
Chapter 3

Standards of Facilities in Vehicles for Persons with Disabilities and Older Persons

Standards of facilities in vehicles for persons with disabilities and older persons are standards covering international laws and standards for providing facilities in vehicles so that agencies under the Ministry of Transport and other agencies providing transport services can improve and provide vehicles in accordance with the Ministerial Regulation to Prescribe Characteristics or the Provision of Equipment, Facilities or Services in the Buildings, Places, Vehicles and Transportation Services to Ensure Accessibility and Usability by Persons with Disabilities B.E. 2556 (2013).

3.1 Standards

The standards are classified into two categories:

1. Mandatory Standards

Laws, criteria and regulations of state agencies are enforced to guide users to follow the defined standards of equipment and facilities or services, which “**must be ready for use**” so that persons with disabilities and older persons can access to or benefit from them.

● Voluntary Standards

The standards are voluntary but not mandatory. Equipment and facilities or services provided by vehicle providers, which “**should be ready for use**” so that persons with disabilities and older persons can access to or benefit from them.

3.2 Standards of Facilities in Vehicles for Persons with Disabilities and Older Persons

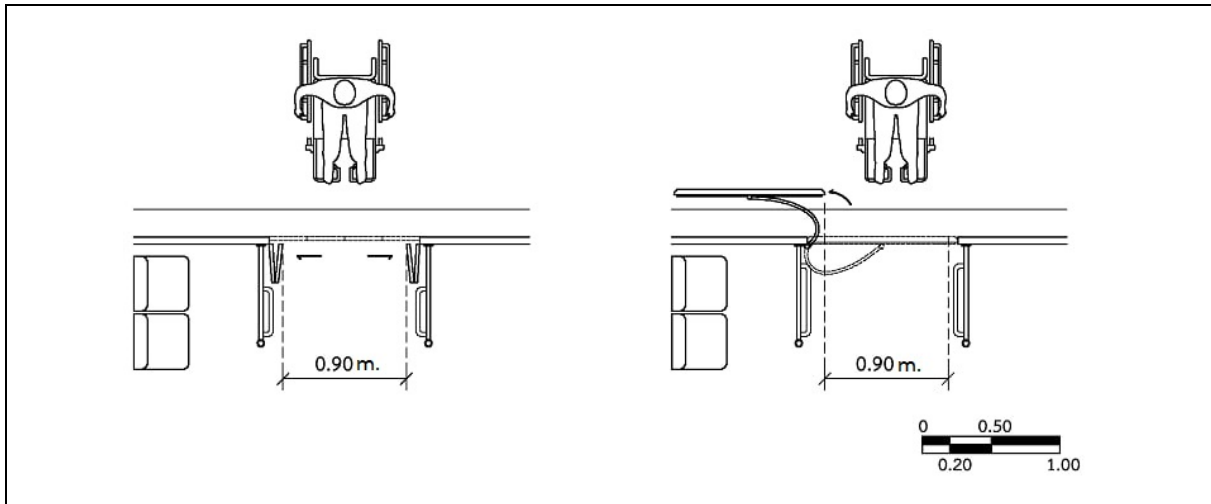
Standards of facilities in vehicles for persons with disabilities and older persons were referred to the Ministerial Regulation to Prescribe Characteristics or the Provision of Equipment, Facilities or Services in the Buildings, Places, Vehicles and Transportation Services to Ensure Accessibility and Usability by Persons with Disabilities B.E. 2556 (2013). The details are:

3.2.1 Standards of Facilities in Fixed and Non-fixed Route Buses under the Law on Land Transport

The following list of facilities for persons with disabilities and older persons is determined.

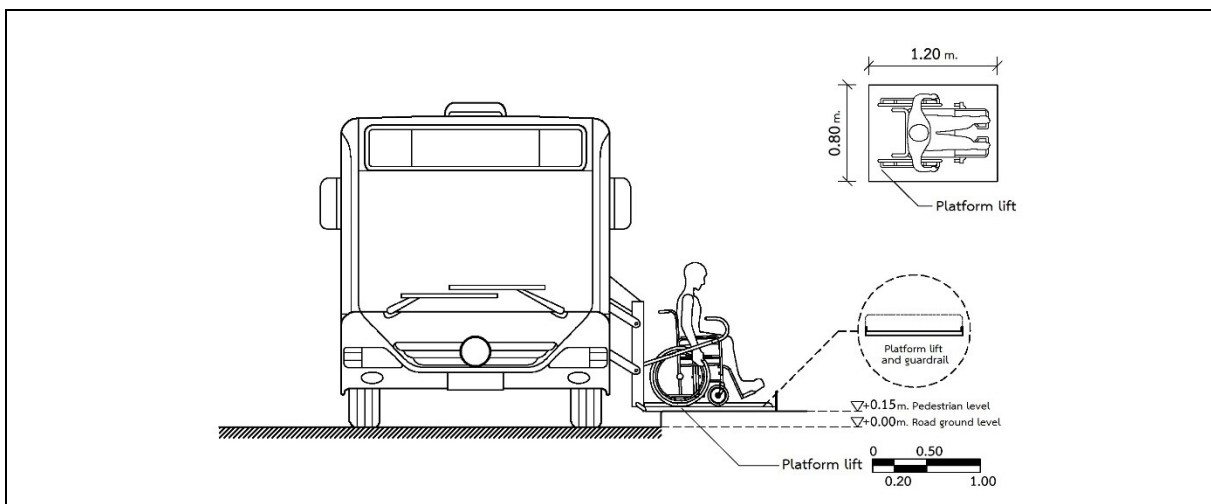
1) Door for Persons with Disabilities and Older Persons

Figure 3.2.1 – 1 Example of Door for Persons with Disabilities and Older Persons



2) Equipment Guiding Persons with Disabilities or Equipment Lifting Wheelchairs

Figure 3.2.1 – 2 Example of Equipment Guiding Persons with Disabilities or Equipment Lifting Wheelchairs



3) Slope

Figure 3.2.1 – 3 Slope Feature 1:8

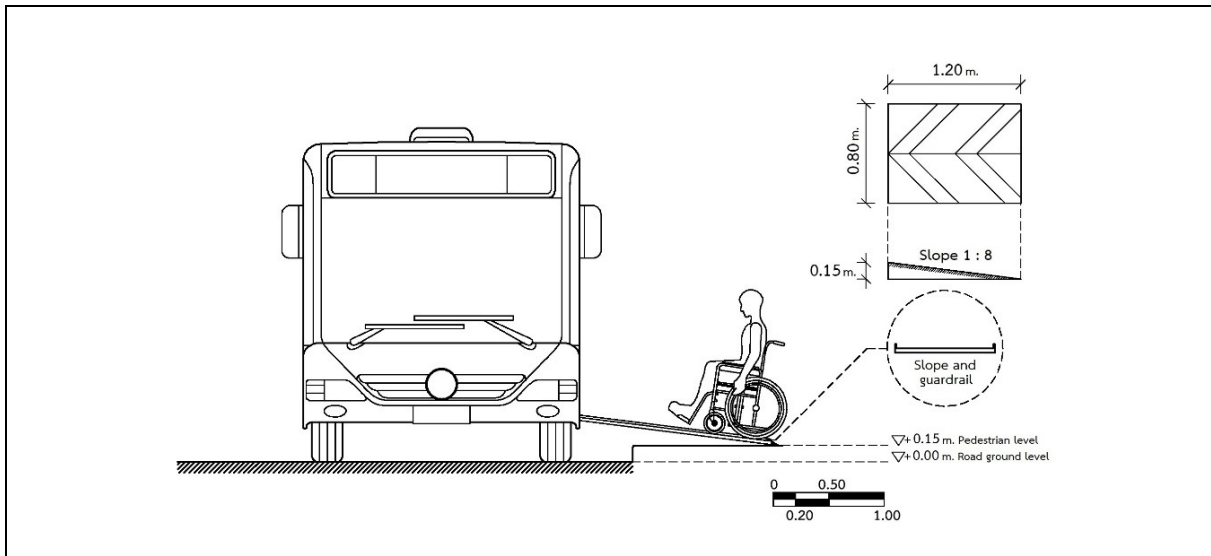
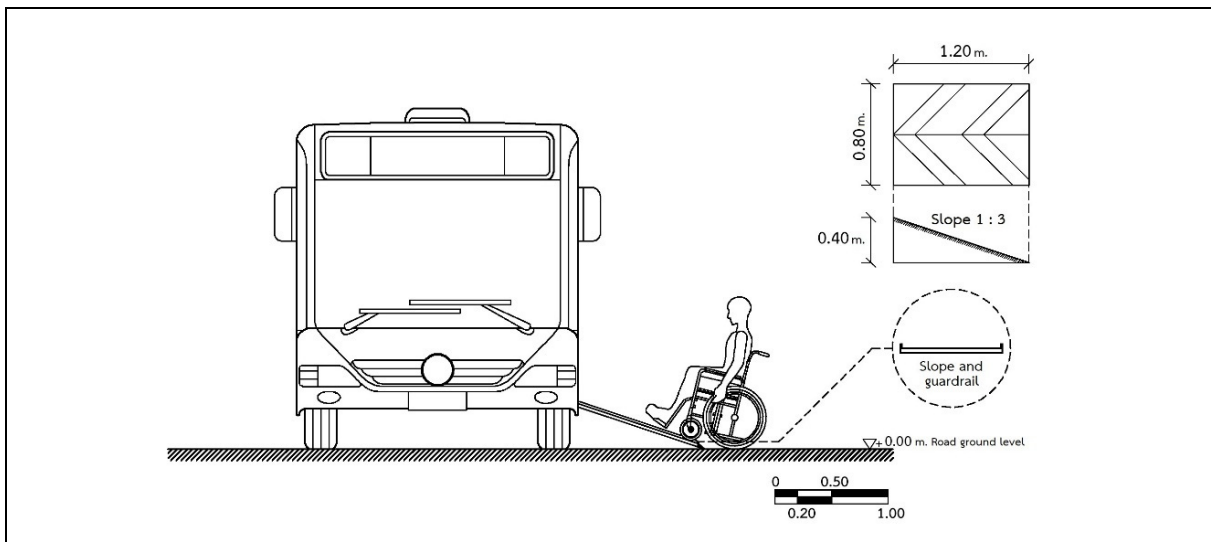
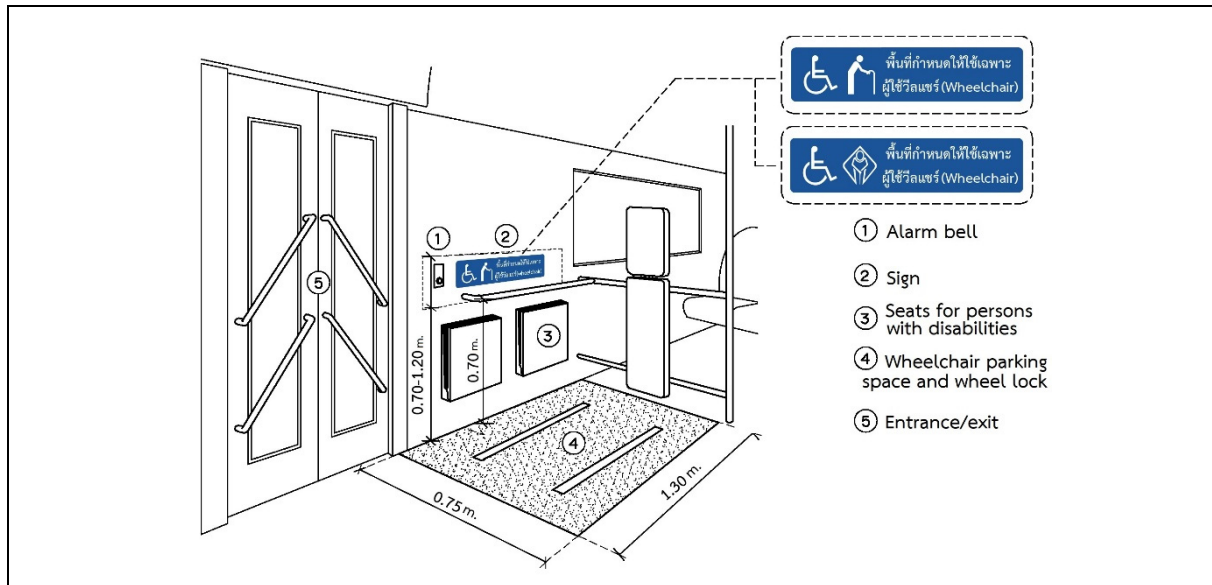


Figure 3.2.1 – 4 Slope Feature 1:3



4) Wheelchair Parking Spaces

Figure 3.2.1 – 5 Example of Wheelchair Parking Spaces



5) Signs Displaying Equipment or Facilities for Persons with Disabilities and Older Persons

Figure 3.2.1 – 6 Example of Signs Displaying Equipment or Facilities for Persons with Disabilities and Older Persons

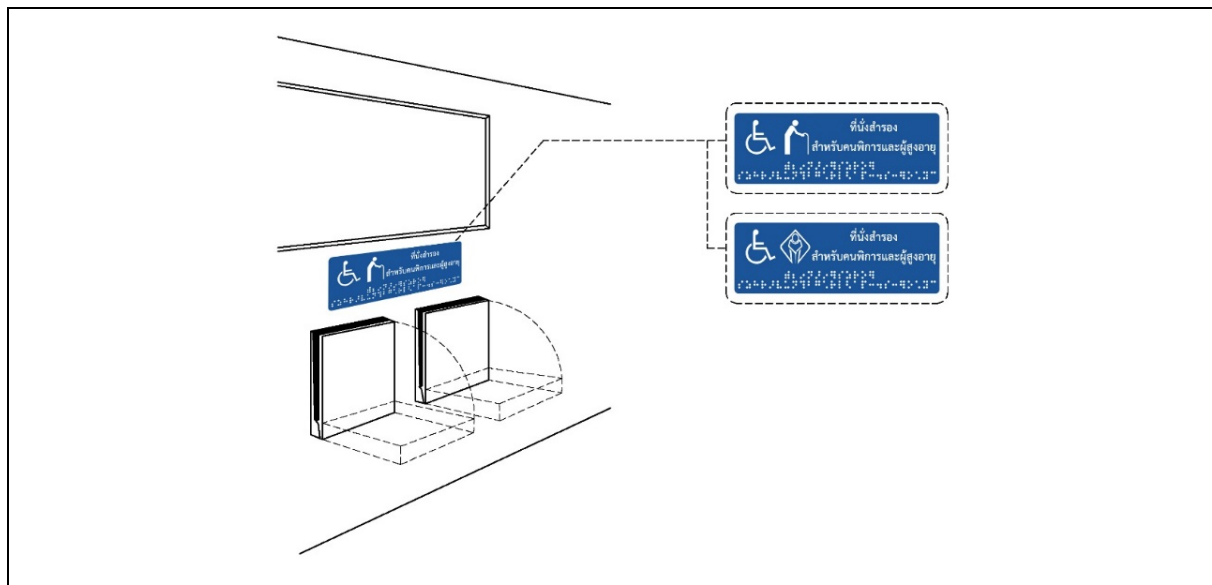
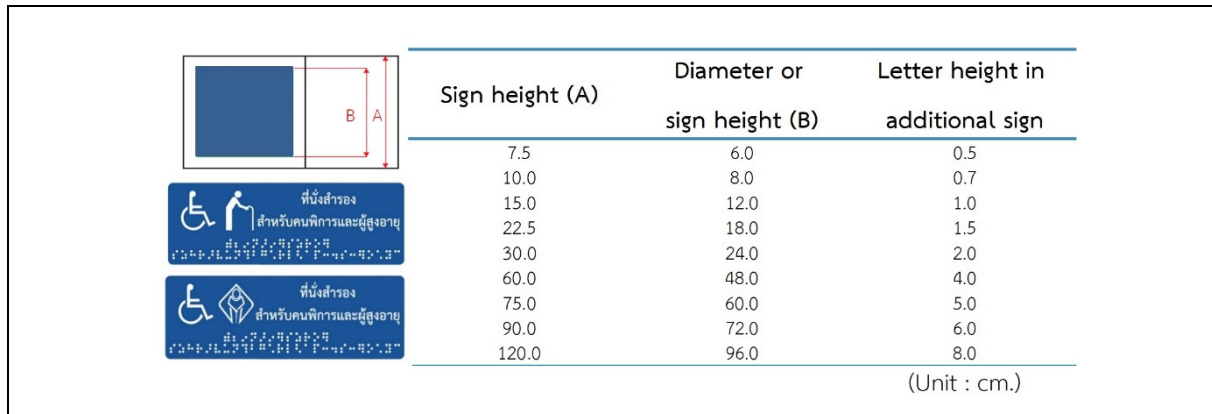
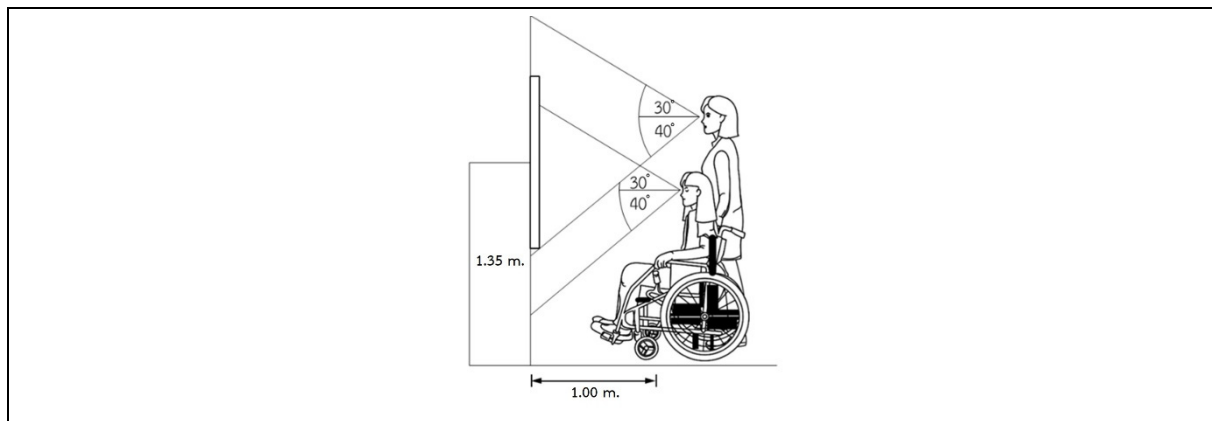


