

ACTIVITY DETERMINATION

Conflict of Interest¹

Project No. BGYV7

2630

In this matter:					
 I have declared any possible conflict of interests (real, potential or perceived) to the Chief Executive, Land & Housing Corporation. I do not consider I have any personal interests that would affect my professional judgement. I will inform the Chief Executive, Land & Housing Corporation as soon as I become aware of a possible conflict of interest. 					
NameRobert Stark					
the Review of Environmental F Environmental Planning and A	tion Recommendation Report, the Statement of Compliance and Factors for this project addressing matters under Part 5 of the ssessment Act 1979, I determine that the activity proceed as the identified requirements set out in Schedule 1 .				
SITE IDENTIFICATION					
STREET ADDRESS					
Unit/Street No	Street or property name				
- Polo Flat Road					
Suburb, town or locality Postcode					

Real property description (Lot and DP)

Lots 2 and 4 in Deposited Plan DP1285072.

ACTIVITY DESCRIPTION

Local Government Area(s)
Snowy Monaro Council

Cooma

Provide a description of the activity

143 lot subdivision, to create 140 residential lots, 3 residual lots, associated roads, drainage and subdivision works.

Conflict of interest includes actual and potential. A conflict of interest includes pecuniary i.e. financial interests to you or a related party or non-pecuniary i.e. benefits to relatives, friends, business associates and personal causes, etc. This includes "related persons" as defined in the Property, Stock and Business Agency Act 2002.

SCHEDULE 1 – IDENTIFIED REQUIREMENTS

THE DEVELOPMENT

The following identified requirements are to ensure that the **residential** activity is carried out in accordance with the plans / documents and any amendments arising from the Review of Environmental Factors under Part 5 of the Environmental Planning & Assessment Act 1979, Section 171 of the Environmental Planning and Assessment Regulation 2021 and the requirements of State Environmental Planning Policy (Housing) 2021.

1. The development shall be carried out substantially in accordance with the following plans / documents and as modified below by any of the undermentioned identified requirements:

Title / Name:	Drawing No. /	Revision /	Date	Prepared by:
	Document Ref	Issue:	[dd/mm/yyyy]:	
Civil Plans – Appendix A	I		1	1
Cover Sheet and Locality Plan for Development Application	50522046-C-2000	F	April 2023	Cardno, now Stantec
Proposed Lot Development Layout Lot Layout Details	304000923-SK-C- 1000	-	31/03/2023	Cardno, now Stantec
Site Plan and Drawing Schedule	50522046-C-2001	G	17/04/2023	Cardno, now Stantec
General Notes and Legend	50522046-C-2002	F	17/04/2023	Cardno, now Stantec
General Arrangement Plan	50522046-C-2005	F	17/04/2023	Cardno, now Stantec
Existing Zoning Plan	50522046-C-2010	F	17/04/2023	Cardno, now Stantec
Bushfire Asset Protection Plan	50522046-C-2011	F	17/04/2023	Cardno, now Stantec
Road Hierarchy Plan	50522046-C-2012	F	17/04/2023	Cardno, now Stantec
Typical Road Cross Sections Sheet 1 of 2	50522046-C-2015	F	17/04/2023	Cardno, now Stantec
Typical Road Cross Sections Sheet 2 of 2	50522046-C-2016	F	17/04/2023	Cardno, now Stantec
Road Long Sections Road 01	50522046-C-2020	F	17/04/2023	Cardno, now Stantec
Road Long Sections Road 07 Sheet 1 of 2	50522046-C-2021	F	17/04/2023	Cardno, now Stantec
Road Long Sections Road 07 Sheet 2 of 2	50522046-C-2022	F	17/04/2023	Cardno, now Stantec
Road Long Sections Road 08 And Road 09	50522046-C-2023	F	17/04/2023	Cardno, now Stantec
Active Travel Plan	50522046-C-2030	F	17/04/2023	Cardno, now Stantec
Isopach	50522046-C-2032	F	17/04/2023	Cardno, now Stantec
Retaining Wall Plan	50522046-C-2034	В	27/10/2022	Cardno, now Stantec
Typical Cut/Fil Sections Sheet 1 of 4	50522046-C-2035	G	17/04/2023	Cardno, now Stantec
Typical Cut/Fil Sections Sheet 2 of 4	50522046-C-2036	G	17/04/2023	Cardno, now Stantec
Typical Cut/Fil Sections Sheet 3 of 4	50522046-C-2037	С	17/04/2023	Cardno, now Stantec
Typical Cut/Fil Sections Sheet 4 of 4	50522046-C-2038	С	17/04/2023	Cardno, now Stantec
Concept Stormwater Plan and Water Sensitive Urban Design Outcome Plan	50522046-C-2040	F	17/04/2023	Cardno, now Stantec
Water Sensitive Urban Design Outcome Plan and Water Quality Table	50522046-C-2041	F	17/04/2023	Cardno, now Stantec
Water Sensitive Urban Design Spel	50522046-C-2042	F	17/04/2023	Cardno, now Stantec

Title / Name:	Drawing No. / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
Ecoceptor - Series 4000 Sheet 1 of 2				
Water Sensitive Urban Design Spel Ecoceptor - Series 8000 Sheet 2 of 2	50522046-C-2043	F	17/04/2023	Cardno, now Stantec
Concept Sewer Plan	50522046-C-2045	F	17/04/2023	Cardno, now Stantec
Concept Sewer Plan Sewer Calculations Table	50522046-C-2046	F	17/04/2023	Cardno, now Stantec
Concept Water Plan	50522046-C-2050	F	17/04/2023	Cardno, now Stantec
Water Demand Calculation	50522046-C-2051	F	17/04/2023	Cardno, now Stantec
Concept Services Plan	50522046-C-2055	F	17/04/2023	Cardno, now Stantec
Soil and Water Management Plan	50522046-C-2060	F	17/04/2023	Cardno, now Stantec
Vehicle Turning Path Analysis Sheet 1 of 2	50522046-C-2065	F	17/04/2023	Cardno, now Stantec
Vehicle Turning Path Analysis Sheet 2 of 2	50522046-C-2066	F	17/04/2023	Cardno, now Stantec
Landscape Plans – Appendix B				
Cover Sheet and Drawing List	L000	8	09/11/2022	Cardno, now Stantec
Overall Masterplan	L001	8	09/11/2022	Cardno, now Stantec
Masterplan Precinct 2	L002	8	09/11/2022	Cardno, now Stantec
Retaining Wall Plan and Sections – Precinct 2	L004	8	09/11/2022	Cardno, now Stantec
Indicative Plant Species and Materiality Palette	L005	8	09/11/2022	Cardno, now Stantec
Survey Plan – Appendix D			'	'
Site Survey Plan	2022042601	В	04/10/2022	ACT Survey
Specialist Reports			•	
Bushfire Protection Assessment - Appendix F	B223901	4	01/05/2023	Australian Bushfire Protection Planners
Detailed Site Investigation – Appendix G	P22105_DSI Cooma_20221011	R02	11/10/2022	Lanterra Consulting
Flora and Fauna Assessment – Appendix H	2022-033	1.0	13/10/2022	Eco Planning
Geotechnical Investigation Report – Appendix K	KA/C13054	-	11/10/2022	ACT Geotechnical Engineers
Aboriginal Due Diligence Assessment – Appendix E	129-163		October 2022	Lantern Heritage
Lot and Deposited Plan Titling History – Appendix I	-	-	-	Land and Housing Corporation
Traffic Noise Assessment Report – Appendix L	-	-	11/10/2022	Todoroski Air Sciences
Transport Impact Assessment – Appendix M	50522046	03	21/10/2022	Cardno, now Stantec
Tree Assessment - Appendix N	-	В	17/10/2022	Enviro Links Design

- **2.** All commitments listed in the approved plans and recommendations made in the specialists reports listed in Identified Requirement 1 shall be implemented.
- **3.** The project is required to be undertaken and certified in accordance with Section 6.28 of the *Environmental Planning and Assessment Act 1979*.

DESIGN

The following identified requirements relate to the design of the development and are to ensure that the activity and upon completion do not interfere with the amenity of the surrounding area.

Subdivision

4. The subdivision must be designed in accordance with the approved civil and landscape plans and with consultation with the Snowy Monaro Regional Council.

Stormwater Run-off

- 5. Stormwater shall be collected within the site and conveyed in a pipeline to the appropriate drain at either Polo Flat Road or Monaro Highway and be designed in accordance with the approved concept stormwater drainage plans and advice/consultation with both the Snowy Monaro Regional Council and Transport for NSW.
- **6.** Alterations to the natural surface contours or surface absorption characteristics of the site upon completion shall not increase natural surface water runoff so as to cause a nuisance to adjoining property owners.
- **7.** All driveways and roads shall be graded in such a manner as to provide continuous surface drainage flow paths to the appropriate points of discharge.

Vehicular Access

- 8. Where required as part of the approved subdivision design, concrete vehicular crossings and laybacks shall be provided at the entrances / exits to the relevant individual properties off Polo Flat Road. The crossings and laybacks shall be constructed in accordance with the Snowy Monaro Regional Council standard requirements for residential crossings. Council shall be provided with plans for the crossings and laybacks together with the payment of any Council inspection fees.
- **9.** Particular care shall be taken in the location of vehicular crossings and/or laybacks to avoid poles, pits etc. The cost of any necessary adjustments to utility mains and services associated with the construction of the laybacks / driveways shall be borne by the Land & Housing Corporation. Any obsolete gutter laybacks shall be constructed as kerb in accordance with the Snowy Regional Monaro Council's standards.

Note: It is recommended that discussions be held with the relevant authorities before construction works commence.

10. Driveways shall be constructed of concrete or other approved hard surface materials and new roads constructed from asphalt / bitumen for the wearing course. Driveways and roads must comply with AS2890, Austroads *Guides to Road Design* and relevant Snowy Monaro Regional Council specifications.

Landscaping

11. Landscaping shall be carried out substantially in accordance with the approved landscape plan(s) and maintained for a period of 12 months by the contractor. Snowy Monaro Regional Council shall be consulted in relation to the planting of any street trees.

Tree Removal

12. Removal of trees within the boundaries of the site and along the Polo Flat Road in accordance with the approved landscape plan, General Arrangement Plan and Tree Assessment report are permitted for removal. No other trees shall be removed without further approval(s).

Bushfire Protection

13. The development must be designed and constructed in accordance with the requirements of the NSW Rural Fire Service General Terms of Approval dated 6 January 2023, detailed as below. Certification of the design against the requirements is to be provided to the Certifier before work commences.

Asset Protection Zones

The intent of measure is to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and prevent direct flame contact.

- 2. At the issue of a subdivision certificate, and in perpetuity to ensure ongoing protection from the impact of bush fires, asset protection zones must be provided as shown on Figure 7 of the above referenced Bush Fire Assessment Report. When establishing and maintaining an inner protection area the following requirements apply in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019:
 - shrubs should not form more than 10% ground cover;
 - clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation;
 - grass should be kept mown (as a guide, grass should be kept to no more than 100mm in height); and
 - leaves and vegetation debris should be removed regularly.
- 3. A suitable mechanism pursuant to section 88B of the 'Conveyancing Act 1919' shall be placed on the title of the adjoining lot 3 to provide for the temporary 50m APZs to the south of the proposed development as outlined in the Bush Fire Assessment report prepared by Australian Bushfire Protection Planners (as referenced in Condition 1) to be lawfully maintained until such a time as the hazard is removed via development of the adjoining lot, whereby the 88B instrument may be extinguished.

<u>Access - Public Roads</u>

The intent of measure is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area.

- 4. Access roads must comply with the following general requirements of Table 5.3b of Planning for Bush Fire Protection 2019 and the following:
 - traffic management devices are constructed to not prohibit access by emergency services vehicles;
 - maximum grades for sealed roads do not exceed 15 degrees and an average grade
 of not more than 10 degrees or other gradient specified by road design standards,
 whichever is the lesser gradient;
 - all roads are through roads;
 - dead end roads are not recommended, but if unavoidable, are not more than 200 metres in length,
 - incorporate a minimum 12 metres outer radius turning circle, and are clearly sign posted as a dead end;
 where kerb and guttering is provided on perimeter roads, roll top kerbing should
 - be used to the hazard side of the road;
 the capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges/causeways are to clearly indicate load rating;
 - hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression; and
 - hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 Fire hydrant installations System design, installation and commissioning.

5. Perimeter roads must comply with the general requirements of Table 5.3b of Planning for Bush Fire Protection 2019 and the following:

- are two-way sealed roads;
- minimum 8m carriageway width kerb to kerb;
- parking is provided outside of the carriageway width;
- hydrants are located clear of parking areas;
- curves of roads have a minimum inner radius of 6m;
- the maximum grade road is 15 degrees and average grade of not more than 10 degrees;
- the road crossfall does not exceed 3 degrees; and
- a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

6. Non-perimeter roads must comply with the general requirements of Table 5.3b of Planning for Bush Fire Protection 2019 and the following:

- minimum 5.5m carriageway width kerb to kerb;
- parking is provided outside of the carriageway width;
- hydrants are located clear of parking areas;
- roads are through roads, and these are linked to the internal road system at an interval of no greater than 500m;
- curves of roads have a minimum inner radius of 6m;
- the road crossfall does not exceed 3 degrees; and
- a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.
- 7. Temporary turning heads shall be constructed in accordance with Figure A3.3 of Planning for Bush Fire Protection 2019, at temporary road terminations between each stage of the development.

Water and Utility Services

The intent of measure is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

- 8. The provision of water, electricity and gas must comply with the following in accordance with Table 5.3c of Planning for Bush Fire Protection 2019:
 - reticulated water is to be provided to the development;
 - fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard AS 2419.1:2005;
 - hydrants are not located within any road carriageway;
 - reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads:
 - fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005;
 - all above-ground water service pipes are metal, including and up to any taps;
 - where practicable, electrical transmission lines are underground;
 - where overhead, electrical transmission lines are proposed as follows:
 - o lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
 - o no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.
 - reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
 - reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - The storage and handling of LP Gas, the requirements of relevant authorities, and metal piping is used;

- all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- connections to and from gas cylinders are metal; polymer-sheathed flexible gas supply lines are not used; and
- above-ground gas service pipes are metal, including and up to any outlets

Landscaping Assessment

The intent of measure is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

- 9. Landscaping within the required asset protection zone must comply with Appendix 4 of Planning for Bush Fire Protection 2019. In this regard, the following principles are to be incorporated:
 - a minimum 1 metre wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building;
 - planting is limited in the immediate vicinity of the building;
 - planting does not provide a continuous canopy to the building (i.e. trees or shrubs are isolated or located in small clusters);
 - landscape species are chosen to ensure tree canopy cover is less than 15% (IPA), and less than 30% (OPA) at maturity and trees do no touch or overhang buildings;
 - avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies;
 - use smooth bark species of trees species which generally do not carry a fire up the bark into the crown;
 - avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter);
 - avoid climbing species to walls and pergolas:
 - locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building;
 - locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building; and
 - low flammability vegetation species are used.

Electrical Utilities

- **14.** All residential blocks are to be serviced with an electrical connection in accordance with the supply requirements of Essential Energy.
- **15.** All street lighting is to be designed to meet the requirements of PR4 in accordance with AS1158 Pedestrian Area Lighting Standard.

SUBDIVISION - PRIOR TO ANY WORK COMMENCING

The following identified requirements are to be complied with prior to any work commencing.

Appointment of the Certifier/s

- **16.** Land and Housing Corporation must appoint a Certifier for the issuing of a Crown Works Certificate.
- 17. Land and Housing Corporation must invite Snowy Monaro Regional Council to nominate and attend the agreed critical inspections / construction stages (as required by Identified Requirement No.45) to ensure that all works that will form part of the land dedication to Council are constructed in accordance with the Snowy Monaro Regional Council standards and specifications.

Public Liability Insurance

18. A valid public liability insurance policy of at least \$10M shall be maintained throughout the demolition / construction works by the building contractor.

Construction Management Plan

- **19.** A Construction Environmental Management Plan (CEMP) will be prepared by the contractor to address the requirements of this document.
 - a. The CEMP should include mitigation measures and controls to manage any environmental impacts associated with the Project and as recommended within the specialist consultant reports that are appendices to the Review of Environmental Factors. A copy of the CEMP must be submitted to Land and Housing Corporation for approval prior to the works commencing.
 - b. The CEMP will include a construction traffic plan to dictate traffic flows and parking arrangements for construction vehicles
 - c. The CEMP will include an Unexpected Finds Protocol (UFP) to manage any unexpected occurrences of contamination, heritage items, flora and fauna should they be encountered during the development of the site.
- **20.** A fenced exclusion zone area must be designed and in place prior to any construction works on Precinct 3, to delineate the mapped threatened species located on Precinct 3 from the temporary fire trail and variable width asset protection zones.

Landscaping

21. All scheduled plant stock shall be pre-ordered 3 months prior to the commencement of landscape works, for the supply to the site on time for installation. The contractor shall provide written confirmation of the order to Land and Housing Corporation.

Site Works

- 22. All soil erosion and sediment control measures required to be put in place prior to the commencement of any earthworks and demolition / construction works shall be maintained during the entire period of the works and until all the disturbed areas are restored by turfing, paving or revegetation. Soil erosion and sediment control measures shall be designed in accordance with the guidelines set out in the Blue Book *Managing Urban Stormwater: Soils and Construction* (4th edition, Landcom, 2004).
- **23.** An appropriately qualified person shall design any retaining walls or other methods necessary to prevent the movement of excavated or filled ground, including associated stormwater drainage measures.

Long Service Levy

24. The long service levy shall be paid to the Long Service Payments Corporation in accordance with the *Building & Construction Industry Long Service Payments Act 1986* prior to the commencement of any building and construction works.

Service Authority Clearances

- **25.** A compliance certificate, or other evidence, shall be obtained from the relevant water utility provider (Snowy Monaro Regional Council), confirming service availability prior to work commencing.
- **26.** A written clearance from an electricity supply authority stating that electrical services are available to the site, or that arrangements have been entered into for the provision of services to the subdivision site, shall be obtained prior to work commencing.

- **27.** A certificate from an approved telecommunications carrier certifying that satisfactory arrangements have been made for the provision of underground telephone services, to the subdivision site is provided, shall be obtained prior to work commencing.
- **28.** Where the site is to be connected to reticulated gas, a certificate from an approved gas carrier certifying that satisfactory arrangements have been made for the provision of underground gas services, to the subdivision site is provided, shall be obtained prior to work commencing.
- **29.** A Dial before you Dig must be obtained.

Utilities Service Provider Notification

30. The earthworks/ demolition / construction plans shall be submitted to the appropriate water utility's office (e.g. Snowy Monaro Regional Council) to determine whether or not the development will affect the utility's sewer and water mains, stormwater drains and any easements.

Demolition and Earthworks

- 31. The contractor shall notify the occupants of premises on either side, opposite and at the rear of the site a minimum of 5 working days prior to commencement of works. Such notification shall be clearly written on an A4 size paper giving the date demolition will commence and be placed in the letterbox of every premise (including every unit in a multi-unit residential building or mixed use building). The works shall not commence prior to the date that is stated in the notice letter.
- **32.** Prior to the commencement of works, a Work Plan shall be prepared by a competent person(s) in accordance with AS 2601 and shall be submitted to the Land and Housing Corporation. The Work Plan shall outline the identification of any hazardous materials (including surfaces coated with lead paint), the precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials.

Stormwater Disposal

33. Detailed stormwater drainage plans, substantially in accordance with the approved concept stormwater drainage plans, shall be prepared and submitted to the Land and Housing Corporation. Any on-site detention system shall be designed in accordance with the relevant catchment authority's requirements and the Snowy Monaro Regional Council's drainage specifications.

Council Notification

34. Snowy Monaro Council shall be advised by the contractor in writing, of the date it is intended to commence work, including demolition. A minimum period of 5 working days notification shall be given.

Landfill

- **35.** Where site filling is required, a minimum of 95% standard compacting shall be achieved and certified by a NATA registered Soils Laboratory.
- **36.** Land fill materials must satisfy the following requirements:
 - a. Shall be Virgin Excavated Natural Matter (VENM) in accordance with the NSW EPA Part 1 Waste Classification Guidelines;
 - b. Shall be free of slag and hazardous, contaminated, putrescible, toxic or radio-active matter; and
 - c. Shall be free of industrial waste and building debris.
 - d. Evidence to support the classification of land fill materials as VENM should be maintained by the contractor and provided to the NSW Land and Housing Corporation. Evidence includes testing against Part 1 of the NSW Waste Classification criteria and records (including but not limited to NSW EPA VENM certificates) showing the material meets the description of VENM.

Site Facilities

- **37.** The following facilities shall be installed on the site:
 - a. Toilet facilities shall be provided at the rate of 1 toilet for every 20 persons, or part thereof, employed at the site. Each toilet shall be a standard flushing toilet and shall be connected to a public sewer. If connection to a public sewer is not practicable, to an accredited sewerage management facility provided by the council for the area or if this is also not practicable to some other council approved management facility.
 - b. Adequate refuse disposal methods and builders' storage facilities, builders' wastes, materials or sheds shall not be placed on any property other than that to which this activity relates.
- **38.** Access to the site shall only be provided via an all weather driveway on the property and shall not be provided from any other site.

Site Safety

- **39.** A sign shall be erected in a prominent position on the site:
 - a. showing the name, address and telephone number of the responsible Land and Housing Corporation officer for the work, and
 - b. showing the name of the principal contractor (if any) and the telephone number on which that person may be contacted during and outside working hours, and
 - c. stating that unauthorised entry to the site is prohibited.

The sign shall be maintained while the work is being carried out but shall be removed when the work has been completed.

- **40.** A minimum 1.8m high security fence or Class A / Class B (overhead) hoarding must be erected between the work site and any public place prior to commencement of works. Access to the site shall be restricted to authorised persons only and the site shall be secured against unauthorised entry when demolition / construction work is not in progress or the site is otherwise unoccupied.
- **41.** Vehicle/equipment parking, stockpiles, building and demolition materials shall not be stored on the Snowy Monaro Council footpath or roadway.

Protection of Trees

42. Trees and other vegetation that are to be retained on site shall be protected prior to the commencement of works and for the duration of the construction period in accordance with the details provided in the Tree Assessment report.

Waste Management

43. A final Waste Management Plan shall be prepared and submitted to the Land and Housing Corporation by the contractor prior to the commencement of earthworks/demolition/construction. The Plan shall detail the amount of waste material and the destination of all materials, recyclable and non-recyclable.

Impact of Construction Works

44. To assist in the resolution of any future disputes about damage to properties adjoining the development site. A dilapidation report shall be prepared for No.4-6 Polo Flat Road Cooma (Lot 1 DP 212758). The reports must be provided to Land and Housing Corporation, Snowy Monaro Regional Council and to the owners of the properties that are the subject of the report. The report must be prepared by a suitably qualified and experienced person.

Inspections Schedule – Civil Works

- **45.** Prior to the commencement of the approved civil works the Land and Housing Corporation's nominated Registered Engineer / Certifier / Snowy Monaro Regional Council shall nominate a schedule of critical stage inspections for construction. The inspection schedule may include the following critical stages:
 - a. Stormwater pipes laid, jointed and prior to backfill, subsoil drainage lines.
 - b. Road pavements proof rolling, profile checking, steel inspection.
 - c. Pedestrian footpaths prior to pouring concrete, profile checking,
 - d. Pit and pipes inspection prior to backfill of pipes, steel inspection of pits, final inspections of pits.
 - e. Vehicle crossings and laybacks prior to pouring concrete.
 - f. Final inspection all outstanding work.

SUBDIVISION - DURING WORKS

The following identified requirements are to be complied with whilst works are occurring.

Site Safety

46. The requirements of Identified Requirement No.39, 40 and 41 relating to site safety must be maintained during the construction stages.

Disconnection of Services

- 47. All services that are required to be disconnected shall be appropriately disconnected by / on behalf of the Land and Housing Corporation and made safe prior to commencement of the demolition / construction works. The various service authorities shall be consulted regarding their requirements for the disconnection of services.
- **48.** All existing services within the boundary to remain live shall be identified, pegged and made safe.

Site Works - Erosion and Sediment Control

49. All soil erosion and sediment control measures required to be put in place prior to the commencement of any earthworks and demolition / construction works shall be maintained during the entire period of the works and until all the disturbed areas are restored by turfing, paving or revegetation. Soil erosion and sediment control measures shall be designed in accordance with the guidelines set out in the Blue Book *Managing Urban Stormwater: Soils and Construction* (4th edition, Landcom, 2004).

Construction Management Plan

50. The CEMP (as required by Identified Requirement No.22 and No.23) mitigation measures, controls and recommendations to manage environmental impacts must be maintained during all works as relevant.

Unexpected Finds

- **51. Site Soil Contamination** the CEMP and UFP required by Identified Requirement No.19 shall be followed should contaminated soils be encountered during works. If the site is identified as being contaminated, all works must cease and advice from a registered environmental consultant must be sought, and the Land and Housing Corporation must be immediately informed.
- **52. Heritage** Historic and indigenous archaeological sites and relics are protected under the *Heritage Act 1977* and *National Parks and Wildlife Act 1974*, respectively. Should any actual or suspected relics be uncovered during the course of the approved works, work must cease immediately in the

affected area. Subsequently, in cases where suspected historical items have been uncovered, or if potential Indigenous items have been uncovered, the Department of Planning and Environment shall be contacted.

All workers / contractors on the site shall be informed of their obligations, under the Heritage Act and *National Parks and Wildlife Act 1974,* that it is illegal to disturb, damage or destroy a relic without the prior approval.

