



Phase 04 Verification Report

Ardrossan, North Shore



Disclaimer

Sanctus Limited has prepared this Verification Report relating to the verification of all Sanctus owned remedial activities at the Ardrossan North Shore site on the instruction of North Ayrshire Council (Client). This document is for the sole specific use of the Client and for the particular project as referred to herein. Copies may be passed to third parties only with the express written permission of Sanctus and then no professional liability or warranty will be extended to such parties without the express written confirmation of Sanctus.

Document Reference: S3240-018 Ardrossan North Shore				Issue: Issue C
Date:	Status:	Name:	Position:	Signature:
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Revision Status.			
Revision:	Date:	Sections Revised	Description of Revision:
Issue A			First revision following completion of all Sanctus remediation works.
Issue B	12/05/2025	All	Updated following regulator comments.
Issue C	06/06/2025	Appendix J	Updated Declaration forms 019 and 023 following regulator comments

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1.0 Introduction to Scheme and Phases

Sanctus Limited (Sanctus) have been appointed by North Ayrshire Council (NAC) (Client) to undertake the phased ground remediation of their site at Ardrossan North Shore (Site). The scheme involves the targeted excavation of known areas of elevated hydrocarbon contamination, de-watering and removal of NAPL (Non-Aqueous Phase Liquid – a free phase product) from ground water (if present) and the bioremediation of soils containing elevated Petroleum and Polycyclic Aromatic Hydrocarbon Contaminants to agreed, site suitable levels (Remedial Target Values).

This report encapsulates all of the previous remediation works undertaken between September 2023 and September 2024, as well as the verification of bio-remediated soils treated from September 2024 to March 2025. These materials are surplus to the Sanctus scope of works. This report demonstrates that the remedial targets, stated within the Sanctus Remediation Strategy (1), have been achieved.

This report verifies that the materials remaining on site, within the waste treatment areas, shown on Drawing D3240/108, included within 0, have been remediated to the agreed Sanctus remedial target values. The reuse of the materials and any subsequent analysis required to demonstrate suitability for use falls outside of the Sanctus scope, and as such will be verified by the Client's appointed contractor/consultant within a separate remediation strategy and verification report (references unknown).

This report has been produced in accordance with the Verification requirements, where appropriate, within Section 25.0 of the Remediation Strategy (1).

This report should be read in conjunction with the following reports:

- Sanctus Remediation Strategy: Reference S3240-001 Revision E (1);
- Sanctus Phase 01 Verification Report: Reference S3240-012 Revision D (2);
- Sanctus Phase 02 Verification Report: Reference S3240-015 Revision D (3); and
- Sanctus Phase 03 Verification Report: Reference S3240-017 Revision C (4).

For ease, the above reports have been included as appendices within this report (Appendix E, Appendix F and Appendix G).

Any remedial works, monitoring & verification that fall outside of the Sanctus Scope will be completed, verified and documented by the client's appointed follow-on contractors and/or Environmental Consultant, EnviroCentre.

This document has been produced for review and acceptance by North Ayrshire Council (NAC), for the partial discharge planning condition 4 of application No. N/21/01161/PP, included within Appendix B, as well as being linked to the wider planning for the Campus Build, application 23/00319/PPM.

Due to the number of drawings produced by Sanctus, detailing pertinent information regarding the remediation and assisting with the demonstration that all remedial objectives were achieved, a register of the drawings and their titles is summarised within Table 1-1, below, while a copy of the drawings is included within 0.

Table 1-1: Sanctus Drawings Summary

Sanctus Drawing Reference	Drawing Title	Summary of Information
D3240/005	Phase 01- Proposed Phasing Plan Areas	Outline drawing showing proposed remediation excavation extents, based upon site investigation data provided.
D3240/006	Phase 02- Proposed Phasing Plan Areas	Outline drawing showing proposed remediation excavation extents, based upon site investigation data provided.
D3240/007	Phase 03- Proposed Phasing Plan Areas	Outline drawing showing proposed remediation excavation extents, based upon site investigation data provided.
D3240/009	Sanctus Water Treatment System Schematic	Schematic detailing water treatment of encountered ground and surface waters prior to discharge through agreed trade effluent consent.
D3240/028	Phase 1-3 Remediation Locations on Proposed Development	Summary of recorded Sanctus remediation excavation extents in relation to the proposed development and campus.
D3240/029	Japanese Knotweed Excavation, Stockpiling and Management Plan	Detail of encountered JKW and methodology to excavate and manage the impacted soils.
D3240/032	Sanctus Environmental Monitoring Location Plan	Overview showing Environmental monitoring station locations in relation to the onsite treatment and remediation works.
D3240/033	Encountered Below Ground Concrete Tank Survey	Survey and model of encountered settlement tank with Area 01.

Sanctus Drawing Reference	Drawing Title	Summary of Information
D3240/040	Area 01 & 02 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/041	Area 03 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/043	Area 05 Validation Location Plan	Summary of Sanctus validation sample locations.
D3240/044	Area 06 Validation Location Plan	Summary of Sanctus validation sample locations.
D3240/045	SP05 Trial Pit Location Plan	Additional investigation locations within existing stockpile SP05. Investigation to determine materials suitability for re-use.
D3240/047	Area 01 & 02 Asbestos Contamination Placement Location Plan	Summary of location and depths of re-use for materials containing elevated asbestos free fibre above Sanctus remediation criteria.
D3240/049	Phase 01 Completed Remediation Areas and Topographic Levels	Survey detailing actual remediation excavation extents.
D3240/050	Area 07 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/051	Phase 01 Remediation Excavation As Built Survey	Survey detailing actual remediation excavation extents.
D3240/053	Phase 01 Ground water Bailer Location Plan	Summary of groundwater validation locations using semiquantitative approach.
D3240/054	Area 01 & 02 Validation Sample and Photographic Logs Location	Summary of Photographic record for verification and validation of remediation excavations
D3240/055	Area 04 Validation Sample and Photographic Logs Location	Summary of Photographic record for verification and validation of remediation excavations
D3240/056	Area 05 Validation Sample and Photographic Logs Location	Summary of Photographic record for verification and validation of remediation excavations
D3240/057	Area 06 Validation Sample and Photographic Logs Location	Summary of Photographic record for verification and validation of remediation excavations

Sanctus Drawing Reference	Drawing Title	Summary of Information
D3240/058	Area 07 Validation Sample and Photographic Logs Location	Summary of Photographic record for verification and validation of remediation excavations
D3240/062	Area 09, 15 & 16 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/066	Phase 02 Groundwater Bailer Sample Location Plan	Summary of groundwater validation locations using semiquantitative approach.
D3240/067	Area 07 & 09 Below Ground Pipeline Location Plan	Survey of additional remediation and extents of pipeline identified during Sanctus works.
D3240/073	Area 12 & 13 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/080	Area 12 & 13 Groundwater Validation Sample Location Plan	Summary of groundwater validation locations using semiquantitative approach.
D3240/081	Phase 02 Remediation Excavation Reinstatement As Built Survey	Survey detailing actual remediation excavation extents.
D3240/082	Area 10 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/083	Area 11 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/084	Area 12 & 16 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/085	Area 17 & 18 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/086	Area 13, 14 & 19 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/087	Area 20 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/088	Area 12 & 16 Groundwater Validation Sample Location Plan	Summary of groundwater validation locations using semiquantitative approach.
D3240/089	Area 19 Groundwater Sample Location Plan	Summary of groundwater validation locations using semiquantitative approach.

Sanctus Drawing Reference	Drawing Title	Summary of Information
D3240/098	Area 21 Validation Sample Location Plan	Summary of Sanctus validation sample locations.
D3240/099	Area 21 Groundwater Validation Sample Location Plan	Summary of groundwater validation locations using semiquantitative approach.
D3240/100	Area 22 Validation Sample location Plan	Summary of Sanctus validation sample locations.
D3240/101	Area 22 Groundwater Validation Sample Location Plan	Summary of groundwater validation locations using semiquantitative approach.
D3240/108	Treatment Stockpile Location	Survey showing volumes and location of bioremediated soils surplus to Sanctus scope of works.
D3240/121	Treated Stockpile 16A Sample Locations	Survey showing removal of outliers with TSP16 and creation of TSP25.
D3240/123	Remediation Verification Phasing Overview	Summary of remediation areas covered within interim verification reports S3240-012, 015 and 017.

The following drawings have also been produced in relation to the verification of the Sanctus remedial works, however have been included within Appendix J, as they relate solely to the verification of the Sanctus bioremediated stockpiles (TSP's).

Table 1-2: Sanctus Drawings Summary – Bioremediated Soils

Sanctus Drawing Reference	Drawing Title	Summary of Information
D3240/061	Treated Stockpile 09 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/072	Treated Stockpile 11 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/075	Treated Stockpile 05 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/076	Treated Stockpile 06 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/077	Treated Stockpile 07 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/078	Treated Stockpile 08 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.

Sanctus Drawing Reference	Drawing Title	Summary of Information
D3240/102	Treated Stockpile 10 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/103	Treated Stockpile 12 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/104	Treated Stockpile 13 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/109	Treated Stockpile 014A Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/110	Treated Stockpile 14B Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/111	Treated Stockpile 15 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/112	Treated Stockpile 16 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/113	Treated Stockpile 17 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/114	Treated Stockpile 18 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/115	Treated Stockpile 19 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/116	Treated Stockpile 20 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/117	Treated Stockpile 21 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/118	Treated Stockpile 22 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/119	Treated Stockpile 23 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/120	Treated Stockpile 24 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/121	Treated Stockpile 16A Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.
D3240/122	Treated Stockpile 25 Sample Locations	Summary of Sanctus verification sample locations for bioremediated soils.

2.0 Planning Conditions & Legislation

The Sanctus remedial works (Phases 01 to 04) have been undertaken to satisfy condition No.4 of application, reference N/21/01161/PP, for the Enabling works at the North Shore Site only.

Condition No.4 states:

'On completion of the remediation works a validation and verification report which demonstrates the effectiveness of the completed remediation works. All documentation shall be verified by a suitably qualified Environmental Consultant and will be submitted for the approval of the Local Planning Authority'

A copy of the planning application has been included within Appendix B.

All other works, relating to the assessment of contaminated ground and remedial activities required for the wider North Shore development are to be undertaken under a second planning application, reference: N/23/00319/PPM.

The treatment of hydrocarbon impacted soils was undertaken under the Sanctus Waste Management License WML/L/5005884, issued by SEPA and in accordance with the Sanctus Site Specific Working Plan (5) as well as the Scottish Environment Protection Agency Land remediation and Waste Management Guidelines (6).

In addition, the remedial works were also undertaken, where required, with the Groundwater protection policy (7) and the Controlled activities register (8).

Where asbestos was encountered, the works were completed in accordance with the Control of Asbestos Regulations 2012 (9).

3.0 Remedial Objectives

The remediation was designed to achieve two main remedial objectives:

- Mitigate risk to the groundwater environment through the removal of mobile contaminants present within the groundwater (Free phase Product) and the removal/reduction of contaminants to suitable levels within soils; and
- Ensure suitability of soils to be used within excavations in relation to the assessment against human health and the end use scenario. Based upon the development, and the sites legacy and profile, a conservative Residential with plant uptake scenario was adopted, with site specific criteria derived in relation to Polycyclic Aromatic Hydrocarbons and Aromatic Hydrocarbon Fractions.

The remedial criteria is detailed within Appendix C Details of how the criteria were derived and the methodology can be found within Section 15.0 of the Sanctus Remediation Strategy (1), included within Appendix D.

The objectives were designed following a review of all previous site investigation data as well as liaison with both the client and regulators.

To achieve the remedial objectives the following activities were conducted on site:

- Excavation of soils exceeding the Sanctus Remedial criteria;
- Chemical validation of excavation extents, to confirm the removal of all unsuitable materials (in relation to hydrocarbon contamination);
- Removal of encountered free phase product (classified as non-aqueous phase liquids with high viscosity of dark brown to black colour with a demonstrable thickness (1)) and sheens (light grey to rainbow film with demonstrable thickness (1)) from groundwater;
- Validation of groundwater through visual assessment and semi-quantitative method in accordance with the remediation strategy;
- Segregation of overburden materials (defined as materials overlying known contaminated soils) and confirming suitability for re-use on site without treatment. Confirmation soil samples following screening of obtained analysis against the remedial criteria. The chemical analysis was obtained at a frequency of 1 sample per 250m³ of materials.

- Bioremediation of all chemically unsuitable materials (soils containing hydrocarbon contamination exceeding the remedial criteria)

Details of the objectives being achieved and their subsequent verification & evidence are detailed within the relevant phase verification reports. The specific Sanctus' phases are detailed on Sanctus drawings D3240/005 to 007 included within 0. The previous sectional Verification Reports are included within Appendix E, Appendix F, and Appendix G for Phase 1, 2 and 3 respectively.

The methodology of the remedial activities required to achieve the remedial objectives, are summarised within Section 4.0, below.

4.0 Sanctus Remedial Works completed (General Description)

The remedial works and activities, detailed below were required to achieve the remedial objectives. Remedial activities relating to the specific phases are detailed within the specific phase verification reports, included within Appendix E, Appendix F, and Appendix G.

4.1 Soil Excavation & Validation

Historic site investigation identified that soils impacted with hydrocarbon contamination were both observed and had the potential to act as sources of contamination to impact the groundwater environment and to the site end users.

Where historic investigation data, reviewed during the pre-commencement phase of the works, indicated that hydrocarbon and polycyclic hydrocarbon levels exceed the Sanctus' derived remedial criteria, the areas were delineated and excavated using mechanical excavators.

Overburden materials, overlying the identified impacted soils, were segregated and stockpiled, prior to verification to confirm suitability for re-use without treatment. The materials were verified against the remedial criteria using chemical analysis at a frequency of 1 sample per 250m³ of soils to be re-used.

All materials known to be impacted and/or displaying visual and olfactoral evidence of hydrocarbon contamination were excavated to the full vertical and lateral extents. The materials were transported to the waste treatment area to undergo bioremediation. The excavation extents were visually monitored and assessed by the Sanctus Environmental Engineer present on site, prior to sampling and chemical analysis being obtained. The analysis was obtained in accordance with the Sanctus Remediation Strategy (1).

If any chemical analysis exceeded the remedial criteria, the steps within the strategy were followed, the excavation extended.

All of the validation analysis obtained, and the respective locations of each sample are detailed within the verification reports for the respective phases of remediation. The excavation extents are shown on Sanctus drawing D3240/028. These extents are final and were surveyed using GPS equipment.

4.2 Groundwater Treatment & Validation

During the removal of impacted soils, where groundwater was encountered, the water was managed to facilitate the excavation of impacted soils. All water was removed using a suitable pump prior to being passed through the Sanctus' water treatment equipment and being discharged through the Scottish Water trade effluent consent.

Where free phase product and/or sheens were identified the product was skimmed and removed from the groundwater. The encountered oils were placed into sealed IBCs prior to offsite disposal/recovery.

The recovered free product disposal details and waste consignment notes are detailed within Appendix I. A total of 18,000ltrs of recovered oil was removed from the ground water. The disposal is summarised within Table 4-1, below. The disposal shows 2no. recovered waste streams, in relation to the oil removed from site. Fuel oil/diesel (EWC 13 07 01*) and other fuel mixtures (EWC 13 07 03*). These varying waste streams reflect the volumes expected as indicated by the historic site investigations, which identified lighter fuel mixtures within the reclaimed Western portion of the site and the heavier fuels within the eastern portion of the site.

Table 4-1: Sanctus recovered oil/fuel disposal summary

European Waste Catalogue Code (EWC)	Volume (Ltrs)	Disposal Address	Receiving facility permit number
13 07 01*	11,000		PPC/A/1004470
13 07 03*	7,000		PPC/A/1004470

Following removal of free product and sheens, the groundwater level within open excavations was allowed to recharge, and the semi-quantitative validation approach followed, detailed within Appendix J of the Sanctus' Remediation Strategy (1). All validations relating to each of the excavation areas, where groundwater was identified, is included within the Phased Verification Reports (Phase 1 and 2). No impacted groundwater was identified within the Phase 3 works.

4.3 Re-use of Overburden Soils

Where overburden materials were encountered, and subsequently validated and confirmed as suitable against the remedial criteria, the materials were assessed as suitable for re-use.

Each stockpile was assigned a unique stockpile reference and tracked using the Sanctus materials tracking audit, detailing the materials origin, volume, date of verification, date and areas of re-use.

Where required, the materials were engineered into the excavations to re-instate to existing site levels.

Details of each unique stockpile, including volume, verification, date and area of re-use are detailed within the Phase specific verification reports included within Appendix E, Appendix F, and Appendix G.

Existing overburden stockpiles (SP01 to 07) were present on site from previous works undertaken (prior to Sanctus's involvement). These materials were reviewed and verified and also re-used within the Sanctus works. Details of these materials and the subsequent verification are detailed within Section 3.1 of the Phase 01 verification report (2), included within Appendix E.

Drawing D3240/028 shows the Sanctus remedial excavation extent and the areas re-instated.

4.4 Bioremediation of TPH/PAH impacted soils

To achieve the remedial objectives, bioremediation was assessed as the most suitable remedial technique to reduce hydrocarbon contamination present within soils to the remedial criteria and to remove the source of contamination and risk to the groundwater environment as well as site end users.

Materials were treated in accordance with the Sanctus Site Specific working plan, and the methodology detailed within Section 5.1, below.

Once treated, materials were placed into unique treatment stockpiles (TSP) and assigned a unique ID reference i.e. TSP01.

Once initially dosed, the materials were monitored in relation to temperature, CO₂ output and available oxygen as well as the reduction in Hydrocarbons over time through regularly obtained chemical analysis. The monitoring was used to further demonstrate that the bioremediation was the primary driver for the reduction in Hydrocarbon levels to the remedial criteria, not volatilisation and mixing/aeration. Details of the monitoring undertaken for TSPs 05 to 13 are included within Appendix K.

In addition to the monitoring, representative soil samples were obtained for Coliform analysis, to show that bacterial cultures were present within dosed materials compared to an undosed control pile. This analysis and comparison is detailed within Section 5 of the Phase 2 Verification Report, included within Appendix F.

The detail regarding the bioremediation of TSPs 01 to 13 are included within the Phase 02 and 03 verification reports, included within Appendix F and Appendix G.

The detail in relation to all other bioremediated soils (TSP14 to 24) are included within Section 5.0, below.

4.5 Re-use of bioremediated soils

Once the bioremediated soils passed the Sanctus remedial criteria for 3 consecutive rounds of obtained sampling and chemical analysis, the materials were assessed as suitable for re-use within the Sanctus remediation excavations, without posing a risk to the groundwater environment or the site end users.

Each treatment stockpile was summarised within specific Sanctus declaration forms submitted to both SEPA and the North Ayrshire Council Contaminated Land officer. The forms detailed the number of rounds, and all chemical analysis associated with the stockpile. The forms were to notify the regulator of Sanctus' intention to re-use soils and demonstrate their suitability for re-use within the Sanctus scope of works. The declaration forms area included within Appendix J.

Once declared, the materials were then re-used to re-instate excavations and were engineered to achieve existing site levels. Drawing D3240/028 shows the Sanctus remedial excavation extent and the areas re-instated.

Table 4-2 summarises TSPs 05 to 13, while the specific detailing regarding their re-use is include within the Phase 02 and 03 verification reports, included within Appendix F and Appendix G. Note that TSP09 South and North were formed of TSP01 to 04, following redosing.

Table 4-2: Sanctus Treatment Stockpiles Summary (TSP05 to 13)

Sanctus Treatment Stockpile ID	Approximate Volume (m ³)	Sanctus Declaration Note Reference
TSP05	1,200	003
TSP06	1,700	006
TSP07	700	004
TSP08	2,300	007
TSP09 (South)	800	001
TSP09 (North)	1,200	005
TSP10	2,000	008
TSP11	1,200	002
TSP12	4,000	010
TSP13	3,700	009

All bioremediated soils, meeting the remedial criteria required to achieve the Sanctus remedial objectives, including the re-instatement of targeted excavations have been previously verified within the Phase 02 and Phase 03 verification reports and the specific treatment stockpile declaration forms. These materials, their volumes and their areas of re-use, in relation to the Sanctus works are detailed within Table 4-3, below. Treatment stockpile 14 (TSP14) was initially formed for one stockpile, however, to allow the materials to be aerated and for ease of onsite monitoring and verification, the stockpile was split into stockpiles TSP14A and TSP14B.

All other materials, surplus to the re-instatement requirements within the Sanctus remediation excavations were dosed and treated and left for the management and re-use by

the Client, following demonstration of suitability of use based on the Sanctus Remediation Strategy.

The bioremediation was completed under the Sanctus waste management license, Ref WML/L/5005884.

Table 4-3: Sanctus Bioremediated Soil areas of re-use summary

Sanctus Stockpile ID	Approximate Volume (m ³)	Sanctus Declaration Note Reference	Area of Re-use in Phase 02	Depth of Re-use (m AOD)
TSP05	1,200	003	Area 15 & 16, Area 20	Area 15 & 16: 2.70-3.60 Area 20: 2.61-4.30
TSP06	1,700	006	Area 19	Area 19: 1.00-4.80
TSP07	700	004	Area 12 & 23	Area 12 & 23: 0.70-1.00
TSP08	2,300	007	Area 10	Area 10: 1.40-2.70
TSP09 (South)	800	001	Area 10	Area 10: 2.70-3.00
TSP09 (North)	1,200	005	Cell 'D'	Cell 'D': 0.30-1.90
TSP10	2,000	008	Area 10	Area 10: 3.00-3.70
TSP11	1,200	002	Area 11	Area 11: 1.10-4.00
TSP13	3,700	009	Cell 'D' & Area 10	Area 10: 3.70-4.14 Cell 'D': 1.90-4.20
TSP12	4,000	010	Area 21 & Area 22	Area 21: 2.93-4.37 Area 22: 1.80-4.00

4.6 Materials unsuitable for treatment

During the remedial works, soils impacted with visible asbestos containing materials (ACMs) were identified within Phase 01 of the works. The volume of the materials totalled ~18m³. The materials were excavated, stockpiled, sheeted and signed under controls compliant with the Control of Asbestos Regulations 2012 (9).

Due to the remedial criteria and the density of visible asbestos present within the soils, the Client instructed that these materials be disposed offsite at a suitably permitted facility. The disposal is summarised within Table 4-4 below, with the waste transfer documentation included within Appendix I. Prior to disposal, the materials were classified as waste in accordance with the WM3 technical guidance (10), with Stage 01 and 02 analysis confirming the materials as Hazardous (EWC17 05 03*).

Table 4-4: Asbestos Impacted Soils Disposal Summary

European Waste Catalogue Code (EWC)	Volume (m ³)	Disposal Address	Receiving facility permit number
17 05 03*	18		EPR/TC:3098CL/W0023

4.7 Environmental Monitoring

Sanctus undertook environmental monitoring within the remediation scheme, inline with the scope of works provided by the client. The comprised sampling airborne Volatile Organic Carbons (VOCs) and Particulate matter generated from the treatment of hydrocarbon impacted soils.

This sampling was undertaken using Tennax tubes to test for a client specified suite of VOCs while particulate matter was recorded using environmental frisbee stations. The sampling locations were fixed based upon the Sanctus works areas.

Prior to commencement of the works, baseline monitoring was obtained, and the subsequent samples compared to the baseline data only.

Throughout the remediation works, the environmental monitoring data was made available to the client and stakeholders upon request.

Copies of the environmental monitoring samples are included within Appendix H.

Drawing D3240/032, detailing the locations of the environmental monitoring stations is included within 0.

5.0 Bioremediation/Verification of Materials being retained for use by others

All materials, surplus to the re-instatement requirements within the Sanctus remediation excavations were dosed and treated and left for the management and re-use by the Client, following demonstration of suitability of use based on the Sanctus Remediation Strategy.

Sanctus drawing D3240/108, shows the locations of all materials surplus to the Sanctus scope of works.

The bioremediation was completed under the Sanctus waste management license, Ref WML/L/5005884.

5.1 Dosing Methodology

The hydrocarbon impacted soils undergoing treatment were stockpiled within a designated quarantine area, prior to screening and processing to remove unsuitable materials i.e. wood, metals and concrete. This process also had the added benefit of disturbing the soil structure and oxygenating the treated soils whilst adding the dosing media.

The dosing was undertaken in accordance with the supplier's design and guidance, with each 50m³ of impacted soils dosed with 20 ltrs of Bio-8 Surge bio stimulant and 1 packet of Bio-8 Bacteria mixed within 1,000ltrs of water. Representative samples were then collected to obtain starting concentrations from the treatment stockpiles.

The bioagent and growth medium were mixed with 1,000ltrs of water, a minimum of 2hours prior to application to allow time for activation and agitation. During the application the flow/dosing rate was continuously monitored by Sanctus. There were no changes to dosing or application rates based upon areas of excavation and historic maximum TPH concentrations, as the chosen product and dosing rate was suitable for all anticipated concentrations following a review of the site investigation data.

5.2 Monitoring

Following the dosing of the hydrocarbon impacted soil, samples were retrieved to obtain starting concentrations, in relation to Total Petroleum Hydrocarbons. Once the starting concentrations were obtained, the results were reviewed in relation to the remedial criteria.

Table 5-1, below summarises the starting concentrations of treatment stockpiles 14 to 24.

