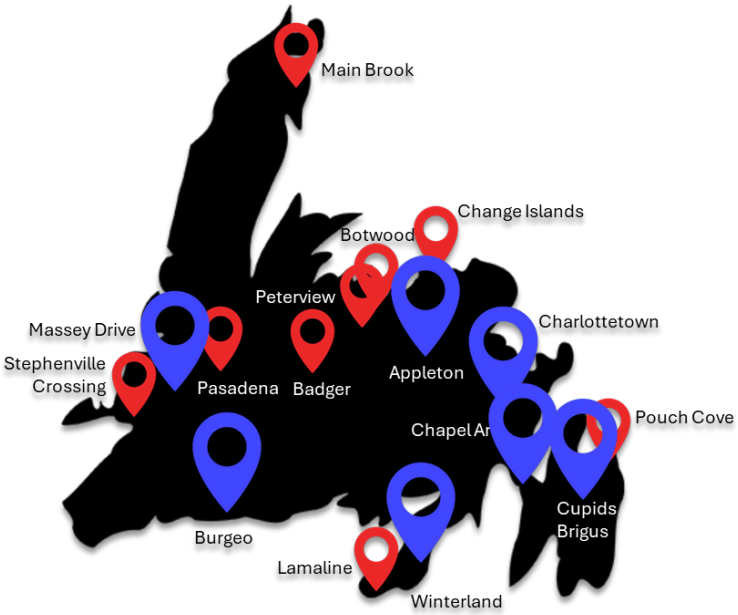
RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 | VOLUME 04

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, and much more.



The Rural Outreach program has assisted over 20 communities on the island and continues to search for new challenges to tackle. During the Winter 2024 semester, our team successfully completed projects for 9 new clients! Ranging from QGIS mapping to building renovations, we strive to provide our clients with a great opportunity to get started on their projects by using our technical expertise.

Communities Assisted:

Main Brook	Pasadena	*Charlottetown*	Badger
Change Island	*Burgeo*	*Chapel Arm*	Stephenville Crossing
Peterview	*Appleton*	*Cupids*	Colliers
Botwood	Lamaline	Brigus	*Garnish*
Massey Drive	*Winterland*	Pouch Cove	*Little Burnt Bay*

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RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 | VOLUME 04

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.

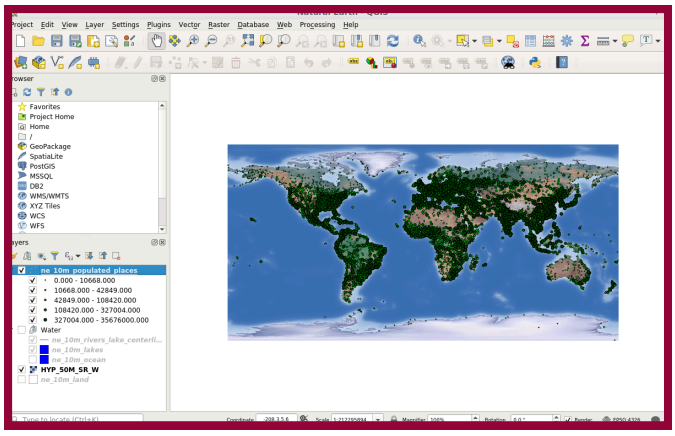
CIVIC ADDRESSING FOR RURAL TOWNS

The team worked with the NG911 division and aided in multiple civic addressing projects in rural municipalities such as Appleton, Massey Drive, Winterland, Charlottetown, and Little Burnt Bay.

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.



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RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 | VOLUME 04

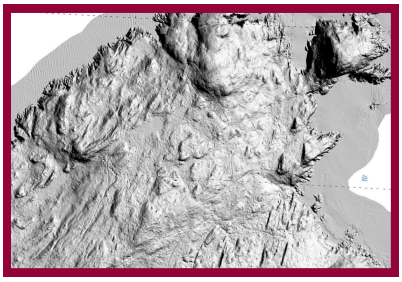
THE TOWN OF CUPIDS

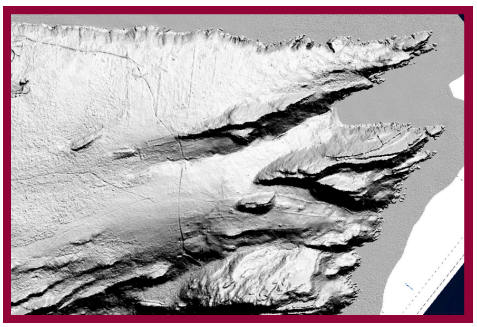
Valerie Brett-Westcott, councillor of Cupids, and Chris Woodworth, Cupids Trail Committee member, provided the Rural Outreach Program with fun and interesting projects to work on this term.

