

# CONSTRUCTION PHASE PLAN

Prepared in accordance with the requirements of the Construction  
(Design and Management) Regulations (CDM) 2015

## LIVERPOOL WATERS – PRINCESS DOCK HOLE IN THE WALL

Construction of a new access road linking William Jessop Way and Bath Street, to include removal of the existing dock wall and formation of the new entrance into Princess Dock.

Land at William Jessop Way,  
Prince Dock,  
Liverpool  
L3 1DJ

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## 1 Construction Phase H&S Plan Sign Off

Prior to implementation of this CPP, the plan should be reviewed and signed off below as reflects the construction works being undertaken. The Client's representative (Principal Designer) must sign below to signify acceptance of the plan.

Construction Phase Plan Sign Off			
Name:	Nana Sarpong	Position:	HSEQ Manager
Signature:		Date:	03-07-2018
This CPP has been developed for project implementation and is fit for purpose and ready for review by the Client's representative to confirm acceptance for the construction works to commence.			
Contracts Director		Peter Isherwood	
Signature			
The Client is aware of their duties under the Construction (Design & Management) Regulations: 2015 and is satisfied with the content of this plan for the construction works to commence.			
Clients Representative / Principal Designer			
Signature			
<i>The <b>Client</b> (or his representative)</i> <i>has reviewed the welfare facilities on the site and satisfied they are suitable for the works to commence</i>			
Clients Representative / Principal Designer			
Signature			

## 2 CPP Review & Update

This Construction Phase Environment, Health & Safety Plan must be reviewed and updated at least monthly, or when there is significant change to risks or risk control measures (including legal or regulatory requirements).

Relevant sections or requirements of the plan must be communicated to all relevant staff and shared with third parties.

Details of the review will be recorded below to demonstrate the project review process and status.

[illegible]

### 3 Project Location & Description of Site

#### Location

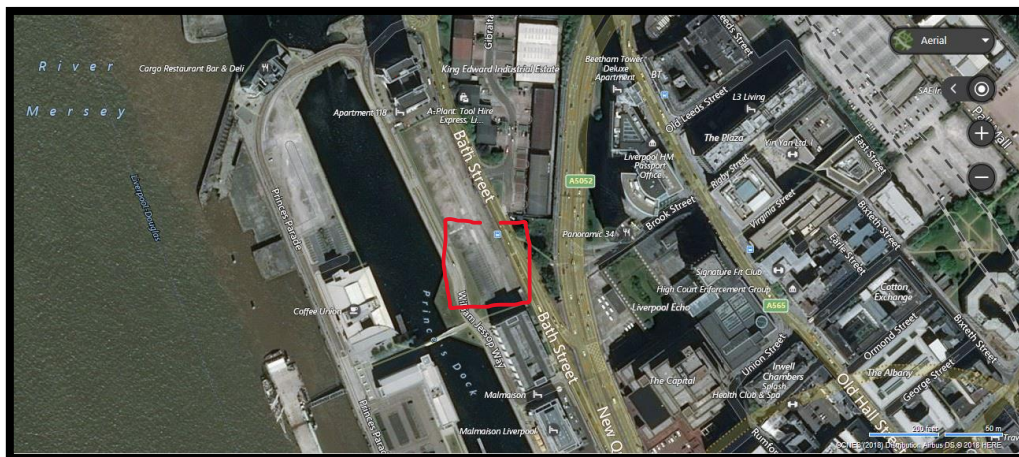
Land at William Jessop Way, Prince Dock, Liverpool, L3 1DJ.

#### Scope of Works

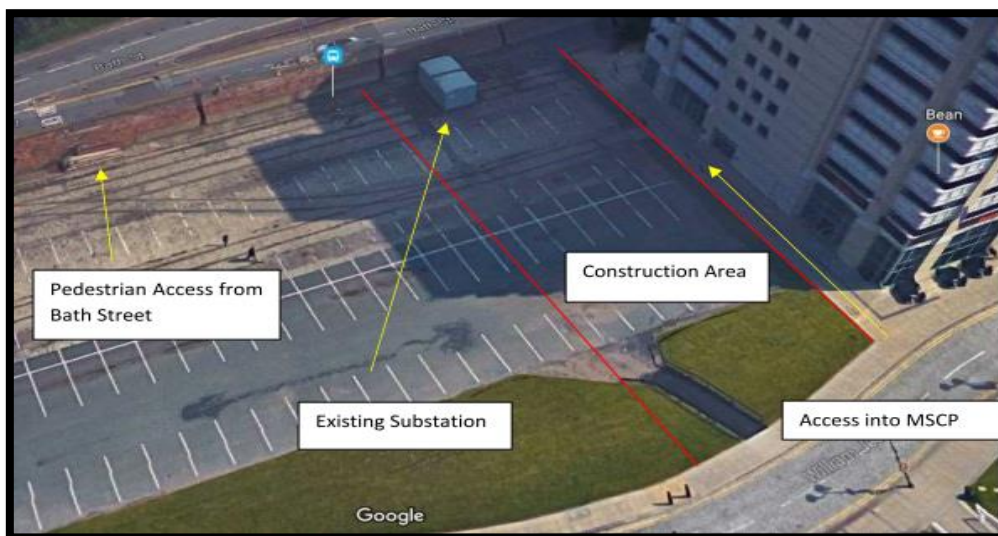
Bemus Construction Services Limited have been appointed by Peel Land and Property as a Principal Contractor for the construction of a new access road linking William Jessop Way and Bath Street, to include enabling works involving the removal of the existing listed dock wall, services diversion and installation of complex traffic and pedestrian management. The contract also includes installation of new surface water drainage, street lighting and associated ducting, bespoke masonry works and high-quality landscaping including street furniture.

#### Site

The site is situated at William Jessop Way, Princes Dock, Liverpool and is in close proximity to a multi storey car park, commercial apartment blocks, a hotel and Princes dock.



#### Work Area (Areal View)



### **Duration of the Work**

The project is scheduled to commence TBC, with practical completion of within 12 weeks from start date.

### **Access**

Site access will be from William Jessop Way.

### **Site Hours**

The operational hours will be 07:30 to 17:00 hours Monday to Friday. Weekend and late hours work will be subject to agreement between Client and Bemus.

### **Adjacent Land Use**

It has been identified that Bath Street is under the control of Liverpool City Council and William Jessop Way under Peel Estates.

Other adjacent land use includes;

- Multi Storey Car Park
- Nursery
- Malmaison Hotel and general
- Foot bridge for public use

### **Restrictions**

It has been identified that the rear to the brick dock wall of the site is classed under a Heritage Statement, the immediate area will be classified as a no-go area with signage and as such a detailed method statement will be produced for works involving the dismantling of the wall, lifting surface materials, storage and reuse of the same.

A Structural Survey of the existing wall may be commissioned by the Client or Bemus as part of the tendering process. But it has been confirmed that the brick wall is structurally sound at present and further dialogue will be required to satisfy the requirements of the Heritage/Conservation Parties.

### **Contamination**

It has been confirmed as part of the Site Investigation screening that no ACM's fibres or any other contaminants are present within the ground.

## **4 Description of Project**

### **Works to include:**

- Site Establishment and Traffic/Pedestrian Management.
- Careful removal of section of an existing listed dock wall to create new access road linking Bath Street to William Jessop Way.

## CPP (Hole in the Wall)

- Formation of a new access roads & sewers servicing William Jessop Way and Bath Street.
- Installation of new foundations and erection of new steel work pillars and cladding.
- Pilling, foundations and pier construction.
- Management and coordination of services diversion by third party network operators
- Installation of complex traffic and pedestrian management including new pedestrian crossing point.
- Installation of new surface water drainage system including gullies, pipework and manhole.
- Installation of street lighting and associated ducting,
- Installation of bespoke masonry works and high-quality landscaping including street furniture.
- Tarmac surfacing and road markings to newly formed road.

Project Classification (tick those that apply)					
PFI	Private Finance Initiative		GMP	Guaranteed Maximum Price	
PM	Project Management		DMC	Design, Manage and Construct	
CM	Construction Management		LST	Lump Sum Tender	
MC	Management Contracting		Other	(Specify)	
DB	Design & Build				
Project Programme Please refer to programme of work					
Start on Site Date:	TBC	Contract Period (weeks)		12 weeks	
Project F10 rev. Notification has been received, signed and returned to the Principal Designer. Final version of the F10 rev. to be displayed on site notice board.				Date	
				Date	
Project Description As stated above					

#### 4.1 Existing Services (Including Drainage Plan) and Structures are:

Utilities survey by Zerum has confirmed the existence of the following services in and around the vicinity;

- **Cadent/Gas:** Diversion to Bath Street required, assumed to be completed prior to commencement. Cadent Gas have confirmed that no gas mains exiting within William Jessop Way.
- **Electric Services:** HV Main to Bath Street will be unaffected however supply to Peel building from William Jessop Way may need to be lowered. This to be completed prior to commencement. Scottish Power have confirmed that new duct work will be installed during road construction for future use.
- **United Utilities/Water:** No Water Mains recorded in the footpath will be affected by work on Bath Street, however, supply to Peel building from William Jessop Way may need to be lowered. Again, this be completed prior to commencement. Bemus will be responsible for trial holing and locating of apparatus, UU will be in attendance.
- **BT:** Main to Bath Street will be unaffected, however, ducting on William Jessop Way may need to be lowered, confirmed by BT Openreach. Ducting to be installed during bulk earthwork.
- **Street lighting:** Street lighting cables within Bath Street is under the LCC. Bemus to liaise with the incumbent highway maintenance provider to the LCC to arrange diversion. Diversion and lowering, to be undertaken by Amey.
- **Virgin Media:** Diversion to Bath Street required, confirmed by Virgin Media.
- **Overhead Services** – No overhead services have been identified.

