

City of Revelstoke

P.O. Box 170, Revelstoke, British Columbia V0E 2S0
www.cityofrevelstoke.com info@cityofrevelstoke.com

Lorraine Schmidt,
Project Manager,
Crown Lands Partnerships and Sales,
Cranbrook.

October 28, 2008.

Dear Lorraine,

RE: PROPOSED HIGH TECH PARK DEVELOPMENT IN REVELSTOKE

At the regular Council meeting of October 27, 2008, Revelstoke City Council passed the following resolution with respect to the proposed development:

That City Council sends a letter to BC Lands advising the Province that, in principle, Council strongly endorses the proposal by Citation Networks to develop a High Tech Park on the Crown land sites on Westside Road, with the following conditions:

That the proponent initiates development of the Tech Park project within a reasonable time (5 years) after completing the purchase of the land from the Province;

That the Province includes a clause in any land sale agreement with Citation Networks to purchase the land on Westside Road that states that, should the Tech Park not proceed as planned, the land will revert back to the Crown.

That, prior to the commencement of the development, the proponent signs a development agreement with the City of Revelstoke that addresses the following issues (servicing, housing, transportation, environmental impact of the project) to the mutual satisfaction of both parties.

That the City of Revelstoke's land use and development requirements be met pursuant to the Official Community Plan, Zoning Bylaw, Subdivision, Development and Servicing Bylaw, and other City bylaws as they may apply. In this regard, it should be noted that for this development proposal to proceed, amendments to the Official Community Plan and Zoning Bylaw will be required, involving a public consultation and public hearing process.

In addition, the Revelstoke Economic Development Commission passed the following recommendation at their meeting on October 7, 2008:

CITY HALL - 216 Mackenzie Avenue				COMMUNITY ECONOMIC DEVELOPMENT		PARKS & RECREATION/ AQUATIC CENTRE/ COMMUNITY CENTRE	
ADMINISTRATION	FINANCE/ PROPERTY TAX	PLANNING, BUILDING & BYLAW	ENGINEERING		FIRE		PUBLIC WORKS OPERATIONS
Tel: (250) 837-2911 Fax: (250) 837-4930	Tel: (250) 837-2161 Fax: (250) 837-3632	Tel: (250) 837-3617 Fax: (250) 837-3632	Tel: (250) 837-2922 Fax: (250) 837-4930	204 Campbell Ave. Tel: (250) 837-5345 Fax: (250) 837-4223	227 West Fourth St. Tel: (250) 837-2884 Fax: (250) 837-4171	600 Campbell Ave. Tel: (250) 837-9351 Fax: (250) 837-9355	1200 East Victoria Rd. Tel: (250) 837-3001 Fax: (250) 837-2059

"The City of Revelstoke indicates to the Province that, in principal, they are supportive of the proposal to develop a High Tech Park on Westside Road".

There is strong support for the proposed development from City Council, and the City of Revelstoke would like to see the project proceed expeditiously. Please do not hesitate to contact me should you require further information.

Sincerely,

A handwritten signature in black ink, appearing to be 'AM' with a large loop at the end.

Alan Mason, Director,
Community Economic Development,
City of Revelstoke.

Revelstoke

Westside Road Technology Park Proposal

Community Presentation

Wed Sept 24, 2008



**Westside Road
Technology Park**



Section 1 – Citation Networks Ltd Introduction

Section 2 – Technology Park Introduction

Section 3 – Westside Road Technology Park Proposal

Section 4 – Revelstoke Community Benefits



Westside Road
Technology Park

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Citation Networks

Citation Networks Ltd Introduction

- Citation is a Vancouver-based, Canadian company formed in early 2007 to identify and pursue sustainable economic opportunities in the rural locations outside the lower mainland that take advantage of BC's natural and man made attributes.
- The true economic activity will combine those attributes with new employment to yield a "value add" business that will target an increasing demand global market sector.
- The resulting service/product business can then reach out and tap into the global money flow. This new money to the province would flow into the community on a continuing basis.



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Citation Executive Bios

Robert Sharkey – CEO and President

- Successful Business Owner and entrepreneur with over 25 years of technical and business experience
- In 1992, he founded and was the CEO of Pegaplex Inc., an IT systems engineering company working with both high tech and enterprise corporations
- Designed and executed business plans that grew Pegaplex into a twelve million dollar a year venture
- Left Pegaplex in 2004 to become an independent venture capital consultant for high tech companies
- Then worked on general economic development initiatives for rural centers in BC. These efforts led directly to the cofounding of Citation Networks Ltd. In 2007 as CEO

Bruce Enegren – VP and CTO

- Successful Business Owner and entrepreneur with over 25 years of engineering and business experience in telecommunications and multimedia applications
- In 1992, he cofounded and was Director of Engineering of Datamax Telemanagement Inc, a Canadian-company based in Mexico City that provided value-added, telecommunications services throughout Mexico and Latin American
- In 1995, he cofounded and was the CEO of Magellan Resource Group, a software development company that designed and created multimedia entertainment applications; Magellan was acquired by its US partner, Rocket Gaming, in 2003
- In 2007, he cofounded Citation Networks as VP and CTO to research and develop high value-add, economic development initiatives for rural centers in BC

V1



Key Criteria for Economic Opportunity

- Must be a world-class, value-add opportunity that will attract global investment money
- Must be a business that services a rapidly increasing demand in the market sector
- Must be highly insulated from the boom-bust vulnerabilities that can often be caused by adverse changes in global market conditions
- Must be a sustainable opportunity that can foster secondary green initiatives
- Must support the creation of world class, well paying, sustainable, broad-based jobs in a high growth, stable market sector



Section 1 – Citation Networks Ltd Introduction

Section 2 – Technology Park Introduction

Section 3 – Westside Road Technology Park Proposal

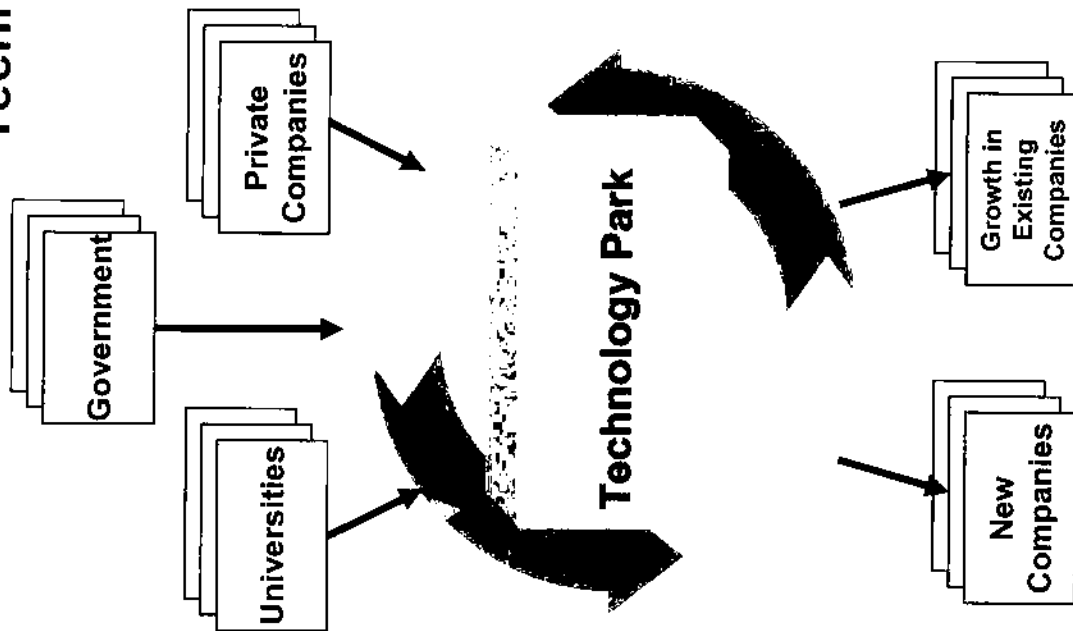
Section 4 – Revelstoke Community Benefits



Westside Road
Technology Park



Technology Park Description



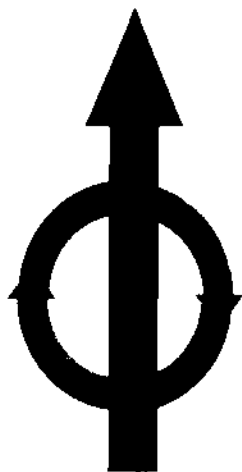
- A technology park is a property development designed for a **concentration** of global high tech, engineering, manufacturing and related businesses.
- Typically businesses in the park focus on product innovation and advancement.
- Technology parks can also serve as an incubator for new start-up businesses.
- Technology parks provide a broad spectrum of well paying jobs for the local economy.
- Technology parks are closely integrated to the local community and utilize existing business services in the community.

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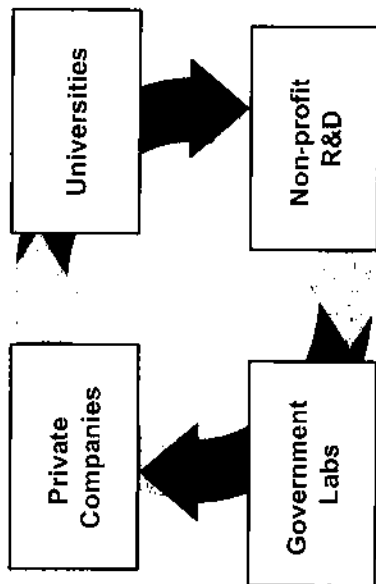
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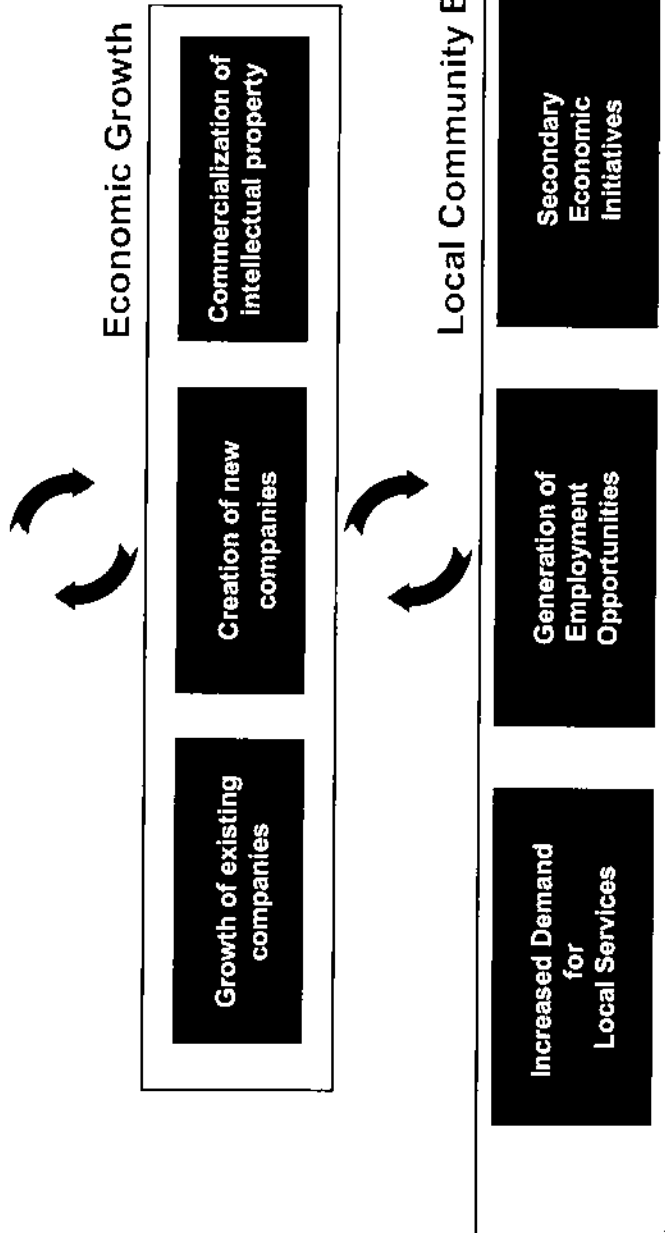
Capital
Investment
Inflows



Technology Park



- Attracts top talent to the region
- Exchange of Ideas
- Attractive environment for additional businesses
- Business synergy with existing community



Technology Park Examples

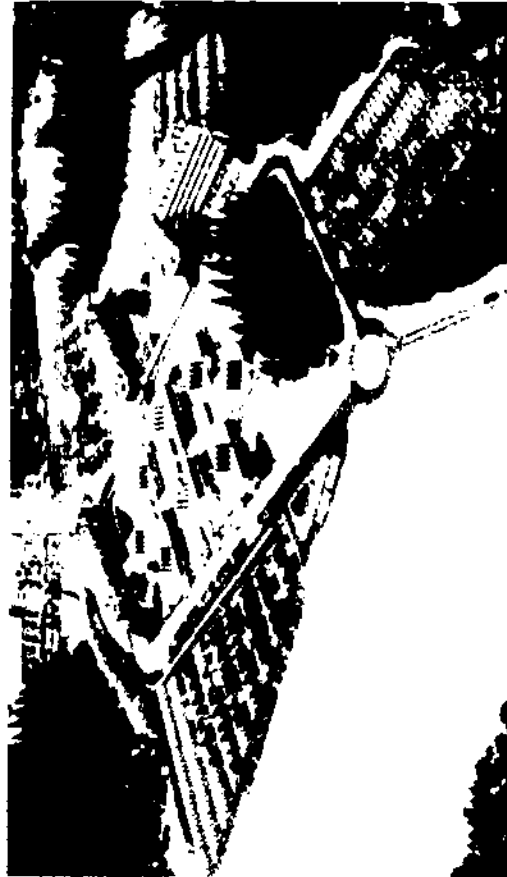


Location	Raleigh-Durham, North Carolina
Established	1959
Site Area	7000 acres
Space	25 million sq ft of developed space
Employees	40,000 full time
Avg Salary	\$67,000

Large



Small



A University of Victoria Enterprise

Location	5 km of Victoria, BC
Established	2001
Site Area	35 acres
Space	415K sq ft
Employees	210 full time
Avg Salary	\$61,000

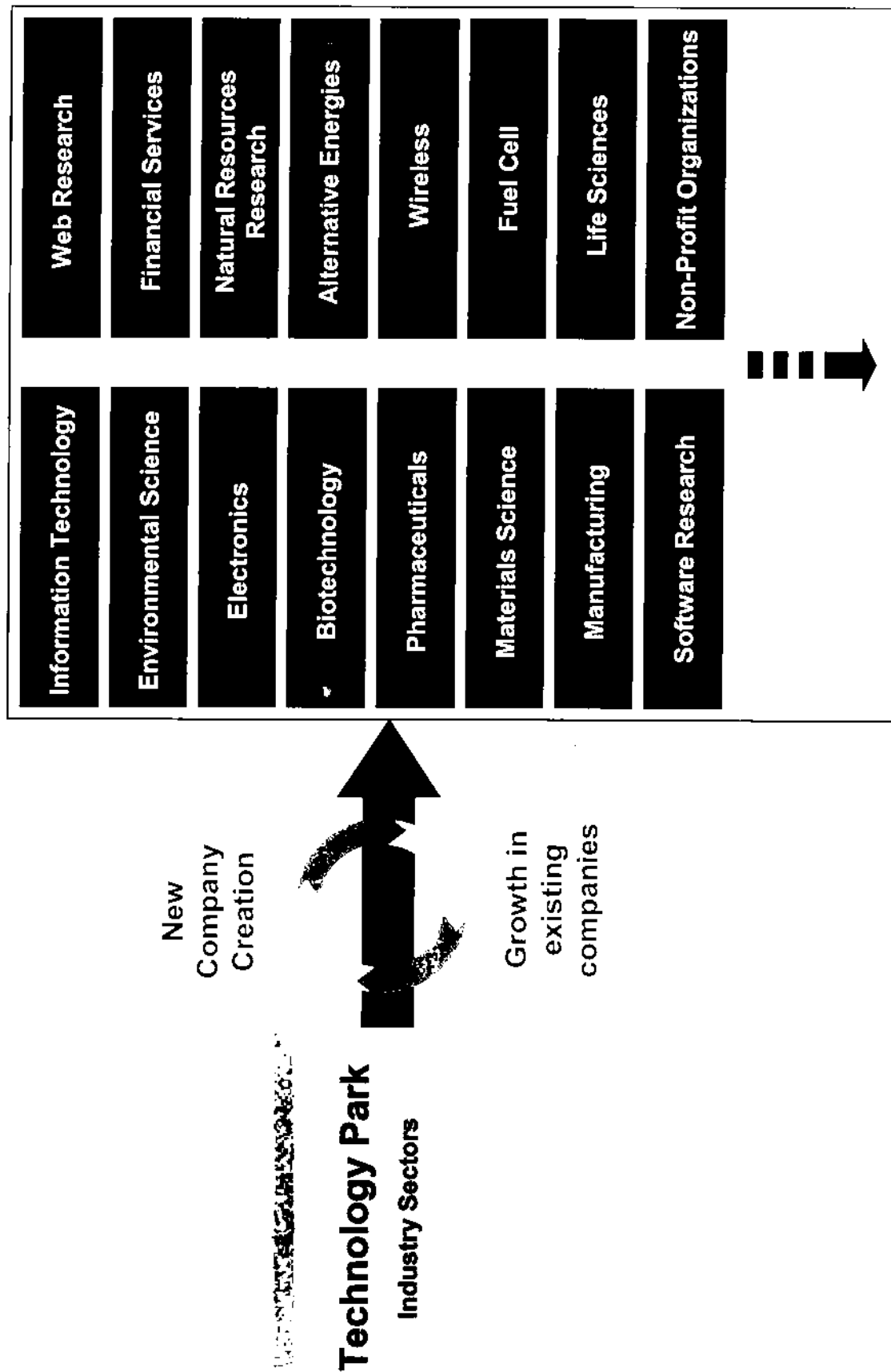
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Typical Technology Park Industry Sectors