53. Flora and Fauna

- a. If a threatened flora or fauna species / Endangered Ecological Community / Matter of National Environmental Significance is unexpectedly encountered during excavation / construction activities:
 - ALL WORK in the vicinity of the find must cease.
 - Immediately notify the construction Manager or site manager who is to notify the Project Ecologist, Client environmental representative.
 - Seek further direction from project ecologist on continuation of works.
- b. Prior to felling, all trees should be inspected by an ecologist to determine if any native birds are nesting within them. If no birds are found to be nesting, then felling can proceed without supervision of an experienced ecologist. If birds are found to be nesting, then the felling should cease until the chicks have fled the nest. Once the nest is unoccupied, felling can continue.
- c. As the artificial dam may be habitat for native fauna particularly fishes and reptiles an unexpected finds protocol should be put in place to mitigate any impacts that draining of the dam may have:
 - a. The dam should be drained to ¼ of its capacity (the ecologist need not be present for this step).
 - b. Under a suitably qualified ecologists' supervision, the remaining ¼ of the dam is to be drained.
 - c. Any native fauna recovered is to be housed in suitably sized storage contains and relocated to a nearby, permanent, waterbody, once the dam is drained.
 - d. Any exotic fauna should be humanely euthanised.
- **54.** The "suitably qualified ecologist" noted above should have a tertiary degree in biology (or equivalent) and should have experience in handling native fauna.
- **55.** All non-native flora should be disposed of at an appropriate waste management facility.

Aboriginal Due Diligence

56. A copy of the Aboriginal Due Diligence report listed in Identified Requirement No.1, and any subsequent due diligence investigations, should be kept on record and on site, and if requested, supplied to the relevant government agency as proof of compliance with the *Due Diligence Code of Practice*.

Demolition and Earthworks

- **57.** Any existing structures identified for demolition shall be demolished prior to commencement of the construction of the activity.
- **58.** Demolition shall be carried out in accordance with the appropriate provisions of AS 2601.

- **59.** Where materials containing asbestos are to be removed, demolition shall be carried out by a licensed contractor(s) that has a current SafeWork NSW accreditation in asbestos removal.
- **60.** During all works, the public road shall not be obstructed by any vehicles. The public road shall be swept (not hosed) clean of any material, including clay, soil and sand.
- **61.** All vehicles leaving the site shall have their loads covered and vehicles shall not track soil and other material onto the public roads. All loading of vehicles shall occur within the boundaries of the "Limit of Works" approved plan 50522046-C-2005 prepared by *Stantec* as listed in Identified Requirement No.1.

Hours of Demolition / Construction / Civil Work

62. Demolition/ construction / civil/earthworks shall only occur on the site between the hours of 7.00am to 5.00pm Monday to Saturday with no work permitted on Sundays or public holidays.

Excavation & Backfilling

63. All excavations and backfilling shall be executed safely and in accordance with appropriate professional standards. All such work shall be guarded and protected to prevent it from being dangerous to life or property.

Pollution Control

- **64.** Any noise generated during the carrying out of the activity shall not exceed the limits specified in the *July 2009 Interim Construction Noise Guideline* published by the former Department of Environment and Climate Change.
- **65.** No fires shall be lit, or waste materials burnt, on the site.
- **66.** No washing of concrete forms or trucks shall occur on the site.
- **67.** Any contamination / spills on the site during construction works shall be actively managed and reported immediately to the appropriate regulatory authorities to minimise any potential damage to the environment.
- **68.** Dust generation during demolition / construction shall be controlled using regular control measures such as on site watering or damp cloth fences.
- **69.** All vehicles transporting loose materials and travelling on public roads shall be secured (i.e. closed tail gate and covered) to minimise dust generation.
- **70.** Non-recyclable waste and containers shall be regularly collected and disposed of at a licensed landfill or other disposal site in accordance with details set out in the final Waste Management Plan and in accordance with the NSW EPA Waste Classification and Handling Guidelines.

Impact of Construction Works

- **71.** The Land and Housing Corporation shall bear the cost of any necessary adjustments to utility mains and services.
- **72.** Care shall be taken to prevent any damage to adjoining properties; the Monaro Highway, and Council road (Polo Flat Road only) within 150m north and 150m south of the site's boundaries. The contractor shall be liable to make good on any damage to a pre-construction standard, to any adjoining properties or assets if, due to demolition/construction works, damage is caused to such adjoining property.

Inspections – Civil Works

73. The approved civil works shall be inspected at critical stages of construction (scheduled as agreed by Identified Requirement No.45) by the Land and Housing Corporation's nominated Registered Engineer / Certifier / Snowy Monaro Council.

PRIOR TO ISSUE OF THE SUBDIVISION CERTIFICATE

The following identified requirements are to be complied with prior to the issue of the Subdivision Certificate.

Council Contributions and Charges

- **74.** The Land and Housing Corporation must make the following payments to Snowy Monaro Regional Council:
 - a. Section 64 (water and sewer charges):

Cooma Monaro Shire Council Development Servicing Plan 2011			
Service	Yield – Lots (exclusive of LAHC	Per lot fee	Total \$ Contribution
	affordable housing lots)		Payable by LAHC
Water	133	\$7,999.48	\$1,063,930.84
Sewer	133	\$8,419.58	\$1,119,804.14
Total 133		\$16,419.06	\$2,183,734.98

Therefore, \$2,183,734.98 must be paid to Snowy Regional Monaro Council as S.64 charges.

b. Section 7.12 Development Contributions charged at 1% of the cost of works (where the works are greater than \$200,000.00) under the *Snowy Monaro Section 7.12 Local Infrastructure Contributions Plan 2022.*

The total estimated cost of works is \$13,172,029.22.

1% of the cost of works = \$131,720.29.

Therefore, **\$131,720.29** must be paid to Snowy Monaro Regional Council as S.7.12 development contributions.

Traffic Safety Study

75. Snowy Monaro Regional Council have identified that the intersection of Numeralla Road by Polo Flat Road and Polo Flat Road by Yareen Road experience traffic safety issues. Land and Housing Corporation must undertake a road safety review of these intersections. The road safety review report must be prepared by a suitably qualified person / traffic engineer and a copy provided to Snowy Monaro Regional Council once the report is finalised.

General

76. The registration of the subdivision shall not commence until all the Identified Requirements of this determination have been complied with.

Utilities

- **77.** Prior to the issue of Subdivision Certificate, the following documents shall be submitted to the Land and Housing Corporation and Snowy Monaro Regional Council to demonstrate that the requirements of public utility services have been met:
 - a. Essential Energy: Notice of Arrangement;
 - b. Certificate of compliance for water, sewer and stormwater infrastructure; and

c. Certification from an approved telecommunications provider.

Civil Construction Certification

78. Prior to issuing a Subdivision Certificate, the Land and Housing Corporation's nominated Registered Engineer / Certifier is to certify that all civil works, including driveways, roads, footpaths, crossovers and drainage lines have been constructed in accordance with the certified civil drawings.

Snowy Monaro Regional Council must be consulted with regarding the above completed works and certification.

Council Infrastructure Damage

79. The cost of repairing any damage caused to the Snowy Monaro Regional Council assets in the vicinity of the site as a result of demolition / construction works shall be met in full by the contractor.

Work As Executed Plan

- **80.** Prior to the issue of a Subdivision Certificate, a Work As Executed Plan shall be prepared by the contractor clearly showing all aspects of the constructed stormwater drainage system, including any on-site detention system. The plan shall demonstrate general compliance with the approved stormwater drainage plans and shall include:
 - sufficient levels and dimensions to verify the constructed storage volumes; and
 - location and surface levels of all pits; and
 - invert levels of the internal drainage lines, orifice plates fitted and levels within the outlet control pits; and
 - locations and levels of any overland flow paths; and
 - verification that any drainage lines are located wholly within easements, where applicable: and
 - road pavement and pedestrian footpath grades and levels, including kerb and guttering.

The Work-As-Executed Plan information shall be shown on the final civil works drawings.

Land Dedication

81. The Subdivision Certificate must include the dedication of; all roads within the Precinct 2 subdivision, Lot X2 for the provision of the future park, and Lot X1 and X3 for the on-site detention basins and associated sewer, stormwater and electrical services.

The dedication of the above must be in accordance with the Snowy Monaro Regional Council's Land Dedication Policy issued 16/06/2022.

Restriction on the Use of Land / Easements

- **82.** Prior to issuing or at the time of lodgement of a Subdivision Certificate, appropriate restrictions on the use of land / easements under Section 88B of the Conveyancing Act are to be applied, such as:
 - a. Common / interallotment Drainage lines
 - b. Overland flow paths
 - c. Asset Protection Zones
 - d. Retaining walls / easement for support
 - e. Rights of Carriageway

Snowy Monaro Regional Council shall be consulted regarding required wording, where applicable. Any lots subsequently identified during the subdivision process as requiring restrictions shall also be suitably burdened. Where applicable, the authority empowered to release, vary or modify these restrictions on the use of land shall be the Snowy Monaro Regional Council.

Endorsement of Subdivision Plan

83. The Plan of Subdivision creating the new allotments and the original 88B instrument, shall be submitted to the Land and Housing Corporation for endorsement prior to lodgement at the NSW Land Registry Services.

The plan of subdivision must be prepared by a surveyor and must include the details of the easements to be applied to the site and the dedication of assets to Council.

Bushfire Protection

- **84.** Certification from a suitably qualified Bushfire Consultant must be obtained that demonstrates the development achieves compliance with the NSW Rural Fire Service General Terms of Approval dated 6 January 2023, Planning for Bushfire Protection 2019 and the Bushfire Protection Assessment report listed in Identified Requirement No.1.
- 85. The Asset Protection Zone over Lot 3 / Precinct 3 must be in place and certification from a suitably qualified bushfire consultant must be obtained certifying that the land is managed in accordance with the recommendation of the Bushfire Protection Assessment report listed in Identified Requirement No.1. The terms under the Section 88B Instrument for DP 1290272 and the Deposited Plan sheet relating to the Inner Protection Area APZ, are to be adjusted to be consistent with the APZ variable widths as recommended in the Bushfire Protection Assessment report listed in Identified Requirement No.1.

This is to ensure that threatened species as mapped in the southern Precinct 3 are protected. If separate development consent is obtained for the removal of the threatened species located on southern Precinct 3, the Section 88B Instrument for DP 1290272 and the Deposited Plan sheet will not be required to be updated by the above.

POST SUBDIVISION CERTIFICATE

Provisions of a Future Park

- **86.** The Land and Housing Corporation must consult with Snowy Monaro Regional Council in the design and construction of the future park as identified in the approved plans listed at Identified Requirement No.1.
- **87.** The Land and Housing Corporation must deliver the infrastructure associated with the park following the land dedication to Snowy Monaro Regional Council. Appropriate timing of the delivery is to be negotiated with Snowy Monaro Regional Council.

Local Area Connectivity

88. The Land and Housing Corporation must consult with Snowy Monaro Regional Council on the design and construction a pedestrian / bicycle access pathway along the Monaro Highway and other possible connectivity paths.

ADVISORY NOTES

- i. Approval of this development activity does not imply or infer compliance with Section 23 of the *Disability Discrimination Act 1992*. Refer to AS 1428.1 and the Building Code of Australia for detailed guidance.
- ii. Information regarding the location of underground services may be obtained from Dial Before You Dig at <u>www.1100.com.au</u> or by dialling 1100.

_//	
Signed	Dated18 June 2023

Robert Stark A/Head of Policy and Innovation Land and Housing Corporation Department of Planning & Environment



Decision Statement

SITE IDENTIFICATION	
STREET ADDRESS	
Unit/Street No	Street or property name
-	Polo Flat Road
Suburb, town or locality	Postcode
Cooma	2630
Local Government Area(s)	Real property description (Lot and DP)
Snowy Monaro Council	Lots 2 and 4 in Deposited Plan DP1285072.
ACTIVITY DESCRIPTION	
Provide a description of the activ	ity
143 lot subdivision, to create 140 re subdivision works.	sidential lots, 3 residual lots, associated roads, drainage and

The Land & Housing Corporation (LAHC) has proposed the above activity under the provisions of *State Environmental Planning Policy (Housing) 2021* (Housing SEPP) which requires determination under Part 5 of the *Environmental Planning & Assessment Act 1979* (EP&A Act). This Decision Statement relates to the Review of Environmental Factors (REF) for the above activity prepared under Part 5 of the EP&A Act and the *Environmental Planning and Assessment Regulation 2021*.

Based on the REF document and supporting documentation, including advice from Snowy Monaro Regional Council a decision to proceed with the proposed activity has been made. This decision included consideration of the following:

Significant Impact on the Environment

- The proposed activity is not likely to have a significant impact on the environment and therefore an EIS is not required.
- The proposed activity will not be carried out in a declared area of outstanding biodiversity value and
 is not likely to significantly affect threatened species, populations or ecological communities, or their
 habitats or impact biodiversity values, meaning a SIS and/or BDAR is not required.

In this regard, the activity has been modified to ensure that the APZ and fire trail do not impact on the approximately 0.7 ha of an identified grassland (Plant Community Type 1289) and 1,184 Leucochrysum albicans var. tricolor plants. The Leucochrysum albicans var. tricolor and Natural Temperate Grasslands are protected as threatened entities under the EPBC Act 1999. The proposed works within Lot 3 (access roads, drainage, sewer, earthworks and bushfire protection Asset Protection Zone management) had the potential to impact the threatened species located by the Biodiversity Development Assessment Report assessment, based on the initial location of the fire trail and APZ. During the assessment of the activity, the scope of works over Precinct 3 for the

Conflict of interest includes actual and potential. A conflict of interest includes pecuniary i.e. financial interests to you or a related party or non-pecuniary i.e. benefits to relatives, friends, business associates and personal causes, etc. This includes "related persons" as defined in the Property, Stock and Business Agency Act 2002.

benefit of Precinct 2 have been re-design by relocating the temporary fire trail further north towards the Precinct 2 boundary and reducing the distance of the APZ over Precinct 3 to be variable in width. This redesign of the fire trial and APZ results in the creation of an exclusion zone and negates adverse impacts to the threatened species.

Reasons for the Decision

- Following an assessment of the proposed activity and associated environmental impacts within the REF document it was decided that the proposed subdivision will have economic and social benefits and any minor short-term impacts on the environment or surrounding properties can be appropriately mitigated.
- The proposed land subdivision will provide residential allotments to enable the future provision of much needed social, affordable and private housing. This activity will assist in addressing the existing and growing demand for accommodation in the local government area.

Mitigation Measures

 Mitigation measures are required to minimise or manage environmental impacts and are detailed throughout the REF and specifically within Section 7. All mitigation measures are detailed as Identified Requirements within the Activity Determination. Additional mitigation measures, detailed in the Activity Determination have been imposed to minimise the impact on the surrounding environment, ensure appropriate site safety and to ensure legislative compliance.

/

Signed...

Robert Stark
Acting Head of Policy and Innovation
Land and Housing Corporation

Department of Planning & Environment

Page 2 of 2

18 June 2023





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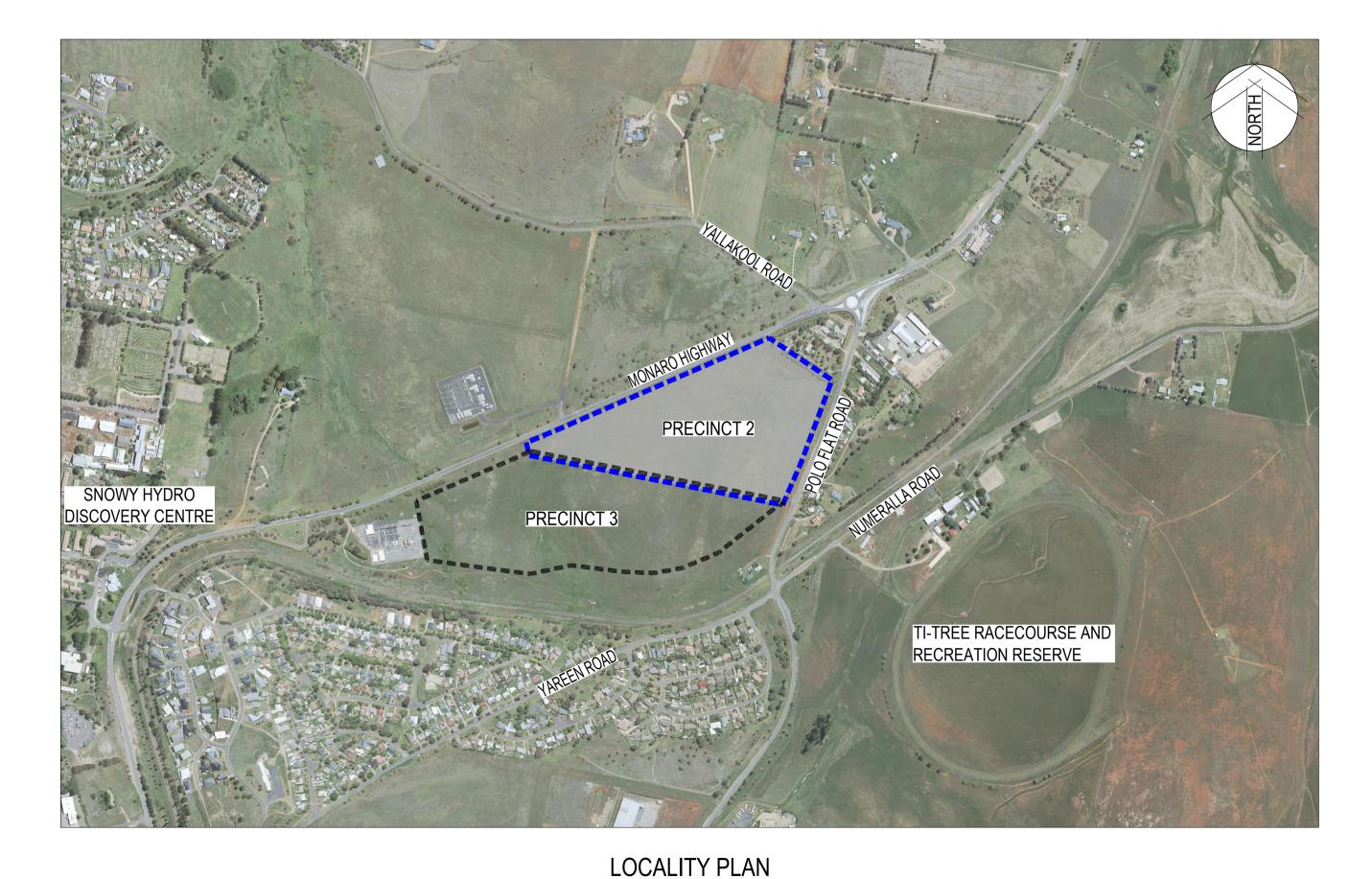


NSW Department of Planning and Environment

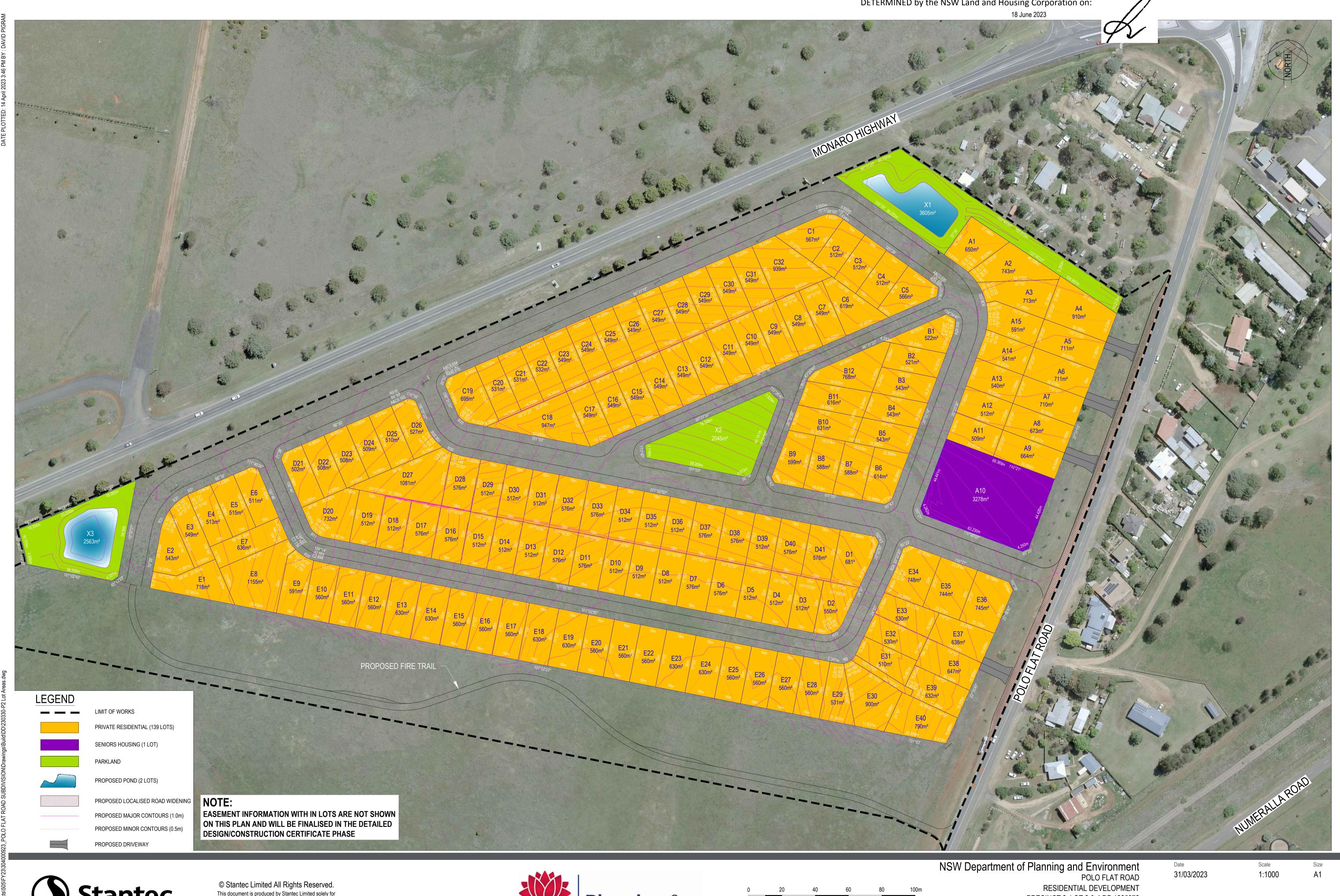
POLO FLAT ROAD RESIDENTIAL DEVELOPMENT (PRECINCT 2, LOT 2 & 4 DP 1285072)

COVER SHEET AND LOCALITY PLAN **APRIL 2023**

PART 5 NSW LACH APPLICATION - BGYV7



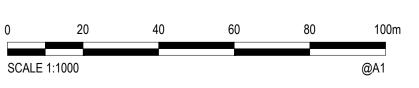
Drawing Number



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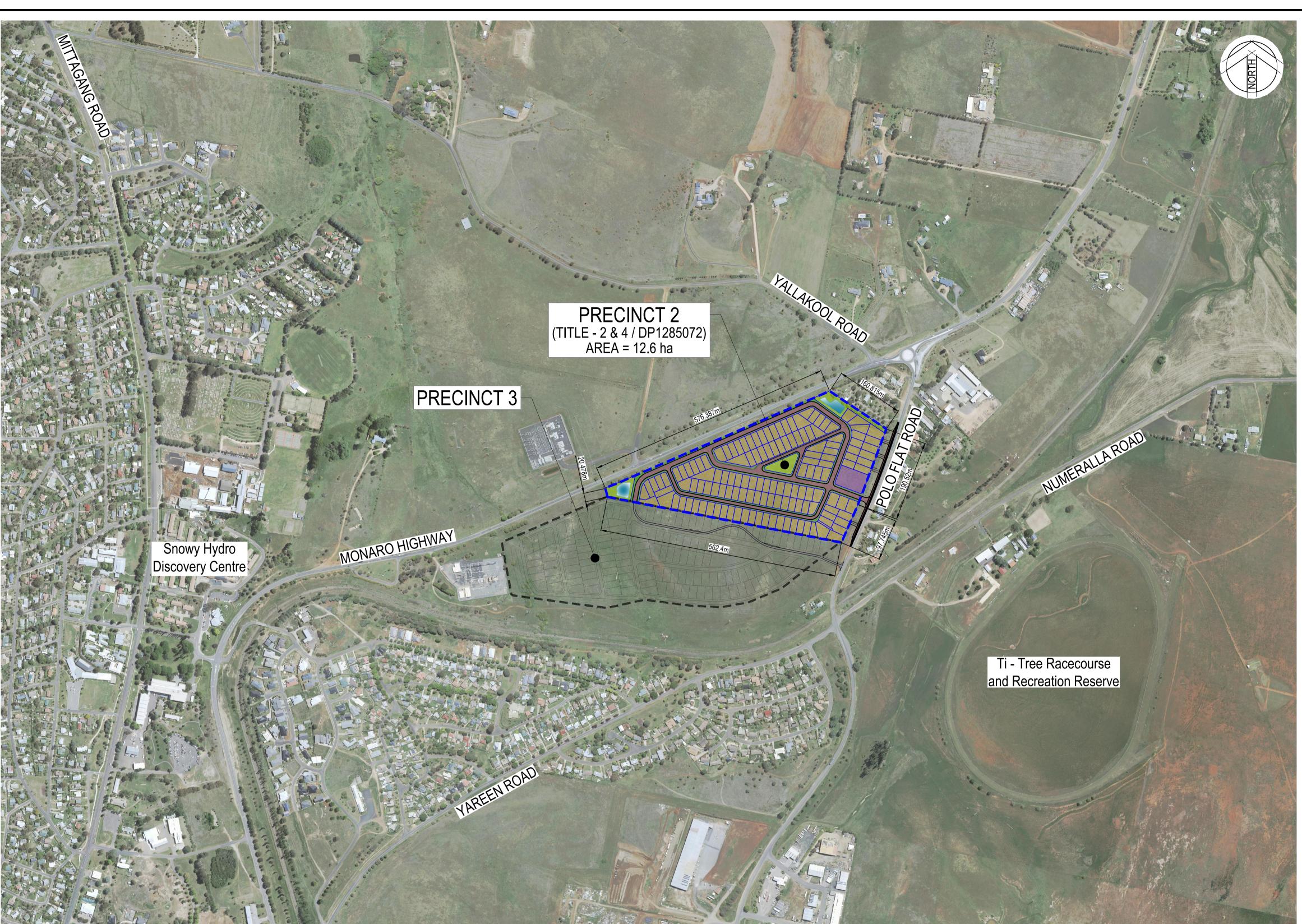


