

Estates Operations Division

Construction Health, Safety and Environment Code of Practice 2019

Revisions 2019

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1. Introduction

The Estates Operations has produced the Construction Health, Safety and Environment Code of Practice (CoP) to ensure that all construction works comply with the Imperial College London 2016 Health and Safety and Environmental policy. The policy statement can be accessed via the address below:

<http://www.imperial.ac.uk/safety/safety-by-topic/safety-management/health-and-safety-policy-statement/>

The College Health and Safety policy statement states; *“Imperial College London is committed to pursuing excellence in everything it does and this includes the management of health and safety”*.

It is the intention of the Estates Operations to provide safe and healthy working conditions for staff and to take all reasonably practicable steps to ensure such conditions are achieved and maintained. In addition we will seek to ensure that our work activities do not adversely affect the health and safety of anyone who may be affected by our work, such as staff, students, visitors, members of the public and contractors and have no adverse effect on the environment.

The Estates Operations is a division within the Operations Group part of the College Support Services and this Code of Practice complies with the Operations Group Health and Safety Code of Practice dated May 2016.

The purpose of this CoP is to set out the management arrangements that the Estates Operations has in place to enable it to implement College policy and procedures and comply with Health, Safety and Environmental Regulations.

This document should be read and understood by every staff member of the Estates Operations and all parties who undertake work for the division.

This Code of Practice 2019 is organised in the same chronological sequence that a project would develop;

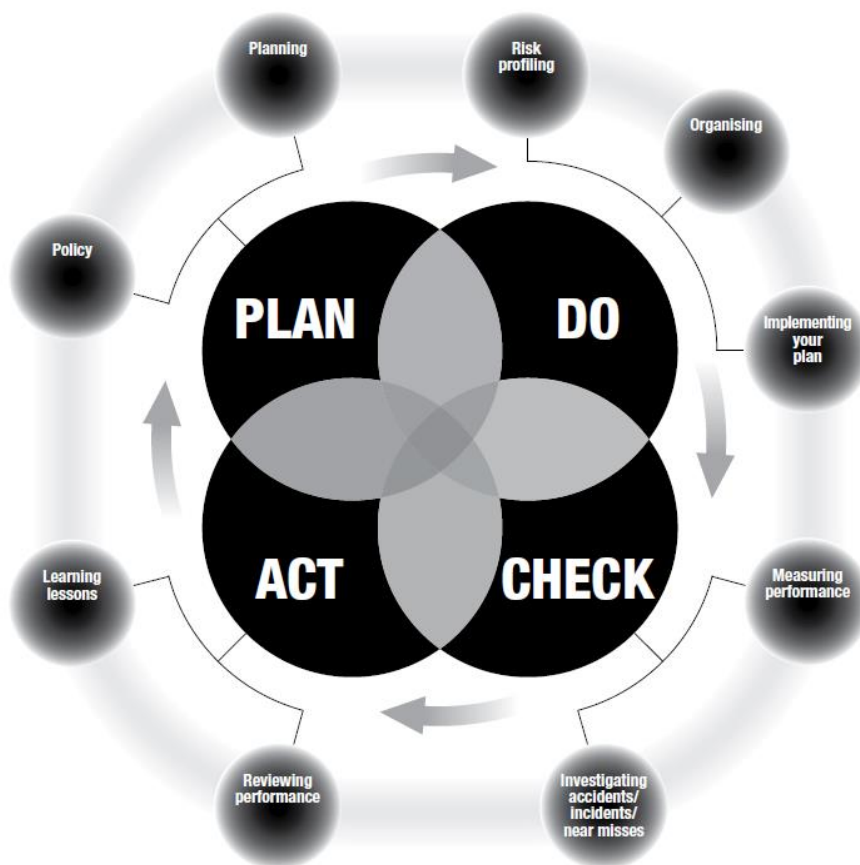
Policy
Design
Survey
Pre-Construction
Construction Works
Post Construction

2. Policy

The College, being a highly complex organisation operating across many campuses and offering a diverse range of services, presents a particular challenge when it comes to managing health, safety and environment.

The College has implemented a safety management system which is predicated on the Health and Safety Executive's publication 'Managing for health and safety' (HSG65). The illustration below identifies the component parts of the management system which organisations can use to benchmark themselves against in terms of health, safety and environmental management.

Figure 1 The Plan, Do, Check, Act cycle



The following provides a brief description of the elements which make up the health, safety and environmental management model:

Plan

- Think about where your organisation is now and where you need to be.
- Determine what you want to achieve, who will be responsible for what, how you will achieve your aims, and how you will measure your success.
- Decide how you will measure performance and look for leading indicators as well as lagging indicators.
- Co-operate with anyone who shares your workplace and co-ordinate plans with them.

- Plan for changes and identify any specific legal requirements that apply to you.

