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CIRCULAR TO PROFESSIONAL INSTITUTIONS

Who should know

Building owners, Developers, Architects, Engineers, Transport/ Traffic Consultants and Builders.

PUBLICATION OF LTA'S QUICK GUIDE SERIES FOR DEVELOPMENT RELATED PROPOSALS – 'DESIGNING SAFE DROP-OFF POINTS IN DEVELOPMENTS'

1. LTA has released a publication of our 'Quick Guide Series for Development Related Proposals', titled 'Designing Safe Drop-Off Points in Developments'. In this publication, we present the critical design elements for drop-off points, such as its layout, position, and arrangement. A publication of this guide is available at LTA's corporate website, under [Industry & Innovations > Industry Matters > Development & Construction Resources > Guidelines](#).
2. The 'Quick Guide Series for Development Related Proposals' was launched in April 2020, and 7 publications have been made till date. The series focusses on street works, vehicle parking and rail & road structural protection proposals. The guides complement the existing resource publications and facilitate a deeper understanding of specific issues content on pertinent issues in the built environment in an engaging manner.

Feedback

3. As we strive to continually feature engaging and informative content for our future publications, we are currently conducting a survey on industry's receptivity to our Quick Guide Series. We would like to hear your feedback on the areas done right, as well as any areas for improvement. The feedback received will help us to improve the quality of the guides.

4. Please take some time to complete an online survey form, which can be accessed at the following weblink: <https://forms.gle/VuiVnTcne7HaJ7mQ9>. Alternatively, you may wish to scan the following QR code to access the form directly:



5. We hope that the guides are useful to you. We would appreciate it if you could convey the contents of this circular to relevant members of your respective organisations. If you have any queries, or suggestions on what you would like to see in future guides, please do not hesitate to reach out to us at lta-dbc_registry@lta.gov.sg.
6. Thank you

Koh Min Ee

Director

Development & Building Control



QUICK GUIDE SERIES FOR DEVELOPMENT PROPOSALS

DESIGNING SAFE DROP-OFF POINTS IN DEVELOPMENTS

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OBJECTIVES

Within a development proposal, the design, position and arrangement of the drop-off points are critical. They ensure that sufficient space and sight distance are catered for vehicles to manoeuvre safely in and out of the development.

This quick guide aims to help Architects, Engineers and Builders to identify the critical design elements for the drop-off points of developments, better appreciate the principles behind these requirements, and avoid making common mistakes.

LOCATION OF ACCESS TO DROP OFF POINTS

Generally, vehicular drop off points shall be suitably located to ensure smooth flow of traffic in roads. In determining the location of a drop off point, the following requirements shall be complied with:

- Access to drop off points are at least 30m away from bus stops, pedestrian overhead bridges, at-grade crossing facilities, road junctions & road bends
- Access to drop off points are maintained as a Left-In, Left-Out (LILO) arrangement if it is located along major arterial road.



Figure 1: Access of a Residential Drop-Off point located at least 30m from a road junction

- Direct access from expressways, slip roads, acceleration or deceleration lanes & bus / taxi bays are not allowed.
- For developments where a rear service road is available or safeguarded, access shall be taken from the rear service road.

Do refer to Quick Guide 3 - 'Access Arrangements for Residential Developments' for further reference details



CRITICAL DIMENSION OF DROP OFF POINTS

Given that drop-off points facilitate the passage and (temporary) stoppage of passenger and goods delivery vehicles. They function akin to development car parks. The dimensions of drop off points naturally take reference from the prevailing dimensions of vehicle parking lots and driveways.



