

2/28/2018

ASS. REC. BY:

REF:

C11/A1818017633/DC

Special Instruction:

Surveyor

ASSIGNMENT (Office)

From (Person): Maribel Olea

of

ALGDate/Time: 2/3/2018

Estimated Cost:

Bill to:

OD+TP+WS+TP RES / OD RES / EVA / INV / MV / CS

To Inspect Vehicle No: SFD 6562MInsured: RTD 201Y

at Workshop no/s

Tel:

of

Policy No:

Claim No:

603794921856

Sum Insured:

Excess:

Make of Veh:

D.O.A.

(Client's Record)

CA / REV / REP. / REV 24 HRS

H.O.D. Endorsement:

Date/Time:

Person Contacted:

Vehicle IN/OUT

Date/Time	Action/Instruction () Estimate
	<u>SFD 6562M-X</u>
	<u>RTD 201Y-X</u>

Bryan Ang (LKKAUTO)

C11/AIG18017633/De

From: Olea, Maricel <Maricel.Olea@aig.com>
Sent: Thursday, 29 March 2018 2:33 PM
To: Bryan Ang (LKKAUTO)
Cc: Tan, Mary; KKLau
Subject: #60379492185G005#023# Your Ref: new matter
Attachments: SJD201Y - OI.PDF; SFW6562M - TP (GA).pdf; Koays part 1.pdf

Email part 1 of 2

Reconstruction.

Dear Bryan,

We refer to our telephone conversation earlier.

As discussed, we would like to get your views of the accident reconstruction report by Koays.

We attached the following documents for your perusal:-

- 1) SJD201Y - OI GIA report
- 2) SFW6562M - TP GIA report
- 3) Koays part 1 of 2 report

\$ 2500/-

I will be sending you part 2 of the report in my next email.

Please let us have your preliminary advice and your charges for the reconstruction report and court attendance fees.

Thank you

Best Regards,

Maricel Olea

AIG

Senior Complex Claims Examiner

Claims | AIG Asia Pacific Insurance Pte. Ltd.