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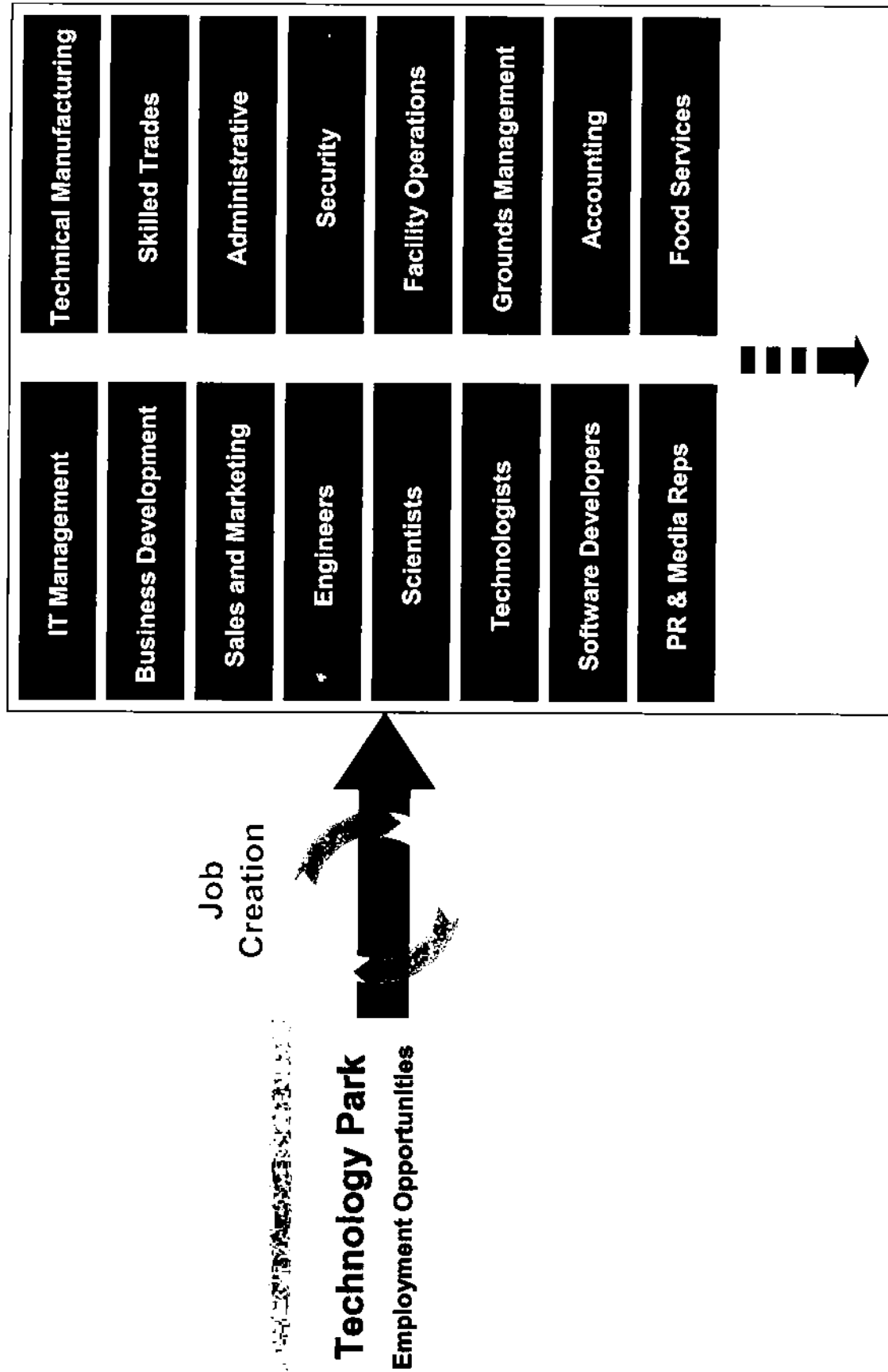


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Typical Tech Park Employment Opportunities



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Section 4 – Revelstoke Community Benefits



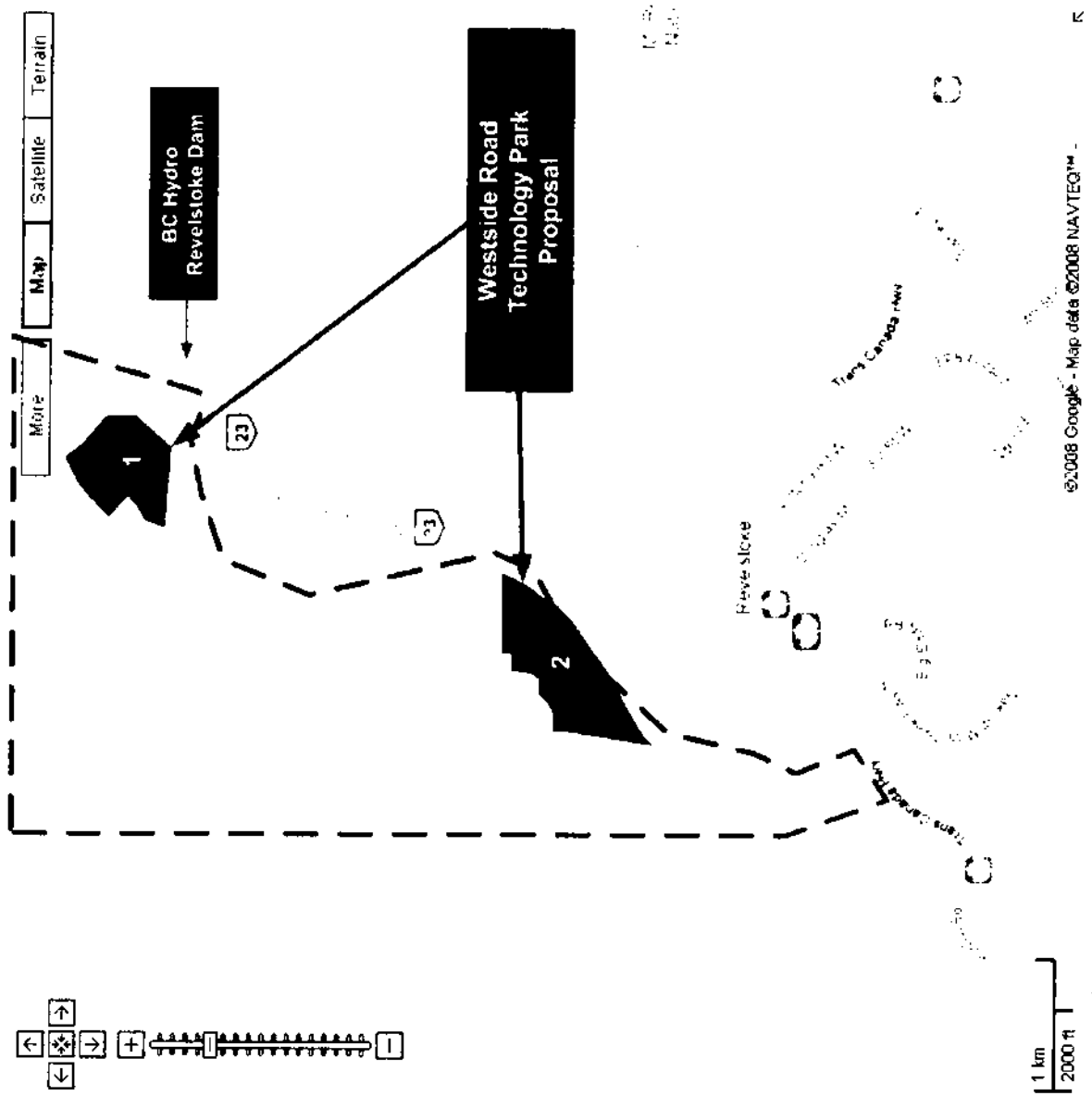
Westside Road
Technology Park

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Westside Road Technology Park Location



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Westside Road - Site Location Analysis

Requirement	Description	Rating
Green, Electric Power	BC Hydro (Revelstoke, Mica Dams) – <u>hydroelectric power</u>	Excellent
Land	Westside Road locations	Excellent
Fiber	Telus, Bell, Shaw – national long haul, fiber networks for all three telecom carriers pass through Revelstoke	Excellent
Water	Columbia River, Wet Belt, Aquifers	Excellent
Temperature Profile	Cooler outside temperatures can significantly decrease the cost to cool the Tech Park facilities (e.g. data center).	Excellent
Natural Disasters	<u>Very Low risk</u> – earthquakes, hurricanes, tornado, drought, ice storm, volcanoes, floods, etc	Excellent
Security	<u>Very low risk</u> , security threat region.	Excellent
Educational Institutions	Access to numerous, internationally ranked universities and colleges throughout BC and Alberta.	Excellent
Transportation	Transportation hub for highway (Trans Canada) and railway (CPR) links. Local airport facilities.	Excellent

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Westside Road – Local Community Analysis

Characteristic	Description	Rating
Lifestyle	World class outdoor location with outstanding lifestyle and recreational opportunities.	Excellent
Community Services	Modern schools, hospitals and community center.	Excellent
Community Size	Small-town character and feel.	Excellent
Security	Very safe region to raise a family.	Excellent
Commute	Negligible – compared to metro Vancouver and Victoria	Excellent
Crime	Negligible – compared to metro Vancouver and Victoria.	Excellent
Location	Westside Road location minimizes the impact and disruption on the existing Revelstoke community.	Excellent

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A World Class Opportunity to Launch the Creation of the Westside Road Technology Park



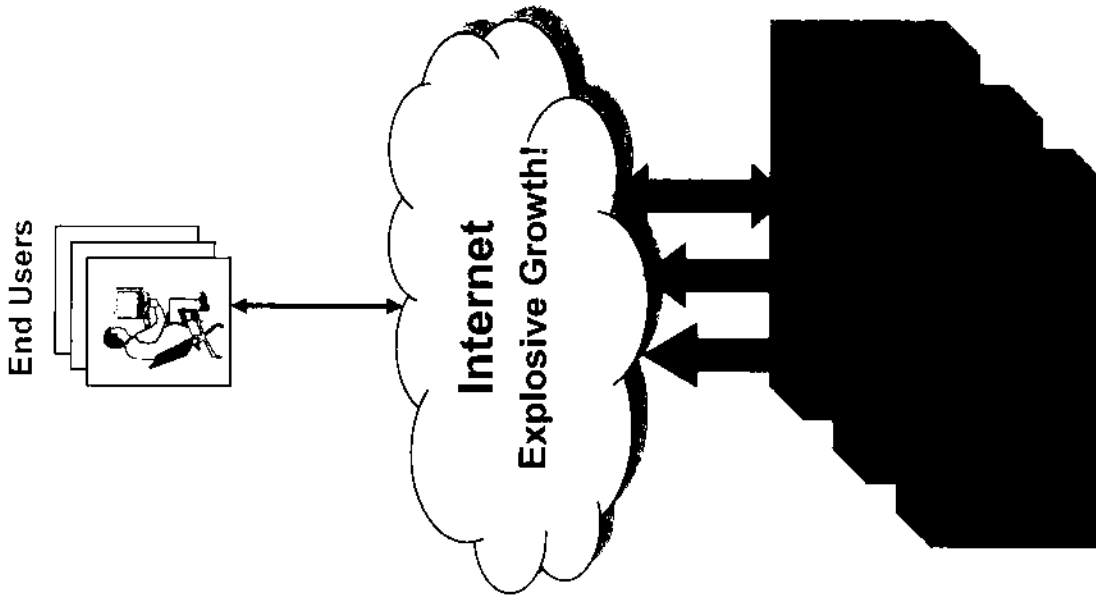
The Revelstoke Westside Road site location provides a unique, location to build a world class data center – a large dedicated facility housing thousands of computer servers that connect to and support the Internet.

The creation of the Westside Road Data Center will launch the Technology Park.

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World Class Data Center



A world class data center is a large dedicated structure that houses thousands of computer servers that host the software services that are provided over the Internet.

For example, every time an Internet user performs a Google search, the actual search request is sent over the Internet to a server located in a Google Data Center which then performs the search operation and returns the results back to the user over the Internet.

The explosive growth of the Internet has created a rapid escalation in the demand for data center space. Some common examples of dedicated data center facilities include:

1. Search engine and email services (Google, Yahoo, Microsoft)
2. Social networking (e.g. FaceBook, MySpace, LinkedIn)
3. E-commerce (e.g. EBay, Amazon)
4. Internal use by large corporations (e.g. IBM, banks)
5. Retail Data Center – servers are leased to small to medium companies to host their Web Site applications
6. Wholesale Data Center – one or more computer rooms within the data center are leased to large corporations
7. Data Storage Backup services for disaster recovery

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Data Center Example



Aerial View



Ground View

Market Demand for World Class Data Centers

The market demand for world class data center space is continuing to increase dramatically and it is expected that this trend will continue for the next several years. The primary factors supporting this growth are:

1. Explosive Growth of the Internet

The biggest driver of data center growth is the explosive-growth in Internet-based businesses, including search engines, electronic banking and e-retailing.

2. Demand Exceeding Supply

In North America, the current demand for premium data center space is exceeding supply by over 40%.

3. Electric Power Costs and Shortage

By 2009, over 50% of existing corporate data centers will have insufficient power and cooling to continue operations. Electric power costs rising dramatically throughout North America. BC Hydro power rates are among the lowest in North America.

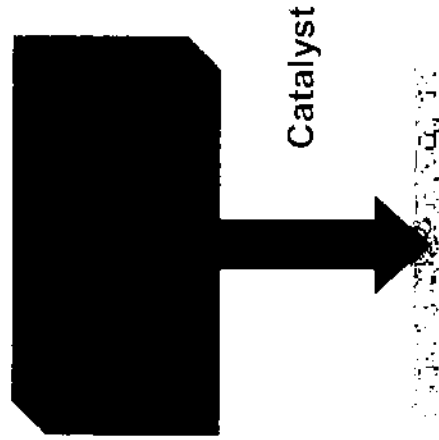
4. Shortage of Site Locations

There is a global shortage of premium site locations to build world class data centers that meet or exceed the four key criteria (land, power, fiber, water).



Westside Road Technology Park - Startup Opportunity

The Revelstoke-Westside Road location matches or exceeds the key global search criteria for the establishment of a world class data center.



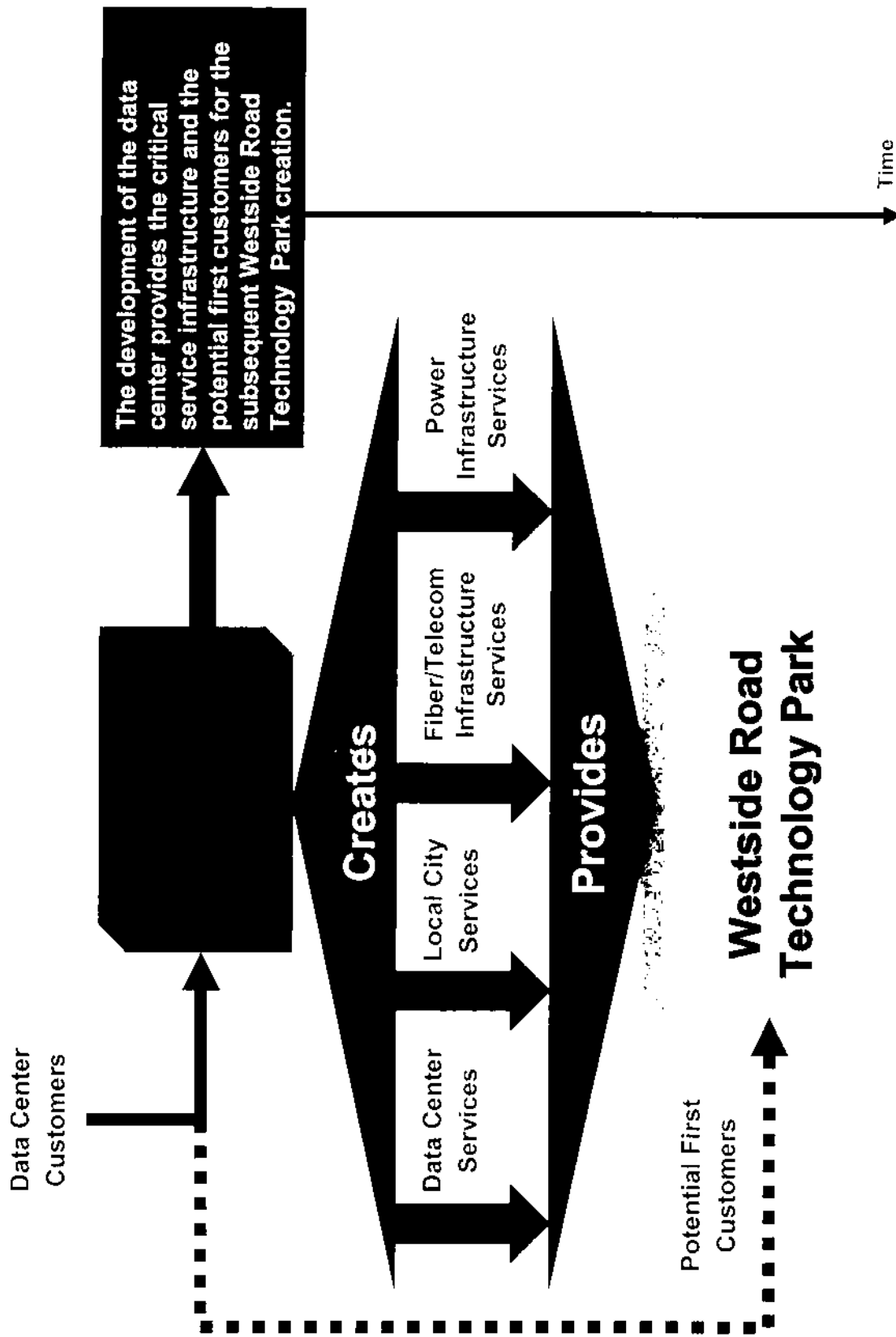
1. Greenfields land
2. Cheap, renewable and abundant hydroelectric power
3. High capacity fiber from multiple vendors
4. Access to Water (Columbia River)

Site locations that match or exceed all four of the above criteria are very difficult to find and are therefore in high, global demand.

The world class data center will serve as a catalyst to startup the development of the Technology Park by:

1. Increasing global business interest in the region
2. Providing an influx of global capital
3. Potential source of Technology Park clients
4. Concentration of engineering and construction expertise
5. Development of infrastructure required by the Tech Park

Data Center is the Catalyst for the Tech Park Development



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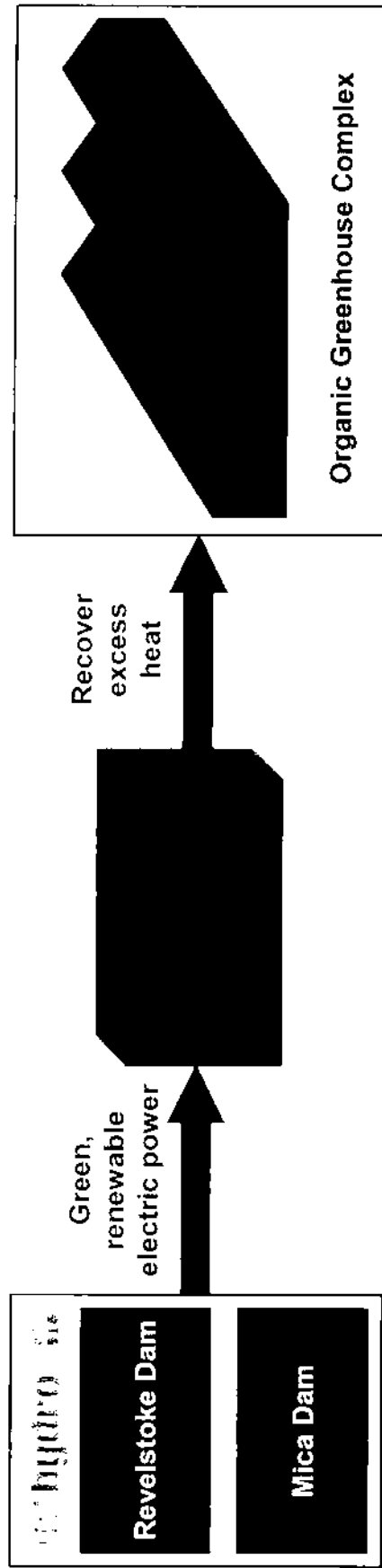
Data Center “Clustering” Effect

- The data center clustering effect occurs when a major data center development creates the environment for other businesses to follow, opening the way for an influx of capital and high paying jobs .
- The clustering effect generates a substantial additional demand for secondary, supporting infrastructure developments that include residential, hospitality, recreational and retail services.
- The clustering effect also creates a positive economic impact on the local community by providing additional broad-based, well paying employment opportunities and growth and increased diversification of the communities economic base.