Do

- Identify your risk profile
- Assess the risks, identify what could cause harm in the workplace, who it could harm and how, and what you will do to manage the risk.
- Decide what the priorities are and identify the biggest risks.
- Organise your activities to deliver your plan
- Involve workers and communicate, so that everyone is clear on what is needed and can discuss issues – develop positive attitudes and behaviours.
- Provide adequate resources, including competent advice where needed.
- Decide on the preventive and protective measures needed and put them in place.
- Supervise to make sure that arrangements are followed

Check

- Measure your performance and make sure that your plan has been implemented – ‘paperwork’ on its own is not a good performance measure.
- Assess how well the risks are being controlled and if you are achieving your aims.
- Investigate the causes of accidents, incidents or near misses

Act

- Review your performance
- Learn from accidents and incidents, ill-health data, errors and relevant experience, including from other organisations.
- Revisit plans, policy documents and risk assessments to see if they need updating.
- Take action on lessons learned, including from audit and inspection reports

Underpinning the College policy is UK legislation and the College recognises the statutory duties and obligations imposed upon it by the:

- Health & Safety at Work etc Act 1974
- Management of Health & Safety at Work Regulations 1999
- Construction (Design and Management) Regulations 2015

The Policy and Legislation referred to above apply to all individuals and companies who carry out ‘construction work’ for, or on behalf of, Imperial College London. Construction work includes the undertaking of non-intrusive and intrusive survey work.

It is the Contractors’ responsibility to notify the College’s representative of any potential hazards associated with their activities during the works. Contractors must take all reasonable precautions to ensure the health and safety of all those persons under their control and to adequately safeguard members of staff, students and the general public.

3. Construction (Design and Management) Regulations 2015

The College is committed to the HSE’s aims and objectives in the implementation of the Construction (Design and Management) Regulations 2015, which are to integrate

health and safety into the management of the project and to encourage everyone involved to work together to:

- Improve the planning and management of projects from the very start.
- Identify hazards early on, so they can be eliminated, or reduced at design, or planning stage and to identify the control measures required to manage residual risks.
- Target effort where it can do most good in terms of health and safety and
- Discourage unnecessary bureaucracy.

Imperial College London, as Client, will conform to the new Regulations in accordance with the information contained within the HSE's guidance document L153 "Managing Health and Safety in Construction".

Planning and managing for safety in construction is also subject to the provisions contained within the Management of Health and Safety at Work Regulations 1999.

A copy of the CDM Regulations 2015, including all associated guidance, can be downloaded free from:

<http://www.hse.gov.uk/construction/cdm/2015/index.htm>

The Management of Health and Safety at Work Regulations 1999 can be downloaded free from:

<http://www.legislation.gov.uk/ukxi/1999/3242/contents/made>

All construction work undertaken for Imperial College London is subject to the appropriate Regulations and College policy and the standards to be adopted should be considered as best practice.

As Client, Imperial College London will provide surveyors, designers and contractors, with pre-construction information, in accordance with Regulation 4(4) of CDM 2015. The information will conform, in general terms, with that outlined in Appendix 2 in the HSE's document L153.

Principal Designer and Principal Contractor – Regulation 5 – CDM 2015

Where there is more than one contractor, or if it is reasonably foreseeable that more than one contractor will be working on the project at any time, Imperial College London, as Client, will appoint in writing:

- a) a designer with control over the pre-construction phase as Principal Designer (PD) and
- b) a contractor as Principal Contractor (PC).

The PD should ideally be a designer by profession, be a member of the design team and have "control" over the design, during the pre-construction phase of the project. The PD should ideally be appointed at Stage 1 - Feasibility.

However, the Regulations define a Designer as, “an individual, or organisation, that prepares, or modifies a design for a construction project, including the design of temporary works, or arranges for, or instructs someone else to do so”.

This definition opens the role to permit those who are not designers by profession, to be appointed as PD. Individuals such as members of the Client’s organisation. It may be decided that on small projects, Imperial College London will be the PC. This is acceptable and legitimate, provided the Project Managers involve the Estates Operations Safety Team.

External Project Managers and Quantity Surveyors may also undertake this role, provided they have the necessary skills, knowledge and experience to perform all of the functions this role entails.

Where appropriate, on design and build type contracts, Imperial College London will appoint the PC to undertake the functions of the PD.

The PD will be expected to establish and maintain communications with the Estates Operations Safety Team and keep them fully updated on the progress of identifying and dealing with significant risks during the design phases. To this end, the PD will submit a monthly progress report to the Client’s Project Manager, with a copy to the Head of Health and Safety.

The Principal Contractor appointed, must possess the skills, knowledge, experience and the organisational capability, to undertake the works for which they tender. They must also demonstrate that the personnel they employ to manage the construction work, possess similar characteristics and meet industry standards for training.

Please refer to section 5.1 below, for more information.

Notifiable Projects

Projects that are “Notifiable” to the HSE under CDM 2015 are defined as follows:

- a) where construction work is likely to take more than 30 days and involve more than 20 persons working on site simultaneously, at any time, or
- b) likely to exceed 500 person days.

Where a project is deemed to be subject to the above criteria, Imperial College London will notify the Health & Safety Executive as soon as is practicable, but in any case, before the construction work commences on site.

