

Star Ratings for Sivile Primary School



Baseline Study Briefing Paper, May 2014

About iRAP

The International Road Assessment Programme (iRAP) is a registered charity dedicated to saving lives through safer roads.

We provide tools and training to help countries make roads safe. Our activities include:

- inspecting high-risk roads and developing Star Ratings, Safer Roads Investment Plans and Risk Maps
- providing training, technology and support that will build and sustain national, regional and local capability
- tracking road safety performance so that funding agencies can assess the benefits of their investments.

The programme is the umbrella organisation for EuroRAP, AusRAP, usRAP, KiwiRAP and ChinaRAP. Road Assessment Programmes (RAP) are now active in more than 70 countries throughout Europe, Asia Pacific, North, Central and South America and Africa.

iRAP is financially supported by the FIA Foundation for the Automobile and Society and the Road Safety Fund. Projects receive support from the Global Road Safety Facility, automobile associations, regional development banks and donors.

National governments, automobile clubs and associations, charities, the motor industry and institutions such as the European Commission also support RAPs in the developed world and encourage the transfer of research and technology to iRAP. In addition, many individuals donate their time and expertise to support iRAP. iRAP is a member of the United Nations Road Safety Collaboration.

Star Rating of Schools Team

The Star Rating of Schools inspection team included representatives from the City of Cape Town, South African National Roads Agency (SANRAL), Road Traffic Management Corporation (RTMC), Worley Parsons and iRAP. The project is led by ChildSafe, South Africa.

Star Rating Sivile Primary School Funding Partners

iRAP thanks the “Zenani Mandela” campaign and the funding partners for the project including the Road Safety Fund, FIA Foundation, Worley Parsons and Janssen.

Star Rating of Schools Development Partners

iRAP are very grateful to FedEx, the FIA Foundation and the Road Safety Fund for making the Star Rating of Schools initiative possible for the world to use.

For more information

Download: *iRAP Methodology Fact Sheet 14: Star Ratings for Schools* at <http://www.irap.org/en/about-irap-3/methodology>.

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Key Facts

- Sivile Primary School is located in Cape Town, South Africa.
- More than 1,150 children attend Sivile Primary School.
- The Total Pedestrian Star Rating for the school is 2 stars out of a possible 5 stars (where 5 stars is the safest).
- 77% of the roads assessed achieved only 1-star or 2-stars for pedestrians.
- 97% of the risk is associated with crossing the two main roads assessed (Jeff Masemola Road and Morning Star Drive).

Pedestrian Star Rating map



The good 😊

- Footpaths on Jeff Masemola Road provide students with an opportunity to walk safely along the road. Pedestrians are 200 times safer on a road with a footpath.
- Morning Star Road, which is in front of the school, carries a low volume of traffic. Speed bumps help to ensure that traffic speeds are also low. Footpaths are available on both sides of this road, although some additional maintenance is required.
- Morning Star Road is operating at the iRAP goal of at least 3-stars for pedestrians.

Areas for improvement 😞

- More than 90% of the risk for the children walking to Sivile School is associated with crossing Jeff Masemola Road.
- Jeff Masemola Road is rated just 2-stars for pedestrians, with the two major crossing points scoring the lowest 1-star rating.
- The two major crossing points on Jeff Masemola Road – at the mid-block near Apollo Way and at the intersection of Morning Star Drive – account for most of the risk of death and serious injury.
- The speed of the traffic on Jeff Masemola Road is estimated to be 90km/h – placing children at 12 times greater risk than on a road where vehicles are travelling at 40km/h.

The iRAP Road Safety Toolkit

The [iRAP Road Safety Toolkit](#) provides a range of practical advice on the typical road infrastructure issues for pedestrians and ways to improve their safety.



The screenshot shows the iRAP Road Safety Toolkit website. At the top, there are navigation tabs: 'Crash Types', 'Road Users' (highlighted in green), 'Treatments', 'Management', and 'About'. Below the tabs is a language dropdown menu set to 'English'. A large banner image shows a group of people walking. Below the banner, there is a search bar and a 'Search...' button. The main content area is titled 'Road Users > Pedestrians'. It includes social media sharing icons for Facebook, Twitter, and Google+, a 'Print this page' button, and logos for iRAP and gTAP. The text states: 'Pedestrians are vulnerable road users. In many countries, collisions with pedestrians are a leading cause of death and injury. In some countries, over half of all road deaths are caused by collisions between vehicles and pedestrians.' It lists situations where collisions occur, such as walking in the path of a vehicle, walking along the roadside, playing on the road, and while boarding or leaving public transport vehicles. It also mentions that the severity of pedestrian crashes is strongly dependent on the speed of traffic. A 'Related Case Study' box is visible on the right, titled 'Pedestrian Refuges, Bicycle Lanes, Delineation and One-way Road'.

Priority Locations to Improve Safety

Mid-block crossing point accessing Apollo Way (1 star)



Children face the highest level of risk when they cross Jeff Masemola Road at the mid-block location near Apollo Way. During the morning 15-minute peak period more than 150 children cross the road - flows equivalent to a busy lunch time in the centre of Cape Town. Other key facts about this location are:

- Children crossing at this one-star location are 3 times more likely to be seriously injured than if the location scored 3-stars.
- If pedestrian signals were installed at this location and used correctly, risk would be 6-7 times lower.
- The crossing-width is a relatively long 10 metres. At this distance, children can have difficulty judging how long it will take them to cross the road safely.
- Parked public transport vehicles and the long curve in the road reduce sight distances, making it difficult for drivers to see pedestrians and vice versa.

Jeff Masemola Road crossing point at the intersection of Morning Star Drive (1 star)

Many children also face a high level of risk when they cross Jeff Masemola Road at the intersection of Morning Star Drive.



Key facts about this location are:

- The 4-leg intersection adds additional complexity of turning traffic and more vehicle movements for children to assess and navigate.
- Turning traffic can obscure faster vehicles that are moving through the intersection, which catch children by surprise.
- At this location, Jeff Masemola Road has two lanes of traffic in each direction. The increased crossing distance adds to the challenge of judging how long it will take them to cross and when it is safe to do so. The painted island provides some minor benefit although a more formal refuge would add to safety at the location.
- Parked public transport vehicles also impact sight distance at the location, making it difficult for drivers to see pedestrians and vice versa.

Next steps

The iRAP team and technical partners from City of Cape Town, SANRAL, RTMC and Worley Parsons will examine options to improve the safety of the two high-risk locations. The analysis will identify how to maximise the reduction in risk for school children within the available road works budget. The Star Rating of the locations after the upgrades will be measured and the benefits estimated.

Together with the other project partners Childsafe and Takalani Sesame, the risk assessment will help guide and inform classroom activities to help improve the safety of the children.