

Arch 464  
ECS  
Spring 2022

Name \_\_\_\_\_

Quiz #2

## "Can you handle water music?"



All images: Architects Journal, 17 January 2022

*The downward spiralling hardscape leads to the parking garage.*

We're returning to the scene of the previous quiz for a second look through the lens of water. Since its successful launch last year, the timber-framed, gold-roofed pavilion (NW2) has encountered some challenges in its water use at the building and site scale. It's only resounding success has been the fully accessible Changing Places toilets.

Your role is to analyze the building and site for problems and to offer effective alternatives.

**Context.** The theatre is located just west of central Ipswich at 52° NL. It has a humid climate dominated by cloudy days throughout the year. Summers are mild/humid and winters are cool/humid.

**READ THE ENTIRE QUIZ BEFORE YOU BEGIN!**

## Architect's view revisited

Adaptive reuse was a recurring design theme within the project in addition to more typical sustainable technologies. Accordingly, the form and repetition of the bays of the new building coincide with the structural bays of the car park beneath, negating the need for complex structural adaptations to the original subterranean building, with the new buildings' weight spread over the original surface of the car park. A highly insulated, panelled timber superstructure made assembly fast and efficient.

The steel projecting canopy to the front of the building was also designed for maximum material efficiency with engineer Price & Myers using the circular geometry to design-out anything other than the 5mm folded steel plate to support the cantilever. The building also straddles the original concrete planters and former subterranean lavatories, the latter now refurbished as an IT suite tucked at the rear of the building. Inclusivity was key, with designs benefiting from the advice of a specialist accessibility consultant at the outset, who helped in the planning and arrangement of the Changing Places toilet with assistive technologies, the café kitchen and all access routes in and out of the building.

Arts and culture come alive in the outdoors with the newly created Theatre Square, which re-appropriates as a performance stage the long-defunct bowl that was formerly the water feature on top of the car park, now encircled by playful 'gold eyelashes' of sprayed metal. Additional external lighting was mounted to a retained granite air vent from the underground car park, to complete the functioning performance area.

WGP also assisted the theatre with the refurbishment of its existing theatre lobby and waiting area. This included the enhancement of the theatre curtilage with the design and installation of an additional balcony terrace overlooking the Theatre Square and new tensile canopy. The latter has proven valuable on many levels: Theatre activities were hard-hit by the pandemic and the ability to shelter people watching external performances added to the Covid-secure usability that the new Theatre Square afforded.

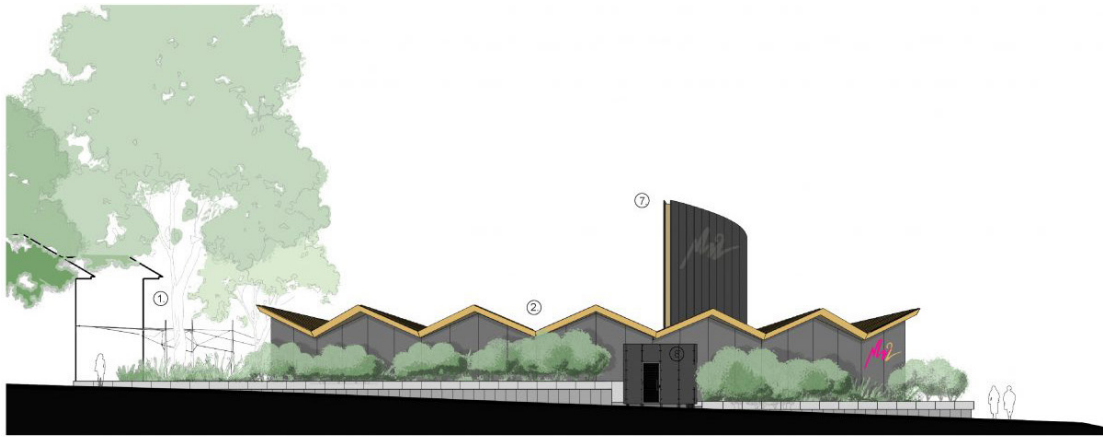
—Phil Waind, director, WGP Architect



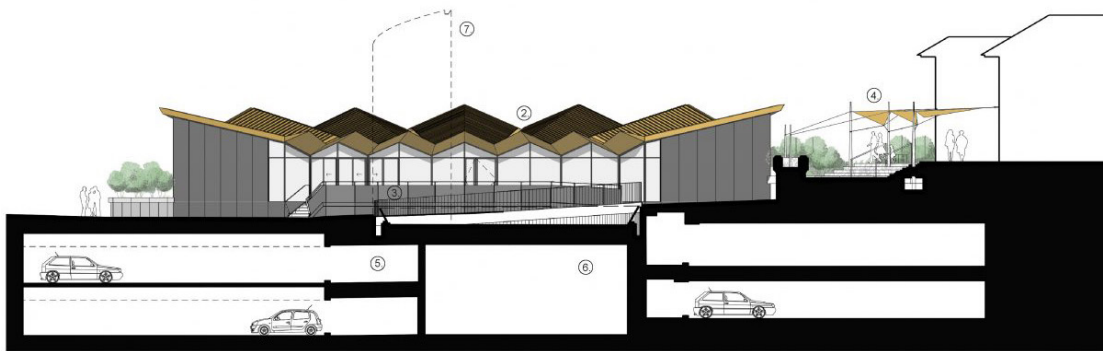
*Three views of the outdoor performance space.*



