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20209 IA10 Updated LTEMP

13 June 2024

Riley Barns
A W Edwards Pty Ltd
Level 1, 131 Sailors Bay Road
Northbridge NSW 2063

Via email: rbarns@awedwards.com.au

Dear Riley,

Re: IA10 – Endorsement of Updated Greencap (June 2024) Long Term EMP (V5) for Darlington Public School, 417 Abercrombie Street Darlington NSW 2008

1 Background

NSW EPA Accredited Site Auditor, Rebeka Hall of Geosyntec Consultants Pty Ltd, issued a Site Audit Statement (SAS188) and Report (SAR188) on 29 June 2023 for the Darlington Public School, located at 17 Abercrombie Street Darlington NSW which confirmed the site was suitable for use as a primary school (including day care centre and preschool) subject to the implementation of the Long-Term Environmental Management Plan (LTEMP, Version 4) (Greencap, 29 June 2023). The site is identified as Lot 1 in DP1290656 and occupies an area of 7,259m2.

The remedial strategy adopted during the school redevelopment and upgrade works (State Significant Development No. 9914), which occurred between 2021 and 2023, comprised the retention of impacted fill under various forms of capping associated with the new structures (e.g. building concrete, hardstand, paving and various soft fall and landscaping areas with a marker layer placed on top of the residual fill prior to the placement of clean capping material. The capping system provides a barrier to the underlying fill.

The residual fill under the capping surfaces is impacted with asbestos, PAH and lead. The LTEMP (Greencap, June 2023) provides procedures for site inspections, capping layer maintenance, with scenarios for generalised landscaping, minor and subsurface works. The LTEMP provides guidance for capping reinstatement works when the cap is breached.

2 Purpose of this Advice

The purpose of this advice is to support the recent update to the LTEMP.

Greencap updated the LTEMP to clarify the mechanism for publicly notifying the existence of the management plan.

The updated LTEMP (Greencap, 4 June 2024) Version 5 states, in Section 1.3 and 5.2, that the LTEMP will be publicly notified on the Section 10.7 Planning Certificate. In addition, as asbestos is remains that the site, the LTEMP must be listed on the Site's asbestos register.

3 Auditor Conclusions

With reference to NSW EPA (2022) Preparing Environmental Management Plans for Contaminated Land: Practice Note, the notification mechanism as stated in the Greencap (June 2024) LTEMP Version 5 is appropriate. A copy of the LTEMP V5 is attached.

The updated LTEMP Version 5 (Greencap, June 2024) does not change the purpose, or the intent of the original management procedures outlined in the LTEMP Version 4. As such the conclusions drawn by the Site Auditor in the SAS188 and SAR188 issued 29 June 2023 remain valid. A copy of the current LTEMP should be provided to Council.

We trust this meets your current requirements. Should you have any queries or wish to discuss any points, please do not hesitate to contact the undersigned.

Yours sincerely,

Rebeka Hall
Site Auditor
Geosyntec Consultants Pty Ltd

Attached: Greencap (4 June 2024) Long-Term Environmental Management Plan Darlington Public School (Ref PS136020)

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LONG-TERM ENVIRONMENTAL MANAGEMENT PLAN

June 2024
PS136020

A.W. Edwards Pty Ltd

Darlington Public School

Document Control

Document Quality Management Details.		
Report Name:	Long-Term Environmental Management Plan	
Site Details:	Darlington Public School- 417 Abercrombie Street Darlington NSW 2008	
Project Number:	PS136020	
Client Name:	A.W. Edwards Pty Ltd	
Client Number:	C107251	
Signatures:	Author:  Tary Mathew	Reviewed and Authorised By:  Matthew Barberson Senior Associate Environmental Consultant CENVP SC: 41191

Issue Status

Version No.	Date	Creator	Reviewer
V1	05/06/23	Tary Mathew	Andres Grigaliunas
V2	20/06/23	Andres Grigaliunas	Andres Grigaliunas
V3	23/06/23	Tary Mathew Andres Grigaliunas	Andres Grigaliunas
V4	29/06/23	Tary Mathew Andres Grigaliunas	Matthew Barberson
V5	4/06/2024	Tary Mathew Andres Grigaliunas	Andres Grigaliunas

Document Circulation

No of Copies	Type	Customer Name	Position & Company
1	**Electronic**	**Cayne Ross**	**A.W. Edwards – Project Coordinator**

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This Report should be read in whole and should not be copied in part or altered. The Report as a whole sets out the findings of the investigations. No responsibility is accepted by Greencap for use of parts of the Report in the absence (or out of context) of the balance of the report.

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1 Purpose

Greencap was engaged by A.W. Edwards Pty Ltd (the client), to prepare this Long-Term EMP after the completion of remedial works to remove contamination risks at Stage 1 Area and Stage 2 Area, Darlington Public School- 417 Abercrombie Street Darlington NSW 2008 (hereafter referred to as "the Site"). The site location is indicated in *Figure 1*. This EMP was prepared in accordance with the most recent guidelines NSW EPA (January 2022), "Preparing environmental management plans for contaminated land: Practice Note":

- Implementation of this Long-Term Environmental Management Plan (EMP) is the responsibility of the land/site owner, currently Department of Education (DoE). In accordance with the Environmental Planning and Assessment Act 1979 and NSW EPA guidelines, this Long-Term EMP is required to ensure that the capping material covering the contaminated soils at the site remains intact at Darlington Public School;
- The following SSD9914 development consent conditions are applicable to the EMP:
  - D27: Prior to the commencement of operation, the Applicant must submit a Section A1 Site Audit Statement or a Section A2 Site Audit Statement accompanied by an Environmental Management Plan prepared by a NSW EPA accredited Site Auditor. The Section A1 or A2 Site Audit Statement must verify the relevant part of the site is suitable for the intended land use and be provided, along with any Environmental Management Plan to the Planning Secretary and the Certifier.
  - E8: Upon completion of remediation works, the Applicant must manage the site in accordance with the Environmental Management Plan approved by the Site Auditor (if any) under condition D27 and any on-going maintenance of remediation notice issued by EPA under *the Contaminated Land Management Act 1997.*
- This EMP applies to the extent of the capped area (capped material contains asbestos, PAH and lead impacted soil) referred as Stage 1 and Stage 2 , shown on **Figure 2 to 7**, It applies to the whole site;
- Remediation works involved removal of fill soil and placement of a capping soil layer over the remaining contaminated fill. The contaminants included asbestos ,total PAH, benzo(a)pyrene and lead, The capping works are described in **Section 3.1;**
- This remediation works were carried out between January 2021 and June 2023 .A Stage 1 validation report for Basketball Court and Stage 1 works (Greencap August 2021; Greencap April 2022) were issued to document the construction methods for encapsulation of contaminated fill to form a physical barrier over contaminated soils to prevent exposure. Stage 2 validation report for New Block D , Outdoor learning area on the east of Block D consisting of climbing area, handball court area on the south-east portion of site and landscaping area. A 13m (L), x8m(W) and 2m(D) borrow pit was excavated on the southwestern area of the site were an estimated volume of 208m^3 was used to level the site while impacted material was used to back fill it. All impacted material placed at the borrow pit and across the site was placed below the marker later and validated material placed above. The location of the capped area in relation to the overall Darlington Public School property is indicated in **Figure 2** to **7;**
- Long term management (capping layer maintenance and notification) is required, as detailed in this EMP, to prevent disturbance, dispersal, or exposure of contaminated soils in future. On-going maintenance of the capping area will generally require occasional inspection of the capping area to ensure the integrity of the capping system is not being damaged (e.g. by erosion or any unmanaged digging/disturbance) i.e. passive management system. Repairs and reinstatement of the capping layer are required when damage or disturbance occur (as described in detail within Section 4of this EMP report); and

- This report is to be read by any person (including current and future site owners / managers / occupiers) proposing to undertake any subsurface excavation works with potential to disturb the capping layers. Works with potential to disturb the capping layers include:
  - Trenching for installation or maintenance of underground services conduits;
  - Excavations required for maintenance or modification of the concrete slab; and
  - Any new constructions such as light poles or other structures with subsurface foundations anywhere in the vicinity of the capping area.

Any works that may disturb the structural integrity of the capping system require assessment and approval by the DoE. Other consent authorities (such as City of Sydney Council or NSW Department of Planning) involved in assessment of Development Applications for proposed works are also to provide approval. Applications for approval must include detailed description and design of proposed works and compliance with management requirements under this EMP. A copy of this EMP should be included in all submissions for development consent to both the DOE and other consent authorities.

1.1 Purpose and Objectives of the EMP

The purpose of this long term EMP is to manage the residual contamination risk remaining on site following the completed remediation activities and ensure long-term protection of the human health and the environment on site and its vicinity. This plan comes into force from its date of issue, which is 4/06/2024.

The scope of this Long-Term EMP includes the site management requirements associated with:

- The presence of known contamination within the capped area on site (i.e. contaminated soils beneath capping and hardstand pavement);
- Document the location of the contamination and capping layer;
- Maintenance of the capped area (including maintenance of the capping layers) and to detail the requirements for management of future excavations;
- Delegation of Roles and Responsibilities;
- Ensure notification to all stakeholders of the asbestos contamination, capping and location on the site; and
- Ongoing review of compliance of site monitoring and management regimes against this Long-Term EMP by the site owner or appointed certifier.

The long-term management plan has been developed to address site-specific environmental concerns associated with the contamination contained at the site in accordance with the NSW EPA (2022), Preparing environmental management plans for contaminated land: Practice Note.

1.2 Enforceability of the EMP

It is a requirement that this EMP is legally enforceable via a development application/ approvals process for any proposed work at the site which has potential to disturb the capping soil layer area shown on Figure 2 to7 . As the site contains a soil cap and containment of contaminated soil, this EMP will apply in perpetuity or until the contaminated soil is removed from the school.

Any works within the capping area, requiring planning approval is to be approved by the DoE and any other consent authority (refer to **Section 4**).

1.3 EMP Notification Requirements

Reference to this EMP is to be provided on City of Sydney Council Planning documents (10.7 certificates) and the site's asbestos register to indicate that buried wastes including asbestos have been contained onsite and an ongoing mitigation and monitoring system is in place. Notification requirements are detailed in **Section 5** below.

This EMP is to be made available to site owners, managers, contractors and site workers and any other relevant persons. All relevant personnel at the site should be made aware of the presence of the contaminated soil and the need to ensure it remains undisturbed.

Consent includes the following requirements, which enforces the establishment and implementation of a Long-Term EMP (referred to as EMP in SSD9914):

- D27: Prior to the commencement of operation, the Applicant must submit a Section A1 Site Audit Statement or a Section A2 Site Audit Statement accompanied by an Environmental Management Plan prepared by a NSW EPA accredited Site Auditor. The Section A1 or A2 Site Audit Statement must verify the relevant part of the site is suitable for the intended land use and be provided, along with any Environmental Management Plan to the Planning Secretary and the Certifier; and
- E8: Upon completion of remediation works, the Applicant must manage the site in accordance with the Environmental Management Plan approved by the Site Auditor (if any) under condition D27 , Part 8.3 Cl429 of the Work Health and Safety Regulation (WHS) regulation 2017 due to the presence of asbestos and any on-going maintenance of remediation notice issued by EPA under the Contaminated Land Management Act 1997.

2 Background

2.1 Site Identification and Setting

Table 1: Site Information		
Site Address:	Darlington Public School, 417 Abercrombie Street Darlington NSW 2008	
Property Identification:	Lot 1 DP1290656	
Local Government Area	City of Sydney	
Approximate Area (Accessible Areas):	approximate area: 7267 m^2	
Current Site Use:	Public School	
Proposed Site Use:	Public School	
Site Users:	Children/teachers/visitors of the school, workers undertaking service/maintenance works and associated temporary visitors.	
Surrounding Site Use:	North East South West	Sydney University building (residential and educational) with Darlington Lane and residential properties beyond. Sydney University accommodation buildings (residential) with Sydney Campus buildings beyond. School Premises and Abercrombie Street with residential properties beyond Golden Grove Street with residential properties beyond
Surface Water Bodies:	North	Lake Northham located within Victoria Park approx. 850 m northeast of the site. Sydney Harbour further north-east, Alexandra Canal to the Southeast.

Nearest sensitive human receptors are the students and staff of Darlington Public School, students and the residents living at the high-density residential houses and Sydney University Campus Building towards the east and north of the site and residential properties beyond Golden Grove Street and on the south of the site. Lake Northham located approximately 850 m towards the northeast of the site is considered as the nearest environmental receptor.

2.2 Geology and Soils

A review of the Sydney 1:100,000 Geological Series Sheet indicated the site is underlain by Ashfield Shale (Rwa) of the Wianamatta Group of Triassic age. This formation is described as shale, carbonaceous claystone, laminate, fine to medium grained lithic sandstone and some minor coal bands.

A review of 1:100,000 Sydney Geological Series indicated the shallow soils at the site comprise Blacktown Soil Landscape (bt), which consist of up to two soil horizons that vary from shallow to moderately deep red and brown podzolic soils on crests, upper slopes and well drained areas to yellow podzoic soils on lower slopes and in areas of poor drainage.

2.3 Topography

Topography of the site and surrounds slopes gently towards the south and at approximately elevation of 37 m AHD.

2.4 Groundwater

A search of the NSW Office of Water groundwater bore data carried out by Douglas Partners (DP) in 2020 and summarised in Section 3.4 of the Remediation Action Plan for the proposed upgrade works at 417 Abercrombie Street, Darlington NSW in 2020 identifies one domestic bore located upgradient at approximately 200m northwest of the site. No groundwater was detected during field works carried out by DP and Greencap at the site and during the excavation of the borrow pit to a depth of 2m bgl. The depth of groundwater at the site is unknown. DP in 2021 carried out leaching assessment of the fill soils requiring remediation at the site and its potential to impact groundwater. The assessment showed that the leachability potential of the soils at the site is low.

The geology of the natural material at the site is dominated by silty clay and weathered sandstone with generally low permeability

The site is not considered to pose a risk to groundwater quality and local water courses based on leachability assessments for contaminated soil below the capping layer

3 Description of existing/residual contamination

Several contamination investigations have been carried out at the site since 2014 by various consultants including Parsons Brinckerhoff, Douglas Partners (DP) and Greencap. The assessments included a preliminary site investigation, detailed site investigation, asbestos management plans and remediation action plans (RAP). The assessments identified contamination across the site of the following contaminants of concern:

- Friable Asbestos (AF/FA) and bonded Asbestos (ACM in the form of bonded cement sheet fragments were observed across the site, with ACM isolated to fill soils (ACM not observed within natural soils));
- Total PAH;
- Benzo(a)pyrene; and
- Lead.

Based on the investigation results, volatile organic compounds (VOCs) are not considered to be a contaminant of concern for the site, i.e to not pose a vapour intrusion risk .

A summary of the most relevant investigations at the site is outlined below:
In January 2018, DP carried out a detailed site investigation at the school. The investigation included sixteen grid based and two targeted boreholes. The results of the investigation identified and confirmed TRH, PAH and lead impacted fills at the school including the northern section at

concentrations exceeding adopted HILs and EILs. Asbestos was also identified in one fill sample collected during the DSI from the northern portion of the site (BH10).

In 2020, DP prepared the RAP for the School (DP August 2020, Remediation Action Plan Proposed Upgrade Works 417 Abercrombie Street Darlington NSW Project 92277.01). The remedial strategy specified in the RAP was a "Cap and Contain" method of remediation for the site. Construction of a durable capping layer over the entire site is required to prevent exposure of contaminated soils and long-term maintenance of the capping layer barrier is to be ensured with enforcement of a long-term environmental management plan (long term EMP).

In December 2021, DP carried out further asbestos investigation on the northern section of the school. The report summarised the strata encountered during the investigation as:

- "Fill (subgrade/roadbase) – gravely crushed sandstone encountered from beneath the base of the asphalt or the concrete slab to 0.4m BGL; overlying;
- Fill – brown gravelly clayey sand from 0.2 to 1.3 m BGL and slag and charcoal gravel material and or coal wash material was observed at three locations ; overlying;
- Silty Clay at depths between 0.3 and 0.9 m BGL; overlying
- Weather sandstone or shale at depths between 0.7 and 1.8 m BGL

In February 2021, Greencap undertook further investigations and a RAP addendum. The assessment identified fill containing demolition waste including asbestos cement fragments (ACM and AF/FA). Benzo(a)Pyrene TEQ exceeded the adopted site criteria in the midsection area. Concentrations of leachate (ASLP) analysis for metals and PAHs were either below detection limit or at low levels indicating leaching from fill is not expected to pose a risk to aquatic ecosystem receptors distant from the site given the low volumes of stormwater infiltration once the majority of the site is sealed and stormwater is diverted to the municipal drainage system.

A second RAP addendum was produced by Greencap in October 2021 following additional sampling which planned for excavation of trenches and installation of underground services. The RAP addendum V2 documented the results and confirmation of capping layer designs and proposed imported materials.

Greencap was engaged to supervise remediation works of Stage 1 between in 2021 and 2022 to enable monitoring of the cap and contain remediation strategy. The supervision ensured that the RAP was implemented and a durable surface layer was placed to prevent exposure of the lead, PAH and asbestos contaminated fill soils on the site. A validation report for Stage 1 was issued in April 2022.

Further investigation for Stage 2 area was undertaken by Greencap in August 2022.The following results were obtained during the investigation:

- Fill depth varied across the area ranging from 0.3 m BGL to 0.7 mBGL;
- Natural material comprising of light grey to orange clay with weathered shale was encounter underlying fill material at a of depth 1-1.3 mBGL;
- Chemical results were either lower than the limit of reporting or lower than the adopted site criteria; and
- ACM was not noted at the time of investigation.

Greencap was engaged to supervise and validate the remediation works for Stage 2 in 2022. As part of the remediation works a "borrow pit" was proposed to be excavated allowing disposal of less costly VENM and retainment of excess contaminated soil generated onsite. A VENM assessment (Ref: J169905-01 VENM Certificate -Borrow Pit – V1, Greencap August 2022) was undertaken to understand the depth of material onsite that is suitable for use as VENM. On 27 August 2022, Greencap was advised that the depth of fill at the original borrow pit was deeper than expected.

- . The dimensions of the pit were 13m (L), x8m(W) and 2m(D) was backfilled with impacted

material sourced across the site. The pit was capped by placing a geofabric marker layer on top of the backfill followed by a covering of validated VENM material plus concrete flooring to meet a minimum thickness of 300mm. Clean material excavated from the pit was used to level the site and within service trenches across the site.

In 2023 the site was validated in accordance with the RAP for the site. Impacted fill is present across the site below the marker layer followed by clean material. The depth of the marker layer varies from 50-150mm below the timber deck areas at the site to 500mm of clean soil within the garden areas (refer to Figures 8 to 16). Information from previous reports state that the capped fill material across the site ranged between 0.3 to 0.7m bgl. Asbestos containing material, lead TRH >16-34, benzo(a) pyrene and total PAH remains in fill soils along the northern part of the site (Stage 1) while lead and benzo(a)pyrene impacted soil remain on the southwestern part of the site . It is important to note that the existing contaminated material present across the site is capped under the marker layer and clean material and therefore not offsite migration can occur. As discussed in Section 2.4, contaminants of concern on site do not leach and therefore groundwater is not impacted.

3.1 Remediation History

3.1.1 Basketball Court Capping Works

Remediation earthworks commenced in January 2021 in association with construction of the basketball court in the north-eastern part of the Stage 1 site shown on Figures 3 and 4.

Full details including photos of these works and validation of imported materials are documented in the validation report for the basketball court (refer: *J169905 Remediation Validation Report (Basketball Court Area) - Darlington Public School August 2021*), summarised below.

The remediation of the land covered by the basketball court involved excavation and offsite disposal of fill to achieve design ground levels, followed by importing and placement of gravels and asphalt paving across the playing court and access pathways.

The capping layer across the basketball court area placed on the geofabric marker layer that covers the contaminated fill includes:

- Validated imported natural rock gravel aggregate subgrade and surface asphalt placed across the court area;
- Imported validated topsoil placed below the turfed southern area; and
- Imported validated recycled concrete gravel placed along the 1 m wide pathway along the west side of the court and surface asphalt placed across the court area (north-south aligned pathway).

3.1.2 North-eastern Tree Protection Zone Capping

Full details including photos of these works and validation of imported materials are documented in the validation report for Stage 1 works (refer: J169905 Remediation Validation Report V1 (Stage 1 Area) - Darlington Public School April 2022), summarised below.

- Capping layer barriers over contaminated soils in the north-eastern tree protection zone, included decking, concrete benches and garden beds located between the basketball court and the northern and eastern site boundaries (refer to Figures 3 and 4). These were constructed after the basketball court). Decking boards were constructed approximately 300 mm above ground surface level, and a layer of mulch was placed on the marker layer geofabric on the ground surface below the deck. The marker layer fabric was pinned onto the soil surface using 200 mm long steel pegs;
- Access to the area below the deck was incorporated including removable decking boards and access to the void below the deck at the eastern end of the tree protection zone; and

- Concrete benches were constructed on the geofabric between the northern deck area and the basketball court asphalt surface.

3.1.3 New Block D and Library Building Concrete Floor

Full details including photos of these works and validation of imported materials are documented in the validation report for Stage 1 works (refer: J169905 Remediation Validation Report V1 (Stage 1 Area) - Darlington Public School April 2022), summarised below.

- The concrete floor slab of the new building formed the capping layer over the entire western portion of the Stage 1 site as shown on Figures 3 and 4. Concrete floor slab thickness (180 mm) plus minimum 120 mm base course/subgrade layer on the marker layer geofabric comprise the 300 mm capping layer below the new building; and
- In addition, two concrete planter beds were installed above concrete cap within Block D . These planter beds were filled with approximately 300mm of Smartmix 5 (bottom) and 400mm of Smartmix 6 (above) landscaping soils from Benedict Sands at Menangle.

3.1.4 Preschool Area and New Landscaping East of Block D

Full details including photos of these works and validation of imported materials are documented in the validation report for Stage 1 works (refer: J169905 Remediation Validation Report V1 (Stage 1 Area) - Darlington Public School April 2022), summarised below.

- Figures 2 to 4 and the attached diagrams ("Preschool Capping Markup" and "External Works Capping Sections" by FJM Studio Pty Ltd) show the capping layer variations for the preschool and new landscaping areas;
- Pre-capping excavations were conducted in the outdoor area between Block D and the basketball court (includes preschool) in July/August 2021. This included construction of a retaining wall along the eastern boundary of the preschool area. Concrete was placed on marker layer fabric in the foundation trench for the retaining wall;
- Ground level for the preschool was raised west of the retaining wall, using imported materials for the capping layer. Marker layer fabric was laid on the ground surface. Imported VENM classified clay and sandstone from the source sites at Zetland and Willoughby was placed on the marker layer and formed the first lift of the capping layer. Subsequent capping layer materials added included VENM classified gravel from the Dunmore quarry and Smartmix 6 (sandstone/compost mix) landscaping soil from Benedict Sands at Menangle;
- Concrete pathways between the new building and the basketball court shown on Figure 4 were completed in January 2022; and
- Various capping materials were used above the marker layer and included VENM classified clay and sandstone from the source sites at Zetland and Willoughby, VENM classified gravel from the Dunmore quarry, VENM classified metal dust from the Lynwood quarry and Smartmix 6 (sandstone/compost mix) landscaping soil from Benedict Sands at Menangle.

In addition, a sandpit was built above the first lift of Willoughby sandstone as follows:

- 150 mm VENM classified gravel from Dunmore quarry;
- 5 mm Black plastic protection board;
- 30 mm Drainage cell; and
- 550 mm Washed Newcastle Sand VENM from Redisand Salt Ash Quarry.

3.1.5 VENM Borrow Pit

A borrow pit area of approximately 104 m^2, as depicted in markup figure *(ref: sheet no A-12001 Rev B)* was located within the south -western corner of the site underneath the Block D building. Full details including photos of these works and validation of imported materials are documented in the validation report for Stage 2 works (refer: J169905 Stage 2 Validation Report Darlington PS).

3.1.6 New Block D and Covered Outdoor learning area

The block D building footprint covers the entire western portion of Stage 2 and includes a concrete floor slab providing a capping layer function as shown on Figure 5 Concrete floor slab plus a base course/subgrade layer on the marker layer geofabric comprise the 300 mm capping layer below the new building as per the RAP (DP. 2020).

3.1.7 Landscaping area

East of block D, there are landscaping areas comprising of various surfaces (see figures 6 and 7) garden beds, rubber soft fall and astro turf areas and a timber composite deck, all connected via paved concrete walkways. To the northeast, adjacent the basketball court area there is outdoor landscaping, including garden beds, concrete paved walkways and rubber soft fall which connects to astroturf and a kick-about concrete seating area.

4 Management Activities: General Management Roles, Contingency Measures, and Responsibilities

Implementation of this Long-Term EMP is the responsibility of the site owner, currently the Department of Education. The subsequent sections of this report outlines proposed Site Management Procedures. These procedures are provided to prevent potential adverse impacts to human health, site amenity or the environment from any residual contamination at the site. The procedures have been designed to minimise the potential for exposures to contamination, including asbestos in soils.

In addition to the requirements of this EMP, all works with potential to disturb all the capping area (refer to Figure 2 to 7) should comply with requirements of the DoE Asbestos Management Plan (currently October 2020 edition). This includes engagement of a Class A licensed contractor, and Licensed Asbestos Assessor, Safework NSW permit, restricted work hours if excavations disturb asbestos and could possibly cause dust emission.

4.1 Delegation of Roles and Responsibilities

Management should include implementing a system that delegates roles to various stakeholders. An example is included in **Table 2**. The school is to be made aware of this EMP and its implementation is managed by the School Principal / Deputies.

The DoE's Asset Management Unit (AMU) is to provide a copy of this EMP to any contractors and subcontractors undertaking works in the capped area.

Table 2: Responsible Persons/Roles: Management of Capping Area

Party Responsible	Key Roles / Actions
Department of Education (Asset Management Unit)	Responsible for approving any proposed works which may cause disturbance to the capping layer or any disturbance of the contaminated soils (particularly works which do not require development consent from an external Consent Authority). Ensure that the contents of this EMP are applied throughout the duration of future Site construction works / civil activities, should they occur. A copy of this EMP is to be provided with the development application submission documents to any consent authority, for approval of proposed works. Update and or review the EMP in case that the contamination status at the site changes, including removal of contamination
Darlington Public School	The school is to be made aware of this EMP and its implementation is to be managed by the school Principal / Deputies, including reporting to DoE on commencement and progress of any excavation works at the capping footprint area.

