



HANDOUT

Innovative Design Review



Instructions – 45-60 min



- Evaluate with SSAF – 15 min
- Add a Safe System challenge – how would you make this intersection more safe system? Suggest to focus on high-scoring crash types, and try to reduce scores using Safe System intersection design principles – 10 min
- Also, could you improve on the design in any way? In what other road environments could it be used?
- Groups report – 20 min
- Additional time could be used for more in-depth discussion.

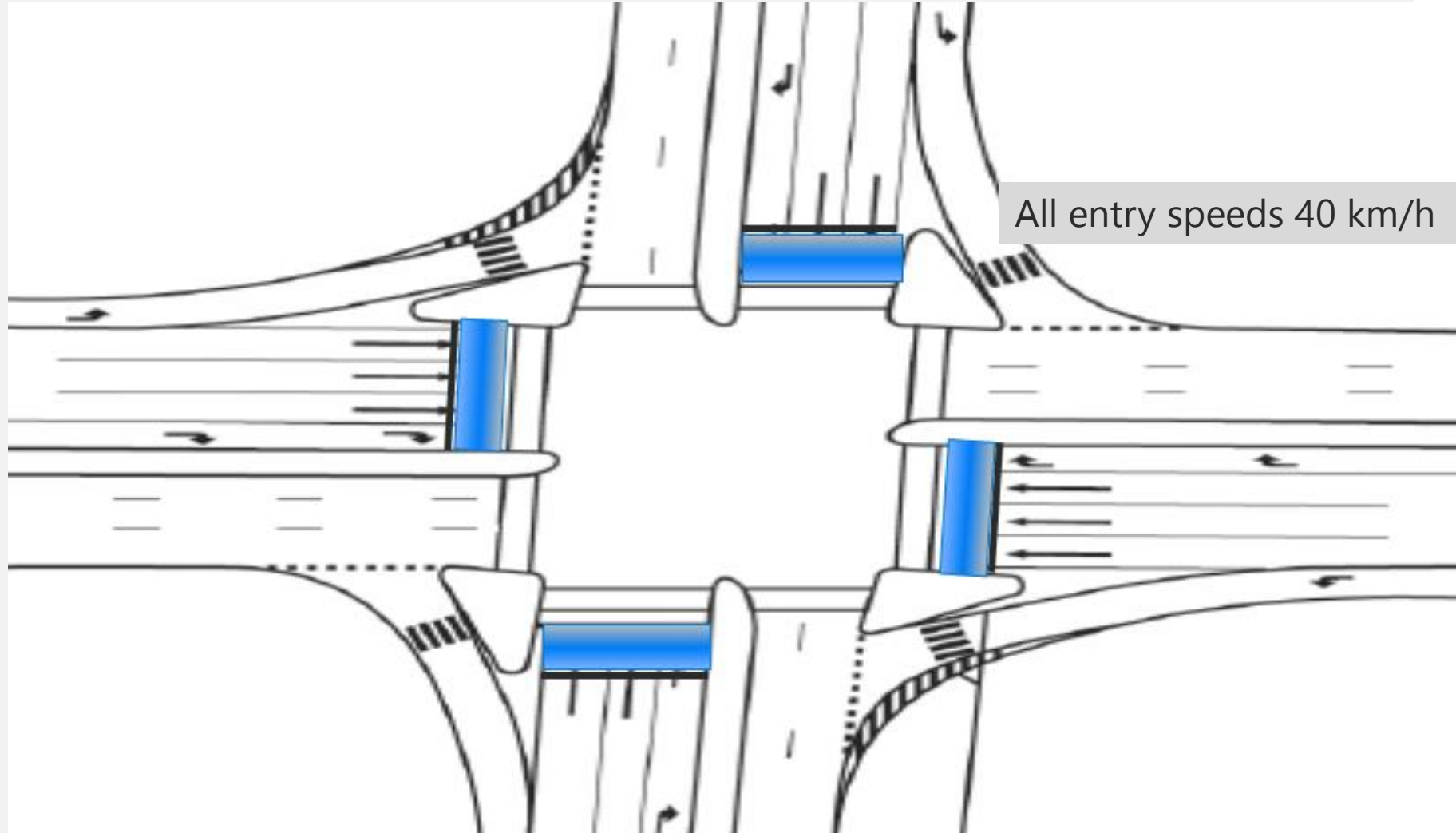
Group A

Urban signalised intersection with safety ramps



Retrofit or new installation.
Roundabout not feasible.

