

Chapel Downs Primary School

Preliminary Site Investigation

ASC Architects Ltd 31 October 2023

→ The Power of Commitment



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Contents

1.	Introduction	1
2.	Proposed Master Plan	3
3.	Statutory context	4
4.	Site description	6
5.	Site History	12
6.	Conceptual Site Model	14
7.	Conclusions	15

Appendices

Appendix A Historical Aerial Review

Auckland Council Site Contamination Report Appendix B

Appendix C Proposed Master Plan

1. Introduction

GHD Ltd have been engaged by the ASC Architects to provide contaminated land advice, in the form of a Preliminary Site Investigation (PSI), in order to support master planning for the future development of the Chapel Downs Primary School (the 'Site'), located at 170S Dawson Road Flat Bush, Auckland (PT LOT 1 DP 79052).

A PSI gathers information about a piece of land to determine whether it may potentially be contaminated due to historical or current land uses. Where the land is potentially contaminated, the controls of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS)¹ and the Auckland Unitary Plan – Operative in Part (AUP-OP) Chapter E30 – Contaminated Land rules², may be applicable to the proposed development of the Site.

This report has been completed in general accordance with the Ministry for the Environment (MfE): Contaminated Land Management Guidelines No. 1, Reporting on Contaminated Sites in New Zealand, 2021 and technically reviewed by Adam Gray, a suitably qualified experienced practitioner (SQEP) in contaminated land, as defined in the Resource Management National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 user guide (NES CS)³.

1.1 Purpose of this report

The purpose of this assessment is to identify if historical or current land uses may have caused soil contamination at the Site, in order to inform design considerations and management approaches to contamination risks (if present) during future development at the Site.

1.2 Scope

The scope of this assessment includes:

- A review of the proposed masterplan generated by ASC Architects
- A review of available historical land use records, to identify if land uses that have the potential to cause contaminated land issues, have occurred or are currently occurring at the Site
- In the context of the review of the masterplan and land use records undertaken, provide an understanding of constraints (if any) associated with contaminated land issues if the proposed development was to proceed

1.3 Assumptions

GHD has made the following assumptions during the preparation of this assessment:

- The proposed development will be consistent with the preferred development described on page 16 of the Masterplan Dated 26 September 2023, provided by ASC Architects
- Information obtained from third parties is complete and accurate
- The detailed design was still in development at the time of writing this report, it is assumed that the findings of this report will be reviewed and updated once the volumes of earthworks have been confirmed.
- This report is dedicated to the discussion of the preliminary contaminated land assessment only and will be read in conjunction with other GHD reports in this masterplan deliverable.

¹ Ministry for the Environment. (2011). Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

² Auckland Council. 2016. *Auckland Unitary Plan Operative in part (Updated 9 June 2023)*. Auckland: Auckland Council.

³ Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011

1.4 Limitations

This report: has been prepared by GHD for ASC Architects Ltd and may only be used and relied on by ASC Architects Ltd for the purpose agreed between GHD and ASC Architects Ltd as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than ASC Architects Ltd arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section(s) 1.3 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

Accessibility of documents

If this report is required to be accessible in any other format, this can be provided by GHD upon request and at an additional cost if necessary.

2. Proposed Master Plan

This assessment is prepared in context of the masterplan completed by ASC Architects dated 26 September 2023, regarding the construction of the Chapel Downs Primary School. The full set of plans reviewed during this assessment are included in Appendix C of this report.

In summary, the masterplan proposes new teaching spaces, ancillary education facilities, parking and landscaping at the Site.

3. Statutory context

3.1 National Environmental Standard Assessing and Managing Contaminants in Soil to Protect Human Health

The Resource Management (National Environmental Standard Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations (NES CS) regulates activities undertaken on contaminated land and provides nationally consistent human health risk-based standards for management of such activities. The five activities regulated by the NES CS are subdivision, land-use change, soil disturbance, soil sampling, and removing fuel storage systems.

The NES CS controls apply when an activity regulated by the NES CS (e.g. soil disturbance) is intended to occur on land that is potentially or actually affected by contaminants because of its historical and/or current use. To assist in identifying land potentially or actually affected by contaminants, the Ministry for the Environment published the Hazardous Activities and Industries List (HAIL), which lists the industries and activities that typically use or store hazardous substances and therefore present a risk of having released contaminants into the underlying soils via spills etc.

In summary, if an activity regulated by the NES CS is proposed to be completed on, or intersects with, a piece of land that currently has, or has had, a HAIL activity on it, then the controls of the NES CS will apply to that activity.

In reviewing the planned works, it is understood that soil disturbance (only) will occur to enable the planned development.

3.2 Auckland Unitary Plan

Councils are required to manage both the use of land containing elevated levels of contaminants and the discharge of contaminants from land containing elevated levels of contaminants. Therefore, Councils may impose controls in addition to the NES CS for human health and environmental protection.

The Auckland Council AUP (OP) includes the regulations associated with contaminated land in section E.30; and specifies rules that relate to the discharges of contaminants from disturbing soil on land containing elevated levels of contaminants.

The AUP (E30 Contaminated Land) applies to soil disturbance activities where the following permitted activity threshold is exceeded:

Section E30.6.1.2 - Discharges of contaminants into air, or into water, or onto or into land from disturbing soil on land containing elevated levels of contaminants - soil disturbance greater than 200 m³ on a site with contaminant concentrations above the permitted activity soil acceptance criteria as defined in Table E30.6.1.4.1 of the AUP (OP)

If contaminant concentrations are above permitted activity criteria, then controlled activity standards apply (Section E30.6.2):

 Section E30.6.2.1 Discharges of contaminants into air, or into water, or onto or into land not meeting permitted activity standards E30.6.1.1, E30.6.1.2, E30.6.1.3, E30.6.1.4; or E30.6.1.5

The applicability of the AUP (OP) based on the PSI findings is discussed further in section 7.1 of this report.

3.3 Contaminated Land Management Guidelines

The MfE has prepared a series of guideline documents on contaminated land management. These guidelines are intended to provide consistency of reporting on the investigation, assessment, and remediation of contaminated sites in New Zealand. The NES CS incorporates MfE Contaminated Land Management Guidelines (CLMG⁴) by reference and therefore gives them regulatory effect.

To achieve a uniform approach to reporting in New Zealand the first of the series, the Contaminated Land Management Guidelines No. 1 provides guidance for the content to be included in reports. This PSI undertaken has been prepared in general accordance with the CLMGs.

⁴ Contaminated Land Management Guidelines No1. (2011). *Reporting on contaminated sites in New Zealand*. Ministry for the Environment and New Zealand Government. Revised 2021.

4. Site description

4.1.1 Chapel Downs Primary School

Chapel Downs Primary School is located within the Auckland suburban area of Flat Bush, South Auckland, approximately 2.8 km northeast of the Manukau City Centre. The Site has an underlying zone of Residential – Mixed Housing Urban Zone under the AUP(OP). The site currently contains 25 teaching spaces and an early childhood centre on the eastern boundary of the site (Figure 1). There are approximately 45 carparks in use by the school on the site accessed by Chapel Road, and 23 used by the early childhood centre.



Figure 1 Existing site plan

The surrounding environment of the site is predominantly residential, consisting of detached houses. Dawson Primary School is located approximately 900 m northwest of the school. Land along the northern, western, and southern boundaries is zoned Residential – Mixed Housing Urban Zone, with an Open Space – Conservation Zone and Open Space – Informal Recreation Zone located on the northeastern boundary. The properties on the eastern boundary of the site across Chapel Road are zoned Residential – Mixed Housing Suburban Zone. There is an extensive network of parks in the wider area. Barry Curtis Park and Rongomai Park are both located to the northeast of the site off Chapel Road, and Raphoe Park is located to the east off Raphoe Road. Chapel Road is an arterial road, and Dawson Road is a collector road. On-street parking is available on both Dawson and Chapel Roads.



Figure 2 Site location and context

Chapel Downs Primary School is located to the southeast of an unnamed tributary off Otara Creek. This abuts the northeastern corner of the site boundary and has a catchment of 3-100 ha. Several overland flow paths cross the school site and have catchments of 2,000 m² to 3 ha.

4.1.2 Topography and hydrology

The hill shade plan shows the area which the school buildings occupy to slope gently from north to south. The school fields appear relatively flat and, given the surrounding topography, are likely to have been formed from an earthworks operation. The northeastern corner of the site slopes at 10°. This is shown in figure 4 below.

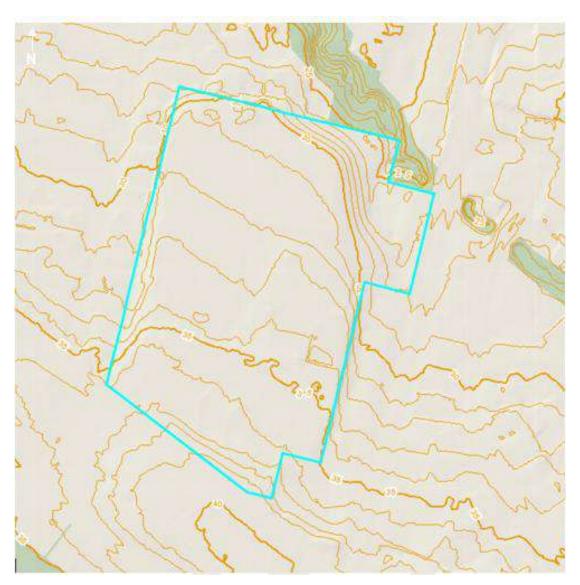


Figure 3 Topography (Auckland Council 2023)

An extract of the Auckland Council Geomaps catchment and hydrology data is included as Figure 5. It shows a permanent stream running southeast to northwest through the northeastern boundary of the site within Medvale Avenue Reserve. The stream is flanked on either side by a flood prone area and a flood plain. Three overland flow paths that run south to north are noted on site.



Figure 4 Surface water plan (Auckland Council 2022)

4.1.3 Geology and hydrogeology

The published 1:250,000 geological map of the area (Edbrooke 2001) shows the surficial geology of the site to comprise Tauranga Group Puketoka Formation (Pup) with Tauranga Group Holocene Deposits (Q1a) within the northeastern corner of the site. Holocene Deposits are also noted to the south however are not shown to overlap with the site boundary.

An extract of the geological map is presented as Figure 6 with the descriptions as stated on the geological map presented as Table 1.

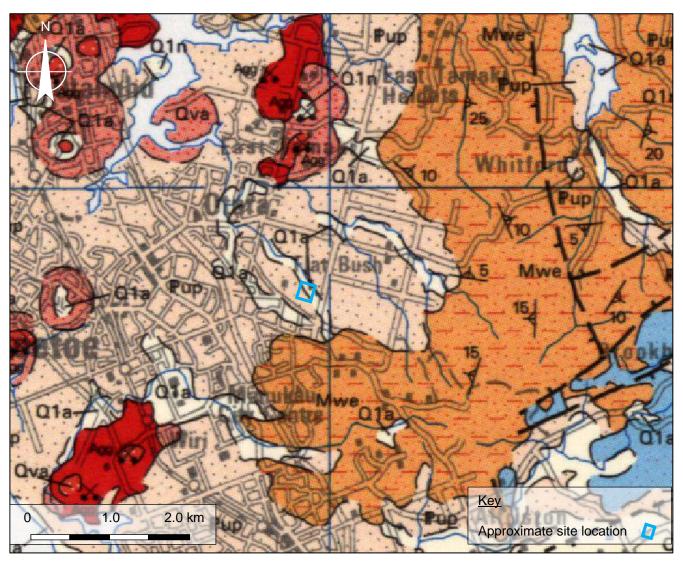


Figure 5 Extract of the 1:250,000 geological map of the Auckland area (Edbrooke 2001)

Table 1 Extract of the 1:250,000 geological map legend of the Auckland area (Edbrooke 2001)

Map Symbol	Group	Geological Unit	Description (Edbrooke 2001)
Q1a	Tauranga Group	Alluvium / Colluvium	Alluvial / colluvial deposits, estuarine deposits, lacustrine / swamp deposits, and fan deposits
Pup	Tauranga Group	Puketoka Formation	Pumiceous mud, sand and gravel with muddy peat and lignite; rhyolite pumice, including non-welded ignimbrite, tephra, and alluvial pumice deposits; massive micaceous sand.

Map Symbol	Group	Geological Unit	Description (Edbrooke 2001)
Mwe	Waitemata Group	East Coast Bays Formation	Alternating sandstone and mudstone with variable volcanic content and interbedded volcaniclastic grit beds.

4.2 Built environment

Underground utility infrastructure for the Site was searched on the Auckland Council GIS Asset Overlay to identify the presence of any existing public stormwater, reticulated wastewater and potable water networks servicing the Site (refer Figure 6)⁵. No services including wells were detected within the Site aside from a wastewater pipe running through the northeastern section of the Site. Old, buried pipes or operational pipes may also contain asbestos cement, which may contaminate in-situ soil if the pipe is in a deteriorated condition or becomes broken during future redevelopment works.

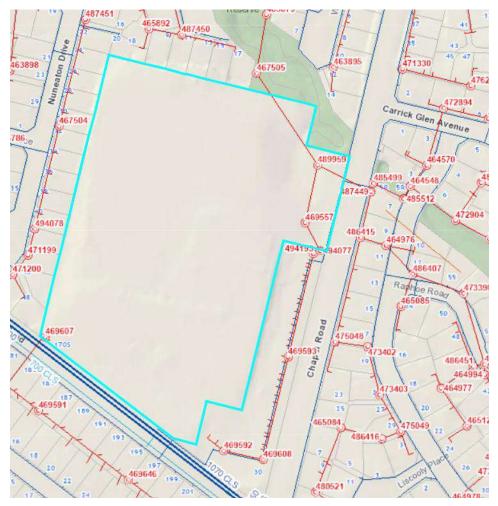


Figure 6: Auckland Council underground infrastructure

⁵ Auckland Council Geomaps Assets Layer - Underground Services reviewed from https://geomapspublic.aucklandcouncil.govt.nz/viewer/index.html

5. Site History

5.1 Historical aerial review

The historical and recent aerial photographs were obtained from Land Information New Zealand (LINZ) Retrolens Historical Aerial Imagery Resource⁶, Auckland Council Geomaps⁷, and Google Earth Pro (2022)⁸. The full historical aerial review can be found in Appendix A.

Year	Descriptions
1939	Land use at the Site appears to be predominantly rural/ agricultural
1980	A new development showing a building footprint is located within the south section of the Site and comprises several school buildings, paved and grassed areas. The central and north section of the Site comprises a grassed field.
2001	Post 1996, the school's building footprint had increased to the north along the eastern Site boundary and to the west along the southern Site boundary. An oval track had been established within the school's playing field, occupying the central and west section of the Site.
2017	More buildings have been developed on the Site, most likely an extension of the school.
2022	No more changes have been observed on or around the Site

The review of aerial photographs identified that:

- The Site was used for horticultural activities (likely grazing). A review of the historical use of pesticides in New Zealand⁹ indicates that pesticides (insecticides, fungicides and herbicides) have been used widely over pastoral land in New Zealand for the past 60 years to protect pasture and forage crops from pests (insects, fungi, and weeds).
 - The revised MfE Guidance on identifying HAIL sites¹⁰, notes that the application of persistent pesticides even at low concentrations is a risk factor, when considering the potential for contamination at a property. Therefore, in the absence of an understanding of practices which occurred at the Site, the time period during which the Site was used for grazing purposes, and the understood wide practice of use of pesticide application on pastoral land in New Zealand, it is considered that persistent pesticides may have been potentially used at the Site and this should be considered when evaluating the potential for contamination issues at the Site.
- Current and historical buildings were built and demolished prior to the 1990s, a period when containing materials (ACM), were used for buildings. The MfE HAIL guidance indicates that consideration should be given to the potential for asbestos impacts in soil due to degradation of ACM in buildings. This would be relevant particularly for external building components such as roofing, downpipes and spouting, as opposed to internal components such as floor tiling. At the time of writing, a building inspection to identify the presence of ACM had not been undertaken. If soil disturbance is completed within the 'building halo' of current or historical pre-1990 buildings, assessment for the potential presence of asbestos in soils should be considered.

