



HEALTH AND SAFETY
AUTHORITY

SAFE SYSTEM OF WORK PLAN (SSWP)



HOUSE BUILDING PICTOGRAMS



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PICTOGRAMS

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HOUSE BUILDING

PART 1 – Mandatory Site Requirements

SUPERVISION



Every activity must be initiated and controlled. Supervision, generally by the person in charge, e.g. the foreman, is essential to ensure the activity is completed as planned, and to ensure a safe system of work.

SAFE PASS



As identified in the Construction Regulations, all persons engaged in construction work must be in possession of a current Safe Pass card, and have successfully completed the one-day Safe Pass training. Safe Pass cards must be renewed as appropriate.

PLANT/EQUIPMENT CERTIFICATION



It is a legal requirement that most construction plant is tested and examined on a regular basis, in particular all lifting appliances and lifting gear. The Certificates relating to these must be kept up to date.

CSCS



The Construction Skills Certification Scheme (CSCS): as outlined in the Construction Regulations, requires that certain construction skills have mandatory training. On successful completion of this training, persons are given a CSCS card. CSCS cards must be renewed as appropriate.

INDUCTION



Every new contractor or new employee to a site must undergo an induction process when they first arrive on site. This induction should inform the attendees about site rules and procedures, and the arrangements for their safety and welfare on site, and also who the key duty holders are.

COMMUNICATION



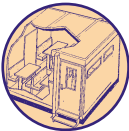
Timely and good communication is essential. Such clear communication helps to ensure that tasks are understood and completed in a safe manner. Workers need to know how to do their work safely.

WC & WASHING



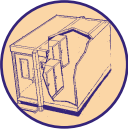
Toilets and a hand washing facility must be provided on all sites. The facility must include a sufficient supply of hot and cold running water, toilet tissue, soap, and towels. The facility must be maintained in a clean and hygienic condition as well as being easily accessible.

CANTEEN



A facility must be provided for workers to take breaks. Minimum requirements include a facility for boiling water, tables with impermeable surfaces, and chairs with backs. It must be properly ventilated, adequately lighted, kept in a clean, hygienic orderly condition not used for the storage of building materials or plant.

DRYING/CHANGING



Arrangements, separate from the canteen facility, must be in place to allow workers to change and dry clothes.

DRINKING WATER



An adequate supply of wholesome drinking water must be provided at a convenient point(s).

SMOKING CONTROL



Smoking is prohibited in enclosed work places.

PART 2



GROUND FLOOR

HOUSEKEEPING



To enable persons to get safely to their place of work all slip, trip and fall hazards must be removed. A good housekeeping system must be adopted, so that everything has a place and everything is in its place.

ACCESS ROUTE



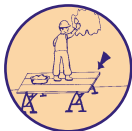
There must be safe routes to and from the place of work.

REBAR



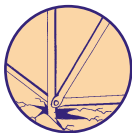
All exposed rebar particularly in access routes or close to work areas must be removed fully by cutting, or be bent away or be capped with a plastic mushroom cap such that they do not pose a risk as a trip or puncture hazard.

TRESTLES



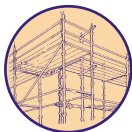
Trestle work platforms are used for low-level work, i.e. heights of less than two metres. They must be erected by competent persons, and be free from defects. Only “locating pins” which are recommended by the manufacturer should be used, and care must be taken to insert correctly. The legs of the trestles must be on firm foundations (not likely to slip or shift), and platform level must be fully boarded and not over loaded.

GROUND CONDITIONS



Before scaffolding is erected, or where other external access equipment is used, the ground must be prepared so that it is suitable to support the safe use of such equipment and any other loads applied.

SCAFFOLDING



Scaffold platforms should where possible be used as working platforms for all work at height. The scaffold platform must be designed, planned and subsequently erected by fully trained personnel, in accordance with all relevant Legislation, Codes of Practice, and manufacturer’s instructions. Scaffolds should include dedicated ladder access bays and properly constructed loading bays. Hand-over certificates and the use of relevant signage e.g. capacity of loading bays is recommended.



UPPER FLOORS

SCAFFOLDING



Scaffold platforms should where possible be used as working platforms for all work at height. The scaffold platform must be designed, planned and subsequently erected by fully trained personnel, in accordance with all relevant Legislation, Codes of Practice, and manufacturer's instructions. Scaffolds should include dedicated ladder access bays and properly constructed loading bays. Hand-over certificates and the use of relevant signage e.g. capacity of loading bays is recommended.

WORKING PLATFORMS



Working platforms are locations and areas for carrying out construction work at height safely. A working platform is taken to mean a work area that provides protection and prevents the worker falling to a lower level. Generally it is used to refer to scaffold platforms, but, where scaffolds cannot be erected, it can also refer to other safe platforms such as, MEWPs, or scaffold towers.

LOADING BAYS



Materials must be stored on platforms designed to take the applied loading, and not be placed in areas where the stored material itself becomes a hazard, i.e. not stored on working platforms so as to restrict safe access around the scaffolds. All external scaffolds used for house building should be designed with adequately constructed loading bays.

