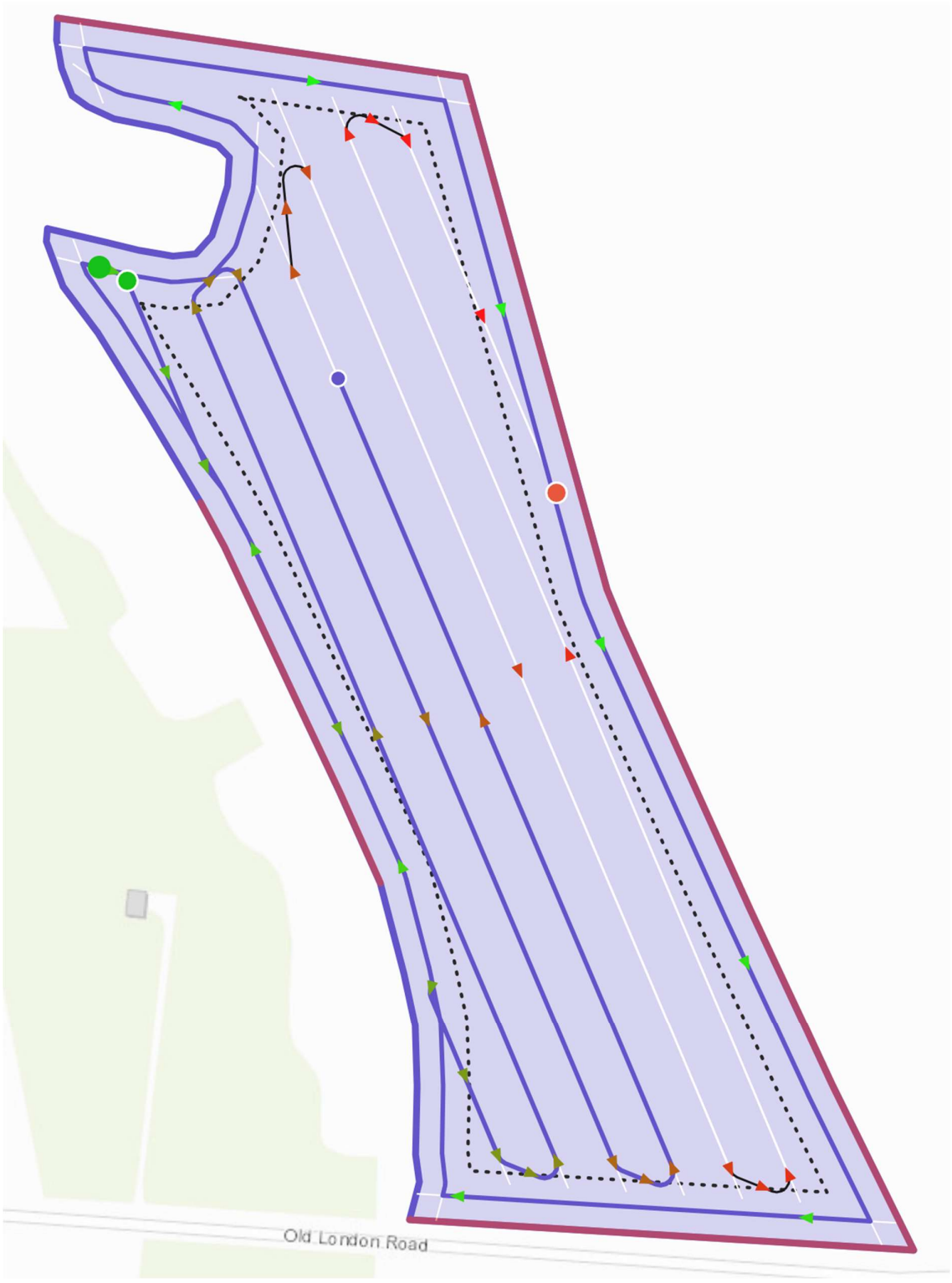

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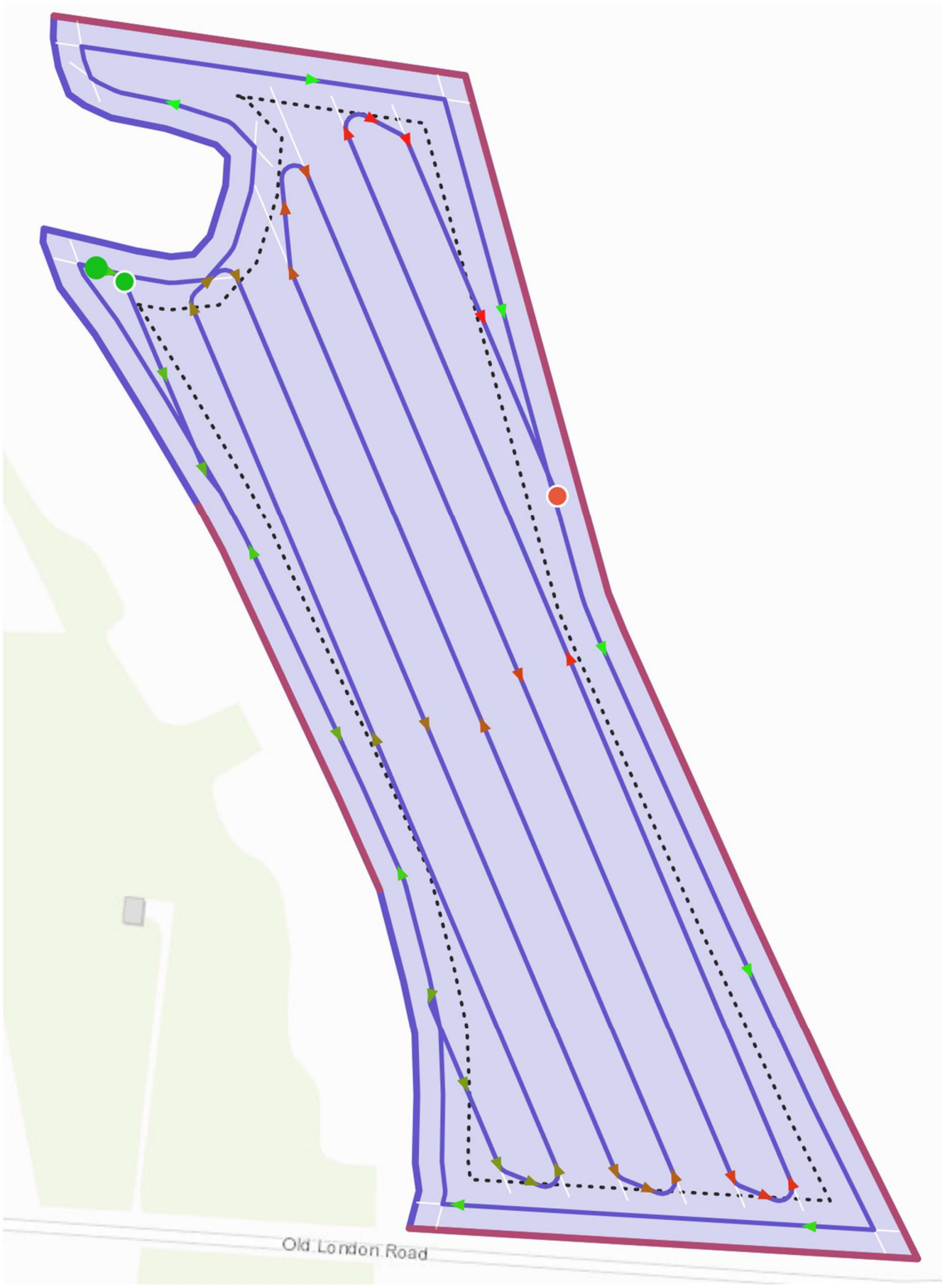
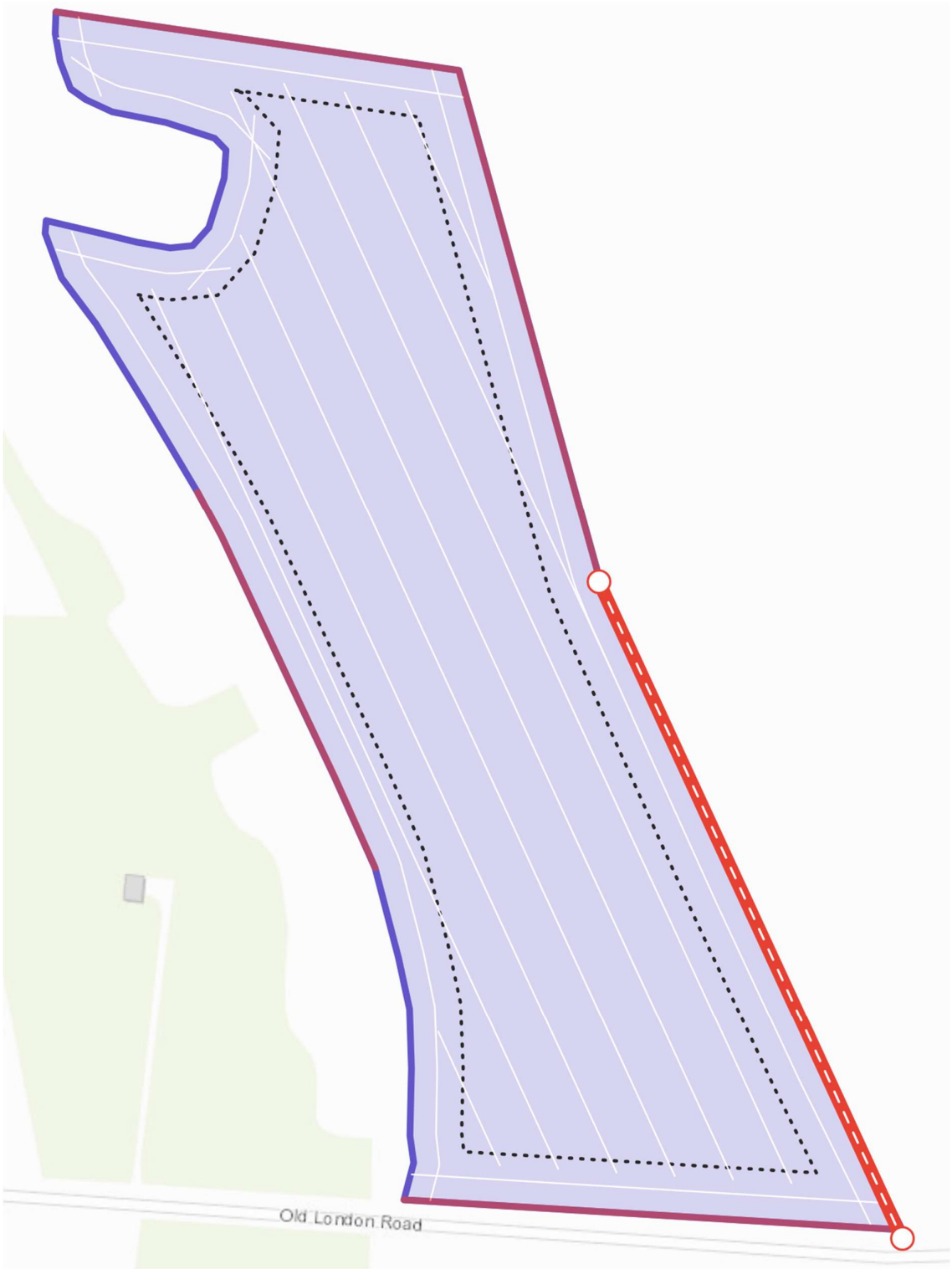


LONGEST EDGE



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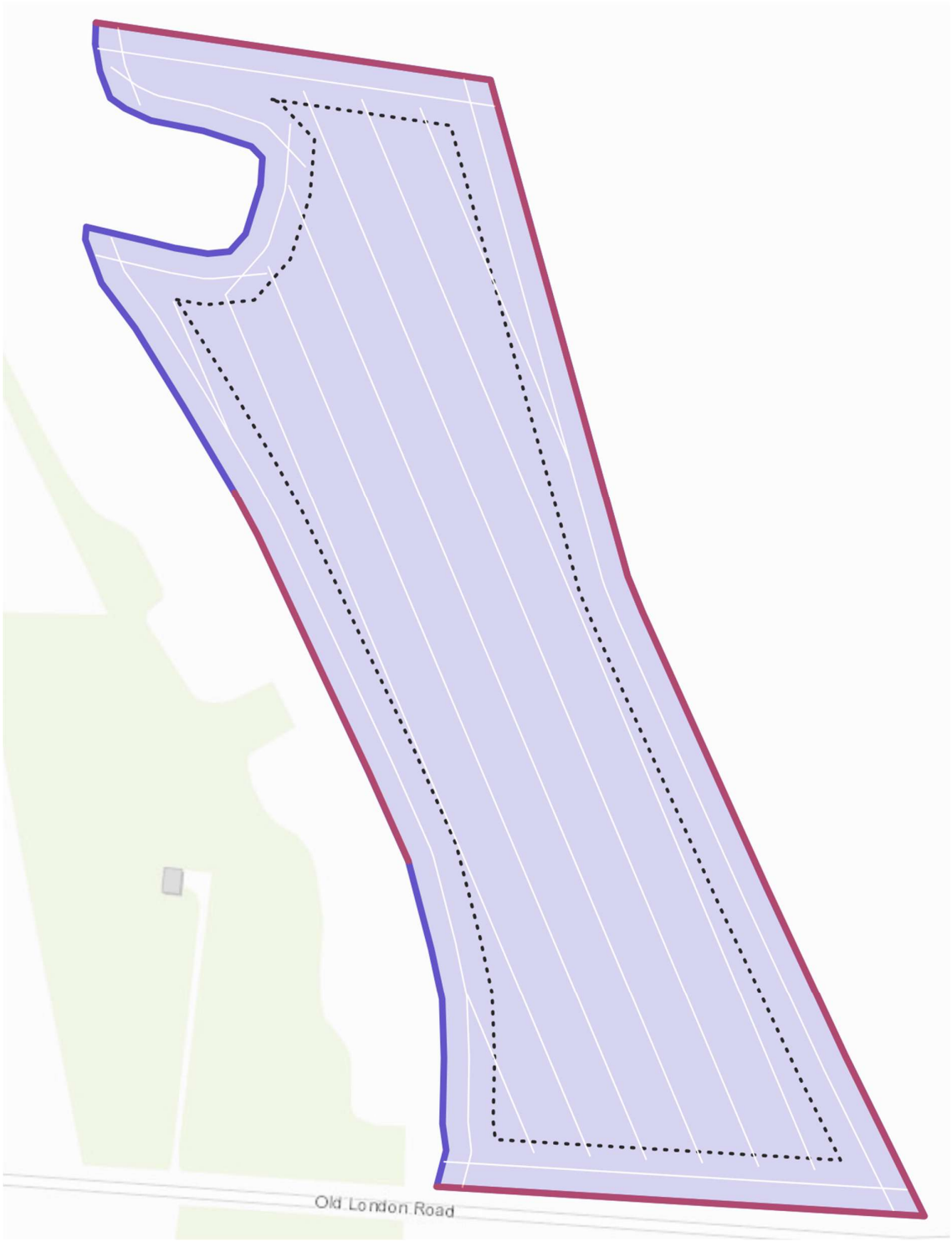

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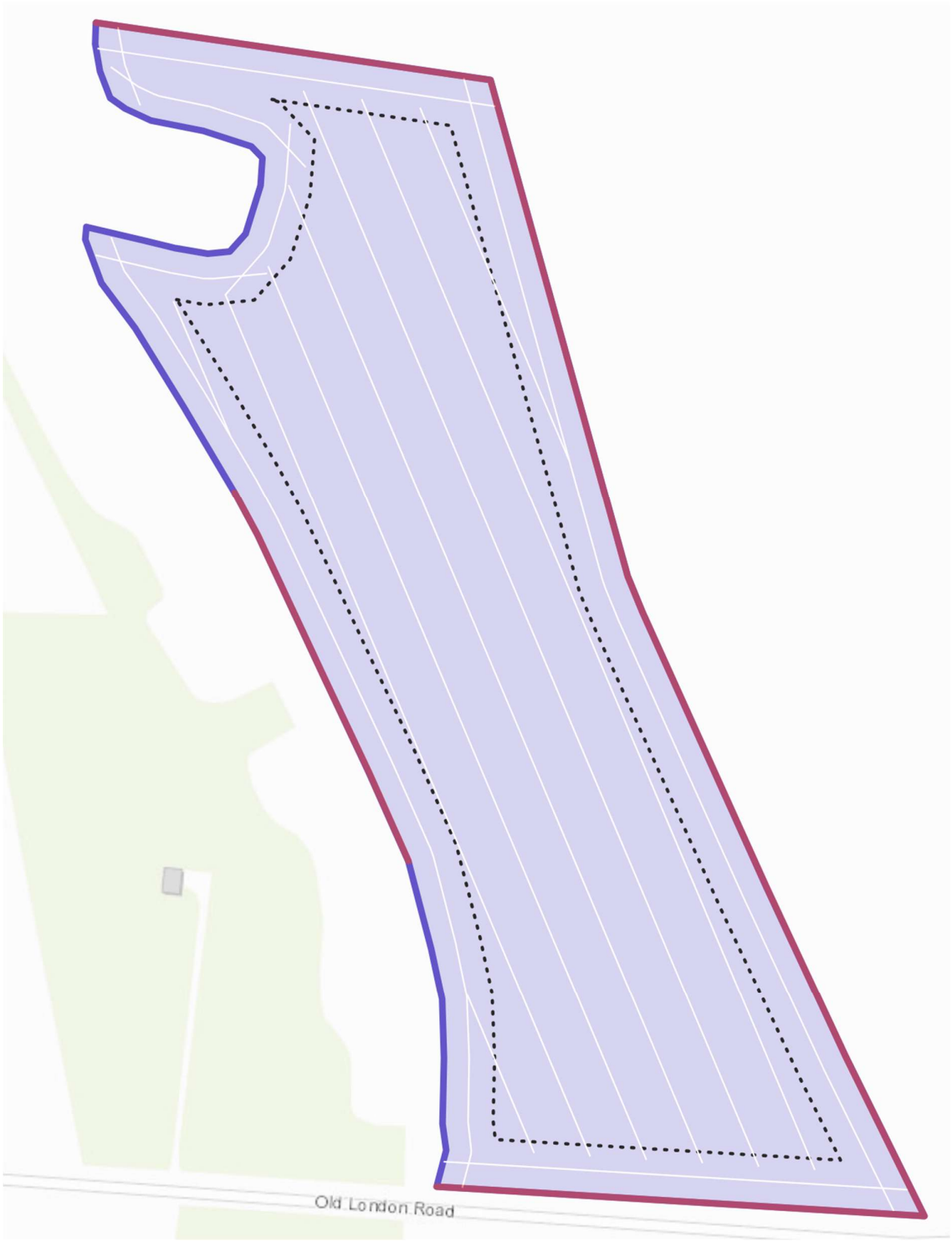
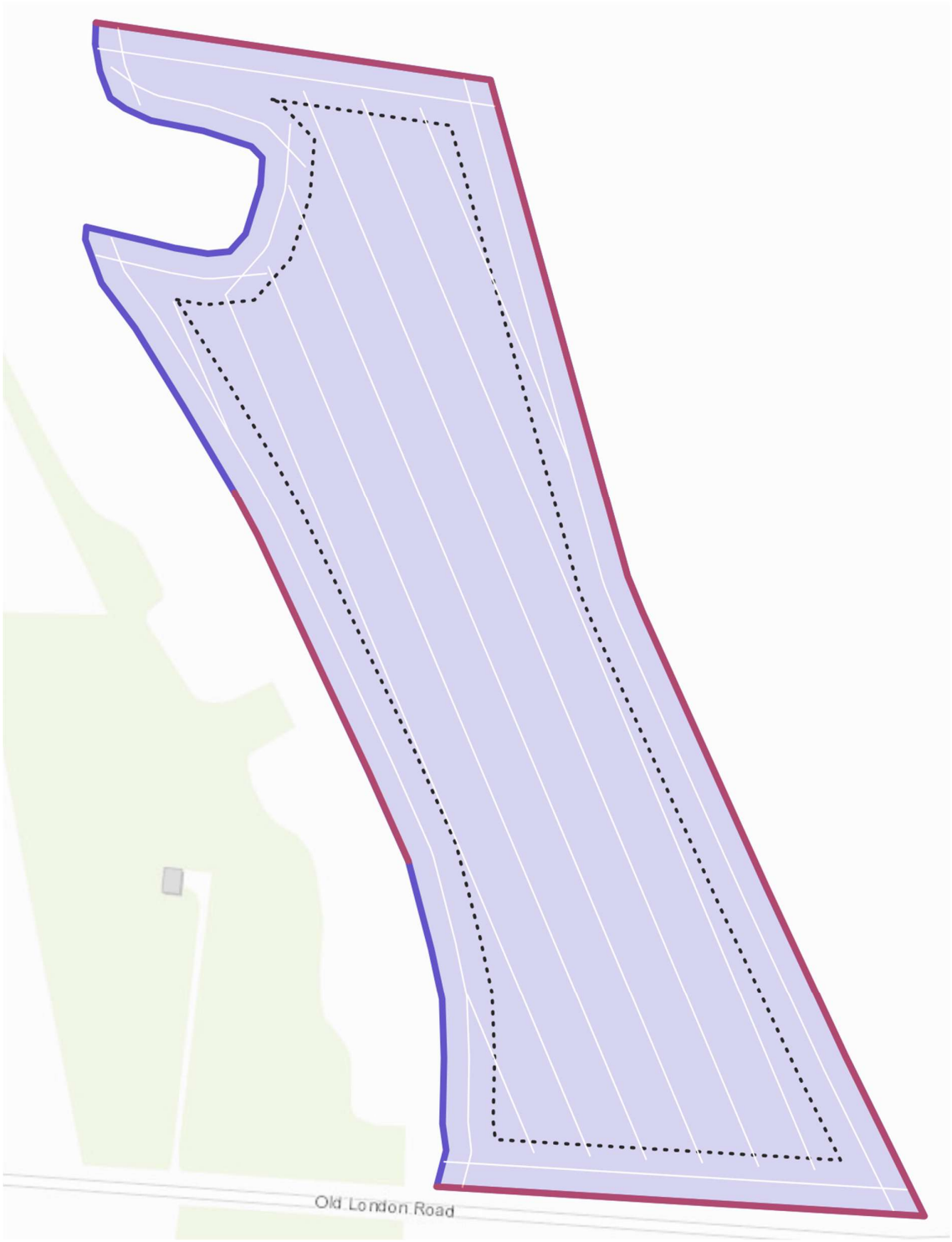
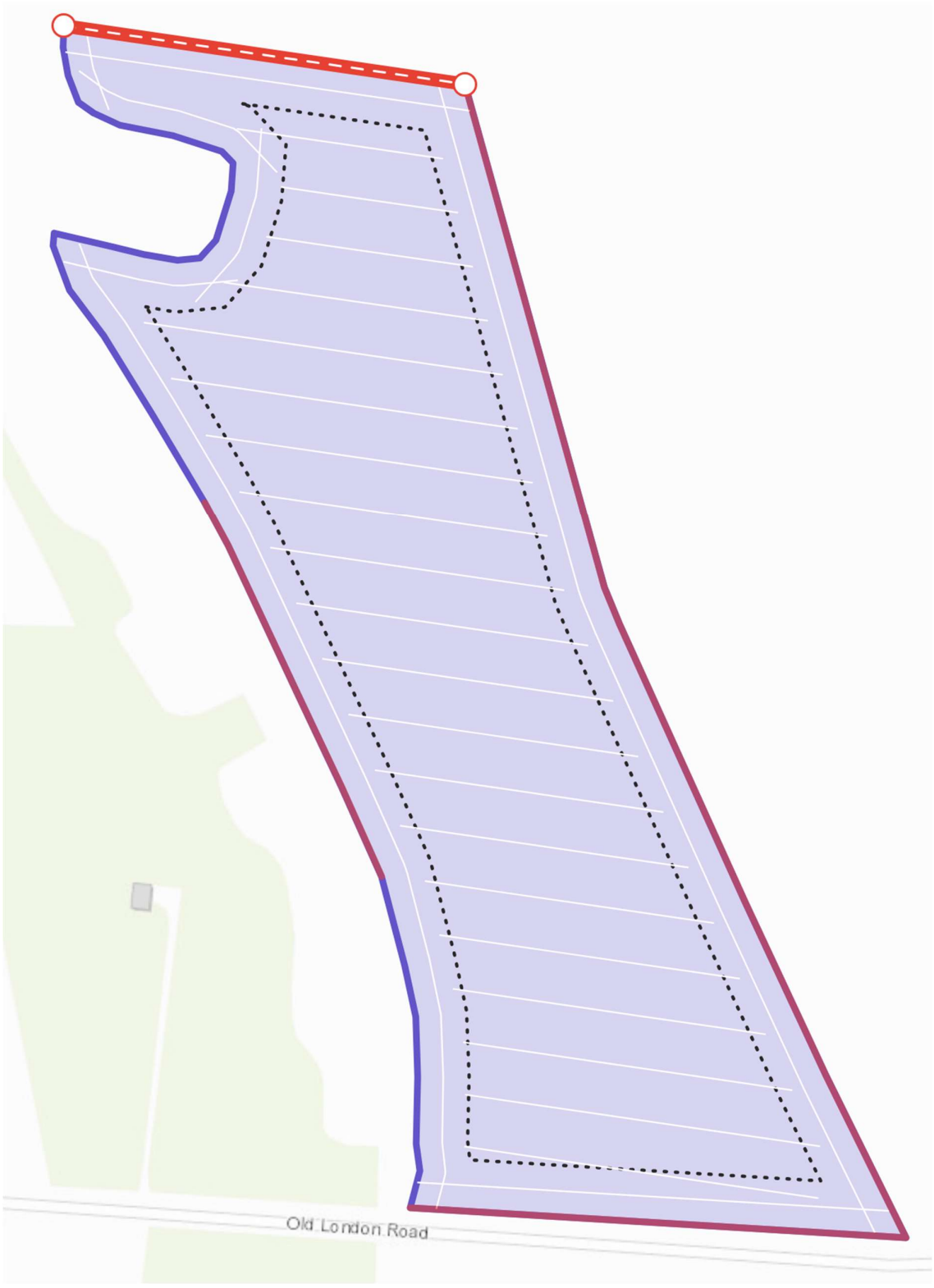