Cupids projects include updating 3D sketches for community projects and mapping cultural sites found on the trails using drone and LIDAR data.

BURNT HEAD AND SPECTACLE HEAD MAPPING

The team worked with the trails committee to create GIS maps of there trails that helped discover more cultural sites with the help of LIDAR data.

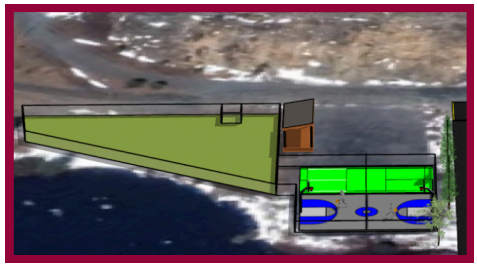


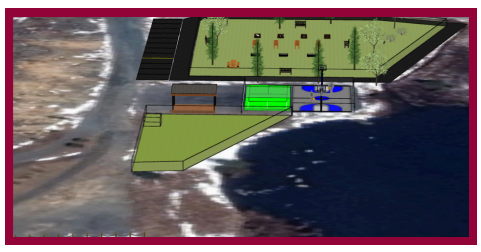


3D SKETCHES FOR COMMUNITY PROJECTS

The students got to work along side Councillor Valerie this term to conduct a site visit to the community's old ballfield and work on updating the 3D sketches for their upcoming community projects.

The team updated existing 3D models of a park area, walkway, fruit garden, ball court, dog park, and parking spaces





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RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 | VOLUME 04

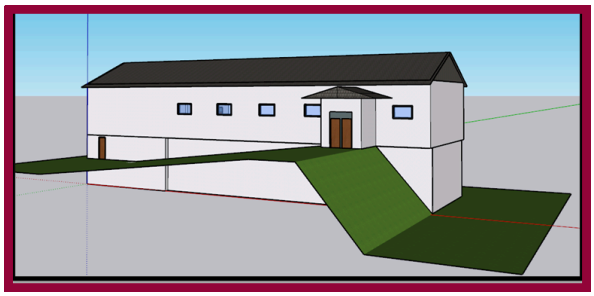
THE TOWN OF CHAPEL ARM

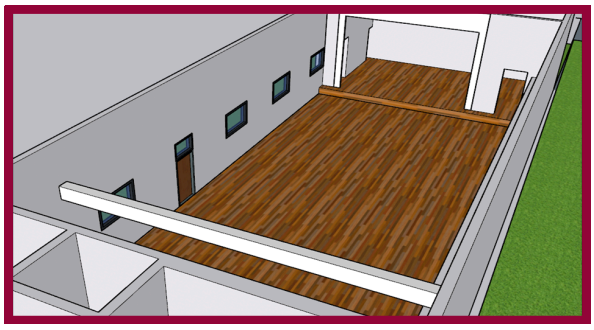
Tracy Smith and Ellen Curtis, town clerk and assistant town clerk of Chapel Arm respectively, reached out to the program this semester with an exciting project about renovating a building into their new town hall and community center.

This project required the creation of a 3D model and floor plans of the building. These project deliverables provided Chapel Arm with a visualization of their idea that can be used to secure funding in the future.

COMMUNITY CENTER 3D MODEL

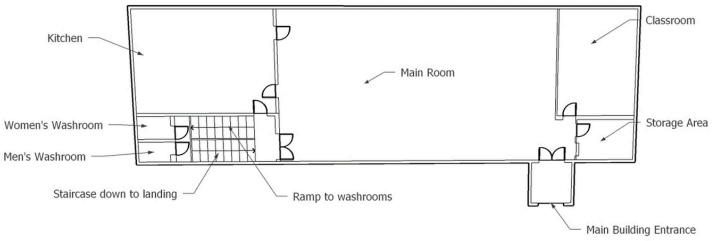
A 3D model of the proposed building for the new Chapel Arm town hall and community center was developed throughout the semester using SketchUp Studio. The model aims to reflect all the necessary changes to be done during the renovation of the building such as accessible ramps to the washrooms, a stairlift to the second floor, replacement of the 50-year-old oil furnace on site, and much more.

