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PROPOSED RESIDENTIAL SUBDIVISION, RETIREMENT VILLAGE AND SOLAR FARMS

STATION ROAD, MATAMATA

GEOTECHNICAL INVESTIGATION REPORT

Matamata Development Limited C/O Maven Associates

HAM2023-0124AI Rev 1

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EXECUTIVE SUMMARY

This report presents the results of geotechnical investigations and geohazards assessment for a proposed residential subdivision, retirement village and solar farms along Station Road, Matamata.

Based on the investigation results, the site is underlain by Hinuera Formation and Walton Subgroup soils.

Geotechnical recommendations for the proposed development are summarised as follows:

- Liquefaction analyses indicate the following liquefaction-induced settlement during a ULS event:
 - Between 75mm to 155mm for IL2 structures.
 - Between 90mm to 150mm IL3 structures.
- There is high potential for lateral spreading near the riverbank.
- Load induced settlements based on cut and fill levels indicate the following:
 - Between 5mm to 20mm primary settlement for single storey structures.
 - Between 15mm to 40mm total settlement single storey structures.
 - Settlement at the solar farms was negligible.
- TC2 foundations will be required at the Retirement Village and Residential Subdivision except at the sloping hill underlain by Walton Subgroup which will require TC1 foundations.
- The predominantly stiff and non-sensitive silt and clay ashes across the rolling hills to depths of nominally 2m to 3m should be suitable for re-use as engineered fills with appropriate moisture conditioning and compaction. Excavation of these materials will be readily achieved with normal earthworks plant, such as scrapers and bulldozers with scoops. Below those depths, sensitive Puketoka silts are susceptible to rapid strength loss when disturbed and will require significantly more conditioning to remove and compact.

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1 INTRODUCTION

CMW Geosciences (CMW) was engaged by Matamata Development Limited C/O Maven Associates to prepare a Geotechnical Investigation Report for a site located at Station Road, Matamata, which is being considered for the development of a residential subdivision, a retirement village and two solar farms.

The scope of work and associated terms and conditions of our engagement were detailed in our services contract referenced HAM2023-0124AH VO1 Rev0, dated 29 April 2025.

This report presents factual data, presents geotechnical assessments, and recommendations for managing geotechnical risks, including possible mitigation measures, to support a Resource Consent application to Matamata-Piako District Council.

2 SITE DESCRIPTION

2.1 Site Location

The site covers multiple legal lots as explained below and as shown on Figure 1:

- Solar Farm A – legally described as LOT 2 DP 567678, with an area of approximately 13.5 ha.
- Solar Farm B – legally described as PT Lot 1 DP 21055, Lot 2 DP 32066 and Lot 3 DPS 14362, with an area of approximately 30 ha.
- Residential Subdivision – legally described as Lot 1 DPS 65481, Lot 5 DP 384886, Lot 204 DP 535395, Lot 4 DP 384886 and Lot 3 DPS 14362. With an area of approximately 42.8Ha
- Retirement Village – legally described as Lot 2 DP 21055 and Lot 2 DP567678, with an area of approximately 20 ha.

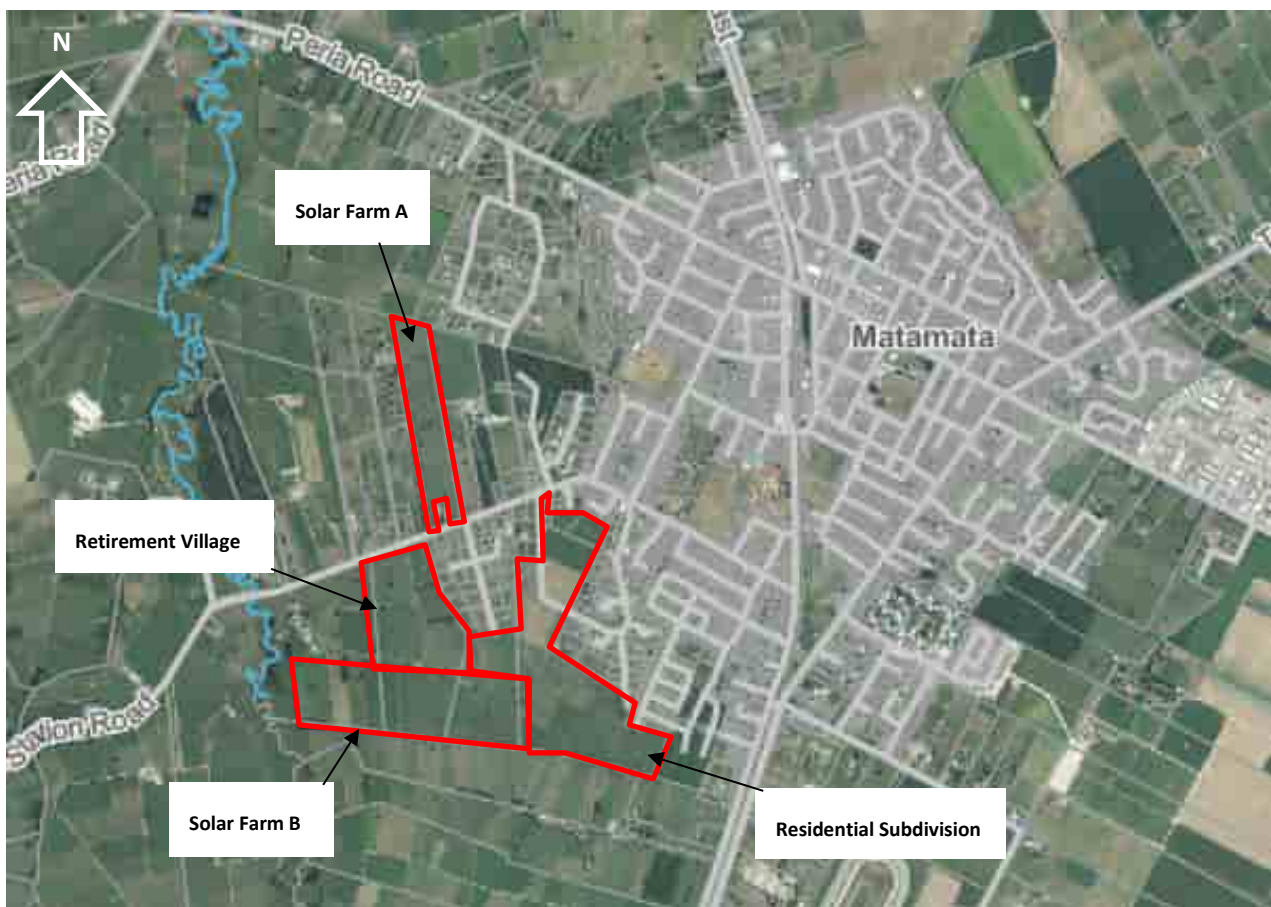
2.2 Landform

The current general landform, together with associated features located within and adjacent to the site is presented on the attached Site Plans as **Drawing 01 to 03** in **Appendix A**.

- The sites can generally be described as near level with existing ground levels ranging from RL64m (Moturiki Datum) in the northern section of Solar Farm A to RL72m in the southern section of the Residential Subdivision.
- Approximate elevation at Solar Farm B is RL68m, except close to the western boundary where the landform grades at approximately 1V:5H to RL59m towards the Waitoa River which runs parallel to the western boundary.
- Approximate elevation of the northern section of the Residential Subdivision is RL67m. There is a graduating sloping hill in the southwestern corner of the site with an approximate grade of 1V:10H and a maximum elevation of RL72m.
- Solar Farm A, the Retirement Village and the Residential Subdivision are adjoined by Station Road. Access to Solar Farm B is through farm raceways north of the proposed block.
- Existing residential developments are located to the east and west of the Residential Subdivision and to the east of the Retirement Village.
- Each section is currently utilised as pastoral land and predominantly grass covered with sporadic mature trees. Grazing stock was present during previous CMW site visits.

- Landforms and land use remains consistent in the last 50 years as observed on historical aerial photographs (Retrolens images circa 1971).
- Stormwater swales (up to 2m deep) are located along the western boundary of the Residential Subdivision, northern boundary of Solar Farm A and the eastern and western boundary of Retirement Village.
- Swale drains are currently located within each development area. The drains at the Residential Subdivision, the Retirement Village, Solar Farm A and Solar Farm B will be infilled as per drawings provided by Maven Associates.

Figure 1: Site Location Plan (Google Maps)



3 PROPOSED DEVELOPMENT

The drawings provided by Maven Associates Ref. 289001 and J00606 detail the layout for the proposed developments and are presented in **Appendix B**.

- The Residential Subdivision will have lots that range from 350m² to 800m², and will have a commercial area, and associated roads and infrastructure. Cuts up to 3.52m deep and fills up to 2.58m thick are proposed in the Residential Subdivision.
- The Retirement Village will consist of 218 single storey villas and health care facilities. A green way is proposed to collect stormwater runoff from the residential subdivision and the retirement village. The greenway is oriented in a general east to west direction along the southern boundary and flows towards the river. One stormwater pond is proposed in the northeastern corner and another stormwater pond is proposed in the southwestern corner. A maximum cut of 3.4m and fill of 2.8m is proposed at the retirement village.

- It is understood that a Solar Farm A comprises of 156 solar panel strings and Solar Farm B comprises of 110 solar panel strings as well as power transformers at each farm. At solar farm B there is a proposed water treatment plant located near the eastern boundary, close to the residential subdivision. Fill thicknesses are typically 0.5m, with maximum fill thickness of 1.5m, and cut depths are typically 0.5m.

4 INVESTIGATION SCOPE

4.1 Previous Investigations

CMW have previously conducted investigations and issued the following reports below:

- Geotechnical Investigation Report. 35-39 Peakedale Road, Station Road, Matamata. CMW Ref HAM2023-0124AB Rev 1. Dated 12 December 2023.
- Preliminary Geotechnical Investigation Report. Proposed Residential Subdivision and Solar Farm. Station Road, Matamata. CMW Ref. HAM2023-0124AE Rev 0. Dated 5 July 2024.

All fieldwork was carried out under the direction of CMW Geosciences in general accordance with the NZGS specifications¹ and logged in accordance with NZGS guidance². The scope of fieldwork completed was as follows:

- Undertook a walkover survey of the site to assess the general landform, site conditions and adjacent structures / infrastructure;
- An on-site services search was carried out by a specialist contractor to identify the presence of any underground obstructions or hazards prior to the field investigation program commencing;
- 33 no. hand auger boreholes, denoted HA23-01 to HA23-08, HA24-09 to HA24-25 and HA24-26 to HA24-33, were drilled using a 50mm diameter auger to target depths of up to 5.0m below existing ground levels to visually observe the near surface soil profile and to facilitate in-situ permeability / vane shear strength testing. Engineering logs of the hand auger boreholes, together with peak and remoulded vane shear strengths are presented in **Appendix C**;
- Dynamic cone (Scala) penetrometer (DCP) tests were carried out adjacent to the hand auger borehole to depths of up to 5m to provide soil density profiles, for use as a comparison with the CPT data and to provide a subgrade CBR value for pavement design purposes. These were not done for SOA24-13 to SOA24-24. Graphical results of the DCP testing are presented on the borehole logs in **Appendix C**;
- 24 in-situ falling head permeability tests were completed in the open standpipe piezometers denoted SOA23-01 SOA23-04, SOA24-05 to SOA24-12 and SOA24-13 to SOA24-24. Results of the permeability tests are presented in **Appendix D**;
- 12 Cone Penetrometer Tests (CPT) and four seismic CPTs denoted CPT23-01 to CPT23-03b, CPT24-04 to CPT24-10 and SCPT24-01 to SCPT-04 respectively, were pushed to depths ranging between 4.06m to 30m to define the ground model at depths. Results of the tests are presented as traces of tip resistance (q_c), friction resistance (f_s) and friction ratio are presented in **Appendix E**;
- Groundwater monitoring of five piezometers within hand auger holes took place between 10 December 2024 to 24 January 2025. HA24-26 had silted up at 0.7m as had the shallow piezometer at HA24-33 at 1.8m. Water was measured at HA24-33 at 1.35m in December 2024 and 2.2m in January 2025. HA24-28 was

¹ NZ Geotechnical Society (2017) NZ Ground Investigation Specification, Volume 1 – Master Specification.

² NZ Geotechnical Society (2005), Field Description of Soil and Rock, Guideline for the field classification and description of soil and rock for engineering purposes.

dipped dry to 3.11m depth and HA24-30 was dipped dry to 4.87m depth in both December 2024 and January 2025. HA24-32A was dipped dry at 1.76m in January 2025.

The approximate locations of the respective investigation sites referred to above are shown on the Site Plans presented within **Appendix A**. Test locations were recorded using handheld GPS.

5 GROUND MODEL

5.1 Published Geology

Published geological maps³ for the area depict the regional geology as comprising cross-bedded pumice sand, silt and gravel of the Hinuera Formation.

5.2 Stratigraphic Units

The ground conditions encountered and inferred from the investigations were generally consistent with the published geology for the area as well as CMW's aforementioned reports (HAM2023-0124AB and HAM2023-0124AE) and can be generalised according to the following subsurface sequences.

The distribution of the various units encountered is presented in the appended Geological Sections presented as **Drawings 4 to 7** within **Appendix A**.

5.2.1 Summary

The distribution of these units is illustrated on the appended Geological Cross Sections and presented below in Table 1.

Table 1: Summary of Strata Encountered

Unit	Depth to base (m)		Thickness (m)**	
	Min	Max	Min	Max
Topsoil/Fill	0.1	0.5	0.1	0.5
Firm to Stiff Silt/Sandy Silt	0.8	1.2	0.5	0.9
Stiff to Very Stiff Silt (Hinuera Formation)	1.0	1.2	0.5	1.0
Loose to Medium Dense Sand/Silty Sand (Hinuera Formation)	1.4	2.5	0.6	1.7
Dense to Very Dense Sand with interbedded Silt (Hinuera Formation)	5.9	17.3	4.9	16.3
Very Stiff to Hard Silt/Clay (Walton Subgroup)	0.1	18.1	9*	18*
Very Dense Silty Sand (Walton Subgroup)	-	-	**	**
Notes: * Strata not encountered within all test locations. ** Thickness only recorded where base of strata has been confirmed.				

³ Edbrooke, S.W (compiler) 2005: Geology of the Waikato area. Institute of Geological & Nuclear Sciences 1:250,000 Geological Map 4.

5.3 Groundwater

During the investigations, which were completed in late spring (November 2023) at the residential subdivision and early winter conditions (May / June 2024) for the remaining development, groundwater was encountered within the CPTs and boreholes at the depths provided in Table 2. It is noted that groundwater levels do fluctuate seasonally and following periods of heavy / extended periods of rain by up to a metre. Interpreted groundwater levels are presented in Table 2.

Table 2: Inferred Groundwater Table

Area	Perched Water Table RLm (m)	Global Water Table RLm (m)
Residential Subdivision	65.5 - 66.4 (1.0m – 2.5m)	63.2 - 64.5 (3.5m – 8.3m)
Solar Farm A	-	63.1 – 64.0 (1.8m – 4.2m)
Solar Farm B	66.2 - 66.5 (1.3m – 1.8m)	63.3 - 65.2 (3.3m - 3.8m)
Retirement Village	-	64.8 - 65.3 (1.6m – 2.6m)

6 GEOHAZARDS ASSESSMENT

6.1 Context

Section 106 of the Resource Management Act (RMA) requires an assessment of the risk from natural hazards to be carried out when considering the granting of a subdivision consent. S106 RMA specifically states that the assessment must consider the combined effect of the natural hazard likelihood and material damage to land or structures (consequence).

The following sections of this report provide an assessment of the geohazards relevant to this site and provide the basis for the Natural Hazards Risk Assessment presented in **Appendix F**.

6.2 Seismicity

Reference to NZGS Guidance⁴ was made to determine peak horizontal ground acceleration or PGA (a_{max}) values based on a 50-year design life in accordance with the New Zealand Building Code⁵ and importance level (IL) 2 for the residential and retirement village development and IL3 structures for the proposed solar farms. The PGA values for the serviceability limit state (SLS) and ultimate limit state (ULS) earthquake scenarios are as follows:

Table 3: Design Peak Ground Acceleration (PGA) for Various Limit States

Limit State	AEP	PGA(g)	Magnitude _{eff}
IL2 Structures			
SLS	1/25	0.07	5.9
ULS	1/500	0.28	5.9
IL3 Structures			
SLS	1/25	0.07	5.9

⁴ NZ Geotechnical Society publication “Earthquake geotechnical engineering practice, Module 1: Overview of the standards”, (March 2016).

⁵ Ministry of Business, Innovation and Employment (1992) NZ Building Code Handbook, Third Edition, Amendment 13 (effective from 14 February 2014)

Limit State	AEP	PGA(g)	Magnitude _{eff}
ULS	1/1,000	0.36	5.9

6.3 Fault Rupture

The nearest active fault to the site is the Kerepehi Fault. This fault is approximately 5km east of the site. The Kerepehi Fault has a recurrence interval of between 2,000 years to 3,500 years. We consider the site to be low risk, with respect to fault rupture.

6.4 Liquefaction

6.4.1 Methodology

In accordance with MBIE/NZGS guidance⁶ the liquefaction susceptibility of the soils at this site was assessed with respect to geological age and compositional (soil fabric and density) criteria, based on the following assumptions:

- Saturated soils below 1m to 4m below ground level (bgl) were modelled as being susceptible to liquefaction. Saturated soils below 4.75m to 6m bgl were modelled at CPT24-09 and CPT23-3b.
- A site-specific assessment was carried out using the seismic CPTs to account for soil microstructure in accordance with Robertson⁷. Results in **Appendix G** suggest that “no soil microstructure can be justified” and therefore no strength gain factor has been applied.
- Soils are also classified with respect to their grain size and plasticity to assess liquefaction susceptibility. For this project, a cut-off threshold soil behaviour type index value (I_c) of 2.6 was used to distinguish between liquefiable ($I_c < 2.6$) and non-liquefiable ($I_c > 2.6$) soils.
- Specific liquefaction analyses were undertaken for IL2 and IL3 structures, using the software package CLiq using the Boulanger and Idriss (2014) method. The cyclic stress ratio (CSR), being a function of the earthquake magnitude for the design return period event, was compared to the cyclic resistance ratio (CRR), being a function of the CPT cone resistance (q_c) and friction ratio (F_r).
- Free-field liquefaction induced settlements were determined in accordance with Zhang et al. (2002). With respect to liquefaction response, consideration was given to a 10m cut-off depth to estimate index settlements as per MBIE⁸ guidance (foundation technical categories). These were compared to liquefaction settlement estimates over the full depth range of the CPT's with a depth weighting factor ranging from 1 at the ground surface to 0 at 18m depth applied to the volumetric strains (e_v) in accordance with Cetin et al (2009)⁹.
- Proposed fill and cut levels have been considered at each CPT location. This is based on the cut and fill drawings supplied by Maven Associates.

6.4.2 Results

Results are presented in **Appendix G** and can be summarised as in Table 4:

⁶ Earthquake Geotechnical Engineering Practice, Module 3: Identification, assessment and mitigation of liquefaction hazards”, (November 2021)

⁷ P.K. Robertson (2015). Comparing CPT and Vs Liquefaction Triggering Methods, Journal of Geotechnical and Geoenvironmental Engineering.

⁸ Repairing and Rebuilding House affected by the Canterbury Earthquakes”, (December 2012)

⁹ Cetin, K., Bilge, H., Wu, J., Kammerer, A., and Seed, R. (2009). Probabilistic Model for the Assessment of Cyclically Induced Reconsolidation (Volumetric) Settlements, Journal of Geotechnical and Geoenvironmental Engineering, Vol. 135(3), pp. 387-398.

Table 4: Liquefaction Analyses Results

Development	SLS Settlement (mm)	IL2 Structures		IL3 Structures	
		Total Settlement (mm)	Index Settlement (mm)	Total Settlement (mm)	Index Settlement (mm)
Retirement Village	<5	120	85 - 90	-	-
Residential Subdivision	<5	75 - 155	30 - 95	-	-
Solar Farm A	<5	-	-	100 - 145	85 - 150
Solar Farm B	<5	-	-	90 - 150	95 - 165

Note: All settlements and depths based on existing ground profile.
 Index settlements are calculated based on the upper 10m of the soil profile using no depth weighting factor.
 Total ULS settlements are based on the full depth of the CPT trace with a depth weighting factor applied.
 Index settlements are for assessment of the site against the MBIE site Technical Category guidelines and are not comparable to the total ULS settlements.

The calculations indicate that liquefaction may occur in some soil layers during a ULS earthquake event. In the ULS cases, the liquefaction results indicate a high risk of liquefaction occurring at the site. Recommendations to mitigate effects of liquefaction settlements on the proposed development are provided below in Section 7.

6.5 Lateral Spread

Following the onset of liquefaction, the liquefied soils behave as a very weak undrained material, which can give rise to lateral spreading where a free face is present within the vicinity of the site or where proposed cut and fill batters are proposed over or within liquefied soils.

The existing drains (assumed to be 2m deep) at the Residential Subdivision, the Retirement Village, Solar Farm A, Solar Farm B and the proposed greenway (assumed to be 2m deep) will be infilled as per drawings provided by Maven Associates. Hence, lateral spreading is not considered to be an issue.

The riverbank along the western boundary of the Solar Farm B is approximately 5m high. Based on the current landform, free face height and continuity of liquefiable layers, there is high potential for lateral spreading.

6.6 Slope Stability

The general landform across the site is flat to gently grading, therefore we do not consider slope stability will be problematic on this site.

6.7 Load Induced Settlement

Static settlements were estimated based on the CPT data using the methodology outlined below. Calculations were undertaken using the commercially available software CPeT-IT.

$$S = \sum \frac{\Delta\sigma_v}{M_{CPT}} \Delta z$$

Where $\Delta\sigma_v$ = change in total vertical stress, Δz = layer thickness, M_{CPT} = constrained modulus estimated from the CPT data as follows:

$$M = \alpha_M (q_t - \sigma_{vo})$$

Where: α_M = factor, derived according to Robertson (2009)¹⁰; q_t = cone resistance; σ_{vo} = total vertical stress.

Table 5 below shows estimated foundation settlements. The dwellings and villas for the residential subdivision and retirement village are assumed to be light weight single story structures, as is the medical centre proposed at the retirement village. Fill load has been added to the CPTs based on the cut and fill drawings for each development. Out has been presented in **Appendix H**.

Table 5: Load Induced Settlement Results.

Development	Cut/Fill	Applied Working Pressure (kPa)	Foundation Dimensions	Primary Settlement (mm)	Total Settlement (mm)
Residential Subdivision and Retirement Village	3.52m cut to 2.8m fill	10 kPa	10m x 15m	<5 to 20	<15 to 40
Medical Centre	+1.5m Fill	10 kPa	100m x 150m	3	45
Solar Farms A and B	-	1 kPa	1m x 1m*	<5	<5

Notes: Fill weight = 18kN/m³. Assumed 0.5m embedment depth for foundations. * Piled foundations are likely to be used at the solar farms.

Settlement estimates are based on CPTs at discrete locations and should be updated as part of the detailed design.

New Zealand Building Code, Clause B.1.0.2 of B1/VM4 provides the following differential settlement criteria for design of shallow foundations 'Foundation design should limit the probable maximum differential settlement over a horizontal distance of 6m to no more than 25mm under serviceability limit state load combinations of AS/NZS 1170 Part 0, unless the structure is specifically designed to prevent damage under a greater settlement.'

For the foundation size and working load combinations considered in Table 5, settlement across the site is expected to be relatively uniform and differential settlement is expected to be below the limit set by the New Zealand building code.

6.8 Sensitive Soils

The Hinuera Formation silt unit present across the site and encountered within the upper 1m is typically considered moderately sensitive to sensitive. These characteristics may make the silt unit challenging to earthwork and will require special consideration to plant movements during the construction period where exposed. Further recommendations are provided in Section 7.7 below.

7 RECOMMENDATIONS

7.1 Seismic Site Subsoil Category

The geological units encountered beneath the development areas comprise soil strength materials, which with respect to the seismic site subsoil category defined in Section 3.1.3 of NZS1170.5, is defined as having a UCS < 1MPa. Therefore, the seismic site subsoil category is assessed as being Class D (deep soil site).

¹⁰ Robertson, P.K., 2009. Interpretation of cone penetration tests – a unified approach. Canadian Geotechnical Journal, 46:1337-1355.

7.2 Liquefaction Mitigation

Based on the analysis results presented in Section 6.4, we consider the risk of liquefaction and liquefaction induced settlements to be moderate for the ULS cases. Foundation recommendations are provided in Section 7.6.

Liquefaction effects can possibly be reduced by performing laboratory testing to assess the fines content and plastic nature of the fine-grained soils at the site. Seismic CPTs can also be performed to assess microstructure of the Hinuera Formations and Walton Subgroup soils in detail.

7.3 Lateral Spread Mitigation

Based on the analysis results presented in Section 6.4 and Section 6.5, we consider the risk of lateral spreading to be high near the riverbank.

Appropriate setbacks are to be provided at the detailed design stage. Alternately, ground improvement in the form of rigid inclusions to at least 11m depth from the existing ground levels might be required based on the severity of lateral spreading.

Lateral spreading can possibly be reduced by performing laboratory testing to assess the fines content and plastic nature of the fine-grained soils at the site. Seismic CPTs can also be performed to assess microstructure of the Hinuera Formations and Walton Subgroup soils in detail.

7.4 Static Settlement

To minimise post construction static ground settlements for the residential subdivision and retirement village, a range of options may be considered, including the following:

- In our experience, preliminary settlement estimates from CPT testing can be conservative and reviewing settlement monitoring data may assist in optimising the calculated static settlement values. Hence, we recommend a fully instrumented trial embankment or fill monitoring during bulk earthworks. Adequate time must be available to enable a full assessment of settlement trends. Settlement plates will be required to monitor settlement during the placement of temporary surcharge or pre-load fill. Settlement will be considered adequately mitigated once T_{90} settlements are achieved, and the resulting creep settlements are predicted to be below 25mm over the design life of the proposed structures (residential dwelling loads).
- Ground improvements are a feasible option, however this solution will be expensive based on the extent of the treatment area.

7.5 Stormwater Soakage

24 no. falling head permeability tests were undertaken across the sites to provide soakage rates. Results indicated that the permeability of soils ranged between 2×10^{-6} and 5×10^{-6} m/sec for the silty material and between 7×10^{-6} to 6×10^{-7} m/sec for the sandier material. HAS24-12 has not been considered based on low soakage rate for the insitu sandy soil. Results of testing are presented as **Appendix D**. The soils at this site are considered suitable to provide rain gardens / attenuation ponds.

7.6 Foundations

On this site, our provisional expectation is that provided earthworks are completed in accordance with the standards, the following will apply:

- A preliminary geotechnical ultimate bearing pressure of 300 kPa should be available in the static case for shallow strip and pad foundations constructed within both the natural cut ground and engineered fill areas.

Geotechnical ultimate bearing pressure in the ULS seismic case will be < 300 kPa based on the shallow liquefiable layers.

- There may be areas where localised variations in shear strength within the natural cut ground occur, particularly where the depth of cut varies across the building platforms. Further confirmation of available bearing pressures will be addressed at the time of post earthworks soil testing and will be presented in the Geotechnical Completion Report.
- To accommodate the liquefaction potential, TC2 foundations are anticipated for residential subdivision (excluding the area denoted in Drawing 09 which will be TC1) and for the retirement village based on liquefaction-induced settlements presented in Section 6.4. Foundations near the swale and the riverbank should be designed to sustain lateral spreading effects.
- Based on our experience with previous solar farm developments, solar panels are typically supported by 100-150mm UC driven steel piles embedded 3-4m into the ground. Based on the ground conditions observed at this site, driven piles will be suitable at this site. The ground conditions at the solar farms are stiff to very stiff silt within the first 1m then followed by a dense to very dense sand with interbedded silt.
- As required by section B1/VM4¹¹ of the New Zealand Building Code Handbook, the following strength reduction factors must be applied to all recommended geotechnical ultimate soil capacities in conjunction with their use in factored design load cases:
 - 0.8 for load combinations involving earthquake overstrength;
 - 0.5 for all other load combinations.

7.7 Earthworks

7.7.1 Excavatability

All earthwork activities must be carried out in general accordance with the requirements of NZS 4431¹² and the requirements of the Matamata Piako District Council Infrastructure Development Code under the guidance of a Chartered Professional Geotechnical Engineer.

The Hinuera Formation silts are sensitive to remoulding during earthworks. These soils rapidly lose strength if overworked, over trafficked or allowed to get excessively wet. Mitigation options can include avoiding directly trafficking over these soils, limiting the area exposed to water infiltration at any one time, shaping and compacting the cut surface to allow water to runoff rather than pond. Disturbed soils may regain strength if left to settle for a period of days in fine weather, or they may need to be undercut and replaced with appropriately conditioned materials.

Given the consistency of the soil units that will be encountered within the proposed earthworks cuts, it is expected that excavation of these materials will be readily achieved with normal earthworks plant, such as scrapers and bulldozers with scoops.

A shallow perched groundwater table was present between 1m to 4.2m below ground level. Should excavations encounter groundwater, underfill subsoil drains or granular drainage blanket layers may be required.

¹¹ Ministry of Business, Innovation and Employment (2019) *Acceptable Solutions and Verification Methods for NZ Building Code Clause B1 Structure, B1/VM4, Amendment 19.*

¹² NZS 4431:2022 Engineered fill construction for lightweight structures, New Zealand Standard.

7.7.2 Stockpiles

Careful consideration must be given to the location of temporary topsoil / unsuitable stockpiles to ensure that they are not located immediately above steep or unstable slopes or immediately above proposed stormwater pond excavations.

The location of all temporary stockpiles must be approved by the Geotechnical Engineer prior to placement. Where stockpiles cannot be avoided above sloping ground, they should be placed over a wide area with the height restricted under the direction of the Geotechnical Engineer.

7.7.3 Compaction

Earthfill must be placed, spread and compacted in controlled 250mm to 300mm thick (loose) lifts under the direction of a geotechnical engineer. The fill may comprise either granular or cohesive material subject to being free of any organic material and having no particles greater than 150mm diameter.

Most of the proposed cut material, including the natural and existing fill materials should be suitable for reuse as Engineer Certified Fill. Soil textures and moisture contents will however vary widely, and careful management, conditioning and compaction control will be required.

All earthfill must be placed to ensure adequate knitting of successive fill lifts by ripping any natural subgrade or fill surfaces that have become dry prior to placing the following fill lift.

7.8 Civil Works

7.8.1 Subgrade CBR

The proposed roading is shown to being in a combination of both cut and fill areas. Based on DCP results in insitu soils, a lower bound value of 3% is recommended for preliminary design. Higher CBR will be available for areas with fill.

8 SUITABILITY STATEMENT

Existing site investigations carried out are considered suitable for the assessment of geotechnical constraints and associated requirements in support of a Resource Consent application.

The post-development qualitative assessment of natural risk hazard for the site is low to medium for all hazards considered with the exception of lateral spread which will require further investigation.

Based on the findings of the geotechnical investigations, we consider that the site is suitable for the proposed development providing our recommendations are followed.

9 SAFETY IN DESIGN

The design landform requires site excavations that may include geotechnical works such as undercuts, temporary excavations, fill batters. Exposure to these works forms a significant safety risk for contractors and inspectors / testers.

In conducting our scope of work, we have considered and addressed Safety in Design (SiD) aspects relevant to our understanding of the proposed design and construction work. SiD must consider the construction, operation, maintenance, and ultimate demolition phases of the relevant works.

It is noted that CMW are focussed on design aspects, and whilst we have attempted to be comprehensive in our assessment, it is the Contractors responsibility to cover construction related risks in a more comprehensive manner (being the competent party in that respect).

Our SiD risk assessment is presented in **Appendix I**. This risk assessment must be communicated with all affected parties involved with the project and dealt with through specific on-site risk assessment plans.

10 FURTHER WORK

No further geotechnical work is required for Resource Consent Application. However, the following points need to be considered:

- Lateral spreading assessment near the riverbank.
- Preparation of an earthworks specification, followed by observations, testing, certification and preparation of a Geotechnical Completion Report will be required for the proposed development.
- DCP testing, CBR testing, pavement design will be required to support design of roading infrastructure at the site.
- Additional investigations and laboratory testing and analysis and/ or trial embankment may assist in reducing predicted liquefaction, lateral spreading and static settlements.
- Geotechnical analysis and reporting suitable to support building consent applications will be required.

11 CLOSURE

Additional important information regarding the use of your CMW report is provided in the *'Using your CMW Report'* document attached to this report.

This report has been prepared for use by Matamata Development Limited C/O Maven Associates in relation to the Proposed Residential Subdivision, Retirement Village and Solar Farms Station Road, Matamata project in accordance with the scope, proposed uses and limitations described in the report. Should you have further questions relating to the use of your report please do not hesitate to contact us.

Where a party other than Matamata Development Limited C/O Maven Associates seeks to rely upon or otherwise use this report, the consent of CMW should be sought prior to any such use. CMW can then advise whether the report and its contents are suitable for the intended use by the other party.

USING YOUR CMW GEOTECHNICAL REPORT

Geotechnical reporting relies on interpretation of facts and collected information using experience, professional judgement, and opinion. As such it generally has a level of uncertainty attached to it, which is often far less exact than other engineering design disciplines. The notes below provide general advice on what can be reasonably expected from your report and the inherent limitations of a geotechnical report.

Preparation of your report

Your geotechnical report has been written for your use on your project. The contents of your report may not meet the needs of others who may have different objectives or requirements. The report has been prepared using generally accepted Geotechnical Engineering and Engineering Geology practices and procedures. The opinions and conclusions reached in your report are made in accordance with these accepted principles. Specific items of geotechnical or geological importance are highlighted in the report.

In producing your report, we have relied on the information which is referenced or summarised in the report. If further information becomes available or the nature of your project changes, then the findings in this report may no longer be appropriate. In such cases the report must be reviewed, and any necessary changes must be made by us.

Your geotechnical report is based on your project's requirements

Your geotechnical report has been developed based on your specific project requirements and only applies to the site in this report. Project requirements could include the type of works being undertaken; project locality, size and configuration; the location of any structures on or around the site; the presence of underground utilities; proposed design methodology; the duration or design life of the works; and construction method and/or sequencing.

The information or advice in your geotechnical report should not be applied to any other project given the intrinsic differences between different projects and site locations. Similarly geotechnical information, data and conclusions from other sites and projects may not be relevant or appropriate for your project.

Interpretation of geotechnical data

Site investigations identify subsurface conditions at discrete locations. Additional geotechnical information (e.g. literature and external data source review, laboratory testing etc) are interpreted by Geologists or Engineers to provide an opinion about a site specific ground models, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist due to the variability of geological environments. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. Interpretation of factual data can be influenced by design and/or construction methods. Where these methods change review of the interpretation in the report may be required.

Subsurface conditions can change

Subsurface conditions are created by natural processes and then can be altered anthropically or over time. For example, groundwater levels can vary with time or activities adjacent to your site, fill may be placed on a site, or the consistency of near surface conditions might be susceptible to seasonal changes. The report is based on conditions which existed at the time of investigation. It is important to confirm whether conditions may have changed, particularly when large periods of time have elapsed since the investigations were performed.

Interpretation and use by other design professionals

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a geotechnical report. To help avoid misinterpretations, it is important to retain the assistance of CMW to work with other project design professionals who are affected by the contents of your report. CMW staff can explain the report implications to design professionals and then review design plans and specifications to see that they have correctly incorporated the findings of this report.

Your report's recommendations require confirmation during construction

Your report is based on site conditions as revealed through selective point sampling. Engineering judgement is then applied to assess how indicative of actual conditions throughout an area the point sampling might be. Any assumptions made cannot be substantiated until construction is complete. For this reason, you should retain geotechnical services throughout the construction stage, to identify variances from previous assumption, conduct additional tests if required and recommend solutions to problems encountered on site.

A Geotechnical Engineer, who is fully familiar with the site and the background information, can assess whether the report's recommendations remain valid and whether changes should be considered as the project develops. An unfamiliar party using this report increases the risk that the report will be misinterpreted.

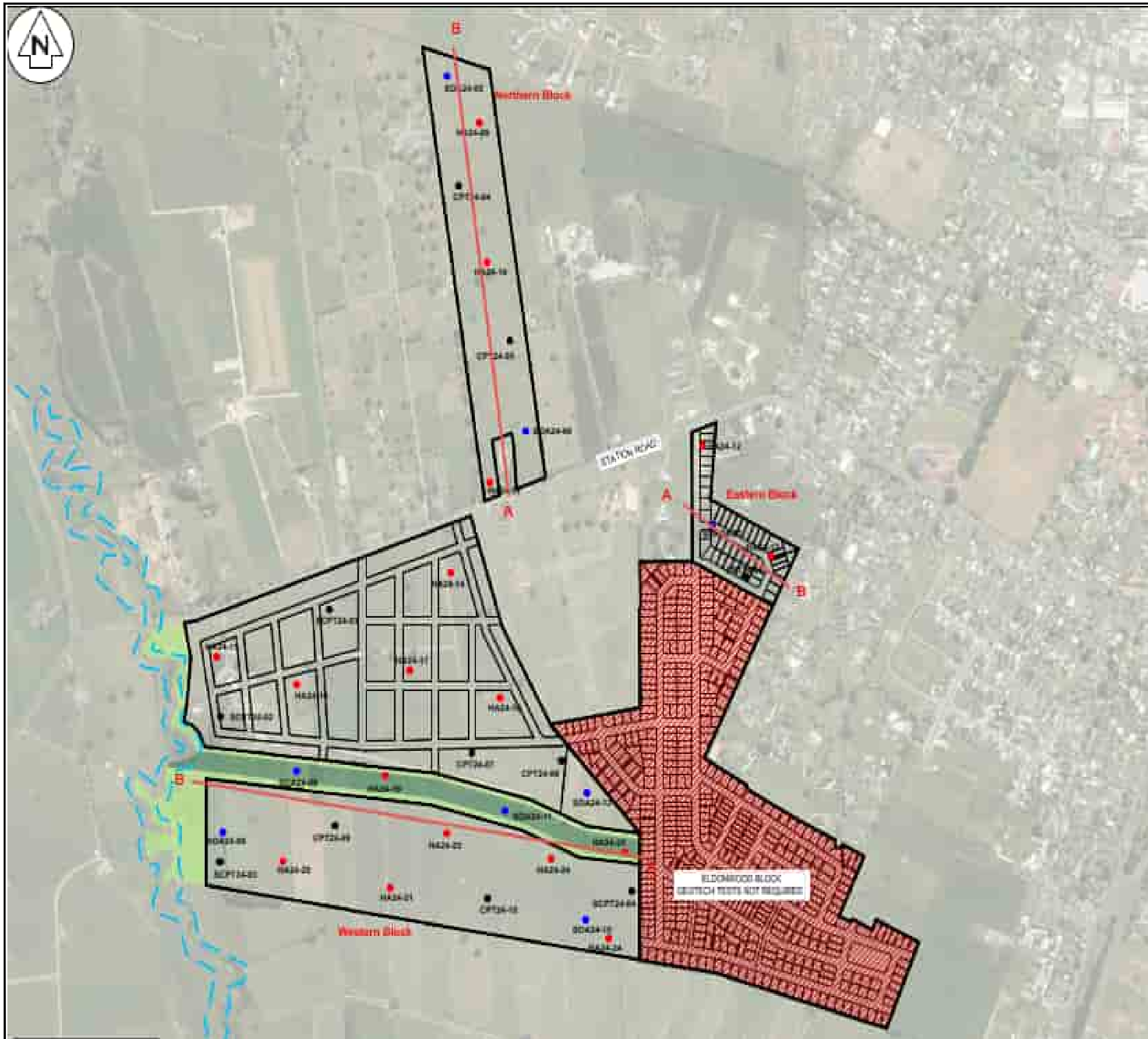
Environmental Matters Are Not Covered

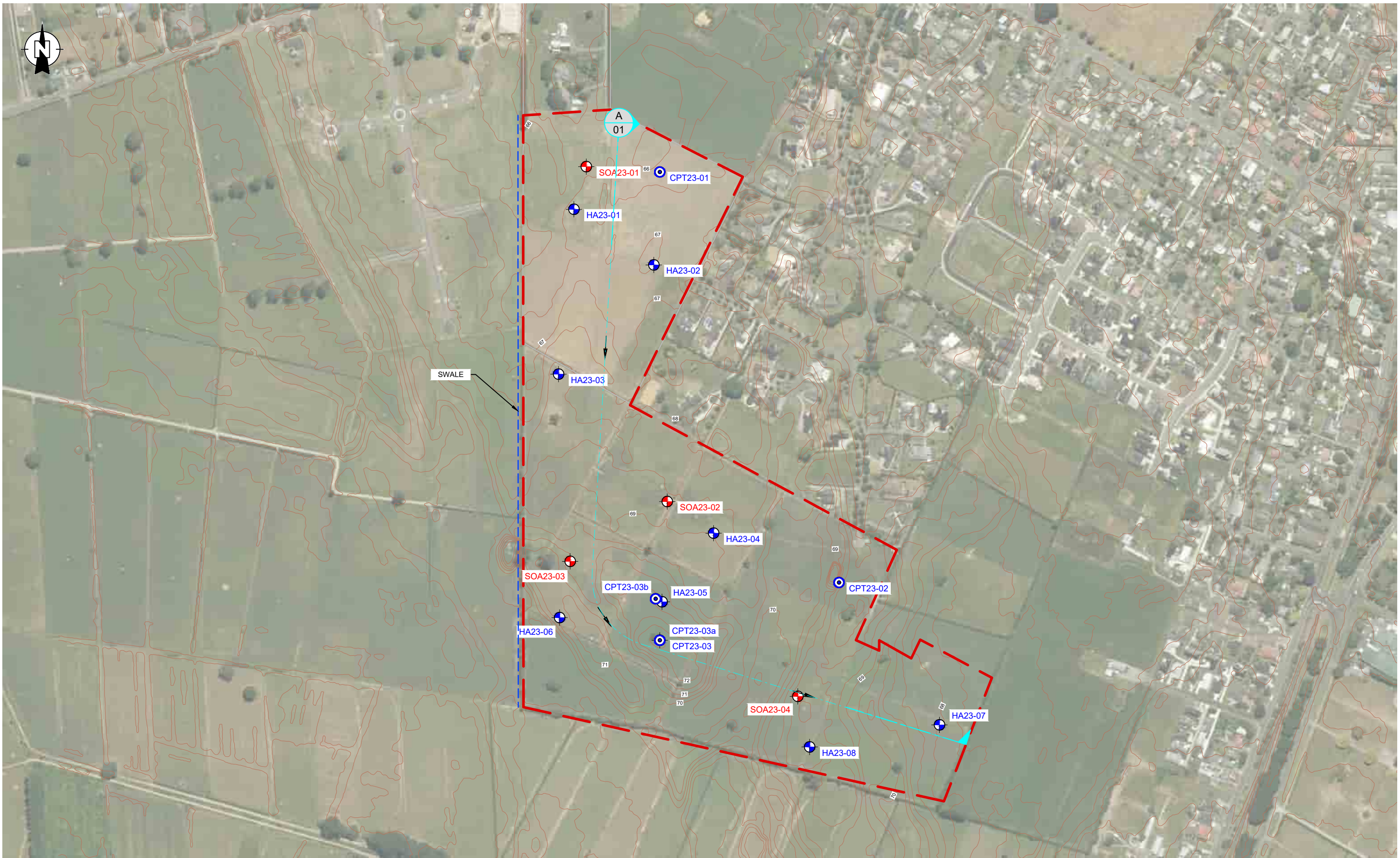
Unless specifically discussed in your report environmental matters are not covered by a CMW Geotechnical Report. Environmental matters might include the level of contaminants present of the site covered by this report, potential uses or treatment of contaminated materials or the disposal of contaminated materials. These matters can be complex and are often governed by specific legislation.

The personnel, equipment, and techniques used to perform an environmental study can differ significantly from those used in this report. For that reason, our report does not provide environmental recommendations. Unanticipated subsurface environmental problems can have large consequences for your site. If you have not obtained your own environmental information about the project site, ask your CMW contact about how to find environmental risk-management guidance.