⁶ Historical aerial photographs from 1939, 1960, 1972, and 1980 sourced from Land Information New Zealand LINZ Retrolens – Historical Imagery Resource http://retrolens.nz/

⁷ Historical aerial photographs from 1996, 2001, 2006, 2008, 2010-2011, 2015-2016 and 2017 sourced from Auckland Council GeoMaps – Aerials Layer https://geomapspublic.aucklandcouncil.govt.nz/viewer/index.html

⁸ Recent aerial photograph from 2022 sourced from Google Earth Pro (2022).

⁹ Chapman, 2010: A review of insecticide use on pastures and forage crops in New Zealand, accessed via https://agpest.co.nz/wp-content/uploads/2013/06/A-review-of-insecticide-use-on-pastures-and-forage-crops-in-New-Zealand.pdf on 25 July 2023

content/uploads/2013/06/A-review-of-insecticide-use-on-pastures-and-forage-crops-in-New-Zealand.pdf on 25 July 2023 ¹⁰ Ministry for the Environment. 2023. Hazardous Activities and Industries List guidance: Identifying HAIL land. Wellington: Ministry for the Environment.

5.2 Auckland Council information review

GHD requested available contamination information for a 200 m radius of the Site form the Auckland Council to provide an assessment of the potential contamination issues at the Site.

The Auckland Council Contaminated Site Enquiry Team provided a response on 26th June 2023, included in Appendix B as well as an attached document with the following data:

HAIL register information such as permitted activities, pollution incidents, consents, and processing consent applications identified within the Site.

Auckland Council's records indicate that the Site has possibly been subject to the following HAIL activity:

HAIL Item (G3) - Landfill sites. Council records identified that a 2021 geotechnical report showed the site
had been subject to controlled fill which potentially occurred before the construction of the school buildings.
This concluded the HAIL activity of G3 to be a potential concern at the Site.

5.3 Previous investigations

5.3.1 BTW Company Geotechnical report 2021

A geotechnical report was produced by BTW Company on the 11^{th of} April 2021 showing the Foundation, liquefaction, and stormwater for Chapel Downs Primary School¹¹. This report has identified that controlled fill is present in the topsoil of the Site and can be distinguished from the natural soils. Due to this, there is potential for contamination concentrations to be above background concentrations. The geological logs in the report did not show any signs of visual or olfactory contamination at the Site. It is understood that this report has informed Councils decision to classify the site as having had HAIL G3 occur at the Site. It is assumed that the fill material present is general fill material associated with contaminants including metals, polycyclic aromatic hydrocarbon impacts and potentially asbestos, rather than landfill waste from a municipal waste or other hazardous waste stream.

5.4 Site history summary

The available records suggest the Site has a land us history typical of schools, with ongoing construction and removal of classrooms and additional utilities over time. HAIL activity G3 has been identified by the council to be applicable to the Site. Therefore the Site history review has concluded that the NES CS will likely apply to the Site if NES CS regulated activities are undertaken.

In addition, the historical aerials available have suggested a potential for HAIL activities A10 and E1. Ministry for the Environment Guidance¹² notes that "where there is uncertainty over whether an activity or industry described in the HAIL has occurred, then a key decision to be made is whether the activity or industry is more likely than not to have occurred. "More likely than not" is the legal test for balance of probabilities that is the standard of proof in a civil (non-criminal) court, and essentially means that there is mor than a 50 per cent likelihood of a hazardous activity or industry having occurred. For a piece of land to be excluded from the requirements of the NES, a person proposing to undertake an activity would therefore be required to prove the converse – that the likelihood of the hazardous activity or industry occurring on the piece of land was less than 50 per cent. This will be a matter of judgment to be agreed on a case-by-case basis, by landowners and the council." In the absence of further information (such as records of pesticide use, or soil quality data), or building material inspections, it is expected that the HAIL A10 and HAIL E1 categories may be considered applicable by Council during consenting application processes for the Site. It is recommended that when completing assessment works to address the identified HAIL G3 activity, that the scope of works also addresses the potential for HAIL A10 and HAIL E1 activities to have also occurred.

As the potential of contamination is likely to be found at the Site, a preliminary Conceptual Site Model (CSM) has been created to show the contamination risk to human and environmental health.

¹¹ Foundation, Liquefaction Assessment and Stormwater Soakage for Chapel Downs Primary School. 2021. BTW Company.

¹² Ministry for the Environment. 2012. Users' Guide: National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.

6. Conceptual Site Model

A Conceptual Site Model (CSM) is used to communicate information about a property where contamination may pose a risk to human health and/or the environment. This model provides details of contamination sources at the property in question, the pathways these contaminants could travel through, and the potential receptors they could affect.

6.1 Contaminants of potential concern

Based on the findings of the PSI, HAIL is likely to have occurred on and around the Site. This is due to controlled fill deposition on the Site, and the historical construction of multiple school buildings. Further engagement with the contractors overseeing these works is recommended to evaluate the contaminants of potential concern. However, the likely contaminates of concern at the Site include but are not limited to:

- Heavy metals and metalloids (arsenic, copper, lead, mercury and zinc)
- Polycyclic aromatic hydrocarbons (PAH)
- Pesticides
- Asbestos

Where field observations indicate the presence of visual or olfactory signs of contamination, the above contaminants of concern may need to be adjusted.

6.2 Potentially complete exposure pathways

The potentially complete exposure pathways for the Site are described in the below table.

Table 2 Preliminary Conceptual Site Model

Primary sources	Exposure pathways	Sensitive receptors	Preliminary status
	Dermal contact / ingestion of contaminated soil, including ingestion / inhalation of dust and particulates	Maintenance / excavation / construction workers.	Potentially complete. Further investigations need to be commenced to see if HAIL
	Inhalation of vapours	Teachers, school children, and other	activities have occurred onsite.
	Inhalation of asbestos fibres	members of the public	
Imported fill material and potentially former pesticide use and	Suspended sediment loads in stormwater or dewatering runoff, during construction.	Nearby streams and Otara Creek	Potentially complete. Further investigations need to be commenced to see if HAIL activities have occurred onsite.
degradation of asbestos containing building materials	Direct contact with groundwater during construction.	Maintenance / excavation / construction workers	It is considered unlikely this exposure pathway will be complete during the proposed development / excavation works, due to the expected limited depth of excavations.
	Passive discharge of contaminants	Receiving surface water body Localised groundwater end users.	Potentially complete, however contaminants of concern are expected to be relatively immobile. Further investigations need to be commenced to see if HAIL activities have occurred onsite.
	Direct contact with or ingestion of groundwater through the lateral migration of contaminants.	Localised groundwater end users.	Where extractive use is planned in the future, an evaluation of the suitability of the groundwater for its proposed use is recommended.

7. Conclusions

The purpose of this assessment is to identify if historical or current land uses may have caused soil contamination at the Site, in order to inform design considerations and management approaches to contamination risks (if present) during future development at the Site.

Based on available information, this assessment has identified that Council has identified that HAIL category G3 (use of uncontrolled fill) has occurred at the Site and the controls of the NES CS will apply to the project.

In addition, the historical aerials available have suggested a potential for historical use of pesticides (HAIL A10) at the Site and the potential for soils to have been affected by ACM degradation (HAIL E1) within the 'building halo' of current or historical pre-1990 buildings. It is recommended that when completing assessment works to address the identified HAIL G3 activity, that the scope of works also addresses the potential for HAIL A10 and HAIL E1 activities to have also occurred.

7.1 Statutory Implications

7.1.1 National Environmental Standard Assessing and Managing Contaminants in Soil to Protect Human Health

As the Site has been identified by Council to have had a HAIL activity occur on it, the controls of the NES CS will apply to the proposed soil disturbance works. Where the works cannot meet the NES CS permitted activity thresholds for soil disturbance, a resource consent will be required.

If the permitted activity controls cannot be met during works, there are three potential consenting options:

- Obtain a controlled activity consent. This pathway includes undertaking a detailed site investigation on the Site prior to consent application
- Obtain a restricted discretionary activity consent. This pathway includes undertaking a detailed site investigation on the Site prior to consent application
- Obtain a discretionary activity consent. This pathway does not include undertaking a detailed site investigation on the Site prior to consent application

In all consenting scenarios, a contaminated land management plan (CLMP), informed by the conceptual site model in this report, will need to be generated and implemented in order to manage:

- Potential exposure risks to project workers
- Potential discharge risks during the excavation works, including appropriate soil disposal protocols. In the context of the contamination issues identified in this assessment, the contaminated land management plan could be generated in the absence of a detailed site investigation being completed. However, soil sampling is expected to be required during the project to inform:
- Acceptance of soils by receiving landfills, where off-site disposal is to occur
- The appropriateness of reuse of soils across the wider property area

In regard to completing soil assessment works to inform soil disposal or re-use options during the proposed works. The sampling and laboratory analysis process takes approximately two weeks from the completion of field works, and landfill acceptance may take a further week (total of approximately three weeks following field works). Consideration should be given to whether the Site will have sufficient area to enable temporary stockpiling of soils, where soil sampling is planned to occur during the works rather than prior to the commencement of works.

7.1.2 Auckland Unitary Plan

As the Site has been identified by Council to have had a HAIL activity occur on it, evaluation of soil quality in regards to the AUP Chapter E.30 rules is expected to be required by Council to enable proposed project earthworks. Where the soils cannot meet the background 'natural' levels or permitted volumes listed in the AUP Chapter E.30, a resource consent would be required.

Appendix A

Historical Aerial Review



Comments

Retrolens - 1939

The land use at the Site and surrounding area in the late 1930s appears to be predominately rural/agriculture.

The Site observed in this 1939 aerial photograph comprises buildings adjacent to the northern boundary, with an access road connecting the buildings to Dawson Road, which appears to have been constricted prior to 1939.

A stream is observed flowing across the north-east section of the Site and ground disturbance to the south of the Stream is observed.



Retrolens - 1960

No significant change in onsite and adjacent land use observed post 1939.

Two buildings are observed to the east of the access road on the Site, constructed between 1939 and 1960.



Retrolens - 1972

No significant change in onsite and adjacent land use observed post 1960.

Comments

The pre 1960s constructed buildings identified in the 1960 aerial photograph to the east of the access road had been demolished/removed.

A building had been constructed at the southern boundary of the Site to the east of the access road and adjacent to Dawson Road.



Retrolens - 1980

No significant change in onsite and adjacent land use observed post 1972.





Comments

Auckland Council Geomaps -1996

Post 1980, the Site appears to have been redeveloped. The building footprint is located within the south section of the Site and comprises a number of school buildings, paved and grassed areas. The central and north section of the Site comprises a grassed field.

The pre 1940s constructed buildings identified in the 1939 aerial photograph located within the north section of the Site had been demolished/removed.

The pre 1970s constructed building identified in the 1972 aerial photograph within the south section of the Site and to the east of the access road had been demolished/removed.

There are earthworks observed on land to the west of the Site.

Residential land development is observed to the south of the Site.

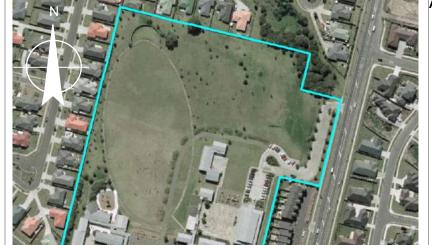


Auckland Council Geomaps - 2001

Post 1996, the school's building footprint had increased to the north along the eastern Site boundary and to the west along the southern Site boundary.

An oval track had been established within the school's playing field, occupying the central and west section of the Site.

Residential land development had increased to the south, east, and north of the Site.



Comments

Auckland Council Geomaps - 2006

Post 2001, no significant change in onsite and adjacent land use is observed.

The building footprint within the southwest section of the Site had increased.

Residential land development had increased to the south, east, north, and west of the Site.



No significant change in onsite and adjacent land use is observed post 2006.



Comments

Auckland Council Geomaps - 2010-2011

No significant change in onsite and adjacent land use is observed post 2008.

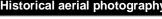


Auckland Council Geomaps - 2015-2016

No significant change in onsite and adjacent land use is observed post 2010-2011.

An additional building and car parking area had been constructed within the north east section of the Site between 2011 and 2016.





Comments

Auckland Council Geomaps - 2017

No significant change in onsite and adjacent land use is observed post 2015-2016.

A building is observed to be under construction within the southwest section of the Site.



Google Earth - 2022

No significant change in onsite and adjacent land use is observed post 2017.



The approximate location of the Site and property boundary has been outlined in blue.

Scale for the images is unknown and differs per aerial image.

Appendix B

Auckland Council Site Contamination Report



26/07/2023

GHD Limited 138 Victoria Street Christchurch

Attention: Paige Wills

Dear Paige,

Site Contamination Enquiry - 170S Dawson, Road Flat Bush

This letter is in response to your enquiry requesting available site contamination information within Auckland Council records for the above site. Please note this report does not constitute a site investigation report; such reports are required to be prepared by a (third-party) Suitably Qualified and Experienced Practitioner.

The following details are based on information available to the Contamination, Air & Noise Team in the Resource Consent Department. The details provided may be from former regional council information, as well as property information held by the former district/city councils. For completeness the relevant property file should also be requested to obtain all historical records and reports via 09 3010101 or online at:

https://www.aucklandcouncil.govt.nz/buying-property/order-property-report/Pages/order-property-file.aspx.

1. <u>Hazardous Activities and Industries List (HAIL) Information</u>

This list published by the Ministry for the Environment (MfE) comprises activities and industries that are considered likely to cause land contamination as a result of hazardous substance use, storage, and/or disposal.

Council's records indicate this site has possibly been subject to the following activity that fall within the HAIL:

HAIL Item (G3) – Landfill sites.

A geotechnical report dated 2021 indicated the site has been subject to controlled fill. Records indicate the site was incorporated in a wide scale asbestos investigation as part of the flat bush area in 1998, it was deemed as suitable for residential/school use and no additional or special restrictions on its use.

Please note:

- If you are demolishing any building that may have asbestos containing materials (ACM) in it, you have obligations under the Health and Safety at Work (Asbestos) Regulations 2016 for the management and removal of asbestos, including the need to engage a Competent Asbestos Surveyor to confirm the presence or absence of any ACM.
- Paints used on external parts of properties up until the mid-1970's routinely contained lead, a
 poison and a persistent environmental pollutant. You are advised to ensure that soils affected
 by old, peeling or flaking paint are assessed in relation to the proposed use of the property,
 including high risk use by young children.

2. Consents and Incidents Information (200m radius of the selected site)

The Council database was searched for records of the following activities within approximately 200 metres of the site and results are displayed in Figure 1 below:

- Pollution Incidents (including air discharges, oil or diesel spills)
- Bores
- Contaminated site and air discharges, and industrial trade process consents
- Closed Landfills
- Air quality permitted activities
- Identified HAIL activities

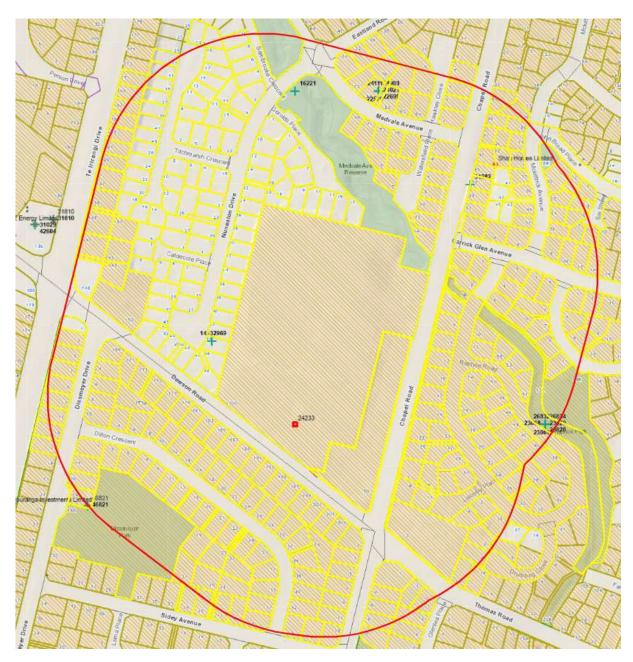


Figure 1: Selected Consents, Incidents and HAIL activities within approximately 200m of the subject site

Legend:



Relevant details of any pollution incidents and / or consents and/or HAIL activities are appended to this letter (Attachment A). Please refer to the column titled 'Property Address' on the spreadsheet to aid in identifying corresponding data on the map.