Figure 3.2.1 – 7 Sign Size



Source: Revised version of the Translation manual or language signs for agencies providing services in the transport sector, OTP 2015

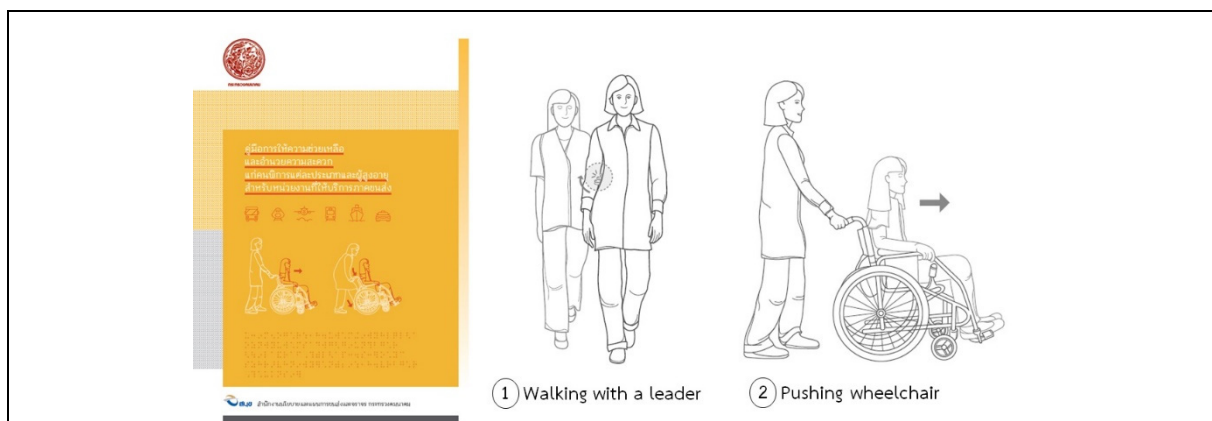
Figure 3.2.1 – 8 Braille Signage Installation



Source : Translation manual or language signs for agencies providing services in the transport sector, OTP 2015

- 6) Manual providing assistance to persons having each type of disabilities for agencies providing services in the transport sector

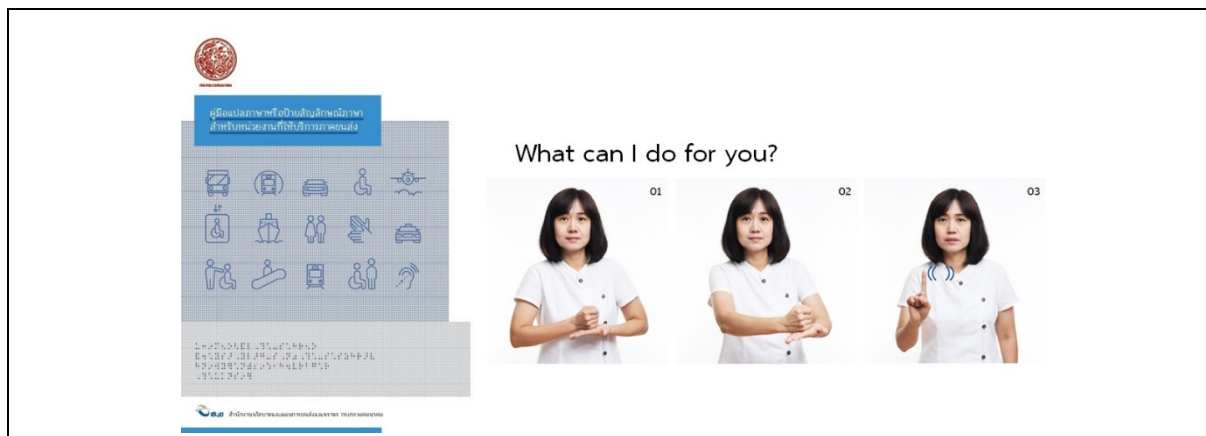
Figure 3.2.1 – 9 Example of Manual Providing Assistance to Persons Having Each Type of disabilities and Older Persons for Agencies Providing Services in the Transport Sector



Source : OTP

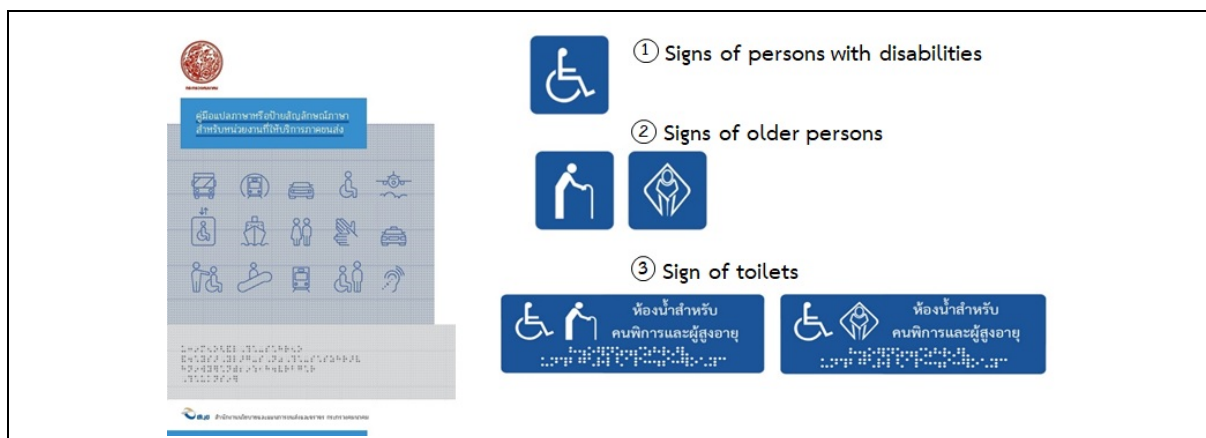
- 7) Translation manual or language signs for agencies providing services in the transport sector

Figure 3.2.1 – 10 Example of Translation Manual or Language Signs for Agencies Providing Services in the Transport Sector



Source: OTP

Figure 3.2.1 – 11 Example of Language Signs for Agencies Providing Services in the Transport Sector



Source: Revised version of the Translation manual or language signs for agencies providing services in the transport sector
OTP 2015

- 8) Vehicles officers who have been trained and have qualifications which meet the requirement of persons having each type of disabilities and older persons
- 9) Announcement of the next station for persons with disabilities of visual impairment and text moving signs or signs notifying a name of the next station for persons with disabilities of hearing or communication impairment
- 10) Seats for persons with disabilities and older persons

11) Toilets for Persons with Disabilities and Older Persons

Figure 3.2.1 – 12 Example of Toilets for Persons with Disabilities and Older Persons

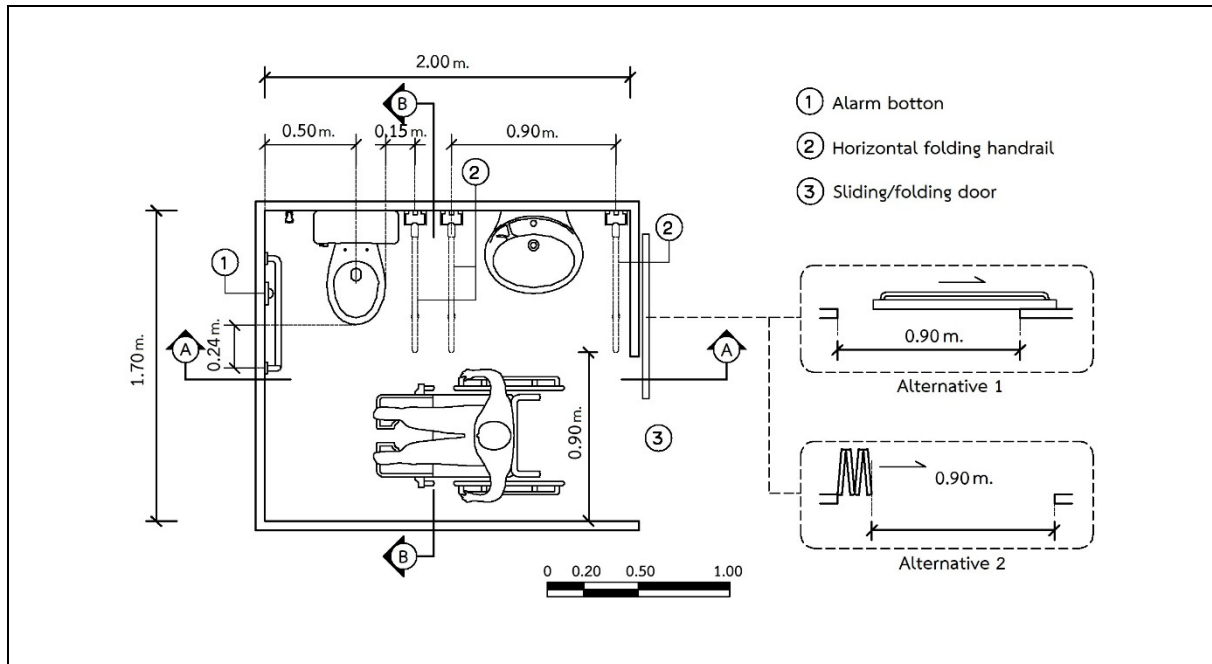


Figure 3.2.1 – 13 Sanitaryware Installation for Toilets of Persons with Disabilities and Older Persons

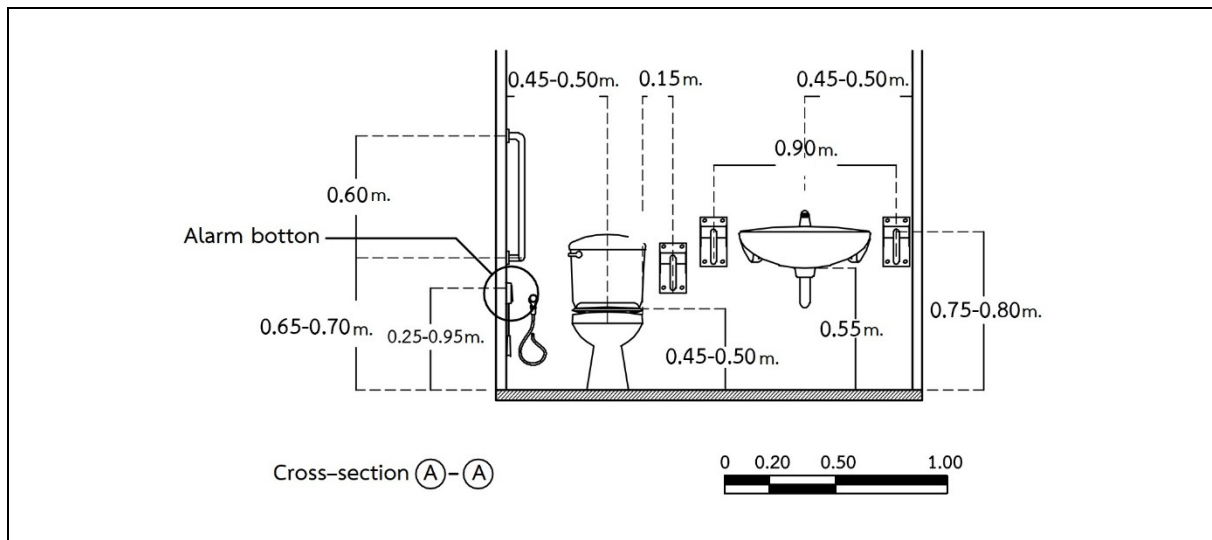
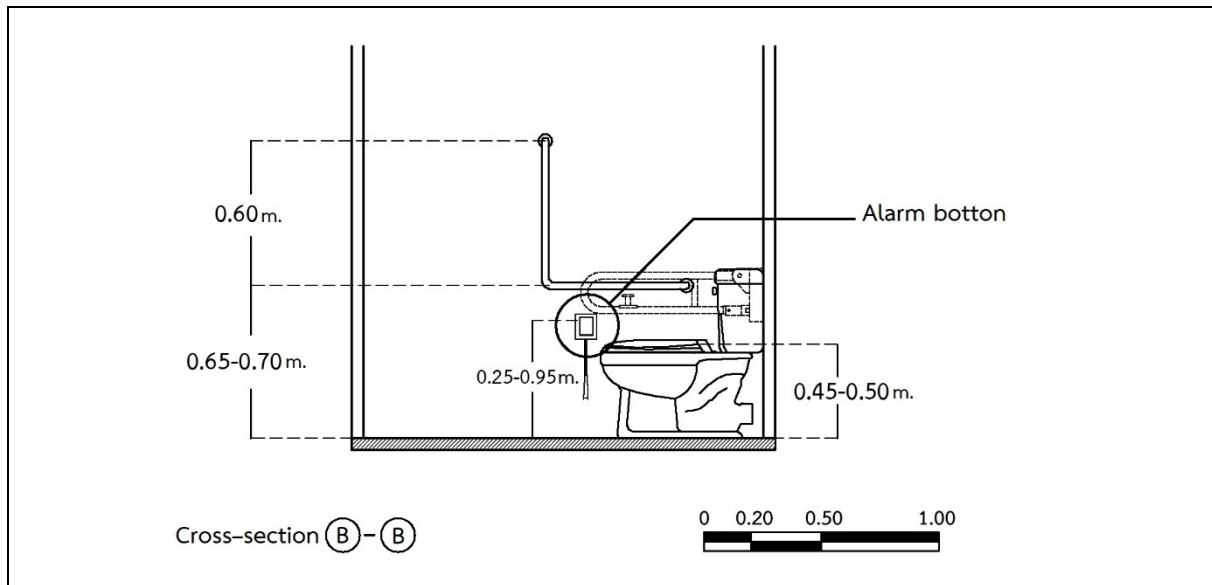


Figure 3.2.1 – 14 Sanitaryware Installation for Toilets of Persons with Disabilities and Older Persons



3.2.2 Standards of Facilities in Public and Service Vehicles under the Law on Vehicles

The following list of facilities for persons with disabilities and older persons is determined.

