CWCFC ON A MOUNTAIN CORRIDOR

CORRIDOR WIDE COORDINATED FLOW CONTROL

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6/30/2020
AGENDA

Concept of CWCFC
Corridor Overview
Data Used
Modeling Alternatives
Results
Possible Use Cases
CONCEPT OF CWCFC
CONCEPT OF CWCFC

Figure 2: ‘Highest observed traffic volume’ versus ‘Capacity value determined’ (actual 1 hour speed and flow data measured over 1 month; Monash Freeway 4 lane cross-section 14587 IB, Jacksons Rd to Wellington Rd)

Figure 3: Breakdown probability and productivity plotted against traffic flow
CORRIDOR OVERVIEW
DATA USED

<table>
<thead>
<tr>
<th>Location</th>
<th>Winter MSFR</th>
<th>Summer MSFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location 1</td>
<td>2820</td>
<td>2836</td>
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<td>Location 2</td>
<td>2220</td>
<td>2516</td>
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<td>Location 5</td>
<td>2580</td>
<td>2604</td>
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MODELING ALTERNATIVES
MODELING
ALTERNATIVES

- Alternative 1: Ramp Coordination
- Alternative 2: Widen Ramps (increase storage)
- Alternative 3: Use MSFR Concept
- Alternative 4: Use MSFR in conjunction with mainline meters
- Alternative 5: Truck Descent Lane
RESULTS

Alternative 1: Ramp Coordination, More delay on the on-ramps

Alternative 2: Widen Ramps, Even more delay at the on-ramps

Alternative 3: Use MSFR Concept, Excessive delays at the on-ramps

Alternative 4: MSFR and mainline meters, Excessive delay on the mainline

Alternative 5: Truck Descent Lane, The only alternative with mainline improvements
POSSIBLE USE CASES
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- Lower separation between MSFR and observed capacity
- Corridors with differing peak periods for different on-ramps
- Corridors where the traffic capacity is closer to those seen in urban areas
- Corridors with shorter peak periods to reduce compounding delays
QUESTIONS?

Thank you for your time and attention.