

Proposal by: Team 5

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### Our Understanding of Your Needs

In 2013, users desire effortless access to information on all web-enabled devices, such as mobile phones, tablets, and desktop computers. Recent studies show that almost 15 million Canadians are using smartphones, and this number continues to rise. People are on the move and can benefit from viewing websites that are responsive to the size of their device. For the Blind River District Health Centre (BRDHC) website, it is important to reflect the desires of users by making it as accessible as possible.

The most important aspect of accessibility is complying with the standards of the Accessibility for Ontarians with Disabilities Act (AODA). We understand that the BRDHC will soon be required to comply with Level A of the World Wide Web Consortium's Web Content Accessibility Guidelines by the new year, and Level AA by January 2021. A redesign of the BRDHC website would be an opportunity to ensure that it adheres to AODA standards, providing assistance to all users who need to access the site.

Keeping the BRDHC website up to date is important. The current site is home to a lot of very important public health information, which is essential for your patients and the community. Being able to update this information freely at any time, without the inconvenience of having to contact a web developer, is easier now than ever through a Content Management System (CMS). The power to freely update the website's content would help keep the community and medical professionals up to date. Redesigning the website's organization and employing a CMS will also increase the ease of navigation.

In summary, we would like to provide the BRDHC with an opportunity to take control of the content of your website. We aim to provide an accessible, organized, and responsive redesign, resulting in an interactive online home that can grow alongside the hospital.



#### Deliverables

#### **Content Management System:**

We want to give the Blind River District Health Centre a personally tailored Content Management System (CMS). This tool will allow users to update content easily, quickly and at any time. To access the CMS and ensure security, users will require a username and password. You will be able to update any written text on the site's content pages with the use of this tool, which can be accessed through the internet.

We will demonstrate how you can create logins and provide training to whomever you would like to be able to update your site. Rather than the difficult and timely process of adding PDFs or contacting a web developer when you need to make updates, the CMS gives you the freedom to control your content, saving you time and money.

Our proposed CMS will comprise the use of two technologies from Microsoft: ASP.NET, which is one of the most advanced tools for building websites for large organizations such as hospitals, and a professional Database Management System (DBMS), called SQL Server. This manages your database, which contains all of the hospital's information.

### Content Redesign:

The goal of our content redesign is to improve the user experience throughout the website. Improved accessibility will mean that users can find the information they desire with ease. Specifically, we plan to limit the items on a given page, making it easier for the user to focus on what they are looking for. We will re-organize the content structure, making menu headings and subheadings explicitly indicative of what is found by clicking a link or button. The content redesign will work with the CMS to enable you to edit and update sections of the website as you wish. A well-designed information architecture (the organization of pages) will make the CMS more effective.



#### Interface:

The current website has a fixed width layout. This is great for users visiting the site on a desktop computer, but can be difficult to navigate on a tablet or smartphone. By creating a fluid, responsive design, the website will be optimized for each device and will naturally provide more breathing room. Another benefit of responsive design is that text is always legible, with no need to zoom in and out. In emergency situations, urgent information can be found quickly and easily.

A responsive design will also display images clearly. This will offer the user an accurate representation of the BRDHC, reflecting the resources, partnerships and services that the hospital provides to the community. Alongside the responsive features, our redesign will include a more distinct, consistent and clean appearance for the website.

As previously mentioned, almost 50% of Canadians own smartphones, with tablet usage also on the rise. The numbers are even higher for medical professionals. In a recent study by the Canadian Medical Association, 85% of respondents indicated professional use of the iPhone, BlackBerry or another smartphone, while 32% indicated professional use of the iPad¹. Many physicians own and use more than one device, making the number total more than 100%. With these statistics, it is very likely that medical professionals will also be searching for career opportunities on mobile devices. Having a responsive site can impress potential employees and volunteers by making the site appear up to date, accessible, and interesting.

Finally, the responsive design will be built "light-weight" so it can be easily accessible in low-bandwidth areas, which are common in the surrounding areas of Blind River.