Table 2: Responsible Persons/Roles: Management of Capping Area	
Party Responsible	**Key Roles / Actions**
	Ensuring that the contents of this EMP are applied throughout the duration of future Site construction / civil activities, should they occur. Ensure that adequate ground markers and fencing are provided for the duration of any site works to prevent users of the school entering the work area, and to prevent contractors from inadvertently excavating into the contaminated soils area.
Other Consent Authorities (eg City of Sydney Council or NSW Department of Planning)	Responsible for approving any works (requiring Development Consent), which may cause disturbance to the capping layer or any disturbance to contaminated soils. Ensure that requirements of this EMP have been considered at the design stage of any works which may cause disturbance to the capping layer or any disturbance to contaminated soils.
Contractors (earthworks)	Supervising Contractors are required to undertake the following, as a minimum, to comply with the requirements and recommendations of this EMP and the DOE Asbestos Management Plan: Ensure that adequate ground markers are provided and maintained for the duration of any site works to prevent contractors from inadvertently excavating into the capping area. Any subsurface works beneath the cap that penetrate the geotextile marker layer must be carried out by an appropriately licensed asbestos removal contractor. In such situations, an asbestos removal control plan must also be prepared and works completed in accordance with the NSW Work Health and Safety Regulation, 2017. Hold a Class A Friable asbestos works license. Through site inductions and daily toolbox talks, ensure that all contractor and sub-contractor workers have been made aware of the presence of contaminated soils including asbestos at the site and the requirements of this EMP. Oversee and monitor daily work activities of staff to ensure that no unauthorised breaching of the capping layer. Ensure all staff are using appropriate PPE as indicated in the AMP and following the procedures as set out in the site-specific safe work method statements (SWMS) and in compliance with current WHS requirements. Provide dust suppression and ensure air monitoring is in place during any activities that have a potential to disturb fill within the capping area. Ensure authorisation and a permit is provided by the DoE/appointed authorising body prior to any works which may cause disturbance to the capping layer. Sufficient notice must be provided to facilitate planning of works. Provide a spotter during any activities with a potential to encounter asbestos, i.e. excavation of service trenches and swales, cut and fill activities. Undertake daily inspections of their workers and work practices to ensure that the integrity of the capping layer has not been compromised. If authorisation has been provided to excavate into the capping layer, ensure that all necessary controls are strictly adhered to. Ensure certification and testing data is provided for all volumes of soil / fill imported to site. Copies of the testing certificates are to be provided to the DoE either on or prior to arrival to site. Ensure that the hygienist / environmental consultant is notified prior to backfilling to confirm that the backfill material has been validated for use.
Hygienist / Licensed Asbestos Assessor / Contaminated land consultants	Preparation of a project specific Asbestos Management Plan (AMP), in compliance with the DOE AMP. Air monitoring stations should be established at locations surrounding the works area to monitor for free asbestos fibres. If any asbestos fibres are recorded above reporting or background limits, then works shall cease at the site until further management requirements are developed and implemented to control the work area.

Table 2: Responsible Persons/Roles: Management of Capping Area	
Party Responsible	**Key Roles / Actions**
	As a minimum it is recommended that background air monitoring be conducted at designated boundaries of the work zone and/or boundaries of the site in proximity to populations of concern, as determined by the scope of works and specific site conditions assessed at the start of each day (e.g. weather conditions / wind direction). Visual assessment of air quality will be undertaken. If it is considered that dust is being generated unnecessarily, then works will be halted until dust preventative measures can be implemented. Air Monitoring should be undertaken by a competent person with sampling and analysis conducted by a NATA accredited laboratory in accordance with the method as prescribed in Safe Work Australia Guidance Note: Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC:3003(2005)].

4.2 Site Inspections and Capping Layer maintenance

The site owner (DoE) should ensure maintenance of the capping layer to prevent exposure of the underlying contaminated materials including asbestos. Routine inspections are to be scheduled annually, with additional inspections to be undertaken following heavy rainfall events or following the completion of any intrusive works to be carried out by DoE's Asset Management Unit (AMU). For landscaping areas covered with mulch across the site (considered as areas of higher risk areas due to capping degradation), routine inspections should be carried out at least every six months or after a significant rain event. During these inspections, the checklist provided in **Appendix A – Environmental Checklist** will be filled by the suitably qualified personnel undertaking the inspection. Further requirements for the different types of covers across the site is outlined below.

4.2.1 Decking/tree protection areas

During the routine inspection, the ground surface within the north-eastern Tree Protection Zone, over garden bed capping layer soils, on the east and south-east section of the site must also be visually assessed. Any signs of erosion or degradation of the ground surface within the tree protection zones must be immediately reported to the site owner (or the site manager appointed by the site owner). Rectification works must be commissioned as soon as possible following the identification of any negative impacts to the tree protection zones.

4.2.2 Unsealed Area Maintenance:

The unsealed areas present across the site (Refer to Figures 2 to 7) must be maintained to ensure the integrity of the cap and to prevent contact with potentially contaminated soils.

- In-case of erosion or damage to surface layer soils, turf, surface layer mulch areas or exposure of the capped materials are identified during an inspection, the consultant doing the inspection will notify the site owner, schools principal, NSW EPA Accredited Site Auditor (if required by the site owner), and site manager within 24 hrs. The survey for the site showing the final capping levels is attached in Appendix B;
- The site manager will organise appropriate fencing for the area until the rectification works are undertaken and validated;
- The site owner will engage (within 1 month following the receipt of notification) a suitably qualified and experienced remediation/ earthworks contractor to undertake necessary rectifications, if required;
- A qualified consultant will be engaged by the site owner:
  - To undertake validation sampling of any imported soils required for rectification works/capping layer maintenance and test the soils for the following analytical suite: asbestos fines/ friable asbestos (AF/FA), total recoverable hydrocarbons (TRH), benzene, toluene, ethyl-benzene xylene, and naphthalene (BTEXN), polycyclic-aromatic hydrocarbons (PAH), and heavy

metals (As, Cd, Cr, Cu, Ni, Zn, Hg, Pb);

- To supervise the importation of soils; and
- Issue a validation report advising whether the capping area has been successfully re-instated and the area can be accessed by site users (if not consultant to provide advice regarding further work).

4.2.3 Hardstand Maintenance:

- The integrity hardstand surfaces on the site (comprised primarily of concrete or covered by building footprints) must be maintained to prevent contact with potentially contaminated soils. Hardstand pavements are present across the site in both indoor (in an enclosed space that comprises walls and roofing, such as a building or similar) and outdoor (open outdoor areas) areas.
- Annual inspections must be undertaken by DoE's Asset Management Unit (AMU) owner to ensure that the hardstand pavements are not showing signs of deterioration.
- Should a pothole or cracking be observed in the hardstand pavement, such that users of this area could be practicably exposed to the underlying sub-surface materials present beneath the pavement and its associated sub-grade, then repairs are required to be undertaken following the protocol set out below (**Sections 4.4 & 4.5**) for minor or major works as appropriate.
- Guidance on determining the period of time in which repairs must be made is as follows:
  - Indoor Areas which are regularly used and occupied by workers or users of the site – Repairs to hardstands must be made within a 2-week period from observing damage;
  - Indoor Areas which are not regularly used or occupied by workers or users of the site – Repairs to hardstands must be made within a 4-week period from observing damage;
  - Outdoor Areas which are regularly used and occupied by workers or users of the site (such as footpaths, access walkways, entrances to buildings) – Repairs to hardstands must be made within a 2-week period from observing damage; and
  - Outdoor Areas which are not regularly used or occupied by workers or users of the site – Repairs to hardstands to be made within a timeframe considered to be reasonable by the Operator but no longer than a 4-week period.

The site owner will engage suitably qualified consultants and specialists to undertake the works recommended following each inspection (if required) within 1 month following the receipt of inspection checklist. In-case a genuine health or environmental risk is identified during the required inspections (or any other non-routine inspection or a reported incident), the site manager will be notified immediately (within 24 hrs) who will then organise fencing and access to these areas will be blocked as soon as possible. The area is required to be reinstated in accordance with the procedures outlined in Section 4 of this EMP.

4.3 Environmental/Awareness Training

All contractors undertaking intrusive works at the site should undergo general environmental awareness training regarding their responsibilities under the EMP. The training should ensure that all employees understand their obligation to exercise due diligence for environmental matters. It should be noted that "employees" in this instance means all people working on-site including contractors and sub-contractors.

It is the responsibility of the site owner (DoE) to prepare their site specific training; however any environmental training programme should incorporate the following:

- A general site induction for all site staff, contractor and subcontractors to be conducted prior to the commencement of site works with all site inductions kept on record;
- Familiarisation with the requirements of the Long-Term EMP (summary of the EMP and all associated management plans);
- Environmental emergency response training (outlining potential environmental emergencies and relevant contacts and response procedures);
- Familiarisation with site environmental i.e. location and composition of the capping layer; and
- Targeted environmental training for specific personnel. For example, the specified personal responsible for maintenance of the capping layer may require specific training in compliance monitoring.

The need for additional or revised training shall be identified and implemented from outputs of:

- Changes to the on-site and surrounding receptors (change of on-site receptors may occur in the scope of potential future land-use changes, in such instances a review of the conceptual site model of the site would be required); and
- Alterations to regulatory frameworks and future reviews of the Long-Term EMP as required.

Training records are to be prepared and retained by Darlington Public School/ DoE / Project Manager.

4.4 Excavation Approvals and Permitting

The following information in ***Table 3*** is a summary of the compliances and approvals required for any proposed civil works with potential to disturb the capping area (excluding Generalised Landscaping Works & Minor Works as indicated in Section 4.5).

All “minor landscaping activities” are to be restricted to the areas above the marker layer (less than 0.2 m below ground level (BGL)) in the capped areas (refer to Section 4.5 for details).

An asbestos management Plan (AMP) should be prepared by a licensed asbestos assessor (LAA) for any excavation works below the capping layer, for each proposed episode of work into the future.

The following documentation is required for submission to DOE to obtain works approval:

- Copy of licences of workers/contractors undertaking the works in accordance with the requirements of the AMP and relevant OH&S regulations and NSW Workcover;
- Description of Works Plan/Methodology by workers/contractors including any control measures required as per the AMP, scope (minor or major works) and duration of works;
- Safety documentation for the works;
- Statement indicating the appointed suitably qualified consultant/hygienist for supervision and validation of works;
- Evidence of reinstatement of the capping layer as applicable (e.g. photographical records, surveys, etc) after completion of the works;
- Clearance(s)/ Validation Report by the appointed suitably qualified consultant/hygienist after completion of works; and
- Any analytical results including chemical analysis and Asbestos (AF/FA) analysis obtained during supervision of works or for validation purposes after completion of the works

The following protocols are to be adopted when carrying out any works below the capping layer. The capping layer is to be reinstated at the completion on of any subsurface works, as per the capping layer specifications as detailed in ***Table 3*** below.

In accordance with Clause 458 of the *Work Health and Safety Regulation 2017* (NSW), Class B asbestos removal license holders are permitted to conduct asbestos removal work or asbestos-related work that involves non-friable asbestos. However, as a requirement of the Department of Education Asbestos Management Plan, asbestos-related works are to be supervised by a Licensed Asbestos Removal Contractor (LARC) who holds a Class A removal license (Asbestos Management Plan of NSW Government Schools, NSW Department of Education. October 2020).

Table 3: Planning and Management of Intrusive Works in Capping Areas

Activity	Standards / Compliance	Hold Point	Approval Issue
Site Inductions	The school is to be made aware of this EMP and is to be managed by the school Principal Deputies. The DoE's Asset Management Unit (AMU) is to provide a copy of the EMP and a copy of the asbestos management plan (AMP) prepared for the site, to any contractors and subcontractors undertaking works in the capping area. Contractors and sub-contractors to be inducted to the site and made aware of this EMP and subsurface conditions expected.	All contractors and sub-contractors to provide appropriate documentation, insurances and Safe Work Method Statements (SWMS) to the Site Owner (DoE).	Record of Inductions
Planning subsurface works	No excavation works are to commence without approval from the DoE. Contractors working within potentially contaminated areas must either hold a WorkCover NSW asbestos removal licence (Class A minimum- as per the DoE AMP guidelines) or subcontract an asbestos licenced contractor. Contractors not holding asbestos removal license are to be supervised at all times by the asbestos licenced contractor, suitably qualified consultant and undertake asbestos awareness training. Earthworks contractors and project managers to undertake the works to provide evidence of their Safework NSW asbestos removal licence (Class A minimum) and notification of intent to disturb remove non friable asbestos.	An approvals process to include review and approval of contractors proposed excavation works plan by the consent authority and/or their appointed suitably qualified consultant. Approval of an excavation works plan requires ensuring that all controls are included in the contractor's excavation works plan.	Approval to commence works from site manager, occupier and/or owner (DoE) to contractors performing civil works.
Monitoring and Supervision	DoE to engage a qualified occupational hygienist or Licenced Asbestos Assessor (LAA) or suitably qualified contaminated land consultant to manage progress and completion of any excavation works. Includes ensuring that all controls are implemented and	Suitably qualified consultant/Hygienist to prepare asbestos clearance reports on completion of each stage of civil works or maintenance and/or reinstatement works. Site manager (DoE) to approve and	Site owner (DoE) approvals and works as executed reports and validation reports to be provided to the site owner (DoE) and/or regulating authority.

Table 3: Planning and Management of Intrusive Works in Capping Areas			
Activity	**Standards / Compliance**	**Hold Point**	**Approval Issue**
	inspection of marker layer, capping layer, topsoil layer and vegetation/mulch reinstatement.	document all completed rectification works. The consultant should provide validation reports including details of excavation works, sample analysis results, waste classification and materials used in backfilling/reinstatement.	
Notifications / Approvals for Major Construction works or site redevelopment works	Should works, more than minor in nature (for example installing new underground services), or where excavation to a depth greater than 0.5 mbgl is required, the works are to be reviewed and approved by Site owner (DoE) prior commencement and preparation of Asbestos Management Plan (AMP) is required (refer to Section 7.7). Any works in the capping area is to be approved by the DoE and a copy of the EMP provided Works are to be approved by Site owner (DoE) and Other Consent Authority (City of Sydney/ Department of Planning) and submitted to City of Sydney for development consent. If possible, exclude any penetration of capping layer at design stage.	Review of concept design, detailed design and site works management plan by a qualified engineer and suitably qualified consultant. Monitoring of civil works and capping layer reinstatement upon completion by a suitably qualified consultant.	Site manager (DoE) approvals and works as executed reports to be provided to the site owner (DoE) and/or regulating authority.

4.5 Generalised Landscaping Works & Minor Works

Minor works comprise activities that only require disturbance at surface to depths of 0.2 metres below ground surface. Examples include:

- Pavement surface maintenance.
  - Filling in of cracks;
  - Patching of holes; and
  - Small scale replacement of sections of pavement where sub-surface at depths greater than 0.2 m are not required to be disturbed.
- Minor landscaping works.
  - Mowing of grassed areas -Raking or placing of additional growing medium on top of existing growing mediums;
  - removal of surface weeds or similar Internal or External Building façade works;
  - Mulch replenishment;
  - Painting, pointing, plastering; and
  - Internal fit outs aboveground only.

Minor landscaping works does not include:

- Planting or any similar landscaping activity that requires excavation into the growing medium or sub-surface at depths greater than 0.2 m;
- Maintenance of the groundwater/seepage collection system; and

- Maintenance of underground utilities.

All casual landscaping activities are to be restricted to the areas above the marker layer less than 0.2 m below ground level (BGL) in the outdoor landscaped capped areas (*Figures 2 to 7)* Landscaping activities below the marker layer are prohibited. Plants with short roots should be planted within the landscaping areas to avoid any potential damage to the existing marker layer. This Long-Term EMP must be read, understood and followed by any person prior to undertaking landscaping works.

The following control measures for minor works are required:

- No eating, drinking, smoking; avoid contact with soil (wear gloves);
- Wash hands and clothes after work and before eating or smoking;
- A half–face respirator (fitted with organic cartridges) or dust-masks must be available for use at the Site in the event that significant odours or dust is generated during the works;
- Dust generation should be controlled by dampening the materials; and
- Where the integrity of surface coverings has been compromised such that the required repairs are considered to be Minor Works, an exclusion zone must be established around the impacted area to preclude exposure to the subsurface by users of the site until such time that repairs can be completed. The exclusion zone is to establish by using physical barriers such as bollards, cones, tape or mesh. Timeframes in which the repairs that are classified as Minor Works are required to be completed are provided in Section 4.2 of this EMP.

4.6 Management of Subsurface/Excavation Works

In addition to *Section 5.3* (Regulations/Guidelines) and *Table 3* above, all works with potential to disturb the contaminated soil below the marker layer are to be carried out in accordance with:

- The NSW Work Health & Safety Regulation 2017;
- Code of Practice - How to Safely Remove Asbestos (NSW Government, 2019); and
- Code of Practice: How to Manage and Control Asbestos in the Workplace (NSW Government, 2019).

An asbestos management Plan (AMP) should be prepared by a licensed asbestos assessor (LAA)/consultant for any excavation works below the capping layer. Additional details are provided in Section 4.7.

The following protocols are to be adopted when carrying out any works below the engineered capping layer. The capping layer is to be reinstated at the completion on of any subsurface works, as per the capping layer specifications as detailed in Table 5 below.

Prior to the commencement of subsurface works, personnel being employed to undertake any intrusive works above the marker layer must develop a specific Safe Work Method Statement (SWMS) which adequately manages the potential for exposure to asbestos contaminated soils. In accordance with Clause 458 of the *Work Health and Safety Regulation 2017*(NSW), Class B asbestos removal licence holders are permitted to conduct asbestos removal work or asbestos-related work that involves non-friable asbestos. However, as a requirement of the Department of Education Asbestos Management Plan, Asbestos related works are to be supervised by a Licenced Asbestos Removal Contractor (LARC) whom holds a Class A removal license.

Table 4 summarises Capping Layer Methods implemented during remediation. Refer to Figures 8 to 16 showing the section for the various types of surface cover across the site.

Table 4: Remediation Capping Layer Methods

Management Area	Remediation Solution
Basketball Court	• Orange geotextile fabric marker layer placed over the contaminated fill;

Table 4: Remediation Capping Layer Methods	
Management Area	**Remediation Solution**
	• 300mm of aggregates placed on the marker layer; and • 50-100 mm of asphalt surface paving.
Garden Bed and Synthetic grass areas on the East side of the Basketball Court	1) Garden Bed: Comprised of the following layers: a. Orange geotextile fabric Marker Layer b. 50-100 mm Road base, c. 300 -400 mm of VENM soil d. 50 mm mulch e. Plants 2) AstroTurf: Comprised of the following layers: a. Orange geotextile fabric Marker layer b. 300 mm Road base c. 40 mm AstroTurf
Tree Protection Zone (TPZ)	50-150 mm of mulch or loose rock used on top of the marker layer (orange geofabric), below a wood decking. The wood decking to incorporate sufficient access points and/or use of removable boards to allow top up of mulch layer when required
Service/Utility Trenches	1) Trenches Outside Buildings Footprint Capping a. Orange geotextile fabric Marker Layer to cover the base and walls of the trench excavation and across the ground surface between trenches b. VENM/validated sand and gravel aggregates for trenches backfill and depth varies pending on type of service c. Orange geotextile fabric marker layer above backfilled service trenches d. Final Caping Layer ○ Gardens: 500 mm approved/certified VENM soil ○ Soft-fall or pavements: 300 mm approved/certified VENM soil 2) Trenches Underneath Buildings Footprint Capping • ; • Geofabric marker layer above backfilled service trenches; • Void space: 50-100mm; and • 200 mm concrete lab.
Structures and New Block D Building Concrete Floor	• Orange geotextile fabric marker layer • 50 mm base course/subgrade layer • 180 mm concrete floor slab
Landscaping Areas	• Orange geotextile fabric marker layer • Final Caping Layer ○ Gardens: 500 mm approved/certified VENM soil ○ Soft-fall or concrete pathways: 300 mm approved/certified VENM soil
Handball court area	• Orange geotextile fabric marker layer; • 180 mm concrete floor slab; and • 120 mm base course/subgrade layer.

4.7 Asbestos Management Plans (AMP) & Excavation Management Controls

Preparation of a project specific Asbestos Management Plan (AMP) is required for each episode of works in the future, in compliance with Safework NSW 2019 and the DoE AMP (2020). The following controls are required to be covered by each works project specific AMP in the future, to reduce the risk of direct exposure to, and prevent cross contamination of contaminated residual soils during

proposed future excavation works. The requirements of the DoE AMP are also to be recognised, including permissible work hours.

- Given the nature of the site use (Public School), works should be conducted outside of general business hours (Monday to Friday: 8am to 5 pm) in order to reduce potential exposure to encapsulated Asbestos Containing Material;
- Exclusion zone fencing will be applied between work areas and publicly accessible or operational school areas prior to undertaking any excavation on-site. Exclusion zone should be established with minimum 5 m buffer distance to publicly accessible areas and operational sections of school (where practical);
- Appropriate personal protective equipment (respirators, gloves, overalls) is to be worn by excavation workers as defined by the AMP;
- Dust suppression mechanisms and air monitoring undertaken by a Licensed Asbestos Assessor (LAA) are to be implemented during excavation works ensure air monitoring is in place during any activities that have a potential to disturb fill below the marker layer; air monitoring thresholds and monitoring locations to be covered in the AMP;
- Establishment of exclusion zones: The boundaries of the asbestos remediation areas are to be established with barriers, to identify the ACM areas and caution access by unauthorised / unprotected persons. Sufficient warning signs (e.g. asbestos removal in progress) erected at regular intervals around the boundary of these exclusion zones. All works are to be monitored and supervised by a suitably qualified environmental consultant;
- Segregation of excavated materials (mulch, topsoil and contaminated soil), placement on plastic sheeting until use as backfill or off-site disposal as classified waste - All excavated materials/ stockpiles are to be placed on plastic sheeting (200µm builders polythene or other synthetic barrier membrane material), with erosion and perimeter sediment controls to prevent contamination of ground surface layer soils (topsoil). Stockpiles are to be securely covered with plastic sheeting during inclement weather or if they remain in place for more than 1 day prior to off-site disposal (as Special Waste);
- Footprint of temporary stockpiles and their surroundings will be validated by a suitably qualified environmental consultant; and
- Off-site Disposal: Waste disposal documentation should be provided to the site owner (DoE) / consent authority for all excavated material removed from the site. Waste tracking and disposal documentation should demonstrate that disposal of all soil from the site is carried out in accordance with the NSW *Waste Classification Guidelines* 2014 and that materials were transported to an appropriately licensed landfill.

4.8 Instructions to Avoid Cross Contamination During Excavation

Prior to undertaking any earthworks at the capping area (See **Figures 2 to 7**); the following steps, which are necessary to avoid cross-contamination of clean soils used in capping, and must be (together with items detailed under **Section 4.7** and **4.8**) communicated with and understood by the **excavator operators and earthworks contractors** (who will be undertaking any works at the capping area):

- Excavate the clean soils (first 300-500 mm of the cap) first until the geofabric marker layer can be seen;
- Place plastic sheeting near the excavation area to cover an area large enough where all contaminated soils to be excavated can be placed;
- Remove the exposed marker layer and neatly excavate contaminated soils (without allowing it to mix with clean soils) and place on top of the above-mentioned plastic sheet;

- Contaminated soils must not be mixed with clean capping material;
- Contaminated soil stockpiles to be placed on and be covered with plastic sheeting to avoid cross contamination; and
- It is contractor's responsibility to ensure, after their work is finished, no contaminated soils remain on the top 300 mm for soft-fall capped areas and 500 mm for garden capped areas or anywhere around their work area.

4.9 Unexpected Finds on Site

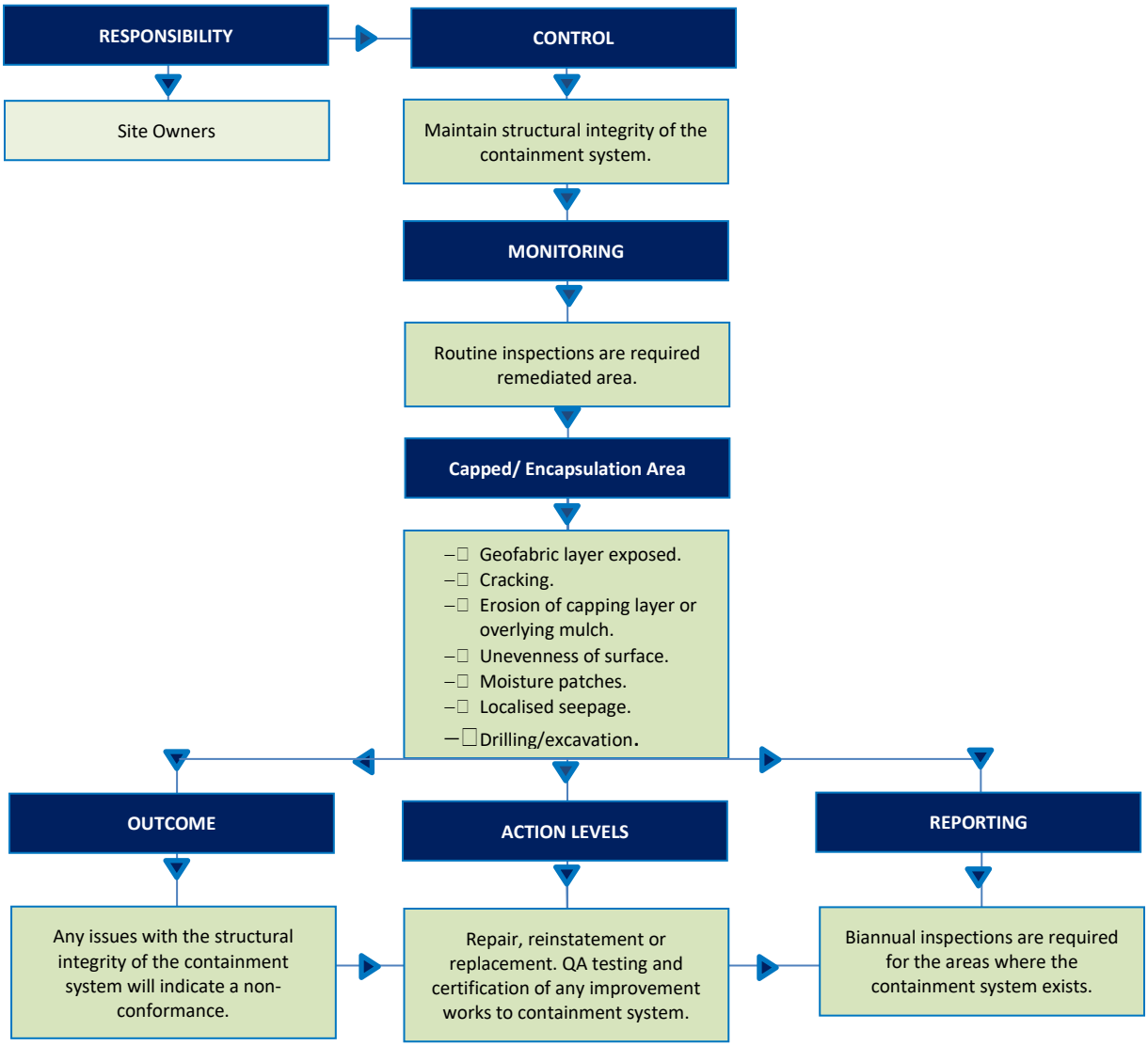
Any potential ACMs encountered on the ground should be managed as follows:

- Stop work, inform the site manager (site manager will inform school's principal and DoE within 24 hrs after they are aware of an unexpected finds situation);
- Barricade the area from the remaining work site and attach warning signs;
- Keep the area moist with water sprays (if Asbestos Containing Materials);
- Engage a suitably qualified consultant to carry out an assessment of the area to determine the nature and extent of contamination (e.g. if friable asbestos is present, including in soils near observed asbestos material);
- A remediation and validation plan is to be developed by the suitably qualified consultant;
- Asbestos materials, if identified, must be managed in accordance with the Code of Practice How to Manage and Control Asbestos in the Workplace (NSW Government 2019) and Code of Practice How to Safely Remove Asbestos (NSW Government 2019) and requirements;
- Should visual or olfactory indicators of contamination (e.g. staining of soils, hydrocarbon odours, buried drums or buried waste material), the consultant will collect chemical samples to be tested for the relevant contaminants of concern;
  - Suitably qualified consultant to adopt a sampling density & methodology by using professional judgment with reference to relevant guidelines (inc. NEPM 2013) (a minimum of 3 samples will be collected per unexpected find) and decide on an appropriate chemical suite (minimum chemical suite will be: Total recoverable hydrocarbons (TRH), benzene, toluene, ethyl-benzene xylene, and naphthalene (BTEXN), polycyclic-aromatic hydrocarbons (PAH), and heavy metals (As, Cd, Cr, Cu, Ni, Zn, Hg, Pb)); and
  - Other contamination (e.g. lead, petroleum hydrocarbons, PAH, heavy metals), if identified requires assessment of results against relevant threshold criteria. Should exceedances identified suitably qualified consultant to advise if further investigation or remediation is required. Remediation of material that exceeds the site criteria will include either its off-site disposal as appropriately classified waste or onsite containment.
- Management and remediation of "unexpected finds" will be performed under the supervision of the environmental consultant, (and the asbestos removal contractor and in accordance with SafeWork NSW requirements, for ACM, FA and AF). Monitoring for asbestos fibres in accordance with the Guidance Note on the Membrane;
- Filter Method for Estimating Airborne Asbestos Fibres (NOHSC 2005) will be required during any disturbance of asbestos contaminated materials;
- Asbestos and asbestos contaminated material removed from site must be disposed as a Special Waste to an appropriately licensed landfill;
- A validation report is to be prepared by a suitably qualified consultant and issued for the site upon completion of the remedial works; and
- A suitably qualified consultant is to issue clearance certificates for ACM remediated areas.

