



Borough of Poole

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# POOLE PARK SLUICE BRIDGE

Specification - Contract 2







Borough of **Poole**

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# **POOLE PARK SLUICE BRIDGE**

Specification - Contract 2

**TYPE OF DOCUMENT (VERSION) CONFIDENTIAL**

**PROJECT NO. 70044480**  
**OUR REF. NO. 70044480-004**

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## PREAMBLE

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1 The Specification referred to in the Tender shall be:-

- The 'Specification for Highway Works', published by the Stationery Office (formerly HMSO) as Volume 1 of The Manual of Contract Documents for Highway Works ([www.dft.gov.uk/ha/standards/mchw/vol1](http://www.dft.gov.uk/ha/standards/mchw/vol1))

The 'Specification for Highway Works', published by the Stationery Office (formerly HMSO) as Volume 1 of the Manual of Contract Documents for Highway Works ([www.dft.gov.uk/ha/standards/mchw/vol1](http://www.dft.gov.uk/ha/standards/mchw/vol1)) is modified and extended by the following:

(i) Appendix 0/1: Contract-specific Additional, Substitute and Cancelled Clauses, Tables and Figures;

(ii) Appendix 0/2: Contract-specific minor alterations to existing Clauses, Tables and Figures;

(iii) The Numbered Appendices listed in Appendix 0/3;

Appendix 0/4 contains a list of the Drawings.

2 The relevant publication date of each page of the Specification for Highway Works is given in the Schedule of Pages and Relevant Publication Dates in Volume 2 of the Manual of Contract Documents for Highway Works. ([www.dft.gov.uk/ha/standards/mchw/vol2](http://www.dft.gov.uk/ha/standards/mchw/vol2))

3 An Additional Clause as indicated by a suffix 'AR' in Appendix 0/1 is a Contract-specific alteration.

4 A Substitute Clause as indicated by a suffix 'SR' in Appendix 0/1 is a Contract-specific alteration.

5 A Cancelled Clause indicated by a suffix 'CR' in Appendix 0/1 is a Contract-specific alteration.

6 Insofar as any of the Numbered Appendices may conflict or be inconsistent with any provision of the Specification for Highway Works the Numbered Appendices shall always prevail.

7 Any reference in the Contract to a Clause number or Appendix shall be deemed to refer to the corresponding Substitute Clause number or Appendix listed in Appendix 0/1 or 0/2.

8 Where a Clause is altered any original Table/Figure referred to in the Clause shall apply unless the Table/Figure is also altered. Where a Table/Figure is altered any reference in a Clause to the original Table/Figure shall apply to the altered Table/Figure.

9 Where a Clause in the Specification relates to work, goods or materials which are not required for the Works it shall be deemed not to apply.

10 Any Appendix referred to in the Specification which is not used shall be deemed not to apply.

11 Other than where references to the Overseeing Organisation are made in the context of the Overseeing Organisation granting statutory or type approvals, the roles and functions of the Overseeing Organisation shall be undertaken by the Engineer.

Where the Specification requires the provision of documentation to the Overseeing Organisation for statutory or type approval such documentation shall be provided to the Engineer.

12 Where the Specification is used in conjunction with a Contract under which the Main Contractor is responsible for the design of any part of the Permanent Works, the delegation of the roles and functions of the Overseeing Organisation as stated in paragraph 10 above shall be further amended as follows:

(i) If any agreement, consent or approval required to be obtained from the Overseeing Organisation impacts on the health and safety of the general public, the environment or any property or equipment not owned or operated by the Main Contractor, such agreement, consent, approval shall be obtained from the Engineer.

(ii) Where the Specification provides for the Overseeing Organisation to require a test, waive the requirement for a test or alter testing frequency, the party to whom the Overseeing Organisation's roles and functions have been ascribed by paragraph 12 shall be the Employer.

13 WSP have been commissioned to produce specifications for two contracts for Poole Park Sluice Bridge. This document "Specification – Contract 2" – (document ref 70044480-004) is for the Main Contractor to carry out all necessary site works including installation of the new FRP bridge deck. The other document "Specification – Contract 1" (document ref 70044480-003) is for the FRP Contractor for the design, fabrication and delivery of the FRP deck for the new bridge. For information, the works in Contract 1 may be referred to in Contract 2 and vice versa. For clarity, the parties involved in delivering the contracts will be referred to as "Main Contractor" and "FRP Contractor" in the WSP specifications.

## APPENDIX 0/1: CONTRACT-SPECIFIC ADDITIONAL, SUBSTITUTE AND CANCELLED CLAUSES, TABLES AND FIGURES INCLUDED IN THE CONTRACT

**Table 1 - List of Additional Clauses, Tables and Figures**

Clause No	Title	Page No
None		

**Table 2 - List of Substitute Clauses, Tables and Figures**

Clause No	Title	Page No
None		

**Table 3 - List of Cancelled Clauses, Tables and Figures**

Clause No	Title
None	

**Table 4 - Additional Clauses, Tables and Figures**

Clause No	Title and Written Text
None	

**Table 5 - Substitute Clauses, Tables and Figures**

Clause No	Title and Rewritten Text
None	

## APPENDIX 0/2: CONTRACT-SPECIFIC MINOR ALTERATIONS TO EXISTING CLAUSES, TABLES AND FIGURES INCLUDED IN THE CONTRACT

Table 6 - Part A Volume 1 Specification

Clause No	Alterations to be made
None	

Table 7 - Part B Volume 2 Notes for Guidance on the Specification for highway Works

Clause No	Alterations to be made
None	

## APPENDIX 0/3: NUMBERED APPENDICES REFERRED TO IN THE SPECIFICATION AND INCLUDED IN THE CONTRACT

This Appendix 0/3 is comprised of two lists, A and B, of Numbered Appendices as follows:-

List 'A' is a complete list of the Numbered Appendices referred to in the Specification for Highway Works for the series listed above. Those not adopted are marked 'Not Used'. Those identified by the letter C shall be completed by the Contractor.

**Table 8 - List 'A': Contract Specific Numbered Appendices Referred to in the Specification for Highway Works and Included in the Contract**

Adopted or not?		App. No.	Title
Not Used			INTRODUCTION
		0/1	Contract-specific Additional, Substitute and Cancelled Clauses, Tables and Figures Included in the Contract
		0/2	Contract-specific Minor Alterations to Existing Clauses, Tables and Figures Included in the Contract
		0/3	List of Numbered Appendices Referred to in the Specification and Included in the Contract
		0/4	List of Drawings Included in the Contract
		0/5	<del>Special National Alterations of the Overseeing Organisations of Scotland/Wales</del>
Not used			PRELIMINARIES
		1/1	Temporary Accommodation and Equipment for the Overseeing Organisation
		1/2	<del>Vehicles for the Overseeing Organisation</del>
		1/3	<del>Radio Communication System for the Overseeing Organisation</del>
		1/4	Working and Fabrication Drawings
		1/5	Testing to be Carried out by the Contractor
		1/6	<del>Supply and Delivery of Samples to the Overseeing Organisation</del>
		1/7	Site Extent and Limitations on Use
		1/8	<del>Operatives for the Overseeing Organisation</del>
		1/9	Control of Noise and Vibration
		1/10	Permanent works to be Designed by the Contractor
		1/11	Temporary Works Design
		1/12	Setting Out and Existing ground Levels
		1/13	Programme of Works
		1/14	Payment Applications
		1/15	<del>Accommodation Works</del>

Adopted or not?		App. No.	Title
Not used		1/16	<del>Privately and Publicly Owned Services and Supplies</del>
		1/17	Traffic Safety and Management
Not used		1/18	<del>Temporary Highways for Traffic</del>
Not used		1/19	<del>Routing of Vehicles</del>
Not used		1/20	<del>Recovery Vehicles for Breakdowns</del>
		1/21	Information Boards
Not used		1/22	<del>Progress Photographs</del>
		1/23	Risks to Health and Safety from Materials or Substances
		1/24	Quality Management System
Not used		1/25	<del>Temporary closed Circuit Television (CCTV) System for the Monitoring of Traffic</del>
Not used		1/26	<del>Not used</del>
Not used		1/27	<del>Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks (TASCAR)</del>
			SITE CLEARANCE
		2/1	List of Buildings, etc. to be Demolished or Partly Demolished
Not used		2/2	<del>Filling of Trenches and Pipes</del>
		2/3	Retention of Material Arising from Site Clearance
Not used		2/4	<del>Explosives and Blasting</del>
		2/5	Hazardous Materials
			FENCING
		3/1	Fencing, Gates and Stiles
			ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)
		4/1	Road Restraint Systems (Vehicle and Pedestrian)
Not used		4/2	<del>Information required to demonstrate Compliance of Transitions and Terminals to Clause 401</del>
			DRAINAGE AND SERVICE DUCTS
			Section Not Used

