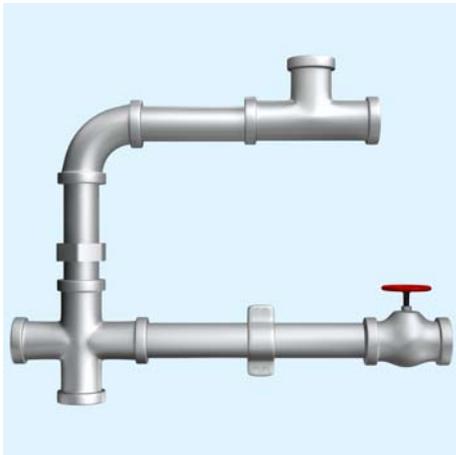




CONSTRUCTION SAFETY CODE OF PRACTICE



FOR CONTRACTORS WITH THREE OR LESS EMPLOYEES



BENEFITS IN MANAGING HEALTH & SAFETY

YOU, arriving home alive, healthy and with all your bits still attached!

YOUR EMPLOYEES, going back to their homes alive, healthy and with all their bits attached!

KNOWING that nobody has suffered as a consequence of coming into contact with your work activities!

The good news doesn't stop there; there are numerous benefits to managing health and safety on your construction projects:

- Fewer accidents to you, your employees or to other people around you;
- Improved productivity;
- Improved moral;
- Better overall planning of your works;
- Leading to greater efficiency;
- Better health & safety integration with other Contractors;
- Better communication on site;
- Improved working relationships;
- Save money!

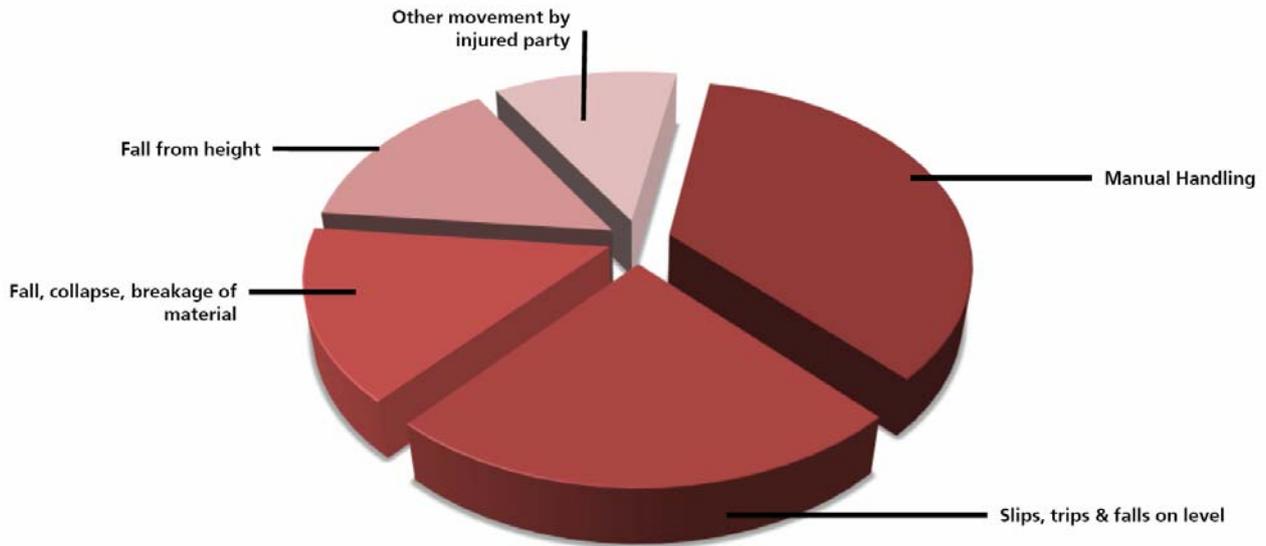
Ultimately you want to prevent accidents!

To appreciate the benefits in managing health and safety, you have to look at some of the negative outcomes from failure to manage. Construction remains one of the highest risk sectors in Ireland. The number of deaths on our construction sites largely depends on YOU and people like you working in the construction sector. Accidents will only be prevented if you manage the risks.

As an employer, you have to manage your work activities, from a cost point of view; from a quality point of view; but also from a health and safety perspective.

You decide what work you will undertake and which of your employees will carry out this work. As a part of this you need to plan out the work, taking health and safety into account and communicate to your employees how you expect them to undertake the work in a safe manner.

The negative impact of accidents goes beyond fatalities; on average each year an estimated 12,600 workers are injured on Irish construction sites. The top five triggers for non-fatal injuries in the construction sector include:



Don't become a statistic!

This code of practice will help you put a Safety Statement in place covering you and your three employees. The code guides you on how to plan and work safely on site.

Published in 2007 by the Health and Safety Authority, Metropolitan Building, James Joyce Street, Dublin 1.

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At the back of this code are some appendices, which contain further information and guidance:

Appendix A - Your Duties as an Employer

Appendix B - Duties of Your Employees

Appendix C - Other Contractors

Appendix D - Some Health and Safety Terms

Appendix E - Your Commitment to Safety



FOREWORD

The Health & Safety Authority (by virtue of Section 60 of the Safety, Health and Welfare at Work Act, 2005), following consultation with the statutory advisory committee on safety and health in construction, referred to as the Construction Safety Advisor Committee, and general public consultation through its website with the consent of **XX. XXXX XXXXXX**, Minister of State at the Department of Enterprise, Trade and Employment, has issued a Code of Practice for Three Employees or Less in the Construction Sector.

The aim of this Code of Practice is to improve the level of safety and health among small scale Employers and Contractors (employing three or less employees) engaging in construction activities, by providing practical guidance with respect to the observance of the Safety, Health and Welfare at Work Act, 2005, including the provisions of Sections 19 and 20 of the Act. This code comes into effect on the **XX XX** 2007. Notice of its issue was published in the Iris Oifigiúil of **XX XXXXXX** 2007.

Please be aware that Section 61 of the Safety, Health and Welfare at Work Act, 2005 allows the use of this code of practice in criminal proceedings. This means that if you do not follow the code of practice and it is alleged that you have committed an offence, then elements of the code may be used in evidence. The good news is that if you are complying with this code of practice, then you can similarly present that in evidence.

The purpose of this code of practice is to improve how you manage health and safety across your construction activities. Complying with this code will reduce the potential for you and your employees to have accidents on site. If you are successful in this, then in all likelihood you will not be summoned to court and defending yourself does not become a concern.

Simple message:

- ✓ **Plan your work**
- ✓ **Tell your employees about the plan**
- ✓ **Implement the plan**
- ✓ **Check that it is working**
- ✓ **If anyone's safety is affected – take action**



INTRODUCTION

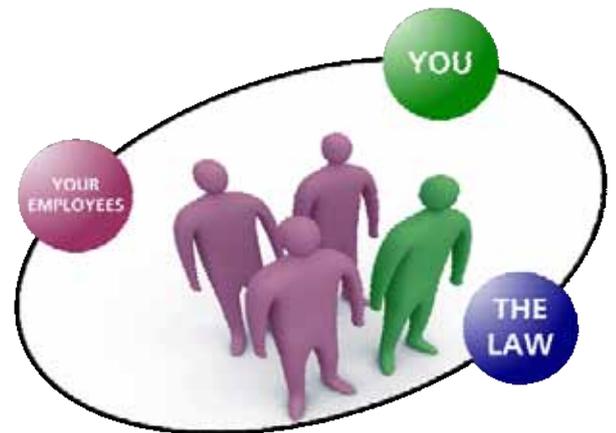
WHY SHOULD YOU USE THIS CODE OF PRACTICE ?

The legislation requires all employers to have a safety statement for all places of work (i.e. sites), which is based on written risk assessments. This code of practice allows you to comply with this requirement in a simple and easy way.

WHO CAN USE THIS CODE OF PRACTICE ?

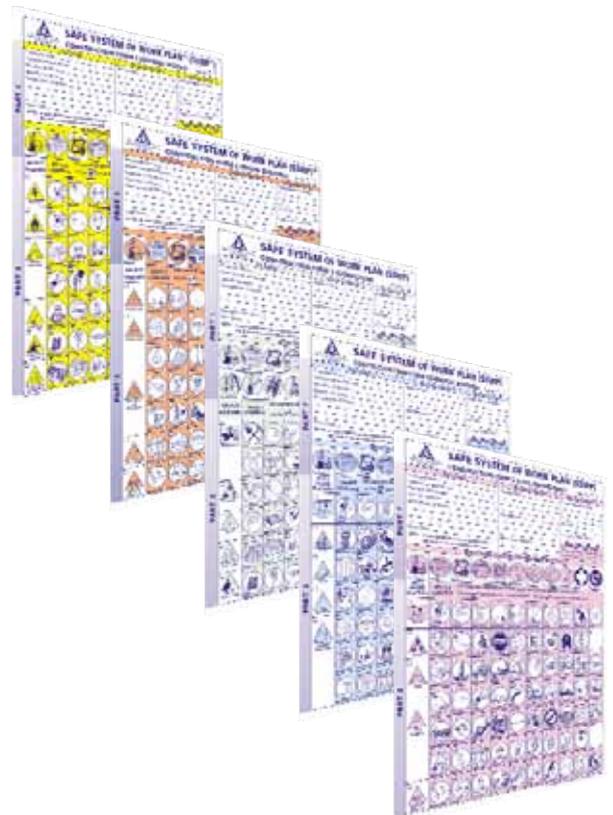
This code of practice is for people who employ up to three people and are involved in construction work. For example, a bricklayer who employs two other bricklayers and a general construction operative, can use this code to comply with the requirement to have a safety statement.

This code can also be used by self-employed people, such as an excavator driver who subcontracts themselves and their machine to undertake works on site.



The code of practice can be used by any trade engaged in construction work. For example;

- Apprentices;
- Bricklayers / Stonelayers;
- Carpenters and Joiners;
- Construction Operatives;
- Decorators;
- Delivery Drivers;
- Electricians;
- Engineers;
- Floorlayers;
- Glaziers;
- Ground Workers;
- Painters;
- Plant Drivers;
- Plasterers;
- Plumbers;
- Pipe Layers;
- Scaffolders;
- Site Management Team;



- Slaters and Tilers;
- Stonecutters;
- Utility companies (ESB, Bord Gas, etc)

Using this code enables you to comply with the legal requirements to have a Safety Statement for the protection of your employees and persons affected by your works.

HOW DO I USE THIS CODE OF PRACTICE ?

This code of practice is based on the Authority's **Safe System of Work Plans** or **SSWP**. The Safe System of Work Plan relies heavily on pictograms to explain and clarify hazards and controls, thereby creating a wordless document where safety can be communicated to all workers regardless of literacy or language skills.

At present there are five SSWP for you to use; each one covering typical construction activities: **Ground Works; House Building; Demolition; New Commercial Buildings;** and **Civil Engineering**. Each SSWP has its own pictogram book.

Step 1

Have a look through the code and determine which SSWP apply to you. Then take out the SSWP that do not apply! This will reduce the size of the document and mean that you only have to read the information that is relevant to the work that you do. For example if you are involved in house building projects, you could take out the Demolition, New Commercial Buildings and Civil Engineering SSWP. This will leave you with the Ground Works and House Building SSWP that apply to you.

Step 2

At this stage you must read and understand the SSWP that you have chosen.

Step 3

Look at the hazards in your work – i.e. anything that has the potential to cause harm. For example working at height or working in excavations.

Step 4

Next you must consider what the risks associated with each hazard – i.e. the chance that you or your employees can be harmed.

Step 5

Now look at the controls that you can put in place to eliminate or reduce the risks to you or your employees. The SSWP will help you identify the appropriate controls.

Step 6

Talk to your employees about the hazards, risks and controls that are going to be put in place. Make sure that they understand what they have to do, to help you control the risks.

Step 7

Now sign the certificate at the back of this document, which states your commitment to health & safety, SSWP and compliance with this code of practice.

Step 8 Use the SSWP forms for all of your sites!

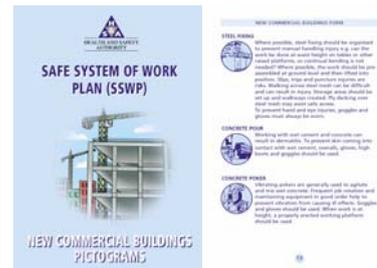
Step 9 Keep the completed SSWP forms and the pictogram booklets on each site, with the work crews.

If you don't continue to use the SSWP forms, you are not in compliance with this code and therefore would be required to have a safety statement for each place of work (i.e. site)

WHAT INFORMATION IS PROVIDED TO HELP ME ?

In the next section you will see how the SSWP work and how you can apply these to your construction activities. It also tells you how to use the SSWP forms.

Each SSWP is accompanied with a booklet that explains each of the pictograms that are used in that form. These are **very important documents**, as they set out exactly what each control means and how to apply it on your site. You **must** keep the appropriate pictogram booklet on site with your employees.



Information is also provided in the back of the code, covering three main areas:

THE LAW
Blue boxes contain summaries of legal requirements applicable to your type of work activities

YOU
Green boxes provide advice to you, the Employer, for the managing health & safety of your Employees

YOUR EMPLOYEES
Purple boxes contain advice for your Employees in how they should cooperate with you

WHAT IS MY PLAN OF ACTION ?

It is good that you have started to look at your safety statement. The good news is that complying with this code is a simple process; just follow the easy steps outlined above.

While this code of practice enables you to have a safety statement, covering you and up to three employees, it does not automatically provide compliance with the other sections of the Safety, Health and Welfare at Work Act, 2005 (the Act) or other regulations.

There are other duties that you need to manage on a day-to-day basis, as you carry out your work. Information is provided within this code about your main duties and you should consider these carefully.

In order to comply with this code and to discharge your duties as an Employer, you are required to comply with all relevant sections and forms contained within this code.

-  Consider your existing work environment and the hazards that exist there;
-  Read and understand the parts of the code of practice that apply to you;
-  Now re-examine the hazards and talk to your employees;
-  Assess the risks associated with each hazard;
-  Agree how you are going to manage your work activities safely;
-  Sign the commitment at the back of this document and communicate it;
-  Implement the Safe System of Work Plan for all of your jobs;
-  Check that your plan is working and that your employees are working safely;
-  If not, take corrective action immediately, and restore safe working practice.



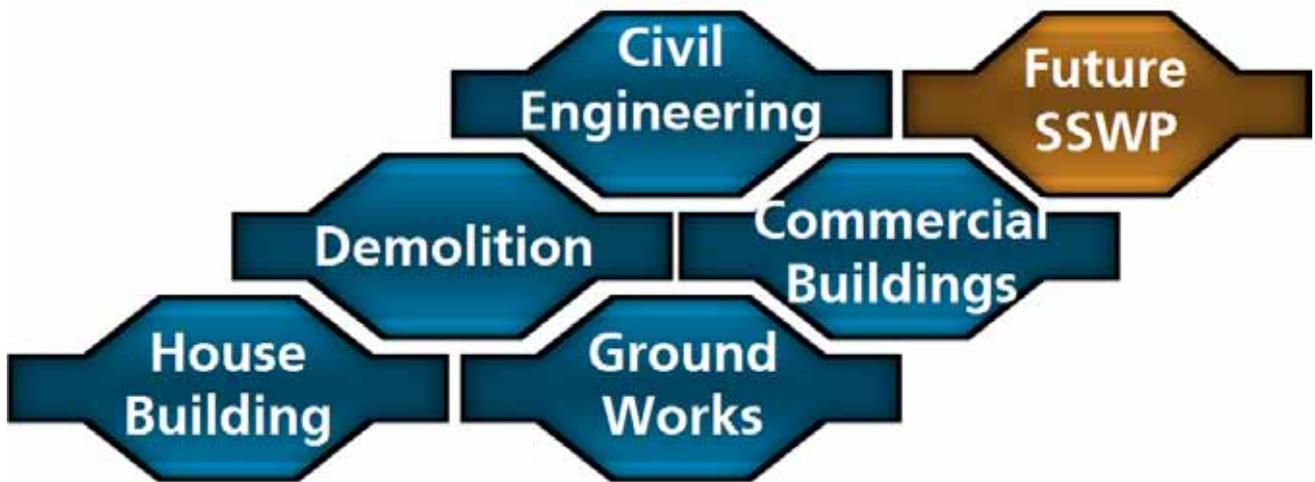
RISK ASSESSMENTS MADE EASY

The completion of risk assessments is a fundamental part of the management of health and safety in any workplace. In construction it is no less important.

While this code of practices allows small contractors (with 3 or less employees) to simplify the manner in which they manage safety, they still must do risk assessments.

As a small contractor, you may use the Safe System of Work Plan to simplify doing risk assessments for your work activities and for communicating them to your employees.

At present five construction forms have been prepared for the construction sector. These include:



The five construction forms are complementary and are intended to cover some of the main construction activities. More SSWP forms are being developed and these will be issued in the future. If the new SSWP forms are applicable to your construction work, then you can use these new SSWP as part of this code of practice.

When planning your work you must also consider the impact of your work activities on members of the public and that the control measures are in place to protect them from harm.

A pictogram booklet is available for each SSWP form, in 8 different languages, explaining the meaning behind the SSWP system and each pictogram used.

Each of the five forms is set out in the same format and contains three parts, as outlined overleaf:

Part 1

 SAFE SYSTEM OF WORK PLAN (SSWP) CONSTRUCTION FORM I (GROUND WORKS)			Plan No. <input type="text"/>
Job Details	Resources Required	Emergency Details	
Employer Name: _____ Supervisor/Lead Person: _____ Number of Workers: _____ Specific Location: _____ Description of Works: _____ Start Date: _____ <i>NOTE: A new SSWP must be completed when the task or the environment changes.</i>	Worker Skills: _____ Plant/Equipment: _____ Hazardous Materials: _____	Contact Names & Tel No. 1. _____ 2. _____ 3. _____ First Aider: _____ Location of First Aid Box: _____	
		WORK PERMITS REQUIRED Hot <input type="checkbox"/> Electricity <input type="checkbox"/> Excavation <input type="checkbox"/> Confined Space <input type="checkbox"/> Other <input type="checkbox"/> Method Statement Yes <input type="checkbox"/> No <input type="checkbox"/>	
Before Works Starts the following MUST be in place			
			
			
			

Part 1 provides space for you to record a description of the place of work and a description of the work activities. You should also state what skills and resources are required to carry out the work. You must also provide details of who is in charge of the works and emergency contact details. If a permit-to-work is required you should also identify this on the SSWP. The control measures along the bottom of Part 1 are mandatory and you are required to ensure that these steps have been completed before work starts on that activity.

Part 2

SELECT HAZARD	SELECT CONTROL	All controls identified below must be in place before work starts									
		Tick the <input checked="" type="checkbox"/> box to identify controls required; Tick the <input checked="" type="checkbox"/> circle when control is in place.									
<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	
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Part 2 contains a series of pictograms outlining hazards that are typical to that type of construction activity. When you are completing the SSWP, you look at the place of work and the work activities and identify the hazards that exist. As you identify the hazards you place a tick in the square box on the upper left corner of the hazard.



Once you have identified that a hazard exists, you then consider the control measures that are outlined in the SSWP and pick the control measures that are appropriate and that you intend to implement. This is achieved by ticking the square box to the upper left corner of the control measure.



After you have identified all of the controls measures that you need to implement to protect people from the hazards, then you must make sure that each of the controls are implemented before work starts on site. Once each control measure is in place, you record this by ticking the circle on the lower right corner of the control measure.



The hazards identified in the SSWP are intended to cover the main hazards that would normally be associated with that particular work activity. Please note that this is not exhaustive and it is likely that hazards will exist on your projects that are not fully covered in the generic SSWP. If this is the case and you have identified a hazard that does not have a corresponding pictogram, then you can fill in one of the blanks provided on the form, to communicate the control measure that you intend to put in place.

Part 3

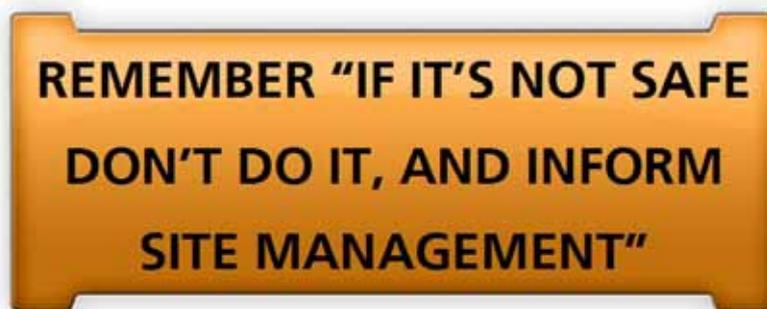
PART 3	SSWP prepared by: _____ Date: _____ The controls to be used as per this form have been brought to my attention.
	Signed by Team: _____
	NOTE: This list of Hazards and Controls is not exhaustive and is in no particular order.
	IF IT'S NOT SAFE DON'T DO IT AND INFORM SITE MANAGEMENT

Part 3 allows you and those who are going to work on the activity to sign-off on the SSWP. As the person who has prepared the SSWP, you are signing that the hazards have been identified and that the controls are in place. The works crew are signing to conform that the SSWP has been brought to their attention.

The completed SSWP must remain at the specific location of the work with the persons carrying out the work activity.

A new SSWP must be completed when:

- 1. a new hazard is identified;**
- 2. the task changes; or**
- 3. the environment changes**



In order to maintain in compliance with this code of practice, you are required to continue using the SSWP forms for new work activities or new hazards on each project. The SSWP forms and the relevant pictogram booklet must be kept on each site.

A full set of guidelines are provided overleaf. Please refer to these prior to completing the SSWP.

Safe System of Work Plan™ (SSWP™) Guidelines

The Safe System of Work Plan™ (SSWP™) complements the Safety Statement required under the Safety, Health and Welfare at Work Act, although it does not replace the requirement for such a Safety Statement. Specific Guidelines on Safety Statements are available from the Health and Safety Authority.

This guidance, which is particularly relevant to contractors, self-employed persons and employees, deals with the completion of SSWP™ for Construction.

The SSWP™ will help users to complete construction work activity in a safe manner.

Completing and using the SSWP™ will also help you to meet some of the legal obligations placed on you by health and safety legislation.

The Safe System of Work Plan™ (SSWP™)

The primary objective of the SSWP™ is to identify the major hazards associated with your work activities and to ensure that appropriate controls are in place before work commences.

The SSWP™ achieves many other objectives, including:

- Links the implementation of the Safety Statement directly to the work activity.
- Focusing on safety for a particular task. The SSWP™ is completed at the start of each activity, and can be reviewed at any time during the work.
- Increasing awareness. It encourages the users to consider a range of options to deal with the risks. The users will become familiar with the various controls available.
- Communicating through the use of pictograms so that the meaning can be understood by persons who possess little or no English.
- Being user friendly: just tick the hazards and controls.

The Safe System of Work Plan™ (SSWP™) should be used as a final check to ensure that the identified controls for a specific construction work activity are available and in place. However safety starts long before any specific construction activity takes place. Hazard identification, risk assessment, the elimination and control of identified hazards must take place through all stages of construction from the planning stage, through the design process, the tendering process and on to the construction stage so that each specific construction activity will have had safety built in.

The SSWP™: A 3-part process:

- Part 1: Planning the activity
- Part 2: Hazard Identification, and Control Identifier
- Part 3: Sign off

PART 1

This part will be completed by the person planning the activity. Normally this will be carried out by the supervisor/foreman and/or self-employed person prior to work starting. Where a site safety officer is employed they should be involved in the process.

- Identify who the employer/self-employed person is, e.g. **Acme Pipe Laying Ltd**
- Name of the Supervisor for the activity, e.g. **A. McSample**
- Identify the number of workers in the team, e.g. **3**
- Identify the specific location of the activity, e.g. **gridline x to gridline y**

- Describe the specific activity, e.g. **pipelaying**
- When the work is to start, the date, e.g. **Tuesday, 1st June**
- What skills are required, e.g. **360 excavator driver, banksman, pipelayer, flag man**
- Plant and Equipment required, e.g. **Fiat Hitachi EX200, Sling, Shackle**
- Hazardous Materials, if used, e.g. **Acme Bondex XXX, R45**
- Contact Names & Tel No. in the event of an emergency, e.g. **Site Foreman, Safety Officer**
- Name of the First Aider, and the location of the nearest First Aid Box
- Are Permits to Work required? Tick type
- Is a Method Statement required? Tick if required
- The final section of this part: list requirements that are identified in the Construction Regulations and other Legislation as mandatory.

Note: For sites where more than 20 persons are normally employed at any one time, a site safety representative should be appointed.

PART 2

This part of the SSWP™ form deals with hazard identification, risk assessment, and risk control. Normally this will be carried out by the supervisor/foreman and/or self-employed person prior to work starting. Where a site safety officer is employed they should be involved in the process.



The **Hazards** should first be identified by **ticking the square boxes in the "Select Hazard" column.**

The appropriate **Controls** to eliminate the hazard or reduce the risk should be identified by **ticking the square boxes in the "Select Control" column.**



When controls are in place **tick the round box.** This must be done in conjunction with the workers at the specific work location prior to the work taking place.



Similarly, the Personal Protective Equipment (PPE) and Fire Equipment required, should be selected by **ticking the square boxes** in the PPE/ Fire sections, and when acquired by **ticking the round box.**

NOTE: The list of Hazards and Controls depicted in each form is not exhaustive.

Part 2 of the form may also contain several blank hazard triangles, each labelled with the word "identify", and several blank control boxes, each labelled with the word "other". As the list of hazards depicted is not exhaustive, where other hazards are identified, these can be written into the blank hazard triangles. Similarly, as the list of controls depicted is not exhaustive, where other controls are identified, these can be written into the blank control boxes.

PART 3

This part deals with the signing off of the SSWP™. The purpose of signing off is to identify the person who has prepared the SSWP™, and also to confirm that the completed SSWP™ has been brought to the attention of all those to whom the SSWP™ applies.

Note 1: The completed SSWP™ must remain at the specific location of the work with the persons carrying out the work activity.

Note 2: A new SSWP™ must be completed when (1) a new hazard is identified, (2) the task changes, or (3) the environment changes.

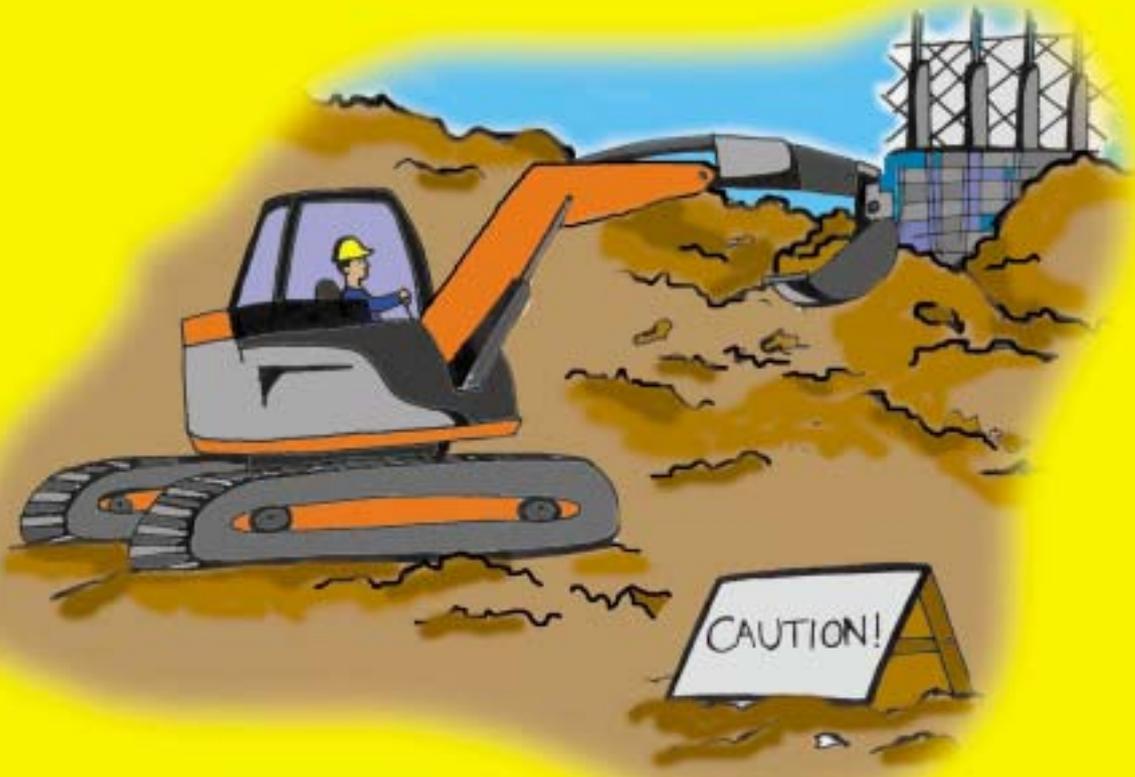
Optional: A record sheet is available inside the back cover.