SHORTEST TIME



SOIL LOSS



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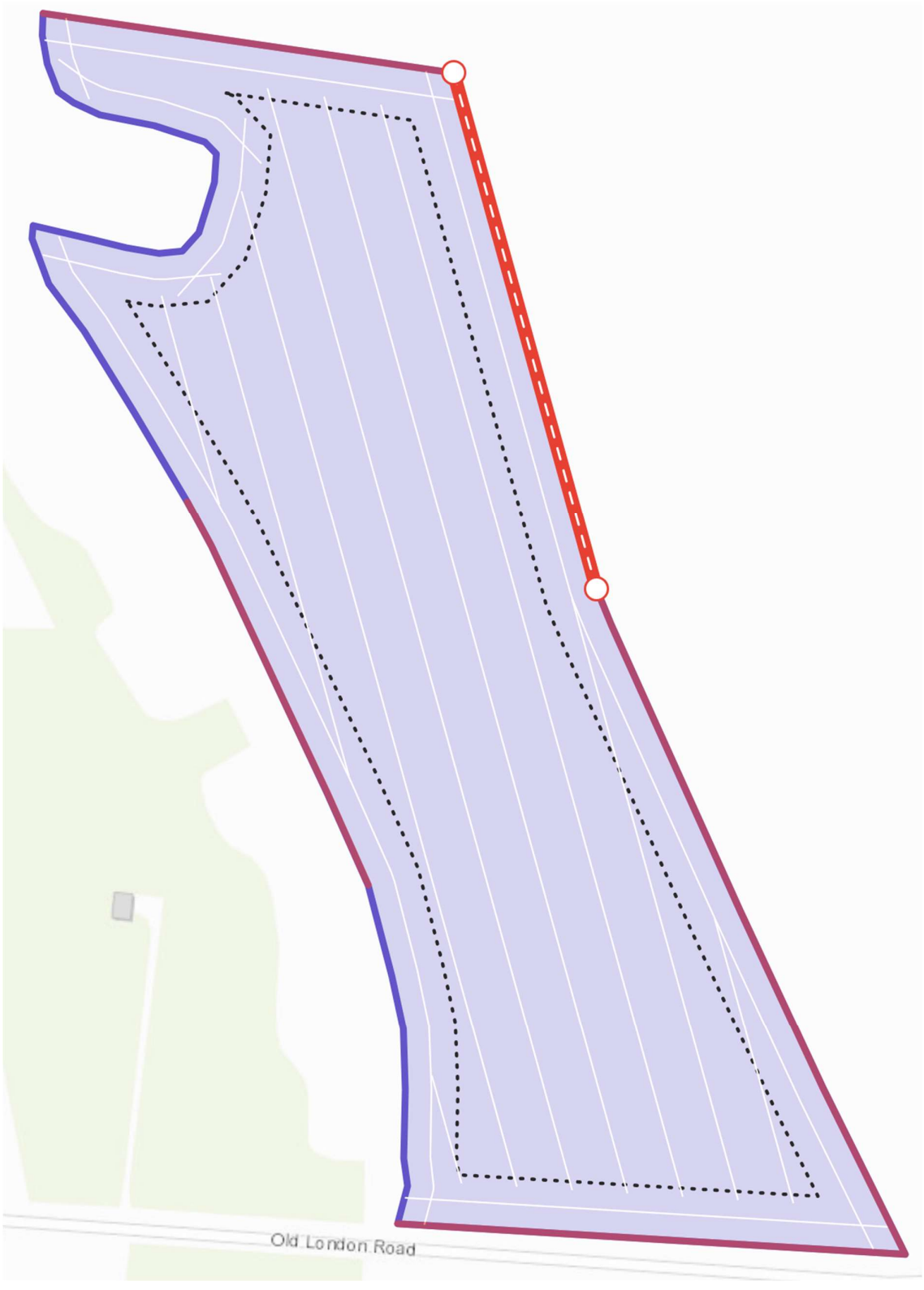

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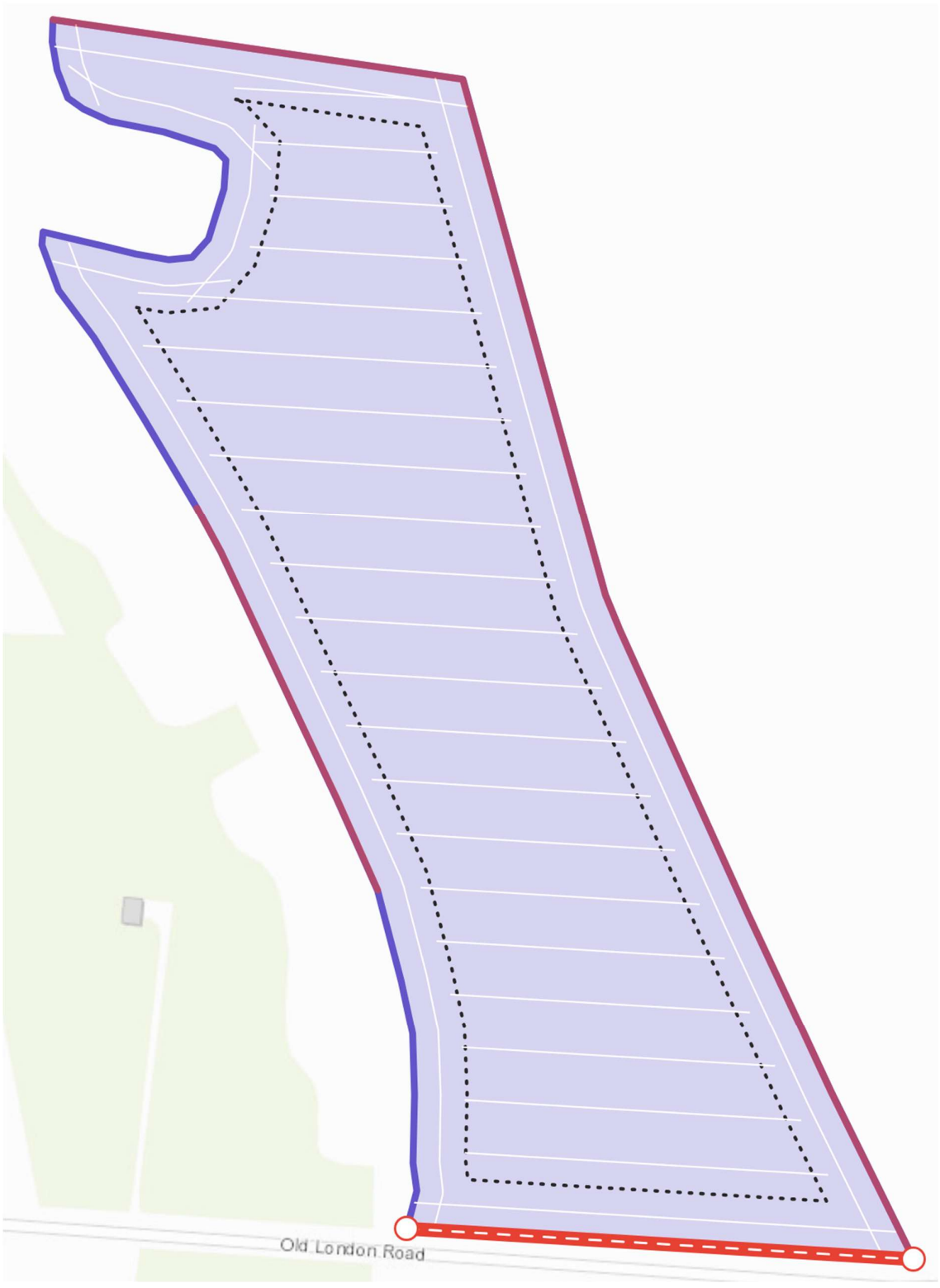
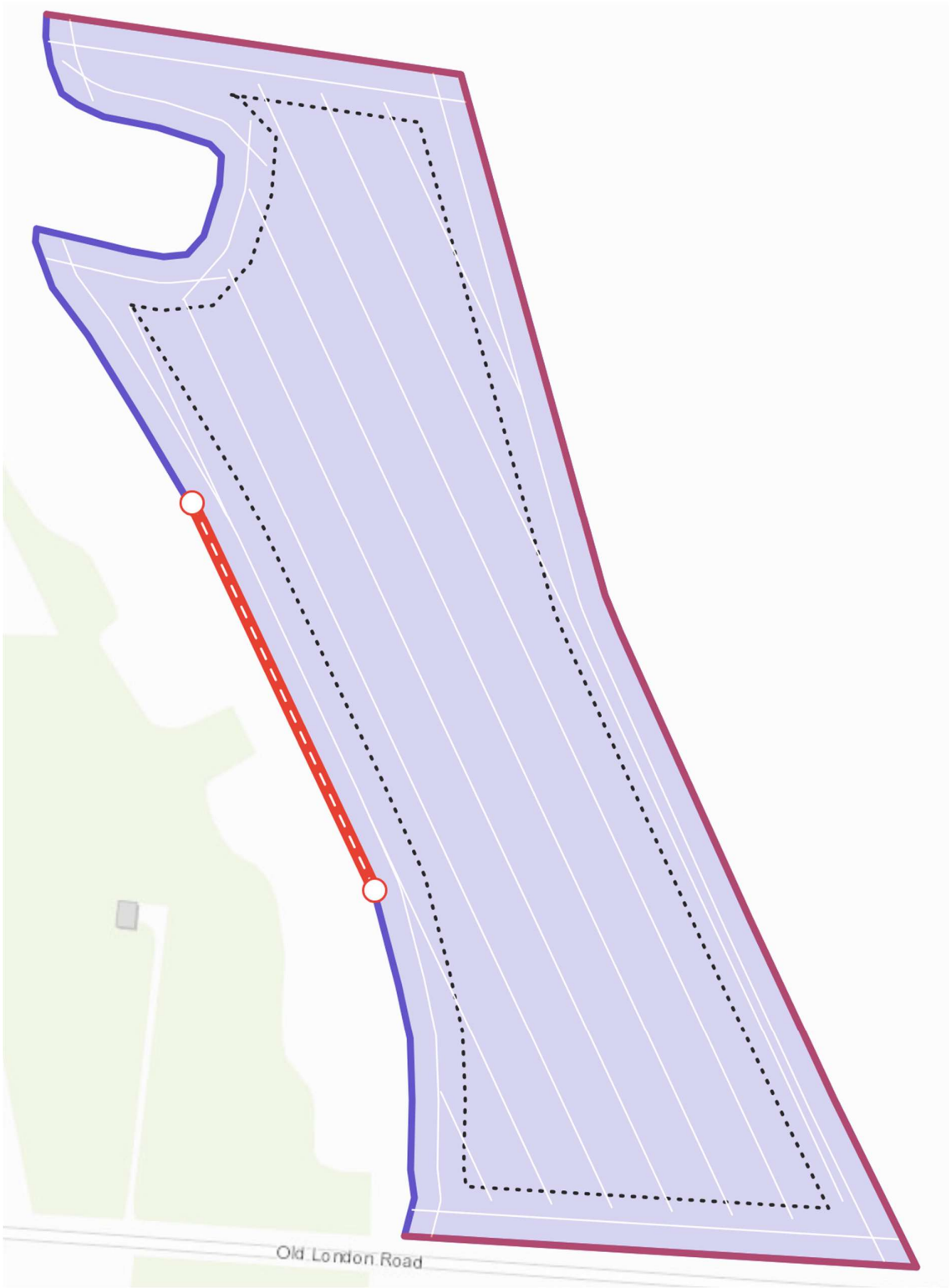


OTHER 3



SPREADING

Not assessed

HARVESTING

Implement Width: 7.32 m

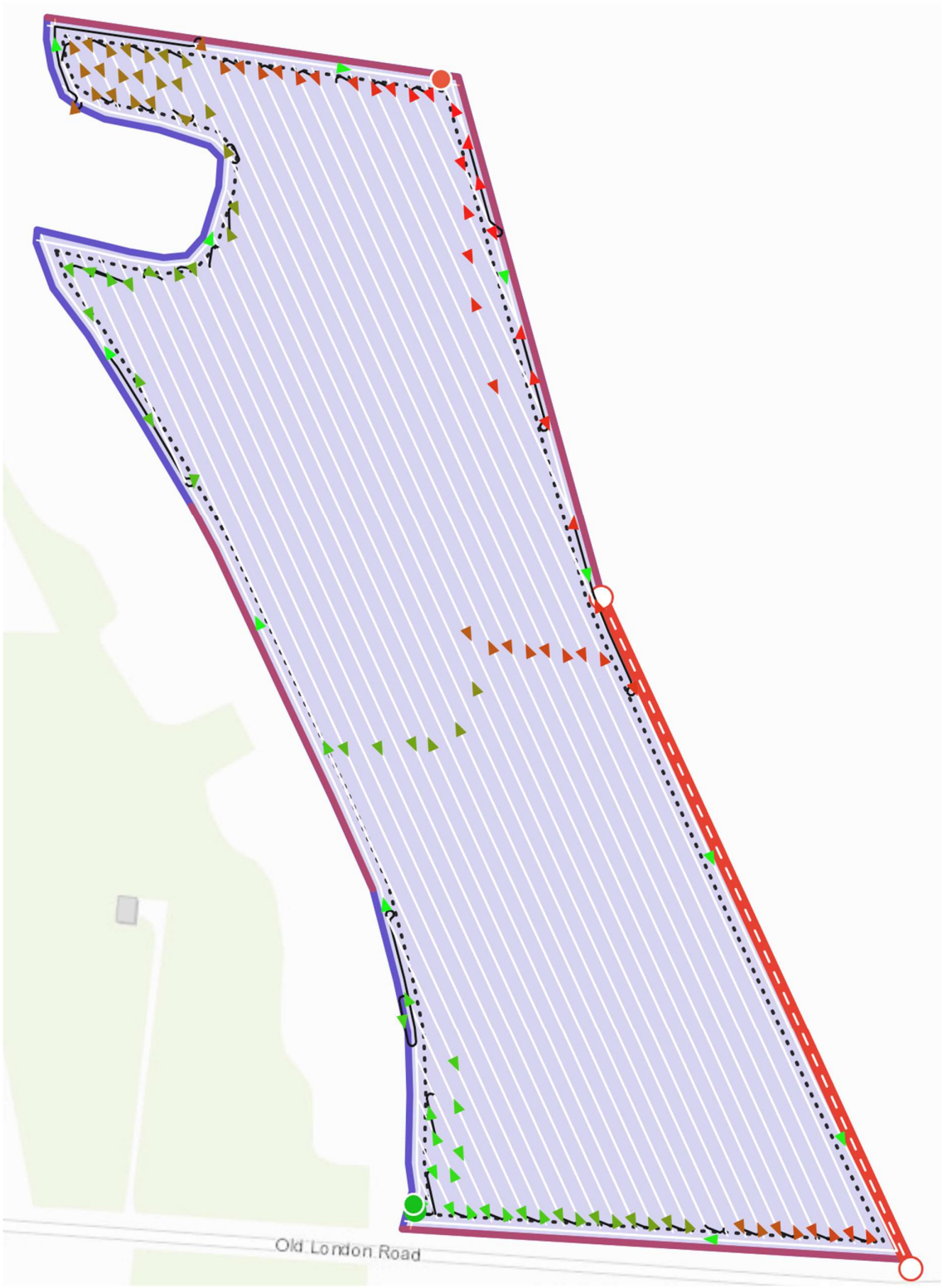
Number of Headlands Modelled: 1

Optimal Number of Headlands: 1.1

Recommended Angle: 155.177°

Plan	Angle (°)	No. Tracks	Track Distance (km)	Turn Distance (km)	Total Distance (km)	Area Overlap (ha)	Area Overlap (%)	Missed Area (ha)
Longest Edge	155.177	42	12.08	0.47	14.25	0.42	4.38	<0.01
Least No. of Tracks	154	41	12.15	0.46	14.31	0.47	4.87	<0.01
Shortest Distance	164	45	12.02	0.51	14.23	0.63	4.0	0.02
Shortest Time	164	45	12.02	0.51	14.23	0.63	4.0	0.02
Soil Loss	97	70	11.98	0.79	14.47	0.34	3.51	N/A
Other 1	98.2491	70	11.96	0.79	14.45	0.33	3.41	<0.01
Other 2	164.507	46	12.03	0.52	14.25	0.38	3.94	<0.01
Other 3	93.432	73	11.89	0.83	14.42	0.28	2.9	<0.01
Other 4	154.7361	41	12.2	0.46	14.36	0.51	5.23	<0.01

RECOMMENDED TRACK START



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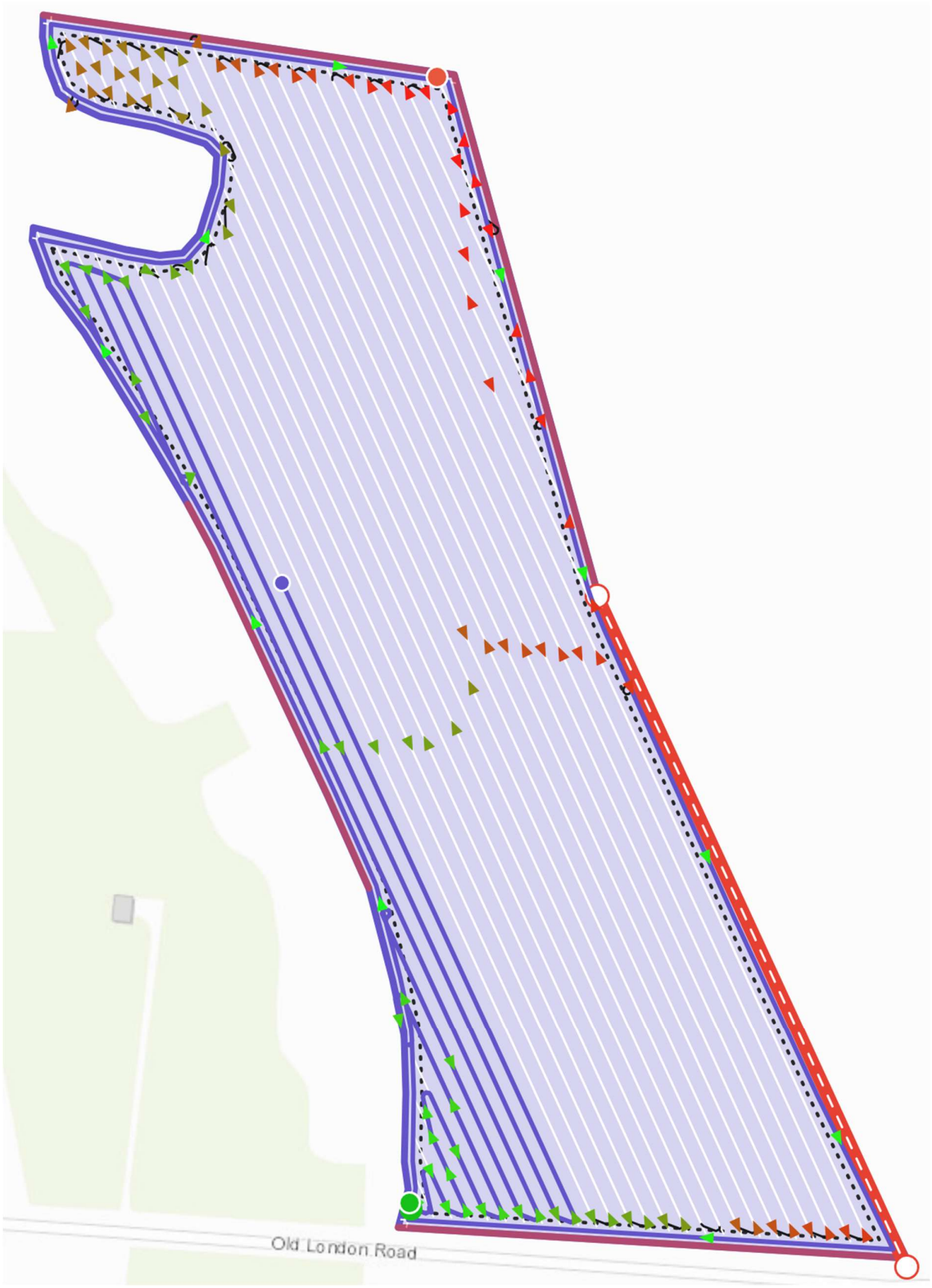