Estates Operations has developed an F10 Notification Template and a copy may be accessed via the web-link below:

<http://www.imperial.ac.uk/media/imperial-college/administration-and-support-services/estates-projects/public/resources/forms/f03cdmnotification.doc>

<http://www.imperial.ac.uk/media/imperial-college/administration-and-support-services/estates-projects/public/resources/forms/csm09f10notification.docx>

The Project Manager and/or the Principal Designer should complete the template and forward it to the Head of Health & Safety, who will use the information to complete the HSE on-line F10 Notification process.

4. Surveys

4.1 Asbestos

Asbestos containing materials (ACM) are present throughout many of the College's properties, especially those built in the 1960s. The College employs an Asbestos Management Team who have developed and maintain an Asbestos Register for all College buildings. The Asbestos Management Team is also employed to undertake surveys that assist the College to meet its legal obligations, under the Control of Asbestos Regulations 2012.

Contractors, consultants and anyone undertaking survey work on behalf of the College will be issued with appropriate information and advice regarding the location of ACM and any control measures required to be in place, prior to commencing any construction related work on site.

Designers and contractors undertaking pre-construction survey and/or enabling works, will be provided with the appropriate and project specific information on ACM, as part of their College induction.

Under no circumstances will any survey works be permitted, or any construction activities whatsoever, until the individuals employed have been adequately inducted and made fully aware of the locations and condition of any ACM located in the areas they need to access and survey.

The Project Manager will submit a request for an "initial asbestos survey report" through the Estates Operations Customer Service Centre (email at eo.csc@imperial.ac.uk) The request must be accompanied by a College issued floor plan, marked to indicate the extent of the survey information required.

All personnel working on site, including site-based managers and supervisors, must attend a suitable Asbestos Awareness training course. The Principal, or Main Contractor, must maintain a record of this training on site, for the Client's inspection.

Contractors may undertake this training in-house, using the appropriate training material and information and issue certification as proof of attendance.

The College organises a number of asbestos awareness training sessions at various campuses throughout the year and approved contractors' managers and supervisors currently working on projects, are expected to attend. This short training session is free of charge. The dates and joining instructions for asbestos awareness courses, will be advised by the Client.

Where possible, all concerns about asbestos should be dealt with, in the first instance, by reporting to the contractor's Site Manager and/or Supervisor.

Where suspected asbestos is located, the area should be closed off and monitored, to ensure no one enters the space until an inspection is undertaken by Adams Environmental and the area is deemed safe to enter.

4.2 Decontamination Certificates

Due to the nature of the teaching and research work undertaken at the College, Decontamination Certificates for Areas and Equipment will be issued to the contractor prior to works commencing on site. The decontamination process is particularly important to pursue for areas formerly used as laboratories, research activity, or any spaces where hazardous materials may have been used or stored.

Individuals (including consultants and engineers) undertaking survey work must be made aware of these matters and properly inducted by an appropriate member of College staff prior to entering any space where hazardous materials are/were being used or are/were stored. In some instances, it may be necessary for the Department to issue a decontamination certificate.

It is the responsibility of the College Project Manager to discuss and agree these matters with the Departmental Safety Advisor and/or the appropriate member of staff employed by the College Safety Department.

All decontamination certificates should be issued by the Building Manager, who is ultimately responsible for the space.

4.3 External Works

External works must be agreed in advance with the Director of Estates Operations, who will authorise car parking suspensions, road closures and the location of construction related plant, equipment and accommodation. Any proposed works on the South Kensington Campus should also be presented to the Campus Coordination Meeting chaired by the Director of Estates Operations.

Any underground work including excavations, boreholes, trenching or new cables requires a permit to work to be in place before the work can start. This can be obtained from the Estates Operations website at:

<http://www.imperial.ac.uk/estates-facilities/contractors/permit-to-work/>

The contractor must ensure that all available information is obtained regarding the type and location of existing underground services, obstacles and tunnels.

Contractors should be aware that the South Kensington Campus has a series of underground service tunnels that feed the buildings and impact potential loading capacities of the road surface. This may affect, for example, the location of a crane lift site.

Please refer to Section 6.10 Crane Lifting Operations.

5. Pre-Construction

5.1 Contractor's Competence

Estates Operations requires all contractors to be registered with the Construction-Line and comply with the SSIP process, which ensures contractors organisations are provided with a single set of criteria, for the evaluation of the appropriate levels of skill, knowledge and experience, for the work for which they are tendering.

