

# CONTRACT REPORT

Safe System into Practice Workshop

Project No: 003573

by Dr Peter Cairney

for NRMA ACT Road Safety Trust



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	Reviewed	
<b>Project Leader</b>		
	Dr Peter Cairney	
<b>Quality Manager</b>		
	Blair Turner	

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**ARRB Group Ltd**  
ABN 68 004 620 651

**Victoria**  
500 Burwood Highway  
Vermont South VIC 3133  
Australia  
P: +61 3 9881 1555  
F: +61 3 9887 8104  
info@arrb.com.au

**Western Australia**  
191 Carr Place  
Leederville WA 6007  
Australia  
P: +61 8 9227 3000  
F: +61 8 9227 3030  
arrb.wa@arrb.com.au

**New South Wales**  
2-14 Mountain St  
Ultimo NSW 2007  
Australia  
P: +61 2 9282 4444  
F: +61 2 9280 4430  
arrb.nsw@arrb.com.au

**Queensland**  
123 Sandgate Road  
Albion QLD 4010  
Australia  
P: +61 7 3260 3500  
F: +61 7 3862 4699  
arrb.qld@arrb.com.au

**South Australia**  
Level 5, City Central,  
Suite 507, 147 Pirie Street  
Adelaide SA 5000  
Australia  
P: +61 8 7200 2659  
F: +61 8 8223 7406  
arrb.sa@arrb.com.au

**Luxmoore Parking Consulting**  
Ground Floor  
12 Wellington Parade  
East Melbourne, VIC 3002  
P: +61 3 9417 5277  
F: +61 3 9416 2602

**International offices:**  
Dubai, United Arab Emirates  
Xiamen, People's Republic of China



# SUMMARY

## *Introduction*

Vision Zero is an aspiration to have no fatalities or non-recoverable injuries related to road travel. Safe System is a set of principles intended to ensure that no road user is subject to impact forces in a traffic collision from which they cannot make a complete recovery. The ACT has adopted Vision Zero as a long-term goal for its road system and Safe System as the guiding principles through which it can be achieved. Most road authorities, including Roads ACT, have yet to come to grips with applying Safe System principles in everyday practice.

The project set out with the aim of assisting bodies in the ACT to start introducing Safe System into everyday practice by getting work groups to develop their own to a plan for the application of Safe System to their practice.

## *The workshop*

Participants were sent a description of the project and its aims to allow them to consider the issues covered in advance of the workshop. The workshop was held on Tuesday 22<sup>nd</sup> March at Roads ACT offices in Macarthur House.

The groups were challenged to develop a plan *to begin introducing* Safe System into each group's everyday practice; the plan should be simple, measurable, achievable, specify responsibilities and specify timing.

All participants had at least some familiarity with Safe Systems thinking. While there was sympathy with the aims, there were serious misgivings about how it would be possible to achieve Safe System outcomes, and some scepticism that it was possible to do more than was already being done. Attendees had difficulty accepting that all infrastructure on all parts of the network had to be sufficiently forgiving to avoid death or serious injury under all circumstances. This would be very expensive, and probably should not be necessary. For example, lower speeds on local streets might be a preferable alternative to the cost of retro-fitting frangible light poles.

It was recognised that a risk management approach would be required for the foreseeable future. Maintenance standards probably needed revision to meet safe system requirements, as did design standards and supporting documentation. All these were all established before Safe System thinking was adopted as a guiding principle.

There was definitely support for the 'vision zero' approach associated with Safe System, but it was not clear how the community would react to the realities of implementation in the form of the greatly increased investment or restrictions on driving style which would be required to achieve Safe System.

Underlying the acceptance of Safe System was the need for a change in mindset amongst both practitioners and the general public. There was a need to stop regarding crashes and injuries as the driver's fault and to take responsibility for creating a safer environment. At the same time,



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there was a recognition that the requirements of safe system had to be reconciled with wider social and environmental considerations.

In summarising the discussion, it was decided that it would be more productive to concentrate on developing a plan to advance Safe System through the group as a whole rather than for individual workgroups.

To assist with developing the plan, a questionnaire was circulated to attendees to establish how far their groups had progressed with adopting safe System principles in everyday practice.

#### *Questionnaire findings*

Respondents were divided as to whether they personally had sufficient understanding to start applying Safe System principles. However, all felt they had more than a basic understanding.

