

Contract Management Plan



Job Number: IS44

Project Name: Pengarnddu SRv

Contract Management Plan

Incorporating the Construction Phase Health & Safety Plan

Mott MacDonald Bentley Ltd
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Revision: D

Prepared By: Marcus Yap 16/06/2020

*Mott MacDonald Bentley Ltd
Engineer*

Date:

Checked & Approved By: Mark Jones 15/02/2021

*Mott MacDonald Bentley Ltd
Site Manager*

Date:

Reviewed* By: Quentin Hellis 17/03/2021

*Mott MacDonald Bentley Ltd
Programme Manager*

Date:

*** Review of this Plan by the Client or nominated delegate confirms that it is considered adequate for construction works to commence. Review does not in any way constitute approval of the Plan.**



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APPENDICES:

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1.0 **General:**

1.1 **Quality, Environment and Health and Safety Statement:**

Supporting Documents:

L153 – CDM 2015 Guidance

This plan is written in accordance with relevant Statutory Instruments and incorporates the 'CDM Construction Phase Health and Safety Plan' and the project 'Site Waste Management Plan.'

A QES Policy Statement stating commitment to the relevant ISO / OHSAS standards is available for inspection at all of our sites, and details key corporate QES objectives and responsibilities.

As Principal Contractor, Mott MacDonald Bentley Ltd, will communicate and pass information to the Client, Principal Designer, Contractors and Site operatives on any matters where Health & Safety or the Environment may be affected.

Where the Company is involved with any design work this will be carried out in compliance with CDM Regulation 9; and information will be passed to appropriate organisations / personnel in accordance with Regulation 9(4).

1.2 **Review and Update of Contract Management Plan:**

This Contract Management Plan is a live document. **The CMP will be reviewed at least once per month and updated (*as required*).** Details of the review will be recorded in the schedule below, even when no amendments are made.

A copy of the latest version of this document shall be stored in the Site QES File and original signed 'Master Copy' will be scanned onto Bentley CMS (the electronic Contract Management System).

Supporting Documents:

**L153 – CDM 2015 Guidance;
BIMS 02-07 Document Control.**

CMP Review Schedule:

Revision:	Review Date:	Reviewed by:	COMMENTS: (inc. Amendment No's made or "no amendments")
A	31/03/2020	Q Hellis	<i>For GI works</i>
B	17/06/2020	Q Hellis	<i>For planning application</i>
C	06/11/2020	E Hughes / Q Hellis	<i>Ecological amendments</i>
D	10/12/2020	E Hughes / Q Hellis	Ecological amendments
E	12-02-2021	M Jones	Site Clearance added & Set-up amended

Revision:	Review Date:	Reviewed by:	COMMENTS: (inc. Amendment No's made or "no amendments")
F	11/03/2021	QMH	Full construction update
G	17/03/2021	QMH	Updated following CDM review by Bakerhicks

1.3 Standards:

Mott MacDonald Bentley Ltd operate an integrated QES Management System incorporating the requirements of; ISO 9001, ISO 14001 and OHSAS 18001, and are subject to internal and external compliance audits and performance inspections. A procedure interaction chart showing the structure of our management system is included in Appendix A.

Supporting Documents:

Publically Available Specification (PAS) 99;
ISO 9001: 2008;
ISO 14001: 2004;
OHSAS 18001: 2007.

1.4 Mandatory BIMS Procedures:

The following BIMS Procedures are applicable on this project: (**Please select where appropriate.*)

Document Ref. No.	Title	Required?
BIMS 01-01	Quality Policy Statement	Yes
BIMS 01-02	Environmental Policy Statement	Yes
BIMS 01-03	Occupational Health & Safety Policy Statement	Yes
BIMS 01-04	Roles Responsibility & Authority	Yes
BIMS 01-05	Competence Training & Awareness	Yes
BIMS 01-06	Company Aspects & Impacts	Yes
BIMS 01-07	Legal & Other Requirements	Yes
BIMS 01-08	Communication Consultation & Participation	Yes
BIMS 01-09	BIMS Internal Audits	Yes
BIMS 01-10	Company Inductions	Yes
BIMS 01-11	Management Review	Yes
BIMS 02-01	Management of Occupational Health	Yes
BIMS 02-02	Client Focus	Yes
BIMS 02-03	Reputation Management	Yes
BIMS 02-04	Risk Identification Assessment & Controls	Yes
BIMS 02-05	Estimating	Yes
BIMS 02-06	Control of Design (See MMB IMS Manual – MM IMS Manual to be used)	Yes

Document Ref. No.	Title	Required?
BIMS 02-07	Document Control	Yes
BIMS 02-08	Contract Review	Yes
BIMS 02-09	Selection & Appointment of Subcontractors	Yes
BIMS 02-10	Buying	Yes
BIMS 02-11	Management & Control of Subcontractors	Yes
BIMS 02-12	Management of Premises Plant Vehicles & Equipment	Yes
BIMS 02-13	Temporary Works	Yes
BIMS 02-14	Inspection & Testing	Yes
BIMS 02-15	Control of Inspection Test & Monitoring Equipment	Yes
BIMS 02-16	Electrical Safety – Code of Practice	Yes
BIMS 02-17	Control of Project Specific Procedures & Records	Yes
BIMS 03-01	OHS Incident Reporting & Investigation	Yes
BIMS 03-02	Environmental Incident Reporting & Investigation	Yes
BIMS 03-03	Alerts	Yes
BIMS 03-04	Emergency Preparedness & Response	Yes
BIMS 03-05	Monitoring Measurement Analysis & Improvement	Yes
BIMS 04-	Administration Procedures Manual (QES Dept Only)	Yes

1.5 Project Specific Rules and Procedures:

The following Project Specific Rules and Procedures are defined in the contract and/or have been developed on site and apply to this project: (These can be Client-specific or JNB/MMB derived.)

Supporting Documents:

BIMS 02-17 Control of Project Specific Procedures and Records

Document Ref. No.	Title	Author	Copy to Q&E Advisor?
HSP 811	Access to Assets	DCWW	No
HSP 403	Electrical Procedures	DCWW	No
Appendix 2	Rule of Two – Incident Reporting	DCWW	No
AF01	AF01 Form access to site	DCWW	No
TAC 1 and 2	TAC 1 and 2	DCWW	No

1.6 Reference Documents:

The following key reference documents have been used in preparing this Contract Management Plan:

- **Contractor Works Information or Pre-tender / Pre-construction Health and Safety Plans;**
- **Client / Project Specific Rules and Standards (to be requested pre-construction).**
- **MMB IMS Manual**

1.7 Distribution of Contract Management Plan:

Site QES File	Live working copy. (<i>To include all review history</i>)
Contract Management System	Original Record
Client or Principal Designer	Original Record plus access to site QES File on request.

2.0 Project Details

2.1 Description of works:

The scheme will include the following construction works:

- Vegetation clearance.
- Construction of a temporary haul road.
- Construction of new 9MI twin-compartment Service Reservoir and valve house.
- Connections into existing inlet mains.
- Connections into existing outlet mains.
- Overflow & washout pipework.
- Partial removal of the existing site boundary fence and replacement with new fence line encompassing the increased site boundary.
- New valve control centre located inside a kiosk. Feed is from the existing supply.

2.2 Site Location:

Pengarnddu Service Reservoir,
Pengarnddu Industrial Estate,
Dowlais Top,
Merthyr Tydfil,
CF48 2TA



2.3 Timescale:

Contract award / Confirmation Date:	March 2020
Vegetation Clearance	1 Week
Mobilisation Period:	4 weeks
Contract Start Date:	April 2021
Contract Duration:	20 months (end date: December 2022)

2.4 Contact Details for Duty Holders:

Name and Address of Client:

Client:	Dwr Cymru Welsh Water (DCWW)
Address:	Pentwyn Road Nelson Treharris Mid Glamorgan CF46 6LY WALES
Telephone number:	
Contact name:	Theo Rumens

Name and Address of Principal Designer

Organisation:	Mott MacDonald Bentley (MMB)
Address:	Ty Awen Spooners Close Celtic Springs Business Park Newport NP10 8FZ
Telephone number:	
Contact name:	Matthew Thorpe

Name and Address of Designer:

Designer Organisation:	Mott MacDonald Bentley (MMB)
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Address:	Ty Awen Spooners Close Celtic Springs Business Park Newport NP10 8FZ
Telephone number:	
Contact name:	Matthew Thorpe

Other Contractors:

Trade / Work Activity:	Organisation:	Contact Name:	Contact Telephone:
Pre-cast Concrete Supplier	FLi Carlow	Tom Dunne	+353 59 915 9550
FRC contractor	DRND	Noel Griffith	07811 385203
Reinforcement supplier	TBC		
Pipes and fitting supplier	TBC		
Valve supplier	TBC		
Hot tap contractor	UTS	Matthew Ward	07710 095766
Waterproofing supplier	TBC		
Security alarm supplier	Alert innovation	Rob Crossley	07816 783 861
Security cover supplier	TBC		
Other contractors yet to be appointed until scheme is further developed	TBC		

2.5 Notification of Project (F10)

A copy of this notification will be prominently displayed on site for the duration of the works and provided to any organisation or persons involved in the project upon request.

If any of the project details change significantly, details will be passed to the Client for approval to allow for the submission of a revised F10 notification.

Specified start date*:	15/06/2020
Specified duration (weeks)*:	132
Maximum Number of People on site*:	20
Planned number of sub-contractors*:	10
Expiry date*:	26/12/2022

**Above details are to be taken from F10 document.*

2.6 CDM Health & Safety File:

Supporting Documents:

BIMS02-07 Document Control

As Principal Contractor, we will ensure that other Contractors pass all required information to our Site Manager, for inclusion in the Health & Safety File.

All information, including that supplied by subcontractors, will be retained either on site, at a permanent office or electronically until completion of works.

Documentation to be supplied to the Client in accordance with the contract at the end of the project shall be handed over in accordance with any Client Specific Handover Procedures.

Information to be compiled for the Health & Safety File or submission to the PD should include (*where applicable*):

CDM Health and Safety File Contents:	Location of Records:	Available for Submission?
Routes and procedures to be followed to access the site (eg. for maintenance purposes).	See QES Workbook - SharePoint	Yes/ongoing
"As-built" drawings.	SharePoint and onsite	Ongoing
General details of the construction methods. *	TBC/ SharePoint	Ongoing
Technical / Product Data Sheets for key materials / items used. **	SharePoint/ O&Ms	Ongoing
Key Supplier / Sub-contractor contact details (<i>for spares / replacements</i>).	SharePoint/O&Ms	Ongoing
Design criteria for elements of scheme for which the Principal Contractor or sub-contractors are responsible.	See specifications for works - Sharepoint	Ongoing
Unexpected hazards encountered during construction.	QES reports/Share point	Ongoing

Location & nature of the utilities and services encountered.	Sharepoint	Ongoing
Details of ground conditions encountered.	Site Engineering File/ Sharepoint	Ongoing
Residual hazards with regard to maintenance, cleaning & demolition.	Sharepoint	Ongoing
Details of the contents of Operation & Maintenance Manuals for plant & equipment installed in works. ***	Sharepoint/O&Ms	Ongoing
Inspection and test records.	TBC/ Sharepoint	Ongoing
Details of any hardware items / spares and/or control software handed over.	Sharepoint/ O&Ms	Ongoing

**Note; only as much information as would be of relevant use / aid to any party carrying out subsequent alteration or demolition of the project, eg. specific sequencing for removal of structural members or isolating systems). (This in general DOES NOT include method statements produced at the time of construction).*

***Particularly those that may be susceptible to wear/tear, damage & replacement, eg. Windows, taps & switches but NOT concrete).*

****Including recommended cleaning / lubrication chemicals with associated CoSHH data.*

3.0 Existing Conditions:

Note: - this section records / describes how the existing environment will impact on the construction process. The impact of the construction process on the environment (and the mitigation of those impacts) is recorded / described in Section 7.

3.1 Existing Operations (current use of site)

The existing site comprises of

- 9ML single compartment Service Reservoir
- 0.1ML single compartment Service Reservoir
- Pumping station and kiosk.
- Site security fence.
- Site access road.

Water is pumped to the Service Reservoir from Pontsticill Water Treatment Works. The Service Reservoir supplies approximately 10,680 properties to the north and north-east of Merthyr Tydfil, south Wales.

