

**COURT HOUSE FIELD/POND FIELD/THE CRINK 2009
CULVER PROJECT (ARCHAEOLOGY)
Health & Safety
RISK ASSESSMENT**

Risk assessments are a statutory requirement. The aim of this document is to identify any Health and Safety risk that may arise from undertaking archaeological works on the site. The assessment is designed to identify and highlight both the general and site-specific hazards inherent in the fieldwork which is to be undertaken. For those hazards identified a safety plan is to be prepared and implemented.

Particular responsibilities are assigned to specific individuals but all employees are responsible for each others safety, and other individual's safety as well their own.

A copy of this document should be kept on-site. It may be asked for by a supervisor, volunteer or visitor.

Safety Management Structure

The 'Director' Rob Wallace is ultimately responsible for the Health and Safety of all those working on the project. He must know the broad requirement of relevant legislation and ensure that responsibility for health and safety matters is properly assigned and accepted at all levels.

The Site-Supervisors are responsible for health and safety matters on site, and for those members or their immediate team. In their absence they are also responsible for nominating an appropriate person to be responsible for safety matters. Site supervisors at Pond Field will be introduced at the site inductions.

All site employees are responsible for ensuring that the project is safe for themselves, their fellow workers (archaeological and non-archaeological) and the public at large.

Pre-Project Checklist

Risk of striking existing surfaces:	Low
Electricity search:	Yes/No/Unknown
Services Present:	Yes/No/Unknown
Live:	Yes/No/Unknown
Type and Location	
Depth:	
Action:	No underground services present.
Gas search:	Yes/No/Unknown
Services present:	Yes/No/Unknown
Live:	Yes/No/Unknown
Type and Location:	
Depth:	
Action:	No underground services present.

Telecommunications search:	Yes/No/Unknown
Services present:	Yes/No/Unknown
Live:	Yes/No/Unknown
Type and Location:	
Action:	No underground services present.
Water Search:	Yes/No/Unknown
Services Present:	Yes/No/Unknown
Live:	Yes/No/Unknown
Type and Location:	
Depth:	
Action:	No underground services present.
Sewage and Drains search:	Yes/No/Unknown
Services Present:	Yes/No/Unknown
Live	Yes/No/Unknown
Type and Location:	
Depth:	
Action:	Agricultural field drains present, excavations are unlikely to extend to their depth. If field drains are encountered excavation will accommodate them.
Overhead cables:	Yes/No/Unknown
Services Present:	Yes/No/Unknown
Live:	Yes/No/Unknown
Type and Location:	
Depth:	
Action:	No overhead cables present over the study site.

Proximity of Structures

Is work within a building?	Yes/No/Unknown
Is the building safe to work in?	Yes/No/Unknown/NA
Is lighting required?	Yes/No/Unknown/NA
Are their adjoining buildings or walls?	Yes/No/Unknown
Are their nearby roads?	Yes/No/Unknown
Has an engineer checked possible effects of an excavation?	Yes/No/Unknown
Action:	Roads are not of a near enough proximity to present an immediate danger. Excavation trenches over or near to the public foot path will be fenced off and appropriate diversion provided.

Site Occupation

Will other people (members of the public, residents etc) be on site?	Yes/No/Unknown
Will other projects be operating on site?	Yes/No/Unknown
Are there any livestock on site?	Yes/No/Unknown
Are work areas and accesses clearly marked?	Yes/No/Unknown
Are there any restrictions on work due to presence of others?	Yes/No/Unknown
Will visitors be able to view the works?	Yes/No/Unknown
Do public rights of way exist over the site?	Yes/No/Unknown
Action:	Excavation area over or near to the public foot path will be fenced off and appropriate diversion provided. All open areas will be clearly marked and non-archaeological persons will not be permitted with 1m of the trench edge.

Public Liability

Is perimeter securely fenced?	Yes/No/Unknown
Will warning signs be needed?	Yes/No/Unknown
Are shallow trenches/areas to be cordoned	Yes/No/Unknown
Are deep trenches to be protected by barriers?	Yes/No/Unknown
Action	Barrier fencing will be erected at all times around trenches in close proximity to the public footpath. Fencing will be erected around all open areas during at those times when work is not in progress.

Contamination

Risk of presence of contaminated soil:	Low/Moderate/High/Unknown
Risk of hazard to health of personnel:	Low/Moderate/High/Unknown
Risk of presence of soil gas:	Low/Moderate/High/Unknown
Presence of unexploded bombs:	Low/Moderate/High/Unknown
Have ground contamination tests been undertaken?	Yes/No/Unknown
Have archive searches of bomb damage been undertaken?	Yes/No/Unknown
Is the previous site use known and if so does this indicate possible hazards?	Yes/No/Unknown
Is the site a landfill site?	Yes/No/Unknown
Is part of the site likely to be waterlogged?	Yes/No/Unknown
Action	No known contaminants. All work to cease if any hazardous substances are

	encountered.
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Sources of Vibration

Is the site close to major roads, railways lines, air fields or premises where vibration occurs?	Yes/ No /Unknown
Will the excavation stability be affected by sources of vibration?	Yes/ No /Unknown
Will there be any piling in progress during the archaeological work?	Yes/ No /Unknown
Action	Various minor roads nearby.

