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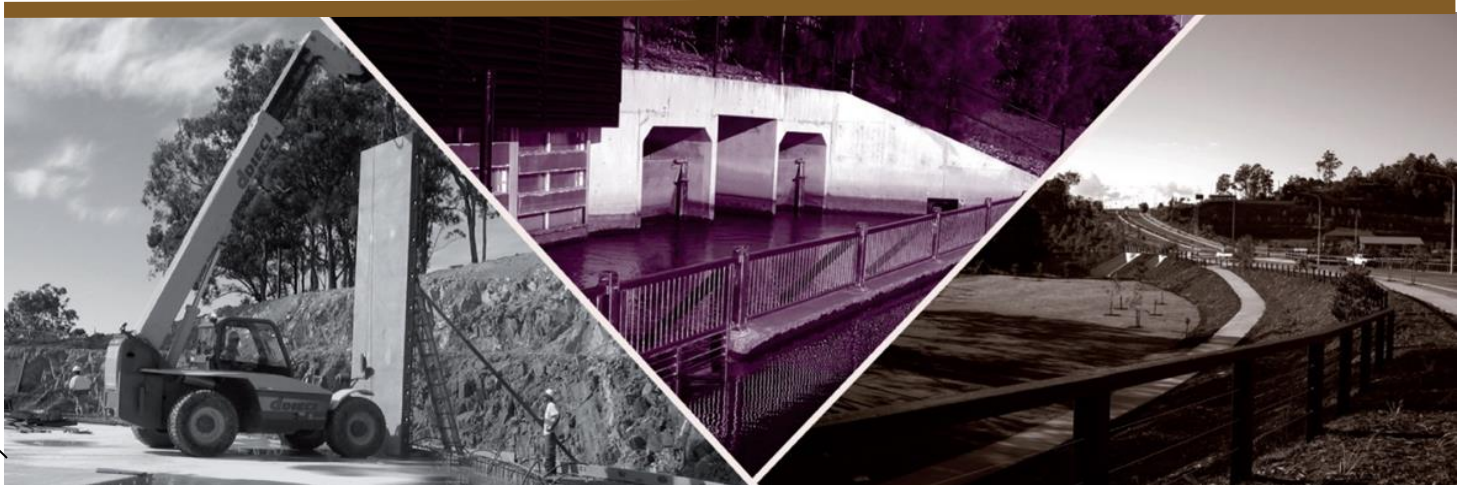
Preliminary Engineering Report

Elysian Development Bilambil Heights New South Wales

PRELIMINARY ENGINEERING REPORT IN SUPPORT OF A MODIFICATION APPLICATION

Address:	Marana Street, Bilambil Heights, NSW 2486
Lot & RP Description:	Lot 32//DP1085109, Lot 33//DP1085109, Lot 31//DP850230, Lot 2//DP867486, Lot 4//DP822786, Lot 1//DP1033807, Lot 1//DP595529 and Lot 1//DP1033810, Lot 2//DP1156202 and Lot 1//DP1033811
Local Government:	Tweed Shire Council
Prepared for:	Greenland Developments Pty Ltd
Prepared by:	Mortons – Urban Solutions Level 2, 19 Short Street (PO Box 2484)

DATE: November 2024



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Prepared for:
Greenland
Developments Pty
Ltd

Property Address:
Marana Street, Bilambil Heights,
NSW 2486

Real Property Description/s:

Lot 32//DP1085109, Lot
33//DP1085109, Lot
31//DP850230, Lot
2//DP867486, Lot
4//DP822786, Lot
1//DP1033807, Lot
1//DP595529 and Lot
1//DP1033810, Lot
2//DP1156202 and Lot
1//DP1033811

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- Appendix A** **Preliminary Engineering Drawings**
Prepared by MUS, dated November 2024
- Appendix B** **Preliminary Water Network Drawings**
Prepared by MUS, dated November 2024
- Appendix C** **Preliminary Sewer Network Drawings**
Prepared by MUS, dated November 2024

1.0 INTRODUCTION

This Preliminary Engineering Report has been prepared by Mortons - Urban Solutions on behalf of Greenland Development Pty Ltd, ('the applicant') for consideration by the Department of Planning, Housing and Infrastructure (DPHI) to modify the Major Project ('Concept Plan') Approval No. 08_0234 for Elysian, formerly known as the 'Rise', located at Marana Street, Bilambil Heights NSW 2486 (formally described as Lot 32//DP1085109, Lot 33//DP1085109, Lot 31//DP850230, Lot 2//DP867486, Lot 4//DP822786, Lot 1//DP1033807, Lot 1//DP595529 and Lot 1//DP1033810, Lot 2//DP1156202 and Lot 1//DP1033811).

Refer to location map of proposed development below:.

Figure 1-Major Project Approval-Approximate Boundary



The proposal seeks approval to modify the Major Project consent pursuant to clause 3BA(5) of Schedule 2 of the *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* (Transitional Regulation).

The modification seeks changes to the land uses of the approved project and the conditions of the consent. It is proposed to modify the approval by consolidating and simplifying land uses, omitting inappropriate uses and removal of the detailed layout to allow for flexibility at the detailed design stage.

A summary of the proposed changes include:

- Consolidation and updating of land uses and precincts
- Change of residential product type and density
- Increase in residential areas with an overall reduction in the yield of the development
- Deletion of precincts for a private school and nursing home
- Increase in open space overall, including additional land for conservation
- Reduced village centre precinct area
- Reduction in the number of precincts allocated for retirement living
- Realignment of major spine road and internal roads
- Relocation and consolidation of the reservoirs
- Change in tenure from Community title scheme/ Body corporate to Freehold

The Major Project Approval No. 08_0234 was originally approved on 29 June 2010, with two subsequent modifications approved on 4 April 2018 (Mod 1) and 31 October 2022 (Mod 2). It is proposed to change the approval description as follows:

- Concept plan for the development of a mixed residential development including 1300 residential dwellings, 2,400m² gross floor area of retail space, 4,250m² gross floor area of commercial space, and associated infrastructure and landscaping.

It is considered that the proposed changes are substantially the same development for which the consent was originally granted on behalf of *Greenland Development Pty Ltd* and is supporting information to modify the Major Project Approval consent pursuant to accordance with Clause 3BA(5) of Schedule 2 of the Environmental Planning and Assessment Regulation 2017 (Transitional Regulation)

This report provides an overview of the proposed development that includes the grading of the site and proposed configuration of the internal road grades, intersections and water and sewer servicing of the site. Components reviewed include:

- Construction of Spine Road
- Construction of local access Streets/roads
- Stormwater infrastructure
- Sewer and water reticulation

2.0 THE SITE AND ITS CONTEXT

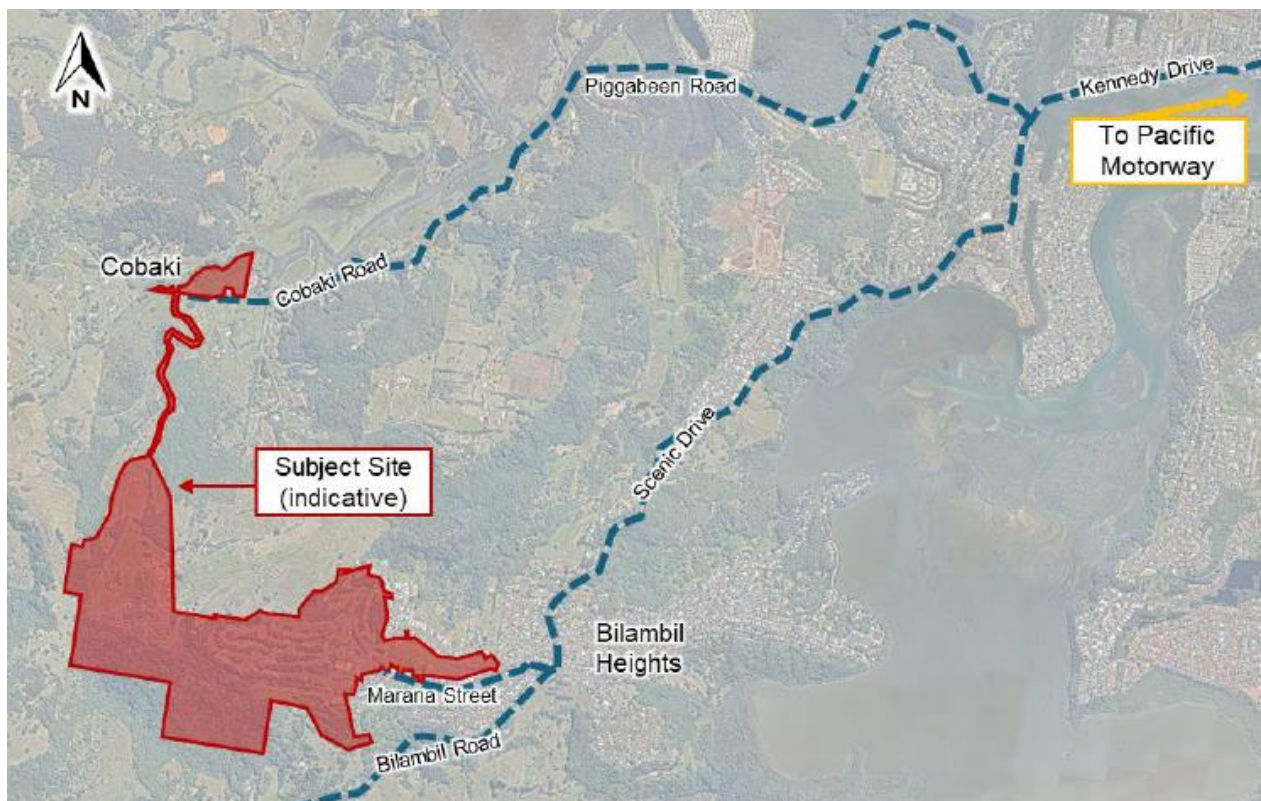
The Elysian site is located in New South Wales just south of the border with Queensland and approximately 10km south-west of Tweed Heads in the township of Bilambil Heights.

