



JOJAPS

eISSN 2504-8457



Journal Online Jaringan Pengajian Seni Bina (JOJAPS)

Pedestrian Facilities for the Disabled Persons in Lukut

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ABSTRACT

Observation was done at a region of Lukut Town where certain issues was found out. Lukut town is lack in certain community facilities which mainly can be seen in the facilities for the disabled persons. The main objective of providing a facility is for the reason to comfort the daily life processes. The aim that wanted to be achieved is having proper disabled person's facilities basically the pedestrians with tactile pavement and ramp-up. This unimplemented facility creates problems to the peoples living in this town. Throughout the research certain facilities was found out in bad condition and proposals of new design of facilities is implemented.

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Key Words: issue, main objective, problems faced, aim, introduction

1. Introduction

The topic that has been chosen for the topical studies research is the studies based on disabled persons facilities basically on pedestrians with tactile pavement and ramp-up. The research was done at Lukut town. The facilities for the disabled persons are very less at here. The problems that have occurred are such as for the blind peoples have difficulties using the pathway with no guide of the tactile pavement and do not know the pedestrian boundaries. The problems faced by the wheelchair users is have no ramp-up between road and pedestrian. The solution that can be done is by making a proposal of new designed facilities as mentioned for the disabled persons. Other than that through the result of the solution we also can bring up the image of the town where the town can be recognized as a friendly and caring type of town towards its peoples.

2. Aims

The problems faced by the peoples living in the town of Lukut are the problems based on facilities mainly the facilities for the disabled persons. The aim or the goal that wanted to be achieved is to propose complete facilities for the disabled persons living in Lukut town or for the outsiders during visitation where the peoples would not face any problems during their daily life processes. By implementing these types of facilities throughout the town, it will be very comfortable for the peoples to plow through their daily life activities. This also can result the town to be a friendly and caring type of town.

3. Objectives

The objective of implementing a proposal of pedestrians with tactile pavement and ramp-up in Lukut town was as follows:-

- To provide a complete pedestrian facilities throughout the town of Lukut mainly for the disabled persons.
- To solve the problems faced by the peoples in Lukut especially the disabled peoples as mentioned before.
- To improve the facilities that already existing in the region researched.
- To create a town which is friendly and caring towards its people who living in it and also the outsiders.
- To obtain a balanced facility system between the disabled persons and the non-disabled persons.

4. Issues

The issue that has been identified in the town of Lukut is the less implemented of facilities mainly the facilities for the disabled persons. Because of the incomplete facilities around the town of Lukut, many problems and uncomfortable moments occur among the peoples. While the development of an urban is done an issue such as facilities should be strictly possessed. Through observation the existing pedestrians in the region which is researched is very dangerous for the blind peoples and no ramp-up for the wheelchair users between the road level and shop lots level. To overcome these problems, a proposal of new well designed facilities of pedestrian and ramp-up needs to be done.

5. Problem Statements

This problem statement is briefed out specifically from the issue. The problems faced by the peoples at the region we researched are:-

- Blind peoples have the problems to indicate the correct path they need to use or go through without the assistant of the tactile pavement.
- Wheelchair users have hard times to use the pedestrians where no ramp-up is provided in between the road and pedestrian lane.
- Less facilities along the place we researched gives burden to the peoples who are using it.