Additionally, the following qualifications are required for individuals:

- Site Managers must have a valid 5 Day CITB 'Site Managers Safety Training Scheme (SMSTS) Certificate' or equivalent
- Site Supervisors must have a valid 2 Day CITB 'Site Supervisors Safety Training Scheme (SSSTS) Certificate' or equivalent
- All site personnel must be in possession of a valid Construction Skills Certification Scheme (CSCS) card and have it available for inspection prior to entering a construction site.
- Fire Protection Association (FPA) Hot Works Passport Scheme. Individuals responsible for managing hot works permits on site, must be suitably trained and be in possession of a valid and current FPA Hot Works Passport.
- All site managers and supervisors must attend and complete, an industry recognised environmental awareness training Scheme. Examples of acceptable training would include:
 - Site Environmental Awareness Training Scheme-CITB accredited
 - Environmental Good Practice on Site-Recommended by the Construction Industry Research and Information Association (CIRIA) and approved by the Institute of Environmental Management and Assessment (IEMA)
 - Environmental Awareness at Work-NEBOSH accredited.

N.B. Copies of relevant certification should be available on site for the Client's inspection.

5.2 Client's Safety Inductions

During the design and surveying stages of a project Consultants and Contractors must complete the College 'Day 1' safety induction. This requires watching a 20 minute video online at <https://www.imperial.ac.uk/estates-facilities/contractors/> and completing a multiple choice questionnaire.

Subsequently, during the construction phase of the works, contractors are to incorporate the College Day 1 induction into their site induction process ensuring all personnel on site have viewed the DVD.

Prior to works commencing on site, a representative from Estates Operations will chair a Safety Induction meeting which must be attended by all Contractors supervising personnel. Subsequent induction training for operatives and visitors is the responsibility of the Principal or Main Contractor who is expected to maintain a Register of Inductions on site, for inspection by the Client's Representative.

5.3 Building Services Surveys and Isolations

Services on College premises must not be interrupted without the permission of the College representative. The Project Manager will arrange a 'Site Handover' meeting, prior to works commencing on site to establish liaison with the building maintenance team and to identify, as far as possible, existing live services within the works area. This meeting will also identify the location of essential controls such as valves and distribution boards and agree procedures for isolation.

The contractor should use this opportunity to discuss and agree his requirements for onsite services, including any three phase supplies anticipated.

A programme of services shutdowns, to allow Estates Operations sufficient time to re-route services and/or provide temporary supplies, must be agreed with the maintenance team.

The Project Manager must apply for all services isolations and reconnections, through the Estates Operations Customer Services Centre fm.csc@imperial.ac.uk, ensuring adequate time is allocated for maintenance team resources, to complete these tasks and meet the project programme.

Contractors must retest all electrical cables on site, prior to cutting and/or removal and visually check that all other services have been properly isolated, as part of their health and safety responsibilities.

5.4 Method Statement and Risk Assessment

Construction work at Imperial College London is complex and consequently the College has imposed conditions appropriate to the nature of the environment, for example working in laboratories and in occupied buildings.

Prior to starting work on a site Contractors must agree with the College's representative how best to carry out the works in order to:

- minimise the inconvenience caused to the Department(s)
- manage the health, safety and environmental aspects of the work
- safe-guard students, members of staff, visitors and project personnel.

It is the Contractor's responsibility to notify the College representative of hazards associated with their activities, which may have the potential to cause disruption to the College's core business activities.

A comprehensive Construction Phase Health and Safety Plan outlining the Contractor's management approach, must be produced by the Contractor and agreed with the College Representative, prior to the works commencing on site. This information must include details of the welfare facilities which must be in place and maintained throughout the works.

The Plan must also set out the contractor's proposals for managing and controlling the prevention of fire during the construction period and the actions to be taken in the event of a fire on site, or an evacuation of the building for any reason.

6. Construction Works

6.1 General Information

The minimum requirement for Personnel Protective Equipment (PPE) working on construction sites is:

- Full length trousers (no shorts)
- A T-shirt or shirt with sleeves
- A high visibility vest or jacket
- Suitable head protection
- Suitable foot protection

- Suitable gloves

These requirements apply to all site operatives, supervisors, managerial staff and visitors. These rules generally do not apply within the site administration or welfare areas.

In all cases the hi visibility vests or jackets must display the Principal or Main Contractor's name and must be worn at all times during working hours when moving around the campus.

Additionally, high visibility vests or jackets may be required to note the project name, project code and/or location. Should this be a Client requirement, this instruction will be specifically included in the tender documents.

Working hour restrictions are detailed in the tender documents for individual projects and these must be adhered to.

The use of radios or personal stereos is not permitted within the work area or inside any of the College buildings.

Working at the College imposes numerous restrictions on Contractors due to the nature of the environment, e.g. working in laboratories and, in most cases; the work is being carried out in occupied buildings. For example: Nitrogen Gas may be transported in pressurised vessels using the building's lifts. When this occurs it is forbidden for persons to use the lift at the same time and the contractor's safety induction information needs to include the protocol for managing this hazardous activity.

Contractors must, in all cases, agree in advance with the College's representative how best to carry out the works in order to:

- a) minimise the inconvenience caused to the Departments and
- b) manage the health, safety and environmental aspects of the work by, for example, erecting barriers and signage, using noise reducing barriers and systems and employing suitable dust mitigation measures, in order to safeguard persons working on the project, College employees and visitors and to protect the environment.