With a total land area of approximately 176 ha owned by the applicant, the subject site contains an area of some 126 ha of development footprint (excluding conservation area of 50ha) and is characterised by undulating land ranging from 2m to 216m Australian Height Datum (AHD).

The majority of the proposed development will occur in areas that have been cleared of native vegetation for past agricultural activities and a golf course (which currently occupies the south-eastern portion of the development footprint).

For a detailed description of the current vegetation on site, refer to the reports by JWA Ecological Consultants Pty Ltd included as part of this modification application.

For context the below diagram provides an overview of its location.



3.0 PROPOSED DEVELOPMENT AND ENGINEERING DESIGN

The Concept plan for the development is for a mixed residential development including **1,300** residential dwellings, **2,400m²** gross floor area of retail space, **4,250m²** gross floor area of commercial space, and associated infrastructure and landscaping.

3.1 Design Brief, Intentions and Qualifications

The design brief for the development is to cater for the above yields and to ensure engineering is compliant with Tweed Shire Council engineering guidelines unless otherwise approved by Council officers.

The site is relatively steep with road design to undertaken in accordance with Council's Development Design Specification D1-Road Design.

Water and sewer design has been reviewed following discussions with Tweed Shire Council on proposed upgrades to the water supply including reservoirs, pump stations and relocation of existing services. Tweed Shire Council have also been engaged to review future sewer servicing of the area via regional pump station and rising mains.

We note that the yield for the site is less than originally proposed and the detailed sewer and water networks will be completed as future applications.

3.2 Vegetation Clearing and Preservation

The majority of the proposed development will occur in areas that have been cleared of native vegetation for past agricultural activities and a golf course (which currently occupies the south-eastern portion of the development footprint).

For a detailed description of the current vegetation on site, refer to the reports by JWA Ecological Consultants Pty Ltd included as part of this modification application.

3.3 Earthworks, Proposed Levels and Rock Walls

Mortons Urban Solutions have undertaken preliminary site grading for the proposed road works. Actual Lot grading has not been undertaken at this time as the road grades are dictating the earthworks on site and the extent of batters.

Please see attached Mortons-Urban Solutions preliminary site cut and fill Plans 44401-ALL-SK040-SK048

Due to the relative steepness of the site and to reduce earthworks on site road grading has been reviewed in accordance with D1 of Council's Development Specifications. We have determined that some minor departures are required from Council's Specification to minimise the earthworks but still have an engineering design that incorporates safe sight lines and road speeds. These departures generally relate to vertical curve requirements at intersections.

As noted above, the site grading presented is not final grading but is a representative grading to prove that road gradings are achievable and that road layout and safety are acceptable for Tweed Shire Standards.

Due to the steepness of the site MUS, have had to vary some design components to reduce the amount of earthworks on site, these include:

- Crossfalls on some minor roads have been designed with one-way crossfall to reduce walls and earthworks
- Due to the steepness of the site and in order to avoid massive earthworks non-standard wall heights have been utilised. We have tried to minimise wall heights wherever possible and have tried to limit to a maximum of 3m high. There are 2 locations in the current design where walls in excess of 3m are required.
 - Road 1 approximate CH1590 to CH1675 and CH2760 to CH2890. The second location is a pinch point in the only feasible route to achieve a linkage with Cobaki Road and has maximum longitudinal grades of 16 % passing from fill through to a section where cutting through the side of the hill. Walls in this section are up to 6m high. It is not possible to achieve the cutting with batters at detailed design this could be designed as 2 tiered walls 3m high with bench in between with geotechnical advice
- To reduce overall earthworks and wall heights we seek councils approval as per Council's standard drawings S.D.001 and S.D.002 to increase the crossfall to a maximum of 1 in 6 where shown as an asterisk on the Standard drawings (Note * TWEED SHIRE COUNCIL MAY CONSIDER STEEPER CROSSFALLS IN THIS ZONE WHERE TOPOGRAPHICAL CONSTRAINTS EXIST.)
- Due to the steep nature of the site 1 in 3 batters within lots have been utilised.

We note that the attached Elysian Modification Application Preliminary Engineering Plans-Appendix A highlight all non-standard solutions to assist Council in reviewing the proposed earthworks and road design on site.

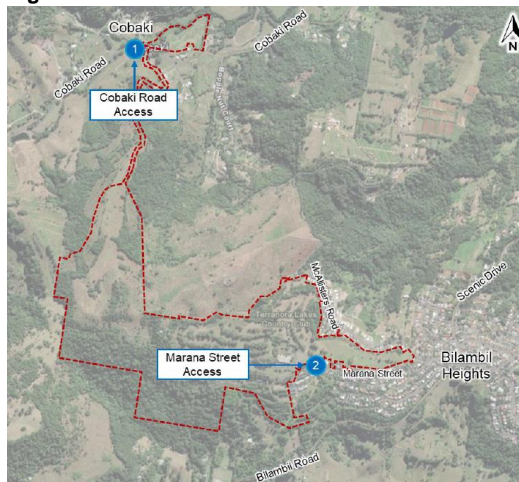
3.4 Traffic

A full traffic analysis has been completed by Bitzios Consulting, Traffic & Transport Assessment dated 31 October 2024, and submitted under separate cover to this report.

3.4.1 Proposed Access Points

Vehicular access is proposed via two locations, a southern access via Marana Street and a northern access via an intersection with Cobaki Road. Locations of the proposed accesses are illustrated in Figure 2 below

Figure 2-Access Points



3.4.2 Road Hierarchy

The road hierarchy for the proposed development consists of the following roads:

Road Hierarchy	Sealed Road Width	Road Reserve	Usage
Bushfire Trail	6m	10m	Emergency access
Laneways	6m-7.5m	8m	Limited local access
Local Access Street	6m-7.5m	13m-14.5	Regular Local Access
Local Access Street (Perimeter)	8m	15m	Local access, typically dwelling on one side of road with park on opposing side.
Collector Road	11m-13.4m	18.5-20.9	Main Spine Road

Local access streets include footpath on one side of the road and collector roads include footpaths or shared paths on both sides. Roads are generally consistent with Tweed Shire Council drawings (S.D 001-S.D 003 & S.D 009-S.D 010)

3.4.3 Road Design

Road design has been undertaken to achieve safe, trafficable roads that meet Council's design requirements of D1-Specifications. Where these specifications cannot be met we have highlighted the discrepancies on the preliminary engineering plans for discussion with Tweed Shire Council.

Road locations, verge widths , long sections and cross sections of these proposed public roads are attached to this submission are contained in Mortons-Urban Solutions-Elysian Modification Application Preliminary Engineering Plans-Appendix A to this report.

We provide below comment on the road design parameters that are for discussion with Tweed Shire Council to ensure that future detailed engineering can incorporate the findings:

- Internal intersections are all priority-controlled with a single internal roundabout that will cater for public transport turnaround. Terrain constraints over the subject site have resulted in some intersections being provided at a gradient greater than recommended within Council's Subdivision Manual, we understand that gradients at these intersections have been brought as close to in-line with requirements as possible and are not anticipated to result in additional risk at intersections.
- The site grading presented is not final grading but is a representative grading to prove that road grading is achievable. A digital terrain model (DTM) that includes detailed

intersection and kerb return modelling, traffic calming devices, splitter islands and road widenings will be included in the detailed design phase.

