HIRA Workshop Organiser's Overview – The Nuts and Bolts (construction client and/or the contractor)

Introduction

The Human Impact Route Assessment (HIRA) tool and workshop process aims to place safety of Vulnerable Road Users (VRUs) at the forefront of the heavy vehicle route selection process.

In this context, VRUs are defined as pedestrians and cyclists, with greater consideration given to the most vulnerable of these users including older people and children.

HIRA is intended to support and promote **collaborative decision making** between stakeholders, including local and state government authorities regarding the identification and selection of truck routes during construction projects. The tool requires that representatives work together to discuss and agree on ratings for various route attributes in relation to the impact on vulnerable road users.

The tool and process will provide an opportunity to compare potential routes and identify and record risks to VRUs along each route. This information is intended to contribute to the route selection decision making process, along with other considerations such as directness, noise impacts, freight routes, other construction sites operating on the route and mitigation strategies.

The digital HIRA is a **web based tool that does not collect or store any information**, it is available on the VicRoads web site. **All inputs should be saved to CSV file prior to closing the browser to save contents.** These contents can be reloaded onto the site as and when needed. A pdf of the final report can also be extracted and printed as a downloaded file prior to closing the browser. **Every time the web tool is closed it will wipe any contents it contains.**

Preparation

The HIRA instructional video is a great resource to view in preparation for the workshop and possibly at the beginning of the workshop too (available from VicRoads web site).

HIRA relies on collaborative decision making and helps to strengthen relationships among key stakeholders.

Who should be invited?

A HIRA should be undertaken in a workshop with **relevant stakeholders**. These stakeholders can include:

- local government
- main road authorities
- the client
- the contractor
- other relevant stakeholders

When determining who to invite to the workshop, it is important that stakeholders who are familiar with the project **and the local environment** participate. Ideally, workshop numbers should be limited to **approximately ten people** to support timely decision making.

Workshop duration

The workshop will take **approximately two hours and longer if more than two routes are being compared.**

Workshop Draft Route Preparation

Before the workshop, the construction client and/ or the contractor must **identify potential routes to and from the work site.** HIRA does not need to be done for the entire length of the route, but it should be done for the section between the site and a major traffic route such as a freeway (beyond which conflict with VRUs can be considered negligible). It should also score the most dangerous sections of the route that involve vulnerable road users if there are a number of sections involving vulnerable road users.

Print off hard copies of the HIRA tool outline from the VicRoads web site, so that workshop participants can keep the assessment tool in mind while familiarising themselves with the different routes.

The organisers must also prepare **a hard copy and digital map with the routes drawn on it** for participants to use during the workshop (in Melbourne Melway has highly detailed maps which are ideal for this purpose – they now have online maps at Melway Online Melway Online). These can be pdf'd and circulated prior to the workshop for participant consideration, and also added to the digitised entry on the web based HIRA tool for participant referral.

Background photos and background information on the construction project and vehicle movements envisaged can also be provided to participants in preparation for the workshop. Filming each route from a vehicle window may be useful and can greatly enhance participants appreciation of the on-street environment for each chosen route, so ensuring that the film is recorded for each route option before the workshop adds to the understanding of the route options being considered.

Process

1. Discovery Phase - introduce each route that is under consideration

At the start of the workshop, it is recommended that **the construction client or the contractor runs through each of the routes before the start of the assessment** to ensure that participants understand where the routes are and what each route entails regarding street type, proximity to services, parks, schools, etc. Telling the story of the construction to be undertaken and likely truck movements also helps to add to the picture of how the route selection will be used.

Maps, digital street level and film

Having maps that show details of schools, older people's facilities, hospitals and activity centres eg shopping strips or business districts is essential, and an exercise should be done to 'walk the route' (using hard copy maps and digital maps or a film) in order to discuss and highlight the local destinations and services that would attract walkers and bicycle riders. Public transport services and off-road shared paths should also be noted.

Showing a film of each route or asking participants to bring computers and work in small groups to follow the route on the printed map while using open street in street view or google maps street

view online allows participants to become familiar with the local environments each route travels through.

