



IABSE Future of Design Manchester 2020

Young Designer's Competition Answers to Queries

Salford Quays Moving Footbridge

Q: There are some remnants of the old Trafford Railway swing bridge located at the proposed site (figure below). Can these be utilised for supports for our design?

- Yes, as long as assumptions are clearly stated, and consideration is given to their condition and suitability.

Q: We have looked at the design constraints and noticed that there is a tram stop under construction on the south side of the canal with steps and ramp connecting to a river path. Also, on the north side, there is a car park and turning bay. As this is not in the brief, would our proposed design need to fit in around these constraints and if so, would we be judged on how well we manage to achieve this.

Q: Do we need to consider real life constraints at the site (such as the new tram line, tram stop etc)

- Yes, a high-level consideration of real-world constraints and their impact on design/buildability should be demonstrated. However we do not expect you to consider the tram line & tram stop since this will make the design too challenging.

Q: With regards to the group design competition, do we need to comply with current standards in our design or just give consideration to them. For example, maximum gradient of ramp access onto the footbridge such as 1:12 for wheelchairs and stairway access, no more than 12 steps before a landing?

- The design should be shown to be compliant with current design standards where appropriate; however, it should be noted that this is a conceptual design competition, not detailed design.

Q: How much clearance to side of the embankment?

- The provided clearance to each embankment is up to the designer as long as the navigation clearances shown in Figures 2 and 3 of the design brief are achieved.

Q: Is the OS grid reference accurate?

- The intention is that the bridge can be located anywhere between the red lines shown on the below. Justification for the proposed location should be made clear in your submission.



Q: What are the restraints to the embankments? Do we need to consider buildings in proximity?

- Yes, a high-level consideration of real-world constraints and their impact on design/buildability should be demonstrated

Q: Please clarify on the requirement for the low-level structure. Does this mean the use of towers or pylons is prohibited?

- Unfortunately, yes towers and pylons are prohibited as they will impact upon the surrounding area and existing landmark bridges.

Q: What is the capacity of the bedrock, is it unlimited?

- An appropriate assumption should be made for the capacity of sandstone bedrock in good condition. Note that it cannot be considered as unlimited.

Q: It is stated that the bed rock can be assumed to be sandstone, and this is presumably at the river bed level (level -9m from Quay level): What are the soil conditions/characteristics beneath the river banks?

- Reasonable assumptions should be made with reference to open source reference material, such as the British Geological Survey website and geological maps. It is considered likely that there will be additional soil strata/superficial deposits above the bedrock.

Q: Are excavations allowed within the riverbanks for the creation of the mechanism chambers for instance?

- Yes, but any proposals for construction should show demonstrate due consideration to their feasibility, environmental impact and impact on the surrounding area.

Q: Can the Quay retaining wall be used as a load bearing element?

- Yes, as long as assumptions are clearly stated, and consideration is given to their condition, capacity and suitability.

Q: How far can the approach span /access ramp extend behind the Quay wall considering that the maximum slope for a pedestrian bridge and ramps is 1 in 20 (DMRB BD29/17 Section 6.4)? Is $5 \times 20 = (66-45)/2 = 90m$ say 100m approx. behind the quay wall acceptable?

- There are no restrictions to the footprint of the bridge provided that consideration of existing buildings and the surrounding area is demonstrated in addition to any environmental and/or cost implications associated with increasing the footprint.

Q: What is the space available for structure footprint on the embankments?

- There are no restrictions to the footprint of the bridge provided that consideration of existing buildings and the surrounding area is demonstrated in addition to any environmental and/or cost implications associated with increasing the footprint.

Q: Does the navigation clearance need to be centred to the river channel as show in the brief or can it be moved to one side?

- The provided clearance to each embankment us up to the designer as long as the navigation clearances shown in Figures 2 and 3 of the design brief are achieved.

Q: Can you clarify “low-level modern” structure, is there a height restriction to respect?

- There is no specific restriction, but it must be demonstrated that the proposals do not negatively impact on the surrounding area and existing structures and landmark bridges. Please note towers or pylons are prohibited.

Q: Can the 45 m horizontal clearance be provided starting from the edge of one bank side?

- The provided clearance to each embankment us up to the designer as long as the navigation clearances shown in Figures 2 and 3 of the design brief are achieved.

Q: In the area where the brief indicates the position of the new moveable footbridge there are 2-3 large piers left in. Do we need to consider the impact may these have in our solution? As these might affect the movement of the bridge / or we could potentially utilise them / or we could suggest removing them etc.

- The existing piers can be used or removed at the designer’s discretion, as long as assumptions are clearly stated, and consideration is given to their condition and suitability. It should be demonstrated that the wider impacts of proposals on the environment and heritage of the surrounding area have been considered.

Q: How flexible is the proposed location of the bridge? Could we consider positioning the bridge 100m up or down from the location shown?

- The intention is that the bridge can be located anywhere between the red lines shown on the below. Justification for the proposed location should be made clear in your submission.



Q: Is it acceptable to extend parts of the quay e.g. adding path longitudinally / or provide platform to extend the area used?



- Yes, there are no restrictions to the footprint of the bridge provided that consideration of existing buildings and the surrounding area is demonstrated in addition to any environmental and/or cost implications associated with increasing the footprint.