They were a little less confident that other team members were ready to start applying Safe System principles, with only one respondent indicating that they were.

The responsibilities and activities of the groups involved ranged from the general and strategic to the highly specific, covering a range of safety-related activities.

Although not many specific actions were mentioned, the few actions reflect a wide range of approaches from basic conceptual issues to a specific action in particular area and the predictable appeal for more funding.

#### *The plan*

1. Ensure information and examples are available

Ensure materials explaining Safe System concepts and principles are available on the intranet, or at a suitable external site on the internet; all staff should be asked to have a look at these before discussion within work groups starts.

2. Examine how Safe System can be applied in Practice

Get work groups to begin examining how Safe System thinking can be given effect in everyday work practice. When decisions have to be made, the question should be asked whether the decision is consistent with Safe System principles, and if not, could anything else be done instead which is better aligned with Safe System principles.

3. Reflect on experience

Set aside an agreed period time in regular work meetings to discuss cases where the application of Safe Systems is an issue. This time can serve both for collective problem solving and information exchange.

4. Interim review and consolidation

After six months or so, each work group should review the topics covered and the conclusions reached. All work groups should meet to exchange experiences and conclusions reached. Intractable issues should be worked on at this meeting.

5. Revision of standards

Commence work on reviewing standards and guidelines to incorporate Safe System principles. This should be accompanied by a costing of the revised draft standards and guidelines. Much of this work will proceed at a national level through Austroads or Standards Australia. There therefore need to be parallel contributions to the Australia/New Zealand-wide revision of standards, and revision of internal ACT standards and documents.

6. Sourcing Safe System-compliant designs and equipment

Initiate discussion with suppliers to investigate how Safe System-compliant designs can be provided at competitive prices.

7. Review and develop successor plan

After the first year of operation, review progress in all areas and develop a successor plan. Areas which this could address are:

- dissemination of Safe System thinking to partner organisations ,e.g. by workshops focussed on what TAMS has achieved and how other stakeholders can provide leverage for these efforts
- applying new standards and guidelines, when ready
- continue to develop applications of Safe System in practice through discussions within workgroups
- establish interim goals for the roll-out of Safe System
- investigate actions to encouraging the community to share responsibility for road safety.

*Conclusion*

Personnel from Roads ACT and the Transport Planning Business Unit already had a working knowledge of Safe System, and were actively trying to apply Safe System to the work of their groups. Many of the actions required to implement Safe System depended on changes which were outside the groups' everyday work and would take a long time to implement. In this context, the idea of each work group devising its own plan to introduce Safe System did not seem realistic.

Instead, a possible strategy to advance the uptake of Safe System for Roads ACT and the relevant sections of the Transport Planning Business Unit was developed. The scale of the plan and the time required for its implementation put it beyond the scope of the evaluation proposed for the project.

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# 1 INTRODUCTION

## 1.1 The Issue

Vision Zero is an aspiration to have no fatalities or non-recoverable injuries related to road travel. Safe System is a set of principles directed to ensure that no road user is subject to impact forces in a traffic collision from which they cannot make a complete recovery. The ACT has adopted Vision Zero as a long-term goal for its road system and Safe System as the guiding principles through which it can be achieved. Most road authorities, including Roads ACT, have yet to come to grips with applying Safe System principles in everyday practice.

Workers in road safety already use at least some elements of Safe System principles in their practice, but few if any would use the whole range of elements that could potentially apply to their practice, or apply the elements they do use in a systematic manner.

ARRB has been involved in promoting Safe System principles, and in assisting road authorities to translate these principles into practical guides for action. To date, this has involved incorporating an explanation of Safe System principles in the various parts of the Austroads *Guide to Road Safety*, and holding three national workshops on different aspects of the application of Safe System. The first workshop was on Safe System and road infrastructure, the second on Safe System and speed management, and the third on Safe System and road users.

Under the 2008-2009 NRMA Road Safety Trust Program, ARRB successfully completed a project to investigate the potential application of Safe Systems to the ACT Driver Handbook. Much was learned about young drivers' reaction to Safe Systems and its potential as an educational strategy.

This project set out with the aim of assisting bodies in the ACT to start introducing Safe System into everyday practice by getting a range of work groups to think about how Safe System principles could be applied in a comprehensive, systematic manner to their own activities, and to get them to commit to a plan for the application of Safe System to their practice.

