

# Govan Partick Bridge

## Marine Licence Supporting Statement

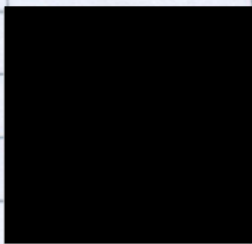
### September 2020

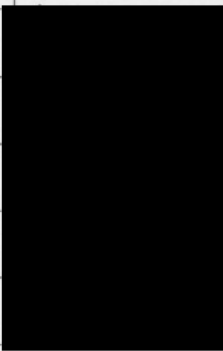


Govan Partick Bridge  
Marine Licence Supporting Statement

**CONTROL SHEET**

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Project Title: Govan Partick Bridge  
Report Title: Marine Licence Supporting Statement  
Project Reference: 42 5085  
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Status: FINAL

Issue & Approval Schedule		Name	Signature	Date
	Prepared by	N. Menzies		04/09/2020
	Checked by	N. Morrison		04/09/2020
	Approved by	H. Dempsey		9/9/2020

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	0	01/9/2020	DRAFT	FOR COMMENT	
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	A	23/09/2020	REV A	REVISED CO-ORDINATES	
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	C	19/11/2020	REV C	REVISED CO-ORDINATES	

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**1. Applicant Details**

The applicant is:

Mr Henry Dempsey

Position: Design Manager

Glasgow City Council  
Neighbourhoods & Sustainability  
231 George Street  
Glasgow  
G1 1RX

**2. Agent Details**

The Agent's details are

Mr. David Hodson

Position: Senior Associate Director - Bridges

Jacobs  
95 Bothwell Street  
Glasgow  
G2 7HX

**3. Contractors Details**

At the time of writing, a contractor has not been appointed for the works. Jacobs are the council's engineering design consultant and have been commissioned to design the works. The intention is for the Marine Licence to be completed by the Contractor when the contract is awarded. The Contractor will provide more detailed information as required on appointment.

## **5. Project Details**

### **a. Brief Description of the Project**

The Project is the construction of a new pedestrian and cycle bridge to re-establish the historical link between Govan and Partick and connect communities, visitor attractions and institutions of national economic significance. The bridge will form part of an active travel route connecting the University of Glasgow Gilmorehill Campus with the Queen Elizabeth University Hospital. The construction of the bridge is part of the Waterfront and West End Innovation Quarter Project being funded by the Glasgow City Region City Deal.

The bridge will be a 6 metre wide, 3-span, cable stayed opening bridge with an inclined inverted V shaped pylon. There will be two piled piers constructed in the river channel either side of the navigation channel. The bridge will have a clear span of 50 metres over the navigation channel. The scheme includes the construction of a new section of quay wall at the confluence of the River Kelvin and River Clyde which extends Pointhouse Quay to provide a suitable north landing point for the bridge.

The disused ferry inlet at Water Row, Govan, will be infilled to provide the south landing point of the bridge.

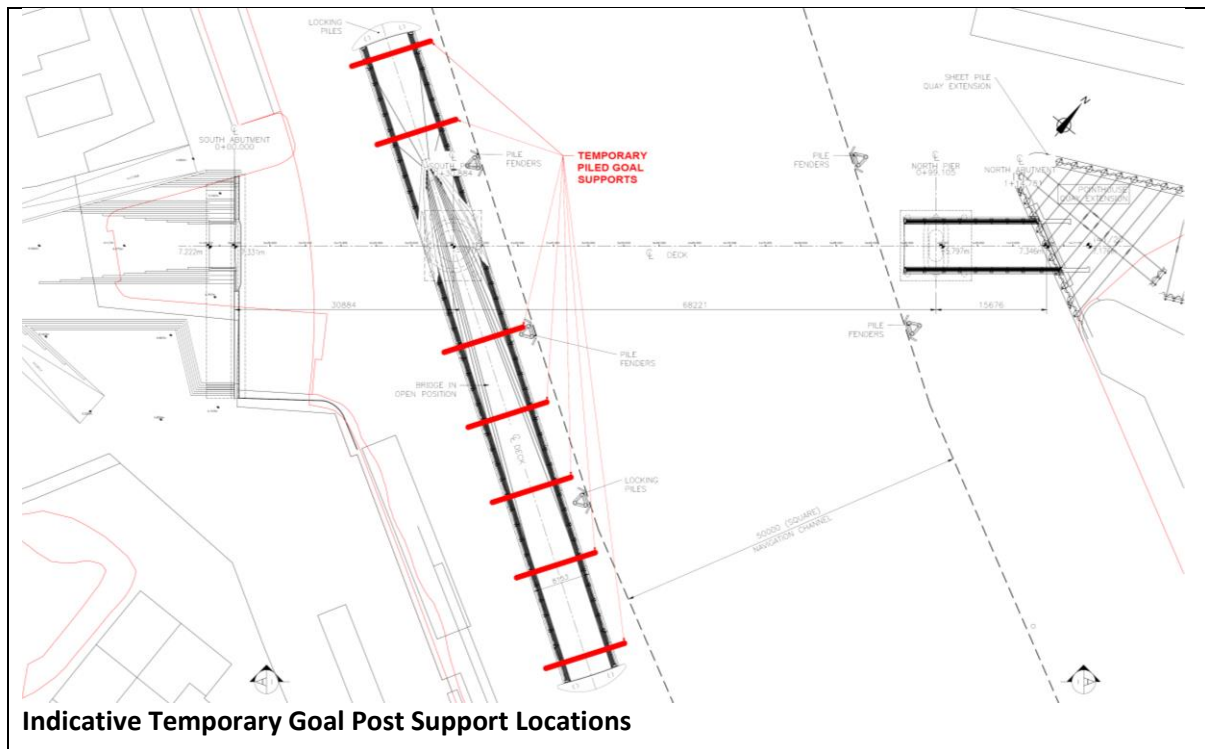
The scheme will include the provision of a temporary layby berth at Merklands Quay. To accommodate vessels, it is currently a requirement of Clydeport to dredge a 100 metre long pocket to -6.9 CD to accommodate vessels at Merklands Quay. This will not involve any construction in the river other than the installation of timber fenders on the face of the existing quay wall.

### **Temporary Works**

Temporary sheet pile coffer dams will be installed at the north and south bridge piers either side of the navigation channel, and at the south abutment to allow construction of the permanent works.

Temporary piled goal post supports will be installed parallel with the navigation channel to the south to support the bridge during assembly.

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### Permanent Works

The Bridge permanent works will include:

Preparatory dredging of working areas at bridge abutments, piers and Pointhouse Quay Extension.

Construction of the south abutment and bridge landing with associated infilling of the Govan Ferry Inlet.

Construction of two piled bridge piers to the north and south of the navigation channel

Installation of locking piles south of the navigation channel to allow locking of the bridge in the open position.

Installation of piled fenders to the north and south of the navigation channel.

Construction of a piled extension to the Pointhouse Quay Wall to act as a bridge abutment and bridge approach/landing.

The Temporary Layby Berth works will include:

Dredging adjacent to Merklands Quay.

Installation of timber fenders at Merklands Quay which will act as a layby berth for PS Waverley.

Construction of access road from South Street to Quay.

f. Location

**AREA 1 – BRIDGE WORKS – NS 555 659** - River Clyde between Govan and Partick, Glasgow, at the confluence with the River Kelvin. Area = 16610 sq.m.

**AREA 2- LAYBY BERTH – NS 544 664** - Associated Layby Berth at Merklands Quay, River Clyde, Partick, Glasgow. Area = 2500 sq.m.