Q: Are there any future developments plans that could affect our decision on where to position the bridge? The bridge could connect closer to Clippers Quay / or South Bay depending on future developments / plans.

- Research into ongoing works in the area should be undertaken and consideration should be given to the future use of the area.

Q: Is the level of the banks on both sides assumed to be the same?

- It can be assumed that they are at the same level for the purpose of this exercise.

Q: Would you require any other submission on top of the A2 poster?

- No further submissions are required.

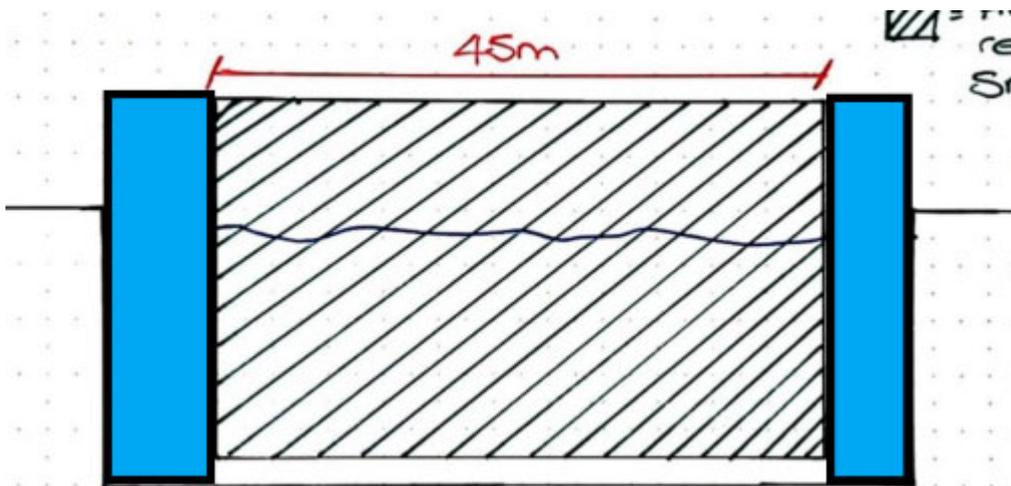
Q: Is there a structure (Plan /elevation / section /etc.) you would prefer us to present our solution on the A2?

- There is no preferred presentation style, but submissions will be graded based on clarity and overall aesthetic.

Q: Is the identification number going to be handed to us by you or we need to create a team name and a number on our own?

- The team identification number will be issued to each team following receipt of an email including the names and emails of all team members. Only the identification number should be included on your team's submissions. Please email your team members to fodmanchester@iabse.org.uk by Friday 6th March 2020.

Q: It is possible to occupy the zone marked in blue in the image attached below?



- Yes, there are no restrictions to the footprint of the bridge provided that consideration of existing buildings and the surrounding area is demonstrated in addition to any environmental and/or cost implications associated with increasing the footprint.

Q: The brief indicates that the footbridge span is 66m. According to the plan provided in the brief, the length corresponds with the line marked in red in the image attached below. It is possible to change the position of the abutment located in the south to the zone marked in green changing the length of the footbridge? (N.B we have not published the drawing you provided as we do not want other teams to view your potential proposal)

- The intention is that the bridge can be located anywhere between the red lines shown on the below. Justification for the proposed location should be made clear in your submission.

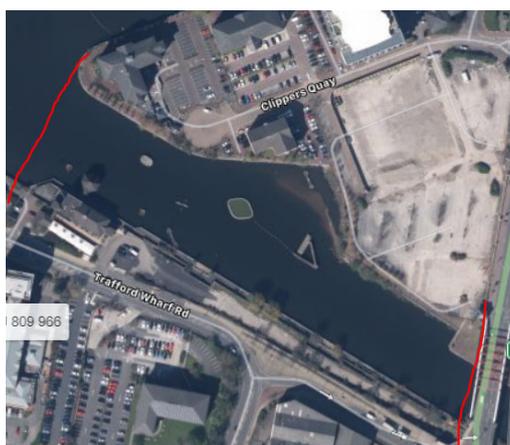


Q: It is necessary to satisfy any maximum slope of the deck?

- The slope of the deck should comply with current standards.

Q: Existing features at the site constrain the clear navigation width to less than the 45m requested in Figures 2 and 3 of the brief. Could the requirement be relaxed to suit this existing situation?

- The intention is that the bridge can be located anywhere between the red lines shown on the below, but a 45m clear navigation width must be achieved. Justification for the proposed location should be made clear in your submission.



Q: Does the scope of the brief include the feasibility of suitable approaches to the proposed bridge?

- Yes, the bridge approaches should be considered as part of the submission.

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Q: Is buying tickets to the event is compulsory to being able to participate in the young designers' competition?

- No however if your team is shortlisted one member will be required to collect the price at the conference

Q: It is possible to take part in the competition alone, single, in a group of one member?

- Of course, however we would encourage you to enter as a team of up to 4 people as this will help to share the workload.

Q: During the day when groups shows their designs, The presentation has to be based on the A2 panel? or a power Point presentation can be used? How much time would have each group for the presentation?

- There will be no presentation of the group design competition. We will have display boards where we will display your A2 posters so that judges and conference delegates can browse and vote for their chosen design.