PRECINCT 2, LOT 2 & 4 DP 1285072

PROPOSED LOT DEVELOPMENT LAYOUT LOT LAYOUT DETAILS

304000923-SK-C-1000 Drawing Number

Canberra Tel: 02 6112 4500



SCHEDULE OF DRAWINGS		
DRAWING No.	DESCRIPTION	
50522046-C-2000	COVER SHEET AND LOCALITY PLAN FOR DEVELOPMENT APPLICATION	
50522046-C-2001	SITE PLAN AND DRAWING SCHEDULE	
50522046-C-2002	GENERAL NOTES AND LEGEND	
50522046-C-2005	GENERAL ARRANGEMENT PLAN	
50522046-C-2010	EXISTING ZONING PLAN	
50522046-C-2011	BUSHFIRE ASSET PROTECTION PLAN	
50522046-C-2012	ROAD HIERARCHY PLAN	
50522046-C-2015	TYPICAL ROAD CROSS SECTIONS SHEET 1 OF 2	
50522046-C-2016	TYPICAL ROAD CROSS SECTIONS SHEET 2 OF 2	
50522046-C-2020	ROAD LONG SECTIONS ROAD 01	
50522046-C-2021	ROAD LONG SECTIONS ROAD 07 SHEET 1 OF 2	
50522046-C-2022	ROAD LONG SECTIONS ROAD 07 SHEET 2 OF 2	
50522046-C-2023	ROAD LONG SECTIONS ROAD 08 AND ROAD 09	
50522046-C-2030	ACTIVE TRAVEL PLAN	
50522046-C-2032	ISOPACH	
50522046-C-2034	RETAINING WALL PLAN	
50522046-C-2035	TYPICAL CUT/FILL SECTIONS SHEET 1 OF 4	
50522046-C-2036	TYPICAL CUT/FILL SECTIONS SHEET 2 OF 4	
50522046-C-2037	TYPICAL CUT/FILL SECTIONS SHEET 3 OF 4	
50522046-C-2038	TYPICAL CUT/FILL SECTIONS SHEET 4 OF 4	
50522046-C-2040	CONCEPT STORMWATER PLAN AND WATER SENSITIVE URBAN DESIGN OUTCOME PLAN	
50522046-C-2041	WATER SENSITIVE URBAN DESIGN OUTCOME PLAN AND WATER QUALITY TABLE	
50522046-C-2042	WATER SENSITIVE URBAN DESIGN SPEL ECOCEPTOR - SERIES 4000 SHEET 1 OF 2	
50522046-C-2043	WATER SENSITIVE URBAN DESIGN SPEL ECOCEPTOR - SERIES 8000 SHEET 2 OF 2	
50522046-C-2045	CONCEPT SEWER PLAN	
50522046-C-2046	CONCEPT SEWER PLAN SEWER CALCULATIONS TABLE	
50522046-C-2050	CONCEPT WATER PLAN	
50522046-C-2051	WATER DEMAND CALCULATION	
50522046-C-2055	CONCEPT SERVICES PLAN	
50522046-C-2060	SOIL AND WATER MANAGEMENT PLAN	
50522046-C-2065	VEHICLE TURNING PATH ANALYSIS SHEET 1 OF 2	
50522046-C-2066	VEHICLE TURNING PATH ANALYSIS SHEET 2 OF 2	

SITE PLAN SCALE 1:5000

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Y22	G	17/04/2023	FINAL DRAWINGS FOR Part 5 APPLICATION	TM	FL	J:
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R	Biawii	Date
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	Checked	Date
	JS	27/10/2022
C	Designed	Date
. •	TM	27/10/2022
	Verified	Date
	FL	27/10/2022
	Approved	
	JS	27/10/2022

NSW Department of Planning and Environment					
POLO FLAT ROAD RESIDENTIAL DEVELOPMENT	Status NOT TO BE		PROVAL DISTRUCTION	N PUI	RPOSE
PRECINCT 2, LOT 2 & 4 DP 1285072	Date 27/10/2022	Datum AHD	Scale 1:5000	Size	A1
SITE PLAN AND DRAWING SCHEDULE	Drawing Number				Revision
SITE PLAN AND DRAWING SCHEDULE	50)522046-C	-2001		G

GENERAL NOTES

- 1. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 2000, WHICH REQUIRES EMPLOYERS TO ENSURE THE HEALTH, SAFETY AND WELFARE OF EMPLOYEES.
- 2. THE CONTRACTOR SHALL AT ALL TIMES EXERCISE ALL NECESSARY PRECAUTIONS APPROPRIATE TO ENSURE THE SAFETY OF ALL PERSONS ON THE WORK SITE OR IN THE VICINITY OF THE WORK SITE.
- 3. SEDIMENT AND EROSION CONTROL MEASURES AS DETAILED ON THE EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH LANDCOM'S SOILS AND CONSTRUCTION VOLUME 1, 4TH EDITION MARCH 2004 AND GOULBURN MULWAREE COUNCIL'S DEVELOPMENT DESIGN SPECIFICATION D7.
- 4. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT SO THAT AT ANY TIME ADJOINING PROPERTY OWNERS ARE NOT DEPRIVED OF AN ALL-WEATHER ACCESS OR SUBJECTED TO ADDITIONAL STORM WATER RUN-OFF DURING THE PERIOD OF CONSTRUCTION.
- 5. TO LIMIT THE IMPACT OF THE CONSTRUCTION ON ADJOINING OWNERS, ALL WORKS SHALL BE RESTRICTED TO THE HOURS OF 7am-6pm MONDAY TO FRIDAY AND 8am-3pm SATURDAY. NO WORK SHALL TAKE PLACE ON SUNDAYS OR PUBLIC HOLIDAYS.
- 6. ALL WORK IS TO BE SET OUT BY A COMPETENT SURVEYOR APPROVED BY COUNCIL
- 7. THE CONTRACTOR SHALL NOT DISTURB ANY SURVEY CONTROL MARKS. SHOULD ANY SURVEY CONTROL MARK BE DISTURBED OR OBLITERATED, THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT IMMEDIATELY. THE CONTRACTOR SHALL HAVE THE MARKS REPLACED AT HIS EXPENSE.
- 8. ALL WORKS ARE TO BE CONDUCTED TO THE REQUIREMENTS OF THE SUBDIVISION MANAGER OR DELEGATE.
- 9. ALL GREEN WASTE IS TO BE MULCHED. STOCKPILED AND USED (WHERE POSSIBLE) ON SITE, ALL EXCESS MULCH IS TO BE REMOVED OFF SITE.
- 10. THE DEPTH OF PAVEMENT MATERIAL SHALL BE APPROVED BY SNOWY MONARO REGIONAL COUNCIL WITH REFERENCE TO THE ACT GEOTECHNICAL ENGINEER'S PTY LTD PAVEMENT DESIGN REPORT. THE TYPE OF PAVEMENT MATERIAL IS TO BE APPROVED BY SNOWY MONARO REGIONALCOUNCIL.
- 11. THE SURVEYOR IS TO BE NOTIFIED 1 WEEK PRIOR TO THE POURING OF KERB SO SSMs AND THEIR LOCATIONS CAN BE PROVIDED.
- 12. ALL DISTURBED AREAS INCLUDING BATTERS, TABLE DRAINS AND FOOTPATH AREAS ARE TO BE TOP SOILED, FERTILIZED AND SEEDED TO THE SATISFACTION OF COUNCIL'S SUBDIVISION MANAGER OR DELEGATE. THE TYPE OF SEED (NATIVE MIX) IS TO BE APPROVED BY THE SUPERINTENDENT.
- 13. IF ROCK IS ENCOUNTERED THE SUPERINTENDENT SHALL BE NOTIFIED IMMEDIATELY SO MEASUREMENTS OF VOLUMES CAN BE MADE. NO VARIATIONS FOR ROCK WILL BE CONSIDERED UNLESS THE SUPERINTENDENT HAS VERIFIED THE AMOUNTS PRIOR TO BACKFILLING.
- 14. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE COOMA-MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION COUNCIL. AND TO THE REQUIREMENTS OF THE PRINCIPAL CERTIFYING AUTHORITY.
- 15. SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED PRIOR TO CONSTRUCTION WORK COMMENCING AND MAINTAINED DURING THE CONSTRUCTION PHASE. SEDIMENT AND EROSION CONTROL MEASURES ARE TO INCORPORATE THOSE AS DETAILED ON THE SEDIMENT AND EROSION CONTROL PLAN. MEASURES SHOULD ALSO INCORPORATE THOSE AS SET OUT IN COUNCIL'S STANDARDS DURING THE INSTALLATION OF UTILITY SERVICES
- 16. THE CONTRACTOR IS TO GAIN APPROVAL UNDER SECTION 138 OF THE ROADS ACT 1993 PRIOR TO COMMENCING CONSTRUCTION WITHIN ALL ROAD RESERVES.
- 17. TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH AS 1742.3 ARE TO BE IN PLACE AND MAINTAINED AT ALL TIMES. TRAFFIC CONTROL PLAN IS TO BE SUBMITTED TO COUNCIL AND APPROVED PRIOR TO CONSTRUCTION WORK COMMENCING.
- 18. PRIOR TO COMMENCEMENT OF EXCAVATION THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL SERVICES AND WILL BE RESPONSIBLE FOR ADJUSTMENT OF SERVICES AND REPAIR OF ANY DAMAGE TO COUNCIL'S INFRASTRUCTURE. SUCH REINSTATEMENT TO BE CARRIED OUT IMMEDIATELY TO THE SATISFACTION OF THE SUBDIVISION AND DEVELOPMENT MANAGER.

DRAINAGE NOTES

- ALL STORMWATER WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS - CONSTRUCTION, C220 - STORMWATER.
- PIPES ARE TO BE LAID TO DESIGN LEVELS AND GRADES IN 10mm AGGREGATE BED (MIN 75mm DEEP). BACKFILL PIPES 100mm OVER TOP OF BARREL WITH 10mm AGGREGATE AND TO FINISHED SURFACE LEVEL WITH SELECTED BACKFILL.
- 3. PITS MORE THAN 1.0m DEEP TO HAVE STEP IRONS.
- 4. SUBSOIL DRAINAGE LINES ARE TO BE LAID AT A MINIMUM GRADE OF 1%.
- 5. STORMWATER PIPES TO BE uPVC SN8 MANUFACTURED TO AS1254, INSTALLED IN ACCORDANCE WITH

WATER RETICULATION MAIN NOTES:

- 1. ALL WATER MAIN WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION, C401 - WATER RETICULATION.
- 2. PE PIPE SHALL COMPLY WITH AS/NZ 4130.
- 3. FITTINGS USED ON PE PIPE SHALL COMPLY WITH AS/NZ 4129.
- THE PE COMPOUND SHALL BE PE80B OR PE100 AND SHALL COMPLY WITH AS/NZ 4131.
- 5. PE MAY BE COLD BENT TO A MINIMUM RADIUS OF 33xOD. STAKES OR OTHER SOURCES OF POINT LOADS SHALL NOT BE USED TO ASSIST IN BENDING THE PIPE.
- 6. ALLOWANCE SHALL BE MADE DURING CONSTRUCTION FOR EXPANSION AND CONTRACTION OF PE PIPE DUE TO TEMPERATURE CHANGES.
- 7. PE PIPE SHALL BE BLACK PIPE WITH BLUE STRIPES.
- 8. NOMINATED DIAMETER IS O.D. U.N.O.

SEWER NOTES

- ALL SEWER WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION, C402 - SEWERAGE SYSTEM.
- SEWER PIPE CLASS SN8, FLEXIBLE RUBBER RING (ELASTOMERIC) JOINTS, MANUFACTURED TO

PAVEMENT NOTES

- 1. ALL SUBGRADE AND SUBBASE ARE TO BE COMPACTED TO A MINIMUM DENSITY OF 100% OF THE STANDARD MAXIMUM DRY DENSITY.
- 2. BASE COURSE MATERIALS ARE TO BE COMPACTED TO A MINIMUM DENSITY RATIO OF 98% OF THE MODIFIED MAXIMUM DRY DENSITY WITHIN -1.0% TO 3.0% OF STANDARD OPTIMAL MOISTURE
- DESIGN SUBGRADE CBR VALUES AND ADOPTED TRAFFIC LOADING ARE NOTED WITH EACH INDIVIDUAL PAVEMENT TYPE. APPROPRIATE SUBGRADE TREATMENT SHOULD BE ASSESSED AFTER PRELIMINARY BOXING. A NON WOVEN GEOFABRIC LAYER SUCH AS BIDUM A34 SHOULD BE PLACED ON SUBGRADE TO ACT AS A SEPARATION LAYER WHERE WET AND DEFLECTING SUBGRADE CONDITIONS ARE ENCOUNTERED.
- 4. PAVEMENT SUBGRADE COMPACTION SHOULD MEET THE FOLLOWING MINIMUM SPECIFICATION WHICH IS AS FOLLOWS:

BASECOURSE	98% MDD
SUB-BASE	98% MOE
SUBGRADE	98% MDD

WHERE EXISTING CBR VALUES OF LESS THAN 3% ARE ENCOUNTERED. SUBGRADES COULD BE CEMENTED OF LIME STABILISED TO A DEPTH OF 150mm, WITH DESIGN THEN BASED ON A VALUE OF 3%. ALTERNATIVELY, THE LOW STRENGTH SUBGRADES COULD BE TREATED BY EXCAVATION OF AT LEAST AN ADDITIONAL 300mm FOLLOWED BY REPLACEMENT WITH SUITABLE GRANULAR MATERIAL, THUS SATISFYING THE REQUIREMENTS OF A CBR 3% SUBGRADE.

EARTHWORKS NOTES

- SET OUT OF WORKS ON SITE ARE TO APPROVED BY THE PRINCIPAL'S REPRESENTATIVE PRIOR TO CONSTRUCTION WORKS.
- ALL TOPSOIL UNDER THE DESIGN FOOTPRINT IS TO BE STRIPPED TO A MAXIMUM DEPTH OF 300MM AND IS TO BE STOCKPILED FOR FUTURE USE.
- ALL UNSUITABLE IN-SITU FOUNDATION MATERIAL IS TO BE STRIPPED AND STOCKPILED SEPARATELY PRIOR TO CONSTRUCTION.
- ALL IMPORT FILL TO BE PLACED AND SPREAD IN 300MM LOOSE LAYERS, MOISTURE CONDITIONED TO OMC ± 2% AND COMPACTED TO 95% MMDD BEFORE THE END OF EACH **WORKING DAY**
- ALL EARTHWORKS OPERATIONS ARE TO BE SUPERVISED AND CERTIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER AND UNDERTAKEN UNDER LEVEL 1 SUPERVISION.
- FREQUENCY OF COMPACTION TESTING SHALL BE IN ACCORDANCE WITH AS 3798 AND COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS - CONSTRUCTION, C213 - EARTHWORKS.
- COMPACTED AREAS ARE TO BE EITHER COVERED OR TREATED WITH A SUITABLE POLYMER OR ALTERNATIVE METHOD TO PREVENT WATER EROSION OR DUST BLOW BEFORE THE END OF EACH WORKING DAY. THE PREFERRED OPTION IS TO BE APPROVED BY THE PRINCIPAL'S REPRESENTATIVE.
- LANDSCAPED AREAS ARE TO BE COMPACTED TO 90% MMDD.

RETAINING WALL NOTES

ALL RETAINING WALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA-MONARO SPECIFICATION FOR ENGINEERING WORKS - CONSTRUCTION, C271-MINOR CONCRETE WORKS

TRAFFIC AND PEDESTRIAN MANAGEMENT

- THE CONTRACTOR SHALL PROVIDE SAFE AND UNRESTRICTED ACCESS THROUGHOUT THE CONSTRUCTION PERIOD FOR PEDESTRIANS, CYCLISTS AND VEHICLES.
- THE CONTRACTOR SHALL ENSURE TRAFFIC AND PEDESTRIANS ARE PROTECTED FROM CONSTRUCTION VEHICLES, DUST, WATER AND OTHER NUISANCE BY MEANS OF TEMPORARY SCREENS, BARRIERS, SIGNAGE AND FENCING.
- THE CONTRACTOR SHALL PREPARE AND GAIN APPROVAL FOR A TEMPORARY TRAFFIC MANAGEMENT PLAN, FOLLOWING ENDORSEMENT FROM COOMA - MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION C201 - CONTROL OF TRAFFIC.

VERGE MANAGEMENT

- THERE SHALL BE NO PARKING, SITE SHEDS, SITE AMENITIES, BILLBOARDS OR STORAGE OF MATERIALS ON THE VERGE, OVERLAND FLOW PATHS OR OPEN SPACE UNDER ANY CIRCUMSTANCES. PROTECT ALL GRASSLAND, TREES AND SHRUBS OUTSIDE THE WORKS AREA FROM DAMAGE.
- ANY WORKS THAT ALTER OR DISTURB GRASSED FLOODWAYS, VERGE AREAS, MEDIANS OR OTHER OPEN AREAS MUST BE REINSTATED TO EXISTING CONDITION BY THE PERSON(S) RESPONSIBLE FOR THE DISTURBANCE IN ACCORDANCE WITH THE CANBERRA LANDSCAPE GUIDELINES.
- 3. FENCING TO PROTECT EXISTING VERGE (REFER LEGEND)
- a. FENCING TO BE ERECTED ON COMMENCEMENT OF SITE WORK AND REMOVED AT COMPLETION OF COMMENCEMENT OF VERGE RESTORATION.
- b. THE FENCE IS TO REMAIN CONTINUOUS THROUGHOUT THE PROJECT, EXCEPT WHERE SERVICE TRENCHING OCCURS.
- c. REALIGN FENCE TO PROVIDE LANE FOR SERVICE TRENCHING BUT RE-ERECT FENCE TO ENCLOSE TREES BEFORE TRENCHING COMMENCES AND ON COMPLETION OF TRENCHING RETURN TO ORIGINAL
- FENCE ALIGNMENT d. NO ACTIVITY SHALL BE CARRIED OUT WITHIN 2m OF A TREE TO BE RETAINED.
- 4. VERGE RESTORATION IS TO BE OVERSEEN BY A LANDSCAPE ARCHITECT.

ANY WORKS THAT ALTER OR DISTURB GRASSED VERGE AREAS, MEDIANS OR OTHER OPEN AREAS MUST BE REINSTATED TO EXISTING CONDITION BY THE PERSON(S) RESPONSIBLE FOR THE DISTURBANCE TO THE SATISFACTION OF THE SUPERINTENDENT.

- 5. EXISTING TREES:
- a. ALL TREES ARE TO BE RETAINED AND KEPT UNDAMAGED UNLESS SHOWN OTHERWISE
- b. EXISTING CROWN CLEARANCE NOT TO BE ALTERED. c. ENSURE CONSTRUCTION EQUIPMENT CAN PASS BENEATH LOWEST LIMB, THROUGH DRIVEWAY
- ACCESS. d. CROWNS AND APEX OF CANOPY NOT TO BE ALTERED OR REDUCED.

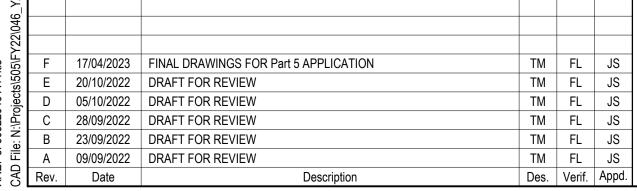
SEASONAL CONDITIONS.

- e. ENSURE LIFTING EQUIPMENT AND LOAD CAN CLEAR HEIGHT AND WIDTH OF TREE CROWN WITHOUT DAMAGE TO THE CROWN.
- f. ANY SERVICE CONNECTIONS WITHIN 2m OF AN EXISTING TREE CANOPY TO BE APPROVED BY SUPERINTENDENT.
- g. EXCAVATION THAT OCCURS WITHIN THE DRIP ZONE OF A TREE MUST BE APPROVED AND IS TO BE RESTRICTED TO ONE SIDE OF THE TREE ONLY.
- h. WHERE EXCAVATION IS APPROVED THE FOLLOWING MEASURES ARE TO BE ADOPTED FOR TREE
- DO NOT SEVER LARGE ROOTS (>50mm DIA.) CLOSER THAN HALFWAY FROM THE DRIPLINE TO THE
- ALL ROOTS MUST BE CUT CLEANLY WITH EQUIPMENT SPECIFICALLY DESIGNED TO CUT ROOTS OR OTHER PRUNING EQUIPMENT.
- ROOTS EXPOSED DURING EXCAVATION MUST BE PROTECTED FROM DESICCATION. KEEP LIGHTLY
- WATERED OR COVER WITH HESSIAN WHICH MUST BE KEPT MOIST. WATER TREES WHICH HAVE HAD DISTURBANCE IN THEIR ROOT ZONE. THE AMOUNT AND FREQUENCY OF WATER NEEDS TO BE ADAPTED TO THE TREES' REQUIREMENT, BASED ON

DETAIL OF INVERT LEVELS SUMPS AND SW MANHOLES

EXISTING SERVICES

- 1. EXISTING SERVICES HAVE BEEN DIGITISED FROM SUPPLIED DATA. NO GUARANTEE IS GIVEN FOR THE ACCURACY OF THE DETAIL. IT IS THE CONTRACTORS RESPONSIBILITY TO ESTABLISH THE EXACT ALIGNMENT OF ALL EXISTING SERVICES WITHIN THE LIMIT OF WORKS PRIOR TO THE COMMENCEMENT OF WORKS.
- 2. THE CONTRACTOR WILL CONTACT, FOR EACH SERVICE AUTHORITY, THE OFFICER-IN-CHARGE OF THE AREA IN WHICH THE SITE IS LOCATED BEFORE COMMENCING WORK ON THE SITE.
- 3. THE CONTRACTOR WILL INSPECT THE LOCATION OF ALL EXISTING SERVICES AND NOTIFY THE SUPERINTENDENT OF ANY OMISSIONS FROM THE
- 4. THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE SUPERINTENDENT AND THE OFFICER-IN-CHARGE OF THE AREA IN THE EVENT OF DAMAGE TO ANY WATER, GAS, STEAM, COMPRESSED AIR, ELECTRIC, DRAINAGE, SEWERAGE, TELECOMMUNICATIONS, FIRE ALARM, CONTROL CABLE OR OTHER SERVICES
- 5. ALL EXISTING SERVICES WHICH NEW SERVICES, PATHS, ROAD OR OTHER PARTS OF THE NEW WORKS ARE TO PASS UNDER, OVER, IN THE VICINITY OF OR CONNECT TO, ARE TO BE POTHOLED BY THE CONTRACTOR AT THE COMMENCEMENT OF WORKS IN ORDER TO DETERMINE IF THE NEW WORKS CAN BE CONSTRUCTED AS DESIGNED. THE COST OF POTHOLING IS TO BE ALLOWED FOR IN THE RATES GENERALLY. (HOLD POINT).
- DAMAGES OR CONSEQUENTIAL DAMAGES AND DELAY DUE TO FAILURE TO ESTABLISH THE ALIGNMENT OF ALL EXISTING SERVICES ARE THE CONTRACTOR'S RESPONSIBILITY. NO PAYMENT WILL BE MADE FOR ADDITIONAL WORKS OR DAMAGES WHERE THE CONTRACTOR HAS NOT COMPLIED WITH THIS REQUIREMENT.