## 1.2 ACT Road Safety Strategy

The Draft ACT Road Safety Strategy is based on the Vision Zero and Safe System concepts, which are regarded as being matters of ethics and shared responsibility, as well as science and technical knowledge. It has three strategic goals:

- reduced road trauma in the ACT to meet the objectives in the National Road Safety Strategy (i.e. 30% reduction in deaths and serious injuries)
- an ACT community that shares the responsibility for road safety
- agencies and stakeholders working together to improve road safety.

In order to give effect to the ACT Draft Strategy, it will be essential for staff in agencies which are active in road safety to be familiar with Safe System principles and to apply them in their own work, and to the interactions they have with partner agencies.

## 1.3 The Project

The proposal to the NRMA ACT Road Safety Trust to carry out this project was prepared in consultation with Roads ACT. Once the project commenced, specific aspects such as the format of the consultation with workers, the content of the workshop and the timing were negotiated with Roads ACT to ensure the workshop was suited to their needs.

The project's objectives were to document how different work groups with road safety responsibilities are likely to use Safe System principles in their practice, to determine what sort of plans can be developed for the systemic application of Safe System principles in these work groups, and to discover whether the application of Safe System principles can be sustained in the short term.

The original project plan involved the following steps:

1. plan a workshop to introduce Safe System concepts to workgroups
2. distribute background materials to workshop participants
3. hold workshop, culminating in each workgroup preparing a simple plan to start applying Safe System principles
4. leave the teams to implement the plans for a period of 6 months or so
5. at the conclusion of the trial period, review progress and prepare an overview of the experience and lessons learned.

As explained in Section 2, it turned out that plans for individual workgroups were not appropriate, and that what was required was a plan for Roads ACT and its immediate partners in the Transport Planning Business Unit for the development of Safe System activities. Consequently, the project was re-organised to support these requirements. A questionnaire was distributed to the different workgroups to assist with the development of the plan, and a plan was prepared on the basis of the Draft ACT Road Safety Strategy, the workshop discussions and the questionnaire outcomes.



## 2 THE WORKSHOP

### 2.1 Introduction

Before the workshop, participants were sent a description of the project and its aims to allow them to consider the issues covered in advance of the workshop. This is shown in Appendix A.

The workshop was held on Tuesday 22<sup>nd</sup> March, at Roads ACT offices in Macarthur House, Canberra.

Workshop participants comprised a cross-section of managers and senior professionals working across the range of disciplines involved in the management of road and transport services in the Department of Territory and Municipal Services (TAMS). From Roads ACT, the Traffic Management and Safety, Strategic Asset Management, Roads Maintenance Services and Major capital Works groups were represented. From the Transport Planning Business Unit, the Road Safety, Transport Policy and Projects, and Transport Policy Coordination Units were represented. Participants were recruited through the Director, Roads ACT and the Manager of the Road Safety Unit.

The workshop began with a presentation from the facilitator to set the scene for the discussion. The PowerPoint presentation began by introducing the facilitator and his organisation, which was familiar to some but not all of the participants.

The presentation gave an overview of safe system principles, explained how the application of Safe Systems might change things, and added a few caveats regarding the level of investment and the time required for the principles to be fully realised. This was followed by more detailed examples of how safe system principles applied to vehicles, infrastructure, speeds, and road user behaviour. Each discussion was illustrated by examples, backed up by photographs and diagrams.

The challenge intended for each work group was then put before the group. The challenge was to:

- develop a plan *to begin introducing* Safe System into each group's everyday practice
- be simple, but focus on key points that are likely to make a difference
- be measurable, be achievable, specify responsibilities and specify timing.

Some suggestions were given about how to go about developing the plan. These included listing the 'in principle' things each work group could do to give effect to Safe System, then selecting a small number of these that were likely to have an impact on key activities, or which applied across a wide range of activities. Possible examples were suggested, such as:

- taking new information into account in decision-making
- revising processes to give safety issues a higher priority
- seeking information/opinions from other groups in the organisation
- making information available which other groups may be able to take action on
- thinking of ways in which these actions can be combined or coordinated.

It was suggested that groups then consider what needed to happen to make the actions possible, such as agreements arrived at with other groups, more investigations or discussions. These points could then be combined to generate a plan.