6. Methodology

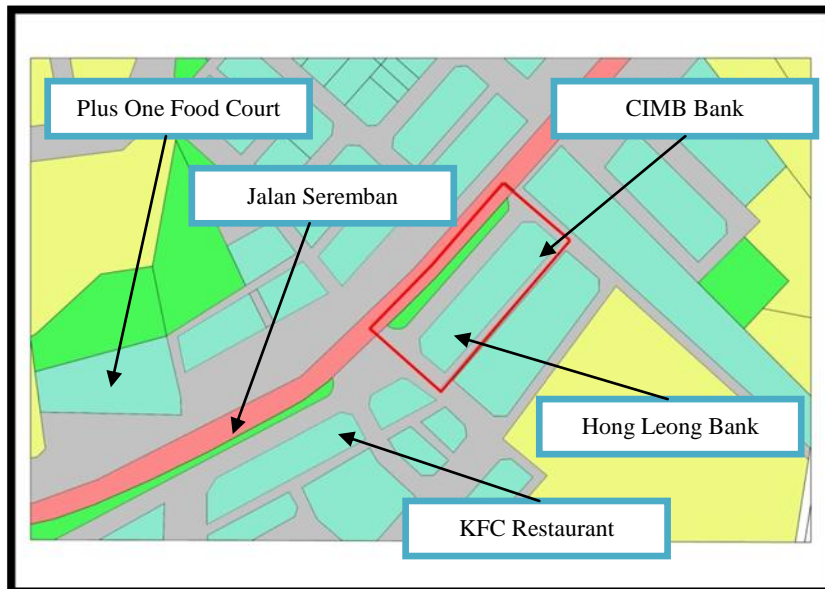
The site is chosen based on the peoples circulation, where in the place we researched was busy most of the time because there is 3 banks, 3 restaurants, a supermarket, jewelry shops, telecommunication shops and also a motorbike workshop. Method of research was done through visiting the site, where we visit the site and made observation and catch photos. We also made a questionnaire form (ex: attachment A) based on the facility and asked several public peoples to fill it up. The design of the proposal was made based on the comments stated by the public peoples in the questionnaire form and also through own design.

7. Site Selection

Site was selected based on the people’s circulation, because the research of this topic would be effective if the place is busy. The selected site was not so busy but always occupied with peoples around because of the shop lots. The shop lot has: -

- Pedas Indah Restaurant (Restaurant)
- Bank Simpanan Nasional (Bank)
- Country Homes Restaurant (Restaurant)
- Hong Leong Bank (Bank)
- Hotlink Center (Communication Services Center)
- De One Salon (Salon & Barber)
- Jin Wei Jewelers (Jewelry Accessories)
- Ceria 99 Supermarket (Supermarket)
- Hao Huo Xiang Restaurant (Restaurant)
- Digi Center (Communication Service Center)
- Shoon Lee Motor (Motor Workshop)
- CIMB Bank (Bank)

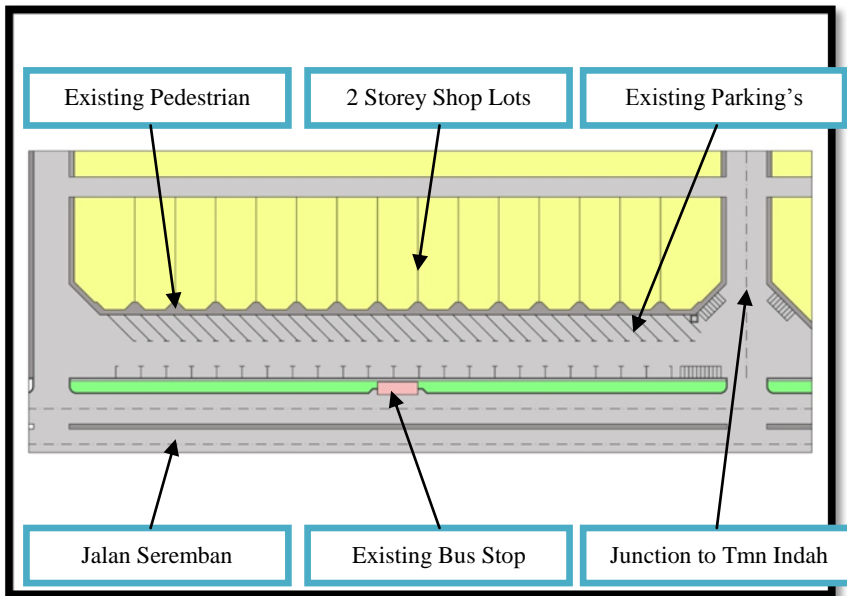
LOCATION PLAN



Shows the region selected at Lukut Town which is a row of shop lots along the Jalan Seremban.

Diagram 1 – The location plan of Lukut showing the region selected

SITE PLAN



Shows the shop lots selected comes together with the road, parking, bus stop and landscape nearby.

