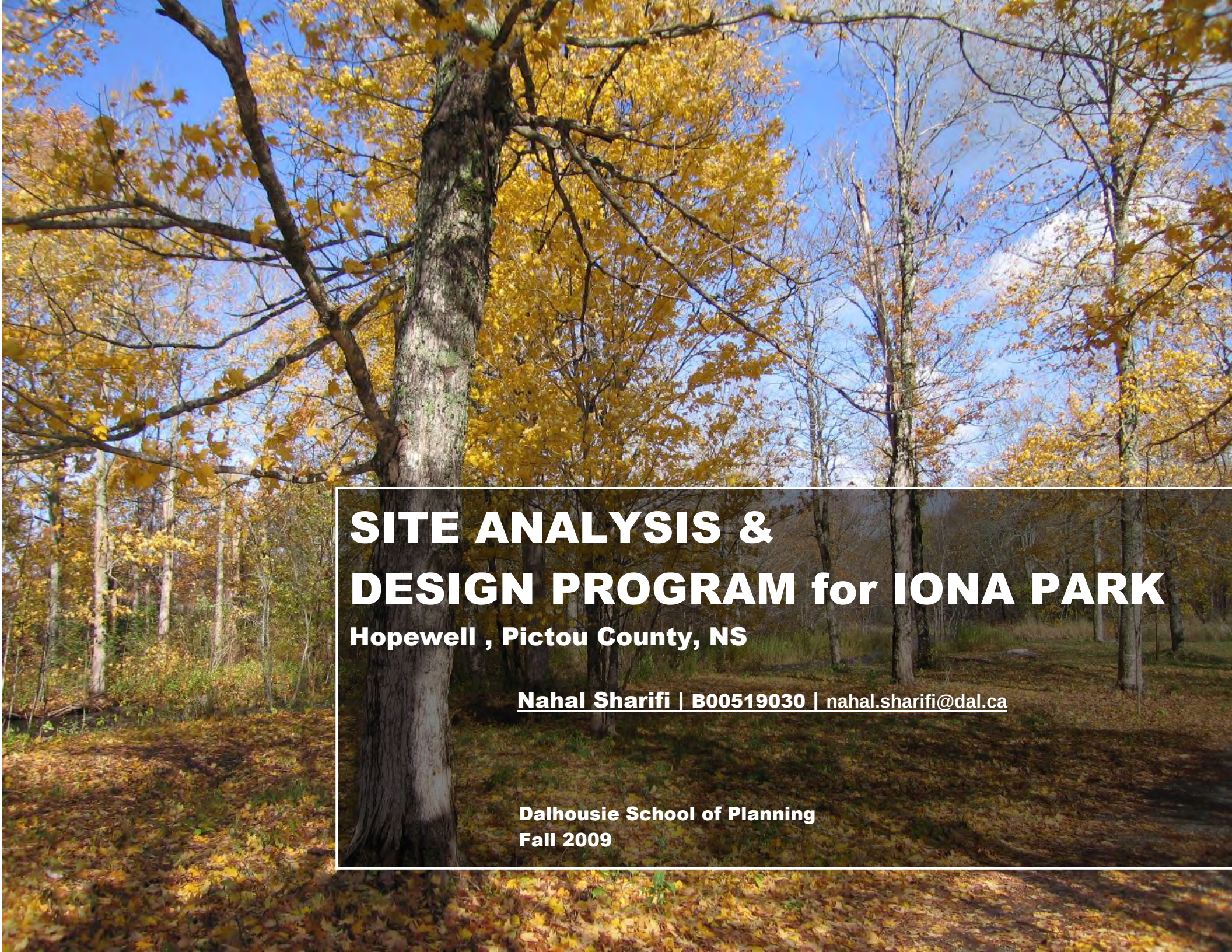


SITE ANALYSIS & DESIGN PROGRAM for IONA PARK

Hopewell , Pictou County, NS

Nahal Sharifi | B00519030 | nahal.sharifi@dal.ca

Dalhousie School of Planning

Fall 2009

Proposed Client: Friends of Iona Park
Contact: Gerald Romsa | romsa@ns.sympatico.ca
Instructor: Jill Grant
Technical Advisor: John Zuck

ACKNOWLEDGEMENTS

Thank you to Friends of Iona Park and East River Valley Community Development Association (ERVCDA) for inspiring the Project. Thank you to the East River Valley communities for participating in the meetings, and sharing their aspirations with me. Thank you to my technical advisor, John Zuck, for providing me with constant feedback throughout the process. Thank you also to my supervisor, Dr. Jill Grant, for her guidance and willingness to discuss the project with me, and for facilitating the independent project course.

Thank you to my peer evaluator, Theresa Piorkowski, for providing me with endless support.

To Lauralee Sim, Brendan Sutton and the rest of the MPLAN 10s - I could not have done this without your intellectual and emotional support.

Finally, thanks to my family for always believing in me and supporting me at every stage of my life.

TABLE OF CONTENTS

3. PROGRAM DEVELOPMENT

REFERENCES

LIST OF TABLES – FIGURES - IMAGES

EXECUTIVE SUMMARY

This project was intended to envision a park based on a community desired program and a site analysis. Main elements in this project were identifying community requirements (from community meetings), doing a site analysis, and setting out a design program for the site. A visual illustration of the program, in form of a conceptual design, is included to test how well the site can support the program.

In order to develop a design program for the park, first, I synthesized the community input and the site analysis into a set of design criteria. The design criteria determined the principles that the final design and recommendations should meet. These criteria explained the quality and the quantity of the features of the program. Then, I applied the program to the site. Site capabilities and specifications determined the location of each activity.

Summary of the Design Criteria

A summary of the program is presented in this section. Figure 1 shows the potential locations for different features of the program.

- An interior dimension of at least 10 feet wide and 20 feet long should exist for single-row parking.
- Driveway starts from the public right-of-way. It should be 20 feet wide at the entrance to allow for fire apparatus, and minimum 8 feet wide in other places.
- Ten benches and five picnic tables will be placed in the park. The benches should be placed along the walking trail. A setback of at least 3 feet from the trail is required to put the benches.

Input from community meetings

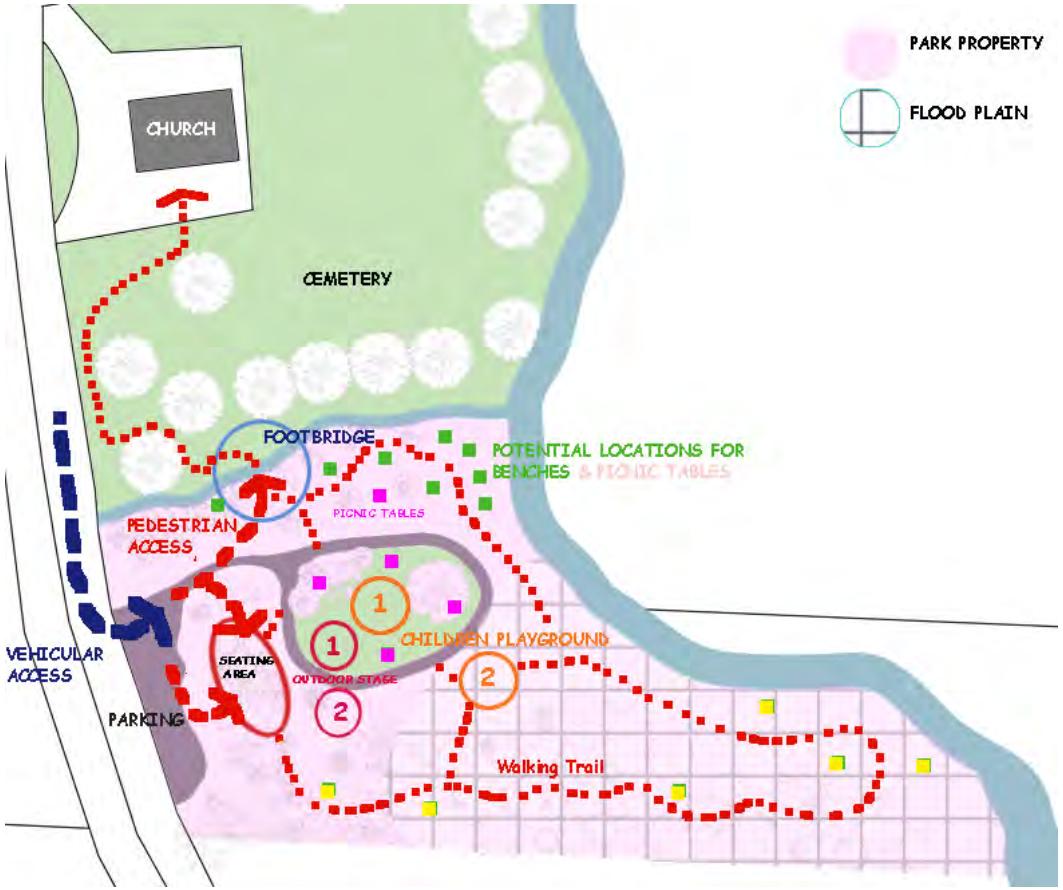
Community's aspirations for the park:

- Accessible
- Safe for children
- Welcoming
- Low maintenance
- Low cost

List of proposed features based on community priorities:

- Benches and picnic tables
- Walking trail
- Pedestrian access from the Church
- Outdoor stage with sitting area
- Bridge over the brook
- Playground
- Fitness activity equipment

Figure 1: Potential Locations for Program Uses



- The trail access strip should be cleared to a minimum height of 8 feet and a width of 4 to 6 feet. A vegetative filter strip between the trail and the water should be maintained. Raising the trail 3 to 6 inches (or more) above the surrounding terrain, especially in low-lying level areas will allow water to drain away and reduce maintenance costs. Wherever possible, the ideal surface is natural soil free of stones, stumps, and protruding roots. To be recognizable, the trail should be marked. Some possible trail markers are paint blazes, plastic or metal markers fastened to trees, wooden posts with directional arrows, or reflective tape for night use.
- The bridge should be placed above the ordinary high water mark. The foundation of the bridge should be located on solid, well-drained ground. It is better if the bridge is located in a place where both banks are at the same level. Concrete or stone footings can be used. If the bridge is higher than 2 feet above the water, handrails are necessary.
- A single level wooden platform of 9 x 12 feet and one foot high will be used as an outdoor stage.
- A playground should be on an open space where the children can be seen by adults. Playground's surface will be lawn. Play structures with nature tone colors are preferred over structures with brightly colored elements.


SCHEME

1.1. INTRODUCTION

Site Planning & Design Programs

One of the important considerations in a planning/design process is how the proposed project will be used and the way it connects to the surrounding areas. This will be determined first by the land itself and then, in different cases, by the values of the developer, the local by-laws, the community standards, and the nature of the project. These are all balanced during the design process by the designer. (Russ, 2004:301)

Site design is a multiphase process that consists of different steps. These steps have a chronological order. The first step of a typical land development process is *Feasibility/Programming* which "initiates the process with a general review of the proposed program and existing site conditions." (Dewberry, 2002: 1) Second step is *Site Analysis* that "determines the allowable use of the site based on the background information and recommends a course of action to accomplish the development program." (Dewberry, 2002: 1) Conceptual Designs, Schematic Design, Final Design, Plan Submission and Permitting, and Construction are the following steps of the process. (Dewberry, 2002)

As initial steps of the process, *Feasibility/Programming* and *Site Analysis* are usually done concurrently. In other words "the site and the purpose for which it will be used- the two sources of site design- are remarkably interrelated. Purpose depends on limitations of the site, and site analysis depends on purpose." (Lynch and Hack, 1994: 29) These studies result in a complete site inventory, identify usable site area, and form the foundation of further design efforts through provision of adequate base mapping and establishment of project goals. (Dewberry, 2002: 1)

Engaging the community in order to find out about its interest and needs is an important element in the planning process. "The communication of facts, ideas, and opinions among planners and public can build a mutual awareness of problems and needs, which in turn serves as the basis for development of politically acceptable solutions." (Dandekar, 1982: 127) The process should be structured to provide public with the background information necessary –to form judgments and to express preferences where appropriate- and opportunities for collaborative exchange and discussion of information. (Dandekar, 1982)

1.2. PURPOSE OF STUDY

In 1960, Men's Club of the St. Columba Church in the Hopewell Village – East River Valley, NS- opened Iona Park beside the Church. The park was used for picnics and barbeques. Due to time and as the church lost its members, fewer people went to the park and Iona Park began to lay dormant (Friends of Iona Park). The Association of the Friends of Iona Park formed on July 2008 for the purpose of restoring the park. The association comprises members of the surrounding communities who have a vision to bring the park back to life.

This is a community-based project aiming to envision a park based on a community desired program and a site analysis. A visual illustration of the program, in form of a conceptual design, is included to test how well the site can support the program.

1.3. STATEMENT OF THE PROJECT

Develop site analysis and a design program for Iona Park located in Hopewell Village (East River Valley, Pictou County, Nova Scotia)

Definition of Terms:

Site Analysis is "a diagnostic process that identifies the opportunities and constraints for a specific land use program." It will be based on the physical, biological, and cultural data gathered for the site. (LaGro Jr. 2008: 169)

Design Program "defines the project's objectives and functional requirements, including the proposed activities, area allocated for each activity, and the functional or spatial relationship among those activities" (LaGro Jr. 2008: 14). The program is typically expressed in terms of the quantity and quality of the spaces needed and performance statements. (LaGro Jr. 2008: 77)

1.4. STUDY OBJECTIVES

The main goals of this project are to

- **help the client** (Friends of Iona Park) **by doing a site analysis and producing a design program for developing the site.**
- **test the program for fit with the site.**

Main objectives that the study is intended to achieve are

- identifying the limitations and capabilities of the site through a site analysis
- finding about the needs and interest of the community
- developing conceptual designs to test the program and indicate the fit between the program and the site

1.5. BACKGROUND STUDIES

Planning Context

The Municipality of Pictou County, including the towns and the rural areas, has a combined population of over 46,000 people. The towns of Stellarton, New Glasgow, Pictou, Trenton and Westville each have their own councils. The remaining rural areas are served by the Municipality of Pictou County. Amalgamation of the six municipal units, consisting of five towns and a rural municipality, in Pictou County is occasionally considered as Pictou County District Planning Commission. The Commission provides the surrounding communities with planning and development services, solid waste management, and water pollution control. Land use by-laws are available for the towns of Stellarton, New Glasgow, Pictou, Trenton and Westville, but no land use regulation has been developed for the rural areas, including East River Valley communities. (Pictou County District Planning Commission website, n.d.)

"The Pictou Regional Development Commission (PRDC) has been working with the residents of East River Valley (ERV) since May of 2005. PRDC facilitated three strategic planning sessions with area residents of the 15 communities in East River Valley, Pictou County. A SWOT analysis (strengths, weaknesses, opportunities and threats) was conducted and initiatives were identified as unique opportunities to promote tourism and build economic development

for the area." (East River Valley Strategic Plan, 2007) The East River Valley Community Development Association has developed a Strategic Plan for Community Economic Development based on PRDC planning sessions. The key elements of the plan are:

1. Infrastructure Development
2. Marketing and Promotion
3. Tourism Development and Promotion
4. Sustainability and Youth Retention
5. Wind Energy/Rural Green Development

The park development is not identified as a project in the strategic plan, but Friends of Iona Park mentioned that they wanted the design program of the park to be in conformance with the strategic plan. Some of the projects that have been identified in the strategic plan, with similar directions for developing the study site, are:

- **Strategic Action 1.2:** To install more signage throughout the ERV
- **Strategic Action 1.4:** To identify and clean up unsightly properties
- **Strategic Action 2.2:** To promote year-round recreational/environmental activities and to identify recreational opportunities
- **Strategic Action 3.2:** To develop and promote Eco-Tourism in the ERV
  (East River Valley Strategic Plan, 2007)

Note: PRDC is currently working on a new regional strategic plan that will guide the economic development of the communities for the next ten years.

