Expanded Limited

Contract:

Wombwell ALC

Barnsley

Method Statement for:

Enabling Works

Reference No. 001

Revision	Prepared by	Date	Approved by		Date
2	C Buckley	15/07/10	Name		
			Signature		

Contents

A – Risk Assessment

B – Permit to Excavate Template

C - Layout Drawings

1.0 Introduction

This method statement will describe fully the procedures to be adopted for the enabling works at Wombwell ALC, Barnsley. Activities to be undertaken on the project included within the enabling works phase are:

1. Initial site setup
2. Tree removal and recycling.
3. Bulk excavation and fill

All activities undertaken will be in accordance with the relevant specification(s).

Reference should be made to other method statements for some of the activities listed above, e.g. Tree removal and inspection and test plans for this contract.

2.0 Scope of Works

This method statement outlines the method of carrying out various construction activities connected with the enabling works phase at the site of the future Wombwell ALC in Barnsley.

3.0 Programme

Enabling works will commence October 2010 and continue through to early 2011. Interfaces will be managed through coordination meetings with stakeholders and any other affected party as the works progress. Works will be undertaken through the normal contract hours of 0700-1800 weekdays.

4.0 Methodology

The outline controls are listed here all three sections will be covered at a later date by a comprehensive Method Statement, Risk Assessment and Inspection and Test Plan on release of construction drawing and information which is required to plan fully.

4.1 Site Set Up

Initially the welfare facilities and office facility will be set up on the site frontage with Pit Lane. This will constitute of individual jack leg type cabins arranged so to separate the pedestrian routes around these cabins with vehicular traffic passing the offices. A separate car park will be made available for staff and operatives so that no impact or nuisance is caused to surrounding residents and commuters using Pit Lane..

The works to erect the permanent site enclosure fencing will commence the fencing layout can be seen in Appendix C. The initial site fencing will be Heras type fencing double clipped, at intervals along the fencing a triangle arrangement of three panels will be erected to inhibit third parties pushing over the fencing or in stability in high winds. The fencing will be erected prior to any tree removal works being undertaken to ensure isolation of the area from the public. During the erection any diversions of footpaths will have signage erected on the fence to advise user of the country park of the diversion route.

Some enhancements to Pit Lane are required to accommodate the construction traffic such as the traffic light controlled crossing of the narrow River Dove bridge and associated lay by required. These will be constructed during the enabling phase as soon as details have been worked up and agreed with all relevant parties. All traffic management to Chapter 8 and operatives will possess Street Work certification again these works will be covered by a comprehensive Method Statement and Risk Assessment on construction details being produced.

4.2 Tree Removal and Recycling

There are extensive areas of trees to be removed to allow the scheme to be constructed and these will be removed by a specialist contractor. The felled trees and associated green material will be “chipped” and taken directly to a power station for biomass fuel, our Sub-Contractor has identified Drax power station.

The trees will be felled by chainsaw or mechanical shear fitted to a hydraulic excavator. The tree will be lifted mechanically and fed into a forestry chipping machine that will chip the tree into wood chips. This will be continued until all trees that are in the clearance area marked on construction drawings have been felled and chipped.

The root ball of the tree will be moved using either a grab or bucket attachment on a hydraulic excavator. Loose soil will be shaken from the roots, as far as possible and the root balls placed in a wind row. A forestry mulcher will be then used to chip the root balls and any building debris contained within the topsoil by tracking across the wind row. It is not intended to deliberately excavate buried building waste.

At all times operator will wear the required ear defenders in and around the chipping plant. When using chainsaw the operators will be trained in the use and maintenance of the saws. All saws will be refuelled within a drip tray. Face masks and Kevlar trousers will be worn be the chainsaw operators.

4.2.1 Existing Services

During the tree removal works there will be live services present in the ground in certain areas of the site. These include existing drainage and statutory undertakers’

services. All existing services are detailed on statutory undertakers' drawings which will be sourced prior to starting works. These drawings will be updated as the project progresses to act both as an As Built record but to enable avoidance of services during future works.

Some excavation work will be necessary in close proximity to these services prior to removal of the tree root balls. When this is the case a survey will be carried out by a site engineer through consultation of drawings and by using CAT scanning equipment if necessary, to determine the positions of all services before work starts.

4.2.2 Permit to Excavate

In all cases where excavation is required, no work will be undertaken until a permit to excavate has been issued by a member of the site management team, senior engineer or above. A permit will only be issued when the permit issuer is satisfied that any existing services have been identified, that procedures are in place to prevent disturbance to any service during the work and that adequate supervision will be in attendance.