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Westside Road Technology Park – Green Initiative



- Recover excess heat from data center operations and reuse it to heat a complex of greenhouses producing hydroponically-grown, organic produce.
- Benefits to the local community include:
 1. Creation of full-time, “organic” green industry employment opportunities
 2. Year round production and marketing of high demand, organic produce to local and BC markets
 3. Significant reduction in greenhouse emissions

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Westside Road Technology Park – Additional Initiatives

For the entire community of Revelstoke, the Westside Road Technology Park will provide additional economic initiatives that include:

1. Additional housing (potential to use some of the Westside Road Tech Park lands)
2. Additional recreational services in the Technology Park

✓



- Section 1 – Citation Networks Ltd Introduction
- Section 2 – Technology Park Introduction
- Section 3 – Westside Road Technology Park Proposal
- Section 4 – Revelstoke Community Benefits**



Westside Road
Technology Park

v1.1

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Employment Growth and Continued Diversification

- The Westside Road Data Center and Technology Park will create a broad spectrum of steady, well paying, full-time employment opportunities in value added economic businesses that are directly related to the explosive and continual growth of the Internet.
- The range and diversity of jobs created will provide an excellent demographic to the region's population growth.
- The Tech Park will also create incentives for local students to pursue advanced education in the areas of IT Technologies, computer science, business trades, facility management and engineering in order to seek employment in the Tech Park and return/live in their local communities.



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Local Business Benefits

- Opportunities and increased demand for local businesses to supply service/products to Technology Park businesses
- Opportunities and increased demand for local businesses to supply service/products for Technology Park employees
- The Westside Road Technology Park will create a substantial, year-round increase in business traffic to the City of Revelstoke that will provide additional economic growth opportunities for local companies providing lodging, restaurant, transportation, fuel and recreational services.



**Westside Road
Technology Park**

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Local Government Benefits

- The Westside Road Technology Park will create increased tax revenue for the City of Revelstoke to support positive community growth.
- The Westside Road Technology Park provides the City of Revelstoke a new, stable, high-growth, highly sought-after, value-add market sector that complements the existing sectors in the region
- The Westside Road Technology Park increases the competitiveness of the local region at the global level
- The positive demographic of population increase results in increase services of hospitals, schools, etc.



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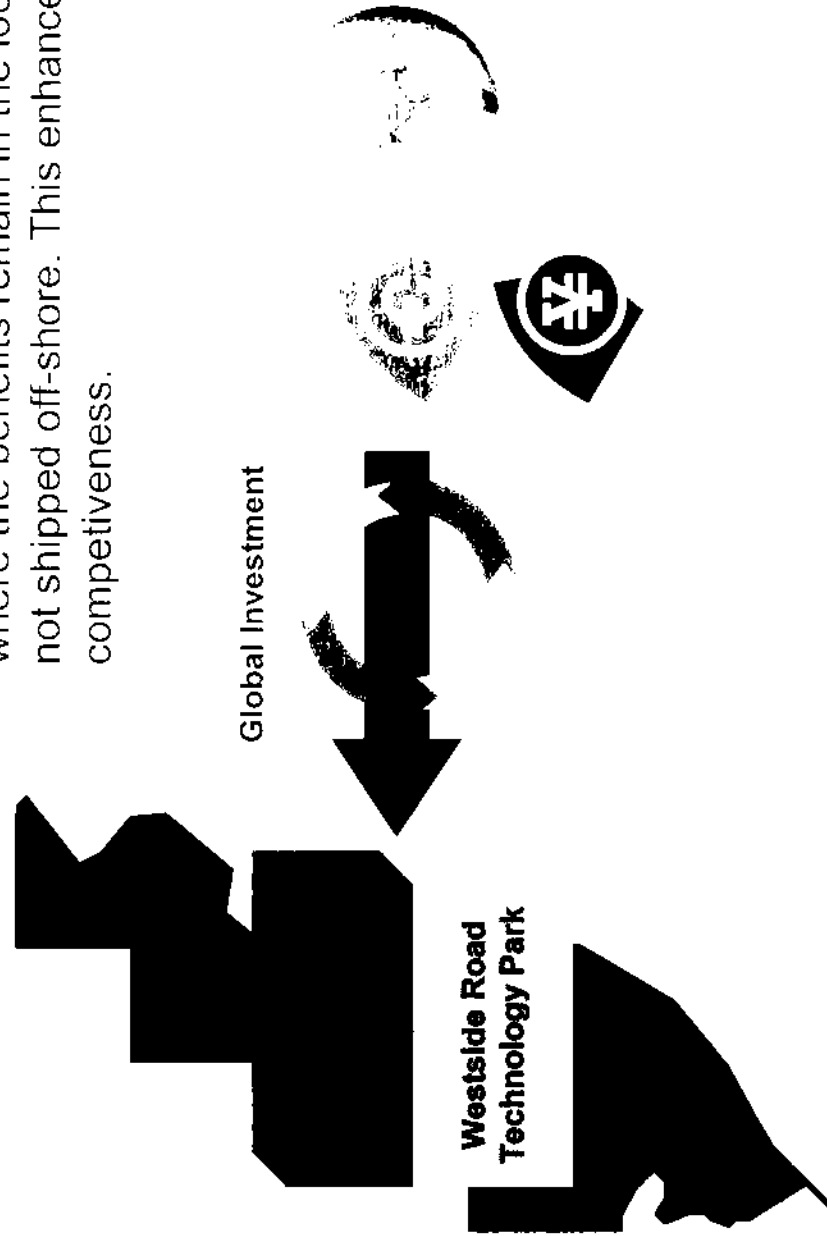
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Global Investment Benefits

- The development of the Westside Road Data Center and Technology Park will attract world class attention, investment and growth to the region on a continuing basis.
- The Tech Park creates value-add economic opportunities where the benefits remain in the local community and are not shipped off-shore. This enhances the region's global competitiveness.



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Secondary Economic Benefits

The initial proposed Westside Road Tech Park development has identified at least two major economic initiatives that would provide significant benefits for the local region:

1. Green Initiative for Organic Greenhouses

Excess heat energy from the Westside Road Data Center to be captured and reused to heat a complex of organic greenhouses. Benefits include a reduction in carbon emissions, year-round source of organic produce and full-time jobs.

2. Increased Housing

Potential for certain portions of the Westside Road Tech Park lands to support spinoff of residential development to help address some of the existing needs of the City of Revelstoke as well as the Tech Park employees.

**Westside Road
Technology Park**



Schmidt, Lorraine ILMB:EX

From: Whale, Andrew M ILMB:EX
Sent: Tuesday, July 8, 2008 10:18 AM
To: Schmidt, Lorraine ILMB:EX
Subject: RE: Letter of Intention to Purchase Revelstoke Properties

thanks.

as discussed, lets put a reserve on the site

Andrew Whale

From: Schmidt, Lorraine ILMB:EX
Sent: Tuesday, July 8, 2008 7:58 AM
To: Whale, Andrew M ILMB:EX
Subject: FW: Letter of Intention to Purchase Revelstoke Properties

Andrew, attached is a letter regarding the proposed Revelstoke Tech Park. I would like to place a reserve over the subject lands in the short term to preclude applications over the area until we receive and adjudicate the application from these folks.

Lorraine Schmidt (Lorraine.Schmidt@gov.bc.ca)
Project Manager
Crown Land and Resources
Regional Operations Division - Southern Interior (Kootenay)
Integrated Land Management Bureau
Ministry of Agriculture and Lands
1902 Theatre Rd., Cranbrook, BC V1C 7G1
Ph: 250-426-1759 Fax 250-426-1767

From: Robert Sharkey [mailto:s.22]
Sent: Sunday, July 6, 2008 6:37 PM
To: Schmidt, Lorraine ILMB:EX
Cc: 'Alan Mason'; mmckee@cityofrevelstoke.com
Subject: Letter of Intention to Purchase Revelstoke Properties

Greetings Lorraine,

Attached is a letter indicating our intention to enter the process to purchase the stated properties in Revelstoke from the Crown for the defined technology park project. I will call to discuss the joint effort with the City of Revelstoke.

Cheers,

Robert
604 988 4857



July 4, 2008

Lorraine Schmidt
Project Manager
Crown Land and Resources
Regional Operations Division - Southern Interior (Kootenay)
Integrated Land Management Bureau
Ministry of Agriculture and Lands
1902 Theatre Rd., Cranbrook, BC V1C 7G1

**Subject: Notice of Intention to File for Purchase of Two Parcels of
Crown Land on Westside Road Within the City of Revelstoke.**

Dear Lorraine:

Based on our research for a suitable site for a large technology park, it is the intention of Citation Networks Ltd. to enter into the formal process for the purchase of two parcels of land (see attached detailed maps) from the Crown. The technology park would represent a major economic development initiative for the City of Revelstoke and, overall, to the Province of British Columbia.

The proposed use for the land is a technology based, clean, green industrial park that shall provide broad spectrum, well paying, sustainable employment for the City of Revelstoke. This location is well situated to utilize the prime requirements of clean and abundant Hydro Power, ample optical fiber capacity and water. In addition, the ideal setting of the City of Revelstoke provides the desired high quality of lifestyle for employees.

After the presentation of the proposal to the City of Revelstoke and further consultation, we're confident this use of the Westside Road properties is very consistent with their overall community plan. We look forward to working with yourself in conjunction with the City of Revelstoke to begin this process.

Regards,



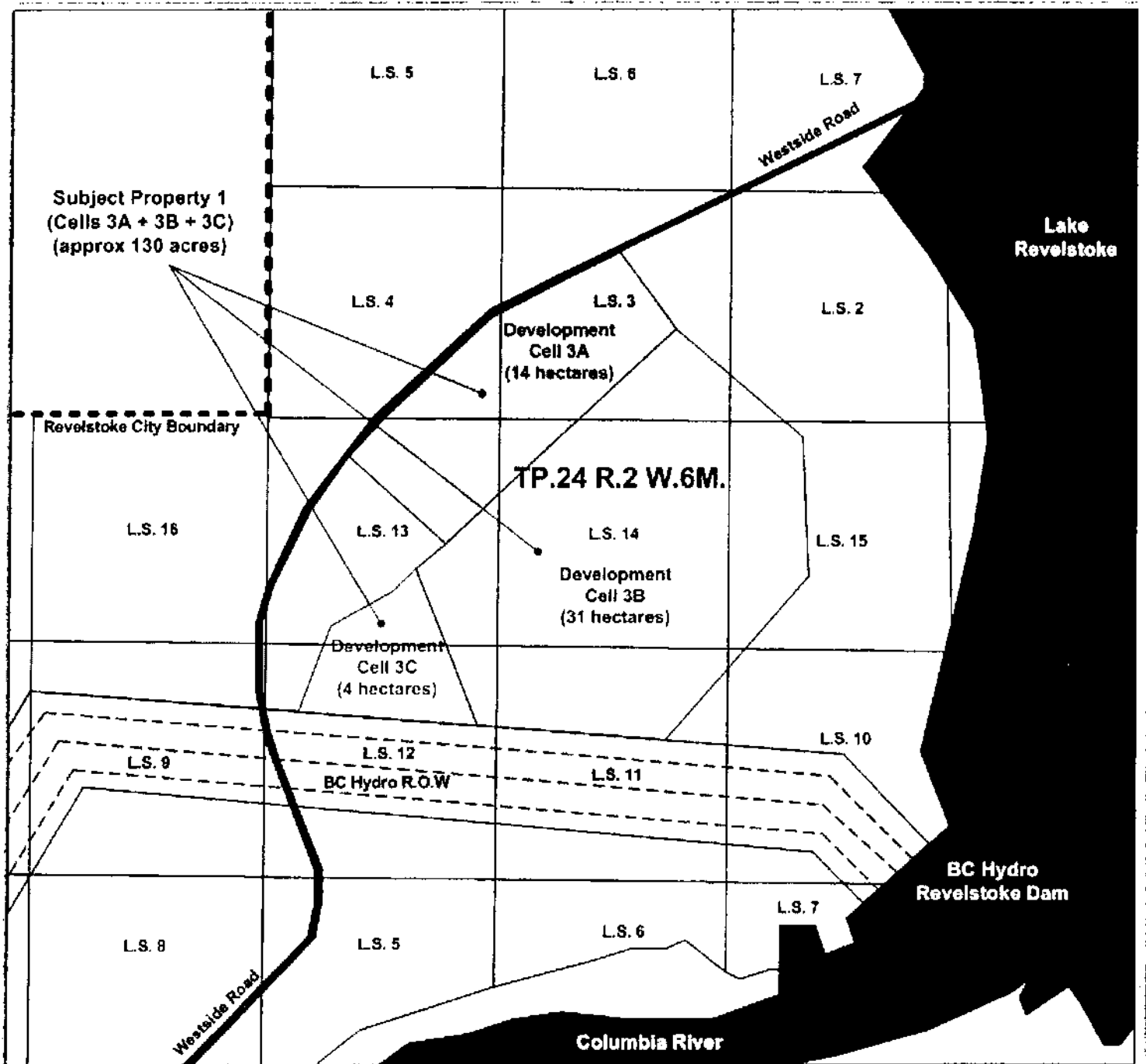
Citation Networks Ltd.

Robert Sharkey
CEO
Citation Networks Ltd.

Cc: Mark Mckee, Mayor, City of Revelstoke
Alan Mason, EDO, City of Revelstoke

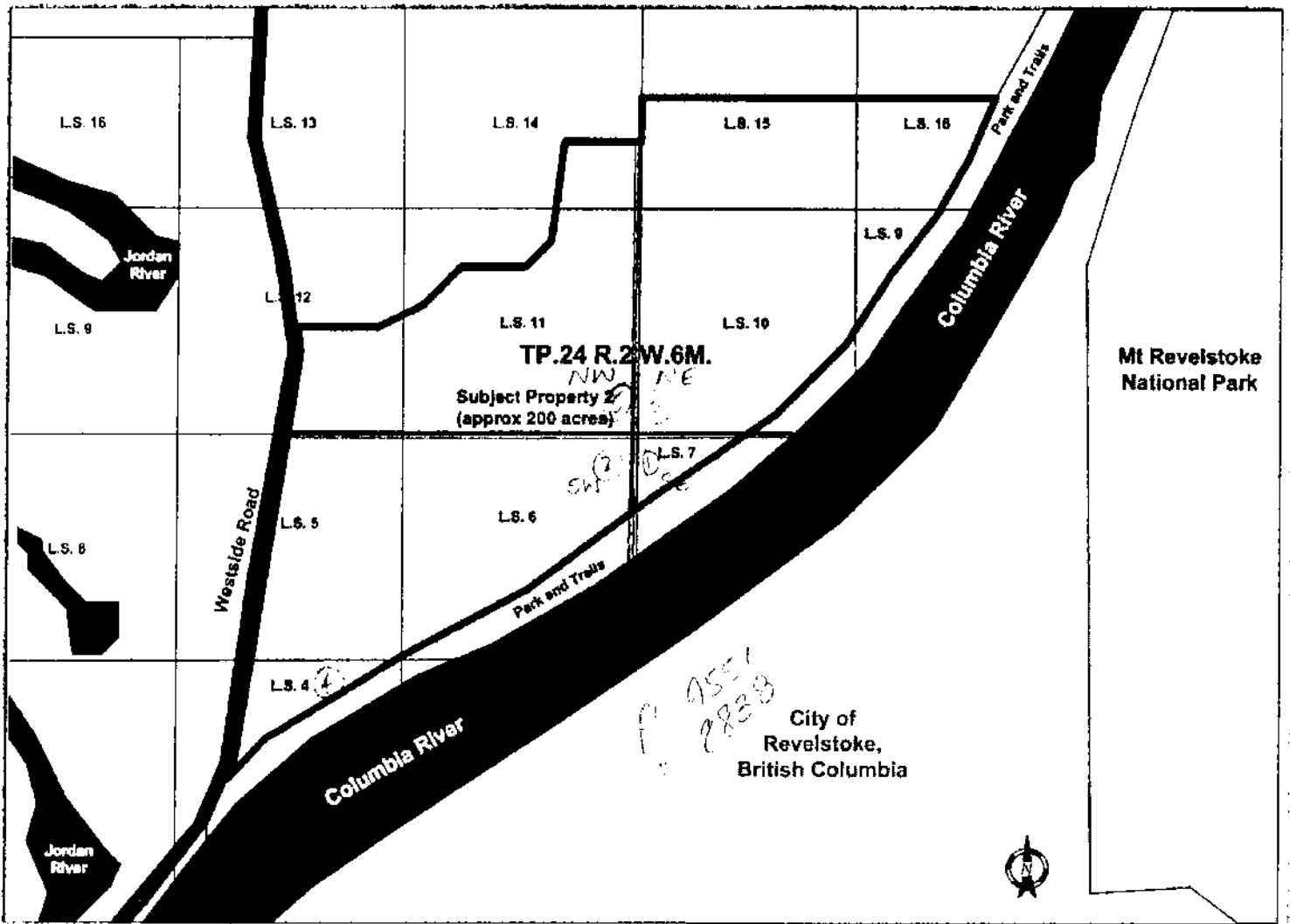


Parcel 1 of 2





Parcel 2 of 2





Green Initiative Plan for Revelstoke – Westside Properties

Author: Bruce Enegren

Abstract

This document describes the green initiative plan for the proposed Citation Network's Revelstoke – Westside properties.

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Citation Networks Ltd
244 – 2906 West Broadway
Vancouver, BC Canada V6K 2G8

Citation Networks Ltd

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1. Overview

1.1. Background

Citation Networks Ltd. is in the proposal phase of developing a **high-tech park** to be located within the city boundaries of Revelstoke, British Columbia. The anchor point for this development will be a world-class, 500,000 square foot, state-of-the-art, energy efficient Tier IV data center. This economic development will add at least **300 direct full time** broad spectrum, full time jobs in the local communities.

The site selection of Revelstoke has been driven by the following three key requirements:

1. Access to abundant clean, inexpensive hydro power
BC Hydro – Revelstoke Dam
2. Access to multiple national fiber carriers
Telus, Bell, Shaw
3. Low cost, “brown fields” or “green fields” real estate
Two parcels of “green fields” property (230 ac) located in the Westside area of the City of Revelstoke

The major US based customers that will be tenants in the tech park have other major requirements for the surrounding center. These include a park like setting and truly “green” initiatives surrounding the core buildings.

The current construction costs for a Tier IV data center are approximately \$1000/sq ft due to the massive electrical and mechanical infrastructure required for powering and cooling the 20,000 server racks to be located within the data center complex. Combined with secondary mixed-used hi-tech office buildings, the total project cost is projected to be in the region of \$500 million.

The subject properties consist of a total of approximately 230 acres of unused and agriculturally unproductive, “green fields” and forested land of which a portion will targeted for the hi-tech park facilities development. Citation is keenly interested and has an executive mandate to find ways to **leverage the core tech park business to drive high-value, highly productive green initiatives**. It is hoped that Citation’s efforts in this area may serve as a model for future developments that are similar in scope and to provide valuable economic and technical feedback for other interested parties to continue expanded green development within the region.

