

## **Safety Design Evaluation of “Suroboyo Bus” Bus Stop Towards Women Friendly Aspects in Surabaya**

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### **ABSTRACT**

Crime is a problem that is experienced all around the world, including Indonesia. One of the most common criminal cases in society is street harassment. Street harassment is sexual harassment in the form of words and/or actions against women that occur in public places. According to [stopstreetharassment.com](http://stopstreetharassment.com), 99% of 800 women experience street harassment every year, even 65% experience street harassment at least once a month. The forms of street harassment can vary from words, glances, and vulgar gestures, to physical harassment. Street harassment hurts victims psychologically and physically. The high potential and impact of street harassment certainly give female passengers fear and insecurity when using public facilities. Therefore, public facilities certainly need to be designed to provide security and protection for female users. The “Suroboyo Bus” bus stop in Kalisari, Surabaya, was chosen as the research object for the most used public facility which is public transportation. This research was conducted to provide evaluation results for the “Suroboyo Bus” bus stop on women-friendly aspects so that female users can feel secure and safe while using public facilities equally like male users.

**Keywords:** *Interior design, public transportation, women-friendly*

### **INTRODUCTION**

Crime is a problem that is experienced all around the world, including Indonesia. One of the most common criminal cases in society is street harassment. Street harassment is sexual harassment in the form of words or actions against women that occur in public places. According to [stopstreetharassment.com](http://stopstreetharassment.com), 99% of 800 women experience street harassment annually, and 65% experience street harassment at least once a month. The forms of street harassment can range from words, glances, whistles, vulgar gestures, and stalking, to sexual harassment.

Street harassment hurts victims psychologically such as feeling annoyed, uncomfortable, humiliated, afraid, or traumatized, and even physically such as wounds and injuries. However, not a few of the victims were afraid to report it and tended not to fight back. The cause could be from fear of escalating the situation, being threatened, or losing power. Apart from that, street harassment is often considered normal, and trivial, and some even blame the victim. This of course can interfere with the mental health of the victim and give a feeling of being 'threatened' in a public place.

The survey by the Plan International Indonesia Foundation in collaboration with U-Report Indonesia stated that as many as 44.2% of respondents mentioned public transportation facilities, including bus stops and stations, as unsafe places for them due to frequent verbal and visual street harassment. The magnitude of the potential and impact of street harassment certainly gives people fear and insecurity when they are in public, such as when using public facilities. Therefore, public facilities certainly need to be designed to be able to provide a sense of security and protection for female users.

With this statement, this research decided to take one of the public facilities in the field of transportation as a research object. More specifically, the "Suroboyo Bus" stop in Kalisari, Surabaya. Therefore, this research was conducted to provide evaluation results for the "Suroboyo Bus" bus stop on women-friendly aspects so that later it can be applied and used as a reference for bus stops that have been or will be built so that female users can feel secure and save while using public facilities equally like male users.

## LITERATURE REVIEW

### A. Security System

The security system is a system that functions to protect and secure occupants in a building when problems occur or prevent problems from occurring in the building. The security system is divided into two, namely passive and active security systems.

Passive security systems are systems designed to deter any threat within a building. If there is a crime or disturbance, the passive security system must complicate and delay the crime. One of the passive security concepts is the concept of Crime Prevention Through Environmental Design (CPTED). The Director of the United States National Crime Prevention Council (NCPC), Terri Kelly (2004), describes how a community that adopts CPTED principles can improve their quality of life through good design. CPTED offers design solutions that are inexpensive and do not require complicated and expensive technologies and have been adapted in various parts of the world as an effective strategy for tackling the problem of crime in the environment. In general, the need for crime prevention, access control, surveillance systems, and area or zone control in each building is the same. However, at the level of design implementation, of course, it will vary depending on the function of the activity and the physical structure of the building. Using CPTED principles in the planning process from the start will be more efficient and can avoid higher costs (Wizaka, 2012).

The active security system is the one that always monitors and reacts first to unwanted situations. It usually takes the form of an alarm to alert those responsible for the reaction that something is wrong. Examples of active security systems are motion sensors, CCTV, and fire sensors. (Petrausch, 2020)

There has been a lot of research conducted in several developed countries which proves that a design that matches the level of effectiveness of a public space, can help reduce the incidence of crime and public fear of crime (Wizaka, 2012). According to Wizaka (Wizaka, 2012), the following is the application of the CPTED security system to public facilities.

1. Try so that public spaces are always used by the closest occupants and not by strangers or from far-flung areas.
2. Avoid dark places and hidden areas close to activity centers.
3. Provide good lighting that is bright enough at night.
4. Avoid protected spaces that may invite people to loiter in this area.