3.2 Neighbours / Stakeholders (e.g. residential or businesses)

	Neighbour	Requirement / Restriction Imposed	Control Measures	Person Responsible for Monitoring
1.	Industrial area to the East including: Abbatoir, recycling centre, shopping centres, concrete plant and several scrap yards.	Traffic movements Noise	Traffic Management Plan Comms Plan	Site Manager
2.	Site is in the vicinity of semi-permanent dwellings.	Traffic movements Noise Times Material Storage	Traffic Management Plan Security measures	Site Manager
3.	Residential	Noise Times	Traffic Management Plan	Site Manager

Consider the following (*list not exhaustive):

Possible Neighbours:			
School	Road user	Airport	Telecoms
Hospital	Pedestrian	Canal	Power Generation / Supply
Residential	Cyclist	Church / Place of Worship	Docks / Ports
Business (eg COMAH)	Rail	Ministry of Defence	Offshore
Typical Restrictions:			
Noise	Traffic Movements	Ecology	Fumes
Vibration	Times (eg School)	Dust	Shared Access
Access	Materials Storage	Chemical Storage	

3.3 Adjacent Construction Works / Operations:

Mott MacDonald Bentley Ltd will liaise with adjacent Contractors on the same or neighbouring sites as identified below:

Adjacent Works or Activity:	Contractor:	Contact Name:	Coordination Frequency / type
DCWW operational activities at SRv	DCWW	Andy Burr	Weekly comms

3.4 Existing Structures / Occupied Premises:

The following table comprises a list of any structures on the site which are to be worked in, on, or around and the measures to be employed in order to prevent any damage. Where any of the structures are to be modified a brief explanation as to how this is to be done is included.

Structure/premises owner/occupier	Structure/premises to be worked in, on or around:	Control measure to prevent damage:
DCWW	Existing service reservoir	Existing service reservoir will not be impacted or modified as part of the planned works. Existing access routes to be maintained for operation personnel.

3.5 Existing Buried / Overhead Services

Supporting Documents:

Operational Safety Standard 111;
HSG147, Avoiding Dangers from Underground Services;

Supporting Documents:**GS6, Avoiding Dangers from Overhead Cables.**

Owner	Type and location	Service location plan reference number
Wales and West Utilities	Buried abandoned 7 inch gas main to the west of the new reservoir (confirmed abandoned during GI works by Wales and West)	Job Ref: 15240170 Site Location: 307389 208663
Western Power Distribution	Buried LV cables Overhead power lines to north, but outside the construction area.	Job Ref: 15246658 Site Location: 307556 208943
DCWW	Buried process pipework, ducts, drainage	Refer to Site Constraints Plan B10237-123532-ZZ-XX-DR-ZA-SD0072
	Overhead telecoms	
	Other unknown buried services as detected in geophysics survey (Geophysics survey report 15.01.20)	Terra Dat – Geophysical survey report Jan 2020 – job ref 6816

The Site Manager will detail any site specific arrangements and control measures, where services are expected on site, in task specific RA/MS in accordance with OSS111.

3.6 Existing Traffic Circulation / Access and Egress Points:

Describe the traffic flow around the site and any restrictions that exist (such as height, weight, speed, time limitations).

Site access is from narrow unnamed country lane into trunk main scheme site car park. For the main construction works, part of the existing access track will be utilised, but will be limited to cars/light vehicles only into the existing works. A new haul road is to be constructed to provide adequate access for heavy traffic to the main working area away from the existing works. See section 4.13 for details.

Additional Site Specific Traffic Restrictions: (Please tick all that apply)

Local Authority Planning Restriction	Y/N	Physical	Y/N	Local Community	Y/N
1. Times	Y	7. Height restrictions	Y	15. School	N
2. Permissive routes	N	8. Weight restrictions	N	16. Housing estate	N
3. Bus only lanes	N	9. Width restrictions	N	17. Pedestrian zones	N
4. + 2 lanes	N	10. Gradient	N	18. Traffic calmed zones	N
5. Toll road/bridge	N	11. Limited Turning circle	N	19. Other:	N
6. Other:	N	12. Poor/tight junctions	N		
		13. Existing Security Arrangements	N		

	14. Other:	N	
Control Measures:			
7 – Height restrictions when passing under overhead telecoms cross the site			

3.7 Other Restrictions that may Affect Work: *(task specific or client imposed)*

The following additional restrictions have been identified through the specification or other means (e.g. process flow restrictions, planning permissions, environmental assessments, etc.).

Owner	Restriction	Duration	Control
MMB	Ecological mitigation measures	Throughout the works	Refer to Section 6.1
DCWW	Connections into existing SRv and new trunk main	Throughout the works	Construction programme to update to account for any restrictions

3.8 Ground Conditions:

An assessment of ground conditions must be undertaken either by the Client or JNB / MMB where structures or load bearing temporary works are to form part of the scope of works. This assessment may include, *but not be limited to*; Trial Pits, Boreholes, California Bearing Ratio, Shear Vane, Tri-axial, Plastic Index, Plastic Limit, Moisture Content etc.

Assessed by:	Yes / No	Further Actions:
Client	Yes	Complete Table below if yes
JNB / MMB	Pending	
Not required		<i>Do not complete table below if N/A</i>

Trial hole/bore hole number	Location	Type of Inspection or Test	Test results (If applicable)
5 No. Boreholes	GI Report (B10237-123532-XX-XX-RP-NC-DH0142)	Moisture content Atterberg limit	

Trial hole/bore hole number	Location	Type of Inspection or Test	Test results (If applicable)
22 No. Trial Pits	GI Report (B10237-123532-XX-XX-RP-NC-DH0142)	Particle Size Distribution Compaction Shearbox (small) Oedometer Hand Vane Point Load Test Full SD1 BRE Suite	
Is further testing / ground improvement required? (Detail below)			
N/A			

4.0 **Management of the Site:**

Supporting Documents:

BIMS 01-04 Roles, Responsibility and Authority;
BIMS 01-05 Competence, Awareness and Training;
BIMS 02-09 Selection and Appointment of Subcontractors;
BIMS 02-11 Management and Control of Subcontractors.

4.1 **Contract Organisation:**

See Appendix J for Organisation Table.

4.2 **Key Responsibilities:**

The Mott MacDonald Bentley Ltd Framework Manager has overall responsibility for ensuring that Bentley Integrated Management System procedures are implemented and enforced on each project. The Contract Manager and Site Manager are each responsible for discharging their responsibilities as set out in the individual management system procedures. Other key responsibilities are indicated in the schedule below. (Please complete).

Supporting Documents:

L153 – CDM 2015 Guidance;
BIMS 01-08 – Communication, Consultation and Participation,
BIMS 02-14 Inspection and Testing;
BIMS 03-05 Monitoring, Measurement, Analysis and Improvement.

See Appendix J for Key Responsibilities Table.

4.3 Appointment of Temporary Works Coordinator:

To comply with the requirements of BIMS02-13; Management of Temporary Works and BIMS 02-13.1 PSR – Temporary Works Co-Ordinator the following person(s) is/are appointed as the project Temporary Works Coordinator (TWC):

Name	Position
Quentin Hellis / Mark Jones	Programme Manager / Site Manager

Supporting Documents:

BIMS 02-13 Management of Temporary Works.
BIMS 02-13.1 PSR – Temporary Works Co-Ordinator

4.4 Temporary Works Schedule:

Supporting Documents:

BIMS 02-13 Management of Temporary Works.
BIMS 02-13.2 Temporary Works Schedule

Information relating to the Temporary Works Design will be stored in the following Locations:

	Location:
Temporary Works Design Information/ Calculations:	Site Engineering File - Section 1
Temporary Works Schedule:	Site Engineering File - Section 1

4.5 Supplier Selection Process:

Supporting Documents:

BIMS02-09 Selection and Appointment of Subcontractors;
BIMS02-12 Management of Premises, Plant, Vehicles and Equipment.

Sub-contractors will be selected in accordance with our procedure BIMS02-09 'Selection and Appointment of Subcontractors'.

Suppliers of hired plant and equipment will be selected in accordance with our procedure BIMS02-12, Management of Premises, Plant, Vehicles and Equipment.

4.6 Client Nominated Contractors:

Supporting Documents:

BIMS 02-09 Selection and Appointment of Subcontractors.

Contractors nominated and/or directly employed on this project for which Mott MacDonald Bentley Ltd is the Principal Contractor must comply with Form BIMS02-09.3 (QES Information Requirements for Suppliers), which covers all Health & Safety, Environmental, Insurance, Quality and Contractual procedures, prior to commencing work on site.

4.7 Information to Sub-Contractors:

Supporting Documents:

L153 – CDM 2015 Guidance;
BIMS02-09 Selection and Appointment of Subcontractors;
BIMS02-11 Management and Control of Subcontractors.

As Principal Contractor, Mott MacDonald Bentley Ltd will inform all other contractors of any QES risks / aspects arising from the location of the work and the construction processes via formal / informal meetings / documentation prior to the start of the contract and throughout the contract period. This shall be in accordance with BIMS02-11, Management and Control of Subcontractors.

4.8 Communication, Consultation and Participation:

Supporting Documents:

BIMS01-08 Communication, Consultation and Participation

As a company, we are committed to effective worker consultation on QES issues in accordance with procedure BIMS01-08 Communication, Consultation and Participation. Consultation methods proposed for this project are shown in the schedule below:

Type:	Method:	Frequency:	Requirement:
Standard Site Induction checklist (including site walk-over)	Site Manager* to Site Team	On arrival at Site	Mandatory
Enhanced Induction	Site Manager* to Site Team	On arrival at site	Optional
Daily Briefing	Site Manager* to Site Team	Daily prior to commencement of work or after work has been stopped.	Mandatory
RA/MS Briefing	Site Manager* to Site Team	Prior to start of task	Mandatory
Behaviour Based Safety Discussion Board	Site Manager* to Site Team	Fortnightly or following significant task change.	Optional
Behavioural Discussions	Trained person to Site Team	Role specific targets (At least one hour of discussions per 700 site hours)	Mandatory
QES Alerts	Site Manager* to Site Team	Within 24hrs of issue	Where relevant
QES Briefing	Contract Manager* to Site Team	Within 5 working days of issue	Where relevant
QES Monthly	Site Manager* to Site Team	Within 24hrs of issue	Distributed to home address
Toolbox Talks	Site Manager* to Site	As required to support	Where relevant

Type:	Method:	Frequency:	Requirement:
	Team	task	
Ecological Toolbox Talks	Ecologist to Site Team	Start of works and as required to support	Mandatory
Talkabout Sessions	Director/Framework Manager to Site Team.	Annual rolling programme	As arranged by QES Department
QES Notice Boards	Site Manager* to Site Team	On arrival at Site	Mandatory
Public information	Public notice board	Updated fortnightly	Mandatory

**Duties may be delegated to a competent person. (e.g. Foreman or Engineer)*

4.9 Arrangements for Monitoring:

Supporting Documents:
BIMS 01-06 Aspects and Impacts; BIMS 01-09 BIMS Internal Audits; BIMS 02-12 Management of Premises, Plant, Vehicles and Equipment; BIMS 02-13 Temporary Works; BIMS 02-14 Inspection and Testing; BIMS 02-15 Control of Inspection and Test Equipment; BIMS 03-04 Emergency Response; BIMS 03-05 Monitoring, Measurement, Analysis and Improvement.

As Principal Contractor, we take responsibility for proactively monitoring site activities and maintaining this Contract Management Plan.

We will review this Contract Management Plan as a minimum, on a monthly basis or following significant change to the design and / or the construction method / sequencing, to ensure set standards are achieved.

We actively monitor the selection and performance of Subcontractors and Suppliers via documented management system procedures.

The following QES monitoring arrangements will be deployed on the project:

	Monitoring Arrangement	Frequency	Responsible Person:
1.	Site QES Inspection	Weekly	Site Manager*
2.	Site Diary	Daily	Site Manager*
3.	End of Day Check	Daily	Foreman / Lead Hand
4.	Statutory Inspection(s) (eg <i>Scaffold / Excavations etc</i>)	Pre-use / Weekly	Foreman / Lead Hand
5.	QES Inspection (Initial)	Within 14 days of start	Regional QES Advisor
6.	QES Inspection	42 Days (+ spot visits)	QES Advisor / Contracts Manager

	Monitoring Arrangement	Frequency	Responsible Person:
7.	PUWER Inspection	Pre-use / Weekly	Site Manager*
8.	LOLER Inspection	Pre-use / Weekly	Site Manager*

**Duties may be delegated to competent person. (eg Foreman / Engineer)*

4.10 Arrangements for Out-of-Hours Access to Site:

The following working hours shall apply for site-based activities:

Day:	Agreed Work Hours:
Monday – Friday	0730 - 1730
Saturday	If required
Sunday	If required

Where out of hours access is required by the client or their contractor a risk assessment shall be carried out and reviewed on a weekly basis by the Site Manager.

Should the Client and their contractors require access within the demarcated CDM area outside of normal working hours (*eg to respond to an emergency*) the Site Manager shall be contacted by telephone.