For any identified HAIL sites, please refer to the tab "HAIL activities" for more information (Column C and D include HAIL activity details where these are available).

Please note:

The HAIL activity hatching in Figure 1 only reflects whether a site has been identified as a HAIL site (both verified and non-verified) by the Council and the type of HAIL associated with the site. This does not confirm whether the site has been formally investigated or the contamination status of the property (e.g. contaminated, remediated etc.). Additionally, due to limitations within Council's records, the specific HAIL activity is not included in the data for all properties. For further information on any of these known HAIL sites, a subsequent site contamination enquiry can be lodged for the specific property (up to 5 adjacent properties can be covered in one request).

While the Auckland Council has carried out the above search using its best practical endeavours, it does not warrant its completeness or accuracy and disclaims any responsibility or liability in respect of the information. If you or any other person wishes to act or to rely on this information, or make any financial commitment based upon it, it is recommended that you seek appropriate technical and/or professional advice.

If you wish to clarify anything in this letter that relates to this site, please contact contaminatedsites@aucklandcouncil.govt.nz. Any follow up requests for information on other sites must go through the online order process.

Should you wish to request any of the files referenced above and/or listed in the attached spreadsheet for viewing, please contact the Auckland Council Call Centre on 301 0101 and note you are requesting former Auckland Regional Council records (the records department requires three working days' notice to ensure the files will be available).

Please note Auckland Council cost recovers officer's time for all site enquiries. As such an invoice for \$128 for the time involved in this enquiry will follow shortly.

Yours Sincerely,

Contamination, Air and Noise Team Specialist Unit | Resource Consents Auckland Council

Appendix C

Proposed Master Plan

CHAPEL DOWNS SCHOOL - STAGE 1

50% PRELIMINARY DESIGN FOR DRP

26/09/2023

22810



DRAWING LIST					
Sheet Number	Sheet Name	Current Revision	Current Revision Date		

A0000	COVER		
A0001	DRAWING REGISTER	Α	2023.09.26
A0002	PROJECT SCOPE & SPG STAGE 1	Α	2023.09.26
A0010	GENERAL NOTES, KEYNOTES AND LEGENDS		
A0061	3D VIEWS SHEET 1	Α	2023.09.26
A0062	3D VIEWS SHEET 2	Α	2023.09.26
A0101	WIDER CONTEXT PLAN	A	2023.09.26
A0102	IMMEDIATE SITE CONTEXT PLAN	Α	2023.09.26
A1000	SITE PLAN - EXISTING	A	2023.09.26
A1020	SITE PLAN - APPROVED MASTERPLAN		
A1040	SITE PLAN - DEMOLITION		
A1041	SITE PLAN - PROPOSED STAGE 1		
A1042	SITE PLAN - PROPOSED STAGE 1 - ENLARGED		
A1081	OVER ALL SECTION		
A1220	REFERENCE PLAN GROUND FLOOR		
A1221	REFERENCE PLAN FIRST FLOOR		
A1222	REFERENCE PLAN SECOND FLOOR		
A1223	REFERENCE PLAN ROOF PLAN		
A1230	AREA PLAN GROUND FLOOR		
A1231	AREA PLAN FIRST FLOOR		
A1232	AREA PLAN SECOND FLOOR		
A1401	GROUND FLOOR FINISHES PLAN		
A1402	FIRST FLOOR FINISHES PLAN		
A1403	SECOND FLOOR FINISHES PLAN		
A1501	GROUND FLOOR REFLECTED CEILING PLAN		
A1502	FIRST FLOOR REFLECTED CEILING PLAN		
A1503	SECOND FLOOR REFLECTED CEILING PLAN		
A1512	INTERFACE WITH EXISTING (EAST)		
A1513	INTERFACE WITH EXISTING (NORTH)		
A1514	INTERFACE WITH EXISTING (WEST)		
A1515	INTERFACE WITH EXISTING (SOUTH)		
A1610	FURNITURE PLAN GROUND FLOOR		
A1611	FURNITURE PLAN FIRST FLOOR		
A1612	FURNITURE PLAN SECOND FLOOR		
A2110	EXTERIOR ELEVATIONS - PART 1		
A2111	EXTERIOR ELEVATIONS - PART 2		
A2112	EXTERIOR ELEVATIONS - PART 3		
A3001	SECTIONS		
A4001	EXISTING BUILDING		
A9001	MATERIALITY - EXTERIOR		
A9002	MATERIALITY - INTERIOR		



A 50% PRELIMINARY DESIGN 2023.09.26

Date



designgroup

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MINISTRY OF EDUCATION TE TÄHUHU O TE MÄTAURANGA

50% PRELIMINARY DESIGN



Project Name CHAPEL DOWNS SCHOOL - STAGE 1

Address 170 Dawson Road, Flat Bush, Auckland

Drawing Title DRAWING REGISTER

ORIGINAL A1 Project no Scale 22810 A0001

CONTRACTORS MUST VERIFY ALL DIMENSIONS ON THE JOB BEFORE COMMENCING WORK DO NOT SCALE COPYRIGHT ON THIS DRAWING IS RESERVED

Projec	t Sco	pe Documer	nt						MINISTRY OF EDUCATION TE TÄHUHU O TE MÄTAURANGA
chool ID	1581				D	ate		12-Nov-21	
chool Name	Chapel Downs	School			P	SD Versio	n	Draft Preli	m
roperty Advisor	Brenda Robert	5			v	ersion Co	mment		n to be Issued post-design stage to be issued post-IB process
roject Type	☐ STRG	☐ Miner Works	Major Works - RG	☐ Major Wo	rks - Redev	□м	ajor Works - Ratio		Learning Support
ackground / con	text								
aster planning is	to be undertaker	for the Chapel Downs School site to	incorporate the exi	isting Primary Sc	chool, a Jur	nior Colleg	e and a satellit	e unit for M	t Richmond Special School at both
mary and junior	college level.								
		for Chapel Downs School and a 2 T8 is a subsequent RG Stage 2 for Cha			livered as	Stage 1 of	the Master Pla	an.	
nis PSD covers ti	ne requirement fo	r site-wide master planning and the	delivery of the B21 F	RG TS and sate	lite TS.				
A, 2 TS integrated A, Junior Colloge on Sideration should be project scopelivery of 12 RG elivery of 12 RG elivery of an integrated properties of the project scopelivery of an integraph of the scope o	satellite for MLR to a maximum ro- to a maximum ro- to a maximum ro- satellite for MLR a includes: TS plus resource grated 2 TS satell gnation requirem vision: rovision is require- provision provision		pel Downs Primary s 1,500 but the feat of non-TS areas ac spel Downs: Junior C is School, Note: as yet to be	y sible maximum r cross the campu College agreed with bo	oll, up to 2, is as per M	,000 is to b lission Heij Downs ar	e determined ghts campus ad Mt Richmo	through ma	
earning Support his project is to de		ed 2 TS satelite for Mt Richmond Sp	ecial School						PSD NOT
		mediately with delivery of the RG and	I satellite TS in 2023	3.					UPDATED POST MASTERPLAN APPROVAL
imeframes: aster planning is	to be initiated imi						_		
	to be initiated imi	15.							
aster planning is	to be initiated ini		July 21 Rell		tage 1	TS	Master Plan	TS	
aster planning is	Chapel Downs	Primary	July 21 Roll	IS Bui		TS	Master Plan	T S	NB: Build and master plan rolls are maximum rolls, excluding specific C provision
aster planning is	Chapel Downs	Primary chmond Special School) - Primary		IS Bui	ild Roll				
aster planning is	Chapel Downs			IS Bui	882	37	1250*	53	maximum rolls, excluding specific (

Build Roll Scope

Project Type	No. TS	TS Area Net (m²)	Non-TS Area Net (m²)
Major VVorks - Redev		0.0000000	
Major Works - RG - English Medium	12	936	Resource space of 5m2 / TS Carparking to designation requirements for build roll
Major Works - RG - Māon Medium			
Major Works - RG - Satellite Unit	2	176	6 x dedicated carpanks incl. 1 x accessible, covered PUDC
STRG			

SPG

	Existing Area	Current Entitlement	B21 Build Roll	Master Plan Roll	
Chapel Downs Primary					
Teaching Area					_
No ofTS	25	25	37	53	
Classroom area (m2)	1707	1894	2794	4001	NB. New TS to be built to 78m2 / TS
Non-teaching Area					
Gymnasium (m ²)	0	0	D	.0	
Library (m 2)	308	72	89	106	
Administration (m2)	238	232	285	339	NB: Admin Bldg MoE ownership 92%
Resource area (m2)	3:27	82	101	120	
Hall / Multi-purpose area (m2)	151	292	441	625	NB: MoE ownership 35%. Hall tota net area = 432rn2.
Other (m2)	0	.91	*	8	
Legitimate area (m2)	126	126	128	126	
10m2 per satellite TS for common areas	-	-	20	50	
Chapel Downs Primary Net Area	2857	2698	3856	5367	
Chapel Downs Primary Gross Area	3509	3507	5013	6977	
Mt Richmond Satellite (Primary level)		1		T	
No of TS			2	2	
Classroom area (m2)			178	178	
Administration (m2)			20	20	
Resource area (m2)			27	27	
Satellite Unit Net Area			223	223	
Tollet area (m2)			32	32	
Satellite Unit Gross Area			300	300	

CHAPEL I	OOWNS PRIMAI	RY SCHOOL ARE	A RECONCILIATION	ON - STAGE 1 (50)	% Prelimnary Design)
	Existing area as provided in PSD (574 Roll)	SPG Entitlement (882 Roll)	Proposed New block only (600 occupancy)	Total : New Block + Ex. SPG (1174 Roll)	Compliance of current Proposed design against SPG
Teaching spaces (#TS)	25	37	24	49	To optimise modular design, Masterplan Stage-1 was approved for 24TS. PSD not updated
Classroom Area	1707	2794			· ·
Resource Area	327	101	2144	4178	To optimise modular design, Masterplan
Total	2034	2895	2144	4178	Stage-1 was approved for 24TS. PSD not updated
Gymnasium Area	0	0			
Hall/Multi-purpose Area	151	441	0	151	Not in Stage-1 scope
Total Gym/Hall	151	441		151	Not in Stage 1 Stope
	730	705		ſ	
Administration Area	238	285			4
Library Area	308	89			
Other Area	0	0	28	700	Not in Stage-1 scope
Legitimate	126	126			
Satellite TS common areas Total	672	20 520			
IOCHI	6/2	520		4	<u> </u>
Total Net	2857	3856	2172	5029	To optimise modular design, Masterpian Stage- 1 was approved for 241's. PSD not updated
Circulation (including toilets and wall thicknesses)	652	× 1.3	569	1221	
Total Gross Area	3509	5013	2741	6250	X Proposed building is 1.265 ratio. To optimise modular design, Masterplan Stage- 1 was approved for 241 s. PSD not updated
Mt Richmond Satellite (Primary Level)					
No. Teaching spaces		2			
Classroom area	Ī	176	1		
Administration		20	1		×
Resource Area	О	27	0	0	Masterplan proposal was approved with
Satellite Unit Net area		223	4		Satellite unit in Stage 2
Toilet area		32			
Satellite Unit Gross area		300			

Date Description A 50% PRELIMINARY DESIGN 2023.09.26



asc architects

designgroup 17 MAIDSTONE STREET, PONSONBY, AUCKLAND 1021 PO BOX 5736, AUCKLAND 1141, NEW ZEALAND p. +64 9 377 5332 w. www.ascarchitects.co.nz

MINISTRY OF EDUCATION TE TÄHUHU O TE MÄTAURANGA

50% PRELIMINARY DESIGN



Project Name CHAPEL DOWNS SCHOOL - STAGE 1

Address 170 Dawson Road, Flat Bush, Auckland

Drawing Title PROJECT SCOPE & SPG STAGE 1

ORIGINAL A1 Project no Scale 22810

A0002

CONTRACTORS MUST VERIFY ALL DIMENSIONS ON THE JOB BEFORE COMMENCING WORK DO NOT SCALE COPYRIGHT ON THIS DRAWING IS RESERVED