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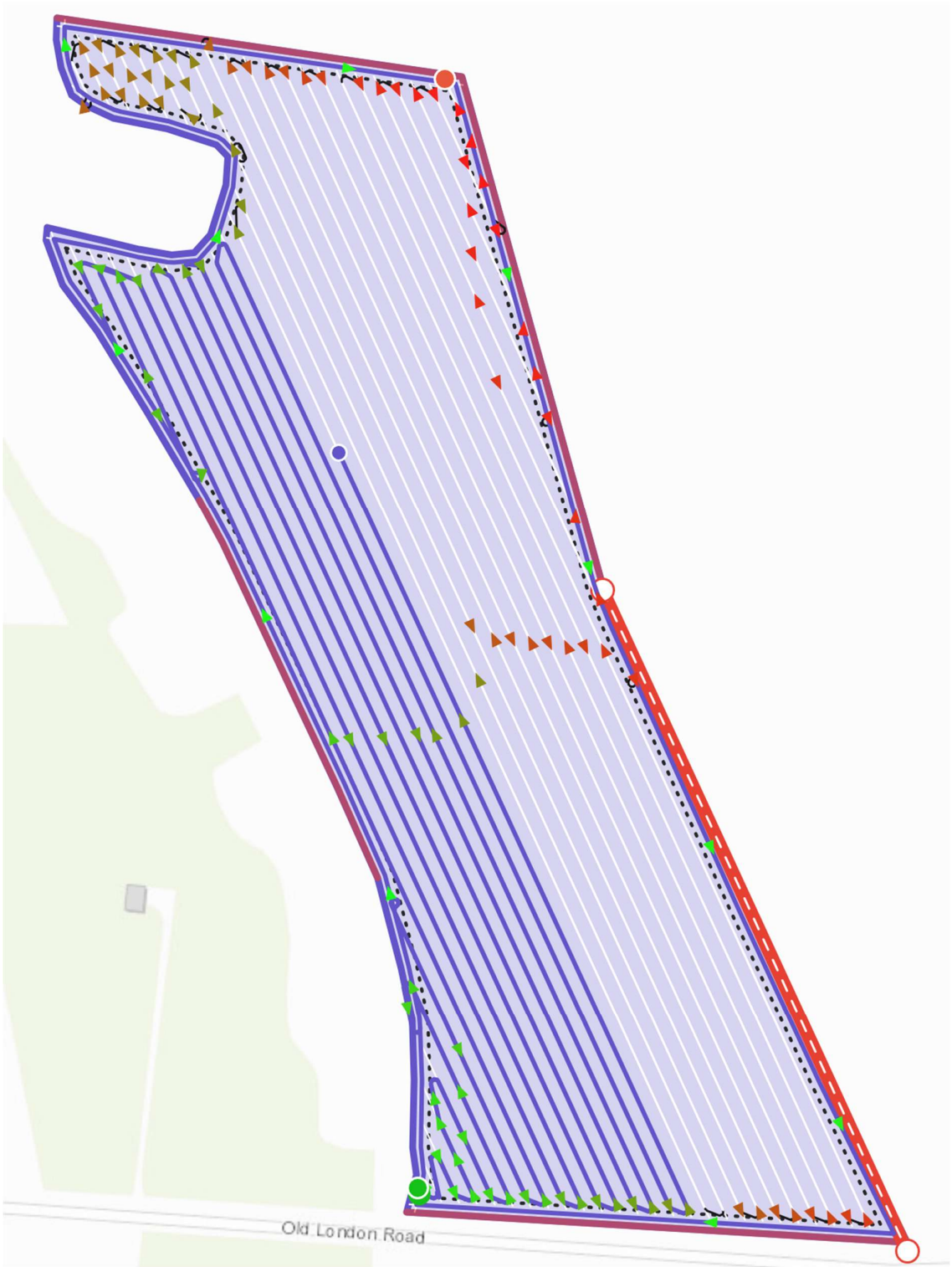

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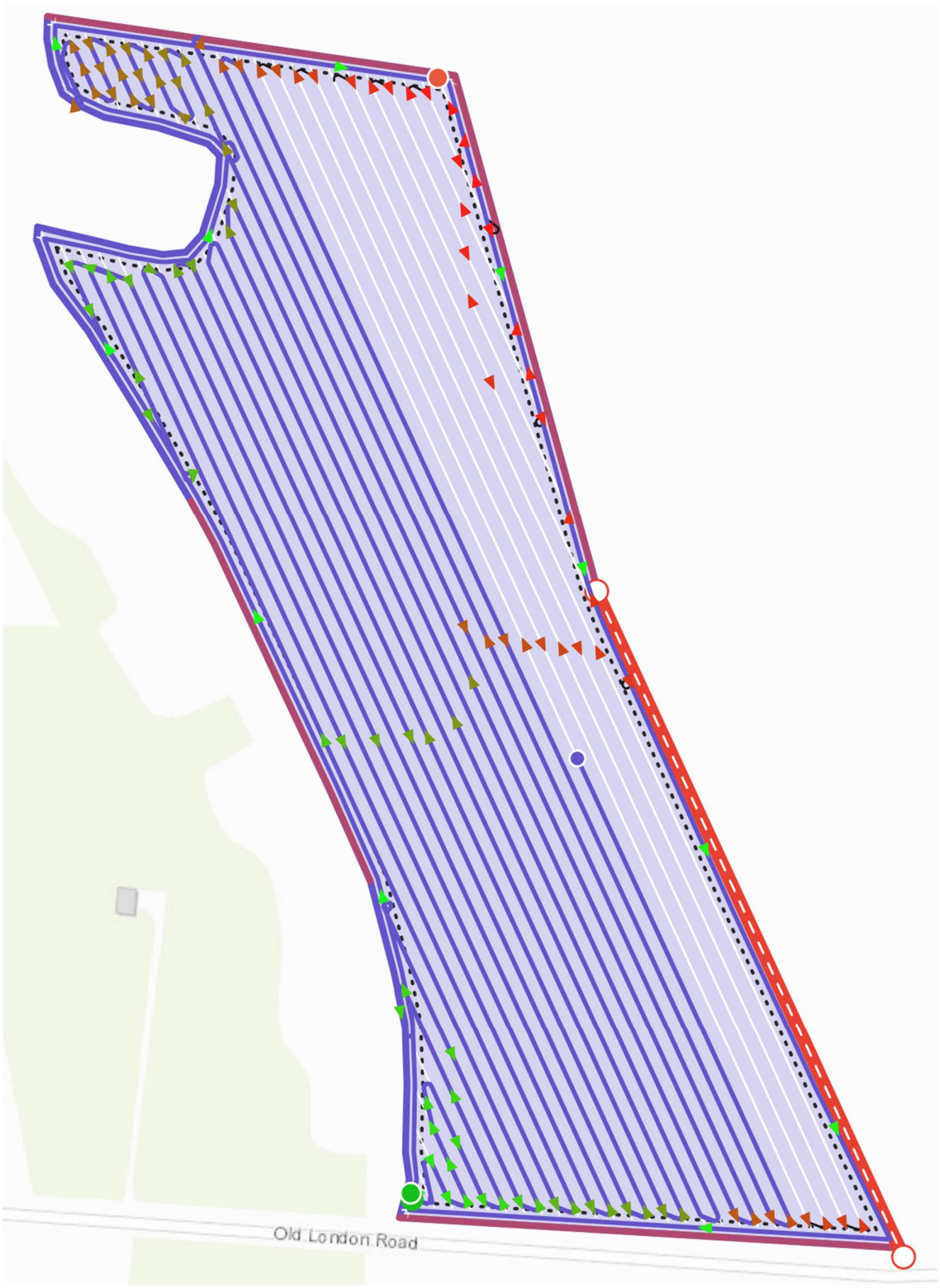

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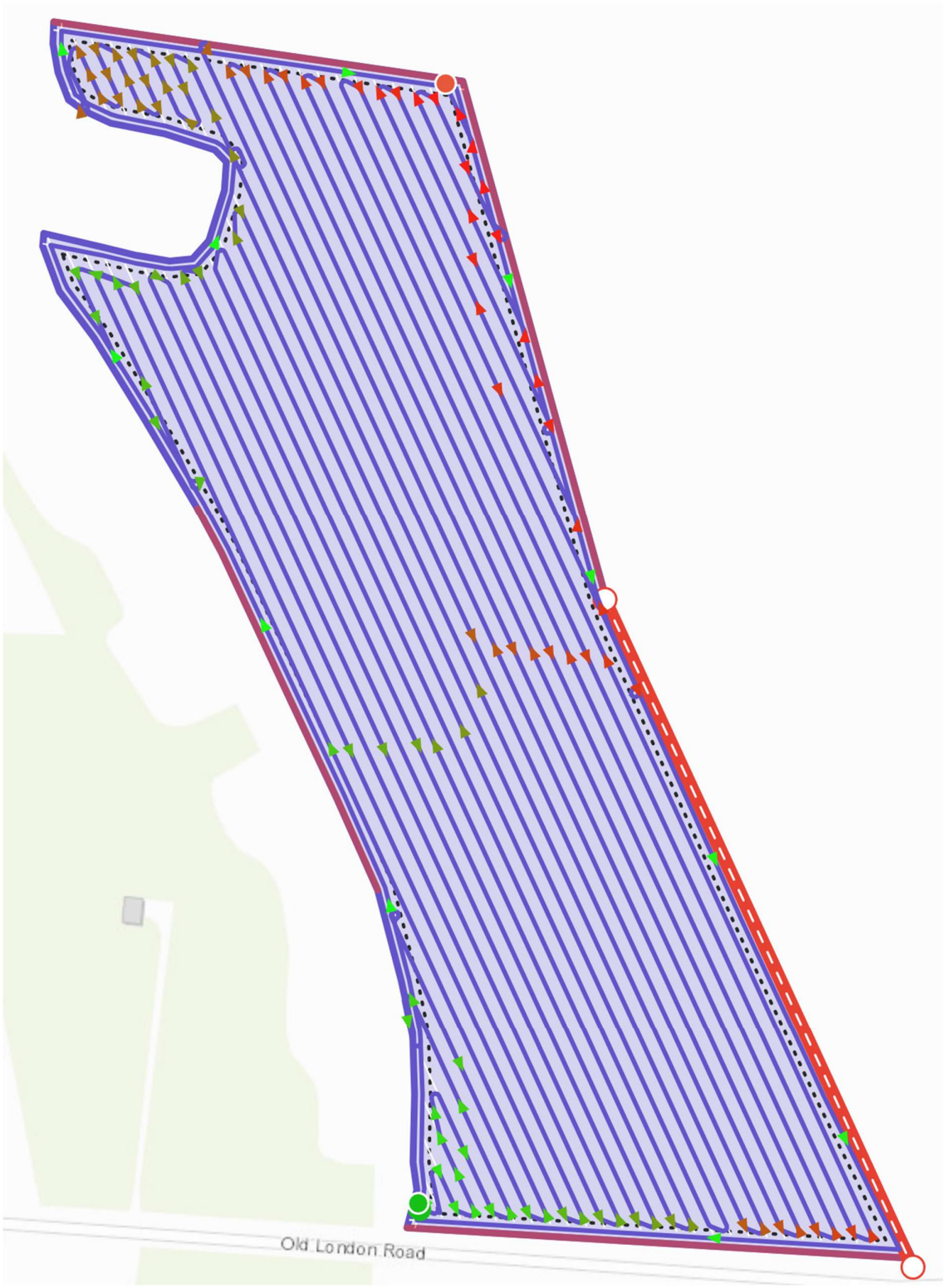
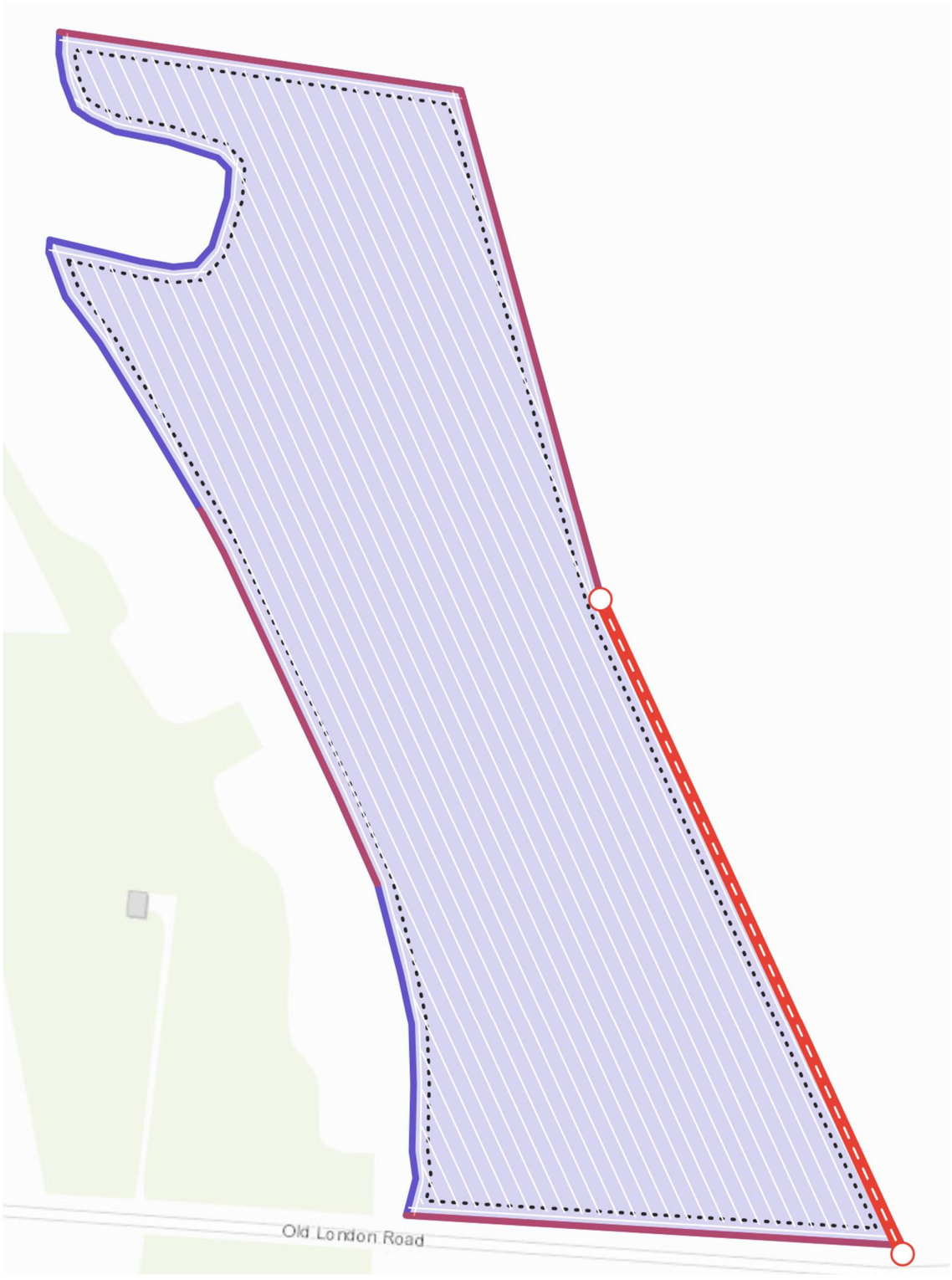


LONGEST EDGE



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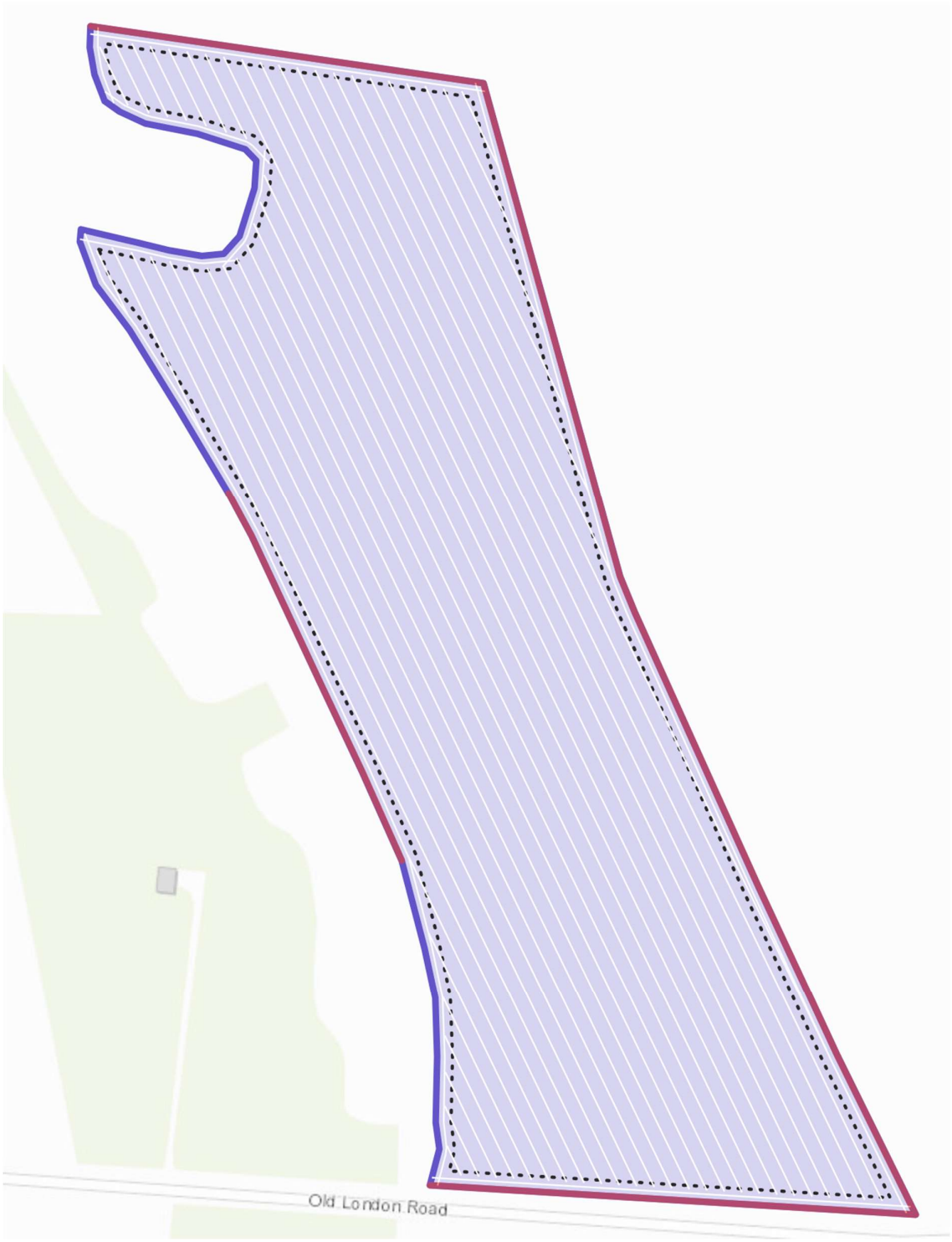
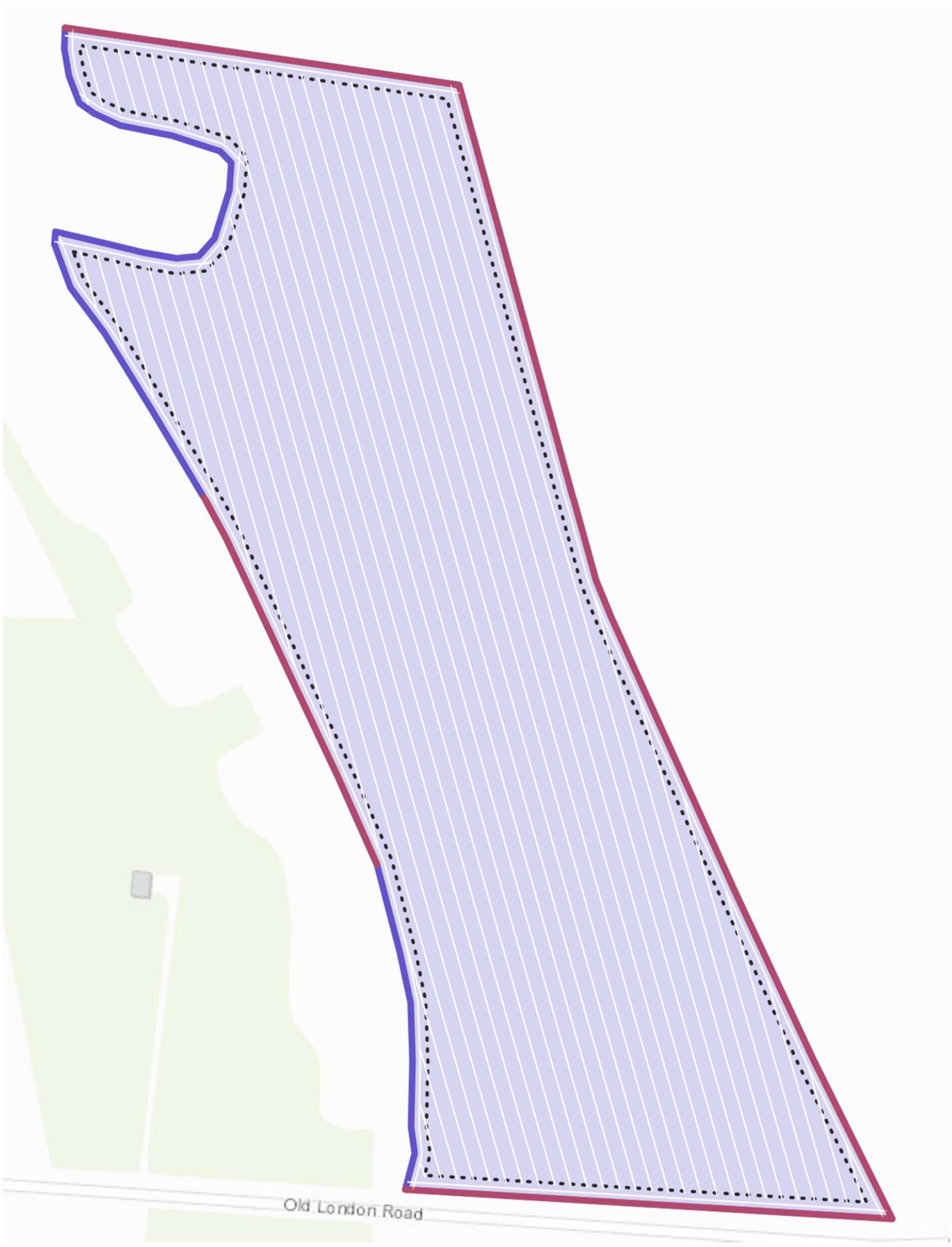