4.10 General Ongoing Management Roles and Responsibilities

As a minimum requirement, bi-annual visual inspections of the area of capping should be conducted and are the responsibility of the site owner (DoE). Inspections are to focus on the assessment of potential issues that may hinder the structural integrity of the cap with examples provided in *Chart 1*: Schematic Summary.

Chart 1: Schematic Summary



5 Communications and Notifications of Contamination Contained Onsite

5.1 Stake Holders, Roles and Responsibilities

The roles and responsibilities of the following stakeholders are included in this Long-Term EMP:

- Darlington Public School (site manager);
- NSW Department of Education (Site Owner: DoE Schools Infrastructure/Asset Management Unit);
- The Consent Authority (City of Sydney and/or NSW Department of Planning); and
- Contractors and Consultants (including architects/designers) involved in site development works.

Full details concerning stakeholder responsibilities are included in **Section 4.1** above.

Contaminated soils pose a risk to construction and maintenance workers and other site occupants if exposed. Control measures will be appropriately planned and implemented by all stakeholders involved in future works that disturb or have potential to disturb the contaminated soil contained onsite.

A decision process flow chart including stakeholder decision steps can be developed for inclusion in this EMP. The decision process and hierarchy of stakeholders involved will depend on DoE preferences and requires input from the DoE.

5.2 Notifications of Contamination Contained Onsite

The on-site contamination containment system and existence of this Long-Term EMP site management document requires a notification system to be carried out by the site owner including:

- Registration on the Councils Planning System (Section 10.7 certificate documents) issued by Council; and
- The site's asbestos register.

Asbestos and additional contamination poses a risk to construction and maintenance workers and other site occupants if exposed. Control measures will be appropriately implemented for future works that disturb or have potential to disturb the contamination contained onsite.

This Long-Term EMP is to be made available to site owners, managers, school's principal, contractors and site workers and any other relevant persons. All relevant personnel at the site should be made aware of the presence of the contaminated soil and the need to ensure it remains undisturbed.

Diagrams showing the location of the capped areas are included in the *Figures* section of this report (See Figure 2 to 7).

5.3 NSW Legislation and Regulations

This section lists laws and regulations indicating responsibilities and options for enforcement of this Environmental Management Plan.

5.3.1 NSW Legislation and Regulations POEO Act, 1997/POEO Act (Waste) Regulation, 2005

The Protection of the Environment Operations Act 1997 (POEO Act) is a key piece of environment protection legislation administered by NSW EPA. The POEO Act provides a single integrated system of licensing to control the air, noise, water and waste impacts of an activity, with the purpose of protecting the environment. The NSW EPA is the regulatory authority for the licensing of activities specified under Schedule 1 of the POEO Act (scheduled activities) and in most cases councils are the regulatory authority for non-scheduled activities. General requirements under the POEO Act, relating to the ACM containment area are incorporated into the appropriate sections of this EMP.

5.3.2 Contaminated Land Management Act 1997

In NSW, the management of contaminated land is shared by the EPA, the Department of Planning (DoP) and planning consent authorities (usually local councils). The Contaminated Land Management Act 1997 (CLM Act) is the primary Act under which contaminated land is regulated in NSW. Under the CLM Act, EPA regulates contaminated sites where the contamination is determined to be Significant Enough to Warrant Regulation (SEWR). Contaminated sites that are not regulated by the EPA are managed by local councils through land use planning processes.

This Long-Term EMP is prepared in general accordance with guidance documents endorsed by NSW EPA under Section 105 of the CLM Act. The primary references under the Act include:

- NSW EPA (January 2022), Preparing environmental management plans for contaminated land: Practice Note;
- NSW EPA – Guidelines for the NSW Site Auditor Scheme (3rd Edition), 2017;
- NEPC NEPM 1999 National Environment Protection (Assessment of Site Contamination) Amendment Measure (2013 amendment);
- Consultants Reporting on Contaminated Land - Contaminated Land Guidelines (NSW EPA 2020);
- WA Department of Health – Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, 2021; and
- Guidelines for the Assessment of On-site Containment of Contaminated Soil (ANZECC 1999).

5.3.3 Work Health and Safety Act 2011 and Work Health and Safety Regulation 2017

The WHS Act 2011 and WHS Regulation 2017 expand the duty of care for work health and safety to all persons who conduct a business or undertaking.

- Requirements relevant to the capped area under the WHS regulation are to be implemented by the Site owner (Department of Education). In accordance with the Regulation, an asbestos register that addresses the encapsulated contamination must be developed and maintained for the site. This EMP is considered to form an appropriate asbestos management plan under the register in accordance with Chapter 8 Clause 429 WHS Regulation 2017.

5.3.4 Other NSW Policies and Guidelines

Other policies and guidelines applicable to environmental management of the site include:

- SEPP (Resilience and Hazards) 2021: Remediation of Land (notification of consent authority regarding proposed intrusive works requiring reinstatement of capping layer(s));
- NSW WorkCover (2014), Managing Asbestos in or on Soil;
- Code of Practice: How to manage and control asbestos in the Workplace (NSW Government 2019);
- Code of Practice: How to Safely Remove Asbestos (NSW Government 2019); and
- NSW EPA Waste Classification Guidelines 2014.

5.4 Communications Protocol

Communication protocols should be established to inform all stakeholders of any proposed works in the capping area.

Contact details for all stakeholders should be readily available and are provided below in **Table 6**.

The specific AMP and SWMS for proposed civil works will include communications and emergency response procedures.

5.5 Emergency Procedures and Response

The responsibility for emergency procedures lies with the Principal Contractor during civil works however, the following section is an example of the type of information which can be included in the SWMS or other general emergency procedure document.

In the event that an emergency arises, a potentially dangerous situation is encountered or suspect/unknown material is identified, site work is to cease immediately and the matter reported to the Principal Contractor for immediate assessment and action.

The following procedures should be followed if site personnel are injured, suffer exposure or a condition is uncovered that has not been covered by this RAP is identified:

- Visual contact to be maintained by personnel on site;
- In the event that any site personnel experiences any adverse symptoms of exposure whilst onsite, work will be halted and instruction or assistance sought from the Principal Contractor;
- In the event of an accident, the Site Supervisor and the injured person will compile an incident report, which will be submitted to the Principal Contractor within 24 hours of the incident. Follow-up actions will be carried out to correct the situation;
- In the event that an emergency situation arises, the Site Supervisor must address the problem and notify the ambulance, fire brigade and police if necessary. In addition, the Project Manager must be notified immediately;
- To minimise the impact of an emergency situation, at least one of the Principal Contractor's site personnel working full time on site will be trained in basic first aid procedures and all field personnel will have immediate access to a first aid kit; and
- Emergency phone numbers will be made available at the commencement of the project including ambulance, fire brigade, police and the nearest hospital. Emergency services can be called on 000 in a life-threatening emergency (or 112 via mobile phone). In addition, the mobile phone numbers of the Principal Contractor, Site Supervisor and the Project Manager will be made available.

Table 5. below summarises the details of contacts relevant to this EMP.

Table 5: Contact Details

Organisation	Current Role	Responsible Person / Position	Phone no. / email
Darlington Public School	Site Occupant	School Principal	(02) 9516 2300
NSW Department of Education (Asset Management Unit)	Site Owner	To be advised	1300 42 651
City of Sydney	Regulatory Authority	To be advised	02 9265 9333
NSW EPA	Statutory Advice	To be advised	9995 5000
SafeWork NSW	Asbestos Management Advice	To be advised	131050
Consultants and Contractors	Consulting Hygienist, LAA, Licensed asbestos removal contractor	To be advised	To be advised
State Emergency Service	Emergency Management	Not applicable	(02) 4226 2444
Fire Brigade **Ambulance** **Police**	Emergency Management	Not Applicable	000 or 112 (mobile)

6 Review and Closure

The Long-Term EMP should be updated/reviewed in the following circumstances (if necessary):

- Subsequent to significant environmental incidents, such as a major breach in the capping layer; In the event of an unprecedented environmental incident, the site owner (DoE) will be required to commission an appropriate environmental professional agency to review and amend the Long-Term EMP and ensure its conformance with statutory or regulatory instruments;
- Where maintenance of the Long-Term EMP has indicated a need to improve performance in an identified area of environmental impact;
- At the release of any major updates to local or national pertinent legislation and/or guidance documentation;
- At the completion of internal and/or external environmental audits;
- At the completion of Site Inspection Reports; and
- At the completion of works which could have disturbed the capping layer.

Note: The EMP must remain in force until it can be demonstrated to no longer be required to the satisfaction of a NSW EPA accredited site auditor.

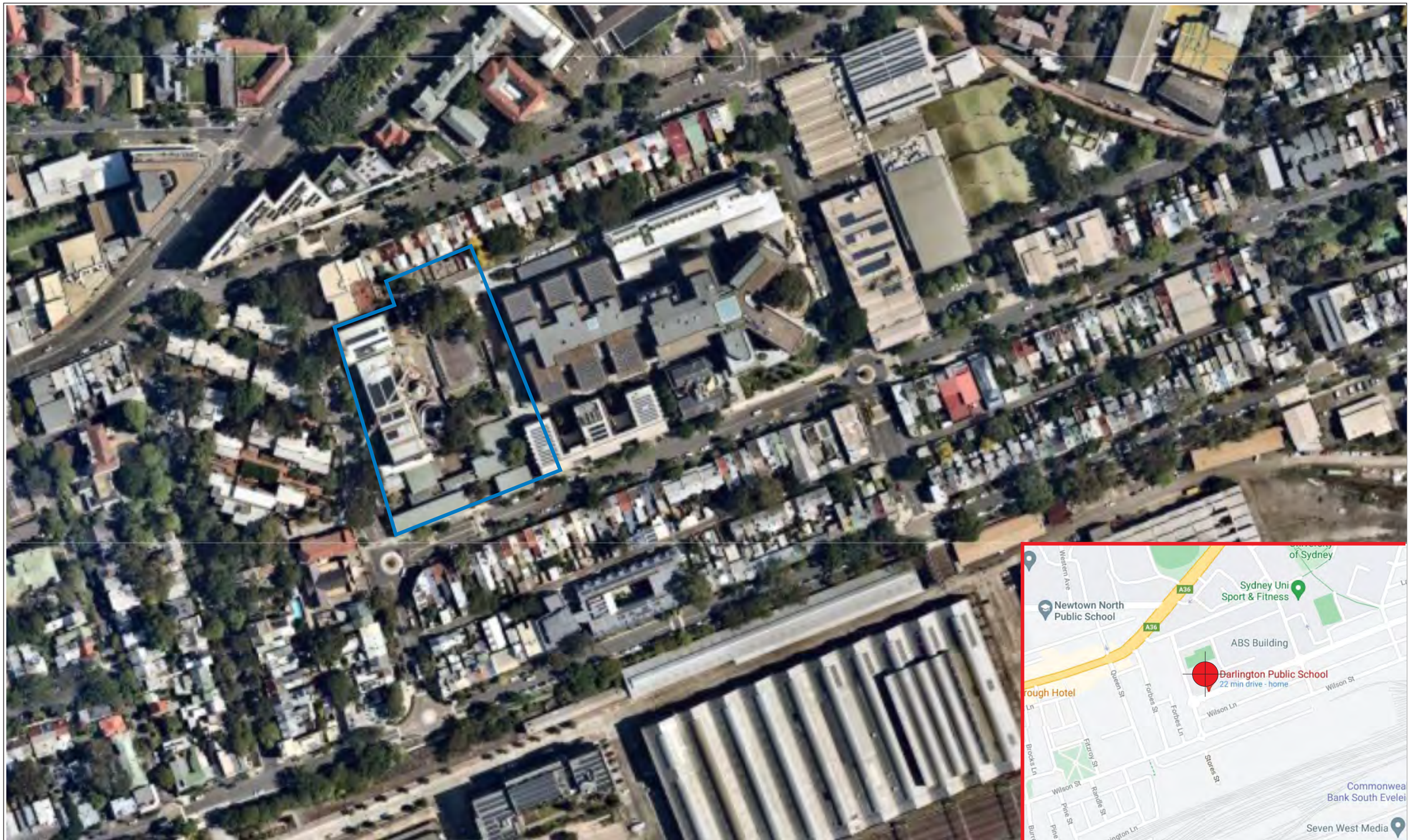
June 2024

Environmental Management Plan

A.W. Edwards Pty Ltd

Darlington Public School

Figures



Legend:

- Site Location
- Darlington Public School Bounary

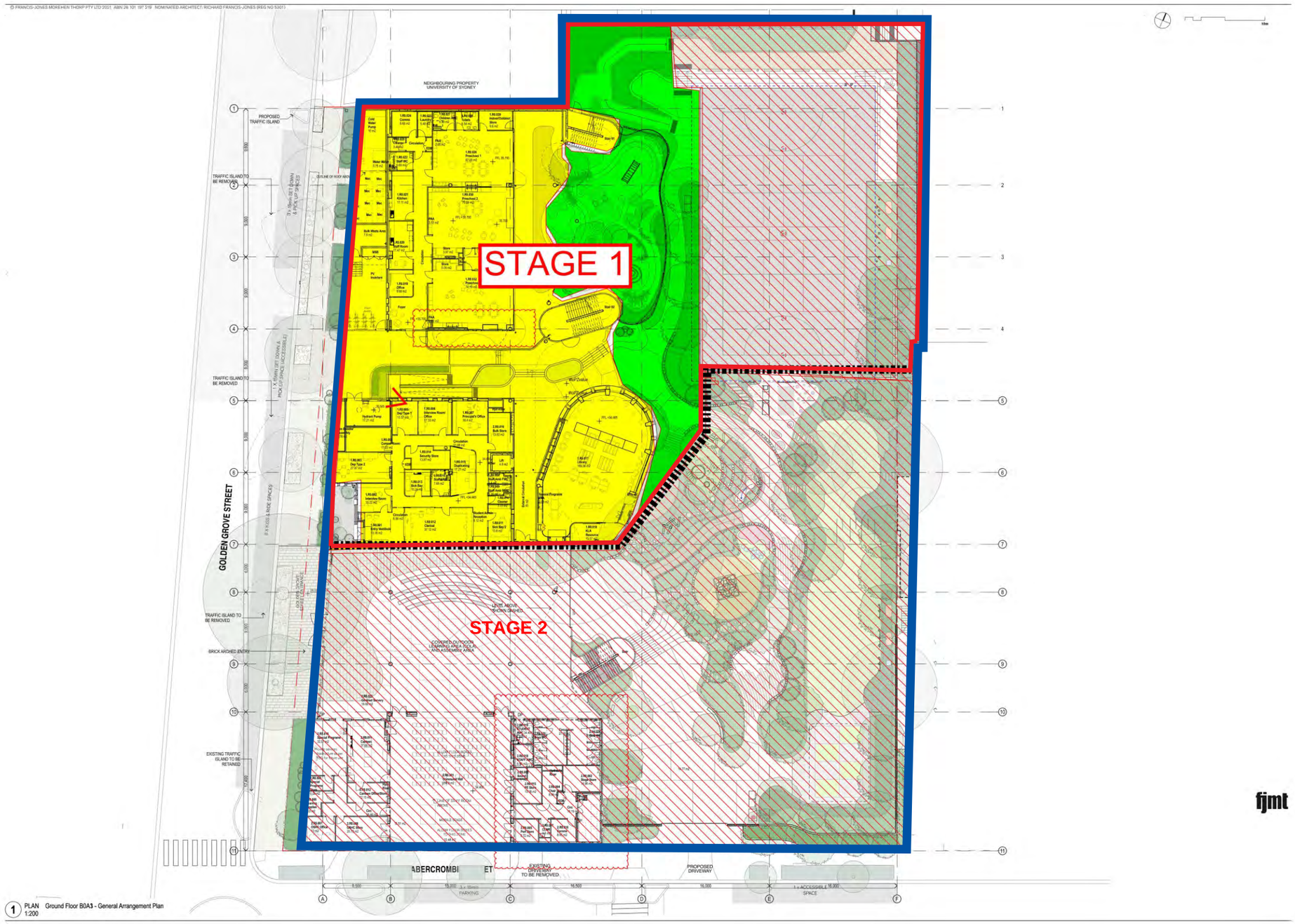
Metres

0 25 50 75 100

GREENCAP
Going Further in Managing Risk

GF, North Building,
22 Giffnock Av.
Macquarie Park NSW 2113

Client Name:	AW Edwards Pty Ltd				
Client Number:	C1207251	Project Number: J169905			
Project Description:	Darlington PS LT-EMP				
Address:	417 Abercrombie St, Darlington NSW 2008				
Prepared: TM	Reviewed: AG	Date: 28/06/23			
Figure 1	Site Location				



1 PLAN Ground Floor B0A3 - General Arrangement Plan
1:200

fjmt

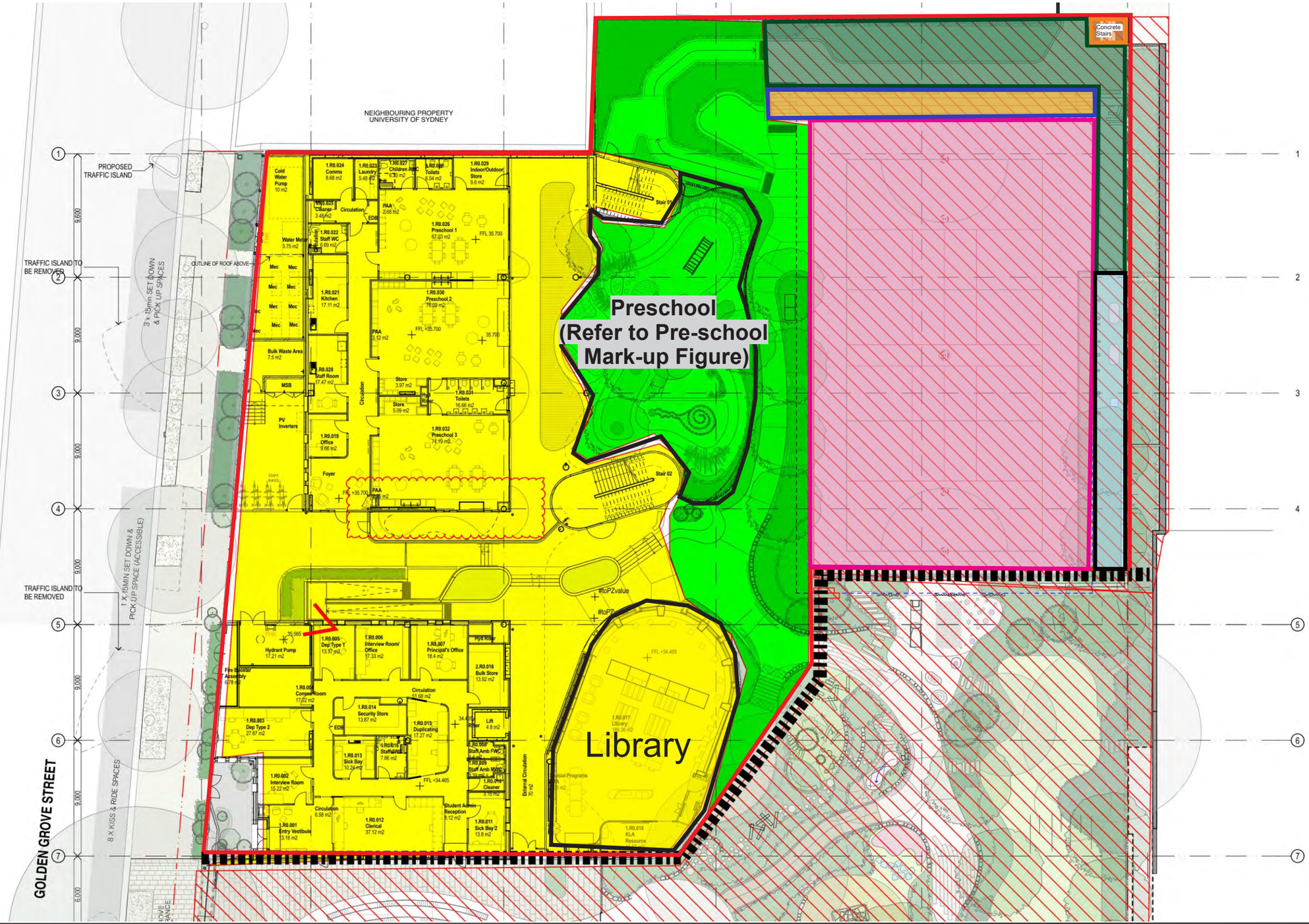
Legend:

- Darlington Public School Boundary
- Stage 1 Site Boundary

GREENCAP
Going Further in Managing Risk

GF, North Building,
22 Giffnock Av.
Macquarie Park NSW 2113

Client Name:	AW Edwards Pty Ltd				
Client Number:	C1207251	Project Number: J169905			
Project Description:	Darlington PS LT-EMP				
Address:	417 Abercrombie St, Darlington NSW 2008				
Prepared:	TM	Reviewed:	AG	Date: 28/06/23	
Figure 2	Stage 1 Site Boundary (provided by the client)				



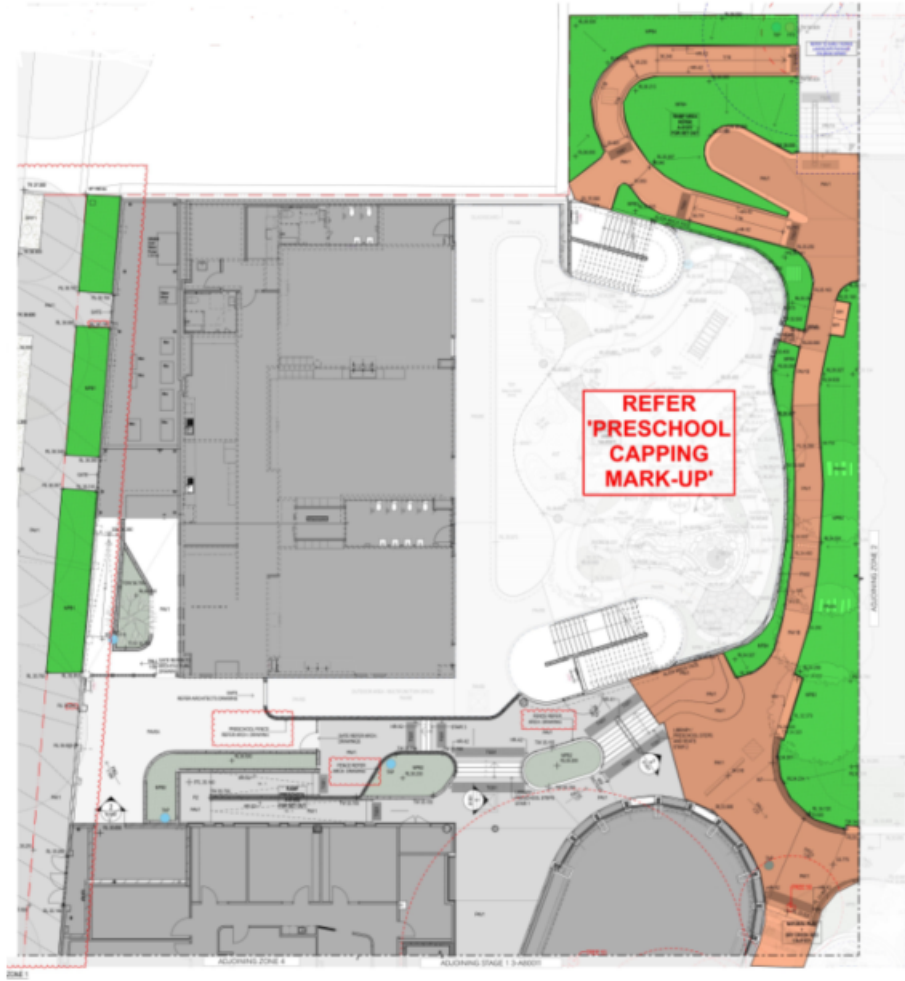
Legend:

- Stage 1 Site Validation Boundary
- Ashphalt Pavement Capping
- Outdoor Landscaping Capping
- Building Floor Slab Capping (Concrete)
- Tree Protection Zone Deck
- Concrete Benches and Pathway
- New Landscaping, Grass & Garden Area
- Concrete Stairs