1.6. METHOD

The project is community-based. Main elements in this project were identifying community requirements, doing a site analysis, setting out a design program for the site, and testing the fit between the site and the program. Public engagement was an important component of this project. Community`s preferences and objectives - such as desired uses, special features, or design styles - were considered as important elements in developing the program. In this section I briefly explain different stages of the project.

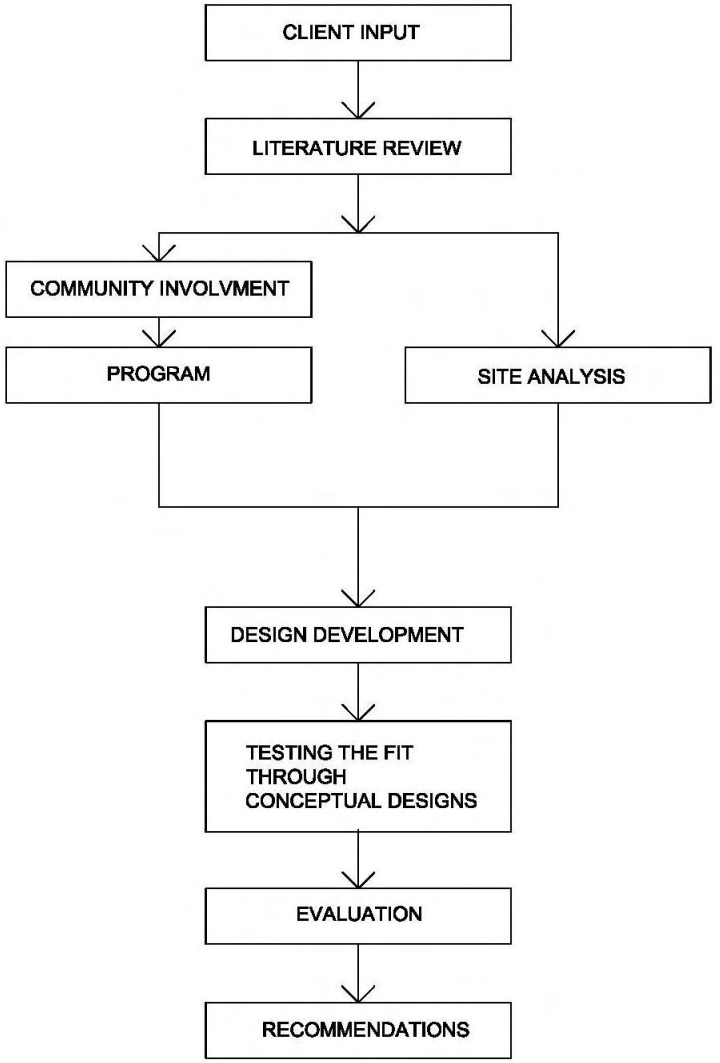


Figure 2: Process

Literature Review

The literature review provided the base for developing the method for the project as well as understanding the logical process of similar projects. A summary of important notes from the literature review is discussed in the Introduction section of the report. Subject areas for literature review included:

- Site planning and design
- Site analysis
- Design Programs
- Park planning and design guidelines
- Public participation and human behaviour
- Recreational development in rural communities
- Natural history of Nova Scotia
- History of Pictou County

Site Analysis

In the site analysis, I focused on contextual study of the site in order to evaluate site capabilities for the programmed uses. I identified the potential and limiting factors of the site through both a regional analysis and a more specific review of the proposed site. By analysing these features, I highlighted the facts and patterns that have significant influence on the design program. The product of this section is a summary which explains the important features of the place as well as limitations and potentials for the site.

User Needs and Preferences

I participated in two community meetings of the Friends of Iona Park to find about the community's needs and preferences. At the first community meeting I introduced the project to the community and asked for more information. Friends of Iona Park talked about their work in progress. The participants discussed what they felt was missing in their community, and what facilities and activities they wanted in the park.

At the second session, a month after the first session, I discussed site capabilities and the "program" with the community. I started the session with a quick summary of our first meeting. I presented the summary of the site analysis along with a base map that represented all the important data (physical characteristics, existing condition and features, and the context). The participants evaluated the program uses from the first meeting, and ranked them based on their priorities. The session also contained an ideas workshop. I asked participants to draw their ideas on provided base maps. Each participant used a different color pencil. At the end of the session, we had a discussion about different ideas that were presented on the base-maps, and tried to come up with agreements on site improvements.

The meetings were both conducted by Friends of Iona Park. A third meeting may be held at the client's request to discuss the final results of the project with the community.

Program Development

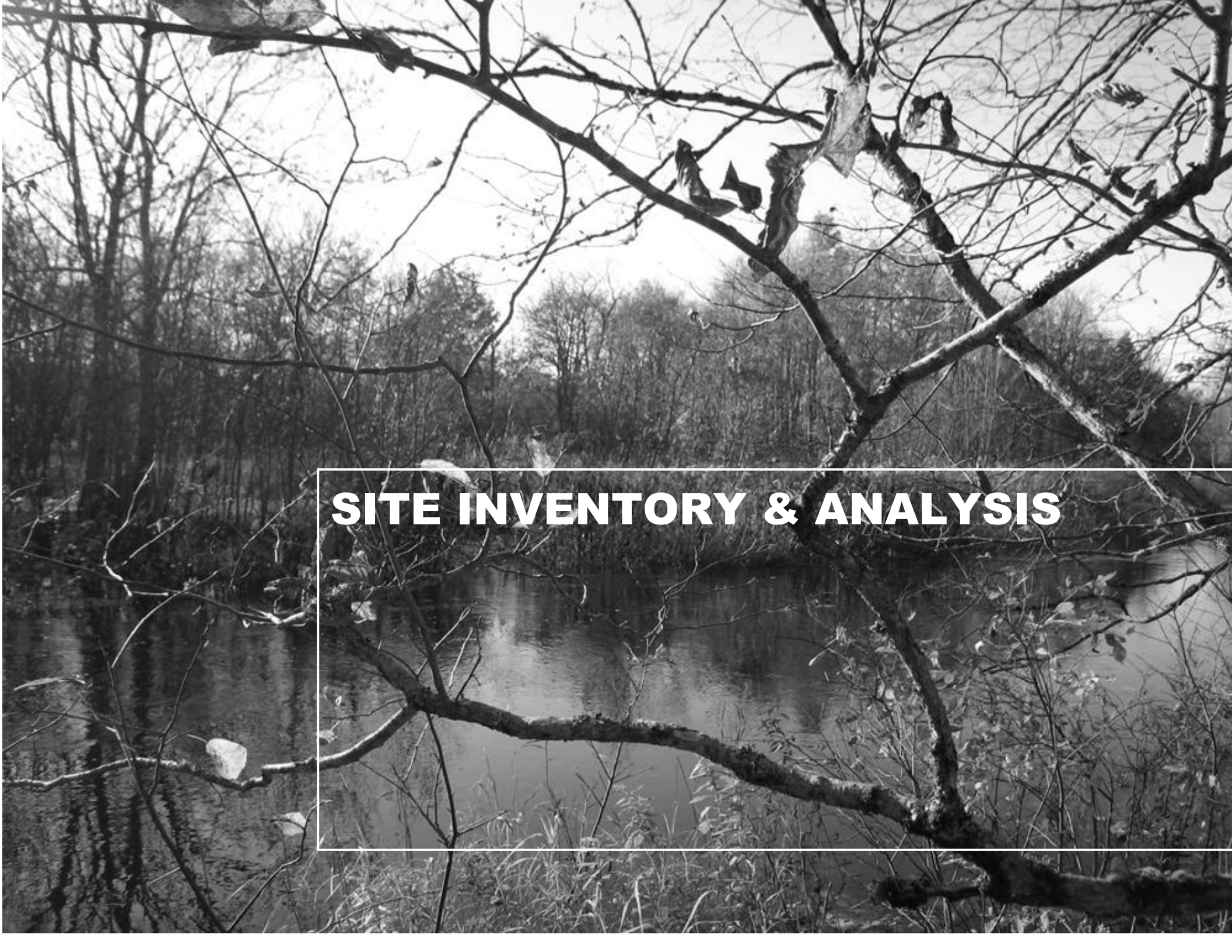
In order to develop a design program for the park, first, I synthesized the community input and the site analysis into a set of design criteria. The design criteria determined the principles that the final design and recommendations should meet. These criteria explained the quality and the quantity of the features of the program. Then, I applied the program to the site. Site capabilities and specifications determined the location of each activity. I made a map which shows possible locations for the program uses. I evaluated different options in terms of the program and the site. Finally, I made recommendations.

