

Urban Roads Challenges & Ideas

**Auckland
Transport**
An Auckland Council Organisation

by **John Kiddle & Marius Van Der Merwe**



Urban Roads – Challenges & Ideas

- **Challenges faced on busy urban roads**
 - **Urban Two Lane Two Way roads**
 - **Static Operations**
 - **Site Installation Mobile Operations**
- **Cyclist Management**
- **Detours for Road Closures**
- **Temporary Bus Stop**
- **Inspections**
- **Acknowledgements**

Challenges faced on busy urban roads

➤ So what are Busy Urban Roads?

➤ Busy

- Roads carrying greater than 10,000 vpd (Level 2)

➤ Urban

- Roads with permanent speed limits of less than 65 Km/h

Challenges faced on busy urban roads

- **Roads (Specifically Level 2)**
 - **Two different environments:**
 - **Multi Lane roads with less interruptions to traffic flow**
 - **Two lane two way roads with multiple & expected interruptions**

Challenges faced on busy urban roads



Static Operations

➤ What have we done:

- **Level 2L (Level 2 road with Level 1 “State Highway” dimensions for signs and delineation)**
- **All other requirements for Level 2 must apply**
 - **Level 2 signs & equipment**
 - **Level 2/3P STMS requirements as per CoPTTM**

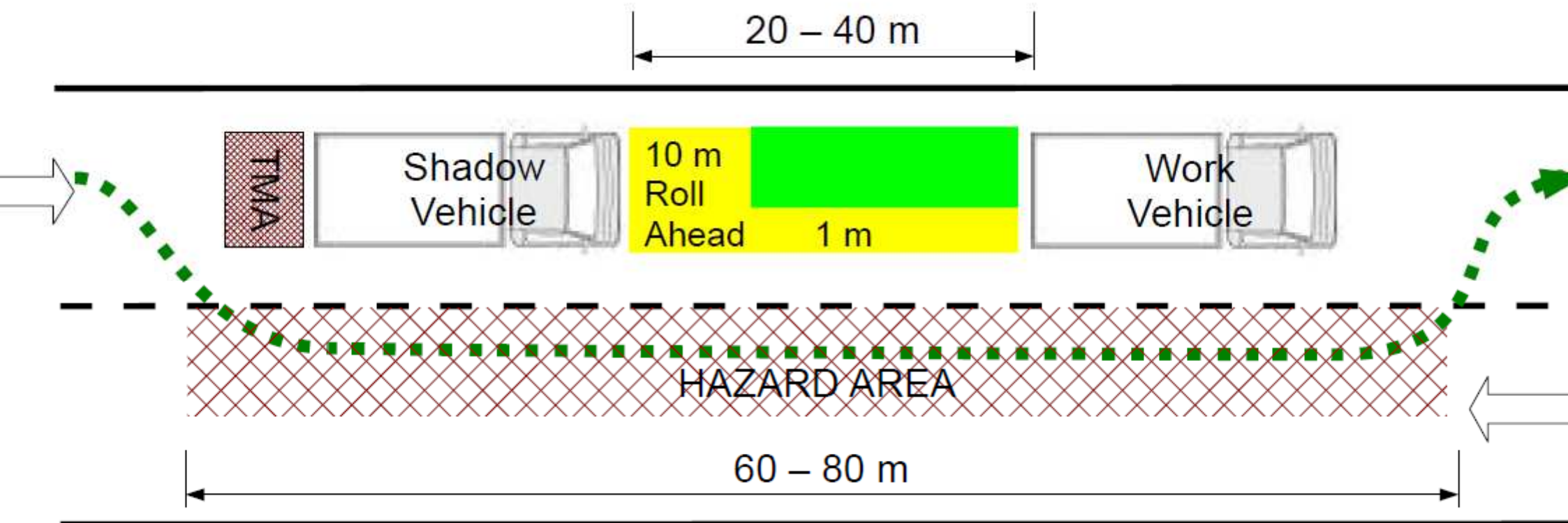
Static Operations

Permanent Speed Limit		2 L / Proposed		Level 2	
		≤ 50 km/h	60 km/h	≤ 50 km/h	60 km/h
A	Sign Visibility Distance	50	60	60/50	70/60 ⁺
B	Warning Distance	50	80	100/75	120/90 ⁺
C	Sign Spacing	25	40	50/35	60/45 ⁺
D	Longitudinal Safety Zone	10	15	15	20
E	Lateral Safety Zone	1	1	1	1
G	Taper Length	30	50	90/50	100/60 ⁺
K	Distance between tapers	40	50	50	60
Cone spacing in taper		2.5	2.5	2.5	2.5
Cone spacing : Working Space		5	5	5	5