The cooling required for Tier IV data centers requires a massive infrastructure of HVACs, chillers and cooling towers to keep the operating temperature in the computer rooms at an efficient level. **The by-product of this system is a massive**

amount of heat rejection that is released to the atmosphere. According to Steve Sams, Vice President of IBM Global Site and Facilities Services, “in many cases, a datacenter can generate enough heat to heat a building 10 to 30 times its size”. Most Tier IV data centers in existence today do not recover this wasted heat energy for any useful purposes. Citation is proposing a first-of-its-kind solution to reuse this wasted, data center heat energy to provide heat and tepid water for high-value, green purposes. Specifically, Citation is proposing as its **first green initiative** to reuse a portion of this data center by-product to provide heat and tepid water for a complex of hydroponic greenhouses on portions of its proposed Westside properties to grow pesticide-free, high-demand organic produce for the local B.C. markets – year-round. This should drastically reduce the skyrocketing energy costs associated with operating a typical greenhouse complex. As its **second green initiative**, Citation is proposing to reuse the remaining portion of the data center waste heat to provide heating and warm water for office buildings located in the hi-tech park and any collocated residential developments.

1.2. Purpose

The purpose of this document is:

- Describe the two-point, green initiative plan for Citation Networks’ Revelstoke-Westside tech park property development.
- Demonstrate the green and economic benefits of the plan
- Explain how the by products from the core facilities drive the “green” economic aspects of the plan

2. Overview of Data Center Cooling Infrastructure

2.1. Introduction

This section will provide a generalized overview of the typical cooling infrastructure used in large-scale data centers (see pictures below) and the opportunity to recover the substantial amount of wasted heat energy for secondary economic green purposes.

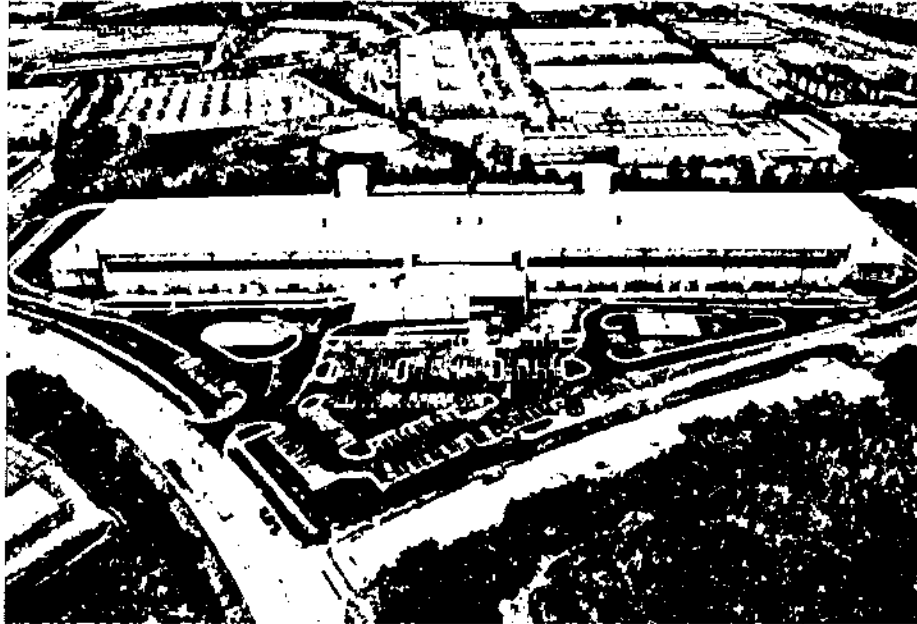


Figure 1 - Example of a Large-Scale Data Center (Dupont Fabros - Ashburn, VA)

2.2. Cooling Infrastructure

Data Center cooling is typically accomplished through a chilled liquid system as shown in the figure below. The three main pieces of equipment are the air handlers, chillers and cooling tower.

To gain an appreciation of how much heat energy is rejected to the atmosphere from a large-scale data center; IBM reports that its recent data center development for GIB-Services in Zurich, Switzerland, is generating enough heat energy (2800 MWh) to provide heating and water for 80 homes for one year.

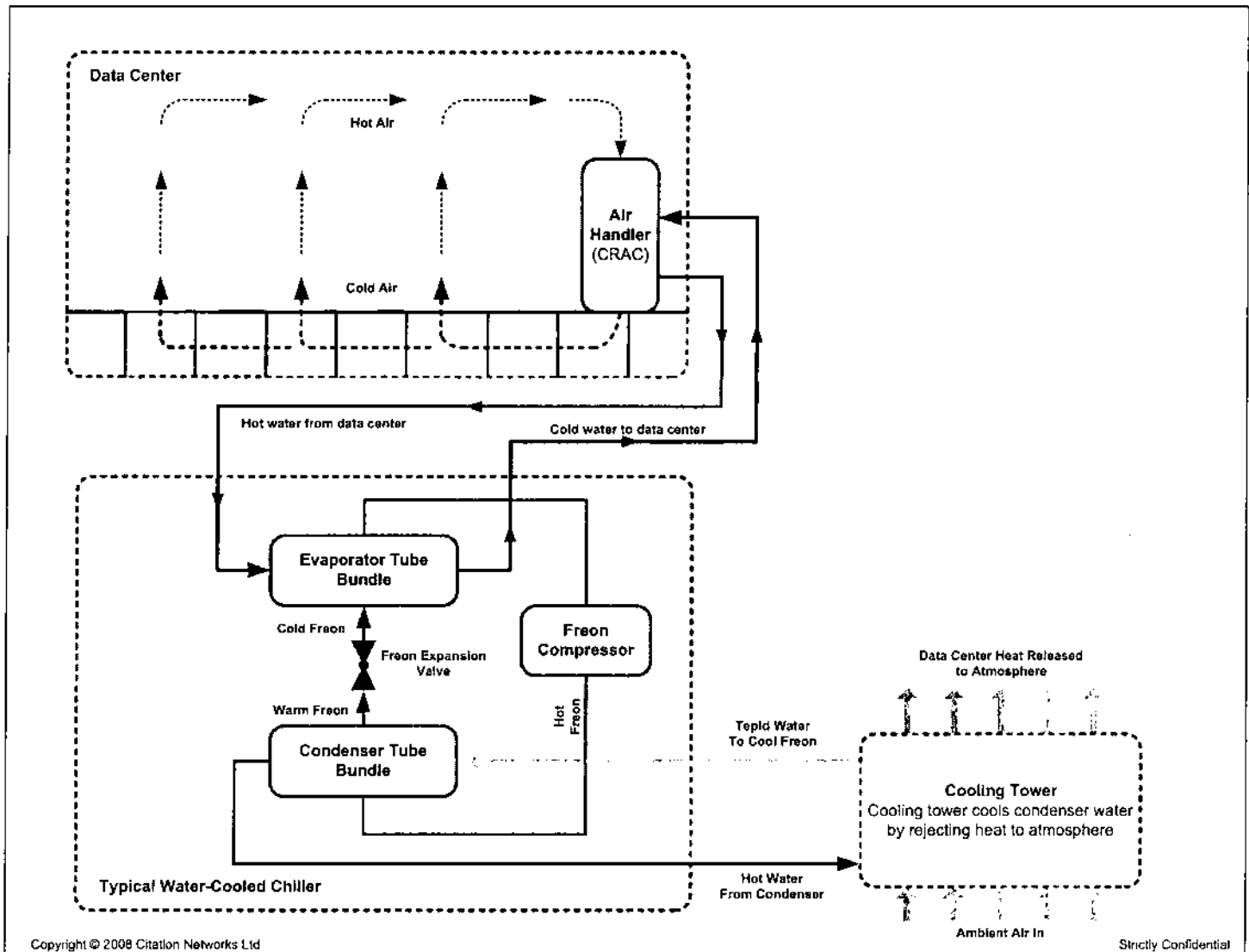


Figure 2 - Typical Data Center Cooling System Infrastructure

2.3. Air Handlers (CRACs)

The air handlers, often called CRACs (Computer Room Air Conditioners), circulate air within the Data Center, drawing in warm air from the space between the floor and ceiling and discharging cold air into the room's plenum. For larger data centers, this occurs below a raised floor. Air is cooled within the handler by passing over coils containing chilled liquid and then expelled into the Data Center. The coils are generally maintained at about 43 or 44° Fahrenheit (6.1 or 6.7° Celsius).

2.4 Cooling Tower

The processes that occur within the chiller generate a significant amount of heat and the rejection of this heat is the job of the cooling tower. The hot water received from the chiller's condenser is vaporized in the cooling tower to lower its temperature. Fans within the cooling tower then draw air across a series of filters, which cools the water inside, similar to how the air handler functions. The cooled water is collected in a cold water basin below the filters and then is pumped back to the chillers to be reused.



Figure 3 - Example of a Large Data Center Cooling Towers (Dupont Fabros – Prince William County, VA)

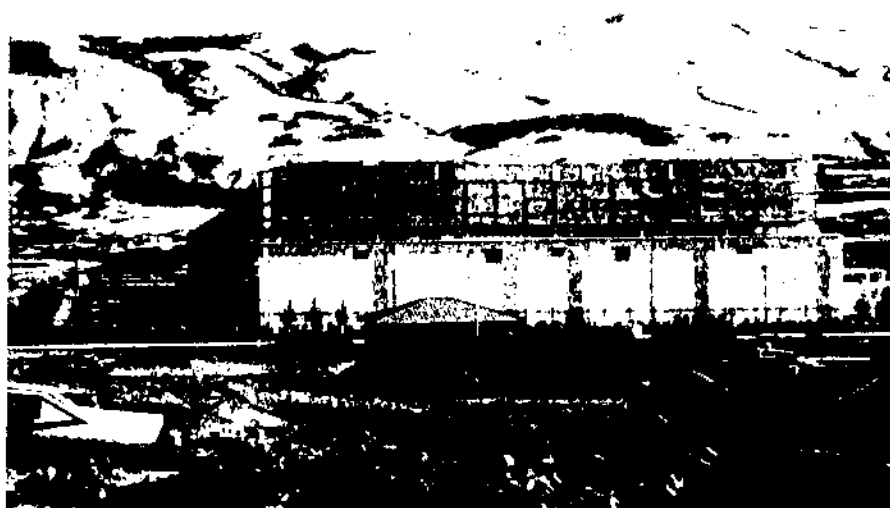


Figure 4 - Example of a Large Data Center Cooling Towers (Google - The Dalles, OR)

3. Case Histories of Recovering Data Center Heat

The following case histories demonstrate the previously innovative heat recovery solutions implemented by the world leading technology companies IBM and Intel.

3.1. IBM Recovers Data Center Heat to Heat Local Public Swimming Pool

On April 2, 2008, IBM announces in a press release a partnership with GIB-Services of Switzerland to construct a new energy efficient “green” data center at a former military bunker outside of Zurich. As part of the “green” design, the data center will offer a first-of-its-kind energy model where a direct heat exchange will take place between the data center and a public swimming pool in town.

The article states that the data center is expected to create 2,800 MWh of wasted heat per year when operating a full capacity – which is the same amount of energy needed to supply up to 80 houses with heating and water for one year. In order to repurpose this wasted energy, it will be used to heat the local public swimming pool saving approximately 130 tons of carbon emissions annually.

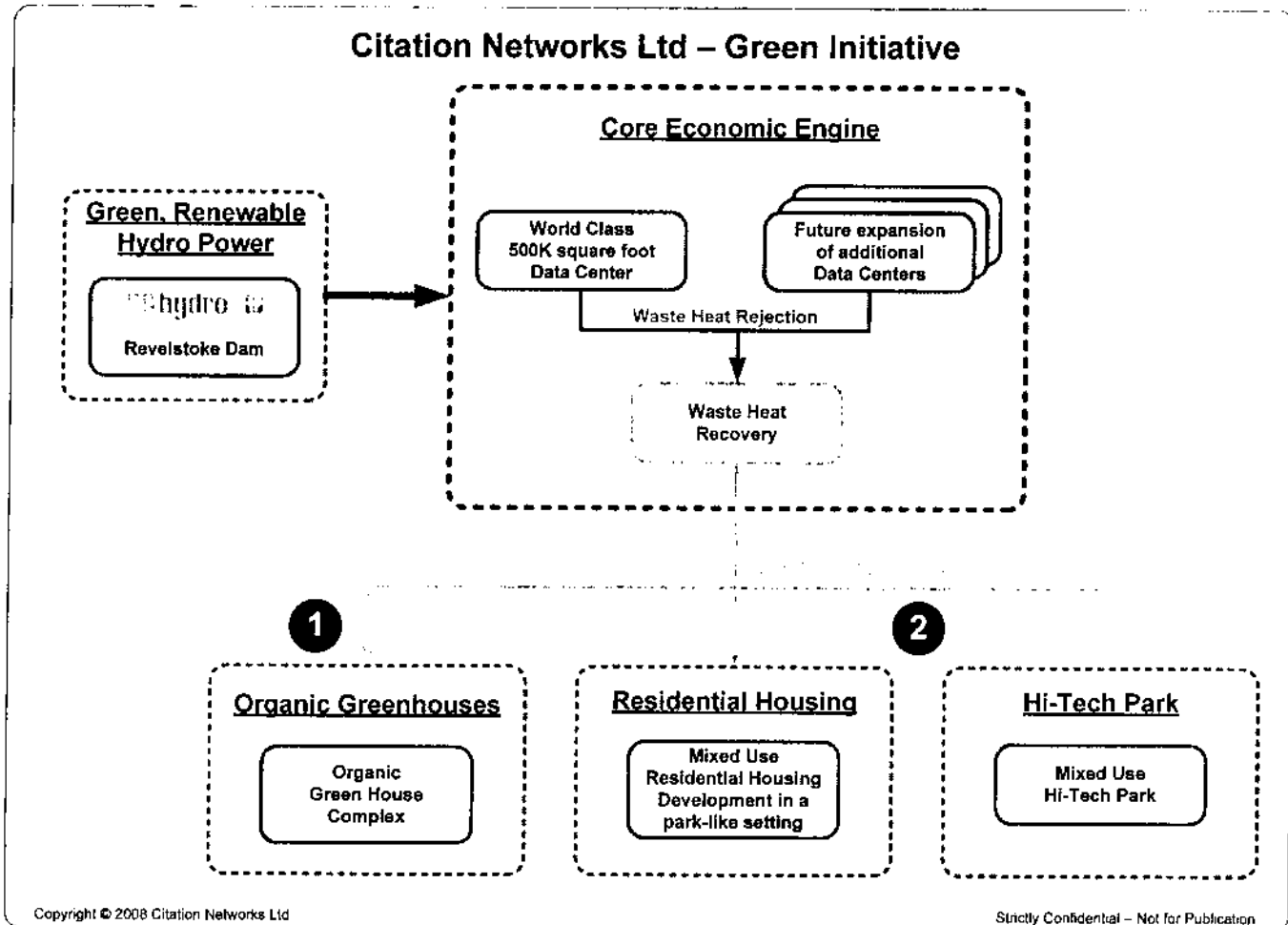
3.2. Intel Recovers Data Center Heat to For Building Services

In December 2007, Intel announced its first planned “green” building which is designed to save energy by recovering data center heat and using it to heat the rest of the building in winter and provide year-round hot water for bathroom and kitchen use.

Intel states that reusing data center heat will eliminate the need to add boilers for heating the rest of its building. This energy-saving approach accumulates points towards the building’s environmental certification and a projected savings of approximately USD 235,000 annually due to reduced fuel consumption, resulting in an ROI of about 1.7 months.

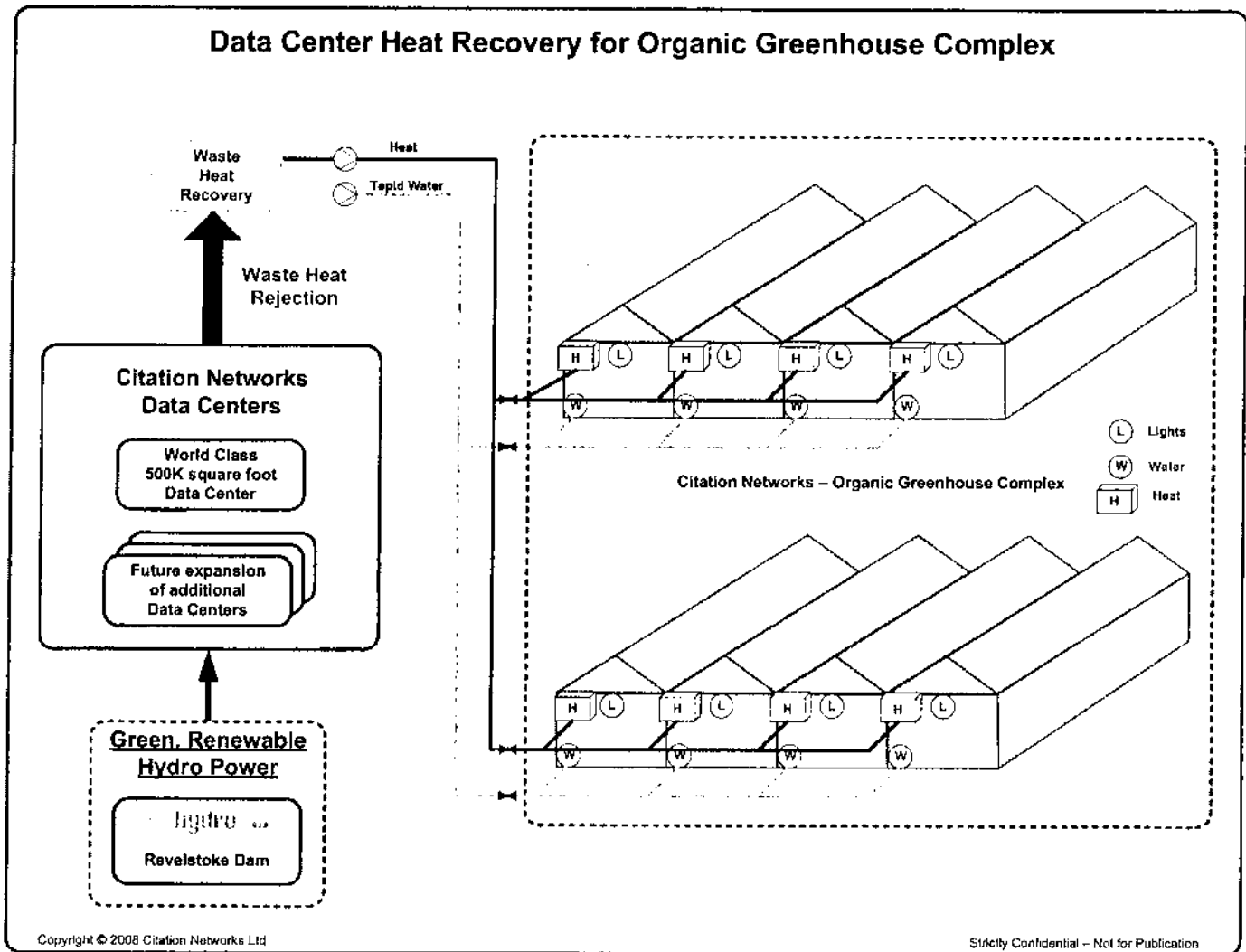
4. Citation's Green Initiatives

4.1. Overview



4.2. Green Initiative 1: Organic Greenhouses

Citation's first green initiative is a first-of-its-kind solution to reuse a portion of the substantial waste heat rejection from its Data Center operations to provide heat and warm water for green purposes - specifically, the year round production and marketing of high demand, organic vegetables grown hydroponically in a complex of world-class, state-of-the-art greenhouses located within Citation's proposed Revelstoke-Westside properties.



