

Report No. B4027/DAS/01  
March 2008

**MERSEY GATEWAY**  
**DESIGN AND ACCESS STATEMENT**  
**VOLUME 2: SUPPLEMENTARY ANNEX (ILLUSTRATIONS)**

**Halton Borough Council**  
Environment and Development Directorate  
Rutland House  
Halton Lea  
Runcorn  
Cheshire  
WA7 2GW

**MERSEY GATEWAY**  
**DESIGN AND ACCESS STATEMENT**  
**VOLUME 2: SUPPLEMENTARY ANNEX (ILLUSTRATIONS)**

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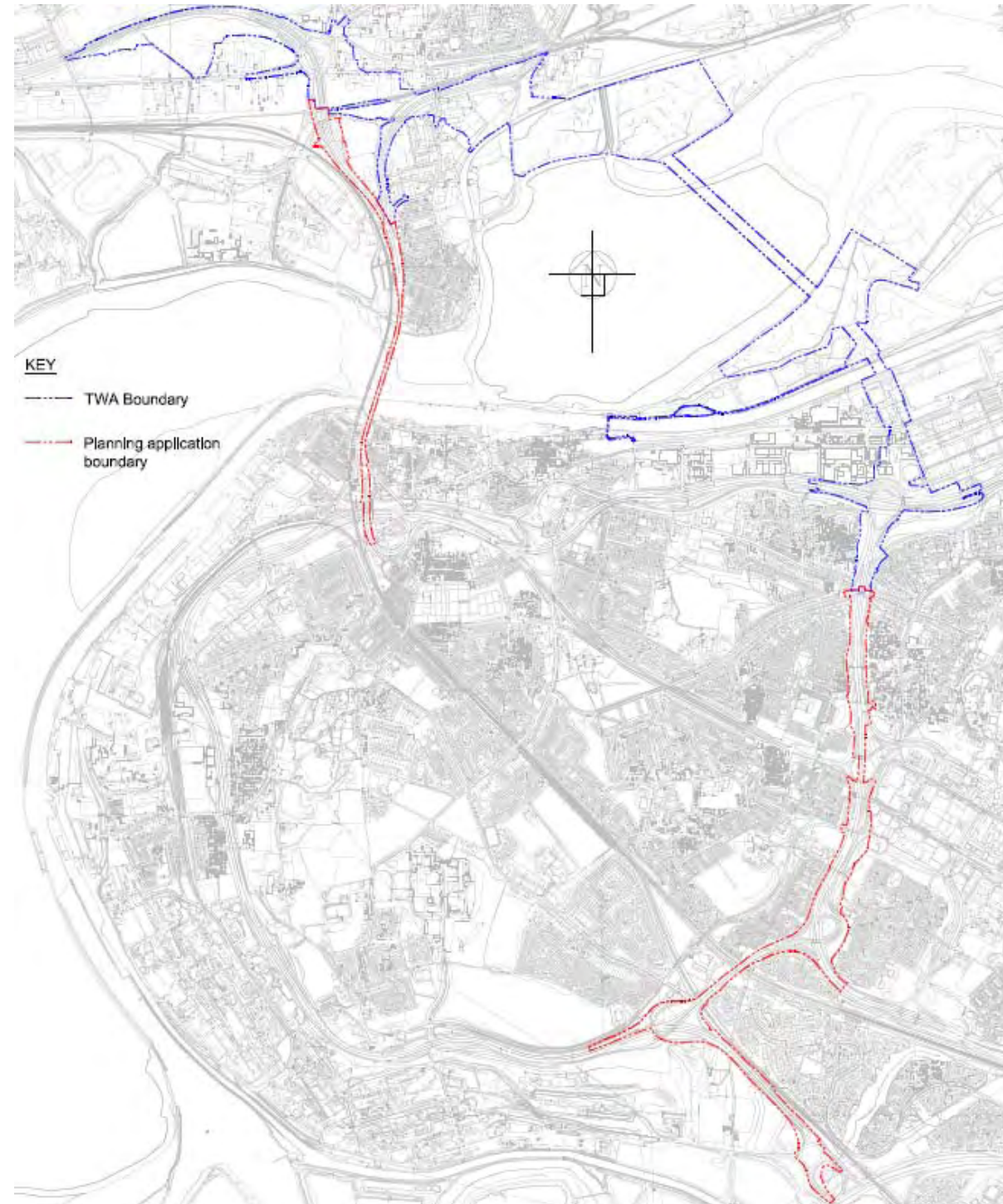
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## **SECTION 1**

### **PLAN A – PLANNING APPLICATION AND TWA BOUNDARY**





## 1. Planning Application and TWA Boundary

## **SECTION 2**

### **LOCATION PLAN**



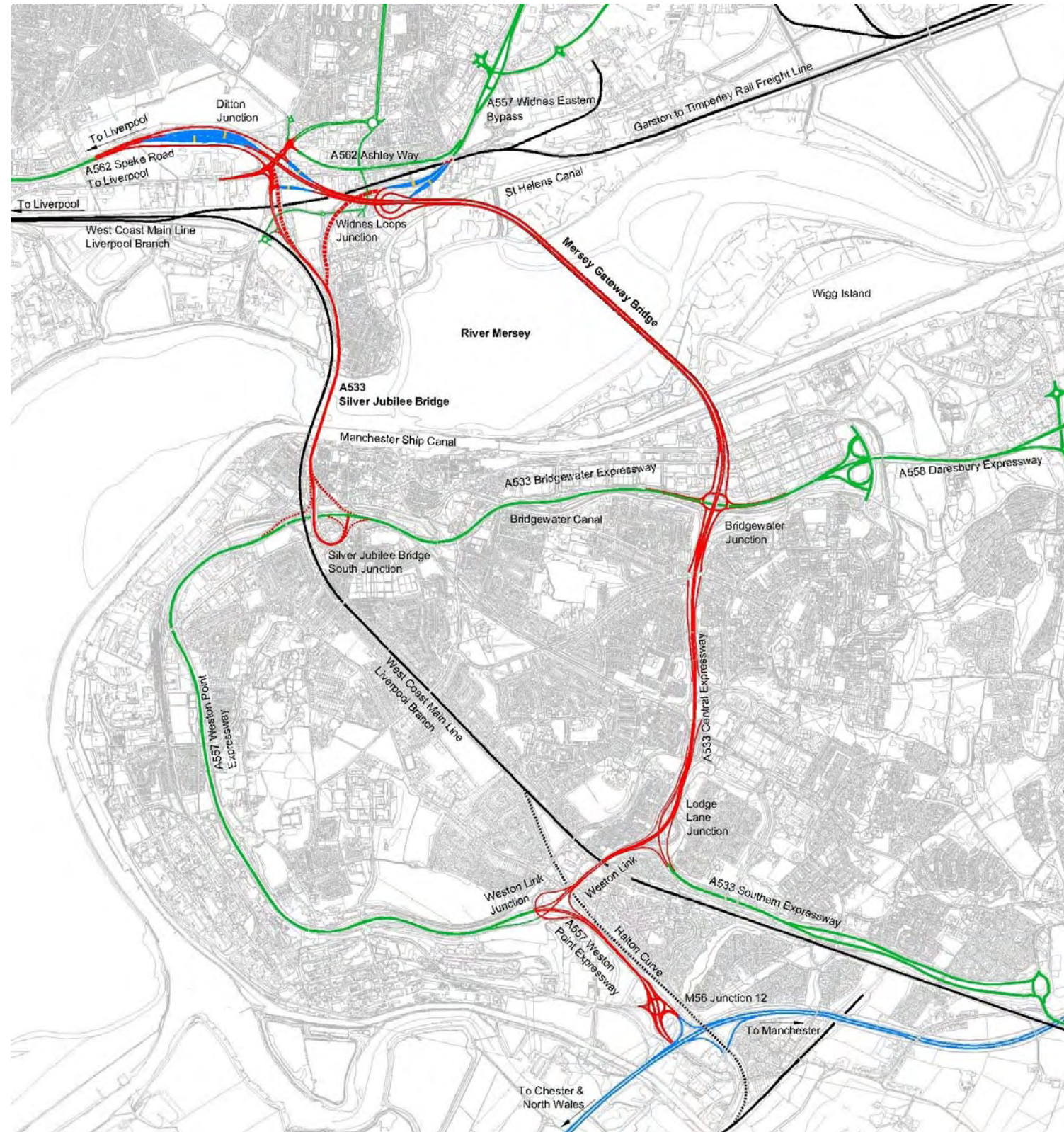
HALTON

## 2. LOCATION PLAN

## **SECTION 3**

### **ROUTE PLAN**





Mersey Gateway

### 3. ROUTE PLAN

## **SECTION 4 PHOTOGRAPHS**

**4.1 Aerials**

**4.2 St Michael's Golf Course**

**4.3 Ditton Junction**

**4.4. Victoria Road Area**

**4.5 St Helens Canal and Saltmarsh**

**4.6 Manchester Ship Canal and Wigg Island**

**4.7 Astmoor**

**4.8 Bridgewater Canal and Expressway**

**4.9 Central Expressway**





## 4. PHOTOGRAPHS

### 4.1 Aerials

#### 4.1.1 Mersey Estuary Below Runcorn Gap, View to West





4.1.2 View of Widnes West Bank from South





4.1.3 View of Silver Jubilee Bridge (Railway Bridge Behind)





**4.1.4 View of North Bank of Mersey downstream of SJB**





**4.1.5 View of upper Mersey Estuary from West**





4.1.6 View of upper Mersey Estuary from West





**4.1.7 View of upper Mersey Estuary**





**4.1.8 View of upper Mersey Estuary from East**





**4.1.9 View of upper Mersey Estuary from East**





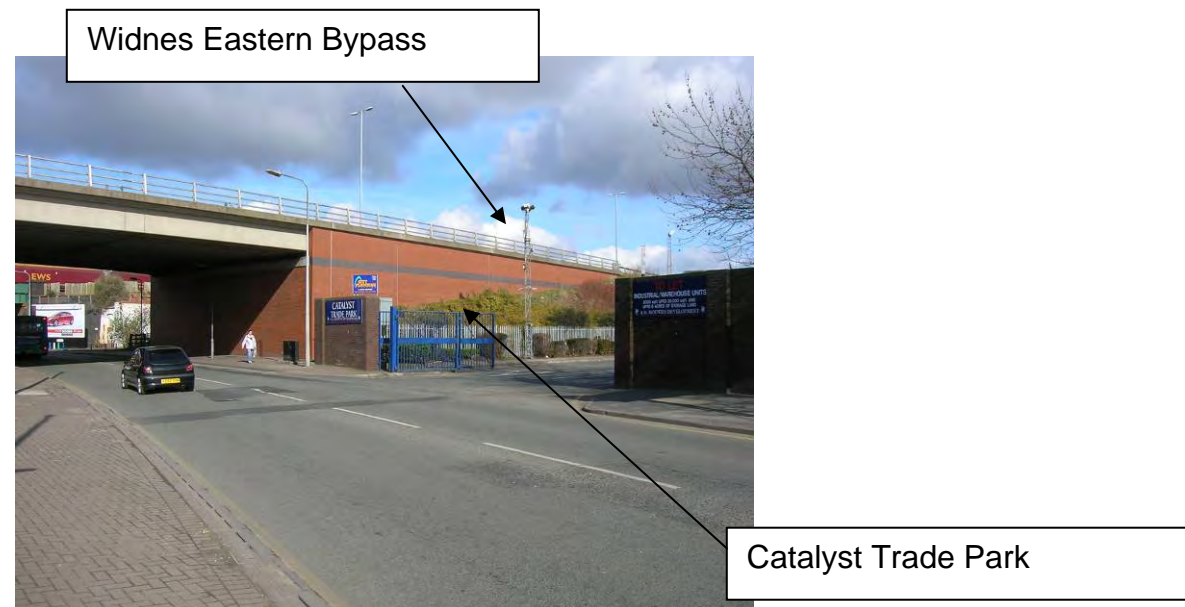
## 4.2 St Michael's Golf Course





#### 4.3 Ditton Junction





## 4.4 Victoria Road

### 4.4.1





Waterloo Centre



Properties to be removed

View North of Victoria Road

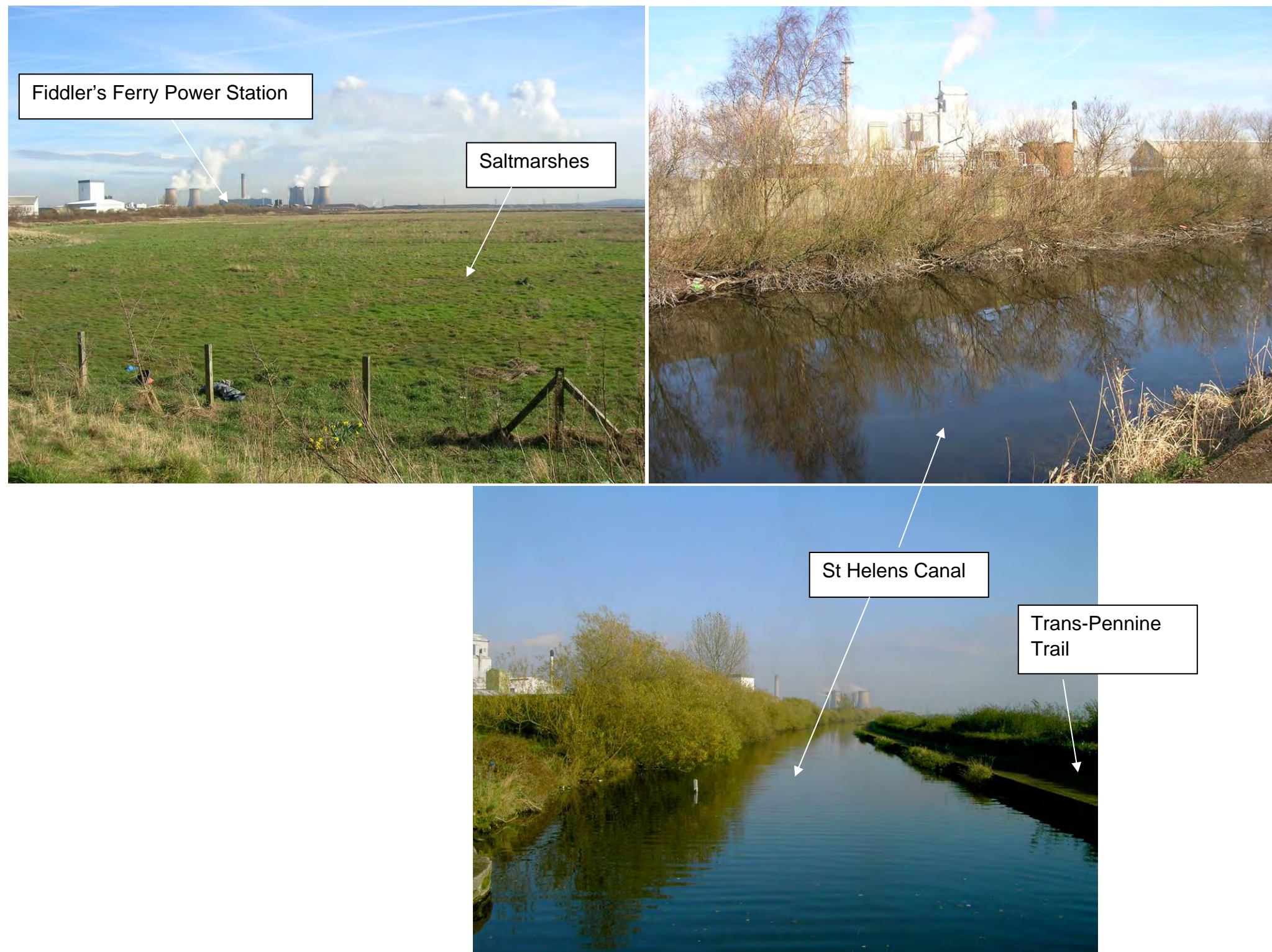


Foreground: Widnes Eastern Bypass bridge (to be demolished)