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NSW Department of Planning and Environment ot POLO FLAT ROAD RESIDENTIAL DEVELOPMENT PRECINCT 2, LOT 2 & 4 DP 1285072

GENERAL NOTES AND LEGEND

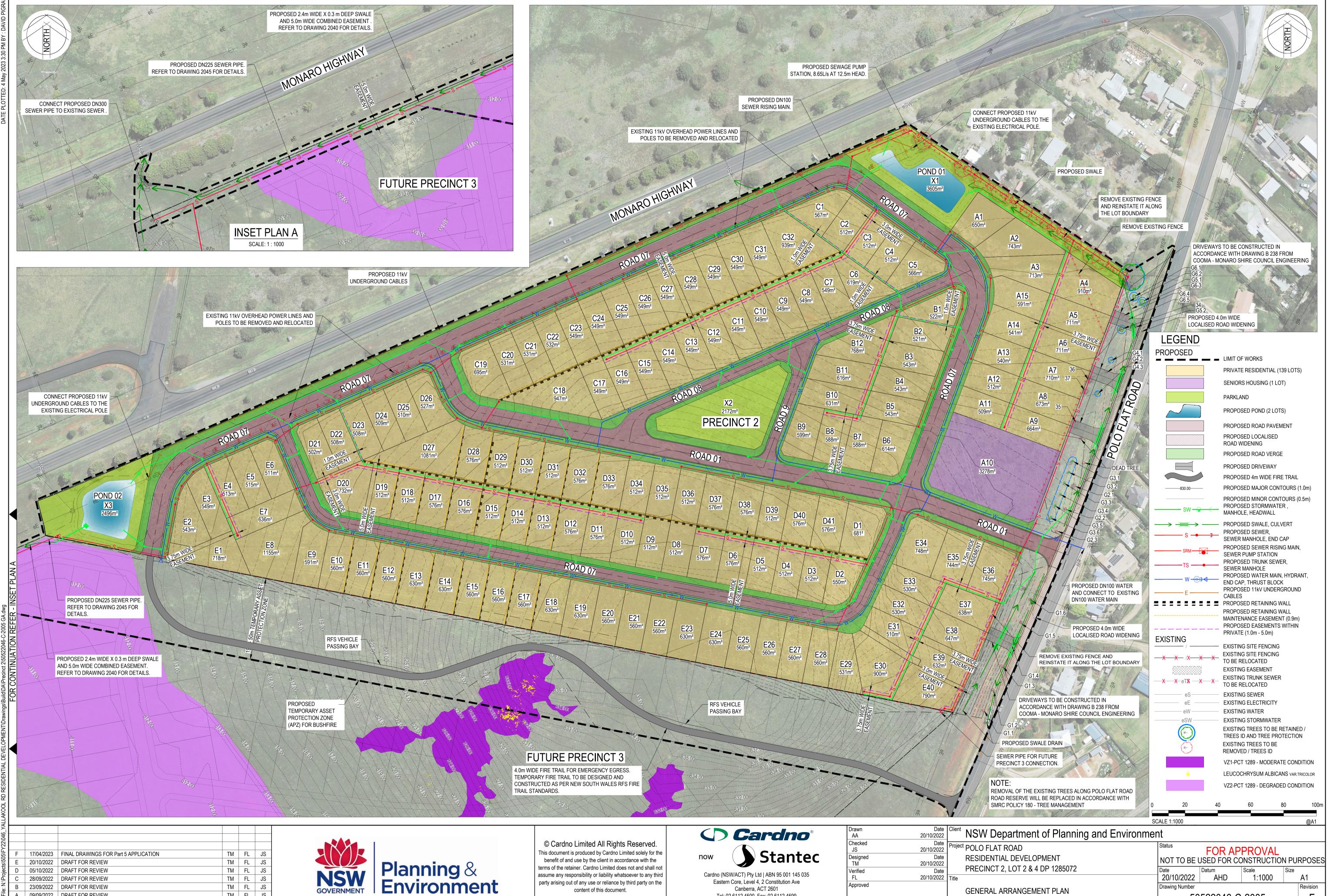
FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES 20/10/2022 AHD NTS Α1 Drawing Number Revision 50522046-C-2002



Drawing Number

50522046-C-2005

Revision



Eastern Core, Level 4, 2 Constitution Ave

Canberra, ACT 2601

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GENERAL ARRANGEMENT PLAN

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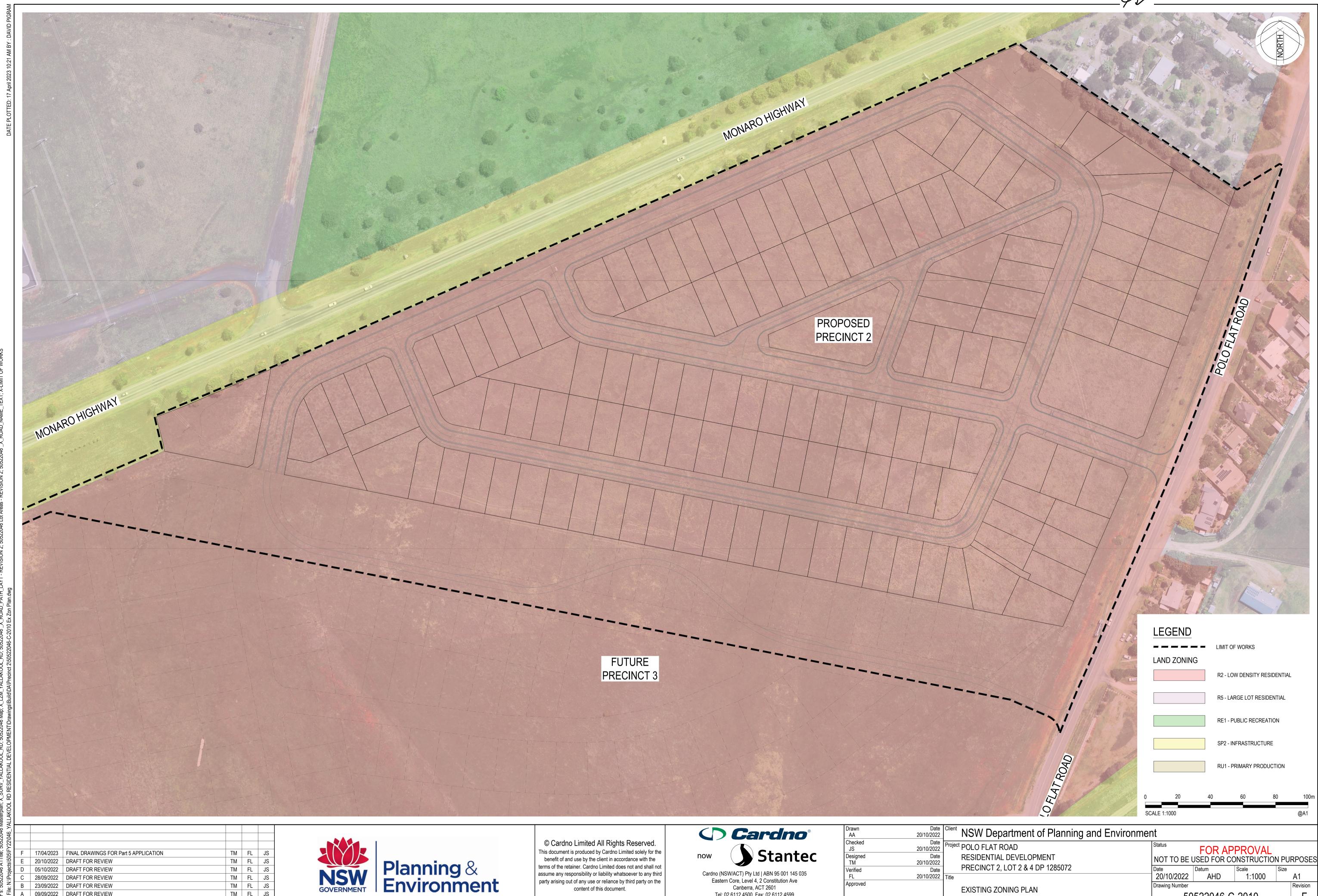
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EXISTING ZONING PLAN

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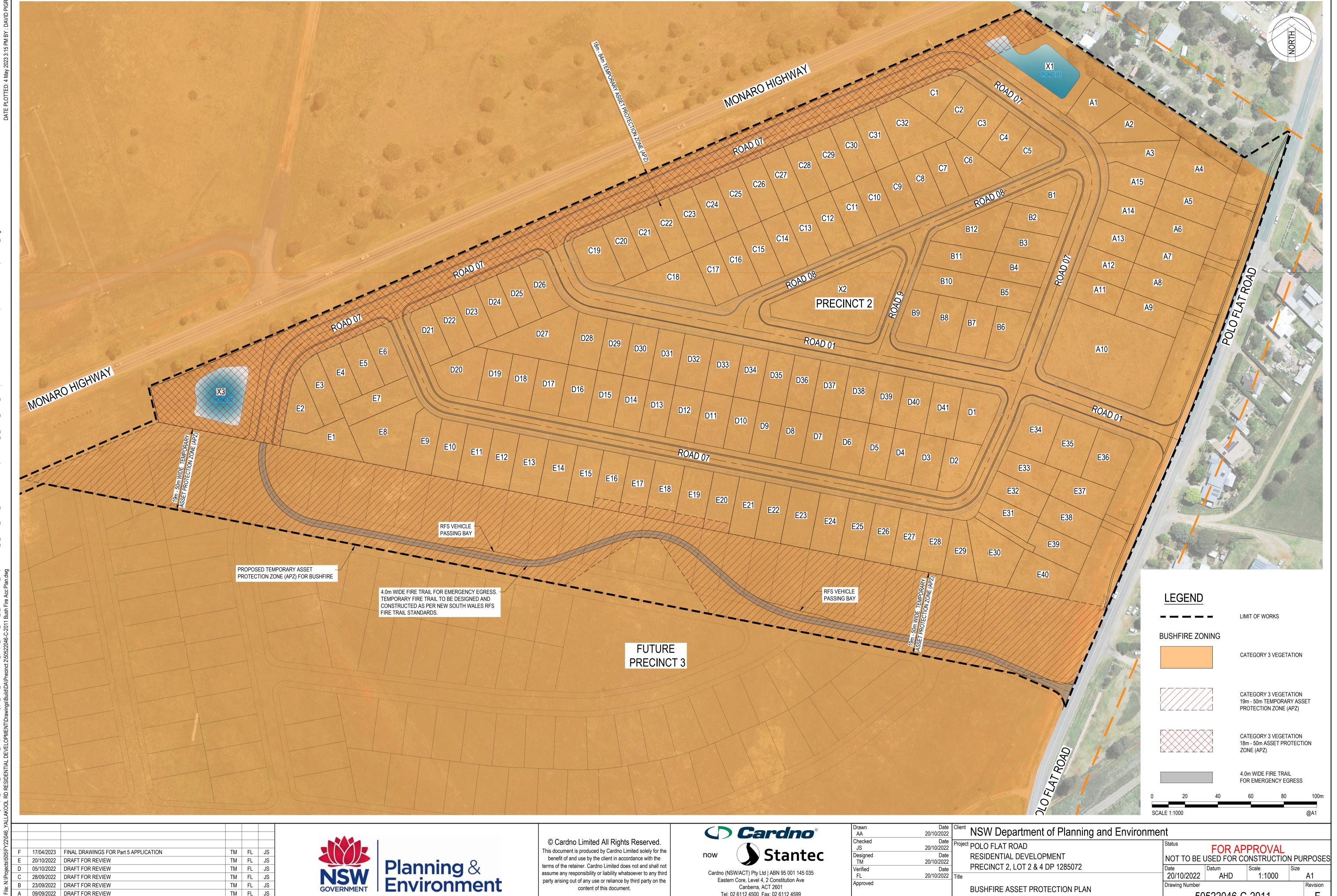
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BUSHFIRE ASSET PROTECTION PLAN

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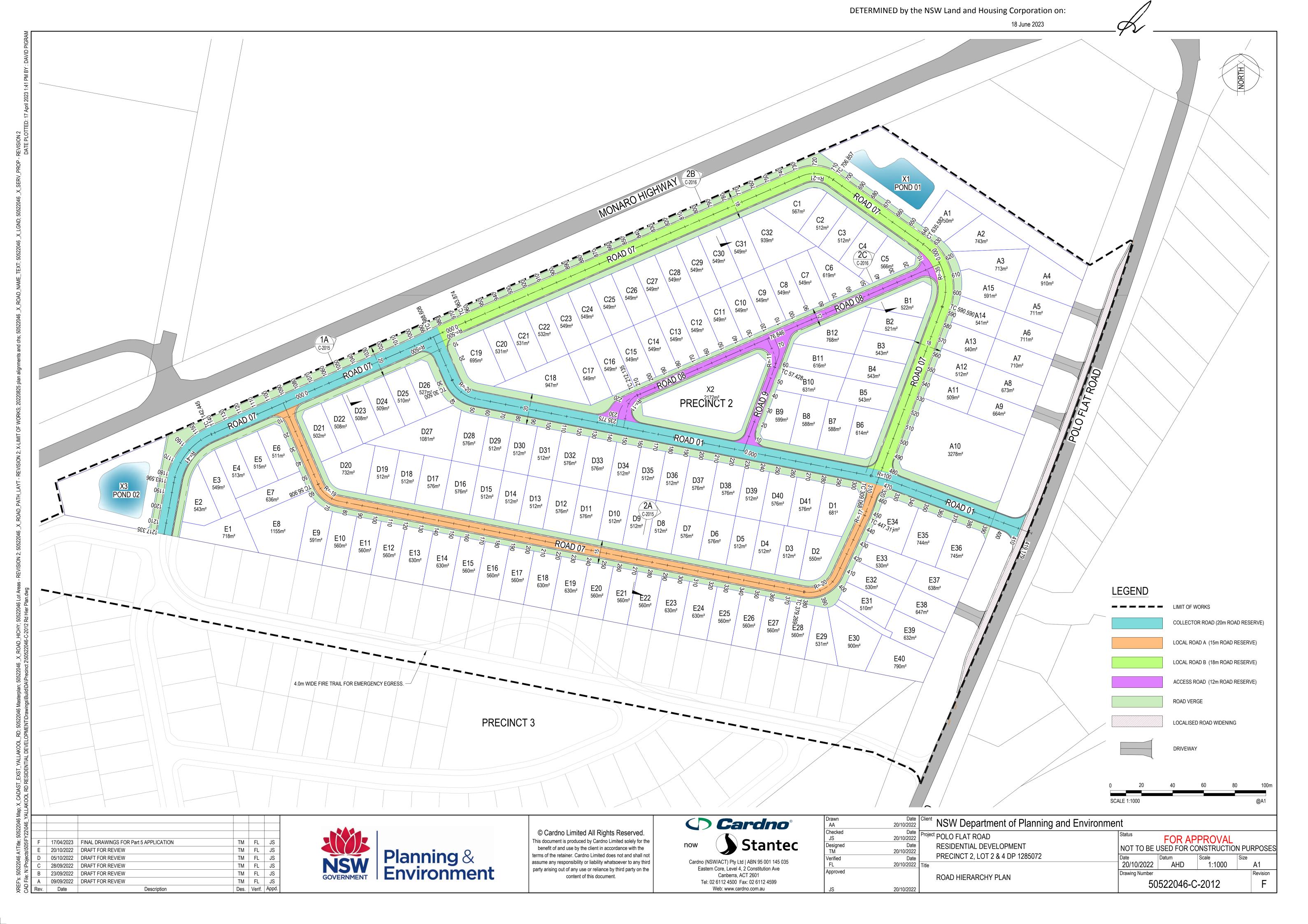
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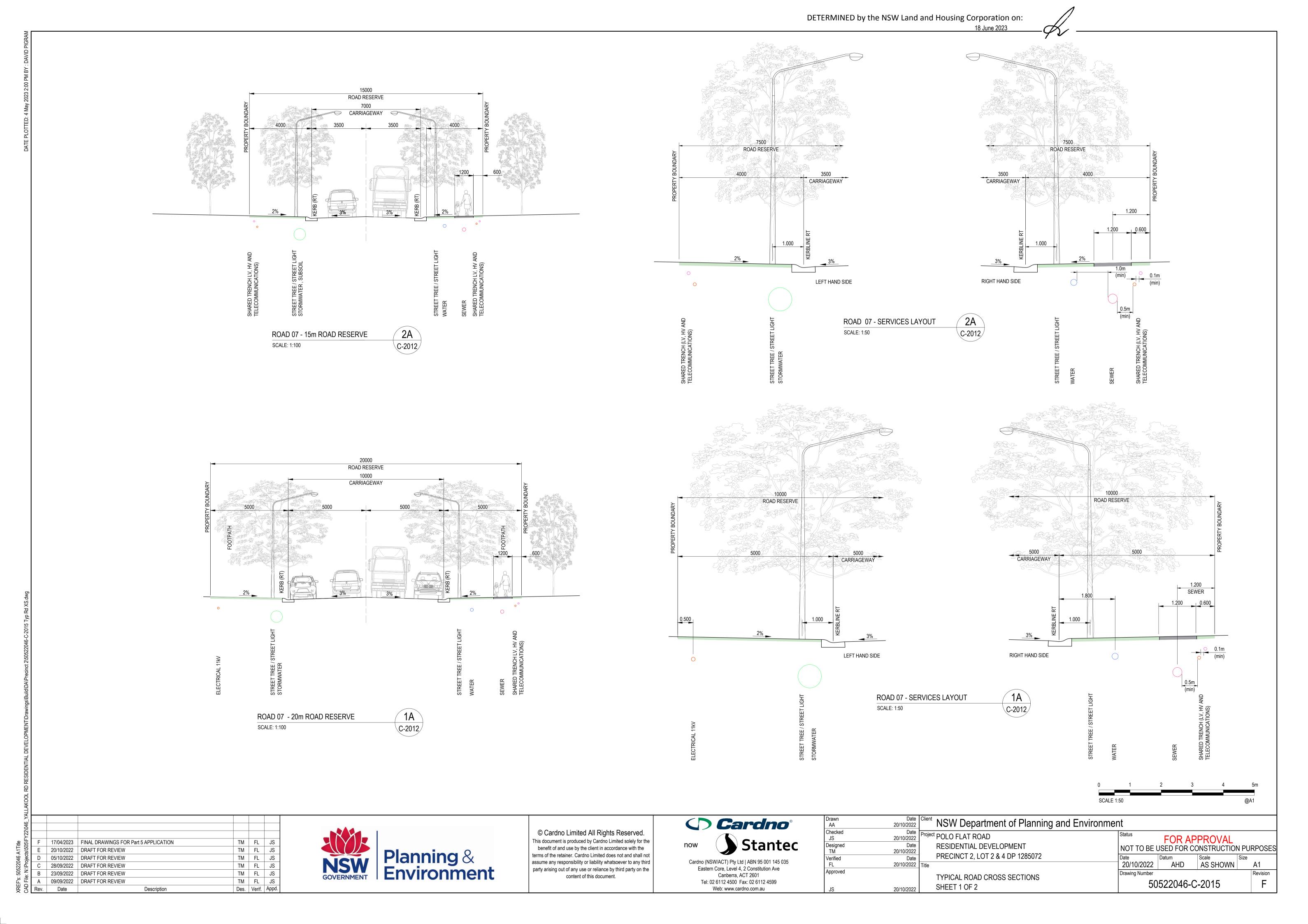
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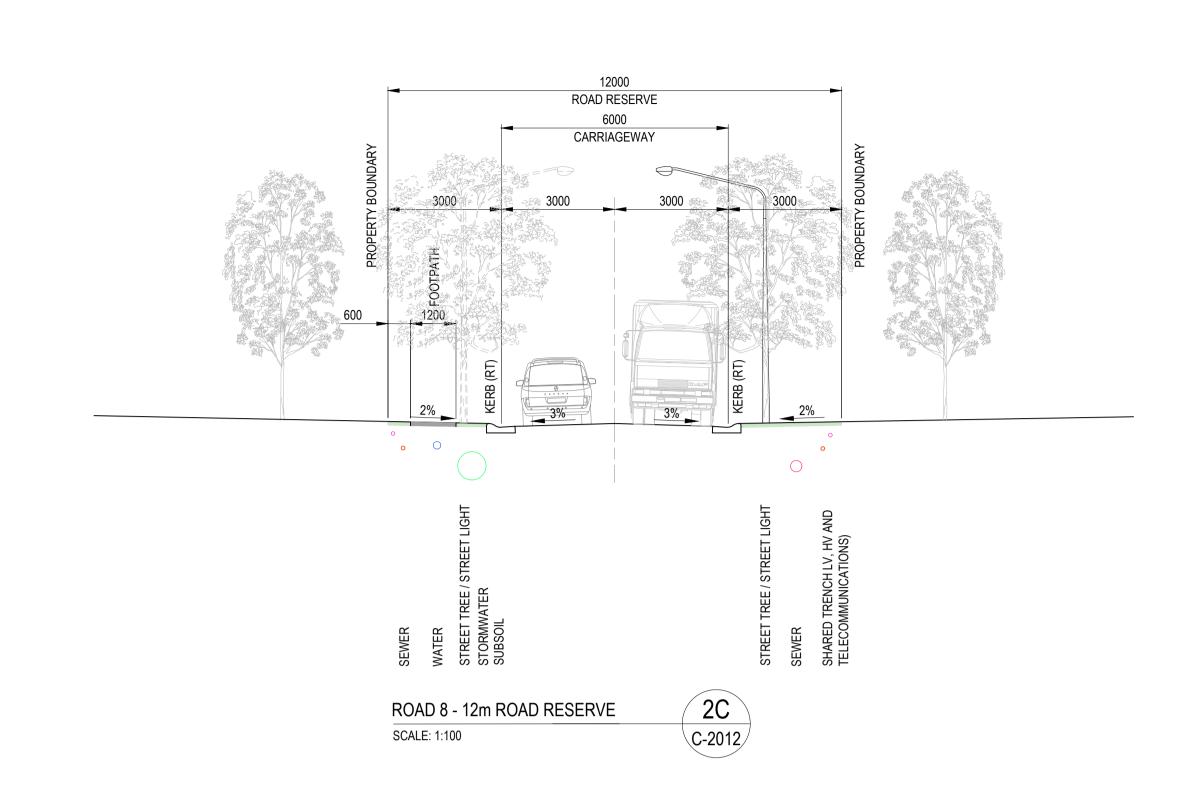
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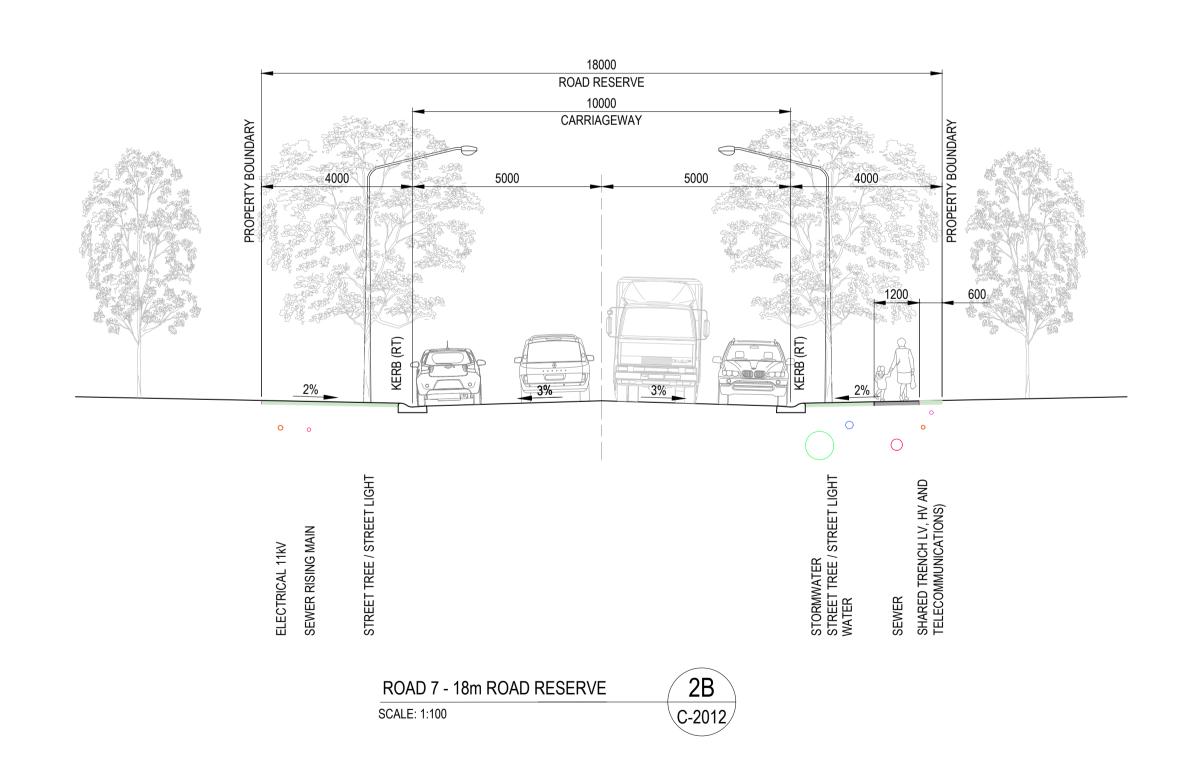
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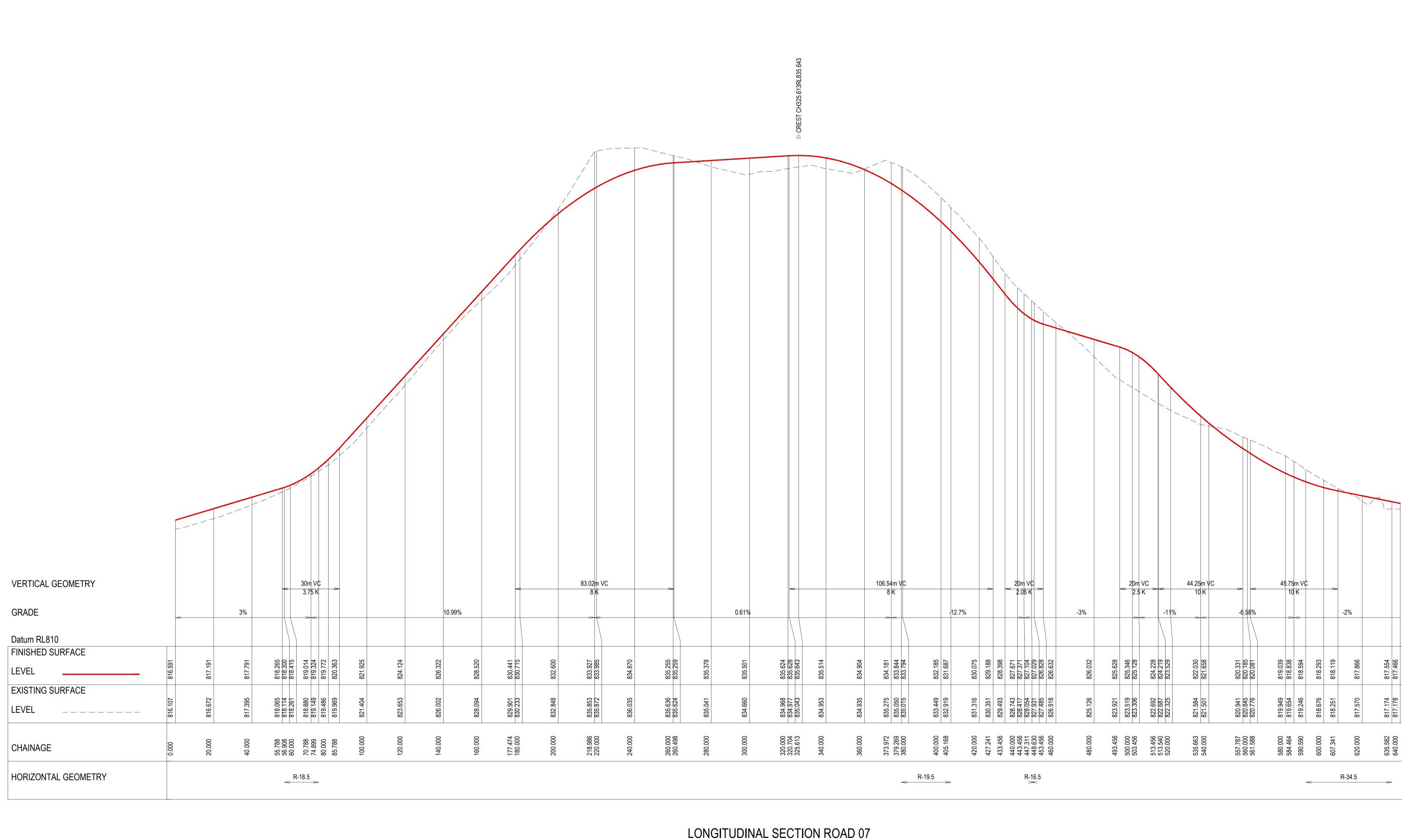
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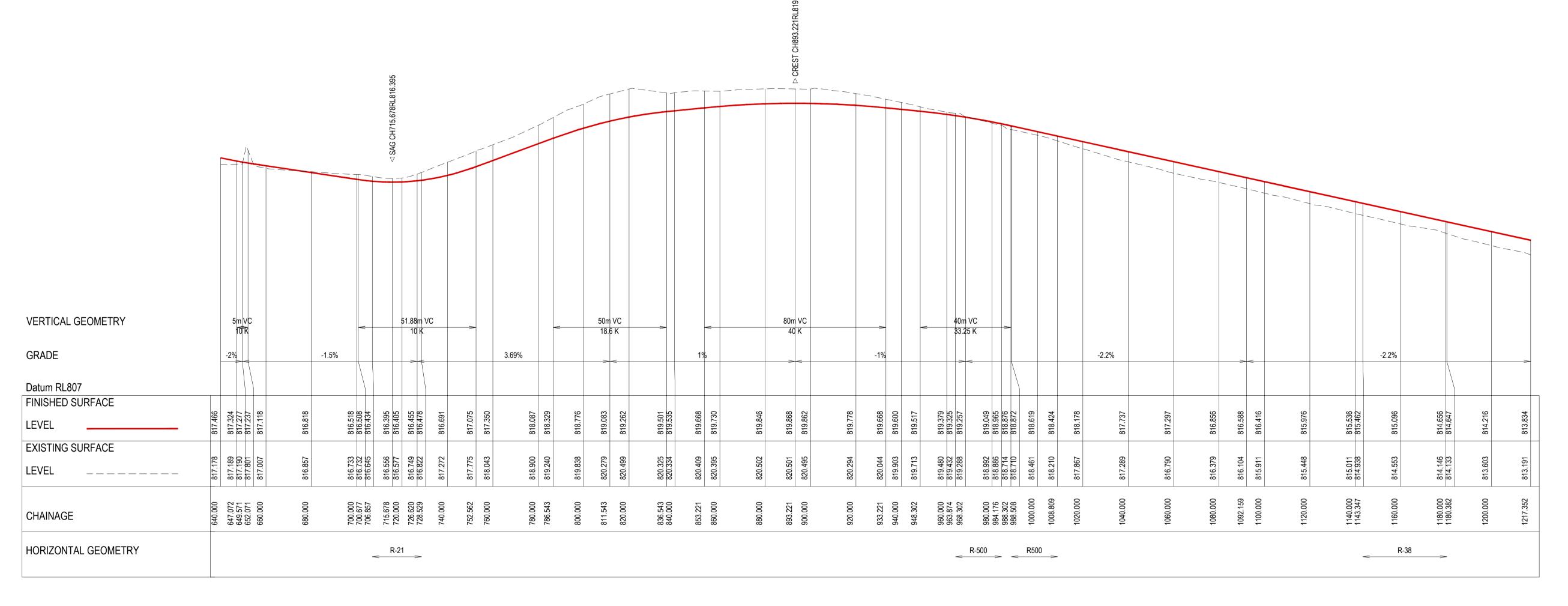
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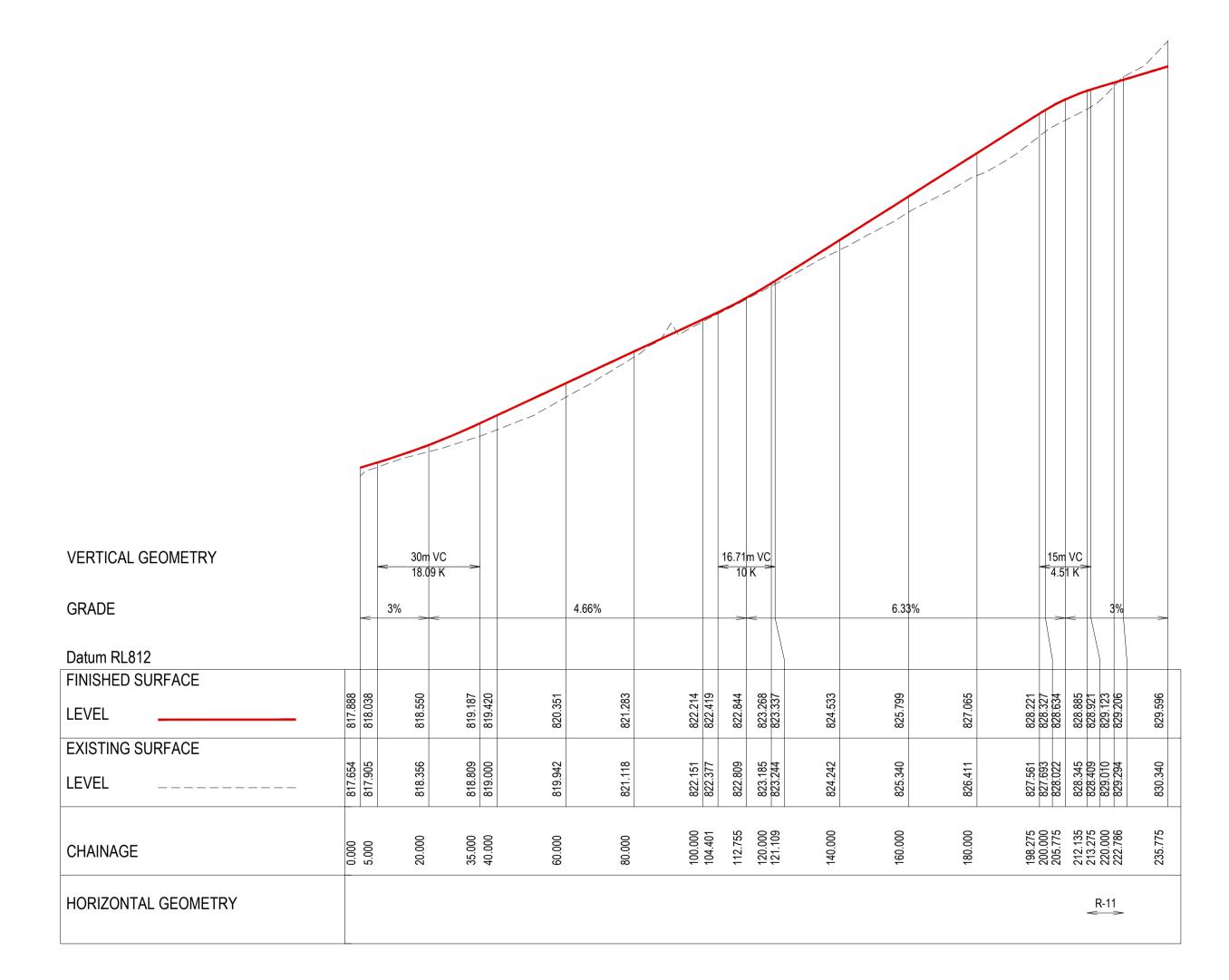
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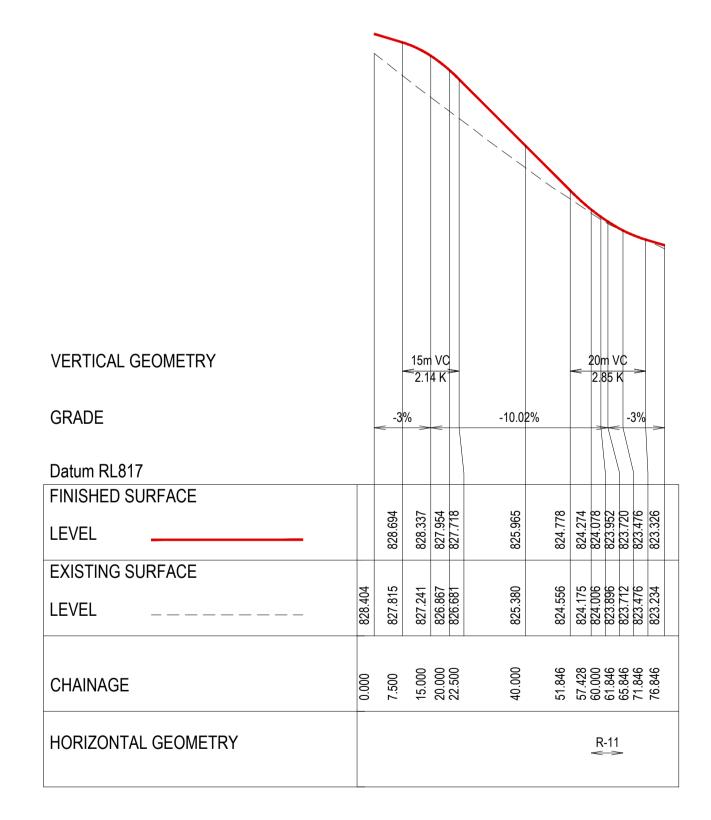
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LONGITUDINAL SECTION ROAD 08

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LONGITUDINAL SECTION ROAD 09

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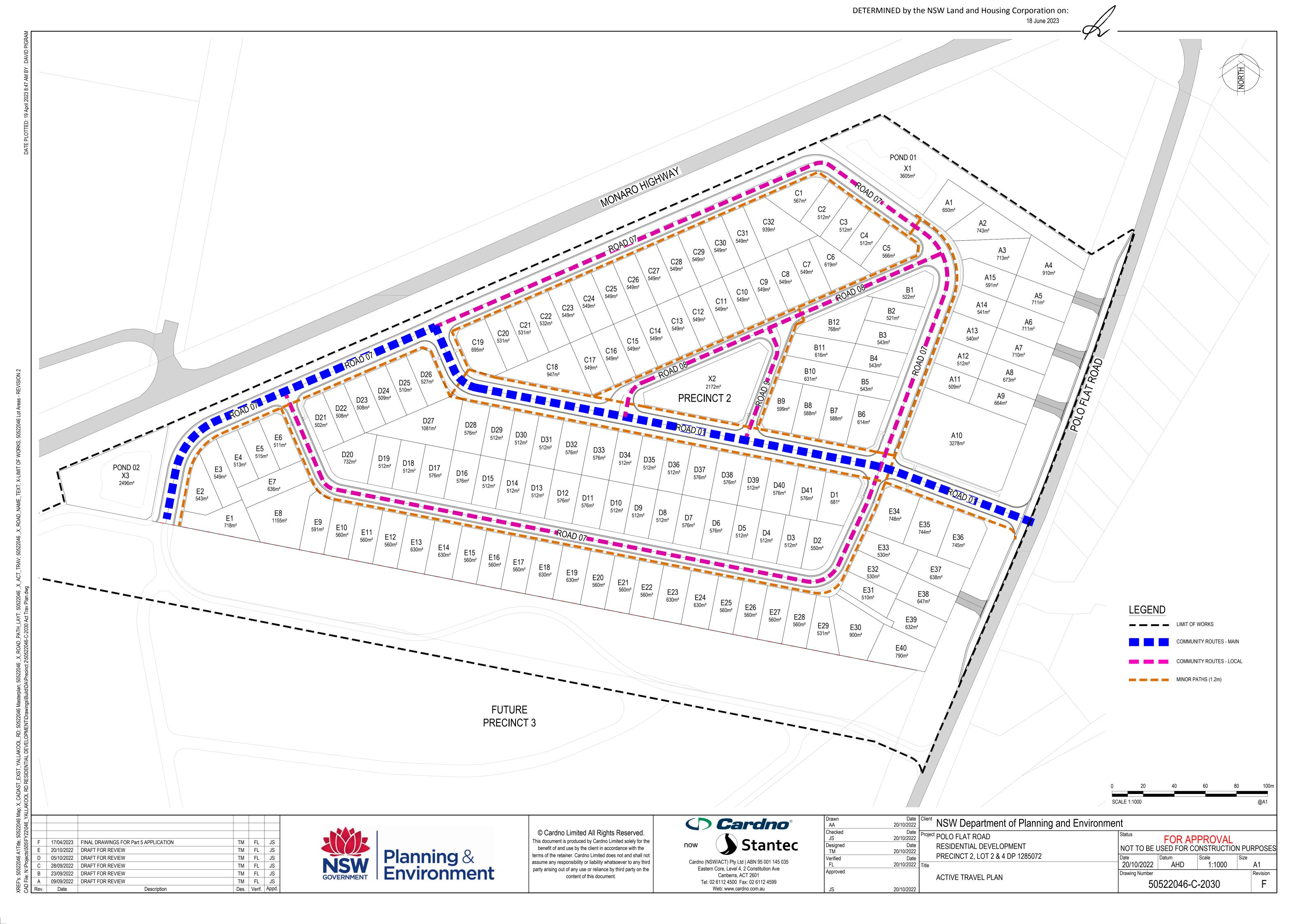


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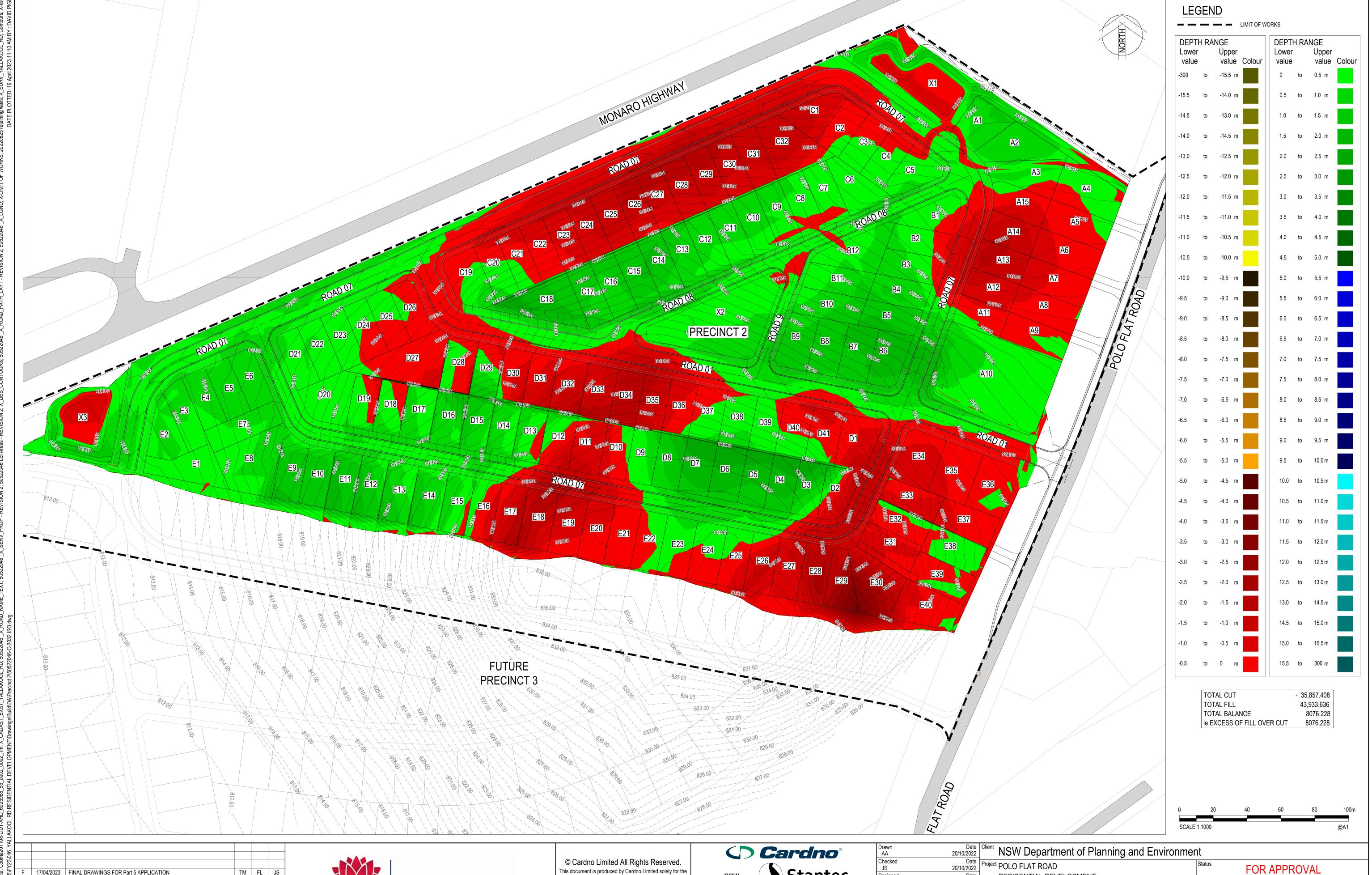
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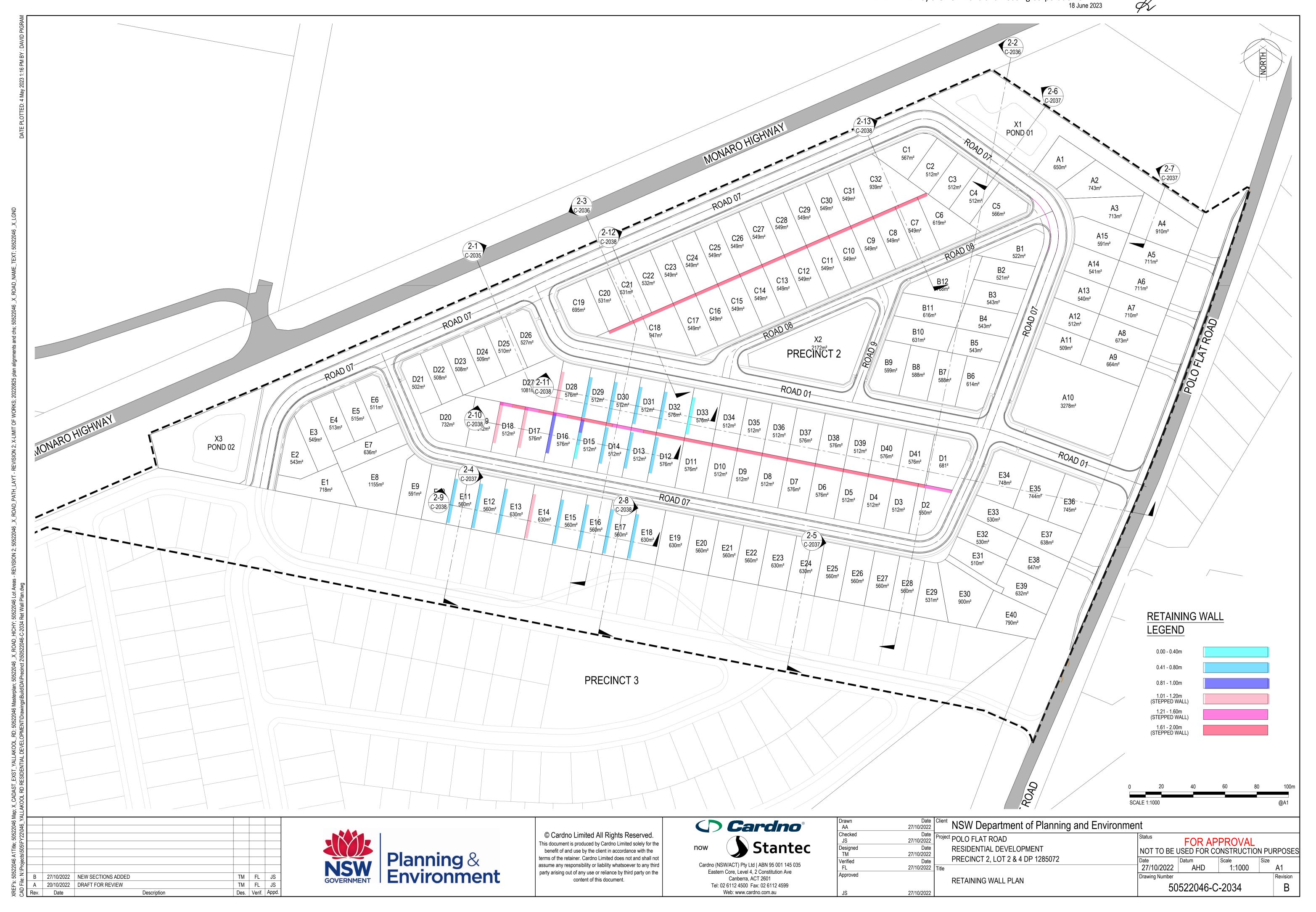


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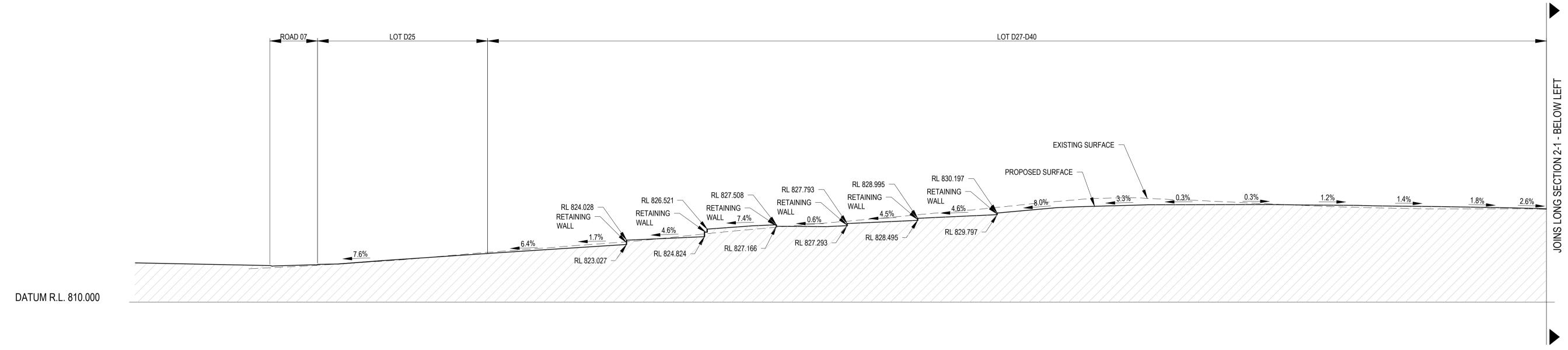
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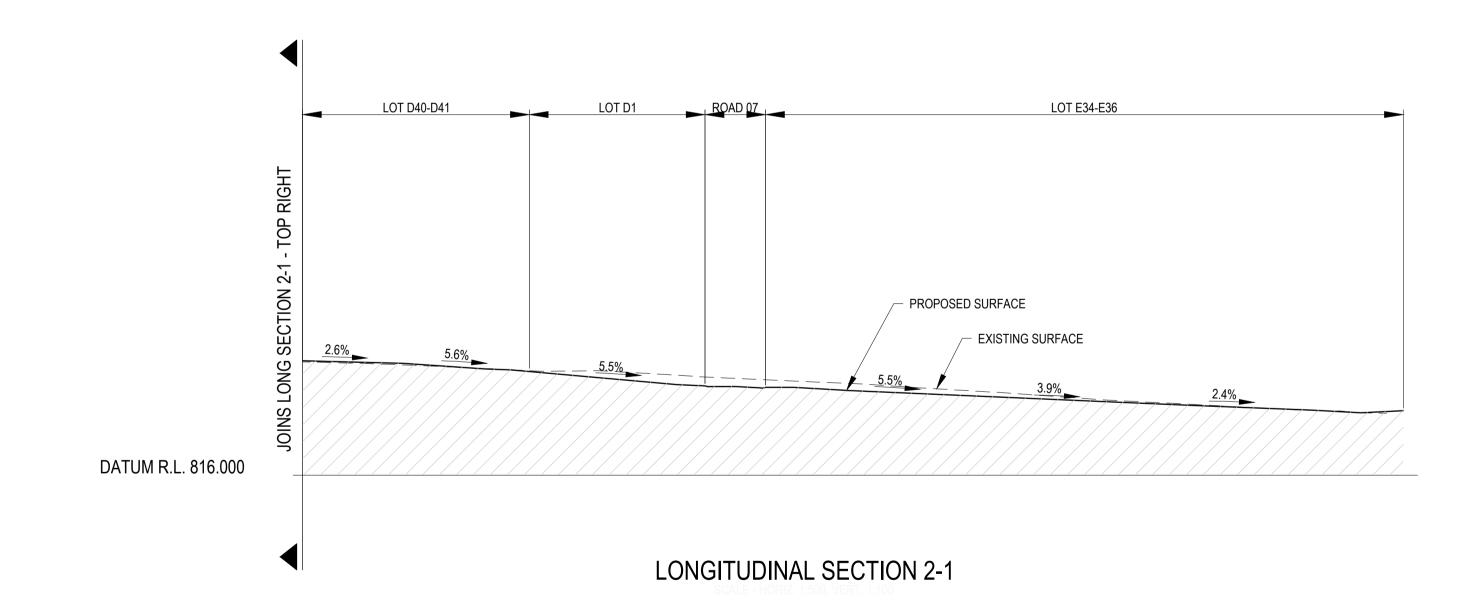
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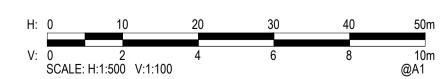
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Checked JS	Date 20/10/2022	Project POLO FLAT ROAD	Status	FOR AF	PROVAL	
Designed TM	Date 20/10/2022	RESIDENTIAL DEVELOPMENT	NOT TO BE U			N PURPOSES
Verified FL	Date 20/10/2022	PRECINCT 2, LOT 2 & 4 DP 1285072 Title	Date 20/10/2022	Datum AHD	Scale 1:1000	Size A1
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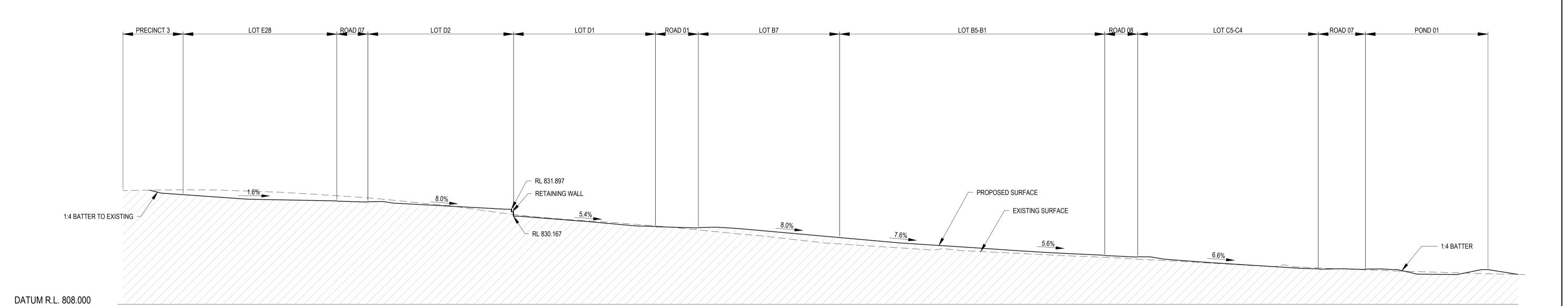
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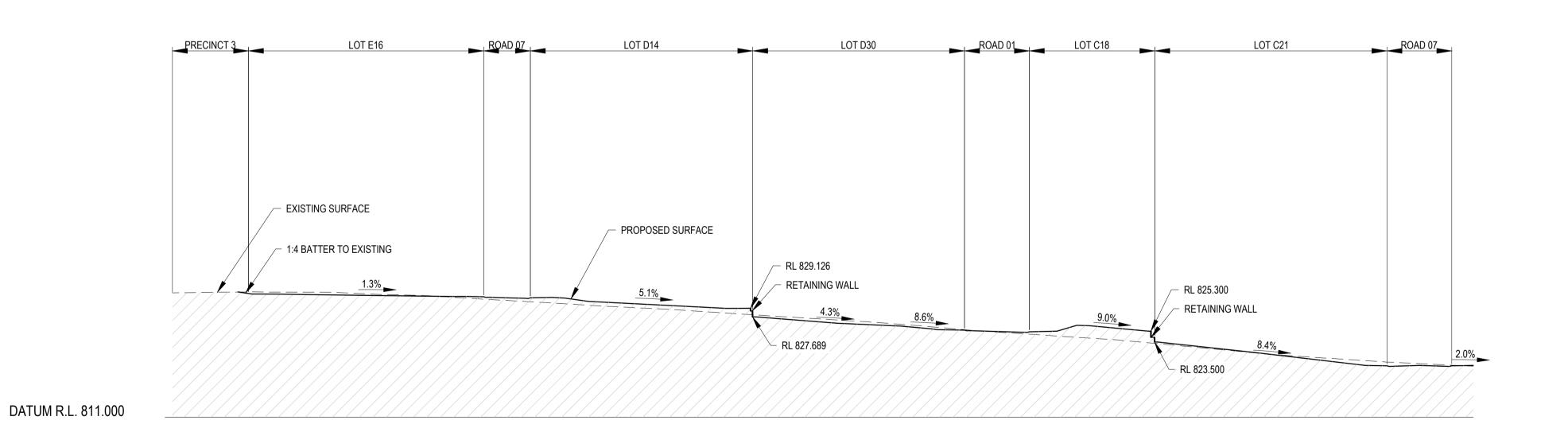