Geology

Is a geotechnical survey report available?	Yes/ No /Unknown
Risk of collapse of sides?	Low /Moderate/High/Unknown
Type of material present?	Plough soil overlying clay/silt deposits
Is the material stable?	Yes / No /Unknown
Is there any made ground?	Yes/ No /Unknown
Are there any potential loose pockets in otherwise stable ground?	Yes/ No / Unknown
Is there likely to be inflowing water?	Yes/ No /Unknown
Is there a possibility of standing water in the excavations?	Yes/ No /Unknown
Is site close to water course?	Yes/ No /Unknown
Will pumping be necessary?	Yes/ No /Unknown
Action	Stability of sides to be monitored.

Timing of Works

Duration of works:	6 weeks
Length of time each area open:	Variable, some areas likely to remain open for duration. Test pits for less than 1 day. Areas will be opened and closed as swiftly as circumstances allow.

Access and Plant Delivery

What access arrangements need to be made?	None
Has landowner been informed?	Yes / No /Unknown
Is site locked?	Yes/ No /Unknown
Is site wide enough for plant access?	N/A
Is access off main road?	Yes/ No /Unknown
Will traffic cones be needed or restricted arrival/departure times be required?	Yes/ No /Unknown
Will ramps/sleepers/boards be needed?	Yes/ No /Unknown

Do any authorities need informing?	Yes/ No /Unknown
Action	Excavation on privately owned farmland with permission of landowner. Site itself not in close proximity to main area of farm traffic

Type of Excavation

Risk of collapse of sides	Low /Moderate/High/Unknown
Risk of persons falling into excavations	Low /Moderate/High/Unknown
Risk of plant and materials falling into excavations	Low /Moderate/High/Unknown
Risk of flooding of excavations	Low /Moderate/High/Unknown
Risk of presence of hazardous atmospheres	Low /Moderate/High/Unknown
Trench/area/pit?	large open area excavations. And possible small test trenches.
General depth	Unknown. Probably 1m
Greatest depth expected	Unknown, Probably 1m
Deeper than width?	Yes/ No / Unknown
Deeper than 1.2m?	Yes/ No / Unknown
Distance from load bearing structure?	N/A
Distance from spoil heap or dumper run?	>2m
Is depth greater than distance from load bearing structure, spoil heap or dumper run?	Yes/ No /Unknown
Will stratigraphy require the sides to be kept vertical?	Yes/ No / Unknown
Is shoring needed?	Yes/ No /Unknown
Is work to be carried out in potential confined areas?	Yes/ No /Unknown
Action	Stability of sides to be monitored.

Site Accommodation

Is accommodation available?	Yes / No /Unknown
Is cabin hire required?	Yes/ No /Unknown
Is toilet available on site?	Yes / No /Unknown
Is toilet hire required?	Yes/ No /Unknown
Will washing facilities be provided?	Yes / No /Unknown
Is there clean running water on site?	Yes / No /Unknown
Action	Toilets are a short work from the excavation. Access to nearby cottage facilities will be available.

Plant

Risk of shovel or load dropping inadvertently?	Low/Moderate/High/Unknown
Risk of overturning machine?	Low/Moderate/High/Unknown
Risk of materials dropping from shovel or bucket?	Low/Moderate/High/Unknown
Risk of persons being struck by machine?	Low/Moderate/High/Unknown
Risk of restriction of driver's vision?	Low/Moderate/High/Unknown
Type of excavator:	
Action	Appropriate safety measures will be observed at all times during the course of machining. Only select individuals wearing appropriate High Visibility and Safety Equipment will be permitted within the immediate vicinity, and always at a safe distance. Driver is trained and experienced.

Hand-tools

<i>General</i>	
Significant Hazards	Assessment of Risk
Eye Injury	Low
Injury to hands, feet and body	Low

It is recognised that for all types of fieldwork hand tools will be used. All hand tools will be kept in good condition and checked regularly. Damaged tools will be repaired or replaced. When not in use they will be stored under cover so as to prevent deterioration, and so as not to cause a tripping hazard by leaving them loose on site.

Eye protection is to be provided and used wherever work is done where there is a risk of flying particles or pieces of the tool breaking off.

Sharp tools are to be carried out and used in a way so as not to cause injury to the user or others.

Insulated tools must be used where there is a possibility of live electrical work.

Buckets

These can fail at the handle attachment point and will be checked regularly. They should be filled to take account of the abilities of the user, and the distance and gradient to be travelled. Buckets should be lifted keeping the back of the carrier straight so that the legs rather than the back provide the lifting force.

Shovels and Spades

These should be used from a firm, stable standing position which uses the legs rather than the back to lift the weight. The surrounding areas are to be kept clear of obstructions and other personnel.

