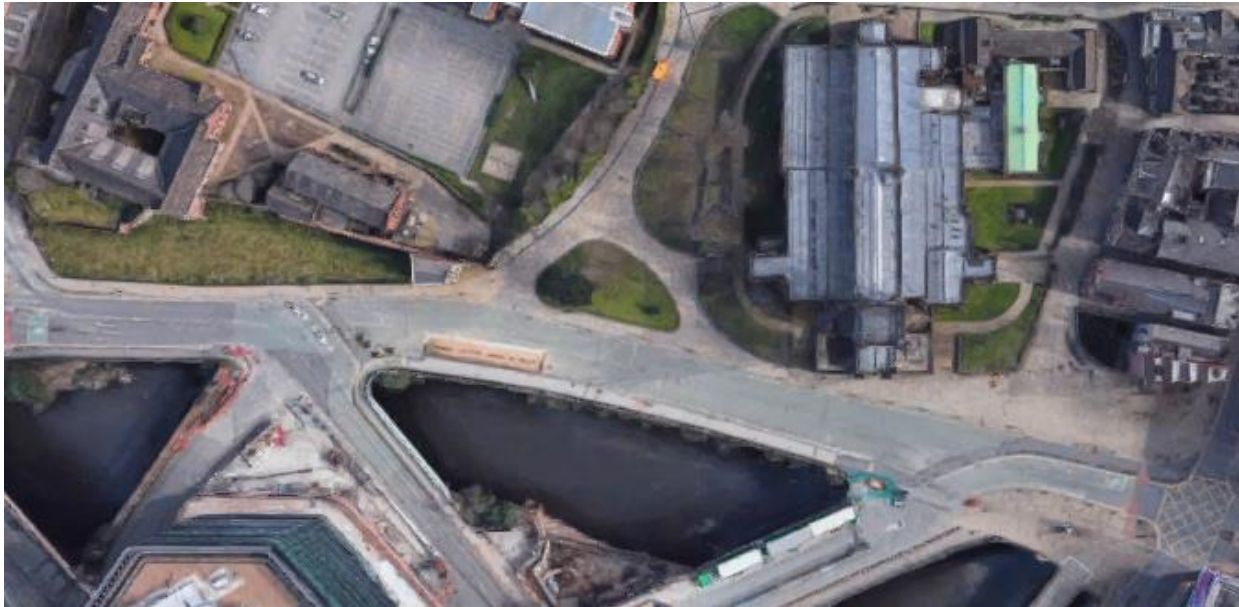


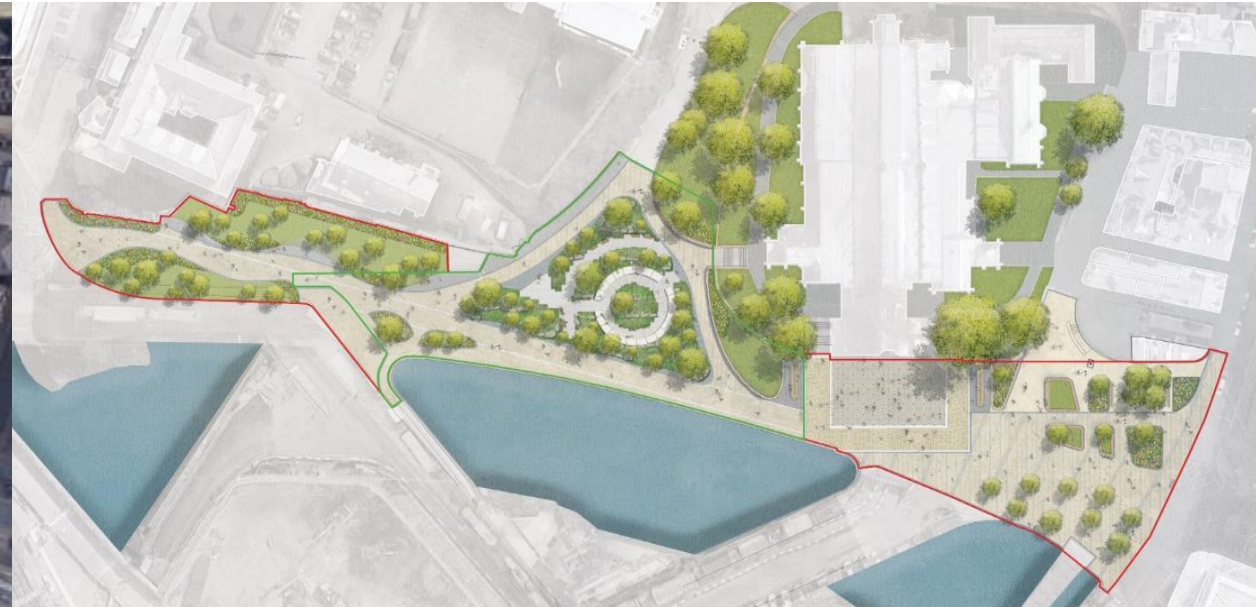
# Safety Moment

- Medieval Quarter and Glade of Light scheme
- Design and Build scheme for Manchester City Council
- Potentially 9 phases of work, with Phase 1a commencing March 2021 (value £2.5m)