- 1) Equipment Guiding Persons with Disabilities or Equipment Lifting Wheelchairs at the Rear Door

Figure 3.2.2 – 1 Example of Equipment Guiding Persons with Disabilities or Equipment Lifting Wheelchairs at the Rear Door

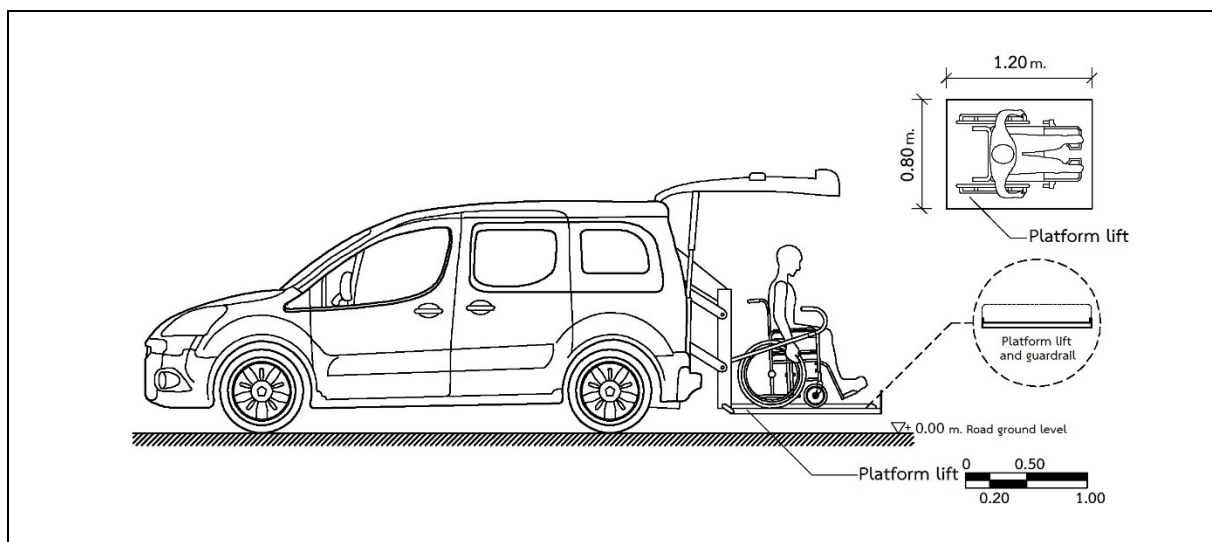
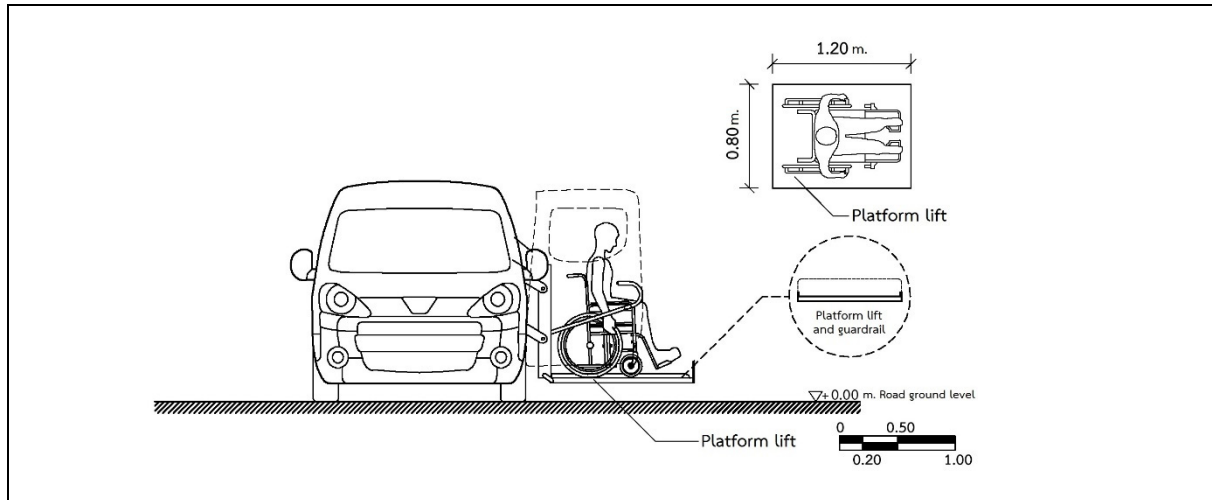
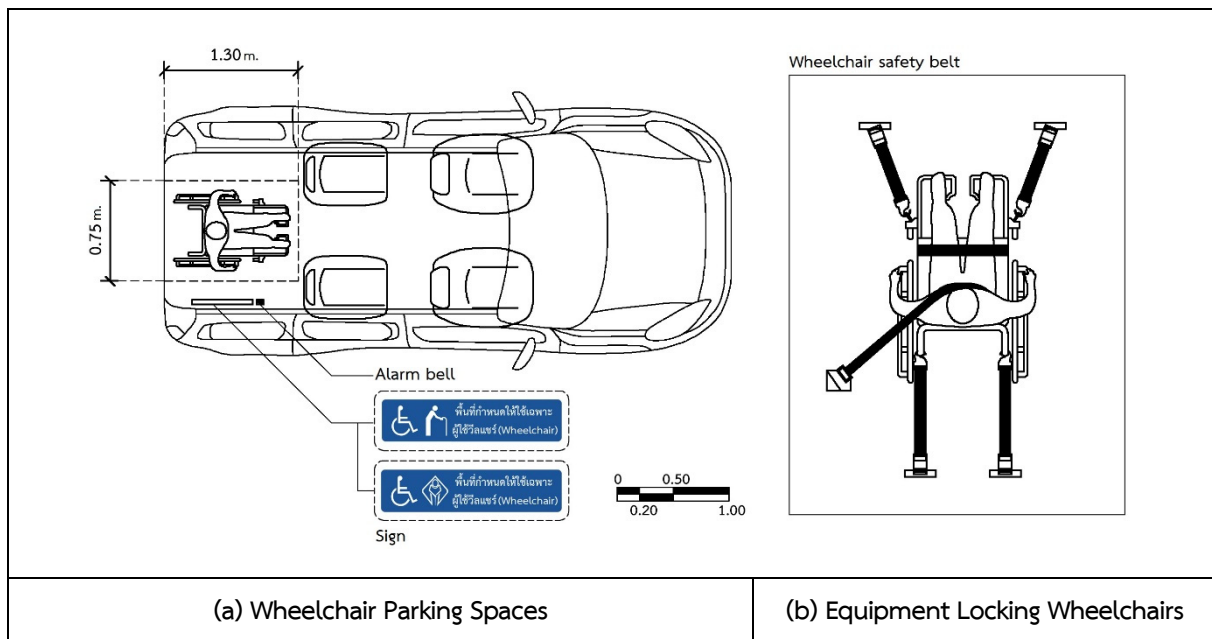


Figure 3.2.2 – 2 Example of Equipment Guiding Persons with Disabilities or
Equipment Lifting Wheelchairs at the Side Door



2) Wheelchair Parking Spaces

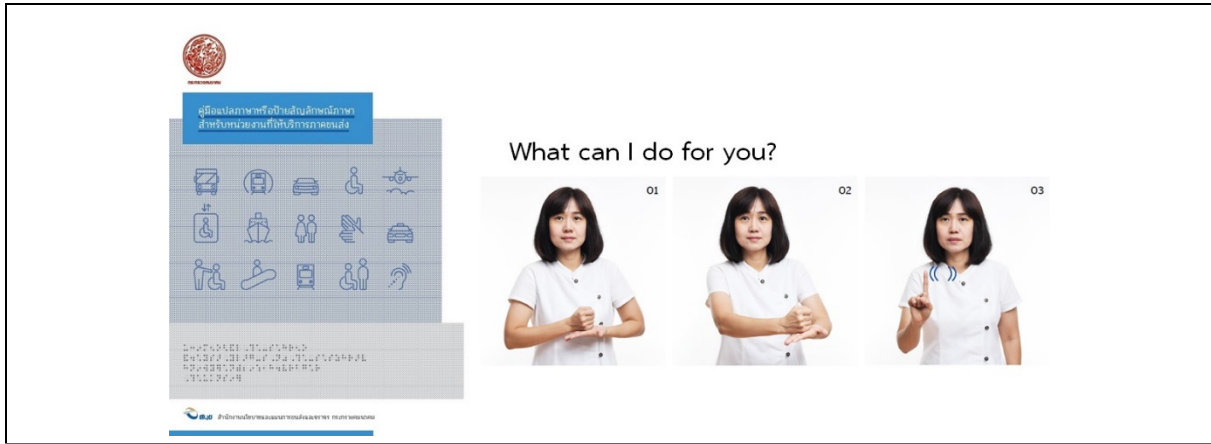
Figure 3.2.2 – 3 Example of Wheelchair Parking Spaces When Approaching to the Rear Side of
Public Vehicles and Example of Equipment Locking Wheelchairs



Source: Revised version of United State Access Board, 2002

3) Translation Manual or Language Signs for Agencies in the Transport Sector

Figure 3.2.2 – 4 Example of Translation Manual or Language Signs for Agencies in the Transport Sector



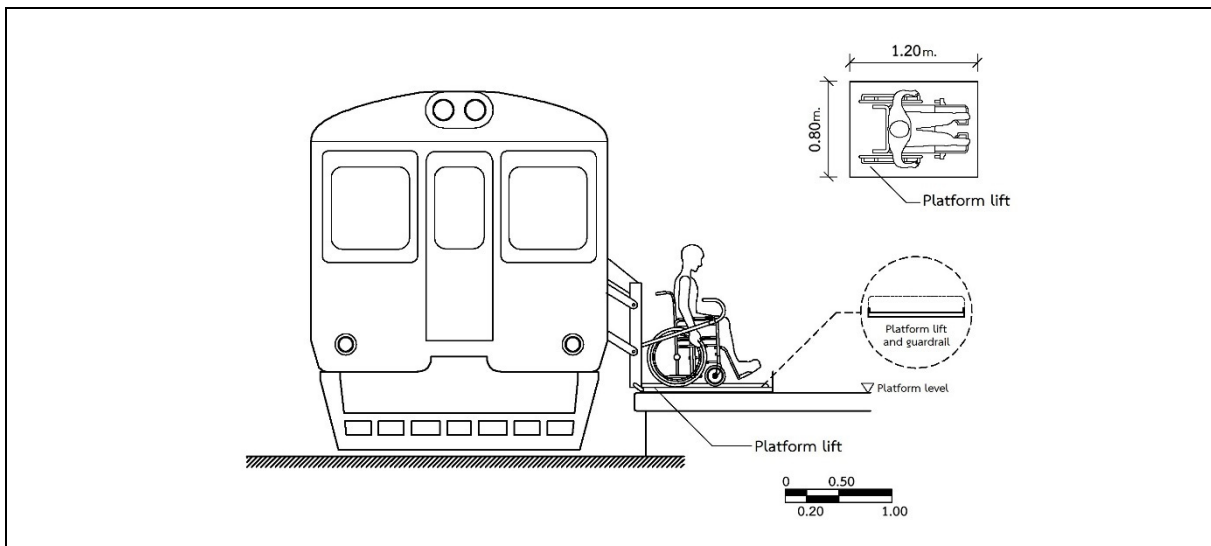
Source : OTP

3.2.3 Standards of Facilities in Trains under the Organization of Railway and Highway Act

The following list of facilities for persons with disabilities and older persons is determined.

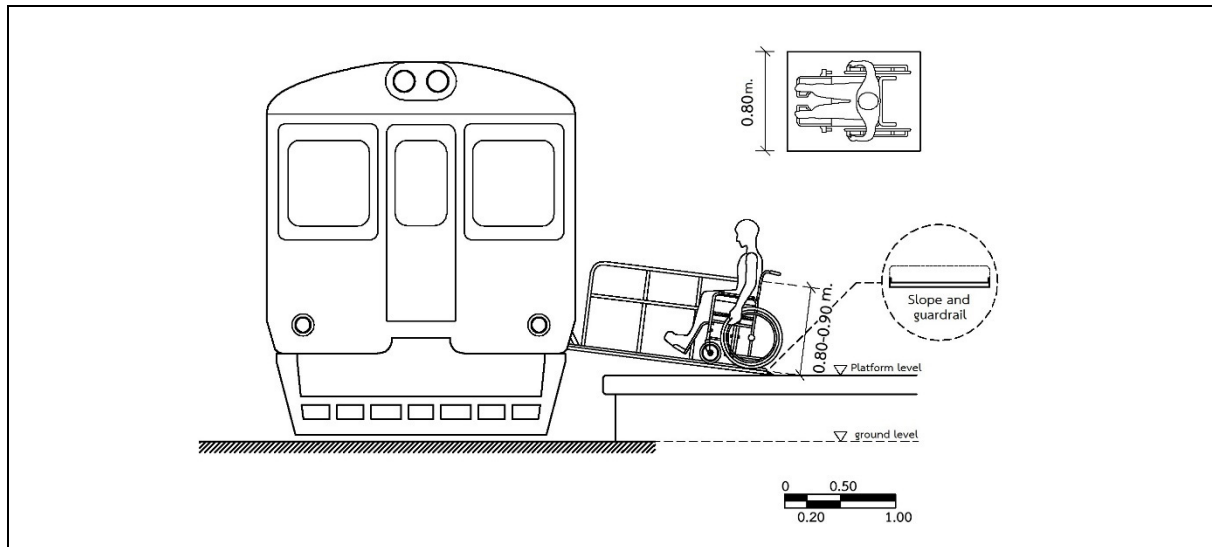
1) Equipment Guiding Persons with Disabilities or Equipment Lifting Wheelchairs

Figure 3.2.3 – 1 Example of Equipment Guiding Persons with Disabilities or Equipment Lifting Wheelchairs



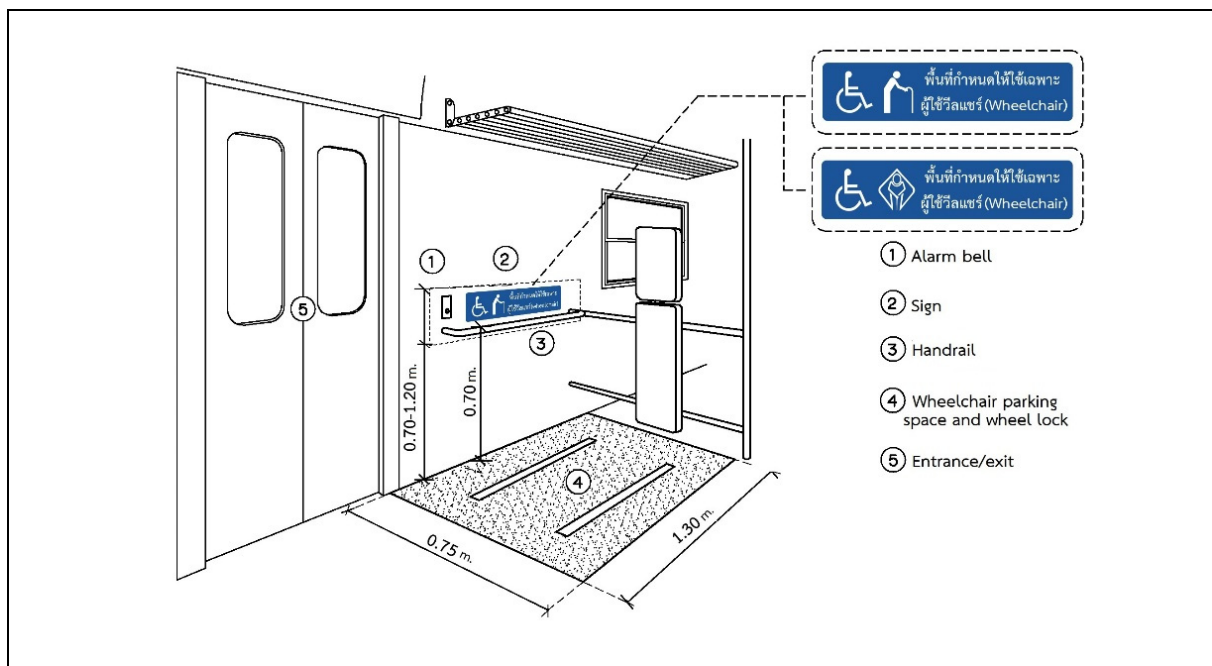
2) Slope

Figure 3.2.3 – 2 Slope Feature



3) Wheelchair Parking Spaces

Figure 3.2.3 – 3 Example of Wheelchair Parking Spaces



4) Seats for Persons with Disabilities and Older Persons

Figure 3.2.3 – 4 Example of Seats for Persons with Disabilities and Older Persons