Groups should agree on their plan, with help from the facilitator by phone or in person if need be. The facilitator would then return six months or so after the plans had been agreed to discuss progress, challenges, and how the challenges were met.

## 2.2 Workshop Discussion

All participants had at least some familiarity with Safe Systems thinking. While there was sympathy with the aims, there were serious misgivings about how it would be possible to achieve total safe system outcomes, and some scepticism that it was possible to do more than was already being done, at least with current levels of funding, standards and guidelines, and community expectations regarding mobility.

It was felt that there was a wealth of detailed information that could be used to better understand crashes in police accident reports, but that this was seldom accessed.

There were misgivings about what might be called the 'absolutist view', the proposition that all infrastructure and furniture everywhere had to be sufficiently forgiving to avoid death or serious injury under all circumstances. This would be very expensive implement, and probably should not be necessary. The example of street lighting poles in local streets was the example round which discussion centred. At present, the lighting poles installed on residential streets in Canberra are not frangible or energy absorbing, not even those currently being installed in new subdivisions. A case can be made for insisting these poles should be frangible or energy absorbing to ensure that avoid death or serious injury does not occur. However, the speed limits on local streets are such that death or injury should not occur in collisions with poles, so that the opposite argument can be made – that street lighting poles on local streets need not be frangible. Note, however, that this assumes that all road users comply with speed limits.

This raises the issue of risk management – responsible management of the system demands this approach so long as there are insufficient resources to create a total 'safe system' environment. When maintenance is being planned, crash data<sup>1</sup> is one of the factors that are considered and safety problems are addressed where practicable.

However, maintenance is very much governed by the current standards that guide practitioners. The same applies to issues relating to design and specifications. These were all established before Safe System thinking came on the scene, and will require revision before they are consistent with Safe System principles.

There was definitely support for the 'vision zero' approach associated with Safe System, but it was not clear how the community would react to the realities of implementation in the form of greatly increased investment or predicted cost or restrictions on driving style in the absence of that investment.

Underlying the acceptance of Safe System was the need for a change in mindset amongst both practitioners and the general public. There was a need to stop regarding crashes and injuries as the driver's fault and to take responsibility for creating a safer environment. At the same time, there was a recognition that the requirements of safe system had to be reconciled with wider social and environmental considerations.

The session did not run quite as planned; more time was spent on discussion than anticipated, and it became clear that individual plans for the different work groups would probably not be viable.

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<sup>1</sup> This is generally consolidated data rather than the full detail available in police accident reports discussed earlier.

## 2.3 Conclusions from the Workshop

In summarising the discussion, it was decided that it would be more productive to concentrate on developing a plan to advance Safe System through the group as a whole.

The plan should have the following features:

- it should provide a 'road map' of how Safe System should be progressively introduced into practice
- it should recognise the reality of the road hierarchy, with the need to prioritise the high volume roads
- there was a need to sustain the existing system, which would inevitably result in compromising safe system principles, at least in the short term
- at this early stage, raising awareness of Safe System and educating practitioners about its principles were high priorities
- action could commence to review specifications, standards, etc.
- there was a need to adopt a risk management approach as Safe System principles could not be universally applied in the foreseeable future due to limitations of budgets to pay for the infrastructure required and skilled personnel to design and install it.

To assist with developing the plan, a questionnaire would be circulated to attendees to establish how well advanced they felt they and their groups were with Safe System thinking, and their views of the actions open to them. To assist respondents identify opportunities for collaboration, the Draft ACT Road Safety Strategy was to be circulated among the group.

## 2.4 Later follow-up suggestions

Comment on an earlier draft of the present report suggested that, with the benefit of hindsight, a better resolution to the project may have come about if the project had proceeded to either:

- extend the workshop or hold a new workshop to identify and prioritise Safe System issues which arose from the continued use of infrastructure that had been designed and constructed to the design standards of earlier times that were no longer regarded as appropriate
- consider ways in which current and future works could be adapted to produce Safe System outcomes.

It was suggested that these actions could have assisted understand the extent of the works involved, the possible cost and the effect on delivery timeframes.

These ideas were not advanced in time to affect the course of the project, and were well beyond the planned scope of the project. Nevertheless these ideas have merit, and have influenced some of the activities suggested under the plan advanced in Section 4.