Background (Freight Line Bridge (to remain))

#### 4.4.2





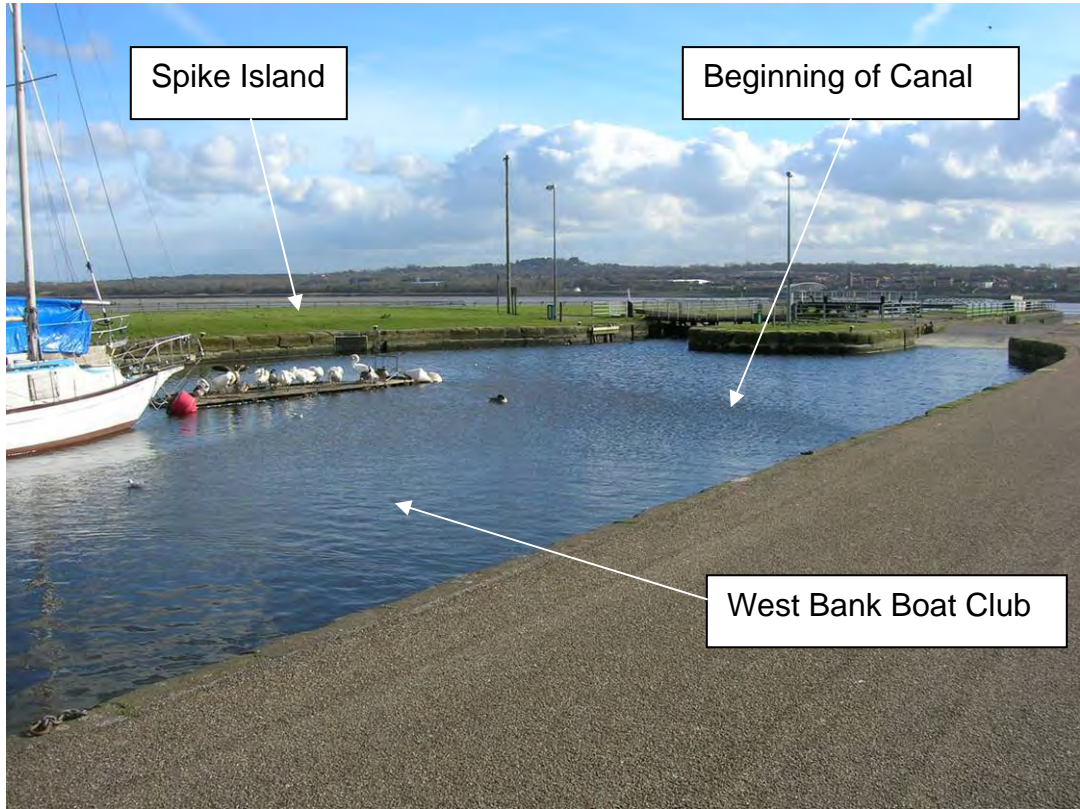
## 4.5 St Helens Canal and Saltmarsh

### 4.5.1





Trans Pennine Trail



Spike Island

Beginning of Canal

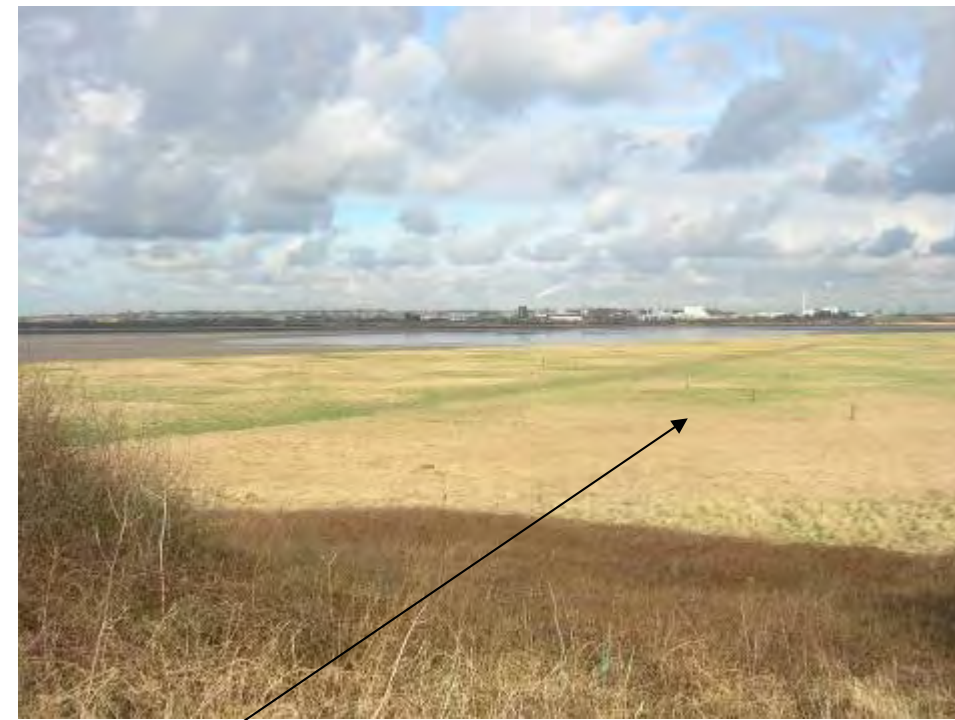
West Bank Boat Club



St Helens Canal

4.5.2 St Helens Canal and Saltmarsh





Saltmarshes



Silver Jubilee Bridge

Views of the Estuary from Wigg Island



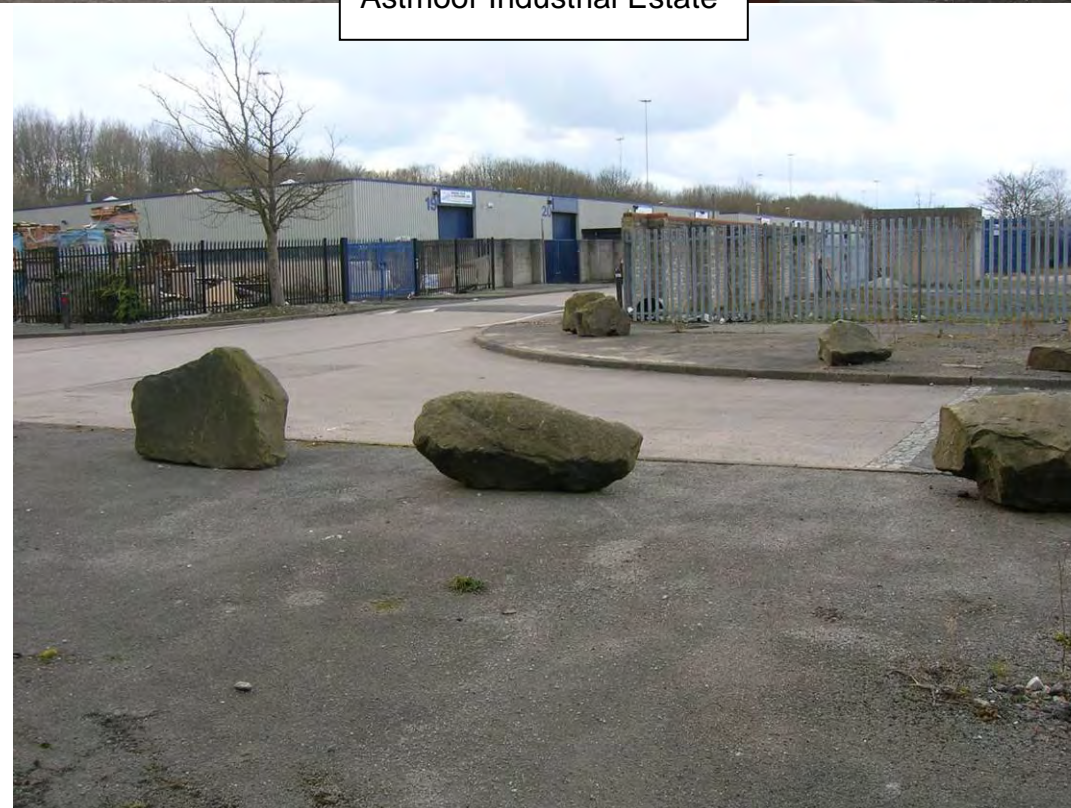
Manchester Ship Canal

## 4.6 Manchester Ship Canal and Wigg Island





Astmoor Industrial Estate



## 4.7 Astmoor Industrial Estate





Bridgewater Canal



Bridgewater Expressway



#### 4.8 Bridgewater Canal and Expressway



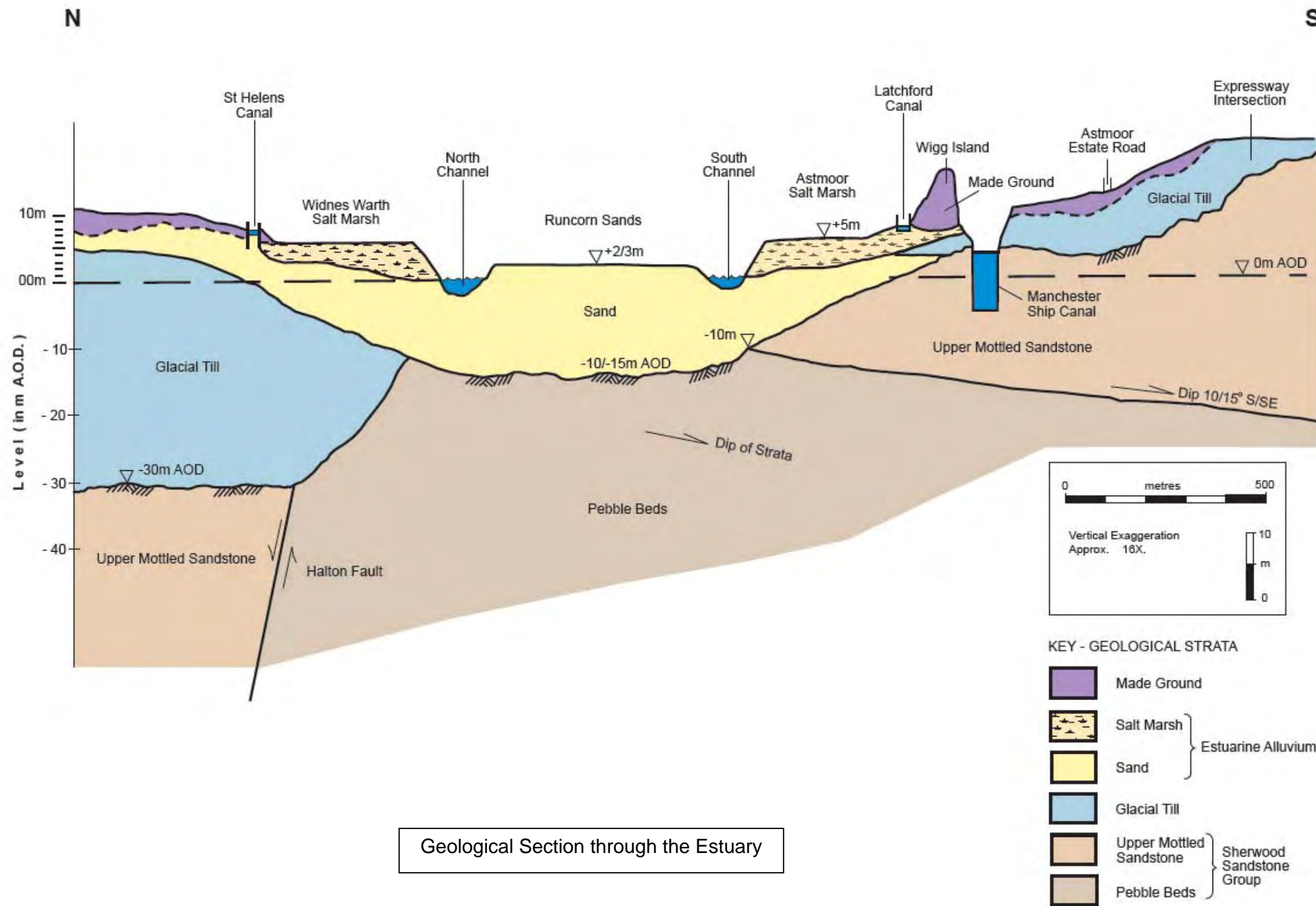


Halton Lea

## 4.9 Central Expressway

## **SECTION 5**

### **GEOLOGY**



## 5. GEOLOGY

## **SECTION 6**

### **HIGHWAYS PLANS**

**6.1 Toll Plaza and Ditton Junction**

**6.2 Victoria Road and Widnes Loops**

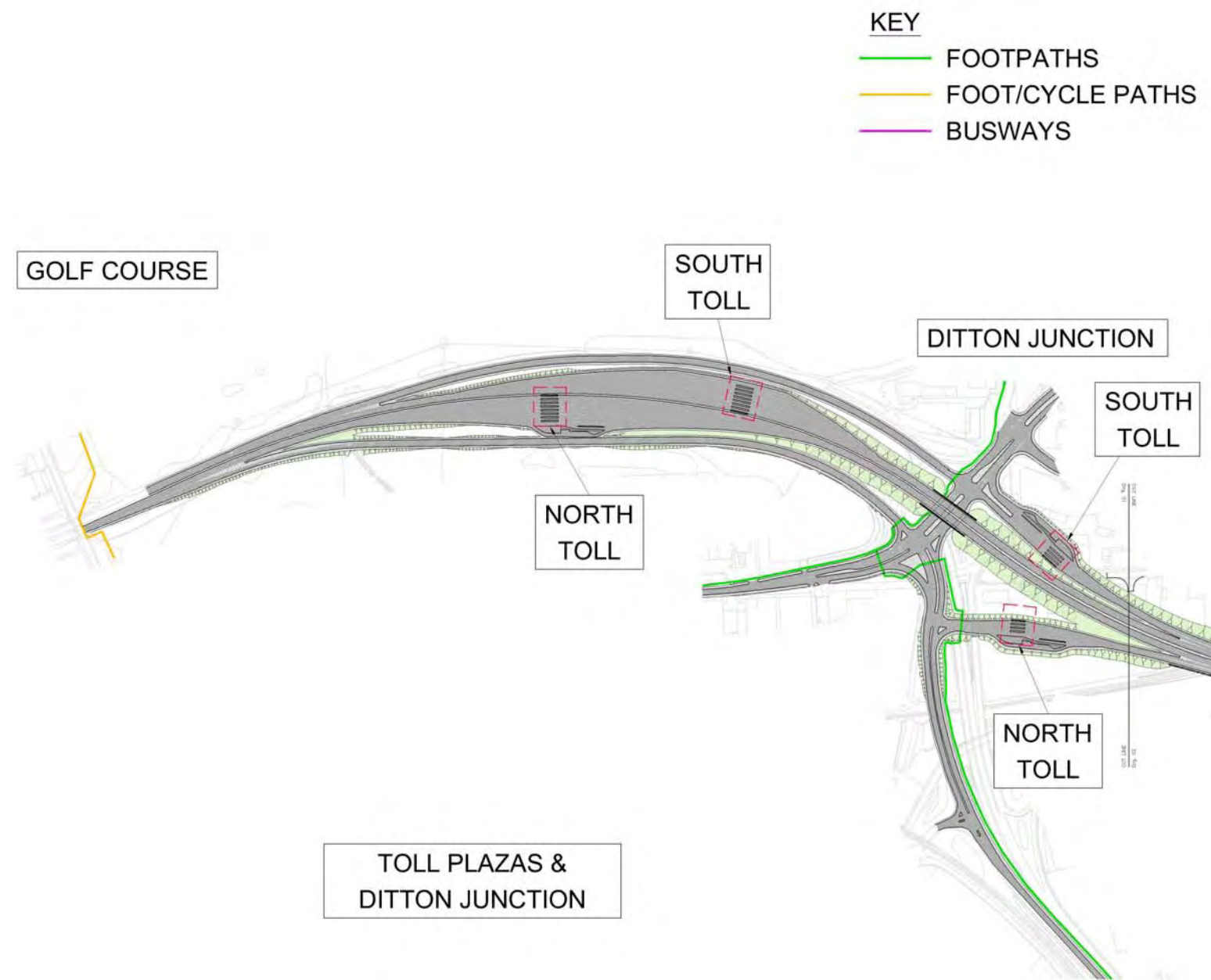
**6.3 River Crossing**

**6.4 Bridgewater Junction**

**6.5 Central Expressway**

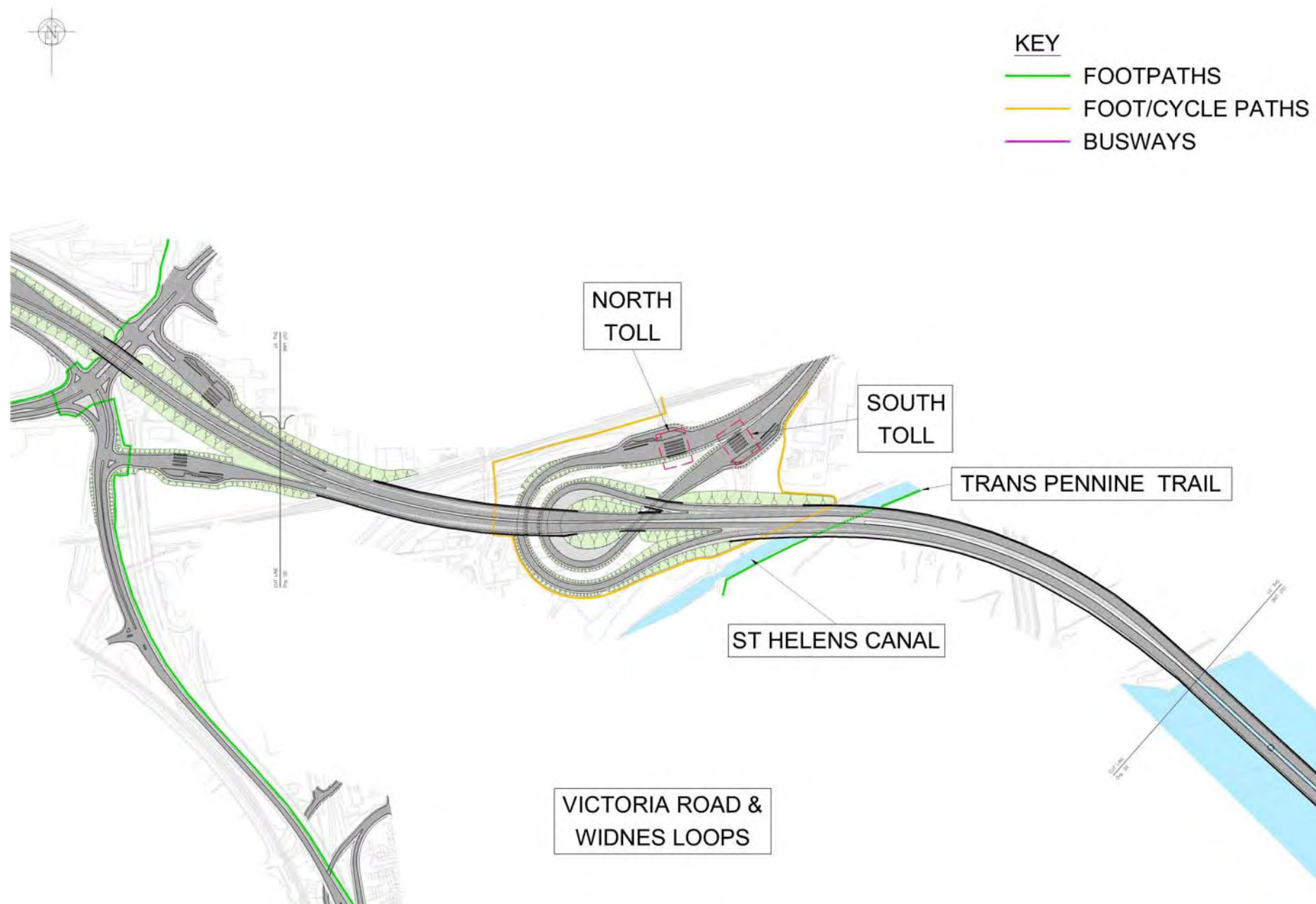
**6.6 Lodge Lane Junction to M56 Junction 12**