6.2 Safety Health Environment Leadership Team (SHELT)

To drive positive changes to construction safety culture, the Client initiated the creation of a SHELT forum in 2014, where the Client and the contractors could meet and discuss and agree, the practical means and processes that would need to be put in place, to deliver the safety culture vision.

It was agreed in principle to adopt the safety management philosophy used during the construction of the Olympic Park. It was also agreed to adopt the principles contained within the following legacy documents provided via the HSE's website:

- "Pre-conditioning for success" – document reference RR955
- "Leadership and worker involvement on the Olympic Park" – document reference RR896 and;
- "Safety culture on the Olympic Park" – document reference RR942.

These three documents were enshrined in the agreed Terms of Reference for SHELT that all the attending organisation's directors signed up to.

SHELT has produced and agreed the following policies and procedures that will apply to all contractors applying for, or undertaking construction work for, Imperial College London:

- An occupational health scheme to be available for all employees and self-employed individuals who regularly undertake work for a Principal Contractor.
- All supply chain members involved in delivering construction work on site, to have access to an occupational health scheme.
- Behavioural Safety Training to be available for all employees and supply chain partners.
- Daily Activity Briefings (DABs) to be delivered by supervisors, prior to any works commencing on site.
- DABs to be used by supervisors as an opportunity to discuss and agree the RAMS for the various tasks and to engage with the workforce and encourage participation in site safety matters.
- All supervisors to undertake communications training.
- Communications training is to assist supervisors confidently deliver the safety messages and engage with the workforce, encouraging their participation in site safety matters.
- Operatives should be encouraged to stop work and seek assistance from their supervisor, if they believe that they, or others, are being put at risk.
- Contractors should develop a “fair blame” culture, taking into consideration the potential for Human Error. However, deliberate flouting of site rules must have consequences that all site staff and operatives have agreed to and discussed, at the Principal Contractor’s site induction.
- Policies on noise, dust, vibration and manual handling, are available on the attached web-link:
- <http://www.imperial.ac.uk/estates-projects/about-us/health-and-safety/>

NB: SHELT meetings are to be re-established from October 2019. There will be four meetings each year, with contractor’s attendees including Operations Directors and Senior Safety personnel.

6.3 Fire and Emergency Procedures

At all times consultants and contractors must be aware of building specific fire and emergency evacuation procedures. This includes how the system works, the emergency evacuation procedures and the location of the “Muster Point”.

Prior to works commencing on site the Principal Contractor must agree a Fire Management Plan with the College Senior Fire Officer, which must be implemented during the works.

The Fire Management Plan should ensure that:

- Sufficient fire-fighting appliances are available throughout the works area and that everyone is conversant with their use.
- Firefighting appliances are annually tested.

- An attendance register for all operatives, staff and visitors is maintained on site and should be used to confirm all operatives and visitors have left the site/building.
- All fire escape routes are kept clear of materials and trailing leads, have adequate lighting and are well signposted throughout the site.
- All temporary fire escape routes, or diversions, adequately address the needs of the disabled.
- Sufficient temporary fire alarm call points or Klaxons are available, where appropriate.
- Flammable and combustible waste materials are kept to a minimum on site, with packaging removed at the end of each shift.
- Penetrations through fire compartment walls, floors and ceilings are filled with a suitable fire stopping material overnight.
- Gas bottles must be removed from buildings and stored overnight in a suitable locked cage, external to the building.

For incidents requiring assistance of the Emergency Services dial 4444 from an internal telephone or +44 (0)20 7589 1000 from an external telephone. Both numbers will connect directly to the College's Emergency Response Team who will ensure the Emergency Services are directed to where they are needed. Please provide the operator with your name, the company name, your location and details of the assistance you require.

Details of the emergency procedures should be adequately displayed around the site and welfare areas.

6.4 First Aid Information and Arrangements

Contractors shall provide the Client with names of at least one operative who holds a current First Aid certificate. A first aid box must be provided by the Contractor and kept adequately stocked

All College Security personnel and a number of the department's personnel are trained to administer first aid. Anyone requiring assistance should contact Security or the nearest First Aid trained individual within the building. All Security personnel will respond to calls for assistance and additionally are trained to use defibrillation equipment

For accidents requiring assistance of the Emergency Services see Section 6.3.

6.5 Use of College Facilities

Contractor's staff and operatives are not permitted to use any College catering facility that is reserved for the exclusive use of College staff and/or students e.g. the Junior Common Room; the Senior Common Room; or the Queens Tower Rooms in the Sheffield Building. These are for the exclusive use of College students and staff. The Imperial College Union outlets on the Level 2 walkway are available for the purchase of goods, but all food and drink must be consumed in the welfare facilities that have specifically been designated for the project.

On the South Kensington Campus, contractors are not permitted to use specific public areas on the campus during break times. Contractors must not use the Queens Lawn,

the open area of the walkway or any part of Dalby Court decked area surrounded by the Faculty, Mechanical Engineering, Bessemer and Electrical Engineering buildings.

The use of facilities on other campuses should be agreed in advance with the Building Manager and noted within the pre-construction information schedule provided with the tender documents.