LADDER ACCESS



All ladder access must be erected by competent persons, to include adequate length of ladder, tying, footing, and be free from defects. Ladder egress must be such that large gaps are not created from which persons could fall before the ladder handhold is achieved. Access to scaffold platforms should always be provided by dedicated ladder bays, constructed by fully trained scaffolders.

SAFE LADDER



All ladders including step ladders must be carefully selected for each task, be free from patent defects, be of correct length, be carefully tied, be set at the correct angle, and, where necessary, be footed. Ladders must be controlled and subject to frequent auditing to ensure fitness for use.

TIE LADDER



All ladders must be tied, such that they will not slip or slide while in use.

EDGE PROTECTION



Persons must not be at risk from falling through openings, or over leading edges. All persons accessing, or working at, or close to, openings that could lead to such falls must be protected and guarded from falls. Such measures must include handrails, barriers and toe boards etc.

STAIR PROTECTION



Persons must not be at risk from falling from or over stair edges or landings. Suitable handrails, barriers and toe boards must be erected to prevent falls.

HOUSEKEEPING



To enable persons to get safely to their place of work all slip, trip and fall hazards must be removed. A good housekeeping system must be adopted, so that everything is given a place, and everything is in its place.

ACCESS ROUTE



There must be safe walk routes to and from the place of work.

LIGHTING



Adequate lighting must be afforded to persons accessing and working in darkened areas to prevent workers slipping, tripping, falling or being hit by protruding objects.

JOISTS DECKED



Before persons work in joisted areas, adequate and sufficient protection must be given to ensure workers are not at risk from falling through or from the joist network. This will generally require that the joisted area is fully decked to prevent any slips or falls through openings.

PROPPING

Propping is any temporary structure used to support a permanent structure while it is not self-supporting. Propping is required during the construction stages of a project to give temporary support to prevent collapse due to overloading of structural components during the building and installation works, e.g. when loading pallets of block on joist work, and the installation of precast slabs and stairs etc. The responsible contractor must ensure that the correct number of props are installed correctly and that the units are supported as indicated on the construction drawings. Load bearing connections including use of angle brackets and bolts must be as specified by the design with regard to the manufacturer's specifications, and bolts must be of suitable size and inserted to the required depth to the designed centre distances.

OVERHEAD WORK

Make sure before you start working that there is no work taking place above you.

FALL PROTECTION

Never lay blocks from the inside of a house at first level without scaffolding or other edge protection being on the out-side of the house, e.g. there should be no overhand work carried out.

COURSES

Laying too many courses of blocks in one day can cause a wall to collapse. When laying courses consider weather conditions such as rain and wind and the drying time of mortar.

EXCLUSION ZONE

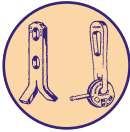
Where lifting operations are taking place, e.g. precast slabs and precast components being lifted into place, carefully marked out exclusion zones must be established under such lifts.

SLAB ANCHORS

To ensure the safety of the precast erection team, precast floor slabs must be laid in a systematic pattern that facilitates the use of collective fall protection systems, so that persons are not at risk from falling over leading edges. Anchors must be designed and planned to facilitate safe slab erection.

CASTED SLAB EYES

Suitable lifting eyes are generally cast into floor slabs, these can serve a dual purpose for the lift itself, and also for aiding a system of fall protection, e.g. use of safety lines, lanyards etc. When complete these eyes should be removed by cutting, otherwise they will serve as potential trip points.

ANCHORS & CLUTCHES

Transport Anchor Systems can be used to lift precast concrete units. Advice from a competent person is required to ensure the proper selection of the ring clutches for the anchors, and for their safe use.

**ROOF WORK AND ROOF SPACE****SCAFFOLDING**

Scaffold platforms should where possible be used as working platforms for all work at height. The scaffold platform must be designed, planned and subsequently erected by fully trained personnel, in accordance with all relevant Legislation, Codes of Practice, and manufacturer's instructions. Scaffolds should include dedicated ladder access bays and properly constructed loading bays. Hand-over certificates and the use of relevant signage e.g. capacity of loading bays is recommended.

LOADING BAYS

Roofing materials must be stored on platforms designed to take the applied loading, and not be placed in areas where the stored material itself becomes a hazard, i.e. not stored on working platforms so as to restrict safe access around the scaffolds, or on sloped areas where they are likely to fall. All external scaffolds used for house building should be designed with adequately constructed loading bays.

LADDER ACCESS



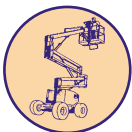
All ladder access must be erected by competent persons, to include adequate length of ladder, tying, footing, and be free from defects. Ladder egress must be such that large gaps are not created from which persons could fall before the ladder handhold is achieved. Access to scaffold platforms should always be provided by dedicated ladder bays, constructed by fully trained scaffolders.

ROOF LADDERS



Roof ladders should be always used for accessing up and down sloping roofs, these ladders should be used in conjunction with properly constructed scaffold platforms. Roof ladders must be CE marked, and be free of any defects. When used, roof ladders should reach and anchor around the ridge.

BOOM HOIST



A Boom Hoist has an extendable folding boom with cage attached, it can be used for work at height if the ground conditions are suitable. Boom hoists can also be used to gain access to remote areas. Selection must be based on suitability for the task and the manufacturer's guidelines for safe use must be followed fully. Only competent and trained operators should control the movement of these hoists. Other vehicles should be strictly controlled in the vicinity of hoists.