GREENCAP
Going Further in Managing Risk

GF, North Building,
22 Giffnock Av.
Macquarie Park NSW 2113

Client Name:	AW Edwards Pty Ltd			
Client Number:	C1207251	Project Number:	J169905	
Project Description:	Darlington PS LT-EMP			
Address:	417 Abercrombie St, Darlington NSW 2008			
Prepared:	TM	Reviewed:	AG	Date: 28/06/23
Figure 3	Stage 1 Capping Layer Variations			



Legend:

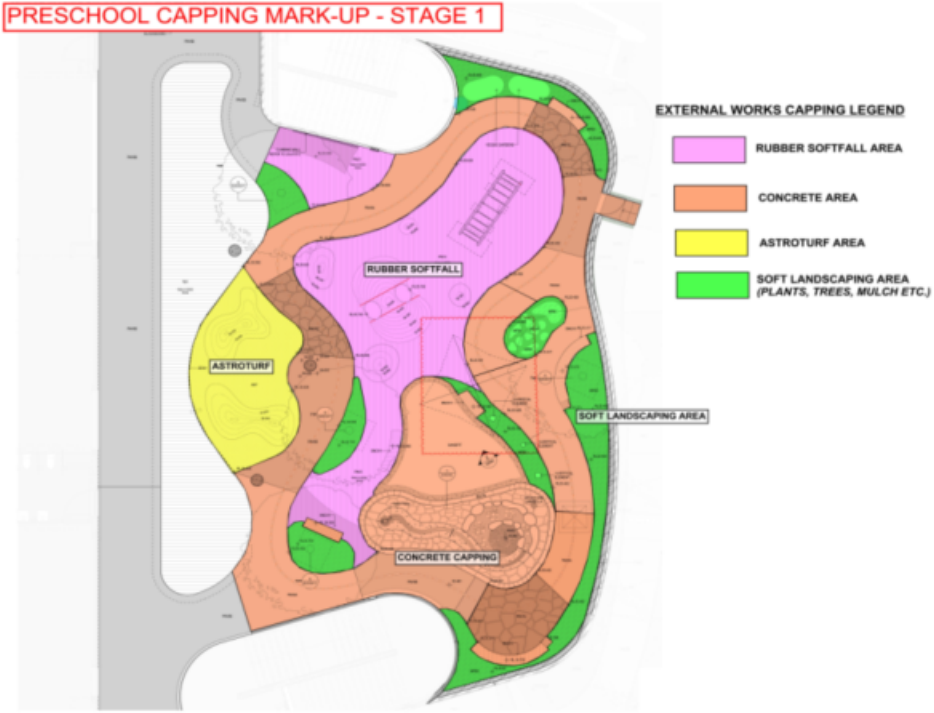
- Rubber Softfall Area
- Concrete Area
- Astroturf Area
- Soft Landscaping area (Plants, Trees, Mulch etc)
- Timber Composite Deck

GREENCAP
Going Further in Managing Risk

Level 1 / 677 High Street
Kew East VIC 3102
Australia
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	AW Edwards Pty Ltd				
Client Number:	C1207251	Project Number:	J169905		
Project Description:	Darlington PS LTEMP				
Address:	417 Abercrombie St, Darlington NSW 2008				
Prepared:	DF	Reviewed:	AG	Version Date:	19/06/2023
Figure 4A	Stage 1 Capping layers				

PRESCHOOL CAPPING MARK-UP - STAGE 1



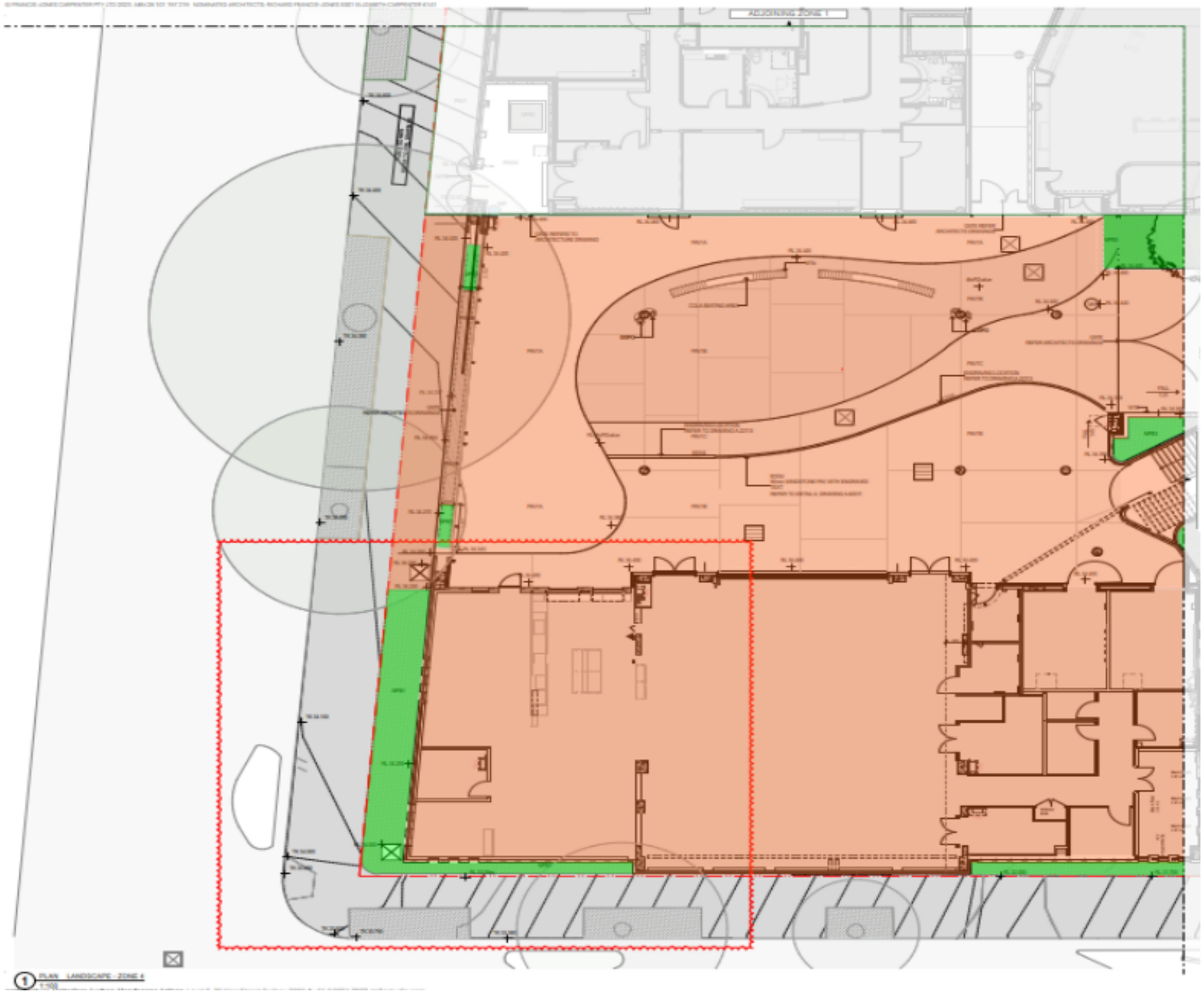
Legend:

- Rubber Softfall Area
- Concrete Area
- Astroturf Area
- Soft Landscaping area (Plants, Trees, Mulch etc)

GREENCAP
Going Further in Managing Risk

Level 1 / 677 High Street
Kew East VIC 3102
Australia
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	AW Edwards Pty Ltd				
Client Number:	C1207251	Project Number:	J169905		
Project Description:	Darlington PS LTEMP				
Address:	417 Abercrombie St, Darlington NSW 2008				
Prepared:	TM	Reviewed:	AG	Version Date:	21/06/2023
Figure 4B	Stage 1 Capping layers				



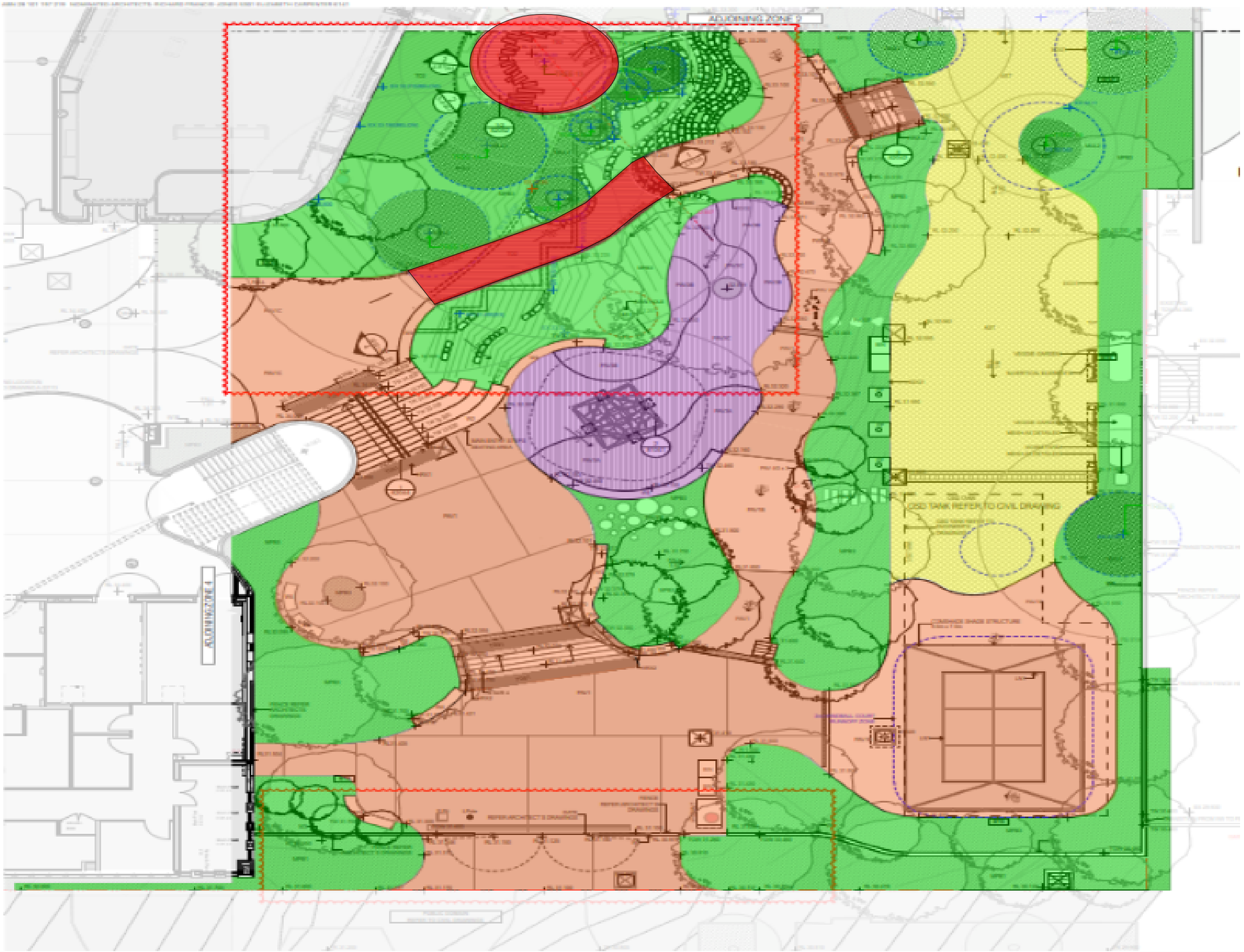
Legend:

- Building /Undercover Concrete Area
- Soft Landscaping Area (Plants, Trees, Mulch etc)

GREENCAP
Going Further in Managing Risk

Level 1 / 677 High Street
Kew East VIC 3102
Australia
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	AW Edwards Pty Ltd				
Client Number:	C1207251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	417 Abercrombie St, Darlington NSW 2008				
Prepared:	DF	Reviewed:	AG	Version Date:	28/06/2023
Figure 5	Stage 2 Capping Layers (Western portion of the site)				



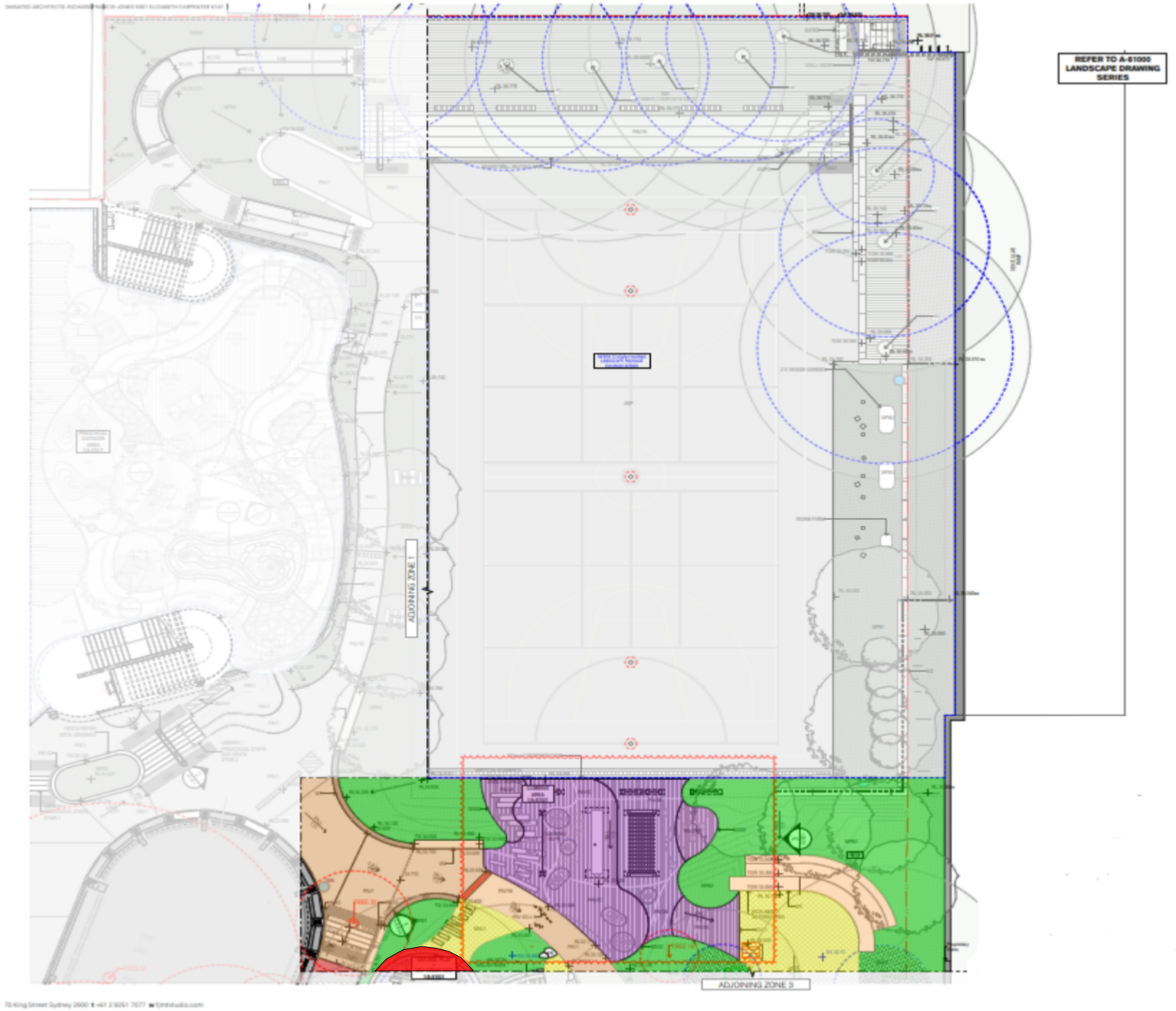
Legend:

- Rubber Softfall Area
- Concrete Area
- Astroturf Area
- Soft Landscaping area (Plants, Trees, Mulch etc)
- Timber Composite Deck

GREENCAP
Going Further in Managing Risk

Level 1 / 677 High Street
Kew East VIC 3102
Australia
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	AW Edwards Pty Ltd				
Client Number:	C1207251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	417 Abercrombie St, Darlington NSW 2008				
Prepared:	DF	Reviewed:	AG	Version Date:	28/06/2023
Figure 6	Stage 2 Capping layers (Eastern portion of the site)				



Legend:

- Rubber Softfall Area
- Concrete Area
- Astroturf Area
- Soft Landscaping area (Plants, Trees, Mulch etc)
- Timber Composite Deck

GREENCAP
Going Further in Managing Risk

Level 1 / 677 High Street
Kew East VIC 3102
Australia
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	AW Edwards Pty Ltd				
Client Number:	C1207251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	417 Abercrombie St, Darlington NSW 2008				
Prepared:	DF	Reviewed:	AG	Version Date:	28/06/2023
Figure 7	tage 2 Capping layers (Eastern portion of the site)				

50 -100 mm

Minimum 300mm

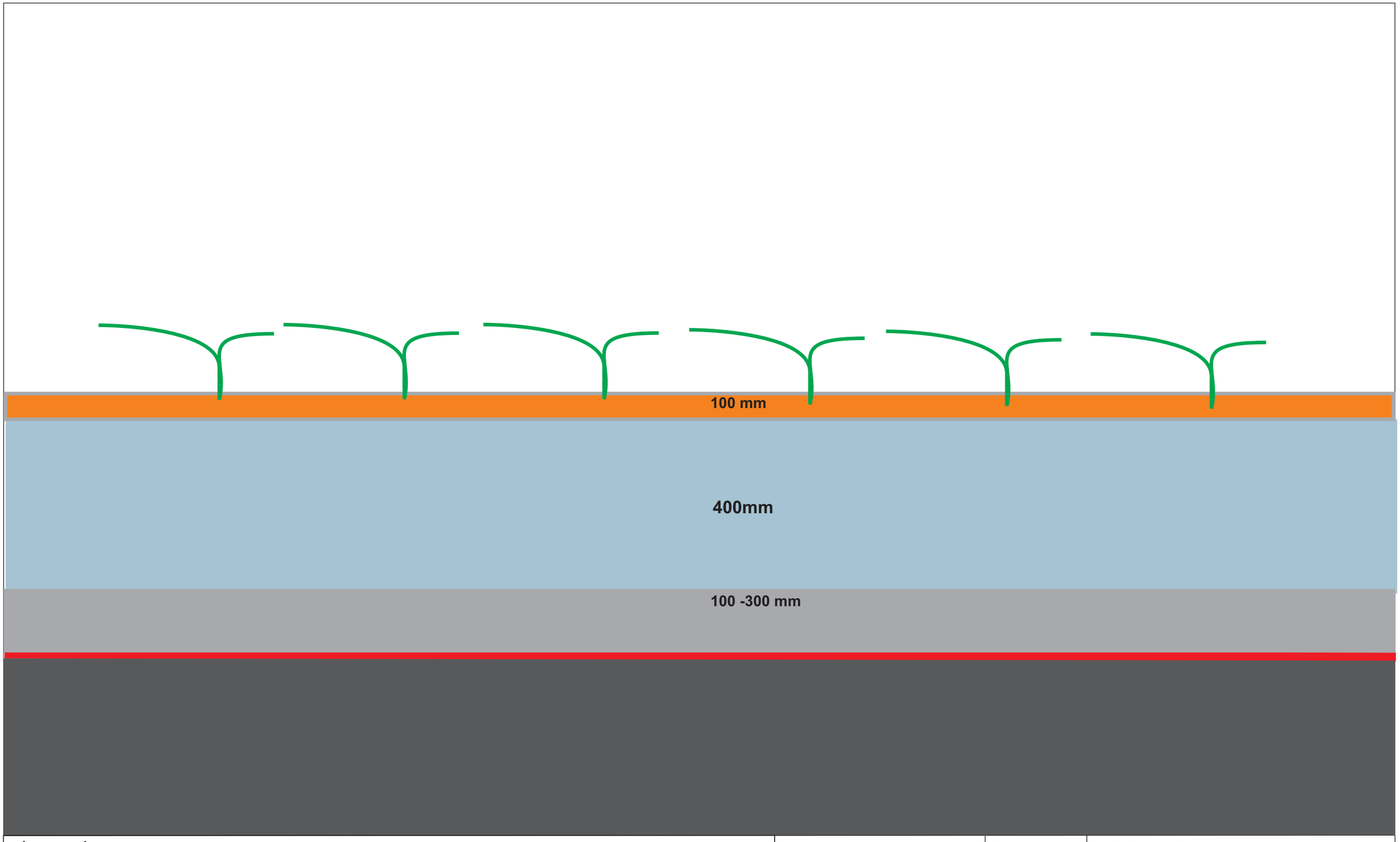
Legend:

- Asphalt
- Aggregates
- Non-Woven Geofabric Marker Layer
- Contaminated Fill

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 8	Remediation Area - Basketball Court				



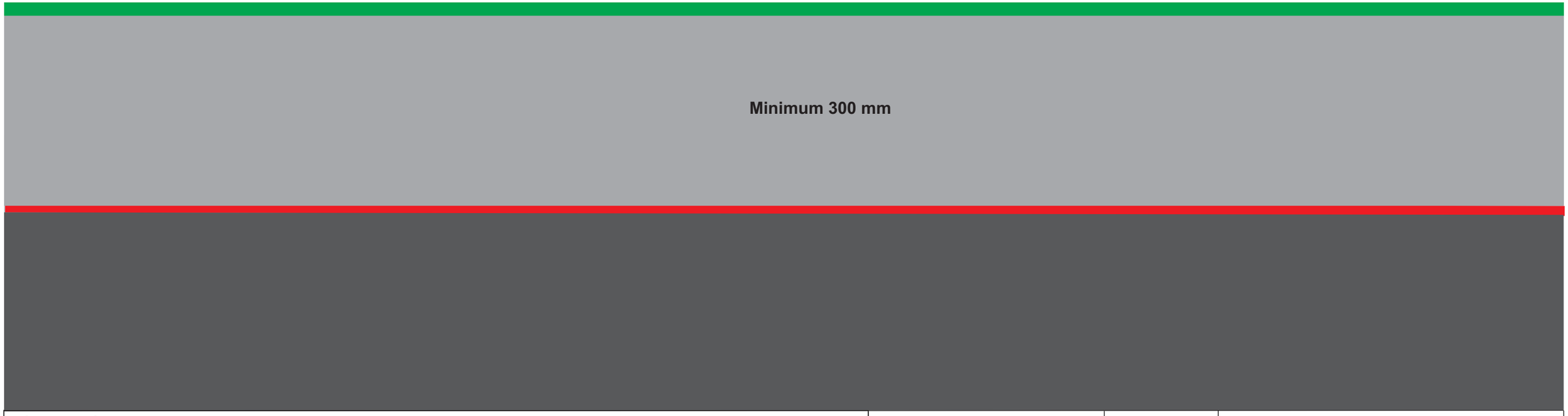
Legend:

- Road Base/Aggregates
- VENM
- Non-Woven Geofabric Marker Layer
- Contaminated Fill
- Mulch
- Plants

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 9	Remediation Area - Garden Bed Area on the east side BB Court				



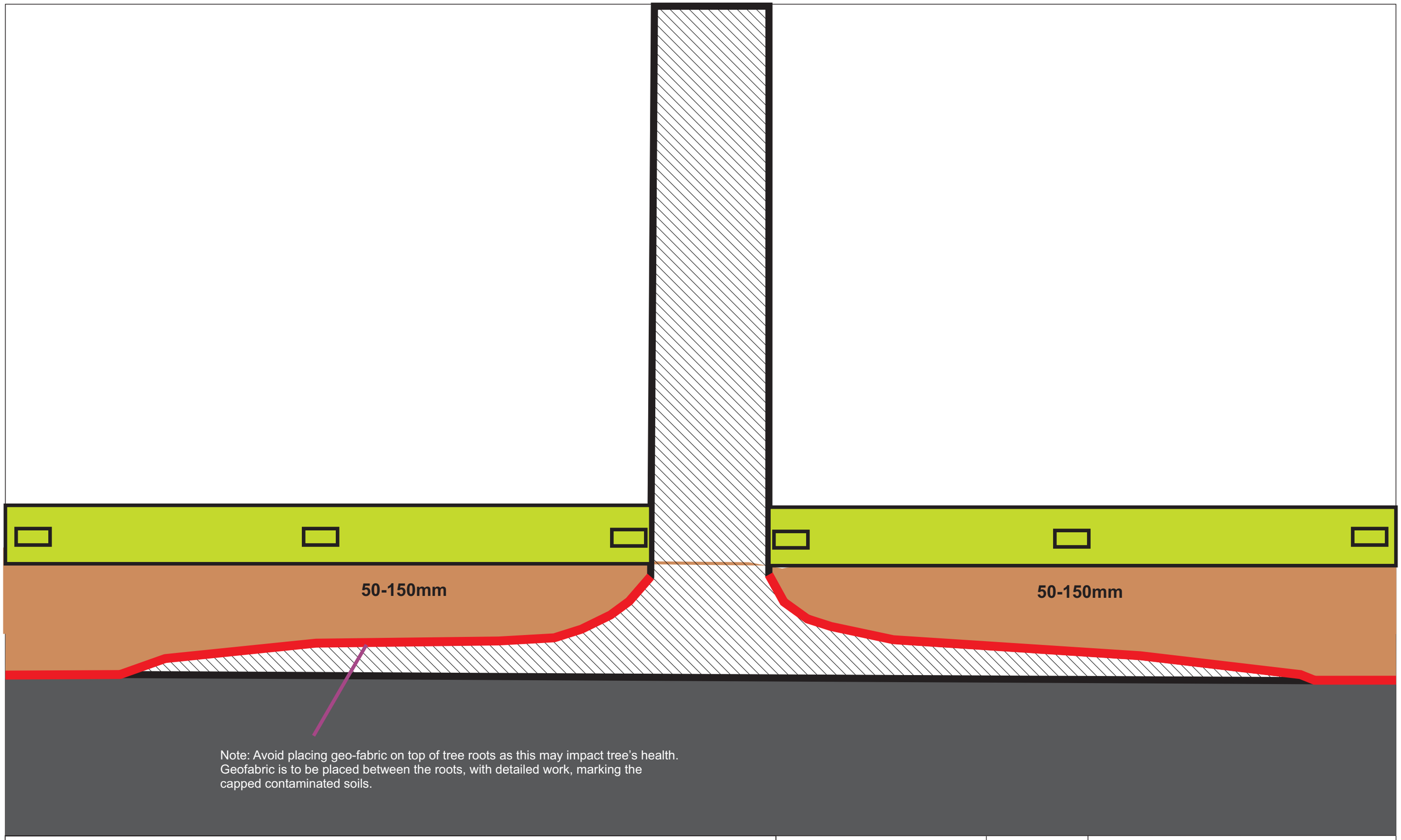
Legend:

- Astroturf Layer
- Road Base/Aggregates
- Non-Woven Geofabric Marker Layer
- Contaminated Fill

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlintgon PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 10	Remediation Area - Astroturf on the east side BB Court				



