Health and Safety Responsibilities At Work: Study of Architects, Designers, Principal Contractor and Sub-contractors

Client:

The client is your customer who proposes and specifies what is needed in a building to the architect. The client's roles and responsibilities are the following.

The client is responsible for the execution of the whole project from specifications to the finished build.

The client is responsible for choosing which company should construct the project.

The client is also able to influence the principal contractor on what sub-contractors they shortlist and choose.

The client is also responsible for managing the construction process from start to finish.

It is the client's duty and responsibility to tell the architect/construction company if there is any change to the plans.

The client has a responsibility to make sure that the needs for the building users are met, needs such as welfare facilities.

Client’s must ensure that the land they propose to build on is safe. The client has a responsibility to make sure that they have the correct and legal permissions (such as planning permission) to be able to carry out the build.

The client is responsible for consulting contractors and subcontractors who are to be working on the project site.

It is the responsibility of the client to ensure that the project plans meet the rules and regulations set out by the local council or local government.

The client has a duty and the responsibility to make sure that they follow the CDM 2015 regulations.

The client must provide the architect and the designers about the pre-construction information.

The Client must overview the regulations, design and management throughout the process.

Architects:

The architect is the person who designs and draws up plans for the proposed build. The

architect is the head of the design. They are the at the top of the designers list because they are the ones who design and draw plans up for the building proposed by the client. The architect is the role of principal designer of a building. The roles and responsibilities undertaken by an architect are stated below in the bullet points:

The architect has a responsibility to follow the specifications given by the client on designing the building.

Architects must provide a building concept, detailed drawings (such as floor plans and elevations) and 3D images of the concept.

The architect has a responsibility to ensure that the design of the building meets the rules and regulations given by the local council or government. Architects have the duty and responsibility to consult the client about design challenges and change in design.

The architect has a responsibility of reviewing the plans and the work being carried out for the construction of the building proposed by the client. Architects have to follow and make the client aware of the CDM 2015 (Construction, Design and Management) regulations while designing the building to ensure that it is legal.

The architect has the responsibility to eliminate any health hazards that could occur within the construction of the new project construction phase.

The architect is responsible for creating the hand drawings, CAD Drawings and floor plans of the building.

The architect must consider the welfare, health and safety regulations for the future participants of the future building.

Designers:

Designers are the people who are behind the design process. The designers are architects, quantity surveyors, engineers, technicians, interior designers and anyone who alerts the design of the building. The architect takes on the role of the principal designer as the architect is the person who is designing and drawing up the plans for the building before construction work starts. The following bullet points are the roles and responsibilities that designers have:

These designers have the responsibility to make the client aware of the CDM regulations 2015 before they start any design or construction work.

They also have the responsibility of following the CDM 2015 regulations when constructing the building.

The design process is made up of five stages, drawings, design details, specifications, bills of quantity and calculations, this process is the responsibility of the all the designers.

The designers have a duty and the responsibilities to follow the design brief and specification given to them by the client.

Designers have the duty and responsibility to communicate with the client throughout the design and construction phases.

Principal Contractors:

A principal contractor is the contractor with control over the construction phase of a project. This involves more than one contractor. Principal Contractors are appointed by the client to plan, manage, monitor and coordinate health and safety during the construction phase. The roles and responsibilities for the principal contractor are stated in the bullet points below:

The principal contractor has the duty and the responsibility to plan, monitor, manage and co-ordinate the whole construction phase from pre-construction to post-construction.

Principal contractors must take into the account the health and safety risks to everyone affected by the construction work (this includes the public) in planning and managing the measures needed to control them meaning in them using the CDM regulations and HASWA to protect both the public and construction workers.

The Principal Contractor must plan the movement of logistics traveling to and from the site and how it will affect the traffic flow in the surrounding areas of the site. They must employ a traffic marshal to control the movement of traffic on site and in the surrounding area.

The principal contractor must provide a construction phase plan before the construction phase can start. This would need to be regularly reviewed and revised to make sure it remains fit for purpose on this site.

The Principal Contractors must have ongoing arrangements in place to effectively manage health and safety throughout the construction phase. The health and safety rules and regulations in place must follow the HASWA 1974.