APPENDIX A: DRAWINGS

Title	Reference No.	Date	Revision
Site Investigation Plan	1	30/11/2023	0
Site Investigation Plan	2	05/07/2024	0
Site Investigation Plan	3	30/04/2025	0
Residential subdivision Landforms	4	30/11/2023	0
Cross Section A	5	04/12/2023	0
Cross Section – Eastern Block	6	05/07/2024	0
Cross Section – Northern Block	7	05/07/2024	0
Cross Section – Western Block	8	05/07/2024	0
Foundation Types Plan	9	22/05/2025	1





LEGEND:

- HA01 HAND AUGER (HA) LOCATION
- SOA01 SOAKAGE TEST (SOA) LOCATION
- CPT01 CONE PENETROMETER TEST (CPT) LOCATION
- SITE BOUNDARY
- CULVERT

NOTES:




- BASE PLAN ADAPTED FROM: LINZ



CLIENT:	MAVEN ASSOCIATES LTD		DRAWN:	GB	PROJECT:	HAM2023-0124
PROJECT:	STATION ROAD MATAMATA		CHECKED:	PM	DRAWING:	01
TITLE:	SITE INVESTIGATION PLAN		REVISION:	A	SCALE:	1:5000
			DATE:	30/11/2023	SHEET:	A3 L




LEGEND:

-  SITE BOUNDARY
-  HA24-XX HAND AUGER (HA) LOCATION
-  DCPXX SOAKAGE TESTING (SOA) LOCATION

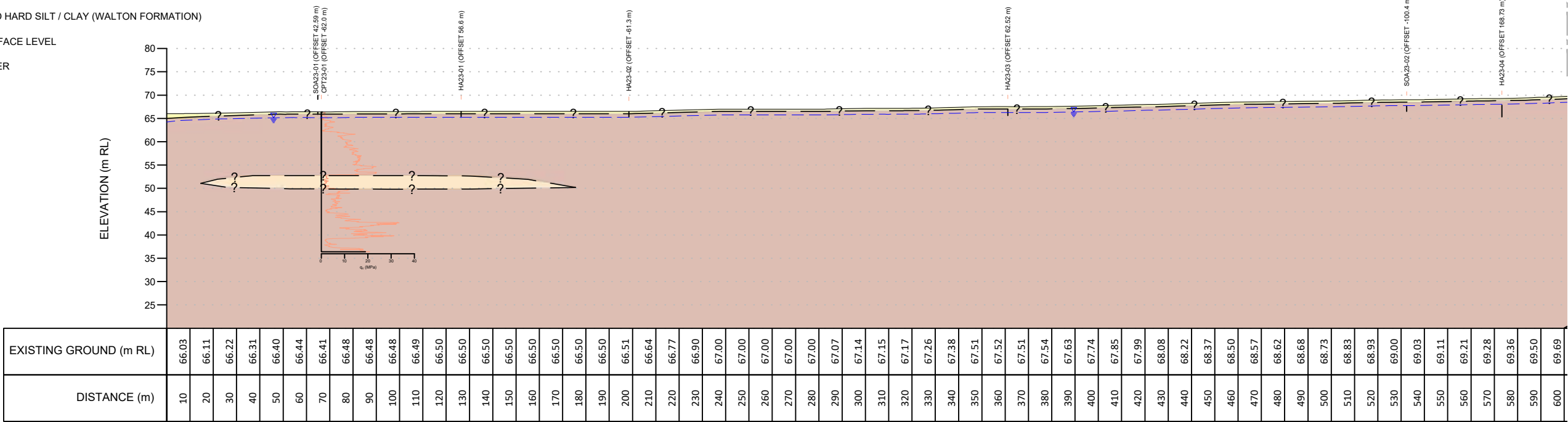
NOTES:

1. BASE PLAN COURTESY OF MATAMATA PIAKO DISTRICT COUNCIL.
2. TEST LOCATIONS AND BOUNDARY SHOWN INDICATIVELY ONLY.

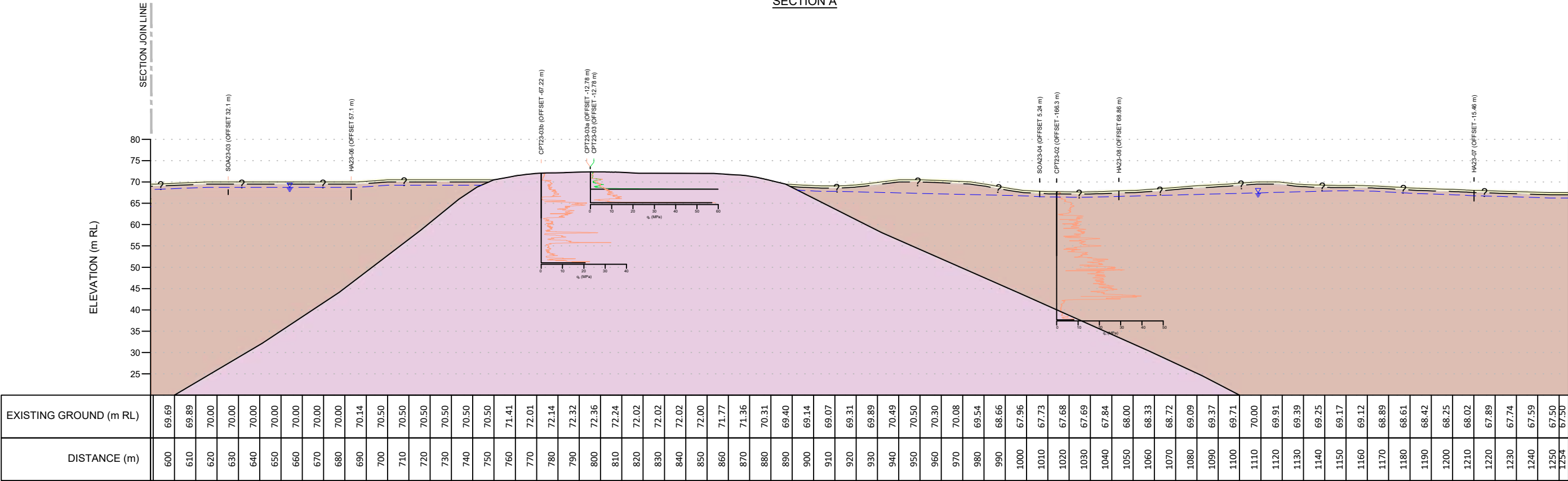
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	PROJECT:	STATION ROAD, MATAMATA		CHECKED:	HP	DRAWING:	03
				REVISION:	A	SCALE:	NA
	TITLE:	SITE INVESTIGATION PLAN - TO SUPPORT SOAKAGE		DATE:	30/04/2025	SHEET:	A3

LEGEND:

- FIRM TO STIFF SILT (HINUERA FORMATION)
- FIRM TO STIFF CLAY / SILTY CLAY (HINUERA FORMATION)
- DENSE TO VERY DENSE SAND WITH INTER BEDDED
VERY STIFF TO HARD SILT (HINUERA FORMATION)
- VERY STIFF TO HARD SILT / CLAY (WALTON FORMATION)
- EXISTING SURFACE LEVEL
- GROUND WATER



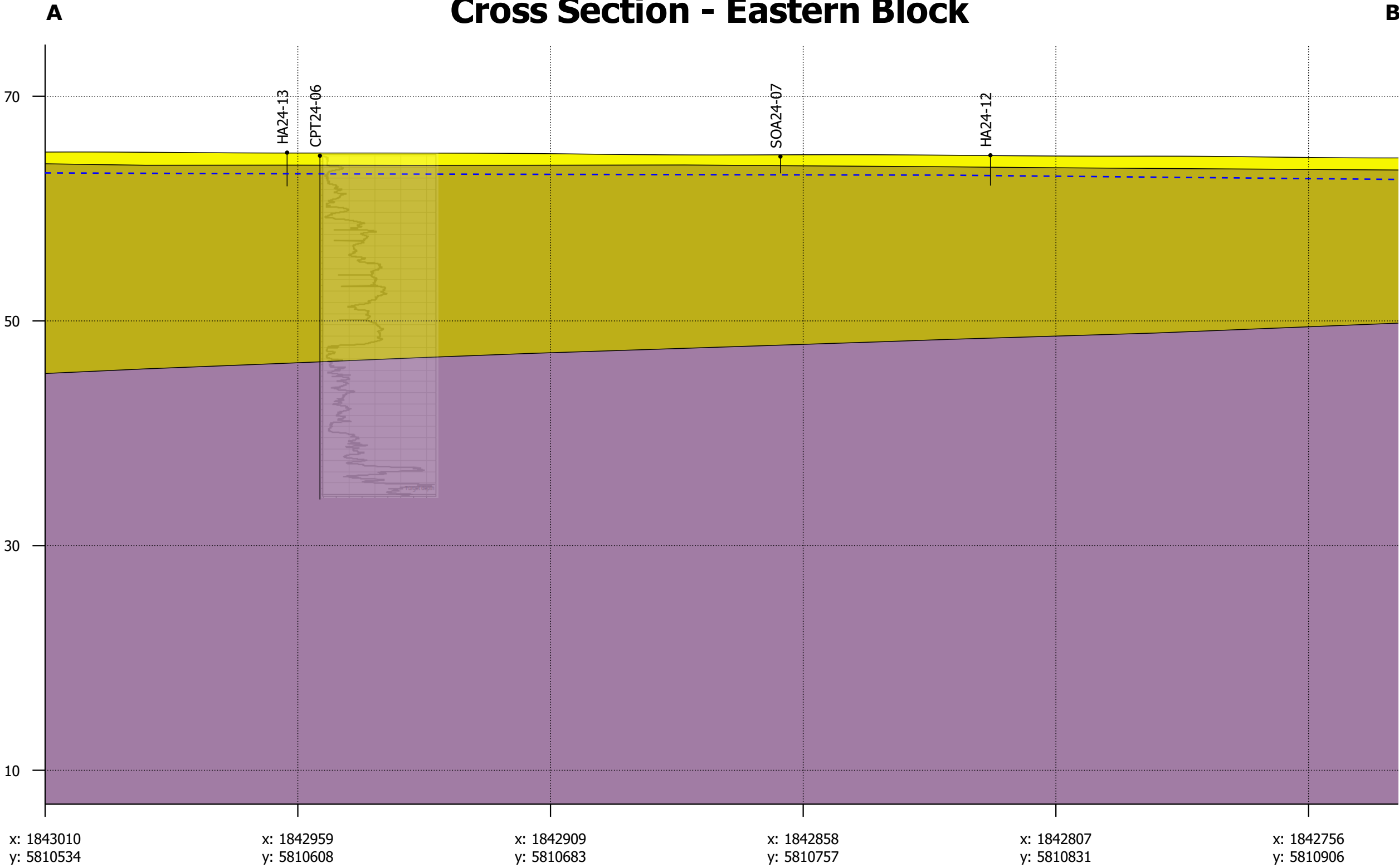
SECTION A



SECTION A

A	04/12/2023	FOR REVIEW	PM	<div><div></div><div>CMW Geosciences</div><div>Great People Practical Solutions</div></div>	CLIENT:	MAVEN ASSOCIATES LTD	DRAWN:	GB	PROJECT:	HAM2023-0124
					PROJECT:	STATION ROAD MATAMATA	CHECKED:	PM	FIGURE:	02
							REVISION:	A	SCALE:	1:2000 (H) 1:1000 (V)
REV	DATE	DESCRIPTION	BY		TITLE:	SECTION A	DATE:	04/12/2023	SHEET:	A3 L


Cross Section - Eastern Block



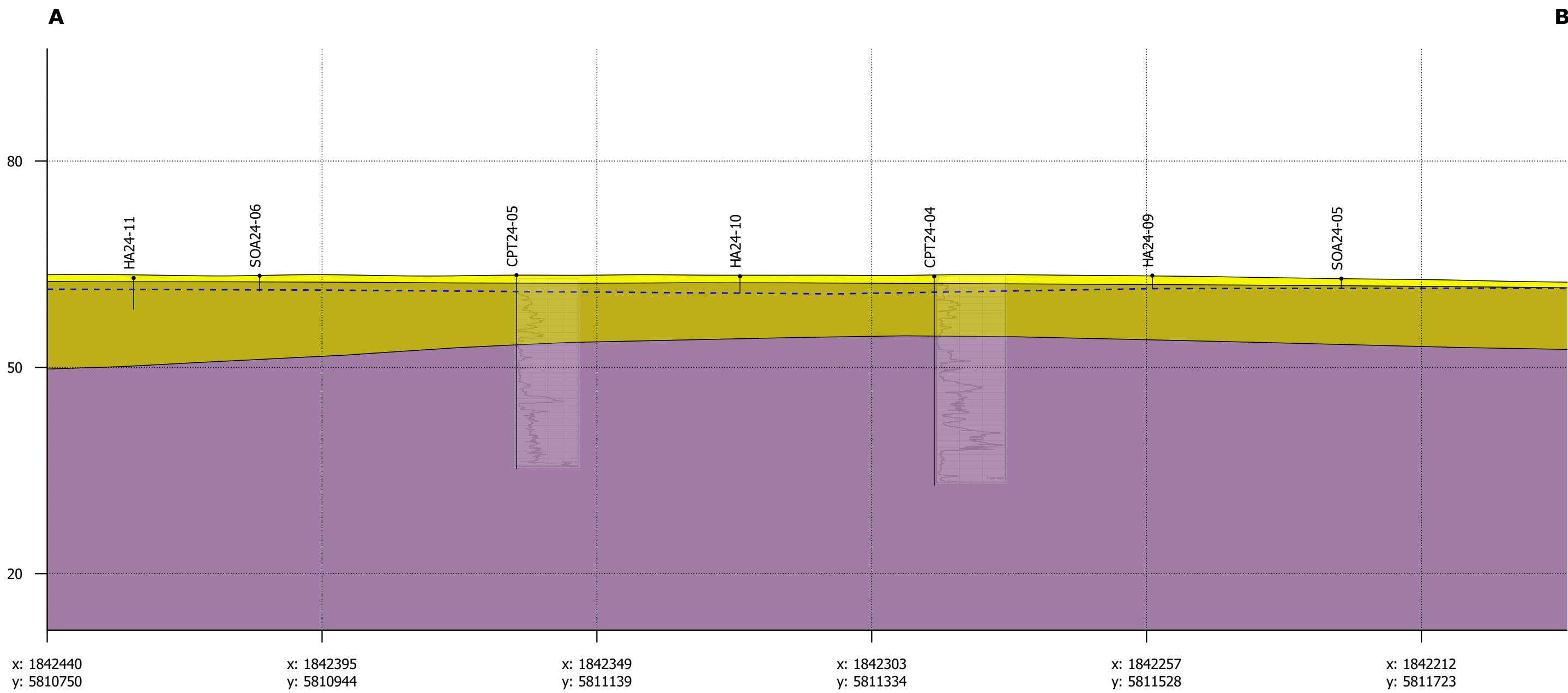
Legend

- GM**
- Stiff to Very Stiff SILT (Hinuera Formation)
 - Dense to Very Dense SAND with interbedded SILT (Hinuera Formation)
 - Very Dense Silty SAND (Walton Subgroup)
 - Water Table

Scale: 1:1,500
Vertical exaggeration: 4x
0m 50m

 Great People Practical Solutions	CLIENT: MATAMATA DEVELOPMENT LTD	DRAWN: PM	HAM2023-00124
	PROJECT: STATION ROAD, MATAMATA	CHECKED: RT	DRAWING: 06
	TITLE: EASTERN BLOCK CROSS SECTION	REVISION: 0	SCALE: 1:1,500
		DATE: 5/07/2024	SHEET: A3 L

Cross Section - Northern Block




Legend

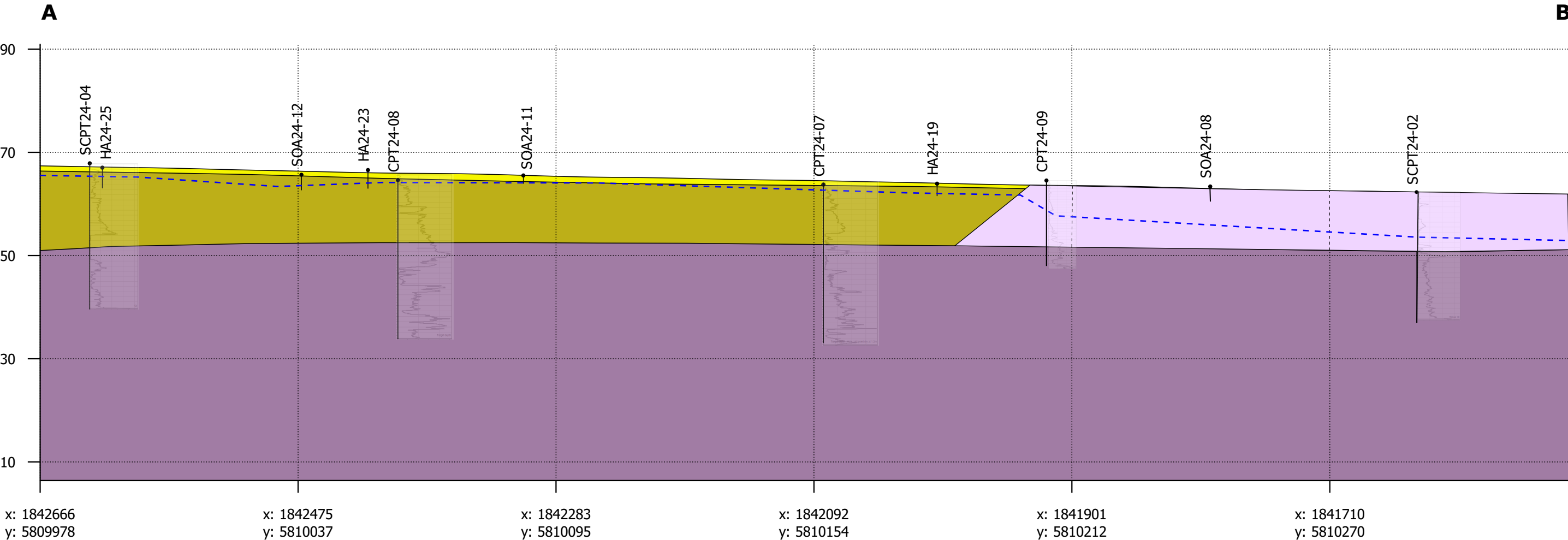
- GM**
- Stiff to Very Stiff SILT (Hinuera Formation)
 - Dense to Very Dense SAND with interbedded SILT (Hinuera Formation)
 - Very Stiff to Hard SILT/CLAY (Walton Subgroup)
 - Very Dense Silty SAND (Walton Subgroup)
 - Water Table

Scale: 1:3,000
Vertical exaggeration: 5x

0m 200m

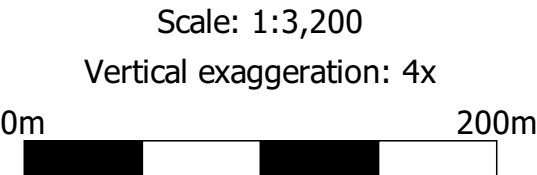
 Great People Practical Solutions	CLIENT: MATAMATA DEVELOPMENT LTD	DRAWN: PM	HAM2023-00124
	PROJECT: STATION ROAD, MATAMATA	CHECKED: RT	DRAWING: 07
	TITLE: NORTHERN BLOCK CROSS SECTION	REVISION: 0	SCALE: 1:3,000
		DATE: 5/07/2024	SHEET: A3 L


Cross Section - Western Block

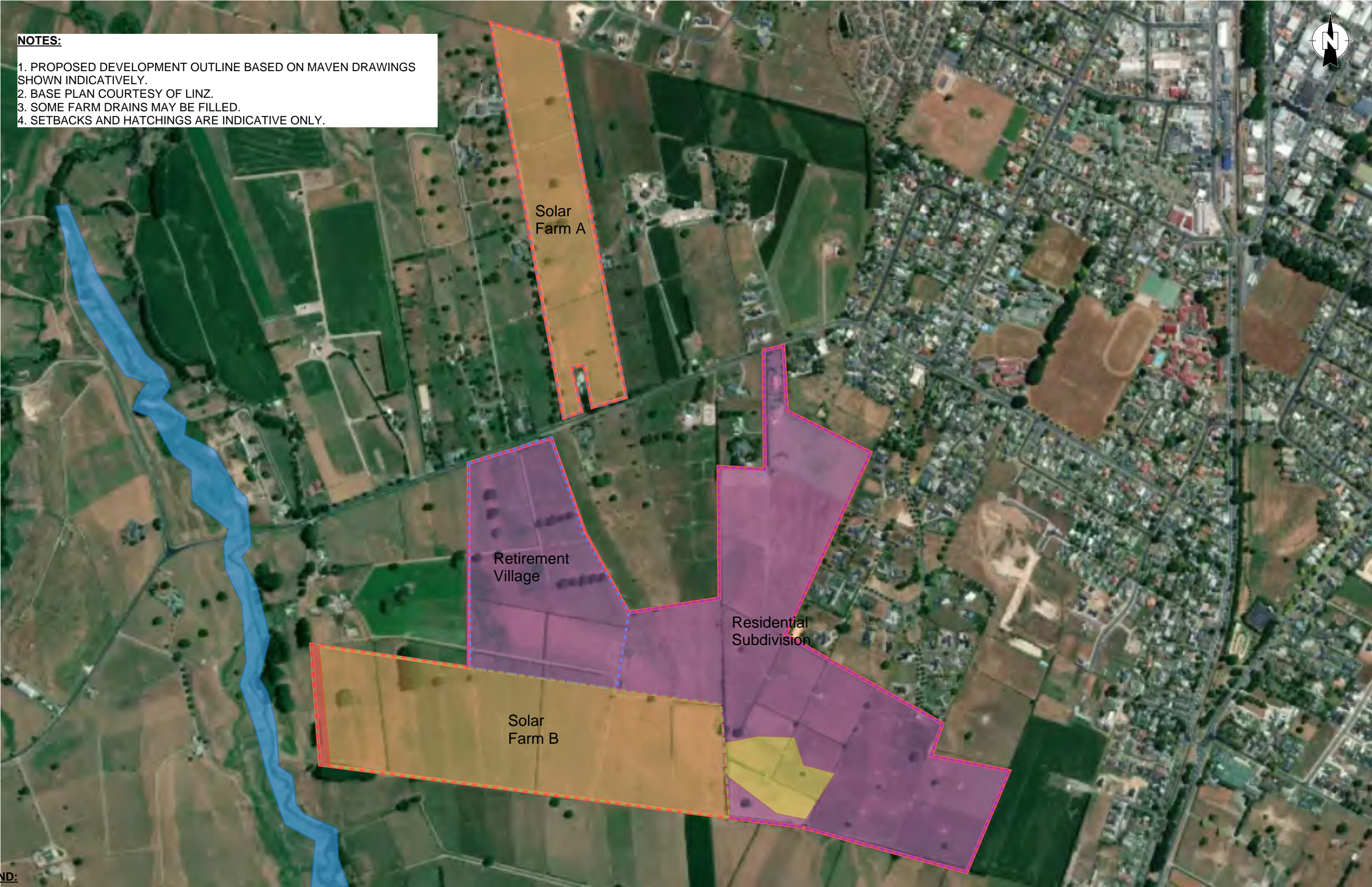


Legend

- GM**
- Stiff to Very Stiff SILT (Hinuera Formation)
 - Dense to Very Dense SAND with interbedded SILT (Hinuera Formation)
 - Very Stiff to Hard SILT/CLAY (Walton Subgroup)
 - Very Dense Silty SAND (Walton Subgroup)
 - Water Table



 Great People Practical Solutions	CLIENT: MATAMATA DEVELOPMENT LTD	DRAWN: PM	HAM2023-00124
	PROJECT: STATION ROAD, MATAMATA	CHECKED: RT	DRAWING: 08
	TITLE: WESTERN BLOCK CROSS SECTION	REVISION: 0	SCALE: 1:3,200
		DATE: 5/07/2024	SHEET: A3 L



NOTES:

1. PROPOSED DEVELOPMENT OUTLINE BASED ON MAVEN DRAWINGS SHOWN INDICATIVELY.

2. BASE PLAN COURTESY OF LINZ.

3. SOME FARM DRAINS MAY BE FILLED.

4. SETBACKS AND HATCHINGS ARE INDICATIVE ONLY.

LEGEND:

- | | | | |
|--|------------------------------|--|-------------------------------|
| | OVERALL DEVELOPMENT BOUNDARY | | WAITOA RIVER |
| | RESIDENTIAL SUBDIVISION | | INDICATIVE SLOPE SETBACK |
| | RETIREMENT VILLAGE | | TC1 FOUNDATIONS |
| | SOLAR FARM A | | TC2 FOUNDATIONS |
| | SOLAR FARM B | | TYPE C SCREW PILE FOUNDATIONS |



CLIENT:	MATAMATA DEVELOPMENT LTD		DRAWN:	PM	PROJECT:	HAM2023-0124
PROJECT:	STATION ROAD, MATAMAT		CHECKED:	HSP	DRAWING:	09
			REVISION:	1	SCALE:	NTS
TITLE:	FOUNDATION TYPES		DATE:	22/5/2025	SHEET:	A3

APPENDIX B: MAVEN ASSOCIATES DEVELOPMENT PLAN

ASHBOURNE SOLAR FARM A

FOR

MATAMATA DEVELOPMENTS LTD



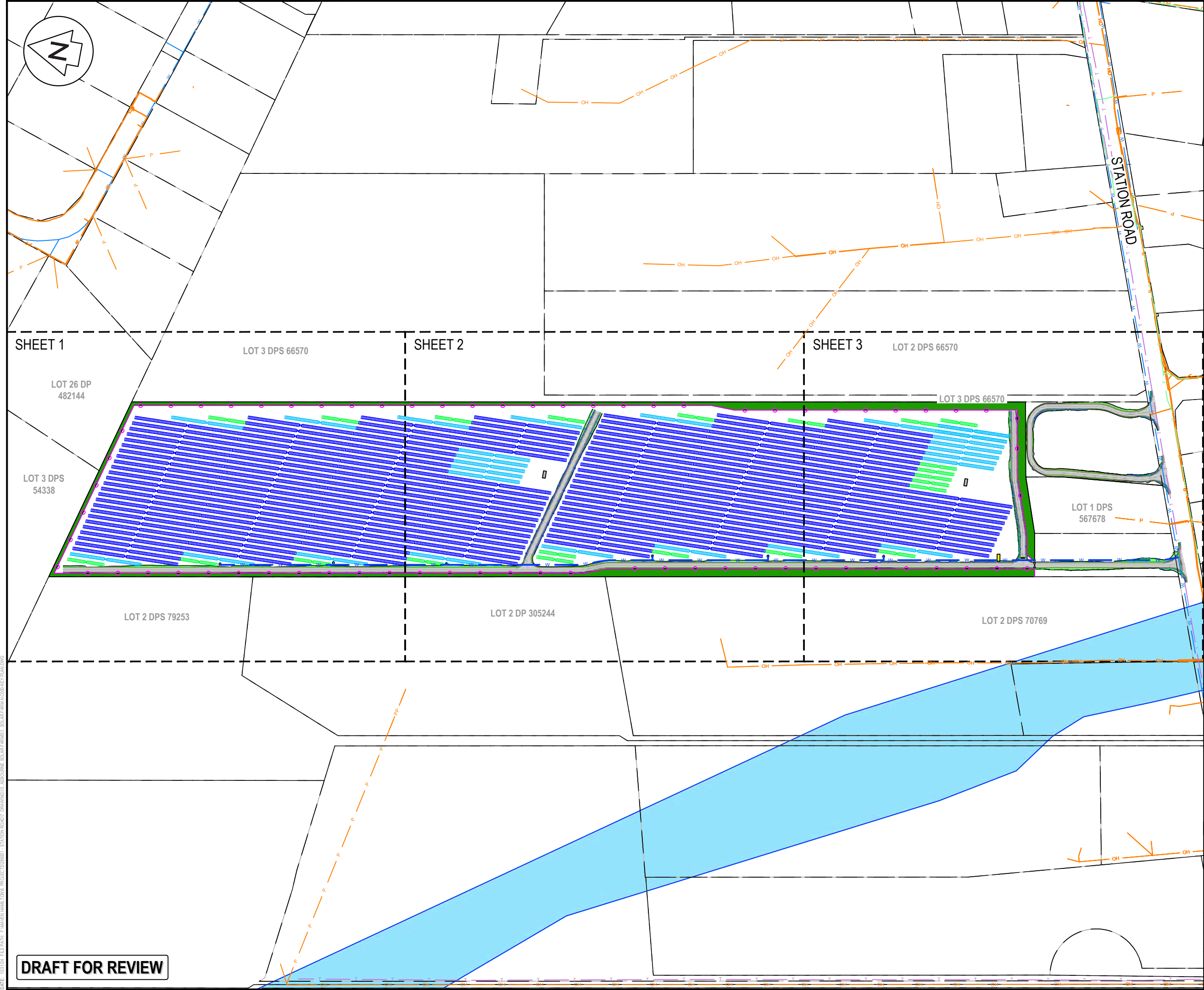
LOCALITY PLAN

SHT.NO.	SHEET TITLE	REVISION
C000	COVER SHEET & INDEX	A
C050	KEY PLAN	A
C090	EXISTING FEATURES AND REMOVAL PLAN	A
C200	EXISTING CONTOUR PLAN	A
C210	PROPOSED CONTOUR PLAN	A
C220	CUT-FILL PLAN	A
C230	SEDIMENT EROSION CONTROL PLAN	A
C240	SEDIMENT EROSION CONTROL DETAILS	A
C300	ROADING LAYOUT PLAN	A
C320	ROADING LONGSECTION PLAN	A
C340	ROADING TYPICAL CROSS SECTION	A
C380	ROADING DETAILS	A
C480	STORM WATER DETAILS	A
C700	SERVICES LAYOUT PLAN	A
C710	SERVICES DETAILS	A

PROJECT NUMBER :289001

ISSUED DATE : NOVEMBER 2024

ISSUE FOR : RESOURCE CONSENT



- LEGEND
- 100YR INDICATIVE FLOODING EXTENTS
 - POWER TRANSFORMER
 - 78 x SOLAR PANEL STRING
 - 52 x SOLAR PANEL STRING
 - 26 x SOLAR PANEL STRING
 - T EX TELECOM
 - P EX POWER
 - GAS EX GAS
 - F EX FIBRE
 - W EX WATERMAIN

Rev	A	DRAFT	AJP	10/2024
By	MAVEN	Date	05/2024	
Design	TCH	10/2024		
Drawn	TCH	10/2024		
Checked	DJM	10/2024		

M Maven Waikato
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www.maven.co.nz
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New Zealand

Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
KEY PLAN

Project no.	289001
Scale	1:3000 @ A3
Cad file	C050-KEY PLAN.DWG
Drawing no.	C050
Rev	A

DRAFT FOR REVIEW

DATE: 10/1/24 FILE PATH: F:\Maven\Hamilton\06 PROJECTS\08001 - STATION ROAD\7 DRAWING\01 ASHBORNE SOLAR FARM\01 EX-FEATURES & REMOVAL PLAN.DWG



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
5. ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877 PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND

- EX BDY
- PR BDY
- PR WORK EXTENTS
- EX MAJOR CONTOUR
- EX MINOR CONTOUR
- EX WATER COURSE
- EX FENCE TO BE REMOVED
- EX FARM DRAIN
- EX GATE
- EX VEGETATION TO BE REMOVED
- EX TROUGH TO BE REMOVED

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

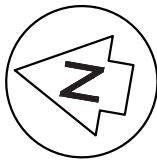
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

Title
**EXISTING FEATURES
& REMOVAL
KEY PLAN**

Project no.	289001		
Scale	1:3000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090	Rev	A

DRAFT FOR REVIEW



DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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 6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND			
	EX BDY		
	PR BDY		
	PR WORK EXTENTS		
	EX MAJOR CONTOUR		
	EX MINOR CONTOUR		
	EX WATER COURSE		
	EX FENCE TO BE REMOVED		
	EX FARM DRAIN		
	EX GATE		
	EX VEGETATION TO BE REMOVED		
	EX TROUGH TO BE REMOVED		

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

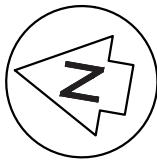


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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

Title
**EXISTING FEATURES
& REMOVAL
PLAN SHEET 1 OF 3**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090-1	Rev	A



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 5. ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877 PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
 6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND	
	EX BDY
	PR BDY
	PR WORK EXTENTS
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER COURSE
	EX FENCE TO BE REMOVED
	EX FARM DRAIN
	EX GATE
	EX VEGETATION TO BE REMOVED
	EX TROUGH TO BE REMOVED

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

Title
**EXISTING FEATURES
& REMOVAL
PLAN SHEET 2 OF 3**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090-2	Rev	A

DRAFT FOR REVIEW

DATE: 10/11/24 FILE PATH: F:\MVEN\HAMILTON6 PROJECTS\289001 - STATION ROAD\7 DRAWING\01 ASHBOURNE SOLAR FARM\AC09-EX-FEATURES & REMOVAL PLAN.DWG



LOT 2 DPS 66570

LOT 3 DPS 66570

STATION ROAD

EXISTING HEDGELINE
TO BE REMOVED

EX-HOUSE

LOT 1 DPS 567678

LOT 2 DPS 70769

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 5. ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877 PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
 6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND	
	EX BDY
	PR BDY
	PR WORK EXTENTS
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER COURSE
	EX FENCE TO BE REMOVED
	EX FARM DRAIN
	EX GATE
	EX VEGETATION TO BE REMOVED
	EX TROUGH TO BE REMOVED

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024



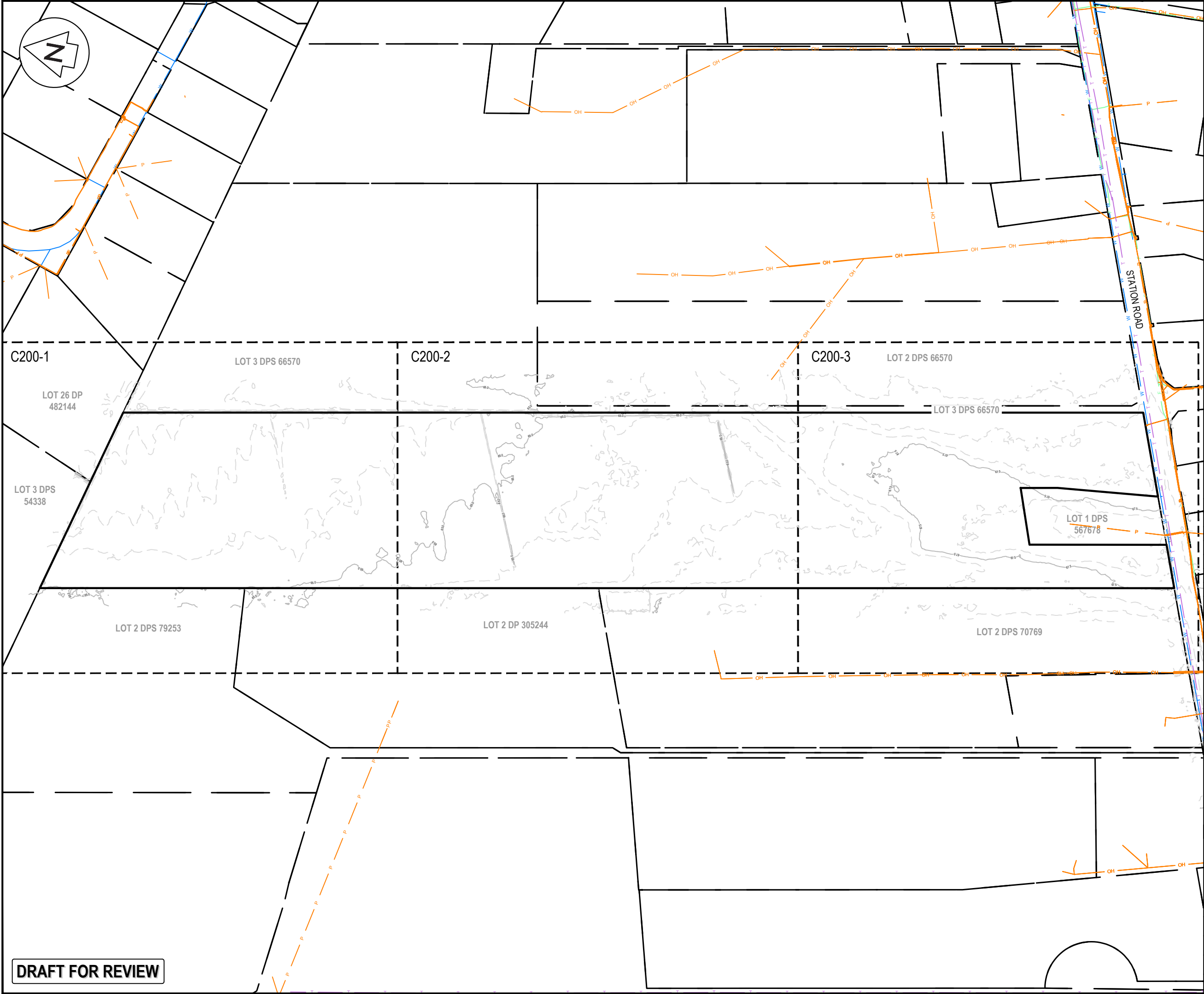
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

Title
**EXISTING FEATURES
& REMOVAL
PLAN SHEET 3 OF 3**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090-3	Rev	A

DRAFT FOR REVIEW

DATE: 10/10/24 FILEPATH: F:\MAMEN\HAMITON6 PROJECTS\88001 - STATION ROAD\DRAWING\01 ASHBORNE SOLAR FARM\SI SOLAR FARM\C200-EX-EW.DWG



NOTES

1. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
2. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877
PUBLISHED RL=65.51, SOURCED FROM THE LINZ
DIGITAL GEODETIC DATABASE.
3. EXISTING CONTOURS ARE AT 0.5m INTERVALS.
4. EXISTING SERVICES SHOWN ARE FROM B4UDIG.

LEGEND

	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX TELECOM
	EX POWER
	EX FIBRE
	EX WATERMAIN

Rev	Description	By	Date
A	DRAFT	AJP	10/2024
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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Project

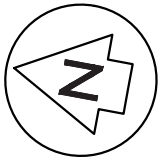
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**EXISTING
CONTOURS
KEY PLAN**

Project no.	298001		
Scale	1:3000 @ A3		
Cad file	C200-EX-EW.DWG		
Drawing no.	C200	Rev	A

DRAFT FOR REVIEW



LOT 26 DP 482144

LOT 3 DPS 66570

LOT 3 DPS 54338

LOT 2 DPS 79253

LOT 2 DPS 70769

- NOTES
1. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 2. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877
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LEGEND		
	EX BDY	
	PROP BDY	
	EX MAJOR CONTOUR	
	EX MINOR CONTOUR	
	T	EX TELECOM
	P	EX POWER
	F	EX FIBRE
	W	EX WATERMAIN

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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Project

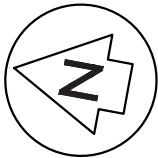
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**EXISTING
CONTOURS
PLAN SHEET 1 OF 3**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C200-EX-EW.DWG		
Drawing no.	C200-1	Rev	A

DRAFT FOR REVIEW



LOT 3 DPS 66570

LOT 2 DPS 66570

LOT 3 DPS 66570

LOT 2 DP 305244

LOT 2 DPS 70769

- NOTES
1. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 2. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877
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LEGEND		
	EX BDY	
	PROP BDY	
	EX MAJOR CONTOUR	
	EX MINOR CONTOUR	
	EX TELECOM	
	EX POWER	
	EX FIBRE	
	EX WATERMAIN	

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

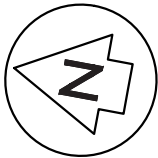
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**EXISTING
CONTOURS
PLAN SHEET 2 OF 3**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C200-EX-EW.DWG		
Drawing no.	C200-2	Rev	A

DRAFT FOR REVIEW



LOT 2 DPS 66570

LOT 3 DPS 66570

LOT 1 DPS 567678

LOT 2 DPS 70769

STATION ROAD

- NOTES
1. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 2. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877
PUBLISHED RL=65.51, SOURCED FROM THE LINZ
DIGITAL GEODETIC DATABASE.
 3. EXISTING CONTOURS ARE AT 0.5m INTERVALS.
 4. EXISTING SERVICES SHOWN ARE FROM B4UDIG.

- LEGEND
- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - EX WATERMAIN

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

M

MAVEN

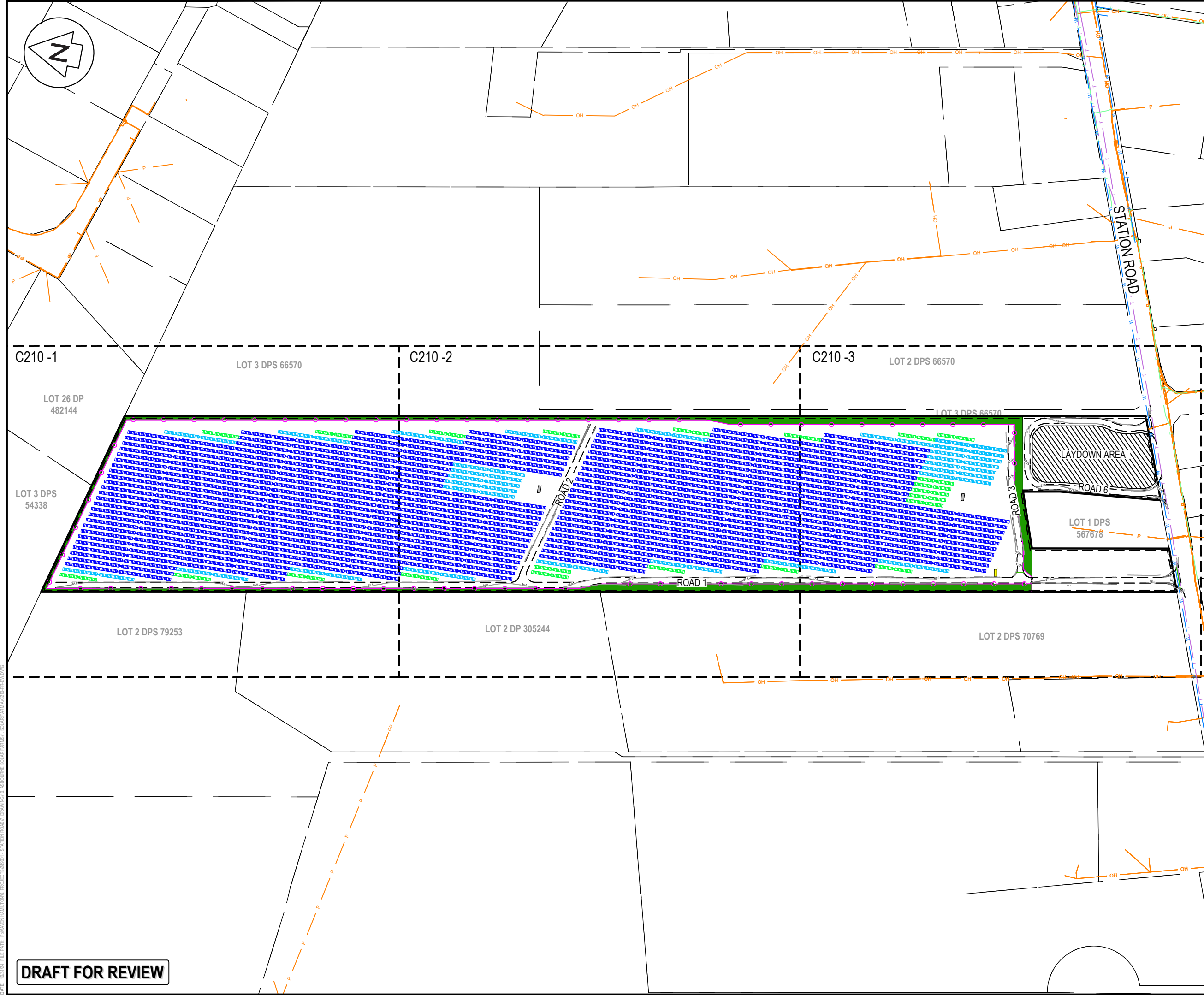
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**EXISTING
CONTOURS
PLAN SHEET 3 OF 3**

Project no.	298001
Scale	1:1000 @ A3
Cad file	C200-EX-EW.DWG
Drawing no.	C200-3
Rev	A

DRAFT FOR REVIEW



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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 7. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.

LEGEND

	EX BDY
	PROP BDY
	PROP ROAD EXTENTS
	PR MAJOR CONTOUR
	PR MINOR CONTOUR
	PROP EXTENT WORK
	PROP LAYDOWN AREA
	100YR INDICATIVE FLOODING EXTENTS
	POWER TRANSFORMER
	78 x SOLAR PANEL STRING
	52 x SOLAR PANEL STRING
	26 x SOLAR PANEL STRING
	EX TELECOM
	EX POWER
	EX GAS
	EX FIBRE
	EX WATERMAIN

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
	Survey	MAVEN	05/2024
	Design	TCH	10/2024
	Drawn	TCH	10/2024
	Checked	DJM	10/2024

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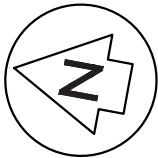
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CONTOURS
KEY PLAN**

Project no.	298001		
Scale	1:3000 @ A3		
Cad file	C210-PR-EW.DWG		
Drawing no.	C210	Rev	A

DRAFT FOR REVIEW

DATE: 10/1/24 FILEPATH: F:\Maven\Hamilton\06 - PROJECTS\298001 - STATION ROAD\7 DRAWING\01 - ASHBOURNE SOLAR FARM\01 - SOLAR FARM\AC210-PR-EW.DWG



LOT 3 DPS 66570

LOT 26 DP 482144

LOT 3 DPS 54338

LOT 2 DPS 79253

LOT 2 DPS 70769

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

- EX BDY
PROP BDY
PROP ROAD EXTENTS
PR MAJOR CONTOUR
PR MINOR CONTOUR
PROP EXTENT WORK
PROP LAYDOWN AREA
100YR INDICATIVE FLOODING EXTENTS
POWER TRANSFORMER
78 x SOLAR PANEL STRING
52 x SOLAR PANEL STRING
26 x SOLAR PANEL STRING
T EX TELECOM
P EX POWER
GAS EX GAS
F EX FIBRE
W EX WATERMAIN

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

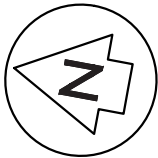
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CONTOURS
PLAN SHEET 1 OF 3**

Project no.	298001
Scale	1:1000 @ A3
Cad file	C210-PR-EW.DWG
Drawing no.	C210-1
Rev	A

DRAFT FOR REVIEW



LOT 3 DPS 66570

LOT 2 DPS 66570

LOT 3 DPS 66570



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

	EX BDY
	PROP BDY
	PROP ROAD EXTENTS
	PR MAJOR CONTOUR
	PR MINOR CONTOUR
	PROP EXTENT WORK
	PROP LAYDOWN AREA
	100YR INDICATIVE FLOODING EXTENTS
	POWER TRANSFORMER
	78 x SOLAR PANEL STRING
	52 x SOLAR PANEL STRING
	26 x SOLAR PANEL STRING
	EX TELECOM
	EX POWER
	EX GAS
	EX FIBRE
	EX WATERMAIN

A		DRAFT	AJP	10/2024
Rev	Description	By	Date	
		MAVEN	05/2024	
Survey	TCH		10/2024	
Design	TCH		10/2024	
Drawn	DJM		10/2024	
Checked				

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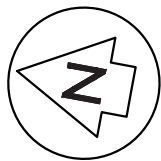
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CONTOURS
PLAN SHEET 2 OF 3**

Project no.	298001			
Scale	1:1000 @ A3			
Cad file	C210-PR-EW.DWG			
Drawing no.	C210-2	Rev	A	

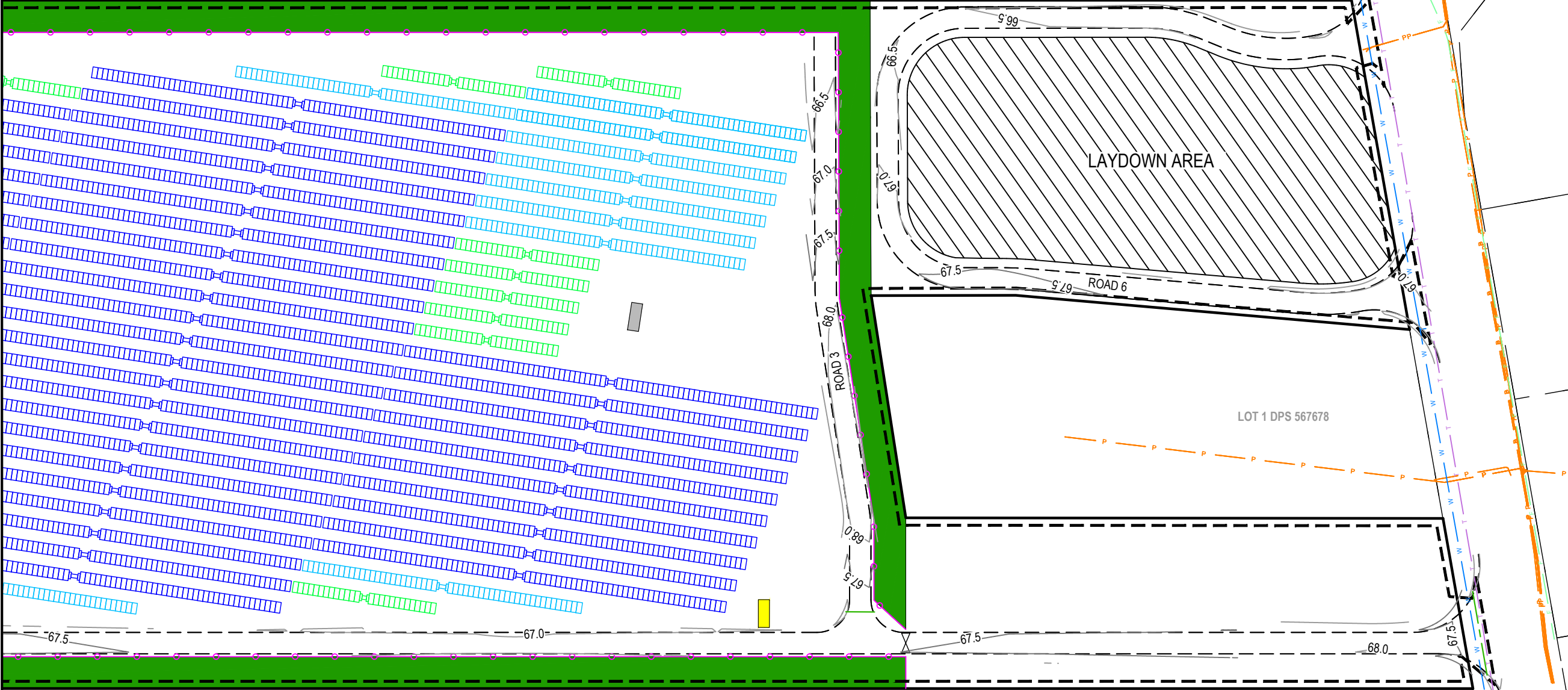
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DATE: 10/1/24 FILEPATH: F:\MVEN\HAMILTON6 - PROJECTS\298001 - STATION ROAD\ DRAWING\10. ASHBOURNE SOLAR FARM\298001-PR-EW.DWG



LOT 2 DPS 66570

LOT 3 DPS 66570



LOT 1 DPS 567678

LOT 2 DPS 70769

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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LEGEND

	EX BDY
	PROP BDY
	PROP ROAD EXTENTS
	PR MAJOR CONTOUR
	PR MINOR CONTOUR
	PROP EXTENT WORK
	PROP LAYDOWN AREA
	100YR INDICATIVE FLOODING EXTENTS
	POWER TRANSFORMER
	78 x SOLAR PANEL STRING
	52 x SOLAR PANEL STRING
	26 x SOLAR PANEL STRING
	EX TELECOM
	EX POWER
	EX GAS
	EX FIBRE
	EX WATERMAIN

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

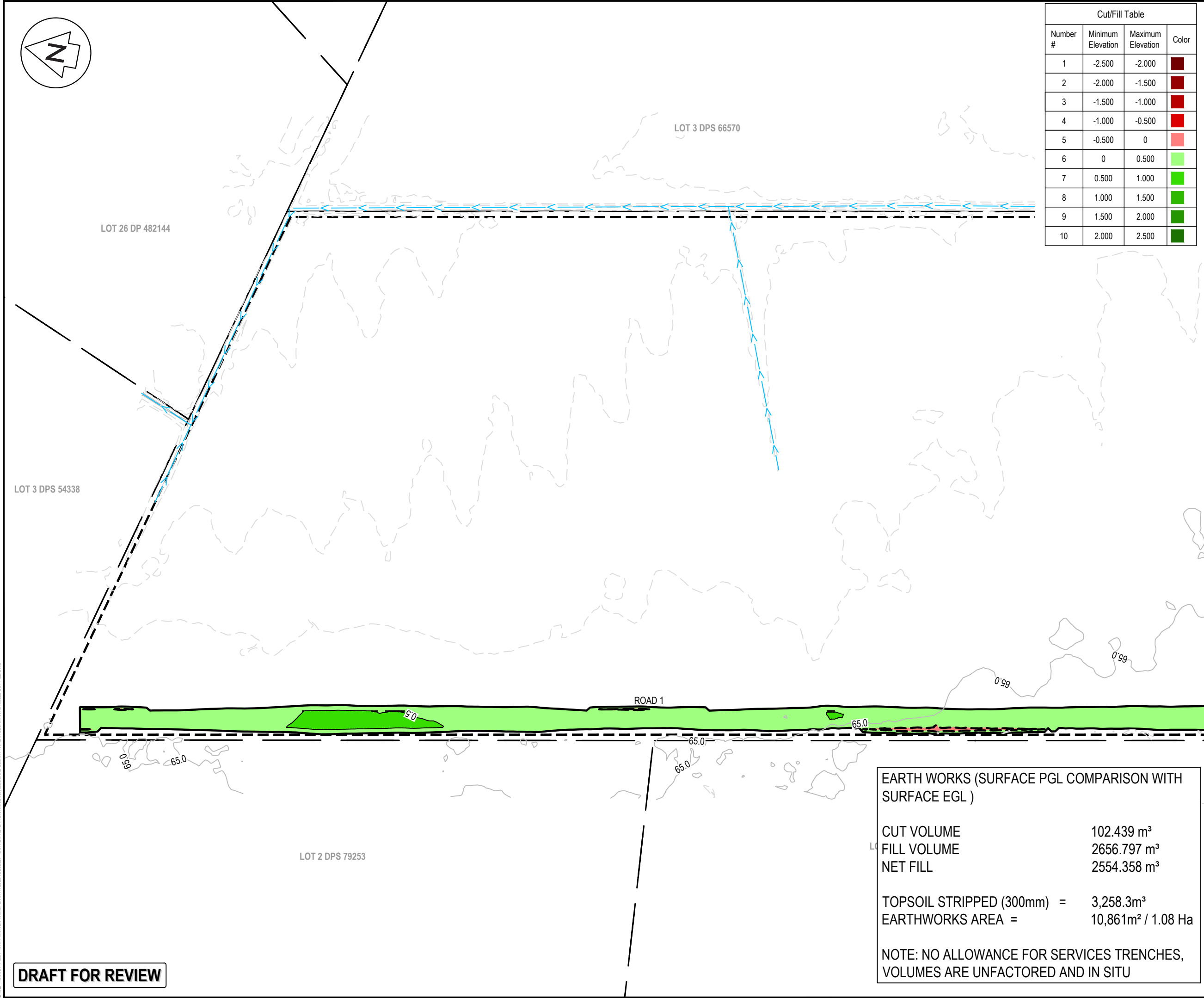
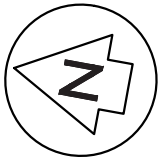
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CONTOURS
PLAN SHEET 3 OF 3**

Project no.	298001
Scale	1:1000 @ A3
Cad file	C210-PR-EW.DWG
Drawing no.	C210-3
Rev	A

DRAFT FOR REVIEW



Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
1	-2.500	-2.000	
2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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 6. EXISTING SERVICES ARE FROM BAUDIG AND THEY ARE INDICATIVE ONLY, CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 7. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 8. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
 9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.