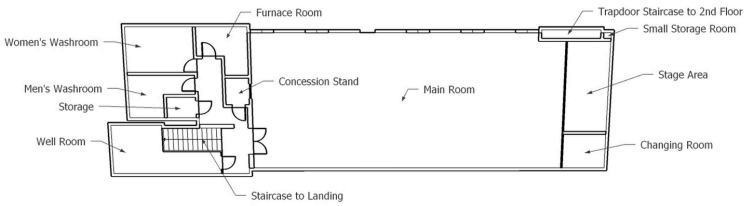




DEVELOPMENT OF COMMUNITY CENTER FLOOR PLANS

To get a better idea of the layout of the building, floor plans were created for both the basement and main floor. These plans outline the organization of the rooms, entrances, exits, and windows.





RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 | VOLUME 04

Feedback From Clients Working With Our Team

"Our experience with the Rural Outreach team helped us narrow down our approach for renovation plans for our community. With the limited funds associated with a small tax base, our town needs to take a creative approach to problem-solving, and the students we worked with in the Rural Outreach team played an important role in helping us determine which funding opportunities were or were not right for us."

Ellen Curtis, Assistant Town Clerk of Chapel Arm

Shortly after my election to community council, I had formed a committee of residents to look at revisioning a disused piece of town property. My vision was big. I had lots of hopeful plans, but there was a skill set needed that I did not possess. How was I going to translate that vision from the page into a format that people could see, buy into and support? Months later I attended the Municipalities Newfoundland and Labrador conference in St Johns. One of the booths belonged to the MUN Rural Outreach program. I had a great chat with the student supervisor who advised me of the work the program can assist with, one area was in providing 3D project models. Well, you can imagine my excitement. Exactly what I was looking for at no cost to our small town! We have been engaged with two sets of students over the course of our current involvement with the program. Our experience as been awesome! The students met with us online, as well as in person as our municipality is close to the city. They were very engaging and, after some back and forth, have provided us with great working models of the project. This is a wonderful program that uses their developing skill set to help support small towns, of which there are many. I would recommend checking them out.

Valerie Brett-Westcott, Town Clerk of Cupids

RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 VOLUME 04

ROSU ROAD TRIP HIGHLIGHTS

On 4th April 2024, the ROSU Team traveled to Cupids and Chapel Arm. The objectives of the road trip were visiting the project site, engaging with clients face-to-face, and increasing team interaction.

The team visited to the site of community multisport complex, dog park and garden project area at Cupids to inspect for the reference of 3D model sketching. The team also met with Councilor Valarie Brett-Wescott and collected feedback about the model. She was satisfied and interested to avail Rural Outreach services for future projects.

Next, the team travelled to Chapel Arm and met with Tracy Smith and Ellen Curtis After the meeting, the team and the town clerks visited to the site of the proposed new town hall and community center.

The team explored the building, took measurements, photographs, noted down constraints, observed wheelchair ramps and talked with the town clerks for informations.

Beside site visits, to increase productivity, the team has visited the towns nearby the proposed destination for sightseeing.

RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 | VOLUME 04

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.

> *Through the Rural Outreach program, I have learned how to properly manage and interact with clients independently. This is an aspect of engineering that many students do not get exposed to until later on in their careers. This program has allowed me to make new connections, work on interesting projects, and improve my interpersonal skills. The experience I have gained during this work term will be invaluable as I continue to pursue my career in engineering.*

Cameron Taveroff, Electrical Engineering Student

> *Rural Outreach Program has enabled me to gain more technical skills, as well as communication skills. It also allowed me to take any project by my own. While working for the program, I have developed and exercised many engineering skills on various projects which are essentials for an engineer. I am grateful to work with my supervisor and the other students throughout the semester. This program has helped me to achieve my goals to career development.*

Oishik Dey, Computer Engineering Student

> *Working with the Rural Outreach program was an amazing learning expeirence for me. Getting to work directly with towns and their representatives was extremely interesting while getting to learn how municipalities work in rural communities. Throughout my work term, I was able to improve my communication skills through client interation and attending meetings to discuss project updates. I got to learn more about how QGIS and SketchUp works from various projects. I'm thankful for the amazing team I was able to work with and being able to help contribute towards community development.*

Anderson Bath, Computer Engineering Student

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RURAL OUTREACH STUDENT NEWSLETTER

26 APRIL, 2024 | VOLUME 04

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, scope of work support, and website development are now available.