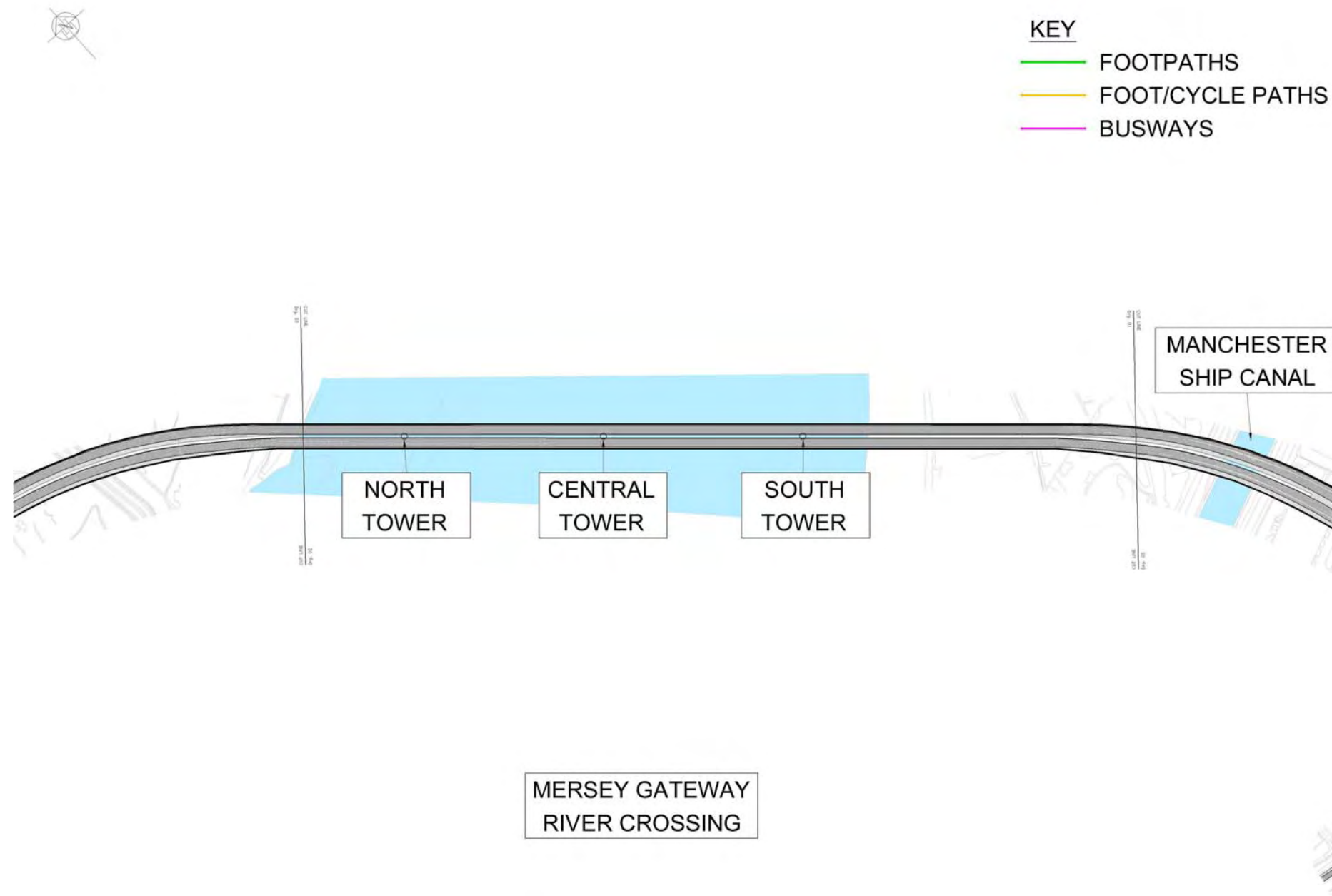


## 6. HIGHWAY PLANS

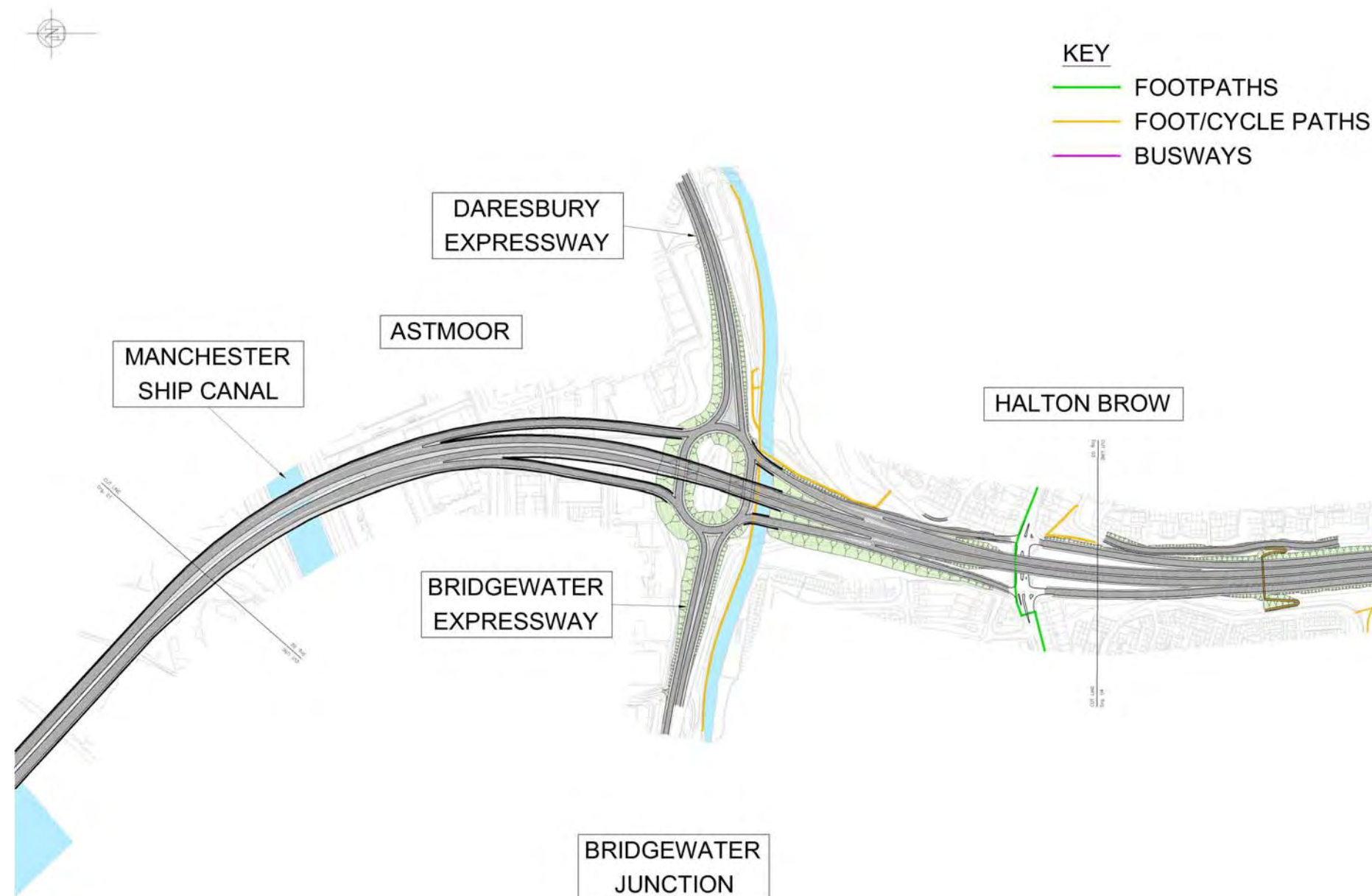
## 6.1 Toll Plaza and Ditton Junction



## 6.2 Victoria Road and Widnes Loops

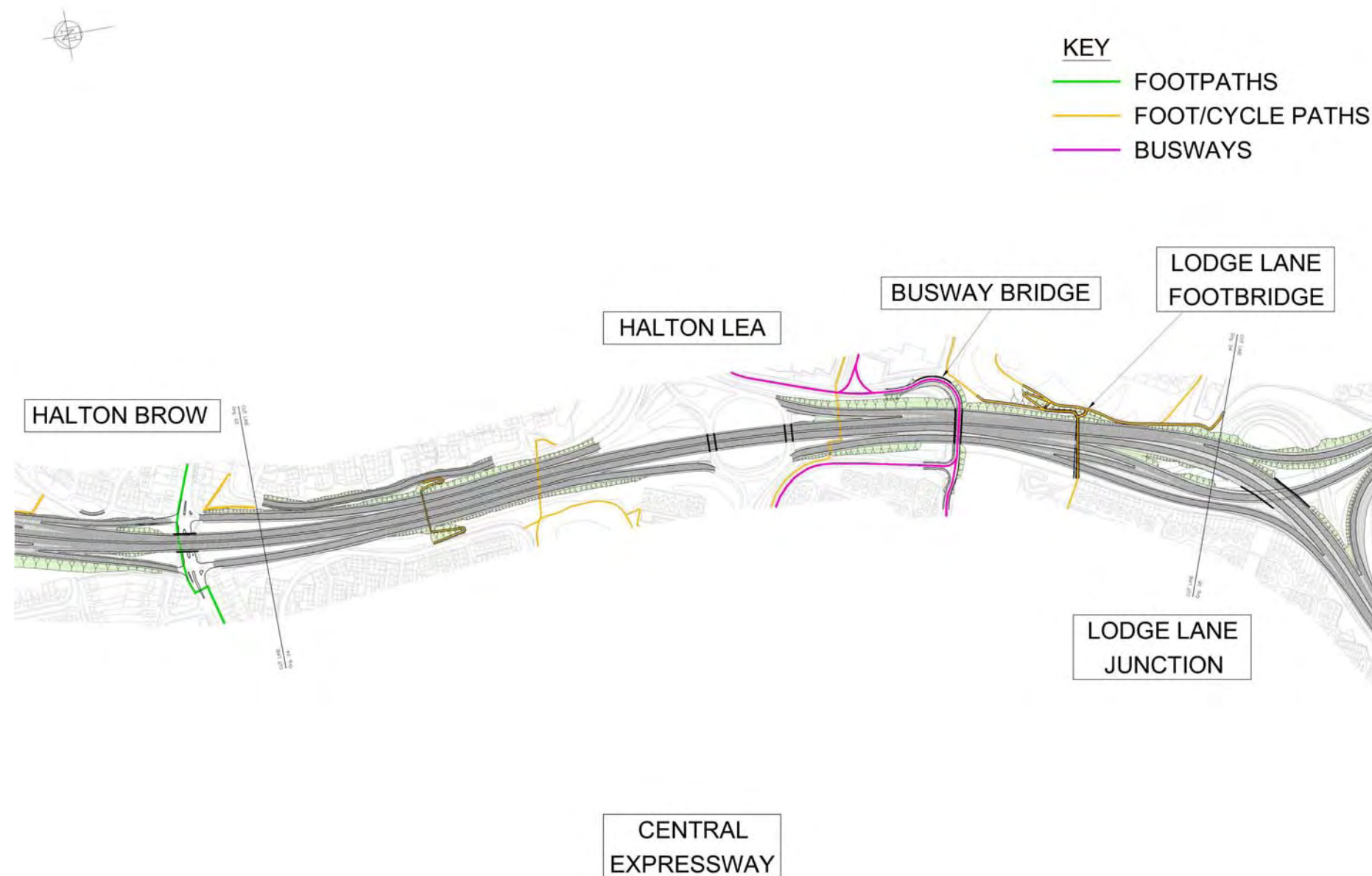


### 6.3 River Crossing

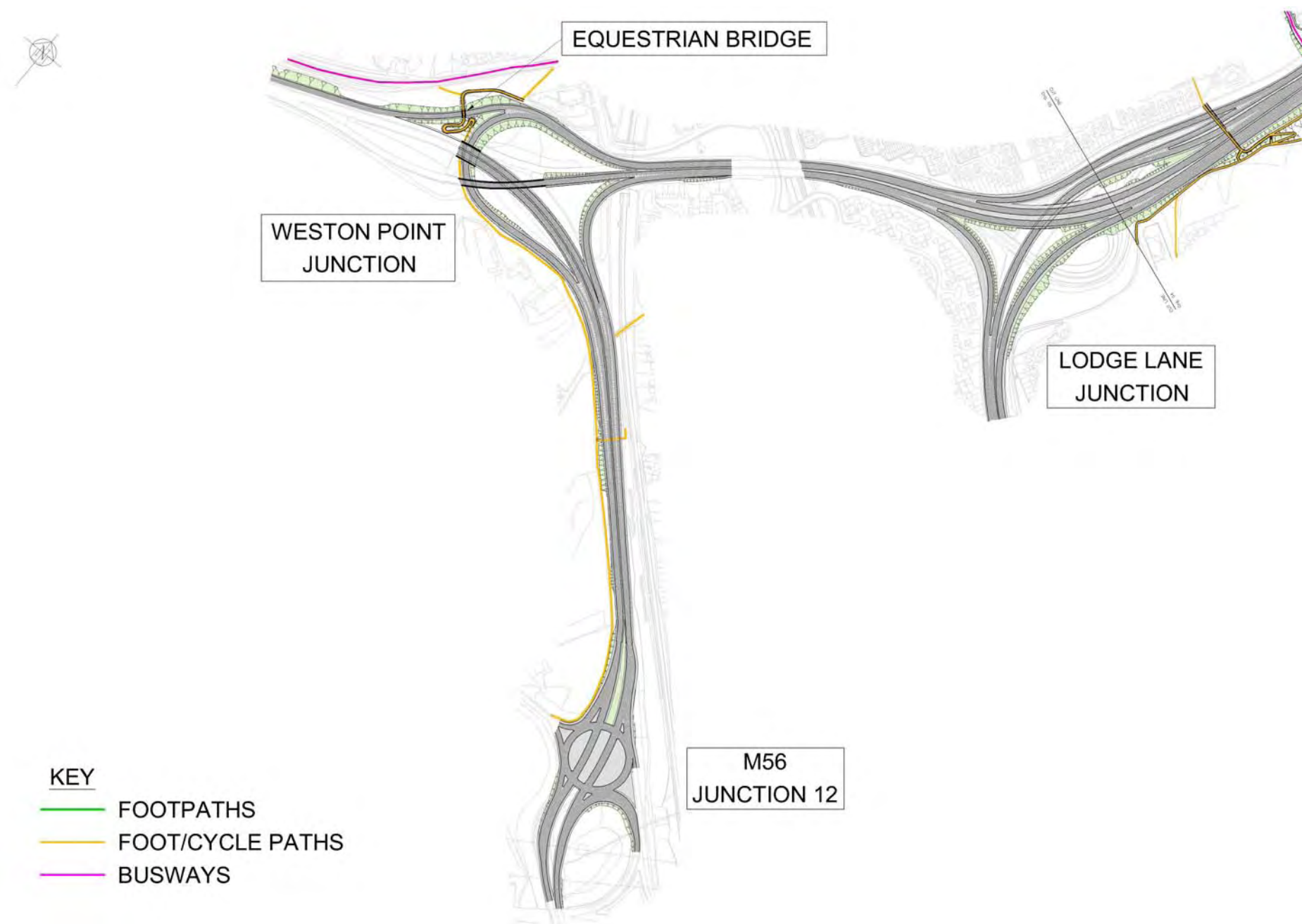


## 6.4 Bridgewater Junction





## 6.5 Central Expressway

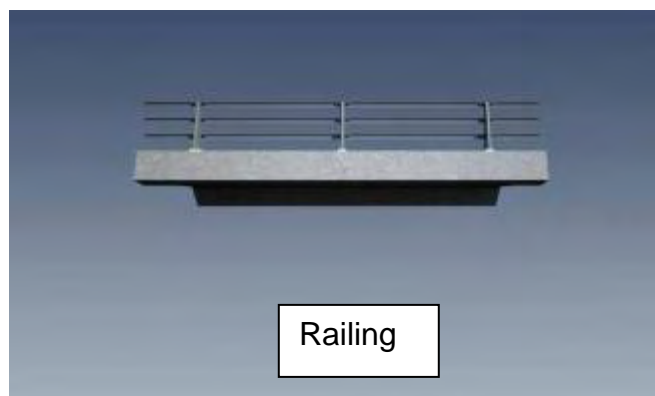


## 6.6 Lodge Lane to M56 Junction 12

## **SECTION 7**

### **STRUCTURE DEVELOPMENT**

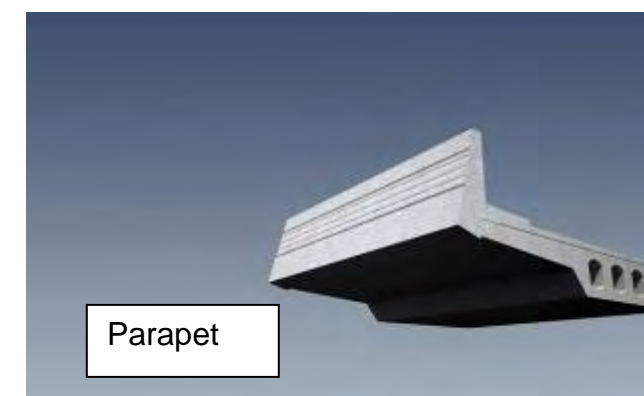




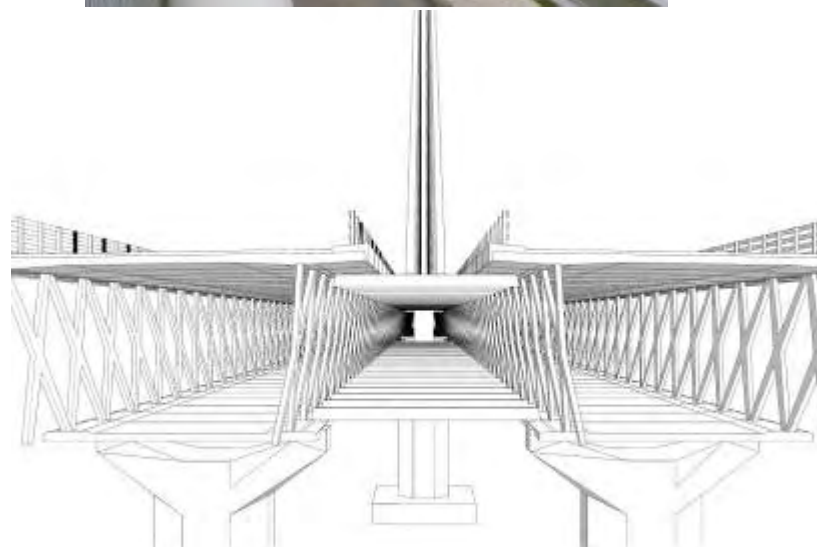
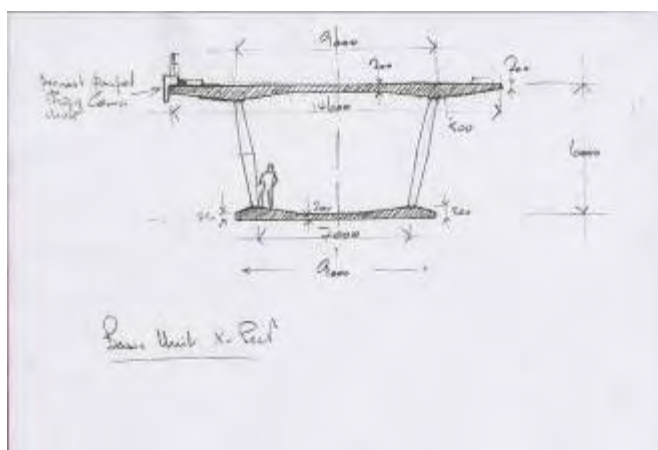
Railing



