

RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST, 2024 | VOLUME 05



ABOUT THE PROGRAM

The Rural Outreach program aims to support rural communities in Newfoundland & Labrador with projects, plans, and proposals. Supervised by Brian Peach and Stephen Bruneau, their team of dedicated engineering students offers a wide variety of free services, including 3D model development, funding applications, 911 mapping, website development, 360-degree photography and much more.



RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST 2024 | VOLUME 05



Communities Assisted:

Main Brook	Pasadena	<i>Chapel Arm</i>	<i>Castor River South</i>
<i>Massey Drive</i>	<i>Burgeo</i>	<i>Charlottetown</i>	Badger
Change Island	<i>Mary's Harbour</i>	<i>Cupids</i>	Stephenville Crossing
Peterview	<i>Appleton</i>	Brigus	Colliers
<i>Heart's Delight - Islington</i>	Lamaline	<i>Come By Chance</i>	<i>Garnish</i>
Botwood	<i>Winterland</i>	Pouch Cove	<i>Little Burnt Bay</i>
<i>Comfort Cove - Newstead</i>	<i>Baine Harbour</i>	<i>Renews - Cappahayden</i>	<i>Embree</i>

The Rural Outreach program has assisted over 28 rural communities across Newfoundland and Labrador. This semester, the Rural Outreach team expanded into Labrador while engaging and assisting 11 different communities across the province with a variety of different projects ranging from QGIS mapping to building renovations and 360-degree photography. We aim to empower our clients by providing the technical assistance they need to launch their projects and set them on the path to success.

The 2024 Spring Semester Team:



Jack Kennedy
Mechanical Engineering
Student



Ben Oliver
Mechanical Engineering
Student



Luke Brockerville
Civil Engineering
Student

RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST 2024 | VOLUME 05



NEXT GENERATION 911

The Rural Outreach Program worked with the 911 Division of Newfoundland to support their initiative for a new emergency services program known as NG911.

The program seeks to provide improved emergency services using world class telecommunication networks. The Rural Outreach Program created numerous GIS maps of rural communities in Newfoundland to support their initiative.

CIVIC ADDRESSING FOR RURAL TOWNS

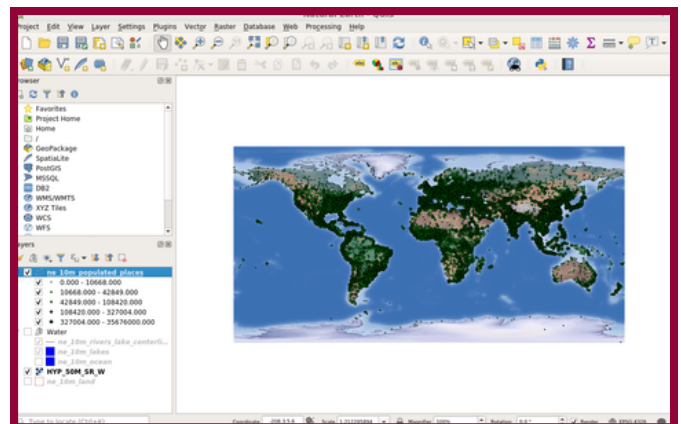
The team worked with the NG911 division and aided in multiple civic addressing projects in rural municipalities such as Heart's Delight - Islington, Castor River South, Come By Chance, Embree, Comfort Cove - Newstead, and Baine Harbour



QGIS MAPPING AND CIVIC ADDRESS COLLECTION

The Next Generation 911 (NG911) uses automatic location information (ALI) technology to locate the place of emergency. The accuracy of the ALI depends on the geographic information system (GIS) and civic address data of the municipalities.

ROSU uses QGIS, an open-source GIS tool, to map the buildings' locations in the municipalities. Besides mapping, civic address collection is also required for better tracking.



RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST 2024 | VOLUME 05



THE TOWN OF MASSEY DRIVE

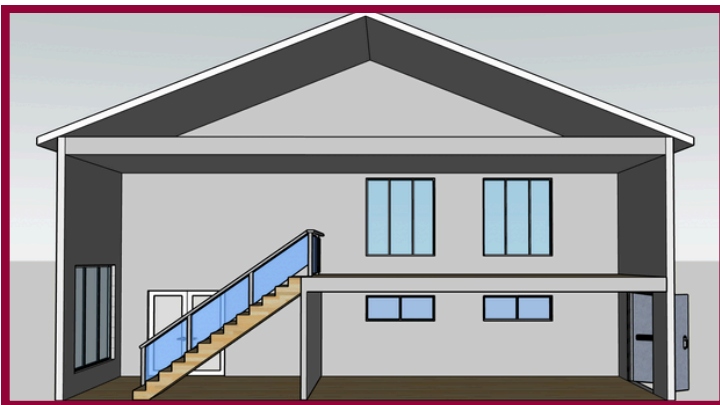
Rodger Head, town manager of Massey Drive reached out to Rural Outreach this semester with an exciting project. The town was looking to put an accessibility extension to their town hall and make space for their town archives. The project required a 3D model and floor plans of the building extension, as well as developing a scope of work and visioning documentation so that the town could seek funding and consultants for the project.



The Town of Massey Drive

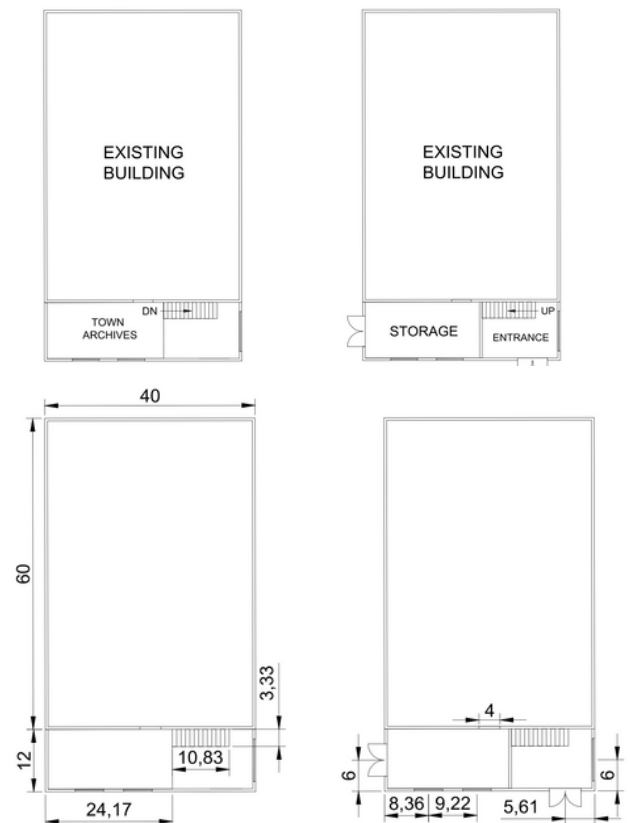
3D MODEL

A 3D model of the proposed town hall extension was developed in Sketchup Studio. The model entails everything that the town wished to incorporate in the building extension, including an indoor wheelchair lift and staircase, window placements & design options, as well as space for the town archives and additional storage.



FLOOR PLANS

Floor plans were also created for the building extension to better depict the layout of the extension. One with rough dimensions for the town to better visualize how much space they were working with.



RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST, 2024 | VOLUME 05

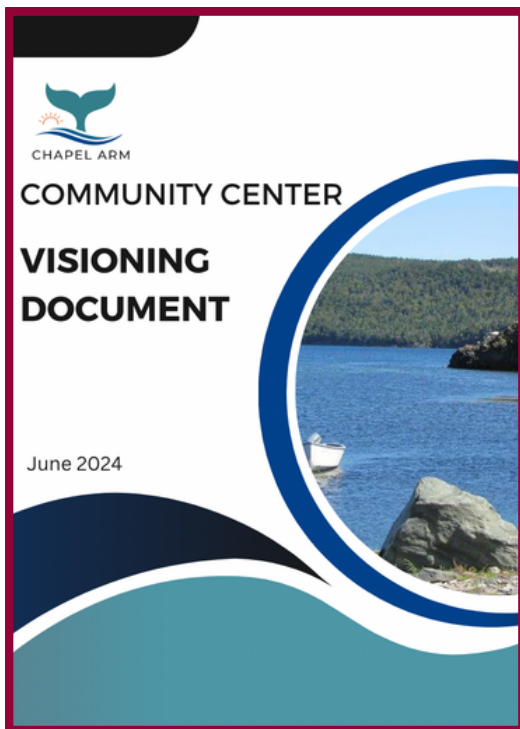


THE TOWN OF CHAPEL ARM

The town clerk and assistant town clerk of Chapel Arm, Tracy Smith, and Ellen Curtis, reached out to Rural Outreach for assistance with funding for their community center renovation project. They also sought assistance with the platform of an ocean lookout site for the community.

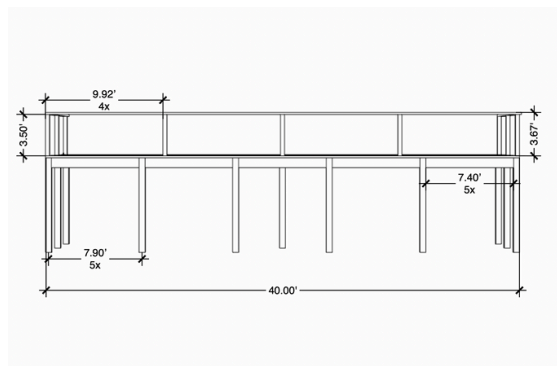
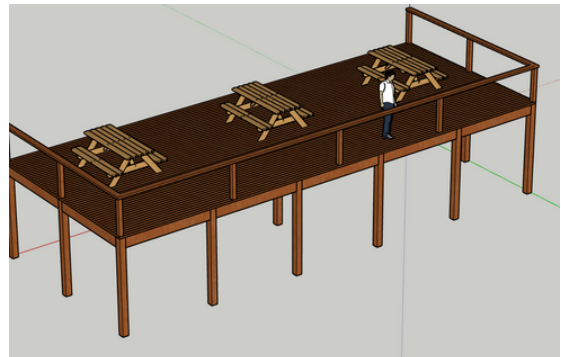
VISIONING DOCUMENTATION

The team developed a visioning document encompassing everything that the town envisioned the project to have, highlighting key features such as accessibility, economic and environmental sustainability, as well as community engagement. The visioning document included models of the proposed changes the town wished to make.



3D MODEL AND SKETCHES

Rural Outreach developed a 3D model as well as concept sketches for the ocean lookout site that the town inquired about. These deliverables were included in a scope of work document for the town to find contractors to build the platform.



RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST, 2024 | VOLUME 05



THE TOWN OF CUPIDS



Chris Woodworth-Lynas, member of the Cupids Trail Committee, reached out for assistance with the website development of the trail committee's website as well as a fly-through of the trails using lidar data to upload to the website.

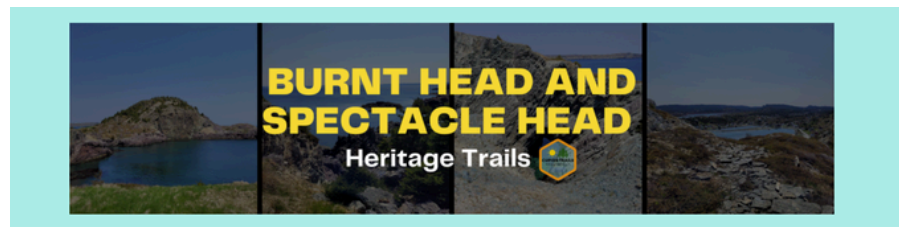
VISIT TO CUPIDS

The Rural Outreach team spent the day in Cupids with Rural Outreach's new 360-degree camera taking imagery of the trails to be uploaded to google maps as well as the committees website.



DEVELOPMENT OF WEBSITE

The Rural Outreach team assisted the Cupids Trails Committee in the development of a new website made with Google Sites. This was developed to replace the old website that was made with Blogger. The new site contains many modern features, such as clickable maps of the trails that link to other pages with more information about the trails.