1.7. DATA COLLECTION

Some basic information about the site (including the history, ownership, and size, along with some aerial photographs) was provided by the Friends of Iona Park. More detailed parcel information and the topographic map, as well as a more recent aerial photograph of the area were obtained from Nova Scotia Land Registration office. Additional data, including soils information and geology, were compiled from Natural History of Nova Scotia, Nova Scotia Natural Resources website, and also the maps available at the resource centre of the Faculty of Architecture and Planning, Dalhousie University.

The initial site reconnaissance trip was performed in July 2009 to prepare the proposal for the project and get familiar with the area. The second site visit- in September 2009- was done to conduct site analysis studies and compile a photographic inventory of the existing features and the work in progress. The third site visit was in October 2009 to verify the produced maps, record some of the seasonal changes, and identify the flood plain on a map. All three site visits were carried out with members of the community and Friends of Iona Park to gain insight about the existing challenges and opportunities posed by the existing conditions.

Site analysis and programming for the site were reviewed with the community in the second community meeting. Together these meetings provided additional information and community feedback that contributed to the development of the design program for Iona Park.



SITE INVENTORY & ANALYSIS

2.1. INTRODUCTION

The analysis of the site and its context documents site capabilities and limitations. A comprehensive understanding of the site leads to a better design program. Capitalizing on site assets and avoiding constraints throughout the design process is a way of making sure that the design and the site support each other and fit together.

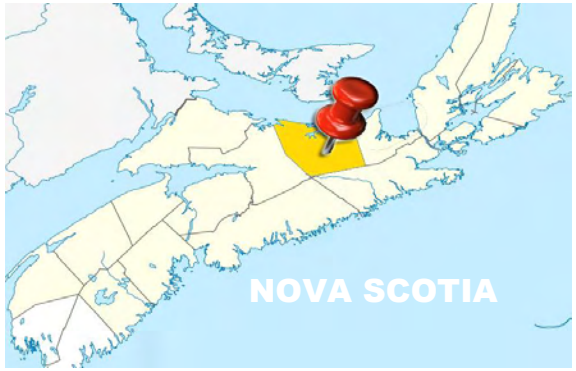


Figure 3: Pictou County, Nova Scotia

2.2. GENERAL SITE CONTEXT

Geographic Location

The site for the project lies in Hopewell Village. Hopewell is in the valley of East River, within the rural Municipality of Pictou County. Hopewell is within 10 to 20- minute drive from towns of Stellarton, New Glasgow, Westville, and Trenton. Other nearby communities in the Valley are Riverton, Eureka, Lorne, Plymouth, Churchville, Springville, Bridgeville and SunnyBrae.

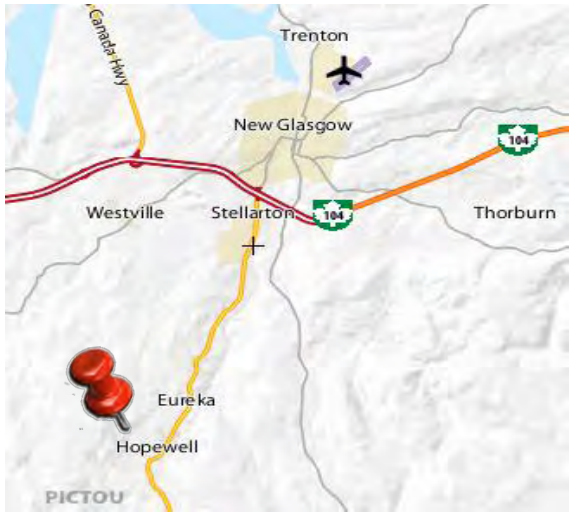


Figure 4:Hopewell, Pictou County – Source: Yahoo Map

Figure 5: Aerial Photo 2007, Site's Natural Context - Source: Service Nova Scotia

Land Use

The site is owned by the neighbouring church (St. Columba Church), and it is about 1400 sq. Metres. The park property is surrounded by the River on the east, St. Columba Church and Cemetery on the north, a private property on the south, and the Stellarton-Trafalgar Road on the west.

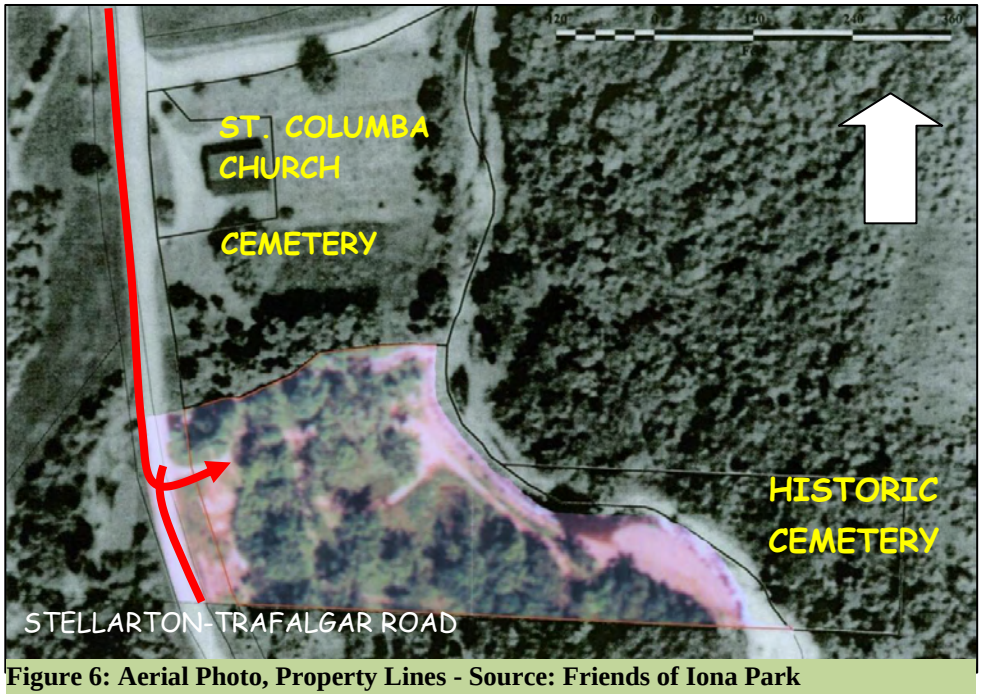


Figure 6: Aerial Photo, Property Lines - Source: Friends of Iona Park

Access and Parking

No pedestrian access to the park is available. The only vehicular access is from Stellarton-Trafalgar Road, (also called Route 374) which runs from Stellarton, and continues to the south. Two entrance points to the park exist on the road, but the one on the south will soon be closed due to low visibility and poor sight lines. A parking area is on the entrance of the site. The Church also owns a piece of property on the other side of the road. This lot is mainly used for parking during community events.

Image 1: Park Entrance

2.3. PHYSICAL DATA

Geology

Site's Geology Description: 13-b – Upper Unit, red and calcareous shale and grey limestone - Lower Carboniferous Windsor Group (Natural History of Nova Scotia, 1984: 624)

The Windsor Group strata are mainly composed of siltstone and sandstones with insignificant amounts of anhydrite and gypsum. The landscape reflects the dominance of these relatively more resistant rocks. Elevations of these rocks exceed 650 feet in some places, and reach 750 feet at Hopewell Village (Natural History of Nova Scotia, 1984).