REMEMBER "IF IT'S NOT SAFE DON'T DO IT, AND INFORM SITE MANAGEMENT"



HEALTH AND SAFETY
AUTHORITY

SAFE SYSTEM OF WORK PLAN™ (SSWP™)



GROUND WORKS FORM

1

Ground Works

2

House Building

3

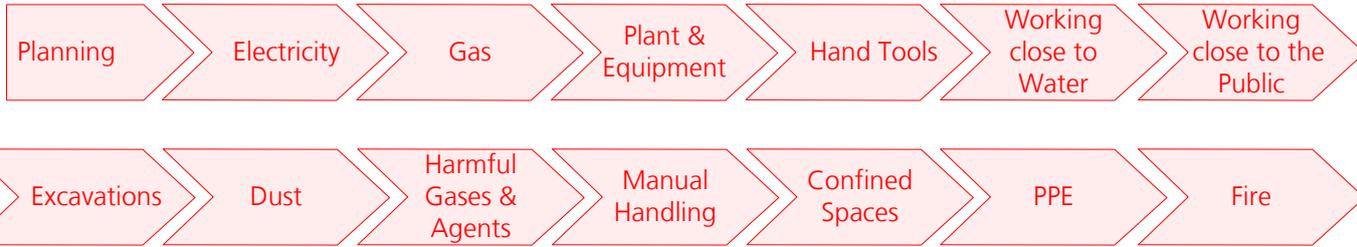
Demolition

4

Commercial Buildings

5

Civil Engineering



YOUR WORK ACTIVITIES

Construction Form 1 relates to ground works, and it applies to any job no matter how large or small. This Ground Works SSWP is intended for ground works activities on a housing project or a similar sized project. The manner in which you plan your works affects the safety of your employees and that of other trades working on site. The next 14 pages will help you identify the hazards associated with your work and how you can control these to protect the people around you. The main steps in planning the ground works include:

- Visit the site and meet with the client / developer / main contractor;
- Agree with scope of the works and the programme;
- Agree the required safety provisions and who will arrange & implement on site;
- Fill in the Ground Works Safe System of Work Plan;
- Confirm with your employees that the controls are in place;
- Supervise to ensure that the works are been undertaken in a safe manner;
- If you see unsafe work practices, report these to site management or take direct action if it involves your employees;
- Keep the completed SSWP with the work crew & revise as necessary

MAIN PERSONS AT RISK

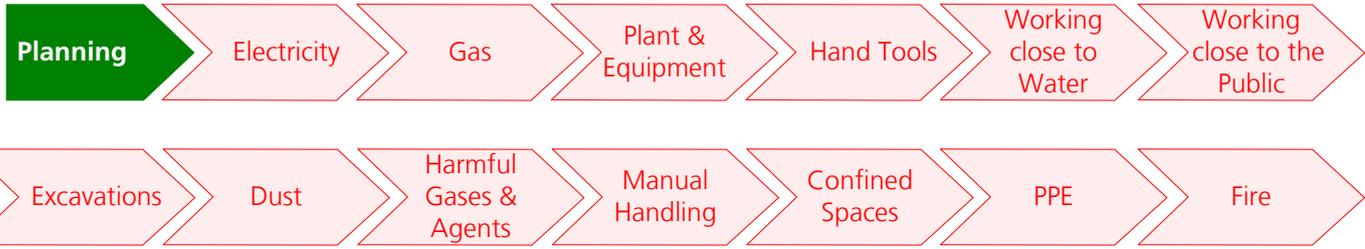
- Ground Workers
- Plant Drivers
- Pipe Layers
- Statutory Undertakers (ESB, Bord Gas, etc)
- Delivery Drivers
- Engineers
- Site Management Team
- Members of the public

Must Read and Implement the Controls

SECONDARY PERSONS AT RISK

- Bricklayers / Stonelayers
- Carpenters and Joiners
- Construction Operatives
- Electricians
- Floorlayers
- Glaziers
- Painters
- Plasterers
- Plumbers
- Slaters and Tilers
- Stonecutters
- Apprentices

Should Read and Follow Directions



1

Ground Works

2

House Building

3

Demolition

4

Commercial Buildings

5

Civil Engineering

YOUR WORK ACTIVITIES

Your safety or that of your employees could be affected, if you start ground works on site, without first planning out what works have to be undertaken, who is going to control the works and how the works are going to be completed safely.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Ground works can be hazardous because of the nature of the environment. Hazards such as buried services cannot readily be seen before works commence and therefore careful planning is required.

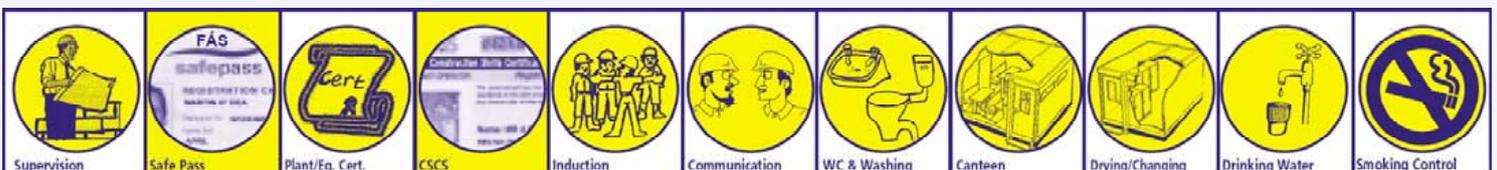
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Several ground works hazards can result in your death or the death of other persons, including your employees. For example coming in contact with electricity cables.

YOUR CONTROLS

Plan the works that you have to complete. Decide who is going to be in charge of the ground works and ensure that they are competent to supervise the works. Talk to other contractors who may be affected by your works and make sure that you take their safety into account as well. You need to ensure that your employees have received the FAS Safe Pass and Construction Skills Certification Scheme training, for the works that they are going to undertake for you. Any plant and equipment that you provide or hire in to do the work, must be in safe working order and have current certificates. Talk to your employees about the work that has to be undertaken and make sure that they are aware of the hazards that exist and how you expect them to complete the work in a safe manner. If welfare facilities are being provided by another contractor, make sure that these are available to you and your employees and that they are maintained in a clean condition.



1

Ground Works

2

House Building

3

Demolition

4

Commercial Buildings

5

Civil Engineering



YOUR WORK ACTIVITIES

A wide range of construction activities can result in operatives coming in contact with electricity; often with fatal consequences. For example, excavating close to buried services or plant and equipment operating close to overhead power lines. However other work activities can put your employees at risk; such as delivering / offloading materials on site.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Any work which puts you or your employees close to electrical cables is a significant hazard. Overhead power lines are visible; however people can become complacent. Underground cables have an increased hazard as they cannot be seen.

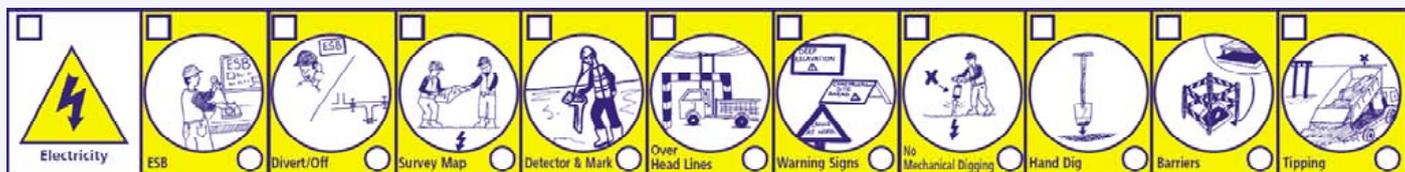
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

There is a high risk of fatal accidents when working close to electricity.

YOUR CONTROLS

Always contact the electricity utility company before commencing excavation works. The first option should be to divert the overhead or underground service away from the works; or turn off power to allow the works to proceed safely. You need to get service drawings from the electricity utility company and use these to identify zones where services may exist. The complete area where the ground works are to take place should be surveyed for electrical cables, for example using a Cable Avoiding Tool (CAT) and the identified services should be clearly marked with warning signs. Mechanical excavation at or immediately close to underground electrical services is not to be permitted. Careful hand digging should be used to unearth or make visible underground services. Once the service has been exposed make sure to erect a barrier around the excavation to prevent persons entering the danger area. Where overhead lines cannot be diverted, these need to be protected by the use of barriers and goalposts erected on both sides of the overhead lines. Pay particular attention to tipping vehicles operating on site, and ensure that these are kept a safe distance away.





1

Ground Works

2

House Building

3

Demolition

4

Commercial Buildings

5

Civil Engineering

YOUR WORK ACTIVITIES

Gas mains tend to be buried underground and therefore any works activity that includes excavation can place site operatives at risk. Natural gas is highly flammable and is transported in a network of polyethylene and steel pipes at various pressures.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Damage to a gas main may result in large volumes of gas escaping into the atmosphere in an uncontrolled manner.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

The risks associated with leaking LPG are even greater than those associated with leaking natural gas as it is heavier than air and does not disperse as readily. In addition, it can travel great distances below ground level before accumulating at low levels.

YOUR CONTROLS

You should contact the gas utility companies to determine where the gas services are located, before the excavations works commences. It is preferable to get the utility company to divert the gas service away from the works zone or at least to get the service temporarily shut off during the excavation works. The services should be clearly marked out on site, based on the drawings received and the surveys undertaken to determine the extent, nature and position of the services. Warning signs must be erected before the works commence and procedures must be in place to ensure that all sources of ignition are removed from the vicinity of the works. Mechanical excavating at or immediately close to underground gas services is not permitted. Only hand digging techniques should be used to expose gas services. This must be clearly communicated to the work crew and supervised on site. If you are using gas cylinders, you must ensure that they are stored and used in accordance with your suppliers' recommendations. In particular oxy-acetylene cylinders must be stored in an upright position and in appropriate rigs.



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YOUR WORK ACTIVITIES

We are utilising an increasing amount of plant and equipment on our construction sites. This has health and safety benefits in reducing the manual handling hazards. However additional hazards are introduced in how site operatives interact with the different plant and equipment on site. Irrespective of whether you own the plant and equipment or you are hiring it onto site, you have an obligation to ensure that it is safe for the purpose, that it is maintained in a safe condition during its use and that it is operated by a competent driver.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Due to the nature and weight of the different types of plant and equipment on site, if a failure occurs there is a significant potential for site operatives or members of the public to be harmed.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Working close to operating plant and equipment increases the risks, in the event of a failure of the plant, equipment or systems of operation. There have been numerous deaths as a consequence of people coming into contact with plant and equipment.

YOUR CONTROLS

The first step is to ensure that the plant and equipment that you choose is suitable for the task; in particular in relation to its SWL, reach, and limits in terrain. Where plant is traversing site, the aim should be to segregate pedestrians from the traffic routes, to implement a one-way system and to ensure that plant is fitted with auxiliary visual aids as required. If locking devices are fitted to quick release hitches, then it is vital that these are used in accordance with the manufacturers recommendations; in particular safety pins. Secure barriers are necessary when plant and equipment is operating close to members of the public. The person responsible for selecting lifting equipment must ensure that it will be used within its SWL limits at all stages of the lift and that it is thoroughly inspected prior to its use.

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YOUR WORK ACTIVITIES

Use of hand tools can make a construction task easier and when used in a proper manner, make the work safer. For example using kango hammers or hammer drills on concrete. Each hand tool will have different power sources that you will need to plan for, some are powered by electricity, others by battery, or compressed air. When planning your work activities select the appropriate hand tool for the task but also consider the availability and route of the power source to the works area.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

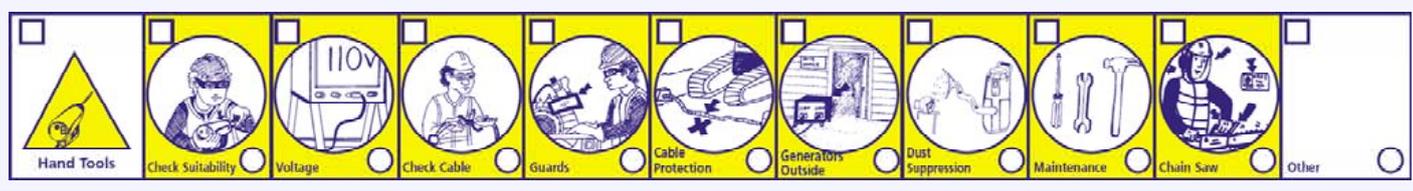
Operatives can be injured by the hand tools itself; or by the products coming from the use of the hand tool. Hand-arm vibration, and noise are often hazards associated with the use of hand tools. The power source can also be a hazard.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

While some of the hazards are a medium to high risk; leading to injury or ongoing illness. Operatives have suffered fatal injuries as a consequence of using hand tools. Therefore some of the hazards can be high risk, particularly in ground works.

YOUR CONTROLS

First you need to plan the ground works and determine what hand tools are required for each task. Ensure that tools are appropriate for each task and that suitable power sources are available. All portable electric tools rated below 2kw must be powered using 110v supply. Battery operated hand tools can make the task easier and safer; however consider how the batteries are to be charged, which often require a 230v supply. Check all cables for damage before use and ensure that cable routes are protected from plant and equipment on site. Ensure that protective guards are in place and used by operatives on site. If the hand tool requires PPE, such as hearing, eye or hand protection, then ensure that these are available on site and used properly by operatives using the hand tools. Ground works operations can take place at the start of a project, this can mean the use of generators for the site compound / facilities. If using generators ensure that they are located outside. If the generators are being used on site, then similarly ensure that they are located away from enclosed spaces, such as excavations & manholes, to avoid the build-up of carbon monoxide, which can be fatal.



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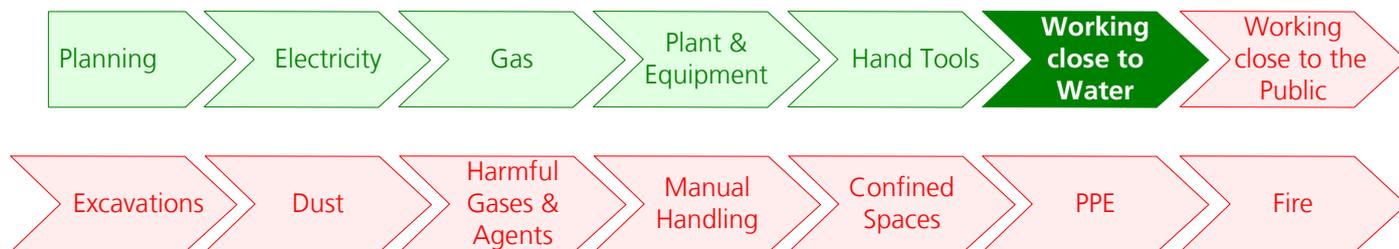
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YOUR WORK ACTIVITIES

Some ground works projects can involve working close to water, such as a river, lake or the sea. This hazard can be readily identified before you start work on that project, this will allow you to plan out the activities that are going to take place close to water well in advance of the works. Determine who is going to be responsible for providing and maintaining the control measures, and make sure that these are in place before you start work.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

The principal hazard is someone falling into the water and suffering an injury. Their ability to assist themselves may be restricted by the consequences of the fall, i.e. where the person becomes unconscious and cannot keep afloat.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Factors affecting the risks associated with working close to water include, the flow of water, the depth, how high you are working above the water, how fast the body of water can rise and whether or not operatives are wearing personal floatation devices.

YOUR CONTROLS

Personal floatation devices (PFD) have improved, where the user can have unrestricted movement to undertake the work, but that if they fall into the water, the PFD automatically activates and protects the operative. In addition to PFD you must make sure that there are enough life rings adjacent to the water's edge. When thrown, these will provide buoyancy to the operative in the water and will assist in their recovery from the water. When working over water, you should have a rescue boat readily available. The placement of grab lines in the water downstream from the works, can also assist a person in getting out of the water. However the main controls that you should implement include measures to prevent people from falling into the water in the first place. You should provide handrails along the water's edge or if this is not feasible, provide safety lines and fall arrest systems. Please note that your priority should be to collective protective measures as opposed to individual protective measures, as these protect everyone in that environment, not just those wearing the fall arrest system.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working close to water	Personal Floatation Device	Life Ring	Boat	Edge Protection	Safety Line	Fall Arrest	Grablines	Other	Other	Other	Other



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YOUR WORK ACTIVITIES

It is very likely that at some point you will be undertaking ground works in close proximity to the public. In addition children can be drawn to construction sites and seek to gain access to explore the site. You have a duty under Section 12 of the Safety, Health and Welfare at Work Act, 2005 to take account of the safety, health and welfare of other persons who are not your employees in how you carry out your work activities. This protection will not happen automatically; you need to plan it out before the works start.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Members of the public may not be aware of the hazards and do not have the knowledge as to how to react to situations. In addition the public can be harmed at the interface / crossing points because they are less visible and may not understand the priority.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Any interface with the public is high risk. In particular where construction operations or construction traffic is in or cuts across the public domain. Children are most at risk as a consequence of coming into contact with construction operations.

YOUR CONTROLS

Where your work is close to the public, you need to plan out in advance how you are going to control that interface. In particular Regulation 97 of the Safety, Health and Welfare at Work (Construction) Regulations, 2006 require that any construction works on a footpath, road or cycle track are adequately guarded signed and lit. You need to determine what fencing or hoarding is required so as to protect the public. All open excavations need to be protected by barriers and have appropriate warning signs. Where members of the public have to access close to, or around construction activities, you must provide suitable and safe pedestrian routes so as to ensure that their safety is not put at risk. In establishing routes and barriers you must give due consideration to persons with disabilities. You must provide advance warning to pedestrians and vehicular traffic that they are approaching construction works and ensure that signs, barriers and fences are maintained for the duration of your construction activities. You should minimise reversing operations and provide a flagman where construction traffic movement places the public at increased risk of injury.



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YOUR WORK ACTIVITIES

When involved in ground works activities, it is likely that you will be opening excavations, working in excavations and backfilling on completion of the works. This is very hazardous work, as it may not be possible to determine the exact ground conditions before work commences. In addition the ground may have been disturbed by earlier works and result in increased risks due to its unstable nature. A collapse of even 1m³ of material will weight more than 2 tons and can result in the burial or crushing of you or your employees in the excavation.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

The main hazard is the stability of the sides of the excavation; however other hazards also exist, such as access & egress, presence or accumulation of hazardous gases, collapse of plant or adjacent structures into the excavation.

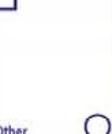
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

The potential for an accident in an excavation, such as a trench collapse, should never be underestimated. Risks can be increased by operatives failure to appreciate that they are in fact at risk. Even shallow excavations can place your employees at risk

YOUR CONTROLS

Excavations and trenches greater than 1.25m deep can cause serious accidents. Depending on the nature of the ground conditions and the site features you have a number of different options; you could batter back the sides of the excavation to a safe angle or you could use shoring to support the sides of the excavation or proprietary trench boxes where people can work safely inside the protection of the trench box. Irrespective of the support method you choose, you must also consider the actual processes that are involved in doing the excavation, working in the excavation and backfilling. This will involve the interaction of operatives and plant and equipment; but also the movement and storage of spoil and construction materials for the works.

<input type="checkbox"/>  Excavation	<input type="checkbox"/>  Batter Back	<input type="checkbox"/>  Trench Box	<input type="checkbox"/>  Shoring Sheet Piling	<input type="checkbox"/>  Back Fill	<input type="checkbox"/>  Exclusion Zone	<input type="checkbox"/>  Ground Conditions	<input type="checkbox"/>  No Undermining	<input type="checkbox"/>  Spoil Back	<input type="checkbox"/>  Check	<input type="checkbox"/>  Access/Egress
<input type="checkbox"/>  Inspect	<input type="checkbox"/>  Barrier	<input type="checkbox"/>  Covers	<input type="checkbox"/>  Warning Signs	<input type="checkbox"/>  Safe Stacking	<input type="checkbox"/>  Propping	<input type="checkbox"/>  Lighting	<input type="checkbox"/>  Compound	<input type="checkbox"/>  Other	<input type="checkbox"/>  Other	<input type="checkbox"/>  Other



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YOUR WORK ACTIVITIES

Some ground works operations can produce large amounts of dust, particularly in dry weather. Excessive amounts of dust can cause eye and respiratory irritation or injury.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Hazards include breathable dusts entering the respiratory system and causing irritation or illness. Dust can also irritate the eyes. The hazards can affect not only you and your employees, but also other people in the vicinity.

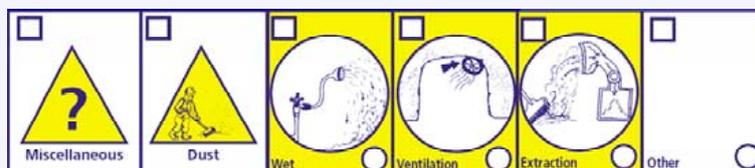
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

For most ground works operations the risk to dusts is medium.

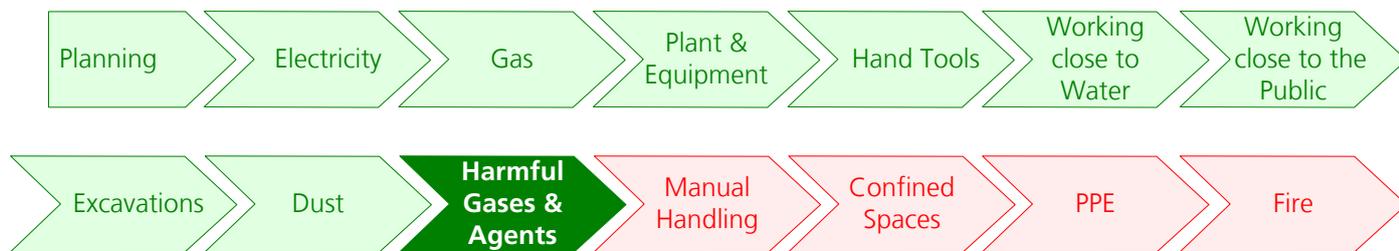
YOUR CONTROLS

You should seek to minimise the generation of dusts in the first place. However when dusts are generated by your work activities you should wet or damp down the area to prevent the dusts from becoming airborne. When working in confined spaces you should provide a fresh air supply to the work zone. A further control is to use a local exhaust system to remove the dust at source.



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YOUR WORK ACTIVITIES

You and your employees can be exposed to harmful gases and biological agents, particularly when engaged in drainage works. Harmful gases can cause injury by inhalation and contact with the skin. Micro-organisms, such as bacteria, viruses, parasites and fungi may cause infection, allergy, poisoning or have a toxic effect. You must look at the works you are intending to undertake and determine if you will be exposed to harmful gases or biological agents and then ensure that the control measures are in place before you start.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Operatives exposed to harmful gases and biological agents can suffer injury and ill health due to breathing the agents in or by direct contact with the skin or eyes.

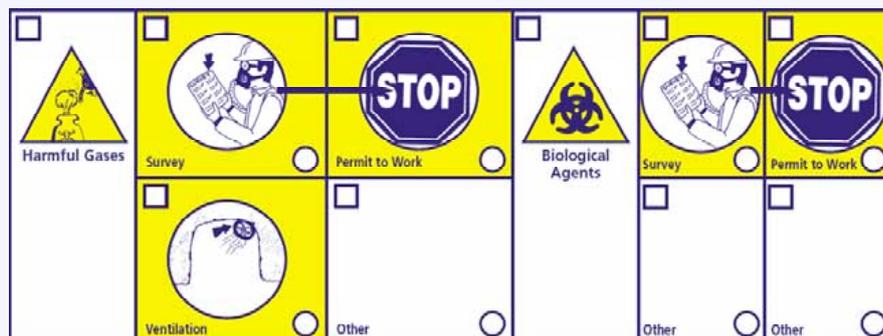
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

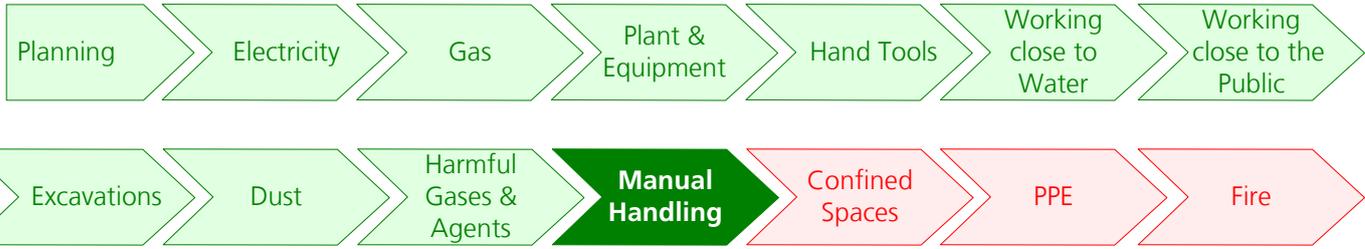
Depending on the nature of the agents, working in this environment can be a very high risk. People have died working in confined spaces such as manholes, due to the presence and accumulation of hazardous gases.

YOUR CONTROLS

Check for harmful gases and biological agents before you start work and in the case of a confined space, you should monitor the environment on a continuous basis. A wide variety of gas monitors are available, which can monitor common harmful gases common to ground works; such as carbon monoxide, hydrogen sulphide, oxygen and flammable gases. In addition you should operate to a permit-to-work system, which ensures that only authorised and trained persons, who are appropriately protected can enter into the area. Where the harmful gases are present in a confined space, you must ensure that an adequate fresh air supply is provided.



Refer to Safe System of Work Plan Construction Form 1 (Ground Works)



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YOUR WORK ACTIVITIES

Manual handling is the physical movement by a person of objects by lifting, pushing or pulling, that it likely to cause injury or other health problems. This can be wide ranging in ground works, where you or your employees are engaged in constructing manholes or forming roads and footpaths. While the increase in mechanical aids has reduced the requirement for manual handling, it is still a significant cause of injury to construction operatives.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Operatives can suffer injuries from lifting or moving heavy objects, or in association with additional body movements. The hazards that you are exposed to will depend on the extent to which you rely on manual handling to carry out works.

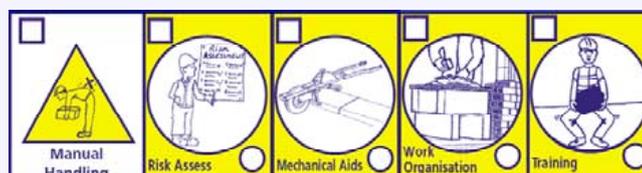
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

While our bodies are designed to move and can do work effectively, excessive amounts of manual handling can increase the risks of injury. In addition, significant injury can result from a single lift event, where the weight or nature of the load is too much.

YOUR CONTROLS

You need to assess every task to determine if there is a manual handling hazard. Your first approach should be to eliminate the risk, by removing the requirement for you or your employees to engage in manual handling. If you cannot eliminate the hazard, then you need to put in control measures to reduce the risk to as low a level as possible. This may include the provision of mechanical lifting aids, which can be used to take the weight / strain from your operatives while engaged in ground works. In addition you need to look at how you are planning your works, to see if you can reorganise the activities in such a way so as to eliminate or reduce manual handling requirements. If you or your employees are engaged in manual handling, then you need to organise specific manual handling training, so as to ensure that the correct approach and technique is used. Once you have been trained, you must supervise the manner in which you employees implement the correct manual handling techniques on site and take corrective action if they revert to poor lifting techniques.



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YOUR WORK ACTIVITIES

Confined space refers to any place, including any vessel, tank, container, pit, bund, chamber, cellar or any other similar space which, by the virtue of its enclosed nature, creates conditions that give rise to a likelihood of an accident, harm or injury of such a nature as to require emergency action. This would include working on drainage where for example you or your employees could be working in live manholes and sewers.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Any work in confined spaces exposes you or your employees to significant hazards, particularly where harmful gases or biological agents are present or can accumulate. The extent of the hazards can be compounded by the difficulty in providing assistance.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Working in confined spaces is a high risk activity. Multiple fatalities have occurred when an operative has become overcome by harmful gases and in attempting to get the person out, others have entered the area without protection and been killed.

YOUR CONTROLS

Plan your work! If the ground works includes entry into confined spaces, you must survey this environment first, so as to be sure that you identify all of the hazards that may exist. This will allow you to assess the risks and to ensure that the appropriate control measures are in place before anyone enters the work area. You should use a permit-to-work system for all confined space entry. This will help you manage the implementation of safe working procedures in this hazardous environment. Ensure that you have gas detection and monitoring equipment that is suitable for the anticipated harmful gases and that it is in good working order and has a valid test certificate. You need to consider if the environment requires you to provide a tripod apparatus to be located above the confined space, which will allow for the rescue of the operative working in the confined space, in the event of difficulty. Your employees working in a confined space must be verbal contact with persons outside at all times. If using radio equipment to achieve this, then you must make sure that it is intrinsically safe for use in explosive atmospheres.