- LEGEND
- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PROP EXTENT WORK
 - EX-WATER COURSE
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - EX WATERMAIN

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024



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Project			
ASHBOURNE SOLAR FARM A FOR MATAMATA DEVELOPMENTS LTD			
Title			
PROPOSED CUT/FILL PLAN SHEET 1 OF 3			
Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C220-CUT-FILL.DWG		
Drawing no.	C220-1	Rev	A

EARTH WORKS (SURFACE PGL COMPARISON WITH SURFACE EGL)

CUT VOLUME

FILL VOLUME

NET FILL

102.439 m³

2656.797 m³

2554.358 m³

TOPSOIL STRIPPED (300mm) =

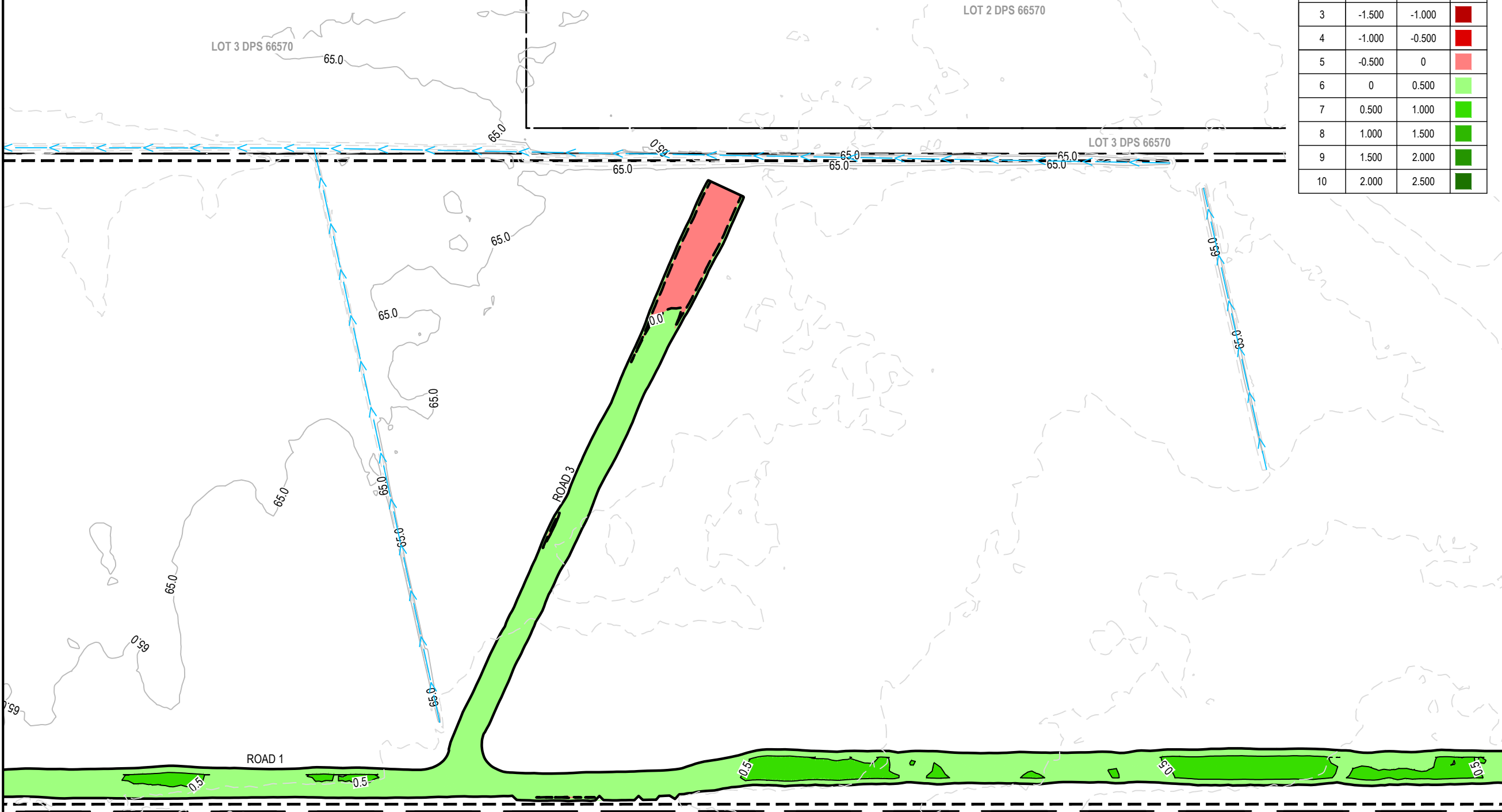
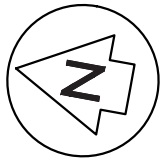
EARTHWORKS AREA =

3,258.3m³

10,861m² / 1.08 Ha

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES, VOLUMES ARE UNFACTORED AND IN SITU

DRAFT FOR REVIEW



Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
1	-2.500	-2.000	
2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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 8. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
 9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.

LEGEND			
	EX BDY		
	PROP BDY		
	EX MAJOR CONTOUR		
	EX MINOR CONTOUR		
	PROP EXTENT WORK		
	EX-WATER COURSE		
	EX TELECOM		
	EX POWER		
	EX FIBRE		
	EX WATERMAIN		

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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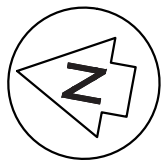
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CUT/FILL
PLAN SHEET 2 OF 3**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C220-CUT-FILL.DWG
Drawing no.	C220-2
Rev	A

EARTH WORKS (SURFACE PGL COMPARISON WITH SURFACE EGL)	
CUT VOLUME	102.439 m³
FILL VOLUME	2656.797 m³
NET FILL	2554.358 m³
TOPSOIL STRIPPED (300mm) =	3,258.3m³
EARTHWORKS AREA =	10,861m² / 1.08 Ha
NOTE: NO ALLOWANCE FOR SERVICES TRENCHES, VOLUMES ARE UNFACTORED AND IN SITU	

DRAFT FOR REVIEW



LOT 2 DPS 66570

LOT 3 DPS 66570

LAYDOWN AREA

STATION ROAD

LOT 1 DPS 567678

LOT 2 DPS 70769

ROAD 3

ROAD 6

ROAD 1

Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
1	-2.500	-2.000	
2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

EARTH WORKS (SURFACE PGL COMPARISON WITH SURFACE EGL)

CUT VOLUME 102.439 m³
FILL VOLUME 2656.797 m³
NET FILL 2554.358 m³

TOPSOIL STRIPPED (300mm) = 3,258.3m³
EARTHWORKS AREA = 10,861m² / 1.08 Ha

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES, VOLUMES ARE UNFACTORED AND IN SITU

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 5. ORIGIN OF LEVELS = BENCHMARK IT 1 DPS 29877 PUBLISHED RL = 65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
 6. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY, CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 7. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 8. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
 9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.

LEGEND	
	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	PROP EXTENT WORK
	EX-WATER COURSE
	EX TELECOM
	EX POWER
	EX FIBRE
	EX WATERMAIN

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024



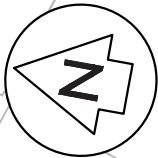
Maven Waikato
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Level 1 286 Victoria Street, Hamilton
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CUT/FILL
PLAN SHEET 3 OF 3**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C220-CUT-FILL.DWG
Drawing no.	C220-3
Rev	A

DRAFT FOR REVIEW



C230-1

LOT 3 DPS 66570

C230-2

C230-3

LOT 2 DPS 66570

LOT 26 DP
482144

LOT 3 DPS
54338

LOT 3 DPS 66570

LOT 2 DPS 79253

LOT 2 DP 305244

LOT 2 DPS 70769

STATION ROAD

ROAD 2

ROAD 1

ROAD 6

ROAD 3

LOT 1 DPS
567678

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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 9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.
 10. REFER TO C240 SERIES DRAWINGS FOR SEDIMENT AND EROSION CONTROL STANDARD DETAILS.

- LEGEND
- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR
 - PROP EXTENT WORK
 - PROP CLEANWATER
 - PROP DIRTYWATER
 - PROP SILT FENCE
 - PROP STOCKPILE
 - PROP DECANT
 - PROP DECANT BAR

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

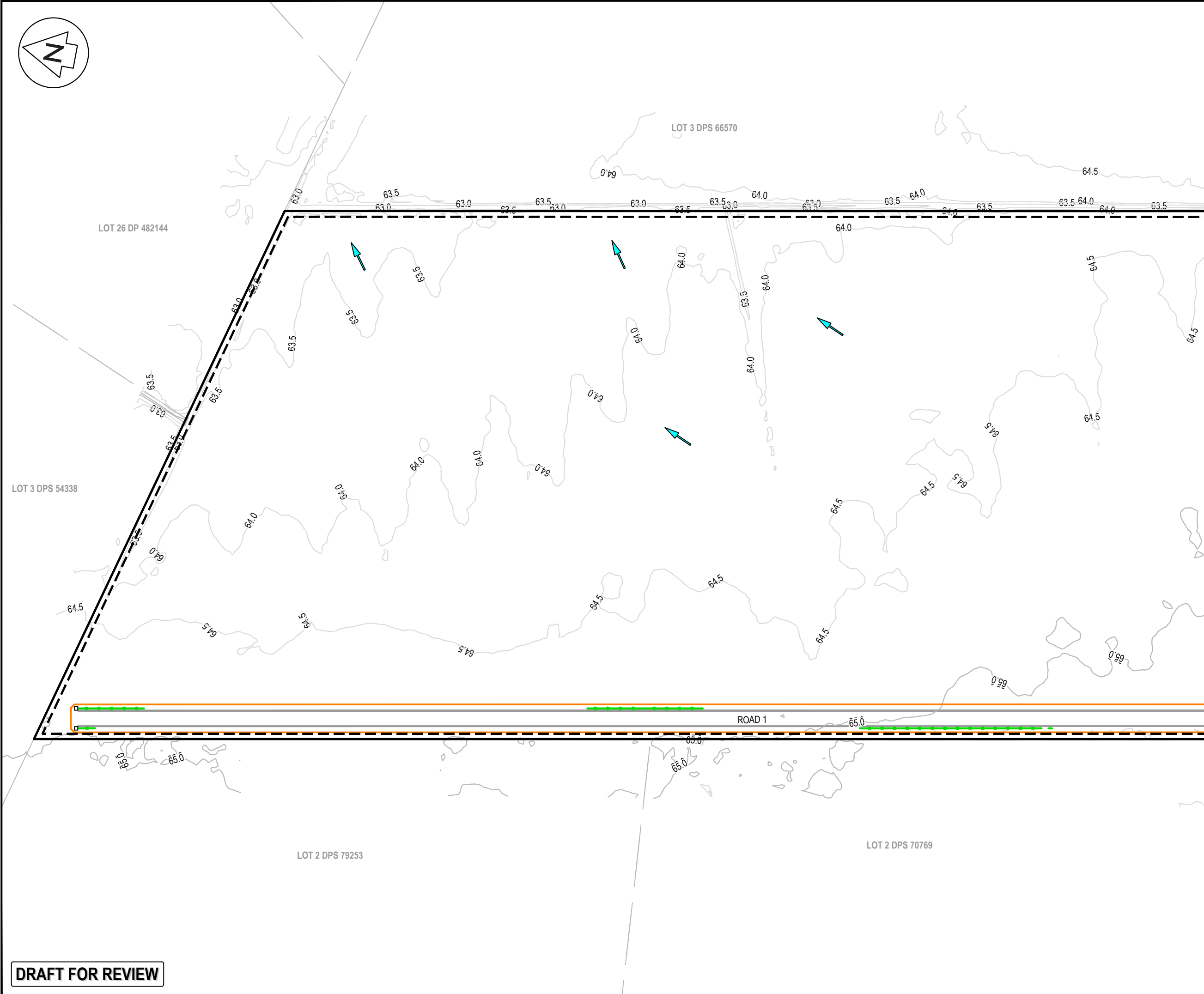
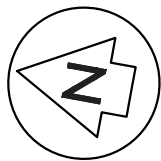
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SEDIMENT AND EROSION
CONTROL KEY PLAN**

Project no.	289001		
Scale	1:3000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230	Rev	A

DRAFT FOR REVIEW



DRAFT FOR REVIEW

NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.

2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.

3. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.

4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.

5. ORIGIN OF LEVELS = BENCHMARK IT 1 DPS 29877 PUBLISHED RL = 65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.

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9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.

10. REFER TO C240 SERIES DRAWINGS FOR SEDIMENT AND EROSION CONTROL STANDARD DETAILS.

LEGEND

EX BDY

PROP BDY

EX MAJOR CONTOUR

EX MINOR CONTOUR

PR MAJOR CONTOUR

PR MINOR CONTOUR

PROP EXTENT WORK

PROP CLEANWATER

PROP DIRTYWATER

PROP SILT FENCE

PROP STOCKPILE

PROP DECANT

PROP DECANT BAR

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

M

MAVEN

Maven Waikato

07 242 0601

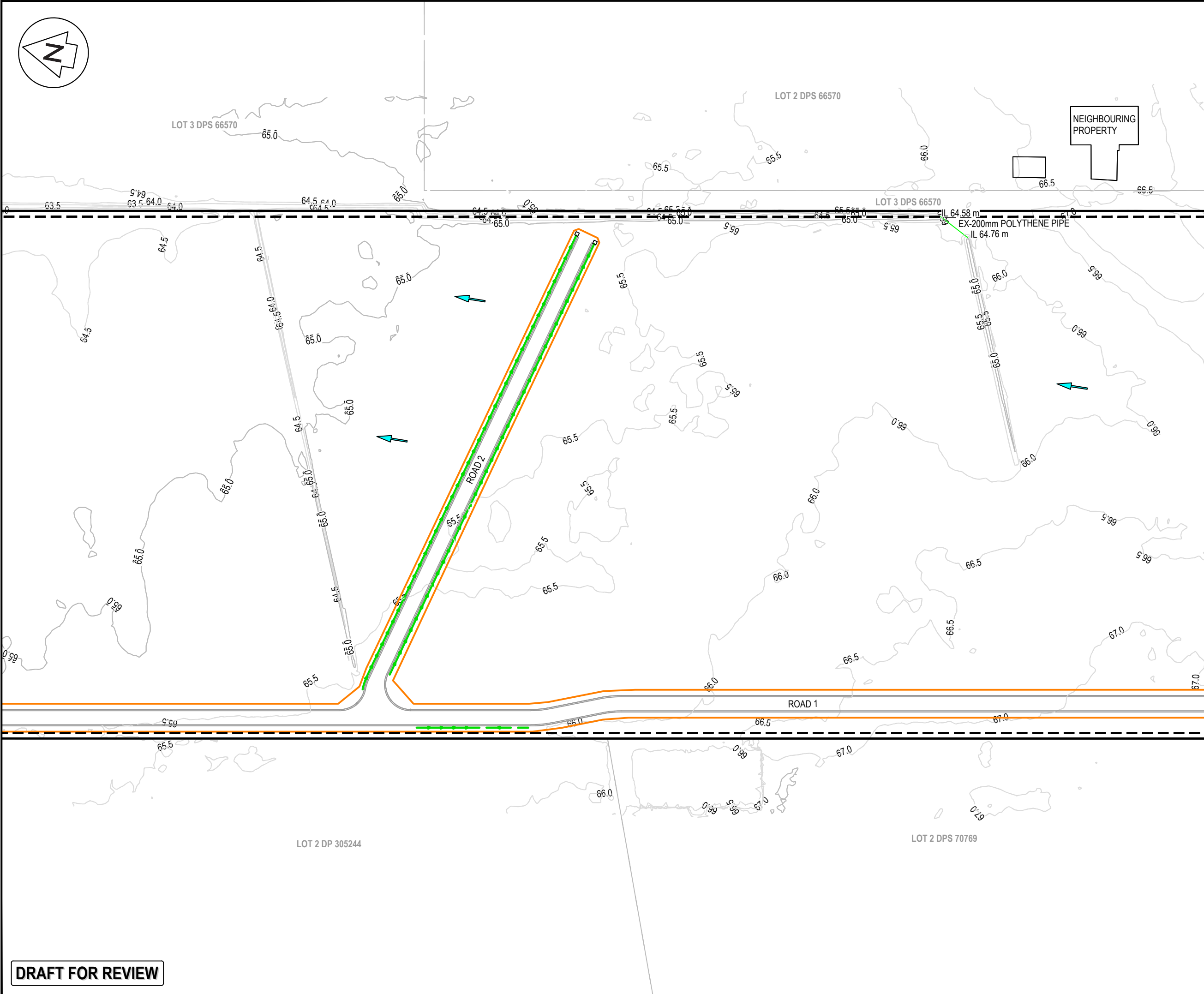
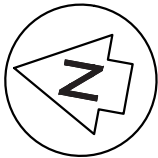
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New Zealand

Project			
ASHBOURNE SOLAR FARM A FOR MATAMATA DEVELOPMENTS LTD			
Title			
PROPOSED SEDIMENT AND EROSION CONTROL PLAN SHEET 1 OF 3			
Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230-1	Rev	A



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	PR MAJOR CONTOUR
	PR MINOR CONTOUR
	PROP EXTENT WORK
	PROP CLEANWATER
	PROP DIRTYWATER
	PROP SILT FENCE
	PROP STOCKPILE
	PROP DECANT
	PROP DECANT BAR

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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Project

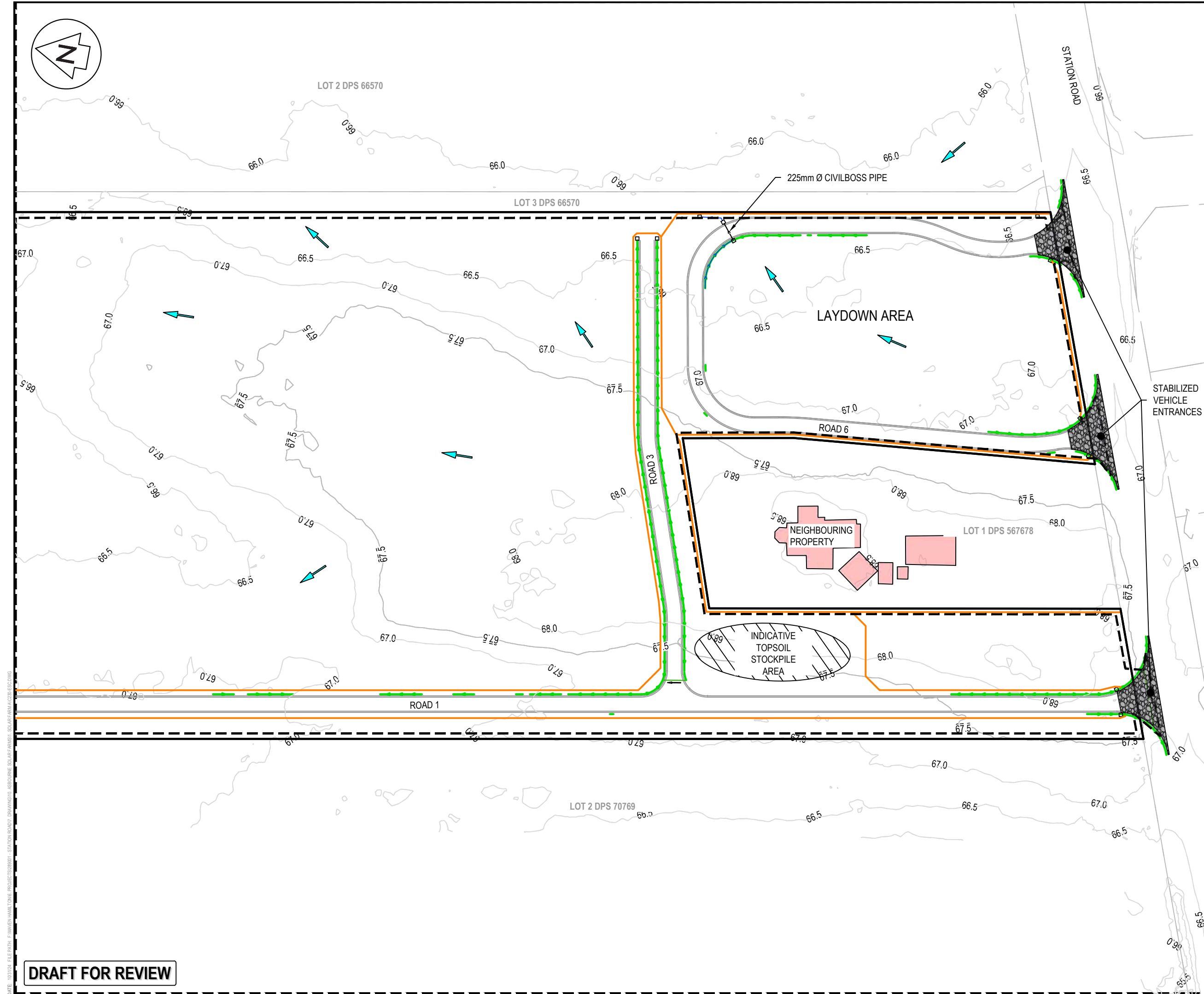
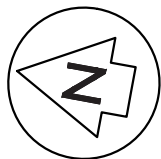
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**PROPOSED SEDIMENT
AND EROSION CONTROL
PLAN SHEET 2 OF 3**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230-2	Rev	A

DRAFT FOR REVIEW



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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LEGEND

	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	PR MAJOR CONTOUR
	PR MINOR CONTOUR
	PROP EXTENT WORK
	PROP CLEANWATER
	PROP DIRTYWATER
	PROP SILT FENCE
	PROP STOCKPILE
	PROP DECANT
	PROP DECANT BAR

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024



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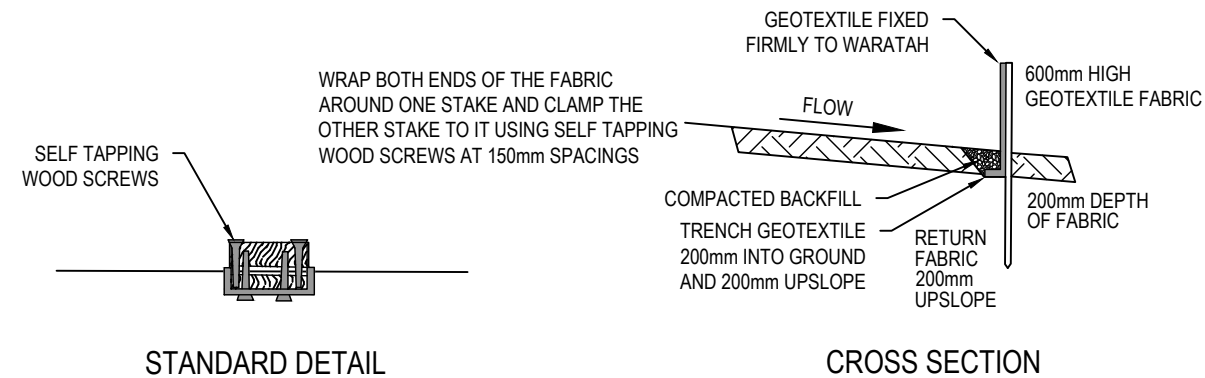
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED SEDIMENT
AND EROSION CONTROL
PLAN SHEET 3 OF 3**

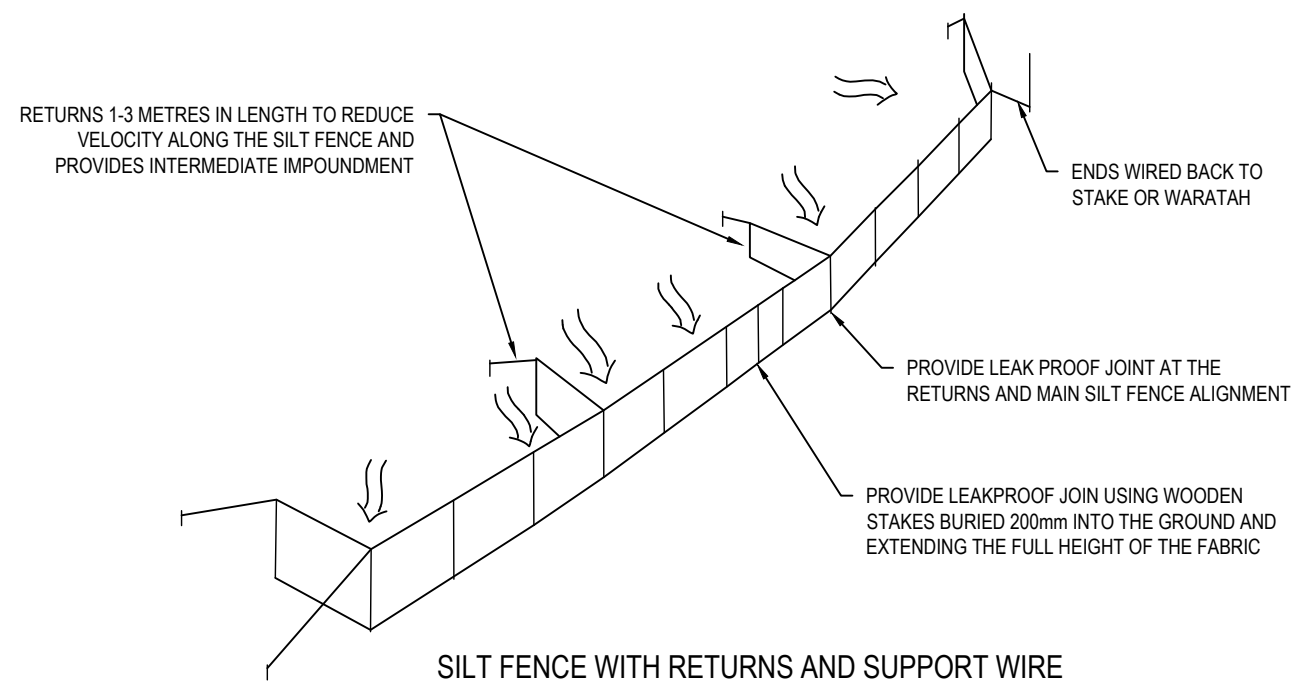
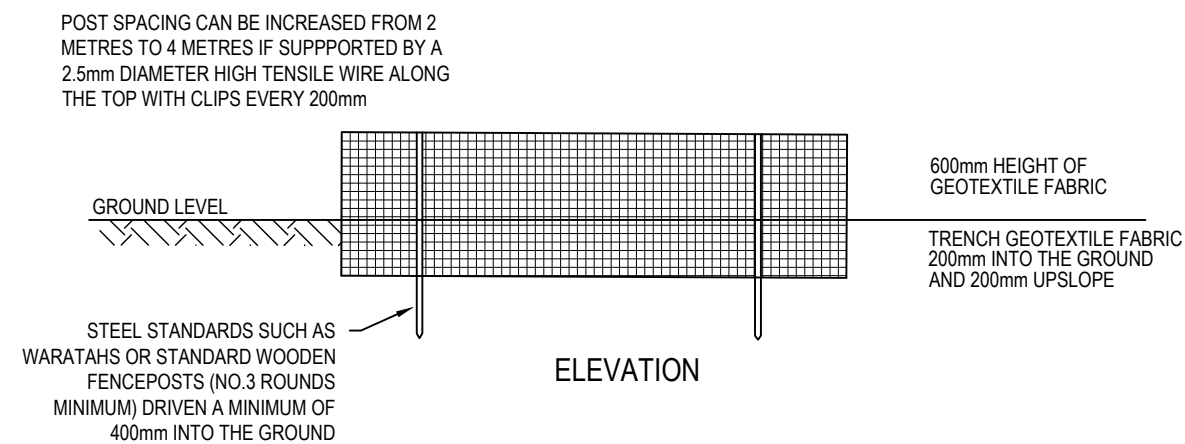
Project no.	289001
Scale	1:1000 @ A3
Cad file	C230-ESC.DWG
Drawing no.	C230-3
Rev	A

DRAFT FOR REVIEW

DATE: 10/12/24 FILEPATH: F:\MVEN\HAMILTON\6. PROJECTS\289001 - STATION ROAD\DRAWING\03. ASHBOURNE SOLAR FARM\A3\230-ESC.DWG



FABRIC JOIN



DRAFT FOR REVIEW

- NOTES**
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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 5. ORIGIN OF LEVELS = BENCHMARK IT 1 DPS 29877 PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
 6. REFER TO C230 SERIES DRAWINGS FOR SEDIMENT AND EROSION CONTROL LAYOUT DRAWINGS.

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
	By	Date	
Survey			
Design			
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



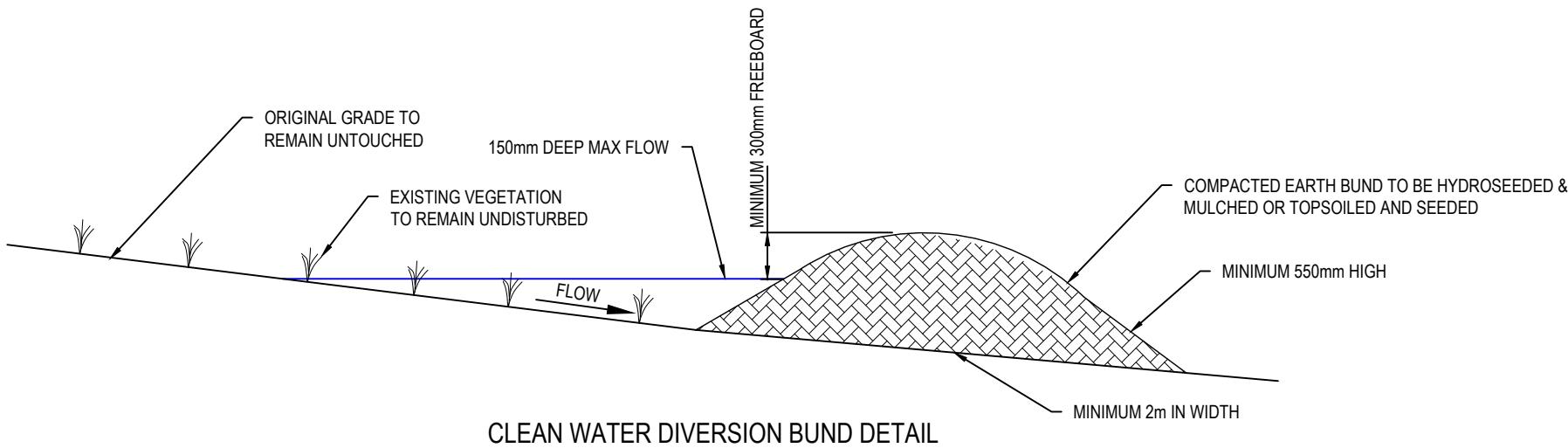
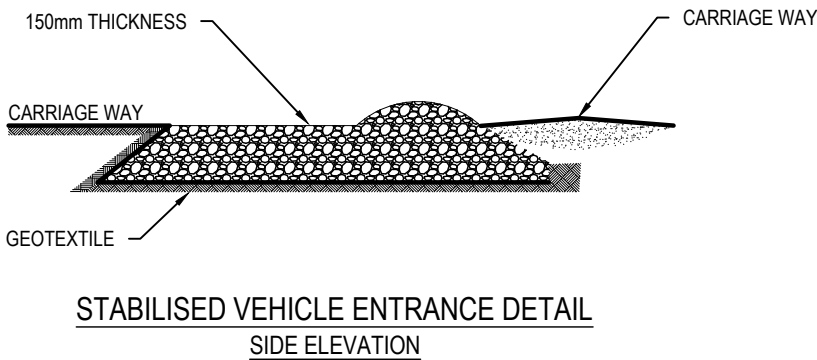
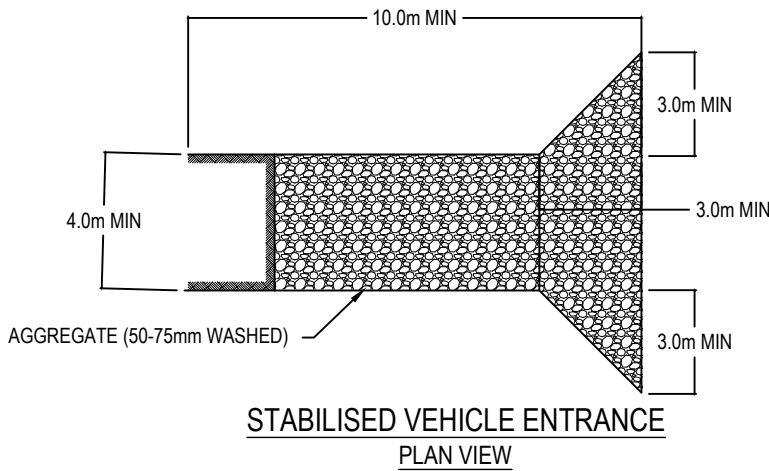
Project

**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**SEDIMENT EROSION
 CONTROL DETAILS
 SHEET 1 OF 2**

Project no.	289001		
Scale	N.T.S		
Cad file	C240-ESC DET.DWG		
Drawing no.	C240	Rev	A

DATE: 10/12/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\289001 - STATION ROAD.DWG PROJECTS\289001 - ASHBOURNE SOLAR FARM\SI - SOLAR FARM\ASB-ESC DET.DWG



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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 6. REFER TO C230 SERIES DRAWINGS FOR SEDIMENT AND EROSION CONTROL LAYOUT DRAWINGS.

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey			
Design			
Drawn	TCH		10/2024
Checked	DJM		10/2024

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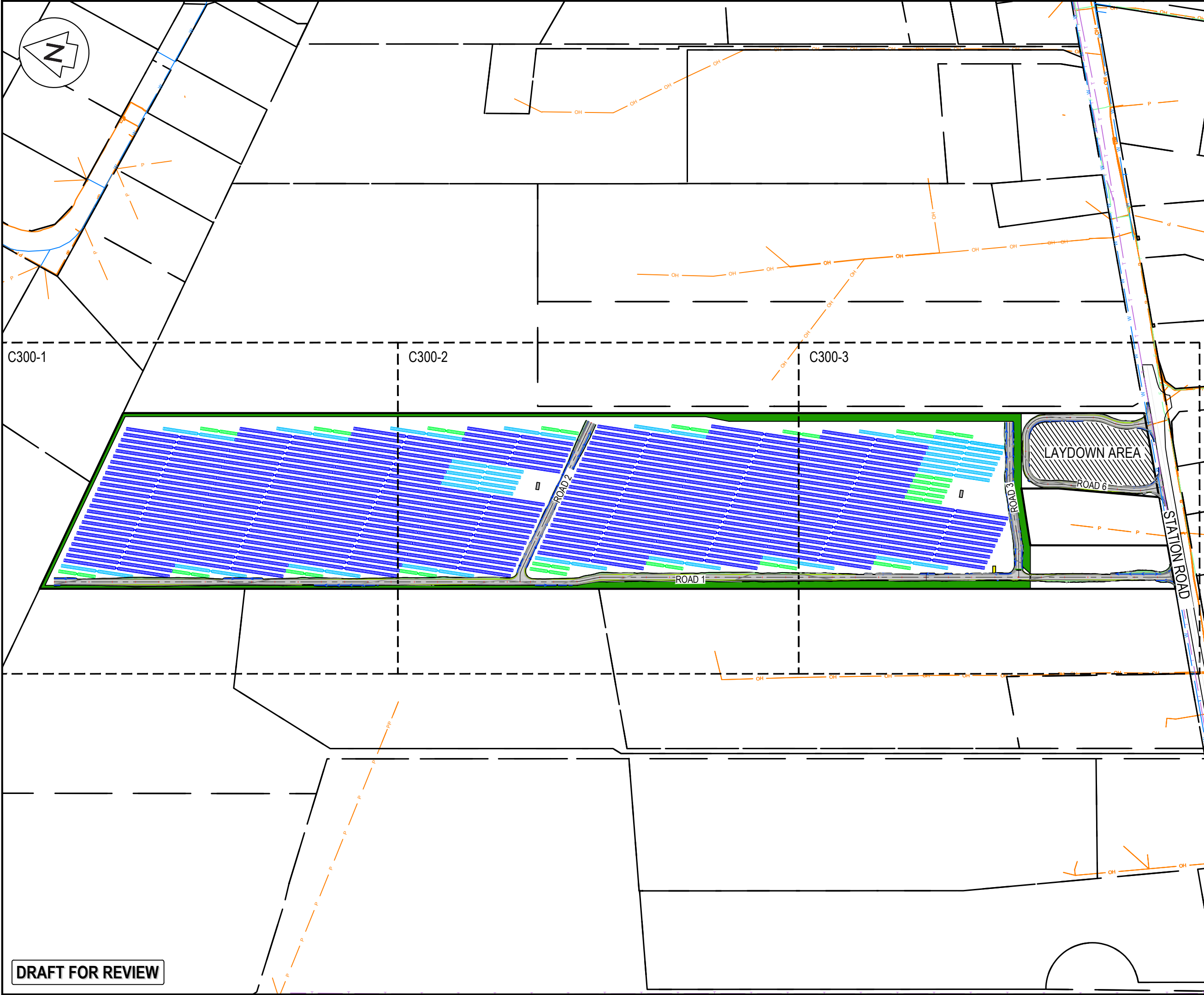
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**SEDIMENT EROSION
CONTROL DETAILS
SHEET 2 OF 2**

Project no.	289001		
Scale	N.T.S		
Cad file	C240-ESC DET.DWG		
Drawing no.	C240-1	Rev	A

DRAFT FOR REVIEW

DATE: 10/12/24 FILEPATH: F:\MVEN\HAMILTON\06 PROJECTS\088001 - STATION ROAD\7 DRAWING\01 ASHBOURNE SOLAR FARM\01 SOLAR FARM\C300-RD.DWG



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
7. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
6. REFER TO C320 SERIES DRAWINGS FOR THE ROADING LONG-SECTION DRAWINGS.
7. FINAL PAVEMENT DESIGN SUBJECT TO CBR/BEAM TESTS ON SUBGRADE MATERIAL.
8. SETOUT SCHEDULE WITH COORDINATES OF CHAINAGE POINTS ALONG ROAD CENTRELINE TO BE SUPPLIED TO THE CONTRACTOR PRIOR TO CONSTRUCTION.
9. REFER TO THE ROADING LONG-SECTIONS FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.

LEGEND

—	EX BDY
—	PROP BDY
— T —	EX TELECOM
— P —	EX POWER
— F —	EX FIBRE
■	PROP ROAD
■	PROP LANDSCAPING
—	PROP SW PIPE
—	78 x SOLAR PANEL STRING
—	52 x SOLAR PANEL STRING
—	26 x SOLAR PANEL STRING

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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Project

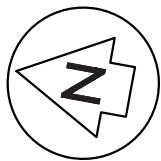
ASHBOURNE SOLAR FARM A FOR MATAMATA DEVELOPMENTS LTD

Title

PROPOSED ROADING KEY PLAN

Project no.	289001		
Scale	1:3000 @ A3		
Cad file	C300-RD.DWG		
Drawing no.	C300	Rev	A

DRAFT FOR REVIEW



LOT 3 DPS 66570

3m WIDE LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 26 DP 482144

LOT 3 DPS 54338

LOT 2 DPS 79253

LOT 2 DPS 70769

ROAD 1

4m WIDE METALED
SOUTHERN
ACCESS ROAD

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
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LEGEND

- EX BDY
- PROP BDY
- EX TELECOM
- EX POWER
- EX FIBRE
- PROP ROAD
- PROP LANDSCAPING
- PROP SW PIPE
- 78 x SOLAR PANEL STRING
- 52 x SOLAR PANEL STRING
- 26 x SOLAR PANEL STRING

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
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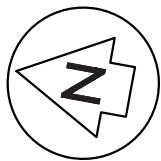
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
ROADING
PLAN SHEET 1 OF 3**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C300-RD.DWG
Drawing no.	C300-1
Rev	A

DRAFT FOR REVIEW

DATE: 10/11/24 FILEPATH: F:\MVEN\HAMILTON\PROJECTS\88001 - STATION ROAD\DRAWINGS\01 ASHBOURNE SOLAR FARM\A300-RD.DWG



LOT 3 DPS 66570

LOT 2 DPS 66570

LOT 3 DPS 66570

EX-200m PE PIPE

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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- LEGEND
- EX BDY
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 - PROP SW PIPE
 - 78 x SOLAR PANEL STRING
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A	DRAFT	AJP	10/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
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Level 1 286 Victoria Street, Hamilton
New Zealand

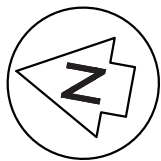
Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
ROADING
PLAN SHEET 2 OF 3**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C300-RD.DWG		
Drawing no.	C300-2	Rev	A

DRAFT FOR REVIEW

DATE: 10/12/24 FILEPATH: F:\MVEN\HAMILTON\PROJECTS\88801 - STATION ROAD\DRAWING\01 ASHBOURNE SOLAR FARM\A\C300-RD.DWG



LOT 2 DPS 66570

LOT 3 DPS 66570

LOT 1 DPS 567678

LOT 2 DPS 70769

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 5. EXISTING SERVICES ARE FROM BAUDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 7. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 6. REFER TO C320 SERIES DRAWINGS FOR THE ROADING LONG-SECTION DRAWINGS.
 7. FINAL PAVEMENT DESIGN SUBJECT TO CBR/BEAM TESTS ON SUBGRADE MATERIAL.
 8. SETOUT SCHEDULE WITH COORDINATES OF CHAINAGE POINTS ALONG ROAD CENTRELINE TO BE SUPPLIED TO THE CONTRACTOR PRIOR TO CONSTRUCTION.
 9. REFER TO THE ROADING LONG-SECTIONS FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.

LEGEND

- EX BDY
PROP BDY
EX TELECOM
EX POWER
EX FIBRE
PROP ROAD
PROP LANDSCAPING
PROP SW PIPE
78 x SOLAR PANEL STRING
52 x SOLAR PANEL STRING
26 x SOLAR PANEL STRING

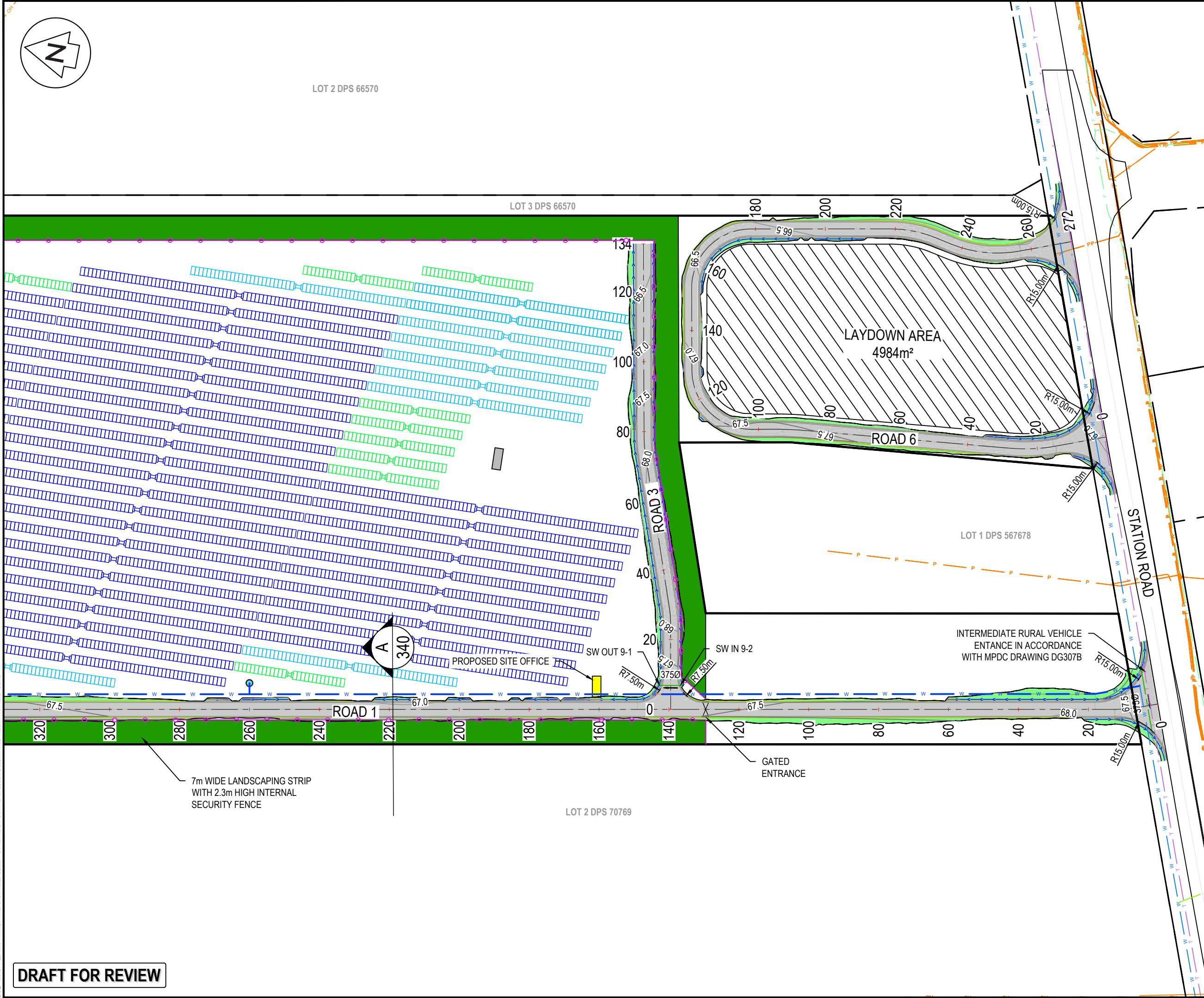
A	DRAFT	AJP	10/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

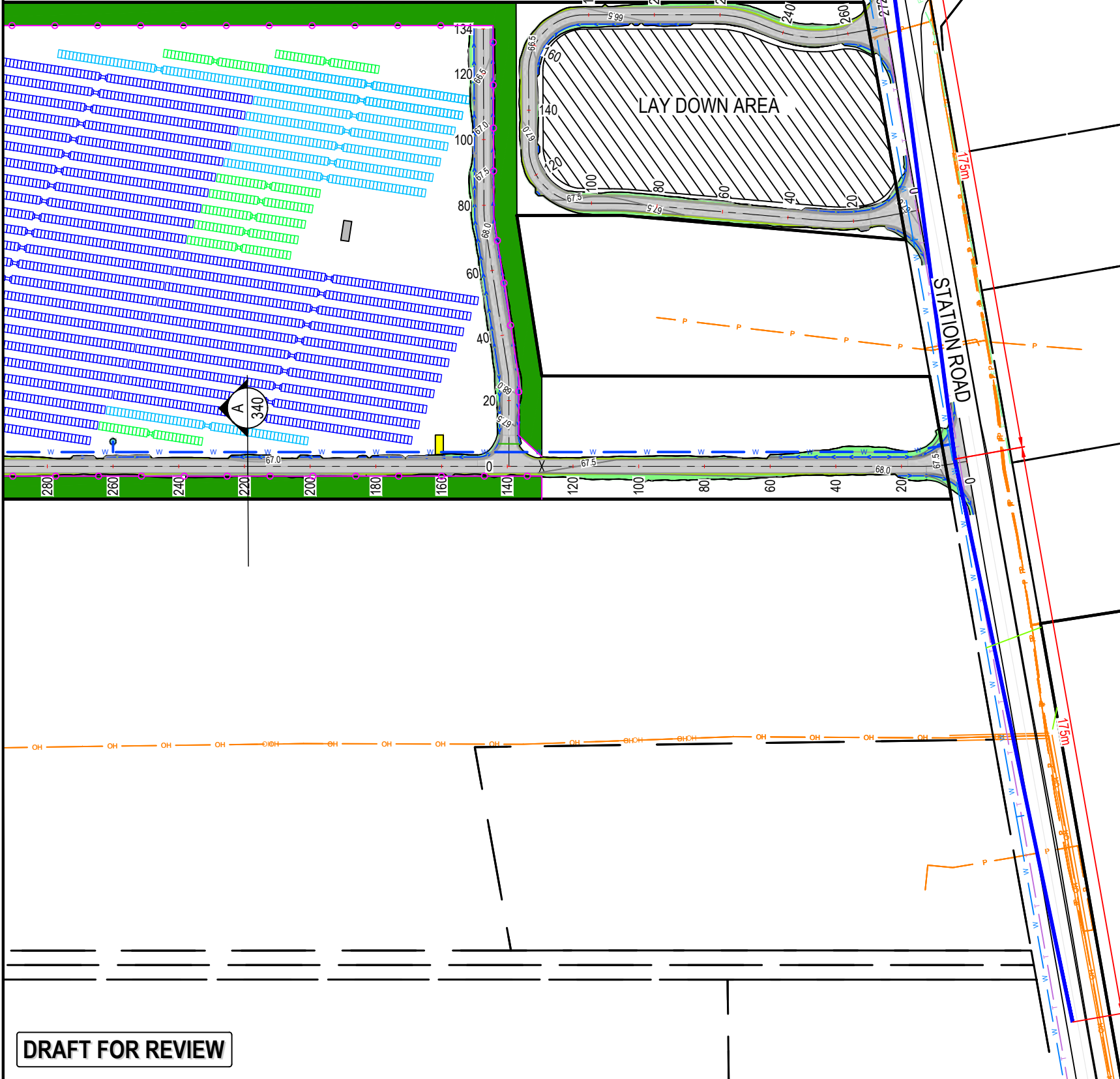
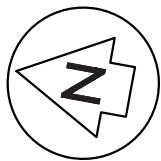
Title
**PROPOSED
ROADING
PLAN SHEET 3 OF 3**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C300-RD.DWG
Drawing no.	C300-3
Rev	A



DRAFT FOR REVIEW

DATE: 10/12/24 FILEPATH: F:\Maven\Hamilton\06 PROJECTS\289001 - STATION ROAD\7 DRAWINGS\01 ASHBOURNE SOLAR FARM\A3-RD.DWG



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 5. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 7. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 6. REFER TO C320 SERIES DRAWINGS FOR THE ROADING LONG-SECTION DRAWINGS.
 7. FINAL PAVEMENT DESIGN SUBJECT TO CBR/BEM TESTS ON SUBGRADE MATERIAL.
 8. SETOUT SCHEDULE WITH COORDINATES OF CHAINAGE POINTS ALONG ROAD CENTRELINE TO BE SUPPLIED TO THE CONTRACTOR PRIOR TO CONSTRUCTION.
 9. REFER TO THE ROADING LONG-SECTIONS FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.