Existing layout

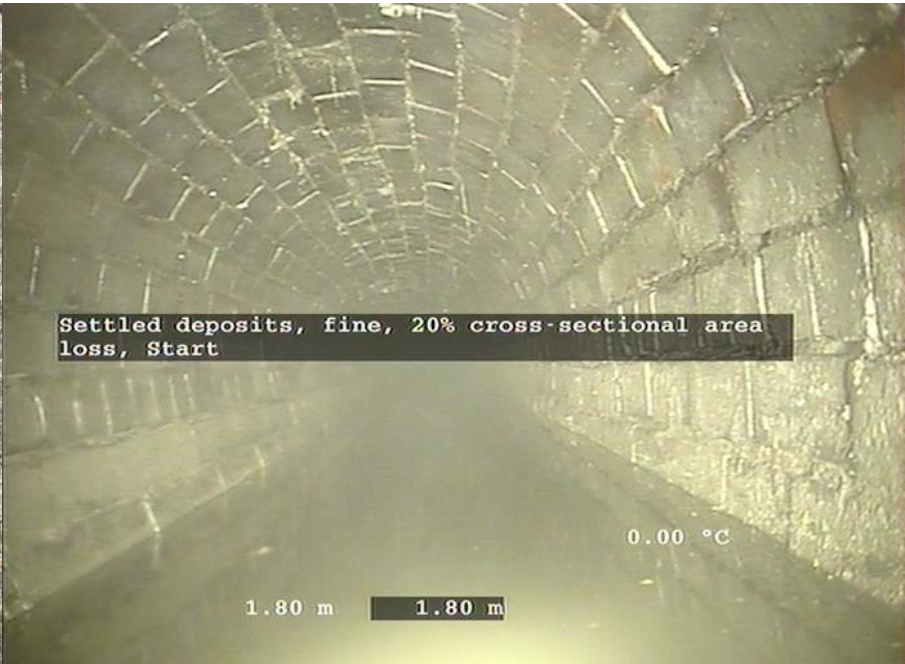
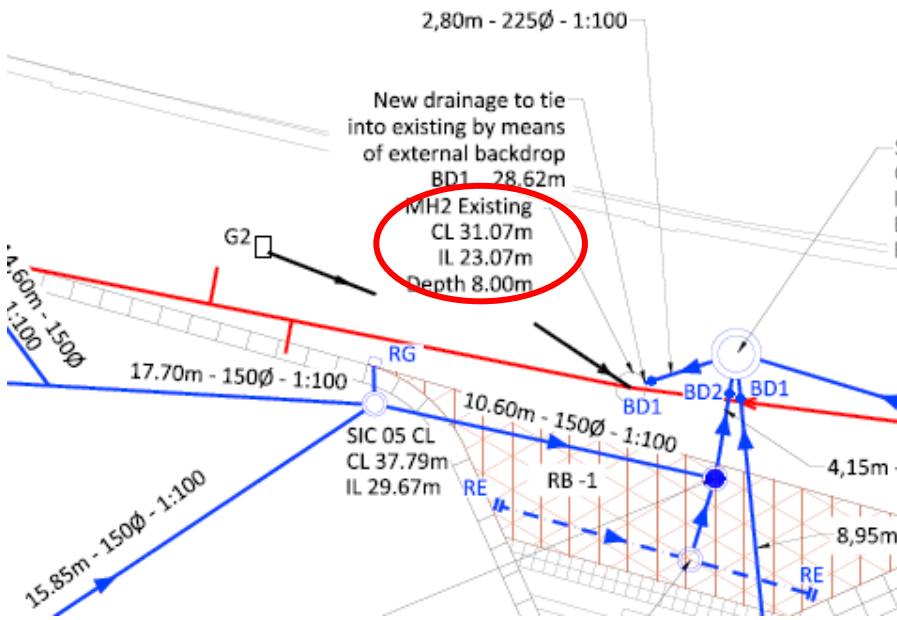


