



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

IOCL Coimbatore Terminal to JRD Petro Services

Objective of the JRM Report

This JRM report is designed to ensure compliance with the Central Motor Vehicle Rules, 1989 (CMVR), AIS 140 standards, and the Road Transport Safety Policy (RTSP). It provides a comprehensive risk assessment for the transportation of hazardous materials along specified routes. By integrating these legal frameworks, the report offers a broad strategy for identifying and mitigating route-specific risks.

Regulatory Compliance

The report complies with the Central Motor Vehicles (Eleventh Amendment) Rules, 2022, mandating safe transportation practices for N2 and N3 category vehicles carrying hazardous materials. These rules require detailed route assessments, especially regarding road conditions, speed limits, and risk areas, to ensure safety compliance.

Risk Management Strategy

This report categorizes transportation routes into high-risk and medium-risk areas, with a focus on factors such as sharp turns, accident-prone regions, and elevation changes. The goal is to provide actionable

recommendations to minimize these risks, including speed regulations, driver warnings for hazardous zones, and the option of alternate routes.

Compliance with the Road Transport Safety Policy (RTSP)

The report integrates RTSP provisions, including mandatory driving hours, rest periods, and nighttime driving restrictions. It ensures that drivers follow official guidelines, such as taking prescribed rest breaks and avoiding dangerous road conditions like poor visibility, heavy crowds, or high-traffic areas during peak hours.

Emergency Preparedness and Response

The report highlights the significance of predetermined emergency stops for refueling, rest, and overnight stays. It includes protocols for safe responses to road hazards, alternative routes, and rerouting processes if roads are closed or severe weather arises. This aligns with the RTSP emphasis on driver safety and rapid emergency response.

Environmental Considerations

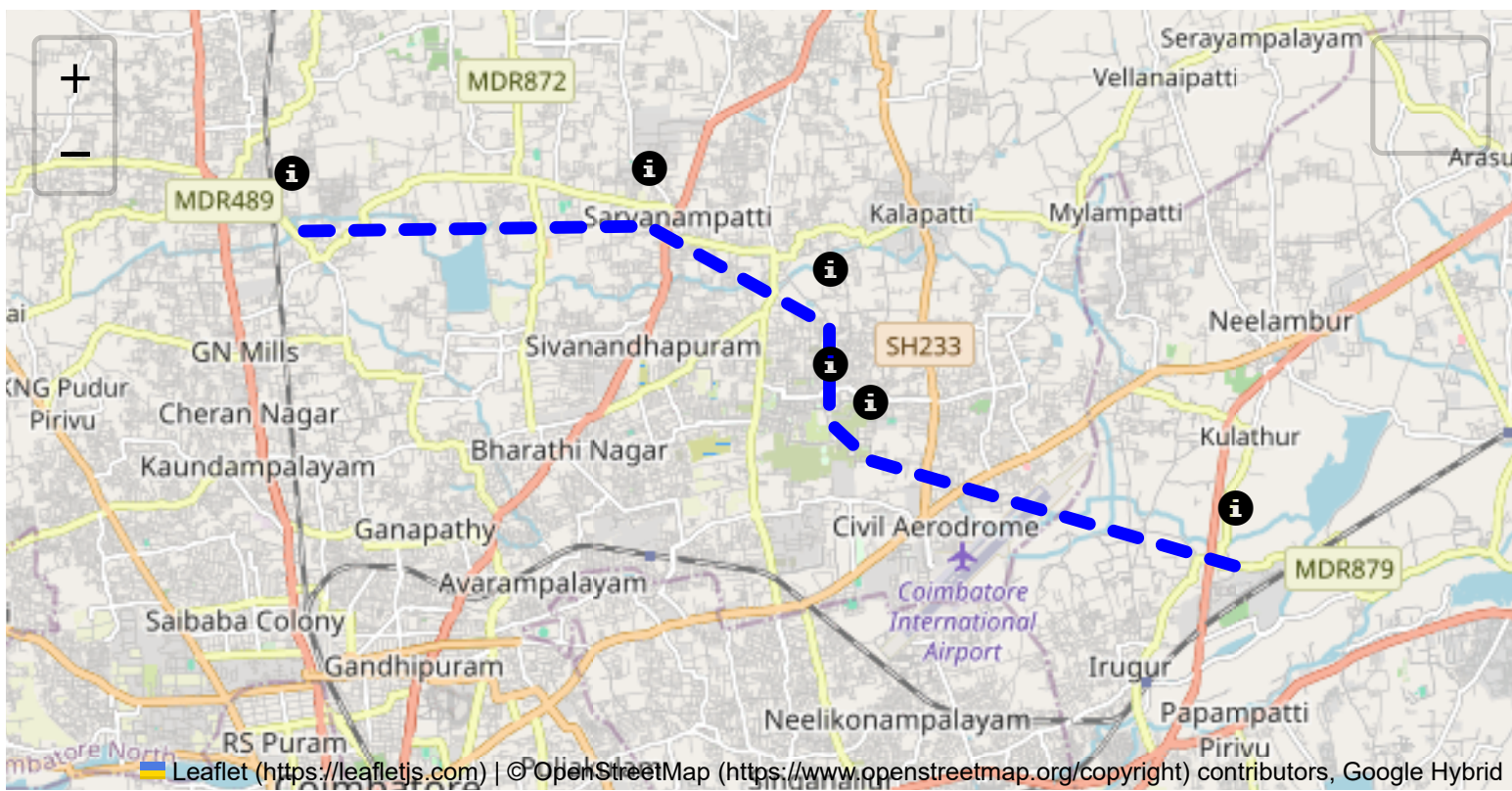
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental impacts during transport.

