

Personal Projects Viewing Guide

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This viewing guide serves as an index for **MIG, Inc.** to peruse my urban planning portfolio in an accessible manner. This ordering format is incorporated to circumvent GitHub's sorting limitations. The projects are listed in order of interest and to highlight my relevant experience in the field. All indexed projects were undertaken in classes at the University of Illinois at Urbana Champaign.

Personal Projects

1.0 | Plan Project (WEDG) | Fall 2019

My term project for *Planning Theory and History* reviewed the Waterfront Alliance's acclaimed Waterfront Edge Design Guidelines (WEDG) which won the American Planning Association's *Gold 2019 National Planning Achievement Award for Best Practice*. The project encapsulates the stories and narratives of WEDG and synthesizes a theory of change.

1.1 | Theory of Change Diagram

The theory of change diagram shows the process that made WEDG successful and how it can be replicated for future waterfront design endeavours.

2.0 | Site Plan Report (Douglas Square Redevelopment Project) | Fall 2019

The Site Plan Report undertaken as part of *Physical Planning* is a redevelopment proposal for a pre-identified site in Champaign-Urbana. The proposed new development aims to revitalize/bolster the economic activity of the Champaign-Urbana Metropolitan Area by creating a new activity anchor point. The development relies on the urban design paradigms of Low-Impact Development (LID) and Transit-Oriented Development (TOD). The report covers the following elements:

- Neighbourhood & Regional Context
- Financial Feasibility
- Ecological Sustainability
- Urban Design Paradigms

3.0 | Citizens of the World, Crime & Terrorism: A Comparative Essay | Fall 2019

This comparative essay explores crime and terrorism in the context of globalism using New York and London as units of comparison. The essay serves as a suitable writing sample.

4.0 | Climate Action Plan (CUMTD) | Spring 2020

A team project was delivered to the Champaign-Urbana Mass Transit District to augment their climate action planning efforts. CUMTD plans to replace their bus fleet with Hydrogen Fuel Cell buses and install an on-site H₂ power plant to generate electricity, and potentially convert their office and depot into a carbon-positive facility. It is a multi-pronged plan that covers:

- Energy Conservation
- Energy Generation
- Transportation
- Waste
- Green Landscape
- Water & Stormwater (HydroModel)

5.0 | Sea Level Rise & the U.S. Coast | Spring 2021

This is a demographic study for *Neighbourhood Analysis* to understand how vulnerable different states are to climate-induced disasters such as sea-level rise (SLR), storm surges, and hurricanes. The study builds on my undergraduate thesis and extrapolates the findings to four states in the United States, as well as the U.S. territory of Puerto Rico.

5.1 | RStudio Diary

The RStudio Diary is a report describing the analysis carried out for the project, primarily utilizing RStudio and the “tidyverse” package.

6.0 | Galveston County SMB(E) Economic Impact Assessment Survey | Spring 2020

My term project for *Urban and Regional Analysis* focused on the impact of COVID-19 on small and medium businesses/enterprises in Galveston County (TX). This project included a detailed survey design and was preceded by a detailed profile of the county’s demographics and economics. In addition to English speakers, the survey was designed to be inclusive to Spanish and Vietnamese speakers:

6.1 | EIA Survey (English)

6.2 | EIA Survey (Spanish)

6.3 | EIA Survey (Vietnamese)

7.0 | Galveston County Place Profile Report | Spring 2020

The preceding study to the SMB(E) Survey entailed a detailed place profile for Galveston County that covered the following elements:

- Population and Growth
- Commuter Flow
- Demographic Profile
- Housing
- Migration
- Regional Economics

8.0 | Natural Systems Suitability Report | Fall 2019

A suitability analysis was carried out in Physical Planning for a proposed extension of Willard Airport in Savoy (IL), that utilized ArcMap to analyse location suitability in terms of soil and slope, water, land cover, and ecology.

9.0 | The Market & The City | Spring 2021

This essay for *Land Use Policy and Planning* explores the role of financial markets in the shaping of cities and explores how recessions affect the housing market. The essay explores urban economics, housing affordability, market urbanism, and new solutions in the aftermath of COVID-19.

Group Projects

Camp Fire Report | Spring 2020

A team project for *Disasters and Urban Planning* that analyzed the California forest fire dubbed “Camp Fire,” which ravaged Butte County in 2018. This report was prepared to serve as a framework for community planning and climate resilience based on FEMA’s guidelines.

Green Infrastructure Planning Framework for the Municipality of Loíza | Spring 2021

One out of three components of a departmental planning project for the municipality of Loíza in the context of post-disaster recovery. As part of the *Plan Making* class, the plan assessed the existing framework of three facets of urban planning for Loíza:

- Green Infrastructure (Team-1)
- Community Engagement (Team-2)
- Economic Development (Team-3)

Urban Transportation Modelling for Sprawling Development | Spring 2021

A team project to model transportation demand for scenarios of sprawling development and the creation of two new employment centres. The project used Citilabs CUBE to carry out transportation demand modelling (TDM).