The permit to excavate will set all of the parameters for the work. It will state the exact location and the purpose of the excavation; the requirement for traffic management, temporary works etc; and the timing of the work.

A copy of the permit to excavate will be kept within the cab of the excavator at all times during the work. A copy will also be filed within a dedicated file in the site office. When the work has been completed the permit will be returned to the issuer to be closed, the permit is to be issued for a maximum period of a week.

A blank copy of the permit to excavate form is included in appendix B of this document.

4.3 Cut & Fill

4.3.1 Excavation

Excavation will be carried out by hydraulic excavators. During this activity approx 40,000m3 of material will be cut and placed in the fill areas. There are two fill areas one adjacent to Pit Lane (Fill Area A) and one adjacent to the TPT (Fill Area C). Details can be seen in Appendix C of location.

Fill Area A – 30,000m3 will be moved from the location of the new ALC buildings to area 1. Prior to any material being moved the fill area will have fencing erected to secure the area. Fill will be placed on top of the field as is. The material will be removed by road lorries along Pit Lane. Wheel washing facilities will be available at both access point on Pit Lane. The vehicles will cross site on a haul route

constructed from stone placed on top of a geotextile membrane to allow removal on completion. Directed by a vehicle marshals to the place of loading. The material will be excavated by hydraulic excavator and loaded for transportation all loads will be sheeted. The lorry will then travel to the fill area and tip as direct by the vehicle marshal through the wheel washing facility prior to travelling on Pit Lane. The lorry then will return to the ALC site again going through the wheel washing facility when exiting fill area A site. A road sweeper will also be in attendance during the muck shifting operation to ensure the road remains free of debris.

Agreed enhancements of new gates, cattle grid along with stone access roads across the fill area will be constructed.

Fill Area B – 10,000m3 will be placed in this area. This material will be excavated from the same area and transported to fill area B. fill will be placed on top of the top soil in the planting scheme area, in this area planting will be planted directly into the fill material. The material will be moved by all terrain dump trucks across the site. The river crossing will be enhanced so that such vehicles can cross the river. Again the material will be excavated by hydraulic excavator with vehicle marshalls at the excavation and fill area directing these vehicles as required.

4.3.1.1 Existing Services

During the excavation works there will be live services present in the ground in certain areas of the site. These include existing drainage and statutory undertakers' services, the number of these services will increase as the project progresses with service connection for the offices and building. All existing services are detailed on statutory undertakers' drawings which will be sourced prior to starting works. These drawings will be updated as the project progresses to act both as an As Built record but to enable avoidance of services during future works.

Some excavation work will be necessary in close proximity to these services. When this is the case a survey will be carried out by a site engineer through consultation of drawings and by using CAT scanning equipment if necessary, to determine the positions of all services before work starts.

4.3.1.2 Permit to Excavate

In all cases where excavation is required, no work will be undertaken until a permit to excavate has been issued by a member of the site management team, senior engineer or above. A permit will only be issued when the permit issuer is satisfied that any existing services have been identified, that procedures are in place to prevent disturbance to any service during the work and that adequate supervision will be in attendance.

The permit to excavate will set all of the parameters for the work. It will state the exact location and the purpose of the excavation; the requirement for traffic management, temporary works etc; and the timing of the work.

A copy of the permit to excavate will be kept within the cab of the excavator at all times during the work. A copy will also be filed within a dedicated file in the site office. When the work has been completed the permit will be returned to the issuer to be closed, the permit is to be issued for a maximum period of a week.

A blank copy of the permit to excavate form is included in appendix B of this document.

4.3.1.3 Temporary Works

Prior to the commencement of excavation work an assessment of the requirement for temporary works will be made by the Temporary Works Coordinator for the project. Any items of temporary works will be installed in accordance with approved drawings or in the case of proprietary systems, to manufacturer's recommendations. No work will be carried out within any temporary works system until the Temporary Works Coordinator has inspected the installation and has issued a Permit to Load certificate. A blank copy of this permit is included in Appendix B.

4.3.1.4 Setting Out

All setting out of excavations will be undertaken by a Site Engineer from the contract drawings. Excavations will be marked using spray paint, stakes, profiles etc, will be monitored as the work progresses and re-marked as required.