Latitude and Longitude co-ordinates (WGS84) defining the extent of the project

	LATITUDE											LONGITUDE										
POINTS	AREA 1 – BRIDGE WORKS																					
SOP 01	5	5	°	5	1	.	8	5	0	‘N		0	0	4	°	1	8	.	5	9	6	‘W
SOP 02	5	5	°	5	1	.	8	5	9	‘N		0	0	4	°	1	8	.	5	7	4	‘W
SOP 03	5	5	°	5	1	.	8	5	4	‘N		0	0	4	°	1	8	.	5	6	4	‘W
SOP 04	5	5	°	5	1	.	8	3	4	‘N		0	0	4	°	1	8	.	4	9	7	‘W
SOP 05	5	5	°	5	1	.	8	5	8	‘N		0	0	4	°	1	8	.	4	7	0	‘W
SOP 06	5	5	°	5	1	.	8	6	7	‘N		0	0	4	°	1	8	.	4	9	7	‘W
SOP 07	5	5	°	5	1	.	8	8	9	‘N		0	0	4	°	1	8	.	4	7	3	‘W
SOP 08	5	5	°	5	1	.	8	9	6	‘N		0	0	4	°	1	8	.	4	9	8	‘W
SOP 09	5	5	°	5	1	.	9	0	6	‘N		0	0	4	°	1	8	.	4	9	4	‘W
SOP 10	5	5	°	5	1	.	9	1	5	‘N		0	0	4	°	1	8	.	4	7	7	‘W
SOP 11	5	5	°	5	1	.	9	1	8	‘N		0	0	4	°	1	8	.	4	9	3	‘W
SOP 12	5	5	°	5	1	.	9	0	7	‘N		0	0	4	°	1	8	.	5	3	3	‘W
SOP 13	5	5	°	5	1	.	9	0	9	‘N		0	0	4	°	1	8	.	5	3	5	‘W
SOP 14	5	5	°	5	1	.	8	9	2	‘N		0	0	4	°	1	8	.	5	6	9	‘W
SOP 15	5	5	°	5	1	.	9	0	3	‘N		0	0	4	°	1	8	.	6	0	2	‘W
SOP 16	5	5	°	5	1	.	8	7	5	‘N		0	0	4	°	1	8	.	6	3	2	‘W
SOP 17	5	5	°	5	1	.	8	6	3	‘N		0	0	4	°	1	8	.	5	9	6	‘W
SOP 18	5	5	°	5	1	.	8	5	4	‘N		0	0	4	°	1	8	.	6	0	3	‘W
	AREA 2 – LAYBY BERTH																					
1	5	5	°	5	2	.	1	5	2	‘N		0	0	4	°	1	9	.	6	6	9	‘W
2	5	5	°	5	2	.	1	3	9	‘N		0	0	4	°	1	9	.	6	7	1	‘W
3	5	5	°	5	2	.	1	3	1	‘N		0	0	4	°	1	9	.	5	2	8	‘W
4	5	5	°	5	2	.	1	4	4	‘N		0	0	4	°	1	9	.	5	2	6	‘W
			°			.				‘N					°			.				‘W

h. Method Statement

**Bridge Works**

A small amount of preparatory dredging will be carried within the bridge working area to assist construction.

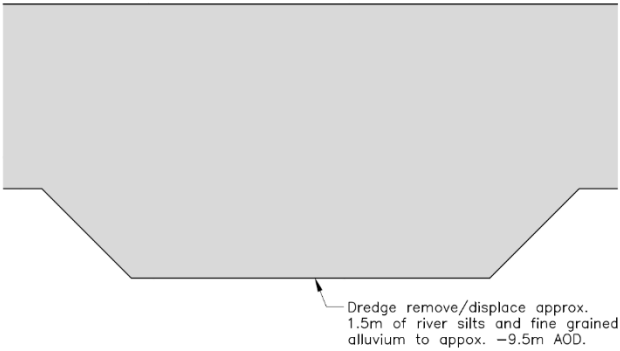
The main bridge piers will be installed within coffer dams formed from driven sheet piles. These will be driven from a jack-up barge to maximise working windows with the tides and allow for greater flexibility in positioning. (See Drawing No. 691301-JAC-DR-0030 Proposed Outlined Pier Construction Sequence)

At this stage use of a single barge has been assumed to ensure that procurement can be achieved and to minimise the disruption to the shipping channel. The estimated barge capacity required would be a minimum of 250t deck weight to enable a crawler crane of sufficient size to handle the fairly large piles required.

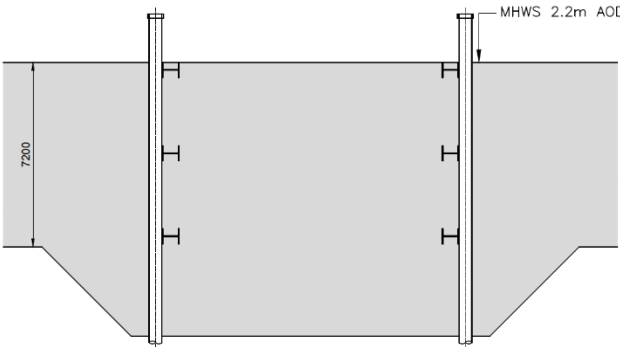
The barge will also require a support vessel to supply materials and equipment and potentially transport workers to the barge each shift. In order to ensure supply of piles there will need to be a loading area on the river nearby, with a dry dock to the south east providing a potential opportunity.



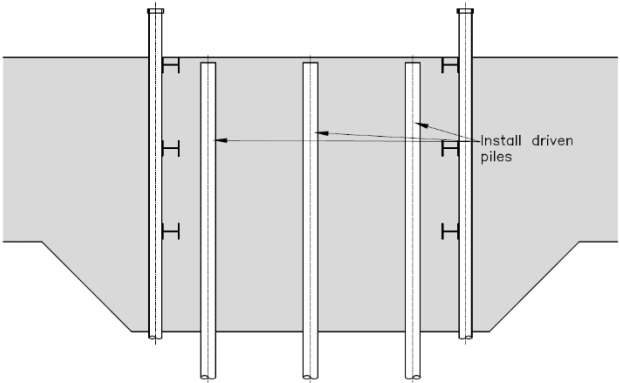
STAGE 1.  
Dredge remove/displace approx. 1.5m of river silts and fine grained alluvium to approx. -9.5m AOD.



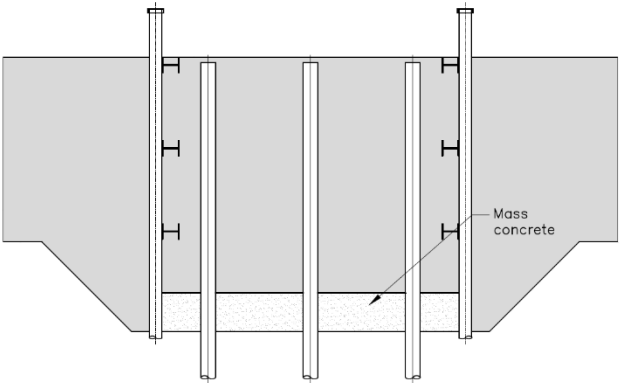
STAGE 2.  
• Install temporary sheet piled cofferdam (Contractor designed)  
• Install temporary ring bracing as necessary under water if required.  
• Complete excavate/dredge river bed material to -9.5m AOD.



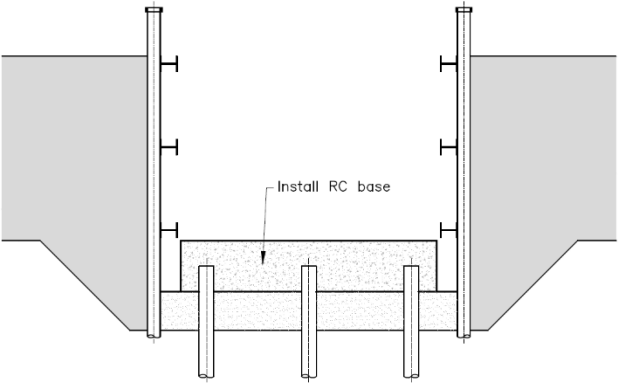
STAGE 3.  
Install piles to achieve loads supplied from Geotechnical design.



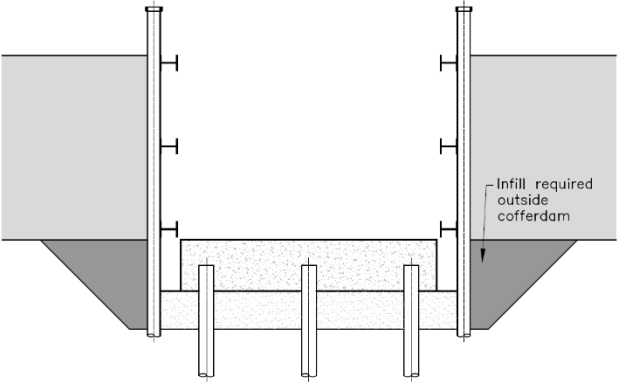
STAGE 4.  
Impermeable concrete plug tremied mass concrete to formation level.