ARCHITECTURAL DRAWING ABBREVIATIONS		GENERAL NOTES:		
AFFL ALUM	ABOVE FINISHED FLOOR LEVEL ALUMINIUM	1.	ALL WORK TO COMPLY TO NZBC & ALL RELEVANT NZ BUILDING STANDARDS.	
BCA BH B/S	AUSTRALIAN STANDARD BUILDING CONSENT AUTHORITY BULKHEAD BOTH SIDES CFILING HEIGHT	2.	ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL AND SERVICES DRAWINGS, FIRE & ACOUSTIC REPORT AND ARCHITECTURAL SPECIFICATION. IN CASE OF ANY DISCREPANCY THE CONTRACTOR IS RESPONSIBLE TO NOTICE AND UTICAL CONTRACTOR.	
CHS CJ CL	CIRCULAR HOLLOW SECTION CONTROL JOINT CENTRE LINE		NOTIFY ARCHITECT FOR CLARIFICATION. ARCHITECT RESERVES THE RIGHT TO SELECT THE MORE ONEROUS REQUIREMENT TO SUIT THE DESIGN INTENT.	
CODE CONC COS CRS	BUILDING CODE CONCRETE CHECK (CONFIRM) ON SITE CENTRES	3.	FOR ALL STRUCTURAL DETAILS, SETOUTS BELOW FFL, AND SPECIFICATION REFER LEWIS BRADFORD DOCUMENTATION. ALL STRUCTURE SHOWN ON ASC'S DRAWINGS IS INDICATIVE ONLY.	
DB DEMO DG DHS	DISTRIBUTION BOARD DEMOLISH or DEMOLITION DOUBLE GLAZING DIMOND HI-SPAN (METAL PURLIN)	4.	ALL TIMBER FRAMING NOT REQUIRING SPECIFIC DESIGN TO COMPLY TO NZS3604. REFER LEWIS BRADFORD STRUCTURE FOR SPECIFIC DESIGN.	
DIA DIM	DIMOND HI-SPAN (METAL PORLIN) DIAMETER DIMENSION	5.	ALL GLAZING TO COMPLY WITH NZS4223.	
DN DPC	DOWN DAMP PROOF COURSE	6.	AREAS PRONE TO WATER SPLASH TO COMPLY WITH NZBC E3/AS1 CLAUSES 3.0, 3.1, 3.2.	
DPM DP DR DWG	DAMP PROOF MEMBRANE DOWNPIPE DOOR DRAWING	7.	ALL TIMBER IN CONTACT WITH CONCRETE TO BE ON CONTINUOUS DPC.	
EA	EQUAL ANGLE	8.	UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE TO THE FRAMING.	
EDPM EQ EXT	ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING) EQUAL EXTERIOR	9.	ALL PLASTERBOARD LINING TO BE TAPED AND STOPPED (LEVEL4) UNLESS NOTED OTHERWISE.	
FCL FD FFL	FINISHED CEILING LEVEL FLOOR DRAIN FINISHED FLOOR LEVEL	10.	REFER TO SCHEDULES FOR DOOR & DOOR HARDWARE, WINDOWS, SANITARY FITTINGS, FINISHES, ETC.	
FGL FH FRR	FINISHED GROUND LEVEL FULL HEIGHT FIRE RESISTANCE RATING	11.	CONTRACTOR TO CHECK & CONFIRM ALL DIMENSIONS, LEVELS, ANGLES ON SITE PRIOR TO CONSTRUCTION.	
FWG GALV. GT	FLOOR WASTE GULLY GALVANISED GULLY TRAP	12.	ALUMINUM FLASHINGS TO WINDOW JOINERY TO MATCH JOINERY COLOUR; ROOF / WALL FLASHING COLOUR TO MATCH ADJACENT CLADDING/ROOFING COLOUR UNLESS NOTED OTHERWISE.	
GWB	GYPSUM WALL BOARD	13.	ALL WINDOW JOINERY AND EXTERIOR WALL CLADDING	
HG HORZ. HP HT	HOT DIPPED GALVANISED HORIZONTAL HIGH POINT HOSE TAP		ARE TO BE DESIGN TO: KPA (ULS) AND KPA (SLS) (UNFACTORED). PLEASE RECONFIRM WITH LEWIS BRADFORD STRUCTURAL ENGINEER.	
HWC HVAC	HOT WATER CYLINDER HEATING, VENTILATING AND AIR CONDITIONING	14.	SUBSTITUTIONS ANY SUBSTITUTIONS TO SPECIFIED PRODUCTS MUST BE	
ID IL INSUL INT	INSIDE DIAMETER INVERT LEVEL INSULATED or INSULATION INTERIOR		APPROVED BY THE PRINCIPAL AND WILL ONLY BE CONSIDERED IT THE MANUFACTURER CAN SUBSTANTIATE BY WRITTEN STATEMENT AND CERTIFICATION THAT THE PRODUCT AND PROCESS IS EQUAL OR BETTER THAN THAT SPECIFIED.	
MAX MECH. MIN MM MS MSB	MAXIMUM MECHANICAL MINIMUM MILLIMETRE MILD STEEL MAIN SWITCH BOARD		GREENSTAR REQ: THE CONTRACTOR SHALL COLLECT AND RETAIN ALL RECEIPTS, PURCHASE ORDERS OR OTHER DOCUMENTATION FROM SUPPLIERS NEEDED TO SATISFY THE COMPLIANCE REQUIREMENTS FOR THE GREEN STAR NEW ZEALAND - EDUCATION v3.0TOOL.	
M² NZS NZBC	SQUARE METER NEW ZEALAND STANDARD NEW ZEALAND BUILDING CODE	15.	ALL MATERIALS TO MEET NZBC DURABILITY REQUIREMENTS FOR EXPOSURE CLASS 1.	
NOM NTS	NOMINAL NOT TO SCALE	GLAZ	ING	
OD O/A O/F O/H	OUTSIDE DIAMETER OVERALL OVER FLOW OVERHEAD		GLAZING MINIMUM THICKNESS OF GLASS IS DETERMINE BY THE DOCUMENTS AND CRITERIA LISTED BELOW. IS CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE HIGHEST REQUIRED SPECIFICATION OF THE FOLLOWING LISTED DOCUMENTS/CRITERIA:	
PFC PC PLY	PARALLEL FLANGE CHANNEL PRECAST PANEL PLYWOOD	1.	NZS 4223.1, NZS 4223.3, NZS 4223.4, AND NZS 4223.4	
PVC R	POLYVINYL CHLORIDE RADIUS	2.	DETERMINE THE FINAL GLASS THICKNESS BASED ON WHETHER WIND LOADING OR HUMAN IMPACT CONSIDERATIONS GOVERN.	
RAB RC RCP	RIGID AIR BARRIER REINFORCED CONCRETE REFLECTED CEILING PLAN	3.	PFC'S ACOUSTIC REPORT	
REF REQD REV	REFERENCE REQUIRED REVISION	4.	MOE GLASS REPLACEMENT REQUIREMENT	
RHS RL RO	ROLLED HOLLOW SECTION REDUCED LEVEL ROUGH OPENING		GLAZING PERFORMANCE (MINIMUM REQUIREMENT); SHADING CO-EFFICIENT = R-VALUE = MAXIMUM (GLASS ONLY) VISIBLE LIGHT TRANSMITANCE (VLT) = MINIMUM	
RWH	RAIN WATER HEAD SHOWER	5.	GRADE A SAFETY GLASS – MOE REQUIREMENTS	
SHS SIM SK	SQUARE HOLLOW SECTION SIMILAR SINK		YOU MUST USE GRADE A SAFETY GLASS IN THESE SITUATIONS:	
SPEC S.S STC	SPECIFICATION STAINLESS STEEL SOUND TRANSIMITION CLASS		WHERE THERE IS A RISK OF PEOPLE FALLING AGAINST IT.	
TELE T/D	STRUCTURE or STRUCTURAL TELEHPONE TELEPHONE / DATA		2. IN ALL DOORS AND PANELS AROUND DOORS. 3. IN BUILDINGS WHERE THERE IS A HIGHER RISK, SUCH AS: 4.	
TOC TOS TPD	TOP OF CONCRETE TOP OF STEEL TOILET PAPER DISPENSER		 a. GYMS AND SWIMMING POOLS b. BUILDINGS THAT ARE WITHIN 6 METRES OF 	
TYP T&G	TYPICAL TOUNGE AND GROOVE		PLAYGROUNDS, COURTS OR PLAYING FIELDS c. HALLS, VIEWING GALLERIES OR GRANDSTANDS.	
U/S UB UC	UNDERSIDE UNIVERSAL BEAM UNIVERSAL COLUMN		5. WHEN INSTALLING OR REPLACING GLASS IN A BUILDING WHERE THE GLASS STARTS LESS THAN 1.6 METRES FROM THE LOWEST POINT, SUCH AS	
VERT. VP	VERTICAL VISION PANEL		THE GROUND, THE FLOOR, OUTSIDE DECKING OR ANY RAISED SEATING.	
WHB WC	WASH HAND BASIN WATER CLOSET (TOILET)	GROI SAFE	WHERE A WINDOW BEGINS LESS THAN 1.6 METRES FROM THE GROUND, AND GOES HIGHER THAN 1.6 METRES, TAKE THE SAFETY GLAZING TO THE TOP OF THE WINDOW OR TO THE NEXT TRANSOM (THE HORIZONTAL CROSS PIECE OF THE WINDOW).	
		TO 2 GLAS	RE THE WINDOW BEGINS AT GROUND LEVEL AND GOES UP METRES OR HIGHER, USE SAFETY GLAZING UNLESS THE SI SPROTECTED BY MESH, GUARDS OR SOME OTHER AR PROTECTION.	
		OTHE	ER GLASS	

GENERAL NOTES: **EXTERIOR GENERAL NOTES:**

IN ALL OTHER CASES, ALL GLASS SHOULD BE INSTALLED TO NEW

IN SOME CASES, YOU MAY NEED TO INSTALL GRADE B WIRED GLASS, WHICH IS FIRE RATED, ACCORDING TO NEW ZEALAND STANDARD 4223.3:1999.

ZEALAND STANDARD 4223.3:1999

CARPENTRY NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH
- INTERIOR NON LOAD BEARING TIMBER FRAME WALL H1.2
- INTERIOR NON LOAD BEARING TIMBER FRAME WALL FOR RESERVES THE RIGHT TO SELECT THE MORE ONEROUS REQUIREMENT TO SUIT THE DESIGN INTENT. WET AREAS H3.1 SG8
 - EXTERIOR TIMBER FRAME WALL H1.2 SG8.
 - R2.2 WALL INSULATION TO ALL EXTERNAL FRAME WALL.
 - SPECIES, GRADE AND IN SERVICE MOISTURE CONTENT TO NZS 3602, NZBC B2/AS1 AND TREATMENT TO NZS 3640, NZBC B2/AS1. STRUCTURAL GRADE (SG) TO NZS 3604, NZS
 - USE STAINLESS STEEL FIXINGS, CONNECTORS, ETC IN ALL ZONES. WITH THE TIMBER TREATMENTS CUAZ (PRESERVATIVE CODE 58) AND ACQ (PRESERVATIVE CODE 5

CLADDING NOTES:

- OTHER THAN SS FIXINGS, ALL FASTENERS TO MATCH CLADDING COLOUR.SS FIXINGS TO BE 304 MINIMUM, 316 WHERE HIGHLY VISIBLE. ROOF FASTENERS TO MATCH ADJACENT ROOFING COLOUR.
- COATING SYSTEM TO MANUFACTURER REQUIREMENTS
- PAINT FINISH/TYPE RESENE PAINT SPEC (REFER SPEC)
- CAVITY SYSTEM REFER DETAILS AND SPEC
- <u>RIGID AIR BARRIER</u> ALL EXTERIOR WALL 1 X RIGID AIR BARRIER

MATERIAL: 6MM THK SEALED JAMES HARDIES RAB BUTT JOINT ON 38-01 TIMBER FRAME. ALL JOINTS TO BE TAPED WITH APPROVED JAMES HARDIES FLASHING TAPE AND FINISHED IN ACCORDANCE WITH JAMES HARDIE INSTALATION GUIDE. ALL FIXING AS PER MANUFACTURER REQUIREMENT (REFER SPEC 4171HR) - EXCEPT FIXINGS CENTERS AMENDMENT. REFER 4171-001 / A1002 FOR DETAILS.

SUBSTITUTIONS ANY SUBSTITUTIONS TO SPECIFIED PRODUCTS MUST BE APPROVED BY THE PRINCIPAL AND WILL ONLY BE CONSIDERED IF THE MANUFACTURER CAN SUBSTANTIATE BY WRITTEN STATEMENT AND CERTIFICATION THAT THE PRODUCT AND PROCESS IS EQUAL OR BETTER THAN THAT SPECIFIED.

- ALL DIMENSIONS GIVEN ARE APPROXIMATE FOR PRICING ONLY. CHECK ALL DIMENSIONS ON SITE PRIOR TO
- REFER DOOR HARDWARE SCHEDULE FOR DOOR FURNITURE
- ALLOW FOR DOOR STOPS TO ALL HINGED DOORS. DOOR STOPS ARE TO MEET 15 YEAR DURABILITY REQUIREMENT
- IHAI SPECIFIELI.

 GREENSTAR REC:
 THE CONTRACTOR SHALL COLLECT AND RETAIN ALL
 RECEIPTS, PURCHASE ORDERS OR OTHER
 DOCUMENTATION FROM SUPPLIERS NEEDED TO SATISFY
 THE COMPLIANCE REQUIREMENTS FOR THE GREEN STAR
 NEW ZEALAND EDUCATION 93.0TOOL REFER MECHANICAL / ELECTRICAL ENGINEERS SPECIFICATION FOR EMERGENCY SIGNAGE REQUIREMENTS AND SECURITY REQUIREMENTS
 - ALUMINIUM WINDOW MANUFACTURER TO PROVIDE GENERAL WINDOW HARDWARE, STAYS ETC. WHERE NOT SPECIFICALLY STATED OTHERWISE
- GLAZING MINIMUM THICKNESS OF GLASS IS DETERMINE BY THE DOCUMENTS AND CRITERIA LISTED BELOW. IS CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE HIGHEST REQUIRED SPECIFICATION OF THE FOLLOWING LISTED DOCUMENTS/CRITERIA: DOOR SCHEDULE TO BE READ IN CONJUNCTION WITH FIRE REPORT PREPARED BY FIRE ENGINEER.
 - RELATED DOOR SCHEDULE TO BE READ IN CONJUNCTION WITH SPEC. SECTIONS 4161 UNDERLAYS, 4611 GLAZING, 4811 SEALANTS, 4821 FLASHINGS, 4571 AUTOMATIC DOORS.
 - ALUMINIUM FRAMES AND DOORS TO BE POWDER COATED. REFER TO FINISHES SCHEDULES
 - EXTERNAL WINDOW/DOOR JOINERY PERFORMANCE TO NZS 4211. GLAZING SHALL COMPLY WITH NZS 4223. REFER SPECIFICATION.
 - BEFORE FIXING, APPLY SEPARATION TAPE UNDERLAY BETWEEN DISSIMILAR METALS IN CONTACT OR ALUMINIUM IN CONTACT WITH CONCRETE. FIX FRAMES RIGIDLY IN PLACE WITHOUT DISTORTION, PLUMB, TRUE TO LINE AND FACE, WEATHER TIGHT AND WITH ALL OPENINGS OPERATING FREELY. ALL GLASS TO BE HELD IN ALUMINIUM BEADS AND BLACK THERMOPLASTIC RUBBER GASKETS.
 - EXTERIOR POWDERCOAT COLOUR: DURATEC INTERIOR-POWDERCOAT: DURALLOY ALL TRIMS TO MATCH COLOUR

- POWDER COATED ROLLER SHUTTER DOOR (REFER SPEC)
- METALBILT SHUTTER DOOR- POWDERCOATED ALUMINIUM. SINGLE PHASE MOTOR OPERATED WITH PUSH BUTTON CONTROL
- FLUSH MOUNTED CONTROL KEY SWITCH. PUSH BUTTON CONTROL.
- COATING: EXTERIOR-POWDERCOAT DURATEC COLOUR: REFER SPEC INTERIOR-POWDERCOAT DURALLOY COLOUR: REFER SPEC

INTERIOR GENERAL NOTES:

FRAMING:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH
- INTERIOR NON LOAD BEARING TIMBER FRAME WALL NO.1
- INTERIOR NON LOAD BEARING TIMBER FRAME WALL FOR WET AREAS - NO.1 H3.1 SG8

FIRE RATED WALLS

FIRE RATED WALLS REFER FRAMING AND LINING PLANS

REFER FRAMING AND LINING PLANS

FIRE BATED RISER TO 2m HIGH

- PLASTERBOARD LINING FRR PLASTER BOARD WALL LINING SYSTEM ACOUSTIC PLASTER BOARD WALL LINING SYSTEM FIBRECEMENT SHEET LINING
- PRE-FINISHED SHEET LINING PLY SHEET LINING

- ALL FIRE/SMOKE BATED SEPARATION ARE TO BE MARKED ABOVE CEILINGS AND IN PLANTS ROOMS WITH A STENCIL STATING "FIRE RATED -/X/X Sm.
- ALL PENETRATION TO BE FIRE STOPPED
- ALL WALLS ARE TO BE STOPPED LEVEL FINISHES UNLESS
- CONTRACTOR TO ENSURE ALL WALL STC RATING MEETS REQUIREMENTS IN ACOUSTIC REPORT PREPARED BY NOV
- READ IN CONJUNCTION WITH FIRE REPORT FOR FURTHER

- REFER TO FINISHES SCHEDULE FOR FURTHER INFORMATION, COLOUR ETC
- ALLOW NATURAL ANODISED ALCO ALUMINIUM TRIM FOR JUNCTION OF ALL CHANGE IN FLOOR MATERIAL
- REFER SPECS FOR STAIR NOSING TILES AND ADHESIVE REQUIREMENTS

FIXTURES & JOINERY

- REFER SPECIFICATION FOR BATHROOM FIXTURE SELECTIONS
- GENERALLY 1:40 FALL TO OUTLET (FWG) IN ALL SHOWER
- UNLESS NOTED OTHERWISE KITCHEN BENCH TOP TO BE BRUSHED STAINLESS STEEL WITH ANTI-DRIP EDGE OVER 2 LAYERS 21mm THICK H3 PLY
- ALL INTERNAL EXPOSED CARCASS WORK TO BE FINISHED IN WHITE MELTECA SUBSTRATE ON MDF/MUF BOARD
- HAFELE OR SIMILAR APPROVED CONCEALED HINGES & DRAWER RUNNERS. HINGES / DRAWER RUNNERS TO BE OF THE SOFT CLOSE TYPE.
- ELECTRICAL OUTLETS SHOWN FOR POSITION ONLY. REFER ELECTRICAL DWGS FOR TYPE
- ALLOW UTENSIL TRAY INSERT (TO FIT) TO TOP KITCHEN DRAWER (1 PER KITCHEN)

- ALL ACOUSTICS PRODUCTS SEALANTS, BRUSH SEALS AND THE LIKE, ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS DOCUMENTS TO THE FULL EXTENT OF THE ACOUSTIC RATED ELEMENT (WALL/ WINDOW/DOOR ETC).
- THIS APPLIES IN PARTICULAR TO THE ACOUSTIC RATED WALL SYSTEMS WHICH NEED TO BE INSTALLED IN ACCORDANCE WITH THE GIB NOISE CONTROL SYSTEMS 2006 AND WITH ACOUSTIC UNDERLAYS
- ENSURE THAT WHEREVER THERE IS AN ACOUSTIC RATED JUNCTION, THE FULL DEPTH OF THE INNER LINING IS TO BE SEALED WITH ACOUSTIC MASTIC SUCH AS GIB SOUNSEAL, PYROPANEL MULTIFLEX OR EQUIVALENT PRODUCT APPROVED BY TEH ACOUSTIC ENGINEER
- SUSPENDED CEILINGS TO HAVE R1.8 BATTS OR EQUIVALENT LAYED OVER CEILING GRID
- SPACE TO BE ALLOWED AROUND RECESSED DOWNLIGHTS
- REFER TO SHEET A1055 FOR LOCATION OF INSULATION