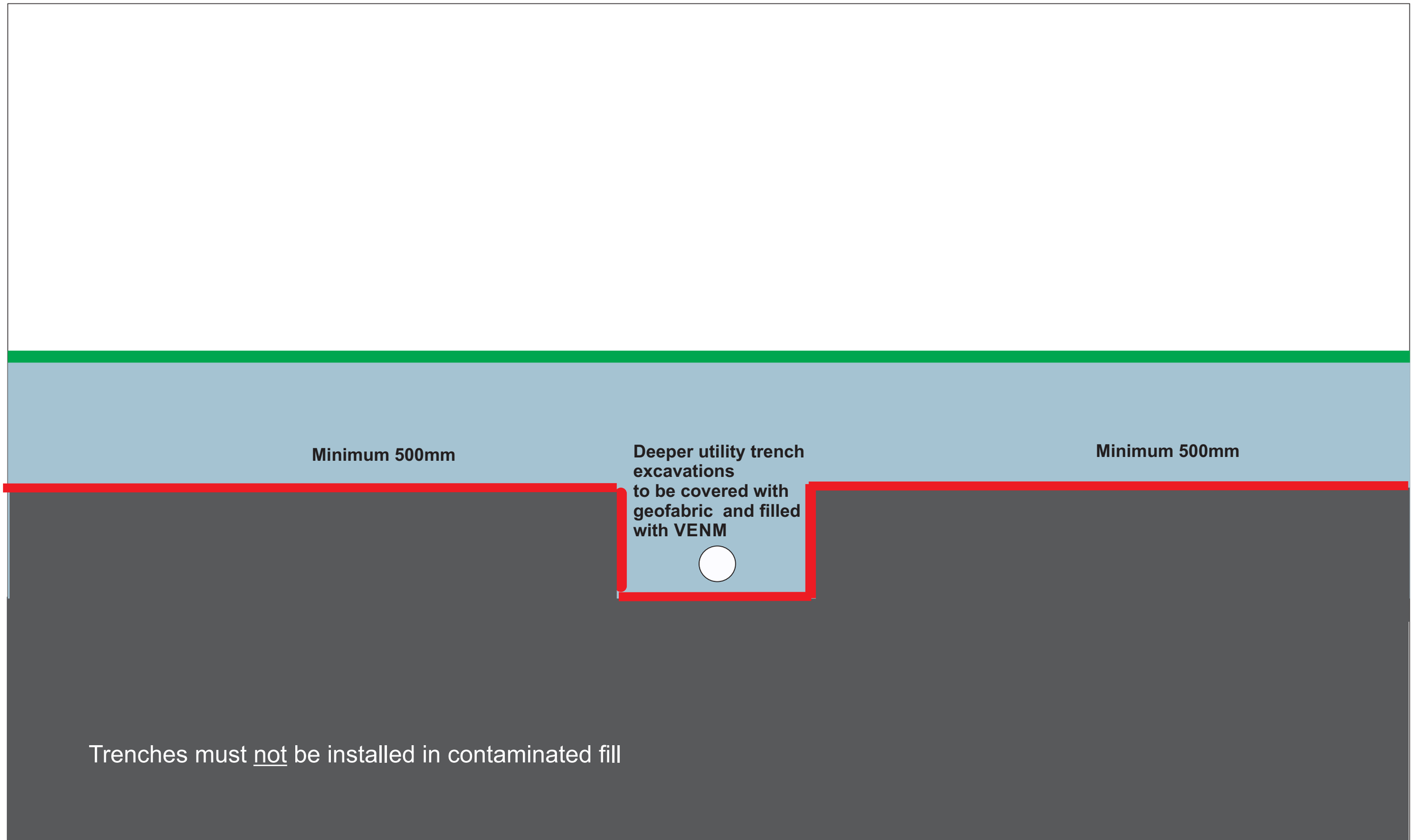
Legend:

- Non-Woven Geofabric Marker Layer
- Certified Mulch
- Timber deck
- Contaminated Fill

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 11	Remediation Area - Tree Protection Zone (TPZ)				



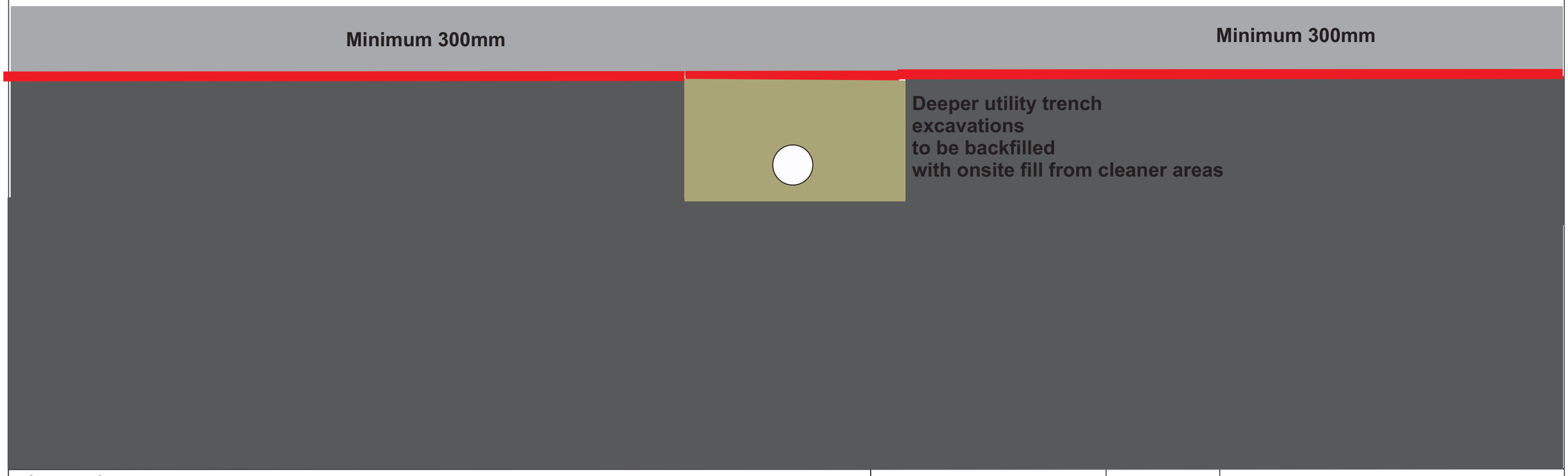
Legend:

- Turf Layer
- Certified VENM or ENM
- Non-Woven Geofabric Marker Layer
- Contaminated Fill
- Drainage Pipe/Service Pipe

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 12	Remediation Area - Trenches outside buildings footprint				



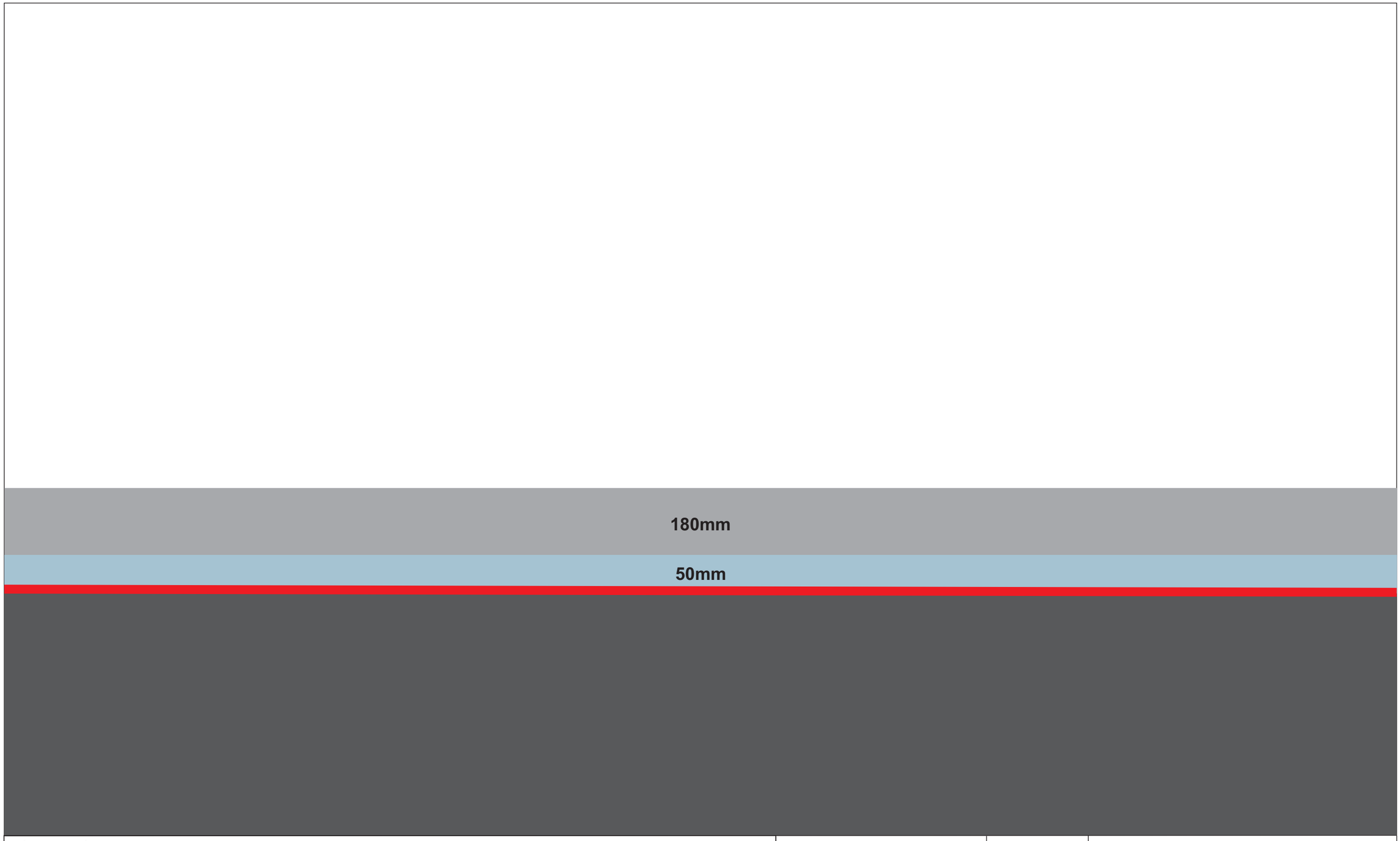
Legend:

- Concrete slab
- Onsite Fill
- Non-Woven Geofabric Marker Layer
- Contaminated Fill
- Drainage Pipe

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 13	Remediation Area - Trenches below buildings foofprint				



Legend:

- Concrete slab
- Depth Compacted Base Course
- Non-Woven Geofabric Marker Layer
- Contaminated Fill

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 14	Remediation Area - Structures				

Minimum 500mm

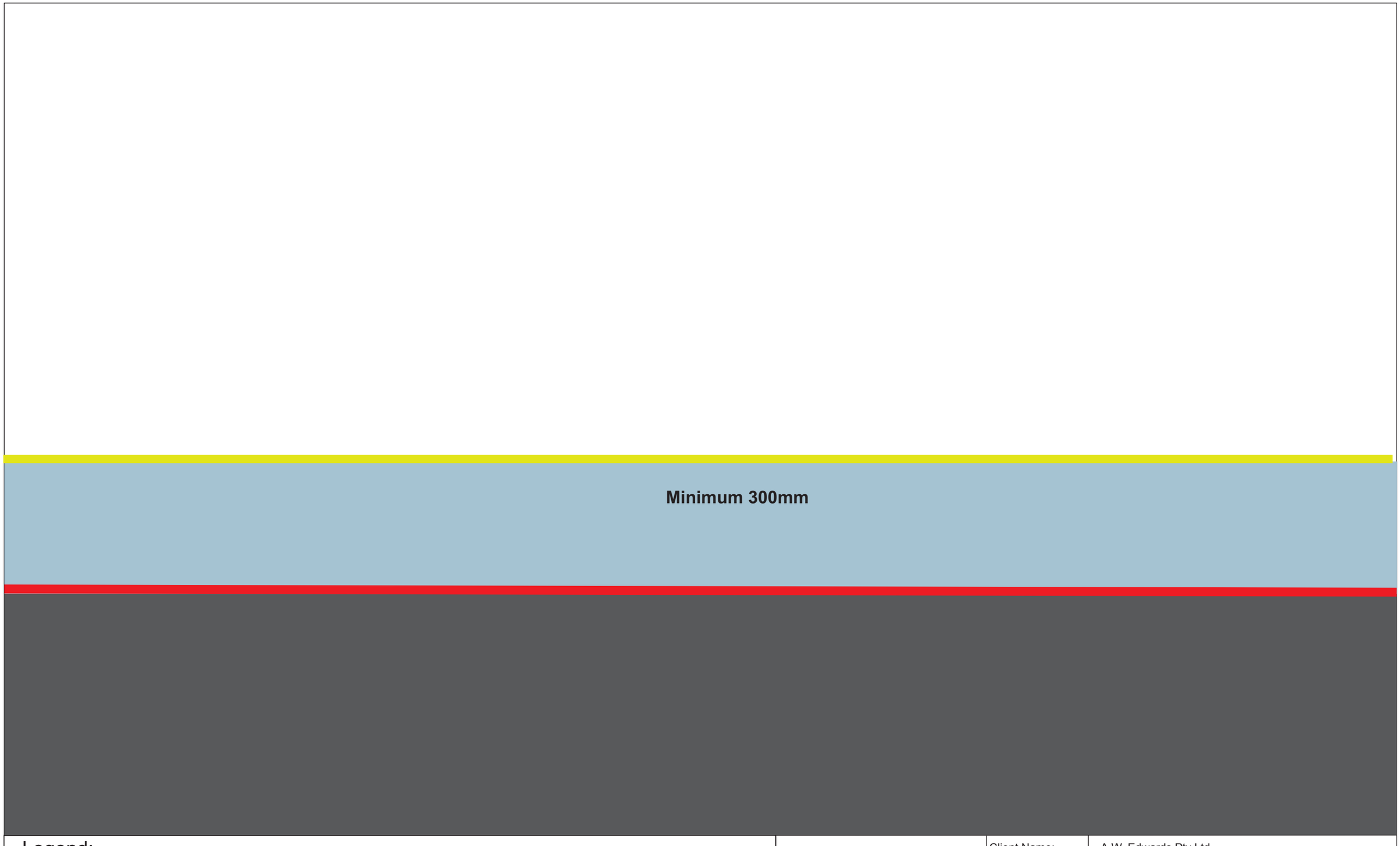
Legend:

- Turf Layer
- Certified VENM or ENM
- Non-Woven Geofabric Marker Layer
- Contaminated Fill

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 15	Remediation Area - Landscaped Area (Soft Landscaping)				



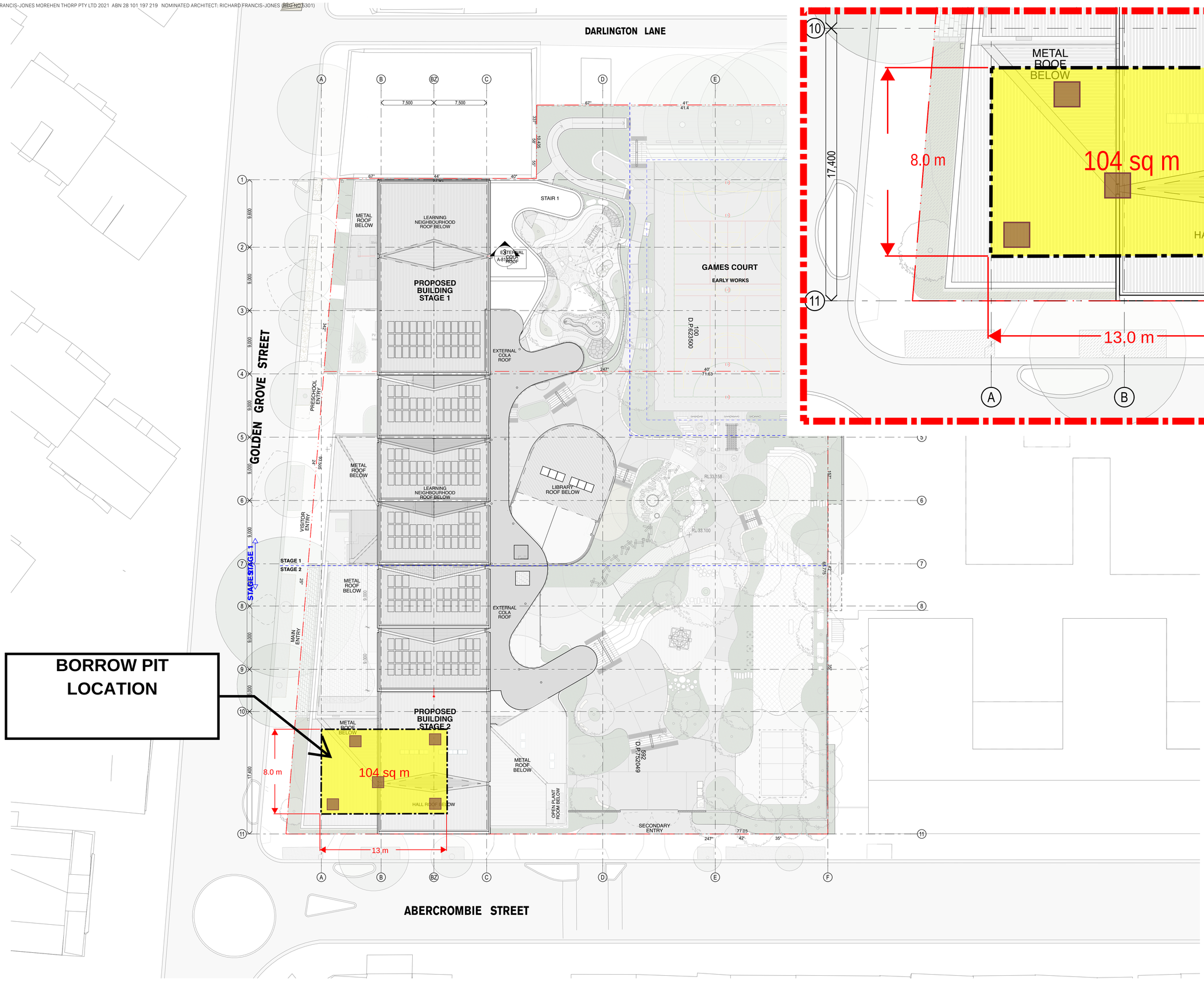
Legend:

- Softfall - Rubber matting/recycled or similar product
- Certified VENM or ENM
- Non-Woven Geofabric Marker Layer
- Contaminated Fill

GREENCAP
Going Further in Managing Risk

GF, North Building,22 Giffnock Av
Mcquarie Park, NSW 2113
Ph: 02-9889-1800
Fx: 02-9889-1811

Client Name:	A.W. Edwards Pty Ltd				
Client Number:	C107251	Project Number:	J169905		
Project Description:	Darlington PS LT-EMP				
Address:	Darlington Public School - 417 Abercrombie Street, Darlington NSW 2000				
Prepared:	TM	Reviewed:	AG	Date:	28/06/2023
Figure 16	Remediation Area - Landscaped Area (Softfall)				



BORROW PIT LOCATION

rev	date	name	by	chk
B	23/7/21	For Construction Certificate Issue	MJ	
A	22/6/21	IFC for Sign-off Issue	JRS	
07	26/4/21	Final SINSW Review Issue	JRS	
06	1/4/21	SINSW Preliminary Review 95%	JRS	
05	2/2/21	For Coordination	MMG	
04	19/8/20	Tender Addendum Rev 02	CD	
03	7/8/20	Tender Addendum	CD	

Darlington Public School
Golden Grove Street
Darlington NSW 2008

Site Plan
Site Plan

Scale
1:250 @ A1

Project Code
DTPS

First Issued
15/6/20

Sheet No.
A-12001

Rev
B

For Construction

Environmental Management Plan
A.W. Edwards Pty Ltd
Darlington Public School

Appendix A – Site Inspection Checklist

APPENDIX A – Environmental Checklist

Environmental Consultant Name:	Environmental Consultant Company:
Date and Time of the Inspection:	Weather (rainfall in the last 24 hrs):
Site owner's (DoE) representative:	**Note:** This checklist must be forwarded to the Site owner's representative after each round of inspection within 2 weeks following the inspection.
Outcome = Complying/Not Complying	
Environmental Consultant Comments & Recommendations for Further Investigation, Rectification or Remediation (if required):	

Item No.	Description	Yes	No	Comments & Description Notes
1.	Has there been any excavation on-site within the capping area or through site boundaries shown on Figure 2 of the Long Term EMP?			

Item No.	Description	Yes	No	Comments & Description Notes
	If Yes go to Item 2 below. If No go to Item 3.			
2.	Visually inspect the surface of the excavation footprint and note down the indicators of potential contamination.			
	Were asbestos containing materials (ACM) identified on the surface?			
	Was there any soils carried to the site from excavations at the site borders? If yes indicate the location on a figure.			
	If foreign materials or potentially contaminated soils (e.g. material carried to site through excavations at site borders) are identified at the excavation areas. Collect 1 soil sample per 10 m x 10 m grid within the excavation footprint (collect 1 sample per 10 m for linear trenches) and submit to a NATA Accredited Laboratory for AF/FA testing (and lead for any excavations near northern boundary). Were the samples collected and submitted to the laboratory as per above?			
	Was contamination identified during visual inspection or in above samples? If, yes notify site owner (DoE) and provide advice regarding further investigations and remediation (where required).			
3.	Was the entire site surface has been inspected in 25 m x 25 m grids searching for ACM & potential other indicators of contamination? Take at least 4 photographs showing the capping area and 4 photographs showing the soil condition at the rest of the site.			
4.	Were there any areas within the capping are where marker layer is coming off?			

Item No.	Description	Yes	No	Comments & Description Notes
5.	Were there any areas where cap integrity has been compromised? If yes please provide details for required rectification works.			
6.	Was the northern boundary retaining wall intact? Note down any maintenance requirements.			
7.	Has there been any material importation to the site? If yes request source site reports from site manager and plan undertaking necessary due-diligence validation sampling.			
8.	Were there any areas where vegetation distress was apparent?			
9.	Was there any evidence of subsiding (e.g. cracks, depressions, slumping)?			
10.	Was there any indicators of erosion or sediment run-off?			
11.	Was there any evidence of dust generation?			
12.	Has there been any environmental incidents reported to School's principal during the past 6 months?			
13.	Has there been any other visual or olfactory evidence of contamination noted during the inspection? Please describe if any.			
14.	Has there been any genuine health and environmental risk identified during the inspection? If yes provide a written notification to the site owner within 24 hours.			

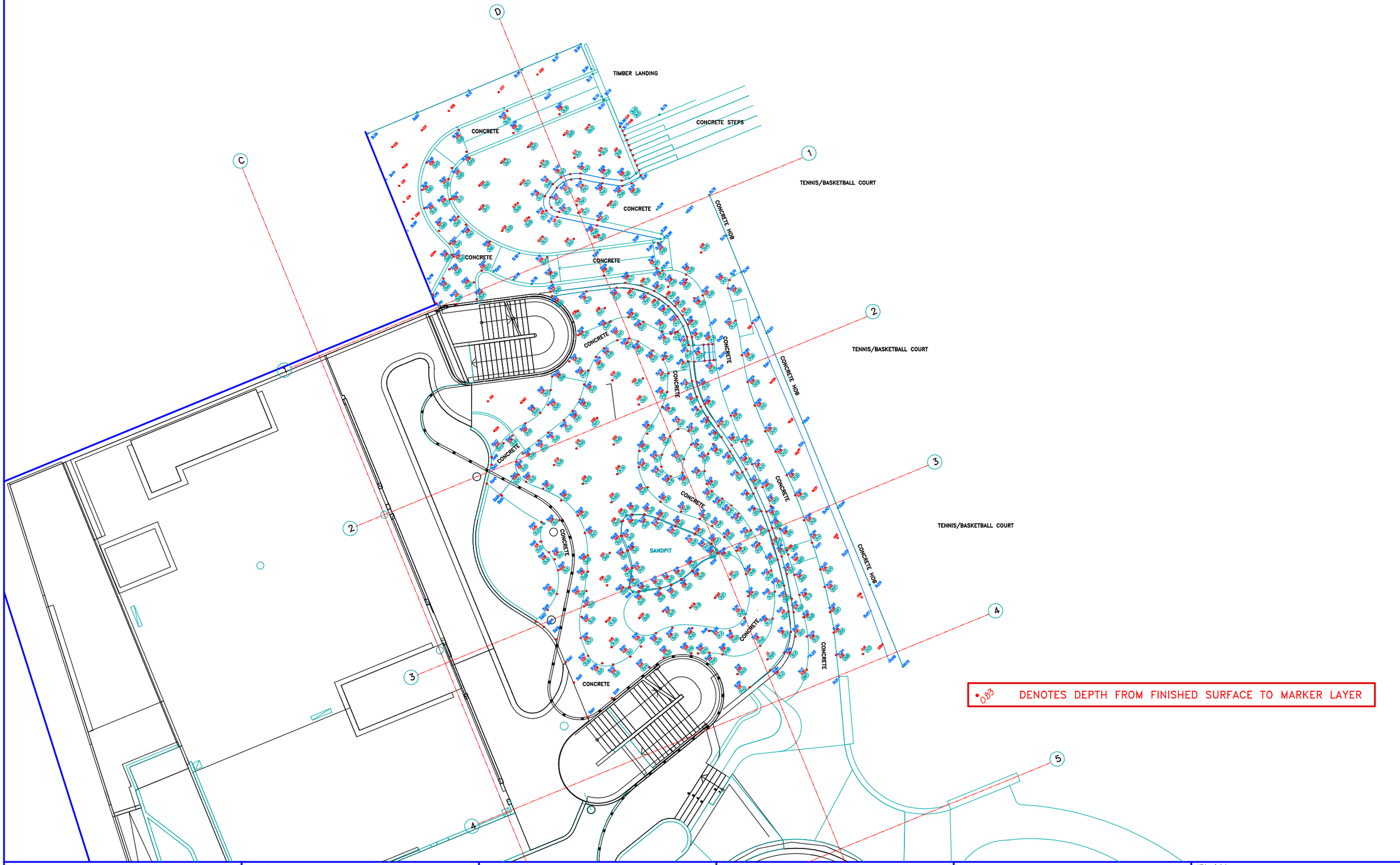
Item No.	Description	Yes	No	Comments & Description Notes
15.	Were there any areas identified requiring further investigation, remediation, or cap rectification? If yes provide a written notification to the site owner within 24 hours.			