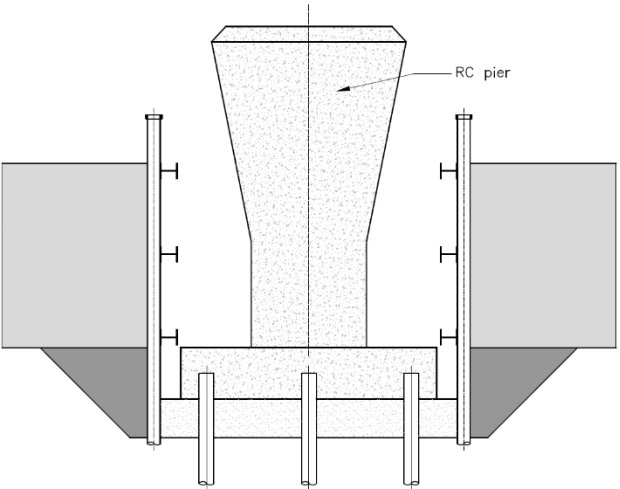
STAGE 5.  
• Install Contractor designed shoring and props for cofferdam construction.  
• De-water cofferdam as shoring is installed  
• Cut piles to level  
• Install RC pilecap base



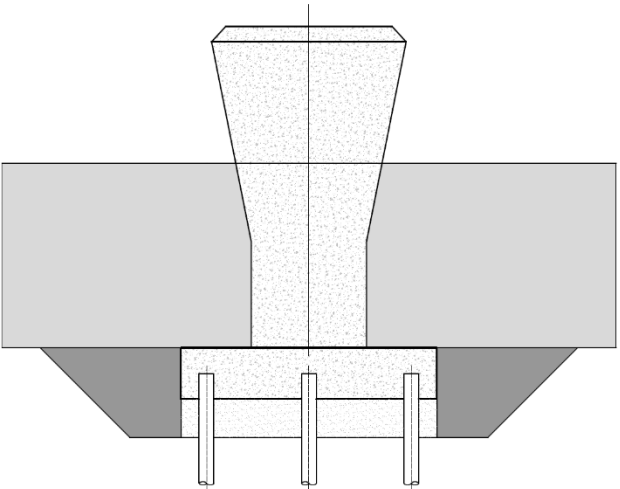
STAGE 6.  
Infill required outside cofferdam.



STAGE 7.  
Construct RC pier.



STAGE 8.  
Remove, or cut off to an agreed level, sheet piled cofferdam.



#### RESIDUAL HAZARDS

The following list provides reference to the Designer's Hazard/ Risk Assessment and indicates those hazards with a high mitigated residual risk index

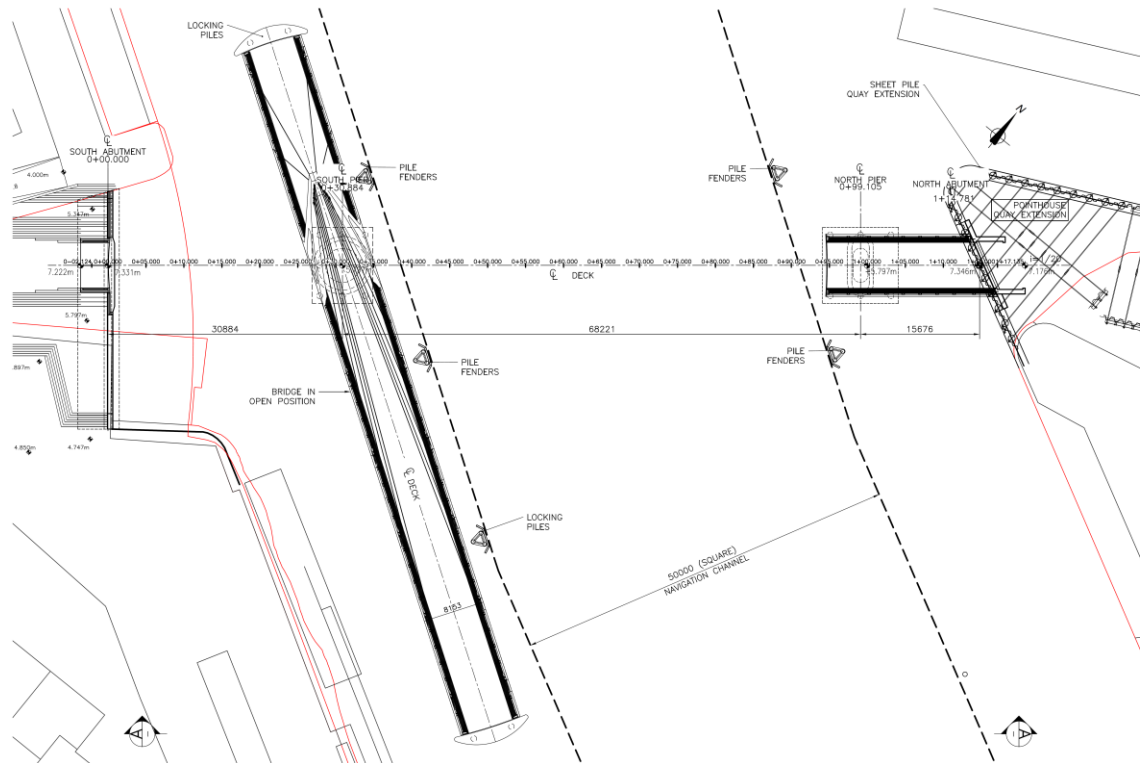
Description of Risk	Ref. No.
Working adjustment to navigation channel.	1
Working adjustment to existing services.	2
Working over tidal water.	3
Working adjacent to access paths and pedestrians.	4

PO	29-07-2020	Issued for CAT 3 Check	GY	DH	GD	DMack
Rev	Rev. Date	Purpose of revision	Orig	Check'd	Rev'd	Apprv'd
<div><div><div><div><div><div><b>Jacobs</b></div></div></div><div><div><div><div><div>95 Bothwell St, Glasgow, G2 7HX</div><div>Tel +44(0)141 243 8000</div><div>Fax +44(0)141 226 3109</div><div>www.jacobs.com</div></div></div></div></div></div></div></div>						
Client		GLASGOW CITY COUNCIL				
Project		GOVAN - PARTICK FOOTBRIDGE				
Drawing title		GOVAN PARTICK BRIDGE PROPOSED OUTLINED PIER CONSTRUCTION SEQUENCE				
Drawing status		FOR CHECKING				Suitability
Scale	As noted at A1		DO NOT SCALE			
Jacobs No.					Rev	
Client No.					P0	
Drawing number						
691301-JAC-DR-0030						
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### **Bridge fenders and bridge locking piles**

The piling for the bridge fenders and bridge locking piles will be completed following the cofferdam construction to provide protection to the cofferdam.

These will be installed from a Jack-up Barge with support vessel.



### **Bridge Assembly**

The method of bridge assembly will be contractor designed.

The most likely method of construction will be to install 'goal post' piles/supports along the line of the bridge in the open position between the main pier and the locking piles to facilitate bridge assembly. These will be outside the navigation channel.

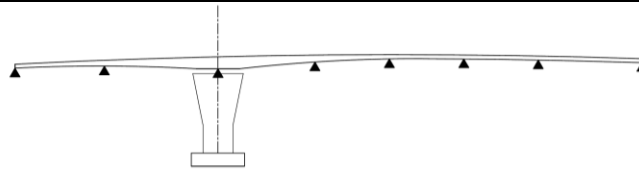
The bridge deck will be delivered in sections by road or by water and craned into position on the pier and goal post supports. The crane will most likely be based on land.

The pylon will be brought to site by land or water and craned into position. The cables will then be installed, and the assembly completed.