Date

Rev

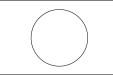
Description

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50% PRELIMINARY DESIGN



Project Name **CHAPEL DOWNS**

SCHOOL - STAGE 1

170 Dawson Road, Flat Bush, Auckland Drawing Title

GENERAL NOTES, **KEYNOTES AND LEGENDS**

ORIGINAL A1

A0010

Scale

22810

Project no

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150 140 130 120 110 100 90 When reproduced at the correct scale this line measures 150mm

80 70 60









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Project Name
CHAPEL DOWNS
SCHOOL - STAGE 1

Address 170 Dawson Road, Flat Bush, Auckland

Drawing Title
3D VIEWS SHEET 1

Scale	ORIGINAL A1	Project no
A1 =	A3 =	22810
Drawing No.		Revision
A0061		Α

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Project Name
CHAPEL DOWNS

SCHOOL - STAGE 1

Address 170 Dawson Road, Flat Bush, Auckland

Drawing Title

3D VIEWS SHEET 2

Scale	ORIGINAL A1	Project no
A1 =	A3 =	22810
Drawing No.		Revision
A0062		Α

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CHAPEL DOWNS SCHOOL - STAGE 1

Address 170 Dawson Road, Flat Bush, Auckland

Drawing Title WIDER CONTEXT PLAN

ORIGINAL A1 Project no 22810 A0101

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CHAPEL DOWNS SCHOOL - STAGE 1

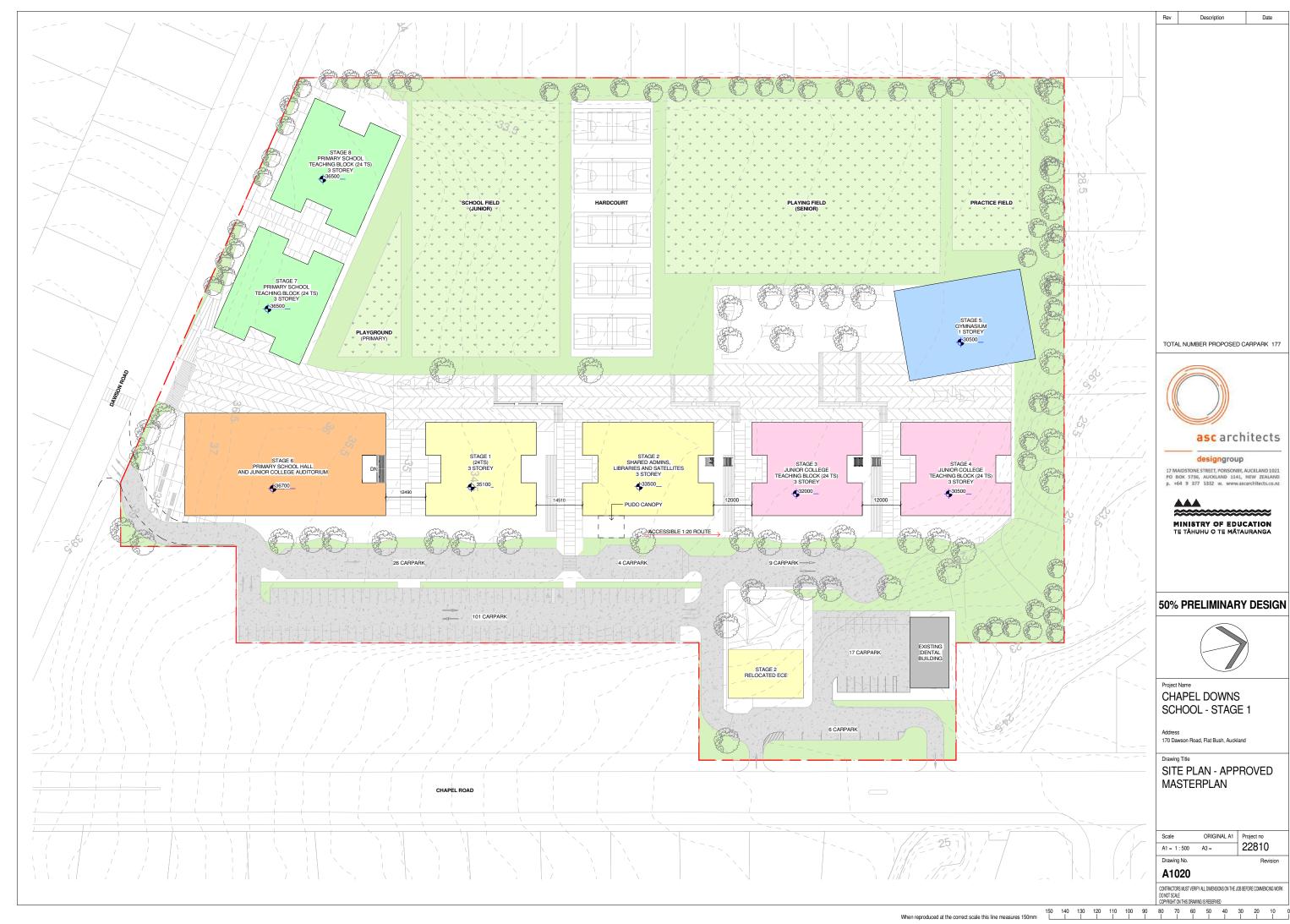
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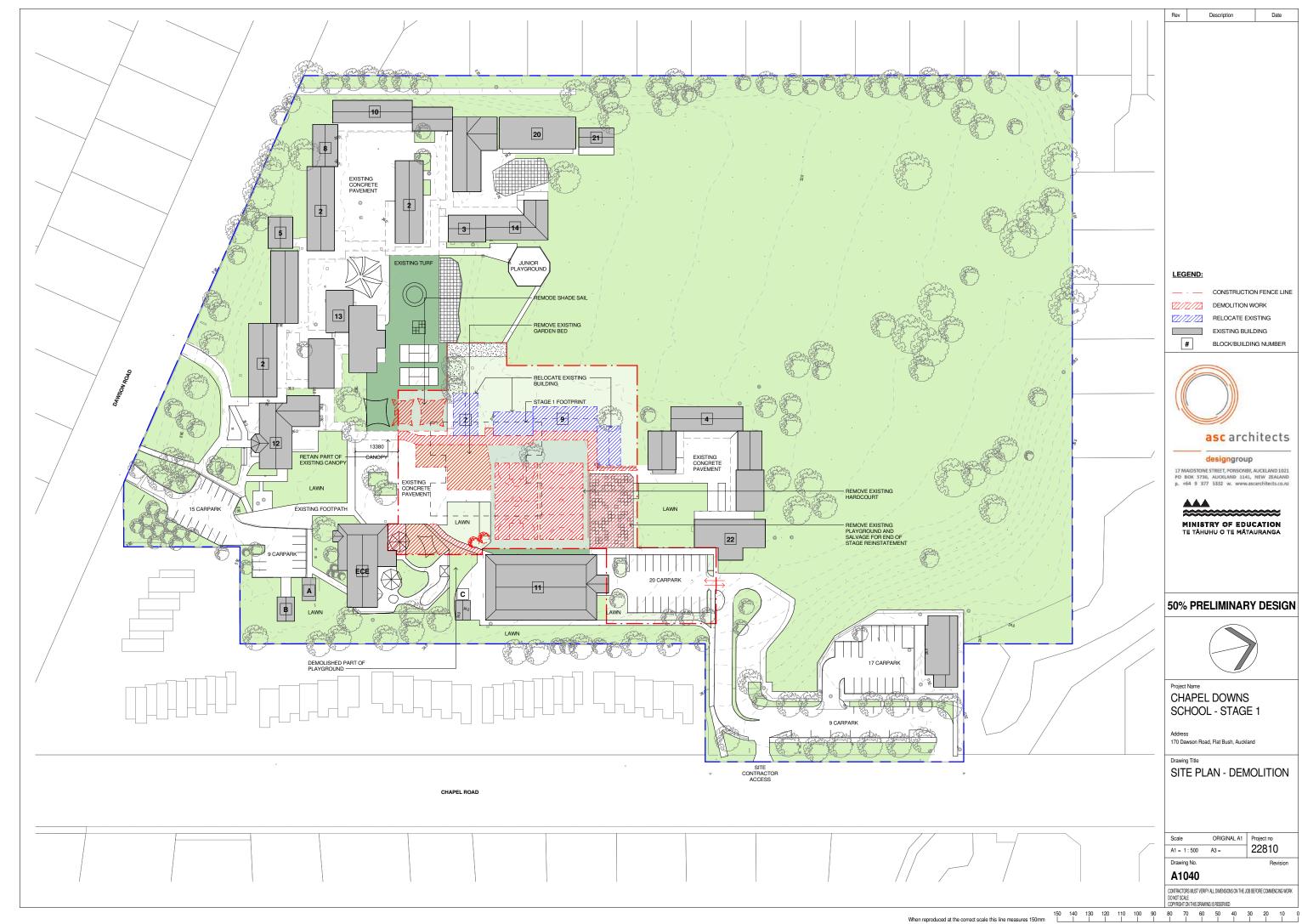
IMMEDIATE SITE CONTEXT PLAN

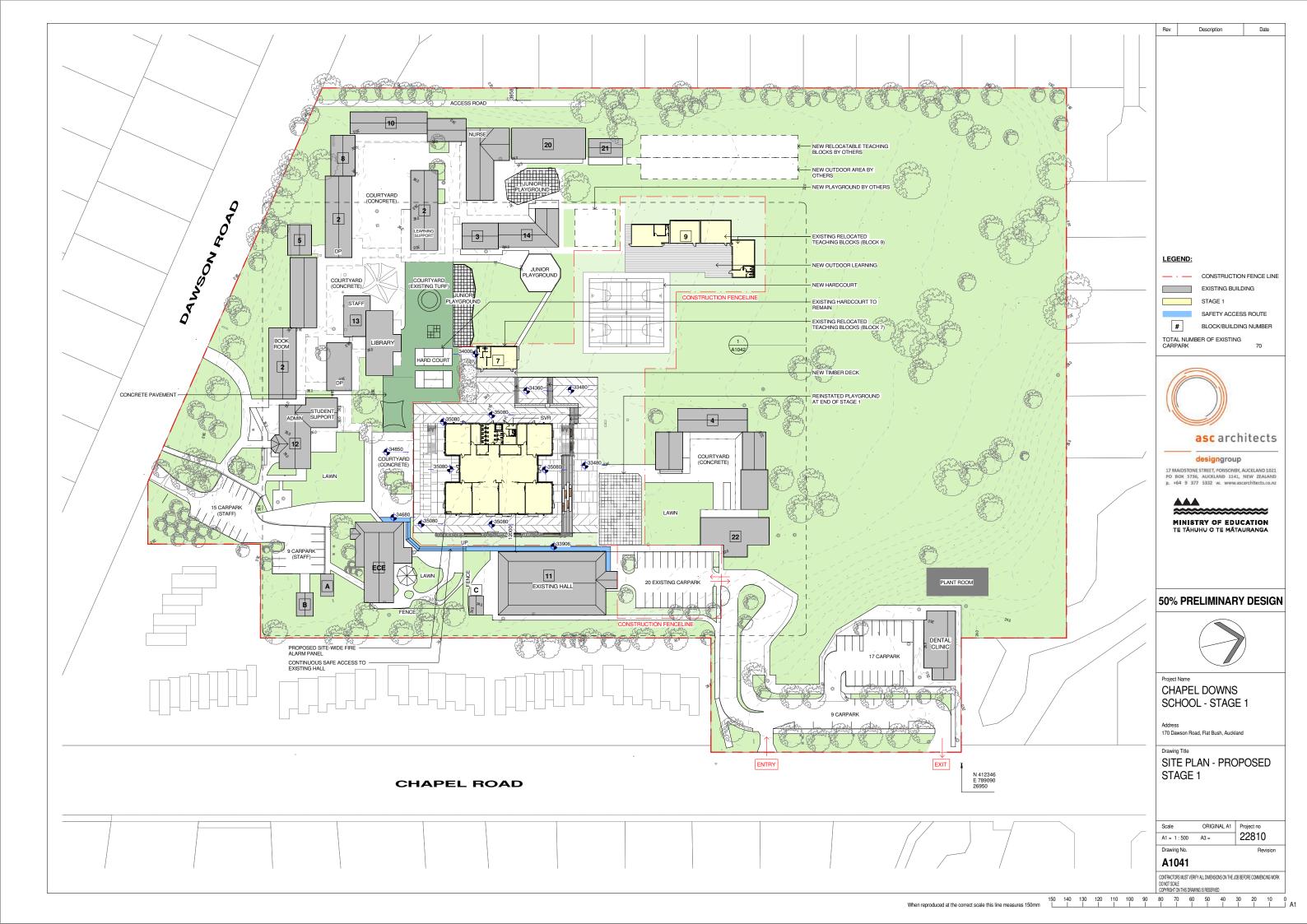
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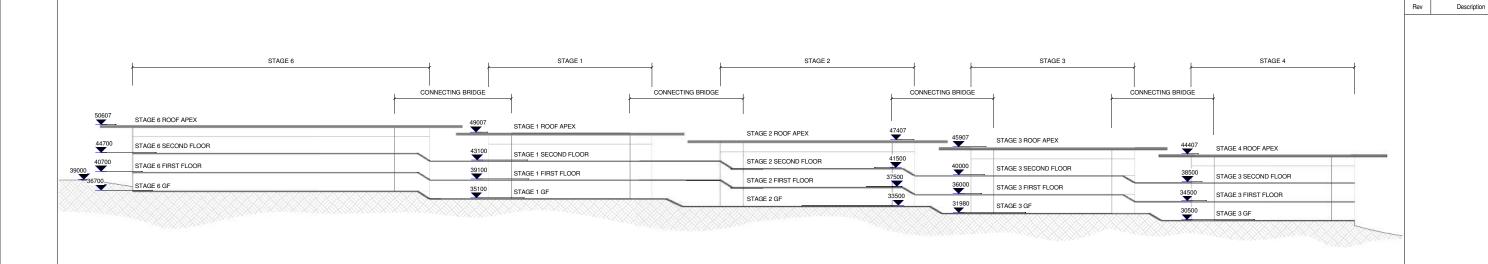






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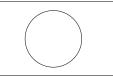
Date

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Project Name CHAPEL DOWNS SCHOOL - STAGE 1

