Submission to the CIS Assessment Committee on:

a) The inconsistent traffic forecasts in the CIS which are relied on by the LMA

b) The failure to consider prudent and feasible alternatives to the Hoddle St interchange

Presented by Andrew Herington on behalf of Crina Virgona and Nancy O'Toole: Submission 49

The Zenith modelling results have been only partially disclosed to conceal a number of problems

- **The figures relied on in the CIS are inconsistent and selective.**
- **They are a small part of the actual modelling that was done and tell a very partial and misleading story about the impacts of the EWL.**
- **Amongst the deficiencies are:**
  1. **An absence of adequate sensitivity testing.**
  2. **No consideration of tolls or the price sensitivity of motorists.**
  3. **Confusion between different scenarios for Part A, Part B, Stage 2, widening of the Eastern Freeway and widening of CityLink,**
  4. **No figures with and without Elliot Avenue and Ormond Rd**
  5. **Exclusion of committed and planned public transport improvements**
  6. **There is no reliable origin destination study to underpin the assumptions about where motorists are going.**
- **The data in the CIS has been contradicted by various additional and amended figures tabled during the Hearings and cannot be relied on.**

There is no consistent picture of the expected traffic volumes at the different stages of development

The Government says Part A will take 80-100,000 vehicles per day but this contradicts the most recent released figures which are 12-45% higher.

2031 traffic projections	Eastern Freeway	Part A	Part B	Citylink
Part A only built (Government proposal)	190,000	111,900	0	??
Part A plus Part B	196,100	116,600	10,000	??
EWL completed to Sunshine	not given	120,000	60,000	??

- **The interaction with Citylink is avoided and the constraint of the Westgate/Citylink intersection omitted from forecasts except where it is cited to justify further development or exclusion of alternatives.**
- **With Part A only, there is a projected 45% increase in Eastern Freeway traffic and no explanation of how this is accommodated on Citylink**

The VLC model produces dramatically asymmetric projected flows

East West movements	Eastbound	Westbound	Difference
Eastern Freeway at Merri Creek	98,400	97,700	-0.7%
Tunnel to/from freeway	45,100	50,100	+11.1%
Alexandra Pde to/from freeway	35,800	33,200	-7.3%
Turning movements			
Tunnel to/from Hoddle St	10,700	10,700	0%
Alexandra Pde to/from Hoddle	3,500	700	-80%
Hoddle St to/ from freeway	14,000	14,400	-2.9%

These are due to flaws in the modelling, not odd motorist behaviour

Similar problems exist at the western portal, exacerbated by the one way Ormond Rd ramp

Tunnel at mid point	55,800	60,800	+9.0%
Tunnel at western portal	40,700	49,900	+22.6%
Movements to the north	**Eastbound**	**Westbound**	**Difference**
Tunnel to/from Macarthur Ave	2,900	2,300	-20.7%
Tunnel to Ormond Rd	0	12,100	+100%
Tunnel to/from CityLink north	27,700	24,700	-10.8%
Movements to the south	**Eastbound**	**Westbound**	**Difference**
Tunnel to/from Elliot Ave	12,200	8,500	-30.3%
Tunnel to/from CityLink South	5,200	5,700	+9.6%
Tunnel to/from EWL Part B	7,800	7,400	-5.1%

The traffic forecasts assume the widening of the Eastern Freeway and CityLink

- **The assumptions made by the CIS are dependent on the addition of an extra lane each way from Yarra Bend Rd "potentially as far as Tram Rd"**
- **At the west, it depends on a proposal to abolish the existing Transit lane on CityLink and redraw line markings to create 5 traffic lanes.**
- **These major associated widening projects are excluded from the CIS planning assessment but the costs are part of the overall budget .**
- **There is no modelling showing how these major changes impact on traffic. There should be modelling with and without these projects**
- **There is a very inadequate discussion of CityLink and its ability to operate successfully with or without Part B**

There is no consideration of the impact of tolls

- **In one sentence, the CIS concedes that a 25% increase in tolls will produce a 10-20% reduction in tunnel traffic volumes** *CIS Appendix E, section 10.1*
- **No evidence was submitted to justify this claimed level of price sensitivity**
- **Suspiciously, this sensitivity is just what is needed to maintain the same revenue outcome regardless of volume**
- **None of the traffic modelling showed impacts on other streets varying by the level of tolls – yet up to 46,600 vpd could "spill" into surrounding streets.**