Meanwhile, active security systems can be in the form of:

1. Security guards who monitor entrances and exits
2. CCTV cameras in the corners of the room, and make sure that all spaces are visible (except the privacy area)
3. Active and passive fire systems

#### 4. Motion sensors

##### **B. Bus Stop**

Buses are one of the most widespread public transportation facilities in Indonesia. Passengers who wish to board the bus must wait at the bus stop. On the other hand, passengers from buses will also be dropped at bus stops.

The standard equipment for a bus stop has been regulated by the Director General of Land Transportation in Decree of the Directorate General of Land Transportation No. 271/HK.105/DRJD/96 on 16 April 1996 has:

1. The identity of the stop in the form of a name and/or number
2. Directional signs
3. Route information boards
4. Lighting lamp
5. Seating

The additional facilities permitted at a bus stop are:

- a. Payphone
- b. Rubbish bin
- c. Fence
- d. Billboard/announcement board.

The Suroboyo Bus is an intra-city transportation managed by the Government of Surabaya and was launched in 2018 using a means of payment for plastic bottle waste (Luthfiyah, 2021). The "Suroboyo Bus" stop to be studied is located on Jl. Raya Kertajaya Indah, Gebang Putih, Kec. Sukolilo, Surabaya, East Java.

##### **C. Street Harassment**

Street Harassment is sexual harassment that occurs in a public space. Street Harassment can also be interpreted as an unwanted interaction in a public space and usually occurs between strangers who are motivated by one's perception of gender, sexual orientation, or expression of gender and cause victims to feel annoyed, angry, embarrassed, and afraid (Ivana, 2021). Based on stopstreetharassment.com, 99% of 800 women experience street harassment every year, even 65% experience street harassment at least once a month. The forms of street harassment can vary from words, glances, whistling, vulgar gestures, stalking, to actions such as pulling clothes or holding bodies. The impact received from victims of street harassment psychologically includes feeling humiliated, intimidated, and can even create stress.

In addition, not a few victims chose to remain silent and not report it for several reasons, such as street harassment is still considered normal, considering street harassment to be trivial and contrived, and even blaming the victim's clothing. This makes victims reluctant to report sexual harassment. (Ivana, 2021)

##### **d. Women Friendly**

Just like eco-friendly or kids-friendly, women-friendly means that something has been designed and engineered to be able to support women's needs and safety. The problem is that areas such as urban and public transport design are dominated by male designers, often without thinking about the diverse communities they serve. Ro says

they must look beyond the default male user (Ro, 2021). An example is starting to think about female users and how to consider women-friendly aspects.

Some examples of cases that often occur are that women tend to be afraid when they must cross a crossing bridge and men are standing or sitting on the bridge. When they are on public transportation and there is a group of men coming, they tend to get anxious and start to feel uncomfortable. This is of course a few of the many cases that occur out there every day. Therefore, women-friendly aspects need to be noticed and implemented for the comfort and safety of women. (Safitri, 2020)

Based on Zhen (Zhen,2021), some aspects needed to be rethought and considered for gender-neutral and women-friendly transit, such as;

1. Rethink their practice in designing for peak hour services. Transit authorities should consider drop-offs at requested locations to increase safety.
2. Lack of save environments and badly designed infrastructure that creates barriers to women for using public transit. To increase the usability for women, better infrastructure design needs to be considered such as bus stations within short walking distance, bus stops located in places with high visibility, increased lighting, stroller-friendly, etc.
3. Allocating budget and human resources to implement and reinforce initiatives against gender-based violence in public transport

## **METHODOLOGY & DATA**

### **A. Methodology**

This research uses qualitative research methods with a narrative approach. According to Wahid Murni, the qualitative research method is a method that can be used to solve research problems in the shape of narratives resulting from document excavation, interviews, and observations (Wahid Murni, 2017). The narrative approach can be defined as a study that centers on descriptions, definitions, and narratives of events about human experiences (Creswell, 2015).

The selected research location is the "Suroboyo Bus" bus stop located on Jl. Raya Kertajaya Indah, Gebang Putih, Kec. Sukolilo, Surabaya, East Java. The research location was chosen because it is a public transportation facility that is still frequently used, especially by students. After all, it is in the vicinity of the Sepuluh Nopember Institute of Technology (ITS). This certainly supports research because researchers can evaluate public facilities at any time with a high chance of having users and the range of users is teenagers to adults.

According to Rahardjo, (Rahardjo, 2011), the data collection techniques used in qualitative research are as follows;

#### **1. Interview**

The interview is a communication process to gather information by question and answer between researchers and informants. Guided interviews are interviews in which the researcher asks informants about things that have been prepared beforehand. Guided interviews will be used to interview users at the "Suroboyo Bus" stop during the observation.

#### **2. Observation**

Observation is an activity that contributes to the five senses (smell, hearing, touch, etc.) to gather the information needed. Observations were made to retrieve data directly at the research site.