Adopted or not?		App. No.	Title
Not used		6/1	EARTHWORKS <del>Requirements for Acceptability &amp; Testing etc. of Earthworks Materials</del>
Not used		6/2	<del>Requirements for Dealing with Class U1B and Class U2 Unacceptable Material</del>
Not used		6/3	<del>Requirements for Excavation, Deposition, Compaction (Other than Dynamic Compaction)</del>
Not used		6/4	<del>Requirements for Class 3 Material</del>
Not used		6/5	<del>Geotextiles Used to Separate Earthworks Materials</del>
		6/6	<del>Fill to Structures &amp; Fill Above Structural Foundations</del>
Not used		6/7	<del>Sub-formation &amp; Capping &amp; Preparation &amp; Surface Treatment of Formation</del>
		6/8	<del>Topsoiling</del>
Not used		6/9	<del>Earthwork Environmental Bunds, Landscape Areas, Strengthened Embankments</del>
Not used		6/10	<del>Ground Anchorages, Crib Walling and Gabions</del>
Not used		6/11	<del>Swallow Holes and Other Naturally Occurring Cavities &amp; Disused Mine Workings</del>
Not used		6/12	<del>Instrumentation &amp; Monitoring</del>
Not used		6/13	<del>Ground Improvement</del>
Not used		6/14	<del>Limiting Values for Pollution of Controlled waters</del>
Not used		6/15	<del>Limiting Values for Harm to Human Health and the Environment</del>
			ROAD PAVEMENTS – GENERAL Section Not Used
			ROAD PAVEMENTS – CONCRETE AND CEMENT BOUND MATERIALS Section Not Used
Not used		11/1	KERBS, FOOTWAYS AND PAVED AREAS Kerbs, Footways and Paved Areas
		11/2	<del>Access Steps</del>
			TRAFFIC SIGNS Section Not Used

Adopted or not?		App. No.	Title
			ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS Section Not Used  ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS Section Not Used
			MOTORWAY COMMUNICATIONS Section Not Used
			PILING AND EMBEDDED RETAINING WALLS Section Not Used
Not used		17/1	STRUCTURAL CONCRETE Schedule for the Specification of Designed Concrete
		<del>17/2</del>	<del>Not used</del>
		17/3	Concrete – Surface Finishes
		17/4	Concrete – General
		17/5	Buried Concrete
Not used		<del>17/6</del>	<del>Grouting and Duct Systems for Post-tensioned Tendons</del>
Not used		<del>17/7</del>	<del>Precast Concrete Products</del>
			STRUCTURAL STEELWORK Section Not Used
			PROTECTION OF STEELWORK AGAINST CORROSION Section Not Used
		20/1	WATERPROOFING FOR STRUCTURES Waterproofing for Concrete Structures
			BRIDGE BEARINGS Section Not Used



Adopted or not?		App. No.	Title
			PARAPETS Section Not Used
Not used		23/1 23/2	<del>BRIDGE EXPANSION JOINTS AND SEALING OF GAPS</del> <del>Bridge Deck Expansion Joints Schedule</del> Sealing of Gaps Schedule (Other than in Bridge Deck Expansion Joints)
		24/1	BRICKWORK, BLOCKWORK AND STONEWORK Brickwork, Blockwork and Stonework
			SPECIAL STRUCTURES Section Not Used
Not used		26/1 26/2 26/3	MISCELLANEOUS Ancillary Concrete Bedding Mortar <del>Cored Thermoplastic Node Markers</del>
Not used Not used Not used Not used Not used Not used Not used Not used Not used		30/1 30/2 30/3 30/4 30/5 30/6 30/7 30/8 30/9 30/10 30/11 30/12	LANDSCAPE AND ECOLOGY General, sheets 1, 2 & 3 <del>Weed control</del> <del>Control of Rabbits and Deer</del> <del>Ground Preparation</del> <del>Grass Seeding, Wildflower Seeding and Turfing</del> Planting <del>Grass, Bulbs and Wildflower Maintenance</del> Watering Establishment Maintenance for Planting Maintenance of Established Trees and Shrubs Management of Waterbodies Special Ecological Measures

Adopted or not?		App. No.	Title
			MAINTENANCE PAINTING OF STEELWORK Section Not Used

**Table 9 - List 'B' Contract Specific Numbered Appendices devised for the Contract**

App. No.	Appendix title
None	

## APPENDIX 0/4 LIST OF DRAWINGS INCLUDED IN THE CONTRACT

### 1 Contract specific Drawings

**Table 10.1 – Contract Specific Drawings Supplied to Each Tenderer by Scheme Designer**

Drawing No.	Title
JS2600/138/01	Boating Lake Footbridge Structure No. 138 – Sluice Gate Structure
JS2600/138/02	Boating Lake Footbridge Structure No. 138 – Sluice Gate Structure
JS2600/138/03	Boating Lake Footbridge Structure No. 138 – Sluice Gate Structure
JS2600/138/04	Boating Lake Footbridge Structure No. 138 – Sluice Gate Structure
JS2600/138/06	Boating Lake Footbridge Structure No. 138 – Sluice Gate Structure
70044480-SBR-DR-CB-0000	Site Plan
70044480-SBR-DR-CB-0001	Proposed General Arrangement
70044480-SBR-DR-CB-0002	Demolition Details
70044480-SBR-DR-CB-0003	Abutment Cill Beam Outlines
70044480-SBR-BBS-CB-0003	Abutment Cill Beam Outlines – Bar Bearing Schedule
70044480-SBR-DR-CB-0004	FRP Deck Outlines
70044480-SBR-DR-CB-0005	Required Reinstatement and Boundary Details

**Table 11.2 – Contract Specific Drawings Supplied to Each Tenderer by FRP Contractor**

Drawing No.	Title
POOLE-DRG-001	Poole Park Sluice Bridge FRP Deck – General Arrangement and Details

There are minor level differences between the drawing produced by the FRP Contractor and the drawings prepared by the scheme designer. The FRP contractor is currently in the process of designing the deck. The differences will be resolved by reducing the depth of the cill beams shown on drawing 70044480-SBR-DR-CB-0003. In addition, it is expected that there may be other minor amendments arising from discussions between the FRP contractor, and the Main Contractor, that will be required for compatibility of the drawings in Table 10.1 with later versions of, or successor drawings to, those listed in Table 10.2. The drawings listed in Table 10.1 will be updated by the scheme designer prior to construction issue of the same.

### 2 Standard Drawings

#### 2 (i) Standard Drawings Supplied to Each Tenderer

**Table 12 – Standard Drawings Supplied to Each Tenderer**

Drawing No.	Title	Volume No.
None		

## 2 (ii) Standard Drawings Inspected by Tenderers

**Table 13 – Standard Drawings Inspected by Tenderers**

<b>Drawing No.</b>	<b>Title</b>	<b>Aspect required if not whole Drawing</b>
None		

## 2 (iii) Standard Drawings Brought Into the Contract by Reference

HCD published by The Stationery Office as Volume 3 of the Manual of Contract Documents for Highway Works contains the following drawings brought into the Contract by reference. Unless otherwise stated below the whole drawing is brought into the Contract.

**Table 14 – Standard Drawings Brought Into the Contract by Reference**

<b>Drawing No.</b>	<b>Title</b>	<b>Date</b>	<b>Aspect/Alternative(s) required if not whole Drawing</b>
None			

## **APPENDIX 1/1 TEMPORARY ACCOMMODATION AND EQUIPMENT FOR THE OVERSEEING ORGANISATION**

Borough of Poole (BoP) offices are located a short distance from Poole Park so no temporary accommodation is required for BoP staff. The Main Contractor's site welfare facilities will be sufficient for BoP personnel when visiting site.

Access to the sluice gate compound may be required during the site works for BoP to operate sluice gate. The sluice gate is opened monthly to maintain the water quality and salinity of the boating lake. The Main Contractor shall provide access when required by BoP.

## APPENDIX 1/4 WORKING AND FABRICATION DRAWINGS

The table and paragraph below are included in Contract 2 for information only. In this Appendix within Contract 1, the FRP Contractor is required to provide BoP with the following information. The Main Contractor and FRP Contractor should co-operate together effectively.

All working and fabrication drawings prepared by, or on behalf of, the FRP Contractor shall be submitted to the Overseeing Organisation, for examination, at least three weeks before the work, including material ordering, to which the drawing relates, is to start.

**Table 15 - Working and Fabrication Drawings**

Series	Description	Minimum period for submission of drawings
2100	Bridge bearings: Drawings showing details of all types of bridge bearing where proprietary items are not specified by the Designer. Information shown shall include dimensions, make up details, material compositions, material grades, material mechanical properties, fixings, surface finishes, surface hardness, weldability and a schedule of small components. Detailed bearing installation instructions and all fixings and holding down bolt pre-loads shall accompany the drawings, which shall cross reference the corrosion protection details required under Appendix 19/1	3 weeks
2300	Bridge expansion joints: Drawings showing all types of bridge expansion joints where proprietary items are not specified by the Designer. Information shown shall include dimensions, make up details, material compositions, material grades, material mechanical properties, fixings, surface finishes, surface hardness, weldability and a schedule of small components.	3 weeks
4000	FRP bridge deck units: Drawings showing FRP Contractor designed FRP deck units. Information shown shall include dimensions, make up details, material compositions, material grades, material mechanical properties, fixings, surface finishes, surface hardness and a schedule of small components. Detailed FRP deck installation instructions and all fixings and holding down bolt pre-loads shall accompany the drawings. Subsequent to fabrication of structural FRP deck, drawings shall be provided which show the as-constructed details of the information listed above. As-constructed drawings shall be supplied to the Project Manager not later than 3 months after the delivery of the related FRP works.	6 weeks

## APPENDIX 1/5 TESTING TO BE CARRIED OUT BY THE CONTRACTOR

For FRP deck testing and bearing testing (if bearings required) refer to Appendix 1/10. For all other testing, see the table below.