	Example of toll	Model forecast mid tunnel vpd	Traffic choosing alternative routes	Revenue impact
Base toll	$6.00	116,600	0	
Base toll + 25%	$7.50	93,300 (-20%)	Up to 23,300	0
Base toll + 50%	$9.00	70,000 (-40%)	Up to 46,600	-10%

LMA use the wrong “relevant comparator”

- **LMA have restricted any comparison to the differences between the model output for “2031 with EWL” and “2031 without EWL”**
- **They use this to make false assertions about conditions relative to today**
  - **Claims of less noise and air pollution**
  - **Claims of reduced traffic in local streets**
  - **Claims of better north south travel times (including trams)**
- **In absolute terms, all these factors will get worse, not better.**
- **There are two other “relevant comparators” that the CIS should have also included in the CIS to enable a proper assessment of impacts, namely:**
    - **The comparison to “(2012) existing conditions”**
    - **The comparison to “2031 with alternative investments”**
- **Only by considering the impacts compared to a more balanced set of improvements to roads and public transport can the “benefits” of an $8 billion investment be fairly assessed.**

LMA steadfastly refuse to release the 2021 traffic forecasts because it would undermine their case

- **The existence of these forecasts was discussed at the traffic conclave and are critical to the initial impact and commercial viability/ success of the tunnel.**
- **The LMA has repeatedly refused to provide them to the committee.**
- **The reason they won't do this, is because it undermines the economic case for the tollway and would show significantly reduced benefits**
- **The failure of interstate tollways was due to over optimistic predictions of traffic volumes WHEN THEY OPENED – not 10 years later.**

Yet, the LMA bases its air pollution case on these undisclosed 2021 traffic figures

- **Mr Cook in evidence said the LMA had used the 2021 traffic figures to model air quality rather than the higher 2031 figures.**
- **He claimed that the future improvement of vehicle emissions would offset any growth in traffic but presented no evidence to support this proposition.**
- **Future developments in air emission standards are very uncertain.**
- **The Federal Government has said it will not be tightening Australia's vehicle emission standards to match those in Europe or the US.**
- **The LMA air quality evidence should be discounted unless it tables the 2021 data that it holds and provides 2031 air quality modelling.**

It is submitted that the Assessment Committee should find that:

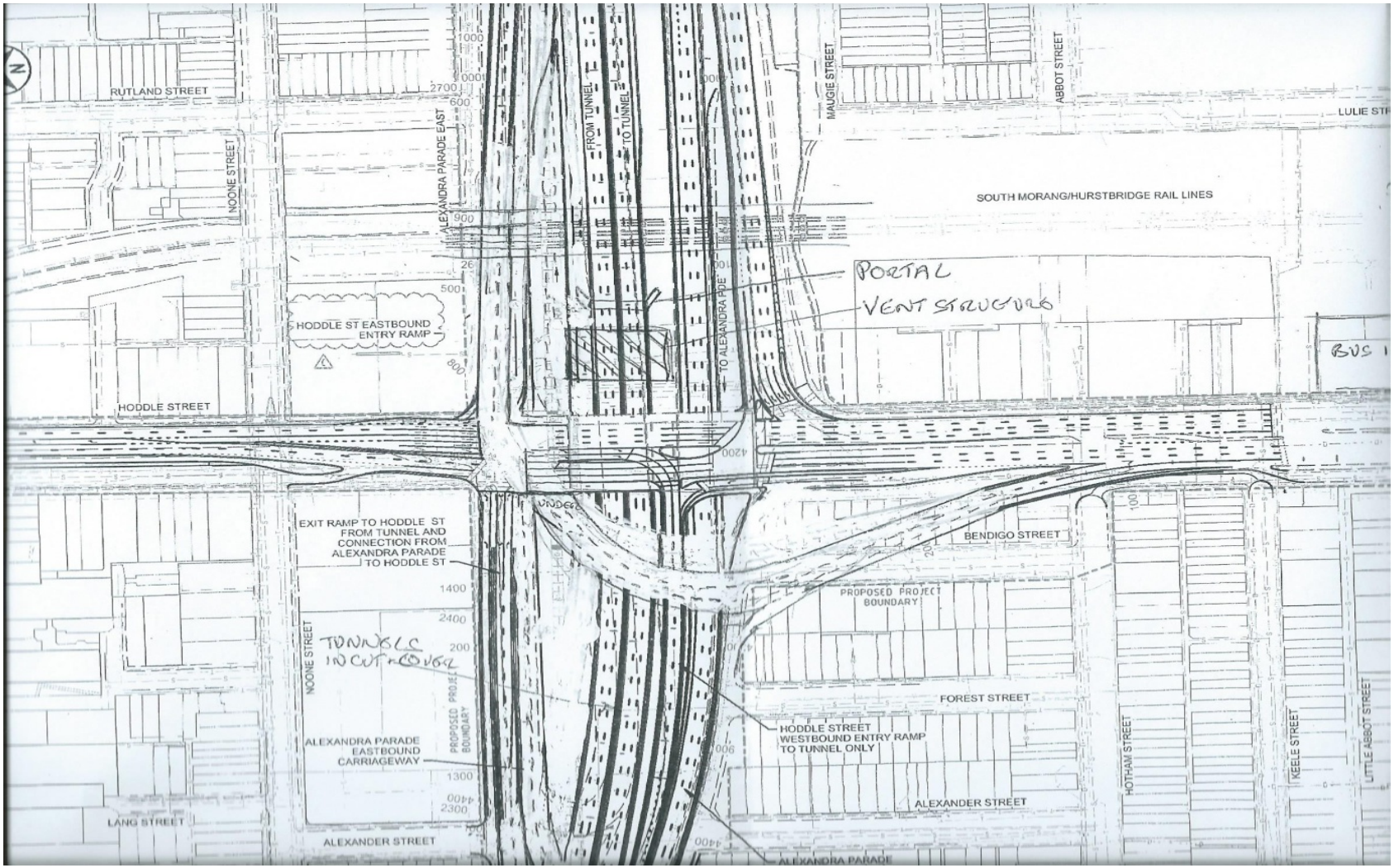
1. **The traffic projections in the CIS are inconsistent and incomplete.**
2. **There has been inadequate consideration of the impact of the toll level on future traffic volumes, underestimating traffic on existing roads.**
3. **Interstate failed toll roads suggest motorist sensitivity to tolls is higher than assumed. There should be disclosure of the tolls and tolling locations in producing the traffic forecasts.**
4. **The use of the "2031 - Do nothing" projections as the only *relevant comparator* is flawed. The CIS should also compare the 2031 outcome to the current situation and a "2031 – alternative investment" scenario.**
5. **The failure to provide the opening traffic figures (2021) is a serious omission from the CIS – particularly in view of the recent pattern of failed toll roads in other states.**
6. **The air quality modelling should be re-done using the 2031 traffic volumes based on current policy settings for emission standards.**

The option of putting the on-ramp below Hoddle St is a feasible and prudent alternative