4.11 Access to DCWW Sites

The Site Manager shall,

- Attain Authorised Contractor Keyholder status for his/herself and any other colleague on the project who needs site access keys (See Dwr Cymru Services – Water Production Procedural Manuals 217.6 Guidance for Contractor Access to Water Production Sites which is held on Dwr Cymru Integrated Management System and is relevant to Environmental sites also.
- Attain and display **DCWW AF01** Access to Assets form, and display on site.
- keep a list of the companies and their employees who are working on site
- manage and supervise contractors, subcontractors, colleagues and visitors
- Ensure that all people working in the defined area of work or visiting site have received a site induction, and are familiar with Health and Safety procedures.

Where there is no Site Manager, employees shall,

- Obtain prior authorisation for the visit from the Field Team Technical Planner
- Follow the Water Assets Quality Management System clause 217.3 'Visitors Procedure' which can be found on the Dwr Cymru Integrated Management System (IMS)
- Provide a method statement
- Receive a Handover Certificate or be accompanied by DCWW personnel
- Receive a site induction from DCWW personnel

4.12 Reporting and Investigation of Incidents:

Supporting Documents:
Operational Safety Standard 003; BIMS03-01 Occupational Health and Safety Incident Reporting and Investigation;

Supporting Documents:**BIMS03-02 Environmental Incident Reporting and Investigation.**

Any incidents and near misses (including actual or potential damage to persons, property or the environment) will be reported to the Site Manager (or Site Engineer / Sub-agent) who shall complete an incident report form via CMS. The requirement for further detailed investigation will be determined in accordance with BIMS03-01, BIMS03-02 and OSS 003.

In addition the Site Manager will inform Dwr Cymru of the Incident within one hour of the incident and follow the Incident & Best Practice Learning & Communication Flow Chart (below).

The persons to be informed are:

Client Project Manager	Theo Rumens	DCWW
Ops Supervisor	Andy Burr	DCWW
AMP7 Delivery Manager	Andrew Roberts	DCWW

The persons which may be informed are:

Head of Alliance Water Programme	Andrew Roberts	DCWW
Alliance H&S Manager	Simon Maclean	DCWW

4.12.1 THE DCWW Welsh Water reporting rules

Appendix B – The Rule of 2

Aim

The Rule of 2 reinforces the importance of prompt incident reporting and investigation and provides a clear standard that can be monitored for compliance. The adoption and communication of this standard sets a clearer timeline for investigating incidents and supports our aspiration to achieve Zero Reportable Injuries.

Process

All incidents rated as **HIGH** (RIDDOR reportable events, including injuries, occupational diseases & Dangerous Occurrences, over 7 day injuries) or **MEDIUM** must be reported and investigated in line with these timescales:

2 HOURS

Line management must be notified immediately of incidents rated as **HIGH** (RIDDOR reportable events, including injuries, occupational diseases & Dangerous Occurrences, over 7 day injuries) or **MEDIUM** (significant damage to plant or property, Lost Time Injuries 7 days & under).

Within **2 HOURS**, an additional notification must occur via text or email. For high level incidents, notification must be sent to the Safety Director, Head of Health and Safety and relevant business Director. For medium level incidents, notification must be sent to the Head of Health and Safety and relevant Head of Service.

Following notification, the incident must be entered onto the ASSURE Health and Safety system using the relevant portal questionnaire. This portal questionnaire must be accepted onto the ASSURE Health and Safety system within **24 HOURS** of the incident occurring. The questionnaire then becomes a 'live record' on the system.

Note: Any incidents that occur out of normal working hours should be escalated following these timescales but using the existing standby processes.

2 DAYS

Within **2 DAYS**, the ASSURE Incident Record including investigation and conclusions section, must be completed with basic facts verified and witness statements and photographs obtained and uploaded onto the system. The team required to undertake the Incident Investigation must be identified and notified.

This report should be completed by the appropriate manager/supervisor for the employee/site affected. The Health and Safety team will use the facts within this report as the basis of any F2508 notification required to the HSE under RIDDOR.

2 WEEKS

Within **2 WEEKS** - the full incident investigation report must be completed. This will include the event log, root cause analysis, conclusions and recommendations (with names and dates for action). This should be completed on the AC4 (Incident Investigation Report) form. The form and relevant documentation should be uploaded onto the ASSURE Health and Safety system. The investigation module on ASSURE must be completed.

This report should be completed by the appropriate manager/supervisor for the employee/site affected. It should be reviewed by the Health and Safety Adviser for the area/function and signed off by the relevant Leadership Team member.

Within 2 MONTHS

Within 2 months - all Assure incident records will remain 'open' until all actions are addressed and completed accordingly. In the case of most incidents, these should be completed within 2 months.

In the case of contractor incidents, confirmation should be sought from the contractor that they have completed all the actions identified in their investigation report. This should be recorded in Assure.

Once the actions have all been Completed the record can be Closed and then Archived on the system.

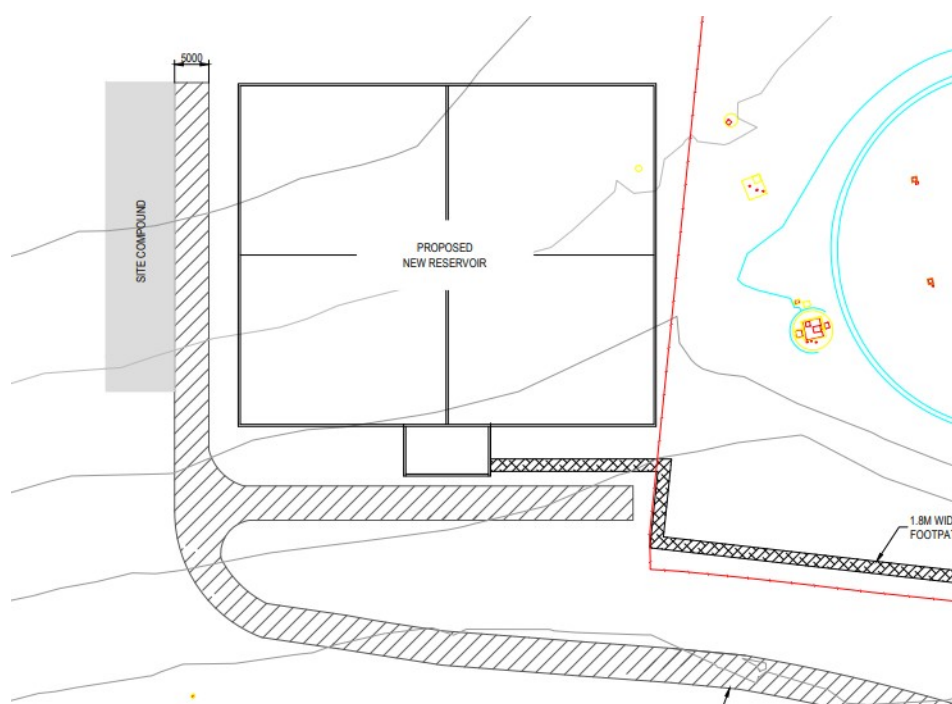
4.13 Temporary Site Accommodation and Welfare Provisions:

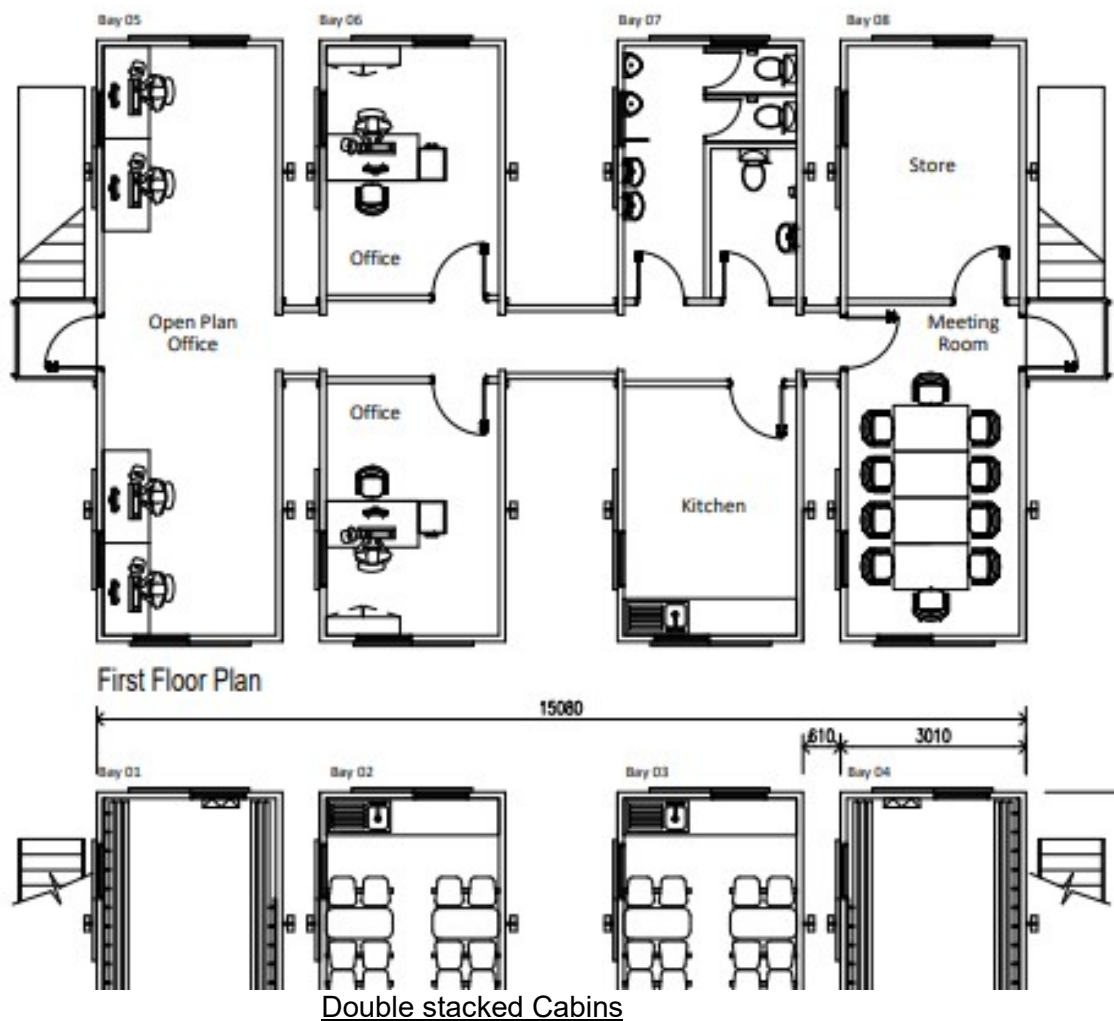
Supporting Documents:
L153 – CDM 2015 Guidance

Mott MacDonald Bentley facilities listed below on site for use by all workers.

Facilities description (<i>List individual cabins / stores / office blocks etc</i>)	Delivery date	Services connection date
2 No. double offices and 1 No. kitchen	4 th May 2021	10 th May 2021
2 No. drying room; 2 No. canteens; 1 No. toilet/washing/shower facility	4 th May 2021	10 th May 2021
2 No. material stores	4 th May 2021	10 th May 2021
1 No. meeting room	4 th May 2021	10 th May 2021
Compound layout drawing reference:	See below.	

Note: Existing site perimeter fence (red line) is to be partially removed during construction.





Sub-contractor/Client provided facilities are listed below: (*Where applicable*)

Organisation name	Facilities description	Delivery date	Services connection date
Wernick	See Above	N/A	N/A

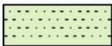
4.14 Site Demarcation:

Supporting Documents:

L153 – CDM 2015 Guidance;
BIMS 01-07 Legal and Other Requirements.

Mott MacDonald Bentley Ltd will ensure that access to the site is effectively controlled and that boundaries of the site will be physically defined and visually signed to prevent accidental trespass:

Area:	Nature of demarcation:
Client's site boundary	Fenced and gated
Extent of Mott MacDonald Bentley Ltd site	Fenced and gated
Boundary of site compound	Fenced and gated
Access Controls (eg gates)	Gates to remain locked and closed when site is not in use.
Other (specify)	
	 The diagram is a site plan showing a proposed service reservoir (a rectangular structure with two compartments) and an existing buried service reservoir (a circular structure). An existing above-ground service reservoir is also shown. The site is bounded by a green area and a red line. A north arrow is present in the top left corner. The plan also shows an existing reservoir at the bottom and various topographical features like contour lines and a road.

