

Date 27/02/2020

Woods Bagot
Level 2, 60 Carrington Street
Sydney NSW

Job Number: 5645

For the attention of : - Chris Sava

Dear Chris,

Meadowbank Education and Employment Precinct Schools Project
Response to Agency Submissions

enstruct has reviewed the authority submissions regarding the SSD-9343 Meadowbank Education and Employment Precinct Schools Project.

The following letter outlines responses to the submissions with respect to flooding and civil engineering. In general, responses have been included in an updated Civil SSDA report, with chapter references given in the table below

DPIE	Department of Planning, Industry and Environment
D2	Provide an assessment of the use, operation, safety and maintenance of open spaces and sports fields within areas of the site subject to water flows. In addition, provide a statement on student safety and management when overland water flows occur on the site (from minor to major flow events).
	Response: Additional information has been added the Civil SSDA report, section 4.4 Flood Risk Management.
D4	Provide greater detail of the proposed swale that runs north/south through the site, including consideration of management and student safety.
	Response: Additional details are provided in the landscape documentation. Part of the swale are covered by a deck, giving a crossing location.
EES	Environment Energy and Science Group in the Department of Planning, Industry and Environment.
C1	The proposed school can be classed as a special uses' facility due to the vulnerability of its users (i.e. the students). Therefore, it is prudent to adequately address flood risk for the full range of flood up to the PMF, particularly risk to life. The Civil Report outlines the flood characteristics; however, it does not address the associated flood risk due to the exposure to flooding with these characteristics.