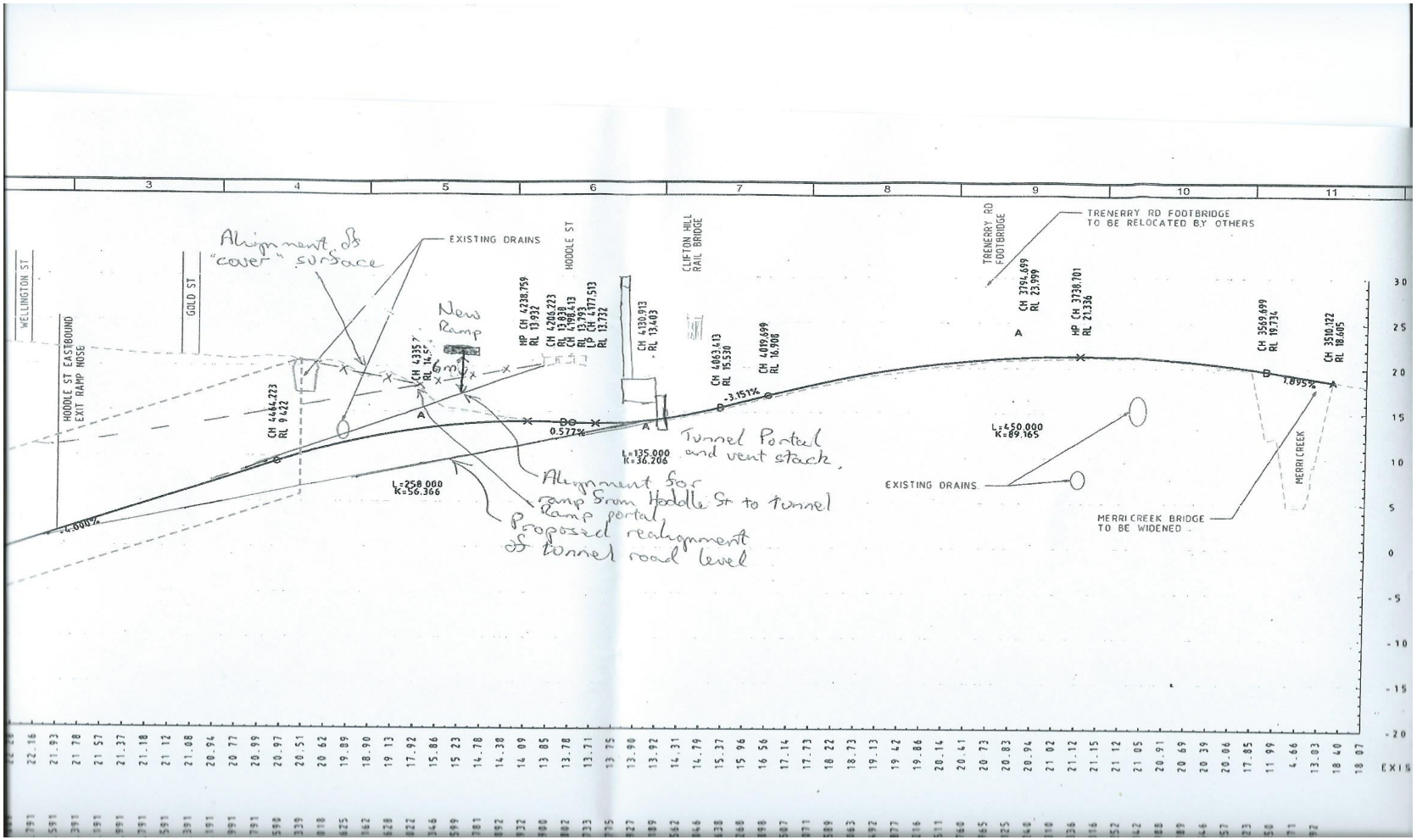
- **The proposed flyover at Hoddle St is an unnecessary, high impact element of the Reference design.**
- **The LMA has not given proper consideration to alternatives.**
- **They have used "straw man" arguments to reject the options of P and Q turns and a double diverging diamond intersection.**
- **Another such option is the following design for a low impact underpass to enable the south to east movement with modest impacts.**
- **A proposal generally similar to this "Hoddle St Underpass option" has twice been raised by the Counsel Assisting, Mr Chris Wren SC and deserves detailed consideration as a practical and feasible alternative.**

Revised alignment showing low profile ramp for Hoddle St underpass

Adapted from Mapbook Sheet 26



Cross section showing ramp inclines for Hoddle St underpass From Drawing EWL DES DR 1167

