

# **CORNER-TO-CREST**

## **STAGE NOTES**

Welcome to Corner-to-Crest stage notes.

These stage notes have been created using a mechanical system that bases the corner-angle numbering data on the steering angle input by the driver. -in the same way that drivers mark their steering wheels for recce in a national gravel rally. This system gives consistent results, regardless of the reconnaissance vehicle speed changes (due to traffic, intersections etc). Whereas, if we look at inertia-based systems, these can give variations where the recce vehicle had to stop at an intersection, and drive away slowly –due to other traffic. A system based on steering angle, and co-driver / reconnaissance team input, will give consistency in these situations.

In order to fulfil our obligations under the Health and Safety at Work Act 2015, and the General Risk and Workplace Management Regulation 2016, in the development of these stage notes, **all** stages have been fully driven multiple times. The notes (Version 1) are produced by one person after the initial drive through, and then the stages are tested with the notes called to the video by two other people, and further changes made. Once all parties believe the notes are ready for the final test, the stage is driven again, with the notes being called during that drive through (by Troy's normal co-driver Kyla)..... and inadvertently, further changes are made to “polish” the notes again. Final amendments are made, and the book you hold in your hand at the event was then produced.

As you can see from reading the above, we have taken steps so far as reasonably practicable to ensure that these stage notes are accurate, clear, and legible.

The factors that the developers of these stage notes cannot control are simple:

1. Weather;
2. The Driver / Co-Driver skill level (or “Red Mist”); and
3. Locals / Spectators or Residents

These three things we have no way of controlling.

The notes **are** consistent, but that does not mean that two different vehicles will be able to drive the same speed through the same gradient (numbered) corner. Please drive *your* vehicle in a manner that stays within *your* driving ability (and the Laws of Physics). Pay particular attention to the cautions within the notes. These are there for your safety.

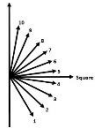
You will see that we have used colours to assist in the early warning of stage hazards, and also to offer more information. By using colours, it allows for words to be used, and run together simply by a change in font colour. It is far easier for an experienced team to delete (white-out) extra information, than it is to wish it was there in the first place. We have also put a small triangle at the corner of the notes on each page that alternates in colour. - Page 1 of the stage the triangle is yellow, page 2 it's blue, page 3 it's yellow again..... This is to assist the co-driver in turning only one page at a time (although hopefully they fold alternating page corners to assist in this too).

The upcoming note for the next page is found on the bottom-right of the current page.

Remember, rallying is like a marathon. There are a couple of sayings that work well here too: *You don't win the rally in the first stage; and..... To finish first, first you have to finish.*