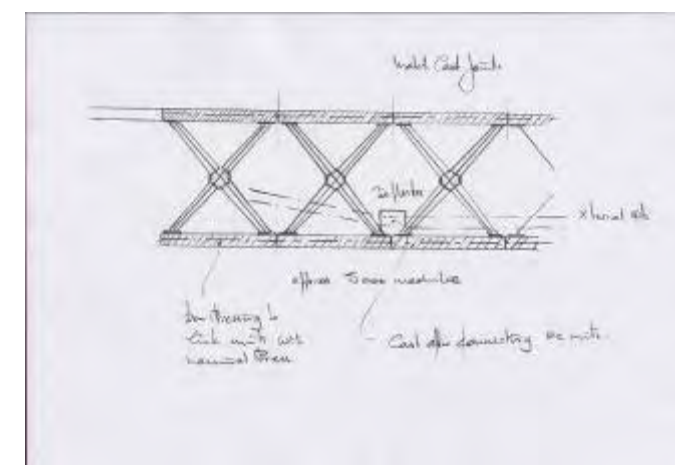
Wind Shield



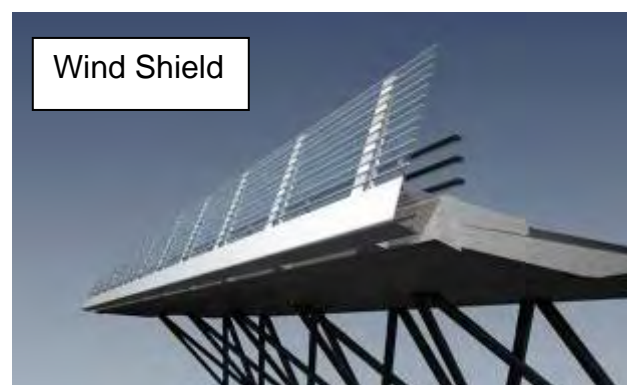
Parapet



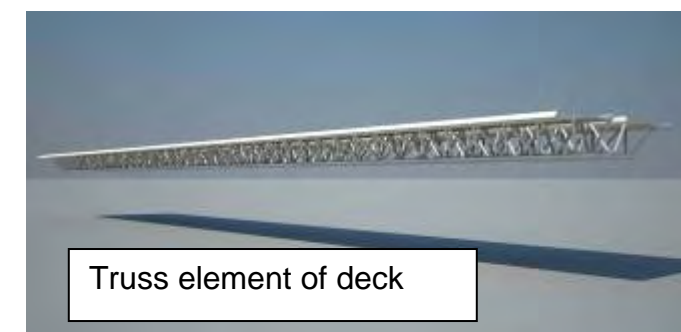
Section through The New Bridge



Railing



Wind Shield



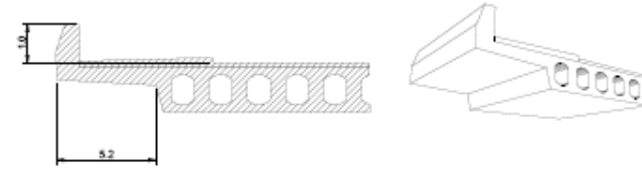
Truss element of deck

## 7. STRUCTURES DEVELOPMENT

### 7.1 Deck Cross Section Development

## parapet studies

original scheme, Astmoor viaduct, concrete parapet

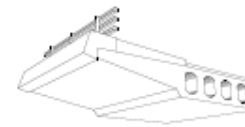


option a

steel / aluminium post & rail



option a, reduced kink



option b

steel / aluminium post & rail



concrete parapet, regular height



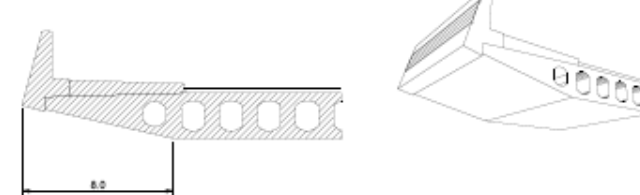
concrete parapet, regular height



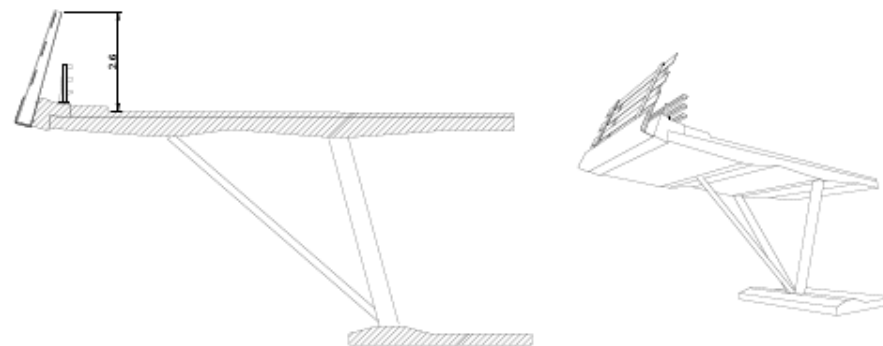
concrete parapet, increased height



concrete parapet, increased height



Mersey Gateway, windshield

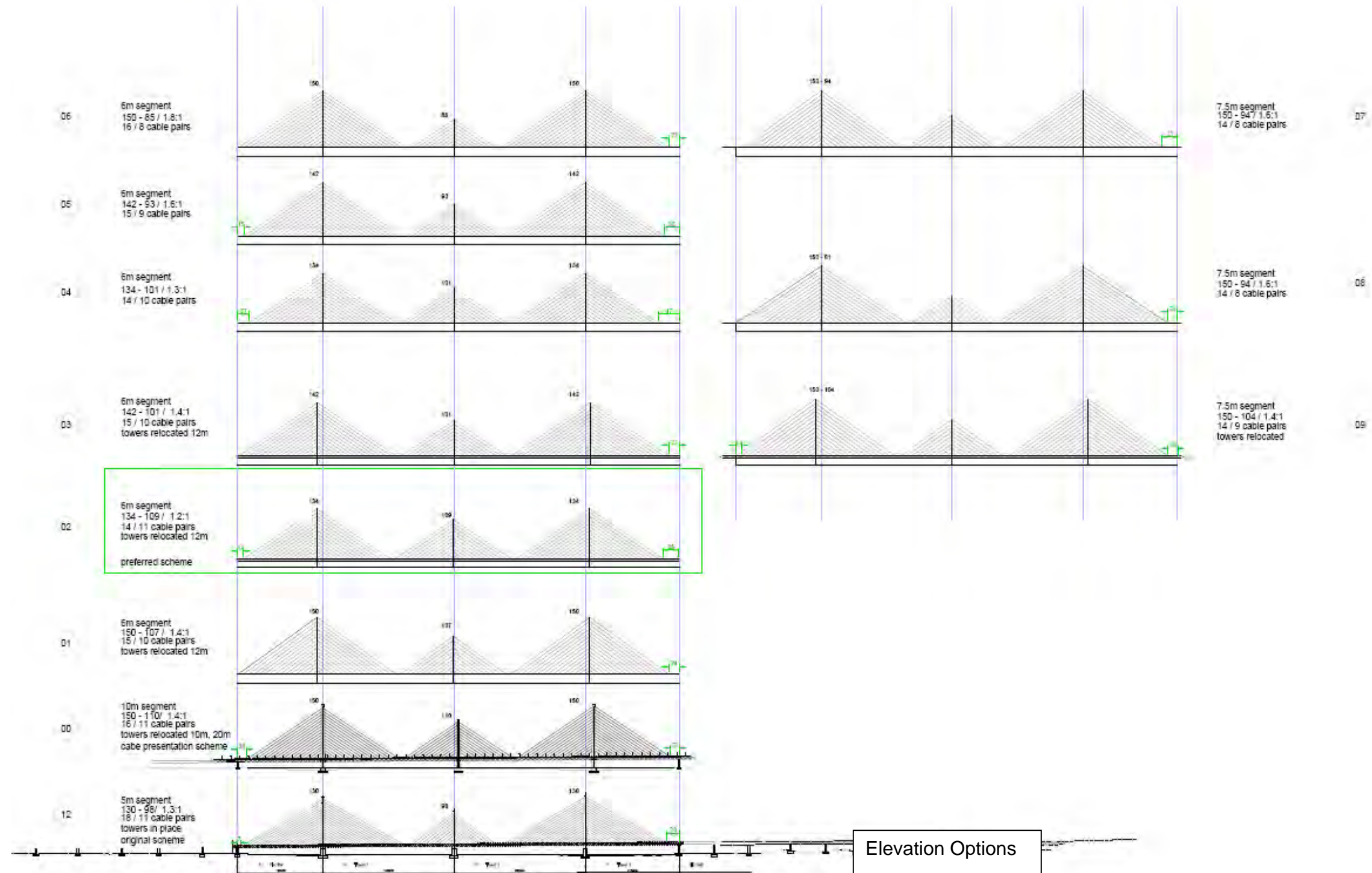


Parapet Options

Scale 1:100

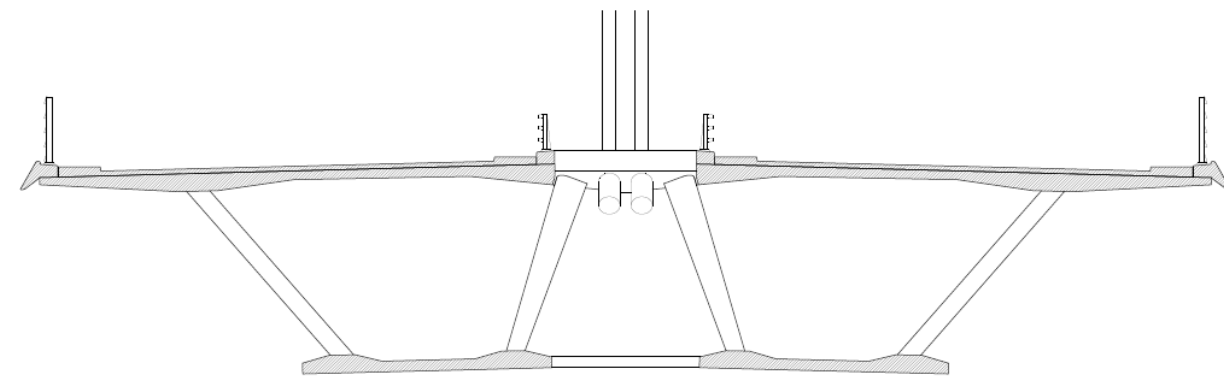
original drawing size  
594 x 420mm

## 7.2 Parapet Edge Detail Options

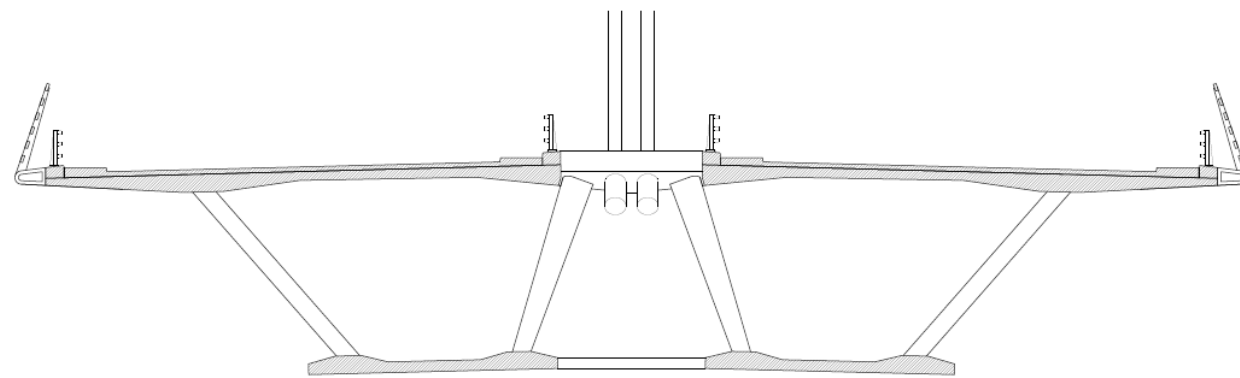


### 7.3 Cable Array and Tower Height Development

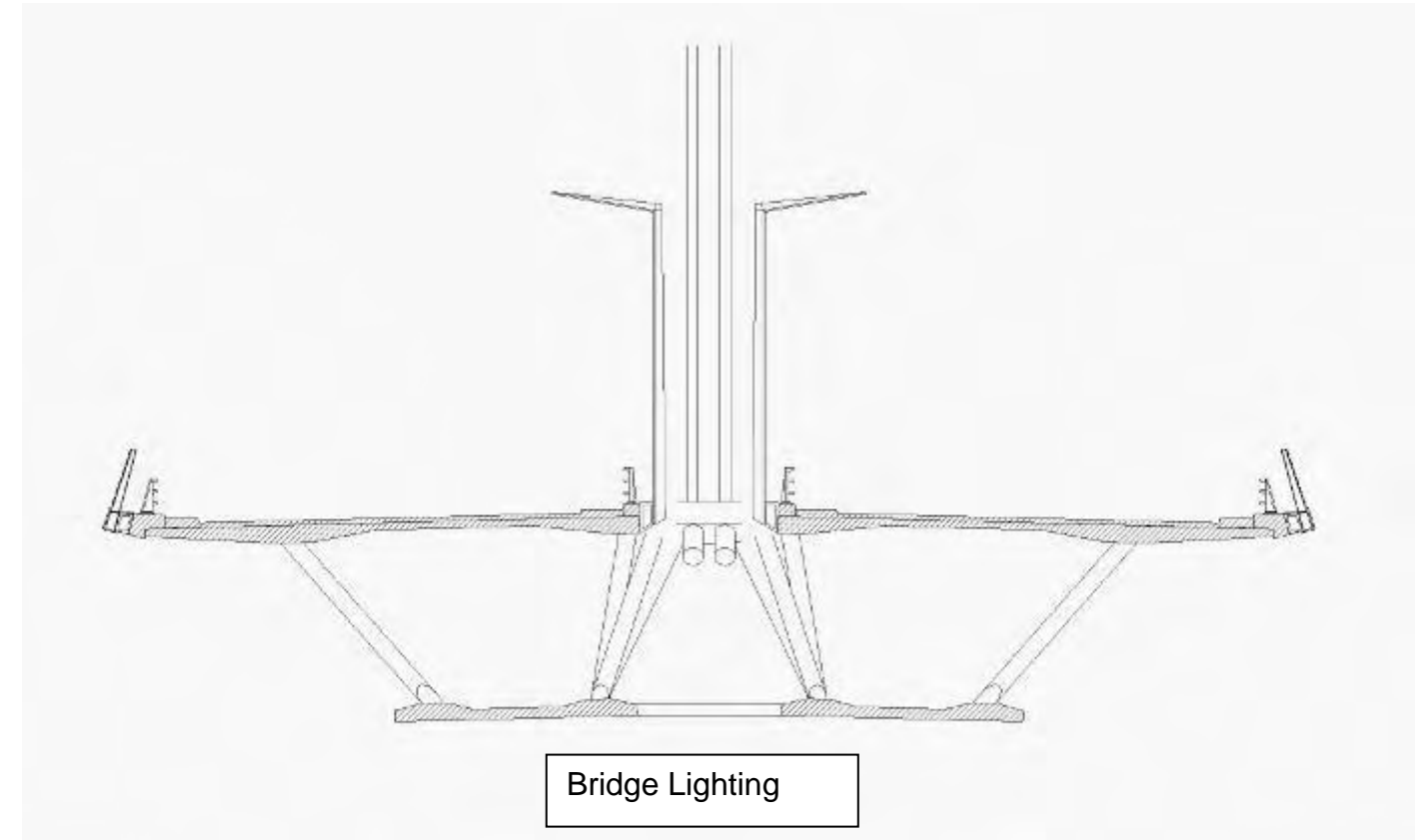




Section showing aluminium post and rail



Section with windshield



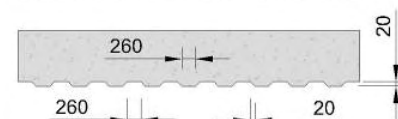
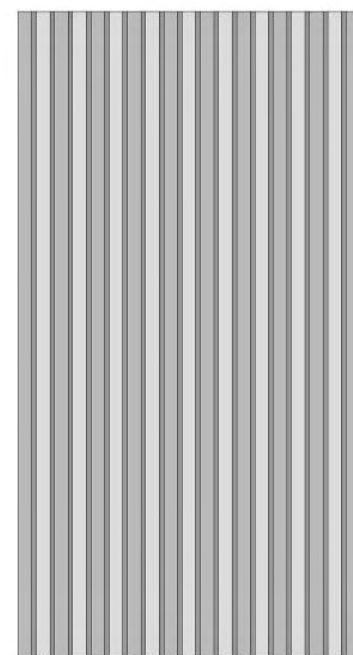
Bridge Lighting

