BLACKSPOT (BS)2015 EFFICACY REPORT

EFFECTIVE MONITORING OF TREATMENTS

 Accident statistics (3 years) before repair will be compared with the accident statistics (3 years) after repair.

• Accident reduction target exceeds 70%.

EFFECTIVE MONITORING OF TREATMENTS-CONT'

Formula :

% recurring act. =

No. of act. affter X 100% No. of act. before

% Efficacy of treatment = 100% - % recurring act. > 70%

Important!!! If found in the efficacy of % of treatment in a location less than 70%, the treatment in the location should be reviewed.

JUSTIFICATION FOR MONITORING EFFECTIVENESS

- In line with the Strategic Plan of KKR 2016
 2020.
- Strategic Pillar 2.1 :

 Improve monitoring and maintenance control of infrastructure.

BLACKSPOT IMPLEMENTATION ACHIEVEMENT(2015)

MONITORING YEAR	Act. Nos	Act. Nos AFTER treatment			Total Act.	%	% Effective	
<u>2015</u>	BEFORE treatment	2016	2017	2018	Nos. AFTER treatme nt	Recurring Act.	Treatment Year 2015	
The total number of accidents for 30 BS are treated.	145	6	9	5	20	14%	100% - 14% = 86% (>70%) <u>ACHIEVED</u>	

Note: However, 4 locations of the 30 locations treated for the year 2015 have % effective treatment less < 70%

70% FOR YEAR 2015

No.		Act. Nos BEFORE treatment	Act. Nos AFTER treatment			Total Act. Nos.	%	% Effective
	Location		2016	2017	2018	AFTER treatme nt	Recurrin g Act.	Treatment
1.	FT076, KM92, Jalan Kuala Kangsar – Gerik – Pengkalan Hulu, Hulu Perak, Perak	4	0	1	1	2	50	50
2.	FT076, KM101, Jalan Gerik – Pengkalan Hulu, Hulu Perak, Perak	3	1	0	1	2	67	33
3.	FT001, KM118, Jalan Ipoh – Butterworth, Kerian, Perak	5	1	2	0	3	60	40
4.	FT001, KM26, Jalan Besar Valdor – Sg. Bakap, SPS, P. Pinang	4	0	1	1	2	50	50

SITE VISIT FOR LOCATIONS THAT DO NOT REACH > 70% OF THE EFFICACY OF TREATMENT

- Site visit was held on 11 13 September 2019 ago at all 4 locations treated in 2015 which did not reach the > 70% efficacy of treatment.
- Site visit was attended by engineers from JKR, CSFJ and District.

FT076, KM92, JALAN KUALA KANGSAR – GERIK – PENGKALAN HULU, HULU PERAK, PERAK

• There are **2 accidents** that occur after treatment.

Date of Act.	Time of Act.	Direction of Vehicle Travel	Types of vehicles involved	Accident Severity	Type of Crash
13.5.2017	9.00 am Good weather	Jalan Gerik – Kuala Kangsar	Lorry & motorcycle	Minor injuries	Side violations
19.10.2018	12.20 pm Rain Weather	Jalan Gerik – Kuala Kangsar	Car & motorcycle	Major injuries	Side violations



COMPLETED 2015

RECENT 2019





- The road marking has faded.
- Road <u>surface has cracked</u>.
- <u>The thickness of the Yellow Transverse Bar (YTB) has been lacking</u> (specification: 3 mm – 7 mm)
- YTB is far more than 100 meters to the intersection/accident area.





- The location of the accident is at a junction.
- Crossing exit from the junction to the main line FT076 is more than 7 metres.
- Continuous high traffic speed and volume.

FT076, KM101, JALAN GERIK – PENGKALAN HULU, HULU PERAK, PERAK

• There were <u>2 accidents</u> that occurred after the treatment which was in the years 2016 and 2018.

 Blackspot locations are in the bends area (selekoh) and interchange access into the village houses.









• The "AWAS KAWASAN KEMALANGAN" sign has been lost/stolen.

• High speed vehicle <u>after the</u> <u>bends</u> and enters the adjacent lane.

• Night time <u>Video</u>.

FT001, KM118, JALAN IPOH – BUTTERWORTH, KERIAN, PERAK

• There are <u>3 accidents</u> that occur after treatment.

Date of Act.	Time of Act.	Direction of Vehicle Travel	Types of vehicles involved	Accident Severity	Type of Crash
20.12.2016	11.30 am	Jalan Ipoh - Butterworth	Car & motorcycle	Cedera parah	Head on collision
14.01.2017	11.30 pm	Jalan Ipoh - Butterworth	Car & motorcycle	Cedera parah	Head on collision
03.04.2017	9.50 am	Jalan Ipoh - Butterworth	Lorry & car	Death	others

Source :POL 27



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KURANGKAN

LAJ





The location of accidents is on the <u>straight lane.</u>

 The scope of treatment is painting the road line, Road Stud, delineator posts & Safety Signs/warning board.



- Volume traffic is high and straight path causes fast speeding vehicles.
- Accident type is head on collision when overtaking vehicles.