Hydroponic Growing

Hydroponic growing is a method of growing plants using mineral nutrient solutions instead of soil. The produce is planted in biodegradable materials such as wood chips and rock wool. This method conducts air and water directly to the plant roots.

The advantage of hydroponic growing is that no toxic herbicides are used. Instead of using pesticides for biological control, natural pest control elements like ladybugs and wasps are used. Since a sterile medium is used in hydroponic systems, there are no weeds to remove, and soil-borne pests and diseases are minimized, if not eliminated completely.

Hydroponic plants grow and mature faster, yielding an earlier harvest of vegetable, herbal and flower crops. Hydroponic gardens use less space since the plant roots do not have to spread out in search of food and water. This small space requirement makes hydroponics ideal for limited space home gardeners, small scale and commercial farmers also benefit from better and more productive use of greenhouse space.

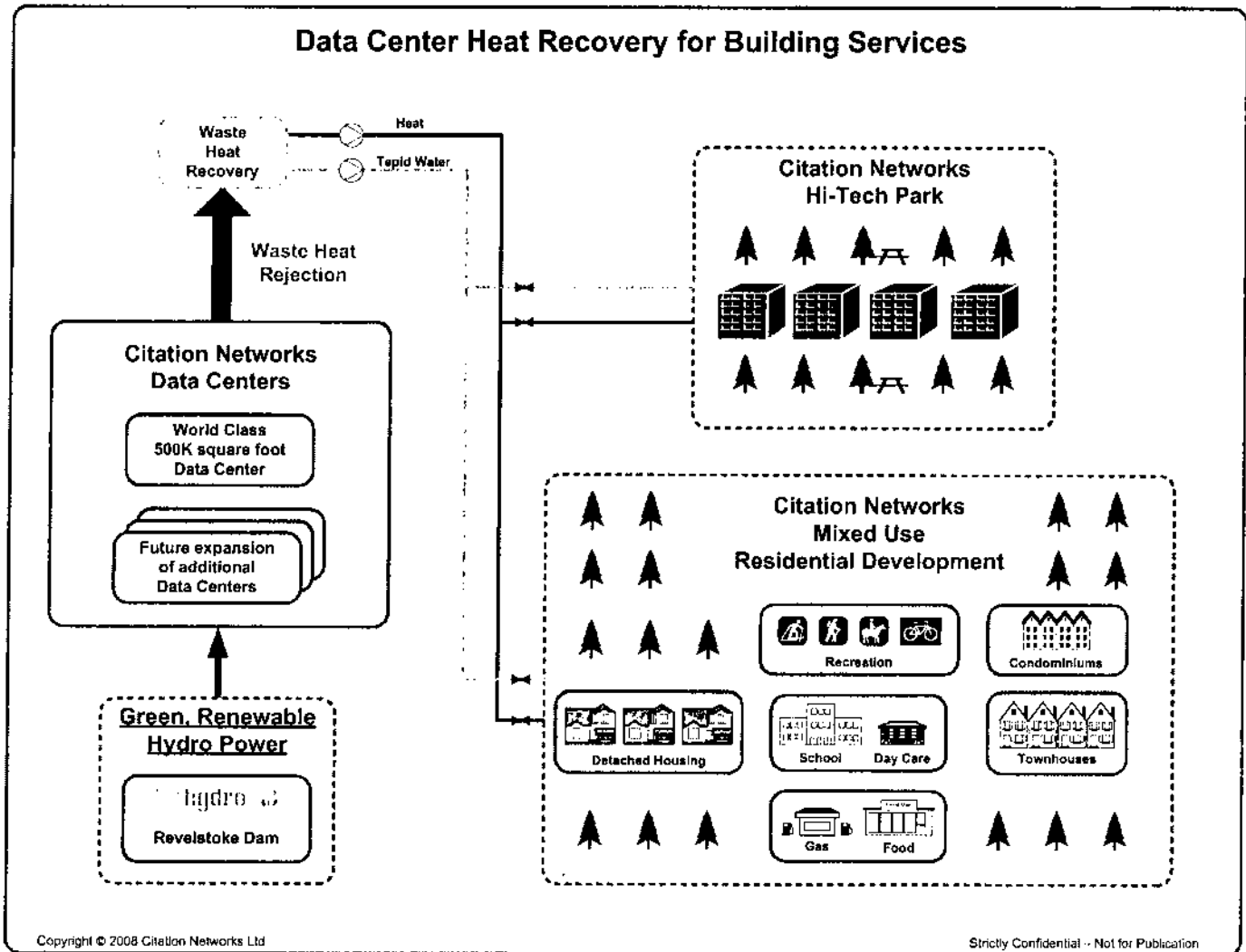
The big advantage to hydroponics is the ability to automate the entire system with timers and remote monitoring equipment. Automation reduces the time it takes to maintain plant growth requirements and the growing environment. Automation also provides flexibility to the grower (owner) as one can be gone for longer periods of time without having to worry about watering the plants.

Hydroponics offers many advantages for commercial agriculture. Cultivating plants without soil eliminates the need for vast farmland and allows crops to be produced in greenhouses or even in the desert sands. Properly run farms produce more food with less overall fossil fuel costs than most forms of agriculture. Hydroponic farms can be located closer to markets, ensuring fresher produce with reduced transportation costs

Hydroponic techniques also allow for precise water and nutrient application directly to the roots of each plant saving on costs. Water is reused in these systems and less is lost through evaporation or via field run-off.

4.3. Green Initiative 2: Heating and Warm Water for Building Services

Citation's second green initiative involves the reuse of the data center heat rejection to provide supplemental, year-round heat and warm water for Citation's hi-tech park facilities and collocated residential developments.



5. Benefits Summary

5.1. Citation Greenhouse Complex Benefits

1. Reduction in Greenhouse Emissions

1. Annual savings of greater than 200 tons of carbon emissions by reusing waste heat energy from the Citation Data Center complex

2. Satisfy escalating market demand for high quality, organic produce

- Made-in-Canada solution to provide local, stable year round production of organic produce to help reduce the reliance on foreign sources where the use of harmful pesticides and growing practices may be unregulated and uncontrolled
- Reduction of significant greenhouse emissions caused by the transport of produce over vast distances from regions like Mexico, South America and China
- Satisfy consumer demand for healthy, pesticide-free produce
- Satisfy consumer demand for locally produced produce

3. Full-time Employment

- Creation of **30 local full-time, year-round**, organic “green” industry positions in an a region in need of sustainable economic development

4. Stimulus for Further Local Economic Development

- Citation Organic Greenhouse initiative to **expand and stimulate further** high-value agricultural development on underutilized lands in the local region

5.2. Citation Heating/Warm Water for Building Services

1. Reduction in Greenhouse Emissions

- Annual savings of carbon emissions by reusing waste heat energy from the Citation Data Center complex

2. Reduction in Energy Usage Footprint and Energy Costs

- Reduction in electricity required to generate heat and hot water by supplementing these services from waste heat energy from the Citation Data Center complex

3. Reduction in Energy Costs



Revelstoke Westside Technology Park Proposal

Author: Bruce Enegren

Abstract

This document describes a proposal for a technology park to be located in the Revelstoke Westside region.

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1. Proposal Overview

1.1. Introduction

The explosive growth in demand for Internet services for both the business and personal sectors has led to an ever increasing need for computer servers that actually run the software and store the data. The industry trend is to build large dedicated structures to house the systems referred to as “data centers”.

Citation Networks has spent the last year doing the market analysis (in the US and Canada) for current and future specific site requirements for large data centers. The objective is to locate such centers in British Columbia based on valuable natural and man made attributes within the province. The purpose of this proposal is to present the why, what and where for locating and building a large data center.

In the following sections, the driving market trends shall be reviewed, requirements defined and a data center in a technology park concept presented. This will enable the overall objective of this proposal; validate the City of Revelstoke location as a prime location for this development. In addition, viewing this as a major economic development, the benefits to the City of Revelstoke shall be stated and understood.

1.2. Tech Park Overview

The trend today, and for the future, is to locate these centers in a technology park. The park setting is best to provide the integrated requirements for the center as well as location for related businesses, people services and growth.

A technology park is a property development designed for a **concentration** of high tech, science and research related businesses. Typically businesses in the park focus on product innovation and advancement. Technology parks can also serve as an incubator for new start-up businesses. For example, spin-out ventures from universities and other sources.

Tech parks are sources of entrepreneurship, talent, and economic competitiveness and are key elements of the infrastructure supporting the growth of today's global knowledge economy. By providing a location in which government, universities and private companies cooperate and collaborate, tech parks create environments that foster collaboration and innovation. They enhance the development, transfer, and commercialization of technology.

More than 300,000 workers in North America work in tech parks. And according to the soon-to-be released AURP-Battelle Technology Practice report, every job in a tech park generates an average of an additional 2.57 jobs in the economy.

1.3. Wholesale Data Center

The **anchor tenant** for the proposed Westside Technology Park will be a **wholesale data center**. A data center is a facility used to house computer servers and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant fiber-optic connections to multiple carriers, fire suppression systems and biometric security systems.

A **wholesale data** center can provide up to 500K sq ft of raised floor space and consume up to 60MW of power. The wholesale data center building typically consists of 10 to 20 computer rooms that are leased individually or in groups to Tier 1 companies that enter into long term leases averaging 10 to 12 years. The wholesale infrastructure provider is generally responsible for developing and maintaining the core power and cooling systems necessary to run a tenant's server continuously while the tenant is responsible for installing and maintaining their servers including connecting them to the carrier's fiber-optic networks.

1.4. The Escalating Demand for Data Centers

The growth of the Internet has resulted in a dramatic upsurge for data center space where current demand is outstripping supply by a factor of **3-to-1**.

Some of the key factors for the growth of the Internet include:

1. Consumer driven trends

- Music downloads
- Video on Demand
- On-line Gaming
- E-Commerce
- Social Networking (MySpace, Facebook)
- Voice over IP

2. IT driven trends

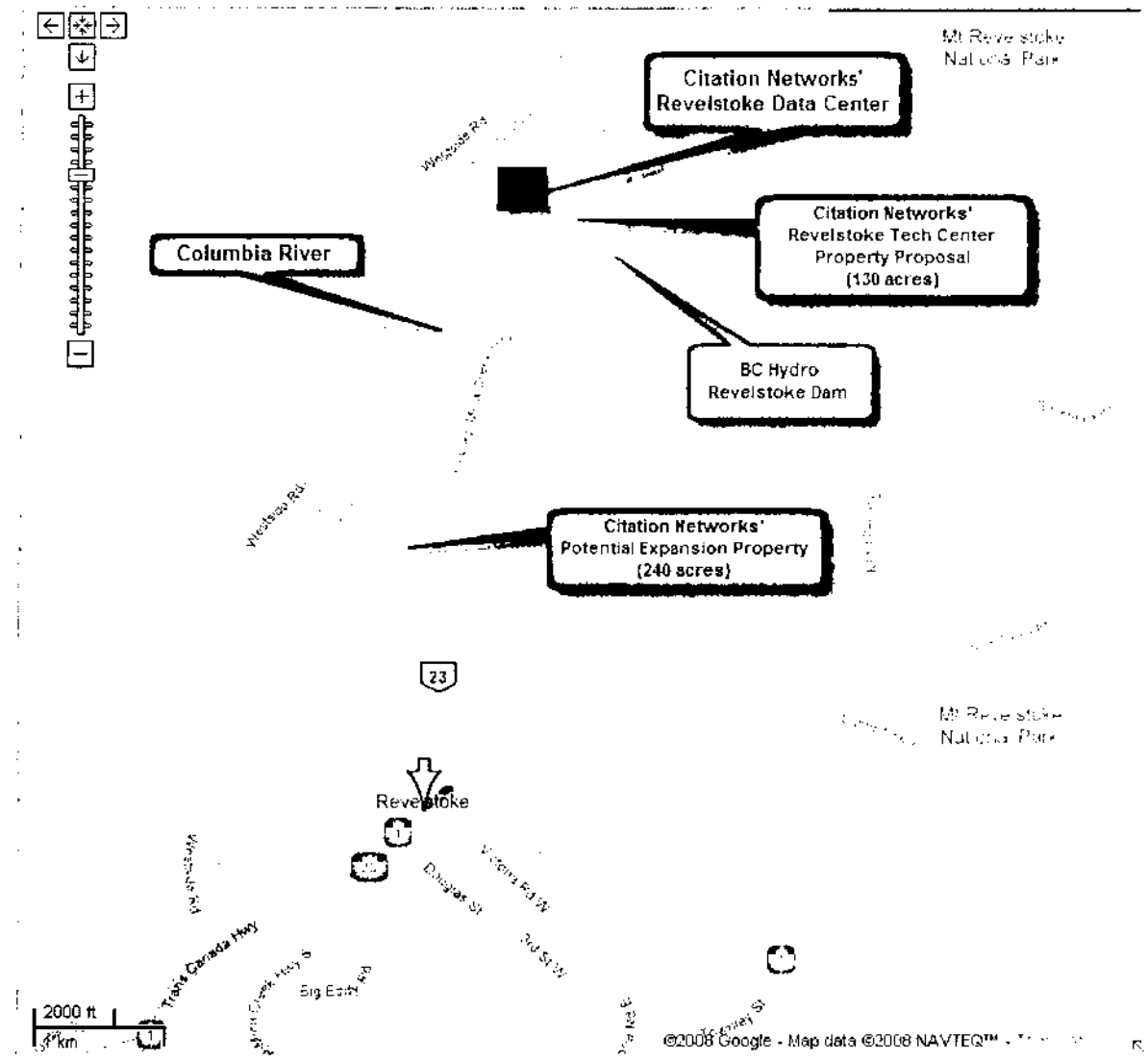
- Healthcare moving to electronic medical records
- Manufacturing moving to global, networked organizations
- Banking moving away from paper-based models
- Financial services moving to digital transactions
- Insurance database needs growing
- Sarbanes-Oxley Act in the US
- Disaster recovery
- Retail moving towards real-time inventories and supply chain management
- Transportation moving towards global positioning system (GPS) and navigation and RFIS tracking

3. Government driven trends

- Increased web site hosting for public information, on-line reports
- Increased movement towards digital services (e.g. e-filing of taxes, on-line tracking of items sent through the Canadian and US postal services)
- U.S. requirements related to homeland security, from e-passports to cyber security
- Scientific computing in the federal laboratories, universities and other government research organizations

2. Revelstoke Region

As shown in the diagram below, Citation Networks is proposing to locate its Technology Park in the Westside region of the City of Revelstoke. The rationale for this site location as well as the potential economic benefits to the Revelstoke region is explained in the following sections.



2.1. Site Location Analysis

Citation's analysis of the Revelstoke region as a site location for its Tech Park/Data Center is summarized as follows:

- **LAND**: Availability of low cost, "green fields" real estate
- **POWER**: Direct access to BC Hydro transmission grid served by the world-class, Revelstoke hydroelectric dam; BC Hydro offers one of the lowest power rates in North America which is significant because data centers require access to massive amounts of cheap power – preferably from non-carbon emitting, renewable "green" sources like hydro power
- **FIBER**: Access to multiple fiber carriers (Telus, Shaw, Bell); the national fiber backbone network for all three carriers runs through Revelstoke
- **WATER**: Access to ample water supplies to be used for pre-cooling and park irrigation
- Skilled local work-force (Revelstoke, Okanagan, Kamloops)
- Low risk profile for natural disasters
- Secure region (low population density, geographic isolation from large metro areas)
- Lower cost quality housing in a rural environment with outstanding lifestyle options
- The Tech Park has initial support of mayor/council of Revelstoke
- Local Revelstoke airport expansion and 2-hour drive to Kamloops International Airport
- Nearby university (Kamloops, TRU) for long term future center staffing
- Transportation hub (highways, CP Rail) for south-eastern BC
- Schools, hospital, businesses and community services already well established
- Room for establishment of related and support businesses in the area
- Cooler temperature profile during non-summer months significantly reduces data center cooling costs

Based on working with City of Revelstoke economic development director, Mayor and council and site visits, Citation Networks has determined that it's possible for the proposed site within the city to **meet or exceed** the above list of requirements.

2.2. Economic Benefits

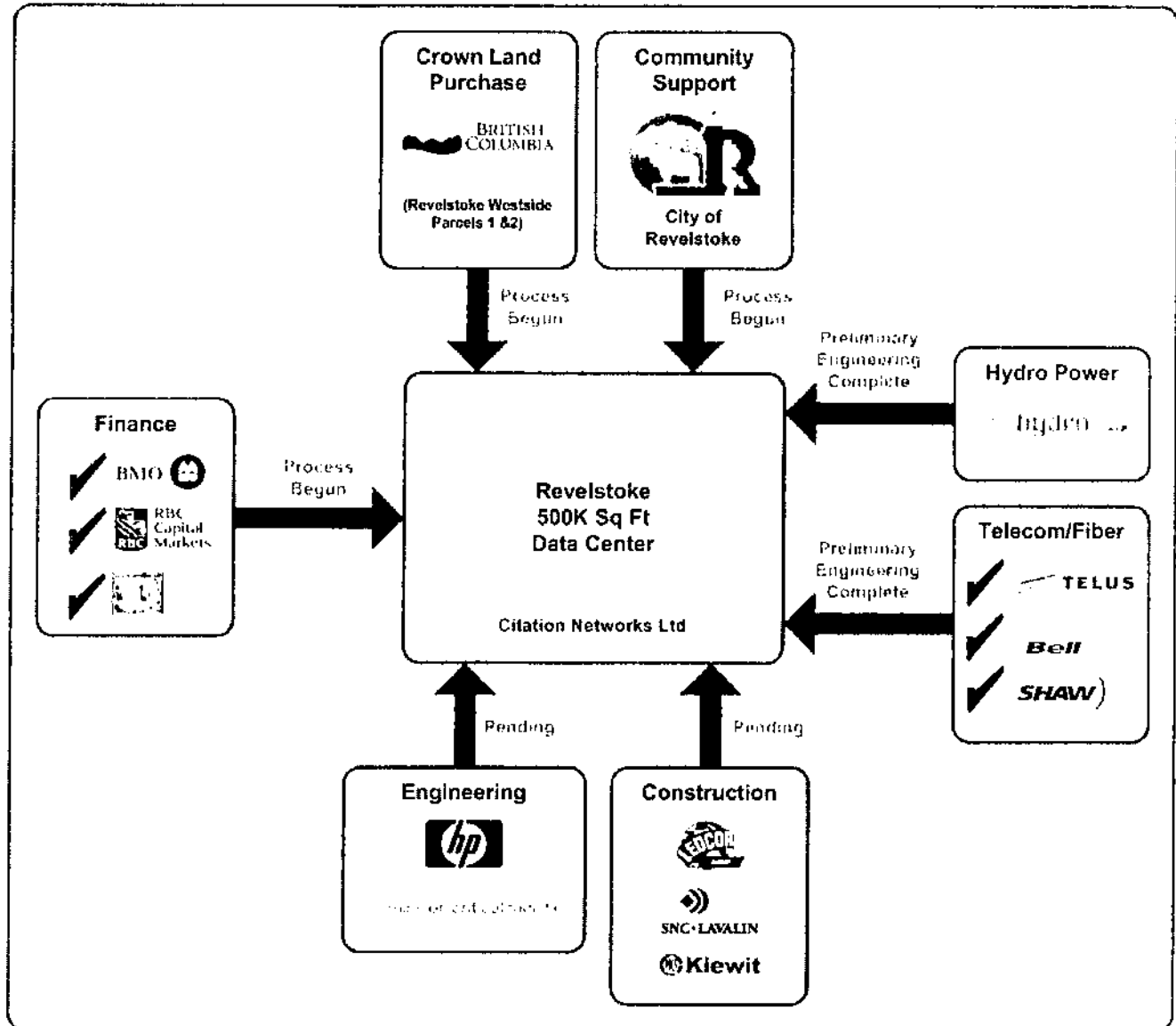
The economic benefits of locating a Tech Park/Data Center in the Revelstoke region are summarized as follows:

- Phase 1 creation of 80 full-time, broad spectrum employment positions
- Creation of additional indirect/support employment and businesses
- Defined and planned employment growth out to the guaranteed Phase III build to **employee up to 300 direct well paid staff**
- Building of housing (Tech Park setting) for center employees; this would be based on other eco-friendly and “green” trends in the industry
- The world class data center will act as a catalyst that will draw other desirable businesses to the local region
- Money will be brought into the region on a global basis that will stimulate overall growth and development
- An industry that is linked to the unstoppable growth of the Internet services and therefore not susceptible to the economic swings of other industries
- Core employment based on opportunities for younger people and young families and therefore a growth in the population with a sustaining demographic for the area
- Results of increased services in schools, hospitals, parks transportation, etc.