- On longer straights of roads traffic calming measures such as thresholds, slow points, speed humps chicanes and splitter islands will be utilised in detailed design to control speed. (speed humps will only be considered on roads with volumes less than 1000 VPD with a preference for horizontal calming devices where possible)
- To achieve SISD (Safe intersection sight distance) to a future possible connection at the high point of Road 1 at approximate chainage 1105 slow points either side of the future intersection will be provided at detailed design to limit design speed 50km/hr or below to achieve SISD for the design K factor of 10 derived from Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections Table 3.2. This methodology may be utilised on other minor roads to ensure all sight distance constraints are achieved.
- To achieve ASD splitter islands on some roads, splitter islands as per Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections Section 2.2.2 may be required at detailed design stage.
- The roundabout on Road 1 will be a minimum of outer diameter 30m in accordance with the NSW Guidelines for Public Transport Capable Infrastructure in Greenfield Sites and Tweed Shire council Development Design Specifications Road Design D1
- Additional truncations to lots may or may not be required at detailed design stage to ensure sight distance.
- Due to the steep nature of the site and based on existing approved subdivisional precedents we seek approval for non-standard longitudinal grades through an intersection of greater than 4 % (Development Design Specifications Road Design D1 Section d1.10(2)) by utilising a maximum adverse crossfall for trucks of 7% as per Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections , Appendix B Section B4 Table B2.Detailed longitudinal sections of all roads have been provided to show all road grades through intersections.
- Neighbourhood Connector Road 1 has been limited to vertical grade of 12% in accordance with Development Design Specifications Road Design D1 Table D1.6 until CH. 1687.7752 (Bus Route) . The low volume component from CH 1687.7752 to Cobaki Road has a maximum grade of 16% .
- To provide connectivity and to meet bushfire constraints some perimeter roads and bushfire tracks due to the combination of meeting longitudinal requirements, combined with steep cross sections, required walls in road reserves (i.e. not in private lots) to be able to service the site . Nearby precedents with approved roads in road reserve Mount Bilinga Circuit.
- To reduce earthworks and wall heights we seek councils' approval as per Council's standard drawings S.D.001 and S.D.002 to increase the crossfall to a maximum of 1 in 6 where shown as an asterisk on the Standard drawings (Note * TWEED SHIRE COUNCIL MAY CONSIDER STEEPER CROSSFALLS IN THIS ZONE WHERE TOPOGRAPHICAL CONSTRAINTS EXIST.)
- Due to steep crossfalls some minor roads have been designed with one- way crossfall to reduce walls and earthworks.
- Due to the steepness of the site and in order to avoid massive earthworks non-standard wall heights have been utilised. We have tried to minimise wall heights wherever possible and have tried to limit to a maximum of 3m high. There are 2 locations in the current design where walls in excess of 3m were required. Road 1 approximate CH1590 to CH1675 and CH2760 to CH2890. The first occurrence could be reduced to a maximum height of 3m in detailed design subject to a large amount of earthworks to achieve. The second location is a pinch point in the only feasible route to achieve a linkage with Cobaki Road and has maximum longitudinal grades of 16 % passing from fill through to a section where cutting through the side of the hill. Walls in this section are up to 6m high. It is not possible to achieve the cutting

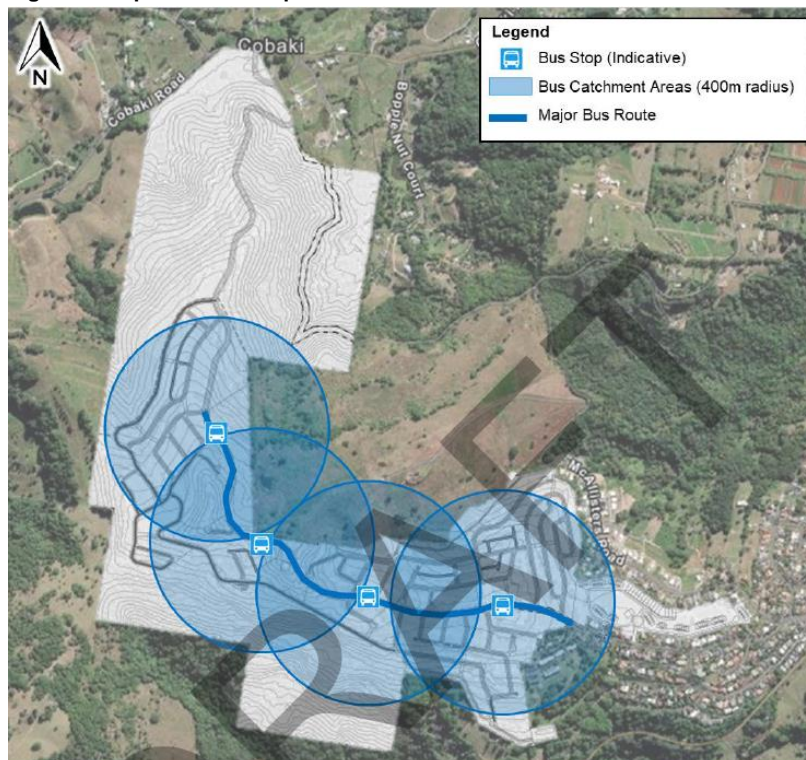
with batters at detailed design this could be designed as 2 tiered walls 3m high with bench in between with geotechnical advice .

- Due to the steep nature of the site, some lots will be “top loaded” that is having 2 road frontages with only access from the upper road.
- Due to the steep nature of the site, 1 in 3 batters within lots have been utilised.
- We have endeavoured to highlight all non-standard solutions to assist council in reviewing our associated drawings.

3.4.4 Public Transport

In accordance with Bitzios Traffic Assessment of October 24 (submitted under separate cover) the proposed residential yield will create demand for public transport. The design of the spine road caters for bus stops in the approximate locations as shown in Figure 3 below:

Figure 3-Proposed Bus Stops



3.5 Water Reticulation and Booster Pump Stations

Greenland Developments Pty have undertaken meetings with Tweed Shire Council in relation to servicing the proposed development with potable water and the need for major infrastructure upgrades in order to achieve service levels that meet the required flow and pressure required.

The development requires a new reservoir built on the proposed subject land adjacent to the existing Country Club reservoir with the same top operation water level 213.42m AHD, this Reservoir needs to be sized to service all relevantly zoned land (not just Elysian) above 130m AHD, requiring an additional 4.5ML (Approximate) storage based on previous development yields. It is also noted that

a new pressure booster water pump station (built adjacent to the new reservoir) is also required to service all land above 180m AHD.

Council had previously upgraded the existing 150mm Reservoir supply main with a parallel 250mm main as shown in the diagram below.

The proposed development needs to extend or relocate this 250mm supply main to the new reservoir required to service the appropriately zoned land above 130m AHD as mentioned above. We note that the proposed location of the 250mm watermain will be located along the proposed new Spine Road within the site.

The additional storage required is estimated to be 4.5ML to service both the Elysian Development and the zoned land in the McAllister area adjacent (54.4% and 45.6% respectively based on previous proposed yield). An agreement will need to be negotiated to determine each parties contribution to the cost of this reservoir. The new reservoir will have at least a minimum top water Level of 213.42m AHD (equivalent to the existing Reservoir), noting the highest ground level on your site is 216m AHD, you may have to go higher. This new reservoir is to be constructed to Council Design criteria, requirements and specifications and be interconnected with the existing reservoir.

We note that Council has plans in place to upgrade Water Pump Station 7 in Snowgum Drive (the supply water pump station) to meet the demand of this development and the other zoned land in the McAllister area adjacent above 130m AHD, (The Elysian development will need to confirm the flow rate required based on Council's design criteria), and this work will then be timed to coincide with the construction of the new reservoir.

The previous approval for "The Rise" required a low-level Reservoir which Council have confirmed is not required.

A full water network analysis will be required to ensure fire flow can be met via gravity flows from the new reservoir to all Lots/properties. Additionally, all lots/properties above 180m AHD will need to be supplied by a pressure booster pumping system with a backup generator power supply. Also, any Lots/properties below 139m AHD will require pressure reduction to ensure supply pressure does not exceed 75m. The reticulation network layout needs to efficiently supply the High and low zones.

Please find attached Mortons-Urban Solutions Preliminary Water Network Drawings (Appendix B) showing proposed Potable Water Network and the proposed new reservoir location. As per above this will require a full network analysis for the future Section 68 application to Council.

3.6 Sewer Reticulation and Pump Stations

The various sewerage sub-catchments within the Elysian development will be sewered by gravity sewer combined with pump stations and rising mains to convey the sewer to a major pump station near Cobaki Road (Location to be determined) These sewers and pump stations are proposed to be transferred to Council ownership for operation and maintenance.

