

STATIC ANALYSIS ELEVATORING REPORT

OtisPlan+™

Lodha Thane Project

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Static Analysis - Traditional Single deck up peak

Input Assumptions

- Residential Apartment
- 4 elevator group
- No. of Floors Served Above Lobby 39
- Group Population is 434
- Door Open Time is 2.5 S.
- Door Close Time is 2.7 S.
- Express Zone height is 0.00 m
- Average Floor Height is 3.15 m

Elevator Configuration:

Elevator	# 1	# 2	# 3	# 4
Speed (m/s)	2.5	2.5	2.5	2.5
Duty (kg)	630	630	630	630
Max Passengers	8	8	8	8

Results

- Interval = 46.1 S
- Round Trip Time = 184.6 S
- Handling Capacity = 12.1 %

Evaluation

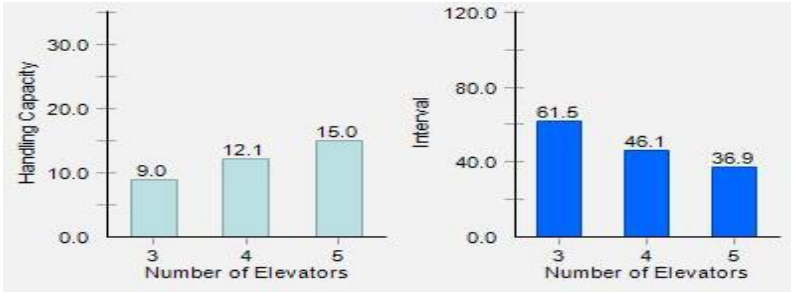
Classification for Residential Apartment

- Refer to Two Way Analysis to Evaluate Residential Buildings
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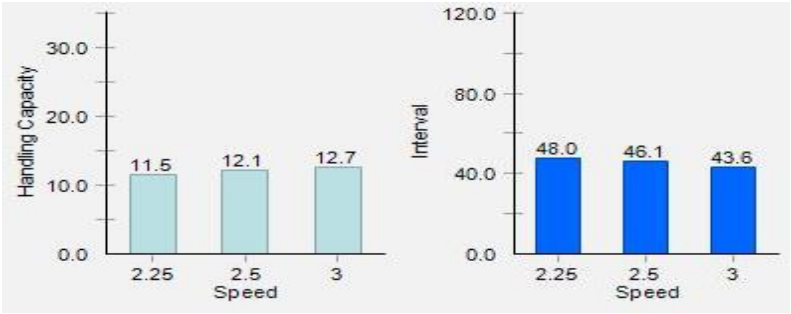
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Sensitivity Analysis - Traditional Single deck up peak

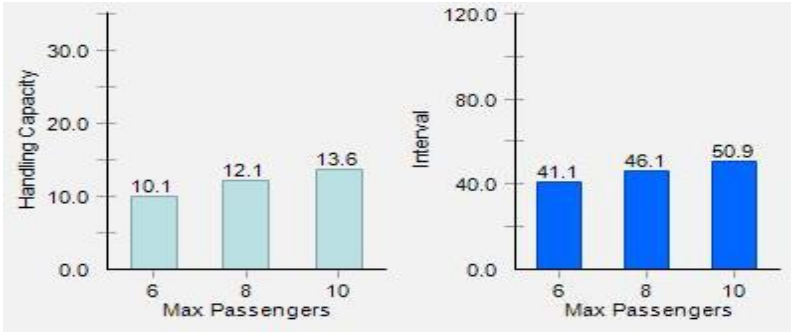
Sensitivity Analysis is performed by reviewing the handling capacity and interval values that would result if a key assumption is varied.



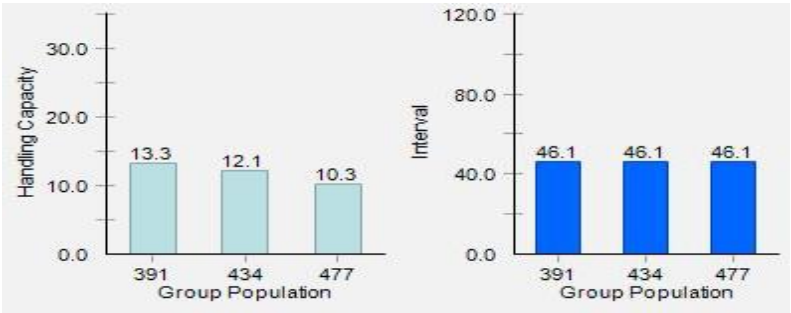
Vary the Assumed Number of Elevators by +1 and -1



Vary the Assumed Speed by +0.5 and -0.25



Vary the Assumed Passengers in Elevator by +2 and -2



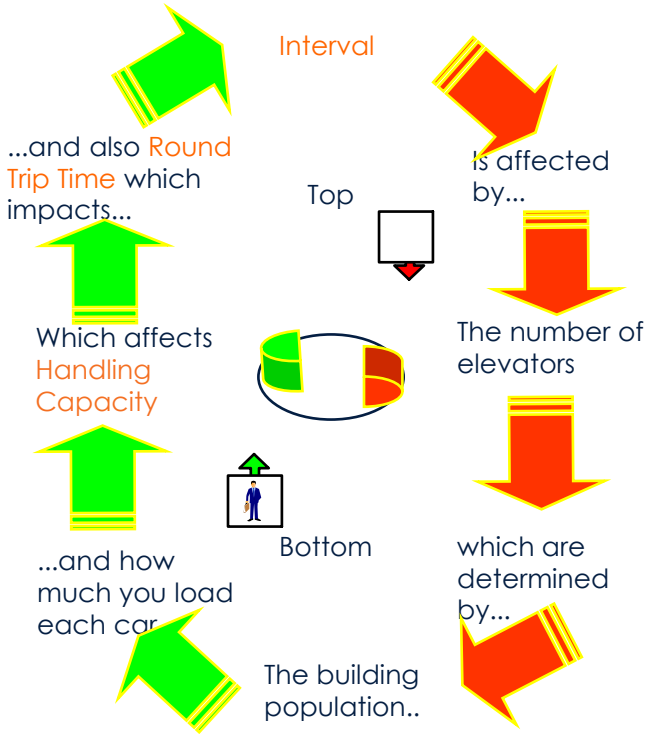
Vary the Assumed Group Population by +10% and -10%

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Performance Metric Definitions

Static Analysis Terms:

- Static Analysis: A method of analyzing elevator performance based on traditional industry standardized equations that rely on probability, assume uniform traffic and do not take into account proprietary dispatching techniques.
- Round Trip Time: The amount of time for an elevator to board passengers at the lobby, serve all demand and return to lobby.
- Interval: The amount of time elapsing between successive elevator returns to the lobby.
- Handling Capacity: The number of passengers that can be carried by an elevator group in a 5 minute period, expressed as a percentage of the group population for up, down or interfloor traffic. For proper elevatoring, the required handling capacity is assumed to be equal to the arrival rate for the peak 5 minutes design period



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