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	Canberra, ACT 2601
Tel	: 02 6112 4500 Fax: 02 6112 4599
	Web: www.cardno.com.au

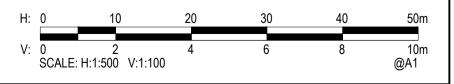
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erified FL	Date 27/10/2022	PRECINCT 2, LOT 2 & 4 DP 1285072 Title TYPICAL CUT/FILL SECTIONS	Date Datum Scale AS SHOWN	Size A1
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LONGITUDINAL SECTION 2-3



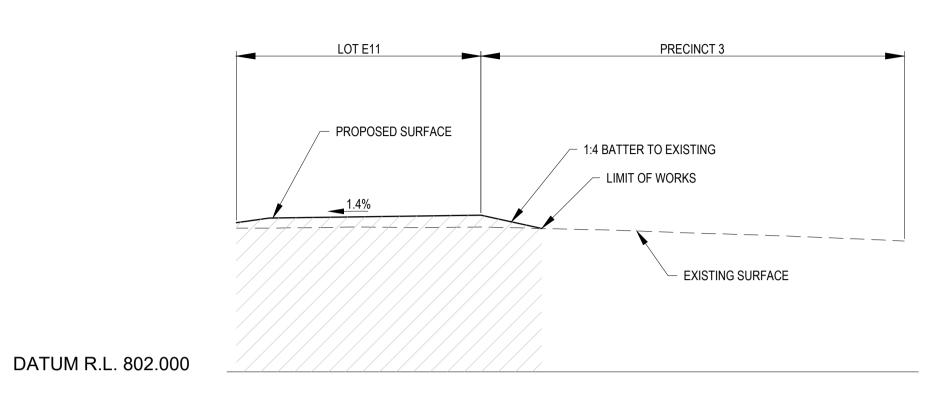
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	Canberra, ACT 2601
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	Web: www.cardno.com.au

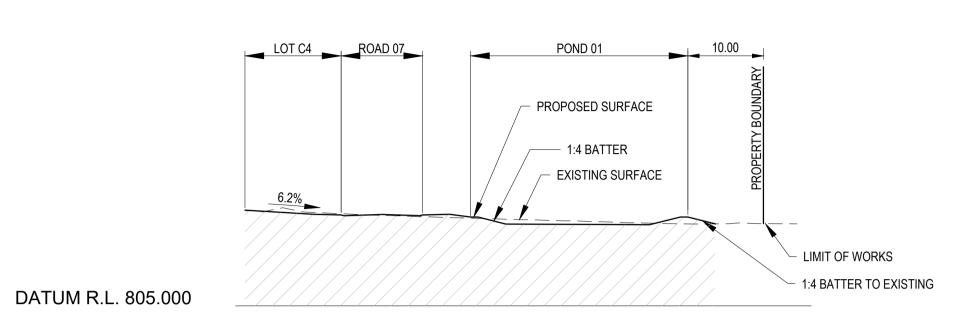
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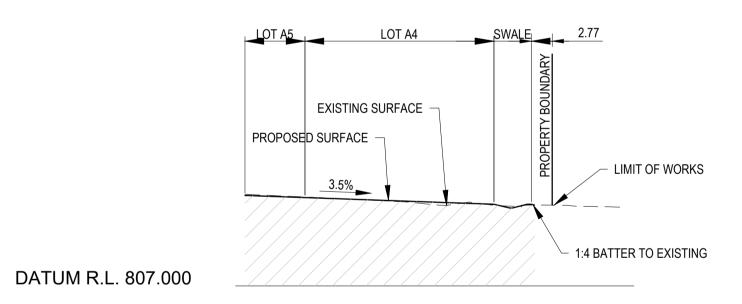


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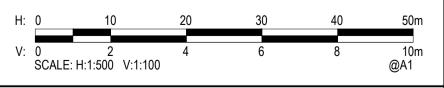
LONGITUDINAL SECTION 2-5



LONGITUDINAL SECTION 2-6



LONGITUDINAL SECTION 2-7



17/04/2023 FINAL DRAWINGS FOR Part 5 APPLICATION TM FL JS 27/10/2022 FINAL 20/10/2022 DRAFT FOR REVIEW Des. Verif. Appd.

Description

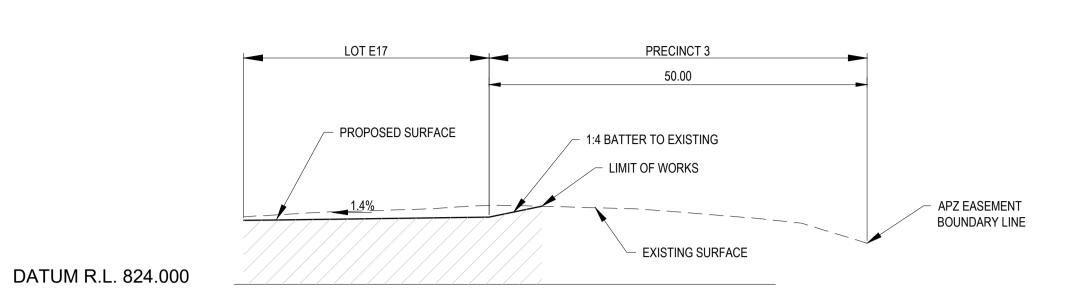
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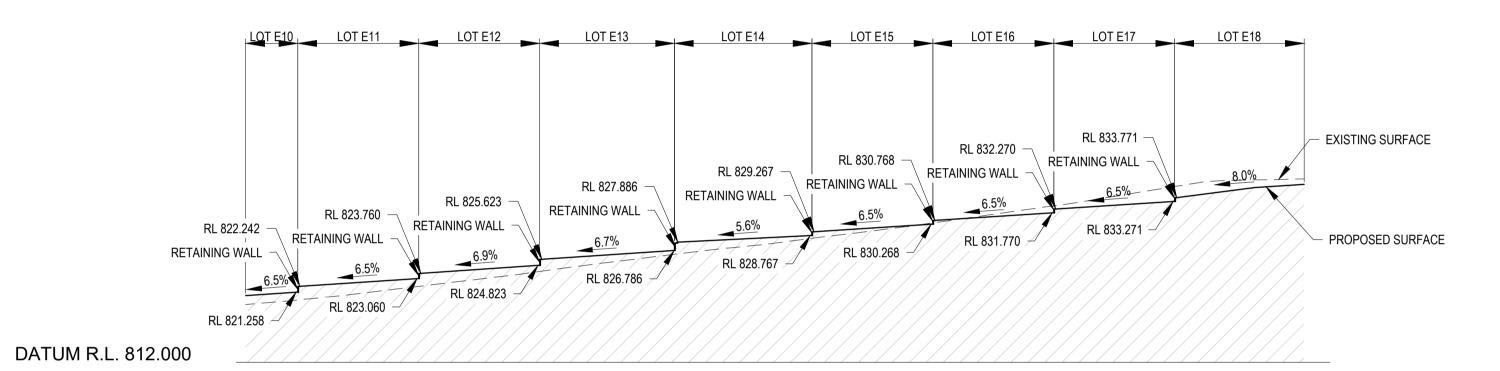
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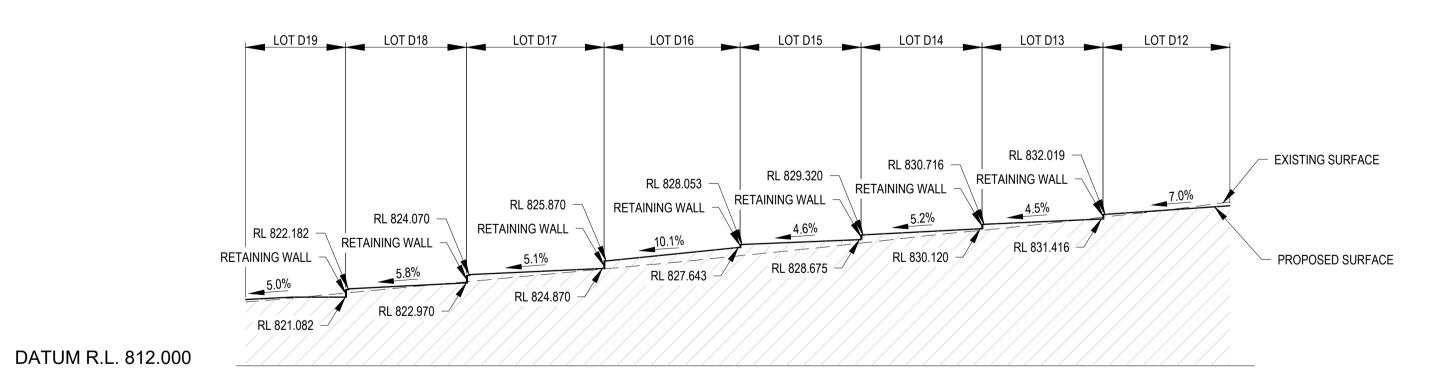


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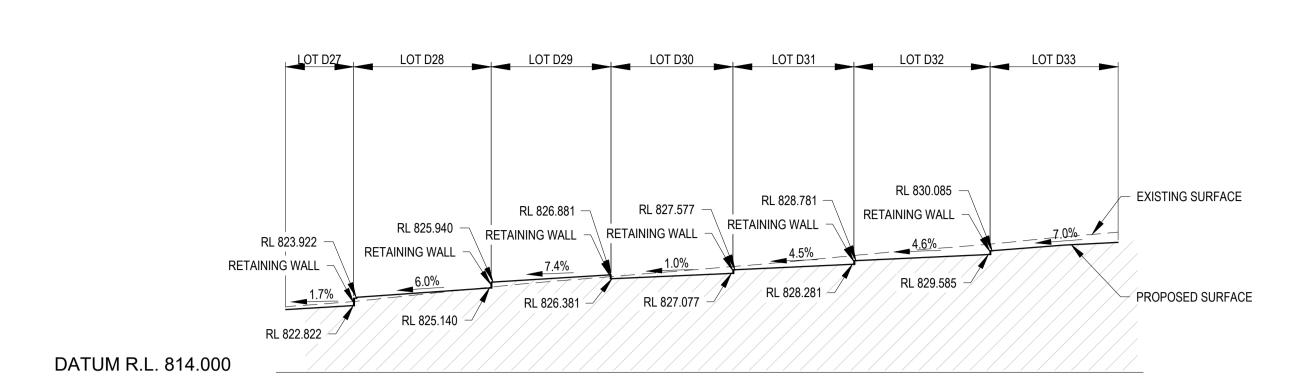




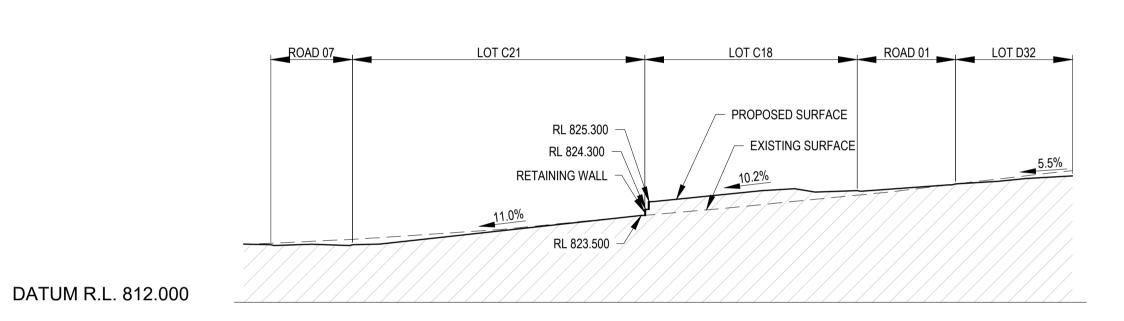
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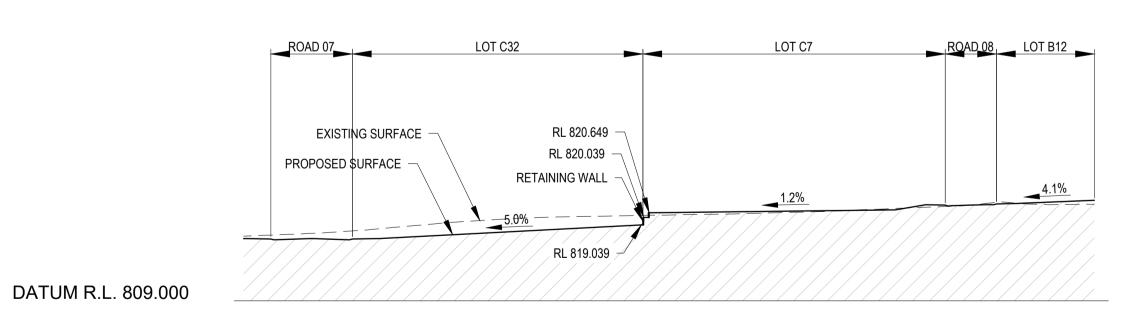
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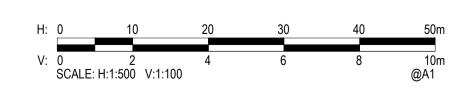
LONGITUDINAL SECTION 2-11



LONGITUDINAL SECTION 2-12



LONGITUDINAL SECTION 2-13

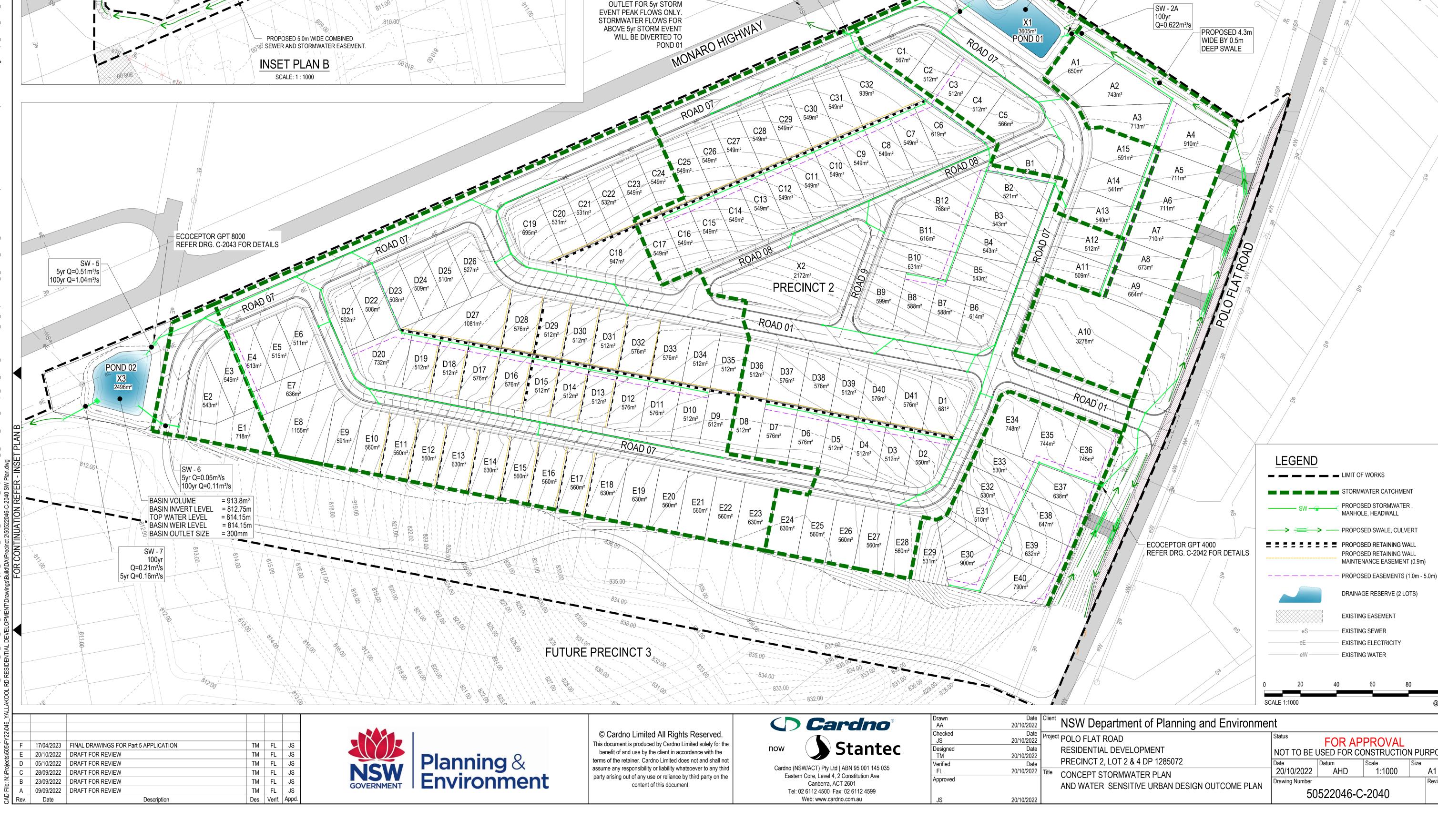


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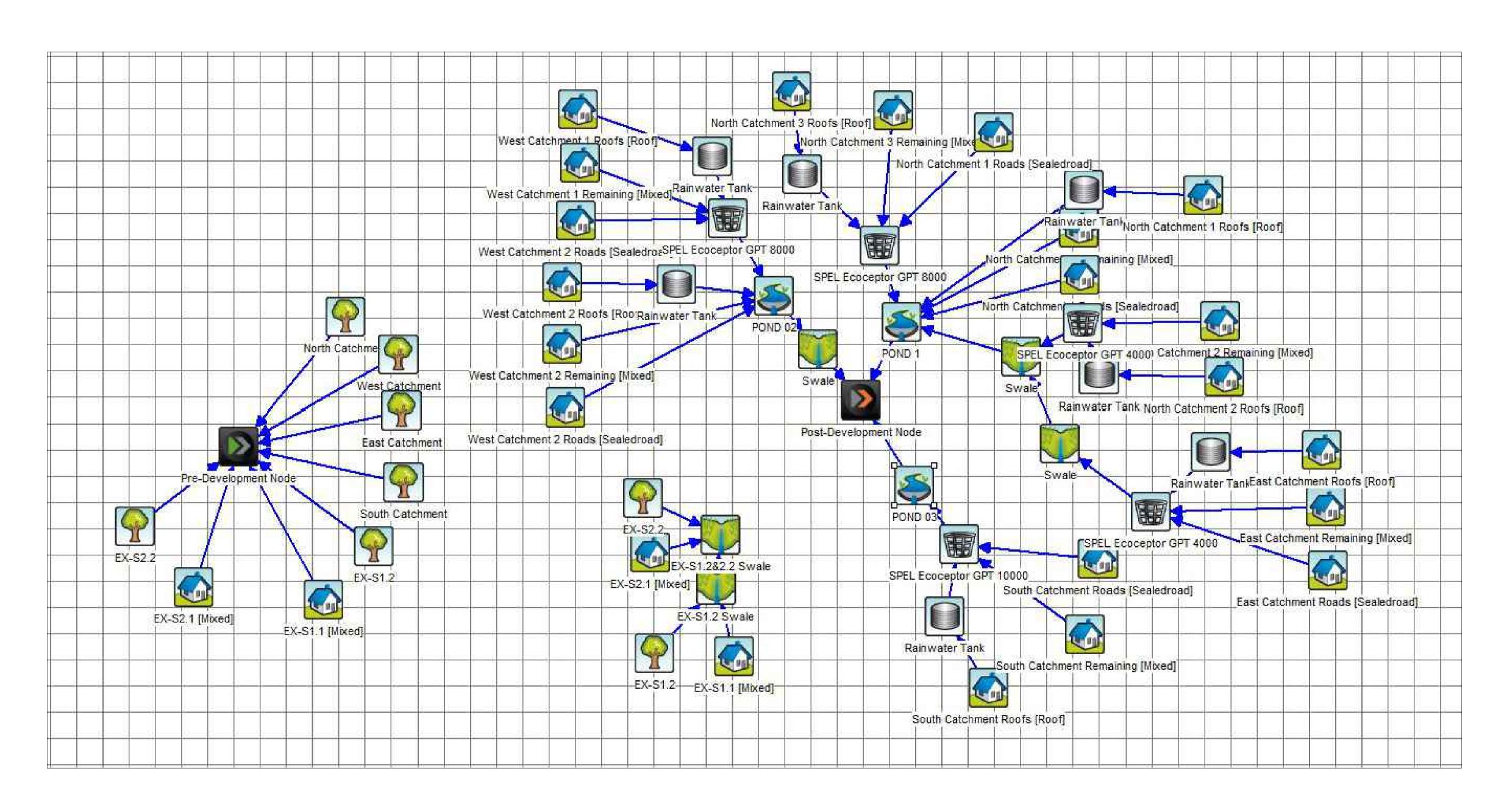


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	Date 27/10/2022	Project POLO FLAT ROAD	Status	FOR AP	PROVAL	
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Parameters	Sources	Residual Load	% Reduction	% Target	Compliance
Flow (ML/yr)	93.5	77.1	17.6		
Total Suspended Solids (kg/yr)	1.18E+04	1.77E+03	85	80	Υ
Total Phosphorus (kg/yr)	22.6	7.86	65.2	45	Υ
Total Nitrogen (kg/yr)	217	93.8	56.9	45	Υ
Gross Pollutants (kg/yr)	3.30E+03	0	100		



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,	NSW/ACT) Pty Ltd ABN 95 001 145 035
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Canberra, ACT 2601

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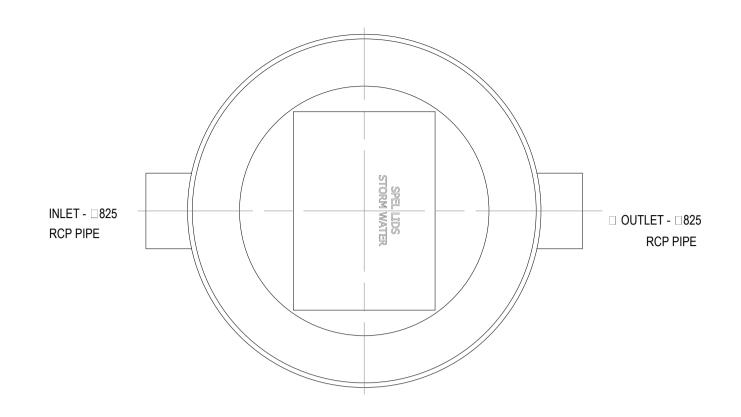
Web: www.cardno.com.au

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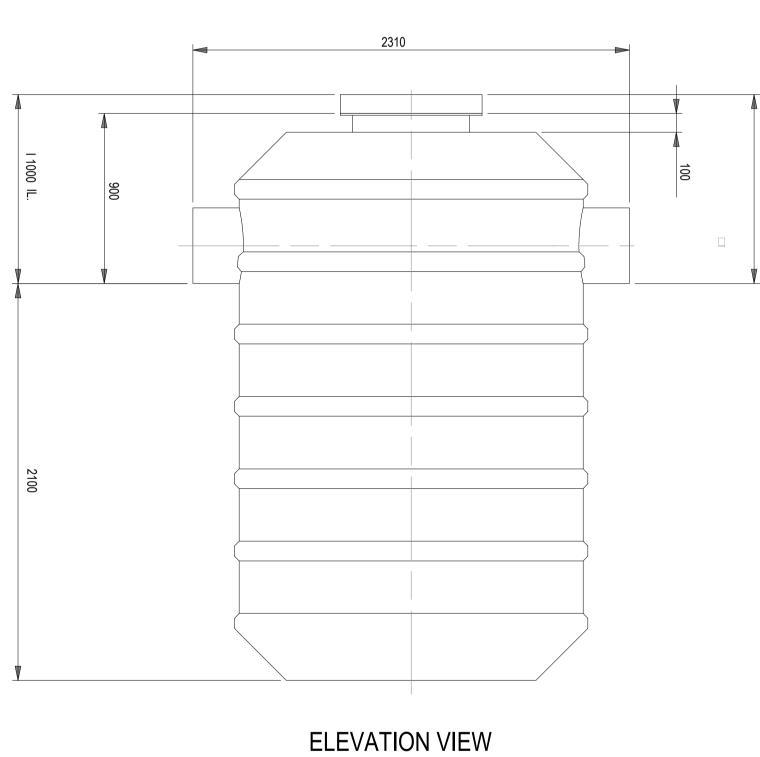
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	AND WATER QUALITY TABLE	

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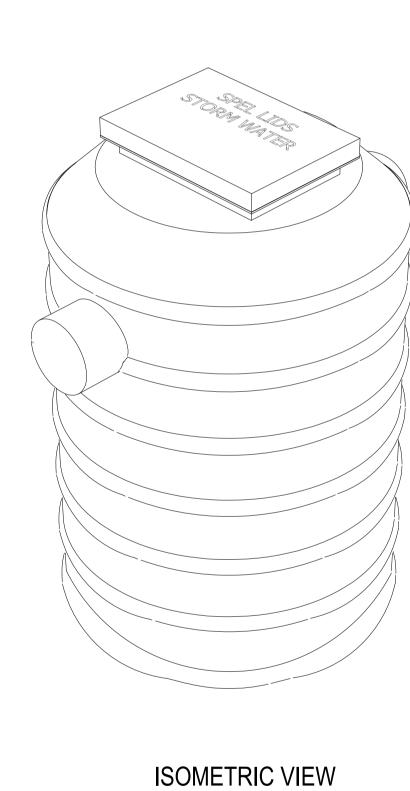




PLAN VIEW



ZIEW SIDE VIEW



TOLERANCE: ALL DIMENSIONS 10mm UNLESS OTHERWISE STATED.