Managing these benefits within the Official Community Plan (OCP) shall provide a maintainable positive economic impact desired by the City of Revelstoke.

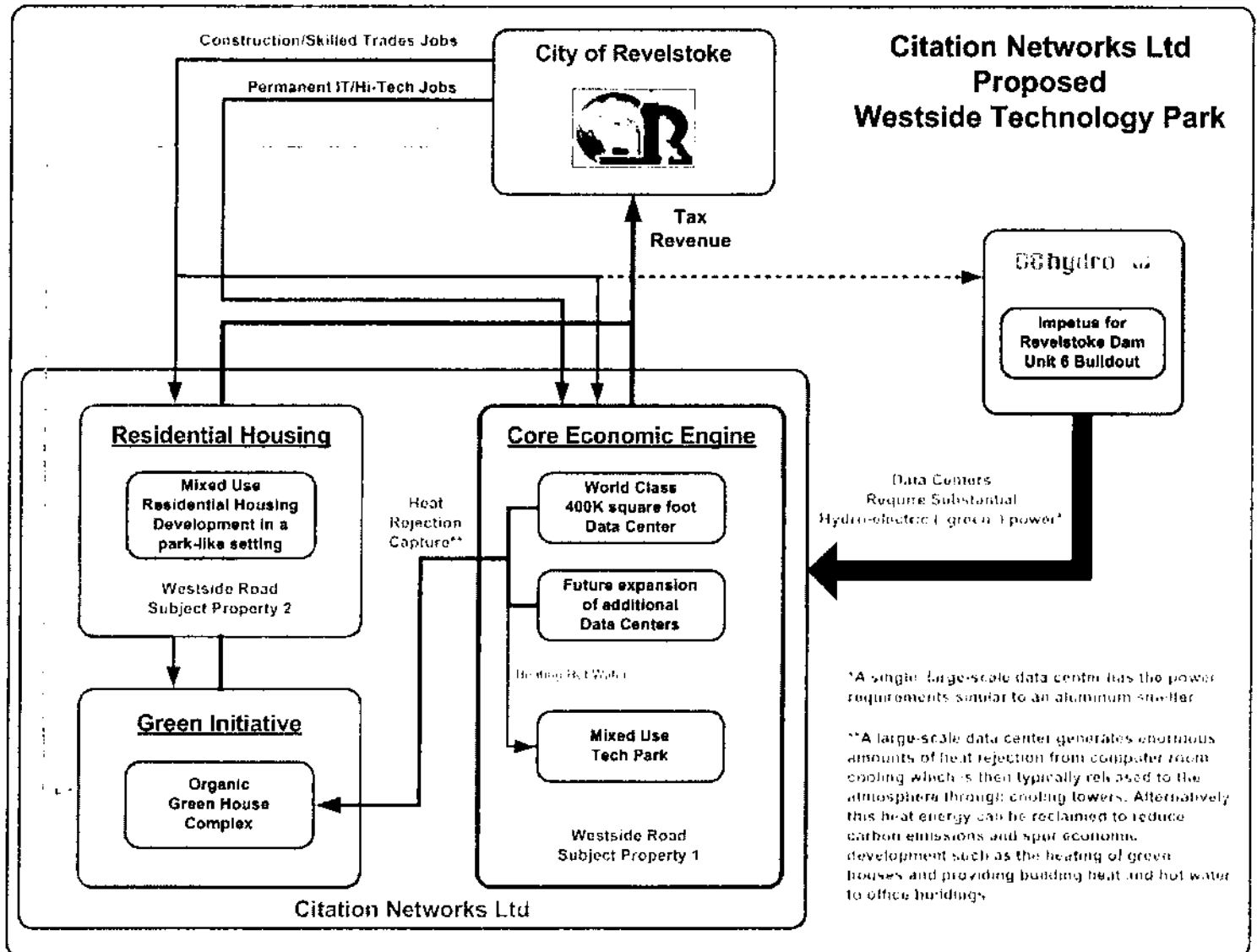
2.3. Partnership Structure

During the last several months, Citation Networks has been working to establish key partnerships with the companies and banking institutions that will be required to proceed with the development of the Technology Park proposal. The following diagram provides a clear snapshot of the current partnership structure and status.



2.4. Summary

The following is a graphical summary of the overall economic development proposal for a technology park in the City of Revelstoke. Specifically, with respect to a location on properties along Westside Road that shall be looked at in more detail in following sections of this document.



3. Subject Properties

3.1. Parcel 1

Parcel 1 consists of approximately 130 acres and is located on the west side of the BC Hydro Revelstoke Dam (see Figure 1). The site was used previously by BC Hydro for a construction staging ground and temporary worker dormitories during the building of the dam. The property consists mostly of grass land with a small number of tree groupings. The elevation of the property is parallel to the height of the dam.

The property can be reached within 10 minutes by driving west from the City of Revelstoke and taking the Westside Road turnoff immediately after crossing the Revelstoke Bridge. There are a number of old, unpaved service roads present on the property.

Based on Citation's preliminary feasibility studies which included an on-site visit and walkthrough, Citation has concluded that the property would provide an excellent site location to support a Tech Park and a world-class data center. The proximity of the Revelstoke Dam creates a unique situation where the availability of uninterrupted, massive amounts of relatively cheap, "green" renewable power to support data center operations is likely unmatched anywhere in the world.

Parcel 1 is partitioned into three development cells (3A, 3B and 3C). Development cell 3A is approximately 14 hectares (~35 acres) and sits on a plateau overlooking Development Cells 3B and 3C. Citation is proposing to reserve this location for the site of its 500K sq ft data center.

Development Cell 3B is approximately 31 hectares (~77 acres) and represents the largest component of Parcel 1. Citation is proposing to use this location to host the Tech Park facilities and the possible expansion of additional data centers.

Development Cell 3C is approximately 4 hectares (~10 acres) and is located on the south-west region of Parcel 1. Citation is proposing to reserve this location to construct and operate a substation that will tie into the BC Hydro transmission grid to provide the massive amounts of power required for the data center and Tech Park facilities.

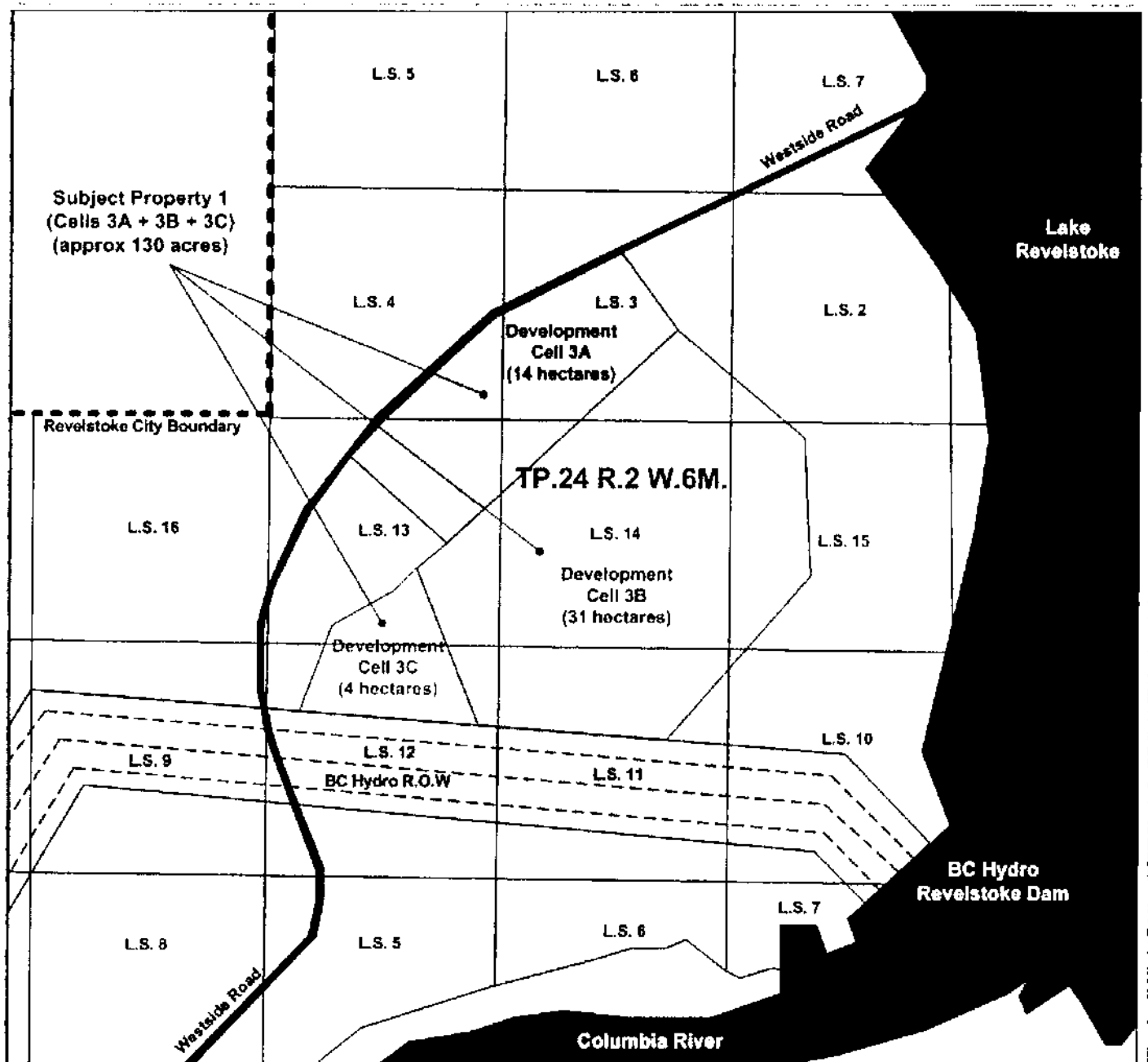


Figure 1 - Parcel 1

3.2. Parcel 2

Parcel 2 consists of approximately 200 acres and is located on the west side of the Columbia River directly adjacent to the City of Revelstoke (see Figure 2). The property is bounded by Westside Road on the west and the Columbia River on the east. The north perimeter of the property is bounded by Crown land. The entire property is relatively flat and is approximately 10 to 20 feet above the Columbia River. A strip of very dense, mature growth forest follows the eastern perimeter of the property bounded by the Columbia River. The rest of the property consists of new forest growth with some grass lands and open spaces.

The property can be reached within 10 minutes by driving west from the City of Revelstoke and taking the Westside Road turnoff immediately after crossing the Revelstoke Bridge. There are a number of old, unpaved service roads present on the property.

Based on Citation's preliminary feasibility studies which included an on-site visit and walkthrough, Citation has concluded that the property would provide an excellent expansion site for the Tech Park, data center facilities and also the creation of associated functions, facilities and services that would include mixed-use residential development in a unique, park like setting. The presence of the dense forest strip on the Columbia River boundary would provide an ideal, ecologically friendly, park like recreation zone that would include walking and biking trails.

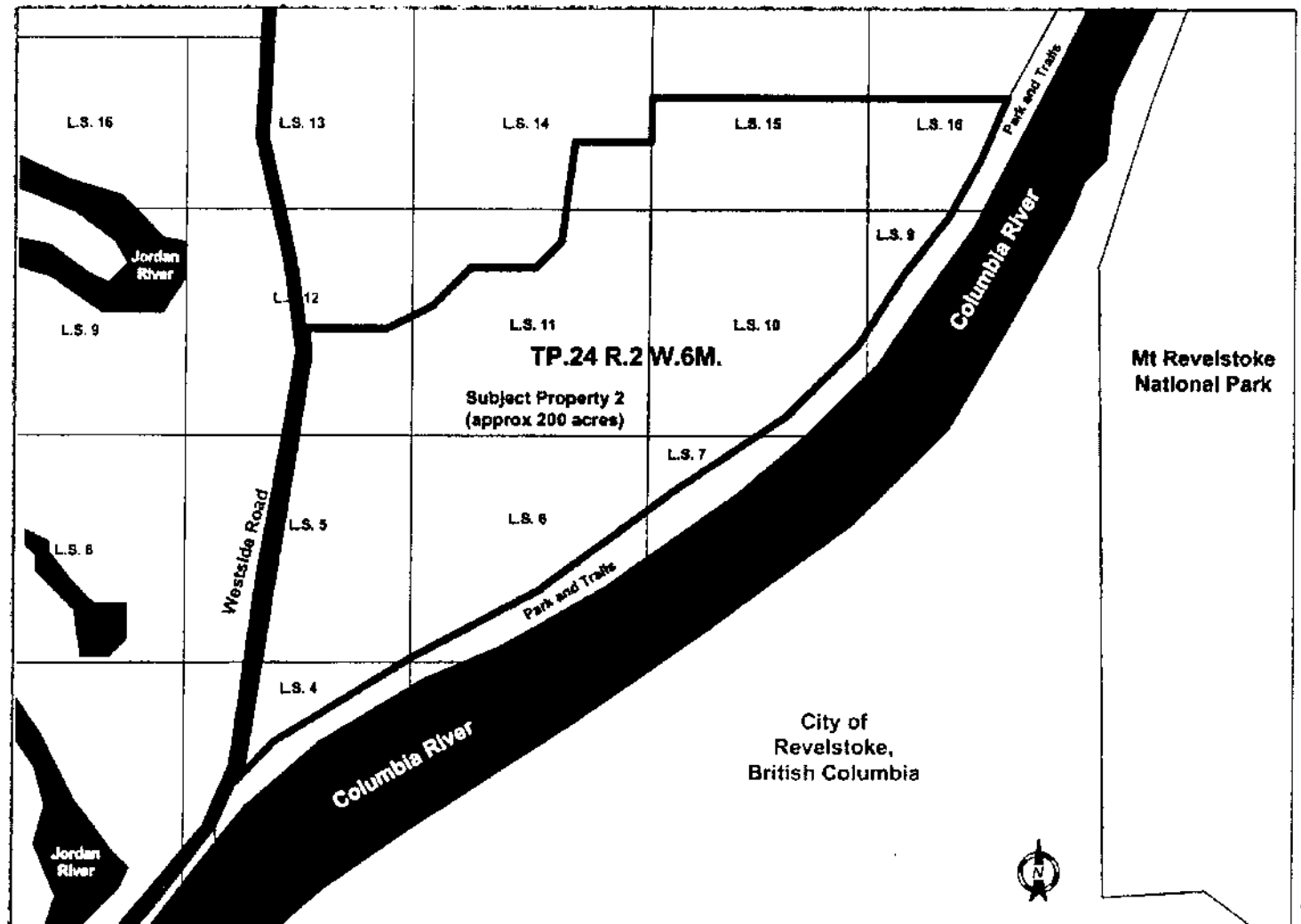


Figure 2 - Parcel 2

4. Parcel 1 Development

The first and primary business catalyst for the Westside Technology Park will be the build-out of a world-class, 500K sq ft data center in order to take advantage of the unique characteristics of this site location - primarily the access to the massive amounts of uninterrupted, low cost "green" renewable power provided by BC Hydro's Revelstoke Dam.

The capital costs for building this class of data center can easily exceed \$1000/sq ft and it is contemplated that the total Westside Data Center cost will approach \$500 million dollars.