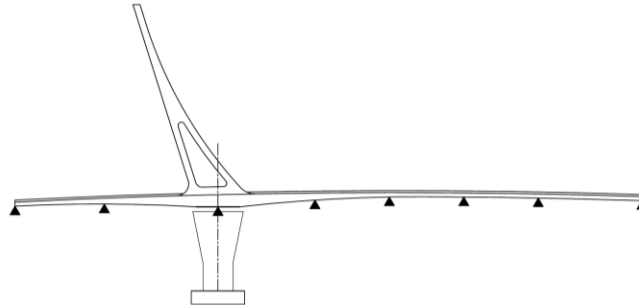
On completion the goal post supports will be removed.

### Proposed Outlined Deck Construction Sequence

STAGE 1.  
Install deck steelwork on temporary supports and south pier in the bridge open to river vessels position. Location of temporary supports in the outline construction sequence has assumed temporary supports at deck ends, and cable anchorage locations. Alternative support locations by the contractor shall ensure that the steelwork has the capacity and stability on the temporary supports.

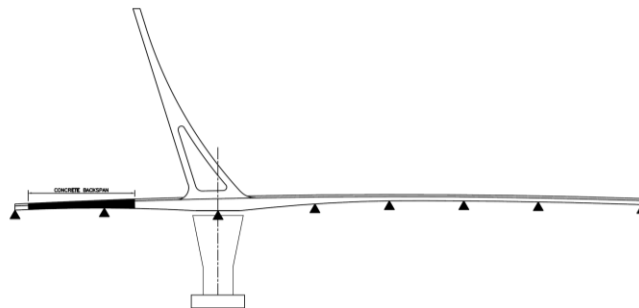


STAGE 2.  
Install pylon steelwork. Contractor to ensure all temporary supports of deck and pylon in the temporary condition does not affect the design of the permanent works.

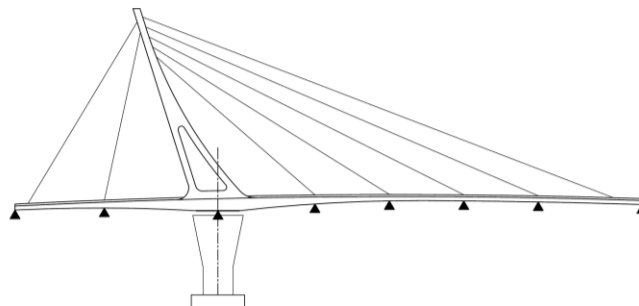


STAGE 3.  

- Install reinforced concrete backspan.
- Install TMD's if not already installed
- Install parapets. Some wirestrands may have to be left out to facilitate stressing of the cables.
- Install all finishes.

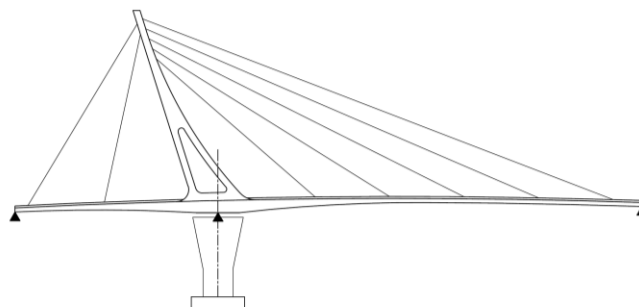


STAGE 4.  
Install cables (all cables prestressed to an agreed stressing sequence to create zero load at supports ie zero deflection at cable deck node locations).



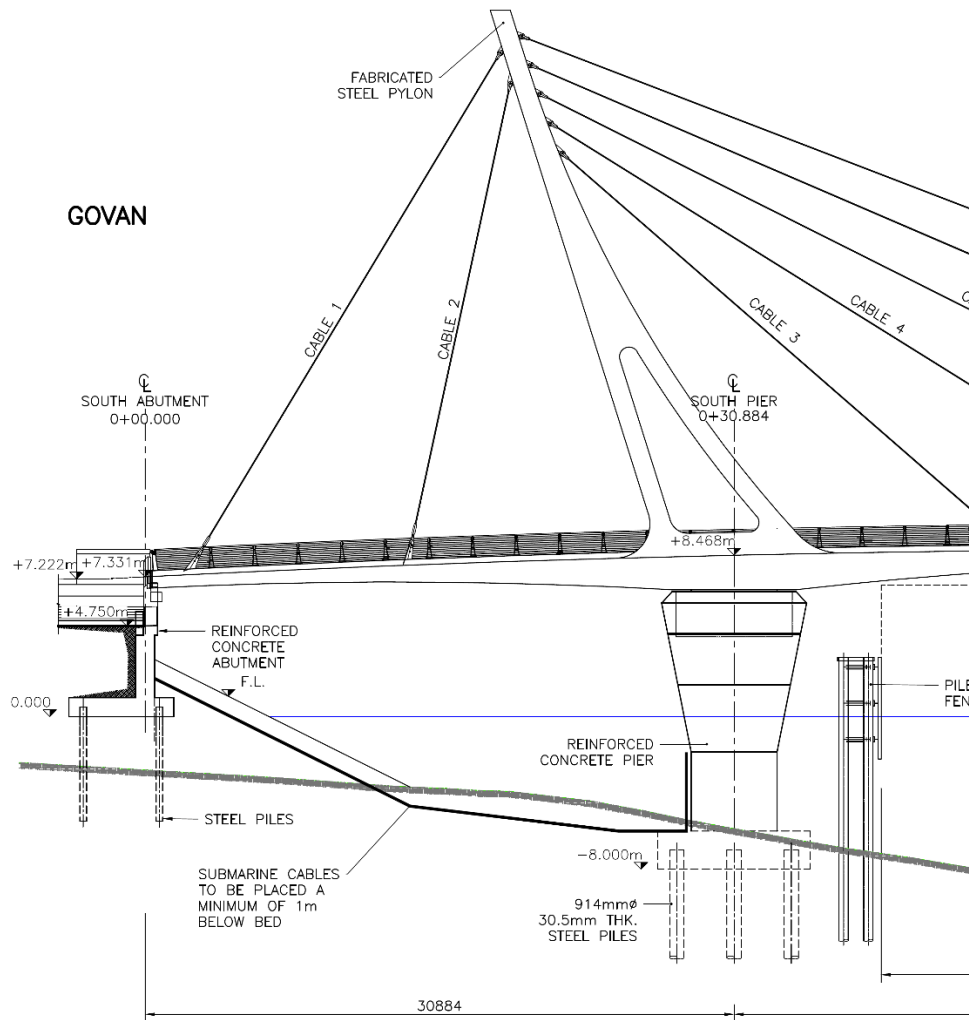
STAGE 5.  

