

MRSE 2573 INTEGRATED OCCUPATIONAL, SAFETY AND HEALTH MANAGEMENT

GROUP CASE STUDY

-TUNNEL CONSTRUCTION TRAGEDY -



TEAM MEMBERS:

1.	TAN ENG HIN	MRS181046
2.	LIM SOON HUAT	MRS181009
3.	CHONG HOR MEN	MRS181054
4.	IZZA HANNA HALILI	MRS181015
5.	JENNIFER PRIYA ANANTHAM	MRS181010
6.	MOHD HAPIZIE CHE DERAMAN	MRS181018
7.	MOHAMAD HIDAYAT GHAZALI	MRS181021





PUDU UNDERPASS PROJECT

- Project Begin : 2009
- Project Complete : End of 2013
- Project Cost : RM129 million
- By Kuala Lumpur City Hall (DBKL)
- Consultant : Khairi Consult Sdn. Bhd.
- Contractor:
 - Pertama Makmur Sdn. Bhd.
 - AS Masa Sdn. Bhd
- 800m for 3 underpasses



PUDU UNDERPASS PROJECT

Purpose :

- Upgrading of Jalan Galloway, Jalan Hang Tuah, Jalan Changkat Thambi Dollah
- Construction of two footbridge in Jalan Pudu and Jalan Hang Tuah.

Underpass 1

Vehicles from Jalan Bukit Bintang to Jalan Pudu

Underpass 2

Motorists from Jalan Pudu (Pudu Sentral) heading towards Cheras.

Underpass 3

Motorists travelling from Jalan Pudu to Jalan Changkat Thambi Dollah.





PUDU UNDERPASS PROJECT – UNDERGROUND TUNNEL COLLAPSE

- Tragedy Year : July 2014
- Sunk twice 10.38am and 12.20pm
- We predict that the road will collapse further along the tunnel line.
- The collapse has damaged Syabas water pipes.
- It is learnt that two idle excavators were in the tunnel when the incident occurred but no casualties have been reported.



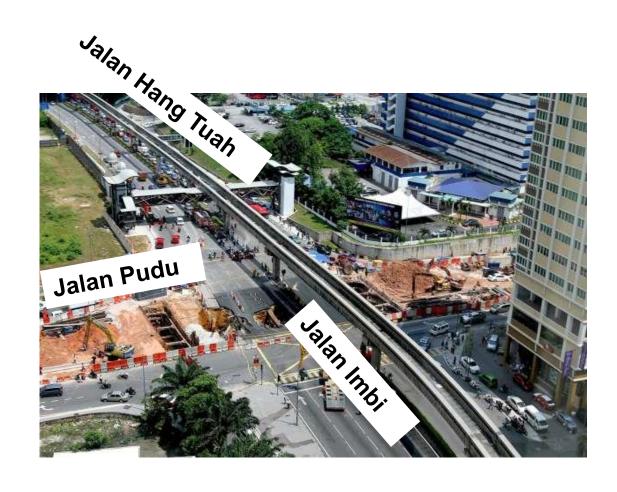






IMPLICATION OF THE TRAGEDY

- Traffic jam at Jalan Pudu and Hang Tuah
- Roads closed for 2 weeks
- Monorail Service between Imbi and Hang Tuah station halted
- Damage SYABAS water pipe



TEMPORARY ACTION TAKEN AFTER THE TRAGEDY

- Divert Road
 - > Traffic from Jalan hang Tuah to Jalan Imbi diverted to Jalan Pudu
 - Traffic from Pudu raya diverted to Jalan Imbi
- Monorail Extend Shuttle Service
 - KL Sentral to Hang Tuah.
 - Imbi to Titiwangsa
 - KL Sentral to Titiwangsa
- SYABAS agree to shut the water valve connecting to the pipes involved.



HAZARD IDENTIFICATION RISK ASSESSMENT & RISK CONTROL (HIRARC)

HAZARD	RISK	CAUSE	ACTION
Ground, Monorail Pillar & Station	Further soil collapse	Weak Foundation	 Check on strengths of pillars before continue monorail service Assess ground condition to ensure sinkhole no impact other areas Fill up sink hole with sand to strengthen the ground
Electrical Cables	Electrocution	Exposed under ground cable	 Use high-tension nylon belt and crane to craddle the cables
Water Pipe	Water Pipe Burst	Soil Cave In	 Seal off water pipes Pump out water from the cave in sites