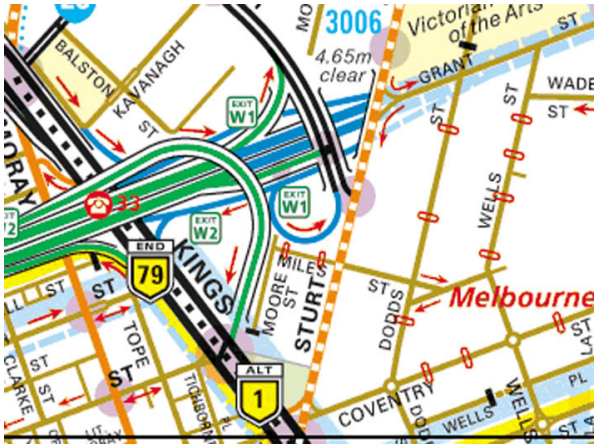


SIX EXISTING SIMILAR MELBOURNE INTERCHANGES

All but one have 60 kph speed limits and less than 50 metre radius curves

The existing on ramp at Hoddle St

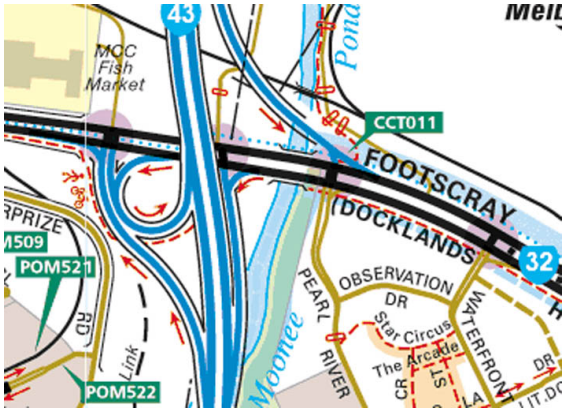
The off ramp on CityLink at Punt Rd



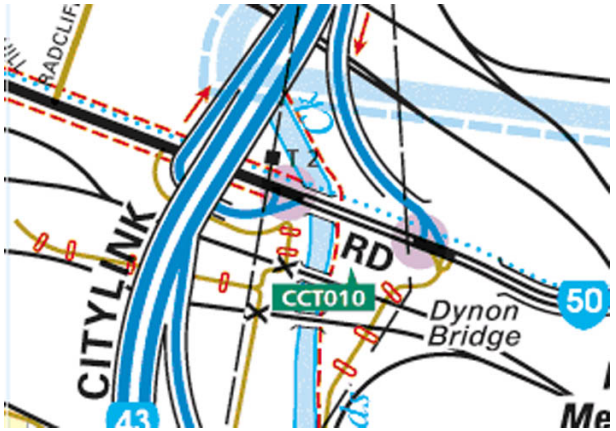
The off ramp on CityLink at Power St

The ramp from Westgate to Bolte Bridge

Drivers are well accustomed to P-turns in Melbourne



The on ramp from Footscray Rd to CityLink



The on ramp from Dynon Rd to CityLink

- The on-ramp from Dynon Rd is the closest parallel in horizontal geometry
- The speed on the Hoddle St on-ramp would be 60 kph;
- There might be some queuing with ramp monitoring;
- The DART bus could have a jump lane rather than a full length bus lane
- Tight geometry is less of a problem for on-ramps (compared to freeway to freeway interchanges).

The LMA has relied on “straw man” arguments

- **In resisting looking at alternative designs the LMA has sought to show the committee options that they have made assumptions about that ensure the alternative is impractical or has an unacceptable impact.**
- **They ignore the impractical and high impacts of the Reference design.**
- **They are seeking a “perfect” solution with “freeway to freeway” standard ramps with a capacity far in excess of the predicted 14,000 vpd.**

The bottom line:

If the LMA were told the East West Link could not be built unless there was a low impact intersection at Hoddle St, they would quickly come up with solutions.

The LMA has set out eight arguments against the portal east of Hoddle St. These are flawed

1. Fitting in the Hoddle St ramps to the west

This is a key design challenge but 6 m clearance can be obtained. Note: these ramps are beyond the project objective of linking the Eastern Freeway to Citylink.

The movement from north to west is not permitted now. At Punt Rd/ Monash movements from either direction are not permitted to or from the south.

2. The merge distance is too close east of the railway bridge

No worse than current design. The LMA has wrongly assumed the portal is beyond the railway bridge. This proposal only moves it 300 metres.

3.Impacts on water table

Only relevant for a deep tunnel and a portal beyond railway bridge.

4. Difficult topography beyond the railway bridge

Again, only relevant for a deep tunnel. The proposal is simply to cap the tunnel as far as Hoddle St using standard cut and cover methods and have the vent stack between Hoddle St and the railway bridges

The LMA arguments continued:

5. Complicating a future Epping rail tunnel

The EWL tunnel would only be marginally lower immediately west of Hoddle St – so the proposed railway tunnel would be no more difficult to build.

One has to ask why the rail line follows this route rather than a more direct one from North Fitzroy

6. Impacting on the rail reservation

There would not be any change in the road alignments east of the Clifton Hill rail bridge and hence no flow on impacts for a future Doncaster Rail Line

7. Two year closure of the Eastern freeway

The altered design would be no more difficult to build than the reference design. Some lane closures are inevitable during construction under either option.

8. Considerable increase on cost

This only applies to the complicated version the LMA have conjured up. The savings on not building the massive flyover structure would be similar to the cost of the 250 metres of lane reconstruction and capping being proposed.

It is submitted that the Assessment Committee should find that:

1. **The option of building the on-ramp from Hoddle St to the east as an underpass rather than a high level bridge is a feasible and prudent alternative that has not been adequately considered in the CIS.**
2. **Traffic is projected to decline from 32,000 vpd to 14,000 vpd making this movement and a lower impact on-ramp is required.**
3. **A high level bridge has unacceptable visual, dust, noise and air pollution impacts which are avoidable and would be difficult to mitigate.**
4. **An underpass has significant local benefits and greatly improves visual appearance and other impacts;**
5. **The Reference design should exclude the proposed flyover and the final selected design should incorporate a P or Q turn with an underpass.**