The following picture provides some indication of the size and scope of a similar development in the United States:

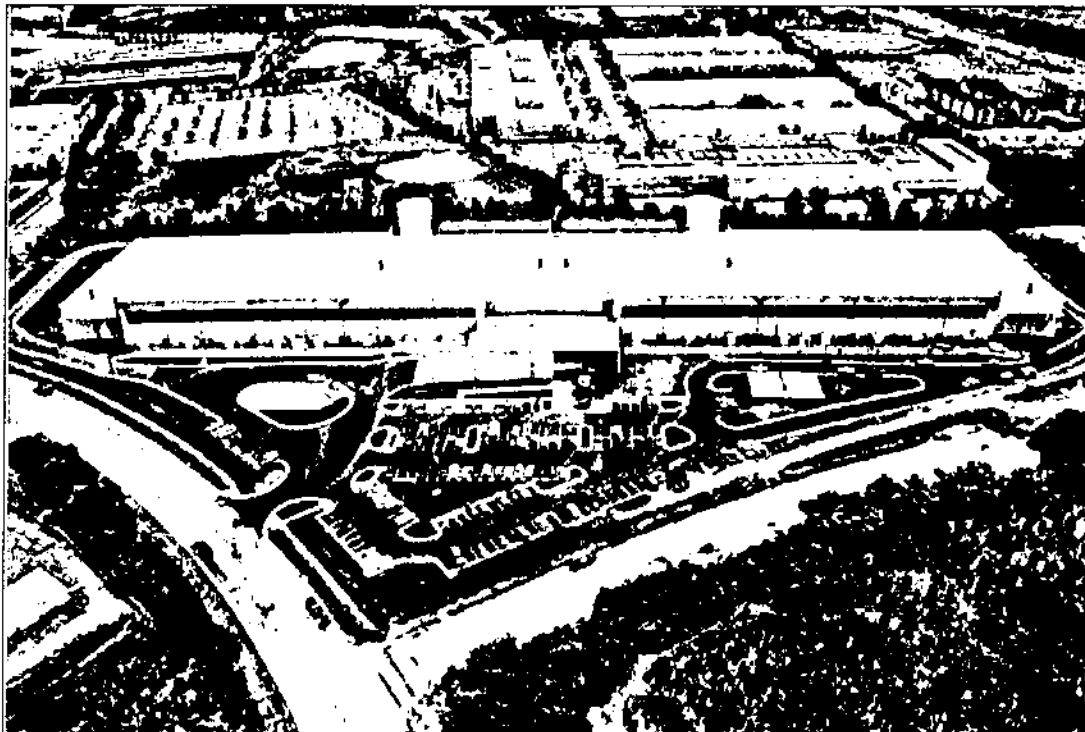


Figure 3 - Aerial View of Completed Tier IV Data Center

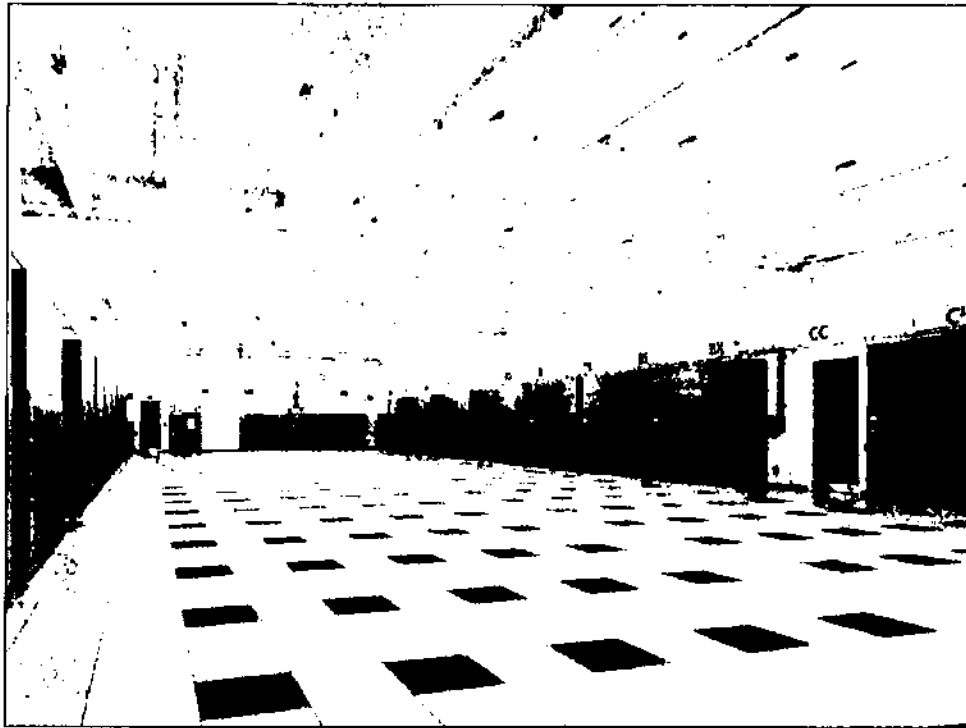


Figure 4 – One of twelve 10K Square Foot Computer Rooms within the Data Center

4.1. Westside Data Center

The following diagram provides a preliminary layout of the Tier IV data center proposal to be located on Parcel 1 – Development Cell 3A (see Figure 7). The data center will consist of approximately 20 fully serviced, computer rooms that will be leased to Canadian, U.S. and possibly international clients.

One of the byproducts of large, Tier IV data centers is the capture and rejection of the massive amounts of heat generated by the server racks located in the computer rooms. Typically, most data center operators release this heat to the atmosphere through cooling towers. Citation believes that this heat rejection can be captured and reused to reduce carbon emissions and provide an economic benefit. As part of Citation's "Green Initiative", Citation is proposing a ground breaking, first-of-its-kind solution to redirect this waste heat to organic greenhouses located on the property to support the year-round, hydroponic growth of organic produce and the creation of full-time jobs. Citation is also studying the feasibility of reusing a portion of the data center waste heat to provide year-round heating and hot water for other associated buildings in the Tech Park.

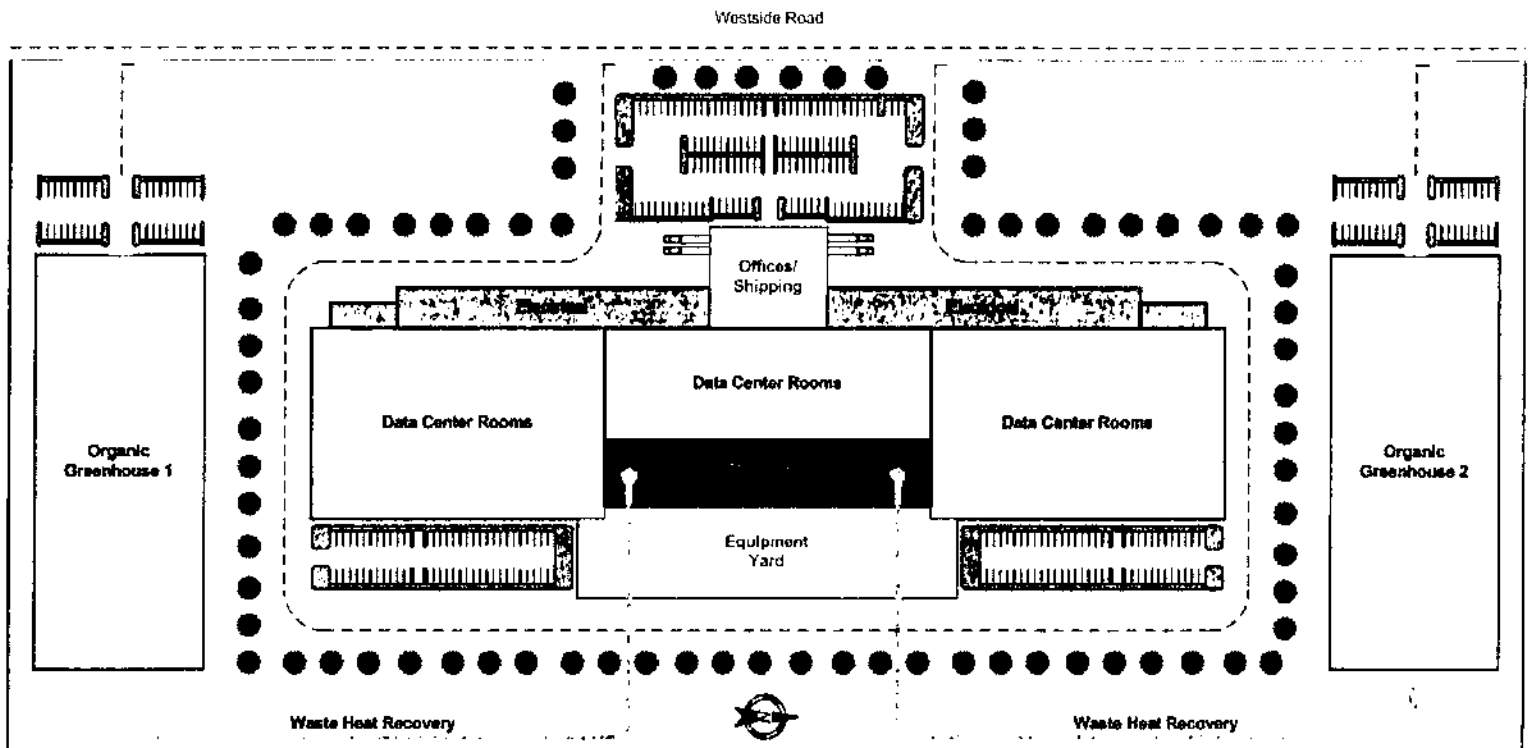


Figure 5 - Westside Data Center

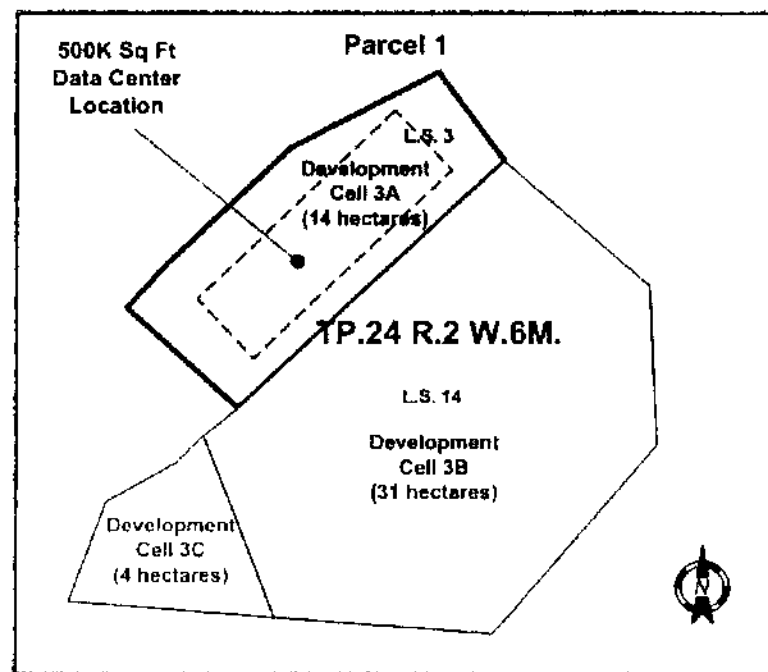


Figure 6 - Data Center Location

4.2. Westside Tech Park

The development of the Cell 3A – Data Center will serve as the catalyst to spur the future growth and expansion of the Westside Tech Park that also includes the potential for additional data center development. A phenomena known as data center “clustering”, has been observed in Washington State and San Antonio, Texas and occurs when one major data center project prompts other companies to follow, opening the floodgates for an influx of investment and high-tech jobs.

Citation is proposing to use Development Cell 3B for additional data center expansion and the build-out of initial Westside Tech Park functions, facilities and associated services. The preliminary layout is shown in Figure 8. The Westside Tech Park will provide office and lab space to tenant companies in a complex of multi-user and single-user buildings and by providing professional services and support programs to those companies. There will also be buildings to for support functions like on-site security (esp. for the data centers), Maintenance Operations (e.g. grounds maintenance, janitorial services, building maintenance, snow removal) and Administration. It is expected that one of the key objectives of Administration will be to promote and market the Westside Tech Park services world-wide.

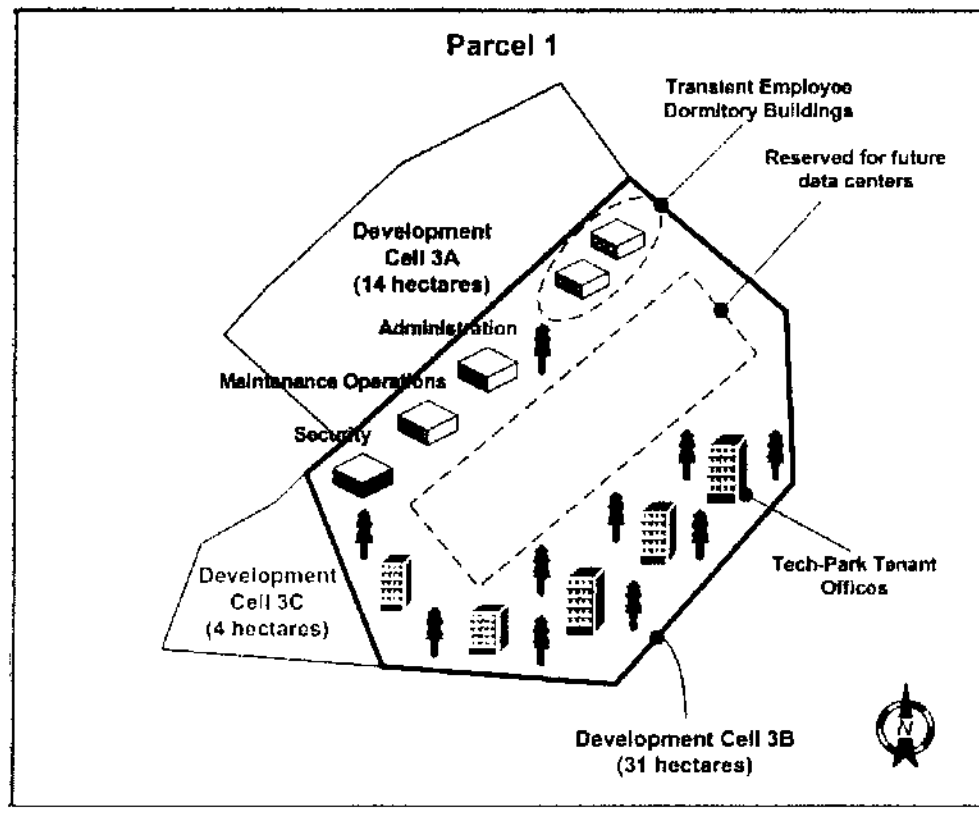
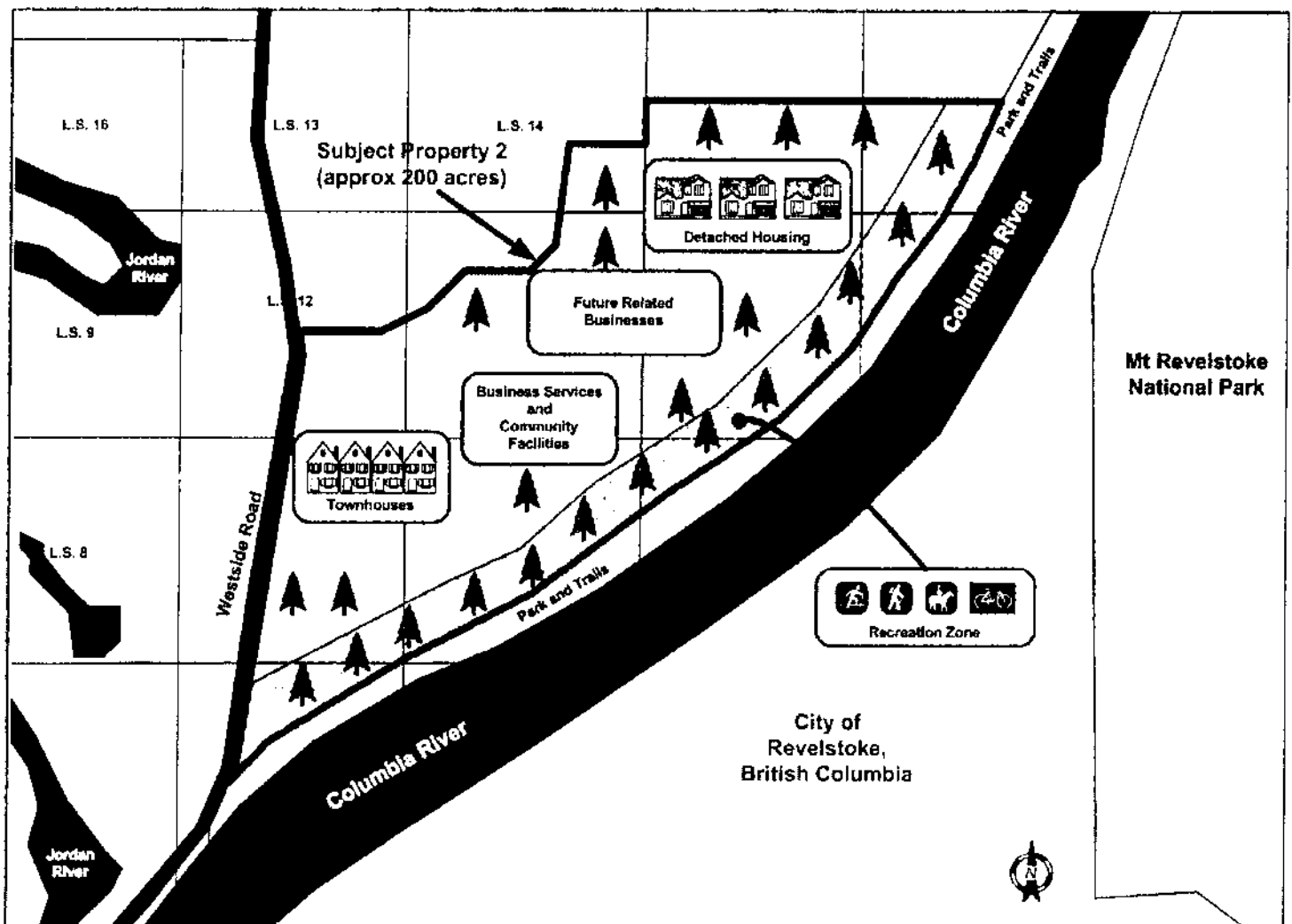


Figure 7 – Westside Tech Park

5. Parcel 2 Development

The availability of Parcel 2 for related development is a key element in the overall viability of the proposed technology park. Core needs of “green” housing for the City of Revelstoke as well as employees of the tech park itself can be addressed on this property. Also, related businesses and support services can be developed here with an environmentally friendly approach linked to the prime tenant of the tech park. Again, these integrated “green” initiatives are examined in greater detail in the supporting Citation Networks document “Revelstoke Green Initiative Plan”. Since overall all quality of life is an important part of the package of attracting and keep good employees, the living/services/working facilities that can be developed on this property would greatly contribute to the project’s success.



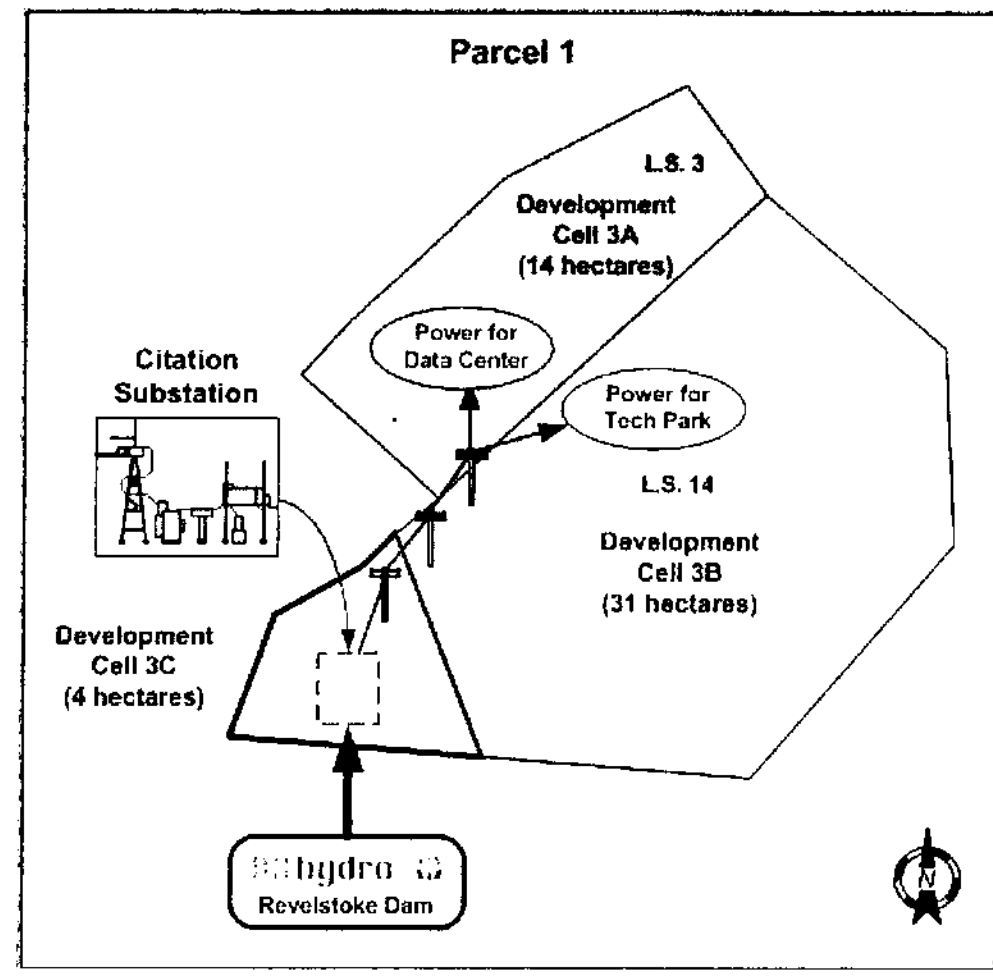
6. Preliminary Engineering Feasibility

The purpose of this section is to take an early look at possible engineering options to satisfy the most basic of the site requirements. The actual optimal solutions will take much more engineering and economic analysis in consultation with the City of Revelstoke.