Typical vehicle lot size for parallel parking shall be adopted for drop-off points

**Passenger car : 2.4m by 5.4m
Motorcycle : 1.0m by 2.5m**

Turning Radius: Typical dimension are -

- i Passenger Car : 3m to 5m**
- ii. Van : 3m- 5m**
- iii. Heavy Vehicles : 6m -8m**



Driveway width/No of lanes

- i. Driveway width - min 6m.**
- ii. Min 2 lanes to be provided to allow vehicle to pass by**



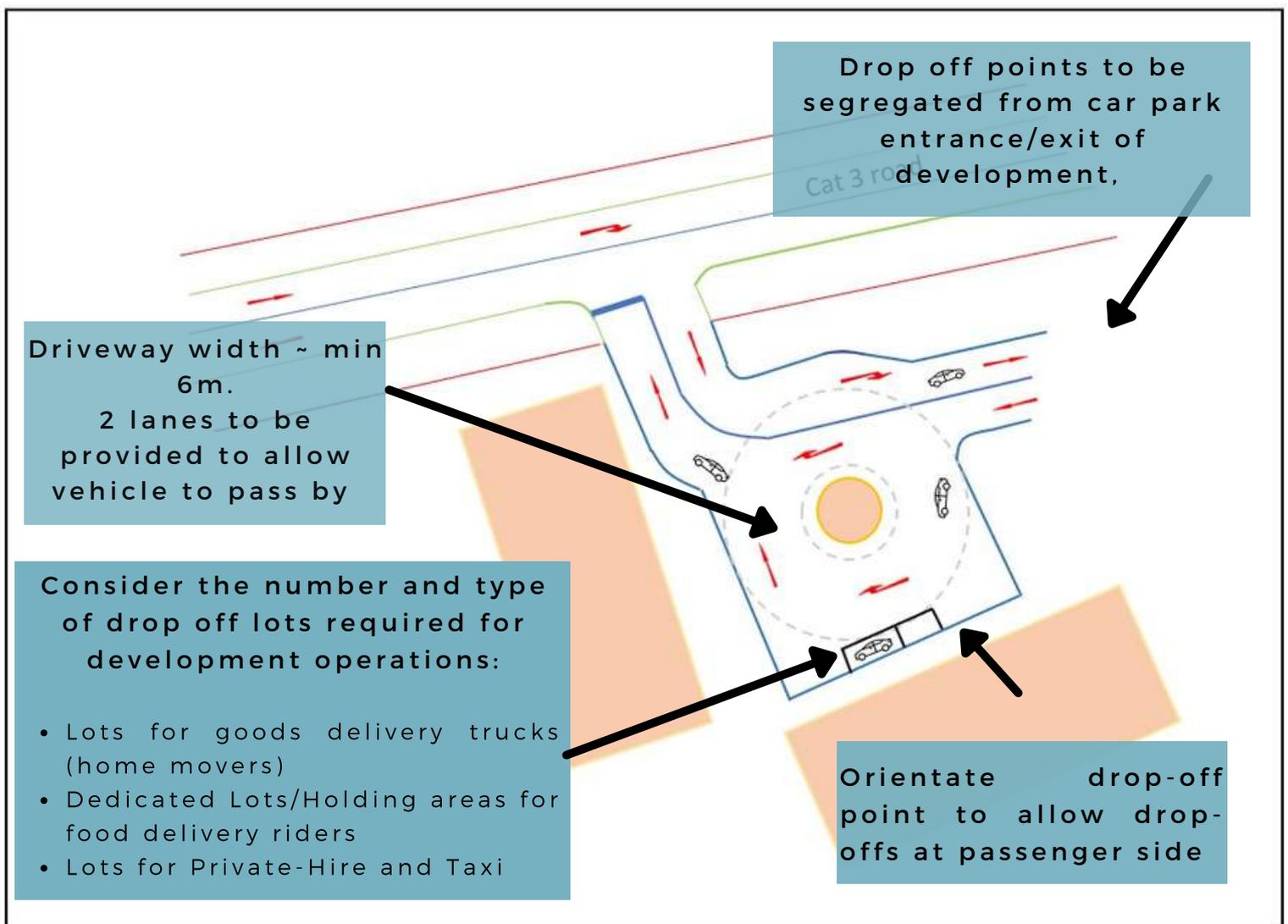
Refer to LTA's 2019 Code of Practice for Vehicle Parking Provide for development proposals for further reference details