**Please drive within your abilities, and that of your vehicle.**

**All the very best, and we hope you enjoy the rally**

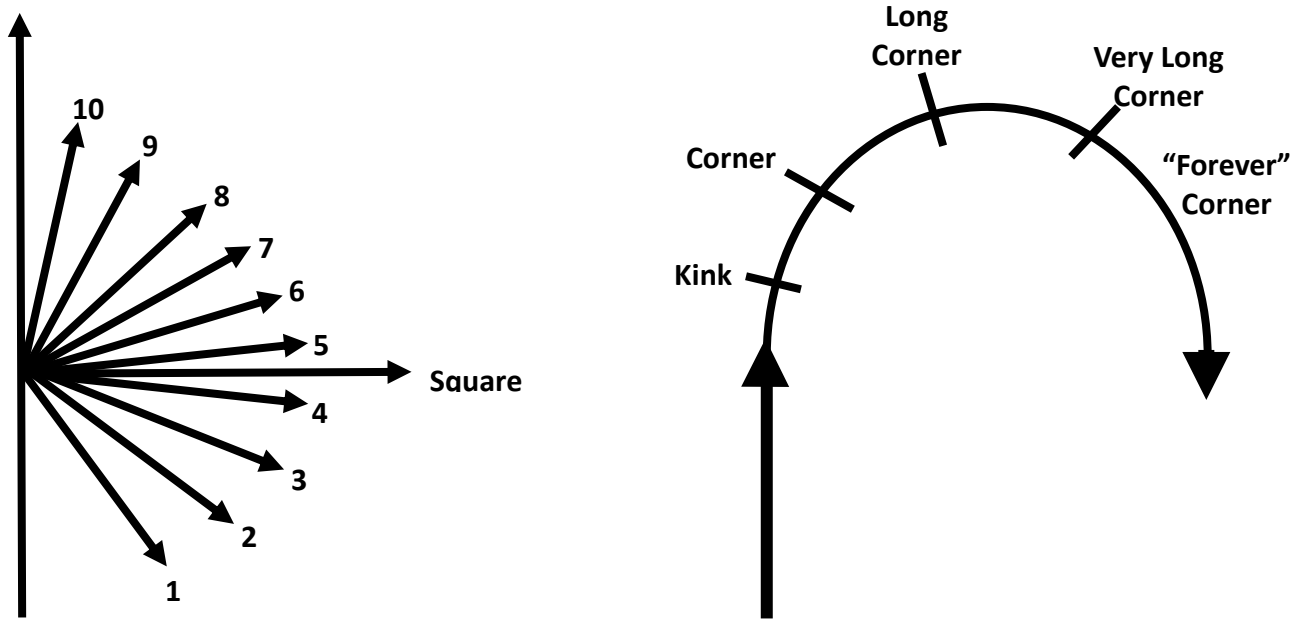


# Stage Notes Information



Let's start with the numbering..... The numbers are simply based on the steering angle input of the reconnaissance vehicle used to develop these stage notes.

**1** being the largest steering angle (and therefore the tightest corner), and **10** being the smallest steering input (anything less will not be noted as a corner, but may be referred to as a "kink" (as you will see in the glossary below and following pages).



You will see that steering angle comes first, then the direction of the turn **L** or **R**.

If there is something between two steering angle numbers (eg a corner is too tight for a **5**, but not yet a **4**), this will be given either a **5-** or if it is still tighter, but not fully a **4**, then it's a **4+**. This will then be followed by the direction of turn. Eg for a right hand turn **5-R** or **4+R**.

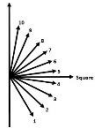
## The use of colour in the notes

The way that you can read the above is due to the word colouring. This is how the notes have been developed –with consultation with some drivers in how they get the information that they want, in a timely manner. –Especially good for inexperienced co-drivers, as the information can be delivered in "groups" that the driver wants.

The basics are in **black**. Corner angles and distances. -Unless the note is cautioned, or a corner of **4** or below, as then these have been made **red**. This is after discussions with many of the teams that simply want to have fun, and said they spend hours highlighting the lower numbers to be sure that they don't miss them –so we have done this for you.

**Red:** Please pay attention. Anything in red the driver must be made aware. Whether it be a very fast approach, or deceptive corner, or where the corner is immediately after a crest, so is blind / not visible (until it is too late). Please treat these seriously. Many will feel that we have gone overboard here, but again, it's easy to remove the information, than to wish it was there in the first place.

Put simply, if it's in red, it's been done for a reason. Assume a higher risk, and drive accordingly.



# Glossary of Terms



As with all stage notes, there needs to be some method behind the madness. There are terminologies that are common throughout these notes, and then others that are used less often, but have their own specific meaning. It is always advised that you read through the definitions, and then the examples a few times. Although it is very easy to write down here, take the first stage to get used to these notes to ensure both driver and co-driver understand the terminology. Remember, if *you* feel that there is too much information, it is far easier to remove (white-out) information you don't feel your crew require, than it is to wish to have more information that is not there.

**Cr** = A Crest. A large hump in the road that could "lighten" the car, but also will definitely impede the driver's vision to the next corner. These are larger than the below **smCr**. The distance noted after the crest is very important, as the braking and directional control of the car will be effected by this crest. When combined with "long", then the crest will not be as abrupt. If noted with **Big**, then may be linked with **jump**

**smCr** = A Small Crest. A hump in the road that will either have a "lightening" effect on the vehicle, or it may just impede the driver's vision. As with any crest, the distance after the crest (if any...) is vitally important information to the driver.

**jump** = This will be combined with either of the above as a warning to the driver that the car will likely leave the ground. *–remember the notes above, a car does not brake or turn when it is off the ground.* This is in **Red**, then you will understand after reading the previous page, that we feel that this will be "emotional". Needs the driver's attention.

