PUNCH
consulting engineers

Residential Development, Beach Road, Sandymount

Basement Impact Assessment

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1 Baseline Characteristics of the Project

1.1 Introduction

This report is provided in support of a planning amendment, planning retention application as part of an LRD application for a development previously approved under SHD ABP-310299-21.

This Basement Impact Assessment (BIA) has been carried out in accordance with Appendix 9 of the Dublin City Development Plan 2022 – 2028 "Basement Development Guidance" in support of the planning application. Please refer to Table F-1 and Table F-2 within Appendix F of this report which includes a summary checklist for how this BIA report addresses the various requirements set out in Dublin City Councils (DCC) guidance documentation.

1.2 Proposed Development

The development is substantially equivalent the original application and the development description should be taken from architectural documentation. The development includes a multi storey apartment development with basement parking, ancillary internal uses, and external substation.

1.3 Purpose of Work

The principal technical objectives of the work carried out were as follows:

1. To check the history of the site with respect to previous contaminative uses;
2. To determine the ground conditions and their engineering properties;
3. To provide advice and information with respect to the design of suitable foundations and retaining walls;
4. To assess the impact of the proposed basement on the local hydrogeology, hydrology and stability of the surrounding natural and build environment;
5. To provide an indication of the degree of soil contamination present; and
6. To assess the risk that any such contamination may pose to the proposed development, its users or the wider environment.

1.4 Scope of Work

In order to meet the above objectives, a desk study was carried out, to be followed by a ground investigation. The desk study comprised:

1. a review of historical Ordnance Survey (OS) maps and environmental searches sourced from the Geological Survey of Ireland (GIS) database;
2. a review of readily available geology maps from the Geological Survey of Ireland (GIS) database;
3. a walkover survey of the site carried out in conjunction with the fieldwork.

In light of this desk study an intrusive ground investigation was carried out by ISGL Limited.

The scope of the work undertaken for this project included the following:

1. Visit project site to observe existing conditions.
2. 3 No. cable percussive boreholes.
3. 3 No. Rotary coreholes to investigate for the presence of bedrock.
4. 1 No. Trial Inspection Pit.
5. 2 No. Window Samples to recover continuous undisturbed samples.
6. Geotechnical & Environmental Laboratory testing.
7. Report with recommendations.

Note: Please refer to Appendix C for the relevant exploratory hole location plans.

1.4.1 Basement Impact Assessment

The work carried out includes a hydrological and hydrogeological assessment and ground movement assessment. These assessments form part of the BIA procedure specified in Appendix 9 of the Dublin City Development Plan 2022 – 2028 "Basement Development Guidance". The aim of the work is to provide information on surface water, groundwater and land stability and in particular to assess whether the development will affect neighbouring properties or groundwater movements and whether any identified impacts can be appropriately mitigated by the design of the development.

1.4.2 Qualifications

The assessments have been prepared by Mark Richardson, Associate and Chartered Engineer at PUNCH Consulting Engineers (BA BAI CEng MIEI), with 18 years' experience. As Lead Engineer for the BIA, Mark has compiled the inputs from the relevant third parties, e.g. GSI, GII, etc.

The surface water and flooding assessment has been carried out by Mark Richardson, Associate and Chartered Engineer at PUNCH Consulting Engineers (BA BAI CEng MIEI) with more than 18 years consultancy experience in general civil engineering design, surface water drainage design and hydraulic modelling.

The flooding assessment has been carried out by Clare Shannon, Senior Engineer at PUNCH Consulting Engineers (BEng, MIEI) with more than 10 years consultancy experience in flood risk assessment, surface water drainage schemes and hydrology / hydraulic modelling.

1.4.3 Limitations

The conclusions and recommendations made in this report are limited to those that can be made on the basis of the investigations. The results of the work should be viewed in the context of the range of data sources consulted. Any comments made on the basis of information obtained from the client or other third parties are given in good faith on the assumption that the information is accurate; no independent validation of such information has been made by PUNCH.

1.5 Site Description

The site is a brownfield site of approximately 0.385 hectares in area and is located within Dublin City Council's (DCC) remit, and prior to construction consisted of an abandoned car showroom with a sales and service outlet, and a vacant Maxol service station.

The site is located at the junction of Beach Road and Church Avenue in Sandymount, Dublin 4. The site is bounded to the north-west by R111 Church Avenue and a residential development, to the east by R802 Beach Road, and to the south-west by St. Matthew's School. The frontage onto Beach Road has a length of approximately 88 metres.

Figure 1-1 indicates the location of the subject lands. The site may be additionally located by National Grid Reference 318580 (E), 233371 (N). The extent of the basement perimeter relative to the site boundary is also shown.

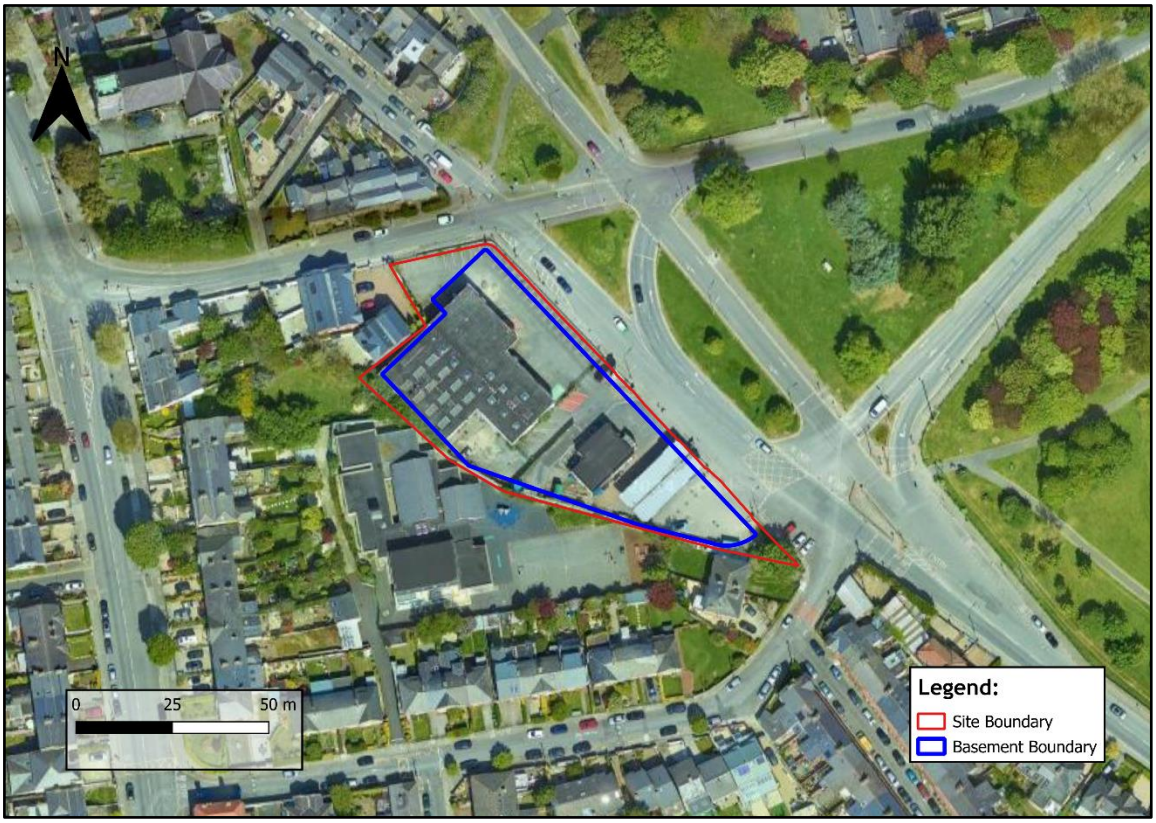


Figure 1-1: Site Location

1.5.1 Neighbouring Structures

A search has been carried out of the DCC Planning Portal for planning applications that relate to the construction of basements. This has been supplemented by site walkovers of adjacent publicly accessible properties to verify the presence of basements.

The search findings are highlighted in Figure 1-2.

1. Former Irish Glass bottle & Fabizia Sites – Proposed development incorporating a single-storey basement.
2. 78/ 80/ 82 Irishtown Road – Two-storey structure with a single basement storey, with a floor area of 42m^2.
3. 21 Newbridge Avenue – Refused planning permission for construction of a two-storey over basement mews dwelling.
4. 2 Fairfield Court – Two-storey townhouse over semi-basement. Basement is assumed to extend the footprint of the town house.



Figure 1-2: Nearby Structures Incorporating Basements.

1.6 Site History

The history of the site and surrounding area has been researched by reference to archive historical maps and Ordnance Survey (OS) maps sourced from the GeoHive database.

Historic mapping indicates a development on site, with the surrounding areas also having been built-up urban sites, as shown in Figure 1-3.

The current iteration of development comprises a brownfield site, consisting of several developments, including the previously mentioned car showroom and service station, as shown in Figure 1-4.

Please refer to Appendix B for full size historical mapping.

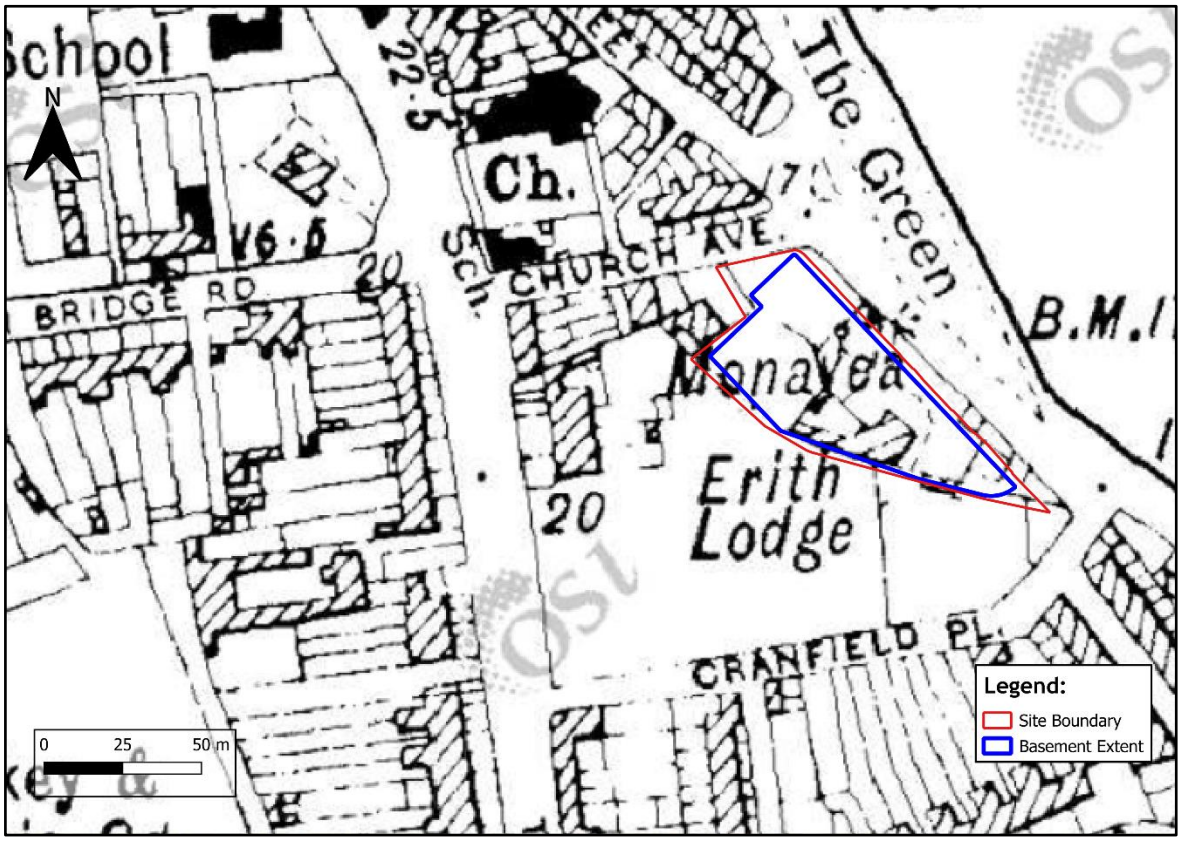


Figure 1-3: GeoHive Map - 6 Inch Last Edition.

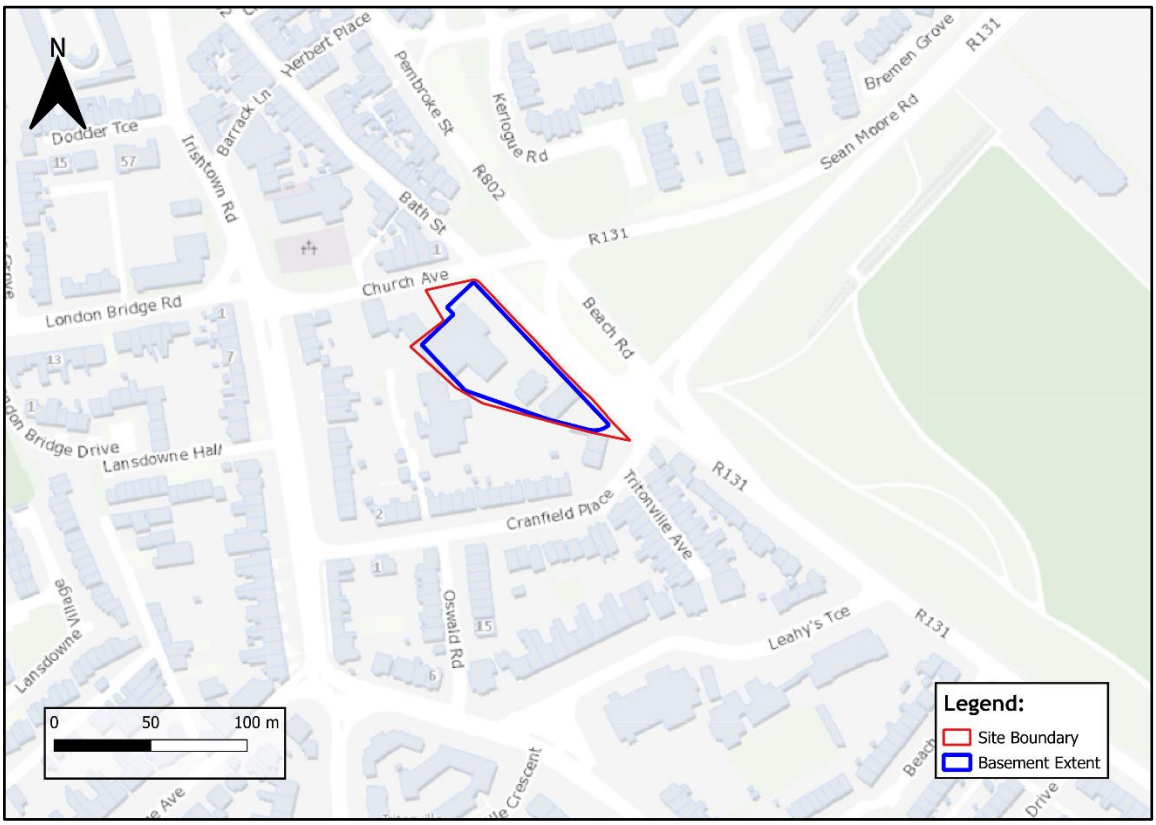


Figure 1-4: GeoHive Map 2024.

1.7 Geology

The Geological Survey Ireland (GSI) Spatial Resources database shows that the entire site is located on underlying bedrock of 'Visean limestone & calcareous shale'. Figure 1-5 below displays a bedrock map for the proposed development site. GSI database does not indicate the presence of any Karst features on site, however it should be noted karst is a risk in limestone areas.

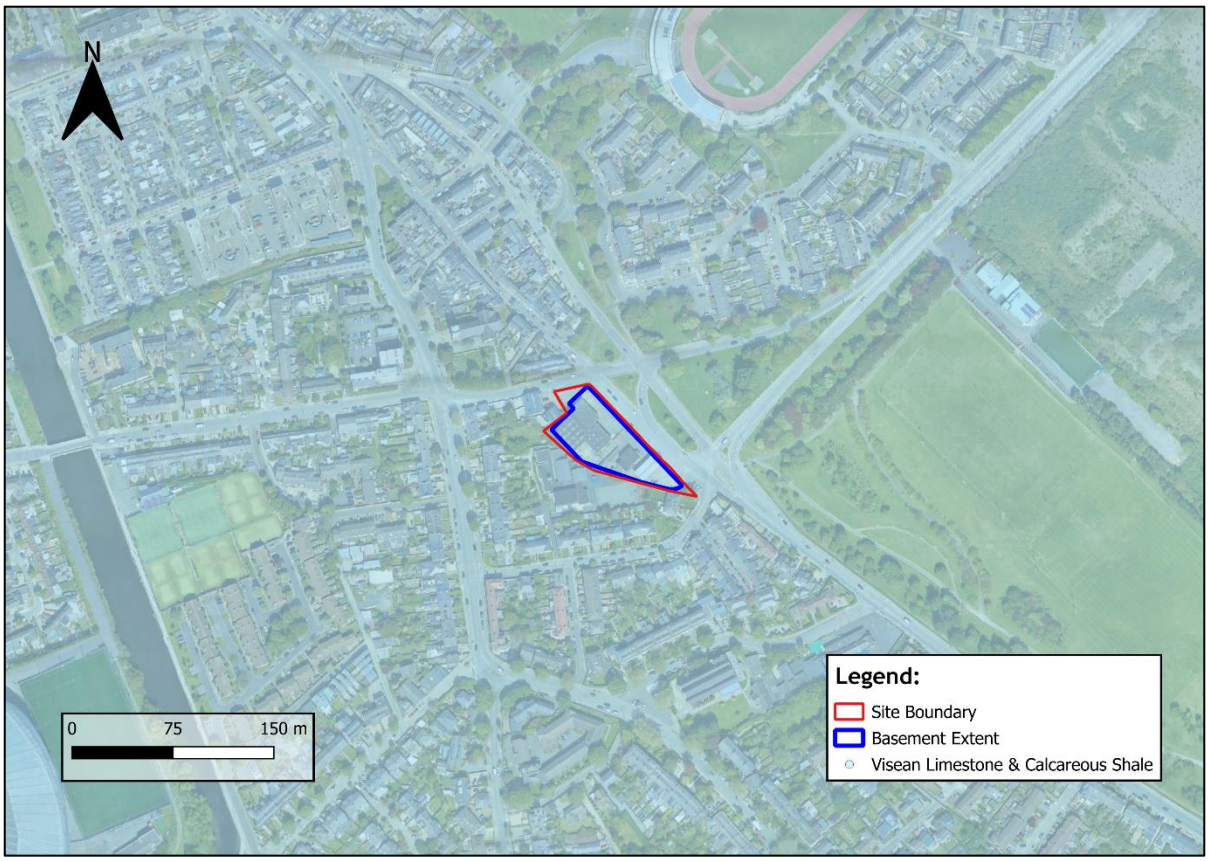


Figure 1-5: GSI Bedrock Map

The Teagasc soils are 'made ground' for this site. Please refer to Figure 1-6.

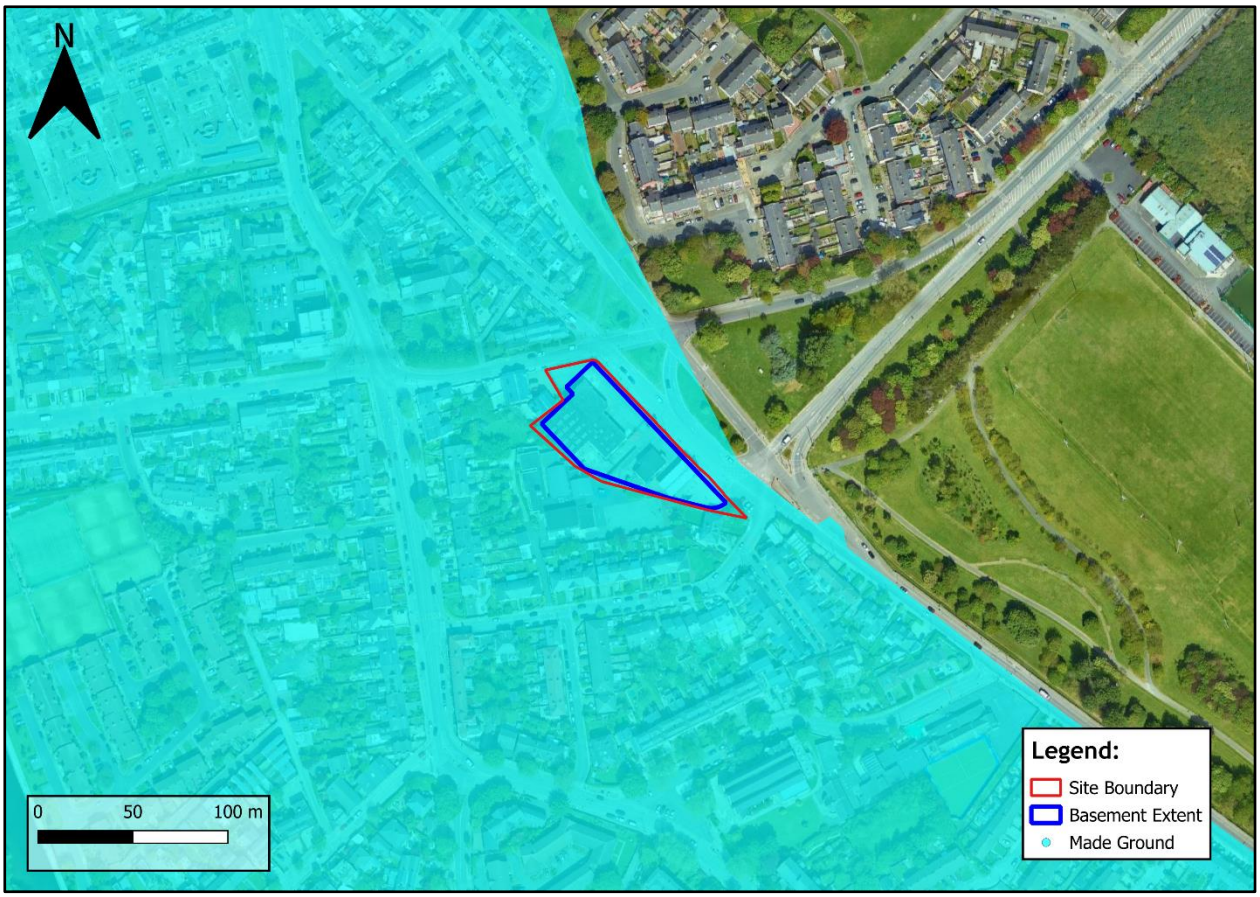


Figure 1-6: Teagasc Soils.

Published geological mapping obtained from the Geological Survey of Ireland (GSI) database indicate the superficial deposits underlying the site comprise of 'urban' as shown in Figure 1-7. There are also smaller areas of 'Marine Beach Sands' and 'Alluvium' in the surrounding area.

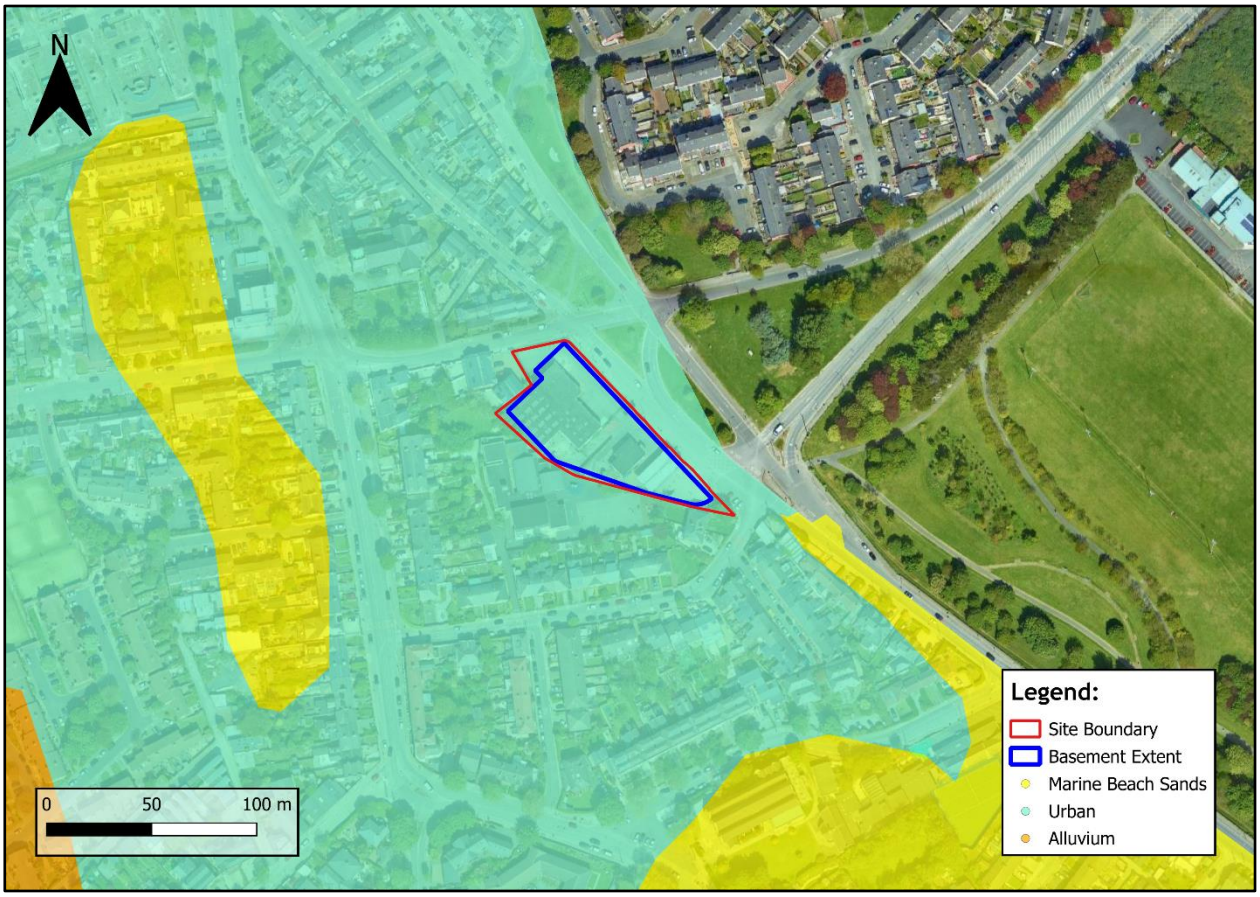


Figure 1-7: Quaternary Sediments.

1.8 Hydrology & Hydrogeology

The nearest surface water feature to the site is the River Dodder which is located approximately 300 metres to the west of the proposed site.

GSI data shows that much of the site is located over an area of low groundwater vulnerability. It is noted that the entire area surrounding the proposed development site is located over an area of low groundwater vulnerability. Please refer to Figure 1-8. The subsoil permeability is low, with the proposed site within an area where the average groundwater recharge is 59mm per year. This indicates that the groundwater has a low likelihood of contamination from the site. The site is also not located within a Groundwater Source Protection Zone.

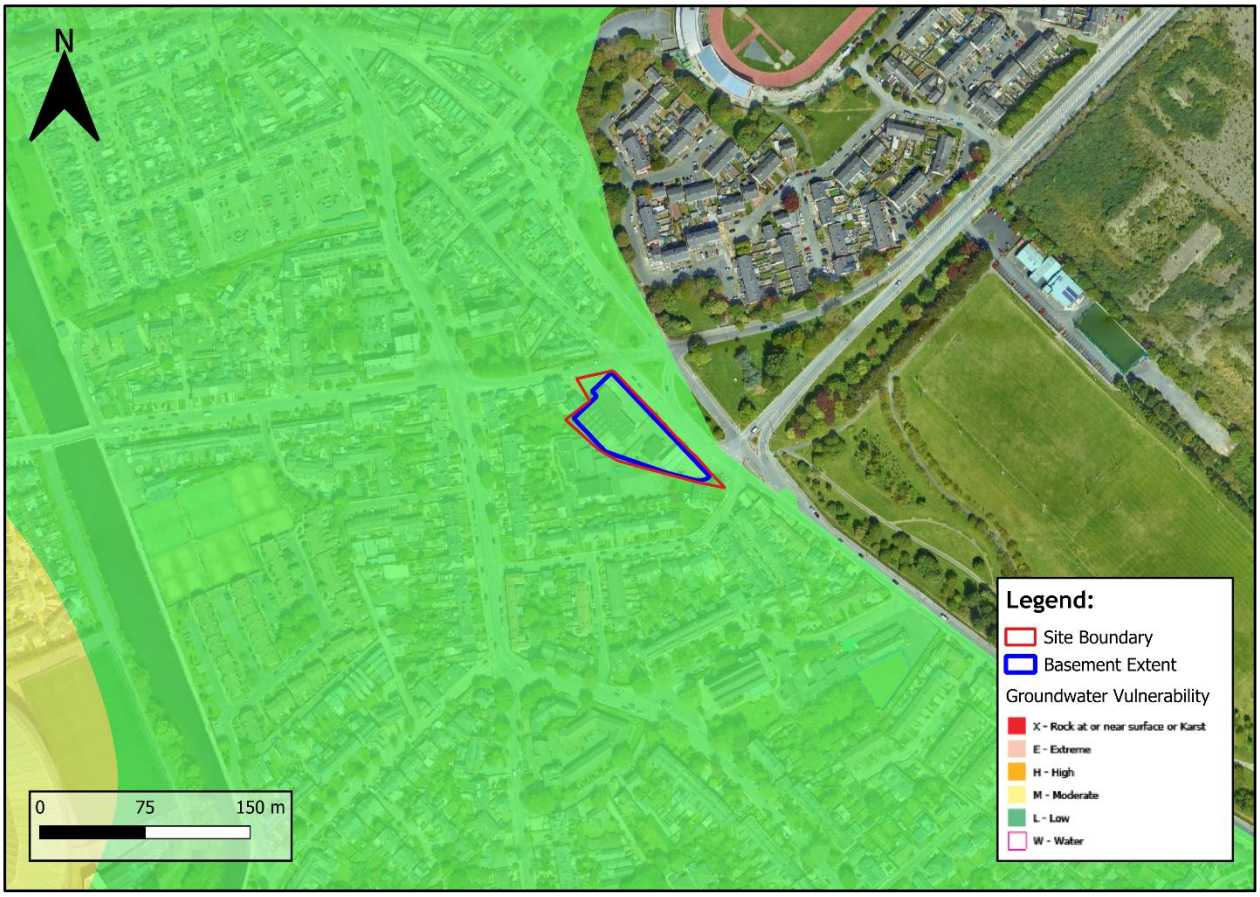


Figure 1-8: Groundwater Vulnerability Map.

There is locally important bedrock aquifer which is moderately productive only in local zones. Please refer to Figure 1-9.

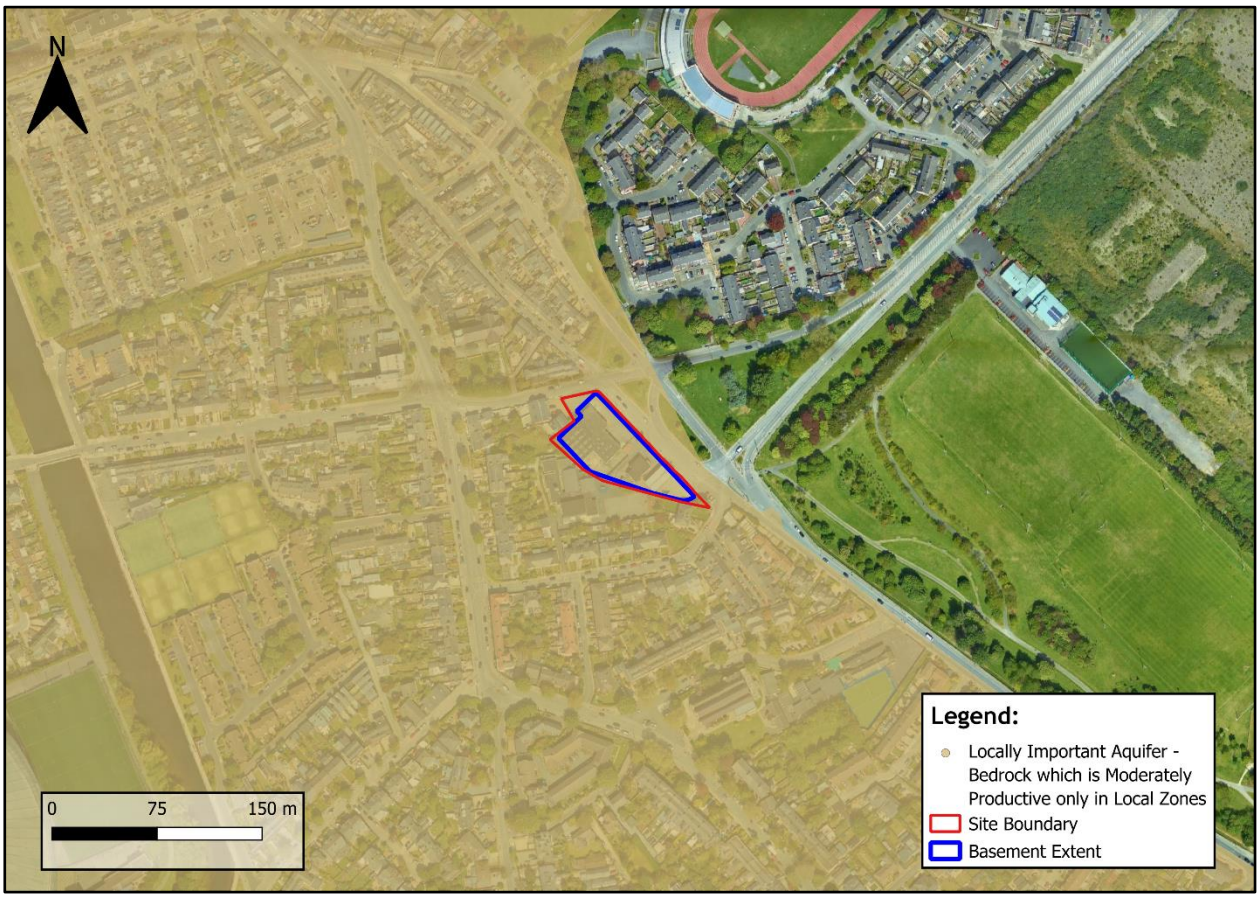


Figure 1-9: Groundwater Resources (Aquifers).

2 Site Investigation and Geotechnical Analysis

2.1 Scoping Assessment

The "Basement Development Guidance" specified in Appendix 9 of the Dublin City Development Plan 2022 – 2028 Document states that any development proposal that includes a basement should be scoped to determine/identify significant issues which should be addressed as part of the BIA.

The principal concerns relating to the excavation of new basements are presented in Section 3.0 of DCC "Basement Development Guidance". There is a potential for impacts during both the construction phase and the long-term/steady state phase of the project. Installation of temporary works may also result in temporary impacts. Each of these impacts should be accounted for in the BIA submission. Basement constructions impacts can be summarised under the following headings;

1. Groundwater flow
2. Land stability and ground movement
3. Surface water flow and flooding
4. Cumulative effects
5. Construction stage impacts (incl. temporary works)

2.1.1 Groundwater Scoping Assessment

See below a summary of key points relating to groundwater as it relates to the proposed development:

i. The site is located directly above an aquifer. However, this locally important bedrock aquifer is only moderately productive and restricted to local zones.
ii. The proposed basement will extend beneath the water table surface.
iii. The site is not located within 100m of a well or potential spring line.
iv. The proposed development (including basement construction) will result in an increase of hard surfaced/paved areas. The existing site consists of brownfield site at present, consisting of former service station and vacant car showroom. As part of the development proposals, SuDS measures are to be implemented as outlined in the Infrastructure Design Report. SuDS measures include extensive green roofs, permeable paving, bioretention areas and intensive landscaped areas.

2.1.2 Stability Scoping Assessment

See below a summary of key points relating to groundwater as it relates to the proposed development:

i. The existing site does not include any significant slopes, natural or manmade. The site is relatively flat throughout its extents.
ii. There are no proposals as part of the development to introduce any re-profiling or introduction of slopes within the site.
iii. No trees are to be felled as a result of the proposed development.
iv. The site is located directly above an aquifer. However, this locally important bedrock aquifer is only moderately productive and restricted to local zones.
v. The proposed basement will extend beneath the water table surface.
vi. The site is not located within 100m of a well or potential spring line.
vii. The site is bounded to the north-west by R111 Church Avenue and a residential development, to the east by R802 Beach Road, and to the south-west by St. Matthew's School.

2.1.3 Surface Water Flow and Flooding

See below a summary of key points relating to groundwater as it relates to the proposed development:

i. The site contains Flood Zone B extents as illustrated in DCC's Strategic Flood Risk Assessment arising from pluvial flooding. However, flood mitigation proposals have been developed as part of the development to address and mitigate flood risk. Refer to the Site-Specific Flood Risk Assessment included in the planning application documentation for details and illustration.
ii. The proposed development (including basement construction) will result in an increase of hard surfaced/paved areas. The existing site consists of brownfield, consisting of former service station and vacant car showroom. As part of the development proposals, SuDS measures are to be implemented as outlined in the Engineering Planning Report – refer to original planning application documentation. SuDS measures include extensive green roofs, permeable paving, bioretention areas and intensive landscaped areas.
iii. The discharge of surface water from the development will be improved through the application of SuDS measures including attenuation of discharge from the site as detailed in the Engineering Planning Report and Engineering Drawings.

2.1.4 Cumulative Effects Scoping Assessment

See below a summary of key points relating to groundwater as it relates to the proposed development:

i. As outlined in Section 1.5.1, the proposed substructure elements at Beach Road, Sandymount, Dublin 4 do not have a cumulative impact on basements extents of surrounding structures.

2.1.5 Construction Stage Impacts Scoping Assessment

See below a summary of key points relating to groundwater as it relates to the proposed development:

i. Temporary works consisting of installation of a piled secant wall is required.
ii. Impacts of bulk excavations on adjacent structures to be assessed.
iii. Outline Construction Management Plan has been prepared for this planning application.

2.2 Scoping and Site Investigations

The purpose of scoping is to assess in more detail the factors to be investigated in the impact assessment. Potential impacts are assessed for each of the identified potential impact factors.

2.2.1 Potential Impacts

The following potential impacts have been identified by the scoping process and are shown in Table 2-1.

Table 2-1: Potential Impacts.

Potential Impact	Consequence
The site is located directly above an aquifer.	The construction of subterranean structures may place the groundwater and surrounding environment at undue risk.
The proposed basement will extend beneath the water table surface.	Potential impacts on surrounding groundwater levels and flows.
The site is bounded to the east by Beach Road and to the north-west by Church Avenue and a residential development. The site also adjoins St. Matthew's School to the south-west.	Excavation of a subterranean structure may result in structural damage to the road/ footway or foundations associated with St. Matthew's School/ residential dwellings on Greenlea Road.

These potential impacts in Table 2-1 have been investigated through the available site investigation data.

2.3 Exploratory Work

The purpose of the site investigation was to investigate subsurface conditions utilising a variety of investigative methods in accordance with the project specification. The scope of the work undertaken for this project included the following:

1. Visit project site to observe existing conditions.
2. 3 No. cable percussive boreholes.
3. 3 No. Rotary coreholes to investigate for the presence of bedrock.
4. 1 No. Trial Inspection Pit.
5. 2 No. Window Samples to recover continuous undisturbed samples.
6. Geotechnical & Environmental Laboratory testing.
7. Report with recommendations.

Please refer to Appendix D for a copy of Geotechnical Report.

2.3.1 Standards

The ground investigation works for the site were carried out by IGSL in accordance with Eurocode 7 - Part 2: Ground Investigation & Testing (EN 1997-2:2007). This was used together with complementary documents such as BS 5930 (1999), BS 1377 (Parts 1 to 9) and Engineers Ireland Specification & Related Documents for Ground Investigation in Ireland (2016). A new National Annex for use in the Republic of Ireland is currently in circulation for comment and will be adopted in the near future. In the meantime, the following Irish (IS) and European Standards or Norms are referenced:

- IS EN 1997-2 Eurocode 7: 2007 – Geotechnical Design – Part 2: Ground Investigation & Testing
- IS EN ISO 22475-1:2006 Geotechnical Investigation and Sampling – Sampling Methods & Groundwater Measurements
- IS EN ISO 14688-1:2002 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 1: Identification and Description
- IS EN ISO 14688-2:2004 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 2: Classification Principles
- IS EN ISO 14689-1:2004 Geotechnical Investigation and Testing - Identification & Classification of Rock, Part 1: Identification & Description

2.3.2 Reporting

Recommendations made and opinions expressed in the Geotechnical Report are based on the strata observed in the exploratory holes, together with the results of in-situ and laboratory tests. No responsibility can be held by IGSL Ltd for ground conditions between exploratory hole locations.

The engineering logs provide ground profiles and configuration of strata relevant to the investigation depths achieved and caution should be taken when extrapolating between exploratory points. No liability is accepted for ground conditions extraneous to the investigation points.

The Geotechnical Report was prepared for PUNCH Consulting Engineers and the information should not be used without prior written permission. The recommendations developed in the Geotechnical Report specifically relate to the proposed development. IGSL Ltd accepts no responsibility or liability for this document being used other than for the purposes for which it was intended.

2.3.3 In-Situ Testing

Standard penetration tests were conducted strictly in accordance with Section 4.6 of IS EN 1997-2:2007. The SPT equipment (hammer energy test) has been calibrated in accordance with EN ISO 22476-3:2005 and the Energy Ratio (Er). A calibration certificate is available upon request. The Er is defined as the ratio of the actual energy Emeas (measured energy during calibration) delivered to the drive weight assembly into the drive rod below the anvil, to the theoretical energy (Etheor) as calculated from the drive weight assembly. The measured number of blows (N) reported on the engineering logs are uncorrected. In sands, the energy losses due to rod length and the effect of the overburden pressure should be taken into account (see IS EN ISO 22476-3:2005).

2.3.4 Groundwater

The depth of entry of any influx of groundwater is recorded during the course of boring operations. However, the normal rate of boring does not usually permit the recording of an equilibrium level for any one water strike. Where possible drilling is suspended for a period of twenty minutes to monitor the subsequent rise in water level. Groundwater conditions observed in the borings or pits are those appertaining to the period of investigation. It should be noted however, that groundwater levels are subject to diurnal, seasonal and climatic variations and can also be affected by drainage conditions, tidal variations etc.

2.3.5 Engineering Logging

Soil and rock identification has been based on the examination of the samples recovered and conforms with IS EN ISO 14688-1:2002 and IS EN ISO 14689-1:2004. Rock weathering classification conforms to IS EN ISO 14689-1:2003 while discontinuities (bedding planes, joints, cleavages, faults etc) are classified in accordance with 4.3.3 of IS EN ISO 14689-1:2003. Rock mechanical indices (TCR, SCR, RQD) are defined in accordance with IS EN ISO 22475-1:2006.

2.3.6 Retention of Samples

Samples shall be retained for a period of 60 days following approval of the final factual report, as detailed in the Scope of Works.

2.4 Ground Conditions

2.4.1 Boreholes

Boreholes were constructed in the locations indicated on the site plan enclosed in Appendix 8 of the Geotechnical Report, while the descriptions and depths of the various soils encountered are shown on the boring records enclosed in Appendix 1 of the Geotechnical Report. Also shown on these records are the depths at which samples were recovered, the results of in-situ Standard Penetration Tests, and the groundwater conditions observed during the course of boring operations. The ground conditions are summarised in Table 2-2.

Table 2-2: Summary of the Ground Conditions.

Location	Medium dense light brown silty sand	Dense grey fine to coarse sandy gravel	Very stiff dark brown sandy gravelly silt/clay	Very stiff to hard black sandy gravelly clay
BH01	0.00 to 3.40	3.40 to 9.90	9.90 to 10.60	10.60 to 13.50
BH02	0.00 to 3.90	3.90 to 10.20	10.20 to 10.90	10.90 to 13.70
BH03	0.00 to 4.70	4.70 to 10.50	10.50 to 11.30	11.30 to 14.10

All three boreholes encountered brown silty sand in a soft or soft to firm condition, present to depths ranging from 3.4m to 4.7m. Standard penetration tests (SPT) in this material produced “N” values in the range 14 to 27, indicating predominately medium dense soil.

The sand stratum was underlain by grey sandy gravel. With cobbles and occasional boulders. SPT tests in this material were typically in excess of 40, indicating dense and very dense soils.

The underlying deposits consisted of black gravelly clay containing cobbles and boulders, commonly known as “Dublin Black Boulder Clay”. SPT “N” values here were in the range of 40 to 50, indicating very stiff to hard soils. All boreholes terminated on obstructions within these deposits in the range of 13.5 to 14.1 m below ground level.

Groundwater strikes were recorded in all boreholes during drilling, at depths in the range of 2.8 to 4.3 m below ground level.

Please refer to Appendix C for borehole locations, and Appendix D for borehole logs.

2.4.2 Rotary Drilling and Coring

Rotary techniques were employed at each borehole location to ascertain the depth, composition and condition of bedrock. Open hole "Symmetrix" drilling techniques were used to penetrate the overburden soils, identifying the soil type from the flush returns.

No bedrock was recovered by the rotary core to depths of 20m below ground level at RC01, 10m at RC02, and 10m at RC03. Very stiff clay was encountered in all boreholes to the full depth of the investigation.

2.4.3 Trial Pits

Trial pits were excavated in one location to facilitate close examination of the upper soils. The trial pit records are enclosed in Appendix 3 of the Geotechnical Report.

Trial Pit IP02 was dug in the location of window sample WS02 and penetrated a surfacing of concrete and mad ground to a depth of 0.8m below ground level. The made ground consisted of sandy gravelly clay containing fragments of red brick.

Similar to the cable percussive boreholes, the underlying natural soils comprised gravelly sand to the excavated depth of 2.3m below ground level.

2.5 Laboratory Testing (Geotechnical)

2.5.1 Particle Size Distribution

Grading curves were obtained for selected samples. The results show variations in composition between the finely graded upper sands, underlying coarser gravels and comparatively well-graded basal glacial till (boulder clay).

2.5.2 Index Properties

The results of plastic and liquid limit tests were used to classify the sub-soils. The majority of results fell within the CL zone of the plasticity chart.

2.5.3 Chemical Analysis

The results of chemical testing showed low concentrations of soluble sulphates.

2.6 Laboratory Testing (Environmental)

Environmental testing was scheduled on selected soil samples in order to screen for inherent contamination and to assess their suitability for disposal to an inert landfill.

Samples were tested in accordance with the RILTA Suite, which is used to determine the suitability of soils for disposal to a landfill. The RILTA suite includes Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAH), TPH-CWG, BTEX, PCB and Total Organic Carbon (TOC) carried out on dry soil samples. Also included are leachate analyses, whereby leachate is generated in accordance with CEN 10:1 specification and this is tested for the presence of recognised contaminants including Heavy Metals, Dissolved Organic Carbon (DOC) and Total Dissolved Solids (TDS). An Asbestos Screen is also included in the RILTA Suite.

2.7 Waste Disposal

Under the European Waste Directive, waste is classified as being either Hazardous or Non-Hazardous and landfills receiving waste are classified as accepting hazardous or non-hazardous wastes or the non-hazardous sub-category of inert waste in accordance with the Waste Directive. Waste classification is a staged process, and this investigation represents the preliminary sampling exercise of that process. Please refer to the 'Waste Characterisation Assessment' which is included in Appendix E of this BIA report for details relating to the initial site investigations.

Once the extent and location of the waste that is to be removed has been defined, further sampling and testing may be necessary. The results from this ground investigation should be used to help define the sampling plan for such further testing, which could include WAC leaching tests where the totals analysis indicates the soil to be a hazardous waste or inert waste from a contaminated site.

In accordance with cradle to grave responsibilities, the Contractor is responsible for all waste arisings from the time the waste is generated until it reaches its final destination point. This includes its method of treatment/disposal. The Waste Management Acts 1996-201, give effect to the polluter pays principle effectively stating that the waste producer may be liable for any pollution incidents arising from the management of their waste. There is therefore an onus on the Contractor to ensure that all contractors managing waste on their behalf are legally compliant and technically competent and the waste itself is contained, handled, treated, and disposed of in accordance with all relevant regulatory requirements.

2.8 Preliminary Risk Assessment

A Preliminary Risk Assessment has been undertaken to determine a "suitable for use" approach which involves managing the risks posed by contaminated land by making risk-based decisions. This risk assessment has been carried out on the basis of a source-pathway-receptor approach.

2.8.1 Source

The desk study findings indicate that the site does not have a pronounced contaminative history as a result of historic land use.

2.8.2 Receptor

The future occupants of the site will represent relatively high sensitivity receptors. Buried services are likely to come into contact with any contaminants present within the soils through which they pass, and site workers are likely to come into contact with any contaminants present during construction works.

2.8.3 Pathway

Within the site, end users will be isolated from direct contact with any contaminants present by the extent of the proposed new buildings and areas surrounding hard surfacing, thus no potential contaminant exposure pathways will exist with respect to end users.

There will be a potential for contaminants to move onto or off the site horizontally, although these pathways are already in existence. A pathway for ground workers to come into contact with any contamination will exist during construction work and services will come into contact with any contamination within the soils in which they are laid.

There is thus considered to be a low potential for a contaminant pathway to be present between any potential contaminant source and a target for the particular contaminant.

2.8.4 Preliminary Risk Appraisal

On the basis of the above it is considered that there is only a low risk of there being a significant contaminant linkage at this site, which would result in a requirement for major remediation work. Furthermore, as there is no evidence of filled ground within the vicinity of the site and no landfill sites, there is not considered to be a significant potential for hazardous soil gas to be present on or migrating towards the site

2.9 Effects of Sulphates

An assessment of the Aggressive Chemical Environment for Concrete (ACEC) was undertaken through reference to the Building Research Establishment (BRE) Special Digest 1 (2017).

As noted by BRE Special Digest 1, sulphates in the soil and groundwater are the chemical agents most likely to attack concrete. The extent to which sulphates affect concrete is linked to their concentrations, the type of ground, the presence of groundwater, the type of concrete and the form of construction in which concrete is used.

BRE Special Digest 1 identifies four different categories of site which require specific procedures for investigation for aggressive ground conditions:

1. Sites not subjected to previous industrial development and not perceived as containing pyrite;
2. Sites not subjected to previous industrial development and perceived as containing pyrite;
3. Brownfield sites not perceived as containing pyrite;
4. Brownfield sites perceived as containing pyrite.

The results of Sulphate and pH testing showed very low Sulphate (maximum of 0.21l SO_4 and near-neutral pH levels (8 to 9). Please refer to Appendix D for a copy of Geotechnical Report.

With reference to Table C1 of BRE Special Digest 1: 2005, the level of Sulphate suggests a design Sulphate Class of DS-1. Assuming a static groundwater table, an ACEC (Aggressive Chemical Environment for Concrete) Classification of AC-1s is applicable, since the pH levels are greater than 5.5.

In terms of concrete to I.S. EN 206-1:2013, the chemical testing demonstrates that concrete could be manufactured to Class XA1.

3 Impact Assessment

3.1 Design Basis Report

This section of the report provides an interpretation of the findings detailed in Section 2, in the form of a ground model, and then provides advice and recommendations with respect to foundation options and contamination issues.

3.1.1 Introduction

The development will comprise a residential development on a site at Beach Road, Sandymount of 112 no. units, consisting of a mixture of 2 bed and single bed apartments. The proposed basement will be a single storey car park with ramped access from Beach Road. The proposed basement extends beneath the full footprint of the proposed apartment block and beneath the courtyard which is located to the rear of the apartment block along the south-east boundary of the site.

An extract of the architects proposed basement plan is shown in Figure 3-1. Please refer to Appendix A for full size architectural plans for basement level.

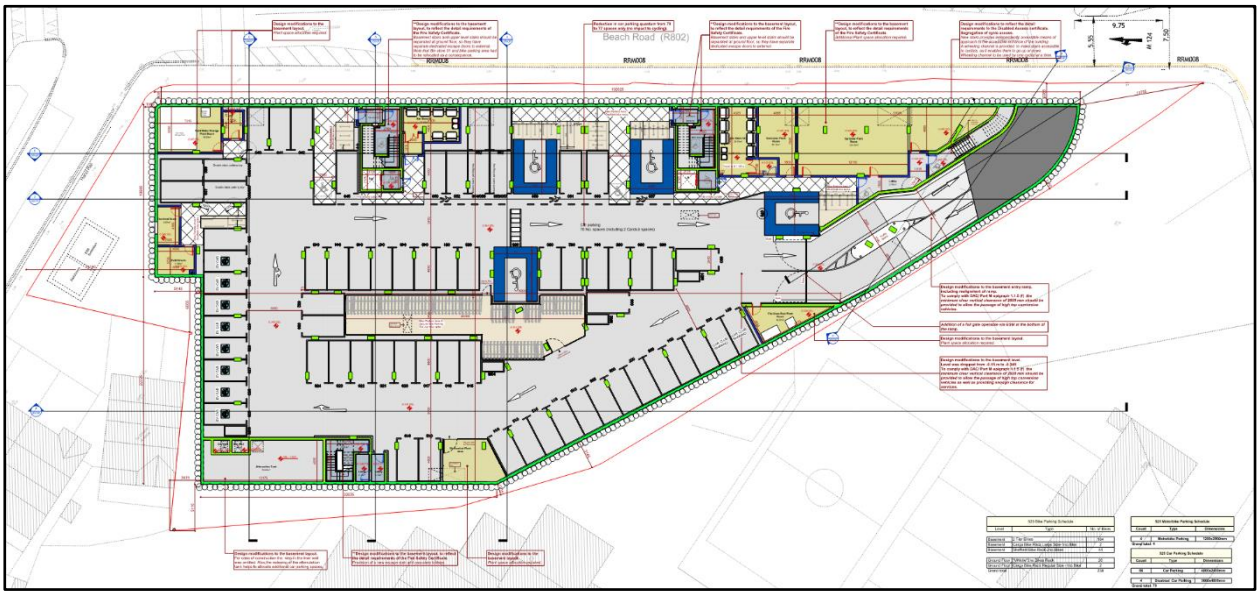


Figure 3-1: Proposed Basement Plan.

3.1.2 Ground Model

The ground conditions encountered during the investigation are summarised below with reference to in-situ and laboratory test results. The full details of the strata encountered during the ground investigation are provided in the exploratory hole logs within the Geotechnical Report which is included in Appendix D of this BIA report.

The sequence of strata encountered within each piece of field work that was undertaken during the investigation are summarised below:

Trial Pits:

1. Trial Pit IP02 encountered made ground consisting of sandy gravelly clay, and underlying natural soils comprised of gravelly sand.

Boreholes:

1. All three boreholes encountered brown silty sand in a soft or soft to firm condition, present to depths ranging from 3.4m to 4.7m
2. The sand stratum was underlain by grey sandy gravel, with cobbles and occasional boulders.
3. The underlying deposits consisted of black gravelly clay containing cobbles and boulders. All boreholes terminated on obstructions within these deposits in the range of 13.5 to 14.1m below ground level.

Rotary Coring and Drilling:

1. Rotary techniques were employed at each borehole location to ascertain the depth, composition and condition of bedrock. Open hole "Symmetrix" drilling techniques were used to penetrate the overburden soils, identifying the soil type from the flush returns.
2. No bedrock was recovered by the rotary core to depths of 20m below ground level at RC01, 10m at RC02, and 10m at RC03. Very stiff clay was encountered in all boreholes to the full depth of the investigation.

3.1.3 Advice and Recommendations

The basement's footprint in close proximity to the overall site extents will require the basement to be constructed using a 600mm diameter secant piled wall. During construction, groundwater control by way of a sump and pump is utilised throughout to keep any excavations dry. Permission from local authorities must be sought before discharging back into the sewer system any groundwater that is pumped from the site.

Formation level for the proposed development is likely to be within the stiff dark brown sandy gravelly clay layer that should provide a suitable bearing stratum for foundations excavated from basement level.

3.1.4 Basement Excavation

3.1.4.1 Basement Construction

The construction of the basement will involve the installation of a secant pile wall, followed by the construction of a reinforced concrete capping beam in specific locations. Bulk excavation will then take place down to required basement formation level with strict excavation control, so the formation level is not exceeded. The reinforced concrete basement slab is then to be cast. A slip membrane will then be placed on the piled wall and the liner wall will be constructed. Ground floor and courtyard transfer slabs will be cast once the liner walls have sufficiently cured. When the ground floor slab has cured, the superstructure works can commence. Once the ground floor slab is poured, this provides a permanent lateral support for the basement walls, reducing the reliance on the contiguous piles. Once a sufficient

dead weight from the superstructure is provided to counteract the hydrostatic uplift pressures of the basement slab, the required groundwater dewatering can be ceased.

3.1.4.2 Permanent Reinforcement Concrete)Basement Walls

The permanent basement walls will consist of 300mm reinforced concrete elements, which will resist the horizontal surcharge from soil and ground water. The basement will be further protected from water ingress by the installation of hydrophilic strips at all construction joints within the reinforced concrete wall and slabs.

3.1.5 Basement Floor Slabs

The basement substructure will be formed with a raft slab varying in depth between a 900mm deep slab below the main superstructure and 1250mm deep below the courtyard areas where there is no superstructure. A 250kN/m2 allowable bearing pressure will be adopted with the formation of the raft slab within the coarse gravels. The associated formation level is approximately 4m below the ground level and an observed groundwater level of circa 1.5m below ground was established. The basement raft slab will therefore be designed to resist the following load conditions:

- Condition 1: Downward characteristic dead and live loading for all basement uses including car parking, plant and equipment rooms, bins, water tanks and an attenuation tank.
- Condition 2: Upward hydrostatic pressure with an allowance for climate change and local burst water main of 30kN/m2.

3.1.6 Shallow Excavations

It is considered that shallow excavations for foundations and services that extend through the made ground should remain generally stable in the short term, although some instability may occur. Where personnel are required to enter excavations, a risk assessment should be carried out and temporary lateral support or battering of the excavation sides considered in order to comply with normal safety requirements.

Significant inflows of groundwater into shallow excavations (<1.5m) are not generally anticipated, although seepages may be encountered from localised perched water tables within the made ground or underlying clay layers, particularly in the vicinity of existing foundations, although such inflows should be suitably controlled by sump pumping.

3.2 General Impacts

This section of the report evaluates the direct and indirect implications of the proposed project, based on the findings of the previous screening and scoping, site investigation and ground movement assessment.

The screening/scoping, outlined in Section 2.1, identified a number of potential impacts. The desk study and ground investigation information has been used below to review the potential impacts, to assess the likelihood of them occurring and the scope for reasonable engineering mitigation.

3.2.1 Potential Impacts

Table 3-1 below summarises the potential impacts – taking the potential impacts identified at Scoping Stage (Table 2-1) and further developing/informing them with the additional information that is now available from the ground investigation in consideration of each impact.

Table 3-1: Potential Impacts.

Potential Impact	Site Investigation Conclusions
The site is located directly above an aquifer	Groundwater strikes were recorded in all boreholes during drilling, at depths in the range 2.8 to 4.3m below ground level. In the subsequent 20-minute monitoring period, water levels rose to depths of between 1.3m and 1.6m below ground level, where they remained fairly static during the 21-day monitoring period.
Founding depth for the proposed development (basement) will be deeper relative to neighbours	Assumptions informed by industry norms will be applied to the type and depth of foundations of neighbouring sensitive structures to inform the Damage Impact Assessment. The basement extents are located a clear distance from any neighbouring structures and no adverse impacts are anticipated.
The site is bounded to the east by Beach Road and to the north-west by Church Avenue and a residential development. The site also adjoins St. Matthew's School to the south-west.	The investigation has not indicated any specific problems, such as weak or unstable ground that would make working in close proximity of public infrastructure/ developments problematic at this site. As can be seen in Figure 1-1 and Figure 1-2 the basement extent is not located directly adjacent to these public infrastructure/ developments.

The results of the site investigation have therefore been used below to review the remaining potential impacts, to assess the likelihood of them occurring and the scope for reasonable engineering mitigation.

3.3 Groundwater Flow

It is known that the groundwater within the Dublin City Centre area flows in a general eastward direction and either contributes to the various rivers flowing within the Dublin area or discharges directly to the sea at Dublin Bay. Figure 3-2 below illustrates the general direction of groundwater flow via groundwater contours, in this west to east direction, with respect to the location of the site. The groundwater contours indicate a north easterly groundwater flow direction.

The closest available groundwater contour to the south-west of the site is approximately 1.4km from the site and is noted as +10m OD. To the north-east of the site, the groundwater contour at approximately 1.5km from the site, close to Dublin Port, is noted as 0m OD. The groundwater monitoring on site will be reviewed and compared with the published contour information. The general hydraulic gradient across this part of Dublin is approximately 0.01 (or 10m fall in groundwater level over 1km).

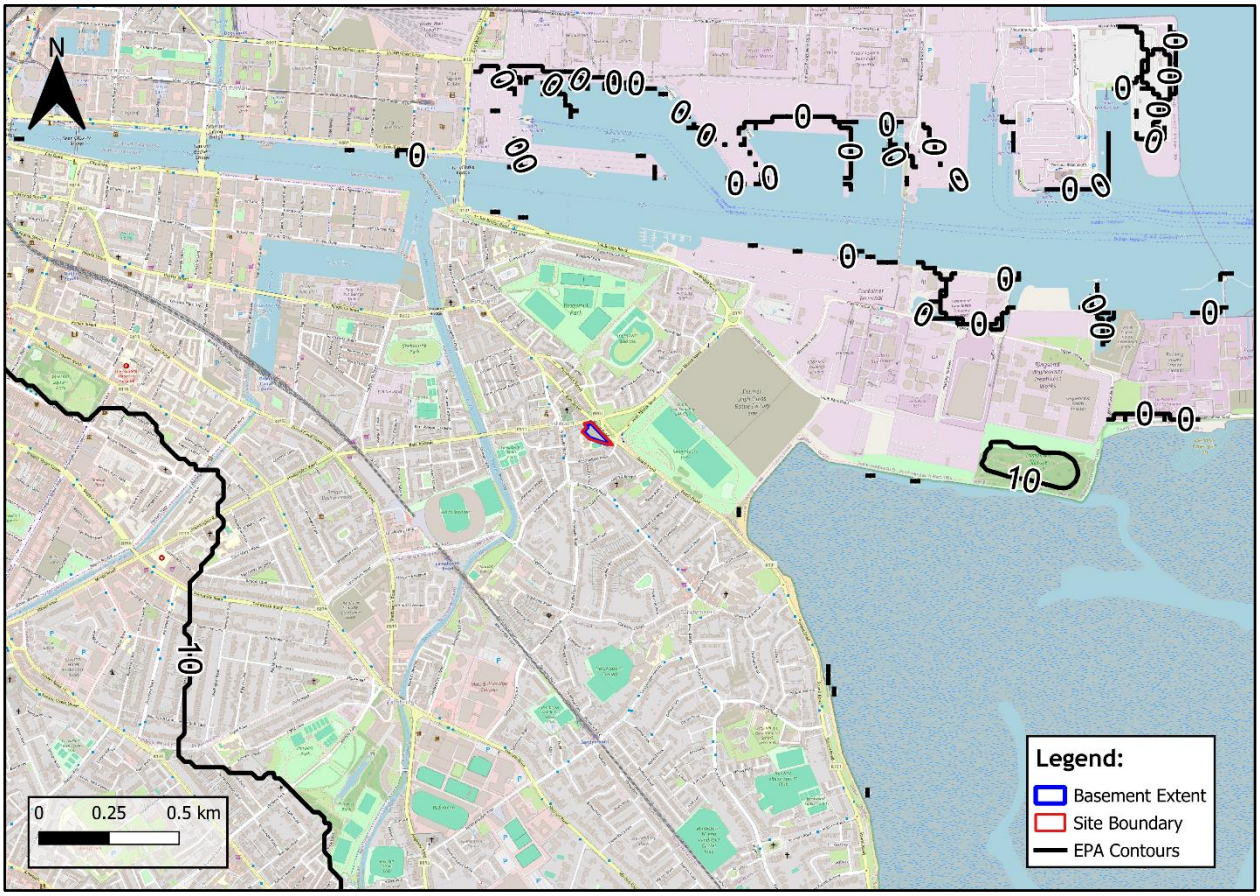


Figure 3-2: Groundwater Contours (EPA Database)

3.3.1 Cumulative Basement Effects on Hydrology

The cumulative effect of several underground developments in a given street could potentially differ from the impact of the initial single basement. It is therefore appropriate to consider the layout and proximity of existing basements in the vicinity with respect to the hydrogeology.

A search has been carried out of the DCC Planning Portal and SHD planning database for planning applications that relate to the construction of basements. The search findings in Section 1.5.1 of this BIA report. It is noted that no new basement structures are being proposed in the vicinity of the development, however some existing structures are present.

Figure 3-3 is a schematic of a homogeneous aquifer with isotropic hydrogeological properties as provided in Appendix 9 of the Dublin City Development Plan 20222 – 2028 "Basement Development Guidance". In relation to this project site, it is considered that Scenario B1 is most relevant and illustrates the illustrates the principle of groundwater flow around a single basement structure.

The diversion of flow paths around the basement structure would be expected to lead to a marginal increase in groundwater levels upstream, and a similar reduction in groundwater levels downstream. The increase is a function of the width and depth of the basement and the permeability of the underlying soils.

The proposed development at Beach Road is not considered to have an impact on existing basement structures, such as 78/ 80/ 82 Irishtown Road (existing development with basement). This is due to them not being in the immediate vicinity of the proposed development site at Beach Road. It is therefore considered that that Scenario B1 illustrating the principle of groundwater flow around a single basement structure is relevant.

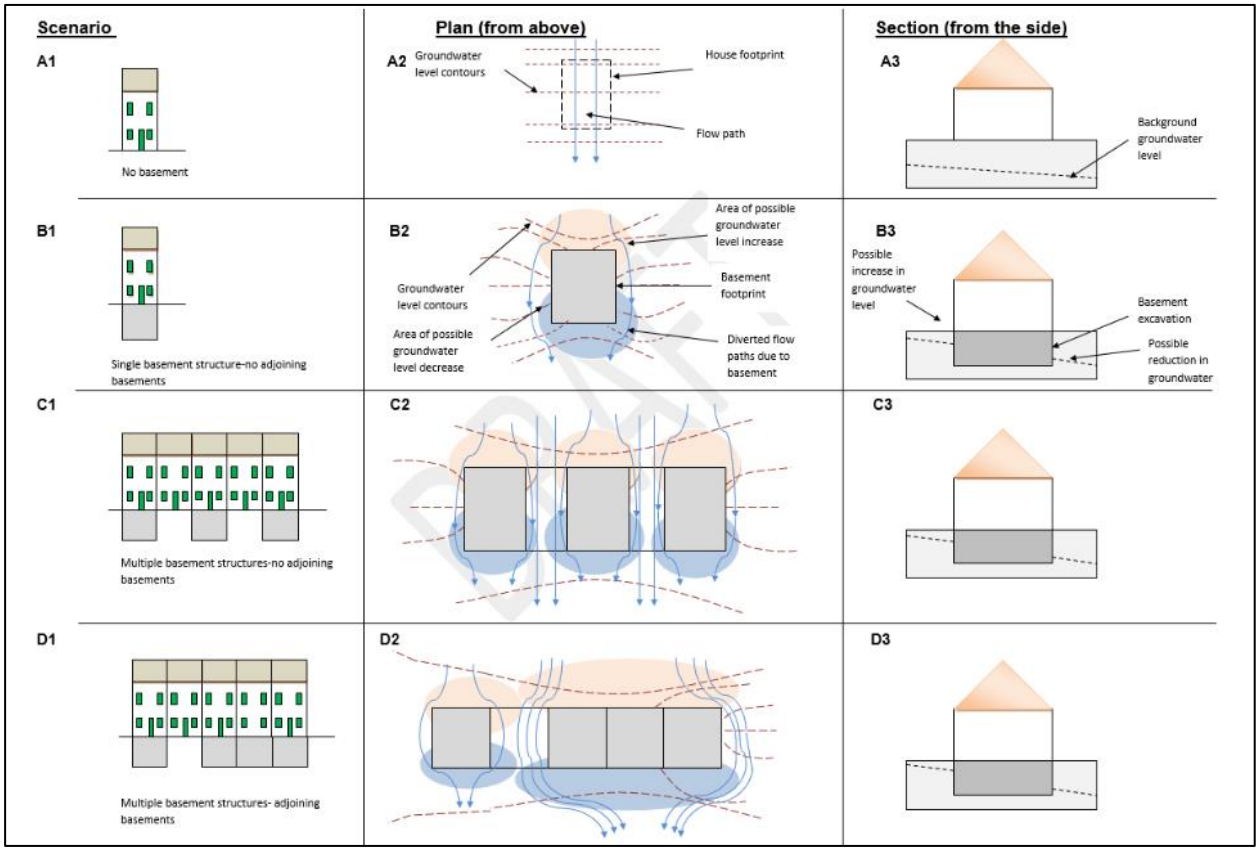


Figure 3-3: Cumulative Effects of Basement Construction on Hydrogeology (ref: Appendix 9 of the Dublin City Development Plan 20222 – 2028 "Basement Development Guidance")

3.3.2 Hydrology and Impact Assessment

A useful guide to assess the impact on Hydrogeology due to construction is presented in the National Roads Authority (NRA), now TII, guidance document entitled "Environmental Assessment for National Roads Schemes – Guidelines for Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Roads Schemes". The aim of the document is to provide guidance on the assessment of geological, hydrological and hydrogeological impacts during the planning and design of national road schemes in Ireland. It specifically outlines the approach to be adopted in the consideration and treatment of geology, hydrology and hydrogeology. Although developed specifically for road projects, this document can be applied to building sites, such that the likely impacts of the proposed basement construction are assessed, and potential mitigation measures recommended if required.

Significance ratings relating to the impact of construction on the hydrogeology in the vicinity of a development are outlined in this document. The importance of the site may be rated using the criteria outlined in Box 4.3 of the document (extracted and shown in Table 3-2).

Using Table 3-2 and considering the geology and hydrogeology of the site presented earlier, it is considered that the importance of the project site is 'medium' to 'low'. Given the proximity of the site to the tidal River Liffey and Dublin Bay, it is unlikely that the aquifers underlying the site will be used for potable supply, as the main supply of potable water in the Dublin area is taken from the nearby Wicklow Mountains.

Box 5.3 of the NRA document (extracted and shown in Table 3-3) may be used to rate the magnitude of the impact of the development on the hydrogeological condition of the site. The rise and fall in levels is considered nominal due to the basement construction with groundwater flow paths not significantly affected. In addition, the groundwater flow through the site is thought to be an approximate north-east direction and there are apparently no wells to the east of the site. As such the magnitude of the importance of the development on the hydrogeology condition is considered to be 'Negligible' (i.e. results in an impact on the attribute but of insufficient magnitude to affect either use or integrity).

Table 3-2: Criteria for Rating Site Attributes – Estimation of Importance of Hydrogeological Attributes.

Importance	Criteria	Typical Examples
Extremely High	Attribute has a high quality or value on an international scale	• Groundwater supports river, wetland or surface water body ecosystem protected by EU legislation e.g. SAC or SPA status.
Very High	Attribute has a high quality or value on a regional or national scale	• Regionally Important Aquifer with multiple wellfields. • Groundwater supports river, wetland or surface water body ecosystem protected by national legislation – NHA status. • Regionally important potable water source supplying >2500 homes. • Inner source protection area for regionally important water source.
High	Attribute has a high quality or value on a local scale	• Regionally Important Aquifer. • Groundwater provides large proportion of baseflow to local rivers. • Locally important potable water source supplying >1000 homes. • Outer source protection area for regionally important water source. • Inner source protection area for locally important water source.
Medium	Attribute has a medium quality or value on a local scale	• Locally Important Aquifer. • Potable water source supplying >50 homes. • Outer source protection area for locally important water source.
Low	Attribute has a low quality or value on a local scale	• Poor Bedrock Aquifer. • Potable water source supplying < 50 homes.

Note: Highlighted 'Medium' to 'Low' importance rating as it applies to the Beach Road development .

Table 3-3: Criteria for Rating Site Importance – Estimation of Magnitude of Impact on Hydrogeology Attribute.

Magnitude of Impact	Criteria	Typical Examples
Large Adverse	Results in loss of attribute and /or quality and integrity of attribute	• Removal of large proportion of aquifer. • Changes to aquifer or unsaturated zone resulting in extensive change to existing water supply springs and wells, river baseflow or ecosystems. • Potential high risk of pollution to groundwater from routine run-off. • Calculated risk of serious pollution incident >2% annually.
Moderate Adverse	Results in impact on integrity of attribute or loss of part of attribute	• Removal of moderate proportion of aquifer. • Changes to aquifer or unsaturated zone resulting in moderate change to existing water supply springs and wells, river baseflow or ecosystems. • Potential medium risk of pollution to groundwater from routine run-off. • Calculated risk of serious pollution incident >1% annually.
Small Adverse	Results in minor impact on integrity of attribute or loss of small part of attribute	• Removal of small proportion of aquifer. • Changes to aquifer or unsaturated zone resulting in minor change to water supply springs and wells, river baseflow or ecosystems. • Potential low risk of pollution to groundwater from routine run-off. • Calculated risk of serious pollution incident >0.5% annually.
Negligible	Results in an impact on attribute but of insufficient magnitude to affect either use or integrity	• Calculated risk of serious pollution incident.

Note: Highlighted 'Negligible' magnitude of impact rating as it applies to the Beach Road development.

Combining the two ratings for the site resulting using Box 5.4 of the NRA documents (see Table 3-4 below), the significant environmental impact of the installation of the basement on the site is rated as 'Imperceptible'. The NRA describe this as 'an impact capable of measurement but without noticeable consequences'.

Table 3-4: Rating of Significant Environmental Impact.

		Magnitude of Impact			
Importance of Attribute		Negligible	Small	Moderate	Large
	Extremely High	Imperceptible	Significant	Profound	Profound
	Very High	Imperceptible	Significant / Moderate	Profound / Significant	Profound
	High	Imperceptible	Moderate / Slight	Significant / Moderate	Severe / Significant
	Medium	Imperceptible	Slight	Moderate	Significant
	Low	Imperceptible	Imperceptible	Slight	Slight / Moderate

Note: Highlighted 'Imperceptible' Significant Environmental Impact rating as it applies to the Beach Road Development.

3.3.3 Groundwater Detailed Design Considerations

3.3.3.1 Groundwater Control & Temporary Dewatering

During excavation and construction, groundwater control by way of a sump and pump should be utilised throughout to keep the excavations dry. Permission from DCC is sought before discharging back into the sewer system any groundwater that is pumped from the site.

The extent of any such impact on groundwater levels outside the excavations will primarily depend on the amount of groundwater abstracted from the excavation. Minimising the quantity of groundwater pumped from the excavation will limit any potential lowering of groundwater levels away from the construction site. Due to the low permeability Clay, groundwater ingress into the excavation will be limited and therefore groundwater extraction is considered to be nominal.

In the permanent condition, the basement substructure will provide permanent waterproofing to the development.

3.3.3.2 Design Groundwater Level

The results of the site-specific site investigation outlined in Section 1.4 have been reviewed and included as part of the BIA document.

Details of groundwater help inform the conditions applicable to the temporary works design.

For the permanent works design and permanent groundwater retention, it would be prudent to assume a groundwater level equal to existing ground level. This is to account fluctuations associated with groundwater levels, including, for example the effects of dewatering and re-charge, possible flooding, seasonal effects or the failure of drainage systems (see also IS EN1997-1).

3.3.3.3 Temporary & Permanent Buoyancy (Uplift)

The temporary and permanent buoyancy of the excavation has been addressed as part of the works. For the temporary condition buoyancy was controlled by groundwater pumping.

A detailed assessment of the maximum uplift has been completed prior to construction stage considering variations in excavation levels and ground conditions.

In the permanent condition, the basement slab shall be structurally designed for all buoyancy pressures and the effects of heave (if relevant).

3.4 Land Stability and Ground Movement

This section of the report comprises an analysis of the ground movements arising from the proposed basement and foundation scheme discussed in Section 3.1 based on the information obtained from the investigations presented in this BIA report.

3.4.1 Introduction

The sides of an excavation will move to some extent regardless of how they are supported. The movement will typically be both horizontal and vertical and will be influenced by the engineering properties of the ground, groundwater level and flow, the efficiency of the various support systems employed, and the efficiency or stiffness of any support structures used.

The development will include a single level of basement. The proposed basement will accommodate parking, plantroom, and water tanks. The formation level of the proposed development is at approximately 4.0m below existing ground level.

The construction of the basement will involve the installation of a secant piled wall. The building will be formed on raft foundations. The basement perimeter wall will consist of reinforced concrete construction.

The permanent works basement structure will comprise of reinforced concrete (reinforced concrete walls and 900mm to 1250mm deep raft foundations). The permanent basement walls will resist the horizontal pressures from ground water in the permanent condition, with external waterproofing details installed. The retaining wall will also be designed to support surcharge pressures in the permanent condition.

Reinforced concrete will be also used for the floor slabs in the form of a load bearing raft foundation. It is anticipated that the floor slabs, which will act as permanent props, will be constructed with the basement slab level first with the subsequent transfer slab installed at Ground Floor level.

3.4.2 Construction Sequence

The following sequence of operations has been derived to enable analysis of the ground movements around the basement, both during and after construction, and is based on drawings provided by the Architect and Civil/Structural Engineer.

The proposal is to construct the basement with a secant pile wall. This will be followed by bulk excavation, floor slabs and internal liner walls. A typical section of the proposed basement construction is shown in Figure 3-4 and Figure 3-5 below.

The construction sequence is expected to follow a traditional sequence of:

1. Install secant piled wall along the perimeter of the proposed basement, with capping beam.
2. Excavate to the proposed formation level of the basement (c. 4.0 BGL) with allowance for working space.
3. Construct the permanent works basement substructure in the following sequence:
    a) Construct basement floor slab, including thickenings
    b) Construct RC perimeter walls and associated thickenings
    c) Construct ground floor/podium slab level

The detail of the permanent structure was developed by PUNCH Consulting Engineers and an agreed methodology was developed with the contractor.

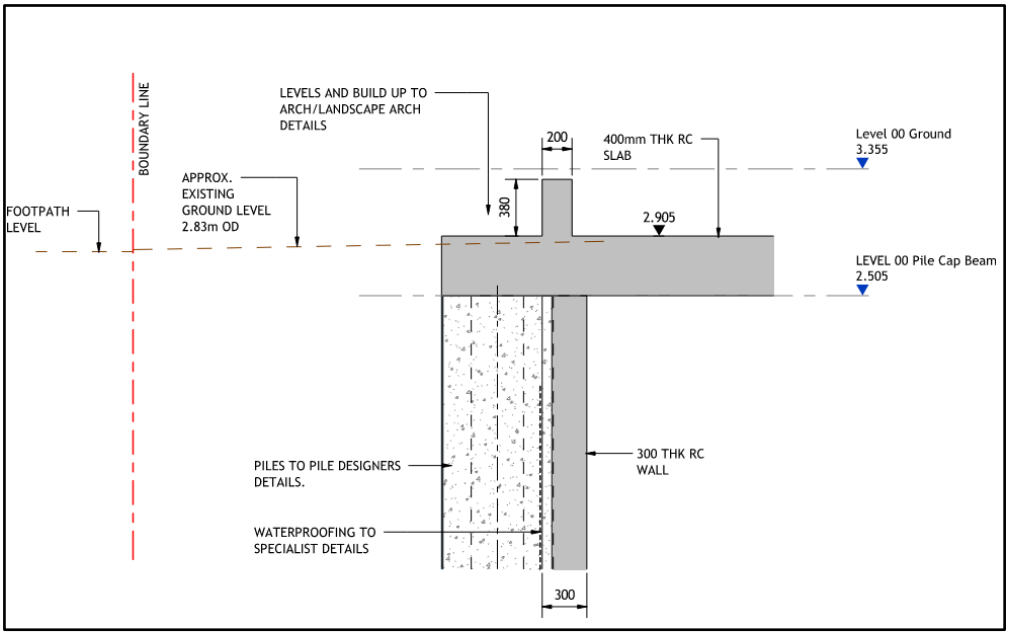


Figure 3-4: Proposed Top of Basement Wall Section.

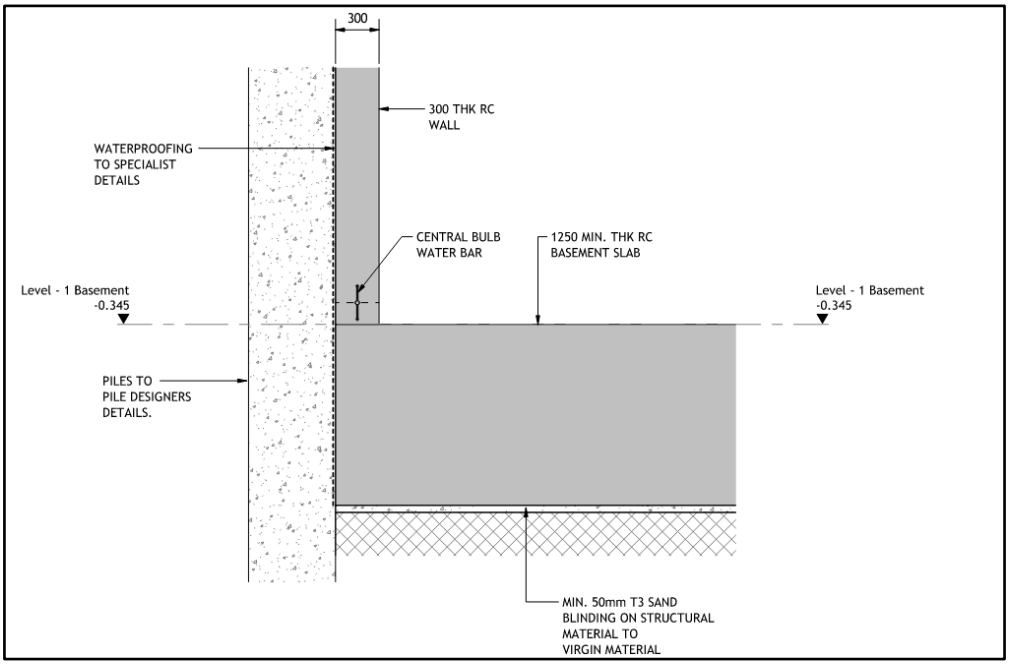


Figure 3-5: Proposed Bottom of Basement Wall Section

3.4.3 Temporary Support to Basement Perimeter Walls

No additional support will be required to the proposed perimeter wall systems. The basement walls will be designed with no requirement for propping or installation of ground anchors.

3.4.4 Zone of Influence

The construction of the proposed basement will consist of a permanent secant piled wall installation followed by bulk excavation with temporary supports along the perimeter where the piled wall is in close

proximity to the neighbouring properties. The 'Zone of Influence' associated with this excavation is limited to a small area of the basement where there are adjacent properties.

Please refer to Appendix I for selected basement structural drawings.

3.4.5 Permanent Works

When the final excavation depth has been reached the permanent retaining wall works will be formed which, which will comprise 300mm thick reinforced concrete walls in conjunction with the piled walls. The proposed basement will be defined as Category 2 in accordance with definitions of BS 8102: 2009 'Code of practice for the protection of below ground structures against water from the ground'.

Reinforced concrete will be used for the basement floor slab.

3.4.6 Basement Construction

It is assumed that the above measures and assumed sequence of works are considered in the eventual design and construction of the proposed works.

Detailed method statements and calculations for any enabling and temporary works will need to be prepared by the Contractor. PUNCH will need to ensure that adequate supervision and monitoring is provided throughout the works particularly during the excavation and demolition stages.

To this end, PUNCH will have an on-going role during the works on site to ensure that the works are being carried out generally in accordance with our design and specification.

Access onto the site will be from Beach Road and must be coordinated in a sensible manner to minimise disruption to the adjoining residents, the traffic on Beach Road and the local road network.

Stage 1: Site set-up

- Erect a fully enclosed hoarding/fencing (full details to be determined by the contractor) along the site boundaries along Beach Road (east), Church Avenue (north), and its boundaries with St. Matthew's School (west) and the residential development (north-west). The hoarding/fencing should not impede on any of the neighbouring properties.
- Existing services within the site should be identified and isolated as necessary. All below ground obstructions should also be removed to allow the works to progress.
- Tree protection methods to be agreed and installed to all retained trees.
- Monitoring points should be installed to all neighbouring structures and infrastructure and a base reading should be taken prior to any demolition, excavation or construction works starting on the site.

Stage 2: Internal soft strip & demolition

- The complete soft strip of internal finishes within the building.
- Carefully and safely demolish all existing structures on the site down to ground floor level in a staged sequence (full details to be determined by the contractor).

Stage 3: Installation of the piled wall

- Install piling platform (if required), where the design and material requirements are to be determined by the contractor and install a suitable guide-wall at the proposed pile locations (setting out to be completed by the contractor) which will enable the installation of the secant piles.
- Complete the pile installation from an agreed piling platform level along the perimeter of the proposed basement. The piles will resist the lateral forces from soil and hydrostatic water pressures in the temporary and permanent condition as they will provide ground water cut-off to the proposed basement.
- Complete necessary excavations to enable the construction of RC capping beam to top of piles.

Stage 4: Capping beam construction

- Reduce level dig down to approx. 1m below ground level.
- Construct the RC capping beam to the top of piles as per the detailed design.

Stage 5: Bulk excavation

- Continue excavating once the capping beam and the concrete piles have reached the necessary concrete strengths as per their respective detailed design. Excavate down to the required basement formation level with strict excavation control so the formation level is not exceeded.
- The removal of material as a result of the bulk excavation must be removed from site in accordance with the approved Waste Management Plan.
- Necessary monitoring will be completed during the basement excavation at suitable frequencies to be determined by the contractor.

Stage 6: Construct basement slab

- The RC raft foundation slab is to be cast using the required concrete as per the detailed design, ensuring required waterproofing details are provided.
- When the slab is sufficiently cured the basement slab will act as a permanent prop to the piled retaining wall.

Stage 7: Construct internal basement liner walls

- Place necessary slip membrane to minimise any load transfer between the piled wall and the RC liner wall.
- Place liner wall reinforcement as per the detailed design and RC details and construct temporary formwork as required (full details to be determined by the contractor).
- The RC liner wall is to be cast using the required concrete as per the detailed design, ensuring required waterproofing details are provided.
- Remove formwork when the concrete has reached adequate strength to be self-supporting.

Stage 8: Construct ground floor and courtyard slabs

- Construct required temporary formwork and place required reinforcement as per the detailed design and RC details for the ground floor and courtyard transfer slabs.
- When the liner basement walls have sufficiently cured cast the ground floor and courtyard transfer slab.
- Once the ground floor slab has sufficiently cured, remove the formwork and the slab will provide a permanent high-level prop to the basement retaining walls in the permanent condition.

Stage 9: Construct superstructure

- When the ground floor slab has cured, the superstructure works can commence.
- Once a sufficient dead weight from the superstructure is provided to counteract the hydrostatic uplift pressures of the basement slab, the required groundwater dewatering can be ceased (to be managed by the contractor).

3.4.7 Damage Impact Assessment

A Damage Impact Assessment of the neighbouring structures will be completed based on the classifications given in Table of 6.4 of CIRIA report C760 (formerly C580) and informed by the results of on-going site investigations.

These classifications, which have been extracted and shown in Table 3-5 below, are based on method of damage assessment outlined by Burland et al (1977), Boscardin and Cording (1989) and Burland (2001).

Table 3-5: Table 6.4 of CIRIA C760: Classification of visible damage to walls (after Burland et al, 1977, Boscardin and Cording, 1989, and Burland, 2001).

Category of damage	Description of typical damage (ease of repair is underlined)	Approximate crack width (mm)	Limiting tensile strain, ε_{lim} (%)
0 Negligible	Hairline cracks of less than about 0.1 mm are classed as negligible	<0.1	0.0 to 0.05
1 Very slight	Fine cracks that can easily be treated during normal decoration. Perhaps isolated slight fracture in building. Cracks in external brickwork visible on inspection	<1	0.05 to 0.075
2 Slight	Cracks easily filled. Redecoration probably required. Several slight fractures showing inside of building. Cracks are visible externally and some repointing may be required externally to ensure weathertightness. Doors and windows may stick slightly.	<5	0.075 to 0.15
3 Moderate	The cracks require some opening up and can be patched by a mason. Recurrent cracks can be masked by suitable lining. Repointing of external brickwork and possibly a small amount of brickwork to be replaced. Doors and windows sticking. Service pipes may fracture. Weathertightness often impaired	5 to 15 or a number of cracks >3	0.15 to 0.3
4 Severe	Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Windows and frames distorted, floor sloping noticeably. Walls leaning or bulging noticeably, some loss of bearing in beams. Services pipes disrupted	15 to 25, but also depends on number of cracks	>0.3
5 Very severe	This requires a major repair, involving partial or complete rebuilding. Beams lose bearings, walls lean badly and require shoring. Windows broken with distortion. Danger of instability.	Usually >25, but depends on numbers of cracks	

Note: Highlighted 'Negligible' classification of typical damage as it applies to the Beach Road development.

The description of typical damage anticipated to neighbouring property is rated as 'Negligible'.

3.4.8 Monitoring of Ground Movements

The predictions of ground movements at planning stage are considered preliminary and are subject to the detailed design solutions implemented at construction stage (i.e. rigidity of wall, quality of construction and installation techniques, groundwater control measures, finalized bearing pressures from permanent works etc.).

The anticipated Category of Damage is 0 'Negligible'.

It is recommended that condition surveys of adjacent existing structures should be carried out before and after the proposed works. The precise monitoring strategy will be developed at a later stage, and it will be subject to discussions and agreements with the owners of the adjacent properties and structures.

At a minimum, Tell-Tale monitors will be placed in agreed locations on any pre-existing cracks to monitor movement in the boundary structures. Tell-Tales consist of two plates which overlap for part of their length. One plate is calibrated in millimetres and the overlapping plate is transparent and marked with a hairline cursor. As the crack width opens or closes, one plate moves relative to the other and the relationship of the cursor to the scale represents the amount of movement occurring. Movement of 0.1mm can be recorded on such monitors. Tell-Tale monitoring will be recorded by the Main contractor on a periodic basis and issued for review during the site clearance, excavation and basement construction phases.

Contingency measures will be implemented if movements of the adjacent structures exceed predefined trigger levels as noted above. Both contingency measures and trigger levels will need to be developed within a future monitoring specification for the works. Any breaches will be reported to DCC's Environment and Transportation Department.

3.4.9 Monitoring of Vibration

There are two varieties of criteria for vibration: those dealing with human comfort and those dealing with cosmetic or structural damage to buildings. In both instances, it is appropriate to consider the magnitude of vibration in terms of Peak Particle Velocity (PPV).

It is acknowledged that humans are particularly sensitive to vibration stimuli and that any perception of vibration may lead to concern. In the case of road traffic, vibration is perceptible at around 0.5 mm/s and may become disturbing or annoying at higher magnitudes. However, higher levels of vibration are typically tolerated for single events or events of short duration. For example, piling is typically tolerated at vibration levels up to 5mm/s. This guidance is applicable to the daytime only; it is unreasonable to expect people to be tolerant of such activities during the night.

Guidance relevant to acceptable vibration within buildings is contained in the following documents:

- British Standard BS 7385 -2:1993: Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration, and;
- British Standard BS 5228-2:2009: Code of practice for noise and vibration control on construction and open sites

We would recommend that vibration from construction activities be limited to the values set out in the guidance documents above. It should be noted that these limits are not absolute but provide guidance as to magnitudes of vibration that are very unlikely to cause cosmetic damage. Magnitudes of vibration slightly greater than those are normally unlikely to cause cosmetic damage, but construction work creating such magnitudes should proceed with caution.

To ensure that there is no structural damage to nearby structures due to the ground borne vibrations generated by the rock breaking works, the Control and Mitigation Measures that will be implemented on this site during the rock excavation works include:

i. The specification of vibration limits experienced on the nearby structures due to the basement excavation and construction works
ii. Preparation of a traffic light alerting system (red, orange, green) with a trigger action plan developed should these limits be exceeded.
iii. Continuous vibration monitoring of the existing southern boundary wall shall be carried out. The monitored structures shall be at representative locations along its length at 3 no. locations. Monitoring shall be carried out by an independent specialist monitoring company.

iv. These control measures shall be included in the Contract Specification.

v. The allowable transient vibration during the works (in terms of peak particle velocity in mm/s) at the closest foundation of any building structure will be limited to the values set out in the table below.

Table 3-6: Table B.2 BS5228-2:2009 Transient vibration guide values for cosmetic damage

Line (see Figure B.1)	Type of building	Peak component particle velocity in frequency range of predominant pulse	
		4 Hz to 15 Hz	15 Hz and above
1	Reinforced or framed structures Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above
2	Unreinforced or light framed structures Residential or light commercial buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

NOTE 1 Values referred to are at the base of the building.

NOTE 2 For line 2, at frequencies below 4 Hz, a maximum displacement of 0.6 mm (zero to peak) is not to be exceeded.

vi. The vibrations shall be continuously monitored at the site boundary and shall be reviewed on a daily basis by an independent instrumentation specialist to ensure that the trigger limits have not been exceeded. A daily report shall be submitted by the specialist to the Contractor summarising the results. A traffic light alerting system, and a trigger action plan shall be developed and immediately implemented should the vibration limits exceed the specified tolerances. If the vibration limits are exceeded the Contractor shall cease the works and shall review and modify the excavation methodology, equipment and techniques employed to formulate an excavation method that would produce lower vibrations that are within the vibration limits at the structures. Monitoring of vibrations readings will be done remotely, i.e. no physical access to the structures is expected to be required except for initial installation and final removal of the monitoring equipment.

Any breaches of vibration limits will be reported to DCC's Environment and Transportation Department

3.5 Surface Flow and Flooding

The site is at risk of flooding however the proposed building is set with a ground floor level set above anticipated flood levels and demountable barriers are proposed to prevent flooding of the basement and other low lying areas on site. Please refer to the PUNCH Report "Site-Specific Flood Risk Assessment" included as part of this planning amendment application documentation.

Table 3-7 provides the evidence used to answer the surface water flow and flooding screening/scoping potential impacts.

Table 3-7: Responses to Surface Water Flow and Flooding Potential Impacts.

Ref.	Potential Impact	Evidence
i.	Is the site located in flood prone lands?	The site contains Flood prone lands. Flood mitigation proposals are provided including the ground floor level is set above anticipated flood levels, and demountable barriers proposed to prevent flooding of the basement and other low-lying areas on site. Refer to the Site-Specific Flood Risk Assessment included in the planning application documentation.
ii.	Will the proposed development result in a change in the proportion of hard surface/paved area?	The proposed development (including basement construction) will result in an similar extent of hard surfaced/paved areas. The pre-construction site consists of brownfield, consisting of service station and car showroom with external pavement. As part of the development proposals, SuDS measures are to be implemented as outlined in the Infrastructure Design Report. SuDS measures include extensive green roofs, permeable paving, bioretention areas and intensive landscaped areas.
iii.	Will the proposed development result in changes to the quantity of surface water being received by adjacent properties or downstream watercourses?	The discharge of surface water from the development will be improved through the application of SuDS measures including attenuation of discharge from the as detailed in the Infrastructure Design Report and Engineering Drawings.

3.6 Cumulative Effects

Table 3-8 provides the evidence used to answer the cumulative screening/scoping potential impacts.

Table 3-8: Responses to Cumulative Potential Impacts.

Ref	Potential Impact	Evidence
i.	Is there a cumulative risk associated with introducing a new basement structure in the locality?	As outlined in Section 1.5.1, there are no basement structures in the immediate vicinity of the site that would introduce a cumulative impact.

3.7 Construction Related Impacts

Table 3-9 provides the evidence used to answer the construction stage screening/scoping potential impacts.

Table 3-9: Responses to Construction Stage Potential Impacts.

Ref	Potential Impact	Evidence
i.	Description of any required temporary works to be provided.	Temporary works consisting of installation of a piled secant wall is required. No ground anchors outside of the site footprint are proposed.
ii.	Impacts of bulk excavations on adjacent structures to be assessed.	The resulting impacts will be assessed through a detailed ground movement assessment, including a Damage Impact Assessment of neighbouring sensitive structures.
iii.	Appropriate method statements/management plans illustrating consideration of good management and mitigation of construction impacts associated with basement construction.	Construction Management has been completed by the contractor considering the basement is constructed. Refer to these documents for details of: • Provision for phasing of the works • Provision for site management, safety, and supervision. • A method statement detailing the proposed method of ensuring the safety and stability of neighbouring properties and land throughout the construction phase. • Provision to monitor movement of structures and land. • Provision to monitor groundwater levels and alerts to be raised as required. • Appropriate mitigation measures to be detailed if these limits are reached or exceeded e.g. to prevent occurrence of ground movement. • Proposed site working hours. • Management of noise, vibration and dust.

3.8 Temporary Works

No temporary works (i.e. no ground anchors or props are required) are required to facilitate the construction of the proposed basement as the construction of the basement will consist of secant piled wall installation wholly within the private site extents.

3.9 Heritage and Biodiversity Impacts

A search was carried out on the GIS Historic Environment Viewer for protected structures in the vicinity of the subject site. The following protected structures and national monuments were identified:

1. RPS no. 4006: Clarke's licenses premises, 78/80/82 Irishtown Road, Dublin 4
2. RPS no. 4007, Monument no. DU18-05401: St. Matthew's Church, Irishtown Road, Dublin 4
3. Monument no. DU18-05402: St. Matthew's Graveyard, Irishtown Road Dublin 4

4. Monument no. DU18-054: Settlement cluster, Herbert Place, Dublin 4

The subject site is not within the notification zone of the National Monuments Service.

The development site is currently brownfield, consisting of a former service station and vacant car showroom with a limited biodiversity value.

3.10 Land Use

The basement is integral to the proposed residential development by providing the required car, cycle parking provision and plant to serve the residential apartment complex. The intended use of the basement is therefore appropriate and in the interests of the proper planning and sustainable development of the area. The environmental sustainability of the proposal have been considered as outlined in the environmental assessments included in the planning submission.

4 Construction Management Plan

For information concerning the Contractor's Construction Management Plan, please see Appendix G Contractors Construction Management Plan.

5 Impact Assessment and Mitigation

5.1 BIA Conclusion

A Basement Impact Assessment has been carried out following the policy information and guidance published by Dublin City Council (Appendix 9 of the Dublin City Development Plan 2022 – 2028 "Basement Development Guidance").

It is concluded that the proposed development is unlikely to result in any specific groundwater flow issues, land or slope stability issues, surface water flow /flooding issues, cumulative effect issues or construction related issues that cannot be mitigated by the proper implementation of appropriate mitigation measures and best practise in the design and construction of the proposed basement.

5.2 Non-Technical Summary of Evidence

This section provides a short summary of the evidence acquired and used to form the conclusions made within the BIA.

5.2.1 Screening

Table 5-1 provides the evidence used to answer the groundwater screening/scoping potential impacts.

Table 5-1: Responses to Groundwater Potential Impacts.

Ref.	Potential Impact	Site Investigation Conclusions
i	The site is located directly above an aquifer	The GSI bedrock aquifer map of the area classifies the bedrock as a Locally Important Aquifer - Bedrock which is Moderately Productive in Local Zones.
ii	The proposed basement will extend beneath the water table surface.	As outlined in Section 1.5.1, there are no basement structures in the immediate vicinity of the site that would introduce a cumulative impact.
iii	Is the site within 100m of a watercourse, well or potential spring line?	The site is not located within 100m of any watercourse, well or potential spring line.

Table 5-2 provides the evidence used to answer the stability screening/ scoping potential impacts.

Table 5-2: Responses to Stability Potential Impacts.

Ref.	Potential Impact	Evidence
i.	Does the site include steep slopes, natural or manmade?	The existing site does not include any significant slopes, natural or manmade. The site is relatively flat throughout its extents.
ii.	Does the development propose to introduce any significant reprofiling of the site?	There are no proposals as part of the development to introduce any re-profiling or introduction of slopes within the site on a permanent basis.
iii.	Will any trees be felled as part of the proposed development and/or are any works proposed within any tree protection zones where trees are to be retained?	No trees are to be felled as a result of the proposed basement construction. There are no tree protection zones associated with the proposed basement extents.
iv.	Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties	Founding depth for the proposed development (basement) will be approximately 3.0 m BGL and will be deeper relative to neighbouring properties. The resulting impacts could be assessed through a preliminary ground movement assessment, including a Damage Impact Assessment of neighbouring sensitive structures.
v.	The site is bounded to the east by Beach Road and to the north-west by Church Avenue and a residential development. The site also adjoins St. Matthew's School to the south-west.	The investigation has not indicated any specific problems, such as weak of unstable ground that would make working in close proximity of public infrastructure/ developments problematic at this site.

5.2.2 Scoping and Site Investigations

The questions in the screening stage that there were answered 'yes', were taken forward to a scoping stage and the potential impacts discussed in Section 3 of this BIA report.

It is noted that site specific site investigations informed the Basement Impact Assessment.

Ground investigations have been carried out, which has allowed an assessment of the potential impacts of the basement development on the various receptors identified from the screening and scoping stages. Principally the investigation aimed to establish the ground conditions, including the groundwater level and the engineering properties of the underlying soils to enable suitable design of the basement development.

The findings of the site investigations are discussed in Section 2 of this BIA report.

5.2.3 Impact Assessment

Section 4 of this report summarises whether, on the basis of the findings of the investigation, the potential impacts still need to be given consideration and identifies ongoing risks that will require suitable engineering mitigation. Section 4 of this report also provides recommendations for the design of the proposed development.

5.3 Outstanding Risks and Issues

This section of the report aims to highlight areas where further work is required where issues have been identified by this investigation that warrant further consideration. The scope of risks and issues discussed in this section is by no means exhaustive but covers the main areas where additional work may be required.

The ground generally consists of made ground at the surface. The subsurface is composed of soft to firm silty sand/ slightly gravelly sand to a maximum depth of 4.7m below ground level. This underlain by a stratum of gravel with some cobbles and boulders to a maximum depth of 10.5m below ground level. Very stiff clay was encountered below this to the full depth of the investigation. It is noted that variations will inevitably arise between the locations at which it is investigated. This report provides an assessment of the ground conditions based on the discrete points at which the ground was sampled, but the ground conditions should be subject to review as the work proceeds to ensure that any variations from the Ground Model are properly assessed by a suitably qualified person.

As detailed in the IGSL Ground Investigations Report, the results of environmental analyses have uncovered no instances of hydrocarbon contamination with the exception of one which was shown to be confined to the upper 0.5m. This is likely the result of a spill or leakage at ground surface level. Significantly, there was no evidence of a significant hydrocarbon presence at depth in any of the exploratory holes. Any near surface “hot spots” such as the one encountered can be delineated and removed during site groundworks. Since a basement is proposed, this implies that the near-surface soils will be removed from site, thereby also removing any surface “hot spots.”

The appointed Contractor will be responsible for all waste arisings from the time the waste is generated until it reaches its final destination point. This includes its method of treatment/disposal. The Contractor has responsibility to ensure that all contractors managing waste on their behalf are legally compliant and technically competent and the waste itself is contained, handled, treated and disposed of in accordance with all relevant regulatory requirements.

As with any site, there is a potential for further areas of contamination to be present within parts of the site not covered by the investigation it is recommended that a watching brief is maintained during any groundworks for the proposed new foundations and that if any suspicious soils are encountered that they are inspected by a waste contamination specialist and further assessment may be required.

The detailed design proposals should be developed with due regard to this Basement Impact Assessment. Once the detailed design proposals have been finalised, they should be reviewed to check adherence to the principles outlined in this BIA. If any deviation is required, this should be identified and identified by the nominated Contractor and presented to DCC’s Environment and Transportation Department for discussion and agreement as part of the required post-planning engagements.

These items should be drawn to the attention of prospective contractors and further investigation will be required (e.g. more detailed contamination testing grid for the excavated basement volume) or sufficient contingency should be provided to cover the outstanding risk.

6 Non-Technical Summary

This non-technical summary is provided in addition to Section 5.2 above.

1. The site is a brownfield site located at Beach Road, Sandymount, Dublin 4, and currently consists of a vacant service station and vacant car showroom.
2. The site is bounded to the north-west by R111 Church Avenue and a residential development, to the east by R802 Beach Road, and to the south-west by St. Matthew's School. The frontage onto Beach Road has a length of approximately 88 metres.
3. The construction of the basement will involve the installation of a secant pile wall. Excavation will then take place down to required basement formation level with strict excavation control. Foundation piles will be installed along the perimeter of the basement. The reinforced concrete basement slab is then to be cast, acting as a permanent prop to the piled retaining wall. Ground floor and courtyard transfer slabs will then be cast.
4. The basement construction removes local contamination and therefore does not place the groundwater at undue risk but removes that potential risk by excavation of any contaminated material within the basement and below ground water level.
5. A full range of monitoring shall be put in place within a Construction Management Plan which shall be submitted in full to Dublin City Council by the appointed contractor prior to the works commencing.

Appendix A Architects Layout - Basement Plan

Design modifications to the basement layout.
Plant space allocation required.

**Design modifications to the basement layout, to reflect the detail requirements of the Fire Safety Certificate.
Basement stairs and upper level stairs should be separated at ground floor, so they have separate dedicated escape doors to external. Note that Bin store 01 and bike parking area had to be relocated as a consequence.

Reduction in car parking quantum from 79 to 77 spaces only (no impact to cycling).

**Design modifications to the basement layout, to reflect the detail requirements of the Fire Safety Certificate.
Basement stairs and upper level stairs should be separated at ground floor, so they have separate dedicated escape doors to external.

**Design modifications to the basement layout, to reflect the detail requirements of the Fire Safety Certificate.
Additional Plant space allocation required.

Design modifications to reflect the detail requirements fo the Disabled Access certificate.
Segregation of cycle access.
New stairs provides independently accessible means of approach to the accessible entrance of the building.
A wheeling channel is provided to make stairs accessible to cyclists, as it enables them to go up or down.
Wheeling channel to be used by one cyclist at a time.

Beach Road (R802)

RRW008

Hard Filt

ESB Substation

Switchroom

Car parking
70 No. spaces (including 2 Carclub spaces)

Design modifications to the basement entry ramp, including realignment of ramp.
To comply with DACI Part M epigraph 1.1.5 (f) *the minimum clear vertical clearance of 2600 mm should be provided to allow the passage of high top conversion vehicles.*

Addition of a full gate openable via GSM at the bottom of the ramp.

Design modifications to the basement layout.
Plant space allocation required.

Design modifications to the basement level.
Level was dropped from -0.15 m to -0.345
To comply with DACI Part M epigraph 1.1.5 (f) *the minimum clear vertical clearance of 2600 mm should be provided to allow the passage of high top conversion vehicles as well as providing enough clearance for services.*

Design modifications to the basement layout.
For ease of construction the step in the liner wall was omitted. Also,the redesing of the attenuation tank helps to allocate additional car parking spaces.

**Design modifications to the basement layout, to reflect the detail requirements of the Fire Safety Certificate.
Provision of a new escape stair and associate lobbies.

Design modifications to the basement layout.
Plant space allocation required.

525 Bike Parking Schedule		
Level	Type	No. of Bikes
Basement	2 Tier Bikes	164
Basement	Cargo Bike Rack Large Size-1no.Bike	2
Basement	Sheffield Bike Rack-2no.Bikes	44
Ground Floor	"MMolte"2no.Bikes Rack	26
Ground Floor	Cargo Bike Rack Regular Size -1no.Bike	2
Grand total		238

525 Motorbike Parking Schedule		
Count	Type	Dimensions
4	Motorbike Parking	1200x2500mm

Grand total: 4

525 Car Parking Schedule		
Count	Type	Dimensions
66	Car Parking	4800x2400mm
4	Disabled Car Parking	3600x4800mm

Grand total: 70

63% - Ratio Car Parking Spaces/Apartments (70/112)

8 no. EV Car Parking Provision (10% of all car parking spaces)

LEGEND

RC — Structural RC walls and columns (Refer to STR engrawings for sizes and thickness elements)

EWS - External Wall Systems

- **EWS-01** Red Brick Cladding with 150 mm insulation cavity
- **EWS-02** Red Brick Cladding with 187.5 mm insulation cavity
- **EWS-03** Render insulation to parapets(120mm)
- **EWS-04** Roof Paparet - Parallon membrane finish
- **EWS-05** Rendered Insulation System to Balconies (130mm)
- **EWS-06** R.C. Retaining Wall with White Tank Grade 2 (Basement)
- **EWS-07** Stone cladding system with 150 mm insulation + 50vd
- **EWS-08** Stone cladding system Uninsulated
- **EWS-09** Rainscreen Cladding System on RC Wall
- **EWS-10** Rendered Insulation System to Basement (180)
- **EWS-11** Rainscreen Cladding System on SFS Frame Wall

IWS - Internal Wall Systems

- **IWS-02** Metal studs Partition System
- **IWS-03** Wet Areas Metal Studs Partition System
- **IWS-04** Internal Plasterboard Lining 37.5mm Cavity
- **IWS-05** Internal Plasterboard Lining 50mm Cavity
- **IWS-06** 215mm Solid Blockwork
- **IWS-07** Acoustic Lining to Shafts, Meter Rooms
- **IWS-08** 60min FR ShaftWall System
- **IWS-09** Twin Stud Wall with Service Cavities on both sides
- **IWS-10** Internal Plasterboard Lining, 100 mm Cavity Void Service
- **IWS-11** One sided plasterboard lining
- **IWS-12** Wall Partition System - Staircores

FLS - Floor Systems

- **FLS-01** Laminate Flooring - Apartments
- **FLS-02** Large Format Porcelain Tiles - WC's
- **FLS-03** Large Format Porcelain Tiles - Common Areas
- **FLS-04** Matwells - Common Areas
- **FLS-05** Carpets - Common Areas, Stairs
- **FLS-06** Coating System to Plant Areas & Bin Stores
- **FLS-07** Clip-on Balcony Assembly
- **FLS-08** Uninsulated Balcony Build-Up with Pedestals & composite board
- **FLS-09** Insulated Balcony Build-Up with Pedestals & composite board
- **FLS-10** Carpet to stairs and apartment landings on each upper level

RFS - Roof Systems

- **RFS-01** Extensive Green Roof System
- **RFS-02** Bitumen membrane warm deck roof with ballast (Roof edge)
- **RFS-03** Bitumen membrane warm deck roof covering with ballast
- **RFS-04** Bitumen membrane warm deck roof covering
- **RFS-05** Bitumen membrane cold deck roof covering

Doors

- **60 Min FR Door**
- **30 Min FR Door**
- **Non-FR Door**

Other

- 1800mm Kitchens clearance zone
- Fall Prevention Cable Systems - Please refer to specialist subcontractor
- SVP Soil vent pipes HSP& Kitchen
- SVP Soil vent pipes Bathrooms
- SVP ends on this floor Bath/HSP& Kitchen
- SVP serves only 5th floor
- RWP Rainwater pipes
- SVP Transfer - Transfer to be done in the underfloor of the 5th floor.
- SVP Ventilation Transfer - Transfer to be done in the ceiling of the 3rd & 4th floor.
- RWP Transfer - Transfer to be done in ceiling voids
- Provision of Bike Parking Areas - Hatch only indicative -
- Bsc — Balcony Screen Divider = 2.4m High

REV.	DATE	DETAILS	INITIALS
CC	24/09/2024	Planning Application	FG

NOTES:

- Applicants overall land ownership
- Basement Line

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NORTH POINT:

KEY PLAN:

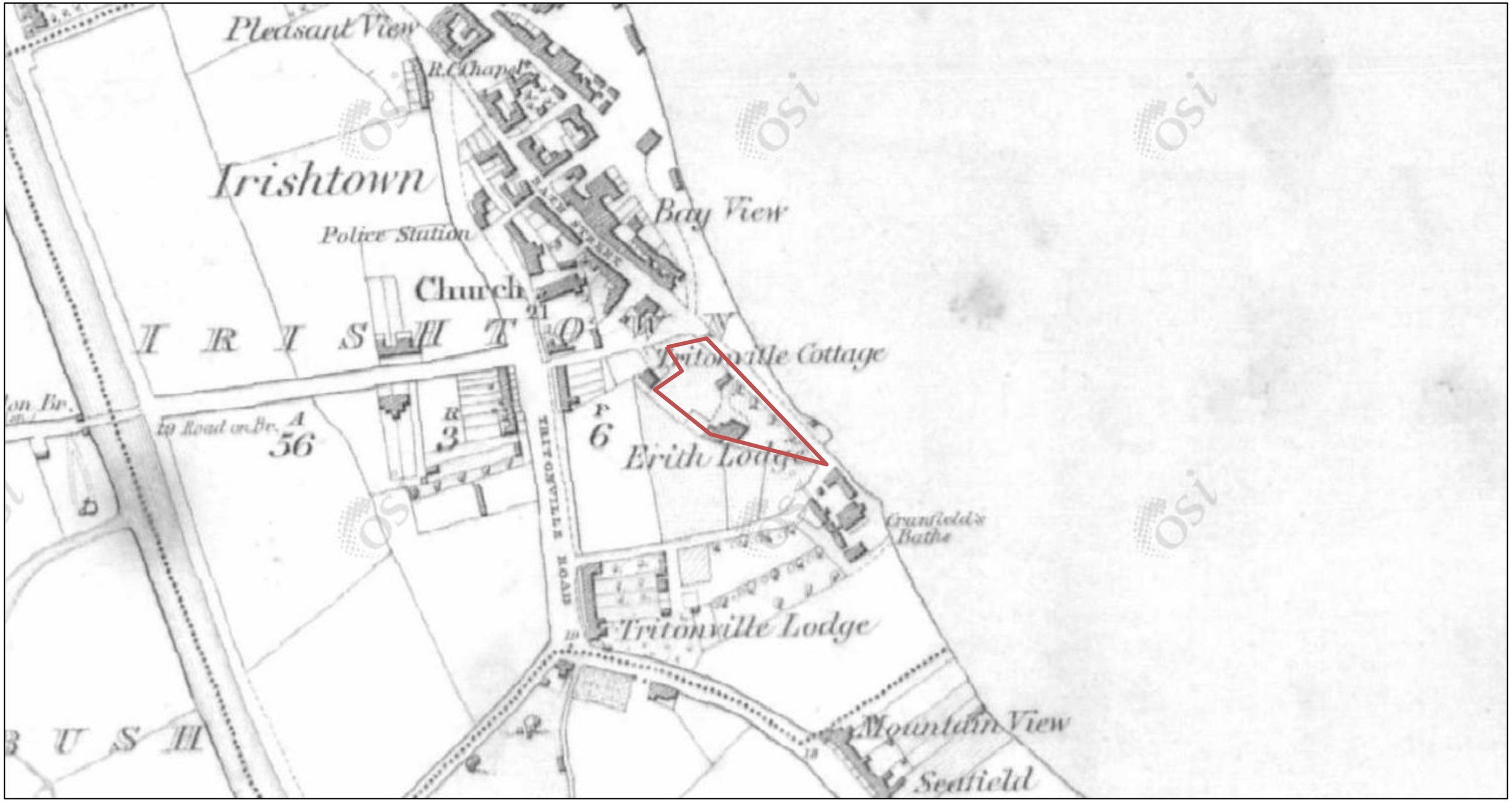
PLUS ARCHITECTURE
Chancery Lane, Dublin 8, D08 CW04, Ireland.
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Client: Royalton Developments Dublin 4 Ltd.