- LEGEND
- EX BDY
 - PROP BDY
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - PROP ROAD
 - PROP LANDSCAPING
 - PROP SW PIPE
 - 78 x SOLAR PANEL STRING
 - 52 x SOLAR PANEL STRING
 - 26 x SOLAR PANEL STRING
 - SAFE INTERSECTION SIGHT DISTANCE

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024



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Project
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SOLAR FARM A
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DEVELOPMENTS LTD**

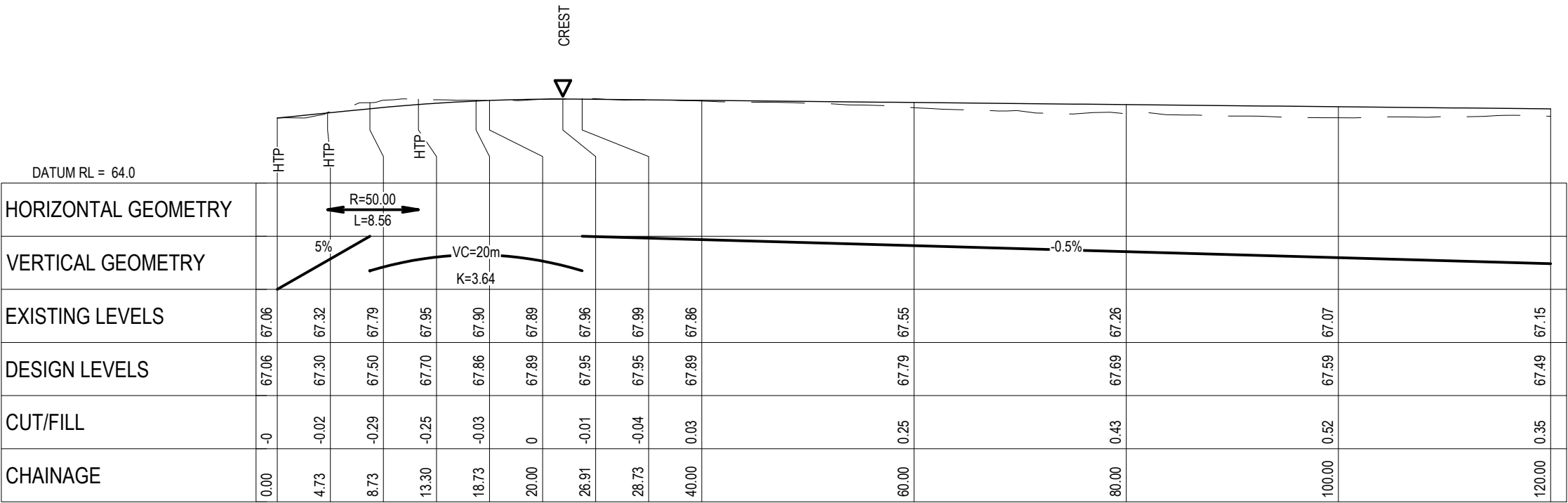
Title
**PROPOSED
SAFE INTERSECTION
SIGHT DISTANCE PLAN**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C300-RD.DWG
Drawing no.	C310
Rev	A

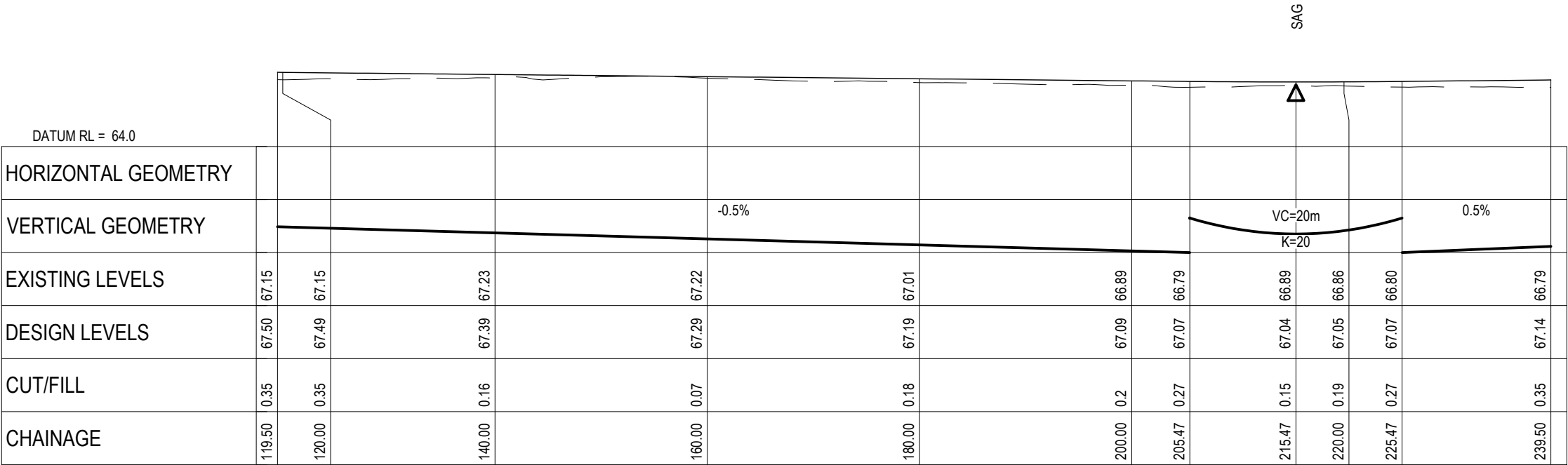
85th Percentile Operating Speed Safe Intersection Sight Distance Standard	
40 km/h	70 m
50 km/h	90 m
60 km/h	115 m
70 km/h	140 m
80 km/h	175 m
90 km/h	210 m
100 km/h	250 m
110 km/h	290 m

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DATE: 10/1/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\289001 - STATION ROAD\ DRAWING\01. ASHBORNE SOLAR FARM\ASHB-SOLAR-FARM\AC320-RD-LS.DWG



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

--- EXISTING GROUND LEVEL

— PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



Project

**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

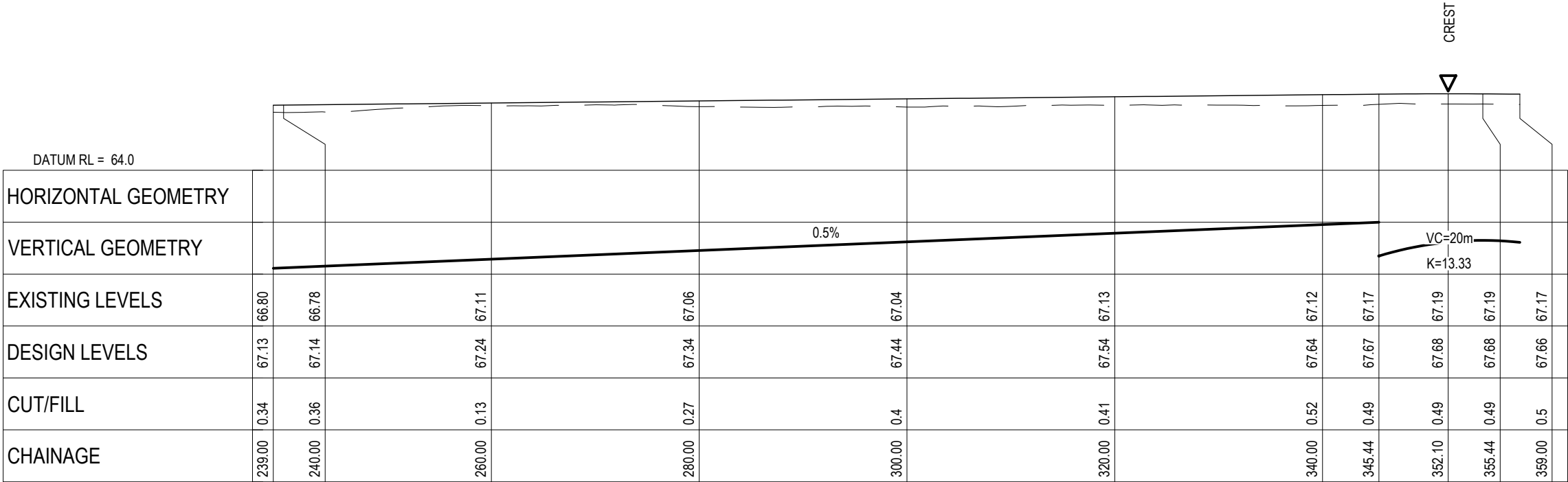
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**PROPOSED
ROADING
LONGSECTIONS**

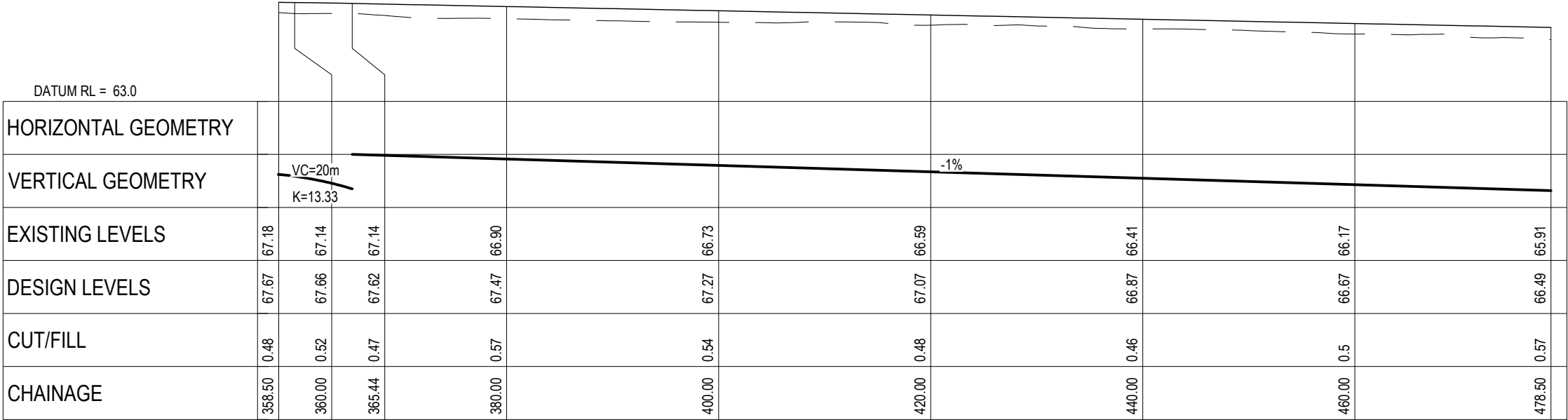
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Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320	Rev	A

DRAFT FOR REVIEW

DATE: 10/1/24 FILEPATH: F:\MVEN\HAMILTON6 - PROJECTS\289001 - STATION ROAD\ DRAWING\10 - ASHBOURNE SOLAR FARM\10 - SOLAR FARM\AC320-RD-LS.DWG



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
- 1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 - 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 - 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 - 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 - 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 - 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

--- EXISTING GROUND LEVEL

— PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



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Project

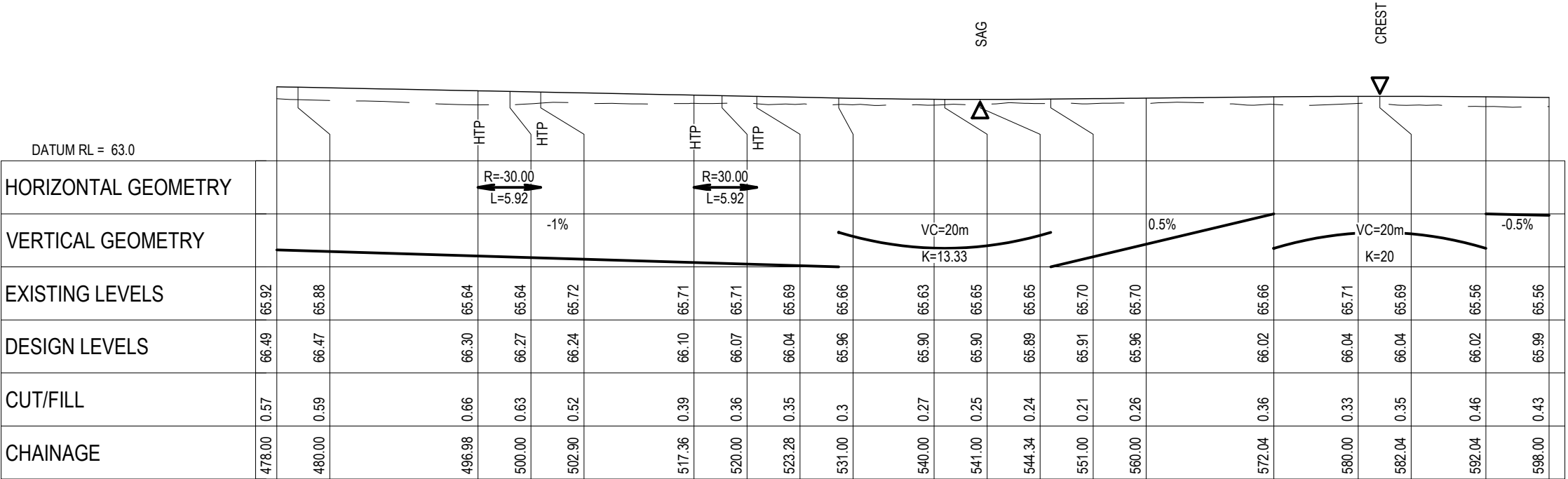
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

Title

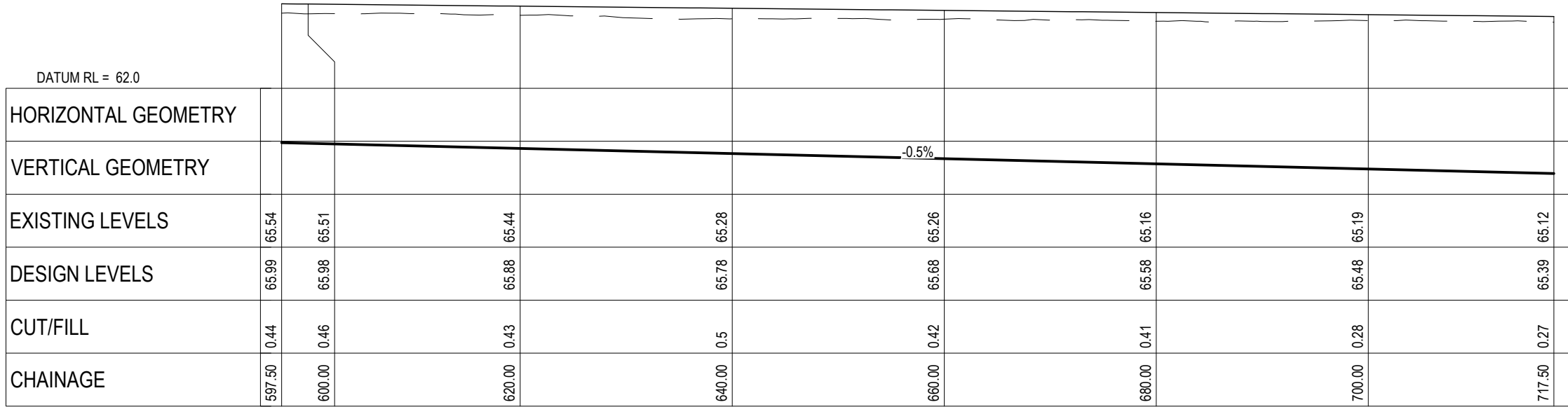
**PROPOSED
ROADING
LONGSECTIONS**

Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD LS.DWG		
Drawing no.	C320-1	Rev	A

DATE: 10/1/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\88001 - STATION ROAD\ DRAWING\01. ASHBORNE SOLAR FARM\AC320-RD.LSDWG



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
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 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

--- EXISTING GROUND LEVEL

— PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



Project

**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

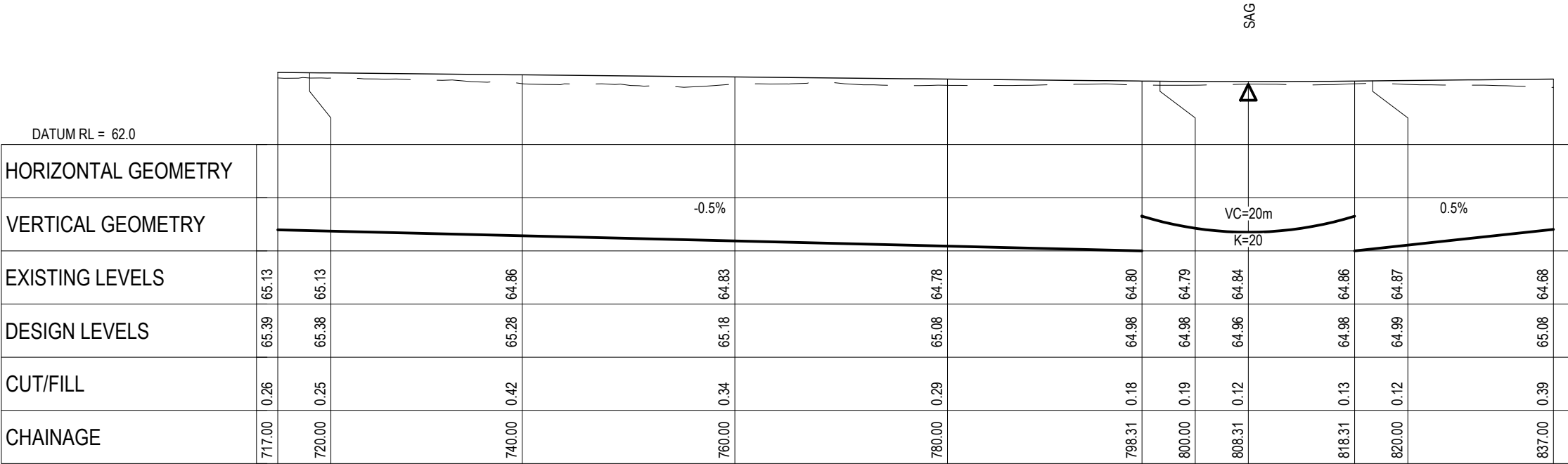
Title

**PROPOSED
ROADING
LONGSECTIONS**

Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320-2	Rev	A

DRAFT FOR REVIEW

DATE: 10/1/24 FILEPATH: F:\MVEN\HAM106\PROJECTS\88001 - STATION ROAD\DRAWING\10 - ASHBOURNE SOLAR FARM\ASB-RD-LS.DWG



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

EXISTING GROUND LEVEL

PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	

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Project

ASHBOURNE

SOLAR FARM A

FOR

MATAMATA

DEVELOPMENTS

Title

PROPOSED

ROADING

LONGSECTIONS

Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320-3	Rev	A

DATE: 10/1/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\289001 - STATION ROAD\7. DRAWING\10. ASHBORNE SOLAR FARM\101. SOLAR FARM\AC320-RD.LSDWG

DATUM RL = 62.0			
HORIZONTAL GEOMETRY			
VERTICAL GEOMETRY		-0.5%	
EXISTING LEVELS	64.86	64.85	64.83
DESIGN LEVELS	65.01	64.99	64.94
CUT/FILL	0.15	0.14	0.11
CHAINAGE	956.00	960.00	969.91

ROAD 1 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DATUM RL = 62.0											
HORIZONTAL GEOMETRY											
VERTICAL GEOMETRY											
EXISTING LEVELS	65.65	65.60	65.59	65.58	65.57	65.58	65.55		65.47	65.50	
DESIGN LEVELS	66.00	65.97	65.91	65.90	65.88	65.86	65.81		65.71	65.61	65.18
CUT/FILL	0.36	0.36	0.32	0.32	0.31	0.28	0.26		0.24	0.11	0.33
CHAINAGE	0.00	1.09	3.59	4.41	6.09	11.07	20.00		40.00	60.00	80.00

ROAD 2 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

EXISTING GROUND LEVEL

PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	

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Project

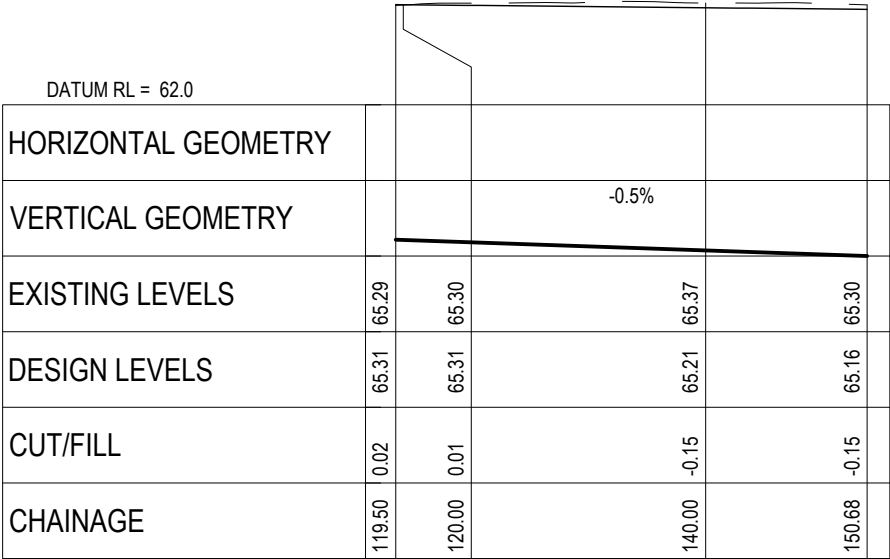
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

Title

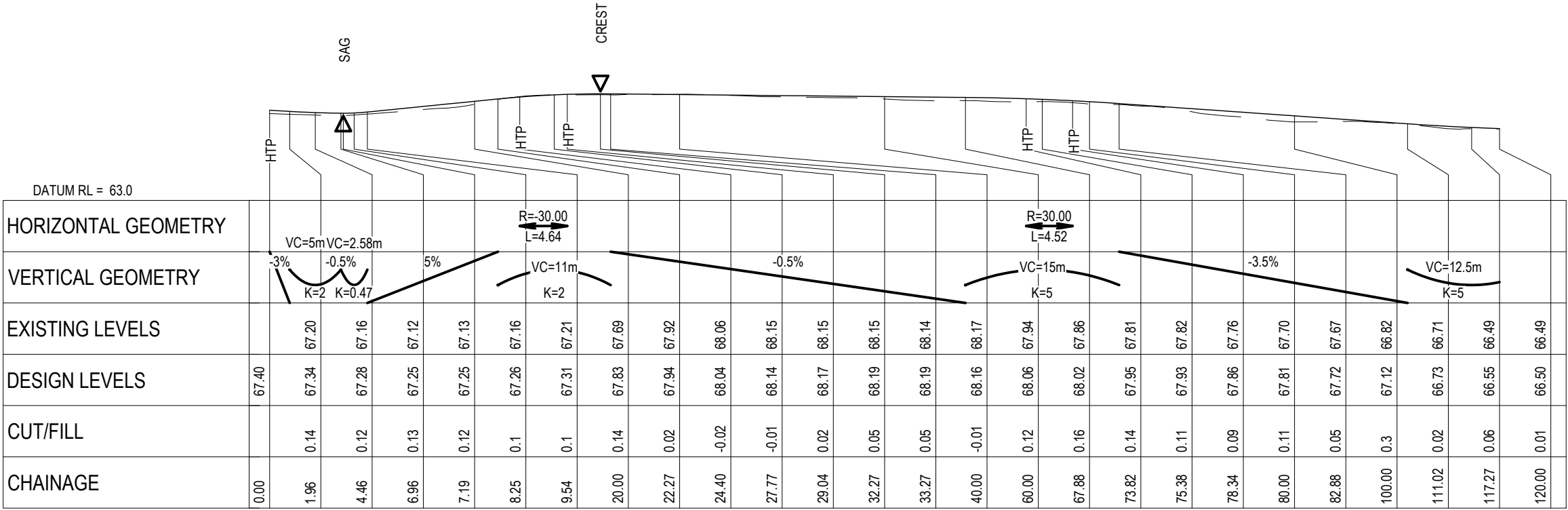
**PROPOSED
ROADING
LONGSECTIONS**

Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320-4	Rev	A

DATE: 10/1/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\88001 - STATION ROAD\ DRAWING\01_ ASHBORNE SOLAR FARM\AS1 SOLAR FARM\AC320-RD.LSDWG



ROAD 2 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 3 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

--- EXISTING GROUND LEVEL

— PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	

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FOR

MATAMATA

DEVELOPMENTS

Title

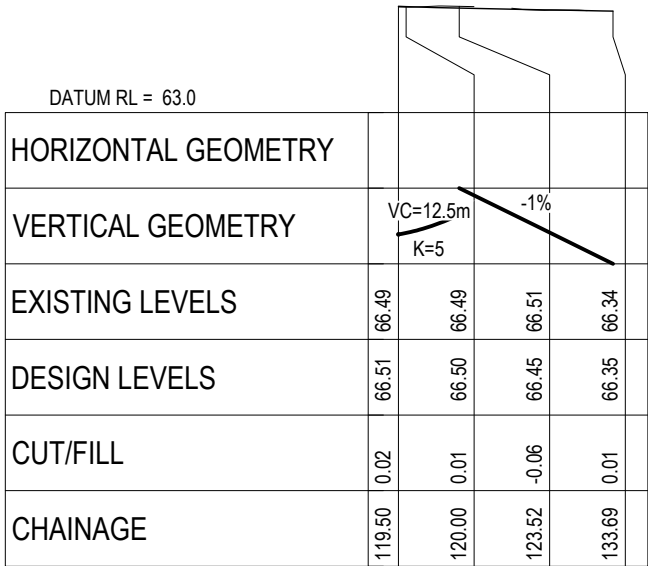
PROPOSED

ROADING

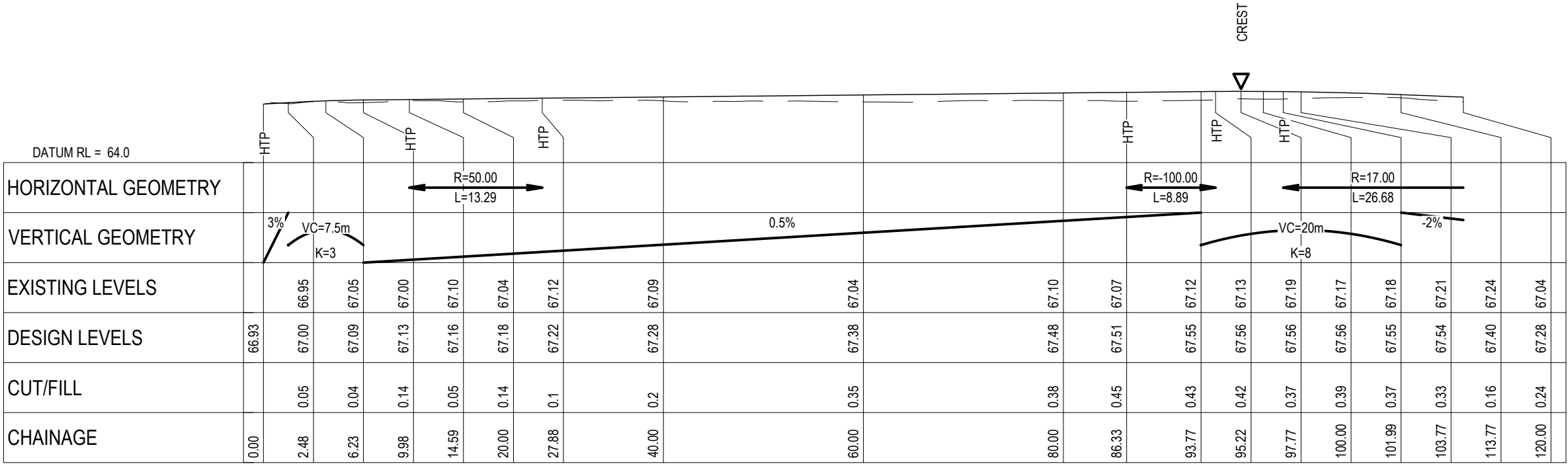
LONGSECTIONS

Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320-5	Rev	A

DATE: 10/1/24 FILEPATH: F:\MVEN\HAMILTON6 - PROJECTS\08001 - STATION ROAD\ DRAWING\01_ ASHBORNE SOLAR FARM\ASHT - SOLAR FARM\AC320-RD.LSDWG



ROAD 3 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 6 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

--- EXISTING GROUND LEVEL

--- PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	

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New Zealand

Project

ASHBOURNE

SOLAR FARM A

FOR

MATAMATA

DEVELOPMENTS

Title

PROPOSED

ROADING

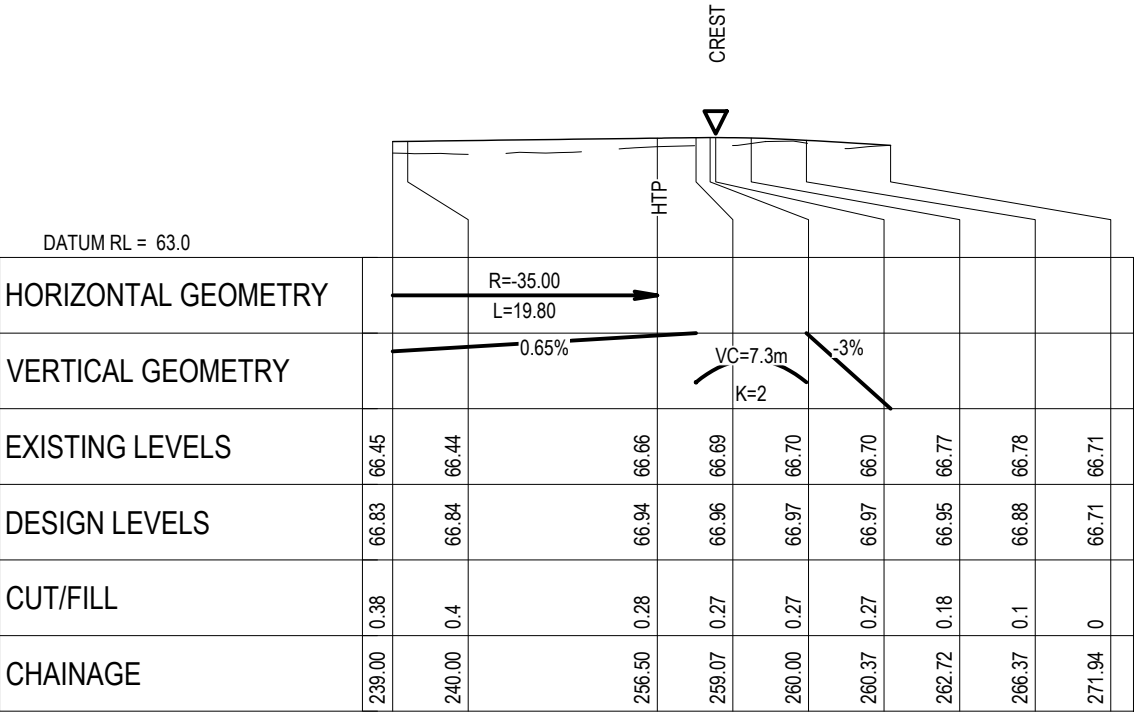
LONGSECTIONS

Project no.	289001
Scale	AS SHOWN
Cad file	C320-RD LS.DWG
Drawing no.	C320-6
Rev	A

DATE: 10/1/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\289001 - STATION ROAD\ DRAWING\10. ASHBORNE SOLAR FARM\ASB-RD-LS.DWG



ROAD 6 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 6 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

EXISTING GROUND LEVEL

PROPOSED GROUND LEVEL

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



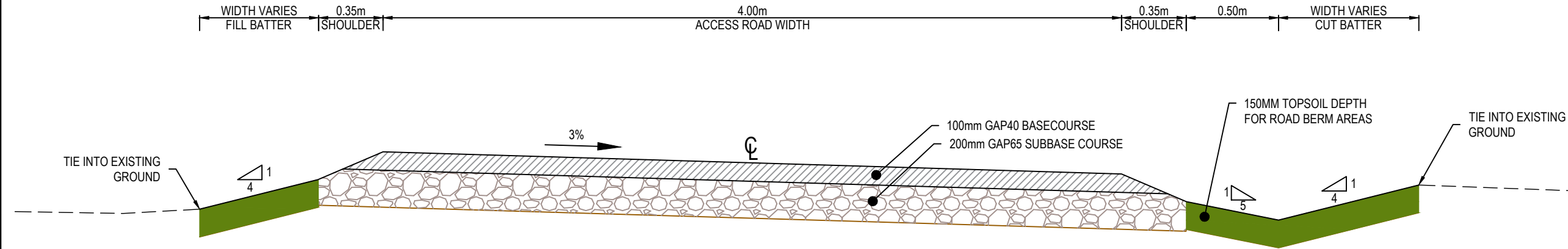
Project

**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS**

Title

**PROPOSED
ROADING
LONGSECTIONS**

Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320-7	Rev	A



SECTION A - 4m WIDE ACCESS ROAD TYPICAL CROSS SECTION
SCALE 1:25 @ A3
(PAVEMENT DESIGN BASED ON CBR 5)

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE. REFER TO ROADING LONGITUDINAL SECTION C320 DRAWING SERIES.

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey			
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

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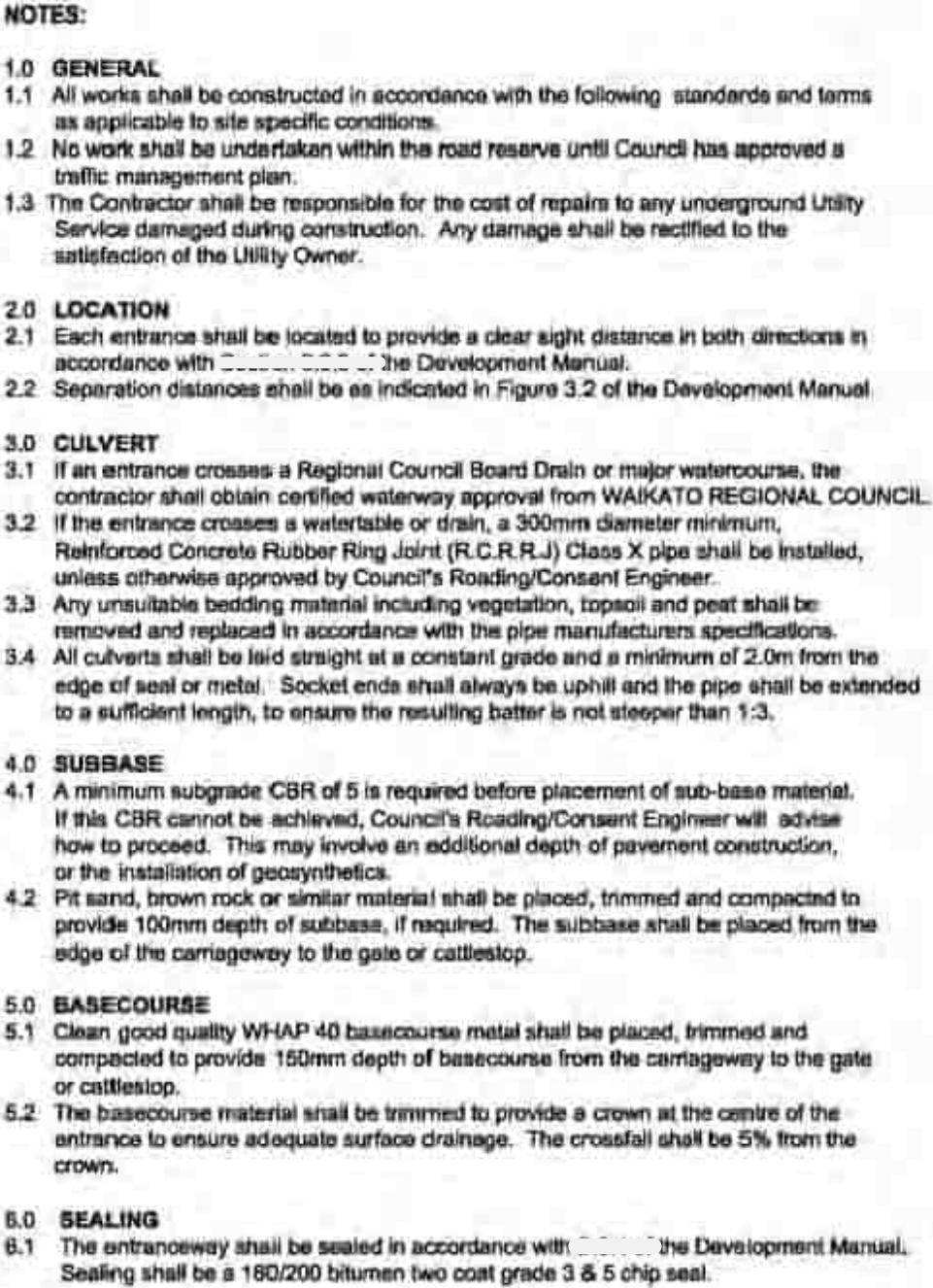
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Level 1 286 Victoria Street, Hamilton
New Zealand

Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENT LTD**

Title
**PROPOSED ROADING
TYPICAL
CROSS SECTION**

Project no.	289001		
Scale	1:25 @ A3		
Cad file	C340-RD XS.DWG		
Drawing no.	C340	Rev	A

DRAFT FOR REVIEW



MPDC DG307c : October 2011



RESOURCE CONSENT

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
	By	Date	
Survey			
Design			
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENT**

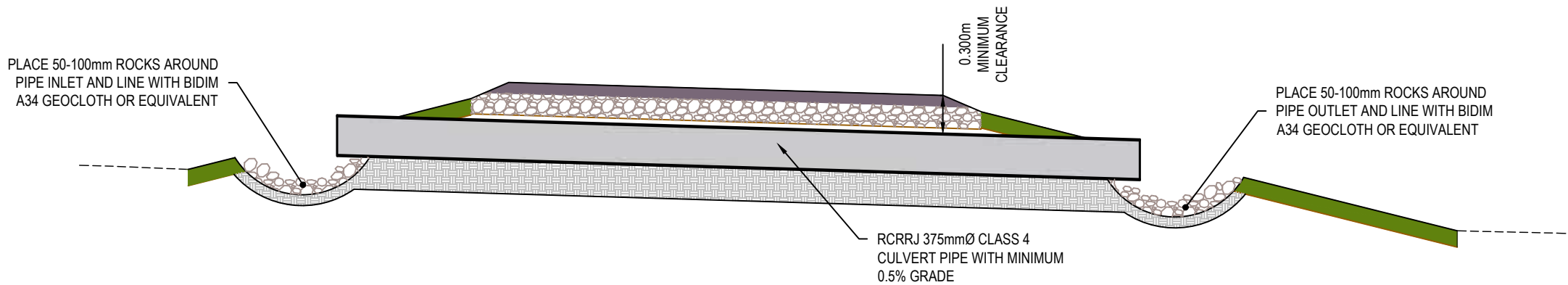
Title

**PROPOSED
ROADING STANDARD
DETAILS**

Project no.	289001		
Scale	N.T.S		
Cad file	C380-RD DET.DWG		
Drawing no.	C380	Rev	A

DATE: 19/12/24 FILE PATH: F:\MVEN\HAMILTON\6. PROJECTS\289001 - STATION ROAD\7. DRAWING\10. ASHBOURNE SOLAR FARM\10. SOLAR FARM\AC480-SW DET.DWG

DRAFT FOR REVIEW



STORMWATER CULVERT TYPICAL DETAIL
NTS

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM 1946.
 4. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 5. REFER TO THE ROADING C300 SERIES DRAWING FOR THE PROPOSED DRAINAGE CULVERT LOCATIONS.

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	

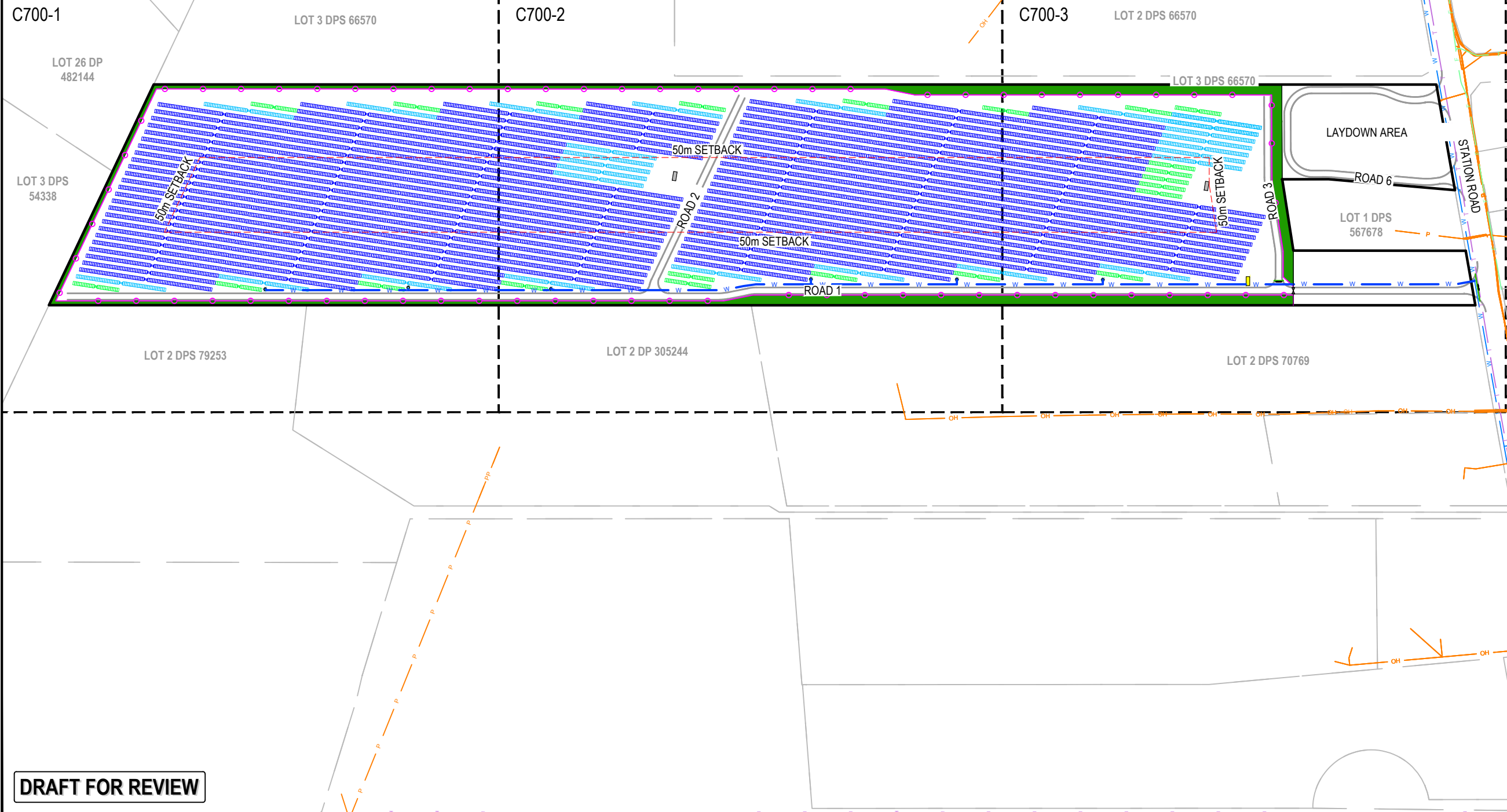
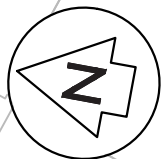


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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
STORMWATER
DETAILS PLAN**

Project no.	289001		
Scale	N.T.S		
Cad file	C480-SW DET.DWG		
Drawing no.	C420	Rev	A



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 3. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 4. EXISTING SERVICES ARE FROM BAUDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 6. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND

- EX BDY
- PROP BDY
- EX TELECOM
- EX POWER
- EX GAS
- EX FIBRE
- EX WATERMAIN
- PR WATERMAIN
- PR BOUNDARY SETBACK
- 100YR INDICATIVE FLOODING EXTENTS
- POWER TRANSFORMER
- 78 x SOLAR PANEL STRING
- 52 x SOLAR PANEL STRING
- 26 x SOLAR PANEL STRING
- PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

M **MAVEN**

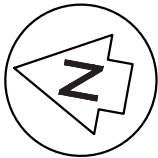
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SERVICES
KEY PLAN**

Project no.	289001
Scale	1:3000 @ A3
Cad file	C700-SERV.DWG
Drawing no.	C700
Rev	A

DRAFT FOR REVIEW



LOT 3 DPS 66570

3m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 26 DP 482144

3m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 3 DPS 54338

50m SETBACK

50m SETBACK

ROAD 1

PR-250D PE80B PN12.5 SDR 11

3m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 2 DPS 79253

LOT 2 DPS 70769

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND

—	EX BDY
—	PROP BDY
— T —	EX TELECOM
— P —	EX POWER
— GAS —	EX GAS
— F —	EX FIBRE
— W —	EX WATERMAIN
— W —	PR WATERMAIN
- - -	PR BOUNDARY SETBACK
	100YR INDICATIVE FLOODING EXTENTS
	POWER TRANSFORMER
	78 x SOLAR PANEL STRING
	52 x SOLAR PANEL STRING
	26 x SOLAR PANEL STRING
	PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		10/2024

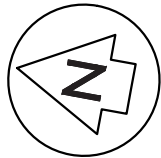
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Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SERVICES
PLAN SHEET 1 OF 3**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C700-SERV.DWG		
Drawing no.	C700-1	Rev	A

DRAFT FOR REVIEW



LOT 3 DPS 66570

LOT 2 DPS 66570

3m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

7m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 3 DPS 66570

SUNGROW MVS6400-LV
POWER TRANSFORMER

ROAD 2

ROAD 1

PR-250D PE80B PN12.5 SDR 11

3m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

7m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 2 DP 305244

LOT 2 DPS 70769

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 3. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
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 6. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND

	EX BDY
	PROP BDY
	EX TELECOM
	EX POWER
	EX GAS
	EX FIBRE
	EX WATERMAIN
	PR WATERMAIN
	PR BOUNDARY SETBACK
	100YR INDICATIVE FLOODING EXTENTS
	POWER TRANSFORMER
	78 x SOLAR PANEL STRING
	52 x SOLAR PANEL STRING
	26 x SOLAR PANEL STRING
	PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	Survey	MAVEN	05/2024
	Design	TCH	10/2024
	Drawn	TCH	10/2024
	Checked	DJM	10/2024

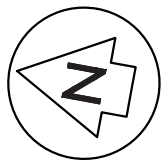


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Project
**ASHBOURNE
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FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SERVICES
PLAN SHEET 1 OF 2**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C700-SERV.DWG		
Drawing no.	C700-2	Rev	A



LOT 2 DPS 66570

LOT 3 DPS 66570

7m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 3 DPS 66570

LAYDOWN AREA

ROAD 6

STATION ROAD

LOT 1 DPS 567678

7m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

NEW PRIVATE WATER
CONNECTION

PR-250D PE80B PN12.5 SDR 11

GATED
ENTRANCE

PROPOSED
SITE OFFICE

ROAD 1

7m LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

LOT 2 DPS 70769

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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LEGEND

—	EX BDY
—	PROP BDY
— T —	EX TELECOM
— P —	EX POWER
— GAS —	EX GAS
— F —	EX FIBRE
— W —	EX WATERMAIN
— W —	PR WATERMAIN
- - -	PR BOUNDARY SETBACK
■	100YR INDICATIVE FLOODING EXTENTS
■	POWER TRANSFORMER
—	78 x SOLAR PANEL STRING
—	52 x SOLAR PANEL STRING
—	26 x SOLAR PANEL STRING
●	PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



Project
**ASHBOURNE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SERVICES
PLAN SHEET 1 OF 3**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C700-SERV.DWG
Drawing no.	C700-3
Rev	A

DRAFT FOR REVIEW

DATE: 10/12/24 FILEPATH: F:\MAMEN\HAMILTON\6. PROJECTS\289001 - STATION ROAD\7. DRAWING\10. ASHBOURNE SOLAR FARM\1. SOLAR FARM\ACT\700-SERV.DWG

DATE: 10/1/24 FILE PATH: F:\MVEN\HAMILTON6 PROJECTS\289001 - STATION ROAD\7 DRAWING\10 ASHBOURE SOLAR FARM\101 SOLAR FARM\ACT10-SERV.DET.DWG


TO BE UPDATED

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 3. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
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 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND		
	EX BDY	
	PROP BDY	
	EX TELECOM	
	EX POWER	
	EX GAS	
	PROP TELECOM	
	PROP POWER	
	PROP POWER HV	
	PROP POWER LV	
	PROP GAS	
	PROP STREET LIGHT	
	PROP PWR POLE	
	PROP PWR CHAMBER	
	PROP PWR PLINTH	
	PROP PWR RMU	
	PROP TRANSFORMER	
	PROP PWR PILAR	
	PROP TELECOM PLINTH	
	PROP TELECOM CHAMBER	

A	DRAFT	AJP	10/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	10/2024	



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Project

**ASHBOURE
SOLAR FARM A
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**PROPOSED
SERVICES DETAILS**

Project no.	289001		
Scale	1:500 @ A3		
Cad file	C710-SERV.DET.DWG		
Drawing no.	710	Rev	A

ASHBOURNE SOLAR FARM B FOR MATAMATA DEVELOPMENTS LTD



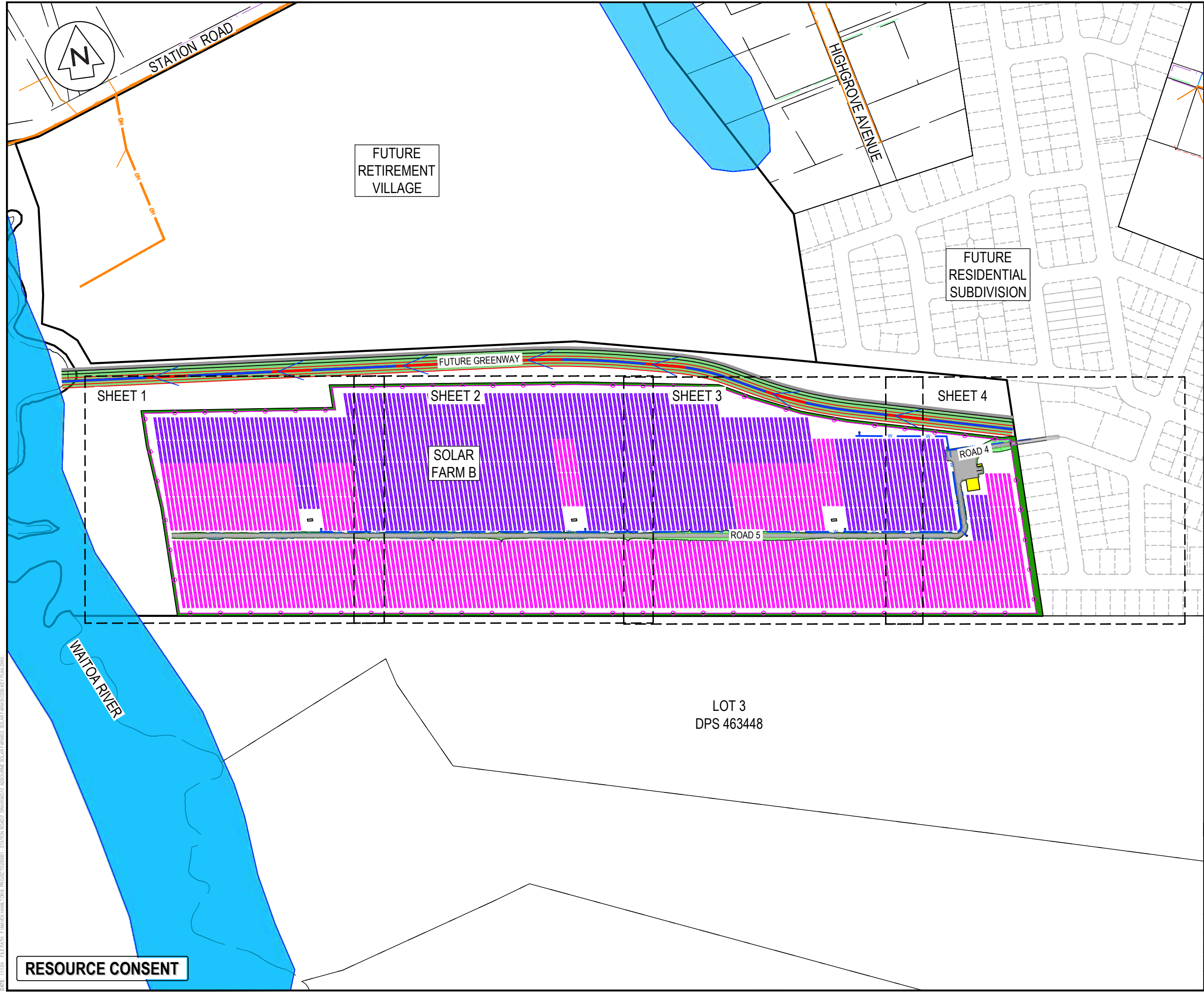
LOCALITY PLAN

SHT.NO.	SHEET TITLE	REVISION
C000	COVER SHEET & INDEX	A
C050	KEY PLAN	A
C090	EXISTING FEATURES AND REMOVAL PLAN	A
C200	EXISTING CONTOURS	A
C210	PROPOSED CONTOURS	A
C220	CUT-FILL PLAN	A
C230	SEDIMENT & EROSION CONTROL PLAN	A
C240	SEDIMENT & EROSION CONTROL DETAILS	A
C300	ROADING LAYOUT PLAN	A
C320	ROADING LONGSECTIONS	A
C340	ROADING TYPICAL SECTIONS	A
C380	ROADING STANDARD DETAILS	A
C480	STORM WATER DETAILS	A
C700	SERVICES LAYOUT PLAN	A
C710	SERVICE DETAILS	A

PROJECT NUMBER :289001

ISSUED DATE : NOVEMBER 2024

ISSUE FOR : RESOURCE CONSENT



LEGEND

- EX BDY
- PROP BDY
- PROP FUTURE
- EX TELECOM
- EX POWER
- EX FIBRE
- EX WATER SUPPLY
- PR WATER SUPPLY
- PR FENCE
- 100YR INDICATIVE FLOODING EXTENTS
- POWER TRANSFORMER
- 66 x SOLAR PANEL STRING
- 44 x SOLAR PANEL STRING

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
KEY PLAN**











Project no.	289001
Scale	1:4000 @ A3
Cad file	C050-KEY PLAN.DWG
Drawing no.	C050
Rev	A

RESOURCE CONSENT



- NOTES**
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 5. ORIGIN OF LEVELS = BENCHMARK IT / DPS 29877 PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
 6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND

-  EX BDY
-  PR BDY
-  PR WORK EXTENT
-  EX MAJOR CONTOUR
-  EX MINOR CONTOUR
-  EX WATER COURSE
-  EX FENCE TO BE REMOVED
-  EX FARM DRAIN
-  EX VEGETATION TO BE REMOVED
-  EX WATER TROUGH TO BE REMOVED

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	

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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

Title

**EXISTING FEATURES
&
REMOVAL PLAN**

Project no.	289001		
Scale	1:4000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090	Rev	A

DATE: 11/1/24 FILE PATH: F:\Maven\Hamilton\6. PROJECTS\88001 - STATION ROAD\7. DRAWING\10. ASHBORNE SOLAR FARM\009-EX-FEATURES & REMOVAL PLAN.DWG



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
5. ORIGIN OF LEVELS = BENCHMARK I I DPS 29877 PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND

	EX BDY
	PR BDY
	PR WORK EXTENT
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER COURSE
	EX FENCE TO BE REMOVED
	EX FARM DRAIN
	EX VEGETATION TO BE REMOVED
	EX WATER TROUGH TO BE REMOVED

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	

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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

Title

**EXISTING FEATURES
& REMOVAL PLAN
SHEET 1 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090-1	Rev	A

DATE: 11/1/24 FILE PATH: F:\MAVEN\HAMILTON\6. PROJECTS\289001 - STATION ROAD\7. DRAWING\10. ASHBORNE SOLAR FARM\B09-EX-FEATURES & REMOVAL PLAN.DWG



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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 6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND			
	EX BDY		
	PR BDY		
	PR WORK EXTENT		
	EX MAJOR CONTOUR		
	EX MINOR CONTOUR		
	EX WATER COURSE		
	EX FENCE TO BE REMOVED		
	EX FARM DRAIN		
	EX VEGETATION TO BE REMOVED		
	EX WATER TROUGH TO BE REMOVED		

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

Title
**EXISTING FEATURES
& REMOVAL PLAN
SHEET 2 OF 4**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG
Drawing no.	C090-2
Rev	A

DATE: 11/1/24 FILE PATH: F:\MAVEN\HAMILTON\6. PROJECTS\289001 - STATION ROAD\T. DRAWING\01. ASHBORNE SOLAR FARM\B09-EX-FEATURES & REMOVAL PLAN.DWG




NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
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LEGEND

- EX BDY
- PR BDY
- PR WORK EXTENT
- EX MAJOR CONTOUR
- EX MINOR CONTOUR
- EX WATER COURSE
- EX FENCE TO BE REMOVED
- EX FARM DRAIN
- EX VEGETATION TO BE REMOVED
- EX WATER TROUGH TO BE REMOVED

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

Title

**EXISTING FEATURES
& REMOVAL PLAN
SHEET 3 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090-3	Rev	A

DATE: 11/1/24 FILE PATH: F:\MAVEN\HAMILTON6 PROJECTS\289001 - STATION ROAD\ DRAWING\01 - ASHBORNE SOLAR FARM\B00B-EX-FEATURES & REMOVAL PLAN.DWG



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
5. ORIGIN OF LEVELS = BENCHMARK IT I DPS 29877 PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
6. EXISTING CONTOURS ARE AT 0.5m INTERVALS.