Soil

Site's Soil Description: Hebert Association
(Nova Scotia Soil Survey, 1990)

Hebert soils are slightly stony and non rocky. Hebert soils which are under dorested vegetation, have a thin (<5 cm), poorly decomposed, extremely acidic layer of mor. Below this organic mat is 40-60 cm of very strongly acidic, friable gravelly- loam to gravelly- loamy-sand, which overlays loose glaciofluvial sands and gravels. Hebert soils are highly porous and have rapid internal drainage. However, occasional existence of slowly permeable loamy layers, above or within the gravelly subsoil, restricts internal drainage.

Overall, Hopewell soil is productive and much of the area is farmed. The soil which exists on the site is composed dominantly of rapidly to well drained Orthic Humo-Ferric Podzols, and significant inclusions of imperfectly drained Gleyed Regosols and poorly drained Gleysols of the Cumberland Association. The alluvial Cumberland soils are situated on the floodplain adjacent to the river. The Hebert soils are found on the Valley bottom deposits and kame terraces on the lower slopes adjacent to the floodplain (Natural History of Nova Scotia, 1984).

Topography

There is a 5-metre difference in elevations of the highest and the lowest points of the site. The park entrance from the road is 5 metres higher than the flood plain. Figure 7 and Figure 8 show two sections of the site.

The vertical scale of the illustrations is four times the horizontal scale.

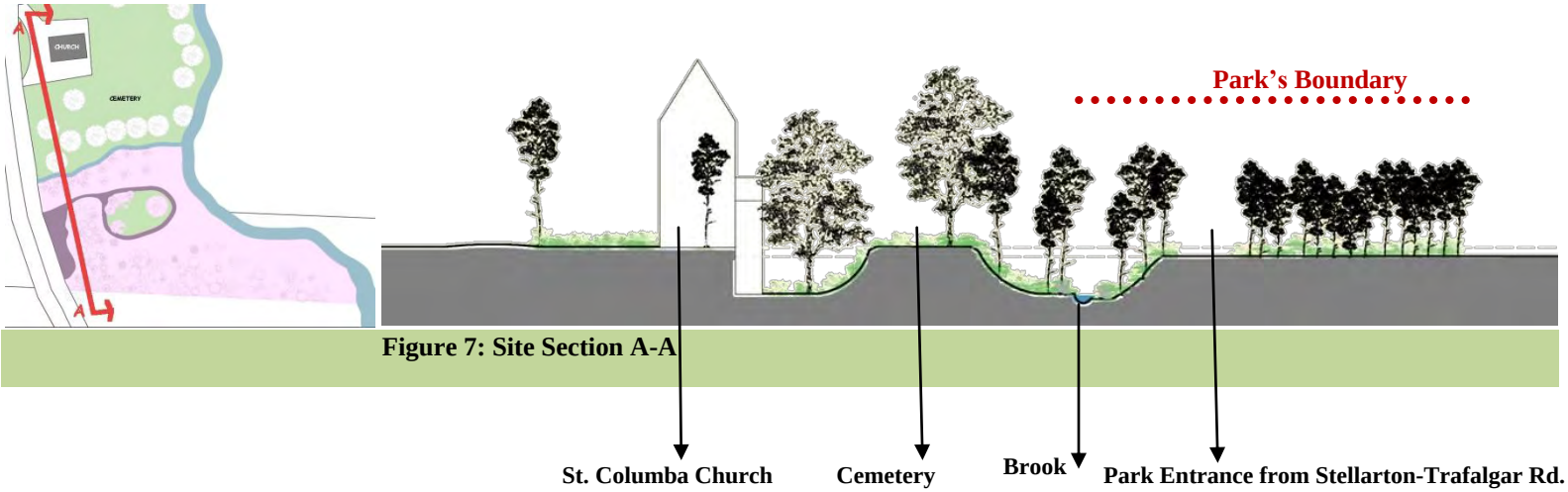


Figure 7: Site Section A-A

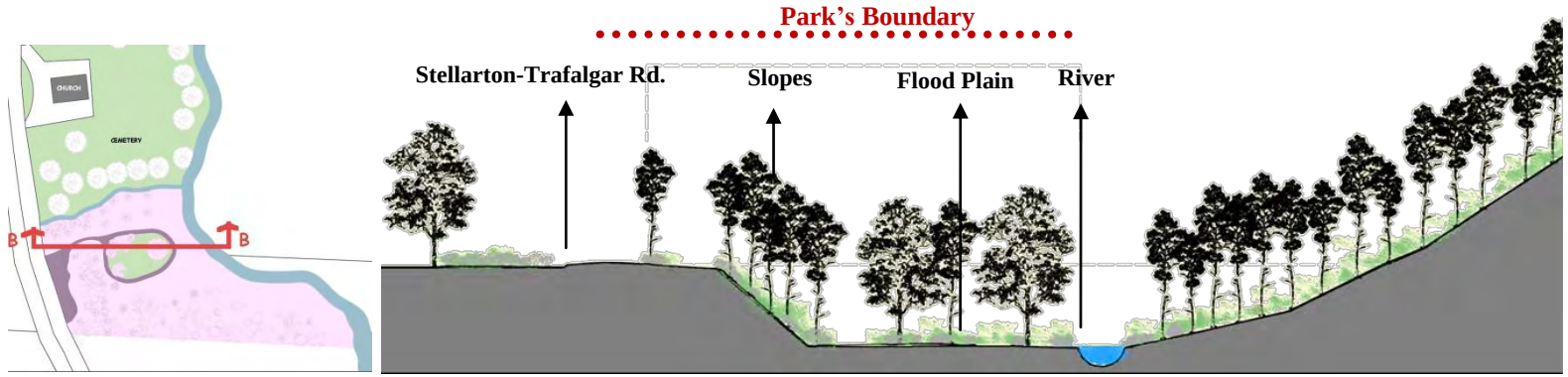


Figure 8: Site Section B-B

As Figure 8 illustrates, the site is fairly flat. The only steep area on the park is the strip between the entrance and the flood plain. The slopes face east.

Figure 7 shows the topography of the surrounding lands. The church basement and the brook are located lower than the cemetery and the park entrance. The road, however, is at the same level as the park entrance and the main entrance of the church.

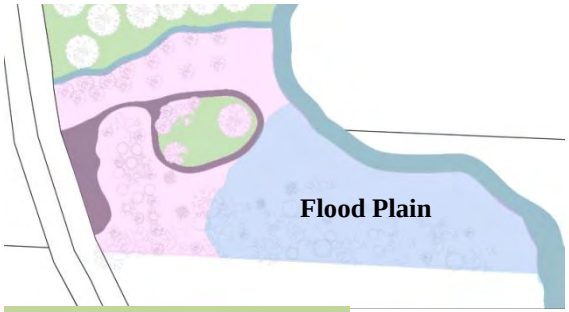


Figure 9: Flood Plain

Water

The East River defines the east border of the park, and Cameron's Brook defines the north side. The low-level areas beside the river flood several times during the year. Image 2 and Image 3 show the flood plain in October.

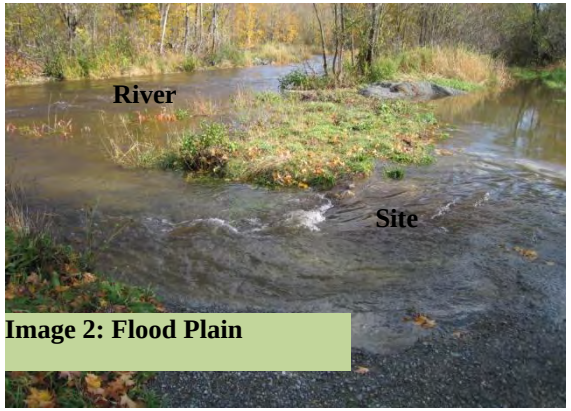


Image 2: Flood Plain

Habitat

Vegetation is concentrated around the edges of the property. The central area is an open space, covered with lawn.
White Spruce and Balsam Fir grow on old fields and pastures. Sugar Maple, Yellow Birch with some intolerant hardwoods and aspen grow on slopes (Natural History of Nova Scotia. 1984: 625).