Underground services shall be located in accordance with HSG47. Bemus shall hand dig trial holes where necessary to precisely locate any underground services and ensure the safe route of the excavation / trench. Once services have been identified they will be marked and protected as necessary.

#### Security

Bemus Construction Services will ensure that only authorised persons have access to the site, through designated entrances in accordance with HSG 151 'Protecting the Public'. Existing brick wall west of the site have been inspected and deemed suitable and secured to be used. However, additional hoarding/fencing will be erected to secure the site and prevent



unauthorised access taken take account of the existing footpath connecting the Princes Dock to Bath Street together with the Pedestrian Access into the Multi Storey Car Park.

### **Visitors**

Visitors to the site must wear appropriate PPE which will be provided to them by the Bemus. All visitors must sign the Site Register and record the time of arrival and departure, as well as the reason for their visit.

All visitors to site must be accompanied by a representative of the Principal Contractor.

### **Storage**

A secure storage compound will be provided in a suitable area identified within a third-party contractor (Beijing Contractors') compound as agreed by the Principal Contractor and Beijing Contractors'. The compound will be used for the storage of the following:

- Plant and equipment (All plant to be switched off and keys removed when not in use)
- Hazardous materials (in accordance with CoSHH)
- Non-hazardous materials
- Emergency environmental mitigation materials to include spill kits, straw bales, plastic sheeting sufficient for leakage of the largest tank on site.

### **Deliveries**

Suppliers will be required to arrange for delivery with the Site Manager in order to ensure minimum disruption to the local residents and business, and other parties. All vehicles must be accompanied by a trained banksman/vehicle marshal when entering and leaving the site and when manoeuvring within the constraints of the site (e.g. turning using forward and reverse gears).

### **Traffic Management**

Bemus will consult with councils Highway department and engage our supply chain partner; Taylor Made Traffic Management Ltd. to install a full chapter 8 traffic management to Bath Street throughout the duration of works to create safe and uninterrupted working area and alternative pedestrian route. A detailed Traffic Management Plan for the project to include the following:

- Traffic and Plant routes
- Pedestrian routes
- Footpaths and Road Closures
- Offices/meeting room
- Welfare/First Aid
- Storage compound

- Emergency Assembly Point

## 5 Project Duty Holders & Contacts

<p>Insert the contact details of the organisations / individuals listed on the F10 Notification defined as Duty Holders within the CDM Regulations: 2015 (see below for guidance)</p> <p>Insert other key project contacts (i.e. Emergency services and enforcing authorities etc.)</p>	
CDM 2015 duty holders	Summary of role/main duties
<p>Clients</p> <p>Organisations or individuals for whom a construction project is carried out.</p>	<p>Make suitable arrangements for managing a project. This includes making sure that:</p> <ul style="list-style-type: none"> <li>• Other duty holders are appointed</li> <li>• Sufficient time and resources are allocated</li> </ul> <p><u>Ensure:</u></p> <ul style="list-style-type: none"> <li>• Relevant information is prepared and provided</li> <li>• To other duty holders</li> <li>• The Principal Designer and Principal Contractor</li> <li>• Carry out their duties</li> <li>• Welfare facilities are provided</li> </ul>
<p>Domestic clients</p> <p>People who have construction work carried out on their own home, or the home of a family member that is not done as part of a business, whether for profit or not</p>	<p>Domestic clients are in scope of CDM 2015, but their duties as a client are normally transferred to:</p> <ul style="list-style-type: none"> <li>• The Contractor, on a single contractor project; or;</li> <li>• The Principal Contractor, on a project involving more than one contractor.</li> </ul> <p>However, the domestic client can choose to have a written agreement with the principal designer to carry out the client duties.</p>
<p>Designers</p> <p>Those, who as part of a business, prepare or modify designs for a building, product or system relating to construction work</p>	<p>When preparing or modifying designs, to eliminate, reduce or control foreseeable risks that may arise during:</p> <ul style="list-style-type: none"> <li>• Construction; and</li> <li>• The maintenance and use of a building once it is built</li> <li>• Provide information to other members of the project team to help them fulfil their duties</li> </ul>
<p>Principal Designers</p> <p>Designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.</p>	<p>Plan, manage, monitor and coordinate health and safety in the pre-construction phase of a project. This includes:</p> <ul style="list-style-type: none"> <li>• Identifying, eliminating or controlling foreseeable risks;</li> <li>• Ensuring designers carry out their duties</li> <li>• Prepare and provide relevant information to other duty holders</li> </ul>

	<ul style="list-style-type: none"> <li>• Provide relevant information to the principal contractor to help them plan, manage, monitor and coordinate health and safety in the construction phase.</li> </ul>
<p><b>Principal Contractors</b> Contractors appointed by the client to coordinate the construction phase of a project where it involves more than one contractor</p>	<p>Plan, manage, monitor and coordinate health and safety in the construction phase of a project. This includes:</p> <ul style="list-style-type: none"> <li>• Liaising with the client and principal designer</li> <li>• Preparing the construction phase plan</li> <li>• Organising cooperation between contractors and coordinating their work</li> </ul> <p><u>Ensure:</u></p> <ul style="list-style-type: none"> <li>• Suitable site inductions are provided</li> <li>• Reasonable steps are taken to prevent unauthorised access</li> <li>• Workers are consulted and engaged in securing their health and safety and welfare facilities are provided.</li> </ul>
<p><b>Contractors</b> Those who do the actual construction work and can be either an individual or a company.</p>	<p>Plan, manage and monitor construction work under their control so that it is carried out without risks to health and safety. For projects involving more than one contractor, coordinate their activities with others in the project team – in particular, comply with directions given to them by the principal designer or principal contractor. For single-contractor projects, prepare a construction phase plan.</p>
<p><b>Workers</b> The people who work for or under the control of contractors on a construction site</p>	<p>They must:</p> <ul style="list-style-type: none"> <li>• Be consulted about matters which affect their health, safety and welfare</li> <li>• Take care of their own health and safety and others who may be affected by their actions</li> <li>• Report anything they see which is likely to endanger either their own or others' health and safety</li> <li>• Cooperate with their employer, fellow workers, contractors and other duty holders</li> </ul>

### Project Duty Holders (defined by CDM Regulations 2015)

This table provides the project specific roles and necessary contact details for liaison with other CDM duty holders and consultants associated with the project:-

Title	Contact Name (s)	Company Name	Contact Details (Address, E-Mail & Telephone)
Employer (Client)	N Hey	Peel Land and Property	Peel Dome Intu Trafford Centre, Trafford city, Manchester, M17 8PL
CDM Consultant/Advisor	K Tindale	Walker Sime	Walker Sime The Corner House Fourth Avenue Trafford Village Trafford Park Manchester M17 1DB Tel: 0161 872 9955 <a href="mailto:ktindale@walkersime.co.uk">ktindale@walkersime.co.uk</a>
Principal Designer	K Tindale	Walker Sime	Walker Sime The Corner House Fourth Avenue Trafford Village Trafford Park Manchester M17 1DB Tel: 0161 872 9955 <a href="mailto:ktindale@walkersime.co.uk">ktindale@walkersime.co.uk</a>
Principal Contractor	Sean Walsh	Bemus Construction Services Ltd	Brooke House, Morton Street, Middleton, Manchester M24 6AN England <a href="mailto:sean.walsh@bemus.co.uk">sean.walsh@bemus.co.uk</a>
Architect	P Swift	Planit IE	Planit IE 2 Back Grafton Street, Altrincham, Cheshire WA14 1DY Tel: 0161 928 9281 <a href="mailto:ps@planit-ie.com">ps@planit-ie.com</a>
Structural / Civil Engineer:	T Bingham	Curtins Consulting	Curtins Consulting Curtin House, Columbus Quay, Riverside Dr, Liverpool L3 4DB 0151 726 2000 <a href="mailto:tim.bingham@curtins.com">tim.bingham@curtins.com</a>

## EMERGENCY CONTACT INFORMATION

Fire Service	Dial 999
Ambulance	Dial 999
Police – In an Emergency	Dial 999
Police – Non- Emergency Dial - 101	

Your Local Officers are:

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**Inspector Andy Creer**



**Inspector Goeff Stewart**



**Sergeant Christine Kerr**

United Utilities - Water

National Grid - Gas

Scottish Power - Electric

**Dial 0345 6723 723**

(24 hours a day)

**Dial 0800 111 999**

(24 hours a day)

**Dial 0800 001 5400** (from a landline)

**Dial 0330 1010 400** (from a mobile)

(24 hours a day)

Client  
Out of Hours Emergency Contact Telephone  
(TBC)

Principal Contractor  
Out of Hours Emergency Contact Telephone (24 Hours)  
Sean Walsh 07837 584775

Site Manager Mobile  
(TBC)

This page should be displayed in the site offices and welfare facilities

## Enforcing Authorities Contact Details

<b>Health &amp; Safety Executive</b>	Health & Safety Executive (HSE) Redgrave Court Merton Road Bootle L20 7HS  Telephone 0151 951 4000
<b>Planning Authority</b>	Liverpool City Council Planning Department Liverpool City Council, Building Control, Cunard Building, Water Street, Liverpool, L3 1AH
<b>Local Authority</b>	Liverpool City Council, Cunard Building, Water Street, Liverpool, L3 1AH <b>Phone: 0151 233 3000</b>
<b>Environment Agency</b>	National Customer Contact Centre PO Box 544 Rotherham S60 1BY  Email <a href="mailto:enquiries@environment-agency.gov.uk">enquiries@environment-agency.gov.uk</a> Telephone 03708 506 506 Telephone from outside the UK (Monday to Friday, 8am to 6pm GMT) +44 (0)1709 389 201
<b>Highways</b>	Liverpool City Council Highway Department, Harthill Rd, Liverpool L18 3HS Phone: 0151 724 2087