78 Shenton Way #08-16 Singapore 079120

Tel + (65) 6419 1826 | Fax + (65) 6835 7416

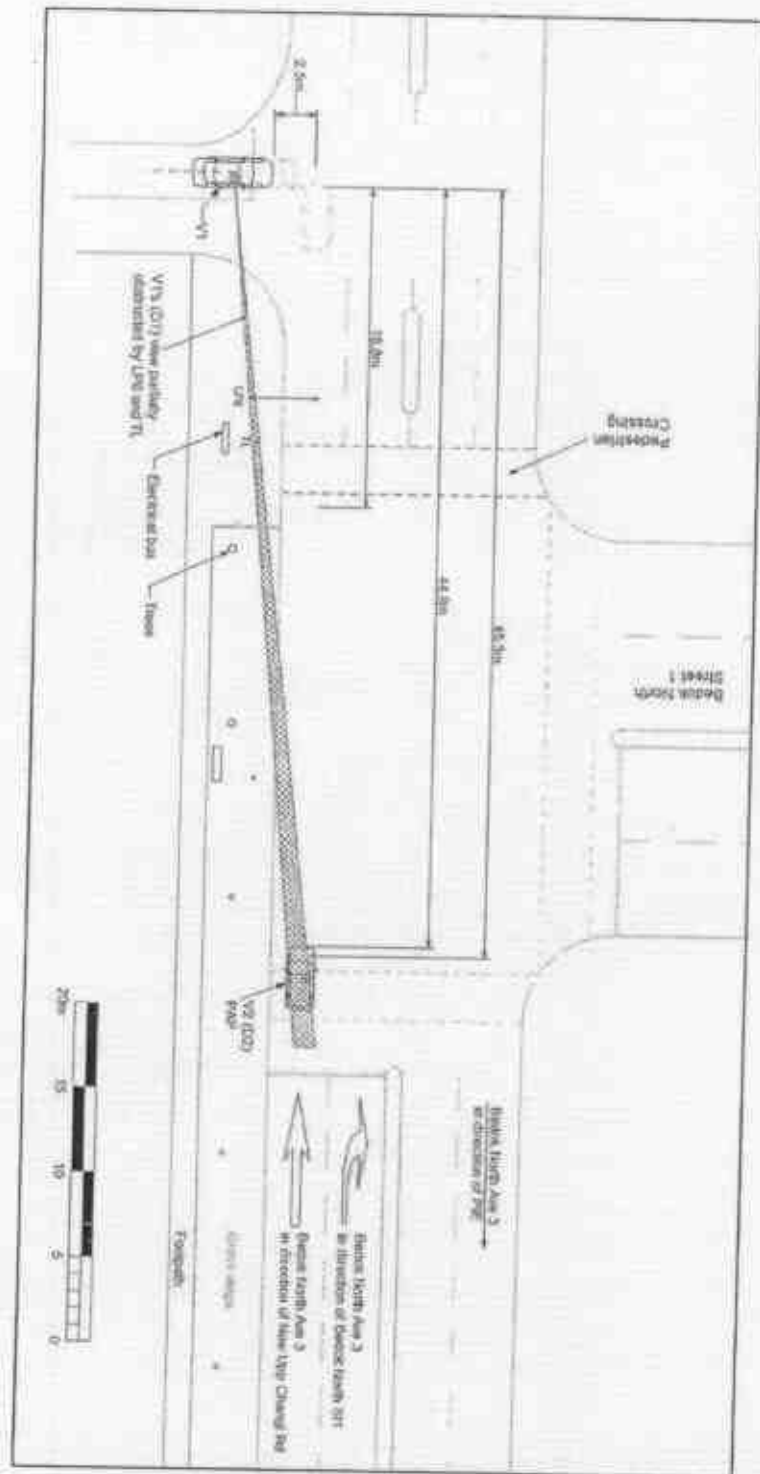
maricel.olea@aig.com | www.aig.com.sg

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Sketch Plan 4: Obstructions to D1's View of V2

c) V2's travel speed Vs 60 km/h

DESCRIPTION	DATA			Range	REMARKS
V1	Avg	Min	Max		
Distance from stop to POI, d_{V1}	2.50 m	2.25 m	2.75 m	10%	
Acceleration, f	0.10	0.09	0.11	10%	
V1's impact speed, $v_{V1-impact}$	7.96 km/h	7.17 km/h	8.77 km/h		Min speed formula, Monte Carlo
V1's impact velocity, $v_{V1-impact}$	2.2 m/s	2.0 m/s	2.4 m/s		0.2778
Time to POI, t	2.3 sec	2.3 sec	2.3 sec		Calculated
Distance from stop to POI	2.40 m	2.40 m	2.40 m		Line of Sight clear (1) to V2
V1 distance travelled from Stop to Position A	0.10 m	0.10 m	0.10 m		
V1's speed at Position A	1.6 km/h	1.5 km/h	1.7 km/h		
Therefore time from stop to Position A	0.45 sec	0.48 sec	0.43 sec		
V2					
V2's Impact speed, $v_{V2-impact}$	51.0 km/h	45.9 km/h	56.1 km/h	10%	0.2778
V2's Impact velocity, $v_{V2-impact}$	14.2 m/s	12.8 m/s	15.6 m/s		
PRT	1.2 sec	0.8 sec	1.5 sec		From IDRR
V2's corresponding time to POI	2.3 sec	2.3 sec	2.3 sec		
Time left for V2 to brake to stop, t_{brake}	1.1 sec	1.5 sec	0.8 sec		
f	0.65	0.60	0.70	0.05	9.81
V2's travel speed, $v_{V2-travel}$	77.84 km/h	63.70 km/h	92.68 km/h		$u = v - at$, Monte Carlo
V2's travel velocity, $v_{V2-travel}$	21.6 m/s	17.7 m/s	25.7 m/s		0.2778
V2 was traveling above speed limit (60 km/h) by	17.8 km/h	3.7 km/h	32.7 km/h		
PRd	25.9 m	14.2 m	38.6 m		
Distance covered during braking time, d_{brake}	18.9 m	22.2 m	15.7 m		$d = 1/2(v+u)*t$
Therefore, distance from PAP to POI	44.8 m	36.3 m	54.3 m		
If V2 was travelling at speed limit	60 km/h	60 km/h	60 km/h		0.2778
	16.7 m/s	16.7 m/s	16.7 m/s		
Distance of PAP to POI	44.8 m	36.3 m	54.3 m		
PRd	20.0 m	13.3 m	25.0 m		
f	0.65	0.60	0.70	3%	
Distance V2 needs to brake to a stop, $d_{brake-1}$	21.8 m	23.6 m	20.2 m		
Total distance to stop from PAP, d_{total}	41.8 m	37.0 m	45.2 m		
Distance before POI when V2 stopped	3.0 m	-0.6 m	9.0 m		
	Safe	Collide	Safe		

[illegible]

Appendix 3: Accident Scene Photographs



Scene Photo 2



Scene Photo 3



Scene Photo 4



Scene Photo 5

Appendix 4: Photographs of Site-survey on 7 November 2017



Site-survey Photo 1 – Incident Site and the approximate POI marked X.