Journey Risk Mitigation

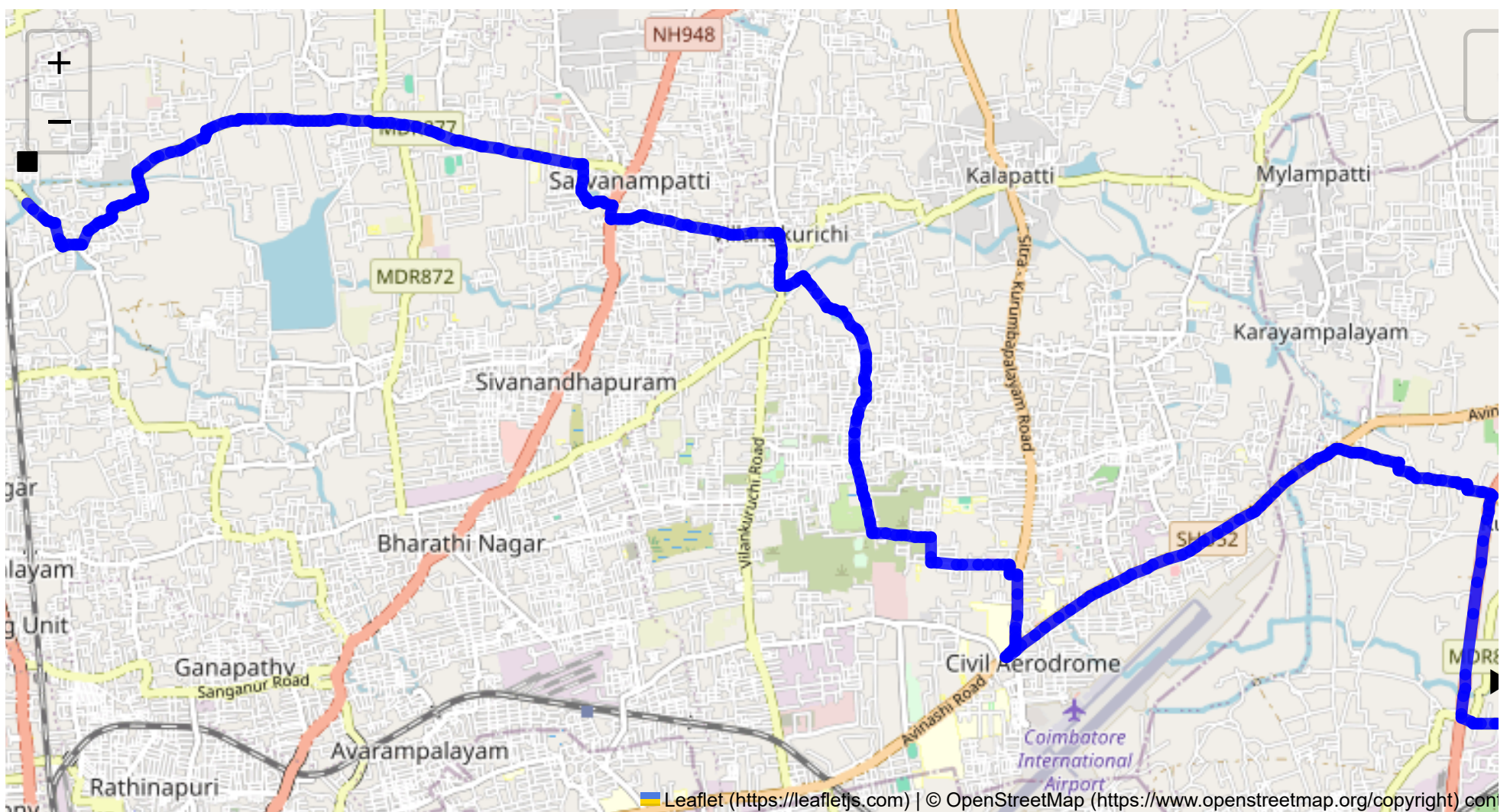
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety norms.