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YOUR WORK ACTIVITIES

Personal Protective Equipment (PPE) should be considered as a last resort, only after all other control measures have not allowed for the complete elimination of the hazards. PPE will only protect the individual (1) who is wearing the PPE, (2) who is trained in its safe use, (3) who is using it in accordance with its training and (4) who is provided with PPE that is in good working order. There is a wide variety of PPE available for typical hazards and you need to ensure that you choose the correct PPE for your application; you should seek competent assistance is unsure.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

PPE is intended to provide protection from residual hazards. However you and your employees can be exposed to the hazards by the incorrect use of the PPE equipment.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

PPE is the last line of defence that you or your employees have to hazards that exist. You are at risk if PPE is not provided or is not used correctly. The effects may be acute (injury is immediately evident) or the injury may only become apparent over time.

YOUR CONTROLS

You need to assess the residual hazards, having put in place all other control measures. If the hazards cannot be fully eliminated then you may need to rely on PPE. However you have to not only provide the PPE, but also the training in its correct use. For example for hearing protection this does not have to include formal off-site training, but should include your supplier providing literature for the hearing protection provided, demonstrating its safe use and for you to include this as a topic in tool-box talks. You need to determine what is the minimum mandatory PPE that is required for works on site and ensure that everyone in your works area (including you) are correctly using the minimum PPE. If persons are not using the PPE then you are required to take corrective action in a consistent manner. Don't lapse into the approach of "I have told him a hundred times to wear the hearing protection; what more can I do?". You can do a lot more! You are in charge of that place of work and you must lead by example and your employees must know that the PPE is provided for their protection and if it is not used correctly, then there may be consequences.



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YOUR WORK ACTIVITIES

The risk of fire can be present during ground works; albeit at a lower risk than during other stages of the construction project. When engaged in ground works the risk of fire is heightened during long dry spells, during site clearance, if hot works are being undertaken, or if you are storing flammable materials.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

You and your employees are at risk if you come in contact with a fire event. The fire itself may have been initiated by others, but may still affect your safety.

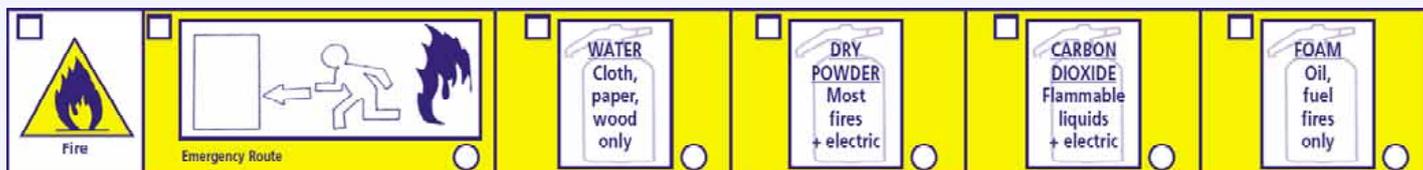
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

The level of risk will depend on the nature of the ground works activities and other construction works on site at any one time. Therefore the risk can change as the works progress.

YOUR CONTROLS

Discuss the fire potential with the project supervisor for the construction stage (PSCS) and determine what activities are happening on site that place you or your employees at risk of becoming in contact with a fire event. When you are undertaking works, which include a risk of fire, ensure you communicate information about the hazard and control measures to the PSCS and other contractors working on site. If you have engaged in hot works, ensure that you have the appropriate fire extinguishers to hand and at the works site. In addition the work area should be repeatedly inspected after the hot works are completed, to ensure that a fire has not developed. You need to provide instructions to your employees on what should be done in the event of a fire and practice the drill.



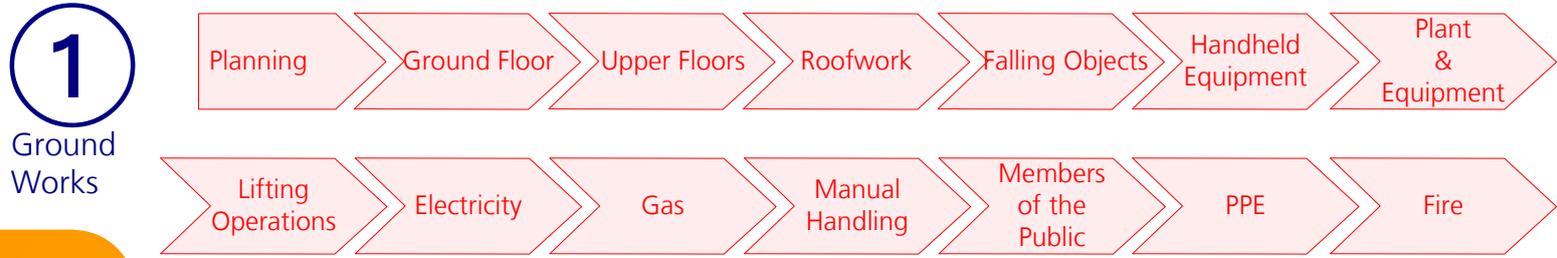


HEALTH AND SAFETY
AUTHORITY

SAFE SYSTEM OF WORK PLAN (SSWP)



HOUSE BUILDING FORM



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YOUR WORK ACTIVITIES

Form 2 relates to house building activities, and it applies to any housing project, whether it is a once-off house or a large housing scheme. This House Building SSWP is intended for all trades involved in house building or projects of a similar nature. The manner in which you plan your works affects the safety of your employees and that of other trades working on site. The next 14 pages will help you identify the hazards associated with your work and how you can control these to protect the people around you. The main steps in planning the project include:

- Visit the site and meet with the client / developer / main contractor;
- Agree with scope of the works and the programme;
- Agree the required safety provisions and who will arrange & implement on site;
- Fill in the House Building Safe System of Work Plan;
- Confirm with your employees that the controls are in place;
- Supervise to ensure that the works are been undertaken in a safe manner;
- If you see unsafe work practices, report these to site management or take direct action if it involves your employees;
- Keep the completed SSWP with the work crew & revise as necessary

MAIN PERSONS AT RISK

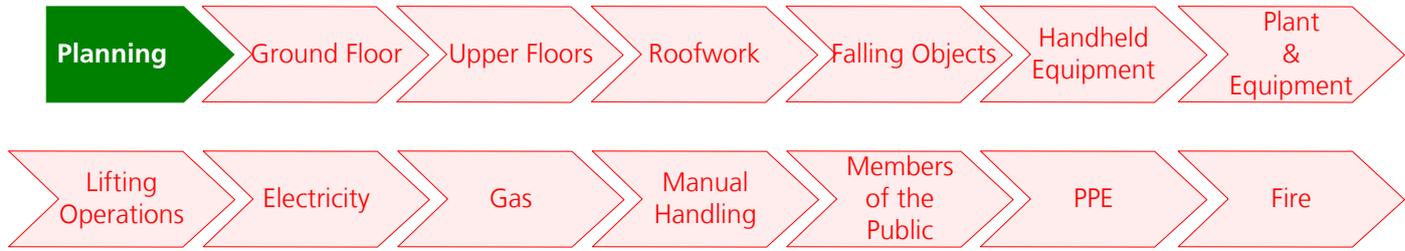
- Bricklayers / Stonelayers
- Carpenters and Joiners
- Construction Operatives
- Electricians
- Floorlayers
- Glaziers
- Painters
- Plasterers
- Plumbers
- Slaters and Tilers
- Stonecutters
- Apprentices
- Delivery Drivers
- Engineers
- Site Management Team
- House purchasers

Must Read and Implement the Controls

SECONDARY PERSONS AT RISK

- Ground Workers
- Plant Drivers
- Pipe Layers
- Statutory Undertakers (ESB, Bord Gas, etc)
- Members of the public

Should Read and Follow Directions



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YOUR WORK ACTIVITIES

Your safety or that of your employees could be affected, if you start house construction on site, without first planning out what works have to be undertaken, who is going to control the works and how the works are going to be completed safely.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

House building can be hazardous because of the nature of the work. Particular hazards such as working at height, contribute to a large number of deaths and serious injuries in the house building sector.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Working at height (if not undertaken in a safe manner) could result in your death or the death of other persons, including your employees. For example working on incomplete scaffolding or without the protection of a handrail, could result in you falling.

YOUR CONTROLS

Plan the works that you have to complete. Decide who is going to be in charge of the house building project and ensure that they are competent to supervise the works. Talk to other contractors who may be affected by your works and make sure that you take their safety into account as well. You need to ensure that your employees have received the FÁS Safe Pass and Construction Skills Certification Scheme training, for the works that they are going to undertake for you. Any plant and equipment that you provide or hire in to do the work, must be in safe working order and have current certificates. Talk to your employees about the work that has to be undertaken and make sure that they are aware of the hazards that exist and how you expect them to complete the work in a safe manner. If welfare facilities are being provided by another contractor, make sure that these are available to you and your employees and that they are maintained in a clean condition.



Refer to Safe System of Work Plan Construction Form 2 (House Building)



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YOUR WORK ACTIVITIES

As the ground works progress, work can commence on the construction of the dead work and ground floor. This will involve a range of different trades from block layers to construction operatives. As the ground floor progresses, you and your employees will be working at height.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

Work commences at ground level and in shallow excavations, but can rapidly involve people working at height. The site can change quickly with new hazards coming into existence.

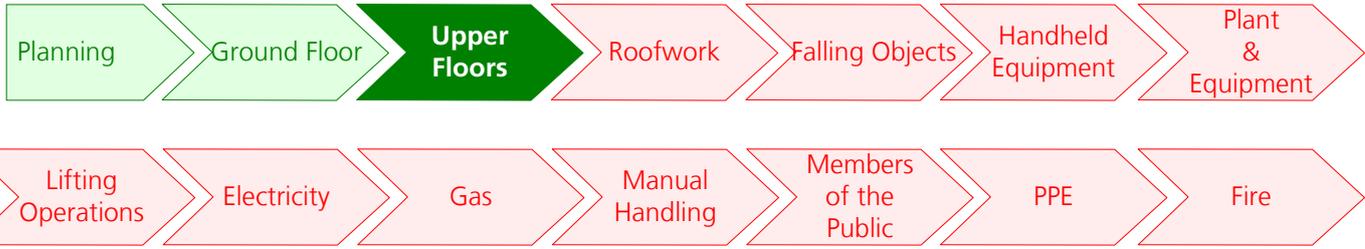
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

Operatives are at risk from tripping hazards during the construction of the foundations and dead work. As the works progresses there are increasing risk of operatives falling from height.

YOUR CONTROLS

As soon as the works commence on the ground floor, you should establish access routes for site operatives; these should be segregated from zones where construction vehicles are operating. Where reinforcement bars are exposed, these should be removed, bent down or capped with a plastic mushroom so as to minimise the risk of trips or puncture injuries. This is particularly important along access routes or close to working areas. As the building progresses, it may require you or your employees to work at height. In the past trestles have been used for low level work (i.e. less than 2m); however older style trestles may not conform to the Safety, Health and Welfare at Work (Working at Height) Regulations, 2006 and should not be used. If you intend to use trestles, then you must ensure that they are erected correctly, are fully boarded, have a handrail attached and are not overloaded. If you are directing the erection of the scaffolding, you must ensure that the ground has been prepared so that it can safely support the loads imposed by the loaded scaffolding. The scaffolding must be designed, planned and erected by fully trained personnel.

<input type="checkbox"/>  Ground Floor	<input type="checkbox"/>  Housekeeping	<input type="checkbox"/>  Access Route	<input type="checkbox"/>  Rebar	<input type="checkbox"/>  Trestle Platform	<input type="checkbox"/>  Ground Conditions	<input type="checkbox"/>  Scaffold	<input type="checkbox"/> Other	<input type="checkbox"/> Other	<input type="checkbox"/> Other	<input type="checkbox"/> Other
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YOUR WORK ACTIVITIES

Working on upper floors poses a greater risk of falling from height. Irrespective of the building type (traditional or timber framed) there will be a requirement for different trades to be working at height as the building progresses. You need to consider how you interact with other trades, so as to ensure that your work activities are not affecting the safety, health or welfare of other persons on site. When working on the upper floors, you will need to plan how you can safely get operatives, tools and materials up to the higher level.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Hazards at this level include falling from height; collapse of temporary structures; collapse of the partially constructed building. Slips, trips and falls can occur at this level due to partially completed floors and poor housekeeping.

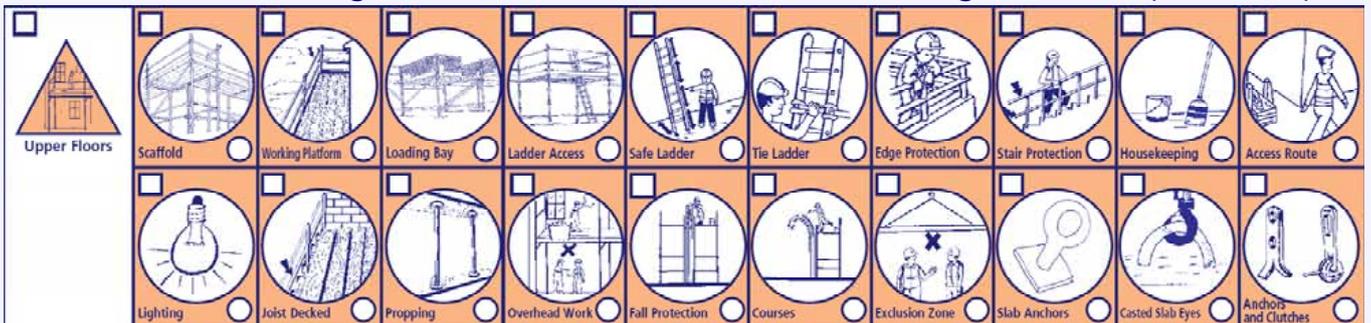
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

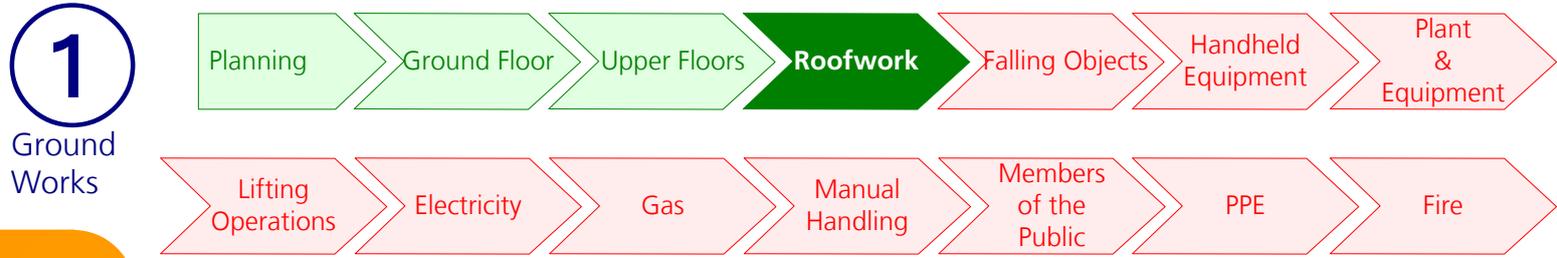
You need to manage the interface between your employees & other trades working on the house. If other trades interfere with access or working scaffolds you need to report this to the site management and ensure that your employees stop using the scaffolding

YOUR CONTROLS

There are an increasing number of trades working on the interior and exterior of the house. Where your employees are working at height ensure that safe access & egress is provided and that a safe working platform is erected, inspected and signed off. Scaffolding Tags should be used to communicate as to whether or not the scaffolding is safe to use and what the loading capacity of the scaffolding is. You must ensure that protection is provided at leading edges and openings, for example, around stairwells. You must ensure that your employees do not use stilts or ladders adjacent to unprotected edges, where there is an increased risk of falling. You must make sure that your employees observe the exclusion zone around lifting operations and that if elements are lifted over your working zone, that you raise this with site management and vacate the area until an agreed work plan is in place.



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YOUR WORK ACTIVITIES

The main trades working at roof level or in the roof space include: block layers; carpenters; roofers; plasterers; plumbers; and construction operatives. You have to ensure that safe access and working platforms continue to be provided for your employees, until all work at roof level is completed. If you intend to use MEWP then you must ensure that these are operated by trained personnel. As the height of the building increases you may become unacceptably close to overhead electricity cables; in this event raise this with the person in control of the site.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

Hazards at this level include falling from height either off the edge of the building or through the partially constructed roof structure.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

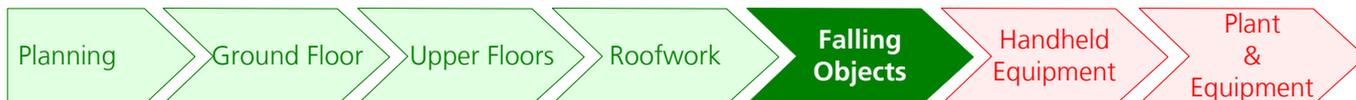
The risks may increase with pressure to strike scaffolding and revert to MEWP for access at height.

YOUR CONTROLS

You need to continue to provide collective protective equipment for your employees working at height. All leading edges should be protected with handrails. Work platform should be fully boarded out and the roof trusses should be boarded out for carpenters, roofers and subsequent trades. You need to plan your roof work in relation to the weather conditions and stop works at roof level in adverse weather conditions. Because your employees could fall more than 2m, you must arrange that all equipment provided for working at height is inspected every seven days and verified as being in good working order.

<p>Roof Work and Roof Space</p>	<p>Roof Ladders <input type="checkbox"/></p>	<p>MEWP <input type="checkbox"/></p>	<p>Scissors Lift <input type="checkbox"/></p>	<p>Edge Protection <input type="checkbox"/></p>	<p>Deck Trusses <input type="checkbox"/></p>	<p>Nets/Bean Bags <input type="checkbox"/></p>	<p>Warning Signs <input type="checkbox"/></p>	<p>Storage <input type="checkbox"/></p>	<p>Overhead Lines <input type="checkbox"/></p>	<p>Weather <input type="checkbox"/></p>
	<p>Stilts <input type="checkbox"/></p>	<p>'A' Ladder <input type="checkbox"/></p>	<p>Guard All Opes <input type="checkbox"/></p>	<input type="checkbox"/> Other <input type="checkbox"/>						

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YOUR WORK ACTIVITIES

You may require your employees to work at height as part of the construction of the house. Alternatively you may be involved in removing elements of the house in a refurbishment project. Either way, one consequence of working at height is the potential for objects falling onto persons below. This can cause injury to other persons working on site, but also to members of the public. When working at height you need to ensure that tools and materials are properly stored away from edges and that materials are secure during high wind events.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

If you or your employees are working at height, then you may not be directly affected by falling objects. However other operatives working beneath you on site can be seriously injured by the falling objects.

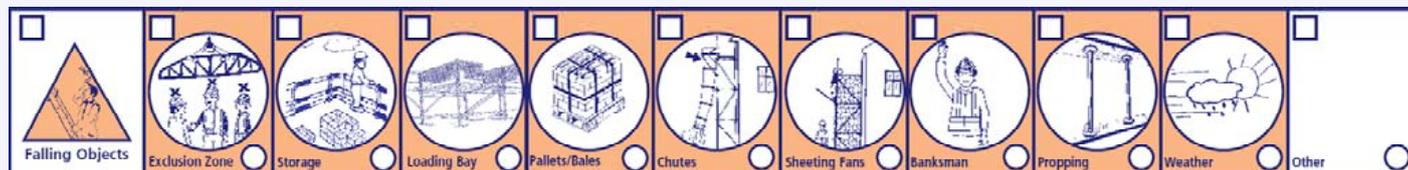
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

This is a high risk hazard, for which your risk assessment needs to identify appropriate control measures to minimise the risks to your employees and others that are affected.

YOUR CONTROLS

The first control should be to plan how you intend to work safely at height. This should include measures that you will put in place to prevent tools and materials falling. When you are using the crane to lift components up to your work area, you need to agree with other contractors, the extent of the exclusion zone that is required so as to prevent materials being lifted over persons working on site or over members of the public. Once materials are located at height, make sure that these are properly stored and secure, so as to prevent them becoming airborne in high winds. Materials should only be loaded out onto designated loading bays, ensuring that you do not exceed the stated capacity. You will need to plan in advance, how you intend to remove surplus materials from a height. Suitable skips that are designed to be lifted by crane may be used, provided there is a suitable landing position for the skip at height. Alternatively chutes may be used to direct the waste material directly into the skid, located at ground level.



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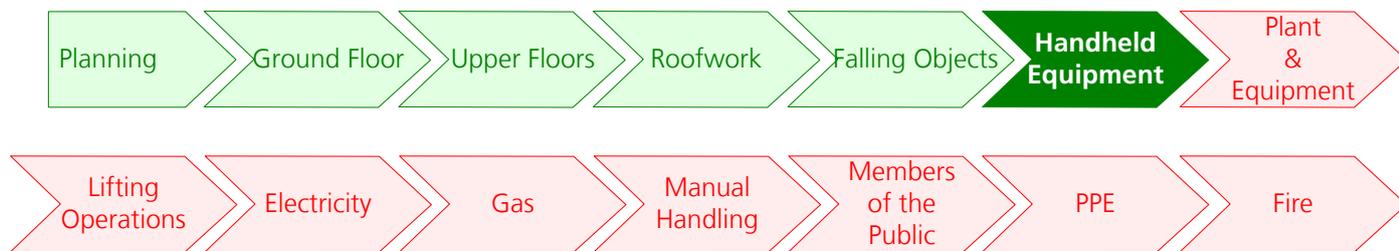
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YOUR WORK ACTIVITIES

Use of hand tools can make a construction task easier and when used in a proper manner, make the work safer. For example using circular saws for timber or consaws for blockwork or concrete. Each hand tool will have different power sources that you will need to plan for, some are powered by electricity, others by battery, or compressed air. When planning your work activities select the appropriate hand tool for the task but also consider the availability and route of the power source to the works area.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Operatives can be injured by the hand tool itself; or by the products coming from the use of the hand tool. Hand-arm vibration, and noise are often hazards associated with the use of hand tools. The power source can also be a hazard.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Some of the hazards are a medium to high risk; leading to injury or ongoing illness. Operatives have suffered fatal injuries as a consequence of using hand tools. Therefore some of the hazards can be high risk, particularly when working at height.

YOUR CONTROLS

First you need to plan your element of the house building and determine what hand tools are required for each task. Ensure that tools are appropriate for each task and that suitable power sources are available. All portable electric tools rated below 2kw must be powered using 110v supply. Battery operated hand tools can make the task easier and safer; however consider how the batteries are to be charged, which often require a 230v supply. Check all cables for damage before use and ensure that cable routes are protected from plant and equipment on site. Ensure that protective guards are in place and used by operatives on site. If the hand tool requires PPE, such as hearing, eye or hand protection, then ensure that these are available on site and used properly by operatives using the hand tools. If you need to use generators then you must ensure that these are located outside. You will need to ensure that hand tools provided are maintained in good working order and that defective tools or components are replaced.





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YOUR WORK ACTIVITIES

We are utilising an increasing amount of plant and equipment on our construction sites. This has health and safety benefits in reducing the manual handling hazards. However additional hazards are introduced in how site operatives interact with the different plant and equipment on site. Irrespective of whether you own the plant and equipment or you are hiring it onto site, you have an obligation to ensure that it is safe for the purpose, that it is maintained in a safe condition during its use and that it is operated by a competent driver.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Due to the nature and weight of the different types of plant and equipment on site, if a failure occurs there is a significant potential for site operatives or members of the public to be harmed.

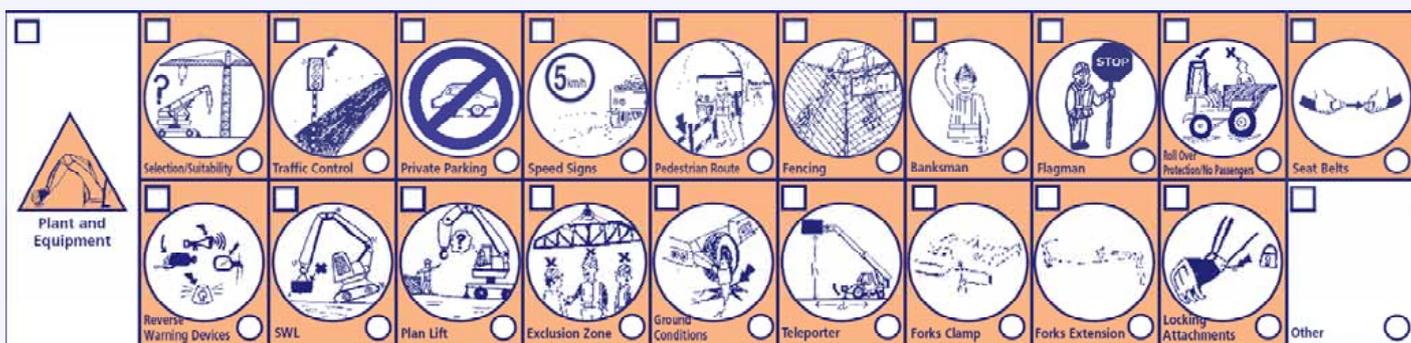
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

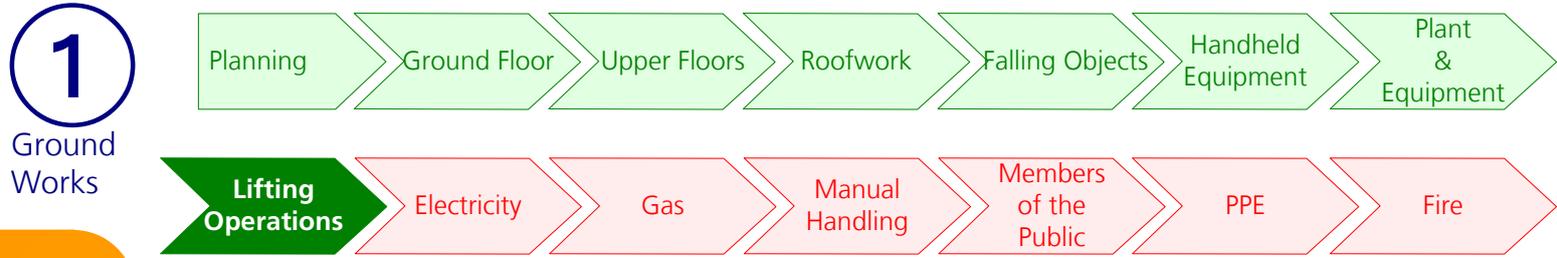
Working close to operating plant and equipment increases the risks, in the event of a failure of the plant, equipment or systems of operation. There have been numerous deaths as a consequence of people coming into contact with plant and equipment.

YOUR CONTROLS

The first step is to ensure that the plant and equipment that you choose is suitable for the task; in particular in relation to its SWL, reach, and limits in terrain. Where plant is traversing site, the aim should be to segregate pedestrians from the traffic routes, to implement a one-way system and to ensure that plant is fitted with auxiliary visual aids as required. If locking devices are fitted to quick release hitches, then it is vital that these are used in accordance with the manufacturers recommendations; in particular safety pins. Secure barriers are necessary when plant and equipment is operating close to members of the public. The person responsible for selecting lifting equipment must ensure that it will be used within its SWL limits at all stages of the lift and that it is thoroughly inspected prior to its use.



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YOUR WORK ACTIVITIES

When involved in house building, it is highly likely that you will require materials and components to be lifted, either off delivery trucks or up to works locations at height. In addition you may require plant and equipment to be lifted up to each storey as the construction advances. If you are directing the lifting operations you will need to ensure that all aspects of the lift are controlled. If the cranes are provided by others, you need to cooperate with the procedures set down.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

Materials that are being lifted can come loose and collapse. Any element of the lifting equipment may fail, leading to materials or components falling. Lastly if the lifting equipment is used outside of its SWL capacity it may become unstable and overturn.

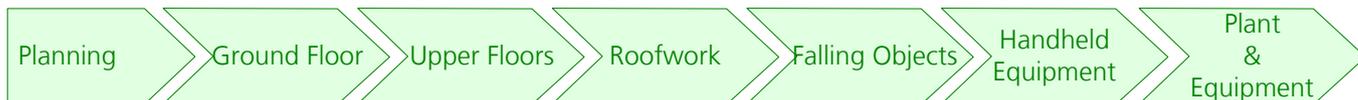
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

Because the loads being lifted can be significant, the risk of injury is high in the event of a failure. A site specific risk assessment needs to be undertaken for lifting operations to ensure that all hazards are identified and managed.

YOUR CONTROLS

When planning lifting operations, determine who is going to be in charge of the lift and agree communications procedures. In advance of the lift plan out the access route, taking into account overhead power lines and verify that the ground conditions are sufficient to support the total weight of the lift. If necessary get competent assistance in the choice of the lifting equipment, to ensure that all lifting equipment is operating within its SWL at all times of the lift. Where you intend to use grabs, verify that these are the appropriate equipment for lifting your components and use safety chains or nets under each suspended load. Prior to the lift, determine the centre of gravity of the load, particularly for awkward loads. If you are responsible for lifting operations, you will need to ensure that inspections and tests are carried out as required.