All speed limits: 60 km/h
AADT major rd: 42,000 vpd
AADT minor rd: 22,000 vpd
Frequent pedestrians, bus
routes on all approaches.
Ramps: 1 in 12



Group B

Signalised roundabout

New installation instead of traffic signals to maximise safety. Road reserve available.

Speed limits: 60 km/h
AADT major rd: 24,000 vpd
AADT minor rd: 12,000 vpd

Congested major road route, high pedestrian and cyclist use.



Group C

Compact roundabout with safety ramps

A new low-cost roundabout (minimal horizontal deflections) with speeds managed by safety ramps. An alternative to a give-way solution or signals.

Environment: semi-rural
Speed limits: 80 km/h
AADT major rd: 9,000 vpd
AADT minor rd: 5,000 vpd
Desirable safety ramp exit speeds: 60 km/h
Desirable roundabout entry speeds: 40 km/h
Low % HVs, very few peds.
Recreational motorcyclist route



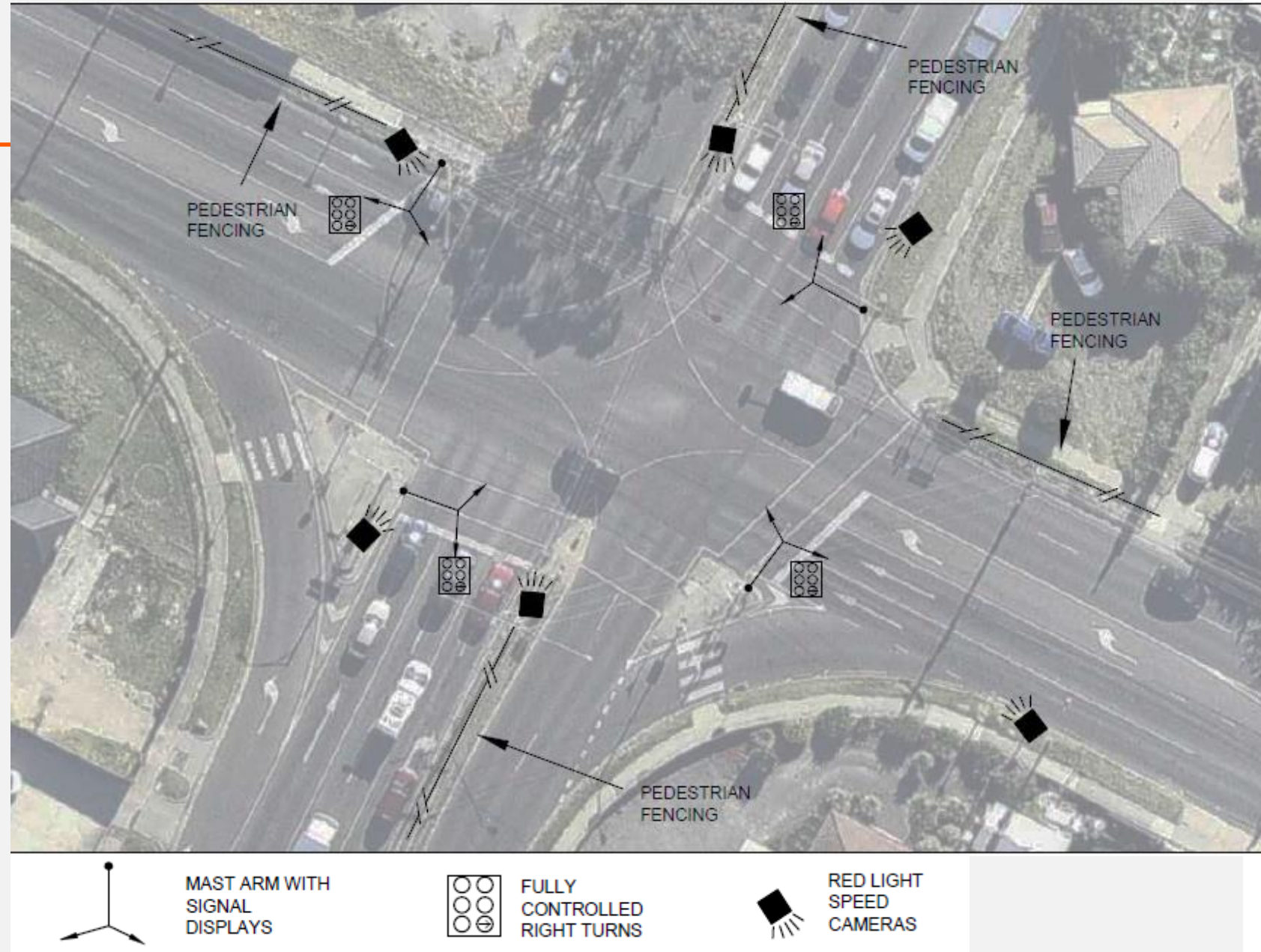
Group D

Urban signalised retrofit combination treatment

Option for a low-cost solution, where geometric design solutions are not feasible.

Environment: urban
Speed limits: 70 km/h
AADT major rd: 22,000 vpd
AADT minor rd: 15,000 vpd

Some pedestrian and cyclist activity, schools nearby



Group E

Rural priority int. with safety ramps and reduced speed limits

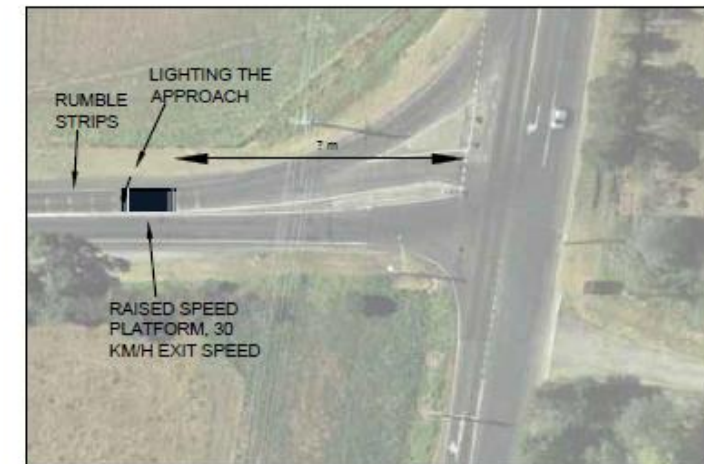
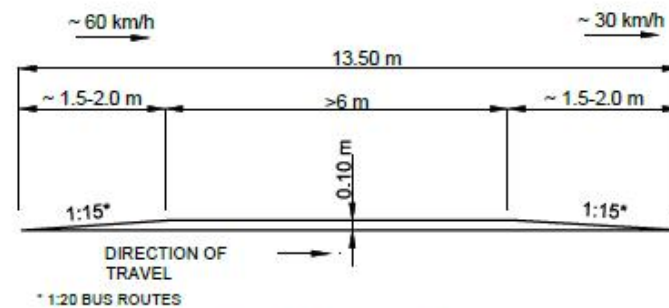
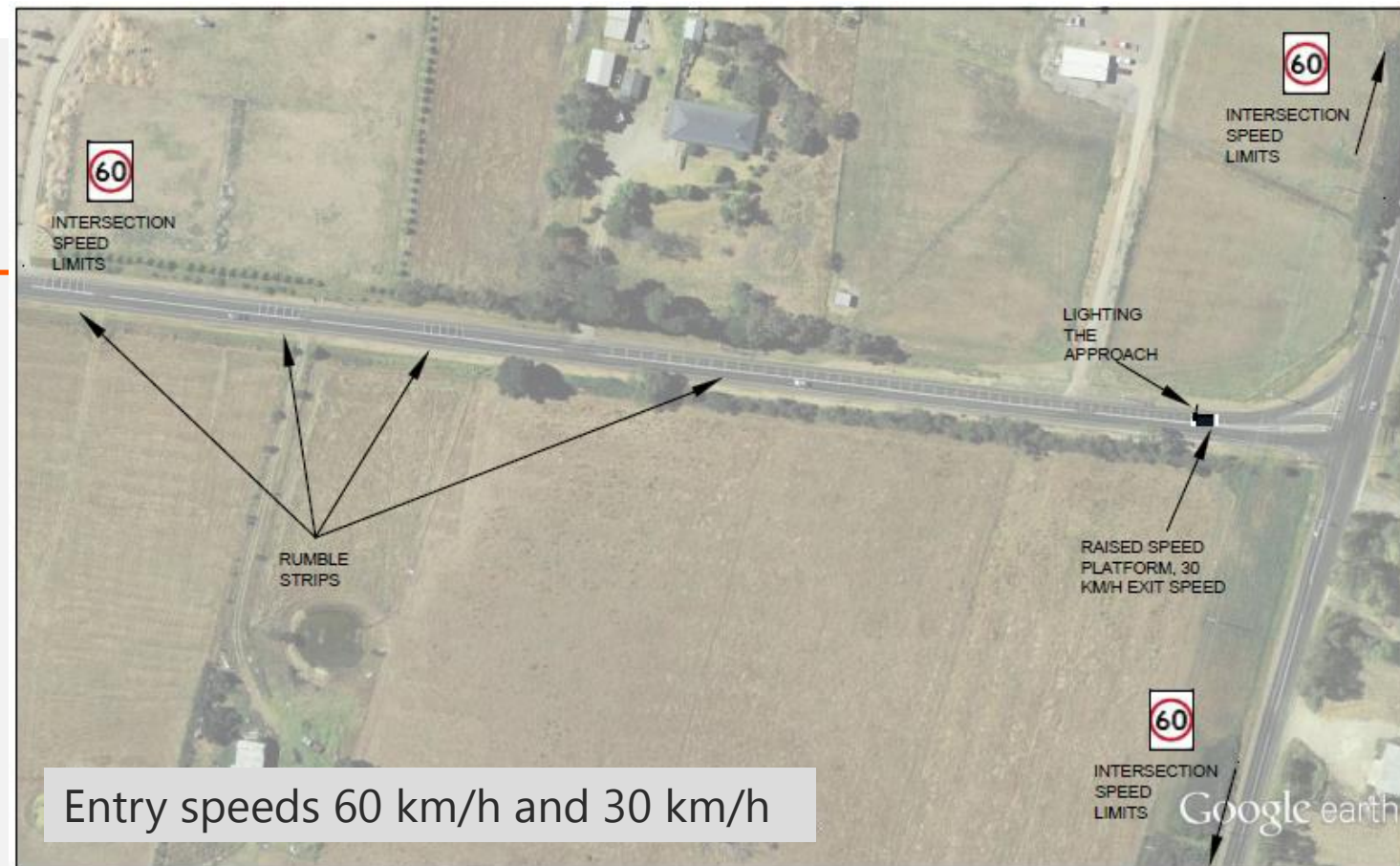
Consideration for a low-cost rural solution; difficult to justify high expenditure.

Speed limits: 100 km/h

AADT major rd: 2,000 vpd

AADT minor rd: 600 vpd

High % of VHs



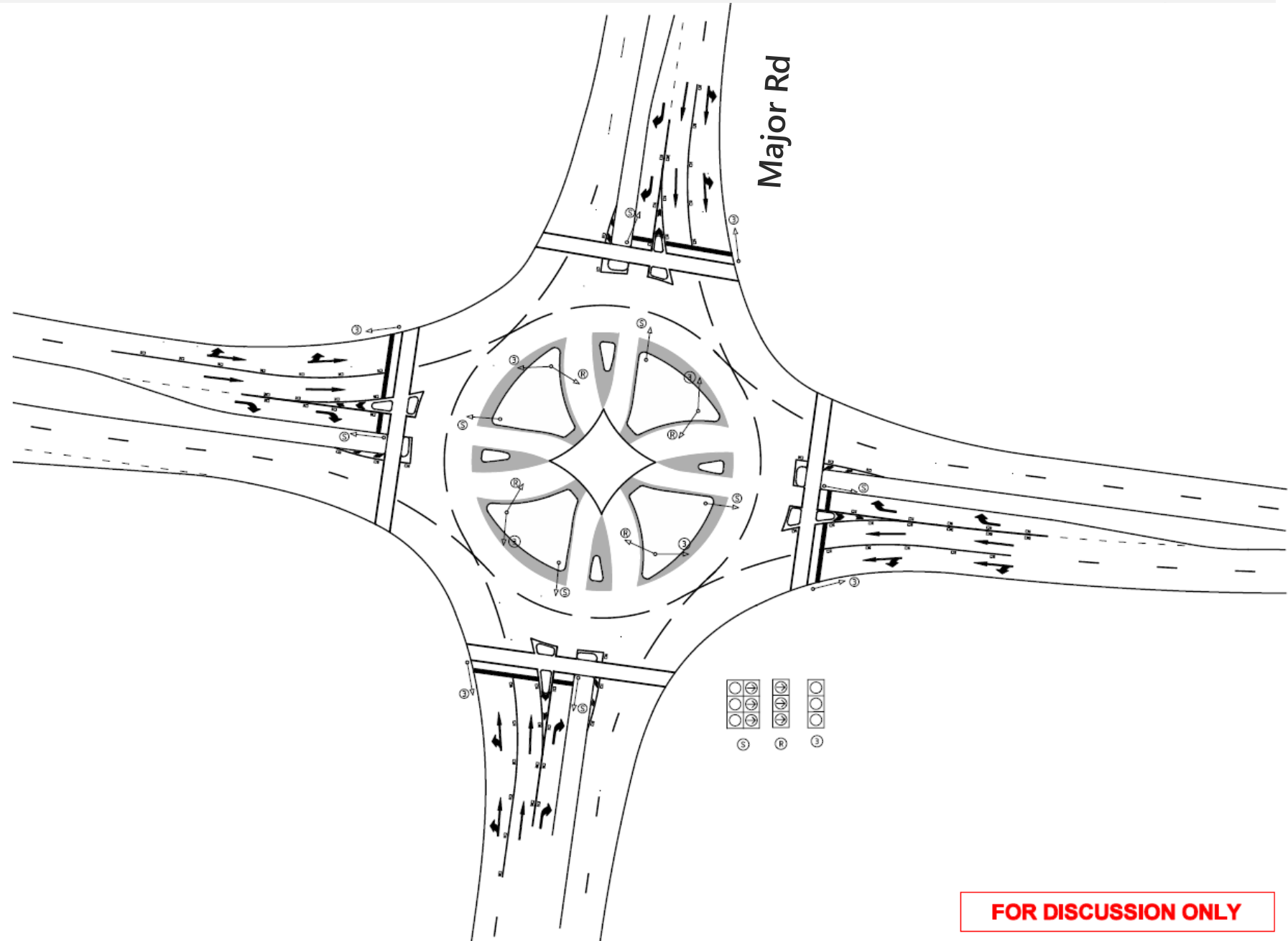
Group F

Cut-through

New installation instead of conventional traffic signals for improved safety. Road reserve available.

Speed limits: 80 km/h
AADT major rd: 26,000 vpd
AADT minor rd: 12,000 vpd

Only peak-time congestion,
major road route, infrequent
pedestrians and cyclists.
High operating approach
speeds.



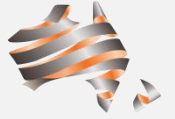


Austroads

THE END

Other workshops – do not print

Group A



Austroads

Unsignalised raised intersection



**Retrofit or new installation to maximise safety for all users.
Alternative to roundabout.**

Speed limit: 60 km/h
AADT major rd: 9,000 vpd
AADT minor rd: 2,000 vpd

Commercial activity centre, many pedestrians and cyclists, buses

Ramps: 1 in 15

Source: DPTI