



OPTIMIZED DESIGN FOR SAFER FOOTBRIDGE WHEELCHAIR RAMPS

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ABSTRACT

Individuals who use wheelchairs encounter challenges, especially regarding accessibility in public spaces, such as footbridges. While these structures are designed to enhance safety, they are often built without considering wheelchair accessibility. Public facilities must be designed to be easily accessible and usable for individuals in wheelchairs, ensuring equal access to services and opportunities. Optimizing the design of footbridge ramps is essential for creating an inclusive environment. Features like gentle slopes, wider ramps, and anti-slip surfaces can make footbridges safer for all users. Incorporating accessible ramps into infrastructure is not only beneficial for wheelchair users but also a practical and economically sound decision. Developing an alternative model for wheelchair ramps on footbridges that prioritizes safety and efficiency can significantly improve the comfort of individuals who use wheelchairs. Integrating the findings of this study can enhance their outdoor experiences by reducing accessibility challenges. This innovative design contributes to community development by promoting inclusivity. Ensuring equal access to public spaces

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and transportation allows individuals with disabilities to navigate their surroundings freely and participate fully in society without barriers.



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