Proposed layout



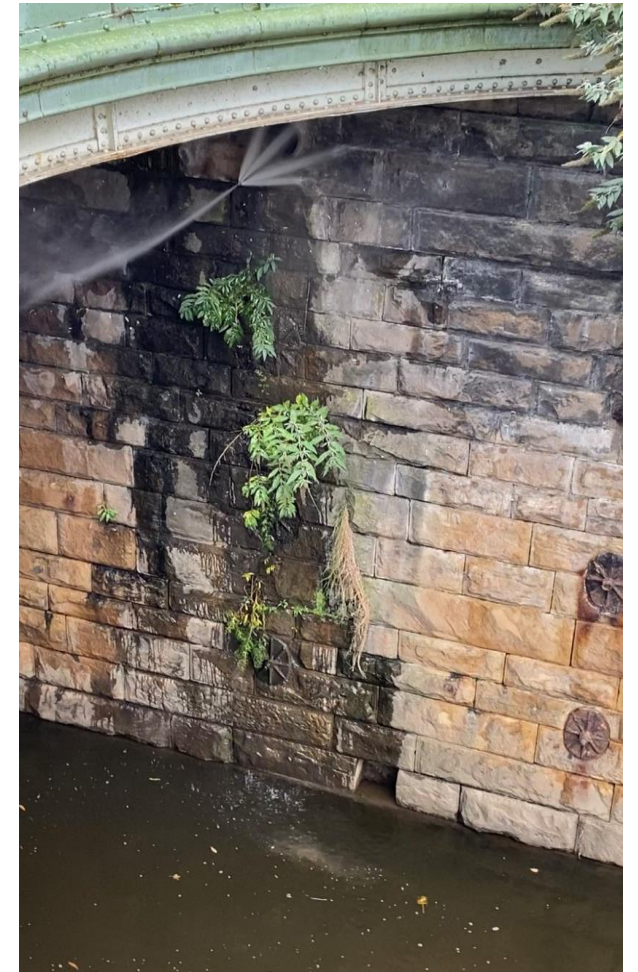
# Safety Moment

- Safety by design
- The original drainage design required us to make a new connection to the existing sewer for surface water drainage
- This existing sewer is Victorian, 8m deep, 900mm high, combined, egg shaped, brick construction...



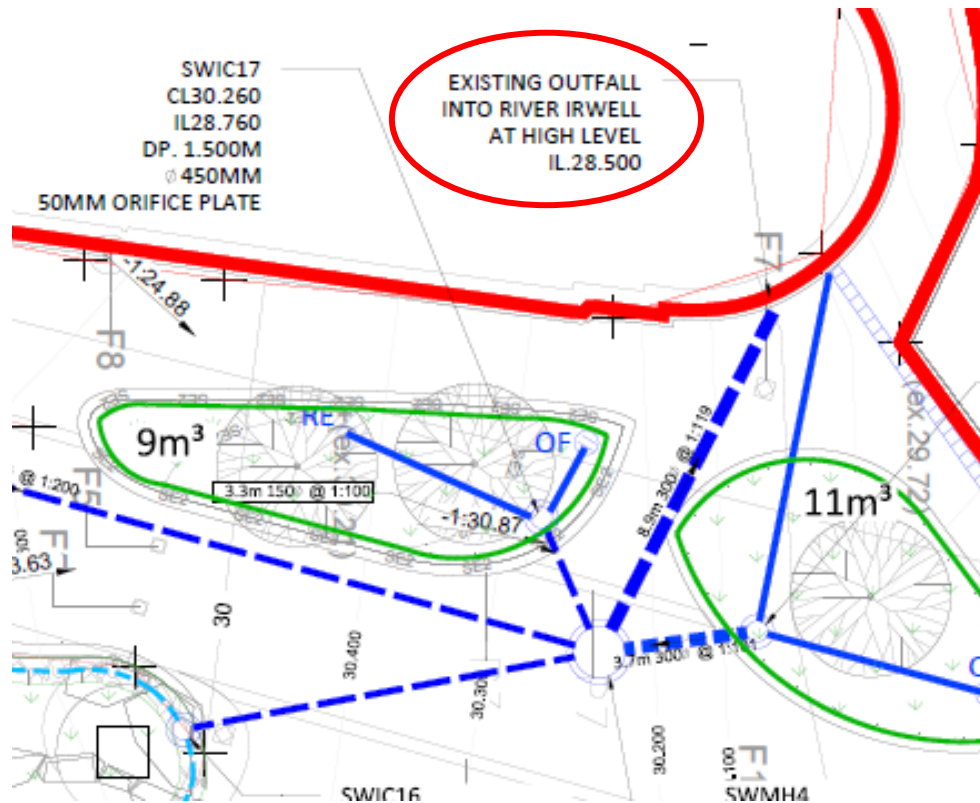
# Safety Moment

- In October last year we carried out some investigation works and located the existing highway drainage outfall that discharges directly to the River Irwell



# Safety Moment

- Revised design...



- Benefits...

- 8m deep excavation and associated Temporary Works eliminated;
- Potential stability issues with River Irwell retaining wall eliminated;
- Potential stats diversions eliminated;
- Requirement to break into Victorian, combined, brick egg sewer eliminated;
- Potential skills issues eliminated;
- MCC Highways and Environment Agency supported the change as it follows the preferred hierarchy for surface water discharge (avoids unnecessary wastewater treatment);
- High risk operation eliminated;
- Programme saving; and
- Cost saving.