- Remove temporary supports
- Engage locking pins into locking piles



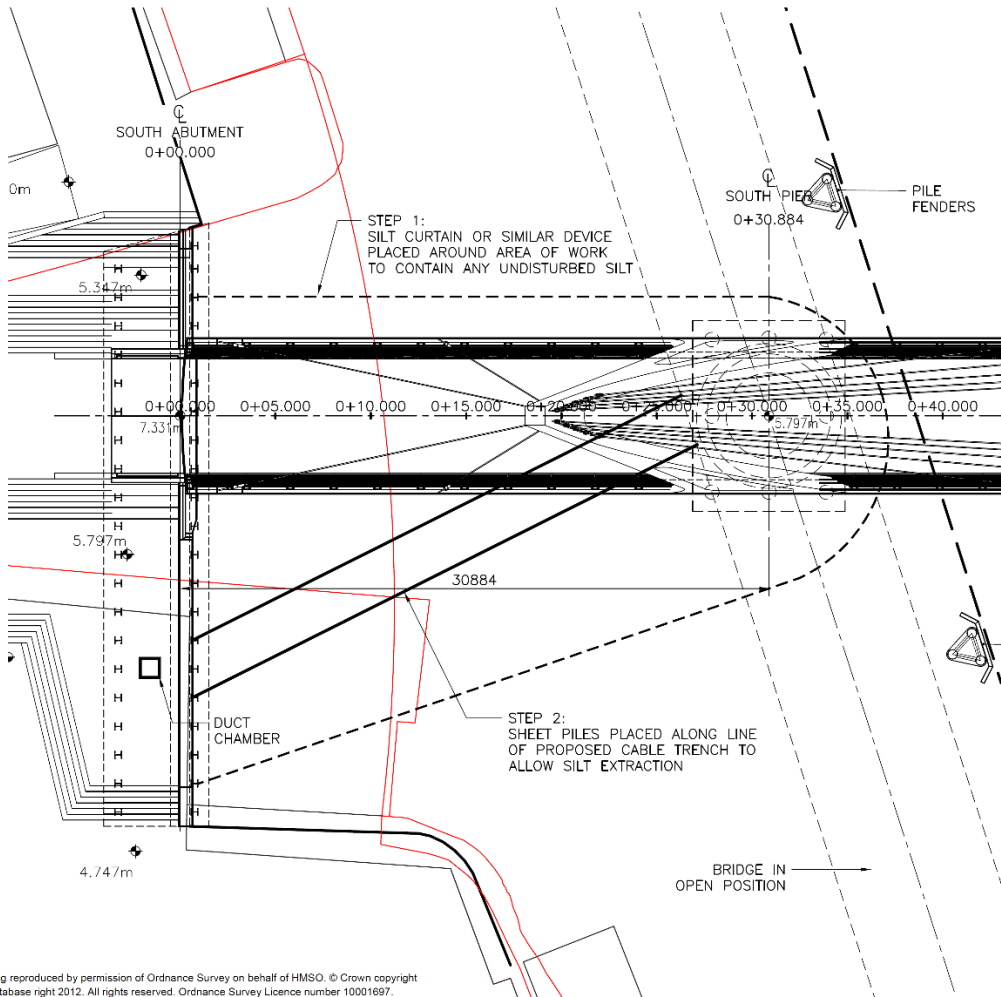
**Installation of submarine cables**

Power and communication cables are required in the south pier. Submarine cables will be installed between south abutment and the south pier. A silt curtain or similar device will be placed around the area of work to contain any disturbed silt. Sheet piles will be placed along line of proposed cable trench to allow silt extraction. Silt and seabed material will be dredged/excavated to 1 metre below bed level. The submarine cables will be placed in split ducts, the ducts are to be strapped together and weighted down to prevent floating. The ducts will then be backfilled with a layer of mixed stones sizes to prevent flotation of cables. The sheet piles will be removed, and water contained within the silt curtain filtered before removing curtain. (See Drawing No. 691301-JAC-DR-0660 Outline Submarine Cable Installation Proposal).



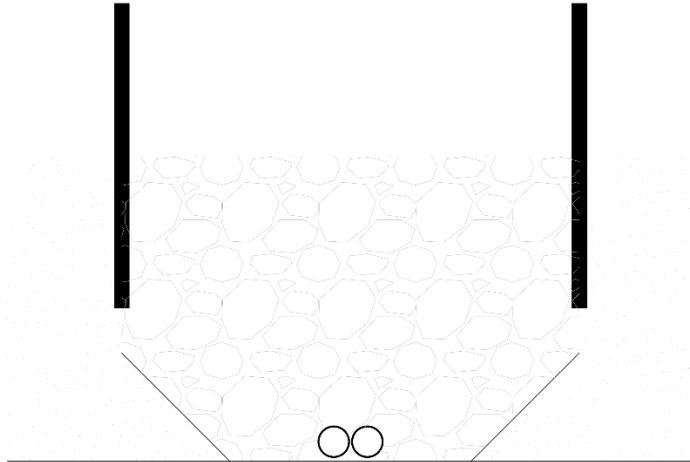
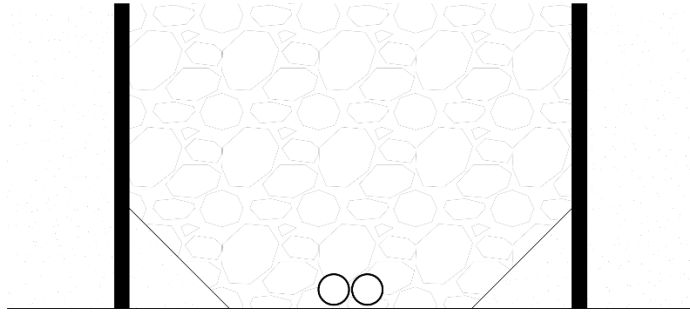
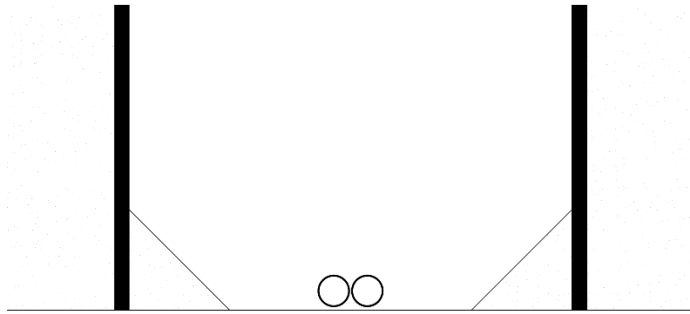
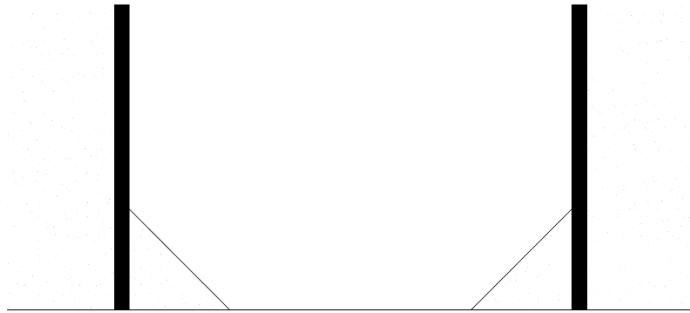
STEP 3:  
PLACE SHEET PILES AND REMOVE  
SILT DOWN TO MINIMUM 1m BELOW  
BED LEVEL

STEP 4:  
LAY FLEXIBLE SPLIT DUCTS AND  
PULL CABLES. DUCTS TO BE  
STRAPPED TOGETHER AND WEIGHTED  
DOWN TO PREVENT FLOATING.



STEP 5:  
BACKFILL WITH LAYER OF MIXED  
STONE SIZES TO PREVENT  
FLOATION OF CABLES. REFER TO  
SPECIFICATION FOR BACKFILL  
MATERIAL.

STEP 6:  
REMOVE SHEET PILES AND FILTER  
WATER CONTAINED WITHIN SILT  
CURTAIN BEFORE REMOVING  
CURTAIN.



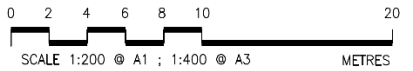
#### Notes:

1. FOR GENERAL NOTES REFER TO DRAWING NO. 691301-JAC-DR-002.
2. DO NOT SCALE FROM THIS DRAWING. THIS DRAWING SHOWS INDICATIVE ARRANGEMENTS ONLY.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AS WELL AS THE DRAWINGS FOR OTHER ELEMENTS OF THE WORK, IN PARTICULAR MECHANICAL AND ELECTRICAL ELEMENTS.
4. THE INSTALLATION PROCESS AND BOUNDARIES OUTLINED ON THIS DRAWING ARE TO BE DEVELOPED BY THE CONTRACTOR AND A COMPARISON AND EVALUATION MADE WITH OTHER SUITABLE METHODS. THE CONTRACTOR WILL TAKE OWNERSHIP OF THIS PROCESS AND PREPARE AN APPROPRIATE INSTALLATION METHOD STATEMENT FOR COMMENT BY THE DESIGNER'S SITE REPRESENTATIVE.
5. APPROVALS MAY ALSO BE REQUIRED FROM PEEL PORTS, SEPA AND FOR THE MARINE LICENSE AGREEMENT.
6. MINIMUM BEND RADIUS OF DUCTS REQUIRED TO SUIT SUBMARINE CABLE BEND RADIUS.

#### RESIDUAL HAZARDS

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Working adjacent to access paths and pedestrians.	4



PD	31-07-2020	ISSUED FOR CAT 3 CHECK	GY	DH	GD	DMK
Rev	Rev. Date	Purpose of revision	Orig	Check'd	Rev'd	Apprv'd

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Client  
GLASGOW CITY COUNCIL

Project  
GOVAN - PARTICK  
BRIDGE

Drawing title  
GOVAN PARTICK BRIDGE  
OUTLINE SUBMARINE CABLE  
INSTALLATION PROPOSAL

Drawing status  
FOR CHECKING

Scale  
As noted at A1

Jacobs No.