Clause	Work, Goods or Material	Test	Frequency of Testing	Test Certificate	Comments
<b>Series 400</b>					
411	Pedestrian Parapets and Guardrails		Manufacturer's tests: yield/proof strength of material, ultimate strength and the extension at break		(N) [see 411.8]
<b>Series 800</b>					
801, 803, 804, 805, 806	Unbound mixtures beneath surface of a road or paved central reserve	Frost heave (N)	1 per source	Required	
		Grading and fines content	1 per week		
		Plastic index (N)			
		Resistance to fragmentation (N)	1 per source		
		Resistance to wear – micro-Deval test	1 per source		
		Resistance to freezing and thawing (magnesium sulfate soundness) (N)	1 per source		
		Water absorption (N)	1 per source		
		CBR (N)	1 per source and then monthly		
		OMC/mc	Weekly		
		Density (N)	Weekly		

Clause	Work, Goods or Material	Test	Frequency of Testing	Test Certificate	Comments
Series 1700					
1707	Concrete	Cube strength (N) – as described in contract specific Appendix 17/4	Reinforced concrete - four cubes from 3m <sup>3</sup> or 1 batch whichever represents the lesser volume	Required	One tested at 7 days, two at 28 days and one spare in case of cube failure
		Density	As required		
	Fresh Concrete	Consistence (slump or compacting factor or Vebe) (N)	Each batch	Required	
1712	Reinforcement				Product certification scheme applies
	Steel bars			Required (BS4449)	
	Steel fabric			Required (BS4483)	
Series 1900					
1903	Abrasives	Grading	As required		See NG 1903
	Abrasives	Hardness	As required		See NG 1903
1909	Galvanised Coatings	Tests specified in BS EN ISO 1461	As required		
1911, Table 19/2B	Hot dip galvanised coating to fasteners	Tests specified in BS EN ISO 10684	As required		
Series 2400					
2404	Mortar	Cube strength	As described in Appendix 24/1		
Series 2600					
2601	Bedding mortar materials			Required for each batch	Certification in accordance with Clause 2601 is required
	Bedding mortar	Flow cone test	Each batch		Laboratory tests
		Flow between glass plates			
		Compressive strength			
		Expansion test			
		Water absorption			
		Elastic stability			
		Flow cone test	Each load		Site control tests
		Compressive strength			

**Notes:**

1. Unless otherwise stated above, all sampling and testing in this Appendix shall be by the Main Contractor.
2. Tests comparable to those specified in this Appendix will be necessary for any equivalent work, goods or materials proposed by the Main Contractor (See sub-Clause 105.4).
3. (N) indicates that a UKAS accredited laboratory sampling and test report or certificate is required.
4. Unless otherwise shown in this Appendix tests for work, goods or materials as scheduled under any



- one Clause are required for all such work, goods or materials in the Works.
5. Cube strength tests are not required for concrete complying with Clause 2602.
  6. Unless otherwise shown in this Appendix test certificates for work, goods or materials as scheduled under any one Clause are required for all such work, goods or materials in the Works.

## APPENDIX 1/7 SITE EXTENT AND LIMITATIONS ON USE

The area of the site is deemed to be the areas shown on drawings numbered 70044480-SBR-CR-CB-0000 and shall be extended beyond the limits shown to include those areas of highway that the Project Manager deems necessary for the execution of temporary traffic management measures. Refer to Appendix 1/13 for restrictions on the availability of the site.

The areas shown on drawings 70044480-SBR-CR-CB-0000 are owned by BoP. The Main Contractor will close these areas to the public for the duration of the works by temporary fencing.

Roads, accesses, rights of way, railway crossings, etc., which are being used by construction traffic shall at all times be kept clean and clear of all dirt, mud and material dropped from vehicles or from tyres arising from such use. The Main Contractor shall provide, maintain and use suitable equipment for this purpose. Where necessary, paths shall be swept every week.

In carrying out the Works the Main Contractor shall ensure that all highway drains, ditches and grips be kept clear of any spoil, mud, slurry or other material likely to impede the free flow of water therein. The Main Contractor shall remove any such contamination as soon as practicable when instructed to do so.

In determining a location for the site compound, the Main Contractors attention is drawn to drawing 70044480-SBR-CR-CB-0000. Two potential site compound locations are shown: Potential Compound A on Poole Lake Road and Potential Compound B on the shore of the lake to the east of the site.

## APPENDIX 1/9 CONTROL OF NOISE AND VIBRATION

The normal working hours within the site shall be Monday to Friday between 07:00 hours and 19:00 hours, Saturdays between 08:00 hours and 17:00 hours with no work on Sundays or Bank Holidays.

Consent for planned works outside these hours will normally be given after any necessary consultation provided the noise levels shown below are not exceeded during the extended working hours.

The Main Contractor shall use plant and methods of construction such that the total noise level arising from the works does not exceed the limits set out below:-

During normal working hours 08:00 to 18:00 hours, the sound level, measured one metre outside the facade of any occupied building, shall not exceed the following: -

- (i) 70 dB -  $L_{A\text{ eq},12\text{ hour}}$  or 3 dB above the residual level, whichever is the greater, and
- (ii) 73 dB -  $L_{A\text{ eq},6\text{ hour}}$  or 5 dB above the residual level, whichever is the greater (provided that the six hours fall within the period 08:00 to 16:00hours) and
- (iii) 76 dB -  $L_{A\text{ eq},3\text{ hour}}$  or 3 dB above the residual level, whichever is the greater (provided that the six hours fall within the period 08:00 to 13:00hours), and
- (iv) 85 dB -  $L_{pA, \text{max}}$  and, in the case of noise of an impulsive nature (e.g. drilling)

Outside normal working hours, the sound level measured one metre outside the façade of adjacent occupied building, shall not exceed the owing:-

- (i) 60 dB -  $L_{A\text{ eq},1\text{ hour}}$  or 3 dB above the residual level, whichever is the greater (19:00 hours to 22:00 hours), and
- (ii) 55 dB -  $L_{A\text{ eq},1\text{ hour}}$  or 3 dB above the residual level, whichever is the greater (22:00 hours to 07:00 hours) and
- iii) 70 dB -  $L_{A\text{ eq},\text{max}}$  and, in the case of noise of an impulsive nature:
- (iv) 70 dB -  $L_{A\text{ eq},01}$  (measured over one cycle).

The residual noise level is here defined as the ambient noise remaining in a given situation when the site noise is suppressed to a degree such that it does not contribute to the ambient noise. Other terms are as defined in BS 5228: part 1: Noise control on construction and open sites.

	At Any Occupied Building (At the façade of the property)	At the nearest right of way in use of pedestrian traffic
07:00 hours - 19:00 hours	60 dB(A)	74 dB(A)
19:00 hours - 07:00 hours	30 dB(A)	50 dB(A)

NOTE: Where noise control stations are located 1m from the facades of buildings, the noise levels can be increased by 3dB(A)

Exceptionally the Main Contractor may be given permission to carry out works that exceed the noise levels in the above table, provided that **14** days notice of the date and timing of these works is given to

the Project Manager and the Main Contractor demonstrates that he intends to take all reasonable measures to mitigate the noise nuisance. After consultation with Environmental and Consumer Protection Services and any other interested bodies a decision will be given within **10** days of receipt of the notice.

Vibration Criteria – Criteria and procedures for vibration control are specified for 3 purposes and assessed using 3 different sets of parameters;

- (a) To protect the occupants and users of buildings from disturbance, for which Vibration Dose Values are assessed (VDV's are defined in BS6841 and their application to occupants of buildings is discussed in BS6472)
- (b) To protect buildings from risk of physical damage, for which peak component particle velocities are assessed in accordance with BS 7385.
- (c) To protect particularly vibration-sensitive equipment and processes from damage or disruption for which peak component acceleration, velocity or displacement are assessed as appropriate to each process or item of equipment.

It is recognised that in some buildings, 2 or 3 of the above sets of criteria may apply and in those cases the criteria shall be evaluated separately. In establishing criteria, controls and working methods, the Main Contractor will take account of the guidance in BS6472, BS5228 and BS7385.

Disturbance Criteria - The Main Contractor will use best practicable methods to control vibration levels so that the following Vibration Dose Values measured in accordance with BS6472:1994 are not routinely exceeded as a result of the works:

Building Type	Period	VDV (Ms <sup>-1.75</sup> )
Residential Dwellings	08:00 – 22:00 hours	0.40
	22:00 – 08:00 hours	0.13
Educational establishments, offices and similar (1)	Over normal daily period of use	0.40
Commercial (2)	Over normal daily period of use	0.80

[1] Measured on a normally loaded-floor of areas where people normally work. This category of receiver will include all areas where clerical work, meetings and consultations are regularly carried out. e.g. Doctor's surgeries, day-care centres but not shop floors of industrial premises.

[2] Measured on a normally loaded floor of areas where people normally work. Commercial premises include retail and wholesale shops.

Criteria to Protect Against Damage to Buildings – The Main Contractor will use “Best Practicable Means” to control vibration levels so that the peak component particle velocity measured at the base of any building in accordance with BS7385 does not routinely exceed a level of 10mm/s (Section 7.4.1

of BS7385:Part 2:1993 indicates 12.5mm/s as the level below which the probability of damage tends to zero).

Where the level of 10mm/s is predicted to be exceeded the Main Contractor shall employ a surveyor to provide an appropriate defects survey. In addition an assessment of the vulnerability of that building will be carried out by an engineer or consultant experienced in the assessment of vibration damage to buildings. An undertaking must be provided to the owner to repair any damage caused.

Any building or process that is identified as especially sensitive will be dealt with on a case by case basis.

## APPENDIX 1/10 PERMANENT WORKS TO BE DESIGNED BY THE FRP CONTRACTOR

The Overseeing Organisation will require two weeks to accept any designs under this Appendix.