Diagram 2 – The site plan of the region selected in Lukut Town

The site is selected based on the people's circulation. The place is busy during the peak hours of lunch time from 12.30pm to 2.30pm. It's busy because workers nearby comes to have lunch at the restaurants here. The place is also busy because peoples come to the banks there to settle down their financial works. During the site visit we also observed that many people's stopped by at the telecommunication service centre just to buy the top-up

SITE IMAGES





Diagram 7 - The existing pedestrian is in many different levels which is confusing and dangerous



Diagram 8 - The piping is very messy and not arranged well and this makes the drainage condition nearby is exposed and dangerous



Diagram 9 - All the corner parking in this area is not provide with the parking for the disabled persons

8. Data

Data was collected using the method of questionnaire forms. We have prepared and carried out a questionnaire session with the public peoples we meet during the site visit. The questionnaire form consist six question related to the topic studied. The questions are as follow:-

- Question 1 - Do you know any about disabled person's facilities?
- Question 2 - Does Lukut town have disabled persons facilities?
- Question 3 - If yes, is the facilities provided are good enough?
- Question 4 - Do the facilities of pedestrian in Lukut Town need to be upgraded?
- Question 5 - On your opinion, will the disabled people's facility give benefit to the people of Lukut?
- Question 6 - What is your suggestion based on the disabled persons facility problems?

9. Public Response

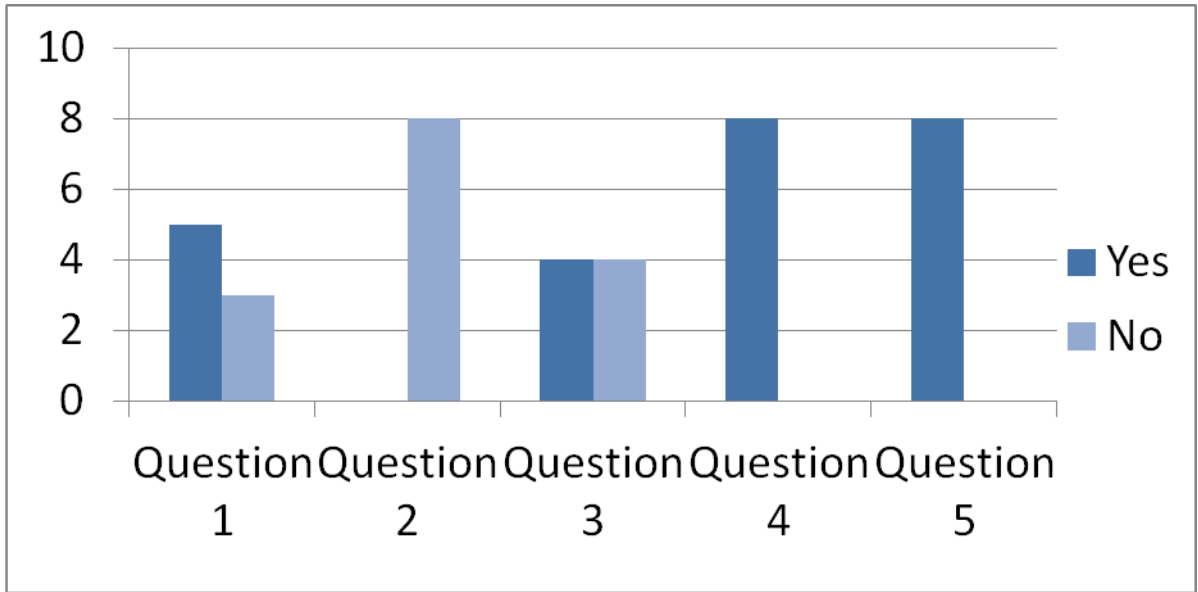


Diagram 10 - Bar chart showing the public response towards the questions asked

The questionnaire session was done towards public people nearby the site visit and we are able to question only 8 public peoples. Response towards the suggestion of facilities did not turn out well.