Image 3: Foold Plain

Kemptown and Glencoe are two sites with close proximity to the park that have rare plants on them. These areas have the most highly concentrated intervals flora on any single area in Nova Scotia. The river interval is the rarest and most fragile ecosystem in this province. Although they are not specifically located on the site, their presence nearby informs environmental considerations (Ecological Resources in the Maritimes, 1974).

2.4. OPPORTUNITIES AND CONSTRAINTS SUMMARY

Table 1: Opportunities and Constraints Summary

Items	Opportunities	Constraints
Location	Proximity to Stellerton (10 min drive) Proximity to existing community facilities and features(church, cemetery, gas station, post office, ...)	No pedestrian access from the Church and the Cemetery
Topography	Views to the East River from the entrance point Slopes provide opportunity for an outdoor amphitheatre	Steep slopes in certain areas, not suitable for walking trail
Water	Views and access to the water Shore for swimming	Flood plain No access over the brook
Visual Resources	The River and the brook	-
Infrastructure	Circular driveway Road access The old trail	-

Regional access to the park is limited to automobile access via Stellarton-Trafalgar Road. The site is located adjacent to the road and benefits from close proximity to some of the features and services in the area such as: the church, cemetery, gas station, and post office. The Church and the Cemetery may limit the types of uses that can occur in their immediate vicinity.

The site is not easily accessible for pedestrians. There are no shoulders or sidewalks, and no access over the brook. Potential access to the water on the site is one of the attractions for the park. An old path exists close to the river. A shore for swimming is located on the eastern edge of the property. These features can affect where a walking trail goes on the site.

The site offers beautiful views to the river, church, and the cemetery. The park is relatively flat. Two main areas on the site that may require special considerations are the steep slopes at the entrance, and the flood plain in the centre.

The concentration of trees and vegetation is on the edges and the central areas provide open space. The site has environmentally sensitive areas which limit the type of uses that can occur. A flood zone is on the east edge of the property, but since the soil is highly porous with rapid internal drainage, the water from the flood or the rain does not stay for long.

PROGRAM DEVELOPMENT

3.1. INTRODUCTION

This chapter includes a review of the work in progress by Friends of Iona Park, summary of community meetings, the design criteria, the design development, the conceptual design, along with evaluation, and final recommendations.

Image 4: Work in Progress - Park Entrance

3.2. WORK IN PROGRESS BY FRIENDS OF IONA PARK

The entrance has been cleared. A sign at the entrance indicates the name of the park. The circular driveway in the park has been built. The park is cleared of brush, dead trees and garbage. A recycle and waste receptacle, and benches and picnic tables - all locally made - are ready to be placed in the park. A panel to contain historic information on the park, with some old photos of the original park, is still under discussion.

Image 5: Work in Progress - Driveway

3.3. FIRST COMMUNITY MEETING

Sept. 27th, 2009 - St. Columba Church, Hopewell- Ten participants

The goal of the first session was to introduce the project to the community and find about community needs and requirements.

Community's wish list for the program:

- Playground
- Walking trail
- Fitness activity facilities
- Sitting stones for outdoor gatherings and events. Considering potential for providing a site for performances, including outdoor performances and temporary events.
- Sidewalks to provide pedestrian access to the park from the church
- Bridge over the brook to connect the park to the church as a part of the pedestrian access
- Parking

Community's aspirations for the park:

- Accessible
- Safe for children
- Welcoming
- Low maintenance
- Low cost

Image 6: St. Columba Church

Image 7: The Brook

Image 8: Driveway in the Park

3.4. SECOND COMMUNITY MEETING

Oct. 25th, 2009 - St. Columba Church, Hopewell- Eight participants

The main goal of the second session was to agree upon community requirements and specifications for site improvement. The second goal of the meeting was to identify the priorities for phasing the program. Not all of the suggested uses and activities can go on the site at the same time. According to the available resources and the budget limitations, a starting point for site development should be identified. Some activities can happen later, in a longer time framework; however, some should get started right away to help revitalize the park and keep the work going.

Image 10: View of the Brook from the Driveway

List of proposed features based on community priorities:

- Benches and picnic tables
- Walking trail
- Pedestrian access from the Church
- Outdoor stage with sitting area
- Bridge over the brook
- Playground
- Fitness activity equipment

Image 9: Pedestrian Access

3.5. DESIGN CRITERIA

In this section, the community input and the site analysis are synthesized into a set of design criteria, defining the program. The design criteria determine the principles that the final design and recommendations should meet.

General design criteria

- The proposed use should fit the site in terms of the quantity and size of the required spaces.
- The proposed development should respect natural limitations of the site.
- The program should protect the health and quality of the environment.
- The proposed use should be low maintenance, safe, and low cost.

The design program should possess the following features:

VEHICULAR ACCESS AND PARKING

- 10 to 15 parking spaces
    - The minimum size of a standard parking space is 9 feet wide and 18 feet long. The dimensions can be reduced to 8 feet wide and 16 feet long.
    - An interior dimension of at least 10 feet wide and 20 feet long should exist for single-row parking.
- Driveway through the park
    - Minimum 8 feet wide at one-way sections
    - Minimum 18 feet at two-way sections
    - Minimum 20 feet if fire apparatus is required

SITE FURNISHINGS

- Ten benches and five picnic tables will be placed throughout the park. The benches should be placed along the walking trail.
- A setback of at least 3 feet from the trail is required to put the benches.
- Interpretive panel will be designed and located where it can be seen by users. The panel may include the history of the park site, flora and fauna identification, hydrology and geology of the site.

WALKING TRAIL

- The trail access strip should be cleared to a minimum height of 8 feet and a width of 4 to 6 feet.
- A vegetative filter strip between the trail and the water should be maintained.
- Raising the trail 3 to 6 inches (or more) above the surrounding terrain, especially in low-lying level areas will allow water to drain away and reduce maintenance costs.
- Wherever possible, the ideal surface is natural soil free of stones, stumps, and protruding roots. Another option is a 3- to 6-inch layer of woodchips, shredded bark, or sawdust.
- To be recognizable throughout the year and in different seasons, the trail should be marked. Some possible trail markers are paint blazes, plastic or metal markers fastened to trees, wooden posts with directional arrows, or reflective tape for night use.