Site Installation Mobile Operations

Single lane situations

- Extended area of conflict for passing vehicles

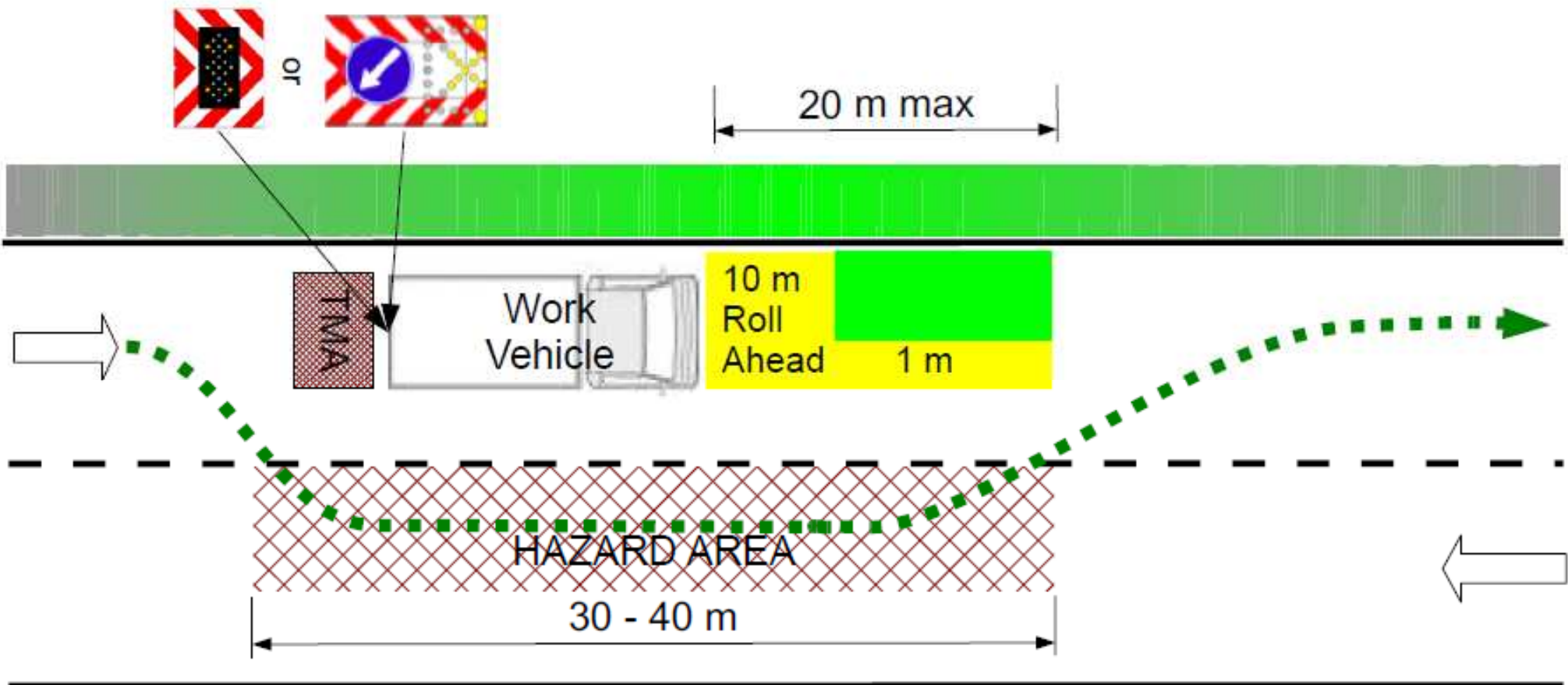


Site Installation Mobile Operations

Mobile set up of Static TTM
Level 2
Less 65 km/h
Two lane / Two way road

Requirements:

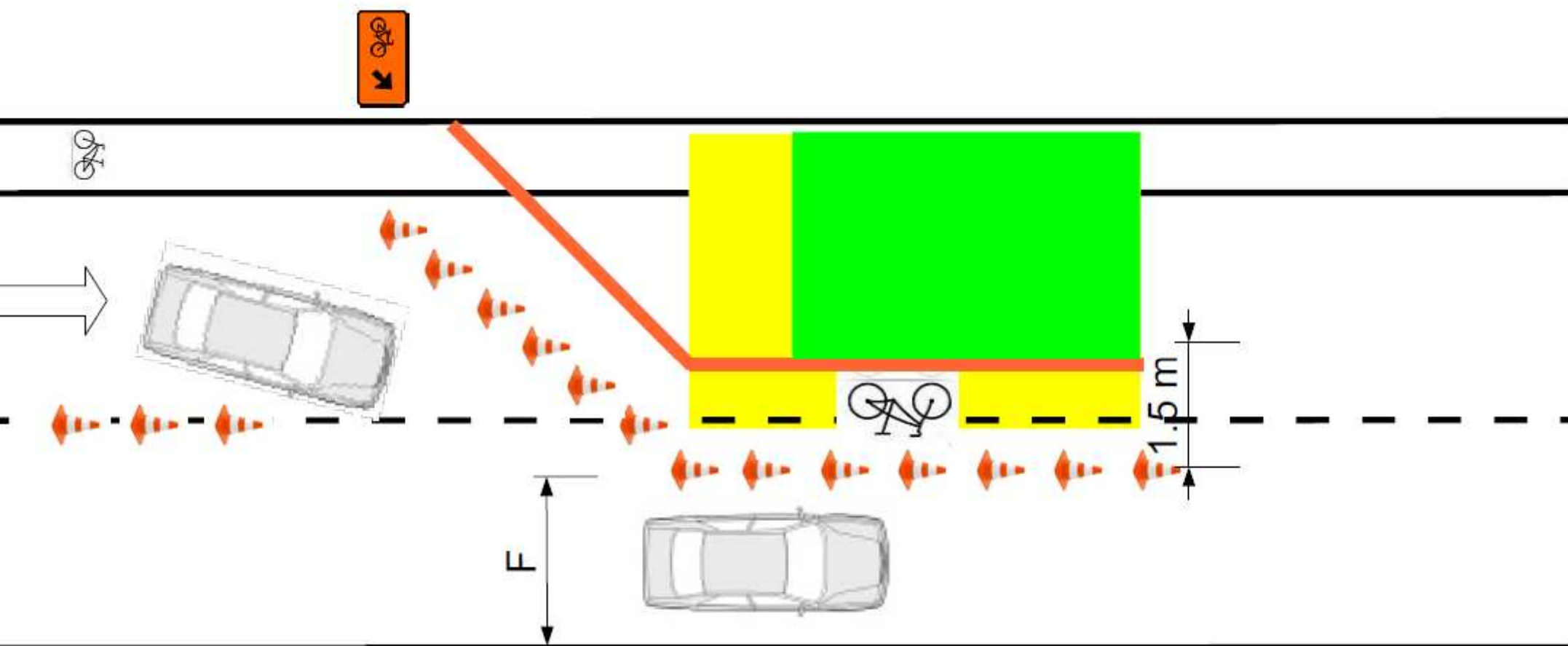
1. Truck must have TMA & Arrowboard mounted
2. Access from kerb side of truck only
3. May work in front of truck max 20 m
(maintain 10m roll ahead and 1 m lateral safety zones)



Cyclist Management

Use lateral safety zone:

- 1.5 m lane width (Lateral + 0.5 m)
- Must have safety fence around work space
- Separate footpath / cycle lane with fence



