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| Safe System Assessment “Name of Project” |

 

K Net Number: 13551920

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Document Date: 20/03/19

# Document Amendment Record

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| --- | --- | --- | --- | --- |
| Rev | Change Description | Date | Author | Checked |
| A | First Issue | 20/03/19 | J Davies | Safety Strategy Section |
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Document Management

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To be read in conjunction of Safe System Guideline:

|  |  |
| --- | --- |
| 1. Internal
 | Knet# 13551921 |
| 1. External
 | <https://www.dpti.sa.gov.au/standards/roads-all#roaddesignoutputs> |

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Austroads has released the Guide to Road Design and all road agencies across Australia have agreed to adopt the Austroads guides to provide a level of consistency and harmonisation across all jurisdictions.

This agreement means that the new Austroads guides and the Australian Standards, which are referenced in them, will become the primary technical references for use within South Australia.

This supplement is issued to clarify, add to, or modify the Austroads Guides

# DPTI Approvals – Safe Systems Assessment

|  |
| --- |
| **CONSULTATION** |
| **Discipline** | **Reviewer** | **Comments** | **Date** |
| Road & Marine Assets |  |  |  |
| Traffic Operations |  |  |  |
| Safety Strategy |  |  |  |
| Technical Services |  |  |  |
| Planning Division |  |  |  |

|  |
| --- |
| **TECHNICAL APPROVAL** |
| 🞏 | I approve the use of the mitigating treatments for this this project as detailed, subject to any conditions outlined below. |
| 🞏 | I reject the use of the mitigating treatments and request further consideration. |
| 🞏 | I endorse |
| **Name:***MANAGER, TECHNICAL SERVICES* |
| **Signature:** | **Date:** |

|  |
| --- |
| **EXECUTIVE APPROVAL (If deemed necessary for projects >5 million)** |
| 🞏 | I approve |
| 🞏 | I reject |
| **Name:***COMMISSIONER OF HIGHWAYS / DELEGATE* |
| **Signature:** | **Date:** |

# Safe System Assessment

## Assessment Details

* + 1. Type of Assessment
1. *Insert text on background to project, including photo and/or map of location*
2. *Provide a brief description of the existing conditions, include crash history (past 5 years if relevant). Insert locality plan of crashes*
3. *Provide traffic counts*
	1. Assessment Team

*List the members of the SSA team, their titles, department /organisation. Identify any members that are associated with the project and therefore not independent. The Safe System assessment framework will be best applied by teams of road practitioners with varied types and levels of experience. Training and experience in road safety, road design and traffic management are essential to carry out the analysis. The team environment will also provide opportunity to improve understanding of the Safe System principles for those less experienced in road safety.*

* 1. Meetings and Site Inspections

*List all the meeting and workshops held (include dates/times)*

## Project Objectives and Context

Table 1: Project Context

|  |  |
| --- | --- |
| Prompts | Comments |
| What is the reason for the **project**? Is there specific crash type risk? Is it addressing specific issues such as poor speed limit compliance, road access, congestion, future traffic growth, freight movement, amenity concerns from the community, maintenance/asset renewal, etc. | *Where appropriate, reference should be made to the Investment Logic Map and Benefit Management Plan for problem definition and the objectives of the project.*  |
| What is the **function** of the road? Consider location, roadside land use, area type, speed limit, intersection type, presence of parking, public transport services and vehicle flows. What traffic features exist nearby (e.g. upstream and downstream)? What alternative routes exist? | *Refer to Movement and Place assessment for function of the road. Is the road part of a freight route or bicycle route?* Refer to Ravnet for heavy vehicle movement: <http://maps.sa.gov.au/ravnet/> |
| What is the **speed** environment? What is the current speed limit? Has it changed recently? Is it similar to other roads of this type? How does it compare to Safe System speeds? What is the acceptability of lowering the speed limit at this location? | *Refer to any available data on vehicle speeds and information regarding compliance to speed limits.*  |
| What **road users** are present? Consider the presence of elderly pedestrians, school children and cyclists. Also note what facilities are available to vulnerable road users (e.g. signalised crossings, bicycle lanes, school speed limits, etc.) |  |
| What is the **vehicle** composition? Consider the presence of heavy vehicles (and what type), motorcyclists and other vehicles using the roadway.  | *Does the presence of heavy vehicles increase the risk of particular crashes types (run-off-road, intersection, cyclist etc.)?*  |