LEGEND

	EX BDY
	PR BDY
	PR WORK EXTENT
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER COURSE
	EX FENCE TO BE REMOVED
	EX FARM DRAIN
	EX VEGETATION TO BE REMOVED
	EX WATER TROUGH TO BE REMOVED

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	

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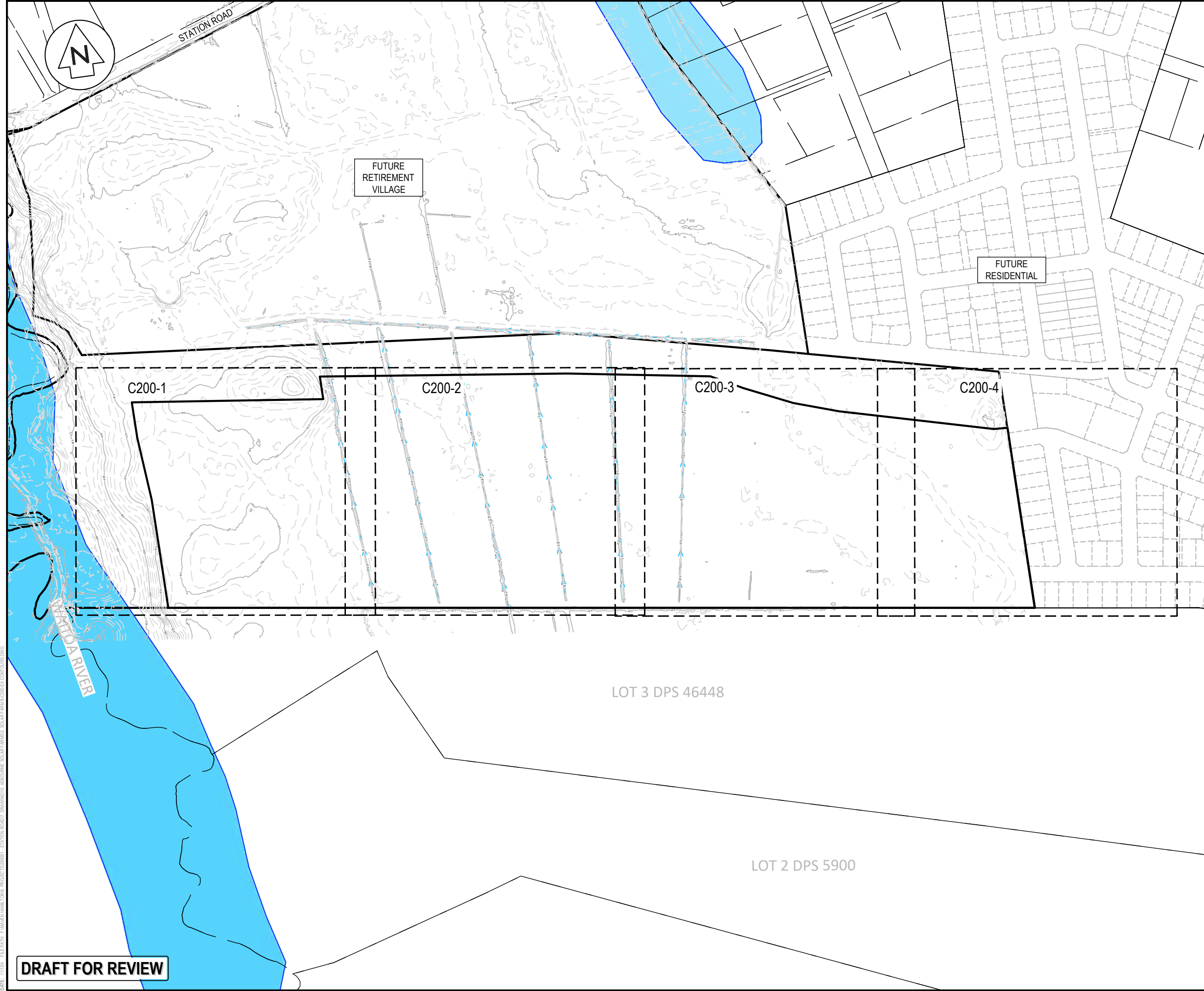
Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

Title

**EXISTING FEATURES
& REMOVAL PLAN
SHEET 4 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C090-EX-FEATURES & REMOVAL PLAN.DWG		
Drawing no.	C090-4	Rev	A



- NOTES
1. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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LEGEND

	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER CORSE
	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**EXISTING
CONTOURS
KEY PLAN**

Project no.	298001		
Scale	1:4000 @ A3		
Cad file	C200-EX CONTOURS.DWG		
Drawing no.	C200	Rev	A

DATE: 11/1/24 FILEPATH: F:\MVEN\HAMILTON6 PROJECTS\298001 - STATION ROAD\ DRAWING\01 ASHBOURNE SOLAR FARM\C200-EX CONTOURS.DWG

DRAFT FOR REVIEW



NOTES

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PUBLISHED RL=65.51. SOURCED FROM THE LINZ
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LEGEND

EX BDY

PROP BDY

EX MAJOR CONTOUR

EX MINOR CONTOUR

EX WATER CORSE

100YR INDICATIVE
FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

M

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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**EXISTING
CONTOURS
PLAN SHEET 1 OF 4**

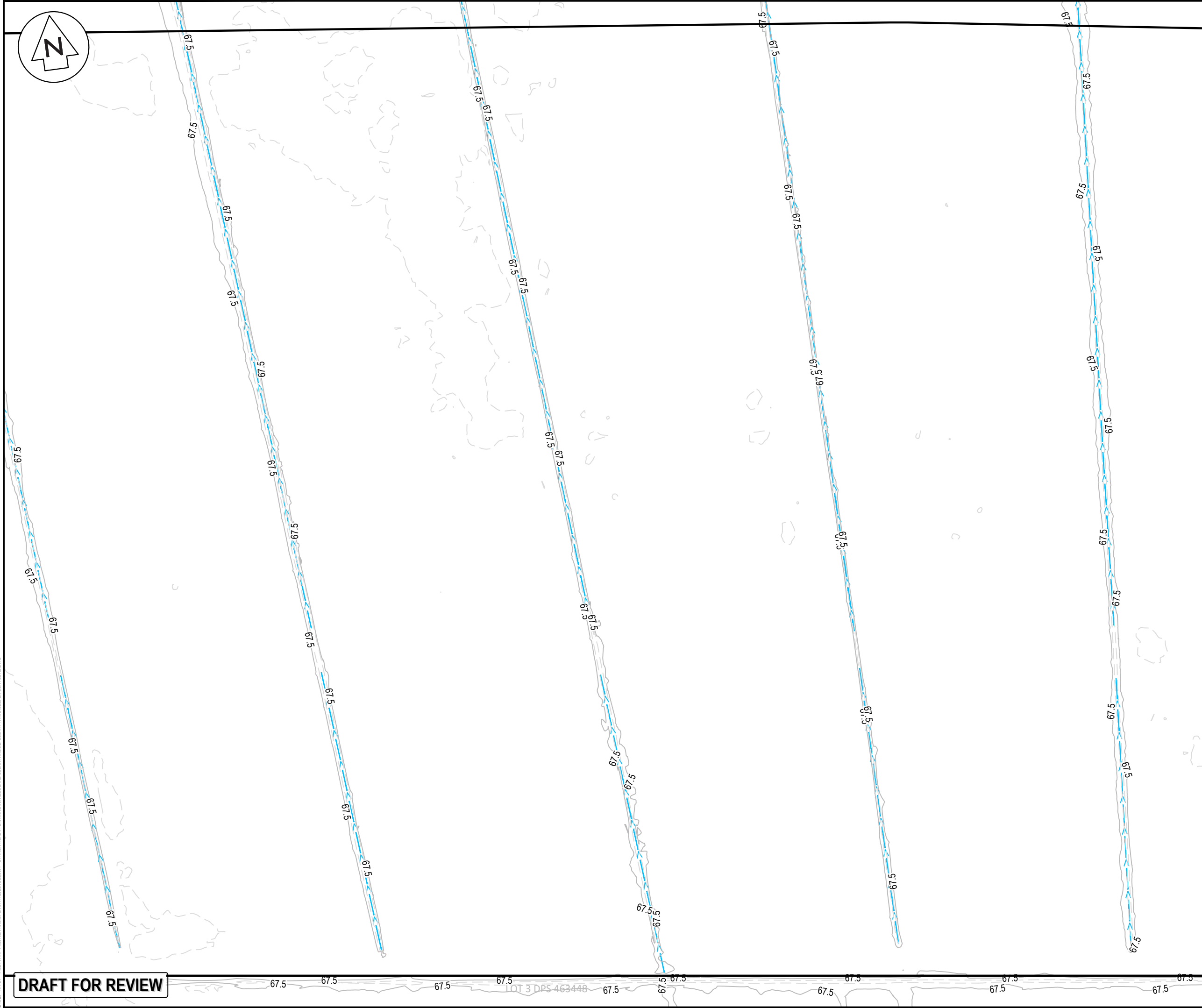
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Scale	1:1000 @ A3		
Cad file	C200-EX CONTOURS.DWG		
Drawing no.	C200-1	Rev	A

DATE: 11/1/24 FILE PATH: F:\Maven\Hamilton\6. PROJECTS\298001 - STATION ROAD\7. DRAWING\10. ASHBOURNE SOLAR FARM\B\200-EX CONTOURS.DWG

DRAFT FOR REVIEW

LOT 3 DPS 463448

DATE: 11/1/24 FILE PATH: F:\MVEN\HAMILTON\6. PROJECTS\298001 - STATION ROAD\7. DRAWING\10. ASHBORNE SOLAR FARM\200-EX CONTOURS.DWG



- NOTES
1. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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LEGEND

	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER CORSE
	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



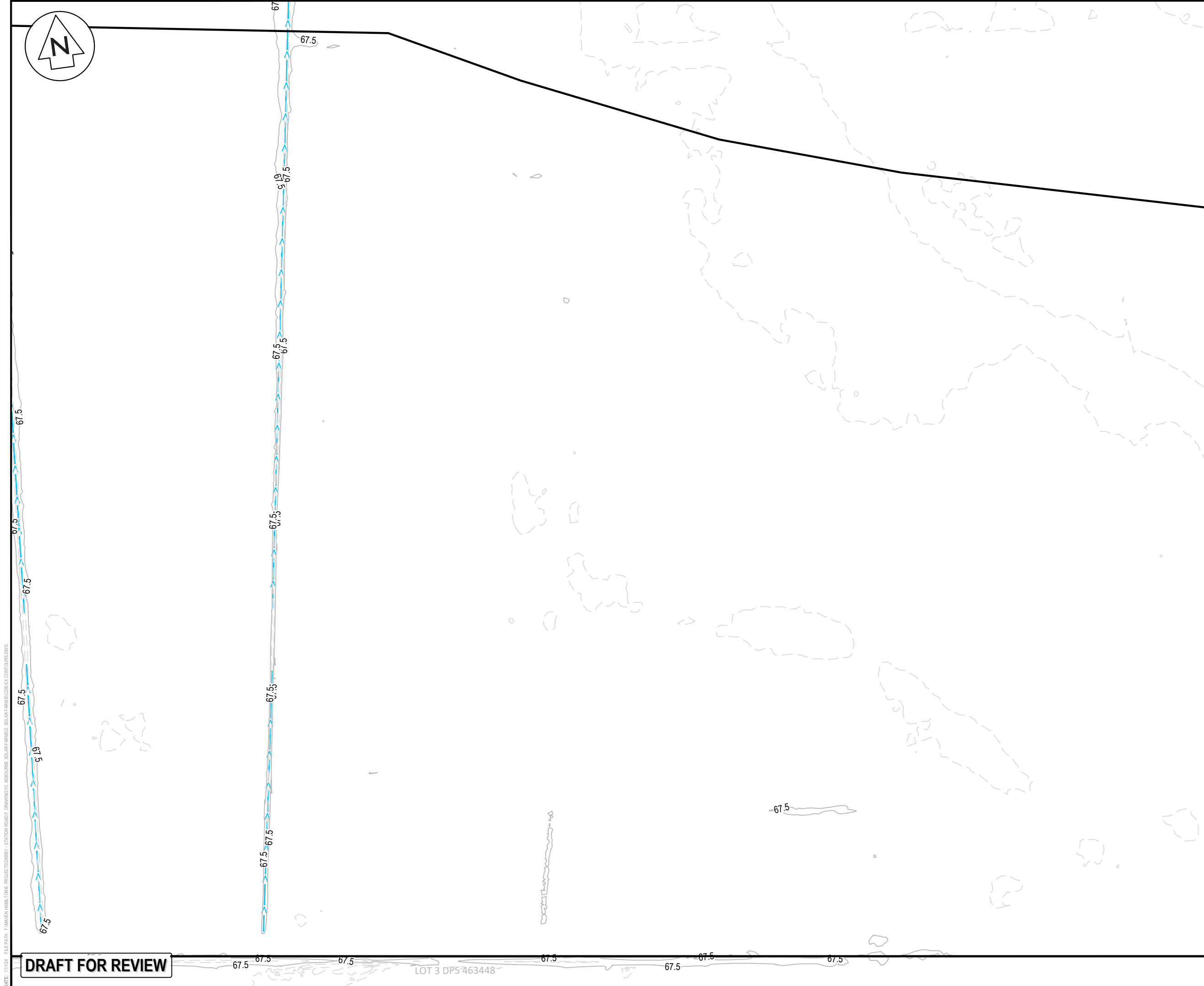
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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**







Title
**EXISTING
CONTOURS
PLAN SHEET 2 OF 4**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C200-EX CONTOURS.DWG		
Drawing no.	C200-2	Rev	A

DRAFT FOR REVIEW



LEGEND

	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER CORSE
	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	



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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**EXISTING
CONTOURS
PLAN SHEET 3 OF 4**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C200-EX CONTOURS.DWG		
Drawing no.	C200-3	Rev	A

DATE: 11/1/24 FILE PATH: F:\MAVEN HAMILTON\6. PROJECTS\289001 - STATION ROAD\7. DRAWING\10. ASBOURNE SOLAR FARMS\2. SOLAR FARM BIC200-EX CONTOURS.DWG



- NOTES
1. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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	EX BDY
	PROP BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX WATER CORSE
	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project

**ASHBOURNE
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FOR
MATAMATA
DEVELOPMENTS LTD**

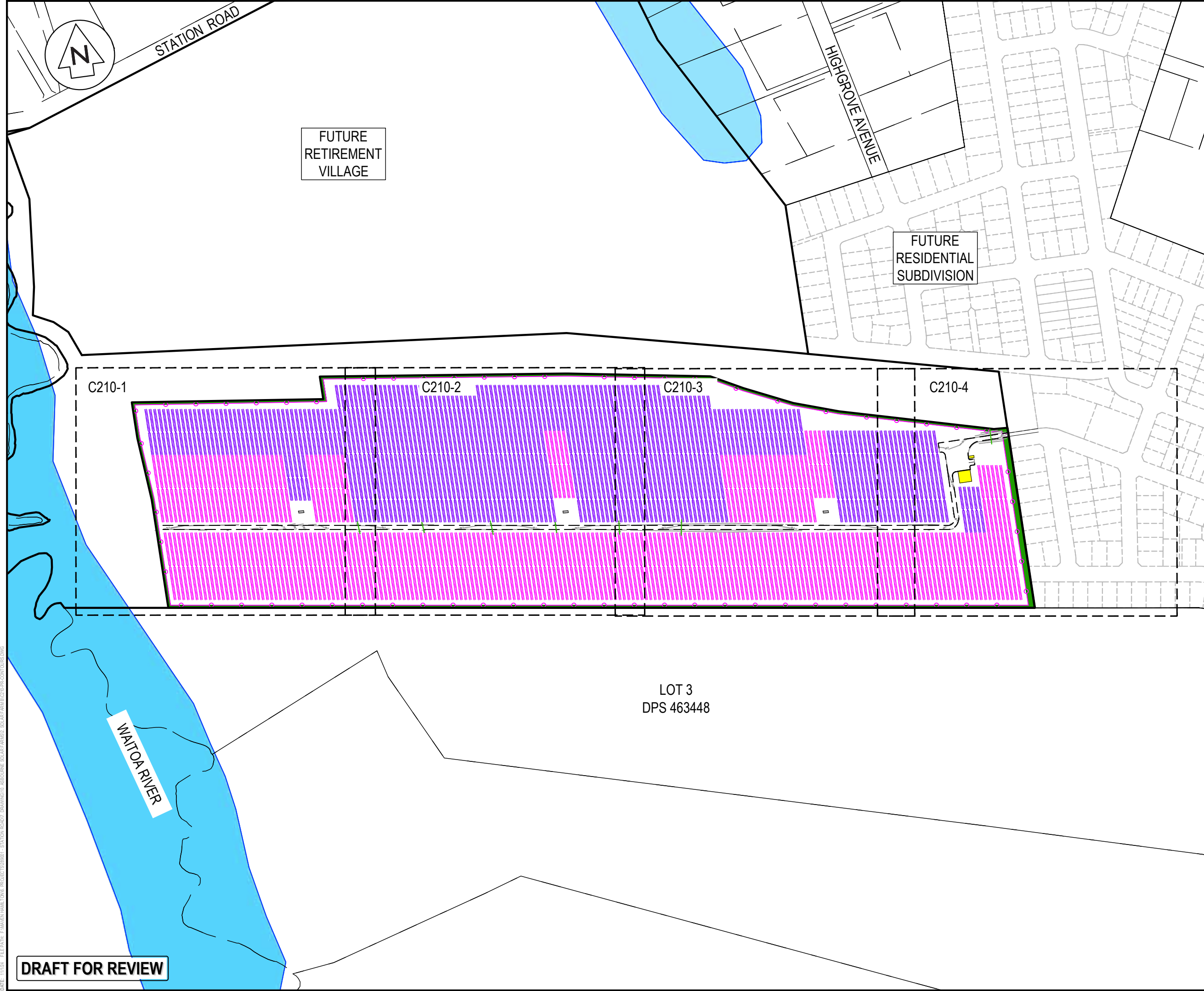
Title

**EXISTING
CONTOURS
PLAN SHEET 4 OF 4**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C200-EX CONTOURS.DWG		
Drawing no.	C200-4	Rev	A

DRAFT FOR REVIEW

LOT 3 DPS 463448



NOTES

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LEGEND

- EX BDY
- PROP BDY
- PROP ROAD EXTENTS
- PR MAJOR CONTOUR
- PR MINOR CONTOUR
- PROP EXTENT WORK
- PROP FENCE
- POWER TRANSFORMER
- 66 x SOLAR PANEL STRING
- 44 x SOLAR PANEL STRING
- 100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

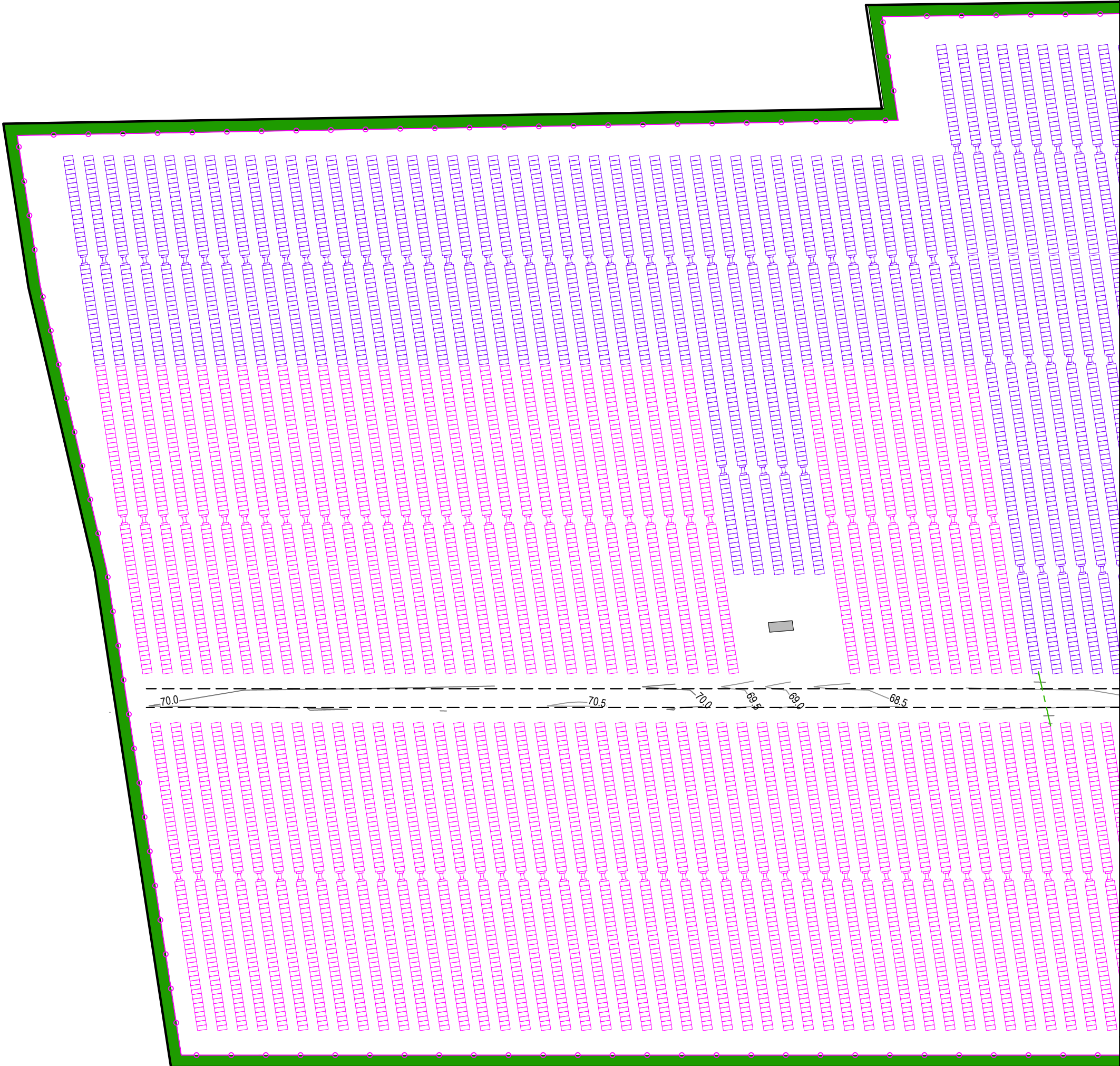
Title

**PROPOSED
CONTOURS
KEY PLAN**

Project no.	298001		
Scale	1:4000 @ A3		
Cad file	C210-PR-CONTOURS.DWG		
Drawing no.	C200	Rev	A

DATE: 11/11/24 FILEPATH: F:\Maven\Hamilton\06 - PROJECTS\298001 - STATION ROAD\DRAWING\01 - ASHBOURNE SOLAR FARM\B2-PR-CONTOURS.DWG

DRAFT FOR REVIEW



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- PROP BDY
- PROP ROAD EXTENTS
- PR MAJOR CONTOUR
- PR MINOR CONTOUR
- PROP EXTENT WORK
- PROP FENCE
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- 66 x SOLAR PANEL STRING
- 44 x SOLAR PANEL STRING
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A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
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Project
**ASHBOURNE
SOLAR FARM B
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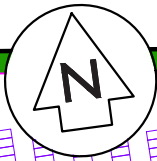
Title
**PROPOSED
CONTOURS
PLAN SHEET 1 OF 4**

Project no.	298001
Scale	1:1000 @ A3
Cad file	C210-PR-CONTOURS.DWG
Drawing no.	C210-1
Rev	A

INDICATIVE 100YR
FLOOD EXTENTS
FROM WRC FLOOD
HAZARD MAPS

DRAFT FOR REVIEW

DATE: 11/1/24 FILE PATH: F:\MVEN\HAMILTON6 - PROJECTS\298001 - STATION ROAD\7 DRAWING\10 ASHBOURNE SOLAR FARM\210-PR-CONTOURS.DWG



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

- EX BDY
- PROP BDY
- PROP ROAD EXTENTS
- PR MAJOR CONTOUR
- PR MINOR CONTOUR
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- 66 x SOLAR PANEL STRING
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A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

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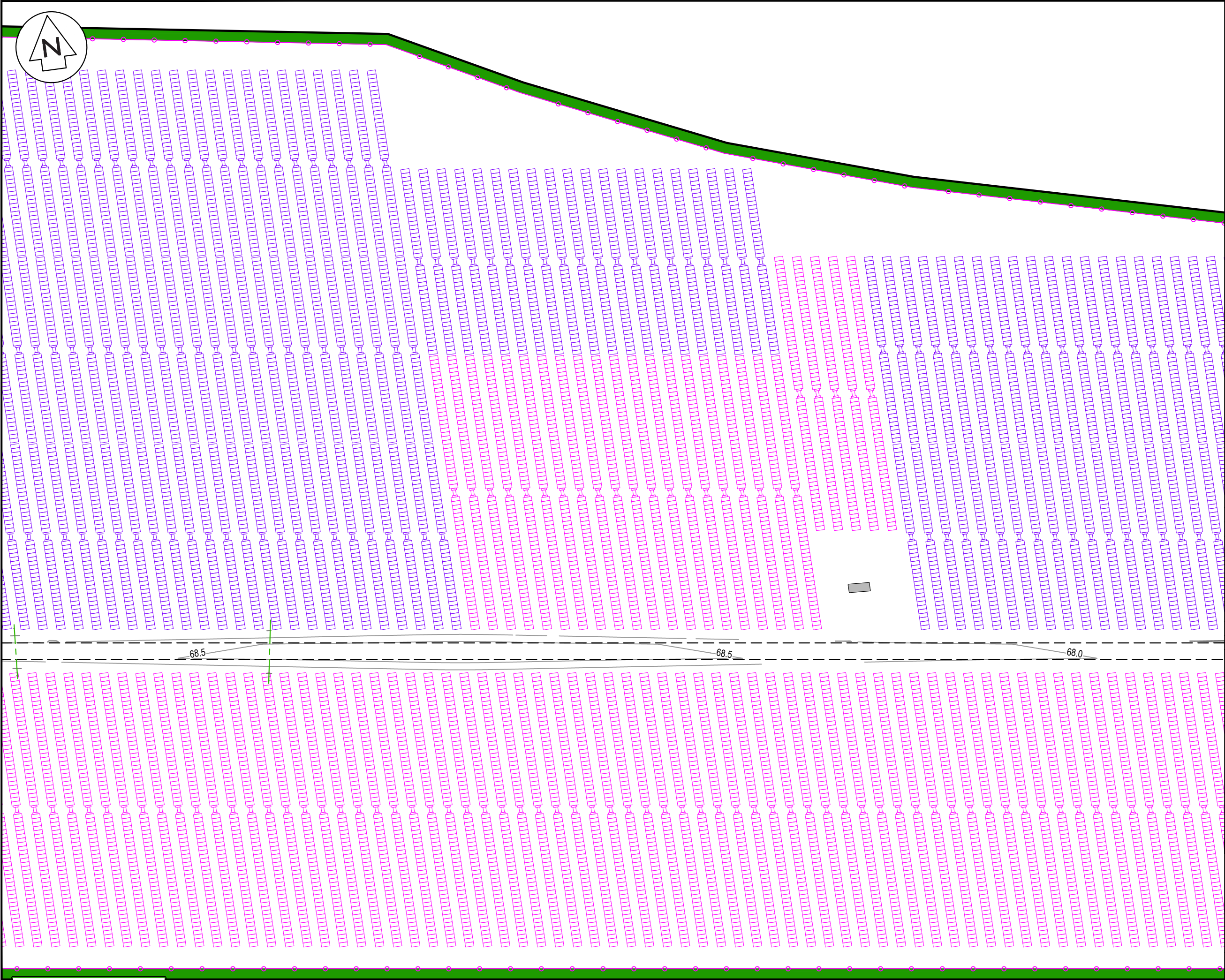
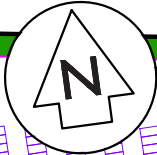
Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CONTOURS
PLAN SHEET 2 OF 4**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C210-PR-CONTOURS.DWG		
Drawing no.	C210-2	Rev	A

DRAFT FOR REVIEW

DATE: 11/1/24 FILE PATH: F:\MVEN\HAMILTON6 - PROJECTS\298001 - STATION ROAD\7 DRAWING\10 ASHBOURNE SOLAR FARM\B2 PR-CONTOURS.DWG



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- 66 x SOLAR PANEL STRING
- 44 x SOLAR PANEL STRING
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A	DRAFT	AJP	11/2024
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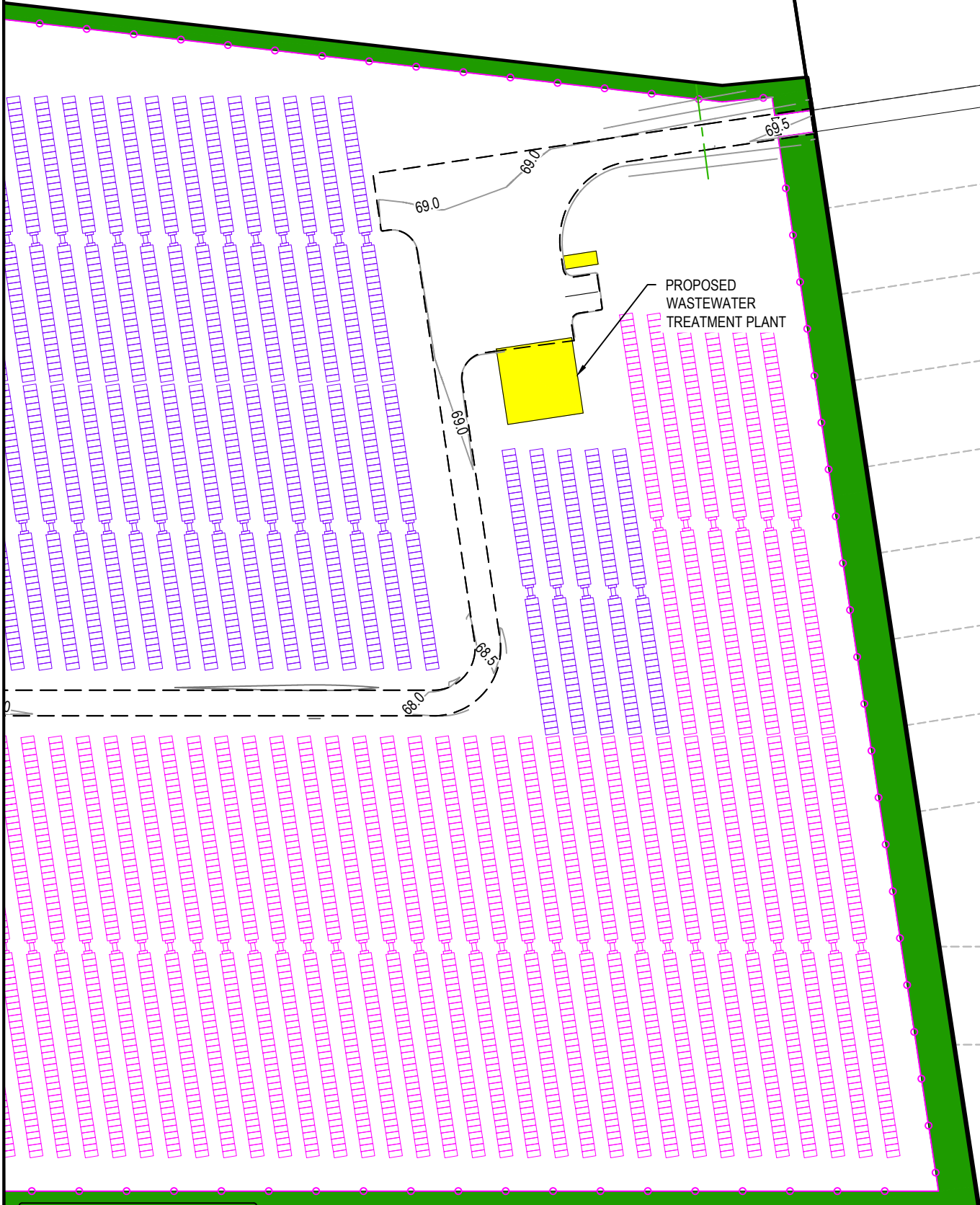
Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**PROPOSED
CONTOURS
PLAN SHEET 3 OF 4**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C210-PR-CONTOURS.DWG		
Drawing no.	C210-3	Rev	A



FUTURE
RESIDENTIAL
SUBDIVISION

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND	
	EX BDY
	PROP BDY
	PROP ROAD EXTENTS
	PR MAJOR CONTOUR
	PR MINOR CONTOUR
	PROP EXTENT WORK
	PROP FENCE
	POWER TRANSFORMER
	66 x SOLAR PANEL STRING
	44 x SOLAR PANEL STRING
	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



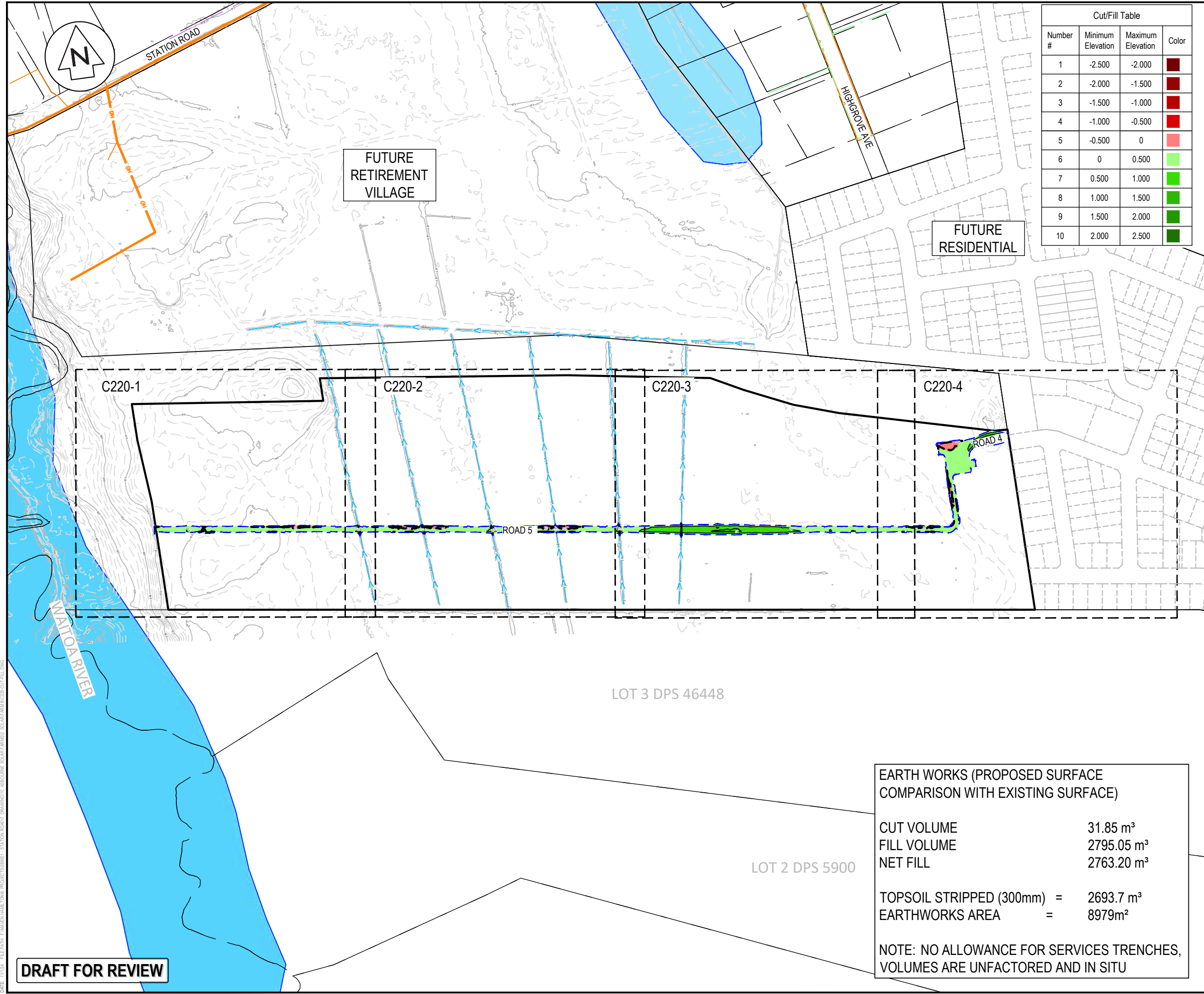
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Project
**ASHBOURNE
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FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CONTOURS
PLAN SHEET 4 OF 4**

Project no.	298001		
Scale	1:1000 @ A3		
Cad file	C210-PR-CONTOURS.DWG		
Drawing no.	C210-4	Rev	A

DRAFT FOR REVIEW



Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
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2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

- NOTES
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 6. EXISTING SERVICES ARE FROM BAUDIG AND THEY ARE INDICATIVE ONLY, CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 7. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 8. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
 9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.

- LEGEND
- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PROP EXTENT WORK
 - PROP EARTHWORK EXTENT
 - PROP FUTURE
 - EX-WATER COURSE
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - EX WATERMAIN

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CUT/FILL
KEY PLAN**

Project no.	289001		
Scale	1:4000 @ A3		
Cad file	C220-CUT-FILL.DWG		
Drawing no.	C220	Rev	A

EARTH WORKS (PROPOSED SURFACE
COMPARISON WITH EXISTING SURFACE)

CUT VOLUME

FILL VOLUME

NET FILL

31.85 m³

2795.05 m³

2763.20 m³

TOPSOIL STRIPPED (300mm) =

EARTHWORKS AREA =

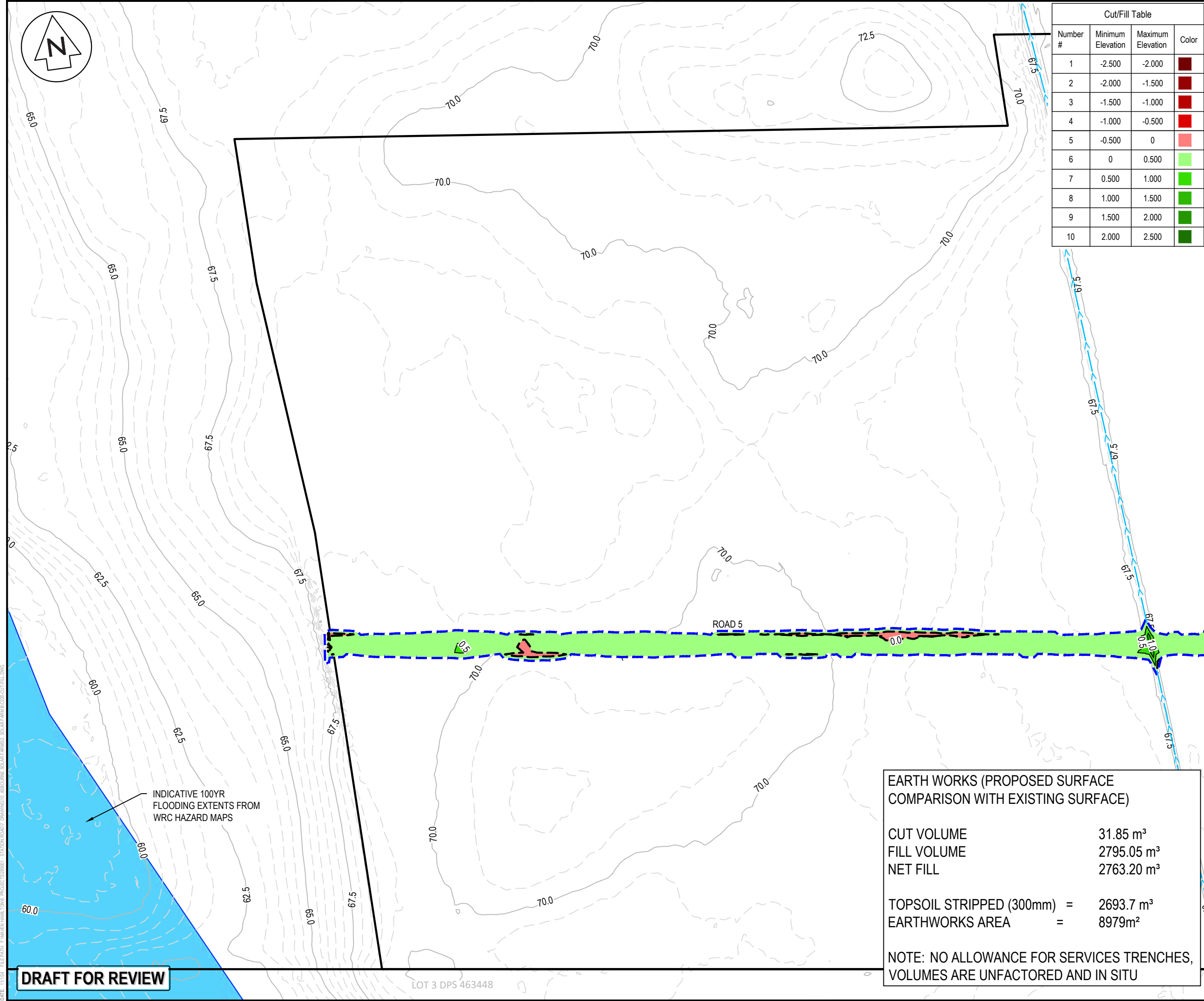
2693.7 m³

8979m²

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES,
VOLUMES ARE UNFACTORED AND IN SITU

DATE: 11/1/24 FILEPATH: F:\Maven\Hamilton\06 - PROJECTS\289001 - STATION ROAD\7 DRAWING\01 - ASHBOURNE SOLAR FARM\B\220-CUT-FILL.DWG

DRAFT FOR REVIEW



Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
1	-2.500	-2.000	
2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES.
 3. CO-ORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 5. ORIGIN OF LEVELS = BENCHMARK IT 1 DPS 29877 PUBLISHED RL = 65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
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 8. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
 9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.