SHORTEST DISTANCE



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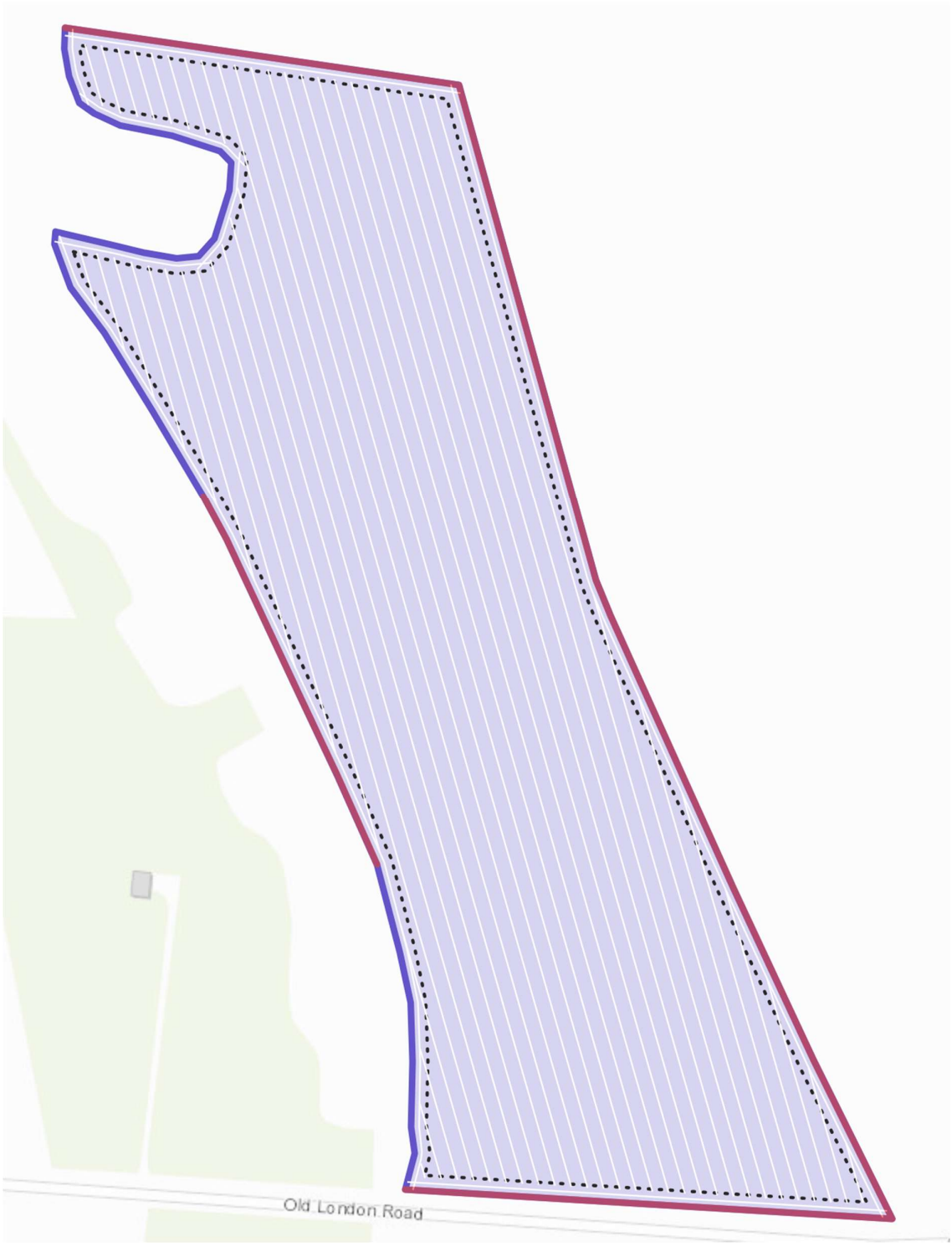
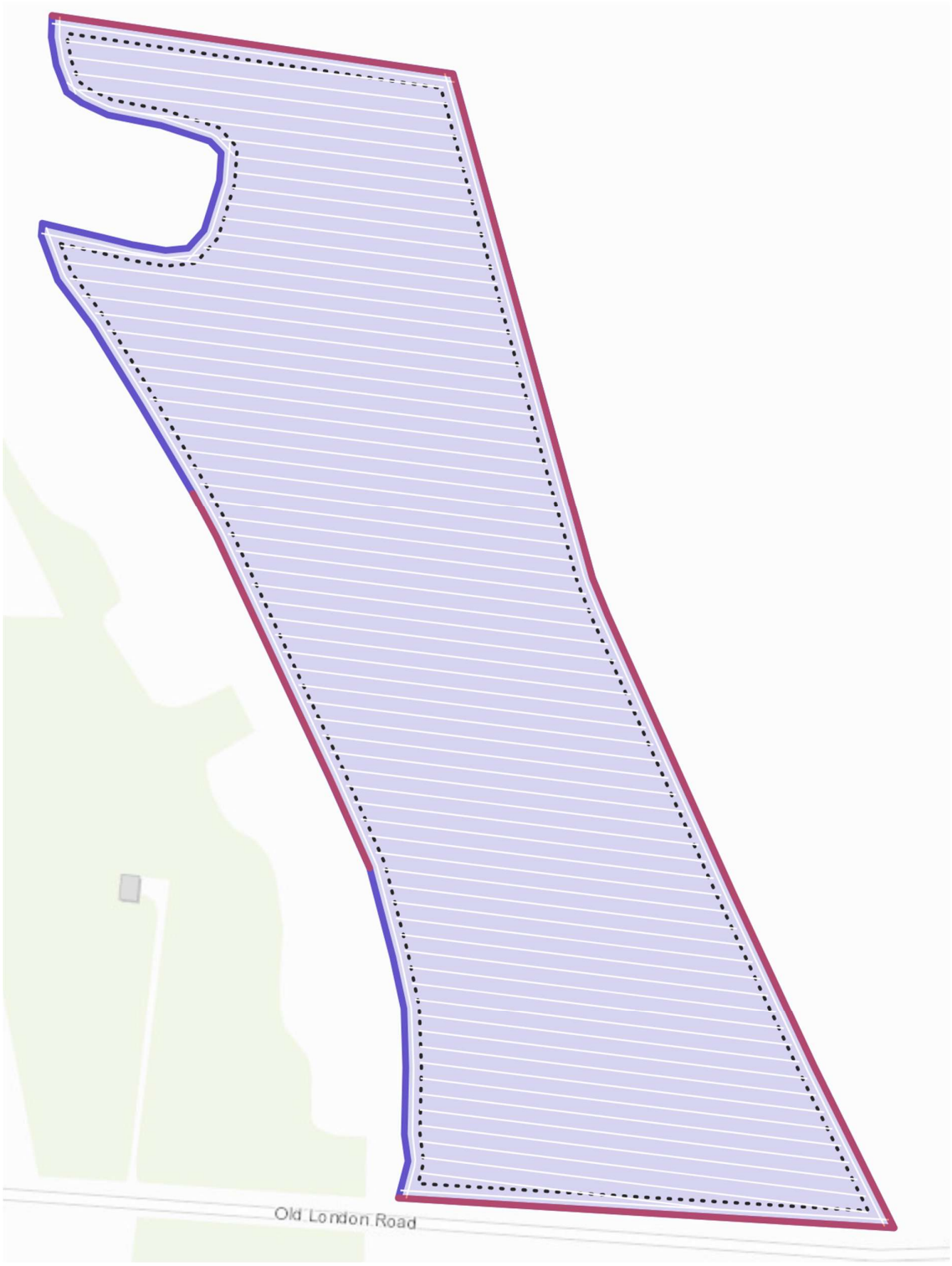


SOIL LOSS



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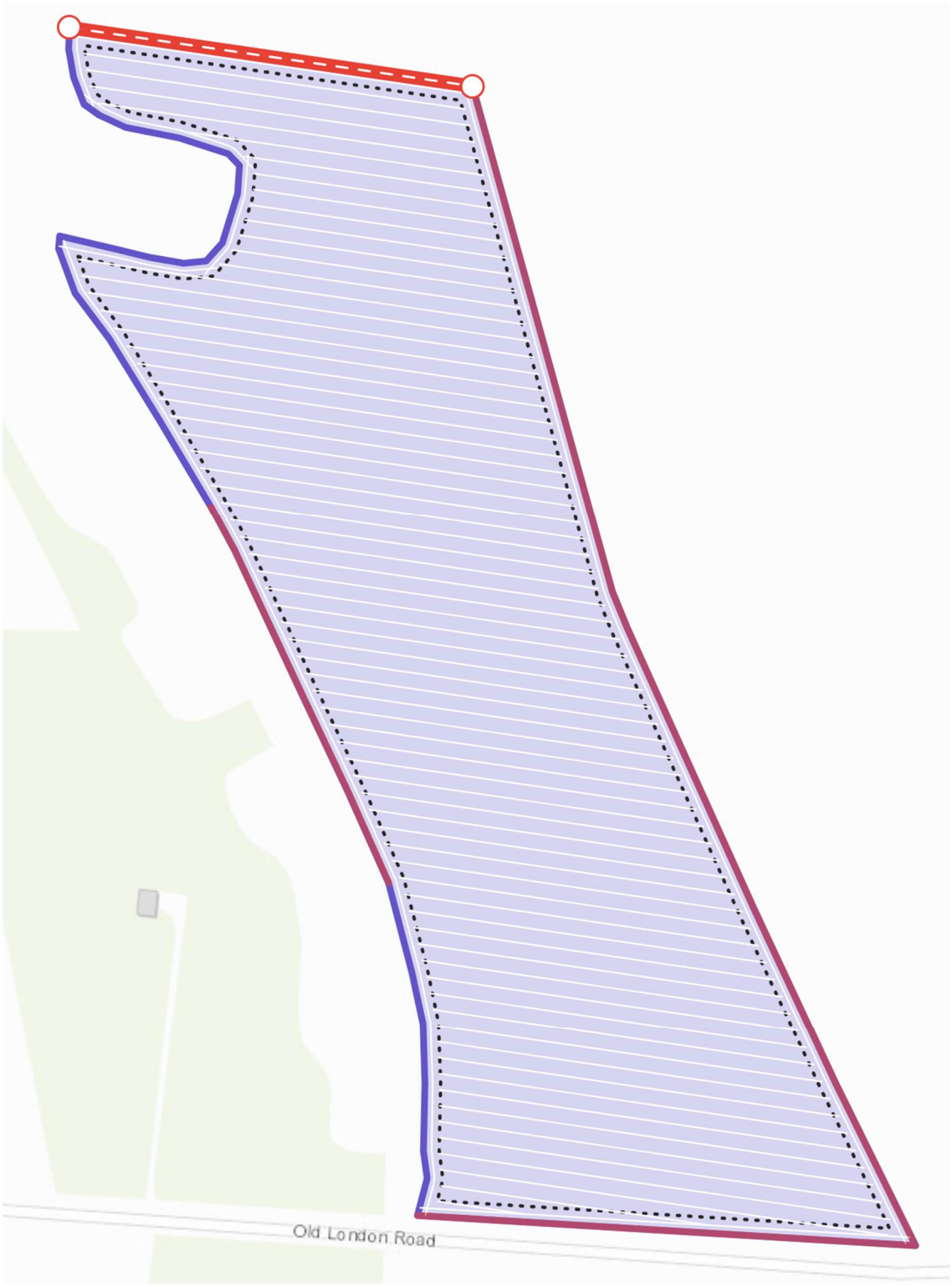

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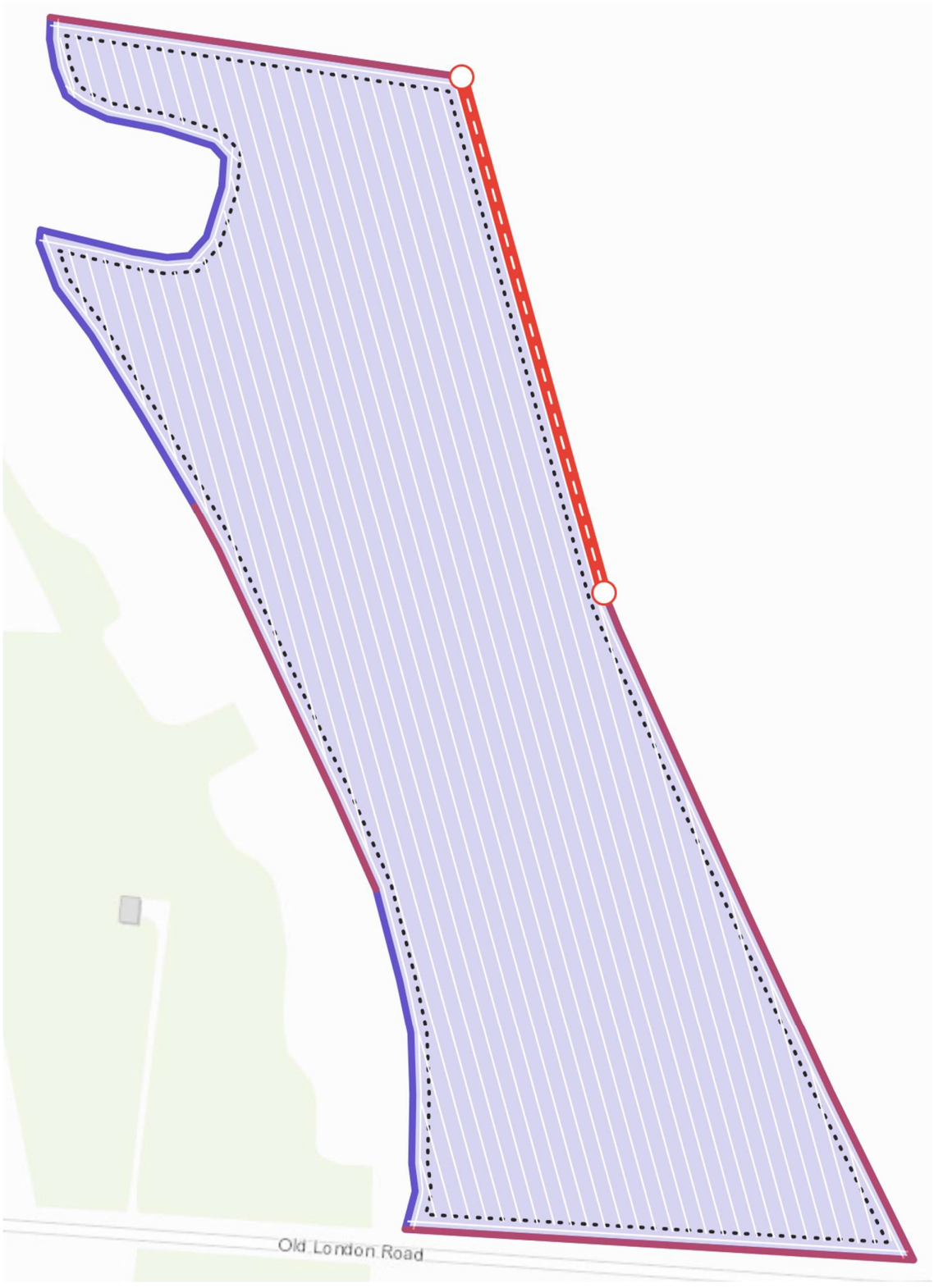

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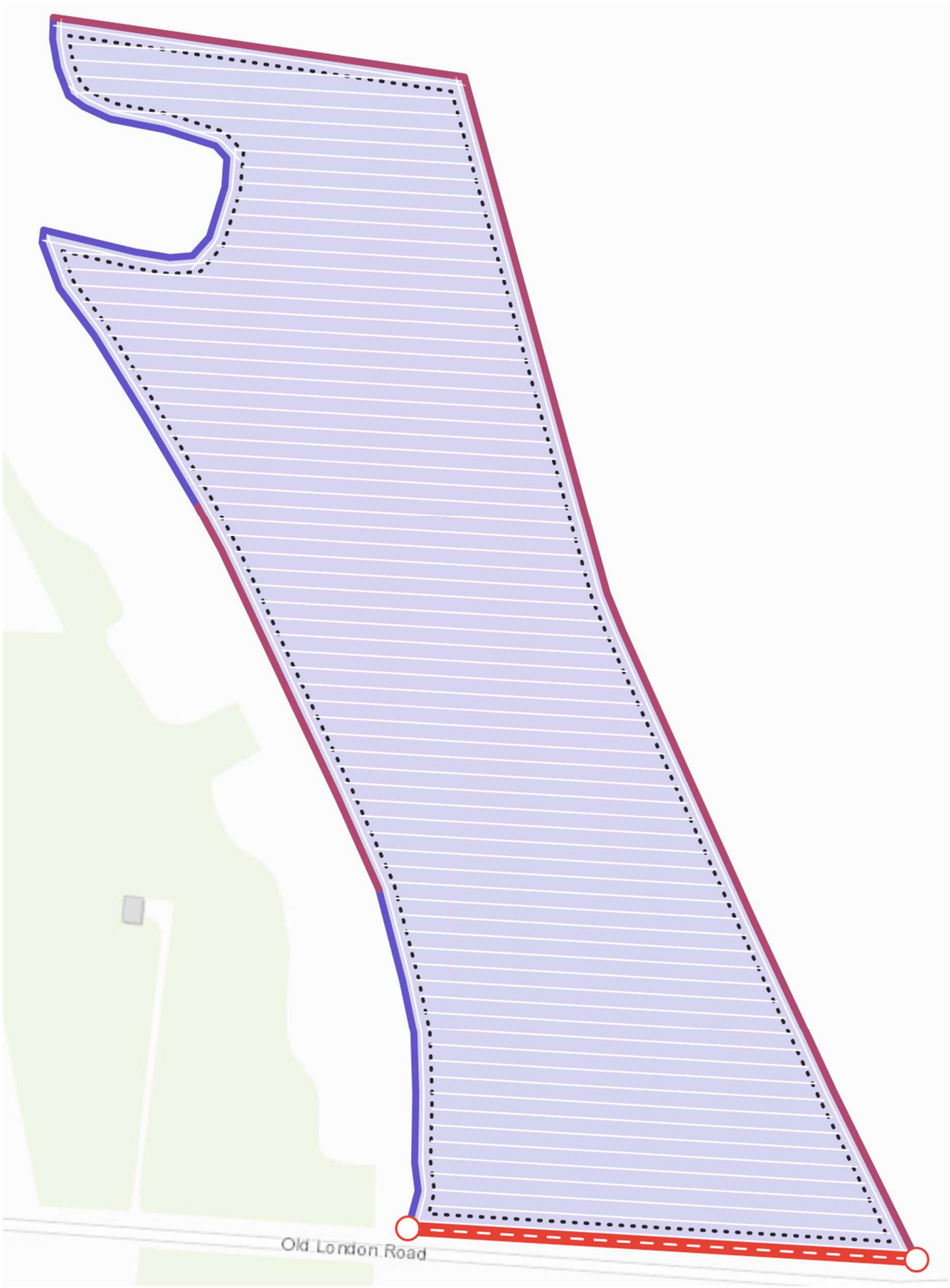

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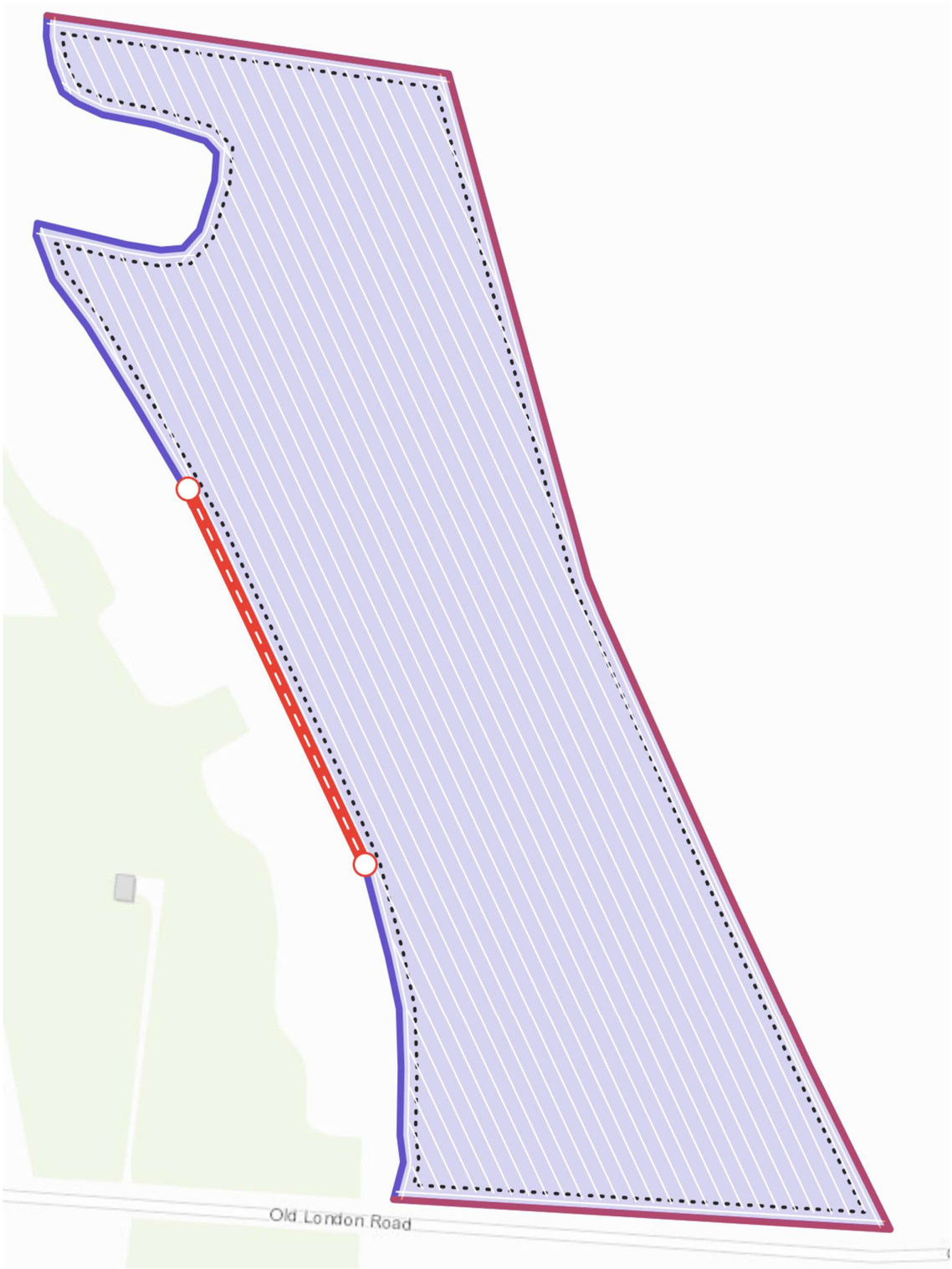