* + 1. Proposed Works

*Provide a summary of the proposed works. List the options being assessed, identify the differences. Provide a list of drawings being assessed – include drawings numbers and revisions*

## Safe System Assessment Matrices

Refer to section 9 of the Assessment guideline (knet # 13551921 or <https://www.dpti.sa.gov.au/standards/roads-all#roaddesignoutputs>) for guidance relating to crash risk and treatment types to assist with scoring in the matrix

Table 2: SSA Matrix

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   | **Run-off road** | **Head-on** | **Intersection** | **Other** | **Pedestrian** | **Cyclist** | **Motorcyclists** |
| **Exposure Comments:** |  |  |  |  |  |  |  |
| **Exposure Score:** | /4 | /4 | /4 | /4 | /4 | /4 | /4 |
| **Likelihood Comments:** | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: |
| **Likelihood Score:** | /4 | /4 | /4 | /4 | /4 | /4 | /4 |
| **Severity Comments:** | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: | Factors that increase the likelihood include:Factors that decrease the likelihood include: |
| **Severity Score:** | /4 | /4 | /4 | /4 | /4 | /4 | /4 |
| **Product** **(multiply scores above for crash type)** | **/64** | **/64** | **/64** | **/64** | **/64** | **/64** | **/64** |
| **TOTAL** | **/448** |

## Treatments to Improve Safe System Alignment

Treatments that will improve the Safe System alignment of the project.

**Primary treatments** are those measures that have the potential to eliminate or come close to eliminating the risk of fatal and serious injury (FSI) crashes. **Supporting treatments** are effective in reducing the risk of crashes but not to the extent of a primary treatment (i.e. there is a residual moderate or significant crash risk). Implementation of a primary treatment should be given priority over a supporting treatment that may be targeting a similar crash risk.

Refer Safe System Assessment Guideline (Knet 13551921) for list of primary and supporting treatments.

Table 3: Primary Treatments

| **Treatments for consideration** | **Project response** |
| --- | --- |
|  |  |
|  |  |

Table 4: Supporting Treatments

| **Treatments for consideration** | **Project response** |
| --- | --- |
|  |  |
|  |  |

## Additional Safe System Components

*As part of this SSA, consideration has been given to other components that comprise the Safe System i.e. road users, vehicles and post-crash care. Issues identified as relevant to this project are listed in 5.*

*Provide additional information of any issues that should be highlighted for consideration by the project team*

Table 5: Other Safe System Components

|  |  |  |
| --- | --- | --- |
| **Pillar** | **Prompts** | **Comments / Issues** |
| Road user | Are road users likely to be alert and compliant? Are there factors that might influence this? What are the expected compliance and enforcement levels (alcohol / drugs, speed, road rules and driving hours)? What is the likelihood of driver fatigue? Can enforcement activities be conducted safely?Are there special road users (e.g. entertainment precincts, elderly, children, on-road activities, motorcyclist route), distraction by environmental factors (e.g. commerce, tourism) or risk-taking behaviours? |  |
| Vehicle | What level of alignment is there with the ideal of safer vehicles?Are there factors that may attract large numbers of unsafe vehicles? Is the percentage of heavy vehicles too high for the proposed / existing road design? Is this route used by recreational motorcyclists? Are there resources in the area to detect non-roadworthy, overloaded or unregistered vehicles and thus remove them from the network? Can enforcement activities be undertaken safely? Has vehicle breakdown been catered for? |  |
| Post-crash care | Are there issues that might influence safe and efficient post-crash care in the event of a severe injury (e.g. congestion, access, stopping space)? Do emergency and medical services operate as efficiently as possible? Are other road users and emergency response teams protected during a crash event? Are drivers provided the correct information to address travelling speeds on the approach and adjacent to the incident? Is there reliable information available via radio, VMS etc?Is there provision for e-safety (i.e. safety systems based on modern information and communication technologies, C-ITS)? |  |

## Conclusions

*Outline the conclusions – proposals for improvement, what are the main crash risks, how do they align with the safe system principles, which option is preferred and what changes are required to be made to the design scope*

## Appendix A

*e.g crash data, locality plans, photos etc*