



## Project Delay Summary and Progress

(11 OCTOBER 2023)

### Stormwater Drainage and Road Works Hedgeland Close, Meadowbank

This project was initially proposed to commence in September 2021 and planned to be delivered by March 2022. From the commencement of the project various challenges have impacted the project timeline. These challenges fall under three categories: latent site conditions, the COVID-19 pandemic, and unprecedented wet weather. The latent site conditions encountered included the following:

- Addressing the additional works and approvals required by utility providers such as Sydney Water, Jemena and Viva Energy Australia Pty Limited (Viva Energy) for the protection or augmentation of their assets.
- Revising designs and construction methodology to accommodate the condition of existing utilities and infrastructure, which were impacted by changing subsurface conditions.
- Proper handling of marine sediments onsite.
- Addressing unexpected difficulties associated with working below the tidal range.
- Implementing extra reporting and on-site measures to fulfill environmental obligations regarding groundwater.

Of the identified setbacks, the most significant matter was the discovery of the high pressure pipe-line and gas main on the site that required specialist contractors to be engaged to undertake the required rectification works. There was no option but to accept the additional time delay and costs associated with the work, as there was significant risk of major damage being created to the surrounding sites if not undertaken correctly.

The table below outlines the chronology of the impacts and delay experienced on the project.

Date	Description of delay
Sep 2021	Commencement of works
Sep 2021 - Oct 2022	On-site management of marine sediments. This has involved blending the excavated soil with lime on site so as to neutralise any potential acidification that can occur with these sediments prior to offsite disposal. This has created a total delay of nearly two months across the construction program to date.
Sep 2021 - Aug 2022	Unforeseen challenges of working below the tidal range. This involved daily dewatering of existing stormwater line to provide safe working conditions
Sep 2021 - Dec 2021	Additional reporting and measures on site to meet environmental requirements relating to groundwater
Oct 2021 - Dec 2022	Revised designs and construction methodology to accommodate the condition of existing utilities and

	infrastructure impacted by changing subsurface conditions. This had significant impacts on construction of both the upstream and downstream drainage structures which took 5 months and 3 months respectively. Updated approval was also required for Sydney Water protective works which contributed a 3 week delay.
Jan 2022 – Oct 2022	The La Nina weather pattern resulted in abnormally high rainfall throughout a significant portion of 2022 resulting in frequent delays due to the location of the site at the bottom of the catchment. Key impacts on site were the clayey soils which became unsafe for machinery and people to traverse when wet, as well as the need to dewater excavations which rapidly filled with water from the surrounding catchment. The month of March was a key event which resulted in a total site shut down for a number of weeks.
Nov 2022 - Mar 2023	Reapplication to Jemena for works around high-pressure gas main due to lapsed approvals and subsequent completion of these works. This created a 3 month delay in obtaining a revised letter of offer from Jemena and then a further 5 weeks to coordinate availability of both Jemena's nominated contractor and Jemena's supervisors into the sequence of works.
Apr 2023 - Sep 2023	Identification of clash with Sydney Water sewer overflow, design, approvals and subsequent construction of a protective bridging structure. This created a total delay of 5 months including three and a half months to obtain design approval followed by one month to obtain construction approval from Sydney Water.

**Table 1: Timeline of Unforeseen Events**

Decisions throughout the project have been made by the Project Control Group (PCG), which includes relevant qualified Council Staff as well as stakeholders such as utility authorities.

The Project Control Group (PCG) has not experienced any significant lapses or periods of inactivity from decision making processes that have resulted in project delays, cost overruns, or a compromise in the quality of the work performed.

## Next Steps

The key activities remaining for project completion are an anticipated completion date in late December 2023, which accounts for 22 days of unforeseen delays.

Task Name	Duration	Start	Finish
Construct sewer protection bridge	22 days	Wed 6/09/2023	Thu 5/10/2023
Curing time of the sewer protection slab	7 days	Fri 6/10/2023	Mon 16/10/2023
Excavate and Construct retaining wall	7 days	Tue 17/10/2023	Wed 25/10/2023
Shared pathway excavation and disposal of soil	5 days	Thu 26/10/2023	Wed 1/11/2023
Construct shared pathway	5 days	Thu 2/11/2023	Wed 8/11/23
Remove/dispose asphalt for the road construction	7 days	Tue 24/10/2023	Wed 1/11/2023
Repair soft spots	5 days	Thu 2/11/2023	Wed 8/11/2023
Asphalt laying	5 days	Thu 9/11/2023	Wed 15/11/2023
Demobilise/clean the site	5 days	Thu 16/11/2023	Wed 22/11/2023
Allowance for unforeseen delays (contingency)	22 days	Thu 23/11/2023	Wed 22/12/2023

**Table 2: Program to completion**

## Associated Works - Constitution Road

The following information is provided to address the concerns relating to pedestrian safety at the intersection of Constitution Road and Bowden Street, as well as provide an update on the progress of works at Constitution Road.

Council staff have taken the following measures to enhance pedestrian safety at the temporary pedestrian crossings on Bowden Street and Constitution Road (Note: Road Traffic Committee (RTC) approved the temporary pedestrian crossings on Bowden Street and Constitution Road on 25 February 2021, subsequently endorsed by Council in the Works and Community meeting on 9 March 2021):

- i. "Pedestrian Crossing Ahead" signs on all four approaches to the roundabout to improve driver awareness of pedestrian activities ahead. (No RTC approval was required. Signs were installed in February 2023)
- ii. Zigzag line markings on approaches to the pedestrian crossings to warn the motorists of the presence of pedestrian crossings ahead. (No RTC approval was required. Lines were installed in February 2023)

These measures have increased driver awareness to wait before entering the roundabout until it is clear to safely exit. The details of the completed work are shown in Figure 1 below.

Notwithstanding the above, Council will request the NSW Police Highway Patrol to patrol the area to enforce the road rule 128 “Entering Blocked Intersections” at the roundabout. Under the NSW Road Rules 2014, *A driver must not enter an intersection if the driver cannot drive through the intersection because the intersection, or a road beyond the intersection, is blocked.*



**Figure 1: Details of the completed work**

Concerning the works on Constitution Road, Council was required to re-tender the abutment cutting works at Angas Street bridge due to the specialised nature of the works and the lack of suitable submissions in the original tender. Council is in the final stage of this tender evaluation process and upon completion of these works, a continuous footpath will be provided on the southern side of Constitution Road. This will allow for safer access for pedestrians traversing along Constitution Road from Bowden Street to See Street.

Please find a link to the website below, which contains the latest updates regarding the project. This website can also be accessed through the QR codes provided on the signage posted at intersections with Constitution Road.

<https://www.ryde.nsw.gov.au/Council/Media-Centre/News-and-Public-Notices/Pedestrian-detour-at-Constitution-Road>