Virtual Tour: Burnt Head and Spectacle Head Trails

Land Acknowledgement

The Cupids Trails Committee respectfully acknowledges the territory in which we live as the ancestral homelands of the Beothuk, and the island of Newfoundland as the ancestral homelands of the Mi'kmaq and Beothuk. We also acknowledge Inuit of Nunatsiavut and NunatuKavut, as well as the Innu of Nitassinan, and their ancestors, as the original peoples of Labrador. We acknowledge with respect the diverse histories and cultures of the Indigenous People in Newfoundland and Labrador, and strive for respectful relationships with all the peoples of this province.

CAUTION! TRAIL WORK IN PROGRESS
DURING JULY 2024



RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST, 2024 | VOLUME 05



BENEFITS TO MEMORIAL UNIVERSITY ENGINEERING STUDENTS

The Rural Outreach Project offers engineering students the opportunity to learn about rural municipalities in Newfoundland, bolster expertise with a variety of software programs, devise creative solutions to address challenges faced by rural communities and experience their culture and history personally through site visits.



“

The Rural Outreach program is a greatly beneficial opportunity for engineering students at Memorial University to gain invaluable engineering experience. I learned many different engineering skills during this work term such as website development. I also gained improved technical communication skills through the preparation of documents such as funding applications and visioning documents. This was a memorable work experience that provided me with several skills that are vital for working as an engineer.

”

**Jack Kennedy, Mechanical
Engineering Student**

“

Working with the Rural Outreach program has given me invaluable experience that has significantly contributed to my growth as an engineering student. The program has provided me with hands on opportunities to work directly with rural communities, enhancing my technical skills in CAD softwares and QGIS. Additionally I developed strong communication and project management skills by interacting with clients on a frequent basis and contributing to meaningful projects that support community development. This experience has not only broadened my understanding of rural municipalities but also has prepared me for future challenges in my engineering career.

”

**Ben Oliver, Mechanical Engineering
Student**

“

My time with the Rural Outreach program has given me a wealth of experience contacting and working with rural municipalities across the province, and in learning important communication skills for municipal concerns. The Outreach Program has helped me develop the ability to coordinate across a plethora of clients to schedule meetings, produce/develop necessary documents, and meet client concerns. Beyond these general skills, with the Outreach program, I've learned to use new tools for future engineering work, including AimNet Asset Management, and QGIS mapping. The Rural Outreach program has been an excellent work term opportunity, and I would recommend students with an interest in Rural Communities consider taking a term with them.

”

**Luke Brockerville, Civil Engineering
Student**

RURAL OUTREACH STUDENT NEWSLETTER

23 AUGUST, 2024 | VOLUME 05



THE FUTURE OF ROSU

The services offered through the Rural Outreach Program is always growing as the program continues to evolve.

Some new services or already existing one's offered by ROSU such as asset management, visioning document support, and 360-degree photography.

ASSET MANAGEMENT FOR RURAL TOWNS

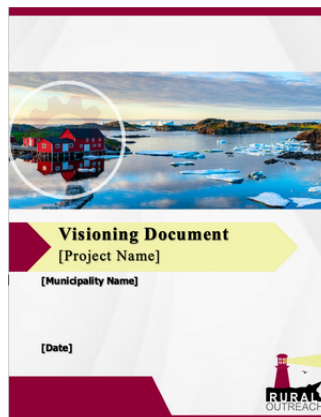
The team met with AIM Network to learn more about asset management in municipalities. They were introduced to the services offered by Aim Network and aided AIM Network in cleaning up infrastructure data for 5 Gros Morne communities.



Using GIS maps and MS excel, future ROSU team members can help towns keep track of their assets.

VISIONING DOCUMENTATION

Rural Outreach is capable of developing visioning documentation that demonstrates everything that a town envisions in their project. By creating 3D models and rough sketches to go along with it, this gives towns a document they can use to apply for funding.



360-DEGREE PHOTOGRAPHY

This semester, Rural Outreach acquired a 360-degree camera to take pictures of town project areas and unadvertised sites in towns to be uploaded to google maps and websites.