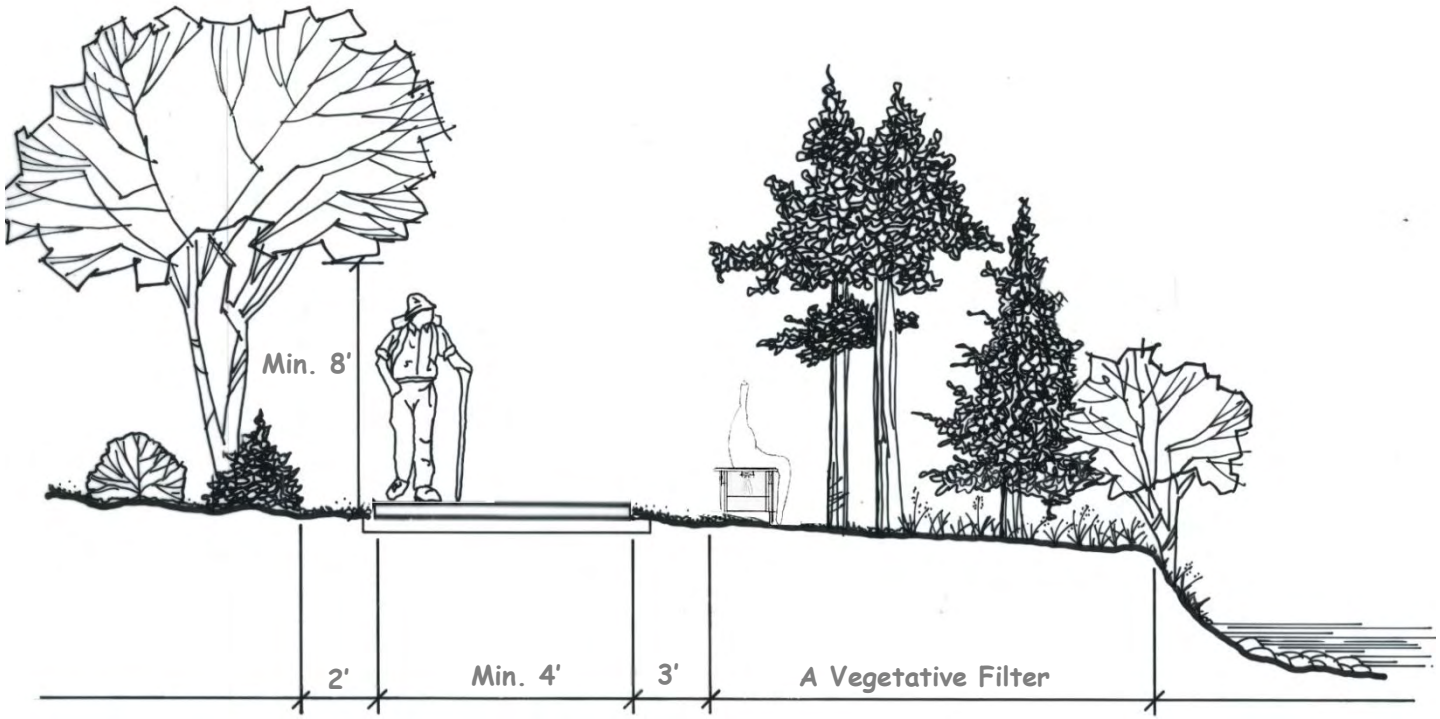


Figure 10: Walking Trail - Original Image from: http://www.mountairy.org/reeves/AG_AppxB_DesignGuidelines_2.pdf

FOOT BRIDGE

- The bridge should be placed above the ordinary high water mark.
- The foundation of the bridge should be located on solid, well-drained ground.
- It is better if the bridge is located in a place where both banks are at the same level. Concrete or stone footings can be used.
- If the bridge is higher than 2 feet above the water, handrails are necessary.

OUTDOOR STAGE & SITTING AREA

- A single level wooden platform of 9 x 12 feet and one foot high would appear to be ideal.
- If multilevel platforms are required then each level is to be between 1' and 1.5' high.
- The maximum height of the platform should not exceed 5 feet above surrounding ground area.
- If the platform is higher than 2 feet, railings are necessary.

PLAYGROUND

- A playground should be on an open space where the children can be seen by adults.
- Lawn and sand (both can be found on the site) are proper surfaces for playgrounds.
- Play structures with nature tone colors are preferred to structures with brightly colored elements.

Figure 11: Foot Bridge Sample
Source: http://www.studio3tyler.com/tour/tour.htm

3.6. DESIGN DEVELOPMENT

In this section, I have applied the program to the site. Site capabilities and specifications helped to determine the uses that could go on the site, as well as the location for each activity.

VEHICULAR ACCESS AND PARKING

Vehicular access to the park will be limited to the northern entrance from the Stellarton-Trafalgar Road. A circular driveway that has been restored on the site provides vehicular access to the central areas and the waterfront. The driveway starts at the public right-of-way. The width at this section should allow for fire apparatus access, and for one car waiting while the other one is passing. The required width is 20 feet. This width should be provided if trees get planted or stone pillars get placed on both sides of the driveway.

Locating the parking at the entrance of the park has the least interference with the park's existing landscape. For those who want to drive to the picnic tables, the open space on both sides of the driveway can provide for parking.

SITE FURNISHINGS

The benches and picnic tables have already been made locally. The design program at this stage focuses on their placement on the site rather than their design specifications.

Benches can provide respite for trail users as well as other people in the park. Two to three benches can be placed by the waterfront to provide users with a beautiful view. The rest of the benches should be placed on one or both sides of the trail. Picnic tables are intended to be used for family activities. Placing them close to the driveway and playground makes them more convenient for the users. The central area has room for three to four picnic tables with reasonable distance from each other. Putting trash receptacles close to the benches and picnic tables can help keeping the park clean. Interpretative signage can also encourage use of the trash bins. Site map, site history, and local context can go on a panel at the entrance of the park.

WALKING TRAIL

The walking trail on the site should be constructed in a way that enhances the user's outdoor experience while protecting environmental health. The trail should disturb the site as little as possible. Potential destinations for trail users are the water, the church, and the cemetery. Steep slopes should be avoided. The old path that exists by the river can be incorporated into the trail design. Connecting the trail to the park entrance, parking area, the bridge that goes over the brook, and the circular driveway provide better access for users.

FOOT BRIDGE

Bridge designs depend on the length and height of the crossing. Since the brook in the park is less than 10 feet wide, a simple log bridge can be used. The brook becomes wider as it gets closer to the road. The bridge can be built somewhere about 150 feet from the road, where the brook is narrower.

Figure 12: Foot Bridge Sample
Source: www.geograph.org.uk/photo/574505

OUTDOOR STAGE - SITTING AREA

An outdoor stage in the park creates a gathering space for the community. The stage can be located on the flat terrain in the central area of the park, facing west. The location of the sitting area will be on the steep section of the park. The mass of trees in this area provide protection from the sun.

Figure 13: Outdoor Stage Sample
Source: Google Images

The seats should be arranged in a way that the audience looks to the east and does not face the sun during most of the day. Planting more trees at the back of the stage (the east side) can help block the sun during morning performances. The seats can be simple in design, and incorporate natural materials such as stone, wood logs, or poles. The open space around the stage can provide for lawn-seating during special performances. The sitting area should be accessible from the parking lot and the park.

Figure 14: Outdoor Seating Sample
Source: Flickr.com

PLAYGROUND

The right location for a playground is where the children can be seen by adults. The playground on the site should be located in the central open space on the site. Placing benches and picnic tables close to the playground provides a better monitoring opportunity for the parents. Lawn is an ideal surface for children's activities.

Figure 15: Play Equipment
Source: Flickr.com

Figure 16: Play Equipment
Source: Flickr.com

Different types of play equipment can be used in the playground. A multi-play item can fully equip the playground; however, it is not low-cost or low-maintenance. The equipment may also get damaged during the flood season. Locally made play equipment brings more character to the park, and preserves the natural beauty of the park. These items can be made by using blocks of wood and logs. They cost less, and need less maintenance.

FITNESS EQUIPMENT

Having fitness equipment in the park was one the ideas that came up in the first community meeting; however, when the participants prioritised the proposed program uses in the second meeting, fitness activity equipment was the last item on the list. The community can buy fitness equipment; but making the equipment locally is more feasible. Some samples of locally made "work out" features such as chin up bars, crunch boards, and balance exercises can be seen in the images. Installing the fitness equipment along the walking trail provide more options for the trail users.

Figure 17: Fitness Equipment
Source: http://blog.virginiaparks.org

3.7. CONCEPTUAL DESIGN

I have developed a conceptual illustration of the program. The conceptual design shows some of the possible ways of applying the program to the site.