Environmental Management Plan

A.W. Edwards Pty Ltd

Darlington Public School

Appendix B – Final Site Survey Plans



DRAWING STATUS

PROJECT:

DARLINGTON PUBLIC SCHOOL

GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:

A.W. EDWARDS PTY LTD

BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
NORTHBRIDGE NSW 2063
Ph (02) 9958 1474 Fax (02) 9958 6208

S.P. SITE SETOUT PTY LTD
CONSTRUCTION SURVEYING
UNIT 36/9 HOYLE AVENUE
CASTLE HILL 2154
Mobile: 0411 315 379
Telephone: (02) 9654 3316
Facsimile: (02) 9654 3318
Email: stephen@spsite.com.au

SCALE 1:100 (A1)

DATE 24/03/2022 DATUM A.H.D

CADD FILE REF AWE/DARLINGTON

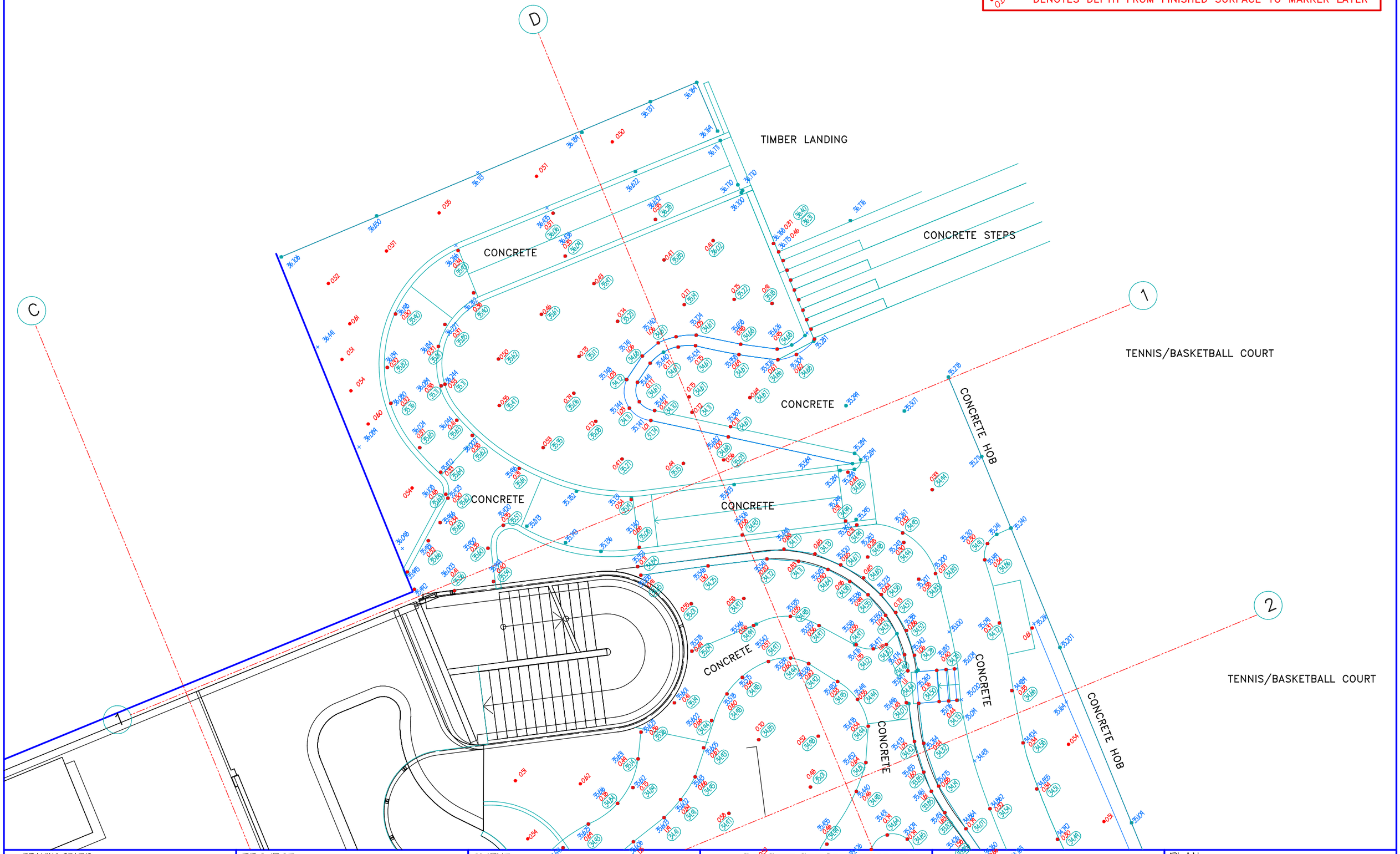
DWG No: SP1208-062B.PRO

PLAN:

PLAY AREA
MARKER LAYER
DEPTH FROM FINISHED SURFACE

SHEET 1 OF 3

• 0.83 DENOTES DEPTH FROM FINISHED SURFACE TO MARKER LAYER



DRAWING STATUS

PROJECT:
DARLINGTON PUBLIC SCHOOL
GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:
A.W. EDWARDS PTY LTD
BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
NORTHBRIDGE NSW 2063
Ph (02) 9958 1474 Fax (02) 9958 6208

S.P. SITE SETOUT PTY LTD
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CASTLE HILL 2154
Mobile: 0411 315 379
Telephone: (02) 9654 3316
Facsimile: (02) 9654 3318
Email: stephen@spsite.com.au

SCALE	1:50 (A1)
DATE	24/03/2022 DATUM A.H.D
CADD FILE REF	AWE/DARLINGTON
DWG No:	SP1208-062B.PRO

PLAN:
PLAY AREA
MARKER LAYER
DEPTH FROM FINISHED SURFACE
SHEET 2 OF 3

•0.03 DENOTES DEPTH FROM FINISHED SURFACE TO MARKER LAYER

TENNIS/BASKETBALL COURT

TENNIS/BASKETBALL COURT

SANDPIT

CONCRETE

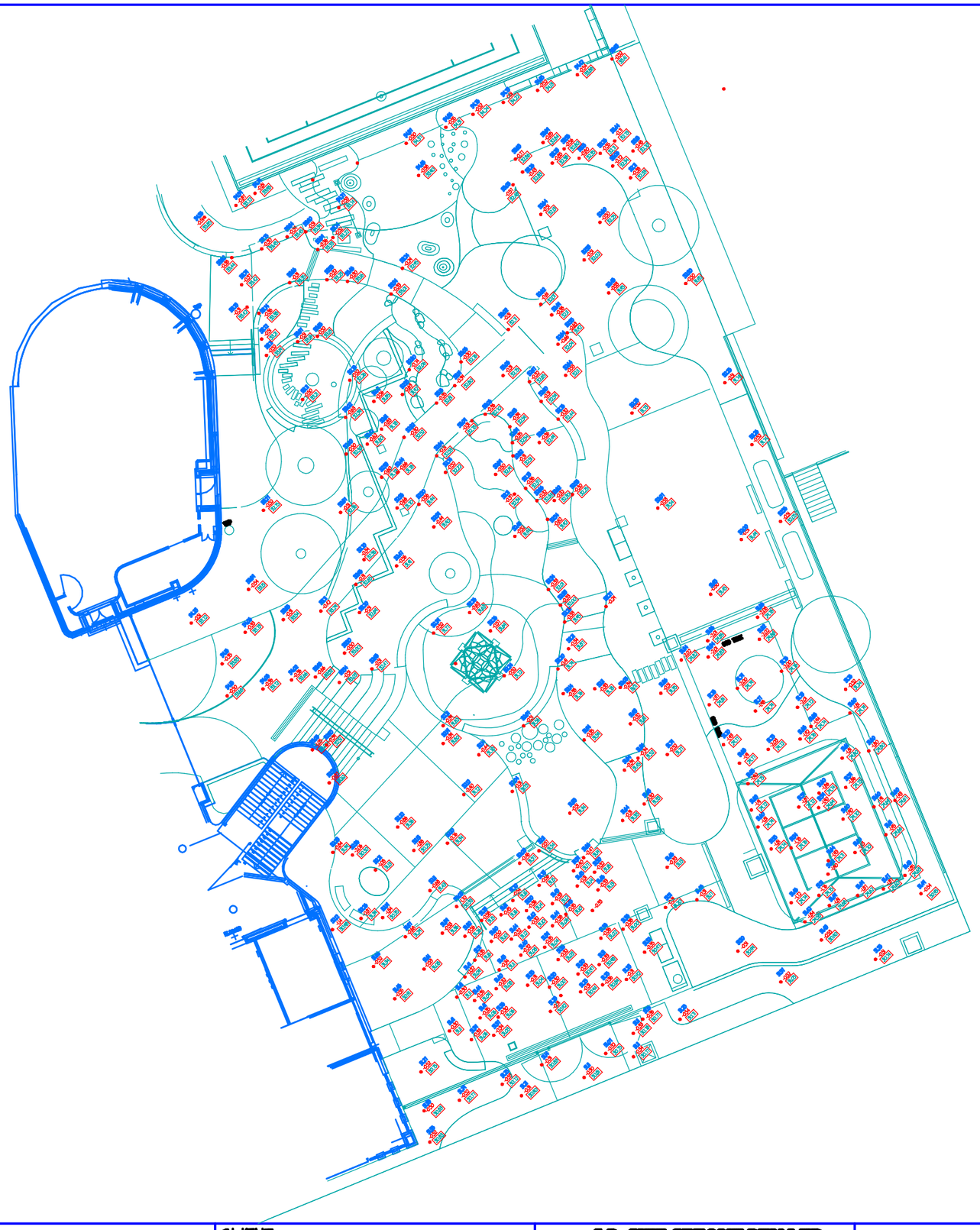
CONCRETE HOB

3

4

5

DRAWING STATUS	PROJECT: **DARLINGTON PUBLIC SCHOOL** **GOLDEN GROVE STREET DARLINGTON NSW 2008**	CLIENT: **A.W. EDWARDS PTY LTD** BUILDERS AND CONTRACTORS 131 SAILORS BAY ROAD NORTHBRIDGE NSW 2063 Ph (02) 9958 1474 Fax (02) 9958 6208	**S.P. SITE SETOUT PTY LTD** CONSTRUCTION SURVEYING UNIT 36/9 HOYLE AVENUE CASTLE HILL 2154 Mobile: 0411 315 379 Telephone: (02) 9659 3316 Facsimile: (02) 9659 3318 Email: stephen@spsite.com.au	SCALE 1:50 (A1) DATE 24/03/2022 DATUM A.H.D CADD FILE REF AWE/DARLINGTON DWG No: SP1208-062B.PRO	PLAN: PLAY AREA MARKER LAYER DEPTH FROM FINISHED SURFACE **SHEET 3 OF 3**



LEGEND

33.93 : FINISHED SURFACE LEVEL

-0.52 : DEPTH TO MARKER LAYER

33.41 : RL MARKER LAYER

DRAWING STATUS

PROJECT:

DARLINGTON PUBLIC SCHOOL

GOLDEN GROVE STREET

DARLINGTON NSW 2008

CLIENT:

A.W. EDWARDS PTY LTD

BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
NORTHERBRIDGE NSW 2063
Ph (02) 9458 1474 Fax (02) 9458 6208

S.P. SITE SETOUT PTY LTD

CONSTRUCTION SURVEYORS
UNIT 36/4 HOYLE AVENUE
CASTLE HILL 2154
Mobile: 0411 315 374
Telephone: (02) 9634 3516
Facsimile: (02) 9634 3518
Email: stephen@spsite.com.au

SCALE	1:150 (A1)
DATE	19/06/2023 DATUM A.H.D
CADD FILE REF	AWE/DARLINGTON
DWG No:	SP1208-102R2.PRO

PLAN:

MARKER LAYER DEPTH TO FINAL FINISHED SURFACE OVER LANDSCAPE AREAS

SHEET 1 OF 4

DRAWING STATUS

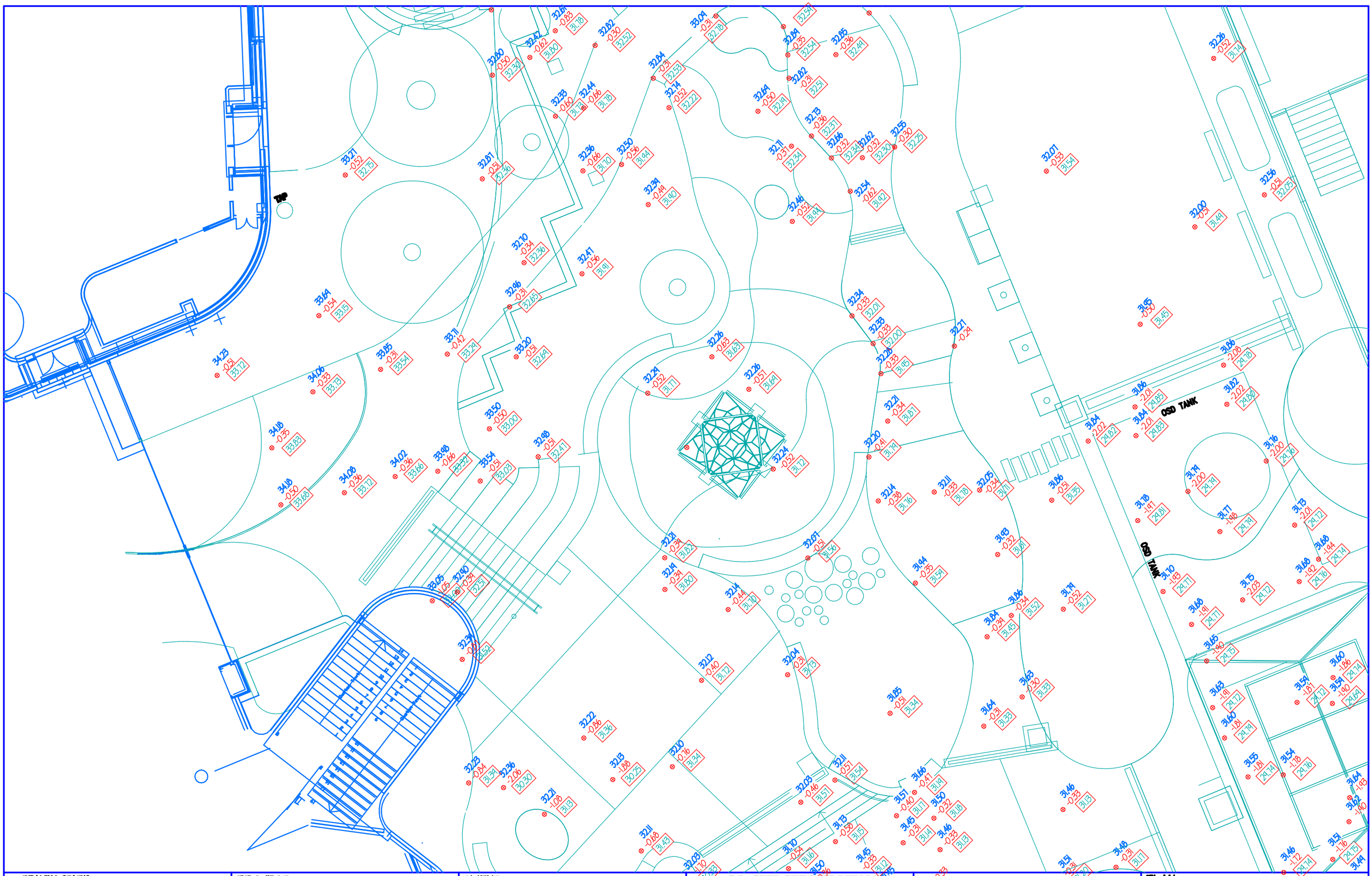
PROJECT:
DARLINGTON PUBLIC SCHOOL
GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:
A.W. EDWARDS PTY LTD
BUILDERS AND CONTRACTORS
191 SAILORS BAY ROAD
NORTHBRIDGE NSW 2063
Ph (02) 9958 1474 Fax (02) 9958 6208

S.P. SITE SETOUT PTY LTD
CONSTRUCTION SURVEYORS
UNIT 36/9 HOYLE AVENUE
CASTLE HILL 2154
Mobile: 0411 313 379
Telephone: (02) 9659 3516
Facsimile: (02) 9659 3518
Email: stephen@spsite.com.au

SCALE 1:60 (A1)
DATE 19/06/2023 DATUM A.H.D
CADD FILE REF AWE/DARLINGTON
DWG No: SP1208-102R2.PRO

PLAN:
MARKER LAYER DEPTH TO FINAL FINISHED SURFACE OVER LANDSCAPE AREAS
SHEET 2 OF 4



DRAWING STATUS

PROJECT:
DARLINGTON PUBLIC SCHOOL
GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:
A.W. EDWARDS PTY LTD
BUILDERS AND CONTRACTORS
191 SAILORS BAY ROAD
NORTHBRIDGE NSW 2063
Ph (02) 9958 1474 Fax (02) 9958 6208

S.P. SITE SETOUT PTY LTD
CONSTRUCTION SURVEYORS
UNIT 86/9 HOYLE AVENUE
CASTLE HILL 2154
Mobile: 0411 315 574
Telephone: (02) 9634 5316
Facsimile: (02) 9634 5318
Email: stephen@spsite.com.au

SCALE 1:60 (A1)
DATE 19/06/2023 DATUM A.H.D
CADD FILE REF AWE/DARLINGTON
DWG No: SP1208-102R2.PRO

PLAN:
MARKER LAYER DEPTH TO FINAL FINISHED SURFACE OVER LANDSCAPE AREAS
SHEET 3 OF 4

OSD TANK

DRAWING STATUS

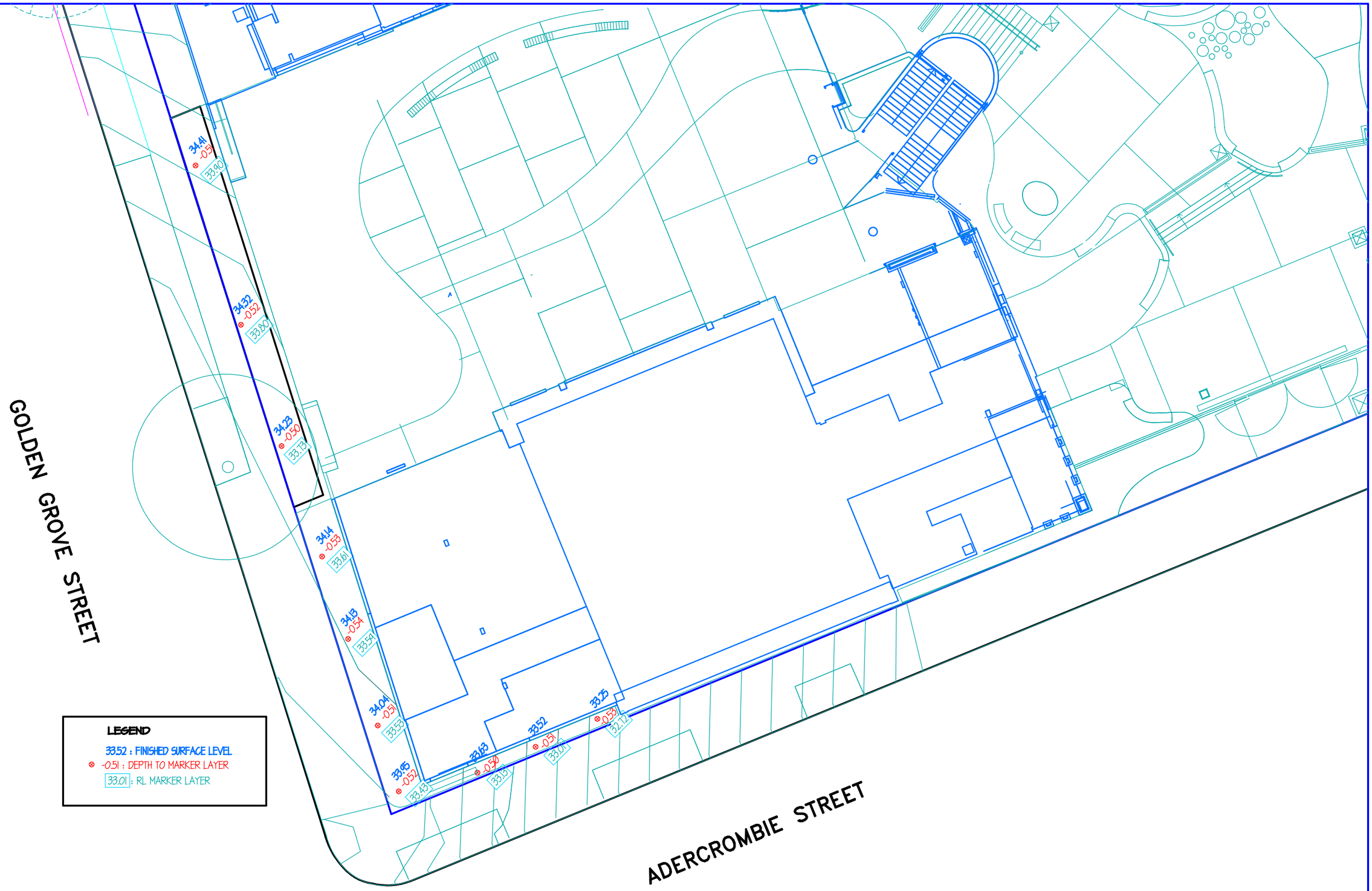
PROJECT:
DARLINGTON PUBLIC SCHOOL
GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:
A.W. EDWARDS PTY LTD
BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
NORTHERIDGE NSW 2063
Ph (02) 9458 1474 Fax (02) 9458 6208

S.P. SITE SETOUT PTY LTD
CONSTRUCTION SURVEYORS
UNIT 36/9 HOYLE AVENUE
CASTLE HILL 2154
Mobile: 0411 315 379
Telephone: (02) 9634 3516
Facsimile: (02) 9634 3518
Email: stephen@spsite.com.au

SCALE 1:60 (A1)
DATE 19/06/2023 DATUM A.H.D
CADD FILE REF AWE/DARLINGTON
DWG No: SP1208-102R2.PRO

PLAN:
MARKER LAYER DEPTH TO FINAL FINISHED SURFACE OVER LANDSCAPE AREAS
SHEET 4 OF 4



DRAWING STATUS

PROJECT:
DARLINGTON PUBLIC SCHOOL
GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:
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BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
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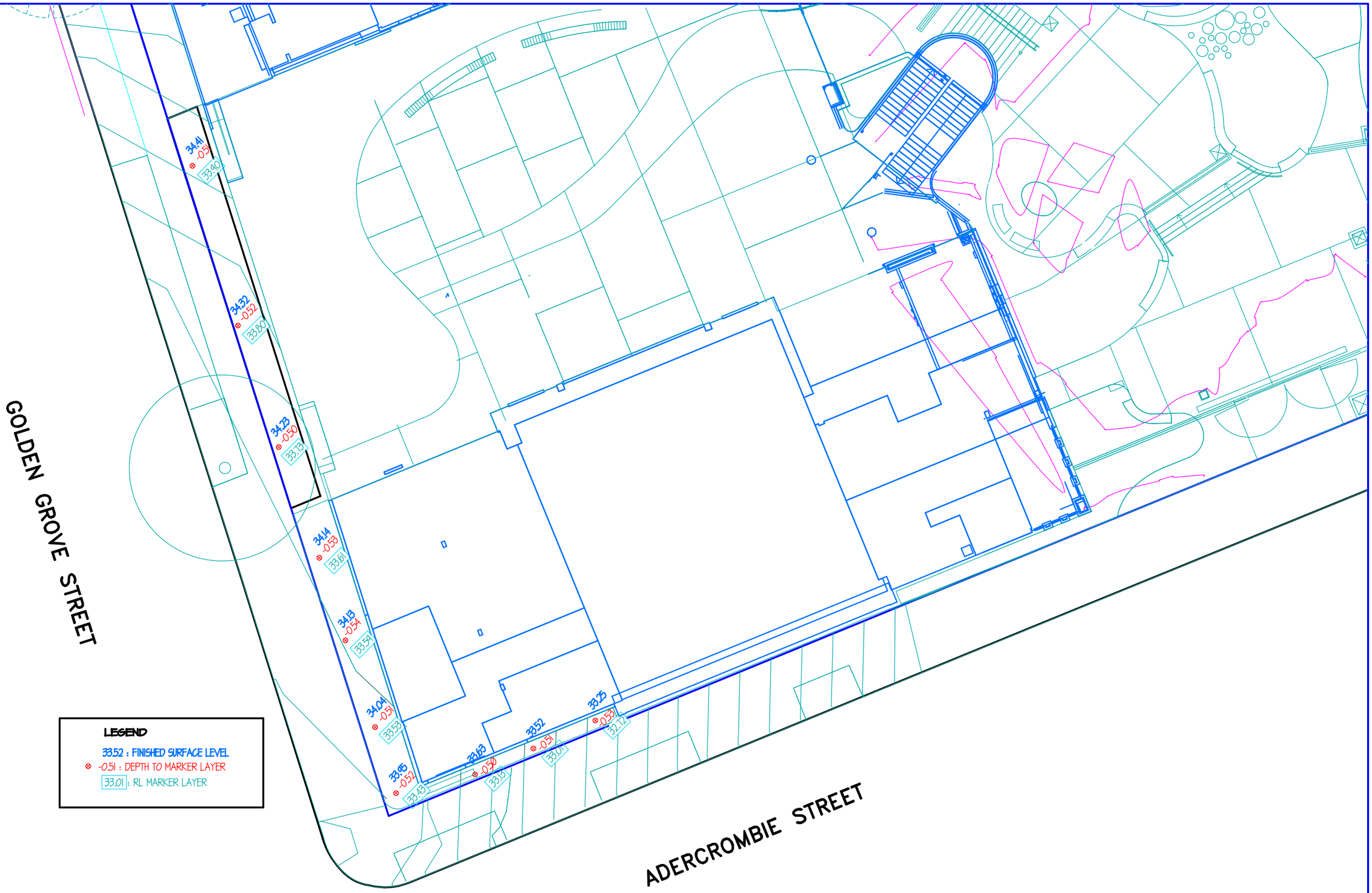
CASTLE HILL 2154
Mobile: 0411 313 379
Telephone: (02) 9659 3516
Facsimile: (02) 9659 3518
Email: stephen@spsite.com.au