## 7.4 Cable to Deck Connections

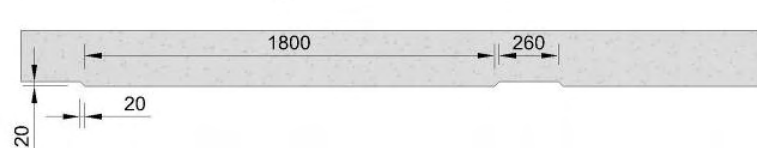
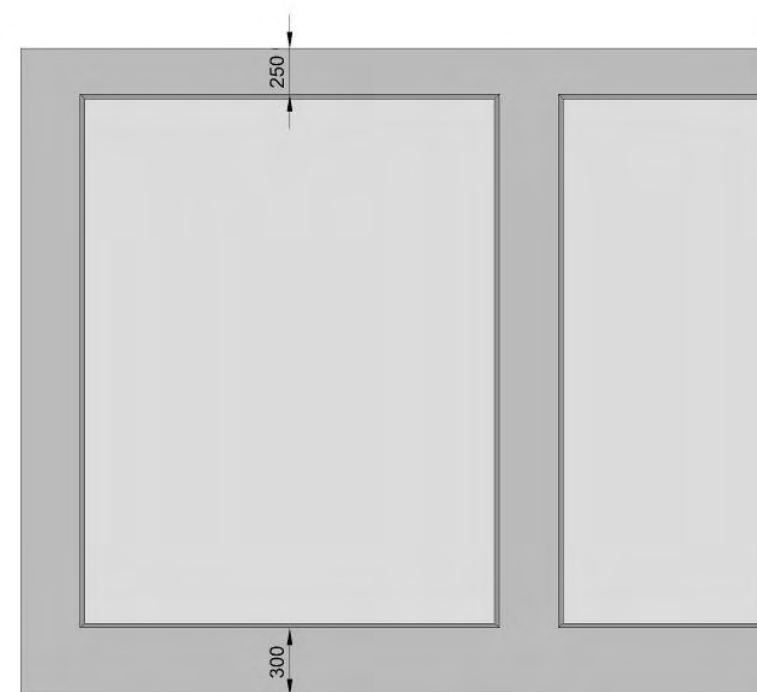
## TYPICAL FINISHES