The principal contractor must consult and engage with workers about their health, safety and welfare.

The principal contractor must ensure that there are suitable welfare facilities provided on site from the start of the construction phase, throughout and to the end of the construction phase. They have the duty to ensure they have the correct qualifications and tickets to operate and work in these areas, only commencing work when they are satisfied, co-operate with others involved with the build, eliminate as many health and safety risks as they can.

Principal Contractors must ensure that all workers and staff are inducted with site-specific inductions and any other information and training they need to be able to carry out the work.

The principal contractor must co-operate with the client and the principal designer throughout the duration of the project to ensure that all risks are assessed, eliminated and effectively managed.

The principal contractor has the duty and responsibility to prevent unauthorised access to the site. The principal contractor must have measures in place for the security and welfare of the

public, themselves and the staff on site.

The principal contractor must co-operate with the principal designer to share any relevant information to the planning, management, monitoring and coordination of the pre-construction phase.

The Principal Contractor must enforce the HASWA (health and safety at work act 1974) regulations to all staff within the principal contractor's company and any other sub-contractors/visitors to the site to make sure that they are safe. If any of these rules in the health and safety at work act are breached the principal contractor is liable for legal action such as magistrate/crown court dates, staff prison time, penalty fine (maximum of £20000), disqualification of the principal contractor's manager for up to 15years. This is stated on the HSE HASAWA Penalties website.

The principal contractor has the duty and responsibility to provide all staff with the correct PPE (Personal protective equipment). The PPE includes high visibility equipment (jacket, trousers, hat), goggles, gloves, helmets, lights, facemasks. The PPE equipment has to be given because if it isn’t it will breach the CDM 2015 regulations and the HASWA regulations which could mean in legal actions.

Sub-contractors:

A sub-contractor's role is a company who is elected to carry out the work with a minimal amount or no supervision. The principal contractor hires sub-contractors to carry out work such as electrical, plumbing, bricklaying, prefabrication, roofing, cladding, piling etc. Sub-contractors are sometimes referred to as subbies. There are three types of sub-contractor they are:

Domestic Sub-Contractor: A sub-contractor appointed by the primary contractor.

Nominated Contractor - A nominated contractor is selected by the client to carry out the elements of work. The client negotiates a price with the nominated sub-contractor and then instructs the main contractor to appoint them for the works the client wishes to carry out.

Named Sub-Contractor- Named Sub-Contractors are contractors selected from a list from the principal contractor that is influenced from the client. Named Sub Contractors are amongst a shortlist of other sub-contractors in the tender documents in the main contract.

The roles and responsibilities of subcontractors are shown in the bullet points below:

Sub-contractors have a duty to estimate and quote the cost of working on the construction project. This estimate must be accurately estimated.

Sub-Contractors must have the correct tickets and qualifications to use the machinery they may bring onsite. They must make sure that they avoid any fines to themselves or the principal contractor. For example, if a tower crane’s boom is hanging over another building or construction site the sub-contractor or principal contractor could be fined.

Sub-contractors must manage a team of workers. It is their responsibility to hire the workers,

pay them and deal with any employment issues.

Sub-contractors have the responsibility to keep an accurate record of all workers under their control.

Sub-Contractors have the duty and responsibility to keep accounts of all workers on and off site because if they do not keep the records and accounts, the sub-contractor can be faced with legal action.

Sub-Contractors have the responsibility to follow the on-site rules given to them by the client/site manager/principal contractor.

Sub-Contractors must follow the site safety, site rules and site regulations given to them from a site induction lead by the site manager.

Sub-Contractors must follow the CDM 2015 regulations. If these regulations are breached this can lead to legal action. On the HSE website the liable person/persons who are responsible for the breach in rules and regulations can face

Sub-Contractors have the duty to follow the HASWA (Health And Safety At Work Act 1974) that is enforced by the principal contractor. If any of the HASWA regulations are breached the sub-contractor could be asked to leave the site or faced with legal action such as magistrate/crown court dates, unlimited fine (£20000 maximum), disqualification of the sub-contractor's manager (15years maximum). This is indicated in section 33 of the health and safety at work act on the HSE website.