Client No.

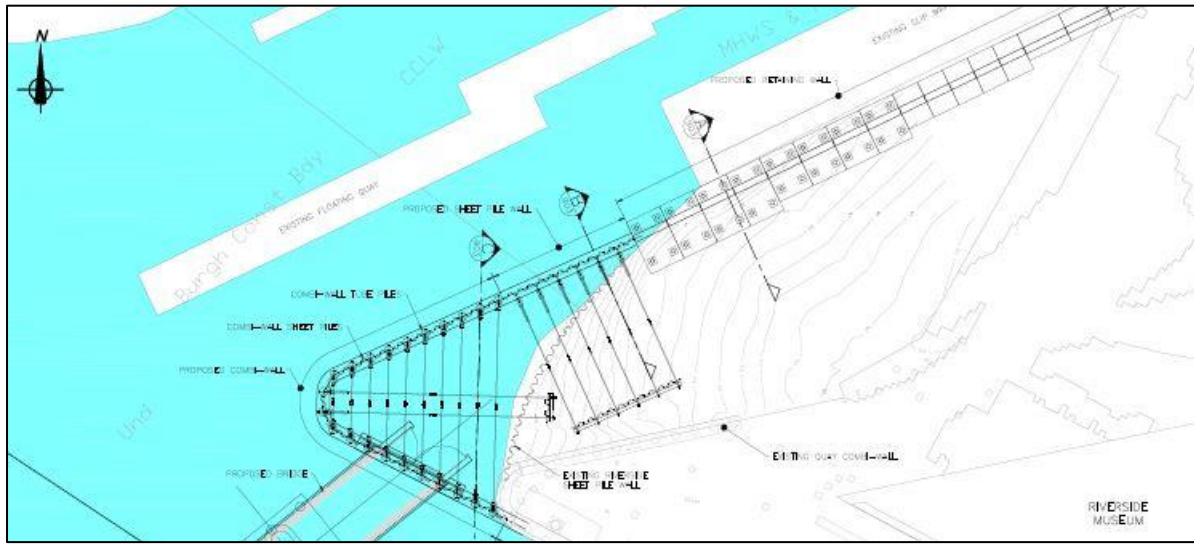
Drawing number

691301-JAC-DR-0660

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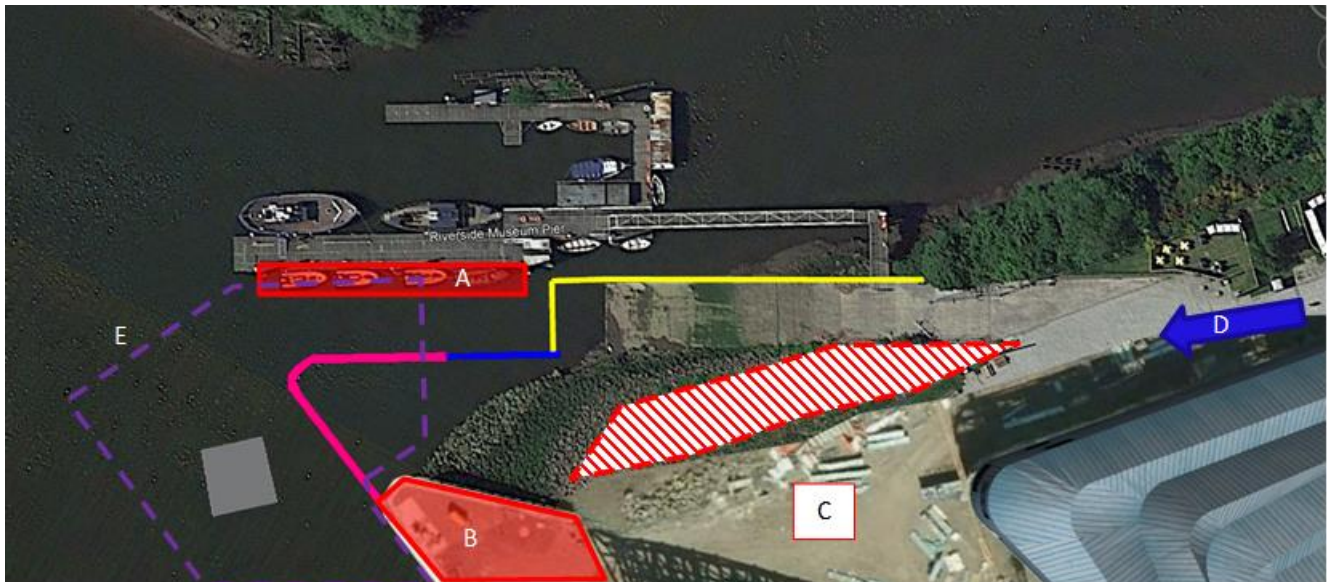


### Northern abutment and quay wall extension



To facilitate the north bridge landing, it is proposed to extend Pointhouse Quay west (downstream). The Quay extension will be constructed using driven combi wall, driven tied sheet piles and a reinforced concrete retaining wall.

The aerial view, below, of the construction area for the northern abutment illustrates some of the considerations related to construction. The magenta line indicates the combi wall, the blue line indicates the tied back sheet pile wall and the yellow line show indicative cofferdam wall which may be required to construct the lower level retaining wall foundations.



- A) Remove vessels from the jetty to maximise working room for the barge
- B) No construction traffic due to loading restrictions on existing quay wall.
- C) Level crane platform to be created to allow cranes to operate from land to install sheet pile walls and retaining wall foundation piles. This will likely need to be modified as construction stages progress.

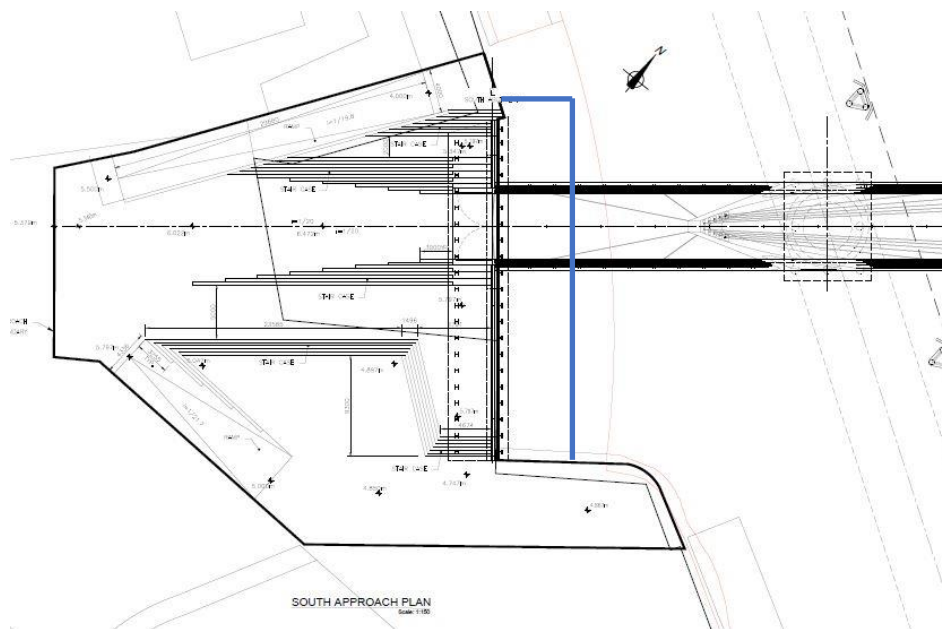
D) Access for material deliveries along the existing roadway to the west of the museum.  
Segregation of this area should be considered to facilitate construction, including access to the slipway.

E) Indicative area of operation for the jack-up barge

The northern abutment and quay wall is a constrained area for access, so it will be important to maximise available construction space and access routes to facilitate construction. The installation of a temporary cofferdam to provide a dry working area may be required though it may be realigned to the inside face of the slipway, for example.

### **Southern Abutment and Approach Ramp**

Construction of the southern abutment will require a sheet piled cofferdam (shown as blue line) to enable construction of the RC abutment and placement of infill material.