6.6 Welfare Facilities

On the South Kensington Campus, the College provides shared contractor welfare facilities which are located in modular buildings on Ayrton Road, between the Sherfield Building and the Royal College of Music and in the RSM Courtyard.

The facilities in Ayrton Road consist of:

- Canteen serving hot food - Ground Floor
- Drinking water font - situated externally and adjacent to the canteen
- Male and Female toilets are situated in a separate cabin - adjacent to the canteen facility.
- Changing room space (Male) - First Floor
- Changing room space (Female) - First Floor
- Office facilities – (First Floor)

The facilities available in the RSM Courtyard, consist of:

- Canteen facility where contractors can heat their own food and make tea and coffee.
- Changing room facilities - Ground Floor.
- NB: Contractors must provide their own lockers in the changing rooms and remove them at the end of the project.
- Generally - Contractors must ensure that a readily available source of drinking water is available, with the water source conspicuously marked with an appropriate sign and drinking vessels provided.
- Contractors are to advise their staff to use these facilities, to keep them clean and tidy and report any defects. Such information should be included within the contractor's site rules and induction processes.
- All welfare facilities must conform to CDM 2015 Schedule 2 requirements.

6.7 Smoking Policy

The [College Smoke Free Policy](#) can be found on the Human Resources web pages.

All Imperial campuses and properties are now smoke-free zones. This means that smoking by staff, contractors and students will not be permitted on, or within, 20 metres of College land.

On larger projects it may be possible to designate a smoking area which must be agreed in advance with the College Senior Fire Officer and written into the construction phase plan and site rules.

In line with National Health Service policy, smoking is not permitted anywhere on any medical campus.

6.8 Hot Works Permits

Contractors must comply with the College 'Fire Services Code of Practice' for Project Works and Contractors' which can be found at:

www.imperial.ac.uk/estatesfacilities/services/fire/cop/priorities

Permission is required from the College Fire Officer for operations that require the use of flame and spark sources, or the application of heat, such as for welding or burning.

Contractors are required to seek permission to undertake hot works from the College Chief Fire Officer. To assist this process, a 'Hot Works Notifications' pro-forma is available on the College Fire web site (link above) and must be completed and submitted to the Fire Officer, in advance of the works being undertaken.

N.B: Dust from construction activities has the potential to set off the fire alarm system and requires suitable control measures to be used. A permit for dusty works is required, as if it were hot works.

The above procedure gives agreement for Hot Works to be undertaken, enabling the contractor to issue his own company "Hot Works Permit".

The Principal Contractor is responsible for issuing hot works permits and managing all hot works on site. The College requires Contractors to demonstrate their competence to manage Hot Works undertaken by their staff, or those of a sub-contractor.

Please refer to item 5.1 above for training standards.

Welding activities – The HSE and the British Occupational Health Society (BOHS) have issued new guidance and a "PPE selector tool" on the precautions to be taken when welding different types of metal. The general guidance update is in response to medical advice that links welding fumes to cancers.

Please be aware of this guidance by using the links attached.

<http://www.hse.gov.uk/welding/index.htm>

<http://www.breathefreely.org.uk/wst/>

6.9 Other Permits to Work

The College uses an electronic permit to work (ePTW) system and one of these is required to be completed and submitted for any works that:

- Have a risk of creating an interruption to College business
- An intrinsic risk, for example, working on a roof without handrails
- Create a risk to the individual.

Examples where an ePTW will be required include electrical and mechanical work, chemical stores, radiation stores, certain categories of laboratory and access to various plant rooms, service risers, under floor services and roofs. Contractors must request a work permit online at:

www.imperial.ac.uk/estatesfacilities/reportrequest/onlineforms/permitwork

Roof Construction Works permit

Contractors must request and complete a permit, for any roof works that has the potential to damage the roof surface, or where existing service penetrations are being opened, new penetrations are required, or any other circumstances where the building will be at risk of water ingress.

The roof permit must be requested from the Client's Project Manager for the works and submitted with sufficient time for review and comment by the Client's Building Management team.

<http://www.imperial.ac.uk/estates-projects/resources/forms/>

6.10 Working in Tunnels

Any project work requiring access to any service tunnels, must comply with the Service Tunnel Code of Practice, which can be found online as noted below.

Additionally, works requiring access to the deep tunnels located under Exhibition Road and the Sir Alexander Fleming Building, must be agreed several weeks in advance with the Head of Maintenance and the appropriate Maintenance Manager. This is necessary as individuals may need harness training and the attendance by the specialist Service Tunnels Rescue Service contractor, who have been employed by Imperial College London, Estates Operations.

6.11 Security Issues

All personnel working at the College must obtain a security identity card and wear it at all times whilst on College property. This ID card is also used as a proximity card permitting access to specific areas of the College.

All contractors and those consultants/contractors undertaking survey work, must view the College's Day 1 Induction video and attend an induction by the Building and Maintenance Managers. For those Managers and Supervisors requiring ID cards, an additional induction is required from the Head of Health and Safety and/or the Construction Health and Safety Advisor for Estates Operations.