Project: Beach Road Apartments	Code: BRA	Proj.No: 525	Drwn/Chckd By: FG/DT	Scale: 1:100	Size: A0L
Title: "Proposed" GA - Basement Floor Plan	Issue Type: Planning				
Drawing No.: BRA-PLA-Z1-B1-DR-A-0200P	Status: A2	Rev. No.: C1	Date: 24/09/2024		

Appendix B Historical Mapping

GeoHive Map 1837-1842



19/09/2024, 11:50:07

Override 1

1:2,500

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

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GeoHive

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GeoHive Map 1888-1913



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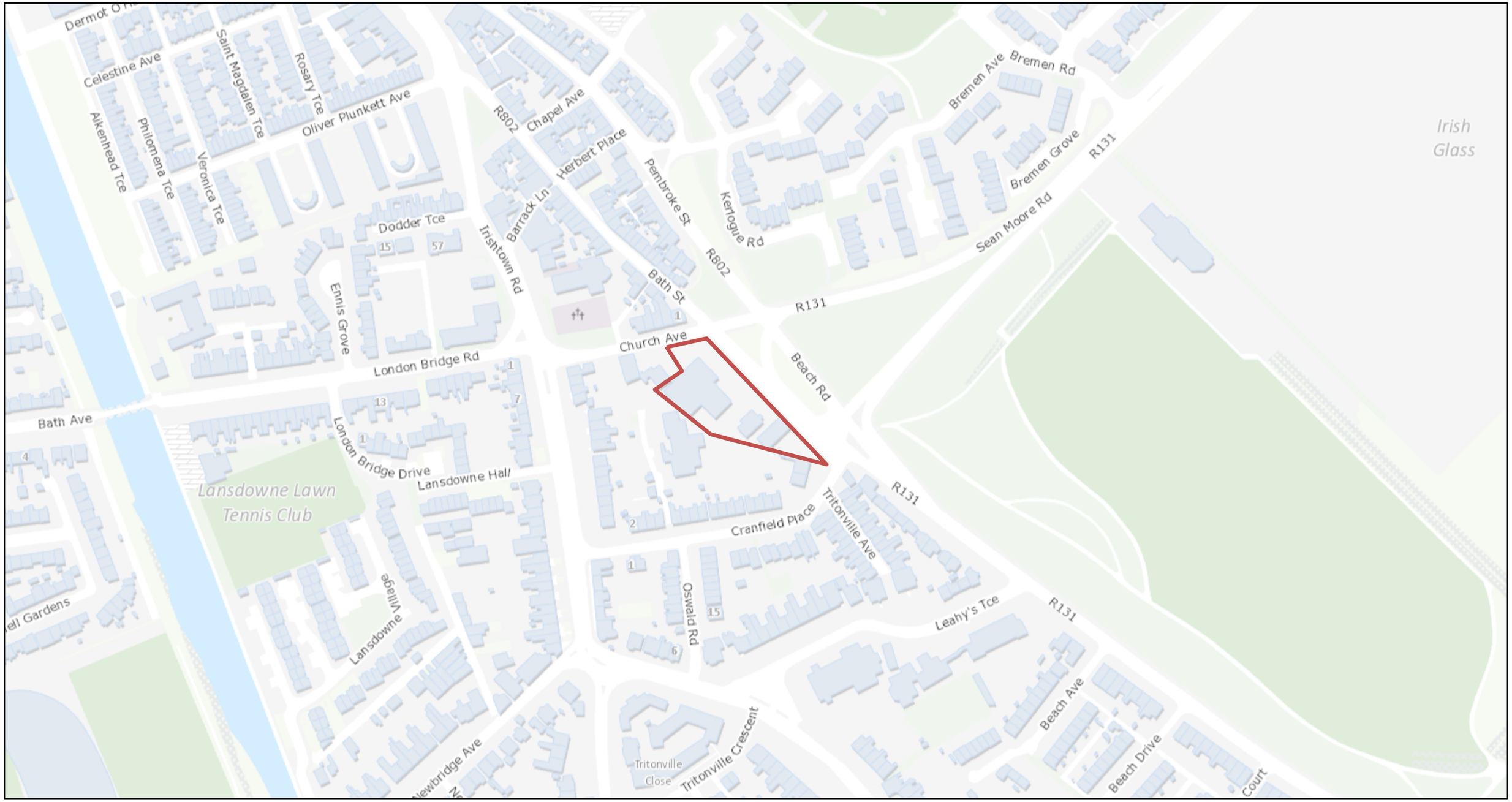
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GeoHive Map 2024



19/09/2024, 11:51:27

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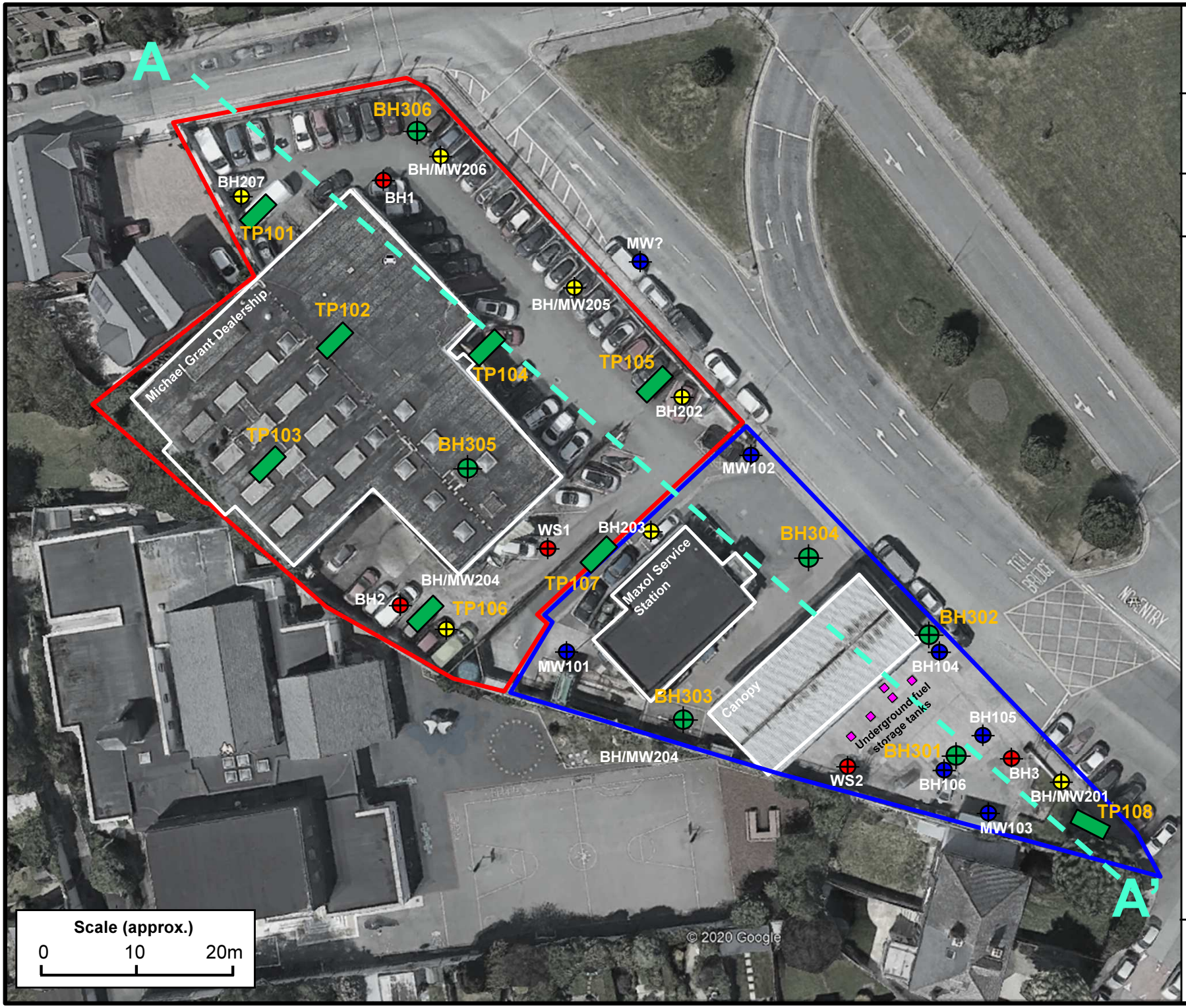
0 0.05 0.1 0.2 km

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Appendix C Site investigations (SI) Exploratory Hole Location Plans



Drawing Title: Minerex Proposed Trial Pit & Borehole Locations

Client: Walls
Project: Beach Rd., Sandymount, Dublin 4

Drawing Ref: 3235-008.ppt
Drawn by: MO 14/08/2020

Common Legend

- Michael Grant Site Outline
- Maxol Site Outline
- Manhole for underground fuel storage tanks
- WYG (2008) boreholes
- Verdé (2018) boreholes
- IGSL (2020) boreholes
- Minerex proposed trial pit location
- Minerex proposed borehole location

Minerex Environmental

Appendix D Site Investigations report by IGSL Ltd (SI)

IGSL Limited

Maxol Group
Punch Consulting Engineers

Maxol
Beach Road

Ground Investigation Report

Report No. 22430

July 2020

Report

M7 Business Park
Naas
Co. Kildare
Ireland

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W: www.igsl.ie

Revision	**Date**	**Title**		
Revision 0	08/07/2020	Preliminary Report		
		Prepared By	Document Format	Copies
		David Green	PDF	
	To	Punch Consulting Engineers		
Revision	**Date**	**Title**		
Revision 0	09/07/2020	Final Report		
		Prepared By	Document Format	Copies
		David Green	PDF	
	To	Punch Consulting Engineers		
Revision	**Date**	**Title**		
		Prepared By	Document Format	Copies
	Name			
	To			
Revision	**Date**	**Title**		
		Prepared By	Document Format	Copies
	Name			
	To			

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Appendix 4 Window Samples
Appendix 5 Groundwater Monitoring
Appendix 6 Geotechnical Laboratory Testing
Appendix 7 Environmental Laboratory Testing
Appendix 8 Site Plan

FOREWORD

The following conditions and notes on the geotechnical site investigation procedures should be read in conjunction with this report.

Standards

The ground investigation works for this project (Maxol, Beach Road, Sandymount) have been carried out by IGSL in accordance with Eurocode 7 - Part 2: Ground Investigation & Testing (EN 1997-2:2007). This has been used together with complementary documents such as BS 5930 (1999), BS 1377 (Parts 1 to 9) and Engineers Ireland Specification & Related Documents for Ground Investigation in Ireland (2006). A new National Annex for use in the Republic of Ireland is currently in circulation for comment and will be adopted in the near future. In the mean time, the following Irish (IS) and European Standards or Norms are referenced:

- IS EN 1997-2 Eurocode 7: 2007 – Geotechnical Design – Part 2: Ground Investigation & Testing
- IS EN ISO 22475-1:2006 Geotechnical Investigation and Sampling – Sampling Methods & Groundwater Measurements
- IS EN ISO 14688-1:2002 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 1: Identification and Description
- IS EN ISO 14688-2:2004 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 2: Classification Principles
- IS EN ISO 14689-1:2004 Geotechnical Investigation and Testing - Identification & Classification of Rock, Part 1: Identification & Description

Reporting

Recommendations made and opinions expressed in this report are based on the strata observed in the exploratory holes, together with the results of in-situ and laboratory tests. No responsibility can be held by IGSL Ltd for ground conditions between exploratory hole locations.

The engineering logs provide ground profiles and configuration of strata relevant to the investigation depths achieved and caution should be taken when extrapolating between exploratory points. No liability is accepted for ground conditions extraneous to the investigation points.

This report has been prepared for Punch Consulting Engineers and the information should not be used without prior written permission. The recommendations developed in this report specifically relate to the proposed development. IGSL Ltd accepts no responsibility or liability for this document being used other than for the purposes for which it was intended.

Boring Procedures

Unless otherwise stated, 'shell and auger' or cable percussive boring technique has been employed as defined by Section 6.3 of IS EN ISO 22475-1:2006. The boring operations, sampling and in-situ testing complies with the recommendations of IS EN 1997-2:2007 and BS 1377:1990 and EN ISO 22476-3:2005. The shell and auger boring technique allows for continuous sampling in clay and silt above the water table and sand and gravel below the water table (Table 2 of IS EN ISO 22475-1:2006).

It is highlighted that some disturbance and variations is unavoidable in particular ground (e.g. blowing sands, gravel / cobble dominant glacial deposits etc). Attention is drawn to this condition, whenever it is suspected. Where cobbles and boulders are recorded, no conclusion should be drawn concerning the size, presence, lithological nature, or numbers per unit volume of ground.

Rotary Drilling Procedures
Rotary drilling methods have been used to recover bedrock samples in line with Section 3.5 of IS EN 1997-2:2007 and IS EN ISO 22475-1. Where cable percussive boreholes terminated prematurely on an obstruction within overburden, open hole drilling methods (odex or symmetrix) were utilized to advance the drillholes through the superficial deposits with coring in bedrock. The key objectives of the rock sampling were to obtain high core recovery (TCR), minimize sample disturbance and facilitate accurate identification of strength, weathering and discontinuity characteristics.

In-Situ Testing
Standard penetration tests were conducted strictly in accordance with Section 4.6 of IS EN 1997-2:2007. The SPT equipment (hammer energy test) has been calibrated in accordance with EN ISO 22476-3:2005 and the Energy Ratio (E_r). A calibration certificate is available upon request. The E_r is defined as the ratio of the actual energy E_{meas} (measured energy during calibration) delivered to the drive weight assembly into the drive rod below the anvil, to the theoretical energy (E_{theor}) as calculated from the drive weight assembly. The measured number of blows (N) reported on the engineering logs are uncorrected. In sands, the energy losses due to rod length and the effect of the overburden pressure should be taken into account (see IS EN ISO 22476-3:2005).

Groundwater
The depth of entry of any influx of groundwater is recorded during the course of boring operations. However, the normal rate of boring does not usually permit the recording of an equilibrium level for any one water strike. Where possible drilling is suspended for a period of twenty minutes to monitor the subsequent rise in water level. Groundwater conditions observed in the borings or pits are those appertaining to the period of investigation. It should be noted however, that groundwater levels are subject to diurnal, seasonal and climatic variations and can also be affected by drainage conditions, tidal variations etc.

Engineering Logging
Soil and rock identification has been based on the examination of the samples recovered and conforms with IS EN ISO 14688-1:2002 and IS EN ISO 14689-1:2004. Rock weathering classification conforms to IS EN ISO 14689-1:2003 while discontinuities (bedding planes, joints, cleavages, faults etc) are classified in accordance with 4.3.3 of IS EN ISO 14689-1:2003. Rock mechanical indices (TCR, SCR, RQD) are defined in accordance with IS EN ISO 22475-1:2006.

Retention of Samples
Samples shall be retained for a period of 60 days following approval of the final factual report, as detailed in the Scope of Works.

1.0 Introduction and Objectives

The former Maxol Station at Beach Road, Sandymount is the subject of a due diligence. IGSL Limited were appointed by Punch Consulting Engineers on behalf of the Maxol Group to conduct a ground investigation at the site.

The objectives of the investigations were as follows:

- Ascertain the soil and bedrock stratigraphy at the site
- Ascertain the standing groundwater level
- Determine suitable bearing strata for foundations
- Investigate the potential for sulphate attack on buried concrete
- Investigate for the presence of subsoil contamination

Fieldworks were undertaken during February / March 2020.

2.0 Scope of Works

The programme of exploratory works included the following:

- 3 no. cable percussive boreholes
- 3 no. rotary coreholes to investigate for the presence of bedrock
- 1 no. trial (inspection) pit
- 2 no. window samples to recover continuous undisturbed samples
- A programme of geotechnical and environmental laboratory testing to assist with soil classification

2.1 Cable Percussive Boreholes

Boreholes were constructed in 3 locations (BH1 to BH3) using a Dando 2000 rig equipped with 200 mm casing. A hand dug inspection pit was excavated at each location prior to commencing drilling works and the locations were scanned for services using a CAT detection tool.

During the course of boring, in-situ Standard Penetration Tests (SPT) were undertaken at regular intervals. Samples were also recovered to assist in the visual description of recovered soils and to provide specimens for laboratory testing.

Instances of groundwater ingress were also recorded and monitored for a further 20 minutes to permit the water to rise.

Borehole records are presented in Appendix 1 of this report.

2.2 Rotary Coreholes

Rotary coring was undertaken at all borehole locations (RC1 to RC3) to investigate for the presence of bedrock. A tracked GEO 405 coring rig was used using Symmetrix “open hole” techniques to advance through the overburden deposits.

Standpipes were constructed in all coreholes to permit long term groundwater monitoring. Groundwater samples were recovered for environmental analysis.

The corehole records are included in Appendix 2 of this report.

2.3 Trial Pit

A trial pit (IP02) was excavated to permit close examination of the subsoils and the recovery of large bulk samples.

The trial pit was logged and sampled by an IGSL geotechnical engineer in accordance with BS 5930 (2015).

Pit sidewalls were assessed in terms of their short-term stability and any instances of groundwater ingress were recorded. Soil samples were also recovered to provide specimens for laboratory testing. The samples were placed in heavy duty polyethene bags and sealed before being transported to Naas for laboratory testing.

The trial pit was backfilled with the as-dug arisings and reinstated to the satisfaction of IGSL's site geotechnical engineer. The trial pit log in Appendix 3 includes descriptions of the soils encountered, groundwater conditions and stability of the pit sidewalls.

2.4 Window Samples

Window samples were undertaken in 2 locations (WS1 and WS2) in order to obtain undisturbed samples of the upper soils to facilitate accurate sub-sampling for environmental analysis.

Window samples are advanced by driving a steel sampling tube under constant percussive effort. The soils enter the tube within a protective plastic liner, which is withdrawn after every metre of progress. The liners are then placed in wooden channel boxes and transported to the IGSL offices where they are logged and sub-sampled as required.

Environmental sub-samples were placed in appropriate containers (amber glass jars and vials).

The window sample records are presented in Appendix 4 of this report.

2.5 Groundwater Monitoring

Standpipes were installed in all rotary coreholes in order to permit long term monitoring of groundwater levels. Since the site is located near the east coast, dataloggers were installed in the standpipes and left for a period of 21 days in order to monitor any tidal fluctuations during this period.

The results of groundwater monitoring, including datalogger plots, are presented in Appendix 5 of this report.

3.0 Laboratory Testing

Laboratory testing was undertaken on selected samples in order to assist in the classification of the subsoils encountered. Environmental testing was undertaken by UK laboratory Chemtest. Groundwater samples were also recovered from the standpipes and analysed for the presence of pollutants. The results of geotechnical testing are included in Appendix 6, while the environmental test results are presented in Appendix 7.

3.1 Soil Classification

The results of Atterberg Limits tests classified the deep glacial till ("boulder clay") soils as clay of low plasticity (CL) with moisture contents in the range 8 to 14%.

Particle Size Distribution (PSD) graphs clearly show the variations in composition between the finely graded upper sands, underlying coarser gravels and comparatively well-graded basal glacial till (boulder clay).

3.2 Sulphate and pH

Determination of pH values and Sulphate content were conducted by a nominated accredited environmental laboratory (Chemtest Laboratory). Results are presented in reports prepared by the laboratory. The results revealed low levels of Water-Soluble Sulphate, with a maximum of 0.21 g/l measured. Associated pH levels were in the range 8 to 9.

With reference to Table C1 of BRE Special Digest 1: 2005, the level of Sulphate suggests a design Sulphate Class of DS-1. Assuming a static groundwater table, an ACEC (Aggressive Chemical Environment for Concrete) Classification of AC-1s is applicable, since the pH levels are greater than 5.5.

3.3 Environmental Laboratory Testing

Environmental testing was scheduled on recovered soil samples in order to assess their suitability for disposal to an inert landfill.

Samples were tested in accordance with the RILTA Suite, which is used to determine the suitability of soils for disposal to a landfill. The RILTA suite includes Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAH), TPH-CWG, BTEX, PCB and Total Organic Carbon (TOC) carried out on dry soil samples. Also included are leachate analyses, whereby leachate is generated in accordance with CEN 10:1 specification and this is tested for the presence of recognised contaminants including Heavy Metals, Dissolved Organic Carbon (DOC) and Total Dissolved Solids (TDS). An Asbestos Screen is also included in the RILTA Suite.

4.0 Ground Conditions

4.1 Boreholes

Boreholes BH1 and BH2 penetrated a surfacing of Tarmacadam and underlying granular fill (hardcore) to depths of 0.4 and 0.3 m BGL. At BH03, the existing surfacing consists of a 200 mm thick concrete slab overlying a similar thickness of hardcore.

A thin (200 mm) layer of Made Ground was present beneath the granular fill at BH02. While this comprised mainly gravel, there was also evidence of extraneous matter including ash.

In all boreholes, the underlying natural subsoils comprised silty slightly gravelly SAND containing shells. These deposits were present to depths of between 3.4 and 4.7 m BGL. Standard Penetration Tests (SPT) in this material produced "N" values in the range 14 to 27, indicating predominately medium dense soil.

The sand stratum was underlain by grey sandy GRAVEL with cobbles and occasional boulders. Standard Penetration Tests (SPT) in this material were typically in excess of 40, indicating dense and very dense soils. These coarse deposits persisted to depths in the range 9.9 to 10.5 m BGL.

The underlying deposits consisted of grey/black gravelly CLAY containing cobbles and boulders. This is glacial till, commonly referred to as "Dublin Black Boulder Clay". SPT "N" values in the range 40 to 50 (locally "refusal") were indicative of very stiff to hard soils. All boreholes terminated on obstructions within these deposits at depths in the range 13.5 to 14.1 m BGL.

4.2 Rotary Coreholes

The coreholes penetrated further overburden deposits to a maximum depth 20.0 m BGL. It is noted that Symmetrix "open hole" drilling does not permit accurate examination of the drilled soils, and the descriptions are based on an assessment of the highly pulverised drill returns.

Rotary corehole RC1 advanced through the base of borehole BH1 and encountered further deposits of very high strength gravelly CLAY to a depth of 18.0 m BGL. Coarse returns of sandy GRAVEL were then identified to the drilled depth of 20 m BGL.

Coreholes RC02 and RC03 terminated at a depth of 10 m BGL and the ground conditions were consistent with those encountered in the cable percussive boreholes.

4.3 Trial Pit

Trial Pit IP02 was dug in the location of window sample WS02 and penetrated a surfacing of concrete and Made Ground to a depth of 0.8 m BGL. The Made Ground consisted of sandy gravelly clay containing fragments of red brick.

Similar to the cable percussive boreholes, the underlying natural soils comprised gravelly SAND to the excavated depth of 2.3 m BGL.

4.4 Window Samples

The window samples were driven to depths of 3 and 4 m BGL in order to retrieve samples for environmental analysis.

While WS01 terminated within gravelly SAND at 3.0 m BGL, WS02 encountered coarser gravelly soils between 2.7 m and the final depth of 4 m BGL.

4.5 Groundwater

Groundwater strikes were recorded in all boreholes during drilling, at depths in the range 2.8 to 4.3 m BGL. The rates of ingress were assessed as Moderate or Rapid and the water levels rose to depths of between 1.3 and 1.6 m BGL during the subsequent 20-minute monitoring period.

Continuous groundwater monitoring using dataloggers showed that the water levels remained relatively static during the 21-day monitoring period, with total variations limited to approximately 100 to 120 mm.

The groundwater levels at each corehole are summarised on the following table.

Corehole No.	Water Depth Range over 21 Days (m BGL)
RC01	1.67 – 1.77
RC02	1.88 – 1.98
RC03	2.48 - 2.60

4.6 Environmental Site Observations

With the exception of one instance near ground surface, no hydrocarbon odours were identified during the fieldwork period.

Hydrocarbon odours were noted in a sample recovered from shallow depth in BH02 and subsequent environmental analysis has confirmed the presence of elevated Mineral Oil. However, the underlying natural soils emitted no odours and, significantly, the sample from 1.0 m BGL also showed no evidence of hydrocarbon contamination.

There were no hydrocarbon odours sensed from groundwater samples and no elevated hydrocarbons were detected within the tested samples.

5.0 Structural Foundations

While the exact locations and geometries of the proposed new structures are not yet finalised, it is understood that the development will include a basement.

The exploratory holes have revealed deposits of silty sand overlying dense sandy gravels at depths of between 3.4 and 4.7 m BGL. Assuming a basement dig level of c.4m, it is suggested that the coarse gravel soils are utilised to support the structural foundations. Based on the results of SPTs, an allowable bearing pressure of the order of 250 kPa could be readily assumed.

Groundwater will be an important consideration when constructing the new basement. Adopting the shallowest observed groundwater level of c.1.5 m BGL, this implies a net uplift pressure (buoyancy) of the order of 25 to 30 kPa acting on the underside of the basement floor. If the weight of the permanent structure cannot counteract this pressure, it may be necessary to install ground anchors or tension piles to resist uplift of the basement slab.

It is noted that the rate of water ingress in the boreholes was described as “moderate” or “rapid”. This would be typical of coarse grained (sand or gravel) soils. Provision should therefore be made for groundwater control during excavation of the basement. Consideration should be given to a secant piled retaining wall as a means of providing temporary ground retention, which could be toed into the basal boulder clay soils in order to create a seal, thereby significantly reducing the flow of water into the excavation.

6.0 Environmental Considerations

6.1 Soils Remaining on Site

In-situ contamination levels have been interpreted using guidance published by Land Quality Management (LQM) and the Chartered Institute of Environmental Health (CIEH) entitled *"The LQM/CIEH S4ULs for Human Health Risk Assessment"*. IGSL Limited refer to this publication with specific permission from LQM (Publication Number S4UL3745).

The LQM/CIEH S4ULs ('Suitable For Use Levels) are derived from the Contaminated Land Exposure Assessment (CLEA) software produced the Environment Agency.

The LQM/CIEH S4Uls provide generic assessment criteria (GAC) based on minimal or tolerable risk that are intended to be protective of human health for individual or mixtures of substances.

It is noted that there are currently no S4ULs for Lead. Reference is instead made to the Category 4 Screening Levels (CS4Ls) as published by DEFRA. C4SLs have been published for six contaminants, of which Lead is one.

Exceedance of an S4UL or a C4SL implies that an unacceptable human health risk may be present, requiring either further site-specific risk assessment or intervention (remedial) works.

S4ULs and C4SLs are set according to the proposed end use of the land. Since the end-use of these sites is yet to be confirmed, the results of the contamination test results in this report were conservatively compared against the *"Residential without home grown produce"* S4ULs.

The results show that all samples adhered to their respective S4ULs and could therefore remain on site without posing a threat to human health. It is noted that if the proposed development is commercial or industrial, the S4ULs are less stringent and would therefore also be satisfied.

6.2 Soils Destined for Landfill

The results of the RILTA Suite are typically compared with the European limits for inert landfills as set out in the European Council Decision 2003/33/EC Establishing Criteria and Procedures for the Acceptance of Waste at Landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC.

Where the results of the RILTA Suite fall below the inert landfill limits for all substances, the sample would be expected to be accepted as inert waste, providing it is classified as non-hazardous waste. Classification of samples as hazardous or non-hazardous does not form part of this report, but this process can be carried out by an environmental specialist using the results of the RILTA Suite.

The results show that 8 of the 9 samples tested fully complied with the inert landfill limits. The exception to this was a sample from BH02 (0.3 m depth) which exceeded the inert limits for Mineral Oil, Total Organic Carbon (TOC), Total Dissolved Solids (TDS) and Dissolved Sulphate. As discussed in Section 4.6, hydrocarbon odours were noted within the near-surface soils at this location and these results are not unexpected.
Due to the significantly elevated levels of Mineral Oil, Sulphate and TDS in this sample, it is unlikely to be accepted by an inert landfill, even one with a licence to accept increased limits. This

material will require delineation and segregation on site and disposal to an alternative waste receptor.

It is noted that the underlying natural soils at BH02 emitted no odours and, significantly, the sample from 1.0 m BGL fully complied with the inert landfill limits. This suggests that the contaminants at BH02 are associated with the thin layer of Made Ground beneath the hardcore fill and confined to the upper 0.5 metres. Segregation of this material will minimise the disposal costs and should be a relatively straightforward process during site groundworks.

6.3 Groundwater Analyses

Groundwater samples were obtained from each standpipe and tested for the presence of pollutants. There were no hydrocarbon odours observed during procurement of the samples and no hydrocarbons were detected within the tested specimens.

7.0 Conclusions

7.1 The site is underlain by granular soils, with medium dense sands overlying dense gravels. The inclusion of a basement suggests that the gravel soils will be utilised as a founding medium

7.2 The results of environmental analyses have uncovered no instances of hydrocarbon contamination with the exception of one which was shown to be confined to the upper 0.5m. This is likely the result of a spill or leakage at ground surface level. Significantly, here was no evidence of a significant hydrocarbon presence at depth in any of the exploratory holes. Any near-surface “hot spots” such as the one encountered can be delineated and removed during site groundworks. Since a basement is proposed, this implies that the near-surface soils will be removed from site, thereby also removing any surface “hot spots”.

7.3 The excavation of a basement will result in the generation of a significant quantity of surplus soil. With the exception of the aforementioned near-surface sample, the results show that the excavated soils should be suitable for disposal to an inert landfill. If required, the results contained in this report can also be used to generate a Waste Classification Report, which may be requested by the chosen landfill. It is noted that, depending on the extent and depth of the proposed basement, the landfill may require additional sampling and testing to satisfy the sampling frequency (i.e. number of samples per unit volume excavated) required by their particular landfill licence.

8.0 References

1. BS 5930:1999 +A2:2010 Code of Practice for Site Investigations; British Standards Institute

2. Manual of Contract Documents for Highway Works, Volume 5, Section 3, Ground Investigation, Part 4: Specification

3. BRE Special Digest 1: 2005 – Concrete in aggressive ground

4. EN 1997-3; Eurocode 7: Geotechnical Design – Part 3: Design assisted by field testing; 1997

5. BS1377; British Standard Methods of Test for Soils for Civil Engineering Purposes; British Standards Institute;1990.

6. BRE Digest 365, September 1991, British Research Establishment

7. Manual of Contract Documents for Road Works, Volume 1: Specification for Road Works (March 2007)

8. Manual of Soil Laboratory Testing, Volume 3; K.H. Head

9. ISRM – Suggested Methods for Determining Point Load Strength

10. ISRM – Suggested Methods for Determining the Uniaxial Compressive Strength and Deformability of Rock Materials

11. TRL Report 447- Sulphate specification for structural backfills

Appendix 1

Cable Percussive Boreholes

GEOTECHNICAL BORING RECORD

REPORT NUMBER 22430

CONTRACT	Maxol - Beach Road , Sandymount , Dublin 4	**BOREHOLE NO.**	**BH01**
		SHEET	Sheet 1 of 2
CO-ORDINATES	**RIG TYPE** Dando 2000	**DATE COMMENCED**	02/03/2020
	BOREHOLE DIAMETER (mm) 200	**DATE COMPLETED**	04/03/2020
GROUND LEVEL (m AOD)	**BOREHOLE DEPTH (m)** 13.50		
CLIENT Maxol Group	**SPT HAMMER REF. NO.**	**BORED BY**	W.Cahill
ENGINEER Punch Consulting Engineers	**ENERGY RATIO (%)**	**PROCESSED BY**	F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	TARMACADAM			0.10						
	MADE GROUND (Comprised of CL.804 stone fill)			0.40						
	Dark brown sndy SILT/CLAY with some gravel			0.90						
1	Medium dense light brown slightly silty SAND with some gravel and shells				AA135612	ENV B	1.00 1.00		N = 17 (3, 3, 4, 4, 5, 4)	
2					AA135613	ENV B	2.00 2.00		N = 27 (4, 6, 6, 6, 7, 8)	
3				3.40	AA135614	ENV B	3.00 3.00		N = 33 (5, 6, 7, 7, 9, 10)	
	Dense grey fine to coarse sandy GRAVEL with some cobbles and occasional boulders									
4					AA135615	ENV B	4.00 4.00		N = 41 (6, 6, 7, 9, 11, 14)	
5					AA135616	B	5.00		N = 48 (6, 9, 9, 10, 15, 14)	
6					AA135617	B	6.00		N = 50 (7, 7, 12, 13, 14, 11)	
7					AA135618	B	7.00		N = 50 (6, 5, 10, 12, 17, 11)	
8					AA135619	B	8.00		N = 39 (9, 14, 9, 8, 10, 12)	
9					AA135620	B	9.00		N = 50/150 mm (12, 15, 19, 31)	
				9.90						

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
7.2	7.5	1.5	
8.9	9.1	0.75	
13.2	13.2	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.80	2.80	11.00	1.30	20	Rapid

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
03-03-20			1.20	Start of 2nd Day
04-03-20			0.90	Start of 3rd Day

REMARKS CAT scanned location and hand dug inspection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 22430.GPJ IGSL.GDT 18/3/20

GEOTECHNICAL BORING RECORD

REPORT NUMBER 22430

CONTRACT	Maxol - Beach Road , Sandymount , Dublin 4	**BOREHOLE NO.**	**BH01**
		SHEET	Sheet 2 of 2
CO-ORDINATES		**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (m AOD)		**BOREHOLE DEPTH (m)**	13.50
		DATE COMMENCED	02/03/2020
		DATE COMPLETED	04/03/2020
CLIENT	Maxol Group	**SPT HAMMER REF. NO.**	
		BORED BY	W.Cahill
ENGINEER	Punch Consulting Engineers	**ENERGY RATIO (%)**	
		PROCESSED BY	F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
10	Very stiff dark brown sandy gravelly SILT/CLAY *(continued)*			10.60	AA135621	B	10.00		N = 36 (6, 5, 7, 11, 8, 10)	
11	Very stiff to hard black sandy gravelly CLAY with cobbles and occasional boulders				AA135622	B	11.00		N = 45 (6, 8, 10, 10, 11, 14)	
12					AA135623	B	12.00		N = 52 (9, 11, 13, 12, 14, 13)	
13				13.50	AA135624	B	13.00		N = 50/150 mm (12, 16, 17, 33)	
14	Obstruction End of Borehole at 13.50 m									
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
7.2	7.5	1.5	
8.9	9.1	0.75	
13.2	13.2	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inspection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 22430.GPJ IGSL.GDT 18/3/20

GEOTECHNICAL BORING RECORD

REPORT NUMBER 22430

CONTRACT	Maxol - Beach Road , Sandymount , Dublin 4	**BOREHOLE NO.**	**BH02**
		SHEET	Sheet 1 of 2
CO-ORDINATES		**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (m AOD)		**BOREHOLE DEPTH (m)**	13.70
		DATE COMMENCED	05/03/2020
		DATE COMPLETED	06/03/2020
CLIENT	Maxol Group	**SPT HAMMER REF. NO.**	
		BORED BY	W.Cahill
ENGINEER	Punch Consulting Engineers	**ENERGY RATIO (%)**	
		PROCESSED BY	F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	TARMACADAM			0.10						
	MADE GROUND (Comprised of CL.804 stone fill)			0.30	AA1709	ENV	0.30			
	MADE GROUND (Comprised of gravel and ash fill)			0.50						
1	Medium dense light and dark brown slightly silty SAND with occasional gravel and shells				AA135625	B	1.00		N = 14 (2, 4, 4, 3, 4, 3)	
2					AA135626	B	2.00		N = 15 (3, 4, 4, 3, 4, 4)	
3				3.90	AA135627	B	3.00		N = 23 (4, 4, 6, 6, 5, 6)	
4	Medium dense grey fine to coarse slightly sandy GRAVEL			4.40	AA135628	B	4.00		N = 18 (3, 5, 5, 6, 5, 2)	
	Dense grey fine to coarse GRAVEL with some cobbles and occasional boulders									
5					AA135629	B	5.00		N = 46 (5, 6, 9, 11, 12, 14)	
6					AA135630	B	6.00		N = 44 (7, 9, 9, 10, 12, 13)	
7					AA135631	B	7.00		N = 49 (6, 8, 10, 12, 17, 10)	
8					AA135632	B	8.00		N = 60 (10, 12, 15, 19, 16, 10)	
9					AA135633	B	9.00		N = 54 (7, 9, 12, 15, 17, 10)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
9.3	9.6	1.5	
13.5	13.7	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.30	4.30	11.00	1.60	20	Moderate

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
06-03-20			0.90	Start of 2nd day

REMARKS CAT scanned location and hand dug inspection pit carried out. Hydrocarbon smell noted 0.30-1.10m.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 22430.GPJ IGSL.GDT 18/3/20

GEOTECHNICAL BORING RECORD

REPORT NUMBER 22430

CONTRACT	Maxol - Beach Road , Sandymount , Dublin 4	**BOREHOLE NO.**	**BH02**
		SHEET	Sheet 2 of 2
CO-ORDINATES	**RIG TYPE** Dando 2000	**DATE COMMENCED**	05/03/2020
	BOREHOLE DIAMETER (mm) 200	**DATE COMPLETED**	06/03/2020
GROUND LEVEL (m AOD)	**BOREHOLE DEPTH (m)** 13.70		
CLIENT Maxol Group	**SPT HAMMER REF. NO.**	**BORED BY**	W.Cahill
ENGINEER Punch Consulting Engineers	**ENERGY RATIO (%)**	**PROCESSED BY**	F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
10				10.20	AA135634	B	10.00		N = 52 (8, 10, 12, 14, 13, 13)	
	Very stiff dark brown sandy SILT/CLAY with gravel and occasional cobbles			10.90						
11	Very sttiff to hard black sandy gravelly CLAY with some cobbles and occasional boulders				AA135635	B	11.00		N = 49 (8, 10, 10, 12, 13, 14)	
12					AA135636	B	12.00		N = 54 (11, 9, 11, 14, 14, 15)	
13					AA135637	B	13.00		N = 51 (10, 11, 12, 13, 13, 13)	
				13.70						
14	Obstruction End of Borehole at 13.70 m									
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
9.3	9.6	1.5	
13.5	13.7	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inspection pit carried out. Hydrocarbon smell noted 0.30-1.10m.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 22430.GPJ IGSL.GDT 18/3/20

GEOTECHNICAL BORING RECORD

REPORT NUMBER 22430

CONTRACT	Maxol - Beach Road , Sandymount , Dublin 4	**BOREHOLE NO.**	**BH03**
		SHEET	Sheet 1 of 2
CO-ORDINATES	**RIG TYPE** Dando 2000	**DATE COMMENCED**	09/03/2020
	BOREHOLE DIAMETER (mm) 200	**DATE COMPLETED**	11/03/2020
GROUND LEVEL (m AOD)	**BOREHOLE DEPTH (m)** 14.10		
CLIENT Maxol Group	**SPT HAMMER REF. NO.**	**BORED BY**	W.Cahill
ENGINEER Punch Consulting Engineers	**ENERGY RATIO (%)**	**PROCESSED BY**	F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	Reinforced CONCRETE			0.20						
	MADE GROUND (Comprised of CL.804 stone fill)			0.40						
	Dark brown sandy SILT/CLAY with some gravel and occasional cobbles			0.70						
1	Medium dense light brown slightly gravelly SAND with some shells				AA130551	B	1.00		N = 19 (3, 4, 4, 5, 4, 6)	
2					AA130552	B	2.00		N = 22 (4, 4, 5, 6, 5, 6)	
3					AA130553	B	3.00		N = 20 (3, 4, 4, 5, 5, 6)	
4					AA130554	B	4.00		N = 22 (4, 4, 5, 5, 6, 6)	
				4.70						
5	Medium dense grey fine to coarse silty sandy GRAVEL with occasional cobbles				AA130555	B	5.00		N = 28 (3, 4, 6, 8, 5, 9)	
				5.90						
6	dense grey fine to coarse sandy GRAVEL with frequent cobbles				AA130556	B	6.00		N = 43 (6, 8, 8, 9, 12, 14)	
7					AA130557	B	7.00		N = 45 (7, 7, 9, 11, 12, 13)	
8					AA130558	B	8.00		N = 50 (8, 11, 11, 12, 16, 11)	
9					AA130559	B	9.00		N = 50/150 mm (12, 13, 27, 23)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
7.3	7.6	1.5	
8.7	8.9	0.5	
13.6	13.8	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.20	4.20	10.20	1.60	20	Moderate

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inspection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 22430.GPJ IGSL.GDT 18/3/20

GEOTECHNICAL BORING RECORD

REPORT NUMBER 22430

CONTRACT	Maxol - Beach Road , Sandymount , Dublin 4	**BOREHOLE NO.**	**BH03**
		SHEET	Sheet 2 of 2
CO-ORDINATES	**RIG TYPE** Dando 2000	**DATE COMMENCED**	09/03/2020
GROUND LEVEL (m AOD)	**BOREHOLE DIAMETER (mm)** 200 **BOREHOLE DEPTH (m)** 14.10	**DATE COMPLETED**	11/03/2020
CLIENT Maxol Group	**SPT HAMMER REF. NO.**	**BORED BY**	W.Cahill
ENGINEER Punch Consulting Engineers	**ENERGY RATIO (%)**	**PROCESSED BY**	F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
10	dense grey fine to coarse sandy GRAVEL with frequent cobbles *(continued)*			10.50	AA130560	B	10.00		N = 49 (6, 7, 9, 12, 13, 15)	
11	very stiff dark brown sandy gravelly SILT/CLAY with some cobbles and occasional boulders			11.30	AA130561	B	11.00		N = 47 (8, 12, 12, 13, 11, 11)	
12	Very stiff to hard black sandy gravelly CLAY with some cobbles and boulders				AA130562	B	12.00		N = 62 (10, 9, 12, 15, 19, 16)	
13					AA130563	B	13.00		N = 54 (10, 11, 14, 15, 10, 15)	
14				14.10						
	Obstruction End of Borehole at 14.10 m									
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
7.3	7.6	1.5	
8.7	8.9	0.5	
13.6	13.8	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inspection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 22430.GPJ IGSL.GDT 18/3/20

Appendix 2

Rotary Corehole Records

GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER 22430

CONTRACT	MAXOL - Beach Road , Sandymount	**DRILLHOLE NO**	**RC01**
		SHEET	Sheet 1 of 2
CO-ORDINATES		**DATE COMMENCED**	25/03/2020
GROUND LEVEL (mOD)		**DATE COMPLETED**	25/03/2020
CLIENT	Maxol Group	**DRILLED BY**	IGSL
ENGINEER	Punch Consulting Engineers	**LOGGED BY**	D.O'Shea
RIG TYPE	Geo405		
FLUSH	Air/Mist		
INCLINATION (deg)	-90		
CORE DIAMETER (mm)	78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0								Hole Opened by Shell & Auger - See log BH				
1	1.50	0	0	0								
2		0	0	0								
3	3.00	0	0	0								
4	4.50	0	0	0								
5		0	0	0								
6	6.00	0	0	0								
7	7.50	0	0	0								
8		0	0	0								
9	9.00	0	0	0								

REMARKS

Hole cased 0.00-20.00m

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.70	2.70	N/S			Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
25-03-20	20.00	2.00	20.00	50mm SP

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

IGSL RC FI 10M 22430.GPJ IGSL.GDT 15/4/20

GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER 22430

CONTRACT	MAXOL - Beach Road , Sandymount	**DRILLHOLE NO**	**RC01**
		SHEET	Sheet 2 of 2
CO-ORDINATES		**DATE COMMENCED**	25/03/2020
GROUND LEVEL (mOD)		**DATE COMPLETED**	25/03/2020
CLIENT	Maxol Group	**DRILLED BY**	IGSL
ENGINEER	Punch Consulting Engineers	**LOGGED BY**	D.O'Shea
RIG TYPE	Geo405		
FLUSH	Air/Mist		
INCLINATION (deg)	-90		
CORE DIAMETER (mm)	78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50							Hole Opened by Shell & Auger - See log BH *(continued)*	10.50			
11	12.00	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy gravelly CLAY with occasional cobbles				N = 43 (3, 5, 7, 10, 12, 14)
12	13.50	0	0	0								N = 33 (2, 3, 7, 7, 8, 11)
13	15.00	0	0	0								N = 45 (2, 7, 8, 12, 14, 11)
14	16.50	0	0	0								N = 47 (4, 8, 8, 17, 10, 12)
15	18.00	0	0	0								N = 25/2 mm (25, 25)
16									18.00			
17	19.50	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				N = 29 (3, 7, 7, 6, 9, 7)
18	20.00	0	0	0					20.00			N = 33 (2, 4, 11, 7, 9, 6)
19												

REMARKS

Hole cased 0.00-20.00m

End of Borehole at 20.00 m

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.70	2.70	N/S			Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
25-03-20	20.00	2.00	20.00	50mm SP

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
25-03-20	20.00	20.00	8.90	Water level recorded 10mins after end of drilling

IGSL_RC FI 10M 22430.GPJ IGSL.GDT 15/4/20

GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER 22430

CONTRACT	MAXOL - Beach Road , Sandymount	**DRILLHOLE NO**	**RC02**
		SHEET	Sheet 1 of 1
CO-ORDINATES		**DATE COMMENCED**	26/03/2020
GROUND LEVEL (mOD)		**DATE COMPLETED**	26/03/2020
CLIENT	Maxol Group	**DRILLED BY**	IGSL
ENGINEER	Punch Consulting Engineers	**LOGGED BY**	D.O'Shea
RIG TYPE	Geo405		
FLUSH	Air/Mist		
INCLINATION (deg)	-90		
CORE DIAMETER (mm)	78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0								SYMMETRIX DRILLING: No recovery, observed by driller as returns of SAND				
1		0	0	0								
	1.50											
2		0	0	0								
	3.00								3.00			
3		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
4	4.50											
5		0	0	0								
	6.00											
6		0	0	0								
7	7.50											
8		0	0	0								
	9.00											
9		0	0	0								
	10.00								10.00			

REMARKS

Hole cased 0.00-10.00m

End of Borehole at 10.00 m

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.40	2.40	N/S			Slow

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
26-03-20	10.00	10.00	2.60	Water level recorded 10mins after end of drilling

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
26-03-20	10.00	1.00	10.00	50mm SP

IGSL_RC FI 10M 22430.GPJ IGSL.GDT 15/4/20

GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER 22430

CONTRACT	MAXOL - Beach Road , Sandymount	**DRILLHOLE NO**	**RC03**
		SHEET	Sheet 1 of 1
CO-ORDINATES		**DATE COMMENCED**	27/03/2020
GROUND LEVEL (mOD)		**DATE COMPLETED**	27/03/2020
CLIENT	Maxol Group	**DRILLED BY**	IGSL
ENGINEER	Punch Consulting Engineers	**LOGGED BY**	D.O'Shea
		RIG TYPE	Geo405
		FLUSH	Air/Mist
		INCLINATION (deg)	-90
		CORE DIAMETER (mm)	78

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm) 0 250 500	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0												
1	1.50	0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
2	3.00	0	0	0					3.00			
3		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of SAND				
4	4.50											
5	6.00	0	0	0								
6		0	0	0								
7	7.50								7.50			
8		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of sandy GRAVEL				
9	9.00	0	0	0								
	10.00								10.00			

REMARKS

Hole cased 0.00-10.00m

End of Borehole at 10.00 m

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.80	2.80	N/S			Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
27-03-20	10.00	1.00	10.00	50mm SP

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
27-03-20	10.00	10.00	2.50	Water level recorded 10mins after end of drilling

IGSL RC FI 10M 22430.GPJ IGSL.GDT 15/4/20

Appendix 3

Trial Pit Record

TRIAL PIT RECORD

REPORT NUMBER 22430

CONTRACT	MAXOL - Beach Road , Sandymount,Dublin 4	**TRIAL PIT NO.**	**IP02**
		SHEET	Sheet 1 of 1
LOGGED BY	F.C	**CO-ORDINATES**	
		DATE STARTED	28/02/2020
		DATE COMPLETED	28/02/2020
CLIENT	Maxol Group	**GROUND LEVEL (m)**	
ENGINEER	Punch Consulting Engineers	**EXCAVATION METHOD**	

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Reinforced CONCRETE		0.15							
MADE GROUND (Comprised of sandy gravelly clay fill with red brick fragments)		0.80							
Brown very gravelly SAND (Possibly Made Ground)					AA116868	B	1.00		
2.0					AA116869	B	2.00		
End of Trial Pit at 2.30m		2.30							
3.0									
4.0									

Groundwater Conditions
Water ingress at 2.30m

Stability

General Remarks

Appendix 4

Window Sample Records

WINDOW SAMPLE RECORD

REPORT NUMBER 22430

CONTRACT MAXOL - Beach Road , Sandymount,Dublin 4

PROBE NO. **WS01**

SHEET Sheet 1 of 1

CO-ORDINATES

GROUND LEVEL (mOD)

DATE COMMENCED 28/02/2020

DATE COMPLETED 28/02/2020

CLIENT Maxol Group

ENGINEER Punch Consulting Engineers

SAMPLED BY C.Kavanagh

LOGGED BY F.C

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Concrete/tarmacadam									
	MADE GROUND (Comprised of black/grey sand and gravel fill with red brick)		0.20			0.60-0.60				
1.0	Light brown fine to medium SAND with shells		0.90							
2.0										
	Medium dense brown SAND with occasional fine gravel		2.70							
3.0	Final Depth 3.00m		3.00							
4.0										
5.0										

General Remarks

Installations

WINDOW SAMPLE RECORD

REPORT NUMBER 22430

CONTRACT MAXOL - Beach Road , Sandymount,Dublin 4

PROBE NO. **WS02**

SHEET Sheet 1 of 1

CO-ORDINATES

GROUND LEVEL (mOD)

DATE COMMENCED 28/02/2020

DATE COMPLETED 28/02/2020

CLIENT Maxol Group

ENGINEER Punch Consulting Engineers

SAMPLED BY C.Kavanagh

LOGGED BY F.C

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	Inspection Pit									
1.0	Light brown slightly gravelly SAND with some shells		1.20							
2.0	Dark brown slightly gravelly silty SAND with shells		2.20							
	Dark grey silty SAND with occasional rootlets		2.60			2.60-2.70				
	Dark grey sandy fine to medium GRAVEL		2.70							
3.0						3.50-4.00				
4.0	Final Depth 4.00m		4.00							
5.0										

General Remarks

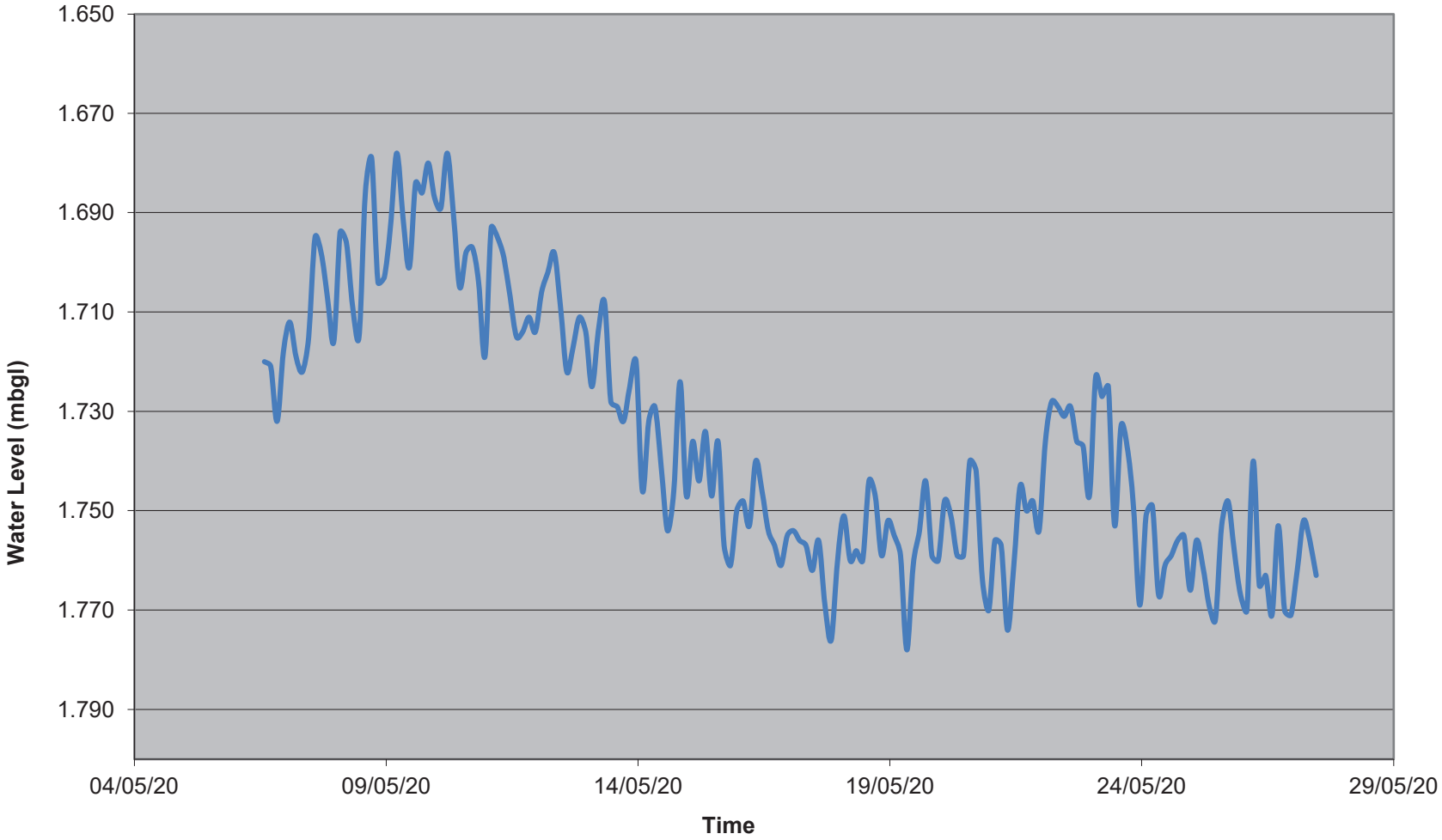
Installations

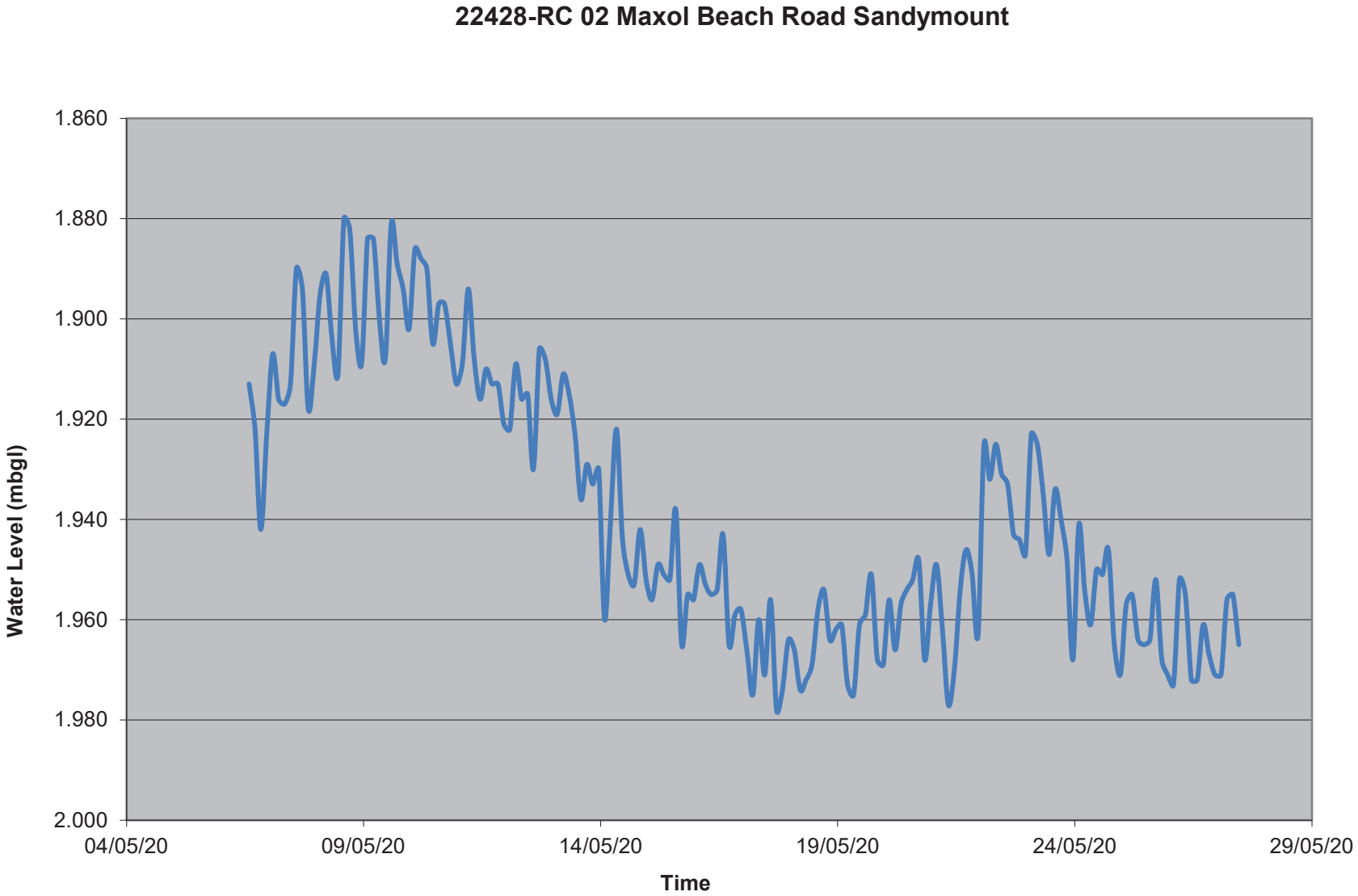
IGSL WS LOG 22430.GPJ IGSL.GDT 8/7/20

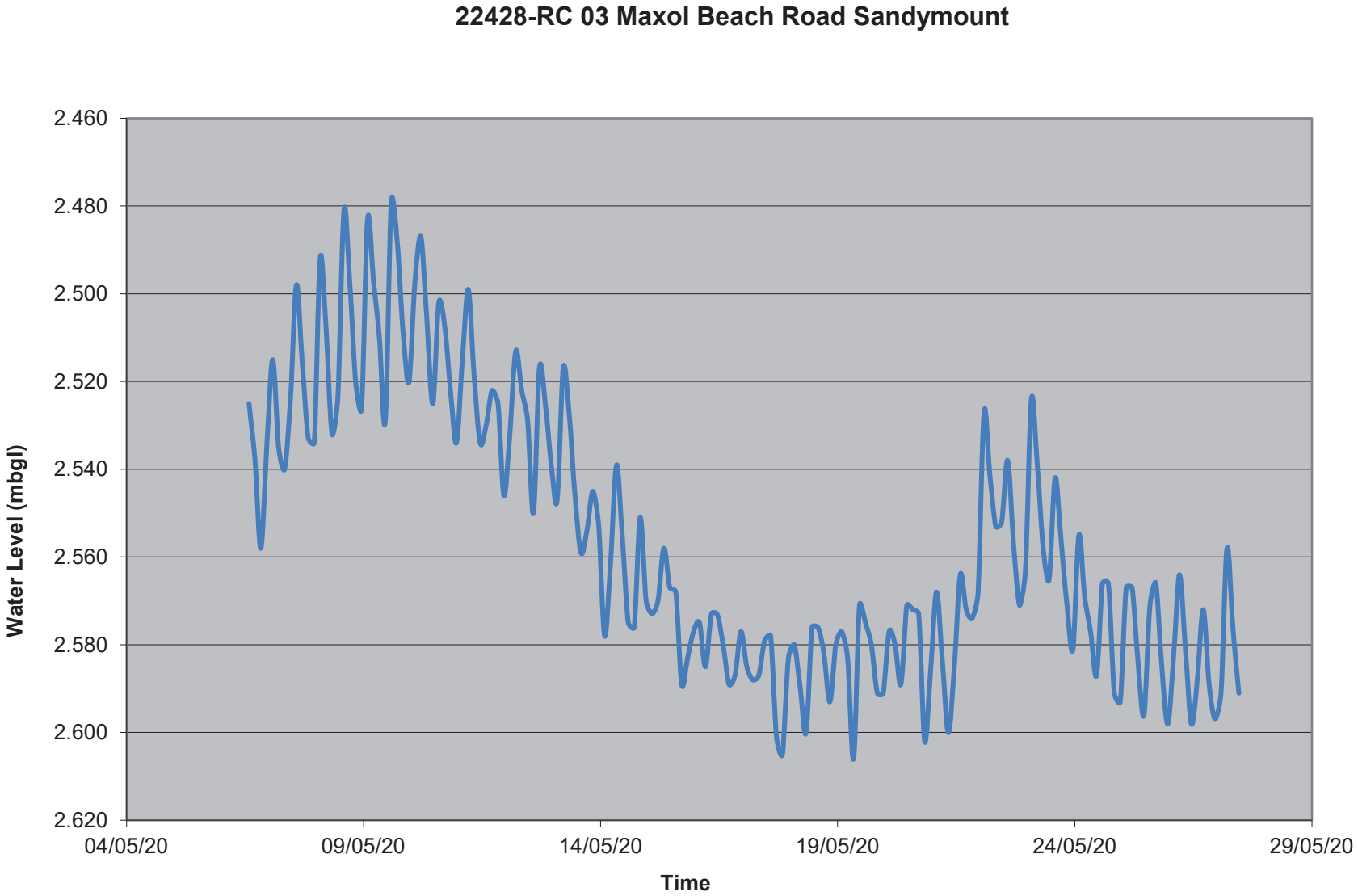
Appendix 5

Groundwater Monitoring

22428-RC 01 Maxol Beach Road Sandymount




22428-RC 02 Maxol Beach Road Sandymount
Water Level (mbgl)
1.860
1.880
1.900
1.920
1.940
1.960
1.980
2.000
04/05/20
09/05/20
14/05/20
19/05/20
24/05/20
29/05/20
Time


22428-RC 03 Maxol Beach Road Sandymount
Water Level (mbgl)
2.460
2.480
2.500
2.520
2.540
2.560
2.580
2.600
2.620
04/05/20
09/05/20
14/05/20
19/05/20
24/05/20
29/05/20
Time

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC01**
Serial No.	**430436**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	**06/05/2020 14:00**	12.592	1.720	
2	**06/05/2020 17:00**	12.540	1.721	
3	**06/05/2020 20:00**	12.540	1.732	
4	**06/05/2020 23:00**	12.592	1.718	
5	**07/05/2020 02:00**	12.592	1.712	
6	**07/05/2020 05:00**	12.540	1.719	
7	**07/05/2020 08:00**	12.540	1.722	
8	**07/05/2020 11:00**	12.540	1.715	
9	**07/05/2020 14:00**	12.540	1.695	
10	**07/05/2020 17:00**	12.540	1.698	
11	**07/05/2020 20:00**	12.540	1.707	
12	**07/05/2020 23:00**	12.592	1.716	
13	**08/05/2020 02:00**	12.592	1.694	
14	**08/05/2020 05:00**	12.540	1.696	
15	**08/05/2020 08:00**	12.540	1.709	
16	**08/05/2020 11:00**	12.540	1.715	
17	**08/05/2020 14:00**	12.592	1.686	
18	**08/05/2020 17:00**	12.540	1.679	
19	**08/05/2020 20:00**	12.540	1.704	
20	**08/05/2020 23:00**	12.540	1.703	
21	**09/05/2020 02:00**	12.540	1.693	
22	**09/05/2020 05:00**	12.540	1.678	
23	**09/05/2020 08:00**	12.540	1.691	
24	**09/05/2020 11:00**	12.540	1.701	
25	**09/05/2020 14:00**	12.540	1.684	
26	**09/05/2020 17:00**	12.540	1.686	
27	**09/05/2020 20:00**	12.540	1.680	
28	**09/05/2020 23:00**	12.488	1.687	
29	**10/05/2020 02:00**	12.540	1.689	
30	**10/05/2020 05:00**	12.540	1.678	
31	**10/05/2020 08:00**	12.540	1.690	
32	**10/05/2020 11:00**	12.540	1.705	
33	**10/05/2020 14:00**	12.540	1.698	
34	**10/05/2020 17:00**	12.540	1.697	
35	**10/05/2020 20:00**	12.488	1.704	
36	**10/05/2020 23:00**	12.540	1.719	
37	**11/05/2020 02:00**	12.540	1.693	
38	**11/05/2020 05:00**	12.540	1.695	
39	**11/05/2020 08:00**	12.540	1.699	
40	**11/05/2020 11:00**	12.540	1.707	
41	**11/05/2020 14:00**	12.540	1.715	
42	**11/05/2020 17:00**	12.540	1.714	
43	**11/05/2020 20:00**	12.540	1.711	
44	**11/05/2020 23:00**	12.540	1.714	
45	**12/05/2020 02:00**	12.540	1.706	
46	**12/05/2020 05:00**	12.592	1.702	
47	**12/05/2020 08:00**	12.540	1.698	
48	**12/05/2020 11:00**	12.540	1.709	
49	**12/05/2020 14:00**	12.488	1.722	
50	**12/05/2020 17:00**	12.540	1.717	
51	**12/05/2020 20:00**	12.488	1.711	
52	**12/05/2020 23:00**	12.488	1.714	
53	**13/05/2020 02:00**	12.488	1.725	
54	**13/05/2020 05:00**	12.488	1.714	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC01**
Serial No.	**430436**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	**13/05/2020 08:00**	12.488	1.708	
56	**13/05/2020 11:00**	12.540	1.728	
57	**13/05/2020 14:00**	12.540	1.729	
58	**13/05/2020 17:00**	12.540	1.732	
59	**13/05/2020 20:00**	12.488	1.725	
60	**13/05/2020 23:00**	12.488	1.720	
61	**14/05/2020 02:00**	12.488	1.746	
62	**14/05/2020 05:00**	12.488	1.732	
63	**14/05/2020 08:00**	12.488	1.729	
64	**14/05/2020 11:00**	12.540	1.741	
65	**14/05/2020 14:00**	12.488	1.754	
66	**14/05/2020 17:00**	12.540	1.746	
67	**14/05/2020 20:00**	12.488	1.724	
68	**14/05/2020 23:00**	12.488	1.747	
69	**15/05/2020 02:00**	12.488	1.736	
70	**15/05/2020 05:00**	12.540	1.744	
71	**15/05/2020 08:00**	12.488	1.734	
72	**15/05/2020 11:00**	12.488	1.747	
73	**15/05/2020 14:00**	12.488	1.736	
74	**15/05/2020 17:00**	12.488	1.757	
75	**15/05/2020 20:00**	12.540	1.761	
76	**15/05/2020 23:00**	12.540	1.750	
77	**16/05/2020 02:00**	12.540	1.748	
78	**16/05/2020 05:00**	12.488	1.753	
79	**16/05/2020 08:00**	12.488	1.740	
80	**16/05/2020 11:00**	12.488	1.746	
81	**16/05/2020 14:00**	12.488	1.754	
82	**16/05/2020 17:00**	12.488	1.757	
83	**16/05/2020 20:00**	12.488	1.761	
84	**16/05/2020 23:00**	12.488	1.755	
85	**17/05/2020 02:00**	12.488	1.754	
86	**17/05/2020 05:00**	12.488	1.756	
87	**17/05/2020 08:00**	12.488	1.757	
88	**17/05/2020 11:00**	12.488	1.762	
89	**17/05/2020 14:00**	12.488	1.756	
90	**17/05/2020 17:00**	12.488	1.769	
91	**17/05/2020 20:00**	12.488	1.776	
92	**17/05/2020 23:00**	12.488	1.760	
93	**18/05/2020 02:00**	12.488	1.751	
94	**18/05/2020 05:00**	12.488	1.760	
95	**18/05/2020 08:00**	12.488	1.758	
96	**18/05/2020 11:00**	12.488	1.760	
97	**18/05/2020 14:00**	12.488	1.744	
98	**18/05/2020 17:00**	12.436	1.747	
99	**18/05/2020 20:00**	12.488	1.759	
100	**18/05/2020 23:00**	12.488	1.752	
101	**19/05/2020 02:00**	12.488	1.755	
102	**19/05/2020 05:00**	12.488	1.759	
103	**19/05/2020 08:00**	12.488	1.778	
104	**19/05/2020 11:00**	12.488	1.761	
105	**19/05/2020 14:00**	12.488	1.754	
106	**19/05/2020 17:00**	12.488	1.744	
107	**19/05/2020 20:00**	12.488	1.759	
108	**19/05/2020 23:00**	12.488	1.760	
109	**20/05/2020 02:00**	12.488	1.748	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC01**
Serial No.	**430436**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	**20/05/2020 05:00**	12.488	1.751	
111	**20/05/2020 08:00**	12.488	1.759	
112	**20/05/2020 11:00**	12.488	1.759	
113	**20/05/2020 14:00**	12.436	1.740	
114	**20/05/2020 17:00**	12.488	1.742	
115	**20/05/2020 20:00**	12.436	1.764	
116	**20/05/2020 23:00**	12.436	1.770	
117	**21/05/2020 02:00**	12.436	1.756	
118	**21/05/2020 05:00**	12.488	1.757	
119	**21/05/2020 08:00**	12.488	1.774	
120	**21/05/2020 11:00**	12.488	1.761	
121	**21/05/2020 14:00**	12.488	1.745	
122	**21/05/2020 17:00**	12.436	1.750	
123	**21/05/2020 20:00**	12.488	1.748	
124	**21/05/2020 23:00**	12.488	1.754	
125	**22/05/2020 02:00**	12.488	1.736	
126	**22/05/2020 05:00**	12.436	1.728	
127	**22/05/2020 08:00**	12.488	1.729	
128	**22/05/2020 11:00**	12.488	1.731	
129	**22/05/2020 14:00**	12.436	1.729	
130	**22/05/2020 17:00**	12.488	1.736	
131	**22/05/2020 20:00**	12.488	1.737	
132	**22/05/2020 23:00**	12.436	1.747	
133	**23/05/2020 02:00**	12.488	1.723	
134	**23/05/2020 05:00**	12.488	1.727	
135	**23/05/2020 08:00**	12.488	1.725	
136	**23/05/2020 11:00**	12.436	1.753	
137	**23/05/2020 14:00**	12.436	1.733	
138	**23/05/2020 17:00**	12.436	1.737	
139	**23/05/2020 20:00**	12.436	1.749	
140	**23/05/2020 23:00**	12.436	1.769	
141	**24/05/2020 02:00**	12.436	1.751	
142	**24/05/2020 05:00**	12.436	1.749	
143	**24/05/2020 08:00**	12.436	1.767	
144	**24/05/2020 11:00**	12.488	1.761	
145	**24/05/2020 14:00**	12.488	1.759	
146	**24/05/2020 17:00**	12.488	1.756	
147	**24/05/2020 20:00**	12.488	1.755	
148	**24/05/2020 23:00**	12.436	1.766	
149	**25/05/2020 02:00**	12.436	1.756	
150	**25/05/2020 05:00**	12.436	1.761	
151	**25/05/2020 08:00**	12.488	1.769	
152	**25/05/2020 11:00**	12.488	1.772	
153	**25/05/2020 14:00**	12.436	1.753	
154	**25/05/2020 17:00**	12.436	1.748	
155	**25/05/2020 20:00**	12.436	1.758	
156	**25/05/2020 23:00**	12.436	1.767	
157	**26/05/2020 02:00**	12.436	1.770	
158	**26/05/2020 05:00**	12.436	1.740	
159	**26/05/2020 08:00**	12.436	1.765	
160	**26/05/2020 11:00**	12.436	1.763	
161	**26/05/2020 14:00**	12.436	1.771	
162	**26/05/2020 17:00**	12.436	1.753	
163	**26/05/2020 20:00**	12.436	1.770	
164	**26/05/2020 23:00**	12.436	1.771	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC01**
Serial No.	**430436**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	**27/05/2020 02:00**	12.436	1.762	
166	**27/05/2020 05:00**	12.436	1.752	
167	**27/05/2020 08:00**	12.436	1.756	
168	**27/05/2020 11:00**	12.436	1.763	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC02**
Serial No.	**514403**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	**06/05/2020 14:00**	12.286	1.913	
2	**06/05/2020 17:00**	12.235	1.922	
3	**06/05/2020 20:00**	12.183	1.942	
4	**06/05/2020 23:00**	12.183	1.923	
5	**07/05/2020 02:00**	12.235	1.907	
6	**07/05/2020 05:00**	12.235	1.916	
7	**07/05/2020 08:00**	12.235	1.917	
8	**07/05/2020 11:00**	12.183	1.913	
9	**07/05/2020 14:00**	12.183	1.890	
10	**07/05/2020 17:00**	12.235	1.894	
11	**07/05/2020 20:00**	12.183	1.918	
12	**07/05/2020 23:00**	12.183	1.909	
13	**08/05/2020 02:00**	12.235	1.895	
14	**08/05/2020 05:00**	12.183	1.891	
15	**08/05/2020 08:00**	12.183	1.904	
16	**08/05/2020 11:00**	12.183	1.911	
17	**08/05/2020 14:00**	12.183	1.880	
18	**08/05/2020 17:00**	12.183	1.882	
19	**08/05/2020 20:00**	12.131	1.902	
20	**08/05/2020 23:00**	12.131	1.909	
21	**09/05/2020 02:00**	12.235	1.884	
22	**09/05/2020 05:00**	12.235	1.884	
23	**09/05/2020 08:00**	12.235	1.900	
24	**09/05/2020 11:00**	12.183	1.908	
25	**09/05/2020 14:00**	12.183	1.881	
26	**09/05/2020 17:00**	12.183	1.889	
27	**09/05/2020 20:00**	12.183	1.894	
28	**09/05/2020 23:00**	12.183	1.902	
29	**10/05/2020 02:00**	12.183	1.886	
30	**10/05/2020 05:00**	12.183	1.888	
31	**10/05/2020 08:00**	12.183	1.890	
32	**10/05/2020 11:00**	12.235	1.905	
33	**10/05/2020 14:00**	12.183	1.897	
34	**10/05/2020 17:00**	12.235	1.897	
35	**10/05/2020 20:00**	12.183	1.905	
36	**10/05/2020 23:00**	12.183	1.913	
37	**11/05/2020 02:00**	12.183	1.909	
38	**11/05/2020 05:00**	12.183	1.894	
39	**11/05/2020 08:00**	12.183	1.908	
40	**11/05/2020 11:00**	12.183	1.916	
41	**11/05/2020 14:00**	12.183	1.910	
42	**11/05/2020 17:00**	12.183	1.913	
43	**11/05/2020 20:00**	12.183	1.913	
44	**11/05/2020 23:00**	12.183	1.921	
45	**12/05/2020 02:00**	12.235	1.922	
46	**12/05/2020 05:00**	12.235	1.909	
47	**12/05/2020 08:00**	12.183	1.916	
48	**12/05/2020 11:00**	12.183	1.915	
49	**12/05/2020 14:00**	12.183	1.930	
50	**12/05/2020 17:00**	12.183	1.906	
51	**12/05/2020 20:00**	12.235	1.908	
52	**12/05/2020 23:00**	12.183	1.916	
53	**13/05/2020 02:00**	12.235	1.919	
54	**13/05/2020 05:00**	12.183	1.911	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC02**
Serial No.	**514403**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	**13/05/2020 08:00**	12.183	1.915	
56	**13/05/2020 11:00**	12.183	1.923	
57	**13/05/2020 14:00**	12.183	1.936	
58	**13/05/2020 17:00**	12.183	1.929	
59	**13/05/2020 20:00**	12.183	1.933	
60	**13/05/2020 23:00**	12.183	1.930	
61	**14/05/2020 02:00**	12.183	1.960	
62	**14/05/2020 05:00**	12.235	1.940	
63	**14/05/2020 08:00**	12.183	1.922	
64	**14/05/2020 11:00**	12.183	1.944	
65	**14/05/2020 14:00**	12.235	1.951	
66	**14/05/2020 17:00**	12.183	1.953	
67	**14/05/2020 20:00**	12.235	1.942	
68	**14/05/2020 23:00**	12.183	1.952	
69	**15/05/2020 02:00**	12.235	1.956	
70	**15/05/2020 05:00**	12.183	1.949	
71	**15/05/2020 08:00**	12.235	1.951	
72	**15/05/2020 11:00**	12.183	1.952	
73	**15/05/2020 14:00**	12.235	1.938	
74	**15/05/2020 17:00**	12.183	1.965	
75	**15/05/2020 20:00**	12.183	1.955	
76	**15/05/2020 23:00**	12.183	1.956	
77	**16/05/2020 02:00**	12.183	1.949	
78	**16/05/2020 05:00**	12.183	1.953	
79	**16/05/2020 08:00**	12.183	1.955	
80	**16/05/2020 11:00**	12.183	1.954	
81	**16/05/2020 14:00**	12.183	1.943	
82	**16/05/2020 17:00**	12.183	1.965	
83	**16/05/2020 20:00**	12.183	1.959	
84	**16/05/2020 23:00**	12.235	1.958	
85	**17/05/2020 02:00**	12.183	1.966	
86	**17/05/2020 05:00**	12.183	1.975	
87	**17/05/2020 08:00**	12.183	1.960	
88	**17/05/2020 11:00**	12.183	1.971	
89	**17/05/2020 14:00**	12.183	1.956	
90	**17/05/2020 17:00**	12.183	1.978	
91	**17/05/2020 20:00**	12.235	1.974	
92	**17/05/2020 23:00**	12.183	1.964	
93	**18/05/2020 02:00**	12.183	1.966	
94	**18/05/2020 05:00**	12.235	1.974	
95	**18/05/2020 08:00**	12.183	1.972	
96	**18/05/2020 11:00**	12.183	1.969	
97	**18/05/2020 14:00**	12.183	1.958	
98	**18/05/2020 17:00**	12.183	1.954	
99	**18/05/2020 20:00**	12.183	1.964	
100	**18/05/2020 23:00**	12.183	1.962	
101	**19/05/2020 02:00**	12.183	1.961	
102	**19/05/2020 05:00**	12.183	1.973	
103	**19/05/2020 08:00**	12.183	1.975	
104	**19/05/2020 11:00**	12.183	1.961	
105	**19/05/2020 14:00**	12.183	1.959	
106	**19/05/2020 17:00**	12.183	1.951	
107	**19/05/2020 20:00**	12.183	1.968	
108	**19/05/2020 23:00**	12.183	1.969	
109	**20/05/2020 02:00**	12.235	1.956	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC02**
Serial No.	**514403**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	**20/05/2020 05:00**	12.131	1.966	
111	**20/05/2020 08:00**	12.183	1.957	
112	**20/05/2020 11:00**	12.183	1.954	
113	**20/05/2020 14:00**	12.183	1.952	
114	**20/05/2020 17:00**	12.183	1.948	
115	**20/05/2020 20:00**	12.183	1.968	
116	**20/05/2020 23:00**	12.183	1.957	
117	**21/05/2020 02:00**	12.183	1.949	
118	**21/05/2020 05:00**	12.183	1.962	
119	**21/05/2020 08:00**	12.183	1.977	
120	**21/05/2020 11:00**	12.183	1.970	
121	**21/05/2020 14:00**	12.183	1.954	
122	**21/05/2020 17:00**	12.183	1.946	
123	**21/05/2020 20:00**	12.183	1.951	
124	**21/05/2020 23:00**	12.183	1.963	
125	**22/05/2020 02:00**	12.183	1.925	
126	**22/05/2020 05:00**	12.183	1.932	
127	**22/05/2020 08:00**	12.183	1.925	
128	**22/05/2020 11:00**	12.183	1.931	
129	**22/05/2020 14:00**	12.183	1.933	
130	**22/05/2020 17:00**	12.183	1.943	
131	**22/05/2020 20:00**	12.183	1.944	
132	**22/05/2020 23:00**	12.183	1.947	
133	**23/05/2020 02:00**	12.183	1.923	
134	**23/05/2020 05:00**	12.235	1.925	
135	**23/05/2020 08:00**	12.183	1.935	
136	**23/05/2020 11:00**	12.183	1.947	
137	**23/05/2020 14:00**	12.183	1.934	
138	**23/05/2020 17:00**	12.183	1.940	
139	**23/05/2020 20:00**	12.183	1.948	
140	**23/05/2020 23:00**	12.183	1.968	
141	**24/05/2020 02:00**	12.183	1.941	
142	**24/05/2020 05:00**	12.183	1.954	
143	**24/05/2020 08:00**	12.183	1.961	
144	**24/05/2020 11:00**	12.183	1.950	
145	**24/05/2020 14:00**	12.183	1.951	
146	**24/05/2020 17:00**	12.183	1.946	
147	**24/05/2020 20:00**	12.183	1.965	
148	**24/05/2020 23:00**	12.183	1.971	
149	**25/05/2020 02:00**	12.183	1.957	
150	**25/05/2020 05:00**	12.183	1.955	
151	**25/05/2020 08:00**	12.183	1.964	
152	**25/05/2020 11:00**	12.183	1.965	
153	**25/05/2020 14:00**	12.183	1.964	
154	**25/05/2020 17:00**	12.183	1.952	
155	**25/05/2020 20:00**	12.183	1.968	
156	**25/05/2020 23:00**	12.183	1.971	
157	**26/05/2020 02:00**	12.183	1.973	
158	**26/05/2020 05:00**	12.183	1.952	
159	**26/05/2020 08:00**	12.183	1.955	
160	**26/05/2020 11:00**	12.131	1.972	
161	**26/05/2020 14:00**	12.183	1.972	
162	**26/05/2020 17:00**	12.183	1.961	
163	**26/05/2020 20:00**	12.235	1.967	
164	**26/05/2020 23:00**	12.183	1.971	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC02**
Serial No.	**514403**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	**27/05/2020 02:00**	12.183	1.971	
166	**27/05/2020 05:00**	12.183	1.956	
167	**27/05/2020 08:00**	12.183	1.955	
168	**27/05/2020 11:00**	12.183	1.965	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC03**
Serial No.	**580661**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
1	**06/05/2020 14:00**	13.021	2.525	
2	**06/05/2020 17:00**	12.969	2.538	
3	**06/05/2020 20:00**	12.969	2.558	
4	**06/05/2020 23:00**	13.021	2.535	
5	**07/05/2020 02:00**	12.969	2.515	
6	**07/05/2020 05:00**	12.969	2.535	
7	**07/05/2020 08:00**	12.969	2.540	
8	**07/05/2020 11:00**	12.969	2.524	
9	**07/05/2020 14:00**	12.969	2.498	
10	**07/05/2020 17:00**	12.969	2.516	
11	**07/05/2020 20:00**	12.969	2.533	
12	**07/05/2020 23:00**	13.021	2.534	
13	**08/05/2020 02:00**	13.021	2.492	
14	**08/05/2020 05:00**	12.969	2.508	
15	**08/05/2020 08:00**	12.969	2.532	
16	**08/05/2020 11:00**	12.969	2.523	
17	**08/05/2020 14:00**	12.969	2.481	
18	**08/05/2020 17:00**	12.969	2.497	
19	**08/05/2020 20:00**	12.969	2.520	
20	**08/05/2020 23:00**	12.969	2.526	
21	**09/05/2020 02:00**	12.969	2.483	
22	**09/05/2020 05:00**	12.969	2.497	
23	**09/05/2020 08:00**	12.969	2.510	
24	**09/05/2020 11:00**	12.969	2.529	
25	**09/05/2020 14:00**	12.969	2.479	
26	**09/05/2020 17:00**	12.969	2.488	
27	**09/05/2020 20:00**	12.969	2.509	
28	**09/05/2020 23:00**	12.969	2.520	
29	**10/05/2020 02:00**	12.969	2.497	
30	**10/05/2020 05:00**	12.969	2.487	
31	**10/05/2020 08:00**	12.969	2.506	
32	**10/05/2020 11:00**	12.969	2.525	
33	**10/05/2020 14:00**	12.969	2.502	
34	**10/05/2020 17:00**	12.969	2.507	
35	**10/05/2020 20:00**	12.969	2.522	
36	**10/05/2020 23:00**	12.918	2.534	
37	**11/05/2020 02:00**	12.969	2.515	
38	**11/05/2020 05:00**	12.969	2.499	
39	**11/05/2020 08:00**	12.969	2.519	
40	**11/05/2020 11:00**	12.969	2.534	
41	**11/05/2020 14:00**	12.969	2.530	
42	**11/05/2020 17:00**	12.969	2.522	
43	**11/05/2020 20:00**	12.969	2.525	
44	**11/05/2020 23:00**	12.969	2.546	
45	**12/05/2020 02:00**	12.969	2.532	
46	**12/05/2020 05:00**	12.969	2.513	
47	**12/05/2020 08:00**	12.918	2.522	
48	**12/05/2020 11:00**	12.918	2.529	
49	**12/05/2020 14:00**	12.918	2.550	
50	**12/05/2020 17:00**	12.969	2.517	
51	**12/05/2020 20:00**	12.969	2.525	
52	**12/05/2020 23:00**	12.969	2.539	
53	**13/05/2020 02:00**	12.918	2.547	
54	**13/05/2020 05:00**	12.969	2.517	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC03**
Serial No.	**580661**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
55	**13/05/2020 08:00**	12.918	2.527	
56	**13/05/2020 11:00**	12.969	2.546	
57	**13/05/2020 14:00**	12.969	2.559	
58	**13/05/2020 17:00**	12.969	2.554	
59	**13/05/2020 20:00**	12.969	2.545	
60	**13/05/2020 23:00**	12.918	2.553	
61	**14/05/2020 02:00**	12.969	2.578	
62	**14/05/2020 05:00**	12.918	2.561	
63	**14/05/2020 08:00**	12.918	2.539	
64	**14/05/2020 11:00**	12.969	2.556	
65	**14/05/2020 14:00**	12.918	2.575	
66	**14/05/2020 17:00**	12.918	2.576	
67	**14/05/2020 20:00**	12.969	2.551	
68	**14/05/2020 23:00**	12.969	2.570	
69	**15/05/2020 02:00**	12.969	2.573	
70	**15/05/2020 05:00**	12.918	2.570	
71	**15/05/2020 08:00**	12.918	2.558	
72	**15/05/2020 11:00**	12.969	2.567	
73	**15/05/2020 14:00**	12.918	2.568	
74	**15/05/2020 17:00**	12.969	2.589	
75	**15/05/2020 20:00**	12.969	2.583	
76	**15/05/2020 23:00**	12.918	2.577	
77	**16/05/2020 02:00**	12.969	2.575	
78	**16/05/2020 05:00**	12.918	2.585	
79	**16/05/2020 08:00**	12.969	2.573	
80	**16/05/2020 11:00**	12.918	2.573	
81	**16/05/2020 14:00**	12.918	2.580	
82	**16/05/2020 17:00**	12.918	2.589	
83	**16/05/2020 20:00**	12.918	2.587	
84	**16/05/2020 23:00**	12.918	2.577	
85	**17/05/2020 02:00**	12.918	2.585	
86	**17/05/2020 05:00**	12.918	2.588	
87	**17/05/2020 08:00**	12.969	2.587	
88	**17/05/2020 11:00**	12.918	2.579	
89	**17/05/2020 14:00**	12.918	2.578	
90	**17/05/2020 17:00**	12.969	2.601	
91	**17/05/2020 20:00**	12.918	2.605	
92	**17/05/2020 23:00**	12.918	2.583	
93	**18/05/2020 02:00**	12.918	2.580	
94	**18/05/2020 05:00**	12.918	2.590	
95	**18/05/2020 08:00**	12.918	2.600	
96	**18/05/2020 11:00**	12.918	2.576	
97	**18/05/2020 14:00**	12.918	2.576	
98	**18/05/2020 17:00**	12.918	2.582	
99	**18/05/2020 20:00**	12.918	2.593	
100	**18/05/2020 23:00**	12.918	2.580	
101	**19/05/2020 02:00**	12.918	2.577	
102	**19/05/2020 05:00**	12.918	2.583	
103	**19/05/2020 08:00**	12.918	2.606	
104	**19/05/2020 11:00**	12.918	2.571	
105	**19/05/2020 14:00**	12.918	2.575	
106	**19/05/2020 17:00**	12.918	2.580	
107	**19/05/2020 20:00**	12.918	2.591	
108	**19/05/2020 23:00**	12.918	2.591	
109	**20/05/2020 02:00**	12.918	2.577	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC03**
Serial No.	**580661**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
110	**20/05/2020 05:00**	12.918	2.580	
111	**20/05/2020 08:00**	12.918	2.589	
112	**20/05/2020 11:00**	12.918	2.571	
113	**20/05/2020 14:00**	12.918	2.572	
114	**20/05/2020 17:00**	12.918	2.573	
115	**20/05/2020 20:00**	12.918	2.602	
116	**20/05/2020 23:00**	12.918	2.586	
117	**21/05/2020 02:00**	12.918	2.568	
118	**21/05/2020 05:00**	12.918	2.584	
119	**21/05/2020 08:00**	12.918	2.600	
120	**21/05/2020 11:00**	12.918	2.585	
121	**21/05/2020 14:00**	12.918	2.564	
122	**21/05/2020 17:00**	12.866	2.572	
123	**21/05/2020 20:00**	12.918	2.574	
124	**21/05/2020 23:00**	12.918	2.568	
125	**22/05/2020 02:00**	12.918	2.527	
126	**22/05/2020 05:00**	12.918	2.541	
127	**22/05/2020 08:00**	12.866	2.553	
128	**22/05/2020 11:00**	12.866	2.552	
129	**22/05/2020 14:00**	12.918	2.538	
130	**22/05/2020 17:00**	12.918	2.557	
131	**22/05/2020 20:00**	12.918	2.571	
132	**22/05/2020 23:00**	12.918	2.563	
133	**23/05/2020 02:00**	12.918	2.524	
134	**23/05/2020 05:00**	12.866	2.539	
135	**23/05/2020 08:00**	12.866	2.558	
136	**23/05/2020 11:00**	12.918	2.565	
137	**23/05/2020 14:00**	12.866	2.542	
138	**23/05/2020 17:00**	12.918	2.556	
139	**23/05/2020 20:00**	12.866	2.571	
140	**23/05/2020 23:00**	12.918	2.581	
141	**24/05/2020 02:00**	12.918	2.555	
142	**24/05/2020 05:00**	12.918	2.569	
143	**24/05/2020 08:00**	12.918	2.577	
144	**24/05/2020 11:00**	12.866	2.587	
145	**24/05/2020 14:00**	12.918	2.566	
146	**24/05/2020 17:00**	12.918	2.566	
147	**24/05/2020 20:00**	12.866	2.591	
148	**24/05/2020 23:00**	12.918	2.593	
149	**25/05/2020 02:00**	12.866	2.567	
150	**25/05/2020 05:00**	12.866	2.567	
151	**25/05/2020 08:00**	12.918	2.584	
152	**25/05/2020 11:00**	12.918	2.596	
153	**25/05/2020 14:00**	12.918	2.571	
154	**25/05/2020 17:00**	12.918	2.566	
155	**25/05/2020 20:00**	12.918	2.585	
156	**25/05/2020 23:00**	12.866	2.598	
157	**26/05/2020 02:00**	12.866	2.583	
158	**26/05/2020 05:00**	12.866	2.564	
159	**26/05/2020 08:00**	12.866	2.581	
160	**26/05/2020 11:00**	12.866	2.598	
161	**26/05/2020 14:00**	12.866	2.588	
162	**26/05/2020 17:00**	12.918	2.572	
163	**26/05/2020 20:00**	12.866	2.589	
164	**26/05/2020 23:00**	12.866	2.597	

Project.	**Maxol Beach Road Sandymount**
Project No.	**22430**
Client.	**Maxol Group**
Engineer.	**Punch Consulting Engineers**
Borehole No.	**RC03**
Serial No.	**580661**

IGSL Ltd.

	DATE	TEMPERATURE	WATER LEVEL (m bgl)	REMARKS
165	**27/05/2020 02:00**	12.866	2.591	
166	**27/05/2020 05:00**	12.918	2.558	
167	**27/05/2020 08:00**	12.866	2.576	
168	**27/05/2020 11:00**	12.918	2.591	

Appendix 6

Geotechnical Laboratory Testing

IGSL Ltd
Materials Laboratory
Unit J5, M7 Business Park
Newhall, Naas
Co. Kildare
045 846176

Test Report

Determination of Moisture Content, Liquid & Plastic Limits

Tested in accordance with BS1377:Part 2:1990, clauses 3.2*, 4.3, 4.4 & 5.3

Report No. **R110760** Contract No. 22430 Contract Name: Maxol , Beach Road , Sandymount , Dublin 4

Customer Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin

Samples Received: 18/03/20 Date Tested: 18/03/20

BH/TP	Sample No.	Depth (m)	Lab. Ref	Sample Type	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Preparation	Liquid Limit Clause	Classification (BS5930)	Description
BH01	AA135623	12.0	A20/1179	B	11	32	14	18	50	WS	4.4	C L	Grey slightly sandy, gravelly, CLAY
BH02	AA135635	11.0	A20/1183	B	12	33	15	18	34	WS	4.4	C L	Grey slightly sandy, gravelly, SILT with some cobbles
BH02	AA135637	13.0	A20/1184	B	13	31	15	16	42	WS	4.4	C L	Grey slightly sandy, gravelly, CLAY
BH03	AA130561	11.0	A20/1189	B	7.9	29	14	15	44	WS	4.4	C L	Grey slightly sandy, slightly gravelly, CLAY with many cobbles
BH03	AA130563	13.0	A20/1190	B	14	31	15	16	40	WS	4.4	C L	Grey slightly sandy, gravelly, CLAY

Notes:
Preparation: WS - Wet sieved; AR - As received; NP - Non plastic
Liquid Limit Clause: 4.3 Cone Penetrometer definitive method; 4.4 Cone Penetrometer one point method
Sample Type: B - Bulk Disturbed; U - Undisturbed

Remarks:
Results apply to the sample as received.
NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
Opinions and interpretations are outside the scope of accreditation.
The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory

Persons authorized to approve reports
H Byrne (Laboratory Manager)

Approved by	Date	Page
H Byrne	01/04/20	1 of 1

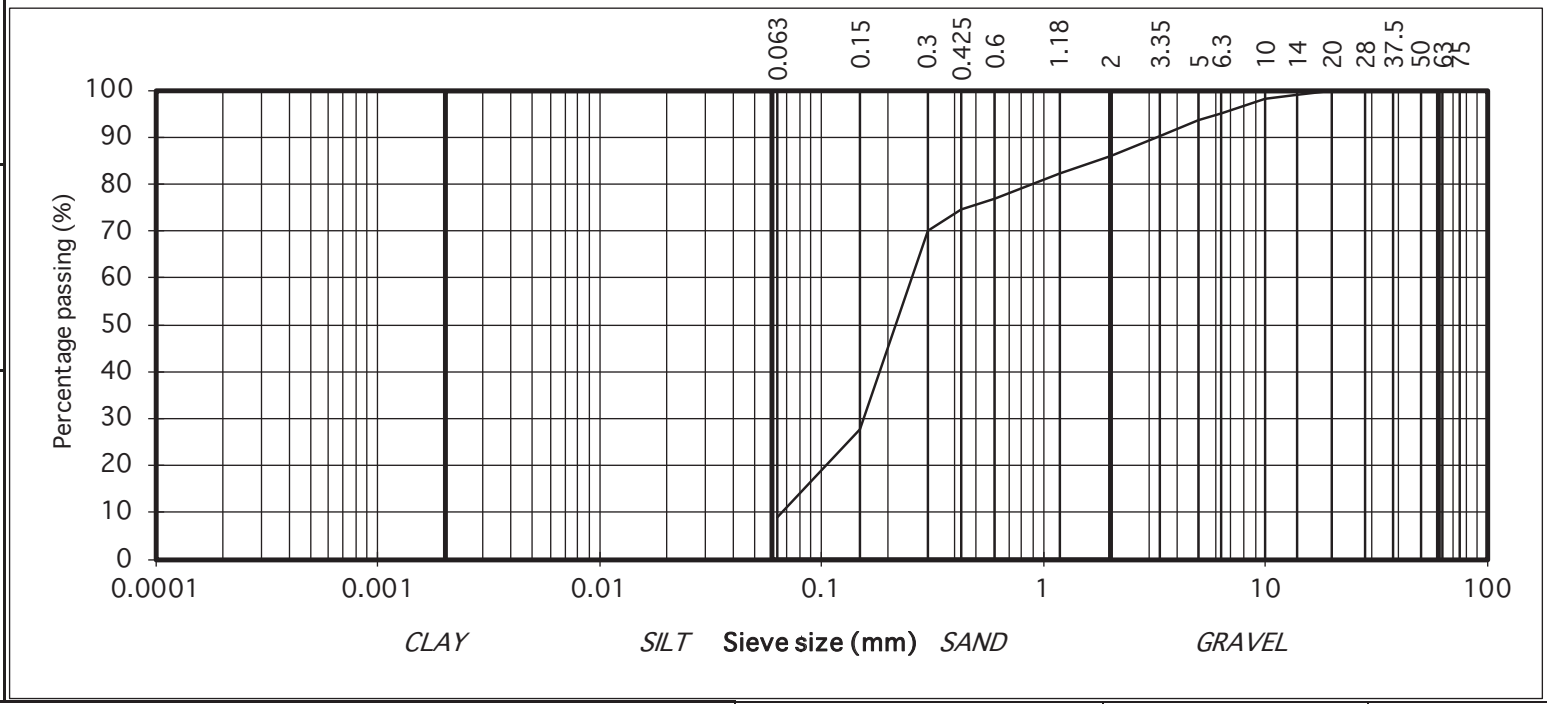
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	99	
10	98	
6.3	95	
5	94	
3.35	90	
2	86	
1.18	82	SAND
0.6	77	
0.425	75	
0.3	70	
0.15	28	
0.063	9	SILT/CLAY

Contract No. 22430 Report No. R110788
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH01
Sample No. AA135613 Lab. Sample No. A20/1175
Sample Type: B
Depth (m) 2.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 20/03/2020
Description: Brown clayey/silty, gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	01/04/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

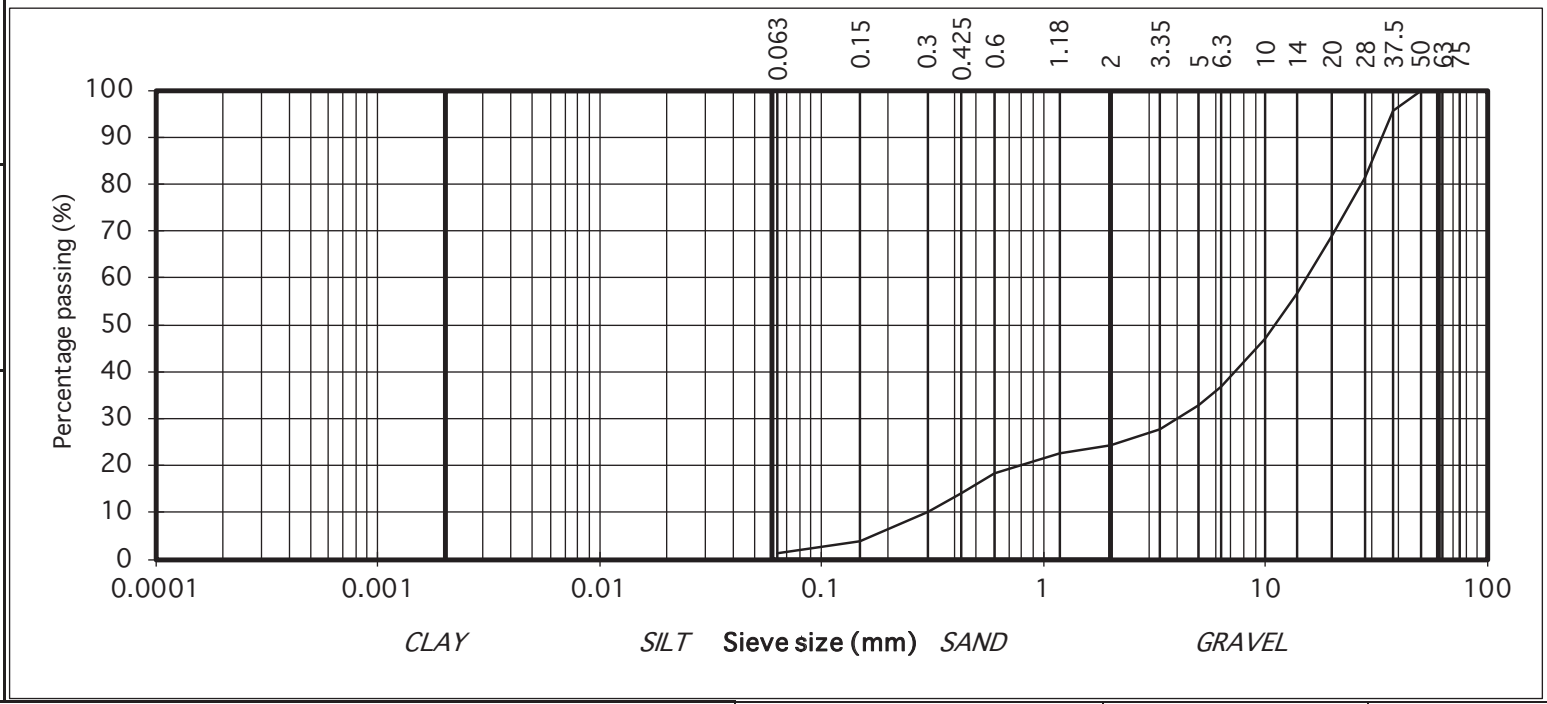
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	81	
20	69	
14	57	
10	47	
6.3	37	
5	33	
3.35	28	
2	24	
1.18	22	SAND
0.6	18	
0.425	14	
0.3	10	
0.15	4	
0.063	1	SILT/CLAY

Contract No. 22430 Report No. R110747
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH01
Sample No. AA135615 Lab. Sample No. A20/1176
Sample Type: B
Depth (m) 4.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly clayey/silty, very sandy, GRAVEL

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	01/04/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution

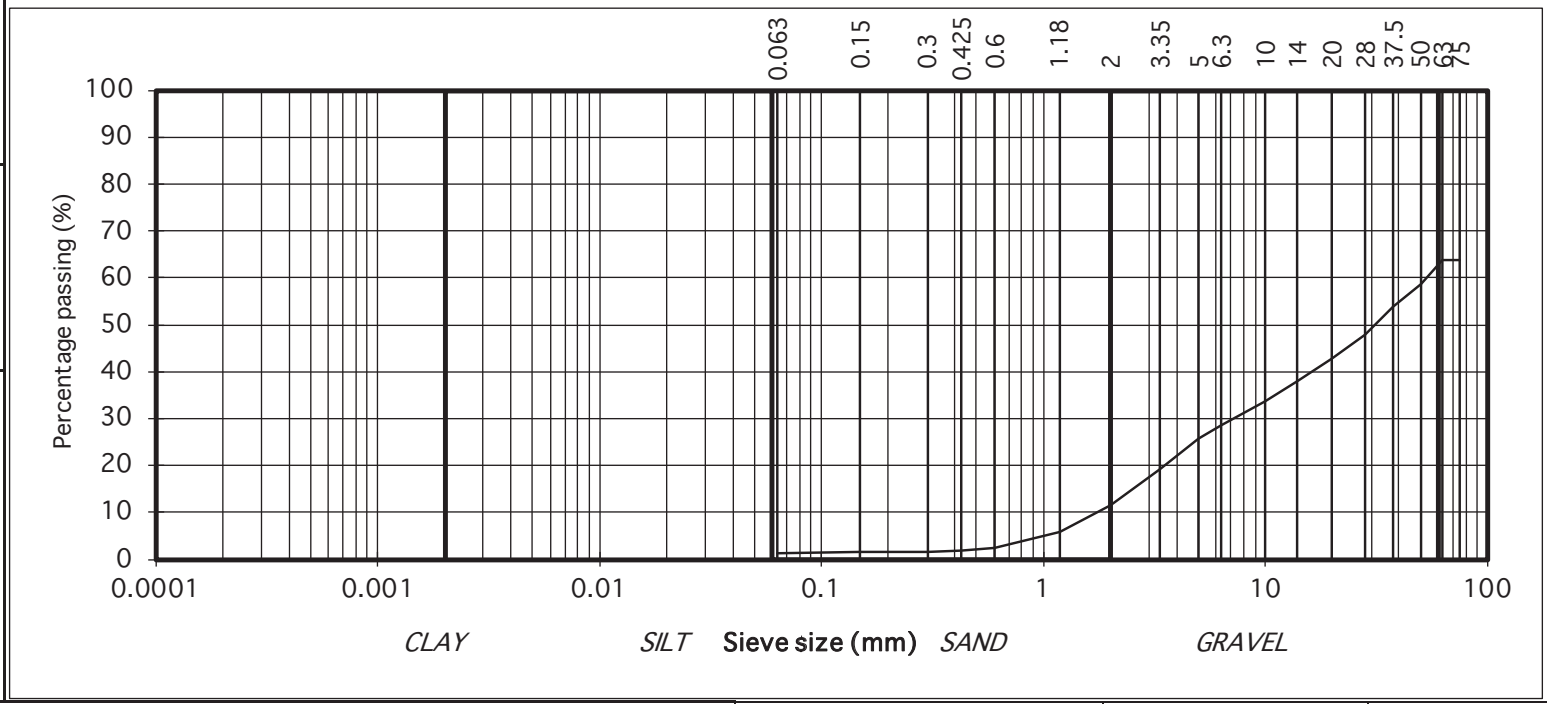
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	64	COBBLES
63	64	
50	59	GRAVEL
37.5	54	
28	48	
20	43	
14	38	
10	34	
6.3	29	
5	26	
3.35	19	
2	11	
1.18	6	SAND
0.6	2	
0.425	2	
0.3	1	
0.15	1	
0.063	1	SILT/CLAY

Contract No. 22430 Report No. R110748
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH01
Sample No. AA135618 Lab. Sample No. A20/1177
Sample Type: B
Depth (m) 7.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly clayey/silty, sandy, GRAVEL with many cobbles

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	01/04/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

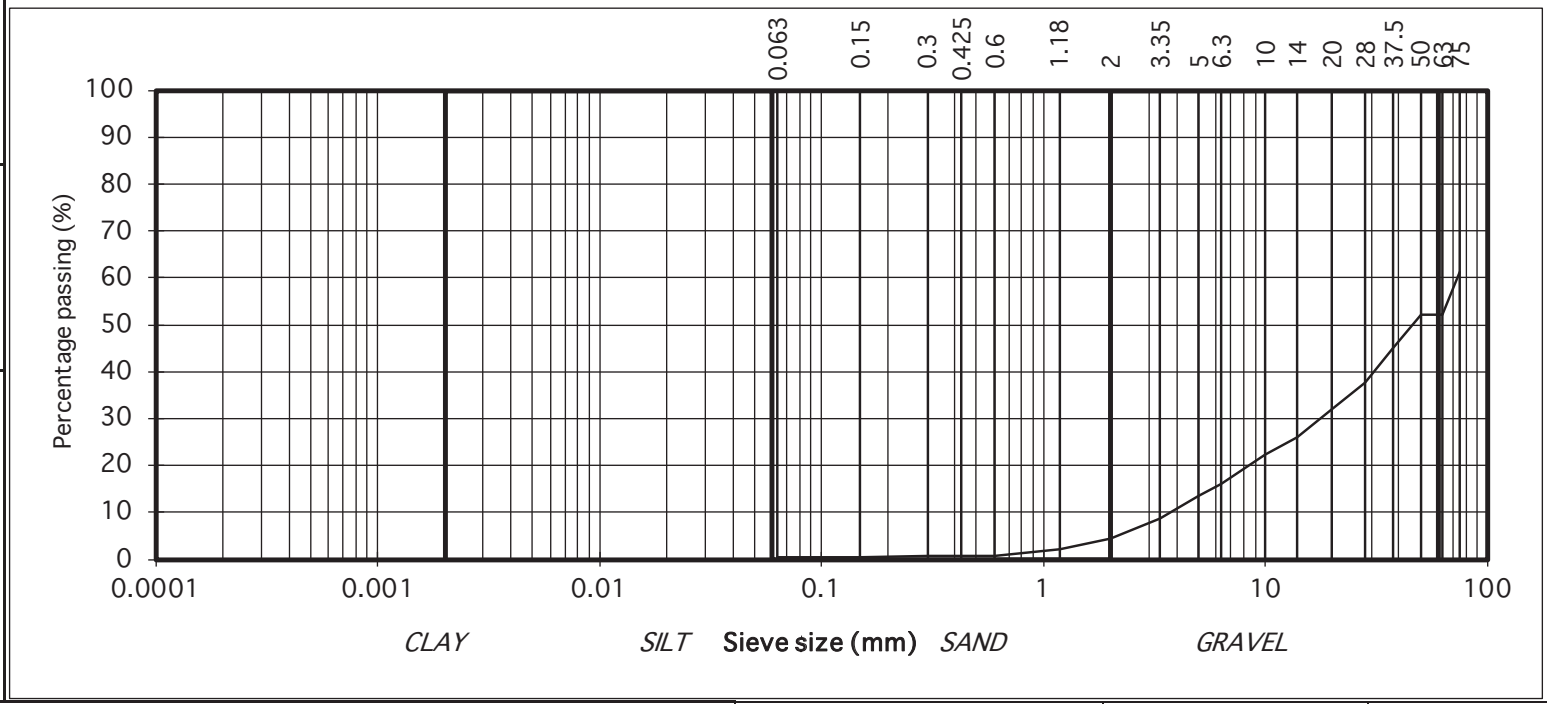
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	62	COBBLES
63	52	
50	52	GRAVEL
37.5	45	
28	38	
20	32	
14	26	
10	22	
6.3	16	
5	14	
3.35	9	
2	4	
1.18	2	SAND
0.6	1	
0.425	1	
0.3	1	
0.15	0	
0.063	0	SILT/CLAY

Contract No. 22430 Report No. R110749
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH01
Sample No. AA135620 Lab. Sample No. A20/1178
Sample Type: B
Depth (m) 9.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly sandy, GRAVEL with many cobbles

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	01/04/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

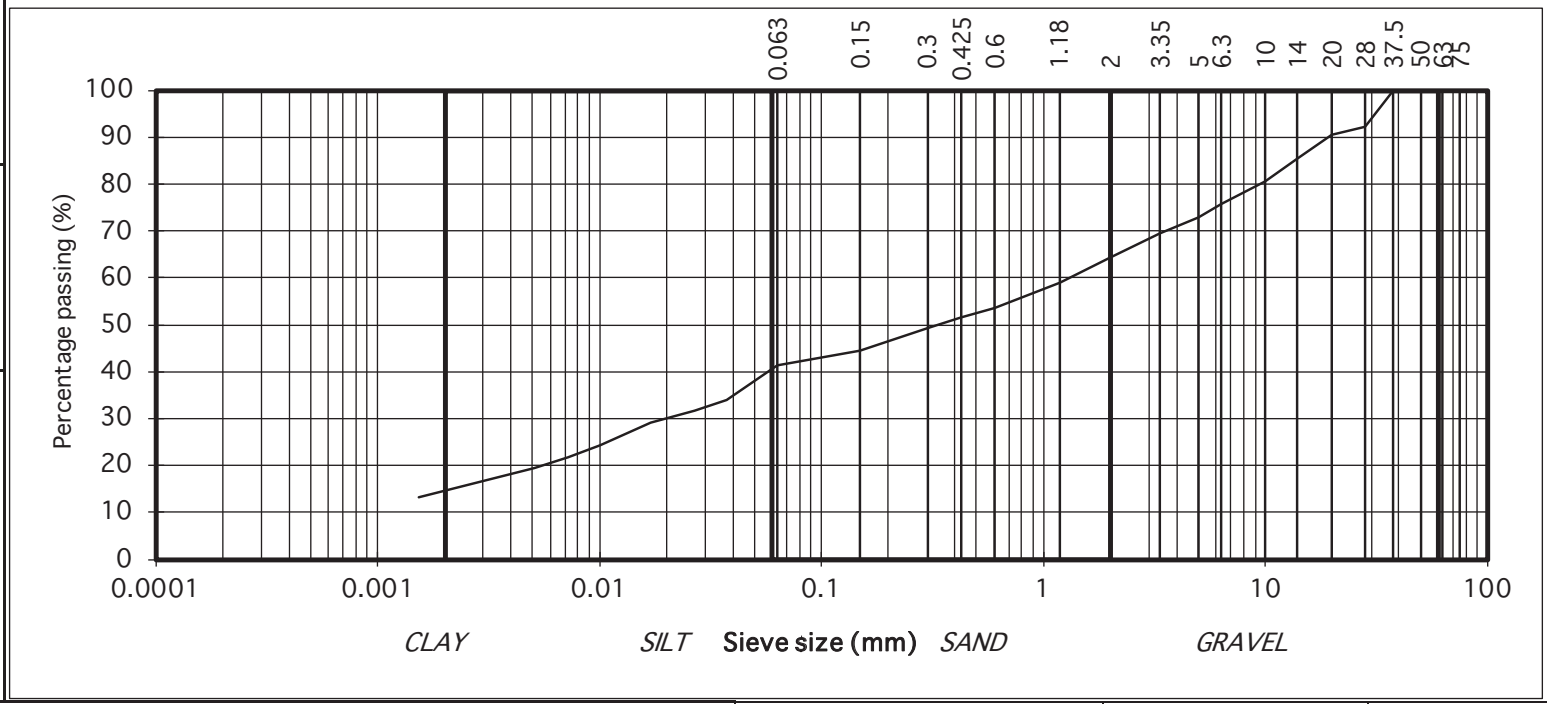
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	92	
20	91	
14	85	
10	81	
6.3	76	
5	73	
3.35	69	
2	64	
1.18	59	SAND
0.6	54	
0.425	52	
0.3	49	
0.15	44	
0.063	41	SILT/CLAY
0.037	34	
0.027	32	
0.017	29	
0.010	24	
0.007	22	
0.005	19	
0.002	13	