Ultimately, sewer from the site will gravitate and be pumped to the north of the site and conveyed along Cobaki/Piggabeen Road by rising main and pressure injected to Council's existing infrastructure at Gollan Drive/Kennedy Road

Greenland Developments Pty have undertaken meetings with Tweed Shire Council in relation to servicing the proposed development with sewer reticulation that caters for the needs of the

development and a review of the contributing catchments adjacent to the site. Council have confirmed the following:

- There is sufficient capacity in the Banora point Wastewater Treatment Plant for the proposed development
- Council has carried out an assessment on the sewer system capacity and reconfirm that no part of The Elysian development can be serviced from the existing sewer system, and the existing system cannot be appropriately upgraded.
- A new separate system is required to be provided by the developer unless otherwise reviewed and agreed by Council, and their sewer connection point will be the Gollan Drive/Kennedy Drive Bridge rising main where pressure injection will occur.
- Council have assumed that a rising main along Piggabeen Road will carry the developments sewer to the Gollan Drive/Kennedy Drive Bridge connection point.
- Council have provided a development consent for the road services corridor through the wetland on Piggabeen Road. Council have allotted a future 375mm sewer that is allocated for Elysian and the future McAllister Road developments.

The Elysian Development will be a standard subdivision and not a community title and Council pump stations and rising mains will need to be constructed within the boundaries of the development to negotiate the terrain. We note that pump stations will be required to service more than 50 Lots to be considered a future Council pump station.

Discussions with TSC is required to determine a location for a future regional Pump Station servicing The Elysian, the additional development coming from the McAllister area, and potentially the Cobaki Development to the NW of the site. The location of this infrastructure has yet to be determined and will require negotiations with Tweed Shire Council.

Please find attached Mortons-Urban Solutions Preliminary Sewer Network Drawings (Appendix C) showing a proposed sewer Network for the development. We note that a full network analysis for the future Section 68 application to Council.

3.7 Stormwater Quality/Quantity/Hydraulic

Stormwater Quality and Quantity for the proposed development has been undertaken by G&S and is submitted under separate cover.

Detailed design of the stormwater system will incorporate standard pit and pipe development with local detention basins and bioretention basins/swales for individual catchments to ensure water quality off site meets the specified requirements and that Peak discharge offsite conforms to pre-development flows.

3.8 Environmental Management

Environmental review of the proposed development has been undertaken by JWA Consulting and is submitted under separate cover.

CONCLUSION

The proposal for the Elysian development seeks approval to modify the Major Project consent pursuant to accordance with clause 3BA (5) of Schedule 2 of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017 (Transitional Regulation).

Based on the proposed preliminary engineering design of roads, and review of the infrastructure required to service the development we consider that the development can be constructed substantially the same for which the consent was originally granted.

APPENDIX A

Preliminary Engineering Drawings

Drawing no. 44401-All-SK dated November 2024
Prepared by Mortons-urban Solutions

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ELYSIAN

MODIFICATION

APPLICATION

SCHEDULE OF DRAWINGS

NUMBER	REV. NO.	TITLE	NUMBER	REV. NO.	TITLE
GENERAL			44401-SK-230	A	ROAD 17
44401-SK-000	A	COVER SHEET AND LOCALITY PLAN	44401-SK-231	A	ROAD 19
EARTHWORKS: PRELIMINARY BULK EARTHWORKS CUT FILL			44401-SK-232	A	ROAD 20
44401-SK-040	A	OVERALL PLAN	44401-SK-233	A	ROAD 21A & 21B
44401-SK-041	A	PLAN SHEET 1	44401-SK-234	A	ROAD 22 SHEET 1
44401-SK-042	A	PLAN SHEET 2	44401-SK-235	A	ROAD 22 SHEET 2
44401-SK-043	A	PLAN SHEET 3	44401-SK-236	A	ROAD 22 SHEET 3
44401-SK-044	A	PLAN SHEET 4	44401-SK-237	A	ROAD 22 SHEET 4
44401-SK-045	A	PLAN SHEET 5	44401-SK-238	A	ROAD 22 SHEET 5
44401-SK-046	A	PLAN SHEET 6	44401-SK-239	A	ROAD 22 SHEET 6
44401-SK-047	A	PLAN SHEET 7	44401-SK-240	A	ROAD 23A & 23B
44401-SK-048	A	PLAN SHEET 8	44401-SK-241	A	ROAD 24
EARTHWORKS: RETAINING WALLS			44401-SK-242	A	ROAD 25&26
44401-SK-060	A	OVERALL PLAN	44401-SK-243	A	ROAD 27&28
44401-SK-061	A	RETAINING WALL TYPES SHEET 1	44401-SK-244	A	ROAD 30 SHEET 1
44401-SK-062	A	RETAINING WALL TYPES SHEET 2	44401-SK-245	A	ROAD 30 SHEET 2
44401-SK-063	A	PLAN SHEET 1	44401-SK-246	A	ROAD 31 SHEET 1
44401-SK-064	A	PLAN SHEET 2	44401-SK-247	A	ROAD 31 SHEET 2
44401-SK-065	A	PLAN SHEET 3	44401-SK-248	A	ROAD 32 SHEET 1
44401-SK-066	A	PLAN SHEET 4	44401-SK-249	A	ROAD 32 SHEET 2
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44401-SK-080	A	EARTHWORKS SECTIONS SHEET 1	44401-SK-254	A	ROAD 35
44401-SK-081	A	EARTHWORKS SECTIONS SHEET 2	44401-SK-255	A	ROAD 36
44401-SK-082	A	EARTHWORKS SECTIONS SHEET 3	44401-SK-256	A	ROAD 37 SHEET 1
44401-SK-083	A	EARTHWORKS SECTIONS SHEET 4	44401-SK-257	A	ROAD 37 SHEET 2
44401-SK-084	A	EARTHWORKS SECTIONS SHEET 5	44401-SK-258	A	ROAD 38 SHEET 1
44401-SK-085	A	EARTHWORKS SECTIONS SHEET 6	44401-SK-259	A	ROAD 38 SHEET 2
44401-SK-086	A	EARTHWORKS SECTIONS SHEET 7	44401-SK-260	A	ROAD 38 SHEET 3
44401-SK-087	A	EARTHWORKS SECTIONS SHEET 8	44401-SK-261	A	ROAD 39
44401-SK-088	A	EARTHWORKS SECTIONS SHEET 9	44401-SK-262	A	ROAD 40
44401-SK-089	A	EARTHWORKS SECTIONS SHEET 10	44401-SK-263	A	ROAD 41 & 42
44401-SK-090	A	EARTHWORKS SECTIONS SHEET 11	44401-SK-264	A	ROAD 50 SHEET 1
ROADS: PRELIMINARY ROADWORKS			44401-SK-265	A	ROAD 50 SHEET 2
44401-SK-100	A	ROADWORKS OVERALL PLAN	44401-SK-266	A	ROAD 51
44401-SK-101	A	PLAN SHEET 1	44401-SK-267	A	ROAD 52
44401-SK-102	A	PLAN SHEET 2	ROADS: CROSS SECTIONS		
44401-SK-103	A	PLAN SHEET 3	44401-SK-300	A	ROAD 1 SHEET 1
44401-SK-104	A	PLAN SHEET 4	44401-SK-301	A	ROAD 1 SHEET 2
44401-SK-105	A	PLAN SHEET 5	44401-SK-302	A	ROAD 1 SHEET 3
44401-SK-106	A	PLAN SHEET 6	44401-SK-303	A	ROAD 1 SHEET 4
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44401-SK-120	A	TYPICAL SECTIONS SHEET 1	44401-SK-306	A	ROAD 1 SHEET 7
44401-SK-121	A	TYPICAL SECTIONS SHEET 2	44401-SK-307	A	ROAD 1 SHEET 8
44401-SK-122	A	TYPICAL SECTIONS SHEET 3	44401-SK-308	A	ROAD 1 SHEET 9
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44401-SK-201	A	ROAD 1 SHEET 2	44401-SK-311	A	ROAD 1 SHEET 12
44401-SK-202	A	ROAD 1 SHEET 3	44401-SK-312	A	ROAD 1 SHEET 13
44401-SK-203	A	ROAD 1 SHEET 4	44401-SK-313	A	ROAD 1 SHEET 14
44401-SK-204	A	ROAD 1 SHEET 5	44401-SK-314	A	ROAD 1 SHEET 15
44401-SK-205	A	ROAD 1 SHEET 6	44401-SK-315	A	ROAD 1 SHEET 16
44401-SK-206	A	ROAD 1 SHEET 7	44401-SK-316	A	ROAD 1 SHEET 17
44401-SK-207	A	ROAD 1 SHEET 8	44401-SK-317	A	ROAD 1 SHEET 18
44401-SK-208	A	ROAD 1 SHEET 9	44401-SK-318	A	ROAD 1 SHEET 19
44401-SK-209	A	ROAD 1 SHEET 10	44401-SK-319	A	ROAD 2 SHEET 1
44401-SK-210	A	ROAD 1 SHEET 11	44401-SK-320	A	ROAD 2 SHEET 2
44401-SK-211	A	ROAD 2 SHEET 1	44401-SK-321	A	ROAD 3 SHEET 1
44401-SK-212	A	ROAD 2 SHEET 2	44401-SK-322	A	ROAD 3 SHEET 2
44401-SK-213	A	ROAD 3 SHEET 1	44401-SK-323	A	ROAD 4 SHEET 1
44401-SK-214	A	ROAD 3 SHEET 2	44401-SK-324	A	ROAD 4 SHEET 2
44401-SK-215	A	ROAD 4 SHEET 1	44401-SK-325	A	ROAD 4 SHEET 3
44401-SK-216	A	ROAD 4 SHEET 2	44401-SK-326	A	ROAD 4 SHEET 4
44401-SK-217	A	ROAD 4 SHEET 3	44401-SK-327	A	ROAD 5 SHEET 1
44401-SK-218	A	ROAD 5 SHEET 1	44401-SK-328	A	ROAD 5 SHEET 2
44401-SK-219	A	ROAD 5 SHEET 2	44401-SK-329	A	ROAD 5 SHEET 3
44401-SK-220	A	ROAD 6 SHEET 1	44401-SK-330	A	ROAD 5 SHEET 4
44401-SK-221	A	ROAD 6 SHEET 2	44401-SK-331	A	ROAD 5 SHEET 5
44401-SK-222	A	ROAD 7,8,9	44401-SK-332	A	ROAD 6 SHEET 1
44401-SK-223	A	ROAD 10	44401-SK-333	A	ROAD 6 SHEET 2
44401-SK-224	A	ROAD 11 SHEET 1	44401-SK-334	A	ROAD 6 SHEET 3
44401-SK-225	A	ROAD 11 SHEET 2	44401-SK-335	A	ROAD 6 SHEET 4
44401-SK-226	A	ROAD 12 & 13	44401-SK-336	A	ROAD 7
44401-SK-227	A	ROAD 14	44401-SK-337	A	ROAD 8
44401-SK-228	A	ROAD 16 SHEET 1	44401-SK-338	A	ROAD 9
44401-SK-229	A	ROAD 16 SHEET 2			

