DIALOC®

Introduction

Objective

Structural design of a pedestrian bridge in accordance with Alberta and Canadian bridge design specifications connecting two communities over Whitemud drive in Edmonton, Alberta. This project considers community needs, aesthetics, constructability, sustainability, and costs.

Scope

Design Brief

- Specifications, limitations, loads, methods, and considerations of the project.
- **Preliminary Design and Analysis**
- Familiarize ourselves with design requirements of bridges.
- **Design Selection**
- Decide on selection criteria and evaluate each design.
- **Detailed Design and Analysis**
- Commence detailed design on all structural aspects of the bridge and refine the structural model.
- **Detailed Drawings**
- Produce a visual communication of design, details, and construction.



References

[1] CSA S6:19, Canadian Highway Bridge Design Code

[2] 142 Street Pedestrian/Cyclist Bridge, City of Edmonton. https://www.edmonton.ca/projects_plans/terwillegar_drive/142-street-pedestrian-cyclist-bridge [3]Bridge Structure Design Criteria, Alberta Transportation.





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- efficiency to the bridge and provide lower deflections and better continuity through the superstructure.
- Learning and interpreting standards and guides
- Canadian Highway Bridge Design Code
- Alberta Transportation Bridge Structures Design Criteria
- FHWA Post-Tensioned Box Girder Design Manual
- Designing for construction loads and constructability
- Analyzing box girders separately as simply-supported
- Cast-in-place joint design.