Picks and Mattocks

When using a pick or mattock, the user's legs must be placed apart to obtain a firm footing, and the picks wielded so that the point of contact is within easy reach, but not too close to the feet. Where possible the weight of the tool should be used to provide the necessary force. The surrounding area, including overhead, is to be kept free of obstructions and other personnel.

Trowels

As trowels have a point, especially sharp when new, care is required when carrying them. They will never be placed in pockets or other parts of clothing.

Grid Pegs

Metal Grid pegs will be fitted with plastic caps to protect against contact injuries.

Wheelbarrows

These will be loaded only to the lifting and pushing capabilities of the pusher, taking account of the weight and bulk of the material, and of the route to be travelled. The operator should maintain a straight back during all lifting and pushing operations so that the legs rather than the back provide the force.

Wheelbarrow runs will be established where necessary. These will be firmly bedded to avoid movement of boards during use. Where runs are on gradients suitable grip will be provided the use of the barrow boards. A sufficient width of run will be used to ensure ease of passage and balance of user. Runs will not be constructed over drops without suitable handrails and kickboards.

Surveying Staff

The surveying staff will not be carried in the extended position. This applies particularly when working in the vicinity of railways, roads and power lines.

Ladders

Significant Hazards	Assessment of Risk
Falls of persons from ladders	Low
Ladder slipping	Low
Objects dropped by ladder user	Low

Ladders will be checked before use to ensure correct length, type and condition. They will be subject to routine inspection.

Ladder work is restricted to access and egress of archaeological trenches only. No work will be carried out from ladders. Over-reaching from ladders will be avoided.

The ground base for the ladder must be firm and level.

The ladder must be of sufficient length to extend 1.5m above the step-off point when used as access to a scaffold or other platform or floor. The correct angle of rest for a ladder is 75° or a base to height ratio of 1:4.

Ladders must be secured against slipping, by tying at the top or at the bottom. Ladders may only be footed as a sole precaution against movement if less than 5m high.

Personal Protective Equipment

Hard Hats

Safety hats provided by the project will be worn at the following times: whenever a mechanical excavator is present on the site (all team members and any visitors); by any person working with their head below ground level and/or when the site has been declared a hard hat area.

Hearing Protection

Ear defenders will be provided for the use of personnel working in the vicinity of operating plant. The defenders will be of a type which can be worn with safety helmets.

Footwear

All persons working on site should wear boots fitted with a steel toecap. However given the nature and duration of the site work, this will not be enforced.

High Visibility Clothing

When necessary team members will be issued with high visibility clothing. These occasions will include: the machine supervisor; when other staff are working in close proximity to working plant or routes used by plant; when staff are working in close proximity to roads.

Action: All volunteers and supervisors will adhere to the above guidelines.

Manual Handling

A considerable amount of manual handling is involved in archaeological work. This includes loading and unloading equipment, lifting, wheelbarrows and buckets, shovelling, and lifting soil samples.

Consideration must always be given to whether the load in question can be lifted by other means, eg electric hoists with skips can be used for large quantities of spoil unless the archaeological circumstances dictate otherwise.

Team members will not be asked to lift loads beyond their capabilities. Manual lifting will be carried out carefully, and in a manner calculated not to cause injury to the lifter. In general, for the type of loads predicted, this means a lift carried out with the load close to the body.

Action: Where manual handling of spoil is necessary (in this case, all spoil movement), care will be taken by all staff and volunteers in doing so.

COSHH Statement

Petrol/Diesel

Reserves of fuel are the responsibility of the mechanical plant operator. They must be stored in suitable metal containers on the existing concrete hard standing and in positions well away from site accommodation.

Exhaust Gases

Those given off by a mechanical excavator or other plant are toxic if inhaled as they contain partly burnt hydrocarbons, oxides and nitrogen, carbon monoxide and other chemicals. The risk is greater if the engine is poorly adjusted. Carbon monoxide is particularly dangerous, as it is colourless, odourless and de-oxygenates the blood when inhaled.

Substances which will or may be encountered on the site:

Unknown

Action: None required.

Noise

Activities and areas identified by the team, supervisors and others, as noise zones will be clearly indicated. Specific assessments of risks to hearing will be carried out by persons competent to do so and appropriate control measures implemented. Where practicable, these will begin with the reduction of the risk at source by engineering or other physical measures, with use of personal protective equipment as the last resort or as part of an appropriate control system where physical measures alone are insufficiently effective.

Action: Noise levels to be monitored, no major risk should arise.

First Aid

Trained first aid personnel will be included within the on-site team.

A clearly marked First Aid Kit will be kept on site. All members of the team will be made aware of where it is kept.

Action: Project Director (Robert Wallace) is a qualified first aider. A first aid kit will be kept and maintained by the First Aider and located in the Site Office.

Vehicle Use

Ensure the vehicle is road worthy and properly licensed.

Ensure loads are safe and secure.

Do not overload.

Current driving laws must be adhered to.

Only carry the number of passengers that you have seats for.