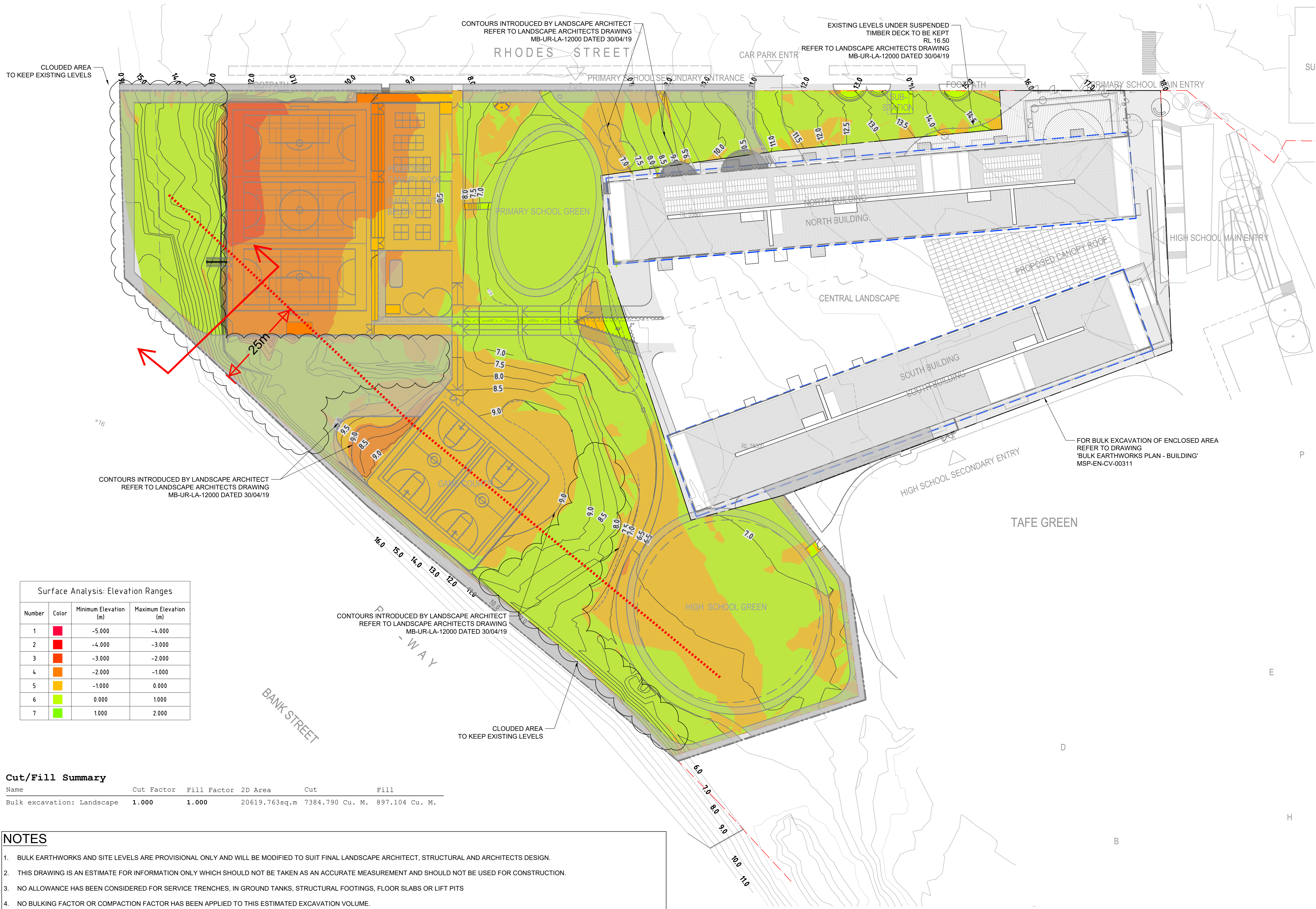
	Response: Flood risk has been addressed in the updated Civil SSDA report, section 4.4 Flood Risk Management.
C2	From a floodplain risk perspective, the flood assessment should address the following floodplain risk management aspects:
C2.1	whether the development will expose its potential users to an unacceptable level of flood risk due to exposure to flooding for the full range of flood;
C2.2	whether the development will increase the requirement for emergency services to plan and implement flood emergency management measures for future users of the development, particularly if the development is of a vulnerable nature, due to exposure to flooding for the full range of flood.
	Response: Refer to section 4.4 Flood Risk Management in the Civil SSDA report. In general, flood risk can be managed on site for all flood events, with a "shelter in place" policy in a PMF event. Immediate evacuation is not required.
C3	Prepare a detailed floodplain risk management assessment that addresses emergency response measures in consultation with the State Emergency Service (SES) to ensure risk to life is adequately addressed.
	Response: SES have been consulted as part of the design process. It is recommended that the SES is consulted during the preparation of a flood emergency response plan.
TfNSW	Transport for NSW
5.	Prior to the commencement of works, the Applicant shall provide certification from a qualified Geotechnical and Structural Engineers stating that the proposed works are to have no negative impact on the embankment, rail corridor and associated rail infrastructure. The provision of a cut and fill plan for all land within 25m of the rail corridor shall be provided as a minimum with the certification. If deemed by Sydney Trains that the works will or potentially have a negative impact, the Applicant shall provide the requested engineering documentation as advised by Sydney Trains for their endorsement.
	Response: Attached to this letter is a section showing the excavation within 25m of the rail corridor. The excavation is less than 2m.

Yours Sincerely,



for
enstruct group pty ltd

Tim Henderson
Senior Engineer



Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1		-5.000	-4.000
2		-4.000	-3.000
3		-3.000	-2.000
4		-2.000	-1.000
5		-1.000	0.000
6		0.000	1.000
7		1.000	2.000

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2D Area	Cut	Fill
Bulk excavation: Landscape	1.000	1.000	20619.763sq.m	7384.790 Cu. M.	897.104 Cu. M.