Area:	Nature of demarcation:
	LEGEND:  PROPOSED 1.8M TALL  APPLICATION BOUNDARY  EXISTING SITE BOUNDARY  EXISTING GRASSLAND GRASSLAND REINSTATEMENT EXISTING WHERE DISTURBED CONSTRUCTION  EXISTING SHRUBS/SCIRUS RETAINED AND PROTECTED  EXISTING SHRUBS/SCIRUS AND REINSTATEMENT WITH WILDFLOWER MIX (SEE NOTE 3)  PROPOSED GRASSLAND (SEE NOTE 3) Note: Access to site will be via temporary Haul Road

4.15 Materials Off-loading and Storage Area:

Supporting Documents:
JN Bentley Ltd Golden Rules; OSS106 Safe Use of Plant and Equipment; OSS101 Safe Use of Work at Height Equipment; OSS100 (Visual) Site Establishment and Maintenance; BIMS 02-10 Buying.

The location of the off loading and storage area(s) shall be:

Details:	Location:
Compound Storage Area:	See section 4.13. Area to the west of the new service reservoir to be utilised.
Site Set-Down / Storage Area(s):	See section 4.13. Area to the west of the new service reservoir to be utilised.
Materials Offloading Area:	See section 4.13. Area to the west of the new service reservoir to be utilised.
Hazardous Materials Storage Area:	See section 4.13. Area to the west of the new service reservoir to be utilised.
Gas Cylinder Storage Area:	See section 4.13. Area to the west of the new service reservoir to be utilised.
Fuel Storage Area	See section 4.13. Area to the west of the new service reservoir to be utilised.

Other:	
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Additional *control* measures for deliveries:

Hazard:	Control:
Work at Height: (<i>eg Flatbed</i>)	Edge protection
Lifting Operations:	Lift plans
Other: (<i>State</i>)	

4.16 Site Induction and General Training:

Supporting Documents:
BIMS 01-05 Competence, Training and Awareness; BIMS 01-10 Company inductions; BIMS 02-04 Risk Identification, Assessment and Control.

All site personnel (including directly employed, self employed and contractors), will receive on site induction training. A three-part induction form is used, covering:

	Description	Inductees
Part A	General company information	Sub-contractors, Hired Plant Drivers/Other
Part B	Site awareness and plant authority	JN Bentley Employees, Sub-contractors, Hired Plant Drivers/Other
Part C	Competence & medical information	JN Bentley Employees, Sub-contractors, Hired Plant Drivers/Other

All induction records will be retained on Site.

Record:	Checklist:	File location:
Site QES Induction checklist	N/A	Site Health & Safety File (*to be displayed on QES notice board) (**be utilised where large numbers of subcontractors are being employed and work takes place in multi-occupancy buildings or multi-floored projects, these will be completed by the subcontractor as they arrive and leave site.)
Induction Register	N/A	
Details of Medical Limitations	Part C	
Competency details (cards etc)	Part C	
Next of kin details	Part C	
Site Awareness Form*	N/A	
Site Visitors Induction checklist	N/A	
Daily Attendance Register**	N/A	

4.17 Visitors:

Supporting Documents:
L153 – CDM 2015 Guidance; BIMS 01-10 Company inductions.

A sign-in register will be clearly located in the Site Manager's office (*or security cabin where applicable*) and all visitors, including visiting JNB / MMB staff, Clients, Client's Representative and other Contractors' staff must sign in and out notifying a member of the site team of their presence. This record shall be dated and timed.

Visitors who will be accompanied on site at all times will not be required to attend a full site induction, however they will be required to undertake a visitors induction highlighting current works, exclusion zones, PPE requirements and escort arrangements. Visitors who will not be accompanied on site require a full Site Induction undertaken at a pre-arranged time.

4.18 First Aid Arrangements:

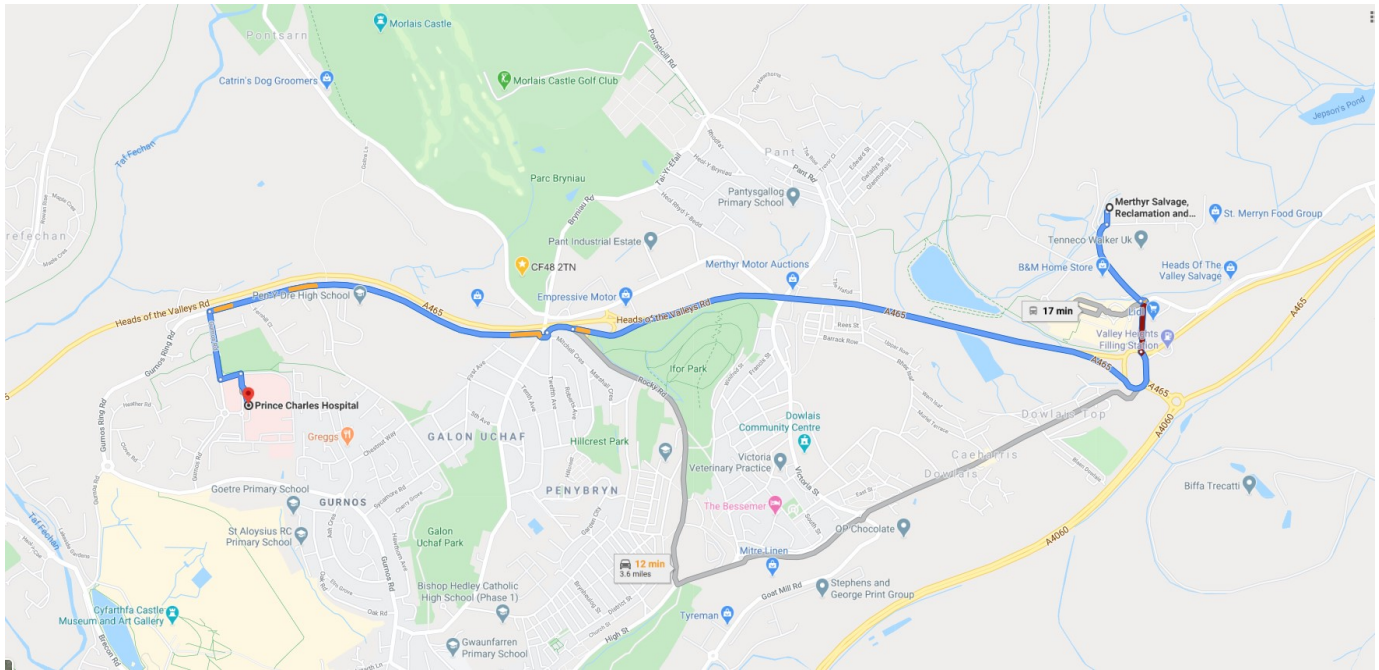
Supporting Documents:
BIMS 03-04 Emergency Preparedness and Response.

See Appendix E for First Aid Table.

First Aid arrangements notices will be displayed in each cabin and work area location (if located at a distance from the compound)

The local A&E unit for this project is shown below: (*Note: a hospital route map must be located on the QES Notice Board.*)

Hospital	Address	Telephone number
Prince Charles Hospital	Gurnos, Merthyr Tydfil, CF47 9DT	01685 721721



4.19 Authority to receive Goods & Plant:

Supporting Documents:

BIMS 02-10 Buying.

See Appendix K for Authority to receive Goods and Plant sheet.

4.20 Fire and Emergency Procedures:

Supporting Documents:

**BIMS 03-04 Emergency Preparedness and Response;
BIMS 02-04 Risk Identification, Assessment and Control;
OSS116 Fire Safety;
OSS113 Managing and Using Hazardous Substances.**

Fire Action notices will be displayed in the welfare facilities, the office and where required on the work site to provide information on the method for raising the alarm, escape routes and the location of the assembly point.

All units will be provided with the appropriate tested fire extinguishers which will be signed and located adjacent to access / egress points.

The Fire Safety Risk Assessment (FSRA) detailing specific Fire Risks and control measures on this site will be displayed in the Site Welfare cabin. This assessment will be reviewed on a monthly basis. The FSRA shall be visible to visitors and workers on site.

4.21 Site Security

In addition, all JNB /MMB & subcontract personnel working on the project will maintain reasonable levels of security for the duration of the project ie ensuring perimeter gates are closed and challenging/reporting unauthorised access Where

access from unauthorised personal is deemed possible the area in question will be fenced with heras fencing double clipped top and bottom, in addition to this the main compound will all be fenced with heras fencing as well as the access to the field itself.

Control Activities

Control should be exercised on the site activities of Contractors' employees and subcontractors. Their presence can provide the opportunity for criminals to assess a site with a view to planning a burglary or cause pollution or other incident.

Occasionally Dwr Cymru receives requests to host visiting delegations from abroad. For security reasons, it is important that any such requests are managed in conjunction with Dwr Cymru's Security and Emergency Planning team.

All Visitors must sign the relevant Visitors Book (where available), ensuring the purpose of the visit is clearly stated.

Section 29 of the DCWW Engineering Specification states, that the Contractor must undertake a site risk assessment which should be agreed and signed off with DCWW. The assessment should consider the assets being worked on in terms of value and strategic importance as well as the area in terms of population / history of vandalism, intrusion, theft etc. The risk assessment should drive the mitigations and controls in terms of level of security and control provided.

Security arrangements should be reviewed on an ongoing regular basis, the review period must be at least each month as part of the project risk review activities. The initial site risk assessment will determine whether more regular reviews are required depending upon the risks identified.

Where works require access into or onto DCWW structures, the Contractor is required to seek DCWW approval, supervision and / or direction. The generic control activities detailed below shall be undertaken as a minimum with site specific controls developed in conjunction with these. The contractor is required to comply with the DCWW procedure **HSP 811**, this can be found in the MMB document library within DCWW Procedures and forms.

Main Access Gates

Where a site or asset is under the Contractors control then they are responsible for managing site access. The contractor must implement access control arrangements to ensure that only authorised personnel are allowed entry to the site. Persons turning up on site should always be challenged and proof of identity ascertained before allowing onto site.

Unless written permission is obtained from Dwr Cymru Asset Management or Operations Manager, gates should be closed at all times, even when the site is occupied. Where permission is obtained to leave gates open they should be supervised at all times.

The safe implementation of site evacuation procedures must also be taken into consideration.

Other Gates

All other gates on sites shall be locked unless in active use.

Raw Water Reservoirs

All access points to Valve Towers, Compensation buildings, Raw Water Pumping Stations and deep chambers should be closed and locked at all times unless the contractor is working in the immediate area concerned.

Service Reservoirs

Access to treated water reservoirs must be with the agreement of Dwr Cymru asset management. All access/ entry points must be secured at all times when the contractor is not working in the immediate area concerned.

Networks

Networks capital work can be undertaken on DCWW operational sites and in these situations the generic site security guidance contained in this document must be followed. However, the majority of Networks schemes will take place in the highway where security gates and buildings may not be available to provide a level of control. The risk assessment must consider the assets being worked on and the risk assessed in terms of value and strategic importance as well as the area in terms of population / history of vandalism, intrusion, theft etc. The level of security required on Networks sites will be determined by the risk assessment.

Security Cameras

Existing site security cameras must not be utilised/altered to cover Contractor assets.

Physical Security of Buildings

All buildings shall be secured i.e. doors and windows closed and locked unless the building is currently occupied and the occupants are able to monitor the access points, or they need to be open for Health and Safety purposes. On leaving the building the Contractor must ensure that all lighting is left in accordance with site specific requirements and that all doors are locked and secured.

Locks and Keys

DCWW sites are secured by way of a suited high security locking system. Locks and keys will be issued according to the access requirements of the Contractor in accordance with Dwr Cymru's locks and keys policy. To reduce the incidence of lost or non-returned keys (by the Contractor) a returnable deposit of £1000 per key may be implemented.

Where the Contractor holds a DCWW key as part of the ongoing agreed site access arrangement the Contractor must keep a written record of permanent or temporary key holders, which is to be made available for DCWW inspection as required. Keys must not be transferred to anyone without written permission from DCWW. As soon as a key is identified as being lost, the loss must be immediately reported to DCWW Security (see below).

The Contractor is expressly forbidden from making copies of DCWW keys.

DCWW reserves the right to recall, at any time, all DCWW keys that are held by a Contractor. The keys are to be returned to the issuer as soon as possible or within seven days at the latest.

Where access gates have a multi-locking system then the Contractors padlock should be of a similar high security standard. On leaving site the Contractor must ensure that the locking arrangement is correctly configured. It is essential that access to site is available to DCWW and other authorised site users at all times. During construction of new and/or modifications to existing structures and buildings

Contractors shall obtain security locks from the approved Dwr Cymru supplier and in accordance with the existing suite. Contractors shall utilise their own suite of lock barrels until the site is handed over when Dwr Cymru lock barrels will be fitted by the Contractor.