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Eastern Core, Level 4, 2 Constitution Ave Canberra, ACT 2601	now	Stante
Canberra, ACT 2601	Cardno (NSW	/ACT) Pty Ltd ABN 95 001 145 035
·	Eastern C	Core, Level 4, 2 Constitution Ave
Tal: 02 6112 4500 Eav: 02 6112 4500		Canberra, ACT 2601
161. 02 0112 4300 1 ax. 02 0112 4399	Tel: 02 (6112 4500 Fax: 02 6112 4599
Web: www.cardno.com.au	W	eb: www.cardno.com.au

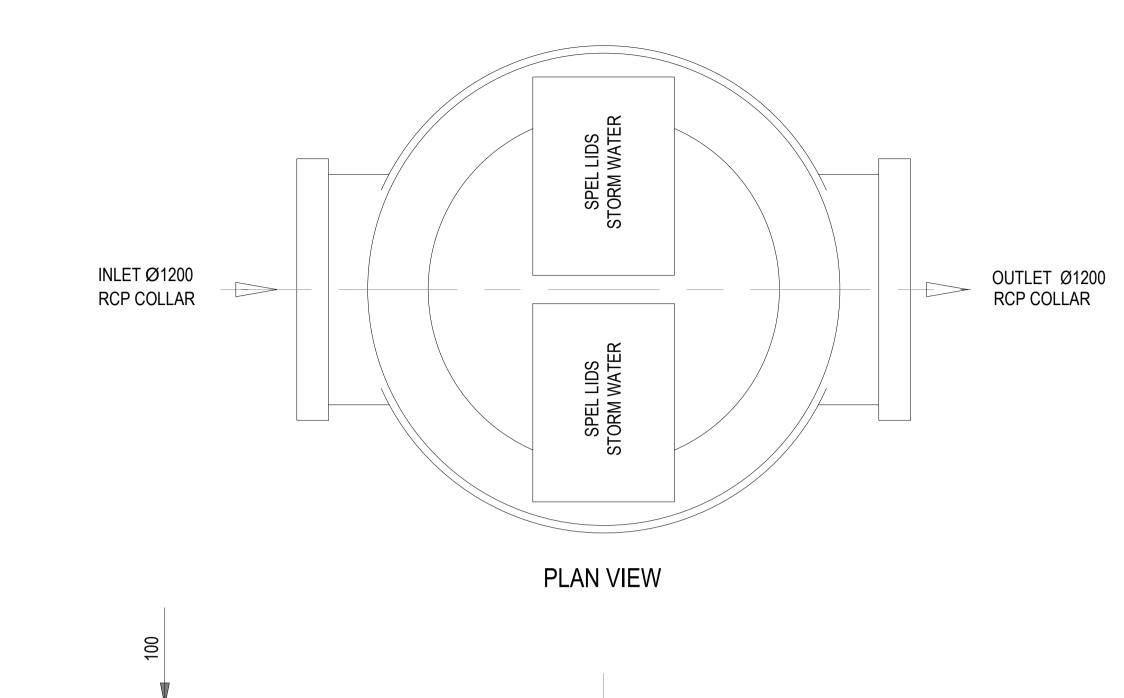
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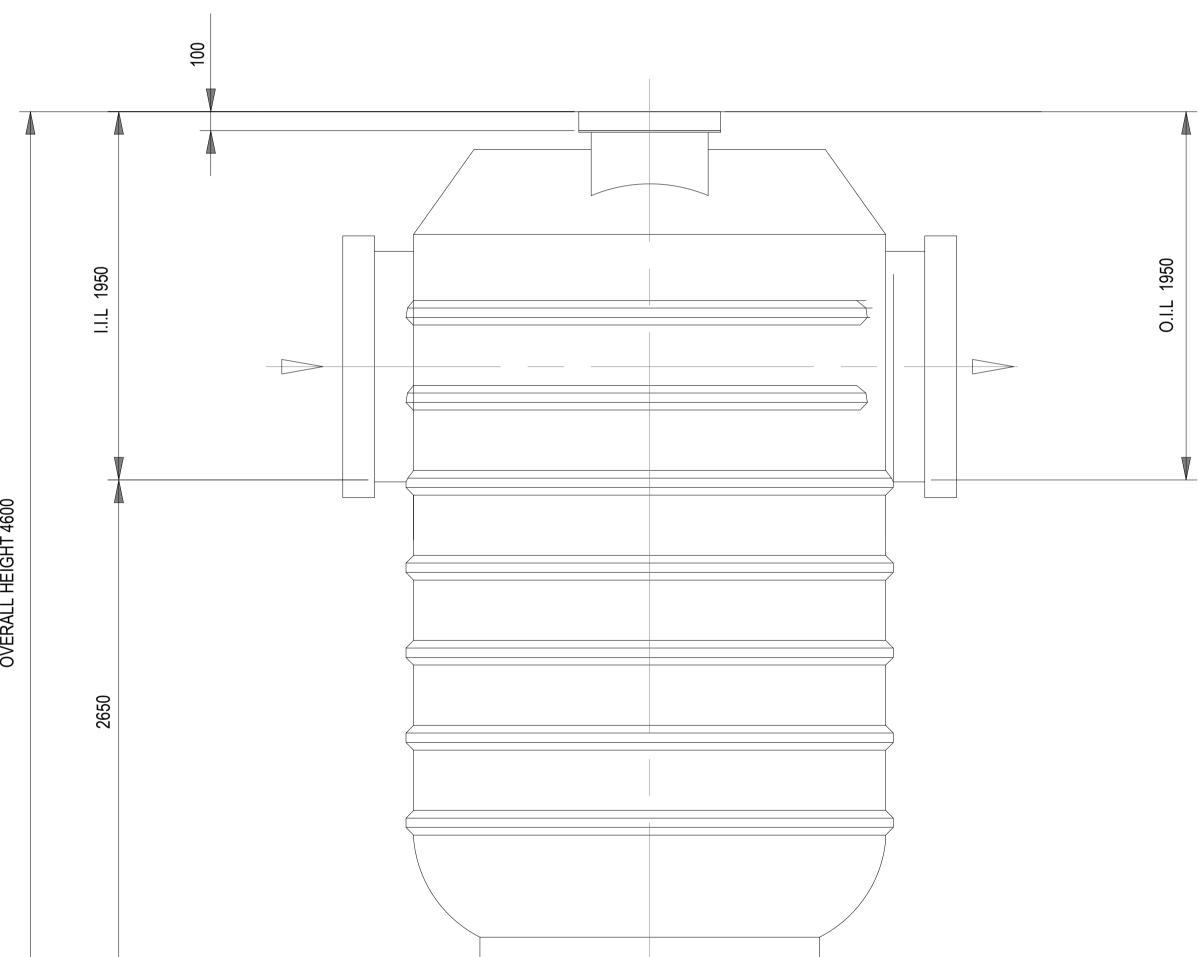
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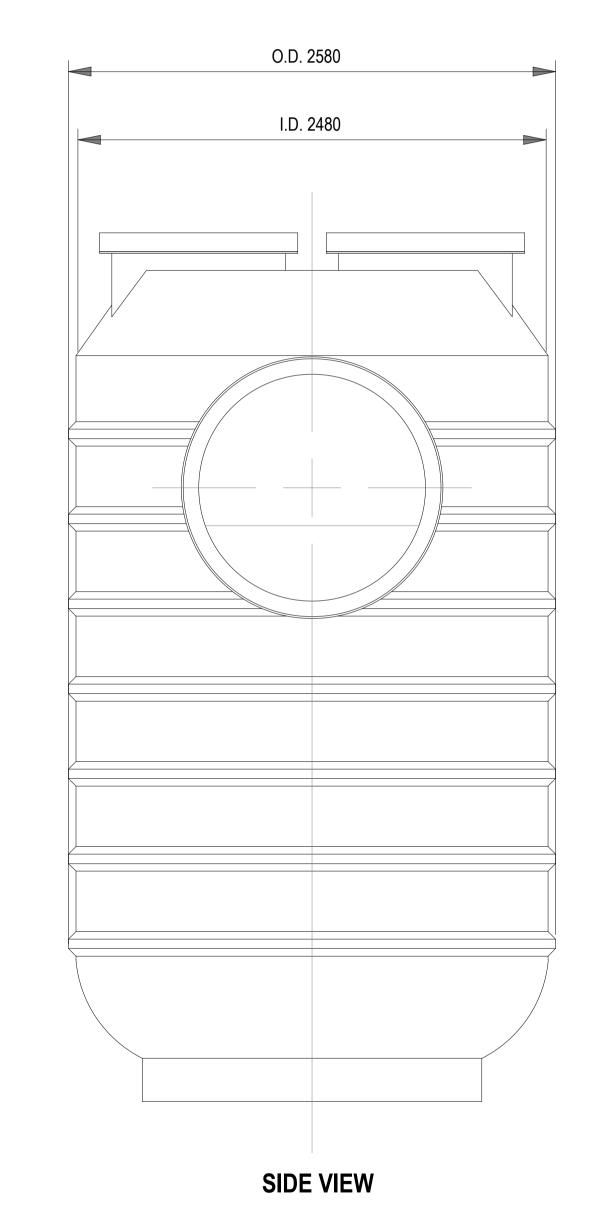
Client NSW Department of Planning and Environmer	nt			
Project POLO FLAT ROAD RESIDENTIAL DEVELOPMENT	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOR			
PRECINCT 2, LOT 2 & 4 DP 1285072 Title WATER SENSITIVE URBAN DESIGN	Date 20/10/2022	Datum AHD	Scale NTS	Size A1
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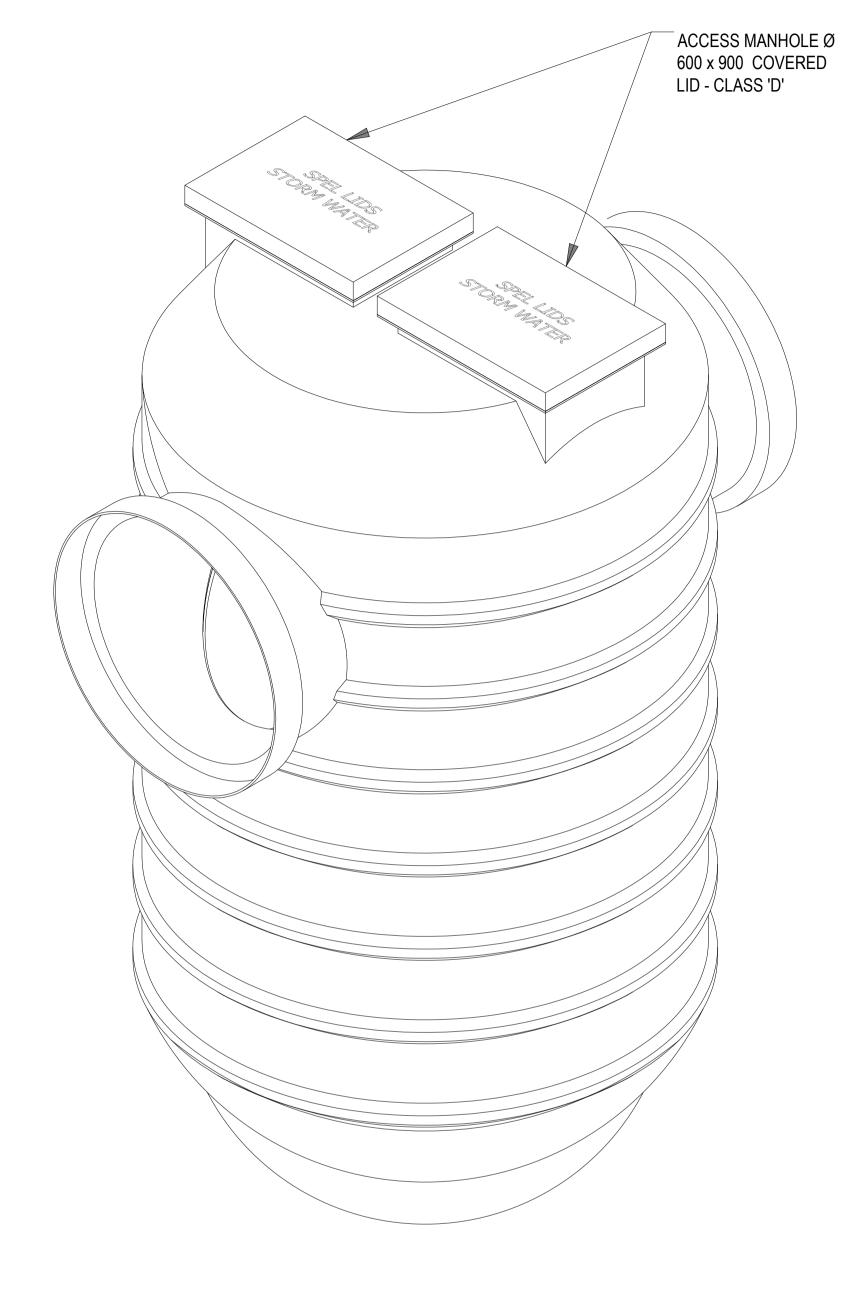






ELEVATION VIEW





ISOMETRIC VIEW

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	Canberra, ACT 2601
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	Web: www.cardno.com.au

Drawn	Date
AA	20/10/2022
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Client	NSW Department of Planning and Environment	nt				
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Title	PRECINCT 2, LOT 2 & 4 DP 1285072 WATER SENSITIVE URBAN DESIGN	Date 20/10/2022	Datum AHD	Scale NTS	Size	A1
	SPEL ECOCEPTOR - SERIES 8000 SHEET 2 OF 2	Drawing Number 50)522046-C	-2043		Revision

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X3 POND 02

S-4

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MONAROHIGHWAY

INSET PLAN C

SCALE: 1:1000

S-2

S-3

E4 513m²

E7 / 636m²

/ **E8** / 1155m²

E3 /549m²

E2 543m²

PROPOSED DN225 SEWER PIPE.— REFER TO DRAWING 2045 FOR DETAILS.

CONNECT PROPOSED DN300 SEWER PIPE TO EXISTING SEWER.



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Canberra, ACT 2601	
Tel: 02 6112 4500 Fax: 02 6112 4599	
Web: www.cardno.com.au	

Orawn AA	20/10/2022	Client NSW Department of Planning and Er	nvironment			
Checked JS	Date 20/10/2022	Project POLO FLAT ROAD	Status	FOR AF	PROVAL	
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Design Flow

(L/s) - PWWF

8.18

1.99

12.88

2.47

14.87

0.88

15.51

15.51

Select Pipe

Size

DN150

DN150

DN150

DN150

DN225

DN150

DN225

DN225

150.000

150.000

150.000

150.000

225.000

150.000

225.000

225.000

Ssc and Sss Grading Requirements

Qsc - Minimum Flow for

Self Cleansing (From

WSAA Sewer Pipe Sizing

Calculator) (L/s)

1.55

1.23

1.55

1.23

1.84

0.84

1.84

1.84

ICON Water Table

IW.5 for DN150 &

larger 80/ID (%)

0.7%

0.8%

0.7%

0.8%

0.7%

1.0%

0.7%

0.7%

Pipe Capacity

min grade

(k=1.5mm)

12.97

13.83

13.83

15.48

17.00

38.27

38.27

Overall Min

Grade

Requirement

0.70%

0.80%

0.70%

0.80%

0.70%

1.00%

0.70%

0.73%

Design

Grade (%)

0.70%

0.80%

0.70%

0.80%

0.70%

1.00%

0.70%

0.73%

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LAND USE CLASSIFICATION AND CORRESPONDING EP RATE IS IN ACCORDANCE WITH ICON WATER STD SPE-G-011 TABLE IW.1.

Density (For

Residential

Only) Eqn

3.4.4.1

44.8

43.7

44.6

46.0

44.9

44.5

44.9

44.9

Residential

347.5

70.0

417.5

91.0

508.5

28.0

536.5

536.5

TEP mixed

landuse Eqn.

3.3.2A

347.5

70.0

417.5

91.0

508.5

28.0

536.5

536.5

TEP mixed

landuse Eqn.

3.3.2B

125.1

25.2

150.3

32.8

183.1

10.1

193.1

193.1

FLOW CALCULATIONS ARE UNDERTAKEN IN ACCORDANCE WITH ICON WATER STD SPE-G-011 IW.3.4

"Residential1

(No. Dwelling)"

20

20

20

20

85

20

26

139

139

Incorporating

Catchment

S-1, S-2'

S-2, S-3'

S-3, S-4'

S-4

S-1

S-2'

S-2

S-3'

S-4'

Number of

dwellings per

NSA ha

14

12

13

13

13

13

13

13

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XKEF'S: 5 CAD File:	Α	09/09/2022	DRAFT FOR REVIEW	TM	FL	JS
XKEI CAD	Rev.	Date	Description	Des.	Verif.	Appd.



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Flow Calculations²

GWI (L/s) RDI (L/s), i(1,2)= Total Pump 22 mm , EY=0.5 Flow

5.72

1.41

6.74

1.74

8.00

0.63

8.38

8.38

0.00

0.00

8.18

0.00

0.00

0.00

0.00

0.00

ADWF (L/S),

I/EP/day: Eqn

3.4.2.2

0.72

0.15

2.87

0.19

3.06

0.06

3.12

3.12

(L/s)

2.35

0.56

6.01

0.70

6.71

0.24

6.96

6.96

0.11

0.02

0.13

0.03

0.16

0.01

0.17

0.17

sum

(Residential

EP)+sum (non residential EP)

347.5

70.0

417.5

91.0

508.5

28.0

536.5

536.5

TEP

347.5

70.0

417.5

91.0

508.5

28.0

536.5

536.5

Total NSA (Ha)

7.752

1.603

9.355

1.977

11.332

0.629

11.961

11.961

Drawn	Date
AA	20/10/2022
Checked	Date
JS	20/10/2022
Designed	Date
TM	20/10/2022
Verified	Date
FL	20/10/2022
Approved	

ent	NSW Department of Planning and Environme
ject	POLO FLAT ROAD
	RESIDENTIAL DEVELOPMENT
	PRECINCT 2, LOT 2 & 4 DP 1285072
Э	CONCEPT SEWER PLAN
	SEWER CALCULATIONS TABLE

nt					
FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES					
Date					
Drawing Number Revision					
50522046-C-2046 F					
	Status NOT TO BE U Date 20/10/2022 Drawing Number	Status FOR AP NOT TO BE USED FOR CO Date 20/10/2022 Datum AHD Drawing Number	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION Date 20/10/2022 AHD Scale NTS Drawing Number		

Pipe Capacity Qf (L/s)

at ultimate grade and

design Pipe size

(k=1.5mm)

12.97

13.83

13.83

13.83

38.27

15.48

38.27

38.27

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rising out of any use or reliance by third party on the	Eastern Core, Level 4, 2 Constit
	Canhama ACT 2601

1	
/	

		No Dwellin-	Peak Demand	Fire Flow Demand	Combined Peak Demand and Fire
Node	Elevation	No. Dwelling	(L/s)	(L/s)	Flow (L/s)
W-1		11	5.78	25	30.78
W-2		12	6.30	25	31.30
W-3		13	6.83	25	31.83
W-4		13	6.83	25	31.83
W-5		9	4.73	25	29.73
W-6		26	13.65	25	38.65
W-7		19	9.98	25	34.98
W-8		20	10.50	25	35.50
W-9		15	7.88	25	32.88
W-9		13	6.83	25	31.83
ain Connection	Point	151	72.45		

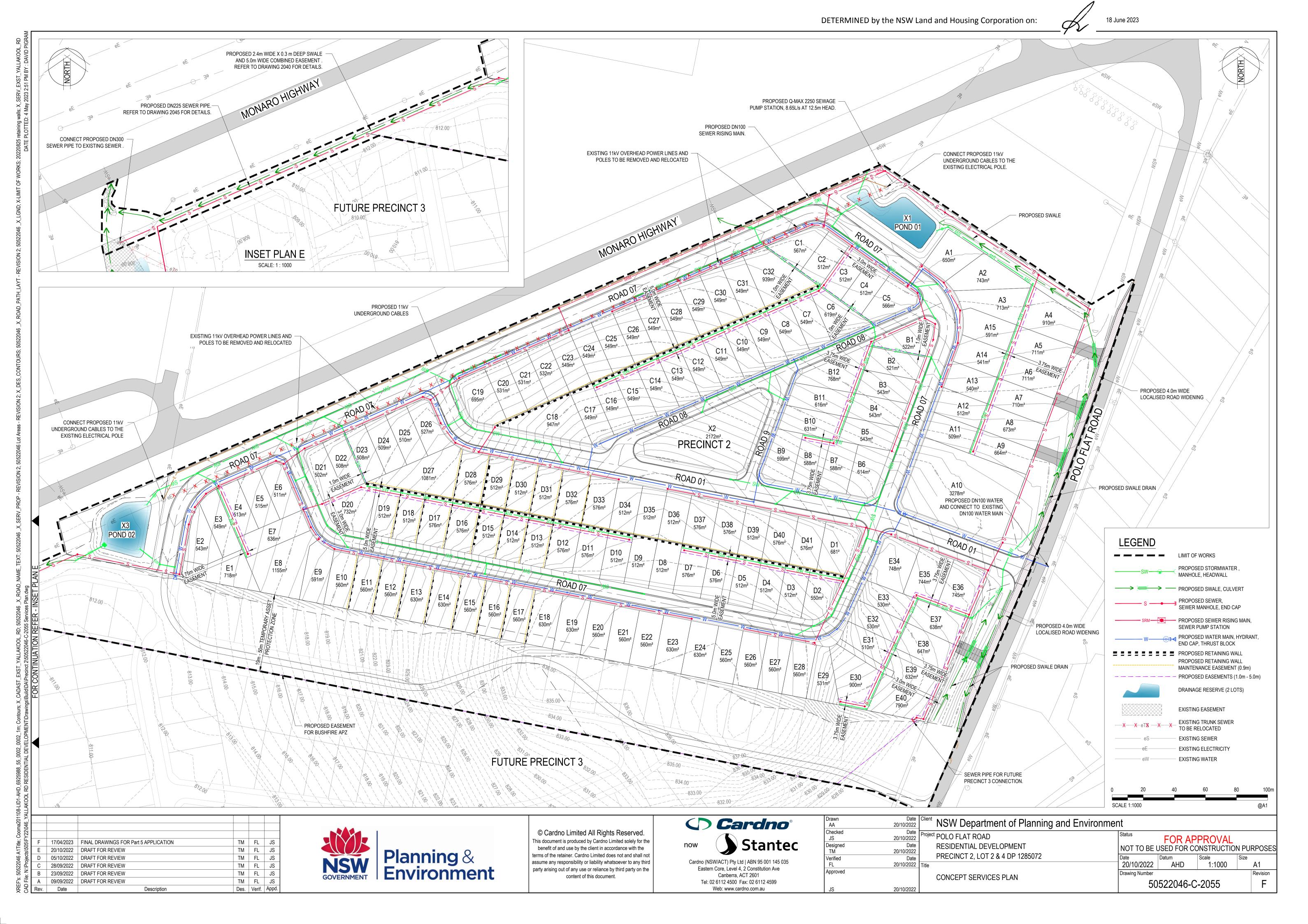
₽	Day	Data	Description	Doo	\/orif	Annd
File:	Α	09/09/2022	DRAFT FOR REVIEW	TM	FL	JS
	В	23/09/2022	DRAFT FOR REVIEW	TM	FL	JS
.\P.	С	28/09/2022	DRAFT FOR REVIEW	TM	FL	JS
ject	D	05/10/2022	DRAFT FOR REVIEW	TM	FL	JS
ts\5(Е	20/10/2022	DRAFT FOR REVIEW	TM	FL	JS
N:\Projects\505\F`	F	17/04/2023	FINAL DRAWINGS FOR Part 5 APPLICATION	TM	FL	JS
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now	Stanted
Cardno (NSW/ACT) Pty Ltd ABN 95 001 145 035
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	Canberra, ACT 2601
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	Web: www.cardno.com.au

Drawn	Date	Clie
AA	20/10/2022	
Checked	Date	Proj
JS	20/10/2022	' ''
Designed	Date	
TM	20/10/2022	
Verified	Date	1
FL	20/10/2022	Title
Approved		1

NSW Department of Planning and Environme	nt			
CT POLO FLAT ROAD RESIDENTIAL DEVELOPMENT	Status NOT TO BE	FOR AP	PROVAL DNSTRUCTIO	N PURPOS
PRECINCT 2, LOT 2 & 4 DP 1285072	Date 20/10/2022	Datum AHD	Scale NTS	Size A1
WATER DEMAND CALCULATION	Drawing Number 50)522046-C	-2051	Revisi