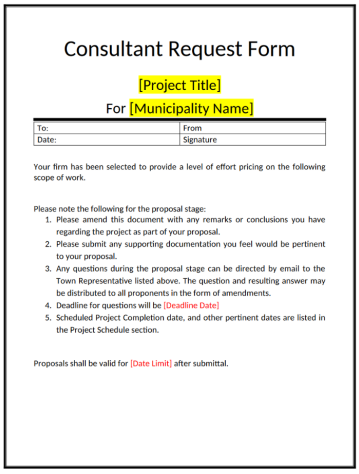
ASSET MANAGEMENT FOR RURAL TOWNS

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 how ROSU can aid towns with asset management problems.

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

SCOPE OF WORK SUPPORT

The Rural Outreach is capable of developing project scopes that outline the key project goals and deliverables. By creating a timeline alongside it, the project scope will organize all the relevant details and ensure a clear understanding of milestones, deadlines, and tasks.



Consultant Request Form

[Project Title]

For [Municipality Name]

To:	From
Date:	Signature

Your firm has been selected to provide a level of effort pricing on the following scope of work.

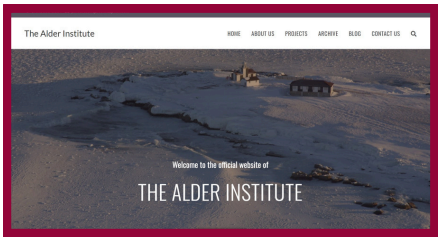
Please note the following for the proposal stage:

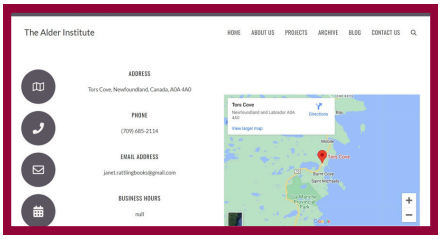
1. Please amend this document with any remarks or conclusions you have regarding the project as part of your proposal.
2. Please submit any supporting documentation you feel would be pertinent to your proposal.
3. Any questions during the proposal stage can be directed by email to the Town Representative listed above. The question and resulting answer may be distributed to all proponents in the form of amendments.
4. Deadline for questions will be [Deadline Date]
5. Scheduled Project Completion date, and other pertinent dates are listed in the Project Schedule section.

Proposals shall be valid for [Date Limit] after submittal.

WEBSITE DEVOLPMENT

The team started working with a new website development software WordPress to help give towns an updated modern websites.





The team also created a detailed guide to help future ROSU team members pick up WordPress and help support towns with website development.

RURAL OUTREACH

Faculty of Engineering and Applied Science

- WINTER 2024 STUDENTS

CAMERON TAVEROFF

Electrical Engineering Student

Meet Cameron, a dedicated electrical engineering student with a passion for community service. He intends on using his experience in project management and computer-assisted design (CAD) to assist the rural communities of Newfoundland as best he can. Excited about contributing to the program's objectives, Cameron sees this opportunity not only as a chance to make a positive impact but also as a valuable platform to enhance his engineering knowledge.

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PHONE NUMBER
1-709-219-8656

OISHIK DEY

Computer Engineering Student

Oishik Dey, a second-year computer engineering student embarking on his inaugural work term, is a tech enthusiast with a fervor for innovation. His project portfolio boasts initiatives centered around emergency services and evacuation. Eager to contribute his skills to a rural outreach project, Oishik's passion extends beyond coding to include interests in photography and travel. Ready to embrace challenges, he brings a dynamic blend of technical expertise and creativity to his endeavors.

EMAIL
odey@mun.ca

PHONE NUMBER
1-438-926-5959

ANDERSON BATH

Computer Engineering Student

Anderson is a computer engineering student who enjoys programming and problem-solving. Through previous academic semesters, he has experience with Python, C++, and Microsoft Office. He is also bilingual in French and has a DELF certificate. With a background in group projects and team sports, he has developed effective communication skills. As a member of the Rural Outreach program, he hopes to be an effective team member while assisting rural communities

EMAIL
acbath@mun.ca

PHONE NUMBER
1-709-697-2345

Winter 2024 Focus: Community Development, Trails, 911 Mapping, Community Websites/Promotion, Grant-Assistance