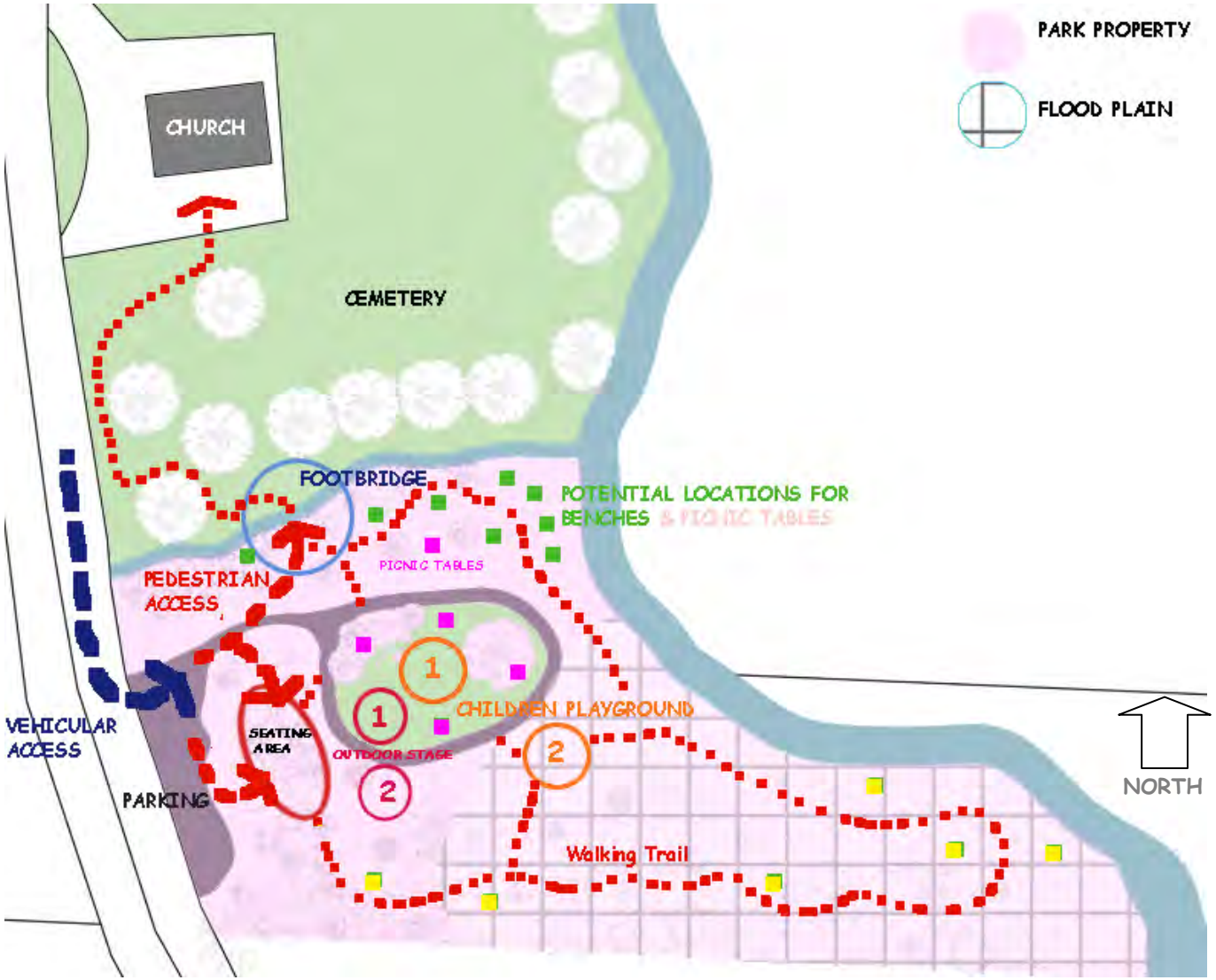


Figure 18: Conceptual Design - Potential Locations for Program Uses

3.8. EVALUATION

Figure 17 indicates the conceptual illustration of the program. Some features of the program can be located in different places on the site. In this section, I evaluate each option, in terms of the program and the site.

Placing the parking at the entrance area has the least interference with site's existing landscape. The entrance parking area is more visible to drivers.

Benches are placed along the walking trail. Green spots on Figure 16, show areas with views to the water, and proximity to the driveway. Yellow spots are located either on the flood zone, or in the dense vegetation. Putting benches in yellow spots may cause maintenance issues.

The walking trail connects the important features of the site. The trail also connects the site to the church, and provides the trail users with several access points from the parking, the brook, the seating area, and the central driveway. The trail on Figure 17 is mainly proposed based on the topography. For instance, to walk from the church's basement to the driveway on the site, a trail user does not need to climb up to the parking area, and again walk down to the driveway.

Two possible locations for the playground are shown on Figure 17. The first location is in the centre of park, and provides a good monitoring opportunity for parents. The area is covered with lawn, and is farther from the flood plain. The second location is also on an open space, and close to the driveway and picnic tables; however, it's on the flood plain.

Two potential locations for the outdoor stage are also marked on Figure 17. The first option is more compatible with slope aspects, so that the audience looks straight toward the stage. Both options are close to the driveway, and do not require vegetation removal. However, the second option is closer to the flood plain.

3.9. RECOMMENDATIONS

Figure 18 shows my recommendations for locating the program uses on the park.
According to the site, the best location for the parking is at the entrance area. The entrance parking area can provide for 14 parking spaces. Providing a vegetative strip between the parking and the road, in a way that does not block the view to the park, can enhance the parking's appearance. Several access points are provided to the walking trail. The playground is located close to picnic tables. Benches are placed along the trail, facing the water and the playground. The bridge is located where the brook is narrow enough. The seating area is placed on the slopes, and close to the driveway.

Figure 19: Final Recommendations

REFERENCES

- Dandekar, Hemalata C. The Planner`s Use of Information. Hutchinson Ross Publishing Company, 1982
- Dewberry & Davis. Land Development Handbook, McGraw-Hill Companies, 2002
- Economic Impacts of Protecting Rivers, Trails and Greenway Corridors: A Resource Book. Rivers, Trails and Conservation Assistance, National Park Service, 1995. http://www.nps.gov/pwro/rtca/econ_index.htm
- Enger, Susan C. Parks/ Open Space/ Recreation Facilities Standards in Level of Service Standards - Measures for Maintaining the Quality of Community Life, Report No. 31. Municipal Research and Services Center of Washington, September 1994 http://www.mrsc.org/Publications/levelserv.pdf#Page=20
- Enger, Susan C. Planning for Parks and Open Space in Your Community,f or Washington State Department of Community, Trade and Economic Development and Interagency Committee for Outdoor Recreation, 2005. http://www.rco.wa.gov/documents/Manuals&Forms/CTEDIAC_parks_rec_plan_guide.pdf
- Fogg, George. Park Planning Guidelines, 3rd ed. National Recreation and Park Association, 1990
- Gies, Eric. The Health Benefits of Parks: How Parks Help Keep Americans and Their Communities Fit and Healthy, Trust for Public Lands, 2006
- Guidelines for Developing Public Recreation Facility Standards, Ministry of Culture and Recreation, Sports and Fitness Division, Ontario, Canada , 2004 http://lin.ca/resource-details/1477
- Hesselbarth, Woody. Trail Construction and Maintenance Notebook, 2007 from http://www.fhwa.dot.gov/environment/fspubs/07232806/index.htm
- LaGro Jr. James A. Site Analysis: A Contextual Approach to Sustainable Land Planning and Site Design, John Wiley & Sons, Inc. 2008
- Lynch, Kevin and Hack, Gary. Site Planning, The MIT Press, Cambridge, Massachusetts, And London, England, 1994

- Metres, James and Hall, James R. Park, Recreation, Open Space and Greenway Guidelines, National Recreation and Park Association, 1996
- Natural History of Nova Scotia. Prepared by Maritime Resource Management Service Inc. And Griffiths - Muecke Associates, 1984
  Prepared for Parks and Recreation Division Department of Lands and Forests, Nova Scotia Museum, Department of Education
- Nicholls, Sarah. Measuring the Impact of Parks on Property Values, *Parks & Recreation*, March 2004
- Ramsey, Charles George. Ramsey/Sleeper Architectural Graphic Standards. John Wiley & Sons, Inc. 1988
- Russ, Thomas H. Site Planning and Design Handbook. McGraw-Hill Companies, 2004
- State of Colorado Small Community Park and Recreation Standards, prepared by RPI Consulting, 2003, via Colorado State Publications Library
  http://www.cde.state.co.us/artemis/loc6/loc61202p212003internet.pdf

WEBSITES

- Pictou County District Planning Commission: http://www.pcdpc.com/
- Pictou Regional Development Commission: http://www.prdc.com/