Compliance with Government Directives

This report fully adheres to governmental directives regarding hazardous material transportation, implementing mandatory speed limits, nighttime driving restrictions, and comprehensive driver briefings and real-time alerts about route-related risks.



Route Summary:
Total Distance: 22.62 km
Estimated Duration: 0.8 hours
Adjusted Duration (Heavy Vehicle): 1.0 hours
Start: (11.0315, 77.0797)
End: (11.076195, 76.951012)



Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route from Athappagoundenpudur to Ashokapuram via Tex Park Road, Sesi West Extension, Vilankurichi Road, and Annai Vellankanni Nagar covers approximately 22.62 kilometers and primarily traverses through urban and suburban areas of Coimbatore. Key landmarks along this route include the IT

corridor in Saravanampatti and residential neighborhoods in Cheran ma Nagar and Ashokapuram. The route involves moving through a mix of main roads and smaller residential streets.

2. Typical Weather Conditions

Coimbatore generally experiences a tropical wet and dry climate. The region's primary weather-related hazards include heavy monsoon rains, particularly from June to September, leading to potential flooding and reduced visibility. During summer months (March to May), high temperatures and occasional thunderstorms may occur.

3. Traffic Patterns

Traffic congestion is common during peak hours, typically from 8:00-10:00 AM and 5:00-8:00 PM. Key congestion-prone areas include:

- Saravanampatti, due to its status as an IT hub.
- Vilankurichi Road, known for traffic bottlenecks.

4. Road Quality and Infrastructure

Overall, the route has a mix of well-maintained highways and narrower streets in residential areas. Road quality can vary, with some sections having potholes or uneven surfaces, especially post-monsoon. Infrastructure improvements are ongoing in some areas, which may lead to temporary detours or construction-related delays.

5. Alternative Routes for Emergencies

In case of roadblocks or emergencies, consider taking the NH 544 for faster bypass access around Coimbatore. Another potential detour includes using the Saravanampatti-Kalapatti Road towards Avinashi Road, which can help avoid congested areas.

6. Local Regulations for Hazardous Material Transport

Transporting hazardous materials requires adherence to local regulations, including obtaining necessary permits and following specific route restrictions. Be aware of designated times for heavy vehicle movement to avoid penalties.

7. Historical Incidents

There have been occasional reports of minor accidents involving heavy vehicles on Vilankurichi Road. However, no major incidents involving hazardous materials have been documented recently in this area.