MOWING

Not assessed

RAKING

Not assessed

MULCHING

Not assessed

MANFIELD

FIELD PROPERTIES

Shape: Irregular

Area: 79.12 ha

Perimeter: 4.99 km

OPERATION COVERAGE PATH PLAN

PLOUGHING

Not assessed

CULTIVATING

Implement Width: 6 m

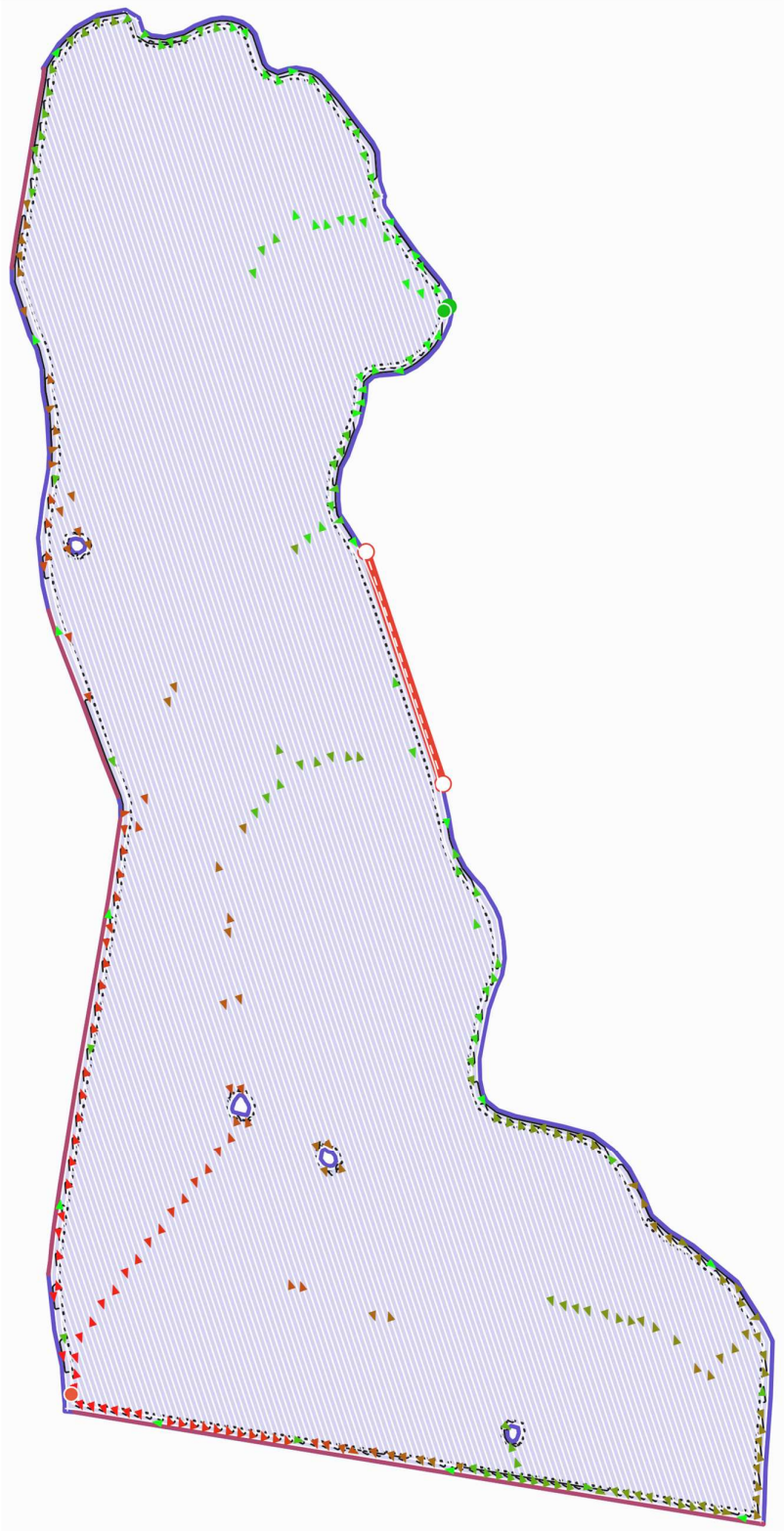
Number of Headlands Modelled: 2

Optimal Number of Headlands: 2.4

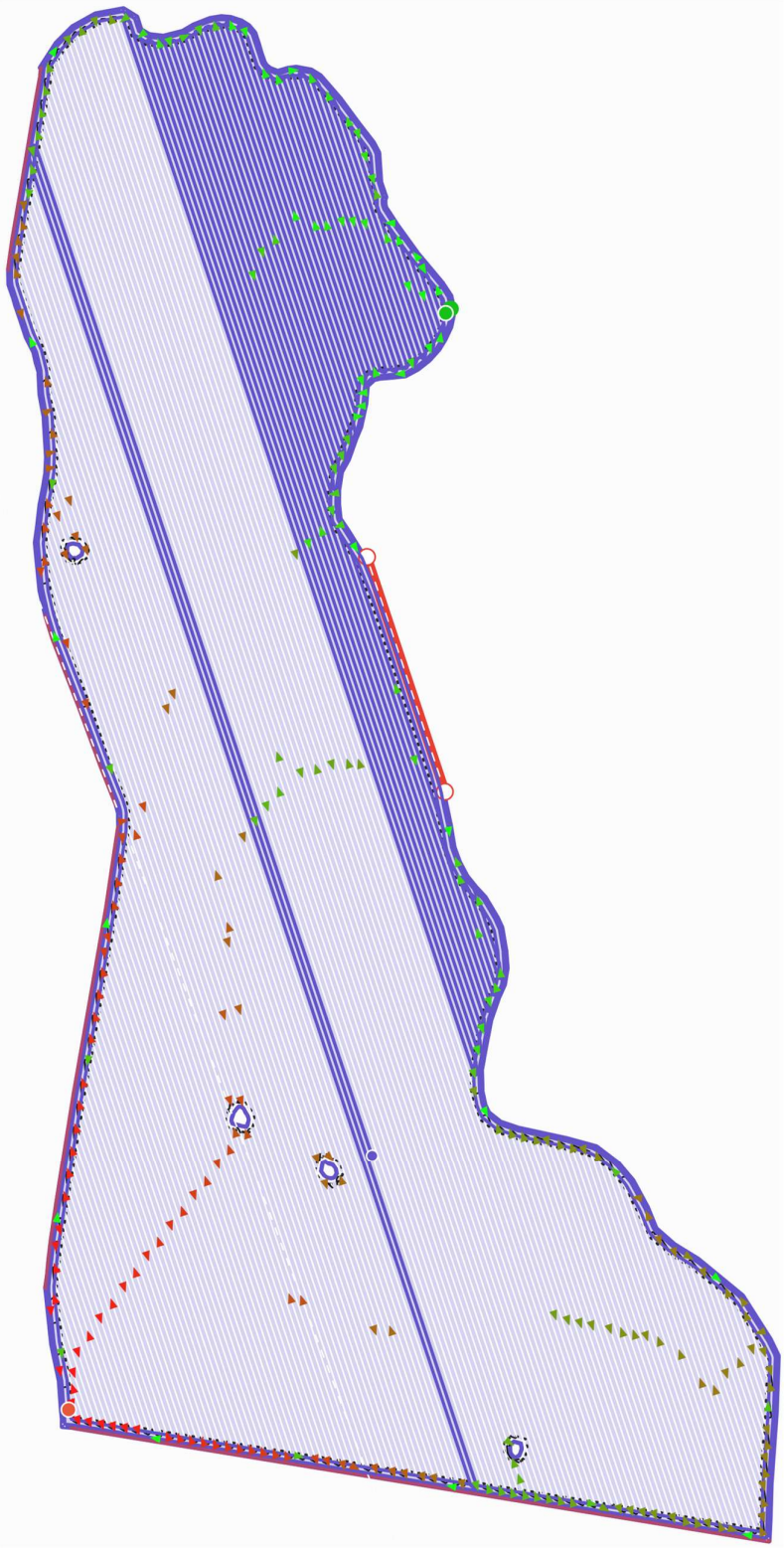
Recommended Angle: 71.6666°

Plan	Angle (°)	No. Tracks	Track Distance (km)	Turn Distance (km)	Total Distance (km)	Area Overlap (ha)	Area Overlap (%)	Missed Area (ha)
Longest Edge	9.2997	284	123.01	2.67	135.42	0.53	0.68	<0.01
Least No. of Tracks	79	190	123.97	1.78	135.49	1.1	1.4	N/A
Shortest Distance	9.2997	284	123.01	2.67	135.42	0.53	0.68	<0.01
Shortest Time	93	199	123.83	1.87	135.43	1.02	1.29	N/A
Soil Loss	71.6666	193	123.98	1.81	135.52	1.12	1.42	0.01
Other 1	99.1185	210	123.74	1.97	135.44	0.97	1.23	<0.01
Other 2	69.4944	196	123.93	1.84	135.5	1.09	1.38	0.01
Other 3	99.4359	210	123.84	1.97	135.55	1.04	1.31	<0.01

RECOMMENDED TRACK START



RECOMMENDED TRACK 25% COMPLETE



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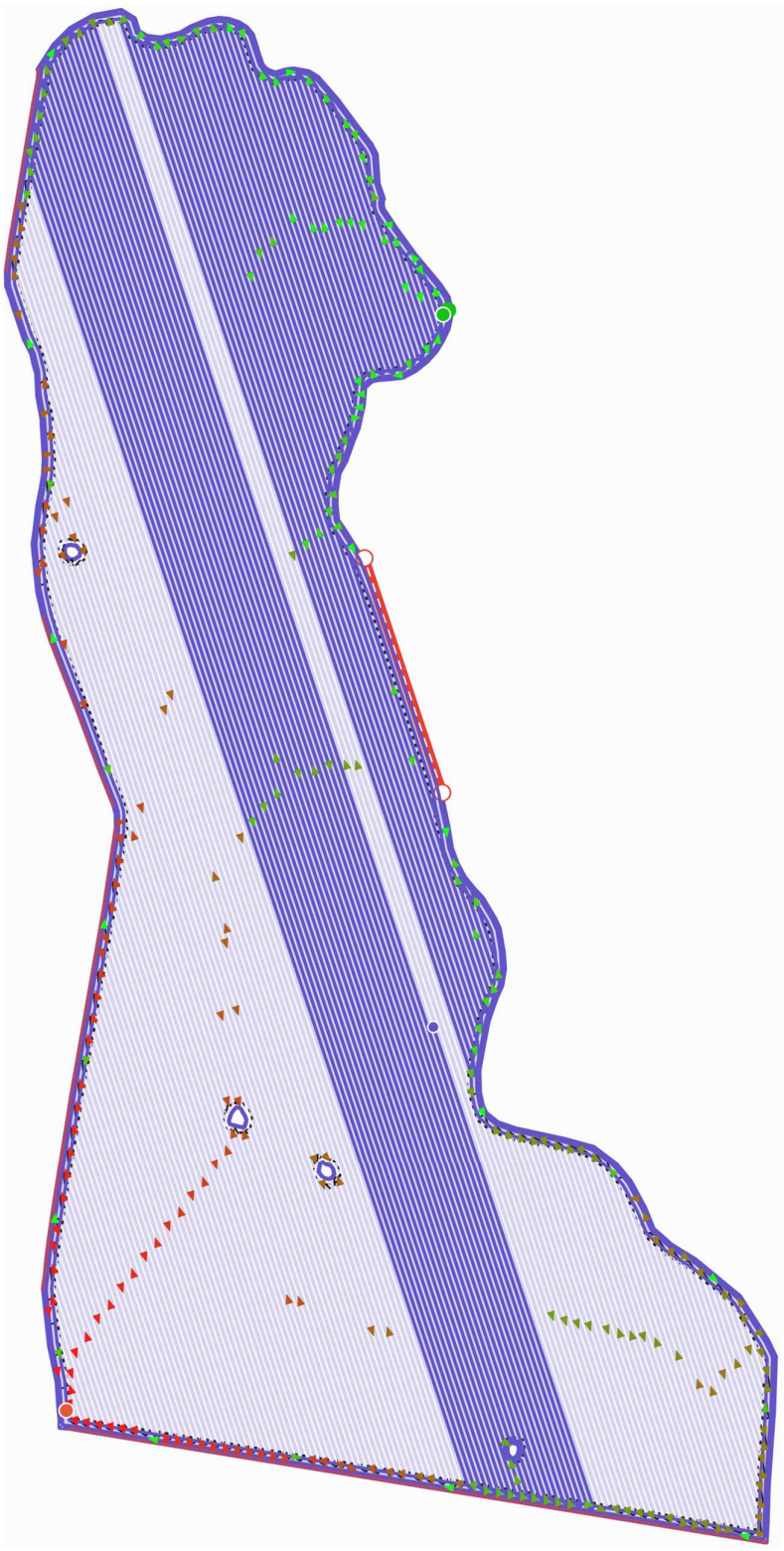

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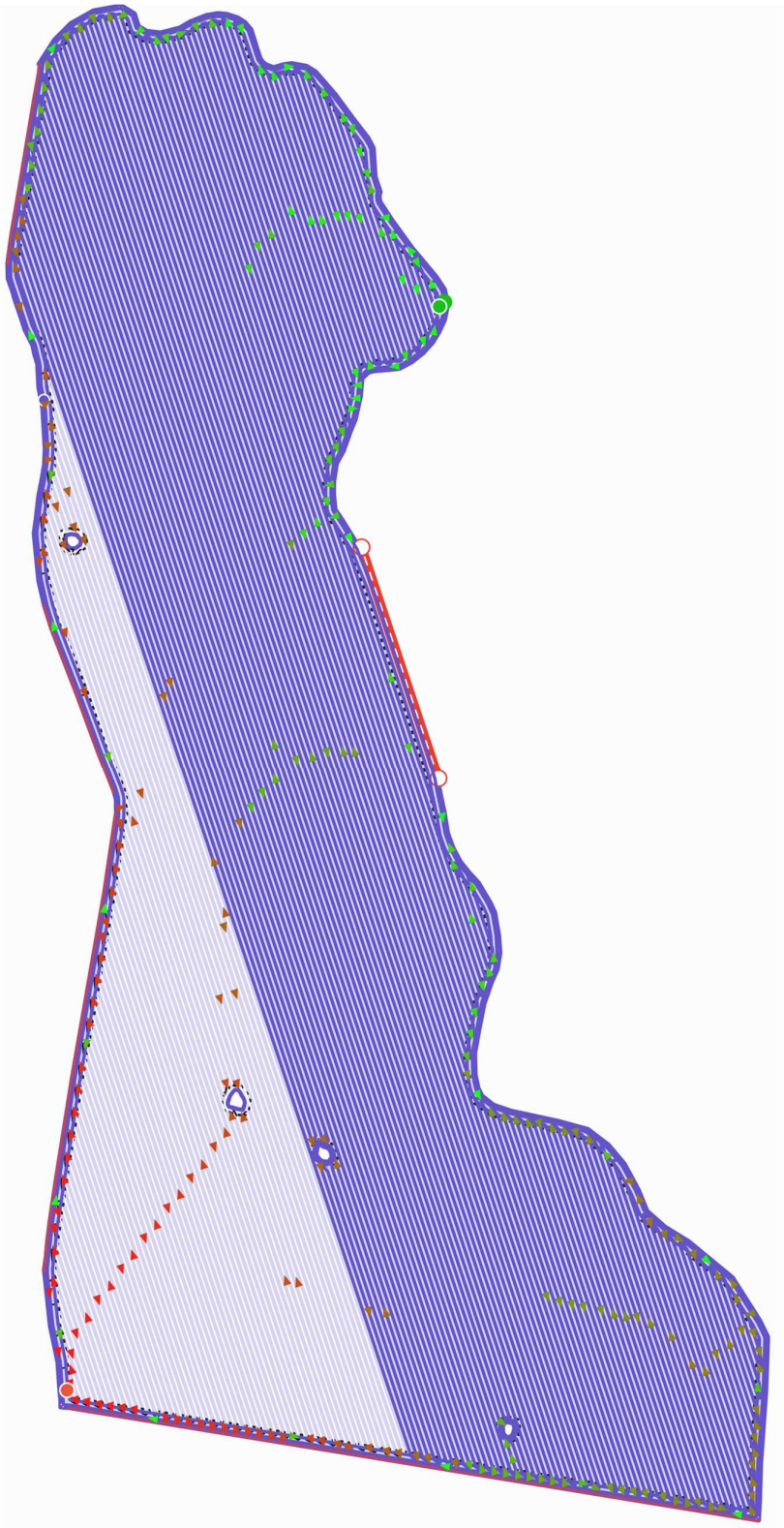
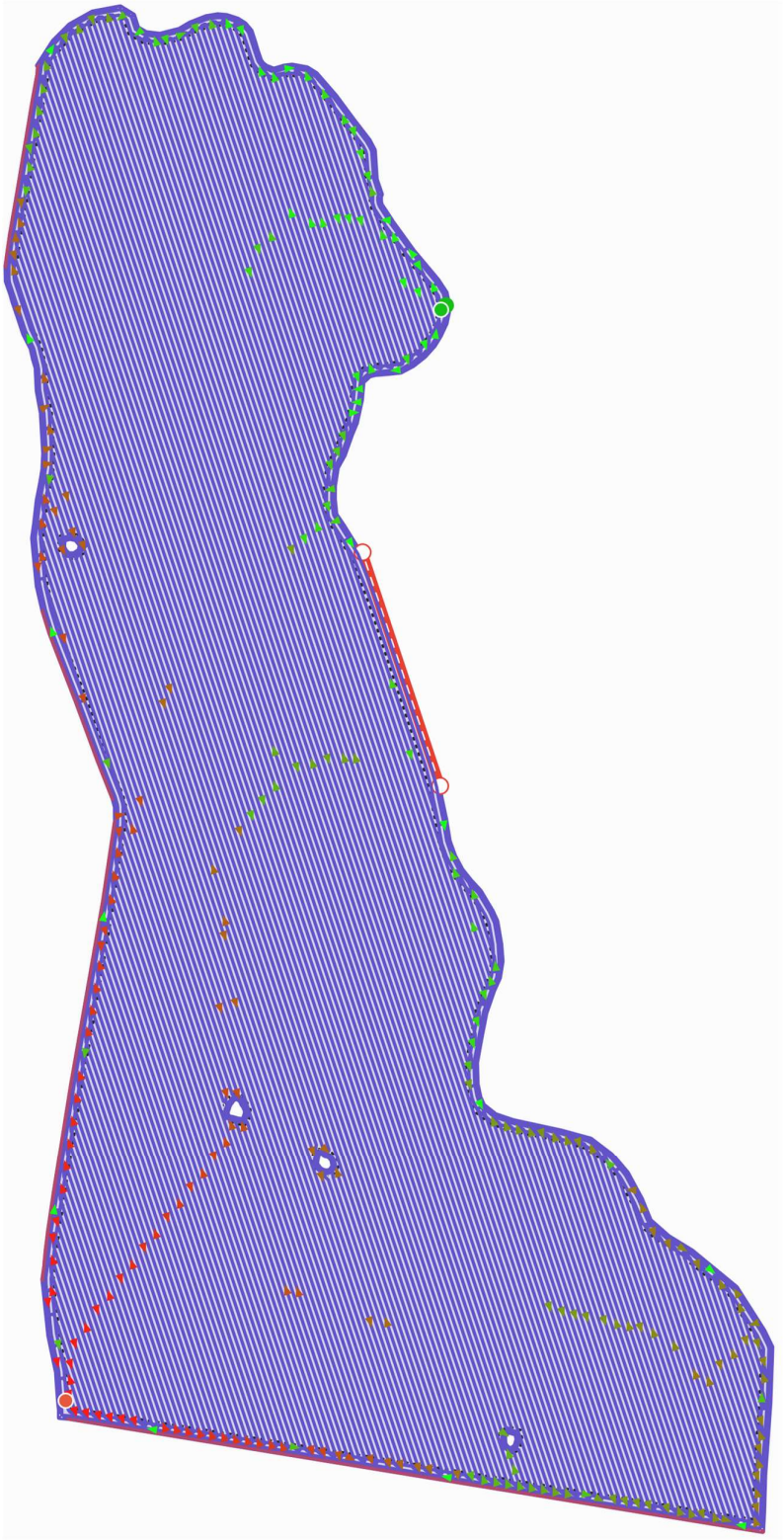
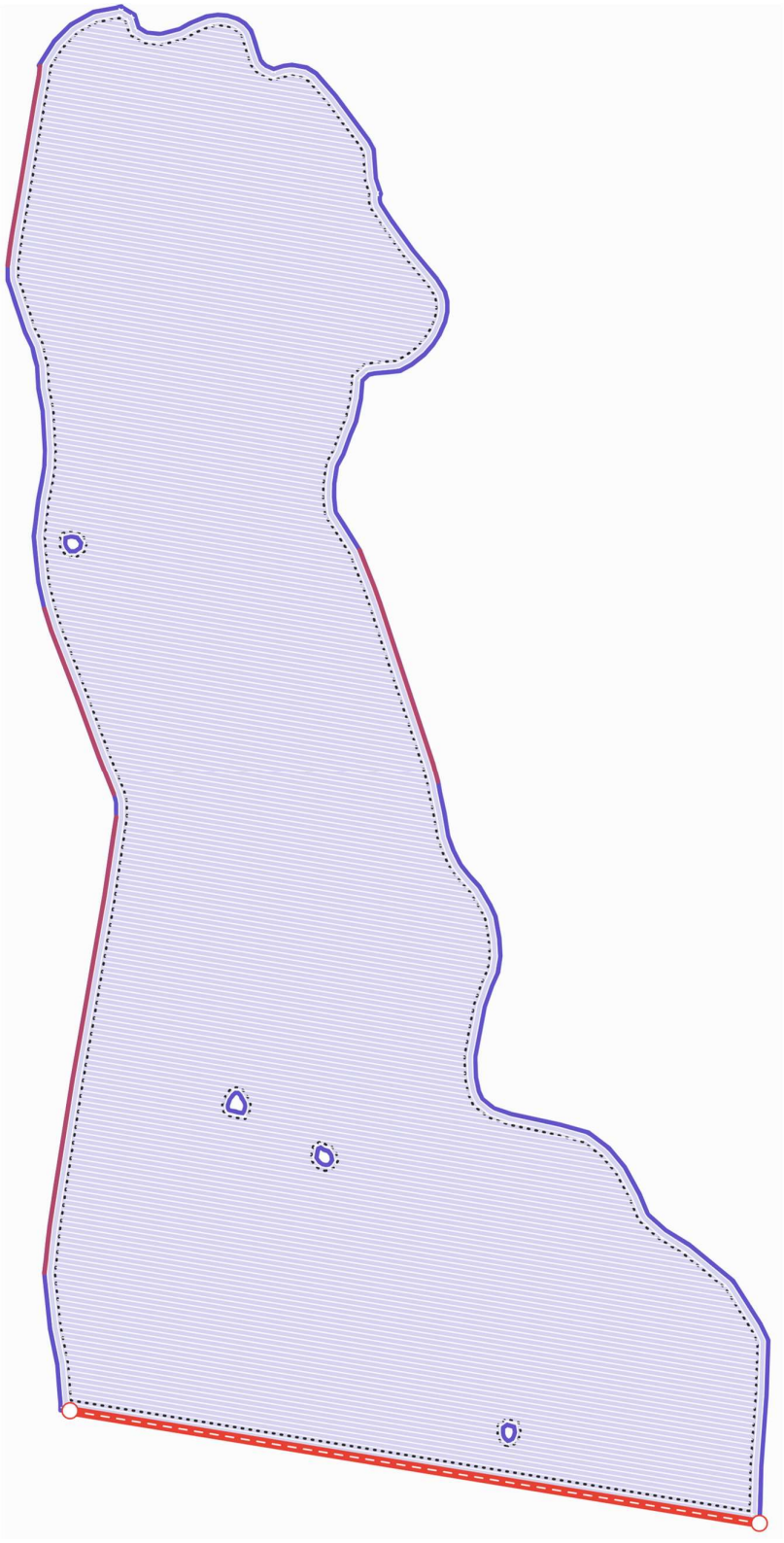