170 Dawson Road, Flat Bush, Auckland

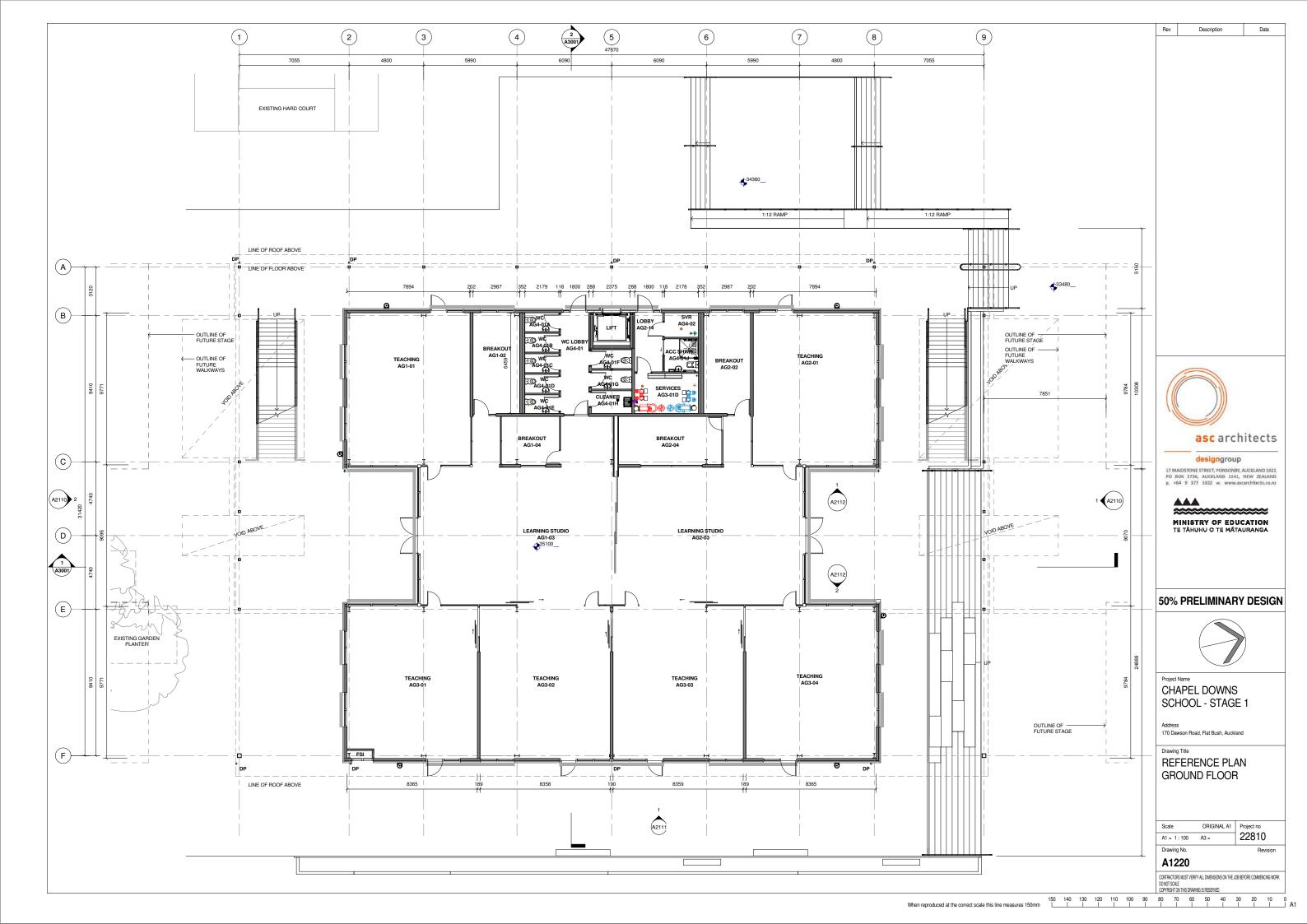
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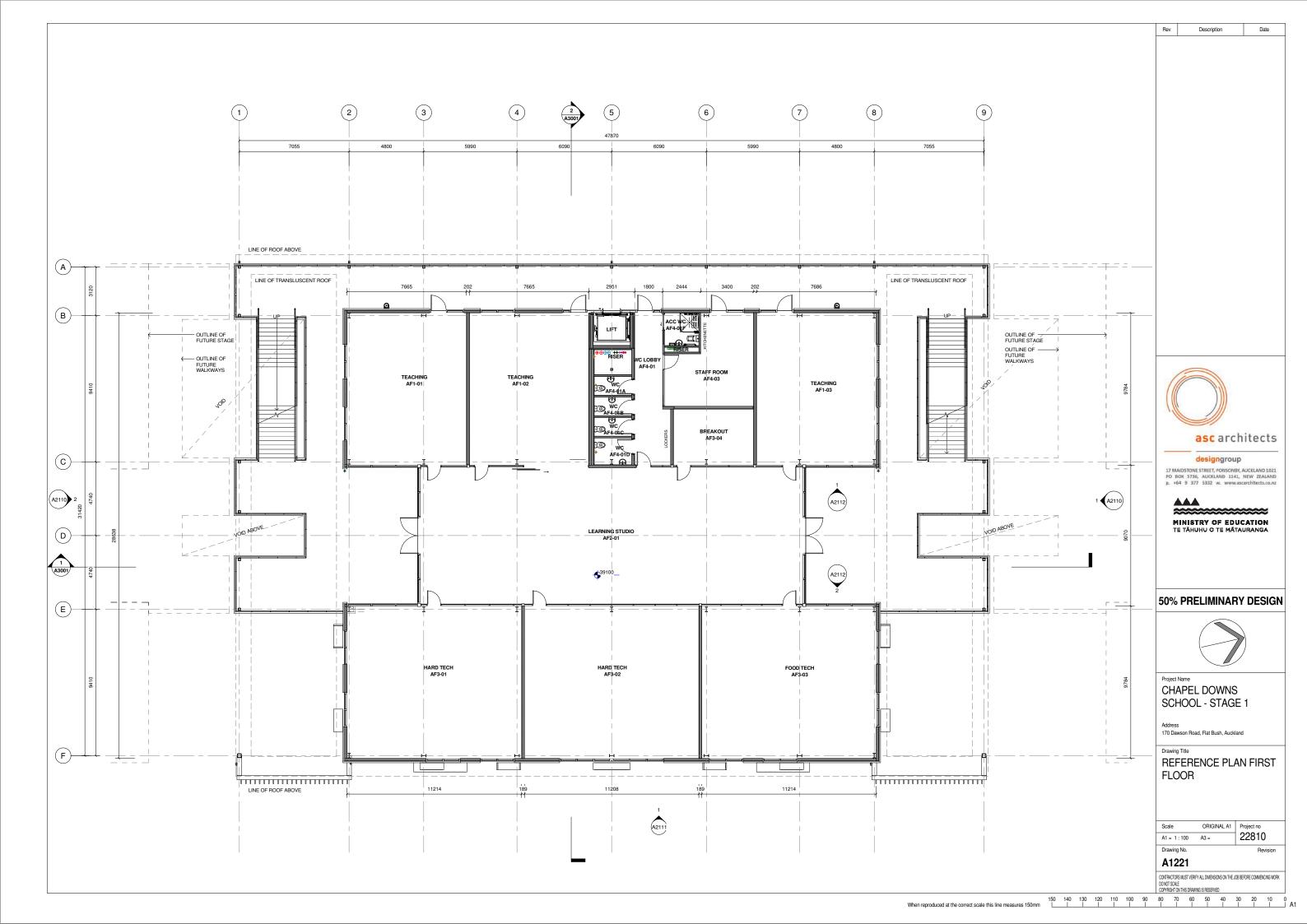
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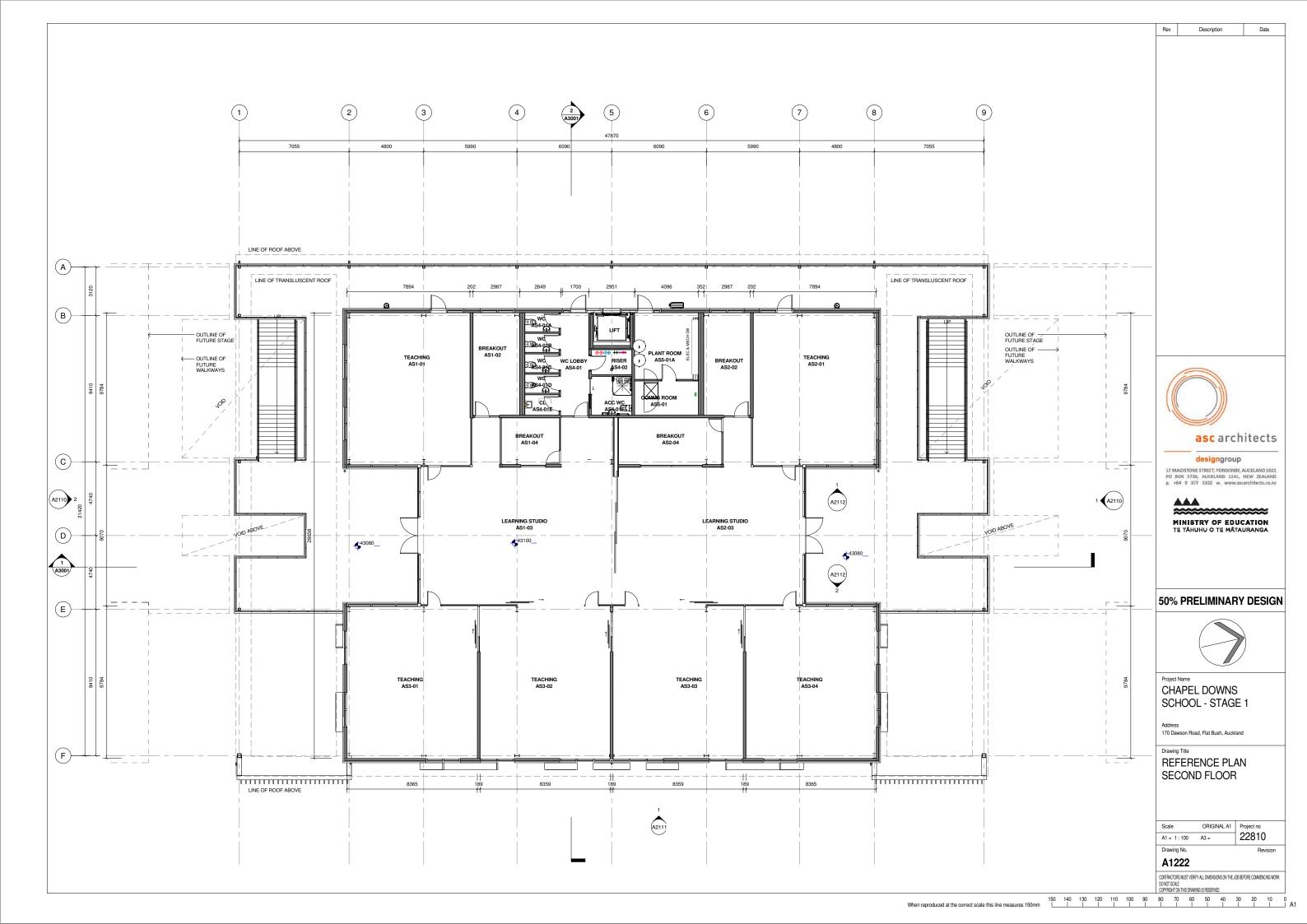
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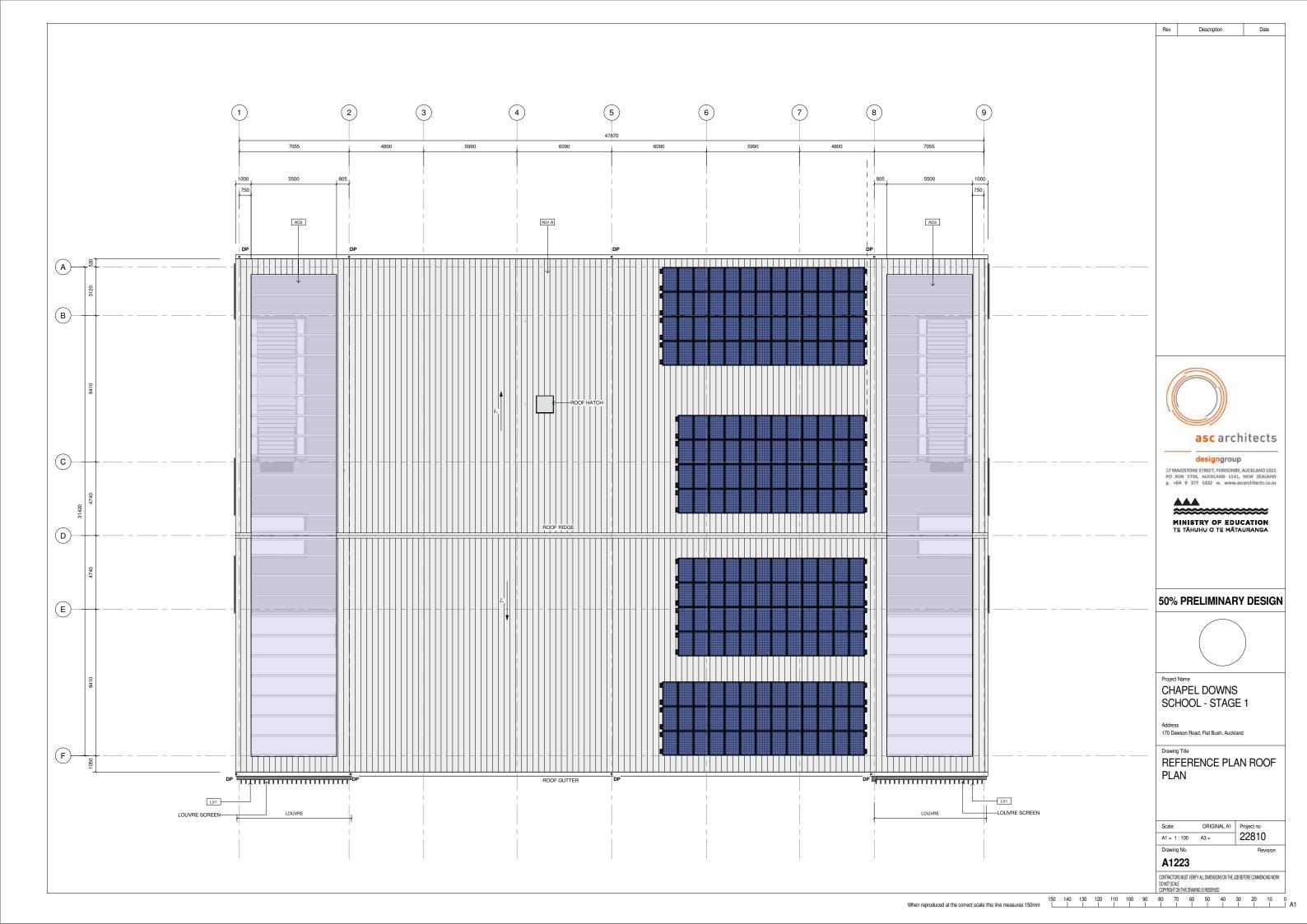
WORK IN PROGRESS A1081

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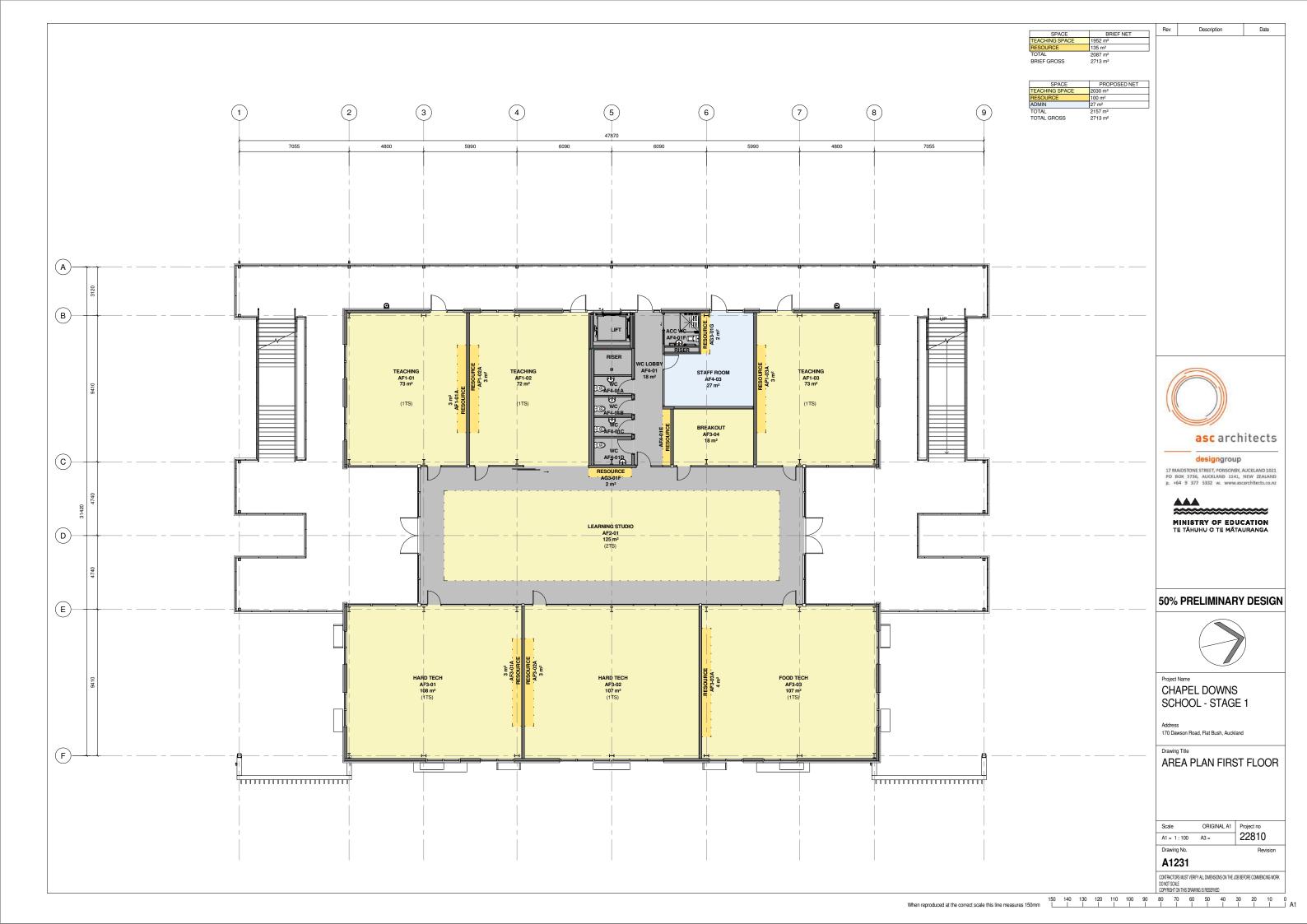






