

CONCEPT NOTE

Enhancing FOB Utilization

Design of Surroundings around FOB

Title of Solution

Promoting FOB uses through strategic solutions to improve overall utilization of FOBs & enhancing physical environment around FOBs.

Theme of Solution

- Enhancing FOB Utilization
- Design of Surroundings around FOB

Problem Identification

Vulnerable users while crossing multilane highways face issues such as speeding vehicles, poor visibility, lack of safe road crossings, inadequate facilities in FOBs for elderly & disabled people(eg. Elevators are missing or not properly functioning) .

Challenges in Current FOBs Solutions for Pedestrian Crossings

- Lack ramps & elevators
- Security Concerns
- Poor aesthetics
- Inefficient integration with public transport
- Poor location

Many are not user-friendly for elderly individuals, disabled users, or pregnant women due to the lack of ramps, elevators, and handrails, limiting accessibility for vulnerable groups. Security is another concern, as several FOBs lack functional CCTV surveillance, proper lighting, and emergency systems, making them prone to criminal activities. The design and comfort aspects are also overlooked, with poor aesthetics and inadequate maintenance discouraging regular use. Integration with public transport systems remains inefficient, as weak connections with bus stops and metro stations create inconvenience for pedestrians. Furthermore, FOBs are often poorly placed, failing to meet pedestrian demands near key areas like schools, hospitals, and commercial hubs. Improved planning and design are essential for safer and accessible infrastructure.

Challenges in Current Road User Behaviour for FOB utilizations

- Pedestrians avoid FOBs for
- Low awareness of FOB safety benefits
- Poor maintenance discourage usage
- Impatient drivers create Unsafe crossings.
- Jaywalking is culturally normalized

Many pedestrians prefer crossing roads at grade level, even in high-traffic zones, due to the perceived inconvenience of climbing stairs or using ramps. This risky behavior is often driven by a lack of awareness regarding the safety benefits of FOBs or the urgency to save time. Additionally, FOBs are often poorly maintained or aesthetically unappealing, further discouraging usage. Impatient drivers near pedestrian crossings also create unsafe conditions, prompting pedestrians to avoid FOBs. Cultural and habitual preferences often prioritize convenience over safety, particularly in urban settings where jaywalking is normalized. Encouraging responsible pedestrian behavior through awareness campaigns and improving the user experience of FOBs are crucial steps toward addressing these challenges.

Categorization of Solution

Engineering-Based Solution - The solution features aesthetically appealing FOBs with green spaces, QR-based rewards, ramps, escalators, and surveillance for safety. Public screens display accident visuals, while solar panels and eco-friendly materials promote energy efficiency and sustainability.

Proposed Solution

Solution

The solution involves building an interconnected network of aesthetically pleasing Foot Over Bridges (FOBs) integrated with public transport systems. These FOBs can be transformed into tourist attractions through innovative architectural designs, greenery, and vibrant lighting, enhancing urban aesthetics. To promote pedestrian usage, a reward points system can be introduced. Pedestrians can earn points by scanning QR codes at entry and exit points of FOBs, which can be redeemed for toll reductions or retail discounts. Public awareness campaigns can further encourage safe road-crossing behavior. Displaying visuals of pedestrian accidents at key locations can emphasize the dangers of unsafe crossings, motivating pedestrians to use FOBs. Accessibility features such as ramps, elevators, and tactile paving will ensure inclusivity. Security measures like CCTV surveillance and proper lighting will enhance safety, while eco-friendly materials and solar power will support sustainability. This solution aims to increase pedestrian safety, improve mobility, and create a visually appealing urban landscape.

Key Features

- . **Aesthetics:** Tourist-attractive designs with greenery and modern architecture.
- . **Reward System:** QR codes for earning points, redeemable for toll reductions or discounts.
- . **Public Awareness:** Accident visuals displayed to discourage unsafe crossings.
- . **Accessibility:** Ramps, elevators, and tactile paving for inclusive design.
- . **Security & Sustainability:** CCTV surveillance, lighting, and eco-friendly materials.

Challenges

Challenges: high construction costs, space constraints, maintenance issues, and resistance to behavioural changes. Security risks, technical failures in QR systems, and complex coordination with authorities

Impact

Impact: Improved safety, better mobility, increased awareness, and enhanced urban appeal through innovative designs and reward incentives.



Millennium Bridge, London . Famous for aesthetic FOB



Langkawi Sky Bridge. Best example of Skywalk FOB



Gateshead, United Kingdom. Prioritizes accessibility with smooth ramps & caters to cyclists & pedestrians alike



Seoullo 7017 Skygarden, Seoul, South Korea. To promote walking it offers loyalty points that can be redeemed at partner establishments