### 3 QUESTIONNAIRE RESPONSES

The background to the questionnaire is described in Section 2.3 and the questionnaire itself is reproduced in Appendix B. There were only 4 responses to the questionnaire. This section summarises the responses and provides some comment. A full tabulation of all the responses may be found in Appendix C.

*Q1. How well do you feel you yourself understand Safe System?*

All respondents felt they at least had a basic grasp of the concepts and principles, but they were divided as to whether they personally had sufficient understanding to start applying Safe System principles.

*Q2. How well do you feel the members of your work area understand Safe System?*

Respondents were a little less confident that other team members were ready to start applying Safe System principles, with only respondent indicating that they were. Two respondents felt their team had a reasonable grasp of the concepts and principles, while one respondent felt that his team was somewhere between a basic understanding and a reasonable grasp of concepts and principles.

*Q3. What does your work area do now?*

The work of the groups ranged from the general and strategic to the highly specific, covering a range of safety-related activities.

*Q4. How would Safe System affect what your work group does?*

The things groups would start doing ranged from very wide-ranging interventions to support cultural change to some very specific stock-taking action. There were few actions that respondents thought they would stop doing. Things done differently ranged from very general propositions to some specific actions on speed.

*Q5. What needs to happen before your group can begin to apply Safe System concepts?*

Few actions were mentioned, but they ranged from basic conceptual issues to quite specific practical issues to the predictable plea for more funding.

## 4 DRAFT PLAN

### 4.1 Background

#### 4.1.1 *The Draft ACT Road Safety Strategy 2011-2020*

The ACT Draft Road Safety Strategy gives a very clear commitment to Vision Zero as the goal for road safety in the ACT and to Safe System as the conceptual and technical framework within which this can be achieved.

The Strategy identifies two strategic goals, with specific areas for action under each goal. The goals and areas for action are:

- Reduced ACT trauma rates that meet the objectives of the National Road Safety Strategy
  - an integrated approach
  - safe speeds
  - safe roads and roadsides
  - safe vehicles
  - safer people and behaviours.
- An ACT community that shares the responsibility for road safety
  - focus on impaired driving
  - support measures.

Although the strategy does not spell this point out, in order to get the strategy to work effectively, it will be important to ensure that staff understand Safe System principles and learn how to apply them in their everyday practice.

#### 4.1.2 *Findings from the Workshop*

- The draft plan should provide a 'road map' of how Safe System should be progressively introduced into practice.
- The draft plan should recognise the reality of the road hierarchy, with the need to prioritise the high volume roads.
- There was a need to sustain the existing system, which would inevitably result in compromising safe system principles, at least in the short term.
- At this early stage, raising awareness of Safe System and educating practitioners about its principles were high priorities.
- Action could commence to review specifications, standards, etc.
- There was a need to adopt a risk management approach as Safe System principles could not be universally applied in the foreseeable future due to limitations of budgets to pay for the infrastructure required and skilled personnel to design and install it.

#### 4.1.3 *Later follow-up suggestions*

- identify and prioritise Safe System issues which arise from the continued use of older infrastructure designed to earlier standards
- consider ways in which current and future works could be adapted to produce Safe System outcomes

#### 4.1.4 Findings from the Survey

The survey indicated that most participants had at least a basic understanding of Safe System; in some cases this had progressed to the point where they were ready to apply the principles to their own work. They also believed their colleagues generally had a basic understanding.

The survey indicated that some new actions would commence, but that few if any actions could be terminated. One group reported it was already applying safe system principles; other groups required the development of a common understanding of the benefits, and an understanding of the consequences of not adopting Safe System; the other two groups mentioned a very specific action to strengthen speed management in one case, and more funding in another.

## 4.2 Guiding principles

All groups have at least some knowledge of Safe System already, so introductory training and workshops would probably not be helpful; it is not clear that any training has been developed which would help the groups at this stage.

Groups would probably benefit more from experience in applying Safe System principles to their own work, with opportunity to reflect on experience and to exchanges views and experiences with other groups. Developing a common understanding of the benefits for Safe System, and of the consequences of not adopting Safe System, need to be developed.

There needs to be an incremental approach to implementing Safe System. People need to continue doing what they are doing, and progressively implement Safe System. Risk management, therefore a focus on high-priority areas is required.