- LEGEND
- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PROP EXTENT WORK
 - PROP EARTHWORK EXTENT
 - PROP FUTURE
 - EX-WATER COURSE
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - EX WATERMAIN

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CUT/FILL
PLAN SHEET 1 OF 4**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C220-CUT-FILL.DWG
Drawing no.	C220-1
Rev	A

EARTH WORKS (PROPOSED SURFACE
COMPARISON WITH EXISTING SURFACE)

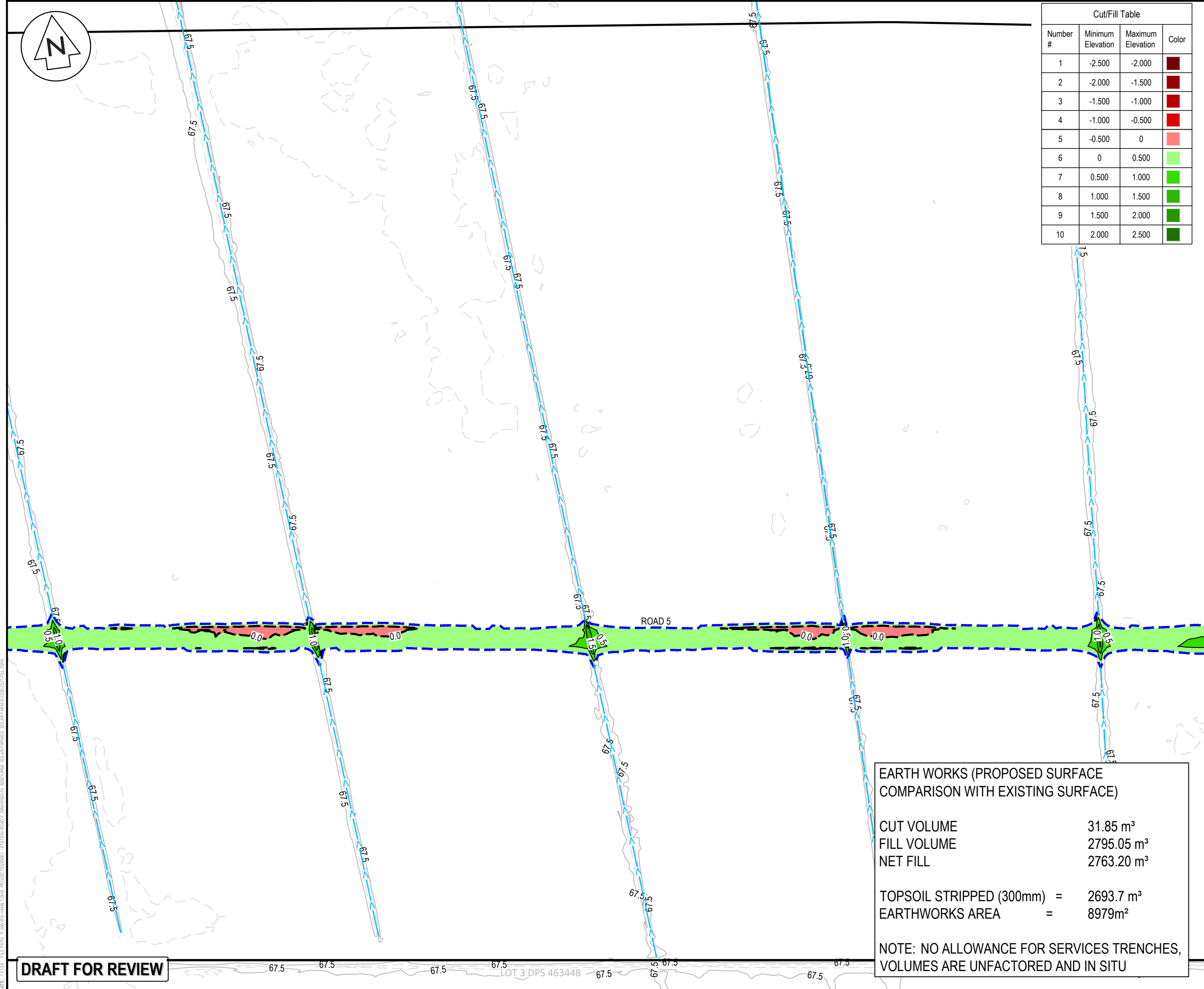
CUT VOLUME	31.85 m ³
FILL VOLUME	2795.05 m ³
NET FILL	2763.20 m ³
TOPSOIL STRIPPED (300mm)	= 2693.7 m ³
EARTHWORKS AREA	= 8979m ²

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES,
VOLUMES ARE UNFACTORED AND IN SITU

DATE: 11/1/24 FILE PATH: F:\Maven\Hamilton\06 - PROJECTS\289001 - STATION ROAD\7 DRAWING\10 - ASHBOURNE SOLAR FARM\B\220-CUT-FILL.DWG

DRAFT FOR REVIEW

LOT 3 DPS 463448



Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
1	-2.500	-2.000	
2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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- LEGEND
- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PROP EXTENT WORK
 - PROP EARTHWORK EXTENT
 - PROP FUTURE
 - EX-WATER COURSE
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - EX WATERMAIN

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CUT/FILL
PLAN SHEET 2 OF 4**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C220-CUT-FILL.DWG
Drawing no.	C220-2
Rev	A

EARTH WORKS (PROPOSED SURFACE
COMPARISON WITH EXISTING SURFACE)

CUT VOLUME

FILL VOLUME

NET FILL

31.85 m³

2795.05 m³

2763.20 m³

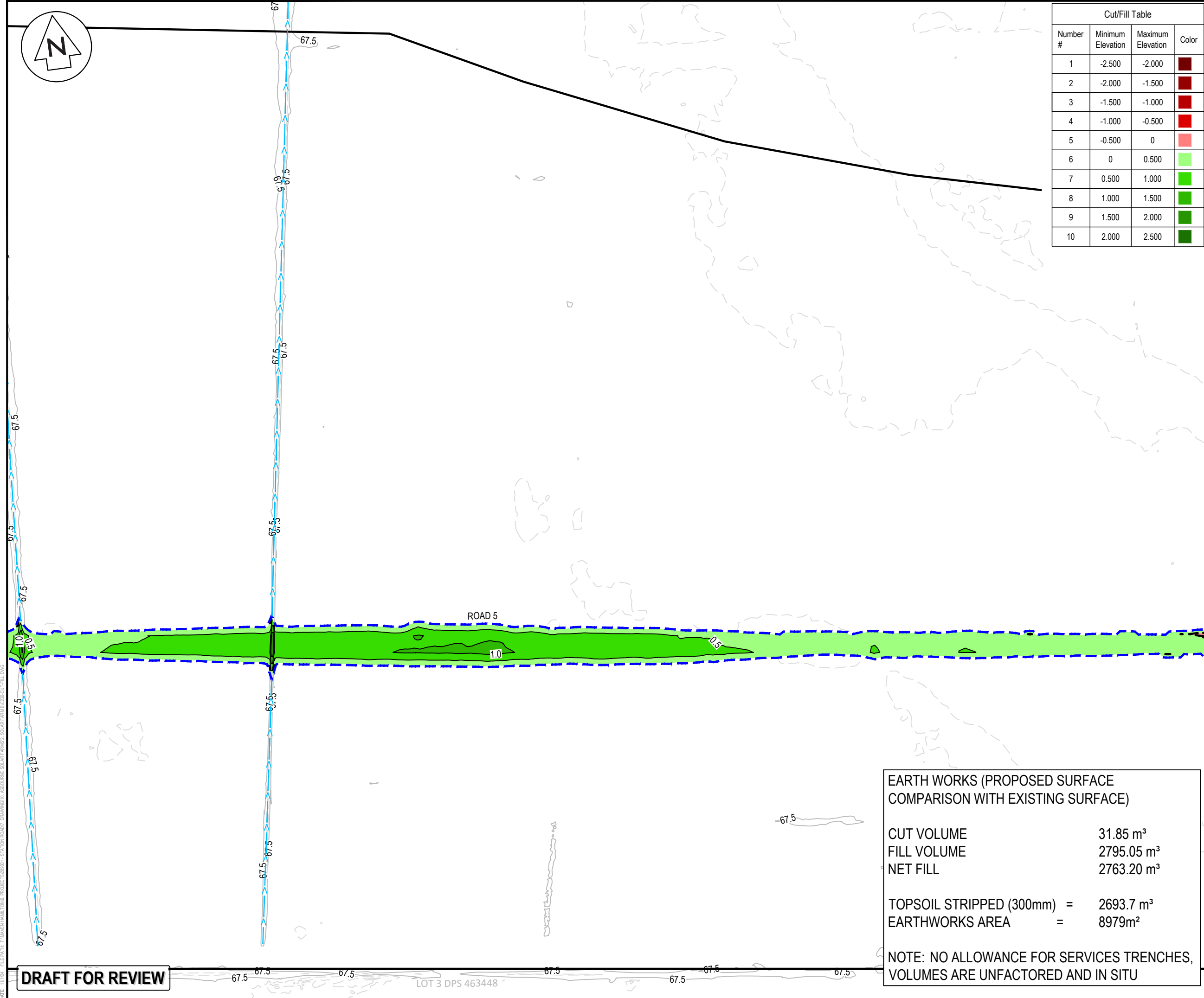
TOPSOIL STRIPPED (300mm) =

EARTHWORKS AREA =

2693.7 m³

8979m²

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES,
VOLUMES ARE UNFACTORED AND IN SITU



Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
1	-2.500	-2.000	
2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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 9. DEPTH CONTOUR INTERVALS ARE AT 0.5m INTERVALS.

- LEGEND
- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PROP EXTENT WORK
 - PROP EARTHWORK EXTENT
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 - EX-WATER COURSE
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - EX WATERMAIN

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CUT/FILL
PLAN SHEET 3 OF 4**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C220-CUT-FILL.DWG
Drawing no.	C220-3
Rev	A

EARTH WORKS (PROPOSED SURFACE
COMPARISON WITH EXISTING SURFACE)

CUT VOLUME

FILL VOLUME

NET FILL

31.85 m³

2795.05 m³

2763.20 m³

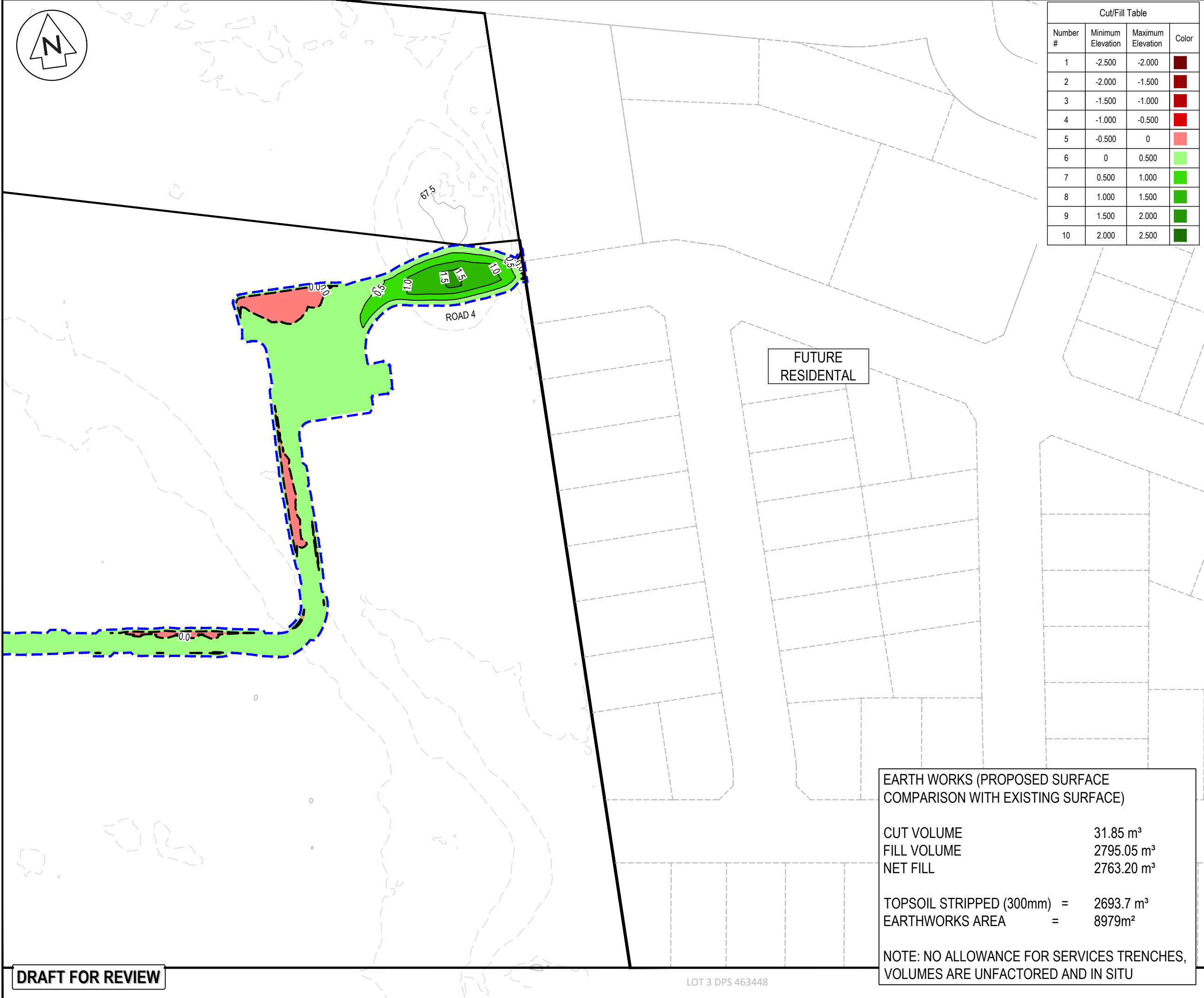
TOPSOIL STRIPPED (300mm) =

EARTHWORKS AREA =

2693.7 m³

8979m²

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES,
VOLUMES ARE UNFACTORED AND IN SITU



Cut/Fill Table			
Number #	Minimum Elevation	Maximum Elevation	Color
1	-2.500	-2.000	
2	-2.000	-1.500	
3	-1.500	-1.000	
4	-1.000	-0.500	
5	-0.500	0	
6	0	0.500	
7	0.500	1.000	
8	1.000	1.500	
9	1.500	2.000	
10	2.000	2.500	

- NOTES
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- EX BDY
 - PROP BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PROP EXTENT WORK
 - PROP EARTHWORK EXTENT
 - PROP FUTURE
 - EX-WATER COURSE
 - EX TELECOM
 - EX POWER
 - EX FIBRE
 - EX WATERMAIN

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
CUT/FILL
PLAN SHEET 4 OF 4**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C220-CUT-FILL.DWG
Drawing no.	C220-4
Rev	A

EARTH WORKS (PROPOSED SURFACE
COMPARISON WITH EXISTING SURFACE)

CUT VOLUME

FILL VOLUME

NET FILL

31.85 m³

2795.05 m³

2763.20 m³

TOPSOIL STRIPPED (300mm) =

EARTHWORKS AREA =

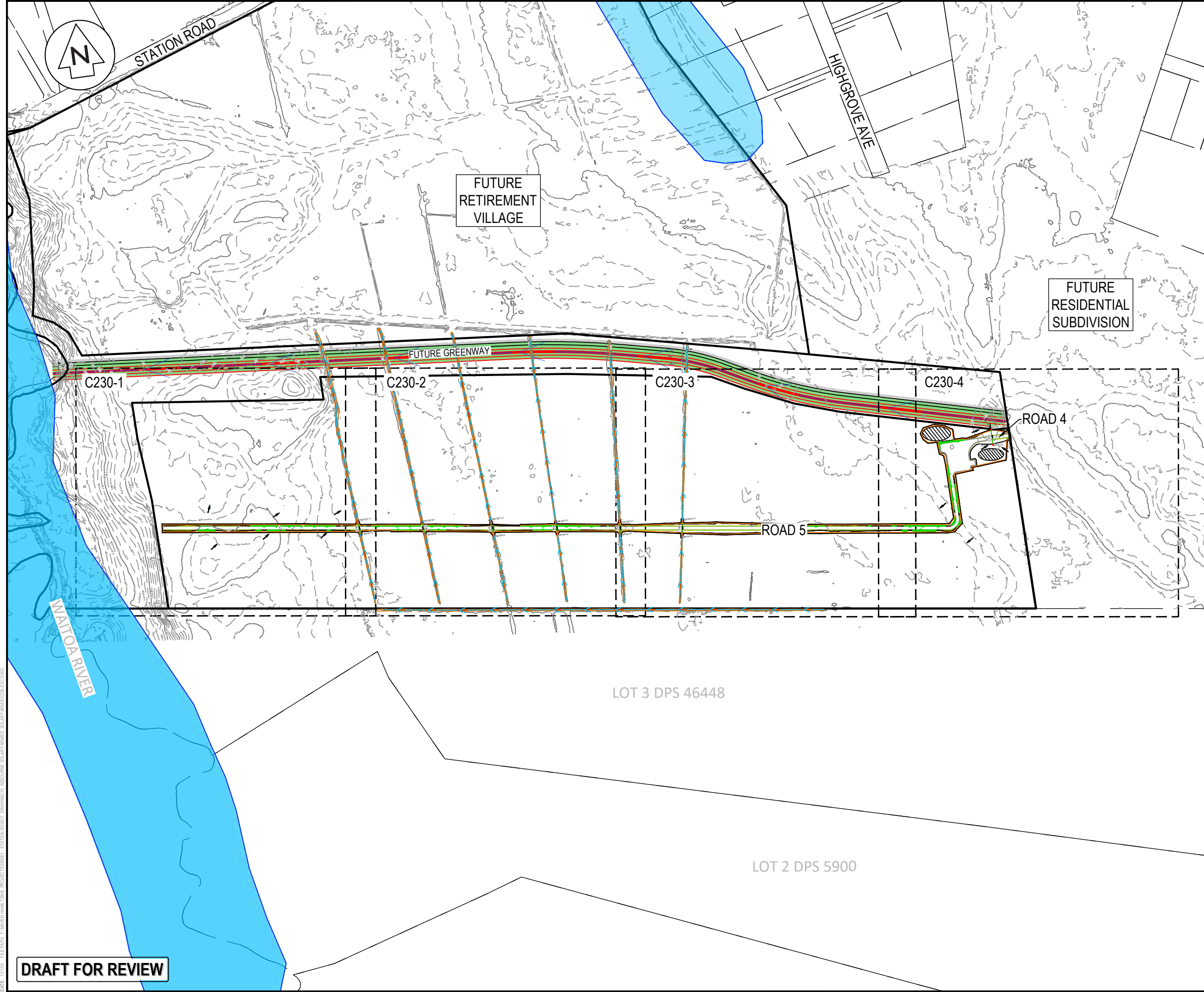
2693.7 m³

8979m²

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES,
VOLUMES ARE UNFACTORED AND IN SITU

DRAFT FOR REVIEW

LOT 3 DPS 463448



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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 10. REFER TO C240 SERIES DRAWINGS FOR SEDIMENT AND EROSION CONTROL STANDARD DETAILS.

LEGEND

---	EX BDY
---	PROP BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PROP EXTENT WORK
→	PROP CLEANWATER
→	PROP DIRTYWATER
→	PROP SILT FENCE
▨	PROP STOCKPILE
□	PROP DROP OUT PIT

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



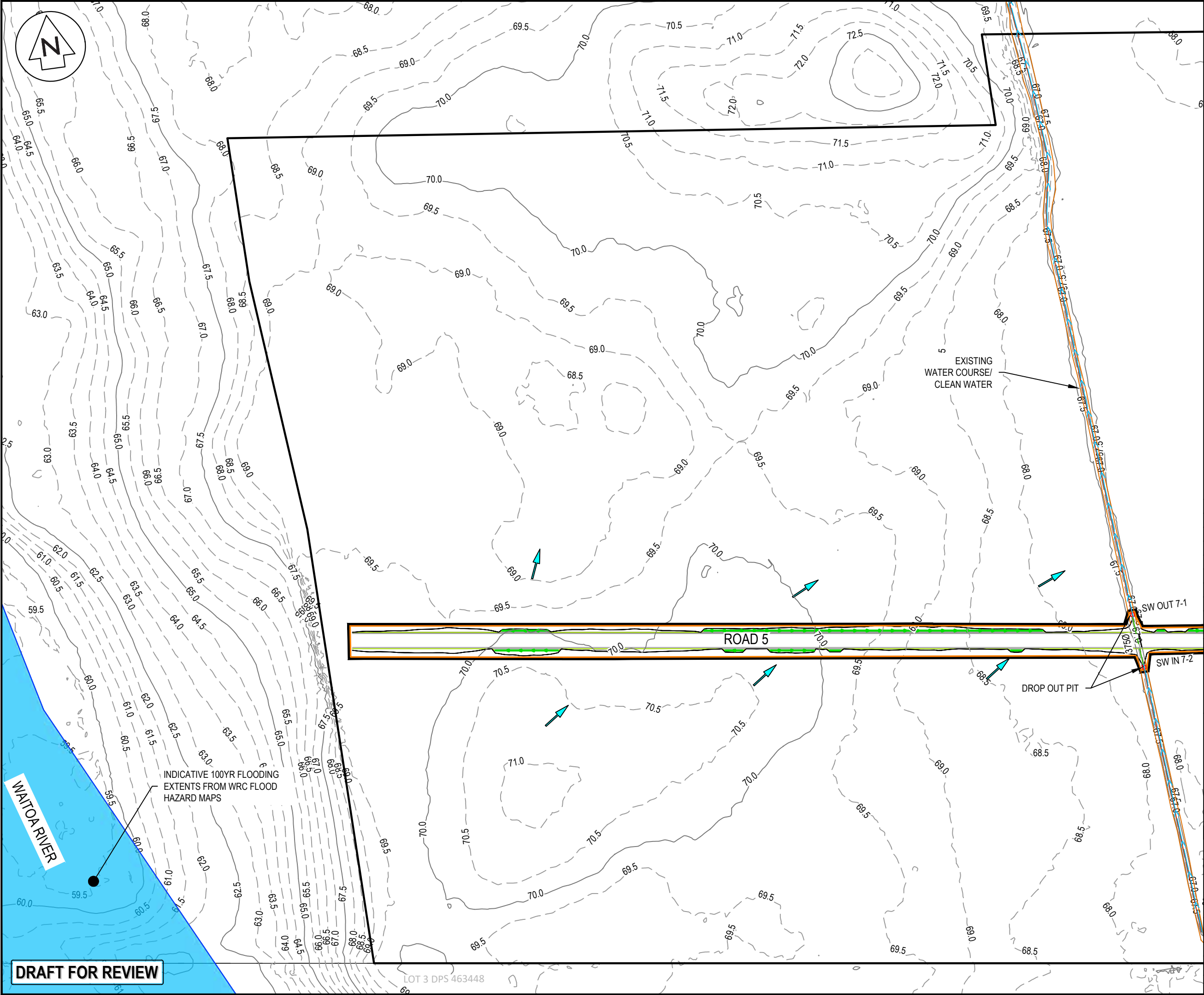
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New Zealand

Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED SEDIMENT
AND EROSION CONTROL
KEY PLAN**

Project no.	289001		
Scale	1:4000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230	Rev	A

DATE: 11/1/24 FILEPATH: F:\MVEN\HAMILTON\6. PROJECTS\89001 - STATION ROAD\DRAWING\01. ASHBORNE SOLAR FARM\ESC\230-ESC.DWG



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

---	EX BDY
---	PROP BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PROP EXTENT WORK
---	PROP CLEANWATER
---	PROP DIRTYWATER
---	PROP SILT FENCE
---	PROP STOCKPILE
---	PROP DROP OUT PIT

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
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Project
**ASHBOURNE
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DEVELOPMENTS LTD**

Title
**PROPOSED SEDIMENT
AND EROSION CONTROL
PLAN SHEET 1 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230-1	Rev	A



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

---	EX BDY
---	PROP BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PROP EXTENT WORK
---	PROP CLEANWATER
---	PROP DIRTYWATER
---	PROP SILT FENCE
---	PROP STOCKPILE
---	PROP DROP OUT PIT

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

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Project
**ASHBOURNE
SOLAR FARM B
FOR
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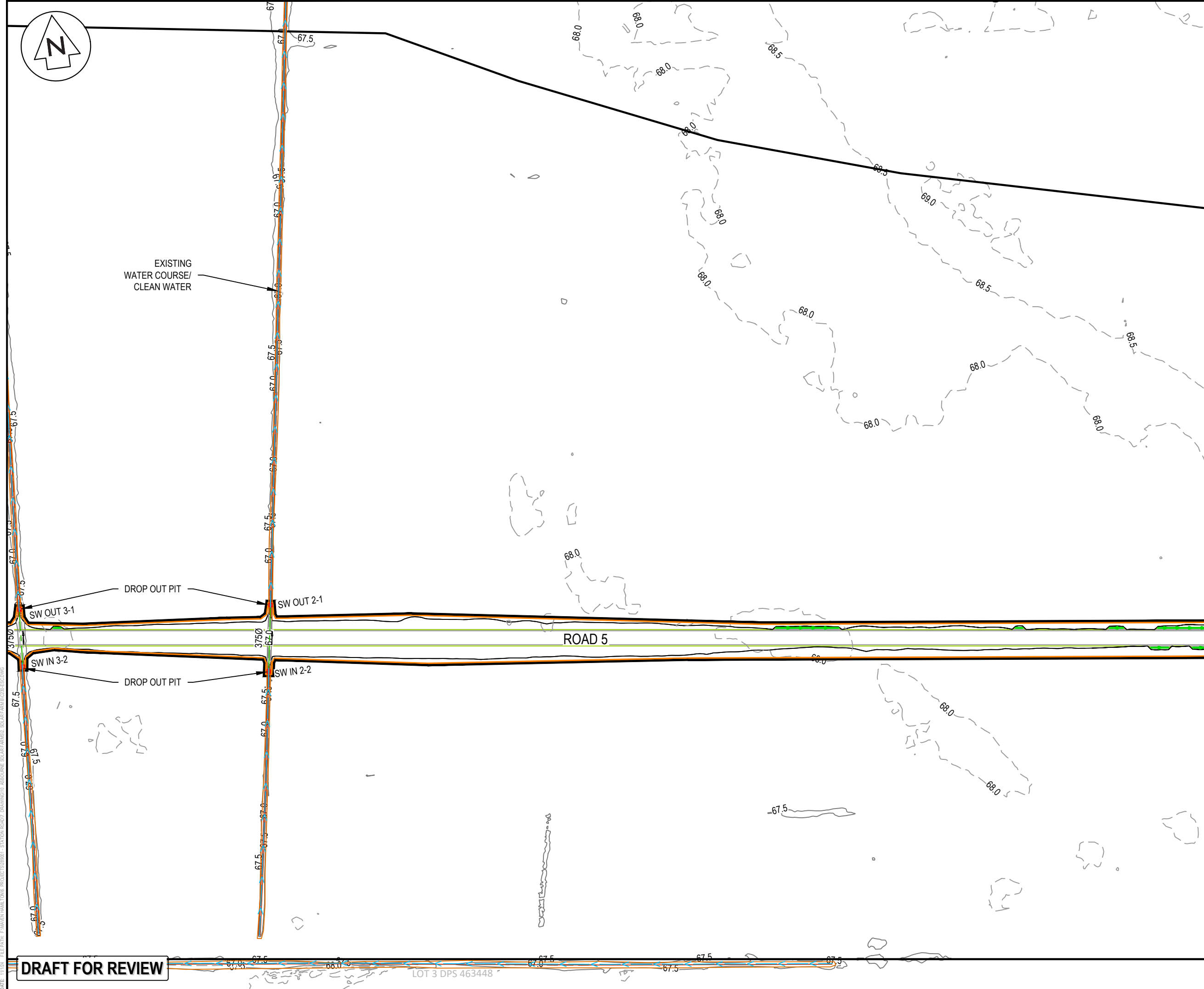
Title
**PROPOSED SEDIMENT
AND EROSION CONTROL
PLAN SHEET 2 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230-2	Rev	A

DATE: 11/1/24 FILEPATH: F:\MVEN\HAMILTON6 - PROJECTS\88001 - STATION ROAD\DRAWING\01 ASHBOURNE SOLAR FARM\B2B-ESC.DWG

DRAFT FOR REVIEW

LOT 3 DPS 463448



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

---	EX BDY
---	PROP BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PROP EXTENT WORK
---	PROP CLEANWATER
---	PROP DIRTYWATER
---	PROP SILT FENCE
---	PROP STOCKPILE
---	PROP DROP OUT PIT

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	



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Project

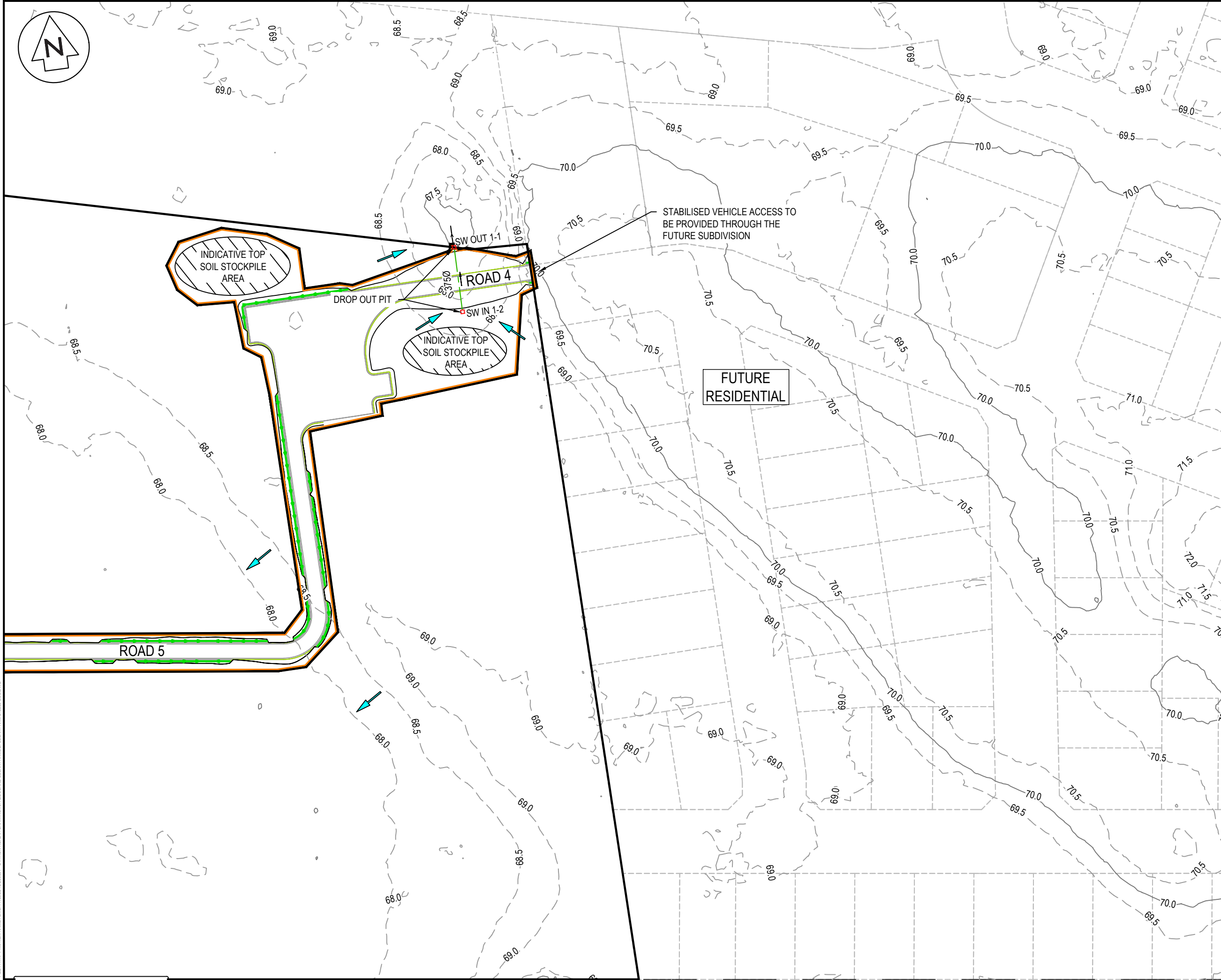
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**PROPOSED SEDIMENT
AND EROSION CONTROL
PLAN SHEET 3 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230-3	Rev	A

DRAFT FOR REVIEW



NOTES

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LEGEND

---	EX BDY
---	PROP BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PROP EXTENT WORK
---	PROP CLEANWATER
---	PROP DIRTYWATER
---	PROP SILT FENCE
---	PROP STOCKPILE
---	PROP DROP OUT PIT

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

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Project

**ASHBOURNE
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FOR
MATAMATA
DEVELOPMENTS LTD**

Title

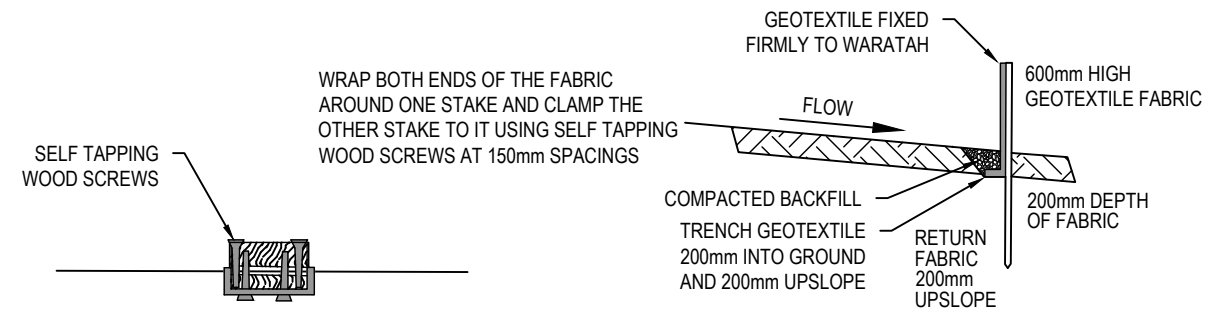
**PROPOSED SEDIMENT
AND EROSION CONTROL
PLAN SHEET 4 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C230-ESC.DWG		
Drawing no.	C230-4	Rev	A

DATE: 11/1/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\289001 - STATION ROAD\DRAWING\01. ASHBOURNE SOLAR FARM\B\ESC.DWG

DRAFT FOR REVIEW

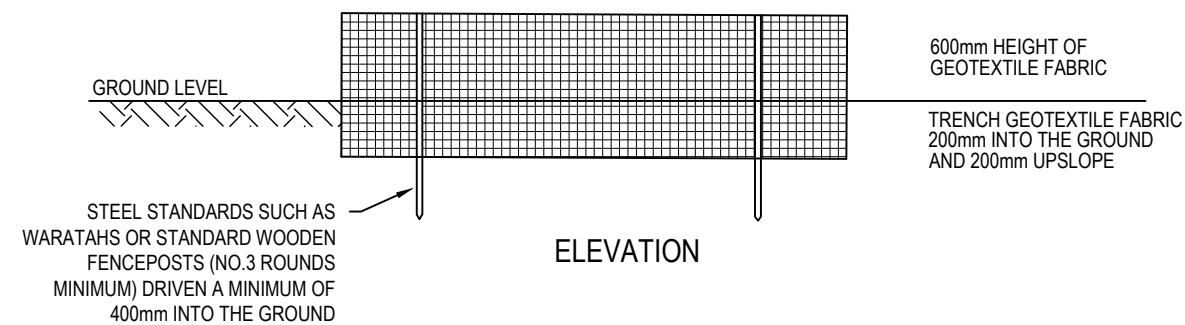
LOT 3 DPS 463448



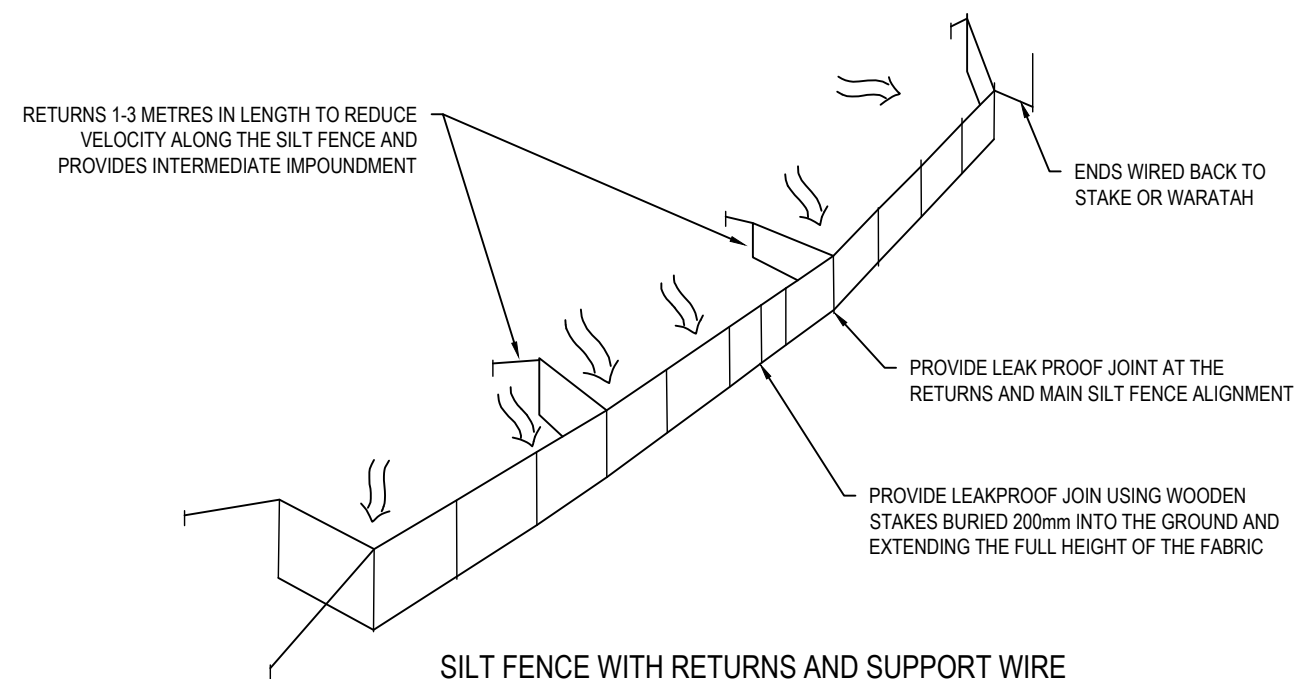
CROSS SECTION

FABRIC JOIN

POST SPACING CAN BE INCREASED FROM 2 METRES TO 4 METRES IF SUPPORTED BY A 2.5mm DIAMETER HIGH TENSILE WIRE ALONG THE TOP WITH CLIPS EVERY 200mm



ELEVATION



SILT FENCE WITH RETURNS AND SUPPORT WIRE

DRAFT FOR REVIEW

- | NOTES |
|--|
| <ol style="list-style-type: none"> 1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES. 2. ALL WORKS TO BE IN ACCORDANCE WITH WAIKATO REGIONAL COUNCIL EROSION AND SEDIMENT CONTROL GUIDELINES FOR SOIL DISTURBING ACTIVITIES 2009 AND SUBSEQUENT UPDATES. 3. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT. 4. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM. 5. ORIGIN OF LEVELS = BENCHMARK IT 1 DPS 29877
PUBLISHED RL=65.51, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE. 6. REFER TO C230 SERIES DRAWINGS FOR SEDIMENT AND EROSION CONTROL LAYOUT DRAWINGS. |

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey			
Design			
Drawn	TCH	10/2024	
Checked	DJM	11/2024	

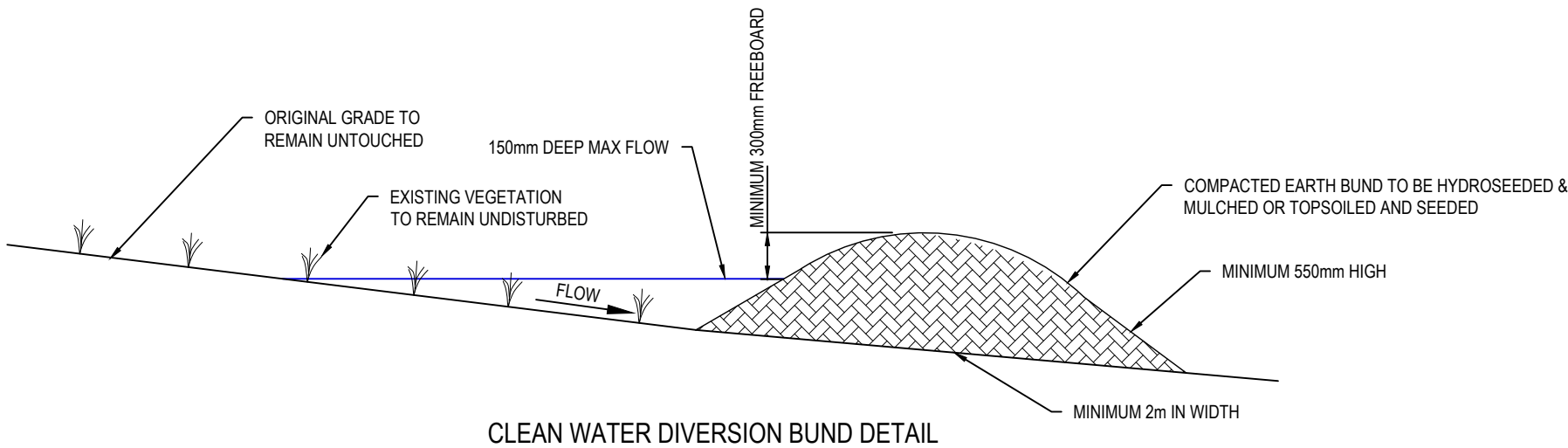
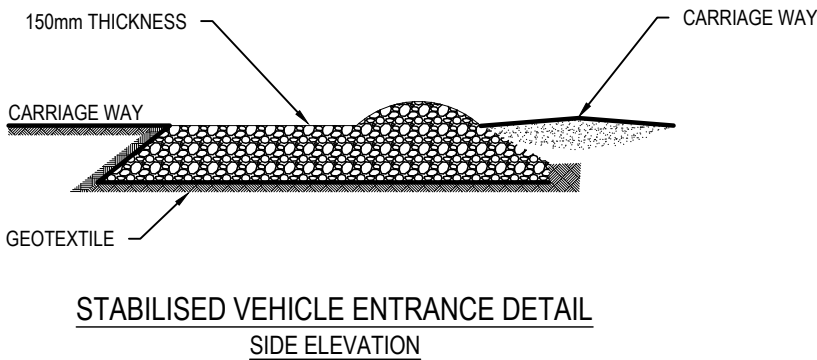
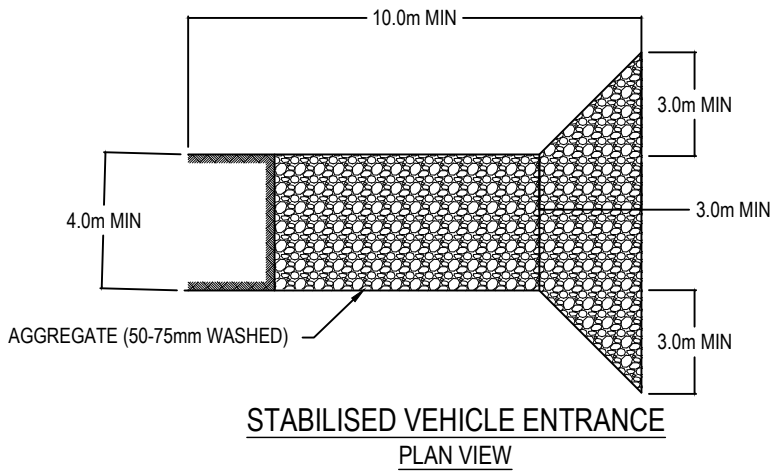


Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**SEDIMENT EROSION
 CONTROL DETAILS
 SHEET 1 OF 2**

Project no.	289001		
Scale	N.T.S		
Cad file	C240-ESC DET.DWG		
Drawing no.	C240	Rev	A

DATE: 11/1/24 FILEPATH: F:\Maven\Hamilton\6. PROJECTS\289001 - STATION ROAD\7. DRAWING\10. ASHBOURNE SOLAR FARM\2. SOLAR FARM\ESC DET.DWG



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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 6. REFER TO C230 SERIES DRAWINGS FOR SEDIMENT AND EROSION CONTROL LAYOUT DRAWINGS.

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey			
Design			
Drawn	TCH		10/2024
Checked	DJM		11/2024

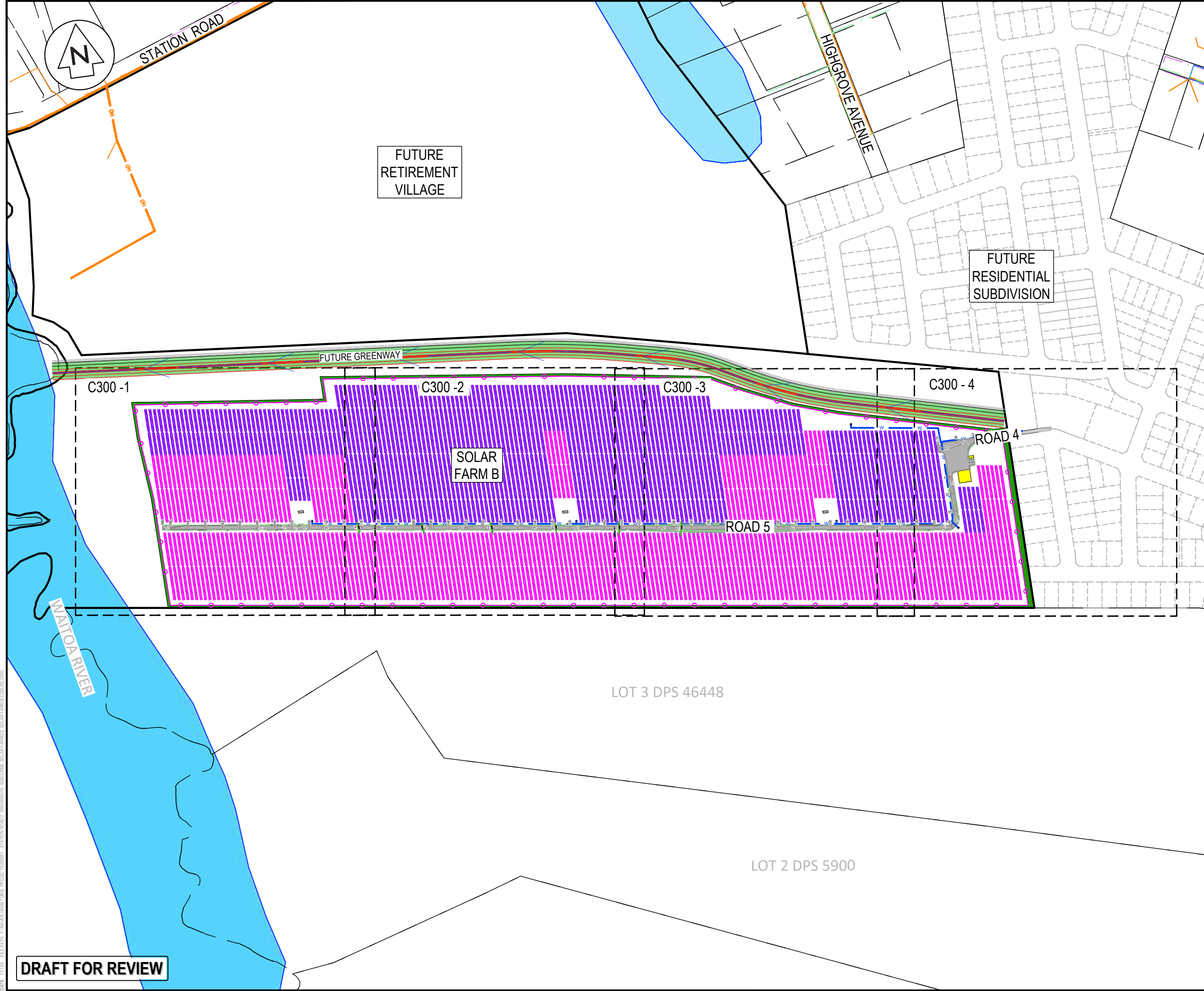
M **Maven Waikato**
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New Zealand

Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**SEDIMENT EROSION
CONTROL DETAILS
SHEET 2 OF 2**

Project no.	289001		
Scale	N.T.S		
Cad file	C240-ESC DET.DWG		
Drawing no.	C240-1	Rev	A

DRAFT FOR REVIEW



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
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 6. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 7. REFER TO C320 SERIES DRAWINGS FOR THE ROADING LONG-SECTION DRAWINGS.
 8. FINAL PAVEMENT DESIGN SUBJECT TO CBR/BEAM TESTS ON SUBGRADE MATERIAL.
 9. SETOUT SCHEDULE WITH COORDINATES OF CHAINAGE POINTS ALONG ROAD CENTRELINE TO BE SUPPLIED TO THE CONTRACTOR PRIOR TO CONSTRUCTION.
 10. REFER TO THE ROADING LONG-SECTIONS FOR FINISHED CENTRELINE LEVELS. REFER TO TYPICAL CROSS SECTIONS TO OBTAIN LEVELS FOR OTHER LOCATIONS.