SCHEDULE OF DRAWINGS

NUMBER	REV. NO.	TITLE	NUMBER	REV. NO.	TITLE
44401-SK-339	A	ROAD 10	44401-SK-377	A	ROAD 28
44401-SK-340	A	ROAD 11 SHEET 1	44401-SK-378	A	ROAD 30 SHEET 1
44401-SK-341	A	ROAD 11 SHEET 2	44401-SK-379	A	ROAD 30 SHEET 2
44401-SK-342	A	ROAD 11 SHEET 3	44401-SK-380	A	ROAD 31
44401-SK-343	A	ROAD 11 SHEET 4	44401-SK-381	A	ROAD 31B SHEET 1
44401-SK-344	A	ROAD 12	44401-SK-382	A	ROAD 31B SHEET 2
44401-SK-345	A	ROAD 13	44401-SK-383	A	ROAD 32 SHEET 1
44401-SK-346	A	ROAD 14	44401-SK-384	A	ROAD 32 SHEET 2
44401-SK-347	A	ROAD 15	44401-SK-385	A	ROAD 32 SHEET 3
44401-SK-348	A	ROAD 16 SHEET 1	44401-SK-386	A	ROAD 33 SHEET 1
44401-SK-349	A	ROAD 16 SHEET 2	44401-SK-387	A	ROAD 33 SHEET 2
44401-SK-350	A	ROAD 16 SHEET 3	44401-SK-388	A	ROAD 33 SHEET 3
44401-SK-351	A	ROAD 17	44401-SK-389	A	ROAD 33 SHEET 4
44401-SK-352	A	ROAD 19	44401-SK-391	A	ROAD 33 SHEET 5
44401-SK-353	A	ROAD 20	44401-SK-392	A	ROAD 33 SHEET 6
44401-SK-354	A	ROAD 21	44401-SK-393	A	ROAD 34
44401-SK-355	A	ROAD 21B	44401-SK-394	A	ROAD 35
44401-SK-356	A	ROAD 22 SHEET 1	44401-SK-395	A	ROAD 36
44401-SK-357	A	ROAD 22 SHEET 2	44401-SK-396	A	ROAD 37 SHEET 1
44401-SK-358	A	ROAD 22 SHEET 3	44401-SK-397	A	ROAD 37 SHEET 2
44401-SK-359	A	ROAD 22 SHEET 4	44401-SK-398	A	ROAD 38 SHEET 1
44401-SK-360	A	ROAD 22 SHEET 5	44401-SK-399	A	ROAD 38 SHEET 2
44401-SK-361	A	ROAD 22 SHEET 6	44401-SK-400	A	ROAD 38 SHEET 3
44401-SK-362	A	ROAD 22 SHEET 7	44401-SK-401	A	ROAD 38 SHEET 4
44401-SK-363	A	ROAD 22 SHEET 8	44401-SK-402	A	ROAD 38 SHEET 5
44401-SK-364	A	ROAD 22 SHEET 9	44401-SK-403	A	ROAD 38 SHEET 6
44401-SK-365	A	ROAD 22 SHEET 10	44401-SK-404	A	ROAD 39
44401-SK-366	A	ROAD 22 SHEET 11	44401-SK-405	A	ROAD 40 SHEET 1
44401-SK-367	A	ROAD 22 SHEET 12	44401-SK-406	A	ROAD 40 SHEET 2
44401-SK-368	A	ROAD 22 SHEET 13	44401-SK-407	A	ROAD 41
44401-SK-369	A	ROAD 22 SHEET 14	44401-SK-408	A	ROAD 42
44401-SK-370	A	ROAD 23A	44401-SK-409	A	POTENTIAL FUTURE ROAD 50 SHEET 1
44401-SK-371	A	ROAD 23B	44401-SK-410	A	POTENTIAL FUTURE ROAD 50 SHEET 2
44401-SK-372	A	ROAD 24 SHEET 1	44401-SK-411	A	POTENTIAL FUTURE ROAD 50 SHEET 3
44401-SK-373	A	ROAD 24 SHEET 2	44401-SK-412	A	POTENTIAL FUTURE ROAD 50 SHEET 4
44401-SK-374	A	ROAD 25	44401-SK-413	A	POTENTIAL FUTURE ROAD 51 SHEET 1
44401-SK-375	A	ROAD 26	44401-SK-414	A	POTENTIAL FUTURE ROAD 51 SHEET 2
44401-SK-376	A	ROAD 27	44401-SK-415	A	POTENTIAL FUTURE ROAD 52

SCHEDULE OF DRAWINGS

NUMBER	REV. NO.	TITLE
44401-SK-377	A	ROAD 28
44401-SK-378	A	ROAD 30 SHEET 1
44401-SK-379	A	ROAD 30 SHEET 2
44401-SK-380	A	ROAD 31
44401-SK-381	A	ROAD 31B SHEET 1
44401-SK-382	A	ROAD 31B SHEET 2
44401-SK-383	A	ROAD 32 SHEET 1
44401-SK-384	A	ROAD 32 SHEET 2
44401-SK-385	A	ROAD 32 SHEET 3
44401-SK-386	A	ROAD 33 SHEET 1
44401-SK-387	A	ROAD 33 SHEET 2
44401-SK-388	A	ROAD 33 SHEET 3
44401-SK-389	A	ROAD 33 SHEET 4
44401-SK-391	A	ROAD 33 SHEET 5
44401-SK-392	A	ROAD 33 SHEET 6
44401-SK-393	A	ROAD 34
44401-SK-394	A	ROAD 35
44401-SK-395	A	ROAD 36
44401-SK-396	A	ROAD 37 SHEET 1
44401-SK-397	A	ROAD 37 SHEET 2
44401-SK-398	A	ROAD 38 SHEET 1
44401-SK-399	A	ROAD 38 SHEET 2
44401-SK-400	A	ROAD 38 SHEET 3
44401-SK-401	A	ROAD 38 SHEET 4
44401-SK-402	A	ROAD 38 SHEET 5
44401-SK-403	A	ROAD 38 SHEET 6
44401-SK-404	A	ROAD 39
44401-SK-405	A	ROAD 40 SHEET 1
44401-SK-406	A	ROAD 40 SHEET 2
44401-SK-407	A	ROAD 41
44401-SK-408	A	ROAD 42
44401-SK-409	A	POTENTIAL FUTURE ROAD 50 SHEET 1
44401-SK-410	A	POTENTIAL FUTURE ROAD 50 SHEET 2
44401-SK-411	A	POTENTIAL FUTURE ROAD 50 SHEET 3
44401-SK-412	A	POTENTIAL FUTURE ROAD 50 SHEET 4
44401-SK-413	A	POTENTIAL FUTURE ROAD 51 SHEET 1
44401-SK-414	A	POTENTIAL FUTURE ROAD 51 SHEET 2
44401-SK-415	A	POTENTIAL FUTURE ROAD 52