<p>Lifting Operations</p>	<p>Crane</p>	<p>Check Lifting Gear</p>	<p>Slab Lifting Gear</p>	<p>Block Grabs and Nets</p>	<p>Skips/Bins</p>	<p>Stillages</p>	<p>Load Stability</p>	<p>Overhead Lines</p>	<p>Weather</p>	<p>Concrete Pump</p>
	<p>Power Floating</p>	<p>Cement Mixer</p>	<p>Paint Sprayer</p>	<p>Maintenance</p>	<p>Remote Control</p>	<p>Communication</p>	<p>Examination & Inspection</p>	<p>Other</p>	<p>Other</p>	<p>Other</p>



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YOUR WORK ACTIVITIES

A wide range of construction activities can result in operatives coming in contact with electricity; often with fatal consequences. For example, drilling walls, which contain electricity cables, excavating close to buried services or plant and equipment operating close to overhead power lines. However other work activities can put your employees at risk; such as delivering / offloading materials on site.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Any work which puts you or your employees close to electrical cables is a significant hazard. Overhead power lines are visible; however people can become complacent. Underground cables have an increased hazard as they cannot be seen.

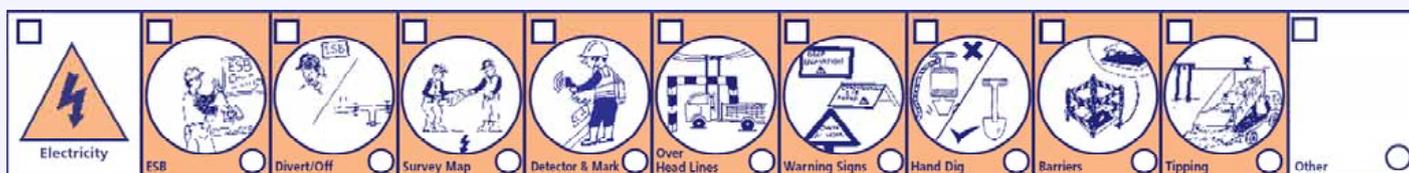
RISKS YOU ARE EXPOSED TO

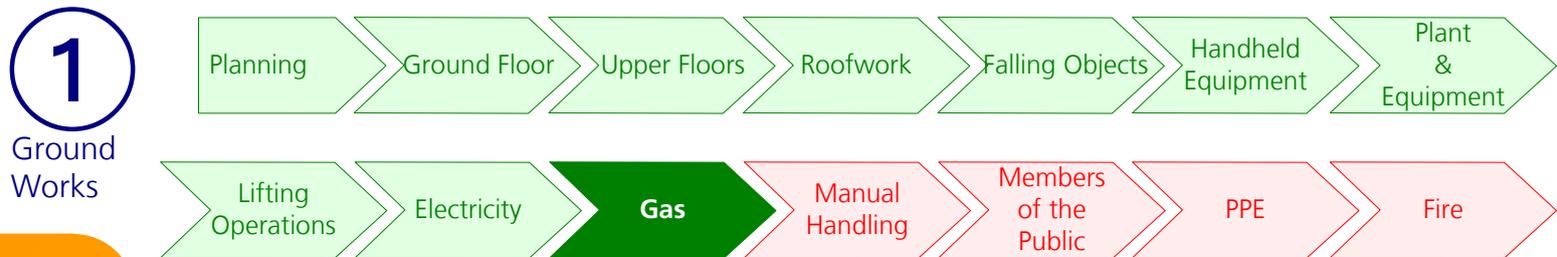
the chance that you will be harmed by the hazard

There is a high risk of fatal accidents when working close to electricity.

YOUR CONTROLS

Always contact the electricity utility company before commencing work adjacent to overhead or underground cables. The first option should be to divert the overhead or underground service away from the works; or turn off power to allow the works to proceed safely. You need to get service drawings from the electricity utility company and use these to identify zones where services may exist. Your works area should be surveyed for electrical cables, for example using a Cable Avoiding Tool (CAT) and the identified services should be clearly marked with warning signs. Where overhead lines cannot be diverted, these need to be protected by the use of barriers and goalposts erected on both sides of the overhead lines. Pay particular attention to tipping vehicles operating on site, and ensure that these are kept a safe distance away. If you are involved in carrying out invasive works in a house when the electrical system is energised, make sure that it is temporally isolated or scan the area to ensure that cables are not present.





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YOUR WORK ACTIVITIES

Gas mains tend to be buried underground and therefore any works activity that includes excavation can place site operatives at risk. Natural gas is highly flammable and is transported in a network of polyethylene and steel pipes at various pressures.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

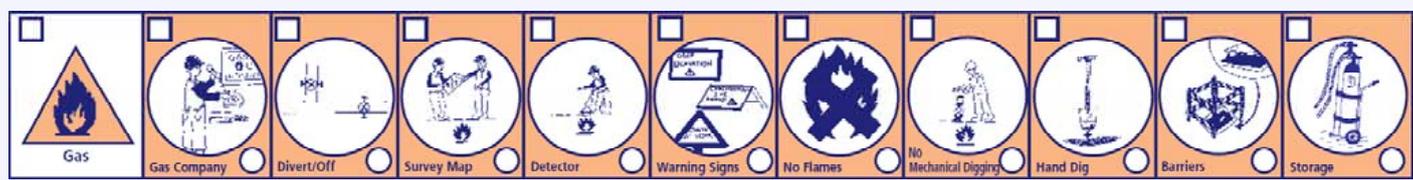
Damage to a gas main may result in large volumes of gas escaping into the atmosphere in an uncontrolled manner.

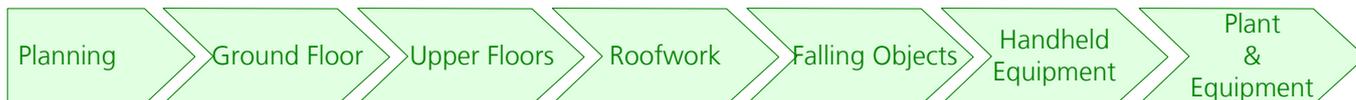
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

The risks associated with leaking LPG are even greater than those associated with leaking natural gas as it is heavier than air and does not disperse as readily. In addition, it can travel great distances below ground level before accumulating at low levels.

YOUR CONTROLS

You should contact the gas utility companies to determine where the gas services are located, before works start on the house. It is preferable to get the utility company to divert the gas service away from the works zone or at least to get the service temporarily shut off during the works. The services should be clearly marked out on site, based on the drawings received and the surveys undertaken to determine the extent, nature and position of the services. Warning signs must be erected before the works commence and procedures must be in place to ensure that all sources of ignition are removed from the vicinity of the works. Mechanical excavating at or immediately close to underground gas services is not permitted. Only hand digging techniques should be used to expose gas services. This must be clearly communicated to the work crew and supervised on site. If you are using gas cylinders, you must ensure that they are stored and used in accordance with your suppliers' recommendations. In particular oxy-acetylene cylinders must be stored in an upright position and in appropriate rigs.





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YOUR WORK ACTIVITIES

Manual handling is the physical movement by a person of objects by lifting, pushing or pulling, that it likely to cause injury or other health problems. There is a wide range of materials that your employees may be required to work with; some may be small, but heavy; others may be lightweight, but an awkward shape or size. While the increase in mechanical aids has reduced the requirement for manual handling, it is still a significant cause of injury to construction operatives.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Operatives can suffer injuries from lifting or moving heavy objects, or in association with additional body movements. The hazards that you are exposed to will depend on the extent to which you rely on manual handling to carry out works.

RISKS YOU ARE EXPOSED TO

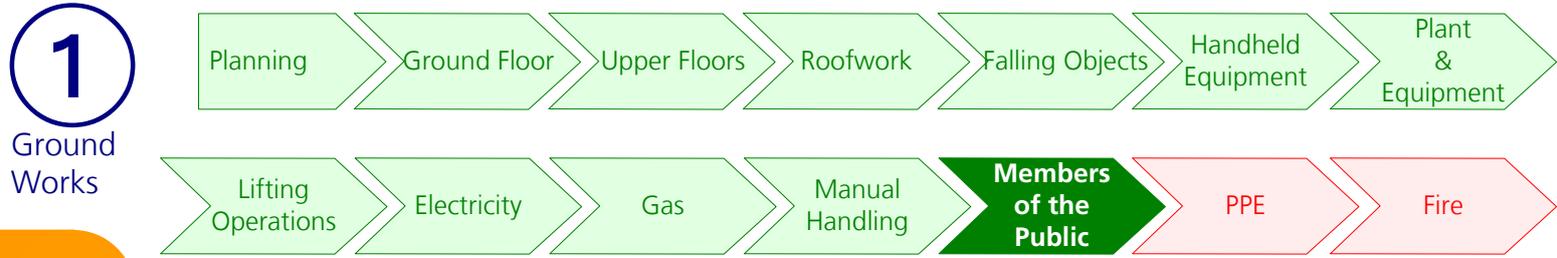
the chance that you will be harmed by the hazard

While our bodies are designed to move and can do work effectively, excessive amounts of manual handling can increase the risks of injury. In addition, significant injury can result from a single lift event, where the weight or nature of the load is too much.

YOUR CONTROLS

You need to assess every task to determine if there is a manual handling hazard. Your first approach should be to eliminate the risk, by removing the requirement for you or your employees to engage in manual handling. If you cannot eliminate the hazard, then you need to put in control measures to reduce the risk to as low a level as possible. This may include the provision of mechanical lifting aids, which can be used to take the weight / strain from your operatives. In addition you need to look at how you are planning your works, to see if you can reorganise the activities in such a way so as to eliminate or reduce manual handling requirements. If you or your employees are engaged in manual handling, then you need to organise specific manual handling training, so as to ensure that the correct approach and technique is used. Once you have been trained, you must supervise the manner in which you employees implement the correct manual handling techniques on site and take corrective action if they revert to poor lifting techniques.





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YOUR WORK ACTIVITIES

It is very likely that your house building project will be in close proximity to the public. In addition children can be drawn to construction sites and seek to gain access to explore the site. You have a duty under Section 12 of the Safety, Health and Welfare at Work Act, 2005 to take account of the safety, health and welfare of other persons who are not your employees in how you carry out your work activities. This protection will not happen automatically; you need to plan it out before the works start.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

Members of the public may not be aware of the hazards and do not have the knowledge as to how to react to situations. In addition the public can be harmed at the interface / crossing points because they are less visible and may not understand the priority.

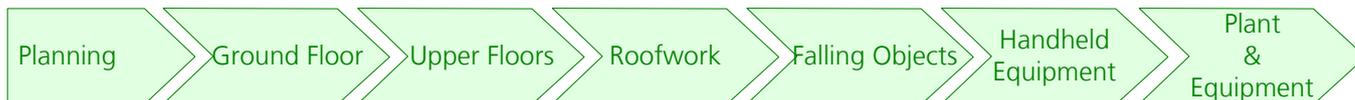
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

Any interface with the public is high risk. In particular where construction operations or construction traffic is in or cuts across the public domain. Children are most at risk as a consequence of coming into contact with construction operations.

YOUR CONTROLS

Where your work is close to the public, you need to plan out in advance how you are going to control that interface. You need to determine what fencing or hoarding is required so as to protect the public. If your site is close or adjacent to existing residential areas, this will increase the responsibility to ensure that there is no unauthorised access onto site. All open excavations need to be protected by barriers and have appropriate warning signs. Where members of the public have to access close to, or around construction activities, you must provide suitable and safe pedestrian routes so as to ensure that their safety is not put at risk. At some stage you will have house purchasers entering site and you will need to establish visitor and handover control and check to ensure that these procedures are working.

<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
	Members of Public		Fencing		Hoarding		Barriers		Pedestrian Way		Lighting		Warning Signs		Security		Traffic Control		Banksman		Flagman
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
	Dust/Muck		Visitor Control		Handover Controls		Other		Other		Other		Other		Other		Other		Other		Other



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YOUR WORK ACTIVITIES

Personal Protective Equipment (PPE) should be considered as a last resort, only after all other control measures have not allowed for the complete elimination of the hazards. PPE will only protect the individual (1) who is wearing the PPE, (2) who is trained in its safe use, (3) who is using it in accordance with its training and (4) who is provided with PPE that is in good working order. There is a wide variety of PPE available for typical hazards and you need to ensure that you choose the correct PPE for your application; you should seek competent assistance is unsure.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

PPE is intended to provide protection from residual hazards. However you and your employees can be exposed to the hazards by the incorrect use of the PPE equipment.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

PPE is the last line of defence that you or your employees have to hazards that exist. You are at risk if PPE is not provided or is not used correctly. The effects may be acute (injury is immediately evident) or the injury may only become apparent over time.

YOUR CONTROLS

You need to assess the residual hazards, having put in place all other control measures. If the hazards cannot be fully eliminated then you may need to rely on PPE. However you have to not only provide the PPE, but also the training in its correct use. For example for hearing protection this does not have to include formal off-site training, but should include your supplier providing literature for the hearing protection provided, demonstrating its safe use and for you to include this as a topic in tool-box talks. You need to determine what is the minimum mandatory PPE that is required for works on site and ensure that everyone in your works area (including you) are correctly using the minimum PPE. If persons are not using the PPE then you are required to take corrective action in a consistent manner. Don't lapse into the approach of "I have told him a hundred times to wear the hearing protection; what more can I do?". You can do a lot more! You are in charge of that place of work and you must lead by example and your employees must know that the PPE is provided for their protection and if it is not used correctly, then there may be consequences.





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YOUR WORK ACTIVITIES

The risk of fire is generally ever present on construction sites. When engaged in house building the risk of fire is heightened when flammable materials are inappropriately stored or if hot works are being undertaken.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

You and your employees are at risk if you come in contact with a fire event. The fire itself may have been initiated by others, but may still affect your safety.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

The level of risk will depend on the stage of the construction and the other construction activities in progress on site at any one time. Therefore the risk can change as the works progress.

YOUR CONTROLS

Discuss the fire potential with the project supervisor for the construction stage (PSCS) and determine what activities are happening on site that place you or your employees at risk of becoming in contact with a fire event. When you are undertaking works, which include a risk of fire, ensure you communicate information about the hazard and control measures to the PSCS and other contractors working on site. If you have engaged in hot works, ensure that you have the appropriate fire extinguishers to hand and at the works site. In addition the work area should be repeatedly inspected after the hot works are completed, to ensure that a fire has not developed. You need to provide instructions to your employees on what should be done in the event of a fire and practice the drill.



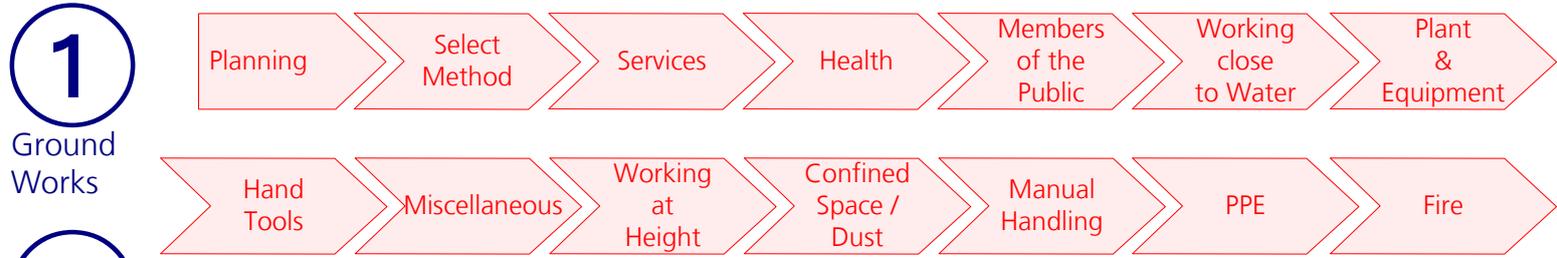


HEALTH AND SAFETY
AUTHORITY

SAFE SYSTEM OF WORK PLAN (SSWP)



DEMOLITION FORM



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YOUR WORK ACTIVITIES

Construction Form 3 relates to demolition activities, and it applies to all demolition projects. Demolition is a high risk activity. The process of demolishing a structure, may result in unexpected behaviour and lead to temporary instability and sudden collapse. The demolition needs to be carefully planned and executed by competent persons. The next 14 pages will help you identify the hazards associated with your work and how you can control these to protect the people around you. The main steps in planning the project include:

- Visit the site and meet with the client / developer / main contractor;
- Agree with scope of the works and the programme;
- Agree the required safety provisions and who will arrange & implement on site;
- Fill in the Demolition Safe System of Work Plan;
- Confirm with your employees that the controls are in place;
- Supervise to ensure that the works are been undertaken in a safe manner;
- If you see unsafe work practices, report these to site management or take direct action if it involves your employees;
- Keep the completed SSWP with the work crew & revise as necessary

MAIN PERSONS AT RISK

- Demolition Operatives
- Ground Workers
- Scaffolders
- Plant Drivers
- Pipe Layers
- Statutory Undertakers (ESB, Bord Gas, etc)
- Delivery Drivers
- Engineers
- Site Management Team

Must Read and Implement the Controls

SECONDARY PERSONS AT RISK

- Bricklayers / Stonelayers
- Carpenters and Joiners
- Construction Operatives
- Electricians
- Floorlayers
- Glaziers
- Painters
- Plasterers
- Plumbers
- Slaters and Tilers
- Stonecutters
- Apprentices
- Members of the public

Should Read and Follow Directions



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YOUR WORK ACTIVITIES

Prior to commencing any demolition works, you must first carefully plan out the sequence of the demolition. This may involve getting assistance from competent persons to assist in the analysis of the existing structure and to review the existing Safety File. There may be hidden hazards, such as asbestos, that need to be identified, analysed and controlled prior to the main demolition commencing.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Because of the nature of demolition, there are significant hazards affecting not only persons involved directly in the demolition; but also other site operatives and members of the public.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

The demolition process weakens the structure, which in turn may lead to uncontrolled collapse. To minimise the risk a strict exclusion zone should be implemented throughout the demolition process; restricting the area to authorised persons only.

YOUR CONTROLS

Plan the demolition works and agree the sequence in advance. Decide who is going to be in charge of the demolition works and ensure that they are competent to supervise the works. Talk to other contractors who may be affected by your works and make sure that you take their safety into account as well. Arrange for surveys to be completed well in advance. For example, structural surveys and asbestos surveys; then incorporate the findings into the planning of the demolition. Talk to your employees about the work that has to be undertaken and make sure that they are aware of the hazards that exist and how you expect them to complete the work in a safe manner. If welfare facilities are being provided by another contractor, make sure that these are available to you and your employees and that they are maintained in a clean condition.

Competence	Safe Pass	Plant Certs	CSCS	Induction	Communication	WC & Washing	Canteen	Drying/Changing	Drinking Water	Smoking Control
ASBESTOS SURVEYS										
Structural Survey	Type 1	Type 2	Type 3	Environment Risk Assess	Method Statement/Emergency Plan	Fire/Gas/Vapour Controls	Flood Controls	Liaison	Vibration /Noise Assess	Waste Management

Refer to Safe System of Work Plan Construction Form 3 (Demolition)



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YOUR WORK ACTIVITIES

Once the structural surveys and asbestos surveys are complete, you can determine the most appropriate method for the demolition of the structure. This should address the anticipated behaviour of the structure as the demolition progresses.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

Failure to fully assess the structure before commencing the demolition, can lead to uncontrolled collapse of the structure.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

Demolition is a high risk activity and if you do not plan the works or select the correct method for demolition the risks increase significantly.

YOUR CONTROLS

First consider the type of demolition that is appropriate for your structure: demolition by hand or by machine; or demolition by chemical agent or by explosives. Each of these techniques will have particular hazards that you will need to consider and ensure that the appropriate control measures are in place before work commences. You will then need to consider if the chosen method of demolition is correct for the type of structure: buildings; bridges; masonry and brick arches; independent chimneys; lattice towers and masts; basements and retaining walls; spires; and vessels that contained flammable materials. In determining the type of demolition you must also consider temporary instability and the potential requirement for temporary works at each stage of the demolition process.

<input type="checkbox"/>										
Select Method	Hand	Gen. Machine	Remote Control	Cranes	Long Reach	Dem. Pole/Pusher Arm	Impact Hammer	Shears/Pulverizer	Grapple	Wrecking Ball
<input type="checkbox"/>										
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rope Demolition	Drilling/Sawing	Chemical Agents	Explosives	Bursting	Hot Cutting	Thermic Lancing	Propping Plan	Other	Other	Other



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YOUR WORK ACTIVITIES

Electrical services may be underground as well as overhead. Gas mains tend to be buried underground and therefore any works activity that includes excavation can place site operatives at risk. Natural gas is highly flammable and is transported in a network of polyethylene and steel pipes at various pressures. Unless verified otherwise, all services should be assumed as live.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Coming close to electrical cables is a significant hazard. Damage to a gas main may result in large volumes of gas escaping into the atmosphere in an uncontrolled manner. Hazards may also exist with the presence of other services such as sewers or water mains.

RISKS YOU ARE EXPOSED TO

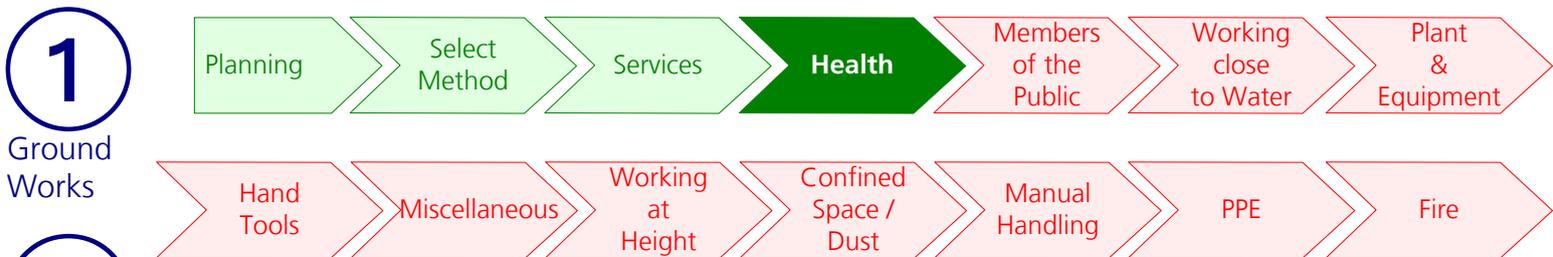
the chance that you will be harmed by the hazard

The risks of injury increase if the services are not fully identified and secured before the demolition works commence.

YOUR CONTROLS

Always contact the relevant utility company before commencing work adjacent to services. The first option should be to divert the service away from the works; or to isolate the service, so as to allow the works to proceed safely. You need to get service drawings from the utility company and use these to identify zones where services may exist. Your works area should be surveyed for the presence of services, for example using a Cable Avoiding Tool (CAT) and the identified services should be clearly marked with warning signs. Mains services should be located by hand digging in advance of mechanical digging or demolition works. Where overhead lines cannot be diverted, these need to be protected by the use of barriers and goalposts erected on both sides of the overhead lines. Pay particular attention to demolition plant on site, in particular long reach machines on site, and ensure that these are kept a safe distance away. Warning signs must be erected to make site operatives aware of the hazards that exist and the control measures that you have put in place.





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YOUR WORK ACTIVITIES

Demolition work can involve the removal of hazardous materials, such as asbestos. Demolition and decommissioning works may also expose your employees to harmful substances and gases that can cause harm by inhalation or by contact with the skin, such as weils disease, hepatitis. You must determine what the hazards are before you commence the demolition, so as to be able to implement the proper controls.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

Materials that do not constitute a hazard in their normal state can become hazardous during demolition; for example either the release of toxic fumes during thermal lancing or asbestos fibres becoming airborne during stripping.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

The risks will be determined by the fabric of the building to be demolished and the method of demolition that you have chosen. These can be determined before works commence, so you will be able to assess the risks in advance.

YOUR CONTROLS

If the building contains asbestos or asbestos containing materials (ACM), you must seek to remove all ACM before the demolition works commence (as far as is reasonably practicable). Seek to keep ACM intact during removal & keep the surrounding area dampened. Do not use power tools as these generate dust, which could contain asbestos fibres. As the stripping progresses you should remove waste and debris from site to minimise the risk of it being crushed or broken. All ACM must be double bagged using high gauge polyethylene & clearly marked as asbestos waste. Other health hazards can exist at demolition stage, for which you need to control. For example you should ensure that only trained operatives with appropriate PPE collect any discarded or used syringes. You may need to provide air monitoring in the vicinity of the demolition works in order to determine the presence of harmful substances or agents and to verify that the proper controls are in place. Depending on the extent of the hazardous materials to be removed, you may be required to provide a decontamination unit for operatives to change from contaminated protective clothing into normal clothing.





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YOUR WORK ACTIVITIES

The demolition project may be in close proximity to the public. In addition children can be drawn to construction sites and seek to gain access to explore the site. You have a duty under Section 12 of the Safety, Health and Welfare at Work Act, 2005 to take account of the safety, health and welfare of other persons who are not your employees in how you carry out your work activities. This protection will not happen automatically; you need to plan it out before the works start.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Members of the public may not be aware of the hazards and do not have the knowledge as to how to react to situations. In addition the public can be harmed at the interface / crossing points because they are less visible and may not understand the priority.

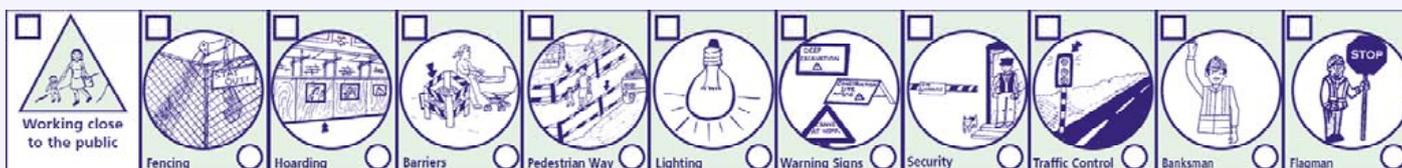
RISKS YOU ARE EXPOSED TO

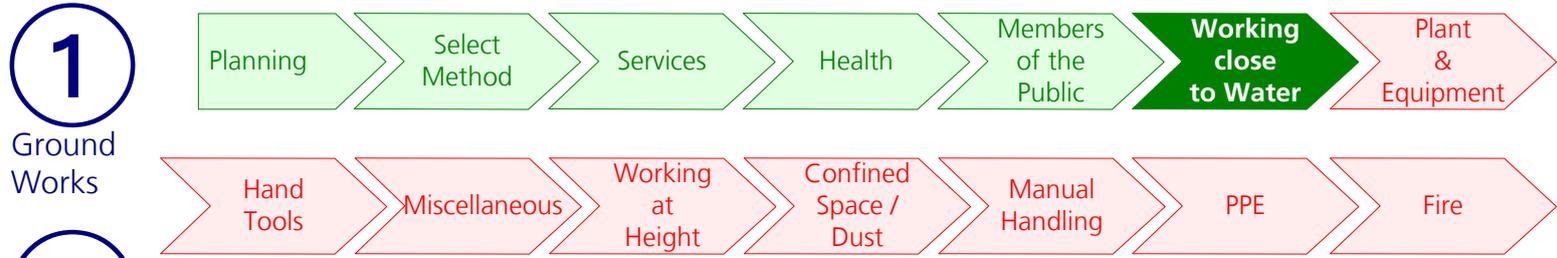
the chance that you will be harmed by the hazard

Any interface with the public is high risk. In particular where demolition operations or construction traffic is in or cuts across the public domain. Children are most at risk as a consequence of coming into contact with construction operations.

YOUR CONTROLS

Where your work is close to the public, you need to plan out in advance how you are going to control that interface. You need to determine what fencing or hoarding is required so as to protect the public. Where your site is close or adjacent to public areas, this will increase the responsibility to ensure that there is no unauthorised access onto site. Where members of the public have to access close to, or around demolition activities, you must provide suitable and safe pedestrian routes so as to ensure that their safety is not put at risk. Where demolition or construction traffic are trafficking across public areas, flagman should be provided to control the interface. All open unsafe structures need to be protected by barriers and have appropriate warning signs.





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YOUR WORK ACTIVITIES

Some demolition projects can involve working close to water, such as a river, lake or the sea. This hazard can be readily identified before you start work on that project, this will allow you to plan out the activities that are going to take place close to water well in advance of the works. Determine who is going to be responsible for providing and maintaining the control measures, and make sure that these are in place before you start work.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

The principal hazard is someone falling into the water and suffering an injury. Their ability to assist themselves may be restricted by the consequences of the fall, i.e. where the person becomes unconscious and cannot keep afloat.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

Factors affecting the risks associated with working close to water include, the flow of water, the depth, how high you are working above the water, how fast the body of water can rise and whether or not operatives are wearing personal floatation devices.