Table 5-1: Sanctus Treatment Stockpile summary (TSP14 to 24)

Sanctus Treatment Stockpile ID	Volume (m ³)	Starting Concentration (mg/kg)
TSP14A	1,517	6,000
TSP14B	1,748	6,000
TSP15	1,490	9,400
TSP16	60	4,000
TSP17	728	4,650
TSP18	467	2,800
TSP19	836	2,600
TSP20	2,197	2,550
TSP21	1,406	6,940
TSP22	667	3,550
TSP23	406	2,400
TSP24	958	6,100
TSP25*	197	1,600
(*) Note: TSP25 formed of outliers identified within TSP16 - Sampling round 03 (Locations 01 & 02)		

All subsequent monitoring was obtained at a sampling frequency of 1 sample per 500m³ to provide evidence of degradation in relation to hydrocarbon concentrations within the soils. Once the hydrocarbon concentrations were viewed as approaching the remedial criteria (>2,000mg/kg for Total Petroleum Hydrocarbons), the materials were monitored with samples obtained at a frequency of 1 sample per 100m³, in accordance with the remediation strategy.

Throughout the monitoring the temperature of the internal vs external stockpile temperatures were taken to demonstrate microbial activity. The data for each individual TSP is included within Appendix K.

As previously undertaken, Sanctus obtained representative samples from TSPs 14 to 24 to determine the presence of elevated bacterial cultures within dosed and treated materials. The data is summarised within Table 5-2, below and represented graphically within

Table 5-2 Bacterial Coliform Analysis Summary

Sanctus Treatment Stockpile ID	Sample ID	TVC @ 37°C (cfu/g)	Coliforms (cfu/g)
Control Pile*	CP-01	>300	<200
TSP14A	TSP14A	300,000	27,000
TSP14B	TSP14B	300,000	300
TSP15	TSP15	300,000	100
TSP16	TSP16	300,000	400
TSP17	TSP17	300,000	200
TSP18	TSP18	300,000	2,300
TSP19	TSP19	300,000	4,000
TSP20	TSP20	300,000	24,000
TSP21	TSP21	300,000	100
TSP22	TSP22	300,000	100
TSP23	TSP23	300,000	2,000
TSP24	TSP24	300,000	100

The bacterial analysis confirm that higher numbers of bacterial cultures compared to undosed materials (CP-01), further supporting the degradation and reduction in Hydrocarbons was due to bacterial activity. The analysis reports are included within Appendix K. The analysis was undertaken within colder periods (December 2024) to confirm that despite cooler temperatures which could affect the bacterial cultures, the bacteria were still present within the dosed materials.

Appendix K also includes the previously undertaken within the Phase 02 and 03 works.

Within TSP16, the final round of monitoring identified 2no outliers within the sample population (sample locations TSP16-01 and 02) shown on Sanctus drawing D3240/121. These locations were excavated and removed from the stockpile to produce TSP25.

The remaining materials from TSP16, assessed as meeting the remedial criteria were validated to confirm the removal of the outliers from the materials. These Samples, References TSP16-V01 & TSP16-V02 confirmed that the outlier materials had been removed.

The new stockpile (TSP25) was surveyed and the 3no rounds of monitoring undertaken. The 3no rounds confirmed that the materials met the remedial criteria. Following confirmation the remedial criteria was met, the materials were declared as suitable by Sanctus, under Declaration Reference 023.

5.3 Re-use declaration Forms

Once assessed as achieving the remedial criteria by Sanctus, the relevant analysis, sampling methodology and monitoring round were summarised within stockpile specific declaration forms. These forms have been completed for TSPs 14A-25. These forms were issued to both SEPA and North Ayrshire Council's contaminated land team.

A copy of these declaration forms are enclosed within Appendix J.

These forms only note the achievement of the Sanctus Remedial Criteria. All other screening and assessment of suitability is to be undertaken by the Client.

Following notification and demonstration that materials pass the Sanctus remedial criteria, the materials were retained within the treatment platforms. The Stockpile location plan for these materials, D3240/108, is included within 0.

Once materials were assessed and demonstrated as suitable by Sanctus, in relation the Sanctus remedial criteria only, the client and their appointed environmental consultant, were notified by email that the materials passed the criteria, and that under the works contract, the materials were under their management. A copy of this email is included within Appendix L.

6.0 Surrender Of Waste Management License

Sanctus undertook the bioremediation and treatment of soil on site under the SEPA issued Waste Management License WML/L/5005884.

Following all bioremediated soils achieving the Sanctus remedial criteria, Sanctus surrendered the Waste Management License in affect for the onsite works. The surrender was notified to SEPA via email on 02nd May 2025. A copy of the email is included within Appendix L. This document has been partially produced to assist in the verification of the waste treatment undertaken by Sanctus.

Sanctus undertook the relevant waste returns, detailing the type and volume of waste treated and re-used on site.

In total, Sanctus have remediated 32,023m³ of hydrocarbon impacted soils to the Sanctus remedial criteria, with mass balance reduction of 184,033.85kg (184.03T) removed via bioremediation of hydrocarbon impacted soils. Table 6-1, below summarises the mass balance reductions for each treated stockpile.

Table 6-1: Sanctus treated materials mass balance reduction summary

Sanctus Treatment Stockpile ID	Starting Concentration (mg/kg)	End Concentration (mg/kg)	Percentage Reduction Achieved (%)	Total TPH Mass Reduction (kg)
TSP05	3,550	272	92	7080.48
TSP06	4,567	415	91	12705.12
TSP07	4,375	524	88	4852.26
TSP08	3,122	300	81	5278.50
TSP09	1,849	274	85	2268.00
TSP09	1,025	403	61	1343.52
TSP10	4,400	147	97	15310.80
TSP11	1,350	616	54	1585.44
TSP12	3,900	423	89	25034.40
TSP13	1,245	153	88	7272.72
TSP14A	6,000	415	93	15250.40

Sanctus Treatment Stockpile ID	Starting Concentration (mg/kg)	End Concentration (mg/kg)	Percentage Reduction Achieved (%)	Total TPH Mass Reduction (kg)
TSP14B	6,000	313	95	17893.58
TSP15	9,400	279	97	24462.52
TSP16	4,000	220	98	9980.50
TSP17	4,650	435	91	5523.34
TSP18	2,800	282	90	2116.63
TSP19	2,600	136	95	3707.83
TSP20	2,550	239	91	4979.28
TSP21	6,940	278	85	3851.88
TSP22	3,550	261	93	3948.77
TSP23	2,400	228	91	1587.30
TSP24	6,100	249	95	7520.11
TSP25	1,600	245	85	480.48

Figure 1, below shows how the mass balance calculations and reduction

$$\text{Mass Balance Reduction (kg)} = (1 \times 4) - (2 \times 4)$$

[1]-Starting concentration (mg/kg)

Starting concentration (kg/kg) = 1/1,000,000

[2]-End Concentration mean average of 3 concurrent rounds (mg/kg)

End Concentration (kg/kg) = 2/1,000,000

[3]-Volume of stockpile (m3)

Mass of stockpile (T)= 3 x 1.80

[4]-Mass of Stockpile (kg)= (3 x 1.80) x1,000

Figure 1: Sanctus Mass Balance calculation for Hydrocarbon volume reduction (based upon total hydrocarbon concentration within soils). Bulk density based upon Sanctus obtained geotechnical data.

7.0 Conclusion

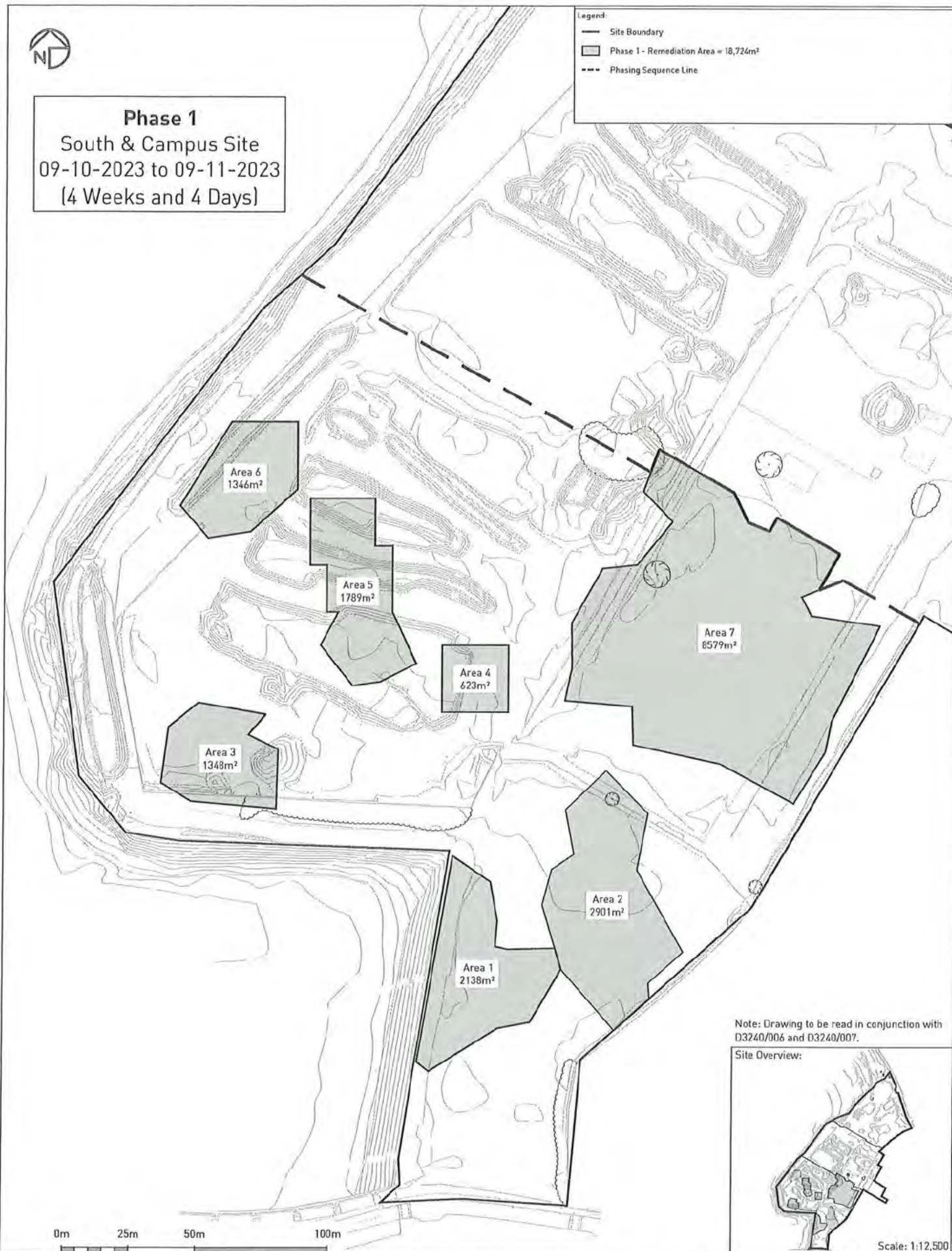
This overarching verification report forms part of the remediation and verification requirements within Planning Condition No 4 of planning application reference N/21/01161/PP. This report summarises and details the remediation, and verification works undertaken by Sanctus limited under their scope of works only. It is understood that further remediation and verification works will be required under planning application N/21/01161/PP, however these works, and their verification are to be undertaken by North Ayrshire Council. The verification works completed by NAC will be detailed within a secondary verification report.

Appendix A Sanctus Drawings Register & Drawings



Phase 1
South & Campus Site
09-10-2023 to 09-11-2023
(4 Weeks and 4 Days)

Legend:
— Site Boundary
■ Phase 1 - Remediation Area = 18,724m²
--- Phasing Sequence Line



Note: Drawing to be read in conjunction with D3240/006 and D3240/007.

Site Overview:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/09/2023

APPROVED

Project Name:
North Shore, Ardrossan
Client:
North Ayrshire Council

Drawing Title:
Phase 1 - Proposed Phasing Plan Areas

Contract No:
S3240

Drawing No:
D3240/005

Scale (A3):
1:1250

Drawn By:

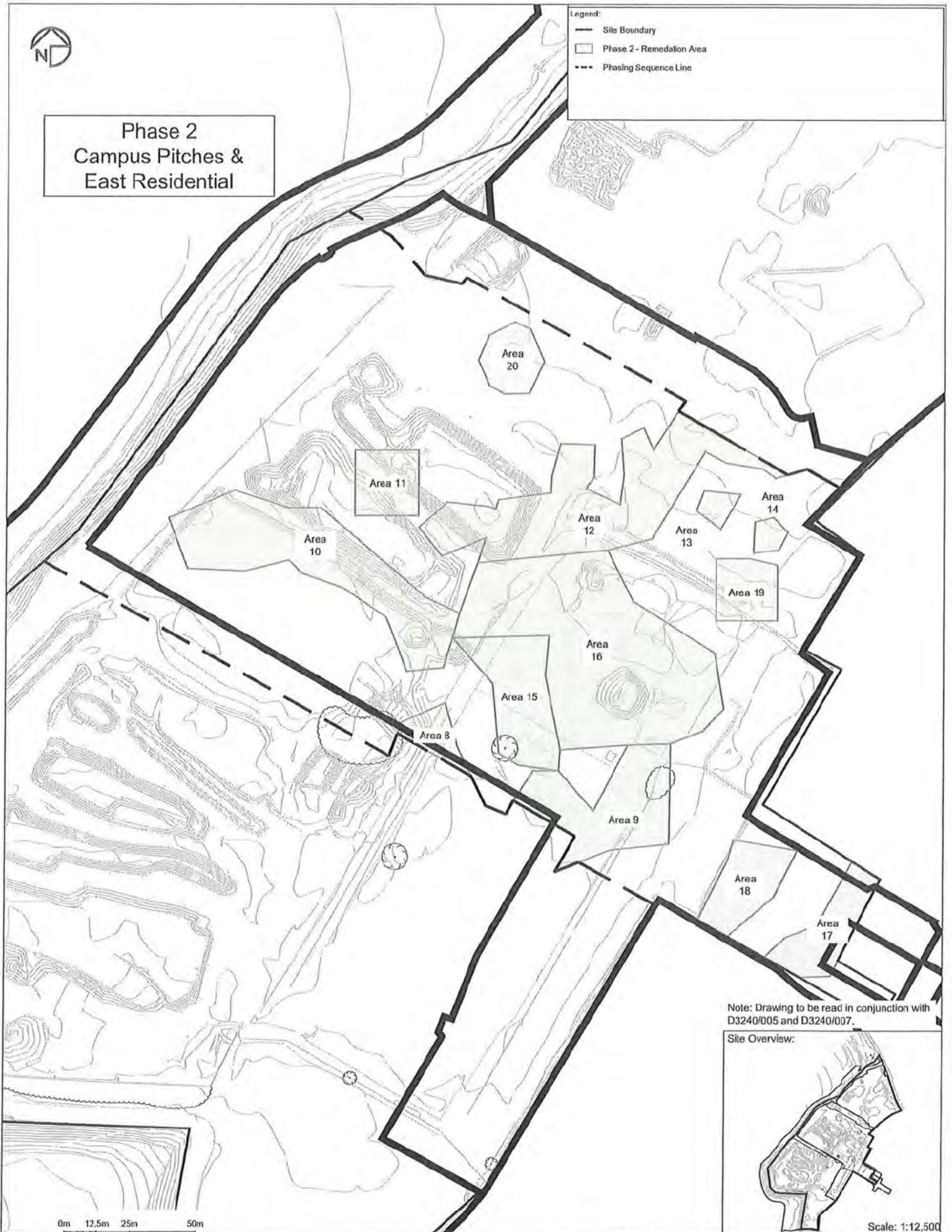
QC Check By:

Approved By:



Phase 2
Campus Pitches &
East Residential

- Legend:
- Site Boundary
 - Phase 2 - Remedation Area
 - Phasing Sequence Line



Note: Drawing to be read in conjunction with D3240/005 and D3240/007.

Site Overview:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/09/2023
B	Areas Added	14/11/2023
C	Boundary Added	12/09/2024

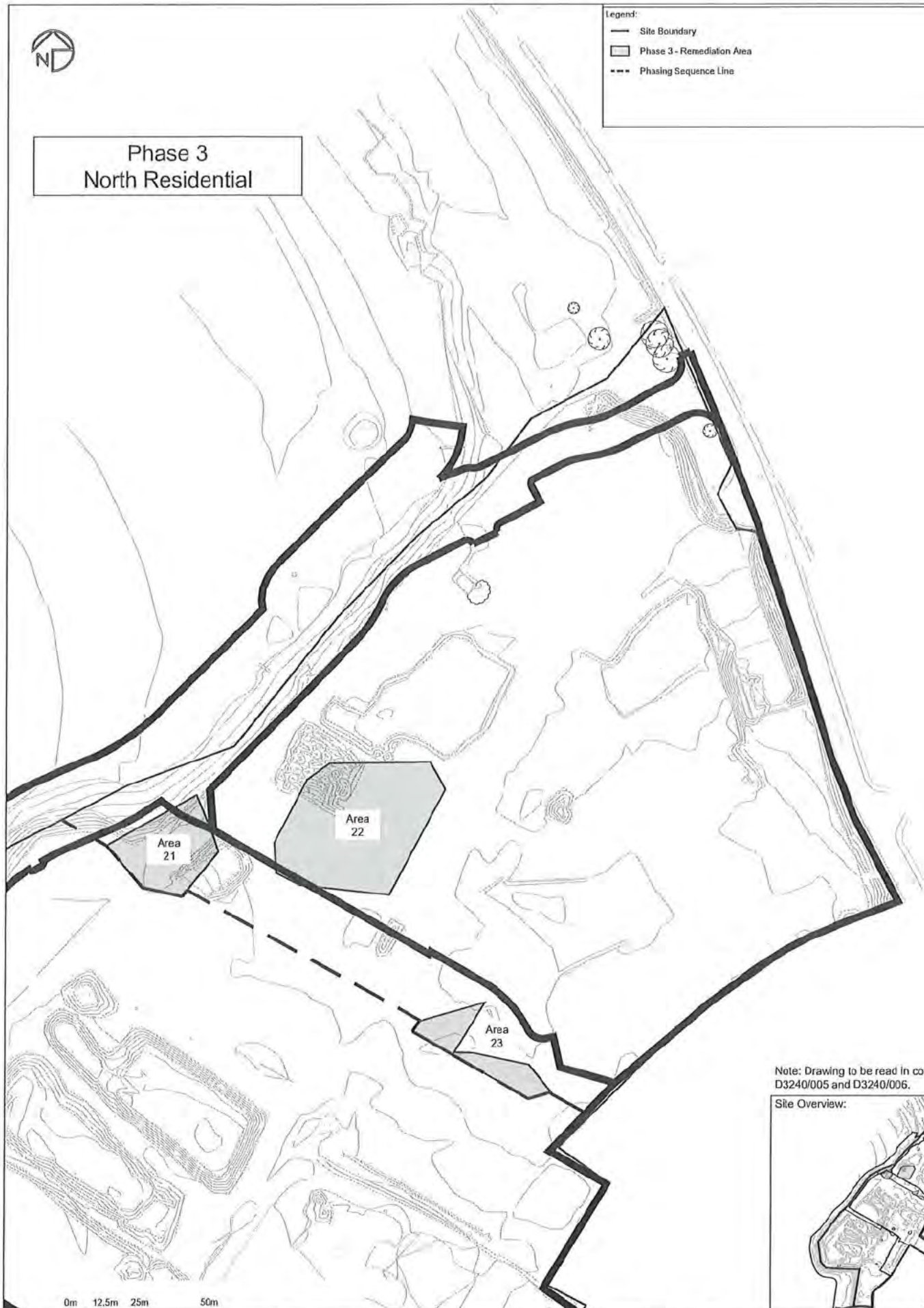
APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Phase 2 - Proposed Phasing Plan Areas		
Contract No: S3240	Drawing No: D3240/006	Scale @ A3: 1:1250
Drawn By:	QC Check By:	Approved By:



- Legend:
- Site Boundary
 - Phase 3 - Remediation Area
 - - - Phasing Sequence Line

Phase 3
North Residential



Note: Drawing to be read in conjunction with
D3240/005 and D3240/006.

Site Overview:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/09/2023
B	Area IDs Updated	17/11/2023
C	Boundary Added	12/09/2024

APPROVED

Project Name:
North Shore, Ardrossan
Client:
North Ayrshire Council

Drawing Title:
Phase 3 - Proposed Phasing Plan Areas

Contract No:
S3240

Drawing No:
D3240/007

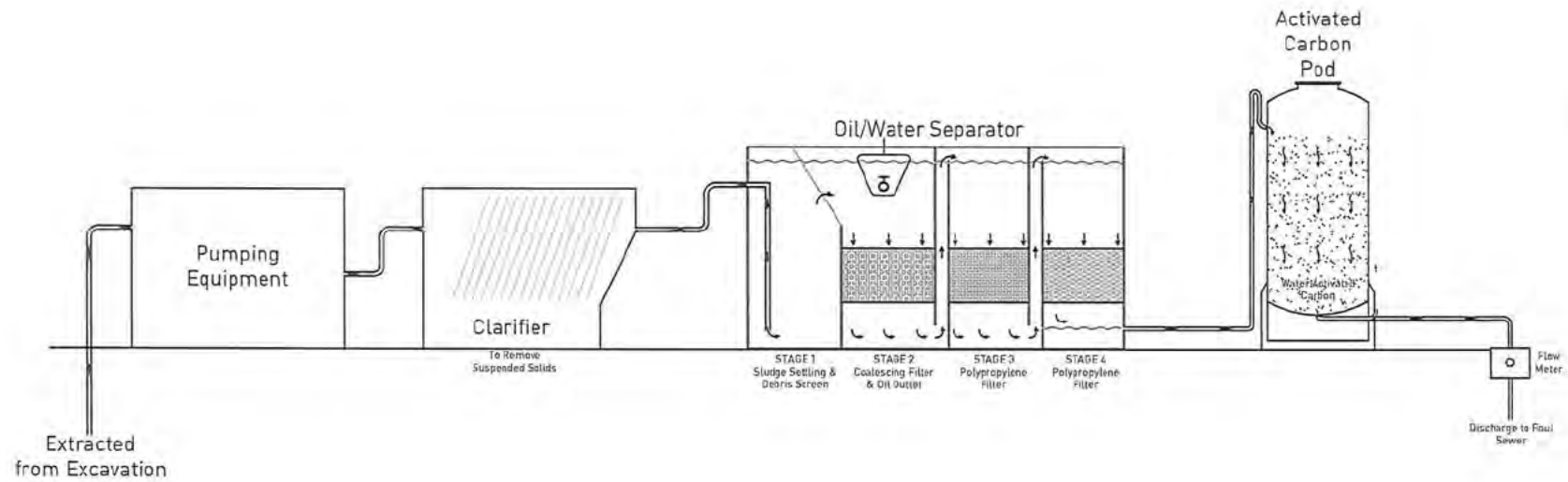
Scale @ A3:
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Drawn By:

QC Check By:

Approved By:

Sanctus Groundwater Treatment System - Schematic Only



sanctus

Legend:

Drawing Notes:

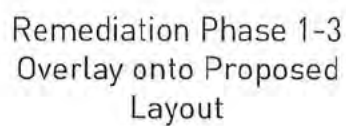
Site Address:
Raylight Place
Ardrossan
North Ayrshire
KA22 6AF

Rev.	Description	Date
A	First Issue	06/09/2023

Project Name:
North Shore, Ardrossan
Client:
North Ayrshire Council

Drawing Title:
Water Treatment System with Carbon Pod Schematic

Contract No: 53240	Drawing No: 03240/009	Scale @ A4: NTS
Drawn By:	DC Check By:	Approved By:

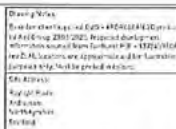


Legend

- Site boundary
- Phase 2 = Remediation Area = T4/T200
- Phase 2 = Remediation Area = T4/T200
- Phase 2 = Remediation Area = T4/T200
- Phase 2 = Remediation Area = T4/T200
- Phase 2 = Remediation Area = T4/T200

LEGEND:

- SITE BOUNDARY
- PROPOSED RESIDENTIAL BUILDINGS
- PROPOSED ROADS
- INDICATIVE CAMPUS BUILDING FOOTPRINT
- PROPOSED MUGA PITCH
- PARKING BAYS



Flow	Description
A	First Issue
B	Software Added & Updated
C	Asset Updated
D	Asset Modified

APPROVED

[illegible]



Legend:

- Site Boundary
- Environmental Monitoring Location (1)
- Approximate Environmental Monitoring Location (2)



Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour. Refer to
D3249/009 for WTA Schematic.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
KA22 8AF

Rev.	Description	Date
A	First Issue	12/01/2024
B	EMS Locations Updated	26/02/2024