**Table 16 - Permanent Works to be Designed by the FRP Contractor**

Work Item or Element	Location	Design Specification
<p>FRP bridge deck to be designed by FRP Contractor in accordance with CUR 96 or other recognised standard. Design may also refer to BD 90/05 but this is not a requirement. Approval In Principle in accordance with BD 2/12 to be prepared by FRP Contractor. Design of FRP deck undertaken once this is accepted by the Engineer.</p> <p>The FRP Contractor is an experienced engineer with specialist knowledge of FRP materials and design methods as well as experience relevant to structural design. The FRP Contractor is responsible to the Engineer for:</p> <ul style="list-style-type: none"> <li>a) Design of FRP components at a material science level;</li> <li>b) Production of a specification and advice on the procurement of components from an FRP manufacturer or supplier;</li> <li>c) Verification of the structural properties of the components in relation to the specification and provision of design data.</li> <li>d) Provision of a copy of the standards used to the Overseeing Organisation</li> <li>e) Provide design reactions for any holding down anchors required</li> <li>f) If deck provided in multiple sections, deck joints should be sealed</li> <li>g) Proposed FRP deck testing regime to be provided by FRP Contractor in accordance with relevant standards. FRP Contractor to provide a copy of the standards used to the Overseeing Organisation</li> </ul>	<p>Replace existing bridge deck</p>	<p>Refer to drawings 70044480-SBR-DR-CB-0001 and 70044480-SBR-DR-CB-0004</p> <p>The FRP deck should be designed to Design Working Life Category 4 (50-120 years design working life) in accordance with BS EN 1990:2002 and BD 100/16.</p> <p>The FRP deck may be fabricated in sections to facilitate transportation, delivery and installation. Joints thus created shall have the same design life as the remainder of the FRP deck.</p> <p>Refer to text below table for deck design loading, surfacing, clear width between parapets and deck to parapet connection.</p> <p>Provide to the Overseeing Organisation draft AIP drawing(s) 2 weeks after appointment and the AIP 4 weeks after contract appointment.</p>
<p>Bearings</p> <p>If bearings required, proposed bearing testing regime to be provided by FRP Contractor in accordance with relevant standards. FRP Contractor to provide a copy of the standards used to the Overseeing Organisation</p>	<p>Positioned on top of abutment cill beams if required by deck design</p>	<p>The bearings, if required, should be designed to Design Working Life Category 2 (replaceable structural parts, up to 50 years design working life) in accordance with BS EN 1990:2002 and BD 100/16.</p>
<p>Expansion joint</p>	<p>Interface between FRP deck and footpath surfacing if required by deck design</p>	<p>The expansion joints, if required, should be designed to Design Working Life Category 2 (replaceable structural parts, up to 50 years design working life) in accordance with BS EN 1990:2002 and BD 100/16.</p>

## 1 FRP Deck Design Loading

FRP deck should be designed for pedestrian action from a characteristic uniformly distributed load  $q_{fk}$  of 5kN/m<sup>2</sup> in accordance with BS EN 1991-2:2003 and UK National Annex.

The FRP deck should be designed for a service vehicle with characteristic gross axle weights  $Q_{sv1} = 35\text{kN}$  and  $Q_{sv2} = 17.5\text{kN}$  in accordance with Figure 5.2 of BS EN 1991-2:2003 and the UK National Annex. These are project specific axle loads in accordance with Clause NA.2 43 which have been derived to facilitate maintenance vehicles as anticipated to be used by BoP Parks Maintenance.

FRP deck should be designed to satisfy serviceability and ultimate limit state criteria in accordance with CUR 96 or other recognised standard.

Deformations should be calculated in accordance with CUR 96 or other recognised standard for serviceability load combinations from BS EN 1990 and 1991-2 with associated National Annexes. FRP Contractor to provide a copy of the standards used to the Overseeing Organisation

Pedestrian comfort criteria for serviceability from BS EN 1990 should be designed for. Comfort criteria do not need to be verified by dynamic analysis if the fundamental frequency of the deck is greater than or equal to:

- 5 Hz for vertical vibrations,
- 2,5 Hz for horizontal (lateral) and torsional vibrations.

## 2 Deck surfacing

This should address such requirements as corrosion resistance, resistance to slip, environmental deterioration, durability, and additionally for equestrian use, noise attenuation. Account shall be taken of the design details of the structure to ensure effective drainage and adequate adhesion with all parts of the structure (including painted elements, ducts, etc.)

Surfacing should be designed for use by pedestrians and cyclists.

The surfacing should comply with the requirements in BD 29/17 Clauses 10.2 to 10.6.

## 3 Clear width between parapets

A minimum clear width of at least 3.9m should be provided between the internal faces of the parapets.

## 4 Deck to Parapet Connection

The bridge deck must have suitable capacity to resist loads applied from pedestrian and wind actions on the bridge parapets which are transferred to the deck.

The parapets will be designed and manufactured by Claydon Architectural Metals (CAM) Ltd. Refer to Appendix 4/1 and drawings 70044480-SBR-DR-CB-0001 and 70044480-SBR-DR-CB-0005 for further details.

Characteristic CAM parapet self-weight is 0.5kN/m.

The parapets will be designed for PD CEN-TR 16949:2016 Class C pedestrian loads. This comprises a characteristic uniformly distributed load of 1.0kN/m applied horizontally or vertically to the rail.

However, the FRP bridge deck needs to be designed for PD CEN-TR 16949:2016 Class E pedestrian loads in accordance with NA to BS EN 1991-2:2003. This comprises a characteristic uniformly distributed load of 1.6kN/m applied horizontally or vertically to the rail.

The parapets will be designed for a minimum characteristic wind pressure of 0.8kN/m<sup>2</sup> in accordance with PD CEN-TR 16949:2016.

As per drawing 70044480-SBR-DR-CB-0001, the parapet posts on both sides shall be fixed to the top of the deck. The end posts of the bridge parapets will be ground installed in foundations behind the abutments. The FRP Contractor must liaise with CAM to confirm the arrangement of the parapet deck connection and design the FRP deck to resist the applied loads.

The parapet applied load effects at the connection between the deck and the parapet can be derived from the parapet dimensions in drawing 70044480-SBR-DR-CB-0001 and the pedestrian and wind loads from PD CEN-TR 16949:2016 as described above.





## APPENDIX 1/11 TEMPORARY WORKS DESIGN

The Overseeing Organisation will require three weeks to accept any designs under this Appendix.

To safely demolish the existing fragile, very weak reinforced/pre-stressed concrete deck the Main Contractor will need to design temporary works. The temporary works should be designed to prevent debris falling into the water.

## APPENDIX 1/12 SETTING OUT AND EXISTING GROUND LEVELS

Setting out details are shown on Drawing No 70044480-SBR-DR-CB-0001, 70044480-SBR-DR-CB-0003, 70044480-SBR-DR-CB-0004 and 70044480-SBR-DR-CB-0005.

Existing ground levels are included in these drawings. These levels are based on the topographical information provided in BoP drawings JS2600/138/01, JS2600/138/02, JS2600/138/03, JS2600/138/04 & JS2600/138/06.

All dimensions and coordinates are to be confirmed on site prior to design and fabrication of the FRP deck; The FRP Contractor shall carry out a survey of the existing structure to satisfy himself of the accuracy of the information provided such that the new fabricated deck will fit.

## APPENDIX 1/13 PROGRAMME OF WORKS

In accordance with Clause 31 of the Conditions of Contract the Main Contractor shall provide the Programme of Works in the form of a Network Diagram or Bar Chart produced as a result of a Critical Path Analysis. It shall show the level of detail appropriate to each stage of the works and all activities and restraints, each of which shall be given a short title. All events shall be numbered and annotated with earliest and latest event dates. The programme shall be submitted with the tender documents.

In outline:

Contract 1 for the design, approval and manufacture of FRP deck commencing by and completed the dates in Contract Data Part 1.

Contract 2 for the construction of the works is intended to be tendered on and to be commenced on by the dates in Contract Data Part 1.

Construction on site commencing on the date in Contract Data Part 1.

Constraints:

Account should be taken of the following constraints.

- i) The earliest date for the road to be fully closed to all traffic and pedestrians is the date the works commence in on the date in Contract Data Part 1.
- ii) Poole Harbour is designated as an SPA, RAMSAR site and SSSI. The Main Contractor will be required to write a Construction Environment Method Statement (CEMP) – refer to Appendix 30/1 for details.
- iii) Traffic safety and management requirements. Refer to Appendix 1/17
- iv) Environmental requirements. Refer to Appendix 30/1
- v) The requirements of the conservation Method Statement in respect to the taking down and reconstruction of the existing historic brick pilasters
- vi) The water level in the lagoon may be controlled to suit the works, subject to agreement with BoP and the contractor undertaking dredging work under a separate contract. Cooperation with and coordination of activities with this contractor will be required. A startup meeting will be convened by BoP with the successful tenderer for each project
- vii) Any material strength requirement that the FRP Contractor's designer may determine is necessary to be achieved before subsequent or following activities are carried out

## **APPENDIX 1/14 PAYMENT APPLICATIONS**

The payment applications submitted to the Overseeing Organisation in accordance with the Conditions of Contract by the Main Contractor shall, whenever dealing with matters covered by the Activity Schedule, be set out under headings similar to those in the Activity Schedule and shall separately identify each item. Items not described in the Schedule but appropriate for inclusion as agreed work shall be shown separately. The Main Contractor shall allow the Overseeing Organisation to inspect invoices for goods or materials included in the statement as may be required.