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## 6 Pre-Construction Information

Record below all surveys, reports and other information that it is anticipated will be needed for the effective planning and management of the works. Request such information from the Client or Principal Designer if not automatically issued, and record as appropriate the request and received dates.				
Description (Amend list as appropriate)	Applicable (Y/N)	Received (With Date if known)	Report Reference No.	Location / File Reference
Pre-Construction Information Pack				
Employers Requirements				
Construction Management Plan				
Asbestos survey / report(s)				
Planning conditions / constraints				
Geotechnical survey				
Structural survey				
Schedule of conditions				
Party wall survey / agreements				
Noise survey				
Archaeological survey				
Retained structures / elements				
Listed building status				
Environmental issues				
Underground Services				

## 7 Constraints & Restrictions

Item	Constraint or Restriction	Details / Comments	Action or Control Measures Required
1	Working in close proximity to local estates and business	Interface with car park users and customers to nearby coffee shop, nursery and other business	Ensure clear Traffic Management Plan and signage is in place, a section of new formed pedestrian walkway will be open for car park users. Adhere to any agreed noise restrictions. Where possible, the car park entrance/exit next to work area will be closed temporary and users will be diverted to use other exits.
2	Working in close proximity to other construction development projects	Disturbance to local estates and business	Ensure clear coordination among all contractors undertaken construction activities within the location as well as a comprehensive Traffic Management Plan and signage is in place & surrounding roads are not blocked at any time. Adhere to any agreed noise restrictions.
3	Traffic and pedestrian management on Bath Street during removal section of dock wall.	Impact of traffic congestion and disruption to pedestrian using nearby bus stop on Bath Street	Full Chapter 8 traffic and pedestrian management will be in place during demolition and formation of access road.
4	Flow of traffic on William Jessop Way when carrying out drainage connection.	Impact on customers/ pedestrian and road users	Full Chapter 8 traffic and pedestrian management will be in place during drainage connection.
5			

## 8 Management of the Work

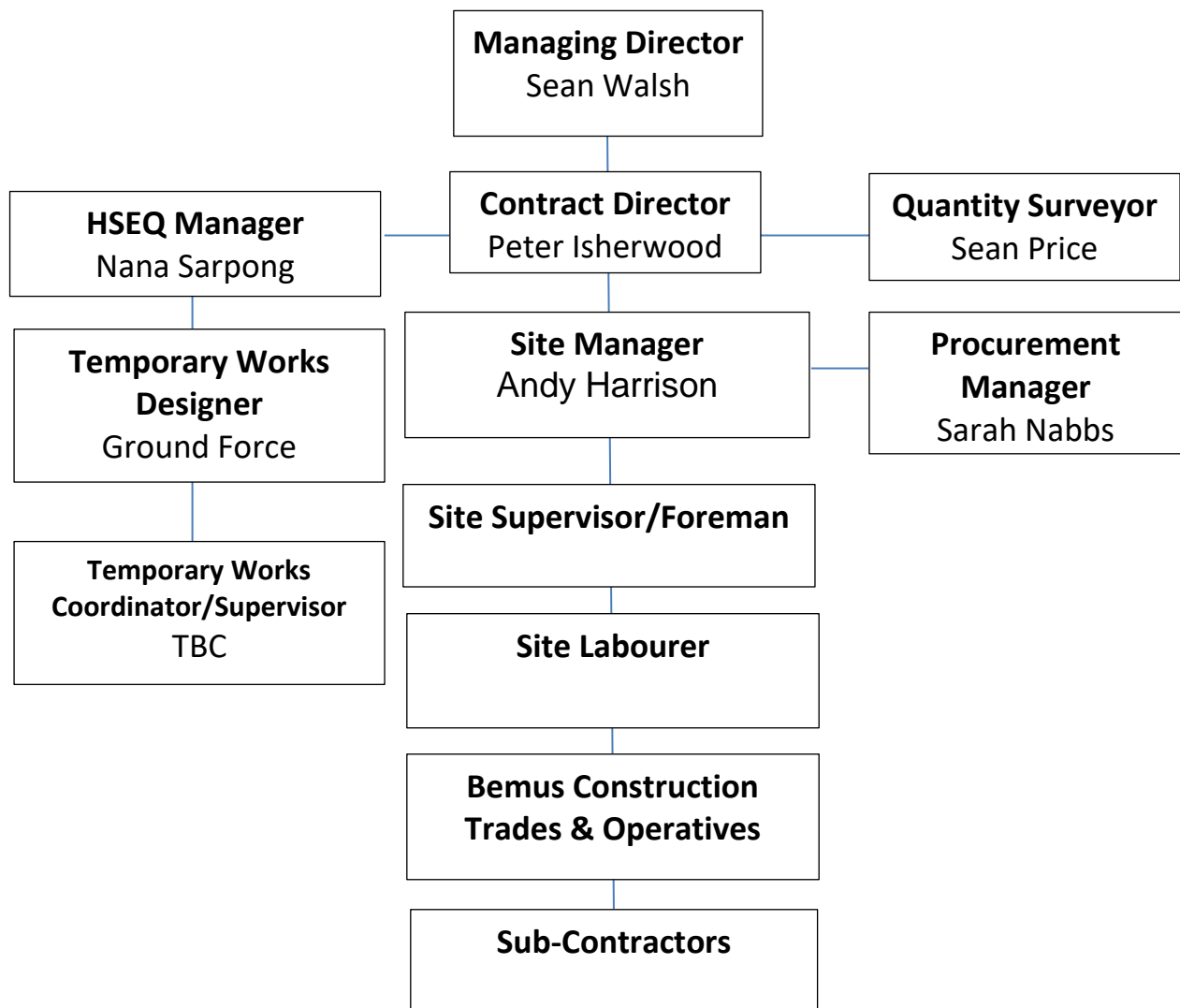
Health and Safety Duties and Responsibilities of all Project Personnel

- Set a personal example to lead in safety and health promotion.
- Understand the company H&S policy, CPP Plan and appreciate the responsibility allocated to each team member.
- Attend the project Safety Induction.
- Attend any health & safety training identified by the Company, and personally maintain professional competencies.
- Liaise with other managers to clarify responsibilities at physical or organisational interfaces between packages or sections of the project, so that full coordination is maintained.



## 9 Management Structure & Responsibilities

### Project Team



**This page should be displayed in the site offices and welfare facilities**

## 10 Health & Safety Resources

Adequate safety resources to complete the project, including personnel, time and cost allowance will have been assessed prior to commencement on site. Responsibility for Health & Safety on the project remains with the Contracts / Project Manager and the rest of the project team.

At all times works are taking place, Bemus Construction Ltd. will maintain an adequate level of Operations Management on site to manage the contractors undertaking the works. Where applicable, each sub-contractor will allocate to the project their own H&S Advisor / Manager and Supervisors who together with Bemus Construction Ltd.'s management will plan, manage, supervise and monitor the health & safety aspects of their works. Minimum resource level for contractors H&S Advisor and Supervisors will be agreed as part of the tender process and based on the package risk rating.

## 11 Project H&S Goals

Client specific Environment, Health & Safety Standards or Goals that have been stipulated as part of the contract are to be included within this H&S Plan and included within any induction, site rules etc.

The following H&S Goals and Performance Standards form part of the specific site rules / standards for this project:

- No prosecutions or enforcement notices for health & safety issues
- No reportable injuries, diseases, or dangerous occurrences
- No slips, trips and falls and falls from height of personnel, materials, plant, or equipment.
- No personnel injured by the movement of plant or vehicles especially during reversing operations
- No fires, environmental incidences, or cases of public nuisance
- No cases of occupational dermatitis, hand arm vibration syndrome (HAVS) or occupational noise induced hearing loss
- No cases of occupational injury from manual handling

In addition to these safety goals the following targets have been set for achievement by the Contractor & sub-contractors:

- Safe working will be a condition of employment in all contractor's organisations
- They will ensure that no additional fire risk is provided to the project location and nearby properties because of the planned works.
- They will maintain site security throughout the duration of the construction works.

### Site Inspection

The project will be continually inspected on a day to day basis by the Project Management Team. In addition, the Principal Contractor will ensure that the required standards of Health & Safety are maintained and improved through a programme of thorough site safety inspections to be undertaken by a competent Health & Safety Manager on a monthly basis. The site will also be frequently inspected by the site manager to ensure continuous compliance. The thorough inspections will also include checks on subcontractors working on the site to ensure their performance meets the requirements.

### 12 Liaison between parties on site

As required, the following sub-contractors will be in attendance on site to undertake specialist activities such as;

- Installation of Piers: Total Steel Fabs
- Tarmac surfacing: JTP Surfacing
- Street lighting: TBC

Co-ordination of activities between sub-contractors and other contractors will be undertaken by Bemus Construction Ltd, with the full assistance and co-operation of additional parties including the CDM Duty holders and Beijing Contractor. This will ensure that day to day site activities, such as training, deliveries, equipment movement, plant and materials storage and traffic management are arranged so as to allow all parties to work effectively, efficiently and safely with minimum disruption to the nearby business and road users.

Regular meetings with Peel and other contractors undertaken construction project within the vicinity will be held on site where matters pertaining to co-ordination and co-operation can be discussed and acceptable decisions reached. The meetings will be facilitated by the Site Management team and should be attended by representatives of other parties and sub-contractors as necessary. Minutes of these meetings will be recorded and distributed to all interested parties as agreed by Bemus Construction Services Ltd.

### 13 Consultation with the Workforce

CDM 2015 places an explicit duty on the Principal Contractor to consult with the workforce on matters pertaining to Health and Safety. Accordingly, Bemus Construction will invite a nominated representative of the site workforce to attend the Co-ordination meetings (See 12 Liaison between parties on site, above) to put forward any health and safety suggestions, questions or concerns raised by any member of the workforce.

The nominated representative should, prior to the meeting, ask the workforce if there are any matters they would like to see raised.

The Nominated representative should report back the response of the meeting to the issues raised and in addition the minutes of the meeting should specifically record the Health and Safety Consultation and any actions resulting.

## 14 Managing Design

Construction (Design & Management) Regulations 2015:

### *Designers*

*Those, who as part of a business, prepare or modify designs for a building, product or system relating to construction work. When preparing or modifying designs, to eliminate, reduce or control foreseeable risks that may arise during Construction and the maintenance and use of a building once it is built*

*Provide information to other members of the project team to help them fulfil their duties*

### *Principal Designers*

Principal Designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.

*Plan, manage, monitor and coordinate health and safety in the pre-construction phase of a project. This includes:*

- Identifying, eliminating or controlling foreseeable risks;
- Ensuring designers carry out their duties
- Prepare and provide relevant information to other duty holders
- Provide relevant information to the principal contractor to help them plan, manage, monitor and coordinate health and safety in the construction phase.

Karl Tindale is the appointed Principal Designer for the project as in accordance with CDM 2015.

## **Design**

It is the Principal Contractor's responsibility to liaise with the Client to ensure that the works are carried out to the design and specification (all information regarding design will be exchanged between the project stakeholders).

It is recognised that Bemus are required to install the works to the approved design. Therefore, the Contracts Manager/Director will liaise with the Client on a regular basis to highlight any potential problems with design thus avoiding delays.

Bemus shall notify the Client immediately of any potential design changes identified during the design appraisal process or during construction works. Any deviation from the original design will be subject to and by approval of Clients design change process.

It will be Bemus responsibility to ensure that all installation work is properly recorded to enable as-built drawings to be compiled.

### **Temporary works**

Temporary works on likely to installed during construction of the project may include items such as;

- Deep excavations and trench supports systems.
- Traffic and pedestrian management on Bathgate and William Jessop Way.
- Erection of Scaffold when taking down section of dock wall and forming new entrance.

Where applicable, all temporary works will be designed and managed by a competent person and a register will be held on the project.

Bemus in accordance with our Temporary Work Procedure (BC061 Temporary Works Procedure) will appoint a Temporary Works Coordinator (TWC) and a Temporary Works Supervisor (TWS) within the project team to ensure that the temporary works design is properly managed. The TWC will manage specialist external designers to carry out temporary works design where required and ensure works are being built as per the design. All temporary work designs will be added to a temporary work register which will be maintained throughout the duration of the contract. For all appointment records, please refer to temporary works folder.

### **15 Selection of Contractors / Consultants / Suppliers**

The procurement of contractors and suppliers is to be undertaken in accordance with the requirements of the Procedures on Subcontract Procurement. This covers all aspects of supply chain competence from pre-qualification through toSSIP accreditation. To ensure compliance with the legal standards and standards, the following must be met:

- All contractors / consultants / suppliers formally engaged to provide design, development, construction, management or maintenance services must go through Bemus rigorous pre-qualification process which includes an assessment of the organisation's ability to meet any relevant legislative requirements, including adequate insurance cover and industry standard accreditations.

- The environmental and health & safety responsibilities of key contractors / suppliers, and the significant risks associated with their works, must be clearly defined for each engagement.
- Sufficient appropriate information must be provided to these organisations to adequately plan and price the work. The quality and accuracy of the contractor / consultant / supplier's documentation should be a key factor in selection.
- Contractors / consultants / suppliers must employ adequate numbers of competent supervisors, provide proof of competence for key workers, particularly those carrying out high risk activities or undertaking work where proof of competence is required by law.
- Where it is assessed that a contractor, consultant or supplier may not be able to meet legal requirements in full they must not be engaged unless the operation has no other feasible option available. In this situation a Mitigation Plan must be prepared and approved before any contract can be awarded.

Contractor/ Consultant / Supplier	Internal Competence Assessment? (Yes / No, date undertaken)	Accreditations (CHAS, Safe Contractor, Construction Line, Building Confidence, etc.)

#### Site Safety Inductions

Bemus project management team will ensure that site inductions are provided for all persons working on or visiting our site. This is to ensure that all persons are aware of key risks, emergency procedures, site rules and safety precautions that may apply to them. An Induction pro-forma and Induction Register are provided within the Bemus Construction Health, Safety and Environmental Site File.

#### 16 Training & Competence

Bemus Construction recognises its responsibility and legal obligations to ensure that all persons engaged in construction related activities on its behalf are competent to undertake their duties. 'Competence' in this context means suitably trained, qualified and experienced as demonstrated by an appropriate training certificate or professional membership.

Where persons are in the process of gaining competence, they must be supervised by a competent person at all times whilst working. An appropriate level of First Aid trained people will be provided.

**The following table identifies the specific requirements for workers on Bemus Construction Ltd Sites:**

Specific training requirement	Certification Scheme
Site / Project Managers	SMSTS certificate (Site Managers Safety Training Scheme) + Relevant trade qualifications / experience NVQ Level 3 or above in Construction Work Supervision or equivalent First Aid at Work.
Site Supervisors / Foremen	SSSTS (Site Supervisors Safety Training Scheme) or SMSTS certificate NVQ Level 2 or above in Construction Work Supervision or equivalent Emergency First Aid.
Scaffolding Supervisors	CISRS (Construction Industry Scaffolders Registration Scheme) Supervisors Card + relevant trade qualifications and experience. + manufacturer's training if system scaffold to be used.
Demolition Supervisor	CCDO (Certification of Competence of Demolition Operatives) Supervisors Card or equivalent.
General Construction Trades & Labourers.	CSCS card (with relevant endorsements) or equivalent.
Plant Operators (General).	Relevant CPCS card+ machine specific familiarisation training. Where necessary, Quick-Hitch Awareness Certificate
Compact Crane Operator.	CPCS card+ machine specific familiarisation training.
Signaller / Slingers.	CPCS card or equivalent.
MEWP operator	IPAF card (with relevant endorsements) + machine specific familiarisation training.
Mobile Aluminium tower erection	PASMA card (with relevant endorsements) + equipment specific familiarisation training.
Scaffolder	CISRS card + manufactures training if system scaffold is to be used. (CSCS affiliated)
Electricians	ECS card (CSCS affiliated)
Plumbers	JIB-PMES card (CSCS affiliated)
Utility Services	EUSR card (CSCS affiliated)
Demolition	CCDO Card (CSCS affiliated)
Safety Net rigging	FASET
Brick Workers	Heritage CSCS Cards

## 17 Site Security

Bemus will ensure that the site is secure against unauthorised persons at all times. The site will be secured using heras fencing with suitable warning signage displayed at each entrance noting that unauthorised entry is not permitted and giving clear directions to pedestrian entrances. Access and egress will be through the designated gates only. Emergency contact numbers will be displayed with out of hours contact details included.

Visitors are requested to sign the Visitor's Register on entering and leaving the premises. Visitors should be accompanied by a member of the Bemus Construction team or by an authorised member of a trade contractor's site personnel. Limited car parking facility may be made available subject to agreement with project stakeholders and other contractors working in the vicinity, particularly Beijing Contractors as part of welfare provision agreement in accordance with Bemus site establishment procedure. Due to limited availability of space within the dock area, visitors will be advised to use the nearby multi storey car park for ease. At all times parking on roads will not be permitted and will be subject to Liverpool Council Parking enforcement. The listed security measures will be provided on this project to provide protection to the perimeter of the site and control of personnel access.

## 18 Welfare Facilities

Suitable and sufficient welfare facilities will be agreed and provided free of charge in accordance with the Construction (Design and Management) Regulations 2015 and as a minimum will include the following:

- Toilets and washing facilities with hot water, soap or other suitable means of cleaning, and also towels or other suitable means of drying
- Changing rooms and secure storage of personal belongings
- Facilities for rest with tables and seating (with backs) sufficient for the number of persons likely to use them at any one time.
- Facilities for basic heating and preparation and consuming of food, as well as making hot drinks and provision of portable drinking water.

## 19 First Aid Arrangements

Suitable numbers of trained First Aiders will be available on site. An appropriate First Aid kit will be available and will be maintained by Bemus Construction whilst they are Principal Contractor. The First Aid Kit will be located in the Site Office. Responsibility for its contents is devolved to the First Aiders. First Aiders for the Project (For the duration of Bemus Construction Ltd's appointment as Principal Contractor) will be:

1. \_\_\_\_\_ TBC \_\_\_\_\_ (Site Manager)
2. \_\_\_\_\_ TBC \_\_\_\_\_ (Site Engineer)



## 20 Nearest Accident & Emergency Department

Your Nearest Accident and Emergency Department is:

**Royal Liverpool University Hospital**

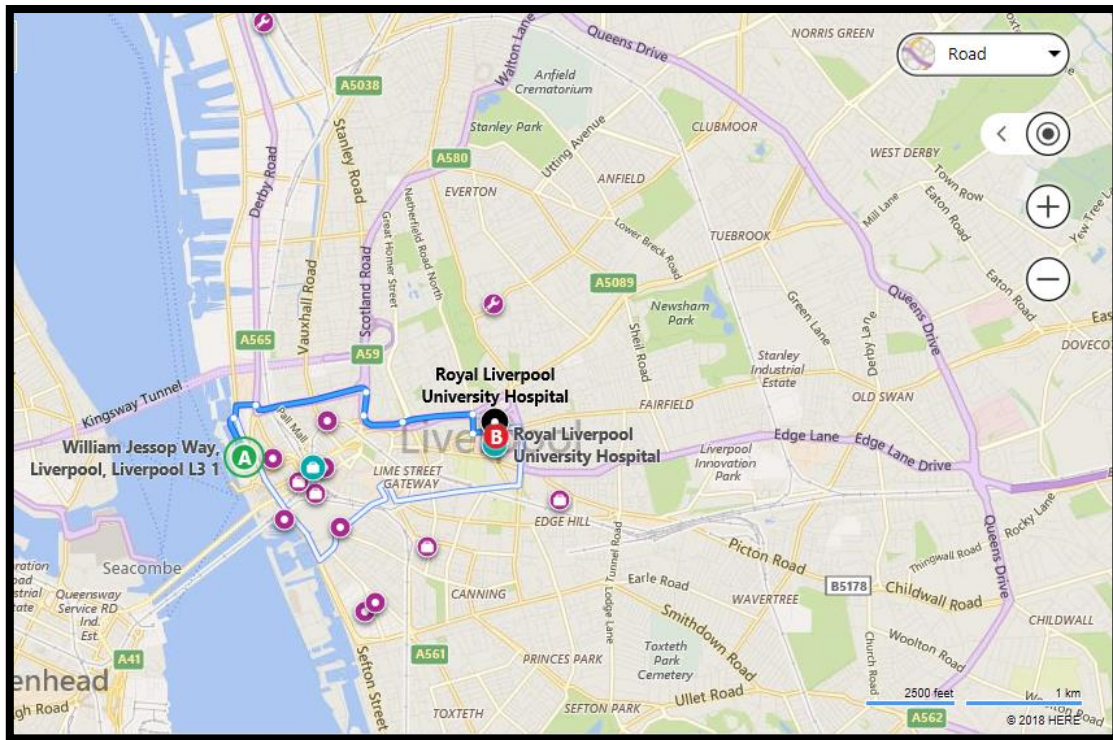
**Prescot Street**

**Liverpool**

**L7 8XP**

**Phone: 0151 706 2000**

Approximate Distance and Travel Time: 2.1 miles & approx. 12 minutes.



This page should be displayed in the site offices and welfare facilities

## William Jessop Way

# YOUR DESIGNATED FIRST AIDERS ARE:



Insert  
Image

TBC

Site Manager

Insert  
Image

TBC

Site Engineer

Insert Image


Insert Name

Site Labourer

This page should be displayed in the site offices and welfare facilities

## 21 Fire &amp; Emergency Arrangements

## EMERGENCY PLAN TELEPHONE NUMBERS

<b>Ambulance</b> <b>Police</b> <b>Fire Brigade</b>	When answered, ask for the service(s) required. Clearly state your name, the Company name & the above address giving directions to the site. A person should be sent to the site entrance adjacent to the main road to meet and direct the emergency services. You should also make the Project manager aware of the situation.	999
Nearest A&E Hospital Location plan attached	Royal Liverpool University Hospital, Prescot Street, Liverpool L7 8XP	0151 706 2000
Local Fire Brigade	Merseyside Fire & Rescue Service, St Anne Street, Liverpool L3 3DS	999
Local Police	Merseyside Police Headquarters, Canning Place, Liverpool L1 8JX	999
HSE Area Office	Bootle Headquarters Redgrave Court, Merton Road, Bootle, Merseyside, L20 7HS	0161 832 8200
EPA	Incident hotline	0800 807060
	First Aiders Principal Contractor (Each Phase) to have First Aid Provision on site.	TBC

### Emergency Arrangements – General

Emergencies will be dealt with in accordance with the Company Emergency Arrangements document, which will be displayed prominently within the communal mess area and the site office. All personnel are asked to familiarise themselves with this document.

The Site Manager will identify and demarcate a suitable safe assembly point for use in an emergency. The assembly point will be away from the path of emergency response vehicles and away from flammable or explosive materials, including electricity.

A safe route off the site should be planned from the assembly point.

### Fire

Bemus will provide trained Fire Marshals for the duration of its appointment as Principal Contractor.

The names of trained Fire Marshals are provided below:

1. \_\_\_\_\_TBC\_\_\_\_\_ (Site Manager)
2. \_\_\_\_\_TBC\_\_\_\_\_ (Site Engineer)
3. \_\_\_\_\_TBC\_\_\_\_\_ (Forman)

The Regulatory Reform (Fire Safety) Order 2005 (FSO) sets out the law on construction site general fire safety.

It requires that a 'responsible person' must carry out, and keep up to date, a risk assessment and implement appropriate measures to minimise the risk to life and property from fire. The responsible person will usually be the main or principal contractor in control of the site.

Bemus will identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning and fighting fire, based on a fire risk assessment and ensure the work does not interfere with existing escape routes from the vicinity, or measure put in place to arrest or prevent fire spreading. A project specific fire plan will be developed by Bemus Construction Ltd Site Management Team and this will be maintained as the project develops.

The Fire Plan will include:

- Discovering Fire
- Means of escape
- Means of giving warning
- Means of fighting fire

The plan will be completed for this project, posted on site in the office and welfare facilities and arrangements are communicated at induction. The likelihood of an incident can be minimised by effective planning through the development of site Emergency and Environmental Incident Response Plan.

### Contact with Buried Services

As stated (Section 4.1) all digging will be carried out in accordance with HSG 47 'Avoiding Danger from Underground Services' and the principles are as follows:

- Where the ground may conceal buried services, a utility map/drawing/plan is first consulted in order to identify where the services are likely to be
- The operative should look at the area and note where services are required, e.g. lit signage at bus stops, housing and infrastructure, hydrants, visible gas pipes close to houses etc.
- The ground will be then scanned by a competent person using a Cable Avoidance Tool (CAT) and Signal Generator (Genny). Any services located should be marked using paint spray
- Carefully hand dig the area and keep re-marking the service so that removal of soil does not obliterate the markings. Uncover the service and await instructions.

## 22 Reporting & Investigation of Incidents

All accidents will be recorded and reported in accordance with RIDDOR 2013 and the Bemus Construction Ltd. Accident Procedure Appended. All incidents must be reported to the site manager and senior management team and will be investigated according to the investigation procedures. The timely and accurate investigation of ALL incidents (relative to severity) is crucial to identify why they occurred and how to prevent similar incidents in the future. Failure to implement the effective investigation procedures can result in prosecution, difficulty with insurance claims and financial loss to the company.

The purpose of incident investigation is to:

- Fully understand the immediate and underlying causes of incidents
- Institute corrective actions to eliminate the re-occurrence of the identified immediate and / or underlying causes;
- To share lessons learnt to prevent similar incidents occurring elsewhere within the business; and
- To minimise the impact of incidents both in terms of human suffering and economic loss.

Once the immediate emergency response to an incident has been implemented, the injured have been treated and the situation made safe, the investigation process should begin. This root cause(s) investigation process involves the collection of evidence, identification of immediate causes, critical factors, underlying causes, corrective actions and lessons learnt.

All accidents including those to subcontractor workers must be reported immediately to the site management and a record entered in the site accident book. This includes all cases where first aid is provided, regardless of how minor the injury is considered. Where an investigation is carried out, the site manager and contracts manager will ensure that any follow up action required or recommended is carried out promptly and that information is relayed to all on site who may be affected by findings.

‘Near miss’ incidents, those categorised as dangerous occurrences under statute, and those causing major damage whether or not injuries occur will be reported, investigated and recorded.

Refer to the Bemus Construction Accident and Near Miss Procedure for more detail.

### 23 Production & Approval of Risk Assessments and Safe Systems of Work

All work will be carried out under an approved Safe System of Work (SSoW). Safe System of work may include the following:

- Risk Assessment
- Method Statement
- COSHH Assessment
- Permit to Work

Initially using the Client PCI as a reference, the Bemus will produce a comprehensive SSoW for the project that will include (but not be limited to) the hazards identified in the Client PCI document, namely:

- Live Work Site
- Asbestos
- Confined Space
- Manual Handling
- Contamination

- Hazardous Materials (unspecified)

A site visit will be conducted to evaluate any other hazards which will also be incorporated into the SSoW. Risk Assessments will follow the HSE '5 Steps to Risk Assessment' model

1. Identify the hazards
2. Decide who might be harmed and how
3. Evaluate the risks and decide on precautions
4. Record your significant findings
5. Review your assessment and update if necessary

Any sub-contractors involved will be required to detail the safe systems of work they will adopt for works involving any significant risk in Method Statements.

The Method Statement must describe nature and sequence of the works together with the control measures necessary to carry out the works in a safe manner, detail key responsibilities and how it will be communicated to their workers. Where changes impact on the agreed method of work, the Method Statement must be revised accordingly and accepted by all parties.

#### Method Statements & Risk Assessments

Ensure that contractors submit their Method Statement to a minimum of 2 weeks, and preferably 30 days, before they are due to start work on site. Check and agree the Method Statement before permitting the contractor to commence work on site.

#### Permits to Work

Permit to Work procedures will be implemented to ensure that regularly encountered high risks works are effectively controlled on a day to day basis. Outlined below are the standard permits to work that may be applicable to various construction activities: -

- Permit to Dig
- Permit to Enter (Confined Space)
- Hot Work Permit
- General work permit (High risk)
- Permit to Lift

Client stipulates PTW for the following on this project, where applicable:

- Works on live services

## CPP (Hole in the Wall)

- Drainage works
- Hot works (Note: to cease and be watched for 2 hours before end of any shift or work)

## 24 Site Rules

### Individual

- All personnel working on this project will attend an induction
- All site personnel, for their own safety and for the safety of others, are required to fully comply with their employer's task safe working method statement
- All personnel are required to wear a safety helmet, high visibility vest, safety footwear, gloves and appropriate eye protection as identified by risk assessment and method statement. Additional PPE, e.g. hearing protection, will be worn where appropriate.
- Where corporate branded PPE is issued by the Principal Contractor, it must be worn at all times whilst on site
- Transistor radios, personal stereos / Walkman's / iPods or similar, are not to be used
- The consumption of alcohol and drugs is prohibited
- Smoking will only be permitted in designated areas
- No personnel shall indulge in fighting, horseplay or practical jokes within the site perimeter.

### Collective

- Any person found to be interfering or misusing fixtures, fittings or equipment provided in the interest of health, safety or welfare will be excluded from the site
- Visitors must report to site offices, and will be allowed entry at their discretion
- Whilst on site visitors are to wear appropriate PPE
- Vehicle drivers must wear a safety helmet, hi-vis jacket or vest and safety footwear at all times when at risk
- Vehicles are not to be reversed in construction areas unless under the control of an authorised traffic marshal / banksman
- Every incident (injury or near miss) event must be reported to
- No person may operate any mechanical plant or equipment unless they have been trained, have been certificated as competent and are authorised to do so

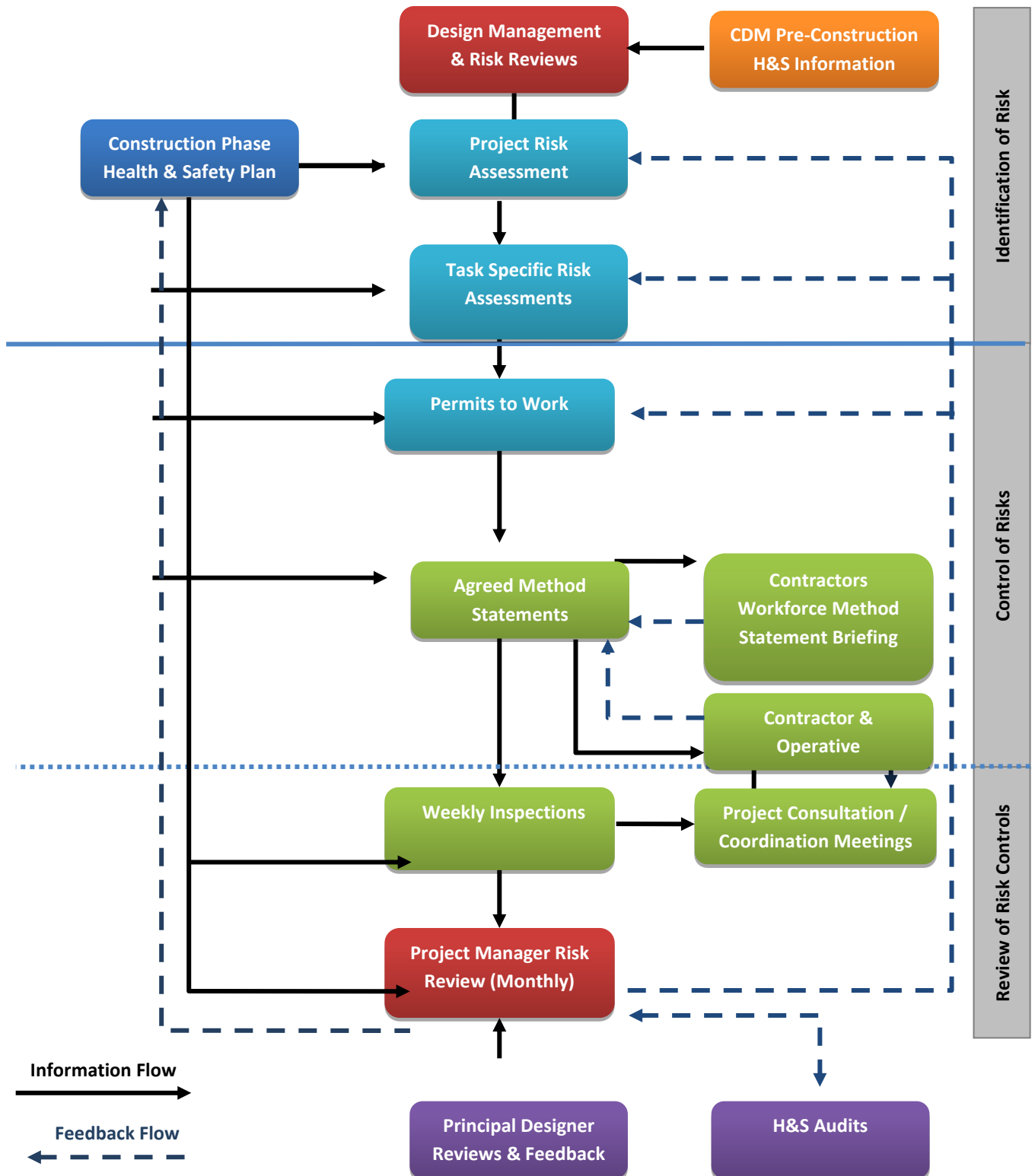


- Any mechanical plant or equipment found to be defective is not to be used and should be reported
- All safety signs and notices must be followed
- Site fire and emergency alarms, equipment and instructions are designed to protect life. They must be followed
- Ladders are only to be used as work platforms for tasks of short duration and only if no alternative means of access is readily available. Ladders must always be secured to a structure or securely 'footed' by another person whilst in use
- Only designated & qualified electricians may make an electrical connection / disconnection, other than at approved plug & socket points, or make alteration to the temporary electrical supply.

## 25 Arrangements for Control of Significant Risks

### Project H&S Management

During the Pre-construction (identification) and Construction (control) stages of a project it is important to undertake regular reviews to establish if all of the risks have been identified and the correct control measures applied.



## Project Risk Review

The Project Risk Assessment shall be undertaken in order to identify the significant risks to the project requiring specific controls to meet the requirements of the CDM Regulations 2015 and H&S Legislation. Where the risks are applicable further supporting detail shall be provided in the suitable and sufficient Risk Assessment which forms part of a comprehensive.

## Safe System of Work

The Checklist below identifies which potential hazards are associated with this project.

Significant Risks	Applicable (Y/N)
Delivery and removal of materials (including waste) and work equipment taking account of any risks to the public, for example during access to or egress from the site	Yes
Dealing with services - water, electricity and gas, overhead power lines temporary installations	Yes
Accommodating adjacent land use	Yes
Stability of structures, including temporary structures and existing unstable structures	Yes
Preventing falls	Yes
Work with or near fragile materials	Yes
Control of lifting operations	Yes
Maintenance of plant and equipment	Yes
Excavations and work where there are poor ground conditions	Yes
Wells, underground earthworks and tunnels	Yes
Work on or near water where there is a risk of drowning	Yes
Work involving diving	No
Caisson or compressed air working	No
Work involving explosives	No
Traffic routes and segregation of vehicles and pedestrians	Yes
Storage of materials (particularly hazardous materials) and work equipment	Yes
Contaminated Land	Yes
Manual Handling	Yes
Hazardous substances, particularly where there is a need for health monitoring	No
Noise and vibration	Yes
Work with ionising radiation	No
Noisy and vibrating equipment;	Yes
Maintaining the security of the site during construction;	Yes
Proximity of live below ground gas pipelines;	Yes
Deep excavation and ground support and Other underground services – electrical, drainage water;	Yes
Restricted access to the site and Moving vehicles and equipment;	Yes
Access to and from the site(s) via the public highways (height restricted);	Yes
Interface with other contractors on site;	Yes
Working at height	Yes
Working on Classed heritage /conservation area	Yes
Asbestos Containing Materials; (potential)	Yes
Vermin;	Yes

Exposure to UV radiation (from the sun)	Yes
Creation of dust;	Yes
Exposure to biological agents e.g. viruses, bacteria, fungi, parasites	Yes
Damage to the environment e.g. trees, fauna, animals;	No
Disposal of silt laden ground water;	Yes
Adverse weather e.g. lighting, extreme cold, strong winds,	No

## 26 The Health & Safety File

Bemus will ensure all information required for the health & safety file is collated in a timely manner for the conclusion of the works. The Project Manager must liaise with the Principal designer to agree the format that will be used to gather information for the H&S File, including numbers of copies (hard and soft) and agreed format.

- Bemus Construction, as Principal Contractor, will provide as built drawings and obtain relevant information for the health & safety file as required by the Principal designer or Client. It is important that this information is provided promptly, and Bemus will ensure that contractors are aware of what is expected from them and when to deliver it.
- A typical copy of the index for the Health & Safety File (Operating and Maintenance Manual) is located within the Site Health, Safety and Environmental File indicating the information to be provided by the various parties to the principal contractor for forwarding to the Principal Designer. This is subject to change and is to be agreed with the Client and Project Manager.

## 27 Environmental

### Hazards

The site will have a site specific Environmental Risk Assessment in place before work commences. This will identify any hazards or risks pertaining to the project, including pollution risks arising from daily activities including noise, dust & fuels.

Items of concern include wildlife, flora and watercourses, as well as archaeology and Sites of Special Scientific Interest (SSSI's)

### Emissions

- Engines of plant and machines must be maintained to a schedule laid down by the manufacturer. This slows down the process of wear and tear and maximises the efficiency of the engine, thereby minimising the emissions from the engine

#### CPP (Hole in the Wall)

- Engines and machines must never be allowed to idle unnecessarily.
- Bemus Operatives are encouraged to share transportation wherever practical.

#### Carbon Footprint

Bemus Construction aims to reduce its carbon footprint as far as reasonably practicable and to this end the following measures have been identified for implementation:

- Engines of plant and machines must be maintained to a schedule laid down by the manufacturer. This slows down the process of wear and tear and maximises the efficiency of the engine, thereby minimising the quantity of fuel and lubricant it uses.
- Engines and machines must never be allowed to idle unnecessarily.
- Bemus Operatives are encouraged to share transportation wherever practical
- Lights and electric appliances must be switched off when not required.
- Hot water must not be allowed to run from the tap into the drain.
- Kettles should only be used to heat the amount of water required.

#### Waste Management

Waste management will be in accordance with the Waste (England and Wales) Regulations 2011, Environmental Protection Act 1990, Environment Act 1995, other relevant environmental regulations and Bemus Waste Management Procedure. Bemus will seek to reuse excavated materials arising from excavation where practicable and any excess will be removed from site responsibly by a registered waste transfer company. Waste licences will be sorted and copies kept in site Health and Safety File and duty of care checks will be carried out by Bemus HSEQ Manager to ensure compliance with relevant regulations and legislation.

CPP (Hole in the Wall)

Appendixes

# SITE LAYOUT





# RISK ASSESSMENTS – Noise, Vibration & Manual Handling



Project Name:	Liverpool Waters – Princes Dock Hole in The Wall			Risk Assessment created by:	Nana Sarpong	RA Ref No.	GRA 001
Review Date:	03-07-2018	Scope of works:	All Scopes			Date:	03-07-2018

Worst reasonably foreseeable outcome					Likelihood given control measures in place					Risk rating table		
5	4	3	2	1	5	4	3	2	1	15 - 25	8 - 12	1 - 6
Fatality	Severe injury	Lost time injury	Minor injury	No injury	Very likely	likely	Even chance	Unlikely	Remote	High	Medium	Low
HIGH RISK - Do not proceed with work and contact your supervisor immediately												
MEDIUM RISK - Safe to proceed with work using standard procedures and additional control measures												
LOW RISK - Safe to proceed with work using standard procedures												

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
Concreting	<p>Contact with Hazardous Substances.</p> <p>Dust, (Silica in particular) Chemicals, Materials etc</p> <p><b>Contact Dermatitis, Skin Conditions, Allergic Reaction</b></p>	5	E	<p>Avoid coming in contact with concrete. Suitable Gloves issued will be of suitable Standards and to the required specification.</p> <p>Dust Masks - will conform to EN 149 – fitted with P3 Filters</p> <p>Over specs / Safety Glasses will conform to EN166</p>	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
<b>Contaminated Land</b>	Possible exposure to Petroleum hydrocarbon compounds (petrol, diesel & oil) and associated organic & volatile organic compounds within shallow soil / groundwater	5	E, C, P	<p>It was assumed that no above ground structures contain ACM's but has been confirmed as part of the Site Investigation screening that no presence of fibres within the ground. However, it must be assumed that ground is contaminated and the potential for UXO's is present.</p> <p>Due to severity of possible exposure, gloves have been made a <b>MANDATORY</b> requirement. ALL operatives are required to wear the appropriate PPE and adhere to good hygiene practices prior to eating, drinking or smoking.</p> <p>If further areas are suspected to be contaminated or identified during activities, stop work and consult your manager as a separate risk assessment shall be required.</p> <p>Gloves will conform to EN 388</p>	2	5	10	Medium
<b>Existing Structures</b>	Adjacent land use and traffic impact	4	E, C, P	<p>Site Investigation to be reviewed to fully understand the state and reduce levels of the existing dock wall and drainage and to draw construction strategy to prevent Bath Street and William Jessop Way works to be tied in.</p> <p>Work alongside dock, outfalls or existing drainage to be found during reduce level.</p>	2	5	10	Medium

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				<p>Measures to be implemented to prevent any pollution.</p> <p>Effective coordination with all contractors within the vicinity and adherence to the contractor's handbook.</p>				
<b>Excavation and dewatering</b>	<p>Disposal of water carrying</p> <p>Suspended solid (slit)</p> <p>Ground and watercourse</p> <p>Contamination</p>	4	E	<p>Excavations and work on poor ground conditions, Wells, underground earthworks and tunnels, use of trench support systems such as drag box, trench box etc. where deeper sheet piling will be adopted.</p> <p>Where possible prevent water from collecting in excavation. Where pumping is required ensure permit to pump is completed and the discharge is filtered; eg; using geotextile membrane or similar</p> <p>Ensure inlet hose is filtered to prevent inlet of silt.</p> <p>The top soil and sub soil will be segregated and stored separately to prevent cross Contamination.</p> <p>Identify proximity of watercourses/surface water drains, use</p>	1	4	4	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				<p>silt carts/grass verge discharge to foul drain (with permission).</p> <p>If excavation is necessary, the risk posed by ground water from contaminated land must be controlled. Analysis will confirm the exact nature and will enable suitable controls to be put in place.</p> <p>It may be necessary to consult the Environment Agency for advice. Special consideration should be given in regard of cross contamination of clean water systems.</p>				
<b>Delivery and removal of plant and materials (including waste)</b>	<p>Movement of plant / vehicles on site</p> <p>Vehicle / pedestrian collision.</p>	5	E, C, P	<p>All deliveries will be planned and must be within the working hours, Drivers must report to Bemus site offices and their representative and must sign in as necessary.</p> <p>Where necessary, a permanent security hut will be provided by Bemus at the site entrance to the development. Bemus site representative will be delegated to attend to all deliveries.</p>	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				<p>All vehicles to be under the control of a banksman when on site.</p> <p>High Visibility Vests - will conform to EN 471</p>				
<b>Working Near Water</b>	Possible flooding and drowning	4	E, C,P	<p>Platforms, edges, gangways etc.</p> <p>Whenever reasonably practicable fixed edge protection must be provided to prevent people falling into water.</p> <p>Where edge barriers are not reasonably practicable at exposed edges, e.g. quay edges, appropriate warning signs and/or edge markings should be displayed to highlight the danger.</p>	2	3	6	Low
<b>Manual Handling</b>	Back injuries, Cuts and Abrasions	2	E	<p>Where trained and authorised, a properly tested and certificated mechanical lifting equipment and accessories wherever practicable will be used to reduce the requirement of manual handling.</p> <p>If manual handling is unavoidable undertake a risk assessment paying attention to the task, the individual, the load and the environment where the activity is to be undertaken.</p>	1	2	2	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				<p>Kinetic safe lifting technique. Protective footwear and gloves are to be worn. Refer to the manual handling assessment.</p> <p>Gloves will conform to EN 388</p>				
Dealing with services - water, electricity, and gas, including overhead power lines and temporary electrical installations	Fire / Electrocution	5	E	<p>Permit to dig to be in operation for every excavation.</p> <p>Trial holes to be dug using insulated hand digging tools to identify the location of all services.</p> <p>Overhead services will have specific RAMS produced, be protected by exclusion zones &amp; goal posts. DNO supplier to be consulted to obtain max. heights.</p> <p>Flame Retardant Overalls will conform to EN531 and EN470.</p> <p>Class 0 and Class 1 Insulated gloves (C/w Outers) as required.</p>	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
<b>Preventing falls</b>	Slips, trips and falls	4	E, C, V	<p>Good site housekeeping is to be maintained. Sites should be kept tidy and well protected from traffic etc.</p> <p>Tools and equipment in stores and work area must be properly stored and secure.</p> <p>Excavated materials should be stored safely away from trench edge to avoid surcharges and slips.</p> <p>Pedestrian walkways to be provided that are clear of spoils, tools or obstruction.</p> <p>Care should be taken when using cables and hoses on site and consideration given to protection/ramping them during operation. Work areas are to be left clean, tidy and free from waste when work ceases.</p>	1	4	4	Low
<b>Control of lifting operations</b>	Falling objects, Crush injuries,	5	E, C, V	<p>Exclusion zones to be implemented around lifting operations.</p> <p>All lifting activities will be properly planned and supervised taken into consideration other activities within the dock plots and nearby businesses. Lift plan will be in place for complex lifts.</p>	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				Only trained and competent persons to undertake lifting operations.				
<b>Dust and Fumes</b>	Possible Inhalation of poisonous gases and dust particles	4	E, C, V	<p>Presence of any harmful dust should be established before work commences, enabling specific control measures to be determined.</p> <p>A separate risk assessment for harmful dust e.g. asbestos, silica's or lead will be required. General precautions include dust suppression or extraction using local exhaust ventilation or use of RPE/PPE and good hygiene practices e.g. barrier creams, welfare facilities, respiratory protection, disposable overalls etc. Refer to COSHH assessments and material safety data sheets for further advice.</p> <p>All plant which runs on fuel should always be positioned in a well-ventilated area. Never run generators in an excavation.</p>	2	4	8	Medium
<b>Working at Height</b>	Falls from height, falling objects	5	E, C	Working above ground or near excavation can be classified as working as height. Where practicable avoid work at height. Use scaffold & scaffold towers erected by competent person. Where practicable leading edges must be	1	5	5	Low



Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				<p>protected using guardrails, toeboards, netting, barriers, fall arrest equipment etc.</p> <p>All excavation edges must be protected to prevent people from falling into excavations using guardrails, barriers, fall arrest equipment etc. Ladders only to be used for low risk, light work of short duration where there is no safer alternative</p>				
Noise and Vibration	Temporary or permanent hearing loss and other long-term hearing problems.	5	E, C, V	<p>Noise generation MUST be prevented where possible. Equipment should be well maintained and noise suppression equipment such as mufflers and silencers in place.</p> <p>Typical noise and vibration sources include piling activities, road breakers, rollers, rock drills, road saws, mechanical excavators, compressors, portable power tools such as sthil/road saws and generators.</p> <p>Hand signals to be used in noisy areas if voice communication proves impossible.</p>	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				<p>Equipment with lower noise levels to be used whenever possible.</p> <p>Where noise zones are identified, Ear protection zone will be established where ear defenders shall be made mandatory.</p> <p>Employees are instructed to keep ear defence clean and serviceable, use hygiene kits supplied and store correctly when not in use. As a rule of thumb in noisy environments, if you need to shout at a person 2 metres away for that person to understand, then ear defenders should be used.</p>				
	Hand arm/ whole body vibration syndrome	5	E, C	Provide and use vibration-dampened tools/equipment where available. Use alternative to vibratory tools if practicable e.g. Peckers, Mini Excavator etc. Keep hands and arms warm and dry. HAVS will be monitored and recorded in the site H&S folder. Operatives are not to exceed the Exposure Limit Value (ELV) for the equipment that is in use. Refer to manufactures specifications.	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
<b>Hazardous substances</b>	Exposure to hazardous substances	5	E, C, V	<p>Only approved products from a validated supplier are to be used. Refer to COSHH assessment before handling any hazardous substances. Typical substances which could be encountered are hydraulic oil, petrol, diesel, dust, bituminous materials, dirty surface water, foul water, contaminated soil, distillate, asbestos, solvents, resins, paint and sealants.</p> <p>Basic precautions include: Avoiding inhalation of vapours, mist or fumes, skin and eye contact, use barrier creams, washing hands before eating, drinking, smoking, using the toilet and after finishing work.</p> <p>Minimise the production of dust as far as practicable by covering stored dry materials, by wetting surfaces prior to cutting. Wear protective eye protection, respiratory protection, and gloves as required by the COSHH assessment.</p> <p>Gloves will conform to EN 388. Dust masks will conform to FFP3 or above.</p>	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
<b>Emergency Procedures - Uncontrolled Release of Gas/Damage to electricity apparatus/ Damage to water apparatus</b>	Gas escape, burns, electrocution	5	E, C, V	<p>All personnel are to leave the excavation or immediate work area and muster in a safe area away from the potential hazard.</p> <p>A safety zone should be introduced at all the earliest opportunity; this may be by using barriers, cones or other appropriate means such as posting sentries. Where possible ensure appropriate signs are erected.</p> <p>Inform Manager and all third parties including the upstream and downstream GTs, DNOs, water companies, local authorities and emergency services.</p> <p>Monitor gas in air concentrations where applicable. Remove potential sources of ignition from the implemented safety zone. Do not allow persons to touch any cable or machinery that is in contact with the cable.</p> <p>Gas: Inform all third parties of any hazards and precautions needed to reduce risk. Monitor gas concentrations. Remove all potential ignition sources</p>	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				<p>from the barriered area. Call Emergency Service Provider on 0800 111 999.</p> <p>Electricity and Water: Call the respective Network Operator.</p>				
<b>Traffic routes and segregation of vehicles and pedestrians</b>	Struck by plant, collision and general damage	5	E, C, V	All signage to be compliant to chapter 8 Site speed limit set to 8mph. Pedestrians to be segregated with pedestrian barriers. Works on roads to be controlled under temporary traffic signals.	1	5	5	Low
<b>Weather condition</b>	Heat wave, possible flooding	2	E, C	<p>Weather conditions (preceding, current and anticipated) must be taken into account before using ladders, scaffolding etc. Conduct site specific risk assessment. Weather, depth, type of soil, adjacent structures should be considered when assessing the need for appropriate trench support and de-watering measures.</p> <p>Any required shoring should be available on site before work starts. Plant, equipment, vehicles and excavated materials should be kept away from the edge of excavation.</p>	1	2	2	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
<b>Weils Disease (Leptospirosis)</b>	Infection	3	E, C	Works involves foul sewage, cover cuts and abrasions with water proof plasters and wear waterproof gloves. Protect eyes by wearing eye protection. Avoid drinking water where there is risk of Weils disease. Wash hands before eating, drinking or smoking. Any flu-like symptoms to be reported to own Doctor. Weils disease card to be issued.	2	3	6	Low
<b>Fuels/Oils</b>	Spillage and contamination	4	E	A bunded diesel bowser with 110% capacity stored in secure, safe and designated area away from watercourses and drains. Be aware of emergency plan in event of spill. Label all containers. Leaks MUST be reported immediately contained and removed from site as hazardous waste.	1	4	4	Low
<b>Contact with Sharp Objects</b>	HIV, Tetanus, Hepatitis etc.	5	E, C	Report all cuts/abrasions immediately. Provide appropriate first aid and seek medical advice as soon as possible. Wear correct hand protection, coveralls, safety boots etc. Any syringes/needles must not be handled. Contact Site Manager immediately and prevent access to the	1	5	5	Low

Task	Hazard(s)	Severity	Who is affected?	Control Measures	Likelihood	Severity	Residual Risk	Risk Rating
				area until the object(s) have been removed. Report all potential hazards.				
Accommodating adjacent land use	Nuisance	2	E, C, V	Good communication to be maintained between Bemus and residence regarding possible noise and dust likely to surface during construction.	1	2	2	Low

All Risk Ratings are take into account the control measure specific to the task being undertaken.

PPE will always be the last consideration when putting Control Measures in place using the Hierarchy of controls.

# BEMUS CONSTRUCTION LTD

## MANUAL HANDLING RISK ASSESSMENT



Task Assessment: Construction Activities Site: all Bemus projects		All Operatives Date: 06.07.2018			
Risk Factors					
Task Characteristics	Yes/No	Risk Level (✓)			Suggested Controls. Additional controls may be added as required.
		H	M	L	
Load held away from trunk?					Large loads moved mechanically. Easily moved loads only to be moved manually
Twisting?					Moving and stacking of small items such as bricks may require a repetitive twisting movement. Work in pairs where possible, passing items to person stacking may reduce the need for twisting
Stooping?					As for task above. Working in pairs may reduce the need for stooping; passing items from person at low level to person standing
Reaching upwards?					Eliminate the need for reaching where possible by using suitable access equipment. Where this cannot be avoided, take frequent breaks and stretch out to relieve muscles. Alternate tasks where possible to limit time spent on task by each individual.
Extensive vertical movements?					Not applicable
Long carrying distances?					Not applicable
Strenuous pushing or pulling?					Machine to be used where possible when significant effort is required to perform task
Unpredictable movements of loads?					All lifting to be planned. Mechanical lifts to be preferred where possible. Two – man lifts where appropriate



# BEMUS CONSTRUCTION LTD

## MANUAL HANDLING RISK ASSESSMENT



Repetitive handling operations?					Dismantling of structures by hand may require repetitive manual handling.
					Where task cannot be performed mechanically, the need for repetitive working should be reduced by alternating between operatives and by breaking the activity into different tasks where appropriate and deploying more than one operative. Take frequent breaks and stretch out to relieve muscles.
Insufficient periods of rest/recovery?					Take regular scheduled breaks to rest and recover.
High work rate imposed?					Work rate expectations should be reasonable and fair. Alternate operatives between tasks to minimise strain from repetitive movements. Ensure all work is adequately planned to avoid unforeseeable/unexpected events that may result in injury
Load Characteristics					
Heavy?					Machine to be used where possible when significant effort is required to perform task. Mechanical lifts to be preferred where possible. Two – man lifts where appropriate. May be necessary to use a banksman to keep route clear for journey. Do not perform task if experiencing any muscular discomfort or pain

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## MANUAL HANDLING RISK ASSESSMENT



Bulky?					Machine to be used where possible when significant effort is required to perform task. Mechanical lifts to be preferred where possible. Two – man lifts where appropriate. May be necessary to use a banksman to keep route clear for journey.
					Do not perform task if experiencing any muscular discomfort or pain
Difficult to grasp?					Machine to be used where possible when significant effort is required to perform task. Mechanical lifts to be preferred where possible. Two – man lifts where appropriate. Suitable gloves should be worn to improve grip on load. May be necessary to use a banksman to keep route clear for journey.
Unstable/unpredictable?					All lifting to be planned, including route for transporting. Machine to be used where possible when significant effort is required to perform task. Mechanical lifts to be preferred where possible.
Harmful (sharp/hot)?					Sharp loads may occur on occasion. Suitable gloves should be worn to prevent injury from sharp edges.
Postural constraints?					Tasks may require operative to work in reduced space. Kneeling on a protective pad is better than squatting or bending. Take frequent breaks and stretch out to relieve muscles. Do not perform task if experiencing any muscular discomfort or pain

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## MANUAL HANDLING RISK ASSESSMENT



Floor suitability?					<p>Floor types vary, however care to be taken to assess the quality of the floor and allow for uneven surface, water, mud or other unsafe condition. If necessary, work to pause until work surface is made safe for working.</p> <p>Safety boots or wellingtons to be worn that incorporate a reinforced toe and midsole.</p>
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Even surfaces?					See above
Thermal/humidity suitability?					<p>Suitable clothing to be worn for conditions. This may include thermal high visibility wear, helmet lining fleece or similar, thermal gloves and socks. Work trousers rather than jeans are preferred.</p> <p>For hot weather light clothing should be worn, however care should be taken to avoid excessive exposure to sunlight. Shorts should not be worn and operatives should wear a t-shirt or similar, topless working is not acceptable.</p>
Lighting suitability					<p>Lifting and carrying should take place in suitable lighting conditions. Stop work if it is too dark to see clearly to lift or carry. Artificial lighting (festoon type or spotlights may be required.</p>

Individual Characteristics					
Unusual capability required?					Not applicable
Hazard to those with health problems?					Not applicable
Hazard to pregnant workers?					Not applicable
Special information/training required?					Manual handling awareness training required
Other factors to consider					

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## MANUAL HANDLING RISK ASSESSMENT



Movement or posture hindered by protective clothing?					Not applicable
Absence of correct/suitable PPE?					Not applicable
Lack of planning and scheduling of basics/rest basics?					Not applicable
Poor communication between managers and employees?					Not applicable
Sudden changes in workload or seasonal changes in volume without mechanisms to deal with change?					Not applicable
Lack of training and/or information?					Not applicable
Any learning disabilities?					Not applicable

Additional Activities Below – Site Specific			
Any further action needed?			
Details:			
I confirm that I have read and understand this Manual Handling risk assessment and that I will raise any additional safety concerns with the Site Supervisor if necessary			
Name	Signature	Job Title (e.g. Operative)	Date

BEMUS CONSTRUCTION LTD  
MANUAL HANDLING RISK ASSESSMENT






# EXISTING RECORDS