YOUR CONTROLS

Personal floatation devices (PFD) have improved, where the user can have unrestricted movement to undertake the work, but that if they fall into the water, the PFD automatically activates and protects the operative. In addition to PFD you must make sure that there are enough life rings adjacent to the water's edge. When thrown, these will provide buoyancy to the operative in the water and will assist in their recovery from the water. When working over water, you should have a rescue boat readily available. The placement of grab lines in the water downstream from the works, can also assist a person in getting out of the water. However the main controls that you should implement include measures to prevent people from falling into the water in the first place. You should provide handrails along the water's edge or if this is not feasible, provide safety lines and fall arrest systems. Please note that your priority should be to collective protective measures as opposed to individual protective measures, as these protect everyone in that environment, not just those wearing the fall arrest system.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working close to water	Personal Floatation Device	Life Ring	Boat	Edge Protection	Safety Line	Fall Arrest	Grablines	Other	Other	Other



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YOUR WORK ACTIVITIES

Plant & equipment are an integral part of the demolition process, ranging from normal construction plant to specialist demolition plant. The choice of the correct plant will be determined by the type and method of demolition that you decide on. There are a range of high reach machines that eliminate persons working at height. These can be fitted with specialist fittings, such as pusher arms, shears, pulverisers, grapples, wrecking balls and impact hammers.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Plant may be exposed to overturning and destabilising loads during demolition. The use of specialist attachments will require competent drivers to use the plant and at a safe distance from material that can fall during demolition.

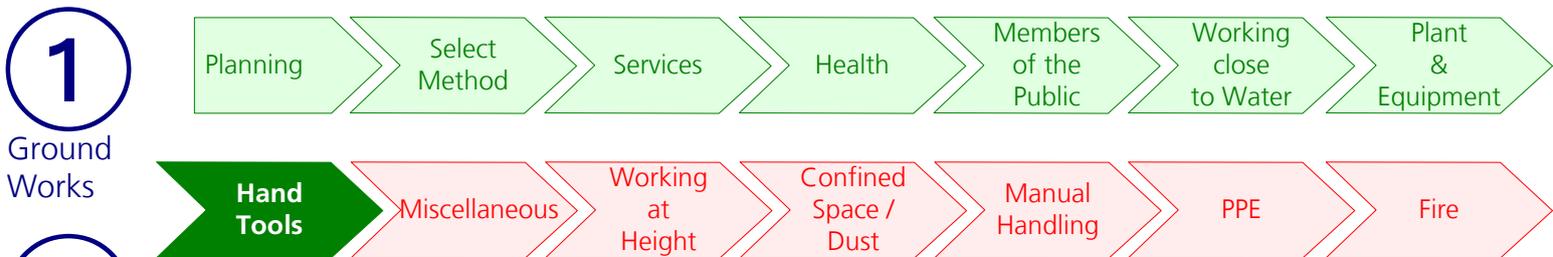
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

While the use of plant can eliminate other hazards, such as working at height, significant risks still remain. You can reduce these risks by the selection of the correct equipment, that is in good working order and making sure it is used correctly.

YOUR CONTROLS

Plan the demolition works in advance; choose the most appropriate plant & equipment for the works; make sure that it is inspected to ensure that it is in proper working order and ensure that it is being driver by competent operators. Circumstances can change during demolition, if this happens make sure that the consequences of changing the method of demolition are fully considered. Refer to the SSWP Form 3 for demolition and the accompanying pictogram booklet for a full description of the appropriate control measures.



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YOUR WORK ACTIVITIES

Use of hand tools can make a demolition task easier and when used in a proper manner, make the work safer. For example using circular saws for timber or consaws for blockwork or concrete. Each hand tool will have different power sources that you will need to plan for, some are powered by electricity, others by battery, or compressed air. When planning your work activities select the appropriate hand tool for the task but also consider the availability and route of the power source to the works area.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

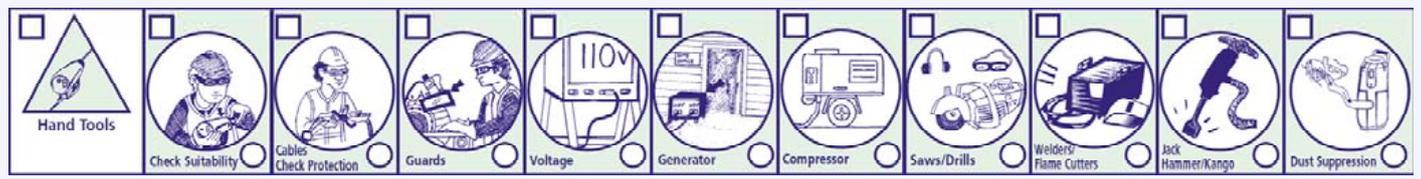
Operatives can be injured by the hand tool itself; or by the products coming from the use of the hand tool. Hand-arm vibration, and noise are often hazards associated with the use of hand tools. The power source can also be a hazard.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

While some of the hazards are a medium to high risk; leading to injury or ongoing illness. Operatives have suffered fatal injuries as a consequence of using hand tools. Therefore some of the hazards can be high risk, particularly when working at height.

YOUR CONTROLS

First you need to plan your demolition task and determine what hand tools are required for each activity. Ensure that tools are appropriate for each task and that suitable power sources are available. All portable electric tools rated below 2kw must be powered using 110v supply. Battery operated hand tools can make the task easier and safer; however consider how the batteries are to be charged, which often require a 230v supply. Check all cables for damage before use and ensure that cable routes are protected from plant and equipment on site. Ensure that protective guards are in place and used by operatives on site. If the hand tool requires PPE, such as hearing, eye or hand protection, then ensure that these are available on site and used properly by operatives using the hand tools. If you need to use generators then you must ensure that these are located outside. You will need to ensure that hand tools provided are maintained in good working order and that defective tools or components are replaced.





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YOUR WORK ACTIVITIES

Demolition can involve particular tasks that are not common to construction and require specialist input. The consequences of carrying out demolition works must be fully assessed for the effect on adjoining structures. Your works may include site clearance or working close to existing structures. Your project may be limited to partial demolition where the façade of the building is to be retained. You may be involved in specialist demolition of pre-stressed structures or the decommissioning of tanks.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

You or your employees may be exposed to unexpected collapses of adjoining structures, which could become destabilised as a consequence of your demolition operations.

RISKS YOU ARE EXPOSED TO

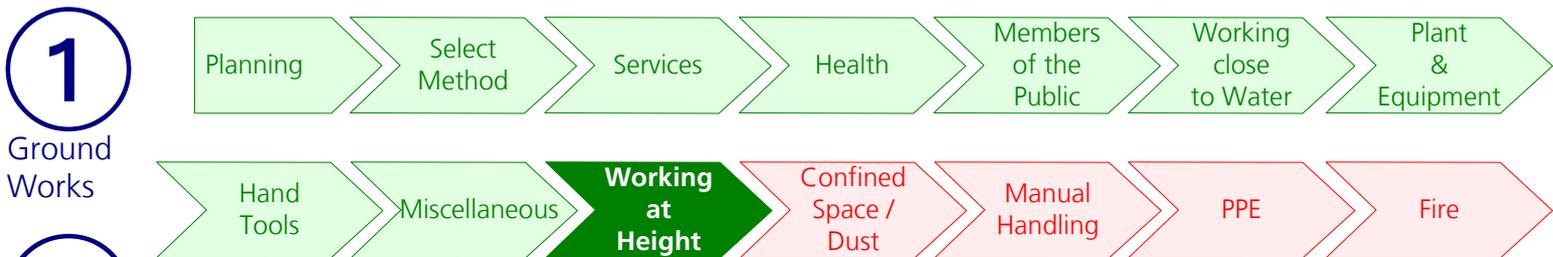
the chance that you will be harmed by the hazard

Demolition by its very nature is a very high risk activity. "Every action can have an unexpected unsafe outcome". While specific hazards can be identified and assessed, you need to also assess the risks of the outcomes of the demolition process itself.

YOUR CONTROLS

The first control is to plan the demolition in detail, consider the type of demolition and the method of demolition that you are going to use. You may need specialist advice from a competent person, when considering the consequences of demolition works, particularly for underpinning and façade retention. These activities will require temporary works, which will have to be formally designed and communicated to the persons erecting the temporary works. You should have a mechanism for checking the adequacy of the temporary works design and for signing off on the erection of the temporary works before it is loaded. If there are pre-stressed elements in the structure, you must identify these and ensure that the demolition method safely dissipates the energy released when the pre-stressed strands are cut. Any demolition involving pre-stressed elements must be fully designed and the demolition method and sequence of works detailed and agreed. Ensure that the public exclusion zone is designed and in place before demolition commences.





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YOUR WORK ACTIVITIES

Demolition by hand or with hand tools may require your employees to work at height as part of the demolition process. The risks of working at height may be increased due to the development of unprotected edges as the demolition advances. You need to manage working at height to ensure that control measures are put in place as hazards are realised on site.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

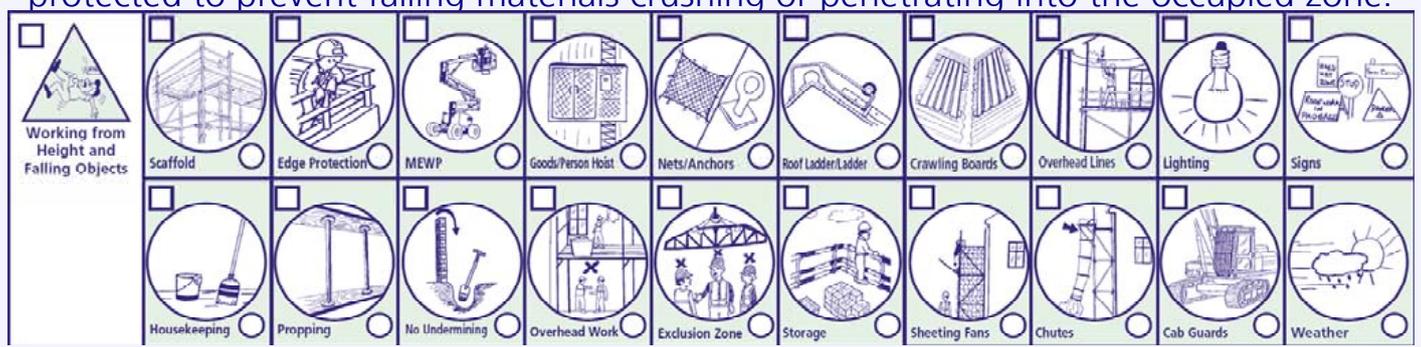
If you or your employees are working at height, then you will be exposed to the risk of falling. In addition operatives working at lower levels can be seriously injured by the falling materials during the demolition process.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

This is a high risk hazard, which the risk assessment needs to identify appropriate control measures to minimise the risks.

YOUR CONTROLS

The first control should be to plan how you intend to work safely at height. This should include measures that you will put in place to prevent tools & materials falling. When you are using the crane to lift components up to your work area, you need to agree with other contractors, the extent of the exclusion zone that is required so as to prevent materials being lifted over persons working on site or over members of the public. Materials stored at height, must be properly stored and secure, so as to prevent them becoming airborne in high winds. Skips that are designed to be lifted by crane may be used, provided there is a suitable landing position for the skip at height. Alternatively chutes may be used to direct the waste material directly into the skid, located at ground level. Cabs of demolition plant must be sufficiently protected to prevent falling materials crushing or penetrating into the occupied zone.





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YOUR WORK ACTIVITIES

Confined space refers to any place, including any vessel, tank, container, pit, bund, chamber, cellar or any other similar space which, by the virtue of its enclosed nature, creates conditions that give rise to a likelihood of an accident, harm or injury of such a nature as to require emergency action. This would include removal of tanks where for example you or your employees could be exposed to harmful or toxic liquids and gases.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Any work in confined spaces exposes you or your employees to significant hazards, particularly where harmful gases or biological agents are present or can accumulate. The extent of the hazards can be compounded by the difficulty in providing assistance.

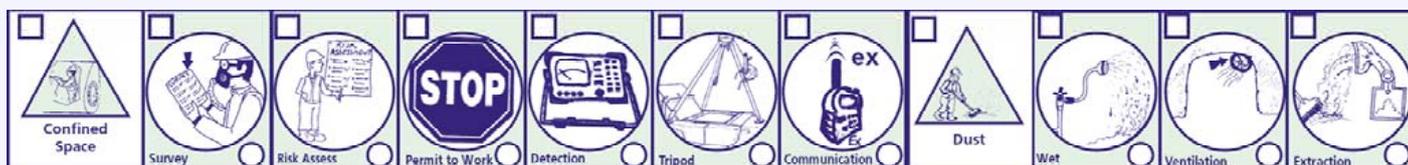
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Working in confined spaces is a high risk activity. Multiple fatalities have occurred when an operative has become overcome by harmful gases and in attempting to get the person out, others have entered the area without protection and been killed.

YOUR CONTROLS

Plan your work! If the demolition works includes entry into confined spaces, you must survey this environment first, so as to be sure that you identify all of the hazards that may exist. This will allow you to assess the risks and to ensure that the appropriate control measures are in place before anyone enters the work area. You should use a permit-to-work system for all confined space entry. This will help you manage the implementation of safe working procedures in this hazardous environment. Ensure that you have gas detection and monitoring equipment that is suitable for the anticipated harmful gases and that it is in good working order and has a valid test certificate. You need to consider if the environment requires you to provide a tripod apparatus to be located above the confined space, which will allow for the rescue of the operative working in the confined space, in the event of difficulty. Your employees working in a confined space must be verbal contact with persons outside at all times. If using radio equipment to achieve this, then you must make sure that it is intrinsically safe for use in explosive atmospheres.





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YOUR WORK ACTIVITIES

Manual handling is the physical movement by a person of objects by lifting, pushing or pulling, that it likely to cause injury or other health problems. There is a wide range of materials that your employees may be required to work with; some may be small, but heavy; others may be lightweight, but an awkward shape or size. While the increase in mechanical aids has reduced the requirement for manual handling, it is still a significant cause of injury to construction operatives.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

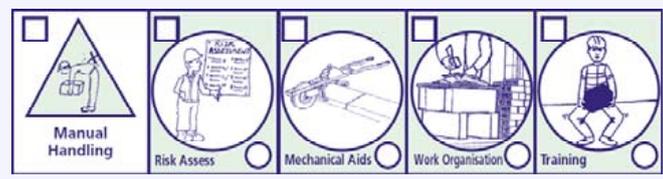
Operatives can suffer injuries from lifting or moving heavy objects, or in association with additional body movements. The hazards that you are exposed to will depend on the extent to which you rely on manual handling to carry out works.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

While our bodies are designed to move and can do work effectively, excessive amounts of manual handling can increase the risks of injury. In addition, significant injury can result from a single lift event, where the weight or nature of the load is too much.

YOUR CONTROLS

You need to assess every task to determine if there is a manual handling hazard. Your first approach should be to eliminate the risk, by removing the requirement for you or your employees to engage in manual handling. If you cannot eliminate the hazard, then you need to put in control measures to reduce the risk to as low a level as possible. This may include the provision of mechanical lifting aids, which can be used to take the weight / strain from your operatives. In addition you need to look at how you are planning your works, to see if you can reorganise the activities in such a way so as to eliminate or reduce manual handling requirements. If you or your employees are engaged in manual handling, then you need to organise specific manual handling training, so as to ensure that the correct approach and technique is used. Once you have been trained, you must supervise the manner in which you employees implement the correct manual handling techniques on site and take corrective action if they revert to poor lifting techniques.





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YOUR WORK ACTIVITIES

Personal Protective Equipment (PPE) should be considered as a last resort, only after all other control measures have not allowed for the complete elimination of the hazards. PPE will only protect the individual (1) who is wearing the PPE, (2) who is trained in its safe use, (3) who is using it in accordance with its training and (4) who is provided with PPE that is in good working order. There is a wide variety of PPE available for typical hazards and you need to ensure that you choose the correct PPE for your application; you should seek competent assistance is unsure.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

PPE is intended to provide protection from residual hazards. However you and your employees can be exposed to the hazards by the incorrect use of the PPE equipment.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

PPE is the last line of defence that you or your employees have to hazards that exist. You are at risk if PPE is not provided or is not used correctly. The effects may be acute (injury is immediately evident) or the injury may only become apparent over time.

YOUR CONTROLS

You need to assess the residual hazards, having put in place all other control measures. If the hazards cannot be fully eliminated then you may need to rely on PPE. However you have to not only provide the PPE, but also the training in its correct use. For example for hearing protection this does not have to include formal off-site training, but should include your supplier providing literature for the hearing protection provided, demonstrating its safe use and for you to include this as a topic in tool-box talks. You need to determine what is the minimum mandatory PPE that is required for works on site and ensure that everyone in your works area (including you) are correctly using the minimum PPE. If persons are not using the PPE then you are required to take corrective action in a consistent manner. Don't lapse into the approach of "I have told him a hundred times to wear the hearing protection; what more can I do?". You can do a lot more! You are in charge of that place of work and you must lead by example and your employees must know that the PPE is provided for their protection and if it is not used correctly, then there may be consequences.





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YOUR WORK ACTIVITIES

The risk of fire is generally ever present on construction sites. When engaged in demolition the risk of fire is heightened where un-chartered services are severed and if hot works are being undertaken. Demolition often involves the use of very high temperature techniques, such as thermal lances. In this case there are fire risks from the lances itself, but also from the molten materials it produces during demolition.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

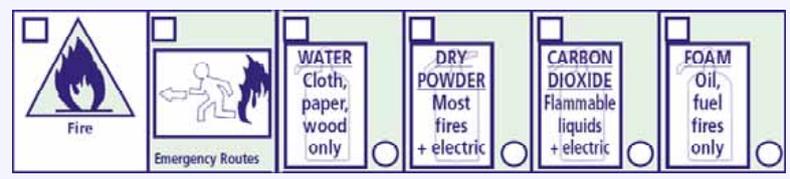
You and your employees are at risk if you come in contact with a fire event. The fire itself may have been initiated by others, but may still affect your safety.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

The level of risk will depend on the method of demolition used and other demolition activities in progress on site at any one time. Therefore the risk can change as the works progress.

YOUR CONTROLS

Discuss the fire potential with the project supervisor for the construction stage (PSCS) and determine what activities are happening on site that place you or your employees at risk of becoming in contact with a fire event. When you are undertaking works, which include a risk of fire, ensure you communicate information about the hazard and control measures to the PSCS and other contractors working on site. If you have engaged in hot works, ensure that you have the appropriate fire extinguishers to hand and at the works site. In addition the work area should be repeatedly inspected after the hot works are completed, to ensure that a fire has not developed. You need to provide instructions to your employees on what should be done in the event of a fire and practice the drill.



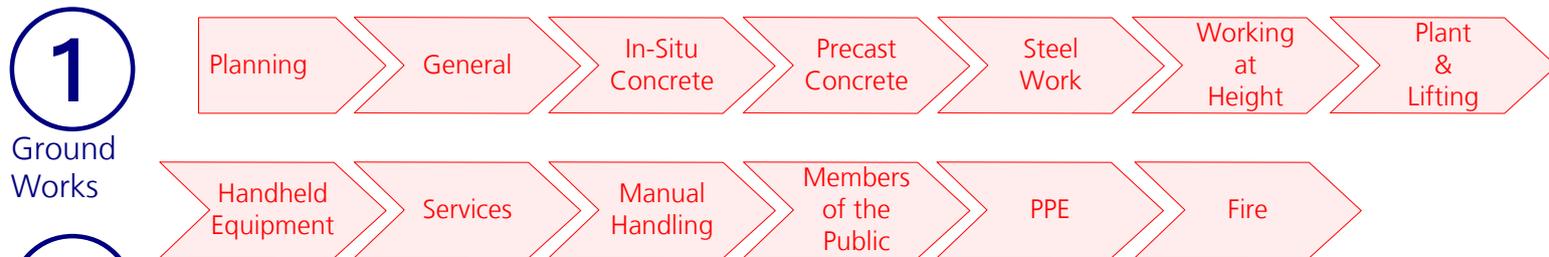


HEALTH AND SAFETY
AUTHORITY

SAFE SYSTEM OF WORK PLAN (SSWP)



NEW COMMERCIAL BUILDINGS FORM



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YOUR WORK ACTIVITIES

Construction Form 4 relates to the construction of new commercial buildings. This New Commercial Building SSWP is intended for all trades involved in commercial developments or projects of a similar nature. The manner in which you plan your works affects the safety of your employees and that of other trades working on site. The next 13 pages will help you identify the hazards associated with your work and how you can control these to protect the people around you. The main steps in planning the project include:

- Visit the site and meet with the client / developer / main contractor;
- Agree with scope of the works and the programme;
- Agree the required safety provisions and who will arrange & implement on site;
- Fill in the New Commercial Building Safe System of Work Plan;
- Confirm with your employees that the controls are in place;
- Supervise to ensure that the works are been undertaken in a safe manner;
- If you see unsafe work practices, report these to site management or take direct action if it involves your employees;
- Keep the completed SSWP with the work crew & revise as necessary

MAIN PERSONS AT RISK

- Bricklayers / Stonelayers
- Carpenters and Joiners
- Construction Operatives
- Scaffolders
- Electricians
- Floorlayers
- Glaziers
- Painters
- Plasterers
- Plumbers
- Slaters and Tilers
- Stonecutters
- Apprentices
- Delivery Drivers
- Engineers / Site Management Team
- Client / Developer

Must Read and Implement the Controls

SECONDARY PERSONS AT RISK

- Ground Workers
- Plant Drivers
- Pipe Layers
- Statutory Undertakers (ESB, Bord Gas, etc)
- Members of the public

Should Read and Follow Directions



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YOUR WORK ACTIVITIES

Your safety or that of your employees could be affected, if you start work on a commercial building, without first planning out what works have to be undertaken, who is going to control the works and how the works are going to be completed safely. While there may be similar hazards associated with commercial building as with other building, such as house construction, there are also additional hazards that can be high risk. In addition there will tend to be a greater number of trades on site at any one time; therefore interaction is greater.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

New commercial buildings can be hazardous because of the nature of the work. Particular hazards such as working at height, contribute to a large number of deaths and serious injuries in the construction sector.

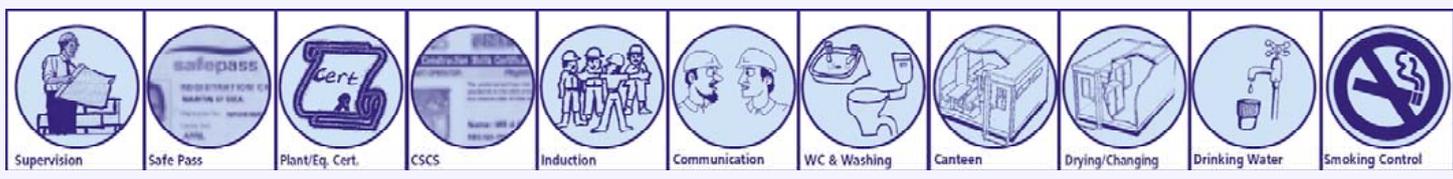
RISKS YOU ARE EXPOSED TO

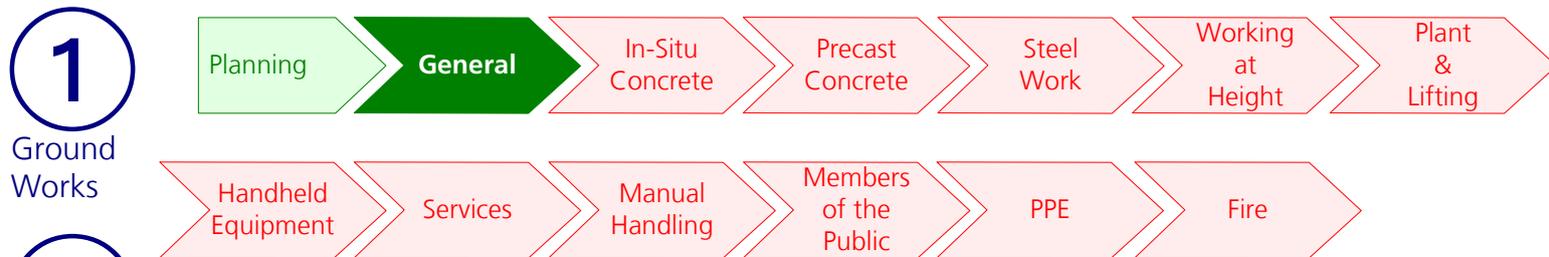
the chance that you will be harmed by the hazard

Working at height (if not undertaken in a safe manner) could result in your death or the death of other persons, including your employees. For example temporary stability of building elements during the erection of the structure needs to be fully detailed.

YOUR CONTROLS

Plan the works that you have to complete. Decide who is going to be in charge of the house building project and ensure that they are competent to supervise the works. Talk to other contractors who may be affected by your works and make sure that you take their safety into account as well. You need to ensure that your employees have received the FÁS Safe Pass and Construction Skills Certification Scheme training, for the works that they are going to undertake for you. Any plant and equipment that you provide or hire in to do the work, must be in safe working order and have current certificates. Talk to your employees about the work that has to be undertaken and make sure that they are aware of the hazards that exist and how you expect them to complete the work in a safe manner. If welfare facilities are being provided by another contractor, make sure that these are available to you and your employees and that they are maintained in a clean condition.





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YOUR WORK ACTIVITIES

At the start of your involvement on any commercial building or development, there will be general hazards that you need to consider and assess before you start work. This applies no matter what trade or activity you supply to the project. This will allow you to determine that you have your controls in place to protect your employees, but also that other contractors on site are working safely and effectively together. For example in housekeeping and maintenance of safe access routes.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

While you may be focused on the technical activities that your are instructing your employees to undertake, you also need to consider how they can get to and from the work zones and that there is a safe place of work available to them.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

You can reduce the risks to your employees by planning out the work in advance and talking to them about the chosen methods. Commercial building can be hazardous given the number of trades on site at any one time and the close proximity.

YOUR CONTROLS

As soon as you have been asked to get involved in this project, you should review the drawings, looking out particularly for areas where either your employees could be harmed or where your work activities could harm other people. Use this SSWP to assess these risks and determine which control measures are appropriate. Look at your method statement to verify that each step is detailed as to how your works are to be completed and make sure that every persons is working to this method. You are required to provide a safe place of work and to cooperate with other employers sharing a place of work. A construction site is no different. When on site you need to cooperate with other contractors in how the site is maintained is a safe way. This applies to housekeeping; access routes; scaffolding and working platforms.





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YOUR WORK ACTIVITIES

In-situ concrete will require the erection and use of falsework, to support the wet concrete before its minimum strength is achieved and is self supporting. This will require a number of trades to work closely together, including carpenters, steel fixers and concrete operatives. In-situ concrete has the potential to make the construction site more congested, as materials have to be assembled on site: reinforcement for steel fixing, timber and plywood for shutters and temporary works for falsework systems.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

In-situ concrete can involve several hazards, working at height for the erection and striking of shuttering; working with reinforcement; working with wet concrete; collapse of temporary works during concreting operations.

RISKS YOU ARE EXPOSED TO

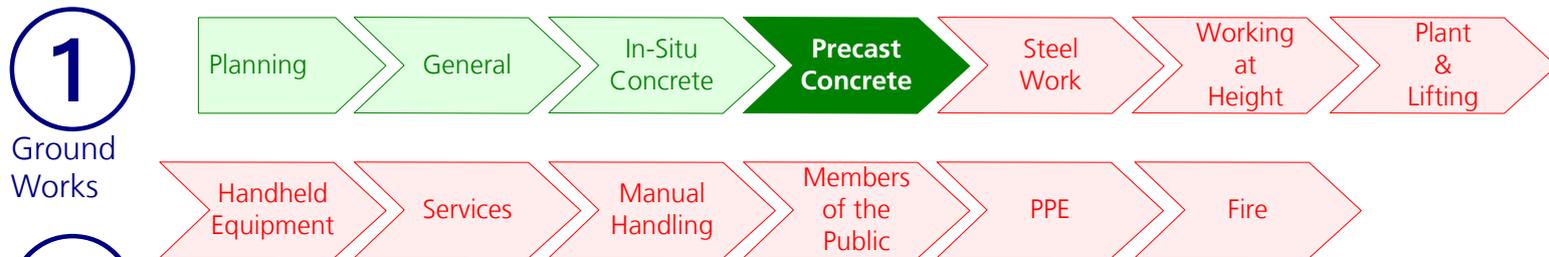
the chance that you will be harmed by the hazard

Your employees are at high risk of injury during concreting works, due to working at height and having a high dependency on temporary works. You can minimise the risks by planning your works, in consultation with other contractors working on site.

YOUR CONTROLS

Where your employees are working at height ensure that safe access & egress is provided and that a safe working platform is erected, inspected and signed off. You must ensure that protection is provided at leading edges and openings, for example, around soffit falsework for a beam or slab. If you are responsible for arranging temporary works, you must ensure that the person designing the temporary works is competent and that the person erecting the temporary works is competent. The temporary works design and erection should be signed off before the falsework is used on site. The temporary works should not be struck until the concrete has achieved the minimum strength. The sequence of striking should be agreed in advance and you need to ensure that this sequence is followed on site.





