## **Attach. 3 - Bridge Vs Underpass**

## **Multi Criteria Analysis (MCA) Assessment**

| Criteria   | Scoring |           |
|--|---------|-----------|
|  | Bridge  | Underpass |
| Investment Objective 1: Safety                     |         |           |
| Investment Objective 2: Travel Choice              |         |           |
| Investment Objective 3: Resilience                 |         |           |
| Investment Objective 4: Access                     |         |           |
| Land Use Futures                                   |         |           |
| Urban Design                                       |         |           |
| Land Requirement                                   |         |           |
| Social Cohesion / effects                          |         |           |
| Human Health and Wellbeing                         |         |           |
| Transport system integration                       |         |           |
| User safety  |         |           |
| Ecology  |         |           |
| Historic Heritage                                  |         |           |
| Landscape / Visual                                 |         |           |
| Stormwater   | 1       |           |
| Natural Hazards                                    |         | ١         |
| Construction impacts on utilities / infrastructure |         |           |
| Construction disruption                            |         | 1         |
| Construction costs / risk / value capture          |         |           |

## **MCA Reasoning**

- CPTED and greater personal threat / risk concerns with an underpass for pedestrians and cyclists.
- Visually the underpass is preferred.
- The underpass is anticipated to have greater complexity, risks and impacts due to the peat ground conditions and proximity to rail line:
  - Greater groundwater management required. ٠
  - Greater stormwater management required (pumps) and risk of failure / failure.
  - · Greater ground settlement risk including neighbouring properties and rail line.
  - Greater construction impacts longer to ٠ build, more community disruption and rail line closure or relocation.
  - Greater impacts on property including Takanini Centre.
  - Greater impacts on utilities. ٠
  - Greater cost / risk as an underpass is ٠ estimated at at least double the cost.
  - Bridge are the recommended option





Bridge option looking west



**Overpass option looking east** 



**Overpass option looking west**