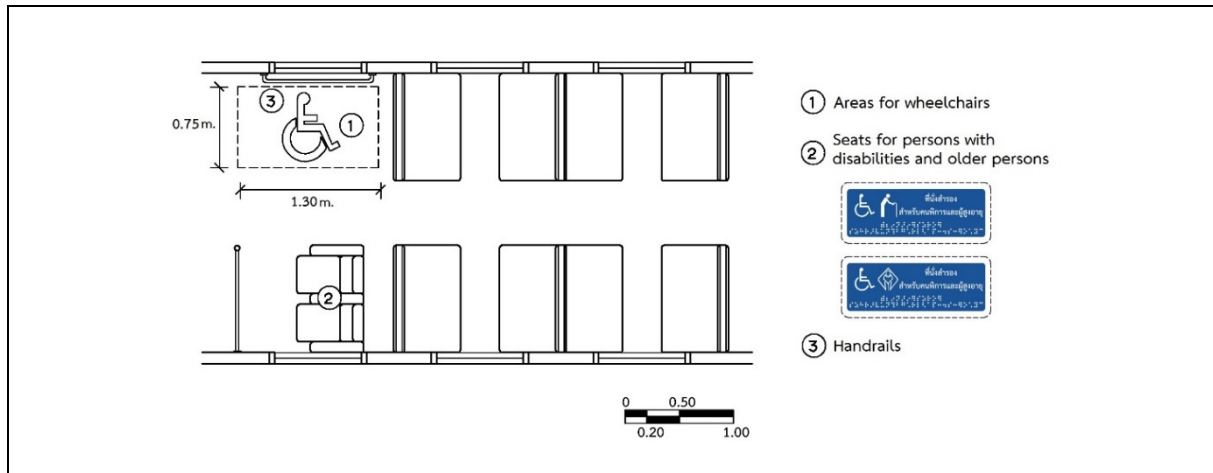


Figure 3.2.3 – 5 Example of Symbol Signs Used in Equipment and Facilities



5) Toilets for Persons with Disabilities and Older Persons

Figure 3.2.3 – 6 Example of Toilets for Persons with Disabilities and Older Persons

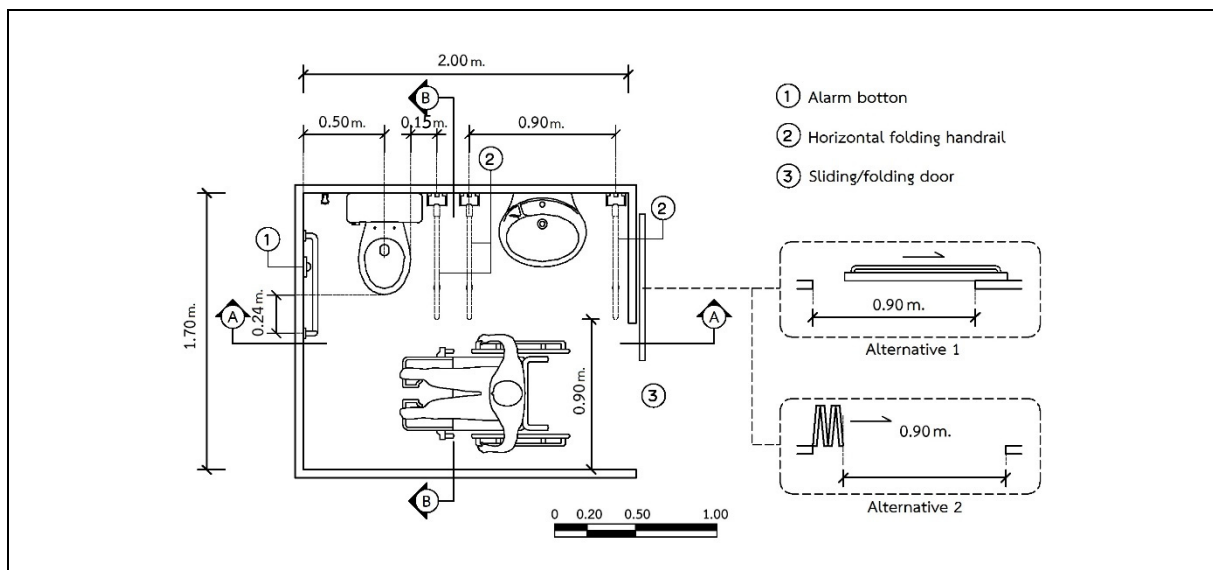


Figure 3.2.3 – 7 Installation of Sanitaryware in Toilets for Persons with Disabilities and Older Persons

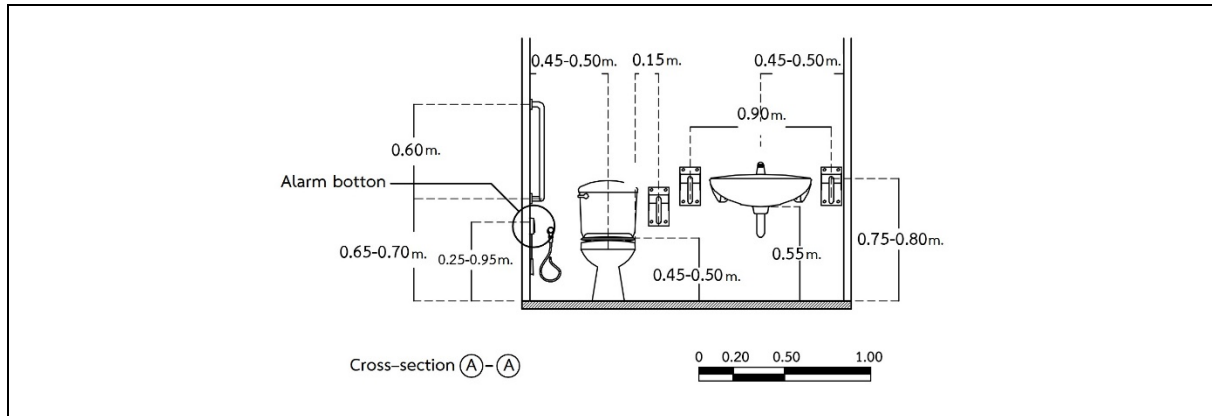
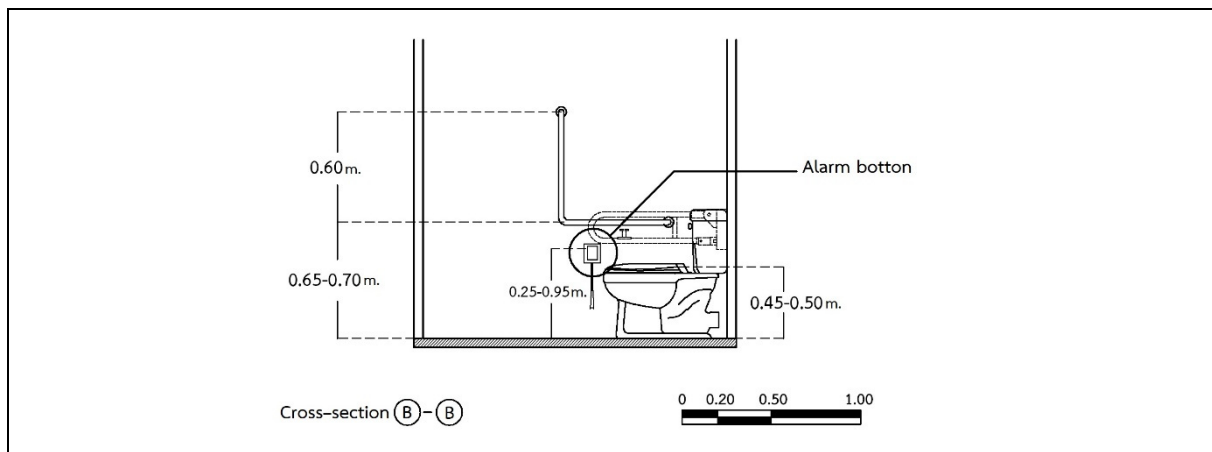
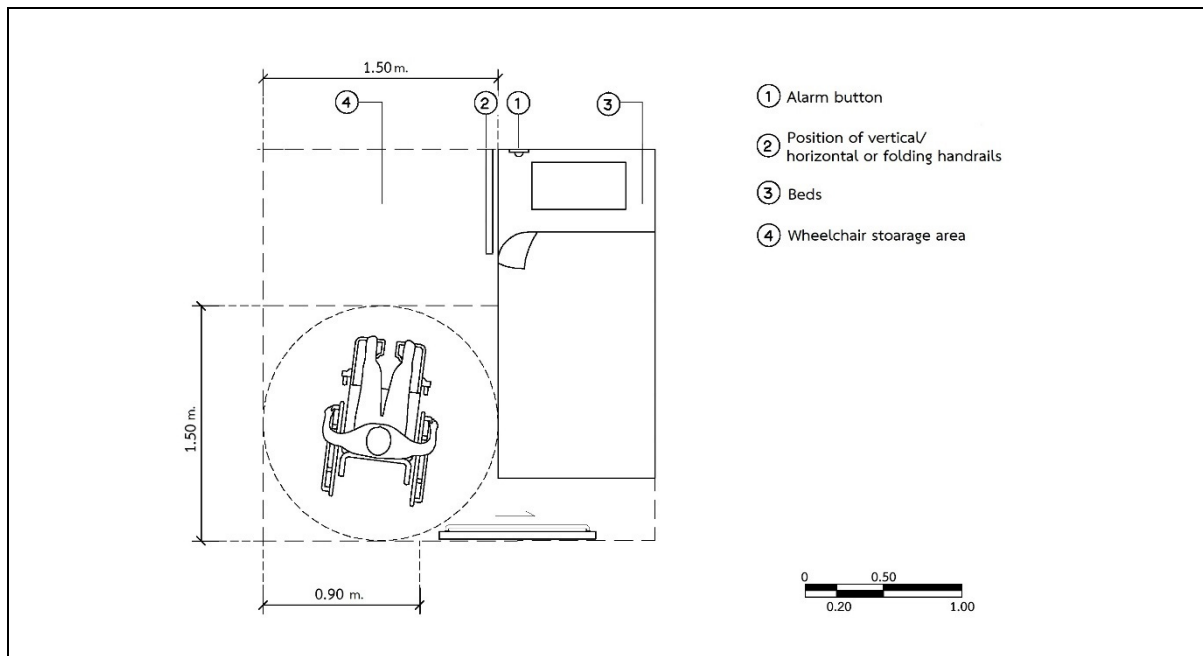


Figure 3.2.3 – 8 Installation of Sanitaryware in Toilets for Persons with Disabilities and Older Persons



6) Bedroom for Persons with Disabilities and Older Persons

Figure 3.2.3 – 9 Example of Bedroom Areas Accommodating Persons with Disabilities and Older Persons



7) Signs Displaying Equipment or Facilities for Persons with Disabilities

Figure 3.2.3 – 10 Example of Signs Displaying Equipment or Facilities for Persons with Disabilities and Older Persons

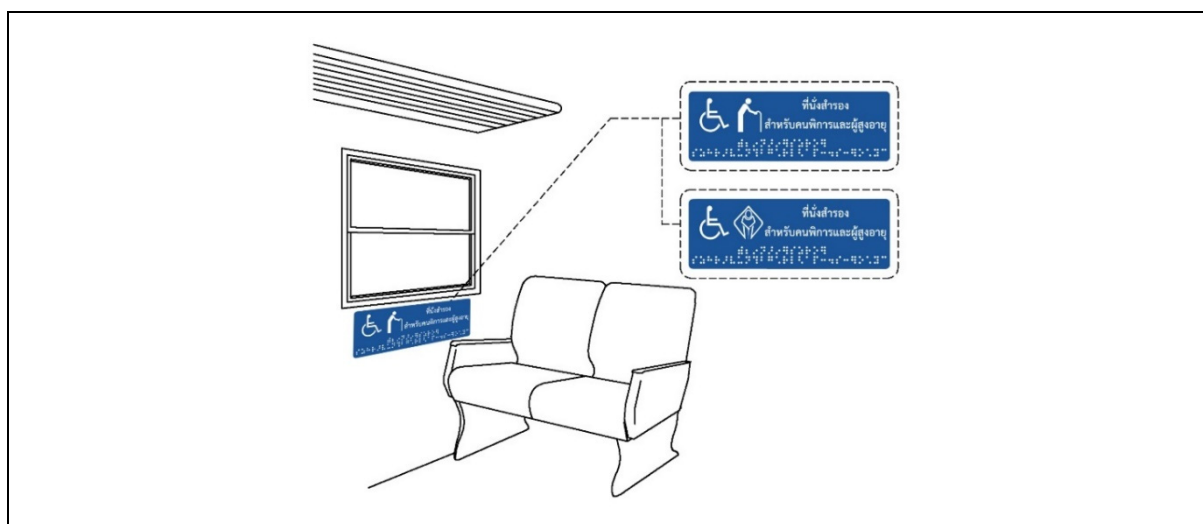


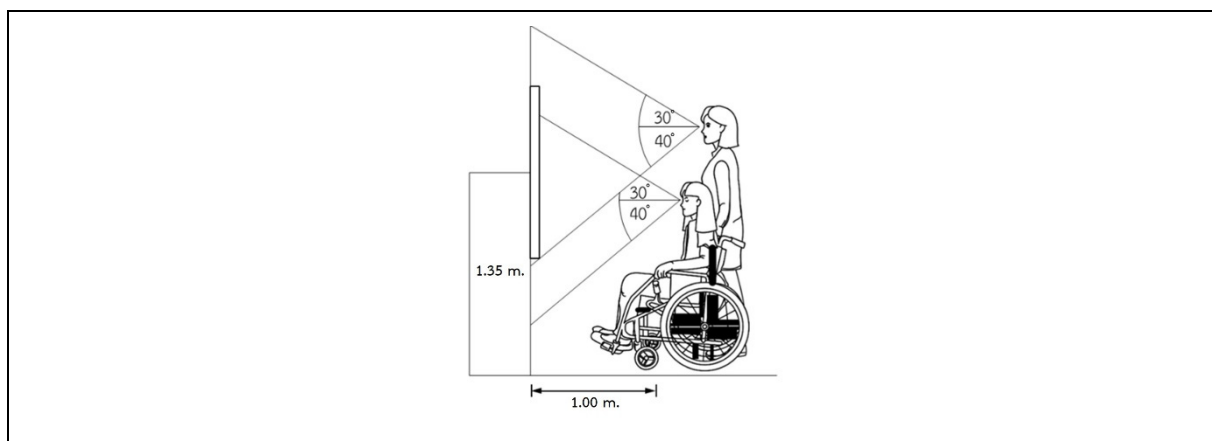
Figure 3.2.3 – 11 Example of Sign Size

	Sign height (A)	Diameter or sign height (B)	Letter height in additional sign
	7.5	6.0	0.5
	10.0	8.0	0.7
	15.0	12.0	1.0
	22.5	18.0	1.5
	30.0	24.0	2.0
	60.0	48.0	4.0
	75.0	60.0	5.0
	90.0	72.0	6.0
	120.0	96.0	8.0

(Unit : cm.)