Those requiring ID cards, need to advise the College's Project Manager and provide the names of the individuals, the Client's project name and number, the locations requiring access and the start and finish dates for the individual's timescales on site.

ID cards will only be issued when this information is logged into the Security Office's system and the individuals present the ID Security office with a signed authorisation certificate issued at the additional induction meeting and signed by the Estates Operations Safety Team members noted below:

Denis Murphy d.murphy@imperial.ac.uk

Oluseyi Oduntan o.oduntan@imperial.ac.uk

Sangita Kerai s.kerai@imperial.ac.uk

External Scaffolding Security

External scaffolding must be fitted with a suitable scaffold alarm system connected and linked to the Security Control desk. The base of all external scaffolding must be enclosed and secured, to discourage unauthorized access. All external scaffolding must be fully enclosed in a suitable fire retardant Mono-flex or similar material.

External timber framed hoardings should be constructed to a minimum height of 2440mm and decorated in Imperial College London colours which are:

- Main plywood panels Trafalgar Blue (Dulux ref 36bb – BS 20D45) with a 125mm timber rail skirting top and bottom Dark Lilac (Dulux ref 17305, but has no BS or RAL number).

Contractors should advise their delivery company and their own in-house drivers that vehicles may be subject to random searches by College Security Staff, before entering or leaving the campus.

6.12 Crane Lifting Operations

The use of cranes on any Imperial College London campus, is subject to approval of the lifting plan in writing by the Project Manager and the Estates Operations Head of Health & Safety. Depending on the nature or complexity of the lift, the College may wish to appoint an independent Engineer to advise the Estates Operations and who will attend on the day of the crane lift, to ensure the agreed method statement/lifting plan is fully implemented.

Campus “Lifting Plans” have been developed for all campuses and are now available for information. Contractors should request a copy of the appropriate lifting plan for whichever campus the work is being undertaken, from the Client’s Project Manager.

<http://www.imperial.ac.uk/estates-projects/resources/guides-policies/>

6.13 Car Parking and Deliveries

All personnel are expected to use public transport to come to work at the South Kensington Campus and generally there is no free parking for suppliers. However, in certain circumstances car parking spaces can be made available to assist the project process. Specialist tasks that require vehicles to be close to the site of the work and contain specialist tools or equipment will be permitted to occupy car parking spaces for the duration of the tasks.

Contractors are strictly prohibited from parking on the pedestrian route adjacent to College buildings on Exhibition Road.

At South Kensington all car parking requests must be made by the Project Manager and approved by the campus Car Park Administration Manager. At other campuses car parking arrangements must be agreed in advance with the Project Manager.

Drivers must comply with the College’s traffic signage and speed restrictions. Contractors are advised to provide their delivery companies with a full, accurate delivery address and a name and contact telephone number. Leaving a name and contact telephone number with the gatehouse personnel will also help reduce the time

required for deliveries and assist with reducing traffic congestion throughout the campus.

6.14 Accident and Incident Reporting

Contractors must record and report all near miss incidents, first aid treatments, minor accidents and dangerous occurrences on College premises, as well as those dealt with under the 'Reporting of Injuries, Diseases and Dangerous Occurrences' Regulations (RIDDOR) 2013.

This information is to be provided to the Client's Project Manager, with copies to the Head of Health & Safety and Construction Health and Safety Advisor. This information will be used to collect statistics, in order to better inform decisions on safety management. All reported injury incidents and significant near misses will, after thorough investigation, be reported through the College wide SALUS system, by the Head of Health & Safety or the Construction Health and Safety Advisor.

Contractors are required to provide a monthly summary report to both individuals noted above, using the College's in-house pro-forma. The information required includes near misses, incidents, minor accidents, reportable accidents, the number of persons working on site and total person hours worked on the project in the reporting month.

In the event of an incident requiring the attendance of the emergency services, Contractor's must immediately advise the Estates Operations Head of Health and Safety and/or Construction Health and Safety Advisor, in order to facilitate a College investigation to be undertaken. If these individuals are not available, the issue must be escalated to the relevant Client Project Manager or, in their absence, to the Director of Estates Operations. The Principal Contractor must provide an interim written report to the Client's Project Manager (copied to the Head of Health and Safety and Construction Health and Safety Advisor) within 24 hours and a full detailed report within one week.

6.15 Working at Height

As recognised throughout the industry, there is a hierarchy of control that needs to be followed when selecting the right equipment for the task, for example:

- Fixed scaffold including guardrails
- MEWPS (including cherry pickers and scissor lifts)
- Mobile scaffold towers
- Podiums inherently stable in design
- Step ladders

The above hierarchy should be followed when selecting the equipment to be used whilst undertaking works at height and the information recorded in a suitable and sufficient risk assessment. If as a last resort a step ladder is the only viable alternative, a permit to work should be issued for short duration works only where 3 points of contact with the step ladder can be maintained at all times.

