

Shaping Infrastructure in Society

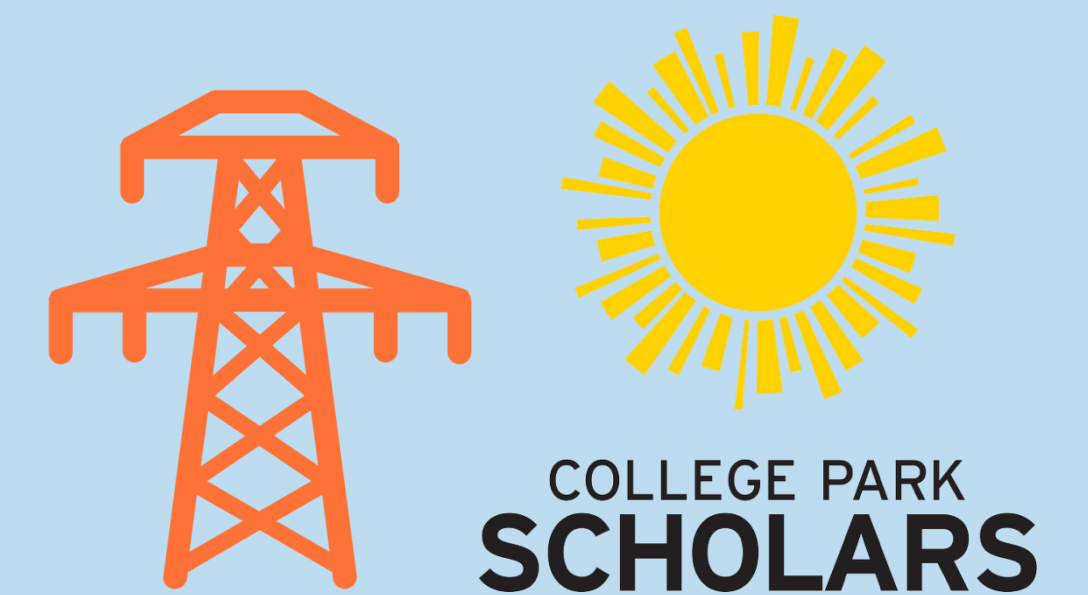
Juliana Thompson-Williams

College Park Scholars – Science & Global Change Program
Atmospheric and Oceanic Science

jthomp38@umd.edu

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Course Overview:

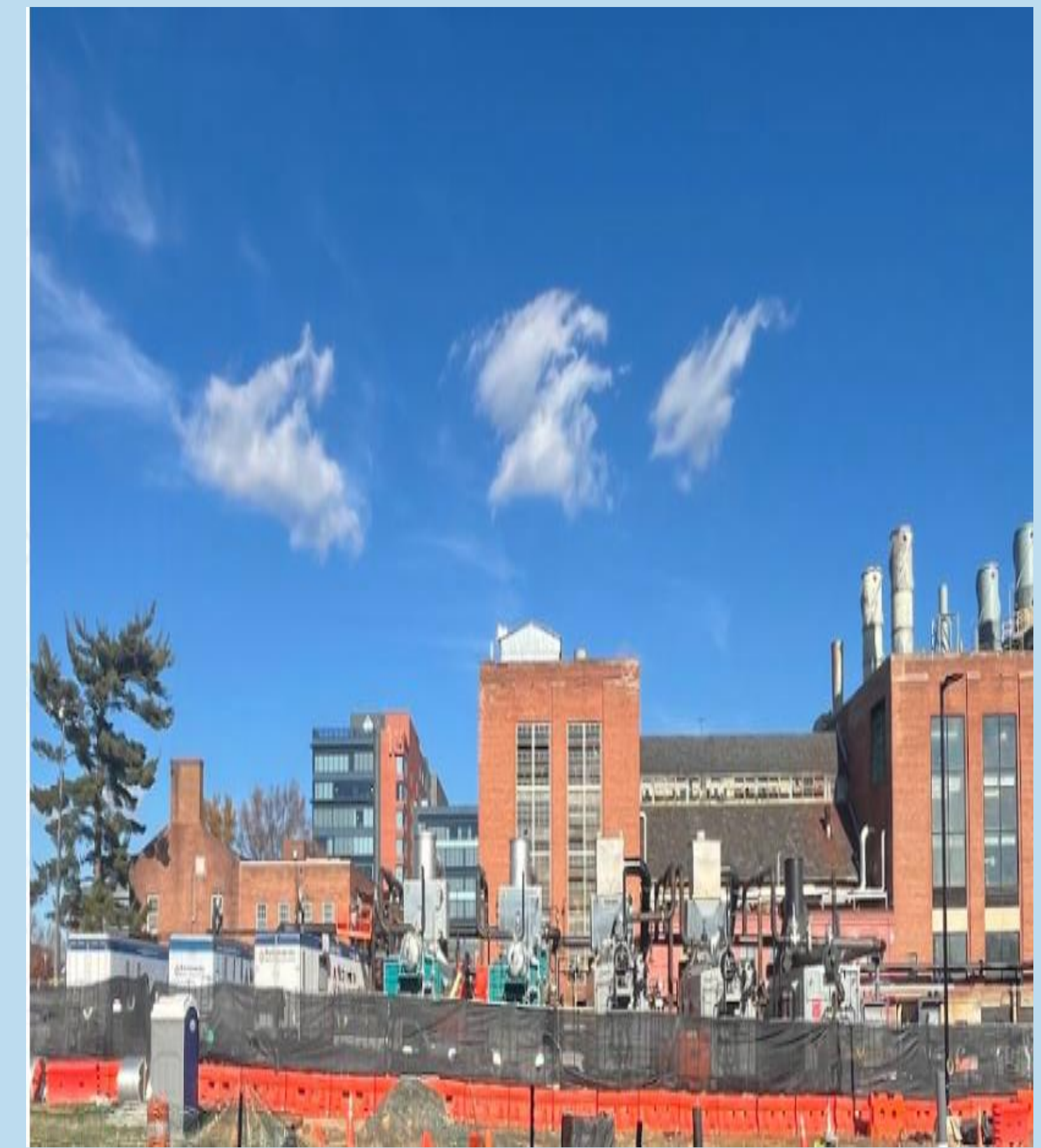
- In this service-learning course taught by Dr. Tomblin, we are required to think more deeply on the infrastructure around us. We look closer into the social and political challenges that comes with ensuring vital infrastructure is built and properly maintained. Another prevalent aspect to the course is the process of using STS Systems thinking skills and data analysis to map and assess infrastructure systems throughout the U.S and even comparing it to other systems abroad. Towards the end of this course, the overall goal is to create an infrastructure assessment tool for a community we care about, that will be based on all the human sensory pathways (sound, sight, smell, etc.). Overall, its purpose is to assist with specific issue in infrastructure our community is currently undergoing.



This is an image of a systems mapping activity we conducted in class. We were tasked with creating a community with all the necessary infrastructure components. Then we mapped areas with sticky notes that depicted how each piece of infrastructure could affect the region through sound, odor, and social challenges.

Activities:

- Weekly journal's** that made us interact with the outside environment and write about our experiences with the hard and soft infrastructure we come across daily
- In class activities** that had us working in groups to create system maps on whiteboards, class discussions on our journals, skit activities
- Outdoor class observations** of different communities (CCC community, etc.) to understand the infrastructure around us.
 - Guest Speaker Presentations** where we heard from Rob Hermstein, Executive Director of Facilities Maintenance and Utilities. The major project he oversees the Purple Line project as well as the new Energy Plant on campus



This is an image taken on a tour we took of the temporary Energy Steam Plant set up outside as they construct the new plant inside the old building.

Impact:

- As a result of taking this course, I have been able to not only understand how infrastructure impacts us in terms of day-to-day use but also learn how infrastructure affects our 5 senses throughout the day-to-day.
- Overall, this course has allowed me to understand how infrastructure affects one's community. It has given me the ability visualize how certain systems function in relation to our ability to sense our surrounding infrastructure.

Details on Final Project:

- Our final project entails us picking a community in need of a solution to an issue regarding their infrastructure. We must use our training of identifying our human sensory pathways to make logical connections between our communities social, political, legal, cultural, and social justice elements. For my project I will be analyzing Old Town Alexandria's flood and overflowing sewer system challenges that has been driven by their historically aging water management systems.



Image of when Old Town flooded around a year ago in 2025. Annually there are around 60 incidents like this.



Acknowledgments

I would like to thank Dr. Tomblin for opening my eyes and senses to the things unseen within the infrastructure around us. I would also like to thank Dr. Merck and Dr. Holtz for all their guidance and support throughout my time in the Science and Global Change Scholars Program!