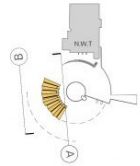




Elevation B - As Built

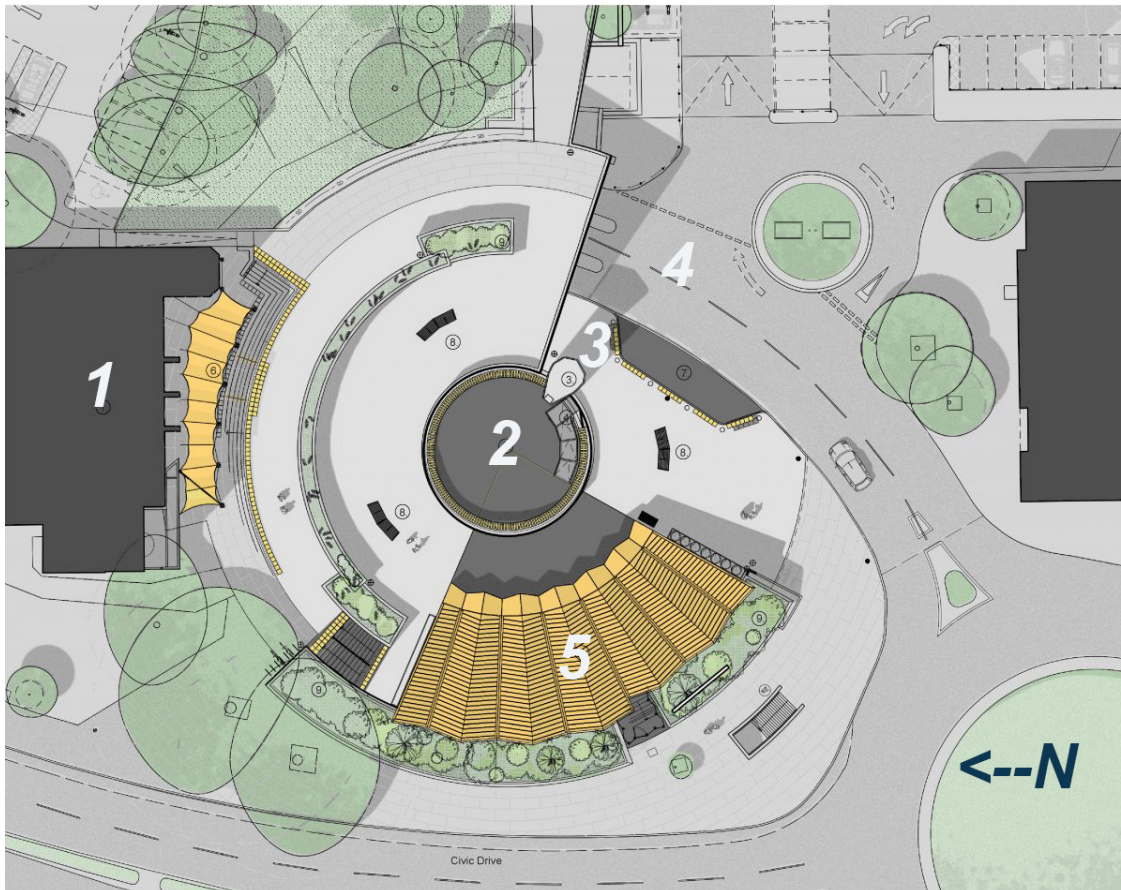


Elevation A - As Built



Key:

- 1. New Wolsey Theatre
- 2. NW2 Participation Building
- 3. Podium
- 4. Canopy



Key:

- 1. New Wolsey Theatre
- 2. Performance space
- 3. Car Park Vent
- 4. Access Ramp
- 5. NW2 Participation Building

8 pts. 1. **Identify and sketch** four (4) opportunities to improve management of **stormwater** that falls on the site. Cite evidence from prose, plans, and photos throughout the quiz to **validate** your critique.

1.

2.

3.

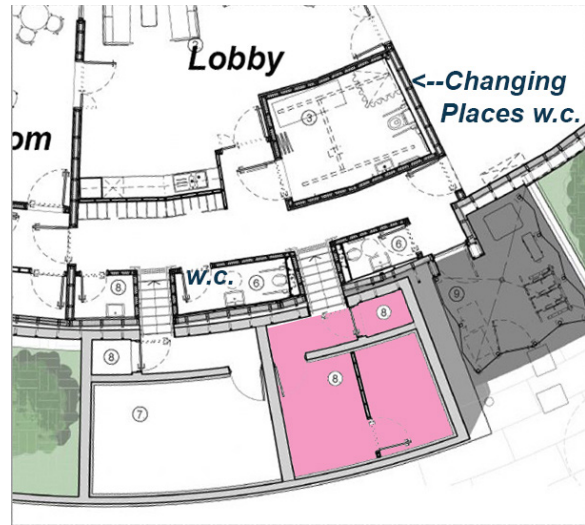
4.

6 pts. 2. **Propose two** possible strategies for managing the rainwater that falls on the roof of the NW2 Participation Building. Cite evidence from the plans and photos throughout the quiz to **validate** your critique. **Sketch and explain each strategy** to illustrate how it would function.

1.

2.

- 4 pts. 3. The popularity of the new facility has made bathroom use a problem. The management has determined that many more toilets are needed. **Design** a new bathroom core in the area designated in pink for more capacity and better socialization while retaining the gender neutrality of the existing design. The two walls in the plan are non-loadbearing. **Sketch and label** your redesign.



- 2 pts. 3. In the UK high efficiency toilets are required by code. **Recommend** toilets for the new loo that will meet or beat code. **Sketch** your recommendation in section.