4.3.1.5 Formations

The depth of all excavations will be set by the Site Engineer and will be monitored as the dig progresses using a rotating laser level or profiles. When the excavation has reached the required level the formation will be inspected by the Site Engineer. If the formation is not acceptable for following works, further excavation will be undertaken until a suitable formation is achieved.

All excavate material is to be loaded directly into a dump truck or road lorry which whilst reversing is to be accompanied by a vehicle marshal.

All open excavation are to be fenced with pedestrian guardrails.

4.3.1.6 Environmental

During the excavation works well maintained plant will be used and the engines will be turned off during periods of in activity or breaks. Any vehicles leaving site

will do so after the wheels have been jet washed, if required. Records of any waste removed from site will be maintained and the data entered into the site waste management plan. All fuels will be stored within a bunded tank and be refuelled at a designated refuelling point where a spill kit will be available, this will be located more than 10m from any drains. Operative refuelling will be trained in the use of this spill kit. Any CoSHH materials arising from servicing of equipment will be removed from site by the operative servicing the equipment. In periods of dry weather any haul roads that are used will be dampened down to limit the dust produced by site vehicles using the haul roads.

4.3.2 Backfill

4.3.2.1 General

Before any backfilling is carried the area will be free from loose soil, rubbish and standing water.

Fill will not be placed onto frozen surfaces. Frozen material or material containing ice will not be used for backfilling.

All fill will be placed and compacted in a sequence and manner which will ensure stability and will avoid damage to structures, membranes, buried services etc.

Fill will be dug by excavator from the cut area and transported in dump trucks. Placement will be by bulldozer and excavator into the layer to be compacted. Compaction will be achieved by use of towed roller on the bulldozer or self propelled roller completing the required number of passes from SHW (Specification for Highway Works) table 6.2. Testing inline with the specification will ensure adequate compaction has taken place.

4.3.2.2 Backfill Material

Backfill material will be as per specification and be site won.

4.3.2.3 Compaction

Fill will be compacted as soon as possible after placing. The surface of each layer will be well closed and will show no movement under compaction plant. Fill will be placed in layers as per SHW 600 series dependant on the plant used. Filling within 2m of any structure will only be carried out using the following types of plant:

1. Vibratory roller, mass per metre width of roll not exceeding 1300kg and the total mass not exceeding 1000kg
2. Vibrating plate compactor, mass not exceeding 1000kg

If sheep's foot rollers are required to compact any cohesive material then there will also be a smooth drum roller on site to close up the top surface of the fill material to avoid pond of water in the voids in times of inclement weather.

After a period of inclement weather the fill area will be inspected to ensure an adequate moisture content in the top layer of fill. If this is found to be higher than the allowable moisture content in the specification then this layer will be removed prior to recommencing with placing fill material.

5.0 Risk Assessment

See Appendix A.

Weather conditions will effect excavations and supervisors will inspect the excavation after extreme rainfall prior to works re commencing. Operatives to inspect the excavation prior to access. Works will cease if there is a snowfall.

6.0 Control Measures & Supervision

6.1 General

All operatives will attend a general site induction prior to commencement of work on site. Operatives will also receive task specific briefings for all tasks in which they involved including this method statement. These briefings will be delivered by the works supervisor / foreman or a member of the site management team.

Each specific activity will be overseen by a dedicated supervisor who will ensure that all procedures to satisfy requirements for safety and quality are adhered to.

6.2 Excavations

No excavation will commence until all existing services have been located and a Permit to Excavate has been issued.

Where earthwork support is required no persons will undertake any work within the earthwork support system until a Permit to Load has been issued.

Access to excavations will be a minimum of timber ladders secured at the top to prevent slippage.

Edge protection will be installed as any excavation progress. Edge protection will be in the form of metal pedestrian guardrail.

For deeper excavations a more permanent system will be installed. This will be formed using Heras fencing double clipped with 'Danger Deep Excavation' signs fixed to the fencing.

No materials or equipment will be stored within 2m of any excavation in order to prevent surcharging to the sides of the dig and items falling into the dig.

6.3 Plant

Items of plant (excavators, dumpers etc.) will only be operated by persons who are qualified to do so. All plant operators must hold relevant CPCS cards. Plant movements will be controlled by a vehicle banksman. Pedestrian access will be segregated from all plant routes / working areas.

6.4 Personal Protective Equipment

All persons on site will wear the mandatory hard hat, safety boots, high-visibility vest, gloves and safety glasses. Additional items of personal protective equipment will be used for certain tasks – requirements will be detailed in Task Sheets or Method Statements.