## APPENDIX 1/17 TRAFFIC SAFETY AND MANAGEMENT

Site access and egresses shall be managed by the Main Contractor appointed under Contract 2. The FRP Contractor shall provide the Main Contractor (when appointed) their requirements with respect to delivery of the FRP deck. The following will be required of the Main Contractor:

Responsibility for Traffic Safety and Management:

- 1.1 The Main Contractor is responsible for the Traffic Safety and Management, all associated work and all aspects noted in this Appendix. Refer to Appendix 1/13 for constraints.
- 1.3 The Main Contractor's attention is drawn to the need to assess the risks and develop and operate safe working practices when vehicles and plant are reversing on site, whether or not they are on part of the highway. Rule 129 of The Highway Code 1993 is relevant but the Main Contractor's practices and procedures should take account of the different conditions on site.

Traffic safety and management requirements

- 1.4 The Main Contractor shall advise the Overseeing Organisation of their preferred compound and works access locations from those identified on drawing 70044480-SBR-DR-CB-000. Traffic or parking restrictions necessary for these access arrangements will be arranged by the Overseeing Organisation.

Highways including footpaths, cycle tracks and bridleways, are the responsibility of:

Authority: Growth and Infrastructure, Borough of Poole

Address: Civic Centre, Poole, BH15 2RU

Contact via Client team:

Environmental Services, Borough of Poole  
Unit 1,  
Newfields business Park,  
2 Stinsford Road,  
Poole,  
BH17 0NF

Tel No: (01202) 261323

Under no circumstances shall an access to a frontage be blocked off overnight.

Should it be required, at least 24 hours and no longer than 48 hours before the Main Contractor is to start work outside of a property, the Main Contractor shall inform the residents, by letter, of his intention to start work.

## APPENDIX 1/21 INFORMATION BOARDS

The Main Contractor shall provide and maintain two information boards to be erected on the site boundary fencing, one on the Park Lake Road boundary the other on the Whitecliff Road side. The boards may be secured to the compound perimeter fencing or be on free standing temporarily erected posts.

The boards shall be erected within seven days of the site compound being substantially completed.

The boards shall be A2 in size ready for Project Manager to provide content

## APPENDIX 1/23 RISKS TO HEALTH AND SAFETY

### Specific site hazards or risks

The site is adjacent to the railway boundary fence. There is a risk that the works may infringe on the railway boundary potentially exposing site personnel to risk of serious injury or death or even train derailment. Except where specifically agreed and authorised by Network Rail no work is permitted from the railway side of this boundary fence and to protect against this, the boundary fence should not be removed at any time, except when it is replaced or reconnected with the new works. When using plant, care must be taken to ensure that no element of the equipment crosses the boundary fence. Plant should be fitted with slew restrictors and height limiters to prevent this accidentally occurring.

The existing bridge deck is in poor condition and fragile. No vehicles, plant or heavy equipment should be permitted on this structure at any time. Refer to the inspection report provided in the Pre-construction information. The Main Contractor shall risk assess any pedestrian use of the existing bridge deck and share the findings with the Overseeing Organisation. It is anticipated that a scaffold or floating access route may be required on the lagoon side of the existing structure.

The access to the site is narrow and it may not be possible to turn around a large vehicle at the bridge. Therefore, reversing over a significant distance will be required with the railway boundary fence on one side and a fall into the boating lake on the other side. Care must be taken to ensure that vehicles or plant driving to and from site, particularly if they are reversing, do not collide with the boundary fence or fall into the water. The Main Contractor should be aware of this risk and put controls in place.

The lagoon levels may be adjusted during the works should it be drained to suit the dredging works any fall from an unprotected edge into the lake will have a greater risk of injury. The Main Contractor should be aware of this risk and put suitable controls in place.

Should the work be conducted over water there is a risk of drowning or hypothermia from a fall into the water. There is also a risk of ingesting hazardous bacteria from the lake water. The Main Contractor should be aware of these risks and put suitable controls in place.

There are significant voids behind the lake shore walls adjacent to the existing pilasters. These have the potential to cause the collapse of the substructure supporting the pilasters during demolition. The Main Contractor should be aware of these risks and put suitable controls in place.

### Ground Investigation

Refer to chemical test results from the ground investigation provided within the Preconstruction Information. It is not anticipated that these will be of significance for these works but is included for information.

### Hazardous materials

As soon as dust is noticeably emanating from the works action shall be taken to eliminate the dust at its source.

The following substances Hazardous to Health have been identified that may be used on the site or that may arise during construction of the works:

#### LOW RISK SUBSTANCES

- L002 - Sand
- L003 - Natural Aggregates

#### MODERATE RISK SUBSTANCES

- M012 - Cement
- M013 - Cementitious Mortars and Grouts
- M014 - Concrete
- M018 - Dust from cutting cement, concrete, etc.

The precautions for handling, use and emergency procedures for the hazardous materials listed above are included in specific data sheets in Annexes A, B and C of the Highways Agency Advice Note SA8/94. The Main Contractor shall adhere to the advice listed on the data sheets.

The Main Contractor shall be familiar with the relevant legislation, 'Control of Substances Hazardous to Health Regulations 1988', which governs the use of the substances listed therein.

Attention is drawn to the possible presence of hazardous materials in the existing footbridge structure to be demolished.

The Main Contractor shall not permit the use of any of the following materials in the works:

- ☐ High alumina cement
- ☐ Wood wool slabs as permanent formwork
- ☐ Calcium chloride in admixtures for use in structural concrete
- ☐ Calcium silicate bricks or tiles
- ☐ Asbestos
- ☐ Lead
- ☐ Urea formaldehyde foam
- ☐ Slip bricks
- ☐ Vermiculite plaster
- ☐ Crocidolite
- ☐ Lightweight or air-entrained concrete blocks
- ☐ Sands and gravels containing lignite
- ☐ Polyisocyanurate or polyurethane foam
- ☐ Polytetrafluoroethylene (PTFE)
- ☐ Glass reinforced concrete



- Materials that are generally composed of mineral fibres either man-made or naturally occurring which have a diameter of 3 microns or less and a length of 200 microns or less or, which contain any fibres not stabilised or otherwise sealed to prevent fibre migration.

## APPENDIX 1/24 QUALITY MANAGEMENT SYSTEM

The Main Contractor shall institute and operate quality management system complying with BS EN ISO 9001 and Clause 104. The Quality management system shall be described in a Quality Plan that shall be submitted to the Overseeing Organisation for acceptance prior to commencement on site.

The Quality plan shall cover the following items:

- i) Main Contractors organisation and management
- ii) Main Contractors method statements and construction procedures
- iii) Main Contractors construction quality control
- ii) Organisations Quality Plans

Items i) and iii) of the Quality Plan shall be submitted to the Overseeing Organisation for its acceptance not later than 21 days after the award of the Contract.

The Main Contractor shall submit other parts of the Quality Plan prior to commencement of any related work or activity and to a timetable included in item i)

Method statements are required for the works and shall be submitted for acceptance 14 days prior to commencement of the particular operation, and once accepted shall form part of the Quality Plan.

Method statements are required for the following work items:

1. Access / egress / control of deliveries to site
2. Demolition of the existing bridge deck and cill beams
3. Construction of new cill beams
4. Installation of the new bridge deck
5. Poole Park / Network Rail boundary fencing works

The Main Contractor shall provide additional method statements for works items not listed in the Pre-construction Health and Safety Plan, as required, at the request of the Project Manager or their representative.

Input from the FRP Contractor is likely to be required to assist with the method statement for installation of the new deck.

## APPENDIX 2/1 LIST OF STRUCTURES, ETC. TO BE DEMOLISHED OR PARTLY DEMOLISHED

BoP have arranged for the existing temporary scaffolding footbridge shown on drawing 70044480-SBR-DR-CB-0001 to be removed by the installer. This work will be completed before the commencement date of the works stated in Appendix 1/13 hence should not impact on the works to be undertaken by the Main Contractor.

**Table 17 - List of buildings, etc to be demolished or partly demolished**

Location	Description	Drawing No.	Drawing Ref.	Requirements
Upstream side	Pilasters	70044480-SBR-DR-CB-0002	None	Brick and terracotta pilasters are important historic features to be taken down and rebuilt in accordance with Conservator RAMS. Existing brickwork and terracotta copings to be reused for rebuilding pilasters. Refer to Appendix 24/1
Existing bridge deck and ancillary components	Bridge	70044480-SBR-DR-CB-0002	None	Demolition should not take place at same time as demolition of existing deck. Parapet adjacent to unprotected edge – contractor to manage risk. Fragile very weak existing deck – contractor to manage risk. All elements within the demolition outlines drawing shall be removed. Debris should not be allowed to fall into the sluice channel. However in case it does the method statement shall include a recovery method. All material arising shall be removed to tip

### DESK STUDY/ SURVEY TO BE CARRIED OUT PRIOR TO DEMOLITION

- Before starting demolition work: examine available information and carry out a survey of the structures, site and surrounding area, including any additional specialist asbestos considered appropriate by the contractor and agreed with the Overseeing Organisation..
- Report and method statements to be submitted, describing:
  - Form, condition and details of the structures, site and surrounding area.
  - Form, location and removal methods of any flammable, toxic or hazardous materials.
  - Form, location and removal methods of materials for reuse or recycling.
  - Type and location of adjoining or surrounding premises which may be adversely affected by noise, vibration, dust or removal of structure.
  - Identification and location of services above and below ground, including those required for the Main Contractor's own use.
- Arrangements for disconnection and removal of services.
  - Type and location of any features of historical, archaeological, geological or ecological importance.