Any work at height equipment that is used should be erected or used by a competent and trained operative with training records checked before works commence.

Information and guidance about working at height on any College premise, is contained within the Estates Operations Group Working at Height Code of Practice April 2018 v1.4:

<https://www.imperial.ac.uk/media/imperial-college/administration-and-support-services/estates-facilities/public/health-and-safety/safety-guidance/Working-at-Height-CoP.pdf>

6.16 Considerate Constructors Scheme

Construction projects will be considered for registration with the Considerate Constructors' Scheme (CCS)

The decision to register will be the Client's decision and should be included in the tender documents.

Alternatively, the Client may instruct the Principal Contractor to register the project, after appointment.

Please refer to the attached link to CCS Registration

<https://www.ccscheme.org.uk/site-registration/site-registration-257/>

7. Environmental Policy

The College recognises the impact its activities have on the environment and is committed to environmental protection, as set out within its Environmental Policy.

(<http://www3.imperial.ac.uk/estatesfacilities/services/energy/environmentalpolicy>)

This commitment extends to construction and refurbishment work undertaken by the Estates Operations and/or the Estates Operations Divisions. Contractors aspiring to work with the Estates Operations, will be expected to demonstrate a similar ethos within their own organisation and will be expected to sign up to the Environmental Policy for Construction, as agreed with the Approved Contractors Group through the Safety Health and Environmental Leadership Team (SHELT). Principal and Main Contractors will be expected to provide evidence of practical and proactive management of environmental issues on College construction sites and to comply with the policy as outlined above and which may be revised from time to time.

<http://www.imperial.ac.uk/estates-projects/resources/>

7.1 Sustainable Construction

The concept of sustainable construction is generally in keeping with Imperial College London's Environmental requirements, as noted above.

Imperial College London is committed to reducing the impact of its construction activities on the local and global environment and its procurement policy is directed to purchasing goods and services from recognised sustainable sources.

All new-build and refurbishment projects will register with BREEAM, or other Imperial College London environmental/sustainability assessment criteria and strive to achieve an appropriate rating, ranging from Good to Excellent, as agreed with the Client.

Refurbishment Projects

During discussions around the Client's Brief, the projects team should give early consideration to the reuse of existing plant, equipment, fittings, fixtures and finishes within the spaces to be refurbished. These discussions should include the Estates Operations Building and Maintenance Managers and the Soft Services Manager.

New Build Projects

On new build projects the concept of sustainable construction must be considered as part of the Client brief. This should include for example, opportunities to employ off-site manufacturing processes and "modular construction", both are known to reduce the risks to operatives during the construction period and to reduce the extent of material waste.

All Projects

On all projects, designers should be exploring opportunities to use materials from sustainable sources and materials that include a percentage of recycled material. Similarly, designers should give serious consideration to designing out waste by specifying appropriate materials and dimensions that ensure the elimination, or reduction of waste through on-site cutting. Where cutting materials is unavoidable, the design should specify off site cutting where possible.

Designers should discuss and agree "take-back" arrangements with suppliers, for the return of undamaged goods and/or materials.

7.2 Waste Management

Decisions made during the development of the Client's Brief regarding the reuse of existing plant, equipment, fittings, fixtures and fittings, should be transmitted clearly to the design team and included in the tender documents. This information will inform the contractor's tender returns, which must include the contractor's **Site Waste Management Plan (SWMP)**.

The **SWMP** must set targets for waste management and describe clearly how the targets are to be achieved through the design and construction period. The targets for reuse and recycling must be agreed with the Client, prior to works commencing on site.

During the construction period, the contractor must provide **monthly waste management reports** to the Client's Head of Health & Safety and Construction Health and Safety Advisor.

When the work is completed, the contractor must provide a **final waste management summary report** and note how and why the targets were exceeded, or alternatively, why the targets were not met. This report will be used as part of a lessons learnt process, which hopefully will assist with achieving better performance on future projects.

8. Record Documentation

8.1 General Information

The College's requirements for record information, is clearly outlined in the following documents:

- Production Guidelines for the Building Fabric Manual (incorporating Health & Safety File)
- Production Guidelines for the Operating & Maintenance Manuals (Mechanical & Electrical Services)
- Record Document Process Guidelines; Guidance for the Project Team.

The most current versions of the guidelines can be found at:

<http://www.imperial.ac.uk/estates-projects/resources/>

It is the responsibility of the contractor to ensure sufficient resources are included in the tender return for planning, managing and producing this important information in good time. The record documentation should be considered as a project "deliverable", with the same importance as factors like programme, quality and cost.

To this end, the contractor will produce a production programme and ensure opportunities are arranged for regular reviews, comments and signing off documents in stages, during the construction period. It is expected that all of the documentation, with perhaps the exception of testing and commissioning certificates, will be signed off and ready to deliver to the Client, on the agreed project hand-over date.

The provision by contractors of accurate record information at the conclusion of construction work is paramount in allowing the Client to maintain plant and equipment crucial to the College's core business and to manage the College's assets efficiently.