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YOUR WORK ACTIVITIES

There are advantages in using precast concrete, in that it largely eliminates the requirement for steel fixing and shuttering for that element of the works. However one consideration is that the structure may be unstable, until all components are interconnected and acting together. Precast concrete will involve the delivery and lifting of large heavy units, which will have to be taken into account when planning the site layout and other work activities.

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HAZARDS AFFECTING YOU
anything with the potential to cause harm

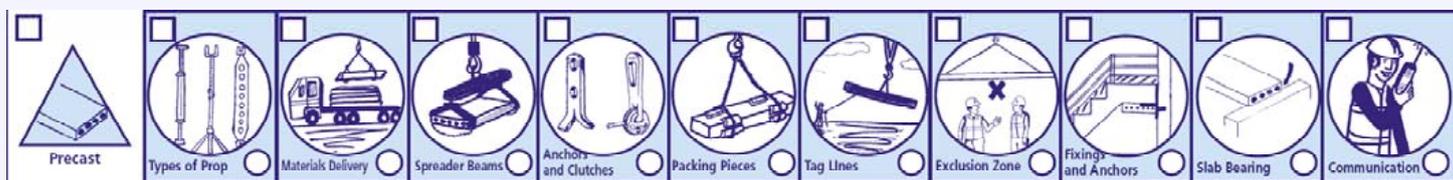
Erecting precast concrete will involve working at height, often without the protection of handrails or other collective protective measures. Your employees may also be exposed to hazards of falling elements either during lifting or after placement.

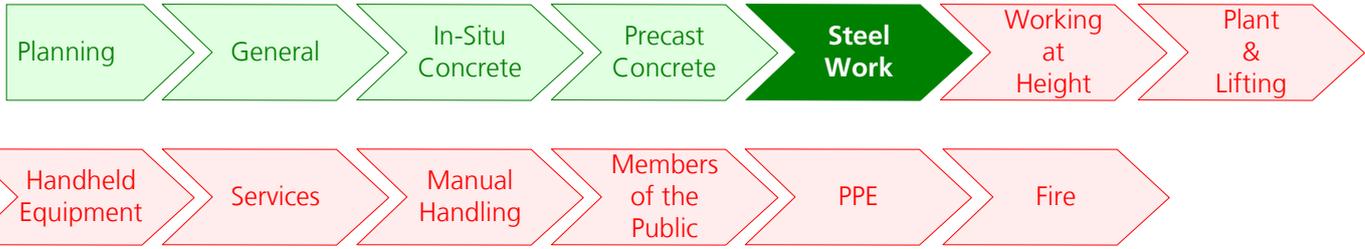
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

Lifting, installing and concreting over precast concrete can be high risk. Failure to communicate the temporary stability and propping requirements can significantly increase the risks. Your employees will be at risk; but also other persons on site.

YOUR CONTROLS

When deciding on precast concrete, you need to determine who will be responsible for the design of the precast, taking into account the site specific features. This will include the design of the supports and minimum bearing requirements; if propping or lateral restraints are required. Before the precast concrete is delivered to site, determine how and when the elements will be delivered to site; that the correct lifting equipment has been selected and that the communications for the lifting operations have been agreed. In addition ensure that an exclusions zone is established surrounding the lifting and placement zones and that only persons directly involved in the precast installation process are in the exclusion zone.





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YOUR WORK ACTIVITIES

Commercial buildings tend to include structural steel frames, with either precast or composite floor systems. As with precast concrete you need to determine the requirements for temporary lateral restraints and bracing during the erection of steelwork, so as to prevent collapse during the erection stage. You and your employees will be working at height, when there is very little of the finished structure in place, therefore planning the sequence of the erection of the structure, the method of erection and provision safe access is critical.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Erecting steelwork will involve working at height, with the additional hazard of falling steelwork during lifting. In addition there is the hazard of coming in contact with the steel elements during erections and suffering crush injuries.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

This is a high risk hazard, which your risk assessment would need to identify appropriate control measures to minimise the risks. Some of the control measure in the SSWP for precast are also applicable for steelwork.

YOUR CONTROLS

Before the steelwork is delivered to site, determine how and when the elements will be delivered to site; that the correct lifting equipment has been selected and that the communications for the lifting operations have been agreed. In addition ensure that an exclusions zone is established surrounding the lifting and work zones and that only persons directly involved in the steelwork erection are in the exclusion zone. Plan out in advance how you will get your employees up to the upper floor levels to connect the steelwork together.

Give priority to collective measures such as mobile elevated work platforms. If reliant on individual protective measures, such as fall arrest systems, ensure that all of your operatives are trained; have access to fall arrest equipment that is certified, inspected and in good working order; and that an independent safety line is provided and being used on site. When you use a fall arrest system, ensure that you have an emergency rescue plan developed in advanced and practiced with your employees.

<input type="checkbox"/>										
						Other	Other	Other	Other	Other
Steel Work	Safety Lines	Slab Safety Anchor	Safe Access	Nets/Bean Bags	Fall Arrest and Rescue	Other	Other	Other	Other	Other

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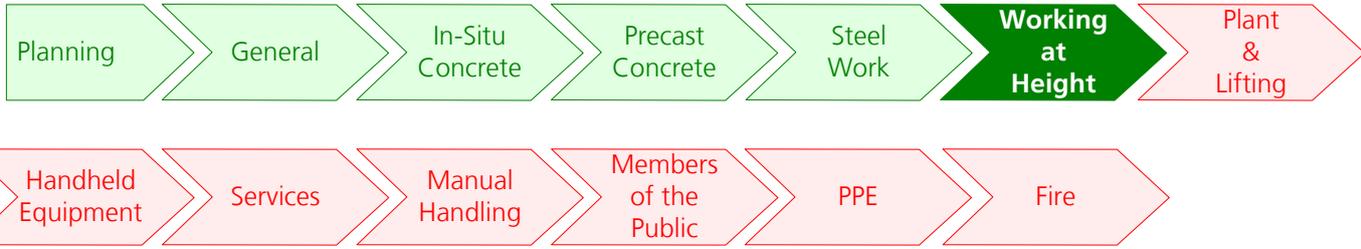
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YOUR WORK ACTIVITIES

Working at height contains an inherent risk of falling from height. Irrespective of the building type there will be a requirement for different trades to be working at height as the building progresses. You need to consider how you interact with other trades, so as to ensure that your work activities are not affecting the safety, health or welfare of other persons on site. When working on the upper floors, you will need to plan how you can safely get operatives, tools and materials up to the higher level, and how work at height will be undertaken in a safe manner.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Hazards at this level include falling from height; collapse of temporary structures; collapse of the partially constructed building. Slips, trips and falls can occur at this level due to partially completed floors and poor housekeeping.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

You need to manage the interface between your employees & other trades working on the house. If other trades interfere with access or working scaffolds you need to report this to the site management and ensure that your employees stop using the scaffolding

YOUR CONTROLS

Where your employees are working at height ensure that safe access & egress is provided and that a safe working platform is erected, inspected and signed off. Scaffolding Tags should be used to communicate as to whether or not the scaffolding is safe to use and what the loading capacity of the scaffolding is. You must ensure that protection is provided at leading edges and openings, for example, around stairwells. You should give priority to collective protective measures, that protect all of your employees in that environment.



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YOUR WORK ACTIVITIES

We are utilising an increasing amount of plant and equipment on our construction sites. This has health and safety benefits in reducing the manual handling hazards. However additional hazards are introduced in how site operatives interact with the different plant and equipment on site. Irrespective of whether you own the plant and equipment or you are hiring it onto site, you have an obligation to ensure that it is safe for the purpose, that it is maintained in a safe condition during its use and that it is operated by a competent driver.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Due to the nature and weight of the different types of plant and equipment on site, if a failure occurs there is a significant potential for site operatives or members of the public to be harmed.

RISKS YOU ARE EXPOSED TO

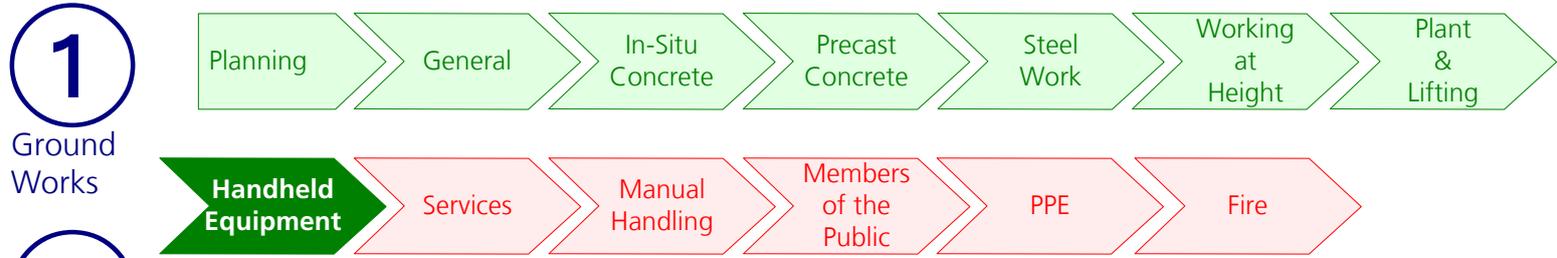
the chance that you will be harmed by the hazard

Working close to operating plant and equipment increases the risks, in the event of a failure of the plant, equipment or systems of operation. There have been numerous deaths as a consequence of people coming into contact with plant and equipment.

YOUR CONTROLS

The first step is to ensure that the plant and equipment that you choose is suitable for the task; in particular in relation to its SWL, reach, and limits in terrain. Where plant is traversing site, the aim should be to segregate pedestrians from the traffic routes, to implement a one-way system and to ensure that plant is fitted with auxiliary visual aids as required. If locking devices are fitted to quick release hitches, then it is vital that these are used in accordance with the manufacturers recommendations; in particular safety pins.

<input type="checkbox"/>		<input type="checkbox"/> Selection/Suitability	<input type="checkbox"/> Teleporter	<input type="checkbox"/> Forks Clamp	<input type="checkbox"/> Forks Extension	<input type="checkbox"/> Locking Attachments	<input type="checkbox"/> Concrete Pump	<input type="checkbox"/> Pump Connections	<input type="checkbox"/> Ground Conditions	<input type="checkbox"/> Mixer	<input type="checkbox"/> Reverse Warning Devices
<input type="checkbox"/>		<input type="checkbox"/> Traffic Speed Control	<input type="checkbox"/> Seat Belts	<input type="checkbox"/> Compound	<input type="checkbox"/> Pedestrian Route	<input type="checkbox"/> Flagman	<input type="checkbox"/> Banksman	<input type="checkbox"/> Communication	<input type="checkbox"/> Crane Coordination	<input type="checkbox"/> Plan Lift	<input type="checkbox"/> SWL
<input type="checkbox"/>		<input type="checkbox"/> Check Lifting Gear	<input type="checkbox"/> Glazing/Suction	<input type="checkbox"/> Load Stability	<input type="checkbox"/> Skips/Bins	<input type="checkbox"/> Concrete Skips	<input type="checkbox"/> Stillages	<input type="checkbox"/> Overhead Lines	<input type="checkbox"/> Remote Control	<input type="checkbox"/> Examination & Inspection	<input type="checkbox"/> Other



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YOUR WORK ACTIVITIES

Use of hand tools can make a construction task easier and when used in a proper manner, make the work safer. For example using circular saws for timber or consaws for blockwork or concrete. Each hand tool will have different power sources that you will need to plan for, some are powered by electricity, others by battery, or compressed air. When planning your work activities select the appropriate hand tool for the task but also consider the availability and route of the power source to the works area.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

Operatives can be injured by the hand tool itself; or by the products coming from the use of the hand tool. Hand-arm vibration, and noise are often hazards associated with the use of hand tools. The power source can also be a hazard.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

Some of the hazards are a medium to high risk; leading to injury or ongoing illness. Operatives have suffered fatal injuries as a consequence of using hand tools. Therefore some of the hazards can be high risk, particularly when working at height.

YOUR CONTROLS

First you need to plan your works and determine what hand tools are required for each task. Ensure that suitable power sources are available - all portable electric tools rated below 2kw must be powered using 110v supply. Check all cables for damage before use and ensure that cable routes are protected from plant and equipment on site. Ensure that protective guards are in place and used by operatives on site. If the hand tool requires PPE, such as hearing, eye or hand protection, then ensure that these are available on site and used properly by operatives using the hand tools. If you need to use generators then you must ensure that these are located outside. You will need to ensure that hand tools provided are maintained in good working order and that defective tools or components are replaced.

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YOUR WORK ACTIVITIES

A wide range of construction activities can result in operatives coming in contact with electricity, gas or other utilities; often with fatal consequences. For example, drilling walls, which contain electricity cables, excavating close to buried services or plant and equipment operating close to overhead power lines. However in addition other work activities can put your employees at risk; such as delivering / offloading materials on site.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Any work which puts you or your employees in close proximity to existing live services is a significant hazard. For example working close to overhead power lines, underground cables, or gas services are all hazardous.

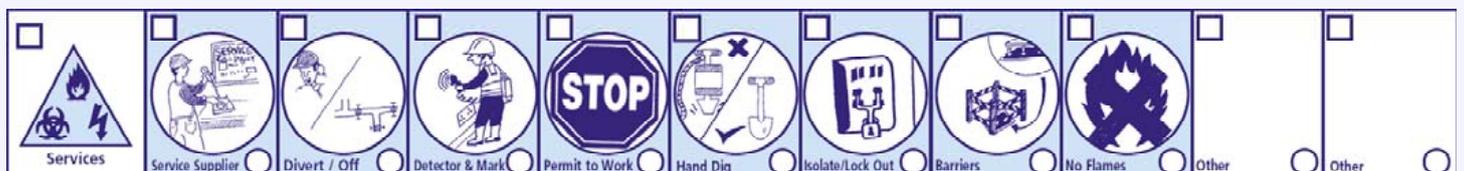
RISKS YOU ARE EXPOSED TO

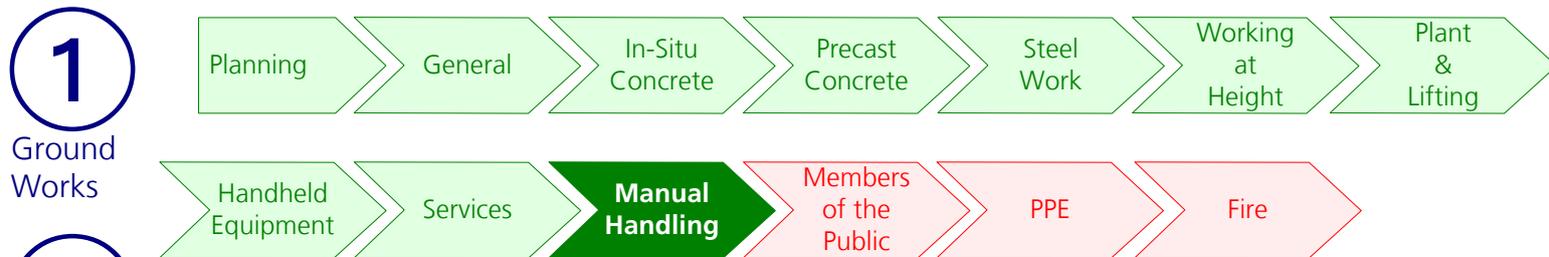
the chance that you will be harmed by the hazard

There is a high risk of fatal accidents when working close to live services.

YOUR CONTROLS

Always contact the relevant utility company before commencing work adjacent to services. The first option should be to divert the service away from the works; or to isolate the service, so as to allow the works to proceed safely. You need to get service drawings from the utility company and use these to identify zones where services may exist. Your works area should be surveyed for the presence of services, for example using a Cable Avoiding Tool (CAT) and the identified services should be clearly marked with warning signs. Where overhead lines cannot be diverted, these need to be protected by the use of barriers and goalposts erected on both sides of the overhead lines. Pay particular attention to tipping vehicles operating on site, and ensure that these are kept a safe distance away. If you are involved in carrying out invasive works within the commercial building when the electrical system is energised, make sure that it is temporally isolated or scan the area to ensure that cables are not present.





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YOUR WORK ACTIVITIES

Manual handling is the physical movement by a person of objects by lifting, pushing or pulling, that it likely to cause injury or other health problems. There is a wide range of materials that your employees may be required to work with; some may be small, but heavy; others may be lightweight, but an awkward shape or size. While the increase in mechanical aids has reduced the requirement for manual handling, it is still a significant cause of injury to construction operatives.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

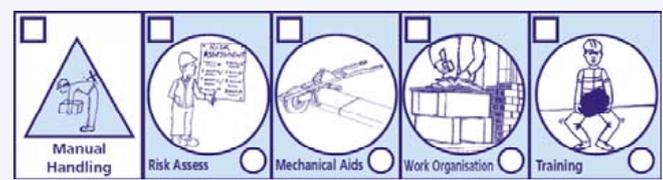
Operatives can suffer injuries from lifting or moving heavy objects, or in association with additional body movements. The hazards that you are exposed to will depend on the extent to which you rely on manual handling to carry out works.

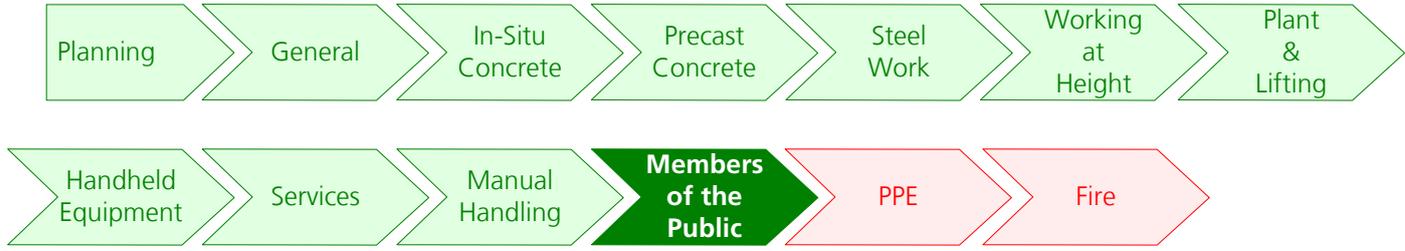
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

While our bodies are designed to move and can do work effectively, excessive amounts of manual handling can increase the risks of injury. In addition, significant injury can result from a single lift event, where the weight or nature of the load is too much.

YOUR CONTROLS

You need to assess every task to determine if there is a manual handling hazard. Your first approach should be to eliminate the risk, by removing the requirement for you or your employees to engage in manual handling. If you cannot eliminate the hazard, then you need to put in control measures to reduce the risk to as low a level as possible. This may include the provision of mechanical lifting aids, which can be used to take the weight / strain from your operatives. In addition you need to look at how you are planning your works, to see if you can reorganise the activities in such a way so as to eliminate or reduce manual handling requirements. If you or your employees are engaged in manual handling, then you need to organise specific manual handling training, so as to ensure that the correct approach and technique is used. Once you have been trained, you must supervise the manner in which you employees implement the correct manual handling techniques on site and take corrective action if they revert to poor lifting techniques.





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YOUR WORK ACTIVITIES

It is likely that the commercial building project will be in close proximity to the public. In addition children can be drawn to construction sites and seek to gain access to explore the site. You have a duty under Section 12 of the Safety, Health and Welfare at Work Act, 2005 to take account of the safety, health and welfare of other persons who are not your employees in how you carry out your work activities. This protection will not happen automatically; you need to plan it out before the works start.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Members of the public may not be aware of the hazards and do not have the knowledge as to how to react to situations. In addition the public can be harmed at the interface / crossing points because they are less visible and may not understand the priority.

RISKS YOU ARE EXPOSED TO

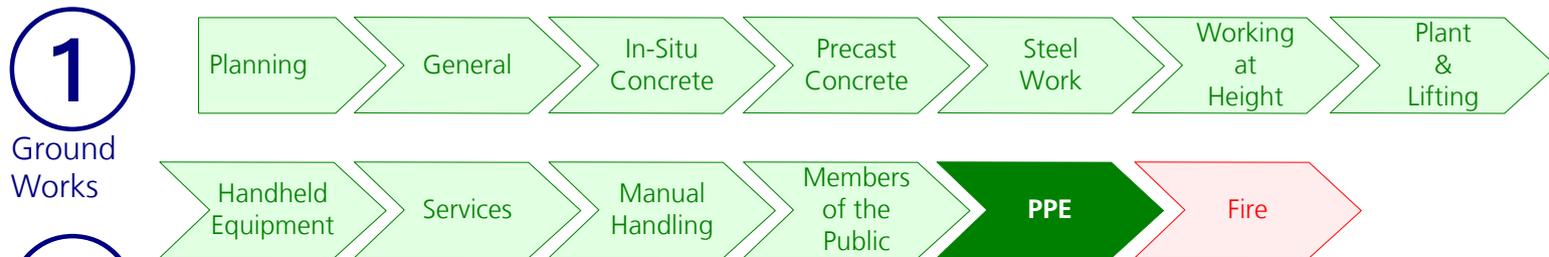
the chance that you will be harmed by the hazard

Any interface with the public is high risk. In particular where construction operations or construction traffic is in or cuts across the public domain. Children are most at risk as a consequence of coming into contact with construction operations.

YOUR CONTROLS

Where your work is close to the public, you need to plan out in advance how you are going to control that interface. You need to determine what fencing or hoarding is required so as to protect the public. If your site is close or adjacent to existing residential areas, this will increase the responsibility to ensure that there is no unauthorised access onto site. All open excavations need to be protected by barriers and have appropriate warning signs. Where members of the public have to access close to, or around construction activities, you must provide suitable and safe pedestrian routes so as to ensure that their safety is not put at risk. The client / developer may wish to inspect the works and you will need to establish visitor and handover control and check to ensure that these procedures are working.

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	Working close to the public		Fencing		Hoarding		Barriers		Warning Signs		Security		Traffic Control		Flagman		Banksman		Lighting		Pedestrian Way
			Dust/Muck		Handover Controls		Visitor Control		Other		Other		Other		Other		Other		Other		Other



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YOUR WORK ACTIVITIES

Personal Protective Equipment (PPE) should be considered as a last resort, only after all other control measures have not allowed for the complete elimination of the hazards. PPE will only protect the individual (1) who is wearing the PPE, (2) who is trained in its safe use, (3) who is using it in accordance with its training and (4) who is provided with PPE that is in good working order. There is a wide variety of PPE available for typical hazards and you need to ensure that you choose the correct PPE for your application; you should seek competent assistance is unsure.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

PPE is intended to provide protection from residual hazards. However you and your employees can be exposed to the hazards by the incorrect use of the PPE equipment.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

PPE is the last line of defence that you or your employees have to hazards that exist. You are at risk if PPE is not provided or is not used correctly. The effects may be acute (injury is immediately evident) or the injury may only become apparent over time.

YOUR CONTROLS

You need to assess the residual hazards, having put in place all other control measures. If the hazards cannot be fully eliminated then you may need to rely on PPE. However you have to not only provide the PPE, but also the training in its correct use. For example for hearing protection this does not have to include formal off-site training, but should include your supplier providing literature for the hearing protection provided, demonstrating its safe use and for you to include this as a topic in tool-box talks. You need to determine what is the minimum mandatory PPE that is required for works on site and ensure that everyone in your works area (including you) are correctly using the minimum PPE. If persons are not using the PPE then you are required to take corrective action in a consistent manner. Don't lapse into the approach of "I have told him a hundred times to wear the hearing protection; what more can I do?". You can do a lot more! You are in charge of that place of work and you must lead by example and your employees must know that the PPE is provided for their protection and if it is not used correctly, then there may be consequences.





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YOUR WORK ACTIVITIES

The risk of fire is generally ever present on construction sites. When engaged in new commercial building the risk of fire is heightened when flammable materials are inappropriately stored or if hot works are being undertaken.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

You and your employees are at risk if you come in contact with a fire event. The fire itself may have been initiated by others, but may still affect your safety.

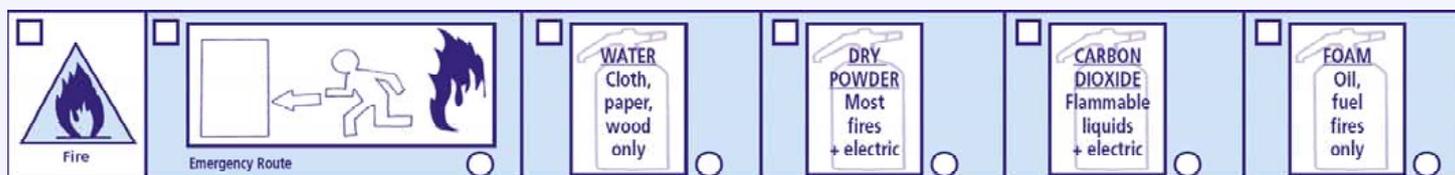
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

The level of risk will depend on the stage of the construction and the other construction activities in progress on site at any one time. Therefore the risk can change as the works progress.

YOUR CONTROLS

Discuss the fire potential with the project supervisor for the construction stage (PSCS) and determine what activities are happening on site that place you or your employees at risk of becoming in contact with a fire event. When you are undertaking works, which include a risk of fire, ensure you communicate information about the hazard and control measures to the PSCS and other contractors working on site. If you have engaged in hot works, ensure that you have the appropriate fire extinguishers to hand and at the works site. In addition the work area should be repeatedly inspected after the hot works are completed, to ensure that a fire has not developed. You need to provide instructions to your employees on what should be done in the event of a fire and practice the drill.



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HEALTH AND SAFETY
AUTHORITY

SAFE SYSTEM OF WORK PLAN (SSWP)



CIVIL ENGINEERING FORM

€2.50

1

Ground Works

Planning

General

Services

Plant
&
LiftingHandheld
Equipment

Excavations

Falls &
Falling
Objects

2

House Building

Structures

Roadworks /
Traffic /
PublicRock
BlastingWorking
close to
WaterManual
HandlingConfined
Space &
Health

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YOUR WORK ACTIVITIES

Form 5 relates to civil engineering, and it applies to any civil engineering projects, i.e. roadworks, ground works, or major construction. This Civil Engineering SSWP is intended for all trades involved in civil engineering works or projects of a similar nature. The manner in which you plan your works affects the safety of your employees and that of other trades working on site. The next 14 pages will help you identify the hazards associated with your work and how you can control these to protect the people around you. The main steps in planning the project include:

- Visit the site and meet with the main contractor;
- Agree with scope of the works and the programme;
- Agree the required safety provisions and who will arrange & implement on site;
- Fill in the Civil Engineering Safe System of Work Plan;
- Confirm with your employees that the controls are in place;
- Supervise to ensure that the works are been undertaken in a safe manner;
- If you see unsafe work practices, report these to site management or take direct action if it involves your employees;
- Keep the completed SSWP with the work crew & revise as necessary

MAIN PERSONS AT RISK

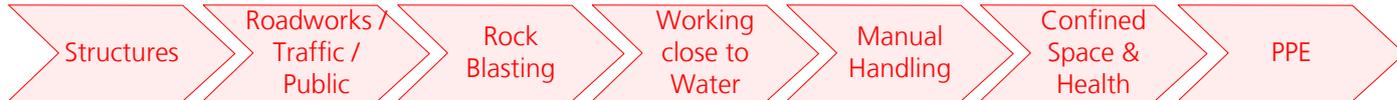
- Ground Workers
- Road construction Operatives
- Plant Drivers
- Pipe Layers
- Statutory Undertakers (ESB, Bord Gas, etc)
- Carpenters and Joiners
- Construction Operatives
- Scaffolders
- M&E Contractors
- Fencers
- Apprentices
- Delivery Drivers
- Engineers / Site Management Team
- Members of the public

Must Read and Implement the Controls

SECONDARY PERSONS AT RISK

- Bricklayers / Stonelayers
- Other trades engaged on the civil engineering project

Should Read and Follow Directions



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YOUR WORK ACTIVITIES

Your safety or that of your employees could be affected, if you start house construction on site, without first planning out what works have to be undertaken, who is going to control the works and how the works are going to be completed safely.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

House building can be hazardous because of the nature of the work. Particular hazards such as working at height, contribute to a large number of deaths and serious injuries in the house building sector.

RISKS YOU ARE EXPOSED TO

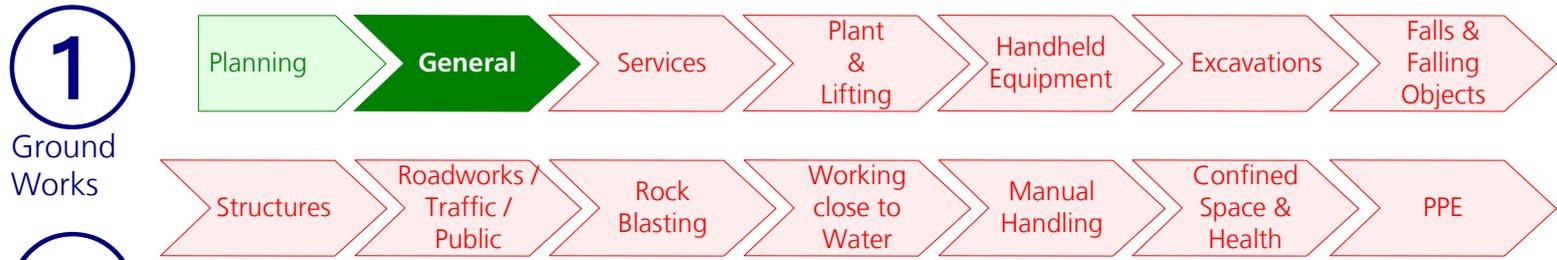
the chance that you will be harmed by the hazard

Working at height (if not undertaken in a safe manner) could result in your death or the death of other persons, including your employees. For example working on incomplete scaffolding or without the protection of a handrail, could result in you falling.