Contract No. 22430 Report No. R110750
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH01
Sample No. AA135623 Lab. Sample No. A20/1179
Sample Type: B
Depth (m) 12.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly sandy, gravelly, CLAY

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	01/04/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

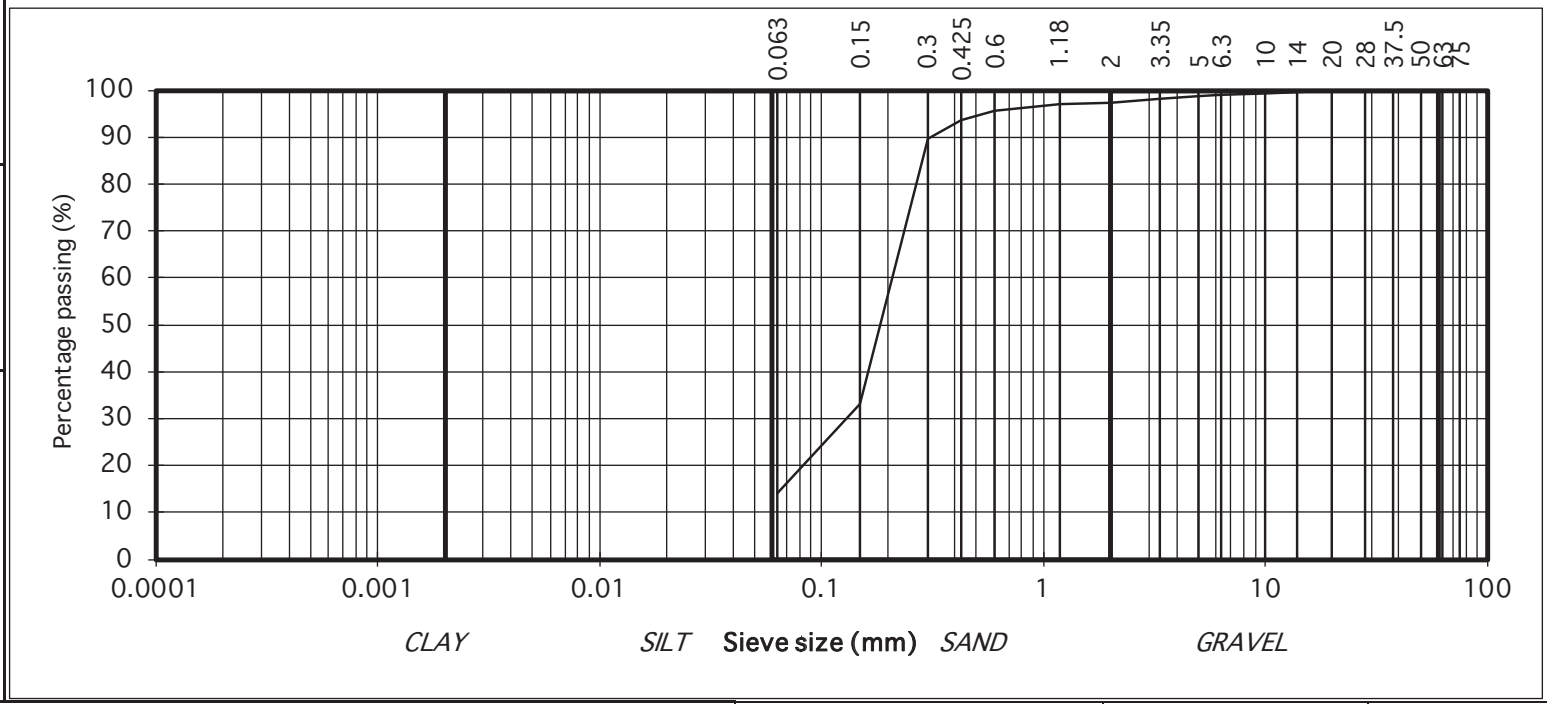
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	100	
10	99	
6.3	99	
5	99	
3.35	98	
2	98	
1.18	97	SAND
0.6	96	
0.425	94	
0.3	90	
0.15	33	
0.063	14	SILT/CLAY

Contract No. 22430 Report No. R110789
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH02
Sample No. AA135626 Lab. Sample No. A20/1180
Sample Type: B
Depth (m) 2.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 20/03/2020
Description: Brown clayey/silty, slightly gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	01/04/20	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

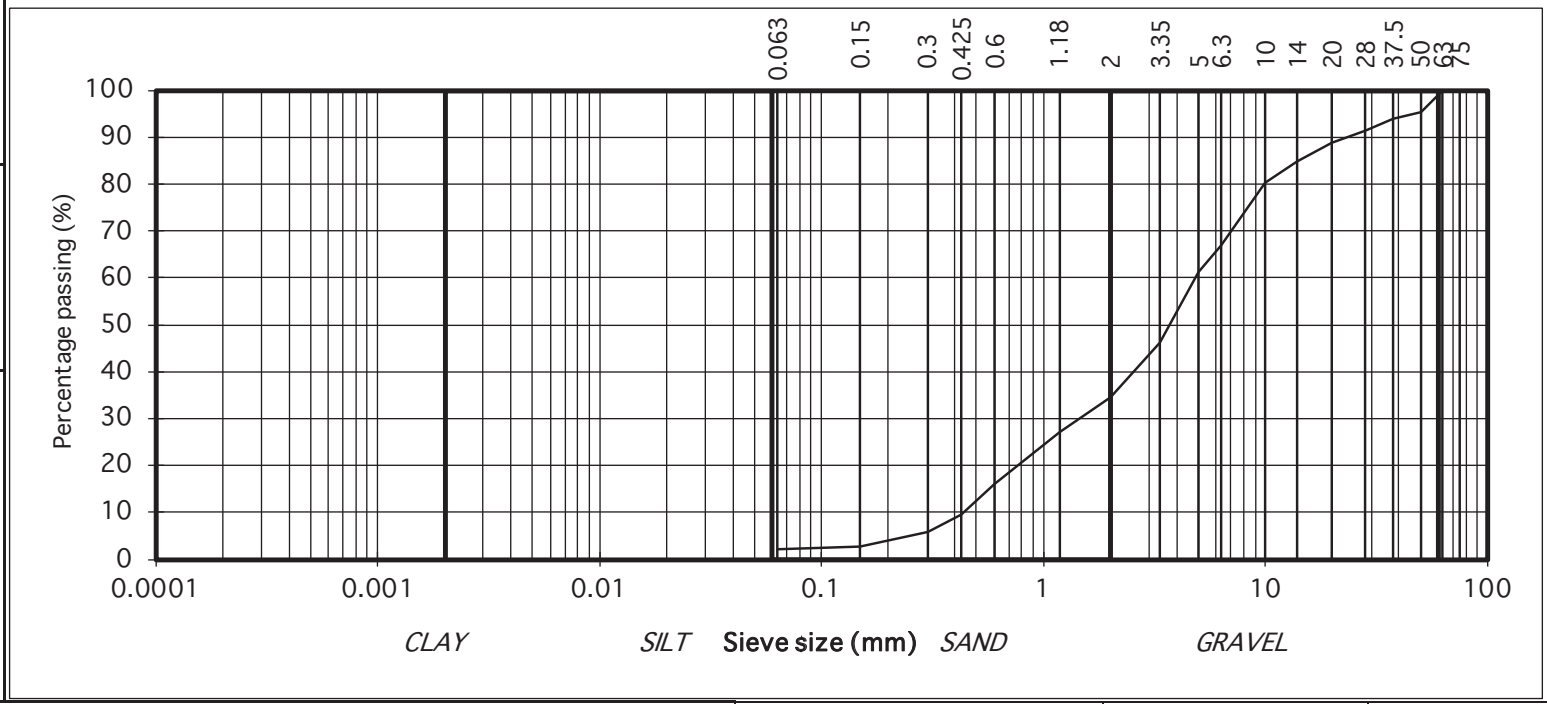
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	94	
28	91	
20	89	
14	85	
10	80	
6.3	67	
5	61	
3.35	46	
2	35	
1.18	27	SAND
0.6	16	
0.425	10	
0.3	6	
0.15	3	
0.063	2	SILT/CLAY

Contract No. 22430 Report No. R110751
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH02
Sample No. AA135629 Lab. Sample No. A20/1181
Sample Type: B
Depth (m) 5.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly clayey/silty, very sandy, GRAVEL

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

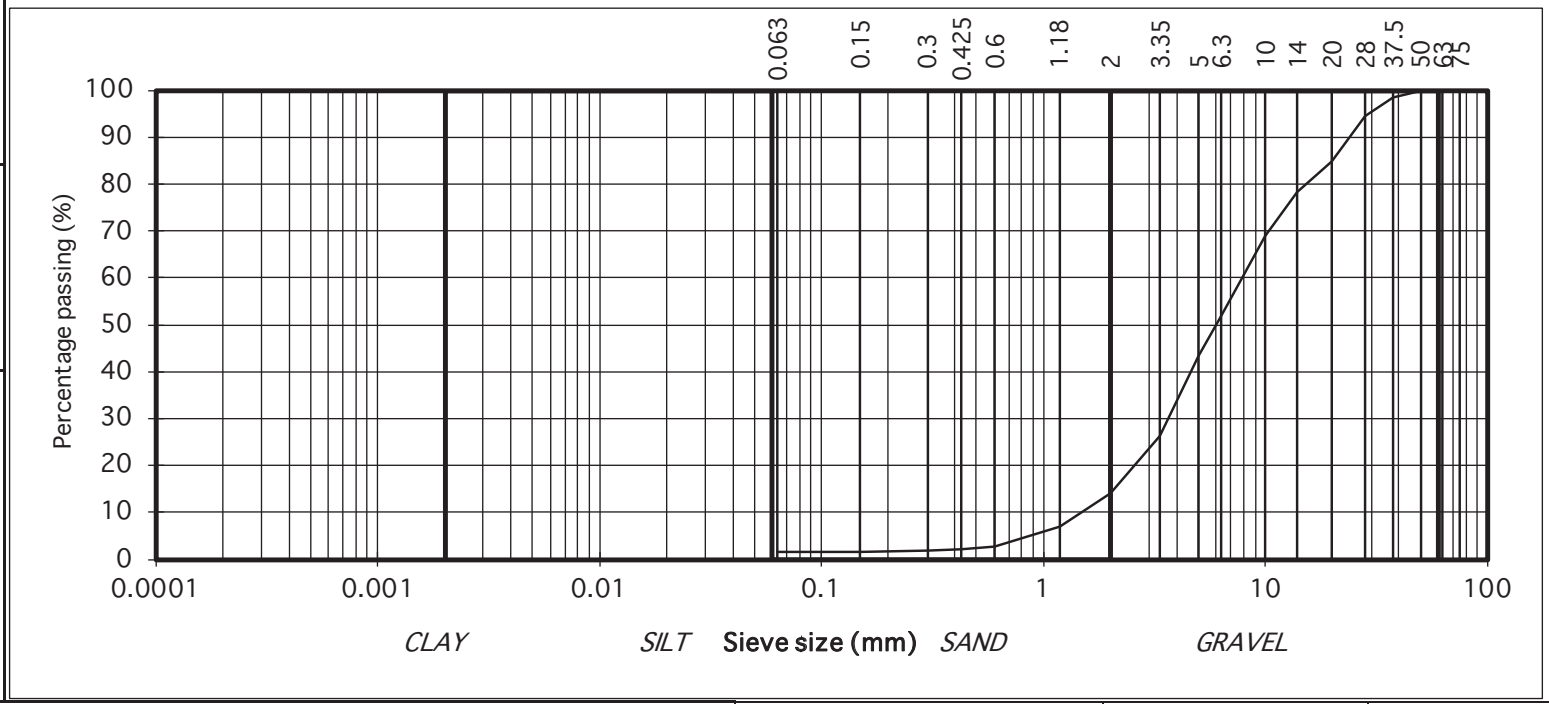
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	99	
28	95	
20	85	
14	78	
10	69	
6.3	52	
5	43	
3.35	26	
2	14	
1.18	7	SAND
0.6	3	
0.425	2	
0.3	2	
0.15	2	
0.063	2	SILT/CLAY

Contract No. 22430 Report No. R110752
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH02
Sample No. AA135632 Lab. Sample No. A20/1182
Sample Type: B
Depth (m) 8.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly clayey/silty, sandy, GRAVEL

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

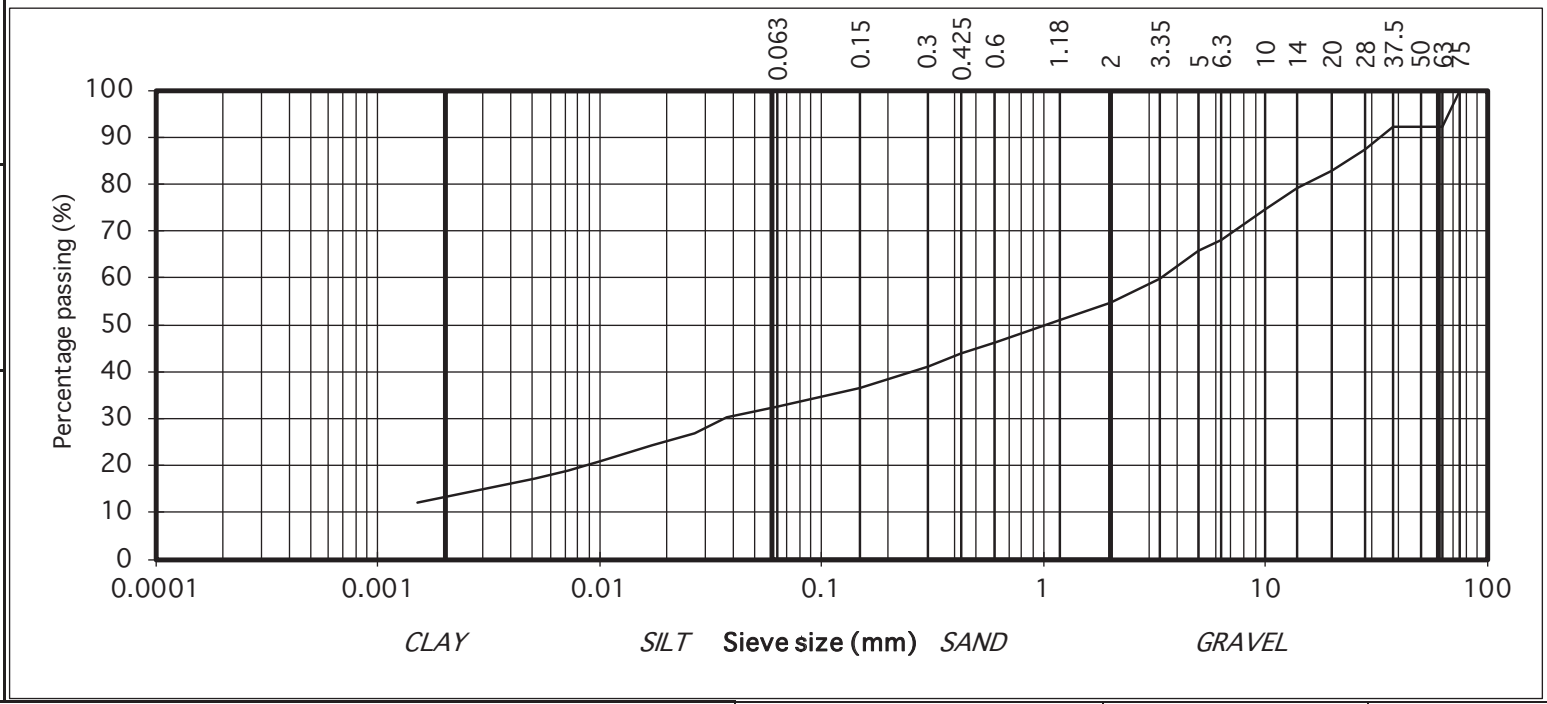
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	92	
50	92	GRAVEL
37.5	92	
28	88	
20	83	
14	79	
10	75	
6.3	68	
5	66	
3.35	60	
2	55	
1.18	51	SAND
0.6	46	
0.425	44	
0.3	41	
0.15	37	
0.063	33	SILT/CLAY
0.037	30	
0.027	27	
0.017	24	
0.010	21	
0.007	19	
0.005	17	
0.002	12	

Contract No. 22430 Report No. R110753
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH02
Sample No. AA135635 Lab. Sample No. A20/1183
Sample Type: B
Depth (m) 11.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly sandy, gravelly, SILT with some cobbles

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

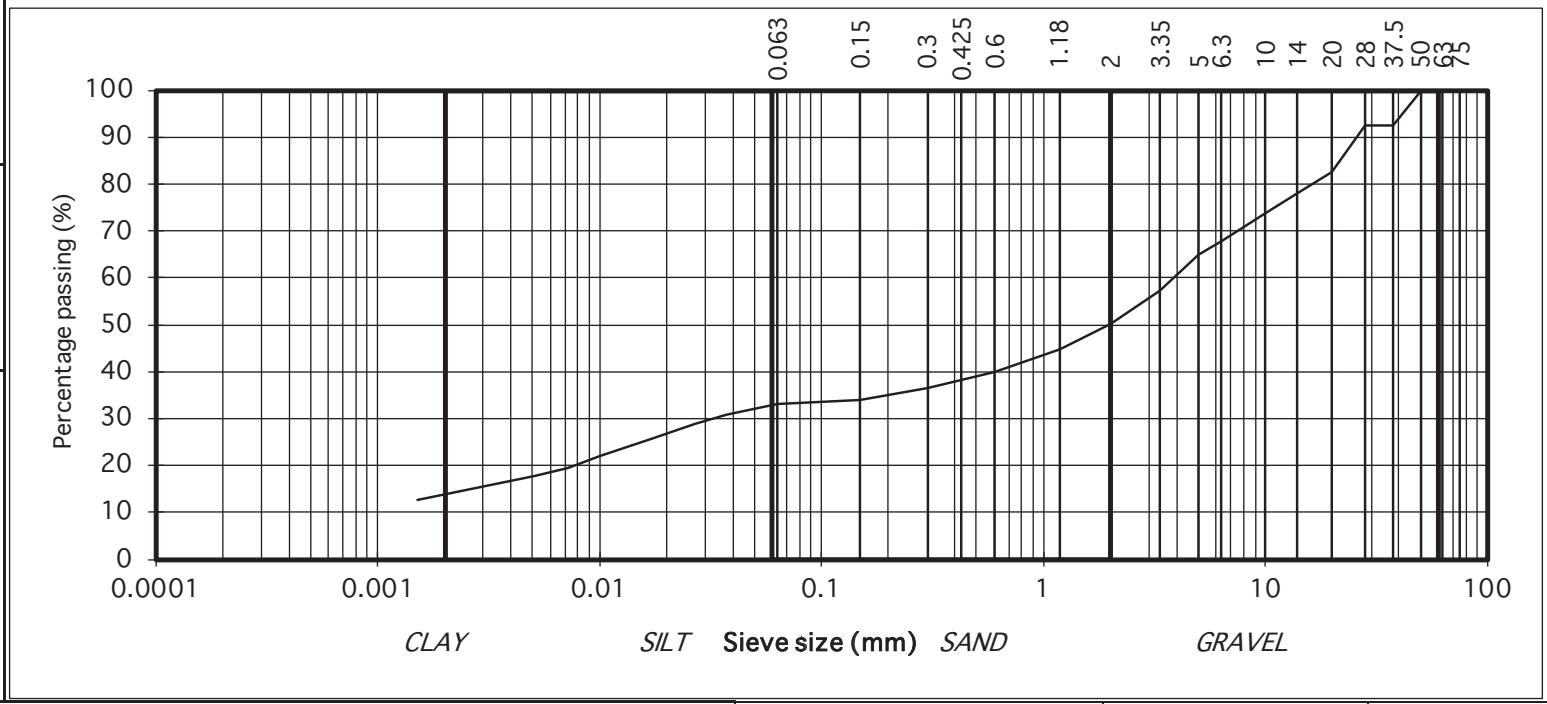
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	93	
28	93	
20	83	
14	78	
10	74	
6.3	68	
5	65	
3.35	57	
2	50	
1.18	45	SAND
0.6	40	
0.425	38	
0.3	36	
0.15	34	
0.063	33	SILT/CLAY
0.037	31	
0.027	29	
0.017	26	
0.010	22	
0.007	19	
0.005	18	
0.002	13	

Contract No.	22430	Report No.	R110754
Contract:	Maxol , Beach Road , Sandymount , Dublin 4		
BH/TP :	BH02		
Sample No.	AA135637	Lab. Sample No.	A20/1184
Sample Type:	B		
Depth (m)	13.00	Customer:	Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received	18/03/2020	Date Testing started	18/03/2020
Description:	Grey slightly sandy, gravelly, CLAY		

Remarks

Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

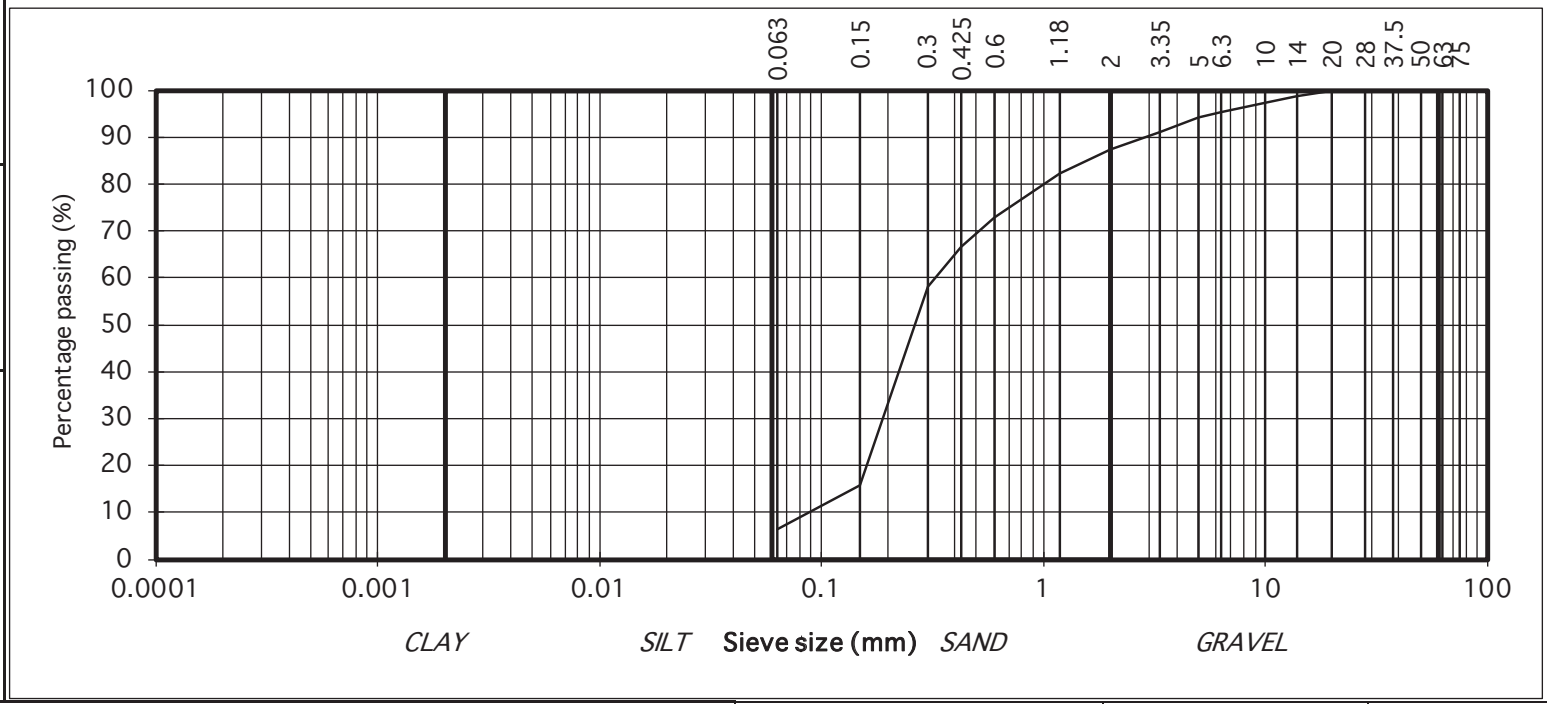
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	99	
10	97	
6.3	96	
5	94	
3.35	91	
2	87	
1.18	82	SAND
0.6	73	
0.425	67	
0.3	58	
0.15	16	
0.063	6	SILT/CLAY

Contract No. 22430 Report No. R110790
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH03
Sample No. AA130552 Lab. Sample No. A20/1185
Sample Type: B
Depth (m) 2.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 20/03/2020
Description: Brown clayey/silty, gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

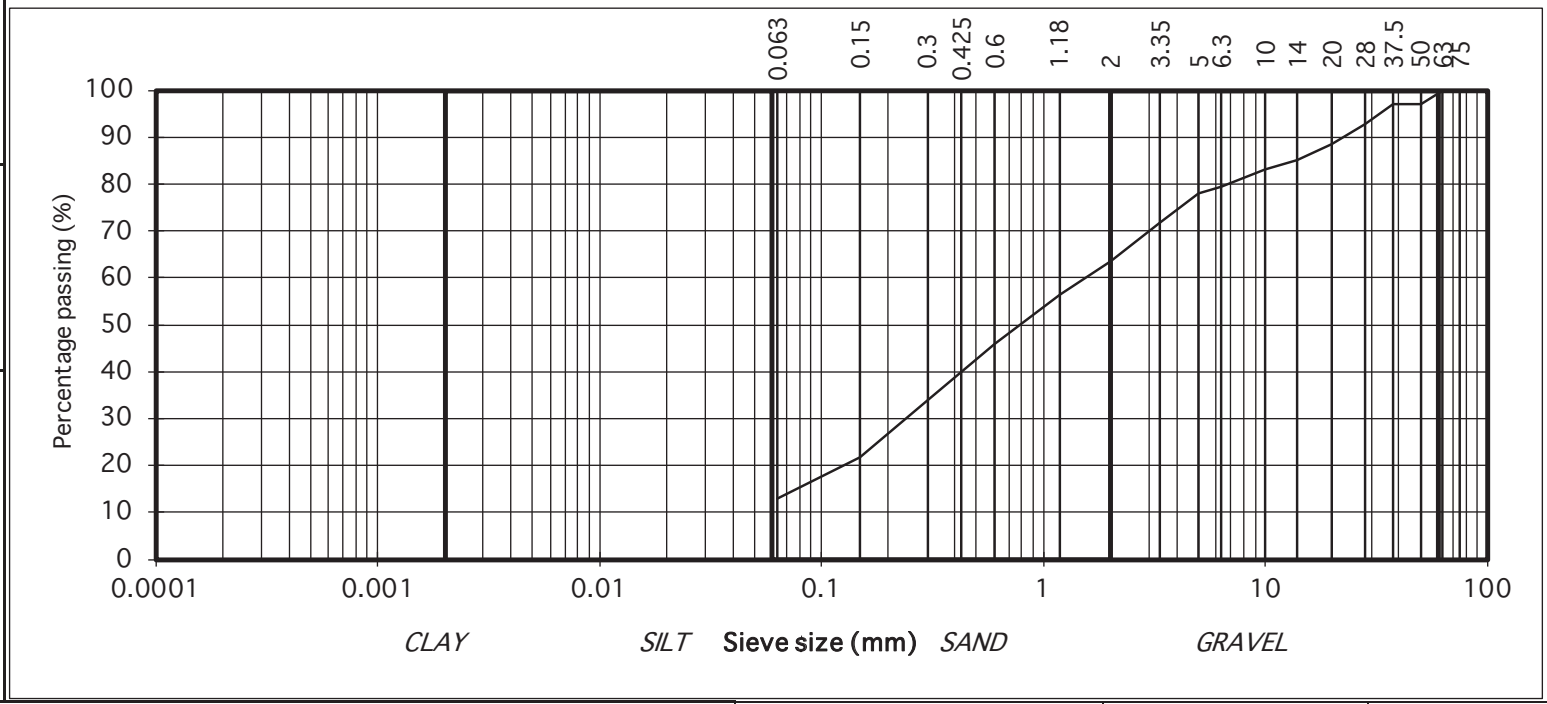
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	97	GRAVEL
37.5	97	
28	93	
20	89	
14	85	
10	83	
6.3	80	
5	78	
3.35	72	
2	64	
1.18	56	SAND
0.6	46	
0.425	40	
0.3	34	
0.15	22	
0.063	13	SILT/CLAY

Contract No. 22430 Report No. R110755
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH03
Sample No. AA130554 Lab. Sample No. A20/1186
Sample Type: B
Depth (m) 4.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey clayey/silty, very gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

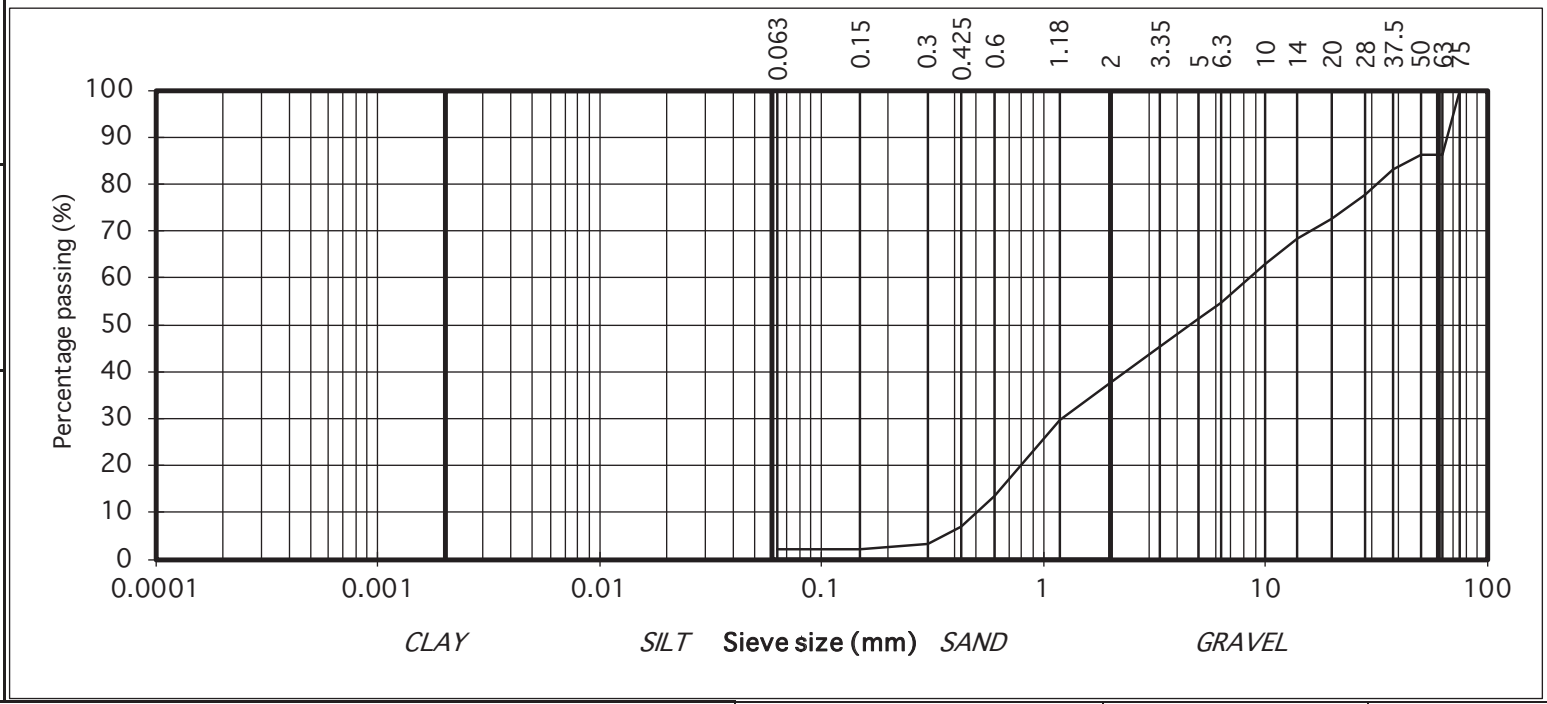
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	86	
50	86	GRAVEL
37.5	83	
28	78	
20	73	
14	68	
10	63	
6.3	55	
5	51	
3.35	45	
2	38	
1.18	30	SAND
0.6	13	
0.425	7	
0.3	3	
0.15	2	
0.063	2	SILT/CLAY

Contract No. 22430 Report No. R110756
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH03
Sample No. AA130557 Lab. Sample No. A20/1187
Sample Type: B
Depth (m) 7.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly clayey/silty, very sandy, GRAVEL with some cobbles

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

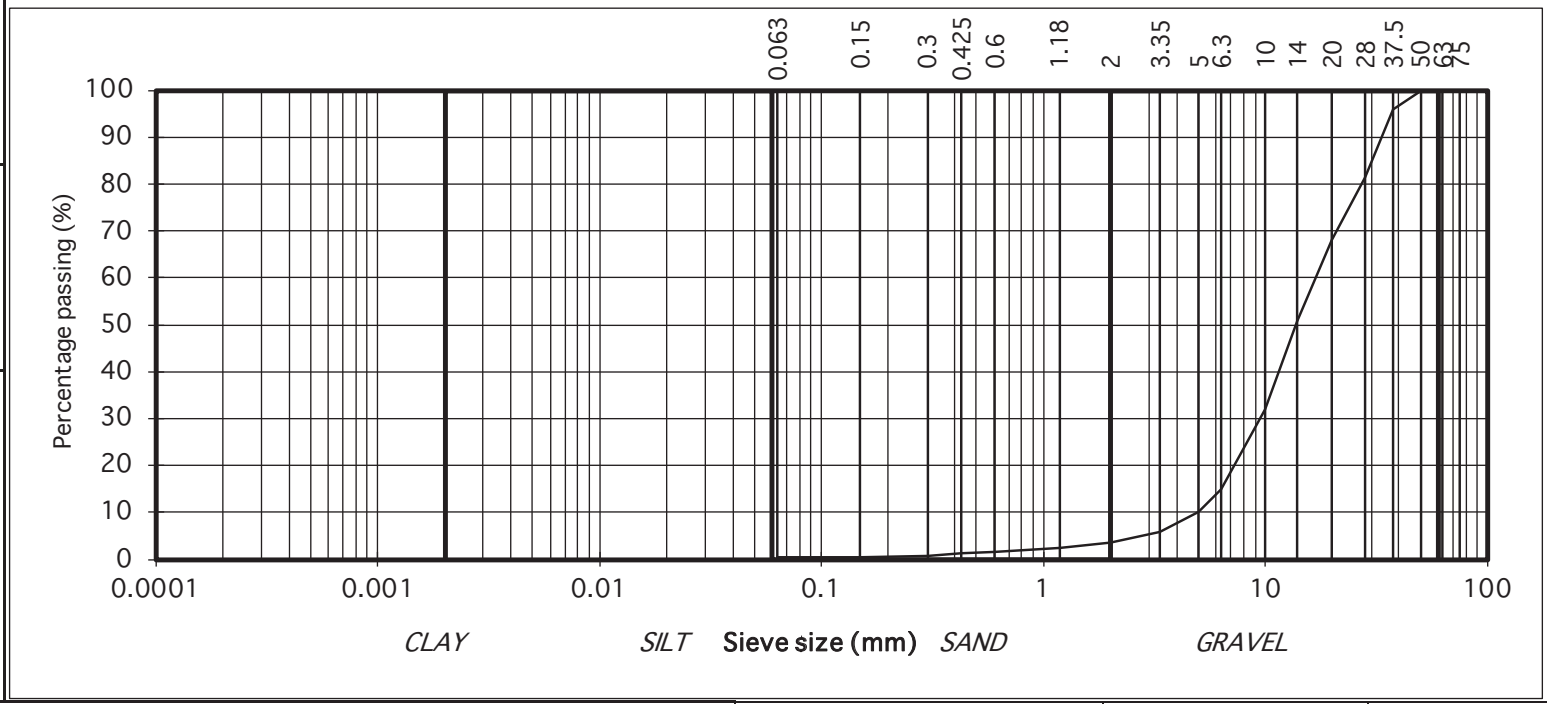
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	96	
28	81	
20	68	
14	51	
10	32	
6.3	15	
5	10	
3.35	6	
2	4	
1.18	2	SAND
0.6	1	
0.425	1	
0.3	1	
0.15	0	
0.063	0	SILT/CLAY

Contract No. 22430 Report No. R110757
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH03
Sample No. AA130559 Lab. Sample No. A20/1188
Sample Type: B
Depth (m) 9.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly sandy, GRAVEL

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

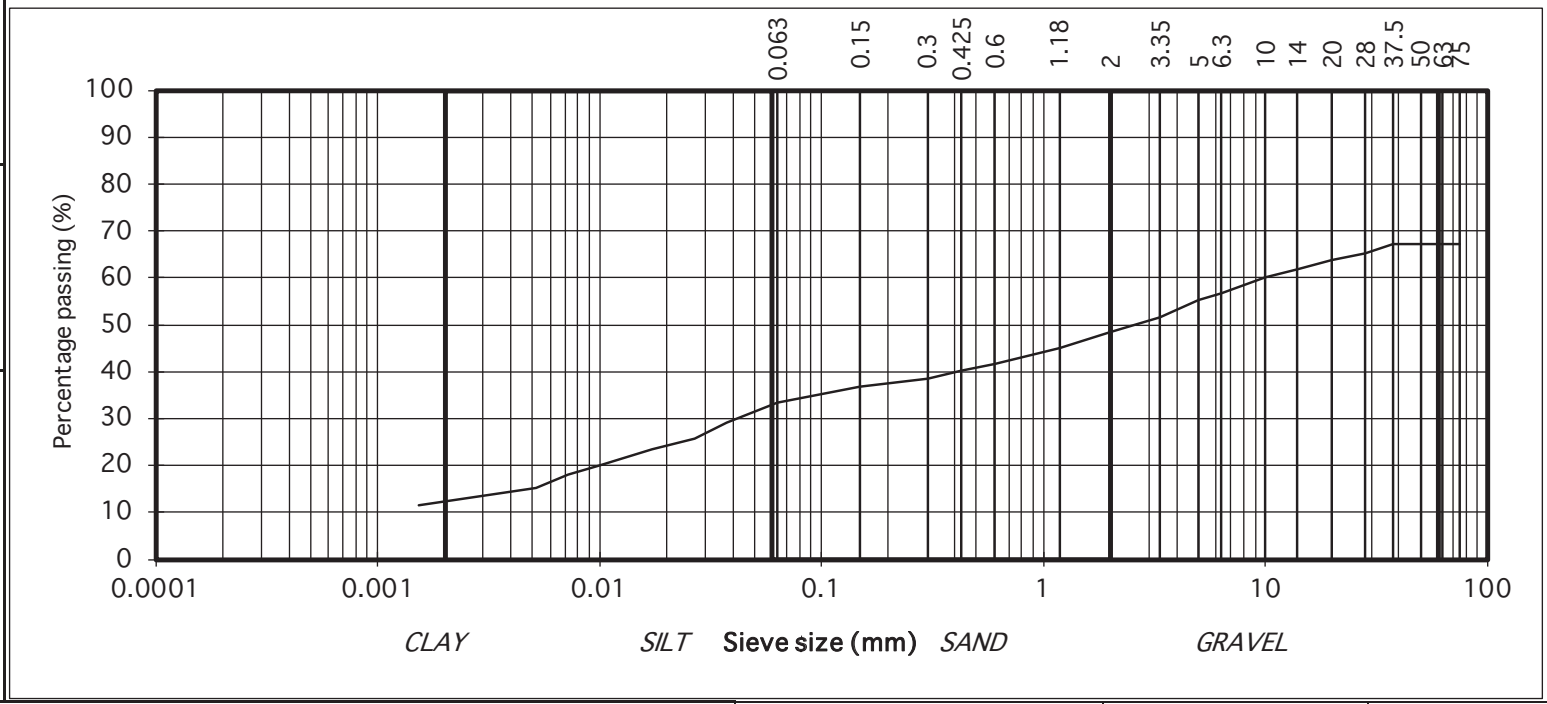
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	67	COBBLES
63	67	
50	67	GRAVEL
37.5	67	
28	65	
20	64	
14	62	
10	60	
6.3	57	
5	55	
3.35	52	
2	48	
1.18	45	SAND
0.6	42	
0.425	40	
0.3	39	
0.15	37	
0.063	33	SILT/CLAY
0.037	29	
0.027	26	
0.017	23	
0.010	20	
0.007	18	
0.005	15	
0.002	12	

Contract No. 22430 Report No. R110758
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH03
Sample No. AA130561 Lab. Sample No. A20/1189
Sample Type: B
Depth (m) 11.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly sandy, slightly gravelly, CLAY with many cobbles

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received. Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

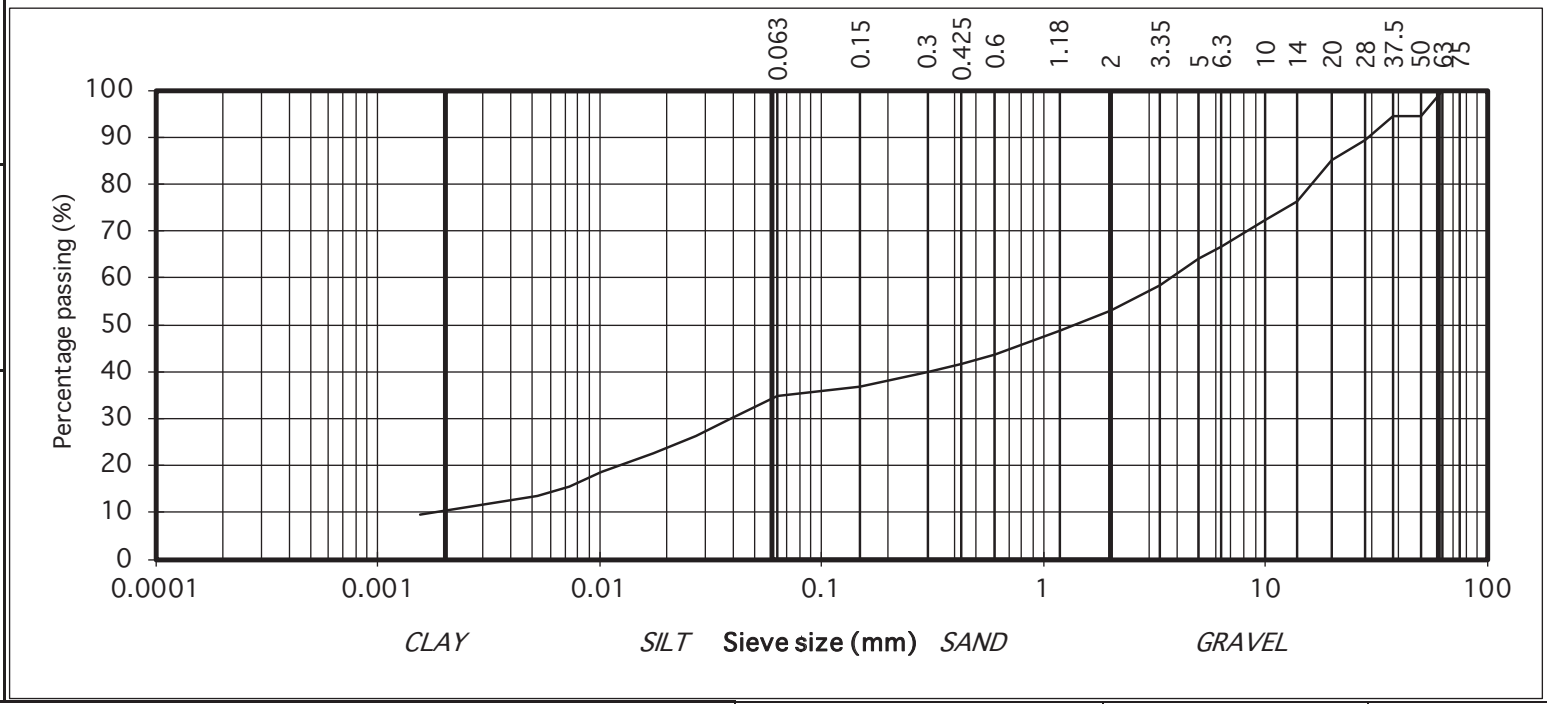
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	95	GRAVEL
37.5	95	
28	89	
20	85	
14	76	
10	72	
6.3	67	
5	64	
3.35	58	
2	53	
1.18	49	SAND
0.6	44	
0.425	42	
0.3	40	
0.15	37	
0.063	35	SILT/CLAY
0.038	30	
0.027	26	
0.018	22	
0.010	19	
0.007	15	
0.005	13	
0.002	10	

Contract No. 22430 Report No. R110759
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : BH03
Sample No. AA130563 Lab. Sample No. A20/1190
Sample Type: B
Depth (m) 13.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 18/03/2020
Description: Grey slightly sandy, gravelly, CLAY

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

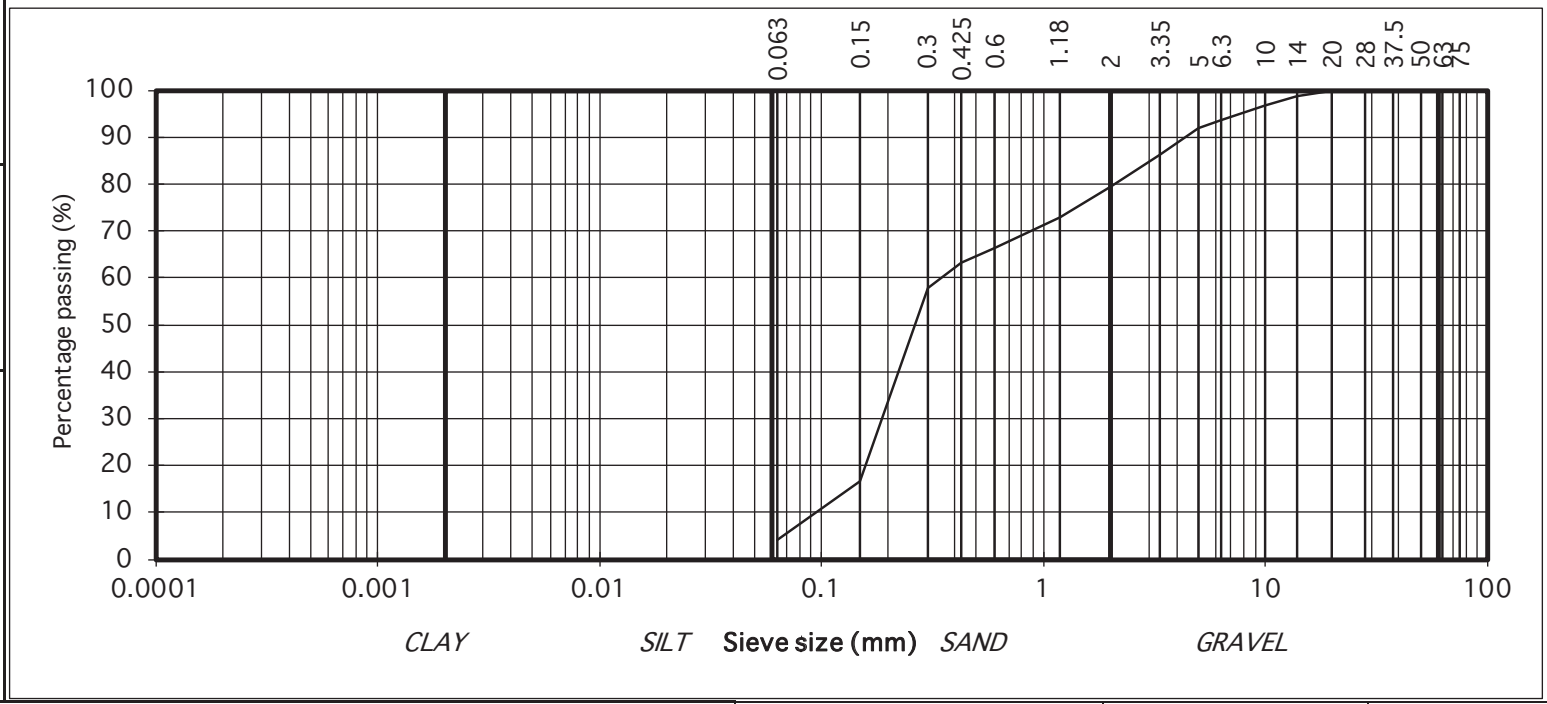
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	100	
14	99	
10	97	
6.3	94	
5	92	
3.35	86	
2	79	
1.18	73	SAND
0.6	66	
0.425	63	
0.3	58	
0.15	16	
0.063	4	SILT/CLAY

Contract No. 22430 Report No. R110791
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : WS01
Sample No. AA1711 Lab. Sample No. A20/1191
Sample Type: B
Depth (m) 2.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 20/03/2020
Description: Brown slightly clayey/silty, very gravelly, SAND

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

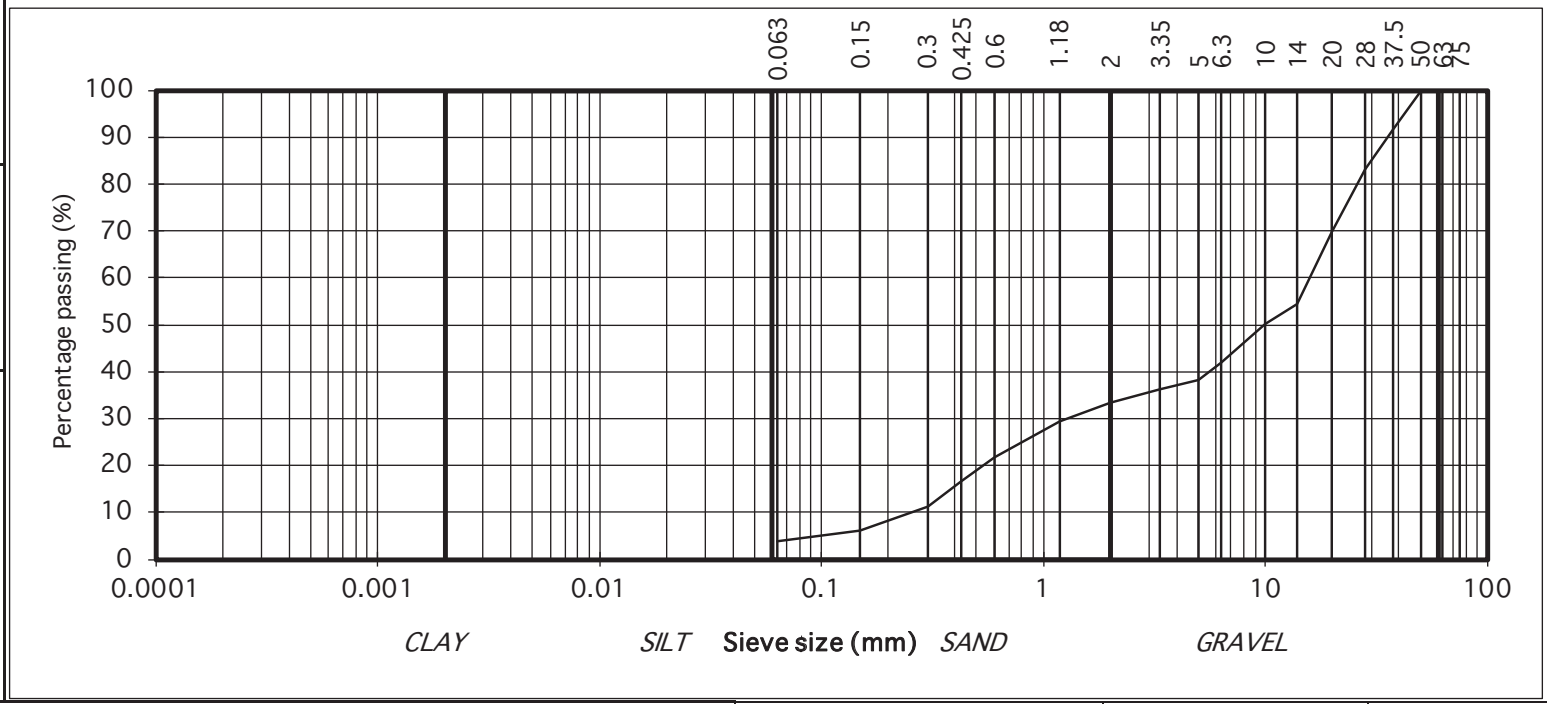
TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	92	
28	83	
20	70	
14	55	
10	50	
6.3	42	
5	38	
3.35	36	
2	33	
1.18	30	SAND
0.6	22	
0.425	17	
0.3	11	
0.15	6	
0.063	4	SILT/CLAY

Contract No. 22430 Report No. R110878
Contract: Maxol , Beach Road , Sandymount , Dublin 4
BH/TP : WS02
Sample No. AA1714 Lab. Sample No. A20/1192
Sample Type: B
Depth (m) 3.00 Customer: Punch, Carnegie House, Library Road, Dun Laoghaire, Co Dublin
Date Received 18/03/2020 Date Testing started 20/03/2020
Description: Brown slightly clayey/silty, very sandy, GRAVEL

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 . Results apply to sample as received.



IGSL Ltd Materials Laboratory

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

Appendix 7

Environmental Laboratory Testing

eurofins | Chemtest
Eurofins Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	20-09091-2		
Initial Date of Issue:	09-Apr-2020	**Date of Re-Issue:**	09-Jul-2020
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	Sandymount		
Quotation No.:		**Date Received:**	23-Mar-2020
Order No.:		**Date Instructed:**	01-Apr-2020
No. of Samples:	14		
Turnaround (Wkdays):	7	**Results Due:**	09-Apr-2020
Date Approved:	09-Jul-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Leachate

Project: Sandymount

Client: IGSL					**Chemtest Job No.:**	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091
Quotation No.:					**Chemtest Sample ID.:**	990223	990224	990229	990231	990232	990233	990235	990236	990238
					Sample Location:	WS1	WS1	BH1	BH1	BH2	BH2	BH2	BH3	BH3
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.5	1.0	1.0	3.0	0.3	1.0	3.0	1.0	3.0
					Bottom Depth (m):	1.0	2.0							
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**									
pH	U	1010	10:1		N/A	9.3	9.2	9.2	9.7	10.3	10.1	9.4	9.4	9.1
Ammonium	U	1220	10:1	mg/l	0.050	< 0.050	0.062	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Ammonium	N	1220	10:1	mg/kg	0.10	1.1	1.2	0.83	1.7	2.8	0.43	0.99	0.88	0.54
Boron (Dissolved)	U	1450	10:1	µg/l	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Boron (Dissolved)	U	1450	10:1	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Results - Soil

Project: Sandymount

Client: IGSL			Chemtest Job No.:		20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091
Quotation No.:			Chemtest Sample ID.:		990223	990224	990225	990228	990229	990230	990231	990232	990233
			Sample Location:		WS1	WS1	WS1	WS2	BH1	BH1	BH1	BH2	BH2
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	1.0	2.0	3.5	1.0	2.0	3.0	0.3	1.0
			Bottom Depth (m):		1.0	2.0	3.0	4.0					
			Asbestos Lab:		LIVERPOOL	LIVERPOOL			LIVERPOOL		LIVERPOOL	LIVERPOOL	LIVERPOOL
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-	-			-		-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected			No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-			-		-	-	-
Moisture	N	2030	%	0.020	13	18	20	13	16	15	6.1	13	14
pH (2.5:1)	N	2010		4.0			[A] 9.0	[A] 8.7		[A] 8.9			
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	< 0.40	< 0.40			< 0.40		< 0.40	0.64	< 0.40
Magnesium (Water Soluble)	N	2120	g/l	0.010			< 0.010	< 0.010		< 0.010			
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010			< 0.010	0.21		< 0.010			
Total Sulphur	M	2175	%	0.010			[A] 0.014	[A] 0.050		[A] 0.022			
Sulphur (Elemental)	M	2180	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[A] 170	[A] 12
Chloride (Water Soluble)	M	2220	g/l	0.010			[A] < 0.010	[A] < 0.010		[A] < 0.010			
Nitrate (Water Soluble)	N	2220	g/l	0.010			< 0.010	< 0.010		< 0.010			
Cyanide (Total)	M	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50			[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 4.8	[A] 2.1			[A] 2.8		[A] 3.6	[A] 12	[A] 2.6
Ammonium (Water Soluble)	M	2120	g/l	0.01			0.07	0.24		0.14			
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.070	[A] 0.017	[A] 0.019	[A] 0.035	[A] 0.025	[A] 0.037	[A] 0.031	[A] 0.40	[A] 0.093
Arsenic	M	2450	mg/kg	1.0	13	6.0			7.7		16	19	10
Barium	M	2450	mg/kg	10	15	< 10			< 10		17	120	25
Cadmium	M	2450	mg/kg	0.10	0.28	< 0.10			< 0.10		0.16	0.73	0.20
Chromium	M	2450	mg/kg	1.0	6.7	4.0			4.5		7.5	18	5.8
Molybdenum	M	2450	mg/kg	2.0	< 2.0	< 2.0			< 2.0		< 2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0			< 2.0		< 2.0	< 2.0	< 2.0
Copper	M	2450	mg/kg	0.50	11	1.0			3.0		3.9	38	9.5
Mercury	M	2450	mg/kg	0.10	0.20	< 0.10			< 0.10		< 0.10	0.42	< 0.10
Nickel	M	2450	mg/kg	0.50	12	4.2			6.0		9.4	33	12
Lead	M	2450	mg/kg	0.50	42	2.0			15		4.0	210	39
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20			< 0.20		< 0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	24	8.7			11		15	140	39
Chromium (Trivalent)	N	2490	mg/kg	1.0	6.7	4.0			4.5		7.5	18	5.8
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50			< 0.50		< 0.50	< 0.50	< 0.50
Total Organic Carbon	M	2625	%	0.20	[A] 0.99	[A] < 0.20			[A] 0.40		[A] 0.50	[A] 3.8	[A] 1.1
Mineral Oil	N	2670	mg/kg	10	< 10	< 10			< 10		< 10	1000	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] 29	[A] < 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] 43	[A] < 1.0

Results - Soil

Project: Sandymount

Client: IGSL			Chemtest Job No.:		20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091
Quotation No.:			Chemtest Sample ID.:		990223	990224	990225	990228	990229	990230	990231	990232	990233
			Sample Location:		WS1	WS1	WS1	WS2	BH1	BH1	BH1	BH2	BH2
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	1.0	2.0	3.5	1.0	2.0	3.0	0.3	1.0
			Bottom Depth (m):		1.0	2.0	3.0	4.0					
			Asbestos Lab:		LIVERPOOL	LIVERPOOL			LIVERPOOL		LIVERPOOL	LIVERPOOL	LIVERPOOL
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] 850	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] 92	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0			[A] < 5.0		[A] < 5.0	[AC] 1000	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] 3.6	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] 61	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] 370	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] 110	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] 64	[A] < 5.0			[A] < 5.0		[A] < 5.0	[AC] 490	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] 64	[A] < 10			[A] < 10		[A] < 10	[AC] 1500	[A] < 10
Benzene	M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Toluene	M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Ethylbenzene	M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
m & p-Xylene	M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
o-Xylene	M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0			[A] < 1.0		[A] < 1.0	[AC] < 1.0	[A] < 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		< 0.10	0.32	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		< 0.10	0.13	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.11	0.72	0.10
Benzo[j]fluoranthene	N	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.11	0.37	< 0.10
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		< 0.10	0.14	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.21	0.75	0.13
Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.19	0.78	0.13
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.23	0.45	< 0.10
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.18	0.53	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.21	0.73	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.12	0.37	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.18	0.44	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.13	0.52	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		< 0.10	0.19	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		0.13	0.59	< 0.10
Coronene	N	2800	mg/kg	0.10	< 0.10	< 0.10			< 0.10		< 0.10	< 0.10	< 0.10
Total Of 17 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0			< 2.0		< 2.0	6.8	< 2.0
PCB 28	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010		[A] < 0.010	[AC] < 0.010	[A] < 0.010

Results - Soil

Project: Sandymount

Client: IGSL			**Chemtest Job No.:**		20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091	20-09091
Quotation No.:			**Chemtest Sample ID.:**		990223	990224	990225	990228	990229	990230	990231	990232	990233
			Sample Location:		WS1	WS1	WS1	WS2	BH1	BH1	BH1	BH2	BH2
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	1.0	2.0	3.5	1.0	2.0	3.0	0.3	1.0
			Bottom Depth (m):		1.0	2.0	3.0	4.0					
			Asbestos Lab:		LIVERPOOL	LIVERPOOL			LIVERPOOL		LIVERPOOL	LIVERPOOL	LIVERPOOL
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
PCB 52	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010		[A] < 0.010	[AC] < 0.010	[A] < 0.010
PCB 90+101	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010		[A] < 0.010	[AC] < 0.010	[A] < 0.010
PCB 118	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010		[A] < 0.010	[AC] < 0.010	[A] < 0.010
PCB 153	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010		[A] < 0.010	[AC] < 0.010	[A] < 0.010
PCB 138	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010		[A] < 0.010	[AC] < 0.010	[A] < 0.010
PCB 180	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010			[A] < 0.010		[A] < 0.010	[AC] < 0.010	[A] < 0.010
Total PCBs (7 Congeners)	U	2815	mg/kg	0.10	[A] < 0.10	[A] < 0.10			[A] < 0.10		[A] < 0.10	[AC] < 0.10	[A] < 0.10
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30			< 0.30		< 0.30	< 0.30	< 0.30

Results - Soil

Project: Sandymount

Client: IGSL				**Chemtest Job No.:**	20-09091	20-09091	20-09091	20-09091	20-09091
Quotation No.:				**Chemtest Sample ID.:**	990234	990235	990236	990237	990238
				Sample Location:	BH2	BH2	BH3	BH3	BH3
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	2.0	3.0	1.0	2.0	3.0
				Bottom Depth (m):					
				Asbestos Lab:		LIVERPOOL	LIVERPOOL		LIVERPOOL
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
ACM Type	U	2192		N/A		-	-		-
Asbestos Identification	U	2192	%	0.001		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected
ACM Detection Stage	U	2192		N/A		-	-		-
Moisture	N	2030	%	0.020	20	13	8.8	14	20
pH (2.5:1)	N	2010		4.0	[A] 9.0			[A] 9.0	
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40		< 0.40	< 0.40		< 0.40
Magnesium (Water Soluble)	N	2120	g/l	0.010	< 0.010			< 0.010	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	< 0.010			< 0.010	
Total Sulphur	M	2175	%	0.010	[A] 0.023			[A] 0.024	
Sulphur (Elemental)	M	2180	mg/kg	1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0
Chloride (Water Soluble)	M	2220	g/l	0.010	[A] < 0.010			[A] < 0.010	
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010			< 0.010	
Cyanide (Total)	M	2300	mg/kg	0.50		[A] < 0.50	[A] < 0.50		[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50		[A] 5.2	[A] 3.9		[A] 3.9
Ammonium (Water Soluble)	M	2120	g/l	0.01	0.04			0.06	
Sulphate (Acid Soluble)	M	2430	%	0.010	[A] 0.035	[A] 0.030	[A] 0.058	[A] 0.050	[A] 0.048
Arsenic	M	2450	mg/kg	1.0		9.1	15		5.5
Barium	M	2450	mg/kg	10		< 10	15		< 10
Cadmium	M	2450	mg/kg	0.10		0.14	0.21		< 0.10
Chromium	M	2450	mg/kg	1.0		10	5.1		5.4
Molybdenum	M	2450	mg/kg	2.0		< 2.0	< 2.0		< 2.0
Antimony	N	2450	mg/kg	2.0		< 2.0	< 2.0		< 2.0
Copper	M	2450	mg/kg	0.50		5.0	4.8		1.7
Mercury	M	2450	mg/kg	0.10		< 0.10	< 0.10		< 0.10
Nickel	M	2450	mg/kg	0.50		13	7.4		6.0
Lead	M	2450	mg/kg	0.50		5.5	11		2.3
Selenium	M	2450	mg/kg	0.20		< 0.20	< 0.20		< 0.20
Zinc	M	2450	mg/kg	0.50		28	16		13
Chromium (Trivalent)	N	2490	mg/kg	1.0		10	5.1		5.4
Chromium (Hexavalent)	N	2490	mg/kg	0.50		< 0.50	< 0.50		< 0.50
Total Organic Carbon	M	2625	%	0.20		[A] 0.35	[A] 0.59		[A] < 0.20
Mineral Oil	N	2670	mg/kg	10		< 10	< 10		< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0		[A] < 1.0

Results - Soil

Project: Sandymount

Client: IGSL		**Chemtest Job No.:**				20-09091	20-09091	20-09091	20-09091	20-09091
Quotation No.:		**Chemtest Sample ID.:**				990234	990235	990236	990237	990238
				Sample Location:		BH2	BH2	BH3	BH3	BH3
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		2.0	3.0	1.0	2.0	3.0
				Bottom Depth (m):						
				Asbestos Lab:			LIVERPOOL	LIVERPOOL		LIVERPOOL
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0			[A] < 5.0	[A] < 5.0		[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0			[A] < 5.0	[A] < 5.0		[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0			[A] < 10	[A] < 10		[A] < 10
Benzene	M	2760	µg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Toluene	M	2760	µg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Ethylbenzene	M	2760	µg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
m & p-Xylene	M	2760	µg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
o-Xylene	M	2760	µg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0			[A] < 1.0	[A] < 1.0		[A] < 1.0
Naphthalene	M	2800	mg/kg	0.10			< 0.10	< 0.10		< 0.10
Acenaphthylene	N	2800	mg/kg	0.10			< 0.10	< 0.10		< 0.10
Acenaphthene	M	2800	mg/kg	0.10			< 0.10	< 0.10		< 0.10
Fluorene	M	2800	mg/kg	0.10			< 0.10	< 0.10		< 0.10
Phenanthrene	M	2800	mg/kg	0.10			< 0.10	< 0.10		0.26
Benzo[j]fluoranthene	N	2800	mg/kg	0.10			< 0.10	0.21		0.45
Anthracene	M	2800	mg/kg	0.10			< 0.10	< 0.10		< 0.10
Fluoranthene	M	2800	mg/kg	0.10			< 0.10	0.42		0.60
Pyrene	M	2800	mg/kg	0.10			< 0.10	0.43		0.50
Benzo[a]anthracene	M	2800	mg/kg	0.10			< 0.10	0.32		0.63
Chrysene	M	2800	mg/kg	0.10			< 0.10	0.26		0.75
Benzo[b]fluoranthene	M	2800	mg/kg	0.10			< 0.10	0.40		0.79
Benzo[k]fluoranthene	M	2800	mg/kg	0.10			< 0.10	0.24		0.56
Benzo[a]pyrene	M	2800	mg/kg	0.10			< 0.10	0.35		0.49
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10			< 0.10	0.25		0.82
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10			< 0.10	< 0.10		0.48
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10			< 0.10	0.32		0.69
Coronene	N	2800	mg/kg	0.10			< 0.10	< 0.10		< 0.10
Total Of 17 PAH's	N	2800	mg/kg	2.0			< 2.0	3.2		6.7
PCB 28	U	2815	mg/kg	0.010			[A] < 0.010	[A] < 0.010		[A] < 0.010

Results - Soil

Project: Sandymount

Client: IGSL			**Chemtest Job No.:**		20-09091	20-09091	20-09091	20-09091	20-09091
Quotation No.:			**Chemtest Sample ID.:**		990234	990235	990236	990237	990238
			Sample Location:		BH2	BH2	BH3	BH3	BH3
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		2.0	3.0	1.0	2.0	3.0
			Bottom Depth (m):						
			Asbestos Lab:			LIVERPOOL	LIVERPOOL		LIVERPOOL
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
PCB 52	U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 90+101	U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 118	U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 153	U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 138	U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 180	U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010		[A] < 0.010
Total PCBs (7 Congeners)	U	2815	mg/kg	0.10		[A] < 0.10	[A] < 0.10		[A] < 0.10
Total Phenols	M	2920	mg/kg	0.30		< 0.30	< 0.30		< 0.30

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990223						
Sample Ref:							
Sample ID:							
Sample Location:	WS1						
Top Depth(m):	0.5						
Bottom Depth(m):	1.0						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] 0.99	3	5	6
Loss On Ignition	2610	M	%	2.2	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] 64	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	M		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.023	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	0.0053	0.053	0.5	2	25
Barium	1450	U	0.0017	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0029	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	0.0016	0.016	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.25	2.5	10	150	500
Sulphate	1220	U	4.7	47	1000	20000	50000
Total Dissolved Solids	1020	N	62	620	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.7	97	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990224						
Sample Ref:							
Sample ID:							
Sample Location:	WS1						
Top Depth(m):	1.0						
Bottom Depth(m):	2.0						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	M	%	0.74	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	M		9.1	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.020	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	0.0066	0.066	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0012	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.17	1.7	10	150	500
Sulphate	1220	U	2.5	25	1000	20000	50000
Total Dissolved Solids	1020	N	49	490	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	11	110	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	18

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990229						
Sample Ref:							
Sample ID:							
Sample Location:	BH1						
Top Depth(m):	1.0						
Bottom Depth(m):							
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] 0.40	3	5	6
Loss On Ignition	2610	M	%	1.0	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	M		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.040	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	0.011	0.11	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0014	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	1.9	19	1000	20000	50000
Total Dissolved Solids	1020	N	44	430	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	6.7	67	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	16

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990231						
Sample Ref:							
Sample ID:							
Sample Location:	BH1						
Top Depth(m):	3.0						
Bottom Depth(m):							
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] 0.50	3	5	6
Loss On Ignition	2610	M	%	0.74	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	M		9.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.075	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.11	1.1	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	33	330	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	< 2.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	6.1

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990232						
Sample Ref:							
Sample ID:							
Sample Location:	BH2						
Top Depth(m):	0.3						
Bottom Depth(m):							
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] 3.8	3	5	6
Loss On Ignition	2610	M	%	6.0	--	--	10
Total BTEX	2760	M	mg/kg	[AC] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[AC] 1500	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	6.8	100	--	--
pH	2010	M		11.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.11	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	0.0062	0.062	0.5	2	25
Barium	1450	U	0.074	0.74	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.011	0.11	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.018	0.18	0.5	10	30
Nickel	1450	U	0.010	0.10	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	0.0015	0.015	0.06	0.7	5
Selenium	1450	U	0.0027	0.027	0.1	0.5	7
Zinc	1450	U	0.029	< 0.50	4	50	200
Chloride	1220	U	72	720	800	15000	25000
Fluoride	1220	U	0.078	< 1.0	10	150	500
Sulphate	1220	U	1400	14000	1000	20000	50000
Total Dissolved Solids	1020	N	1400	14000	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.3	93	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990233						
Sample Ref:							
Sample ID:							
Sample Location:	BH2						
Top Depth(m):	1.0						
Bottom Depth(m):							
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] 1.1	3	5	6
Loss On Ignition	2610	M	%	2.2	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	M		9.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.030	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	0.012	0.12	0.5	2	25
Barium	1450	U	0.0024	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0029	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0033	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	0.0010	0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.4	14	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	45	450	1000	20000	50000
Total Dissolved Solids	1020	N	160	1600	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.3	93	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	14

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990235						
Sample Ref:							
Sample ID:							
Sample Location:	BH2						
Top Depth(m):	3.0						
Bottom Depth(m):							
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] 0.35	3	5	6
Loss On Ignition	2610	M	%	1.2	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	M		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.041	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	0.0025	< 0.050	0.5	2	25
Barium	1450	U	0.0011	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0014	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.036	0.36	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	4.5	45	800	15000	25000
Fluoride	1220	U	0.17	1.7	10	150	500
Sulphate	1220	U	18	180	1000	20000	50000
Total Dissolved Solids	1020	N	85	840	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

Chemtest Job No:	20-09091				**Landfill Waste Acceptance Criteria Limits**		
Chemtest Sample ID:	990236						
Sample Ref:							
Sample ID:							
Sample Location:	BH3				**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Top Depth(m):	1.0						
Bottom Depth(m):							
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**				
Total Organic Carbon	2625	M	%	[A] 0.59	3	5	6
Loss On Ignition	2610	M	%	1.2	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	3.2	100	--	--
pH	2010	M		9.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.082	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	0.0046	< 0.050	0.5	2	25
Barium	1450	U	0.0015	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0018	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0022	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.011	< 0.50	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	8.4	84	1000	20000	50000
Total Dissolved Solids	1020	N	64	640	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.9	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.8

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Sandymount

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	20-09091						
Chemtest Sample ID:	990238						
Sample Ref:							
Sample ID:							
Sample Location:	BH3						
Top Depth(m):	3.0						
Bottom Depth(m):							
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	M	%	0.94	--	--	10
Total BTEX	2760	M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	6.7	100	--	--
pH	2010	M		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.036	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.017	0.17	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	4.0	40	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	20	200	1000	20000	50000
Total Dissolved Solids	1020	N	78	780	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	5.3	53	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	20

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Eurofins Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
990223			WS1		A	Amber Glass 250ml
990223			WS1		A	Plastic Tub 500g
990224			WS1		A	Amber Glass 250ml
990224			WS1		A	Plastic Tub 500g
990225			WS1		A	Amber Glass 250ml
990225			WS1		A	Plastic Tub 500g
990228			WS2		A	Amber Glass 250ml
990228			WS2		A	Plastic Tub 500g
990229			BH1		A	Amber Glass 250ml
990229			BH1		A	Plastic Tub 500g
990230			BH1		A	Amber Glass 250ml
990230			BH1		A	Plastic Tub 500g
990231			BH1		A	Amber Glass 250ml
990231			BH1		A	Plastic Tub 500g
990232			BH2		AC	Plastic Tub 500g
990233			BH2		A	Amber Glass 250ml
990233			BH2		A	Plastic Tub 500g
990234			BH2		A	Amber Glass 250ml
990234			BH2		A	Plastic Tub 500g
990235			BH2		A	Amber Glass 250ml
990235			BH2		A	Plastic Tub 500g
990236			BH3		A	Amber Glass 250ml
990236			BH3		A	Plastic Tub 500g

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Eurofins Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
990237			BH3		A	Amber Glass 250ml
990237			BH3		A	Plastic Tub 500g
990238			BH3		A	Amber Glass 250ml
990238			BH3		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurememrnt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID

Test Methods

SOP	Title	Parameters included	Method summary
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Chemtest
The right chemistry to deliver results
Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

UKAS TESTING
2183

Final Report

Report No.:	20-12043-1
Initial Date of Issue:	15-May-2020
Client	IGSL
Client Address:	M7 Business Park Naas County Kildare Ireland
Contact(s):	Darren Keogh
Project	Maxol Sandymount
Quotation No.:	
Order No.:	
No. of Samples:	3
Turnaround (Wkdays):	7
Date Approved:	15-May-2020
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	11-May-2020
Date Instructed:	11-May-2020
Results Due:	19-May-2020

Chemtest
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Results - Water

Project: Maxol Sandymount

Client: IGSL					**Chemtest Job No.:**	20-12043	20-12043	20-12043
Quotation No.:					**Chemtest Sample ID.:**	1003365	1003366	1003367
					Sample Location:	RC01	RC02	RC03
					Sample Type:	WATER	WATER	WATER
					Top Depth (m):	1.73	1.92	2.55
					Date Sampled:	06-May-2020	06-May-2020	06-May-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
pH	U	1010		N/A		7.4	8.0	7.6
Electrical Conductivity	U	1020	µS/cm	1.0		2600	1900	5800
Total Dissolved Solids	N	1020	mg/l	1.0		1700	1200	3800
Chloride	U	1220	mg/l	1.0		330	360	1600
Sulphate	U	1220	mg/l	1.0		110	64	310
Arsenic (Dissolved)	U	1450	µg/l	1.0		6.7	4.0	6.2
Cadmium (Dissolved)	U	1450	µg/l	0.080		< 0.080	0.20	0.24
Chromium (Dissolved)	U	1450	µg/l	1.0		9.6	6.1	18
Copper (Dissolved)	U	1450	µg/l	1.0		5.2	4.0	6.9
Mercury (Dissolved)	U	1450	µg/l	0.50		< 0.50	< 0.50	< 0.50
Nickel (Dissolved)	U	1450	µg/l	1.0		9.3	7.1	6.6
Lead (Dissolved)	U	1450	µg/l	1.0		< 1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	µg/l	1.0		12	10	16
Zinc (Dissolved)	U	1450	µg/l	1.0		8.2	6.1	37
Total Organic Carbon	U	1610	mg/l	2.0		14	9.7	12
Naphthalene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0		< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0		[C] < 1.0	[C] < 1.0	[C] < 1.0
Chloromethane	U	1760	µg/l	1.0		[C] < 1.0	[C] < 1.0	[C] < 1.0
Vinyl Chloride	N	1760	µg/l	1.0		[C] < 1.0	[C] < 1.0	[C] < 1.0
Bromomethane	U	1760	µg/l	5.0		[C] < 5.0	[C] < 5.0	[C] < 5.0
Chloroethane	U	1760	µg/l	2.0		[C] < 2.0	[C] < 2.0	[C] < 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0		[C] < 1.0	[C] < 1.0	[C] < 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0		[C] < 1.0	[C] < 1.0	[C] < 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0		[C] < 1.0	[C] < 1.0	[C] < 1.0

Chemtest
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Results - Water

Project: Maxol Sandymount

Client: IGSL					**Chemtest Job No.:**	20-12043	20-12043	20-12043
Quotation No.:					**Chemtest Sample ID.:**	1003365	1003366	1003367
					Sample Location:	RC01	RC02	RC03
					Sample Type:	WATER	WATER	WATER
					Top Depth (m):	1.73	1.92	2.55
					Date Sampled:	06-May-2020	06-May-2020	06-May-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
1,1-Dichloroethane	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Bromochloromethane	U	1760	µg/l	5.0	[C] < 5.0	[C] < 5.0	[C] < 5.0	
Trichloromethane	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,1,1-Trichloroethane	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Tetrachloromethane	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,1-Dichloropropene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Benzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,2-Dichloroethane	U	1760	µg/l	2.0	[C] < 2.0	[C] < 2.0	[C] < 2.0	
Trichloroethene	N	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,2-Dichloropropane	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Dibromomethane	U	1760	µg/l	10	[C] < 10	[C] < 10	[C] < 10	
Bromodichloromethane	U	1760	µg/l	5.0	[C] < 5.0	[C] < 5.0	[C] < 5.0	
cis-1,3-Dichloropropene	N	1760	µg/l	10	[C] < 10	[C] < 10	[C] < 10	
Toluene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Trans-1,3-Dichloropropene	N	1760	µg/l	10	[C] < 10	[C] < 10	[C] < 10	
1,1,2-Trichloroethane	U	1760	µg/l	10	[C] < 10	[C] < 10	[C] < 10	
Tetrachloroethene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,3-Dichloropropane	U	1760	µg/l	2.0	[C] < 2.0	[C] < 2.0	[C] < 2.0	
Dibromochloromethane	U	1760	µg/l	10	[C] < 10	[C] < 10	[C] < 10	
1,2-Dibromoethane	U	1760	µg/l	5.0	[C] < 5.0	[C] < 5.0	[C] < 5.0	
Chlorobenzene	N	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	[C] < 2.0	[C] < 2.0	[C] < 2.0	
Ethylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
m & p-Xylene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
o-Xylene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Styrene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Tribromomethane	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Isopropylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Bromobenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,2,3-Trichloropropane	N	1760	µg/l	50	[C] < 50	[C] < 50	[C] < 50	
N-Propylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
2-Chlorotoluene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
4-Chlorotoluene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Tert-Butylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Sec-Butylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,3-Dichlorobenzene	N	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
4-Isopropyltoluene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	

Chemtest
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Results - Water

Project: Maxol Sandymount

Client: IGSL					**Chemtest Job No.:**	20-12043	20-12043	20-12043
Quotation No.:					**Chemtest Sample ID.:**	1003365	1003366	1003367
					Sample Location:	RC01	RC02	RC03
					Sample Type:	WATER	WATER	WATER
					Top Depth (m):	1.73	1.92	2.55
					Date Sampled:	06-May-2020	06-May-2020	06-May-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
1,4-Dichlorobenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
N-Butylbenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,2-Dichlorobenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	[C] < 50	[C] < 50	[C] < 50	
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
Hexachlorobutadiene	U	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	[C] < 2.0	[C] < 2.0	[C] < 2.0	
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	[C] < 1.0	[C] < 1.0	[C] < 1.0	
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	

Chemtest
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Results - Water

Project: Maxol Sandymount

Client: IGSL		**Chemtest Job No.:**			20-12043	20-12043	20-12043
Quotation No.:		**Chemtest Sample ID.:**			1003365	1003366	1003367
				Sample Location:	RC01	RC02	RC03
				Sample Type:	WATER	WATER	WATER
				Top Depth (m):	1.73	1.92	2.55
				Date Sampled:	06-May-2020	06-May-2020	06-May-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1003365			RC01	06-May-2020	C	Coloured Winchester 1000ml
1003366			RC02	06-May-2020	C	Coloured Winchester 1000ml
1003367			RC03	06-May-2020	C	Coloured Winchester 1000ml

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

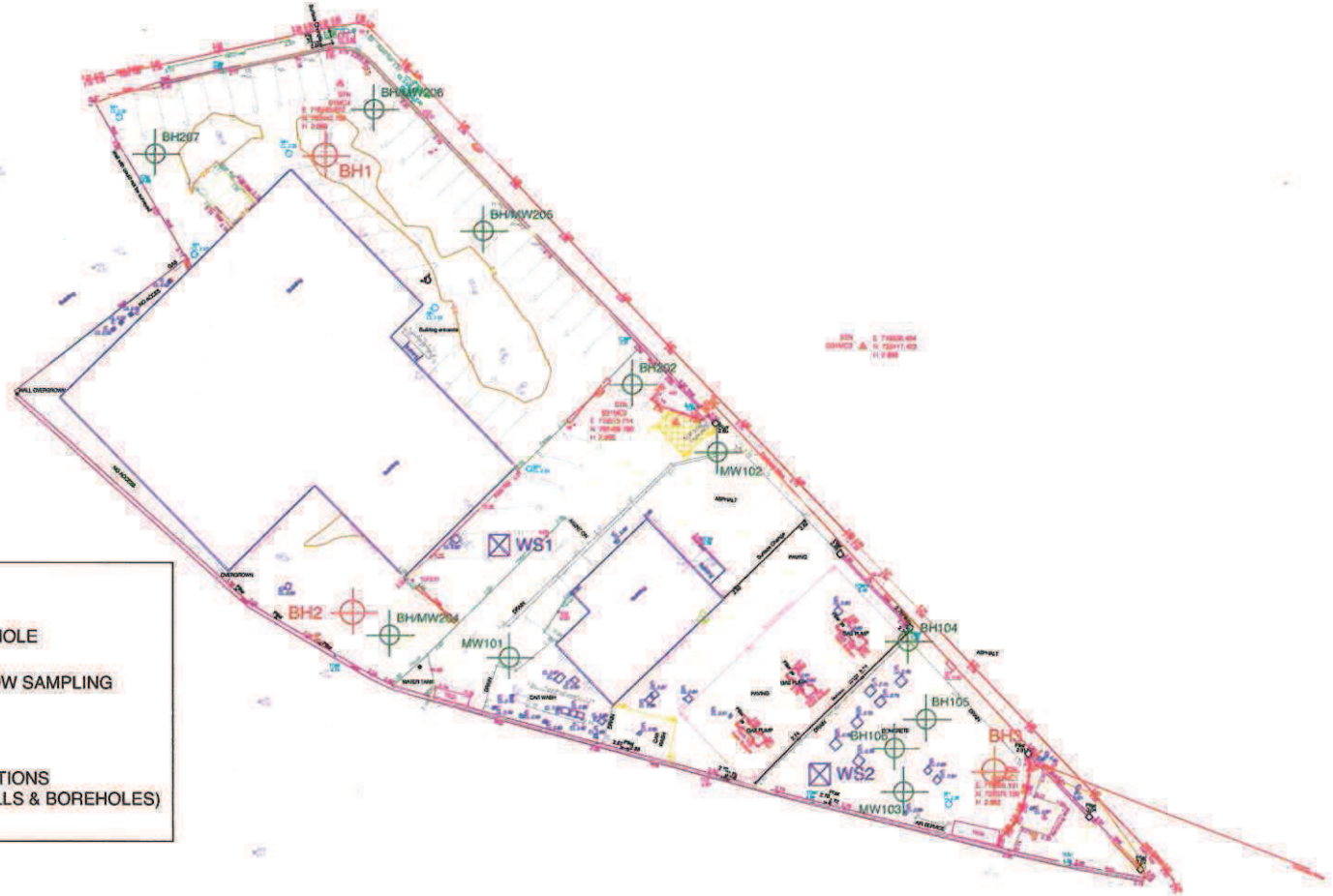
Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix 8

Site Plan



LEGEND:

- PROPOSED BOREHOLE
- PROPOSED WINDOW SAMPLING
- EXISTING SI LOCATIONS (MONITORING WELLS & BOREHOLES)

PUNCH consulting engineers

SKETCH REF:

172	387	PC	06	02	20	SK001
Project No.		By		Date		SK No.

LEGEND

Murphy Surveys Ltd. Disclaimer

The user or recipient of this survey data understands and acknowledges that data may be inaccurate or contain errors or omissions and the user or recipient accepts full responsibility for any risks or damages resulting from, relating, from, or in connection with any use of or reliance upon data displayed herein. Although significant care has been exercised to produce surveys that satisfy survey accuracy standards, these survey is an only an accurate at the survey date from which they were compiled. Although all reasonable steps have been taken to locate all features visible at the time of the survey, there is no guarantee that all will be shown on the drawing, or some above ground features may have obstructed the survey. Wherever possible, areas unable to be surveyed will be labelled as 'UTS'.

The Company shall not be liable for any inaccuracy of the data provided beyond the specified scale or accuracy, or for any matters resulting from their use for purposes other than that stated in the Contract. No liability shall attach to the Surveyor in respect of any consequential loss or damages sufferred by the Client.

The Client must promptly notify the Company of any errors in mapping of which it becomes aware. If misleading, inaccurate or otherwise inappropriate information is brought to the Company's attention or the Company itself identifies any such imprecision or error in a survey, it shall use its reasonable endeavours to fix or remove it and if necessary in certain circumstances, the Company being on notice of any such misleading, inaccurate or otherwise inappropriate information, will re-conduct the survey and reproduce the data to within the specified scale or accuracy.

North

Site Location

Key Survey Layout

Surveyed by: MC	Date: 31/10/11/2017	Status: Main Grid
Drawn by: LB/CH	Date: 03.11.2017	Grid System:
Checked by: PK	Date: 07.11.2017	Main Grid: ☐ Site Grid: ☐

No	Date	Revisions Description
1	03.11.2017	Site Survey

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Client:	Punch Consulting Engineers
Project:	Maxol Beach Road Sandymount
Date: 03.11.2017	Scale: 1:250@A1
Description:	Topographical Survey
Drawing Number:	MSL23186_T_2D_ITM_Rev0

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Appendix E Waste Characterisation Assessment

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

D585Q-DW8RM-LMIPQ

Job name

604355 Walls at Maxol Beach Road, Sadnymount

Description/Comments

Project

604355 Walls at Maxol Beach Road, Sadnymount

Site

Former Maxol Service Station, Beach Road

Classified by

Name:
Michael Owens
Date:
02 Feb 2023 14:59 GMT
Telephone:
+353 (0) 87 090 9442

Company:
RSK Ireland Limited
Unit B, Bluebell Business Centre
Old Nass Road
Dublin 12

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	08 May 2019
Most recent 3 year Refresher	06 Dec 2022

Next 3 year Refresher due by Dec 2025

Purpose of classification

7 - Disposal of Waste

Address of the waste

Former Maxol Service Station, Beach Road, Sandymount, Dublin 4 **Post Code** N/A

Description of industry/producer giving rise to the waste

Construction industry

Description of the specific process, sub-process and/or activity that created the waste

Excavation of basement across the site.

Description of the waste

Made Ground and Natural Ground

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP506 (0.0-2.0m)	0.0-2.0	Non Hazardous		3
2	TP506 (2.6m)	2.6	Non Hazardous		6
3	TP506 (3.0m)	3	Hazardous	HP 7, HP 11	9
4	TP507 (0.0-0.7m)	0.0-0.7	Non Hazardous		12
5	TP508 (0.0-1.8m)	0.0-1.8	Non Hazardous		15
6	TP509 (0.0-0.9m)	0.0-0.9	Non Hazardous		18
7	TP509 (0.9-2.2m)	0.9-2.2	Non Hazardous		21
8	Verde - BH405B	0.5-3.5	Hazardous	HP 7, HP 8, HP 11	24

Related documents

#	Name	Description
1	RSK Ireland Suite - Standard (2022)	waste stream template used to create this Job

Report

Created by: Michael Owens

Created date: 02 Feb 2023 14:59 GMT

Appendices	Page
Appendix A: Classifier defined and non EU CLP determinands	26
Appendix B: Rationale for selection of metal species	28
Appendix C: Version	28

Classification of sample: TP506 (0.0-2.0m)

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP506 (0.0-2.0m)
Sample Depth:
0.0-2.0 m
Moisture content:
7.9%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 7.9% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.1 pH		9.1 pH	9.1 pH		
2	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex }	051-003-00-9			1	2 mg/kg		1.854 mg/kg	0.000185 %	✓	
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12.4 mg/kg	1.32	15.173 mg/kg	0.00152 %	✓	
4	barium { barium oxide }		215-127-9	1304-28-5		56 mg/kg	1.117	57.947 mg/kg	0.00579 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.3 mg/kg	1.285	0.357 mg/kg	0.0000278 %	✓	
6	chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		82.9 mg/kg	1.462	112.292 mg/kg	0.0112 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	23.999 mg/kg	0.0024 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	40 mg/kg	1.56	57.824 mg/kg	0.00371 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		969 mg/kg	2.749	2468.358 mg/kg	0.247 %	✓	
10	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		4 mg/kg	1.5	5.561 mg/kg	0.000556 %	✓	
12	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		28.9 mg/kg	1.579	42.305 mg/kg	0.00423 %	✓	
13	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				1 mg/kg	1.405	1.302 mg/kg	0.00013 %	✓	
14	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		78 mg/kg	2.774	200.541 mg/kg	0.0201 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.8	mg/kg	13.43	9.957	mg/kg	0.000996 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
17		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035	mg/kg		<0.035	mg/kg	<0.0000035 %		<**LOD**
18		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
19		naphthalene	601-052-00-2	202-049-5	91-20-3		0.27	mg/kg		0.25	mg/kg	0.000025 %	✓	
20		acenaphthylene		205-917-1	208-96-8		0.14	mg/kg		0.13	mg/kg	0.000013 %	✓	
21		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
22		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
23		phenanthrene		201-581-5	85-01-8		0.45	mg/kg		0.417	mg/kg	0.0000417 %	✓	
24		anthracene		204-371-1	120-12-7		0.11	mg/kg		0.102	mg/kg	0.0000102 %	✓	
25		fluoranthene		205-912-4	206-44-0		0.92	mg/kg		0.853	mg/kg	0.0000853 %	✓	
26		pyrene		204-927-3	129-00-0		0.91	mg/kg		0.843	mg/kg	0.0000843 %	✓	
27		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.63	mg/kg		0.584	mg/kg	0.0000584 %	✓	
28		chrysene	601-048-00-0	205-923-4	218-01-9		0.77	mg/kg		0.714	mg/kg	0.0000714 %	✓	
29		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1.18	mg/kg		1.094	mg/kg	0.000109 %	✓	
30		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.46	mg/kg		0.426	mg/kg	0.0000426 %	✓	
31		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.87	mg/kg		0.806	mg/kg	0.0000806 %	✓	
32		indeno[123-cd]pyrene		205-893-2	193-39-5		0.66	mg/kg		0.612	mg/kg	0.0000612 %	✓	
33		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
34		benzo[ghi]perylene		205-883-8	191-24-2		0.56	mg/kg		0.519	mg/kg	0.0000519 %	✓	
35		coronene		205-881-7	191-07-1		0.09	mg/kg		0.0834	mg/kg	0.00000834 %	✓	
36		benzene	601-020-00-8	200-753-7	71-43-2		0.005	mg/kg		0.0046	mg/kg	0.000000463 %	✓	
37		ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.112	mg/kg		0.104	mg/kg	0.0000104 %	✓	
38		toluene	601-021-00-3	203-625-9	108-88-3		0.12	mg/kg		0.111	mg/kg	0.0000111 %	✓	
39		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		0.76	mg/kg		0.704	mg/kg	0.0000704 %	✓	
40		TPH (C6 to C40) petroleum group			TPH		202	mg/kg		187.21	mg/kg	0.0187 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
								Total:	0.317 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste, without a free draining liquid phase, therefore not flammable

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene: (conc.: 4.63e-07%)
ethylbenzene: (conc.: 0.00001%)
toluene: (conc.: 0.00001%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

xylene: (conc.: 0.00007%)
TPH (C6 to C40) petroleum group: (conc.: 0.0187%)

Classification of sample: TP506 (2.6m)

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP506 (2.6m)
Sample Depth:
2.6 m
Moisture content:
6.9%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 6.9% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		10.34 pH		10.34 pH	10.34 pH		
2	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex }	051-003-00-9			1	1 mg/kg		0.935 mg/kg	0.0000935 %	✓	
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7.1 mg/kg	1.32	8.769 mg/kg	0.000877 %	✓	
4	barium { barium oxide }		215-127-9	1304-28-5		37 mg/kg	1.117	38.644 mg/kg	0.00386 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.4 mg/kg	1.285	0.481 mg/kg	0.0000374 %	✓	
6	chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		37.9 mg/kg	1.462	51.818 mg/kg	0.00518 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	13.692 mg/kg	0.00137 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	29 mg/kg	1.56	42.315 mg/kg	0.00271 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		444 mg/kg	2.749	1141.592 mg/kg	0.114 %	✓	
10	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		2.1 mg/kg	1.5	2.947 mg/kg	0.000295 %	✓	
12	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		16.8 mg/kg	1.579	24.823 mg/kg	0.00248 %	✓	
13	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<**LOD**
14	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		51 mg/kg	2.774	132.349 mg/kg	0.0132 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
15	boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.7 mg/kg	13.43	8.794 mg/kg	0.000879 %	✓	
16	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<**LOD**
17	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<**LOD**
18	phenol	604-001-00-2	203-632-7	108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
19	naphthalene	601-052-00-2	202-049-5	91-20-3		0.52 mg/kg		0.486 mg/kg	0.0000486 %	✓	
20	acenaphthylene		205-917-1	208-96-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
21	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
22	fluorene		201-695-5	86-73-7		0.16 mg/kg		0.15 mg/kg	0.000015 %	✓	
23	phenanthrene		201-581-5	85-01-8		0.56 mg/kg		0.524 mg/kg	0.0000524 %	✓	
24	anthracene		204-371-1	120-12-7		0.09 mg/kg		0.0842 mg/kg	0.00000842 %	✓	
25	fluoranthene		205-912-4	206-44-0		0.62 mg/kg		0.58 mg/kg	0.000058 %	✓	
26	pyrene		204-927-3	129-00-0		0.6 mg/kg		0.561 mg/kg	0.0000561 %	✓	
27	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.42 mg/kg		0.393 mg/kg	0.0000393 %	✓	
28	chrysene	601-048-00-0	205-923-4	218-01-9		0.41 mg/kg		0.384 mg/kg	0.0000384 %	✓	
29	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.69 mg/kg		0.645 mg/kg	0.0000645 %	✓	
30	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.27 mg/kg		0.253 mg/kg	0.0000253 %	✓	
31	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.52 mg/kg		0.486 mg/kg	0.0000486 %	✓	
32	indeno[123-cd]pyrene		205-893-2	193-39-5		0.33 mg/kg		0.309 mg/kg	0.0000309 %	✓	
33	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.07 mg/kg		0.0655 mg/kg	0.00000655 %	✓	
34	benzo[ghi]perylene		205-883-8	191-24-2		0.33 mg/kg		0.309 mg/kg	0.0000309 %	✓	
35	coronene		205-881-7	191-07-1		0.07 mg/kg		0.0655 mg/kg	0.00000655 %	✓	
36	benzene	601-020-00-8	200-753-7	71-43-2		0.007 mg/kg		0.0065 mg/kg	0.000000655 %	✓	
37	ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.422 mg/kg		0.395 mg/kg	0.0000395 %	✓	
38	toluene	601-021-00-3	203-625-9	108-88-3		0.191 mg/kg		0.179 mg/kg	0.0000179 %	✓	
39	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		2.558 mg/kg		2.393 mg/kg	0.000239 %	✓	
40	TPH (C6 to C40) petroleum group			TPH		775 mg/kg		724.977 mg/kg	0.0725 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
								Total:	0.219 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste, without a free draining liquid phase, therefore not flammable

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene: (conc.: 6.55e-07%)
ethylbenzene: (conc.: 0.00003%)
toluene: (conc.: 0.00001%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

xylene: (conc.: 0.00023%)
TPH (C6 to C40) petroleum group: (conc.: 0.0725%)

Classification of sample: TP506 (3.0m)

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
TP506 (3.0m)
Sample Depth:
3 m
Moisture content:
13.8%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.195%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.195%)

Determinands

Moisture content: 13.8% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		9.19 pH		9.19 pH	9.19 pH		
2	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex }	051-003-00-9			1	2 mg/kg		1.757 mg/kg	0.000176 %	✓	
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16.4 mg/kg	1.32	19.028 mg/kg	0.0019 %	✓	
4	barium { barium oxide }		215-127-9	1304-28-5		74 mg/kg	1.117	72.602 mg/kg	0.00726 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.4 mg/kg	1.285	0.452 mg/kg	0.0000351 %	✓	
6	chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		96.5 mg/kg	1.462	123.937 mg/kg	0.0124 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		28 mg/kg	1.126	27.702 mg/kg	0.00277 %	✓	

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	51 mg/kg	1.56	69.904 mg/kg	0.00448 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		673 mg/kg	2.749	1625.469 mg/kg	0.163 %	✓	
10	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		5.2 mg/kg	1.5	6.855 mg/kg	0.000685 %	✓	
12	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		21.1 mg/kg	1.579	29.286 mg/kg	0.00293 %	✓	
13	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
14	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		92 mg/kg	2.774	224.272 mg/kg	0.0224 %	✓	
15	boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.6 mg/kg	13.43	7.081 mg/kg	0.000708 %	✓	
16	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
17	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
18	phenol	604-001-00-2	203-632-7	108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
19	naphthalene	601-052-00-2	202-049-5	91-20-3		3.46 mg/kg		3.04 mg/kg	0.000304 %	✓	
20	acenaphthylene		205-917-1	208-96-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21	acenaphthene		201-469-6	83-32-9		0.11 mg/kg		0.0967 mg/kg	0.00000967 %	✓	
22	fluorene		201-695-5	86-73-7		0.52 mg/kg		0.457 mg/kg	0.0000457 %	✓	
23	phenanthrene		201-581-5	85-01-8		1.08 mg/kg		0.949 mg/kg	0.0000949 %	✓	
24	anthracene		204-371-1	120-12-7		0.16 mg/kg		0.141 mg/kg	0.0000141 %	✓	
25	fluoranthene		205-912-4	206-44-0		0.33 mg/kg		0.29 mg/kg	0.000029 %	✓	
26	pyrene		204-927-3	129-00-0		0.36 mg/kg		0.316 mg/kg	0.0000316 %	✓	
27	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.17 mg/kg		0.149 mg/kg	0.0000149 %	✓	
28	chrysene	601-048-00-0	205-923-4	218-01-9		0.2 mg/kg		0.176 mg/kg	0.0000176 %	✓	
29	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.29 mg/kg		0.255 mg/kg	0.0000255 %	✓	
30	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.11 mg/kg		0.0967 mg/kg	0.00000967 %	✓	
31	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.19 mg/kg		0.167 mg/kg	0.0000167 %	✓	
32	indeno[123-cd]pyrene		205-893-2	193-39-5		0.09 mg/kg		0.0791 mg/kg	0.00000791 %	✓	
33	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
34		benzo[ghi]perylene				0.1	mg/kg		0.0879	mg/kg	0.00000879 %	✓	
			205-883-8	191-24-2									
35		coronene				0.06	mg/kg		0.0527	mg/kg	0.00000527 %	✓	
			205-881-7	191-07-1									
36		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
37		ethylbenzene				8.647	mg/kg		7.598	mg/kg	0.00076 %	✓	
		601-023-00-4	202-849-4	100-41-4									
38		toluene				2.273	mg/kg		1.997	mg/kg	0.0002 %	✓	
		601-021-00-3	203-625-9	108-88-3									
39		xylene				40.314	mg/kg		35.425	mg/kg	0.00354 %	✓	
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
40		TPH (C6 to C40) petroleum group				2223	mg/kg		1953.427	mg/kg	0.195 %	✓	
				TPH									
										Total:	0.419 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste, without a free draining liquid phase, therefore not flammable

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

ethylbenzene: (conc.: 0.00076%)
toluene: (conc.: 0.0002%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

xylene: (conc.: 0.00354%)
TPH (C6 to C40) petroleum group: (conc.: 0.195%)

Classification of sample: TP507 (0.0-0.7m)

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP507 (0.0-0.7m)
Sample Depth:
0.0-0.7 m
Moisture content:
16.7%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 16.7% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.35 pH		8.35 pH	8.35 pH		
2	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex }	051-003-00-9			1	1 mg/kg		0.857 mg/kg	0.0000857 %	✓	
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7.3 mg/kg	1.32	8.259 mg/kg	0.000826 %	✓	
4	barium { barium oxide }		215-127-9	1304-28-5		41 mg/kg	1.117	39.226 mg/kg	0.00392 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.3 mg/kg	1.285	0.33 mg/kg	0.0000257 %	✓	
6	chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		76.2 mg/kg	1.462	95.433 mg/kg	0.00954 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	14.472 mg/kg	0.00145 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	77 mg/kg	1.56	102.918 mg/kg	0.0066 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		242 mg/kg	2.749	569.968 mg/kg	0.057 %	✓	
10	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		4 mg/kg	1.5	5.142 mg/kg	0.000514 %	✓	
12	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		13.9 mg/kg	1.579	18.813 mg/kg	0.00188 %	✓	
13	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<**LOD**
14	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		116 mg/kg	2.774	275.751 mg/kg	0.0276 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.8	mg/kg	13.43	9.207	mg/kg	0.000921 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
17		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035	mg/kg		<0.035	mg/kg	<0.0000035 %		<**LOD**
18		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
19		naphthalene	601-052-00-2	202-049-5	91-20-3		1.02	mg/kg		0.874	mg/kg	0.0000874 %	✓	
20		acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthene		201-469-6	83-32-9		0.13	mg/kg		0.111	mg/kg	0.0000111 %	✓	
22		fluorene		201-695-5	86-73-7		0.29	mg/kg		0.249	mg/kg	0.0000249 %	✓	
23		phenanthrene		201-581-5	85-01-8		0.71	mg/kg		0.608	mg/kg	0.0000608 %	✓	
24		anthracene		204-371-1	120-12-7		0.09	mg/kg		0.0771	mg/kg	0.00000771 %	✓	
25		fluoranthene		205-912-4	206-44-0		0.54	mg/kg		0.463	mg/kg	0.0000463 %	✓	
26		pyrene		204-927-3	129-00-0		0.72	mg/kg		0.617	mg/kg	0.0000617 %	✓	
27		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.55	mg/kg		0.471	mg/kg	0.0000471 %	✓	
28		chrysene	601-048-00-0	205-923-4	218-01-9		0.28	mg/kg		0.24	mg/kg	0.000024 %	✓	
29		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.37	mg/kg		0.317	mg/kg	0.0000317 %	✓	
30		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.14	mg/kg		0.12	mg/kg	0.000012 %	✓	
31		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.35	mg/kg		0.3	mg/kg	0.00003 %	✓	
32		indeno[123-cd]pyrene		205-893-2	193-39-5		0.22	mg/kg		0.189	mg/kg	0.0000189 %	✓	
33		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.08	mg/kg		0.0686	mg/kg	0.00000686 %	✓	
34		benzo[ghi]perylene		205-883-8	191-24-2		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		coronene		205-881-7	191-07-1		0.11	mg/kg		0.0943	mg/kg	0.00000943 %	✓	
36		confirm TPH has NOT arisen from diesel or petrol					☑							
37		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
38		ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.011	mg/kg		0.0094	mg/kg	0.000000943 %	✓	
39		toluene	601-021-00-3	203-625-9	108-88-3		0.007	mg/kg		0.006	mg/kg	0.0000006 %	✓	
40		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		0.102	mg/kg		0.0874	mg/kg	0.00000874 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
41		TPH (C6 to C40) petroleum group		TPH		498 mg/kg		426.735 mg/kg	0.0427 %	✓	
								Total:	0.154 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste, without a free draining liquid phase, therefore not flammable

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

ethylbenzene: (conc.: 9.43e-07%)
toluene: (conc.: 6.0e-07%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

xylene: (conc.: 8.74e-06%)
TPH (C6 to C40) petroleum group: (conc.: 0.0427%)

Classification of sample: TP508 (0.0-1.8m)

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP508 (0.0-1.8m)
Sample Depth:
0.0-1.8 m
Moisture content:
14.4%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14.4% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	pH			PH		10.9	pH		10.9	pH	10.9 pH		
2	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex }	051-003-00-9			1	3	mg/kg		2.622	mg/kg	0.000262 %	✓	
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		10.3	mg/kg	1.32	11.888	mg/kg	0.00119 %	✓	
4	barium { barium oxide }		215-127-9	1304-28-5		96	mg/kg	1.117	93.693	mg/kg	0.00937 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.3	mg/kg	1.285	0.337	mg/kg	0.0000262 %	✓	
6	chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		69.8	mg/kg	1.462	89.175	mg/kg	0.00892 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		27	mg/kg	1.126	26.573	mg/kg	0.00266 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	142	mg/kg	1.56	193.613	mg/kg	0.0124 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		532	mg/kg	2.749	1278.178	mg/kg	0.128 %	✓	
10	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		**<LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		3.7	mg/kg	1.5	4.852	mg/kg	0.000485 %	✓	
12	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		14.6	mg/kg	1.579	20.158	mg/kg	0.00202 %	✓	
13	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		**<LOD**
14	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		99	mg/kg	2.774	240.07	mg/kg	0.024 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.4	mg/kg	13.43	4.696	mg/kg	0.00047 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
17		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035	mg/kg		<0.035	mg/kg	<0.0000035 %		<**LOD**
18		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
19		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
20		acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
22		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
23		phenanthrene		201-581-5	85-01-8		0.16	mg/kg		0.14	mg/kg	0.000014 %	✓	
24		anthracene		204-371-1	120-12-7		0.06	mg/kg		0.0524	mg/kg	0.00000524 %	✓	
25		fluoranthene		205-912-4	206-44-0		0.39	mg/kg		0.341	mg/kg	0.0000341 %	✓	
26		pyrene		204-927-3	129-00-0		0.37	mg/kg		0.323	mg/kg	0.0000323 %	✓	
27		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.24	mg/kg		0.21	mg/kg	0.000021 %	✓	
28		chrysene	601-048-00-0	205-923-4	218-01-9		0.21	mg/kg		0.184	mg/kg	0.0000184 %	✓	
29		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.27	mg/kg		0.236	mg/kg	0.0000236 %	✓	
30		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.1	mg/kg		0.0874	mg/kg	0.00000874 %	✓	
31		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.16	mg/kg		0.14	mg/kg	0.000014 %	✓	
32		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
34		benzo[ghi]perylene		205-883-8	191-24-2		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		coronene		205-881-7	191-07-1		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
36		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
37		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
38		toluene	601-021-00-3	203-625-9	108-88-3		0.013	mg/kg		0.0114	mg/kg	0.00000114 %	✓	
39		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		0.011	mg/kg		0.0096	mg/kg	0.000000962 %	✓	
40		TPH (C6 to C40) petroleum group			TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
								Total:	0.195 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste, without a free draining liquid phase, therefore not flammable

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene: (conc.: 1.14e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 9.62e-07%)

Classification of sample: TP509 (0.0-0.9m)

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP509 (0.0-0.9m)
Sample Depth:
0.0-0.9 m
Moisture content:
19.7%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 19.7% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.19 pH		8.19 pH	8.19 pH		
2	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex }	051-003-00-9			1	3 mg/kg		2.506 mg/kg	0.000251 %	✓	
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		26.6 mg/kg	1.32	29.341 mg/kg	0.00293 %	✓	
4	barium { barium oxide }		215-127-9	1304-28-5		67 mg/kg	1.117	62.494 mg/kg	0.00625 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.7 mg/kg	1.285	0.752 mg/kg	0.0000585 %	✓	
6	chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		78.6 mg/kg	1.462	95.972 mg/kg	0.0096 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		38 mg/kg	1.126	35.742 mg/kg	0.00357 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	119 mg/kg	1.56	155.069 mg/kg	0.00994 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		701 mg/kg	2.749	1609.643 mg/kg	0.161 %	✓	
10	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.1 mg/kg	1.353	0.113 mg/kg	0.0000113 %	✓	
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		4.8 mg/kg	1.5	6.016 mg/kg	0.000602 %	✓	
12	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		32.2 mg/kg	1.579	42.489 mg/kg	0.00425 %	✓	
13	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				2 mg/kg	1.405	2.348 mg/kg	0.000235 %	✓	
14	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		96 mg/kg	2.774	222.488 mg/kg	0.0222 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		2	mg/kg	13.43	22.439	mg/kg	0.00224 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
17		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035	mg/kg		<0.035	mg/kg	<0.0000035 %		<**LOD**
18		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
19		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
20		acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
22		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
23		phenanthrene		201-581-5	85-01-8		0.12	mg/kg		0.1	mg/kg	0.00001 %	✓	
24		anthracene		204-371-1	120-12-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
25		fluoranthene		205-912-4	206-44-0		0.14	mg/kg		0.117	mg/kg	0.0000117 %	✓	
26		pyrene		204-927-3	129-00-0		0.13	mg/kg		0.109	mg/kg	0.0000109 %	✓	
27		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.13	mg/kg		0.109	mg/kg	0.0000109 %	✓	
28		chrysene	601-048-00-0	205-923-4	218-01-9		0.11	mg/kg		0.0919	mg/kg	0.00000919 %	✓	
29		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.16	mg/kg		0.134	mg/kg	0.0000134 %	✓	
30		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.06	mg/kg		0.0501	mg/kg	0.00000501 %	✓	
31		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
32		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
34		benzo[ghi]perylene		205-883-8	191-24-2		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		coronene		205-881-7	191-07-1		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
36		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
37		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
38		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
39		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
40		TPH (C6 to C40) petroleum group			TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
								Total:	0.229 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP509 (0.9-2.2m)

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP509 (0.9-2.2m)
Sample Depth:
0.9-2.2 m
Moisture content:
9.7%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 9.7% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	pH			PH		8.73 pH		8.73 pH	8.73 pH		
2	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex }	051-003-00-9			1	2 mg/kg		1.823 mg/kg	0.000182 %	✓	
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.6 mg/kg	1.32	10.351 mg/kg	0.00104 %	✓	
4	barium { barium oxide }		215-127-9	1304-28-5		164 mg/kg	1.117	166.916 mg/kg	0.0167 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.1 mg/kg	1.285	0.117 mg/kg	0.00000912 %	✓	
6	chromium { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		69.7 mg/kg	1.462	92.863 mg/kg	0.00929 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	8.211 mg/kg	0.000821 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	26 mg/kg	1.56	36.969 mg/kg	0.00237 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		282 mg/kg	2.749	706.559 mg/kg	0.0707 %	✓	
10	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		4 mg/kg	1.5	5.47 mg/kg	0.000547 %	✓	
12	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9.6 mg/kg	1.579	13.822 mg/kg	0.00138 %	✓	
13	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<**LOD**
14	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		32 mg/kg	2.774	80.923 mg/kg	0.00809 %	✓	

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		0.5	mg/kg	13.43	6.121	mg/kg	0.000612 %	✓	
16		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
17		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3		<0.035	mg/kg		<0.035	mg/kg	<0.0000035 %		<LOD
18		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
19		naphthalene	601-052-00-2	202-049-5	91-20-3		0.09	mg/kg		0.082	mg/kg	0.0000082 %	✓	
20		acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
21		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
22		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
23		phenanthrene		201-581-5	85-01-8		0.29	mg/kg		0.264	mg/kg	0.0000264 %	✓	
24		anthracene		204-371-1	120-12-7		0.07	mg/kg		0.0638	mg/kg	0.00000638 %	✓	
25		fluoranthene		205-912-4	206-44-0		0.22	mg/kg		0.201	mg/kg	0.0000201 %	✓	
26		pyrene		204-927-3	129-00-0		0.16	mg/kg		0.146	mg/kg	0.0000146 %	✓	
27		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.12	mg/kg		0.109	mg/kg	0.0000109 %	✓	
28		chrysene	601-048-00-0	205-923-4	218-01-9		0.09	mg/kg		0.082	mg/kg	0.0000082 %	✓	
29		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.12	mg/kg		0.109	mg/kg	0.0000109 %	✓	
30		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.04	mg/kg		0.0365	mg/kg	0.00000365 %	✓	
31		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.08	mg/kg		0.0729	mg/kg	0.00000729 %	✓	
32		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
33		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
34		benzo[ghi]perylene		205-883-8	191-24-2		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
35		coronene		205-881-7	191-07-1		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
36		benzene	601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
37		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
38		toluene	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
39		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
40		TPH (C6 to C40) petroleum group			TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
								Total:	0.117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: Verde - BH405B

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
Verde - BH405B
Sample Depth:
0.5-3.5 m
Moisture content:
7.8%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.103%)

HP 8: Corrosive "waste which on application can cause skin corrosion"

pH; pH "Assumed to be irritant/corrosive because of pH value"

Because of determinand:

pH: (conc.: 11.61 pH)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.103%)

Determinands

Moisture content: 7.8% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	pH		PH		11.61 pH		11.61 pH	11.61 pH		
2	●	TPH (C6 to C40) petroleum group		TPH		1107 mg/kg		1026.902 mg/kg	0.103 %	✓	
								Total:	0.103 %		

Key

	User supplied data
	Hazardous result
●	Determinand defined or amended by HazWasteOnline (see Appendix A)

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Very low concentrations in a solid, non-flammable medium i.e. soil

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.103%)

Appendix A: Classifier defined and non EU CLP determinands

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Description/Comments: Data from ECHA's C&L Inventory Database, Sigma Aldrich SDS dated 6/2/20
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/88825
Data source date: 02 Apr 2020
Hazard Statements: Acute Tox. 3; H301 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 1; H332

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **boron tribromide/trichloride/trifluoride (combined)** (CAS Number: 10294-33-4, 10294-34-5, 7637-07-2)

Description/Comments: Combines the hazard statements and the average of the conversion factors for boron tribromide, boron trichloride and boron trifluoride
Data source: N/A
Data source date: 06 Aug 2015
Hazard Statements: EUH014 , Acute Tox. 2; H330 , Acute Tox. 2; H300 , Skin Corr. 1A; H314 , Skin Corr. 1B; H314

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

EU CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

EU CLP index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans; POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

coronene (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

EU CLP index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

confirm TPH has NOT arisen from diesel or petrol

Description/Comments: Chapter 3, section 4b requires a positive confirmation for benzo[a]pyrene to be used as a marker in evaluating Carc. 1B; H350 (HP 7) and Muta. 1B; H340 (HP 11)
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

Appendix B: Rationale for selection of metal species

antimony {antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex}

Worst case species based on hazard statements

arsenic {arsenic trioxide}

Worst case species based on hazard statements

barium {barium oxide}

Barium oxide can be chosen instead of barium chromate because Chromium VI (Hexavalent) is below detection limit of <0.3mg/kg

cadmium {cadmium sulfide}

Worst case species based on hazard statements

chromium {chromium(III) oxide (worst case)}

Chromium (III) oxide can be chosen instead of chromium (VI) oxide because Chromium VI (Hexavalent) is below detection limit of <0.3mg/kg

copper {dicopper oxide; copper (I) oxide}

Most likely common species

lead {lead chromate}

Worst case species based on hazard statements

manganese {manganese sulphate}

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

molybdenum {molybdenum(VI) oxide}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Worst case species based on hazard statements

zinc {zinc chromate}

Worst case species based on hazard statements

boron {boron tribromide/trichloride/trifluoride (combined)}

Worst case species based on hazard statements

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Worst case species

Appendix C: Version

HazWasteOnline Classification Engine: EU WM3 1st Edition v1.1.NI using the EU LoW
HazWasteOnline Classification Engine Version: 2023.25.5511.10206 (25 Jan 2023)
HazWasteOnline Database: 2023.25.5511.10206 (25 Jan 2023)

This classification utilises the following guidance and legislation:
WM3 v1.1.NI - Waste Classification - 1st Edition v1.1.NI - Jan 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
17th ATP - Regulation (EU) 2021/849 of 11 March 2021
18th ATP - Regulation (EU) 2022/692 of 16 February 2022

Appendix F Compliance of BIA report with Appendix 9 of the Dublin City Development Plan 2022 – 2028 "Basement Development Guidance".

