SWIZZELL MATLOW : OUTLINE METHOD STATEMENT FOR TENDER

1.0 Introduction:

The scope of the project is to undertake structural alterations to the East and West warehouses and reconfigure the service yard to the East building.

Generally the works comprise:

- Service isolations, diversions
- Protection to services
- Removal and disposal of asbestos cement roof and wall sheets
- Removal of notifiable asbestos
- Deconstruction and disposal of existing roof structures and columns
- Demolition of existing masonry walls
- Temporary weather protection for adjacent live work areas
- Alterations and building works to masonry walls
- Installation of new steel structures
- Installation of cladding and roofing
- Installation of dock levellers and loading doors
- Installation of personnel access doors
- Installation of new galvanised steps and steel platform structures to loading bays
- External works and drainage to form new external yard

A Programme of work has been developed (attached) to demonstrate the sequence, logic and durations of the works. The programme has been developed to take consideration of the following:

- Service isolations and diversions
- Sequence of safe working
- Procurement of long lead items
- Coordination of work activities

1.0 Existing Building & Services

The buildings comprise masonry walls, steel roof trusses, asbestos cement roof, block and plasterboard partitions with internal switchroom supplied from external substation.

The building services incorporate

- Electrical sub stations
- electrical power distribution and lighting services
- Existing borehole and associated pipework.
- Gas main
- Water main
- Compressed air

Service strategy generally:

In order to maintain the Health and Safety of all operatives there must be a coordinated strategy developed to ensure that services are diverted, isolated and protected prior to works commencing. This will require detailed planning and agreement with Swizzell in order to maintain operations in the plant and allow the demolition and building works to progress efficiently.

Prior to works commencing services will require to be isolated, diverted or protects as follows:

1.1 West building

- Electrical sub station west building – substantial protective structure constructed from scaffolding with close boarded protection to roof and walls
- HV/MV cables running through west building – these cable will require relocation and isolation prior to demolition works commencing. Detailed routes and planning required with Swizzell to coordinate and maintain ongoing operations
- Borehole – the borehole will require to be capped and an isolation valve fitted below floor level prior to demolition commencing. A heavy duty manhole cover will be fitted to cover the new valve.
- All internal electrical power distribution and lighting will be isolated and verified as dead prior to demolition works commencing.

1.2 East Building

- Electrical sub station and switchrooms – protection will be required and a programme of isolations agreed during demolition works
- HV/MV cables – existing HV/V cables run in containment through the existing warehouse. Detailed consideration of protection and planned isolations will be required during the works
- Gas Main – there will be a requirement for diversion of the gas main as currently the pipework is supported from the existing mezzanine floor and roof structure to be removed. A detailed plan of the diversion will be required prior to works commencing.
- Water main – an existing water main runs through the lean to structure which is to be demolished. This main will require to be diverted prior to works commencing as it is currently supported and propped from the existing structure which is to be demolished.
- Air Compressor plant – existing air compressor plant will require to be protected prior to works commencing. At key times of potential high risk activites the compressor may require to be swithched off and the pressure released form the vessel. These activities will require to be carefully planned with Swizzel management.

2.0 West Building

Demolition

Notifiable Asbestos removal will be undertaken prior to any works commencing by licenced contractor. All statutory requirements will be complied with through development of a detailed method statement

Demolition will commence with the removal of a section of the west gable to allow access for mechanical machinery and removal of demolition debris. The gable will be carefully taken down using a combination of manual and mechanical deconstruction.

All internal partitions, block walls, cables and redundant pipework will be stripped and removed from the building segregated and disposed to licenced tip.

Prior to removing the roof an access road will be constructed along the river elevation of the building from crushed and compacted stone. A perimeter scaffold will be erected to provide edge protection and access to the south and east elevations.

The asbestos cement panels will be removed be a licenced contractor and the sheets disposed to licenced tip complying with all current regulations. Access to the roof will be by sciss=r lift and cherry picker. Each sheet shall be carefully remove manually to prevent any dust arising, lowered to the ground and disposed in covered skip. A detailed method statement will be developed for this activity to cover working at height, manual handling asbestos disposal. The details of the disposal will be recorded in the site waste management plan and copies of all waste transfer tickets recorded and logged.

Where sheets have been removed from high level at adjacent warehouse temporary protection will be installed to make the unit weather proof.