**/** = **Over** There are two ways that this will be used.

1. This will be put with one of the above to show where in the note you will go "over" the crest or small crest etc. So in the example below you will be turning a **7L** turn *while* going over the small crest.
2. When the note is going "over" a distance. So below is a **10R** over 400m

**7+L/smCr120** or **10R/400**

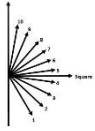
**Jct** = Junction. Will be combined with another note. May be the turning angle of the corner, with the note **@ Jct**, to let you know that the corner is in a junction; or will have another note on whether it is "**past**" or "**through**" the junction. **Note:** If the effect is only to let the co-driver ensure they are in the right spot, then the note will be below in a small text-box –as it doesn't concern the driver at that time.

**]]** = One lane bridge. Remember, these don't have soft sides, so take care on and off.

**]]** = Bridge (only used if associated with a corner / additional risk)

**short** = The corner is short, but still requires the same steering angle.

**1/2** = The corner is longer than short, but not a full corner (eg. 40m corner)



**kink** = The road can almost be driven straight: **kinkLand3+R"**

If the straight stretch of road has kinks, it will be marked with "K" prior to the distance number.

**7+LK100**

**long** = This will be linked with another note, whether it be a corner, or a crest etc.

**very long** = Same as above, will be linked with another note.

**forever** = the corner is longer in length still. Easier than saying "very very long". (eg <140m)

**into** = The corner finishes, and the next corner immediately starts. This will not be used if the next corner is a **2**. If you wonder why, say "4R into 2" to yourself.

**and** = The next corner is within a few metres (eg. 20m away). Too short to call a distance.

**then** = The next corner is 20 – 30 metres away. Still too short to worry about a distance

**6Land5R200**      **long5+Rthen5L**

**T** = Corner tightens      **long7RT5**

**O** = Corner Opens      **7R405+RO"**      **7RO/smCr140**

**blunt** = The steering angle number (**5+**) is late in the corner      **blunt5+R180**

**link** = The corner appears to open into another      **7Rlink5R120**

**cont** = Corner continues to a greater number      **3+Lcont5+**

**nips** = the corner has a small tighten at the end      **5+ROverylong6+nips40**

**change** = changes direction (also maybe over a crest) **long7R" change/8L**

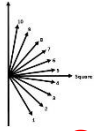
**dc** = Don't cut. So don't cut the corner, there is a hazard on the inside of the corner

**dgw** = Don't Go Wide. There is a hazard on the outside of the corner

**long5+Ldc80**      **smCrinto5Rdgw**

**!** = **Caution**; It's in red for a reason. This needs the drivers focus. This will precede a note that has an elevated risk. A blind corner and suchlike. The number of exclamation marks offers an insight into how serious the risk is Eg. **!!** (serious) or **!!!** (extremely serious). In the example below, the driver has moved through a **5L**, and accelerated for 300m towards a small crest, that has a blind "square" right in a junction immediately after the crest. The vehicle needs to be slowed to make that 90 degree turn safely, and this will not be visible during the fast approach.

**5L 300**      **!smCrsquareR@Jct**



**attention** and **care** are both used to simply warn the driver of a possible tricky section or an additional hazard –but not to the extent of using the caution (!) symbol. This maybe where the road has been open, and is about to narrow / tighten up. Just a heads-up to grab the drivers attention.

\* = Hold off any further instructions until through *this* corner. Let the driver get through whatever this may be. Usually this will be associated with a very sharp corner, or another hazard.

**!5Rinto5L and2R@Jct\***

(Wait any further instructions until the driver is through the **2 Right at Junction**)

“ = Take a breath, then call next note. Treat ” the same way you would a full-stop when reading. A pause in the notes for a breath, and then continue. Allows the driver to take the note in.

Very similar to \*, just gives the driver time to acknowledge and enter that corner.

Example of both together in a line:

**kinkLand3+R” blunt2-L\* 7R80**

### Underlined Notes:

If a section of notes is underlined, it is important that this is delivered to the driver as a sentence. So the cautioned note below reads: “five left 300. Caution, small crest square right at junction”.