Grit blasted face to provide a matt texture

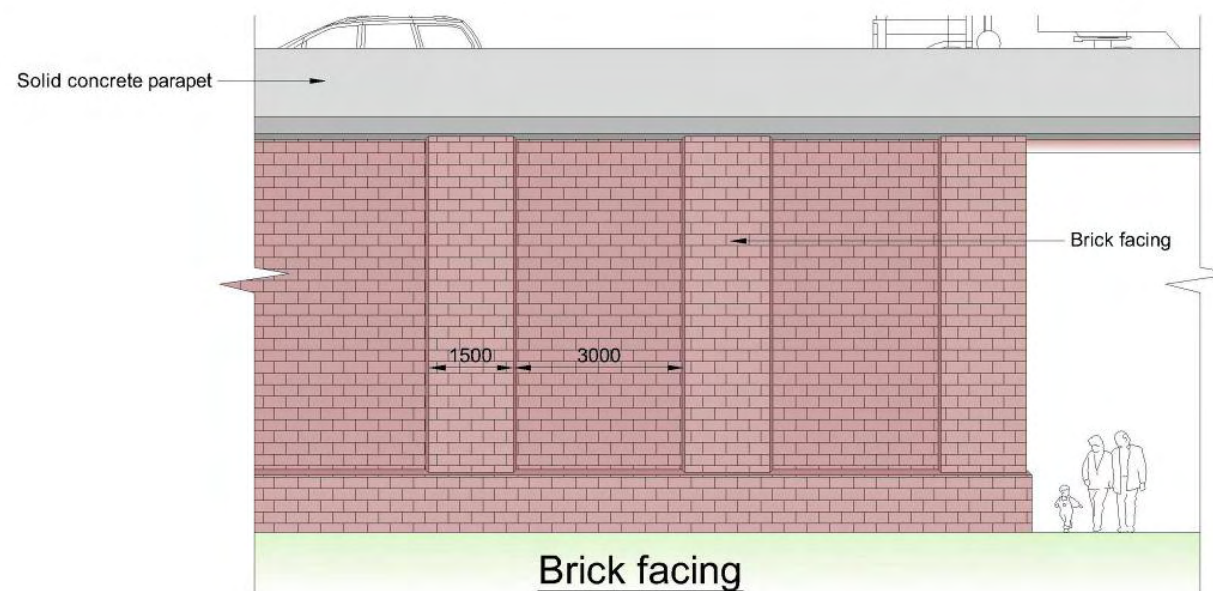
Texture finish



Ribbed finish



Panel finish



Brick facing

## 7.5 Typical Finishes



## **SECTION 8 STRUCTURAL PROPOSALS**

**8.1 Ditton Junction Bridge**

**8.2 Victoria Road Viaduct**

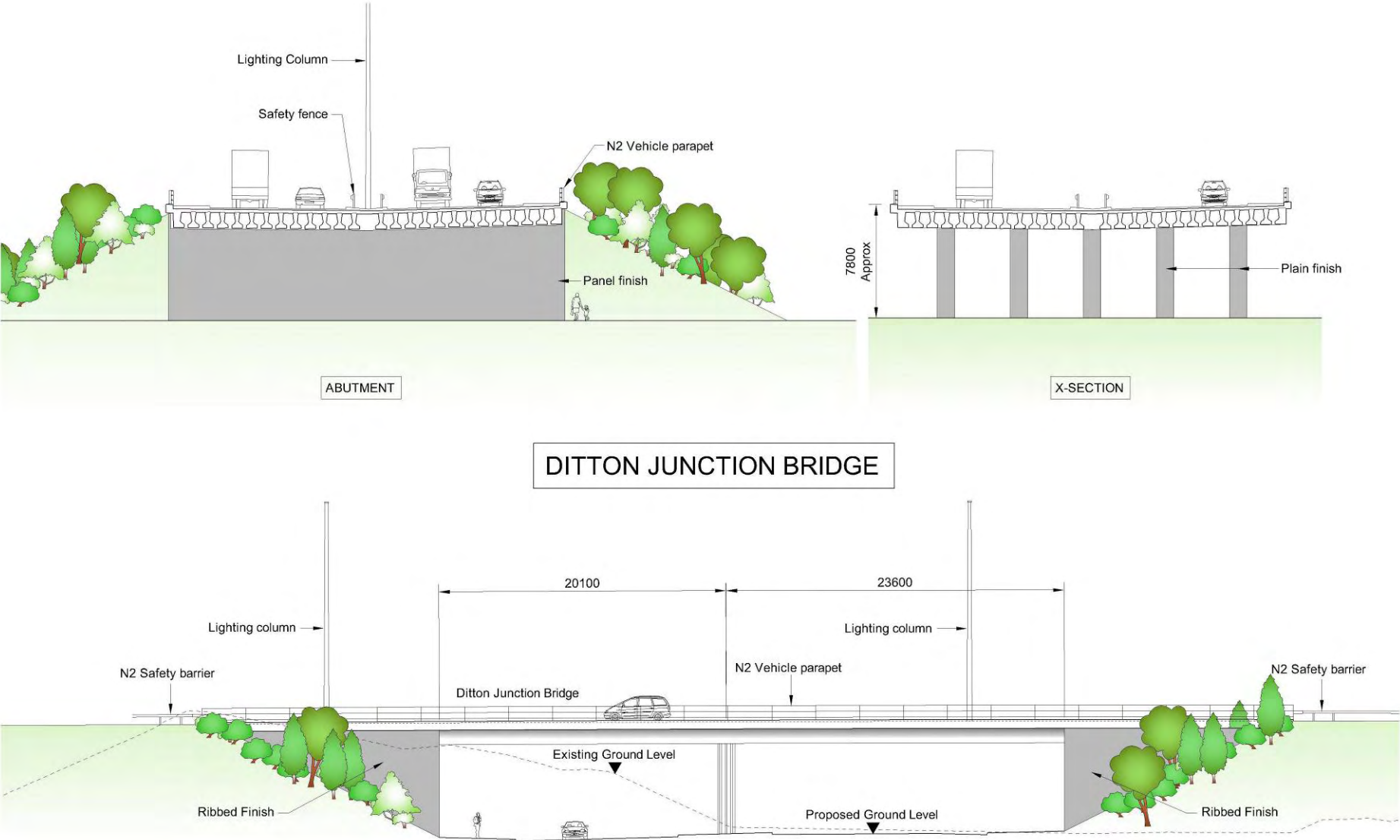
**8.3 Widnes Loops Junction – Bridges**

**8.4 St Helens Canal Bridge and Astmoor Viaduct**

**8.5 Mersey Gateway Bridge**

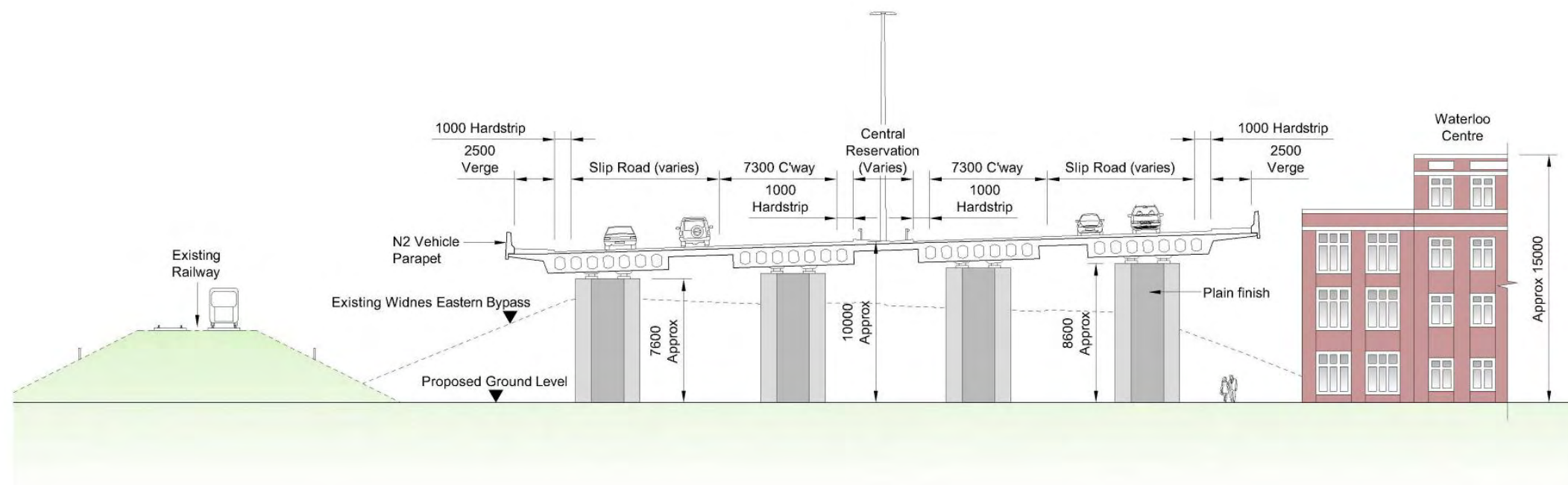
**8.6 Bridgewater Junction Structures**

8. STRUCTURAL PROPOSASLS

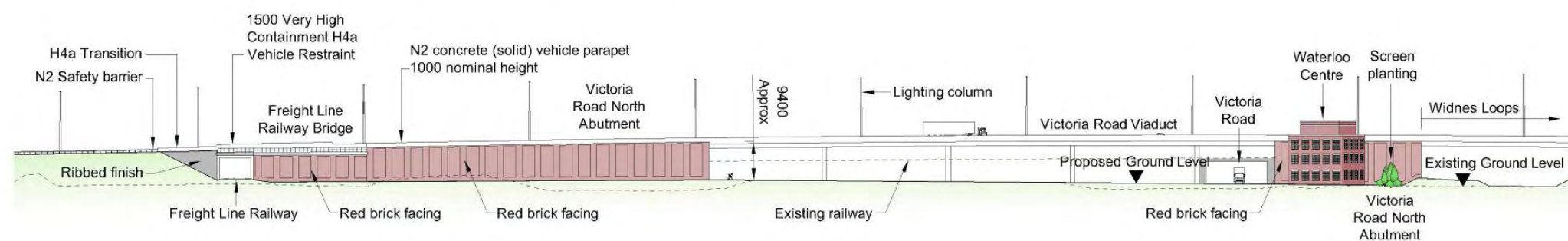


8.1 Ditton Junction Bridge

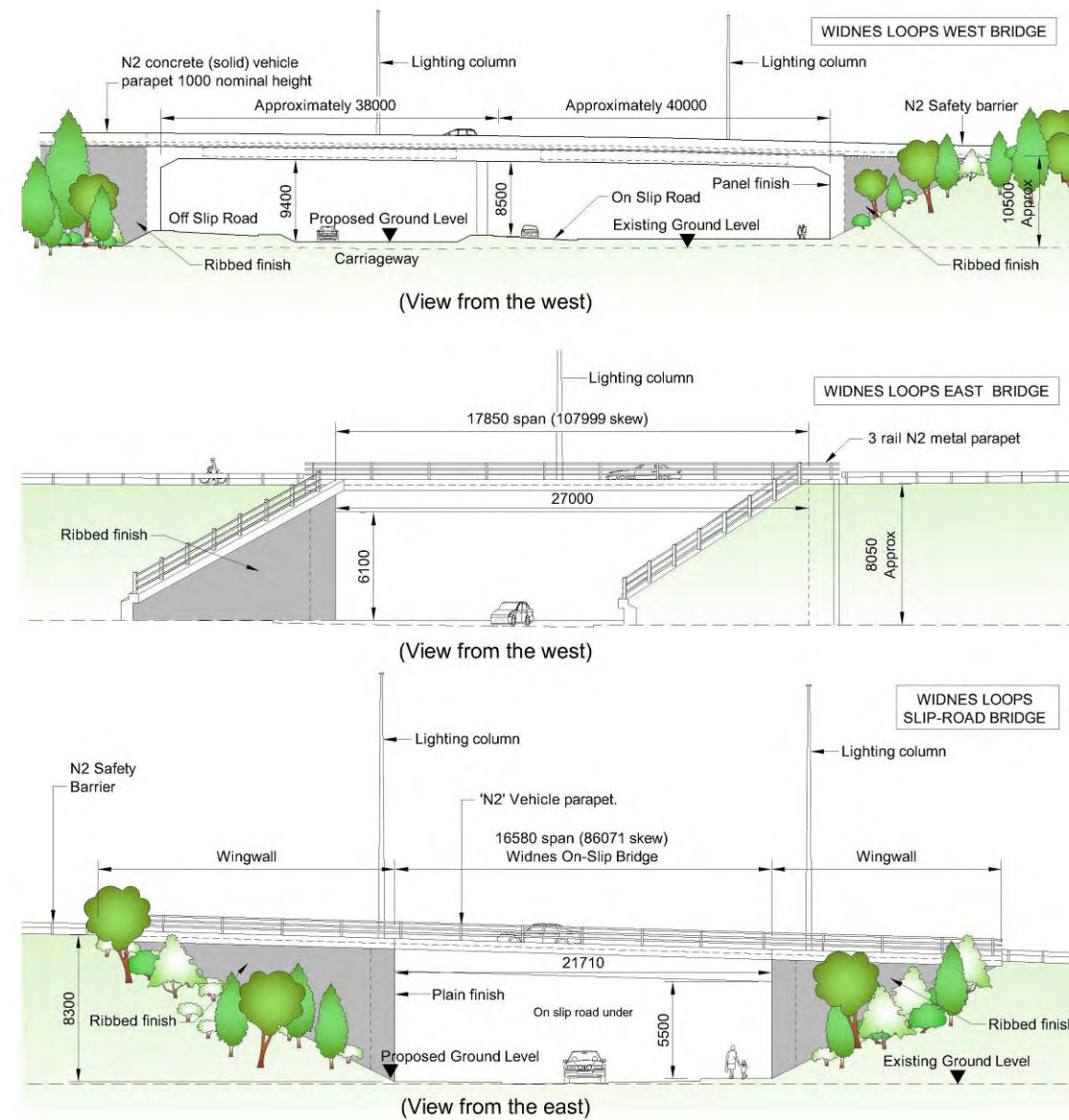
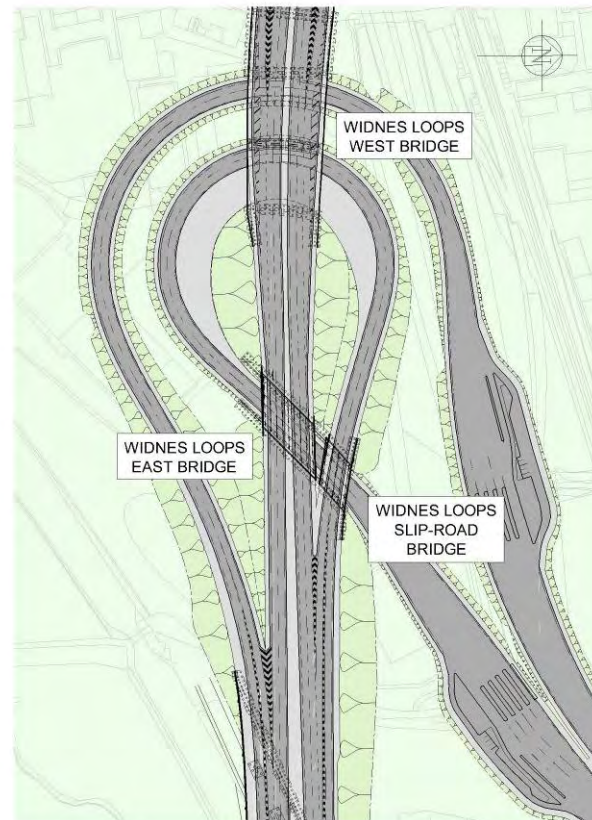