ARRANGEMENT FOR DEVELOPMENT DROP-OFF POINTS

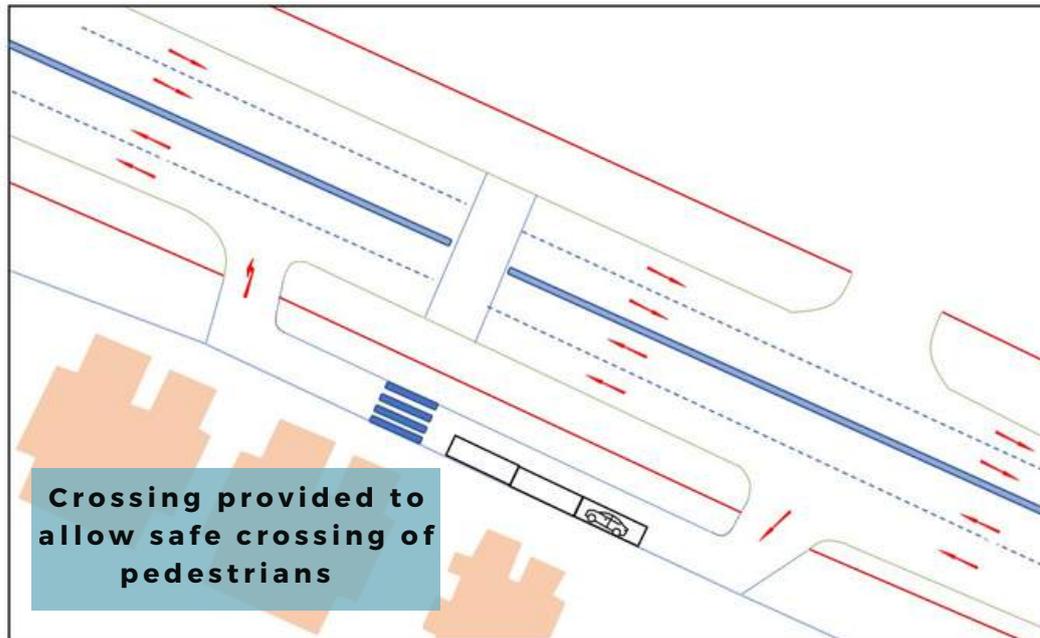
Where the access points are shared, the following illustrates some best practises for the implementation of drop off points.

Discuss with developer on the need to accommodate additional queue length (and to marshal traffic) during events, i.e. :

- Openings of the retail mall - goods delivery, etc
- Weekend long queue into the mall
- First weeks of residents moving into condominium