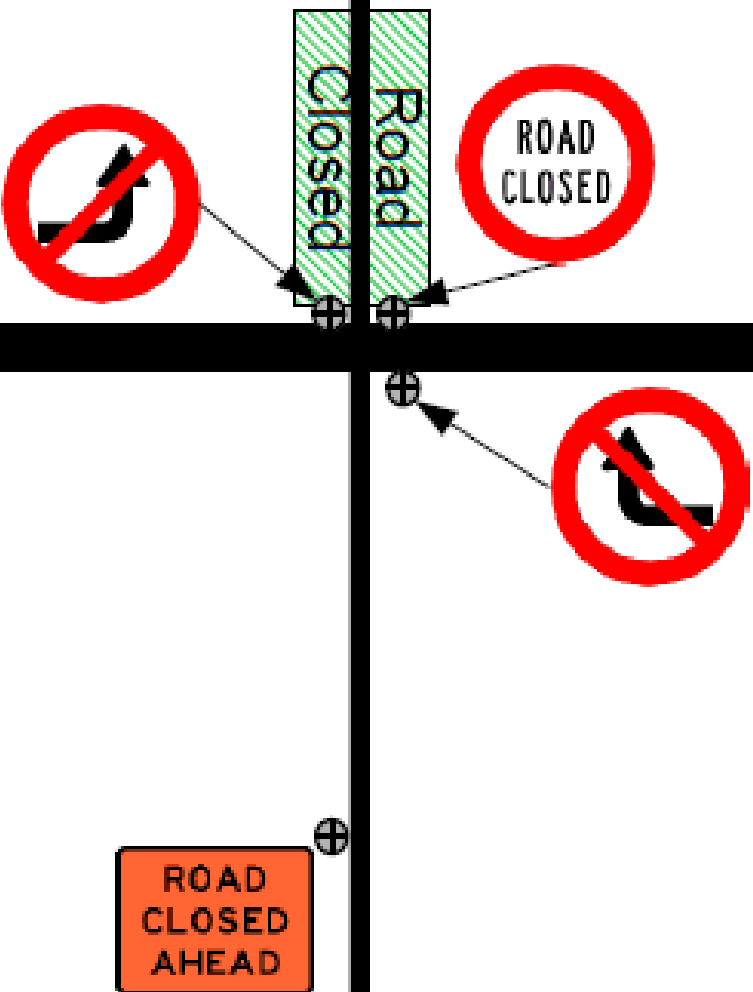
Detours for Road Closures

- **Detours for some Road Closures are not catering to needs of public**
 - **Many users unaffected**
 - **Those users affected likely know how to get to their destination**
- **Consider:**
 - **Whether those affected actually need help**
 - **Needs for those affected relative to those who are not**

B

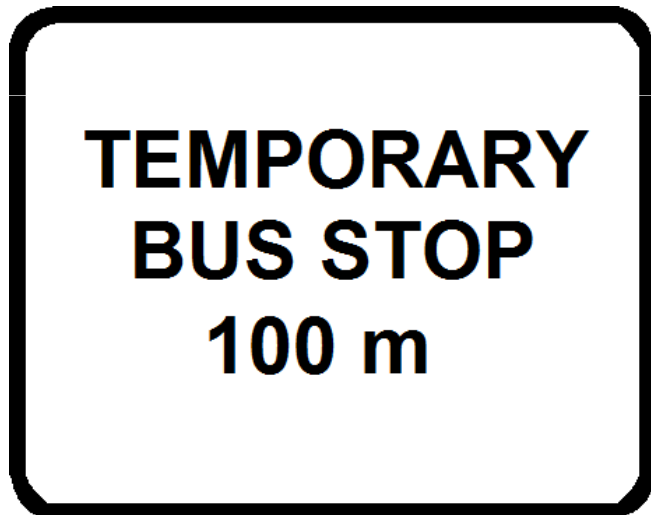
If the road closed is
low relative volume ...

Main Road



Temporary Bus Stop

- **Activities sometimes require the movement of bus stops**
- **How do we inform patrons and bus drivers?**
- **New Sign suggested**
- **Additional standard layout options**



Temporary Bus Stop

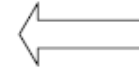
- **Patrons will understand and congregate where bus will temporarily stop**
- **Bus drivers directed to appropriate and safe temporary stopping area**

- **Need to ensure buses have safe space to manoeuvre**

TEMPORARY
BUS STOP
100 m



Permanent Bus Stop in this area

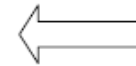


TEMPORARY
BUS STOP
100 m



Permanent Bus Stop in this area

Work
Space



(visual) inspections

Level LV / 1 Site

Level 1 TC / STMS

One person

Any length of time



- **Level 2 Site**
- **Level 2/3
STMS NP**
- **One person**
- **Any length
time**

Activity differs from placing cones & signs

(visual) inspections

- **Propose a specific Inspections training / qualification recognised for this activity**

ACKNOWLEDGEMENTS

➤ Site Installation Mobile Closures

- John Glen (TC Auckland)**

➤ Temporary Bus Stop:

- Kate Maris, Terry Sugrue (AT)**
- Troy Campbell (NZ Traffic)**
- Stuart Fraser (NZTA)**

➤ Inspections

- Stuart Fraser (NZTA)**
- Doris Stroh (AMA / Beca)**
- Richard Quin (FH)**

Questions?

Thank you.