- Sequence and method of demolition including details of specific pre-weakening.
- Arrangements for protection of personnel and the public including exclusion of unauthorized persons.
- Arrangements for control of site transport and traffic.
- Proposed programme of work.

## EXTENT OF DEMOLITION

Subject to retention requirements specified elsewhere, structures to be demolished to the extents shown on drawing 70044480-DR-CB-0002. If the Main Contractor notes any ambiguity it shall be reported to the Overseeing Organisation for clarification.

## GROUNDWORKS

- Old foundations, slabs and the like: Break out where and to the extent stated.
- Contaminated material: Remove and carry out remediation required by the Enforcing Authority.

## BENCH MARKS

Unrecorded bench marks and other survey information: Give notice when found. Do not remove or destroy.

## LOCATION OF SERVICES

None known

## WORKMANSHIP

- Standard: Demolish structures in accordance with BS 6187.
- Operatives:
  - Appropriately skilled and experienced for the type of work.
  - Holding or in training to obtain relevant CITB Certificates of Competence.
- Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of demolition to be used.

## GAS OR VAPOUR RISKS

Precautions: Prevent fire or explosion caused by gas or vapour.

## HEALTH HAZARDS

Precautions: Protect site operatives and general public from hazards associated with noise, vibration, dangerous fumes and dust arising during the course of the Works.

## STRUCTURES TO BE RETAINED

- Parts which are to be kept in place: Protect.
- Extent of work: Cut away and strip out with care to reduce the amount of making good to a minimum.

## PARTLY DEMOLISHED STRUCTURES

- General: Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Keep safe outside working hours.
- Temporary works: Prevent debris from overloading.
- Unauthorised persons: Prevent access.

## ASBESTOS CONTAINING MATERIALS

- Discovery: Give notice immediately of suspected asbestos containing materials discovered during demolition work. Avoid disturbing such materials.
- Methods for safe removal: Submit details and statutory risk assessments.

The Main Contractor shall undertake an additional appropriate specialist asbestos survey and dispose of hazardous materials appropriately, prior to demolition.

## UNFORESEEN HAZARDS

- Unrecorded voids, tanks, chemicals, etc. discovered during demolition: Give notice.
- Methods for safe removal, filling, etc: Submit details.

## MATERIALS ARISING – MAIN CONTRACTOR'S PROPERTY

Components and materials arising from the demolition work to be the property of the Main Contractor except as described in appendix 2/3. Materials to be removed from site as work proceeds where not to be reused or recycled for site use.

## APPENDIX 2/3 RETENTION OF MATERIAL ARISING FROM SITE CLEARANCE

BoP have arranged for the existing temporary scaffolding footbridge shown on drawing 70044480-SBR-DR-CB-0001 to be removed by the installer prior to the commencement date for the works – refer to Appendix 2/1.

**Table 18 - Retention of material arising from site clearance**

Description	Location	Delivered to:	Requirements
Brick and terracotta pilasters	Pilasters	n/a	Store on site with care for use when rebuilding pilasters. Refer to Conservator RAMS and drawing 70044480-SBR-DR-CB-0002
Life belt and life belt housing including post	West approach	n/a	Store on site for installation as part of remediation works. Refer to drawings 70044480-SBR-DR-CB-0002 and 70044480-SBR-DR-CB-0005
Cycle path sign and post	West approach	n/a	Store on site for installation as part of remediation works. Refer to drawings 70044480-SBR-DR-CB-0002 and 70044480-SBR-DR-CB-0005

## APPENDIX 2/5: HAZARDOUS MATERIALS

As per Appendix 1/23, for hazardous ground materials refer to chemical test results from the ground investigation provided within the Preconstruction Information. It is not anticipated that these will be of significance for these works but is included for information.

## APPENDIX 3/1 FENCING, GATES AND STILES

For new CAM parapets and gates refer to Appendix 4/1 Road Restraint Systems (Vehicle and Pedestrian).

### 1. Railway boundary Fencing

A secure boundary, equivalent to the existing fencing provision shall be maintained at all times. See 3 below.

### 2. Temporary Fencing:

Public access to the site shall be cordoned off by Main Contractor. All on land work areas and boundaries shall be protected and made secure by use of fencing or hoarding. All lake work areas including any cofferdams and landing stages shall be protected and secured as appropriate to prevent unauthorised mooring; landing and access. Refer to drawing 70044480-SBR-DR-CB-0000 and Appendix 1/7 for details of site extent and boundaries.

Temporary fencing and hoarding should “add to the public realm”, e.g. allow passers-by to view the works where/when suitable, include designs or decorations by artists, architects, or local schools, etc. Temporary fencing should always be highly visible to warn of public hazard and prevent public entry to areas of the site where public safety cannot be controlled. Approved temporary fencing shall include 2m high fully enclosed hoarding, or 2m high temporary Heras fencing or equal approved.

### 3. Permanent Fencing:

The chain link fence with concrete posts at the downstream end shall be reinstated and tie into the new 1800mm CAM gates and parapets. The gap between the new parapets, gates and reinstated fencing shall be no more than 50mm to secure the sluice gate compound. The chain link fencing will be plastic coated. Plastic coating shall comply with SHW Specification Clauses 2604 and 2605. For details of the boundary fence reinstatement refer to drawing 70044480-SBR-DR-CB-0005. Chain link fence to be fixed to concrete posts as per existing boundary fence. Concrete post foundations to be installed as per SHW standard drawing H11 detail which is included in drawing 70044480-SBR-DR-CB-0005.

## **APPENDIX 4/1 ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)**

### **PEDESTRIAN RESTRAINT SYSTEMS**

#### **Location**

The location for pedestrian parapets and gates are shown on Drawing No 70044480-SBR-DR-CB-0001 and 70044480-SBR-DR-CB-0005.

#### **Other details**

The parapets and gates for the approach and bridge deck parapets will be bespoke metal railings designed and supplied by CAM. The Main Contractor will install these items. CAM will design the off-deck foundations. The Main Contractor will supply and install these foundations.

On the downstream side these will be 1800mm high to secure the sluice gate compound and on the upstream side these will be 1200/1400mm high to protect pedestrians and cyclists from the lake. These heights are from the footpath level to the top of the parapets. The overall length of the parapet posts will be designed to fit the post foundations and deck fixings and achieve the required height of parapet above the footpath.

Pedestrian parapets and gates shall meet the requirements in Section 4 of PD CEN/TR 16949:2016. No optional facilities from section 4.2.2 are required. The parapets shall be designed for Class C pedestrian loading in accordance with Table 3. Snow loads and accidental actions in Sections 4.4.6 and 4.4.7 are not required.

Parapets and gates shall have a duplex coating; galvanised to BS EN ISO 1461 and powder coated to BS EN 13438:2013 in a standard RAL colour.

To allow for thermal expansion and contraction of the bridge deck, slotted holes shall be provided at the post to rail bolted connections. These are only required for the four parapet bays where one post is deck mounted and the other post is buried in a foundation in the ground. The location of the slotted holes on the upstream parapet is shown in Elevation C-C on drawing 70044480-SBR-DR-CB-0001. The slotted holes on the downstream parapet shall be in similar locations.

#### **Testing**

No parapet testing is required.

## **APPENDIX 6/8 TOPSOILING**

The Main Contractor shall rake level any areas disturbed by plant or machinery or used for materials storage, remove all loose material and any stones above 50mm in diameter to allow for top-soiling and seeding by others.



## APPENDIX 11/1 KERBS, FOOTWAYS AND PAVED AREAS

### Footways

FRP footbridge surfacing is to be designed by the FRP Contractor subject to approval of the Overseeing Organisation. Refer to Appendix 1/10.

For the approaches to the bridge, the footway and paved area pavement options, construction materials and requirements are detailed below for each pavement type area shown on drawing 70044480-SBR-DR-CB-0005, unless otherwise stated.

Prepared formation shall be treated with a non-toxic weed killer prior to placing of sub-base.

### Path Gravel Surfacing – Approaches to Footbridge

The paths on the approaches to be bridge should be surfaced with M B Wilkes Ltd Path Gravel. The Path Gravel product specified can be found here: <https://www.mbwilkes.com/store/product/path-gravel.html>

M B Wilkes Ltd Path Gravel is a mixture of gravel, sand, silt and clay. When laid correctly at a depth of 30mm, path gravel will produce a smooth weak structured finish suitable for cambered pathways that is permeable to water.

**Table 19 – Path gravel surfacing on approaches**

ELEMENT	SHW SPEC CLAUSE	MATERIAL	GRADE OF BINDER	THICKNESS	SPECIAL REQUIREMENTS
Surface Course	-	Path gravel – M B Wilkes Ltd	-	30	-
Sub-base	803	Type 1	-	100 (increased if CBR <5%)	-

### In situ reinforced concrete footway – Transition Strip from Gravel Path to Footbridge

The transition strip between the gravel path approach and the footbridge deck will be a reinforced concrete slab on sub base as described in Table 19 below.

The sub base will be laid and compacted in compliance with Clause 802.

The surface finish to the edges of the slab shall be U2. The exposed top face shall receive a transverse brushed finish.

The concrete shall be cured for seven days in accordance with BS EN 13670:2009.

Steel mesh reinforcement A393 should be in accordance with BS4483:2005.