Following removal of asbestos sheets the existing steel tower will be carefully deconstructed and lowered to the ground piece by piece. Each piece of steel shall be secured by crane or appropriate lifting appliance prior to disconnection to minimise risk of falling objects.
The existing roof trusses shall be carefully lifted off the masonry structure and cut down at low level to reduce works at height.

The existing east masonry gable will be carefully manually reduced to required level with access by scissor lift and external scaffold.

Detailed method statements will be developed to cover working at height, hot work, demolition, manual handling

Building Works

On completion of the demolition building works will be undertaken to fill the window openings and create the new opening to the existing unit. Works will be undertaken from fixed scaffold designed to cater for the required loadings. An exclusion zone will be created within the existing unit to ensure safety of Swizzell employees during these operations.

Steel Installation

The steel installation will commence with the installation of the Metsec trusses. These will be lifted into place and bolted to padstones located on top of each of the existing masonry piers. Each lift will be subject to a lifting plan and supervised by a qualified AP

Access to the works will be by scissor lift and cherry picker and covered by a detailed method statement for the works.

Following securing the Metsec trusses the roof purlins will be fixed and manually bolted to the truss cleats.

Roofing

Prior to works commencing netting will be installed at eaves level to provide fall protection.

The roof panels will be lifted to the roof by means of telehandler which shall lift the panels to roof level. These will be unloaded manually and the first panels fixed into position from running boards. All opeartives will be securely harnessed to the existing structure and after the first panel the panels will be fixed sequentially providing a stable working platform.
Following the installation of the roofing the eaves flashing shall be fixed to the perimeter of the building from the access scaffold.

All roofing operations will be covered by a detailed method statement covering working at height, lifting operations, manual handling,

Gable works

Prior to construction of the blockwork the dock levellers will be installed by supplier. The supplier will provide a detailed method statement

The gable will be reconstructed as designed – an access scaffold will be constructed to allow installation of steel and construction of new block walls . The scaffold will be designed to accommodate loading by blockwork during construction.

The sectional doors will be installed by specialist supplier who will provide detailed method statement to cover installation.

Steel platform and steps

On completion of the installation of the dock levellers the steel loading platform will be installed. The platform shall be of bolted construction and assembled in the warehouse. A detailed method statement shall be developed to cover manual handling, use of lifting equipment and use of small tools

3.0 East Building

On completion of the services diversions and isolation demolition will commence in the yard. The existing reinforced concrete structures shall be broken out by mechanical excavator and disposed to tip.

Demolition

Notifiable Asbestos removal will be undertaken prior to any works commencing by licenced contractor. All statutory requirements will be complied with through development of a detailed method statement

The asbestos cement panels will be removed be a licenced contractor and the sheets disposed to licenced tip complying with all current regulations. Access to the roof will be by scissor lift and cherry picker. Each sheet shall be carefully remove manually to prevent any dust arising, lowered to the ground and disposed in covered skip. A detailed method statement will be developed for this activity to cover working at height, manual handling asbestos disposal. The details of the disposal will be recorded in the site waste management plan and copies of all waste transfer tickets recorded and logged.

The asbestos cement roof removal will commence with the racking area and follow through the building in front of the demolition process.

The steel roof beams shall be carefully removed by mechanical excavator from the racking area and lowered to the ground to be cut up and disposed. NOTE installation of new steel support to existing roof beam will be required prior to removing existing walls.

The demolition of the existing masonry walls shall be undertaken by mechanical excavator to a predetermined level – all demolition materials shall be loaded and disposed to licenced tip. A detailed method statement shall be developed for the demolition works to cover working at height, hot works, loading and disposal of arisings, dust suppression, working with heavy plant and machinery.

The east gable of the main warehouse will be removed by mechanical excavator to allow clear access to the area. The mezzanine floor will be deconstructed manually and removed from site. Access to the works will be by scissor lift and cherry picker. Each element will be lowered carefully to the ground for removal.

All services will be confirmed as dead or isolated and marked prior to removal.

The overhead crane will be removed under specialist lift with a specific lifting plan and appointed person supervising. The running gear will be disconnected and lifted to the yard area for cutting up and disposal.

