

Traffic Management System in Construction Project

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Abstract:

Heavy vehicle & construction equipment movement in the project site covers a major activity related to road traffic management. Those vehicles are used for the purposes of either man or material movement. Hazard associated with road traffic increases as the project work expands. Road accident in the project sites have occurred due to lack of proper road infrastructure, pedestrian work way, traffic control system, safety training to drivers and over speeding.

Heavy vehicle and construction equipment by its design have large blind spot area exits. Those blind spot are not visible to the drivers or operator. Personnel interference with the vehicle in the blind spot area are high in nature and chances of accident is more. To avoid such accidents control measures such as 360-degree camera, sensors fitting into the vehicle or flagman deployed to guide the vehicle for safety for safe movement.

Pedestrian walkway also plays a vital role in road traffic management at construction site. Lack of pedestrian walkway in construction site increase in personal interference with vehicle. By segregating man and vehicle movement at project site the hazard is minimized.

Driver's road safety training and their competency also play another important subject in road traffic management. Driving following all road safety rules purely depends on the drivers. Unless the safety information's are being communicated to the drivers it became an unknown for them about the plant safety point of view. Outside drivers while coming inside the project for short period of time, they don't know the traffic safety rules. Resulting in the violations such as rush driving, parking in unauthorized area, following shortcuts etc. contributes towards the accident happening. Incompetent drivers create very risk situations because of the lack of experience and knowledge. Regular road safety training and job training will increase awareness in reducing traffic incidents. Drivers working hours and their rest periods also plays one of the important factors in controlling road traffic safety management. Due to work pressure the construction equipment operator and the drivers not getting proper eight hours rest time in a day. Continuous working and driving the vehicle increase fatigue among the drivers, which has a direct reflection at job. Proper welfare facilities such a rest room, washroom, drinking water etc. needed for creating a healthy safety culture at project site.

Availability of flagman at strategic locations in the project roads plays a crucial role in function of smooth traffic system. Flagman must be competent and smart enough to act quickly to any situations arises. Regular training to the flagman and practical demonstration to the traffic safety situations will increase their knowledge, which resulting in increase the safety at site.

Safe access by means of good road conditions and compacted ground conditions contribute a strong traffic safety system. Loose soil and improper access increase the chances of vehicle toppling. Proper illumination and road traffic safety signboards and curve roads at different locations will reduce the traffic hazard. The cameras installations in the roads for monitoring vehicle over speeding help a lot in maintaining discipline at road.

This paper emphasis on the important aspects of road traffic safety and accident prevention mechanism. The efforts have been made to identify the cause of road accident and recommendations to bring improvement in traffic management system to reduce accident and save life.

Keywords:

Road infrastructure, pedestrian walkway, flagman, overs speeding, traffic control system, safety orientation, vehicle toppling, etc.