LEGEND

—	EX BDY
—	PROP BDY
— T —	EX TELECOM
— P —	EX POWER
— F —	EX FIBRE
—	PROP ROAD
—	PROP LANDSCAPING
—	PROP SW PIPE
○	PROP WATER TROUGH
—	POWER TRANSFORMER
—	66 x SOLAR PANEL STRING
—	44 x SOLAR PANEL STRING
—	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



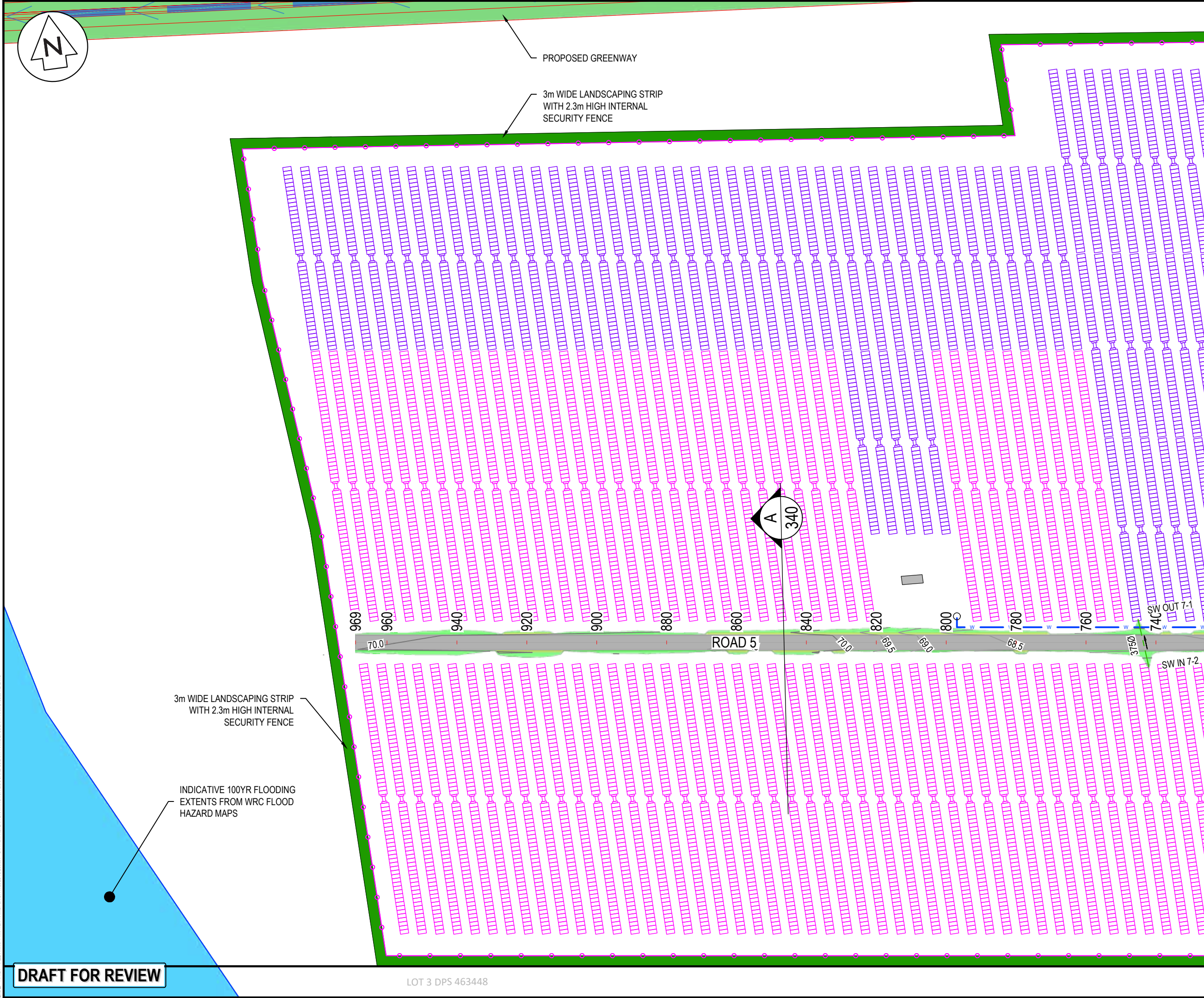
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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
ROADING
KEY PLAN**

Project no.	289001		
Scale	1:4000 @ A3		
Cad file	C300-RD.DWG		
Drawing no.	C300	Rev	A

DATE: 11/10/24 FILEPATH: F:\MVEN\HAMILTON\PROJECTS\88001 - STATION ROAD\DRAWING\01 ASHBOURNE SOLAR FARM\88001 - STATION ROAD.DWG



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LEGEND

	EX BDY
	PROP BDY
	EX TELECOM
	EX POWER
	EX FIBRE
	PROP ROAD
	PROP LANDSCAPING
	PROP SW PIPE
	PROP WATER TROUGH
	POWER TRANSFORMER
	66 x SOLAR PANEL STRING
	44 x SOLAR PANEL STRING
	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project
**ASHBOURNE
SOLAR FARM B
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MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
ROADING
PLAN SHEET 1 OF 4**

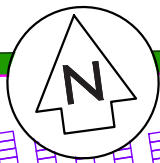
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Cad file	C300-RD.DWG		
Drawing no.	C300-1	Rev	A

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LOT 3 DPS 463448

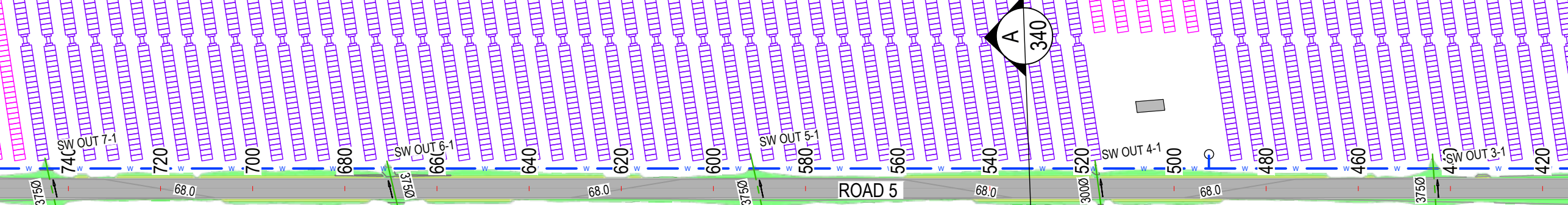
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DATE: 11/1/24 FILE PATH: F:\MVEN\HAMILTON\PROJECTS\88001 - STATION ROAD\DRAWING\01 ASHBORNE SOLAR FARM\ASB-RD-DWG



3m WIDE LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE

3m WIDE LANDSCAPING STRIP
WITH 2.3m HIGH INTERNAL
SECURITY FENCE



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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 7. REFER TO C320 SERIES DRAWINGS FOR THE ROADING LONG-SECTION DRAWINGS.
 8. FINAL PAVEMENT DESIGN SUBJECT TO CBR/BEM TESTS ON SUBGRADE MATERIAL.
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LEGEND

—	EX BDY
—	PROP BDY
— T —	EX TELECOM
— P —	EX POWER
— F —	EX FIBRE
■	PROP ROAD
■	PROP LANDSCAPING
■	PROP SW PIPE
○	PROP WATER TROUGH
■	POWER TRANSFORMER
—	66 x SOLAR PANEL STRING
—	44 x SOLAR PANEL STRING
■	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

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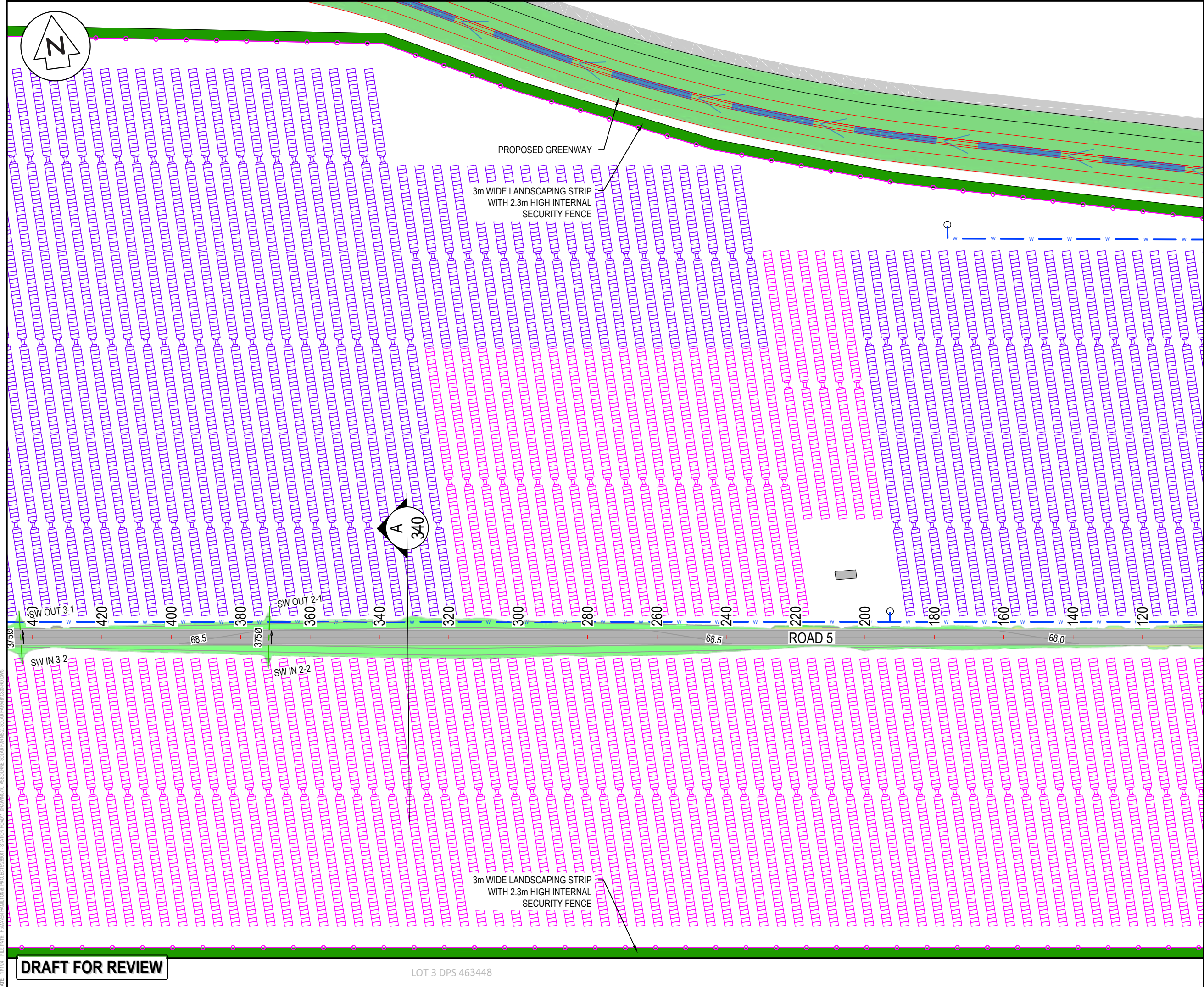
Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
ROADING
PLAN SHEET 2 OF 4**

Project no.	289001
Scale	1:1000 @ A3
Cad file	C300-RD.DWG
Drawing no.	C300-2
Rev	A

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LOT 3 DPS 463448




- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
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LEGEND

—	EX BDY
—	PROP BDY
— T —	EX TELECOM
— P —	EX POWER
— F —	EX FIBRE
■	PROP ROAD
■	PROP LANDSCAPING
—	PROP SW PIPE
○	PROP WATER TROUGH
■	POWER TRANSFORMER
—	66 x SOLAR PANEL STRING
—	44 x SOLAR PANEL STRING
■	100YR INDICATIVE FLOODING EXTENTS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024



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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**PROPOSED
ROADING
PLAN SHEET 3 OF 4**














Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C300-RD.DWG		
Drawing no.	C300-3	Rev	A

DATE: 11/10/24 FILE PATH: F:\MVEN\HAMILTON\PROJECTS\88001 - STATION ROAD\DRAWING\01 ASHBOURNE SOLAR FARM\RD-C300-RD.DWG

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LOT 3 DPS 463448



- LEGEND**
- | | |
|--|-----------------------------------|
|  | EX BDY |
|  | PROP BDY |
|  | EX TELECOM |
|  | EX POWER |
|  | EX FIBRE |
|  | PROP ROAD |
|  | PROP LANDSCAPING |
|  | PROP SW PIPE |
|  | PROP WATER TROUGH |
|  | POWER TRANSFORMER |
|  | 66 x SOLAR PANEL STRING |
|  | 44 x SOLAR PANEL STRING |
|  | 100YR INDICATIVE FLOODING EXTENTS |



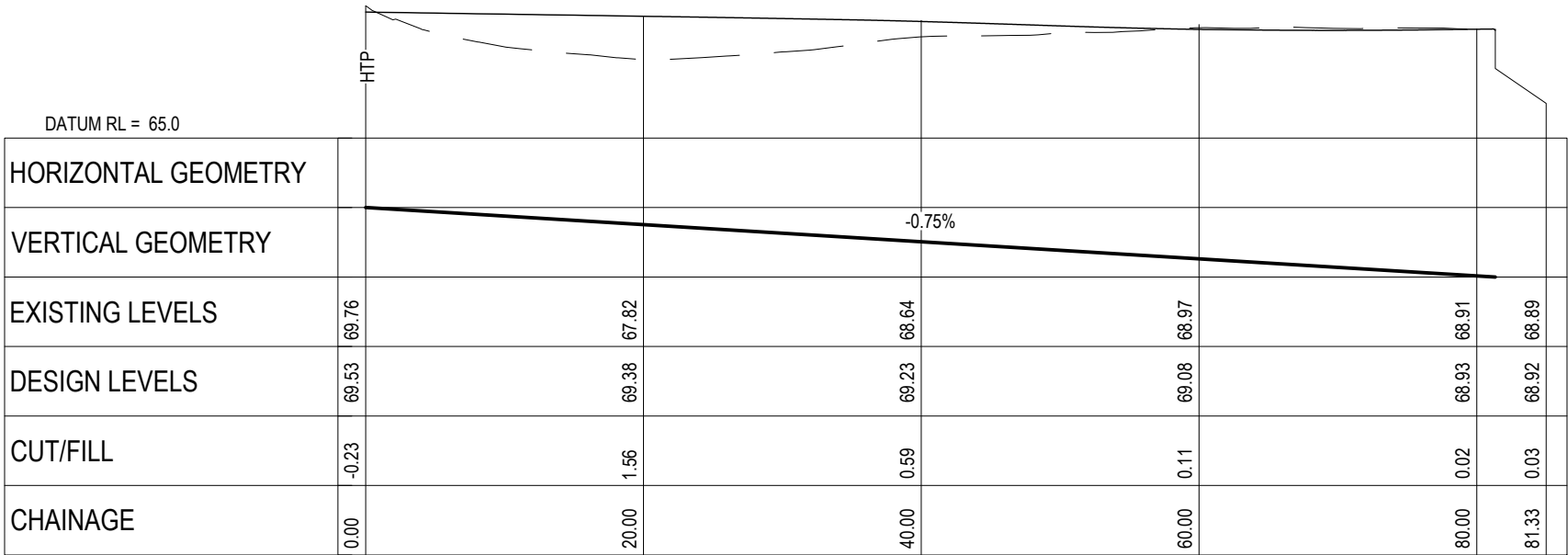
Maven Waikato
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 Level 1 286 Victoria Street, Hamilton
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Title

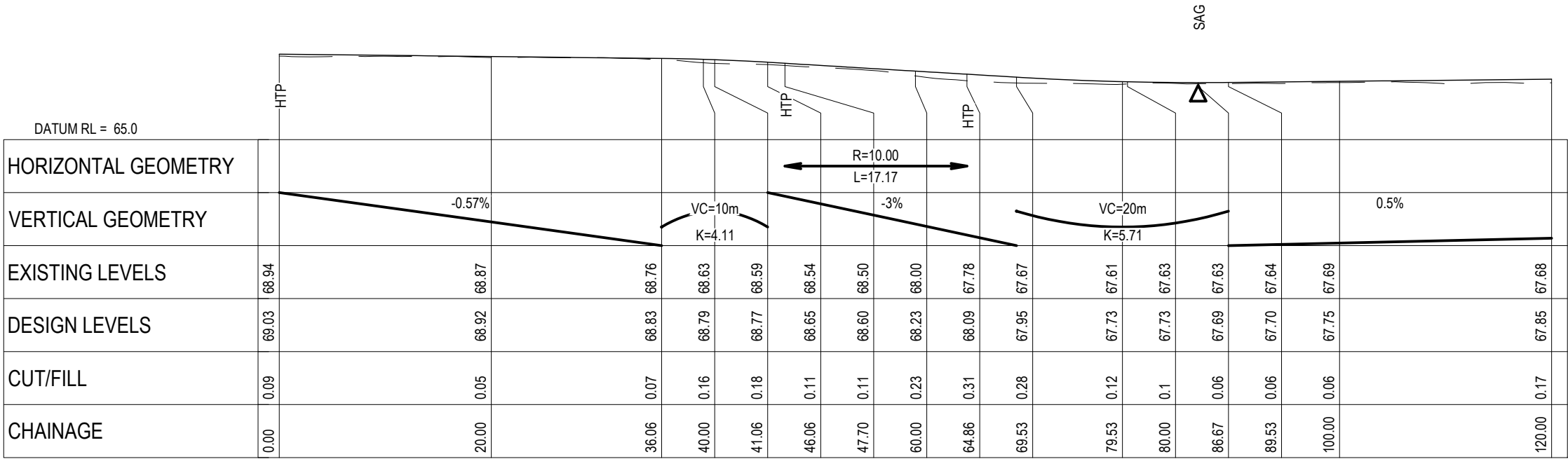
**PROPOSED
ROADING
PLAN SHEET 4 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C300-RD.DWG		
Drawing no.	C300-4	Rev	A

DATE: 11/1/24 FILEPATH: F:\MVEN\HAMILTON6 - PROJECTS\289001 - STATION ROAD.DWG\101 ASHBORNE SOLAR FARM\2 SOLAR FARM\C320-RD.LSDWG



ROAD 4 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
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 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

--- EXISTING GROUND LEVEL

— PROPOSED GROUND LEVEL

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	

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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

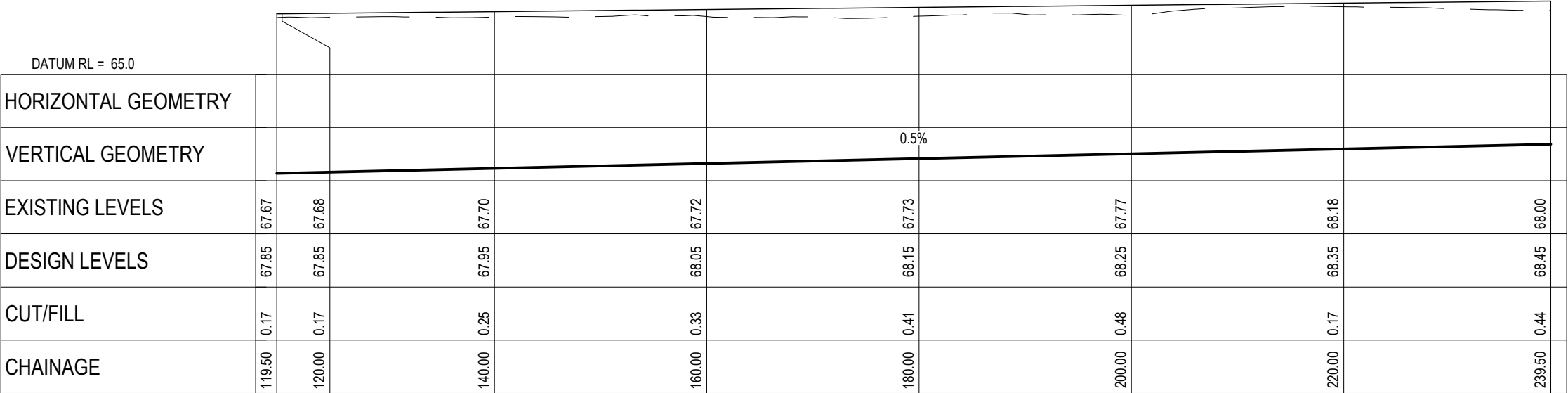
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**PROPOSED
ROADING
LONGSECTIONS**

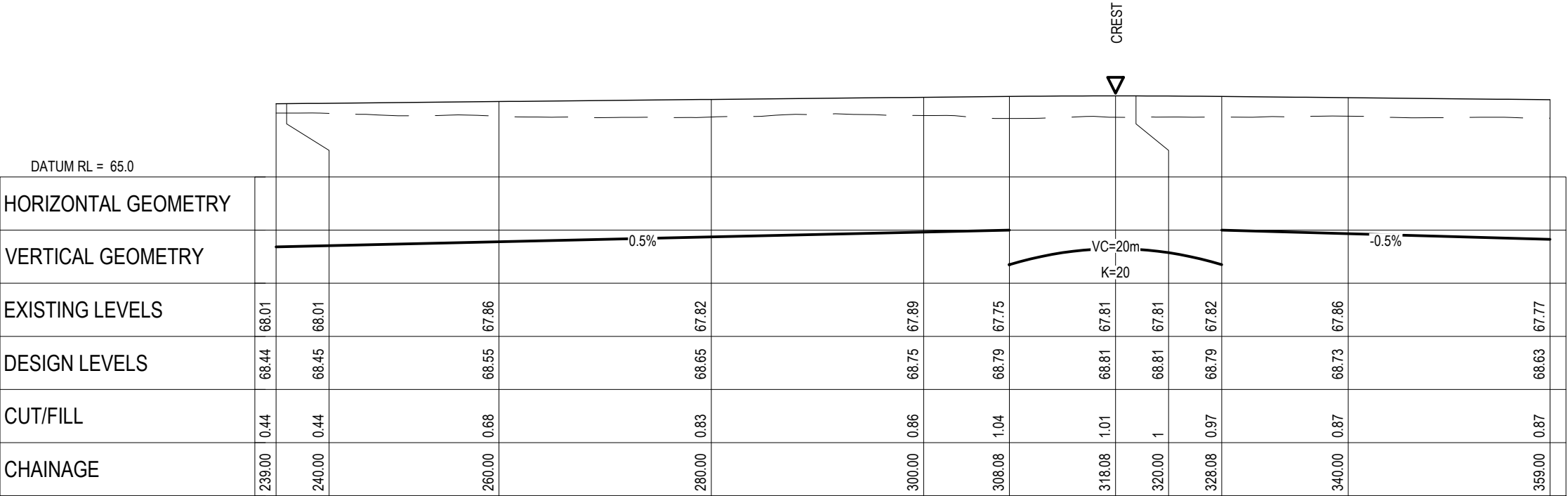
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Cad file	C320-RD L5.DWG		
Drawing no.	C320	Rev	A

DRAFT FOR REVIEW

DATE: 11/1/24 | FILEPATH: F:\MAVEN\HAMITON6 - PROJECTS\289001 - STATION ROAD\DRAWING\01 - ASHBORNE SOLAR FARM\289001-RD.LSDWG



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
- 1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
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Legend

--- EXISTING GROUND LEVEL

— PROPOSED GROUND LEVEL

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	



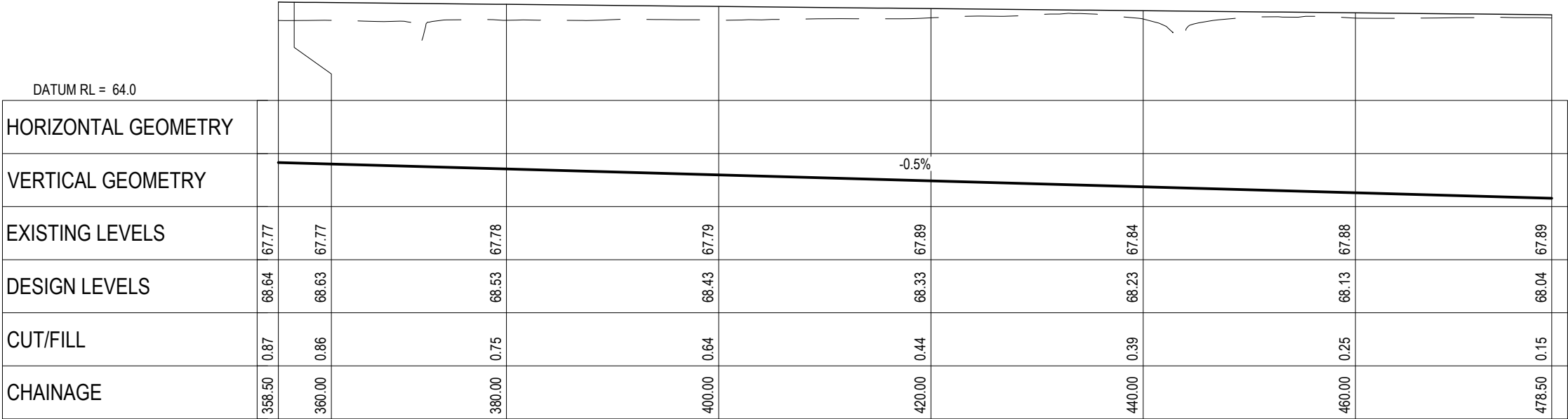
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New Zealand

Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

Title			
PROPOSED ROADING LONGSECTIONS			
Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD LS.DWG		
Drawing no.	C320-1	Rev	A

DATE: 11/1/24 FILEPATH: F:\MAVEN\HAMITON6 PROJECTS\289001 - STATION ROAD.DWG ASHBORNE SOLAR FARM\289001 - STATION ROAD.LSDWG



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

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Legend

EXISTING GROUND LEVEL

PROPOSED GROUND LEVEL

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	

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Level 1 286 Victoria Street, Hamilton

New Zealand

Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

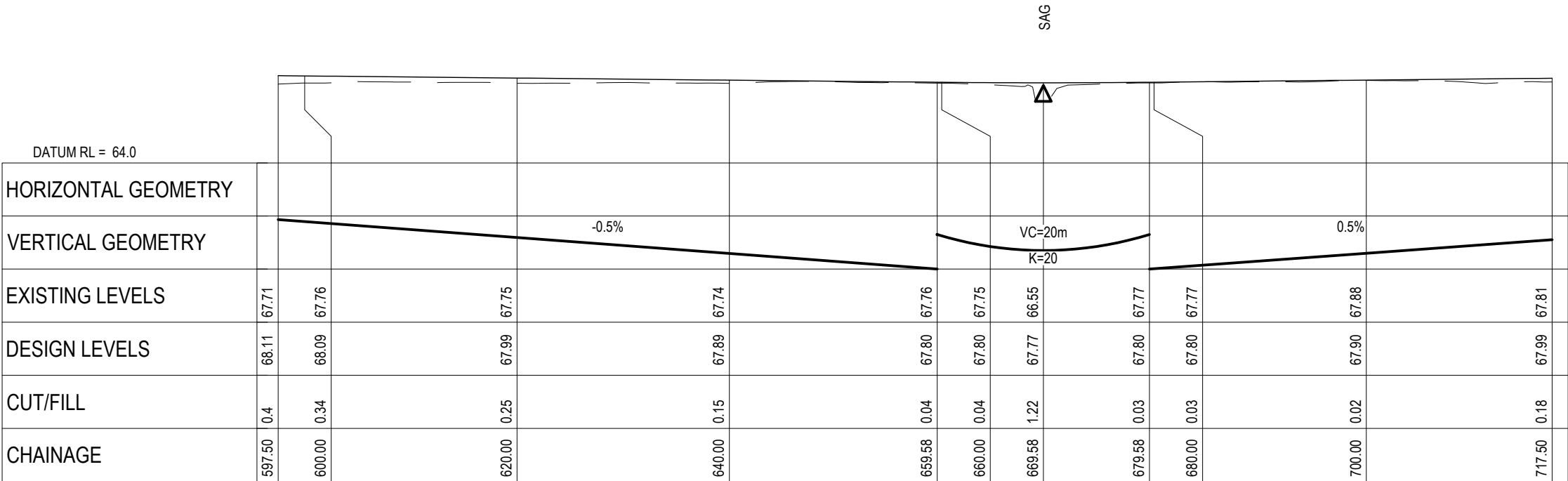
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**PROPOSED
ROADING
LONGSECTIONS**

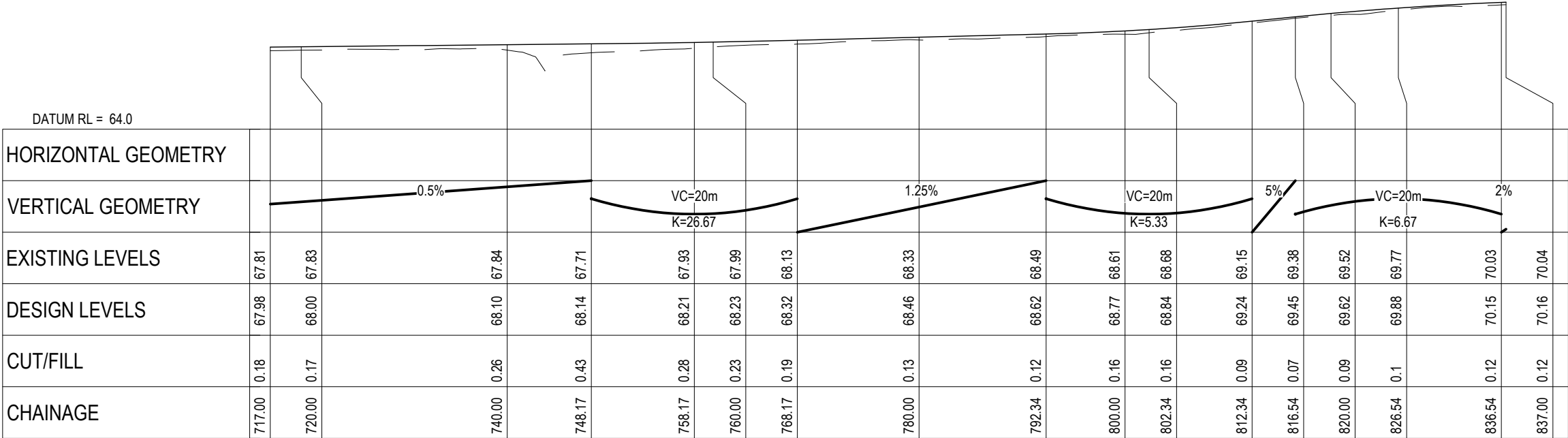
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Drawing no.	C320-2	Rev	A

DRAFT FOR REVIEW

DATE: 11/1/24 FILEPATH: F:\MVEN\HAMITON6 PROJECTS\289001 - STATION ROAD\DRAWING\01 ASHBORNE SOLAR FARM\289001-RD.LSDWG



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

- NOTES
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Legend

--- EXISTING GROUND LEVEL

--- PROPOSED GROUND LEVEL

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	



Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

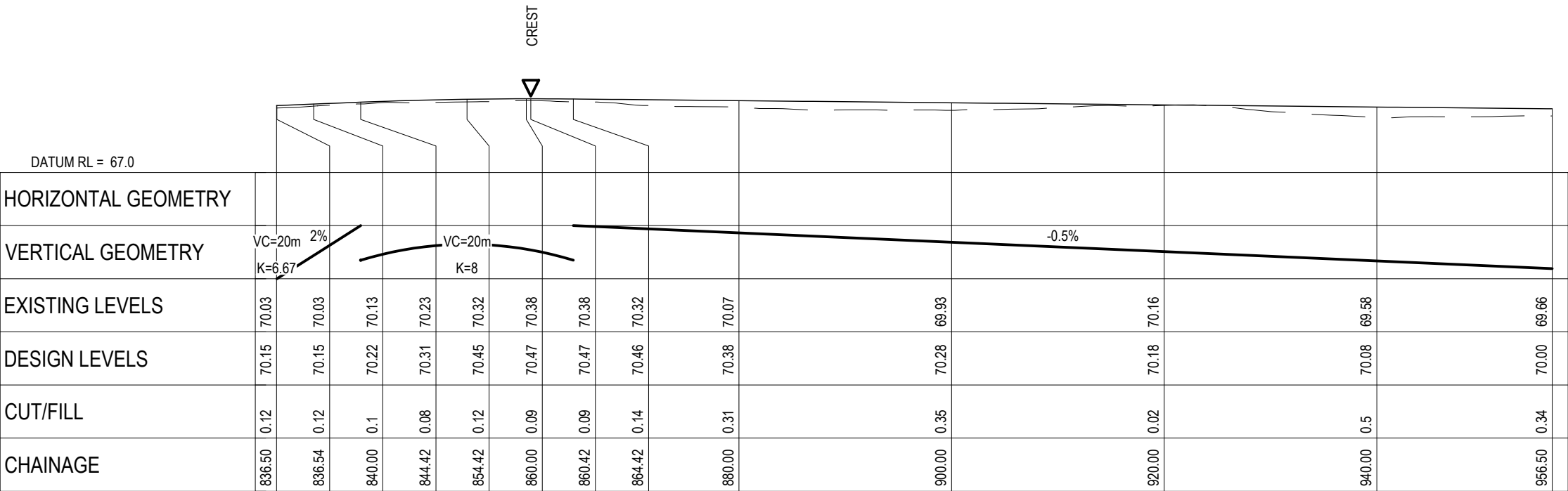
Title

**PROPOSED
ROADING
LONGSECTIONS**

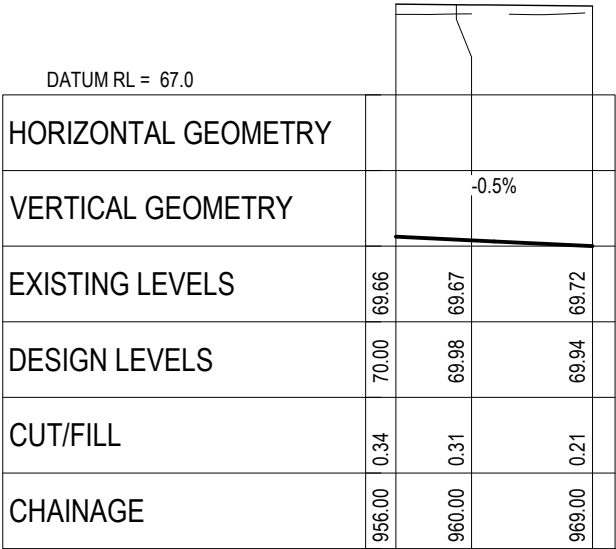
Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320-3	Rev	A

DRAFT FOR REVIEW

DATE: 11/1/24 FILEPATH: F:\MAVEN\HAMILTON6 PROJECTS\289001 - STATION ROAD\7 DRAWING\01 ASHBOURNE SOLAR FARM\03 RD L&S.DWG



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250



ROAD 5 LONGITUDINAL SECTION
SCALE HORI 1:500 VERT 1:250

DRAFT FOR REVIEW

- NOTES
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE NZVD16 VERTICAL DATUM.
 4. ROADING LONGITUDINAL SECTIONS ARE BASED ON THE ROAD CENTRE LINE.
 5. REFER TO ROADING DRAWING C340 DRAWING FOR THE ROADING TYPICAL CROSS SECTION.
 6. REFER TO C300 SERIES DRAWINGS FOR THE ROADING LAYOUT DRAWINGS.

Legend

--- EXISTING GROUND LEVEL

— PROPOSED GROUND LEVEL

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	



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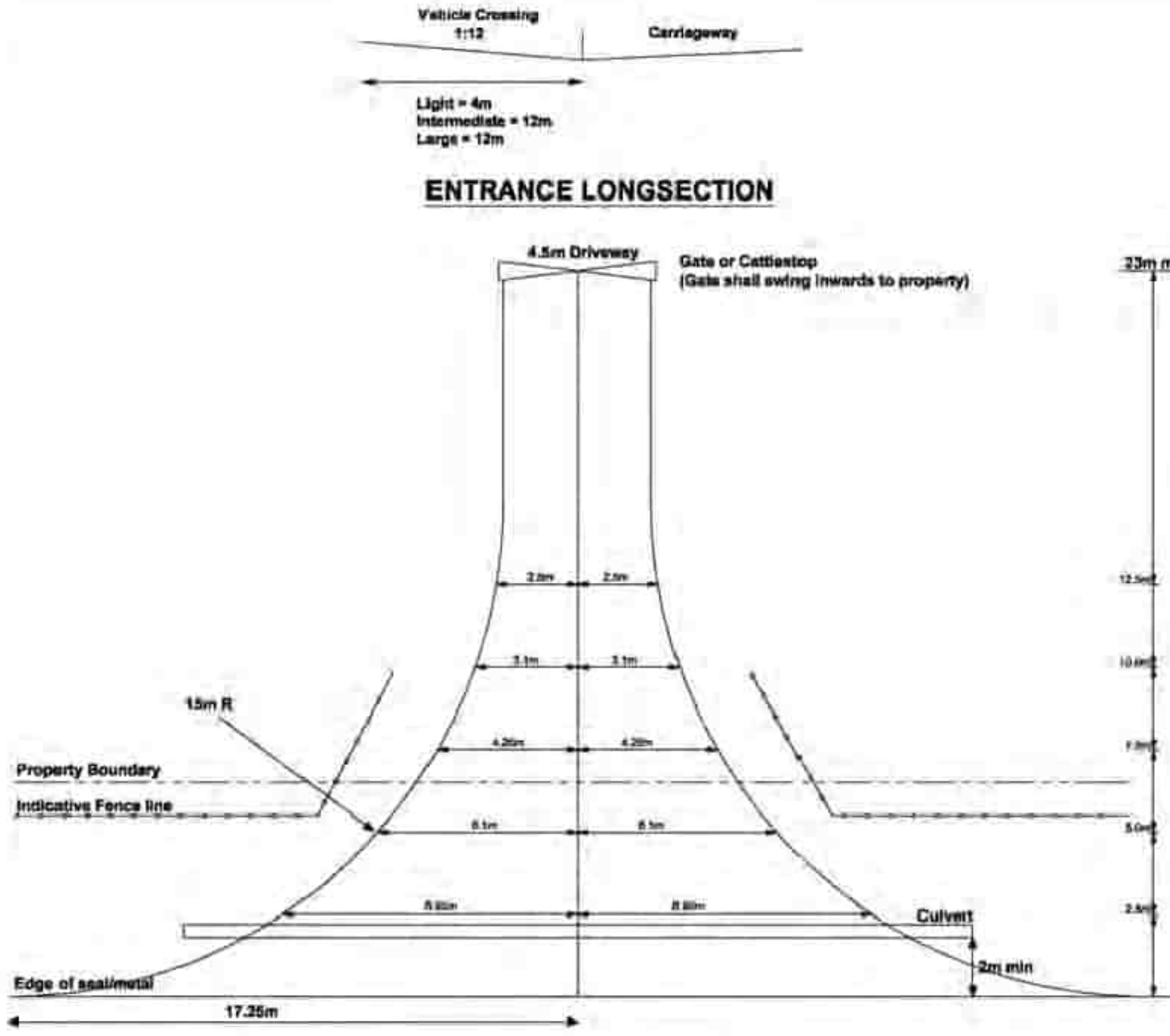
Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS**

Title

**PROPOSED
ROADING
LONGSECTIONS**

Project no.	289001		
Scale	AS SHOWN		
Cad file	C320-RD L.S.DWG		
Drawing no.	C320-4	Rev	A



NOTES:

1.0 GENERAL

- 1.1 All works shall be constructed in accordance with the following standards and terms as applicable to site specific conditions.
- 1.2 No work shall be undertaken within the road reserve until Council has approved a traffic management plan.
- 1.3 The Contractor shall be responsible for the cost of repairs to any underground Utility Service damaged during construction. Any damage shall be rectified to the satisfaction of the Utility Owner.

2.0 LOCATION

- 2.1 Each entrance shall be located to provide a clear sight distance in both directions in accordance with the Development Manual.
- 2.2 Separation distances shall be as indicated in Figure 3.2 of the Development Manual.

3.0 CULVERT

- 3.1 If an entrance crosses a Regional Council Board Drain or major watercourse, the contractor shall obtain certified waterway approval from WAIKATO REGIONAL COUNCIL.
- 3.2 If the entrance crosses a watertable or drain, a 300mm diameter minimum, Reinforced Concrete Rubber Ring Joint (R.C.R.R.J) Class X pipe shall be installed, unless otherwise approved by Council's Roading/Consent Engineer.
- 3.3 Any unsuitable bedding material including vegetation, topsoil and peat shall be removed and replaced in accordance with the pipe manufacturers specifications.
- 3.4 All culverts shall be laid straight at a constant grade and a minimum of 2.0m from the edge of seal or metal. Socket ends shall always be uphill and the pipe shall be extended to a sufficient length, to ensure the resulting batter is not steeper than 1:3.

4.0 SUBBASE

- 4.1 A minimum subgrade CBR of 5 is required before placement of sub-base material. If this CBR cannot be achieved, Council's Roading/Consent Engineer will advise how to proceed. This may involve an additional depth of pavement construction, or the installation of geosynthetic.
- 4.2 Pit sand, brown rock or similar material shall be placed, trimmed and compacted to provide 100mm depth of subbase, if required. The subbase shall be placed from the edge of the carriageway to the gate or cattlestop.

5.0 BASECOURSE

- 5.1 Clean good quality WHAP 40 basecourse material shall be placed, trimmed and compacted to provide 150mm depth of basecourse from the carriageway to the gate or cattlestop.
- 5.2 The basecourse material shall be trimmed to provide a crown at the centre of the entrance to ensure adequate surface drainage. The crossfall shall be 5% from the crown.

6.0 SEALING

- 6.1 The entranceway shall be sealed in accordance with the Development Manual. Sealing shall be a 180/200 bitumen two coat grade 3 & 5 chip seal.

Large Vehicle Entrance for Rural Road

> 20 ha

PLAN

NOT TO SCALE

Large Vehicle Entrance -
Rural Zone

MPDC DG307c : October 2011



DRAFT FOR REVIEW

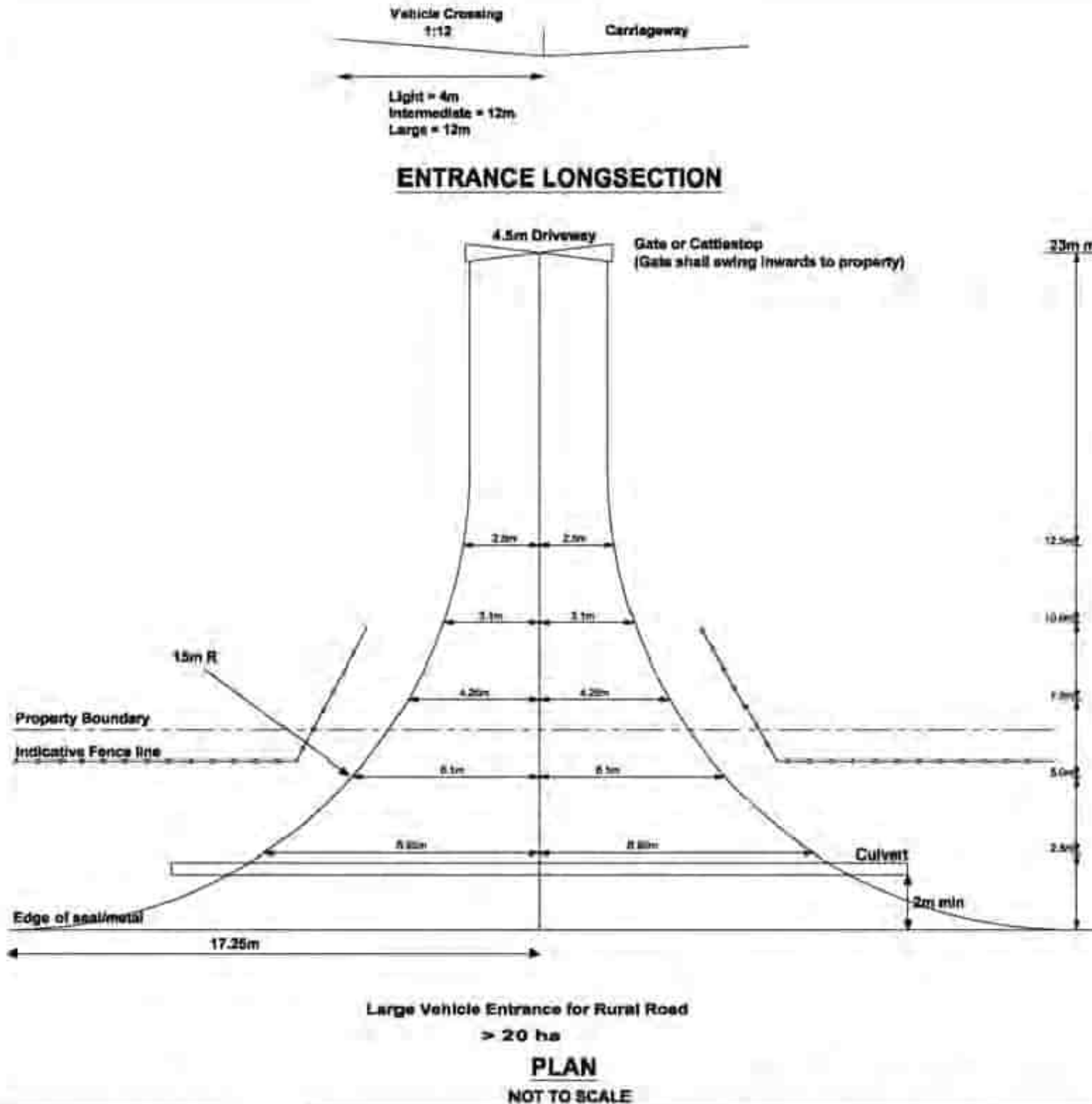
A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey			
Design			
Drawn	TCH		11/2024
Checked	DJM		11/2024



Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENT**

Title
**PROPOSED
ROADING STANDARD
DETAILS**

Project no.	289001
Scale	N.T.S
Cad file	C380-RD DET.DWG
Drawing no.	C380
Rev	A



NOTES:

- 1.0 GENERAL**
- 1.1 All works shall be constructed in accordance with the following standards and terms as applicable to site specific conditions.
- 1.2 No work shall be undertaken within the road reserve until Council has approved a traffic management plan.
- 1.3 The Contractor shall be responsible for the cost of repairs to any underground Utility Service damaged during construction. Any damage shall be rectified to the satisfaction of the Utility Owner.
- 2.0 LOCATION**
- 2.1 Each entrance shall be located to provide a clear sight distance in both directions in accordance with the Development Manual.
- 2.2 Separation distances shall be as indicated in Figure 3.2 of the Development Manual.
- 3.0 CULVERT**
- 3.1 If an entrance crosses a Regional Council Board Drain or major watercourse, the contractor shall obtain certified waterway approval from WAIKATO REGIONAL COUNCIL.
- 3.2 If the entrance crosses a watertable or drain, a 300mm diameter minimum, Reinforced Concrete Rubber Ring Joint (R.C.R.R.J) Class X pipe shall be installed, unless otherwise approved by Council's Roading/Consent Engineer.
- 3.3 Any unsuitable bedding material including vegetation, topsoil and peat shall be removed and replaced in accordance with the pipe manufacturers specifications.
- 3.4 All culverts shall be laid straight at a constant grade and a minimum of 2.0m from the edge of seal or metal. Socket ends shall always be uphill and the pipe shall be extended to a sufficient length, to ensure the resulting batter is not steeper than 1:3.
- 4.0 SUBBASE**
- 4.1 A minimum subgrade CBR of 5 is required before placement of sub-base material. If this CBR cannot be achieved, Council's Roading/Consent Engineer will advise how to proceed. This may involve an additional depth of pavement construction, or the installation of geosynthetics.
- 4.2 Pit sand, brown rock or similar material shall be placed, trimmed and compacted to provide 100mm depth of subbase, if required. The subbase shall be placed from the edge of the carriageway to the gate or cattlestop.
- 5.0 BASECOURSE**
- 5.1 Clean good quality WHAP 40 basecourse metal shall be placed, trimmed and compacted to provide 150mm depth of basecourse from the carriageway to the gate or cattlestop.
- 5.2 The basecourse material shall be trimmed to provide a crown at the centre of the entrance to ensure adequate surface drainage. The crossfall shall be 5% from the crown.
- 6.0 SEALING**
- 6.1 The entranceway shall be sealed in accordance with the Development Manual. Sealing shall be a 180/200 bitumen two coat grade 3 & 5 chip seal.