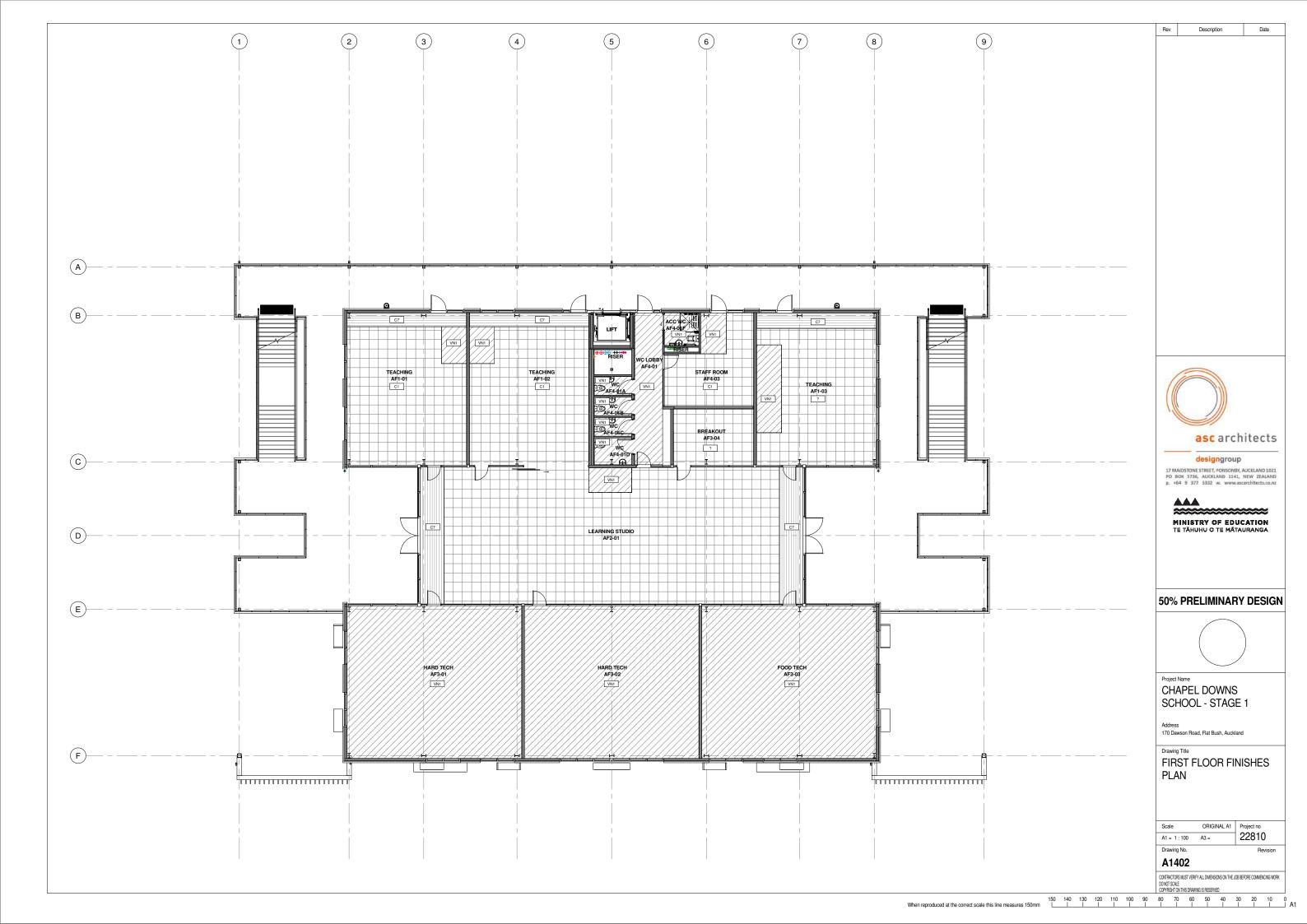


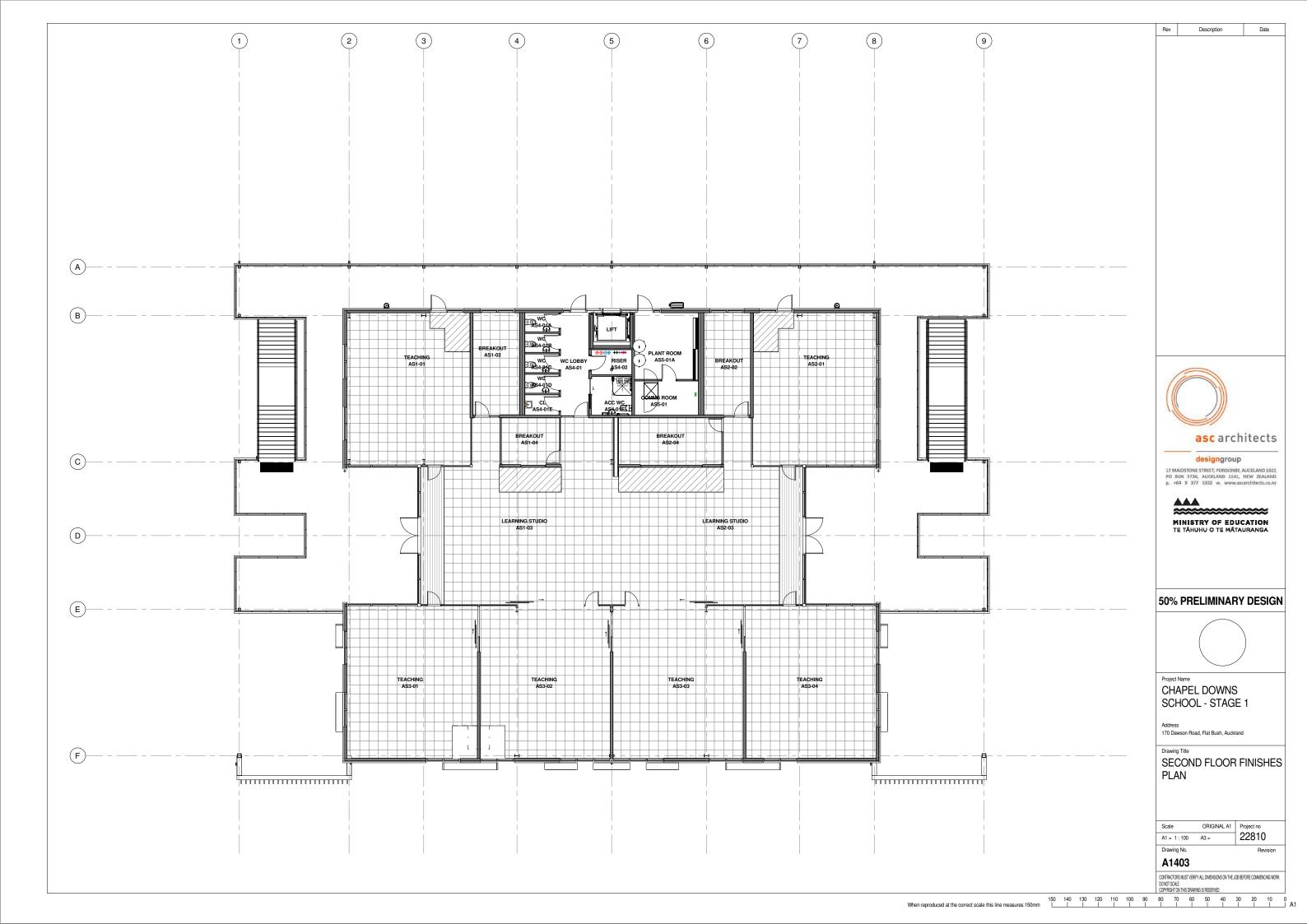


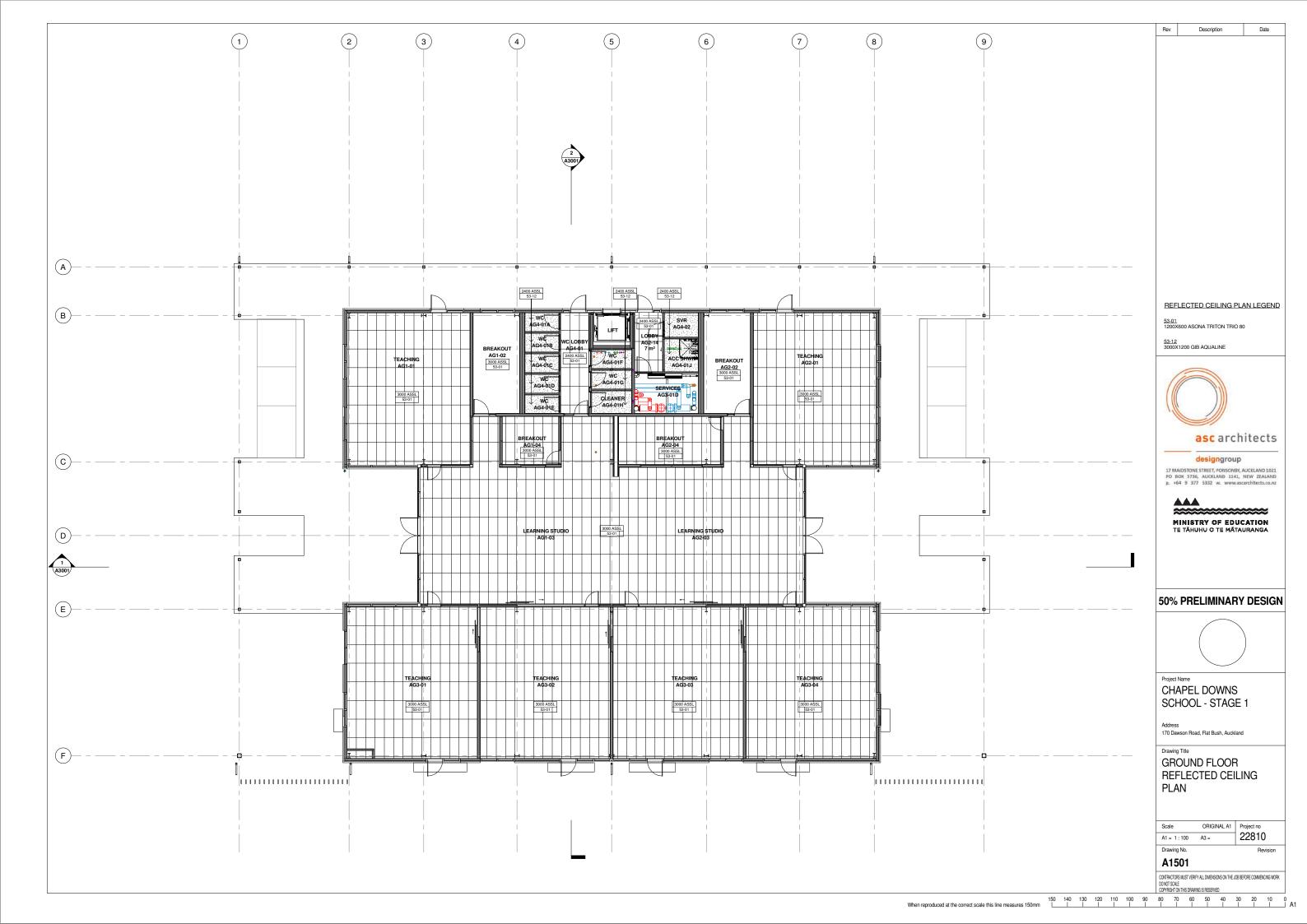


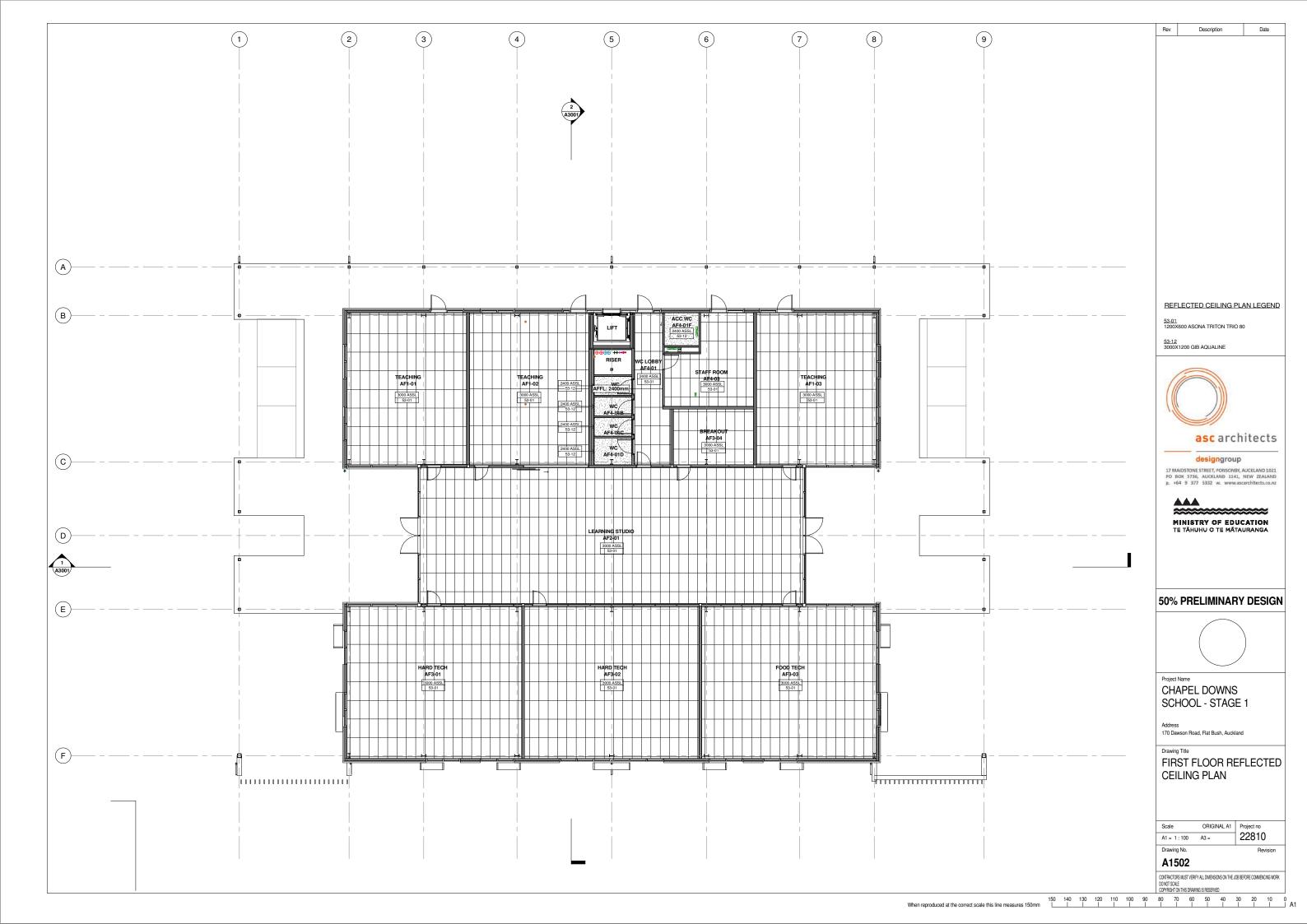


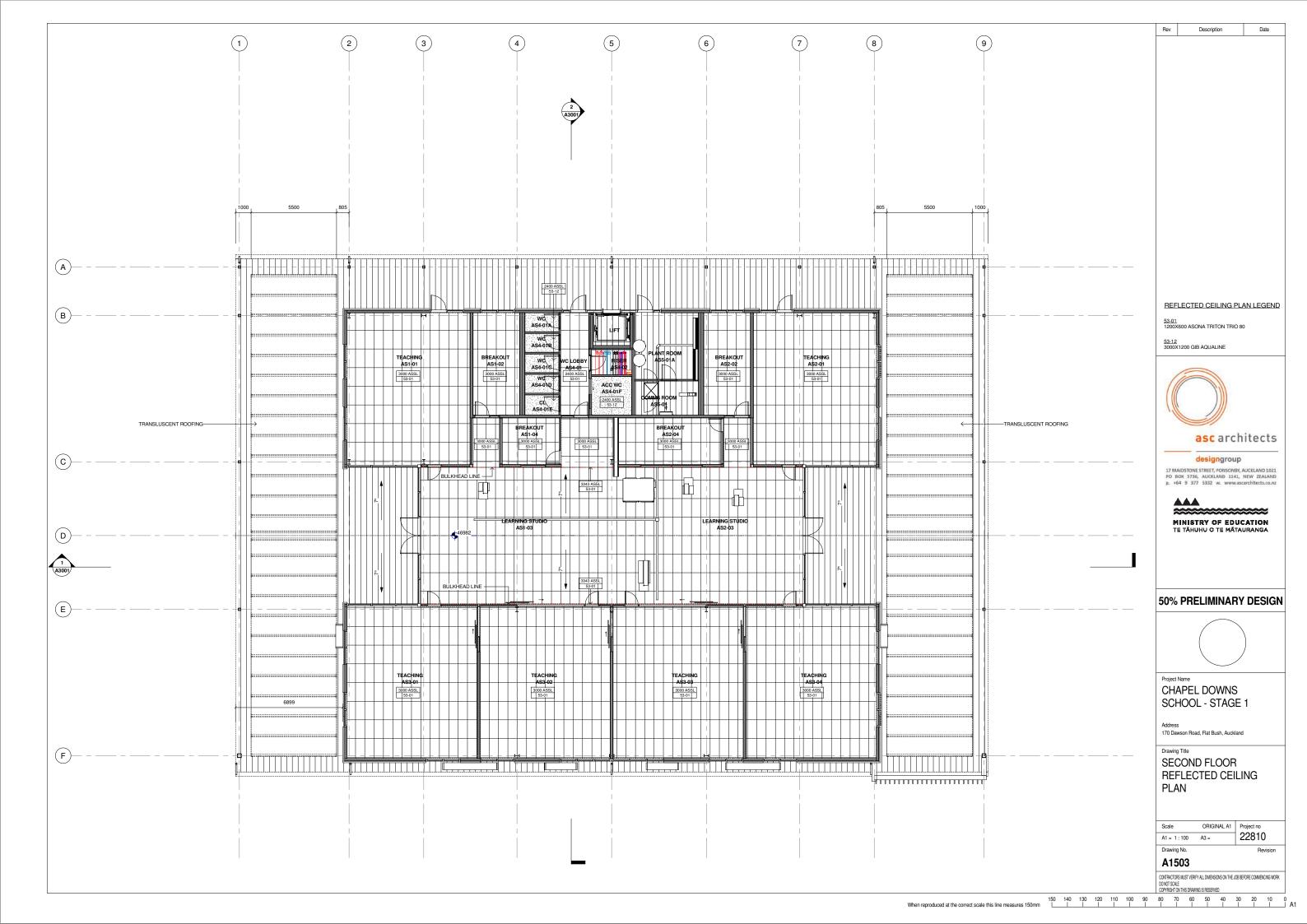


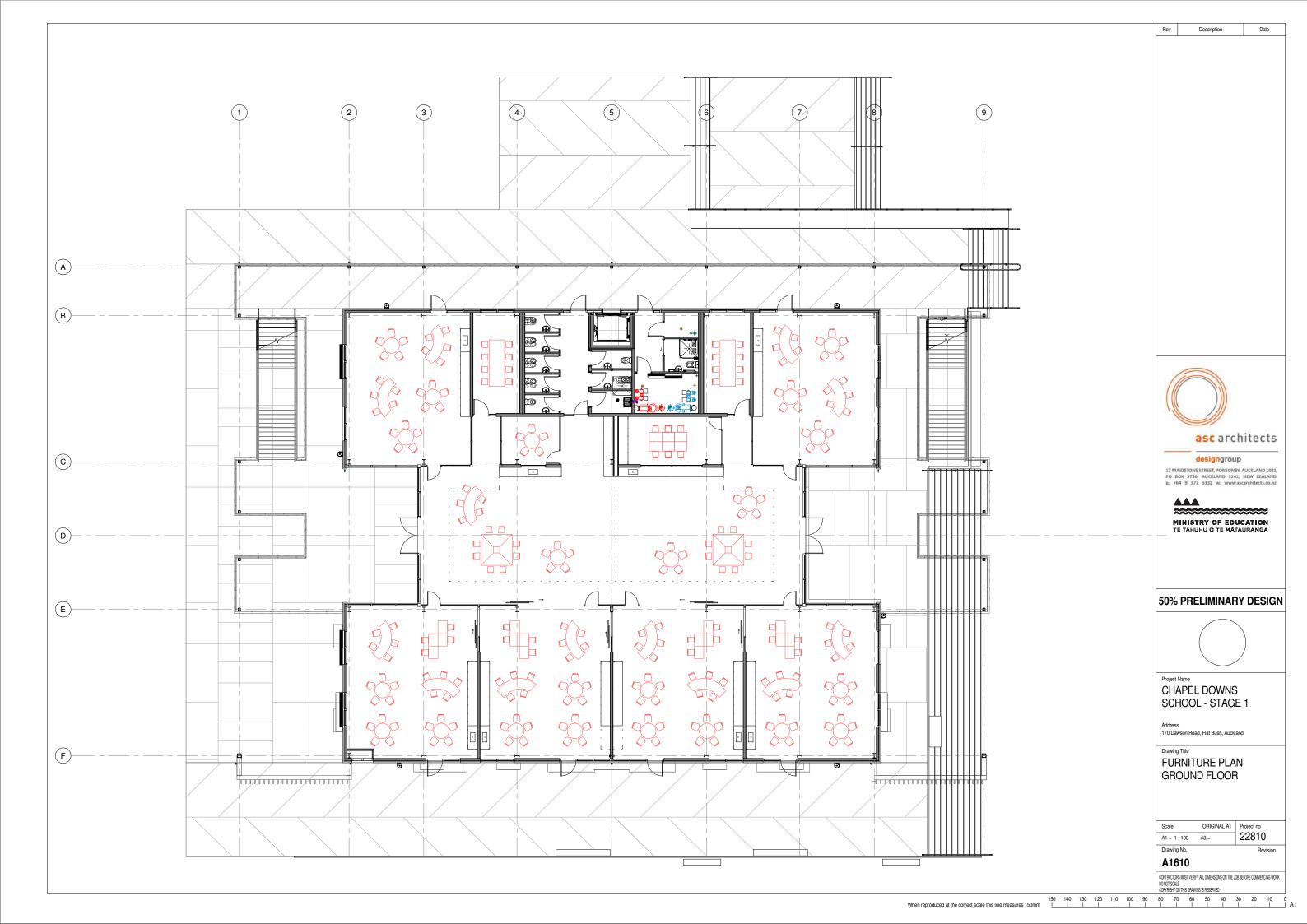


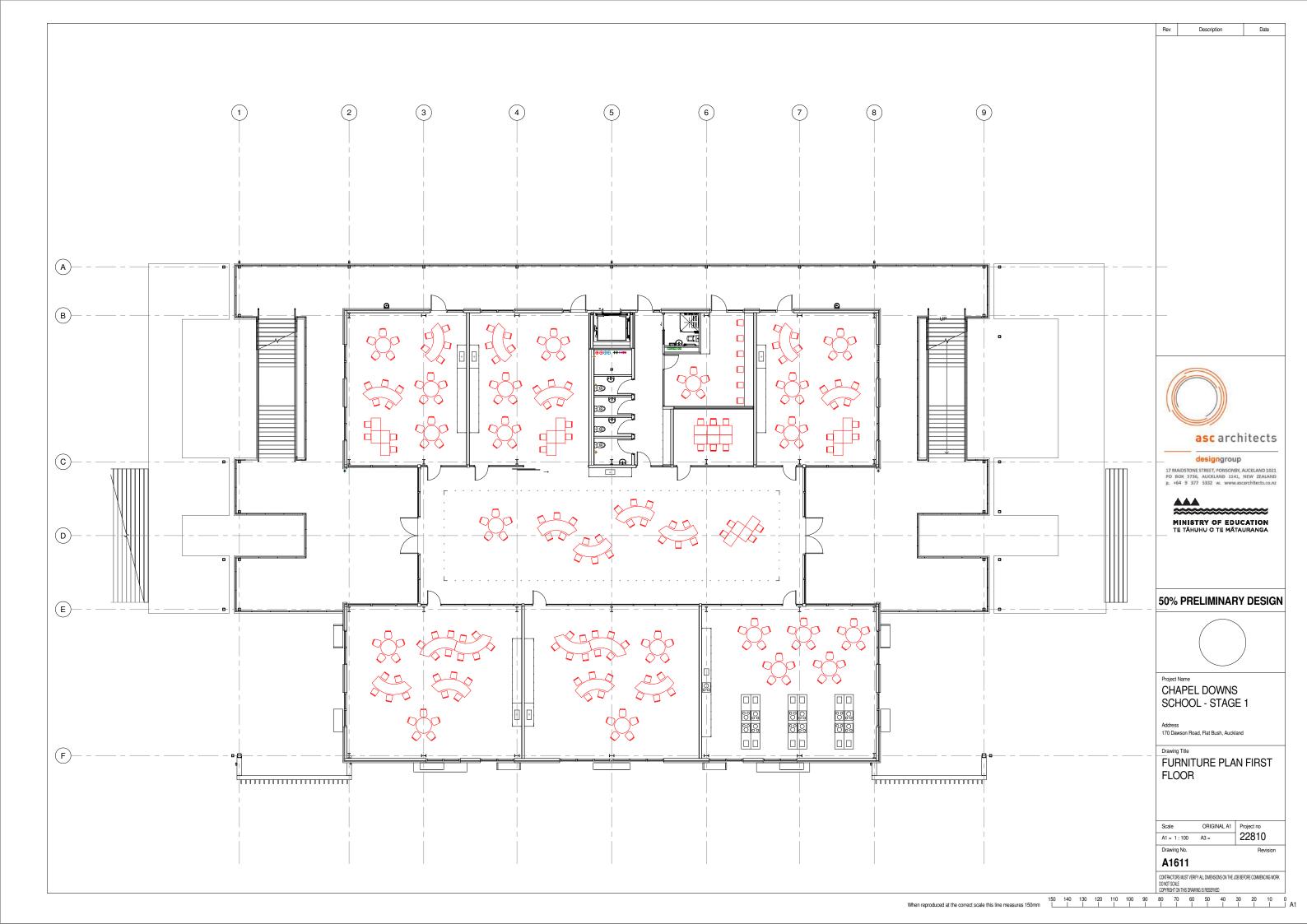


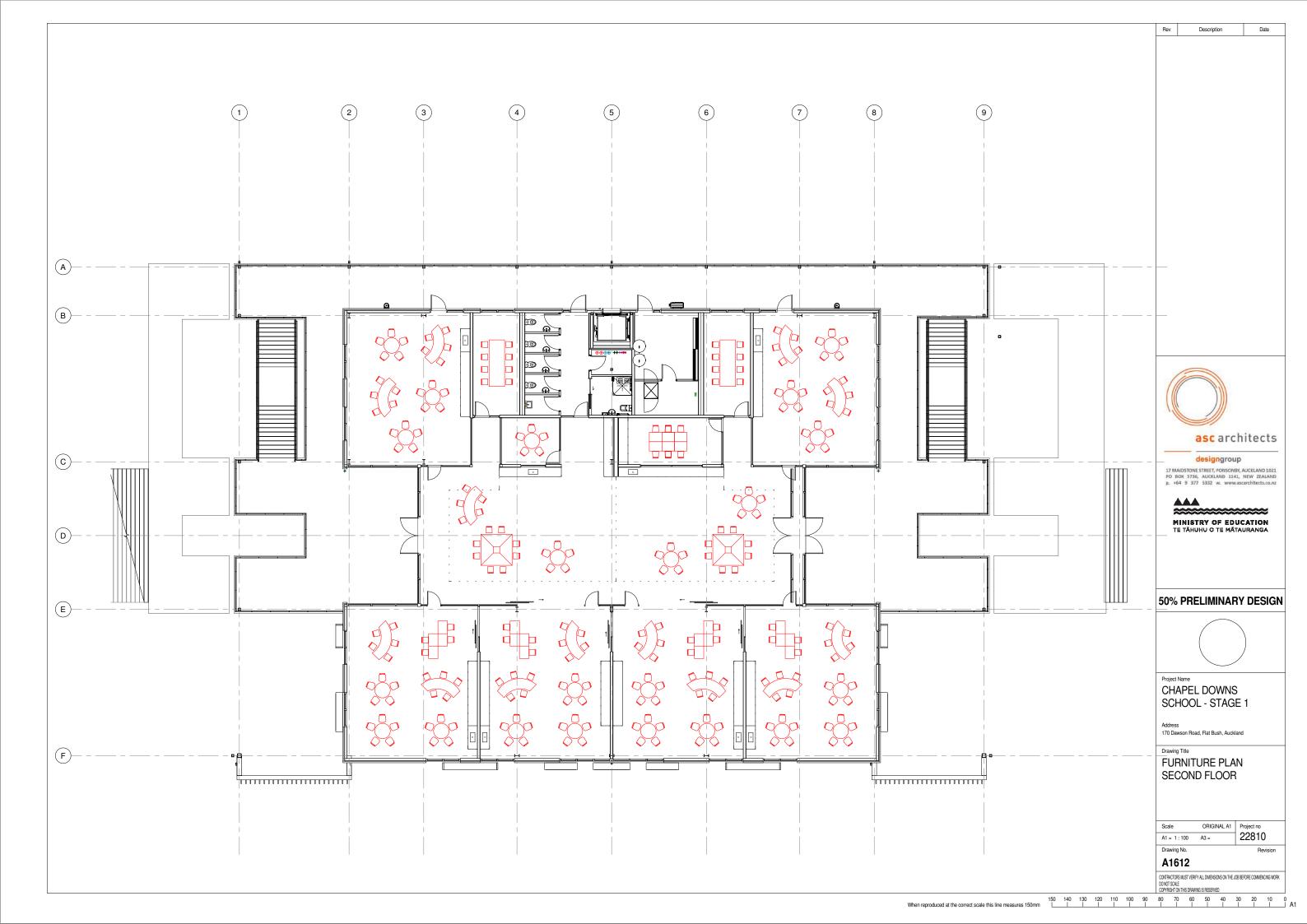
















EXTERIOR FINISHES COLOURS

Description

Rev

COLORCOTE MAGNAFLOW / MR8.

RO1 THREADBOW WHITE

RO3 ALSYNITE ULTRASAFE SPF 3660G/SQM TRANSLUCENT ROOFING - OPAL

Date

WALL CLADDING

BR1 CLADDING - BRICK VENEER CLADDING - MIDLAND BRICK HERITAGE RED DRICON BLACK COLORED MORTAR

TR1 TERRACOTTA RAINSCREEN FACADE PANEL

TR1 TERRACOTTA RAINSCREEN FACADE PANEL

COLORCOTE MAGNAFLOW. IRONSAND

COLORCOTE MAGNAFLOW.
THREADBOW WHITE

ALUMINIUM JOINERY

J1.A JOINERY – ALUMINIUM DOUBLE GLAZED WINDOW AND DOOR JOINERY SYSTEMS. DURATEC POWDERCOAT IRONSAND

ALUMINIUM LOUVRES. DURATEC POWDERCOAT COLOUR TO MATCH ALUMINIUM JOINERIES DURATEC MATT FLAX POD: IRONSAND

BL1
STEEL HOT DIP GALVANISED
BALUSTRADES, FACTORY APPLIED WET
SPRAY TO MATCH DURATEC DOLOUR:
IRONSAND



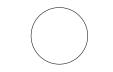
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Project Name

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170 Dawson Road, Flat Bush, Auckland

Drawing Title

EXTERIOR ELEVATIONS -PART 1

ORIGINAL A1 Project no Scale 22810

A2110

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