Source: Revised version of the Translation manual or language signs for agencies providing services in the transport sector,OTP 2015

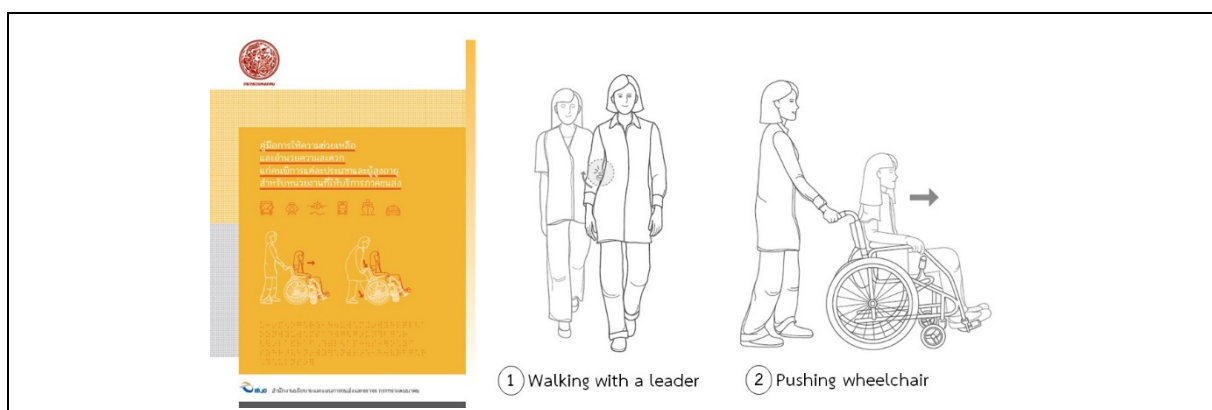
Figure 3.2.3 – 12 Braille Signage Installation



Source : Translation manual or language signs for agencies providing services in the transport sector,OTP 2015

- 8) Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons for Agencies in the Transport Sector

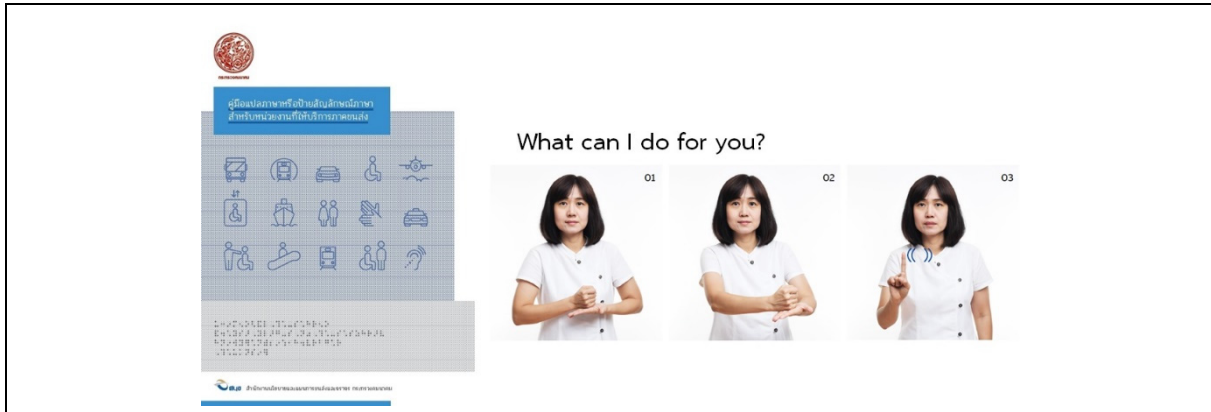
Figure 3.2.3 – 13 Example of Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons for Agencies in the Transport Sector



Source : OTP

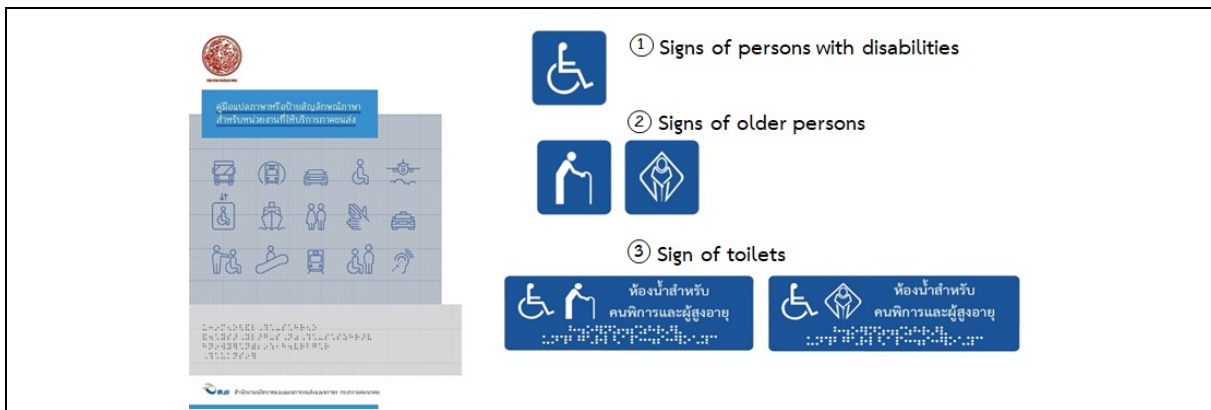
9) Translation Manual or Language Signs for Agencies in the Transport Sector

Figure 3.2.3 – 14 Example of Translation Manual or Language Signs for Agencies in the Transport Sector



Source : OTP

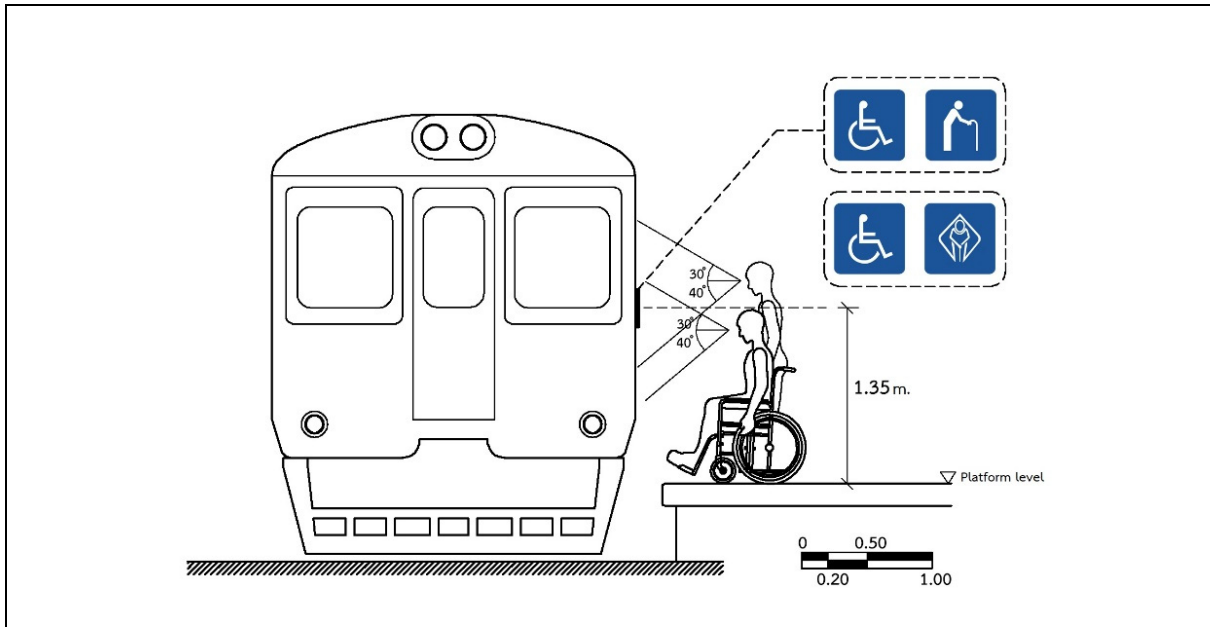
Figure 3.2.3 – 15 Example of Language Signs for Agencies in the Transport Sector



Source: Revised version of the Translation manual or language signs for agencies providing services in the transport sector, OTP 2015

- 10) Signs of Persons with Disabilities and Older Persons Attached to the Outside Area of the Train

Figure 3.2.3 – 16 Example of Signs of Persons with Disabilities and Older Persons Attached to the Outside Area of the Train



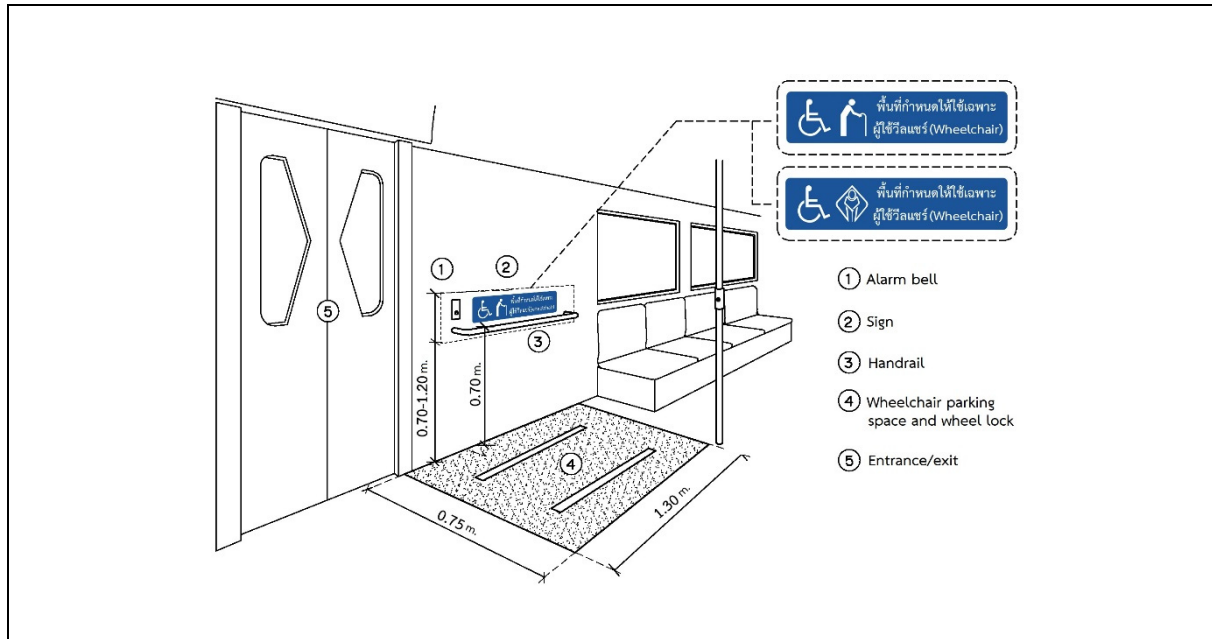
- 11) Announcement of the next station for persons with disabilities of visual impairment and text moving signs or signs notifying a name of the next station for persons with disabilities of hearing or communication impairment
- 12) Vehicles officers who have been trained and have qualifications which meet the requirement of persons having each type of disabilities and older persons
- 13) Door for Persons with Disabilities and Older Persons

3.2.4 Standards of Facilities in Electric Trains under the Mass Rapid Transit Authority of Thailand Act

The following list of facilities for persons with disabilities and older persons is determined.

1) Wheelchair Parking Space

Figure 3.2.4 – 1 Example of Wheelchair Parking Space



2) Seats for Persons with Disabilities and Older Persons

Figure 3.2.4 – 2 Example of Seats for Persons with Disabilities and Older Persons

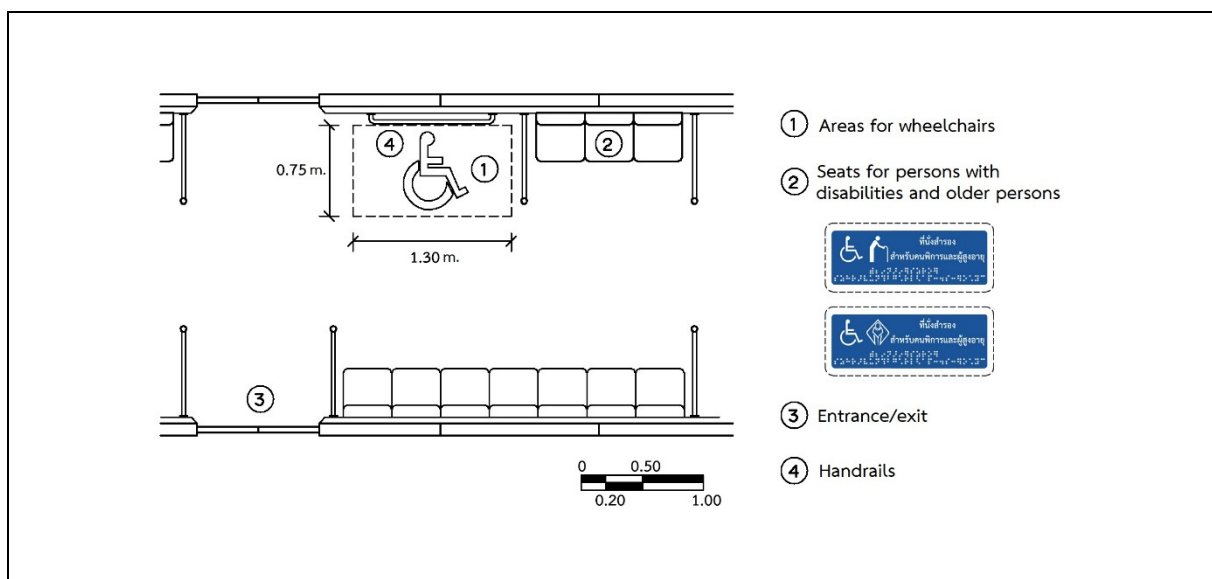
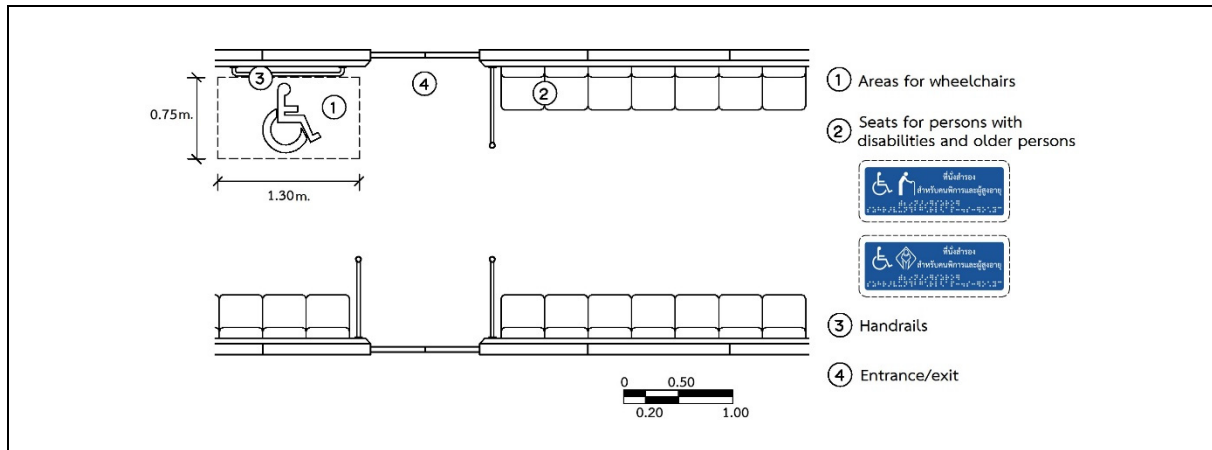
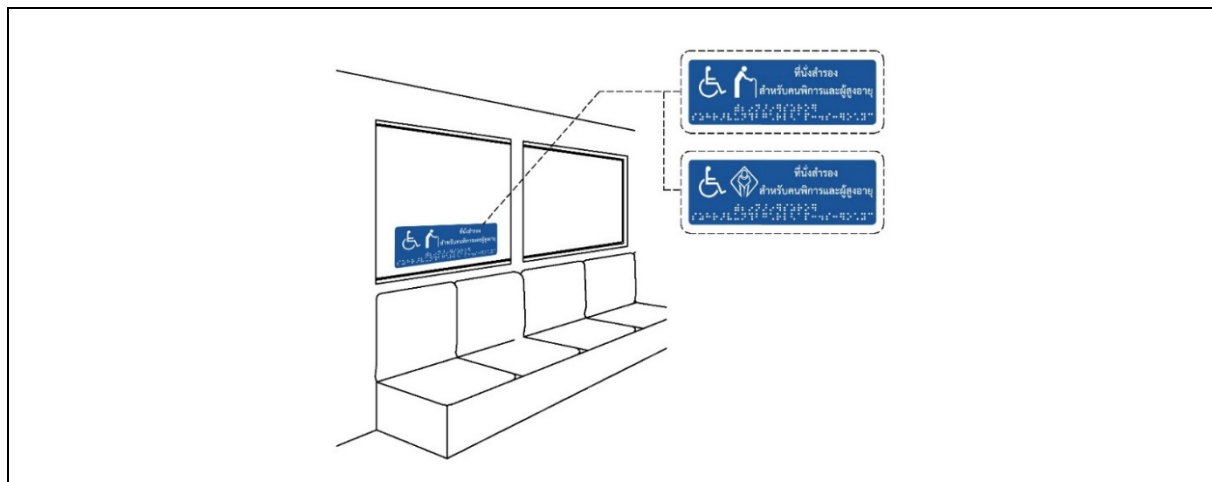


Figure 3.2.4 – 2 (Cont.) Example of Seats for Persons with Disabilities and Older Persons