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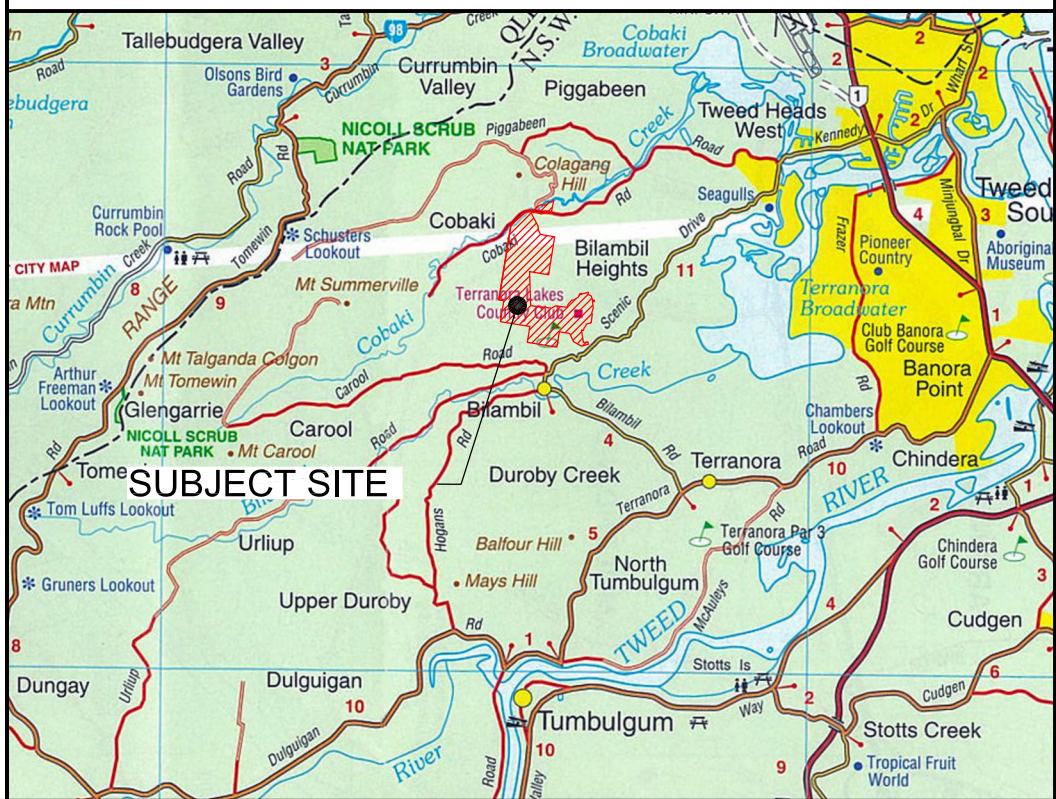
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Urban & Regional Planning
Civil Engineering
Project Coordination



ASSOCIATED CONSULTANTS



LOCALITY PLAN



SUBJECT SITE

PROJECT NAME

ELYSIAN

R P DESCRIPTION

Lot 33 DP1085109, Lot 4 DP822786, Lot 31 DP850230,
Lot 2 DP1156202, Lot 2 DP867486, Lot 1 DP1033807,
Lot 1 DP1033810, Lot 1 DP595529,

COBARI ROAD

LOCALITY OF COBARI

LOCAL AUTHORITY-TWEED SHIRE COUNCIL LGA

CLIENT

GREENLAND
DEVELOPMENT
Pty Ltd



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mortons@urbansolutions.net.au
www.urbansolutions.net.au
Tel 07 5571 1099

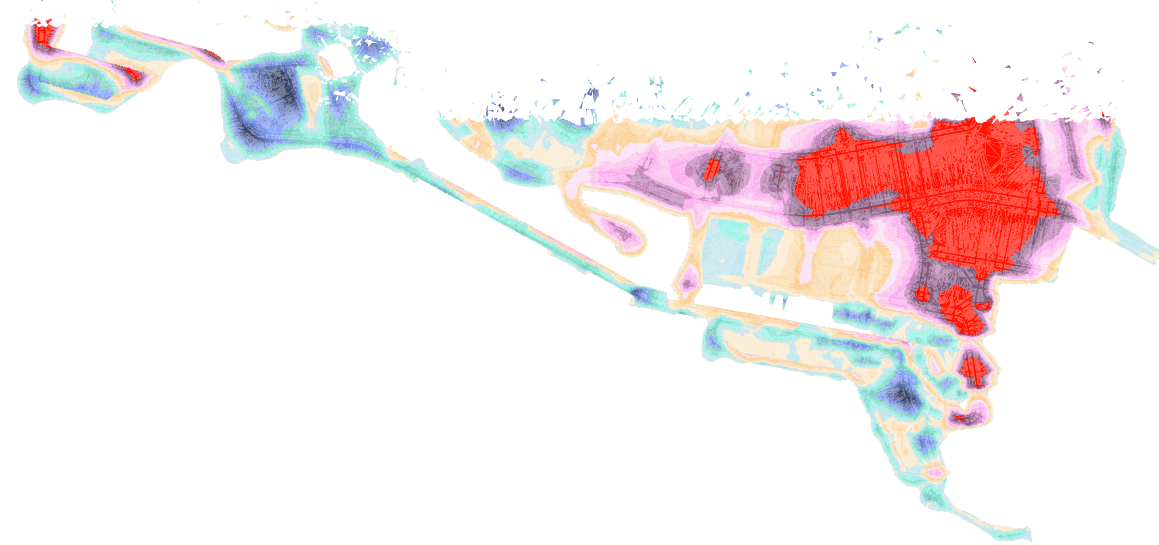
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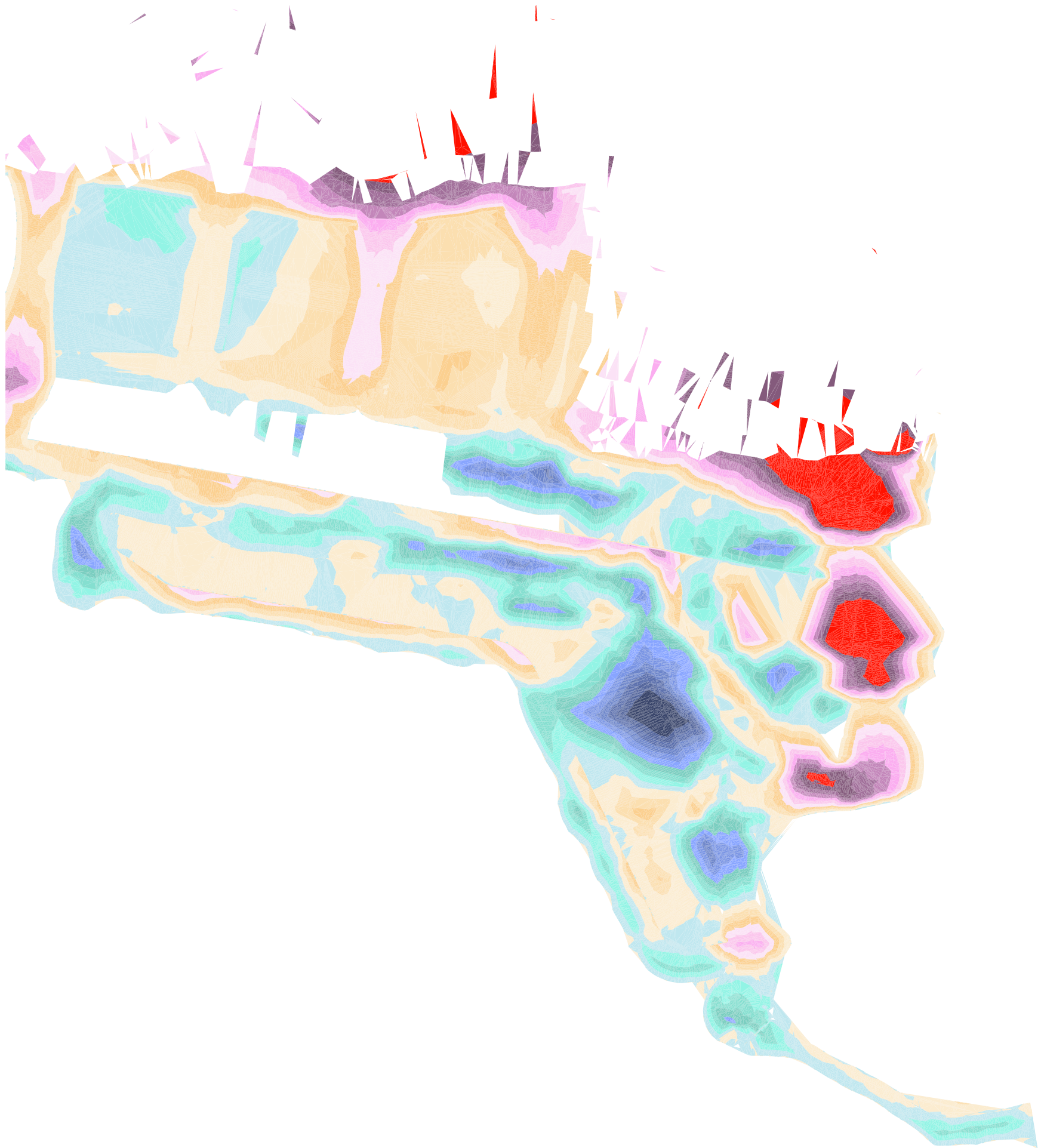
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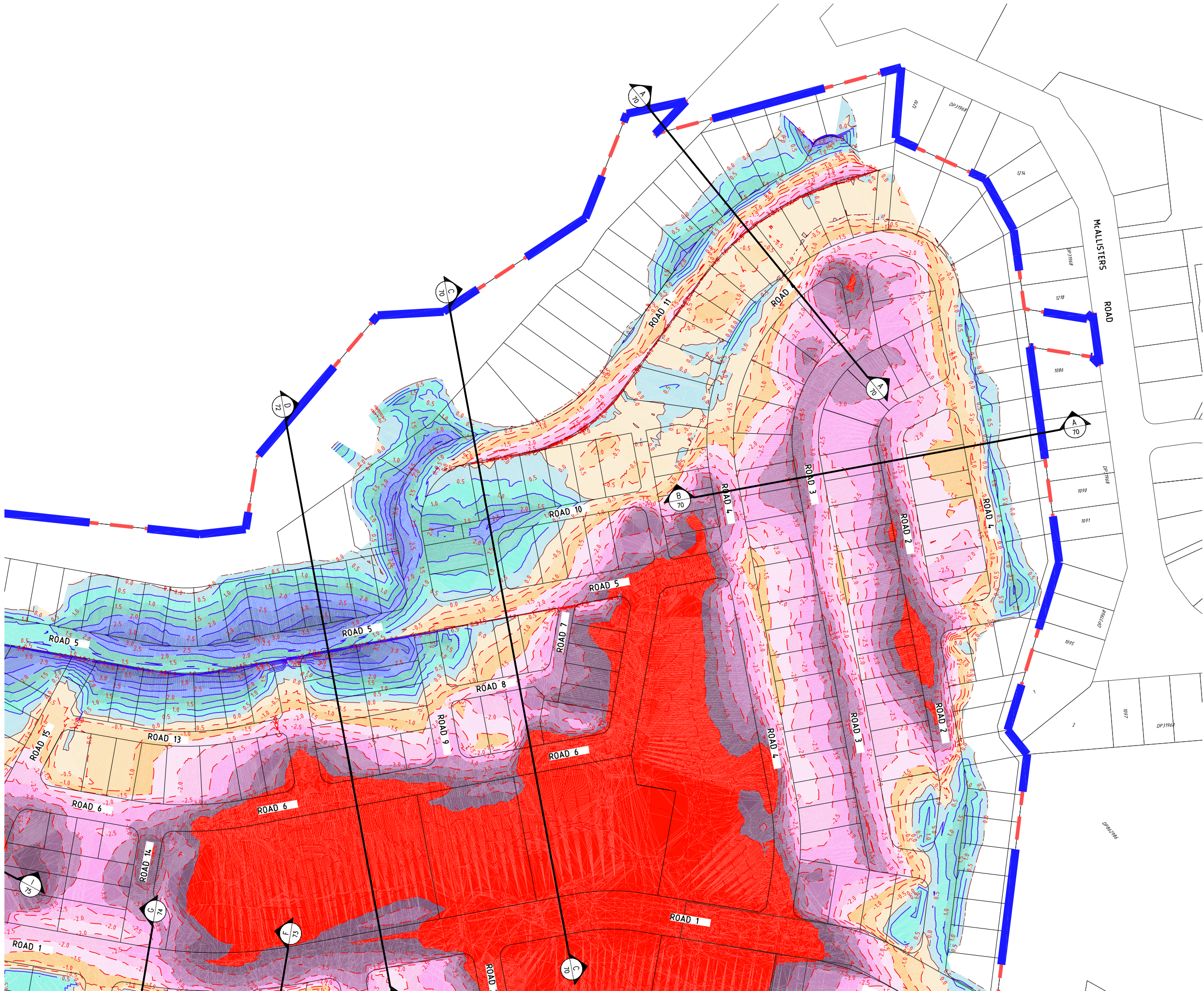
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DRAWING NUMBER
44401-SK-ALL-SK000