This section of the workshop needs time and participants working in small groups together is ideal for them to 'discover' the routes under assessment. Even if they know the roads well they may not appreciate all the services and nearby locations that the route goes through. It is not just what is on the route but also **what is near the route** that needs to be taken into consideration.

This should not be rushed as it is the basis for the review of attributes related to each route, and understanding the environments each route travels through is essential to getting the most value out of using the HIRA tool.

It is important to think like a walker or bicycle rider in this process and not as a driver e.g. roundabouts present dangers for walkers and cyclists, but have a safety benefit for drivers, shared paths may cross roads at certain points, schools might be a block away from a road under consideration. Local roads and arterials should all be considered for their vulnerable road user impacts.

Identify 'trip attractors'

It is important to think about services and facilities **close to the routes** being considered as well as those directly on the routes being assessed e.g. a primary school in a residential area adjacent to the route, or a university campus near the route. So that nearby 'trip attractors' for vulnerable road users are well understood and identified (perhaps use a highlighter to highlight them on the hard copy map).

Public transport

What public transport types run through the area? Is there just one form of public transport or different forms? Are stops adjacent to signalised crossings or mid block/at unsignalized intersections? How many services use the route? (Melway makes this really clear for all modes, noting that bus routes often have mid-block stops to service locations passengers want to access.

Return journeys

Thinking about trucks moving in both directions is also important – they will move away from the site but also return back to the site. The tool looks at left hand turns, so think about those on the way from and returning to the site.

Training and recreation cyclists

Training cycling routes may also be worth considering if the routes go through a scenic or high tourist value location. Again local knowledge would be able to highlight these uses.

Freight routes

A map of freight routes is available on the VicRoads web site, those should be taken into consideration too.

2. Assessment Phase: Route Assessment

The process requires participants to assume that site vehicles are travelling along each route in its current condition. The tool requires that representatives work together **to discuss and agree on ratings for various route attributes** in relation to the impact on vulnerable road users.

Participants must come to a unanimous decision as to what score should be used for a route before moving on to the next route/element. This is to encourage discussion around the risk and why a certain score should be chosen. Space is available to make notes about the decision that has been made.

Assessment should begin at the first element. If more than one route is being assessed, then each route should be assessed against the same element before moving on to the next element. In other words each route is assessed in parallel as you work through each attribute.

The routes should be scored against the descriptors provided, not against the other routes. As well as acting as a basis for route comparison, **HIRA aims to identify risks along the routes**, if scoring is done by comparison, risks may not be properly captured, and the final score may not reflect the suitability of the route.

Under each score there is a place for comments, note here any additional information or considerations that were taken into account.

Route Elements

Each route is scored against **11 elements or categories**. There are two groups of elements.

Description	Attributes/Group	Elements/Category
The first of these two categories focusses on **risks to vulnerable road users** directly on the carriageway including active transport, road width and on-street public transport stops among other risks.	On-Street Risks (6 elements)	• road type and function; • left hand turning trucks; • active transport; • on route holding/staging areas; • on route bus stops; • on route tram stops.
The second category looks more at **the land uses next to the roads** and if they are predictors of increased vulnerable road user activity. This includes hospitals, retail and entertainment precincts and schools among other indicators.	Off-Street Predictors of Increased Activity (5 elements)	• hospitals and emergency services access; • childcare schools and other education institutions; • retail and entertainment precincts; • sporting and recreational facilities; • railway stations.

Route Descriptors

To score a route against an element, participants must use the **descriptors**. If there are multiple locations along the route which fall under different descriptors, **the most dangerous of the locations should be used to score the route.**

For each element, there are descriptors describing the performance standards for each element. Within each of the performance standards, there is a range of scores to choose from, this allows for some flexibility with scoring while still adhering to the descriptors.