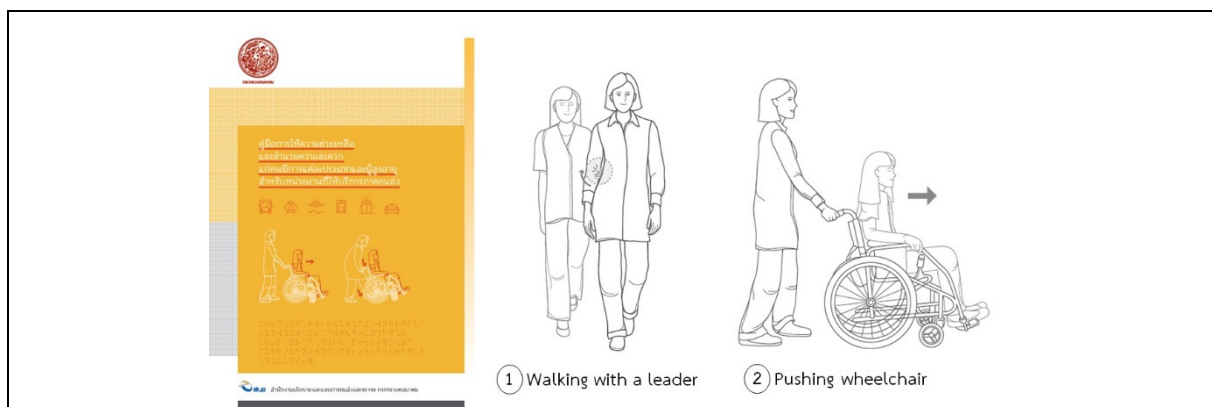
3) Signs Used in the Equipment and Facilities

Figure 3.2.4 – 3 Example of Signs Used in the Equipment and Facilities



4) Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons for Agencies in the Transport Sector

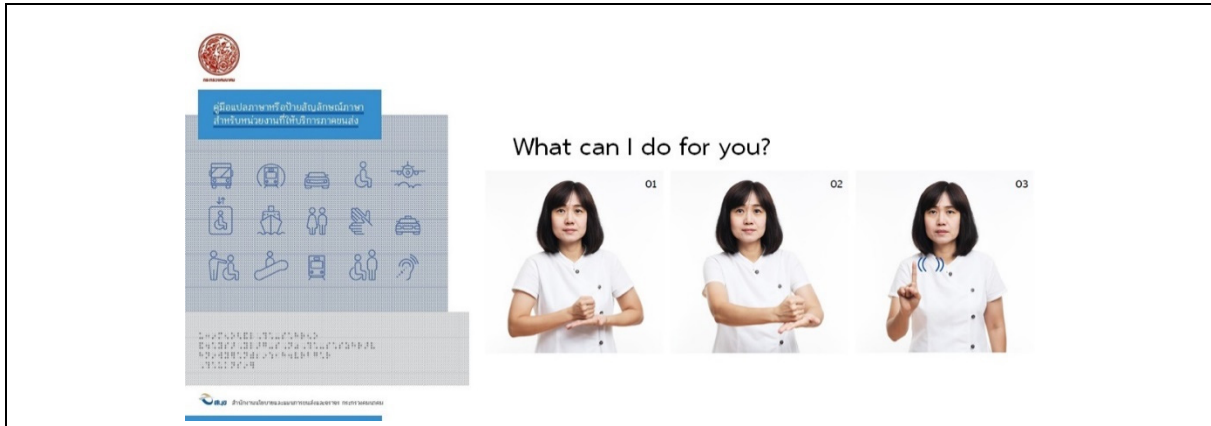
Figure 3.2.4 – 4 Example of Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons for Agencies in the Transport Sector



Source : OTP

5) Translation Manuals or Language Signs for Agencies in the Transport Sector

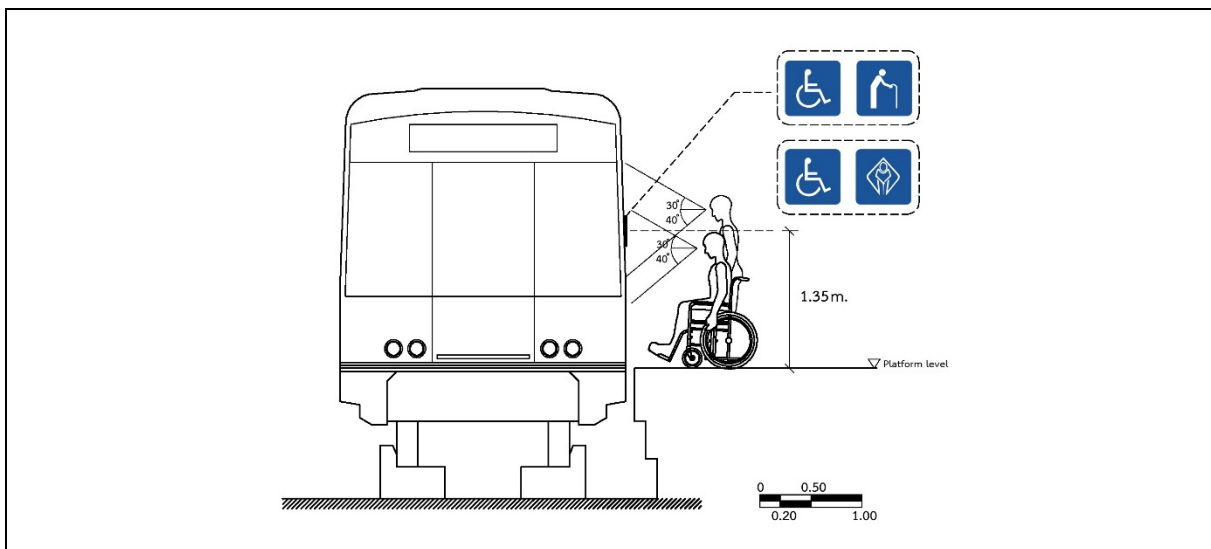
Figure 3.2.4 – 5 Example of Translation Manuals or Language Signs for Agencies in the Transport Sector



Source : OTP

6) Signs of Persons with Disabilities and Older Persons Attached to the Outside Area of the Electric Train

Figure 3.2.4 – 6 Example of Signs of Persons with Disabilities and Older Persons Attached to the Outside Area of the Electric Train



7) Announcement of the next station for persons with disabilities of visual impairment and text moving signs or signs notifying a name of the next station for persons with disabilities of hearing or communication impairment

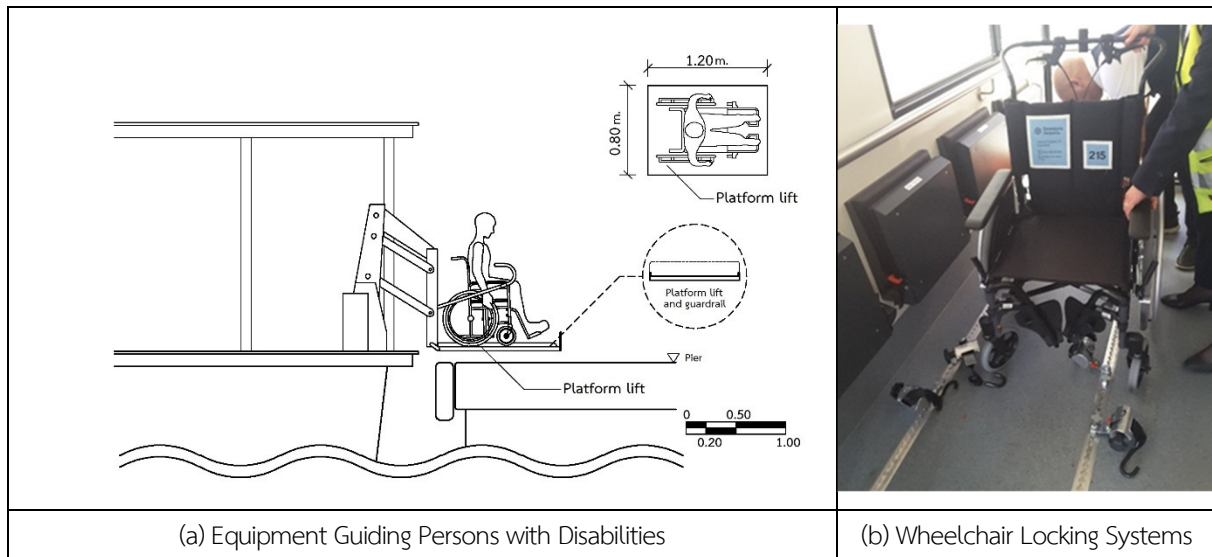
8) Vehicles officers who have been trained and have qualifications which meet the requirement of persons having each type of disabilities and older persons

3.2.5 Standards of Facilities in Passenger Ships under the Navigation in the Thai Waters Act

The following list of facilities for persons with disabilities and older persons is determined.

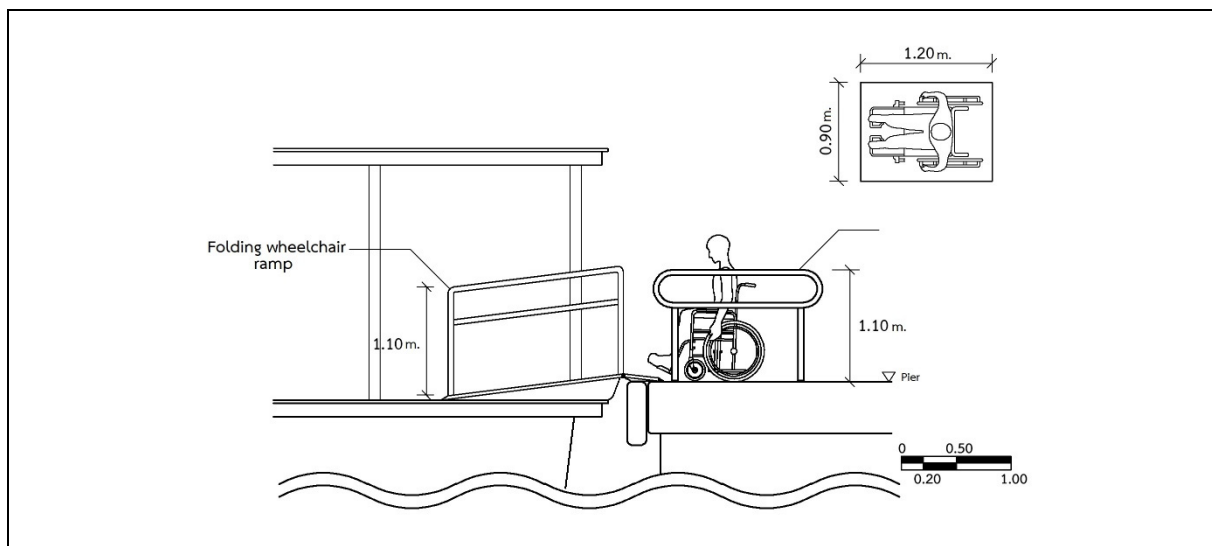
1) Equipment Guiding Persons with Disabilities and Older Persons

Figure 3.2.5 – 1 Example of Equipment Guiding Persons with Disabilities and Older Persons, and Wheelchair Locking Systems



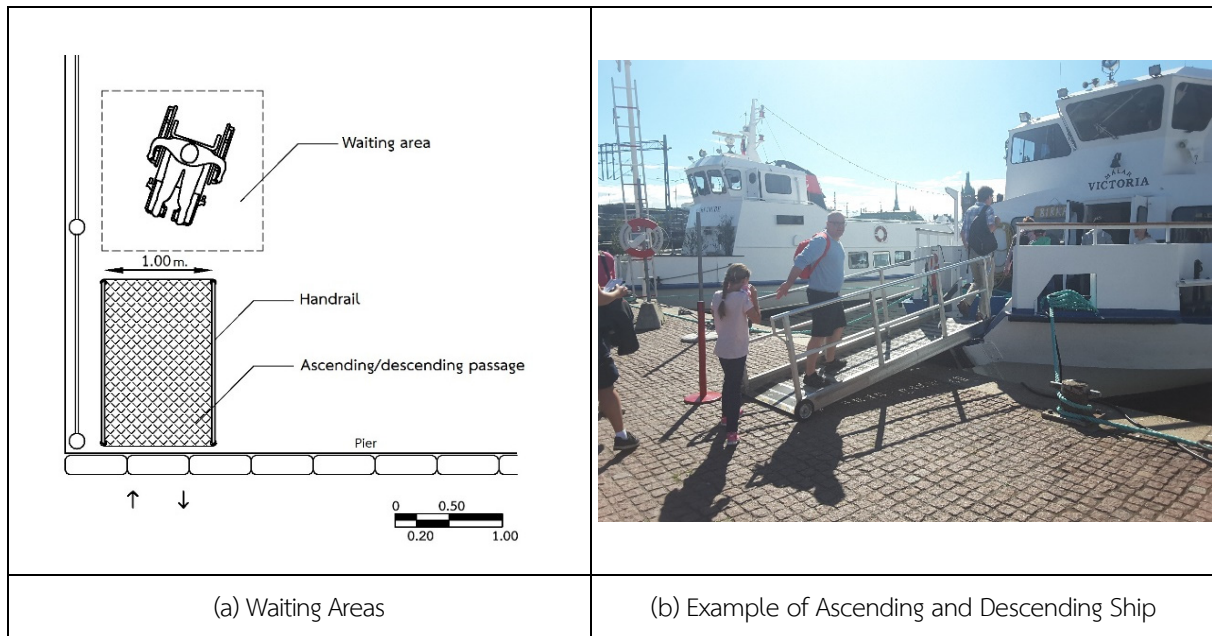
2) Slope

Figure 3.2.5 – 2 Example of Slope Feature



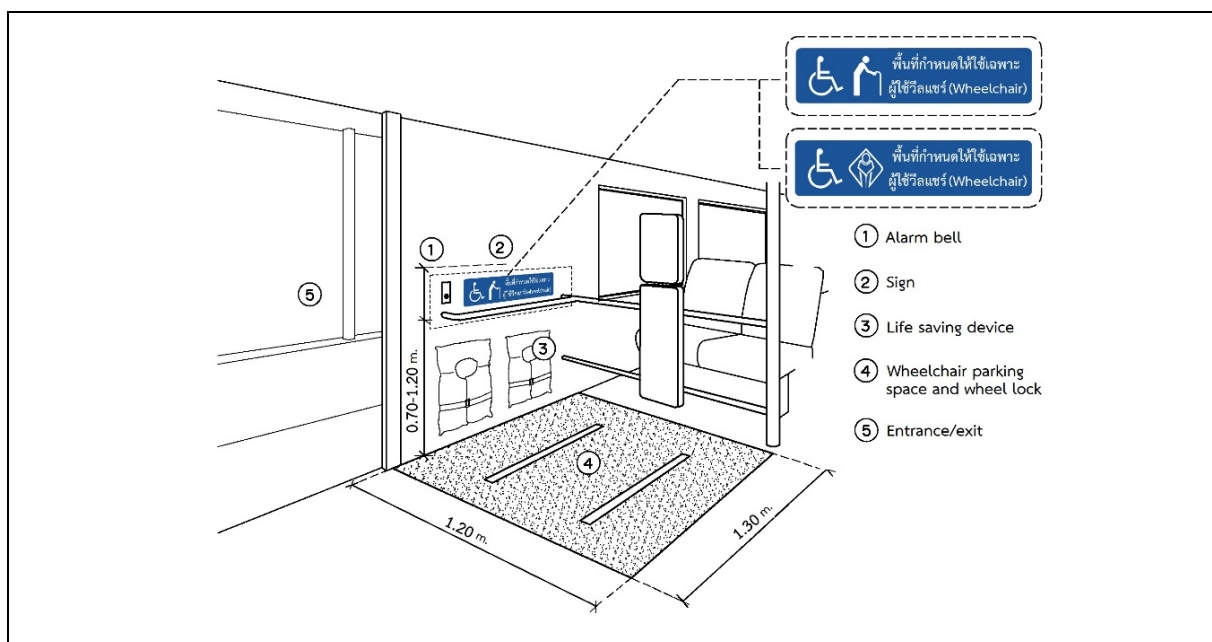
3) Ascending and Descending Ship Passage and Waiting Areas for Persons with Disabilities and Older Persons

Figure 3.2.5 – 3 Example of Ascending and Descending Ship Passage and Waiting Areas for Persons with Disabilities and Older Persons