Table F-1: Dublin City Development Plan Appendix 9 BIA Component Parts reflected in this submitted BIA (222207-PUNCH-XX-XX-RP-C-0200)

DCC Development Plan 2022-2028 Appendix 9, BIA Component Parts	Location in this submitted BIA
1. Baseline Characteristics of the Project	Section 1
2. Site Investigation and Geotechnical Analysis	Sections 2, Appendix D and Appendix E
3. Impact Assessment	
a) General	Section 3.2
b) Groundwater Flow	Section 3.3
c) Land Stability and Ground Movement	Sections 3.4
d) Surface Flow and Flooding	Section 3.5 Refer to 'Site Specific Flood Risk Assessment'
e) Cumulative Effects	Section 3.6
f) Construction Related Impacts	Sections 3.7 Refer to 'Outline Construction Management Plan' and 'Outline Resource & Waste Management Plan'
g) Temporary Works	Section 3.8
h) Heritage and Biodiversity Impacts	Section 3.9 Refer to 'Planning Report', 'Biodiversity Management Plan', 'Ecological Impact Assessment', 'Natura Impact Statement' and 'Archaeology Assessment'
i) Land Use	Section 3.10
4. Construction Management Plan	Refer to 'Outline Construction Management Plan' and 'Outline Resource & Waste Management Plan'
5. Impact Assessment and Mitigation	Section 4
6. Non-Technical Summary	Section 5

Table F-2: Dublin City Development Plan Appendix 9 BIA 'Submission Checklist' reflected in this submitted BIA (222207-PUNCH-XX-XX-RP-C-0200)

	Item	Yes/ No
1	Description of proposed development	Yes – Section 1.2
2	Plan showing boundary of development including any land required temporarily during construction	Yes – Section 1.5. Please also refer to 'Outline Construction Management Plan' included in the planning submission
3	Plan, maps and photographs to show the location of basement relative to surrounding structures	Yes – Section 1.5, Figure 1-1 and 1-2.
4	Plans, maps and or photographs to show topography of surrounding area with any nearby watercourses/waterbodies including consideration of the relevant maps on the SFRA (Vol 7)	Yes – Site Investigation and Geotechnical Analysis. Please also refer to 'Site Specific Flood Risk Assessment' and Architectural Drawings for flood risk and topographic details
5	Plans and sections to show foundation details of adjacent structures (reference to pre-condition reports)	Not applicable as the basement extents are remote from many other existing structures
6	Plans and sections to show layout and dimensions of proposed basement and all proposed foundation details	Yes – Section 3.4.2.
7	Modelling evaluation of baseline groundwater levels and flows	Yes – Section 2.4
8	Modelling and evaluation of groundwater levels and flows during construction and following construction of basement	Yes - Section 3.3
9	Programme of enabling works and construction and restoration	Refer to 'Outline Construction Management Plan' included in the planning submission.
10	Identification of potential risks to land stability (including surrounding structures and infrastructure and groundwater flooding)	Yes – Sections 2.1, 3 and 4.2.
11	Assessment of potential risks on neighbouring properties and surface groundwater	Yes – Sections 3.2-3.10 Refer also to 'Site Specific Flood Risk Assessment' and

	Item	Yes/ No
		'Engineering Planning Report' regarding surface water and flooding. Please also refer to Sections 3.3 to 3.9 for assessment of the various potential risks on neighbouring properties. These sections demonstrated that risk is adequately mitigated to an acceptable level.
12	Identification of significant adverse impacts	Yes – Sections 2.1, 3 and 4. A Damage Impact Assessment is outlined in Section 3.4.7.
13	Ground Investigation Report and Conceptual Site Model including: • Desktop study • Exploratory hole record • Results from monitoring the local groundwater regime • Confirmation of baseline conditions Factual site investigation report	Yes – Section 2, Appendix C, Appendix D and Appendix E
14	Ground Movement Assessment	Yes – Section 3.4. Please note that ground movement modelling has not been undertaken as it is clearly identified that surrounding sites are not within the zone of influence. A Damage Impact Assessment is outlined in Section 3.4.7.
15	Plans, drawings, reports to show extent of affected area	Yes- Section 1.5.
16	Construction Sequence Methodology (CSM) referring to site investigation and containing basement, floor and roof plan, sections, sequence of construction and temporary works	Yes – Section 3.4.6 'Outline Construction Management Plan' included in the planning submission
17	Proposals for monitoring during and post construction (groundwater movement and levels, ground movement, vibration with comparisons to baseline) – limits to be advised in BIA and monitored. Any breaches should be reported to DCC's Environment and Transportation Department	Yes – Refer to Sections 3.4.8 and 3.4.9. Also, Sections 3.7 and 4 and the 'Outline Construction Management Plan' and the 'Outline Resource & Waste

	Item	Yes/ No
		Management Plan' included in the planning submission
18	Consideration of potential impacts to protected structures, conservation areas and archaeology where relevant	Yes – Section 3.9
19	Consideration of potential impacts to biodiversity and amenity	Yes – Section 3.9 and the 'Ecological Impact Assessment' included in the planning submission
20	Construction Management Plan	Yes – refer to Section 4 and the 'Outline Construction Management Plan' included in the planning submission
21	Impact assessment and specific mitigation measures to reduce or offset significant adverse impacts with comparisons to baseline study	Yes – Sections 3 and 4.
22	Provision for monitoring post construction (post-condition surveys, groundwater levels/flows etc.)	Yes – Refer to Sections 3.4.8 and 3.4.9. Also, Sections 3.7 and 4 and the 'Outline Construction Management Plan' and the 'Outline Resource & Waste Management Plan' included in the planning submission
23	Non-technical summary of full report	Yes – Sections 4.2 and 5.

Appendix G Contractors Construction Management Plan

Project Construction Management Plan – Residential Development, Beach Road, Sandymount Dublin 4. Main Works Phase

Apr 2023



walls

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- SITE SET-UP & LOGISTICS PLANS
- CONSTRUCTION TRAFFIC MANAGEMENT PLAN
- CONSTRUCTION WASTE MANAGEMENT PLAN

1. INTRODUCTION

This Construction Management Plan is for the works associated with the main works of the construction of a residential development on behalf of Royalton at the junction of Beach Road and Church Avenue, Sandymount Dublin 4. The Construction Management Plan includes a description of the proposed works and how these works will be managed for the duration of the project This stage of works is separate to the enabling works and thus the enabling CMP should be read in conjunction to this document.

The proposed development is located on lands to the south-west of Beach Road in Sandymount, in the east of Dublin City. The site is bordered to the north-east by the R111/Church Avenue. To the southwest the site is bordered by St. Matthew's school. The eastern side of the site is bordered by the R802/Beach Road there are a number of private residential premises in the area.

The development will consist of a 6-storey apartment building (with set-backs at Third, Fourth and Fifth Floor Levels) (accommodating 112 No. apartments (56 No. 1-bed and 56 No. 2-bed units) and 297 sq m communal space primarily comprising a gym, lounge, work space, bookable room, office and parcel store) over single basement level (accommodating 79 No. car parking spaces (including 2 No. car club spaces), 4 No. motorbike parking spaces, 224 No. bicycle spaces, together with ancillary areas including circulation, plant, attenuation tank, waste management storage areas, and service areas with ramped access from Beach Road.

Vehicular and pedestrian access to the site will be from Beach Road with additional pedestrian access via Church Avenue; (the total gross floor area of the proposed development is 12,273 sq m; including basement of 2,679 sq m and a detached single storey ground floor ESB Substation/ switchroom of 25 sqm). The works will involve the formation of a new entrance to the development on Beach Road just after Cranfield Place and a new pedestrian entrance along Beach Rd.
The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including:



Fig 1. Site location adjacent the Beach Rd.

2. Management Team

Project Name	Beach Road
Client Name	Royalton
Project/Site Manager	Ollie Conway -ollie.conway@walls.ie - 086-0237480
HS&S Ops Director	Gerry Keane
Env. & Sus. Manager	Louise Martin
HSE Advisor	Paddy Holmes - paddy.holmes@walls.ie - 086-3871354

3. OUTLINE DEVELOPMET PROGRAMME

The proposed development is anticipated over a 24-month period with 1 phase handover upon completion. The scope of the works will involve the following:

- Installation of loading bay along Beach Rd.
- Installation of hoarding on school side of boundary wall with St. Matthews.
- Installation of site compound to north of site & loading bay along along Beach Rd.
- Removal of school boundary wall and associated earthworks.
- Secant piling the basement.
- Excavation of basement. crane bases, lift pits, attenuation tank & foundation pads.
- Erecting tower cranes and pouring of basement slab & walls.
- Pouring of podium.
- Building main structure of block walls & precast slab, with rear block in full RC.
- Glazing, Fitout and Façade.
- Reinstate school boundary wall and final landscaping.

Reducing level and basement excavation

The dig to reduced level was completed using excavators and trucks will service the spoil away from the main entrance. Foundation digs will again be completed using excavators and concrete brought in through ramp.

Piling

Pile arisings will be removed using excavators and trucks which will service the spoil away.

Building Frame and envelope construction

The concrete frame will be constructed using concrete pumps and a concrete skip on the tower crane. Building envelope will be constructed by accessing from scaffolds or MEWPs and using the tower crane to place materials in place.

Finishing interior and external landscaping

Interior fitout works will be completed by bringing materials in by the ramp to the basement or loading bay along Beach Rd. The courtyard to the rear of the block will act as a laydown area for larger materials and all areas can be accessed from here. All landscaping works will be completed using the same access.

Tower Crane

It is envisaged that the works will be serviced by 2 tower cranes located outside the building footprints, but within the basement footprint to assist with superstructure and façade works.

Materials hoists may also be utilised around the perimeter of the block as required during the projects to facilitate material movement into the structures and waste movements out of the buildings. With the commencement of the fit-out activities, material hoists strategically positioned will play a key role for successful project delivery. They are also less susceptible to being affected by inclement weather conditions.

Deliveries will be unloaded from the designated laydown as indicated on the below figure 2, Refer to section on traffic management related to these deliveries. Options for methods of construction have been explored with the design team during design development. The intention, to reduce construction period, is to develop as much as possible off-site construction methods, both in terms of the structure itself and in fittings.

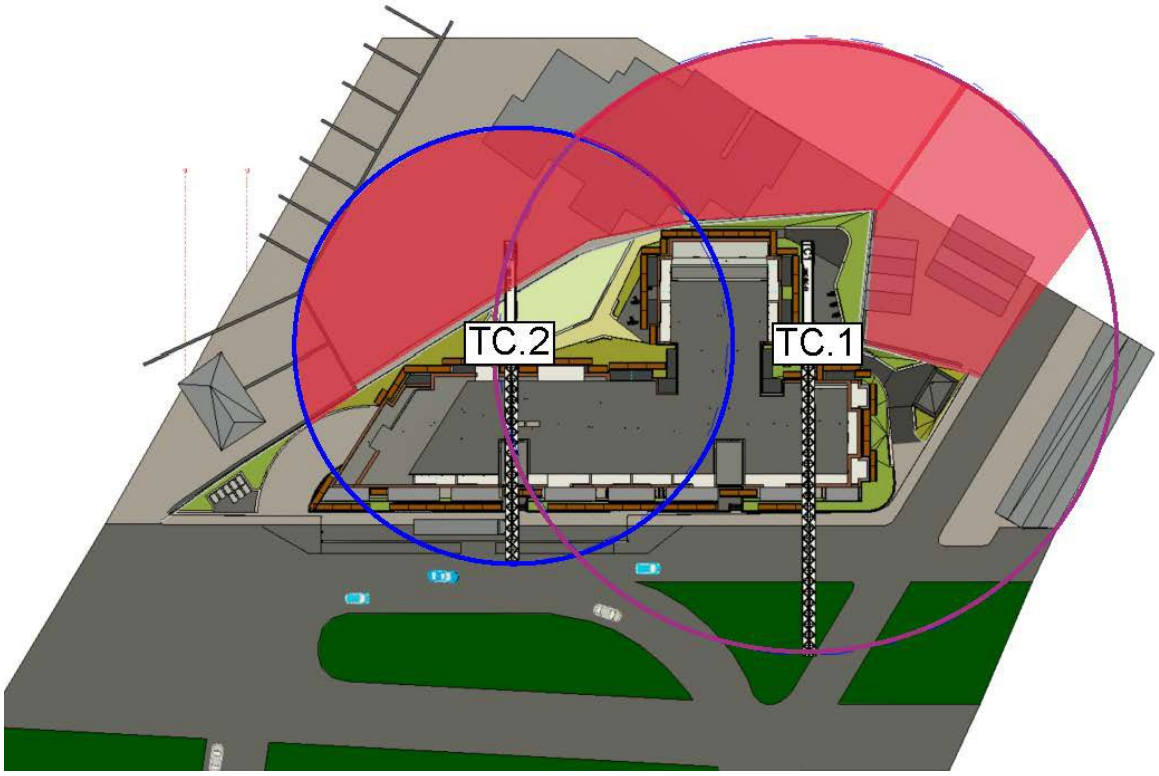


Fig 2. Crane layout

4. SITE SET-UP & LOGISTICS

Site Access & Egress

The site is currently accessed from Beach Rd and Church Ave. It is proposed that for the duration of the works, deliveries and vehicle access to the site will be via either loading bay or ramp along Beach Rd with pedestrian access via a turnstile on Church Ave.

As per the information received to date It is envisaged that the upgrade water works will be complete before this loading bay will be erected and therefore will still allow traffic along Beach Rd to flow.

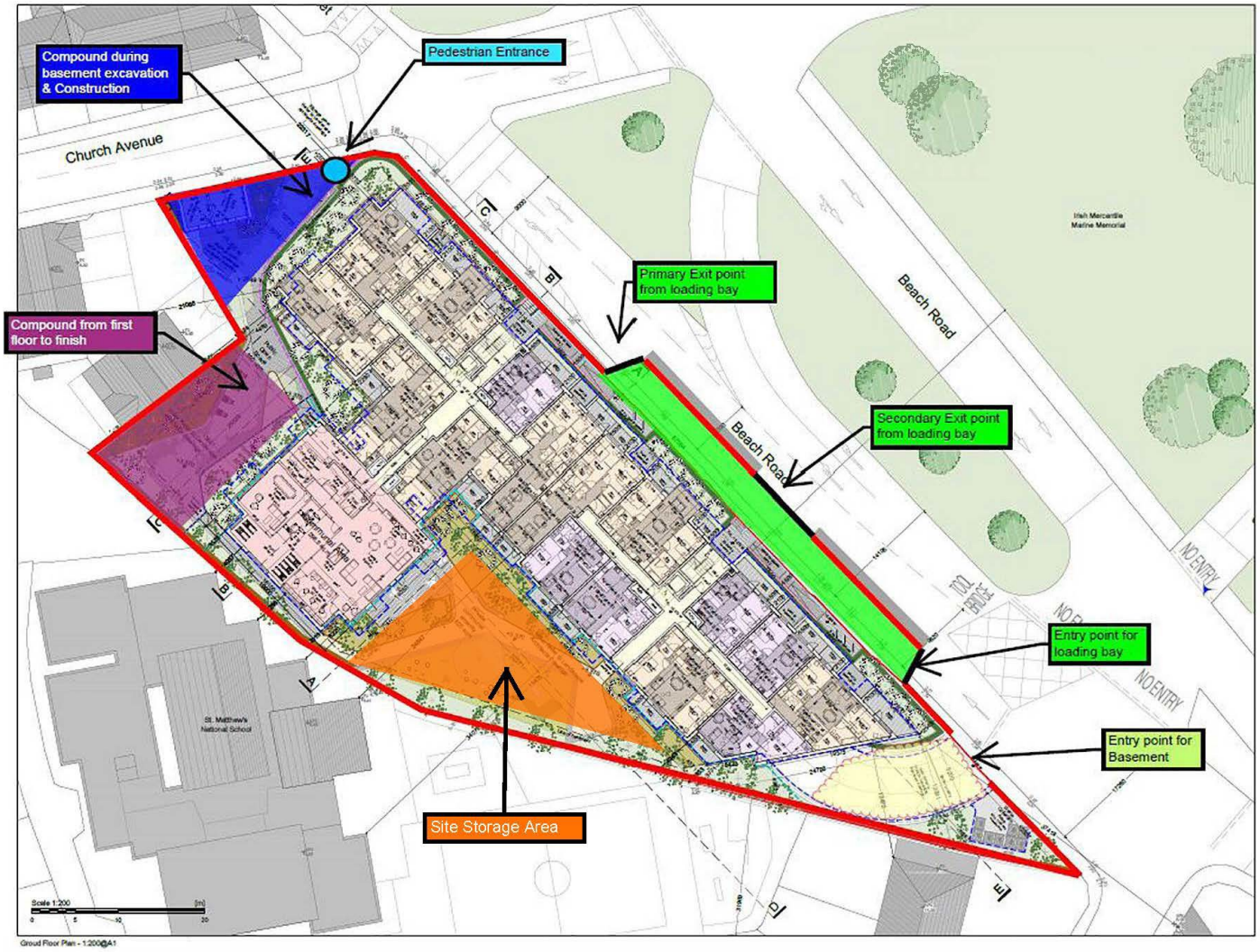


Fig 3. Project Logistics.

Site Security

The current site fencing along beach Rd will be replaced with solid timber hoarding with concrete ballast. The site will be fully secure on all boundaries with the one vehicle access point on Beach Roadand oen pedestrian access on Church Ave. Security guard and security area will be located just inside the outer access gate on the Beach Road at the site entrance. During out of hours and at weekends the site will be monitored by a static security guard during this stage of work.



Figure 4: Typical Manned Security Gates



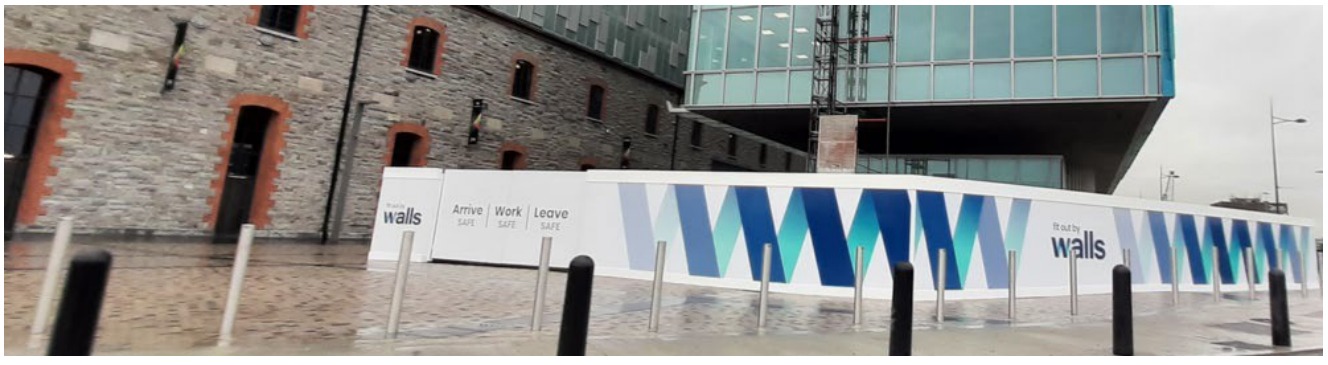


Fig 5 Typical Hoarding

Site Deliveries

For the main construction works all deliveries must be booked in with the site management 48 hours in advance to ensure the free flow of traffic through the compound area. This will be done at the daily whiteboard meetings, which take place on site at 07.45 each morning. At this meeting, daily deliveries and future deliveries are discussed.

All supplier's and sub-contractor's drivers will be requested to contact our Project/Site Manager at least 15 minutes before arriving to site to ensure there are no delays and there is room for the delivery to come onto site. This will eliminate the risk of any deliveries backing up and affecting the flow of traffic on the Beach Road or any approach roads. Any delivery not booked in with Site management may result in deliveries being refused entry.

As noted above all personnel and visitors will enter the site via the pedestrian gate & turnstile. Once inside the gate the security point, site personnel will follow the designated green route to the Site compound(s).

Site Parking

Due to the location and nature of access to the site, in the early stages of the job there will be limited parking available on site; however, once main works are underway there will be no parking permissible on site. Offsite car parking will be identified to avoid congestion in the surrounding areas and minimise disruption for local residents.

All construction operatives be encouraged to use public transport and information on local transportation will be published on site. The area is well serviced by public transport and bus stops and train station in the vicinity of the site on the Sandymount Road.

Site Visitors

There will be single pedestrian entrance to the site off the Church Ave, through which all operatives, staff, design team members and visitors will enter. Visitors to the construction site, who have not been fully inducted will have to sign in at this point and wait for a WCL staff member to escort them to the office area. All Visitors must have full PPE, Sign – in and be escorted to the site offices.

A visitor's induction will be given to all visitors who attend the site and need to go into construction areas, with all such visitors will be accompanied at all times. Anyone who will be attending site regularly for inspections or review of work areas and anyone undertaking works must be fully inducted.

Site Working Hours

Demolition operations on site will generally be between the hours of 07:00 and 19:00, Monday to Friday, and 08:00 to 14:00 on Saturdays. No works permitted on site on Sunday or Bank Holidays.

It is recognized that there may be circumstances where the restriction on hours of work cannot be adhered to e.g. works on or adjoining the boundary lines etc. Where out of hours works are noise sensitive, such exceptional events will only be permitted to be undertaken when all other alternatives have been considered and exhausted.

All such works above will be preceded by written approval from DCC Planning, showing evidence of consultative communications with local residents and businesses. Walls Construction in these circumstances must ensure that appropriate notice (10 working days) is given Dublin City Council and local residents.

Site Accommodation

The site accommodation will be located at the west end of the site in the form of stacked cabins see Fig 3. The compound area will include site offices, site welfare facilities, waste compound and the main site secure material storage area & refuse. Site Welfare facilities will comprise site toilets, drying room, canteen area. During the course of the project some accommodation will be transferred to the basement area where temporary offices will be constructed.

Site Logistics

Initial works, including secant pile wall to the building perimeter, concrete capping beam and associated works will all be serviced by teleporter and excavator with arising removed directly from site.

Bulk excavation will be serviced from entrance on Beach Rd by ramp to basement with all excavated material removed in line with our waste management plan.

2 tower cranes with foundations at basement level will service the construction of the concrete frame and installation of precast. Full scaffold with loading bays on the perimeter to allow removal and transfer of materials to floors by the 2 cranes

5. TRAFFIC MANAGEMENT

A Construction Traffic Management Plan has been developed prior to commencement on site. The main approach to the site will be from the M50 direction via the R131 and N31 via the Rock Rd followed by Strand Rd and Beach Rd. All major construction vehicles and deliveries will be advised of this route as the primary route to/from site to reduce the potential impact on existing traffic closer to the city centre.

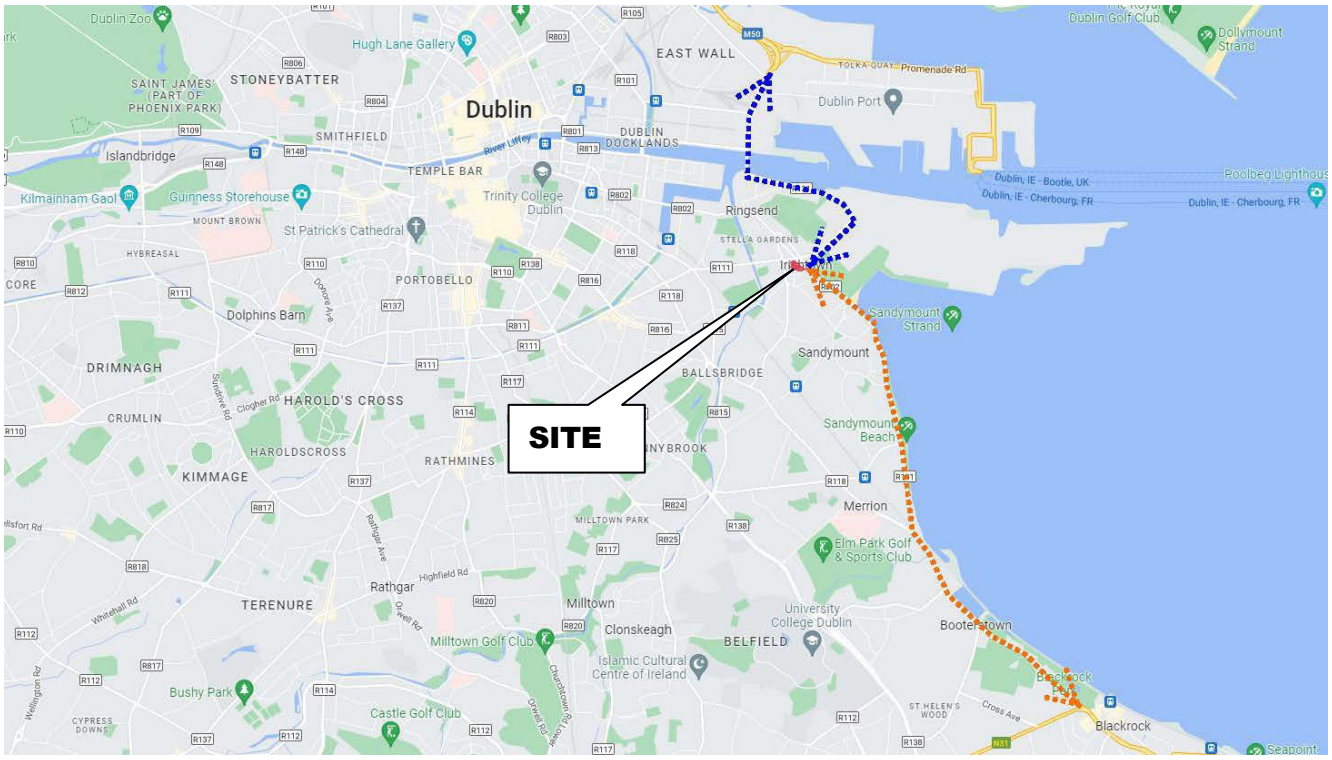


Fig 7. Main approach routes to site

The Traffic Management plan has been reviewed in consultation with DCC and the local Gardai, securing agreement on the site access gates, relevant construction traffic management proposals and monitoring measures. The construction traffic management plan will identify at a minimum, suitable haulage routes for all HGV's to from/site, appropriate locations for marshalling of delivery vehicles, locations for entry and exit gates on the Beach Road, Material delivery schedule, predicted peak traffic flows, road closures any impacts on residents or business operations along with outline measures to prevent inappropriate parking and access in unauthorized areas.

Local approach to the Site

All construction traffic will access the site via the site entrance on the Beach Road. All primary site access and deliveries will be through this access point.

A full time banksman will be in place for all vehicles entering and exiting the site at this location to ensure that the operation is completed safely and without any impact on the local traffic.



Fig 8. Local approach to site and site access point on Beach Road

Sign posting and illumination, will be put in place to ensure safe conditions for the adjacent properties along with public and construction personnel and traffic. Appropriate directional & speed limit signage will be displayed for all construction traffic outside and inside the site footprint area. The details of the traffic management plan will form part of the Walls site safety induction procedure. A copy of the traffic management plan will also be forwarded to all delivery companies prior to their arrival on site.

All management of construction traffic and site set-ups including barriers, signage and lighting for vehicle movements into and out of the site will be done under the control of trained personnel who have completed the Signage, Lighting and Guarding course training. These personnel will be stationed at the entrance gates and will also serve as gatemen to ensure gates are locked after use and to ensure vehicles leaving the site do not bring any dirt or debris onto the public road.

Public Roads

The surrounding areas and road network will be kept free from dust and dirt generated by the construction works and by vehicles associated with the construction activities. The following measures will be taken to ensure that the site and surroundings are kept clean and tidy:

- A regular program of site tidying will be established to ensure a safe and orderly site;
- Scaffolding if required will have debris netting attached to prevent materials and equipment being scattered by the wind;
- Food waste will be strictly controlled on all parts of the site;
- Mud spillages on roads and footpaths outside the site will be cleaned regularly and will not be allowed to accumulate;

- All vehicles leaving the site carrying loads which constitute a potential dirt or dust nuisance will be cleaned at the wheel wash and secured so that no material will be distributed on adjoining roads.
- Road sweepers will clean the public roads adjacent to the site as required.
- In the event of any fugitive solid waste escaping the site, it will be collected immediately and removed.

Construction Parking

There is no provision of car parking for regular construction staff however offsite car parking will be identified to avoid congestion in the surrounding areas and minimise disruption for local residents.

Vehicle Movements during Construction

During the initial site clearance works the main volume of construction vehicles entering and exiting at this point the site will be rigid and articulated trucks during the excavation of the basement. These will enter and exit the site from the existing site access points used for the enabling works and thus no part of Beach Rd will be occupied.

From basement construction onwards it is proposed to install a loading bay at the front of the site along Beech Rd. allowing the drop off and lifting of loads by tower cranes servicing the site. These loading bays will be constantly monitored by banksman at ground level controlling entry and exit refer to appendix 2 traffic management for figure. As we have been advised the timing of the current upgrade works along Beach Rd will be completed before the installation of the loading bay and as such the loading bay will only have minor impact on the traffic management.

Minimising Construction Vehicle Movements

Construction vehicle movements will be minimized through:

- Consolidation of delivery loads to/from the site and manage large deliveries on site to occur outside of peak periods;
- All deliveries will be preplanned and agreed minimum 24 hours in advance to ensure build up on site does not occur.
- Adequate storage space on site will be provided.
- Construction staff vehicle movements will also be minimized by promoting the use of public transport.

6. WASTE MANAGEMENT

Walls Construction will be targeting to divert 90% of the construction waste from landfill. Walls Construction hold ISO 14001 environmental accreditation and have ongoing development and implementation of new procedures on all our sites. All waste materials will be removed to an appropriate designated area, to be agreed on site by our Site Management, prior to removal and disposal off site by a licensed waste management company. The waste management company will supply WCL with dockets for all waste disposed off-site. During these, works Walls Construction will appoint a Waste Champion (C&D Manager) who will take responsibility for all aspects of waste management during the works.

- The Waste Champion will have been trained inhouse to ensure that he/she is competent to manage all waste leaving site as per our Waste Management Procedure EP-03 and legal requirements.
- The Waste Champion will be in a position to communicate effectively with colleagues in relation to the aims and objectives for waste during these works. The process is also overseen by the project HSE Advisor on a daily basis with spot checks and Audits conducted by the senior HSE Department Team (HSE Senior Co-Ordinator's and the Environmental and Sustainability Manager).
- The key function of the Waste Champion is to ensure compliance by verifying and maintaining full traceability through accurate records of all waste that leaves site and updates to this C&D Waste Management Plan on an ongoing basis.
- Comprehensive waste logs will be maintained by the Waste Champion and monitored by HSE Advisor. These will be up to date and available at all times for audit and inspection.

The following measures will be taken to ensure that the site and surroundings are kept clean and tidy:

- A regular program of site tidying will be established to ensure a safe and orderly site;
- Scaffolding will have debris netting attached to prevent materials and equipment being scattered by the wind;
- Food waste will be strictly controlled on all parts of the site;
- Mud/ debris spillages on roads and footpaths will be minimized through effective management practices; where there are issues outside the site, these will be cleaned regularly and will not be allowed to accumulate;
- In the event of any fugitive solid waste escaping the site, it will be collected immediately and removed.
- Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;
- A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority

7. ENVIRONMENTAL HEALTH & SAFETY

In accordance with the Safety, Health & Welfare at Work Act 2005, Construction Regulations 2013 and General Applications 2007, we will manage Health and Safety issues for the duration of the works through the implementation of our Health and Safety Management System which is accredited to OHSAS 18001.

Walls Construction, as the PSCS will draft the Construction Stage Health and Safety Plan for the Project, taking cognisance of the Preliminary Plan prepared by the PSDP. This plan will incorporate the Method Statements and Risk Assessments for all of the activities being undertaken on the site and will be developed and expanded as each building milestone progresses.

We shall manage Environmental aspects for the durations of the works in accordance with ISO14001 certified Environmental Management System. To ensure compliance with surface water discharge statutory and current planning obligations, Walls Construction have taken baseline samples in January 2023. Based on these samples our water management consultants (Minerex) have designed and installed a system to monitor and manage the quality of surface water discharged from site.

A discharge licence will be obtained from the relevant regulatory body (Irish Water) as per statutory requirements prior to discharging any water off site. The Minerex telemetry system will be set in accordance with the discharge limits specified in the licence and reports will be issued on a regular basis.

8. CONSTRUCTION SITE IMPACTS MANAGEMENT

Stakeholder Liaison

An experienced member of the site team will be appointed as the Stakeholder Liaison for the duration of this project. Part of their role will be to develop a stakeholder management plan which will identify all key stakeholders for the project, the methods of communications, forums for discussion and level of reporting to be completed over the course of the project on stakeholder issues. We will ensure that all requirements as defined in the site protocol document will be adhered and we will aim to and enhance and improve upon these procedures to manage the expectation of the adjoining properties and minimize the full impact the construction works will have on all parties.

A project newsletter will be distributed to the local community prior to works commencing on site. This newsletter will provide up to date information on the project as well as contact details for any queries relating to the project. This newsletter will be issued monthly over the duration of the project providing residents with regular updates on the project and advise them of any upcoming works which may affect them.

When requested, we will contact any adjoining or adjacent property owner separately with a view to discuss any issues pertaining to their project in more detail. If required future meetings can be held with the property owners to review the construction issues on a regular basis in a managed and agreed

forum.

Weekly meetings will be held with the project team to update them on any Stakeholder issues. With the construction of the building in close proximity to a number of neighbouring properties including residences, local schools and businesses, the management of stakeholders will a key consideration for all site logistics, planning and works sequencing decisions.

Information noticeboards will placed on the site boundary and direct contact details will be provided for the Stakeholder Liaison to all stakeholders for any issues that may arise. A communications log will be maintained on site and every contact made will recorded to and responded to with an agreed time period. The log was will be shared with the project team at the weekly stakeholder review meeting.
Throughout the project we will also liaise closely with Dublin City Council and the local Gardai, particularly in relation to out of hours working and derogations and keep them informed of any stakeholder issues relating to these works. Some of the key stakeholders on the project include the residents on Church Ave, Cranfield Pl, Beach Rd and St. Mathew's School. We shall also extend our liaison to all properties on all immediate roads surrounding the site.

Conditional Surveys

Prior to commencement of the main construction works, a detailed schedule of dilapidations along with a photographic survey of the existing boundary walls, adjacent properties, roads, paths and services will be carried out. A Conditional Survey report will be generated and issued to the project team prior to commencing construction works on site. This survey report will be deemed as an accurate assessment of the condition of the existing works area and surrounding properties; and where requested this report can be shared with the adjoining property owners
All existing over ground and underground services will be surveyed, charted and reconciled with existing as built layouts. The survey of surrounding roadways and footpaths will cover the adjacent road network and will prioritize the roads which will be used by the site construction traffic in accordance with our traffic management plan

Site Impacts Monitoring

We will engage the services of a specialist monitoring company to install, commission and report on noise, dust and vibration throughout the construction works. Prior to any construction works commencing, a baseline survey of the existing site conditions will be carried out at a number of locations around the site in accordance with ISO 1996: Part 2:2007.



Fig 8 Baseline Noise monitoring survey locations

We shall agree locations with the project team for all noise, dust and monitoring locations,

Weekly summary monitoring reports will be provided over the course of the project and full detailed monthly reports with all recorded results will also be available.

Control of Noise and Vibration

All construction activities will be carried out in compliance with the recommendations of BS 5228, “Noise Control on Construction and open sites part 1. These measures which will be employed to ensure compliance will include but not be limited to: -

- A noise assessment for the expected noise generation during the works. The noise assessment should identify all activities where there will be a noise hazard, determine the level of nuisance expected, identify those at risk from this nuisance, propose control measure for reducing the risk of nuisance and confirm the require recording methodology to be implemented over the course of the project
- All site staff and subcontractors to be briefed on noise mitigation measures and the application of best practices to be employed to control noise
- Site hoarding to be in place on all possible elevations and use of debris netting and monarflex on external fencing and scaffolding if required.
- Use of proprietary acoustic barriers around noise generating plant and equipment
- Noise monitoring stations will be place at agreed locations and will be monitored daily to ensure background and construction noise activity are recorded.
- Remote monitoring to be completed for specific activities at noise sensitive locations

- Regular inspections and noise audits to be carried out at regular intervals to ensure that all appropriate steps are being maintained for the control of noise on site
- Best practices will be used to minimise the noise produced by site operations, particularly in the selection of construction methods and plant/machinery/equipment.
- Proper maintenance of all operating plant to ensure noise emission compliance.
- All operating plant will be selected on the bases of incorporating noise reducing systems, and at a minimum be fitted with effective exhaust silencers.
- Compressors will be fitted with acoustically lined covers, which will remain closed while the machines are in operation.
- Plant such as pumps and generators which are required to work outside of normal working hours will be enclosed with acoustic enclosures and located away from site boundaries
- Temporary ESB power to site will be favoured over generator usage. Use of silent generators is required
- Strict adherence to the site working hours.
- Agreed procedures with neighbouring properties for notification of noise related issues, and agreements on advance warning of noise sensitive meetings or events in the properties which would enable Walls Construction to review if works can be re-sequenced

A noise complaints log will be maintained on site of all noise related complaints including those actions taken where trigger limits are exceeded as outlined above. The log will include the following detail:-

- Name and address of complainant
- Time and date complaint was made
- Date, time and duration of noise
- Characteristics, such as rumble, clatters, intermittent, etc.
- Likely cause or source of noise
- Weather conditions, such as wind speed and direction
- Investigative and follow-up actions

Control of Dirt & Dust

Throughout this construction project, a Dirt and Dust Management Plan will be implemented. This plan shall ensure that all guidelines are adhered to in relation to the control of dirt and dust generated by the project and help in minimizing the effect on the site workers, the public including pedestrians and road users and the adjoining properties. This plan will also adhere to Dublin City Council's Air Quality Monitoring and Noise Control Unit's Good Practice Guide for Construction and Demolition document

based on the site been classed as a High Risk site – A revised dust monitoring method will be added to the site, with the use of Live dust monitor as reviewed with DCC Environmental.

Walls Construction will establish a monitoring inspection regime which will be implemented on site as follows:

- Daily Site Inspection by Walls Project/Site Management of site boundaries to include hoarding inspection and external roadway cleanliness.
- Weekly site cleanliness inspection by Walls Site Safety Advisor
- Monthly site cleanliness audit by Walls Safety Manager

Control measures shall include the following: -

- List of dust creating activities to be identified at an early stage of the project with control measures identified to be implemented
- Dust suppression measures to be implemented on site such as use of water bowsers and water-based dust suppression systems will be implemented during any dust generating activities to greatly reduce the amount of dust and windborne particulates as a result of the construction works. These systems will be closely monitored by site management personnel particularly during extended dry periods and in accordance with site management methods discussed earlier.

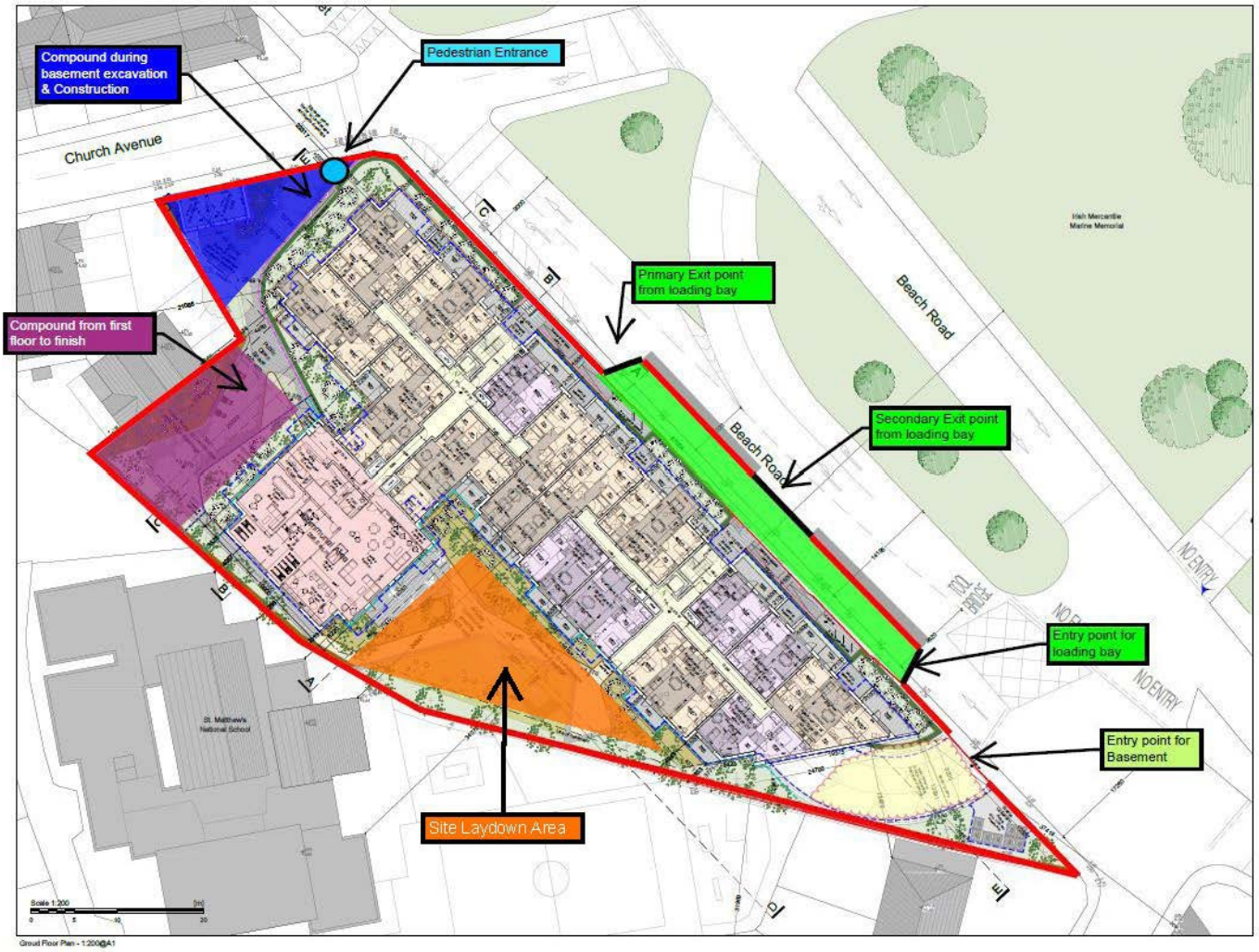
- Dust monitors to be erected on the site boundaries
- Road sweeper on local road network to be used as required during bulk excavation and main concrete pour dates
- Construction vehicles will have a clean surface to travel on around the site and particularly on at the exit on the Beach Road
- Speed restriction for all vehicles on site of 10km/hr
- All construction vehicles are inspected by the gateman for cleanliness prior to exiting the site with necessary control measures taken
- Stockpiles of stone and other materials on site should be kept to a minimum, and if required then they should be covered or watered down regularly
- All dusty materials are to be covered when transported to and from site. It will be compulsory for all open back lorries removing spoil / waste to have fitted covers to avoid emissions.
- External scaffolding with debris netting and debris fans where required
- All cutting plant and machinery, Coring Rigs, Walls Saws and Wire cutters etc, will be fitted with working water spray devices to control / reduce dust emissions.
- All external skips will be covered.

- All debris and rubble will be damped down prior to removal to the skip.
- Site Hoarding and Fencing to be maintained in place until latest date prior to completion of the external siteworks.

A dirt/dust complaints log will be maintained on site of all dirt/dust related complaints. The log will include the following detail:-

- Name and address of complainant
- Time and date complaint was made
- Date, time and location of issue
- Characteristics, such as type of dirt/dust
- Likely cause or source of dirt/dust
- Weather conditions, such as wind speed and direction
- Remedial actions completed

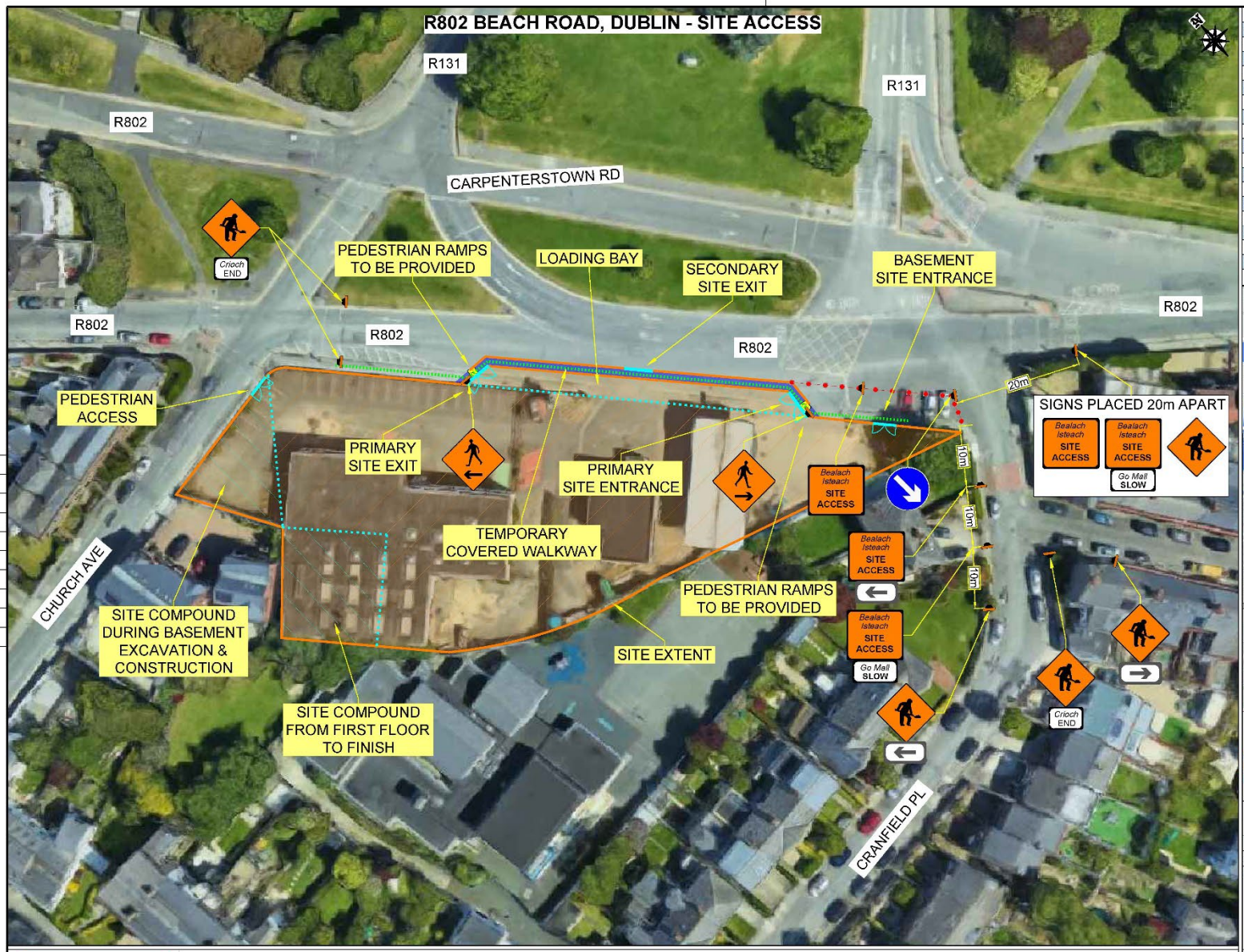
APPENDIX 1
SITE SET- UP & LOGISTICS PLANS


Compound during basement excavation & Construction
Pedestrian Entrance
Church Avenue
Primary Exit point from loading bay
Beach Road
Compound from first floor to finish
Secondary Exit point from loading bay
Beach Road
Entry point for loading bay
NO ENTRY
Entry point for Basement
Site Laydown Area

APPENDIX 2

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

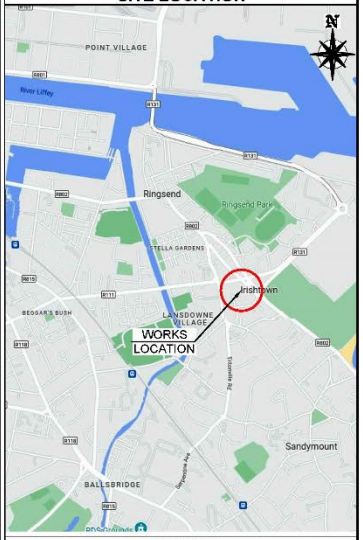
R802 BEACH ROAD, DUBLIN - SITE ACCESS



DESIGN PARAMETERS

CHAPTER 8 ROAD LEVEL:	1(I) / 1(III)
SPEED LIMIT:	30 / 50km/h
ROADWORKS TYPE:	B
NUMBER OF SIGNS:	1 / 2
SIGN VISIBILITY:	25 / 50m
DISTANCE BETWEEN SIGNS:	10 / 20m
SIGNS SIZE RECTANGULAR - MIN.:	450 / 600mm
SIGNS SIZE CIRCULAR - MIN.:	450 / 600mm
CONE HEIGHT - MIN.:	750mm
TAPER CONE SPACING:	N/A
LONGITUDINAL CONE SPACING:	N/A
RATE OF TAPER:	N/A
SAFETY ZONE:	N/A
UNOBSTRUCTED WIDTH:	N/A
MAXIMUM LENGTH OF SHUTTLE:	N/A
MINIMUM LANE WIDTH:	N/A
TM SYSTEM:	SITE ACCESS

SITE LOCATION



LEGEND

- TEMPORARY TRAFFIC SIGN
- TRAFFIC CONES
- SITE EXTENT
- SITE COMPOUND/LOADING BAY
- PEDESTRIAN ROUTE
- PEDESTRIAN WALKWAY
- SITE HOARDING

REV	DESCRIPTION	DATE	REV BY	CHK BY

CLIENT: walls

PROJECT: R802 BEACH ROAD, DUBLIN

TITLE: SITE ACCESS MANAGEMENT

DIRECTOR:	BE	PM:	MC	CHECKED:	MC
SCALE:	NTS	DRAWN BY:	LC	DATE:	30/11/22
STAGE:	CONSTRUCTION				
DRAWING NO:	EN 6194 - 001 - 001			REV:	00

A3 (297x420mm)

COMPLETE HIGHWAY MAINTENANCE
UNIT 28, SECOND AVE COOKSTOWN IND. EST. TALLAGHT, D24, IRELAND
TEL: (01) 424 2070
EMAIL: info@chmltd.ie
WEB: www.chmltd.ie

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GENERAL NOTES

1) THIS TRAFFIC MANAGEMENT PLAN MAY ONLY BE IMPLEMENTED BY A TEMPORARY TRAFFIC OPERATIONS SUPERVISOR (TTOS) WHO MUST CARRY OUT A SITE RISK ASSESSMENT TO MODIFY (IF NECESSARY) THE MEASURES DESCRIBED TO SUIT ACTUAL SITE CONDITIONS BEFORE IMPLEMENTATION.

2) THE TTOS MUST BE IN POSSESSION OF THE VALID CONSTRUCTION SKILLS REGISTRATION CARD 'SIGNING, LIGHTING, AND GUARDING AT ROADWORKS' CONSTRUCTION REGULATIONS 2006.

3) THE TTOS TO DETERMINE EXACT POSITION OF SIGNS CONSIDERING THE SITE SPECIFICS.

4) IN ORDER THAT THE REQUIREMENTS SET OUT IN SECTION17(2) OF THE SAFETY, HEALTH & WELFARE ACT (2005) AND SECTION 16 (F) OF THE CONSTRUCTION REGULATIONS ARE MET, THE PSCS MUST ADVICE THE PSDP AND ALL RELEVANT PARTIES OF ANY CHANGE TO THE TEMPORARY TRAFFIC MANAGEMENT PLAN.

5) ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS AND TO BE INCLUDED IN THE SITE SPECIFIC SAFETY & HEALTH PLAN.

6) MAINTENANCE CHECKS SHOULD BE CARRIED OUT AT REGULAR INTERVALS AND IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.

7) TEMPORARY SIGNS SUPPORTS OR STANDS SHOULD BE DESIGNED IN ACCORDANCE WITH SPECIFICATION TS4.

8) CONTRACTOR TO CARRY OUT A SITE RISK ASSESSMENT PRIOR TO THE INSTALLATION OF THE TRAFFIC MANAGEMENT PLAN TO ENSURE THAT CONDITIONS REFLECT THOSE CONSIDERED FOR DESIGN POST SUBMISSION.

9) ALL SIGNS USED FOR THIS TRAFFIC MANAGEMENT PLAN MUST COMPLY WITH CHAPTER 8 OF TRAFFIC SIGNS MANUAL LATEST EDITION.

10) WK 052 THIS SIGN SHOULD BE USED TO INDICATE THE POSITION OF A SITE ENTRANCE AND/OR EXIT. REFER TO CH. 8 FOR USAGE. BANKSMEN TO MANAGE SITE ACCESS & EGRESS.

11) THE ABSOLUTE MINIMUM WIDTH ALLOWED FOR PEDESTRIANS IS 1.2M AND FOR A ONE-WAY CYCLE TRACKS IS 1.2m.

12) SAFETY BARRIERS USED FOR THIS TMP MUST COMPLY WITH TII DN-REQ-03034-1 IS EN 1317-1 e) TEMPORARY SAFETY BARRIER

13) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED RAMP ACCESS TO ALL CHANGES IN ROAD SURFACE LEVEL WHERE TRAFFIC RUNS ON A TEMPORARY SURFACE AND ALSO FOR CYCLE/PEDESTRIAN RAMPS WHERE THERE IS A LEVEL DISCONTINUITY AS A RESULT OF THE WORKS ON CYLE PATHS & FOOTPATHS.

14) ADDITIONAL SIGNS MAY BE USED TO COMPLEMENT THE SPECIFIC SIGNS USED AT THE ROADWORKS: WARNING SIGNS - YELLOW BACKGROUND - DESCRIBED IN CHAPTER 6, REGULATORY SIGNS - DESCRIBED IN CHAPTER 5, ETC. THEY ALL MUST COMPLY WITH THE SPECIFICATIONS OF 'TRAFFIC SIGNS MANUAL' AND 'TS4: GUIDELINES, CERTIFICATION SCHEME AND SPECIFICATION FOR CONSTRUCTION OF TRAFFIC SIGNS'.

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

LOCAL GOVERNMENT (WATER POLLUTION) ACTS, 1977 & 1990

LOCAL AUTHORITY: DUBLIN CITY COUNCIL

LICENCE NUMBER (Reg. Ref.): PCLW/004/23

Dublin City Council, Local Authority, in exercise of the powers conferred on it by the Local Government (Water Pollution) Acts, 1977 & 1990 hereby **grants the under mentioned Licensee, a licence (PCLW/004/23), subject to the conditions stated hereunder,** to discharge trade effluent from the under mentioned premises to waters as detailed below:

LICENSEE:	**Walls Construction Limited**
PREMISES:	**Beach Road, Sandymount, Dublin 4**
ACTIVITY:	**Dewatering of construction site**
RECEIVING WATERS:	**Groundwaters at Beach Road, Sandymount, D4**
NATURE OF DISCHARGE:	**Groundwater**

Signed: _____
Assistant Chief Executive & City Engineer

Dated: **this** 13th **day of** July **2023**

CONDITIONS

1. The effluent shall be screened prior to discharge to the waters to remove gross solids measured by a suitable flow meter.

2. The Licensee shall maintain (or have maintained) the effluent treatment systems to ensure compliance with the above licence conditions. A record of plant maintenance operations shall be kept by the Licensee.

3. A record or log book of cleaning, maintenance and performance of settling tanks shall be made and kept available for inspection at all times by officials of Dublin City Council on demand.

4. The Licensee shall provide and maintain such inspection chambers as are required for the purpose of taking samples of trade effluent.

5. The Licensee shall permit authorised persons to inspect, examine or test, at all reasonable times, any works or apparatus installed in connection with the trade effluent, and to take samples of the trade effluent.

6. The Licensee shall monitor the discharge of trade effluent to ensure compliance with the conditions of this licence. Representative samples of the trade effluent shall be taken by the Licensee and tested for the chemical characteristics conditioned in this licence using standard methods. The frequency of sampling shall be weekly for the first instance and may be reduced based upon sample results. The cost of all such tests shall be borne by the licensee.

7. The Licensee shall keep records in such form as required, of the volume, rate of discharge, nature and composition of the trade effluent discharged into the sewer. A record of the quantity of trade effluent (as recorded by a flow meter) discharged to sewer and monitoring results shall be sent to Dublin City Council (*waterpollution@dublincity.ie*) on a weekly basis or as agreed.

8. The trade effluent discharged shall be of the same nature and composition as described and conditioned in this licence.

9. Non-trade effluent wastewater (including fire water and accidental spillage's arising on the site) shall not be discharged to sewers without the prior authorisation of Dublin City Council.

10. The effluent discharge shall not contain petroleum hydrocarbons or organic solvents (including chlorinated organic solvents) which would give rise to flammable or explosive vapours in the sewer.

11. No substance shall be present in the trade effluent in such concentration as would constitute a danger to personnel working in the sewer or to the sewer fabric, or would interfere with the operation of downstream handling facilities.

12. In the event of an accidental discharge, spillage or deposit of any polluting matter which enters or is likely to enter any waters or a sewer, the person responsible shall notify the City Council as soon as practicable afterwards (Section 14, Local Government (Water Pollution) Act, 1977).

13. The temperature of the trade effluent shall not exceed **25** degrees C.

14. The pH shall lie in the range **6.0** to **9.0.**

15. Over any 24-hour period, the mean concentration of biochemical oxygen demand **(BOD)** in the trade effluent shall not exceed **5** mg/litre O_2 and the maximum concentration of **BOD** shall not exceed **10** mg/litre O2. The total quantity of biochemical oxygen demand discharged in this period shall not exceed **1.93** Kg.

16. Over any 24-hour period, the mean concentration of chemical oxygen demand (**COD**) in the trade effluent shall not exceed **20** mg/litre O_2 and the maximum concentration of **COD** shall not exceed **40** mg/litre. The total quantity of chemical oxygen demand discharged in this period shall not exceed **7.72** Kg.

17. Over any 24-hour period, the mean concentration of **suspended solids** in the trade effluent shall not exceed **20** mg/litre and the maximum concentration of suspended solids shall not exceed **30** mg/litre. The total quantity of suspended solids discharged in this period shall not exceed **7.72** Kg.

18. The concentration of **mineral oils** in the effluent shall not exceed **2.0** mg/l. The total quantity of mineral oils discharged per day shall not exceed **0.772** Kg.

19. The concentration of **Ammonium** (as N) in the effluent shall not exceed **1.0** mg/litre and the total quantity of Ammonium discharged per day shall not exceed **0.386** Kg as N.

20. The concentration of **Total Petroleum Hydrocarbons** (**TPH**) shall not exceed **1.0** mg/litre and the total quantity of Total Petroleum Hydrocarbons (**TPH**) discharged per day shall not exceed **0.386** Kg.

21. The concentration of **Phosphates** (as PO4-P) in the effluent shall not exceed **1.0** mg/l. The total quantity of Phosphates discharged per day shall not exceed **0.386** Kg as P.

22. The concentration of **Sulphates** (as SO4) in the effluent shall not exceed **200** mg/l. The total quantity of Sulphate (as SO4) discharged per day shall not exceed **77.2** Kg.

23. The concentration of **Nitrates** (as N) in the effluent shall not exceed **10.0** mg/l. The total quantity of Nitrates discharged per day shall not exceed **3.86** Kg as N.

24. Charges as approved by Dublin City Council will be applied at appropriate intervals.

25. The discharge of trade effluent shall not exceed **386** m^3/day.

Signed: _____

Assistant Chief Executive & City Engineer

Dated: **This** 13th **day of** July **2023**

Mark Richardson | PUNCH

From: Emma Finlay <emma.finlay@dublincity.ie>
Sent: Wednesday 23 August 2023 15:18
To: Cecil.Shine@minerex.ie; WaterPollution; Ollie Conway; Minerex Dewatering; Ivan Byrne
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer
Attachments: PCLW00423.pdf

Hi all,

Please find attached granted S4 discharge to waters licence for Walls at Beach Road.
However as agreed at yesterday's visit, Walls/Minerex shall install a baffle wall on the tank as instructed by DCC.
This shall be implemented as soon as possible, but no later than the end of the week.
Walls/Minerex shall provide DCC with a photo of the amended setup once completed.

Discharge reports shall be provided to DCC on a weekly basis to waterpollution@dublincity.ie.
Billing relating to the S4 licence will occur on a quarterly basis.

Finally, it is noted that the Section 16 discharge to storm sewer licence is no longer required for this site.

Kind Regards,

Emma

From: Cecil Shine <Cecil.Shine@minerex.ie>
Sent: Monday 21 August 2023 09:33
To: Emma Finlay <emma.finlay@dublincity.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Ollie Conway <Ollie.Conway@walls.ie>; Minerex Dewatering <dewatering@minerex.ie>; Ivan Byrne <Ivan.Byrne@walls.ie>
Subject: Re: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Emma, thank you, see you then.

_____
Cecil Shine
086-6175881
Technical Director
Minerex Environmental

From: Emma Finlay <emma.finlay@dublincity.ie>
Sent: Monday, 21 August 2023, 11:20
To: Cecil Shine <Cecil.Shine@minerex.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Ollie Conway <Ollie.Conway@walls.ie>; Minerex Dewatering <dewatering@minerex.ie>; Ivan Byrne <Ivan.Byrne@walls.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

CAUTION: This email originated from outside the Organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Cecil,

I am busy most of Tuesday, but could be at the site at 3pm if that suited?

Kind Regards,

Emma

From: Cecil Shine <Cecil.Shine@minerex.ie>
Sent: 18 August 2023 08:47
To: Emma Finlay <emma.finlay@dublincity.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Ollie Conway <Ollie.Conway@walls.ie>; Minerex Dewatering <dewatering@minerex.ie>; Ivan Byrne <Ivan.Byrne@walls.ie>
Subject: Re: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Emma, installations will be complete Monday. Could you drop to site Tuesday?

Cecil Shine
086-6175881
Technical Director
Minerex Environmental

From: Emma Finlay <emma.finlay@dublincity.ie>
Sent: Wednesday, July 19, 2023 1:50:50 PM
To: Cecil Shine <Cecil.Shine@minerex.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Ollie Conway <Ollie.Conway@walls.ie>; Minerex Dewatering <dewatering@minerex.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

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Hi Cecil,

Please confirm when installed and a date will be agreed.
I am on leave for a period around then.

Regards,

Emma

From: Cecil Shine <Cecil.Shine@minerex.ie>
Sent: Wednesday 19 July 2023 09:58
To: Emma Finlay <emma.finlay@dublincity.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Ollie Conway <Ollie.Conway@walls.ie>; Minerex Dewatering <dewatering@minerex.ie>
Subject: Re: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Emma,
Dewatering and recharge well drilling is due to commence week beginning 7/8/23 so setup should be ready end of week to inspect.
We will keep you posted but please note it in your diary for now.
Many thanks.

Cecil Shine
086-6175881
Technical Director
Minerex Environmental

From: Joanna Langham <joanna.langham@minerex.ie>
Sent: Wednesday, July 19, 2023 9:50:51 AM
To: Emma Finlay <emma.finlay@dublincity.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>; Ollie Conway <Ollie.Conway@walls.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Hi Emma,

System is not yet in place. We will contact you when is on site and ready for inspection.

Kind regards,

Joanna Langham| Dewatering Operations Manager
B.Sc (Earth Science)
Mobile: 00 353 877438560. Email: joanna.langham@minerex.ie
Web: www.minerex.ie. Landline: 01 296 4435

Taney Hall, Eglinton Terrace, Dundrum, Dublin 14, Ireland. Eircode D14 C7F7

Water and Soil specialists

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From: Emma Finlay <emma.finlay@dublincity.ie>
Sent: Wednesday, July 12, 2023 9:55 AM
To: Joanna Langham <joanna.langham@minerex.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>; Ollie Conway <Ollie.Conway@walls.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

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Hi Joanna, Ollie,

Can you please advise if the proposed treatment as set out in the application form and RFI is available to inspect on site?

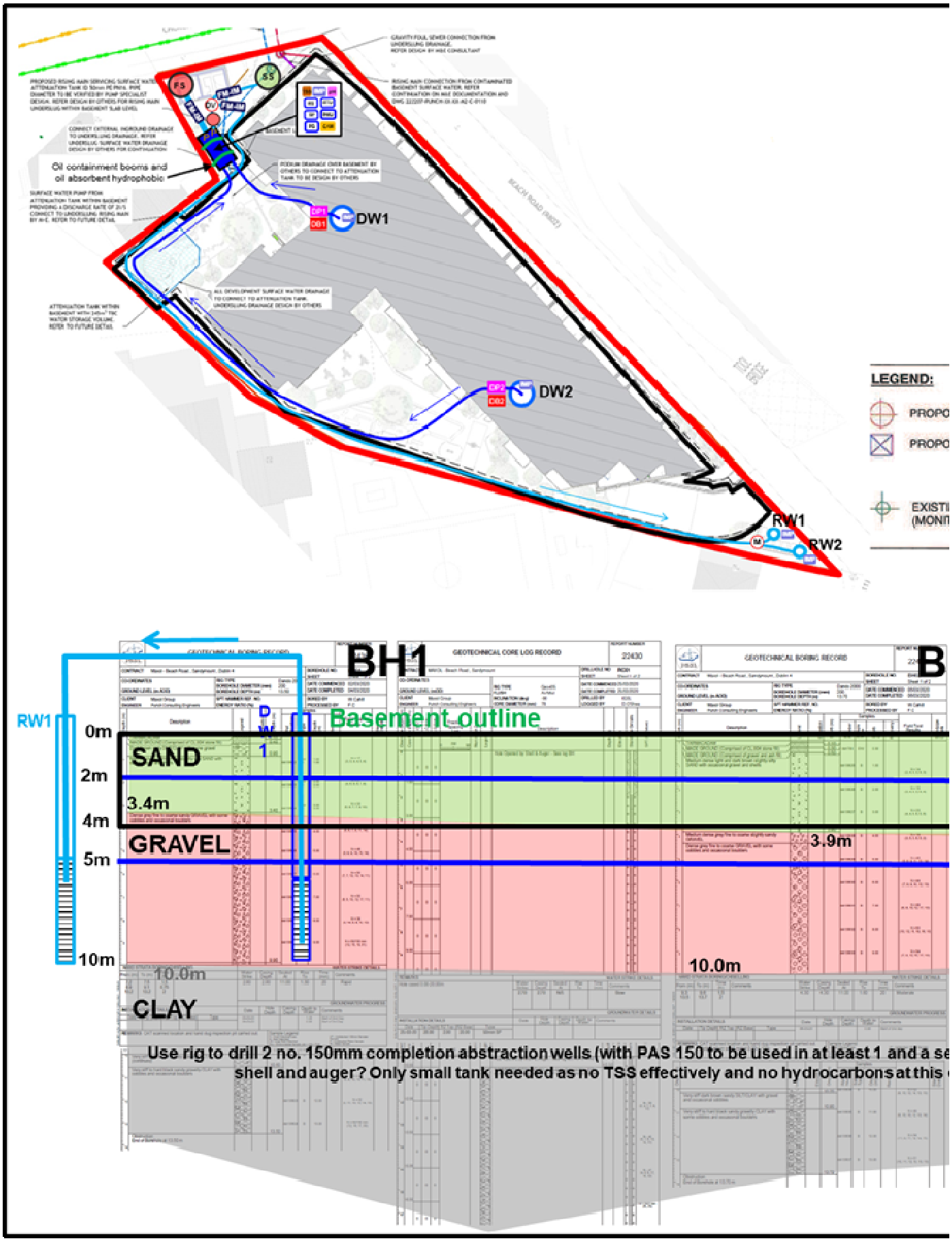
Kind Regards,

Emma

From: Joanna Langham <joanna.langham@minerex.ie>
Sent: Wednesday 7 June 2023 10:02
To: Emma Finlay <emma.finlay@dublincity.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>; Ollie Conway <Ollie.Conway@walls.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Hi Emma,

Please find cross section attached below as requested.



Kind regards,

_____

Joanna Langham| Dewatering Operations Manager
B.Sc (Earth Science)

Mobile: 00 353 877438560. Email: joanna.langham@minerex.ie
Web: www.minerex.ie. Landline: 01 296 4435

Taney Hall, Eglinton Terrace, Dundrum, Dublin 14, Ireland.
Eircode D14 C7F7

Water and Soil specialists

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From: Emma Finlay <emma.finlay@dublincity.ie>
Sent: Tuesday, June 6, 2023 11:34 AM
To: Joanna Langham <joanna.langham@minerex.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Hi Joanna,

Can you please forward dewatering cross section inc ground conditions as requested at site visit?

Kind Regards,

Emma

From: Joanna Langham <joanna.langham@minerex.ie>
Sent: Friday 12 May 2023 13:06
To: Emma Finlay <emma.finlay@dublincity.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Hi Emma,

Confirming availability for 17/05/2023 at 10am.
Walls and Minerex will attend.

Kind regards,

Joanna Langham| Dewatering Operations Manager
B.Sc (Earth Science)
Mobile: 00 353 877438560. Email: joanna.langham@minerex.ie
Web: www.minerex.ie. Landline: 01 296 4435

Taney Hall, Eglinton Terrace, Dundrum, Dublin 14, Ireland.
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From: Emma Finlay <emma.finlay@dublincity.ie>
Sent: Wednesday, May 10, 2023 8:05 AM
To: Joanna Langham <joanna.langham@minerex.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Hi Joanna,

I am proposing to hold a site visit on site on 17/05/23 at 10am. This will only go ahead should proof of payment be confirmed. Please confirm availability.

Can you also please advise if the site have applied for an IW licence?
In relation to the SW application, can you please send page 16 and 20 separately. They are difficult to read in the submitted application.

Kind Regards,

Emma

From: Emma Finlay
Sent: 08 May 2023 15:32
To: 'Joanna Langham' <joanna.langham@minerex.ie>; WaterPollution <waterpollution@dublincity.ie>
Cc: Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>
Subject: RE: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Hi Joanna,

Please contact Customer Services (012222222) who should be able to advise how to pay.
If required, the relevant account code is highlighted in yellow - R.00.03.R73038.311501.0000000.00.00000

In relation to the application, can you please send page 16 and 20 separately. They are difficult to read in the submitted application.
Once payment is confirmed, a site visit can be arranged.

Kind Regards,

Emma

From: Joanna Langham <joanna.langham@minerex.ie>
Sent: 04 May 2023 11:55
To: WaterPollution <waterpollution@dublincity.ie>
Cc: James Kelly - Executive Engineer <JamesJ.kelly@dublincity.ie>; Emma Finlay <emma.finlay@dublincity.ie>; Marie Hennessy <marie.hennessy@dublincity.ie>; Patrick Catana <patrick.catana@minerex.ie>; Zala Uriel <zala.uriel@minerex.ie>; Cecil Shine <cecil.shine@minerex.ie>
Subject: 3235 - Walls Construction Limited at Beach Road - Discharge Licence Application to Storm Sewer

Dear Water Pollution,

Please find attached discharge licence application to **Storm Sewer** on behalf of Walls Construction Limited at Beach Road.

Please confirm payment reference number so I can make payment over the phone.

If you have any queries, please don't hesitate to contact me.

Kind regards,

Joanna Langham| Dewatering Operations Manager
B.Sc (Earth Science)
Mobile: 00 353 877438560. Email: joanna.langham@minerex.ie
Web: www.minerex.ie. Landline: 01 296 4435

Taney Hall, Eglinton Terrace, Dundrum, Dublin 14, Ireland.
Eircode D14 C7F7

Water and Soil specialists

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CONSTRUCTION ENVIRONMENTAL AND STRUCTURAL SITE IMPACTS – NOISE, DUST, VIBRATION,

Strategic Housing Development (SHD) at Beach Road, Sandymount, Dublin.

Environmental Noise Management

In order to ensure that the construction works do not adversely impact on the surrounding neighbourhood, Walls Construction will ensure that the application of best practice for the construction works will be carried out in accordance with the requirements of the project's Environmental Impact Assessment Report, Dublin City Council's 'Air Quality Monitoring and Noise Control Unit's Good Practice Guide for Construction and Demolition Works' and BS 5228:2009 + A1 2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites.

Walls Construction will assess each proposed work activity, assess the potential impacts, and provide appropriate control measures in line with the aforementioned guidelines.

In order comply with the requirements noted within the EIAR and draft Monitoring plan, Walls Construction will engage a specialist monitoring company NVM limited to install, commission and report on environmental noise, dust and structural vibration throughout the construction works, this shall be inclusive of a baseline survey of the existing site conditions and prior to any construction works commencing on site.

The Construction Noise Impact Assessment shall be used to identify the existing noise environment and identify the expected noise emission levels from proposed construction activities. And, propose control measures for reducing the risk of nuisance and confirm the require recording methodology to be implemented over the course of the project.

Monitoring points will be fixed along the project site perimeter and with agreement from occupiers, alongside any sensitive receptor locations. In the event of isolated instances that may case disturbance, summary monitoring update reports can be provided on request, in addition to a monthly monitoring progress report which shall be issued at the start of each month.

Each monitoring location as shown on the map, will include a dust jar, microphone & vibration briefcase as shown in the photo on page 5.

Mitigations

All the measures that will be implemented are described in the Noise, Vibration and Dust Management protocol as advised and set up by NVM limited.

For the period during construction Walls Construction shall ensure that the impact of noise due to construction activities is minimised by employing the best practical means and complying with the recommendations set out in BS 5228: 2009 + A1 2014 (Noise Control on Construction and Open Sites).

Where possible, the Walls Construction team will endeavour to ensure all work shall be carried out without unreasonable noise. Mitigation measures will include the use of good site management practices on site, plant maintenance, noise attenuation equipment, careful adherence to working hours and communications with adjoining property owners.

Walls Construction will organise operations with regard to the positioning of plant and the location of haul routes in and out of the site, etc., to minimise construction noise to adjacent properties.

Noise monitoring shall be in near real time with alerts issued to the Site Management team if it is detected that noise levels are approaching the agreed guidance limit for the project.

Noise monitoring may be relaxed once particularly noisy activities (such as excavations or driven piling) are completed, with agreement with the Local Authority.

Dust Deposition

Dust particles can become suspended in the atmosphere from many sources, both natural (pollen/spores, sea salt, soil volcanic ash, fires, etc.) and anthropogenic (construction/demolition, minerals extraction, agriculture, industry, transport, leisure activities, etc.).

The Standard Bergerhoff Methodology will be used by NVM limited to measure dust particles from the site in accordance with BS1747 Part 1: Methods for the measurement of air pollution and Deposit gauges, and VDI 4320 Part 2 Measurement of atmospheric depositions - Determination of the dust deposition according to the Bergerhoff method (the latter published by the German Engineering Institute).

Dust deposition typically occurs in close proximity to the source, and potential dust impacts may occur within 500 meters of the dust generating activity as dust particles fall out of suspension in the air. Larger particles deposit closer to the generating source and deposition rates will decrease with distance from the source.

Health effects are associated with fine particles smaller than 10 µm in size (PM10). “Nuisance dust” (when deposited to ground, buildings, or other materials) is generally associated with the coarse fraction particulates, greater than 20 µm in size.

Proposed site monitoring using the Bergerhoff Method uses dust deposition gauges to measure the total particulate matter that is deposited into a collecting vessel by its own weight, or by the assistance of rainfall.

The total amount of dust deposited in the collection vessel during the monitoring period is determined by laboratory analysis, i.e. the weight of the total insoluble residue on evaporation.

The average monthly deposition is expressed as the weight of dust that has been collected per unit area per day and referenced to a control value of 350mg/m2/per day.

Vibration Monitoring

Vibration Guidance relevant to acceptable vibration within buildings is contained in the following documents:

BS 7385: Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from ground borne vibration (1993); and

BS 5228: 2009 +A1 2014: Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration.

Vibration monitoring shall be completed by NVM limited to assist with ensuring compliance is achieved to the above referenced BS standards. The team at NVM Limited will be used throughout the scheme to advise on appropriate monitoring points (based on sensitive receptor locations, and to set up static monitoring devices as required and to provide advice

on monitoring requirements as necessary. Walls Construction will in so far as possible employ the best practical means to minimise vibrations produced by his operations; measurements and analysis of the vibration monitoring shall be carried out in accordance with the above noted standards.

Summary of monitoring levels

Vibration

BS 5228-2 recommends that, for soundly constructed residential property and similar structures that are generally in good repair, a threshold for minor or cosmetic (i.e., non-structural) damage should be taken as a peak particle velocity of 15 mm/s for transient vibration at frequencies below 15 Hz and 20 mm/s at frequencies above than 15 Hz.

Below these vibration magnitudes minor damage is unlikely, although where there is existing damage, these limits may be reduced by up to 50%.

The Contractor shall be responsible for setting up and maintaining the vibration monitoring equipment specified above and for providing to the Employer's Representative copies of all vibration recordings.

The Contractor shall employ the best practical means to minimise vibrations produced by his operations; measurements and analysis of the vibration monitoring shall be carried out in accordance with BS 5228 part 2 and or BS 7385. For this project, Vibration levels are logged using external geophone sensors. The peak particle velocity in the vertical direction or in the horizontal radial direction or in the horizontal tangential direction at the ground surface level shall not exceed +/-3mm per second.

The instantaneous sum of the peak particle velocities in any three mutually perpendicular directions shall not exceed +/-3mm per second.

The Monitoring Contractor shall be responsible for setting up and maintaining the vibration monitoring equipment specified above and for providing to the Main contractor and the Employer's Representative copies of all vibration recordings, including access to live continuous readings.

The Contractor shall employ the best practical means to minimise vibrations produced by his operations; measurements and analysis of the vibration monitoring shall be carried out in accordance with BS 5228 Part 2 / 7385.Vibration levels are logged using external geophone sensors.

The monitoring instrumentation for use on the receptor locations shall be powered by a sealed housed 12-volt battery, this will be charged by a solar controller option to reduce any maintenance visits or service calls. It is expected that a site visit for general maintenance will be necessary every 4 – 6 weeks to check on the instrumentation, should a visit be required outside of this scope.
Threshold hold limits / email notification will be set at 5mm amber alert - 8mm red alert - so any activity over this, the email provided will be notified within minutes of this occurring.

Dust

The average monthly deposition is expressed as the weight of dust that has been collected per unit area per day and referenced to a control value which has been set by the Environmental Protection agency in line with the standard methodology of 350mg/m2/per day. Samples will be collected on a 30-day cycle. These results will be issued with the monthly report. Limits at 350mg/m2/per day.

Environmental Noise

For the period during construction the impact of noise due to construction activities is minimised by employing the best practical means and complying with the recommendations set out in BS 5228: 2009 + A1 2014 (Noise Control on Construction and Open Sites). Based on the collected background measurement survey data the values will be referenced to an **LAeq (averaged) hourly value of 75 dB(A) Threshold hold limits / email notification will be set at 75dB(A) - so any activity over this, the email provided will be notified within minutes of this occurring.

**LAeq is a fundamental measurement parameter designed to represent a varying sound source over a given time as a single number.

Reports will be issued monthly.

Installation location for the Red brick House monitoring

The vibration would need to be on the receptor building, this will be fixed the the wall of the house to record any vibrations, and for the noise and dust gauge, (I've attached images for reference).

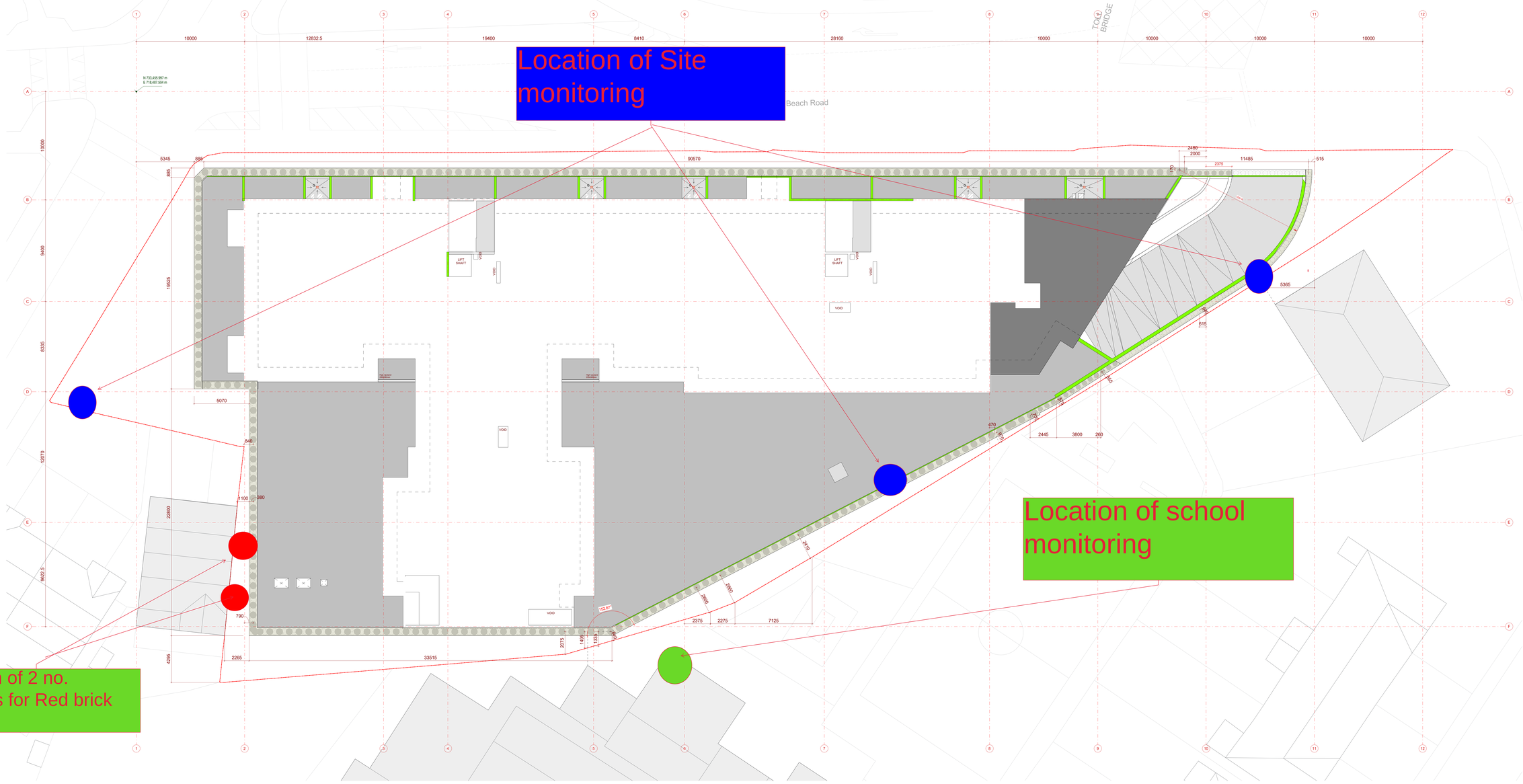




Location of Site monitoring

Location of school monitoring

Location of 2 no. monitors for Red brick houses



NOTES:

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REV.	DATE:	DETAILS:	INITIALS:

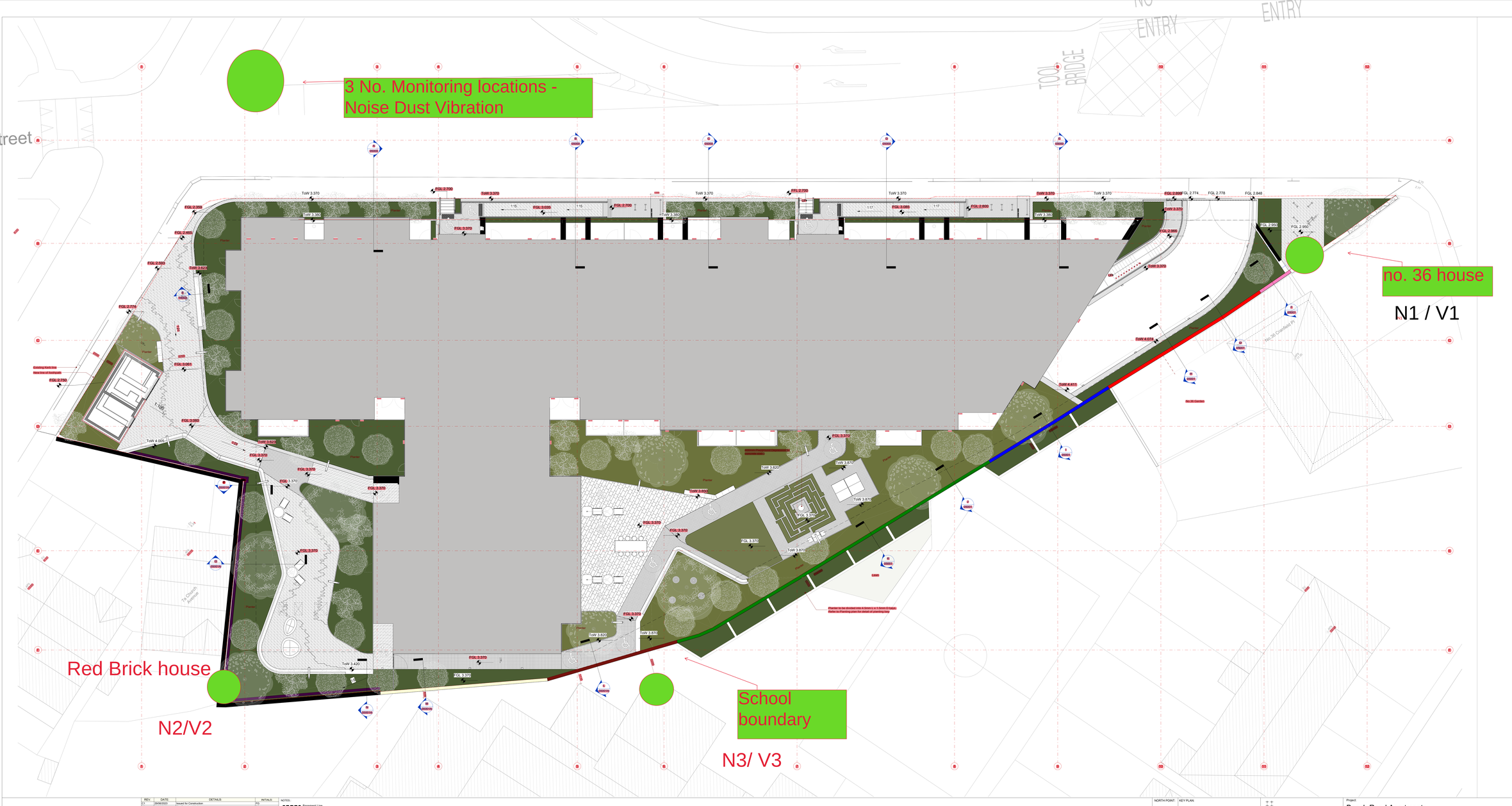
NOTE- This drawings should be read in conjuction with the structural piling layout drawing

NORTH POINT: N

KEY PLAN:

PLUS ARCHITECTURE
Chancery Lane, Dublin 8, D08 C9E8, Ireland. W: www.plusarchitecture.ie T: 353 (0) 1 521 3378

PROJECT:	Beach Road Apartments	DRAWN BY: Author	DATE: 01/09/21
CLIENT:	Royalton Developments Dublin 4 Ltd.	CHECKED BY: Checker	REVISION NO:
TITLE:	Concrete Setout - Piles	PROJECT NO: 525	SCALE AT A1 (Long): 1: 100
ISSUE TYPE:	For Information Only	DRAWING NO: 525-PLA-Z1-GZ-DR-A-1300-02	



REV.	DATE	DETAILS	INITIALS
C1	06/09/2023	Issued for Construction	PO
C2	06/09/2023	Site Boundary Wall	PO
C3	12/10/2023	Additional Level annotations to Landscape Plan	PO

NOTES:

NORTH POINT:

KEY PLAN:

PLUS ARCHITECTURE
Chancery Lane, Dublin 8, D08 CW04, Ireland.
W: www.plusarchitecture.ie
T: 353 (0) 1 521 3378

Client: Royalton Developments Dublin 4 Ltd.

Project: Beach Road Apartments

Title: Ground Floor Landscape Plan

Drawing No.: BRA-PLA-EW-Z0-DR-L-02001

Code	Prjct No:	Drwn/Chckd By:	Scale:	Size:
BRA	525	VA/DT	1 : 100	A0L Ovsd

Issue Type: Construction

Status:	Rev. No.:	Date:
A4	C3	12/10/2023

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walls

Environmental Monitor Breach Tracker

Doc: No. IF 08B - Rev. 02, 28/10/2022

Approved By: OD HSSE

Project: 2081 Beach Road

Breach no.	Date:	Monitor Label:	Time:	Location of Monitor:	Breach Limit:	Breach Reading:	Works that took place:	Reason for breach:	Breach caused by whom:	Corrective Action:
1	06/08/2023	Noise Monitor N1661	14:00 - 15:00	School Boundary	75 db(A)	76.6 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
2	06/08/2023	Vibration Monitor V1 4214 School Boundary	14:30	School Boundary	3 mm/s	3.504 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
3	06/08/2023	Noise Monitor N1661	16:00 - 17:00	School Boundary	75 db(A)	75.1 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
4	06/09/2023	Noise Monitor N1661	07:00 - 08:00	School Boundary	75 db(A)	77.9 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
5	06/09/2023	Noise Monitor N1661	13:00 - 14:00	School Boundary	75 db(A)	79.6 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
6	06/09/2023	Noise Monitor N1661	14:00 - 15:00	School Boundary	75 db(A)	78 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
7	06/09/2023	Noise Monitor N1661	15:00 - 16:00	School Boundary	75 db(A)	78.8 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
8	06/09/2023	Noise Monitor N1661	07:00 - 18:00	School Boundary	75 db(A)	75 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
41	06/12/2023	Vibration Monitor V1 4214 School Boundary	10:52	School Boundary	3 mm/s	3.032 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
42	06/12/2023	Vibration Monitor V1 4214 School Boundary	11:12	School Boundary	3 mm/s	3.592 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
43	06/12/2023	Vibration Monitor V1 4214 School Boundary	11:14	School Boundary	3 mm/s	3.512 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
44	06/12/2023	Noise Monitor N1661	10:00 - 11:00	School Boundary	75 db(A)	78.8 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
45	06/12/2023	Vibration Monitor V1 4214 School Boundary	11:39	School Boundary	3 mm/s	3.904 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
46	06/12/2023	Vibration Monitor V1 4214 School Boundary	11:40	School Boundary	3 mm/s	3.920 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
47	06/12/2023	Noise Monitor N1661	11:00 - 12:00	School Boundary	75 db(A)	79.4 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
48	06/12/2023	Noise Monitor N1661	12:00 - 13:00	School Boundary	75 db(A)	76.4 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
49	06/12/2023	Vibration Monitor V1 4214 School Boundary	15:49	School Boundary	3 mm/s	3.152 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
50	06/12/2023	Noise Monitor N1661	15:00 - 16:00	School Boundary	75 db(A)	75.5 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
51	06/12/2023	Vibration Monitor V1 4214 School Boundary	16:24	School Boundary	3 mm/s	3.216 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
52	06/12/2023	Noise Monitor N1661	16:00 - 17:00	School Boundary	75 db(A)	75.2 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
53	06/12/2023	Noise Monitor N1661	7:00 - 18:00	School Boundary	75 db(A)	75.6 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
54	13/6/2023	Vibration Monitor V1 4214 School Boundary	08:25	School Boundary	3 mm/s	5.592 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
55	13/6/2023	Vibration Monitor V1 4214 School Boundary	08:27	School Boundary	3 mm/s	3.032 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
56	13/6/2023	Vibration Monitor V1 4214 School Boundary	8:45 - 12:24	School Boundary	3 mm/s	3 - 12.776 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
57	13/6/2023	Noise Monitor N301773 School Roof	07:00 - 19:00	School Roof	75 db(A)	77.7 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
58	15/06/2023	Vibration Monitor V1 4214 School Boundary	10:46	School Boundary	3 mm/s	4.440 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
59	15/06/2023	Vibration Monitor V1 4214 School Boundary	10:51	School Boundary	3 mm/s	4.872 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
60	15/06/2023	Vibration Monitor V1 4214 School Boundary	12:18	School Boundary	3 mm/s	4.584 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
61	15/06/2023	Vibration Monitor V1 4214 School Boundary	12:19	School Boundary	3 mm/s	5.120 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
62	15/06/2023	Vibration Monitor V1 4214 School Boundary	12:21	School Boundary	3 mm/s	3.400 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
63	15/06/2023	Vibration Monitor V1 4214 School Boundary	12:23	School Boundary	3 mm/s	3.712 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
64	15/06/2023	Noise Monitor N1661	12:00 - 13:00	School Boundary	75 dB(A)	79.3 dB(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
65	19/06/2023	Vibration Monitor V1 4214 School Boundary	12:10 - 12:32	School Boundary	3 mm/s	3 - 14 mm/s	Levelling of ground	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
66	19/06/2023	Vibration Monitor V1 4214 School Boundary	14:15 - 16:44	School Boundary	3 mm/s	3 - 6.448 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
67	21/06/2023	Vibration Monitor V1 4214 School Boundary	12:23	School Boundary	3 mm/s	3.080 mm/s	Loading pile arisings	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
68	22/06/2023	Vibration Monitor V1 4214 School Boundary	10:43	School Boundary	3 mm/s	9.880 mm/s	Loading pile arisings	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
69	26/06/2023	Vibration Monitor V1 4214 School Boundary	11:16	School Boundary	3 mm/s	3.248 mm/s	Installation of pile guide walls	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
70	26/06/2023	Vibration Monitor V1 4214 School Boundary	15:30	School Boundary	3 mm/s	3.112 mm/s	Installation of pile guide walls	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach

71	26/06/2023	Vibration Monitor V1 4214 School Boundary	15:36	School Boundary	3 mm/s	4.176 mm/s	Installation of pile guide walls	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
72	26/06/2023	Vibration Monitor V1 4214 School Boundary	15:43	School Boundary	3 mm/s	4.512 mm/s	Installation of pile guide walls	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
73	26/06/2023	Vibration Monitor V1 4214 School Boundary	16:17	School Boundary	3 mm/s	4.544 mm/s	Installation of pile guide walls	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
74	28/06/2023	Vibration Monitor V3-5295 Red Brick House	12:28	Red Brick House	10 mm/s	10.008 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
75	28/06/2023	Vibration Monitor V1 4214 School Boundary	17:34	School Boundary	3 mm/s	3.464 mm / s	Moving of stockpiles on site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
76	28/06/2023	Vibration Monitor V1 4214 School Boundary	17:39	School Boundary	3 mm/s	6.696 mm / s	Moving of stockpiles on site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
77	28/06/2023	Vibration Monitor V1 4214 School Boundary	18:11	School Boundary	3 mm/s	3.240 mm / s	Moving of stockpiles on site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
78	28/06/2023	Vibration Monitor V1 4214 School Boundary	18:11	School Boundary	3 mm/s	3.824 mm / s	Moving of stockpiles on site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
79	28/06/2023	Vibration Monitor V1 4214 School Boundary	18:15	School Boundary	3 mm/s	5.800 mm / s	Moving of stockpiles on site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
80	28/06/2023	Noise Monitor N1661	08:00 - 09:00	School Boundary	75 db(A)	76 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
81	29/06/2023	Noise Monitor N1661	08:00 - 17:00	School Boundary	75 db(A)	75 - 85.1 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
82	29/06/2023	Vibration Monitor V1 4214 School Boundary	16:25 - 16:26	School Boundary	3 mm/s	3 - 3.952 mm / s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
83	30/06/2023	Noise Monitor N1661	08:00 - 09:00	School Boundary	75 db(A)	77.8 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
84	30/06/2023	Noise Monitor N1661	09:00 - 10:00	School Boundary	75 db(A)	81.3 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
85	30/06/2023	Noise Monitor N1661	10:00 - 11:00	School Boundary	75 db(A)	84.2 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
86	30/06/2023	Noise Monitor N1661	11:00 - 12:00	School Boundary	75 db(A)	81.9 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
87	30/06/2023	Vibration Monitor V1 4214 School Boundary	13:01	School Boundary	3 mm/s	3.792 mm/s	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
88	30/06/2023	Vibration Monitor V1 4214 School Boundary	13:09	School Boundary	3 mm/s	7.792 mm/s	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
89	30/06/2023	Vibration Monitor V1 4214 School Boundary	13:09	School Boundary	3 mm/s	3.160 mm/s	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
90	30/06/2023	Noise Monitor N1661	12:00 - 13:00	School Boundary	75 db(A)	84.5 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
91	30/06/2023	Noise Monitor N1661	13:00 - 14:00	School Boundary	75 db(A)	77.5 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
92	07/01/2023	Noise Monitor N1661	08:00 - 09:00	School Boundary	75 db(A)	76.2 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
93	07/01/2023	Noise Monitor N1661	09:00 - 10:00	School Boundary	75 db(A)	78 db(A)	Removal of guide walls	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
94	07/03/2023	Vibration Monitor V1 4214 School Boundary	09:57	School Boundary	3 mm/s	3.864 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
95	07/03/2023	Vibration Monitor V1 4214 School Boundary	10:15	School Boundary	3 mm/s	3.456 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
96	07/03/2023	Vibration Monitor V1 4214 School Boundary	10:20	School Boundary	3 mm/s	6.136 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
97	07/03/2023	Vibration Monitor V1 4214 School Boundary	14:04	School Boundary	3 mm/s	3.832 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
98	07/04/2023	Vibration Monitor V1 4214 School Boundary	07:32	School Boundary	3 mm/s	3.928 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
99	07/04/2023	Vibration Monitor V4 5020	08:03 - 16:53	School Boundary	3 mm/s	3 - 9.160 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
100	07/04/2023	Vibration Monitor V3 5295	16:48 - 16:53	Red Brick House	10 mm/s	10 - 11.528 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
101	07/04/2023	Vibration Monitor V4 5020	17:15	School Boundary	3 mm/s	5.360 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
102	07/04/2023	Vibration Monitor V4 5020	17:57	School Boundary	3 mm/s	4.616 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
103	07/04/2023	Vibration Monitor V4 5020	17:58	School Boundary	3 mm/s	4.216 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
104	07/04/2023	Vibration Monitor V2 4486	18:00	School beside bin area	3 mm/s	3.192 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
105	07/05/2023	Vibration Monitor V3 5295	07:11	Red Brick House	10 mm/s	23.496 mm/s	Monitor hit	Monitor hit by GO	Duffy Bros.	Talk given to GO on staying away from monitor - monitor cant be moved
106	07/05/2023	Vibration Monitor V1 4214 School Boundary	13:17	School Boundary	3 mm/s	3.216 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
107	07/05/2023	Vibration Monitor V4 5020	17:28	School Boundary	3 mm/s	3.704 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
108	07/05/2023	Vibration Monitor V4 5020	17:29	School Boundary	3 mm/s	3.064 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
109	07/05/2023	Noise Monitor N3 01773	07:00 - 19:00	School Roof	75 dB(A)	76.7 dB(A)	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
110	07/06/2023	Vibration Monitor V1 4214 School Boundary	11:36	School Boundary	3 mm/s	3.528 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
111	07/06/2023	Vibration Monitor V2 4486	17:19 - 17:22	School Boundary	3 mm/s	3.912 mm/s	Cropping of piles	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
112	07/07/2023	Vibration Monitor V1 4214 School Boundary	07:58	School Boundary	3 mm/s	4.808 mm/s	Breaking of pile obstruction	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
113	07/07/2023	Noise Monitor N1661	08:00 - 09:00	School Boundary	75 db(A)	78.2 db(A)	Breaking of pile obstruction	Breaker working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach

114	07/10/2023	Noise Monitor N1661	11:00 - 17:00	School Boundary	75 db(A)	75 - 77.8 db(A)	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
115	07/10/2023	Vibration Monitor V1 4214 School Boundary	13:17 - 14:15	School Boundary	3 mm/s	3 - 5.540 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
116	07/11/2023	Vibration Monitor V1 4214 School Boundary	11:51	School Boundary	3 mm/s	4.096 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
117	07/12/2023	Vibration Monitor V1 4214 School Boundary	15:54	School Boundary	3 mm/s	3.136 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
118	13/7/2023	Vibration Monitor V4 5020	07:12	School Boundary	3 mm/s	4.176 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
119	13/7/2023	Vibration Monitor V4 5020	08:30	School Boundary	3 mm/s	3.112 mm/s	Piling Taking place	Pile rig working in close proximity	PJ Edwards	Pile Rig moved away from Monitor - to reduce times of breach
120	13/7/2023	Vibration Monitor V3-5295 Red Brick House	15:16	Red Brick House	10 mm/s	134.744 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
121	14/7/23	Vibration Monitor V3-5295 Red Brick House	08:32	Red Brick House	10 mm/s	19.704 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
122	14/7/23	Vibration Monitor V3-5295 Red Brick House	11:56	Red Brick House	10 mm/s	118.968 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
123	14/7/23	Vibration Monitor V3-5295 Red Brick House	13:46	Red Brick House	10 mm/s	32.080 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
124	14/7/23	Vibration Monitor V3-5295 Red Brick House	15:46	Red Brick House	10 mm/s	24.808 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
125	14/7/23	Vibration Monitor V3-5295 Red Brick House	15:50	Red Brick House	10 mm/s	27.800 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
126	18/7/23	Vibration Monitor V3-5295 Red Brick House	12:25	Red Brick House	10 mm/s	18.152 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
127	18/7/23	Vibration Monitor V3-5295 Red Brick House	12:26	Red Brick House	10 mm/s	21.736 mm/s	Monitor Hit	Monitor Hit	Ballygorman	Talk given to GO on staying away from monitor - monitor cant be moved
128	19/7/23	Vibration Monitor V1 4214 School Boundary	8:54 - 08:56	School Boundary	3 mm/s	3 - 10.264 mm/s	Tidying up site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
129	19/7/23	Vibration Monitor V3-5295 Red Brick House	12:10 - 12:46	Red Brick House	10 mm/s	10 - 132.632 mm/s	Monitor Hit while powerwashing	Monitor Hit	PJ Edwards	Talk given to GO on staying away from monitor - monitor cant be moved
130	19/7/23	Vibration Monitor V1 4214 School Boundary	12:50 - 13:15	School Boundary	3 mm/s	3 - 5.896 mm/s	Tidying up site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
131	19/7/23	Vibration Monitor V3-5295 Red Brick House	13:15	Red Brick House	10 mm/s	111.776 mm/s	Monitor Hit while powerwashing	Monitor Hit	PJ Edwards	Talk given to GO on staying away from monitor - monitor cant be moved
132	20/07/23	Vibration Monitor V4 5020	13:33	School Boundary	3 mm/s	3.376 mm/s	Tidying up site	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
133	21/07/23	Vibration Monitor V3-5295 Red Brick House	11:57	Red Brick House	10 mm/s	36.256 mm/s	Monitor Hit	Monitor Hit	Walls Construction	Talk given to GO on staying away from monitor - monitor cant be moved
134	25/07/23	Vibration Monitor V3-5295 Red Brick House	09:46	Red Brick House	10 mm/s	194.544 mm/s	Monitor Hit	Monitor Hit	CSL	Talk given to GO on staying away from monitor - monitor cant be moved
135	26/07/23	Vibration Monitor V3-5295 Red Brick House	10:16	Red Brick House	10 mm/s	4.056 mm/s	Bulk Dig ongoing	Excavator working in close proximity	Duffy Bros.	Excavator moved away from Monitor - to reduce times of breach
136	08/09/2023	V1 3436 Vibration Monitor	13:03	School Boundary	3 mm/s	4.528 mm/s	Drilling of wells	Setting up of drilling equipment	Minerex	Working time of drill rig reduced - intermitting stopping
137	08/09/2023	V1 3436 Vibration Monitor	13:05	School Boundary	3 mm/s	7.880 mm/s	Drilling of wells	Setting up of drilling equipment	Minerex	Working time of drill rig reduced - intermitting stopping
138	08/09/2023	Noise Monitor N1661	13:00 - 14:00	School Boundary	75 db(A)	75.7 db(A)	Drilling of wells	Setting up of drilling equipment	Minerex	Working time of drill rig reduced - intermitting stopping
139	14/08/2023	V1 3436 Vibration Monitor	08:54	School Boundary	3 mm/s	7.640 mm/s	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
140	14/08/2023	V1 3436 Vibration Monitor	08:56	School Boundary	3 mm/s	7.384 mm/s	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
141	14/08/2023	V1 3436 Vibration Monitor	08:55	School Boundary	3 mm/s	7.352 mm/s	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
142	14/08/2023	Noise Monitor N1661	10:00 - 11:00	School Boundary	75 db(A)	96.2 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
143	14/08/2023	V1 3436 Vibration Monitor	10:45	School Boundary	3 mm/s	3.488 mm/s	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
144	14/08/2023	Noise Monitor N1661	11:00 - 12:00	School Boundary	75 db(A)	90 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
145	14/08/2023	Noise Monitor N1661	12:00 - 13:00	School Boundary	75 db(A)	94.4 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
146	14/08/2023	V1 3436 Vibration Monitor	13:45	School Boundary	3 mm/s	3.016 mm/s	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
147	14/08/2023	Noise Monitor N1661	13:00 - 14:00	School Boundary	75 db(A)	94.1 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
148	14/08/2023	Noise Monitor N1661	14:00 - 15:00	School Boundary	75 db(A)	75.6 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
149	14/08/2023	Noise Monitor N1661	15:00 - 16:00	School Boundary	75 db(A)	82.3 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
150	14/08/2023	Noise Monitor N1661	16:00 - 17:00	School Boundary	75 db(A)	91.6 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
151	14/08/2023	Noise Monitor N1661	07:00 - 18:00	School Boundary	75 db(A)	90.8 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
152	14/08/2023	Noise Monitor N1661	17:00 - 18:00	School Boundary	75 db(A)	78.4 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
153	17/08/2023	Noise Monitor N1661	09:00 - 10:00	School Boundary	75 db(A)	76.9 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
154	17/08/2023	Noise Monitor N1661	10:00 - 11:00	School Boundary	75 db(A)	79 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
155	17/08/2023	Noise Monitor N1661	16:00 - 17:00	School Boundary	75 db(A)	77 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping

156	17/08/2023	V1 3436 Vibration Monitor	17:25	School Boundary	3 mm/s	8.072 mm/s	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
157	17/08/2023	Noise Monitor N1661	17:00 - 18:00	School Boundary	75 db(A)	76.6 db(A)	Drilling of wells	Drilling of wells	Minerex	Working time of drill rig reduced - intermitting stopping
158	18/08/2023	V1 3736 Vibration Monitor	08:43	School Boundary	3mm/s	11.920 mm/s	Pouring of plinth at top of site	Excavator working in close proximity	Duffy Bros	Duration very short - works had to proceed in this area
159	23/08/2023	V1 3736 Vibration Monitor	13:12	School Boundary	3mm/s	3.416 mm/s	Moving of scaffolding	Excavator working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
160	23/08/2023	Noise Monitor N1661	13:00 - 14:00	School Boundary	75 db(A)	75.6 db(A)	Moving of scaffolding	Excavator working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
161	30/08/2023	V2 4486 Vibration Monitor	09:52	School Boundary	3 mm/s	3.928 mm/s	Removing Guide Wall	Excavator working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
162	30/08/2023	V2 4486 Vibration Monitor	10:27	School Boundary	3 mm/s	3.544 mm/s	Removing Guide Wall	Excavator working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
163	21/09/2023	V4 5020 Vibration Monitor	10:38	Red Brick House	3 mm/s	3.400 mm/s	Crane Erection	Crane Erection	Allen Cranes	Duration & breach very small - works had to proceed in this area
164	21/09/2023	V4 5020 Vibration Monitor	10:42	Red Brick House	3 mm/s	3.152 mm/s	Crane Erection	Crane Erection	Allen Cranes	Duration & breach very small - works had to proceed in this area
165	29/09/2023	V4 5020 Vibration Monitor	11:27	Red Brick House	3 mm/s	4.456 mm/s	Monitor hit	Monitor hit	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
166	10/05/2023	V1 3736 Vibration Monitor	12:36	School Boundary	3 mm/s	3.400 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
167	10/06/2023	V1 3736 Vibration Monitor	07:17	School Boundary	3 mm/s	5.064 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
168	10/06/2023	V1 3736 Vibration Monitor	07:16	School Boundary	3 mm/s	4.544 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
169	10/09/2023	V1 3736 Vibration Monitor	08:06	School Boundary	3 mm/s	5.128 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
170	10/09/2023	V1 3736 Vibration Monitor	08:08	School Boundary	3 mm/s	3.480 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
171	10/09/2023	V1 3736 Vibration Monitor	08:45	School Boundary	3 mm/s	3.464 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
172	10/09/2023	V1 3736 Vibration Monitor	13:25	School Boundary	3 mm/s	4.848 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
173	10/11/2023	V1 3736 Vibration Monitor	16:32 - 16:47	School Boundary	3 mm/s	3 - 3.816 mm/s	Breaking of guide wall	Breaker working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
174	10/11/2023	N1 01661 Noise Monitor	16:00 - 17:00	School Boundary	75 dB(A)	84.3 dB(A)	Breaking of guide wall	Breaker working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
175	10/12/2023	V1 3736 Vibration Monitor	12:50	School Boundary	3 mm/s	13.304 mm/s	Monitor hit	Monitor hit	CSL	Talk given to GO on staying away from monitor - monitor cant be moved
176	14/10/2023	V1 3736 Vibration Monitor	08:07	School Boundary	3 mm/s	3.968 mm/s	Blinding Basement Pour 5	Excavator working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
177	17/10/2023	V1 3736 Vibration Monitor	11:43 - 15:39	School Boundary	3 mm/s	3 - 11.072 mm/s	Breaking of guide wall	Excavator working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
178	17/10/2023	N1 01661 Noise Monitor	15:00 - 16:00	School Boundary	75 Db(A)	83.7 DB(A)	Breaking of guide wall	Excavator working in close proximity	Duffy Bros	Excavator moved away from Monitor - to reduce times of breach
179	18/10/2023	V1 3736 Vibration Monitor	12:37 - 15:55	School Boundary	3 mm/s	3 - 6.496 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
180	19/10/2023	V1 3736 Vibration Monitor	12:48	School Boundary	3 mm/s	3.096 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
181	19/10/2023	N1 01661 Noise Monitor	12:00 - 13:00	School Boundary	75 Db(A)	82.3 db(A)	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
182	20/10/2023	V1 3736 Vibration Monitor	12:48	School Boundary	3 mm/s	3.096 mm/s	Scabbling of piles	Excavator working in close proximity	PJ Edwards	Excavator moved away from Monitor - to reduce times of breach
183	26/10/2023	V4 5020 Vibration Monitor	11:10	Red Brick House	3 mm/s	3.688 mm/s	Levelling of walkway	Excavator working in close proximity	WCL	Excavator moved away from Monitor - to reduce times of breach
184	31/10/2023	V3 5295 Vibration Monitor	17:31	Red Brick House	10 mm/s	14.784 mm/s	Monitor Hit	Monitor Hit	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
185	31/10/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 dB(A)	77.5 db(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
186	11/01/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 dB(A)	78 DB(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
188	11/02/2023	N3 01773 Noise Monitor	07:00 - 19:00	School roof	75 db(A)	78.7 db(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
189	11/02/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.4 DB(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
190	11/03/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	77.3 db(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
191	11/06/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.7 DB(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either

