

Project No. & Name:	10961-Xaverian College, Science Block Project, Manchester	Prepared by:	Revision:	Date:
		LoG	P1	FEB'23

Outline Brief:

Construction on new 3-storey steel framed building on footprint of the existing Sudbury Building following its demolition. Building to be used as a classroom and teaching facility.

Ref	Work Element	Significant Hazard	Control Measures / Action by Designer	Action By Others
1.0	Site Wide Elements			
1.1	Site access and egress. Interaction with Contractors' vehicles or plant with public vehicles or pedestrians.	The site is within the grounds of a live college campus, adjacent to current main entrance for both students and vehicles. The site is adjacent to a residential area and narrow residential streets. Busy road, collisions at site entrance. Most areas of the school will remain fully functional during construction.	Highlight risk. Highlight risk.	Contractor to consider safe routes around the site and produce all necessary method statements. Contractor to designate circulation spaces on site for school occupants and deliveries / collection. Separation zones to be clearly defined. All deliveries and collections to be made at agreed times and controlled on site by Contractor.
2.0	Sub Structure			
2.1	Excavations.	Buried live services.	Highlight risk.	Contractor to obtain all available information from stats and to carry out CAT scans prior to any excavations. Contractor to ensure that existing buried services are demarcated prior to carrying out excavations.

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2.2	Excavation works for foundations and drainage.	Existing unidentified obstructions, foundations, tanks and buried services.	Note to be included on drawings. Provide Earthworks Specification.	Contractor to develop safe method of working with existing structures and proceed with caution at all times. Any existing foundation/relic structures within 2m radius (vertically and horizontally) to the proposed foundations to be removed. Holes to be filled with suitable material and compacted in accordance with WML Earthworks specifications.
2.3	Excavations – General.	Predominant ground conditions close to surface are generally made ground. Risk of encountering localised soft spots and contamination hot spots.	Highlight risk.	Contractor to review ground investigation reports prior to undertaking excavations. If contamination is encountered then this should be dealt with in an appropriate manner in accordance with current legislation.
2.4	Excavations around existing structures	Excavation works may cause existing structures to become unstable.	Excavations close to existing structures to be kept to a minimum. Where necessary notes regarding safe method of construction to be included on drawings.	Contractor to adhere to safe method of construction when working close to existing structures.
2.5	Trafficking over and Excavations around existing buried structures	Traffic and Excavation works may cause existing structures to become unstable.	Protective over slabs to be provided for defined shallow service runs which could be utilised as segregated cross site traffic routes.	Contractor to adhere to safe method of construction when working close to existing structures.

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2.6	Excavation works near existing trees and their roots	Collapse of the tree/ damage to the tree	Design foundation to minimise the risk. Highlight risk	Contractor to review the arboriculturist report. If necessary, appoint a arboriculturist for advice.
2.7	Earthworks.	Moving materials around site and carting away from site (large volume to store and dispose of).	Set ground level at most appropriate to suit existing levels and minimise off site disposal and significant import of materials.	Contractor to agree with Client on site areas where excavated material can be temporarily stockpiled for reuse. Vehicle movements to be appropriately managed.
2.8	General Earthworks and Excavation works.	Possible exposure to asbestos within the ground.	Ground investigation to be undertaken post demolition of existing Sudbury building prior the construction works, including soil lab testing for presents of ACM. If SI confirms presents of asbestos on site alert contractor to risk and highlight the risk on drawings.	Develop safe method of working in line with HSE document L143, 2nd edition 'Managing and Working with Asbestos'.
3.0	Superstructure			
3.1	Superstructure - Permanent stability.	Risk of collapse.	The new building is stabilised in North-South direction and East-West direction by bracing system -roof bracing or roof stressed skin design distributes horizontal forces to vertical bracing systems.	Contractor to ensure that adequate temporary stability systems are utilised until all of the permanent stability elements are installed.
3.2	Superstructure - Temporary stability.	Stability of steel frame during construction.	Highlight risk.	Contractor to determine any locations of temporary bracing necessary to stabilise the frame until the permanent bracing has been fully installed.
3.3	Superstructure (i) Steel Frame.	Stability during construction.	Drawing to show permanent bracing. Specification to state	Erection to commence at braced bays. Steelwork Contractor to produce erection method

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			Contractor responsibility for temporary bracing design.	statement identifying the location of any temporary bracing that may be utilised to install the frame.
3.4	(ii) Erection.	Working at height and falling materials. Craneage – instability due to unstable working platform. Lifting steel elements into position – falling object. Installing freestanding columns prior to tying into braced bays.	Highlight risk. Review and provide comment on the design for the working platform, as prepared by specialist Contractor. Highlight risk. Baseplates and holding down bolts have been designed to withstand the moments and shears developed during this temporary case during construction.	Contractor to assess health and safety measures to ensure protection and access for operations and public. Utilise powered access platforms, scissor lifts etc. where possible. Remove or compact soft ground. Ensure that an adequate layer of compacted stone fill placed as crane working platform. Steelwork Contractor to consider the installation of lifting points as part of the beam fabrication. Contractor to ensure that any freestanding columns are taken down during strong wind conditions.
3.5	Fixing cladding and roof sheeting.	Working at height.	Highlight risk.	Provide leading edge protection, safety nets, etc. Avoid fixing sheets in high winds. Limit concentrated load on roof purlins. Do not stack sheets

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		Overloading of elements by packs of roof sheeting for example. Risk of collapse.	Ensure that the load capacity of the elements is noted on drawings.	against purlin cleats which may collapse. Avoid any overloading.
3.7	Roof construction.	High level working temporary access.	Highlight risk.	Contractor to assess health and safety measures to ensure protection and access for operatives.
4.0	External Works			
4.1	Refer to 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 and 2.8.			
5.0	End User Elements			
5.1	Painting internal steelwork.	Falls from height.	Specify long life paint systems to be applied in the workshop and during construction on site.	
5.2	Use of building.	Overloading of floors/roof due to changes of use.	Floor and roof design load allowances to be noted on drawings.	User to adhere to load allowances when planning the use of the building.

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