Locations for Future Intercity Passenger Rail Maintenance or Layover Facilities in CA

This research project is interested in the decision-making criteria for locating such facilities and how those criteria impact the performance of the rail system.

WHAT IS THE NEED?

California Department of Transportation (Caltrans) is responsible for providing maintenance and servicing passenger railcars and locomotives that are in use for intrastate and intercity travel.

Maintenance and layover facilities are vital in operating and maintaining passenger rail systems and having robust design and citing criteria will help build the optimal facilities to meet California’s current and future needs.

Since these facilities must mechanically maintain a large variety of rolling stock equipment, their designs and operations are critical to the proper maintenance of the new department-owned locomotives and railcars. There exists little research on where in the United States (US) these new facilities were recently built, and what design criteria were considered to accommodate the new generation of rolling stock equipment. This effort addresses that void.

WHAT ARE WE DOING?

The Office of Rail Equipment of the Division of Rail and Mass Transportation (DRMT) is interested in knowing the types of the most recently-built passenger rail maintenance and layover facilities in the US. These facilities are vital in maintaining a fleet of railcars, locomotives, and other rail equipment that make the rail transportation network function.

The research team will investigate where and when the most recent intercity passenger rail maintenance and layover facilities were built in the US. They will also study the new engineering and
construction methods that were used to build the new facilities.

**WHAT IS OUR GOAL?**

The goal is to identify project parameters and study other facility characteristics. The criteria on selecting the locations for future intercity passenger rail maintenance or layover facilities.

This would be done by documenting the recently constructed facilities and the contributors to their engineering and construction success and failure. After documentation, discuss how these factors may work in the California and recommend a new design criteria in the final report.

**WHAT IS THE BENEFIT?**

The research findings will complement and support the goals of Caltrans’ Rail Fleet Management Plan and the California State Rail Plan. A desired research product should investigate the new methodologies, such as engineering and design criteria, the construction types of the passenger rail maintenance, and layover facilities recently built throughout the US.

Furthermore, it should list or stratify the new engineering and design criteria, and the new methods used to construct these new facilities. The new methodologies could then be used to design all future maintenance and/or layover facility in California.

**WHAT IS THE PROGRESS TO DATE?**

The team identified a list of candidate locations which could serve as potential points of reference for future maintenance and layover facility in California. These candidate locations are determined based on the ranking of seven objective functions from ‘extremely important’ to ‘important’.