SCALE	1:100 (A1)
DATE	21/06/2023 DATUM A.H.D
CADD FILE REF	AWE/DARLINGTON
DWG No:	SP1208-103R2.PRO

PLAN:
MARKER LAYER DEPTH TO FINAL FINISHED SURFACE OVER LANDSCAPE AREAS



DRAWING STATUS

PROJECT:
DARLINGTON PUBLIC SCHOOL
GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:
A.W. EDWARDS PTY LTD
BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
NORTHBRIDGE NSW 2063
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S.P. SITE SETOUT PTY LTD
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Mobile: 0411 315 379
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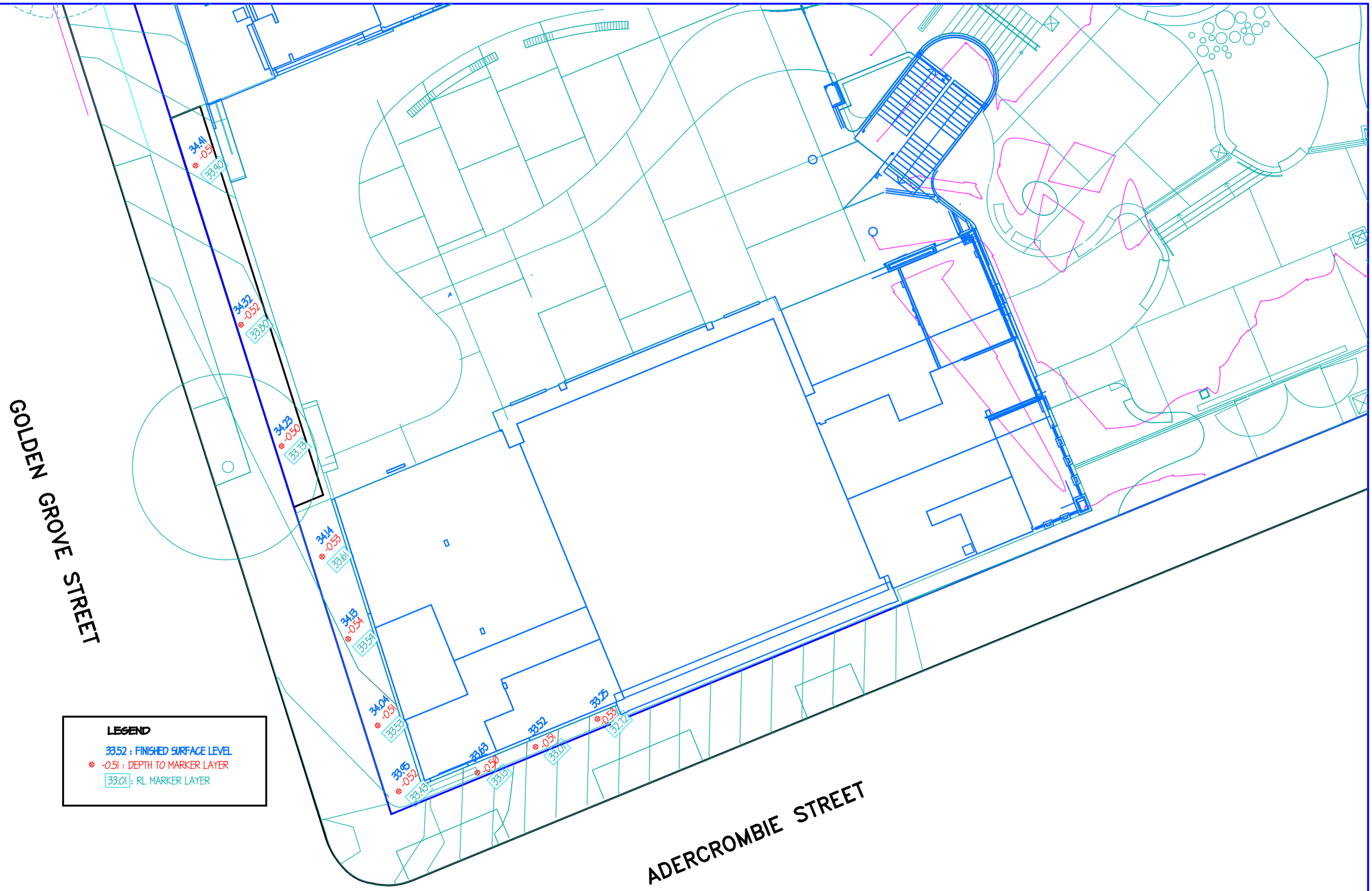
SCALE	1:100 (A1)
DATE	21/06/2023 DATUM A.H.D
CADD FILE REF	AWE/DARLINGTON
DWG No:	SP1208-103R2.PRO

PLAN:
MARKER LAYER DEPTH TO FINAL FINISHED SURFACE OVER LANDSCAPE AREAS



DRAWING STATUS

PROJECT:
DARLINGTON PUBLIC SCHOOL
GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:
A.W. EDWARDS PTY LTD
BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
NORTHBRIDGE NSW 2063
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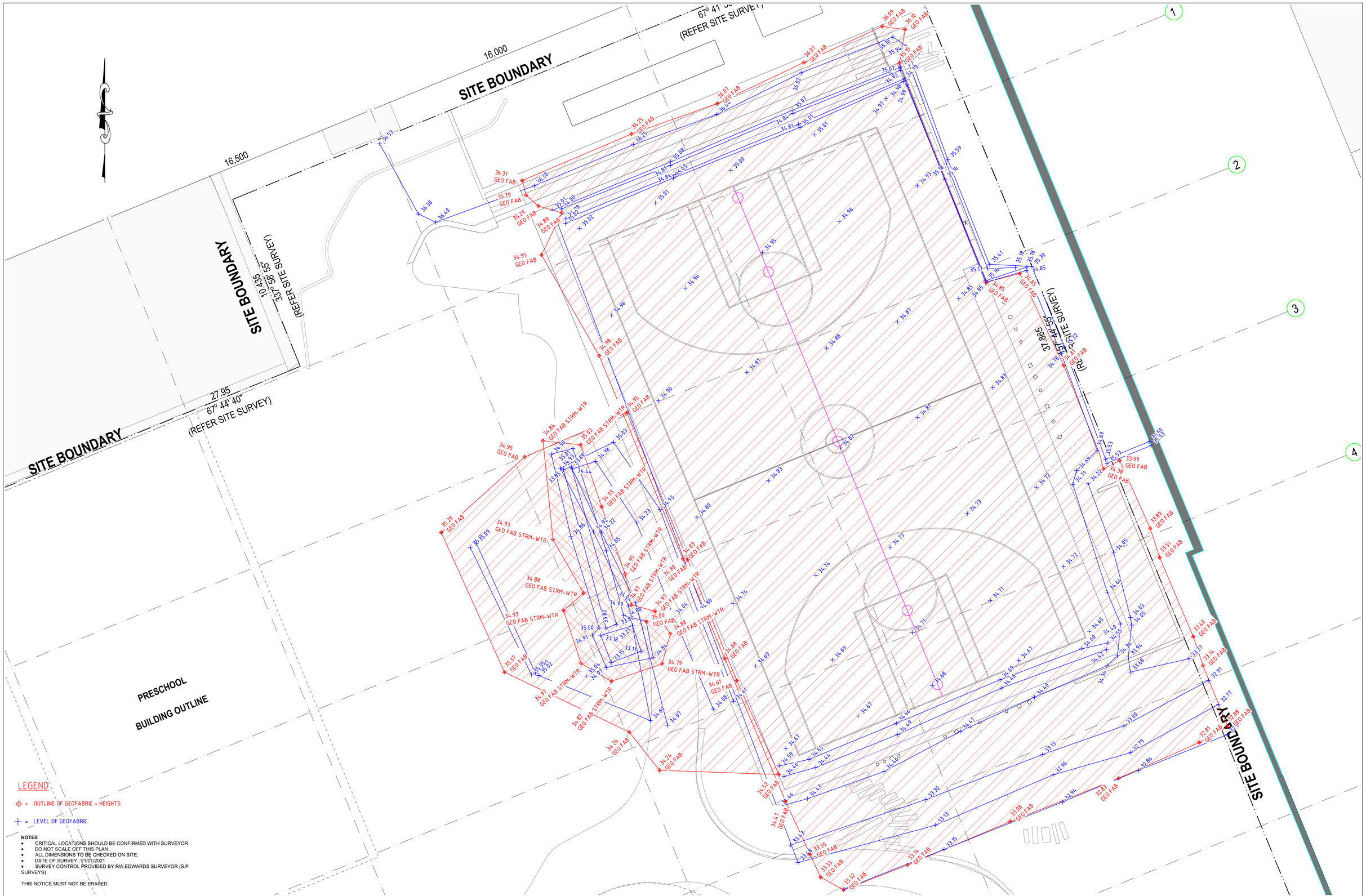
Email: stephen@spsite.com.au

SCALE	1:100 (A1)
DATE	21/06/2023 DATUM A.H.D
CADD FILE REF	AWE/DARLINGTON
DWG No:	SP1208-103R2.PRO

PLAN:
MARKER LAYER DEPTH TO FINAL FINISHED SURFACE OVER LANDSCAPE AREAS



LEGEND

⊕ = OUTLINE OF GEOFABRIC + HEIGHTS

+ = LEVEL OF GEOFABRIC

NOTES

- CRITICAL LOCATIONS SHOULD BE CONFIRMED WITH SURVEYOR.
- DO NOT SCALE OFF THIS PLAN .
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- DATE OF SURVEY :21/01/2021
- SURVEY CONTROL PROVIDED BY RW.EDWARDS SURVEYOR (S.P SURVEYS)

THIS NOTICE MUST NOT BE ERASED.

REV.	BY	DATE	DESCRIPTION	APPD.
A	DWH	27/01/2021	FOR INFORMATION	SRA

SCALES

0 3 6 Meters

1:100 @ A1

A1 Original | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

CLIENT

Mainland Civil

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REGISTERED SURVEYORS

CRUX SURVEYING AUSTRALIA PTY LTD CONSTRUCTION • CIVIL • CADASTRAL BRISBANE | NORTH SYDNEY | SINGAPORE

SURVEYED	DALE HODGE
DRAWN	DALE HODGE
SURVEY CHECK	SCOTT ALLISON
DRAWING CHECK	SCOTT ALLISON
APPROVED	SCOTT ALLISON 27/01/2021

GEO-FABRIC ASBUILT

DARLINGTON PUBLIC SCHOOL
LOCAVTION OF GEOFABRIC + LEVELS

STATUS: FOR INFORMATION | SHEET 1 OF 1 | ©

CRUX Drg No. 122739-SU-WAE-002 | REV. A

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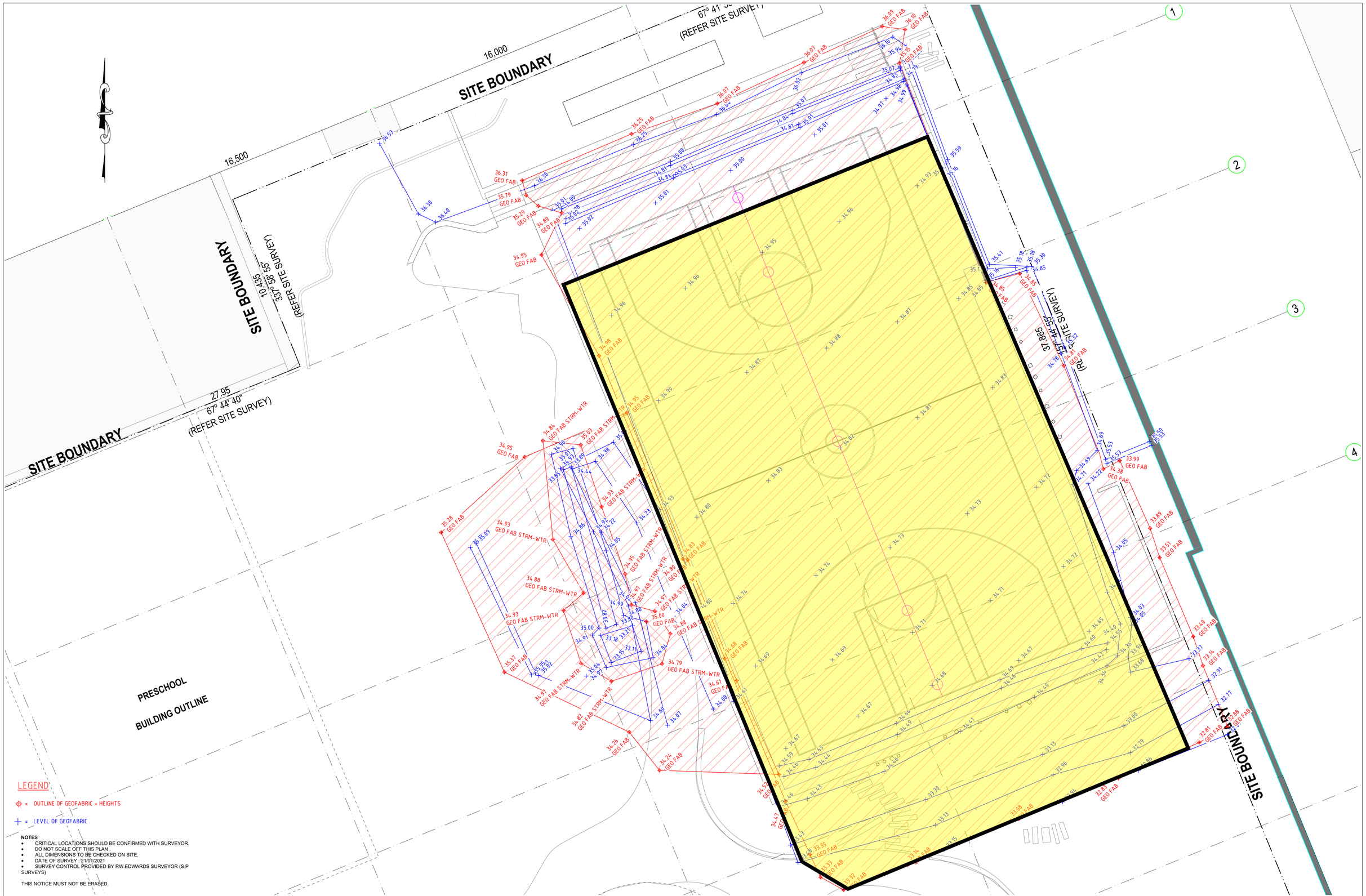

LEGEND

⊕ = OUTLINE OF GEOFABRIC + HEIGHTS

+ = LEVEL OF GEOFABRIC

NOTES

- CRITICAL LOCATIONS SHOULD BE CONFIRMED WITH SURVEYOR.
- DO NOT SCALE OFF THIS PLAN .
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- DATE OF SURVEY :21/01/2021
- SURVEY CONTROL PROVIDED BY RW.EDWARDS SURVEYOR (S.P SURVEYS)

THIS NOTICE MUST NOT BE ERASED.

REV.	BY	DATE	DESCRIPTION	APPD.
A	DWH	27/01/2021	FOR INFORMATION	SRA

SCALES

0 3 6 Meters

1:100 @ A1

A1 Original | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

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REGISTERED SURVEYORS

CRUX SURVEYING AUSTRALIA PTY LTD CONSTRUCTION • CIVIL • CADASTRAL BRISBANE | NORTH SYDNEY | SYDNEY

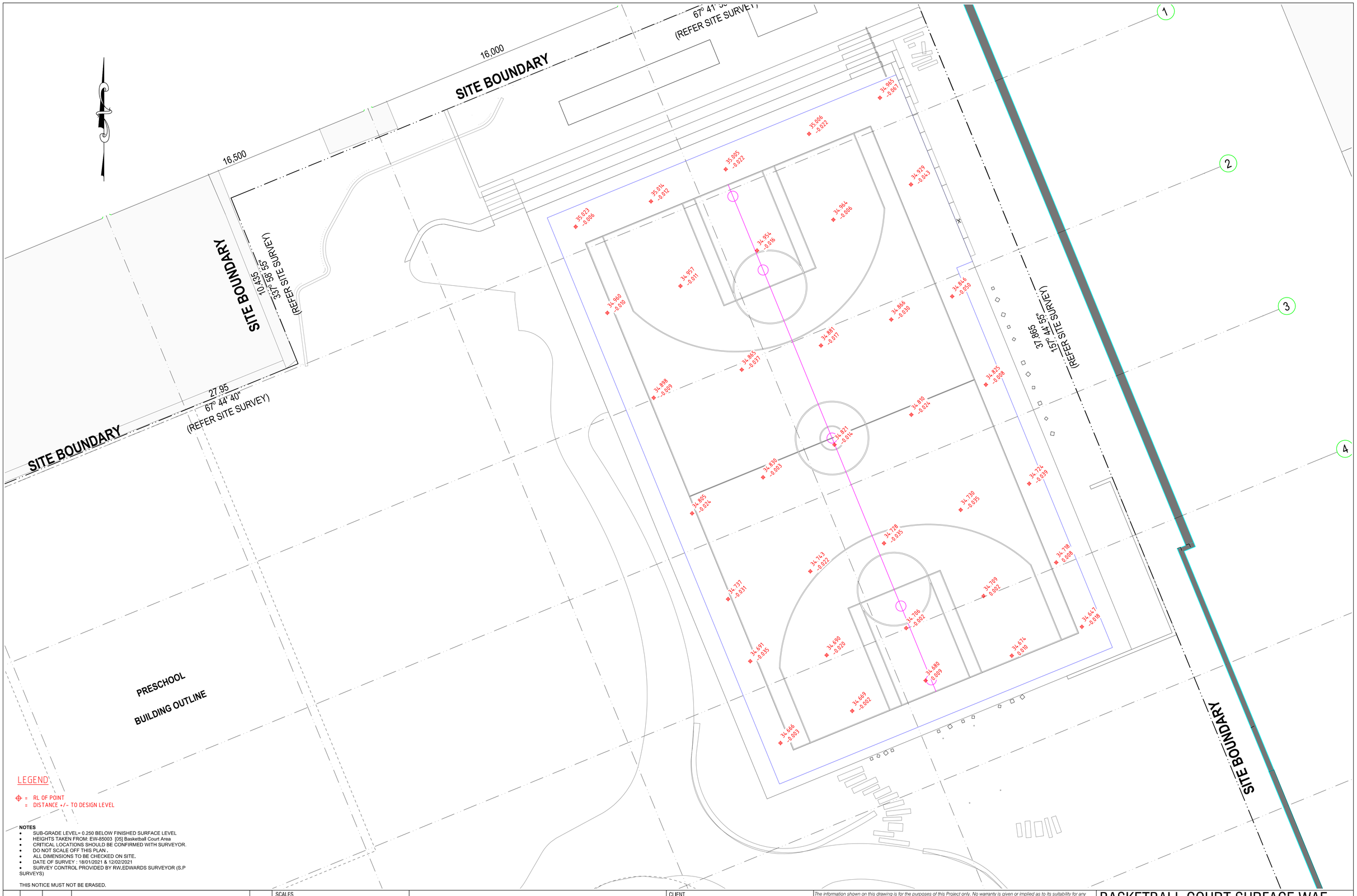
SURVEYED	DALE HODGE
DRAWN	DALE HODGE
SURVEY CHECK	SCOTT ALLISON
DRAWING CHECK	SCOTT ALLISON
APPROVED	SCOTT ALLISON 27/01/2021

GEO-FABRIC ASBUILT

DARLINGTON PUBLIC SCHOOL
LOCAVTION OF GEOFABRIC + LEVELS

STATUS: FOR INFORMATION | SHEET 1 OF 1 | ©

CRUX Drg No. 122739-SU-WAE-002 | REV. A



LEGEND

= RL OF POINT
= DISTANCE +/- TO DESIGN LEVEL

NOTES

- SUB-GRADE LEVEL= 0.250 BELOW FINISHED SURFACE LEVEL
- HEIGHTS TAKEN FROM: EW-85003 [05] Basketball Court Area
- CRITICAL LOCATIONS SHOULD BE CONFIRMED WITH SURVEYOR.
- DO NOT SCALE OFF THIS PLAN .
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- DATE OF SURVEY : 18/01/2021 & 12/02/2021
- SURVEY CONTROL PROVIDED BY RW.EDWARDS SURVEYOR (S.P SURVEYS)

THIS NOTICE MUST NOT BE ERASED.

REV.	BY	DATE	DESCRIPTION	APPD.
B	DWH	19/02/2021	FOR INFORMATION	SRA
A	DWH	18/02/2021	FOR INFORMATION	SRA

SCALES

0 3 6 Meters

1:100 @ A1

A1 Original | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

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REGISTERED SURVEYORS

CRUX SURVEYING AUSTRALIA PTY LTD CONSTRUCTION • CIVIL • CADASTRAL ARMIDALE | NORTH RICHMOND | BRISBANE

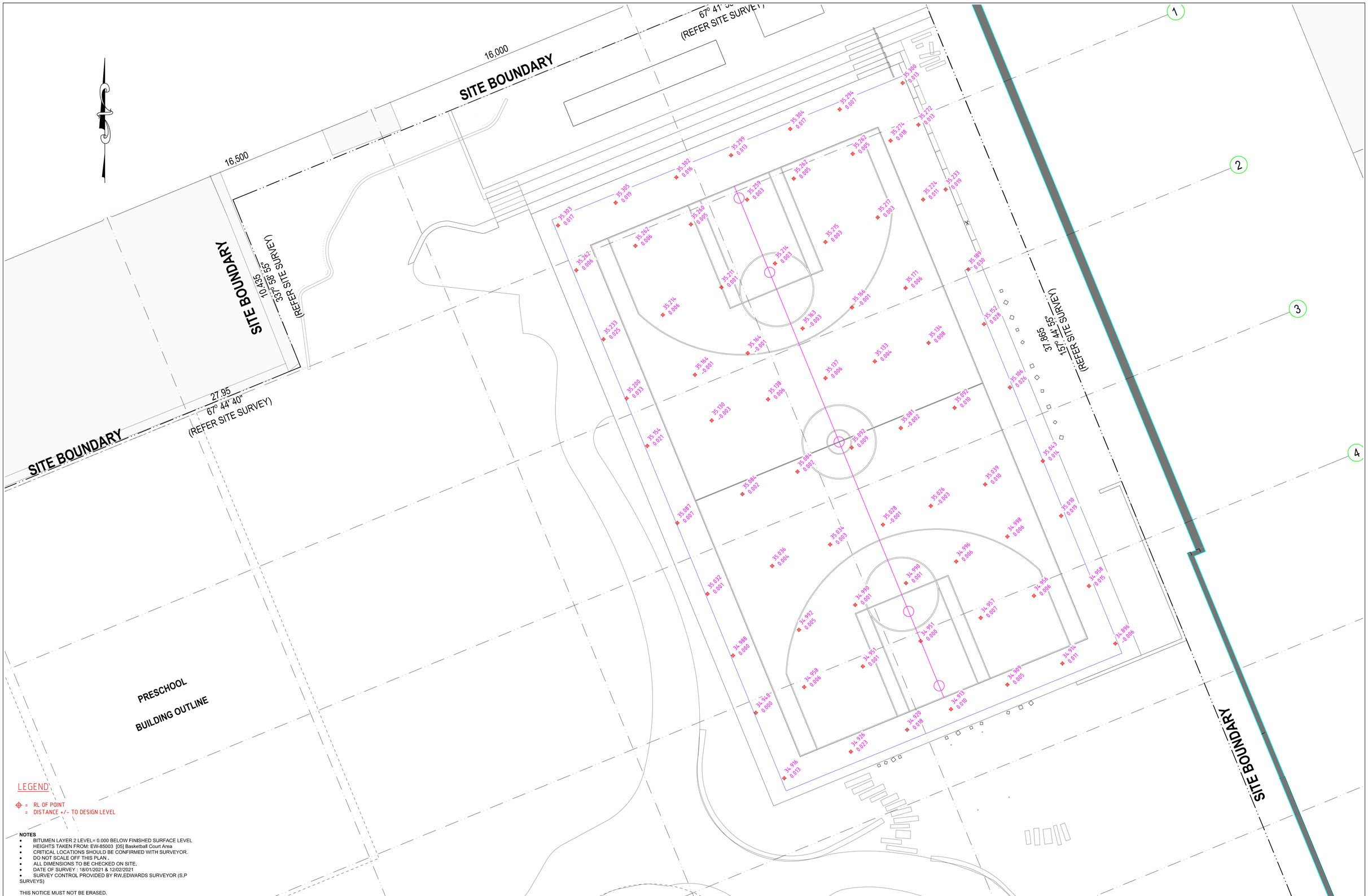
SURVEYED	DALE HODGE
DRAWN	DALE HODGE
SURVEY CHECK	SCOTT ALLISON
DRAWING CHECK	SCOTT ALLISON
APPROVED	SCOTT ALLISON 19/02/2021

BASKETBALL COURT SURFACE WAE

DARLINGTON PUBLIC SCHOOL
SUB-GRADE WAE

STATUS: FOR INFORMATION | SHEET 1 OF 5 | ©

CRUX Drg No. 122739-SU-WAE-003 | REV. B



LEGEND

⊕ = RL OF POINT
= DISTANCE +/- TO DESIGN LEVEL

NOTES

- BITUMEN LAYER 2 LEVEL= 0.000 BELOW FINISHED SURFACE LEVEL
- HEIGHTS TAKEN FROM: EW-85003 [05] Basketball Court Area
- CRITICAL LOCATIONS SHOULD BE CONFIRMED WITH SURVEYOR.
- DO NOT SCALE OFF THIS PLAN.
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- DATE OF SURVEY : 18/01/2021 & 12/02/2021
- SURVEY CONTROL PROVIDED BY RW,EDWARDS SURVEYOR (S.P SURVEYS)

THIS NOTICE MUST NOT BE ERASED.