NOTES

- BULK EARTHWORKS AND SITE LEVELS ARE PROVISIONAL ONLY AND WILL BE MODIFIED TO SUIT FINAL LANDSCAPE ARCHITECT, STRUCTURAL AND ARCHITECTS DESIGN.
- THIS DRAWING IS AN ESTIMATE FOR INFORMATION ONLY WHICH SHOULD NOT BE TAKEN AS AN ACCURATE MEASUREMENT AND SHOULD NOT BE USED FOR CONSTRUCTION.
- NO ALLOWANCE HAS BEEN CONSIDERED FOR SERVICE TRENCHES, IN GROUND TANKS, STRUCTURAL FOOTINGS, FLOOR SLABS OR LIFT PITS
- NO BULKING FACTOR OR COMPACTION FACTOR HAS BEEN APPLIED TO THIS ESTIMATED EXCAVATION VOLUME.
- THIS ESTIMATE DOES NOT INCLUDE EXCAVATION FOR ANY BELOW GROUND SERVICES INCLUDING STORMWATER INFRASTRUCTURE.
- IT HAS BEEN ASSUMED THAT ALL EXCAVATED MATERIAL IS NOT CONTAMINATED AND CAN BE USED AS FILL MATERIAL ON SITE (NOT INCLUDING EXISTING PAVEMENT MATERIAL) BACKFILL VOLUME FOR BATTERS IS NOT PROVIDED NOR INCLUDED IN THE FINAL FILL VOLUME.
- BULK EARTHWORKS VOLUME DOES NOT INCLUDE MATERIAL REMOVED UNDER EXISTING SLABS ON GROUND AND CAR PARKS AND PAVEMENTS. THIS MATERIAL WILL BE DISPOSED OFF FROM THE SITE
- THE BULK EARTHWORKS PLAN HAS BEEN ONLY CONSIDERED FOR THE BULK EXCAVATION WORKS FOR THE PROPOSED BUILDING AND NOT DETAILED EARTHWORKS WHICH INCLUDES: LANDSCAPING, PAVEMENT, TRENCHING, LIFT PITS, BACKFILL BEHIND WALLS, ETC
- IT HAS BEEN ALLOW 300 mm OF EXCAVATION UNDER PROPOSED FINISH FLOOR LEVELS

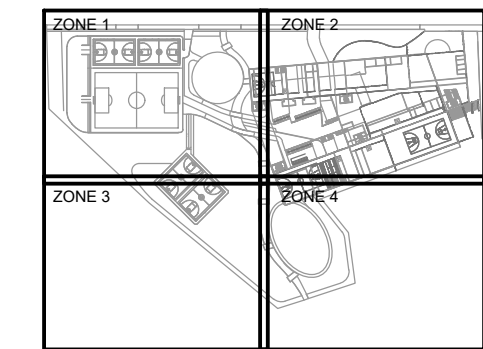
LEGEND

- SITE BOUNDARY
- DESIGN BULK LEVEL CONTOUR
- EXISTING LEVEL CONTOUR

Revision	Description	Date
01	ISSUE FOR INFORMATION	06/07/18
02	50% SD ISSUE	13/07/18
03	80% SD ISSUE	31/08/18
04	ISSUE FOR COSTING	25/03/18
05	SSDA ISSUE	15/05/19
06	DRAFT 90% SD	29/05/19
07	SD ISSUE	14/06/19
08	SD REISSUE	04/12/19

Notes & Legend
Refer to drawing CV-0002 for General Notes
These drawings are intended to be read in colour.
Do not scale drawings. Written dimensions govern
All dimensions are in millimeters unless noted otherwise
This drawing to be read in conjunction with all relevant contracts, specifications, reports and drawings.

KEY PLAN



KEY PLAN IS NOT TO SCALE

HDC & Architectural
WOODS BAGOT

Structural & Civil Engineering
ENSTRUCT

Mechanical Engineering & ESD/Energy Modelling
STEENSEN VARMING

Electrical Engineering
WSP

Hydraulic & Fire Engineering
WARREN SMITH & PARTNERS

Landscape & Heritage
URBIS

Project
MEADOWBANK SCHOOLS
PROJECT

Client



Project number 5645	Size check 25mm
Checked MM	Approved PR
Sheet size A1	Scale 1:500