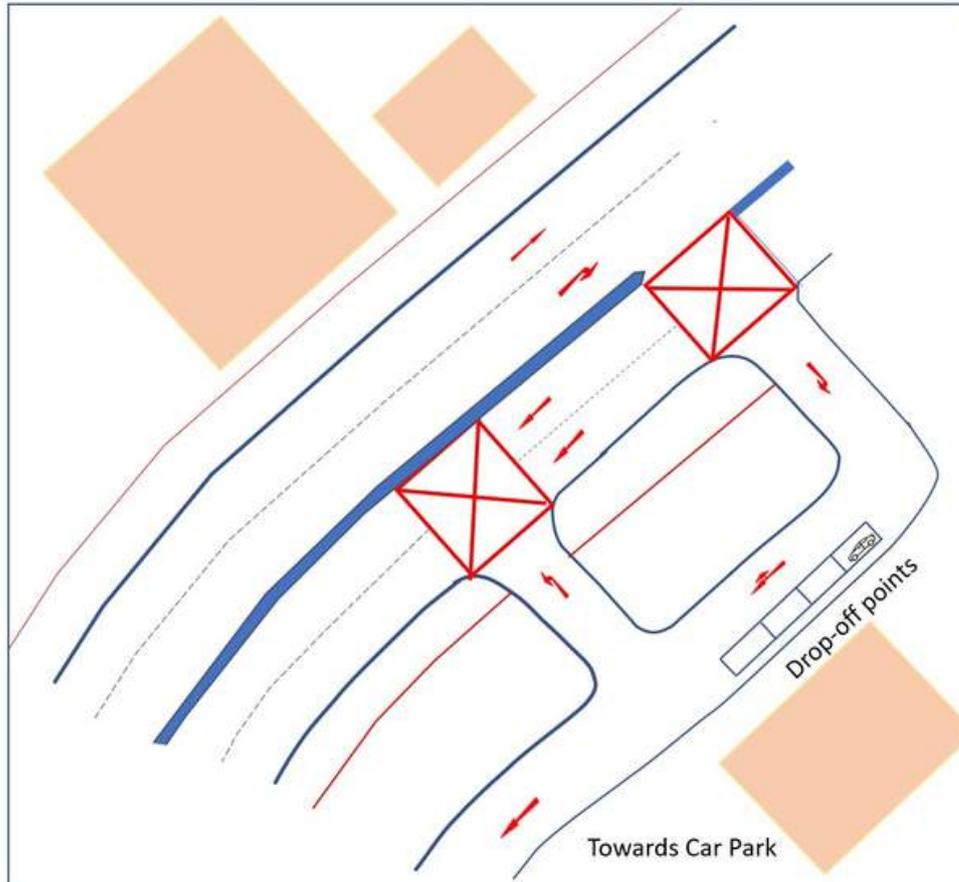


EXAMPLES OF DROP OFF ARRANGEMENT FOR DEVELOPMENTS



DEDICATED DROP-OFF

The drop-off point is located at the frontage of the development, typically within commercial buildings where the car park access is located at another frontage.



SHARED DROP-OFF / CAR PARK ACCESS

The drop-off point shares the access with the car park entrance.

ABOUT THIS SERIES

With effect from April 2020, LTA has published a series of quick guides to broaden and consolidate understanding of LTA's building plan regulations and processes. The guides feature in-depth explanation of the principles behind specific requirements, coupled with examples of good practices & common mistakes.

Topics for each guide are carefully curated based on LTA's observations of prevailing trends. All publications are made available at LTA's corporate website, under Industry & Innovations > Industry Matters > Development & Construction resources.

INCLUSIVE STREETS: DESIGNING TACTILE INDICATORS FOR SAFE TRAVEL

Objectives of tactile indicators

The use of tactile indicators on pavements is a key measure to assist visually impaired persons in navigating streets. Tactile indicators are designed to provide tactile feedback to visually impaired persons when they are on a tactile indicator. This helps them to identify the location of the tactile indicator and to navigate safely. Tactile indicators are also used to indicate the location of the tactile indicator to visually impaired persons who are using a white cane or a guide dog.

Positioning tactile indicators correctly

Follow the steps to correctly position tactile indicators:

1. Identify the location of the tactile indicator.
2. Mark the location of the tactile indicator on the pavement.
3. Install the tactile indicator.

Figure 1: Single Strategy / Road
Figure 2: Street Strategy / Road

INCLUSIVE STREETS: DESIGNING COVERED LINKWAYS FOR SAFE TRAVEL

1.0 Objectives of Covered Linkways

The use of covered linkways on pavements is a key measure to assist visually impaired persons in navigating streets. Covered linkways are designed to provide tactile feedback to visually impaired persons when they are on a covered linkway. This helps them to identify the location of the covered linkway and to navigate safely.

