

Light Rail Car Low Floor Extensions

ASME/IEEE Railway Lunch

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DCM, Inc.

Level Boarding

- High Level platforms
- Wayside lifts
- Car carried lifts
- Low Level platforms with High Blocks
- Low Floor Cars

Cities with High Blocks

- Denver
- Sacramento
- Baltimore
- Salt Lake City



DART at Clarendon Station, Dallas, TX, 17 July 1996

by Joe Pike



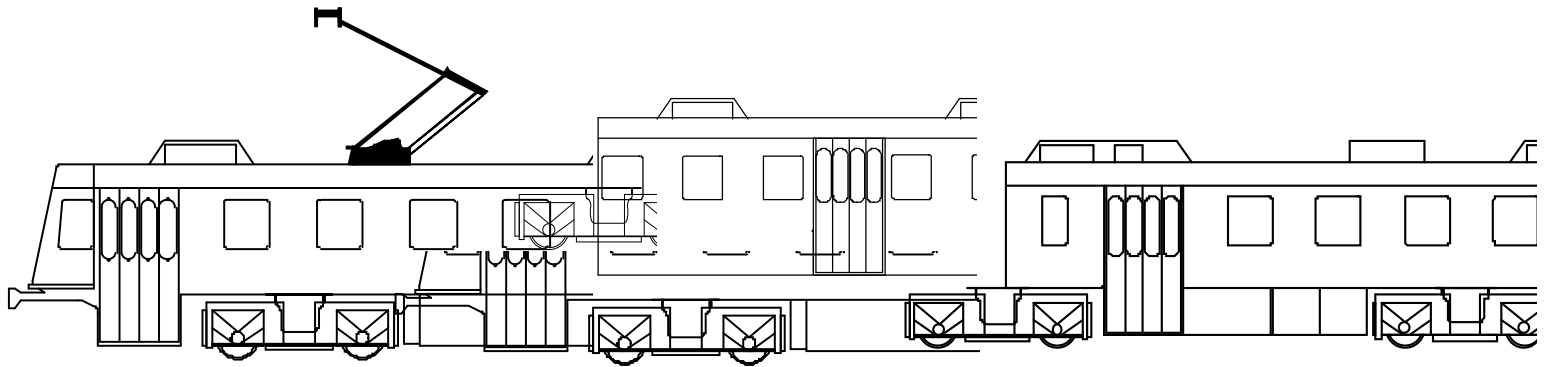
High Floor Cars & High Blocks

- Floors 40 inches above top of rail.
- Three steps in stair wells.
- “High block” located at departure end of platform.
- Operator must leave operating position and deploy bridge at front door.
- Three minutes to accommodate wheelchair passenger.

Why add a Low Floor Extension?

- Eliminate high blocks.
- Reduce operator action.
- Reduce dwell times.
- Extend life of existing fleet.
- Increase passenger capacity.
- Obtain low floor benefits at lower cost.

How to Build an LFE



Is it feasible?

- Propulsion/braking system capacity.
- Car clearance envelope.
- Crashworthiness of front end and new body.
- Rerailing procedure.
- Shop limitations.
- HVAC/Auxiliary electric/Door controls.
- Energy consumption.

Possible Configurations

- Single axle steerable bogies 100% low floor extension
- Two axle small wheel bogies 90-100% low floor extension
- Two axle standard bogies 50-70% low floor extension

Cottbus Verkehr

- 36 Tatra streetcars (26 converted to low floor)
- 65 buses all low floor
- 30.4 km track in four lines
- 170 km Southeast of Berlin