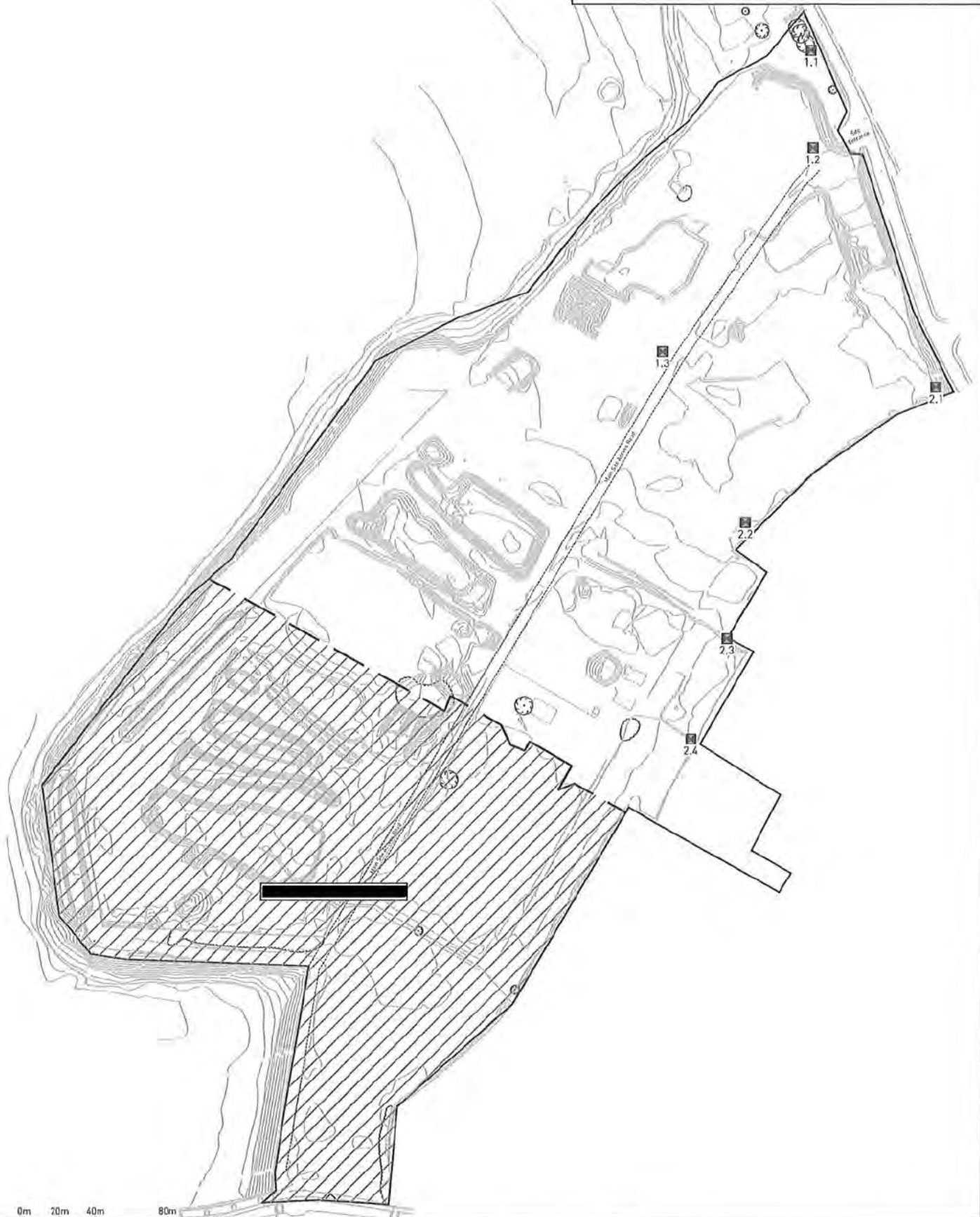
APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Sanctus Environmental Monitoring Location Plan		
Contract No: 53240	Drawing No: D3249/032	Scale @ A3: 1:2000
Drawn By:	QC Check By:	Approved By:



Legend:

- Site Boundary
- 1 Environmental Monitoring Location [1]
- 2 Approximate Environmental Monitoring Location [2]
- ▨ R J McLeod Controlled Area



0m 20m 40m 80m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2026. All locations are approximate.
Must be printed in colour. Refer to
D3240/009 for WTA Schematic.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
KA27 8AF

Rev.	Description	Date
A	First Issue	12/01/2024
B	EMS Locations Updated	26/02/2024
C	EMS Locations Updated	03/04/2024

APPROVED

Project Name:
North Shore, Ardrossan
Client:
North Ayrshire Council

Drawing Title:
Sanctus Environmental Monitoring Location Plan

Contract No: 53240	Drawing No: D3240/032	Scale @ A3: 1:2000
Drawn By:	QC Check By:	Approved By:



Legend:

- Site Boundary
- (1) Environmental Monitoring Location (1)
- (2) Approximate Environmental Monitoring Location (2)

0m 20m 40m 80m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour. Refer to
D3240/009 for WTA Schematic.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
KA21 8AF

Rev.	Description	Date
A	First Issue	12/01/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Sanctus Environmental Monitoring Location Plan

Contract No:
S3240

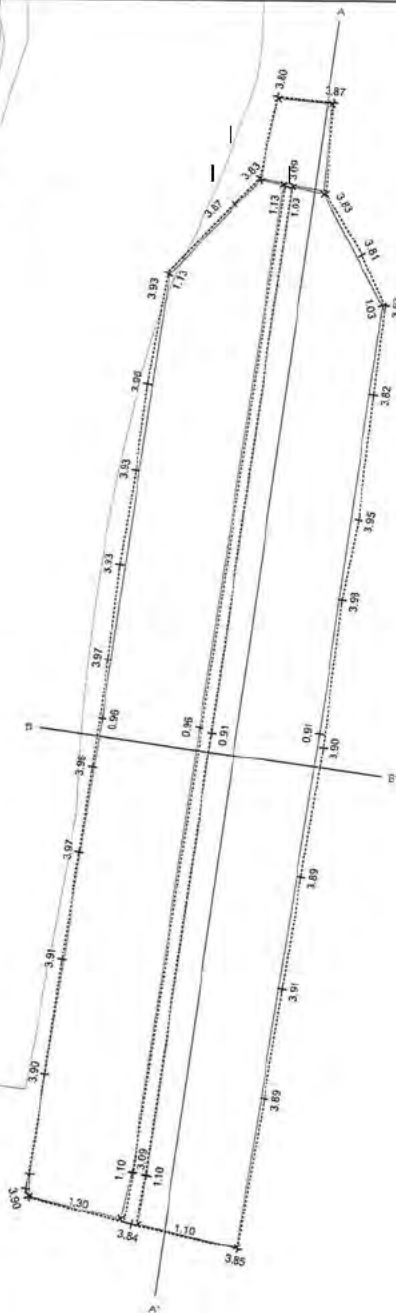
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D3240/032

Scale ID A3:
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Drawn By:

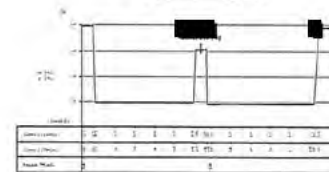
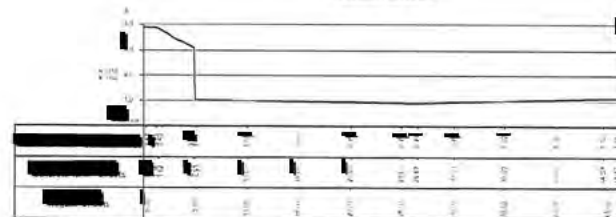
QC Check By:

Approved By:

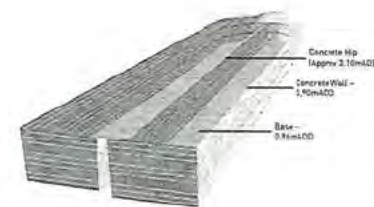
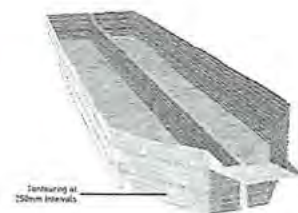


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[Redacted]



[Redacted]



[Redacted] Overview



Not to Scale

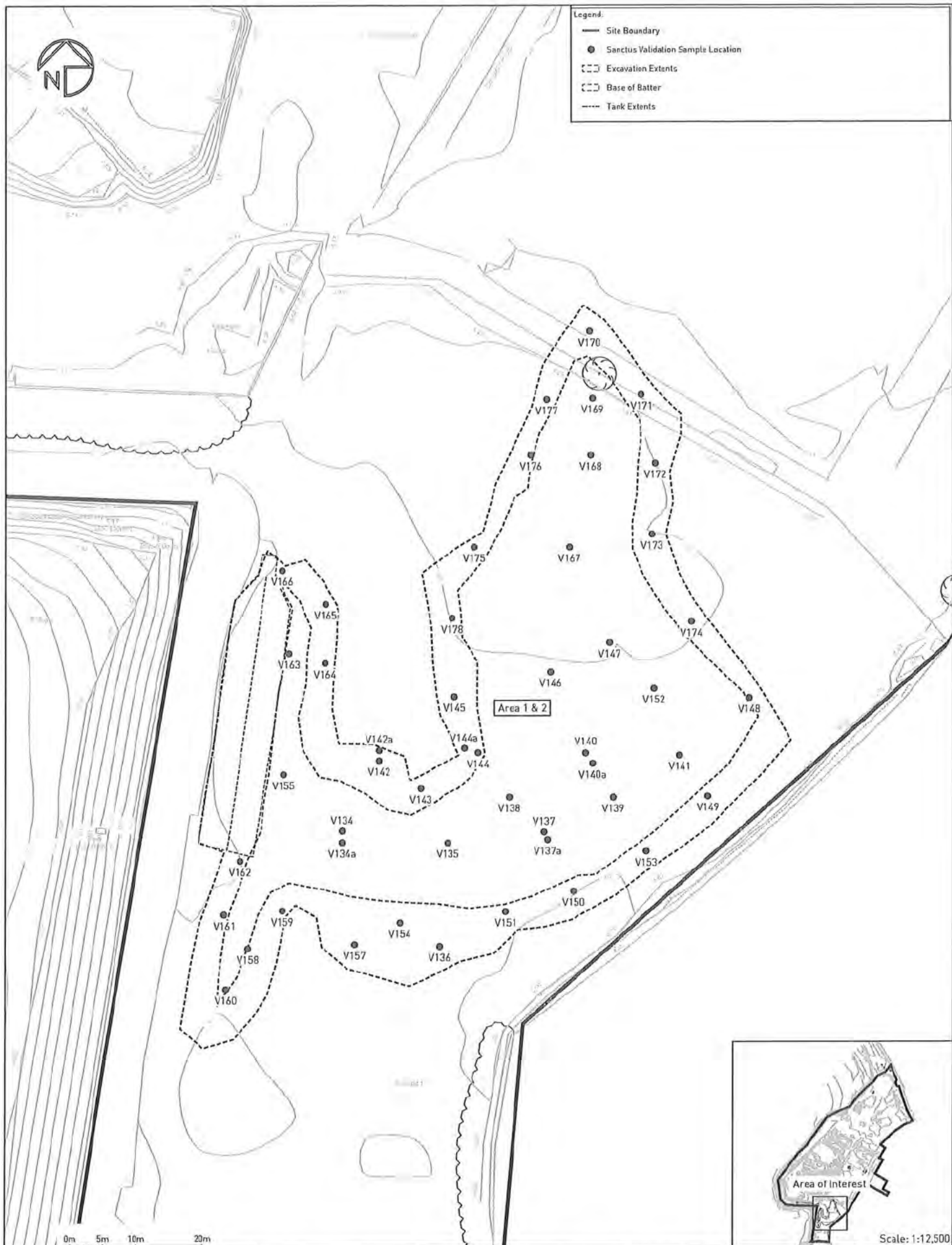
SANCUS

Legend:
- Site Boundary
- Main Line (1:100000)
- Spot Elevation (1:100000)

Client Name:
[Redacted]
Project Name:
[Redacted]
Address:
[Redacted]
City:
[Redacted]
State:
[Redacted]
Zip:
[Redacted]

Approved
[Redacted]

Project Name:
[Redacted]
Client Name:
[Redacted]
Project Address:
[Redacted]
City:
[Redacted]
State:
[Redacted]
Zip:
[Redacted]



sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group,
23/03/2023. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/03/2024

APPROVED

Project Name:
North Shore, Arérossan

Client:
North Ayrshire Council

Drawing Title:
Area 1 & 2 - Sanctus Validation Sample Location

Contract No:
S3240

Drawing No:
D3240/040

Scale: A3:
1:500 / See Inset

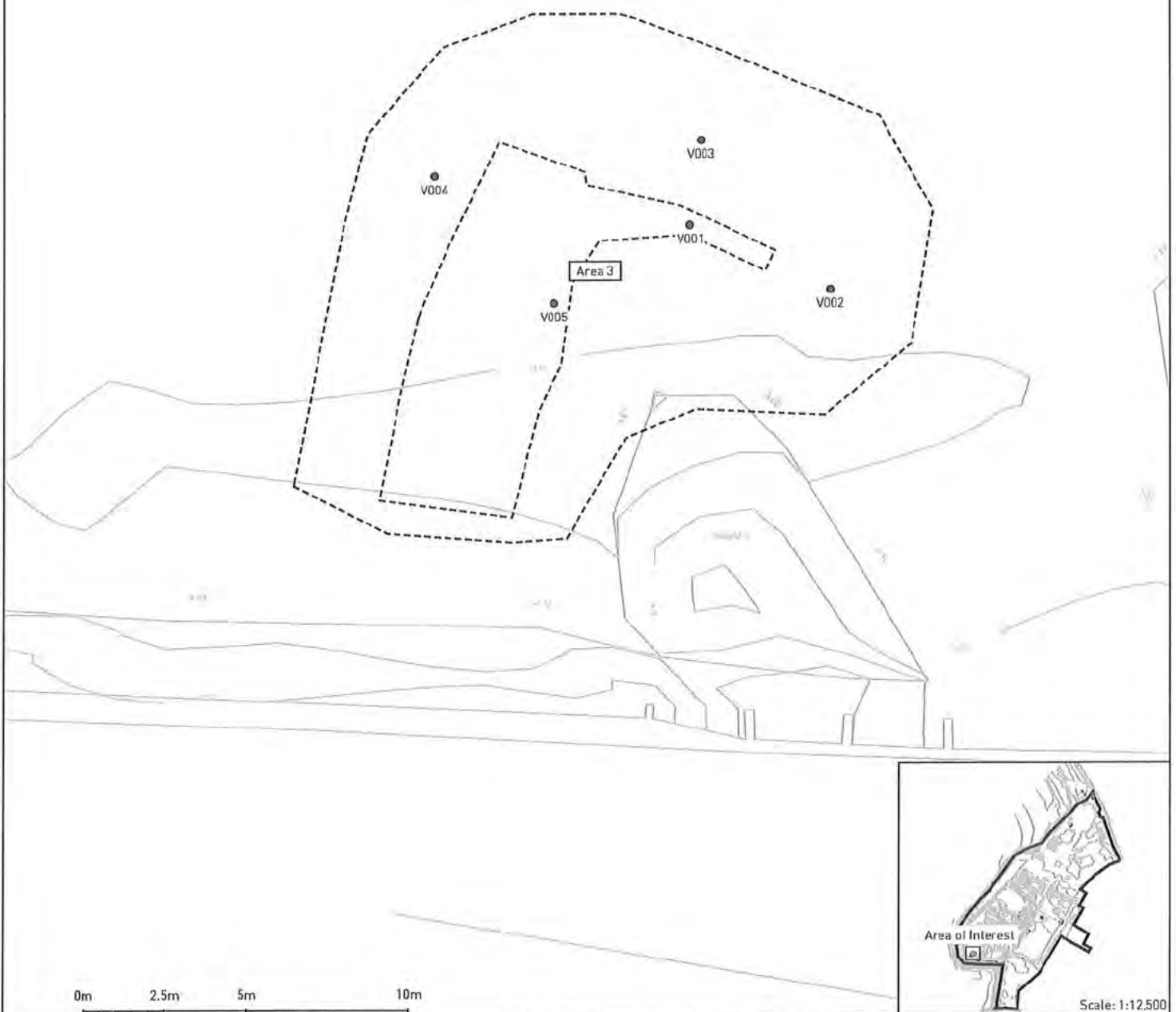
Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/03/2024

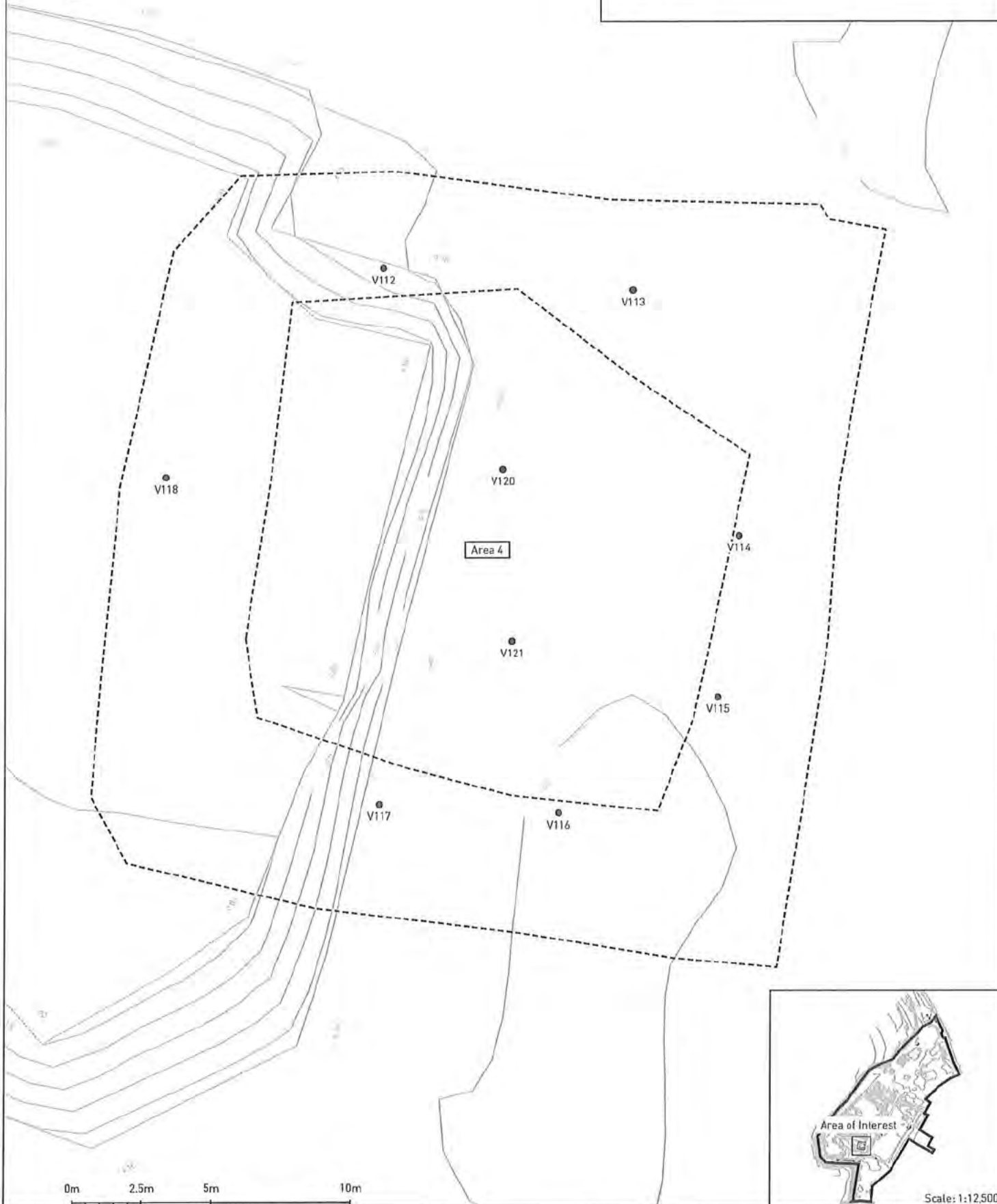
APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 3 - Validation Sample Location		
Contract No: S3240	Drawing No: D3240/041	Scale @ A3: 1:125 / See Inset
Drawn By:	QC Check By:	Approved By:



Legend:

- Site Boundary
- Sanctus Validation Sample Location
- Excavation Extents
- Base of Batter



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

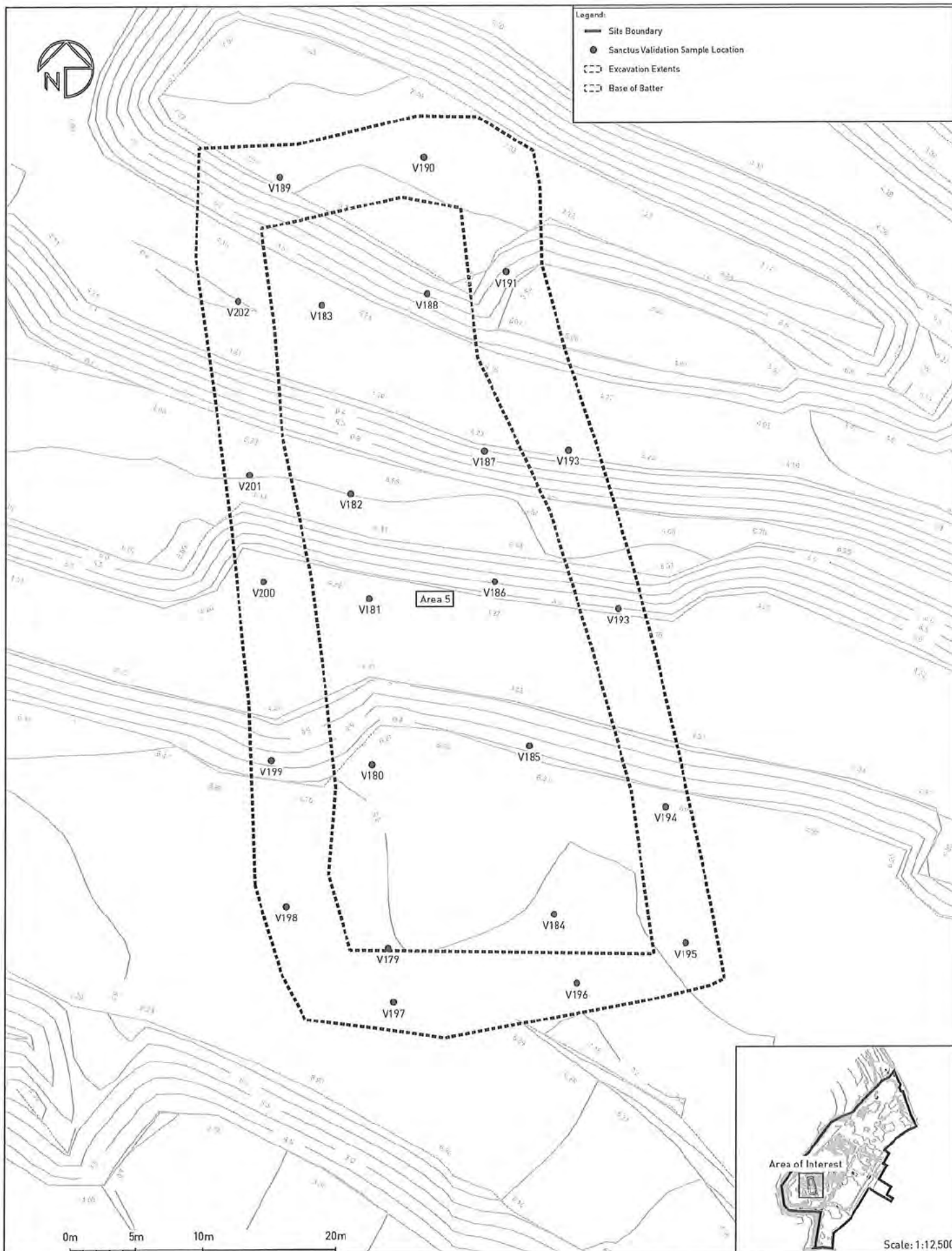
Rev.	Description	Date
A	First Issue	20/03/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 4 - Sanctus Validation Sample Location		
Contract No: S3240	Drawing No: D3240/042	Scale: A3: 1:125 / See Inset
Drawn By:	QC Check By:	Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter



sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

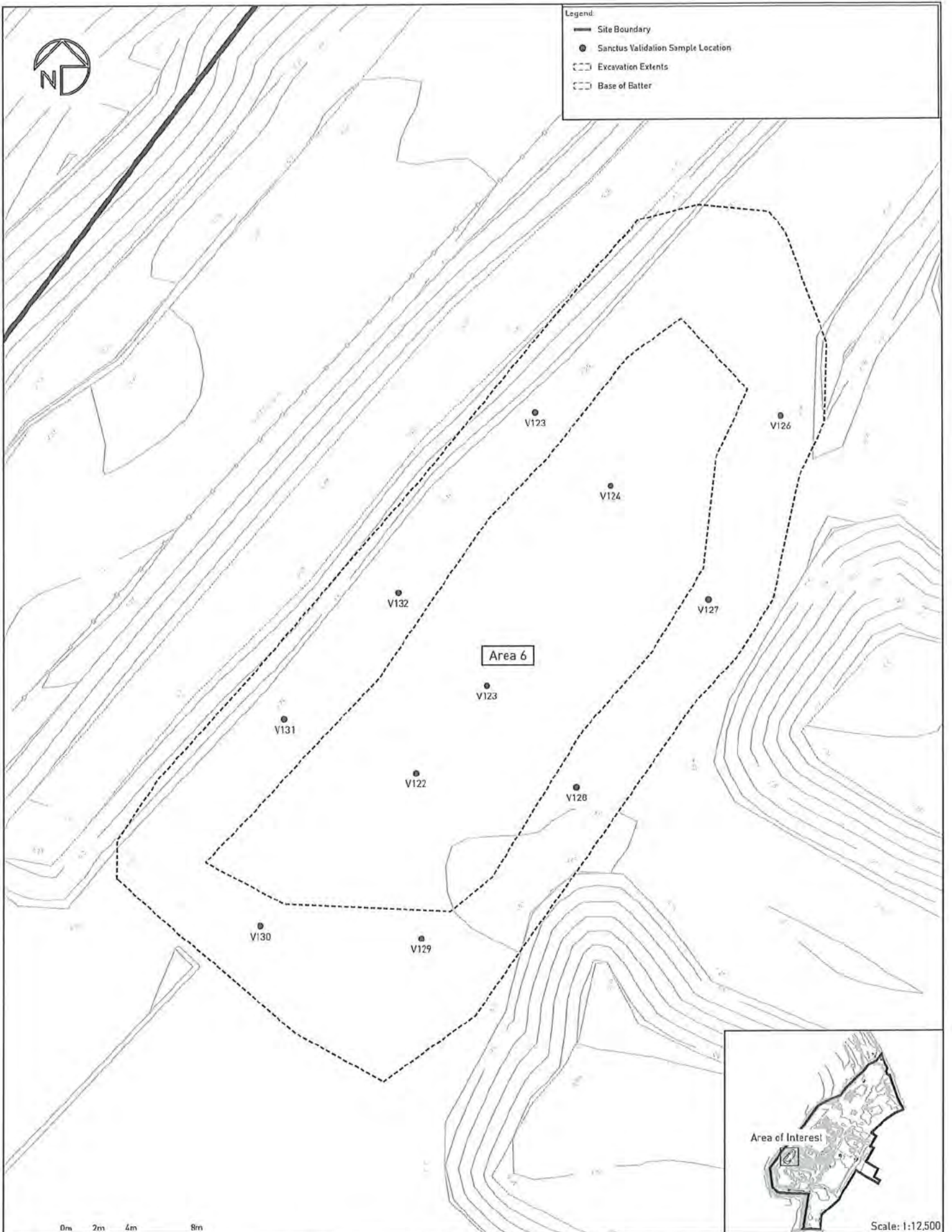
Rev.	Description	Date
A	First Issue	20/03/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 5 - Sanctus Validation Sample Location		
Contract No: S3240	Drawing No: D3240/043	Scale @ A3: 1:250 / See Inset
Drawn By:	QC Check By:	Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter



Scale: 1:12,500

0m 2m 4m 8m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

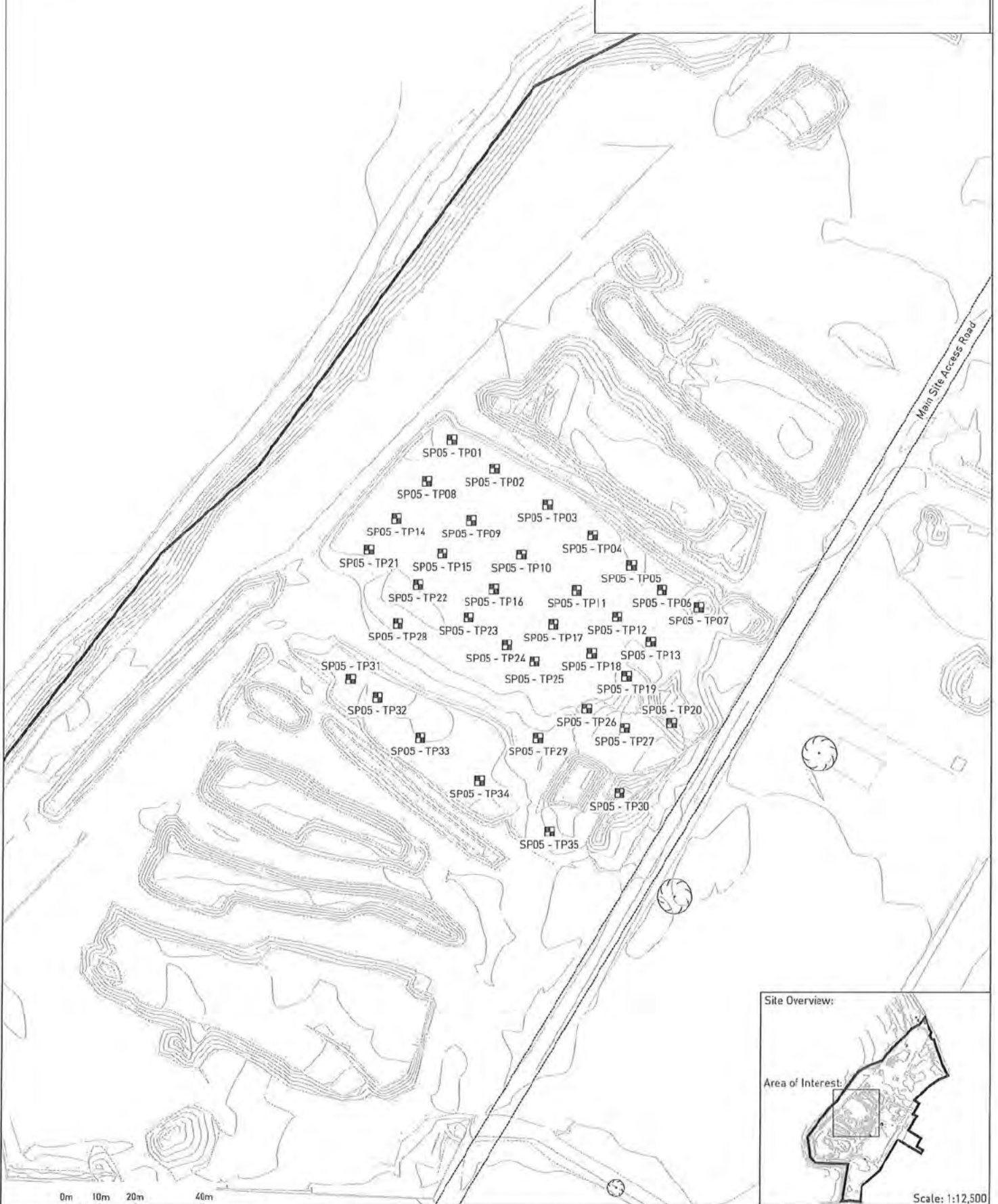
Rev.	Description	Date
A	First Issue	20/03/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 6 - Sanctus Validation Sample Location		
Contract No: S3249	Drawing No: D3240/044	Scale (if A3): 1:200 / See Inset
Drawn By:	QC Check By:	Approved By:



- Legend:
- Site Boundary
 - Sanctus Trial Pit Location
 - Stockpile Extents (As Per Envirocentre Report 173958)



Site Overview:

Area of Interest:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
AR0805SAN 2D produced by Aird Group
22/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	21/03/2024

APPROVED

Project Name:
North Shore, Ardrossan
Client:
North Ayrshire Council

Drawing Title:
SP05 Sanctus Trial Pit Location Plan

Contract No:
53240

Drawing No:
D3240/045

Scale @ A3:
1:1000

Drawn By:

QC Check By:

Approved By:



sanctus

Drawing Notes:
Based on client supplied DWG -
AR080SSAN 2D produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	26/03/2024

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 1 & 2 Asbestos Contamination Placement Location Plan

Contract No:
S3240

Drawing No:
D3240/D47

Scale @ A3:
1:500 / See Inset

Drawn By:

QC Check By:

Approved By:

APPROVED

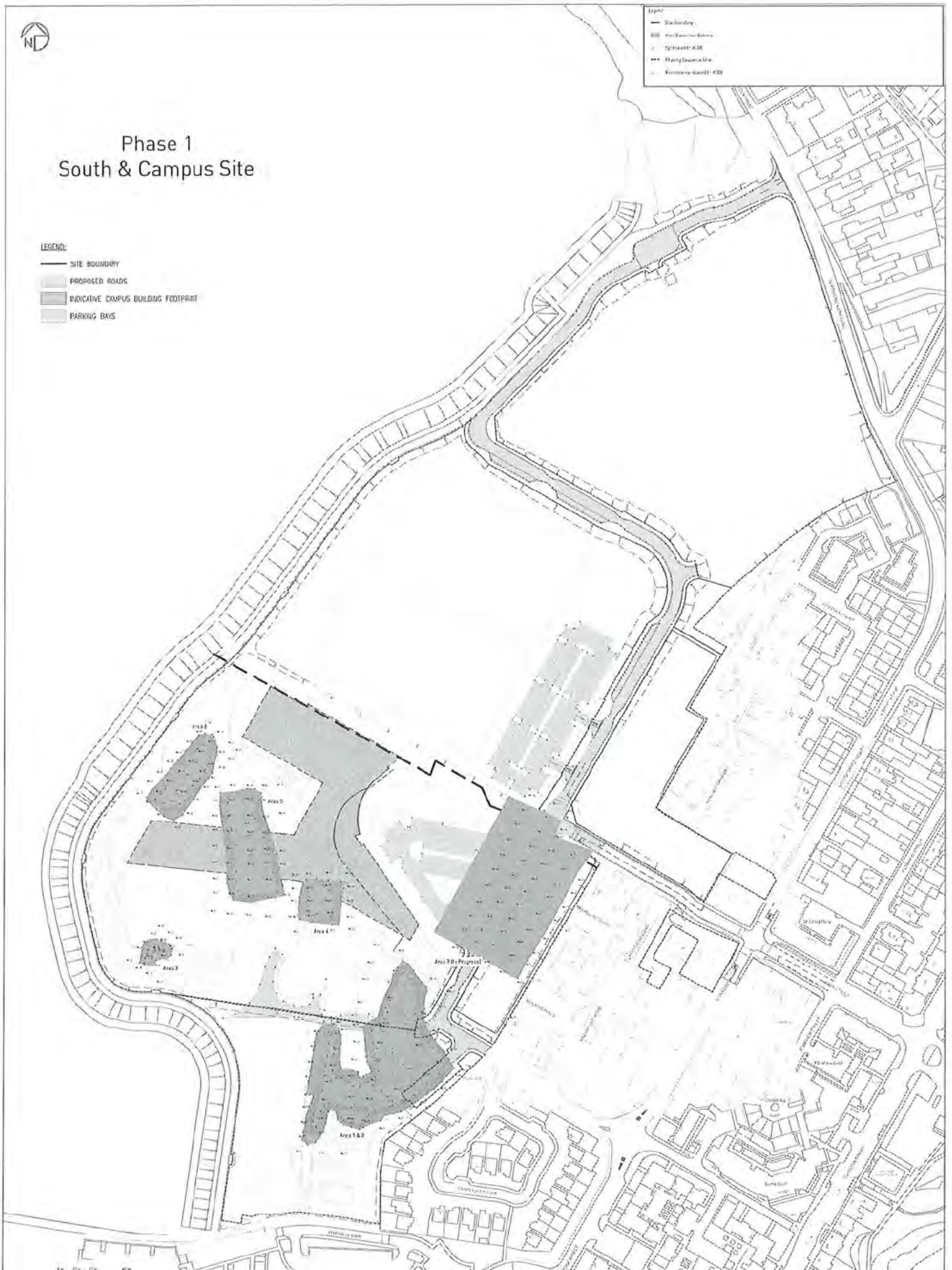


Phase 1 South & Campus Site

LEGEND:

- SITE BOUNDARY
- PROPOSED ROADS
- INDICATIVE CAMPUS BUILDING FOOTPRINT
- PARKING BAYS

- Legend
- Site Boundary
- Proposed Roads
- Highway A30
- Highway A30
- Highway A30



SANCUS

Drawn by: [Name]
Checked by: [Name]
Approved by: [Name]

APPROVED

Date: 27/09/2024

Project Name: South Campus, Extension

Client: [Name]

Drawing Title: [Title]

Scale: 1:1000

Sheet No: 1 of 1

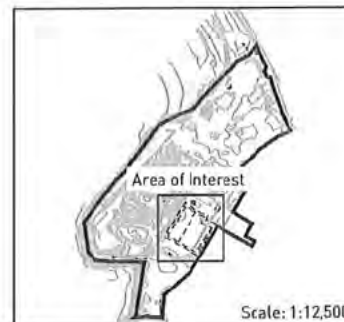
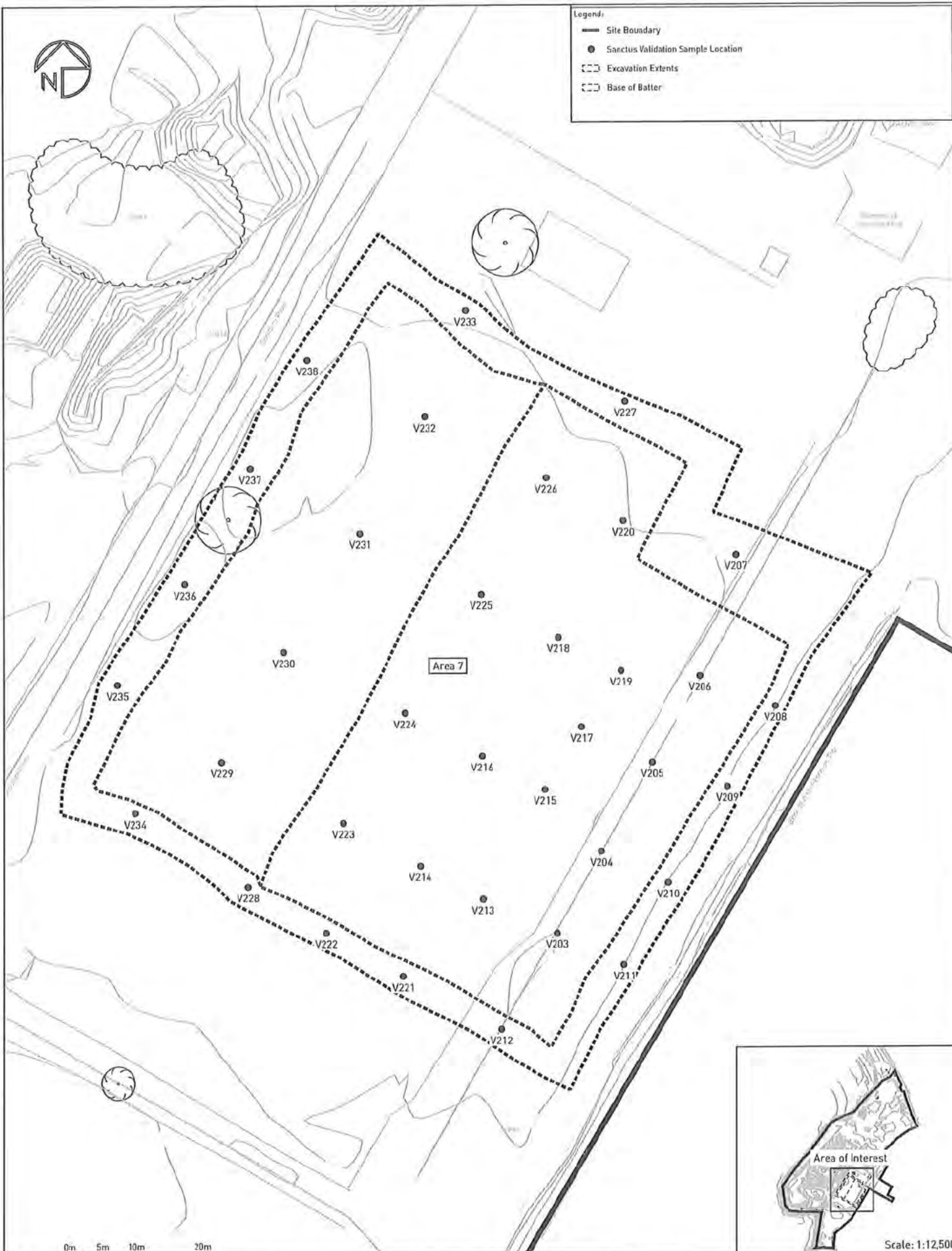
Drawn By: [Name]

Checked By: [Name]

Approved By: [Name]



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev	Description	Date
A	First Issue	26/04/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 7 - Sanctus Validation Sample Location

Contract No:
S3240

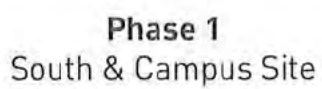
Drawing No:
D3240/050

Scale @ A3:
1:500 / See Inset

Drawn By:

QC Check By:

Approved By:



Dr. David N. Ford
 Director of the Virginia Center for Health Equity
 1000 University Blvd. NE, Box 7500
 Atlanta, Georgia 30302-7500
 Tel: 404/712-7000, Fax: 404/712-7001
 Email: ford@vcfhe.org

Dr. David N. Ford
 Director of the Virginia Center for Health Equity
 1000 University Blvd. NE, Box 7500
 Atlanta, Georgia 30302-7500
 Tel: 404/712-7000, Fax: 404/712-7001
 Email: ford@vcfhe.org

Box	Contents
A	Gravel bags

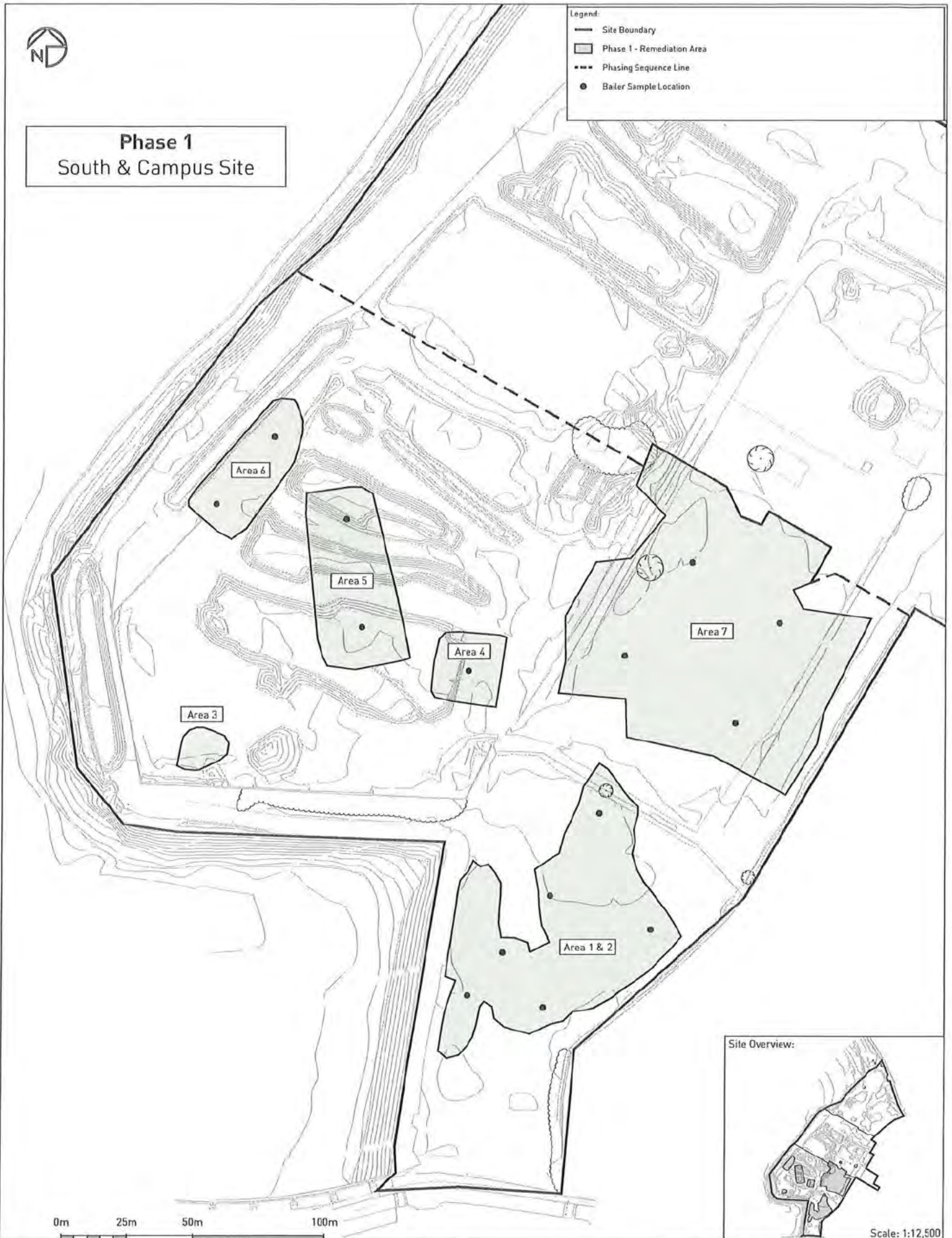
APPROVED

[illegible]



Phase 1
South & Campus Site

- Legend:**
- Site Boundary
 - Phase 1 - Remediation Area
 - - - Phasing Sequence Line
 - Bailer Sample Location



0m 25m 50m 100m

Site Overview:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. All locations are approximate.
Must be printed in colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	13/05/2024
B	Updated Area Text	16/08/2024

APPROVED

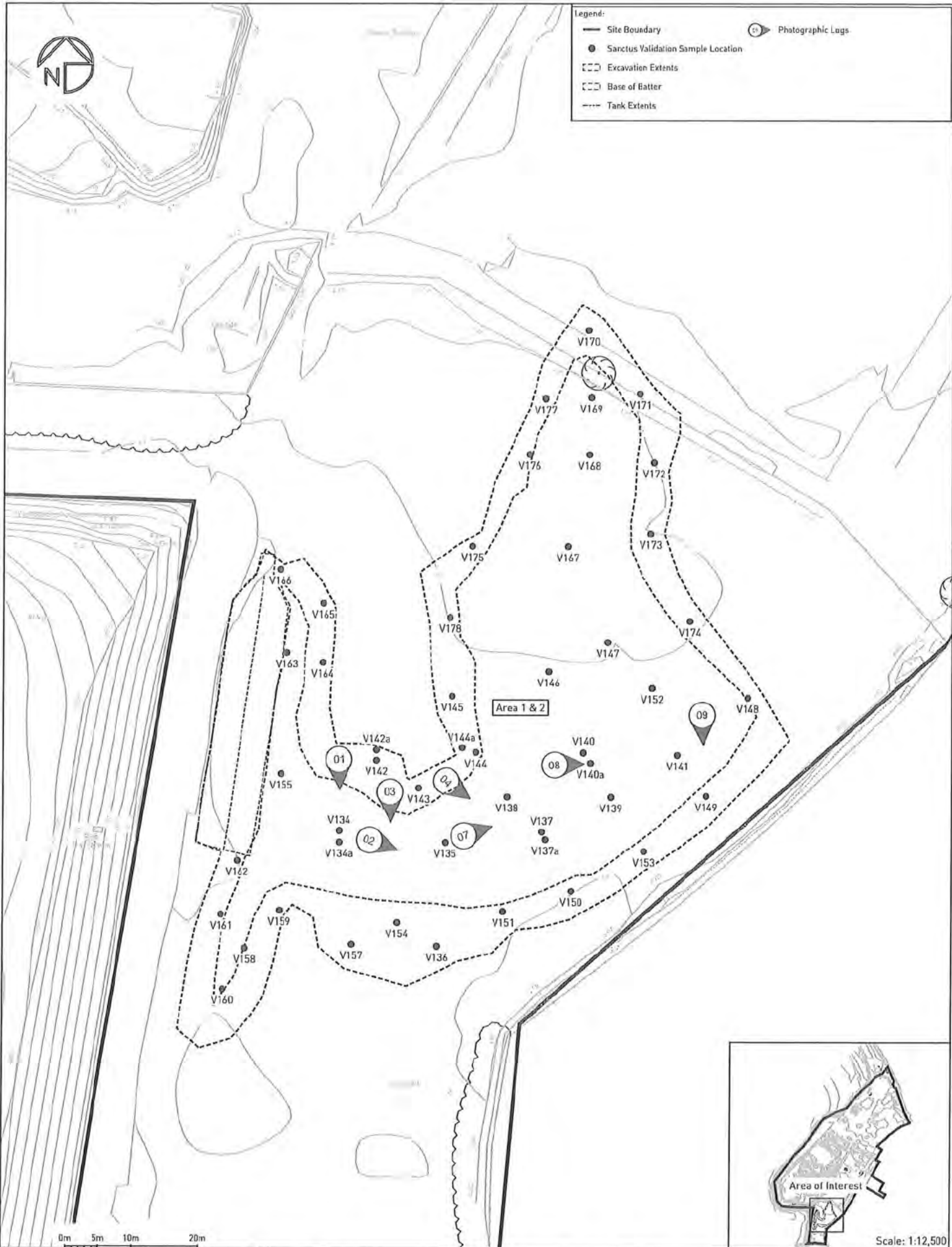
Project Name:
North Shore, Ardrossan
Client:
North Ayrshire Council

Drawing Title:
Phase 1 - Bailer Sample Location Plan

Contract No:
S3240
Drawn By:

Drawing No:
D3240/053
QC Check By:

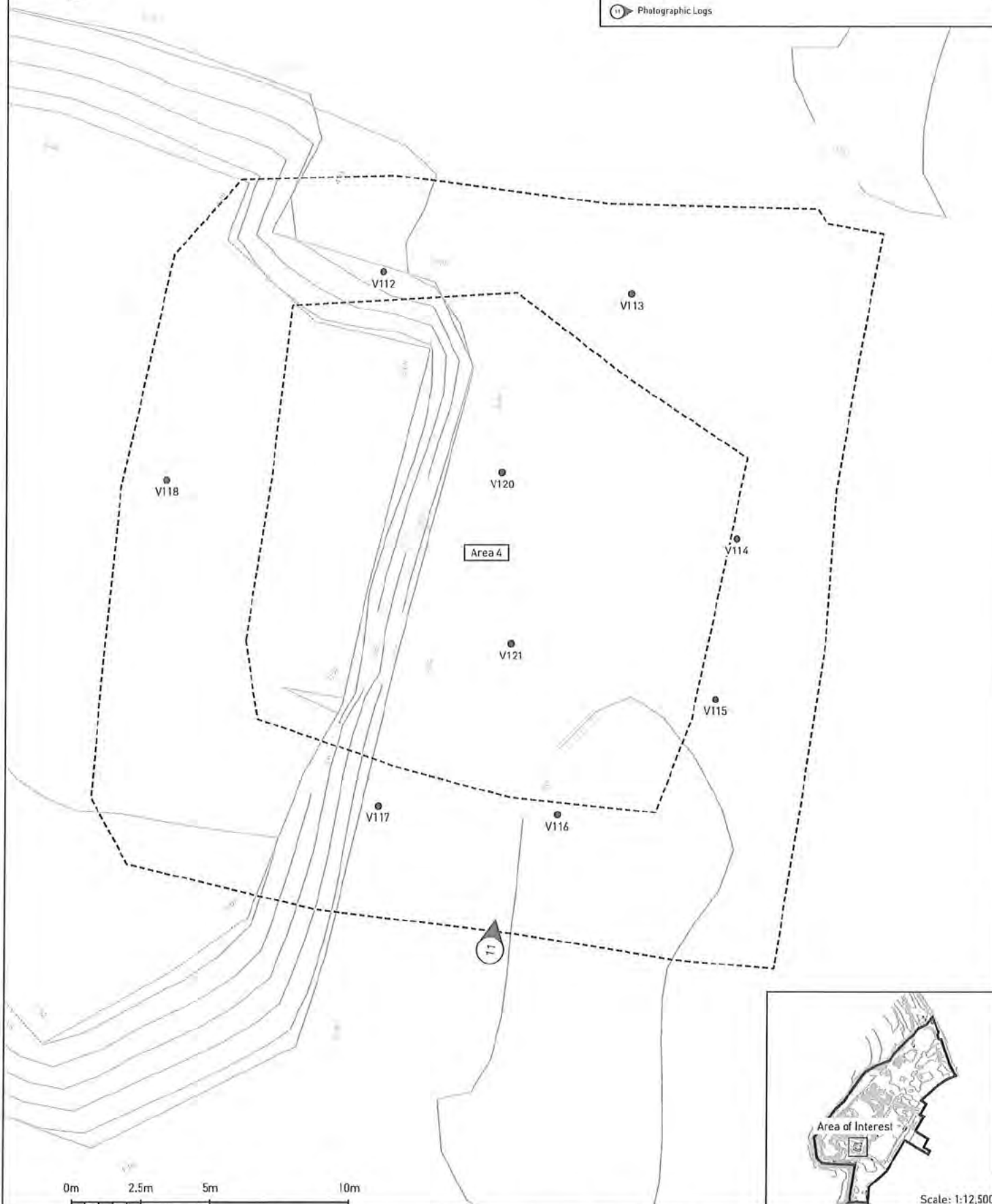
Scale @ A3:
1:1250 / See Inset
Approved By:



 		Drawing Notes: Based on client supplied DWG - ARDRROSSAN 2D produced by Aird Group, 23/03/2020. Validation locations surveyed by Sanctus Engineer. Must be printed in colour. Site Address: Raylight Place Ardrrossan North Ayrshire Scotland		<table><tr><th>Rev.</th><th>Description</th><th>Date</th></tr><tr><td>A</td><td>First Issue</td><td>03/06/2024</td></tr></table> APPROVED	Rev.	Description	Date	A	First Issue	03/06/2024	<table><tr><td colspan="3">Project Name: North Shore, Ardrrossan</td></tr><tr><td colspan="3">Client: North Ayrshire Council</td></tr><tr><td colspan="3">Drawing Title: Area 1 & 2 - Sanctus Validation Sample and Photographic Logs Location</td></tr><tr><td>Contract No: S3240</td><td>Drawing No: 03240/054</td><td>Scale @ A3: 1:503 / See Inset</td></tr><tr><td>Drawn By:</td><td>QC Check By:</td><td>Approved By:</td></tr></table>			Project Name: North Shore, Ardrrossan			Client: North Ayrshire Council			Drawing Title: Area 1 & 2 - Sanctus Validation Sample and Photographic Logs Location			Contract No: S3240	Drawing No: 03240/054	Scale @ A3: 1:503 / See Inset	Drawn By:	QC Check By:	Approved By:
Rev.	Description	Date																										
A	First Issue	03/06/2024																										
Project Name: North Shore, Ardrrossan																												
Client: North Ayrshire Council																												
Drawing Title: Area 1 & 2 - Sanctus Validation Sample and Photographic Logs Location																												
Contract No: S3240	Drawing No: 03240/054	Scale @ A3: 1:503 / See Inset																										
Drawn By:	QC Check By:	Approved By:																										



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Photographic Logs



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

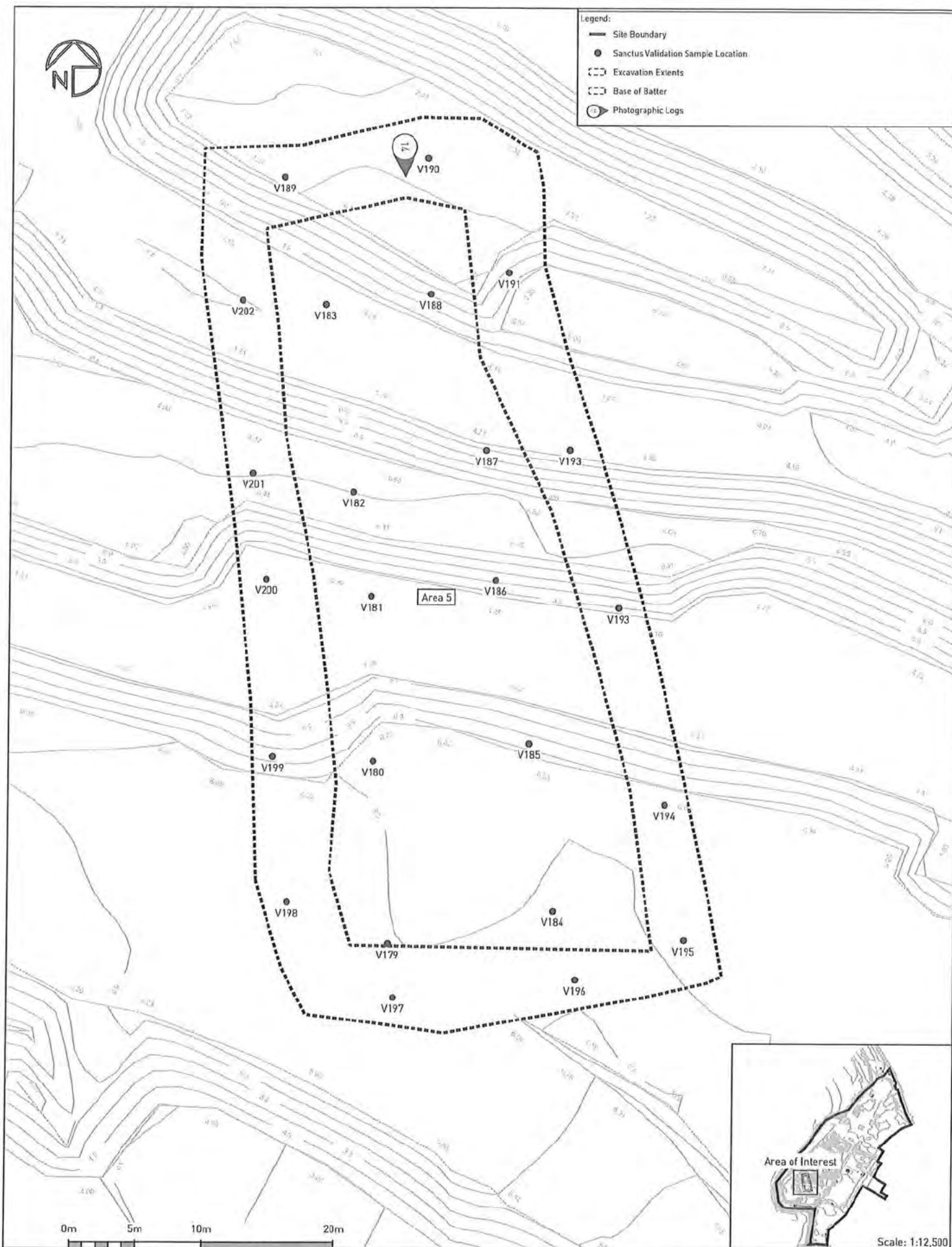
Rev.	Description	Date
A	First Issue	03/06/2024

DRAFT

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 4 - Sanctus Validation Sample and Photographic Logs Location		
Contract No: 53240	Drawing No: D3240/055	Scale @ A3: 1:125 / See Inset
Drawn By:	QC Check By:	Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Photographic Logs



Scale: 1:12,500

SANCTUS

Drawing Notes:
Based on client supplied DWS -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	04/06/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 5 - Sanctus Validation Sample and Photographic Logs Location

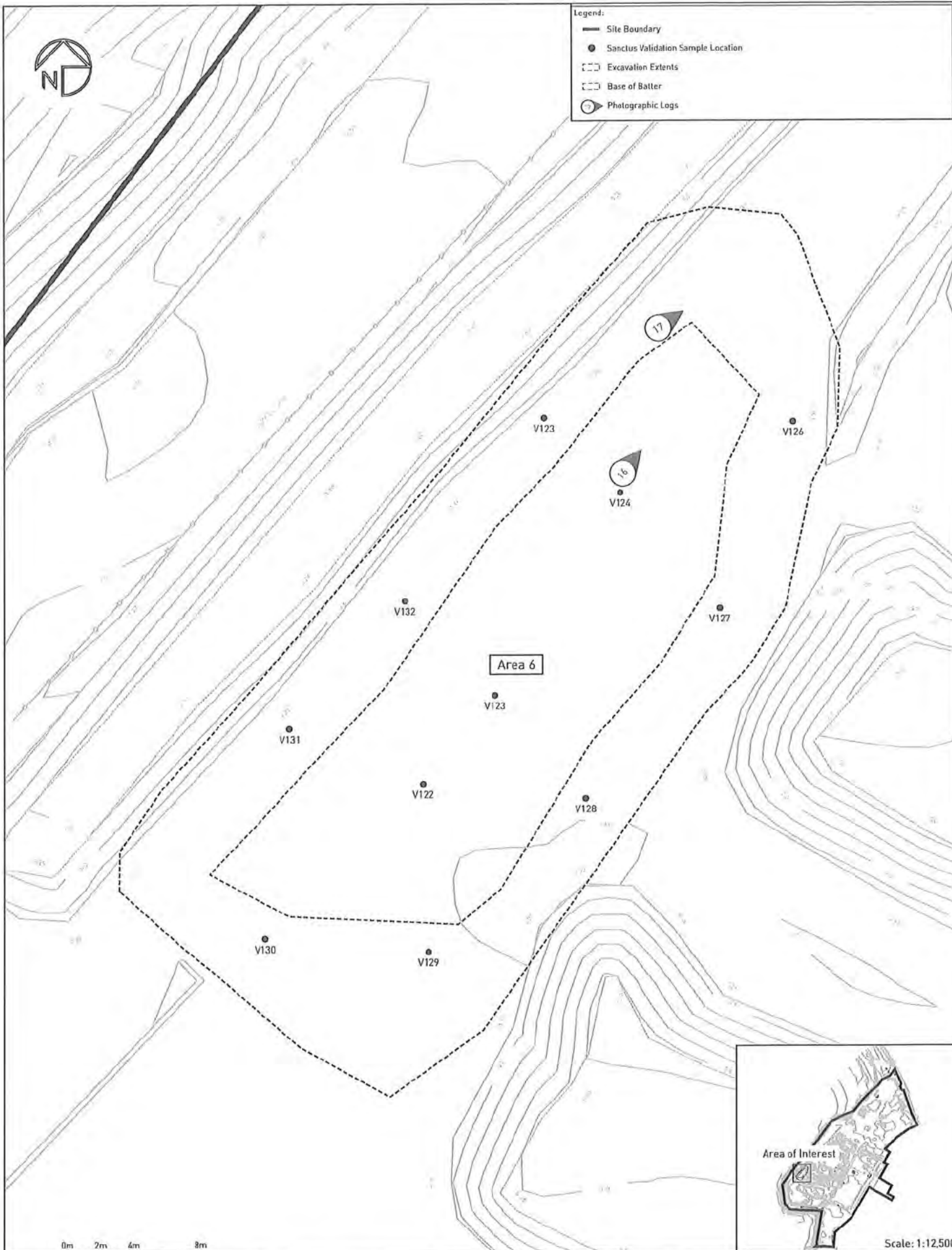
Contract No:
S3240

Drawing No:
03240/056

Scale @ A3:
1:250 / See Inset



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Photographic Logs



Scale: 1:12,500

0m 2m 4m 8m

SANCIUS

Drawing Notes:
Based on client supplied DWG -
AR080SSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	04/06/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 6 - Sanctus Validation Sample and Photographic Logs Location

Contract No:
S3240

Drawing No:
D3240/056

Scale & A3:
1:200 / See Inset

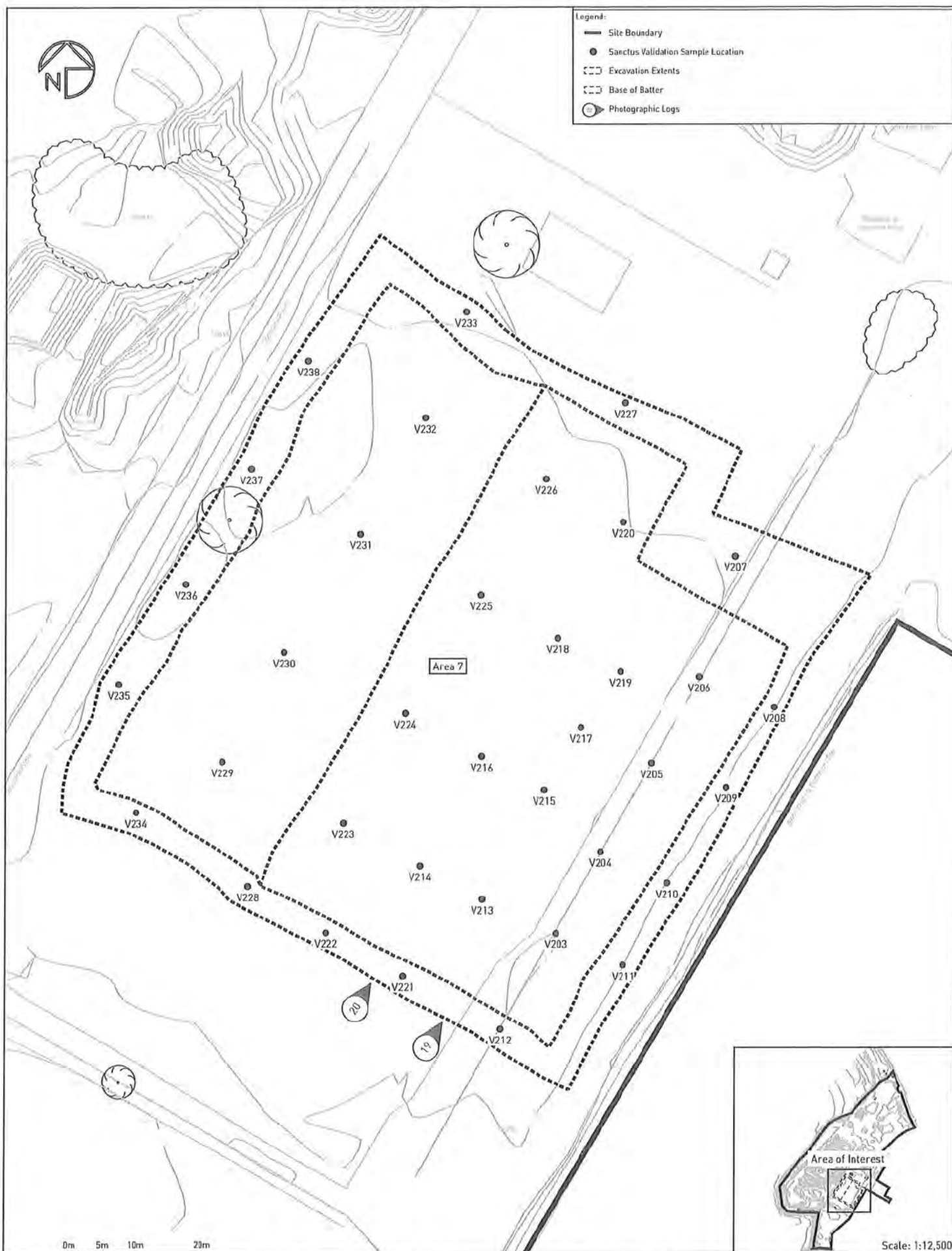
Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Photographic Logs



0m 5m 10m 20m

Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

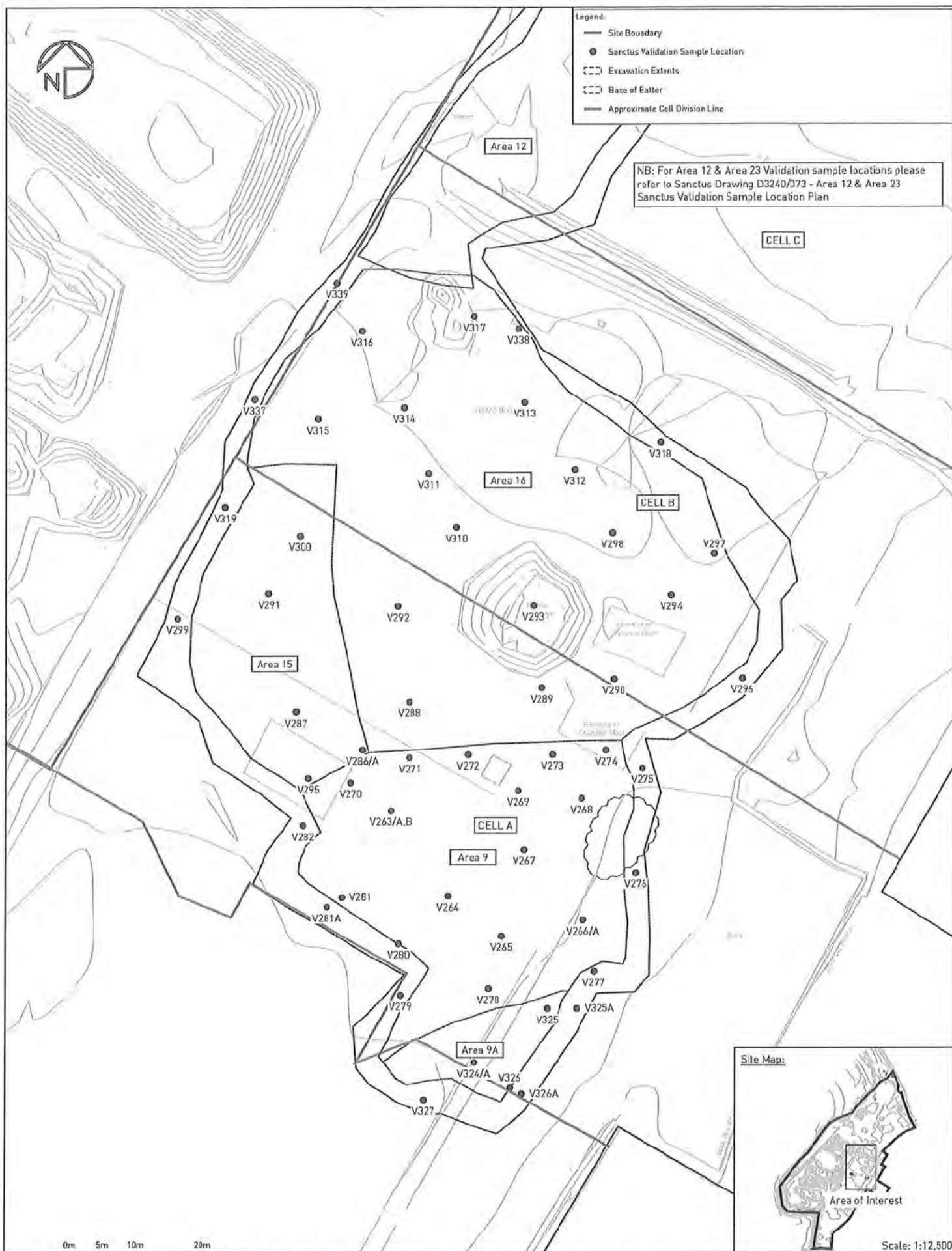
Rev.	Description	Date
A	First Issue	04/06/2024

APPROVED



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line

NB: For Area 12 & Area 23 Validation sample locations please refer to Sanctus Drawing D3240/073 - Area 12 & Area 23 Sanctus Validation Sample Location Plan



Site Map:

Area of Interest

Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group,
23/03/2026. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	19/07/2024
B	Validations Updated	05/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 9, 15 & 16 - Sanctus Validation Sample Location Plan

Contract No.
53240

Drawing No.
D3240/062

Scale to A3:
1:930 / See Inset

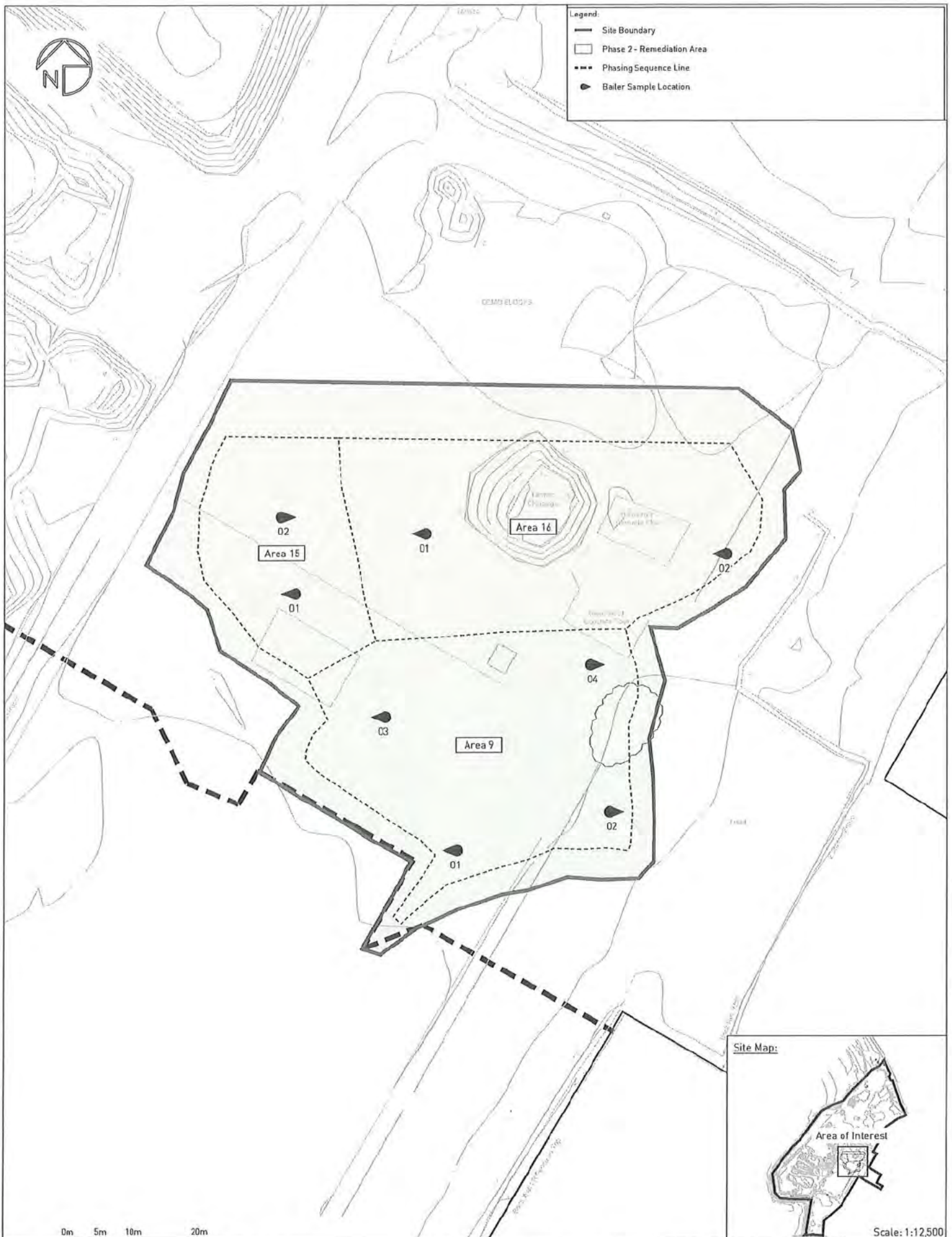
Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Phase 2 - Remediation Area
 - - - Phasing Sequence Line
 - Bailer Sample Location



0m 5m 10m 20m

Site Map:

Area of Interest

Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	19/06/2024
DRAFT		

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Phase 2 - Bailer Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/066

Scale @ A3:
1:200 / See Inset

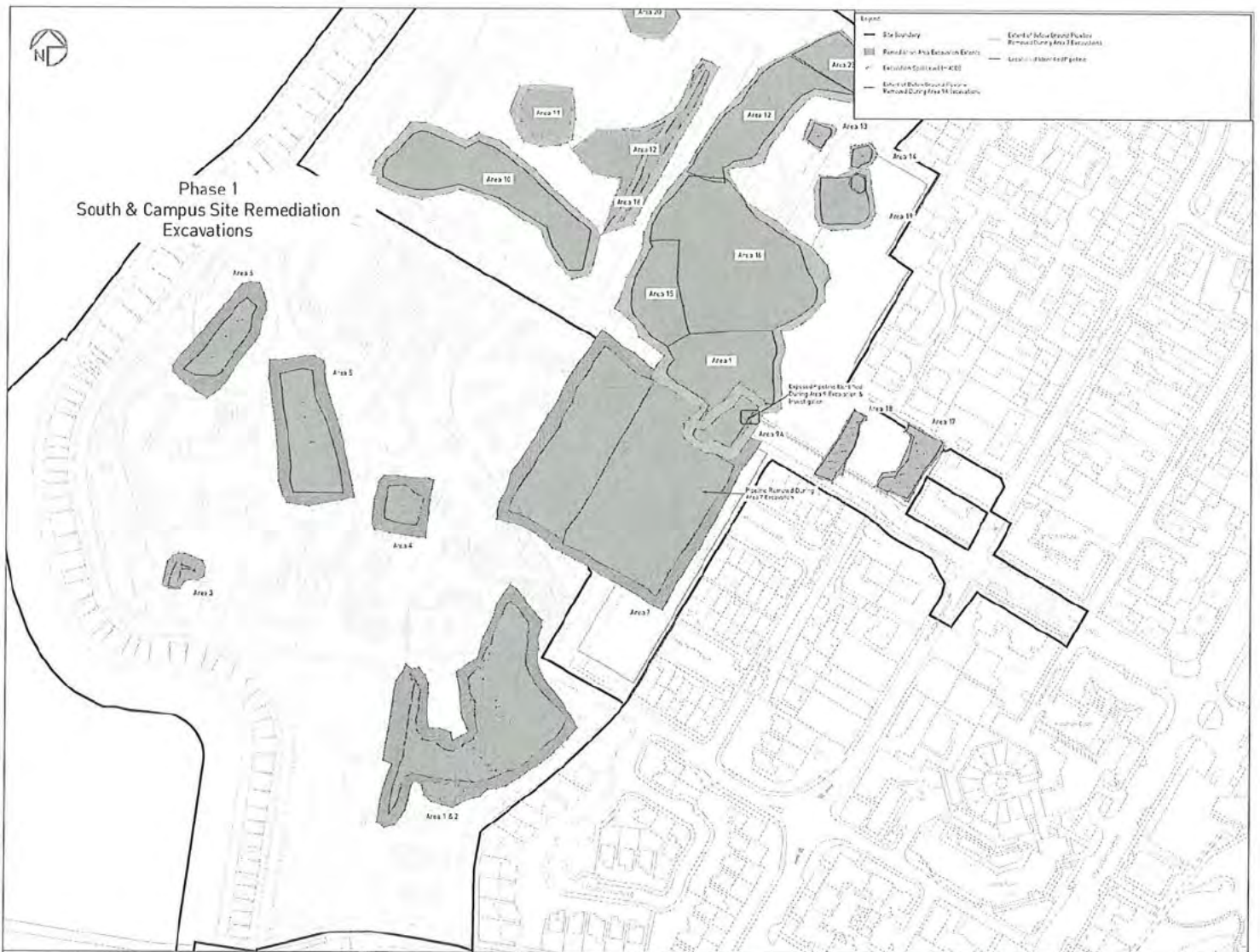
Drawn By:

QC Check By:

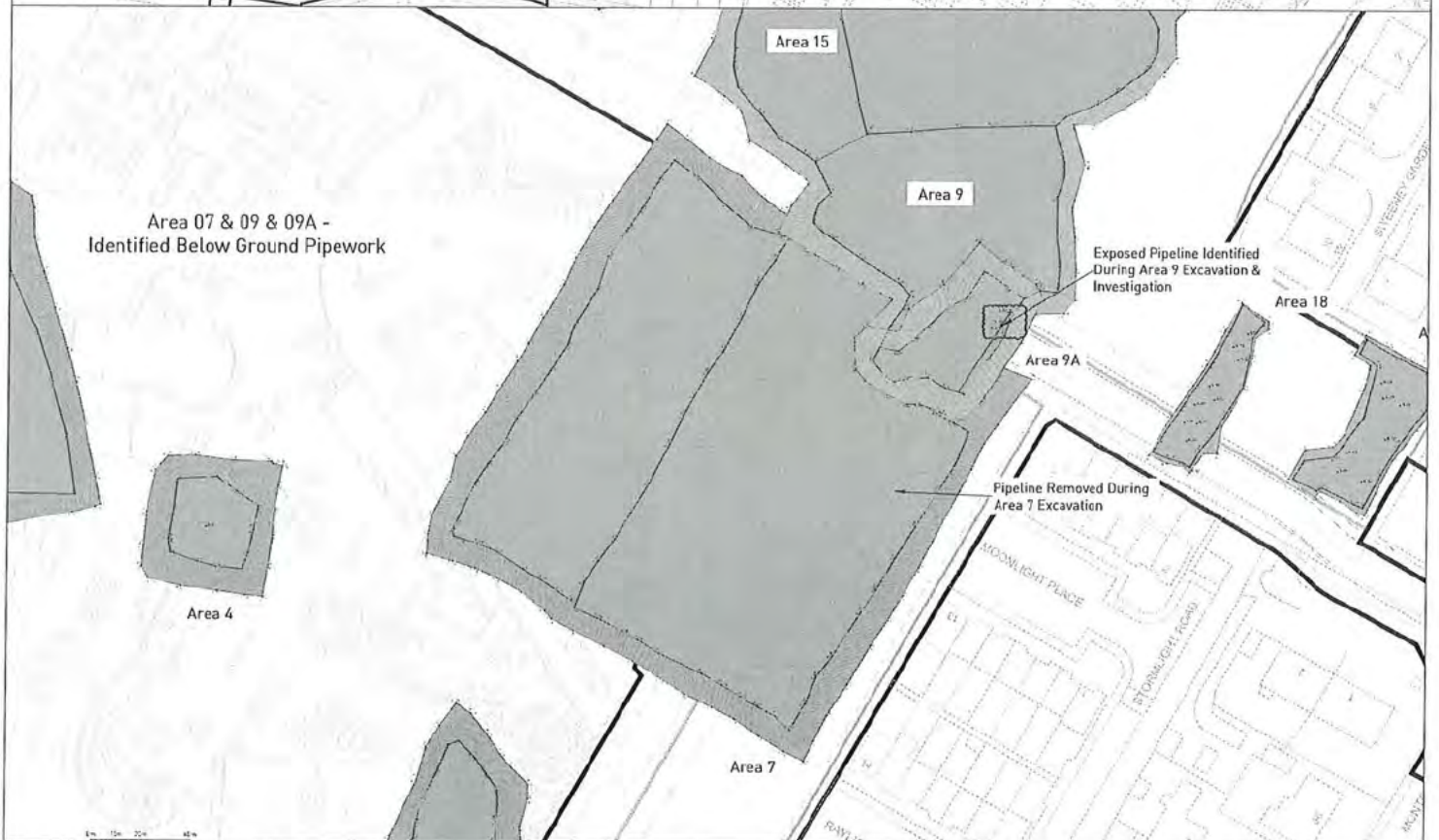
Approved By:



Phase 1 South & Campus Site Remediation Excavations



Area 07 & 09 & 09A - Identified Below Ground Pipework



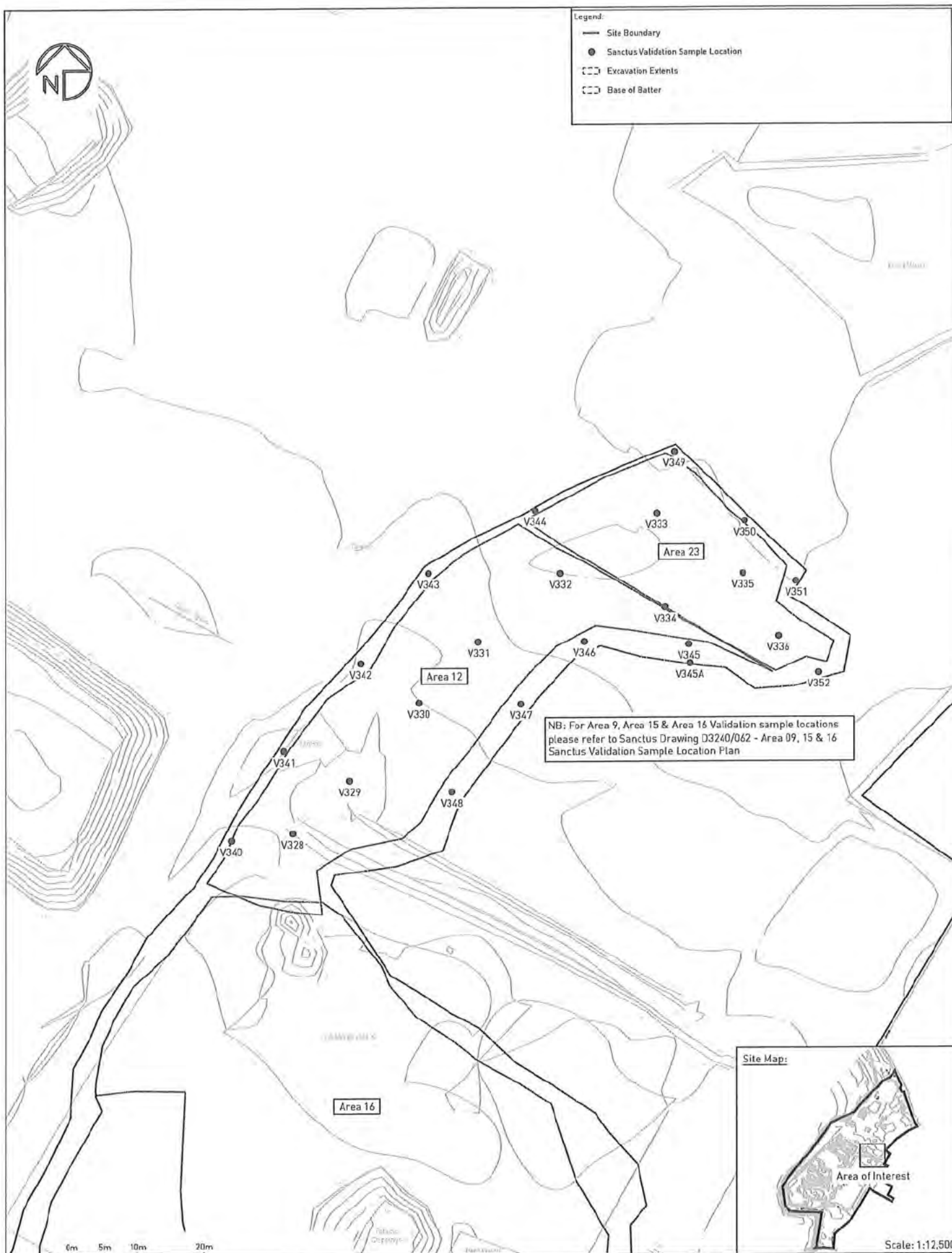
Drawn by: [Name]
Reviewed by: [Name]
Checked by: [Name]
Date: [Date]

APPROVED

Project Name: [Name]
Client: [Name]
Project Location: [Name]
Contract No: [Name]
Drawing No: [Name]
Scale: [Name]



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter



Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	19/07/2024

APPROVED

Project Name:
North Shere, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 12 & Area 23 - Sanctus Validation Sample Location Plan

Contract No:
53240

Drawing No:
D3240/073

Scale @ A3:
1:200 / See Inset

Drawn By:

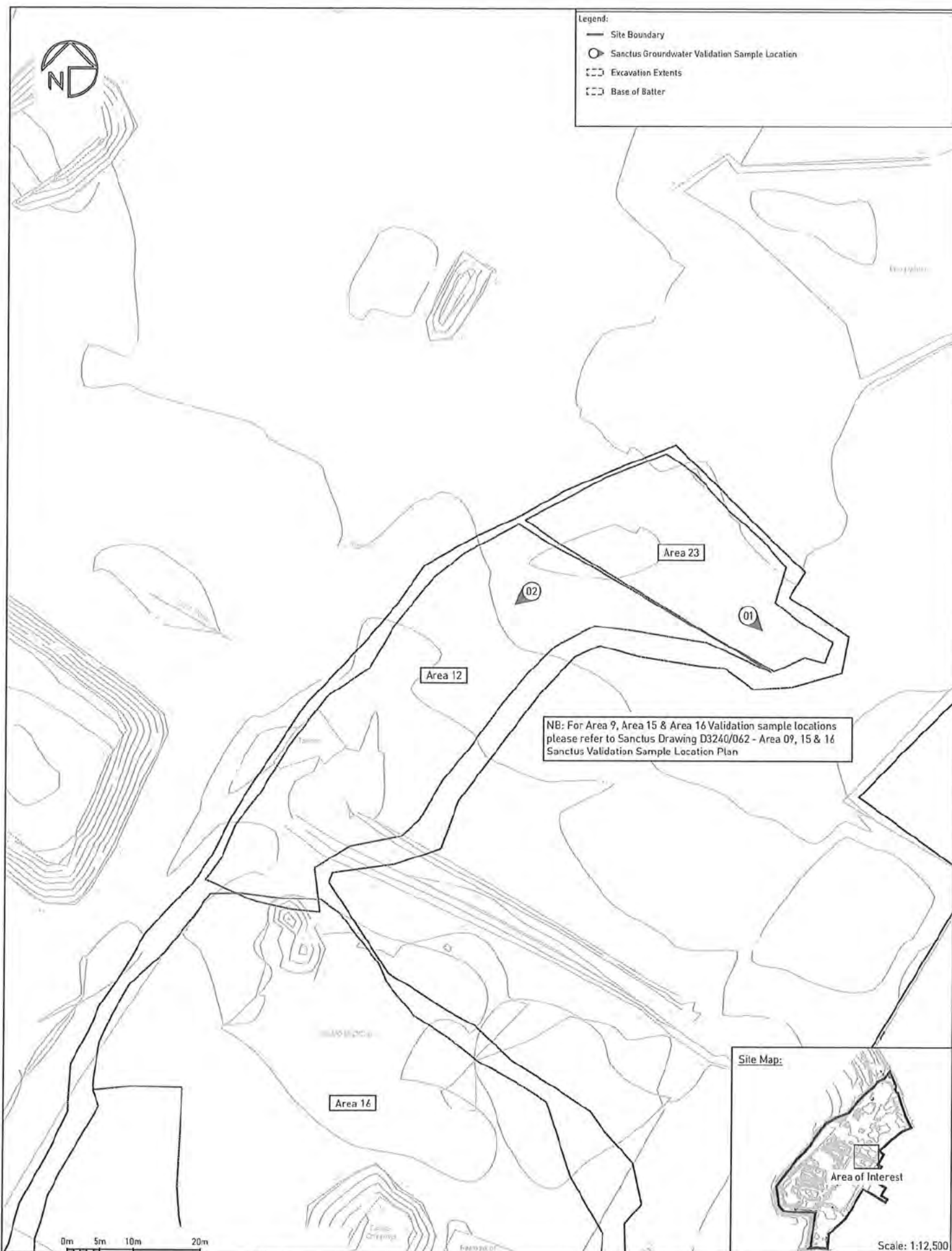
QC Check By:

Approved By:



Legend:

- Site Boundary
- Sanctus Groundwater Validation Sample Location
- Excavation Extents
- Base of Batter



Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	05/08/2024

APPROVED

Project Name: North Shore, Ardrossan		
Client: North Ayrshire Council		
Drawing Title: Area 12 & Area 23 - Sanctus Groundwater Validation Sample Location Plan		
Contract No: S3240	Drawing No: D3240/08D	Scale @ A3: 1:500 / See Inset
Drawn By:	QC Check By:	Approved By:



Phase 2 Pitches and East Residential

Legend
— Boundary of the site
— Boundary of the site
— Boundary of the site



SANCUS

Drawn by: [Name]

Checked by: [Name]

Date: [Date]

Scale: [Scale]

Sheet: [Sheet]

Rev: [Rev]

A: [Rev]

B: [Rev]

C: [Rev]

D: [Rev]

E: [Rev]

APPROVED

Drawn by: [Name]

Checked by: [Name]

Date: [Date]

Scale: [Scale]

Sheet: [Sheet]

Drawn by: [Name]

Checked by: [Name]

Date: [Date]

Scale: [Scale]

Sheet: [Sheet]

Drawn by: [Name]

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Checked by: [Name]

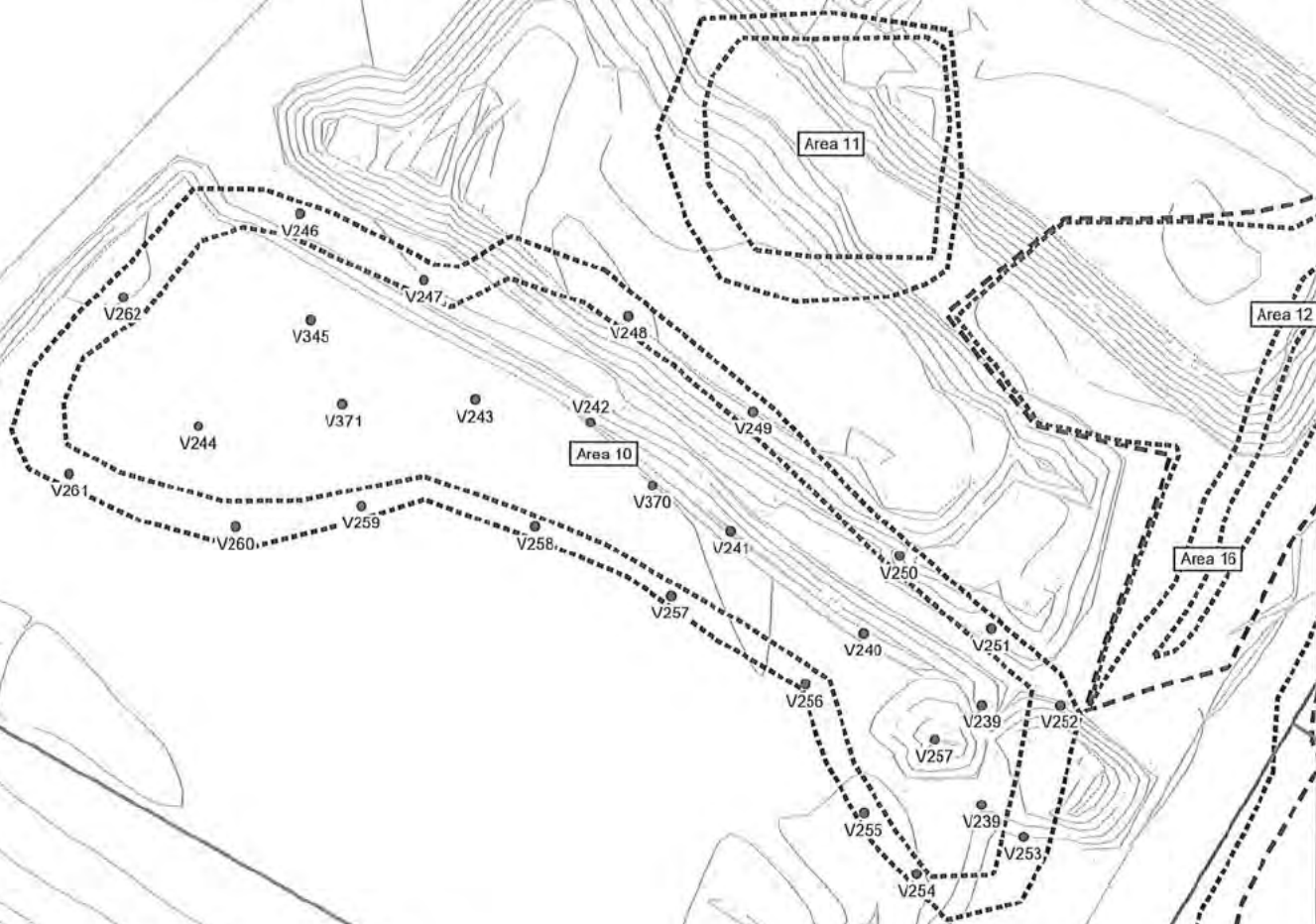
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Sheet: [Sheet]



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - - - Excavation Extents
 - - - Base of Batter
 - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aind Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 10 - Sanctus Validation Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/82

Scale @ A3:
1:500 / See Inset

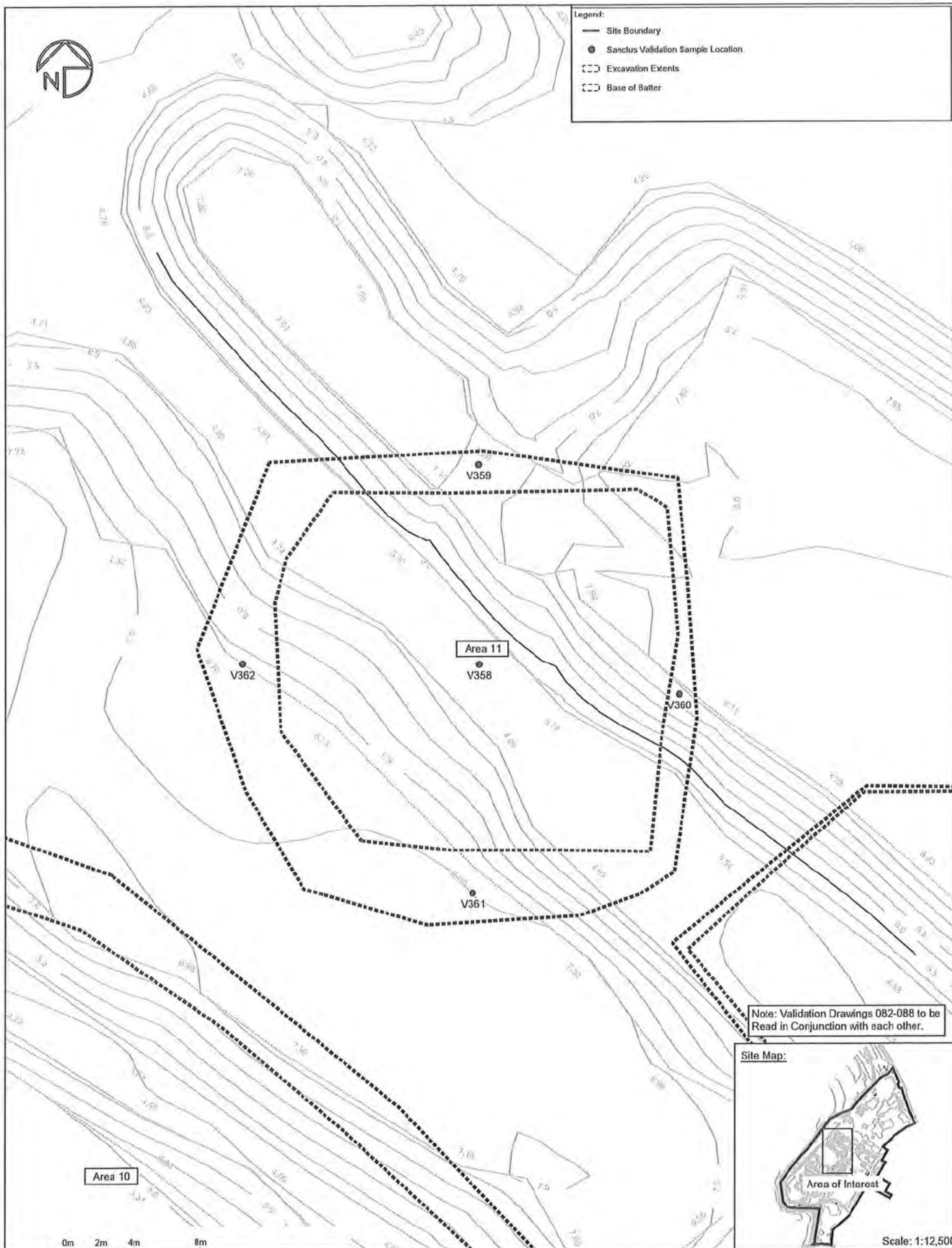
Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter



Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 11 - Sanctus Validation Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/63

Scale @ A3:
1:200/ See Inset

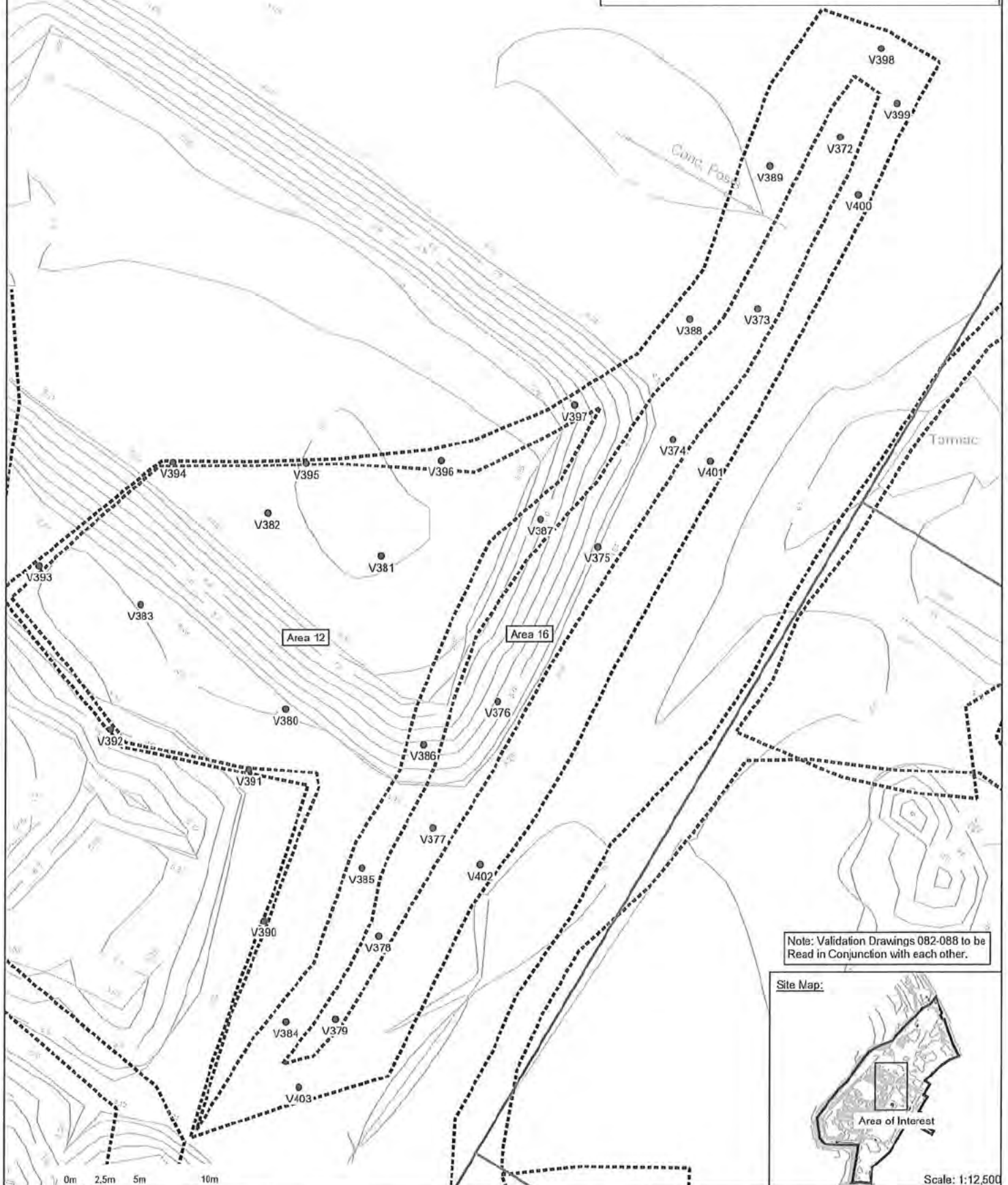
Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.
Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev. A
Description
First Issue
APPROVED

Date
20/08/2024

Project Name:
North Shores, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 12 & 16 - Sanctus Validation Sample Location Plan

Contact No:
S3240

Drawing No:
D3240/084

Scale @ A3:
1:250 / See Inset

Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line

Dean



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.



Scale: 1:12,500

0m 2.5m 5m 10m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 17 & 18 - Sanctus Validation Sample Location Plan

Contract No:
S3240

Drawn By:

Drawing No:
D3240/85

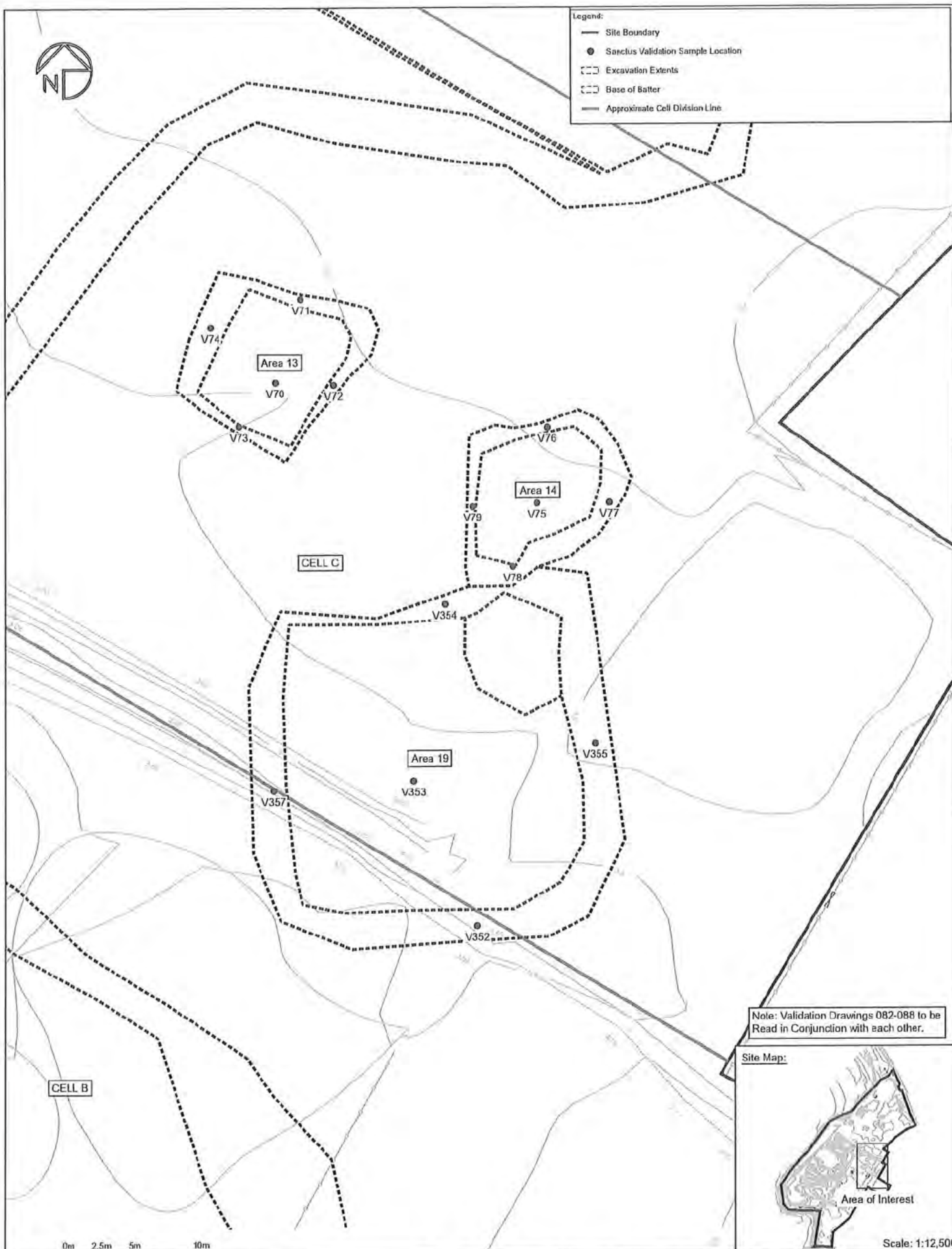
QC Check By:

Scale @ A3:
1250 / See Inset

Approved By:

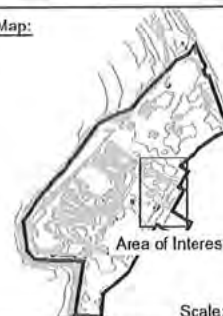


- Legend:
- Site Boundary
 - Sanctus Validation Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500

SANCTUS

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev. Description
A First Issue

Date
20/08/2024

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 13, 14 & 19 - Sanctus Validation Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/086

Scale @ A3:
1:250 / See Inset

Drawn By:

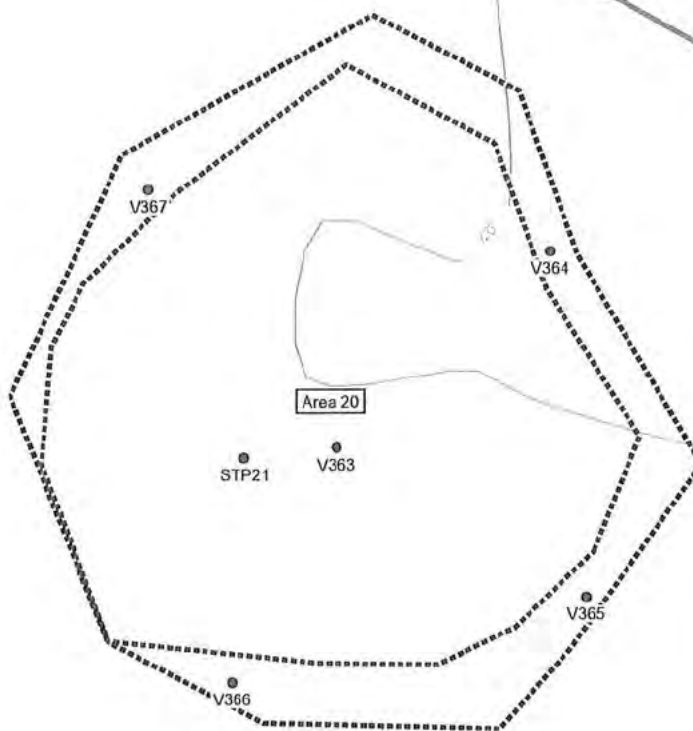
QC Check By:

Approved By:

APPROVED



- Legend:
- Site Boundary
 - Sanctus Validation/Trial Pit Sample Location
 - Excavation Extents
 - Base of Batter
 - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev	Description	Date
A	First Issue	20/08/2024
B	STP21 Added	18/09/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 20 - Sanctus Validation Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/087

Scale @ A3:
1:500 / See Inset

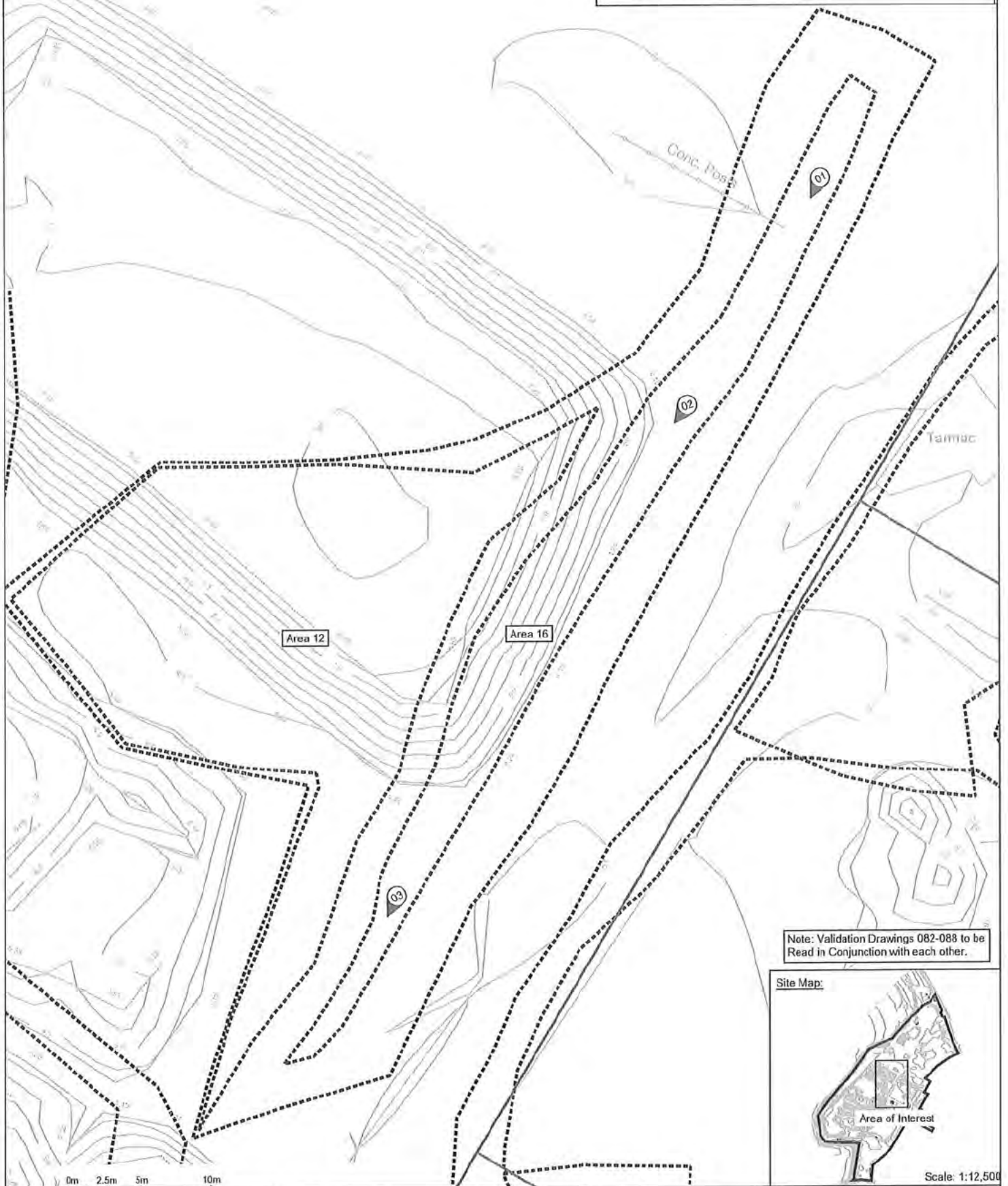
Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Sanctus Groundwater Validation Sample Location
 - - - Excavation Extents
 - - - Base of Batter
 - - - Approximate Cell Division Line



Note: Validation Drawings 082-088 to be Read in Conjunction with each other.

Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/08/2024

APPROVED

Project Name:
North Shore, Ardrossan
Client:
North Ayrshire Council

Drawing Title:
Area 12 & 16 - Sanctus Groundwater Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/088

Scale @ A3:
1:250 / See Inset

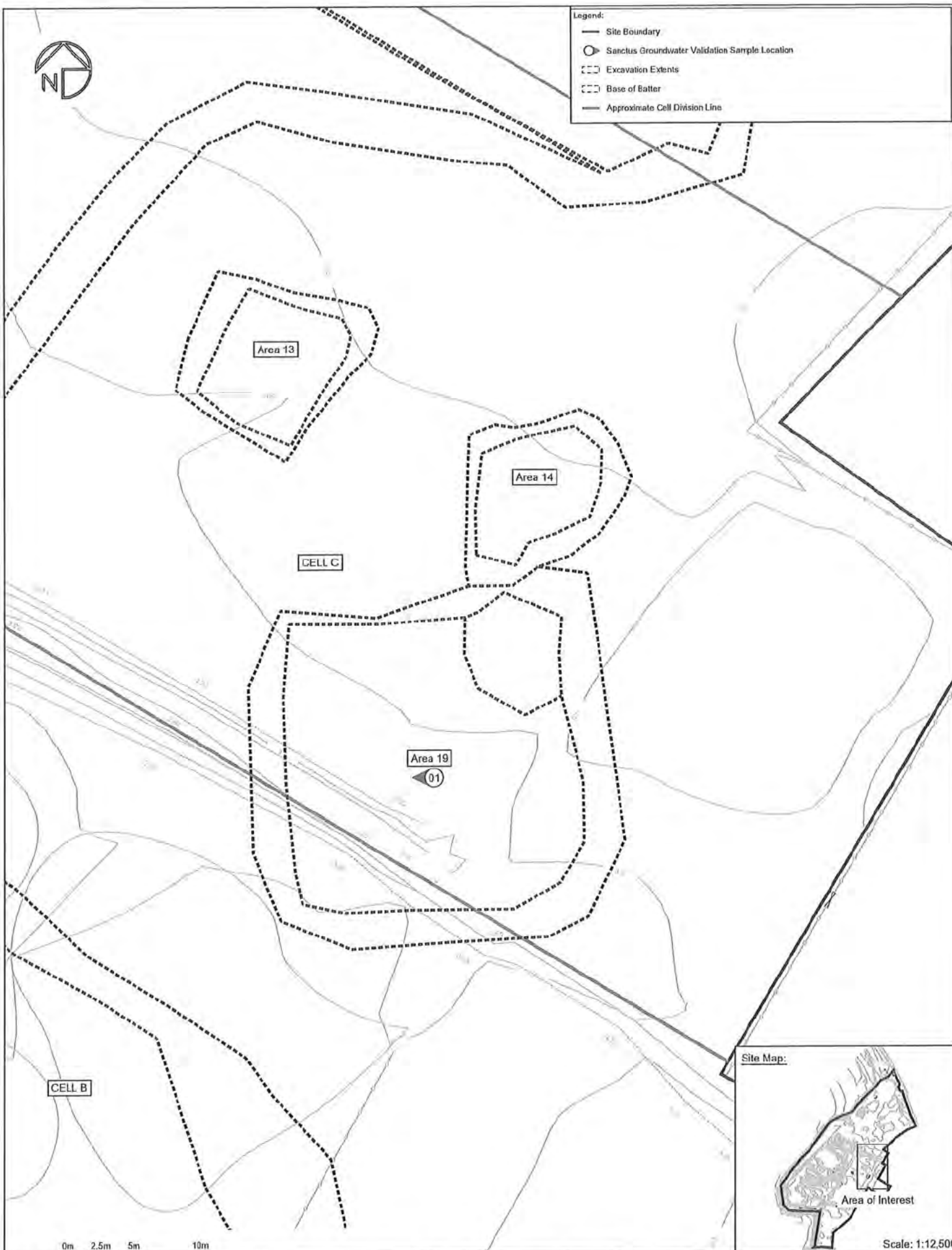
Drawn By:

QC Check By:

Approved By:



- Legend:
- Site Boundary
 - Sanctus Groundwater Validation Sample Location
 - - - Excavation Extents
 - - - Base of Batter
 - Approximate Cell Division Line



Site Map:



Scale: 1:12,500

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev	Description	Date
A	First Issue	21/08/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 19 - Sanctus Groundwater Validation Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/089

Scale @ A3:
1:250 / See Inset

Drawn By:

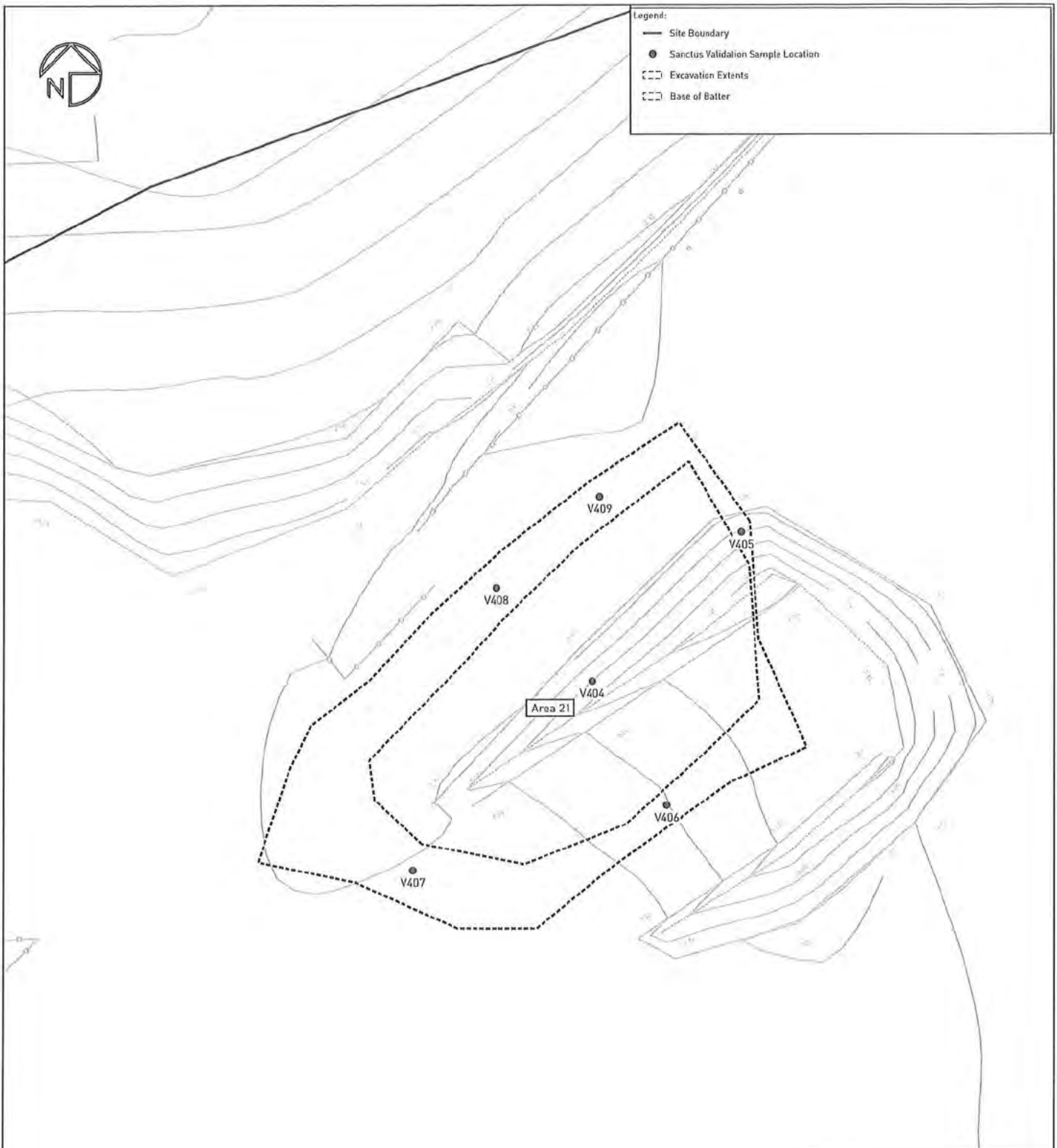
QC Check By:

Approved By:



Legend:

- Site Boundary
- Sanctus Validation Sample Location
- - - Excavation Extents
- - - Base of Batter



Site Map:



Scale: 1:12,500

0m 2m 4m 8m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group,
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	26/09/2024
B	Location Added	04/02/2025

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 21 - Sanctus Validation Sample Location Plan

Contract No:
53240

Drawing No:
03240/098

Scale @ A3:
1:200 / See Inset

Drawn By:

QC Check By:

Approved By:



Legend:

- Site Boundary
- Sanctus Groundwater Validation Sample Location
- - - Excavation Extents
- - - Base of Batter

Area 21

01

Site Map:



Scale: 1:12,500

0m 2.5m 5m 10m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	26/09/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 21 - Sanctus Groundwater Validation Sample Location Plan

Contract No:
S3240

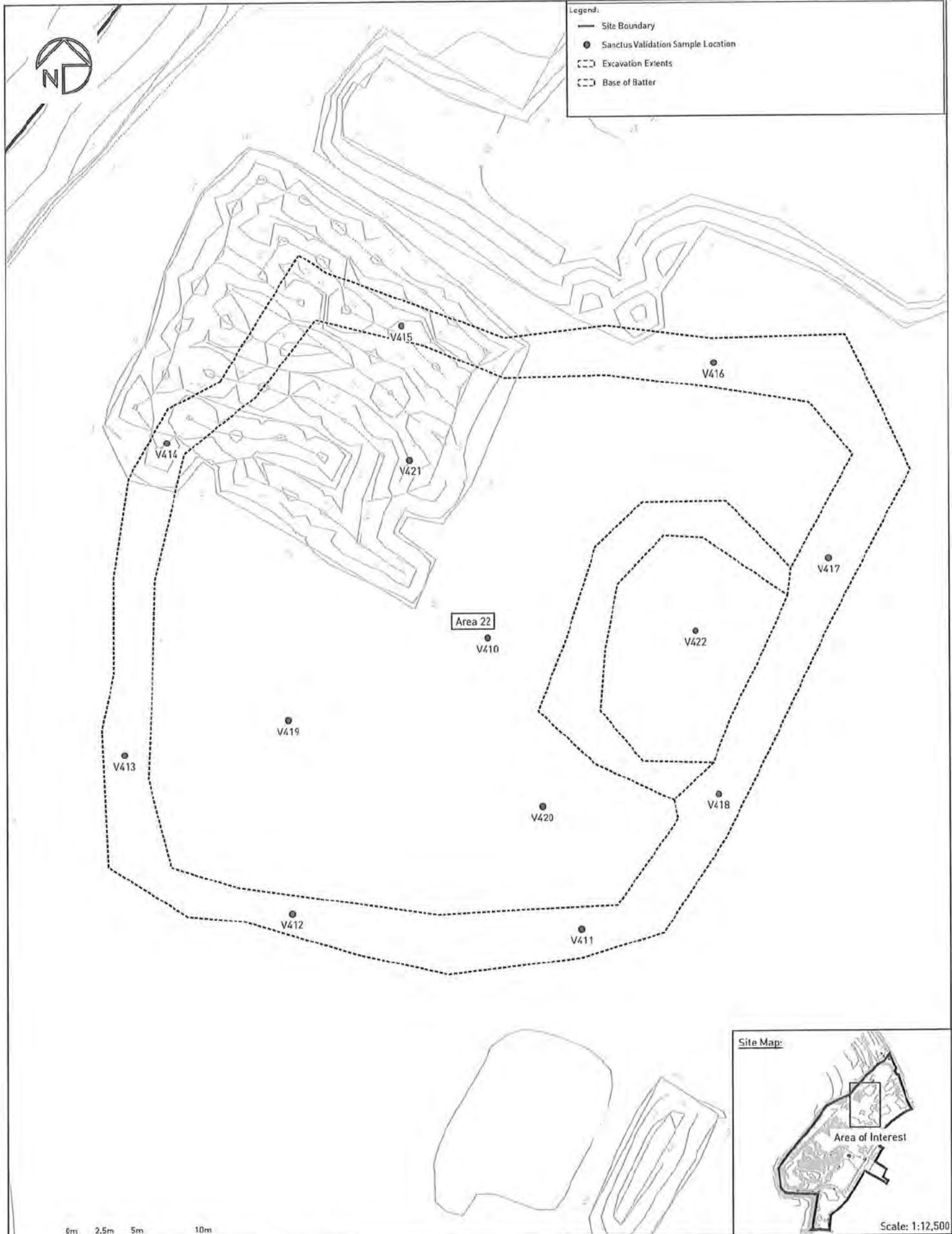
Drawing No:
D3240/099

Scale @ A3:
1:200 / See Inset

Drawn By:

QC Check By:

Approved By:



sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	26/09/2024
B	Location Added	04/02/2025

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 22 - Sanctus Validation Sample Location Plan

Contract No:
S3740

Drawing No:
D3240/100

Scale @ A3:
1:250 / See Inset

Drawn By:

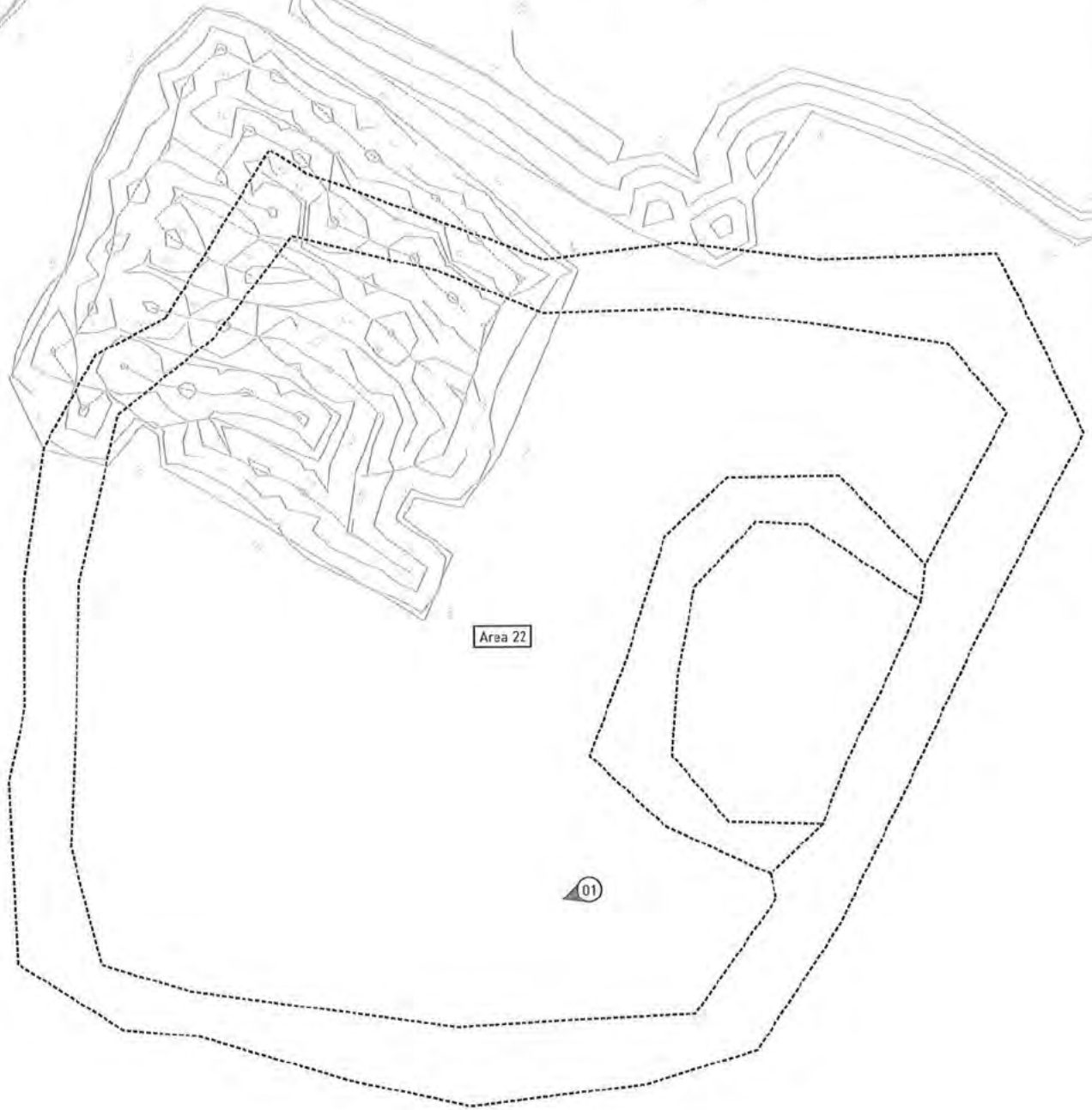
QC Check By:

Approved By:



Legend:

- Site Boundary
- Sanctus Groundwater Validation Sample Location
- - - Excavation Extents
- - - Base of Batter



Area 22

01

Site Map:



Scale: 1:12,500

0m 2.5m 5m 10m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	26/09/2024

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Area 22 - Sanctus Groundwater Validation Sample Location Plan

Contract No:
S3240

Drawing No:
03240/101

Scale B A3:
1:250 / See Inset

Drawn By:

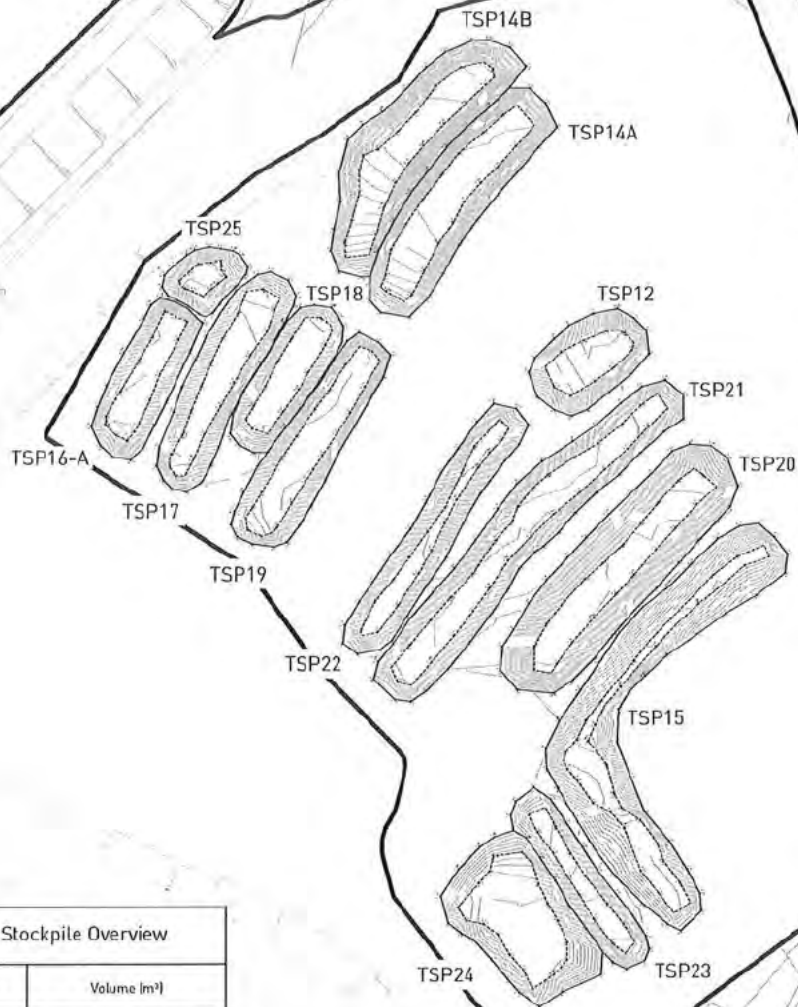
QC Check By:

Approved By:



Legend:

- Site Boundary
- Top of Bank
- Bottom of Bank
- Spot Level (mAOD)



Sanctus Treatment Stockpile Overview

Sanctus Treatment Stockpile ID	Volume (m ³)
TSP14A	1,517
TSP14B	1,748
TSP15	1,490
TSP16-A	605
TSP17	728
TSP18	467
TSP19	836
TSP20	2,197
TSP21	1,406
TSP22	667
TSP23	404
TSP24	958
TSP25	197



sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 20 produced by Aird Group.
23/03/2020. Validation locations surveyed
by Sanctus Engineer. Must be printed in
colour.

Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	20/11/2024
B	Bio-Treatment Criteria Evaluation Table Added	04/03/2025
C	Stockpile Overview Table, Survey & Site Boundary Updated	14/04/2025

APPROVED

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Treatment Stockpile Location Plan

Contract No:
S3240

Drawing No:
D3240/108

Scale @ A3:
1:1000 / See Inset

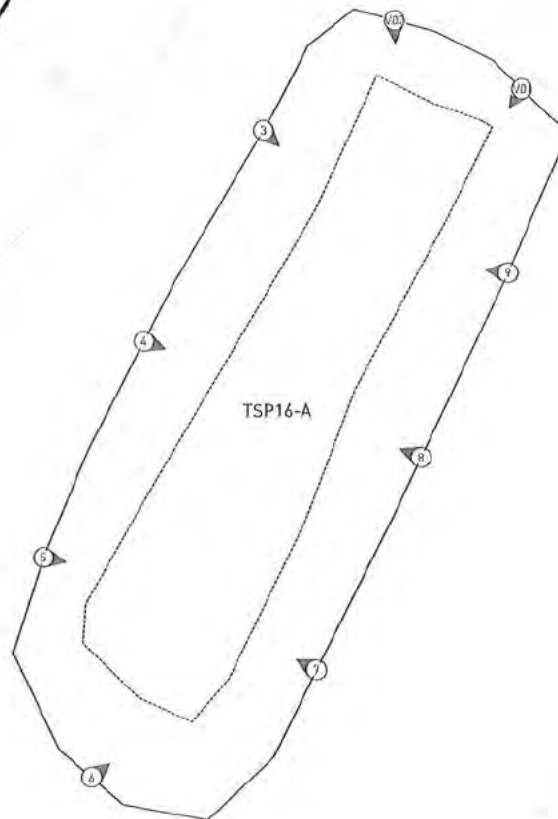
Drawn By:

QC Check By:

Approved By:



- Legend:
- Contractual Phasing Boundary
 - Top of Bank
 - Bottom of Bank
 - Treatment Stockpile Sample Location



0m 2m 4m 8m

sanctus

Drawing Notes:
Based on client supplied DWG -
ARDROSSAN 2D produced by Aird Group.
23/03/2020. Must be printed in colour.

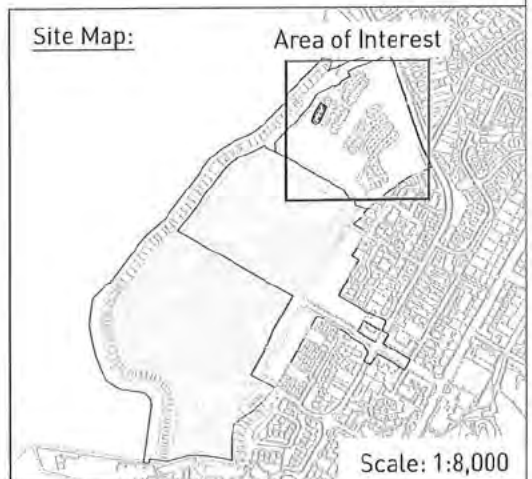
Site Address:
Raylight Place
Ardrossan
North Ayrshire
Scotland

Rev.	Description	Date
A	First Issue	10/04/2025

APPROVED

Site Map:

Area of Interest



Scale: 1:8,000

Project Name:
North Shore, Ardrossan

Client:
North Ayrshire Council

Drawing Title:
Treatment Stockpile 16-A Sample Location Plan

Contract No:
S3240

Drawing No:
D3240/121

Scale @ A3:
1:200 / See Inset

Drawn By:

QC Check By:

Approved By:



Legend

LEGEND:

- REHABILITATION AREAS VERIFIED WITHIN SANCTUS REPORT 53210/011 ISSUE D
- REHABILITATION AREAS VERIFIED WITHIN SANCTUS REPORT 53210/011 ISSUE D
- REHABILITATION AREAS VERIFIED WITHIN SANCTUS REPORT 53210/011 ISSUE C
- STOCKPILES VERIFIED WITHIN SANCTUS REPORT 53210/011 ISSUE B



0m 10m 20m 30m



Drawing Title:
Rehabilitation Areas - 53210/011
by Red Group (2015/2016). All locations are approximate.
Not to be used for construction purposes.
For information only.

Site Address:
100/101
100/101
100/101
100/101

Rev. Description
1. Freshwater

APPROVED

Date:
14/02/2016

Project Name:
Sanctus, Reproduction

Client:
Sanctus, Reproduction

Drawing Title:
Rehabilitation Areas - 53210/011

Contract No.:
53210

Drawing No.:
53210/011

Scale: 1:100

Drawn By:
[Redacted]

Checked By:
[Redacted]

Appendix B Planning Conditions



North Ayrshire Council
Comhairle Siorrachd Àir a Tuath

[Redacted] Head Of Service (Economic Development & Regeneration)

No N/21/01161/PP

(Original Application No. N/100508344-001)

CONDITIONAL PLANNING PERMISSION

Type of Application: Local Application

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT, 1997,
AS AMENDED BY THE PLANNING ETC (SCOTLAND) ACT 2006.
TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (SCOTLAND) REGULATIONS
2013

To : North Ayrshire Council



With reference to your application received on 2 December 2021 for planning permission under the above mentioned Acts and Orders for :-

Enabling works to support the future development proposed on the North Shore site, consisting of earthworks, remediation, construction of road, replacement revetment, drainage and formation of a coastal footpath

at Site At North Shore Adjacent To
North Crescent Road
Ardrossan
Ayrshire

North Ayrshire Council in exercise of their powers under the above-mentioned Acts and Orders hereby grant planning permission, in accordance with the plan(s) docketted as relative hereto and the particulars given in the application, subject to the following conditions and associated reasons :-

- | | | |
|-----------|----|---|
| Condition | 1. | Following demolition and removal of the existing building footprint area identified in the Coast to Coast Site Phase I and II Interpretive Report, May 2022, Document Number 8754 and prior to any remediation works commencing within the application area, the applicant shall undertake an additional site investigation and interpretive risk assessment and submit the findings with any remedial measures within the application site Remediation Strategy for the approval of North Ayrshire Council, as Planning Authority and Environmental Health. |
| Reason | 1. | In recognition of the history of the site and to meet the requirements of Environmental Health. |
| Condition | 2. | Prior to commencement of the development, the applicant shall submit a revised Remediation Strategy that will take cognisance of and include: the findings of any existing and further site investigations, risk assessments and remediation trials to demonstrate that they can achieve the remedial targets; details of the phasing of the proposed remediation; Materials Management Plan; surface and groundwater monitoring plans and regulatory liaison proposals for the approval of North Ayrshire Council, as Planning Authority and Environmental Health. |
| Reason | 2. | In recognition of the history of the site and to meet the requirements of Environmental Health. |
| Condition | 3. | A named Clerk of Works will be appointed by the contractor and the approved remediation strategy shall be carried out in accordance with its terms prior to the commencement of any development other than that required to carry out remediation, unless otherwise agreed in writing by North Ayrshire Council, as Planning Authority. The Planning Authority shall be notified in writing of the intended commencement of remediation works not less than 14 days before these works commence on site. |
| Reason | 3. | In recognition of the history of the site and to meet the requirements of Environmental Health. |

- | | | |
|-----------|----|--|
| Condition | 4. | On completion of the remediation works a validation and verification report, which demonstrates the effectiveness of the completed remediation works, with all documentation verified by a suitably qualified Environmental Consultant, shall be submitted for the approval of North Ayrshire Council, as Planning Authority. |
| Reason | 4. | In recognition of the history of the site and to meet the requirements of Environmental Health. |
| Condition | 5. | If there is a requirement to re-use site won material and to import material, then the assessment criteria, sampling frequency and submission phasing, that would adequately demonstrate its suitability for use shall be submitted to and approved by North Ayrshire Council, as Planning Authority, prior to any material being used. In addition, and in accordance with BS3882:2015 and BS8601:2013, material to be used in the top 300mm shall also be free from metals, plastic, wood, glass, tarmac, paper and odours. On completion of the works a verification report containing details of the source of the material and appropriate test results to demonstrate its suitability, shall be submitted for the approval of North Ayrshire Council, as Planning Authority. |
| Reason | 5. | In recognition of the history of the site and to meet the requirements of Environmental Health. |
| Condition | 6. | That the presence of any unsuspected contamination that become evident during the seawall revetment works of the site shall be brought to the attention of Environmental Health. Thereafter a suitable investigation strategy as agreed with North Ayrshire Council, as Planning Authority, shall be implemented and any necessary remediation works carried out prior to any further works taking place on the site, all to the satisfaction of North Ayrshire Council, as Planning Authority. |
| Reason | 6. | In recognition of the history of the site and to meet the requirements of Environmental Health. |
| Condition | 7. | The works shall be carried out in accordance with the mitigation measures identified in the submitted European Protected Species Risk Assessment, to the satisfaction of North Ayrshire Council, as Planning Authority. |
| Reason | 7. | In recognition of the possibility of protected species to use the adjacent marine environment and minimise any disturbance during construction. |
| Condition | 8. | All works to be carried out in accordance with the submitted Environment Management Plan (CEMP), unless otherwise agreed in writing by the Council, as Planning Authority. |
| Reason | 8. | To ensure the proper management of the works in the interest of the amenity of the area. |
| Condition | 9. | That prior to the commencement of the development details of the proposed finishes for the works, including the condition of the finished remediated areas. |
| Reason | 9. | To ensure appropriate finished appearance in the interest of the visual amenity of the area. |

Reason(s) for approval 1. The proposal complies with the relevant provisions of the current adopted Local Development Plan and there are no other material considerations that indicate otherwise. This is determined following an assessment which has had regard to the provisions of the development plan, so far as material to the application, and to any other material considerations.

Dated this : 10 March 2022



.....
for the North Ayrshire Council

5/15

Site At North Shore Adjacent To North Crescent Road Ardrossan Ayrshire
No N/21/01161/PP

Drawings relating to decision

Drawing Title	Drawing Reference	Drawing Version
Location Plan		
Proposed Plan	Road Layout	137240/1003 Rev B
Drainage Layout	DRAINAGE LAYOUT AND DESIGN	
Topographical Plan	Topographic Survey Appendix A	G/WAF/1052

(See accompanying notes.) (The applicant's attention is particularly drawn to note 5 (limit of duration of planning permission))

ECONOMIC DEVELOPMENT & REGENERATION

Cunninghame House, Irvine KA12 8EE

Tel: 01294 310000

www.north-ayrshire.gov.uk

**North Ayrshire Council**

Comhairle Siorrachd Air a Tuath

NOTIFICATION OF INITIATION OF DEVELOPMENTPlease return notice when you intend to commence development

10 March 2022

TO:

Enforcement Officer
Planning Services
Cunninghame House
Irvine
North Ayrshire
KA12 8EE

Our Ref: N/21/01161/PP

Decision: Approved subject to Conditions**Decision Date:** 10 March 2022

DETAILS OF APPLICANT AND/OR DEVELOPER	DETAILS OF OWNER	DETAILS OF AGENT IF APPLICABLE

Description of Development: Enabling works to support the future development proposed on the North Shore site, consisting of earthworks, remediation, construction of road, replacement revetment, drainage and formation of a coastal footpath

Location of Development: Site At North Shore Adjacent To North Crescent Road Ardrossan Ayrshire

Date when work commences: _____

Signed: _____

Applicant/Agent* _____

* Delete where applicable

Please read the following and retain for your information.

1. Work must be carried out in accordance with the relevant docquetted plans and any conditions on the decision notice.
2. A grant of Planning Permission does not authorise work under the Building (Scotland) Act 2003.
3. A separate Building Warrant may be required. Please contact (01294) 324348 to ascertain the need for a warrant.
4. Should the docquetted plans not correspond with what you intend to construct/build, you must seek the Authority of the Council before proceeding.
5. If the development you intend to undertake is either a national or major development and of a type specified in Schedule 3 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 you will be required to display a site notice.

ECONOMIC DEVELOPMENT & REGENERATION

Cunninghame House, Irvine KA12 8EE
Tel: 01294 310000
www.north-ayrshire.gov.uk

**North Ayrshire Council**

Comhairle Siorrachd Àir a Tuath

NOTIFICATION OF COMPLETION OF DEVELOPMENTPlease return notice when you have completed the development

10 March 2022

TO:

Enforcement Officer
Planning Services
Cunninghame House
Irvine
North Ayrshire
KA12 8EE

Our Ref: N/21/01161/PP

Decision: Approved subject to Conditions**Decision Date:** 10 March 2022

DETAILS OF APPLICANT AND/OR DEVELOPER	DETAILS OF OWNER	DETAILS OF AGENT IF APPLICABLE

Description of Development: Enabling works to support the future development proposed on the North Shore site, consisting of earthworks, remediation, construction of road, replacement revetment, drainage and formation of a coastal footpath

Location of Development: Site At North Shore Adjacent To North Crescent Road Ardrossan Ayrshire

Date when works complete: _____

Signed: _____

Applicant/Agent* _____

*Delete where applicable

Please read the following and retain for your information.

1. Work must have been carried out in accordance with the relevant docketed plans and any conditions on the decision notice.
2. A grant of Planning Permission does not authorise work under the Building (Scotland) Act 2003.
3. A separate Building Warrant may be required. Please contact (01294) 324348 to ascertain the need for a warrant.
4. Should the docketed plans not correspond with what you intend to construct/build, you must seek the Authority of the Council before proceeding.
5. If the development you intend to undertake is either a national or major development and of a type specified in Schedule 3 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 you will be required to display a site notice.



North Ayrshire Council

Comhairle Siorrachd Àir a Tuath

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT, 1997,
AS AMENDED BY THE PLANNING ETC (SCOTLAND) ACT 2006.

TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (SCOTLAND) REGULATIONS
2013 – REGULATION 28

[REDACTED] Head Of Service (Economic Development & Regeneration)

FORM 1

1. If the applicant is aggrieved by the decision of the planning authority to refuse permission for or approval required by a condition in respect of the proposed development, or to grant permission or approval subject to conditions, the applicant may appeal to the Scottish Ministers under section 47 of the Town and Country Planning (Scotland) Act 1997 within three months from the date of this notice. The notice of appeal should be addressed to the Directorate of Planning and [REDACTED]

2. If permission to develop land is refused or granted subject to conditions, whether by the planning authority or by the Scottish Ministers, and the owner of the land claims that the land has become incapable of reasonably beneficial use in its existing state and cannot be rendered capable of reasonably beneficial use by the carrying out of any development which has been or would be permitted, the owner of the land may serve on the planning authority a purchase notice requiring the purchase of the owner of the land's interest in the land in accordance with Part 5 of the Town and Country Planning (Scotland) Act 1997.

Appendix C Sanctus Remedial Criteria

Determinant	Units	Remedial Target Criteria: Remediation (all verification samples)
Petroleum Hydrocarbons		
Ali C5-6	mg/kg	78
Ali C6-8	mg/kg	230
Ali C8-10	mg/kg	65
AliC10-12	mg/kg	330
Ali C12-16	mg/kg	1000
Ali C16-21	mg/kg	1000
Ali C21-35	mg/kg	1000
Aro C5-7	mg/kg	140
Aro C7-8	mg/kg	290
AroC8-10*	mg/kg	7.34
Aro C10-12*	mg/kg	48.3
Aro C12-16*	mg/kg	173.47
Aro C16-21*	mg/kg	540
Aro C21-35	mg/kg	<1,000
Aro C5-35*	mg/kg	<1,000
Total Petroleum Hydrocarbons*	mg/kg	Total of all TPH Fractions <1000mg/kg
Speciated PAHs		
Naphthalene*	mg/kg	3.7
Acenaphthylene*	mg/kg	109.9
Acenaphthene	mg/kg	141
Fluorene	mg/kg	400
Phenanthrene	mg/kg	220
Anthracene	mg/kg	<1,000
Fluoranthene	mg/kg	560
Pyrene	mg/kg	<1,000
Benzo(a)anthracene	mg/kg	11
Chrysene	mg/kg	22
Benzo(b)fluoranthene*	mg/kg	20.4
Benzo(k)fluoranthene	mg/kg	93
Benzo(a)pyrene*	mg/kg	25.1
Indeno (1,2,3-c-d)pyrene	mg/kg	36
Dibenz(a,h)anthracene*	mg/kg	48.6
Benzo(g,h,i)perylene	mg/kg	340
Total PAHs	Mg/kg	Total of all PAH Fractions <1000mg/kg
Monoaromatics & Oxygenates		
Benzene	mg/kg	0.170
Toluene	mg/kg	290

Determinant	Units	Remedial Target Criteria: Remediation (all verification samples)
Ethylbenzene	mg/kg	110
o-xylene	mg/kg	140
Asbestos		
Asbestos (Non-Visible)	N/A	<0.01%
Note: *Denotes values calculated from Sanctus Site Specific Modelling and assumptions detailed within Section 8.0 of the Sanctus Remediation Strategy (1)		

Appendix D Sanctus Remediation Strategy: S3240-001