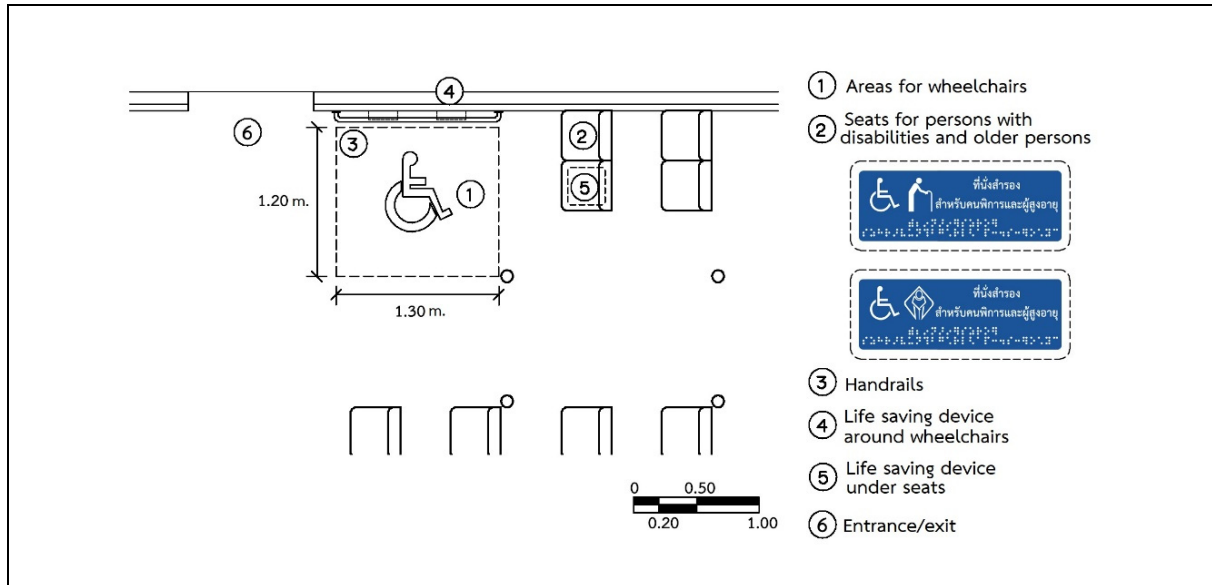
4) Wheelchair Parking Space

Figure 3.2.5 – 4 Example of Wheelchair Parking Space



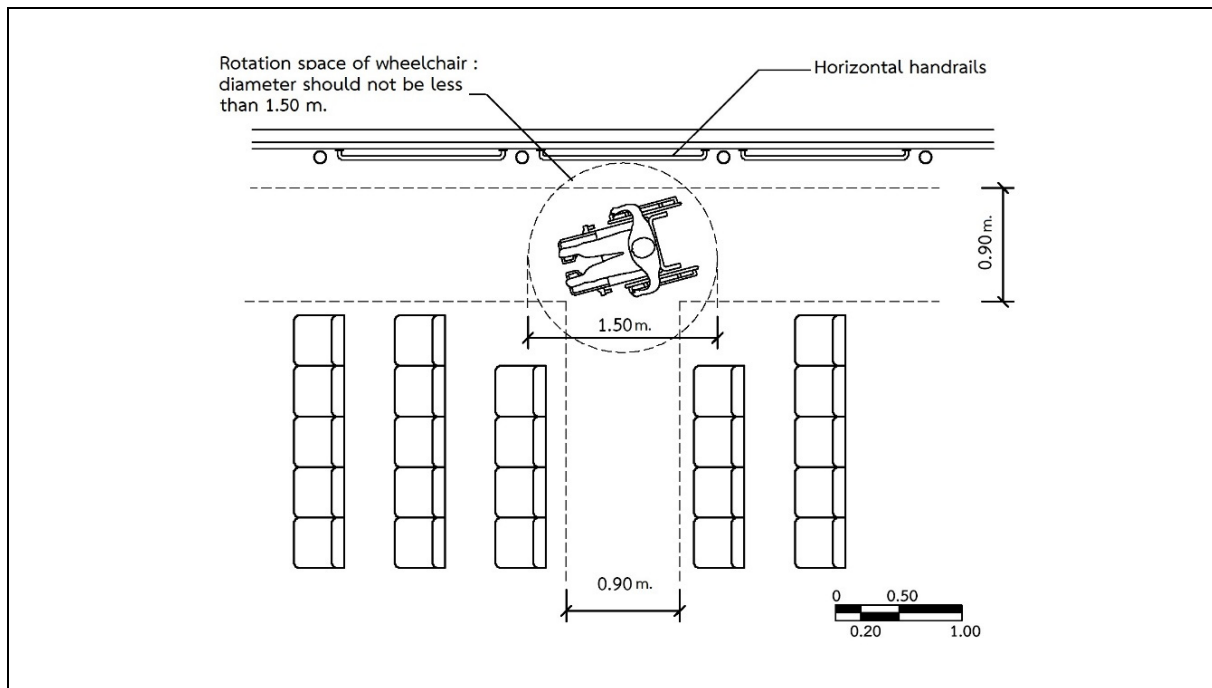
- 5) Signs displaying a number of seats for persons with disabilities and older persons
- 6) Seats for Persons with Disabilities and Older Persons

Figure 3.2.5 – 5 Example of Seats for Persons with Disabilities and Older Persons



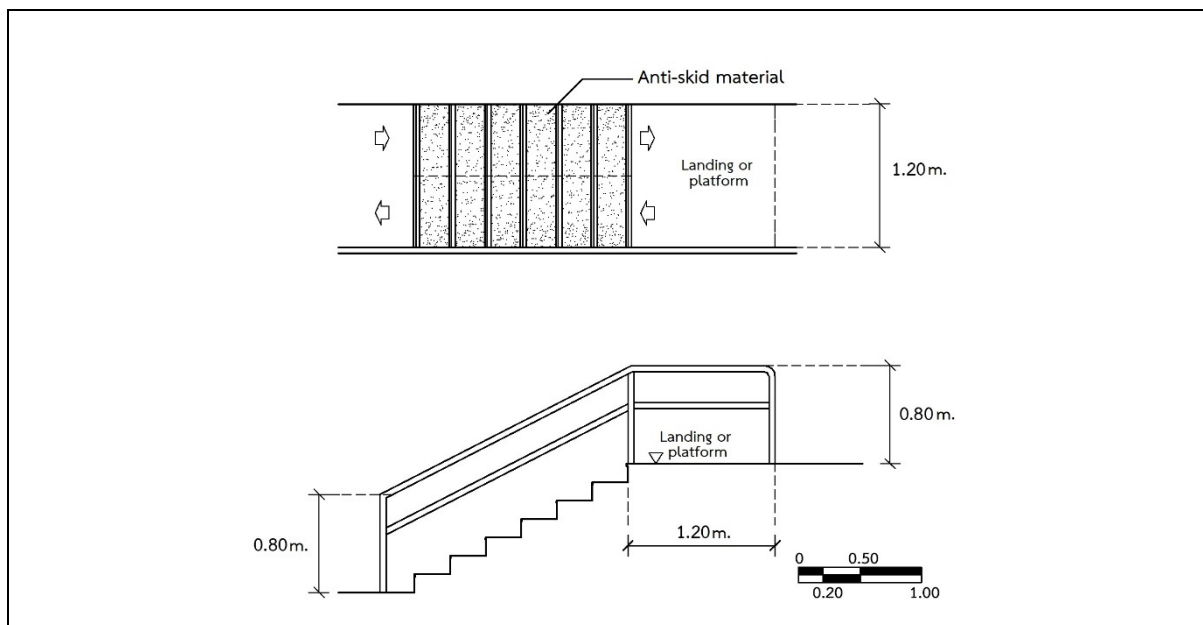
- 7) Walkways within the ships for persons with disabilities and older persons

Figure 3.2.5 – 6 Example of Wheelchair Passage within the Ship for Persons with Disabilities and Older Persons



8) Staircases for Persons with Disabilities and Older Persons

Figure 3.2.5 – 7 Example of Staircases for Persons with Disabilities and Older Persons



9) Toilets for persons with disabilities and older persons on Passenger ships more than sixty gross tonnage

Figure 3.2.5 – 8 Example of Toilets for persons with disabilities and older persons

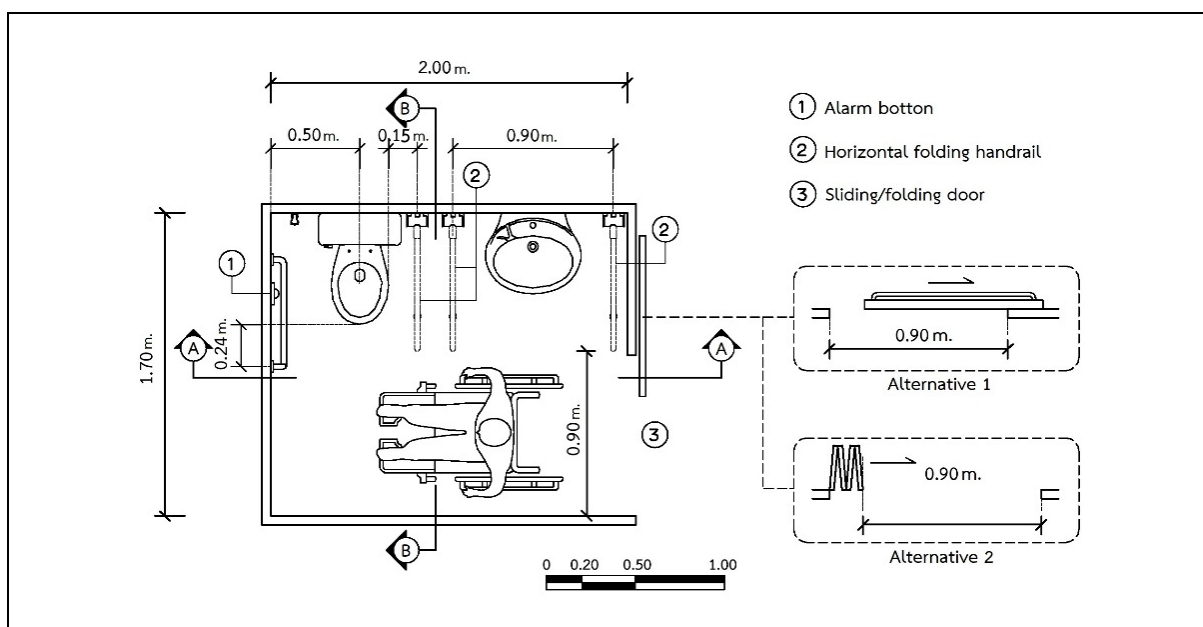
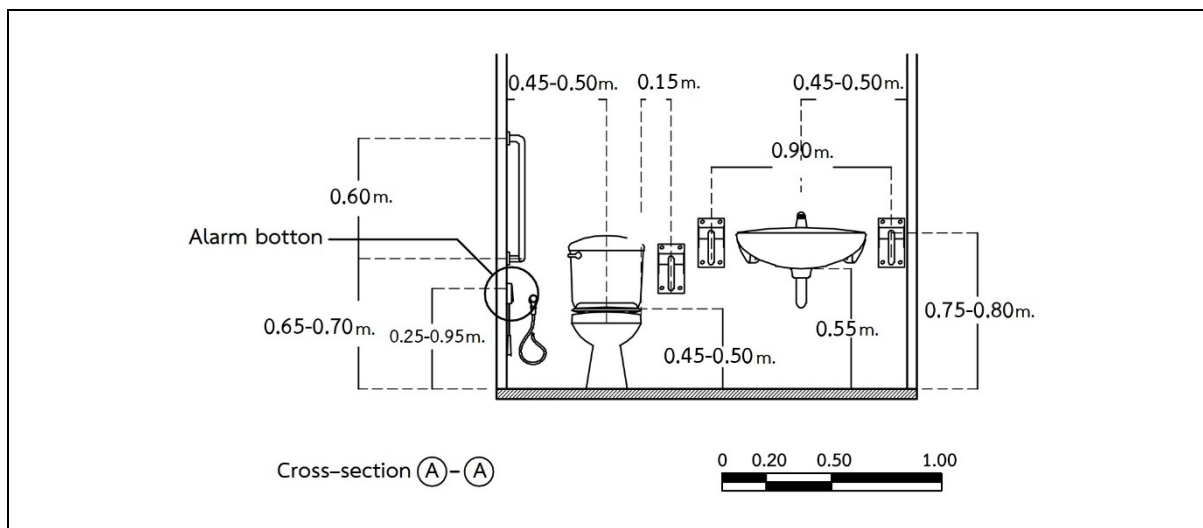
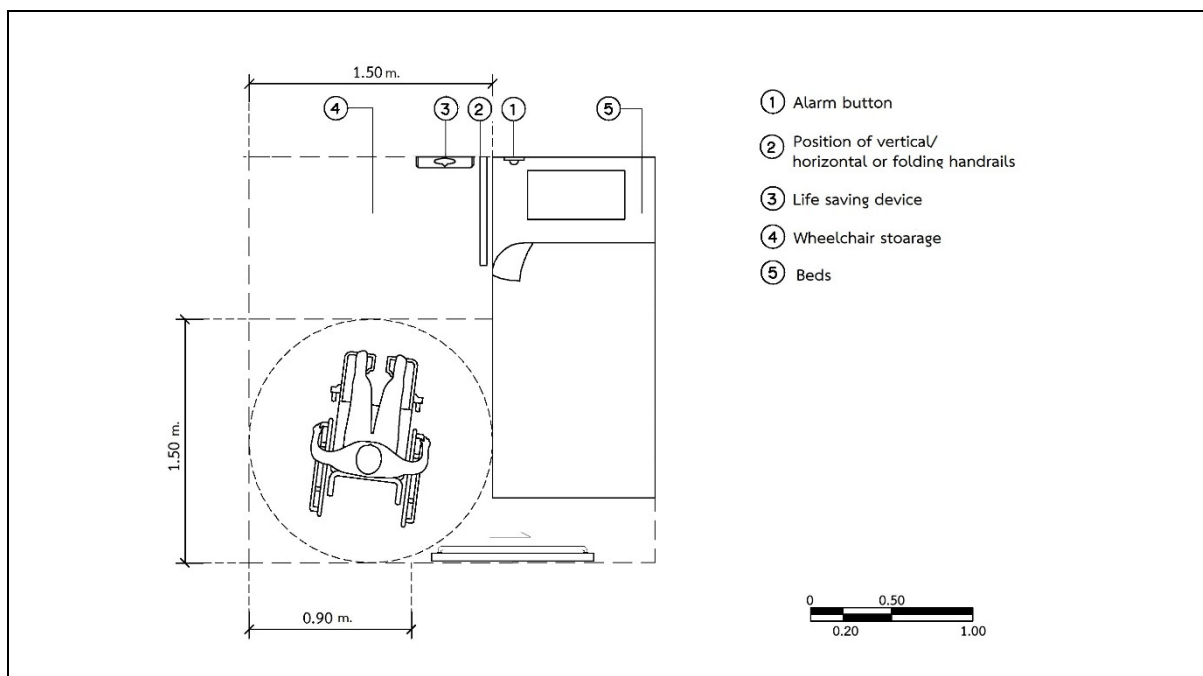


Figure 3.2.5 – 9 Installation of Sanitaryware in Toilets for Persons with Disabilities and Older Persons



- 10) Bedroom for persons with disabilities and older persons on Passenger ships more than sixty gross tonnage

Figure 3.2.5 – 10 Example of Bedroom Areas Accommodating Persons with Disabilities and Older Persons



11) Signs Displaying Seats for Persons with Disabilities and Older Persons

Figure 3.2.5 – 11 Example of Signs Displaying Seats for Persons with Disabilities and Older Persons

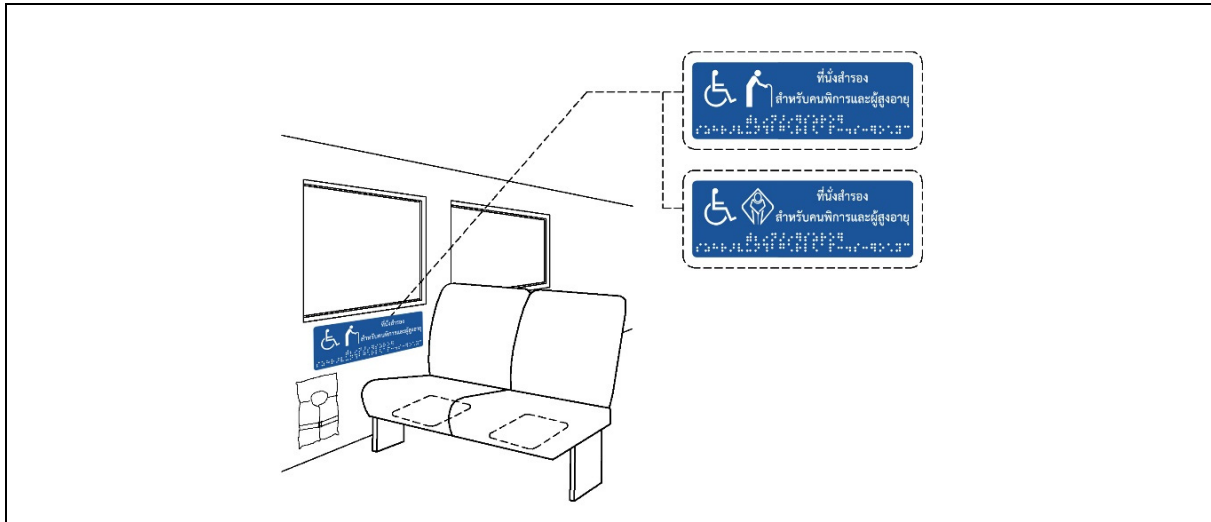


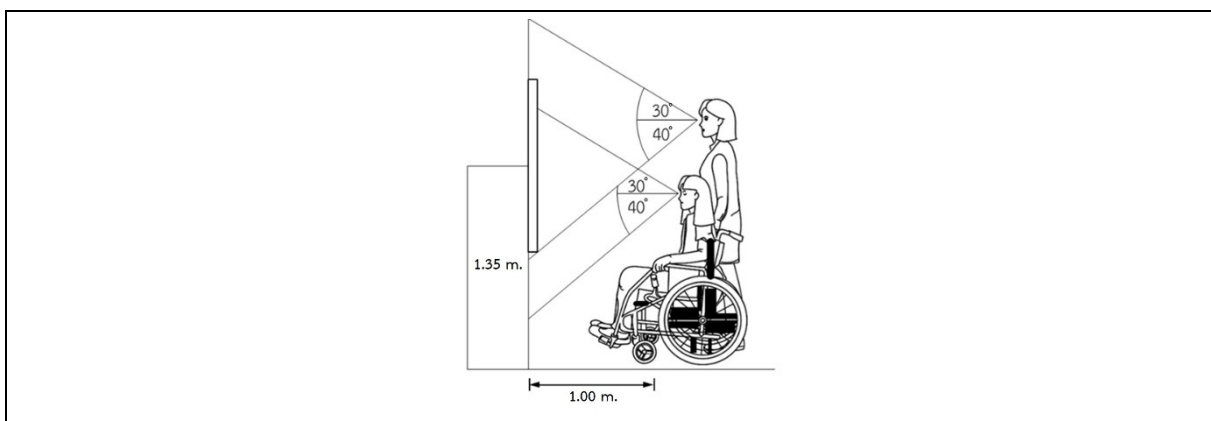
Figure 3.2.5 – 12 Example of Sign Size

Sign height (A)	Diameter or sign height (B)	Letter height in additional sign
7.5	6.0	0.5
10.0	8.0	0.7
15.0	12.0	1.0
22.5	18.0	1.5
30.0	24.0	2.0
60.0	48.0	4.0
75.0	60.0	5.0
90.0	72.0	6.0
120.0	96.0	8.0

(Unit : cm.)