2.0 Low Covered Linkway

2.1 Typical Plan Presentation for Low Covered Linkway

2.2 Common Mistakes in Low Covered Linkways

Figure 1: Typical Plan Presentation for Low Covered Linkway Plan
Figure 2: Common Mistakes in Low Covered Linkways

Access Arrangements for Residential Developments

Objectives

The purpose of this guide is to provide a series of quick guides to broaden and consolidate understanding of LTA's building plan regulations and processes. The guides feature in-depth explanation of the principles behind specific requirements, coupled with examples of good practices & common mistakes.

About this series

This series of guides aims to help architects, engineers and planners to identify the correct design approach for the various types of residential developments. These approaches are provided based on the requirements and best practice guidelines.

1. Location of Access Points

1. Access points shall be located at least 1.0m away from any road kerb or the edge of the development boundary.
2. Access points shall be located at least 1.0m away from any road kerb or the edge of the development boundary.
3. Access points shall be located at least 1.0m away from any road kerb or the edge of the development boundary.
4. Access points shall be located at least 1.0m away from any road kerb or the edge of the development boundary.
5. Access points shall be located at least 1.0m away from any road kerb or the edge of the development boundary.

Figure 1: Typical Plan Presentation for Low Covered Linkway Plan
Figure 2: Common Mistakes in Low Covered Linkways

Managing Motorists Disrupted by Road Widening/Improvements

Preface

As part of development requirements, proposed civil works sometimes affect existing utility services located beneath the public zones. To ensure the safety and comfort of road users, motorists should be managed outside of the carriageway where possible.

INTRODUCTION

Under the standard road typology (refer to Figure 2), side-table space is safeguarded for use for parking and to house the relevant services and address. As the available space is limited, it is important for services to fit under the road carriageway.

LTA allows the use of carriageway space within the public streets to house services and utilities. However, the implemented services need to comply with technical specifications, and must not affect the proper design of road elements.

Figure 1: Design of a typical road layout for a covered 2-way road

QUICK GUIDE SERIES FOR DEVELOPMENT PROPOSALS

INCLUSIVE DEVELOPMENTS: DESIGNING DELIVERY SPACES WITHIN MIXED DEVELOPMENTS

1.0 Objectives of Residential Delivery Spaces in Mixed Developments

There is an increasing trend of mixed or integrated developments incorporating a residential component. Such developments are also known as mixed developments. These developments are designed to provide a mix of residential and commercial uses within the same development.

2.0 Design Criteria for Residential Delivery Spaces in Mixed Developments

The key design criteria for delivery spaces (aka SUV bays) for residential component is as set out in the table below.

LTA Design Criteria for Residential Delivery Spaces	Design to Meet
1. Minimum clearance from kerb: 1.0m	2.1 Kerb Clearance
2. Minimum clearance from adjacent road: 1.0m	2.2 Minimum Clearance
3. Minimum clearance from adjacent road: 1.0m	2.3 Minimum Clearance
4. Minimum clearance from adjacent road: 1.0m	2.4 Minimum Clearance
5. Minimum clearance from adjacent road: 1.0m	2.5 Minimum Clearance

LAND TRANSPORT AUTHORITY

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QUICK GUIDE SERIES FOR DEVELOPMENT PROPOSALS

Issue 6

Design Requirements for RTS-Integrated Developments

Brought to you by Infrastructure Protection Division, Development & Building Control Sub-Group in collaboration with:

1. PREFACE

This quick guide clarifies LTA's design requirements for developments integrated with Rapid Transit Systems (RTS) proposed developments integrated with existing RTS. It is intended to be reviewed and approved by the Authority. It may be used by the developer to provide direct access from the proposed development to the RTS stations.

The case studies presented in this series aim to explain and guide you on the basic design requirements to be incorporated in your proposal:

1. UPL connection at station concourse level via station kerb-cut panels.
2. EPL connection to elevated station.
3. At-grade connection to station entrance via covered linkways.
4. General Mechanical & Electrical (M&E) provision at the interface.

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Access our guides by scanning this QR code and then navigating to the 'Guideline' tab:

