



Recommendations Towards Inclusive Transjakarta Stations

Executive Summary

List of Contents

1	Introduction
2	Issues Summary of Five Sample Bus Stops with Inclusive Logos
3	Collaboration Process
4	The Survey Focuses in Lebak Bulus
5	Inclusive Wayfinding Prototype Trial
6	Trial Feedback
7	Recommendations Towards Inclusive Transjakarta Stations

Introduction

The DKI Jakarta Governor Decree (Surat Keputusan/SK) No. 31 of 2022 has regulated the standardization of the wayfinding system, including its inclusivity aspect. Since this regulation was issued, standardization has begun to be applied in various arrangements of public transportation stations and pedestrian facilities in visual form. Still, audio and tactile systems have not been implemented. User involvement in design planning needs to be carried out to encourage the comprehensive implementation of inclusive standardization, as stated in the Consensus Towards Disability-Friendly Jakarta Transportation (2020).

Transjakarta, as a public transportation operator with the largest service coverage in DKI Jakarta, has had a number of bus stops branded as inclusive bus stops. However, based on a field survey by ITDP Indonesia in June 2022 of five bus stops with inclusive logos, inclusivity issues were still found in the bus stop infrastructure and access to the bus stops. In addition to the need for stricter inclusive bus stop standardization, one of the initial steps that can be taken is to conduct small-scale trials to develop bus stop design elements by involving user groups.

Seeing the urgency of implementing bus stop standardization, **ITDP Indonesia** is supported by UK PACT in collaboration with **Directorate of Research and Community Engagement (Direktorat Riset dan Pengabdian kepada Masyarakat/DRPM) Universitas Indonesia (UI)** through Internationally Indexed Publication (Publikasi Terindeks Internasional/PUTI) Q2 grant funds, the **Jakarta Transportation Discussion Forum (Forum Diskusi Transportasi Jakarta/FDTJ)**, and experts from the **National Public Accessibility Movement (Gerakan Aksesibilitas Umum Nasional/GAUN)** and the **Indonesian Blind Association (Persatuan Tunanetra Indonesia/Pertuni)** DKI Jakarta to make efforts to increase inclusivity through design trials at the Lebak Bulus bus stop, which is the meeting point for Mass Rapid Transit Jakarta (MRT-J), Transjakarta, Mikrotrans, Tangerang and Parung public transportation, feeder transportation, DAMRI buses, and intercity and inter-provincial (*antarkota antarprovinsi*/AKAP) buses, so that various passenger profiles, including vulnerable groups widely access it.

Issue Summary of Five Sample Bus Stops with Inclusive Logos

Transjakarta is a public transportation operator... with the largest service coverage in DKI Jakarta. It has a number of bus stops branded as inclusive bus stops. However, based on an ITDP Indonesia field survey in June 2022 of five bus stops with inclusive logos, inclusivity issues were still found in the bus stop infrastructure and access to the bus stops.



Bus Stops

200 m Before and After the Bus Stop

- The information of bus stops and direction are not available.
- The map of the area or the position of the bus stops in the area cannot be accessed by people with visual impairments (especially those placed inside the bus stops).
- Guide lines on the sidewalk are not well provided; some of them are broken, blocked, or damaged.
- The guideway from the sidewalk is broken at the entrance ramp to the bus stop and is not found inside the bus stop (except for Pasar Baru and Pemuda Rawamangun Bus Stops).

BRT Stops

- The placement of gates or doors accessible by people with disabilities varies at each bus stop.
- Ticket purchases are only served by ticket machines, and the officers are willing to help.
- The existing audio system is not audible due to ambient traffic noise or the elongated design of the bus stop.
- Visual information directing throughout the entry, queueing, waiting, to boarding the bus from the platform are limited.
- The visual indicators for sliding doors at bus stops need to be added.

Non-BRT Stops

- The information about services and/or routes that stop at this point cannot yet be accessed independently by visually impaired people
- When a bus arrives, there is no information about which route the bus is on, making it difficult to identify.
- The fact that the bus often stops far from the bus stops and the limited information and directions given on the bus doors make it difficult for visually impaired people to access the bus.

Collaboration Process

Since August 2022, ITDP Indonesia and UI have conducted a survey and access assessment process at the public transportation crossing points from/to the AKAP bus pool (A), the Lebak Bulus Transjakarta Bus Stop (B), the Mikrotrans Bus Stop point and low deck buses (C), and the bus entry point (D).

Next, from September to early November 2022, intervention planning and design were carried out involving experts from Pertuni and GAUN to ensure the readability of tactile information, the suitability of braille, and the placement of guide tiles and audio and visual information. The intervention design was then tested on passengers to gather input from daily Lebak Bulus Bus Stop users.



Location

The survey was conducted at four points on Monday, Wednesday, and Sunday in four time segments each week to **map the circulation of intermodal transfers, interview passengers and officers, and shadow passenger travel, in particular vulnerable groups.**



Collaboration Process Timeline



Preliminary Survey

August–September 2022

October 2022

Phase 1 Trial Evaluation Survey



Braille Adaptation with Pertuni

October 2022

November 2022

Adaptation of interventions with experts



Phase 2 Trial

November 2022

14-16 November 2022

Public Trial



Preliminary Survey Findings at Transjakarta BRT Stops

- There are no wayfinding signs or bus stop maps and sufficient information to help navigate the doors and bus destinations at each door.
- The guide tiles are blocked and do not point to the priority door the priority group can access directly.
- The visually impaired group cannot easily identify the card reading area to perform tapping independently.
- Lack of audio and visual information at each platform gate to help identify bus queues based on destination.

Preliminary Survey Findings at Mikrotrans Bus Stop

- The uncertainty of the vehicle's stopping point causes the difficulty of orientation for the visually impaired.
- The unclear queue flow makes it difficult for priority groups to identify services.
- Lack of clear audio and visual information to provide information on arriving fleets.



Intervention Trial

Based on the issues mapped through a preliminary survey, a number of interventions have been tested since October 26, 2022, using a joint evaluation method with experts from GAUN and Pertuni, as well as direct observation and interviews with passengers every Monday, Wednesday, and Sunday



Transjakarta Shelters

Bus Stop



Trial of audio and visual information inside the platform

Tactile gate tapping trial



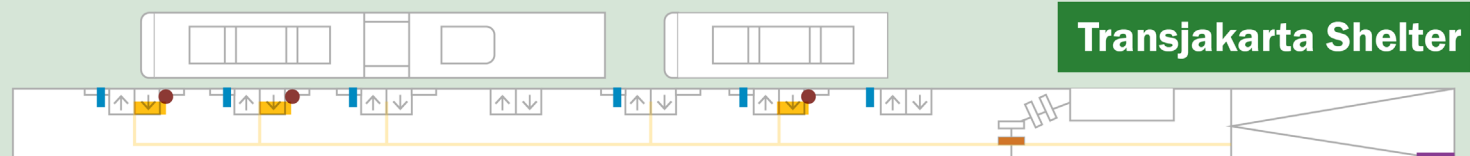
Trial of tactile and braille information on entrance handrails



Mikrotrans and Low Deck queue arrangement trial



Trial of visual and tactile braille information on bus stop information boards



Transjakarta Shelter

● Audio Buttons

■ Additional guiding block tiles

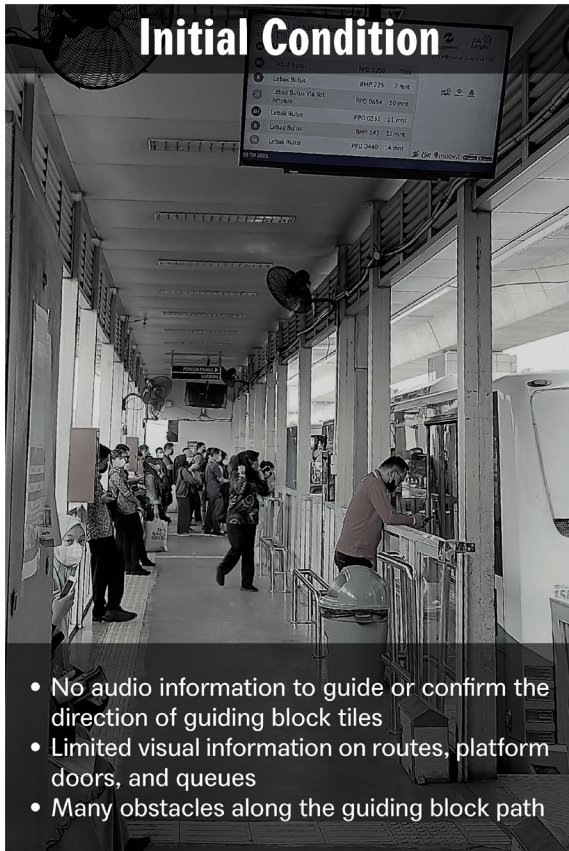
■ Visual information

■ Tactile card tap area

■ Braille direction map on handrails

Intervention Trial

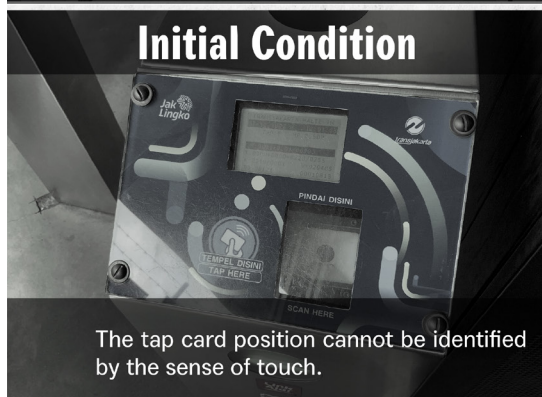
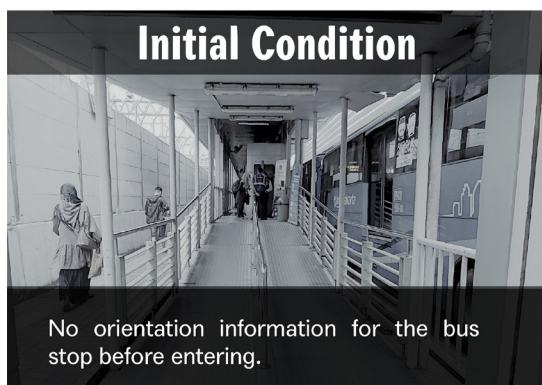
Visual and Audio Information



Bus Stop Adjustments



Tactile Information and Orientation



Trial Feedback



1 Braille Bus Stop Map on the Handrail, Located on the Bus Stop Entry Point

- The installation of Braille maps with bus stop layout information requires adjustments to the installation of guide tiles inside the bus stops so that they are only directed at the doors of the bus fleet with priority seats and/or spaces.
- Uniformity of placement of this feature at each bus stop needs to be socialized.
- As this feature specifically helps visually impaired people and is difficult to identify by non-disabled people, information on the placement of the feature needs to be provided in visual form so that it is known by other prospective passengers and does not disrupt the flow of the queue to enter the bus stop.
- As a consideration, the placement of the feature can be done in another place that is not too crowded or disrupts the queue flow to enter the bus stop. However, the consideration of the placement of this feature can be together with all other information that both disabled and non-disabled people can access.



2 Card Placement Information at the Tapping Gate

- It is needed to add padding for cards with bright colors following the guide tile principle other than the card limiter elbow.
- Socialization of the feature needs to be conveyed because this feature can also help prospective non-passengers disability.



3 Audio Information at Bus Stop Doors and Platforms

- The correction of feature placement needs to be considered so that it is not too close to the platform door and confusing for the queue flow.
- The sound quality or audio recording must be clear, without any noise.
- The delay between pressing and the sound coming out needs to be shortened so as not to confuse the visually impaired and/or make them question whether the device is functioning or not and to minimize delays in boarding the fleet (if the fleet is available).
- In the future, bus arrival information must also be provided in a real-time audio form.
- Socialization of the placement and function of features and how to orientate them for use is needed so that they can be used more by visually impaired people.

Trial Feedback



4 Information Board at the Platform Gate of the Bus Stop

- Following existing standards, the information installed on each door should also include a map of the entire route in addition to the door name and route number served.
- The font size and placement of features need to be considered so that it can still be read by the elderly.



5 Information Boards and Routes at Boarding and Dropping Points in Non-BRT Areas

- The installation of information boards needs to be followed by regularity of buses and microtrans stopping at each point.
- In addition to routes, information regarding vehicle operating hours and specific routes needs to be included.
- Installing information boards is very helpful, but it is important to pay attention to the size of the letters used so that they can be read clearly.
- A marker located high enough to provide information on the availability of the information board is necessary, especially when the waiting room is crowded, and the board is closed for prospective passengers.
- It is possible to consider installing information on both sides so prospective passengers can access it from various directions.
- In the future, audio information needs to be added to the information boards in the non-BRT passenger boarding area because there are still blind people who are not educated, so the availability of Braille cannot help them. This also includes real-time information on vehicle arrivals.
- The placement of the board needs to be adjusted to the queue flow for people with disabilities who need a moment to digest the information provided.
- Socialization of features needs to be carried out so that they can be utilized optimally.



4 Other Input

- In non-BRT waiting areas, attention must be paid to the queue flow and waiting area, including seating.
- Integration of BRT and non-BRT needs to be facilitated so that it is easier to navigate and does not require tap-in and tap-out.
- Certainty of boarding and alighting points (especially microtrans) needs to be prioritized for ease of orientation.
- Addition of integration maps of other public transportation services and orientation of the surrounding area.

Prototype Development and Standardization Recommendations

As a result of the survey process, bus stop profiling, prototyping, and public trials, recommendations for the development and replication of Transjakarta Inclusive Stations for each bus stop must consider and/or go through the following stages.

1. Involve persons with disabilities at every stage.
2. Conduct the bus stop profiling analysis
3. Conduct the consultations in developing features that are adapted to the context of the bus stop.
4. Conduct the socialization and/or public opinion polls.

In addition to recommendations on the development process, the process also refers to recommendations for inclusive bus stop standardization. The feature recommendations provided are an inseparable whole. Inclusive bus stops at least contain all the principles mentioned in this recommendation and may be developed with additional features that can accommodate input from people with disabilities in the future.

The recommendations provided are a compilation of the 2020–2021 evaluations, supplemented with findings and recommendations from the results of the information system trial in 2022. The recommendations were specifically developed and placed for the Lebak Bulus Transjakarta Bus Stop case.

The standard recommendations for inclusive bus stop components are divided into three categories:

1. Transjakarta BRT stops
2. Transjakarta Non-BRT stops
3. Area between Transjakarta BRT and non-BRT stops

Prototype Development and Standardization Recommendations

The things that need to be considered in implementing the design of each bus stop location are as follows.

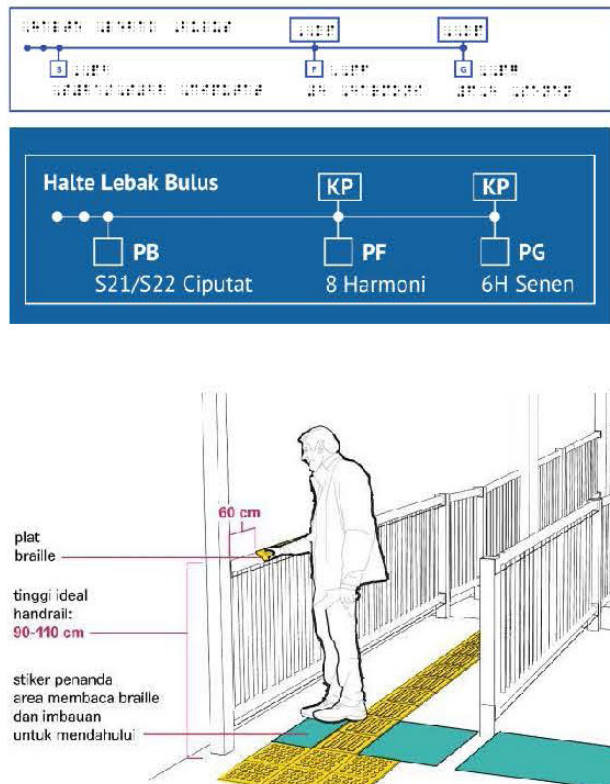
1 Transjakarta BRT Stops

- Access and information to the bus stops (including guide tiles, ramp, and access to the bus stop)
- Information on bus stop identity and routes served by the bus stop
- Information and orientation of the bus stop layout
- Uniformity of tapping gate placement
- Card placement marker feature on tapping gate
- Installation of information boards naming doors and routes served at each door
- Availability of easily accessible and uncrowded waiting rooms disrupting passenger flow
- Furniture placement that does not obstruct accessibility features
- Placement of special queue lines for people with disabilities
- Provision of audio information for service information at each doors and real-time bus arrival information
- Development and integration of services and information, including real-time bus arrival features with the Tijeku and/or Jaklingko applications



Prototype Development and Standardization Recommendations

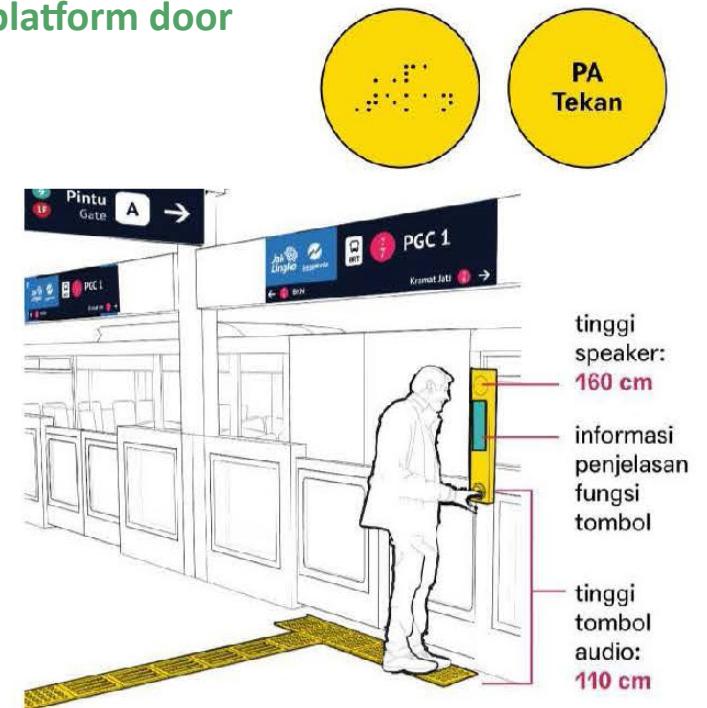
Braille plate information on bus stops



Tactile tapping gate



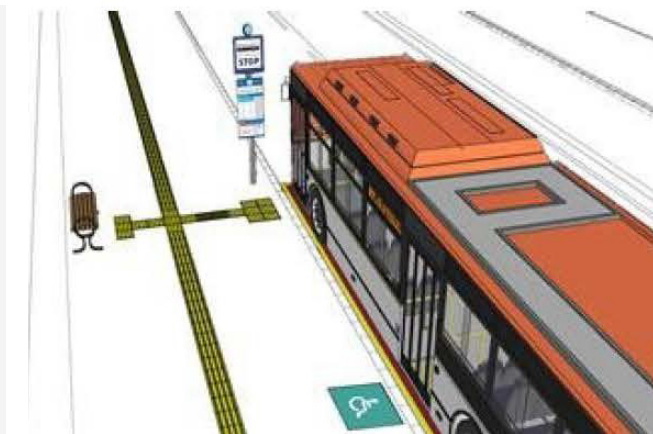
Audio information on the platform door



2

Transjakarta Non-BRT Stops

- Certainty of stopping points and fleet doors
- The fleet route and arrival service information at those points in audio and visual form
- Adjustment of ramp and/or point placement to open and close the door at the height of the curb
- Space availability of the accessible waiting rooms
- Certainty of queue flow flow



3

Area Between BRT and Non-BRT Stops

- Direction boards and/or other wayfinding signs that help navigate the transfer from BRT to non-BRT stops
- Orientation map around the area between BRT and non-BRT stops
- Maps and/or direction for integration into other public transportation modes around BRT and non-BRT stops