192	11/07/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.7 DB(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
193	11/08/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.9 DB(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
194	11/09/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.7 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
195	11/10/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	79 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
196	11/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	76.1 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
197	14/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.8 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
198	15/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.8 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
199	16/11/2023	V4 5020 Vibration Monitor	08:10	Red Brick House	3 mm/s	3.128 MM/S	Polythene being fixed to wall	Polythene being fixed to wall	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
200	16/11/2023	V4 5020 Vibration Monitor	08:09	Red Brick House	3 mm/s	262.144 MM/S	Monitor hit	Monitor hit	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
201	16/11/2023	V3 5295 Vibration Monitor	08:13	Red Brick House	10 mm/s	262.144 MM/S	Monitor hit	Monitor hit	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
202	16/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78 db(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
203	17/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	78.6 db(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
204	18/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 DB(a)	76.3 db(a)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
205	20/11/2023	V3 5295 Vibration Monitor	14:21 - 15:53	Red Brick House	10 mm/s	10 - 34 MM/S	Fixing Fibre Board to wall	Fixing Fibre Board to wall	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
206	20/11/2023	V4 5020 Vibration Monitor	14:38 - 17:30	Red Brick House	10 mm/s	10 - 104 MM/S	Fixing Fibre Board to wall	Fixing Fibre Board to wall	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
207	20/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	School Boundary	75 dB(A)	79.7 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
208	20/11/2023	N3 01773 Noise Monitor	07:00 - 19:00	School Boundary	75 dB(A)	77.1 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - unable to move either
209	21/11/2023	V4 5020 Vibration Monitor	08:38	Red Brick House	3 MM/S	9.272 MM/S	Pouring podium slab	Pouring podium slab	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
210	21/11/2023	V3 5295 Vibration Monitor	09:37	Red Brick House	10 MM/S	25.896 MM/S	Pouring podium slab	Monitor Hit	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
211	21/11/2023	N4 01660 Noise Monitor	07:00 - 19:00	SChool Boundary	75 DB(A)	79 DB(A)	TC2 Generator running	TC2 Generator running	WCL	Temp location for Genny - no room on site - agreed and fixed location of monitor by school - - Genny moved
212	22/11/2023	V4 5020 Vibration Monitor	10:16 - 10:41	Red Brick House	3 MM/S	3 -144 mm/s	Powerwashing Red brick wall	Powerwashing Red brick wall	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
213	22/11/2023	V3 5295 Vibration Monitor	10:29	Red Brick House	10mm/s	36.408 mm/s	Powerwashing Red brick wall	Powerwashing Red brick wall	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
214	23/11/2023	N1 01661 Noise Monitor	16:00 - 17:00	School Boundary	75 db(A)	77.5 db(a)	Breaking out concrete	Breaking out concrete	BCL	Excavator moved away from Monitor - to reduce times of breach
215	24/11/2023	N1 01661 Noise Monitor	09:00 - 10:00	School Boundary	75 DB(a)	75.2 db(A)	Powerwashing Pour 2 deck	Powerwashing Pour 2 deck	BCL	Talk given to GO on staying away from monitor - monitor cant be moved
216	01/12/2024	N2 Noise Monitor	09:00 -10:00 am	School Boundary	75 DB(a)	82.2 - 78.7	Cutting rebar at area 2 for screed pour	consaw	BCL	Opewratives asked to move cvutting station away from monitor
239	08/02/2024	N1 school monitor	11:00 AM-6:00pm	School Boundary	75 db(A)	Daily Ave 82.8	Breaking out concrete at bottom of ramp for a key	3t excavator and hydraulic breaker	WCL	Breaking worksintermitting stops - to reduce times of breach - NO other option rock had to be broken out at the bottom of the ramp
240	09/02/2024	N1 school monitor	8am-5pm	School Boundary	75 DB(a)	Daily Ave 76.1	Rock breaking at bottom of ramp for key	3t excavator and hydraulic breaker	WCL	Breaking worksintermitting stops - to reduce times of breach - NO other option rock had to be broken out at the bottom of the ramp
241	12/02/2024	N1 school monitor	8am - 6pm	School Boundary	75 db(A)	Daily ave 77.7	Rock breaking at bottom of ramp for key	3t excavator and hydraulic breaker	wcl	Breaking worksintermitting stops - to reduce times of breach - NO other option rock had to be broken out at the bottom of the ramp
242	13/02/2024	N1 school monitor	8am -5pm	School Boundary	75 db(A)	Daily Ave 75.3	Rock breaking at bottom of ramp for key	3t excavator and hydraulic breaker	wcl	Breaking worksintermitting stops - to reduce times of breach - NO other option rock had to be broken out at the bottom of the ramp
243	13/02/2024	V1 School monitor	2.25pm	School Boundary	3mm/s	3.9 MM/S	Minerex in taking a sample of water - hit monitor on way past	Operative	Minerex	Operative was reminded on his next visit where the monitor is and to be mindful
244	28/02/2024	N1 school monitor	1pm-2pm	School Boundary	75 db(A)	Daily Ave 77.2	Cutting rebar at area 2 for screed pour	consaw	BCL	Operatives were asked to move away from the monitor.
244	14/03/2024	N1 School Monitor	10am - 2pm	School Boundary	75 dB(A)	Daily Ave 77.4	Works ongoing at silo base	Consaw	BCL	Intermitten works

245	19/4/2024	V1 School monitor	11.18am	School Boundary	3mm/s	3.152mm/s	Operative accidently hit the monitor with materials while walking to the podium slab	Operative	IFit	All operatives informed of locations of monitors at induction and HSE Meeting	
246	02/05/2024	V1 School Monitor	1.08pm - 1.15pm	School Boundary	3mm/s	3.56 mm/s	Refilling silo.	Concrete Truck	BCL / Kilsaren	Had to take place - Truck asked to park a bit further away from monitor to avoid set offs	
247	17/06/2024	N2 Schhool boundary bordering church avenue	2-3am	Boundary wall	75 DB(a)	daily ave 81.2	Noise reading peaked at 2-3am	N/a	n/a	Site was closed at this time. It is likley something in the nearby houses set off the monitor	adjust times
248	10/07/2024	N1 St Matthews Monitor	8am-2pm	School boundary	75 dB(a)	Daily Ave 76.2	Demolition of school walland breaking out rock with excavator	Duffys Excavator	Duffys	School wall has to be demolishjed - works were sceduled after the school had closed for the summer to avoid causing a disturbance	
249	26/07/2024	N1 St Matthews Monitor	9am -10am	School Boundary wall	75 DB(a)	daily ave80.2	Ongoing works to school boundary wall in close proximity to monitor	Duffys Excavator	Duffys	School wall has to be demolishjed - works were sceduled after the school had closed for the summer to avoid causing a disturbance	
250	29/07/2024	N1 St Matthews Monitor	3pm - 4pm	School boundary wall	75 DB(a)	daily ave 75.1	concrete pour for section of school wall	Concrete skip and poker	BCL / Kilsaren	School wall has to be demolishjed - works were sceduled after the school had closed for the summer to avoid causing a disturbance	
251											

Muck Away Log

0.00

Project: Beach Road

Total Trucks	**1281**
Total Tonnage	**26405.70**

Date	Name of Haulier	Truck Reg.	Origin on Site	Nature of Material	Description	Waste Code	Time off Site	Destination of Waste	If hazardous waste, has transfer note been received (WTF)?	Haulier Docket Number	Weighbridge ticket No.	Weighbridge ticket time	Weight Tonnes
18/05/2023	John Watson	161MN1913	G2 0-1m	B1		170504	07:05:00	IMS		11983	116582	08:02:00	**18.78**
18/05/2023	John Watson	191D918	G2 0-1m	B1		170504	07:20:00	IMS		11766	116592	08:16:00	**19.36**
18/05/2023	CMP	152D32436	G2 0-1m	B1		170504	07:30:00	IMS		39379	116591	08:14:00	**22.14**
18/05/2023	Duffy Bros	KY14CYX	G2 0-1m	B1		170504	07:40:00	IMS		43	116615	08:54:00	**21.30**
18/05/2023	CMP	151D52532	H2 0-1m	B1		170504	08:15:00	IMS		38812	116616	08:57:00	**23.94**
18/05/2023	John Watson	191D918	H2 0-1m	B1		170504	09:17:00	IMS		11768	116640	09:55:00	**18.88**
18/05/2023	John Watson	161MN1913	I 0-1m	B1		170504	09:00:00	IMS		11985	116631	09:34:00	**16.42**
18/05/2023	CMP	152D32436	I 0-1m	B1		170504	09:30:00	IMS		39381	116643	10:02:00	**19.86**
18/05/2023	CMP	151D52532	I 0-1m	B1		170504	10:00:00	IMS		38814	116655	10:37:00	**23.36**
18/05/2023	John Watson	161MN1913	K 0-1m	B2		170504	10:12:00	IMS		11987	116667	10:56:00	**17.80**
18/05/2023	John Watson	191D918	K 0-1m	B2		170504	10:50:00	IMS		11770	116681	11:28:00	**19.66**
18/05/2023	CMP	152D32436	K 0-1m	B2		170504	11:00:00	IMS		39383	116684	11:36:00	**21.56**
18/05/2023	CMP	151D52532	K 0-1m	B2		170504	11:35:00	IMS		38816	116699	12:09:00	**24.66**
18/05/2023	John Watson	161MN1913	K 0-1m	B2		170504	11:40:00	IMS		11989	116706	12:47:00	**18.80**
18/05/2023	John Watson	191D918	K 0-1m	B2		170504	12:40:00	IMS		11772	116717	13:27:00	**20.32**
18/05/2023	CMP	152D32436	K 0-1m	B2		170504	13:20:00	IMS		39385	116722	13:47:00	**21.34**
18/05/2023	John Watson	161MN1913	K 0-1m	B2		170504	13:30:00	IMS		11991	116733	14:09:00	**18.12**
18/05/2023	CMP	151D52532	K 0-1m	B2		170504	13:35:00	IMS		38818	116739	14:21:00	**24.96**
18/05/2023	John Watson	191D918	K 0-1m	B2		170504	14:35:00	IMS		11774	116756	15:02:00	**21.08**
18/05/2023	CMP	152D32436	K 0-1m	B2		170504	14:35:00	IMS		39387	116760	15:15:00	**21.66**
18/05/2023	Duffy Bros	KY14CYX	K 0-1m	B2		170504	10:30:00	IMS		47	116680	11:26:00	**22.04**
19/05/2023	Duffy Bros	KY14CYX	J1 0-1m	B1		170504	15:27:00	IMS		58	116911	16:23:00	**22.80**
19/05/2023	Duffy Bros	KY14CYX	K 0-1m	B2		170504	07:00:00	IMS		50	116785	08:04:00	**22.18**
19/05/2023	John Watson	161MN1913	K 0-1m	B2		170504	07:10:00	IMS		11993	116786	08:05:00	**22.38**
19/05/2023	CMP	151D52535	K 0-1m	B2		170504	07:15:00	IMS		38874	116792	08:13:00	**25.70**
19/05/2023	CMP	152D32436	K 0-1m	B2		170504	07:20:00	IMS		39388	116797	08:19:00	**23.10**
19/05/2023	CMP	151D52532	K 0-1m	B2		170504	07:30:00	IMS		38820	116803	08:28:00	**26.50**
19/05/2023	John Watson	151D56746	K 0-1m	B2		170504	08:54:00	IMS		11995	116822	09:30:00	**22.08**
19/05/2023	CMP	151D52535	K 0-1m	B2		170504	09:10:00	IMS		38876	116826	09:47:00	**24.28**
19/05/2023	CMP	152D32436	L1 0-1m	B1		170504	09:20:00	IMS		39390	116827	09:55:00	**20.06**
19/05/2023	CMP	151D52532	L1 0-1M	B1		170504	09:20:00	IMS		38822	116830	09:59:00	**24.26**
19/05/2023	Duffy Bros	KY14CYX	L1 0-1m	B1		170504	09:58:00	IMS		52	116840	10:23:00	**22.46**
19/05/2023	John Watson	151D56746	L1 0-1m	B1		170504	10:30:00	IMS		11997	116852	11:19:00	**21.22**
19/05/2023	Duffy Bros	KY14CYX	L1 0-1m	B1		170504	11:20:00	IMS		54	116869	12:35:00	**23.12**
19/05/2023	CMP	152D32436	L1 0-1m	B1		170504	11:35:00	IMS		39392	116863	12:10:00	**22.00**
19/05/2023	CMP	151D52532	L1 0-1m	B1		170504	11:37:00	IMS		38824	116865	12:18:00	**26.00**
19/05/2023	John Watson	151D56746	L1 0-1m	B1		170504	12:07:00	IMS		11999	116872	13:22:00	**20.58**
19/05/2023	Duffy Bros	KY14CYX	L1 0-1m	B1		170504	13:36:00	IMS		56	116892	14:31:00	**19.84**
19/05/2023	CMP	152D32436	L1 0-1m	B1		170504	13:55:00	IMS		39394	116896	14:38:00	**21.78**
19/05/2023	CMP	151D52532	L1 0-1m	B1		170504	14:00:00	IMS		38825	116899	14:48:00	**23.82**
22/05/2023	Duffy Bros	KY14CYX	J1 0-1m	B1		170504	07:10:00	IMS		65	116921	08:16:00	**22.92**
22/05/2023	John Watson	161MN1913	J1 0-1m	B1		170504	07:20:00	IMS		12559	116912	08:02:00	**15.00**
22/05/2023	John Watson	181D25014	J1 0-1m	B1		170504	07:25:00	IMS		12751	116920	08:15:00	**19.18**
22/05/2023	John Watson	161MN1913	J1 0-1m	B1		170504	10:09:00	IMS		12563	116966	10:48:00	**19.06**
22/05/2023	John Watson	181D25014	J1 0-1m	B1		170504	10:19:00	IMS		12755	116970	10:55:00	**18.54**
22/05/2023	John Watson	161MN1913	J1 0-1m	B1		170504	11:30:00	IMS		12564	116996	12.25.00	**18.44**
22/05/2023	John Watson	181D25014	J1 0-1m	B1		170504	11:45:00	IMS		12757	116998	12:47:00	**18.12**
22/05/2023	John Watson	181D25014	J1 0-1m	B1		170504	13:34:00	IMS		12759	117042	14:13:00	**18.12**
22/05/2023	John Watson	181D25014	J1 0-1m	B1		170504	03:20:00	IMS		12761	117046	15:43:00	**16.80**

22/05/2023	Duffy Bros	KY14CYX	J2 0-1m	B1		170504	13:10:00	IMS		71	117009	13:51:00	**21.72**
22/05/2023	John Watson	161MN1913	J2 0-1m	B1		170504	13:23:00	IMS		12566	117013	13:59:00	**17.66**
22/05/2023	John Watson	161MN1913	J2 0-1m	B1		170504	13:41:00	IMS		12568	117013	13:58:00	**17.60**
22/05/2023	Duffy Bros	KY14CYX	J2 0-1m	B1		170504	14:49:00	IMS		73	117041	15:30:00	**20.50**
22/05/2023	Duffy Bros	KY14CYX	J3 0-1m	B1		170504	11:10:00	IMS		69	116989	12:11:00	**21.32**
23/05/2023	Duffy Bros	KY14CYX	L2 0-1m	B2		170504	12:16:00	IMS		334	117147	12:59:00	**19.62**
23/05/2023	Duffy Bros	KY14CYX	L2 0-1m	B2		170504	14:15:00	IMS		336	117176	14:56:00	**18.16**
23/05/2023	CMP	152D32436	L3 0-1m	B1		170504	09:30:00	IMS		39396	117097	10:08:00	**23.68**
23/05/2023	CMP	152D32436	O1 0-1m	C1		170504	13:25:00	Walshetown		39398	39398	06:00:00	**13.25**
23/05/2023	Mcguire Haulage	191KK1986	L5 0-1m	D1		170503	12:30:00	ENVA	Yes	564220	40393	14:51:00	**31.46**
24/05/2023	Duffy Bros	EU65XBS	L6 0-1m	B1		170504	13:50:00	IMS		447	117303	14:32:00	**22.40**
24/05/2023	Duffy Bros	KY14CYX	M 0-1m	B1		170504	07:20:00	IMS		338	117205	08:12:00	**22.04**
24/05/2023	Duffy Bros	EU65XBS	M 0-1m	B1		170504	07:25:00	IMS		441	117206	08:13:00	**22.72**
24/05/2023	Duffy Bros	KY14CYX	M 0-1m	B1		170504	09:12:00	IMS		340	117243	10:41:00	**20.60**
24/05/2023	Duffy Bros	EU65XBS	M 0-1m	B1		170504	09:15:00	IMS		443	117241	10:36:00	**22.18**
24/05/2023	Duffy Bros	EU65XBS	N 0-1m	B1		170504	11:30:00	IMS		445	117271	12:10:00	**23.92**
24/05/2023	Duffy Bros	KY14CYX	N 0-1m	B1		170504	11:35:00	IMS		342	117272	12:12:00	**22.30**
24/05/2023	Duffy Bros	KY14CYX	N 0-1m	B1		170504	13:15:00	IMS		344	117925	14:00:00	**24.82**
24/05/2023	Duffy Bros	KY14CYX	N 0-1m	B1		170504	14:52:00	IMS		346	117319	15:37:00	**21.56**
24/05/2023	Duffy Bros	EU65XBS	N 0-1m	B1		170504	15:25:00	IMS		449	117326	16:30:00	**19.46**
24/05/2023	Duffy Bros	KY14CYX	O2 0-1m	B1		170504	14:45:00	IMS		348	117335	08:08:00	**20.56**
25/05/2023	Duffy Bros	EU65XBS	M 0-1m	B1		170504	07:10:00	IMS		451	117333	08:05:00	**22.62**
25/05/2023	Duffy Bros	KY14CYX	O3 0-1m	B1		170504	09:07:00	IMS		349	117361	09:54:00	**19.00**
25/05/2023	Duffy Bros	KY14CYX	O3 0-1m	B1		170504	10:39:00	IMS		350	117390	12:02:00	**19.02**
25/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	13:30:00	IMS		351	117415	14:12:00	**22.26**
25/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	14:00:00	IMS		453	117433	15:12:00	22.34
25/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	15:05:00	IMS		352	117440	15:54:00	**19.70**
25/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	16:15:00	IMS		454	117529	14:17:00	**23.06**
26/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	07:05:00	IMS		353	117442	08:00:00	**21.34**
26/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	08:45:00	IMS		354	117467	09:25:00	**21.32**
26/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	10:10:00	IMS		355	117489	10:47:00	**21.22**
26/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	12:30:00	IMS		356	117514	13:10:00	**25.30**
29/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	07:03:00	IMS		358	117543	08:01:00	**22.82**
29/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	07:05:00	IMS		455	117551	08:13:00	**24.18**
29/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	08:48:00	IMS		359	117564	09:25:00	**23.88**
29/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	09:05:00	IMS		456	117570	09:47:00	**24.62**
29/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	10:15:00	IMS		360	117585	11:13:00	**23.16**
29/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	11:00:00	IMS		457	117594	11:35:00	**24.18**
29/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	12:05:00	IMS		361	117608	13:14:00	**23.86**
29/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	12:20:00	IMS		458	117613	13:29:00	**23.72**
29/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	13:56:00	IMS		362	117622	14:34:00	**23.70**
29/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	14:15:00	IMS		459	117626	14:54:00	**25.04**
29/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	15:28:00	IMS		363	117639	16:05:00	**24.16**
29/05/2023	Duffy Bros	EU65XBS	STOCKPILE	B2		170504	15:40:00	IMS		460	117640	16:21:00	**24.02**
30/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	07:05:00	IMS		364	117643	08:00:00	**23.58**
30/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	09:12:00	IMS		365	117673	09:54:00	**24.70**
30/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	10:40:00	IMS		366	117693	11:26:00	**25.50**
30/05/2023	Duffy Bros	KY14CYX	STOCKPILE	B2		170504	12:55:00	IMS		367	117717	13:38:00	**19.06**
09/06/2023	CMP	151D52535	PILE ARISINGS	B2		170504	07:10:00	IMS		39456	118358	08:04:00	**29.72**
09/06/2023	CMP	151D52535	PILE ARISINGS	B2		170504	08:10:00	IMS		39457	118377	09:37:00	**26.43**
09/06/2023	CMP	151D52535	PILE ARISINGS	B2		170504	10:20:00	IMS		39458	118397	10:58:00	**23.68**
09/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:00:00	IMS		377	118392	10:23:00	**24.46**
09/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	11:00:00	IMS		378	118407	12:22:00	**22.96**
09/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:30:00	IMS		379	118420	13:58:00	**22.98**
12/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:00:00	IMS		381	118464	10:46:00	**20.62**
12/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	11:30:00	IMS		382	118471	12:09:00	**21.88**
12/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	13:40:00	IMS		383	118484	14:18:00	**23.40**
12/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	15:10:00	IMS		384	118496	15:58:00	**19.34**
13/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:10:00	IMS		465	118544	11:03:00	**19.82**
13/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	11:40:00	IMS		466	118562	12:58:00	**19.76**
13/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	13:50:00	IMS		467	118582	14:48:00	**15.48**
13/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	15:20:00	IMS		468	118603	16:18:00	**21.32**

14/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	07:05:00	IMS		10613	118607	08:02:00	**14.98**
14/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	09:00:00	IMS		10614	118633	09:35:00	**15.70**
14/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	11:30:00	IMS		10616	118662	12:43:00	**18.28**
14/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	13:30:00 PM	IMS		10617	118675	14:05:00	**16.72**
14/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	15:00:00	IMS		10618	118697	16:03:00	**16.58**
15/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:28:00	IMS		885	118717	09:14:00	**20.82**
15/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:57:00	IMS		886	118730	10:43:00	**22.36**
15/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:55:00	IMS		887	118747	12:38:00	**20.32**
15/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:00:00	IMS		888	118767	14:44:00	**20.82**
15/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	15:26:00 PM	IMS		889	118780	16:22:00	**22.22**
19/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:50:00	IMS		897	118891	09:30:00	**22.24**
19/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:10:00	IMS		898	118903	10:53:00	**23.26**
19/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	12:30:00	IMS		899	118913	13:13:00	**22.10**
19/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	13:50:00 PM	IMS		900	118919	14:46:00	**22.22**
19/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	15:30:00 PM	IMS		764	118928	16:08:00	**23.92**
20/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:25:00	IMS		766	118948	09:08:00	**22.52**
20/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:55:00	IMS		767	118960	10:35:00	**21.92**
20/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:40:00	IMS		768	118977	12:17:00	**21.26**
20/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	13:00:00 PM	IMS		769	118989	14:07:00	**22.32**
20/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:55:00 PM	IMS		770	118996	15:29:00	**22.36**
20/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	16:15:00 PM	IMS		771	119003	17:01:00	**23.04**
21/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:45:00	IMS		1102	119028	09:35:00	**20.74**
21/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:20:00	IMS		1103	119048	11:06:00	**21.48**
21/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:50:00	IMS		1104	119068	13:01:00	**23.48**
21/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	13:50:00 PM	IMS		1105	119084	14:31:00	**24.42**
21/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	15:20:00 PM	IMS		1106	119101	15:53:00	**20.12**
22/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	07:10:00	IMS		1107	119106	08:08:00	**25.00**
22/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:55:00	IMS		1108	119133	09:35:00	**22.94**
22/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:25:00	IMS		1109	119159	11:15:00	**24.70**
22/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	12:05:00	IMS		1110	119185	12:44:00	**26.42**
22/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:05:00 PM	IMS		1111	119212	14:49:00	**20.96**
22/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	15:35:00 PM	IMS		1112	119240	16:33:00	**21.06**
23/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:25:00	IMS		1114	119263	09:03:00	**21.90**
23/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:55:00	IMS		1115	119285	10:49:00	**24.22**
26/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:00:00	IMS		917	119340	08:02:00	**21.12**
26/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	07:10:00	IMS		1123	11934	08:09:00	**20.66**
26/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	08:45:00	IMS		918	119356	09:53:00	**28.02**
26/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:57:00	IMS		1124	119355	09:37:00	**23.06**
26/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:30:00	IMS		919	119367	11:56:00	**24.64**
26/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:30:00	IMS		1126	119365	11:47:00	**21.12**
26/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	12:35:00	IMS		1125	119374	13:12:00	**22.86**
26/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:40:00	IMS		920	119379	13:56:00	**20.40**
26/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:05:00 PM	IMS		1127	119384	14:39:00	**19.36**
26/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	14:20:00 PM	IMS		921	119388	15:18:00	**18.92**
26/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	15:25:00 PM	IMS		1128	119396	16:09:00	**22.84**
26/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	15:45:00 PM	IMS		922	119397	16:34:00	**14.60**
27/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	07:15:00	IMS		160	119398	08:00:00	**18.74**
27/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:20:00	IMS		772	119402	08:06:00	**18.58**
27/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:45:00	IMS		161	119421	09:22:00	**19.10**
27/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	08:50:00	IMS		773	119422	09:29:00	**19.48**
27/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:10:00	IMS		162	119439	10:46:00	**19.36**
27/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:15:00	IMS		774	119446	11:36:00	**17.90**
27/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:55:00	IMS		163	119456	12:34:00	**19.24**
27/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:15:00	IMS		775	119466	13:25:00	**19.84**
27/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	13:20:00 PM	IMS		164	119474	13:57:00	**18.88**
27/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	14:10:00 PM	IMS		776	119485	14:52:00	**22.42**
27/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:40:00 PM	IMS		165	119488	15:13:00	**22.06**
27/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	15:40:00 PM	IMS		777	119501	16:22:00	**20.78**
27/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	16:00:00 PM	IMS		166	119502	16:36:00	**16.36**
28/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	07:10:00	IMS		167	119510	08:18:00	**17.48**
28/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:10:00	IMS		778	119507	08:07:00	**19.34**
28/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	07:10:00	IMS		12992	119504	08:03:00	**16.54**

28/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	08:40:00	IMS		779	119521	09:42:00	**20.36**
28/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	08:45:00	IMS		12993	119519	09:29:00	**18.16**
28/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:15:00	IMS		168	119523	09:53:00	**18.64**
28/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	10:20:00	IMS		12994	119531	11:11:00	**16.06**
28/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:00:00	IMS		169	119543	11:55:00	**22.66**
28/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	11:00:00	IMS		780	119541	11:50:00	**16.06**
28/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	11:50:00	IMS		12995	119547	12:59:00	**20.48**
28/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:40:00	IMS		781	119557	13:52:00	**25.82**
28/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	12:45:00	IMS		170	119551	13:26:00	**19.84**
28/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	13:40:00 PM	IMS		12996	119558	14:14:00	**17.56**
28/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:20:00 PM	IMS		171	119566	14:56:00	**20.24**
28/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	14:35:00 PM	IMS		782	119569	15:14:00	**21.06**
28/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	15:15:00 PM	IMS		12997	119574	15:47:00	**19.06**
28/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	15:45:00 PM	IMS		172	119582	16:32:00	**18.86**
28/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	16:00:00 PM	IMS		783	119583	16:51:00	**19.62**
29/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	07:10:00	IMS		10459	119584	08:00:00	**18.64**
29/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:20:00	IMS		784	119586	08:05:00	**24.68**
29/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:35:00	IMS		174	119587	09:14:00	**23.68**
29/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	08:40:00	IMS		8458	119586	08:03:00	**23.20**
29/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	08:40:00	IMS		10460	119601	09:21	21.04
29/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	08:50:00	IMS		8459	119602	09:24	21.20
29/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:00:00	IMS		785	119604	09:37	**19.98**
29/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	10:00:00	IMS		10461	119613	10:31	**17.50**
29/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	10:05:00	IMS		8460	119614	10:43	**21.06**
29/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:10:00	IMS		175	119615	10:54:00	**20.40**
29/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:20:00	IMS		786	119620	11:25:00	**19.10**
29/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	11:10:00	IMS		10462	119625	12:19:00	**16.98**
29/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	11:20:00	IMS		8461	119629	12:28:00	**19.82**
29/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:35:00	IMS		176	119627	12:24:00	**18.56**
29/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:00:00	IMS		787	119634	13:17:00	**20.64**
29/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	13:00:00 PM	IMS		10463	119635	13:32:00	**17.78**
29/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	13:10:00 PM	IMS		8462	119638	13:48:00	**20.46**
29/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	13:20:00 PM	IMS		177	119639	14:00:00	**19.96**
29/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	14:00:00 PM	IMS		788	119643	14:31:00	**20.16**
29/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	14:30:00 PM	IMS		8463	119648	15:07:00	**20.56**
29/06/2023	John Watson	161MN1913	PILE ARISINGS	B2		170504	15:00:00 PM	IMS		10167	119655	15:47:00	**20.82**
29/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	15:10:00 PM	IMS		10464	119645	14:44:00	**20.26**
29/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	15:15:00 PM	IMS		789	119657	15:59:00	**22.58**
30/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	07:00:00	IMS		10466	119658	08:00:00	**17.64**
30/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	07:05:00	IMS		8465	119659	08:01:00	**21.36**
30/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:15:00	IMS		790	119661	08:03:00	**22.26**
30/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	07:50:00	IMS		181	119667	08:26:00	**20.44**
30/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	08:45:00	IMS		10467	119672	09:09:00	**18.00**
30/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	08:45:00	IMS		8466	119673	09:16:00	**22.00**
30/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	08:50:00	IMS		791	119675	09:26:00	**22.02**
30/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:10:00	IMS		182	119682	09:46:00	**21.12**
30/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	10:00:00	IMS		10468	119685	10:20:00	**16.66**
30/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	10:00:00	IMS		8467	119688	10:48:00	**20.72**
30/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	11:00:00	IMS		792	119692	11:26:00	**21.00**
30/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:00:00	IMS		183	119693	11:31:00	**20.86**
30/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	11:05:00	IMS		10469	119697	12:18:00	**16.24**
30/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	11:30:00	IMS		8468	119701	12:59:00	**20.54**
30/06/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:10:00	IMS		793	119699	12:43:00	**21.66**
30/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	13:00:00 PM	IMS		184	119710	13:55:00	**18.84**
30/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	13:00:00 PM	IMS		10470	119707	13:33:00	**15.66**
30/06/2023	John Watson	151D56746	PILE ARISINGS	B2		170504	13:40:00 PM	IMS		8469	119713	14:25:00	**20.06**
30/06/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:30:00 PM	IMS		185	119719	15:14:00	**19.66**
30/06/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	14:20:00 PM	IMS		10471	119717	14:59:00	**17.82**
03/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	07:10:00	IMS		10233	119725	08:05:00	**19.70**
03/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	07:15:00	IMS		12351	119724	08:03:00	**18.46**
03/07/2023	John Watson	221D18557	PILE ARISINGS	B2		170504	07:15:00	IMS		10070	119723	08:02:00	**17.28**
03/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:25:00	IMS		794	119726	08:07:00	**21.40**

03/07/2023	John Watson	221D18557	PILE ARISINGS	B2		170504	08:30:00	IMS		10071	119756	09:35:00	**18.26**
03/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:35:00	IMS		192	119747	09:11:00	**21.80**
03/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	09:00:00	IMS		11352	119759	09:41:00	**19.16**
03/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	09:05:00	IMS		10234	119760	09:42:00	**23.28**
03/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:10:00	IMS		795	119766	09:52:00	**22.00**
03/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:00:00	IMS		193	119780	10:35:00	**21.70**
03/07/2023	John Watson	221D18557	PILE ARISINGS	B2		170504	10:10:00	IMS		10072	119785	10:49:00	**20.82**
03/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	10:20:00	IMS		11353	119789	10:55:00	**19.32**
03/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	10:25:00	IMS		10235	119791	10:59:00	**22.10**
03/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:40:00	IMS		796	119798	11:17:00	**19.48**
03/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	11:30:00	IMS		11354	119821	12:41:00	**18.46**
03/07/2023	John Watson	221D18557	PILE ARISINGS	B2		170504	11:30:00	IMS		10073	119820	12:36:00	**17.36**
03/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	11:40:00	IMS		194	119810	12:15:00	**21.74**
03/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:00:00	IMS		797	119832	13:25:00	**20.14**
03/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	12:10:00	IMS		10236	119825	12:48:00	**21.34**
03/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	13:00:00 PM	IMS		195	119838	13:40:00	**21.52**
03/07/2023	John Watson	221D18557	PILE ARISINGS	B2		170504	13:15:00 PM	IMS		10074	119840	13:48:00	**20.12**
03/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	13:20:00 PM	IMS		11355	119844	14:00:00	**21.54**
03/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	13:25:00 PM	IMS		10237	119847	14:04:00	**23.54**
03/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	14:10:00 PM	IMS		798	119858	14:48:00	**23.68**
03/07/2023	John Watson	221D18557	PILE ARISINGS	B2		170504	14:30:00 PM	IMS		10075	119865	15:07:00	**20.48**
03/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	14:30:00 PM	IMS		196	119863	15:04:00	**22.06**
03/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	14:40:00 PM	IMS		11356	119866	15:11:00	**18.08**
03/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	14:45:00 PM	IMS		10238	119870	15:22:00	**22.42**
03/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	15:30:00 PM	IMS		799	119892	16:18:00	**21.88**
04/07/2023	Duffy Bros	EU65XBS	C1 0-1.32m	B2		170504	12:00:00	IMS		1129	120019	13:16:00	**20.34**
04/07/2023	John Watson	171D62297	C1 0-1.32m	B2		170504	12:04:00	IMS		10243	120011	12:45:00	**22.52**
04/07/2023	Duffy Bros	KY14CYX	C1 0-1.32m	B2		170504	12:30:00	IMS		1025	120022	13:25:00	**22.44**
04/07/2023	CMP	152D32436	C1 0-1.32m	B2		170504	12:55:00	IMS		39427	120024	13:28:00	**21.72**
04/07/2023	CMP	151D52532	C2 0-1.32M	B2		170504	13:00:00 PM	IMS		38965	120026	13:33:00	**22.58**
04/07/2023	John Watson	181D25014	C2 0-1.32M	B2		170504	13:10:00 PM	IMS		11362	120029	13:42:00	**18.20**
04/07/2023	John Watson	171D62297	C2 0-1.32M	B2		170504	13:30:00 PM	IMS		10244	120038	14:07:00	**21.48**
04/07/2023	Duffy Bros	EU65XBS	C2 0-1.32M	B2		170504	14:00:00 PM	IMS		1130	120047	14:39:00	**20.90**
04/07/2023	Duffy Bros	KY14CYX	C2 0-1.32M	B2		170504	14:10:00 PM	IMS		1026	120051	14:49:00	**18.52**
04/07/2023	John Watson	181D25014	C2 0-1.32M	B2		170504	14:20:00 PM	IMS		11363	120055	15:02:00	**17.48**
04/07/2023	CMP	152D32436	Concrete around tanks	B1		170504	14:40:00 PM	IMS		39428	120057	15:10:00	**22.56**
04/07/2023	CMP	151D52532	Concrete around tanks	B1		170504	14:50:00 PM	IMS		38966	120064	15:23:00	**24.20**
04/07/2023	John Watson	171D62297	Concrete around tanks	B1		170504	14:50:00 PM	IMS		10245	120066	15:27:00	**21.98**
04/07/2023	Duffy Bros	EU65XBS	Concrete around tanks	B1		170504	15:25:00 PM	IMS		1131	120078	16:05:00	**20.92**
04/07/2023	Duffy Bros	KY14CYX	Concrete around tanks	B1		170504	15:35:00 PM	IMS		1027	120081	16:12:00	**19.20**
04/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	07:00:00	IMS		10240	119896	08:03:00	**21.72**
04/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	07:10:00	IMS		11358	119894	08:00:00	**18.18**
04/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	07:15:00	IMS		197	119901	08:11:00	**20.16**
04/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:20:00	IMS		800	119903	08:16:00	**20.86**
04/07/2023	CMP	152D32436	PILE ARISINGS	B2		170504	07:25:00	IMS		39424	119908	08:22:00	**21.24**
04/07/2023	CMP	151D52532	PILE ARISINGS	B2		170504	07:30:00	IMS		38962	119907	08:21:00	**22.56**
04/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	08:45:00	IMS		11359	119934	09:19:00	**18.34**
04/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	08:50:00	IMS		10241	119935	09:24:00	**22.68**
04/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	08:55:00	IMS		198	119938	09:33:00	**22.18**
04/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:00:00	IMS		278	119940	09:39:00	**21.66**
04/07/2023	CMP	151D52532	PILE ARISINGS	B2		170504	09:00:00	IMS		38963	119951	09:55:00	**24.30**
04/07/2023	CMP	152D32436	PILE ARISINGS	B2		170504	09:15:00	IMS		39425	119947	09:47:00	**22.88**
04/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	10:00:00	IMS		11360	119962	10:31:00	**16.36**
04/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	10:05:00	IMS		10242	119965	10:40:00	**20.44**
04/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:20:00	IMS		199	19970	10:54:00	**19.48**
04/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:25:00	IMS		279	119976	11:06:00	**20.78**
04/07/2023	CMP	152D32436	PILE ARISINGS	B2		170504	10:40:00	IMS		39426	119984	11:18:00	**20.28**
04/07/2023	CMP	151D52532	PILE ARISINGS	B2		170504	10:50:00	IMS		38964	119988	11:24:00	**25.18**
04/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	11:20:00	IMS		11361	11995	11:57:00	**18.92**
05/07/2023	John Watson	181D25014	C1 0-1.32m	B2		170504	11:20:00	IMS		11368	120181	12:27:00	**16.00**
05/07/2023	Duffy Bros	KY14CYX	C1 0-1.32m	B2		170504	12:10:00	IMS		1031	120192	12:48:00	**18.36**
05/07/2023	John Watson	171D62297	C2 0-1.32M	B2		170504	11:25:00	IMS		10250	120189	12:43:00	**19.62**

05/07/2023	Duffy Bros	EU65XBS	C2 0-1.32M	B2		170504	12:15:00	IMS		1135	120203	13:33:00	**21.42**
05/07/2023	Duffy Bros	KY14CYX	C2 0-1.32M	B2		170504	13:55:00 PM	IMS		1032	120230	14:35:00	**15.40**
05/07/2023	Duffy Bros	EU65XBS	C2 0-1.32M	B2		170504	14:20:00 PM	IMS		1136	120240	14:57:00	**17.96**
05/07/2023	Duffy Bros	KY14CYX	C2 0-1.32M	B2		170504	15:15:00 PM	IMS		1033	120262	15:57:00	**17.56**
05/07/2023	Duffy Bros	EU65XBS	C2 0-1.32M	B2		170504	15:40:00 PM	IMS		1137	120267	16:36:00	**17.26**
05/07/2023	John Watson	171D62297	Concrete around tanks	B1		170504	07:05:00	IMS		10247	120087	08:03:00	**21.82**
05/07/2023	John Watson	GP17LMF	Concrete around tanks	B1		170504	07:09:00	IMS		11301	120086	08:02:00	**23.88**
05/07/2023	John Watson	181D25014	Concrete around tanks	B1		170504	07:20:00	IMS		11365	120085	08:01:00	**19.46**
05/07/2023	Duffy Bros	KY14CYX	Concrete around tanks	B1		170504	07:20:00	IMS		1028	120092	08:11:00	**21.24**
05/07/2023	Duffy Bros	EU65XBS	Concrete around tanks	B1		170504	07:30:00	IMS		1132	120097	08:19:00	**22.10**
05/07/2023	John Watson	181D25014	Concrete around tanks	B1		170504	08:45:00	IMS		11366	120118	09:25:00	**18.32**
05/07/2023	John Watson	171D62297	Concrete around tanks	B1		170504	08:50:00	IMS		10248	120119	09:27:00	**22.78**
05/07/2023	John Watson	GP17LMF	PILE ARISINGS	B2		170504	09:07:00	IMS		11302	120128	09:46:00	**21.08**
05/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:20:00	IMS		1133	120131	09:54:00	**21.12**
05/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:20:00	IMS		1029	120133	09:59:00	**18.68**
05/07/2023	John Watson	181D25014	PILE ARISINGS	B2		170504	10:00:00	IMS		11367	120144	10:39:00	**18.30**
05/07/2023	John Watson	171D62297	PILE ARISINGS	B2		170504	10:10:00	IMS		10249	120147	10:46:00	**23.04**
05/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:45:00	IMS		1030	120162	11:23:00	**21.60**
05/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:50:00	IMS		1134	120166	11:28:00	**20.42**
05/07/2023	John Watson	GP17LMF	PILE ARISINGS	B2		170504	15:00:00 PM	IMS		11303	120165	11:27:00	**20.66**
06/07/2023	Duffy Bros	EU65XBS	C2 0-1.32M	B2		170504	07:20:00	IMS		1138	120277	08:13:00	**20.42**
06/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	07:40:00	IMS		1035	120279	08:23:00	**17.84**
06/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	09:00:00	IMS		1139	120290	09:39:00	**23.62**
06/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:15:00	IMS		1036	120293	09:52:00	**23.28**
06/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:30:00	IMS		1140	120309	11:08:00	**22.94**
06/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	10:40:00	IMS		1037	120317	11:26:00	**21.24**
06/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	12:30:00	IMS		1141	120336	13:38:00	**20.72**
06/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	14:30:00 PM	IMS		1142	120347	15:07:00	**19.04**
06/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	16:00:00 PM	IMS		1143	120356	21:36:00	**21.90**
07/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:10:00	IMS		1144	120362	08:07:00	**21.74**
07/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	08:45:00	IMS		1145	120377	09:24:00	**24.30**
07/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	10:00:00	IMS		1146	120399	11:04:00	**18.16**
07/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	11:40:00	IMS		1147	120412	12:32:00	**17.52**
07/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	13:45:00 AM	IMS		1148	120431	14:29:00	**17.22**
10/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B2		170504	07:05:00	IMS		1152	120475	08:17:00	**16.94**
10/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B2		170504	09:00:00	IMS		1042	120492	09:39:00	**16.84**
10/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	09:10:00	IMS		1153	120493	09:46:00	**20.04**
10/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	10:15:00	IMS		39496	120511	10:58:00	**19.96**
10/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	10:30:00	IMS		1043	120513	11:03:00	**17.06**
10/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	10:30:00AM	IMS		1154	120514	11:08:00	**19.68**
10/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	10:40:00	IMS		39434	120516	11:12:00	**18.72**
10/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	11:35:00	IMS		39497	120528	12:26:00	**25.72**
10/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	12:00:00	IMS		39435	120531	12:30:00	**20.50**
10/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	12:20:00	IMS		1155	120544	13:32:00	**20.90**
10/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	12:20:00	IMS		1044	120538	12:59:00	**20.90**
10/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	13:10:00 PM	IMS		39498	120547	13:50:00	**23.28**
10/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	13:50:00 PM	IMS		39436	120555	14:21:00	**33.04**
10/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	14:15:00 PM	IMS		1156	120563	14:59:00	**21.92**
10/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	14:20:00 PM	IMS		1045	120565	15:02:00	**19.04**
10/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	15:05:00 PM	IMS		39437	120578	15:45:00	**20.54**
10/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	15:25:00 PM	IMS		39499	120580	16:09:00	**23.64**
10/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	15:40:00 PM	IMS		1157	120581	16:23:00	**22.20**
10/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	15:45:00 PM	IMS		1046	120584	16:28:00	**22.22**
11/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	07:00:00	IMS		39500	120591	08:07:00	**20.78**
11/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	07:00:00	IMS		11603	120587	08:01:00	**20.06**
11/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	07:15:00	IMS		39438	120588	08:03:00	**18.50**
11/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	07:15:00	IMS		1048	120590	08:05:00	**19.04**
11/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	07:20:00	IMS		1158	120595	08:14:00	**19.36**
11/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	08:40:00	IMS		11604	120611	09:14:00	**18.08**
11/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	08:45:00	IMS		1049	120613	09:20:00	**21.80**
11/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	08:50:00	IMS		39439	120615	09:28:00	**20.68**
11/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	08:50:00	IMS		39440	120616	09:31:00	**24.62**

11/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	09:00:00	IMS		1159	120617	09:36:00	**22.18**
11/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	09:50:00	IMS		11605	120629	10:24:00	**19.54**
11/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	10:10:00	IMS		41501	120631	10:41:00	**21.00**
11/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	10:15:00	IMS		39441	120633	10:55:00	**25.30**
11/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	10:25:00	IMS		1160	120635	11:00:00	**20.36**
11/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	10:25:00	IMS		1050	120637	11:06:00	**21.14**
11/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	11:00:00	IMS		11606	120652	12:12:00	**20.32**
11/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	11:25:00	IMS		41502	120657	12:32:00	**21.98**
11/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	11:35:00	IMS		39442	120663	12:52:00	**23.02**
11/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	11:40:00	IMS		1161	120664	12:57:00	**20.16**
11/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	11:50:00	IMS		1051	120656	12:27:00	**20.18**
11/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	13:00:00 PM	IMS		11607	120670	13:38:00	**20.16**
11/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	13:20:00 PM	IMS		41503	120673	13:52:00	**20.24**
11/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	13:30:00 PM	IMS		39443	120676	14:15:00	**20.12**
11/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	13:40:00 PM	IMS		1162	120677	14:18:00	**16.84**
11/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	13:45:00 PM	IMS		1052	120680	14:26:00	**15.52**
11/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	14:15:00 PM	IMS		11608	120691	14:58:00	**16.46**
11/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	14:35:00 PM	IMS		41504	120695	15:09:00	**20.86**
11/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	15:00:00 PM	IMS		39444	120705	15:48:00	**22.50**
11/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	15:10:00 PM	IMS		12082	120704	15:46:00	**17.52**
11/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	15:20:00 PM	IMS		1053	120708	16:02:00	**17.06**
11/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	15:20:00 PM	IMS		1163	120709	16:05:00	**16.24**
12/07/2023	John Watson	181D25014	PILE ARISINGS (L2,M,L1)	B1		170504	07:05:00	IMS		11504	120713	08:01:00	**14.22**
12/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	07:10:00	IMS		11610	120715	08:03:00	**15.66**
12/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	07:15:00	IMS		12083	120714	08:02:00	**13.42**
12/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	08:40:00	IMS		12084	120745	09:20:00	**16.16**
12/07/2023	John Watson	181D25014	PILE ARISINGS (L2,M,L1)	B1		170504	08:45:00	IMS		11505	120743	09:17:00	**15.86**
12/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	08:50:00	IMS		11611	120746	09:21:00	**17.50**
12/07/2023	John Watson	181D25014	PILE ARISINGS (L2,M,L1)	B1		170504	11:20:00	IMS		11507	120776	11:55:00	**18.78**
12/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	11:40:00	IMS		11612	120784	12:46:00	**19.34**
12/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	13:00:00 PM	IMS		12085	120795	13:35:00	**19.60**
12/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	13:20:00 PM	IMS		11613	120800	13:59:00	**18.96**
12/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	13:40:00 PM	IMS		12087	120808	14:47:00	**17.98**
12/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	14:35:00 PM	IMS		11614	120818	15:14:00	**19.40**
12/07/2023	John Watson	181D25014	PILE ARISINGS (L2,M,L1)	B1		170504	15:00:00 PM	IMS		11509	120821	15:27:00	**16.94**
12/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	15:25:00 PM	IMS		12088	120828	16:04:00	**18.26**
13/07/2023	John Watson	221D18557	B2 0-1.1m	B1		170504	11:05:00	IMS		12092	120912	11:44:00	**14.06**
13/07/2023	John Watson	181D25014	B2 0-1.1m	B1		170504	11:30:00	IMS		11514	120926	12:23:00	**14.36**
13/07/2023	Duffy Bros	KY14CYX	B2 0-1.1m	B1		170504	11:55:00	IMS		502	120931	12:37:00	**18.18**
13/07/2023	CMP	152D32436	B2 0-1.1m	B1		170504	12:00:00	IMS		41508	120947	13:25:00	**18.68**
13/07/2023	John Watson	191D918	B2 0-1.1m	B1		170504	12:10:00	IMS		11619	120948	13:26:00	**17.50**
13/07/2023	Duffy Bros	EU65XBS	E 0-0.8m	B1		170504	12:20:00	IMS		2102	120940	13:05:00	**17.58**
13/07/2023	John Watson	181D25014	E 0-0.8m	B1		170504	13:00:00 PM	IMS		11515	120951	13:39:00	**16.36**
13/07/2023	John Watson	221D18557	E 0-0.8m	B1		170504	13:00:00 PM	IMS		12093	120952	13:41:00	**15.94**
13/07/2023	Duffy Bros	KY14CYX	E 0-0.8m	B1		170504	13:50:00 PM	IMS		503	120965	14:40:00	**16.50**
13/07/2023	CMP	152D32436	E 0-0.8m	B1		170504	14:00:00 PM	IMS		41509	120967	14:45:00	**18.64**
13/07/2023	John Watson	191D918	E 0-0.8m	B1		170504	14:05:00 PM	IMS		11620	120968	14:46:00	**16.48**
13/07/2023	Duffy Bros	EU65XBS	E 0-0.8m	B1		170504	14:15:00 PM	IMS		2103	120973	14:55:00	**19.44**
13/07/2023	John Watson	181D25014	E 0-0.8m	B1		170504	14:20:00 PM	IMS		11516	120974	14:56:00	**16.22**
13/07/2023	John Watson	221D18557	E 0-0.8m	B1		170504	14:25:00 PM	IMS		12094	120978	15:14:00	**14.58**
13/07/2023	Duffy Bros	KY14CYX	E 0-0.8m	B1		170504	15:25:00 PM	IMS		504	120984	16:15:00	**16.54**
13/07/2023	Duffy Bros	EU65XBS	E 0-0.8m	B1		170504	15:35:00 PM	IMS		2104	120985	16:21:00	**18.92**
13/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	07:00:00	IMS		41556	120834	08:03:00	**21.92**
13/07/2023	John Watson	181D25014	PILE ARISINGS (L2,M,L1)	B1		170504	07:05:00	IMS		11511	120836	08:05:00	**14.34**
13/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	07:10:00	IMS		11616	120837	08:06:00	**16.80**
13/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	07:15:00	IMS		12089	120833	08:02:00	**13.80**
13/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	07:20:00	IMS		1167	120839	08:12:00	**18.24**
13/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	07:35:00	IMS		41505	120843	08:17:00	**17.54**
13/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	08:30:00	IMS		1060	120861	09:07:00	**17.90**
13/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	08:30:00	IMS		12090	120863	09:13:00	**16.54**
13/07/2023	John Watson	181D25014	PILE ARISINGS (L2,M,L1)	B1		170504	08:40:00	IMS		11512	120865	09:21:00	**14.66**
13/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	08:45:00	IMS		11617	120866	09:25:00	**16.82**

13/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	08:45:00	IMS		41557	120867	09:32:00	**18.60**
13/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	09:00:00	IMS		1168	120868	09:36:00	**18.04**
13/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	09:10:00	IMS		41506	120872	09:48:00	**17.18**
13/07/2023	John Watson	221D18557	PILE ARISINGS (L2,M,L1)	B1		170504	09:50:00	IMS		12091	120887	10:27:00	**17.58**
13/07/2023	John Watson	181D25014	PILE ARISINGS (L2,M,L1)	B1		170504	09:55:00	IMS		11513	120891	10:37:00	**16.94**
13/07/2023	John Watson	191D918	PILE ARISINGS (L2,M,L1)	B1		170504	10:00:00	IMS		11618	120894	10:43:00	**18.40**
13/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	10:20:00	IMS		2101	120911	11:38:00	**15.84**
13/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	10:20:00	IMS		501	120902	11:10:00	**15.48**
13/07/2023	CMP	152D32436	PILE ARISINGS (L2,M,L1)	B1		170504	10:30:00	IMS		41507	120904	11:14:00	**16.02**
14/07/2023	CMP	151D52535	Clean Concrete Guide Walls	-		170101	10:05:00	IMS		41563	121022	10:57:00	**14.20**
14/07/2023	Duffy Bros	KY14CYX	Clean Concrete Guide Walls	-		170101	10:40:00	IMS		507	121029	11:18:00	**12.72**
14/07/2023	Duffy Bros	EU65XBS	Clean Concrete Guide Walls	-		170101	10:50:00	IMS		2107	121030	11:23:00	**14.70**
14/07/2023	CMP	151D52535	Clean Concrete Guide Walls	-		170101	11:35:00	IMS		41564	121044	12:53:00	**16.16**
14/07/2023	Duffy Bros	KY14CYX	Clean Concrete Guide Walls	-		170101	12:00:00	IMS		508	121041	12:36:00	**12.88**
14/07/2023	Duffy Bros	EU65XBS	Clean Concrete Guide Walls	-		170101	12:05:00	IMS		2108	121042	12:43:00	**12.98**
14/07/2023	Duffy Bros	KY14CYX	Clean Concrete Guide Walls	-		170101	13:20:00 PM	IMS		509	121053	14:14:00	**15.10**
14/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	07:00:00	IMS		41561	120989	08:05:00	**19.62**
14/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	07:10:00	IMS		505	120990	08:06:00	**16.86**
14/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	07:15:00	IMS		2105	120987	08:02:00	**17.64**
14/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	08:45:00	IMS		41562	121010	09:23:00	**20.62**
14/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	08:45:00	IMS		2106	121009	09:21:00	**17.68**
14/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	08:55:00	IMS		506	121012	09:27:00	**16.04**
14/07/2023	CMP	151D52535	PILE ARISINGS (L2,M,L1)	B1		170504	13:30:00 PM	IMS		41565	121055	14:24:00	**21.96**
17/07/2023	Duffy Bros	KY14CYX	A2 0-0.8m	B2		170504	10:10:00	IMS		512	121107	10:49:00	**15.16**
17/07/2023	Duffy Bros	EU65XBS	A2 0-0.8m	B2		170504	11:00:00	IMS		2111	121126	11:49:00	**15.32**
17/07/2023	Duffy Bros	EU65XBW	A2 0-0.8m	B2		170504	11:17:00	IMS		1810	121129	11:59:00	**14.12**
17/07/2023	Duffy Bros	KY14CYX	A2 0-0.8m	B2		170504	11:35:00	IMS		513	121130	12:03:00	**15.36**
17/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	07:12:00	IMS		510	121066	08:05:00	**17.08**
17/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	07:20:00	IMS		2109	121068	08:14:00	**18.38**
17/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS (L2,M,L1)	B1		170504	08:38:00	IMS		1809	121100	09:45:00	**16.74**
17/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	08:50:00	IMS		511	121092	09:28:00	**17.28**
17/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	09:00:00	IMS		2110	121098	09:42:00	**19.58**
17/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS (L2,M,L1)	B1		170504	13:20:00 PM	IMS		1811	121149	13:53:00	**18.10**
17/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS (L2,M,L1)	B1		170504	14:40:00 PM	IMS		1812	121172	15:16:00	**18.50**
17/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS (L2,M,L1)	B1		170504	15:58:00 PM	IMS		1813	121188	16:36:00	**20.26**
18/07/2023	Duffy Bros	EU65XBW	D 0-1.03m	B2		170504	13:02:00 PM	IMS		1817	121288	13:42:00	**16.02**
18/07/2023	Duffy Bros	EU65XBW	D 0-1.03m	B2		170504	14:30:00 PM	IMS		2201	121315	15:13:00	**17.48**
18/07/2023	Duffy Bros	EU65XBS	E 0-0.8m	B1		170504	12:02:00	IMS		1903	121281	13:28:00	**17.34**
18/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	08:05:00	IMS		1901	121207	08:43:00	**20.34**
18/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS (L2,M,L1)	B1		170504	08:25:00	IMS		2001	121211	09:02:00	**21.10**
18/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS (L2,M,L1)	B1		170504	09:30:00	IMS		1902	121236	10:37:00	**23.34**
18/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS (L2,M,L1)	B1		170504	10:20:00	IMS		1816	121248	11:05:00	**23.36**
19/07/2023	Duffy Bros	KY14CYX	F 0-1.3m	B1		170504	08:50:00	IMS		2003	121358	09:26:00	**17.28**
19/07/2023	Duffy Bros	EU65XBS	F 0-1.3m	B1		170504	09:00:00	IMS		1906	121371	10:03:00	**15.52**
19/07/2023	Duffy Bros	KY14CYX	F 0-1.3m	B1		170504	10:35:00	IMS		2004	121393	11:11:00	**17.16**
19/07/2023	Duffy Bros	EU65XBS	F 0-1.3m	B1		170504	11:30:00	IMS		1907	121407	12:10:00	**15.26**
19/07/2023	Duffy Bros	KY14CYX	F 0-1.3m	B1		170504	11:55:00	IMS		2005	121414	12:28:00	**14.80**
19/07/2023	Duffy Bros	EU65XBS	F 0-1.3m	B1		170504	12:49:00	IMS		1908	121433	14:22:00	**15.86**
19/07/2023	Duffy Bros	KY14CYX	F 0-1.3m	B1		170504	13:10:00 PM	IMS		2006	121432	14:15:00	**15.76**
19/07/2023	Duffy Bros	EU65XBS	F 0-1.3m	B1		170504	14:40:00 PM	IMS		1904	121318	15:21:00	**14.20**
19/07/2023	Duffy Bros	KY14CYX	F 0-1.3m	B1		170504	14:55:00 PM	IMS		2007	121453	15:32:00	**15.84**
19/07/2023	Duffy Bros	EU65XBS	F 0-1.3m	B1		170504	15:10:00 PM	IMS		1909	121454	15:46:00	**14.96**
19/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	07:00:00	IMS		2002	121338	08:09:00	**18.82**
19/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	07:10:00	IMS		1905	121340	08:11:00	**21.00**
20/07/2023	Duffy Bros	KY14CYX	Clean Concrete	-		170101	07:05:00	IMS		2008	121462	08:11:00	**10.94**
20/07/2023	Duffy Bros	EU65XBS	Clean Concrete	-		170101	07:20:00	IMS		1910	121457	08:02:00	**10.82**
20/07/2023	Duffy Bros	KY14CYX	Clean Concrete	-		170101	08:50:00	IMS		2009	121470	09:32:00	**11.88**
20/07/2023	Duffy Bros	KY14CYX	Clean Concrete	-		170101	10:15:00	IMS		2010	121485	11:00:00	**11.86**
20/07/2023	CMP	152D32436	PILE ARISINGS	B1		170504	09:10:00	IMS		41518	121473	09:39:00	**17.86**
20/07/2023	CMP	152D32436	PILE ARISINGS	B1		170504	10:30:00	IMS		41519	121486	11:04:00	**17.66**
20/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	11:20:00	IMS		1911	121492	12:05:00	**17.30**
20/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	11:45:00	IMS		2011	121496	12:39:00	**16.48**

20/07/2023	CMP	152D32436	PILE ARISINGS	B1		170504	12:00:00	IMS		41520	121494	12:29:00	**18.38**
20/07/2023	CMP	151D52532	PILE ARISINGS	B1		170504	12:30:00	IMS		38980	121505	13:44:00	**21.66**
20/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	12:50:00	IMS		1912	121508	14:02:00	**20.18**
20/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	13:20:00 PM	IMS		2012	121507	13:59:00	**21.28**
20/07/2023	CMP	152D32436	PILE ARISINGS	B1		170504	13:45:00 PM	IMS		41521	121510	14:16:00	**21.90**
20/07/2023	CMP	151D52532	PILE ARISINGS	B1		170504	14:30:00 PM	IMS		38981	121514	15:05:00	**24.36**
20/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	14:45:00 PM	IMS		1913	121517	15:25:00	**18.04**
20/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	14:45:00 PM	IMS		2013	121516	15:20:00	**21.76**
21/07/2023	Duffy Bros	KY14CYX	Clean Concrete	-		170101	08:15:00	IMS		2016	121545	09:28:00	**12.92**
21/07/2023	CMP	151D52532	E 0-0.8m	B1		170504	08:45:00	IMS		38983	121541	09:22:00	**20.94**
21/07/2023	CMP	151D52535	E 0-0.8m	B1		170504	08:50:00	IMS		41575	121546	09:29:00	**19.88**
21/07/2023	Duffy Bros	EU65XBS	E 0-0.8m	B1		170504	09:20:00	IMS		1916	121551	10:04:00	**17.36**
21/07/2023	CMP	151D52535	E 0-0.8m	B1		170504	10:10:00	IMS		41576	121559	10:54:00	**19.30**
21/07/2023	CMP	151D52532	E 0-0.8m	B1		170504	10:10:00	IMS		38984	121557	10:39:00	**19.24**
21/07/2023	Duffy Bros	KY14CYX	E 0-0.8m	B1		170504	10:10:00	IMS		2017	121558	10:51:00	**16.52**
21/07/2023	Duffy Bros	EU65XBS	E 0-0.8m	B1		170504	10:50:00	IMS		1917	121561	11:27:00	**17.52**
21/07/2023	CMP	151D52532	E 0-0.8m	B1		170504	11:25:00	IMS		38985	121570	12:28:00	**19.40**
21/07/2023	CMP	151D52535	E 0-0.8m	B1		170504	11:30:00	IMS		41577	121573	12:45:00	**20.08**
21/07/2023	Duffy Bros	KY14CYX	E 0-0.8m	B1		170504	11:35:00	IMS		2018	121568	12:06:00	**17.12**
21/07/2023	Duffy Bros	EU65XBS	E 0-0.8m	B1		170504	12:10:00	IMS		1918	121576	13:31:00	**18.02**
21/07/2023	CMP	151d52532	I 0-0.58m	B1		170504	13:15:00 PM	IMS		38986	121577	13:47:00	**18.96**
21/07/2023	CMP	151D52535	I 0-0.58m	B1		170504	13:25:00 PM	IMS		41578	121584	14:12:00	**19.18**
21/07/2023	CMP	151D52532	I 0-0.58m	B1		170504	14:25:00 PM	IMS		38987	121590	15:04:00	**16.94**
21/07/2023	CMP	151D52535	I 0-0.58m	B1		170504	14:50:00 PM	IMS		41579	121594	15:34:00	**19.70**
21/07/2023	CMP	151D52535	PILE ARISINGS	B1		170504	07:00:00AM	IMS		41574	121528	08:08:00	**18.82**
21/07/2023	CMP	151D52532	PILE ARISINGS	B1		170504	07:10:00	IMS		38982	121525	08:03:00	**17.56**
21/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	07:15:00	IMS		1915	121526	08:04:00	**16.38**
21/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	13:45:00 PM	IMS		2019	121588	14:47:00	**16.32**
24/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	07:00:00AM	IMS		2025	121598	08:05:00	**15.32**
24/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	07:10:00	IMS		1924	121600	08:08:00	**15.04**
24/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS	B1		170504	08:30:00	IMS		2224	121607	09:13:00	**19.88**
24/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	08:45:00	IMS		2026	121608	09:23:00	**17.12**
24/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	08:55:00	IMS		1925	121610	09:33:00	**16.90**
24/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	10:05:00	IMS		2027	121619	10:38:00	**15.02**
24/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS	B1		170504	10:10:00	IMS		2225	121621	10:51:00	**18.80**
24/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	10:20:00	IMS		1926	121622	10:56:00	**16.60**
24/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	11:20:00	IMS		2028	121626	11:57:00	**16.28**
24/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS	B1		170504	12:10:00	IMS		2226	121635	12:51:00	**18.90**
24/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	12:25:00	IMS		1927	121636	13:02:00	**17.90**
24/07/2023	Duffy Bros	KY14CYX	PILE ARISINGS	B1		170504	12:35:00	IMS		2029	121637	13:14:00	**16.92**
24/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS	B1		170504	13:30:00 PM	IMS		2227	121642	14:10:00	**19.94**
24/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	13:45:00 PM	IMS		1928	121643	14:15:00	**16.56**
24/07/2023	Duffy Bros	EU65XBW	PILE ARISINGS	B1		170504	14:50:00 PM	IMS		2228	121650	15:26:00	**18.16**
24/07/2023	Duffy Bros	EU65XBS	PILE ARISINGS	B1		170504	15:00:00 PM	IMS		1929	121651	15:32:00	**17.46**
25/07/2023	Duffy Bros	EU65XBS	B2	A		170504	07:05:00	Augher Skea, Drumree, Co.Meath		1818	398	08.25.00	**16.00**
25/07/2023	Duffy Bros	KY14CYX	B2	A		170504	07:10:00	Augher Skea, Drumree, Co.Meath		951	399	07:10:00	**16.00**
25/07/2023	Duffy Bros	KY14CYX	B2	A		170504	09:35:00	Augher Skea, Drumree, Co.Meath		952	400	09:35:00	**16.00**
25/07/2023	Duffy Bros	EU65XBS	B2	A		170504	09:40:00	Augher Skea, Drumree, Co.Meath		1819	401	09:40:00	**16.00**
25/07/2023	John Watson	GP17LMF	B2	A		170504	10:50:00	IMS		10487	121708	11:31:00	**14.44**
25/07/2023	Duffy Bros	KY14CYX	B2	A		170504	11:40:00	Augher Skea, Drumree, Co.Meath		953	403	11:40:00	**16.00**
25/07/2023	Duffy Bros	EU65XBS	B2	A		170504	11:50:00	Augher Skea, Drumree, Co.Meath		1820	404	11:50:00	**16.00**
25/07/2023	John Watson	GP17LMF	B2	A		170504	12:15:00	IMS		10488	121724	13:28:00	**13.72**
25/07/2023	John Watson	161MN1913	B2	A		170504	12:35:00	IMS		12028	121723	13:13:00	**14.66**
25/07/2023	Duffy Bros	KY14CYX	B2	A		170504	13:40:00	Augher Skea, Drumree, Co.Meath		954	405	13:40:00	**16.00**
25/07/2023	Duffy Bros	EU65XBS	B2	A		170504	14:10:00	Augher Skea, Drumree, Co.Meath		1821	407	14:10:00	**16.00**
25/07/2023	John Watson	161MN1913	PILE ARISINGS	B1		170504	13:50:00 PM	IMS		12029	121735	14:28:00	**13.02**
25/07/2023	John Watson	GP17LMF	PILE ARISINGS	B1		170504	14:10:00 PM	IMS		10489	121739	14:50:00	**17.72**
25/07/2023	John Watson	221D18557	PILE ARISINGS	B1		170504	15:10:00 PM	IMS		11219	121746	15:56:00	**17.20**
25/07/2023	John Watson	GP17LMF	PILE ARISINGS	B1		170504	15:25:00 PM	IMS		10490	121749	16:07:00	**19.72**
26/07/2023	Duffy Bros	EU65XBS	B2	A		170504	07:05:00	Augher Skea, Drumree, Co.Meath		1822	408	07:05:00	**14.00**
26/07/2023	Duffy Bros	EU65XBS	B2	A		170504	08:40:00	Augher Skea, Drumree, Co.Meath		1823	410	08:40:00	**14.00**
26/07/2023	Duffy Bros	KY14CYX	B2	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		955	411	09:00:00	**14.00**

26/07/2023	John Watson	221D18557	B2	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		11221	77464	09:59:00	**15.24**
26/07/2023	John Watson	171D62297	B2	A		170504	09:15:00	Kilsaran, Kilmessan, Co.Meath		11152	77466	10:09:00	**18.52**
26/07/2023	John Watson	GP17LMF	B2	A		170504	09:20:00	Kilsaran, Kilmessan, Co.Meath		10492	77468	10:11:00	**17.92**
26/07/2023	CMP	151D52535	B2	B1		170504	10:20:00	IMS		41582	121788	11:06:00	**19.20**
26/07/2023	Duffy Bros	KY14CYX	B2	A		170504	10:45:00	Augher Skea, Drumree, Co.Meath		956	412	10:45:00	**14.00**
26/07/2023	Duffy Bros	EU65XBS	B2	A		170504	11:00:00	Augher Skea, Drumree, Co.Meath		1824	413	11:00:00	**14.00**
26/07/2023	CMP	151D52535	B2	B1		170504	11:50:00	IMS		41583	121798	13:19:00	**20.34**
26/07/2023	Duffy Bros	EU65XBS	B2	A		170504	13:10:00	Augher Skea, Drumree, Co.Meath		1825	414	13:10:00	**14.00**
26/07/2023	John Watson	221D18557	B2	A		170504	13:30:00 PM	Kilsaran, Kilmessan, Co.Meath		11223	77518	14:26:00	**15.20**
26/07/2023	John Watson	GP17LMF	B2	A		170504	13:50:00 PM	Kilsaran, Kilmessan, Co.Meath		10494	77521	14:50:00	**17.86**
26/07/2023	John Watson	171D62297	B2	A		170504	13:50:00 PM	Kilsaran, Kilmessan, Co.Meath		11154	77519	14:40:00	**16.80**
26/07/2023	CMP	151D52535	B2	B1		170504	14:00:00 PM	IMS		41584	121809	14:44:00	**18.14**
26/07/2023	Duffy Bros	EU65XBS	B2	A		170504	15:00:00	Augher Skea, Drumree, Co.Meath		1826	415	15:00:00	**14.00**
26/07/2023	CMP	151D52535	B2	A		170504	15:30:00 PM	IMS		41585	121828	16:33:00	**22.20**
26/07/2023	CMP	151D52535	Clean Concrete	-		170101	08:50:00	IMS		41581	121772	09:33:00	**14.44**
26/07/2023	John Watson	221D18557	E	B1		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		11220	77439	08:04:00	**14.00**
26/07/2023	John Watson	171D62297	E	B1		170504	07:20:00	Kilsaran, Kilmessan, Co.Meath		11151	77443	08:08:00	**15.02**
26/07/2023	John Watson	GP17LMF	E	B1		170504	07:25:00	Kilsaran, Kilmessan, Co.Meath		10491	77444	08:14:00	**18.94**
26/07/2023	John Watson	221D18557	I	A		170504	11:05:00	Kilsaran, Kilmessan, Co.Meath		11222	77492	12:37:00	**15.96**
26/07/2023	John Watson	171D62297	I	A		170504	11:15:00	Kilsaran, Kilmessan, Co.Meath		11153	77494	12:44:00	**17.02**
26/07/2023	John Watson	GP17LMF	I	A		170504	11:40:00	Kilsaran, Kilmessan, Co.Meath		10493	77497	12:54:00	**19.82**
26/07/2023	CMP	151D52535	PILE ARISINGS	B1		170504	07:00:00	IMS		41580	121756	08:03:00	**18.46**
27/07/2023	John Watson	171D62297	B2	A		170504	14:40:00 PM	IMS		11160	121919	15:18:00	**16.48**
27/07/2023	John Watson	GP17LMF	E	B1		170504	07:00:00	IMS		10496	121831	08:03:00	**16.72**
27/07/2023	CMP	151D52535	E	B1		170504	07:00:00	IMS		41586	121839	08:13:00	**19.46**
27/07/2023	John Watson	171D62297	E	B1		170504	07:10:00	IMS		11161	121832	08:04:00	**17.56**
27/07/2023	John Watson	221D18557	E	B1		170504	07:15:00	IMS		11225	121835	08:07:00	**16.58**
27/07/2023	John Watson	GP17LMF	E	B1		170504	08:30:00	IMS		10497	121850	09:24:00	**19.94**
27/07/2023	John Watson	171D62297	E	B1		170504	08:50:00	IMS		11156	121853	09:34:00	**19.60**
27/07/2023	CMP	151D52535	E	B1		170504	08:55:00	IMS		41587	121859	09:51:00	**20.28**
27/07/2023	John Watson	221D18557	E	B1		170504	09:00:00	IMS		11226	121854	09:37:00	**13.90**
27/07/2023	Duffy Bros	EU65XBS	F1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		1827	416	07:20:00	**16.00**
27/07/2023	Duffy Bros	EU65XBS	F1	A		170504	09:10:00	Augher Skea, Drumree, Co.Meath		1828	417	09:10:00	**16.00**
27/07/2023	Duffy Bros	EU65XBS	F1	A		170504	10:50:00	Augher Skea, Drumree, Co.Meath		1829	418	10:50:00	**16.00**
27/07/2023	Duffy Bros	EU65XBS	F1	A		170504	13:00:00	Augher Skea, Drumree, Co.Meath		1830	419	13:00:00	**16.00**
27/07/2023	Duffy Bros	EU65XBS	F1	A		170504	14:35:00	Augher Skea, Drumree, Co.Meath		1831	420	14:35:00	**16.00**
27/07/2023	John Watson	GP17LMF	I	A		170504	10:10:00	IMS		10498	121869	10:48:00	**18.64**
27/07/2023	John Watson	171D62297	I	A		170504	10:15:00	IMS		11157	121871	10:54:00	**17.06**
27/07/2023	John Watson	221D18557	I	A		170504	10:20:00	IMS		11227	121873	10:58:00	**12.50**
27/07/2023	John Watson	GP17LMF	I	A		170504	11:27:00	IMS		10499	121889	12:32:00	**16.56**
27/07/2023	John Watson	171D62297	I	A		170504	11:35:00	IMS		11158	121891	12:40:00	**16.00**
27/07/2023	John Watson	GP17LMF	I	A		170504	13:10:00 PM	IMS		8478	121901	13:46:00	**17.20**
27/07/2023	John Watson	171D62297	I	A		170504	13:15:00 PM	IMS		11159	121905	13:57:00	**15.98**
27/07/2023	John Watson	221D18557	I	A		170504	13:30:00 PM	IMS		11229	121906	14:10:00	**14.78**
27/07/2023	John Watson	GP17LMF	I	A		170504	14:20:00 PM	IMS		8479	121913	15:04:00	**16.46**
27/07/2023	John Watson	221D18557	I 0-0.58m	B1		170504	11:40:00	IMS		11228	121894	12:59:00	**14.82**
27/07/2023	CMP	151D52535	I 0-0.58m	B1		170504	15:40:00 PM	IMS		41590	121929	16:26:00	**21.20**
28/07/2023	Duffy Bros	EU65XBS	F1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		1832	421	07:20:00	**16.00**
28/07/2023	Duffy Bros	KY14CYX	F1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		2229	422	07:20:00	**16.00**
28/07/2023	John Watson	221D18557	F1	A		170504	08:50:00	Kilsaran, Kilmessan, Co.Meath		11234	77673	09:38:00	**11.66**
28/07/2023	John Watson	GP17LMF	F1	A		170504	10:20:00	Kilsaran, Kilmessan, Co.Meath		8484	77691	11:11:00	**14.86**
28/07/2023	John Watson	221D18557	F1	A		170504	10:30:00	Kilsaran, Kilmessan, Co.Meath		11235	77693	11:35:00	**11.90**
28/07/2023	John Watson	171D62297	F1	A		170504	10:45:00	Kilsaran, Kilmessan, Co.Meath		11165	77694	11:39:00	**15.08**
28/07/2023	Duffy Bros	KY14CYX	F1	A		170504	11:30:00	Augher Skea, Drumree, Co.Meath		2231	427	11:30:00	**16.00**
28/07/2023	Duffy Bros	EU65XBS	F1	A		170504	11:45:00	Augher Skea, Drumree, Co.Meath		1834	428	11:45:00	**16.00**
28/07/2023	Duffy Bros	EU65XBS	F1	A		170504	13:25:00	Augher Skea, Drumree, Co.Meath		1835	430	13:25:00	**16.00**
28/07/2023	CMP	151D52535	F1 0-1.3m	B1		170504	10:10:00	IMS		41593	121965	10:54:00	**19.30**
28/07/2023	John Watson	171D62297	H1	A		170504	08:40:00	Kilsaran, Kilmessan, Co.Meath		11164	77674	09:39:00	**15.14**
28/07/2023	Duffy Bros	EU65XBS	H1	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		1833	424	09:00:00	**16.00**
28/07/2023	Duffy Bros	KY14CYX	H1	A		170504	09:40:00	Augher Skea, Drumree, Co.Meath		2230	426	09:40:00	**16.00**
28/07/2023	Duffy Bros	KY14CYX	H1	A		170504	13:10:00	Augher Skea, Drumree, Co.Meath		2232	429	13:10:00	**16.00**
28/07/2023	CMP	151D52535	H1 0-0.7m	B1		170504	08:45:00	IMS		41592	121953	09:32:00	**19.94**

28/07/2023	CMP	151D52535	H1 0-0.7m	B1		170504	11:40:00	IMS		41594	121978	13:04:00	**18.80**
28/07/2023	CMP	151D52535	H1 0-0.7m	B1		170504	13:50:00 PM	IMS		41595	121997	14:45:00	**19.70**
28/07/2023	John Watson	171D62297	I	A		170504	07:00:00	IMS		11163	121935	08:03:00	**14.74**
28/07/2023	CMP	151D52535	I	B1		170504	07:00:00	IMS		41591	121937	08:05:00	**19.58**
28/07/2023	John Watson	221D18557	I	A		170504	07:05:00	IMS		11233	121936	08:04:00	**12.24**
28/07/2023	John Watson	GP17LMF	I	A		170504	07:15:00	IMS		8482	121933	08:01:00	**15.78**
28/07/2023	John Watson	171D62297	I	A		170504	12:15:00	IMS		11166	121988	13:57:00	**15.88**
28/07/2023	John Watson	GP17LMF	I	A		170504	12:51:00	IMS		8485	121982	13:29:00	**16.44**
28/07/2023	John Watson	221D18557	I	A		170504	13:05:00 PM	IMS		11236	121986	13:45:00	**13.32**
31/07/2023	John Watson	GP17LMF	A3	B1		170504	13:15:00 PM	IMS		8488	122060	13:54:00	**19.80**
31/07/2023	John Watson	171D62297	A3	B1		170504	13:30:00 PM	IMS		11558	122063	14:16:00	**17.64**
31/07/2023	John Watson	221D18557	A3	B1		170504	13:30:00 PM	IMS		11387	122061	14:10:00	**16.40**
31/07/2023	Duffy Bros	EU65XBW	C1 0-1.32m	B2		170504	14:00:00 PM	IMS		538	122076	15:05:00	**17.40**
31/07/2023	John Watson	161MN1913	C1 0-1.32m	B2		170504	14:25:00 PM	IMS		11527	122079	15:12:00	**14.32**
31/07/2023	Duffy Bros	EU65XBS	C1 0-1.32m	B2		170504	14:30:00 PM	IMS		1839	122075	15:02:00	**17.66**
31/07/2023	Duffy Bros	KY14CYX	C1 0-1.32m	B2		170504	14:50:00 PM	IMS		971	122080	15:23:00	**18.04**
31/07/2023	Duffy Bros	EU65XBS	C1 0-1.32m	B2		170504	15:45:00 PM	IMS		1840	122091	16:30:00	**18.02**
31/07/2023	Duffy Bros	EU65XBW	C1 0-1.32m	B2		170504	15:50:00 PM	IMS		539	122092	16:31:00	**18.16**
31/07/2023	Duffy Bros	KY14CYX	C1 0-1.32m	B2		170504	16:02:00 PM	IMS		972	122093	16:37:00	**18.08**
31/07/2023	John Watson	GP17LMF	F	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		8486	77730	08:05:00	**14.32**
31/07/2023	John Watson	221D18557	F	A		170504	07:15:00	Kilsaran, Kilmessan, Co.Meath		11384	77733	08:08:00	**11.96**
31/07/2023	Duffy Bros	EU65XBW	F	A		170504	07:15:00	Augher Skea, Drumree, Co.Meath		535	432	07:15:00	**16.00**
31/07/2023	John Watson	171D62297	F	A		170504	07:20:00	Kilsaran, Kilmessan, Co.Meath		11555	77735	08:14:00	**14.38**
31/07/2023	Duffy Bros	EU65XBS	F	A		170504	07:50:00	Augher Skea, Drumree, Co.Meath		1836	431	07:50:00	**16.00**
31/07/2023	John Watson	171D62297	F	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		11556	77749	10:09:00	**14.40**
31/07/2023	John Watson	221D18557	F	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		11385	77748	10:07:00	**13.34**
31/07/2023	Duffy Bros	EU65XBS	F	A		170504	09:50:00	Augher Skea, Drumree, Co.Meath		1837	433	09:50:00	**16.00**
31/07/2023	Duffy Bros	EU65XBW	F	A		170504	09:55:00	Augher Skea, Drumree, Co.Meath		536	437	09:55:00	**16.00**
31/07/2023	John Watson	GP17LMF	F	A		170504	10:10:00	Kilsaran, Kilmessan, Co.Meath		8487	77762	11:37:00	**14.96**
31/07/2023	John Watson	171D62297	F	A		170504	11:10:00	Kilsaran, Kilmessan, Co.Meath		11557	77768	12:37:00	**14.84**
31/07/2023	John Watson	221D18557	F	A		170504	11:15:00	Kilsaran, Kilmessan, Co.Meath		11386	77767	12:29:00	**14.56**
31/07/2023	Duffy Bros	EU65XBW	H	A		170504	11:40:00	Augher Skea, Drumree, Co.Meath		537	438	11:40:00	**14.00**
31/07/2023	Duffy Bros	EU65XBS	H	A		170504	12:05:00	Augher Skea, Drumree, Co.Meath		1838	436	12:05:00	**16.00**
31/07/2023	Duffy Bros	KY14CYX	H	A		170504	13:05:00	Augher Skea, Drumree, Co.Meath		970	439	13:05:00	**16.00**
01/08/2023	Duffy Bros	EU65XBS	A3	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		1843	453	07:20:00	**14.00**
01/08/2023	Duffy Bros	KY14CYX	D	B1		170504	11:54:00	IMS		975	122168	13:56:00	**17.32**
01/08/2023	CMP	151D52535	D	B1		170504	12:40:00	IMS		41598	122181	13:27:00	**20.20**
01/08/2023	Duffy Bros	EU65XBS	D	B1		170504	12:42:00	IMS		1844	122186	14:00:00	**18.90**
01/08/2023	Duffy Bros	KY14CYX	D	B1		170504	13:15:00 PM	IMS		976	122184	13:56:00	**17.24**
01/08/2023	John Watson	171D62297	D	B1		170504	13:30:00 PM	IMS		11562	122193	14:20:00	**18.20**
01/08/2023	Duffy Bros	EU65XBW	D	B1		170504	13:35:00 PM	IMS		543	122190	14:15:00	**17.90**
01/08/2023	CMP	151D52535	D	B1		170504	14:10:00 PM	IMS		41599	122200	14:52:00	**18.24**
01/08/2023	Duffy Bros	KY14CYX	D	B1		170504	14:35:00 PM	IMS		977	122207	15:13:00	**17.34**
01/08/2023	Duffy Bros	EU65XBS	D	B1		170504	14:45:00 PM	IMS		1845	122222	15:54:00	**19.02**
01/08/2023	Duffy Bros	EU65XBW	D	B1		170504	14:55:00 PM	IMS		544	122224	15:57:00	**17.18**
01/08/2023	CMP	151D52535	D	B1		170504	15:35:00 PM	IMS		41600	122227	16:30:00	**19.34**
01/08/2023	Duffy Bros	KY14CYX	F1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		973	442	07:20:00	**16.00**
01/08/2023	Duffy Bros	EU65XBS	F1	A		170504	07:30:00	Augher Skea, Drumree, Co.Meath		1841	440	07:30:00	**16.00**
01/08/2023	Duffy Bros	EU65XBW	F1	A		170504	07:40:00	Augher Skea, Drumree, Co.Meath		540	441	07:40:00	**23.00**
01/08/2023	John Watson	171D62297	F1	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		11560	077836	10:06:00	**17.08**
01/08/2023	Duffy Bros	EU65XBW	F1	A		170504	09:20:00	Augher Skea, Drumree, Co.Meath		541	447	09:20:00	**14.00**
01/08/2023	Duffy Bros	EU65XBS	F1	A		170504	10:20:00	Augher Skea, Drumree, Co.Meath		1842	449	10:20:00	**14.00**
01/08/2023	CMP	151D52535	F1	A		170504	10:40:00	IMS		41597	122153	11:25:00	**20.50**
01/08/2023	Duffy Bros	EU65XBW	F2	A		170504	11:00:00	Augher Skea, Drumree, Co.Meath		542	450	11:00:00	**14.00**
01/08/2023	John Watson	171D62297	F2	A		170504	11:10:00	Kilsaran, Kilmessan, Co.Meath		11561	077865	12:40:00	**16.88**
01/08/2023	CMP	151D52535	I	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		41596	122127	09:51:00	**19.54**
01/08/2023	John Watson	GP17LMF	I	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		8489	077805	08:00:00	**14.86**
01/08/2023	John Watson	171D62297	I	A		170504	07:20:00	Kilsaran, Kilmessan, Co.Meath		11559	077811	08:11:00	**17.38**
02/08/2023	John Watson	GP17LMF	A3	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		8490	077913	08:01:00	**16.92**
02/08/2023	John Watson	171D62297	A3	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		11564	077914	08:02:00	**17.40**
02/08/2023	Duffy Bros	EU65XBW	A3	A		170504	07:15:00	Augher Skea, Drumree, Co.Meath		545	452	07:15:00	**14.00**
02/08/2023	Duffy Bros	EU65XBS	A3	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		1846	459	09:00:00	**14.00**

02/08/2023	Duffy Bros	EU65XBW	A3	A		170504	09:10:00	Augher Skea, Drumree, Co.Meath		546	460	09:10:00	**14.00**
02/08/2023	Duffy Bros	KY14CYX	A3	A		170504	09:15:00	IMS		979	122250	10:04:00	**19.84**
02/08/2023	John Watson	GP17LMF	A3	A		170504	09:15:00	Kilsaran, Kilmessan, Co.Meath		8495	077940	10:10:00	**19.38**
02/08/2023	John Watson	171D62297	A3	A		170504	09:25:00	Kilsaran, Kilmessan, Co.Meath		11565	077944	10:19:00	**21.20**
02/08/2023	Duffy Bros	KY14CYX	A3	A		170504	10:50:00	Augher Skea, Drumree, Co.Meath		980	464	10:50:00	**14.00**
02/08/2023	Duffy Bros	EU65XBW	A3	A		170504	10:50:00	Augher Skea, Drumree, Co.Meath		547	463	10:50:00	**14.00**
02/08/2023	John Watson	GP17LMF	A3	A		170504	11:10:00	Kilsaran, Kilmessan, Co.Meath		8496	077969	12:33:00	**18.86**
02/08/2023	Duffy Bros	EU65XBS	A3	A		170504	11:20:00	Augher Skea, Drumree, Co.Meath		1847	466	11:20:00	**14.00**
02/08/2023	John Watson	171D62297	A3	A		170504	11:25:00	Kilsaran, Kilmessan, Co.Meath		11566	77975	12:50:00	**17.30**
02/08/2023	Duffy Bros	EU65XBS	A3	A		170504	15:10:00	Augher Skea, Drumree, Co.Meath		1848	468	15:10:00	**14.00**
02/08/2023	Duffy Bros	EU65XBW	C1	A		170504	13:20:00	Augher Skea, Drumree, Co.Meath		548	465	13:20:00	**14.00**
02/08/2023	Duffy Bros	KY14CYX	C1	A		170504	13:25:00	Augher Skea, Drumree, Co.Meath		981	467	13:25:00	**14.00**
02/08/2023	Duffy Bros	KY14CYX	C1	A		170504	15:15:00	Augher Skea, Drumree, Co.Meath		982	469	15:15:00	**14.00**
02/08/2023	John Watson	171D62297	F1	A		170504	13:50:00 PM	IMS		11567	122289	14:28:00	**19.94**
02/08/2023	John Watson	GP17LMF	F1 0-0.1.3	B1		170504	13:35:00 PM	IMS		8497	122287	14:18:00	**19.22**
03/08/2023	John Watson	GP17LMF	C1	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		5697	78001	08:02:00	**14.10**
03/08/2023	Duffy Bros	EU65XBS	C1	A		170504	07:10:00	Augher Skea, Drumree, Co.Meath		1849	471	07:10:00	**14.00**
03/08/2023	Duffy Bros	EU65XBW	C1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		549	472	07:20:00	**14.00**
03/08/2023	Duffy Bros	KY14CYX	C1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		983	473	07:20:00	**14.00**
03/08/2023	McGuire Haulage	212KK4	C1	A		170504	07:35:00	Kilsaran, Kilmessan, Co.Meath		604081	78022	08:41:00	**26.12**
03/08/2023	McGuire Haulage	231KK1238	C1	A		170504	08:00:00	Kilsaran, Kilmessan, Co.Meath		604103	78026	08:56:00	**24.84**
03/08/2023	McGuire Haulage	231KK1240	C1	A		170504	08:10:00	Kilsaran, Kilmessan, Co.Meath		604113	78028	09:10:00	**22.42**
03/08/2023	Duffy Bros	EU65XBW	C1	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		550	475	09:00:00	**14.00**
03/08/2023	Duffy Bros	EU65XBS	C1	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		1850	474	09:00:00	**14.00**
03/08/2023	Duffy Bros	KY14CYX	C1	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		984	476	09:00:00	**14.00**
03/08/2023	McGuire Haulage	212KK4	C1	A		170504	09:50:00	Kilsaran, Kilmessan, Co.Meath		604190	78057	11:04:00	**23.96**
03/08/2023	Duffy Bros	EU65XBS	C1	A		170504	11:00:00	Augher Skea, Drumree, Co.Meath		1851	486	11:00:00	**14.00**
03/08/2023	Duffy Bros	KY14CYX	G	B1		170504	13:00:00 PM	IMS		986	122417	13:51:00	**17.94**
03/08/2023	Duffy Bros	EU65XBW	G	B1		170504	13:10:00 PM	IMS		552	122420	13:55:00	**19.50**
03/08/2023	Duffy Bros	EU65XBS	G	B1		170504	13:15:00 PM	IMS		1852	122422	14:00:00	**18.36**
03/08/2023	Duffy Bros	KY14CYX	G	B1		170504	14:35:00 PM	IMS		987	122436	15:12:00	**18.90**
03/08/2023	Duffy Bros	EU65XBW	G	B1		170504	14:45:00 PM	IMS		553	122447	15:49:00	**21.86**
03/08/2023	Duffy Bros	EU65XBS	G	B1		170504	14:50:00 PM	IMS		1853	122446	15:48:00	**19.66**
03/08/2023	Duffy Bros	EU65XBW	I	A		170504	10:30:00	Augher Skea, Drumree, Co.Meath		551	484	10:30:00	**14.00**
03/08/2023	Duffy Bros	KY14CYX	I	A		170504	11:25:00	Augher Skea, Drumree, Co.Meath		985	489	11:25:00	**14.00**
03/08/2023	Duffy Bros	KY14CYX	I	A		170504	15:50:00	Augher Skea, Drumree, Co.Meath		988	497	15:50:00	**14.00**
04/08/2023	Duffy Bros	KY14CYX	G 0-1.2m	B1		170504	14:00:00 PM	IMS		993	122552	14:46:00	**20.96**
04/08/2023	John Watson	GP17LMF	I	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		11115	78127	08:02:00	**18.10**
04/08/2023	McGuire Haulage	212KK957	I	A		170504	07:15:00	Kilsaran, Kilmessan, Co.Meath		604825	78132	08:13:00	**16.72**
04/08/2023	McGuire Haulage	221KK668	I	A		170504	07:20:00	Kilsaran, Kilmessan, Co.Meath		604835	78133	08:14:00	**13.40**
04/08/2023	Duffy Bros	EU65XBW	I	A		170504	07:30:00	Augher Skea, Drumree, Co.Meath		554	500	07:30:00	**14.00**
04/08/2023	Duffy Bros	EU65XBS	I	A		170504	07:30:00	Augher Skea, Drumree, Co.Meath		1854	499	07:30:00	**22.00**
04/08/2023	McGuire Haulage	171KK1481	I	A		170504	07:50:00	Kilsaran, Kilmessan, Co.Meath		604859	78158	09:00:00	**18.70**
04/08/2023	John Watson	GP17LMF	I	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		11116	78163	09:57:00	**18.72**
04/08/2023	McGuire Haulage	212KK957	I	A		170504	09:25:00	Kilsaran, Kilmessan, Co.Meath		604903	78171	10:14:00	**17.94**
04/08/2023	McGuire Haulage	221KK668	I	A		170504	09:30:00	Kilsaran, Kilmessan, Co.Meath		604913	78173	10:17:00	**16.78**
04/08/2023	McGuire Haulage	171KK1481	I	A		170504	10:25:00	Kilsaran, Kilmessan, Co.Meath		604963	78192	11:28:00	**18.74**
04/08/2023	Duffy Bros	EU65XBW	I	A		170504	10:40:00	Augher Skea, Drumree, Co.Meath		556	506	10:40:00	**14.00**
04/08/2023	Duffy Bros	EU65XBS	I	A		170504	11:00:00	Augher Skea, Drumree, Co.Meath		1856	507	11:00:00	**14.00**
04/08/2023	McGuire Haulage	221KK668	I	A		170504	12:00:00	Kilsaran, Kilmessan, Co.Meath		605045	78201	12:51:00	**14.08**
04/08/2023	Duffy Bros	EU65XBS	I	A		170504	13:00:00 PM	IMS		1857	122530	13:27:00	**19.42**
04/08/2023	McGuire Haulage	171KK1481	I	A		170504	13:25:00 PM	Kilsaran, Kilmessan, Co.Meath		605102	78225	14:24:00	**17.84**
04/08/2023	Duffy Bros	EU65XBS	I 0-0.56m	B1		170504	09:00:00	IMS		1855	122484	09:40:00	**17.76**
04/08/2023	Duffy Bros	EU65XBW	I 0-0.56m	B1		170504	09:15:00	IMS		555	122490	09:52:00	**22.20**
04/08/2023	John Watson	GP17LMF	I 0-0.56m	B1		170504	11:10:00	IMS		11117	122518	12:17:00	**19.36**
04/08/2023	Duffy Bros	KY14CYX	I 0-0.56m	B1		170504	12:15:00	IMS		992	122524	12:57:00	**19.62**
04/08/2023	John Watson	191D918	I 0-0.56m	B1		170504	12:31:00	IMS		6586	122526	13:15:00	**19.24**
04/08/2023	Duffy Bros	EU65XBW	I 0-0.56m	B1		170504	13:00:00 PM	IMS		557	122535	13:44:00	**20.02**
08/08/2023	Duffy Bros	EU65XBW	C1	A		170504	13:50:00	IMS		564	122682	14:27:00	**17.46**
08/08/2023	CMP	152D32436	C2	A		170504	14:00:00	IMS		41528	122690	14:42:00	**15.76**
08/08/2023	Duffy Bros	MT65HYR	C2	A		170504	14:45:00	IMS		2304	122707	15:22:00	**19.08**
08/08/2023	Duffy Bros	KY14CYX	C2	A		170504	13:40:00	IMS		2240	122679	14:22:00	**17.78**

08/08/2023	John Watson	161D66249	C2	A		170504	14:20:00	IMS		10088	122695	14:55:00	**18.68**
08/08/2023	John Watson	161MN1913	C2	A		170504	14:10:00	IMS		12189	122692	14:48:00	**17.30**
08/08/2023	Duffy Bros	KY14CYX	C2	A		170504	15:10:00	IMS		2241	122720	15:56:00	**23.40**
08/08/2023	Duffy Bros	EU65XBS	C2	A		170504	13:55:00	IMS		1861	122687	14:37:00	**16.94**
08/08/2023	Duffy Bros	EU65XBS	C2	A		170504	15:30:00	IMS		1862	122726	16:18:00	**20.48**
08/08/2023	CMP	152D32436	Clean Concrete			170101	07:30:00	IMS		41524	122652	12:38:00	**17.02**
08/08/2023	Duffy Bros	KY14CYX	G1	B1		170504	09:00:00	IMS		2235	122576	09:34:00	**17.82**
08/08/2023	John Watson	161D66249	G1	B1		170504	09:20:00	IMS		10085	122593	10:10:00	**18.46**
08/08/2023	Duffy Bros	KY14CYX	G1	B1		170504	07:10:00	IMS		2233	122680	14:24:00	**15.28**
08/08/2023	Duffy Bros	EU65XBS	G1	B1		170504	08:45:00	IMS		1858	122574	09:29:00	**18.92**
08/08/2023	CMP	152D32436	G1	B1		170504	09:10:00	IMS		41525	122582	09:47:00	**20.22**
08/08/2023	CMP	152D32436	G1	B1		170504	12:20:00	IMS		41527	122665	13:16:00	**20.54**
08/08/2023	CMP	152D32436	G1	B1		170504	10:30:00	IMS		41526	122623	11:11:00	**18.38**
08/08/2023	CMP	151D52532	G1	B1		170504	07:50:00	IMS		38988	122563	08:38:00	**20.62**
08/08/2023	Duffy Bros	MT65HYR	G1	B1		170504	07:15:00	IMS		2302	122651	12:36:00	**17.30**
08/08/2023	Duffy Bros	EU65XBS	G1	B1		170504	10:10:00	IMS		1859	122621	11:05:00	**19.46**
08/08/2023	Duffy Bros	EU65XBW	G1	B1		170504	09:30:00	IMS		566	122598	10:18:00	**19.90**
08/08/2023	Duffy Bros	MT65HYR	I	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		2301	510	09:00:00	**14.00**
08/08/2023	Duffy Bros	EU65XBW	I	A		170504	15:20:00	IMS		568	122725	16:17:00	**24.78**
08/08/2023	Duffy Bros	EU65XBS	I	A		170504	11:45:00	IMS		1860	122664	13:13:00	**22.66**
08/08/2023	John Watson	161MN1913	I	A		170504	12:50:00	IMS		12188	122669	13:36:00	**15.06**
08/08/2023	John Watson	161D66249	I	A		170504	10:45:00	IMS		10086	122628	11:21:00	**18.72**
08/08/2023	John Watson	161D66249	I	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		10094	78242	08:02:00	**16.70**
08/08/2023	Duffy Bros	MT65HYR	I	A		170504	10:50:00	IMS		2301	122633	11:43:00	**17.04**
08/08/2023	John Watson	161D66249	I	A		170504	13:00:00	IMS		10087	122671	13:42:00	**18.02**
08/08/2023	Duffy Bros	MT65HYR	I - Subsoil	A		170504	13:10:00	IMS		2303	122675	13:57:00	**18.60**
08/08/2023	Duffy Bros	EU65XBW	I	A		170504	11:25:00	IMS		567	122657	12:57:00	**20.14**
08/08/2023	Duffy Bros	KY14CYX	I	A		170504	10:15:00	IMS		2238	122620	11:00:00	**17.26**
08/08/2023	Duffy Bros	MT65HYR	I	A		170504	16:00:00	IMS		2305	122732	16:40:00	**20.78**
08/08/2023	John Watson	161D66249	I	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		10094	78242	08:02:00	**16.70**
08/08/2023	Duffy Bros	MT65HYR	I	A		170504	12:40:00	IMS		2303	122675	13:57:00	**18.66**
09/08/2023	McGuire Haulage	231KK1240	F2	A		170504	15:20:00	Kilsaran, Kilmessan, Co.Meath		606618	78318	16:14:00	**30.80**
09/08/2023	McGuire Haulage	231KK1240	F2	A		170504	09:00:00	Kilsaran, Kilmessan, Co.Meath		606350	78284	09:54:00	**27.10**
09/08/2023	Duffy Bros	EU65XBW	F2	A		170504	09:15:00	Augher Skea, Drumree, Co.Meath		570	516	09:15:00	**14.00**
09/08/2023	Duffy Bros	MT65HYR	F2	A		170504	09:20:00	Augher Skea, Drumree, Co.Meath		2307	514	09:20:00	**14.00**
09/08/2023	Duffy Bros	EU65XBS	F2	A		170504	09:25:00	Augher Skea, Drumree, Co.Meath		1864	515	09:25:00	**14.00**
09/08/2023	McGuire Haulage	212KK4	F2	A		170504	09:35:00	Kilsaran, Kilmessan, Co.Meath		606380	78289	10:31:00	**27.46**
09/08/2023	John Watson	161D66249	F2	A		170504	10:10:00	Kilsaran, Kilmessan, Co.Meath		10092	78294	11:07:00	**18.44**
09/08/2023	McGuire Haulage	212KK4	F2	A		170504	11:50:00	Kilsaran, Kilmessan, Co.Meath		606462	78303	13:19:00	**24.36**
09/08/2023	McGuire Haulage	212KK4	F2	A		170504	12:40:00	Kilsaran, Kilmessan, Co.Meath		606496	78308	14:11:00	**24.58**
09/08/2023	Duffy Bros	MT65HYR	F2	A		170504	13:10:00	Augher Skea, Drumree, Co.Meath		2309	517	13:10:00	**14.00**
09/08/2023	Duffy Bros	EU65XBS	F2	A		170504	14:00:00	Augher Skea, Drumree, Co.Meath		1866	518	14:00:00	**14.00**
09/08/2023	Duffy Bros	EU65XBW	F2	A		170504	14:05:00	Augher Skea, Drumree, Co.Meath		571	519	14:05:00	**14.00**
09/08/2023	McGuire Haulage	212KK4	F2	A		170504	14:30:00 PM	Kilsaran, Kilmessan, Co.Meath		606580	78317	15:32:00	**24.56**
09/08/2023	John Watson	161MN1913	F2 0-1.3m	B1		170504	08:40:00	IMS		12193	122769	09:17:00	**16.92**
09/08/2023	John Watson	161D66249	F2 0-1.3m	B1		170504	08:50:00	IMS		10091	122770	09:27:00	**20.60**
09/08/2023	Duffy Bros	EU65XBS	F2 0-1.3m	B1		170504	11:50:00	IMS		1865	122823	12:33:00	**18.74**
09/08/2023	Duffy Bros	EU65XBW	F2 0-1.3m	B1		170504	12:00:00	IMS		572	122824	12:42:00	**18.84**
09/08/2023	John Watson	161D66249	F2 0-1.3m	B1		170504	12:50:00	IMS		10093	122839	13:26:00	**18.00**
09/08/2023	John Watson	161D66249	F2 0-1.3m	B1		170504	14:10:00 PM	IMS		10094	122860	14:44:00	**18.22**
09/08/2023	John Watson	161MN1913	G1	A		170504	07:00:00	IMS		12192	122735	08:01:00	**12.92**
09/08/2023	John Watson	161D66249	G1	A		170504	07:10:00	IMS		10090	122737	08:03:00	**18.36**
09/08/2023	McGuire Haulage	231KK1240	G1	A		170504	07:15:00	IMS		606176	122739	08:06:00	**25.08**
09/08/2023	Duffy Bros	EU65XBS	G1	A		170504	07:20:00	IMS		1863	122754	08:30:00	**19.16**
09/08/2023	Duffy Bros	EU65XBW	G1	A		170504	07:30:00	IMS		569	122749	08:19:00	**19.56**
09/08/2023	Duffy Bros	MT65HYR	G1	A		170504	07:35:00	IMS		2306	122755	08:31:00	**18.86**
09/08/2023	McGuire Haulage	212KK4	G1	A		170504	07:46:00	IMS		606259	122757	08:39:00	**27.22**
09/08/2023	Duffy Bros	MT65HYR	H1	B1		170504	11:00:00	IMS		2308	122816	11:40:00	**19.14**
09/08/2023	Duffy Bros	MT65HYR	H1	A		170504	14:55:00	Augher Skea, Drumree, Co.Meath		2310	520	14:55:00	**14.00**
10/08/2023	McGuire Haulage	231KK1240	F1	A		170504	11:30:00	Kilsaran, Kilmessan, Co.Meath		607119	78353	13:03:00	**26.16**
10/08/2023	John Watson	171D62297	E 0-0.8m	B1		170504	13:35:00 PM	IMS		10684	123021	14:19:00	**20.84**
10/08/2023	McGuire Haulage	231KK1240	F1	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		606912	78320	08:01:00	**33.72**

10/08/2023	McGuire Haulage	212KK4	F1	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		606961	78323	08:08:00	**32.56**
10/08/2023	Duffy Bros	EU65XBS	F1	A		170504	07:15:00	Augher Skea, Drumree, Co.Meath		1867	522	07:15:00	**14.00**
10/08/2023	Duffy Bros	MT65HYR	F1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		2311	523	07:20:00	**14.00**
10/08/2023	Duffy Bros	KY14CYX	F1	A		170504	08:10:00	Augher Skea, Drumree, Co.Meath		2246	524	08:10:00	**14.00**
10/08/2023	John Watson	171D62297	F1	A		170504	08:45:00	Kilsaran, Kilmessan, Co.Meath		10682	78332	09:38:00	**24.34**
10/08/2023	Duffy Bros	EU65XBS	F1	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		1868	525	09:00:00	**14.00**
10/08/2023	McGuire Haulage	231KK1240	F1	A		170504	09:05:00	Kilsaran, Kilmessan, Co.Meath		607038	78337	10:06:00	**33.78**
10/08/2023	Duffy Bros	MT65HYR	F1	A		170504	09:10:00	Augher Skea, Drumree, Co.Meath		2312	526	09:10:00	**14.00**
10/08/2023	McGuire Haulage	212KK4	F1	A		170504	09:20:00	Kilsaran, Kilmessan, Co.Meath		607057	78340	10:41:00	**33.36**
10/08/2023	Duffy Bros	KY14CYX	F1	A		170504	10:10:00	Kilsaran, Kilmessan, Co.Meath		2247	528	10:10:00	**14.00**
10/08/2023	John Watson	171D62297	F1	A		170504	10:45:00	Kilsaran, Kilmessan, Co.Meath		10683	78350	12:14:00	**18.62**
10/08/2023	Duffy Bros	EU65XBS	F1	A		170504	11:15:00	Augher Skea, Drumree, Co.Meath		1869	529	11:15:00	**14.00**
10/08/2023	Duffy Bros	MT65HYR	F1	A		170504	11:15:00	Augher Skea, Drumree, Co.Meath		2313	530	11:15:00	**14.00**
10/08/2023	McGuire Haulage	212KK4	F1	A		170504	11:50:00	Kilsaran, Kilmessan, Co.Meath		607122	78360	13:26:00	**28.82**
10/08/2023	Duffy Bros	KY14CYX	F1	A		170504	12:30:00	Augher Skea, Drumree, Co.Meath		2248	532	12:30:00	**14.00**
10/08/2023	Duffy Bros	MT65HYR	F1	A		170504	13:15:00	Augher Skea, Drumree, Co.Meath		2314	533	13:15:00	**14.00**
10/08/2023	Duffy Bros	EU65XBS	F1	A		170504	13:30:00	Augher Skea, Drumree, Co.Meath		1870	534	13:30:00	**14.00**
10/08/2023	McGuire Haulage	212KK4	F1	A		170504	14:45:00 PM	Kilsaran, Kilmessan, Co.Meath		607253	78375	15:58:00	**31.60**
10/08/2023	McGuire Haulage	231KK1240	F1	A		170504	15:00:00 PM	Kilsaran, Kilmessan, Co.Meath		607263	78376	16:07:00	**32.38**
10/08/2023	Duffy Bros	KY14CYX	F1	A		170504	15:05:00	Augher Skea, Drumree, Co.Meath		2250	535	15:05:00	**14.00**
11/08/2023	John Watson	221D18557	F1	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		7450	78378	08:02:00	**18.26**
11/08/2023	John Watson	171D62297	F1	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		12097	78379	08:03:00	**21.90**
11/08/2023	McGuire Haulage	231KK1240	F1	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		607537	78383	08:08:00	**31.84**
11/08/2023	McGuire Haulage	212KK3	F1	A		170504	08:10:00	Kilsaran, Kilmessan, Co.Meath		607513	78390	09:00:00	**33.26**
11/08/2023	Duffy Bros	EU65XBW	F2	A		170504	07:35:00	Augher Skea, Drumree, Co.Meath		573	538	07:35:00	**14.00**
11/08/2023	McGuire Haulage	171KK1481	F2	A		170504	08:00:00	Kilsaran, Kilmessan, Co.Meath		607640	78391	09:05:00	**23.38**
11/08/2023	McGuire Haulage	212KK4	F2	A		170504	09:30:00	Kilsaran, Kilmessan, Co.Meath		607711	78401	10:31:00	**32.72**
11/08/2023	Duffy Bros	EU65XBS	F2	A		170504	07:35:00	Augher Skea, Drumree, Co.Meath		1871	539	07:35:00	**14.00**
11/08/2023	John Watson	221D18557	F2	A		170504	11:15:00	Kilsaran, Kilmessan, Co.Meath		11277	78412	12:18:00	**17.16**
11/08/2023	Duffy Bros	MT65HYR	H1	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		2315	536	07:20:00	**14.00**
11/08/2023	McGuire Haulage	212KK4	H1	A		170504	07:30:00	Kilsaran, Kilmessan, Co.Meath		607605	78385	08:25:00	**29.20**
11/08/2023	Duffy Bros	KY14CYX	H1	A		170504	07:45:00	Augher Skea, Drumree, Co.Meath		2249	540	07:45:00	**14.00**
11/08/2023	McGuire Haulage	221KK1010	H1	A		170504	07:50:00	Kilsaran, Kilmessan, Co.Meath		607639	78389	08:58:00	**31.92**
11/08/2023	John Watson	221D18557	H1	A		170504	09:00:00	Kilsaran, Kilmessan, Co.Meath		11276	78394	09:47:00	**18.78**
11/08/2023	Duffy Bros	MT65HYR	H1	A		170504	09:05:00	Augher Skea, Drumree, Co.Meath		2316	541	09:05:00	**14.00**
11/08/2023	John Watson	171D62297	H1	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		12098	78397	09:58:00	**20.02**
11/08/2023	McGuire Haulage	231KK1240	H1	A		170504	09:15:00	Kilsaran, Kilmessan, Co.Meath		607692	78398	10:13:00	**33.24**
11/08/2023	Duffy Bros	KY14CYX	H1	A		170504	09:20:00	Augher Skea, Drumree, Co.Meath		2251	543	09:20:00	**14.00**
11/08/2023	Duffy Bros	KY14CYX	H1	A		170504	11:10:00	Augher Skea, Drumree, Co.Meath		2252	546	11:10:00	**14.00**
11/08/2023	Duffy Bros	EU65XBS	H1	A		170504	09:45:00	Augher Skea, Drumree, Co.Meath		1872	544	09:45:00	**14.00**
11/08/2023	McGuire Haulage	212KK3	H1	A		170504	10:05:00	Kilsaran, Kilmessan, Co.Meath		607644	78403	11:00:00	**27.84**
11/08/2023	McGuire Haulage	171KK1481	H1	A		170504	10:20:00	Kilsaran, Kilmessan, Co.Meath		607682	78410	11:29:00	**19.74**
11/08/2023	McGuire Haulage	212KK1010	H1	A		170504	10:30:00	Kilsaran, Kilmessan, Co.Meath		607721	78409	11:32:00	**30.08**
11/08/2023	Duffy Bros	MT65HYR	H1	A		170504	11:10:00	Kilsaran, Kilmessan, Co.Meath		2317	545	11:10:00	**14.00**
11/08/2023	McGuire Haulage	231KK1240	H1	A		170504	11:20:00	Kilsaran, Kilmessan, Co.Meath		607817	78416	12:51:00	**29.24**
11/08/2023	John Watson	171D62297	H1	A		170504	11:20:00	Kilsaran, Kilmessan, Co.Meath		12099	78413	12:29:00	**19.70**
11/08/2023	Duffy Bros	EU65XBS	H1	A		170504	11:25:00	Augher Skea, Drumree, Co.Meath		1873	549	11:25:00	**14.00**
11/08/2023	McGuire Haulage	212KK4	H1	A		170504	11:40:00	Kilsaran, Kilmessan, Co.Meath		607822	78421	13:13:00	**32.64**
11/08/2023	McGuire Haulage	221KK1010	H1	A		170504	12:35:00	Kilsaran, Kilmessan, Co.Meath		607866	78425	14:08:00	**29.96**
11/08/2023	McGuire Haulage	212KK3	H1	A		170504	12:40:00	Kilsaran, Kilmessan, Co.Meath		607839	78427	14:27:00	**32.36**
11/08/2023	Duffy Bros	MT65HYR	H1	A		170504	13:00:00	Augher Skea, Drumree, Co.Meath		2318	551	13:00:00	**14.00**
11/08/2023	Duffy Bros	KY14CYX	H1	A		170504	13:10:00	Augher Skea, Drumree, Co.Meath		2253	552	13:10:00	**14.00**
11/08/2023	Duffy Bros	EU65XBS	H1	A		170504	13:45:00	Augher Skea, Drumree, Co.Meath		1874	553	13:45:00	**14.00**
11/08/2023	John Watson	171KK1481	H2	A		170504	13:15:00 PM	Kilsaran, Kilmessan, Co.Meath		607891	78426	14:18:00	**11.62**
11/08/2023	John Watson	221D18557	H2	B1		170504	13:25:00 PM	IMS		11278	123174	14:03:00	**18.64**
11/08/2023	John Watson	171D62297	H2	B1		170504	13:40:00 PM	IMS		12100	123181	14:19:00	**21.26**
11/08/2023	McGuire Haulage	231KK1240	H2	A		170504	13:55:00 PM	Kilsaran, Kilmessan, Co.Meath		607921	78428	15:01:00	**32.42**
11/08/2023	McGuire Haulage	212KK4	H2	A		170504	14:25:00 PM	Kilsaran, Kilmessan, Co.Meath		607953	78430	15:22:00	**30.08**
11/08/2023	CMP	151D52535	H2	A		170504	14:40:00 PM	IMS		42055	123206	15:32:00	**26.04**
11/08/2023	CMP	152D32436	H2	A		170504	14:45:00 PM	IMS		41533	123192	14:40:00	**22.18**
11/08/2023	McGuire Haulage	231KK1240	H1	A		170504	09:11:00	IMS		607692	078398	05:02:24	**33.24**
11/08/2023	McGuire Haulage	221KK1010	H1	A		170504	09:46:00	IMS		607721	078409	10:19:12	**30.08**