**Large Vehicle Entrance -
Rural Zone**

MPDC DG307c : October 2011

DRAFT FOR REVIEW

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
		By	Date
Survey			
Design			
Drawn	TCH		11/2024
Checked	DJM		11/2024



Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENT**

Title
**PROPOSED
ROADING STANDARD
DETAILS**

Project no.	289001
Scale	N.T.S
Cad file	C380-RD DET.DWG
Drawing no.	C380
Rev	A



DATE: 11/1/24 FILE PATH: F:\MAVEN HAMILTON\6. PROJECTS\289001 - STATION ROAD\7. DRAWING\10. ASBOURNE SOLAR FARMS\2. SOLAR FARM BIC480-SW DET.DWG

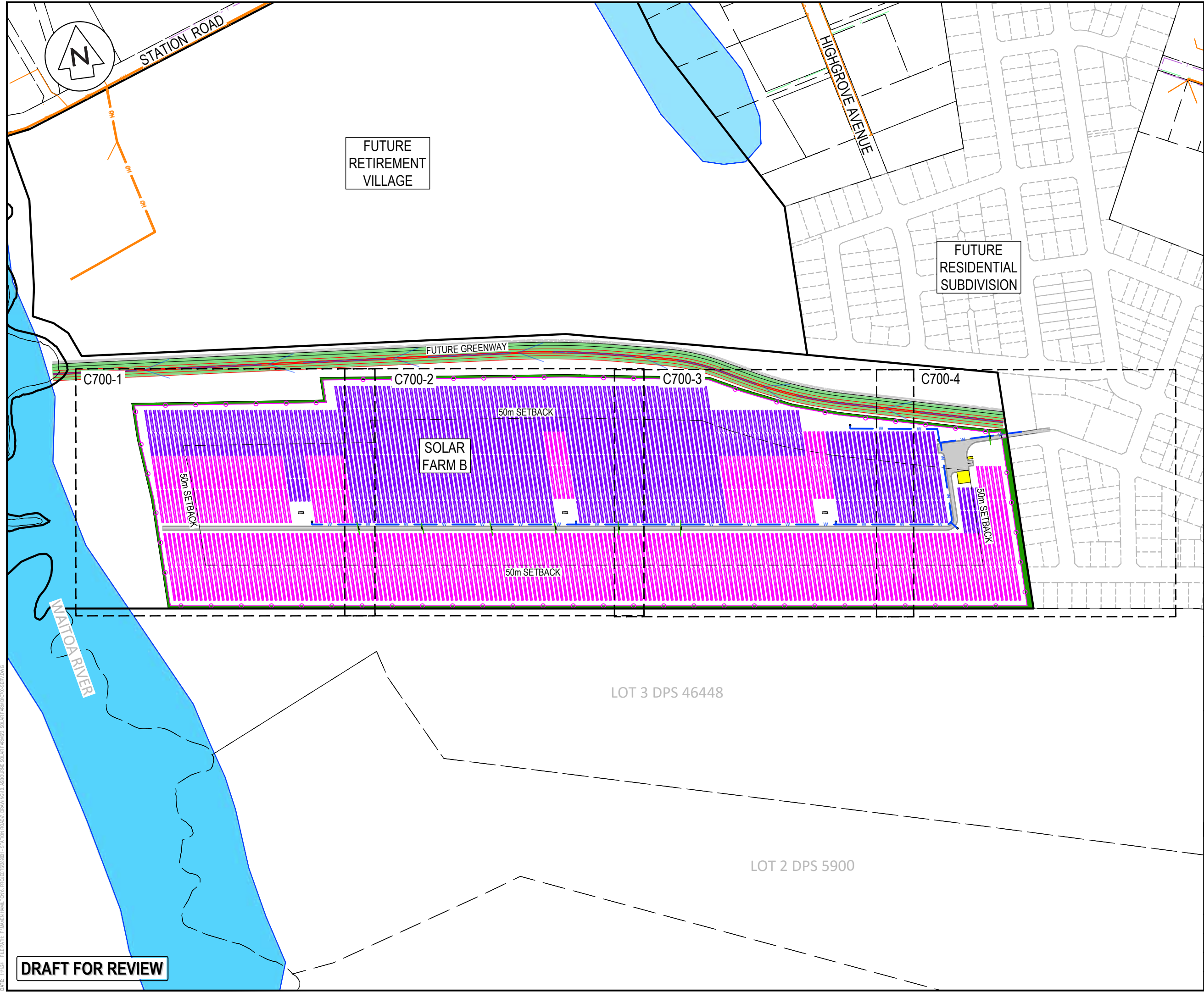
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| A | DRAFT | AJP | 11/2024 |
| Rev | Description | By | Date |
| | By | Date | |
| Survey | MAVEN | 05/2024 | |
| Design | TCH | 10/2024 | |
| Drawn | TCH | 10/2024 | |
| Checked | DJM | 11/2024 | |



Title

**PROPOSED
STORMWATER
DETAILS PLAN**

Project no.	289001		
Scale	N.T.S		
Cad file	C480-SW DET.DWG		
Drawing no.	C420	Rev	A



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 3. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 4. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 6. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND	
	EX BDY
	PR BDY
	EX TELECOM
	EX POWER
	EX GAS
	EX FIBRE
	EX WATERMAIN
	PR WATERMAIN
	PR BOUNDARY SETBACK
	100YR INDICATIVE FLOODING EXTENTS
	POWER TRANSFORMER
	66 x SOLAR PANEL STRING
	44 x SOLAR PANEL STRING
	PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	



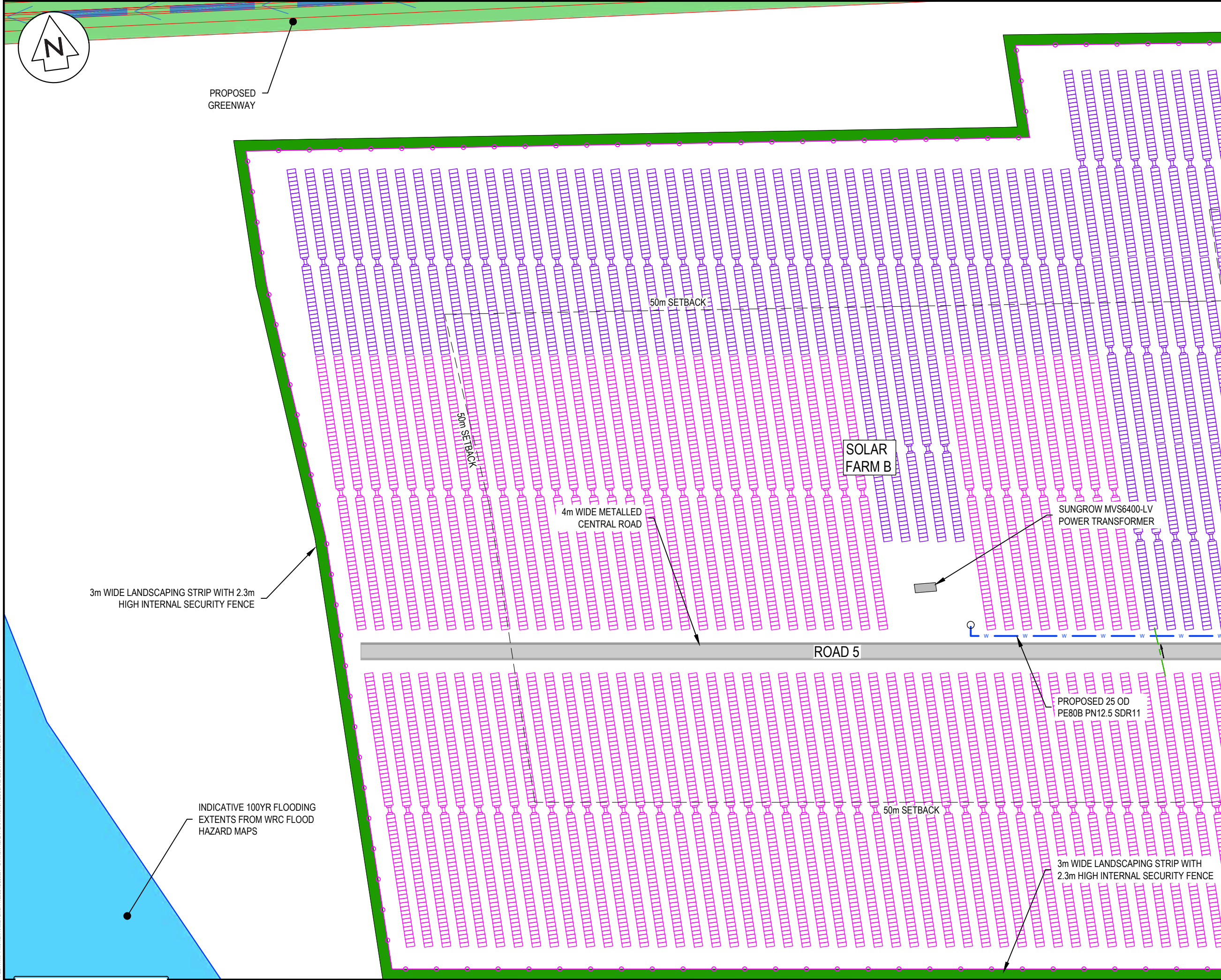
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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SERVICES
KEY PLAN**

Project no.	289001		
Scale	1:4000 @ A3		
Cad file	C700-SERV.DWG		
Drawing no.	C700	Rev	A

DRAFT FOR REVIEW



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 3. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 4. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
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 6. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND

—	EX BDY
—	PR BDY
— T —	EX TELECOM
— P —	EX POWER
— GAS —	EX GAS
— F —	EX FIBRE
— W —	EX WATERMAIN
— W —	PR WATERMAIN
---	PR BOUNDARY SETBACK
[Blue Box]	100YR INDICATIVE FLOODING EXTENTS
[Grey Box]	POWER TRANSFORMER
[Pink Line]	66 x SOLAR PANEL STRING
[Purple Line]	44 x SOLAR PANEL STRING
○	PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

M **MAVEN** **Waikato**
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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SERVICES
PLAN SHEET 1 OF 4**

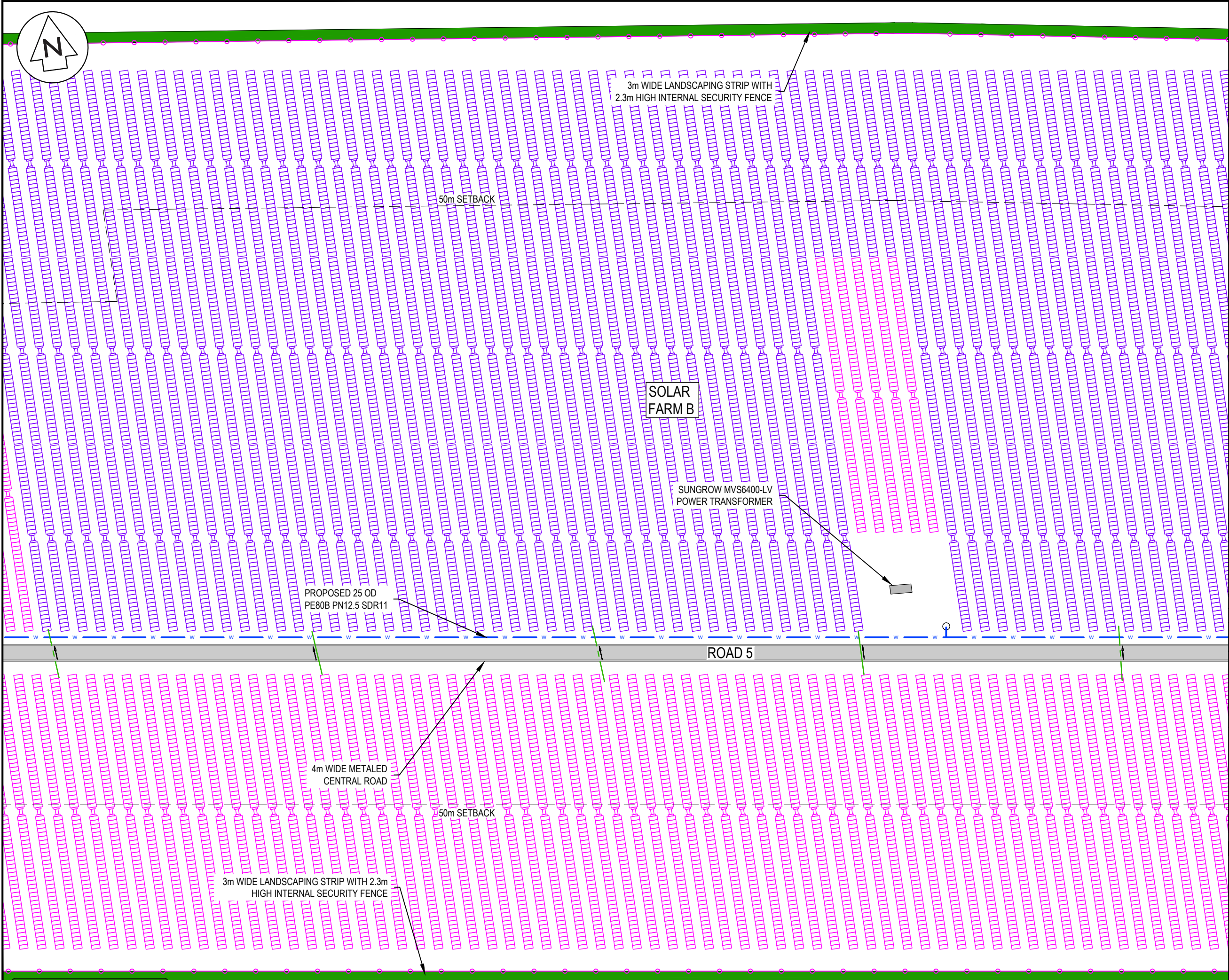
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Drawing no.	C700-1	Rev	A

DRAFT FOR REVIEW

DATE: 11/1/24 FILE PATH: F:\Maven\Hamilton\6. PROJECTS\289001 - STATION ROAD\DRAWING\01. ASHBOURNE SOLAR FARM\2. SOLAR FARM\2.01 SERV.DWG

LOT 3 DPS 463448

DATE: 11/1/24 FILEPATH: F:\MVEN\HAMILTON\6 - PROJECTS\289001 - STATION ROAD\7 DRAWING\01 ASHBORNE SOLAR FARM\2 SOLAR FARM\270-SERV.DWG



NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
- COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
- LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
- EXISTING SERVICES ARE FROM BAUDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
- CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
- REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
- SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND

EX BDY	PR BDY
EX TELECOM	EX POWER
EX GAS	EX FIBRE
EX WATERMAIN	PR WATERMAIN
PR BOUNDARY SETBACK	100YR INDICATIVE FLOODING EXTENTS
POWER TRANSFORMER	66 x SOLAR PANEL STRING
	44 x SOLAR PANEL STRING
	PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	

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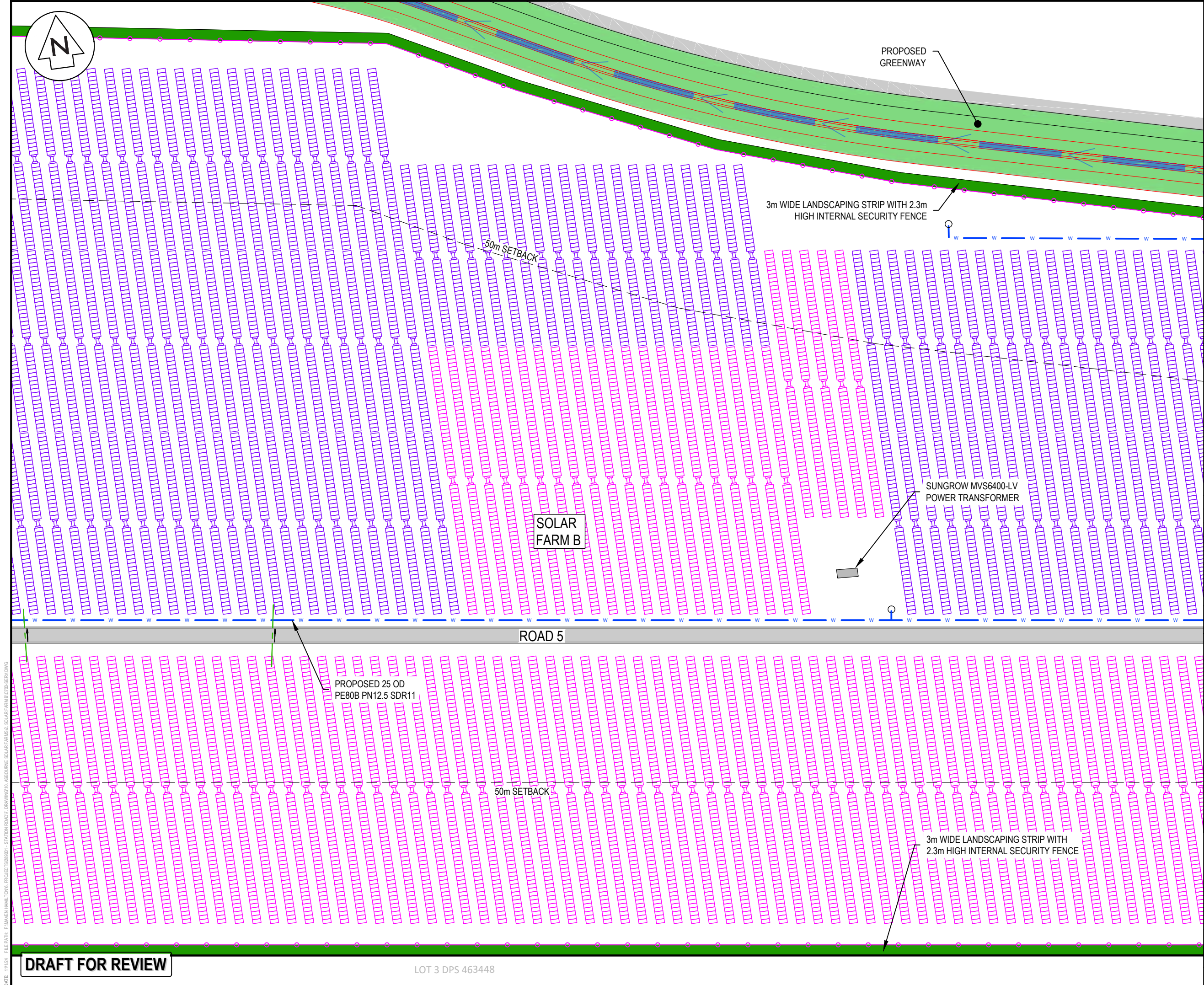
Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title
**PROPOSED
SERVICES
PLAN SHEET 2 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C700-SERV.DWG		
Drawing no.	C700-2	Rev	A

DRAFT FOR REVIEW

LOT 3 DPS 463448



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 3. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 4. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 6. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND

EX BDY	PR BDY
EX TELECOM	EX POWER
EX GAS	EX FIBRE
EX WATERMAIN	PR WATERMAIN
PR BOUNDARY SETBACK	100YR INDICATIVE FLOODING EXTENTS
POWER TRANSFORMER	66 x SOLAR PANEL STRING
	44 x SOLAR PANEL STRING
	PR WATER TROUGH

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	TCH		10/2024
Drawn	TCH		10/2024
Checked	DJM		11/2024

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Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

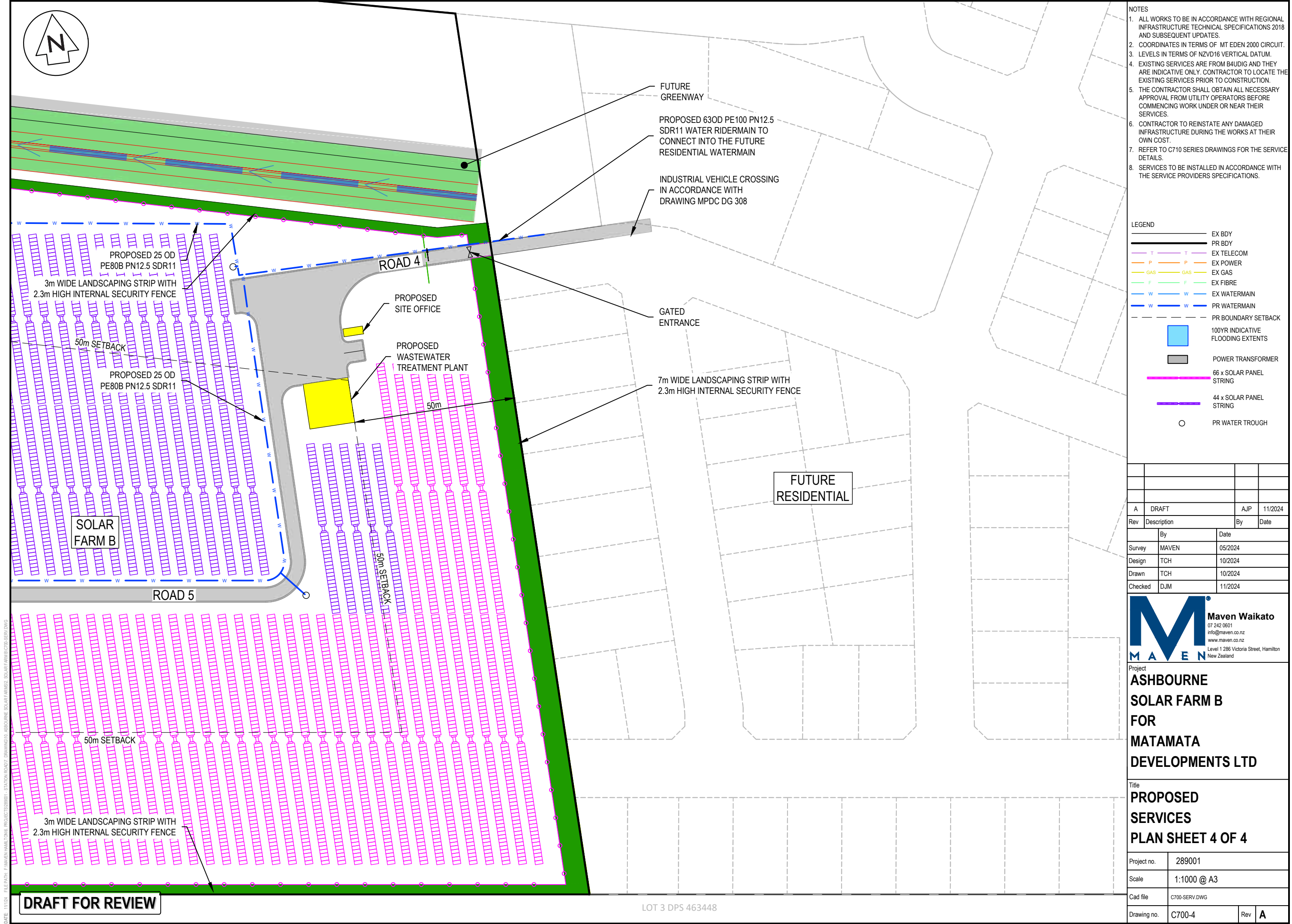
Title
**PROPOSED
SERVICES
PLAN SHEET 3 OF 4**















Project no.	289001
Scale	1:1000 @ A3
Cad file	C700-SERV.DWG
Drawing no.	C700-3
Rev	A

DATE: 11/1/24 FILE PATH: F:\Maven\Hamilton\06 PROJECTS\289001 - STATION ROAD\7 DRAWING\03 ASHBOURNE SOLAR FARM\2 SERV.DWG

DRAFT FOR REVIEW

LOT 3 DPS 463448



- LEGEND**
- | | |
|---|--------------------------------------|
|  | EX BDY |
|  | PR BDY |
|  | EX TELECOM |
|  | EX POWER |
|  | EX GAS |
|  | EX FIBRE |
|  | EX WATERMAIN |
|  | PR WATERMAIN |
|  | PR BOUNDARY SETBACK |
|  | 100YR INDICATIVE
FLOODING EXTENTS |
|  | POWER TRANSFORMER |
|  | 66 x SOLAR PANEL
STRING |
|  | 44 x SOLAR PANEL
STRING |
|  | PR WATER TROUGH |

A	DRAFT	AJP	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TCH	10/2024	
Drawn	TCH	10/2024	
Checked	DJM	11/2024	



Project
**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

**PROPOSED
SERVICES
PLAN SHEET 4 OF 4**

Project no.	289001		
Scale	1:1000 @ A3		
Cad file	C700-SERV.DWG		
Drawing no.	C700-4	Rev	A

DATE: 11/1/24 FILEPATH: F:\MAVEN\HAMILTON\6 PROJECTS\289001 - STATION ROAD\7 DRAWING\10 ASHBOURNE SOLAR FARM\12 SERV DET.DWG

DRAFT FOR REVIEW

TO BE UPDATED

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH REGIONAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS 2018 AND SUBSEQUENT UPDATES.
 2. COORDINATES IN TERMS OF MT EDEN 2000 CIRCUIT.
 3. LEVELS IN TERMS OF NZVD16 VERTICAL DATUM.
 4. EXISTING SERVICES ARE FROM B4UDIG AND THEY ARE INDICATIVE ONLY. CONTRACTOR TO LOCATE THE EXISTING SERVICES PRIOR TO CONSTRUCTION.
 5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 6. CONTRACTOR TO REINSTATE ANY DAMAGED INFRASTRUCTURE DURING THE WORKS AT THEIR OWN COST.
 7. REFER TO C710 SERIES DRAWINGS FOR THE SERVICE DETAILS.
 8. SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE SERVICE PROVIDERS SPECIFICATIONS.

LEGEND

	EX BDY
	PROP BDY
	EX TELECOM
	EX POWER
	EX GAS

A	DRAFT	WPJ	11/2024
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	05/2024	
Design	TH	11/2024	
Drawn	TH	11/2024	
Checked	DJM	11/2024	



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Project

**ASHBOURNE
SOLAR FARM B
FOR
MATAMATA
DEVELOPMENTS LTD**

Title

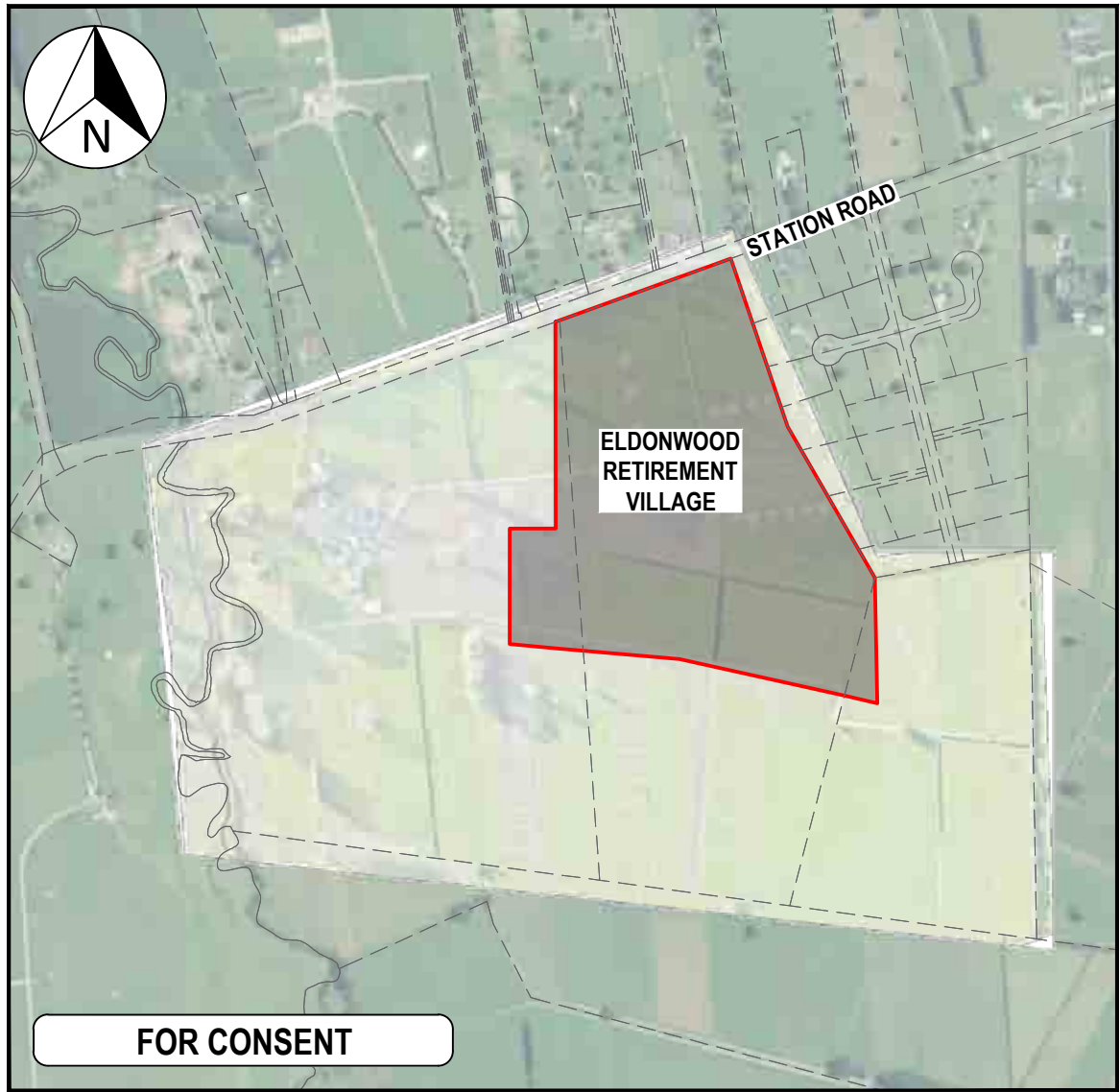
**PROPOSED
SERVICES DETAIL
PLAN**

Project no.	289001		
Scale	AS SHOWN		
Cad file	C710-SERV DET.DWG		
Drawing no.	710	Rev	A



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ASHBOURNE RETIREMENT VILLAGE, STATION ROAD, MATAMATA FOR UNITY DEVELOPMENT LTD



LOCALITY PLAN
SCALE 1:10000 @A3

SHT.NO.	SHEET TITLE	REVISION
C0000	Cover Sheet	B
C0001	Index	A
C0500	Pre Development Contour Plan	B
C1100	Proposed Site Overview Plan	A
Earthworks Design Plans		
	C2200- C2400	B
Roothing Design Plans		
	C3000 - C3301	B
Stormwater Design Plans		
	C4000 - C4907	B
Wastewater Design Plans		
	C5000A - C5804	B
Water Supply Design Plans		
	C6000 - C6802	B
Combined Services Design Plans		
	C7000 - C7003	A

PROJECT NUMBER : J00606
ISSUED DATE : 04/2025



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New Zealand

DRAWING INDEX

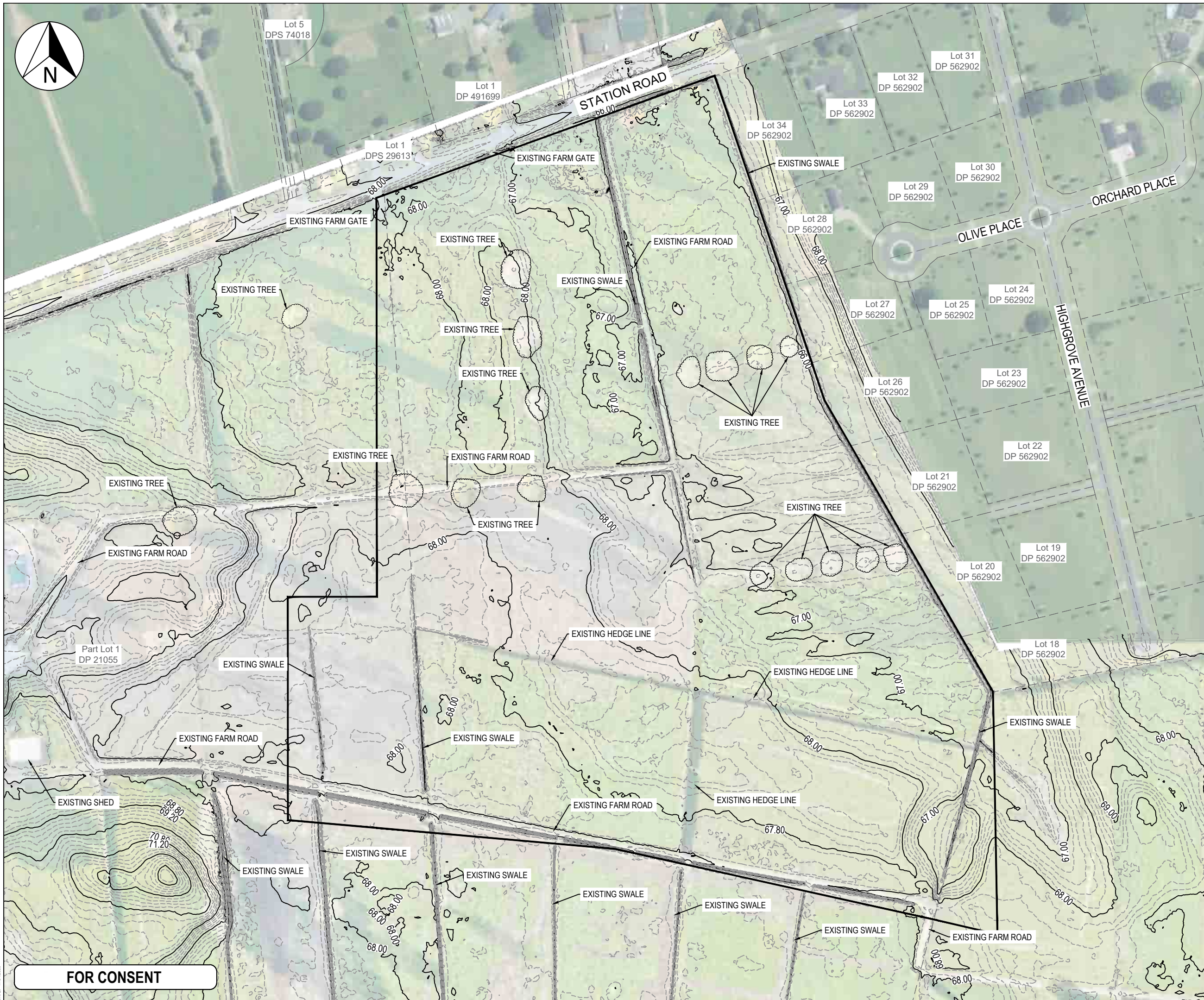
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GENERAL		
C0000	Cover sheet	B
C0001	Drawing Index	A
C0500	Pre Development Contour Plan	B
C1100	Proposed Site Overview Plan	A
EARTHWORKS		
C2200	Proposed Overview Contour Plan	B
C2201	Proposed Contour Plan (1 of 4)	B
C2202	Proposed Contour Plan (2 of 4)	B
C2203	Proposed Contour Plan (3 of 4)	B
C2204	Proposed Contour Plan (4 of 4)	B
C2300	Proposed Erosion & Sediment Control Plan	B
C2350	Proposed ESC Standard Details Plan (1 of 4)	B
C2351	Proposed ESC Standard Details Plan (2 of 4)	B
C2352	Proposed ESC Standard Details Plan (3 of 4)	B
C2353	Proposed ESC Standard Details Plan (4 of 4)	B
C2400	Proposed Cut / Fill Plan	B
ROADING		
C3000	Proposed Roding Layout Overview Plan	B
C3001	Proposed Roding Layout Plan (1 of 3)	B
C3002	Proposed Roding Layout Plan (2 of 3)	B
C3003	Proposed Roding Layout Plan (3 of 3)	B
C3004	Proposed Roding Long Section Plan (1 of 7)	B
C3005	Proposed Roding Long Section Plan (2 of 7)	B
C3006	Proposed Roding Long Section Plan (3 of 7)	B
C3007	Proposed Roding Long Section Plan (4 of 7)	B
C3008	Proposed Roding Long Section Plan (5 of 7)	B
C3009	Proposed Roding Long Section Plan (6 of 7)	B
C3010	Proposed Roding Long Section Plan (7 of 7)	B
C3300	Proposed Roding Typical Cross Section (1 of 2)	B
C3301	Proposed Roding Typical Cross Section (2 of 2)	B

SHT.NO.	SHEET TITLE	REVISION
STORMWATER		
C4000	Proposed Stormwater Overview Plan	B
C4001	Proposed Stormwater Layout Plan (1 of 4)	B
C4002	Proposed Stormwater Layout Plan (2 of 4)	B
C4003	Proposed Stormwater Layout Plan (3 of 4)	B
C4004	Proposed Stormwater Layout Plan (4 of 4)	B
C4050	Existing Stormwater Catchment Plan	B
C4051	Proposed 10 year Stormwater Catchment Plan	B
C4052	Proposed 100 year Stormwater Catchment Plan	B
C4600	Proposed Stormwater Pond 1 Cross Section Plan	B
C4601	Proposed Stormwater Pond 2 Cross Section Plan	B
C4650	Proposed Stormwater Swales Layout Plan	B
C4651	Proposed Stormwater Swales Cross Sections	B
C4700	Proposed Soakage Trench Cross Section Plan	B
C4701	Proposed Stormwater Pond Detail Plan	B
C4702	Proposed Stormwater Raingarden Detail Plan	B
C4703	Proposed Soakage Device Cross Section Plan	B
C4800	Proposed Stormwater Standard Detail	B
C4900	Proposed Overland Flow Path Layout Plan	A
C4901	Proposed Overland Flow Cross Section (1 of 3)	A
C4902	Proposed Overland Flow Cross Section (2 of 3)	A
C4903	Proposed Overland Flow Cross Section (3 of 3)	A
WASTEWATER		
C5000A	Proposed Wastewater Overall Layout Plan Option A	B
C5001	Proposed Wastewater Plan (1 of 3)	B
C5002	Proposed Wastewater Plan (2 of 3)	B
C5003	Proposed Wastewater Plan (3 of 3)	B
C5200	Proposed WW Long Section Plan (1 of 9)	B
C5201	Proposed WW Long Section Plan (2 of 9)	B
C5202	Proposed WW Long Section Plan (3 of 9)	B
C5203	Proposed WW Long Section Plan (4 of 9)	B

SHT.NO.	SHEET TITLE	REVISION
C5204	Proposed WW Long Section Plan (5 of 9)	B
C5205	Proposed WW Long Section Plan (6 of 9)	B
C5206	Proposed WW Long Section Plan (7 of 9)	B
C5207	Proposed WW Long Section Plan (8 of 9)	B
C5208	Proposed WW Long Section Plan (9 of 9)	B
C5800	Proposed WW Standard Detail Plan (1 of 5)	B
C5801	Proposed WW Standard Detail Plan (2 of 5)	B
C5802	Proposed WW Standard Detail Plan (3 of 5)	B
C5803	Proposed WW Standard Detail Plan (4 of 5)	B
C5804	Proposed WW Standard Detail Plan (5 of 5)	B
WATER SUPPLY		
C6000	Proposed Water Supply Overview Plan	B
C6001	Proposed Water Supply Plan (1 of 4)	B
C6002	Proposed Water Supply Plan (2 of 4)	B
C6003	Proposed Water Supply Plan (3 of 4)	B
C6004	Proposed Water Supply Plan (4 of 4)	B
C6500	Water Supply Connection Details	B
C6800	Water Supply Standard Details (1 of 2)	B
C6801	Water Supply Standard Details (2 of 2)	B
C6802	Water Supply Anchor Block Details	B
COMBINED SERVICES		
C7000	Proposed Combined Services Overview Plan	A
C7001	Proposed Combined Services Plan (1 of 3)	A
C7002	Proposed Combined Services Plan (2 of 3)	A
C7003	Proposed Combined Services Plan (3 of 3)	A

PROJECT NUMBER : J00606

ISSUED DATE : 04/2025



- Notes
1. All works to be in accordance with RITS standardS.
2. Co-ordinates in accordance with Moturiki Eden 2000.
3. Reduced Levels are in terms of NZVD 1916.
4. Contour interval Major 1m Minor 0.2m.
5. Areas, Boundaries and Measurements are approximate only and subject to final survey.
6. It is the contractors responsibility to locate all services that may be affected by his operations.
7. The contractor shall comply with all relevant Health and Safety requirements.
8. The contractor shall obtain all necessary approval from utility operators before commencing work under or near their services.
9. Sediment control shall be installed and operational before earthworks start onsite in accordance with council standards.
10. Contractor shall provide asbuiltof working sediment control devices and confirmation of pond/decent volumes to engineer.

LEGEND

--- EX BDY

█ SITE BDY

--- EX MAJOR CONTOUR

--- EX MINOR CONTOUR

B	FOR CONSENT	KQ	04 /25
A	FOR REVIEW	DP	11 /24
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	10/2024	
Design	DP	11/2024	
Drawn	DP	11/2024	
Checked	SB	11/2024	



Project
**ASHBOURNE
RETIREMENT VILLAGE
MATAMATA
FOR
UNITY DEVELOPMENT LTD**

Title

**PRE DEVELOPMENT
CONTOUR
PLAN**

Project no.	J00606		
Scale	1:2500@A3		
Cad file	C0500 - EG.DWG		
Drawing no.	C0500	Rev	B

ORIGINAL SIZE: A3
150mm
100
90
80
70
60
50
40
30
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10
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Lot 5
DPS 74018

Lot 1
DP 491699

Lot 1
DPS 29613

Lot 34
DP 562902

Lot 33
DP 562902

Lot 32
DP 562902

Lot 31
DP 562902

Lot 30
DP 562902

Lot 29
DP 562902

Lot 28
DP 562902

Lot 27
DP 562902

Lot 25
DP 562902

Lot 24
DP 562902

Lot 23
DP 562902

Lot 22
DP 562902

Lot 21
DP 562902

Lot 20
DP 562902

Lot 19
DP 562902

Lot 18
DP 562902

Part Lot 1
DP 21055

STATION ROAD

ORCHARD PLACE

OLIVE PLACE

HIGHROVE AVENUE

STAGE 1

STAGE 2

STAGE 3

STAGE 4

STAGE 7

STAGE 5

STAGE 8

STAGE 6

STAGE 10

STAGE 9

STAGE 10

STORMWATER
POND 2

STORMWATER
POND 1

FACILITIES

ROAD 3

ROAD 2

ROAD 2

ROAD 3

ROAD 4

ROAD 4

ROAD 4

ROAD 4

ROAD 4

ROAD 6

ROAD 12

ROAD 13

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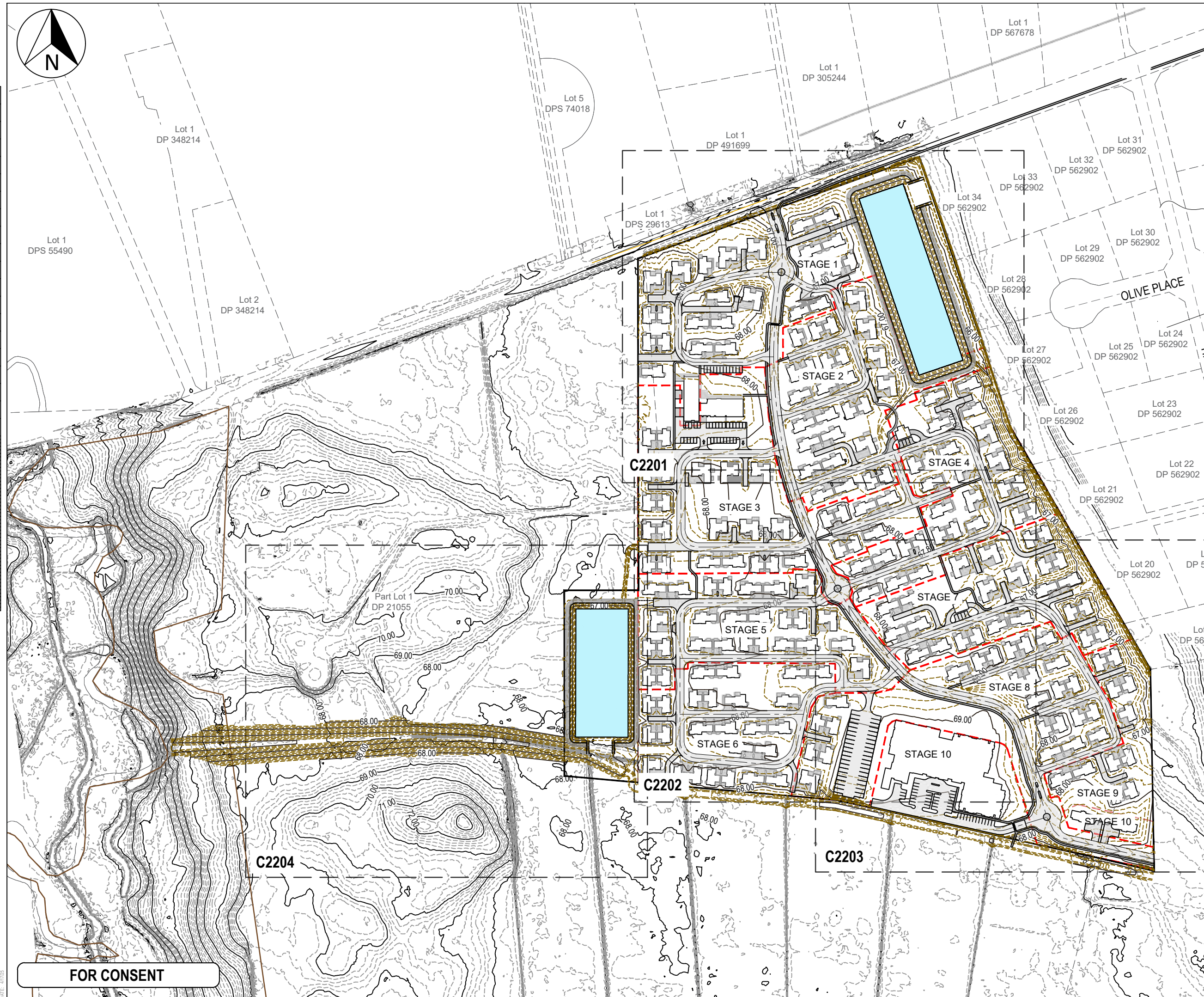
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ROAD 1

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ROAD 1

ROAD 1



FOR CONSENT

1. All works to be in accordance with MPDC and RITS standards.
2. Co-ordinates in terms of NZ Geodetic Datum Mt Eden 2000.
3. Reduced Levels are in terms of NZVD 2016.
4. Contour interval Major 1m Minor 0.2m
5. It is the contractors responsibility to locate all services that may be affected by their operations.
6. The contractor shall comply with all relevant Health and Safety requirements.
7. The contractor shall obtain all necessary approval from utility operators before commencing work under or near their services.
8. Sediment control shall be installed and operational before earthworks start onsite in accordance with council standards.
9. Contractor shall provide asbuiltof working sediment control devices and confirmation of pond/decent volumes to engineer.
10. Sediment control to comply with Waikato Regional Council Erosion and Sediment Control:guidelines for soil disturbing activities TR2009/02.

LEGEND

- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR

B	FOR CONSENT	KQ	04/25
A	FOR REVIEW	DP	01/25
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	10/2024	
Design	KQ	04/2025	
Drawn	DP	04/2025	
Checked	SB	04/2025	



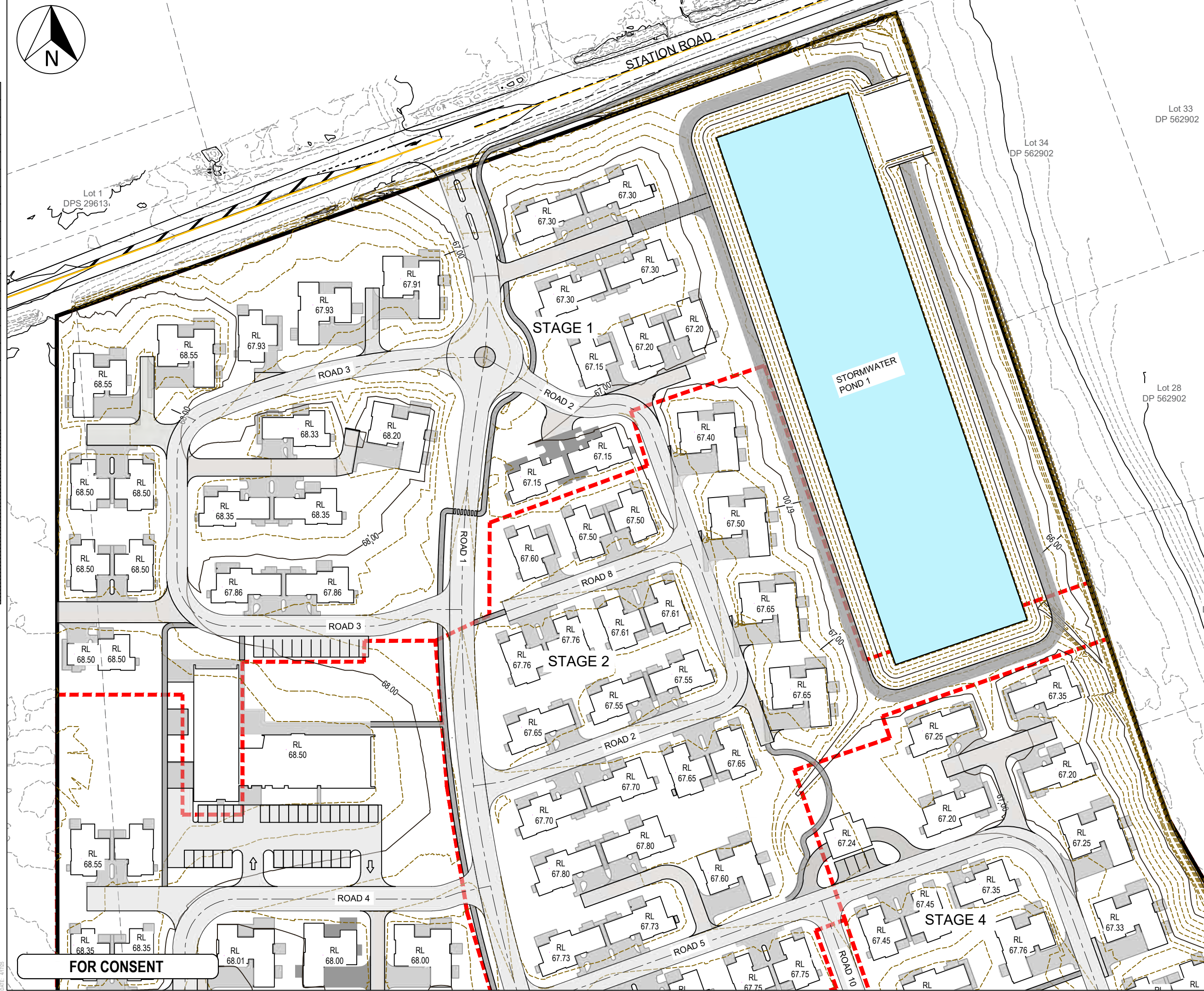
Maven Matamata
matamatainfo@maven.co.nz
www.maven.co.nz
8 Tainui Street, Matamata
New Zealand

Project
**ASHBOURNE
RETIREMENT VILLAGE
MATAMATA
FOR
UNITY DEVELOPMENT LTD**

Title
PROPOSED OVERVIEW CONTOUR PLAN

Project no.	J00606		
Scale	1:2500@A3		
Cad file	C2200 - PGL.DWG		
Drawing no.	C2200	Rev	B

DATE: 4/17/25
FILE PATH: \\MAVEN\MAVENCONSULTING\CO NZ\SHARE\CURRENT\MAVEN MATAMATA\1. PROJECTS\J00606 MDL - HEMMINGS STATION RD\8. DRAWING\2. CAD\3. DESIGN\C2200 - PGL.DWG



Notes

- All works to be in accordance with MPDC and RITS standards.
- Co-ordinates in terms of NZ Geodetic Datum Mt Eden 2000.
- Reduced Levels are in terms of NZVD 2016.
- Contour interval Major 1m Minor 0.2m
- It is the contractors responsibility to locate all services that may be affected by their operations.
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- The contractor shall obtain all necessary approval from utility operators before commencing work under or near their services.
- Sediment control shall be installed and operational before earthworks start onsite in accordance with council standards.
- Contractor shall provide asbuilt of working sediment control devices and confirmation of pond/decent volumes to engineer.
- Sediment control to comply with Waikato Regional Council Erosion and Sediment Control guidelines for soil disturbing activities TR2009/02.

LEGEND

- EX BDY
- PR BDY
- EX MAJOR CONTOUR
- EX MINOR CONTOUR
- PR MAJOR CONTOUR
- PR MINOR CONTOUR

B	FOR CONSENT	KQ	04/25
A	FOR REVIEW	DP	01/25
Rev	Description	By	Date
Survey	MAVEN		10/2024
Design	KQ		04/2025
Drawn	DP		04/2025
Checked	SB		04/2025

Maven Matamata
matamatainfo@maven.co.nz
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8 Tainui Street, Matamata
New Zealand

Project

**ASHBOURNE
RETIREMENT VILLAGE
MATAMATA
FOR
UNITY DEVELOPMENT LTD**

Title

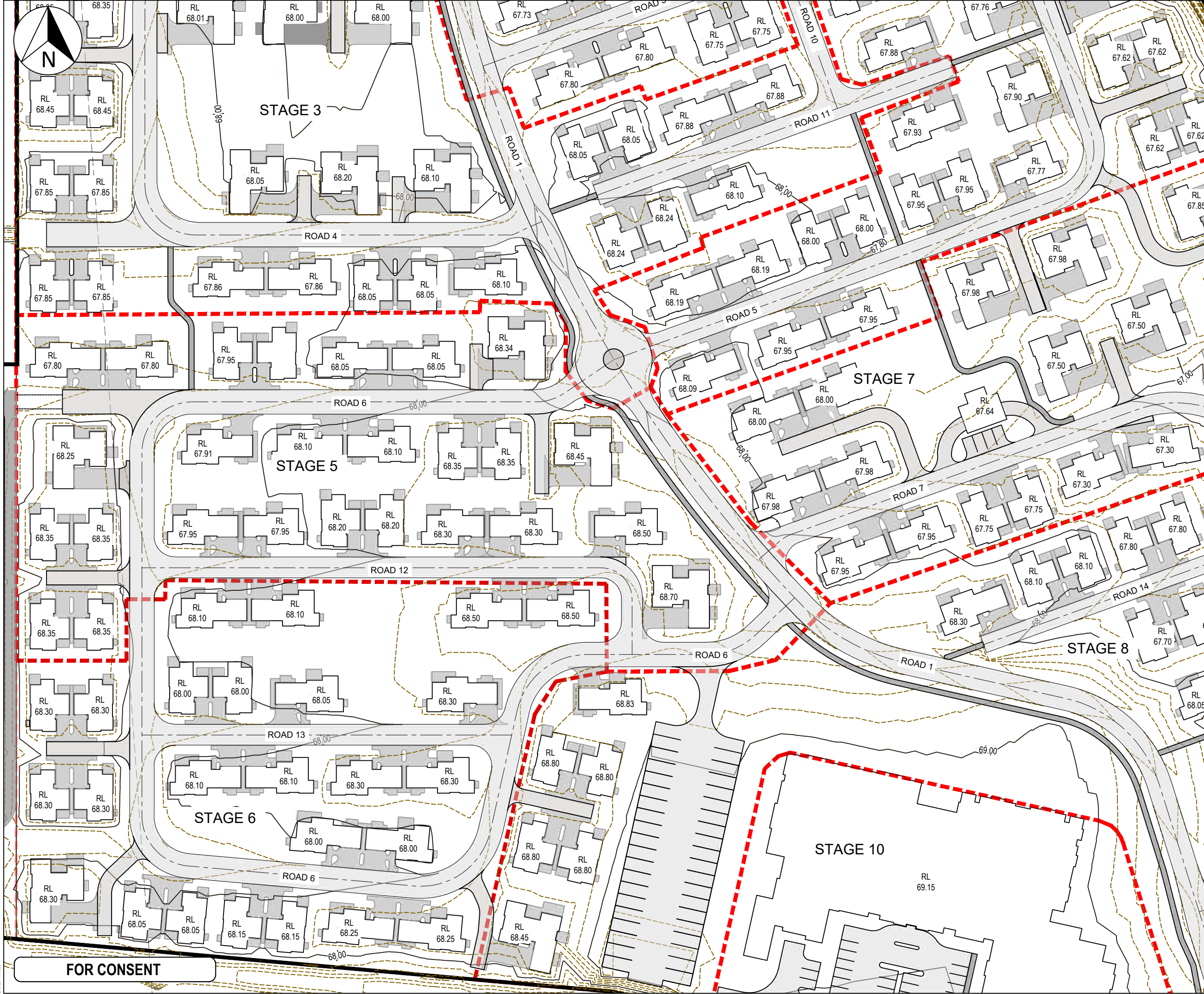
**PROPOSED
CONTOUR
PLAN (1 OF 4)**

Project no.	J00606
Scale	1:1000@A3
Cad file	C2200 - PGL.DWG
Drawing no.	C2201
Rev	B

1:500mm ORIGINAL SIZE: A3

100
80
60
40
20
0

DATE: 4/1/25



- Notes
1. All works to be in accordance with MPDC and RITS standards.
 2. Co-ordinates in terms of NZ Geodetic Datum Mt Eden 2000.
 3. Reduced Levels are in terms of NZVD 2016.
 4. Contour interval Major 1m Minor 0.2m
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- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR

B	FOR CONSENT	KQ	04/25
A	FOR REVIEW	DP	01/25
Rev	Description	By	Date
	By	Date	
Survey	MAVEN	10/2024	
Design	KQ	04/2025	
Drawn	DP	04/2025	
Checked	SB	04/2025	



Project
**ASHBOURNE
RETIREMENT VILLAGE
MATAMATA
FOR
UNITY DEVELOPMENT LTD**

Title
**PROPOSED
CONTOUR
PLAN (2 OF 4)**

Project no.	J00606
Scale	1:1000@A3
Cad file	C2200 - PGL.DWG
Drawing no.	C2202
Rev	B