Intruder Alarm systems

Intruder Alarm systems shall be set when DCWW buildings are unoccupied. The Contractor is to contact Dwr Cymru Security Monitoring Desk (01274 692853), prior to accessing the alarmed premises giving name, telephone contact number, reason for visit and approximate time of leaving. If the alarm is not un-set, it will be triggered when the Contractor enters the building resulting in the call out of Dwr Cymru staff to site to investigate.

On completion of works and before leaving the site the Contractor is to contact the Security Monitoring Desk (01274 692853) desk to reset the alarm.

If, as a consequence of the Contractor's visit, DCWW Security deems it necessary to call DCWW staff to the site, DCWW may make a charge to the Contractor.

Reporting of Security Breaches

The Contractor shall ensure that the DCWW Security Manager, via the Security Monitoring Station (01274 692853), is informed of any security breaches or suspicious activity occurring on Dwr Cymru sites as soon as practicable.

If the Contractor suspects that a person seen on site is an intruder, and if the Contractor considers it safe to do so, the person should be asked to show proof of identity. If the person refuses then he should be asked to leave site and the matter reported to DCWW Security Monitoring.

If the Contractor does not feel safe in making a challenge to an intruder they should contact the DCWW Risk Mitigation/Duty Manager on 0844 9022991 who will arrange the attendance of DCWW staff and/or the police or security guards.

10 Key Points for Site Security

A 10 point poster / flyer has been developed which clearly and concisely shows the key points of the site security guidance document. This should be displayed and be visible at all capital works site compounds.

4.22 Site, Client & Golden Rules:

Supporting Documents:

JN Bentley Ltd Golden Rules;

Supporting Documents:

JN Bentley Ltd Site Rules;

Rules in force on this Site are:

JN Bentley Rules	Display Location	Required (Y/N)
Site Rules	Office and Welfare	Y
Golden Rules	Office and Welfare	Y
Additional Rules (Client/Other):	Display Location	Required (Y/N)
Client QES Policy	Office and Welfare	Y
Clean Water Site	Office and Welfare	Y

These rules shall be reinforced during Induction to site.

4.23 Project Filing System:**Supporting Documents:**

BIMS 02-07 Document Control.

The site / office filing system shown in **Appendix E** shall be implemented and maintained throughout the duration of works. Control of records and documents shall be subject to periodic audit by the QES Department during QES Inspections / Audits.

5.0 CONTROL, COORDINATION & CONFORMITY:

5.1 Project Meetings & Co-ordination Timetable:

Supporting Documents:

L153 – CDM 2015 Guidance

Throughout the construction phase, Mott MacDonald Bentley Ltd will actively report progress to the Client and/or Principal Designer on a 4-weekly basis. A Progress Report will be issued prior to the scheduled progress meetings, which will include, but not be limited to;

- updates on all normal running phase reporting activities (i.e. Construction Programme status);
- information request logs;
- change order registers / trackers, and;
- monthly QES incident statistics.

These meetings shall be recorded in the Schedule below as mandatory. Also mandatory are Internal Progress Meetings, Design Co-ordination Meetings (Design & Construct only) held on at least a monthly basis and also Daily Operative Briefings. Minutes (where required) shall be located in relevant section(s) of the Site Files.

Meeting / Coordination	Purpose	Formal Agenda (Y/N)	Frequency / Timing	Attendees	Minutes (Y/N)
*Internal Progress	To monitor and track progress against baseline programme and to review cost forecast	Y	Monthly	Contracts Manager Quantity Surveyor Site Team	N
*Progress with Client	To report on progress against baseline programme, to highlight any concerns and review changes	Y	Monthly	Contracts Manager Site Manager	Y
Internal Planning / Look Ahead	To produce a two week look-ahead programme for use in short term planning	N	Weekly	Site Team	N
**Design Co-ordination	To review progress with design deliverables and co-ordinate design information between all relevant parties	Y	Monthly	Client / Client PM Design Manager or Co-ordinator Contracts Manager Site Manager Identified Representatives from key design parties	Y
Daily Briefing	To communicate daily activities to all work	N	Daily	Site Manager Foreman / Lead	N

Meeting / Coordination	Purpose	Formal Agenda (Y/N)	Frequency / Timing	Attendees	Minutes (Y/N)
	gangs, highlight any potential problems and update the wider team on current performance			hand Operatives	
QES Review - (inc update CMP)	To review the content of the CMP and update as appropriate	N	Two-Weekly	Site Manager QES Advisor	N
Sub-contractor Pre-start	To ensure common understanding in advance of works commencing on site (List as required)	Y	As required	Site Manager Sub-contractor Supervisor	Y
Sub-contractor Performance / Safety Review	To measure progress and performance in all areas. Co-ordinate works between sub-contractors	Y	As required	Site Manager Foreman Sub-contractor Representatives	Y
Cost Monitoring / Valuation / Change Control	To review applications for payment and to identify changes to the scope of works	Y	Monthly	Site Manager Quantity Surveyor Contract Manager Clients Rep.	Y
Daily discussions with DCWW on site staff	To communicate daily activities to all DCWW on site staff, highlight any potential problems and update the wider team on current performance	N	Daily	Site Manager DCWW site staff	N

5.2 Document Registers:

Supporting Documents:
BIMS 02-07 Document Control

A register of all Design Documents and Drawings will be maintained using JNB form BIMS 02-07.1. The register will be stored in the following location:

Location of Document Register(s): (BIS 02-07.1)	Project IS44 on SharePoint
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5.3 Design Management:

Supporting Documents:
MMB IMS MANUAL MM IMS MANUAL

Permanent design work has been, or will be, carried out as per the table below.

Design Scope	Responsible Organisation	Contact
Architectural / Planning	MMB	Design Lead – Matthew Thorpe
Environmental Impact Assessment	MMB	Design Lead – Matthew Thorpe
Earthworks	MMB	Design Lead – Matthew Thorpe
Civil & Structures	MMB	Design Lead – Matthew Thorpe
Mechanical & Electrical	MMB	Design Lead – Matthew Thorpe
Other: <i>Temporary Works</i>	MMB	Design Lead – Matthew Thorpe

Any alterations and / or amendments to permanent designs will be traceable through a formalised 'Change Order' system. (e.g. *Confirmed Verbal Instructions, Design Queries, Technical Queries etc*). Records of design changes will be stored as follows:

Type of Record:	Medium: (Paper / Electronic)	Storage Location:
TQ / RFI	Electronic	SharePoint

5.4 Inspection & Testing (B&CE Works):

Supporting Documents:
BIMS 02-14 Inspection and Testing; BIMS 02-15 Control of Inspection and Test Equipment.

Inspection and/or testing of the following permanent works elements will be required on this Project. Where applicable they are incorporated in Appendix B (Inspection and Test Schedule).

5.5 Testing and Commissioning (MEICA Works):

Supporting Documents:
BIMS 02-14 Inspection and Testing; BIMS 02-15 Control of Inspection and Test Equipment.

Details of any Factory Acceptance Tests are to be recorded Appendix B (Inspection and Test Schedule).

Where required, the Site Manager will liaise with a representative from the Subcontract organisation / M&E Engineer and/or Commissioning Engineer to ensure

that a Testing and Commissioning Plan and/or Method Statement is prepared for approval sufficiently in advance of the programmed commissioning date.

All instruments used for inspection, measurement and test purposes will be within calibration with current valid certificates of test. All valves, piping, electrical equipment and cabling will be labelled in accordance with the agreed Specification. It is the responsibility of the Subcontractor to demonstrate that Inspection and Test Equipment is suitable, calibrated and operated by competent personnel.

5.6 Internal QES Audits and Inspections:

Supporting Documents:
BIMS 01-09 BIMS Internal Audits; BIMS 04-04 Internal Audits (Project & Management).

Internal QES Audits and Inspections are undertaken in accordance with Policy Procedure BIMS 01-09 (BIMS Internal Audits) and Administration Procedure BIMS 04-04 (Internal Audits – Project and Management).

A summary of findings from all audits is presented to the Engineering Director (JNB) and Framework Manager / Director (MMB) at the Annual Management Review. Where deficiencies in management systems are identified remedial action will be agreed, prioritised and implemented.

5.7 QES Weekly Inspections:

Supporting Documents:
BIMS 03-05 Monitoring, Measurement, Analysis and Improvement.

Weekly QES inspections shall be undertaken by the Site Manager (or delegate) and be recorded via CMS. Where non-compliance, unsafe conditions or defects are identified, measures shall be undertaken to ensure they are rectified as soon as practicable. Effective completion of the QES Weekly Inspection shall be monitored for content and closeout by the QES Department during Site QES Inspections.

6.0 QES RISK MANAGEMENT & MITIGATION:

6.1 Environmental Aspects:

Supporting Documents:

BIMS 01-06 Aspects and Impacts;
BIMS 02-04 Risk Identification, Assessment and Control.

The following Environmental Aspects have been identified within the scope of works, additional task specific aspects will be identified and mitigating control measures will be outlined where necessary in the environmental section of task specific Risk Assessment / Method Statement documents.

Site-Specific 'Environmental Aspects' (Risks) identified in scope of works:			
Ref:	Environmental Aspect:	Monitoring / Control Measure:	Person Responsible:
EA-01	No records of otter identified within 2km of the site. It is possible that otters travel through the area to forage in the waterbodies but there is little cover for holt or resting site within the proposed working area.	MMB ecology lead should be contacted if otter are found onsite.	MMB ecology lead and site supervisor
EA-02	The proposed site could possess suitable habitat for foraging birds. However due to the high levels of disturbance and grazing in the area for the proposed development (Blaenmorlais SINC) there is a low chance of ground nesting birds.	A toolbox talk will be provided at the start of the works. MMB ecology lead should be contacted if nesting birds (including ground-nesting birds) are found onsite. Vegetation clearance to be undertaken outside of the nesting bird season (Mid-February-September). If this is not possible it should be done under ecological supervision. If active nests are discovered all work will cease and a suitable working buffer will be employed to avoid disturbance. Regular checks will be undertaken by site operatives to ensure no breeding bird nests are at risk from disturbance during construction.	MMB ecology lead and site supervisor
EA-03	Records six bat species within 2km of the site. Nearest record approx. 1.9km	MMB ecology lead should be contacted if bats are found onsite. The use of lighting over night should be kept to a minimum.	MMB ecology lead and site supervisor

	north west of site for foraging bats. Three single storey metal clad buildings located with the site compound were assessed as having negligible potential for roosting bats. The site does provide suitable habitat for foraging bats.		
EA-04	The site habitats are semi-improved acid grassland, ephemeral/short perennial, semi-improved neutral grassland and scattered scrub. These habitats are suitable for supporting reptiles	Vegetation clearance within habitats suitable to support reptiles will be undertaken under the supervision of the MMB Ecology Lead. A toolbox talk will be provided at the start of the works. The ecologist will then supervise the use of appropriate habitat manipulation techniques to clear the development footprint; this will be done during the active season for reptiles (mid-March to mid-October, weather dependant). The heavily horse grazed areas will not require any strimming prior to the topsoil strip; however, the better areas within the existing site compound will undergo a two-stage directional cut (300mm and then 150mm) prior to the topsoil strip. This will encourage any reptiles which may be present to vacate the area and move to suitable adjacent habitat. The areas of land which have been topsoil stripped during construction will be reinstated with an appropriate species-rich grassland mix. The site will be managed in line with habitat in the north of the existing site upon completion of the works. The exception to this methodology is the waxcap areas (see EA-10) Two brash piles will be created on the northern edge of the Site using material from the vegetation clearance. The brash piles will provide suitable habitat for reptiles and nesting birds. The Site will undergo an ecological site walkover in the first summer following completion of the works. The purpose of the walkover will be to check that the re-instated habitat has established and is being correctly managed. A further check by Welsh Water will take place in year 3 and 5 to ensure habitat establishment. This requirement is to be included in the CAF616 Environmental Handover documentation.	MMB ecology lead and site supervisor
EA-05	No Records of Great Crested Newt were recorded within 2km of the site.	MMB ecology lead should be contacted if GCN are found onsite. Two hibernacula will be created on the southern edge of the Site using concrete, soil and vegetation.	MMB ecology lead and site supervisor