The south quay is currently assumed to be insufficient to allow the setup of heavy cranes to support piling works so these are assumed to be carried out from a barge. However, the use of the quay for smaller cranes to support ongoing construction has been assumed as the access is such that lifting operations will be essential and use of the barge would greatly delay construction of the abutment until after all piling works have been completed.

At completion of the abutment works it is currently assumed that the sheet piles will be cut off to bed level to provide added protection to the abutment from scour. This would avoid the use of vibrating hammers to loosen and remove the piles, meaning that the fish window restrictions would not apply and also that a smaller crane on a smaller barge may be used to lift out the piles.

### **Layby Berth Works**

Dredge adjacent to Merklands Quay to allow vessels to berth.

Installation of timber fenders on face of quay wall.

Construction of access road

Maintenance repairs of quay wall parapet and installation of gates.

Testing of capstans.

## **Works Schedule**

### **Start Up**

Site Set Up

Site Clearance

Carry out preparation works for layby berth at Merkland Quay

### **South Abutment/Approach**

Dredge working Areas

Install sheet piled coffer dam at south abutment

Construct working platform at south abutment

Pile south abutment

Pile Govan Ferry Inlet

Construct Reinforced Concrete South abutment

Infill Govan Ferry Inlet

Landscaping

### **Pointhouse Quay Extension (north landing/approach)**

Construct Combi Piled Quay Wall at Pointhouse Quay

Construct reinforced concrete retaining wall

Infill Pointhouse Quay extension

Carry out service diversions

Landscaping

### **Main Bridge Works**

Pile Coffers Dams at north and south bridge piers

Install Locking Piles south of navigation channel

Install piled fenders north and south of navigation channel

Install south and north Bridge Pier Piles

Install submarine cable from south abutment to south pier

Install temporary piled goal post supports in river south of navigation channel

Construct Reinforced Concrete Bridge Piers

Fabricate bridge off site in sections

Bring bridge sections to site by road or barge

Install bridge in open to river vessels position

Install Bridge M&E

Carry out bridge operation trials.

Remove temporary goal post piles

Extract or Cut off Coffers Dam sheet piles down to an agreed level

### **Demobilise site**



**i. Potential Impacts**

EIA Screening was carried out which concluded that an EIA was not required. See attached screening letters.

Fish migration patterns were discussed with SEPA and it has been noted that the main migration period is August/September with the general migration season running from June to October. See correspondence.

Noise, vibration, and lighting during the construction works could disturb fish within the River Clyde, particularly during migration periods. Further to this, any pollution event or sedimentation occurring as a result of the works, particularly during the in-river works, could result in adverse changes to water quality.

In-river works are planned to take place throughout the year. SEPA have indicated that no restrictions will be needed but the contractor will be required to mitigate against noise/sediment disturbance.

Piling is unavoidable, but to further mitigate the risks, soft start/ramp up or low energy piling techniques will be used as far as is reasonably practicable to reduce noise, vibration and silt disturbance.

Disturbed silt is likely to have an adverse impact when combined with already low oxygen levels. Factors leading to low oxygen levels include warm temperatures and low river flow.

Large volumes of disturbed silt are generally not anticipated however some preparatory dredging is required. Dredging will be carried out in line with the Marine Scotland Dredging Licence.

Guidance for pollution prevention will be followed as will the SEPA best practice guidelines. These include;

- PPG1 Understanding your environmental responsibilities
- GPP 5 Works and maintenance in or near water
- PPG 6 Working at construction and demolition sites
- PPG 7 Safe storage - The safe operation of refuelling facilities
- GPP 21 Pollution incident response planning
- GPP 22 Dealing with spills
- WAT-SG-29 Construction methods

Working restrictions included in the Marine Licence and mitigation measures will be incorporated into the works tender documents.

The Contractor will provide information regarding specific mitigation processes as part of their detailed method statement.

## Deposits and/or Removals

### Permanent Deposits and/or Removals

	Deposits		Removals	
Type of Deposit/Removal	Description	Quantity & Dimension (metric)	Description	Quantity & Dimension (metric)
Steel/Iron	Steel tubular and sheet piling. Fender Piles and Bridge Locking Piles. Pointhouse Quay Piles plus attachments	No. 284		No.
		Dimensions 4908m		Dimensions
		Weight (kg/tonnes) 1175		Weight (kg/tonnes)
Timber	Timber Fenders (Layby Berth) Merklands Quay	No. 8		
		Dimensions		
		Weight (kg/tonnes) 8.0 tonnes		
Concrete	Reinforced Concrete Pier Bases, Abutment Walls and Retaining Walls	No. N/A		
		Dimensions N/A		
		Weight (kg/tonnes) 4980		
Silt ( $0.004 \leq \text{Silt} < 0.063\text{mm}$ )		Volume (m <sup>3</sup> )	Dredging of silts to form construction platform for substructure i.e. Piers and abutments, for Pointhouse Quay	Volume (m <sup>3</sup> ) 9800
		Weight (kg/tonnes)		Weight (kg/tonnes) 15570
Silt ( $0.004 \leq \text{Silt} < 0.063\text{mm}$ )		Volume (m <sup>3</sup> )	Dredging of silts to form dredged pocket at Layby Berth Merklands Quay	Volume (m <sup>3</sup> ) 6000
		Weight (kg/tonnes)		Weight (kg/tonnes) 9600 tonnes
Sand ( $0.063 \leq \text{Sand} < 2.00\text{mm}$ )	Infill behind Pointhouse Quay and in piles	Volume (m <sup>3</sup> )	Excavation for retaining walls at Pointhouse Quay	Volume (m <sup>3</sup> )
		Weight (kg/tonnes)		Weight (kg/tonnes)
Gravel ( $2.00 \leq \text{Gravel} < 64.0\text{mm}$ )	Infilling of Govan Ferry Inlet. Infilling of	Volume (m <sup>3</sup> )		Volume (m <sup>3</sup> )
		Weight (kg/tonnes)		Weight (kg/tonnes)

	extended Pointhouse Quay			
<b>Cobbles</b> (64.0 ≤ Cobbles < 256.0mm)	Infilling around pier bases	Volume (m <sup>3</sup> )		Volume (m <sup>3</sup> )
		Weight (kg/tonnes)		Weight (kg/tonnes)
<b>Boulders</b> (≥256.0mm)	Formation of Revetment at south abutment	Volume (m <sup>3</sup> )	Removal of revetment at Pointhouse Quay	Volume (m <sup>3</sup> )
		Weight (kg/tonnes)		Weight (kg/tonnes)

**(b) Method of delivery of deposits**

Method of delivery for all materials will be included in the contractor method statements. It is anticipated that materials will be delivered by both road and barge.

(c) Information relating to substances or objects to be deposited.

Quantity	13550 tonnes
Nature	Sands and Gravels (structural fill)
Source (if sea dredged)	None
Particle Size	Graded 6N structural fill

**(d) Temporary Deposits**

Type of Deposit	Description	Quantity & Dimensions	
<b>Steel/Iron</b>	Temporary Steel Piled Coffers Dams Temporary Bridge Support Piles. Spud Legs of Jack up Barge Sheet piles for installation of submarine cable.	233	No.
		4470	Dimensions
		1075	Weight (kg/tonnes)
<b>Timber</b>	N/A		No.
			Dimensions
			Weight (kg/tonnes)
<b>Concrete</b>	N/A		
<b>Plastic/Synthetic</b>	N/A		
<b>Clay</b>	N/A		
<b>Silt</b>	N/A		
<b>Sand</b>	N/A		
<b>Gravel</b>	N/A		
<b>Cobbles</b>	N/A		
<b>Boulders</b>	N/A		
<b>Pipe</b>	N/A		

## 10 Scotland's National Marine Plan

### CLYDE MARINE PLAN

Scotland's National Marine Plan and the Draft Clyde Regional Marine Plan have been considered in relation to the proposed works. Proposals have also been developed in the context of the Glasgow & Clyde Valley Strategic Development Plan and the Glasgow City Development Plan in accordance with GEN 15 and GEN 16 of the National Marine Plan.