**5L 300 !smCrsquareR@Jct**

### **Other words.....**

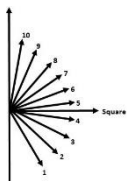
The remaining words used are simple and basic English, so there is no need to explain words like: Start and Finish, or tight, tightens, straight, again, maybe and suchlike. There English meaning is what they mean when used in the notes.

For more *seasoned* teams, this is where you will work out what you want to delete as unrequired information –due to the speed of the car through the stage, some decide to remove almost everything, leaving only the corner notes and cautions. It’s your book, you can do with it what you like. Our part was solely on consistency of steering angles, and information to supply to competitors. As mentioned previously, it’s easier to “white-out” out additional information, than wish we had provided it to start with.

Once again, these are stage descriptive notes, and in no way indicate a speed that any given crew (Drive, Co-Driver and Vehicle) can drive through the rally.

These are for consistent clarity of information supplied to the driver..... But the biggest variable is the “loose nut behind the wheel”, so again, please drive to your abilities.

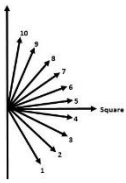
All the best from the Corner-to-Crest team



**Bambina 2022 SS01 Rotowaro Stage Distance: 13.22**

A fast and open Targa stage, with long flowing crests and smooth roads (for the most part). Points of note are: At 3.92km (**squareR**) you want to turn into the right side of the middle traffic island. At 8.17km there is a deceptive acute (**1-R**) that is cautioned, but have a peek to see the two **9R**'s that lead into it.

In	S 37° 34.618 E 175° 07.737
0.00	<b>START</b> 150 <b>7LforeverT6</b> 130
0.47	<b>long7+R</b> 130 <b>verylong7L</b> 200
1.04	<b>verylong7Lagain</b> 160 <b>7+Rforever</b> 160
1.69	<b>verylong7L change/7R</b> 170
2.24	<b>Crntoverlylong7R</b> 80 <b>6+Lforever</b> 150
2.91	<b>longCr andverylong7+R</b> 370 Past Jct
	<b>long 7L/Cr</b> 310



SS01 Rotowaro Stage Distance: 13.22

In  
3.46 long**7L**/Cr310 **attn:** turn**rights**sideof**centre**island

3.92 **!!squareR@Jctdgw\*** into**4+L**90

4.10 ] [ into**8R**forever90 long**7L**/ ] [ 350

4.94 **7+L**140 long**8R**150

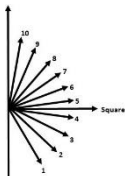
5.47 **7L**forever70 **7R**forever210

6.23 long**7+R**/Cr70 **7L**80 long**9R**80  
Past Jct

6.72 **8L** then **6R** and **6+L**160 ] [ 150

7.30 **6+R**50 **!2+L\*** then **4+R** and **6LO**80

5R into 6L 50

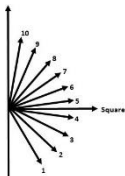


SS01 Rotowaro Stage Distance: 13.22

In	
7.84	<u>5R</u> into <u>6L</u> 50
7.99	<b>!!</b> <u>9R</u> and <u>9R</u> again into <u>1-R</u> @Jct*120
8.33	smCr50      7R130      6+L110
8.73	6R70      8L/smCr80      blunt5L50
9.13	smCr6R110      slightR/tinyCr90
9.43	6+L40      4R0long" thenlong5L80
9.92	7+R/smCr80      10L40      long7+R40
10.31	long5Lcont6L then½7R50

6L change/½7R 50





SS01 Rotowaro Stage Distance: 13.22

In	
10.69	<b>6L</b> change/ <b>1/27R</b> 50
10.92	<b>long5R</b> 90 <b>5+L</b> 60 <b>tinyCr6R</b> 120
11.45	<b>1/27R/smCr</b> 140
11.61	<b>5+R</b> then <b>5+L</b> cont <b>6+L</b> 90
11.97	<b>7L</b> then <b>6R</b> 70 <b>6+R</b> 40
12.30	<b>5+L</b> then <b>10R/tinyCr</b> 80 <b>8L</b> then <b>5R</b> K130
12.82	<b>5L</b> dc300 <b>smCr</b> <b>FINISH</b> 110 S 37° 32.441 E 175° 04.937
13.31	<b>6R</b> 60 <b>longLT</b> 7