FT001, KM26, JALAN BESAR VALDOR – SG. BAKAP, SPS, P. PINANG

• There are <u>2 accidents</u> that occur after treatment.

• The location of accidents is on the **straight lane.**







High traffic volume.

- A frequent accident occurred due to the vehicle making a U turn.
- In addition, accidents are also caused by vehicles crossing lanes to enter the opposite exit.







DESIGN ISSUES

1. Treatment must be carried out within the radius of the accident prone area.



Yellow Tranverse Bar (YTB) is located at a distance that allow the vehicle to speed up again before arriving at the accident prone area.





DESIGN ISSUES

- 2. Re-study the treatment at the exit/entry that is too wide for the vehicle/motorcyclist to cross out.
- 3. Consider construction of a roundabout at a wide junction to address the problem other than the high-cost signal installation.

DESIGN ISSUES

4. Treatment on straight routes must be reviewed and specialized to avoid recurring accidents.

4. Treatment before approaching the bends need to be studied to slow down the vehicle before approaching the accident area.

COMMUNICATION ISSUES

1. The proposed treatment must satisfy all design needs which includes communication and recommendations from JKR District as well as the needs of the local residents.

2. To avoid missing scope and misscomunication on design treatment proposed by the experts.

RESULTS OF OBSERVATION COMMUNICATION ISSUES

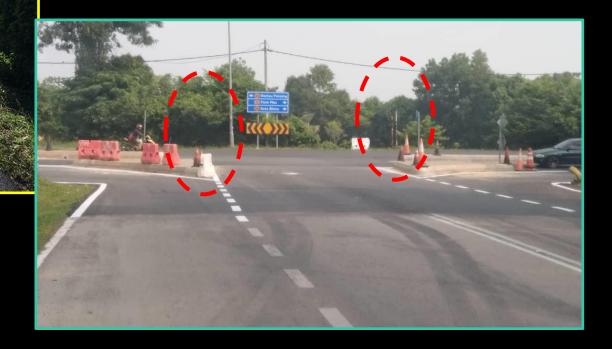
3. The proposed treatment by experts shall be fully implemented on the site. The scope of treatment omitted will cause risk resulting poor performance of the treatment.

Example: There are locations that need to install guardrail/signal lights but was ommited due to cost constraints.

4. CSFJ will ensure the required provision for the overall treatment is obtained based on justification for the effectiveness of such treatments.

Guardrail installation is needed for safety (steep area)

A signal light installation is needed. The absence of a cue light will result in dangerous driving and complaints.



Missing scope: Street lights installation is highly needed to alert danger driving at bend when the area is filled in fog.

QUALITY ISSUES

- 1. The road marked is constructed not in compliance with PWD's specification (for newly completed locations).
- 2. YTB thickness less than < 3 mm (Specification 5 7 mm)
- 3. Thin road lines. (Specification 3 5 mm)





QUALITY ISSUES

2. Loose sign boards/not planted properly.









QUALITY ISSUES

3. Defective guardrail . We highly recommend using <u>Safety Roller Barrier</u> for black spot's location to save lives.



QUALITY ISSUES

- 4. Site Discovery: The Crusher Run is polluted and does not follow the specified specifications.
- 5. Definition in specifications JKR/SPJ/2008-S4

4.1.2.2 Materials

Sub-base shall be a natural or artificial mixture of locally available materials such as sand, gravel, crushed aggregate etc, free from organic matter, clay lumps and other deleterious materials. It shall be well graded and conform to Table 4.1.2 and the following quality requirements;

MAINTENANCE ISSUES RESULTS OF OBSERVATION

- 1. <u>Routine and periodic work is</u> not efficiently implemented.
- 2. Cracking on the road surface,
- 3. Unwashed signboards,
- 4. The road shoulder is not maintained.
- 5. Damaged guardrail left unrepaired.
- 6. Faded road panting.
- 7. Unmaintained drain.
- 8. <u>The Routine Inspector is not</u> <u>performing the duty diligently.</u>



MAINTENANCE ISSUE

2. PWD Daerah has to <u>prioritize</u> the application of allocations <u>to maintain road furniture</u> and to <u>improve the road surface</u> at <u>treated blackspot</u> <u>locations to ensure safety.</u> Surat Al-Baqarah Ayat 195

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وَأَنْفِقُوا فِي سَبِيلِ اللَّهِ وَلَا تُلْقُوا بِأَيْدِيكُرْ إِلَى التَّهْلُكَةِ ن وَأَحْسِنُوا ن إِنَّ اللَّهَ يُحِبُّ الْمُحْسِنِينَ

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Dan belanjakanlah (harta bendamu) di jalan Allah, dan janganlah kamu menjatuhkan dirimu sendiri ke dalam kebinasaan, dan berbuat baiklah, karena sesungguhnya Allah menyukai orang-orang yang berbuat baik.

"And spend it (your treasures) in the way of Allah, and do not knock yourself into destruction, and do well, for verily Allah likes those who do good."

QUOTE : "The World Is A Dangerous Place Not Because Of People Doing Evil Deeds But Because Many Of Us Prefer To See Nothing And Do Nothing"

THANK YOU.....