10. Question Response



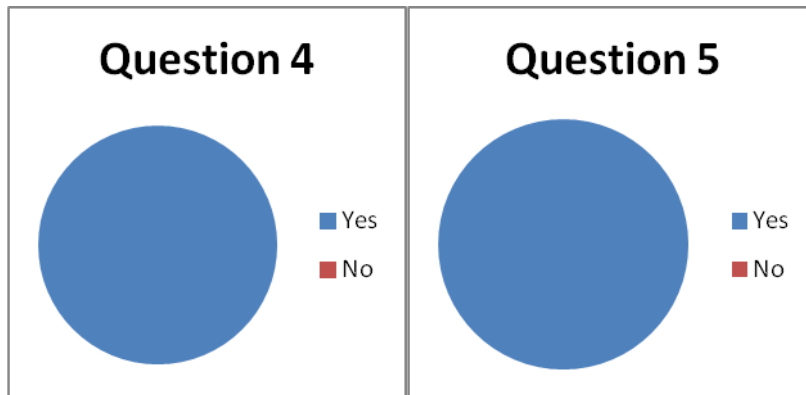


Diagram 11 – Pie chart shows the answers fraction

Question 6

- 5 out of 8 answered “no comment” because they could not come out with any ideas.
- Suggestion of more facilities of disabled need to be implemented nearby the area we researched.
- Implementation of the disabled facilities needs to be done not only in the place researched but also throughout the Lukut Town.

According to all the response given by the public peoples, a simple decision was made from the overall response given. The design proposal of the disabled facilities planned is followed according to the people’s suggestion. From the aspects of architecture, we have designed the proposal into comfortable usage facilities with intake of safety measures too.

11. Facilities Proposed

The facility which is proposed at the selected site is based on the issue and also the public response. The facilities proposed are the pedestrian lane with tactile pavement and railing and also the ramp-up with kerb and railing. The tactile pavement is specially made for the blind peoples where they use their stick to tap on the tactile pavement. This allows them to recognize the path whether it’s safe or not. They also indicate the paths direction whether it’s straight or turning. This tactile pavement will be applied to the new pedestrian along the shop lot for the use of the blind people to walk through along the shop lot.



Diagram 12 – Shows the type of tactile pavement will be used

The ramp-up can also be used by the wheelchair users to climb up from a different level to another level without using the staircase. This helps them to slide on the ramp-up to go to another level of floor. The ramp-up would be

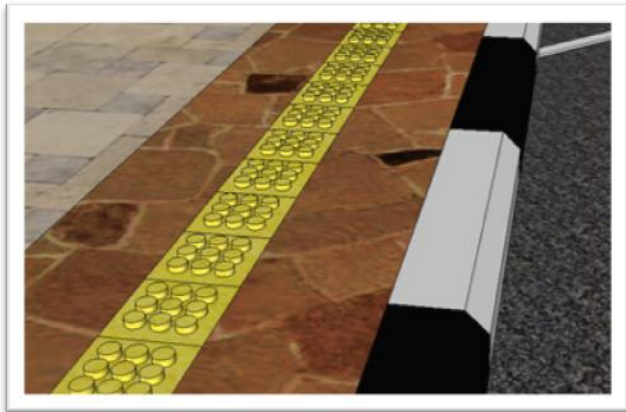
complete of railings are applied. The wheelchair users can hold on to the railings while moving upwards or downwards without slipping out.



Diagram 13 – Shows the type of ramp-up will be proposed and used

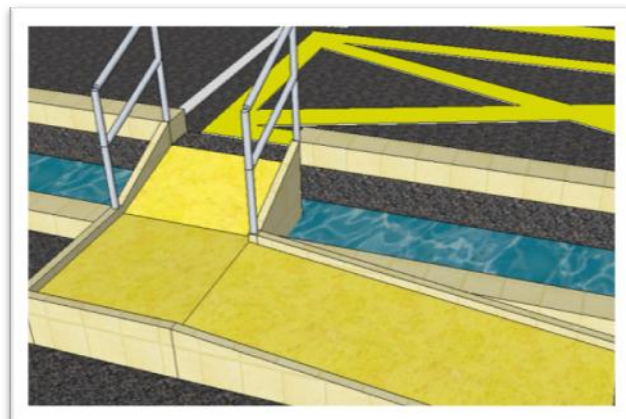
With the application of pedestrian lane with tactile pavement and railing and also ramp-up with kerb and railing would be a complete design and facility proposal for the disabled persons.