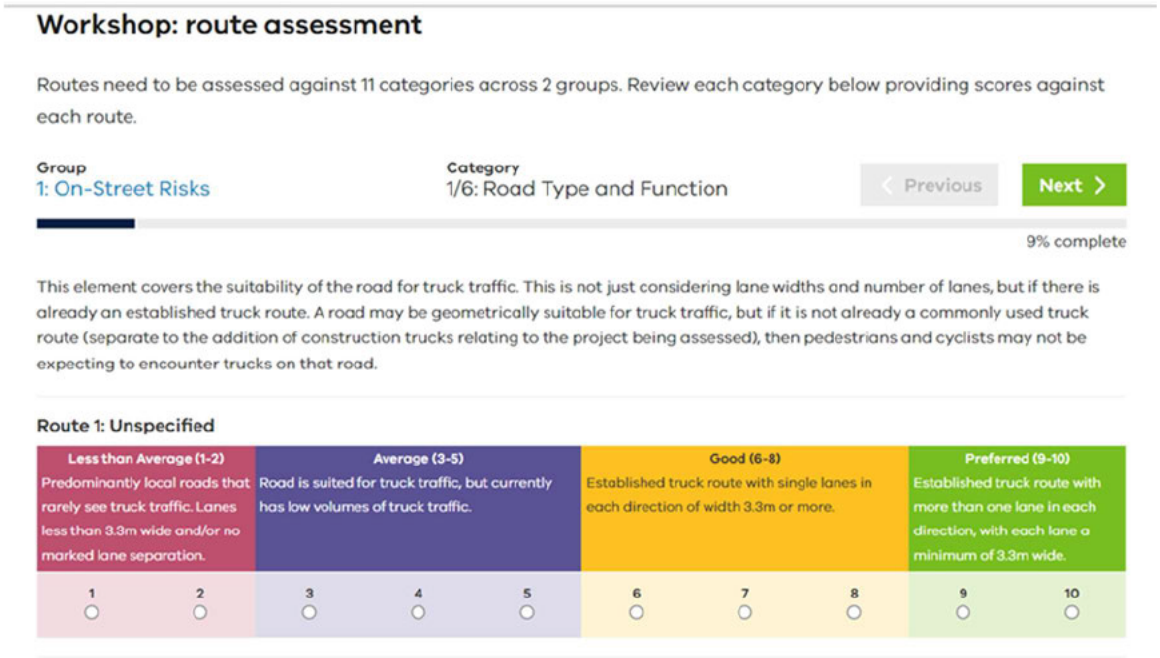

Figure 1: HIRA tool Assessment first category.

Scoring

Participants must come to a unanimous decision as to what the score should be for each route before moving on to the next route/element. This is to encourage discussion around the risk and why a certain score should be chosen.

If a route is scored as **"Average" or "Less than Average"** for an element, then **participants should make a note as to why the route scored so low** in the comments space provided.

3. Final report – discussion is more important than score

Once the assessment has been completed, an overall score for each route is displayed on the final report page of the web based tool. This can be used to determine how suitable the route is overall. However, care should be taken in using the overall score alone to assess how suited the route is with regards to VRUs. How the route scored for each element should be considered when examining the results.

The final reported scores are **indicative only**, and other factors may need to be taken into consideration e.g. seasonal/school term active transport implications, other construction sites in the vicinity, etc. The HIRA assessment is just one of the assessments to be taken into consideration. The route HIRA identifies as the best may not be the final selected route due to other considerations.

However, conducting a HIRA would highlight risks on that route and will have provided a **proof of risk assessment** for that route. ***Remember to save the contents of the digital tool using the save to CSV button. **No data will be retained on the web browser once it has been closed.*****

4. Mitigation measures flagged

Once a route selection is made, considering **mitigation measures** is also important if risks are identified on the favoured route that need to be modified. Comments may be collected from the final report for further consideration.

Follow on activity – risk mitigation

After the first workshop, participants should consider measures to mitigate the risks identified in the workshop. Facilitating this is outside the scope of HIRA. However, once mitigation measures are considered and specific measures are proposed, a **follow-up HIRA workshop** should be run to reassess the favoured route with the assumption that these mitigation measures are in place.

If the route is still not up to a satisfactory performance standard (as decided by the workshop participants), then the process of mitigation consideration should be repeated.

This workshop would likely be shorter than the initial HIRA workshop.

Start using the HIRA route selection tool at:

Construction Trucks and Community Safety : VicRoads