	Ecology surveys completed for Great Crested Newts, did not identify presence of GCNs.	The hibernacula will follow the design in the Great Crested Newt Mitigation Guidelines (Page 42) ⁹ and provide suitable habitat for amphibians and reptiles.	
EA-06	Identified location of Japanese knotweed on the eastern boundary of the site during the 2019 survey. Not present during 2020 surveys but may re-appear. Himalayan Balsam has also previously been identified over 150m to the south of the site	Please refer to the guidance in the Invasive Species and Biosecurity Method Statement. Fencing and signage to be put in place to ensure that 7m exclusion zones are in place to ensure no groundworks or material storage occurs in these areas.	MMB ecology lead and site supervisor
EA-07	Working area lies within Blaenmorlais SINC	Re-instatement of all possible areas on completion of the works. Area to be reseeded with a species-rich and appropriate mix. (Except for the high value fungi/waxcap areas where the turfs will be stored and re-laid on completion of the works). Non-calcareous stone (e.g. sandstone) should be used for the temporary haul road to prevent a change in the PH of the soil.	MMB ecology lead and site supervisor
EA-08	Slow worm and common lizard present within the site compound.	Vegetation/grass clearance to be undertaken under ecological supervision. A toolbox talk will be provided at the start of the works. The ecologist will then supervise the use of appropriate habitat manipulation techniques to clear the development footprint; this will be done during the active season for reptiles (mid-March to mid-October, weather dependant). The area will undergo a two - stage directional cut (300mm and then 150mm) prior to the topsoil strip. This will encourage any reptiles which may be present to vacate the area and move to suitable adjacent habitat.	MMB ecology lead and site supervisor
EA-09	The Site provides suitable foraging habitat for hedgehogs	MMB ecology lead should be contacted if hedgehog are found onsite.	
EA-10	Rare waxcaps present along the route of the temporary haul road. Waxcaps recorded during a survey in October 2020.	Works in the areas where waxcaps are known to be present should be kept to a minimum, especially within the high value areas (shaded brown on the plan below). A toolbox talk will be provided to the permanent staff before works commence and any ecological risks will be included in the site induction. The toolbox talk will	MMB ecology lead and site supervisor

		highlight the value of the SINC grassland for fungi and reiterate that the working area should be kept to a minimum with no storage or plant movements outside of the demarcated works area. On completion of the temporary haul road, herras fencing should be installed along the southern length of the temporary haul road to prevent plant and lorries leaving the route and ensure the areas on the southern side of the road are not used for storage of materials. Non-calcareous stone (e.g. sandstone) should be used for the temporary haul road to prevent a change in the PH of the soil, which could impact the waxcaps. The turf in the high value fungi area will be carefully lifted and stored on wooden pallets in an area of ephemeral vegetation to the north of the existing service reservoir. The turfs should be at least 15cm in depth. During dry spells (over 7 days of no/negligible rain) the turfs will be watered to ensure survival of the turf. The low value fungi area will be protected outside of the working area using herras fencing to ensure no extra habitat is lost as a result of the works. Construction in the low and high value fungi areas has been minimised by locating the site compound, car park and material storage areas away from the edges of temporary haul road; which was the construction team's preferred location and the standard way to layout a construction site. Areas within MMB control but not within the working area will be regularly mown/strimmed (except for between September and November) and the clippings removed to encourage waxcaps to fruit. This will ensure the waxcaps continue to thrive in the absence of horse grazing. On completion of the works the temporary haul road will be removed and the turfs will be reinstated in the high value fungi area, with the remainder of the site reinstated as per the landscaping drawing. https://mottmac.sharepoint.com/teams/pj-b1342/ps-is44/Shared%20Documents/04%20Engineering/4.2%20Incoming/4.2.12%20Sturgess%20ecology/2020.10.30%20-%20Fungi%20survey.pdf	
Consider the following:			
Releases:			

Release to Air – Acids (including resins and paints).	Release to Air – VOC’s (Volatile Organic Compounds).	Release to Air – ODS’s (Ozone Depleting Substances).	Release to Air – Heavy Metals.
Release to Air – Combustion By-Products.	Release to Water – Trade Effluent.	Release to Water – Domestic Effluent.	Release to Water – Engineered Surface Water.
Release to Water – Un-Engineered Surface Systems.	Release to Land – Trade Waste (Non-Hazardous).	Release to Land – Trade Waste (Hazardous).	Release to Land – Domestic Waste (Non-Hazardous).
Release to Land – Domestic Waste (Hazardous).			
Resource Use:			
Resource Use – Electricity.	Resource Use – Natural Gas.	Resource Use – Commercial Gases, storage and use.	Resource Use – Petrol / Diesel, storage and use.
Resource Use – Water on site.	Resource Use – Water off Site.	Resource Use – Chemical / Oil storage and use.	Resource Use – Timber.
Resource Use – Natural Aggregate / Minerals etc.	Resource Use – Cements / Pozzalans / Grouts etc.	Resource Use – Paper.	Resource Use – Packaging.
Resource Use – Vehicles.	Resource Use – Electrical and Electronic Equipment.	Resource Use – Batteries.	

Land Quality:			
Land Quality – Solvents.	Land Quality – Metals.	Land Quality – Contaminated Land.	
Nuisance:			
Nuisance – Odour.	Nuisance – Noise.	Nuisance – Vibration.	Nuisance – Visual.
Nuisance – Light.	Nuisance – Congestion / Obstruction.	Nuisance – Dust.	
Ecology:			
Ecology – Species.	Ecology – Habitats.	Ecology – Waxcaps.	

6.2 Initial Assessment of Work Activities

Supporting Documents:
Operational Safety Standard 002; BIMS 02-04 Risk Identification, Assessment and Control.

The following residual risks from the design have been communicated by the Designer(s) and Principal Designer. These have been considered and included in the overall construction risk assessment:

Residual Risks Identified by the Principal Designer & Designer (Refer to QES Risk Register / Designers Risk Assessment)	
Quality:	
1.	Interfering with process (possible breach of consent)
2.	
3.	
Environmental:	
1	All known ecology concerns as noted above in Section 6.1.
2	Surface water management – Due to location (very exposed) the site is likely to be impacted by poor weather. Prevent rainwater entering working areas with the use of cut of drains. Any excavation discharges any excavation waters will be discharged following the EA RPS “Temporary dewatering from excavations to surface water”. All necessary Pollution prevention measures will be followed. See section 6.8 below
3	Waste Management - undertaken in line with Operational environmental standards and industry best practice. See section 6.10

Residual Risks Identified by the Principal Designer & Designer <i>(Refer to QES Risk Register / Designers Risk Assessment)</i>	
4	INNS – Japanese Knotweed has previously been identified on the eastern boundary of the site and Indian (Himalayan) Balsam have previously been identified over 150m to the south of the site. No evidence of Japanese Knotweed or Indian Balsam was identified within working areas during 2020 site survey. Check to be undertaken prior to start of works to ensure there has been no spread to working areas. Please also refer to the Invasive Species and Biosecurity Method Statement for further guidance.
5	Nuisance – Dust, noise and vibration risk. Nearest receptor is industrial estate and a small traveller community, which we are unlikely to impacted. However best practice methods will be utilised to reduce nuisance where necessary such as dampening down, noise barriers etc choice of plant (see section 6.6/6.7 below)
6	Pollution mitigation measures during construction. – Concrete slurry run off (during concrete pours) and silt run off – mitigation measures detailed below.
7	Habitat removal – Undertaken with ecological supervision or guidance
8	Archaeology and Heritage – Archaeological monitoring during the removal of the topsoil.
9	Contaminated Land – while no evidence of contaminated land identified during ground investigation, evidence site has been subjected to fly tipping. Care to be taken when clearing site, advancing excavations and classifying waste from site.
10	Materials Management – See section 6.11
11	Ecology - Checks by Welsh Water will take place in year 3 and 5 to ensure habitat establishment.
Health & Safety:	
1.	Access to site for larger vehicles - Height restriction will be provided to prevent collision with overhead telecoms. Access for larger vehicles may be difficult as the lane is only a rough track. Access to the common will be from a separate access road, rather than through the existing site.
2.	Excavations and vehicle movements – High Voltage overhead electricity cables are present to north of the proposed location of new service reservoir site, but outside the construction area. Overhead Telecom Cables in and around Construction Site. Buried water pipes cross the site.
3.	Temporary Works - Consider excavation, over-pumping, testing, scaffolding and record these on TWS sheet - Excavation/temporary batter design. Crane pad design. Temporary stockpile of spoil (slope stability). Trench supports for pipe laying. Pressure testing
4.	Contact with Asbestos - Asbestos Type 2/Management Survey received from Welsh Water on 22/07/19. Further Refurbishment & Demolition survey required if any major refurbishment or demolition work is required (No demolition works within current scope). No live electrical equipment was inspected as part of the survey. Survey identified SRv structure as 'high risk' due to lack of access. No asbestos identified in Telemetry Kiosk or Valve Room.
5.	Risk of damage to existing structures, collapse of structures or backfill material - Maximise distance of proposed works from existing to allow suitable excavation batters. Fully survey and mark out existing assets prior to excavating. Liaise with temporary works from an early stage to get their input and allow their constraints to feed into option selection and design

Residual Risks Identified by the Principal Designer & Designer <i>(Refer to QES Risk Register / Designers Risk Assessment)</i>	
6.	Lifting Operations - Lifting plan to be in place. Lifting to comply with JNB OSS 102.
7.	Confined spaces - New and existing reservoir cells will be confined spaces. Access and phasing will be reviewed during the design. All personnel entering cells to be appropriately trained to be inside confined space.
8.	Working at Height - Fall arrest to be provided at access hatches. Handrailing around reservoir roof if required.
9.	Failure of isolation valves leading to flooding of the cells and potential loss of life - Double isolation is to be provided for each cell.
10.	Services strike - Services searches have been conducted. High Voltage overhead electricity cables adjacent to proposed location of new service reservoir site. Overhead Telecom Cables in and around Construction Site – damage to telecom cables during construction could result in disruption of water supply/loss of service. Safety zone to be put in place 6m either side of line, comprising of low (1m above ground) and high level bunting. WPD to specify height of upper bunting. Access way to comprise of rigid "goal posts" at either end. See HSE GS6 and WPD 'Avoidance of Danger'. New service plans to be completed within 3 months of start on site. Area to be Cat & Genny scanned prior to excavation. Contractor to review JNB OSS 111 when setting up service avoidance goal posts.
11.	Working in an excavation - Reservoir has been positioned to minimise the volume of excavation required.
12.	Failure of stockpile due to excessively steep sloping slides - Stockpiles to be monitored for stability. Maximum side slope to be provided by design team.
13.	Risk of burst causing flood of excavation - Welsh Water Business Continuity Plan process to be followed to agree procedure for isolation with Operations.
14.	Working near watercourse - Discharge point / outfall location to be designed to allow easy access for sampling.
15.	Flooding of downstream watercourse, potential risk to life - Flood model being undertaken to check flood risk as a result of both the overflow and washout operation.
16.	Leakage from structure – undermine foundations – Outlet & washout pipework from sump to be connected to couplings which have been pre-cast into the sump. Reduction in the likelihood of leakage occurring from the structure.
17.	Security of site during construction - Site to be contained within Weldmesh fence with 24hour security guard presence. 3 No. CCTV cameras to be located across site which will be monitored remotely 24/7.

6.3

Risk Assessment and Method Statement Preparation:

Supporting Documents:
Operational Safety Standard 002; BIMS 02-04 Risk Identification, Assessment and Control.

The initial assessment of work activities will be used as a basis for the Method Statement Register detailed in section 6.4.

RA/MS (including any that arise from on-going design) will be Prepared, Communicated and Used in accordance with BIMS 02-04 and OSS 002, using standard RA/MS template Ref BIMS 02-04.3. Subcontractor RA/MS document will be marked as accepted using BIMS form 02-04.8.

For proposed work activities in the **first month** of the project, detailed risk assessments and method statements will be prepared in conjunction with this Plan.

For ongoing activities, detailed site and task specific RA/MS shall be recorded in accordance with the requirement of OSS 002 and added to the site Risk Assessment Register in section 13/14 of the Site Health & Safety File. This process shall be followed for both internally assessed and Subcontractor supplied RA/MS documents.