Thickness of materials in accordance with HD 39/16 Table 3.2 for Light-vehicle Footways and Cycleways.

Note: Air entrainment is not required for Class C40/50 concrete in accordance with Clause 1001.5.

**Table 20 – Insitu reinforced concrete transition strip surfacing**

ELEMENT	SHW SPEC CLAUSE	MATERIAL	GRADE OF BINDER	THICKNESS	SPECIAL REQUIREMENTS
Surface Course	1106	In situ Concrete RC40/50XF with single layer of A393 steel mesh at centre of slab	-	150	-
Sub-base	803	Type 1	-	75 (increased if CBR <5%)	-
Dampproof course	-	1200 gauge polythene sheet	-	-	-

### In situ unreinforced concrete surfacing – Hardstanding within Sluice Gate Compound

The sluice gate compound will be surfaced with an unreinforced concrete slab on sub base as described in Table 20 below.

The sub base will be laid and compacted in compliance with Clause 802.

The surface finish to the edges of the slab shall be U2. The exposed top face shall receive a brushed finish.

A separation membrane shall be used between the unreinforced concrete surface slab and the sub-base in accordance with Clause 1007.

The concrete shall be cured for seven days in accordance with BS EN 13670:2009.

**Table 21 – Insitu mass concrete sluice gate compound surfacing**

ELEMENT	SHW SPEC CLAUSE	MATERIAL	GRADE OF BINDER	THICKNESS	SPECIAL REQUIREMENTS
Surface Course	1106	Unreinforced in situ Concrete RC40/50XF	-	100	-
Sub-base	803	Type 1	-	100 (increased if CBR <5%)	-
Dampproof course	-	1200 gauge polythene sheet	-	-	-

## APPENDIX 17/1 SCHEDULE FOR THE SPECIFICATION OF DESIGNED CONCRETE

**Table 22 - Schedule for specification of designed concrete**

	<b>Mix Reference 1 (Abutment Cill Beams) C35/45</b>
Intended working Life of Structure	120 years
Nominal Cover to Reinforcement (mm)	65mm +( $\Delta c$ , 15mm)
Applicable Exposure Classes (Excluding DC- Class)	XC3/4, XS3, XD3, XF4
Designed or Prescribed (D or P)	D
Required Compressive Strength Class of Concrete	C35/45
Minimum Cement Content (kg/m <sup>3</sup> )	380
Max. Free Water / Cement Ratio (kg/m <sup>3</sup> )	0.40
Cement / Combination Group	IVB-V, IIIB <sup>2</sup>
Maximum Aggregate Size (mm)	20
Chloride Class	CI 0.30
Consistence Class	-
Maximum Cement Content (kg/m <sup>3</sup> )	550
Required Admixture	None
Air Entrainment Required	No
Min. or Max. Temp. of Fresh Concrete °C	Min. 5°C and Max. 35°C
Sampling and Testing	Appendix 1/5
Other Requirements	1. Freeze- Thaw resisting aggregates 2. Where IIIB is specified, IIIB+SR may be used. 3. Durus EasyFinish fibre reinforcement with dosage rate 6kg/m <sup>3</sup> included in mix. 4. To prevent drying shrinkage, cement content should be maximum 400 kg/m <sup>3</sup> or mix should not contain fly ash or micro silica.

**Notes:**

All Designed Concretes shall conform to BS 8500-2

All constituent materials shall be obtained from a single consistent source

Aggregates shall be free of any impurities that may cause staining

The mix proportions and the grading shall be maintained constant

Rebar on drawing 70044480-SBR-DR-CB-0003 scheduled for average cover of 75mm.

## APPENDIX 17/3 CONCRETE – SURFACE FINISHES

### Tolerances

To achieve acceptable fit of structural steel, tolerances for cast in situ concrete are as follows:

- i. The tolerance in finished member size and finished levels shall not exceed + or – 5mm.
- ii. Deviation from specified line shall not exceed 10mm in 4 metres.
- iii. Deviation from intended position +/- 10mm
- iv. Deviation from intended level +/- 5mm
- v. Deviation from vertical or near vertical plane 2mm/metre
- vi. Deviation from individual dimensions +/- 10mm
- vii. Notwithstanding the above, abrupt irregularities or combinations of opposite tolerances will not be acceptable.

### Finishes

Concrete finishes for the abutment cill beams will be as specified in drawing 70044480-SBR-DR-CB-0003.

## APPENDIX 17/4 CONCRETE – GENERAL

- 1 Cement combinations as defined by SHW clause 1702.1 are permitted.
- 2 Refer to Appendix 1/5 for details of sampling and testing.
- 3 The use of approved retarding agents shall be permitted as a means of reducing operations involving vibration.
- 4 Carbon steel reinforcement shall be ribbed grade B500B to BS4449:2005. Carbon steel reinforcement to be provided where indicated with the notation “B” on the contract drawings as listed in Appendix 0/4.
- 5 All reinforcement shall be cut and bent in accordance with BS8666:2005.
- 6 Stainless steel tying wire (1.2mm diameter) to be used for fixing all reinforcements.
- 7 Spacers, blocks and chairs to be used for fixing reinforcement shall be in accordance with SHW Clause 1714.1.
- 8 Objects made of ferrous materials shall not be left on finished exposed concrete surfaces so as to avoid staining.
- 9 Welding of reinforcement other than steel fabric reinforcements will not be permitted.
- 10 Resin Anchored Fixings for Structures
  - 10.1 Proprietary grout materials shall be supplied by a manufacturer who either:-
    - (a) Holds a current BSI Certificate of Registration as a BSI Registered Firm of Assessed Capability in accordance with BS EN ISO 9001 : 2000; or
    - (b) Operates quality assurance procedures of a similar standard to (a) above and which meet the approval of the Overseeing Organisation
  - 10.2 Resin grout shall be non-expansive, suitable for the proposed inclination of the hole and shall be approved by the Overseeing Organisation. The resin grout shall be stable in the cured condition over the temperature range of -31° to +60°C and be resistant to mechanical and chemical degradation under normal service conditions in a highway environment. In the absence of application specific requirements specified by the Overseeing Organisation, the resin grout shall have an indicative working life of at least 50 years.
  - 10.3 Cementitious grout shall be a proprietary shrinkage compensated grout, suitable for the proposed inclination of the hole and approved by the Overseeing Organisation. Cementitious grout shall consist only of Portland cement (CEM I) complying with BS EN 197-1, fillers, admixtures approved by the

Overseeing Organisation and water complying with BS EN 1008. Cementitious grouts shall not contain a chloride ion content of more than 0.1% by mass of cement.

10.4 Grout materials shall be stored, mixed, incorporated in the works and cured strictly in accordance with the manufacturer's recommended methods and working procedures.

10.5 Anchored carbon steel reinforcement of the specified grade shall conform to BS4449. Anchored stainless steel reinforcement of the specified form, material designation and strength shall conform to BS6744. Anchored fixings shall be Grade A4 stainless steel.

#### 11 Construction Staging Strength requirements

With reference to drawings 70044480-SBR-DR-CB-0001 and 70044480-SBR-DR-CB-0003 the following criteria shall be observed:

**Table 23 - Construction Strength Staging Requirements**

Activity	Preceding Element	Strength (N/mm <sup>2</sup> )
Installation of FRP deck	Abutment cill beam concrete	35 (tbc from FRP Contractor design in Appendix 1/10)
Installation of concrete to fill gap between brick pilaster and FRP deck	Brick pilaster rebuilt and FRP deck installed	20 (estimated 7-day strength)
Loading of FRP deck	Bedding mortar (if required by Appendix 1/10)	50 (tbc from FRP Contractor design in Appendix 1/10)

## APPENDIX 17/5 BURIED CONCRETE

With reference to BS 8500-1: 2006 Tables A.2 to A.4 and BRE Special Digest No 1 2005, concrete in contact with natural or undisturbed ground and unless noted otherwise in Appendix 17/1 of this specification the following table will apply

Structure Name or Location	Poole Park Sluice Bridge
ACEC Class for Site	AC-2
Design Chemical Class	DS-2
Other Requirements and Design Constraints	None



## APPENDIX 20/1 WATERPROOFING FOR CONCRETE STRUCTURES

Waterproofing for concrete structures shall be carried out in accordance with the 2000 series of the Specification and with the particular requirements of this Appendix.

Waterproofing above and below ground surfaces shall be in accordance with the following table:

**Table 24 - Waterproofing above and below ground surfaces**

Material	Method of Application	Rate of Spread	Number of Coats
Bitumen Emulsion	Brush or spray applied	0.55 litres/m <sup>2</sup> (first coat) 0.45 litres/m <sup>2</sup> (second coat)	2

This will be a combined waterproofing and surfacing system.

Depending on the FRP Contractor's design drawings, a waterproof seal may be required between the concrete cill beam and the FRP deck. This requirement will be confirmed at the detailed design phase prior to construction. If required, the waterproofing system will extend from halfway up the FRP deck to the back of the new cill beam to overlap the brickwork below. This is shown indicatively on drawing 70044480-SBR-DR-CB-0001.