### 3. Documentation

Apart from interviews and observations, information can also be obtained through stored facts in the form of letters, diaries, photo archives, results of meetings, souvenirs, activity journals, and so on. Documentation will be used to record research locations graphically in the form of photos and videos.

This study uses descriptive qualitative data analysis. The descriptive qualitative data analysis method is a method of processing data in depth with data from observations, interviews, and literature. The data analyzed by this method are in the form of text or narrative.

## RESULT AND DISCUSSION

Traveling safely also means non-accidental risk, including the risk of violence or harassment. Although both women and men face the risk of violence, most victims are likely to be women. Observations, interviews, and documentation are conducted to answer the following questions based on combining the CPTED and active security system to public facilities based on Wizaka (Wizaka, 2012), and Zhen’s recommendations for gender-neutral public transportation (Zhen, 2021).

### A. Observation and documentation results

Observation was held to explore and observe directly the “Suroboyo Bus” bus stop during daytime and nighttime. Observation was conducted based on the following aspects;

1. Is the bus stop easily accessible daytime and nighttime?
2. Does the bus stop have a good lighting that is bright enough at night?
3. Are there any protected spaces in the bus stop that may invite people to loiter in this area?
4. Does the bus stop guard with CCTV?
5. Does the seating at the bus stop ergonomically correct?
6. Does the public toilet accessible and hygienic?
7. Are there any display advertisements educating people about public harassment or abuse?



**Figure 1.** Picture of “Suroboyo bus” Bus Stop in Kalisari, Surabaya  
Source: Author





**Figure 2.** Picture of “Suroboyo bus” Bus Stop in Kalisari, Surabaya  
Source: Author

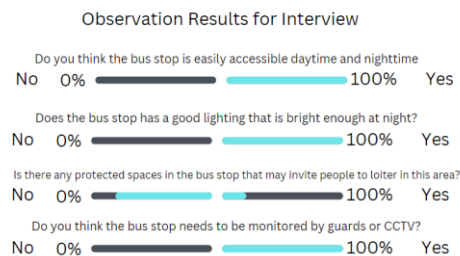
The results for the observation held are the bus stop is easily accessible during daytime and nighttime. It is located near the main street which is always crowded. There are three LED lamps so it is bright enough during nighttime. The seating is made of concrete and there are only nine available seating, without backrest and cushion. Unfortunately, the public restroom is not so accessible since the way is not paved well, and it is lack on lighting and hygiene. There are some display and posters about littering and COVID-19 protocol, but there is no warnings about public harassment.

### B. Interview results

An interview was held with five women passengers who had been using the bus stop in the daytime and nighttime. The following are the questions;

1. Do you think the bus stop is easily accessible daytime and nighttime?
2. Does the bus stop have good lighting that is bright enough at night?
3. Are there any protected spaces in the bus stop that may invite people to loiter in this area?
4. Do you think the bus stop needs to be monitored by guards or CCTV?
5. What is your opinion about the seating at the bus stop?
6. What is your opinion about the public toilet?
7. Have you experienced any public harassment or other safety issues in this bus stop?
8. What is your opinion about the safety of this bus stop in general?

The results will be displayed as a graph below;



**Figure 3.** Observation Result  
Source: Author

The answers for question number five are some agreed that the seating was not the best at comfort, since it is made from concrete, but it is still usable. Some also said that the seating needs improvement in comfort and quantity since there are only nine seats. Sometime when it is crowded, two to three people crumpled up in one seating,

and it can be uncomfortable. The answers for question number six are all of them never used the toilet since it feels unsafe and dirty. They tend to go to other public toilets before going to the bus stop.



**Figure 4.** The Seating at “Suroboyo Bus” Bus stop

The answer to question number seven is that luckily all of them never experienced any public harassment at this bus stop or any safety problems. Since the bus stop is an open space and is near the main street, it is always crowded and it feels even safer. However, some of them said that they had experienced public harassment in other public transportation such as taxis, train stations, and Indonesian traditional transportation called Angkot.

The answer to question number eight is that all agreed that the bus stop needs some improvements. Especially in terms of safety comfort and hygiene. They are satisfied with the openness of the bus stop, location, and easy access, but it will be better if the seating is more comfortable (at least has a backrest), and the public toilet is more hygienic. One of them also suggests a helpline that assists people who report incidents to get immediate responses.

## CONCLUSION

Based on the results above, it is concluded that the “Suroboyo Bus” bus stop is applying some safety guides that can support women-friendly. But some aspects can be improved such as seating comfort, public toilet hygiene, and more signage about public harassment and abuse. In addition, the bus stop can be completed with helpline numbers where people can easily report incidents or problems efficiently and easily for women. This can prevent or save women from experiencing public harassment and abuse, making women travel more safe. It is hoped that this research can result in inspiration and insights for many public transports, not just bus stops, for better travel for women.

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