REV
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PROJECT NAME
ELYSIAN

RP DESCRIPTION
Lot 33 DP1085109, Lot 4 DP822786, Lot 31 DP850230,
Lot 2 DP1156202, Lot 2 DP867486, Lot 1 DP1033807,
Lot 1 DP1033810, Lot 1 DP595529,
COBAKI ROAD
LOCALITY OF COBAKI
LOCAL AUTHORITY-TWEED SHIRE COUNCIL LGA

CLIENT
**GREENLAND
DEVELOPMENT
Pty Ltd**



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PRELIMINARY
EARTHWORKS
CUT TO FILL PLAN
SHEET 2

MORTONS
urbansolutions
Civil Engineering
Project Coordination

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www.urbansolutions.net.au
Tel: 07 5571 1099

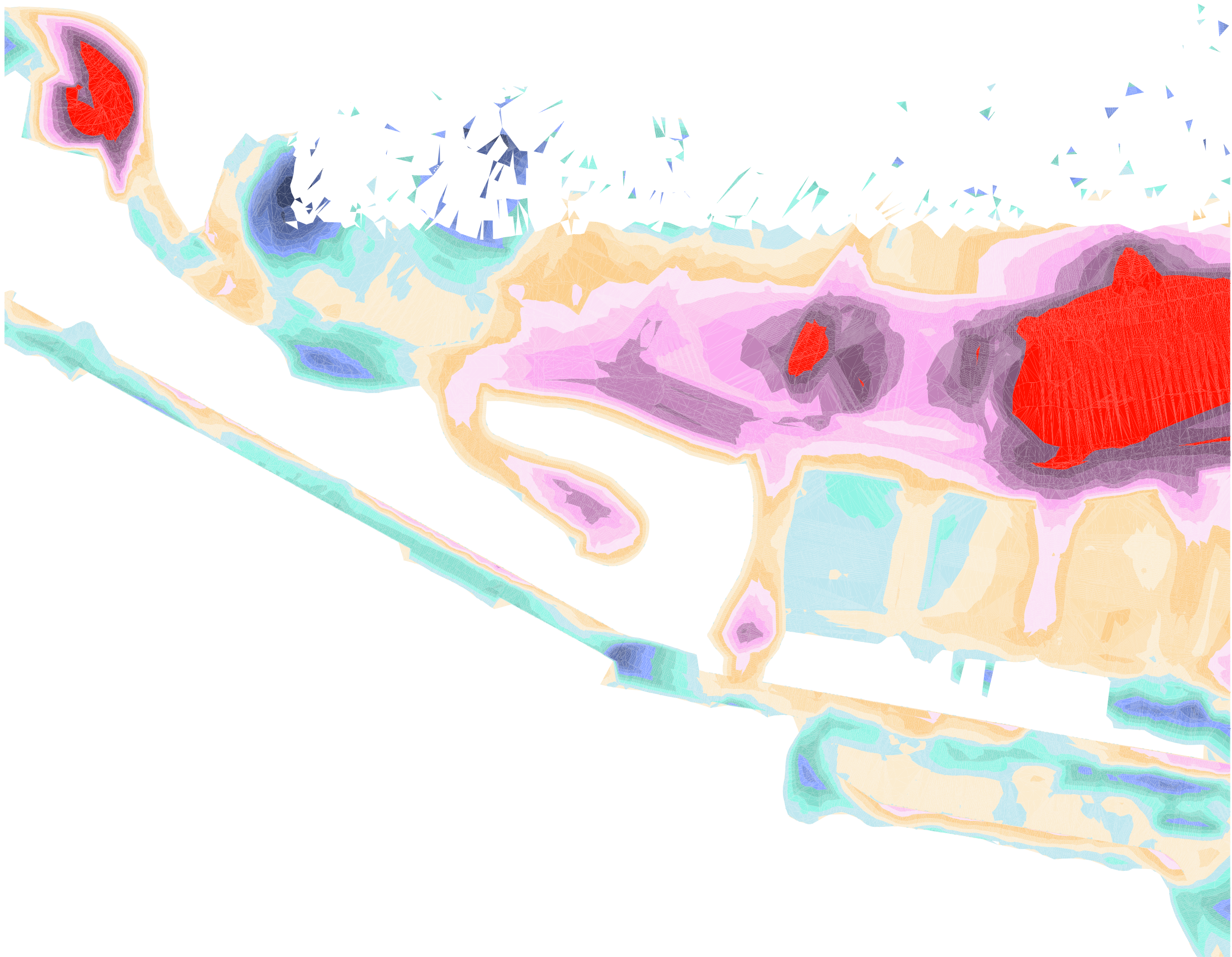
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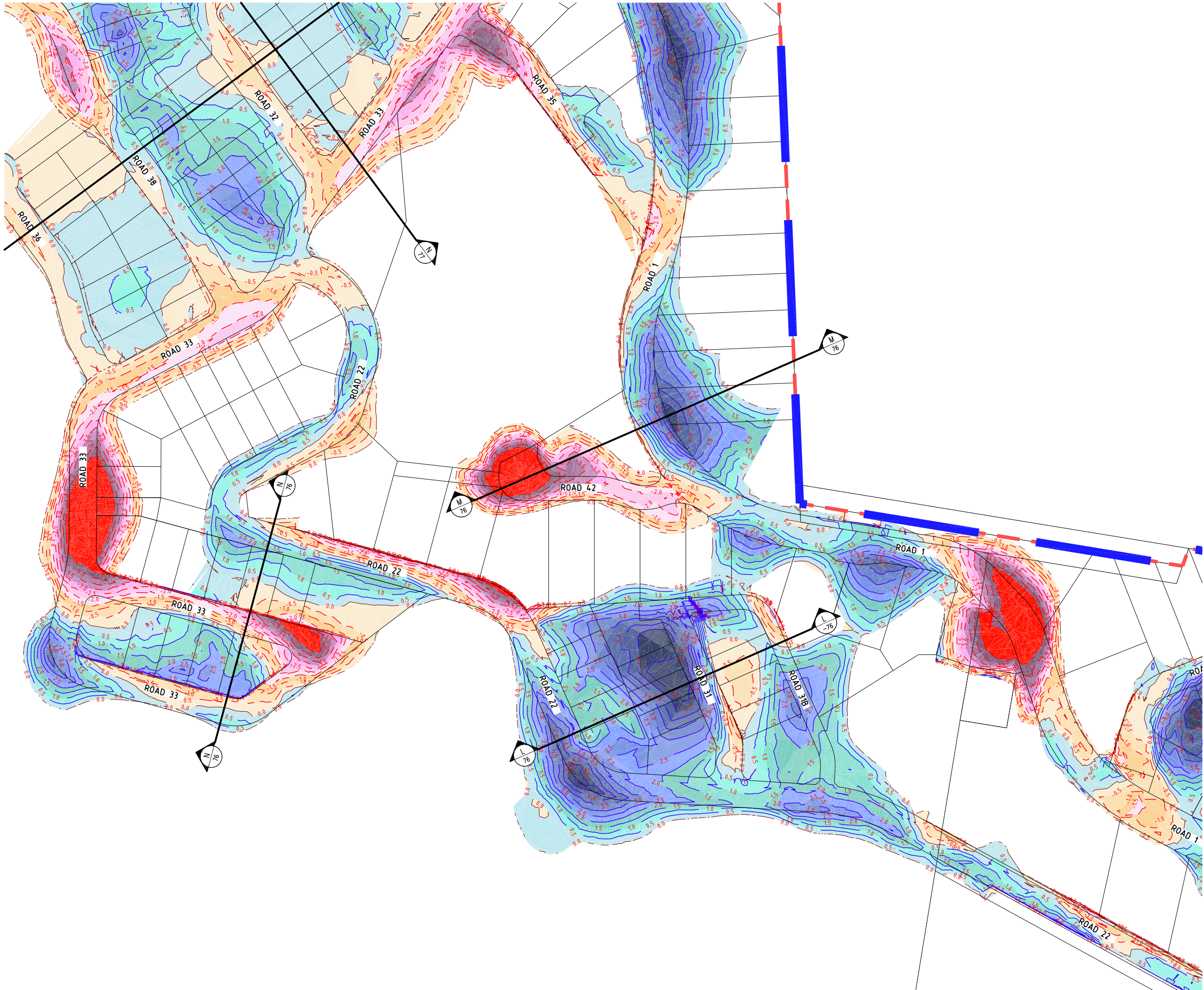
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DRAWING NUMBER
44401-ALL-SK42

REV
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PROJECT NAME