SCISSORS LIFT



Can extend to significant heights using hydraulic scissors movement, and can be used where scaffold platforms are not suitable. Selection must be based on suitability for the task, with particular attention given to the ground conditions, and that the manufacturer's guidelines for safe use can be followed fully. Only competent and trained operators should control the movement of these.

EDGE PROTECTION



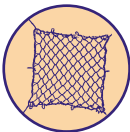
Persons must not be at risk from falling through openings, or over leading edges. All persons accessing, or working at, or close to, openings that could lead to such falls must be protected and guarded from falls. Such measures must include handrails, barriers and toe boards etc.

DECK TRUSSES

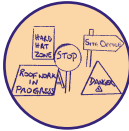


Decking out the trusses can be used to prevent falls through the roof trusses to the level below.

NETS/BEAN BAGS



Persons working in roof areas that have internal openings, e.g. spreading roof trusses etc., can be protected using air bags, beanbags or safety nets. Before use, these safety nets and bags should be appropriately tested, inspected and certified. Furthermore, these safety nets and/or bags must be installed by competent and fully trained persons.

SIGNS

Suitable and appropriate warning signs must be used across the site, so that advance warning is given to workers or other in the vicinity when approaching particular high-risk areas e.g. approaching leading edges, and exclusion zones etc. Signs should also be used to convey safety information e.g. "scaffold unsafe to use" etc. Signs must be clear, unambiguous, be at the appropriate location and be in a language understandable by the relevant workers or persons on site. Where signs are used on site they should always be complied with.

HOUSEKEEPING

To enable persons to get safely to their place of work, all slip, trip and fall hazards must be removed. A good housekeeping system must be adopted, and maintained.

ACCESS ROUTE

There must be safe walk routes to and from the place of work.

STORAGE



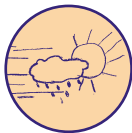
All materials should be stored where they can not fall on to workers below. Materials should be kept tidy and stable making sure that all access routes are kept clear. Working platforms should not be cluttered or blocked with materials and there must always be adequate space for safe access. All loose materials should be removed on an ongoing basis.

OVERHEAD LINES



Contact with overhead lines can kill. Never erect scaffolding close to or under overhead lines. Never work close to, or access close to, or under overhead lines.

WEATHER



Adverse weather, such as high winds and ice can lead to unsafe working conditions. In high winds or ice weather, it may be necessary to cease roof work in exposed areas. Also in high wind conditions loose materials may need to be removed or tied down, to prevent them blowing or falling. In hot sunny weather, sun protection must be considered, as well as the provision of drinking water to prevent de-hydration.



FALLING OBJECTS

EXCLUSION ZONE



Work should never take place directly above other workers.

STORAGE



All materials at height should be stored where they can not fall on to workers. Materials should be kept tidy and secure making sure that all access routes are kept clear. Working platforms should not be cluttered with stored materials, and adequate space must be maintained to allow safe access. All loose materials should be removed on an ongoing basis.

LOADING BAY



Materials must be stored on platforms designed to take the applied loading, and not be placed in areas where the stored material itself becomes a hazard, e.g. not stored on working platforms so as to restrict safe access around the scaffolds. All external scaffolds used for house building should be designed with adequately constructed loading bays.

PALLETS/BALES



Where possible materials should be kept on pallets, or in bales with adequate strapping to ensure that materials do not fall while being lifted into place.

CHUTES



Chutes should be used for discarding materials, – materials should never be thrown from scaffolding or windows etc. The Chute should extend down into a waste skip. Exclusion zones under the drop zones should always be created where construction materials and debris is discarded.

SHEETING/FANS



Sheeting/netting should be used to enclose scaffolding on its public side to prevent loose materials from falling on to members of the public. Similarly fans should be erected onto the scaffold to supplement the sheeting. These measures are particularly important where the scaffolding fronts on to a public access way.

BANKSMAN



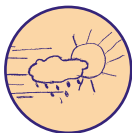
A banksman is a trained Slinger and Signaller, and must always be used during lifting operations.

PROPPING



Propping is any temporary structure used to support a permanent structure while it is not self-supporting. Propping is required during the construction stages of a project to give temporary support to prevent collapse due to overloading of structural components during the building and installation works, e.g. when loading pallets of block or other materials on joist work, and the installation of precast slabs and stairs etc. The responsible contractor must ensure that the correct number of props are installed correctly and that the units are supported as indicated on the construction drawings. Load bearing connections including use of angle brackets and bolts must be as specified by the design with regard to the manufacturer's specifications, and bolts must be of suitable size and inserted to the required depth to the designed centre distances.

WEATHER



Adverse weather, such as high winds and ice can lead to unsafe working conditions. In high winds or icy weather, it may be necessary to cease work at height in exposed areas. Also in high wind conditions loose materials may need to be removed or tied down, to prevent them blowing or falling. Similarly cranes shall not be operated in wind speeds that are in excess of those specified by the crane manufacturer.



HAND TOOLS

CHECK SUITABILITY



Before any electrically powered hand operated tool is used to carry out any work activity it must be checked for its suitability to the task, e.g. voltage rating, size and condition etc. In addition when purchasing and using hand operated power tools e.g. grinders, saws and drills etc, consideration must be given to the potential risks to workers from vibration emissions.