11. Proposal Solution



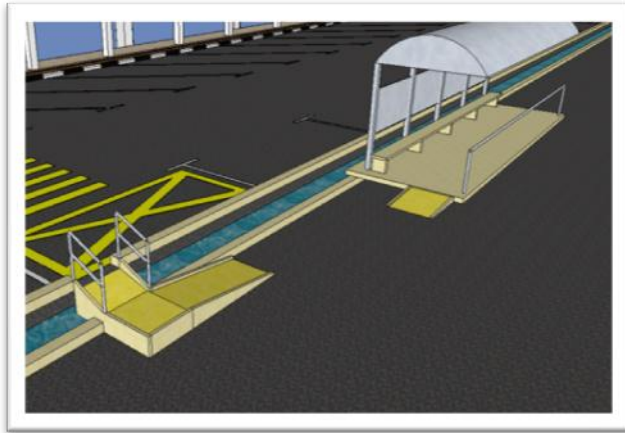
The tactile pavement is applied along the pedestrian lane also the finished is given in different type where it indicates that the lane is especially for the usage of disabled persons.

Diagram 14 – Tactile Pavement



The ramp-up is applied before the parking because the level height is different. Kerb and railing is applied together along the ramp-up for safety usage.

Diagram 15 – Ramp-Up and Railing

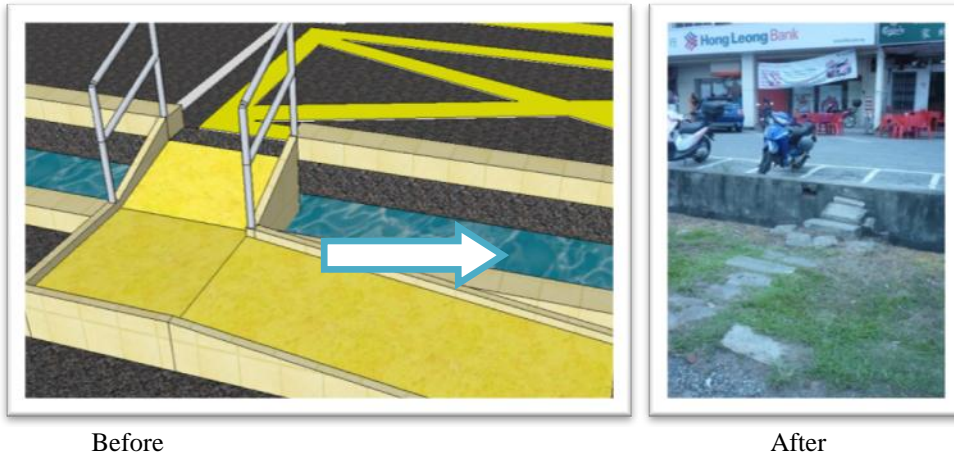


Ramp-up is also given at the bus stop till the parking for an easy access for the peoples to cross and go to the shop lots.

Diagram 16 – Ramp-up at Bus Stop

12. Discussion

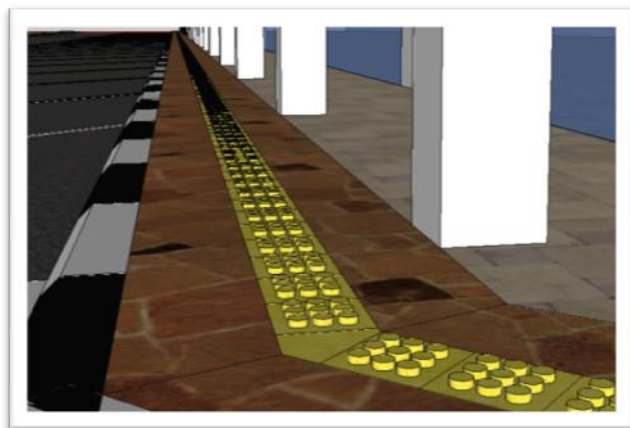
Discussion was done by making the design proposal fits with the rules and regulation based on architectural aspects. Information based on dimension of ramp-up and gradients were obtained and applied in the proposals solution. Through researches, the ramp-up's gradient should be in 8% in slope for a comfortable usage of the wheelchair users. The tactile paving is in 30 cm x 30 cm length and width, where it would be the standard size and the height of the buttons should be less than 0.5 cm. This is to avoid the users tripped over when using it.