The following additional specific risk assessments, (located on Document Library) will be completed or briefed for this project:

RA Reference	Assessment title	Required (Y/N)
BIMS 02-04.1	Construction Site Activities. (MRA*)	Yes
BIMS 02-04.2	Office Environments. (MRA*)	No
BIMS 02-04.4	Pregnant Workers.	No
BIMS 02-04.5	Prolonged & Constant Exposure to Sewage.	N/A
BIMS 02-04.6	Night Shift Working.	No
BIMS 02-04.8	Subcontractor RA/MS Review Form	Yes
BIMS 02-04.10	Standard Mechanical Lift Plan	Yes
BIMS 02-04.11	Site Fire Risk Assessment	Yes

*MRA = Management Risk Assessment

6.4 Activity / Risk Assessment and Method Statement Register (To be completed for activities in the first month on site only):

RA / MS reference	Activity/task	Direct or Subcontract Activity	Sub-contractor name	Activity Start Date	RA/MS required by	RA/MS Completed or Received
001	Vegetation clearance	Subcontract	AJ Butler	15-02-21	01-02-21	01-02-21
002	Delivery and offloading of pre-cast concrete panels	Subcontract/Direct	JNB	19-10-21	05-10-21	no
003	Excavation activities	Direct	JNB	17-06-21	03-06-21	no
004	Installation of precast units	Direct	JNB	19-10-21	05-10-21	no
005	Formwork and reinforcement placement	Subcontract	DRND	31-01-22	17-01-22	no
006	Insitu concrete works	Subcontract	DRND	31-01-22	17-01-22	no
007	Hot tap to inlet main	Subcontract	UTS	tbc		
008	Pipe laying	Direct	JNB	21-09-21	07-09-21	no
009	Ground clearance, stone area for site set up	Direct	JNB	07-04-21	24-03-21	no
010	Topsoil strip under supervision	Direct	JNB	10-06-21	27-05-21	no
011	Invasive Species Management	Direct	JNB	tbc		
<i>Continue Overleaf if required.</i> Note: 'Construction phase' register to be retained in Sections 13 & 14 of the Site Safety File (BIMS 02-04.9)						

6.5 Substances Hazardous to Safety, Health or Environment:

Supporting Documents:

Operational Safety Standard 113;
BIMS 02-10 Buying;
BIMS 02-04 Risk Identification, Assessment and Control;
BIMS 02-11 Management and Control of Subcontractors.

An initial assessment will be made using an electronic record on CMS. This will detail permitted safe use, permissible quantities and storage locations, and will be undertaken in accordance with OSS 113.

Hard copy CoSHH assessments that are available in the CMS document library will be referenced in relevant method statements and displayed separately in the Site Welfare cabin.

Where sub-contractors intend to use potentially hazardous substances on site, they shall provide detailed CoSHH assessments in good time to enable necessary arrangements for storage and interaction with neighbouring processes to be made.

Relevant CoSHH assessments and controls shall be covered as part of the site induction process and during task specific method statement briefings.

A register of potentially hazardous substances will be maintained in Section 6 of the site Health & Safety File.

6.6 Environmental Noise Management and Control:

Supporting Documents:

BIMS 01-06 Aspects and Impacts;
BIMS 02-04 Risk Identification, Assessment and Control;
BIMS 03-05 Monitoring, Measurement, Analysis and Improvement.

Mott MacDonald Bentley Ltd will take all necessary measures to avoid creating a noise nuisance during construction and civil engineering operations. Contract specific hazards will be identified at the project risk assessment stage and control measures identified within task specific method statements.

As a minimum, all plant will be maintained in good working order and will be fitted with its original silencing equipment and where requested by clients or local authorities, site specific noise assessments will be undertaken for both pre-works and construction-phase activities to ensure compliance with planning requirements.

Where operations creating noise cannot be avoided local communities will be contacted and consulted and where necessary activities will be timed to create the least nuisance.

Construction Noise

- Selecting quieter construction equipment;
- Setting time restrictions on certain noisy activities;

- Ensure equipment is maintained, in good working order, and is used in accordance with the manufacturer's instructions;
- Members of the construction team to be trained and advised during tool box briefings on quiet working methods;
- Equipment will not be left running unnecessarily;
- Equipment will be fitted with silencers or mufflers where possible;
- Use of plant enclosures utilised whenever feasible;
- Careful orientation of plant with directional feature away from sensitive receptors;
- Materials will be lowered instead of dropped from height;
- Inform nearby noise sensitive receptors in advance of construction activities and keep them up to date with progress and changes;
- Give nearby noise sensitive receptors a site contact telephone number; the contact should liaise with residents and maintain good rapport;
- Vehicles will be instructed not to wait or queue up with engines running on the site or on the public highway;
- Deliveries to be managed in order to prevent queuing of site traffic at access points
- Minimise where possible the need for vehicles to reverse; and,
- Use of adjustable or directional audible vehicle-reversing alarms or use of alternative warning systems, e.g. white noise alarms.

A register of environmental noise sources is maintained in Appendix I: *(Note Noise sources affecting Human health will be recorded in task specific RA/MS documents.)*

Construction Vibration

It is considered that construction vibration impacts would not be significant. However, vibration mitigation measures will include the following:

- Utilising low vibration working methods where possible;
- Replace plant that is causing significant levels of vibration; and, Isolate vibratory plant using resilient mountings.

6.7 Dust and Air Quality Control:

Supporting Documents:

BIMS 01-06 Aspects and Impacts;
BIMS 02-04 Risk Identification, Assessment and Control;
BIMS 03-05 Monitoring, Measurement, Analysis and Improvement.

Control of Nuisance Dust

The proposed development is expected to be a low risk site in terms of generating dust for a temporary period. Mott MacDonald Bentley Ltd will take all necessary measures to avoid creating a dust nuisance. Contract specific hazards will be identified at the activity risk assessment stage and control measures will be identified within task specific method statements. When required dust suppression will be implemented i.e. water bowser towed behind dumpers, water sprinklers and task specific dampeners. Ongoing mitigation measures should include:

During Construction

- Display head or regional office contact information

- Record all dust and air quality complaints, identify causes and take appropriate action and record measures taken to reduce emissions
- Make complaints log available to Local Authority when asked
- Establish a method for regular visual dust monitoring on and off site and ensure key site personnel are fully trained in this respect
- Carry out regular site inspections to monitor dust, record inspection results
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
- Plan site layout so that machinery and dust causing activities are away from receptors, as far as is operationally feasible
- Avoid site run off of water or mud
- Do not allow vehicles to idle
- Impose and signpost a maximum speed limit
- Only use cutting, grinding or sawing equipment fitted, or in conjunction with, suitable dust suppression techniques
- Use enclosed chutes and conveyors and covered skips
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment
- No burning of waste
- Avoid scabbling (roughening of concrete surfaces) if possible, ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place

6.8 Control of Pollution and Emergency Response:

Supporting Documents:

BIMS 02-04 Risk Identification, Assessment and Control;
BIMS 03-04 Emergency Response.

The following environmental incident control equipment will be held on site and its stock levels will be maintained by the following designated persons:

Equipment:	Required? (Y/N)	Person Responsible for Stock / Condition Check	Frequency of Check
Fire Extinguishers	Yes	Site Manager	Weekly
Fire Blankets	No		
Plant Nappies	Yes	Site Manager	Weekly
Oil sorbent pads	Yes	Site Manager	Weekly
Oil Booms	No		
Oil sorbent granules	No		
Barley Straw	No		
Dry bagged cement	No		
CoSHH store	Yes	Site Manager	Weekly
Drip trays (<i>internal use only</i>)	Yes	Site Manager	Weekly
Silt netting	No		
Oil interceptors	No		
Drain covers	No		
Drain bungs	No		
Pumps	No		
Disposable Coveralls	Yes	Site Manager	Weekly
Road sweeper on call	No		

Equipment:	Required? (Y/N)	Person Responsible for Stock / Condition Check	Frequency of Check
Other (State)			
Other (State)			

Where projects are considered to have significant residual pollution risk, the Environment Agency / SEPA 'PPG21' document will be completed and discussed with the Client and included in Appendix G. This is the same procedure for the NRW (*Located on Bentley Environmental on Document Library*)

IS PPG21 required on site? (Appendix G)	No
<i>To be reviewed on monthly basis by Site Manager if completed</i>	

Concrete run off pollution

Concrete works are anticipated during the construction works. Any surface water (from rain or run off) that will be interacts with wet concrete or concrete slurry will be treated as hazardous waste and dealt with accordingly. No contaminated material will be discharged to the local water course.

All wash down facilities will be designed in line with industry best practice and the MMB concrete wash down guidance document.

6.9 Waste and Hazardous Waste: (*Controlled Waste in Scotland)

Supporting Documents:
BIMS 02-10 Buying; BIMS 02-14 Inspection and Test; BIMS 03-05 Monitoring, Measurement, Analysis and Improvement.

As a minimum we will follow the waste hierarchy and prevent the production of waste, we will comply with all relevant waste Regulations. Waste will be identified as; INERT, NON-HAZARDOUS or HAZARDOUS and the correct classification be given to relevant subcontract parties.

If waste is categorised as "Hazardous" by its description, the following process will be followed:

- **Wales Only:** We will register the company as a "producer of hazardous waste" from the site in question (this can be undertaken online on the NRW website, <https://naturalresources.wales/splash?orig=/>)
- **UK:** Waste Classification Assessment testing will be carried out to determine the hazardous nature of the waste. Not all hazardous sites can accept all types of hazardous materials so a further Waste Acceptance test maybe required to to ensure the landfill that it can accept our waste.
- We will ensure that the waste is pre-treated in some way prior to removal to landfill – it is highly unlikely that we will be able to do this ourselves so we will employ a waste management company to undertake

***Wales only:**

NRW Hazardous Waste Premises Code	
Expiry Date for current registration	
Registration Name (JNB / Client)	

6.10 Site Waste Management Plan: (Mandatory in England Only*)**

Supporting Documents:

Site Waste Management Plan Regulations 2010 (as amended);
Bentley Environmental Guidance Note – SWMP.

To ensure compliance with The Site Waste Management Plan Regulations 2008, Mott MacDonald Bentley Ltd predicts waste quantities during the planning stage of projects valued over £300,000. This will be recorded on the SWMP template that can be found in section 8.20. While only projects over the value of £300,000 require a SWMP, JNB will consider waste management options for all projects where sufficient volumes of waste are likely to arise as part of the works.

The Site Waste Management Plan shall be reviewed and updated at least monthly as part of the general CMP review process.

Additional guidance on completing Site Waste Management Plant may be found in the Bentley Environmental Guidance Notes on Document Library.

The following Site Waste Management Plan data sheet shall be initially completed prior to commencement of construction works and be reviewed and updated **'at least monthly'**. All amendments or records of review shall be recorded in section 1.2 of this CMP. For projects exceeding £500,000 additional reporting shall be undertaken in accordance with the Site Waste Management Plan Regulations, 2008.

6.11 Materials Management (Soil/Aggregate storage)

Soil Management

Soil stockpiles should be managed in accordance with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. Key elements of the CoP relating to managing soils to facilitate their reuse are listed below:

- Top soil, sub soil and underlying sediments will be stockpiled separately.
- Soil stockpiles will be labelled so as to prevent mixing of soil with other materials

Topsoil layers will be stored no higher than 3m to avoid compaction of lower levels. Subsoil stockpiles will be maintained at a height of 4m to 5m to avoid compaction of lower layers. Topsoil and subsoil must not be excavated whilst saturated and if heavy rain has saturated the soil profile stripping should be suspended until such time as the soil has dried out. Stockpiling wet soils leads to compaction and damage to the soil structure. If soil stockpiles are to be left for more than 6 months the surface should be seeded with a grass/clover mix to reduce infestation from nuisance weeds.