YOUR CONTROLS

Plan the works that you have to complete. Decide who is going to be in charge of the house building project and ensure that they are competent to supervise the works. Talk to other contractors who may be affected by your works and make sure that you take their safety into account as well. You need to ensure that your employees have received the FÁS Safe Pass and Construction Skills Certification Scheme training, for the works that they are going to undertake for you. Any plant and equipment that you provide or hire in to do the work, must be in safe working order and have current certificates. Talk to your employees about the work that has to be undertaken and make sure that they are aware of the hazards that exist and how you expect them to complete the work in a safe manner. If welfare facilities are being provided by another contractor, make sure that these are available to you and your employees and that they are maintained in a clean condition.





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YOUR WORK ACTIVITIES

At the start of your involvement on any civil engineering project, there will be general hazards that you need to consider and assess before you start work. This applies no matter what trade or activity you supply to the project. This will allow you to determine that you have your controls in place to protect your employees, but also that other contractors on site are working safely and effectively together. For example in housekeeping and maintenance of safe access routes.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

While you may be focused on the technical activities that your are instructing your employees to undertake, you also need to consider how they can get to and from the work zones and that there is a safe place of work available to them.

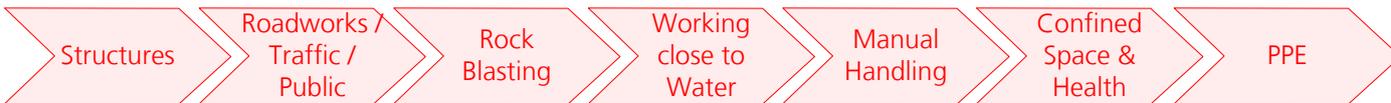
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

You can reduce the risks to your employees by planning out the work in advance and talking to them about the chosen methods. Commercial building can be hazardous given the number of trades on site at any one time and the close proximity.

YOUR CONTROLS

As soon as you have been asked to get involved in this project, you should review the drawings, looking out particularly for areas where either your employees could be harmed or where your work activities could harm other people. Use this SSWP to assess these risks and determine which control measures are appropriate. Look at your method statement to verify that each step is detailed as to how your works are to be completed and make sure that every persons is working to this method. You are required to provide a safe place of work and to cooperate with other employers sharing a place of work. A construction site is no different. When on site you need to cooperate with other contractors in how the site is maintained is a safe way. This applies to housekeeping; access routes; scaffolding and working platforms.





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YOUR WORK ACTIVITIES

A wide range of construction activities can result in operatives coming in contact with electricity, gas or other utilities; often with fatal consequences. For example, excavating close to buried services or plant and equipment operating close to overhead power lines. However in addition other work activities can put your employees at risk; such as delivering / offloading materials on site.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Any work which puts you or your employees in close proximity to existing live services is a significant hazard. For example working close to overhead power lines, underground cables, or gas services are all hazardous.

RISKS YOU ARE EXPOSED TO

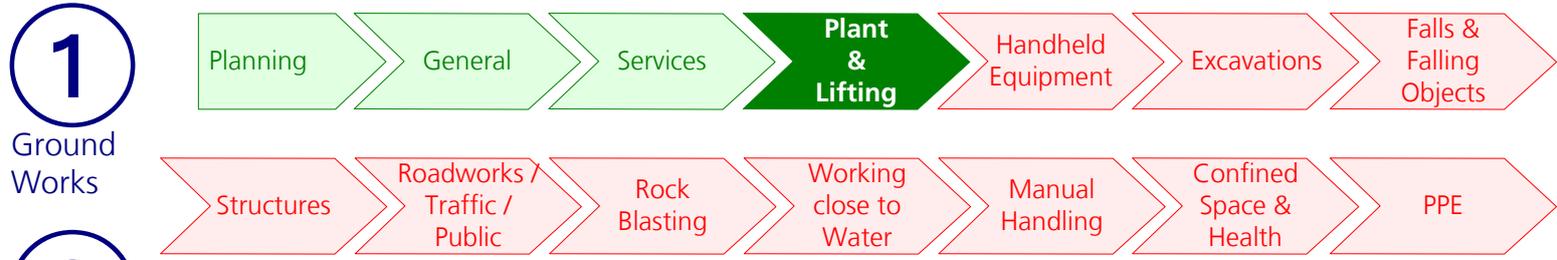
the chance that you will be harmed by the hazard

There is a high risk of fatal accidents when working close to live services.

YOUR CONTROLS

Always contact the relevant utility company before commencing work adjacent to services. The first option should be to divert the service away from the works; or to isolate the service, so as to allow the works to proceed safely. You need to get service drawings from the utility company and use these to identify zones where services may exist. Your works area should be surveyed for the presence of services, for example using a Cable Avoiding Tool (CAT) and the identified services should be clearly marked with warning signs. Where overhead lines cannot be diverted, these need to be protected by the use of barriers and goalposts erected on both sides of the overhead lines. Pay particular attention to tipping vehicles operating on site, and ensure that these are kept a safe distance away. If you are using gas cylinders, you must ensure that they are stored and used in accordance with your suppliers' recommendations. In particular oxy-acetylene cylinders must be stored in an upright position and in appropriate rigs.





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YOUR WORK ACTIVITIES

We are utilising an increasing amount of plant and equipment on our construction sites. This has health and safety benefits in reducing the manual handling hazards. However additional hazards are introduced in how site operatives interact with the different plant and equipment on site. Irrespective of whether you own the plant and equipment or you are hiring it onto site, you have an obligation to ensure that it is safe for the purpose, that it is maintained in a safe condition during its use and that it is operated by a competent driver.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Due to the nature and weight of the different types of plant and equipment on site, if a failure occurs there is a significant potential for site operatives or members of the public to be harmed.

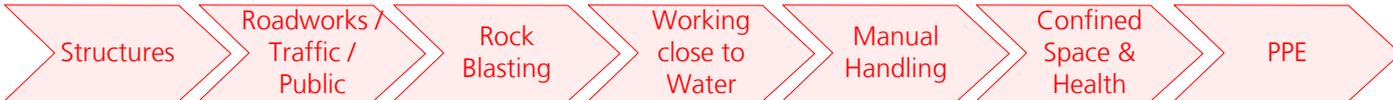
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Working close to operating plant and equipment increases the risks, in the event of a failure of the plant, equipment or systems of operation. There have been numerous deaths as a consequence of people coming into contact with plant and equipment.

YOUR CONTROLS

Refer to the SSWP Form 5 for Civil Engineering and the accompanying pictogram booklet



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YOUR WORK ACTIVITIES

Use of hand tools can make a construction task easier and when used in a proper manner, make the work safer. For example using circular saws for timber or consaws for blockwork or concrete. Each hand tool will have different power sources that you will need to plan for, some are powered by electricity, others by battery, or compressed air. When planning your work activities select the appropriate hand tool for the task but also consider the availability and route of the power source to the works area.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Operatives can be injured by the hand tool itself; or by the products coming from the use of the hand tool. Hand-arm vibration, and noise are often hazards associated with the use of hand tools. The power source can also be a hazard.

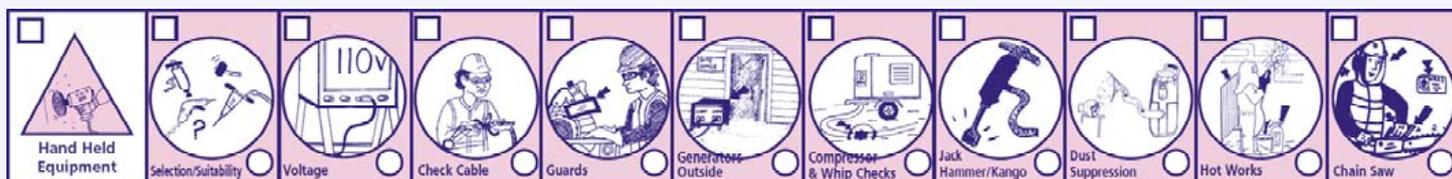
RISKS YOU ARE EXPOSED TO

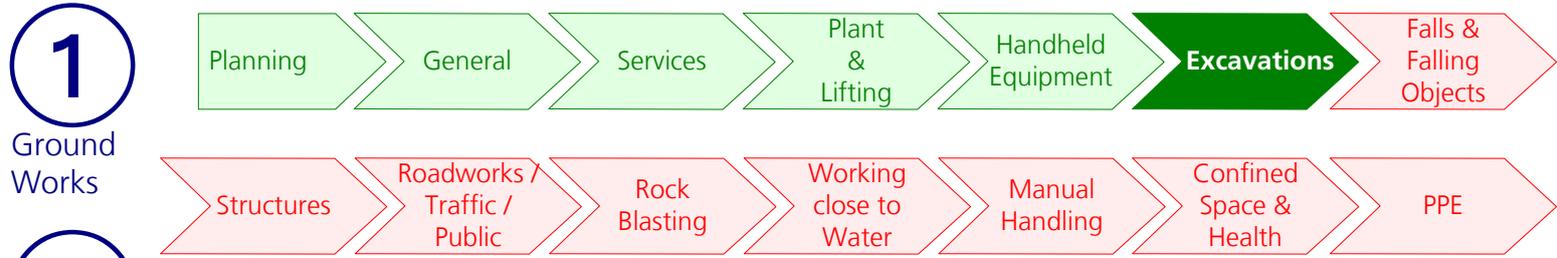
the chance that you will be harmed by the hazard

Some of the hazards are a medium to high risk; leading to injury or ongoing illness. Operatives have suffered fatal injuries as a consequence of using hand tools. Therefore some of the hazards can be high risk, particularly when working at height.

YOUR CONTROLS

First you need to plan your works and determine what hand tools are required for each task. Ensure that suitable power sources are available - all portable electric tools rated below 2kw must be powered using 110v supply. Check all cables for damage before use and ensure that cable routes are protected from plant and equipment on site. Ensure that protective guards are in place and used by operatives on site. If the hand tool requires PPE, such as hearing, eye or hand protection, then ensure that these are available on site and used properly by operatives using the hand tools. If you need to use generators then you must ensure that these are located outside. You will need to ensure that hand tools provided are maintained in good working order and that defective tools or components are replaced.





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YOUR WORK ACTIVITIES

When involved in civil engineering works, it is likely that you will be opening excavations, working in excavations and backfilling on completion of the works. This is very hazardous work, as it may not be possible to determine the exact ground conditions before work commences. In addition the ground may have been disturbed by earlier works and result in increased risks due to its unstable nature. A collapse of even 1m³ of material will weight more than 2 tons and can result in the burial or crushing of you or your employees in the excavation.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

The main hazard is the stability of the sides of the excavation; however other hazards also exist, such as access & egress, presence or accumulation of hazardous gases, collapse of plant or adjacent structures into the excavation.

RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

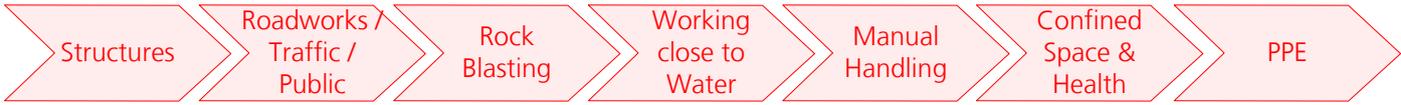
The potential for an accident in an excavation, such as a trench collapse, should never be underestimated. Risks can be increased by operatives failure to appreciate that they are in fact at risk. Even shallow excavations can place your employees at risk

YOUR CONTROLS

Excavations and trenches greater than 1.25m deep can cause serious accidents. Depending on the nature of the ground conditions and the site features you have a number of different options; you could batter back the sides of the excavation to a safe angle or you could use shoring to support the sides of the excavation or proprietary trench boxes where people can work safely inside the protection of the trench box. Irrespective of the support method you choose, you must also consider the actual processes that are involved in doing the excavation, working in the excavation and backfilling. This will involve the interaction of operatives and plant and equipment; but also the movement and storage of spoil and construction materials for the works.



Refer to Safe System of Work Plan Construction Form 5 (Civil Engineering)



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YOUR WORK ACTIVITIES

You may require your employees to work at height as part of the civil engineering project. This places your employees at risk of falling from height. A further consequence of working at height is the potential for objects falling onto persons below. This can cause injury to other persons working on site, but also to members of the public. When working at height you need to ensure that tools and materials are properly stored away from edges and that materials are secure during high wind events.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

If you or your employees are working at height or adjacent to unprotected manholes or opes, then you are exposed to the risk of falling from a height and suffering serious injuries.

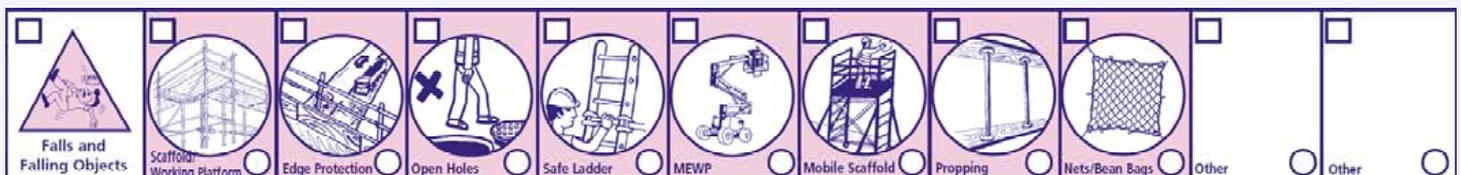
RISKS YOU ARE EXPOSED TO

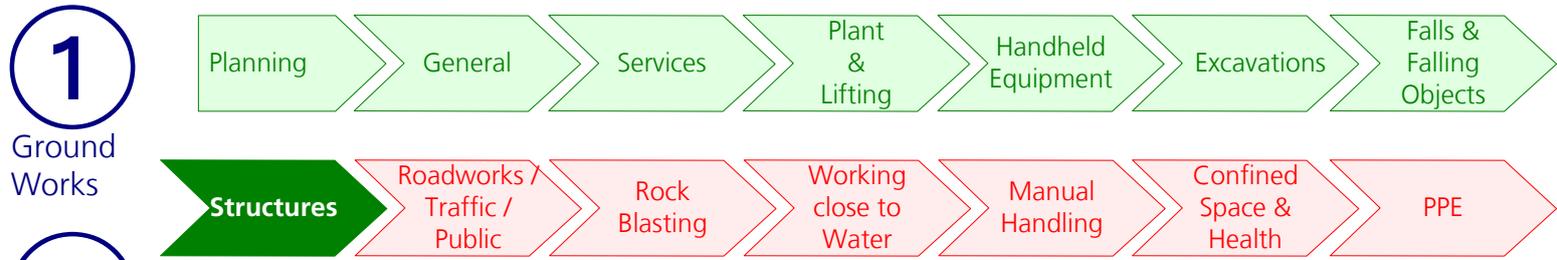
the chance that you will be harmed by the hazard

This is a high risk hazard, for which your risk assessment needs to identify appropriate control measures to minimise the risks to your employees and others that are affected.

YOUR CONTROLS

The first control should be to plan how you intend to work safely at height. This should include measures that you will put in place to prevent tools and materials falling, particularly at structures. When you are using the crane to lift components up to your work area, you need to agree with other contractors, the extent of the exclusion zone that is required so as to prevent materials being lifted over persons working on site or over members of the public. Once materials are located at height, make sure that these are properly stored and secure, so as to prevent them becoming airborne in high winds. Materials should only be loaded out onto designated loading bays, ensuring that you do not exceed the stated capacity. Provide safe access to the works areas, with priority given to collective protective measures over fall arrest systems. If there are unprotected edges or opes, then you are required to ensure that these are covered or a barrier erected before your employees continue to work in that area.





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YOUR WORK ACTIVITIES

Civil engineering projects will involve the construction of a wide range of structures. These can include in-situ concrete, precast concrete, structural steel or a combination of these elements. You must consider the temporary stability of these structures at each stage of their construction, in particular any requirements for temporary lateral restraints, bracing or propping. You and your employees will be working at height, therefore planning the sequence of the erection of the structure, the method of erection and provision safe access is critical.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

The construction of the structures will involve working at height. In addition there is the hazard of coming in contact with the heavy elements during erections and suffering crush injuries.

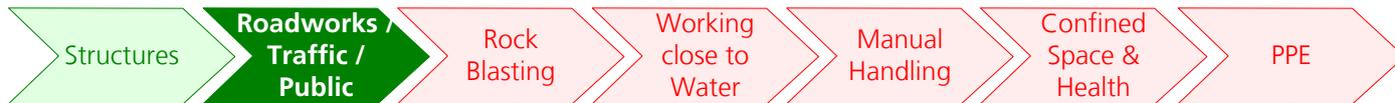
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

This is a high risk hazard, which your risk assessment would need to identify appropriate control measures to minimise the risks. Some of the control measure in the SSWP for lifting are also applicable for the construction of structures.

YOUR CONTROLS

Before you start work on the structure, determine how and when the elements will be delivered to site; that the correct lifting equipment has been selected and that the communications for the lifting operations has been agreed. Ensure that an exclusions zone is established surrounding the lifting and work zones and that only persons directly involved in the works are in the exclusion zone. Plan out in advance how you will get your employees up to work at height. Give priority to collective measures such as MEWP. If reliant on individual protective measures, such as fall arrest systems, ensure that all of your operatives are trained; have access to fall arrest equipment that is certified, inspected and in good working order; and that an independent safety line is provided and being used on site.

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YOUR WORK ACTIVITIES

Civil Engineering projects can have a very high interactions with the the public, particularly road users. In addition children can be drawn to construction sites and seek to gain access to explore the site. You have a duty under Section 12 of the Safety, Health and Welfare at Work Act, 2005 to take account of the safety, health and welfare of other persons who are not your employees in how you carry out your work activities. This protection will not happen automatically; you need to plan it out before the works start.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Members of the public may not be aware of the hazards and do not have the knowledge as to how to react to situations. In addition the public can be harmed at the interface / crossing points because they are less visible and may not understand the priority.

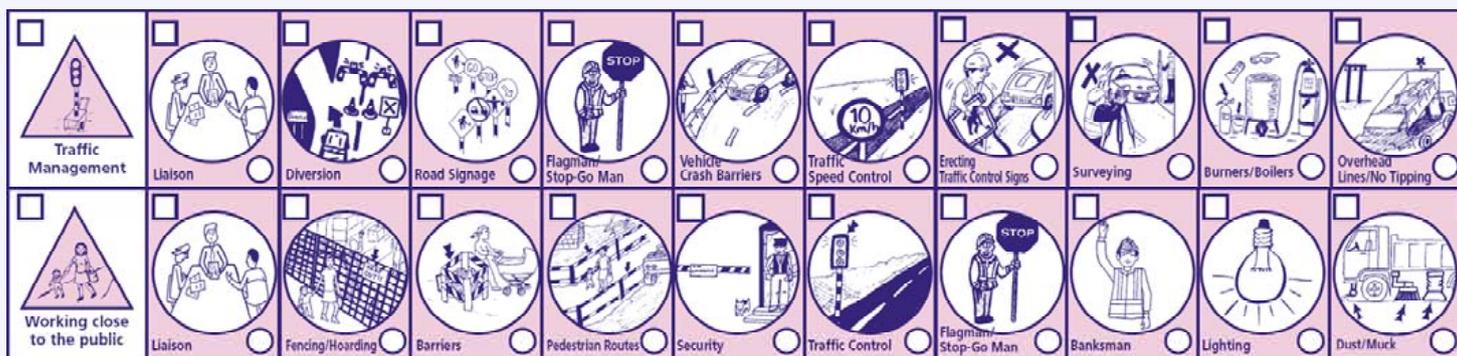
RISKS YOU ARE EXPOSED TO

the chance that you will be harmed by the hazard

Any interface with the public is high risk. In particular where construction operations or construction traffic is in or cuts across the public domain. Children are most at risk as a consequence of coming into contact with construction operations.

YOUR CONTROLS

Where your work is close to the public, you need to plan out in advance how you are going to control that interface. You must prepare a traffic management plan, in accordance with guidance, such as Chapter 8 of the Traffic Signs Manual, taking into account the safety of the public, but also your employees in implementing the traffic management and in undertaking works. Determine who has right of way and what the appropriate speed limits are for the public passing through the works. You need to determine what fencing or hoarding is required so as to protect the public and to ensure that there is no unauthorised access onto site. Where the public have to access close to, or around the site, you must provide suitable and safe pedestrian routes so as to ensure that their safety is not put at risk.



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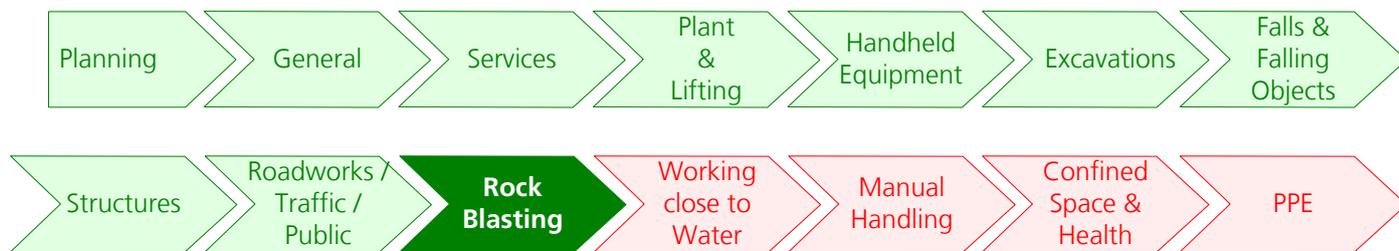
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YOUR WORK ACTIVITIES

Where large volumes of rock are to be excavated, it may be more viable to use explosives to break up the rock for subsequent removal. This will require specialist operatives, who are competent in the development of a blast design and in carrying out the blasting on site. Explosives cannot be stored on site and are brought to site under escort by the Gardai.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

The use of explosives represent a significant hazard on site, potentially affecting your employees, site operatives, members of the public, and utilities in the vicinity of the blast.

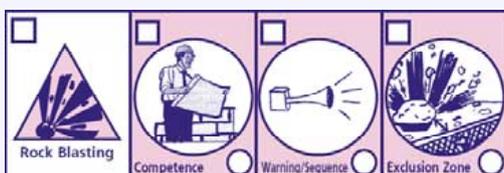
RISKS YOU ARE EXPOSED TO

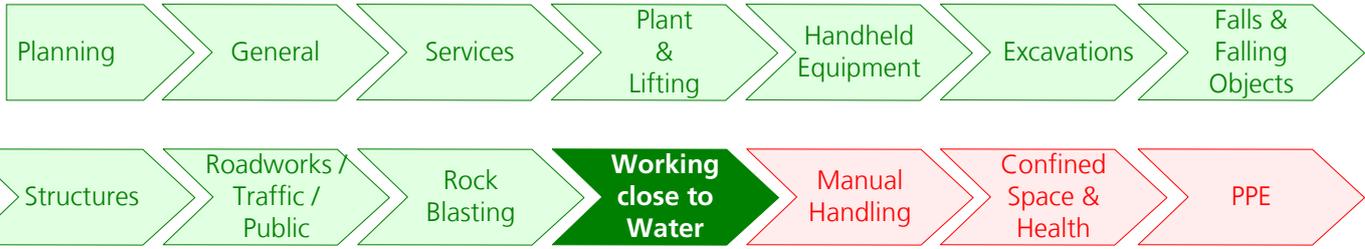
the chance that you will be harmed by the hazard

The risks associated with rock blasting are very high and affects a wide range of people. The main control is to engage competent persons / shot-firers to undertake these specialist works.

YOUR CONTROLS

If you are responsible for determining that rock blasting is required, then you need to plan the works carefully considering all of the persons affected by the works. This includes potential damage to nearby property or utilities. Only shot-firers who can demonstrate that they have the necessary qualifications, training and experience for the specific blasting operations should be employed for the project. During the planning you will need to determine the extent of the exclusion zone that will need to be enforced during the blast events. The extent of the exclusion zone will depending on the nature of the rock and the discontinuities. The shot-firer will need to determine the potential for fly rock and if additional overburden or blast mats are required in the vicinity of the blasting. Communications are vital and must be agreed in advance. Klaxons can be used to inform persons that the countdown to a blast event is in progress and to vacate the area and stay outside of the danger zone.





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YOUR WORK ACTIVITIES

Civil Engineering works can involve working close to water, such as a river, lake or the sea. This hazard can be readily identified before you start work on that project, this will allow you to plan out the activities that are going to take place close to water well in advance of the works. Determine who is going to be responsible for providing and maintaining the control measures, and make sure that these are in place before you start work.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

The principal hazard is someone falling into the water and suffering an injury. Their ability to assist themselves may be restricted by the consequences of the fall, i.e. where the person becomes unconscious and cannot keep afloat.

RISKS YOU ARE EXPOSED TO

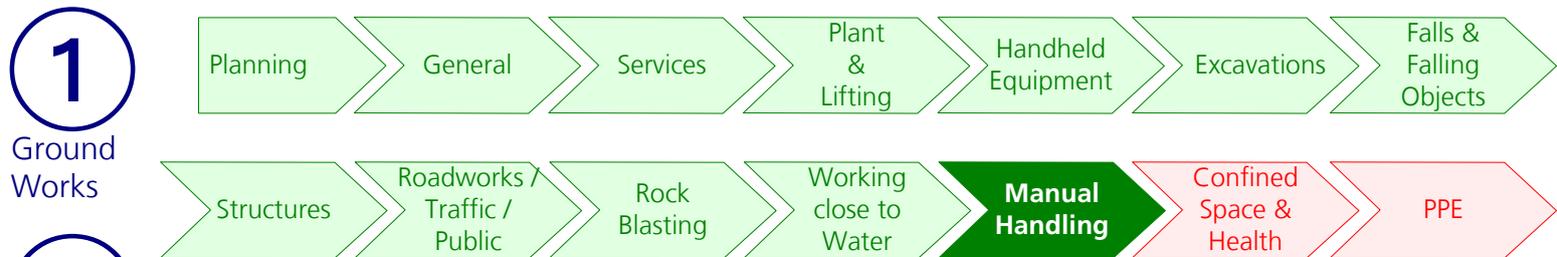
the chance that you will be harmed by the hazard

Factors affecting the risks associated with working close to water include, the flow of water, the depth, how high you are working above the water, how fast the body of water can rise and whether or not operatives are wearing personal floatation devices.

YOUR CONTROLS

Personal floatation devices (PFD) have improved, where the user can have unrestricted movement to undertake the work, but that if they fall into the water, the PFD automatically activates and protects the operative. In addition to PFD you must make sure that there are enough life rings adjacent to the water's edge. When thrown, these will provide buoyancy to the operative in the water and will assist in their recovery from the water. When working over water, you should have a rescue boat readily available. The placement of grab lines in the water downstream from the works, can also assist a person in getting out of the water. However the main controls that you should implement include measures to prevent people from falling into the water in the first place. You should provide handrails along the water's edge or if this is not feasible, provide safety lines and fall arrest systems. Please note that your priority should be to collective protective measures as opposed to individual protective measures, as these protect everyone in that environment, not just those wearing the fall arrest system.





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YOUR WORK ACTIVITIES

Manual handling is the physical movement by a person of objects by lifting, pushing or pulling, that it likely to cause injury or other health problems. There is a wide range of materials that your employees may be required to work with; some may be small, but heavy; others may be lightweight, but an awkward shape or size. While the increase in mechanical aids has reduced the requirement for manual handling, it is still a significant cause of injury to construction operatives.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

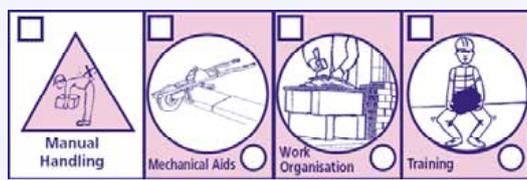
Operatives can suffer injuries from lifting or moving heavy objects, or in association with additional body movements. The hazards that you are exposed to will depend on the extent to which you rely on manual handling to carry out works.

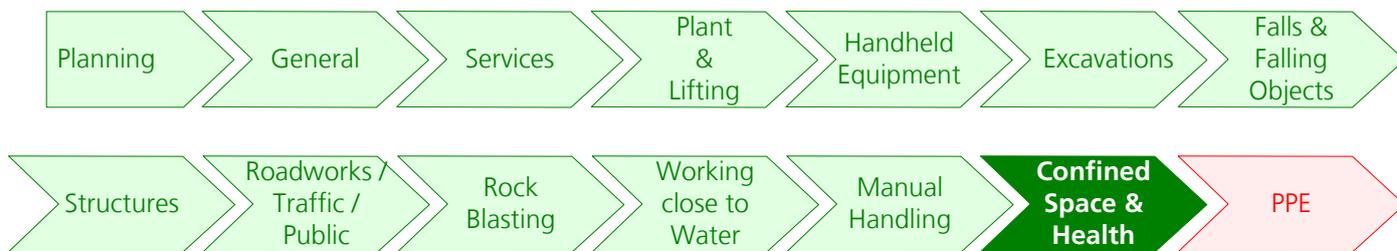
RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

While our bodies are designed to move and can do work effectively, excessive amounts of manual handling can increase the risks of injury. In addition, significant injury can result from a single lift event, where the weight or nature of the load is too much.

YOUR CONTROLS

You need to assess every task to determine if there is a manual handling hazard. Your first approach should be to eliminate the risk, by removing the requirement for you or your employees to engage in manual handling. If you cannot eliminate the hazard, then you need to put in control measures to reduce the risk to as low a level as possible. This may include the provision of mechanical lifting aids, which can be used to take the weight / strain from your operatives. In addition you need to look at how you are planning your works, to see if you can reorganise the activities in such a way so as to eliminate or reduce manual handling requirements. If you or your employees are engaged in manual handling, then you need to organise specific manual handling training, so as to ensure that the correct approach and technique is used. Once you have been trained, you must supervise the manner in which you employees implement the correct manual handling techniques on site and take corrective action if they revert to poor lifting techniques.





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YOUR WORK ACTIVITIES

Confined space refers to any place, including any vessel, tank, container, pit, bund, chamber, cellar or any other similar space which, by the virtue of its enclosed nature, creates conditions that give rise to a likelihood of an accident, harm or injury of such a nature as to require emergency action. This would include working on drainage where for example you or your employees could be working in live manholes and sewers.

HAZARDS AFFECTING YOU

anything with the potential to cause harm

Any work in confined spaces exposes you or your employees to significant hazards, particularly where harmful gases or biological agents are present or can accumulate. The extent of the hazards can be compounded by the difficulty in providing assistance.

RISKS YOU ARE EXPOSED TO

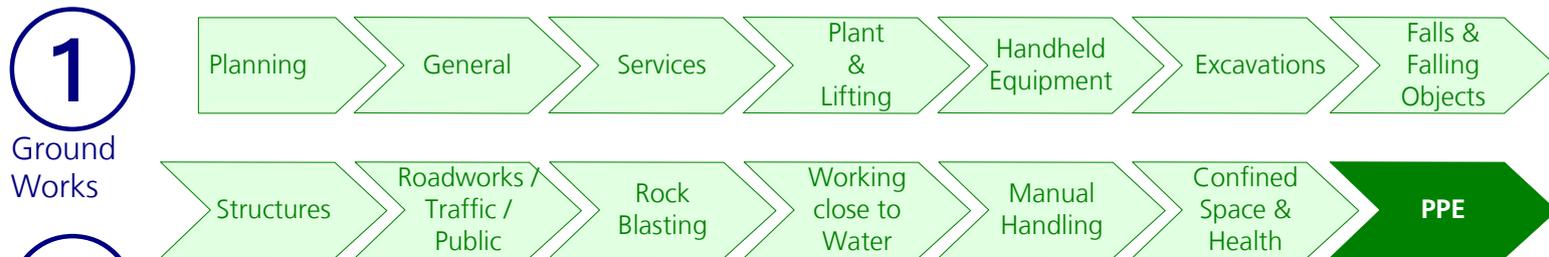
the chance that you will be harmed by the hazard

Working in confined spaces is a high risk activity. Multiple fatalities have occurred when an operative has become overcome by harmful gases and in attempting to get the person out, others have entered the area without protection and been killed.

YOUR CONTROLS

Plan your work! If the ground works includes entry into confined spaces, you must survey this environment first, so as to be sure that you identify all of the hazards that may exist. This will allow you to assess the risks and to ensure that the appropriate control measures are in place before anyone enters the work area. You should use a permit-to-work system for all confined space entry. This will help you manage the implementation of safe working procedures in this hazardous environment. Ensure that you have gas detection and monitoring equipment that is suitable for the anticipated harmful gases and that it is in good working order and has a valid test certificate. You need to consider if the environment requires you to provide a tripod apparatus to be located above the confined space, which will allow for the rescue of the operative working in the confined space, in the event of difficulty. Your employees working in a confined space must be verbal contact with persons outside at all times. If using radio equipment to achieve this, then you must make sure that it is intrinsically safe for use in explosive atmospheres.





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YOUR WORK ACTIVITIES

Personal Protective Equipment (PPE) should be considered as a last resort, only after all other control measures have not allowed for the complete elimination of the hazards. PPE will only protect the individual (1) who is wearing the PPE, (2) who is trained in its safe use, (3) who is using it in accordance with its training and (4) who is provided with PPE that is in good working order. There is a wide variety of PPE available for typical hazards and you need to ensure that you choose the correct PPE for your application; you should seek competent assistance is unsure.

HAZARDS AFFECTING YOU
anything with the potential to cause harm

PPE is intended to provide protection from residual hazards. However you and your employees can be exposed to the hazards by the incorrect use of the PPE equipment.

RISKS YOU ARE EXPOSED TO
the chance that you will be harmed by the hazard

PPE is the last line of defence that you or your employees have to hazards that exist. You are at risk if PPE is not provided or is not used correctly. The effects may be acute (injury is immediately evident) or the injury may only become apparent over time.

YOUR CONTROLS

You need to assess the residual hazards, having put in place all other control measures. If the hazards cannot be fully eliminated then you may need to rely on PPE. However you have to not only provide the PPE, but also the training in its correct use. For example for hearing protection this does not have to include formal off-site training, but should include your supplier providing literature for the hearing protection provided, demonstrating its safe use and for you to include this as a topic in tool-box talks. You need to determine what is the minimum mandatory PPE that is required for works on site and ensure that everyone in your works area (including you) are correctly using the minimum PPE. If persons are not using the PPE then you are required to take corrective action in a consistent manner. Don't lapse into the approach of "I have told him a hundred times to wear the hearing protection; what more can I do?". You can do a lot more! You are in charge of that place of work and you must lead by example and your employees must know that the PPE is provided for their protection and if it is not used correctly, then there may be consequences.





FURTHER INFORMATION

Information is available on the Authority's web page:
www.hsa.ie

From the web page you can download a selection of applicable legislation and a range of guidance publications, free of charge.



A selection of guidance documents are listed below, for your convenience.

<p>Legislation</p> <p>Safety, Health and Welfare at Work Act, 2005</p>	<p>Guidance Document</p> <p>Guide to the Safety, Health and Welfare at Work Act, 2005</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=411&docID=151)</p>
<p>Legislation</p> <p>Safety, Health and Welfare at Work (Construction) Regulations, 2006</p>	<p>Guidance Document</p> <p>Guidelines on Risk Assessments and Safety Statements</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=305&docID=161)</p>
<p>Legislation</p> <p>Safety, Health and Welfare at Work (Construction) Regulations, 2006</p>	<p>Guidance Document</p> <p>Summary of Key Duties under the Safety Health and Welfare at Work (Construction) Regulations, 2006</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=422&docID=195)</p>
<p>Legislation</p> <p>Safety, Health and Welfare at Work (Construction) Regulations, 2006</p>	<p>Guidance Document</p> <p>Guide to the Safety Health and Welfare at Work (Construction) Regulations, 2006</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=427&docID=200)</p>
<p>Legislation</p> <p>Safety, Health and Welfare at Work (Construction) Regulations, 2006</p>	<p>Guidance Document</p> <p>A Guide to Safety in Excavations</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=458&docID=77)</p>
<p>Legislation</p> <p>Safety, Health and Welfare at Work (Construction) Regulations, 2006</p>	<p>Guidance Document</p> <p>Code of Practice for Avoiding Danger from Underground Services</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=237&docID=83)</p>
<p>Legislation</p> <p>Safety, Health and Welfare at Work (Working at Height) Regulations, 2006</p>	<p>Guidance Document</p> <p>Code of Practice for Safety in Roofwork</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=235&docID=86)</p>
<p>Legislation</p> <p>Safety, Health and Welfare at Work (Working at Height) Regulations, 2006</p>	<p>Guidance Document</p> <p>Guide to the Safety Health and Welfare at Work (Working at Height) Regulations, 2006</p> <p>(http://publications.hsa.ie/getFile.asp?FC_ID=423&docID=196)</p>



APPENDIX A

THE LAW

FOR EMPLOYERS

(what you need to do)



YOUR DUTIES AS AN EMPLOYER

You need to look at your responsibilities as an employer. While this code of practice provides you with a way to comply with the requirement to have a safety statement, there are other duties that are outside the scope of the code and that you will need to manage in addition to this. These duties go hand in hand with the preparation and implementation of a safety statement and should not be considered as separate.

In this section we will look at your principal duties as an employer. The legal duties are not repeated exactly as they appear in the legislation; instead they are given as a brief outline of the principles. If you require further information, please refer to section 4, which gives details of further publications. While you read through this section, please bear in mind that other persons also have duties where you are carrying out construction works. For example the client, designers, other contractors, the project supervisor for the design process, the project supervisor for the construction stage, and your employees.

The first piece of legislation that you need to be aware of is the Safety, Health and Welfare at Work Act, 2005. This is the main element of health and safety legislation that applies to all places of work. In addition it paves the way for other regulations to be enacted, such as the Safety Health and Welfare at Work (Construction) Regulations, 2006.

SAFETY, HEALTH AND WELFARE AT WORK ACT, 2005

One aspect of Section 8 of the Act that can sometimes be overlooked is the duty to provide information, instruction, training and supervision to your employees. Please bear in mind that this is the cornerstone of how you should communicate with your employees, on matters of health and safety. This is expanded in Section 9 and 10 of the Act.

- INFORMATION** This is where you tell your employees about the hazards that exist on the project and the hazards associated with carrying out your construction activities.
- INSTRUCTION** The difference here is that the instructions tell the employees how you expect them to carry out the work safely, i.e. your site rules.
- TRAINING** Apart from the requirement for your employees to have FAS Safe Pass, due to the nature of the work that you are asking your employees to do, they may require additional training, for example in driving a telescopic handler.
- SUPERVISION** You have told your employees what the hazards are, you have instructed them how you expect them to undertake the work in a safe manner, and you have provided training to give them the skills they need. Now the important step is to supervise them to ensure that they are complying. If unsafe work practices exist – take corrective action immediately.

Section 8: General Duties of Employer		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>You must ensure the safety, health and welfare of your employees</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>These duties equally apply to your own employees and anyone you hire on a temporary basis</p> </div>	<p>To achieve this you must:</p> <ul style="list-style-type: none"> Manage how you carry out your work activities; Identify the hazards and do risk assessments for each place of work. Communicate the control measures to your employees; Tell your employees how you expect them to behave and make sure that they comply (your site rules); Provide a safe place of work; Provide safe means of getting to and from the work; Providing safe plant and equipment; Make sure that your employees are not at risk from the use of materials or from the use of plant and equipment; Provide safe systems of work, that are planned and implemented on site; Provide welfare facilities or make sure that the main contractor has provided access to welfare facilities; Provide information, instruction, training & supervision; Provide PPE; Have emergency plans in place; Report accidents and dangerous occurrences; Get help if needed 	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Discharging your duties cannot involve any financial cost to your employees</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Your employees have a duty to cooperate with you. Refer to Section 13 of the Act</p> </div>

Section 9: Information for Employees		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>You are required to provide information to your employees</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>These duties equally apply to your own employees and anyone you hire on a temporary basis</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p>You have to provide the information in a form, manner, and if appropriate, language that is likely to be understood by the employee. Please remember this if you are hiring or working with persons for whom english is not their first language.</p> <p>The information you provide will include information on the hazards that exist and the risks assessment that you have carried out.</p> <p>You will also inform your employees how you plan for the work to be completed safely.</p> <p>If your emergency plans indicate who is responsible for implementing them, then you need to inform your employees who this is.</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p>Your employees have a duty to cooperate with you. Refer to Section 13 of the Act</p> </div>

The requirement of Section 9 in relation to the provision of information to employees is supported by Section 10 overleaf to also provide instruction, training and supervision to employees.

As an employer of three or less employees you need to determine as to how best to provide this information to your employees and in what format that takes. The requirement to provide information on the hazards and risks of the work activities or of the environment in which the work has to be undertaken can be communicated by way of the Safe System of Work Plan.

Section 10: Instruction, Training and Supervision of Employees		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>You are required to provide instruction, training and supervision to your employees</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>These duties equally apply to your own employees and anyone you hire on a temporary basis</p> </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>You have to provide the instruction, training and supervision in a form, manner, and if appropriate, language that is likely to be understood by the employee. Please remember this if you are hiring or working with persons for whom english is not their first language.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>You need to take the capabilities of your employees, in relation to health & safety, into account when asking them to carry out work activities.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>If you have employees who are covered by other legislation (i.e. pregnant employees) then you need to ensure that they are protected.</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>You need to provide training to new employees, and training if there are new or changed risks, or if new plant & equipment is introduced.</p> </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Your employees have a duty to cooperate with you. Refer to Section 13 of the Act</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Your employees are entitled to be released from work without loss of pay, in order to receive training</p> </div>

The Construction Regulations stipulate a range of training that is required for various activities in the construction sector. Safety awareness or Safe Pass is a general requirement for all site operatives working on site. In addition there are a range of Construction Skills Certification Scheme (CSCS) training programmes, which deal with particular hazardous activities, such as the erection of scaffolding or the operation of certain plant and equipment.

Please note that the registration card that your employees receive on the successful completion of the Safe Pass or CSCS training is their property and responsibility. While you are entitled (and should) make photocopies of the registration cards, you must not take full possession of the cards. After you have copied the cards or noted the registration numbers, return the cards to your employees, instructing them to always have the cards in their possession, so that they can be displayed on request.

Section 11: Emergencies and Serious and Imminent Dangers		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>You must prepare emergency plans and procedures</p> </div>	<div style="border: 1px solid black; padding: 10px;"> <p>This includes for such measures in relation to first aid, fire fighting and the evacuation of persons at your place of work.</p> <p>The plans may vary depending on the work that you are carrying out. However they should be detailed, particularly if you are undertaking works that are likely to result in an emergency, such as hot works.</p> <p>You need to identify who will be responsible for implementing the plans.</p> <p>In the event of serious, imminent and unavoidable danger, you should instruct your employees to leave the area.</p> </div>	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Your employees have a duty to cooperate with you. Refer to Section 13 of the Act</p> </div> <div style="border: 1px solid black; padding: 10px; margin-top: 10px; text-align: center;"> <p>If employees have stopped work because of serious, imminent and unavoidable danger, then they should not be penalised.</p> </div>

Section 12: General Duties to Persons other than your Employees		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>You must take account of the safety, health and welfare of other persons other than your employees</p> </div>	<div style="border: 1px solid black; padding: 10px;"> <p>You can achieve this by planning, managing and carrying out your construction work activities in a safe manner, that recognises that other persons may be adversely affected by your activities.</p> </div>	

This represents your general duties as an employer. The following sections deal with specific requirements of risk management in more detail.

Section 17(3): Duties Related to Construction Work		
THE LAW	YOU	YOUR EMPLOYEES
<p>You must ensure that the construction works are undertaken in a safe manner and without risk to health</p> <p>You must ensure that the manner in which you undertake your construction activities comply with the legislation</p>	<p>Irrespective of the number of employees that you have, if you are engaged in construction activities then you have to ensure that you are carrying out these activities in a safe manner.</p> <ul style="list-style-type: none"> Plan the works; Implement the plan; Check the plan; Take corrective action, if necessary 	<p>Your employees have a duty to cooperate with you. Refer to Section 13 of the Act</p>

Section 18: Protective and Preventive Measures		
THE LAW	YOU	YOUR EMPLOYEES
<p>You need to appoint a person or persons, responsible for the prevention of risk</p>	<p>For your company, this may be you, provided you are competent to undertake this duty.</p> <p>You may need to engage an external person to provide assistance, if you or your employees are not competent to fully discharge this duty.</p> <p>You need to provide the external person with the relevant information on the hazards and risks.</p>	<p>If competent (having the required training, knowledge and experience), then assist your employer as directed in the implementation of protection and prevention of risks</p>

Section 19 (overleaf) relates specifically to the requirement for hazard identification and risk assessment. Please refer to part 7 of this document, which outlines how you can apply the Safe System of Work Plan to your construction activities.

Section 19: Hazard Identification and Risk Assessment		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>You are required to identify HAZARDS and assess the RISKS to person's safety, health or welfare</p> </div>	<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>When looking at the hazards, consider, for example:</p> <ul style="list-style-type: none"> The type of construction work that you have to do; The environment that you and your employees are working in; The materials that you will be using (weight, size, stability, hazardous); The plant and equipment you will need to do the work; Access into and out of the site and work location; You and your employee's ability to do the work in a safe manner </div> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>Having identified the hazards, you then need to assess the risks. You may utilise the Safe System of Work Plan to achieve this.</p> </div> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>The final stage is to decide / agree on the appropriate control measures and to implement these on site before work commences</p> </div>	<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>Your employees have a duty to cooperate with you. Refer to Section 13 of the Act</p> </div>
Section 20: Safety Statement		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>Every employer is required to prepare a Safety Statement</p> </div>	<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>As a contractor, if you have three or less employees, by complying with this code, you are complying with Section 20</p> </div>	

Section 21: Duty of Employers to Cooperate		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Where employers share a place of work, they are required to cooperate with each other</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p>It is very common for you to be sharing a place of work (i.e. a construction site where there are a number of different contractors present.</p> <p>When this happens you need to cooperate with the other contractors, in particular with how you plan to carry out your works and coordinate the implementation of the plan on site.</p> <p>You should ensure that any contractor that is affected by your works, receives a copy of your Safe System of Work Plan for those works.</p> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Your employees have a duty to cooperate with you. Refer to Section 13 of the Act</p> </div>

This summarises your main duties as an employer and how they relate to your employees.

In addition to the Safety, Health and Welfare at Work Act, 2005, there is a range of further legislation that may affect your work activities. For example, the following is a non-exhaustive list of legislation that may apply to the type of work that you are engaged in and/or the environment in which you undertake these works:

- Safety, Health and Welfare at Work (Construction) Regulations, 2006
- Safety, Health and Welfare at Work (Working at Height) Regulations, 2006
- Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006
- Safety, Health and Welfare at Work (Control of Vibration at Work) Regulations, 2006
- Safety, Health and Welfare at Work (Confined Spaces) Regulations, 2001

For further guidance, visit the Health and Safety Authority’s web page at www.hsa.ie

APPENDIX B

THE LAW FOR EMPLOYEES

(what your employees need to do)



DUTIES OF YOUR EMPLOYEES

While the responsibilities for managing health and safety in your workplace rest mainly with you, it is important that both you and your employees appreciate that employees also have responsibilities. These are outlined in Sections 13, 14 and 15 of the Safety, Health and Welfare at Work Act, 2005.

Section 13: Duties of Employees		
THE LAW	YOU	YOUR EMPLOYEES
<div style="border: 1px solid black; padding: 10px; text-align: center;"> The main duties of employees are detailed in Section 13 </div>	<div style="border: 1px solid black; padding: 10px; text-align: center;"> You are obliged to ensure that you provide information to employees in relation to their duties </div>	<div style="border: 1px solid black; padding: 10px;"> As an employee you must: <ul style="list-style-type: none"> Comply with health & safety legislation; Look out for your own safety and that of others, by what you do and fail to do; Make sure that you are not under the influence of drink or drugs; Once further legislation is passed, undergo tests for intoxicants; Cooperate with your employer or any other person, so as to allow that person comply with their duties; Not engage in improper conduct; Attend training; Make proper use of equipment provided; Report to your employer if work is being carried on in such a manner so as to affect your health and safety or that of any other person; Report to your employer if there is a defect in the place of work or systems of work (method statement); Report to your employer if there is a contravention of the act or regulations, that you are aware of. </div>

Section 14: Interference, Misuse, etc.		
THE LAW	YOU	YOUR EMPLOYEES
<p>This section relates to the intentional, reckless or without good cause, interference of anything that affects the safety health and welfare of any person</p>	<p>As an employer, you need to ensure that you do not, either intentionally, recklessly or without reasonable cause, interfere, misuse or damage anything that has been provided for the safety, health and welfare of persons at work.</p> <p>As an employer, you must not carry out your work activities in such a way as to intentionally, recklessly or without reasonable cause, affect the safety health and welfare of other persons.</p>	<p>As an employee, you need to ensure that you do not, either intentionally, recklessly or without reasonable cause, interfere, misuse or damage anything that has been provided for the safety, health and welfare of persons at work.</p> <p>As an employee, you must not carry out your work activities in such a way as to intentionally, recklessly or without reasonable cause, affect the safety health and welfare of other persons.</p>

An example would include a situation where you have a particular task to complete, but when you get to site the scaffolding is in your way. You must not interfere with the scaffold, which has been provided for your safety and that of others on site, in order to complete your task. In this situation you should notify your employer and the person in charge of the site.

Section 15: General Duties of Persons in Control of a Place of Work		
THE LAW	YOU	YOUR EMPLOYEES
<p>This section places duties on the person in charge to ensure that it is a safe place of work, with safe access & egress and that articles that are provided are safe and without risk to health</p>	<p>You need to determine who is in control of the construction site where you are working.</p> <p>Cooperate with that person, in allowing them to discharge their duties and ensure that your employees know who the responsible person is.</p>	<p>Cooperate with the person in control of the construction site, in allowing them to discharge their duties.</p>

This summarises the main duties of your employees.

APPENDIX C

OTHER CONTRACTORS

**(what other contractors can expect
from you)**

ACTIONS FOR YOU:

- Read and comply with this code of practice;
- Obtain the SSWP forms and pictogram booklets that are applicable to your work activities;
- Start using the forms with your employees;
- Continue to use the forms for all projects;
- When you start on a new project, inform the Main Contractor, Project Supervisor Construction Stage (PSCS) and other Contractors as necessary, that you are using the SSWP forms and code of practice, as your Safety Statement;
- Give these Contractors a copy of your signed commitment, see Appendix E;
- Cooperate with other Contractors and the PSCS;
- Use the SSWP for each new activity or new hazard on site;
- Keep the completed SSWP and pictogram booklets on site

ACTIONS FOR OTHER CONTRACTORS:

- If a Contractor provides you with a signed copy of the commitment in Appendix E and confirms that they are complying with this code of practice and using the SSWP forms, then this can be accepted in lieu of a written Safety Statement;
 - This Contractor should then be using the appropriate SSWP form for their work activities on site;
 - The completed SSWP and pictogram booklets should be kept on site
-

APPENDIX D

SOME HEALTH & SAFETY TERMS

(what you need to know)

SOME IMPORTANT TERMS

There are some terms that are used in this code and it is important that you have a clear understanding of these from the start.

HAZARD

A hazard, in general, refers to anything with the potential to cause harm in terms of human injury or ill-health, damage to property, damage to the environment or a combination of these. For example; working at height, from a ladder or on scaffolding; working in an excavation; or working with chemicals or dangerous substances. Notice that the when we talk about hazards we are also looking at how people are exposed to the potential for harm, for example working with a hazard or working in a hazardous environment.

In its simplest form, when you are looking to identify hazards in your workplace, ask yourself "*where can people come to harm.*" This applies to you; your employees; and any other person, including members of the public.

RISK

The next thing you need to know about is that risk. Can someone be harmed by the hazard?

In life when we talk about chance, it can have a good outcome: "*What's the chance my horse will win in the 2:15?*" However when we are considering chance in health and safety the potential outcome is nearly always negative: "*What is the chance that I will fall off this unprotected roof?*"

Because there is the potential for a negative outcome, we often look at "chance" as being the combination of the "likelihood" and "severity". In other words "*How likely is it that I will fall off this unprotected roof?*" AND "*If I do fall off this unprotected roof, then what harm will I come to; will I suffer major injuries or even be killed?*"

You need to look at all of your work activities; what are the risks of working at height? What are the risks of working in this excavation?

LIKELIHOOD

In the context of your construction work, you need to assess how likely it is that someone can be harmed by how you carry out your work. There are a number of factors that come into play here:

- What is the activity?
 - How are you managing it at the moment?
 - Who is going to come into contact with this activity?
 - Do they have the necessary skills?
-

- Are there signs and guards in place?

Even though you might have some controls in place, there may still be a degree of likelihood that someone could be harmed. You must focus on this, as this is one area of the risk assessment where you can have the best effect. By reducing the likelihood right down, so that it is unlikely that someone will be harmed, you are effectively preventing accidents from occurring.

SEVERITY

This can be tougher to crack!

For example, if you are sending one of your employees to work on a roof, even though you may have put measures in place to reduce the likelihood of falling, if they do fall the severity can be the same.

Therefore in order to reduce the severity you will need to put in place active controls. In the case of working on the roof, the incorporation of safety nets or air/bean bags can reduce the severity of the fall.

RISK ASSESSMENT

We all have an inbuilt ability to carry out risk assessments and we do it right throughout the day!

Before you cross the road, you look to see how many cars are on the road. You determine how fast they are going and how far away they are. You look to see how wide the road is and you determine your ability to cross the road; can you walk or are you on crutches and have to hobble across.

This is a simple example of risk assessment. In it you are looking at the hazards "crossing a public road" and based on the factors associated with this hazard "number of cars present", "speed of cars", "width of road" and "ability to cross", you are assessing the risk to you, if you decide to cross.

When it comes to the workplace all that is required is to take that inbuilt ability you have to do risk assessments and apply that to your work activities.

This is covered in Section 2.

CONTROL MEASURES

Once you have done a risk assessment, the task is not complete until you decide on the appropriate control measures that are required to protect:

- You;
 - Your employees;
 - Other workers on site; and
-

- Any other person

Agreeing control measures is not that difficult, it requires you to talk to your employees and the person in charge of the place of work (this may be the Foreman, for example). Often you will find that the control measures are common sense, sometimes all it needs is for you to stop and think about the potential for harm and what you will do to prevent it.

Control measures may be put in place by other Contractors. Don't do work if the control measures are not in place or if they are inadequate.

Going back to the example of crossing the road, you may decide that the appropriate control measure is to wait for the pedestrian lights to turn green and cross when the traffic is stopped.

DANGEROUS

This is another way to communicate a situation that involves risk and that it is hazardous or unsafe.

For example, "using that broken ladder is dangerous".

RISK PERCEPTION

A factor that you need to be aware of is that people who have worked within the construction sector for a number of years may not actually realise that they are at risk of injury if they work in an unsafe way. People in this situation may take risks without appreciating the risks that they are exposed to.

Are these familiar?

"Ah sure I have been doing it this way for years and I have never got hurt before!"

"Well we are nearly finished now, just another five minutes!"

If this situation is familiar, seek help now.

CONTRACTOR

You may be familiar with the term "Main Contractor"; in fact you may get some of your work from main contractors. However from a health and safety perspective there is no such term; the legislation only refers to "Contractor", i.e. someone who carries out construction work.

This also means you! Even though you may not consider yourself a contractor, you are one when it comes to health and safety. Therefore you need to comply with the duties of contractor in the Act and Construction Regulations.

APPENDIX E

YOUR COMMITMENT TO SAFETY

(sign and date, then communicate)

Our Commitment

In accordance with the
Safe System of Work Plan Code of
Practice for three Employees or less
within the Construction Sector

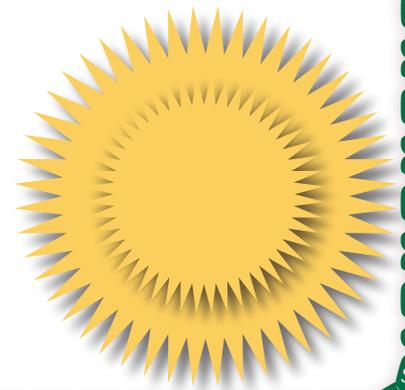
(state your name or company name)

commit ourselves to working in accordance with the Health and Safety Authority's code of practice for three employees or less; and in accordance with the provisions of the Safety, Health and Welfare at Work Act, 2005. We undertake to implement the Safe System of Work Plan for all our construction activities.

Signed

Date

Company Registration Number



YOUR EMERGENCY TELEPHONE NUMBERS

Nearest Hospital	
Local Doctor	
Priest or Minister	
Emergency Services	999 or 112
Fire Brigade	
Garda Station	
ESB Networks	1850 372 999
Bord Gáis	1850 205 050
Eircom	1901 "Fault report" / "Other fault"
Health & Safety Authority	1890 289 389

Please fill in your emergency telephone numbers above and give this to your employees and display at your place of work.