ELYSIAN

RP DESCRIPTION

Lot 33 DP1085109, Lot 4 DP822786, Lot 31 DP850230,
Lot 2 DP1156202, Lot 2 DP867486, Lot 1 DP1033807,
Lot 1 DP1033810, Lot 1 DP595529,
COBAKI ROAD
LOCALITY OF COBAKI
LOCAL AUTHORITY-TWEED SHIRE COUNCIL LGA

CLIENT

GREENLAND
DEVELOPMENT
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CUT TO FILL PLAN
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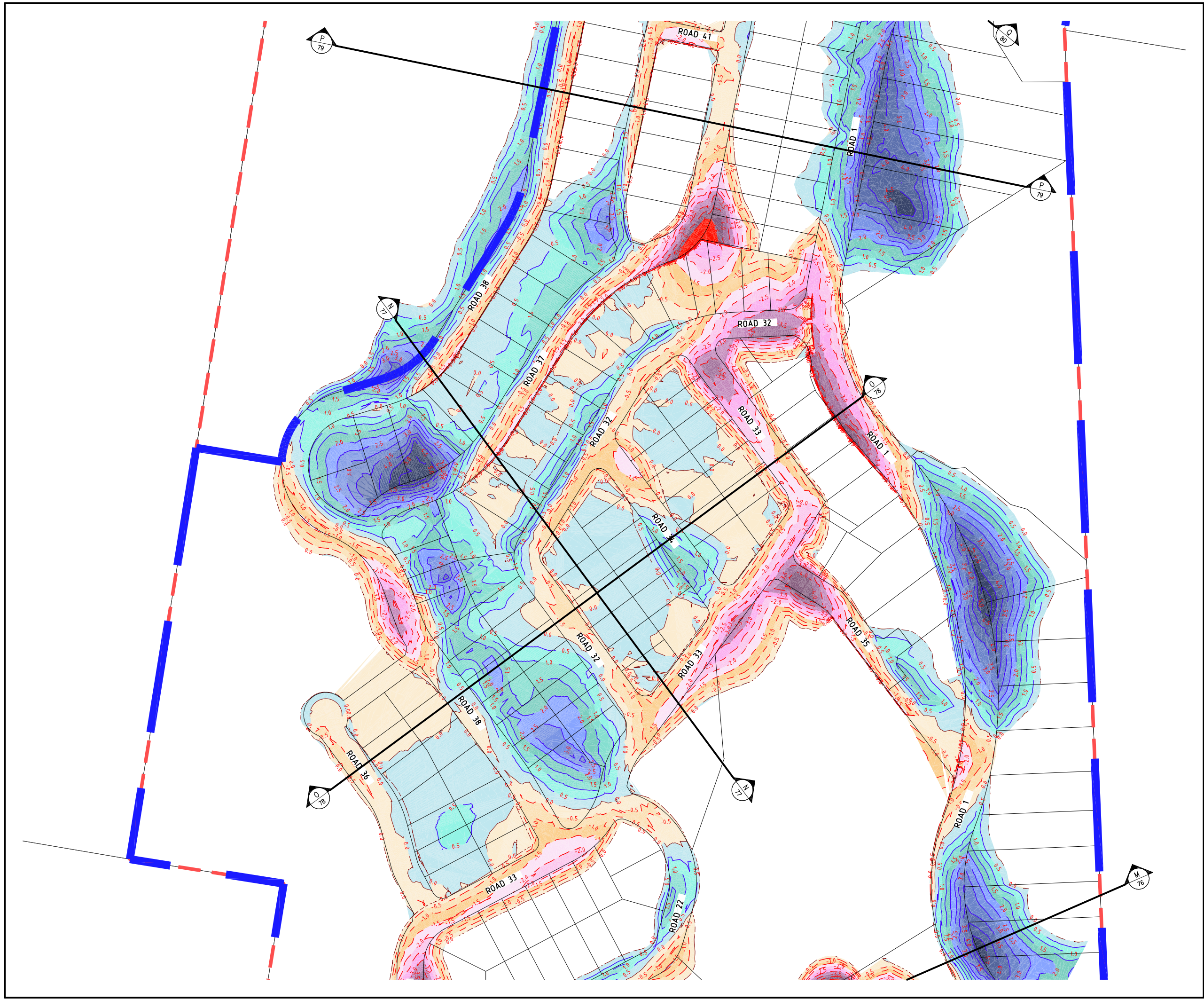
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PROJECT NAME

ELYSIAN

RP DESCRIPTION

Lot 33 DP1085109, Lot 4 DP822786, Lot 31 DP850230,
Lot 2 DP1156202, Lot 2 DP867486, Lot 1 DP1033807,
Lot 1 DP1033810, Lot 1 DP595529,
COBAKI ROAD
LOCALITY OF COBAKI
LOCAL AUTHORITY-TWEED SHIRE COUNCIL LGA

CLIENT

GREENLAND
DEVELOPMENT
Pty Ltd

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EARTHWORKS
CUT TO FILL PLAN
SHEET 5

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