8. Environmental Considerations

Sensitive areas include residential zones, schools, and IT parks along the route. Extra caution is advised when navigating through residential streets to minimize environmental disturbances.

9. Communication Coverage

The route generally has good mobile network coverage with 4G connectivity. However, potential dead zones may exist in certain pockets of dense urban infrastructure, especially in the underpasses or heavily built-up areas.

10. Emergency Response Times

- In urban sections, emergency response (ambulance, police) is typically swift, ranging from 10-15 minutes.
- In suburban and less-developed stretches, response times can be slightly longer, around 20-25 minutes.

11. Overall Summary of Risk Assessment

The route is moderately challenging due to varying road conditions and traffic congestion. Weather impacts, particularly during the monsoon, may affect navigation. Proper planning and adherence to regulations are vital for safe passage. Communication coverage is reliable, ensuring contactability throughout most of the route. Emergency services are generally accessible but planning for delays in specific zones is advisable.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit
0	U-Turn	High	11.037353, 77.0367219	10 KM/Hr
1	Turn	High	11.03211, 77.07640	15 KM/Hr
2	Turn	High	11.05129, 77.07919	15 KM/Hr
3	Turn	Medium	11.05181, 77.07696	30 KM/Hr
4	Turn	High	11.05222, 77.07690	15 KM/Hr
5	Turn	Medium	11.05343, 77.07106	30 KM/Hr
6	Turn	Medium	11.05351, 77.07099	30 KM/Hr
7	Turn	Medium	11.05411, 77.07097	30 KM/Hr
8	Turn	High	11.05529, 77.06566	15 KM/Hr
9	Blind Spot	Blind Spot	11.03735, 77.03672	10 KM/Hr
10	Turn	High	11.03746, 77.03666	15 KM/Hr
11	Turn	High	11.03805, 77.03742	15 KM/Hr
12	Turn	High	11.04447, 77.03772	15 KM/Hr
13	Blind Spot	Blind Spot	11.04453, 77.03695	10 KM/Hr

	Risk Type	Risk Level	Coordinates	Speed Limit
14	Turn	High	11.04524, 77.03704	15 KM/Hr
15	Turn	Medium	11.04528, 77.03698	30 KM/Hr
16	Blind Spot	Blind Spot	11.04545, 77.03007	10 KM/Hr
17	Turn	High	11.04761, 77.03020	15 KM/Hr
18	Turn	High	11.04809, 77.02495	15 KM/Hr
19	Turn	Medium	11.06009, 77.02451	30 KM/Hr
20	Turn	Medium	11.06531, 77.02379	30 KM/Hr
21	Turn	High	11.07004, 77.01891	15 KM/Hr
22	Turn	Medium	11.06924, 77.01742	30 KM/Hr
23	Turn	High	11.06931, 77.01691	15 KM/Hr
24	Turn	Medium	11.07094, 77.01694	30 KM/Hr
25	Turn	Medium	11.07106, 77.01710	30 KM/Hr
26	Turn	High	11.07112, 77.01715	15 KM/Hr
27	Turn	Medium	11.07372, 77.01675	30 KM/Hr
28	Turn	High	11.07496, 77.00208	15 KM/Hr
29	Turn	High	11.07614, 77.00230	15 KM/Hr
30	Turn	Medium	11.07635, 77.00046	30 KM/Hr
31	Turn	Medium	11.07741, 76.99964	30 KM/Hr
32	Blind Spot	Blind Spot	11.07970, 76.99974	10 KM/Hr
33	Turn	Medium	11.07903, 76.96085	30 KM/Hr
34	Turn	Medium	11.07704, 76.96129	30 KM/Hr
35	Turn	Medium	11.07588, 76.95866	30 KM/Hr
36	Turn	Medium	11.07278, 76.95585	30 KM/Hr
37	Turn	Medium	11.07260, 76.95425	30 KM/Hr
38	Turn	Medium	11.07262, 76.95420	30 KM/Hr