<sup>1</sup> Publications - Future Practice. Canadian Medical Association. Web. 1 Dec. 2013. <a href="http://www.cma.ca/multimedia/CMA/Content\_Images/Inside\_cma/Future\_Practice/FP\_nov2012.pdf">http://www.cma.ca/multimedia/CMA/Content\_Images/Inside\_cma/Future\_Practice/FP\_nov2012.pdf</a>



### **Current Interface:**









### Responsive Interface:









#### Timeline:

Our project will span 19 weeks, divided into 4 phases. Though the hospital's approval will be sought many times throughout the project, each phase will be completed with significant milestones. These will be approved before moving forward, and are allotted one week at the end of each phase. The first phase will comprise our initial review of content, design, and programming, as well as the completion of a strategy and plan for the project. At the end of this phase we will have wireframes and style tiles completed to be approved before moving forward. The second phase will involve reviewing existing content and redesigning the information architecture, followed by designing the interface mockup for the responsive design, and building the database for the backend. The third phase will involve programming and uploading the site's content. The final phase will include testing the site (including extensive quality assurance), one week of training for your staff, and the launch.

#### Schedule:

| Week                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|
| Project Development        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |
| Interface                  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |
| Content                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |
| Back-End                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |
| Testing, Training & Launch |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |



## Budget:

| Project Budget             | Fees     |  |  |  |  |
|----------------------------|----------|--|--|--|--|
| Project Development        | \$6,160  |  |  |  |  |
| Interface                  | \$5,460  |  |  |  |  |
| Content                    | \$5,530  |  |  |  |  |
| Back-End                   | \$7,560  |  |  |  |  |
| Testing, Training & Launch | \$1,400  |  |  |  |  |
| Total (including HST)      | \$29,504 |  |  |  |  |



### Constraints:

Throughout the completion of this project we believe that we may encounter a limited number of constraints. First, we will need to address complications encountered with the use of a legacy system (a hard coded, webmaster supported system). Currently, the website's content is spread throughout multiple locations, which will need to be located, compiled, and entered into the new database. Although this may be time consuming initially, it will give you control of your content in the long run, saving you time and money.

Next, there is a significant distance between our offices and Blind River, which could possibly constrain our ability to frequently meet in person. Specifically, we will need to decide on the location for training hospital staff on the CMS.

Finally, after researching bandwidth accessibility in and around Blind River, we found that there are many areas surrounding the hospital that have limited mobile internet access. This means we have to ensure that the site will be built light-weight, adding breathing room, increasing readability and accessibility on all web-enabled devices.



#### About us:

Ben received his Bachelors Degree of Engineering from Beijing University of Posts and Telecommunications. Ben started to develop web applications in 2000 and he always tracks the latest web development technologies. After his six-year career as a web services developer, he worked as a software tester at Motorola for seven years. Having experience in both software development and testing makes him an expert in software quality control.

As a lifelong fan of problem solving, puzzles and all things prismatic, Marki's brain is hard-wired to go deep into the code and come out with something beautiful. She is excited about the Blind River District Health Centre website redesign as she has worked closely with several hospitals in the past as an Outreach Coordinator at the Calgary Public Library. During this time she became aware of the important role a hospital plays in its community through its various partnerships, resources and services. She is also an experienced graphic designer and front-end developer, and is passionate about building well-crafted websites. She loves working with clients to help them make informed decisions, and bringing their vision from concept to reality.

Navpreet has a Masters of technology followed by Bachelors of Technology in Computer Science & Engineering. During her last semester of her Masters, she completed research work at the Defence Terrain Research Laboratory, DRDO, India. During this period she worked on Soft Computing, and her research work was published in an international conference held in Singapore. After, she began teaching engineering at college.

Shannon is leading the strategy for the Blind River District Health Centre website design. She has an HBA in Political Science, and Environmental Policy and Practice, but has chosen to pursue her technical aptitude in the world of web development. After working in diverse fields such as first aid/aquatics, law, and sales, she harnesses a wide spectrum of experiences and knowledge that guide her in becoming a unique team member for the BRDHC website project.

Anmar has a Bachelors degree in Computer Science and Information Systems from Iraq, Mansour University. He has experience in different computer fields such as hardware, software, graphic design and web development which enabled him to work as a computer instructor after arriving in Canada. He is now pursuing web design and development as it combines his many skills.



### Conclusion:

Our team is excited to work with the Blind River District Health Centre to build a modern, accessible and completely customizable website. Utilizing a content management system, content redesign, and responsive interface (all up to date with the latest AODA standards), will improve the user experience for patients, physicians and the community. These elements will give you control of the website and its content, with an interactive and fluid framework that will work on any webenabled device. In a world dominated by the internet, why not put forward a new and improved online face of the BRDHC?