### GEN18- Engagement

Glasgow City Council (GCC) with funding support from the Scottish Government, led on a charrette for Govan and Partick. The charrette process took place between January and March 2015, culminating in a workshop at the Riverside Museum which brought together communities from north and south bank, GCC Officers and public sector partners to discuss the area's regeneration. One of the key themes that emerged from the charrette process was community support for a bridge as a means of re-establishing the historical connections between the communities. The findings of the charrette informed the preparation of the City Development Plan for Glasgow which was adopted in 2017.

During development of the project the Council and its agents have undertaken a series of engagement events with local stakeholders including a group of marine organisations identified by the Statutory Harbour Authority. Statutory consultation periods have also been undertaken in relation to the Section 75 Roads Order required for the proposed works and as part of the Marine Licence process

The proposed works will contribute to the delivery of a number of the objectives set out in the National Marine Plan including:

### GEN 2 – Economic Benefit

The City Development Plan identified Govan-Partick as Strategic Development Framework (SDF) Area. The SDF was adopted in 2020. It seeks to deliver the following vision:

**"By 2030 Govan-Partick will be recognised as an urban district of well-connected but distinct neighbourhoods, providing a very high quality of life, creating a context for nationally significant economic development and a narrowing of social inequalities. The area will be recognised as a leading Innovation District, where technical excellence contributes to inclusive growth and the building of a liveable place."**

The Govan-Partick Bridge is considered central to the ambitions of the SDF- it is viewed as more than a physical connection as it will improve access to wider economic, social and cultural opportunities on both banks of the river

An analysis of economic data demonstrates that the river represents a significant barrier. North of the river is characterised by high employment, incomes, and an over-heating property market: the south of the river by relative deprivation, market failure and large tracts of vacant and derelict land.

The area is home to major economic assets such as the University, the Digital Media Quarter at Pacific Quay, the Scottish Events Campus and the new QEUH. Yet despite the presence of these anchor institutions it is also home to areas affected by what the Scottish Government defines as 'deep-rooted deprivation' particularly on the south bank of the river around Govan.

At present it is recognised that the Govan Partick area benefits from a critical mass of economic assets. The economic potential of the area is however undermined by the physical legacy of industrial decline.

As a result, there is a requirement for the public sector to invest in physical assets in terms of the quality of public space, connectivity and a supply of affordable housing.

The bridge is a key element in the Clyde Waterfront and West End Innovation Quarter project being funded by City Deal which seeks to promote inclusive economic growth within the Glasgow City Region. City Deal investment will seek to redefine the place as a dynamic innovation cluster by addressing market failure and providing a high-quality urban environment and active travel network. The proposed Govan Partick Footbridge and associated works are critical to the delivery of City Deal objectives.

### **GEN 7 – Landscape/Seascape**

The design of the proposed works aims to meet the aspirations of the Council as set out in the project brief:

***“The Govan Partick Bridge will need to be place specific, safe, fit for purpose, sustainable and beautiful, and characterised by a sense of permanence.***

***The bridge design should be an innovative and elegant solution that is minimal, efficient and respectful of its surroundings. It should enrich the experience of this part of the City and of the River for all users, adding value to its environment without eroding the positive impact of existing landmarks and natural assets, both in the immediate and wider Glasgow context.”***

The starting point for the design was to undertake a site analysis in line with the Council’s Placemaking Policy.

The bridge will be located at the confluence of the River Clyde and Kelvin. At this location the river is in transition-downstream of the site the Clyde is a working river characterised by industrial land uses; upstream the river corridor is dominated by commercial and residential land use with limited activity on the water space. During industrialisation the River Clyde was canalised and the river edge treatments are a combination of masonry and sheet-piled quay walls and stone and concrete revetments. The area is scarred by large swathes of vacant and derelict land which are earmarked for re-development.

The design seeks to maximise the following opportunities identified during site analysis:

- Reinstatement historic function of Water Row as a river crossing point
- Celebrate area’s industrial past through design of new structure and restoration of historic street furniture;
- Celebrate key views to Riverside Museum from south bank and to Govan Old from North Bank
- Improve views by creating a focal point when viewing Govan from the North Bank;
- Create a Gateway Feature which provides a sense of arrival in Govan and allows people to wayfind from Govan Interchange to the Riverside Museum;
- Develop south bank landing to become a key civic space within the Water Row Masterplan;
- Develop the north bank landing to increase the civic space at the frontage of the Riverside Museum.
- Strengthen the connection between river side walkways to east and west of the bridge landing at Water Row.

Further information can be found in the Design and Access Statement that will be submitted as part of the application for Planning Consent.

**GEN 13 - Noise**

The proposed bridge will open to permit the passage of vessels. There will be minimal noise during bridge operation with the turning motion being provided by electric motors.

The effect of noise arising during the construction period on species in the surrounding area has been considered. Construction of the bridge and its approaches will involve various forms of marine piling. Although noise is unavoidable, specific piling techniques will be utilised to reduce noise and the works will be scheduled to reduce the impact of any residual noise.

Details of the works have been submitted to the Noise Registry.

## **11 Pre-Application Consultation**

### **Pre-Application Consultation Event**

A pre-application consultation event was held on the 26<sup>th</sup> June 2020.

In line with COVID-19 Restrictions and Marine Scotland advice, an event was held using a free online platform (Microsoft Teams). The event was advertised as per Marine Scotland Requirements and documentation was made available on the Glasgow City Council website ([www.glasgow.gov.uk/25892](http://www.glasgow.gov.uk/25892)).

The organisations attending the event were

#### **Project Team**

Chris Burrows	Client	Development & Regeneration Services, Glasgow City Council
Neil Menzies	Design Project Team	Neighbourhoods & Sustainability, Glasgow City Council
David Hodson	Designers	Jacobs

#### **Attendees**

Caroline Baxter	Clydeport Operations Limited
Gillian Burns	Northern Lighthouse Board
David Denholm	Clyde Maritime Trust
Craig Donald	Clydeport Operations Limited
Graham Russell	RYA Scotland
Paul Semple	Waverley Excursions Limited
Sinead Sheridan	Clyde Marine Planning Partnership

#### **Organisations that declined to attend the event**

Scottish Natural Heritage (SNH)  
Maritime & Coastguard Agency (MCA)  
SEPA

A PAC Report is attached in Appendix F

Copies of related correspondence are attached in Appendix D

## **12 Consultation**

A pre-application consultation event was held on the 26<sup>th</sup> June 2020.

A PAC Report is attached in Appendix F

Copies of related correspondence are attached in Appendix D



## APPENDIX A

### DRAWINGS

Drawing Number	Drawing Title
691301-JAC-DR-0005	Location Plan
691301-JAC-DR-0010	General Arrangement Sheet 1 of 3
691301-JAC-DR-0011	General Arrangement Sheet 2 of 3
691301-JAC-DR-0012	General Arrangement Sheet 3 of 3
691301-JAC-DR-0020	Setting Out
691301-JAC-DR-0021	South Piling Platform Setting Out
691301-JAC-DR-0022	Pointhouse Quay Location and General Arrangement
691301-JAC-DR-0023	Fender Pile Setting Out
691301-JAC-DR-0030	Proposed Outlined Pier Construction Sequence
691301-JAC-DR-0031	Proposed Outlined Deck Construction Sequence
691301-JAC-DR-0032	Pointhouse Quay Construction Sequence Sheet 1 of 3
691301-JAC-DR-0033	Pointhouse Quay Construction Sequence Sheet 2 of 3
691301-JAC-DR-0034	Pointhouse Quay Construction Sequence Sheet 3 of 3
691301-JAC-DR-0630	Fenders General Arrangement
691301-JAC-DR-0660	Outline Submarine Cable Installation Proposal
691301-JAC-DR-9000 P1	Marine Licence Boundary – Area A - Govan Partick Bridge
P-5085-P31 A	Layby Berth - Merklands Quay-Dredging Details
P-5085-P32 A	Marine Licence Boundary – Area B - Layby Berth - Merklands Quay

## **APPENDIX B**

### **SUPPORTING PHOTOGRAPHS**

## **APPENDIX C**

### **CONSULTATION CORRESPONDENCE**

## **APPENDIX D**

### **PRELIMINARY ECOLOGICAL APPRAISAL**

## **APPENDIX E**

### **MARINE NOISE REGISTER**

## **APPENDIX F**

### **PRE-APPLICATION CONSULTATION REPORT**