Source: Revised version of the Translation manual or language signs for agencies providing services in the transport sector,OTP 2015

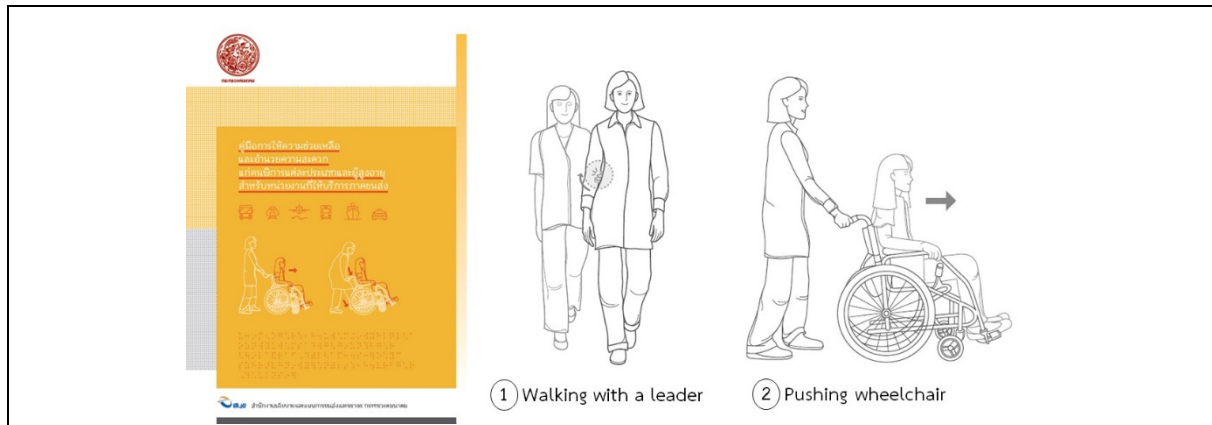
Figure 3.2.5 – 13 Braille Signage Installation



Source : The Translation manual or language signs for agencies providing services in the transport sector,OTP 2015

12) Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons

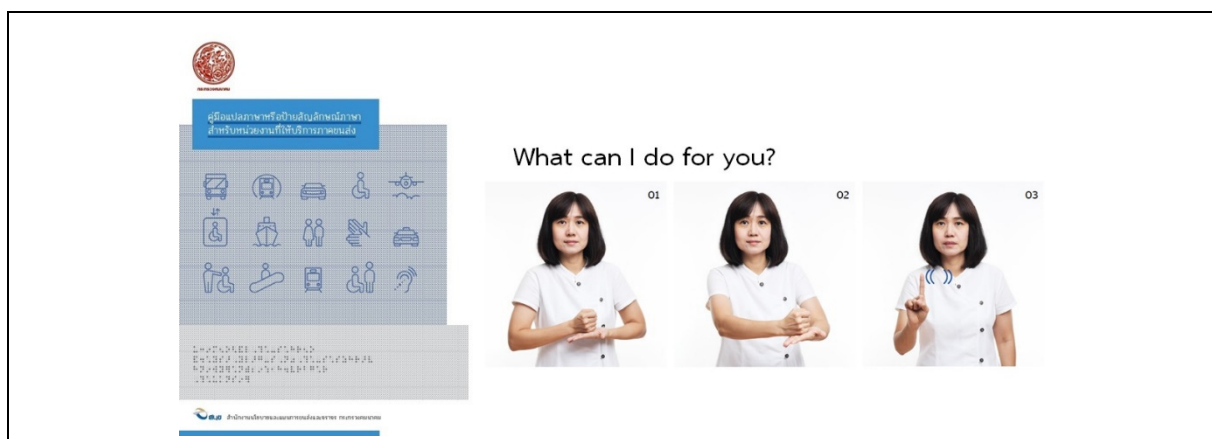
Figure 3.2.5 – 14 Example of Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons for Agencies in the Transport Sector



Source : OTP

13) Translation Manual or Language Signs for Agencies in the Transport Sector

Figure 3.2.5 – 15 Example of Translation Manual or Language Signs for Agencies in the Transport Sector



Source : OTP

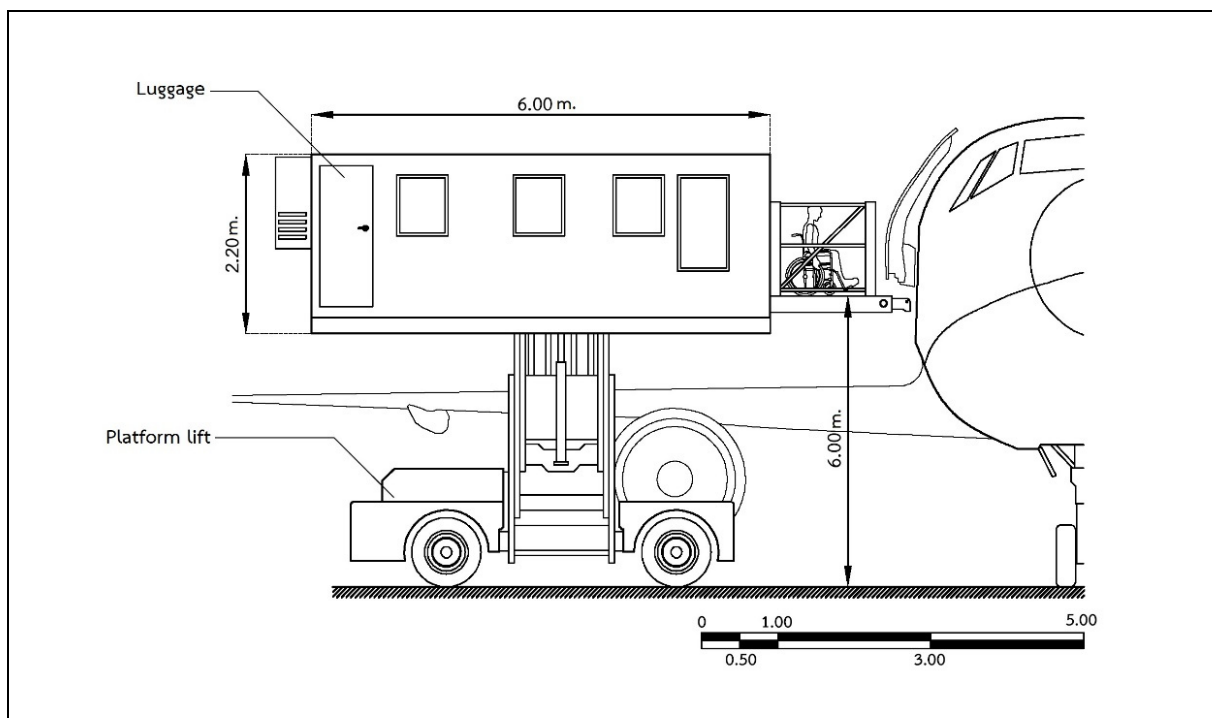
- 14) Announcement of the next Harbor for persons with disabilities of visual impairment and text moving signs or signs notifying a name of the next station for persons with disabilities of hearing or communication impairment
- 15) Vehicles officers who have been trained and have qualifications which meet the requirement of persons having each type of disabilities and older persons

3.2.6 Standards of Facilities in Transport Aircraft under the Air Navigation Act

The following list of facilities for persons with disabilities and older persons is determined.

- 1) Platform-typed elevators for guiding persons with disabilities and older persons to ascend and descend from aircrafts

Figure 3.2.6 – 1 Platform-typed Elevators for Persons with Disabilities and Older Persons or Wheelchairs



- 2) Seats for persons with disabilities and older persons
- 3) Toilets for persons with disabilities and older persons

4) Signs displaying equipment or facilities for persons with disabilities

Figure 3.2.6 – 2 Sign Size

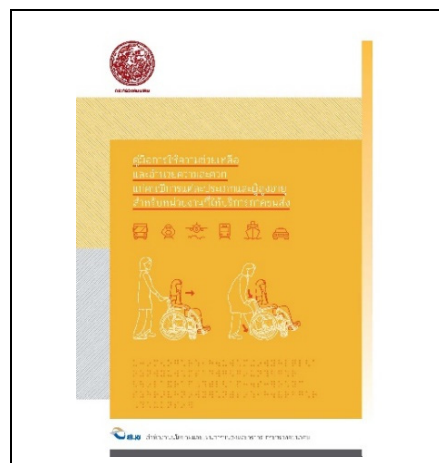
	Sign height (A)	Diameter or sign height (B)	Letter height in additional sign
	7.5	6.0	0.5
	10.0	8.0	0.7
	15.0	12.0	1.0
	22.5	18.0	1.5
	30.0	24.0	2.0
	60.0	48.0	4.0
	75.0	60.0	5.0
	90.0	72.0	6.0
	120.0	96.0	8.0

(Unit : cm.)

Source: Revised version of the Translation manual or language signs for agencies providing services in the transport sector,OTP 2015

- 5) Service instruction manual of aircrafts for persons having each type of disabilities
- 6) Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons for Agencies in aircrafts

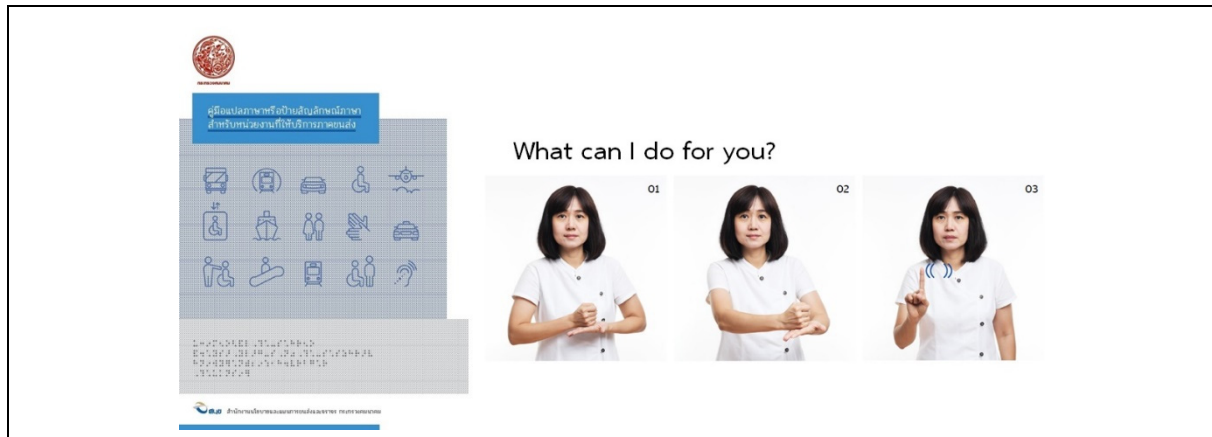
Figure 3.2.6 – 3 Example of Manual Providing Assistance to Persons Having Each Type of Disabilities and Older Persons for Agencies in the Transport Sector



Source: OTP

7) Translation Manual or Language Signs for Agencies in aircrafts

Figure 3.2.6 – 4 Example of Translation Manual or Language Signs for Agencies in the Transport Sector



Source : OTP

Figure 3.2.6 – 5 Example of Language Signs for Agencies in the Transport Sector



Source: Revised version of the Translation manual or language signs for agencies providing services in the transport sector, OTP 2015

- 8) Announcement of the next Harbor for persons with disabilities of visual impairment and text moving signs or signs notifying a name of the next station for persons with disabilities of hearing or communication impairment
- 9) Aircraft officers who have been trained and have qualifications which meet the requirement of persons having each type of disabilities and older persons

10) Wheelchairs for aircrafts

Figure 3.2.6 – 6 Example of Wheelchairs on Aircrafts



11) Storage spaces

Samples of facilities in vehicles and standards specified that the public sector or services providers “**must provide equipment, facilities or services to be ready for use**” so that persons with disabilities and older persons can access to and benefit from them. The list of facilities categorized according to types of vehicles is summarized in Table 3.2 – 1.

Table 3.2 – 1 Summary of Facilities Classified by Vehicles

Facility	Type of vehicle					
						
1) Doors for persons with disabilities	✓		✓			
2) Equipment guiding persons with disabilities or equipment lifting wheelchairs of persons with disabilities up and down from vehicles	✓	✓	✓		✓	
3) Ramps	✓		✓		✓	
4) Parking spaces for wheelchairs	✓	✓	✓	✓	✓	
5) Signs displaying equipment or facilities for persons with disabilities	✓		✓	✓	✓	✓
6) Manual providing assistance to persons having each type of disabilities for officers	✓		✓	✓	✓	✓
7) Translation manual or language signs for officers to communicate with persons with disabilities	✓	✓	✓	✓	✓	✓
8) Vehicles officers who have been trained and have qualifications which meet the requirement of persons having each type of disabilities and older persons	✓		✓	✓	✓	✓
9) Announcement of the next station for persons with disabilities of visual impairment and text moving signs or signs notifying a name of the next station for persons with disabilities of hearing or communication impairment	✓		✓	✓	✓	
10) Seats for persons with disabilities and older persons	✓		✓	✓	✓	✓
11) Toilets for persons with disabilities and older persons	✓		✓		✓	✓
12) Bedrooms for persons with disabilities and older persons			✓		✓	
13) Signs of persons with disabilities attached to an area at the outside of the car body for informing persons with disabilities and older persons that it is the car that has equipment or facilities for persons with disabilities and older persons			✓	✓		

Table 3.2 – 1 (Cont.) Summary of Facilities Classified by Vehicles

Facility	Type of vehicle					
						
14) Ways for ascending and descending from ships for persons with disabilities and older persons					✓	
15) Signs displaying a number of seats for persons with disabilities and older persons					✓	
16) Walkways within the ships for persons with disabilities and older persons					✓	
17) Staircases for persons with disabilities and older persons					✓	
18) Platform-typed elevators for guiding persons with disabilities and older persons to ascend and descend from aircrafts						✓
19) Service instruction manual of aircrafts for persons having each type of disabilities						✓
20) Warning notices for persons with visual disability and text moving signs or signs expressing meanings for persons with hearing or communication disability						✓
21) Wheelchairs for aircrafts						✓
22) Storage spaces						✓