VOLTAGE



All portable electric tools rated below 2 kilowatts used on construction sites must be rated at 110V.

CONSAWS



Consaws are widely used on construction sites. They should be maintained in good working order and regularly serviced. Guards must be in place at all times. Appropriate PPE must be used.

CHECK CABLE



Before using any electric appliance on site, including use of transformers and extension reels, the cables and connectors attached must be examined to ensure that such components are not damaged.

GUARDS



Many hand/portable tools have rotating shafts and components, others due to their application will emit fragments including dust and sparks. Such tools must have suitable guards fitted, e.g. circular saw guards, power-take-off shaft guards etc.

CABLE PROTECTION



Trailing electric cables in situations where these cables are at risk from damage because of their position must be protected from such damage, or a safer cable location used.

GENERATORS OUTSIDE



To avoid the silent killer, petrol and diesel driven generators must always be used outdoors to avoid the deadly effects of carbon monoxide build up from exhaust gases.

DUST SUPPRESSION



Tools and equipment which generate dust clouds should be fitted with appropriate extraction or wetting aids.

MAINTENANCE



All tools and equipment should undergo regular service and maintenance checks, to ensure fitness for use.



PLANT AND EQUIPMENT, LIFTING OPERATIONS



CHECK SUITABILITY



Check the suitability of the plant that is to be used for the lifting operation, e.g. safe working load, accessories available, and reach capability etc.

TRAFFIC CONTROL



Traffic Control plans must be prepared, to help plan and control traffic movement, especially at the entrance to any construction site. Measures to control traffic may include the following: use of warning signs, bollards, stop-go systems, ramps, temporary traffic lights, and flagmen. Liaison with local Gardaí may also be necessary. The Department of the Environment's Traffic Signs Manual should be referred to.

PRIVATE PARKING



Non- construction vehicles must be parked in designated areas away from construction site traffic.

SPEED SIGNS



Vehicular speeds must be controlled on construction sites. Speed Signs must be erected and displayed appropriately to advise drivers of permitted speeds.

PEDESTRIAN ROUTES



Whether workers on site or members of the public accessing close to construction works, separating pedestrians from construction plant operations is important. Dedicated pedestrian routes, clearly identified, must be used.

FENCING



Plant should be secured when left unattended, especially when parked up at the end of the day to prevent unauthorised use.

BANKSMAN



A banksman is a trained Slinger and Signaller, and must always be used during lifting operations.

FLAGMAN



Where construction work involves managing traffic or pedestrians in public areas, trained flagmen should be used to control such movements in a safe manner. Flagmen must wear high visibility vests and use approved Stop/Go signs or flags. Where two flagmen are required they must be in visible contact or in voice communication with each other.

ROLL OVER PROTECTION



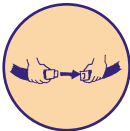
All construction plant is required by law to protect the driver/operator. Where plant can possibly overturn Roll Over Protection is required, e.g. on dump trucks, tractors, and mini- excavators.

NO PASSENGERS



Construction plant is generally only to be occupied by the one person who is in control of the vehicle. One seat, one person. Such plant must not be used to give lifts about the site to others.

SEAT BELTS



Where seat belts are fitted they must be worn. In the event of an overturn they can save lives.

WARNING DEVICES



With plant that has restricted visibility, particularly while carrying out reversing operations, suitable warning devices, or sight seeing devices must be fitted, e.g. CCTV, flashing beacons, convex mirrors etc.

SWL



Lifting appliances and lifting gear should never be used to lift beyond their stated safe working load.

PLAN LIFT



All lifting operations should be planned to ensure that they are carried out in a safe manner. Generally a method statement should be prepared in advance of the lift taking place.

EXCLUSION ZONE



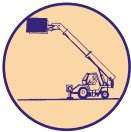
As a general rule, persons should not be working under an area where loads are being lifted or within the working radius of the jib. People should be kept a safe distance from working plant, barriers should be used where possible.

GROUND CONDITIONS



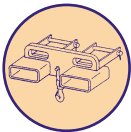
The ground area on which lifting plant and equipment will be used should be inspected to ensure it is capable of taking the weight of the plant & equipment and any applied load. Expert advice may be necessary.

TELEPORTER



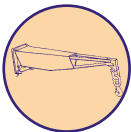
Check that the teleporter is suitable for the task. Before using the teleporter, check that it has been appropriately certified, and that it is fit for use. Teleporters should undergo regular servicing.

FORKS CLAMP



Chains and slings must not be wrapped around the forks of a teleporter when used to lift loads. When using chains or slings with forks, suitable fork clamps must be used, with the chain or sling suspended from a suitable hook or shackle.

FORK EXTENSION



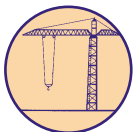
Chains and slings must not be wrapped around the forks of a teleporter when lifting a load. When required to lift loads with a teleporter, the forks should be removed and a crane extension with hook or shackle should be used.

LOCKING ATTACHMENTS



Ancillary equipment used in connection with lifting equipment must at all time be secured. This may require the insertion of locking pins, to prevent inadvertent dropping of the attachment.

CRANES



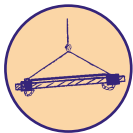
Ensure that the crane is suitable for the task and that it is properly certified. The general use of cranes should comply with all approved codes of practice.

CHECK LIFTING GEAR



Lifting gear means any gear or cable by which a load can be attached to a lifting appliance, which can include chain sling, rope sling, hook, shackle or eye bolt. Before lifting gear is used it must be examined to check for Safe Working Load (SWL), so that defects that may reduce its capacity to function safely are highlighted and repaired. Lifting gear must be appropriately certified prior to use.

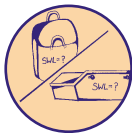
SLAB LIFTING GEAR



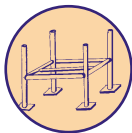
When lifting pre- cast slabs ensure that the lifting gear is appropriate to the task. Special purpose lifting gear should be used as appropriate.

BLOCK GRABS AND NETS

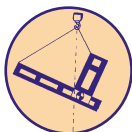
Block grabs are considered to be lifting gear. Before use, block grabs must be in good working order and attached correctly to the relevant lifting appliance. When in use an appropriate net must be used to prevent the fall of any loose blocks.

SKIPS/BINS

All skips and bins must be appropriate for the task and, if used as lifting gear when attached to lifting appliances, all lifting lugs/lifting eyes must have their safe working load (SWL) clearly visible. Always check the SWL before lifting commences. When used as lifting gear, such bins and skips must be certified as appropriate.

STILLAGES

All stillages must be of good design and construction. All loads lifted with the use of stillages must be well secured prior to the lift commencing.

LOAD STABILITY

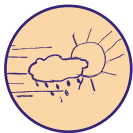
Ensure that the load is stable and properly secured to the lifting appliance before lifting begins.

OVERHEAD LINES



Burns and electrocution can result if raised tipper truck bodies, cranes or excavators touch or come close enough to overhead power lines to cause arcing. Never work close to, or access close to or under live overhead lines when lifting. Refer to ESB guidance booklet.

WEATHER



Lifting operations should never take place in high winds. Crane lifts must not be carried out in wind speeds that are in excess of those specified by the crane manufacturer.

CONCRETE PUMPING RIG



Concrete pumping rigs must be maintained and serviced on a regular basis, including checks on outriggers etc. Special care must be taken when working in the vicinity of overhead lines.

POWER FLOATING



Power floating is the process of levelling concrete floors. Power floating equipment should be regularly serviced and guards must be kept in place. When power floating close to open edges, adequate edge protection must be provided.

CEMENT MIXER



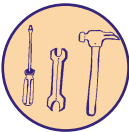
Cement mixers must be maintained in good working order and regularly serviced. They should be set up on level ground and should not be mounted on blocks. Furthermore they should be set up, started and operated by trained personnel only.

PAINT SPRAYER



Spray painting equipment must be set up in accordance with the manufacturer's guidelines. This equipment should undergo regular service and maintenance checks. To prevent others coming into contact with spray products, exclusion zones need to be in place. Appropriate PPE must be used.

MAINTENANCE



All lifting equipment and lifting gear should undergo regular service and maintenance checks, including servicing of concrete pumping rigs to ensure continued fitness for use.



ELECTRICITY

ESB



Where electrical work activity is to begin, and services are unknown, the Electricity Supply Board or other electrical utility company must be contacted for drawings and advice on the position of underground services.

DIVERT/OFF



Before work is to commence adjacent to overhead and underground services, the ESB or other electrical utility company must be contacted to request that power lines be diverted away from the work zone, or that they temporarily be switched off to allow work to proceed safely. Where power has been provided to house units, and subsequent work is required including live work, isolation and tagging off systems, including permit to work systems, should be used. All internal electrical work must be closely supervised by fully trained and competent electricians. The Electricity Regulations, and the ETCI rules must be fully complied with.

SURVEY MAP



Before work is to commence, a drawing of the underground services should be procured and the ground suitably surveyed and subsequently marked out to identify the position of such services. For refurbishment works, including extensions to existing property, the Safety File, where it exists for that property, must be referred to.

DETECTOR



Before digging, drilling or cutting is to commence, the area should be scanned with a suitable detector to verify the position of any underground services, and any variances identified should be reflected on the drawing.

OVERHEAD LINES



Working close to, or access close to or under, overhead lines by plant and equipment that has the potential to extend to or come close to the lines, warning goal posts should be erected at a safe distance either side of the lines, and any such plant required to pass must ensure that they only access under the lines via the goal posts. The exposed lengths of the overhead lines must be guarded from unapproved access.

WARNING SIGNS



Contact with power lines can kill. People working close to, or accessing close to or at, power lines must be made aware of their existence to allow them to apply the necessary controls. Suitable and sufficient Warning Signs should be erected to advise persons of the danger.

NO MECHANICAL DIGGING



Mechanical excavating at or immediately close to underground electrical services is not permitted. Such services should be uncovered or made visible by hand digging only to minimize the potential of cutting or puncturing the service. Only with all the lines clearly visible should mechanical digging recommence. Consideration may also be given to having a representative of the ESB or other electrical utility company on site when working close to or excavating close to underground services. When extending or working on existing electrical installations, the exact position of cables should be established so that inadvertent contact with live conductors can be avoided. Isolation and permit to work systems should be used. All internal electrical work must be closely supervised by fully trained and competent electricians. The Electricity Regulations, and the ETCI rules must be fully complied with.

HAND DIG



Hand digging should only be used to unearth or make visible underground services. However, care should be taken during hand digging, as this can also result in cutting services, and exposing live conductors.

BARRIERS



Where services have been uncovered/ made visible, and remain visible or insufficiently backfilled, suitable barriers should be erected at a sufficient distance around the service area to prevent persons entering the danger area.

TIPPING



Tipping vehicles must pay particular attention to the position of overhead lines, and always remain at a sufficient safe distance from such overhead lines. The erection of warning goal posts should be used.

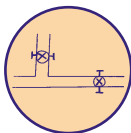


BORD GÁIS



Where work activity is to begin, and the positions of gas services are unknown, Bord Gáis Éireann must be contacted, for drawings and advice on the position of any underground gas services.

DIVERT/OFF



Before work is to commence adjacent to any underground gas services, Bord Gáis Éireann or other gas utility company must be contacted to request that either gas services be diverted away from the work zone, or, if necessary, can be temporarily cut off to allow work to proceed safely.

SURVEY MAP



Before work is to commence, a drawing of the underground and other related gas services should be procured and the ground and/or walls suitably surveyed and subsequently marked out to identify the position of such services. For refurbishment works, including extensions to existing property, the Safety File, where it exists for that property, must be referred to.

DETECTOR

Before starting to dig, cut or drill, the position of gas services must be identified. Consideration should be given to having a representative of the Bord Gáis Éireann or other gas utility company on site when working close to gas services.

WARNING SIGNS

Exposure to live gas can kill. People working close to, or accessing close to or at, live gas mains lines must be made aware of their existence, to allow them to apply the necessary controls. Suitable and sufficient warning signs should be erected to advise persons of the danger.

NO FLAMES

Gas is highly flammable, flames or any sources of ignition (sparks, static electricity, etc.) must not be allowed to come in contact with, or be in the vicinity of, live gas.

NO MECHANICAL DIGGING

Mechanical excavating at or immediately close to underground gas services is not permitted due to the high risk of inadvertent mains' rupture and possible release of live gas.

HAND DIGGING



Hand digging should only be used to unearth or make visible underground gas services.

BARRIERS



Where gas mains and services have been unearthed / made visible, and remain visible or insufficiently backfilled, suitable barriers should be erected at a sufficient distance around the service area to prevent and warn persons from entering the danger area.

STORAGE



Gas bottles on site must always be stored upright and chained to prevent inadvertent falling.



MEMBERS OF THE PUBLIC

FENCING



Construction activity must not present a risk to members of the public, especially to children. Suitably constructed fencing must be used to secure sites.

HOARDING



Particularly on street side works, suitably designed and constructed hoarding should be erected to secure construction work.

BARRIERS



All ongoing works, in particular street activities, open excavations, exposed manholes etc., must be adequately protected with suitable barriers, and identified with appropriate signs.

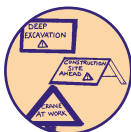
PEDESTRIAN WAY



Where members of the public are in the vicinity of construction work, suitable and safe routes must be provided to ensure that the safety of members of the public is not put at risk from the construction work activity, consideration must also be given to persons with disabilities.

LIGHTING

Lighting should be in place on all access routes both for vehicles and pedestrians.

WARNING SIGNS

Persons must be given advance warning when approaching construction work, and in particular where specific hazards may exist. Suitable Warning Signs must be erected to give such adequate warning, and where necessary must give clear unambiguous directions to passing members of the public.

SECURITY

Only authorised persons are allowed on construction sites. The use of trained Security Personnel is recommended to control such access.

TRAFFIC CONTROL

Traffic Control plans must be prepared to help plan and control traffic movement, especially at the entrance to any construction site. This may include use of warning signs, bollards, stop-go systems, ramps, temporary traffic lights, and flagmen. Liaison with local Gardaí may also be necessary. The Department of the Environment's Traffic Signs Manual should be referred to.

BANKSMAN



A banksman is a trained Slinger and Signaller, and must always be used during lifting operations.

FLAGMAN



Where construction work involves managing traffic or pedestrians in public areas, trained flagmen should be used to control such movements in a safe manner. Flagmen must wear high visibility vests and use approved Stop/Go signs or flags. Where two flagmen are required they must be in visible contact or in voice communication with each other.

DUST/MUCK



Excessive amounts of dust can cause eye and respiratory irritation. In general, dust and muck is a nuisance for people who have moved into a new home. All traffic routes in public areas used by construction plant should be kept clear of muck. During dry periods the routes should be dampened to keep dust down.

VISITOR CONTROL



All visitors to a construction site need to be registered as being on site and accompanied on their visit around the site.

HANDOVER CONTROL

When houses are handed over to their owners there must be controls in place to ensure that the new residents are not affected by ongoing construction work. These houses should be segregated from construction work by adequate fencing and separate traffic routes where possible. Where it is not possible to have separate access routes, then adequate traffic controls, including reduced speeds, must be in operation.

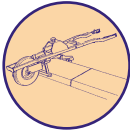
**MANUAL HANDLING**

Manual Handling is the physical movement by a person of objects by lifting, pushing or pulling, that is likely to cause injury or other health problems.

RISK ASSESSMENT

Each activity on site needs to be risk assessed to identify whether there is a manual handling hazard. If a risk of injury is identified then appropriate controls must be put in place to eliminate the risk. If the hazard cannot be eliminated then the risk must be reduced to as low a level as possible.

MECHANICAL AIDS



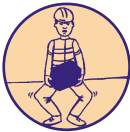
Mechanical Aids are devices used to lift, pull or push objects, which either eliminate the need to manually handle the object or reduce the manual handling required.

WORK ORGANIZATION



Work organization requires that the physical work method be assessed to see whether the work can be organized in such a way as to eliminate or minimize the need for manual handling.

TRAINING



Manual handling training is a legal requirement where it is identified that manual handling operations are required at work. This training involves learning how to move loads in a manner, which will not injure the person.

PPE

Personal protective equipment (PPE) protects individuals from residual harm when all other methods have been employed to eliminate the risk. PPE is a last resort. PPE should be maintained at all times in good working order. Furthermore, the PPE listed below must conform to the appropriate Standard.

SAFETY HELMET



Safety Helmets / Hard Hats are used to protect the head from falling objects and from striking the head off objects. Hard hats should be replaced periodically.

SAFETY BOOTS



Safety Boots, boots are required on all building sites. They should have steel toecaps and sole protection to prevent the toes from been crushed and any object from penetrating the sole.

EYE PROTECTION



Eye protection in the form of glasses/goggles or visors protect the eyes from flying objects, dust and splashes, e.g. when grinding and or cutting.

SAFETY GLOVES



Safety gloves protect the hands from cuts and from contact with harmful substances and sharp objects etc.

EAR PROTECTION



Ear protectors help to protect your hearing from loud sudden noise or from continuous loud noise. There are two action levels, where noise exposure is at or exceeds 80 dBA individual hearing protectors must be made available and where noise exposures is at or exceeds 85 dBA individual hearing protectors must be made available and must be used. There is also a limit value set at 87 dBA which must not be exceeded. The limit value takes account of the attenuation provided by individual hearing protectors worn by the worker. The action values do not take account of the effect of such protectors. Where risk assessment reveals a risk to the workers health as a result of noise exposure, audiometric testing (hearing check) will have to be made available.

HI VISIBILITY VEST



Hi visibility vests increase your visibility to all drivers and operators of plant and other site traffic.

DUST MASKS



Dust masks protect you from inhaling harmful dusts.

RESPIRATORY EQUIPMENT



Respiratory equipment protects you from exposure to harmful substances by filtering them out from the air you breathe in, provided they are worn and maintained properly.

FACE PROTECTION



Face protection visors protect your full face from flying objects, sparks and splashes from hot or harmful substances.

SAFETY HARNESS



Safety harnesses with a properly designed fall arrest system, to include other components such as lanyard, shock absorber, and suitable anchors, are used to protect a person from hitting the ground if they fall from a height. Such fall-arrest systems should be used in conjunction with a rescue plan. Safety harnesses and personal fall-arrest equipment are not a substitute for safe working platforms or collective protection such as safety nets.

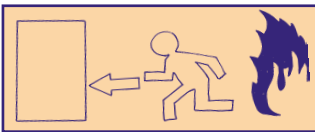
SAFETY OVERALLS



Safety overalls protect your body from coming into contact with harmful substances.



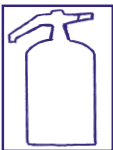
The risk of fire is generally ever present on Construction Sites. Fire prevention has to be considered at the various levels of construction planning. Consideration should be given to the provision of alternative means of escape and the installation of a temporary fire detection and alarm system during construction. Bar heaters should not be used on site, and use of all naked flames must be tightly controlled. Flammable materials must be stored separately in a well-ventilated lockable location, away from any likely ignition sources, and such liquids should be removed from site when no longer required. After hot works have taken place, the area should be revisited to ensure that fires have not developed. Sand and fire blankets can be used in certain circumstances, such as small smouldering fire to eliminate the chances of fire developing



EMERGENCY ROUTE

To prevent injury from fire all employees must be instructed as to what should be done in the event of a fire, what is the approved escape route,

and where the assembly points are located. Fire drills should be held regularly.



FIRE EXTINGUISHERS

Fire extinguishers are devices used in putting out a fire. Persons need to be trained in their operation, and they should only be used for small fires.



WATER

Water fire extinguishers are used for cloth, paper and wood fires only.



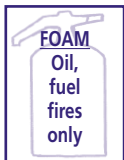
DRY POWDER

Dry powder fire extinguishers can be used on most fires including electrical fires.



CARBON DIOXIDE

Carbon dioxide extinguishers can be used on fires involving flammable liquids or electrical apparatus. Carbon dioxide should not be used in confined spaces where there is a danger that the fumes can be inhaled.



FOAM

Foam fire extinguishers can be used on oil, fuel fires only.

ABBREVIATIONS USED

| | |
|-------------|---|
| CSCS | Construction Skills Certification Scheme |
| ESB | Electricity Supply Board |
| SWL | Safe Working Load. Is the maximum load which an item of lifting equipment may raise, lower or suspend under the particular service conditions. |
| CCTV | Close Circuit Television |
| PPE | Personal Protective Equipment |
| MEWP | Mobile Elevating Work Platform |
| CE | Community European. Is marked on products and machines which comply with essential safety requirements of any relevant standards which are set down by the CEN which is a European standard setting body. |
| ETCI | Electro-Technical Council of Ireland |

HOUSE BUILDING INDEX

- ACCESS ROUTE, 7, 12, 18
- ANCHORS & CLUTCHES, 15
- BANKSMAN, 21, 26, 43
- BARRIERS, 37, 40, 41
- BLOCK GRABS AND NETS, 31
- BOOM HOIST, 16
- BORD GÁIS, 38
- CABLE PROTECTION, 24
- CANTEEN, 5
- CARBON DIOXIDE, 50
- CASTED SLAB EYES, 14
- CEMENT MIXER, 33
- CHECK CABLE, 23
- CHECK LIFTING GEAR, 30
- CHECK SUITABILITY, 23, 25
- CHUTES, 21
- COMMUNICATION, 5
- CONCRETE PUMPING RIG, 32
- CONSAWS, 23
- COURSES, 14
- CRANES, 30
- CSCS, 4
- DECK TRUSSES, 17
- DETECTOR, 35, 39
- DIVERT/OFF, 34, 38
- DRINKING WATER, 6
- DRY POWDER, 50
- DRYING/CHANGING, 6
- DUST MASKS, 47
- DUST SUPPRESSION, 24
- DUST/MUCK, 43
- EAR PROTECTION, 47
- EDGE PROTECTION, 11, 17
- EMERGENCY ROUTE, 49
- ESB, 34
- EXCLUSION ZONE, 14, 20, 28
- EYE PROTECTION, 46
- FACE PROTECTION, 48
- FALL PROTECTION, 13
- FENCING, 26, 41
- FIRE EXTINGUISHERS, 49
- FLAGMAN, 26, 43
- FOAM, 50
- FORK EXTENSION, 29
- FORKS CLAMP, 29
- GENERATORS OUTSIDE, 24
- GROUND CONDITIONS, 8, 29
- GUARDS, 24
- HAND DIGGING, 37, 40
- HANDOVER CONTROL, 44
- HI VISIBILITY VEST, 47
- HOARDING, 41
- HOUSEKEEPING, 7, 11, 18
- INDUCTION, 5
- JOISTS DECKED, 12
- LADDER ACCESS, 10, 16
- LIGHTING, 12, 42
- LOAD STABILITY, 31
- LOADING BAY, 10, 15, 20, 31
- LOCKING ATTACHMENTS, 30
- MAINTENANCE, 24, 33
- MECHANICAL AIDS, 45
- NETS/BEAN BAGS, 17
- NO FLAMES, 39
- NO MECHANICAL DIGGING, 36, 39

HOUSE BUILDING INDEX (cont'd)

- NO PASSENGERS, 27
- OVERHEAD LINES, 19, 32, 35
- OVERHEAD WORK, 13
- PAINT SPRAYER, 33
- PALLETS/BALES, 21
- PEDESTRIAN ROUTES, 26
- PEDESTRIAN WAY, 41
- PLAN LIFT, 28
- PLANT/EQUIPMENT
 - CERTIFICATION, 4
- POWER FLOATING, 32
- PRIVATE PARKING, 25
- PROPPING, 13, 22
- REBAR, 7
- RESPIRATORY EQUIPMENT, 48
- RISK ASSESSMENT, 44
- ROLL OVER PROTECTION, 27
- ROOF LADDERS, 16
- SAFE LADDER, 10
- SAFE PASS, 4
- SAFETY BOOTS, 46
- SAFETY GLOVES, 46
- SAFETY HARNESS, 48
- SAFETY HELMET, 46
- SAFETY OVERALLS, 48
- SCAFFOLDING, 8, 9, 15
- SCISSORS LIFT, 17
- SEAT BELTS, 27
- SECURITY, 42
- SHEETING/FANS, 21
- SIGNS, 18
- SKIPS/BINS, 31
- SLAB ANCHORS, 14
- SLAB LIFTING GEAR, 30
- SMOKING CONTROL, 6
- SPEED SIGNS, 26
- STAIR PROTECTION, 11
- STILLAGES, 31
- STORAGE, 19, 20, 40
- SUPERVISION, 4
- SURVEY MAP, 35, 38
- SWL, 28
- TELEPORTER, 29
- TIE LADDER, 11
- TIPPING, 37
- TRAFFIC CONTROL, 25, 42
- TRAINING, 45
- TRESTLES, 8
- VISITOR CONTROL, 43
- VOLTAGE, 23
- WARNING DEVICES, 28
- WARNING SIGNS, 36, 39, 42
- WATER, 50
- WC & WASHING, 5
- WEATHER, 19, 22, 32
- WORK ORGANIZATION, 45
- WORKING PLATFORMS, 9

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

Safe System of Work Plan (SSWP) House Building

*Achieving a
Healthy
and Safe
Working Life
-Together*

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