14/08/2023	Duffy Bros	EU65XBS	F2	A		170504	08:50:00	Augher Skea, Drumree, Co.Meath		1880	557	08:50:00	**14.00**
14/08/2023	Duffy Bros	MT65HYR	F2	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		2325	559	09:10:00	**14.00**
14/08/2023	McGuire Haulage	212KK4	F2	A		170504	09:35:00	Kilsaran, Kilmessan, Co.Meath		608533	78450	10:36:00	**33.20**
14/08/2023	McGuire Haulage	191KK1073	H1	A		170504	08:15:00	Kilsaran, Kilmessan, Co.Meath		608499	78442	09:19:00	**24.14**
14/08/2023	McGuire Haulage	171KK1481	H1	A		170504	10:15:00	Kilsaran, Kilmessan, Co.Meath		608573	78453	11:08:00	**22.04**
14/08/2023	McGuire Haulage	191KK1073	H1	A		170504	10:50:00	Kilsaran, Kilmessan, Co.Meath		608595	78458	11:55:00	**22.44**
14/08/2023	McGuire Haulage	231KK1238	H1	A		170504	11:25:00	Kilsaran, Kilmessan, Co.Meath		608619	78465	13:23:00	**25.28**
14/08/2023	McGuire Haulage	212KK3	H1	A		170504	11:30:00	Kilsaran, Kilmessan, Co.Meath		608624	78466	13:24:00	**27.14**
14/08/2023	McGuire Haulage	231KK1240	H1	A		170504	11:35:00	Kilsaran, Kilmessan, Co.Meath		608631	78463	13:04:00	**27.44**
14/08/2023	McGuire Haulage	212KK4	H1	A		170504	11:45:00	Kilsaran, Kilmessan, Co.Meath		608632	78434	08:04:00	**31.32**
14/08/2023	McGuire Haulage	171KK1481	H1	A		170504	12:15:00	Kilsaran, Kilmessan, Co.Meath		608620	78471	13:58:00	**19.74**
14/08/2023	McGuire Haulage	231KK1240	H2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		608362	78464	13:19:00	**30.24**
14/08/2023	McGuire Haulage	212KK4	H2	A		170504	07:05:00	Kilsaran, Kilmessan, Co.Meath		608435	78435	08:06:00	**32.62**
14/08/2023	Duffy Bros	EU65XBW	H2	A		170504	07:15:00	Augher Skea, Drumree, Co.Meath		582	555	07:15:00	**14.00**
14/08/2023	Duffy Bros	MT65HYR	H2	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		2324	556	07:20:00	**19.00**
14/08/2023	McGuire Haulage	171KK1481	H2	A		170504	08:00:00	Kilsaran, Kilmessan, Co.Meath		608418	78438	08:57:00	**20.74**
14/08/2023	McGuire Haulage	231KK1239	H2	A		170504	08:05:00	Kilsaran, Kilmessan, Co.Meath		608497	78439	09:00:00	**30.04**
14/08/2023	Duffy Bros	EU65XBW	H2	A		170504	09:00:00	Augher Skea, Drumree, Co.Meath		583	558	09:00:00	**14.00**
14/08/2023	McGuire Haulage	231KK1238	H2	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		608534	78447	10:16:00	**31.28**
14/08/2023	McGuire Haulage	212KK3	H2	A		170504	09:20:00	Kilsaran, Kilmessan, Co.Meath		608532	78448	10:18:00	**31.04**
14/08/2023	McGuire Haulage	231KK1240	H2	A		170504	09:25:00	Kilsaran, Kilmessan, Co.Meath		608529	78451	10:26:00	**32.84**
14/08/2023	McGuire Haulage	231KK1239	H2	A		170504	10:10:00	Kilsaran, Kilmessan, Co.Meath		608572	78456	11:34:00	**32.54**
14/08/2023	Duffy Bros	EU65XBS	H2	A		170504	10:25:00	Augher Skea, Drumree, Co.Meath		1881	562	10:25:00	**14.00**
14/08/2023	Duffy Bros	EU65XBW	H2	A		170504	10:35:00	Augher Skea, Drumree, Co.Meath		584	563	10:35:00	**14.00**
14/08/2023	Duffy Bros	MT65HYR	H2	A		170504	10:45:00	Augher Skea, Drumree, Co.Meath		2326	564	10:45:00	**14.00**
14/08/2023	McGuire Haulage	231KK1239	H2	A		170504	12:40:00	Kilsaran, Kilmessan, Co.Meath		608659	78472	14:04:00	**29.72**
14/08/2023	Duffy Bros	MT65HYR	H2	A		170504	13:00:00	Augher Skea, Drumree, Co.Meath		2327	566	13:00:00	**14.00**
14/08/2023	Duffy Bros	EU65XBS	H2	A		170504	13:10:00	Augher Skea, Drumree, Co.Meath		1882	567	13:10:00	**14.00**
14/08/2023	Duffy Bros	EU65XBW	H2	A		170504	13:20:00	Augher Skea, Drumree, Co.Meath		585	568	13:20:00	**22.00**
14/08/2023	McGuire Haulage	191KK1073	H2	A		170504	14:00:00	Kilsaran, Kilmessan, Co.Meath		608710	78479	15:07:00	**23.90**
14/08/2023	McGuire Haulage	231KK1240	H2	A		170504	14:10:00	Kilsaran, Kilmessan, Co.Meath		608713	78478	15:06:00	**31.14**
14/08/2023	McGuire Haulage	231KK1238	H2	A		170504	14:25:00	Kilsaran, Kilmessan, Co.Meath		608729	78482	15:23:00	**22.84**
14/08/2023	McGuire Haulage	212KK4	H2	A		170504	14:25:00	Kilsaran, Kilmessan, Co.Meath		608723	78481	15:17:00	**25.98**
14/08/2023	McGuire Haulage	212KK3	H2	A		170504	14:35:00	Kilsaran, Kilmessan, Co.Meath		608728	78484	15:27:00	**28.68**
14/08/2023	Duffy Bros	MT65HYR	H2	A		170504	14:50:00	Augher Skea, Drumree, Co.Meath		2328	569	14:50:00	**14.00**
14/08/2023	McGuire Haulage	171KK1481	H2	A		170504	15:00:00	Kilsaran, Kilmessan, Co.Meath		608754	78488	16:01:00	**22.50**
14/08/2023	Duffy Bros	EU65XBW	H2	A		170504	15:15:00	Augher Skea, Drumree, Co.Meath		586	570	15:15:00	**22.00**
14/08/2023	McGuire Haulage	231KK1239	H2	A		170504	15:20:00	Kilsaran, Kilmessan, Co.Meath		608758	78491	16:07:00	**27.38**
14/08/2023	Duffy Bros	EU65XBS	H2	A		170504	15:25:00	Augher Skea, Drumree, Co.Meath		1883	571	15:25:00	**14.00**
15/08/2023	McGuire Haulage	231KK1239	H1	A		170504	08:30:00	Kilsaran, Kilmessan, Co.Meath		609216	78501	09:24:00	**27.02**
15/08/2023	McGuire Haulage	231KK1240	H1	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		609240	78507	10:09:00	**28.76**
15/08/2023	Duffy Bros	MT65HYR	H1	A		170504	09:20:00	Augher Skea, Drumree, Co.Meath		2330	576	09:20:00	**14.00**
15/08/2023	McGuire Haulage	212KK4	H1	A		170504	09:30:00	Kilsaran, Kilmessan, Co.Meath		609244	78509	10:22:00	**26.04**
15/08/2023	McGuire Haulage	212KK3	H1	A		170504	09:45:00	Kilsaran, Kilmessan, Co.Meath		609262	78510	10:36:00	**28.24**
15/08/2023	McGuire Haulage	231KK1238	H1	A		170504	10:00:00	Kilsaran, Kilmessan, Co.Meath		609271	78511	10:54:00	**25.88**
15/08/2023	John Watson	231KK1239	H1	A		170504	10:50:00	Kilsaran, Kilmessan, Co.Meath		609298	78516	11:43:00	**27.42**
15/08/2023	Duffy Bros	MT65HYR	H1	A		170504	11:00:00	Augher Skea, Drumree, Co.Meath		2331	579	11:00:00	**14.00**
15/08/2023	McGuire Haulage	231KK1240	H1	A		170504	11:20:00	Kilsaran, Kilmessan, Co.Meath		609319	78519	12:50:00	**28.76**
15/08/2023	McGuire Haulage	212KK4	H1	A		170504	11:35:00	Kilsaran, Kilmessan, Co.Meath		609321	78521	13:07:00	**27.74**
15/08/2023	McGuire Haulage	231KK1238	H1	A		170504	12:01:00	Kilsaran, Kilmessan, Co.Meath		609349	78524	13:37:00	**23.72**
15/08/2023	McGuire Haulage	212KK3	H1	A		170504	12:10:00	Kilsaran, Kilmessan, Co.Meath		609296	78527	13:50:00	**28.24**
15/08/2023	Duffy Bros	MT65HYR	H1	A		170504	13:25:00	Augher Skea, Drumree, Co.Meath		2332	583	13:25:00	**14.00**
15/08/2023	McGuire Haulage	231KK1239	H1	A		170504	13:40:00	Kilsaran, Kilmessan, Co.Meath		609424	78531	14:33:00	**28.88**
15/08/2023	McGuire Haulage	212KK4	H1	A		170504	14:20:00	Kilsaran, Kilmessan, Co.Meath		609443	78536	15:16:00	**29.78**
15/08/2023	Duffy Bros	MT65HYR	H1	A		170504	15:15:00	Augher Skea, Drumree, Co.Meath		2334	584	15:15:00	**14.00**
15/08/2023	McGuire Haulage	231KK1240	H2	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		609091	78497	08:03:00	**28.22**
15/08/2023	McGuire Haulage	212KK4	H2	A		170504	07:15:00	Kilsaran, Kilmessan, Co.Meath		609161	78498	08:11:00	**26.52**
15/08/2023	Duffy Bros	MT65HYR	H2	A		170504	07:20:00	Augher Skea, Drumree, Co.Meath		2329	572	07:20:00	**14.00**
15/08/2023	McGuire Haulage	231KK1238	H2	A		170504	07:35:00	Kilsaran, Kilmessan, Co.Meath		609182	78499	08:34:00	**26.62**
15/08/2023	McGuire Haulage	212KK3	H2	A		170504	07:45:00	Kilsaran, Kilmessan, Co.Meath		609052	78500	08:36:00	**27.40**
15/08/2023	McGuire Haulage	231KK1240	H2	A		170504	14:00:00	Kilsaran, Kilmessan, Co.Meath		609438	78532	14:58:00	**31.82**
15/08/2023	McGuire Haulage	231KK1238	H2	A		170504	14:50:00 PM	Kilsaran, Kilmessan, Co.Meath		609466	78538	15:49:00	**30.14**

15/08/2023	McGuire Haulage	212KK3	H2	A		170504	15:00:00	Kilsaran, Kilmessan, Co.Meath		609506	78540	15:55:00	**33.28**
16/08/2023	McGuire Haulage	212KK3	H1	A		170504	09:40:00	Kilsaran, Kilmessan, Co.Meath		609963	78560	10:29:00	**31.42**
16/08/2023	McGuire Haulage	231KK1240	H1	A		170504	09:25:00	Kilsaran, Kilmessan, Co.Meath		609953	78558	10:18:00	**31.02**
16/08/2023	McGuire Haulage	231KK1238	H1	A		170504	07:40:00	Kilsaran, Kilmessan, Co.Meath		609892	78551	08:47:00	**30.92**
16/08/2023	McGuire Haulage	212KK4	H1	A		170504	09:35:00	Kilsaran, Kilmessan, Co.Meath		609954	78561	10:32:00	**32.40**
16/08/2023	Duffy Bros	EU65XBW	H1	A		170504	11:15:00	Kilsaran, Kilmessan, Co.Meath		596	78573	14:09:00	**19.28**
16/08/2023	John Watson	161D66249	H1	A		170504	11:00:00	Kilsaran, Kilmessan, Co.Meath		11742	78566	12:26:00	**20.20**
16/08/2023	Duffy Bros	KY14CYX	H1	B1		170504	11:10:00	IMS		2336	123567	11:48:00	**18.78**
16/08/2023	McGuire Haulage	161D66249	H1	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		11741	78554	09:59:00	**20.90**
16/08/2023	McGuire Haulage	231KK1238	H1	A		170504	09:50:00	Kilsaran, Kilmessan, Co.Meath		609981	78562	10:55:00	**27.98**
16/08/2023	Duffy Bros	MT65HYR	H1	A		170504	09:15:00	Augher Skea, Drumree, Co.Meath		2335	593	11:55:00	**14.00**
16/08/2023	Duffy Bros	KY14CYX	H2	A		170504	15:40:00	Kilsaran, Kilmessan, Co.Meath		1893	78587	16:49:00	**18.86**
16/08/2023	McGuire Haulage	212KK3	H2	A		170504	11:20:00	Kilsaran, Kilmessan, Co.Meath		610427	78585	16:05:00	**31.08**
16/08/2023	McGuire Haulage	212KK4	H2	A		170504	14:20:00	Kilsaran, Kilmessan, Co.Meath		610452	78581	15:27:00	**30.16**
16/08/2023	McGuire Haulage	212KK4	H2	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		609860	78549	08:14:00	**30.70**
16/08/2023	McGuire Haulage	231KK1238	H2	A		170504	12:10:00	Kilsaran, Kilmessan, Co.Meath		610160	78572	13:56:00	**26.30**
16/08/2023	McGuire Haulage	212KK3	H2	A		170504	07:35:00	Kilsaran, Kilmessan, Co.Meath		609820	78550	08:24:00	**29.92**
16/08/2023	Duffy Bros	EU65XBS	H2	A		170504	11:50:00	Kilsaran, Kilmessan, Co.Meath		1891	78571	13:33:00	**21.70**
16/08/2023	McGuire Haulage	231KK1238	H2	A		170504	15:30:00	Kilsaran, Kilmessan, Co.Meath		610497	78586	16:13:00	**29.88**
16/08/2023	McGuire Haulage	231KK1240	H2	A		170504	14:00:00	Kilsaran, Kilmessan, Co.Meath		610362	78576	14:54:00	**29.32**
16/08/2023	Duffy Bros	KY14CYX	H2	A		170504	13:30:00	Kilsaran, Kilmessan, Co.Meath		597	78575	14:25:00	**18.70**
16/08/2023	McGuire Haulage	231KK1240	H2	A		170504	11:25:00	Kilsaran, Kilmessan, Co.Meath		610052	78567	12:52:00	**30.84**
16/08/2023	Duffy Bros	MT65HYR	H2	A		170504	07:25:00	Augher Skea, Drumree, Co.Meath		2334	584	13:52:00	**19.00**
16/08/2023	McGuire Haulage	212KK4	H2	A		170504	11:35:00	Kilsaran, Kilmessan, Co.Meath		610062	78570	13:36:00	**30.36**
16/08/2023	Duffy Bros	EU65XBS	H2	A		170504	14:50:00	Kilsaran, Kilmessan, Co.Meath		1892	78583	15:40:00	**22.82**
16/08/2023	McGuire Haulage	212KK4	H2	A		170504	11:45:00	Kilsaran, Kilmessan, Co.Meath		610087	78569	13:17:00	**30.10**
16/08/2023	McGuire Haulage	231KK1240	H2	A		170504	07:05:00	Kilsaran, Kilmessan, Co.Meath		609772	78547	08:06:00	**30.48**
16/08/2023	John Watson	161D66249	H2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		11740	78543	08:03:00	**19.28**
16/08/2023	Duffy Bros	MT65HYR	H2	B1		170504	13:25:00	IMS		2337	123611	14:13:00	**21.66**
16/08/2023	John Watson	161D66249	H2	B1		170504	13:39:00	IMS		11743	123615	14:20:00	**19.80**
16/08/2023	Duffy Bros	KY14CYX	J3	A		170504	15:05:00	IMS		2338	123654	16:00:00	**22.22**
16/08/2023	John Watson	161D66249	J3	B1		170504	15:15:00	IMS		11744	123646	15:45:00	**21.56**
16/08/2023	John Watson	221D18557	J3	A		170504	15:35:00	IMS		11297	123655	16:02:00	**18.22**
16/08/2023	John Watson	161MN1913	J3	B1		170504	15:00:00	IMS		11594	123642	15:32:00	**18.36**
17/08/2023	McGuire Haulage	231KK1240	G2	A		170504	12:00:00	Kilsaran, Kilmessan, Co.Meath		611176	78624	13:26:00	**28.44**
17/08/2023	McGuire Haulage	231KK1240	G2	A		170504	14:30:00	Kilsaran, Kilmessan, Co.Meath		611320	78636	15:26:00	**31.28**
17/08/2023	McGuire Haulage	212KK4	G2	A		170504	12:10:00	Kilsaran, Kilmessan, Co.Meath		611184	78626	13:44:00	**28.52**
17/08/2023	McGuire Haulage	212KK3	G2	A		170504	12:40:00	Kilsaran, Kilmessan, Co.Meath		611200	78628	14:16:00	**32.08**
17/08/2023	McGuire Haulage	231KK1240	G2	A		170504	09:40:00	Kilsaran, Kilmessan, Co.Meath		611001	78610	10:36:00	**29.50**
17/08/2023	McGuire Haulage	231KK1238	G2	A		170504	10:20:00	Kilsaran, Kilmessan, Co.Meath		611058	78614	11:21:00	**27.42**
17/08/2023	John Watson	221D18557	G2	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		11299	78607	10:05:00	**19.84**
17/08/2023	McGuire Haulage	212KK3	G2	A		170504	08:10:00	Kilsaran, Kilmessan, Co.Meath		610768	78598	08:59:00	**28.48**
17/08/2023	McGuire Haulage	212KK4	G2	A		170504	14:45:00	Kilsaran, Kilmessan, Co.Meath		611335	78638	15:44:00	**31.46**
17/08/2023	McGuire Haulage	212KK3	G2	A		170504	10:35:00	Kilsaran, Kilmessan, Co.Meath		611059	78615	11:24:00	**29.80**
17/08/2023	McGuire Haulage	231KK1238	G2	A		170504	12:30:00	Kilsaran, Kilmessan, Co.Meath		611199	78627	14:14:00	**29.84**
17/08/2023	John Watson	221D18557	G2	A		170504	11:00:00	Kilsaran, Kilmessan, Co.Meath		11300	78619	12:00:00	**16.88**
17/08/2023	McGuire Haulage	212KK4	G2	A		170504	09:50:00	Kilsaran, Kilmessan, Co.Meath		611003	78611	10:54:00	**31.32**
17/08/2023	McGuire Haulage	212KK4	H2	A		170504	07:45:00	Kilsaran, Kilmessan, Co.Meath		610883	78595	08:44:00	**24.72**
17/08/2023	McGuire Haulage	231KK1238	H2	A		170504	07:55:00	Kilsaran, Kilmessan, Co.Meath		610925	78596	08:55:00	**26.38**
17/08/2023	John Watson	231KK1240	H2	A		170504	07:20:00	Kilsaran, Kilmessan, Co.Meath		610774	78594	08:34:00	**25.32**
17/08/2023	John Watson	221D18557	J3	B1		170504	07:05:00	IMS		11298	123690	08:39:00	**17.30**
17/08/2023	John Watson	161D66249	J3	B1		170504	07:00:00	IMS		11745	12663	08:01:00	**22.04**
18/08/2023	John Watson	221D18557	Concrete guide walls			170101	07:10:00	IMS		11122	123860	08:01:00	**13.58**
18/08/2023	John Watson	221D18557	Concrete guide walls			170101	09:00:00	IMS		11123	123909	09:29:00	**14.42**
18/08/2023	John Watson	221D18557	G2	B1		170504	11:00:00	IMS		11125	123956	11:39:00	**17.20**
18/08/2023	McGuire Haulage	231KK1238	G2	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		611787	78660	10:11:00	**31.32**
18/08/2023	John Watson	221D18557	G2	B1		170504	13:00:00	IMS		11126	123987	13:46:00	**18.78**
18/08/2023	McGuire Haulage	212KK4	G2	A		170504	09:30:00	Kilsaran, Kilmessan, Co.Meath		611800	78662	10:29:00	**30.98**
18/08/2023	McGuire Haulage	231KK1238	G2	A		170504	10:25:00	Kilsaran, Kilmessan, Co.Meath		611893	78668	11:23:00	**29.62**
18/08/2023	McGuire Haulage	212KK3	G2	A		170504	07:50:00	Kilsaran, Kilmessan, Co.Meath		611589	78655	08:55:00	**31.46**
18/08/2023	McGuire Haulage	212KK4	G2	A		170504	07:20:00	Kilsaran, Kilmessan, Co.Meath		611704	78650	08:19:00	**32.46**
18/08/2023	McGuire Haulage	212KK3	G2	A		170504	10:40:00	Kilsaran, Kilmessan, Co.Meath		611821	78669	11:29:00	**28.06**

18/08/2023	McGuire Haulage	212KK4	G2	A		170504	12:10:00	Kilsaran, Kilmessan, Co.Meath		611990	78678	13:21:00	**32.88**
18/08/2023	McGuire Haulage	231KK1240	G2	A		170504	11:20:00	Kilsaran, Kilmessan, Co.Meath		611954	78676	12:15:00	**31.30**
18/08/2023	McGuire Haulage	231KK1238	G2	A		170504	07:40:00	Kilsaran, Kilmessan, Co.Meath		611726	78654	08:52:00	**29.44**
18/08/2023	McGuire Haulage	231KK1240	G2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		611680	78643	08:00:00	**32.64**
18/08/2023	John Watson	221D18557	J3	B1		170504	14:35:00	IMS		11127	124020	15:11:00	**17.64**
18/08/2023	McGuire Haulage	231KK1238	J3	A		170504	14:20:00	Kilsaran, Kilmessan, Co.Meath		612118	78688	15:30:00	**29.90**
18/08/2023	CMP	151D52535	J3	A		170504	15:20:00	IMS		42076	124030	16:09:00	**23.96**
18/08/2023	McGuire Haulage	231KK1240	J3	A		170504	14:10:00	Kilsaran, Kilmessan, Co.Meath		612045	78686	15:12:00	**31.24**
18/08/2023	McGuire Haulage	212KK3	J3	A		170504	14:30:00	Kilsaran, Kilmessan, Co.Meath		612113	78689	15:31:00	**29.46**
21/08/2023	McGuire Haulage	231KK1240	G2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		612492	78692	08:05:00	**33.70**
21/08/2023	John Watson	221D18557	G2	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		8894	78691	08:09:00	**19.74**
21/08/2023	McGuire Haulage	212KK4	G2	A		170504	07:15:00	Kilsaran, Kilmessan, Co.Meath		612564	78694	08:23:00	**32.76**
21/08/2023	McGuire Haulage	171KK1481	G2	A		170504	07:25:00	Kilsaran, Kilmessan, Co.Meath		612588	78695	08:29:00	**21.78**
21/08/2023	McGuire Haulage	192KK624	G2	A		170504	07:30:00	Kilsaran, Kilmessan, Co.Meath		612603	78697	08:52:00	**24.08**
21/08/2023	John Watson	161MN1913	G2	A		170504	08:30:00	Kilsaran, Kilmessan, Co.Meath		12536	78701	09:28:00	**20.14**
21/08/2023	John Watson	221D18557	G2	A		170504	09:00:00	Kilsaran, Kilmessan, Co.Meath		8895	78702	09:52:00	**18.96**
21/08/2023	McGuire Haulage	231KK1240	G2	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		612667	78703	10:08:00	**31.80**
21/08/2023	McGuire Haulage	171KK1481	J1	A		170504	09:35:00	Kilsaran, Kilmessan, Co.Meath		612662	78704	10:25:00	**22.36**
21/08/2023	McGuire Haulage	212KK4	J1	A		170504	09:30:00	Kilsaran, Kilmessan, Co.Meath		612681	78705	10:32:00	**32.16**
21/08/2023	McGuire Haulage	192KK624	J1	A		170504	10:00:00	Kilsaran, Kilmessan, Co.Meath		612713	78708	11:15:00	**24.70**
21/08/2023	John Watson	161MN1913	J1	A		170504	10:20:00	Kilsaran, Kilmessan, Co.Meath		12537	78707	11:18:00	**18.34**
21/08/2023	McGuire Haulage	231KK1240	J1	A		170504	11:10:00	Kilsaran, Kilmessan, Co.Meath		612760	78713	12:07:00	**30.16**
21/08/2023	McGuire Haulage	171KK1481	J1	A		170504	11:30:00	Kilsaran, Kilmessan, Co.Meath		612749	78715	13:23:00	**22.72**
21/08/2023	John Watson	221D18557	J2	A		170504	10:40:00	Kilsaran, Kilmessan, Co.Meath		8896	78712	12:01:00	**17.98**
21/08/2023	John Watson	161MN1913	J3	A		170504	12:40:00	Kilsaran, Kilmessan, Co.Meath		12538	78716	13:36:00	**19.26**
21/08/2023	John Watson	221D18557	J3	A		170504	12:50:00	Kilsaran, Kilmessan, Co.Meath		8897	78718	13:52:00	**20.82**
21/08/2023	McGuire Haulage	192KK624	J3	A		170504	13:10:00 PM	Kilsaran, Kilmessan, Co.Meath		612853	78721	14:16:00	**23.78**
21/08/2023	McGuire Haulage	231KK1240	J3	A		170504	14:00:00 PM	Kilsaran, Kilmessan, Co.Meath		612881	78723	14:54:00	**33.46**
21/08/2023	McGuire Haulage	171KK1481	J3	A		170504	14:35:00	Kilsaran, Kilmessan, Co.Meath		612913	78725	15:28:00	**22.84**
22/08/2023	John Watson	221D18557	J3	A		170504	07:05:00	Kilsaran, Kilmessan, Co.Meath		8899	78727	08:01:00	**18.72**
22/08/2023	John Watson	161D66249	J3	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		13751	78728	08:04:00	**21.38**
22/08/2023	McGuire Haulage	231KK1240	J3	A		170504	07:15:00	Kilsaran, Kilmessan, Co.Meath		613214	78733	08:20:00	**33.50**
22/08/2023	McGuire Haulage	182D3554	J3	A		170504	07:25:00	Kilsaran, Kilmessan, Co.Meath		613297	78737	08:27:00	**24.12**
22/08/2023	McGuire Haulage	171KK1481	J3	A		170504	07:35:00	Kilsaran, Kilmessan, Co.Meath		613301	78735	08:29:00	**34.30**
22/08/2023	John Watson	221D18557	J3	A		170504	09:00:00	Kilsaran, Kilmessan, Co.Meath		8900	78740	09:50:00	**17.42**
22/08/2023	John Watson	161D66249	J3	A		170504	09:10:00	Kilsaran, Kilmessan, Co.Meath		13752	78741	10:00:00	**19.74**
22/08/2023	McGuire Haulage	231KK1240	J3	A		170504	09:30:00	Kilsaran, Kilmessan, Co.Meath		613399	78742	10:25:00	**30.34**
22/08/2023	McGuire Haulage	171KK1481	J3	A		170504	09:35:00	Kilsaran, Kilmessan, Co.Meath		613408	78743	10:28:00	**21.18**
22/08/2023	McGuire Haulage	182D3554	J3	A		170504	09:45:00	Kilsaran, Kilmessan, Co.Meath		613360	78744	10:33:00	**24.74**
22/08/2023	John Watson	221D18557	J3	A		170504	10:45:00	Kilsaran, Kilmessan, Co.Meath		7342	78749	12:04:00	**21.46**
22/08/2023	John Watson	161D66249	J3	A		170504	11:00:00	Kilsaran, Kilmessan, Co.Meath		13753	78750	12:18:00	**23.82**
22/08/2023	McGuire Haulage	231KK1240	J3	A		170504	11:30:00	Kilsaran, Kilmessan, Co.Meath		613515	78752	12:57:00	**28.68**
22/08/2023	McGuire Haulage	171KK1481	J3	A		170504	11:40:00	Kilsaran, Kilmessan, Co.Meath		613523	78754	13:29:00	**22.30**
22/08/2023	McGuire Haulage	182D3554	J3	A		170504	11:50:00	Kilsaran, Kilmessan, Co.Meath		613366	78755	13:27:00	**23.88**
22/08/2023	McGuire Haulage	212KK4	J3	A		170504	12:45:00	Kilsaran, Kilmessan, Co.Meath		613611	78757	13:34:00	**32.02**
22/08/2023	John Watson	221D18557	J3	A		170504	13:10:00	Kilsaran, Kilmessan, Co.Meath		7343	78758	13:55:00	**17.50**
22/08/2023	John Watson	161D66249	J3	A		170504	13:20:00	Kilsaran, Kilmessan, Co.Meath		13754	78760	14:12:00	**19.72**
22/08/2023	McGuire Haulage	231KK1240	J3	A		170504	14:00:00	Kilsaran, Kilmessan, Co.Meath		613707	78761	14:55:00	**27.36**
22/08/2023	McGuire Haulage	171KK1481	J3	A		170504	14:40:00	Kilsaran, Kilmessan, Co.Meath		613737	78763	15:34:00	**23.58**
22/08/2023	McGuire Haulage	182D3554	J3	A		170504	15:00:00	Kilsaran, Kilmessan, Co.Meath		613681	78764	15:49:00	**21.62**
22/08/2023	McGuire Haulage	212KK4	J3	A		170504	14:50:00	Kilsaran, Kilmessan, Co.Meath		613738	78765	15:44:00	**32.22**
27/09/2023	McGuire Haulage	161D66249	G2	A		170504	07:05:00	Kilsaran, Kilmessan, Co.Meath		10831	79657	08:00:00	**17.56**
27/09/2023	McGuire Haulage	191KE45	G2	A		170504	10:40:00	Kilsaran, Kilmessan, Co.Meath		633607	79666	11:35:00	**19.24**
27/09/2023	McGuire Haulage	191KE45	G2	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		633477	79659	08:59:00	**19.52**
27/09/2023	Duffy Bros	PN16OAG	G2	A		170504	15:17:00	Kilsaran, Kilmessan, Co.Meath		1467	1012	15:17:00	**17.70**
27/09/2023	Duffy Bros	MT65HYR	G2	A		170504	15:15:00	Kilsaran, Kilmessan, Co.Meath		1193	1011	15:15:00	**16.50**
27/09/2023	Duffy Bros	MT65HYR	G2	A		170504	15:06:00	Kilsaran, Kilmessan, Co.Meath		1573	1010	02:24:00	**15.00**
27/09/2023	McGuire Haulage	191KK1073	G2	A		170504	13:45:00	Kilsaran, Kilmessan, Co.Meath		633765	79682	14:45:00	**21.90**
27/09/2023	McGuire Haulage	191KK1072	G2	A		170504	13:40:00	Kilsaran, Kilmessan, Co.Meath		633811	79683	14:44:00	**21.58**
27/09/2023	Duffy Bros	PN16OAG	G2	A		170504	13:35:00	Kilsaran, Kilmessan, Co.Meath		1461	1009	13:35:00	**16.30**
27/09/2023	Duffy Bros	MT65HYR	G2	A		170504	13:31:00	Kilsaran, Kilmessan, Co.Meath		1192	1008	13:31:00	**17.10**
27/09/2023	John Watson	161D66249	G2	A		170504	13:25:00	Kilsaran, Kilmessan, Co.Meath		10834	79678	14:19:00	**21.32**

27/09/2023	McGuire Haulage	191D45	G2	A		170504	13:23:00	Kilsaran, Kilmessan, Co.Meath		633832	79679	14:32:00	**22.38**
27/09/2023	Duffy Bros	MT65HYR	G2	A		170504	13:16:00	Kilsaran, Kilmessan, Co.Meath		1572	1007	07:12:00	**16.00**
27/09/2023	John Watson	191D918	G2	A		170504	12:00:00	Kilsaran, Kilmessan, Co.Meath		14211	79675	13:39:00	**19.22**
27/09/2023	Duffy Bros	EU65XBW	G2	A		170504	11:41:00	Kilsaran, Kilmessan, Co.Meath		2172	1006	11:41:00	**17.50**
27/09/2023	John Watson	161D66249	G2	A		170504	11:05:00	Kilsaran, Kilmessan, Co.Meath		10933	79672	12:19:00	**19.64**
27/09/2023	Duffy Bros	MT65HYL	G2	A		170504	11:00:00	Augher Skea, Drumree, Co.Meath		1191	1005	11:00:00	**18.60**
27/09/2023	McGuire Haulage	191KK1072	G2	A		170504	10:50:00	Kilsaran, Kilmessan, Co.Meath		633573	79668	11:48:00	**18.32**
27/09/2023	McGuire Haulage	191KK1073	G2	A		170504	10:47:00	Kilsaran, Kilmessan, Co.Meath		633569	79667	11:46:00	**19.32**
27/09/2023	John Watson	171D17968	G2	A		170504	10:32:00	Kilsaran, Kilmessan, Co.Meath		13015	79670	12:08:00	**24.04**
27/09/2023	John Watson	202KE40	G2	A		170504	10:18:00	Kilsaran, Kilmessan, Co.Meath		13052	79669	11:53:00	**23.08**
27/09/2023	John Watson	191D918	G2	A		170504	10:00:00	Kilsaran, Kilmessan, Co.Meath		14210	79665	10:59:00	**19.56**
27/09/2023	Duffy Bros	EU65XBW	G2	A		170504	11:30:00	Augher Skea, Drumree, Co.Meath		2171	1003	11:30:00	**15.50**
27/09/2023	John Watson	161D66249	G2	A		170504	10:12:00	Kilsaran, Kilmessan, Co.Meath		10832	79662	10:04:00	**21.02**
27/09/2023	McGuire Haulage	191KK1072	G2	A		170504	07:55:00	Kilsaran, Kilmessan, Co.Meath		633506	79661	09:11:00	**21.12**
27/09/2023	McGuire Haulage	191KK1073	G2	A		170504	07:52:00	Kilsaran, Kilmessan, Co.Meath		633502	79660	09:01:00	**21.24**
28/09/2023	John Watson	191D918	G2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		14215	79707	12:28:00	**17.86**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	07:50:00	Kilsaran, Kilmessan, Co.Meath		1574	1013	07:50:00	**17.50**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	16:15:00	Augher Skea, Drumree, Co.Meath		1578	1041	03:36:00	**18.00**
28/09/2023	McGuire Haulage	191KK1072	G2	A		170504	15:20:00	Kilsaran, Kilmessan, Co.Meath		634702	79729	16:31:00	**20.62**
28/09/2023	McGuire Haulage	191KK1013	G2	A		170504	15:18:00	Kilsaran, Kilmessan, Co.Meath		634683	79728	16:20:00	**21.96**
28/09/2023	McGuire Haulage	212KK4	G2	A		170504	15:00:00	Kilsaran, Kilmessan, Co.Meath		634650	79726	16:03:00	**30.84**
28/09/2023	McGuire Haulage	231KK1238	G2	A		170504	14:58:00	Kilsaran, Kilmessan, Co.Meath		634647	79725	15:59:00	**28.42**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	14:16:00	Augher Skea, Drumree, Co.Meath		1577	1038	14:16:00	**17.00**
28/09/2023	McGuire Haulage	231KK1240	G2	A		170504	14:07:00	Kilsaran, Kilmessan, Co.Meath		634592	79724	15:07:00	**31.40**
28/09/2023	Duffy Bros	MT65HYL	G2	A		170504	14:00:00	Augher Skea, Drumree, Co.Meath		1197	1039	14:00:00	**15.60**
28/09/2023	McGuire Haulage	191KK645	G2	A		170504	13:49:00	Kilsaran, Kilmessan, Co.Meath		634578	79723	14:54:00	**21.50**
28/09/2023	McGuire Haulage	191KK1072	G2	A		170504	13:30:00	Kilsaran, Kilmessan, Co.Meath		634559	79720	14:27:00	**20.72**
28/09/2023	McGuire Haulage	191KK1073	G2	A		170504	13:26:00	Kilsaran, Kilmessan, Co.Meath		634441	79719	14:21:00	**21.30**
28/09/2023	John Watson	191D918	G2	A		170504	13:25:00	Kilsaran, Kilmessan, Co.Meath		14216	79718	14:14:00	**20.04**
28/09/2023	John Watson	161D66249	G2	A		170504	13:21:00	Kilsaran, Kilmessan, Co.Meath		10838	79716	14:10:00	**21.26**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	12:46:00	Augher Skea, Drumree, Co.Meath		1576	1031	12:46:00	**18.00**
28/09/2023	McGuire Haulage	212KK4	G2	A		170504	12:22:00	Kilsaran, Kilmessan, Co.Meath		634504	79713	13:20:00	**28.80**
28/09/2023	McGuire Haulage	231KK1238	G2	A		170504	12:20:00	Kilsaran, Kilmessan, Co.Meath		634501	79712	13:19:00	**27.14**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	12:11:00	Augher Skea, Drumree, Co.Meath		1196	1030	12:11:00	**14.40**
28/09/2023	McGuire Haulage	231KK1240	G2	A		170504	12:12:00	Kilsaran, Kilmessan, Co.Meath		634443	79711	13:08:00	**31.26**
28/09/2023	John Watson	202KE40	G2	A		170504	11:25:00	Kilsaran, Kilmessan, Co.Meath		13055	79710	13:00:00	**30.92**
28/09/2023	McGuire Haulage	191KE45	G2	A		170504	11:10:00	Kilsaran, Kilmessan, Co.Meath		634426	79709	12:13:00	**22.14**
28/09/2023	John Watson	161D66249	G2	A		170504	11:00:00	Augher Skea, Drumree, Co.Meath		10837	79706	12:24:00	**19.76**
28/09/2023	McGuire Haulage	191KK1072	G2	A		170504	10:39:00	Kilsaran, Kilmessan, Co.Meath		634395	79703	11:29:00	**21.18**
28/09/2023	McGuire Haulage	191KK1073	G2	A		170504	10:12:00	Kilsaran, Kilmessan, Co.Meath		634317	79704	11:18:00	**22.18**
28/09/2023	McGuire Haulage	212KK4	G2	A		170504	09:58:00	Kilsaran, Kilmessan, Co.Meath		634362	79702	10:51:00	**27.26**
28/09/2023	McGuire Haulage	231KK1238	G2	A		170504	09:54:00	Kilsaran, Kilmessan, Co.Meath		634316	79701	10:49:00	**27.12**
28/09/2023	McGuire Haulage	231KK1240	G2	A		170504	09:38:00	Kilsaran, Kilmessan, Co.Meath		634335	79698	10:38:00	**29.06**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	09:37:00	Augher Skea, Drumree, Co.Meath		1195	1023	09:37:00	**15.00**
28/09/2023	John Watson	202KE40	G2	A		170504	09:28:00	Kilsaran, Kilmessan, Co.Meath		13054	79697	10:20:00	**30.26**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	09:18:00	Augher Skea, Drumree, Co.Meath		1575	1022	09:18:00	**16.10**
28/09/2023	John Watson	191D918	G2	A		170504	09:15:00	Kilsaran, Kilmessan, Co.Meath		14214	79695	10:10:00	**18.82**
28/09/2023	John Watson	161D66249	G2	A		170504	09:13:00	Kilsaran, Kilmessan, Co.Meath		10836	79694	10:09:00	**21.12**
28/09/2023	McGuire Haulage	191KK45	G2	A		170504	09:02:00	Kilsaran, Kilmessan, Co.Meath		634310	79696	10:08:00	**20.68**
28/09/2023	McGuire Haulage	191KK1072	G2	A		170504	07:55:00	Kilsaran, Kilmessan, Co.Meath		634259	79692	09:04:00	**20.78**
28/09/2023	McGuire Haulage	191KK1073	G2	A		170504	07:50:00	Kilsaran, Kilmessan, Co.Meath		634757	79691	09:02:00	**20.48**
28/09/2023	Duffy Bros	MT65HYR	G2	A		170504	07:24:00	Kilsaran, Kilmessan, Co.Meath		1194	1018	07:24:00	**14.00**
28/09/2023	Duffy Bros	PN16OAG	G2	A		170504	07:20:00	Kilsaran, Kilmessan, Co.Meath		1463	1014	07:20:00	**17.80**
28/09/2023	John Watson	161D66249	G2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		10835	79686	08:07:00	**20.16**
28/09/2023	John Watson	191D918	G2	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		14213	79687	08:08:00	**18.40**
28/09/2023	John Watson	221D18557	G2	A		170504	07:30:00	Kilsaran, Kilmessan, Co.Meath		13815	79688	08:10:00	**17.28**
28/09/2023	John Watson	202KE40	G2	A		170504	07:40:00	Kilsaran, Kilmessan, Co.Meath		13053	79690	08:19:00	**21.94**
29/09/2023	McGuire Haulage	211KK1713	G2	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		634983	79734	08:13:00	**21.04**
29/09/2023	McGuire Haulage	231KK1240	G2	A		170504	07:15:00	Kilsaran, Kilmessan, Co.Meath		634937	79733	08:07:00	**31.68**
29/09/2023	John Watson	161D66249	G2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		10840	79730	08:01:00	**20.74**
29/09/2023	John Watson	191D918	G2	A		170504	06:55:00	Kilsaran, Kilmessan, Co.Meath		14218	79731	08:01:00	**19.98**
29/09/2023	McGuire Haulage	212KK4	K	B1		170504	15:16:00	IMS		635428	127428	16:09:00	**32.52**

29/09/2023	McGuire Haulage	211KK1713	K	B1		170504	14:55:00	IMS		635408	127423	15:35:00	**17.84**
29/09/2023	John Watson	161MN1913	K	B1		170504	14:46:00	IMS		13113	127421	15:25:00	**16.74**
29/09/2023	McGuire Haulage	221KK450	K	B1		170504	14:37:00	IMS		635354	127419	15:19:00	**21.08**
29/09/2023	McGuire Haulage	191KE45	K	B1		170504	14:23:00	IMS		635372	127422	15:27:00	**20.28**
29/09/2023	John Watson	161D66249	K	B1		170504	14:10:00	IMS		10845	127414	15:05:00	**20.70**
29/09/2023	Duffy Bros	EU65HYR	J3	A		170504	14:05:00	Augher Skea, Drumree, Co.Meath		1983	1072	03:36:00	**17.50**
29/09/2023	Duffy Bros	MT65HYR	J3	A		170504	13:51:00	Augher Skea, Drumree, Co.Meath		1625	1070	13:51:00	**15.00**
29/09/2023	John Watson	161D66249	K	B1		170504	12:55:00	IMS		10844	127396	13:34:00	**20.74**
29/09/2023	McGuire Haulage	191KE45	K	B1		170504	11:37:00	IMS		635217	127395	13:31:00	**23.46**
29/09/2023	John Watson	191D918	K	B1		170504	12:07:00	IMS		14221	127389	12:44:00	**17.86**
29/09/2023	John Watson	212KK4	K	B1		170504	11:57:00	IMS		635172	127388	12:38:00	**33.42**
29/09/2023	McGuire Haulage	211KK1713	K	B1		170504	11:22:00	IMS		635205	127382	12:03:00	**14.58**
29/09/2023	Duffy Bros	EU65XBS	J3	A		170504	11:25:00	Augher Skea, Drumree, Co.Meath		1982	1067	07:12:00	**18.40**
29/09/2023	McGuire Haulage	221KK450	Concrete			170101	11:18:00	IMS		635204	127382	12:03:00	**14.58**
29/09/2023	McGuire Haulage	231KK1240	K	B1		170504	10:50:00	IMS		635179	127370	11:31:00	**31.46**
29/09/2023	John Watson	161D66249	K			170101	11:00:00	IMS		10843	127384	12:14:00	**16.58**
29/09/2023	John Watson	191D918	K	B1		170504	10:19:00	IMS		14220	127368	10:57:00	**17.50**
29/09/2023	McGuire Haulage	191KE45	K	B1		170504	09:50:00	IMS		635124	127365	10:49:00	**20.98**
29/09/2023	McGuire Haulage	212KK4	K	B1		170504	09:46:00	IMS		635120	127363	10:33:00	**29.76**
29/09/2023	Duffy Bros	MT65HYL	J3	A		170504	09:43:00	Augher Skea, Drumree, Co.Meath		1623	1055	09:43:00	**16.10**
29/09/2023	McGuire Haulage	211KK1713	K	B1		170504	09:26:00	IMS		635105	127359	10:11:00	**20.08**
29/09/2023	Duffy Bros	EU65XBS	J3	A		170504	09:18:00	Augher Skea, Drumree, Co.Meath		1981	1053	09:18:00	**16.90**
29/09/2023	McGuire Haulage	221KK450	K	B1		170504	09:16:00	IMS		635053	127357	10:06:00	**20.20**
29/09/2023	McGuire Haulage	231KK1240	K	B1		170504	09:14:00	IMS		635097	127355	10:03:00	**27.24**
29/09/2023	John Watson	191D918	K	B2		170504	09:03:00	IMS		14219	127346	09:39:00	**17.24**
29/09/2023	John Watson	161D66249	K	B2		170504	08:55:00	IMS		10841	127344	09:36:00	**22.16**
29/09/2023	McGuire Haulage	212KK4	G2	A		170504	07:46:00	Kilsaran, Kilmessan, Co.Meath		634912	79739	08:45:00	**32.44**
29/09/2023	Duffy Bros	EU65XBS	G2	A		170504	07:15:00	Augher Skea, Drumree, Co.Meath		1980	1046	07:12:00	**16.40**
29/09/2023	McGuire Haulage	191KE45	G2	A		170504	07:10:00	Kilsaran, Kilmessan, Co.Meath		634996	79738	08:36:00	**19.92**
02/10/2023	Duffy Bros	MT65HYL	G2	A		170504	11:15:00	Augher Skea, Drumree, Co.Meath		1628	1093	11:15:00	**16.50**
02/10/2023	Duffy Bros	EU65XBS	G2	A		170504	11:30:00	Augher Skea, Drumree, Co.Meath		1278	1097	11:30:00	**15.70**
02/10/2023	Duffy Bros	MT65HYR	G2	A		170504	11:25:00	Augher Skea, Drumree, Co.Meath		1336	1095	11:25:00	**14.80**
02/10/2023	Duffy Bros	EU65XBS	G2	A		170504	09:50:00	Augher Skea, Drumree, Co.Meath		1277	1086	09:50:00	**16.00**
02/10/2023	Duffy Bros	MT65HYL	G2	A		170504	09:29:00	Augher Skea, Drumree, Co.Meath		1627	1083	09:29:00	**16.10**
02/10/2023	Duffy Bros	MT65HYR	G2	A		170504	09:36:00	Augher Skea, Drumree, Co.Meath		1335	1084	09:36:00	**15.40**
02/10/2023	Duffy Bros	MT65HYR	G2	A		170504	07:00:00	Augher Skea, Drumree, Co.Meath		1334	1076	07:00:00	**14.40**
02/10/2023	Duffy Bros	EU65XBS	G2	A		170504	07:00:00	Augher Skea, Drumree, Co.Meath		1276	1075	07:00:00	**17.60**
02/10/2023	Duffy Bros	MT65HYL	G2	A		170504	07:00:00	Augher Skea, Drumree, Co.Meath		1626	1074	07:00:00	**11.90**
03/10/2023	Duffy Bros	EU65XBS	Mixed Concrete			170101	15:27:00	IMS		3205	127678	16:23:00	**19.92**
03/10/2023	Duffy Bros	EU65XBS	Mixed Concrete			170101	14:00:00	IMS		3204	127654	14:36:00	**14.76**
03/10/2023	Duffy Bros	EU65XBS	Mixed Concrete			170101	11:36:00	IMS		3203	127628	13:05:00	**14.78**
03/10/2023	Duffy Bros	MT65HYL	Mixed Concrete			170101	08:55:00	IMS		2902	127595	10:02:00	**13.18**
05/10/2023	Duffy Bros	MT65HYL	G2	A		170504	09:35:00	Augher Skea, Drumree, Co.Meath		2909	1152	09:35:00	**17.00**
05/10/2023	Duffy Bros	MT65HYR	G2	A		170504	09:20:00	Augher Skea, Drumree, Co.Meath		3309	1151	09:20:00	**14.10**
05/10/2023	Duffy Bros	MT65HYL	Mixed Concrete			170101	07:15:00	IMS		2908	127808	08:16:00	**12.06**
11/10/2023	Shannon Valley	191D42641	J1	A		170504	15:10:00	Kilsaran, Kilmessan, Co.Meath		212202	79893	16:08:00	**22.02**
11/10/2023	Shannon Valley	09D130543	J2	A		170504	13:27:00	Kilsaran, Kilmessan, Co.Meath		213822	79885	14:23:00	**19.50**
11/10/2023	Shannon Valley	191D42641	J2	A		170504	13:14:00	Kilsaran, Kilmessan, Co.Meath		212201	79883	14:08:00	**21.90**
11/10/2023	Shannon Valley	09D130543	J2	A		170504	10:29:00	Kilsaran, Kilmessan, Co.Meath		213821	79875	11:26:00	**21.80**
11/10/2023	Shannon Valley	191D42641	J2	A		170504	10:25:00	Kilsaran, Kilmessan, Co.Meath		208050	79876	11:29:00	**23.62**
11/10/2023	Shannon Valley	191D42041	J2	A		170504	07:05:00	Kilsaran, Kilmessan, Co.Meath		208049	79865	09:01:00	**22.40**
11/10/2023	Shannon Valley	09D130543	J2	A		170504	07:00:00	Kilsaran, Kilmessan, Co.Meath		213820	79866	08:58:00	**24.14**
12/10/2023	McGuire Haulage	231KK1240	J1	B1		170504	10:13:00	IMS		641867	128475	10:56:00	**33.24**
12/10/2023	McGuire Haulage	191KK1072	J2	B1		170504	10:07:00	Kilsaran, Kilmessan, Co.Meath		641863	79908	11:01:00	**21.14**
12/10/2023	McGuire Haulage	231KK1241	J2	B1		170504	10:00:00	IMS		641853	128480	11:09:00	**28.02**
12/10/2023	McGuire Haulage	182D3554	J2	B1		170504	09:28:00	IMS		641784	128471	10:39:00	**26.60**
12/10/2023	McGuire Haulage	212KK4	J2	B1		170504	09:23:00	IMS		641791	128470	10:38:00	**28.54**
12/10/2023	McGuire Haulage	211KK1191	J2	B1		170504	09:07:00	IMS		641816	128459	10:13:00	**18.68**
12/10/2023	McGuire Haulage	231KK1241	J1	B1		170504	08:23:00	IMS		641770	128451	09:10:00	**30.78**
12/10/2023	McGuire Haulage	191KK1072	J1	B1		170504	07:41:00	Kilsaran, Kilmessan, Co.Meath		641730	79900	08:56:00	**23.72**
12/10/2023	McGuire Haulage	182D3554	J2	B1		170504	07:36:00	IMS		641641	128437	08:34:00	**28.84**
12/10/2023	McGuire Haulage	212KK4	J2	B1		170504	07:29:00	IMS		641692	641692	00:00:00	**16.56**

12/10/2023	McGuire Haulage	231KK1240	Mixed Concrete			170101	07:00:00	IMS		641644	128428	08:11:00	**24.18**
12/10/2023	McGuire Haulage	231KK1241	N	B1		170504	15:30:00	IMS		642157	128565	16:13:00	**28.38**
12/10/2023	McGuire Haulage	191KK1072	N	B1		170504	15:00:00	Kilsaran, Kilmessan, Co.Meath		642064	79926	15:55:00	**24.28**
12/10/2023	McGuire Haulage	212KK4	N	B1		170504	14:50:00	IMS		642095	128551	15:35:00	**28.80**
12/10/2023	McGuire Haulage	182D3554	N	B1		170504	14:37:00	IMS		641976	128549	15:29:00	**26.64**
12/10/2023	McGuire Haulage	231KK1240	N	B1		170504	14:35:00	IMS		642083	128546	15:19:00	**31.32**
12/10/2023	McGuire Haulage	231KK1241	N	B1		170504	14:03:00	IMS		642096	128534	14:42:00	**28.76**
12/10/2023	McGuire Haulage	211KK1191	N	B1		170504	14:00:00	IMS		641958	128530	14:34:00	**19.14**
12/10/2023	McGuire Haulage	212KK4	M	B1		170504	13:30:00	IMS		642033	128522	14:12:00	**28.48**
12/10/2023	McGuire Haulage	182D3554	J1	B1		170504	13:18:00	IMS		641975	128518	13:57:00	**28.84**
12/10/2023	McGuire Haulage	231KK1240	J1	B1		170504	13:09:00	IMS		642014	128515	13:49:00	**31.64**
12/10/2023	McGuire Haulage	191KK1072	J1	B1		170504	13:00:00	Kilsaran, Kilmessan, Co.Meath		642009	79915	13:56:00	**23.04**
12/10/2023	McGuire Haulage	231KK1241	J1	B1		170504	12:30:00	IMS		641982	128508	13:10:00	**32.00**
12/10/2023	McGuire Haulage	212KK4	J1	B1		170504	11:32:00	IMS		641904	128496	12:13:00	**31.92**
12/10/2023	McGuire Haulage	182D3554	J1	B1		170504	11:27:00	IMS		641785	128493	11:48:00	**20.08**
12/10/2023	McGuire Haulage	211KK1191	J1	B1		170504	11:06:00	IMS		641871	641871	00:57:36	**13.82**
13/10/2023	McGuire Haulage	182D3554	L4	B1		170504	14:51:00	IMS		642694	128723	15:44:00	**26.58**
13/10/2023	John Watson	221D18557	L4	B1		170504	14:41:00	IMS		14141	128722	15:27:00	**19.46**
13/10/2023	John Watson	161MN1913	L4	B1		170504	14:30:00	IMS		13446	128781	15:18:00	**20.84**
13/10/2023	John Watson	171D62297	L4	B1		170504	14:27:00	IMS		11247	128720	15:16:00	**21.10**
13/10/2023	John Watson	181D25014	L4	B1		170504	14:30:00	IMS		14071	128718	14:54:00	**18.90**
13/10/2023	McGuire Haulage	211KK1191	L4	B1		170504	14:00:00	IMS		642784	128716	14:46:00	**19.54**
13/10/2023	McGuire Haulage	231KK1241	L4	B1		170504	13:32:00	IMS		642769	128711	14:26:00	**30.72**
13/10/2023	McGuire Haulage	181D3554	L4	B1		170504	13:25:00	IMS		642497	128708	14:14:00	**26.44**
13/10/2023	John Watson	161D66249	L2	B1		170504	13:21:00	IMS		13287	128705	14:08:00	**23.30**
13/10/2023	John Watson	171D62297	L4	B1		170504	13:02:00	IMS		11246	128698	13:47:00	**22.28**
13/10/2023	McGuire Haulage	212KK3	L4	B1		170504	12:34:00	IMS		641725	128703	13:58:00	**30.58**
13/10/2023	McGuire Haulage	211KK1191	J2	B1		170504	11:26:00	IMS		642674	128674	12:04:00	**21.50**
13/10/2023	John Watson	161D66249	L4	B1		170504	11:12:00	IMS		13286	128673	11:59:00	**23.76**
13/10/2023	John Watson	171D62297	L2	B1		170504	11:07:00	IMS		11245	128761	11:54:00	**23.22**
13/10/2023	McGuire Haulage	231KK1241	L4	B1		170504	11:10:00	IMS		642654	128672	11:57:00	**26.92**
13/10/2023	McGuire Haulage	182D3554	M	B1		170504	10:50:00	IMS		642496	128666	11:36:00	**27.66**
13/10/2023	McGuire Haulage	212KK3	M	B1		170504	10:40:00	IMS		642629	128660	11:26:00	**33.22**
13/10/2023	McGuire Haulage	231KK1240	M	B1		170504	10:29:00	IMS		642609	128653	11:11:00	**35.30**
13/10/2023	McGuire Haulage	211KK1191	M	B1		170504	10:01:00	IMS		642577	128643	10:41:00	**20.92**
13/10/2023	John Watson	161D66249	M	B1		170504	09:57:00	IMS		13285	128639	10:32:00	**21.10**
13/10/2023	John Watson	171D62297	M	B1		170504	09:51:00	IMS		11244	128637	10:30:00	**23.30**
13/10/2023	McGuire Haulage	212KK3	M	B1		170504	09:24:00	IMS		642548	128626	10:05:00	**31.40**
13/10/2023	McGuire Haulage	231KK1241	N	B1		170504	09:02:00	IMS		642537	128631	10:14:00	**32.36**
13/10/2023	McGuire Haulage	182D3554	M	B1		170504	08:57:00	IMS		642495	128619	09:44:00	**28.08**
13/10/2023	John Watson	161D66249	M	B2		170504	08:43:00	IMS		13294	128611	09:20:00	**25.06**
13/10/2023	John Watson	171D62297	M	B1		170504	08:40:00	IMS		11293	128610	09:15:00	**22.98**
13/10/2023	McGuire Haulage	212KK3	M	B1		170504	07:47:00	IMS		642419	128601	08:42:00	**32.22**
13/10/2023	McGuire Haulage	191KK1073	M	B1		170504	07:35:00	IMS		642373	128597	08:33:00	**26.26**
16/10/2023	McGuire Haulage	142KK1203	J2	B1		170504	15:30:00	IMS		643800	128851	16:20:00	**19.52**
16/10/2023	McGuire Haulage	211KK1195	M	B1		170504	15:10:00	IMS		643780	128844	15:55:00	**17.62**
16/10/2023	McGuire Haulage	142KK1203	L4	B1		170504	09:09:00	IMS		643396	128762	09:50:00	**22.12**
16/10/2023	McGuire Haulage	211KK1195	L4	B1		170504	08:55:00	IMS		643387	128755	09:35:00	**18.78**
16/10/2023	McGuire Haulage	211KK1193	L4	B1		170504	08:25:00	IMS		643395	128752	09:08:00	**20.18**
16/10/2023	McGuire Haulage	211KK1420	L4	B1		170504	08:05:00	IMS		643384	128751	09:00:00	**19.24**
16/10/2023	McGuire Haulage	142KK1203	L4	B1		170504	07:36:00	IMS		643301	128739	08:17:00	**20.96**
16/10/2023	McGuire Haulage	231KK1240	L1	B1		170504	07:26:00	IMS		643288	128738	08:15:00	**28.34**
16/10/2023	McGuire Haulage	211KK1195	L4	B1		170504	07:25:00	IMS		643290	128732	08:08:00	**17.58**
16/10/2023	McGuire Haulage	182D3554	L4	B1		170504	07:20:00	IMS		643292	128731	08:06:00	**26.84**
16/10/2023	McGuire Haulage	211KK1420		D1	HAZ	170503		ENVA	Yes	643419	45030	11:21:00	**19.34**
16/10/2023	McGuire Haulage	211KK1193		D1	HAZ	170503		ENVA	Yes	643445	45031	11:29:00	**21.22**
16/10/2023	McGuire Haulage	211KK1195		D1	HAZ	170503		ENVA	Yes	643388	45032	11:59:00	**18.62**
16/10/2023	McGuire Haulage	142KK1203		D1	HAZ	170503		ENVA	Yes	643491	45036	12:13:00	**23.48**
16/10/2023	McGuire Haulage	231KK1240		D1	HAZ	170503		ENVA	Yes	643558	45037	12:30:00	**33.18**
16/10/2023	McGuire Haulage	182D3554		D1	HAZ	170503		ENVA	Yes	649606	45045	13:58:00	**27.12**
16/10/2023	McGuire Haulage	211KK1420		D1	HAZ	170503		ENVA	Yes	643420	45057	15:21:00	**26.06**
16/10/2023	McGuire Haulage	211KK1193		D1	HAZ	170503		ENVA	Yes	643648	45059	15:22:00	**21.46**

17/10/2023	John Watson	221D18557	J2	B1		170504	13:05:00	IMS		13985	128955	14:14:00	**17.94**
17/10/2023	McGuire Haulage	182D3554		D1	HAZ	170503		ENVA	Yes	644148	45073	09:15:00	**28.22**
17/10/2023	McGuire Haulage	231KK1240		D1	HAZ	170503		ENVA	Yes	644151	45077	09:46:00	**34.52**
17/10/2023	McGuire Haulage	212KK4		D1	HAZ	170503		ENVA	Yes	644278	45082	11:24:00	**32.66**
17/10/2023	McGuire Haulage	212KK3		D1	HAZ	170503		ENVA	165967	644406	45085	12:57:00	**34.42**
17/10/2023	McGuire Haulage	231KK1241		D1	HAZ	170503		ENVA	Yes	644405	45087	13:35:00	**32.86**
17/10/2023	McGuire Haulage	221KK1012		D1	HAZ	170503		ENVA	Yes	644428	45090	14:08:00	**31.34**
17/10/2023	McGuire Haulage	182D3554		D1	HAZ	170503		ENVA	Yes	644480	45093	14:20:00	**29.20**
17/10/2023	McGuire Haulage	231KK1240		D1	HAZ	170503		ENVA	Yes	644506	45102	15:12:00	**34.40**
17/10/2023	McGuire Haulage	211KK1420		D1	HAZ	170503		ENVA	Yes	644507	45105	15:23:00	**20.62**
17/10/2023	McGuire Haulage	212KK4		D1	HAZ	170503		ENVA	Yes	644564	45107	16:04:00	**30.86**
18/10/2023	McGuire Haulage	231KK1240		D1	HAZ	170503		ENVA	Yes	644933	45120	09:37:00	**35.92**
18/10/2023	McGuire Haulage	211KK1420		D1	HAZ	170503		ENVA	Yes	644998	45122	09:49:00	**23.14**
18/10/2023	McGuire Haulage	221KK1011		D1	HAZ	170503		ENVA	Yes	644997	45124	09:59:00	**32.82**
18/10/2023	McGuire Haulage	231KK1238		D1	HAZ	170503		ENVA	Yes	645083	45128	11:19:00	**31.66**
18/10/2023	McGuire Haulage	212KK5		D1	HAZ	170503		ENVA	Yes	645081	45130	11:21:00	**30.66**
18/10/2023	McGuire Haulage	231KK1242		D1	HAZ	170503		ENVA	Yes	645102	45131	11:29:00	**30.30**
18/10/2023	McGuire Haulage	181KK19		D1	HAZ	170503		ENVA	Yes	645021	45133	11:59:00	**30.86**
18/10/2023	McGuire Haulage	231KK1240		D1	HAZ	170503		ENVA	Yes	649305	45145	14:17:00	**34.78**
18/10/2023	McGuire Haulage	211KK1420		D1	HAZ	170503		ENVA	Yes	645339	45152	15:10:00	**22.60**
18/10/2023	McGuire Haulage	221KK1011		D1	HAZ	170503		ENVA	Yes	645189	45154	15:37:00	**28.30**
18/10/2023	McGuire Haulage	231KK1241		D1	HAZ	170503		ENVA	Yes	645414	45157	15:55:00	**29.44**
18/10/2023	McGuire Haulage	231KK1238		D1	HAZ	170503		ENVA	Yes	645407	45160	16:34:00	**29.26**
18/10/2023	McGuire Haulage	212KK5		D1	HAZ	170503		ENVA	Yes	645411	45162	16:36:00	**28.66**
20/10/2023	John Watson	191D918	L4	B1		170504	07:05:00	IMS		11934	129399	08:09:00	**12.66**
20/10/2023	John Watson	171D62297	L4	B1		170504	07:00:00	IMS		12746	129394	08:03:00	**15.44**
20/10/2023	McGuire Haulage	231KK1240	L4	B1		170504	07:10:00	IMS		646590	129402	08:13:00	**28.10**
20/10/2023	McGuire Haulage	182D3554	L4	B1		170504	07:15:00	IMS		646595	129415	08:29:00	**22.92**
20/10/2023	McGuire Haulage	212KK3	L4	B1		170504	07:15:00	IMS		646592	129418	08:34:00	**31.08**
20/10/2023	McGuire Haulage	231KK1238	L4	B1		170504	07:25:00	IMS		646600	129421	08:38:00	**31.08**
20/10/2023	McGuire Haulage	191KK1073	L4	B1		170504	07:20:00	IMS		646545	129425	08:44:00	**27.74**
20/10/2023	John Watson	171D62297	Concrete			170101	08:47:00	IMS		10686	129435	09:25:00	**16.08**
20/10/2023	McGuire Haulage	182D3554	Concrete			170101	09:11:00	IMS		646596	129445	09:52:00	**24.84**
20/10/2023	McGuire Haulage	212KK5	Concrete			170101	09:19:00	IMS		646689	129466	10:41:00	**27.30**
20/10/2023	McGuire Haulage	231KK1238	Concrete			170101	09:20:00	IMS		646728	129467	10:43:00	**27.32**
20/10/2023	McGuire Haulage	182D3554	L4	B1		170504	13:04:00	IMS		646788	129520	13:46:00	**27.52**
20/10/2023	McGuire Haulage	191KK1073	L4	B1		170504	13:22:00	IMS		646971	129532	14:13:00	**25.24**
20/10/2023	McGuire Haulage	231KK1238	L1	B1		170504	13:33:00	IMS		647000	129535	14:24:00	**29.32**
20/10/2023	McGuire Haulage	212KK5	L1	B1		170504	13:36:00	IMS		647001	129536	14:25:00	**28.24**
20/10/2023	McGuire Haulage	231KK1240	L1	B1		170504	13:40:00	IMS		647006	129540	14:38:00	**30.52**
20/10/2023	John Watson	161D66249	L1	B1		170504	14:12:00	IMS		14412	129548	15:00:00	**21.60**
14/08/2024	Duffy Bros	SL15V50	Stockpile - School	A	School wall	170504	08.30am.	Davidstown		07787..	153625	10AM	**27.00**
14/08/2024	Duffy Bros	SL15V50	Stockpile - school	A	School wall	170504	12pm	Davidstown		07788..	153626	1.30PM	**27.00**
14/08/2024	Duffy Bros	SL15V5O	Stockpile - School	A	School wall	170504	3.10pm	Davidstown		07789..	153627	4.50PM	**27.00**
15/08/2024	Duffy Bros	SL15V50	Stockpile - school	A	School wall soil and stone	170504	10.41am	Davidstown		07790..	153623	11.50AM	**30.00**
15/08/2024	Duffy Bros	SL15VS0	Stockpile - school	A	School wall soil and stone	170504	12.50pm	Davidstown		7791	153624	2.10pm	**30.00**
15/08/2024	Duffy Bros	YD670TC	Stockpile - school	A	School wall soil and stone	170504	1pm	Davidstown		5271	153654	2.30pm	**30t**
15/08/2024	Duffy Bros	MT65HYR	Stockpile school	A	School wall soil and stone	170504	2pm	Davidstown		6252	153629	3.25pm	**30t**
16/08/2024	Duffy Bros	SL15VS0	Stockpile school	A	School wall soil and stone	170504	8.10AM	Davidstown		7792	153620	10.30AM	**30T**
16.08.24	duffy bros	SL15VS0	Stockpile school	A	School wall soil and stone	170504	11.50am	Davidstown		7793	153621	1.45pm	**30t**
16/08/2024	duffy bros	sl15vso	Stockpile school	A	School wall soil and stone	170504	3.30PM	DAVIDSTOWN		7794	153622	5.55PM	**30T**
19/08/2024	Duffy bros	SL15VS0	Stockpile school	A	School wall soil and stone	170504	2.10pm	Davidstown		7795	153619	4.03pm	**30t**
22/08/2024	Duffy Bros	sl15vso	Stockpile school	a	School wall soil and stone	170504	1.10pm	Davidstown		6733	153618	3.23pm	**30t**
21/08/2024	Duffy Bros	SL15VSO	Stockpile school	A	School wall concrete rubble	170101	2.30pm	Callaghan		6730			

Schedule of Condition (Pre-Works)

1 Church Ave
D04 WT27

Walls Construction

Version A
Ref: JS/303586
Date: 24th February 2023

mcgovern surveyors



Front Elevation.



Site Location.

Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	24th February 2023
Approved by	Pat McGovern		Director	27th February 2023

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1 General

Surveyor:	Jason Squires
Date of Inspection:	23rd February 2023
Weather Conditions:	The weather at the time of our inspection was bright and sunny.
Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
Description of the Property:	The property comprises a two-storey, end of terrace 2-bedroom dwelling.

2 Scope of Inspection

This inspection has taken the form of an appraisal of the main parts of the structure including roofs, walls, floors and finishes, both internal and external, arising out of visual inspection only. Where parts of the structure are inaccessible or unexposed, no opinion can be given. No floor covering or timber cladding/lining to walls or ceilings were lifted and, therefore, it must be appreciated that defects may be present but cannot be conclusively identified.

Specific exclusions include: M&E services; drainage; attic (unless previously agreed); elevations above a height accessed off a 3m ladder will be viewed from ground level.

3 Use of Report

This report is for the sole use of Walls Construction and their professional advisor(s), and shall not be given to or used by a third party without the expressed written consent of McGovern Surveyors. A copy may be forwarded to the property owner if requested.

4 Definitions

The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
"Reasonable"	The component or element concerned exhibits only minor deterioration and ageing to finishes or exhibits a slight and faint patina of dirt, dust, and discoloration, and/or localised marks and smudges to its surface.
"Fair"	The component or element concerned requires attention and maintenance or exhibits a pronounced patina of dirt, dust and discolouration and/or localised marks and smudges to its surfaces.
"Poor"	The component or element concerned is damaged or is extensively marked, scuffed and/or damaged.

5 BRE Classification

Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**FRONT ELEVATION**				
1.01	Roof; tiled	Poor	Missing roof tiles to lower left of centre.		Photos 1 - 2
1.02	External Walls; pebbledash render finish	Fair	Evidence of patch repair to previous cracks.		Photos 3 - 5
1.03		Fair	General view of facade.		Photos 6 - 13
1.04	Footpath to perimeter; paving	Reasonable	No cracking noted.		Photos 14 - 15
1.05	Window; timber	Fair	Glazing lightly soiled.		Photos 16 - 17
1.06	External door; composite	Reasonable	Reasonable decorative order.		Photos 18 - 20
2.00	**RIGHT SIDE ELEVATION**				
2.01	External Walls; pebbledash render finish	Fair	Light cracking to top left and right corner of window; less than 2 mm.	2	Photos 21 - 22
2.02		Fair	Light cracking to top left corner of wall of parapet area; less than 2 mm.	2	Photos 23 - 24
2.03		Fair	Light cracking to bottom left and top left of window; less than 2 mm.		Photos 41 - 43
2.04	Footpath to perimeter; gravel	Fair	Vegetation growth.		Photos 25 - 26
2.05	Window; timber	Reasonable	Glazing Reasonably clean.		Photos 27 - 28
3.00	**EXTERNAL GROUNDS**				
3.01	Front boundary; Pebble – render finish	Fair	Evidence of patch repaired cracking.		Photos 29 - 31
3.02		Fair	Light cracking to wall as it starts to curved at lower end; less than 1 mm.	1	Photos 36 - 37
3.03	Entrance gates and piers; rendered wall	Fair	Evidence of patch repaired cracking.		Photos 32 - 35
3.04	Right boundary; Pebble – render finish	Fair	Evidence of patch repaired cracking.		Photos 38 - 40

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
3.05	Rear boundary; pebbledash render finish	Reasonable	No cracking visible defects noted to rear garden boundary walls.		Photos 62 - 67
4.00	**REAR ELEVATION**				
4.01	Roof; tiled	Reasonable	General view.		Photos 44 - 46
4.02	External Walls; pebbledash render finish	Fair	Light crack to bottom left of left side first floor window; less than 2 mm.	2	Photos 47 - 48
4.03	External Walls; pebbledash render finish/ render finish	Reasonable	No cracking or visible defects noted to remainder of facade.		Photos 49 - 54
4.04	Footpath to perimeter; paving	Reasonable	Cracking to tiles and isolated areas.		Photos 55 - 58
4.05	Window; timber	Reasonable	Glazing Reasonably clean.		Photos 59 - 60
4.06	External door; timber	Reasonable	Reasonable decorative order.		Photo 61
	INTERNAL				
5.00	**LEFT SIDE BEDROOM**				
5.01	Left wall; drylined	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 68 - 70
5.02	Rear wall; drylined	Fair	Light crack to bottom left of right window; less than 1 mm.	1	Photo 71
5.03		Fair	Hairline cracking over right side window; less than 0.5 mm.	1	Photos 72 - 75
5.04	Ceiling; plastered	Fair	Light crack to ceiling juncture; less than 1 mm.		Photos 76 - 78
5.05		Fair	Light cracking to rear ceiling juncture; less than 1 mm.		Photos 84 - 86
5.06	Right wall; drylined	Fair	Light crack to ceiling juncture; less than 1 mm.		Photos 79 - 81
5.07	Right wall; plastered	Fair	Light crack to right side of wall and rear wall juncture; less than 1 mm.	1	Photos 82 - 83

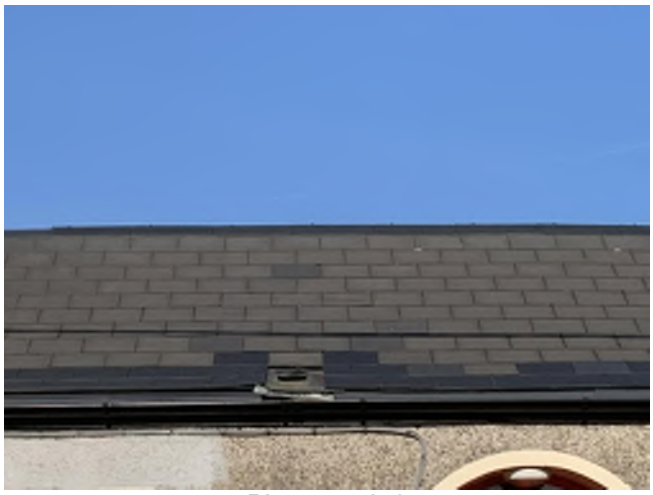
ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
6.00	**RIGHT SIDE BEDROOM**				
6.01	Rear wall; drylined	Fair	Hairline crack to top right and left of window; less than 0.5 mm.	1	Photos 87 - 89
6.02		Fair	Hairline cracking to ceiling and left wall juncture; less than 0.5 mm.	1	Photos 92 - 95
6.03	Right wall; drylined	Fair	Hairline cracking to top left of window; less than 0.25 mm.	1	Photos 90 - 91
6.04	Left wall; drylined	Fair	Hairline crack to ceiling juncture over door; less than 0.5 mm.		Photos 96 - 98
6.05	Ceiling; plastered	Fair	Hairline cracking to curved of ceiling juncture throughout.		Photos 99 - 102
7.00	**LANDING**				
7.01	Left wall; drylined	Fair	Hairline crack to top left of all; less than 0.5 mm.	1	Photos 103 - 105
7.02		Fair	Hairline crack to wall over stairs; less than 0.5 mm.	1	Photos 107 - 108
7.03	Rear wall; drylined	Fair	Light crack to right wall juncture under sensor; less than 1 mm.	1	Photo 106
7.04	Right wall; drylined	Fair	Hairline cracking to right side of wall over stairs; less than 0.5 mm.	1	Photos 109 - 110
8.00	**ENTRANCE CORRIDOR**				
8.01	Right wall; drylined	Fair	Light cracking to ceiling juncture; less than 2 mm.		Photos 111 - 112
8.02	Left wall; drylined	Fair	Hairline cracking to ceiling juncture over door to sitting room; less than 1.5 mm.		Photos 113 - 114
8.03		Fair	Hairline crack to top left of door; less than 0.25 mm.	1	Photo 115
8.04	Front wall; plastered	Fair	Hairline cracking to wall junctures; less than 0.5 mm.	1	Photos 116 - 117

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
9.00	**SITTING ROOM**				
9.01	Front wall; drylined	Fair	Light crack to top left of window and ceiling ginger; less than 1 mm.	1	Photos 118 - 119
9.02		Fair	Hairline crack to centre right of window; less than 0.25 mm.	1	Photo 120
9.03		Fair	Light crack to left wall juncture; less than 1 mm.	1	Photos 121 - 122
9.04	Left wall; drylined	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 123 - 124
9.05		Fair	Hairline crack to rear wall juncture; less than 0.5 mm.	1	Photos 125 - 126
9.06	Left wall; plastered	Fair	Hairline crack to top left of electric fire; less than 0.25 mm.	1	Photo 163
9.07	Rear wall; drylined	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 127 - 128
9.08	Right wall; drylined	Fair	Light crack to ceiling juncture; less than 1 mm.		Photos 129 - 130
10.00	**RIGHT SIDE SITTING ROOM**				
10.01	Right wall; drylined	Poor	Light cracking around window; less than 1 mm.	1	Photos 131 - 136
10.02		Poor	Light cracking to ceiling juncture; less than 1 mm.		Photos 137 - 139
10.03	Front wall; drylined	Fair	Hairline cracking over window; less than 0.5 mm.	1	Photos 140 - 141
10.04		Fair	Light cracking to left wall juncture; less than 1 mm.	1	Photos 160 - 162
10.05	Left wall; drylined	Fair	Hairline crack to ceiling juncture; less than 0.5 mm.	1	Photos 142 - 143
10.06	Rear wall; drylined	Fair	Light crack to ceiling juncture; less than 1 mm.		Photo 144
11.00	**KITCHEN**				
11.01	Rear wall; drylined	Fair	Light cracking to ceiling juncture; less than 1 mm.	1	Photos 145 - 146
12.00	**DINING ROOM**				
12.01	Rear wall; drylined	Fair	Light cracking to ceiling juncture; less than 2 mm/ staining to wall surface.		Photos 147 - 150

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
12.02	Ceiling; plastered	Fair	Hairline crack to centre of ceiling; less than 0.25 mm.		Photos 151 - 152
12.03	Right wall; drylined	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 153 - 156
13.00	**BATHROOM**				
13.01	Wall; drylined	Reasonable	No cracking or visible defects noted.		Photos 157 - 159

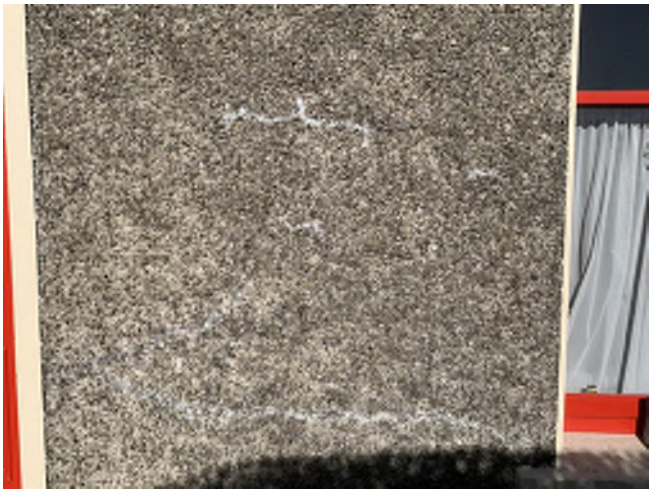
Appendix 1 – Photographs


Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12

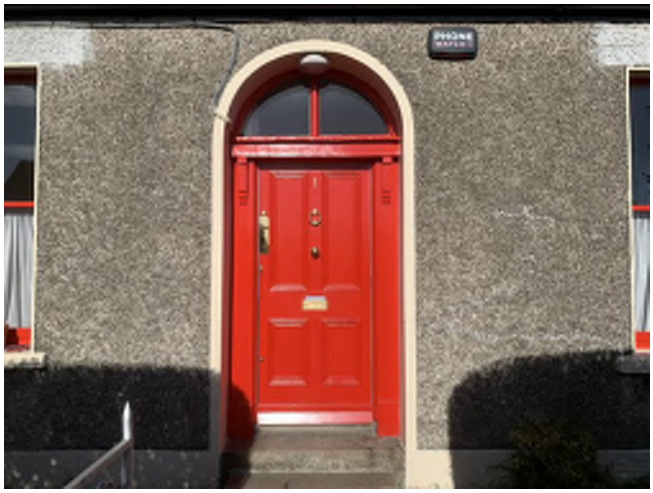

Photograph 13


Photograph 14


Photograph 15

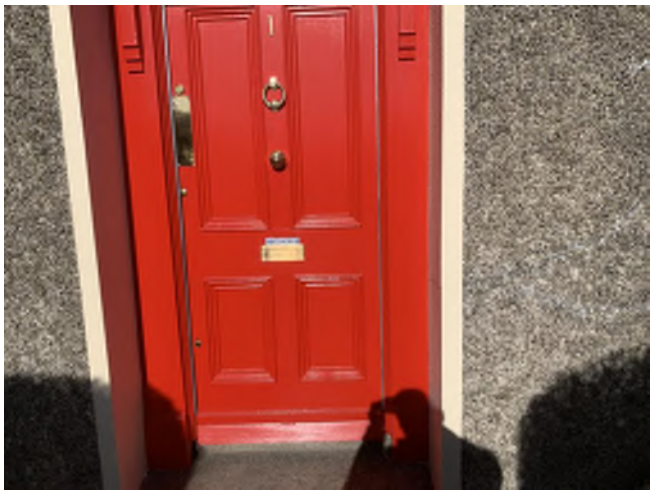

Photograph 16


Photograph 17


Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



Photograph 23



Photograph 24


Photograph 25


Photograph 26


Photograph 27


Photograph 28


Photograph 29


Photograph 30


Photograph 31


Photograph 32


Photograph 33


Photograph 34


Photograph 35


Photograph 36


Photograph 37


Photograph 38


Photograph 39


Photograph 40


Photograph 41


Photograph 42


Photograph 43


Photograph 44


Photograph 45


Photograph 46


Photograph 47


Photograph 48



Photograph 49



Photograph 50



Photograph 51



Photograph 52



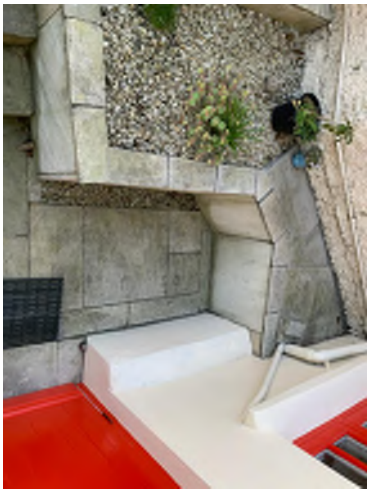
Photograph 53



Photograph 54


Photograph 55


Photograph 56


Photograph 57


Photograph 58


Photograph 59


Photograph 60


Photograph 61


Photograph 62


Photograph 63


Photograph 64


Photograph 65


Photograph 66


Photograph 67


Photograph 68


Photograph 69


Photograph 70


Photograph 71

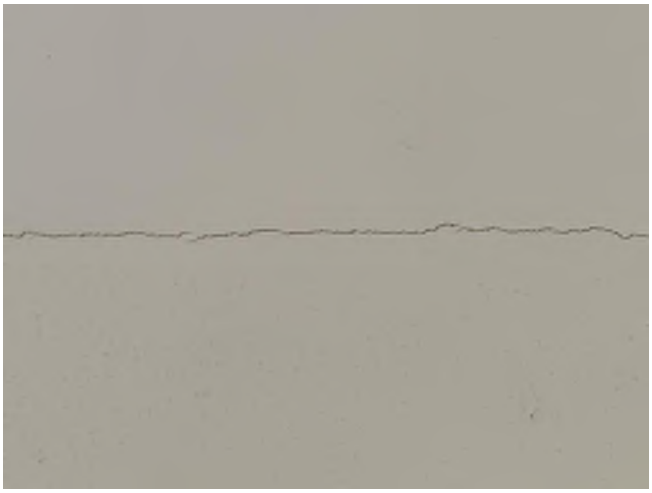

Photograph 72


Photograph 73

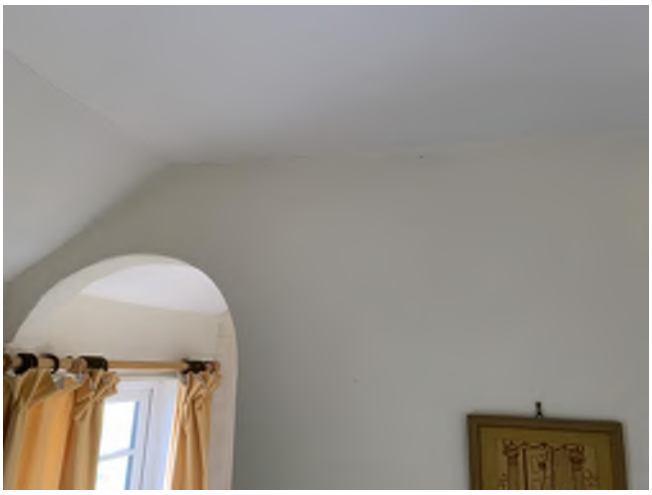

Photograph 74


Photograph 75


Photograph 76


Photograph 77


Photograph 78


Photograph 79

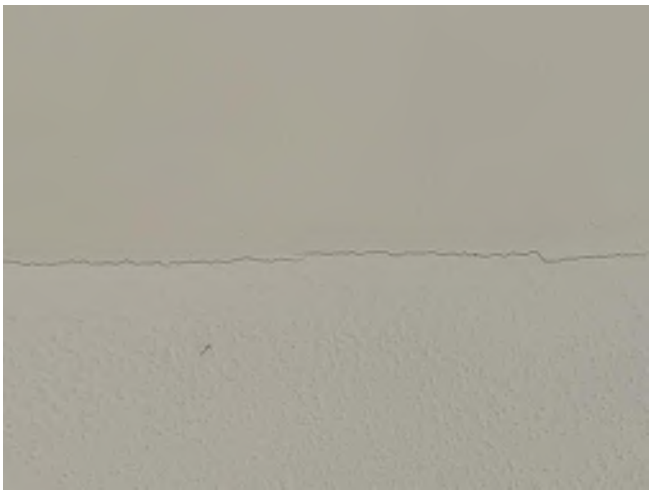

Photograph 80


Photograph 81


Photograph 82


Photograph 83


Photograph 84


Photograph 85


Photograph 86


Photograph 87


Photograph 88


Photograph 89


Photograph 90


Photograph 91


Photograph 92


Photograph 93


Photograph 94


Photograph 95


Photograph 96


Photograph 97


Photograph 98


Photograph 99


Photograph 100


Photograph 101


Photograph 102


Photograph 103


Photograph 104


Photograph 105


Photograph 106


Photograph 107


Photograph 108


Photograph 109


Photograph 110


Photograph 111


Photograph 112


Photograph 113


Photograph 114

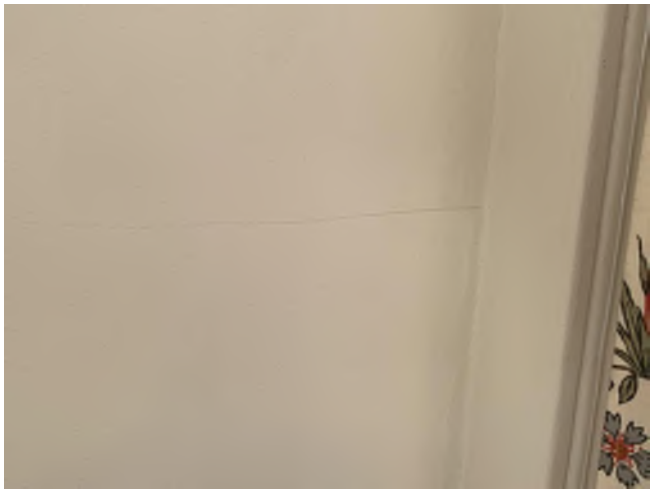

Photograph 115


Photograph 116


Photograph 117


Photograph 118


Photograph 119

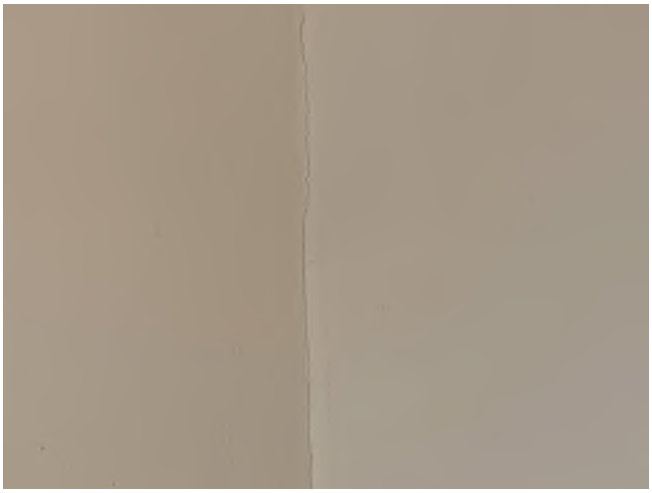

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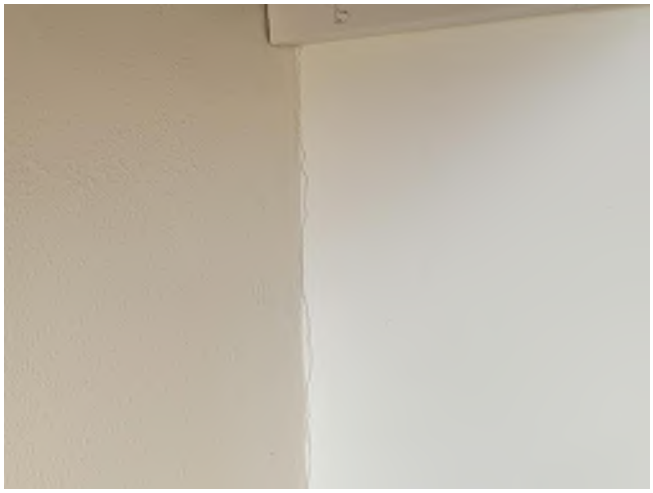

Photograph 121


Photograph 122


Photograph 123


Photograph 124


Photograph 125


Photograph 126



Photograph 127



Photograph 128



Photograph 129



Photograph 130



Photograph 131



Photograph 132


Photograph 133


Photograph 134


Photograph 135


Photograph 136

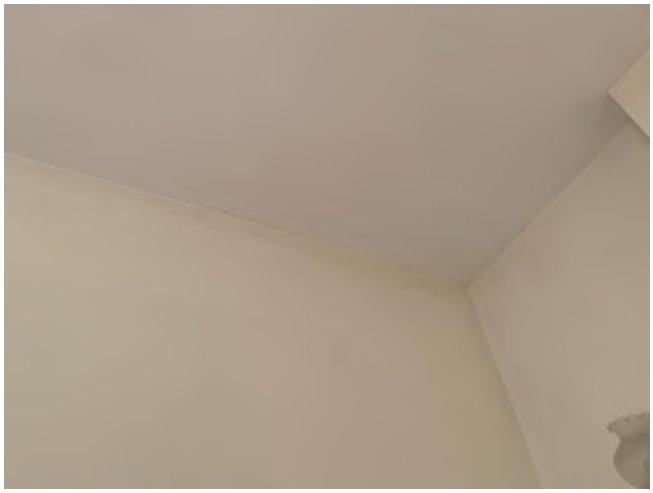

Photograph 137


Photograph 138


Photograph 139


Photograph 140

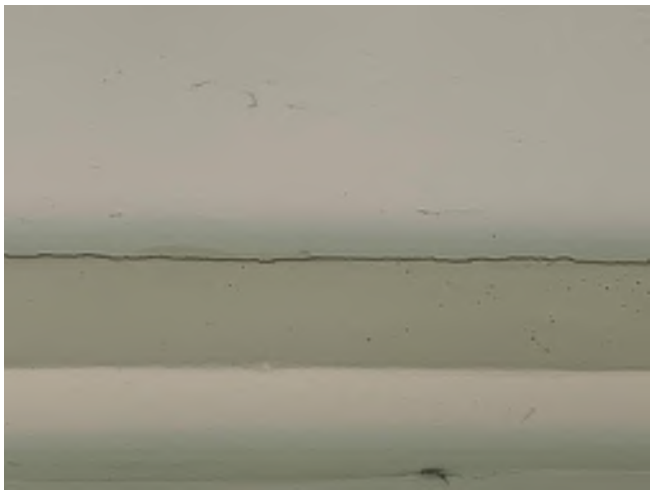

Photograph 141


Photograph 142


Photograph 143


Photograph 144


Photograph 145


Photograph 146

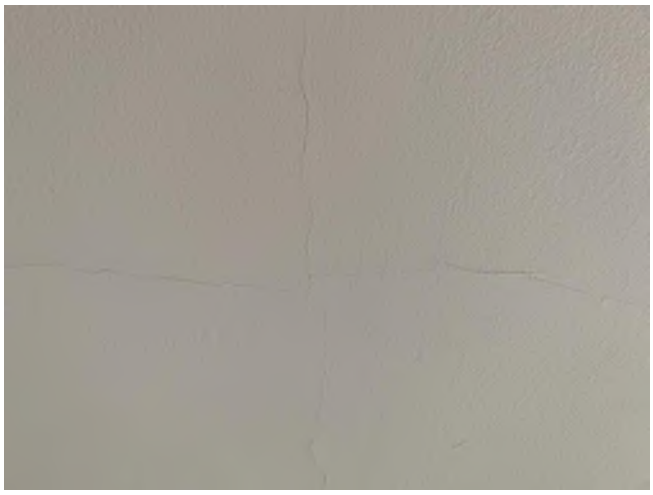

Photograph 147


Photograph 148


Photograph 149


Photograph 150


Photograph 151


Photograph 152


Photograph 153

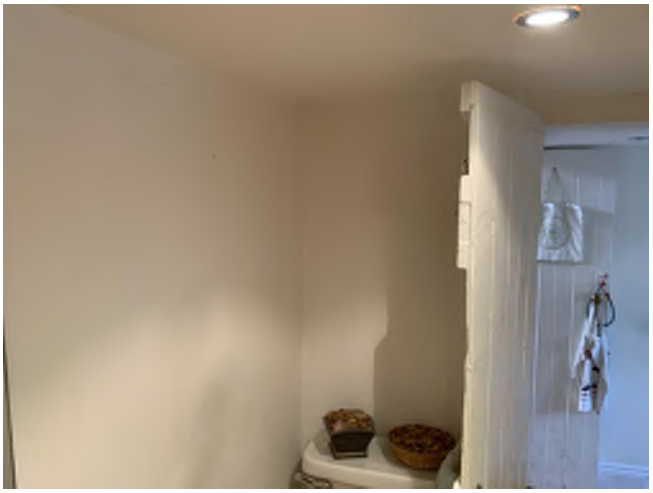

Photograph 154


Photograph 155


Photograph 156


Photograph 157


Photograph 158


Photograph 159


Photograph 160


Photograph 161


Photograph 162



Photograph 163

Schedule of Condition (Pre-Works)

2 Church Avenue
D04 R792

Walls Construction

Version A
Ref: JS/303586
Date: 24th February 2023

mcgovern surveyors



Front Elevation.



Site Location.

Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	24th February 2023
Approved by	Pat McGovern		Director	27th February 2023

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Surveyor:	Jason Squires
Date of Inspection:	23rd February 2023
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Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
Description of the Property:	The property comprises a two-storey, mid-terrace 3-bedroom dwelling.

2 Scope of Inspection

This inspection has taken the form of an appraisal of the main parts of the structure including roofs, walls, floors and finishes, both internal and external, arising out of visual inspection only. Where parts of the structure are inaccessible or unexposed, no opinion can be given. No floor covering or timber cladding/lining to walls or ceilings were lifted and, therefore, it must be appreciated that defects may be present but cannot be conclusively identified.

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3 Use of Report

This report is for the sole use of Walls Construction and their professional advisor(s), and shall not be given to or used by a third party without the expressed written consent of McGovern Surveyors. A copy may be forwarded to the property owner if requested.

4 Definitions

The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
"Reasonable"	The component or element concerned exhibits only minor deterioration and ageing to finishes or exhibits a slight and faint patina of dirt, dust, and discoloration, and/or localised marks and smudges to its surface.
"Fair"	The component or element concerned requires attention and maintenance or exhibits a pronounced patina of dirt, dust and discolouration and/or localised marks and smudges to its surfaces.
"Poor"	The component or element concerned is damaged or is extensively marked, scuffed and/or damaged.

5 BRE Classification

Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**FRONT ELEVATION**				
1.01	Roof; tiled	Reasonable	Restricted view due to parapet/ridge tiles and lower visible tiles seem reasonably clean.		Photo 1
1.02	Chimney; brick stack	Reasonable	No cracking or visual defects noted.		Photos 2 - 3
1.03	External Walls; parapet	Fair	Light vegetation growth to parapet primarily under parapet cappings.		Photos 4 - 5
1.04	External Walls; brick facing	Fair	Light crack to top left of first floor left side window; less than 1 mm.	1	Photo 6
1.05		Reasonable	General view of facade.		Photos 7 - 15
1.06	Footpath to perimeter; paving	Reasonable	No cracking or visible defects noted.		Photos 16 - 17
1.07	Window; timber	Reasonable	Glazing reasonably clean.		Photos 18 - 19
1.08	External door; composite	Reasonable	Reasonably clean.		Photos 20 - 22
2.00	**EXTERNAL GROUNDS**				
2.01	Front garden; gravel	Reasonable	Reasonably kept/light vegetation growth.		Photos 23 - 24
2.02	Right boundary; rendered wall	Fair	Light cracking to rendered wall in isolated areas; less than 2 mm.	2	Photos 25 - 27
2.03	Front boundary; rendered wall	Fair	Light cracking to left side, centre right and right side of wall; less than 2 mm.	2	Photos 28 - 31
2.04	Rear boundary; rendered wall	Reasonable	Light crack to centre of left side rendered wall; less than 1 mm.	1	Photos 53 - 54
3.00	**REAR ELEVATION**				
3.01	Roof; tiled	Reasonable	Reasonable condition.		Photos 32 - 34

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
3.02	Chimney; brick stack	Reasonable	No cracking a visual defects noted.		Photos 35 - 36
3.03	External Walls; render finish	Reasonable	No cracking or visual defects noted to render finish.		Photos 37 - 44
3.04	Footpath to perimeter; paving	Reasonable	No cracking or visible defects noted/moss growth.		Photos 45 - 48
3.05	Window; glazing	Reasonable	Glazing reasonably clean.		Photos 49 - 50
3.06	External door; aluminium	Reasonable	Glazing reasonably clean.		Photos 51 - 52
	INTERNAL				
4.00	**FRONT ROOM 1ST FLOOR**				
4.01	Wall; plastered/dry lined	Reasonable	No cracking or visual defects noted.		Photos 55 - 58
5.00	**BATHROOM**				
5.01	Wall; plastered	Reasonable	No cracking or visual defects noted.		Photos 59 - 61
6.00	**REAR ROOM 1ST FLOOR**				
6.01	Wall; plastered	Reasonable	No cracking or visual defects noted.		Photos 62 - 65
7.00	**REAR BEDROOM**				
7.01	Wall; plastered	Reasonable	No cracking noted.		Photos 66 - 68
7.02	Left wall; drylined	Fair	Water staining.		Photo 69
8.00	**SHOWER ROOM**				
8.01	Wall; plastered/tiles	Reasonable	No cracking or visual defects noted.		Photos 70 - 72
9.00	**UPPER LANDING**				
9.01	Front wall; plastered	Fair	Hairline crack to top right corner of the door; less than 0.25 mm.	1	Photos 73 - 74
10.00	**HALF LANDING**				
10.01	Rear wall; plastered	Fair	Hairline crack to bottom left corner of window; less than 0.5 mm.	1	Photos 75 - 77

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
11.00	**SITTING ROOM**				
11.01	Front wall; plastered	Fair	Hairline crack to top left corner of window housing; less than 0.25 mm.	1	Photo 78
12.00	**KITCHEN**				
12.01	Wall; drylined	Reasonable	No cracking or visual defects noted.		Photos 79 - 82
13.00	**PIANO ROOM**				
13.01	Rear wall; plastered	Fair	Hairline crack to top right of door reveal; less than 0.25 mm.	1	Photos 83 - 84
13.02	Left wall; plastered	Fair	Hairline crack to the top left of door opening from kitchen area; less than 0.25 mm.	1	Photos 85 - 86
14.00	**UTILITY ROOM**				
14.01	Wall; plastered	Reasonable	No cracking or visual defects noted.		Photos 87 - 89
15.00	**ENTRANCE CORRIDOR**				
15.01	Wall; drylined	Reasonable	No cracking or visual defects noted.		Photos 90 - 91

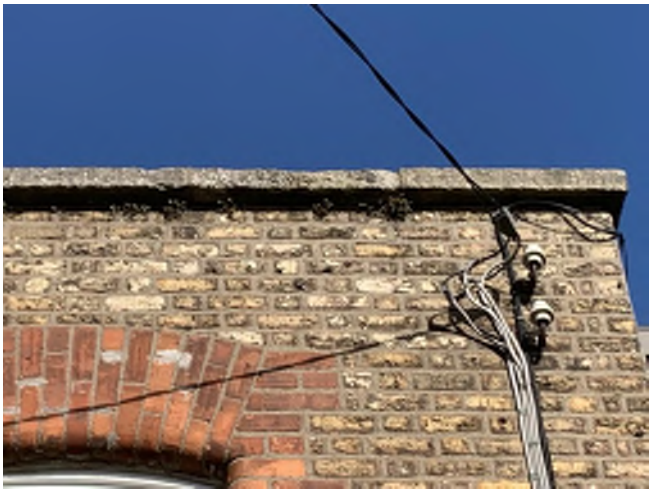
Appendix 1 – Photographs


Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6


Photograph 7


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Photograph 9


Photograph 10


Photograph 11


Photograph 12


Photograph 13


Photograph 14


Photograph 15


Photograph 16


Photograph 17


Photograph 18


Photograph 19


Photograph 20


Photograph 21


Photograph 22


Photograph 23


Photograph 24


Photograph 25


Photograph 26


Photograph 27


Photograph 28


Photograph 29


Photograph 30


Photograph 31

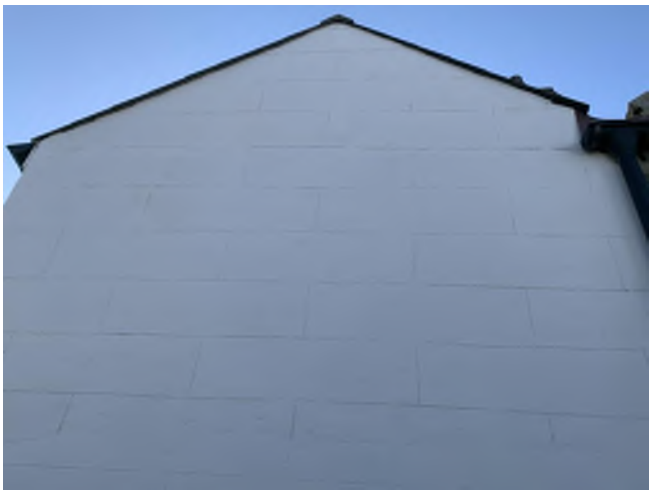

Photograph 32


Photograph 33


Photograph 34


Photograph 35


Photograph 36


Photograph 37


Photograph 38


Photograph 39


Photograph 40


Photograph 41


Photograph 42


Photograph 43


Photograph 44


Photograph 45


Photograph 46


Photograph 47


Photograph 48



Photograph 49



Photograph 50



Photograph 51



Photograph 52



Photograph 53

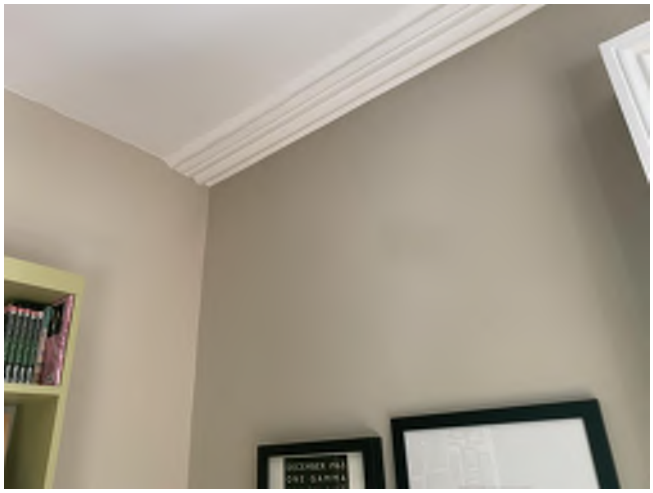


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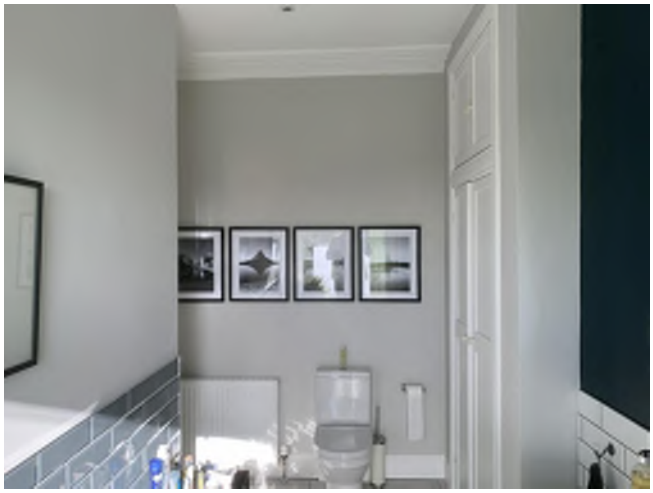

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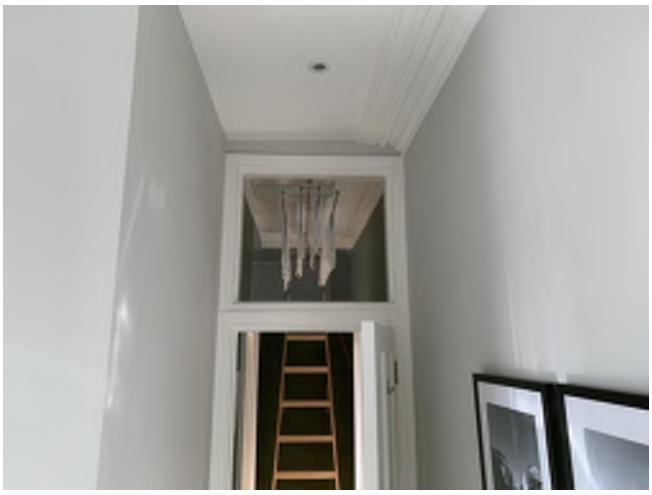

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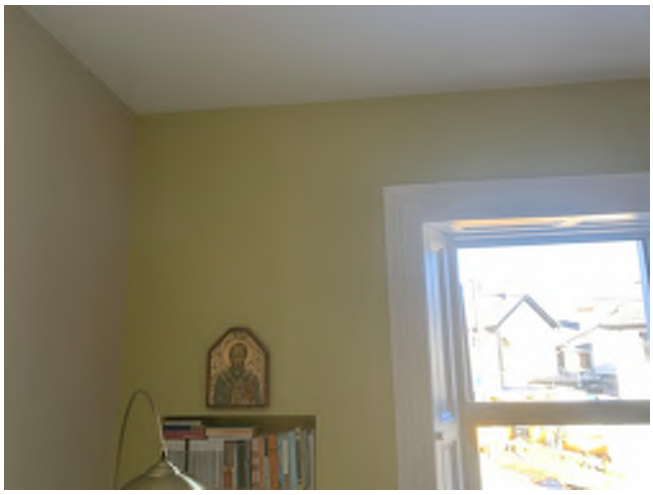

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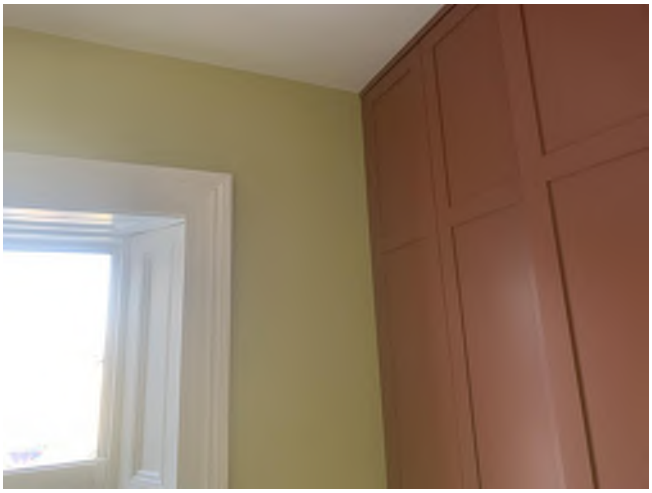

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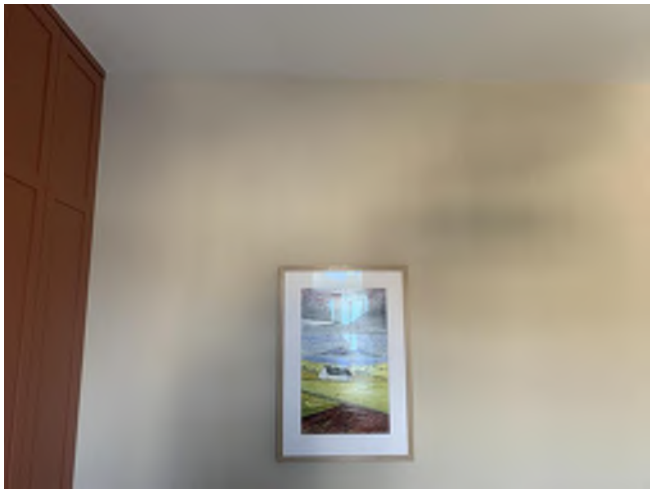

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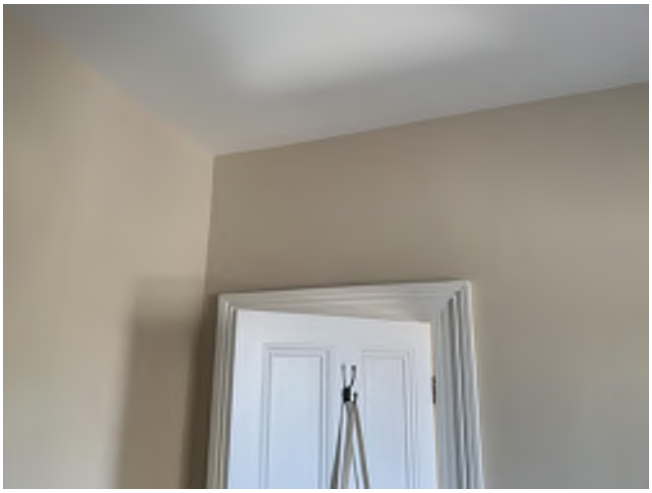

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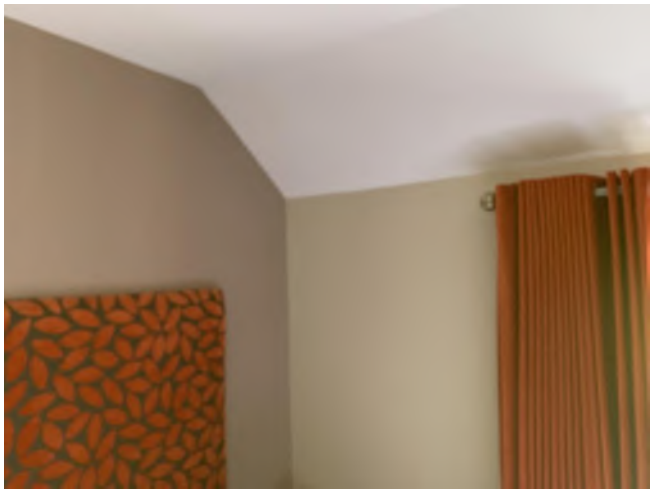

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Photograph 62


Photograph 63

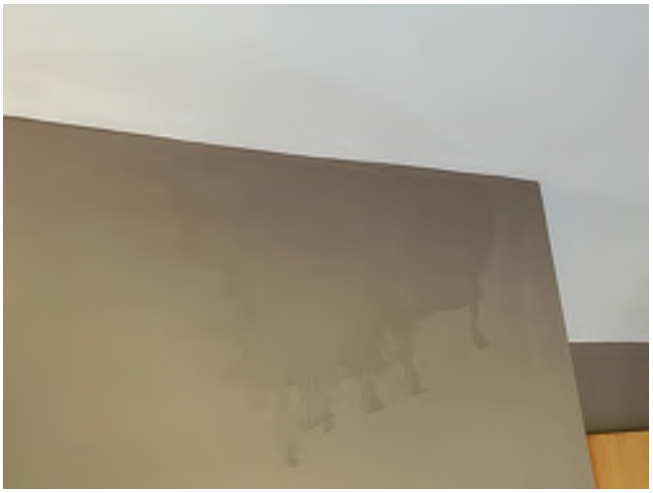

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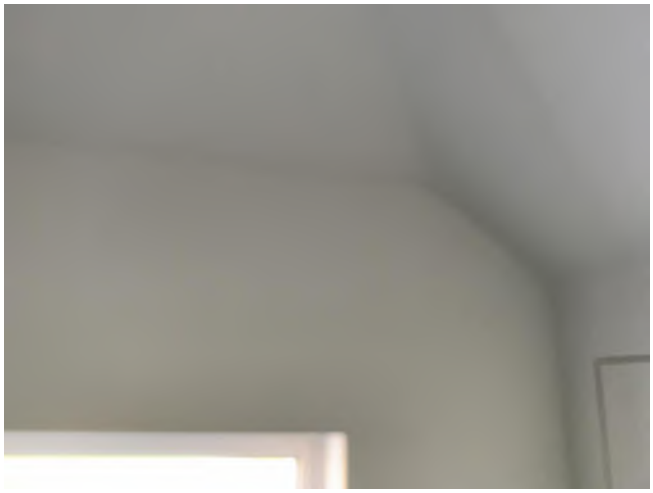

Photograph 65


Photograph 66


Photograph 67


Photograph 68


Photograph 69

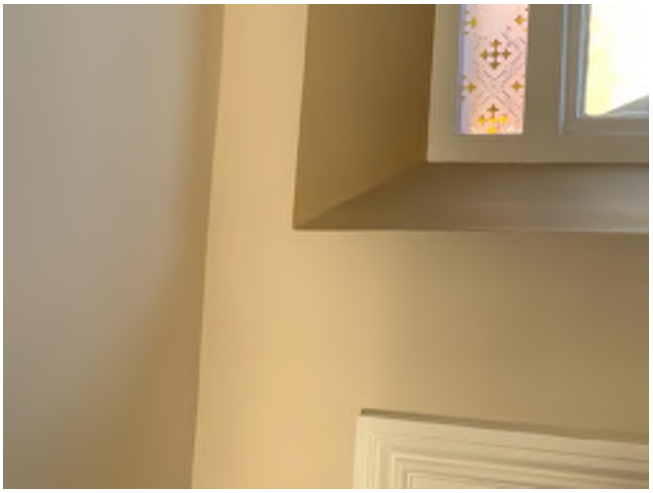

Photograph 70


Photograph 71


Photograph 72


Photograph 73

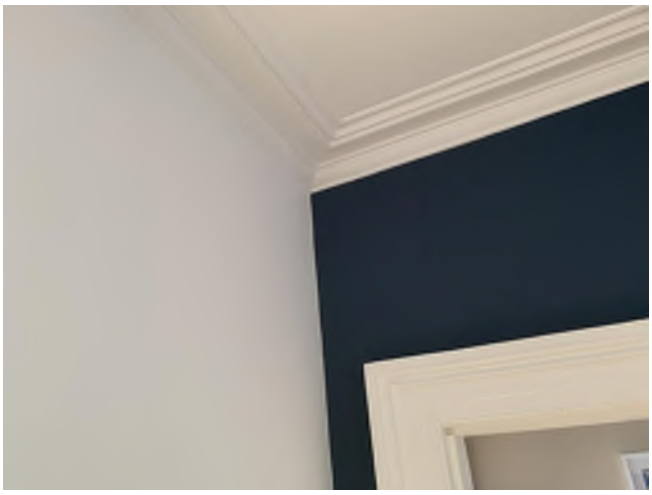

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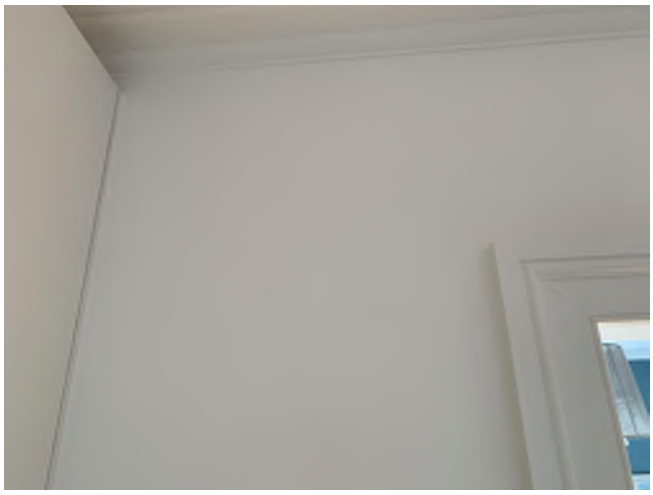

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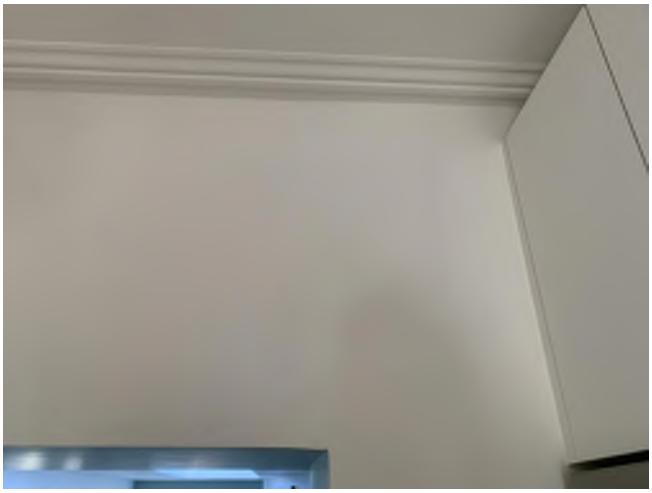

Photograph 76


Photograph 77


Photograph 78


Photograph 79


Photograph 80


Photograph 81


Photograph 82

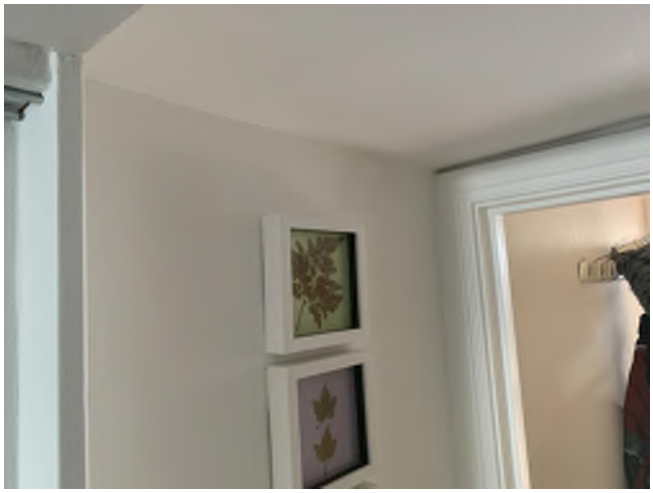

Photograph 83


Photograph 84


Photograph 85


Photograph 86


Photograph 87


Photograph 88


Photograph 89


Photograph 90



Photograph 91

Schedule of Condition (Pre-Works)

3 Church Ave
D04 X971

Walls Construction

Version A
Ref: JS/303586
Date: 24th February 2023

mcgovern surveyors



Front Elevation.



Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	24th February 2023
Approved by	Pat McGovern		Director	27th February 2023

Contents

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1 General

Surveyor:	Jason Squires
Date of Inspection:	24th February 2023
Weather Conditions:	The weather at the time of our inspection was overcast but dry.
Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
Description of the Property:	The property comprises a two-storey, mid-terrace 3-bedroom dwelling.

2 Scope of Inspection

This inspection has taken the form of an appraisal of the main parts of the structure including roofs, walls, floors and finishes, both internal and external, arising out of visual inspection only. Where parts of the structure are inaccessible or unexposed, no opinion can be given. No floor covering or timber cladding/lining to walls or ceilings were lifted and, therefore, it must be appreciated that defects may be present but cannot be conclusively identified.

Specific exclusions include: M&E services; drainage; attic (unless previously agreed); elevations above a height accessed off a 3m ladder will be viewed from ground level.

3 Use of Report

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4 Definitions

The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
"Reasonable"	The component or element concerned exhibits only minor deterioration and ageing to finishes or exhibits a slight and faint patina of dirt, dust, and discoloration, and/or localised marks and smudges to its surface.
"Fair"	The component or element concerned requires attention and maintenance or exhibits a pronounced patina of dirt, dust and discolouration and/or localised marks and smudges to its surfaces.
"Poor"	The component or element concerned is damaged or is extensively marked, scuffed and/or damaged.

5 BRE Classification

Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**FRONT ELEVATION**				
1.01	Roof; tiled	Reasonable	Restricted visibility due to parapet/ridge tiles and visible tiles are reasonably clean.		Photos 1 - 2
1.02	Chimney; rendered stack	Reasonable	No crashing or visual defects noted.		Photo 3
1.03	External Walls; brick facing	Fair	Hairline crack to top left of ground floor window; less than 0.5 mm.	1	Photo 4
1.04		Poor	Erosion to redbrick window housing around ground floor window and door.		Photos 5 - 10
1.05		Reasonable	Remainder of facade in reasonable condition.		Photos 11 - 18
1.06	Footpath to perimeter; paving	Fair	Light cracking in isolated areas/uneven surface finish/ vegetation growth/vegetation debris.		Photos 19 - 20
1.07	Window; uPVC	Fair	Glazing lightly soiled.		Photos 21 - 22
1.08	External door; uPVC	Reasonable	Reasonable decorative order.		Photo 23
2.00	**EXTERNAL GROUNDS**				
2.01	Front garden; gravel	Poor	Excessive buildup of vegetation.		Photos 24 - 25
2.02	Left boundary; rendered wall	Fair	Boast render/light cracking to wall in isolated areas; crack widths are less than 2 mm/large crack to bottom right corner of wall; less than 5 mm.	2	Photos 26 - 29
2.03	Front boundary; rendered wall	Fair	Repeated light cracking throughout internal face of rendered wall; crack widths are less than 2 mm/ delamination of old paint finish.		Photos 30 - 35
2.04		Poor	Repeated light cracking to external face of rendered wall; crack widths are less than 3 mm.	2	Photos 36 - 38

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
2.05	Entrance gates and piers; rendered wall	Fair	Light crack to top centre-left of rendered wall; less than 1 mm.	1	Photo 39
2.06	Rear boundary; rendered wall	Fair	Cracking to left side rendered wall which steps in to neighbouring premises; less than 10 mm.	3	Photos 65 - 67
3.00	**REAR ELEVATION**				
3.01	Roof; tiled	Reasonable	General view.		Photos 40 - 41
3.02	External Walls; render finish	Fair	Light crack to top right of right side first floor window; less than 2 mm.	2	Photo 42
3.03		Reasonable	General view of remainder of facade.		Photos 43 - 56
3.04	Footpath to perimeter; concrete	Reasonable	Light crack to concrete surface at access chamber area.		Photos 57 - 60
3.05	Window; uPVC	Reasonable	Glazing reasonably clean.		Photos 61 - 62
3.06	External door; glazing	Reasonable	Glazing reasonably clean.		Photos 63 - 64
	INTERNAL				
4.00	**FRONT ROOM**				
4.01	Wall; drylined/plastered	Reasonable	No cracking or visual defects noted.		Photos 68 - 71
5.00	**CENTRE LEFT ROOM**				
5.01	Wall; drylined/plastered	Reasonable	No cracking or visual defects noted.		Photos 72 - 75
6.00	**REAR ROOM**				
6.01	Wall; papered/brick facing	Reasonable	No cracking or visual defects noted.		Photos 76 - 79
7.00	**KITCHEN**				
7.01	Rear wall; drylined	Fair	Hairline crack to top left of window; less than 0.25 mm.	1	Photos 80 - 81
7.02	Left wall; drylined	Fair	Hairline crack to top left and right of window overthink; less than 0.25 mm.	1	Photos 82 - 84

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
7.03	Ceiling; plastered	Fair	Hairline crack to ceiling at lights area; less than 0.25 mm.		Photos 85 - 86
8.00	**BATHROOM**				
8.01	Right wall; drylined	Fair	Hairline crack to wall at shower area extending to ceiling; less than 0.5 mm.	1	Photos 87 - 90
9.00	**REAR BEDROOM**				
9.01	Wall; drylined/plastered	Reasonable	No cracking or visual defects noted.		Photos 91 - 93
10.00	**FRONT RIGHT BEDROOM**				
10.01	Wall; drylined/plastered	Reasonable	No cracking or visual defects noted.		Photos 94 - 95
10.02	Ceiling; coving	Fair	Hairline crack to rear left corner of coving.		Photo 96
11.00	**FRONT LEFT BEDROOM**				
11.01	Wall; papered	Reasonable	No cracking or visual defects noted.		Photos 97 - 99
11.02	Ceiling; plastered	Fair	Hairline crack to centre of ceiling; less than 0.25 mm.		Photo 100
12.00	**LANDING**				
12.01	Ceiling; plastered	Fair	Hairline crack to ceiling; less than 0.25 mm.		Photo 101
13.00	**ENTRANCE HALL**				
13.01	Wall; plastered	Reasonable	No cracking or visual defects noted.		Photos 102 - 103

Appendix 1 – Photographs


Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6


Photograph 7


Photograph 8


Photograph 9


Photograph 10


Photograph 11


Photograph 12


Photograph 13


Photograph 14


Photograph 15


Photograph 16

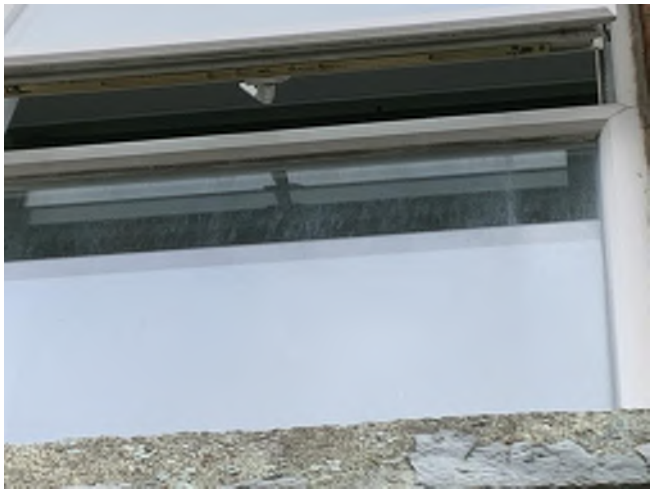

Photograph 17


Photograph 18


Photograph 19


Photograph 20


Photograph 21


Photograph 22


Photograph 23


Photograph 24


Photograph 25


Photograph 26


Photograph 27


Photograph 28


Photograph 29


Photograph 30


Photograph 31


Photograph 32


Photograph 33


Photograph 34


Photograph 35


Photograph 36


Photograph 37


Photograph 38


Photograph 39


Photograph 40


Photograph 41


Photograph 42



Photograph 43



Photograph 44



Photograph 45



Photograph 46



Photograph 47



Photograph 48


Photograph 49


Photograph 50


Photograph 51


Photograph 52


Photograph 53


Photograph 54


Photograph 55


Photograph 56


Photograph 57


Photograph 58


Photograph 59


Photograph 60


Photograph 61


Photograph 62

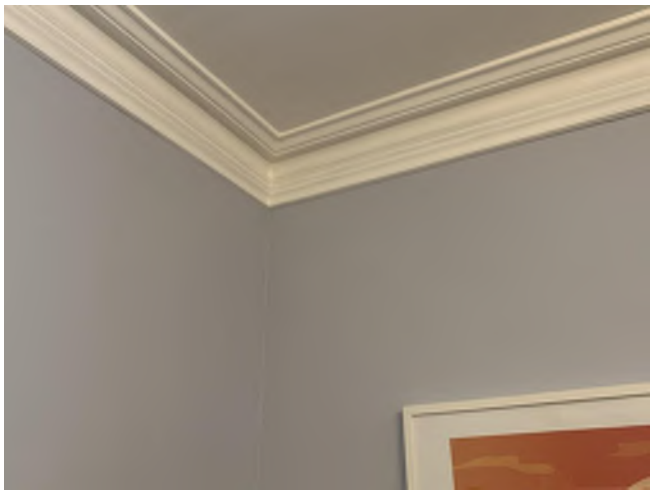

Photograph 63


Photograph 64


Photograph 65


Photograph 66


Photograph 67


Photograph 68


Photograph 69


Photograph 70



Photograph 71


Photograph 72


Photograph 73


Photograph 74


Photograph 75


Photograph 76


Photograph 77


Photograph 78


Photograph 79


Photograph 80


Photograph 81

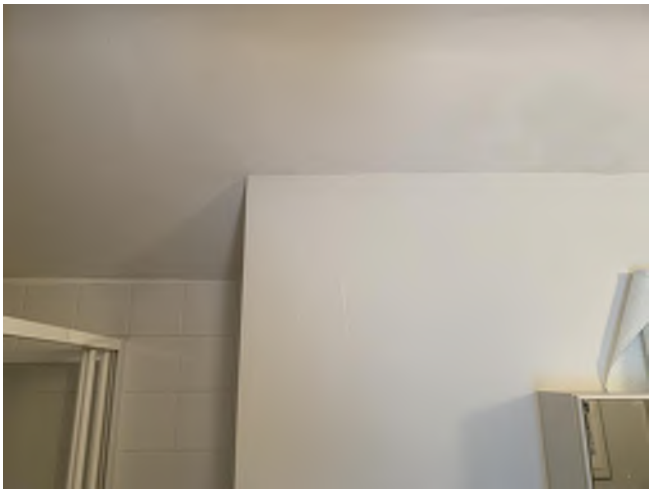

Photograph 82


Photograph 83


Photograph 84


Photograph 85


Photograph 86

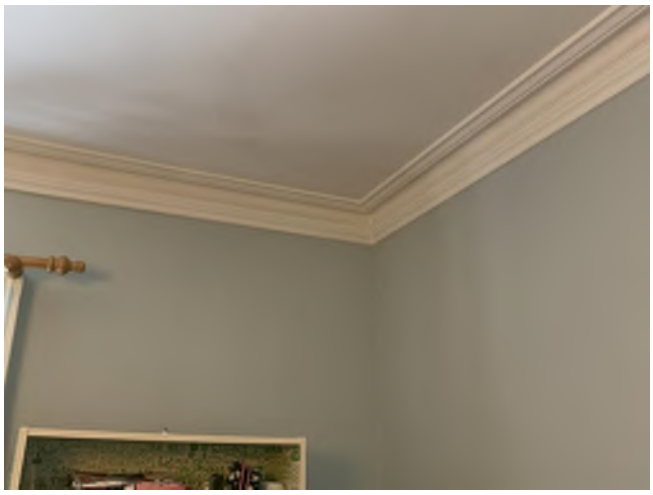

Photograph 87


Photograph 88


Photograph 89


Photograph 90

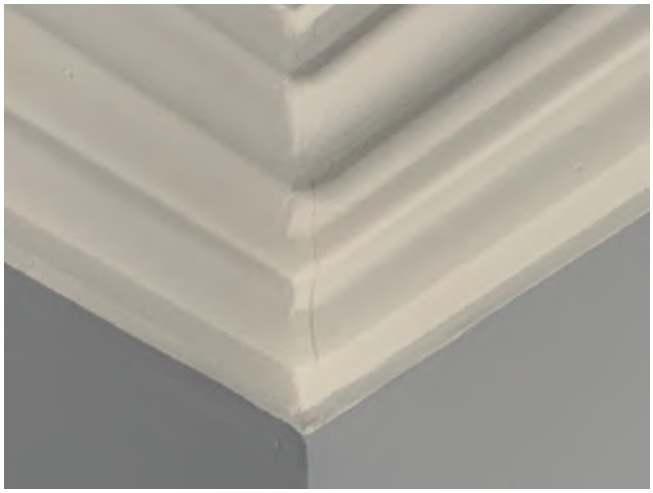

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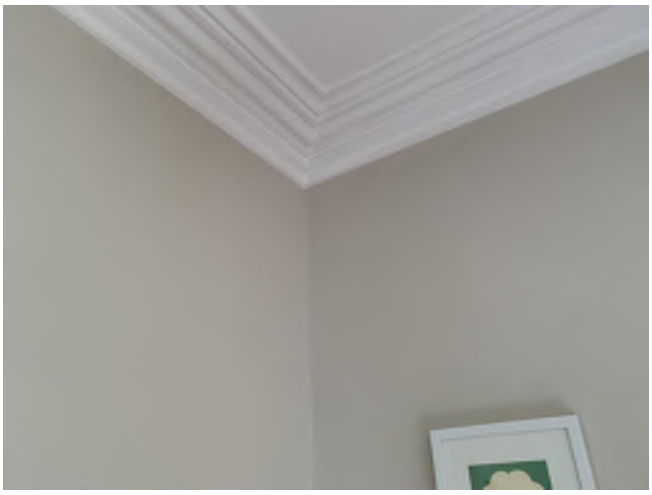

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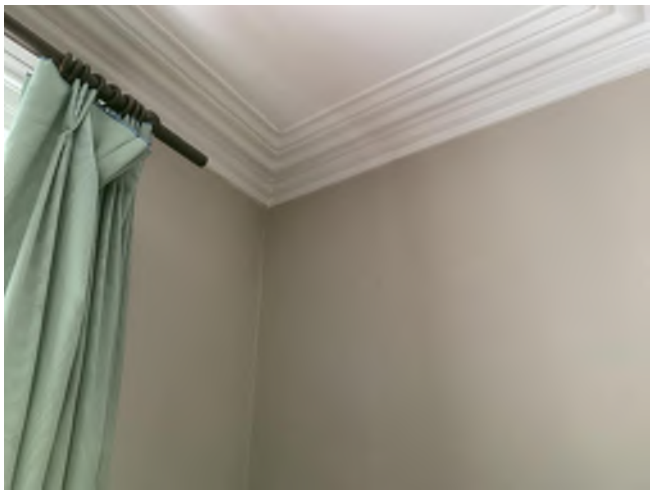

Photograph 93


Photograph 94


Photograph 95


Photograph 96


Photograph 97


Photograph 98


Photograph 99


Photograph 100


Photograph 101


Photograph 102



Photograph 103

Schedule of Condition (Pre-Works)

4 Church Ave
D04 HX00

Walls Construction

Version A
Ref: JS/303586
Date: 24th February 2023

mcgovern surveyors



Front Elevation.



Site Location.

Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	24th February 2023
Approved by	Pat McGovern		Director	27th February 2023

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1 General

Surveyor:	Jason Squires
Date of Inspection:	23rd February 2023
Weather Conditions:	The weather at the time of our inspection was bright and sunny.
Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
Description of the Property:	The property comprises a two-storey, mid-terrace 3-bedroom dwelling.

2 Scope of Inspection

This inspection has taken the form of an appraisal of the main parts of the structure including roofs, walls, floors and finishes, both internal and external, arising out of visual inspection only. Where parts of the structure are inaccessible or unexposed, no opinion can be given. No floor covering or timber cladding/lining to walls or ceilings were lifted and, therefore, it must be appreciated that defects may be present but cannot be conclusively identified.

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3 Use of Report

This report is for the sole use of Walls Construction and their professional advisor(s), and shall not be given to or used by a third party without the expressed written consent of McGovern Surveyors. A copy may be forwarded to the property owner if requested.

4 Definitions

The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
"Reasonable"	The component or element concerned exhibits only minor deterioration and ageing to finishes or exhibits a slight and faint patina of dirt, dust, and discoloration, and/or localised marks and smudges to its surface.
"Fair"	The component or element concerned requires attention and maintenance or exhibits a pronounced patina of dirt, dust and discolouration and/or localised marks and smudges to its surfaces.
"Poor"	The component or element concerned is damaged or is extensively marked, scuffed and/or damaged.

5 BRE Classification

Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**FRONT ELEVATION**				
1.01	Roof; tiled	Reasonable	Restricted visibility for ground level due to parapet/ ridge tiles and tiles just below seem reasonably clean with no sight of defects.		Photos 1 - 2
1.02	External Walls; parapet	Reasonable	Light crack to parapet area at top left hand corner of first floor right side window; less than 2 mm.	2	Photo 3
1.03	External Walls; brick facing	Fair	Light crack to top right of right side first floor window; less than 1.5 mm.	2	Photo 4
1.04		Fair	Light crack to bottom left of right side first floor window; less than 2 mm.	2	Photo 5
1.05		Reasonable	General view of facade.		Photos 6 - 9
1.06	Footpath to perimeter; paving	Reasonable	No cracking to pavers/vegetation grout.		Photos 10 - 11
1.07	Window; aluminium	Fair	Glazing lightly soiled.		Photos 12 - 13
1.08	External door; composite	Reasonable	Reasonable condition.		Photo 14
1.09	External door; arch	Fair	Delamination of paintwork/hairline cracking to top of door; less than 0.5 mm.		Photos 15 - 17
2.00	**EXTERNAL GROUNDS**				
2.01	Left boundary; rendered wall	Poor	Light cracking throughout rendered wall; less than 3 mm.		Photos 18 - 22
2.02	Right boundary; rendered wall	Fair	Light cracking to wall in isolated areas.; less than 2 mm.	2	Photos 23 - 29
2.03	Front boundary; rendered wall	Poor	Repeated light cracking throughout wall/boast render on wall capping; crack widths are less than 5 mm/patch repair evident on external face of rendered wall.	2	Photos 30 - 42

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
2.04	Front garden; gravel	Poor	Vegetation growth/vegetation debrief.		Photos 43 - 45
2.05	Rear boundary; Pebble – render finish	Reasonable	Light crack to rear wall neighbouring sheds juncture; less than 3 mm.	2	Photos 67 - 69
2.06		Fair	Light cracked to top right corner of rear boundary wall; less than 1.5 mm.	2	Photos 70 - 72
2.07		Fair	Light crack to right side of waal where it steps in; less than 7 mm.	3	Photo 73
3.00	**REAR ELEVATION**				
3.01	Roof; tiled	Fair	Light moss growth to surface/light heaving of tiles to bottom left of chimney.		Photos 46 - 49
3.02	Chimney; brick stack	Fair	Light cracking to centre right of chimney; crack widths are up to 3 mm/cracking to render at chimney pots.	2	Photo 50
3.03	Fascia and Soffit; timber	Poor	Missing section of fascia to right side of the side.		Photo 51
3.04	External Walls; stone	Reasonable	No cracking or visual defects noted to stone finish.		Photo 52
3.05	External Walls; brick facing	Reasonable	No cracking or visual defects noted to brick facing finish.		Photos 53 - 58
3.06	External Walls; render finish	Fair	Hairline crack to ventilation area and gas vent; less than 0.5 mm.	1	Photos 59 - 61
3.07	Verge; mortar pointing	Fair	Scuff marks to mortar pointing.		Photos 62 - 63
3.08	Footpath to perimeter; paving	Reasonable	No cracking noted/vegetation growth.		Photos 64 - 66
3.09	Window; aluminium	Fair	Glazing lightly soiled.		Photos 74 - 75
	INTERNAL				
4.00	**FRONT BEDROOM**				
4.01	Front wall; plastered	Fair	Hairline crack to bottom right of left side window; less than 0.5 mm.	1	Photo 76

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
4.02		Fair	Hairline crack to bottom left of the right side window; less than 0.5 mm.	1	Photo 77
4.03	Left wall; coving	Fair	Light cracking to coving at left side of wall at ceiling juncture; less than 1 mm.		Photos 78 - 79
4.04	Rear wall; coving	Fair	Light crack to coving at left wall juncture; less than 1 mm.		Photo 80
5.00	**FRONT BEDROOM EN-SUITE**				
5.01	Wall; ceramic tiles	Reasonable	No cracking defects noted.		Photos 81 - 82
6.00	**CENTRE LEFT BEDROOM**				
6.01	Right wall; plastered	Fair	Light crack to rear wall juncture; less than 2 mm.	2	Photos 83 - 84
6.02		Fair	Hairline crack to wall extending to ceiling; less than 0.5 mm.	1	Photos 85 - 87
6.03	Front wall; plastered	Fair	Hairline crack to right wall juncture; less than 0.5 mm.	1	Photos 88 - 89
6.04	Rear wall; plastered	Fair	Hairline crack to left wall juncture; less than 0.5 mm.	1	Photos 90 - 91
6.05	Rear wall; papered	Fair	Light cracking to bottom left and bottom right of window; less than 1 mm.	1	Photos 95 - 97
6.06	Ceiling; plastered	Fair	Light crack to the centre of ceiling; less than 1.5 mm.		Photos 92 - 93
6.07	Left wall; plastered	Fair	Hairline crack to ceiling juncture; less than 0.5 mm.		Photo 94
7.00	**REAR BEDROOM**				
7.01	Front wall; plastered	Fair	Light crack to top left of door; less than 1 mm.	1	Photo 98
7.02		Fair	Hairline rack to top right corner of wall; less than 0.25 mm.	1	Photo 101
7.03	Rear wall; plastered	Fair	Hairline crack to ceiling juncture; less than 0.5 mm.		Photo 99
7.04	Left wall; plastered	Fair	Light crack to front wall juncture; less than 1 mm.	1	Photo 100
7.05	Right wall; plastered	Fair	Hairline crack to right side of wall; less than 0.25 mm.	1	Photos 102 - 104

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
7.06	Ceiling; plastered	Fair	Light crack to curve of ceiling at left side; less than 1 mm.	1	Photos 105 - 106
7.07		Fair	Hairline crack to right side of ceiling at juncture to flat; less than 0.5 mm.		Photos 107 - 108
8.00	**BATHROOM**				
8.01	Wall; ceramic tiles	Reasonable	No cracking or visual defects noted.		Photos 109 - 112
9.00	**UPPER LANDING**				
9.01	Front wall; plastered	Fair	Hairline cracking to ceiling at left wall juncture; less than 0.5 mm.	1	Photos 113 - 116
9.02	Left wall; plastered	Fair	Hairline crack to top left of bedroom door; less than 0.25 mm.	1	Photos 117 - 118
9.03	Right wall; drylined	Poor	Repeated hairline cracking throughout wall primarily to centre area; less than 0.5 mm.	1	Photos 119 - 122
9.04	Rear wall; plastered	Fair	Light cracking a coving area; less than 3 mm.	1	Photos 123 - 126
10.00	**HALF LANDING**				
10.01	Rear wall; plastered	Fair	Light crack to top left of door opening; less than 1 mm.	1	Photo 127
10.02		Fair	Hairline cracking to right wall juncture; less than 0.5 mm.	1	Photo 128
11.00	**KITCHEN**				
11.01	Rear wall; plastered	Fair	Hairline crack to top right of rear door; less than 0.5 mm.	1	Photos 129 - 130
11.02		Fair	Hairline crack to wall at concrete encasement; less than 0.5 mm.		Photo 135
11.03	Ceiling; plastered	Fair	Hairline crack to ceiling at sky light area; less than 0.25 mm.		Photos 131 - 132

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
11.04		Fair	Staining and light cracking to ceiling at bottom of steps area; less than 1 mm.		Photos 133 - 134
11.05		Fair	Light cracking to ceiling at steel encasement area; less than 1 mm.		Photos 173 - 177
12.00	**PLAY ROOM**				
12.01	Rear wall; plastered	Fair	Hairline crack to right wall juncture; less than 1 mm.	1	Photos 136 - 137
12.02		Fair	Hairline crack to top left of wall opening; less than 0.25 mm.	1	Photos 141 - 143
12.03	Right wall; plastered	Fair	Light cracking to top right corner of wall; less than 2 mm.	2	Photos 138 - 140
13.00	**SITTING**				
13.01	Sitting room; plastered	Reasonable	No cracking or visual defects noted.		Photos 144 - 148
14.00	**UTILITY ROOM**				
14.01	Rear wall; plastered	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 149 - 151
14.02	Ceiling; plastered	Fair	Hairline cracking to junctures		Photos 152 - 154
15.00	**ENTRANCE CORRIDOR**				
15.01	Right wall; drylined	Fair	Light cracking to door arch area; less than 1 mm.	1	Photos 155 - 158
15.02		Fair	Hairline crack to ESB board area; less than 0.25 mm.		Photos 159 - 160
15.03		Fair	Hairline crack to ceiling juncture at centre right side of wall; less than 0.5 mm.		Photos 171 - 172
15.04	Front wall; plastered	Fair	Light cracking to ceiling juncture; less than 1 mm.	1	Photos 161 - 163
15.05	Left wall; drylined	Fair	Light cracking to rear left side of entrance door junctures; less than 1.5 mm.	2	Photos 164 - 167

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
16.00	**STAIRS**				
16.01	Ceiling; plastered	Fair	Hairline crack to left wall ceiling juncture; less than 1 mm.		Photos 168 - 170

Appendix 1 – Photographs


Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18


Photograph 19


Photograph 20


Photograph 21


Photograph 22


Photograph 23


Photograph 24


Photograph 25


Photograph 26


Photograph 27


Photograph 28


Photograph 29


Photograph 30


Photograph 31


Photograph 32


Photograph 33


Photograph 34


Photograph 35


Photograph 36


Photograph 37


Photograph 38


Photograph 39


Photograph 40


Photograph 41


Photograph 42


Photograph 43


Photograph 44


Photograph 45


Photograph 46


Photograph 47


Photograph 48


Photograph 49


Photograph 50


Photograph 51


Photograph 52

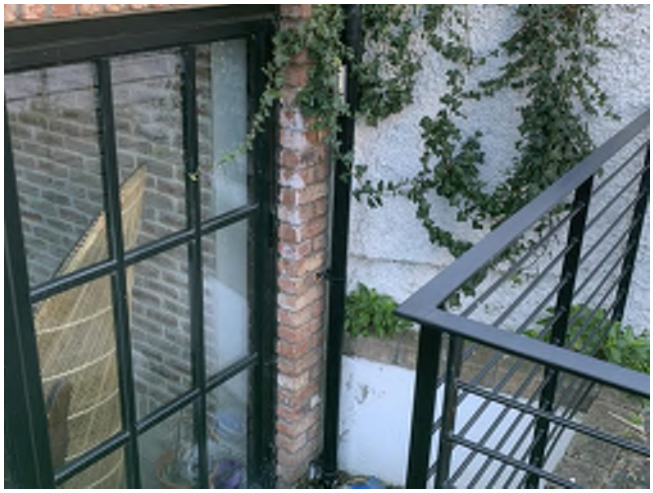

Photograph 53


Photograph 54


Photograph 55


Photograph 56


Photograph 57


Photograph 58


Photograph 59


Photograph 60


Photograph 61


Photograph 62


Photograph 63

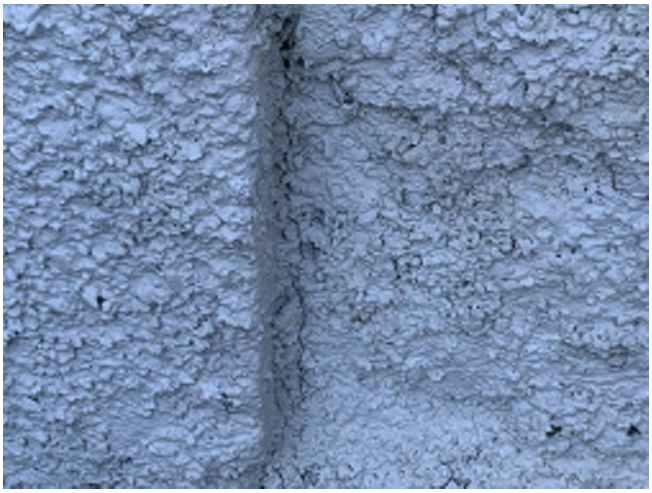

Photograph 64


Photograph 65


Photograph 66


Photograph 67


Photograph 68


Photograph 69


Photograph 70


Photograph 71


Photograph 72


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Photograph 75


Photograph 76


Photograph 77


Photograph 78


Photograph 79


Photograph 80


Photograph 81


Photograph 82


Photograph 83

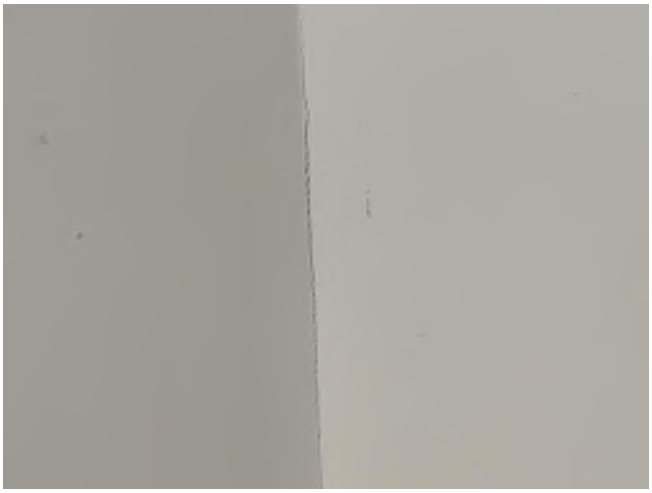

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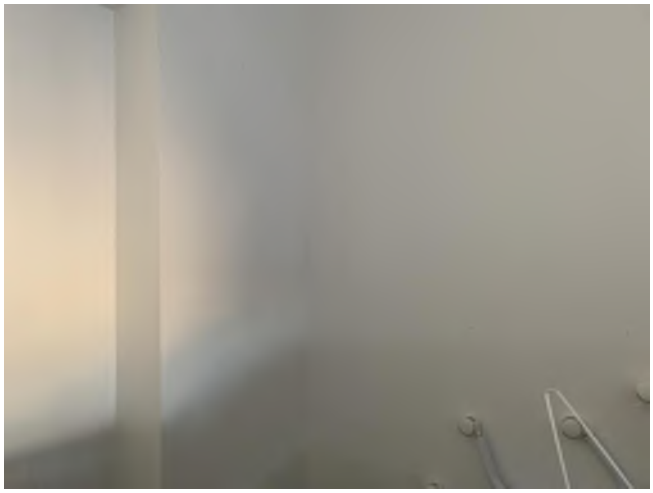

Photograph 85


Photograph 86


Photograph 87


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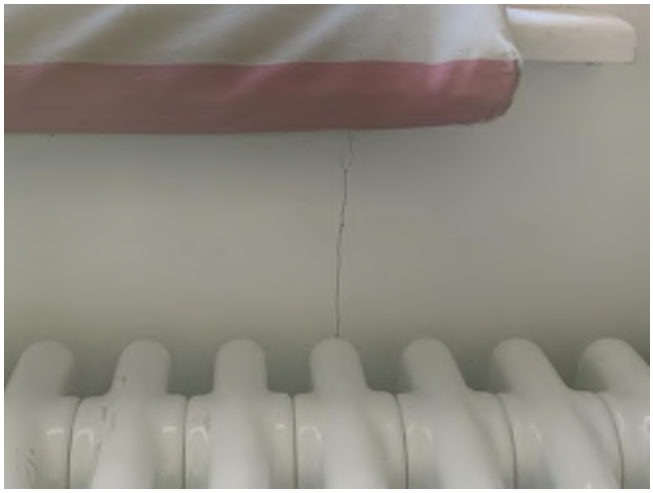

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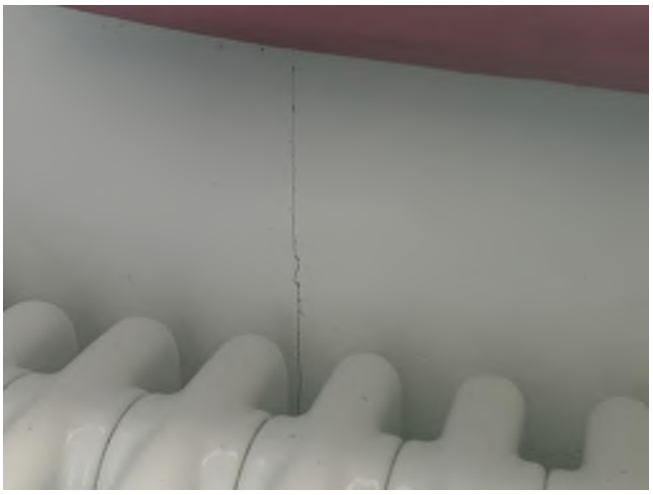

Photograph 92


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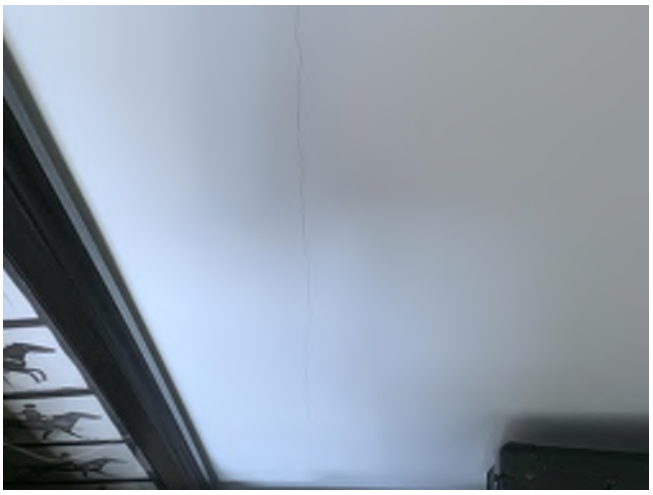

Photograph 98


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Photograph 102


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Photograph 108


Photograph 109


Photograph 110


Photograph 111


Photograph 112


Photograph 113

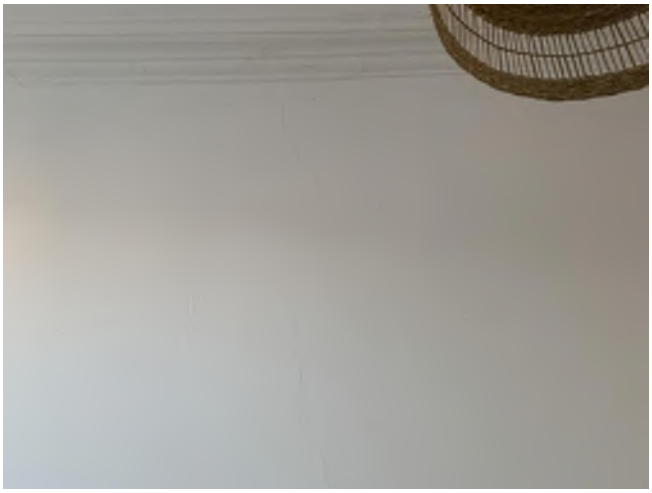

Photograph 114


Photograph 115


Photograph 116


Photograph 117


Photograph 118


Photograph 119


Photograph 120


Photograph 121


Photograph 122


Photograph 123


Photograph 124


Photograph 125

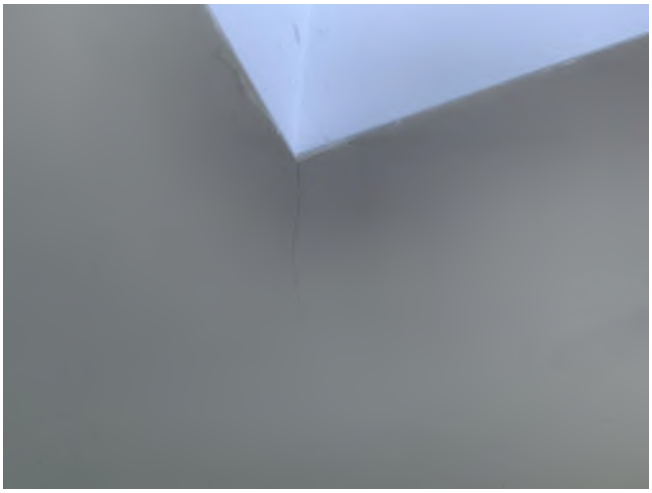

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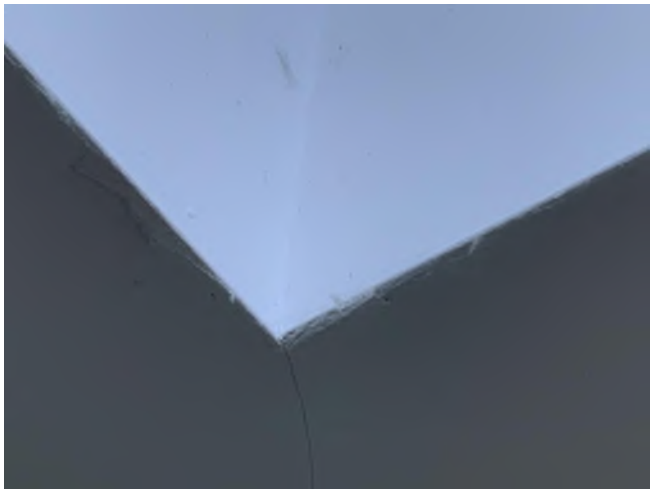

Photograph 127


Photograph 128


Photograph 129


Photograph 130


Photograph 131


Photograph 132


Photograph 133


Photograph 134


Photograph 135


Photograph 136

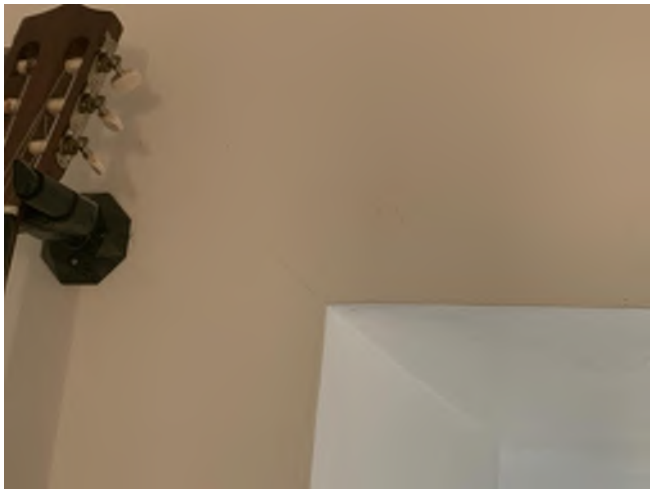

Photograph 137


Photograph 138


Photograph 139


Photograph 140

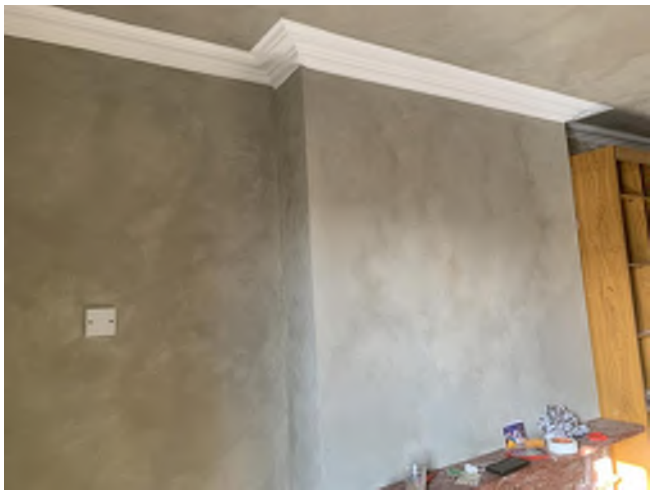

Photograph 141


Photograph 142


Photograph 143


Photograph 144


Photograph 145


Photograph 146


Photograph 147


Photograph 148


Photograph 149

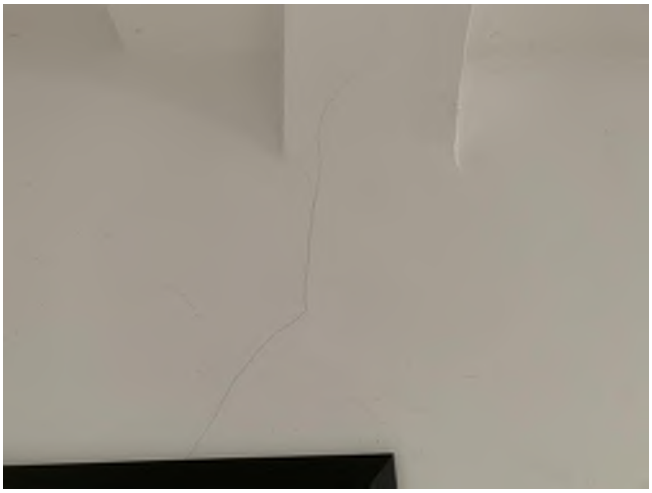

Photograph 150


Photograph 151


Photograph 152


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Photograph 155


Photograph 156


Photograph 157


Photograph 158


Photograph 159


Photograph 160


Photograph 161

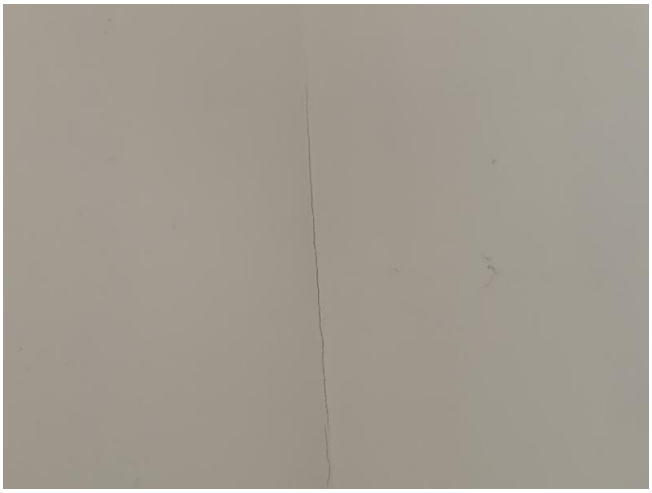

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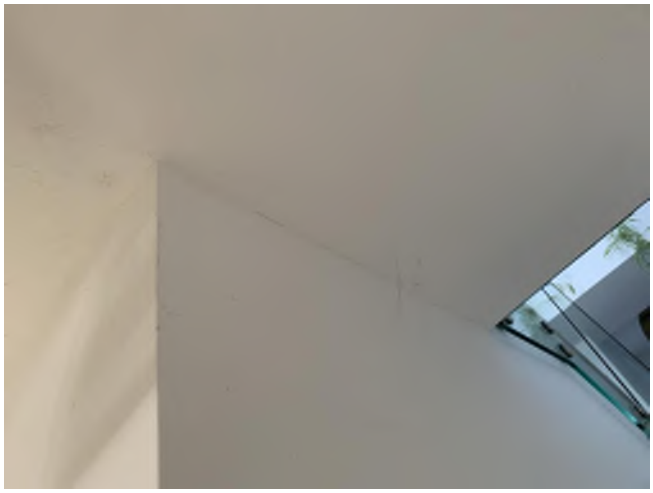

Photograph 163


Photograph 164


Photograph 165


Photograph 166


Photograph 167


Photograph 168


Photograph 169


Photograph 170


Photograph 171


Photograph 172


Photograph 173


Photograph 174



Photograph 175



Photograph 176



Photograph 177

Schedule of Condition (Pre-Works)

5 Church Ave
D04 XP78

Walls Construction

Version A
Ref: JS/303586
Date: 24th February 2023

mcgovern surveyors



Front Elevation.



Site Location.

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	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	24th February 2023
Approved by	Pat McGovern		Director	27th February 2023

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Description of the Property:	The property comprises a two-storey, end of terrace 4-bedroom dwelling.

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Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**FRONT ELEVATION**				
1.01	Roof; tiled		Restricted visibility of roof due to parapet/ridge tiles and lower tiles seem reasonably clean.		Photo 1
1.02	Chimney; brick stack	Reasonable	No cracking or visual defects noted.		Photo 2
1.03	External Walls; parapet	Reasonable	No cracking or visual defects noted.		Photos 3 - 5
1.04	External Walls; brick facing	Reasonable	No cracking or visual defects noted.		Photos 6 - 10
1.05	Footpath to perimeter; paving	Reasonable	No cracking noted/light vegetation growth.		Photos 11 - 12
1.06	Window; uPVC	Fair	Glazing lightly soiled.		Photos 13 - 14
1.07	External door; timber	Fair	Fair decorative order.		Photo 15
1.08	External door; arch	Fair	Hairline cracking and delamination to door edge.		Photos 16 - 17
2.00	**EXTERNAL GROUNDS**				
2.01	Left boundary; rendered wall	Fair	Boast render/light cracking to lower end of wall and building juncture; less than 5 mm.	2	Photos 18 - 21
2.02	Front garden; paviors	Fair	Vegetation growth/general view.		Photos 22 - 25
2.03	Right boundary; rendered wall	Fair	Light cracking and boast render to top of rendered wall; less than 2 mm.		Photos 26 - 28
2.04	Front boundary; rendered wall	Fair	Hairline cracking to centre left of internal side of rendered wall; less than 1 mm.	2	Photos 29 - 36
2.05	Entrance gates and piers; rendered wall	Fair	Light cracking to rendered peers; less than 2 mm.		Photos 37 - 38
2.06	Rear boundary internal; Pebble – render finish	Fair	Creeper growth/erosion of pebbledash render finish exposing stonework.		Photos 90 - 92
2.07	Rear boundary internal; Stone		Reatricted visibility due to hedges and creeper growth.		Photos 93 - 98

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
2.08	Front boundary internal; Stone	Reasonable	Restricted visibility due to overgrowth or vegetation/ general view.		Photos 99 - 103
2.09	Left boundary internal; Pebble – render finish	Poor	Light cracking to top left of entrance gate; less than 5 mm.	3	Photos 104 - 105
3.00	**LEFT SIDE ELEVATION**				
3.01	Roof; tiled	Fair	Lichen buildup.		Photos 39 - 40
3.02	External Walls; stone	Reasonable	No cracking or visible defects noted to stone wall.		Photos 41 - 42
3.03	External Walls; pebbledash render finish	Reasonable	No cracking or visual defects noted to pebbledash render finish.		Photos 43 - 50
3.04	External Walls; cills	Poor	Exposed corroded re-bar causing erosion to window cills.		Photos 51 - 53
3.05	Footpath to perimeter; concrete	Fair	Light cracking in isolated areas/vegetation growth/ vegetation debris.		Photos 54 - 58
3.06	Window; uPVC	Reasonable	Glazing reasonably clean.		Photos 59 - 60
3.07	External door; uPVC	Fair	Glazing reasonably clean/light soiling to lower end of door.		Photos 61 - 62
4.00	**REAR ELEVATION**				
4.01	Roof		Restricted visibility from ground level.		Photo 63
4.02	External Walls; stone/brick facing	Reasonable	No cracking or visual defects noted.		Photos 64 - 68
4.03	External Walls; pebbledash render finish	Reasonable	No cracking or visible defects noted.		Photos 69 - 82
4.04	Fascia and Soffit; timber	Poor	Soffit in poor decorative order.		Photo 83
4.05	Footpath to perimeter; concrete	Fair	Vegetation debris.		Photos 84 - 89

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	INTERNAL				
5.00	**FRONT RIGHT BEDROOM**				
5.01	Front wall; coving	Fair	Light cracking to coving; less than 1 mm.		Photo 106
5.02	Left wall; papered	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 107 - 109
5.03	Rear wall; coving	Fair	Light cracking to coving; less than 1.5 mm.		Photos 110 - 111
5.04	Right wall; papered	Fair	Light cracking to top right corner of wall; less than 4 mm.	2	Photo 112
5.05	Ceiling; papered	Fair	Light cracking to ceiling at front right corner area; less than 1 mm.		Photos 113 - 115
6.00	**FRONT LEFT BEDROOM**				
6.01	Front wall; coving	Fair	Light cracking the coving; less than 1 mm.		Photos 116 - 117
6.02	Left wall; papered	Fair	Light cracking to ceiling juncture and coving; less than 1 mm.		Photos 118 - 120
6.03	Rear wall; papered	Fair	Light cracking to top right corner of door; less than 1 mm.	1	Photos 121 - 122
6.04		Fair	Light cracking to ceiling juncture; less than 1 mm.		Photo 123
6.05	Ceiling; papered	Fair	Light cracking to ceiling a front left corner; less than 1 mm.		Photo 124
6.06	Floor; timber	Fair	Uneven surface finish on entry to room.		Photos 125 - 126
7.00	**SMALL CORRIDORS TO FRONT ROOMS**				
7.01	Left wall; papered	Fair	Light cracking to rear wall juncture and ceiling juncture; less than 3 mm.	2	Photos 127 - 130
7.02	Front wall; papered	Poor	Like crack to top right corner of door and ceiling juncture; less than 2.5 mm.	2	Photos 131 - 133
7.03	Right wall; papered	Fair	Light crack to ceiling juncture; less than 1.5 mm.		Photo 134

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
7.04	Ceiling; plastered	Poor	Map pattern cracking; less than 1 mm/staining.		Photos 135 - 139
8.00	**REAR RIGHT BEDROOM**				
8.01	Wall; papered	Fair	No cracking or visual defects noted to walls.		Photos 140 - 143
8.02	Wall; coving	Fair	Light cracking throughout coving in isolated areas.		Photos 144 - 149
8.03	Ceiling; papered	Fair	General view.		Photos 150 - 153
9.00	**BATHROOMS**				
9.01	Left wall; plastered	Fair	Hairline crack to wall to right side of window; less than 0.25 mm.	1	Photos 154 - 157
9.02		Fair	Hairline cracking to ceiling juncture; less than 0.25 mm.		Photo 162
9.03	Front wall; plastered	Fair	Hairline cracking to ceiling juncture; less than 0.5 mm.		Photos 158 - 161
9.04	Ceiling; plastered	Poor	Staining/delamination of paint work.		Photos 163 - 164
10.00	**REAR LEFT BEDROOM**				
10.01	Right wall; plastered	Fair	Hairline cracking to top right of window.	1	Photos 165 - 166
10.02		Fair	Light cracking to ceiling juncture; rest of 1 mm.		Photo 167
10.03	Front wall; plastered	Fair	Light crack to top left hand corner of the door; less than 2 mm.	2	Photo 168
10.04	Ceiling; plastered	Fair	Hairline crack to ceiling over right wall area; less than 0.25 mm.		Photos 169 - 170
10.05	Wall; plastered	Fair	Staining throughout wall surface.		Photos 171 - 173
11.00	**CORRIDOR TO BATHROOM**				
11.01	Left wall; plastered	Fair	Light crack to top right corner of wall; less than 1 mm.	1	Photos 174 - 175
11.02	Rear wall; plastered	Fair	Hairline crack to left and right side of wall; less than 0.25 mm.	1	Photos 176 - 178

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
12.00	**LANDING**				
12.01	Front wall; coving	Fair	Light cracking to coving.		Photos 179 - 181
12.02	Left wall; coving	Poor	Light cracking to coving; less than 3 mm.		Photos 182 - 184
12.03	Ceiling; papered	Fair	Hairline cracking to coving junctures; less than 0.5 mm.		Photos 185 - 186
13.00	**FRONT LEFT SITTING ROOM**				
13.01	Front wall; papered	Poor	Delaminating wall paper and hairline cracking; less than 0.25 mm.		Photos 187 - 193
13.02	Left wall; plastered	Fair	Hairline cracking to left side and centre of wall; less than 0.5 mm.	1	Photos 194 - 197
13.03	Rear wall; drylined	Poor	Boast lining/hairline cracking; less than 0.25 mm.	1	Photos 198 - 200
13.04	Right wall; drylined	Fair	Hairline crack to left side of wall; less than 0.25 mm.	1	Photos 201 - 205
14.00	**GF BEDROOM**				
14.01	Right wall; papered	Fair	Light crack to wall; less than 1 mm.	1	Photos 206 - 207
14.02		Fair	Light cracking to ceiling junctures; less than 1 mm.		Photos 208 - 210
14.03	Rear wall; papered	Fair	Light crack to left side of wall at ceiling juncture; less than 1 mm.		Photos 211 - 212
14.04	Ceiling; plastered	Fair	Light cracking to ceiling at rear right corner area; less than 1 mm.		Photos 213 - 214
15.00	**KITCHEN**				
15.01	Rear wall; plastered	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 215 - 217
15.02		Fair	Hairline cracking to left side of cooker hood; less than 0.25 mm.	1	Photos 223 - 224
15.03		Fair	Light cracking to ceiling juncture; less than 2 mm.		Photos 225 - 228
15.04	Left wall; plastered	Fair	Light cracking to ceiling juncture; less than 1 mm.		Photos 218 - 219

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
15.05		Fair	Hairline crack to bottom left of window; less than 0.25 mm.	1	Photos 220 - 221
15.06		Fair	Hairline crack to top left of window over sink; less than 0.25 mm.	1	Photo 222
15.07	Right wall; plastered	Fair	Light cracking to ceiling juncture and behind radiator; less than 1 mm.		Photos 229 - 232
16.00	**WC**				
16.01	Ceiling; plastered	Fair	Hairline cracking to ceiling junctures; less than 0.5 mm.		Photos 233 - 237
16.02		Fair	Hairline crack to ceiling; less than 0.5 mm.		Photo 238
17.00	**UTILITY ROOM**				
17.01	Ceiling; plastered	Fair	Light cracking to wall junctures in isolated areas; less that 1 mm.		Photos 239 - 242
18.00	**CORRIDOR**				
18.01	Rear wall; drylined	Poor	Heavily stained.		Photo 243
18.02	Ceiling; plastered	Fair	Light crack to ceiling over WC door; less than 1 mm.		Photos 244 - 245
18.03		Fair	Light crack to ceiling at bottom of step; less than 1 mm.		Photos 247 - 248
18.04		Poor	Hairline cracking under stairs; less than 0.5 mm/boast render.		Photos 249 - 250
18.05		Poor	Cracking to ceiling juncture under stairs; less than 5 mm.		Photos 251 - 252
18.06	Wall; drylined	Fair	Light crack to wall opening.		Photo 246
18.07	Right wall; papered	Poor	Light crack to top right of bedroom door; less than 2 mm.	2	Photo 253
18.08	Left wall; plastered	Poor	Hairline cracking to wall at bottom of stairs; less than 0.25 mm.	1	Photos 254 - 258

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
19.00	**ENTRANCE HALL**				
19.01	Right wall; plastered	Poor	Repeated light cracking to wall; less than 1 mm.	1	Photos 259 - 260
19.02	Rear wall; plastered	Poor	Light crack to left side of arch; less than 3 mm.	2	Photos 261 - 262
19.03	Left wall; plastered	Poor	Hairline cracking to wall in isolated areas; less than 0.25 mm/light cracking to coving; less than 3 mm.	2	Photos 263 - 267
19.04	Front wall; plastered	Poor	Corrosion, staining and light cracking over door; less than 2 mm.		Photos 268 - 269
19.05	Ceiling; plastered	Poor	Scuff marks to ceiling.		Photos 270 - 272

Appendix 1 – Photographs



Photograph 1



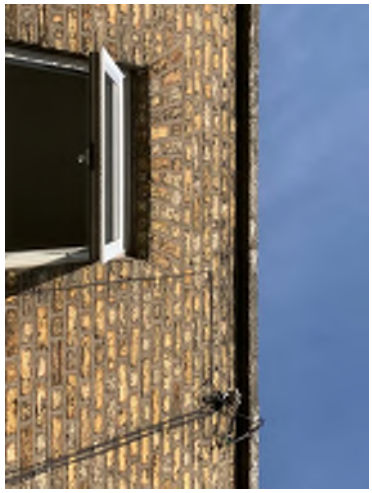
Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6


Photograph 7


Photograph 8


Photograph 9


Photograph 10


Photograph 11


Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18


Photograph 19


Photograph 20


Photograph 21


Photograph 22


Photograph 23


Photograph 24


Photograph 25


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Photograph 28


Photograph 29


Photograph 30



Photograph 31


Photograph 32


Photograph 33


Photograph 34


Photograph 35


Photograph 36

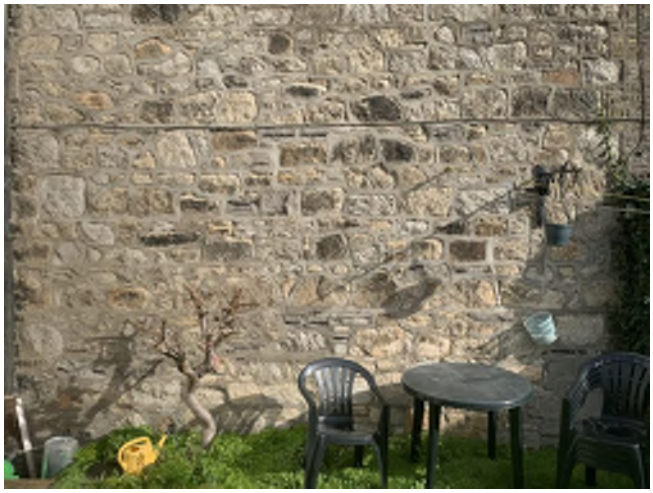

Photograph 37


Photograph 38


Photograph 39


Photograph 40


Photograph 41


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Photograph 49


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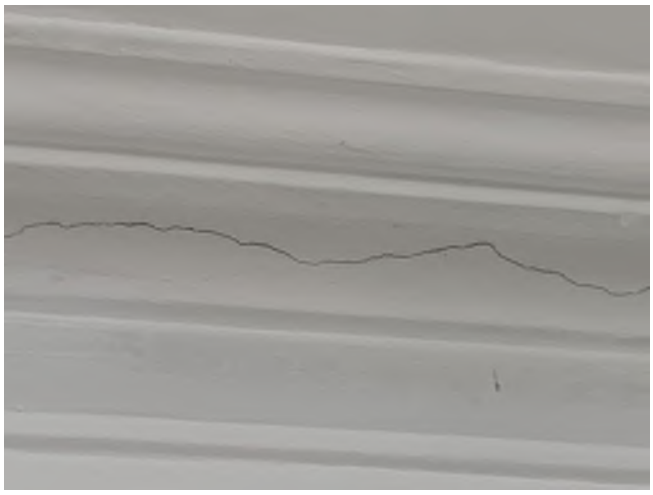

Photograph 105


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Photograph 112


Photograph 113


Photograph 114


Photograph 115


Photograph 116

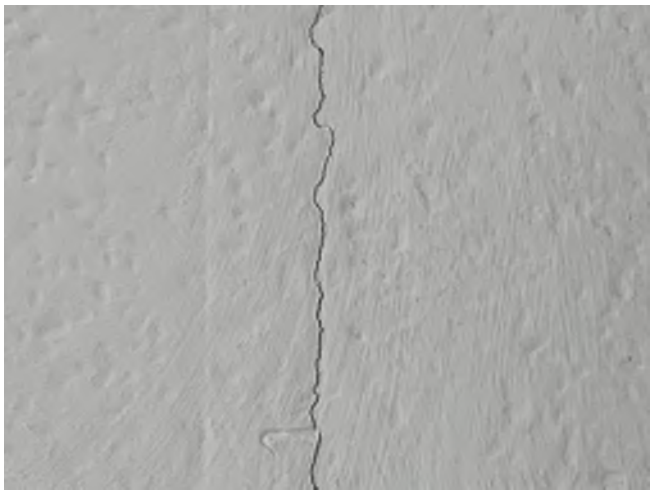

Photograph 117


Photograph 118


Photograph 119

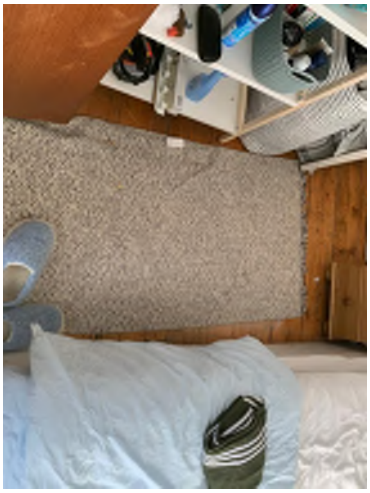

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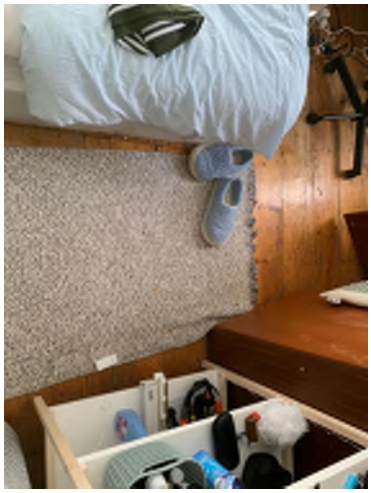

Photograph 121


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Photograph 132


Photograph 133


Photograph 134

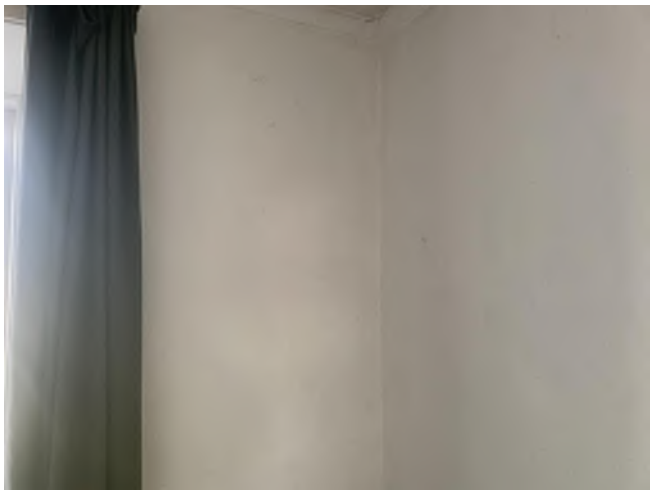

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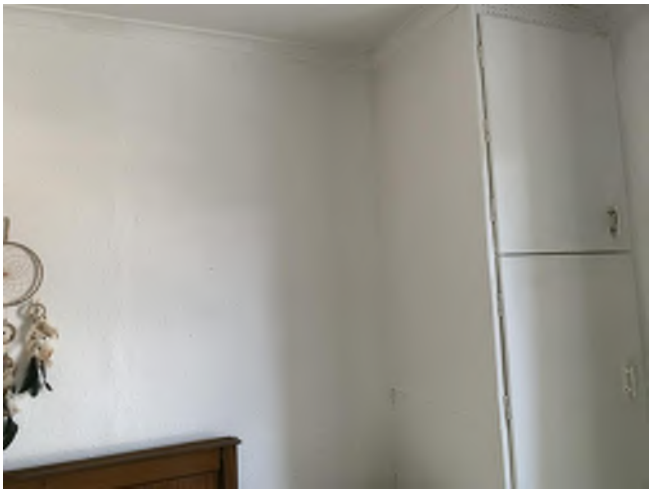

Photograph 136


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Photograph 144



Photograph 145



Photograph 146



Photograph 147



Photograph 148



Photograph 149



Photograph 150


Photograph 151


Photograph 152


Photograph 153

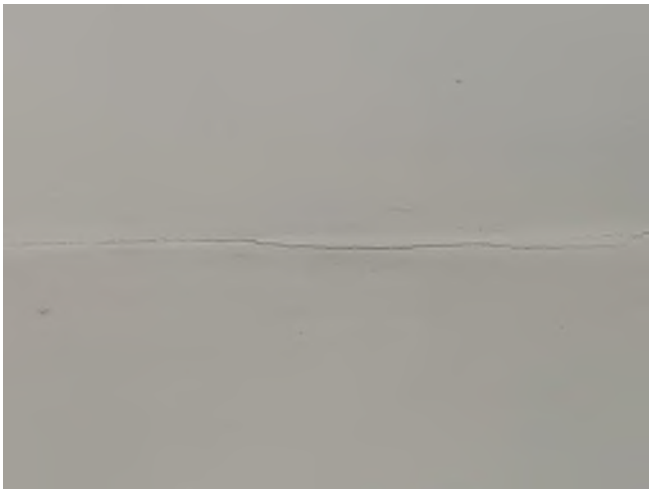

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Photograph 159

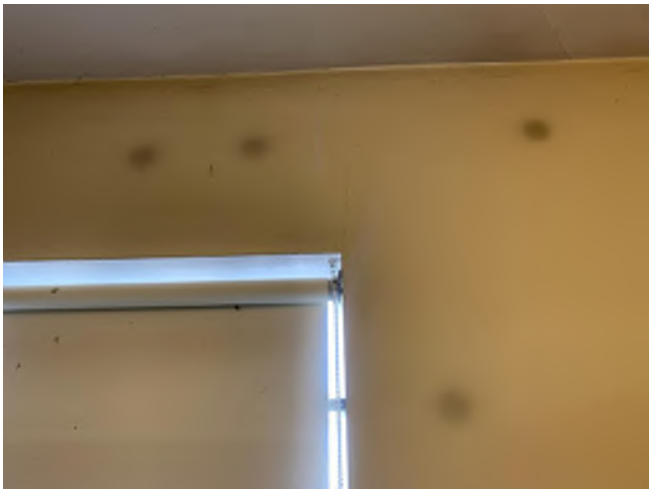

Photograph 160


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Photograph 172


Photograph 173


Photograph 174


Photograph 175


Photograph 176


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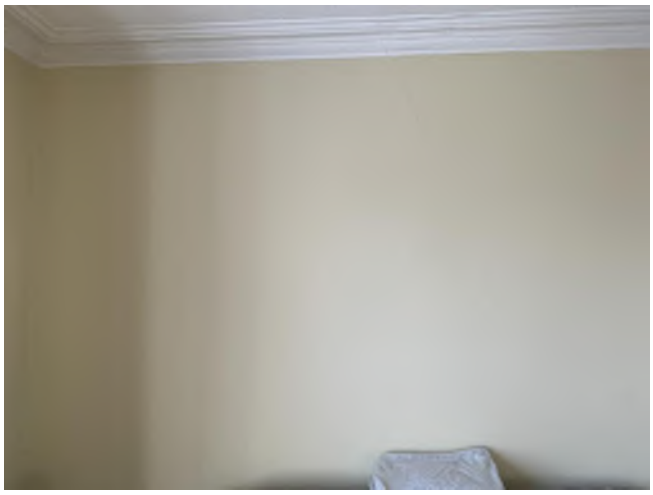

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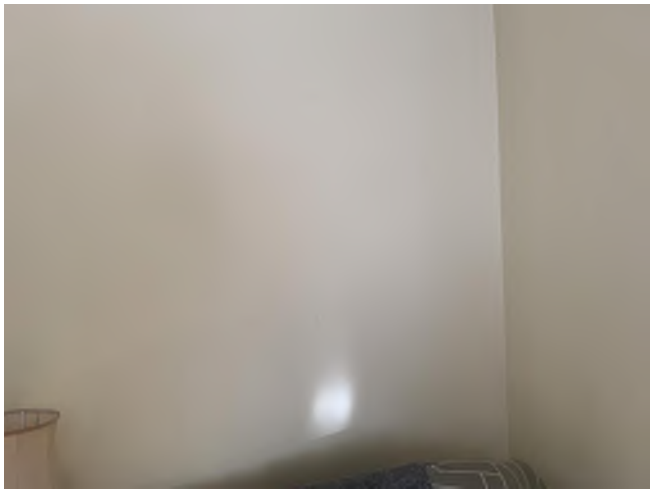

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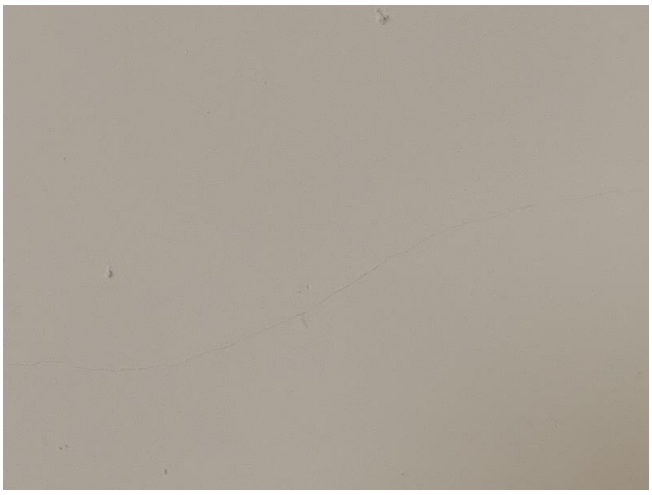

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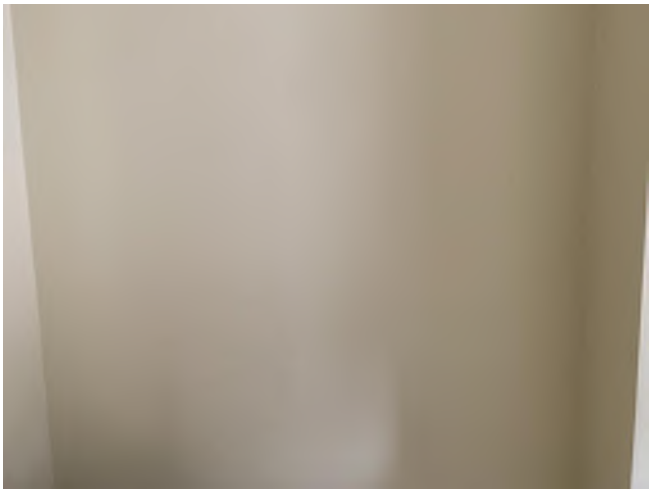

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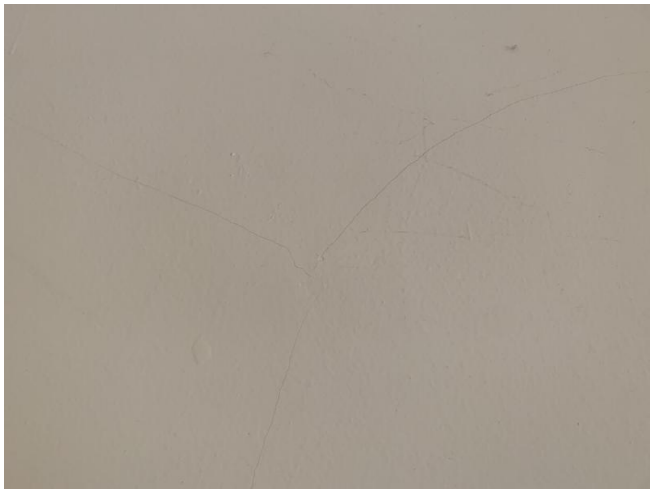

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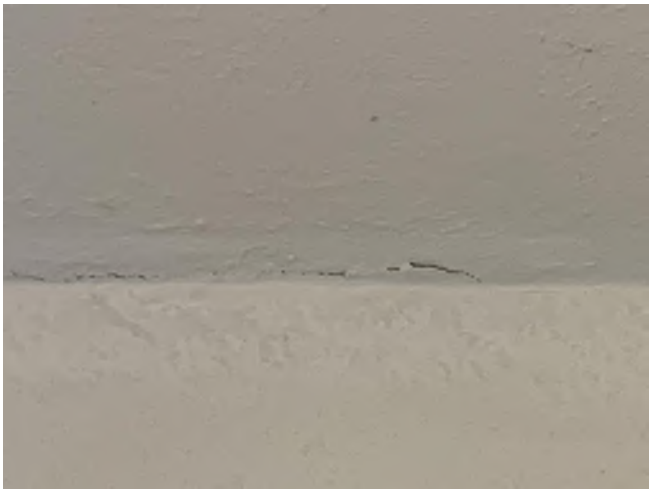

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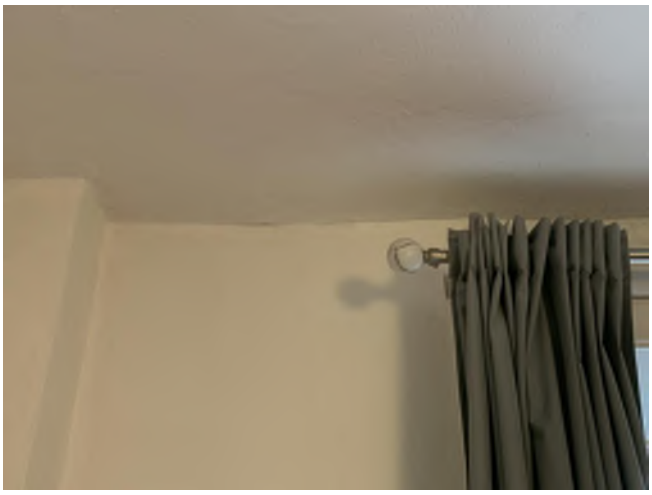

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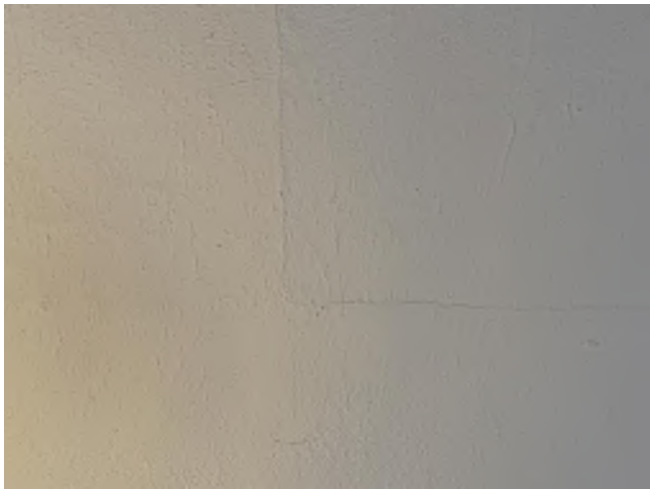

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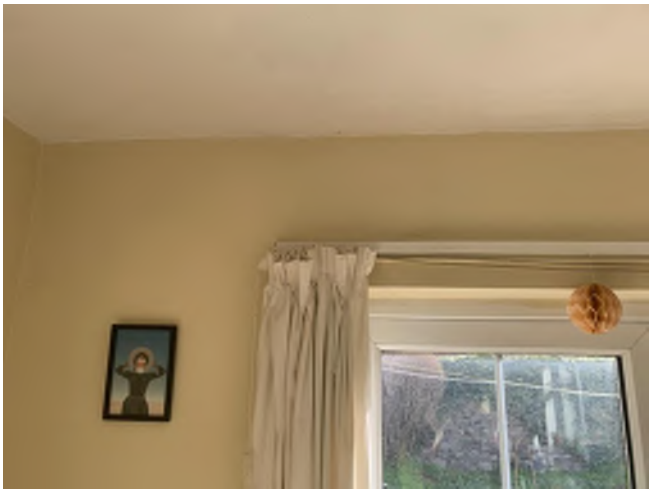

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Photograph 217



Photograph 218



Photograph 219



Photograph 220



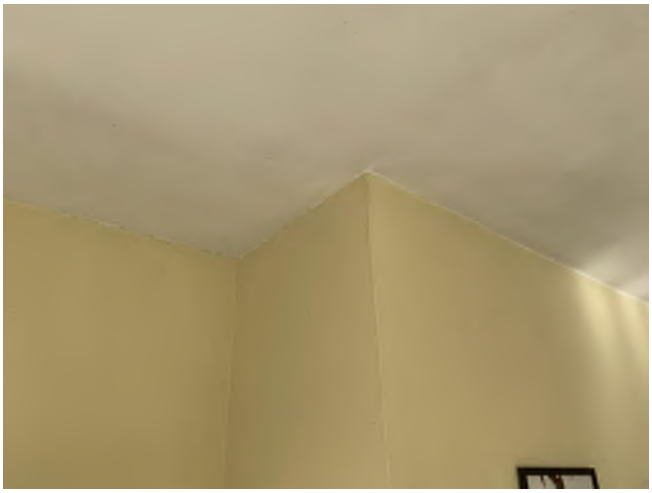
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Photograph 222


Photograph 223

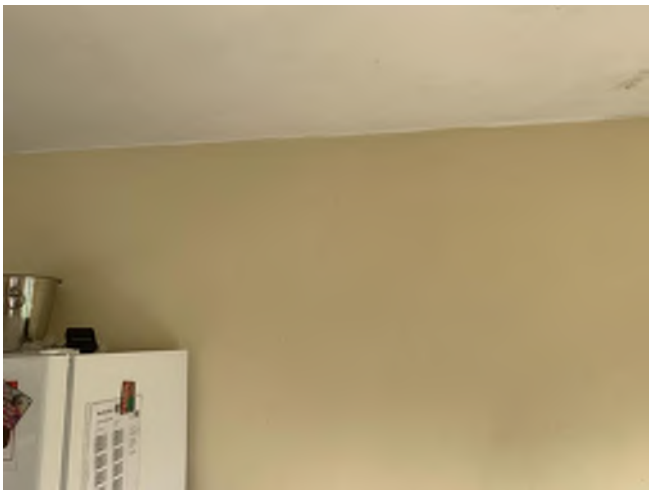

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Photograph 228



Photograph 229



Photograph 230



Photograph 231



Photograph 232

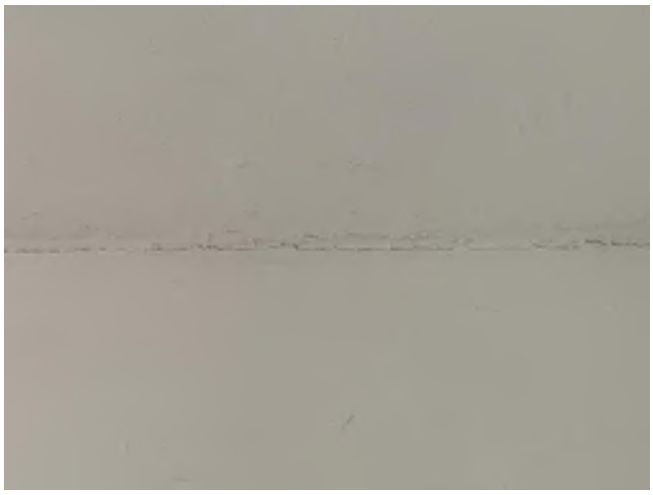


Photograph 233



Photograph 234


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Photograph 237


Photograph 238


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Photograph 242


Photograph 243


Photograph 244


Photograph 245


Photograph 246


Photograph 247


Photograph 248


Photograph 249


Photograph 250


Photograph 251


Photograph 252


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Photograph 254


Photograph 255


Photograph 256


Photograph 257


Photograph 258


Photograph 259


Photograph 260


Photograph 261


Photograph 262


Photograph 263


Photograph 264



Photograph 265



Photograph 266



Photograph 267



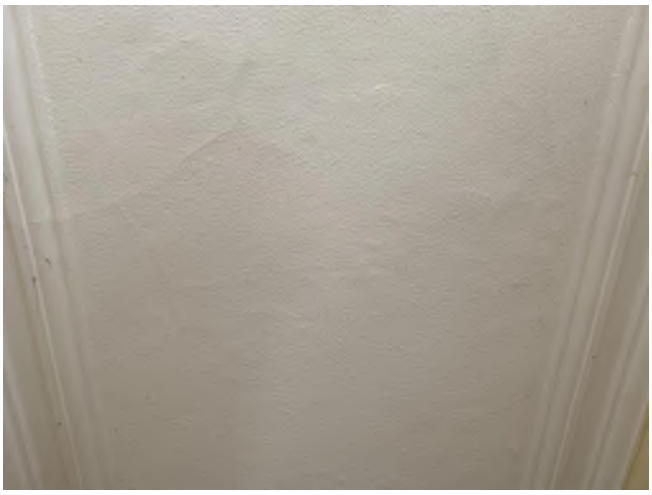
Photograph 268



Photograph 269



Photograph 270



Photograph 271



Photograph 272

Schedule of Condition (Pre-Works)

8 Tritonville
Tritonville Rd
D04 WR04

Walls

Version A
Ref: JS/303586
Date: 20th March 2023

mcgovern surveyors



Front Elevation.



Site Location.

Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	20th March 2023
Approved by	Pat McGovern		Director	21st March 2023

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1 General

Surveyor:	Jason Squires
Date of Inspection:	3rd March 2023
Weather Conditions:	The weather at the time of our inspection was overcast but dry.
Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
Description of the Property:	The property comprises a single-storey, over basement, end of terrace 3-bedroom dwelling.

2 Scope of Inspection

This inspection has taken the form of an appraisal of the main parts of the structure including roofs, walls, floors and finishes, both internal and external, arising out of visual inspection only. Where parts of the structure are inaccessible or unexposed, no opinion can be given. No floor covering or timber cladding/lining to walls or ceilings were lifted and, therefore, it must be appreciated that defects may be present but cannot be conclusively identified.

Specific exclusions include: M&E services; drainage; attic (unless previously agreed); elevations above a height accessed off a 3m ladder will be viewed from ground level.

3 Use of Report

This report is for the sole use of Walls and their professional advisor(s), and shall not be given to or used by a third party without the expressed written consent of McGovern Surveyors. A copy may be forwarded to the property owner if requested.

4 Definitions

The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
"Reasonable"	The component or element concerned exhibits only minor deterioration and ageing to finishes or exhibits a slight and faint patina of dirt, dust, and discoloration, and/or localised marks and smudges to its surface.
"Fair"	The component or element concerned requires attention and maintenance or exhibits a pronounced patina of dirt, dust and discolouration and/or localised marks and smudges to its surfaces.
"Poor"	The component or element concerned is damaged or is extensively marked, scuffed and/or damaged.

5 BRE Classification

Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**FRONT ELEVATION**				
1.01	Roof; tiled	Reasonable	Restricted visibility due to parapet.		Photo 1
1.02	External Walls; render finish	Fair	Hairline crack to top left of ground floor window; less than 0.5 mm.	1	Photos 2 - 3
1.03		Fair	Hairline crack to top left, right and centre of basement sliding door; less than 0.5 mm.	1	Photos 4 - 6
1.04		Fair	Light crack to building juncture at top left corner; less than 1 mm.	1	Photo 12
1.05		Fair	Light crack to left side of door; less than 0.5 mm.	1	Photo 24
1.06	Footpath to perimeter; Granite steps/ gravel	Reasonable	Light vegetation debris/no cracking noted to granite steps.		Photos 7 - 9
1.07	Footpath to perimeter; Steps	Fair	Hairline crack to right side of steps under fencing; less than 0.5 mm.	1	Photos 10 - 11
1.08	Window; glazing	Fair	Glazing lightly soiled.		Photo 13
1.09	External door; composite	Reasonable	Reasonable decorative order.		Photo 14
1.10	Fixtures & Fittings; alarm box	Fair	General view.		Photo 15
2.00	**EXTERNAL GROUNDS**				
2.01	Front boundary; concrete/steel railing	Fair	Fair decorative order/no cracking/no mortar between joints.		Photos 16 - 20
2.02	Left boundary; rendered wall	Fair	Debonding of render to old stone wall/delamination of paintwork/lightly soiled.		Photos 21 - 23
2.03	Left boundary; stone	Poor	Finishes as before.		Photos 46 - 52

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
2.04	Rear boundary; stone	Poor	Erosion to mortar joints/creeper growth/vegetation growth.		Photos 39 - 45
3.00	**RIGHT SIDE ELEVATION**				
3.01	Chimney; rendered stack	Fair	Light cracking to bottom of rendered stack; less than 1 mm/patch repair evident.	1	Photo 25
3.02	External Walls; render finish	Fair	Light crack to top left corner of facade; less than 2 mm.	2	Photo 26
3.03		Fair	Hairline cracking to centre of rendered wall spreading from top to bottom; less than 0.5 mm.		Photos 58 - 60
3.04		Fair	Light cracking to extension juncture; less than 5 mm.	2	Photos 61 - 62
4.00	**REAR ELEVATION**				
4.01	Gutters and Downpipes; uPVC	Fair	Vegetation growth to top right corner of guttering.		Photo 27
4.02	Roof; tiled	Fair	Light buildup of moss growth.		Photos 28 - 30
4.03	External Walls; render finish	Fair	Hairline crack to top centre left of ground floor double glazed doors; less than 0.5 mm.	1	Photos 31 - 32
4.04		Fair	Hairline crack to top left corner of glazed double doors; less than 0.25 mm.	1	Photo 33
4.05		Fair	Light cracking to door head; less than 1 mm.		Photos 34 - 35
4.06	Window; glazing	Fair	Glazing lightly soiled.		Photos 36 - 37
4.07	External door; timber	Fair	Glazing lightly soiled.		Photo 38
4.08	Footpath to perimeter; Stone	Poor	Vegetation growth/creeper growth/vegetation debris/ moss growth.		Photos 53 - 57
	INTERNAL				
5.00	**CONSERVATORY**				
5.01	Rear wall; rendered	Fair	Hairline crack to top right of wall opening; less than 0.25 mm.	1	Photos 63 - 64

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
5.02		Fair	Light crack to ceiling juncture; less than 1 mm.		Photo 65
5.03		Fair	Light crack to top left corner of wall; less than 1 mm.		Photos 67 - 68
5.04	Ceiling; plastered	Fair	Hairline crack to rear left of ceiling; less than 0.5 mm.		Photo 66
5.05		Fair	Hairline crack to front left corner at sky light; less than 1 mm.	1	Photos 73 - 74
5.06	Front wall; rendered	Fair	Hairline crack over glass shelving; less than 0.25 mm.	1	Photos 69 - 70
5.07		Fair	Light cracking to ceiling juncture; less than 2 mm.		Photos 71 - 72
6.00	**KITCHEN**				
6.01	Rear wall; rendered	Fair	Hairline crack to top left of wall opening; less than 0.25 mm.	1	Photo 75
7.00	**UTILITY ROOM**				
7.01	Right wall; plastered	Fair	Hairline crack to ceiling juncture; less than 0.5 mm.		Photo 76
7.02	Rear wall; plastered	Fair	Hairline crack to top left corner of wall; less than 0.5 mm.		Photo 77
8.00	**SITTING ROOM**				
8.01	Ceiling; plastered	Fair	Hairline crack to left side of chimney breast; less than 0.25 mm.		Photo 78
8.02	Front wall; plastered	Fair	Hairline crack to top left and right of sliding door; less than 0.25 mm.	1	Photos 79 - 80
9.00	**GROUND FLOOR BATHROOM**				
9.01	Ceiling; plastered	Fair	Light cracking to front wall juncture of ceiling; less than 0.5 mm.		Photos 81 - 82
9.02		Fair	Hairline crack to ceiling at rear wall area; less than 0.5 mm.		Photos 84 - 85
9.03	Rear wall; plastered	Fair	Light crack to right wall juncture; less than 1 mm.	1	Photo 83

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
10.00	**GROUND FLOOR HALLWAY**				
10.01	Right wall; plastered	Fair	Light crack to centre of wall; less than 1 mm.	1	Photos 86 - 88
10.02	Rear wall; plastered	Fair	Hairline crack to right wall juncture; less than 0.25 mm.	1	Photos 89 - 90
11.00	**FRONT BEDROOM**				
11.01	Right wall; drylined	Fair	Light stepped cracking to top left corner of wall; less than 0.5 mm.	1	Photos 91 - 92
11.02	Front wall; drylined	Fair	Hairline crack to left side of window; less than 0.25 mm.	1	Photos 93 - 94
11.03	Left wall; drylined	Fair	Hairline cracking over door; less than 0.25 mm.	1	Photos 95 - 97
11.04		Fair	Hairline crack to top right corner of wall; less than 0.5 mm.	1	Photo 101
11.05	Wall; drylined	Fair	Marks and scuffs/staining in isolated areas.		Photos 98 - 100
12.00	**REAR LEFT BEDROOM**				
12.01	Left wall; drylined	Fair	Hairline crack to right side of wall; less than 0.25 mm.	1	Photo 102
12.02	Front wall; plastered	Fair	Light crack to top left corner of door; less than 1 mm.	1	Photo 103
12.03	Rear wall; plastered	Fair	Hairline crack to wall under attic hatch; less than 0.5 mm.	1	Photo 104
13.00	**MASTER BEDROOM**				
13.01	Left wall; drylined	Fair	Light crack to top left corner of wall; less than 1.5 mm.	2	Photos 105 - 108
13.02		Fair	Light crack to rear ceiling juncture; less than 1 mm.		Photo 109
13.03	Rear wall; drylined	Fair	Hairline crack to top right corner of window; less than 0.5 mm.	1	Photos 110 - 111
13.04	Right wall; drylined	Fair	Light cracking to ceiling juncture; less 2 mm.		Photos 112 - 115
13.05		Fair	Light cracking to wall at rear wall juncture; less than 2 mm/debonding of lining to rear wall.	2	Photos 116 - 119

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
13.06	Ceiling; plastered	Fair	Hairline crack to drop ceiling juncture; less than 0.5 mm.		Photos 120 - 121
14.00	**CENTRAL BEDROOM**				
14.01	Front wall; plastered	Fair	Hairline crack to top right corner of door; less than 0.25 mm.	1	Photos 122 - 123
15.00	**BATHROOM**				
15.01	Wall; plastered/tiles	Reasonable	No cracking or visual defects noted.		Photos 124 - 126
16.00	**BOX CORRIDOR**				
16.01	Left wall; plastered	Fair	Hairline crack to top right of wall opening; less than 0.25 mm.	1	Photos 127 - 128
17.00	**CORRIDOR**				
17.01	Rear wall; plastered	Fair	Hairline crack over door; less than 0.5 mm.	1	Photos 129 - 130
17.02		Fair	Hairline crack to right wall juncture; less than 0.5 mm.	1	Photos 131 - 133
17.03	Right wall; plastered	Fair	Hairline crack to top left of wall opening; less than 0.25 mm.	1	Photo 134
17.04	Right wall; drylined	Fair	Light crack to centre of wall; less than 1 mm.	1	Photo 135
17.05	Front wall; plastered	Fair	Hairline crack to left wall charger; less than 0.5 mm.	1	Photos 136 - 138
17.06	Ceiling; plastered	Fair	Hairline crack to ceiling; less than 0.25 mm.	1	Photos 139 - 141

Appendix 1 – Photographs


Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6


Photograph 7


Photograph 8


Photograph 9


Photograph 10


Photograph 11


Photograph 12


Photograph 13


Photograph 14


Photograph 15


Photograph 16


Photograph 17


Photograph 18


Photograph 19


Photograph 20


Photograph 21


Photograph 22


Photograph 23


Photograph 24


Photograph 25


Photograph 26


Photograph 27


Photograph 28


Photograph 29


Photograph 30


Photograph 31


Photograph 32


Photograph 33


Photograph 34


Photograph 35


Photograph 36


Photograph 37


Photograph 38


Photograph 39


Photograph 40


Photograph 41


Photograph 42


Photograph 43


Photograph 44


Photograph 45


Photograph 46


Photograph 47


Photograph 48


Photograph 49


Photograph 50


Photograph 51


Photograph 52


Photograph 53


Photograph 54


Photograph 55


Photograph 56


Photograph 57

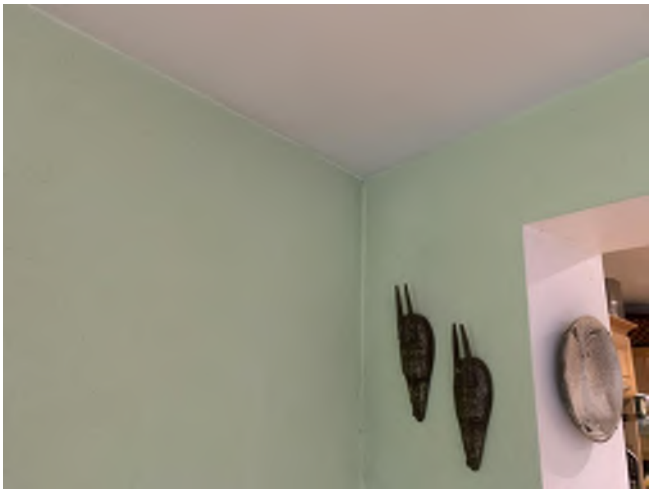

Photograph 58


Photograph 59

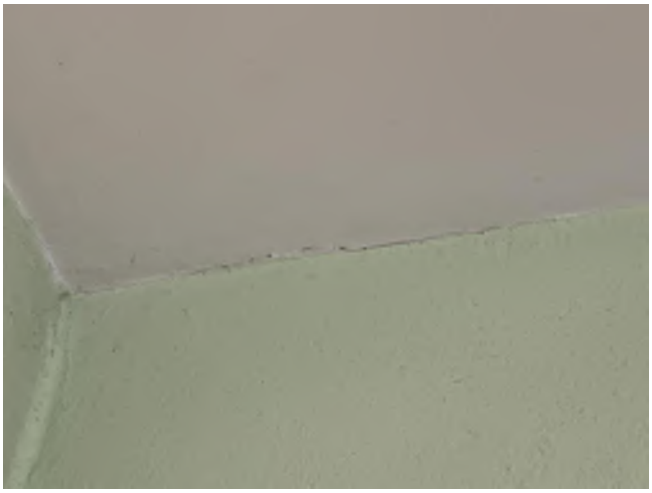

Photograph 60


Photograph 61


Photograph 62


Photograph 63


Photograph 64


Photograph 65


Photograph 66

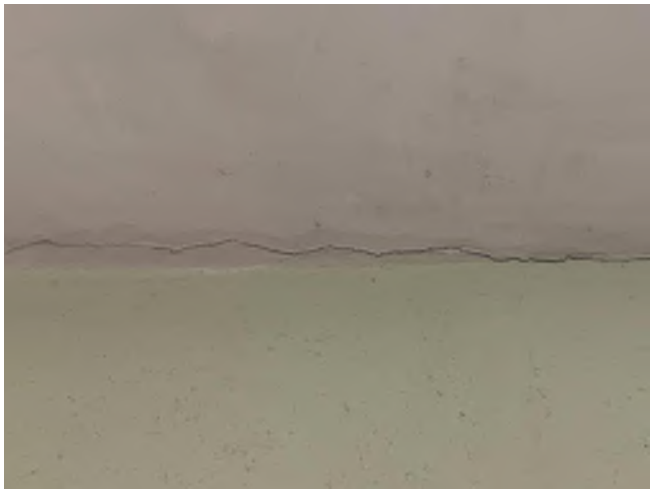

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Photograph 68


Photograph 69


Photograph 70


Photograph 71


Photograph 72



Photograph 73



Photograph 74



Photograph 75



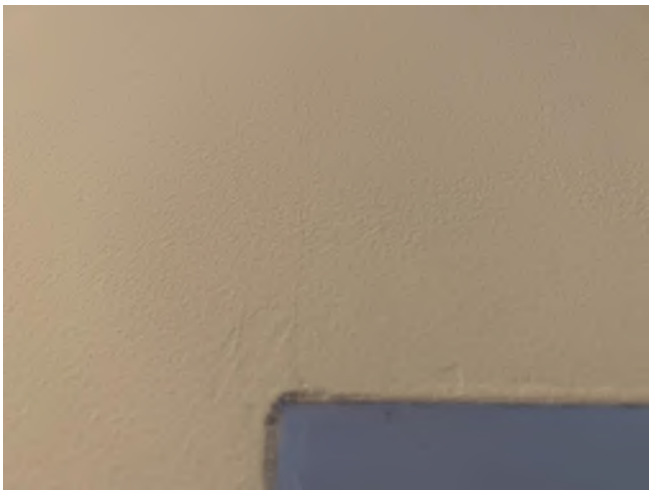
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Photograph 77



Photograph 78


Photograph 79


Photograph 80


Photograph 81


Photograph 82


Photograph 83


Photograph 84


Photograph 85


Photograph 86


Photograph 87


Photograph 88


Photograph 89


Photograph 90


Photograph 91


Photograph 92


Photograph 93


Photograph 94


Photograph 95


Photograph 96


Photograph 97


Photograph 98


Photograph 99


Photograph 100


Photograph 101

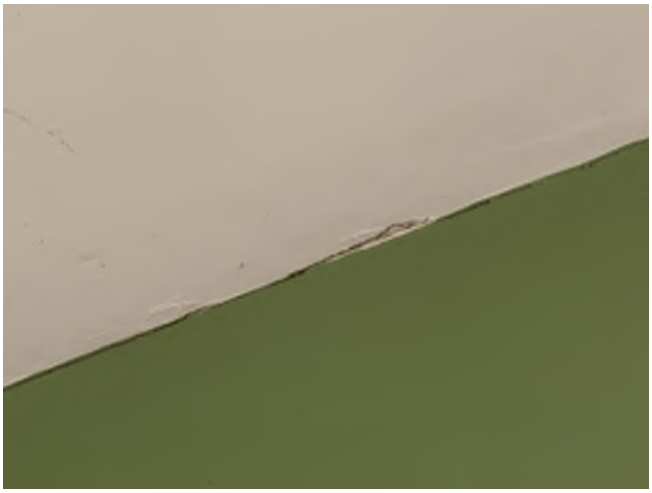

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Photograph 103


Photograph 104


Photograph 105


Photograph 106


Photograph 107


Photograph 108



Photograph 109



Photograph 110



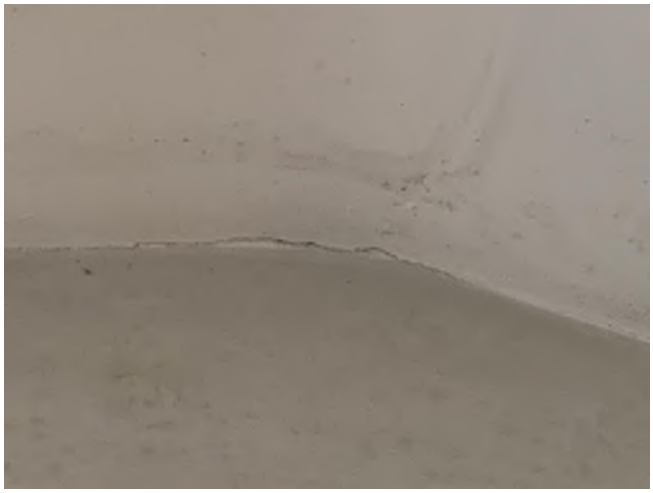
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Photograph 112



Photograph 113



Photograph 114


Photograph 115

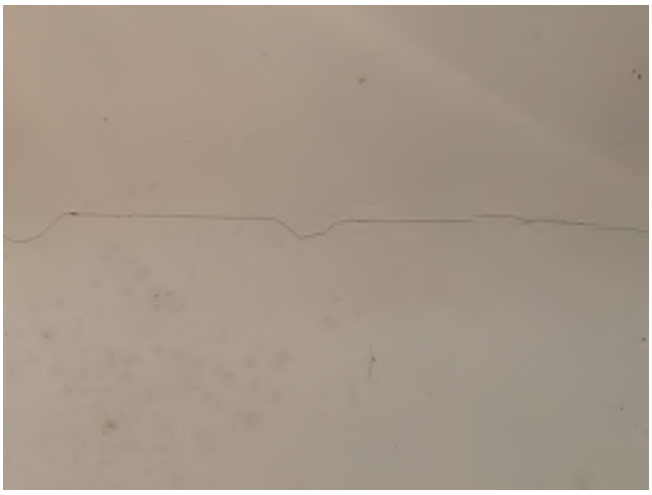

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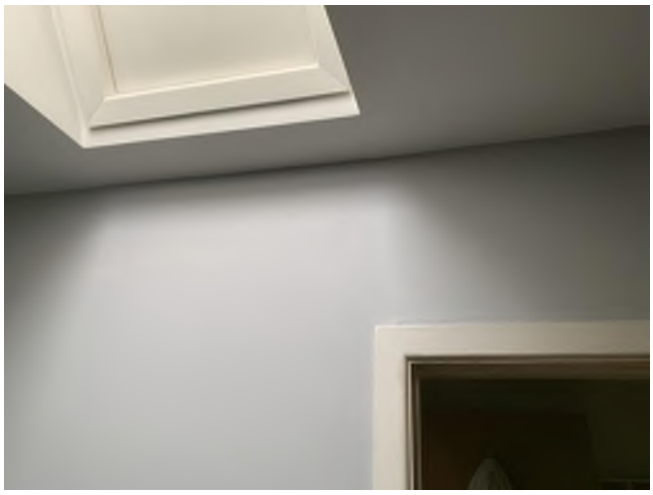

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Photograph 118


Photograph 119

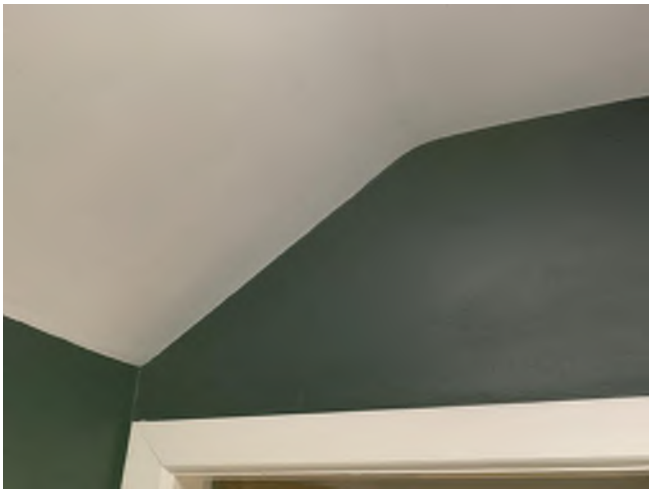

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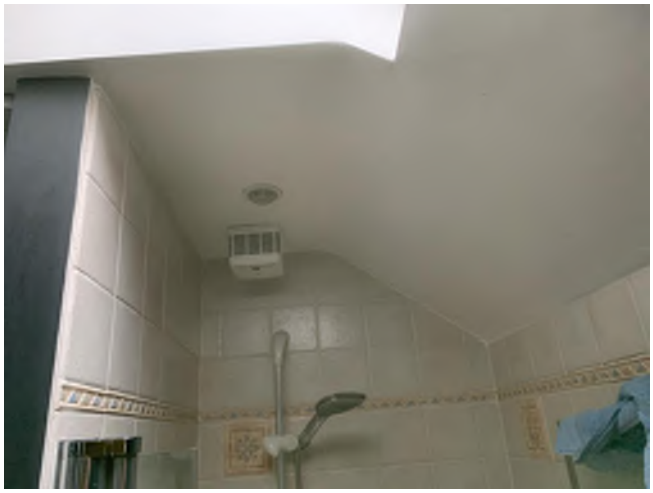

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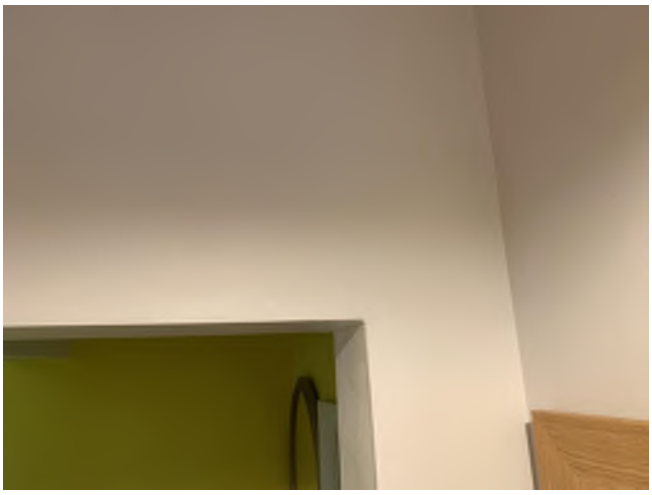

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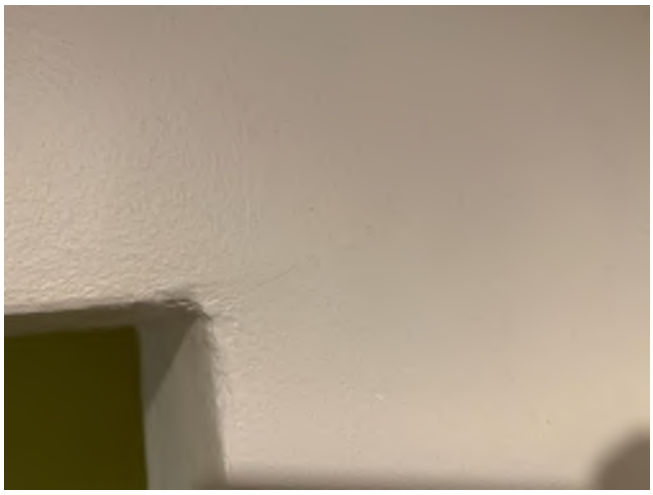

Photograph 123


Photograph 124


Photograph 125


Photograph 126


Photograph 127


Photograph 128

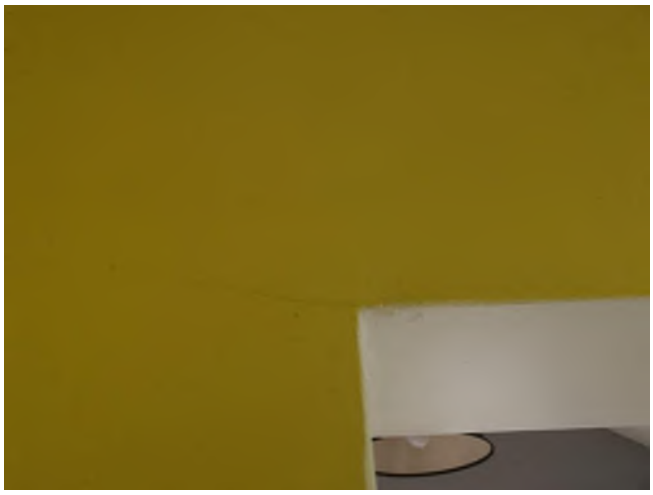

Photograph 129


Photograph 130


Photograph 131


Photograph 132

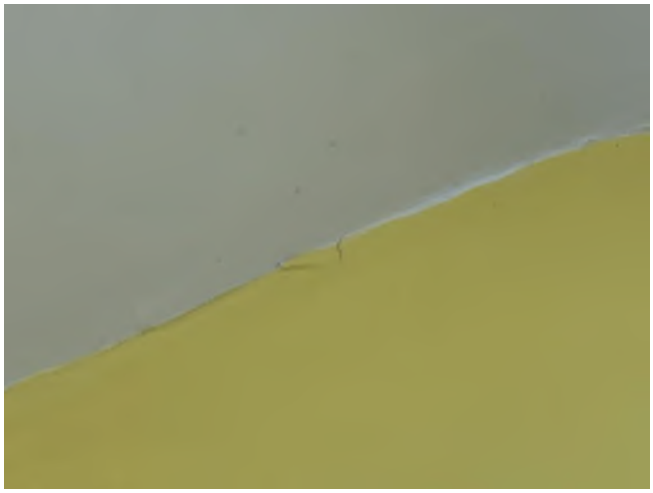

Photograph 133


Photograph 134


Photograph 135


Photograph 136


Photograph 137


Photograph 138



Photograph 139



Photograph 140



Photograph 141

Schedule of Condition (Pre-Works)

10 Tritonville
Tritonville Rd
D04 YW32

Walls

Version A
Ref: JS/303586
Date: 20th March 2023

mcgovern surveyors



Front Elevation.