Work can commence on development of standards and guidelines which are Safe-System compliant; this could extend to discussions with suppliers and the encouragement of a competitive market place for Safe System compliant devices and materials. This could also extent to considering the financial implications of Safe System-compliant designs and materials, and their impact on budgets.

## 4.3 The Plan

### 1. Ensure information and examples are available

Ensure materials explaining Safe System concepts and principles are available on the intranet, or at a suitable external site on the internet; all staff should be asked to have a look at these before discussion within work groups starts.

### 2. Examine how Safe System can be applied in practice

Get work groups to begin examining how Safe System thinking can be given effect in everyday work practice. A good place to start could be to identify and prioritise Safe System issues which arise from the continued use of older infrastructure designed to earlier standards. When decisions have to be made, the question should be asked whether the decision is consistent with Safe System principles, and if not, could anything else be done instead which is better-aligned with safe System principles. Information exchange with peers in other jurisdictions should be encouraged.

The task for the foreseeable future is working towards the creation of a Safe System environment. Ways in which current and future works could be adapted to produce Safe System outcomes should be considered. Groups and individuals should apply a risk management approach, i.e. reducing the maximum amount of risk with available knowledge,

personnel and resources. Groups and individuals should exchange information about the extent of risk reduction achieved by different actions to motivate and inform each other. Risk reduction estimates should be checked against road casualties and traffic growth.

3. Reflect on experience

Set aside an agreed period time in regular work meetings to discuss cases where the application of Safe Systems is an issue. This time can serve both for collective problem solving and information exchange.

4. Interim review and consolidation

After six months or so, each work group should review the topics covered and the conclusions reached. All work groups should meet to exchange experiences and conclusions reached. Intractable issues should be worked on at this meeting.

5. Revision of standards

Commence work on reviewing standards, guidelines and standard designs to incorporate Safe System principles. This should be accompanied by a costing of the revised draft standards and guidelines. Much of this work will proceed at a national level through Austroads or Standards Australia. There therefore need to be parallel contributions to the Australia/New Zealand-wide revision of standards, and revision of internal ACT standards and documents.

Where the opportunity arises, the ACT should trial road treatments which are designed to be Safe System compliant. It should also be prepared to trial road safety programs which encourage road users to be alert and compliant. These initiatives are likely to be more useful if carried out in collaboration with other jurisdictions so that the trials are large enough to minimise the risks of inconclusive results.

6. Sourcing Safe System-compliant designs and equipment

Initiate discussion with suppliers to investigate how Safe System-compliant designs can be provided at competitive prices.

7. Review and develop successor plan

After the first year of operation, review progress in all areas and develop a successor plan. Areas which this could address are:

- dissemination of Safe System thinking to partner organisations ,e.g. by workshops focussed on what TAMS has achieved and how other stakeholders can provide leverage for these efforts
- applying new standards and guidelines, when ready
- continue to develop applications of Safe System in practice through discussions within workgroups
- establish interim goals for the roll-out of Safe System
- investigate actions to encouraging the community to share responsibility for road safety.

## 5 CONCLUSION

Personnel from Roads ACT and the Transport Planning Business Unit already had a working knowledge of Safe System, and were actively trying to apply Safe System to the work of their groups. Many of the actions required to implement Safe System depended on changes to standards, guidelines and designs which were beyond the capacity of the groups' everyday work, in some cases requiring changes at the national level. In the case of changes to standards and guidelines applying to the ACT, a process of consultation and approval would be required in many areas. In this context, the original idea of each workgroup devising its own plan to introduce Safe System to its work practice did not seem realistic.

Instead, a possible strategy to advance the uptake of Safe System for Roads ACT and the relevant sections of the Transport Planning Business Unit was developed. The scale of the plan and the time required for its implementation put it beyond the scope of the evaluation proposed for the project.



## REFERENCES

ACT Government 2011, *Draft ACT Road Safety Strategy 2011-2020*, ACT Government, Internal document

## APPENDIX A INTRODUCTION TO THE WORKSHOP

### Safe System into Practice

#### Project Description and Plan

##### *Outline and purpose*

This project will be an exploratory attempt to help groups within the ACT Department of Territory and Municipal Services (ACT TAMS) develop plans to incorporate Safe System principles into their work practices. The process will be monitored by ARRB staff to identify which aspects of Safe System are:

- easily understood
- readily applicable
- are difficult for staff to understand
- are difficult to apply, and the reasons for these difficulties.