## **APPENDIX 23/2 SEALING OF GAPS SCHEDULE (OTHER THAN IN BRIDGE DECK EXPANSION JOINTS)**

- 1 Joints shall be 20x20mm unless noted otherwise and shall include a backing strip and de-bonding tape.
- 2 Immediately before sealing, the Main Contractor shall ensure that the sides of the joint gap are clean, dry and free from loose material. Any concrete projections into the gap shall be removed.
- 3 All seals shall, where practicable, be poured or fixed in one continuous length.
- 4 All seals will be in Grey Polysulphide sealant

## APPENDIX 24/1 BRICKWORK, BLOCKWORK AND STONework

The brickwork piers are important historic features which form part of the wider Poole Park listing as a park and garden. Therefore, BoP have commissioned a conservator Risk Assessment Method Statement (RAMS) to be produced by specialist Hall Conservation Ltd. This report is titled “HC1245 Sluice Gate Report” and is included in the PCI. All brickwork construction, repairs and repointing should be carried out in accordance with the conservator RAMS.

### Repointing brick abutments and lake shore walls

1. The scope of work includes for re-pointing areas of brickwork on the sub-structure that would benefit from such work. The areas, in abutments and lake shore walls are to be agreed on site with the Overseeing Organisation. There are wide voids in the lake shore walls below the brick pilasters which require remediation as indicated on drawing 70044480-SBR-DR-CB-0001.
2. A thermatech steam cleaning system will be used to clean the brickwork abutments and lake shore walls on site. A trial clean will be carried out on a discreet area of the brickwork to determine appropriate pressure and temperature prior to cleaning. A manual clean with soft bristle brushes should also be carried out without the use of biocide or detergent as these would contaminate the watercourse.
3. All old repairs and failed mortar should be removed and raked out. Natural Hydraulic Lime NHL5 mortar shall be used for repointing. This lime mortar shall meet the requirements in BS EN 459-1 type NHL strength class 5.
4. Once the brick pilasters are removed as per the conservator RAMS, consolidate and fill the large voids behind lake shore walls adjacent to the pilasters to remediate this defect.
5. The four corroding steel I-beam stubs in the abutment walls will be removed and infilled with new brickwork to match the existing. The location of each stub is shown in plan on drawing 70044480-SBR-DR-CB-0002.
6. New bricks shall be Class B BS EN 771-1. Active soluble salts content category S2 shall apply in accordance with Table 1 of BS EN 771-1.
7. Appearance and dimensions of new bricks and mortar will match existing.
8. Overhand work is not permitted.
9. If single frogged bricks are used, these shall be laid with frogging uppermost as per Clause 2412.1.
10. If water level in the lake cannot be lowered sufficiently or easily lowered locally around the sub-structure's voids and loose masonry, it may be necessary to employ a diving contractor. There are underwater applied masonry repair systems which may prove a cheaper option than installing temporary works.
11. Any surface mortar staining shall be removed following finishing of joints.

### Rebuilding historic pilasters

1. The existing brick and terracotta masonry pilasters, as outlined on drawing 70044480-SBR-DR-CB-0002, will be taken-down and set aside for reuse.
2. Any frost damaged bricks shall not be re-used. If necessary, matching brick masonry shall be sourced in accordance with Conservator RAMS.

3. The visible faces shall be reconstructed from the original materials with coursing and bonding to match the original pilaster. The Main Contractor may propose for agreement with the Overseeing Organisation, alternative modern methods of construction of the back of the upstream wing walls. Due regard shall be taken to management of water and restraining the masonry face.
4. The masonry shall be free of slivers such that no brick's length shall be less than one-half of its height
5. Any surface mortar staining shall be removed following finishing of joints.
6. Mortar shall be Natural Hydraulic Lime NHL3.5, with colour to match existing, and conforming to BS EN 459-1 strength class 3.5.
7. If terracotta sections of capstones are badly damaged or missing they can be replaced with sections carved out of bath stone with similar colour and appearance in accordance with the conservator RAMS.
8. Cracks in existing terracotta capstones will be consolidated and filled using a suitable terracotta compound mix in accordance with conservator RAMS. Terracotta compound mix to be agreed with the Overseeing Organisation prior to application.
9. Overhand work is not permitted
10. New rebuilt brickwork pilasters require jointing with type of finish to be used
11. Any replacement stone coping stones shall be tooled to match existing finish of existing terracotta coping stones
12. A set of mortar prisms shall be made for every 5m<sup>2</sup> of brickwork or 8 working hours. The mortar used shall be representative of the mortar used for brickwork. The prisms shall be tested for compressive strength in accordance with BS EN 1015-11. Each set comprises three prisms each divided in two to give six individual tests. The mean of the six tests shall be within the limits shown in Table 24/6 of SHW.

## APPENDIX 26/1 ANCILLARY CONCRETE

Table 25 - Ancillary concrete

Element	Standardised Prescribed Mix
Railway boundary fence post foundations	ST2
CAM parapet & gate foundations off-deck	ST2
Concrete footway surfacing	RC40/50F

## APPENDIX 26/2 BEDDING MORTAR

- 1 If required for FRP deck by FRP Contractor's design (see Appendix 1/10), Bedding Mortar shall be in accordance with Clause 2601 and, unless the cill beam on which they are placed has reached an age of 28 days, shall not be epoxy based.
- 2 The mortar strength should not be less than 50N/mm<sup>2</sup>. The compressive strength shall be confirmed by tests on mortar cubes stored under conditions that simulate the field condition.

## APPENDIX 30/1 GENERAL

Planning Condition 3 of BoP APP/17/003/00378/F states:

“Prior to the commencement of development, a construction methodology statement shall be submitted to and approved in writing by the Local Planning Authority. This shall demonstrate how the work will be carried out in a sensitive manner to protect biodiversity and watercourses. The agreed details shall be implemented and followed throughout the development process.”

To satisfy this condition, the Main Contractor shall provide a Construction Environment Method Statement (CEMP) that details their methods for minimising pollution to the surrounding water bodies, including but not limited to methods that:

- Protect against oil and mechanical fluid spills, such as oil booms on land to prevent pollution reaching the water body, as well as oil booms in the water should these fail.
- Methods to be used for the safe capture of disposal materials when removing existing features
- Show that machinery is well-serviced and fit for purpose
- Machinery is re-fuelled in a safe environment away from water bodies
- Protection methods shall be clearly specified and implemented to meet safety standards

The Main Contractor shall provide a CEMP no less than 1-month prior to construction. Input from the FRP Contractor and the contractor undertaking separate works within the water body may be required.

Control of the water level of the lagoon is by a manually operated sluice gate. The effective draining of the lagoon is undertaken on spring tides, where the greater tidal range of Poole harbour allows for the most effective release of water from the lagoon and subsequent refilling.

Owing to built up sediments it is almost impossible to completely drain the lagoon of all water and the separate contract for improvements to the water body will likely use de-watering pumps to assist in removing water through the sluice channel to allow dredging and movement of sediments to create new features.

In addition to saline water being brought in from the harbour, there are over 50 pipes that feed surface water in to the lagoon from a catchment area of approx. 2km<sup>2</sup>. In times of heavy rainfall this increases the volume of water in the lagoon, meaning water level can change even when the lagoon is drained down.

These factors will have an effect on the methods used to remove the existing deck, restore the brick and terracotta pilasters and the following construction work.

## **APPENDIX 30/10 MAINTENANCE OF ESTABLISHED TREES AND SHRUBS**

Maintenance of existing trees and shrubs will be required within the site extents. This maintenance shall solely be for the purpose of providing sufficient access to the works for plant, equipment and materials necessary for the works such that limbs are not broken by passing of the same.

The scope of trimming shall be focussed on those trees and shrubs along the southern park boundary, shown as area 'X' on drawing 70044480-SBR-DR-CB-0000 and shall be agreed in advance with the Overseeing Organisation or their appointed representative. All trimmed material shall be removed and disposed of offsite by the Main Contractor.

The canopy and root protection zone of the trees shown in area 'Y' on the promontory, also shown on drawing 70044480-SBR-DR-CB-0000 shall be protected from the works by provision of suitable fencing such that any unplanned creep in extents of the works or material lay-down areas does not affect either. The method shall be proposed by the Main Contractor in writing and may be appended to the CEMP described in Appendix 30/1.

## APPENDIX 30/11 MANAGEMENT OF WATERBODIES

1 For the demolition of the existing bridge deck, the removal of the historic brick pilasters and the repairs to the lake walls and abutments, work will need to be carried out over water. Installation of the new footbridge, concrete cill beams, parapets and remediated brick pilasters will also require work over water.

The contractor should plan and carry out the works to minimise any debris or pollution entering the watercourse.

At the end of the works, the Main Contractor should ensure that any significant debris is removed from the sluice channel and surrounds which could affect the safe operation of the sluice gate, whether generated by the works or by other means.

2 The sluice channel shall be inspected prior to the works and following the works with the client to confirm that any debris from the works has been removed.

3 There are no known undesirable species or locations of areas of vegetation to be controlled.

4 Reed beds on east and west approaches are far enough away from the site not to be affected by the works.

The reedbeds on the east and west approaches to the works do not need to be inspected. These features are being improved by others as part of the dredging works.

5 Sediment may be removed up to 1m in depth in front of the sluice channel. Areas of deposition are away from the working area for the bridge and shall not have an effect on these works.

BoP are employing a contractor to carry out dredging works within Poole Park Lake which will coincide with the bridge replacement works. If any dredging of the water body at the site is required, the Main Contractor and the dredging contractor should co-operate effectively.

6 BoP have a watersports concession arranged with Rockley Watersports during the summer. This concession ends on 31 October and recommences on 1<sup>st</sup> April. The project shall commence in the winter as per Contract Data Part 1. The works are expected to end before 1<sup>st</sup> April. However, if the works continue after 1 April 2019, the Main Contractor will need to liaise with BoP and potentially Rockley Watersports regarding any watersports concession requirements.







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