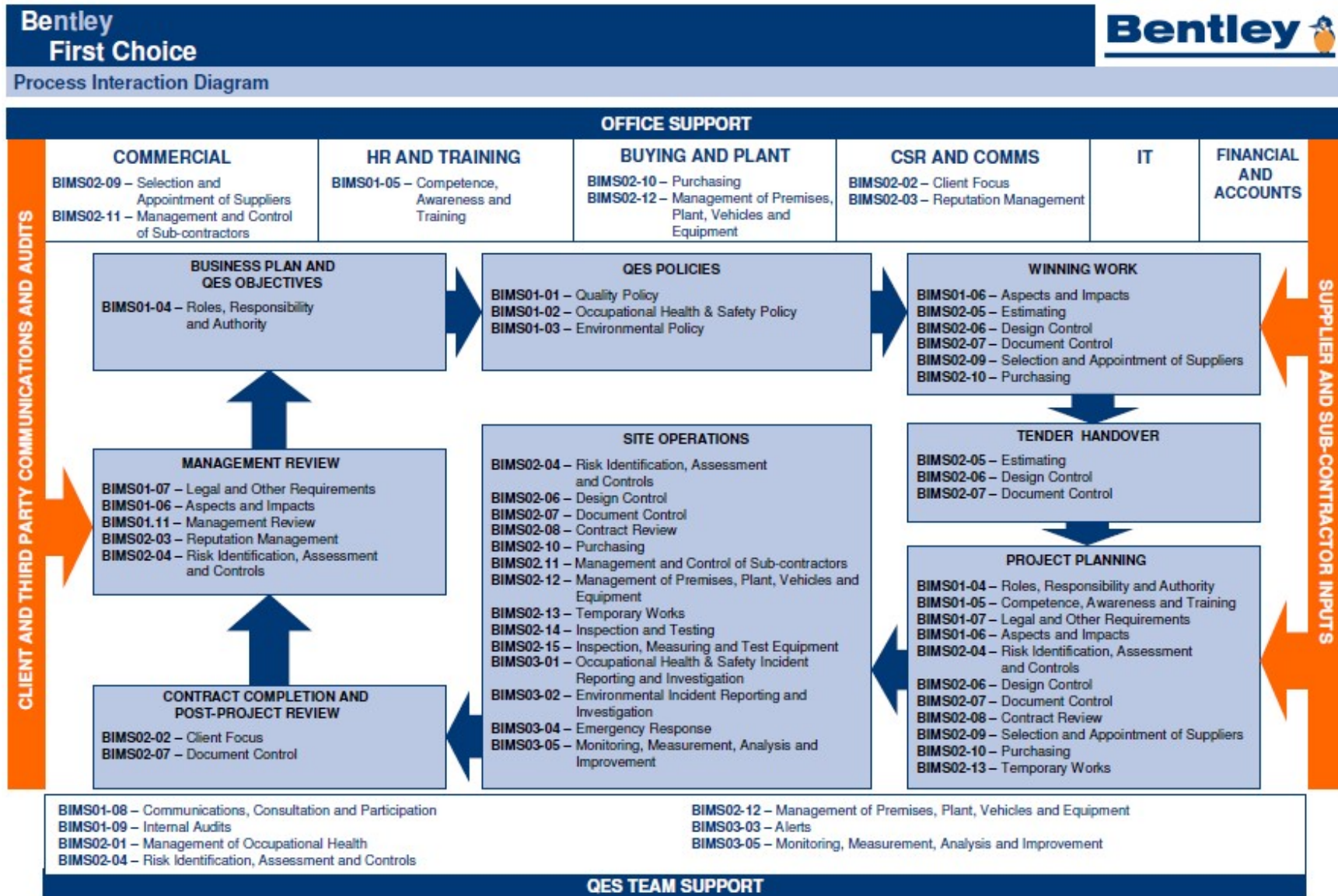
Silt Mitigation

Rainfall run off from stockpiles and excavation areas must be controlled to prevent silt being entrained in over land flow. Stockpiles can be smoothed to shed incident rainfall quickly and prevent sediment being washed from the slopes of the stockpile. Stockpiles should be inspected regularly and after heavy rainfall to ensure excessive erosion is not taking place, any erosion gullies should be repaired. Areas subject to potential run-off will be monitored and silt netting erected where necessary in addition to silt netting identified in Section 6.1 specific to temporary haul road.

Stockpiles should not be located close to surface water features such as drainage ditches which could become filled with sediment following rainfall. The drainage of a stockpile farm should be considered to control run off and prevent silt from being spread across adjoining areas; a soakaway drain into the underlying sediments could be considered as long as this does not lead to standing water within the stockpile farm causing water logging of soils. Long term stockpiles can be vegetated or covered to prevent entrainment of sediment by rainfall and windblown dust.

A severe weather protocol should be established such that should severe weather be forecast the site is left in such a condition that stockpiles are not compromised.

Appendix A – BIMS Procedure Interaction Chart:



Appendix B Project Inspection and Test Schedule (including commissioning works): (BIMS 02-14.4)

To be completed prior to commencement of construction works & reviewed *at least* monthly or following changes to design and build processes

Inspection & Test Plan	I&T Plan No:		Revision	
	Date of Issue:		Date of Next Review:	
	Prepared By:		Checked By:	

Client:	DCWW	Project Name:		Project Number:	
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I&T No.	Description of Inspection / Test	Frequency	Specification / Technical Standard	Acceptance Criteria	Reporting Format	*Inspected by: (Include Company and Name)			General Comments
						S/C	JNB / MMB	Other (State)	
1.	Earthworks								
2.	Road works								
3.	Concrete Mix Inspection								
4.	Concrete Placement								
5.	Structural Concrete Tests								
6.	Drainage Inspection								
7.	Pipeline Pressure tests								
8.	Chamber & MH Inspection								
9.	Precast Concrete Inspection								
10.									
11.									
12.									
13.									

* **H**=Hold Point, **W**= Witness Point, **R**=Review

Continue on separate page if required.

Appendix C Do not use

Appendix D Client Specific Rules or Procedures:

Client Specific Rules, Policies and Procedures to be requested from Client Representative and summarised in Appendix D.

Where applicable, these shall be briefed during site induction.

Appendix E Fire Safety Risk Assessments and First Aid Arrangements:

Fire Risk Assessment Template on 'Document Library' shall be maintained in Appendix E and reviewed *at least* monthly.

First Aid Assessment:

First Aid Arrangements:	Number of appointed personnel (JNB / MMB)	Number of appointed personnel (Subcontractor)	Name(s):
3-day trained First Aider(s)	1	TBC	Mark Jones/Darren Jones
Personnel:	JNB / MMB:	Subcontractor / 3rd Party:	
'Average' no of personnel on site	8	8	
Equipment:	Location:	Number Required:	
Example: <i>Stretcher</i>	<i>N/A</i>	<i>None</i>	
Standard First Aid Box	Site office	2	
Eye Wash Station	Site office	1	
Eye Wash Buds	N/A	N/A	
Burns Kit	N/A	N/A	
Needle Stick Kit	N/A	N/A	
Stretcher	N/A	N/A	
Evac-chair®	N/A	N/A	
Defibrillator	N/A	N/A	
Other: <i>Please state</i>	N/A		

Appendix F Project Filing Index:

The following File Indexes shall be used on this project (Delete as applicable)

Paper Records:

File Name:	Required? (Y or N)	Owner:	Location of File:
Site Health & Safety File (BIMS 02-07.6)	Yes	Site Manager	Office
Site Environmental File (BIMS 02-07.7)	Yes	Site Manager	Office
Site Engineering File (BIMS 02-07.8)	Yes	Site Manager	Office
Other (Project Specific)			

Electronic Records:

Document Name:	Required? (Y or N)	Owner:	Location of File:
Statutory Inspections: (Scaffold / Excavation)	Yes	Site Manager	CMS
Meeting Records: (Progress / Monthly)	Yes	Site Manager	G drive / Projectwise
Incident Reports: (QEH&S)	Yes	Site Manager	CMS
Weekly Inspection: (QES)	Yes	Site Manager	CMS
Site Diary: (inc Complaints etc)	Yes	Site Manager	CMS
CoSHH Assessment: (CMS / Sypol)	Yes	Site Manager	CMS
Time Sheets: (Individual & Operative)	Yes	Site Manager	CMS
Plant & Materials Orders:	Yes	Site Manager	CMS
Requisitions: (Products & Waste)	Yes	Site Manager	CMS
Other: (State)			

QES / Project Files shall be maintained on site by the Site Manager.

Appendix G PPG21 Pollution Incident Response Plan (NRW / EA / SEPA):

See Document Library for latest template.
(Bentley Environmental/Environmental Guidance Notes/PPG Notes)

Appendix H – Site Waste Management Plan:

SWMP Part 1:

Site Waste Management Plan Data Sheet			
(*no longer a legal requirement to complete, but a company expectation)			
Site Waste Management Plan must be reviewed <i>at least</i> monthly as part of CMP review and recorded in CMP Review Table.			
Date of initial SWMP completion:		02-03-21	
Stage of project (eg <i>planning, project delivery, completion</i>):		Planning	
Estimated cost of project:			
Client contact:		Theo Rumens	
Person responsible for waste management on site:		Site Manager - Mark Jones	
Person completing this form, if different:			
Details of the people removing waste from your site and including their waste carrier registration number:			
A. TBC	B.	C.	D.
Details of licensed sites receiving waste and their licence number:			
1.	2.	3.	4.

SWMP Part 2:

[illegible]

SWMP Part 3:

*The declaration below is to be completed by the **Contracts Manager** (or responsible delegates) following review of the SWMP to ensure that predicted waste for this project has been identified and the necessary steps are being taken to reduce and manage waste arisings.*

This is a Company Expectation.

*“Declaration (Principal Contractor): I confirm that all transferors of project derived waste have discharged their duties with respect to Regulation 12 of the Waste (England & Wales) Regulations 2011. As Principal Contractor I will actively monitor performance and legal obligation against the hierarchy stated in the regulations and challenge any identified non-compliance”.
(i.e. Duty in relation to the waste hierarchy as per the Waste Framework Directive)*

Partner/Principal Contractor

Print Name:	Mark Jones	Sign	M Jones	Date
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Appendix I – Environmental Noise Sources:

The following Environmental Noise and Nuisance sources have been identified and are to be monitored. Limits are generally specified in planning consents.

Noise Source	Prescribed Limit (eg planning)	Assessment Required? (Y/N)	Recorded Level	Responsible Person

Records of checks will be recorded and maintained in the Site Environmental File.

Any breaches of consented levels will be recorded in an Environmental Incident Report and fully investigated in accordance with BIMS 03-02.

Any breaches will be promptly reported to the Client and Regulator. This shall be done following advice from the QES Department / Engineering Director.

Appendix J – Contract Organisation

Responsibility:	Name:	Location:	Contact details:
Project Team – Office:			
Operations Director	Anne Carroll	Newport Ty Awen	Anne.Carroll@jnbentley.co.uk
Operations Manager	Graeme Carruthers	Newport Ty Awen	Graeme.carruthers@jnbentley.co.uk
Contracts Manager	Quentin Hellis	Newport Ty Awen	Quentin.hellis@mm-b.co.uk
Design Manager/Project Leader	Matthew Thorpe	Newport Ty Awen	Matthew.thorpe@mottmac.com
Quantity Surveyor	Alex Rees	Newport Ty Awen	Alexandra.rees@jnbentley.co.uk
<i>Temporary Works Coordinator (TWC)</i>	Quentin Hellis	Newport Ty Awen	Quentin.hellis@mm-b.co.uk
<i>Project Manager</i>			
Project Team – Site:			
Site Manager	Mark Jones	Newport Ty Awen/Site	Mark.JonesP@jnbentley.co.uk
M & E Engineer			
Commissioning Engineer			
Electrical Engineer			
<i>Other...</i>			
Technical Support:			
QES Advisor (H&S)	Nigel Bull	Ty Awen, Newport	Nigel.bull@jnbentley.co.uk
QES Advisor (Q&E)	Rebecca Mann	Ty Awen, Newport	Rebecca.mann@mottmac.com
Buyer	JNB Skipton		
Environmental	Will Batten	Ty Awen, Newport	Will.Batten@mottmac.com
Ecologist	Elliott Hughes	Ty Awen, Newport	Elliott.Hughes@mottmac.com
Archaeologist	N/A		
Regional CSR / Community Liaison	N/A		
<i>Other...</i>			

Key Responsibilities:

Key Duties:	Site Manager	Engineer	Foreman	Lead Hand
Site Inductions	R	N/A	N/A	D
Morning Briefings	R	N/A	N/A	D
Tool Box Talks	R	N/A	N/A	D
General Workmanship	R	N/A	N/A	D
Materials Quality		N/A	N/A	D
Inspection & Test Plans	R	N/A		
Environmental Monitoring		N/A	N/A	N/A
R= Responsible Person, D = Delegated Person (eg Absence)				

Appendix K – Authority to Receive Goods and Plant:

The following personnel are authorised to receive goods, plant or services on site:

Delivery Type:	Contracts Manager	Site Manager	Engineer	Foreman	Lead Hand	General Operative	Subcontractor	Visitor (JNB / MMB)
Mail (<i>Requiring Signature</i>)	Y	Y	Y	Y	Y	N	N	N
Plant Deliveries	Y	Y	Y	Y	Y	N	N	N
Plant Uplifts	Y	Y	Y	Y	Y	N	N	N
Materials Deliveries	Y	Y	Y	Y	Y	N	N	N
Returned Goods	Y	Y	Y	Y	Y	N	N	N
Concrete Deliveries	Y	Y	Y	Y	Y	N	N	N
Waste Uplifts	Y	Y	Y	Y	Y	N	N	N
Other (State)	-	-	-	-	-	-	-	-
State: Yes (Y) or No (N)								
Usual checks will still apply, specifically: 1 <i>Checking and signing for all materials upon delivery against the delivery ticket for quality, quantity and damage;</i> 2 <i>Signing Plant On-hire & Off-hire Sheets (inc temporary works items & surveying equipment);</i> 3 <i>Checking & signing for any other items.</i>								
Document any 'Special Checks' Required when approving deliveries / uplifts:								
Mail (<i>Requiring Signature</i>)	Check contents and quantity.							
Plant Deliveries	Check description, fuel, condition.							
Plant Uplifts	Check inclusions, fuel, condition.							
Materials Deliveries	Check contents and quantity.							
Returned Goods	Check contents and quantity.							
Concrete Deliveries	TBC once specified.							
Waste Uplifts	Check descriptions match waste.							
Other (State)	-							