Figure A-9 Proposed utility services - Iron Cove
**Figure A-12 Sydney Water Pressure Tunnel**

1. Typical cross section provided for illustrative purposes. Tunnel structure will vary with depth and geotechnical conditions.
2. The location of existing underground and overhead services has been identified through the use of DMS data, work as executed plans and electronic drawing files sourced from the individual utility service provider. Service locations and levels shown on the drawing are indicative only and are subject to further investigation.
3. Work as executed plans for the Sydney Pressure Tunnel were provided by Sydney Water on 05/10/16. Drawing No: INDEX22-5-419.
4. Refer DRG. 32012 for maximum expected settlement and angular distortion values.
5. Movement prediction based on three headings and bottom bench excavation.
6. Monitoring points are indicative only. The monitoring requirements and frequency will be subject to the agreement of Sydney Water.

**PRESSURE TUNNEL DETAILED SECTION**

**PRESSURE TUNNEL CONSTRUCTION DETAIL**

**LEGEND:**
- Optical survey targets
- Optical settlement monitoring point
- Extensometer

APPX. 3.8m APPROX. 3.0m

UNFILLED SPACE TO FORM GROUNDWATER DRAIN.

APPROX. 400mm SPRAYED CONCRETE RING, PLACED WITH 'WEBB GUN'

APPROX. Ø2475 STEEL PIPE, BITUMEN PRE-LINED. 2.7m LENGTHS, RUBBER RING JOINED

APPROX. 200mm BLUE METAL AGGREGATE CONCRETE.
Sydney Water City Tunnel

Indicative Location of Sydney Water City Tunnel. Refer to City Tunnel Construction Detail.

Notes:
1. Typical cross section provided for illustrative purposes. Tunnel structure will vary with depth and geotechnical conditions.
2. The location of existing underground and overhead services has been identified through the use of DSDC data, work as executed plans, and electronic drawing files sourced from the individual utility service provider. Service locations and levels shown on this drawing are indicative only and are subject to further investigation.
3. Work as executed plans for the Sydney City Tunnel were provided by Sydney Water on 05/10/16. Drawing No: INDEX22-7-43.
4. Refer DRG. 32012 for maximum expected settlement and angular distortion values.
5. Settlement prediction based on three headings and bottom bench excavation.
6. Monitoring points are indicative only. The monitoring requirements and frequency will be subject to the agreement of Sydney Water.

Figure A-13 Sydney Water City Tunnel