Task 3:

How members of the site construction team interact and work with each other in terms of their health and safety.

The construction team on a site must interact with each other to follow the health and safety guidelines and to make the workplace a safer place. Communication is a big factor in how a construction site will be safe. The site manager has the responsibility and the duty to carry out site inductions to all members of staff on site, present morning briefings, give toolbox talks to new people who are to be coming onto the site. These talks let staff know what is going to be happening in with the phase of the project of the day, what measures are in place and what they want to achieve for the day. The activities that are happening this day could be excavation, lorry's driving in and out, telehandlers operating, cranes operating. These briefings given by the site manager make sure that everyone knows what is happening, where it is happening and when it is happening, this improves knowledge on site and the health and safety of all staff. These talks help improve the health and safety on the construction site, so staff don’t get in the way of the activities meaning in their injury. Communication helps prevent accidents, fatalities and anything going wrong. The site manager must also take risk assessments on site to note down the risks and eliminate as many as possible to improve the health on safety on site. The site must have boundaries which the staff can’t cross and the members of the public. In modern times contractors can be fined for the tower crane boom being above a building for too long, so a Luffing Tower crane should be used to save the company from fines.

The site manager must also make sure that the site is secure, preventing public access from the site. They also must make sure that there are designated routes around the site for deliveries and other traffic and walking around the site. The risks to staff and the members of the public are:

- Operating plant machinery
- Falling Objects
- Delivery vehicles (Vans, LGV’s and HGV’s)
- Site vehicles
- Scaffolding and other access equipment
- Storing and stacking materials
- Openings and Excavations
- Slips, trips and falls
- Hazardous Substances
- Electricity and other energy sources
- Dust noise and vibration
- Roadworks

These categories must have a risk assessment undertaken by the Site Manager to put measures in place to eliminate any possible injuries. This is stated by the HSE on the HSE Website.

The labourers and operatives onsite who are carrying out the work must be interact with each other to get the work completed and to keep themselves safe. Communicating to each other makes sure that they are following the rules set out by the HSE and the government. Interaction and communication with each other make tasks around site a lot easier and safer for everyone on site. If you are unsure of something on the site by interacting and communicating with your supervisor or site manager, you can come to an agreement on which is the best way around to get a solution to the problem.

For the welfare roles there would need to be cleaners and maintenance teams to constantly check the welfare facilities to keep them clean as by law they must be clean. They must have a chart system to monitor these checks and carry them out constantly.

Construction Hierarchy

The construction hierarchy is the system of rankings for the construction team. These are usually shown in a hierarchy or a organisational chart. For example, at the top of a chart of the construction company team, the Managing Directors would lay. Below are some examples of organisational charts for the construction companies Ruane Construction LTD and Parkway International Contracting.

For the health and safety of the construction workplace the hierarchy would look like the following. (Order highest position to lowest position)

Managing Directors: Set out Health and Safety rules and regulations and make sure that the construction team are following the rules are set out by the company, Health and Safety Executives and the local government/council rules. They must enforce all regulations such as

the CDM 2015.

Project Manager: To make sure that the area that the construction is taking place is covered and secure preventing public access. They must oversee all work carries out throughout the project from staff in all areas off the construction, from site managers to operatives.

Site Manager: To carry out site inductions, toolbox talks, risk assessments to ensure health and safety on site. They must enforce the CDM 2015 regulations, all laws set out by the local government and council bodies, the Health and Safety Executives (HSE) and the employer and it is their duty to constantly monitor and enforce them.

Health and Safety Team: To carry out risk assessments and eliminate all risks possible. They also must enforce the health and safety rules in place.

Plant Manager: To carry out safety checks and checks on machinery and plant to make sure that they are safe for use on site.

Labourers/Workers/Operatives/Tradespeople: To follow health and safety guidelines set out by the laws, legislations and regulations enforced by the government, Health and Safety Executives and the local government and council bodies and the main contractor. They must ensure each other are following the rules. They must follow laws, regulations, legislations and on-site rules told to them in the toolbox talks/site inductions/morning briefings.