Site-survey Photo 2 – D2's point of view at the stop line

Honda

Weight 1370 kg + ^{male} 70 kg + ^{2 yr old} 5 kg

Departure angle θ_{AV} $\approx 15^\circ$ (estimated)

$\approx 70^\circ$

Distance from POI to POR

$= 3.9 \text{ m}$

Swift

Weight 1100 kg + ^{male} 70 kg + ^{female} 50 kg

Length 3765 mm

Width 1690 mm

Approach angle 90°

Departure angle 10° (estimated)

Distance from POI to POR

$= 6.46 \text{ m}$

Distance from stop line
to POI = 49.58 m

Distance from junction end to
POI = 2.5 m

Honda Driver could have mistaken
vehicle stopped at right lane

UNIT 1: THE HISTORY OF THE UNITED STATES

1. The early years of the United States

2. The American Revolution

3. The early years of the United States

4. The American Revolution

5. The early years of the United States

6. The American Revolution

7. The early years of the United States

8. The American Revolution

9. The early years of the United States

10. The American Revolution

11. The early years of the United States

12. The American Revolution

13. The early years of the United States

14. The American Revolution

15. The early years of the United States

16. The American Revolution

17. The early years of the United States

18. The American Revolution

19. The early years of the United States

20. The American Revolution

21. The early years of the United States

22. The American Revolution

23. The early years of the United States

24. The American Revolution

25. The early years of the United States

26. The American Revolution

27. The early years of the United States

28. The American Revolution

29. The early years of the United States

30. The American Revolution

Post impact speed of right. S_1'

$$\begin{aligned} S_1' &= \sqrt{V_x^2 - 2ad} \\ &= \sqrt{0^2 - (2 \times -6.867 \times 6.46)} \\ &= \sqrt{88.721} \\ &= 9.419 \text{ m/s} \\ &= 33.9 \text{ km/h} \end{aligned}$$

①

$$\begin{aligned} S_1' &= \sqrt{V_x^2 - 2ad} \\ &= \sqrt{0^2 - (2 \times -6.867 \times 3.9)} \\ &= \sqrt{106.687} \\ &= \sqrt{53.8} \quad \sqrt{53.562} \\ &= 7.31 \text{ m/s} \\ &= 26.31 \text{ km/h} \end{aligned}$$

Post impact speed of handle

$$\begin{aligned} S_2' &= \sqrt{V_x^2 - 2ad} \\ &= \sqrt{0^2 - (2 \times -6.867 \times 3.9)} \\ &= \sqrt{53.562} \\ &= 7.31 \text{ m/s} \\ &= 26.31 \text{ km/h} \end{aligned}$$

Pre-impact speed of hands

(2)

$$S_2 = W_1 S_1' \sin \theta_1 + W_2 S_2' \sin \theta_2$$

$$W_2 \sin \theta_2$$

$$= (1220 \times 33.9 \times \sin 10^\circ) + (1445 \times 26.31 \times \sin 70^\circ)$$

$$1445 \times \sin 90^\circ$$

$$= (1220 \times \overset{33.9}{\cancel{33.9}} \times 0.173) + (1445 \times 26.31 \times 0.939)$$

$$1445 \times 1$$

$$7154.934$$

$$= \cancel{715.493} + 35698.85$$

$$1445$$

$$= \frac{42853.784}{1445}$$

$$1445$$

$$= 29.65 \text{ kmph.}$$

Speed of Swg.