Sheet title

BULK EARTHWORKS PLAN -
SITE

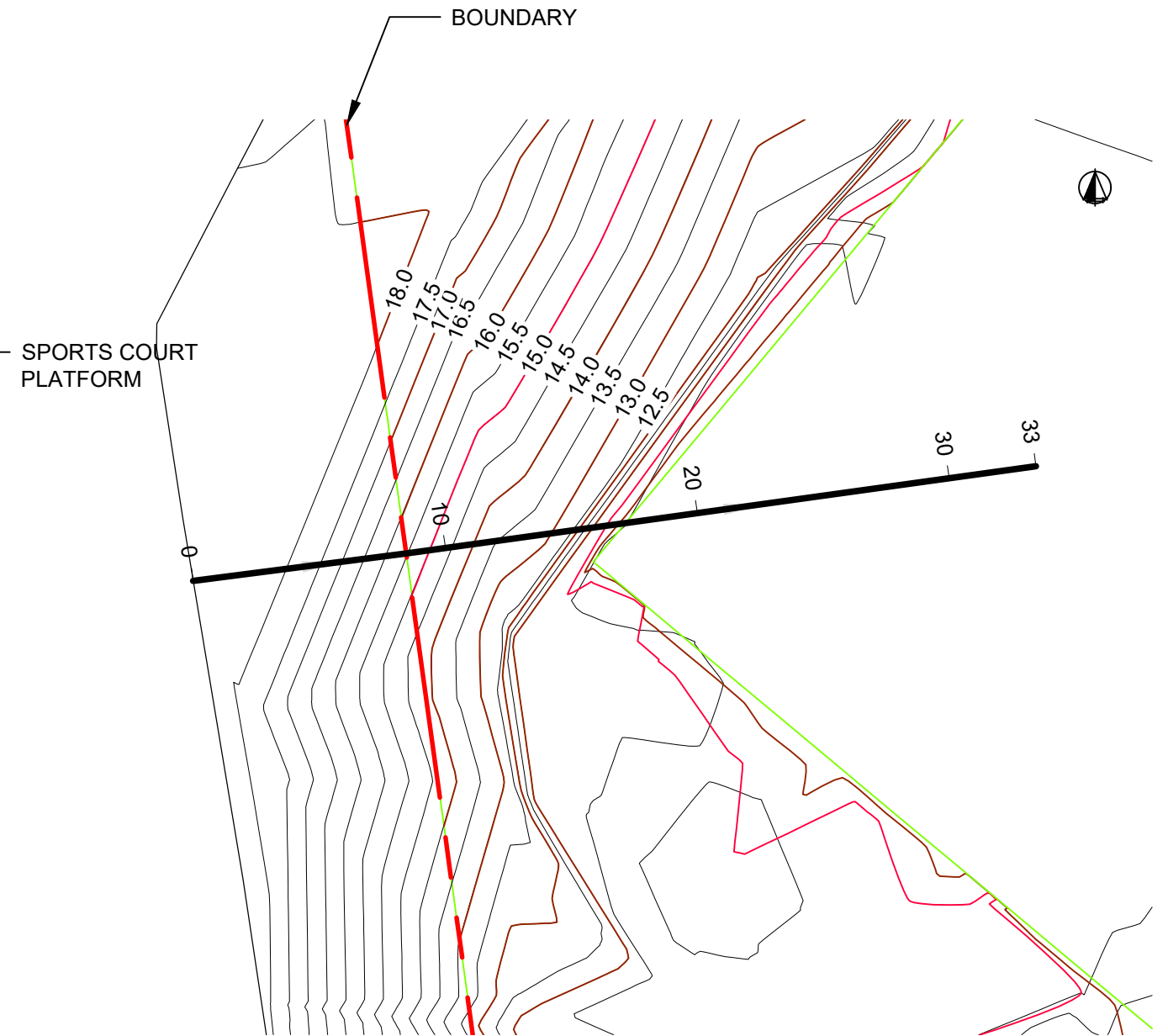
Sheet number MSP-EN-CV-00301	Revision 08
Status	FOR INFORMATION ONLY

NOT FOR CONSTRUCTION



SECTION

SCALE 1:250



SITE PLAN

SCALE 1:250

enstruct		
Status	FOR INFORMATION	
Job Title	MEADOWBANK SCHOOL	
Drawing Title	SECTION	
Scale	1:250 @ A3	
Drawn	JF	Date 24/01/2020
Job No.	5645	Checked TH
	Drawing No. SK-C-001	Rev 001