Site Location.

Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	20th March 2023
Approved by	Pat McGovern		Director	21st March 2023

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Surveyor:	Jason Squires
Date of Inspection:	3rd March 2023
Weather Conditions:	The weather at the time of our inspection was overcast but dry.
Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
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The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
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Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

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** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**EXTERNAL GROUNDS**				
1.01	Rear boundary; rendered wall	Fair	Light cracking to centre of wall; less than 2 mm/patch repair evident/boast render.	2	Photos 1 - 3
1.02	Rear boundary; stone	Fair	Heavy buildup of vegetation and creeper growth/ restricted visibility.		Photos 4 - 6
1.03	Rear boundary; fairface blockwork	Fair	Light crack to top left corner of wall were block work ends at left side of wall; less than 2 mm.	2	Photos 7 - 9
1.04	Rear boundary; rendered wall section	Fair	Light cracking to render; less than 2 mm/boast render/ heavy buildup of vegetation.		Photos 98 - 100
1.05	Rear boundary; Stone section	Fair	Left side of stone wall bulging slightly outward/creeper growth/no cracking-noted.		Photos 101 - 109
1.06	Rear boundary; Pebble – render finish bat one right side	Fair	Light cracking to top right corner of wall; less than 2 mm/cracking to block wall juncture less than 7 mm.	3	Photos 110 - 113
1.07	Rear boundary; Pebble – render finish	Fair	General view/wall to be removed.		Photos 114 - 116
1.08	Left boundary; Pebble – render finish	Fair	Light cracking to left side of pebbledash render finish wall; less than 5 mm.	2	Photos 10 - 13
1.09	Right boundary; Pebble – render finish	Fair	Light cracking to wall juncture; less than 2 mm.	2	Photos 14 - 17
1.10	Garden wall; Rendered	Fair	Boast render/vegetation growth/light cracking.		Photos 63 - 67
1.11	Side boundary; Rendered	Fair	Boast render/cracking/vegetation growth.		Photos 89 - 92
1.12	Front boundary; Granite slabs/Ross iron railing.	Fair	Light erosion to mortar/light vegetation growth.		Photos 93 - 97
2.00	**REAR ELEVATION**				
2.01	Roof; tiled	Fair	Restricted visibility due to buildup of trees and hedges.		Photo 18

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
2.02	External Walls; render finish	Fair	Patch repaired light cracking in isolated areas.		Photos 19 - 26
2.03		Fair	Light cracking to bottom right of ground floor window; less than 1 mm.	1	Photo 27
2.04		Fair	Light cracking between first floor and second floor window; less than 4 mm.	2	Photos 29 - 31
2.05		Fair	Light cracking to services pipe; less than 3 mm.	2	Photos 32 - 33
2.06	External Walls; cill	Poor	Cracking to ground floor window cill; less than 5 mm.		Photo 28
2.07	Footpath to perimeter; concrete	Poor	Repeated light cracking to surface/vegetation growth/ moss growth.		Photos 34 - 39
2.08	Window; uPVC	Fair	Glazing lightly soiled.		Photo 40
2.09	External door; uPVC	Fair	General view.		Photo 41
3.00	**LEFT SIDE ELEVATION**				
3.01	External Walls; render finish	Fair	Patch repaired cracking to extension juncture.		Photos 42 - 46
3.02		Fair	Light crack to left side of downpipe; less than 2 mm.	2	Photos 47 - 49
3.03		Fair	Light crack to top left of vent; less than 1 mm.	1	Photos 50 - 52
3.04		Fair	Light cracking; less than 2 mm/boast render.	2	Photos 53 - 58
3.05	Footpath to perimeter; concrete	Fair	Light cracking in isolated areas/moss growth/vegetation debris.		Photos 59 - 62
4.00	**FRONT ELEVATION**				
4.01	Roof		Restricted view of roof due to parapet finish.		Photo 68
4.02	External Walls; brick facing	Fair	Light crack to bottom left of 1st floor window; less than 2 mm.	2	Photos 69 - 70
4.03		Fair	Light erosion to mortar joints in isolated areas.		Photos 71 - 75
4.04	External Walls; render finish	Fair	Hairline crack to top left of basement window spreading to bottom left of ground floor window; less than 1 mm.	1	Photos 76 - 77

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
4.05		Fair	Hairline crack to right side of basement area; less than 1 mm.	1	Photos 87 - 88
4.06	Footpath to perimeter; concrete	Reasonable	General view.		Photos 78 - 83
4.07	Window; glazing	Fair	Glazing lightly soiled.		Photo 84
4.08	External door; timber	Fair	Fair decorative order/glazing lightly soiled.		Photos 85 - 86
	INTERNAL				
5.00	**2ND FLOOR FRONT LEFT ROOM**				
5.01	Front wall; papered	Fair	Light cracking to right wall juncture; less than 2 mm.	2	Photos 117 - 119
5.02	Rear wall; plastered	Fair	Light cracking to top right of door; less than 1 mm.	1	Photos 120 - 121
5.03	Ceiling; papered	Fair	Hairline cracking to ceiling; less than 0.5 mm.		Photos 122 - 123
5.04	Left wall; papered	Fair	Light cracking front wall juncture; less than 2 mm.	2	Photo 124
6.00	**2ND FLOOR FRONT RIGHT ROOM**				
6.01	Front wall; papered	Fair	Light cracking to top left corner of wall; Leston 2 mm.	2	Photo 125
6.02	Left wall; papered	Fair	Repeated light cracking to wall; less than 1.5 mm.	2	Photos 126 - 129
6.03	Rear wall; drylined	Fair	Light crack to left wall juncture; less than 1 mm.	1	Photos 130 - 131
6.04	Right wall; drylined	Fair	Hairline cracking to chimney breast; less than 0.5 mm.	1	Photos 132 - 134
6.05	Ceiling; papered	Fair	Hairline cracking to ceiling; less than 0.5 mm.		Photos 135 - 136
7.00	**CORRIDOR TO FRONT BEDROOMS**				
7.01	Front wall; papered	Fair	Life cracking to centre of all; less than 1 mm.	1	Photos 137 - 138
7.02	Rear wall; papered	Fair	Light crack to top right corner of door; less than 1 mm.	1	Photo 139
7.03	Right wall; papered	Fair			Photos 140 - 141
7.04	Ceiling; papered	Fair	Light cracking to ceiling; less than 2 mm.		Photo 142

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
8.00	**2ND FLOOR REAR RIGHT ROOM**				
8.01	Left wall; papered	Fair	Light cracked to top right corner of the door; less than 2 mm.	2	Photos 143 - 144
8.02	Rear wall; papered	Fair	Light cracking to left wall juncture; less than 2 mm.	2	Photos 145 - 147
8.03		Fair	Cracking to coving.		Photos 148 - 149
8.04		Fair	Life-threatening to right wall ginger; less than 3 mm.	2	Photos 150 - 153
8.05	Front wall; papered	Fair	Lace cracking to right wall Georgia and coving; less than 2 mm.	2	Photos 154 - 155
9.00	**3RD FLOOR WC**				
9.01	Wall; papered	Reasonable			Photos 156 - 158
10.00	**2ND FLOOR LANDING**				
10.01	Right wall; papered	Fair	Light crack to top left corner of door; less than 2 mm.	2	Photos 159 - 160
10.02	Front wall; papered	Fair	Light crack to top right of door; less than 0.5 mm.	1	Photo 161
10.03	Ceiling; coving	Fair	Light cracking to front left corner of coving; less than 2 mm.	2	Photo 162
11.00	**2ND FLOOR STAIRS**				
11.01	Ceiling; plastered	Fair	Light crack to left wall juncture; less than 1 mm.		Photos 163 - 164
12.00	**1ST FLOOR REAR BEDROOM**				
12.01	Rear wall; papered	Fair	Light cracking to junctures; less than 2 mm.	2	Photos 165 - 173
12.02	Front wall; papered	Fair	Light cracking to right side of wall; less than 2 mm.	2	Photos 174 - 178
12.03		Poor	Light cracking to right side of door; less than 2 mm.	2	Photos 182 - 185
12.04	Left wall; papered	Poor	Light cracking to wall; less than 2 mm/blistering paint.	2	Photos 179 - 181
12.05	Ceiling; plastered	Poor	Repeat of hairline cracking to ceiling; less than 0.25 mm.		Photos 186 - 193

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
13.00	**1ST FLOOR LANDING**				
13.01	Ceiling; coving	Fair	Light cracking g throughout coving; less than 2 mm.		Photos 194 - 198
14.00	**SITTING ROOM**				
14.01	Front wall; papered	Fair	Light crack to right wall juncture; less than 1.5 mm.	2	Photos 199 - 200
15.00	**PIANO ROOM**				
15.01	Rear wall; papered	Fair	Light cracking to left wall juncture; less than 1 mm.	1	Photos 201 - 203
15.02	Front wall; papered	Fair	Light cracking to left wall juncture; less than 1 mm.	1	Photos 204 - 205
15.03	Right wall; papered	Fair	Hairline crack to top right of door; less than 0.5 mm.	1	Photo 206
15.04	Ceiling; papered	Fair	Light crack to ceiling light left side of chimney breast; less than 1 mm.		Photo 207
16.00	**KITCHEN**				
16.01	Ceiling; plastered	Poor	Deep crack to ceiling g at door area; less than 3 mm.		Photos 208 - 210
16.02	Rear wall; plastered	Fair	Light crack to top right of door; less than 1 mm.	1	Photos 211 - 212
16.03	Front wall; papered	Fair	Light cracking ceiling juncture; less than 2 mm.		Photos 213 - 215
17.00	**BATHROOM BEHIND KITCHEN**				
17.01	Front wall; plastered	Fair	Light cracking to top left and right of door; less than 2 mm.	2	Photos 216 - 217
17.02		Fair	Light crack to ceiling Georgia; less than 2 mm.		Photos 218 - 219
17.03	Right wall; drylined	Fair	Hairline cracking to centre of all; less than 0.5 mm.	1	Photos 220 - 222
17.04	Rear wall; papered	Fair	Life cracking to ceiling juncture; less than 1 mm.		Photos 223 - 226
18.00	**BASEMENT FRONT ROOM**				
18.01	Rear wall; papered	Fair	Hairline crack to top centre of wall; less than 0.5 mm.	1	Photos 227 - 228
19.00	**CELLAR ENTRANCE**				
19.01	Rear wall; plastered	Fair	Hairline crack to ceiling juncture; less than 0.5 mm.		Photos 229 - 230

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
19.02	Right wall; plastered	Fair	Light cracking over door; less than 1 mm.		Photos 231 - 232
19.03	Ceiling; plastered	Fair	Boast plaster.		Photos 233 - 234
20.00	**BASEMENT KITCHEN.**				
20.01	Left wall; papered	Fair	Light crack to ceiling juncture; less than 1 mm.		Photos 235 - 236
20.02	Ceiling; plastered	Fair	Hairline to ceiling; less than 0.5 mm.		Photos 237 - 239
21.00	**BASEMENT BEDROOM**				
21.01	Wall; papered	Reasonable	No cracking or visual defects noted.		Photos 240 - 244
22.00	**BASEMENT BATHROOM**				
22.01	Ceiling; plastered	Fair	Blistering paint.		Photos 245 - 248
23.00	**BASEMENT TOILET**				
23.01	Right wall; drylined	Fair	Blistering paint.		Photo 249
23.02	Front wall; drylined	Fair	Hairline crack to top right of door; less than 0.25 mm.		Photo 250
24.00	**BASEMENT CORRIDOR**				
24.01	Right wall; papered	Fair	Like cracked rear wall Georgia; less than 1 mm.	1	Photos 251 - 252
24.02		Fair	General view.		Photos 253 - 255
25.00	**BASEMENT STAIRS**				
25.01	Right wall; papered	Fair	Light crack to ceiling juncture; less than 1 mm.		Photo 256
26.00	**GROUND FLOOR HALF LANDING**				
26.01	Left wall; plastered	Fair	Sorry hairline cracking/blistering paint.		Photos 257 - 259
26.02	Right wall; coving	Fair	Light cracking to coving.		Photos 260 - 264
27.00	**ENTRANCE CORRIDOR**				
27.01	Front wall; papered	Fair	Hairline cracking to junctures: less than 0.5 mm.	1	Photos 265 - 270

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
27.02	Right wall; papered	Fair	Hairline crack to right side of wall opening; less than 0.25 mm.		Photos 271 - 273

Appendix 1 – Photographs


Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6


Photograph 7


Photograph 8


Photograph 9


Photograph 10


Photograph 11


Photograph 12


Photograph 13


Photograph 14


Photograph 15


Photograph 16


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Photograph 18


Photograph 19


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Photograph 21


Photograph 22


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Photograph 26


Photograph 27


Photograph 28


Photograph 29


Photograph 30



Photograph 31



Photograph 32



Photograph 33



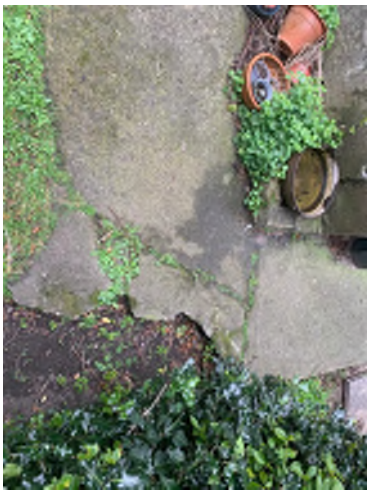
Photograph 34



Photograph 35



Photograph 36


Photograph 37


Photograph 38


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Photograph 41


Photograph 42


Photograph 43


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Photograph 45


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Photograph 112


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Photograph 115



Photograph 116



Photograph 117



Photograph 118



Photograph 119



Photograph 120


Photograph 121


Photograph 122


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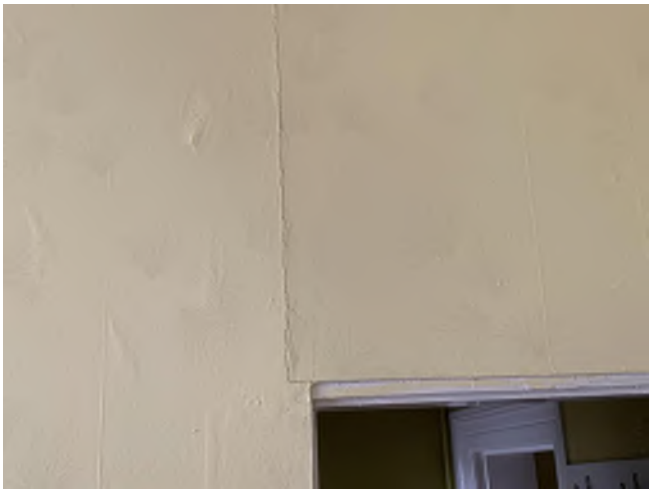

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Photograph 132



Photograph 133



Photograph 134



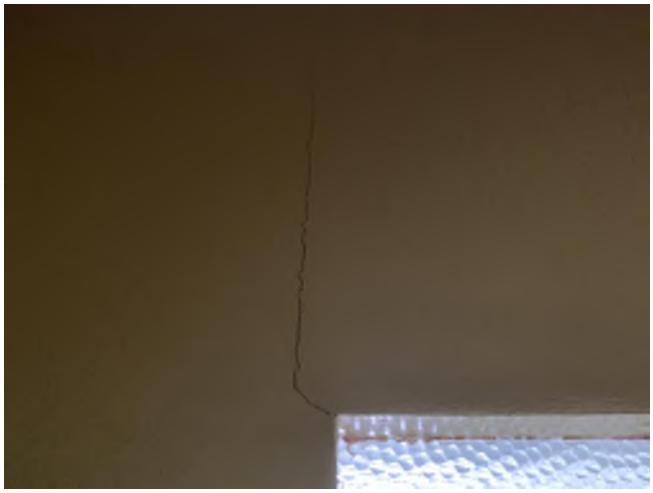
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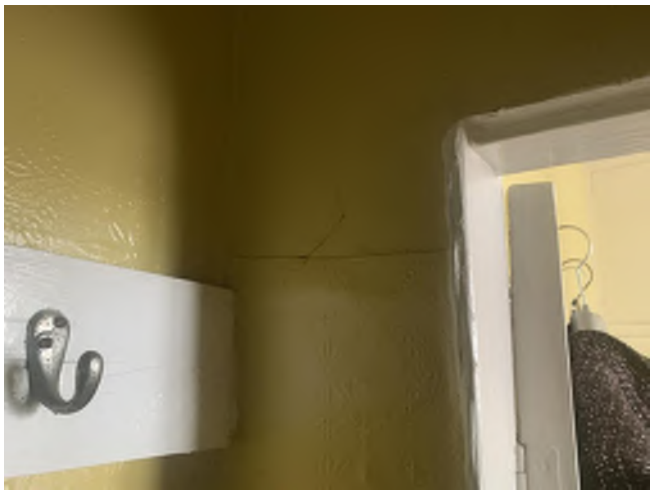


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Photograph 138


Photograph 139

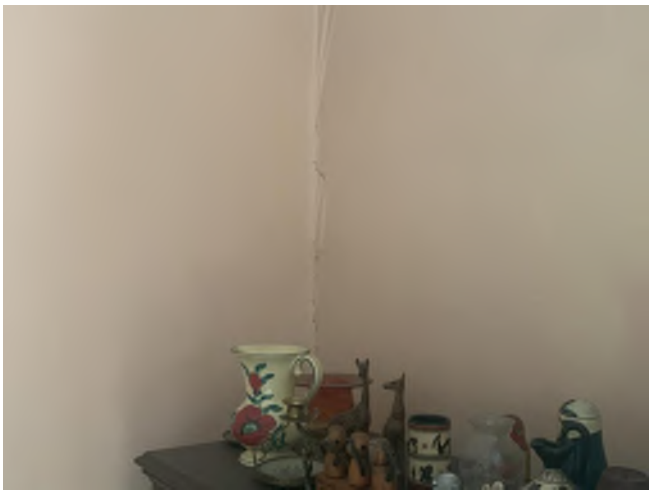

Photograph 140


Photograph 141


Photograph 142


Photograph 143


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Photograph 151


Photograph 152


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Photograph 155

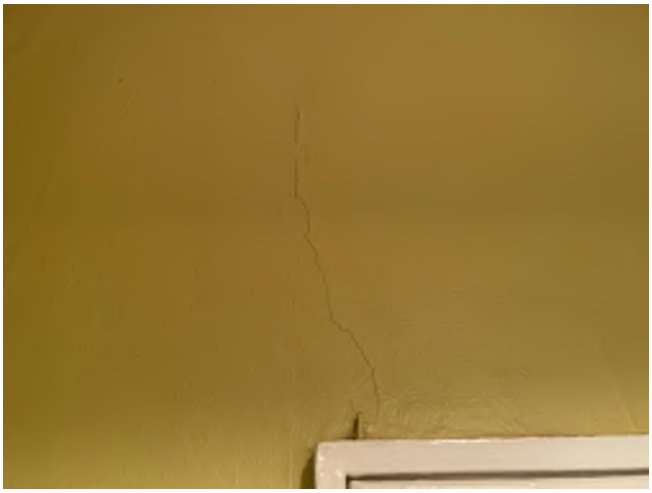

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Photograph 159

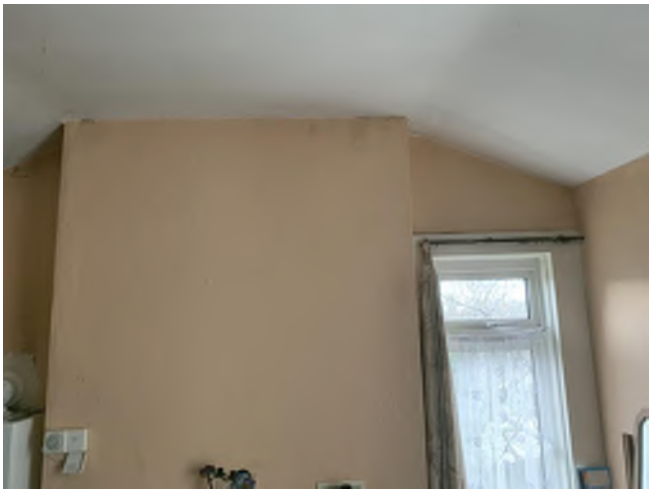

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Photograph 162

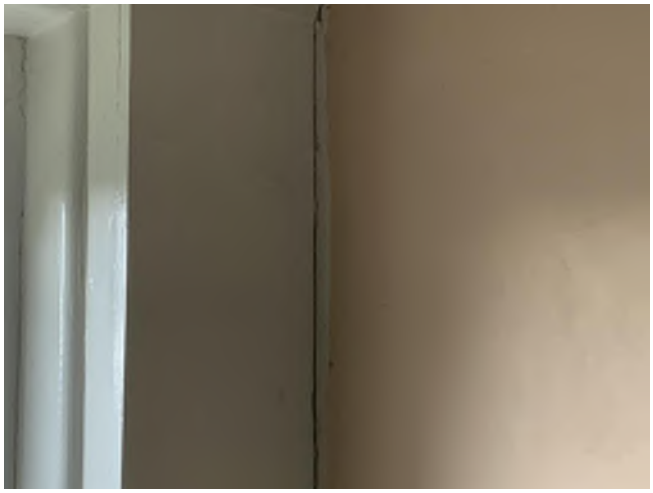

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Photograph 192



Photograph 193



Photograph 194



Photograph 195



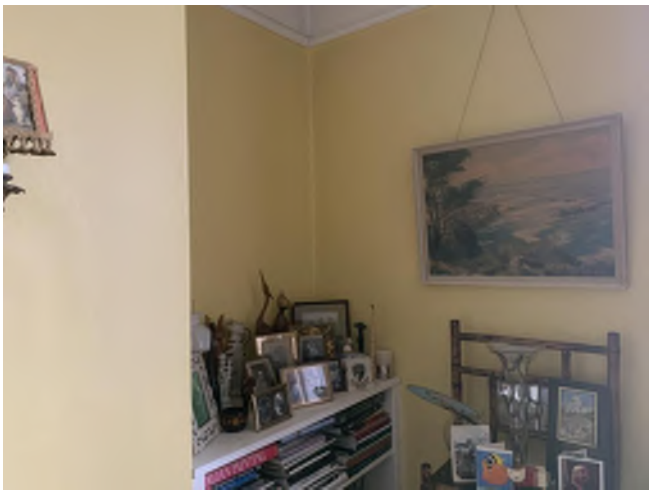
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Photograph 197



Photograph 198


Photograph 199


Photograph 200


Photograph 201


Photograph 202


Photograph 203

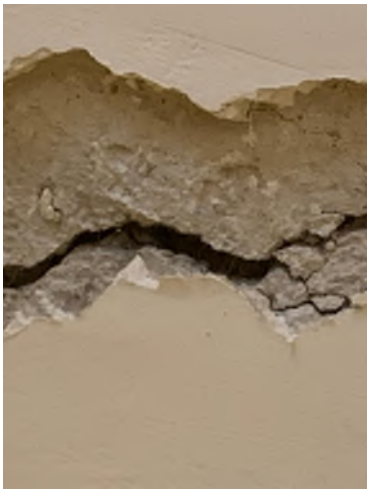

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Photograph 214

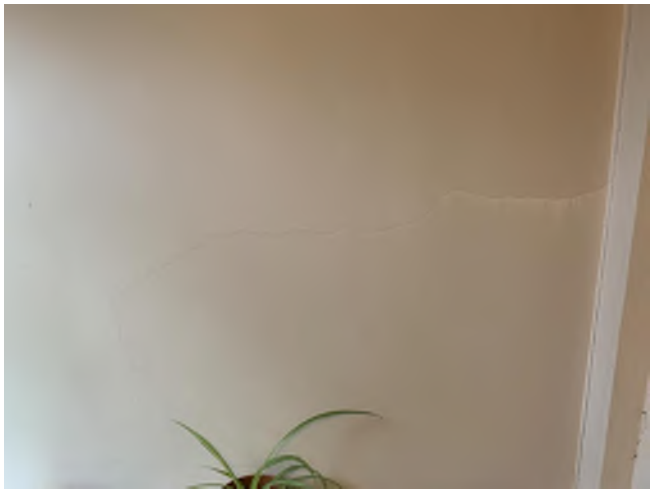

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Photograph 218


Photograph 219


Photograph 220


Photograph 221


Photograph 222

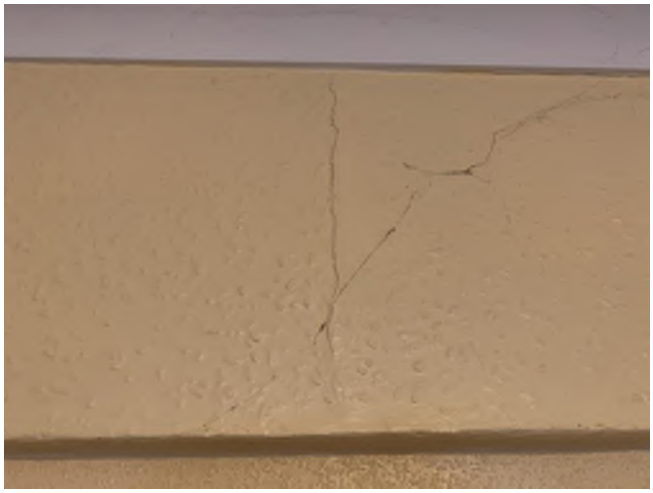

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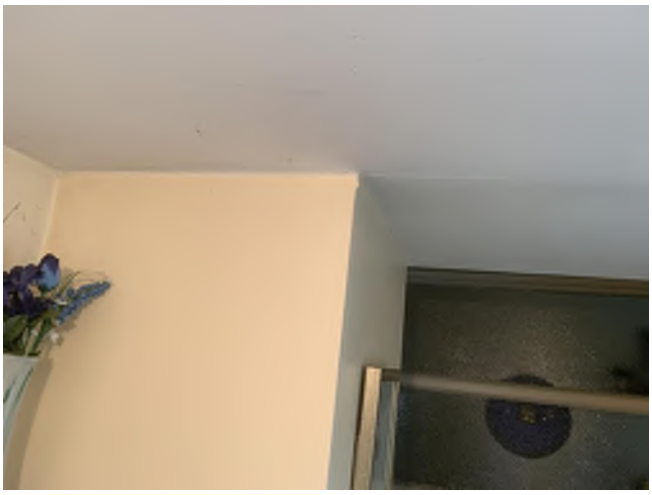

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Photograph 230


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Photograph 232


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Photograph 234

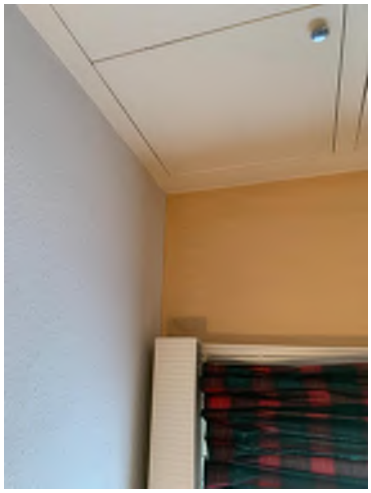

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Photograph 238

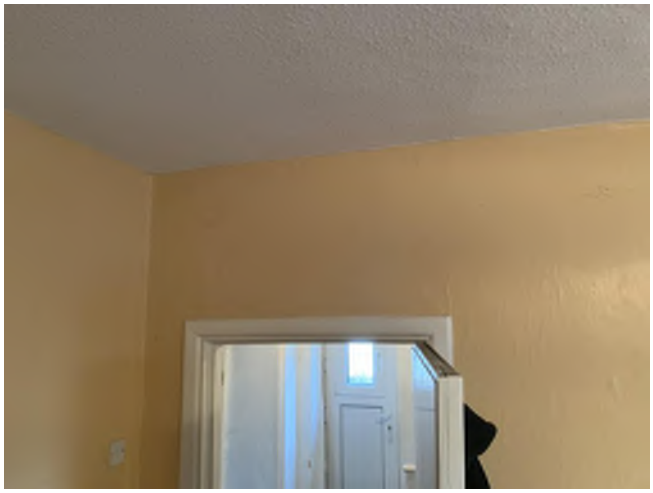

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Photograph 240


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Photograph 243

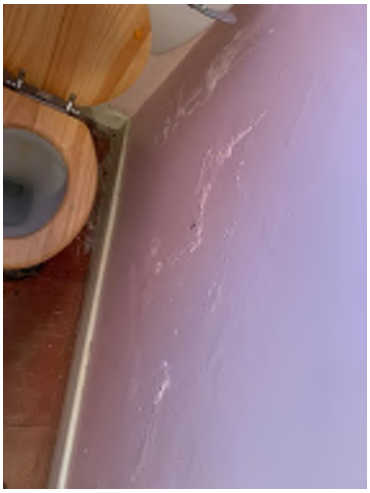

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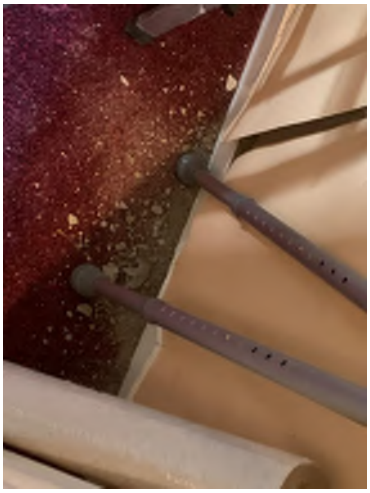

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Photograph 251

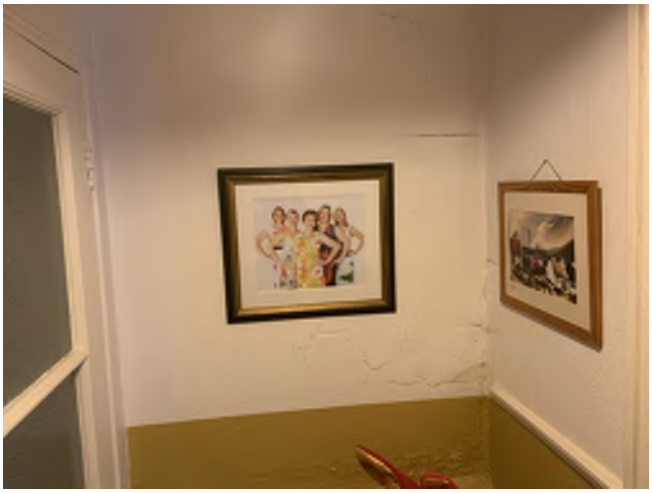

Photograph 252


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Photograph 254


Photograph 255


Photograph 256

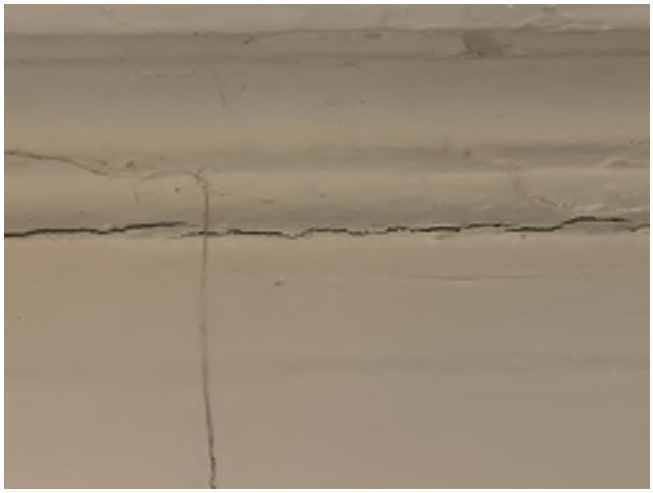

Photograph 257


Photograph 258


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Photograph 263


Photograph 264


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Photograph 266


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Photograph 268


Photograph 269


Photograph 270



Photograph 271



Photograph 272



Photograph 273

Schedule of Condition (Pre-Works)

12 Tritonville Rd
D04 RK25

Walls

Version A
Ref: JS/303586
Date: 24th April 2023

mcgovern surveyors



Front Elevation.



Site Location.

Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	24th April 2023
Approved by	Pat McGovern		Director	25th April 2023

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1 General

Surveyor:	Jason Squires
Date of Inspection:	21st April 2023
Weather Conditions:	The weather at the time of our inspection was dry with sunny spells.
Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
Description of the Property:	The property comprises a two-storey, over basement mid-terrace dwelling.

2 Scope of Inspection

This inspection has taken the form of an appraisal of the main parts of the structure including roofs, walls, floors and finishes, both internal and external, arising out of visual inspection only. Where parts of the structure are inaccessible or unexposed, no opinion can be given. No floor covering or timber cladding/lining to walls or ceilings were lifted and, therefore, it must be appreciated that defects may be present but cannot be conclusively identified.

Specific exclusions include: M&E services; drainage; attic (unless previously agreed); elevations above a height accessed off a 3m ladder will be viewed from ground level.

3 Use of Report

This report is for the sole use of Walls and their professional advisor(s), and shall not be given to or used by a third party without the expressed written consent of McGovern Surveyors. A copy may be forwarded to the property owner if requested.

4 Definitions

The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
"Reasonable"	The component or element concerned exhibits only minor deterioration and ageing to finishes or exhibits a slight and faint patina of dirt, dust, and discoloration, and/or localised marks and smudges to its surface.
"Fair"	The component or element concerned requires attention and maintenance or exhibits a pronounced patina of dirt, dust and discolouration and/or localised marks and smudges to its surfaces.
"Poor"	The component or element concerned is damaged or is extensively marked, scuffed and/or damaged.

5 BRE Classification

Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**FRONT ELEVATION**				
1.01	External Walls; render finish	Fair	Light cracking to top left and top right of first floor left side window; approximate width; less than 3 mm.	2	Photos 1 - 3
1.02		Fair	Light cracking to top left and right of first floor right side window; approximate width; less than 1.5 mm.	2	Photos 4 - 6
1.03		Fair	Light cracking to top left of ground floor window spreading to bottom left of first floor window; approximate width; less than 1.5 mm.	2	Photo 7
1.04		Fair	Light crack to bottom right of first floor right side window; approximate width; less than 0.5 mm.	1	Photo 8
1.05		Fair	Hairline crack to bottom centre left of ground floor left side window; less than 0.25 mm.	1	Photos 9 - 10
1.06		Fair	Hairline crack over entrance door; less than 0.25 mm.	1	Photo 11
1.07		Fair	Blemishes under basement window.		Photos 12 - 13
1.08	Footpath to perimeter; concrete	Fair	Light cracking in isolated areas; patch repaired cracking evident.		Photos 14 - 18
1.09	Window; glazing	Reasonable	Glazing reasonably clean.		Photos 35 - 36
1.10	External door; timber	Reasonable	Hairline cracking behind paintwork; reasonable decorative order.		Photos 37 - 38
2.00	**EXTERNAL GROUNDS**				
2.01	Front garden; gravel	Reasonable	Reasonably maintained.		Photos 19 - 21
2.02	Basement patio walls; render finish	Reasonable	No cracking noted.		Photos 22 - 34

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
2.03	Front boundary; Granite curbs/steel railing	Reasonable	No cracking noted; light erosion to mortar joints on left side.		Photos 70 - 72
3.00	**REAR ELEVATION**				
3.01	Roof; tiled	Fair	Light moss growth.		Photos 39 - 40
3.02	Chimney; rendered stack	Reasonable	No cracking noted.		Photos 41 - 42
3.03	External Walls; render finish	Fair	Cracking over first floor window; Approximate width; less than 2.5 mm.	2	Photos 43 - 45
3.04		Fair	Light crack to bottom right of first floor window; Approximate width; 1.5 mm.	2	Photo 46
3.05		Fair	Light crack to top left corner outdoor; less than 0.5 mm.	1	Photo 47
3.06		Fair	What is cracking your extension; Approximate width; less than 3 mm.	2	Photos 48 - 49
3.07	Footpath to perimeter; paving	Reasonable	No cracking noted.		Photos 50 - 54
3.08	Window; glazing	Reasonable	Glazing reasonably clean.		Photo 55
3.09	External door; timber	Reasonable	Glazing reasonably clean.		Photo 56
3.10	Verge; mortar pointing	Poor	Light cracking to mortar pointing to centre and right side of pointing; less than 3 mm to right side.	2	Photos 66 - 69
4.00	**OUTBUILDING**				
4.01	internal walls; Fair faced block Work	Reasonable	No cracking noted the block work; intrusion of creeper growth to right side.		Photos 57 - 62
4.02	External Walls; render finish	Reasonable	No cracking noted.		Photos 63 - 65
	INTERNAL				
5.00	**SITTING ROOM**				
5.01	Rear wall; drylined	Fair	Hairline crack to top left and right of double door; less than 0.25 mm.	1	Photos 73 - 75

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
5.02		Fair	Blemishes to left side of wall.		Photo 86
5.03	Right wall; drylined	Fair	Hairline crack to top left of door; less than 0.25 mm.	1	Photos 76 - 77
5.04	Front wall; drylined	Fair	Hairline crack to right side of wall; less than 0.25 mm.	1	Photos 78 - 80
5.05		Fair	Hairline crack to top left and right of wall; less than 0.25 mm.	1	Photos 81 - 83
5.06	Ceiling; plastered	Fair	Hairline crack to centre of ceiling; less than 0.25 mm.		Photos 84 - 85
6.00	**KITCHEN**				
6.01	Rear wall; drylined	Fair	Hairline cracking to top left and right of double door; less than 0.25 mm.	1	Photos 87 - 88
6.02		Fair	Hairline crack to top left of single door; less than 0.25 mm.	1	Photo 89
6.03	Front wall; drylined	Fair	Hairline cracking over archway; less than 0.25 mm.	1	Photos 90 - 92
7.00	**BASEMENT ENTRANCE**				
7.01	Left wall; drylined	Fair	Light crack to top left corner of door; less than 0.5 mm.	1	Photo 93
7.02		Poor	Blistering paint; staining.		Photos 94 - 95
7.03	Right wall; drylined	Fair	Blistering paint.		Photos 96 - 97
8.00	**GROUND FLOOR ACCESS TO STAIRS**				
8.01	Front wall; drylined	Fair	Hairline crack to top left of door; less than 0.25 mm.	1	Photos 98 - 99
8.02	Left wall; drylined	Fair	Hairline crack to top right of door; less than 0.25 mm.	1	Photos 100 - 101
8.03	Floor; timber	Fair	Uneven surface finish.		Photo 102
9.00	**GROUND FLOOR WC**				
9.01	Wall; ceramic tiles	Reasonable	No cracking noted.		Photos 103 - 105
10.00	**HALF LANDING TO GROUND FLOOR**				
10.01	Ceiling; plastered	Fair	Light cracking under stair juncture; less than 1 mm.		Photos 106 - 111

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
11.00	**DINING ROOM**				
11.01	Wall; papered	Reasonable	No cracking or visual defects noted.		Photos 112 - 113
11.02	Ceiling; plastered	Fair	Hairline crack to front left corner; less than 0.25 mm.		Photo 114
12.00	**GROUND FLOOR SITTING ROOM**				
12.01	Wall; plastered	Reasonable	No cracking noted.		Photos 115 - 118
13.00	**ENTRANCE CORRIDOR**				
13.01	Wall; drylined/plastered	Reasonable	No cracking or visual defects noted.		Photos 119 - 120
14.00	**CEILING OVER STAIRS**				
14.01	Ceiling; plastered	Fair	Light crack to ceiling stair juncture; less than 0.5 mm.		Photos 121 - 123
15.00	**EXTENSION BATHROOM**				
15.01	Left wall; plastered	Fair	Hairline crack to right of centre; less than 0.25 mm.	1	Photos 124 - 125
16.00	**1ST FLOOR LANDING**				
16.01	Ceiling; plastered	Fair	Light cracking to ceiling in isolated areas; less than 0.5 mm; blemishes.		Photos 126 - 132
16.02	Wall; papered	Fair	Peeling wallpaper an isolated areas.		Photos 133 - 134
17.00	**FRONT RIGHT BEDROOM**				
17.01	Front wall; drylined	Fair	Blemishes to left and right side of window.		Photos 135 - 136
17.02	Rear wall; plastered	Fair	Light crack to top left of door; less than 0.5 mm.	1	Photos 137 - 138
18.00	**FRONT LEFT BEDROOM**				
18.01	Left wall; plastered	Fair	Hairline crack to top right of arch; less than 0.25 mm.	1	Photos 139 - 140
18.02		Fair	Light crack to top left of right side arch; less than 0.5 mm.	1	Photo 141
18.03	Rear wall; drylined	Fair	Hairline cracking in isolated areas; less than 0.25 mm; blistering paint.	1	Photos 142 - 145

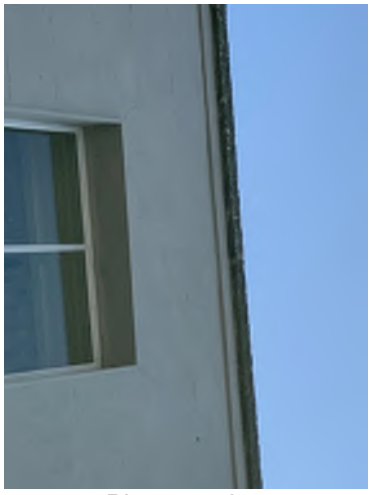
ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
18.04	Ceiling; plastered	Fair	Light cracking in isolated areas; less than 0.5 mm; staining in isolated areas.		Photos 146 - 152
19.00	**REAR BEDROOM**				
19.01	Front wall; plastered	Fair	Hairline crack to top left corner of the wall; less than 0.25 mm.	1	Photos 153 - 154
19.02	Left wall; drylined	Fair	Light cracking to left wall juncture; less than 1 mm; scuff marks.	1	Photos 155 - 157
19.03	Rear wall; drylined	Fair	Hairline crack to top left corner of window; less than 0.25 mm.	1	Photo 158
19.04	Ceiling; plastered	Fair	Hairline crack to centre of ceiling spreading from left wall to right wall; less than 0.25 mm.		Photos 159 - 162

Appendix 1 – Photographs


Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12


Photograph 13


Photograph 14


Photograph 15


Photograph 16


Photograph 17


Photograph 18


Photograph 19


Photograph 20


Photograph 21


Photograph 22

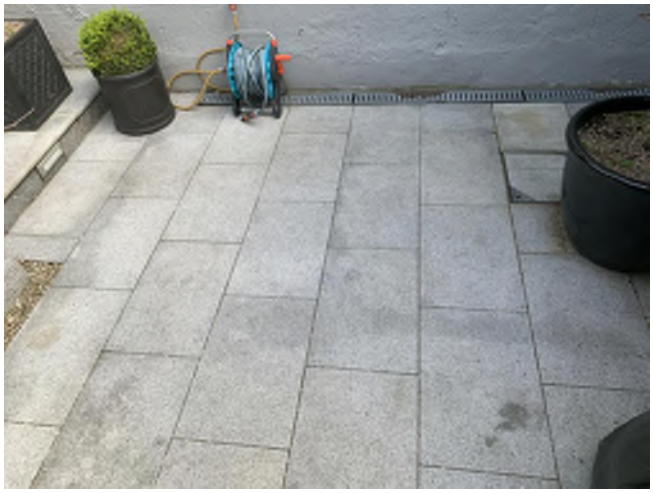

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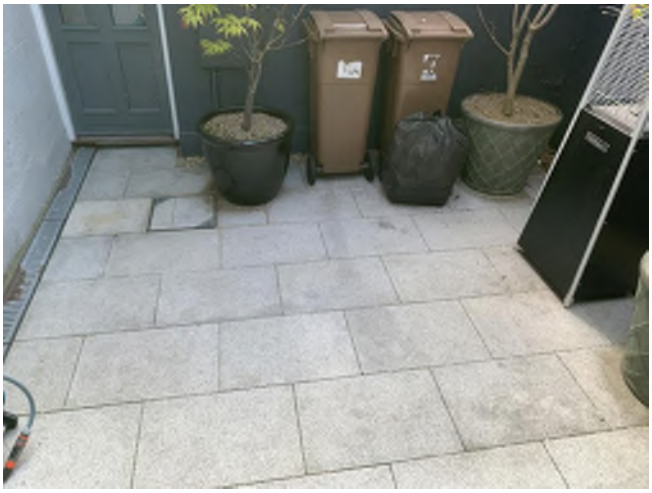

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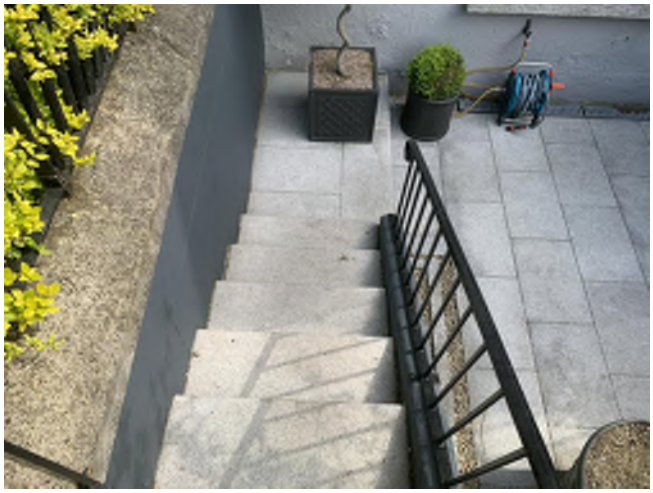

Photograph 25


Photograph 26


Photograph 27

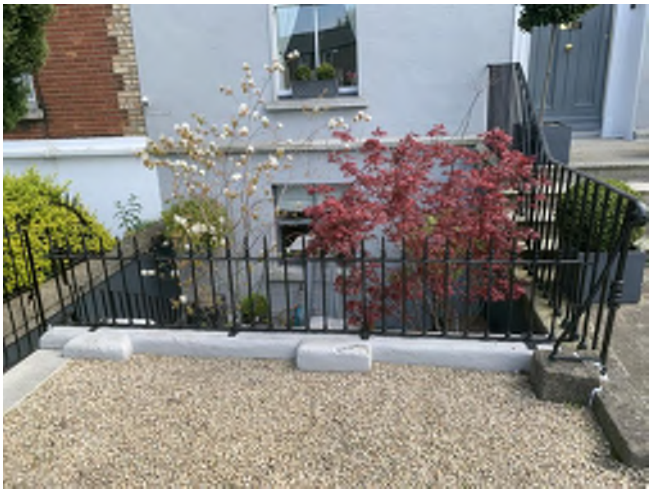

Photograph 28


Photograph 29


Photograph 30


Photograph 31


Photograph 32


Photograph 33


Photograph 34


Photograph 35


Photograph 36


Photograph 37


Photograph 38


Photograph 39


Photograph 40


Photograph 41


Photograph 42


Photograph 43


Photograph 44

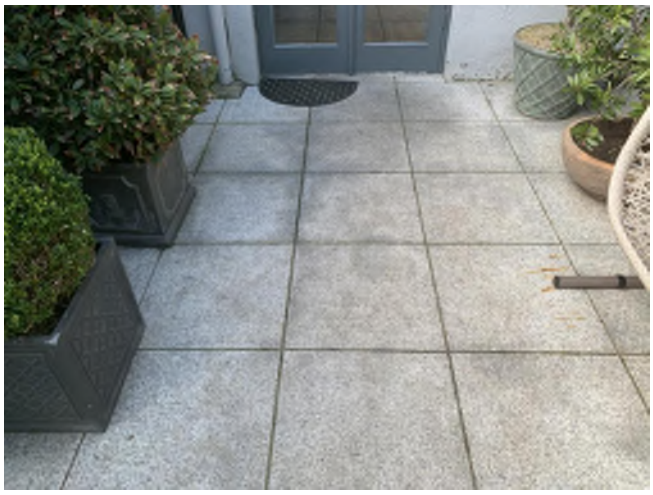

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Photograph 46

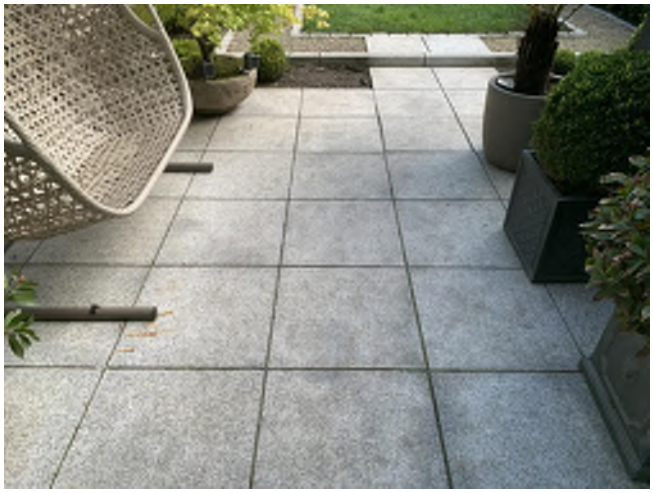

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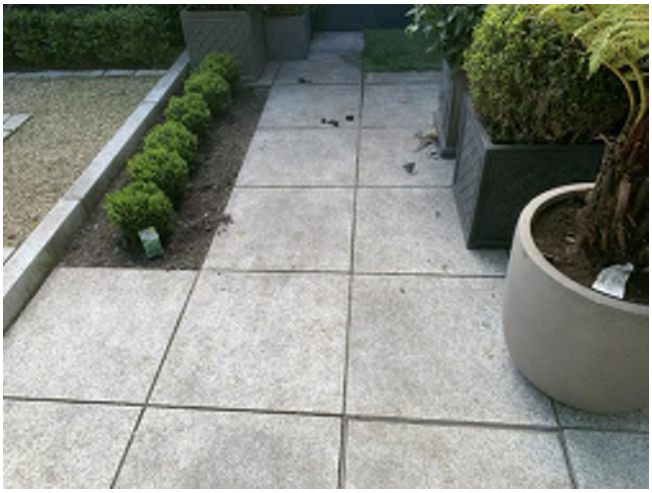

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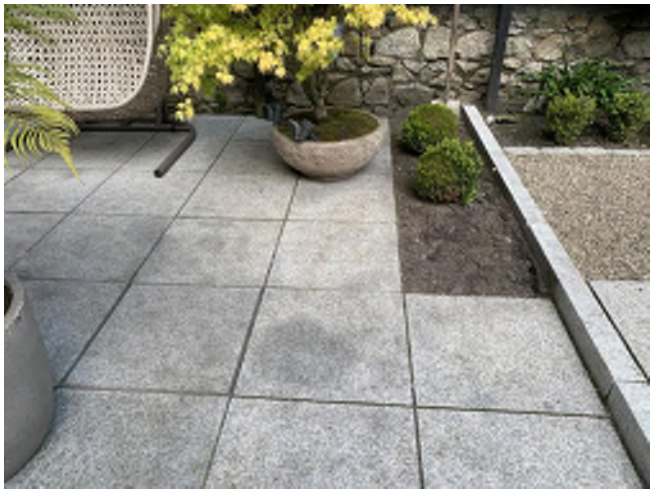

Photograph 49


Photograph 50


Photograph 51


Photograph 52


Photograph 53


Photograph 54


Photograph 55


Photograph 56


Photograph 57


Photograph 58


Photograph 59


Photograph 60


Photograph 61


Photograph 62


Photograph 63


Photograph 64


Photograph 65


Photograph 66


Photograph 67


Photograph 68


Photograph 69


Photograph 70


Photograph 71


Photograph 72


Photograph 73


Photograph 74


Photograph 75


Photograph 76


Photograph 77


Photograph 78



Photograph 79



Photograph 80



Photograph 81



Photograph 82



Photograph 83



Photograph 84



Photograph 85



Photograph 86



Photograph 87



Photograph 88



Photograph 89



Photograph 90


Photograph 91


Photograph 92

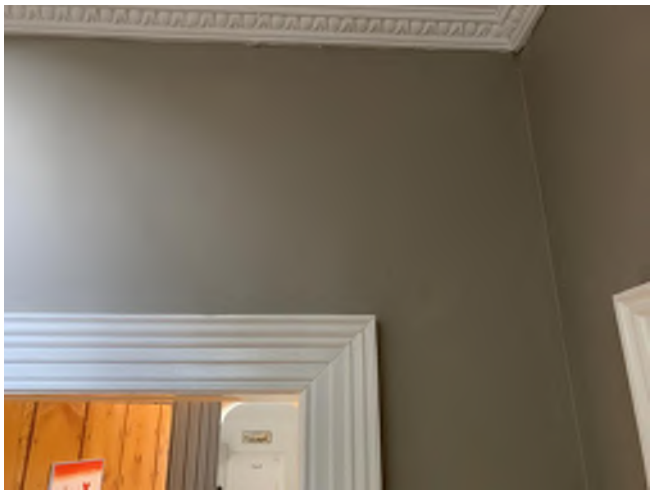

Photograph 93


Photograph 94


Photograph 95


Photograph 96

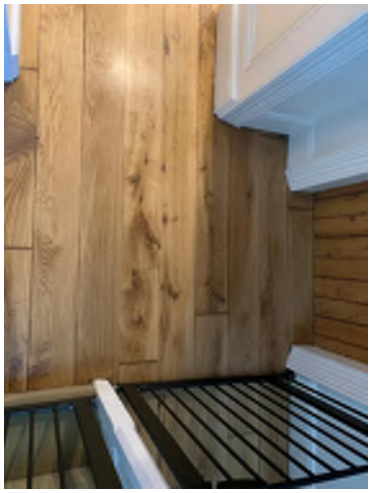

Photograph 97


Photograph 98


Photograph 99


Photograph 100


Photograph 101


Photograph 102


Photograph 103


Photograph 104


Photograph 105


Photograph 106


Photograph 107


Photograph 108


Photograph 109


Photograph 110


Photograph 111


Photograph 112


Photograph 113


Photograph 114


Photograph 115


Photograph 116


Photograph 117


Photograph 118


Photograph 119


Photograph 120


Photograph 121


Photograph 122


Photograph 123


Photograph 124


Photograph 125


Photograph 126


Photograph 127


Photograph 128


Photograph 129


Photograph 130


Photograph 131


Photograph 132



Photograph 133



Photograph 134



Photograph 135



Photograph 136



Photograph 137



Photograph 138


Photograph 139


Photograph 140


Photograph 141


Photograph 142


Photograph 143


Photograph 144



Photograph 145



Photograph 146



Photograph 147



Photograph 148



Photograph 149



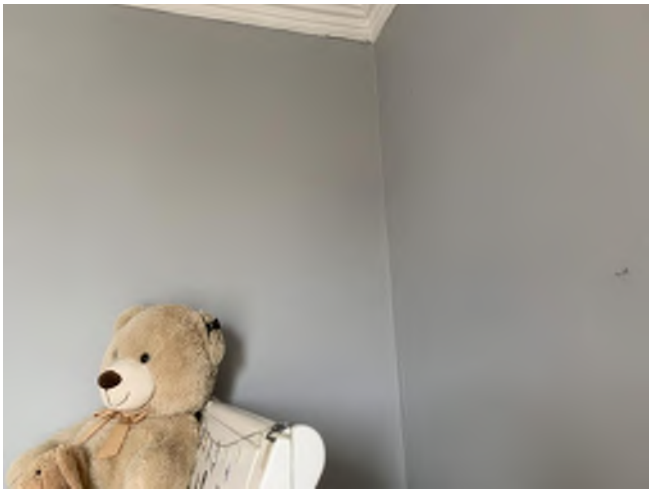
Photograph 150



Photograph 151



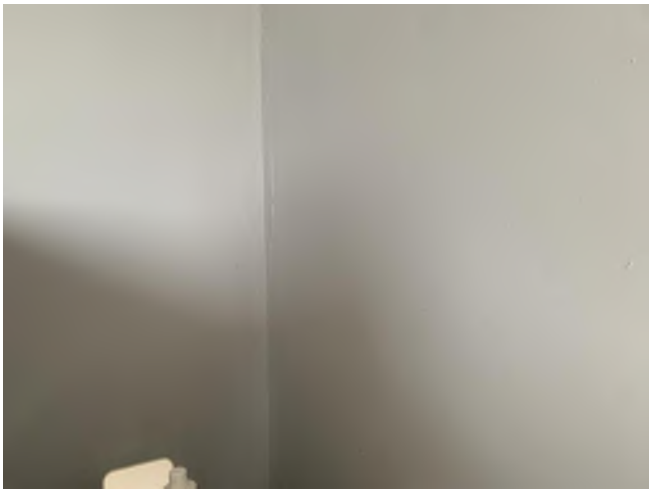
Photograph 152



Photograph 153



Photograph 154



Photograph 155



Photograph 156



Photograph 157



Photograph 158



Photograph 159



Photograph 160



Photograph 161



Photograph 162

Schedule of Condition (Pre-Works)

Star School Suplies
Sandymount Rd
D04 DY96

Walls Construction

Version A
Ref: JS/303586
Date: 24th February 2023

mcgovern surveyors



Front Elevation.



Area location - Along Thick Red Line.

Quality Assurance

	Name	Signature	Qualification	Date
Prepared by	Jason Squires		Surveyor	24th February 2023
Approved by	Pat McGovern		Director	27th February 2023

Contents

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2. Scope of Inspection 3
3. Use of Report 3
4. Definitions 4
5. BRE Classification 4
6. Schedule of Condition 5
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1 General

Surveyor:	Jason Squires
Date of Inspection:	24th February 2023
Weather Conditions:	The weather at the time of our inspection was overcast but dry.
Directions:	All directions are taken standing outside facing the front elevation of the building; that being the elevation with the main entrance door.
Description of the Property:	The property comprises a single-storey retail unit.

2 Scope of Inspection

This inspection has taken the form of an appraisal of the main parts of the structure including roofs, walls and finishes, externally only, arising out of visual inspection. Where parts of the structure are inaccessible or unexposed, no opinion can be given. No opening up was undertaken and, therefore, it must be appreciated that defects may be present but cannot be conclusively identified.

Specific exclusions include: building interior; drainage; elevations above a height accessed off a 3m ladder will be viewed from ground level.

3 Use of Report

This report is for the sole use of Walls Construction and their professional advisor(s), and shall not be given to or used by a third party without the expressed written consent of McGovern Surveyors. A copy may be forwarded to the property owner if requested.

4 Definitions

The terms used within this report take the following meaning ascribed to them:

"Good"	There are no visible defects.
"Reasonable"	The component or element concerned exhibits only minor deterioration and ageing to finishes or exhibits a slight and faint patina of dirt, dust, and discoloration, and/or localised marks and smudges to its surface.
"Fair"	The component or element concerned requires attention and maintenance or exhibits a pronounced patina of dirt, dust and discolouration and/or localised marks and smudges to its surfaces.
"Poor"	The component or element concerned is damaged or is extensively marked, scuffed and/or damaged.

5 BRE Classification

Digest 251: Table 1 Classification of visible damage to walls with particular reference to ease of repair of plaster and brickwork or masonry. Crack width is one factor in assessing category of damage and should not be used on its own as a direct measure of it.

Category Description of typical damage of damage in low rise buildings. *Ease of repair in italic type*

0 Hairline cracks of less than about 0.1 mm which are classed as negligible. *No action required.*

1 Fine cracks which can *be treated easily using normal decoration*. Damage generally restricted to internal wall finishes; cracks rarely visible in external brickwork. Typical crack widths up to 1 mm.

2 *Cracks easily filled. Recurrent cracks can be masked by suitable linings.* Cracks not necessarily visible externally; *some external repointing may be required to ensure weather-tightness.* Doors and windows may stick slightly and *require easing and adjusting.* Typical crack widths up to 5 mm.

3 Cracks which *require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.* Doors and windows sticking. Service pipes may fracture. Weather-tightness often impaired. Typical crack widths are 5 to 15 mm, or several of, say, 3 mm.

4 Extensive damage which *requires breaking-out and replacing sections of walls,* especially over doors and windows. Windows and door frames distorted, floor sloping noticeably*. Walls leaning or bulging noticeably*, some loss of bearing in beams. Service pipes disrupted. Typical crack widths are 15 to 25 mm, but also depends on number of cracks.

5 Structural damage which requires a *major repair job, involving partial or complete rebuilding.* Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability. Typical crack widths are greater than 25 mm, but depends on number of cracks.

** Local deviation of slope, from the horizontal or vertical, of more than 1/100 will normally be clearly visible. Overall deviations in excess of 1/150 are undesirable.*

6 Schedule of Condition

ITEM	LOCATION / ELEMENT	CONDITION RATING	OBSERVATIONS	BRE CLASS	PHOTO REF
	EXTERNAL				
1.00	**RIGHT SIDE ELEVATION**				
1.01	Roof; felt	Fair	General view.		Photos 1 - 2
1.02	External Walls; render finish	Poor	Light cracking over boarded up windows; less than 10 mm/boast render/vegetation growth.	3	Photos 3 - 7
2.00	**LEFT SIDE ELEVATION**				
2.01	Roof; felt	Fair	General view.		Photos 8 - 10
2.02	External Walls; render finish	Fair	General view.		Photos 11 - 13
3.00	**FRONT ELEVATION**				
3.01	External Walls; Timber shopfront	Reasonable	No cracking or visible defects noted/minor delamination to paintwork.		Photos 14 - 18
3.02	Footpath to perimeter; concrete	Poor	Repeated cracking throughout surface/light vegetation growth.		Photos 19 - 22
3.03	Window; glazing	Reasonable	Glazing reasonably clean.		Photos 23 - 24
3.04	External door; timber	Reasonable	Glazing reasonably clean/timber in reasonable decorative order.		Photos 25 - 26
4.00	**EXTERNAL GROUNDS**				
4.01	Right boundary; Pebble – render finish	Fair	Vegetation growth top left corner of wall/patch repaired section to right side of wall/light cracking; less than 4 mm.		Photos 27 - 34

Appendix 1 – Photographs



Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



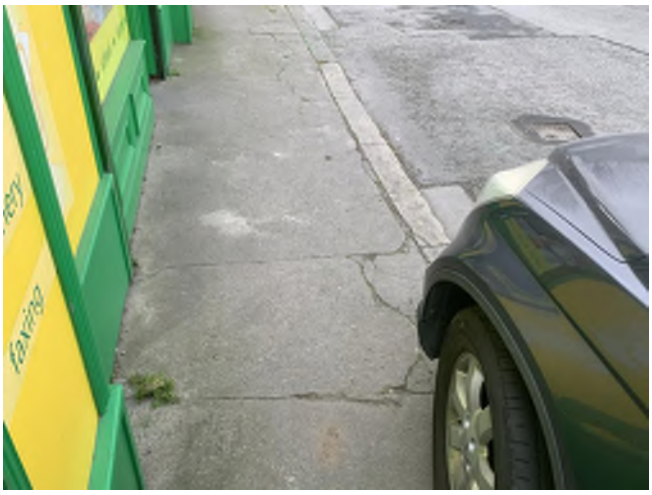
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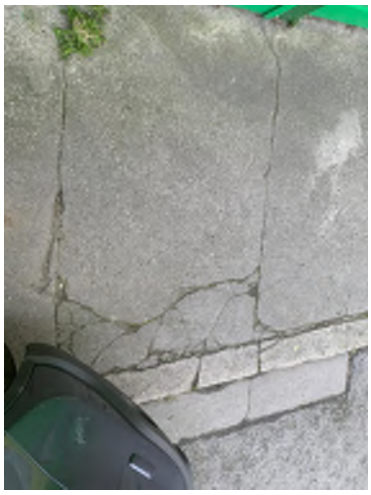
Photograph 17



Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



Photograph 23



Photograph 24



Photograph 25



Photograph 26


Photograph 27


Photograph 28


Photograph 29


Photograph 30



Photograph 31



Photograph 32



Photograph 33

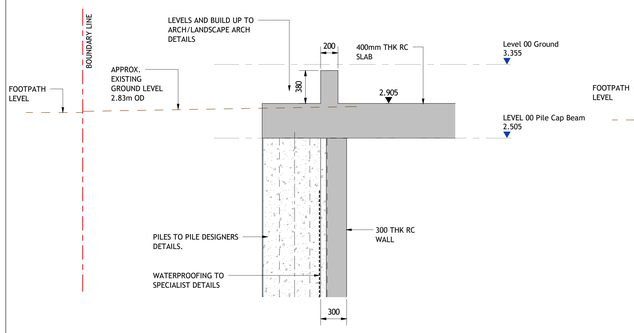


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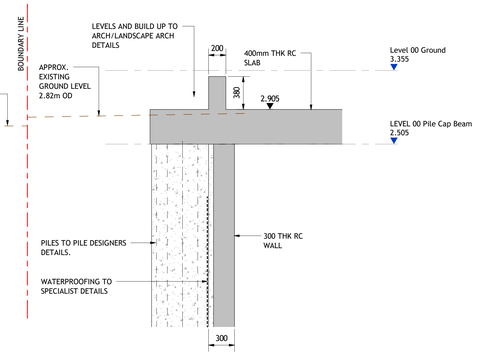
Appendix H Structural Drawings

GENERAL NOTES

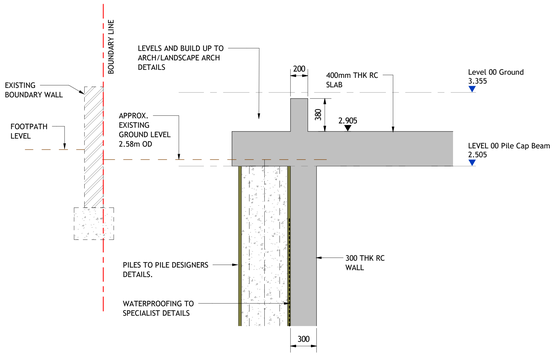
1. DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND SPECIFICATIONS. DO NOT SCALE USE FIGURED DIMENSIONS ONLY.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY OR DETERMINE ALL DIMENSIONS AND LEVELS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION OR PRODUCTION OF FABRICATION DRAWINGS
3. FOR DETAILS OF SETTING OUT OF RWP, SVP, WVP AND ALL OPENINGS SEE THE RELEVANT ARCHITECTS DRAWINGS.
4. FOR INSULATION DETAILS REFER TO ARCHITECTS DRAWINGS.



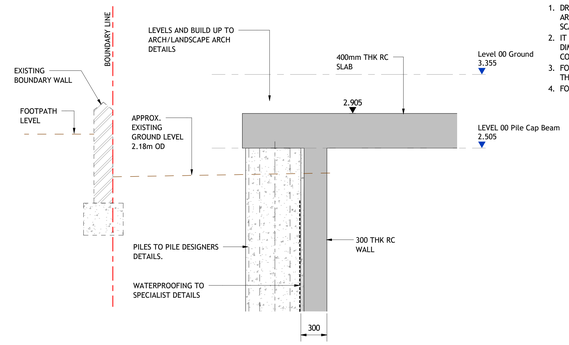
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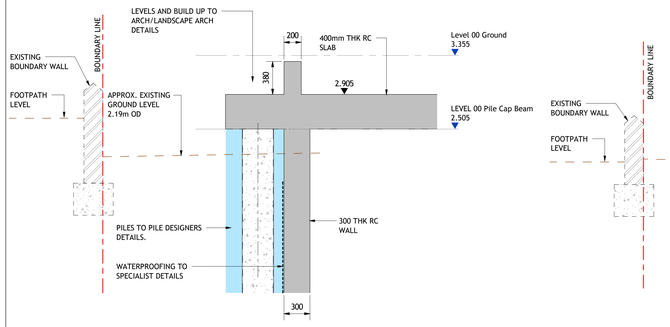
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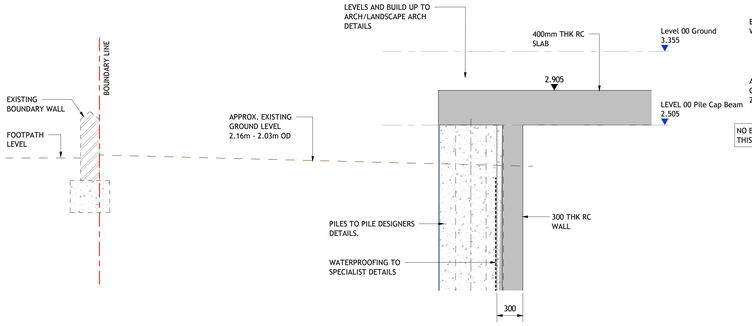
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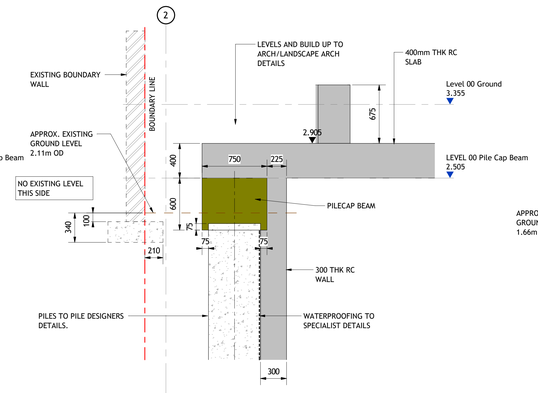
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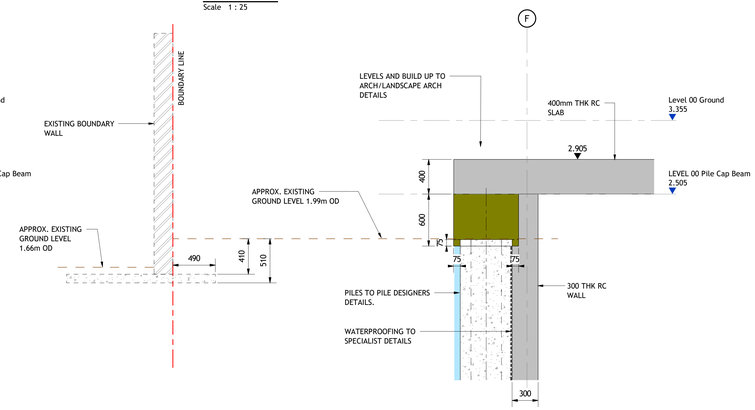
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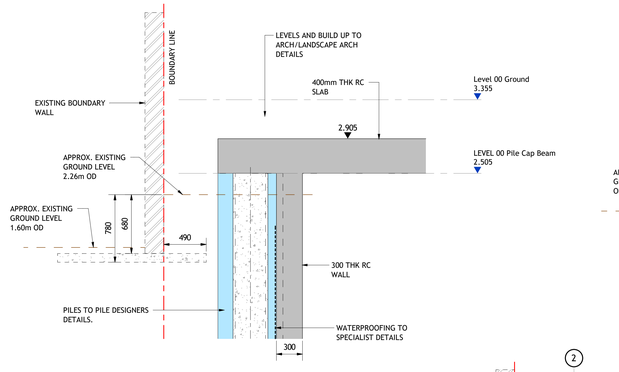
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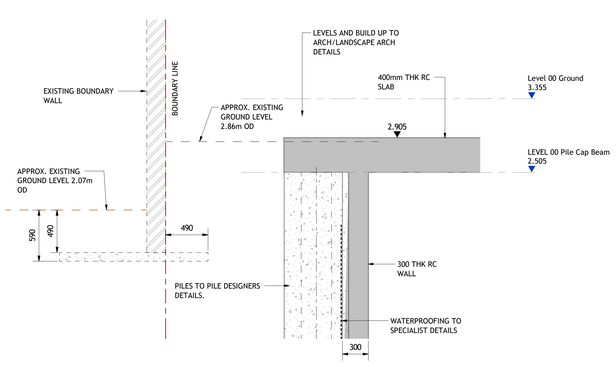
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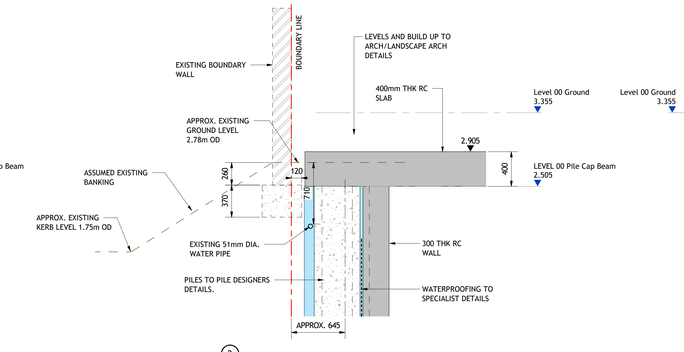
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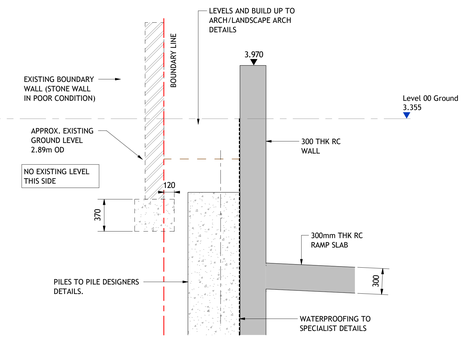
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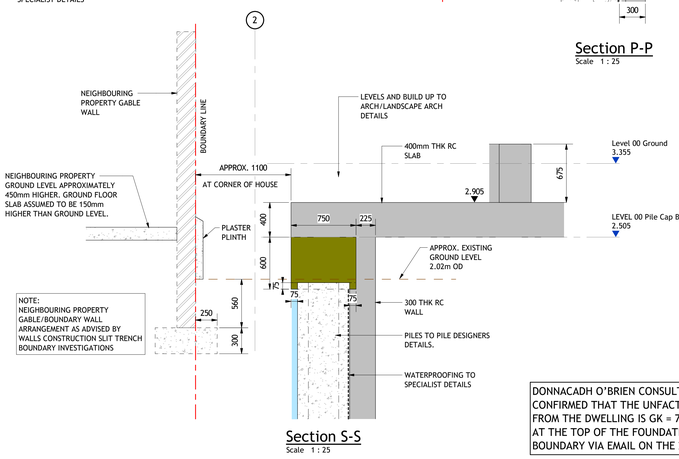
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Scale 1 : 25



Section Q-Q
Scale 1 : 25

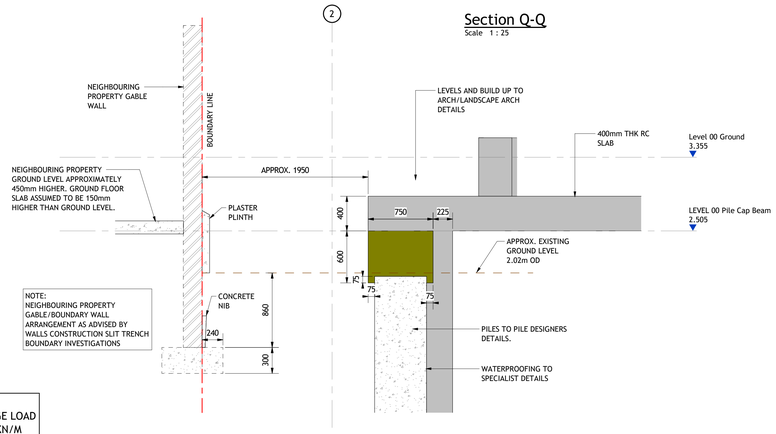


Section R-R
Scale 1 : 25



Section S-S
Scale 1 : 25

DONNACADH O'BRIEN CONSULTING ENGINEERS CONFIRMED THAT THE UNFACTORED SURCHARGE LOAD FROM THE DWELLING IS GK = 70KN/M, QK = 10KN/M AT THE TOP OF THE FOUNDATION ALONG THE BOUNDARY VIA EMAIL ON THE 28/03/23.



Section T-T
Scale 1 : 25

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COLOUR DRAWING

Rev	Amendment	By	Date
C01	ISSUED FOR CONSTRUCTION	HK	15.06.23

Client: ROYALTON DEVELOPMENTS DUBLIN 4 LTD

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Project:	525 BEACH ROAD APARTMENTS
Title:	PILECAP BEAM SECTIONS
Drawn: HK	Date: OCT 2022
Technical Check: HK	Engineer Check: SM
Approved: RC	
Project No.: 222207	Model File: BRA-PUN-Z1-ZZ-M3-S-D2-0001
Drawing Status: A4	
Scale @ A1: 1 : 25	Document No.: BRA-PUN-Z1-00-DR-S-D2-2009
Revision: C01	

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3. FOR DETAILS OF SETTING OUT OF RWP, SVP, WVP AND ALL OPENINGS SEE THE RELEVANT ARCHITECTS DRAWINGS.
4. FOR INSULATION DETAILS REFER TO ARCHITECTS DRAWINGS.



Dewatering Strategy

Scale 1 : 100

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COLOUR DRAWING
BUILDING INFORMATION MODELLING (BIM) IMPLEMENTATION PLUS
NSAI Certified

Rev	Amendment	By	Date
C01	ISSUED FOR CONSTRUCTION	HK	15.06.23
C02	REVISED AS CLOUDED	HK	06.09.23

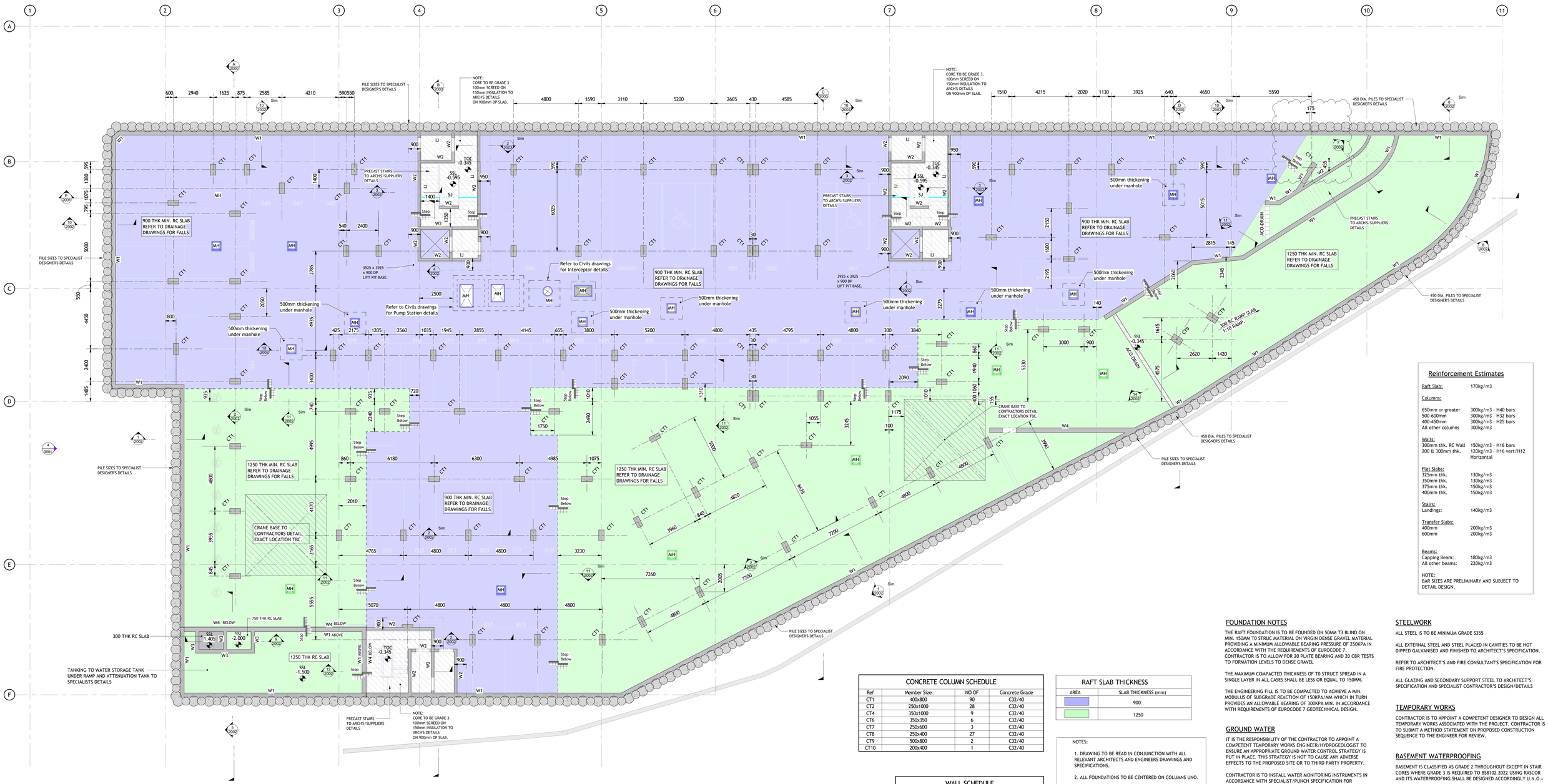
Client:
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Project:	525 BEACH ROAD APARTMENTS
Title:	DEWATERING STRATEGY
Drawn: HK	Date Issued: OCT 2022
Technician Check: HK	Engineer Check: SM
Approved: RC	
Project No: 222207	Model File: BRA-PUN-Z1-ZZ-M3-S-D2-0001
Drawing Scale: A4	
Scale at A1: 1 : 100	Drawing No: BRA-PUN-Z1-B1-DR-S-D2-0005
Revision: C02	

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4. FOR INSULATION DETAILS REFER TO ARCHITECTS DRAWINGS.



Level - 1 Basement

Scale 1 : 100

CONCRETE COLUMN SCHEDULE

Ref	Member Size	NO OF	Concrete Grade
CT1	400x800	90	C32/40
CT2	250x1000	28	C32/40
CT4	350x1000	9	C32/40
CT6	350x350	6	C32/40
CT7	250x600	3	C32/40
CT8	250x400	27	C32/40
CT9	500x800	2	C32/40
CT10	200x400	1	C32/40

RAFT SLAB THICKNESS

AREA	SLAB THICKNESS (mm)
	900
	1250

WALL SCHEDULE

Ref	Type	Concrete Grade
W1	300mm THK RC WALL	C32/40
W2	200mm THK RC WALL	C32/40
W3	250mm THK RC WALL	C32/40
W4	350mm THK RC WALL	C32/40
W5	225mm THK RC WALL	C32/40
W6	360mm THK RC WALL	C32/40

NOTES:

1. DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.

2. ALL FOUNDATIONS TO BE CENTERED ON COLUMNS UNO.

3. BASEMENT TO BE GRADE 2 WATERPROOFED THROUGHOUT EXCEPT IN STAIR CORES WHERE GRADE 3 IS REQUIRED TO BS8102 2022 USING RASCOR WATERPROOF WHITE TANK OR SIMILAR APPROVED TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND CONTRACTOR TO ENSURE WATERPROOFING COMPANY REPRESENTATIVES PROVIDE WATERPROOFING CERTIFICATION ON COMPLETION OF WORK

4. ALL PENETRATIONS THROUGH WALLS/SLAB BELOW GROUND FLOOR LEVEL TO HAVE PUDDLE FLANGE DETAIL BY RASCOR.

5. FOR VIBRATION LEVELS AND MONITORING REFER TO PUNCH SPECIFICATION

6. FULL PILE DESIGN TO BE PROVIDED BY THE CONTRACTOR AND TO BE APPROVED BY PUNCH PRIOR TO COMMENCEMENT OF WORKS

7. PILE CUT OFF TYPICALLY 75mm ABOVE BOTTOM OF THE PILE CAP

8. PILE SETTING OUT TO BE CONFIRMED BY ARCHITECT.

9. DRAWING TO BE READ IN CONJUCTION WITH SITE INVESTIGATION REPORTS BY IGSL LTD. REPORT NO. 22430

Reinforcement Estimates

Raft Slab:	170kg/m3
Columns:	
650mm or greater	300kg/m3 - H40 bars
500-600mm	300kg/m3 - H32 bars
400-450mm	300kg/m3 - H25 bars
All other columns	300kg/m3
Walls:	
300mm thk. RC Wall	150kg/m3 - H16 bars
200 & 300mm thk.	120kg/m3 - H16 vert/H12 Horizontal
Flat Slabs:	
325mm thk.	130kg/m3
350mm thk.	130kg/m3
375mm thk.	150kg/m3
400mm thk.	150kg/m3
Stairs:	
Landings:	140kg/m3
Transfer Slabs:	
400mm	200kg/m3
600mm	200kg/m3
Beams:	
Capping Beam:	180kg/m3
All other beams:	220kg/m3

NOTE:
BAR SIZES ARE PRELIMINARY AND SUBJECT TO DETAIL DESIGN.

FOUNDATION NOTES

THE RAFT FOUNDATION IS TO BE FOUNDED ON 50MM T3 BLIND ON MIN. 150MM T0 STRUC MATERIAL ON VIRGIN DENSE GRAVEL MATERIAL PROVIDING A MINIMUM ALLOWABLE BEARING PRESSURE OF 250KPA IN ACCORDANCE WITH THE REQUIREMENTS OF EUROCODE 7. CONTRACTOR IS TO ALLOW FOR 20 PLATE BEARING AND 20 CBR TESTS TO FORMATION LEVELS TO DENSE GRAVEL

THE MAXIMUM COMPACTED THICKNESS OF TO STRUCT SPREAD IN A SINGLE LAYER IN ALL CASES SHALL BE LESS OR EQUAL TO 150MM.

THE ENGINEERING FILL IS TO BE COMPACTED TO ACHIEVE A MIN. MODULUS OF SUBGRADE REACTION OF 150KPA/MM WHICH IN TURN PROVIDES AN ALLOWABLE BEARING OF 300KPA MIN. IN ACCORDANCE WITH REQUIREMENTS OF EUROCODE 7 GEOTECHNICAL DESIGN.

GROUND WATER

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPOINT A COMPETENT TEMPORARY WORKS ENGINEER/HYDROGEOLOGIST TO ENSURE AN APPROPRIATE GROUND WATER CONTROL STRATEGY IS PUT IN PLACE. THIS STRATEGY IS NOT TO CAUSE ANY ADVERSE EFFECTS TO THE PROPOSED SITE OR TO THIRD PARTY PROPERTY.

CONTRACTOR IS TO INSTALL WATER MONITORING INSTRUMENTS IN ACCORDANCE WITH SPECIALIST/PUNCH SPECIFICATION FOR GROUNDWATER MONITORING

CONCRETE NOTES

Concrete Element	Concrete Grade:	Exposure Class	Min. GGBS Content
Raft Slab	C32/40	XC2, AC-1, DS-2, XA-1	50%
Internal Columns/Walls	C32/40	XC1	50%
External Columns/Walls	C32/40	XC3	50%
Ramp		XD3	50%
Ground Level	C32/40	XC4	50%
1st to Roof structural plates - External space	C32/40	XC4	50%

ALL CONCRETE GRADES ARE TO BE IN ACCORDANCE WITH I.S. EN 206. C32/40 CONCRETE TO HAVE A MAX. W/C RATIO OF 0.5 WITH A MIN. CEMENT CONTENT OF 340KG/M3.

STEELWORK

ALL STEEL IS TO BE MINIMUM GRADE S355

ALL EXTERNAL STEEL AND STEEL PLACED IN CAVITIES TO BE HOT DIPPED GALVANISED AND FINISHED TO ARCHITECT'S SPECIFICATION.

REFER TO ARCHITECT'S AND FIRE CONSULTANT'S SPECIFICATION FOR FIRE PROTECTION.

ALL GLAZING AND SECONDARY SUPPORT STEEL TO ARCHITECT'S SPECIFICATION AND SPECIALIST CONTRACTOR'S DESIGN/DETAILS

TEMPORARY WORKS

CONTRACTOR IS TO APPOINT A COMPETENT DESIGNER TO DESIGN ALL TEMPORARY WORKS ASSOCIATED WITH THE PROJECT. CONTRACTOR IS TO SUBMIT A METHOD STATEMENT ON PROPOSED CONSTRUCTION SEQUENCE TO THE ENGINEER FOR REVIEW.

BASEMENT WATERPROOFING

BASEMENT IS CLASSIFIED AS GRADE 2 THROUGHOUT EXCEPT IN STAIR CORES WHERE GRADE 3 IS REQUIRED TO BS8102:2022 USING RASCOR AND ITS WATERPROOFING SHALL BE DESIGNED ACCORDINGLY U.N.O.√

THE WATERPROOFING STRATEGY FOR THE BASEMENT COMPRISES OF AN INTEGRATED CONCRETE RASCOTANK WATERPROOF SYSTEM BY RASCOR (OR APPROVED EQUIVALENT). INJECTION CHANNELS ARE PLACED AT STRATEGIC LOCATIONS/CONSTRUCTION JOINTS WITHIN THE BASEMENT SLABS AND WALLS. THE CHANNELS/CRACK INDUCERS ARE TO BE INJECTED WITH A FLEXIBLE ACRYLIC GROUT WHICH PROVIDES AN EFFECTIVE WATERPROOF SEAL TO THE JOINTS/INDUCED CRACKS AND ELIMINATES WATER INGRESS FOR A WATER PRESSURE OF 100KPA.

WATERPROOFING SHALL BE DESIGNED, INSTALLED AND CERTIFIED BY THE MANUFACTURER (I.E. RASCOR OR THE APPROVED EQUIVALENT). THE MANUFACTURER IS TO PROVIDE AN SD, SI AND SC BCAR CERTIFICATES TO THE ASSIGNED CERTIFIER.

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COLOUR DRAWING

Rev	Amendment	By	Date
C01	ISSUED FOR CONSTRUCTION	HK	15.06.23
C02	LIFT PIT AND MANHOLE INFOMATION UPDATED	HK	06.07.23
C03	LIFT PITS AND CORE WALLS UPDATED TO NEW DESIGN	HK	08.08.23
C04	RETAINING WALL AMENDED	VB	24.08.23
C05	WALL REMOVED, BEAM AND SLAB ADDED AS REQUESTED	HK	29.11.23

Client: ROYALTON DEVELOPMENTS DUBLIN 4 LTD

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Project: 525 BEACH ROAD APARTMENTS
Title: BASEMENT LAYOUT

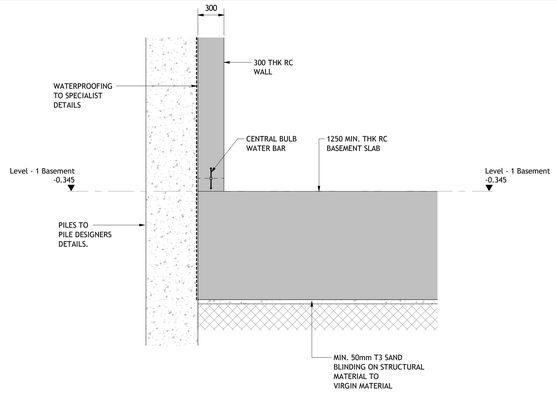
Drawn:	Date:	Technically Check:	Engineer Check:	Approved:
HK	OCT 2022	HK	SM	RC

Project No:	Model File:	Drawing Scale:
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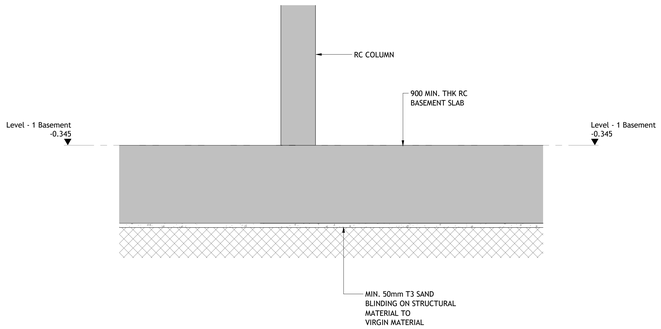
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As Indicated	BRA-PUN-Z1-B1-DR-S-D2-1001	C05

GENERAL NOTES

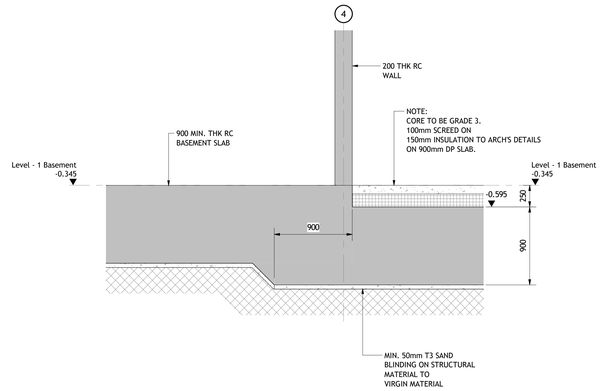
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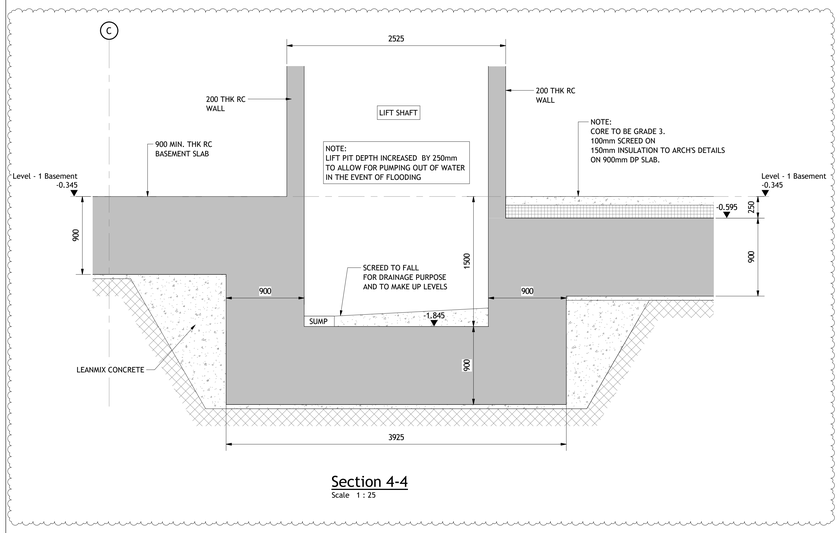
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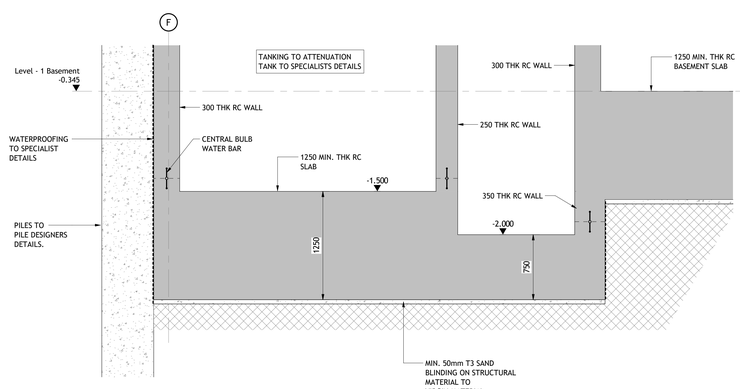
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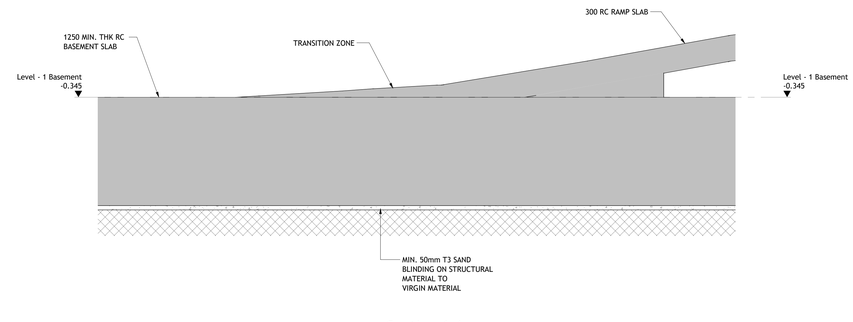
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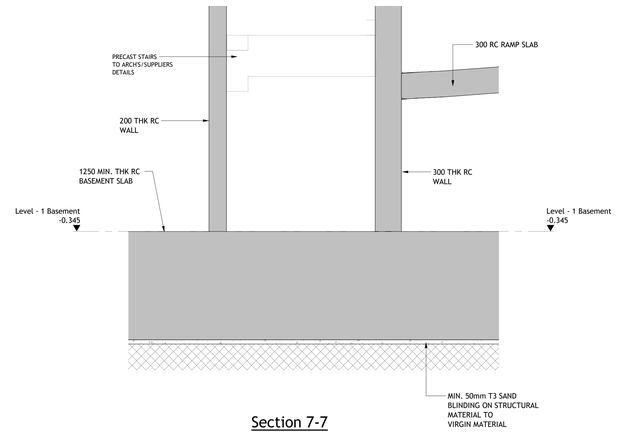
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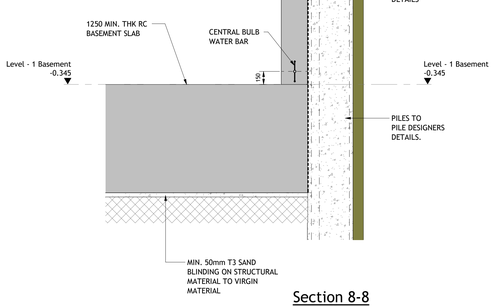
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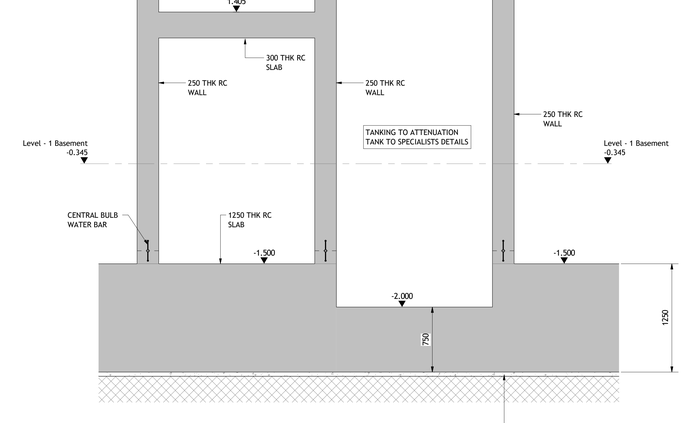
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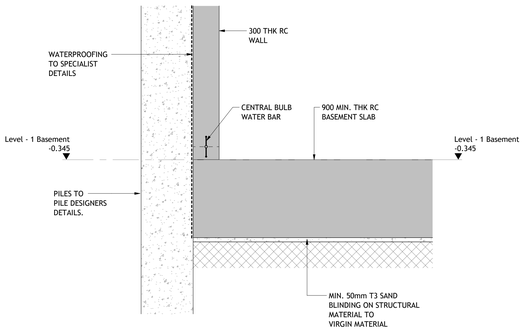
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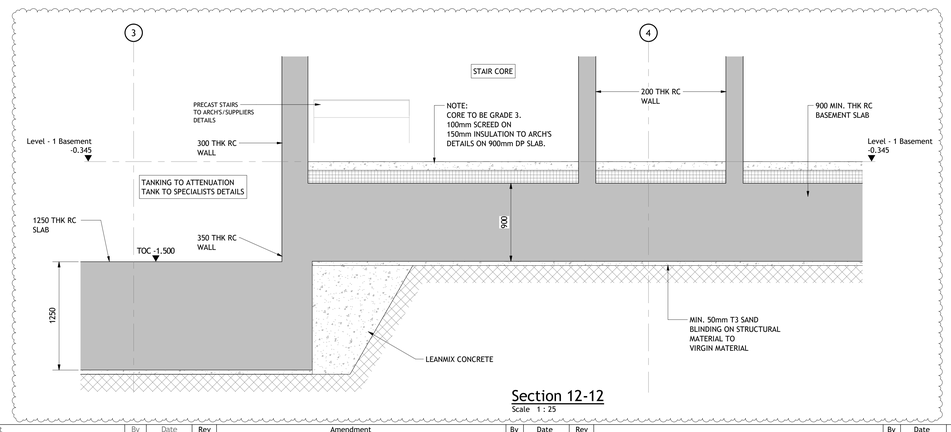
Section 8-8
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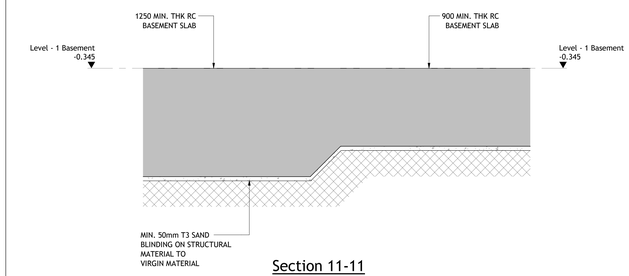
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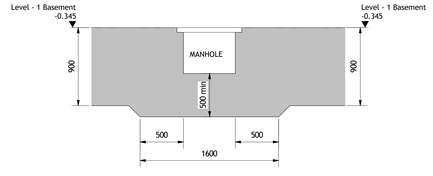
Section 10-10
Scale 1 : 25



Section 12-12
Scale 1 : 25

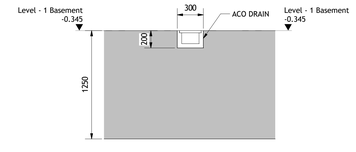


Section 11-11
Scale 1 : 25



Section 13-13
Scale 1 : 25

(TYPICAL DETAIL AT MANHOLES)



Section 14-14
Scale 1 : 25

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Rev	Amendment	By	Date
C01	ISSUED FOR CONSTRUCTION	HK	15.06.23
C02	LIFT PIT AND MANHOLE INFOMATION UPDATED	HK	06.07.23
C03	LIFT PITS AND CORE WALLS UPDATED TO NEW DESIGN	HK	08.08.23

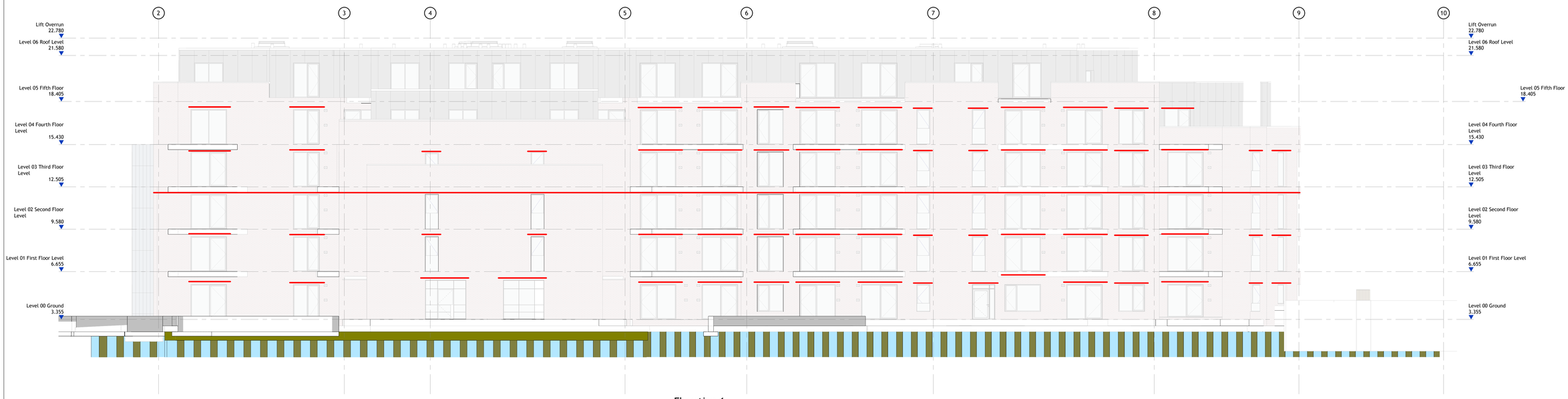
Client: ROYALTON DEVELOPMENTS DUBLIN 4 LTD

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Project:	525 BEACH ROAD APARTMENTS
Title:	BASEMENT SECTIONS
Drawn: HK	Date Drawn: OCT 2022
Technician Check: HK	Engineer Check: SM
Approved: RC	
Project No: 222207	Model Ref: BRA-PUN-Z1-ZZ-M3-S-D2-0001
Drawing Status: A4	
Scale @ A1: 1 : 25	Document No: BRA-PUN-Z1-B1-DR-S-D2-2002
Revision No: C03	

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3. FOR DETAILS OF SETTING OUT OF RWP. SVP, WVP AND ALL OPENINGS SEE THE RELEVANT ARCHITECTS DRAWINGS.
4. FOR INSULATION DETAILS REFER TO ARCHITECTS DRAWINGS.



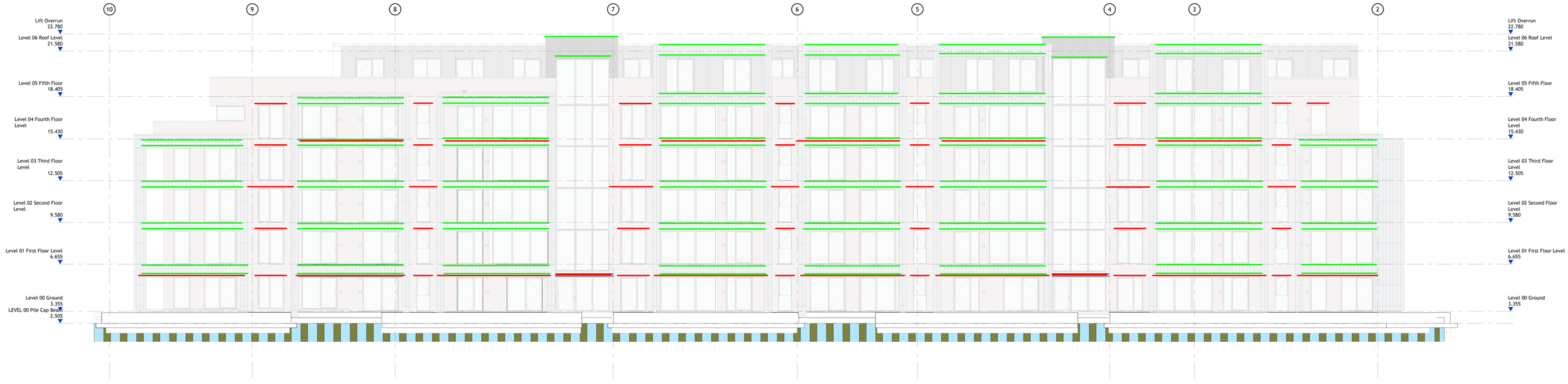
Elevation 1
Scale 1 : 100

LEGEND

DENOTES - LOCATION IG MASONRY 12kN/m GALVANSISED MASONRY SUPPORT SYSTEM. TO BE DESIGNED, SUPPLIED AND INSTALLED TO MANUFACTURER'S DETAILS

DENOTES - LOCATION STONE SUPPORT SYSTEM TO ARCHITECT & SUPPLIER DETAILS. TO BE DESIGNED, SUPPLIED AND INSTALLED TO MANUFACTURER'S DETAILS

NOTE:
HORIZONTAL AND VERTICAL BLOCKWORK JOINTS TO ARCHITECT'S SETTING OUT AND DETAILS. JOINTS TYPICALLY AT 12m c/c MAXIMUM AND 6m MAXIMUM FROM CORNERS.



Elevation 2
Scale 1 : 100

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COLOUR DRAWING

BUILDING INFORMATION MODELLING (BIM) ISO 19650-2:2018 NSAI Certified

Rev	Amendment	By	Date
C01	ISSUED FOR CONSTRUCTION	HK	15.06.23

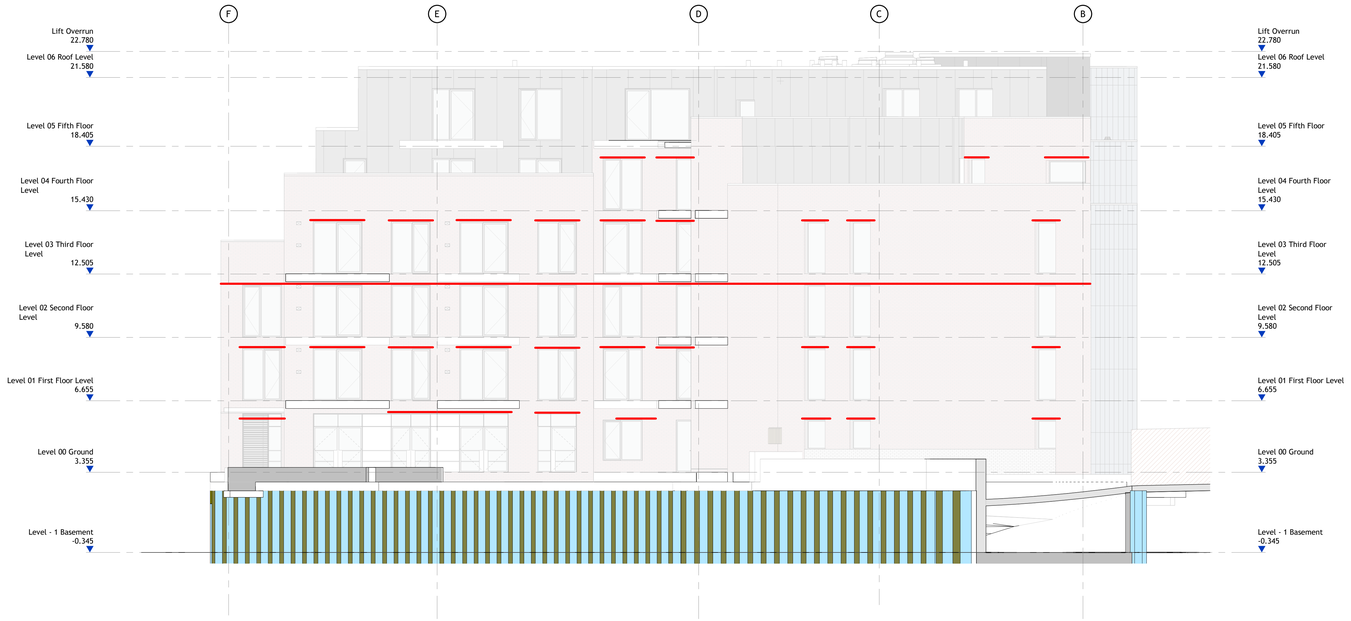
Client: ROYALTON DEVELOPMENTS DUBLIN 4 LTD

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Project:	525 BEACH ROAD APARTMENTS			
Title:	ELEVATIONS SHEET 1			
Drawn: HK	Date Created: OCT 2022	Technician Check: HK	Engineer Check: SM	Approved: RC
Project No: 222207	Model No: BRA-PUN-Z1-ZZ-M3-S-D2-0001		Drawing Size: A4	
Scale @ A1: As indicated	Drawing No: BRA-PUN-Z1-ZZ-DR-S-D2-3000			Revision No: C01

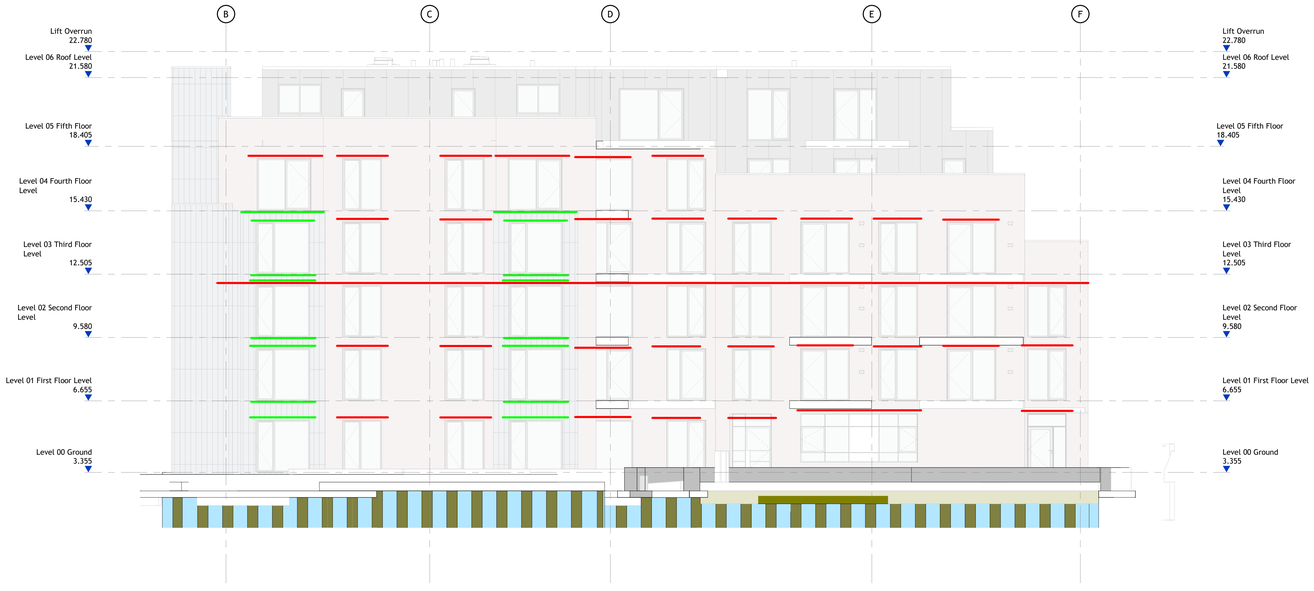
GENERAL NOTES

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Elevation 3

Scale 1 : 100



Elevation 4

Scale 1 : 100

LEGEND

DENOTES - LOCATION IG MASONRY 12kN/m GALVANSISED MASONRY SUPPORT SYSTEM. TO BE DESIGNED, SUPPLIED AND INSTALLED TO MANUFACTURER'S DETAILS

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JOINTS TYPICALLY AT 12m c/c MAXIMUM AND 6m MAXIMUM FROM CORNERS.

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C01	ISSUED FOR CONSTRUCTION	HK	15.06.23

Client:
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Project: 525 BEACH ROAD APARTMENTS				
Title: ELEVATIONS SHEET 2				
Drawn: HK	Date Started: OCT 2022	Technology Check: HK	Engineer Check: SM	Approved: RC
Project No: 222207	Model File: BRA-PUN-Z1-ZZ-M3-S-02-0001		Drawing Size: A4	
Scale @ A1: As indicated	Document No: BRA-PUN-Z1-ZZ-DR-S-D2-3001			Revision No: C01