REV.	BY	DATE	DESCRIPTION	APPD.
B	DWH	19/02/2021	FOR INFORMATION	SRA
A	DWH	18/02/2021	FOR INFORMATION	SRA

SCALES

0 3 6 Meters

1:100 @ A1

A1 Original | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

CLIENT

Mainland Civil

REGISTERED SURVEYORS

CRUX SURVEYING AUSTRALIA PTY LTD CONSTRUCTION+CIVIL+CADASTRAL

SURVEYED	DALE HODGE
DRAWN	DALE HODGE
SURVEY CHECK	SCOTT ALLISON
DRAWING CHECK	SCOTT ALLISON
APPROVED	SCOTT ALLISON 19/02/2021

BASKETBALL COURT SURFACE WAE

DARLINGTON PUBLIC SCHOOL
BITUMEN LAYER WAE

STATUS: FOR INFORMATION | SHEET 4 OF 5 | ©

CRUX Drg No. 122739-SU-WAE-003 | REV. B

Cad File: T:\122739 Darlington Public School - Mainland\Drawings\Out\WAE\122739-SU-WAE-003 [B] (Basketball Court Surface WAE).dwg
Plot Date: 19/02/21 - 17:49
100mm AT FULL SIZE

LEGEND

= RL OF POINT
= DISTANCE +/- TO DESIGN LEVEL

NOTES

- SUB-BASE LAYER 2 LEVEL= 0.050 BELOW FINISHED SURFACE LEVEL
- HEIGHTS TAKEN FROM: EW-85003 [05] Basketball Court Area
- CRITICAL LOCATIONS SHOULD BE CONFIRMED WITH SURVEYOR.
- DO NOT SCALE OFF THIS PLAN .
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- DATE OF SURVEY : 18/01/2021 & 12/02/2021
- SURVEY CONTROL PROVIDED BY RW,EDWARDS SURVEYOR (S.P SURVEYS)

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REV.	BY	DATE	DESCRIPTION	APPD.
B	DWH	19/02/2021	FOR INFORMATION	SRA
A	DWH	18/02/2021	FOR INFORMATION	SRA

SCALES

0 3 6 Meters

1:100 @ A1

A1 Original | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

CLIENT

Mainland Civil

REGISTERED SURVEYORS

CRUX SURVEYING AUSTRALIA PTY LTD CONSTRUCTION • CIVIL • CADASTRAL

SURVEYED	DALE HODGE
DRAWN	DALE HODGE
SURVEY CHECK	SCOTT ALLISON
DRAWING CHECK	SCOTT ALLISON
APPROVED	SCOTT ALLISON 19/02/2021

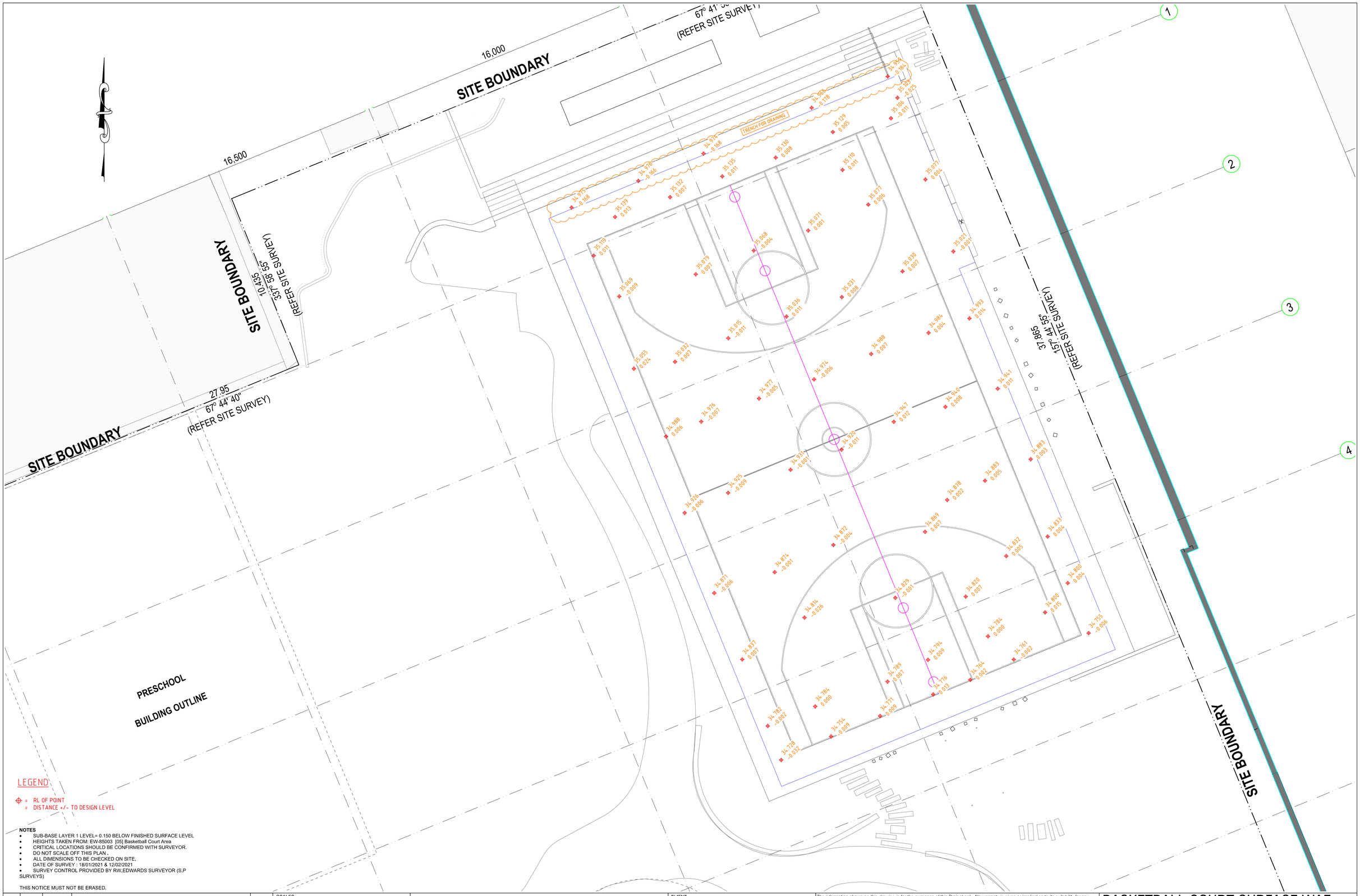
BASKETBALL COURT SURFACE WAE

DARLINGTON PUBLIC SCHOOL
SUB-BASE LAYER 2 WAE

STATUS: FOR INFORMATION | SHEET 3 OF 5 | ©

CRUX Drg No. 122739-SU-WAE-003 | REV. B

Cad File: T:\122739 Darlington Public School - Mainland\Drawings\Out\WAE\122739-SU-WAE-003 [B] (Basketball Court Surface WAE).dwg
Plot Date: 19/02/21 - 17:49
100mm AT FULL SIZE



LEGEND

⊕ = RL OF POINT
= DISTANCE +/- TO DESIGN LEVEL

NOTES

- SUB-BASE LAYER 1 LEVEL = 0.150 BELOW FINISHED SURFACE LEVEL
- HEIGHTS TAKEN FROM: EW-85003 [05] Basketball Court Area
- CRITICAL LOCATIONS SHOULD BE CONFIRMED WITH SURVEYOR.
- DO NOT SCALE OFF THIS PLAN.
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- DATE OF SURVEY : 18/01/2021 & 12/02/2021
- SURVEY CONTROL PROVIDED BY RW,EDWARDS SURVEYOR (S.P SURVEYS)

THIS NOTICE MUST NOT BE ERASED.

REV.	BY	DATE	DESCRIPTION	APPD.
B	DWH	19/02/2021	FOR INFORMATION	SRA
A	DWH	18/02/2021	FOR INFORMATION	SRA

SCALES

0 3 6 Meters

1:100 @ A1

A1 Original | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

CLIENT

Mainland Civil

REGISTERED SURVEYORS

CRUX SURVEYING AUSTRALIA PTY LTD CONSTRUCTION+CIVIL+CADASTRAL BRISBANE | NORTH SYDNEY | BRISBANE

SURVEYED	DALE HODGE
DRAWN	DALE HODGE
SURVEY CHECK	SCOTT ALLISON
DRAWING CHECK	SCOTT ALLISON
APPROVED	SCOTT ALLISON 19/02/2021

BASKETBALL COURT SURFACE WAE

DARLINGTON PUBLIC SCHOOL
SUB-BASE LAYER 1 WAE

STATUS: FOR INFORMATION | SHEET 2 OF 5 | ©

CRUX Drg No. 122739-SU-WAE-003 | REV. B

Cad File: T:\122739 Darlington Public School - Mainland\Drawings\Out\WAE\122739-SU-WAE-003 [B] (Basketball Court Surface WAE).dwg
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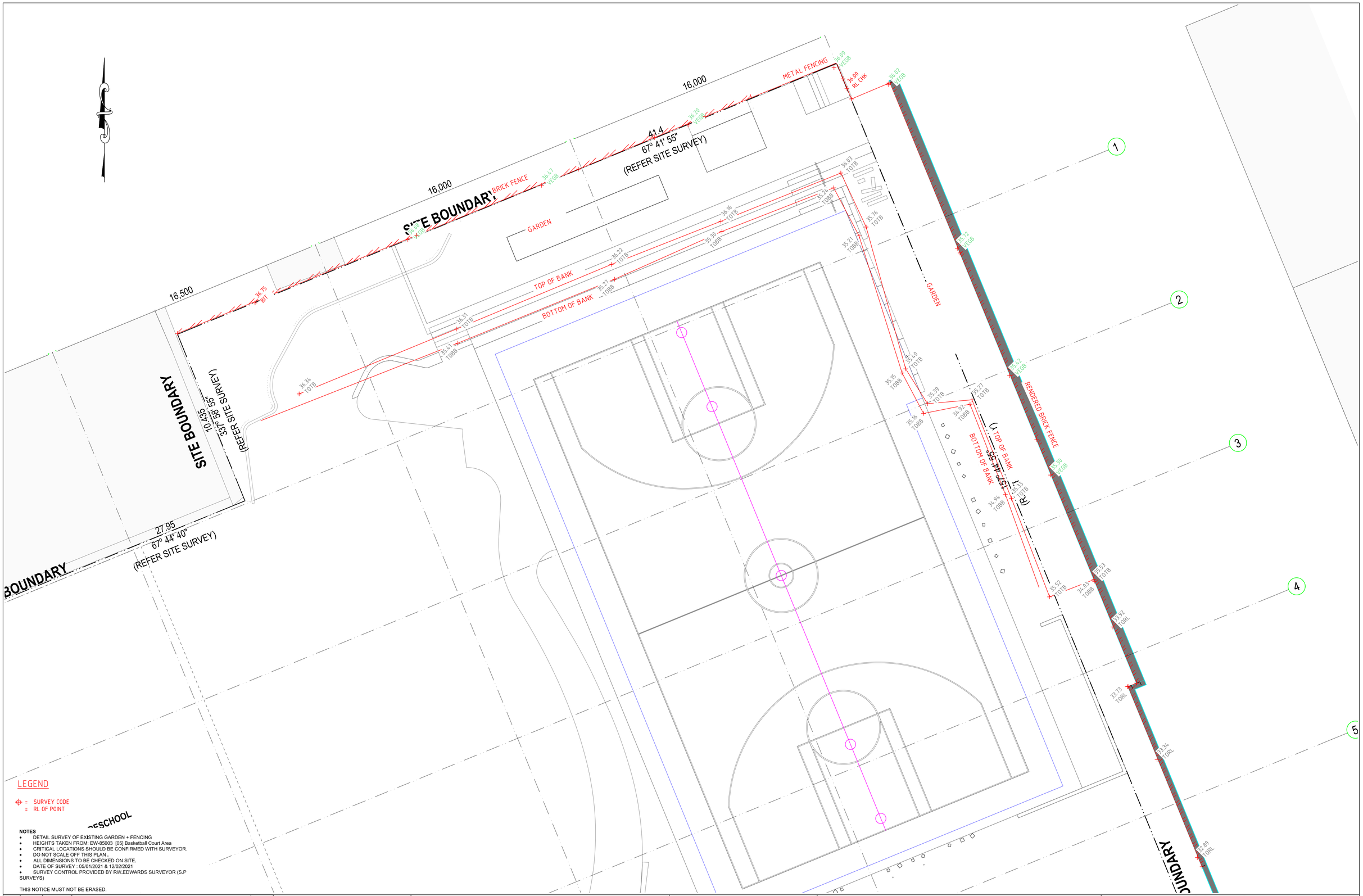


LEGEND

= SURVEY CODE
= RL OF POINT

NOTES

- DETAIL SURVEY OF EXISTING GARDEN + FENCING
- HEIGHTS TAKEN FROM: EW-85003 (05) Basketball Court Area
- CRITICAL LOCATIONS SHOULD BE CONFIRMED WITH SURVEYOR.
- DO NOT SCALE OFF THIS PLAN .
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- DATE OF SURVEY : 05/01/2021 & 12/02/2021
- SURVEY CONTROL PROVIDED BY RW,EDWARDS SURVEYOR (S.P SURVEYS)

THIS NOTICE MUST NOT BE ERASED.

REV.	BY	DATE	DESCRIPTION	APPD.
A	DWH	18/02/2021	FOR INFORMATION	SRA

SCALES

0 3 6 Meters

1:100 @ A1

A1 Original | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

CLIENT

Mainland Civil

REGISTERED SURVEYORS

CRUX SURVEYING AUSTRALIA PTY LTD CONSTRUCTION • CIVIL • CADASTRAL ADELAIDE | MOUNT BARKER | ADELAIDE

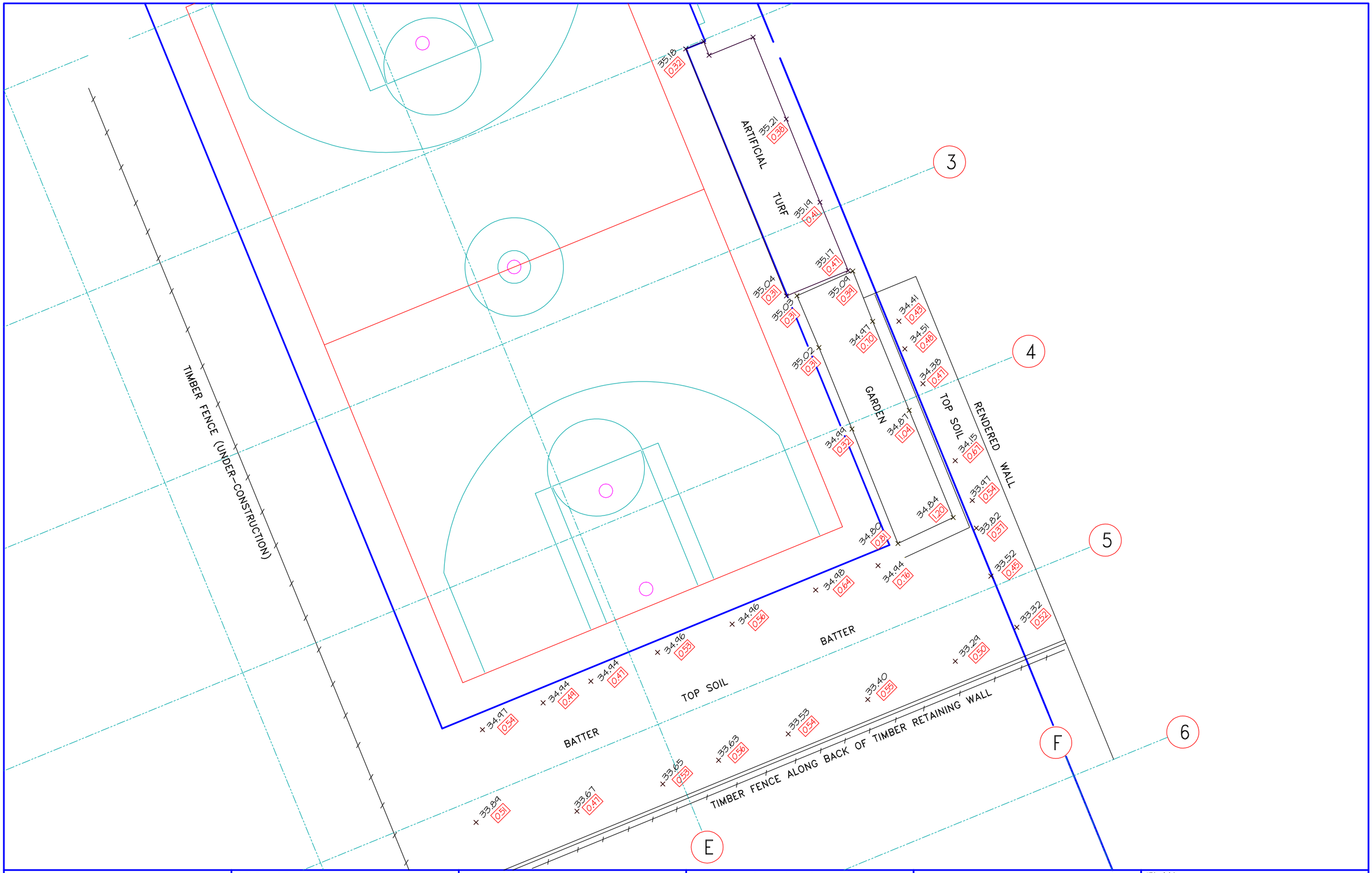
SURVEYED	DALE HODGE	
DRAWN	DALE HODGE	
SURVEY CHECK	SCOTT ALLISON	
DRAWING CHECK	SCOTT ALLISON	
APPROVED	SCOTT ALLISON	18/02/2021

BASKETBALL COURT SURFACE WAE

DARLINGTON PUBLIC SCHOOL
EXISTING GARDEN AREA

STATUS: FOR INFORMATION | SHEET 6 OF 6 | ©

CRUX Drg No. 122739-SU-WAE-003 | REV. A



DRAWING STATUS

PROJECT:

DARLINGTON PUBLIC SCHOOL

GOLDEN GROVE STREET
DARLINGTON NSW 2008

CLIENT:

A.W. EDWARDS PTY LTD

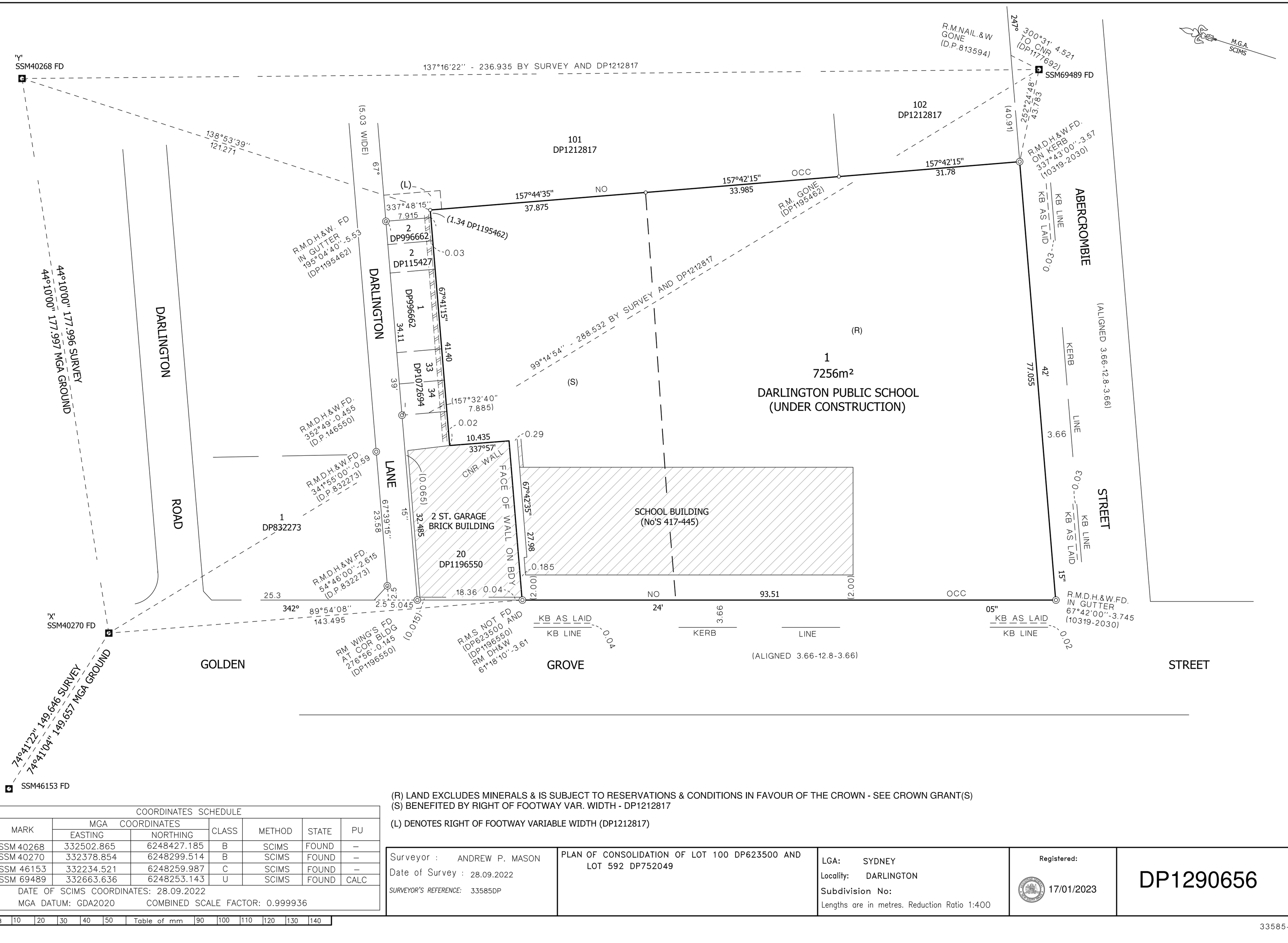
BUILDERS AND CONTRACTORS
131 SAILORS BAY ROAD
NORTHBRIDGE NSW 2063
Ph (02) 9958 1474 Fax (02) 9958 6208

S.P. SITE SETOUT PTY LTD
CONSTRUCTION SURVEYING
UNIT 36/9 HOYLE AVENUE
CASTLE HILL 2154
Mobile: 0411 315 379
Telephone: (02) 9659 3316
Facsimile: (02) 9659 3318
Email: stephen@spsite.com.au

SCALE	1:75 (A1)
DATE	23/02/2021
DATUM	A.H.D
CADD FILE REF	AWE/DARLINGTON
DWG No:	SP1208-014R2.PRO

PLAN:

DEPTH OF FILL TO GEOFABRIC LAYER



COORDINATES SCHEDULE						
MARK	MGA COORDINATES		CLASS	METHOD	STATE	PU
	EASTING	NORTHING				
SSM 40268	332502.865	6248427.185	B	SCIMS	FOUND	–
SSM 40270	332378.854	6248299.514	B	SCIMS	FOUND	–
SSM 46153	332234.521	6248259.987	C	SCIMS	FOUND	–
SSM 69489	332663.636	6248253.143	U	SCIMS	FOUND	CALC
DATE OF SCIMS COORDINATES: 28.09.2022						
MGA DATUM: GDA2020 COMBINED SCALE FACTOR: 0.999936						

(R) LAND EXCLUDES MINERALS & IS SUBJECT TO RESERVATIONS & CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
(S) BENEFITED BY RIGHT OF FOOTWAY VAR. WIDTH - DP1212817

(L) DENOTES RIGHT OF FOOTWAY VARIABLE WIDTH (DP1212817)

Surveyor : ANDREW P. MASON Date of Survey : 28.09.2022 *SURVEYOR'S REFERENCE:* 33585DP	PLAN OF CONSOLIDATION OF LOT 100 DP623500 AND LOT 592 DP752049	LGA: SYDNEY Locality: DARLINGTON Subdivision No: Lengths are in metres. Reduction Ratio 1:400	Registered: 17/01/2023

DP1290656

-08 | 10 | 20 | 30 | 40 | 50 | Table of mm | 90 | 100 | 110 | 120 | 130 | 140

PLAN FORM 6 (2019) WARNING: Creasing or folding will lead to rejection

DEPOSITED PLAN ADMINISTRATION SHEET

Office Use Only

Registered: 17/01/2023

Title System: TORRENS

Office Use Only

DP1290656

PLAN OF CONSOLIDATION OF LOT 100 DP623500 AND LOT 592 DP752049

LGA: SYDNEY

Locality: DARLINGTON

Parish: PETERSHAM

County: CUMBERLAND

Survey Certificate

I, Andrew Philip Mason

of Frank M Mason & Co Pty Ltd, Suite 402, 156 Pacific highway,

Greenwich NSW 2065, a surveyor registered under the *Surveying and Spatial Information Act 2002*, certify that:

*(a) The land shown in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, is accurate and the survey was completed on 28 September 2022, or

~~*(b) The part of the land shown in the plan (*being/*excluding ....as surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, the part surveyed is accurate and the survey was completed on,..... the part not surveyed was compiled in accordance with that Regulation, or~~

~~*(c) The land shown in this plan was compiled in accordance with the *Surveying and Spatial Information Regulation 2017*.~~

Datum Line: X-Y

Type: Urban

The terrain is Level-Undulating

Signature: Andrew Mason

Dated: 28/09/2022

Surveyor Identification No: 1576
Surveyor registered under
the *Surveying and Spatial Information Act 2002*

*Strike out inappropriate words.

**Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.

Crown Lands NSW/Western Lands Office Approval

I, ... (Authorised Officer)
in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.

Signature: .....

Date: .....

File Number: .....

Office:

Subdivision Certificate

I, ...
*Authorised Person/*General Manager/*Accredited Certifier, certify that the provisions of s.6.15 of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: .....

Consent Authority: .....

Date of endorsement: .....

Subdivision Certificate number: .....

File number: .....

*Strike through if inapplicable.

Plans used in the preparation of survey/compilation.

DP's 623500, 1196550, 1177692, 1212817, 832273, CP 10319-2030

Statements of intention to dedicate public roads create public reserves and drainage reserves, acquire/resume land.

Surveyor's Reference: 33585DP

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

PLAN FORM 6A (2017) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 2 of 2 sheet(s)

Office Use Only

Registered: 17/01/2023

Office Use Only

DP1290656

PLAN OF CONSOLIDATION OF LOT 100 DP623500 AND LOT 592 DP752049

Subdivision Certificate number: .....

Date of Endorsement: .....

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of

STREET ADDRESS SCHEDULE

LOT NUMBER	STREET NO.	STREET NAME	STREET TYPE	LOCALITY
1	417-445	ABERCROMBIE	STREET	DARLINGTON

EXECUTED on behalf of the **Minister for Education and Early Learning** :

Executed by
Paul Towers

in the presence of:

Yu Chu Eav
Name of Witness in full

Eav, Yu Digitally signed by Eav, Yu Date: 2022.12.05 09:36:19 +11'00'
Signature of Witness

16 St Peter Cl, Hinchinbrook
Address of Witness

Signed by me Paul Towers as delegate of the Minister for Education and Early Learning pursuant to Sections 119 and 125 of the Education Act 1990 and I hereby certify that I have no notice of the revocation of such delegation

Paul Towers Digitally signed by Paul Towers Date: 2022.12.05 09:35:51 +11'00'
Signature of Delegate

Executive Director,
School Infrastructure NSW
Paul Towers
Name of Delegate

If space is insufficient use additional annexure sheet

Surveyor's Reference: 33585DP

Polyfabrics | *Reliability you can build on*

Applications

- Warning Layer for future excavations
- Filtration
- Segregation of contaminated soil

mastaTEX® Hi Vis Layer

The mastaTEX® HVL is a Orange geotextile, extremely well manufactured for separating contaminated and non-contaminated soils with its high visibility layer needled punched Nonwoven Polyester Geotextile. These geotextiles provide the same performance and functions as our mastaTEX Range with an additional added benefit; they become a warning and marker layer for years to come. This enables the user to leave contaminated soils in place. Place the geotextile over the top before filling the area with the clean fill. The mastaTEX HVL will separate the mediums ensuring they do not intermix, while providing confidence that if future excavations are done, they are warned about hazardous materials below.

HVL, which include a vivid colour that warns any of any potential danger at the point for future excavations - preventing the upward movement of contaminated solid particles, and allows the free flow of water.

mastaTEX® Hi Vis Layer Specifications				
Mechanical Properties	**Standard**	**Units**	**HVL Light**	**HVL Medium**
Wide Width Tensile Strength MD/CD	AS 3706.2 ASTM D4595	kN/m	4.0/4.0	8.0
Grab Tensile Strength MD/CD	AS 2001.2.3.2 ASTM D4632	N	300/250	560
Hydraulic Properties				
Pore Size Distribution	AS 3706.7 ASTM D4751	microns	<200 (Typical)	120
Flow Rate (100mm Constant Head)	AS 3706.9 ISO 11058	l/m²/sec	>200 (Typical)	240

HEAD OFFICE:
29 Penelope Crescent
Arndell Park NSW 2148

PHONE:
1300 287 484

WEBSITE:
polyfabrics.com.au