The exercise is expected to be useful in introducing ACT Roads and TAMS staff to Safe System principles and in helping them to begin to apply these principles to their own practice. The information collected about the process is expected to be useful in developing training materials for use within the ACT and elsewhere, in developing Safe System theory and its presentation, and understanding the limits of its application in the current environment.

The project will consist of 5 tasks, with timing as indicated:

Tasks	Timing
1. Planning and preparation	Mid-January 2011
2. Introductory workshop and development of plans for the introduction of Safe System	Early February 2011
3. Experience with applying Safe System in practice	February – September 2011
4. Review of work groups' experience in applying Safe System	September 2011
5. Write-up and reporting	November 2011

##### *Planning and preparation*

The task involves arranging dates and workshop formats with ACT stakeholders, securing their participation and preparing materials. The target dates are final agreement on dates and format by January 15<sup>th</sup>, preparation of materials by January 31<sup>st</sup>

##### *Introductory workshop and development of plans for the introduction of Safe System*

A good representative cross-section from each of the work teams involved will attend a workshop held in early February. The workshop will consist of an introduction to Safe System from ARRB followed by a short general discussion. Teams will then break into their own groups and to develop a simple plan to start applying Safe System principles in their own work group (a three-point plan will be sufficient).

A spokesperson will report each group's plan back to the meeting. It is expected the meeting will take half a day.

The ARRB consultant will be available later that day and the following day, if required, to work individually with group leaders to finalise or fine tune the plans.

An interim report will be prepared, listing the different plans, and discussing the issues raised in the workshop and uncovered during the development of the plans.

#### *Experience with applying Safe System in practice*

Once the plan has been developed, supervisors and individual staff members will have to work out what it means for individual work practices. The ARRB consultant will be available for advice by telephone and email if this cannot be done during the visit.

The team will be left to work for a few months to apply Safe System to their work practice. Team leaders will be asked to keep a record of instances commitment to Safe System principles has forced issues has resulted in changes – even if they are only changes in the ways issues are considered rather than changes in the delivery of service.

The ARRB consultant will be available for consultation by phone or email during this period, and will call contact each team leader about half-way through the period for an informal progress report.

#### *Review of work groups' experience in applying Safe System*

The ARRB consultant will visit the teams again in September to evaluate progress. The team will visit teams individually to discuss progress with the team leader and selected staff. A de-briefing meeting will be held the following day for as many participating staff as can attend the meeting. Spokespersons for each time will briefly report their experience. The ARRB consultant will then present an overview of the experience and highlight the lessons learned. This will be followed by an opportunity for discussion. It is expected that this meeting will take about 1.5 hours.

#### *Write-up and reporting*

A report will be prepared which documents the different plans, the issues raised in the workshop and during the development of the plans, the impact on work practices and the lessons learned from the project.

# APPENDIX B THE QUESTIONNAIRE

## Safe Systems – Theory into Practice

Name \_\_\_\_\_ Work Group \_\_\_\_\_

1. How well do you feel you yourself understand Safe System:
  - (a)  Very basic understanding
  - (b)  Reasonable grasp of the concepts and principles
  - (c)  Understand enough to start applying Safe System principles
2. How well do you feel the members of your work area understand Safe System:
  - (a)  No real exposure to Safe System so far
  - (b)  Very basic understanding
  - (c)  Reasonable grasp of the concepts and principles
  - (d)  Understand enough to start applying Safe System principles
3. What does your work area do now? (Try to keep to a maximum of five dot points);
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
4. How would Safe System affect what your work group does?
 

*New things your group would start doing*

  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

*Things your group could stop doing*

  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

*Things your group would do differently*

  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
5. What needs to happen before your group can begin to apply Safe System concepts? (Try to keep to a maximum of five dot points);
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

## APPENDIX C QUESTIONNAIRE RESPONSES

The background to the questionnaire is described in Section 2.3. The questionnaire itself is reproduced in Appendix B. This section lists the responses to the questionnaire.

Q1. *How well do you feel you yourself understand Safe System?*

Response	n
Very basic understanding	
Reasonable grasp of the concepts and principles	2
Understand enough to start applying Safe System principles	2

Q2. *How well do you feel the members of your work area understand Safe System?*

Response	n
No real exposure to Safe System so far	
Very basic understanding	½
Reasonable grasp of the concepts and principles	2½
Understand enough to start applying Safe System principles	1

Q3. *What does your work area do now?*

Group Functions
<ul style="list-style-type: none"> <li>▪ Manage and maintain the public roads in the ACT, including streetlights, traffic lights, stormwater</li> </ul>
<ul style="list-style-type: none"> <li>▪ Develop and implement the ACT Road Safety Strategy and the ACT Road Safety Action Plan, in line with the National Road Safety Strategy</li> <li>▪ Develop and implement awareness campaigns targeting priority road safety issues in line with the ACT Road Safety Strategy and in partnership with stakeholders</li> <li>▪ Manage and develop road safety coordination and liaison arrangements with road safety stakeholders (including other agencies and road user groups)</li> <li>▪ Participate in the work of national forums, including National Road Safety Executive Group and Austroads Safety Task Force</li> <li>▪ Provide road safety advice to the Minister and Departmental Executives, and respond to public enquiries</li> </ul>
<ul style="list-style-type: none"> <li>▪ Operation of ACT's Traffic Signals Network</li> <li>▪ Oversee Maintenance of the Traffic Signals</li> <li>▪ Authorise designs for new traffic signals</li> <li>▪ Program traffic signals personalities</li> <li>▪ Provide advice on all traffic signals matters</li> </ul>
<ul style="list-style-type: none"> <li>▪ Considers safety in all decision making</li> <li>▪ Considers safety when developing all works programs</li> <li>▪ Innovates for new processes and practices which improve safety</li> <li>▪ Makes decisions that account for safety, environment, social amenity and cost simultaneously.</li> </ul>

**Q4. How would Safe System affect what your work group does?**

<b>Change in Activities</b>
<b>New things your group would start doing</b>
<ul style="list-style-type: none"> <li>▪ Ensure standards we adopt apply safe systems principles</li> </ul>
<ul style="list-style-type: none"> <li>▪ Progress the implementation of an educational program on road safety for all road users incorporating the safe system approach</li> <li>▪ Develop ways to support cultural change in the community towards improving road safety</li> </ul>
<ul style="list-style-type: none"> <li>▪ We have always adopted a safety first approach to signal phasing, combined use poles have all been frangible on new sites for many years, etc.</li> <li>▪ Survey combined use poles at older sites to determine the extent of non-frangible items for future upgrade</li> </ul>
<ul style="list-style-type: none"> <li>▪ Our work is already consistent with safe system approach</li> </ul>
<b>Things your group could stop doing</b>
<ul style="list-style-type: none"> <li>▪ Stop some current practises in relation to installation of new infrastructure</li> </ul>
<ul style="list-style-type: none"> <li>▪ Nothing really – current work program relates to implementation of safe system principles</li> </ul>
<ul style="list-style-type: none"> <li>▪ Nothing mentioned</li> </ul>
<ul style="list-style-type: none"> <li>▪ Review current maintenance practises in some areas</li> </ul>
<b>Things your group would do differently</b>
<ul style="list-style-type: none"> <li>▪ Install new infrastructure that meets safe systems principles</li> </ul>
<ul style="list-style-type: none"> <li>▪ Strengthen the emphasis and encouragement of speed management initiatives as a critical component of the safe system approach, to complement enforcement efforts</li> </ul>
<ul style="list-style-type: none"> <li>▪ Nothing mentioned</li> </ul>
<ul style="list-style-type: none"> <li>▪ With the unlimited funding that 'safe system' appears to assume we would make the road system safer</li> </ul>

**Q5. What needs to happen before your group can begin to apply Safe System concepts?**

<b>Actions</b>
<ul style="list-style-type: none"> <li>▪ Common understanding of what can be achieved</li> <li>▪ Understanding of benefits and the cost of not adopting a safe system approach</li> </ul>
<ul style="list-style-type: none"> <li>▪ Strengthen the emphasis and encouragement of speed management initiatives as a critical component of the safe system approach, to complement enforcement efforts</li> </ul>
<ul style="list-style-type: none"> <li>▪ Additional funding for upgrades</li> </ul>
<ul style="list-style-type: none"> <li>▪ We already are applying safe system concepts</li> </ul>