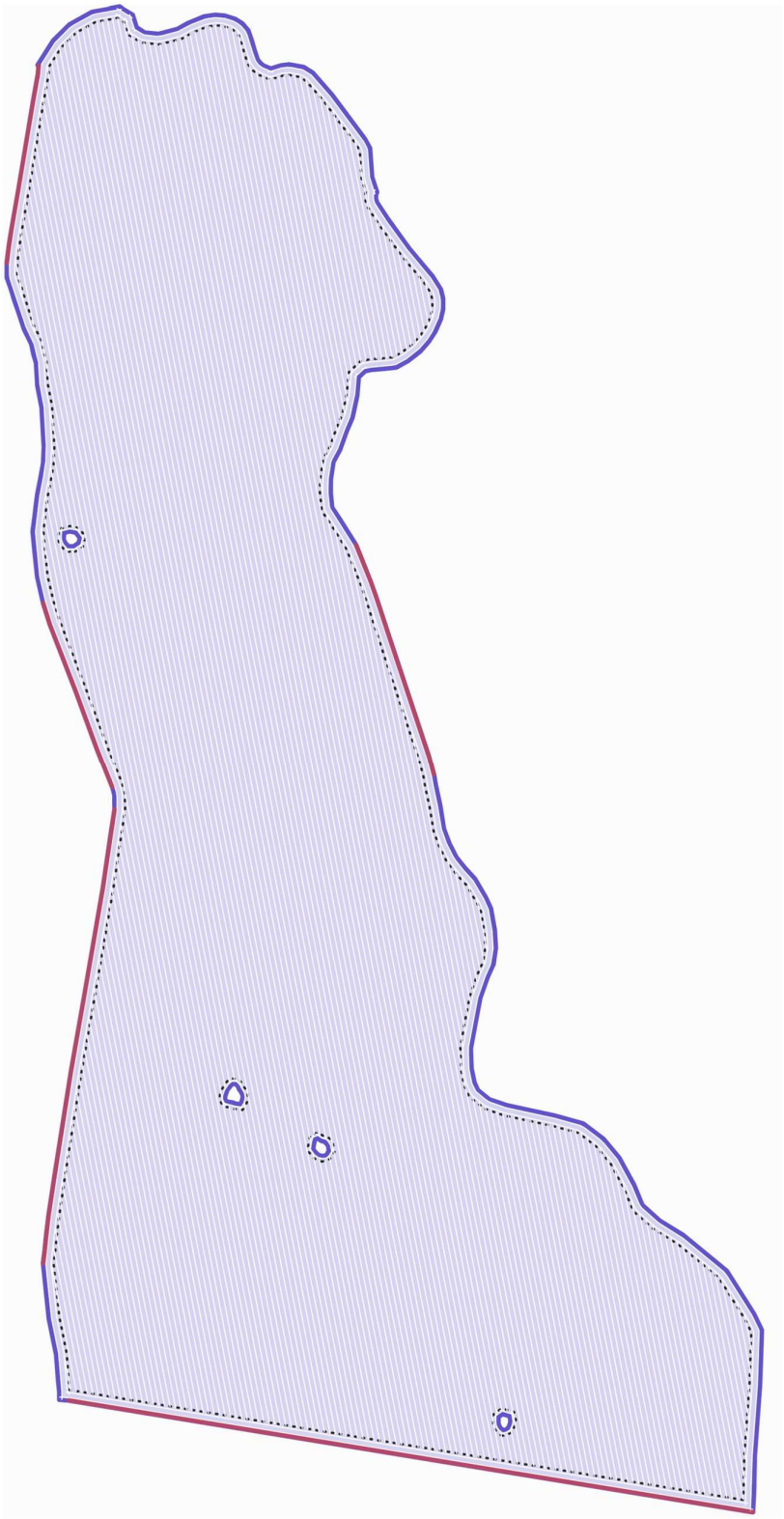
RECOMMENDED TRACK 100% COMPLETE



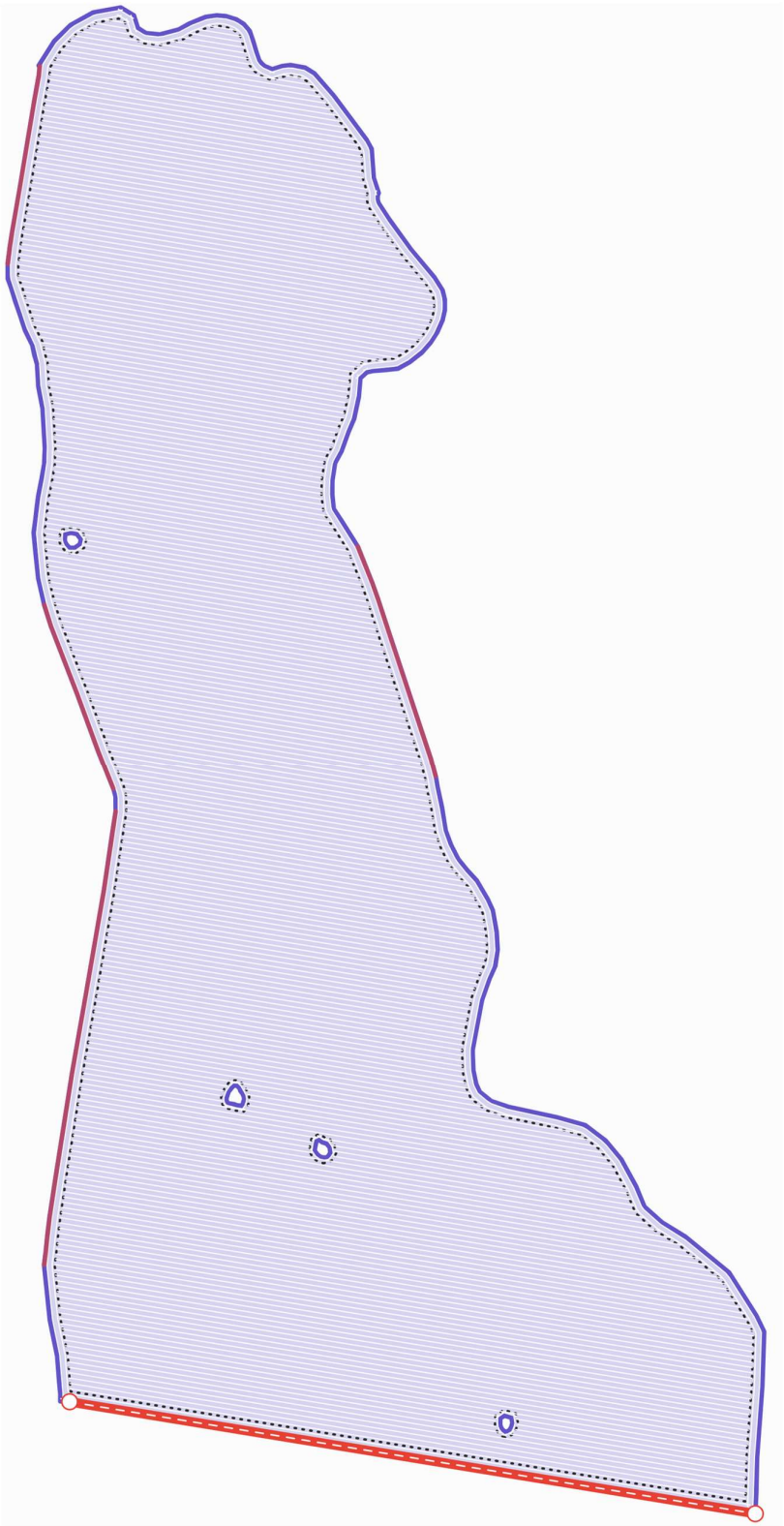
LONGEST EDGE



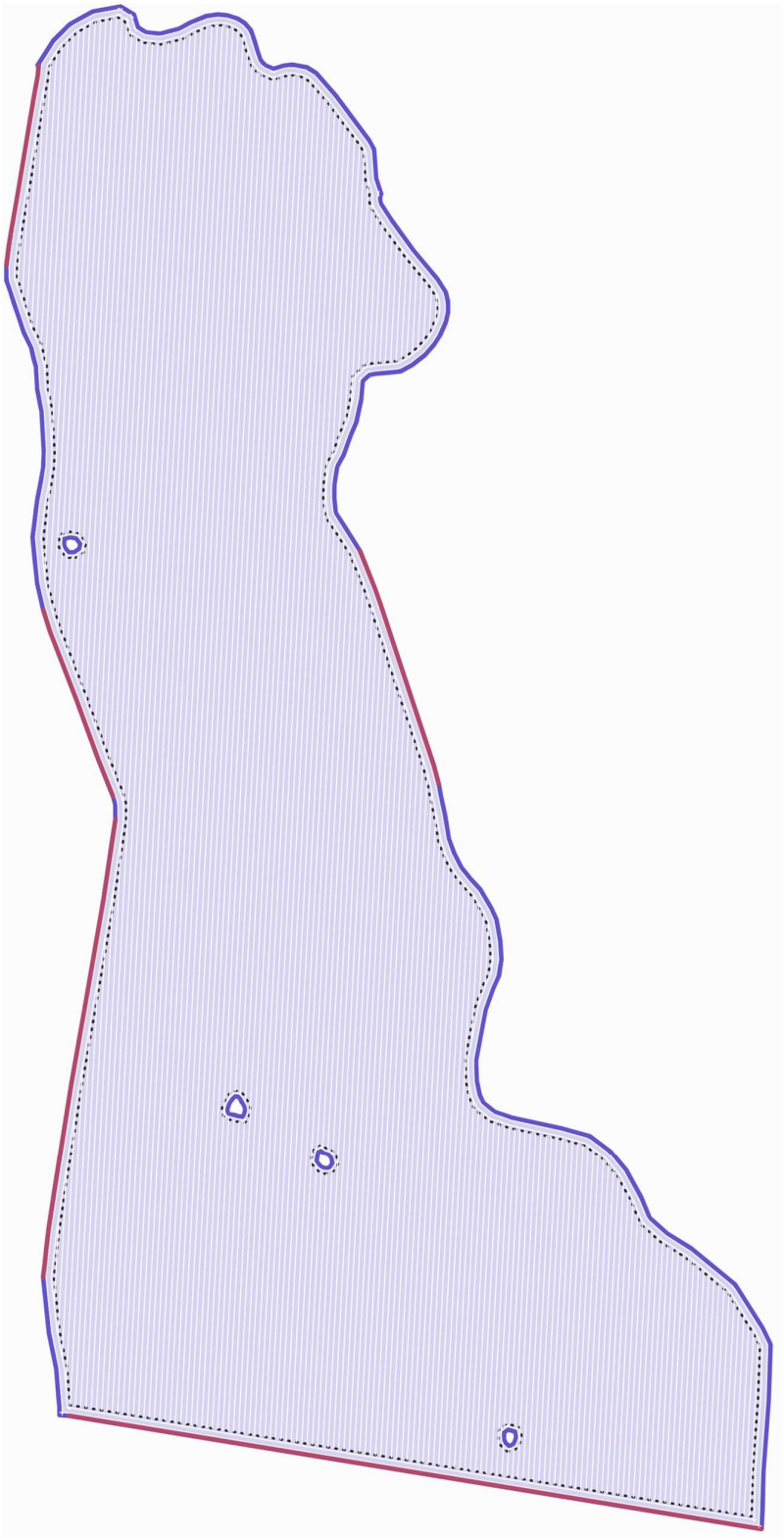
LEAST NO. OF TRACKS



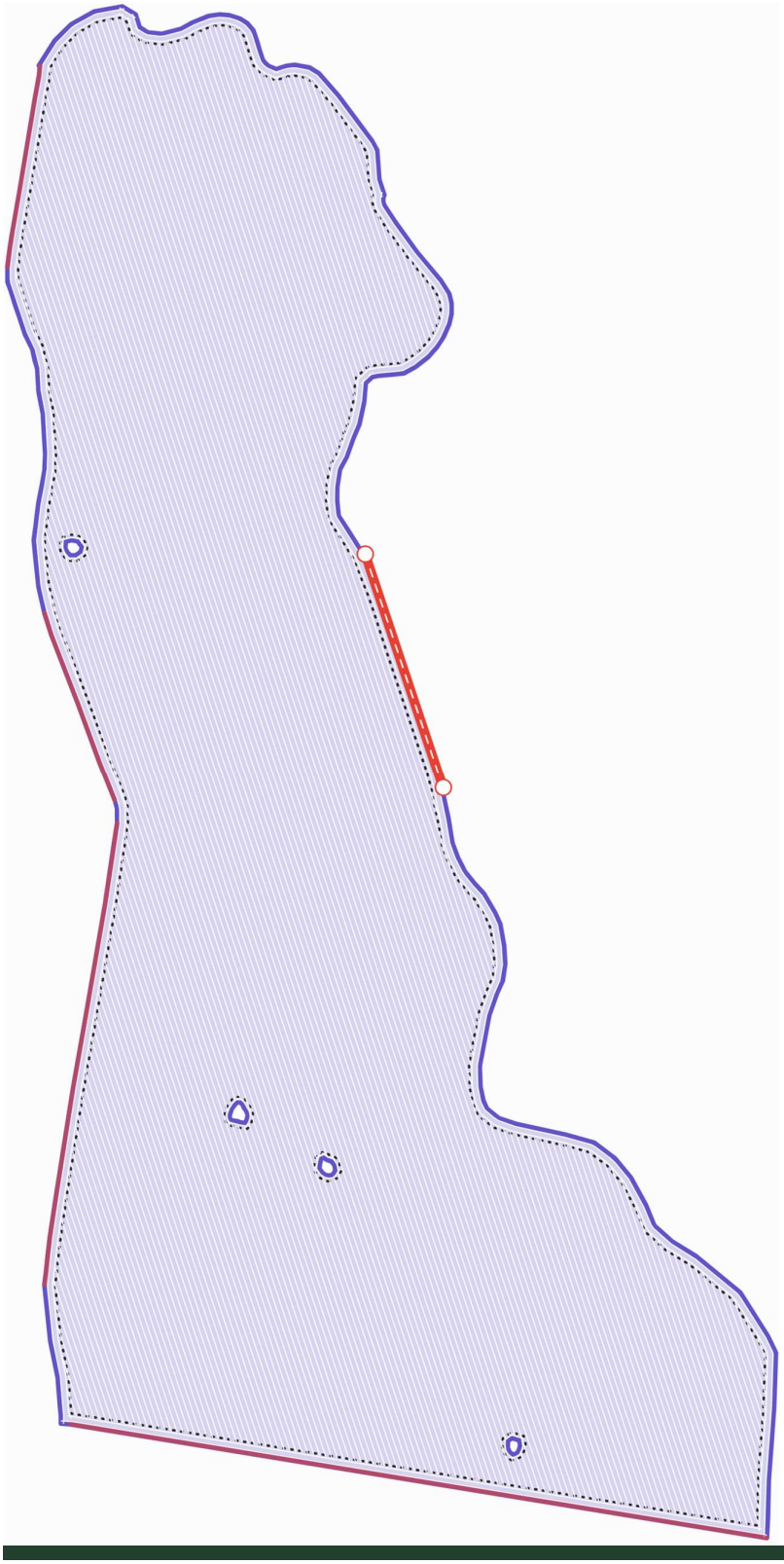
SHORTEST DISTANCE



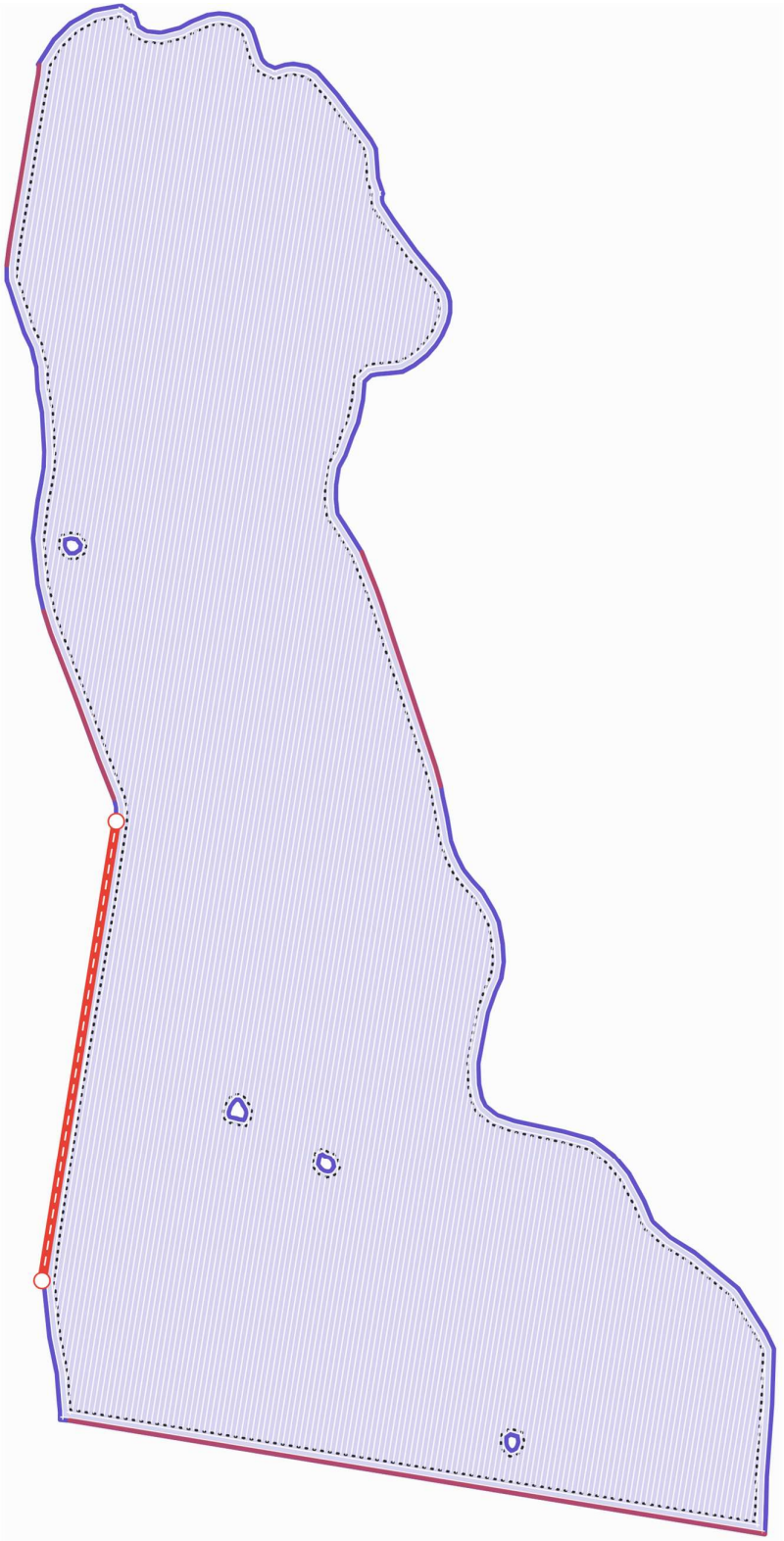
SHORTEST TIME



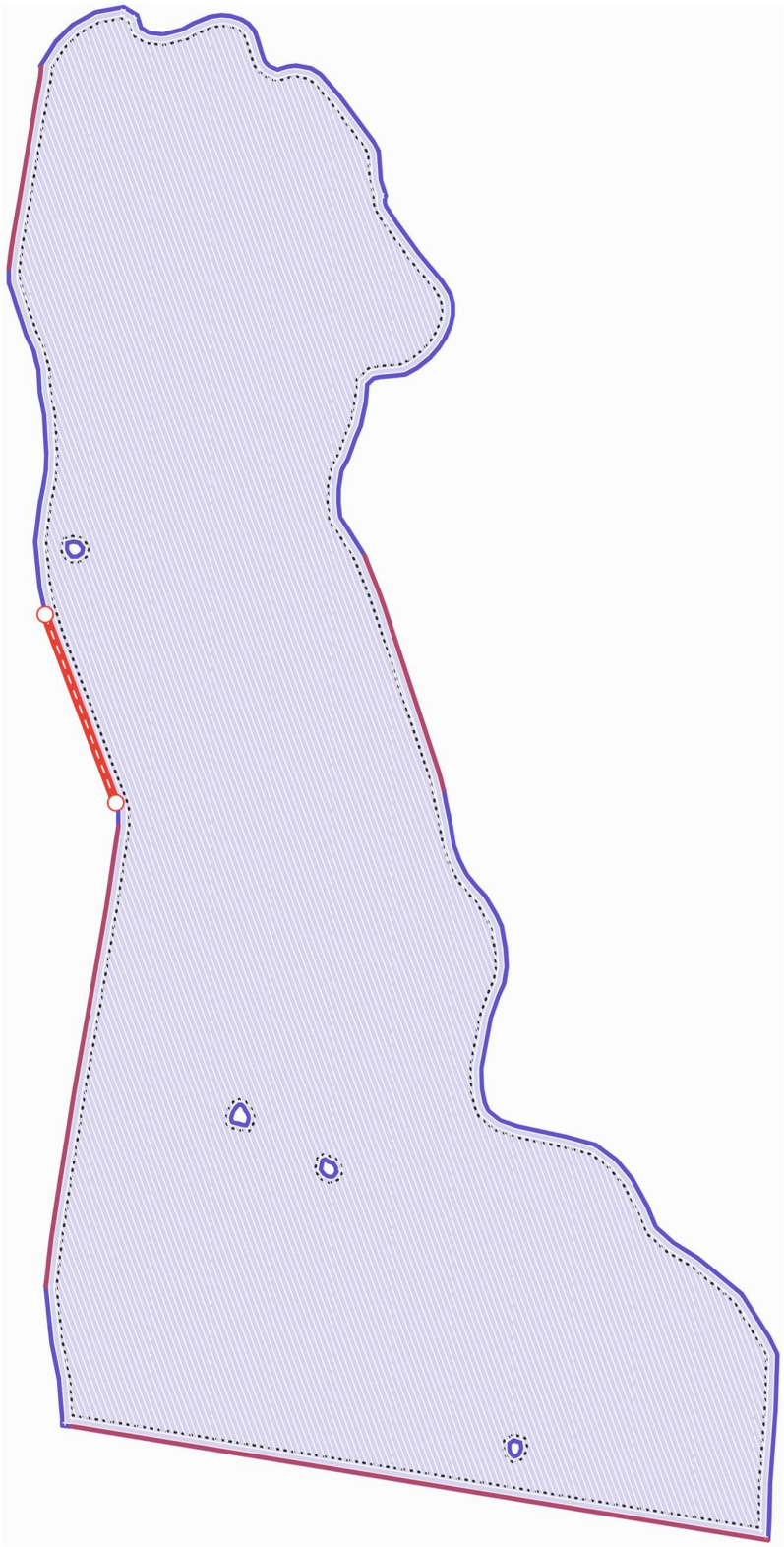
SOIL LOSS



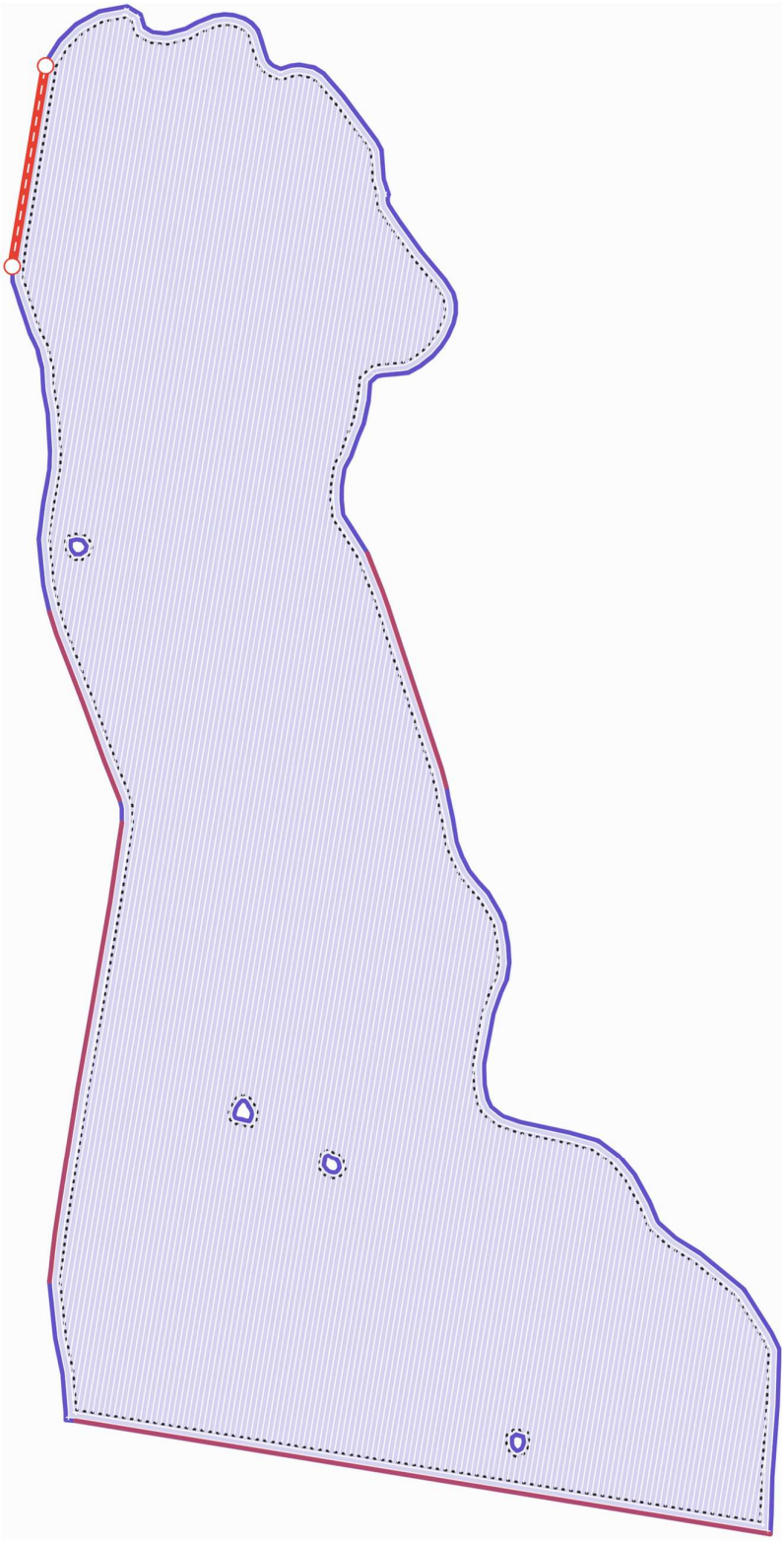
OTHER 1



OTHER 2



OTHER 3



SEEDING

Implement Width: 18.2 m

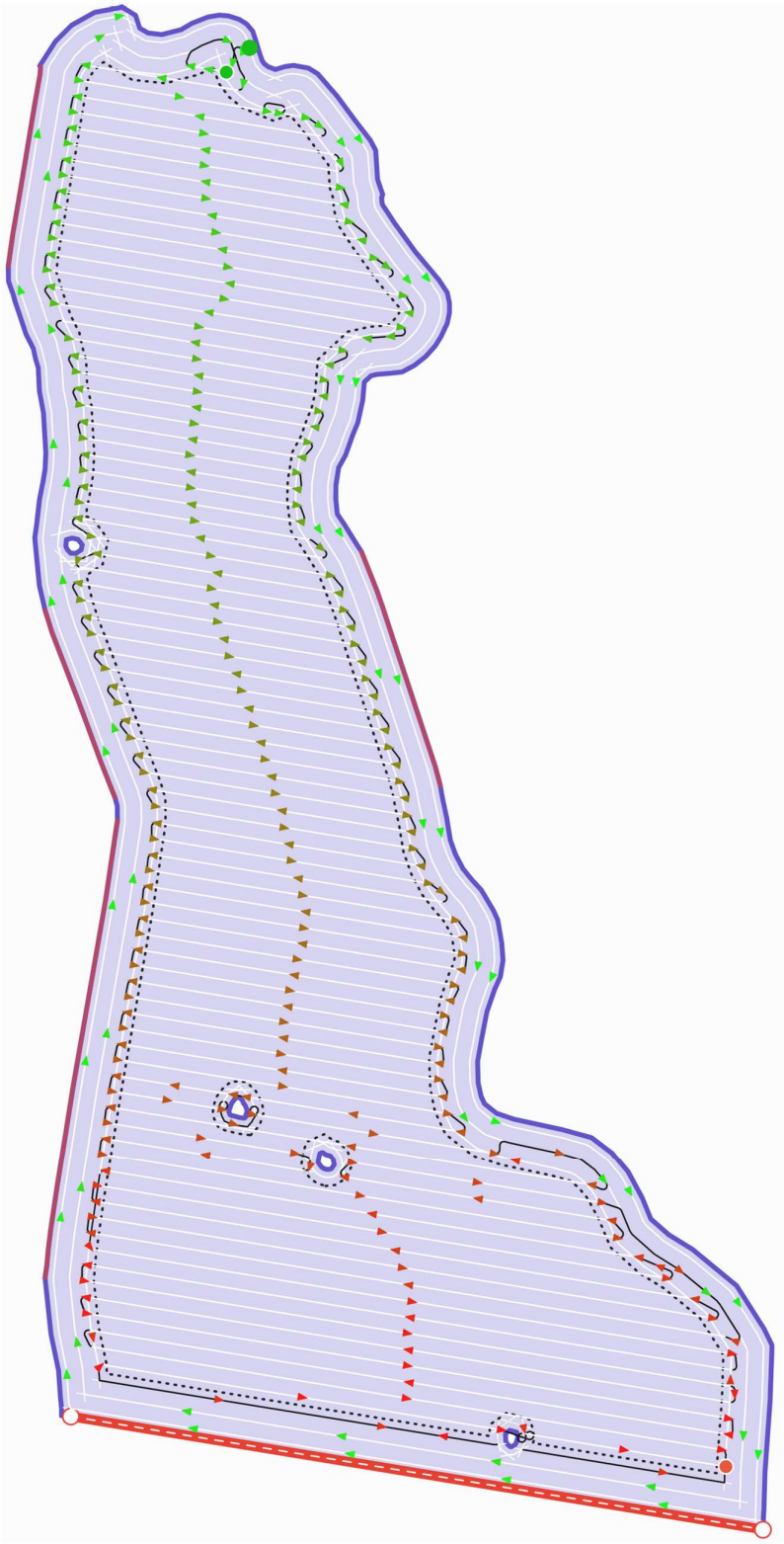
Number of Headlands Modelled: 3

Optimal Number of Headlands: 2.6

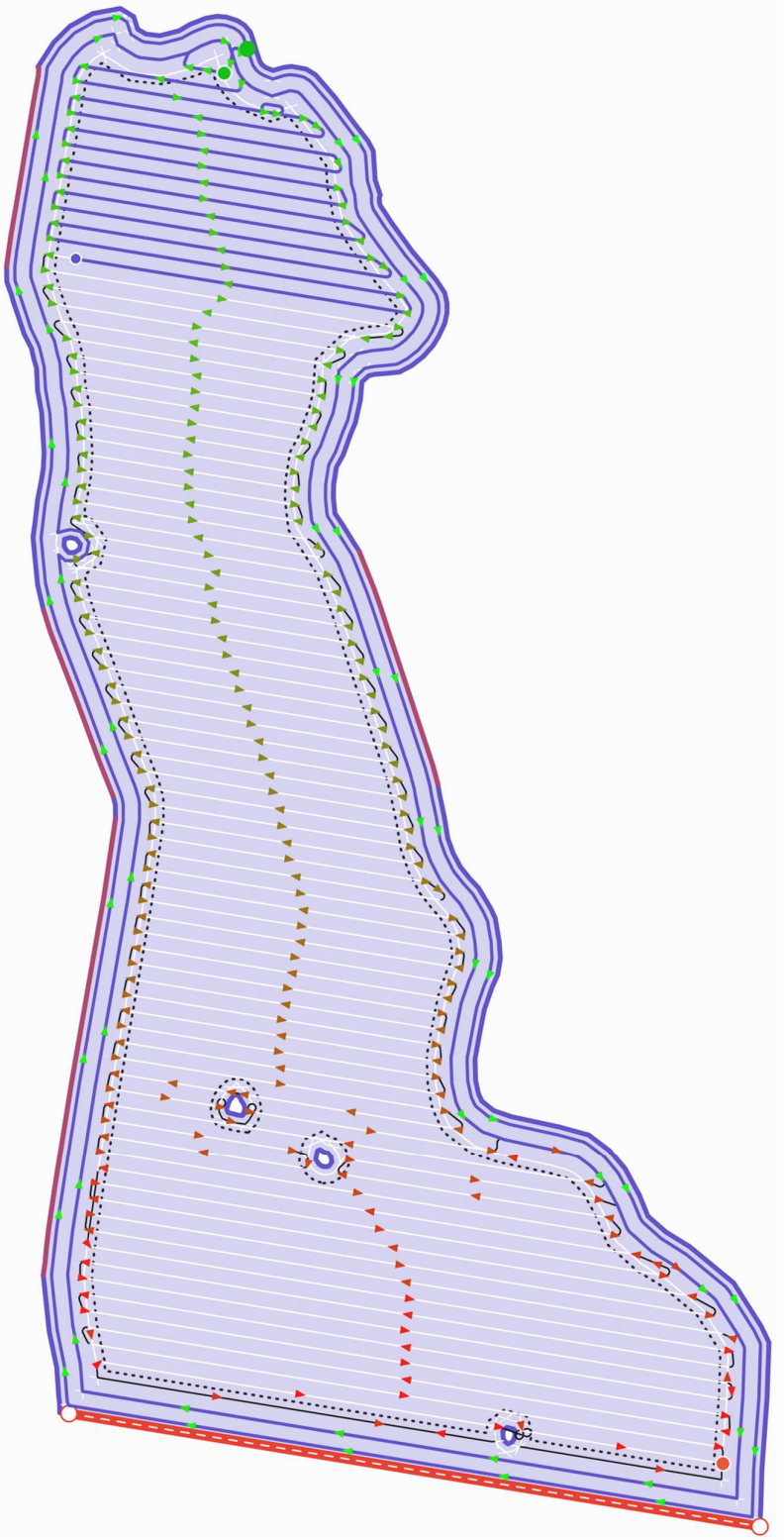
Recommended Angle: 9.2997°

Plan	Angle (°)	No. Tracks	Track Distance (km)	Turn Distance (km)	Total Distance (km)	Area Overlap (ha)	Area Overlap (%)	Missed Area (ha)
Longest Edge	9.2997	88	30.32	2.49	47.1	2.06	2.61	0.04
Least No. of Tracks	72	57	31.03	1.6	46.92	3.36	4.25	0.06
Shortest Distance	99	63	30.62	1.77	46.67	2.66	3.37	0.11
Shortest Time	99	63	30.62	1.77	46.67	2.66	3.37	0.11
Soil Loss	89	60	31.15	1.69	47.12	3.57	4.51	0.05
Other 1	99.1185	64	30.85	1.8	46.94	3.06	3.87	0.07
Other 2	69.4944	60	31.12	1.69	47.09	3.51	4.44	0.05
Other 3	99.4359	63	30.92	1.77	46.97	3.15	3.98	0.05
Other 4	71.6666	58	31.1	1.63	47.02	3.49	4.41	0.05