Emergency Locations

	type	name	coordinates	speed_limit	risk_level
0	hospital	KGM, Chinniampalayam	11.0570076, 77.067239	30 km/h	Medium

	type	name	coordinates	speed_limit	risk_level
1	hospital	Chinniampalayam Venkateshwara Hospital	11.0545152, 77.0652106	30 km/h	Medium
3	hospital	R V Hospital, Coimbatore	11.0546916, 77.0639178	30 km/h	Medium
5	hospital	Kovai Medical Centre,Coimbatore	11.0426077, 77.0406074	30 km/h	Medium
6	hospital	Lotus Eye Care Hospital Ltd, Coimbatore	11.0406116, 77.0401856	30 km/h	Medium
9	hospital	Park Hospital, Coimbatore	11.0419411, 77.0379131	30 km/h	Medium
17	police	Saravanampatti Police Station	11.0747296, 77.0027116	30 km/h	Medium
18	police	B9 Saravanampatty Police Station	11.0747167, 77.0027098	30 km/h	Medium
20	clinic	Sri Loga Clinic	11.072535, 77.0017429	30 km/h	Medium
23	hospital	KG Eye Hospital	11.0825506, 76.997422	30 km/h	Medium

Crowded Spots

	type	name	coordinates	speed_limit	risk_level
2	school	Government school	11.0554435, 77.0653927	30 km/h	Medium
4	school	Sri Vivekananda Matriculation Higher Secondary School	11.054695, 77.0572126	30 km/h	Medium
7	school	Park Global School	11.0424178, 77.038601	30 km/h	Medium
8	traffic_signals	SITRA Junction	11.0380037, 77.0374143	30 km/h	Medium
10	college	South India Textile Research Association - SITRA	11.0396478, 77.0355493	30 km/h	Medium
11	college	PSG College of Arts and Science	11.0328471, 77.034909	30 km/h	Medium
12	school	Chandrakanthi Public School	11.0449645, 77.0289566	30 km/h	Medium

	type	name	coordinates	speed_limit	risk_level
13	school	Chandra Matriculation Higher Secondary School	11.0441609, 77.0289438	30 km/h	Medium
14	university	Suguna Group of Institutions	11.0506228, 77.0323105	30 km/h	Medium
15	university	Suguna College of Engg & Polytechnic	11.0501473, 77.0322958	30 km/h	Medium
16	school	Suguna PIP School	11.0506349, 77.0314152	30 km/h	Medium
19	school	Saravanampatty Elementary School	11.0763477, 77.0017133	30 km/h	Medium
21	school	Ruby Matriculation School	11.0824185, 77.0017383	30 km/h	Medium
22	school	Vivekam CBSE School	11.0791972, 76.9954015	30 km/h	Medium
24	college	KGISL IIM	11.0834337, 76.99715	30 km/h	Medium
25	school	KGISL Institute of Information Management	11.0834393, 76.997046	30 km/h	Medium
26	college	Sankara Institute of Technology	11.085373, 76.9854093	30 km/h	Medium
27	school	Maharishi Vidhya Mandir	11.0814298, 76.9813641	30 km/h	Medium

Route Photos of Risky Spots



Risk Type: U-Turn

Risk Level: High

Speed Limit: 10 KM/Hr

Coordinates: 11.037353, 77.0367219



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.03211, 77.07640



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.05129, 77.07919



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.05181, 77.07696



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.05222, 77.07690



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.05343, 77.07106



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.05351, 77.07099



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.05411, 77.07097



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.05529, 77.06566



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Coordinates: 11.03735, 77.03672



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.03746, 77.03666



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.03805, 77.03742



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.04447, 77.03772



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Coordinates: 11.04453, 77.03695



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.04524, 77.03704



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.04528, 77.03698



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Coordinates: 11.04545, 77.03007



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.04761, 77.03020



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.04809, 77.02495



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.06009, 77.02451



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.06531, 77.02379



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.07372, 77.01675



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.07496, 77.00208



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.07614, 77.00230



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07635, 77.00046



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07741, 76.99964



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Coordinates: 11.07970, 76.99974



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.07903, 76.96085



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07588, 76.95866



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07278, 76.95585



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07260, 76.95425



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.07262, 76.95420