(3)

$$S_1 = \frac{(W_1 S_1 \cos \theta_1 + W_2 S_2' \cos \theta_2) - (W_2 S_2 \cos \theta_2)}{W_1}$$

$$= \frac{(1220 \times 33.9 \times \cos 10^\circ + 1445 \times 26.31 \times \cos 70^\circ) - (1445 \times 29.65 \times \cos 90^\circ)}{1220}$$

$$= \frac{(1220 \times 33.9 \times 0.984 + 1445 \times 26.31 \times 0.342) - (1445 \times 29.65 \times 0)}{1220}$$

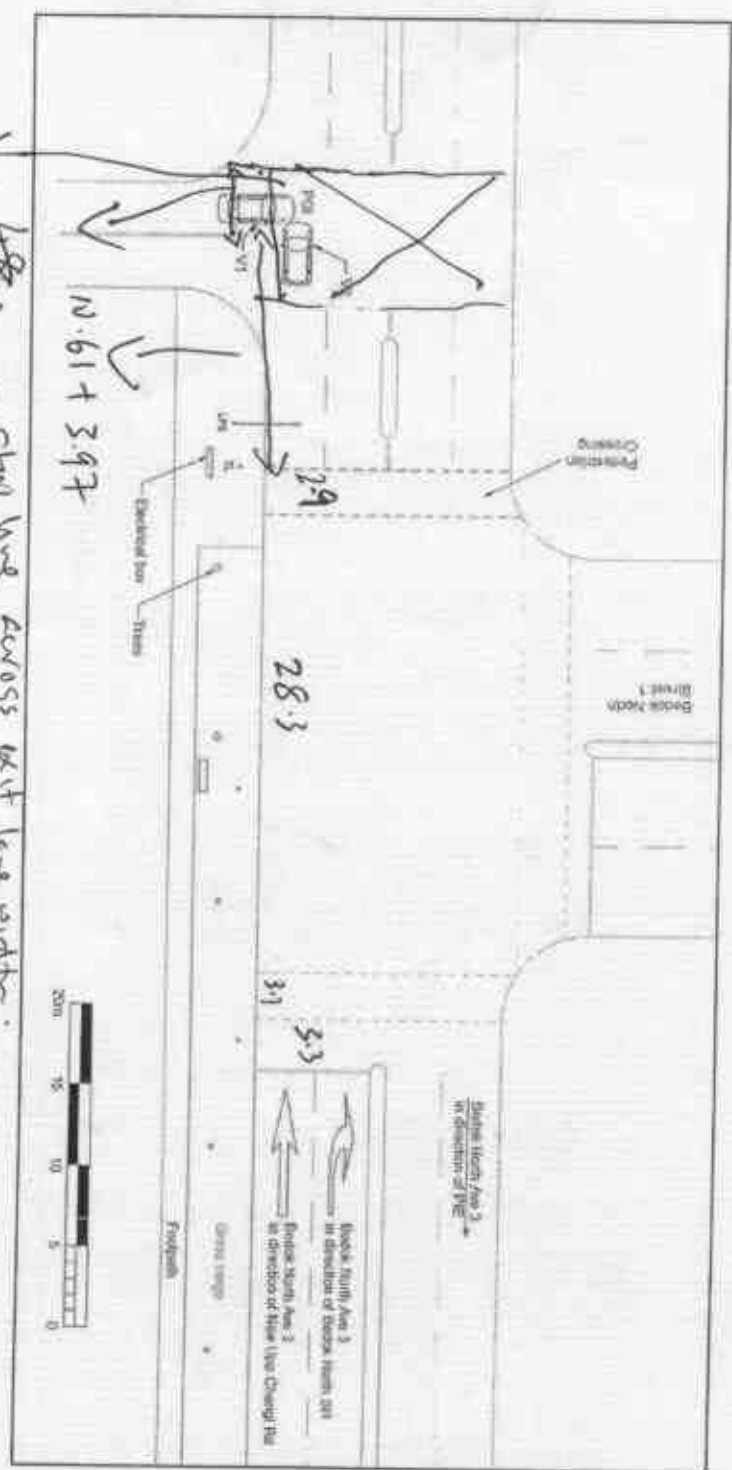
$$= \frac{40696.27 + 13062.13 - 0}{1220}$$

$$= \frac{53698.40}{1220}$$

$$= 44 \text{ kmph.}$$

51 kmph
13% lower than KAR ~~51 kmph~~

Sketch Plan 2: Approximate POI



4.4m
2.7m
2.7m
20.5 to yard but end.

4.4m → still have across exit lane width.

1.2m away white line to kerb box.

handle parallel 3.9m

2.7m
parallel
corner of
3.7m
= 6.4m