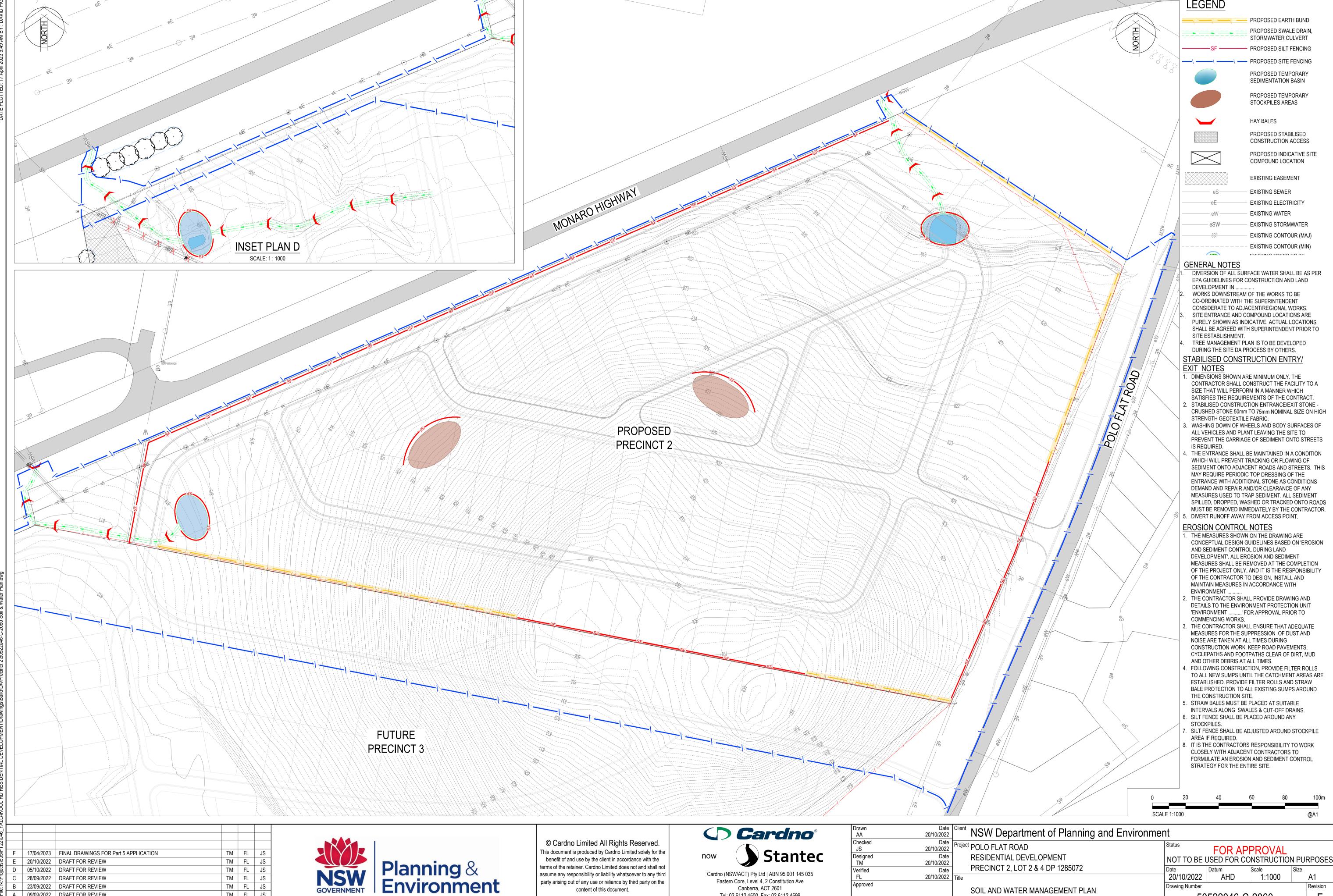
SOIL AND WATER MANAGEMENT PLAN

A1

Revision

Drawing Number

50522046-C-2060



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content of this document.

23/09/2022 DRAFT FOR REVIEW

DRAFT FOR REVIEW

Description

09/09/2022

Date

TM FL JS

TM FL JS

Des. Verif. Appd.

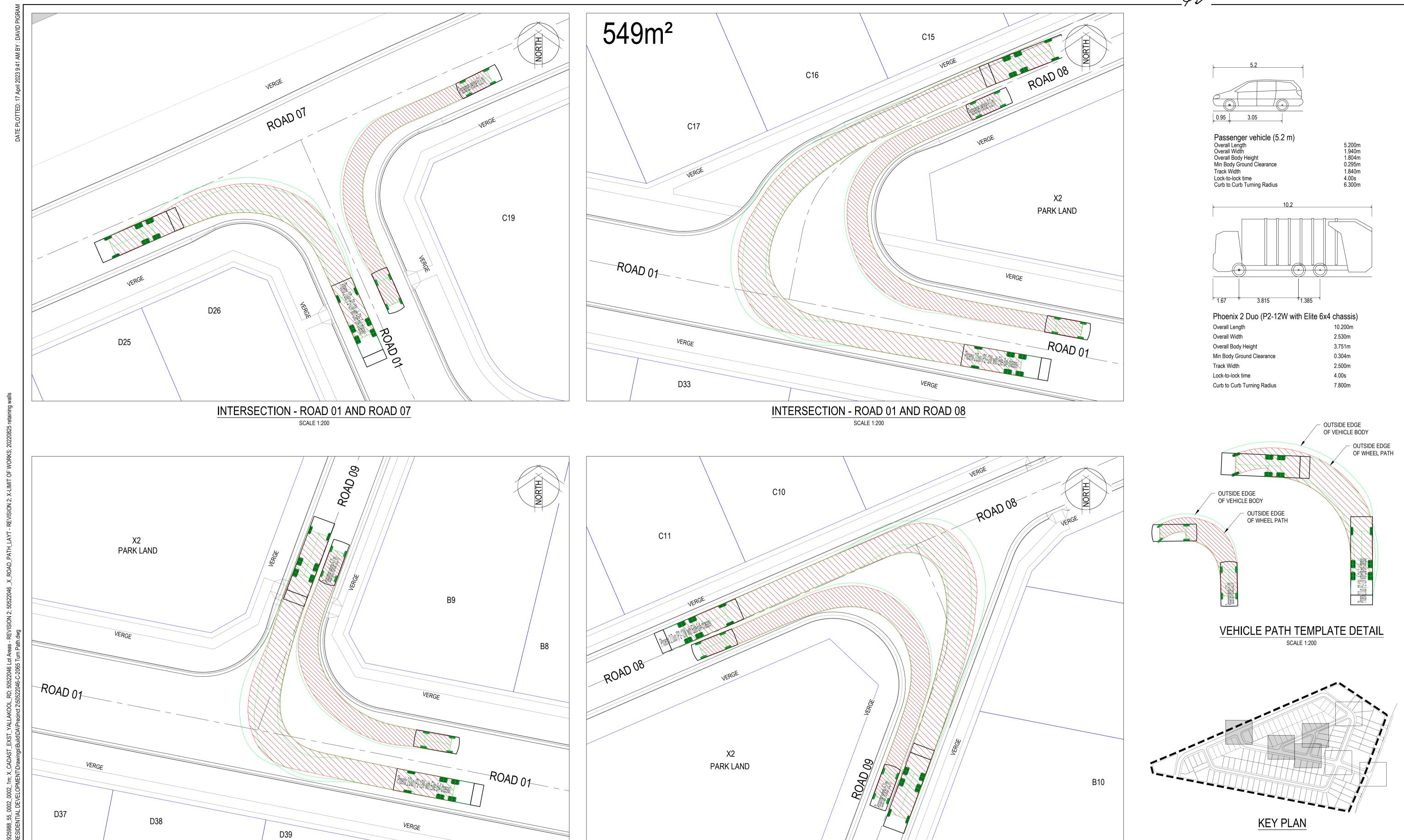
Eastern Core, Level 4, 2 Constitution Ave

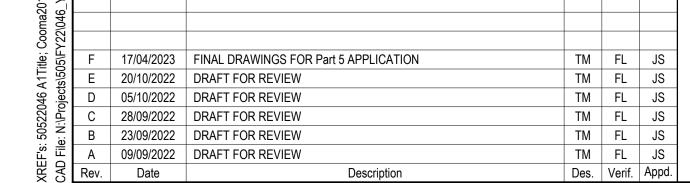
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Approved







INTERSECTION - ROAD 01 AND ROAD 09

SCALE 1:200

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	Checked JS	Date 20/10/2022	Project P
Stantec	Designed TM	Date 20/10/2022	R
rdno (NSW/ACT) Pty Ltd ABN 95 001 145 035	Verified FL	Date 20/10/2022	PI Title VI
Eastern Core, Level 4, 2 Constitution Ave Canberra, ACT 2601	Approved		SI
Tel: 02 6112 4500 Fax: 02 6112 4599 Web: www.cardno.com.au	JS	20/10/2022	

SCALE 1:200

	NSW Department of Planning and Er
ct	^t POLO FLAT ROAD
	RESIDENTIAL DEVELOPMENT
	PRECINCT 2, LOT 2 & 4 DP 1285072
	VEHICLE TURNING PATH ANALYSIS
	SHEET 1 OF 2

Environmer	nt				
	Status NOT TO BE U		PROVAL DNSTRUCTION	N PU	RPOSE
	Date	Datum	Scale	Size	
	20/10/2022	AHD	1:200		A1
	Drawing Number				Revision
	50	522046-C	-2065		F

SCALE 1:200

SHEET 2 OF 2



BLOCK LETTER

5.200m 1.940m 1.804m 0.295m 1.840m

4.00s

10.200m

2.530m

3.751m

0.304m

2.500m

7.800m

OUTSIDE EDGE

OUTSIDE EDGE

SCALE 1:200

KEY PLAN

50522046-C-2066

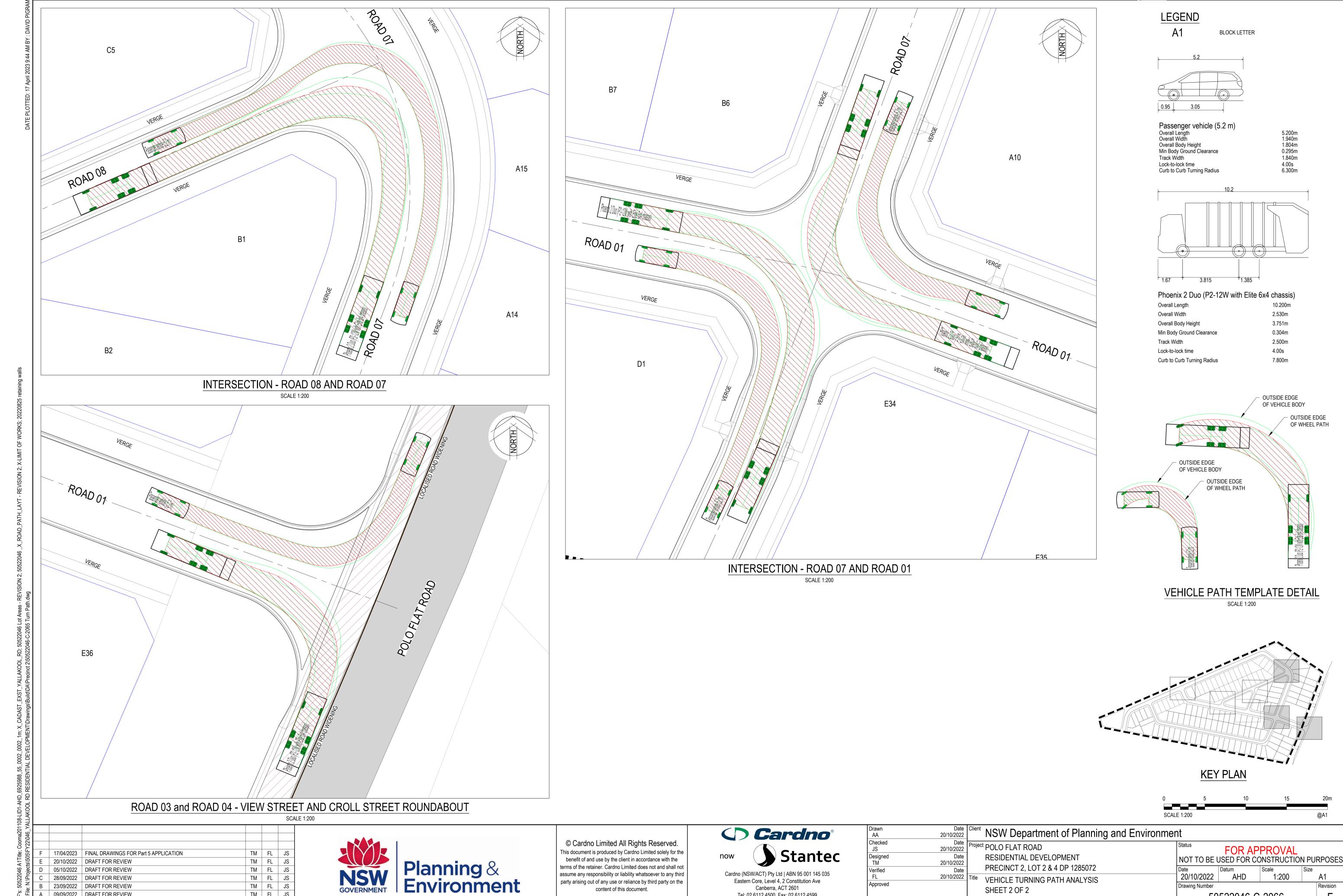
OF VEHICLE BODY

OUTSIDE EDGE
OF WHEEL PATH

Revision

4.00s

6.300m



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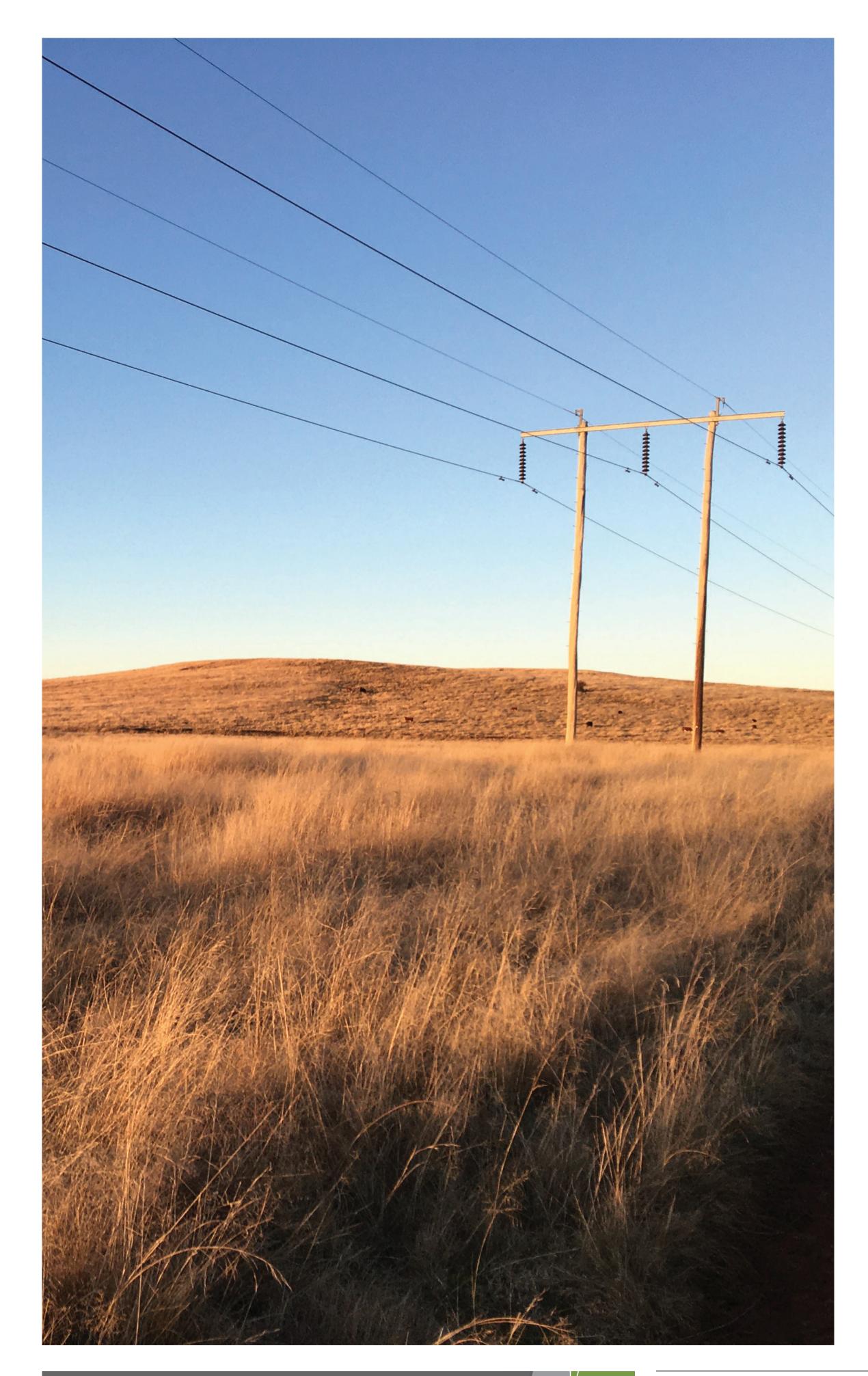
23/09/2022 DRAFT FOR REVIEW

09/09/2022 DRAFT FOR REVIEW

Description

Date





POLO FLAT ROAD RESIDENTIAL DEVELOPMENT

LANDSCAPE MASTERPLAN

DRAWING LIST

DRAWING NO.	DRAWING TITLE	SCALE
L-000	COVER SHEET AND DRAWING LIST	NTS @ A1
L-001	OVERALL MASTERPLAN	1:2000 @ A1
L-002	MASTERPLAN - PRECINCT 2	1:1000 @ A1
L-003	MASTERPLAN - PRECINCT 3	1:1000 @ A1
L-004	RETAINING WALL PLAN AND SECTIONS	AS SHOWN @ A1
L-005	INDICATIVE PLANT SPECIES AND MATERIALITY PALETTE	NTS @ A1

COVER SHEET AND DRAWING LIST



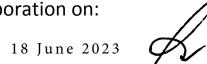
IN ROAD PAVING THRESHOLD

EXISTING TREES RETAINED

EXISTING TREES REMOVED

TURF VERGE AND OPEN SPACE

PROPOSED TREES





DESIGN NOTES

- AVENUE PLANTING CREATING A SENSE OF ENTRY INTO THE DEVELOPMENT FROM POLO FLAT ROAD.
- 2 SERIES OF CONCRETE PATHWAYS PROVIDING CIRCULATION THROUGHOUT THE SITE ALONG TREE LINES STREETS. THE PATHWAYS CREATE AN OVERALL LOOP AROUND THE EXTENT OF THE DEVELOPMENT LINKING AROUND THE DETENTION BASINS AND INTO THE PROPOSED OPEN SPACE ALLOWING MULTIPLE OPPORTUNITIES FOR INTERACTION WITH THE OUTSIDE ENVIRONMENT.
- POTENTIAL FOR FUTURE PEDESTRIAN CONNECTIONS TOWARDS THE TOWN CENTRE AND SURROUNDING RESIDENTIAL AREAS TO ENHANCE OVERALL CONNECTIVITY OF COOMA.
- PROPOSED OPEN SPACE INCORPORATING OPEN TURF AREAS, SHELTERS, PLAYGROUND ELEMENTS, SEATING AND SHADE TREES. SPACES PROMOTE PLAY AND SOCIAL INTERACTION. EACH SPACE CAN CATER TO DIFFERENT AGES AND ACTIVITIES TO PROVIDE A RANGE OF RECREATION ACTIVITIES WITH THE TWO PRECINCTS COMPLEMENTING EACH OTHER. NOTE: ALL WORKS ASSOCIATED WITH THE FUTURE PARKS IN BOTH PRECINCTS WILL BE SUBJECT TO FUTURE APPROVAL/S. PRECINCT 2 & 3 OPEN SPACE PARK AND PLAYGROUND AREA WILL NOT BE

INCLUDED AS PART OF THIS APPROVAL, BUT WILL BE DELIVERED TO

IN ROAD PAVING THRESHOLDS PROVIDED TO ENHANCE SAFETY AND ENCOURAGE CARS TO REDUCE SPEED WHERE PEDESTRIANS ARE LIKELY TO BE CROSSING THE ROAD TOWARDS OPEN SPACES. THIS CREATES A PEDESTRIAN FRIENDLY ZONE WITHIN THE DEVELOPMENT.

COUNCIL STANDARDS TO FUTURE DETAILS AND APPROVAL.

- 6 EXISTING TREES ALONG WESTERN BOUNDARY ARE TO BE RETAINED WITH ADDITIONAL TREES AND LANDSCAPE EMBELLISHMENT PROVIDED TO ADDRESS THE PROMINENT 'GATEWAY' INTO COOMA ALONG THE MONARO HIGHWAY AND CREATE AN INTERFACE WITH RESIDENTIAL COMMUNITY.
- DETENTION BASINS PROVIDED WITH ADDITIONAL TREE PLANTING FOR ENVIRONMENTAL ENHANCEMENT AND AMENITY FOR PEDESTRIANS.
- 8 PROPOSED GRASS SWALE AND ASSOCIATED UNDERGROUND
- REMOVAL OF EXISTING TREES ALONG POLO FLAT ROAD RESERVE WILL BE REPLACED IN ACCORDANCE WITH SMRC POLICY 180 TREE MANAGEMENT.

LANDSCAPE OVERALL MASTERPLAN







RETAINING WALL PLAN AND SECTIONS

Cardno now Stantec

INDICATVIE MATERIALITY PALETTE

FENCING (TO BE INSTALLED BY OTHERS)



INDICATIVE PLANT SPECIES PALETTE

DINLLI INL	LO			
*	Allocasuarina verticillata Pyrus ussuriensis	Drooping She Oak Ornamental Manchurian Pea	75L r 75L	9m 9m
No.	Brachychiton populneus	Kurrajong	75L	12m
	Eucalyptus leucoxylon 'Euky Dwarf' Eucalyptus polyanthemos	Gum Tree Red Box	75L 75L	10m 10m
	Fraxinus x 'Raywoodii' Prunus cerasifera 'Nigra'	Claret Ash Black Cherry Plum	75L 75L	7m 6m
	Zelkova serrata	Japanese Elm	75L	7m
PEN SPACE	<u>TREES</u>			
	Acacia melanoxylon Betula pendula Callistris rhomboidea Cupressocyparis leylandii 'Leighton Green' Eucalyptus aggregata Eucalyptus parvula Eucalyptus viminalis Liriodendron tulipifera Populus alba Quercus robur 'Fastigiata'	Blackwood Silver Birch Oyster Bay Pine Conifer Black Gum Small Leaved Gum Manna Gm Tulip Tree White Poplar Chinese Tallow Tree	75L 75L 75L 75L 75L 75L 75L 75L 75L 75L	12m 10m 8m 20m 20m 10m 15m 20m 18m 8m
HRUBS, GF	RASSES AND GROUNDCOVERS			
	Callistemon subulatus	Bottlebrush	300mm	1 x 2m
	Carpobrutus rossii -Dianella caerulea Dodonaea procumbens -Grevillea acanthifolia	Pig Face Blue Flax Lily Creeping Hop Bush Spider Flower	150mm 150mm 150mm 150mm	0.4 x 1m 1 x 1m 1.2 x 0.2m 0.3 x 2m
	Grevillea juniperina	Prostrate yellow	150mm	0.4 x 2m
	Hakea sericea Hibbertia obtusifolia Prostrate	Silky Hakea Guinea Flower	300mm 150mm	2 x 2m 0.5 x 1m
	Lomandra longifolia	Mat Rush	150mm	1 x 0.5m
	Leptospermum brevipes	Slender Tea Tree	300mm	3 x 2m
	Ozothamnus diosmifolius 'Radiance'	Rice Flower	150mm	2 x 1m
	Persoonia oxycoccoides	Geebung	150mm	1 x 1m
	Stylidium graminifolium 'Little Sapphire'	Trigger Plant	150mm	0.5 x 0.5m
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RETAINING WALLS

Colorbond® Steel Fencing Colour: Monument



Timber look retaining wall

STREET TREES							
*	Allocasuarina verticillata Pyrus ussuriensis	Drooping She Oak Ornamental Manchurian Pea	75L r 75L	9m 9m			
	Brachychiton populneus	Kurrajong	75L	12m			
	Eucalyptus leucoxylon 'Euky Dwarf' Eucalyptus polyanthemos	Gum Tree Red Box	75L 75L	10m 10m			
	Fraxinus x 'Raywoodii' Prunus cerasifera 'Nigra'	Claret Ash Black Cherry Plum	75L 75L	7m 6m			
	Zelkova serrata	Japanese Elm	75L	7m			
OPEN SPACE	OPEN SPACE TREES						
	Acacia melanoxylon Betula pendula Callistris rhomboidea Cupressocyparis leylandii 'Leighton Green' Eucalyptus aggregata Eucalyptus parvula Eucalyptus viminalis Liriodendron tulipifera Populus alba Quercus robur 'Fastigiata'	Blackwood Silver Birch Oyster Bay Pine Conifer Black Gum Small Leaved Gum Manna Gm Tulip Tree White Poplar Chinese Tallow Tree	75L 75L 75L 75L 75L 75L 75L 75L 75L 75L	12m 10m 8m 20m 20m 10m 15m 20m 18m			

Kydra Westringia

Alpine Everlasting

Westringia kydrensis

Xerochrysum subundulatum

Cardno now Stantec

150mm 0.4 x 0.4m

150mm 0.5 x 0.5m



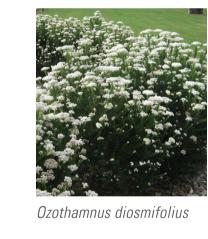
Dianella caerulea







Eucalyptus parvula





INDICATIVE PLANT SPECIES AND MATERIALITY PALETTE