6.5 Quality

Quality will be controlled by the site engineering team. Checklists and record sheets will be used to ensure that all works are carried out in accordance with the relevant specifications. The site engineering team will follow the procedures set out in the inspection and test plan for the tasks covered by this method statement.
In the event that any part of works is not carried out in line with the relevant specification(s) a Non Conformance Report (NCR) will be issued and remedial works will be undertaken in order to bring the quality of the work to a satisfactory level.

7.0 Resource

Resources will fluctuate related to the task at all times there will be a blue hat supervisor in control of the activity at any time.

8.0 Environment

If there is a prolonged dry period then wetting down of haul roads and work areas will be used to control the dust produced by the movement of plant. During period of inclement weather pumping of water ingress will need to be undertaken. This water will either be pumped to area to be lost to evaporation or pumped into a settlement tank and then to a foul manhole.

9.0 Emergency Procedures & Contacts

Wombwell ALC Project Emergency Procedures & Fire Plan will be formulated prior to a start on site and a copy will be available in the site project filing system..

First Aider on site details will be posted on the site notice boards, at all times a member of staff on site who holds a full 4 day first aid certificate will be on site.

Appendix A

Risk Assessment

Appendix B

Permit to Excavate Template
Permit to Load Temporary Works Template

Permit to Load / Unload

Project Name: **Section:**	**Project Number:** **Permit Number:**
Temporary Works Item:	**Design Ref (Drawing Number):**

Permit to Access The item of work described has been inspected and approval is given for use as a working platform. (Includes requirement to access during erection of the temporary works where instability may occur, or any other circumstance where the TWC deems a hold point is appropriate.)					
Section:					
Supervisor Signature:					
Date:					

Permit to Load The temporary works described have been erected in accordance with design data, method statements, associated task sheets and risk assessments and all necessary checks carried out.		
TWI Signature:	**Name:**	**Date:**
TWC Signature:	**Name:**	**Date:** **Copy to TWC/Supervisor**

Permit to Unload (Note: TW must not be unloaded unless both stage 1 and stage 2 have been signed off) **Stage 1** - All safety measures in accordance with method statements, task sheets and risk assessments have been executed and checked, e.g. Hole protection, leading edge, etc.		
Supervisor Signature:	**Name:**	**Date:**
Stage 2 - All necessary checks have been carried out and the temporary works described may be unloaded in accordance with the method statement, risk assessment and task sheets.		
TWC Sign:	**Name:**	**Date:** **Copy to TWC/Supervisor**
Verifying documents:		
Notes/special instructions:		

PERMIT TO EXCAVATE

LAING O'ROURKE

1. Request: Location:

Valid From:	Date:		Time:		Valid To:	Date:		Time:	

APPROVAL / DENIAL FOR WORK TO PROCEED

Restrictions:		Other Issues:	
Hand Dig Only	Y / N	Traffic Management	Y / N
Temp Works	Y / N	Project Management	Y / N
Services Identified & Marked*	Y / N	Muck Away / Stored	Y / N
Services Diverted	Y / N	Other (see attached)	Y / N
NRASWA	Y / N		
Confined Spaces	Y / N		

*Service drawings to show live and isolated services. All services to be considered live, unless proved otherwise by service provider.

AUTHORISATION / ACCEPTANCE

Permit Issuer: _____ Date: _____

Permit Receiver: _____ Date: _____

Permit Receiver to ensure Supervisor & Method Statement in place to control works.

CHECKLIST FOR PERMIT TO EXCAVATE

		COMMENTS
Control Measures (tick if applicable, insert n/a if not)		
Competent supervisor is appointed		
Approved risk assessment / method statement is available		
Underground services have been surveyed for and marked		
Services are isolated / diverted		
Dewatering pumps are available		
Edge protection is erected, (for people and vehicles)		
Shoring / battering or other supporting system required		

Area is suitably demarcated		
Public protection is in place		
Operatives are suitably trained		
No one is required to enter excavation		
Hand digging is to be by hand tools only		
Hand digging with mechanical tool is permitted		
Equipment for safe access / egress available		
Non-essential plant & materials are removed from the area		
Spoil is to be kept > depth back from edge		
Signals between plant operators & banksman are agreed		
Plant routes agreed / segregation of pedestrians are in place		
Temporary lighting is available		
Specific emergency procedures required		
Confined space control measures are required		
First aid support is available		
Overhead line protection is installed		

CLOSE OUT

Completed / Stopped / Cancelled	Name:	Time / Date:

Appendix C

Drawings