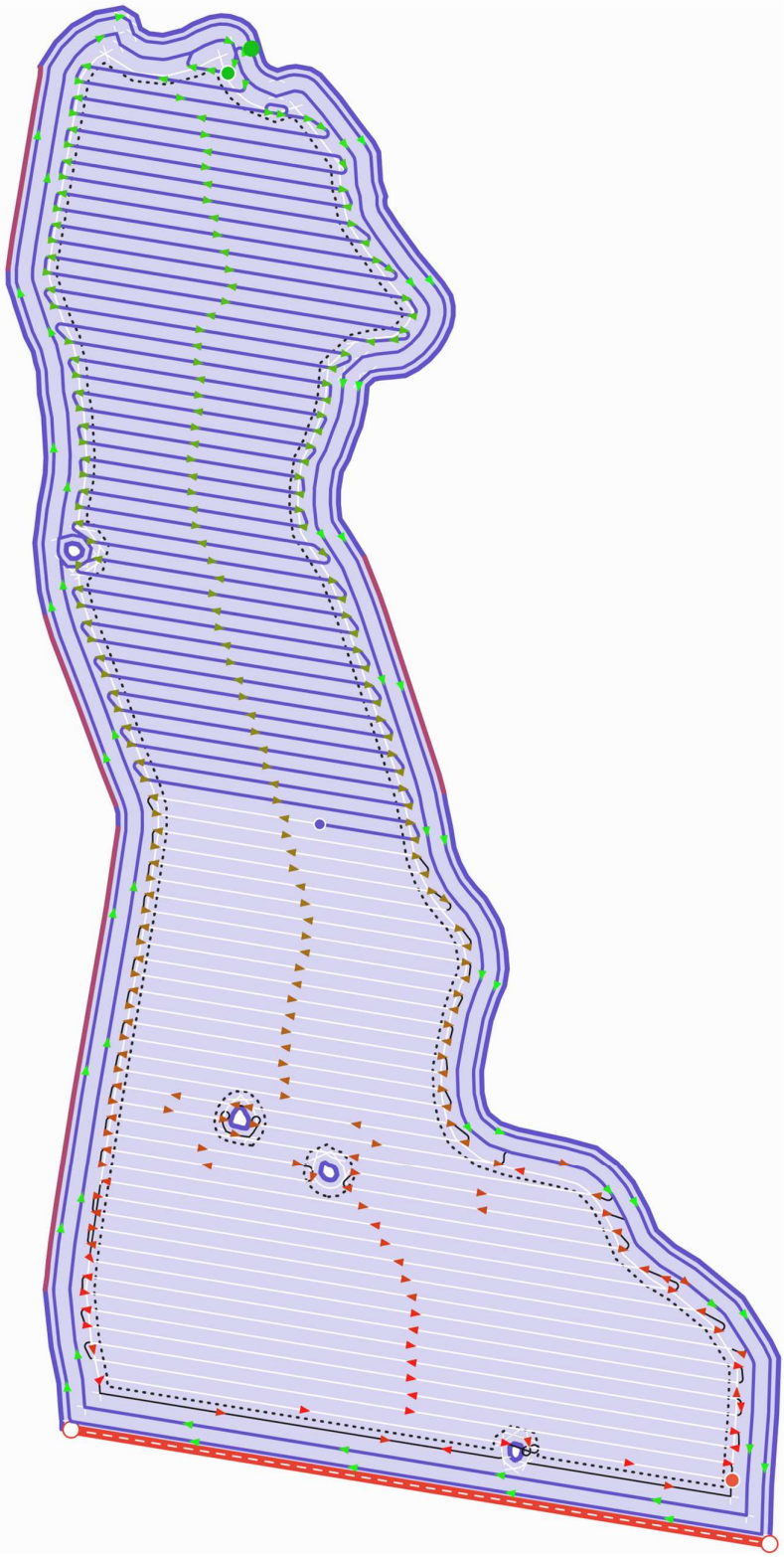
RECOMMENDED TRACK START



RECOMMENDED TRACK 25% COMPLETE



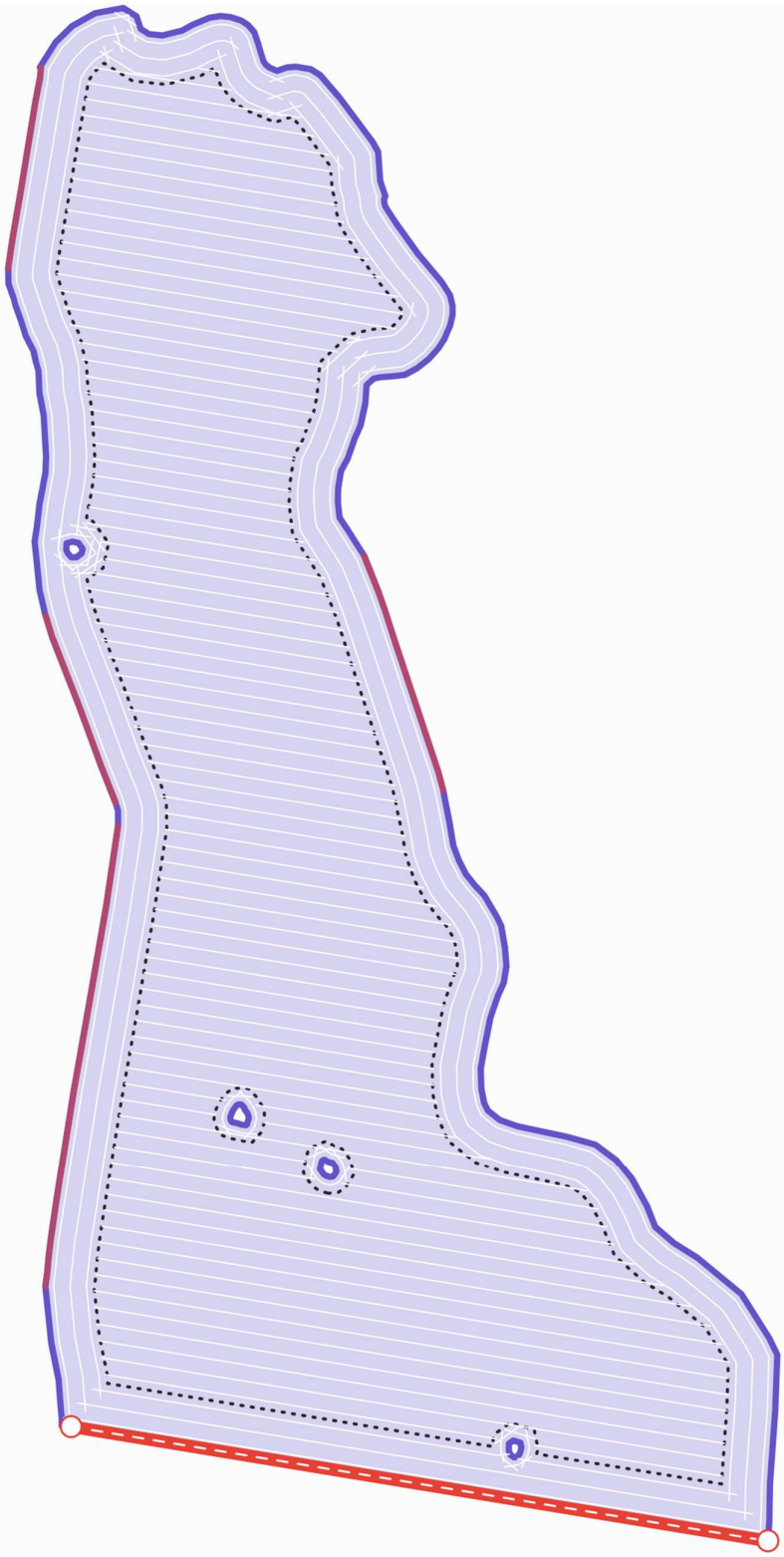
RECOMMENDED TRACK 50% COMPLETE



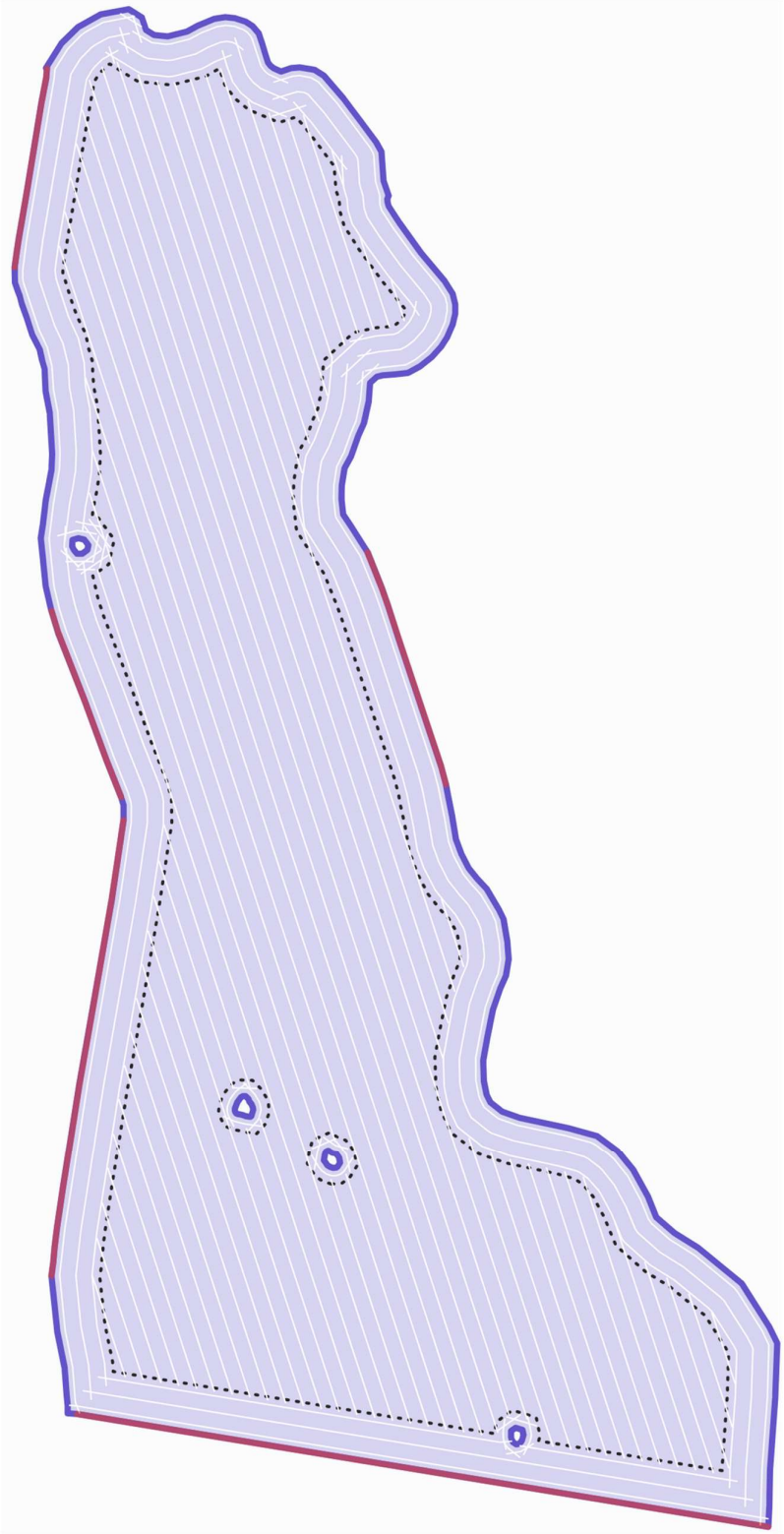
RECOMMENDED TRACK 75% COMPLETE

RECOMMENDED TRACK 100% COMPLETE

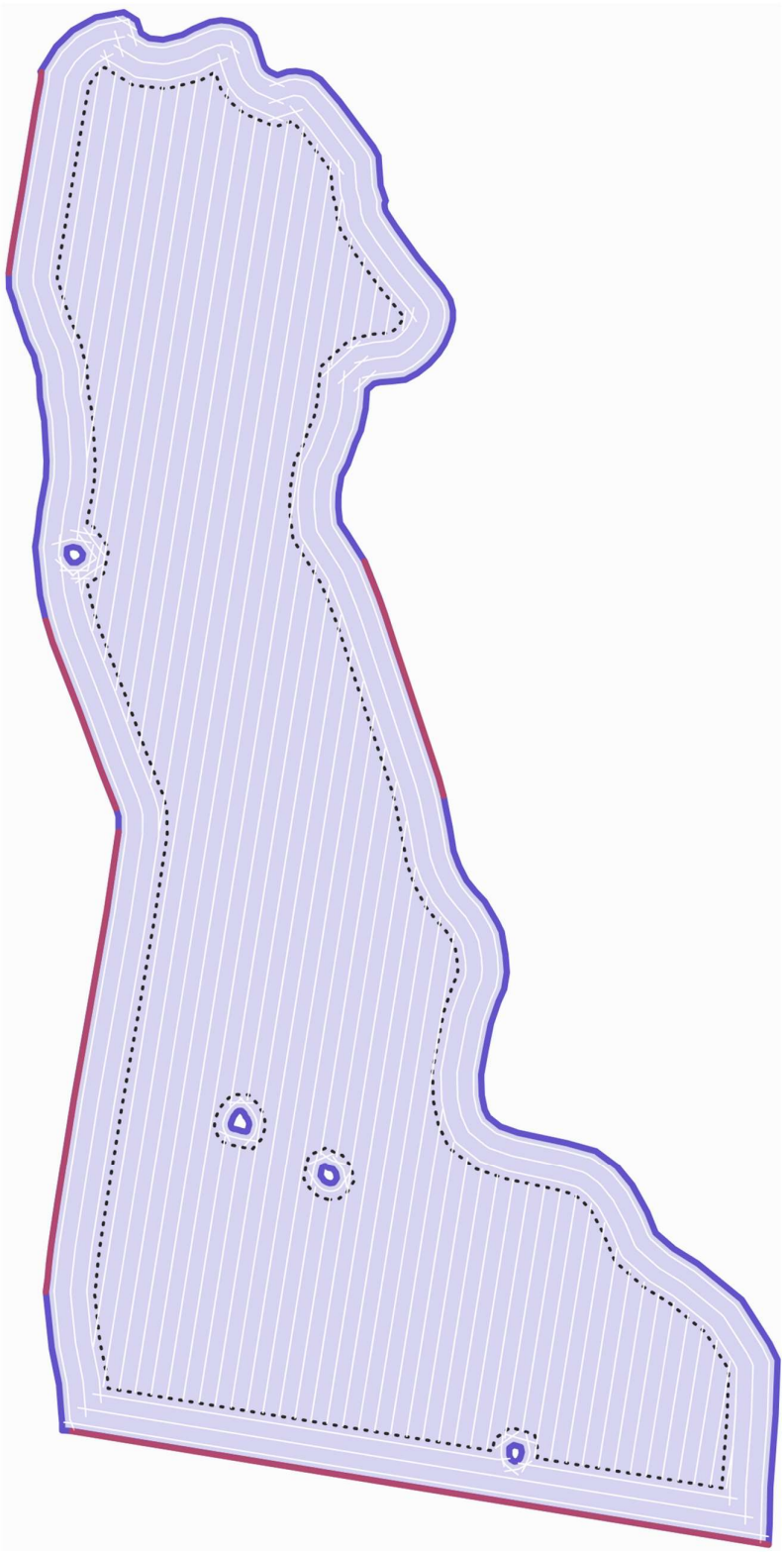
LONGEST EDGE



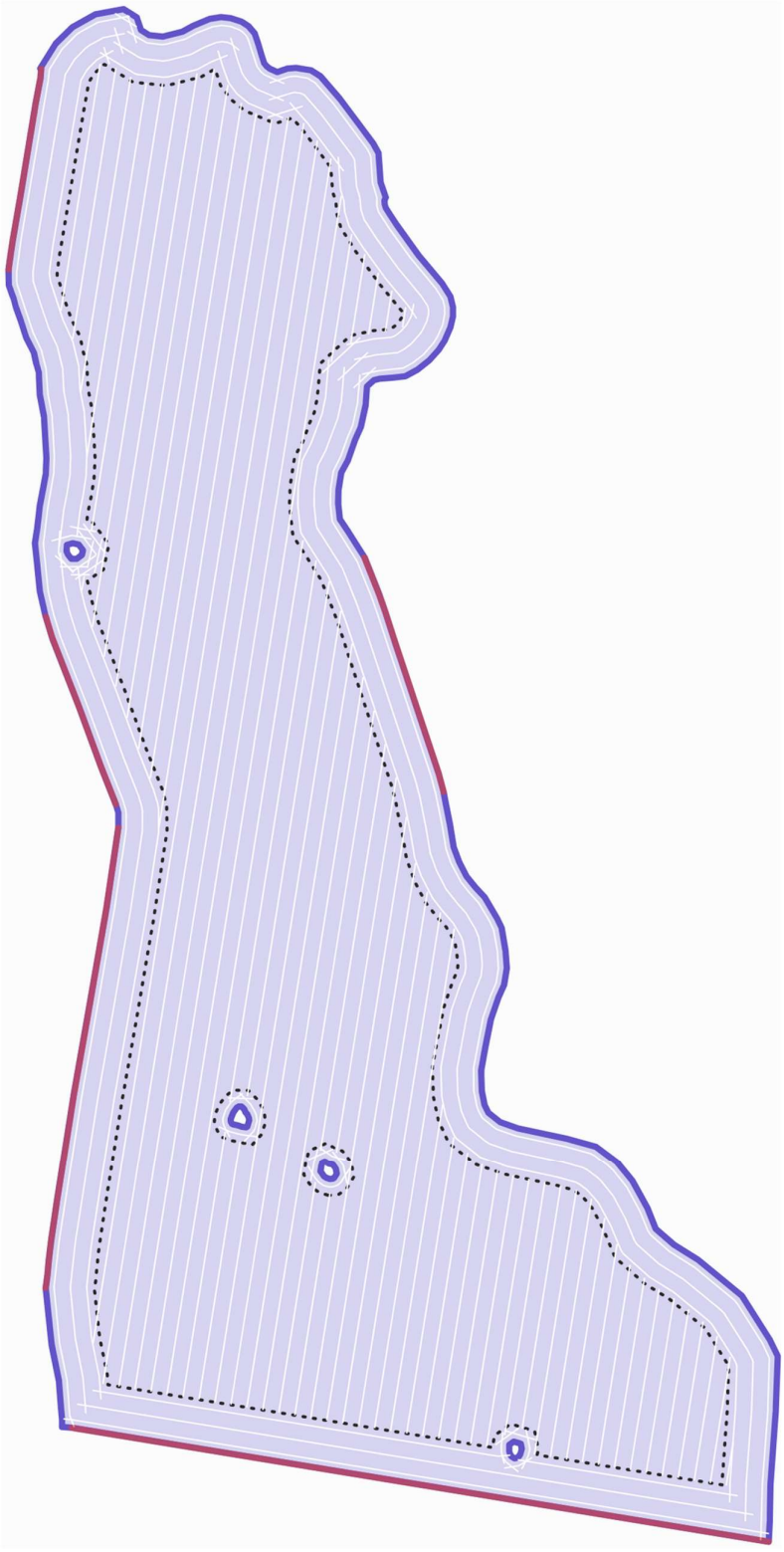
LEAST NO. OF TRACKS



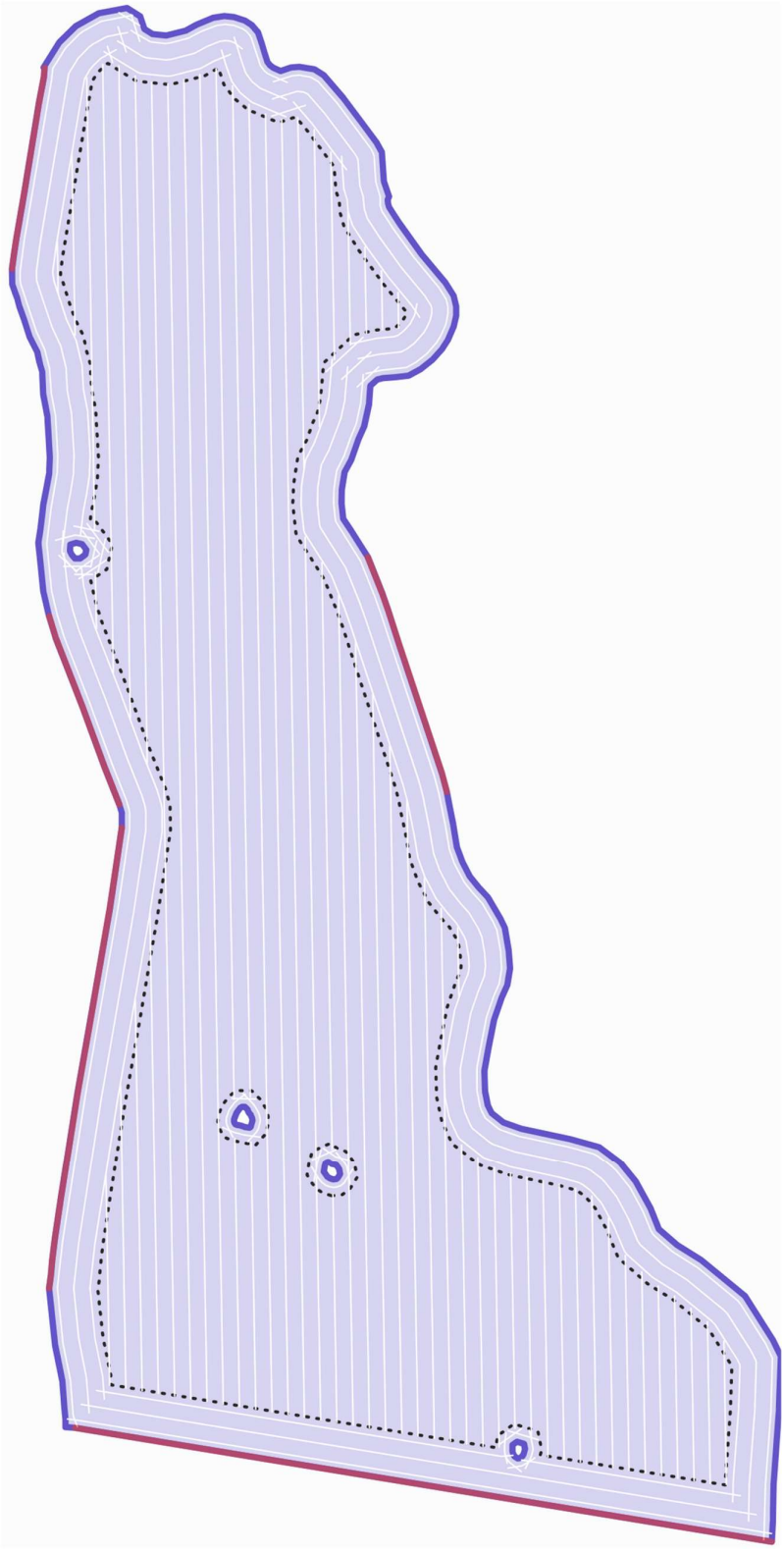
SHORTEST DISTANCE



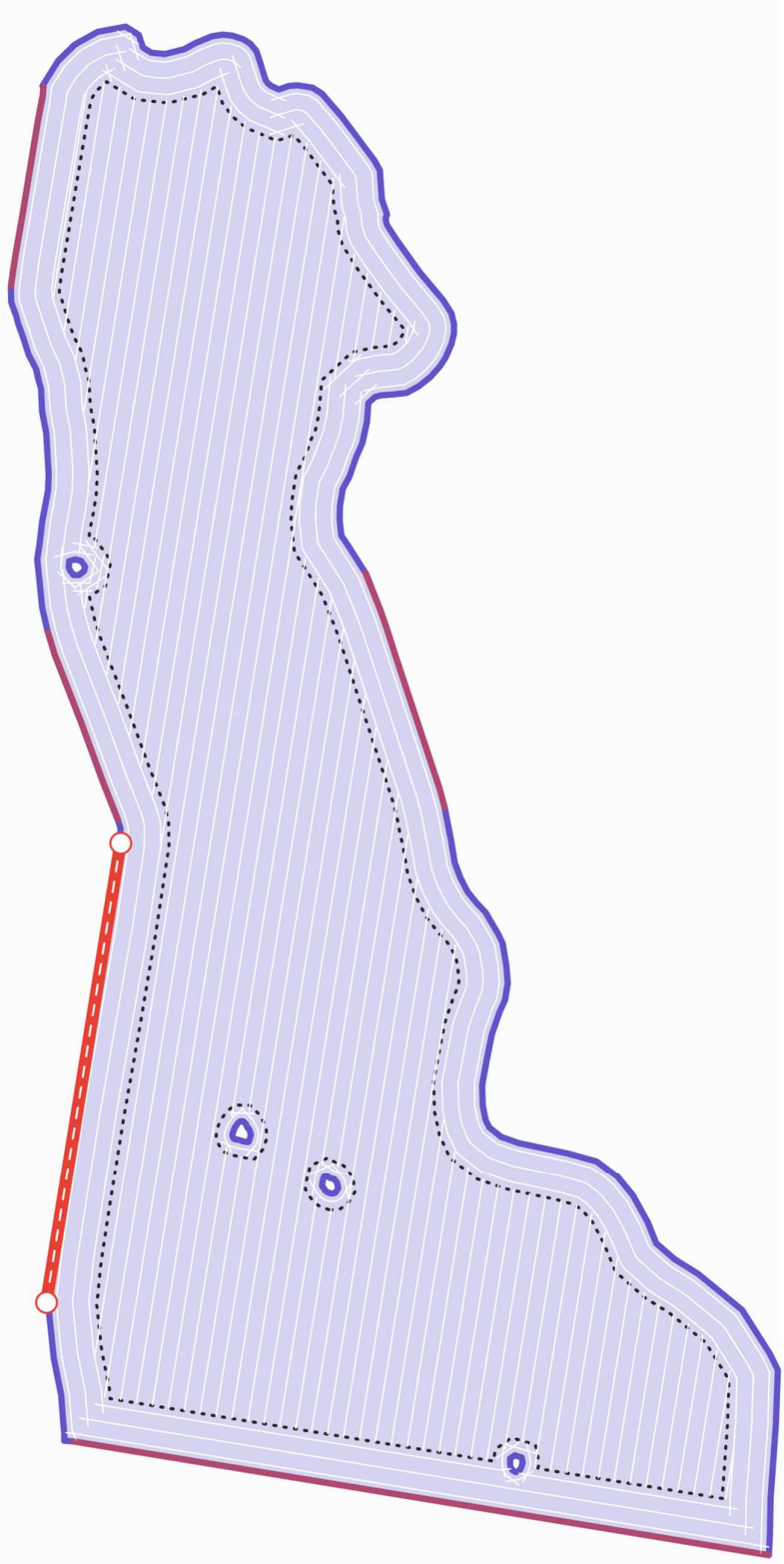
SHORTEST TIME



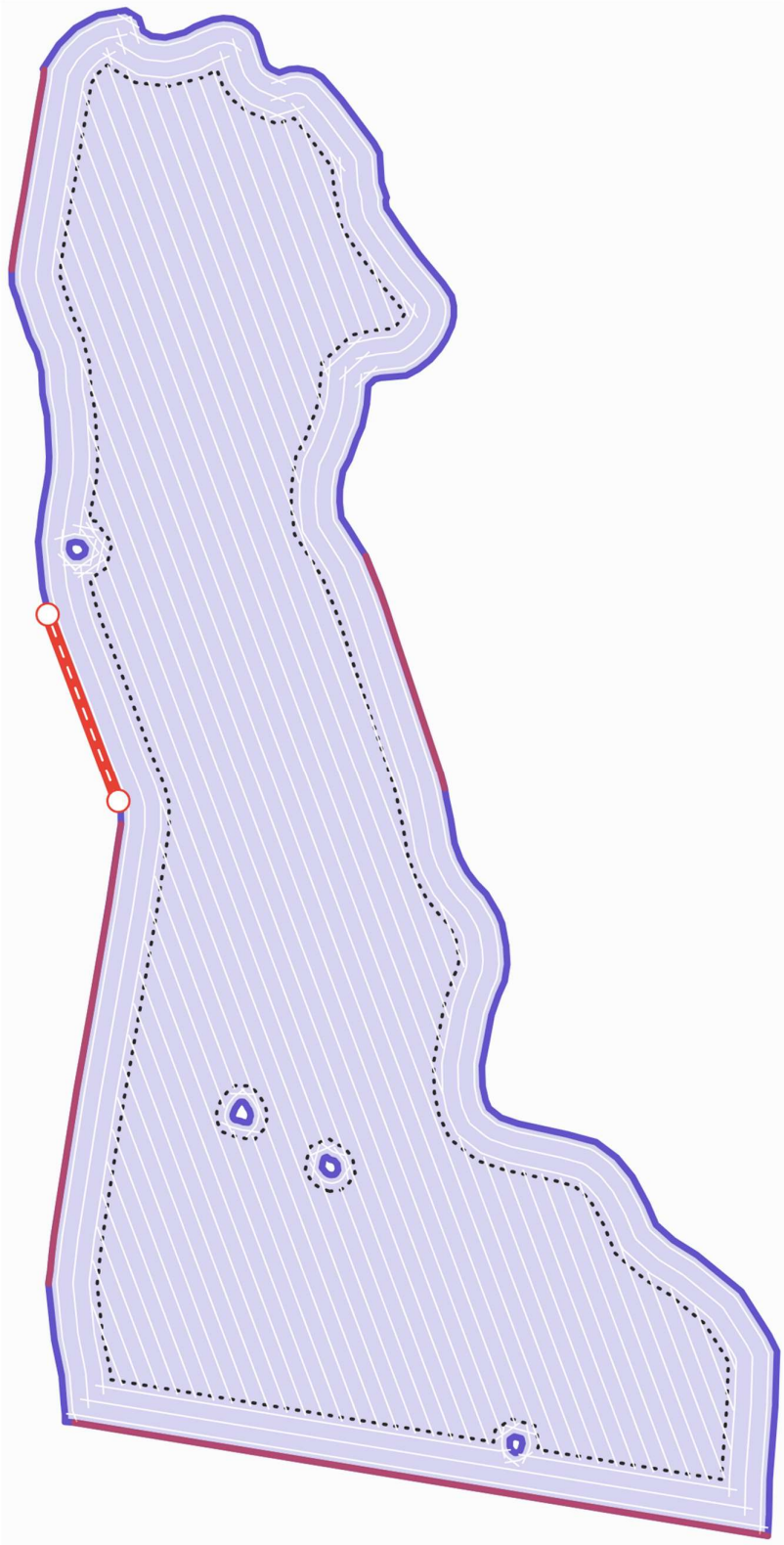
SOIL LOSS



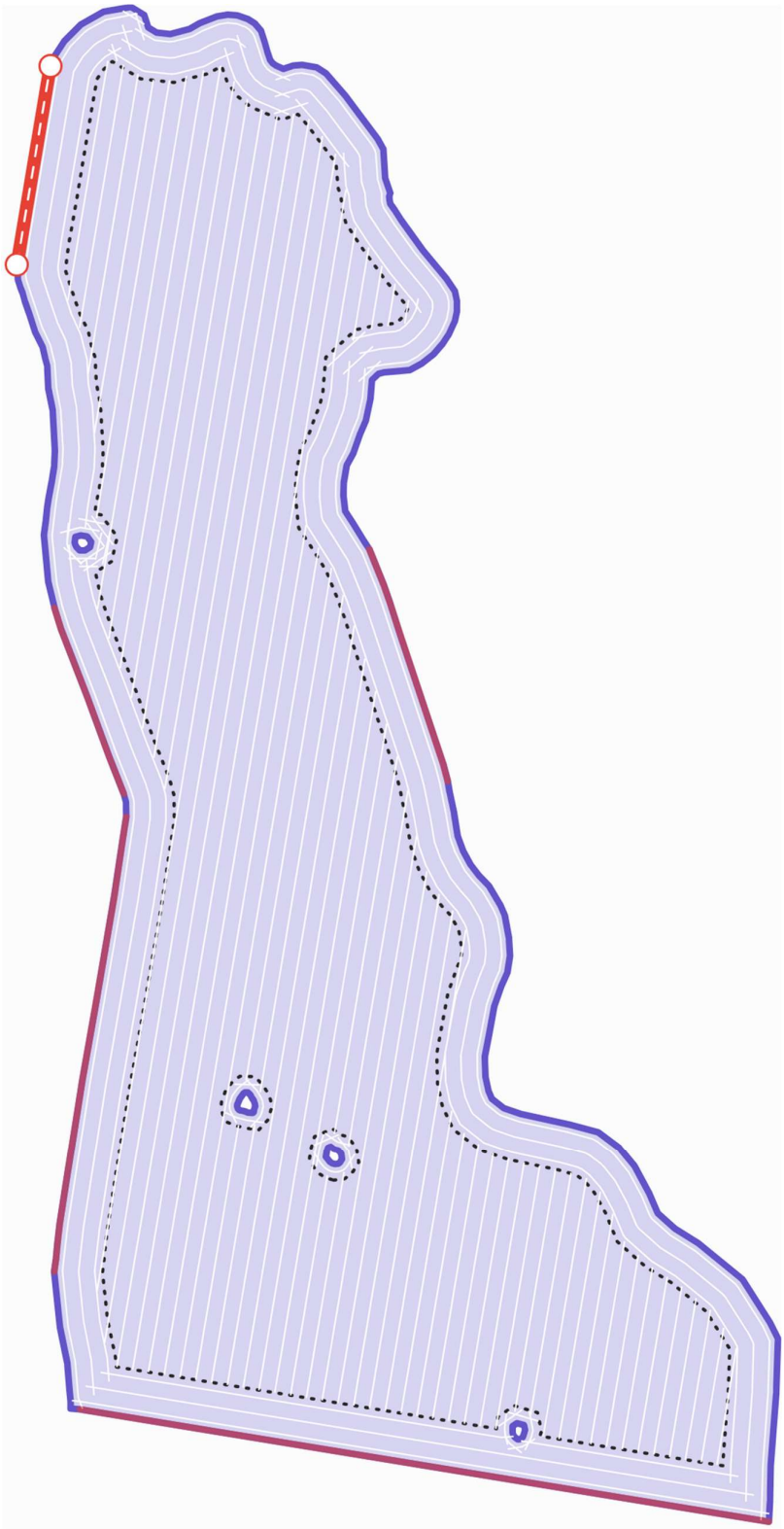
OTHER 1



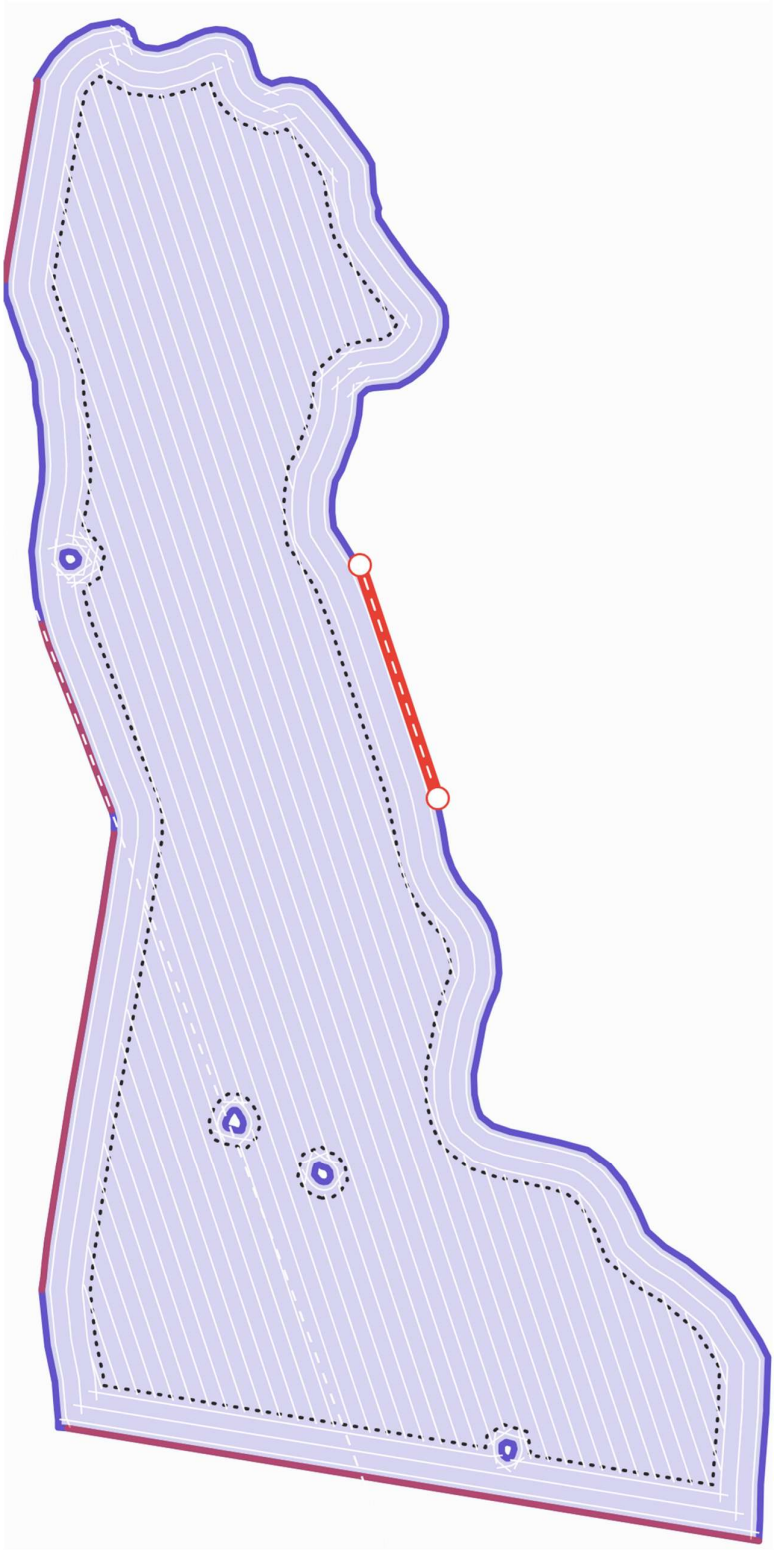
OTHER 2



OTHER 3



OTHER 4



ROLLING

Not assessed

SPRAYING

Not assessed

SPREADING

Not assessed

HARVESTING

Not assessed

MOWING

Not assessed

RAKING

Not assessed

MULCHING

Not assessed

DISCLAIMER AND LIMITATIONS

This report provides geometric optimisation guidance only. It does not account for soil conditions, crop type, drainage, terrain, or local access considerations. Operators should apply their own judgement when implementing the suggested paths.

Field boundaries are taken as provided. Any inconsistencies in GPS accuracy, cropping area, or access arrangements may affect actual outcomes.

FieldPath accepts no liability for decisions or outcomes resulting from the use of this report. It is the responsibility of the user to verify that the path plan suits their equipment, conditions, and operational preferences.