Before

After

Diagram 17 – The Differences between before and after proposal



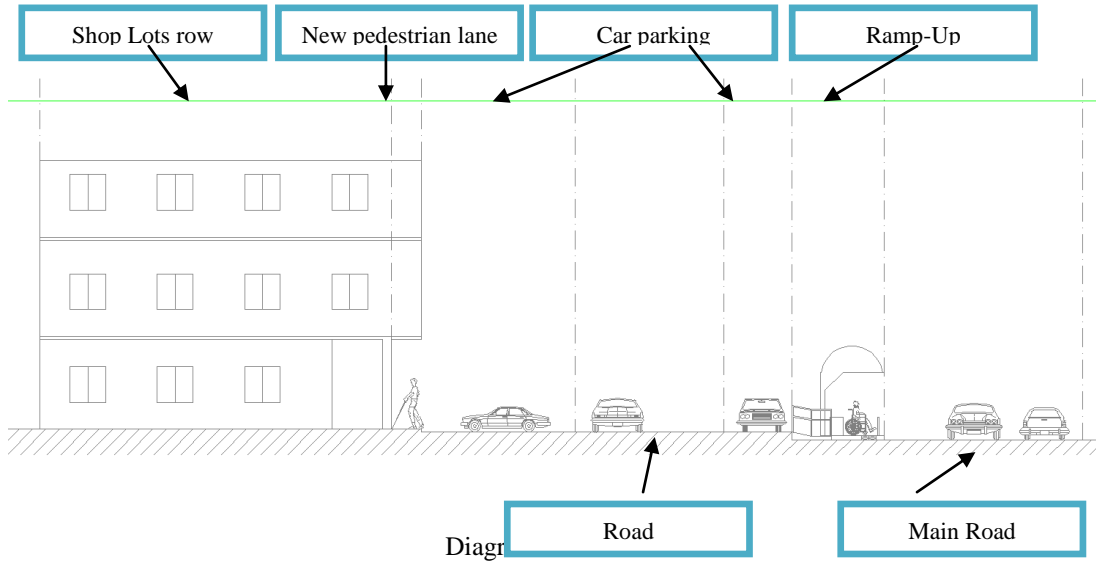


Diagram 19 – Information based on the Ramp-up

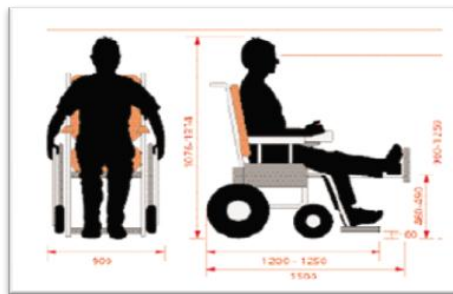


Diagram 20 – Dimension on Wheelchair Users

13. Conclusion

As for the conclusion, in an urban planning many aspects need to be emphasized so that a good and perfect planning can be done. Aspects such as the urban guidelines, facility systems, landscape design and others need to be done. As for the chosen topic, the pedestrian facilities for the disabled persons are a must in a town planning. Through this report and research we have obtained the knowledge based on the facilities needed by the disabled persons and also get to know the types of facilities and the correct dimension on applying it.

REFERENCES

- Book - *The Disabled Persons Act (1986)*, volume 2, pg 21
- Book – *Universal Building By-Laws 1984*, [G.N.5178/85], International Law Book Services, Volume 1st March 2010, pg 52 & 56
- Book – Shaw Adam, *Safety Rules for the Disability*, 2000
- Website - <http://lanchashire.gov.uk/environment/documents/mobility.pdf>
- Website - <http://communities.gov.uk/documents/planningbuilding.pdf>