## VICTORIA ROAD VIADUCT

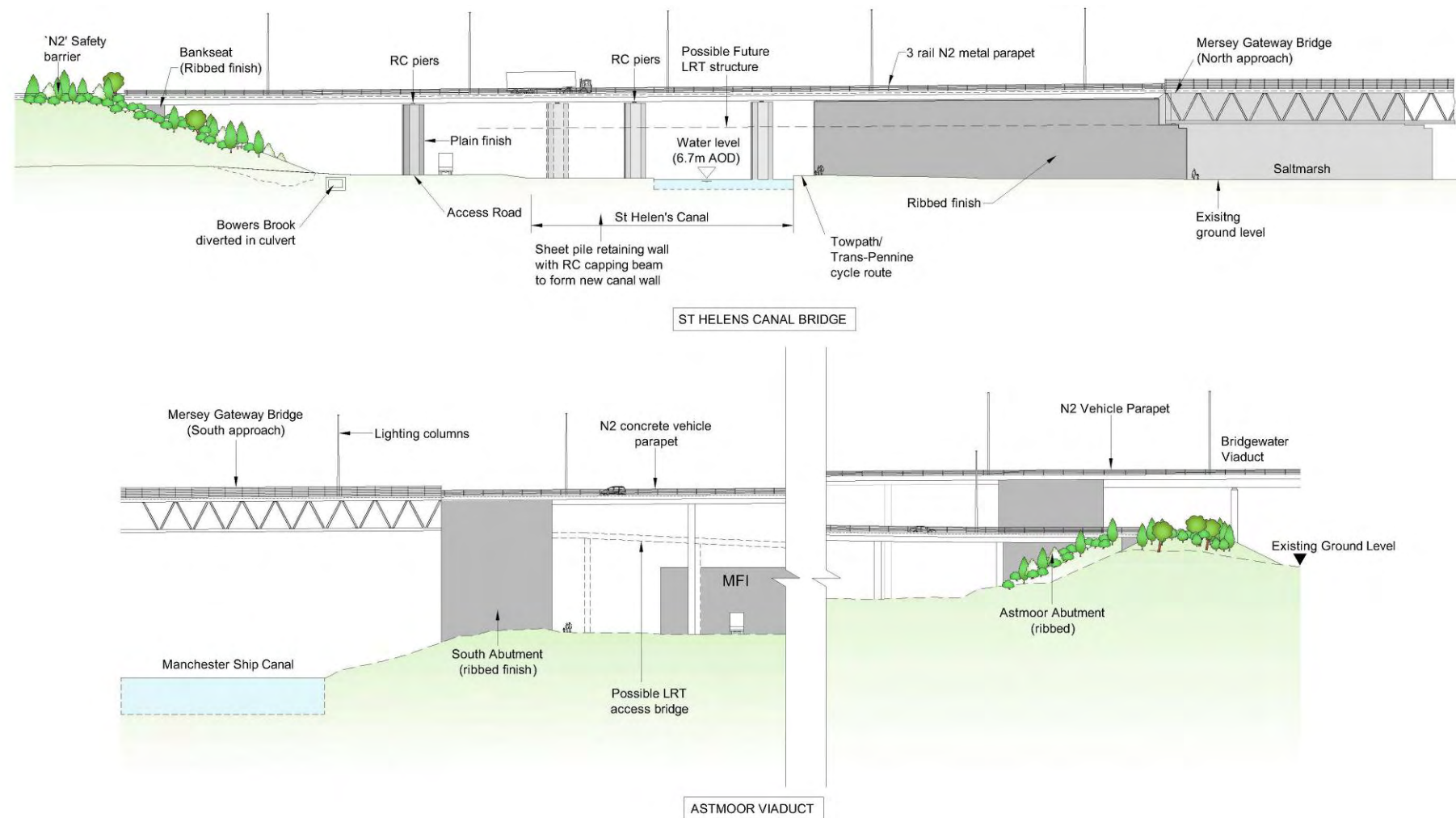


## 8.2 Victoria Road Viaduct

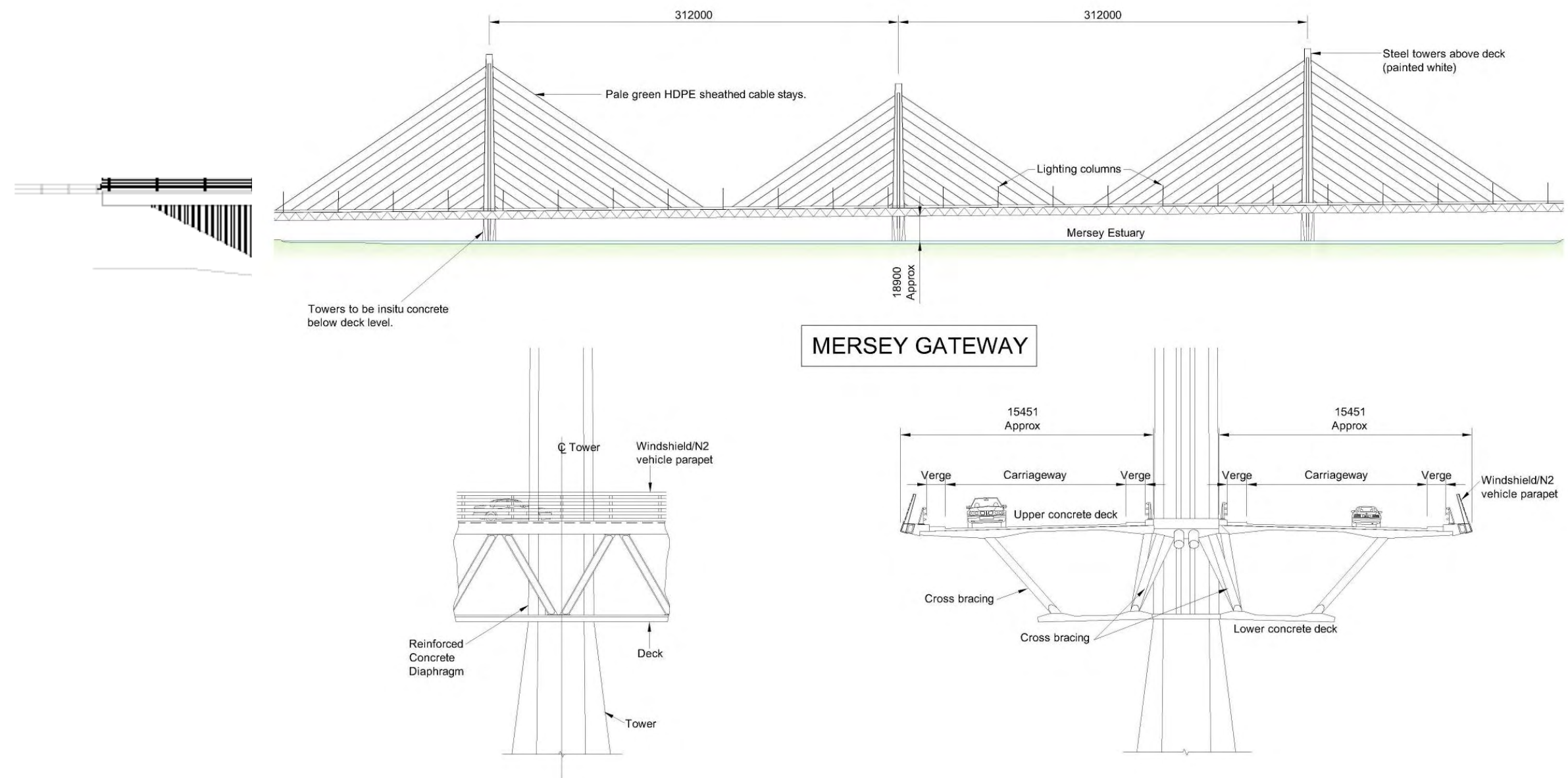


### 8.3 Widnes Loops Junction – Bridges



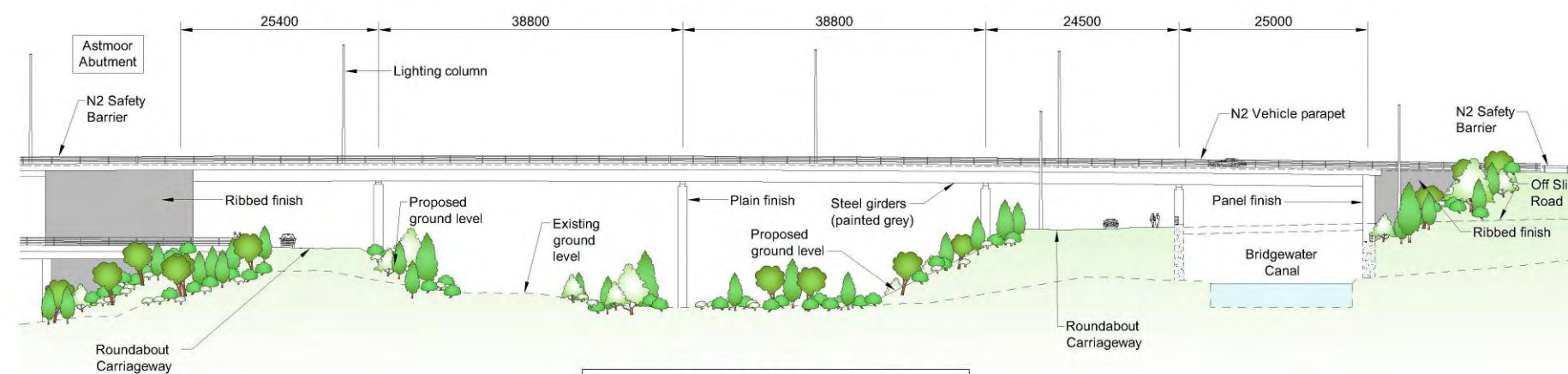


## 8.4 St Helens Canal Bridge and Astmoor Viaduct

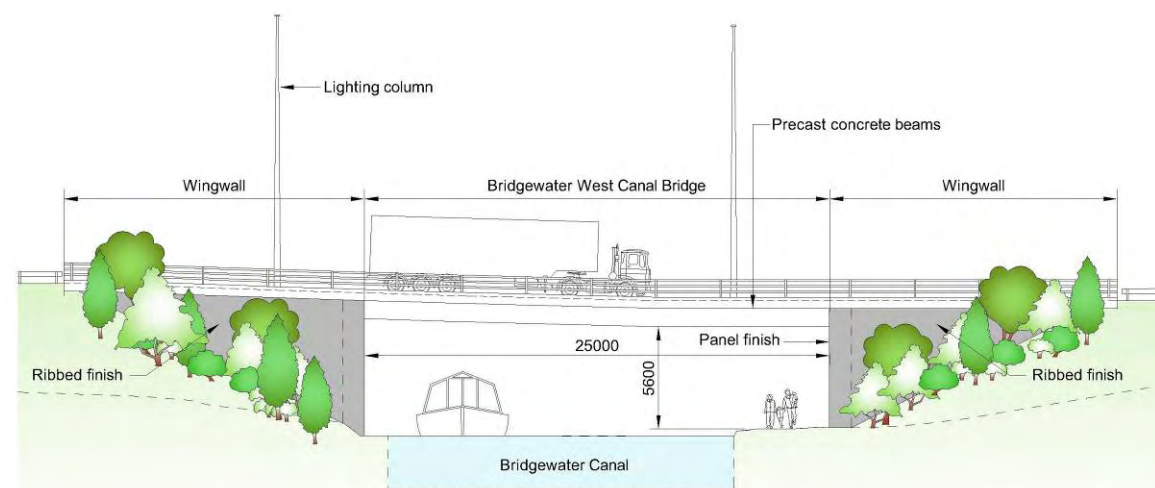


## 8.5 Mersey Gateway Bridge





BRIDGEWATER VIADUCT



BRIDGEWATER CANAL BRIDGE  
VIEWED FROM THE EAST

## 8.6 Bridgewater Junction Structures

## SECTION 9 - IMAGES





New Bridge

## 9. VISUAL REPRESENTATIONS

### 9.1 Mersey Gateway Bridge





**9.1.1 South Abutment and Manchester Ship Canal Span**





**9.1.2 St Helens Canal Bridge and North Abutment**





**9.1.3 View from Wigg Island**





**9.1.4 View from southern end of Wigg Island**





## 9.2 Silver Jubilee Bridge





**9.3 Toll Plaza Details**

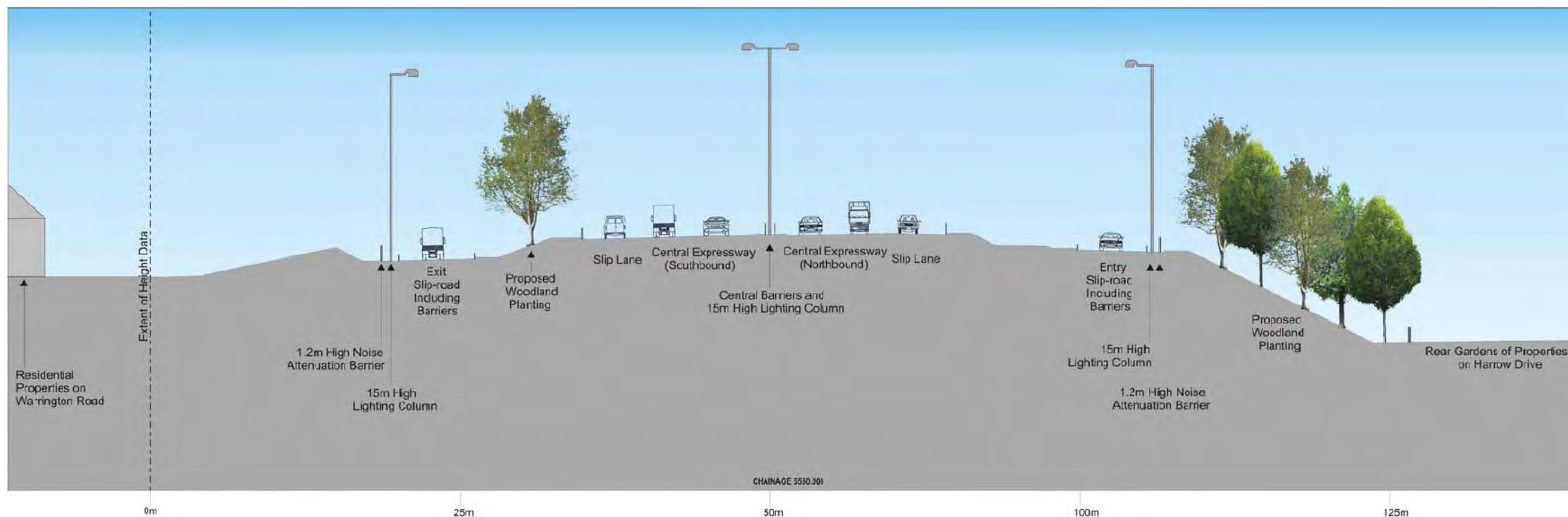


## 9.4 Cross Sections

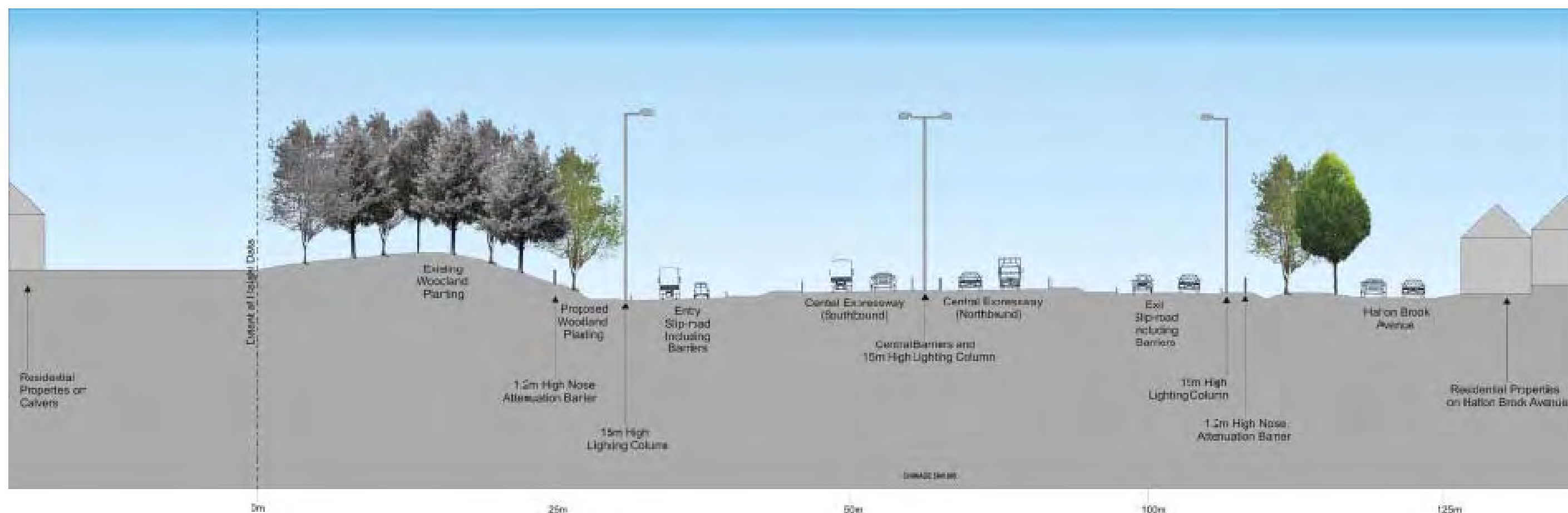


### 9.4.1 Key Plan of Central Expressway Cross Sections



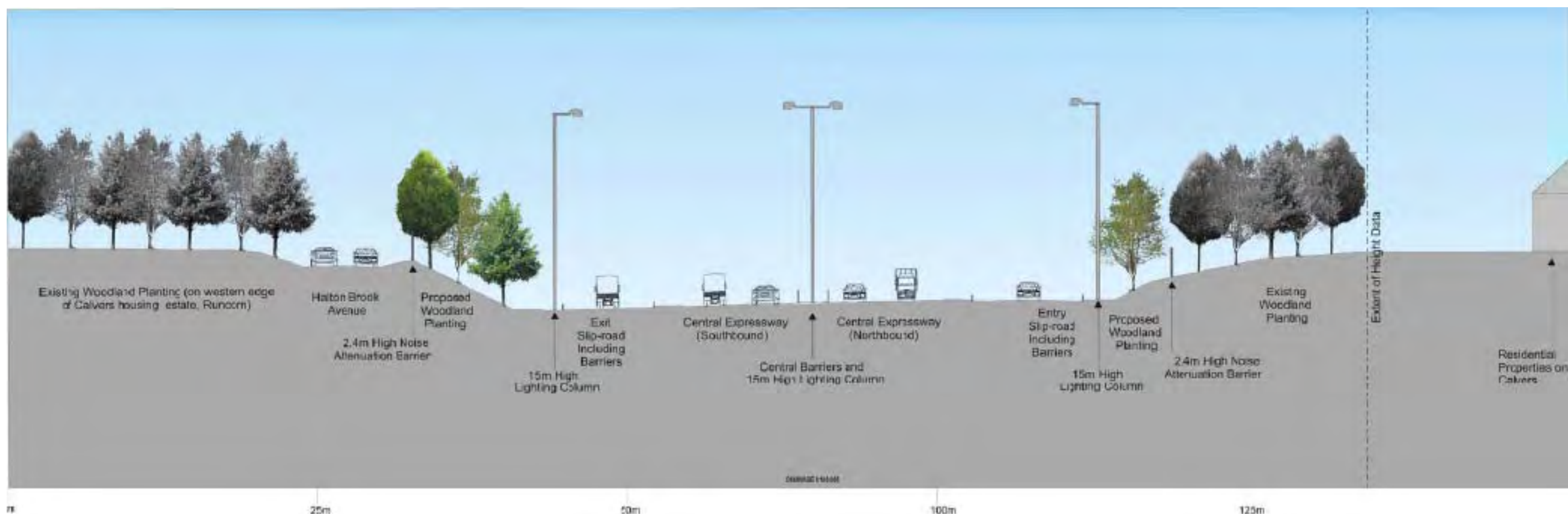


**9.4.2 Central Expressway – Cross Section @ Ch5+550**

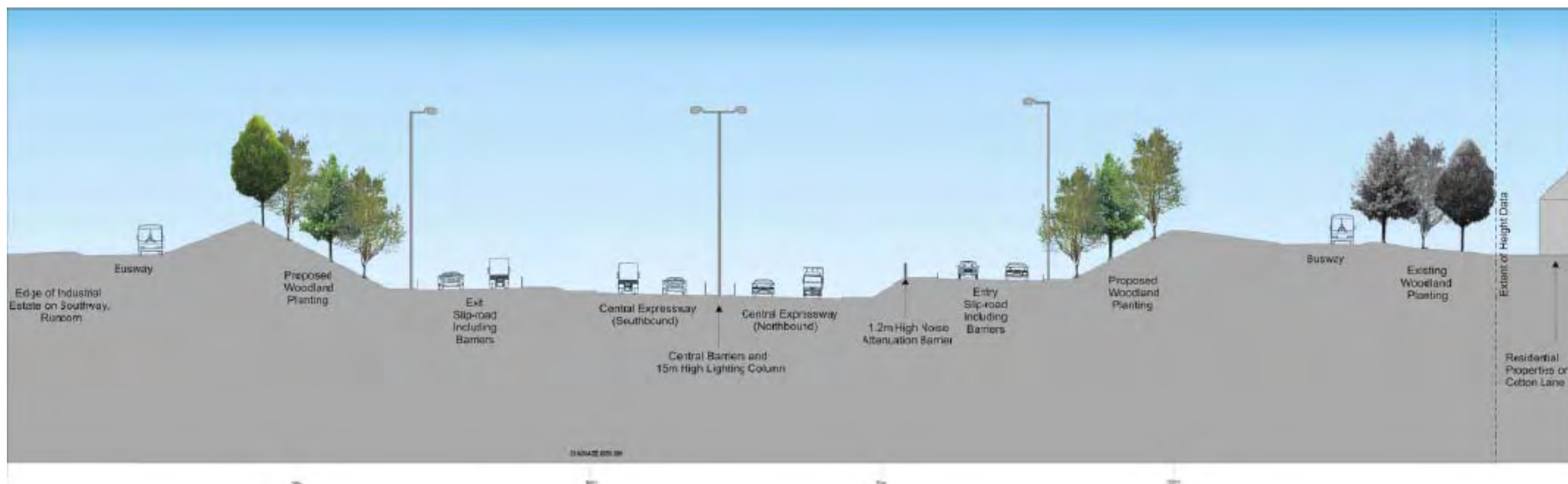


### 9.4.3 Central Expressway – Cross Section @ Ch5+900





**9.4.4 Central Expressway – Cross Section @ Ch6+100**

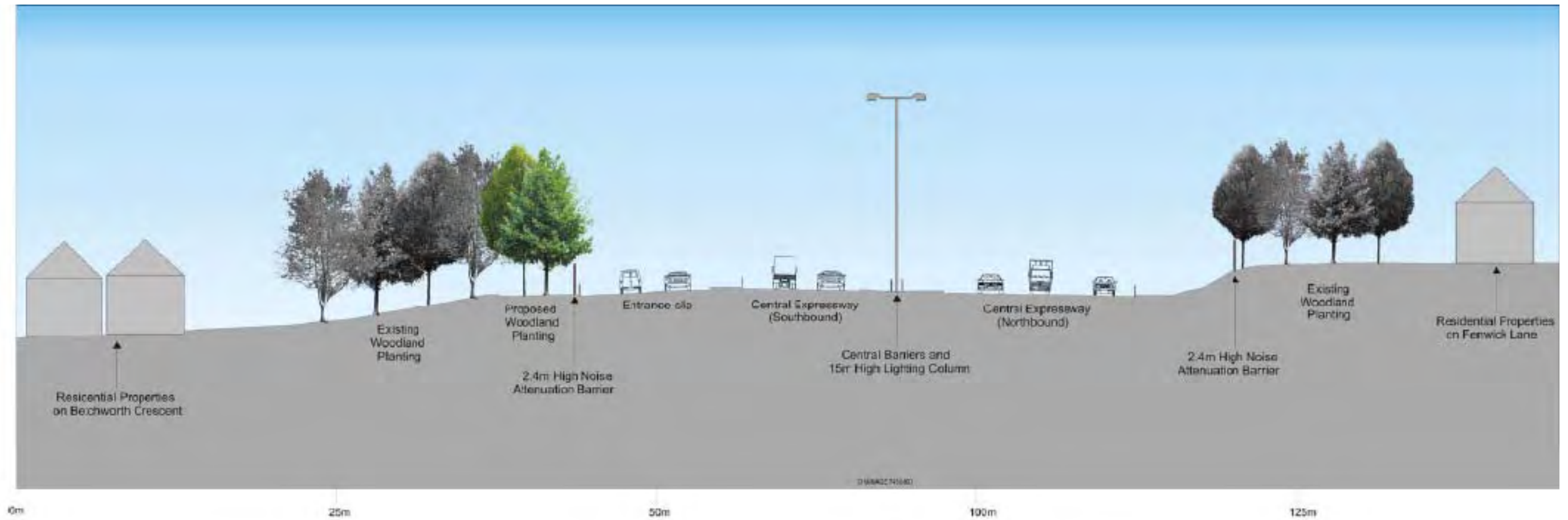


**9.4.5 Central Expressway – Cross Section @ Ch6+650**





**9.4.6 Central Expressway – Cross Section @ Ch6+950**



**9.4.7 Central Expressway – Cross Section @ Ch7+450**



## Viewpoint 4



### 9.5 Rendered Visualisations

#### 9.5.1 View from Widnes West Bank





**9.5.2**      **View from Halton Castle**





**9.5.3 View of Victoria Road Viaduct at Waterloo Centre**





**9.5.4 View of Astmoor Viaduct from Astmoor Road**