The roof trusses shall be unbolted or cut from the existing structure removed and lowered carefully to the ground for cutting up in the yard. The existing columns will be cut down and removed to the yard for disposal or cut to new required level for the retained columns. Hot works permits will be issued and a risk assessment undertaken to review the impact of hot works at height. Should it be deemed necessary all cutting at height will be undertaken by cold cutting techniques to minimise risk of fire.

A detailed method statement will be developed particulary to protect “live” operational packing areas adjacent to the work area.

The external pump house will be demolished by mechanical excavator and the demolition arisings loaded and disposed to tip.
The external lean to adjacent to the river will be demolished manually to prevent any debris falling into the River Goyt. A scaffold will be erected at the edge of the water course to allow access for demolition. The scaffold will be compliant with EA guidelines.

Steelwork

Steelwork will commence with the installation of Metsec trusses at the west end of the building and work back to the east gable. The trusses will be lifted into position by crane under an approved lifting plan with AP in attendance. The crane will be appropriately sized to reflect the lifting radius required by the site layout and weight of trusses.

The existing steel columns will be drilled by magdrill and prepared prior to the lifting operations. Access will be by scissor lift or cherry picker.

The new column foundations will be excavated and holding down bolts set during the roof truss construction. On completion of the roof trusses the new columns will be installed and the eaves beam bolted into position.

Purlins and cladding rails will be bolted to cleats welded to Metsec and purlins and the existing retained columns.

The new reinforced retaining structures and thresholds will be constructed using traditional in situ concreting techniques.
The foundation will be excavated by mechanical excavator – arisings will remain on site for future backfill to verges.
Steel reinforcement will be fixed manually. Timber formawork will be erected and propped prior to concreting operations.

Concrete will be supplied by mixer and discharged directly into formwork at a controlled rate.

Roofing and Cladding

Roofing will commence with the installation of the new shared gutter and continue with the installation of the composite roof panels across the main structure

The roof panels will be lifted to the roof by means of crane which shall lift the panels to roof level. These will be unloaded manually and the first panels fixed into position from running boards. All operatives will be securely harnessed to the existing structure and after the first panel the panels will be fixed sequentially providing a stable working platform.
Following the installation of the roofing the eaves flashing shall be fixed to the perimeter of the building from the access scaffold.

All roofing operations will be covered by a detailed method statement covering working at height, lifting operations, manual handling,

Wall cladding will commence with overcladding the existing building to the south of the new loading area and follow round the building. Cladding panels shall be lifted into position by scissor lift equipped with proprietory lifting gear to allow easy fixing of panels.

All access will be by scissor lift and cherry picker apart from west gable where an access scaffold will be erected to enable access over the existing roof structure.

Doors and dock leveller

The sectional doors will be installed by specialist supplier who will provide detailed method statement to cover installation.

Dock leveller will be installed by a specialist supplier who will provide detailed method statement to cover the installation

Steel platform and steps

On completion of the installation of the dock levellers the steel loading platform will be installed. The platform shall be of bolted construction and assembled in the warehouse. A detailed method statement shall be developed to cover manual handling, use of lifting equipment and use of small tools

Painting Existing Steel

On completion of the cladding works the existing steel will be painted. The steel will be prepared and primed and a surface finish applied in line with the architects requirements. Access will be by cherry picker and scissor lift

External works

Bulk excavation will be undertaken by mechanical excavator to formation for the new loading yard.

Any surplus material will be removed from site to licensed tip,

Drainage will be installed in line with the structural engineers plans.

All excavations will be assessed by the site manager to determine excavation support required.

The headwall at the river will be constructed under a detailed method statement to prevent debris or contamination entering the River Goyt.

New yard

A subbase layer will be spread by mechanical excavator and compacted by roller. Tree root protection system will be installed below the subbase layer

Kerbs will be laid and haunched to the perimeter of the new hardstanding – proprietory lifting equipment will be utilised during kerb laying operations to minimise mechanical handling requirements.

Subbase will be trimmed to level and reinforcement placed.

The yard will be concreted in bays as required by the structural engineers joint layout. The concrete will be placed by concrete pump which will be sized to meet the requirements of the concrete pour plan.

The areas to the rear of the kerbs will be filled and landscaped as required.

Generally:

All operations will be covered by a detailed method statement and risk assessments to be approved by the site manager prior to any works taking place.

All operations must be planned to ensure Health and safety of all operatives on site and minimise impact on Swizzell operations which will be ongoing throughout the works.