6.1. Tech Park Substation

The proximity of the BC Hydro Revelstoke Dam makes the Parcel 1 site location one of the most unique and desirable locations to build and operate a Tier IV data center world-wide.

In order to access the and convert the BC Hydro power for use by the Westside Data Center and Tech Park facilities, Citation will be required to design and build a 80 MW substation. It should be noted that significant expansion of the substation capacity will be required as new data centers come on-line. From an engineering perspective, being collocated with BC Hydro Revelstoke Dam makes this a non-issue – especially with Revelstoke Unit 5 coming online and the potential to add Unit 6 in the future. The availability of power for Citation's Westside Data Center, expansion data centers and Tech Park facilities is virtually guaranteed.



6.2. Fiber Connections

The Westside Data Center will be designed to be a Tier IV data center. In order to meet this designation, the site availability must meet 99.995% - which translates to a maximum of 0.4 hrs of IT downtime per year. In order to meet this objective, all critical systems of Tier IV data center (e.g. power, cooling, communications, fiber connections) are designed with multiple fail-safe backups, so that the data center can run without ever shutting down – no matter what happens.

In order to guarantee 99.995% uptime to the data center tenants, there is a critical requirement for a minimum of two physically diverse, underground fiber connection routes between the data center and the carriers.

Citation's preliminary engineering analysis has determined that there are a minimum of two **potential** routes for extending **underground** fiber from the cut sheds of the three major Canadian carriers (Telus, Bell, Shaw) located downtown near the Revelstoke Train Station to the Westside Data Center (see Figure 9).

Route 1 – Westside Road

This route will extend from the cut sheds, through the City of Revelstoke and west across the Revelstoke Bridge and follow the Westside Road turnoff all the way up to the Westside Data Center.

Route 2 – Nakusp – Mica Creek Highway

This route will extend from the cut sheds, through the City of Revelstoke and head north up the Nakusp-Mica Creek Highway to the BC Hydro Revelstoke Dam. At this point, the fiber cable will extend through reinforced, steel-encased conduit across the top of the dam (service road) to the west side and then return underground heading south to the Westside Data Center.

Citation has held preliminary discussions with BC Hydro about the feasibility of extending the fiber conduit across the dam and the initial feedback has been positive. It is possible that BC Hydro may be interested in using one of the fiber strands for their Revelstoke Dam operations.

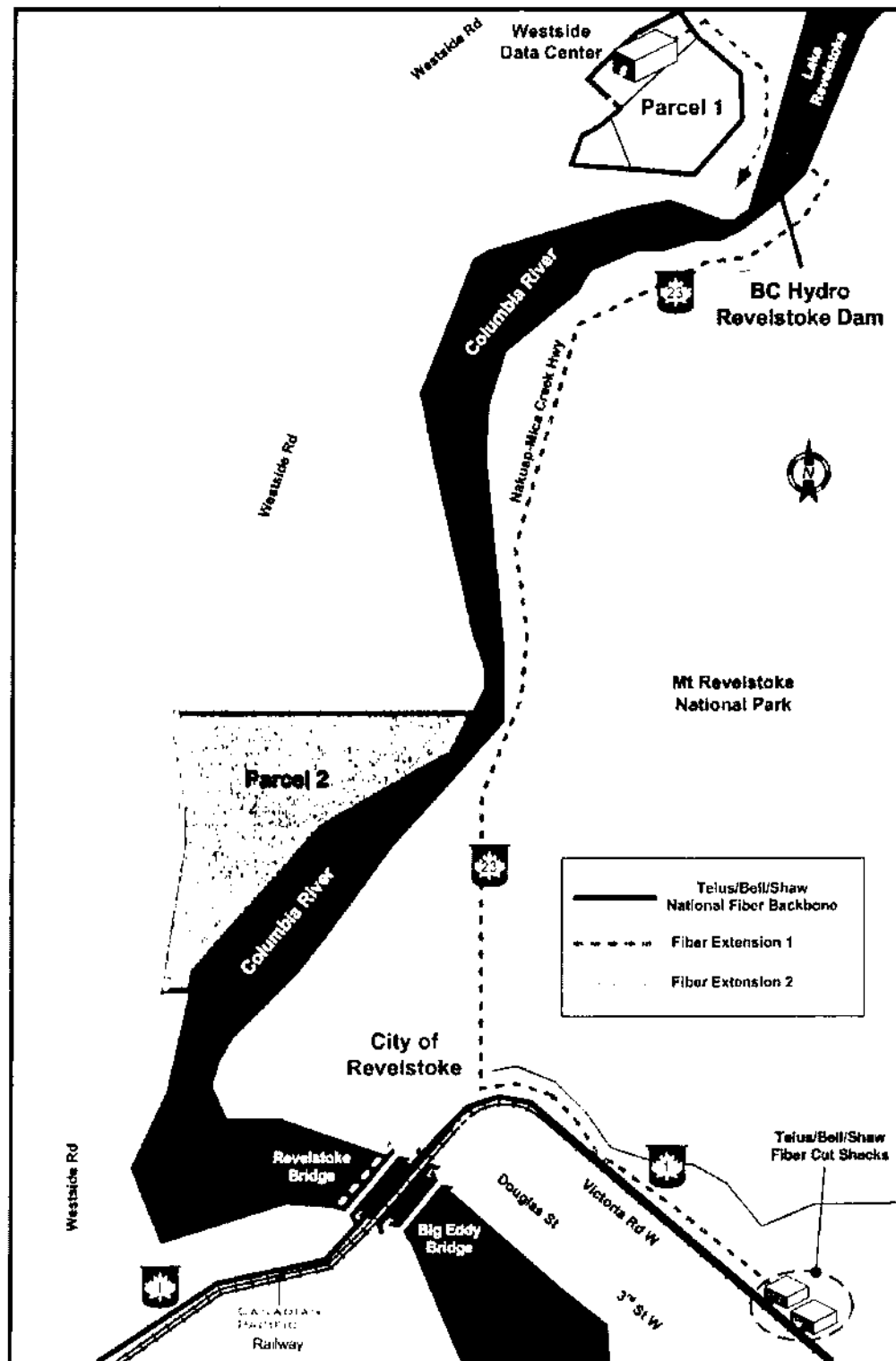


Figure 8 - Fiber Access Routes

6.3. City Services

Citation shall be responsible to cover the costs of extending any and all city services to reach the properties. Citation is considering possible options for providing services (sewer, water, gas) to the development properties. One preferred option is to extend the existing City of Revelstoke services up Westside road to both properties (see Figure 10).

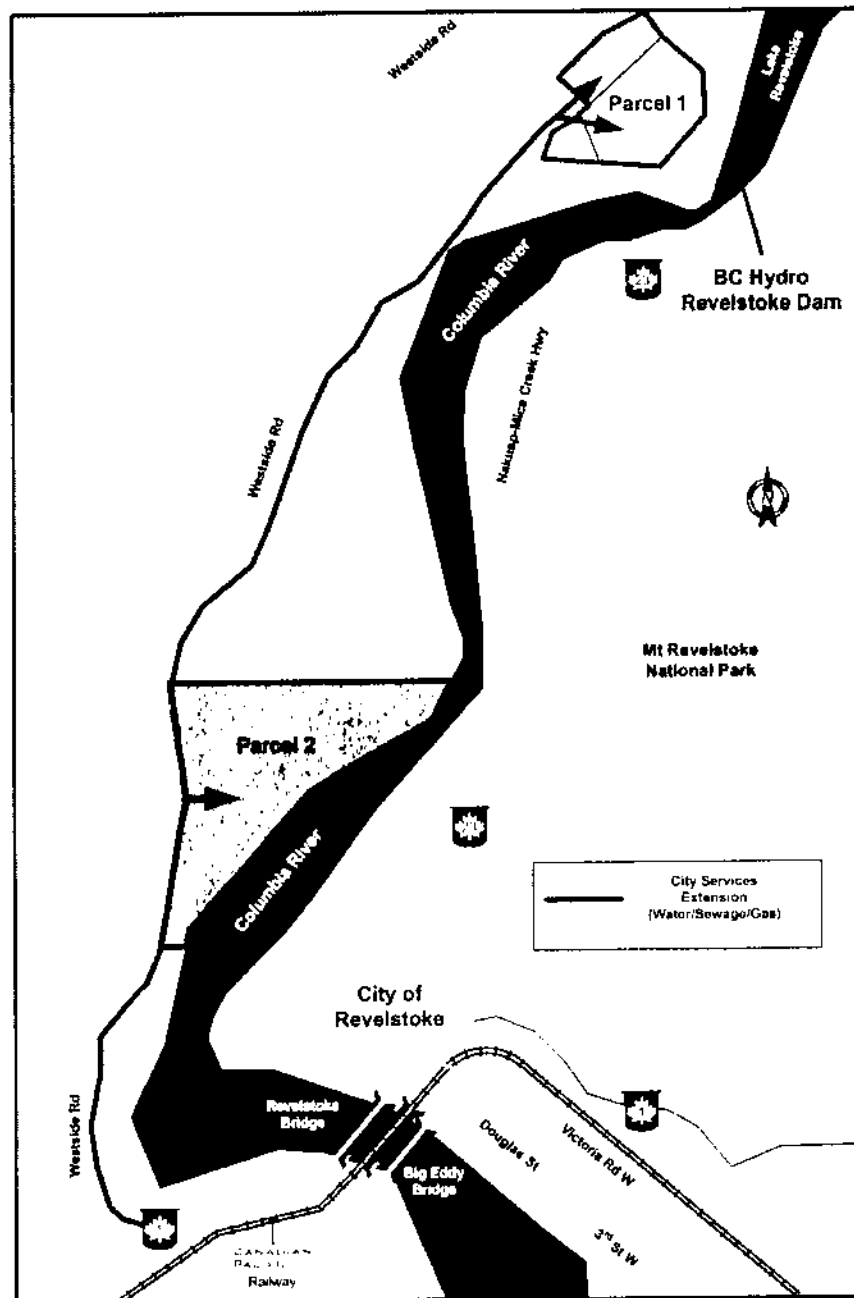


Figure 9 - City Services Extension

Schmidt, Lorraine ILMB:EX

From: Schmidt, Lorraine ILMB:EX
Sent: Wednesday, June 25, 2008 11:57 AM
To: 'Alan Mason'
Subject: Official Community Plan Review

Hi Alan. Would you be able to give me a quick rundown on where Revelstoke's OCP review is at and when you are anticipating that the new OCP will be in place?

Lorraine Schmidt (Lorraine.Schmidt@gov.bc.ca)

Project Manager

Crown Land and Resources

Regional Operations Division - Southern Interior (Kootenay)

Integrated Land Management Bureau

Ministry of Agriculture and Lands

1902 Theatre Rd., Cranbrook, BC V1C 7G1

Ph: 250-426-1759 Fax 250-426-1767

Schmidt, Lorraine ILMB:EX

From: Alan Mason [amason@cityofrevelstoke.com]
Sent: Tuesday, June 24, 2008 10:27 AM
To: Schmidt, Lorraine ILMB:EX
Subject: Crown land on Westside Road, Revelstoke

Hi Lorraine! Robert Sharkey from Citation Networks has told me he was in touch with you regarding the possibility of his company purchasing two parcels of land on Westside Road which is within the limits of the City of Revelstoke for the purposes of establishing a High Tech park.

Another developer, Joe Soares, had previously submitted a proposal to the Province to develop a golf course on one of these sites. The golf course proposal was referred to the City of Revelstoke several months ago for comment. For your information, at yesterday's Council meeting, Revelstoke City Council passed the following resolution:

That City Council authorizes staff to inform the Province and the Golf Course Proponent, Mr. Joe Soares, that the city is not supportive of a golf course development on Westside Road at this time as we do not think this type of development is consistent with the directions included in the new Official Community Plan.

I have forwarded this information to Drew Frymire in the Kamloops office, who is the staff person from the Province who is dealing with this file. I have also contacted the proponent, Joe Soares, and made him aware of Council's position. I am letting you know in case the declared interest in one of these sites is considered a reason to delay consideration of the High Tech park proposals. Thanks.

Alan Mason

Schmidt, Lorraine ILMB:EX

From: Alan Mason [amason@cityofrevelstoke.com]
Sent: Thursday, June 5, 2008 2:23 PM
To: Schmidt, Lorraine ILMB:EX
Subject: RE: Crown land purchase

Thanks, Lorraine. I believe the developer, Citation Networks, would like to contact you to begin a dialogue regarding the property and what will be required. The person I have been dealing with is the CEO, Robert Sharkey.

-----Original Message-----

From: Schmidt, Lorraine ILMB:EX [mailto:Lorraine.Schmidt@gov.bc.ca]
Sent: June 5, 2008 12:42 PM
To: amason@cityofrevelstoke.com
Subject: Re: Crown land purchase

Hi Alan. Yes I would be the contact for this type of enquiry. I will be back in the office on Tuesday and we can talk then.
From my blackberry
Lorraine Schmidt
Project Officer

----- Original Message -----

From: Alan Mason <amason@cityofrevelstoke.com>
To: Donald, Jo-Ann ILMB:EX
Cc: Schmidt, Lorraine ILMB:EX
Sent: Thu Jun 05 10:33:13 2008
Subject: RE: Crown land purchase

Thanks, Jo-Ann. Lorraine-can you let me know if you are the initial contact. What the developer is proposing is potentially a huge project for the community with very significant economic development benefits not just for Revelstoke but for the Province. Thanks.

From: Donald, Jo-Ann ILMB:EX [mailto:Joann.Donald@gov.bc.ca]
Sent: June 5, 2008 10:31 AM
To: Alan Mason
Cc: Schmidt, Lorraine ILMB:EX
Subject: RE: Crown land purchase

You should be contacting Lorraine Schmidt.

Lorraine, if you are not it, please advise. Thanks.

From: Alan Mason [mailto:amason@cityofrevelstoke.com]
Sent: Thursday, June 5, 2008 10:53 AM
To: Donald, Jo-Ann ILMB:EX
Subject: Crown land purchase

Hi Jo-Ann! Can you tell me again who a developer should contact if they are interested in purchasing Crown land on Westside Road in Revelstoke? We had a brief conversation about this before, and you put me in touch with someone in

your office. Unfortunately, I can't remember her name. Thanks.

Schmidt, Lorraine ILMB:EX

From: Alan Mason [amason@cityofrevelstoke.com]
Sent: Wednesday, June 25, 2008 12:11 PM
To: Schmidt, Lorraine ILMB:EX
Cc: Frymire, Drew TSA:EX
Subject: RE: Official Community Plan Review
Attachments: Memo to A. Mason April 11 08.pdf; Memo to H Stelling April 23 08.pdf

Lorraine: the new OCP should be completed by September. It will provide only general direction for the city, and will not provide specific land use direction for Westside Road.

For your information, I have attached 2 planning "opinions" that we received in recent months from Caroline Lamont, one of the consultants working on our new OCP. Council has made their recent decisions on proposals for Westside Road based in part on these opinions.

I was speaking with Drew this morning about Westside Road, and I told him I would send him copies of these opinions. I have copied him on this e-mail.

From: Schmidt, Lorraine ILMB:EX [mailto:Lorraine.Schmidt@gov.bc.ca]
Sent: June 25, 2008 10:57 AM
To: Alan Mason
Subject: Official Community Plan Review

Hi Alan. Would you be able to give me a quick rundown on where Revelstoke's OCP review is at and when you are anticipating that the new OCP will be in place?

Lorraine Schmidt (Lorraine.Schmidt@gov.bc.ca)
Project Manager
Crown Land and Resources
Regional Operations Division - Southern Interior (Kootenay)
Integrated Land Management Bureau
Ministry of Agriculture and Lands
1902 Theatre Rd., Cranbrook, BC V1C 7G1
Ph: 250-426-1759 Fax 250-426-1767



City of Revelstoke

P.O. Box 170, Revelstoke, British Columbia V0E 2S0
www.cityofrevelstoke.com info@cityofrevelstoke.com

Your File No.: 4403844

May 15th, 2008

Integrated Land Management Bureau
Ministry of Agriculture and Lands
1902 Theatre Road
Cranbrook, B.C. V1C 7G1

Integrated Land
Management Bureau
Ministry of Agriculture & Lands

MAY 17, 2008

RECEIVED
CRANBROOK, BC

Attention: Jo-Ann Donald, NRO

Dear Madam:

Re: Referral Request for Interoute Construction Ltd., Revelstoke, B.C.

Thank you for the opportunity to provide comment on the above noted application. We have reviewed the proposed amendment to the existing License of Occupation and provide the following comments:

(1) Official Community Plan Bylaw No. 1519

The Official Community Plan (OCP) designation for the subject area is Urban Reserve. Gravel operations can be located in any OCP designation. Given this, an OCP amendment is not required.

(2) Zoning Bylaw No. 1264

The subject property is zoned Urban Reserve (UR). Section 7.11.2 of the Zoning Bylaw permits the use of a gravel extraction operation providing that the area is not less than four hectares (9.8 acres).

ADMINISTRATION
216 Mackenzie Avenue
Tel: (250) 837-2911
Fax: (250) 837-4930

ECONOMIC DEVELOPMENT
COMMISSION
204 Campbell Avenue
P.O. Box 2398
Tel: (250) 837-5345
Fax: (250) 837-4223

FINANCE/PROPERTY
TAX DEPARTMENT
216 Mackenzie Avenue
Tel: (250) 837-2161
Fax: (250) 837-3632

FIRE DEPARTMENT
227 West Fourth Street
Tel: (250) 837-2884
Fax: (250) 837-4171

PARKS & RECREATION
DEPARTMENT
Community Centre
600 Campbell Avenue
Tel: (250) 837-9351
Fax: (250) 837-9355

PLANNING-BUILDING-
BYLAW ENFORCEMENT
216 Mackenzie Avenue
Tel: (250) 837-3637
Fax: (250) 837-3632

PUBLIC WORKS
DEPARTMENT
1200 E. Victoria Road
Tel: (250) 837-2001
Fax: (250) 837-2059

In 2003, the original application was supported subject to the following:

- That the type of activities permitted be limited to those uses identified in the Rural Residential - 60 Hectare Zoning District (RR60);
- Hours of operation be limited to Monday to Friday from 7:00 a.m. to 6:00 p.m.;
- That the size of operational area not exceed 5 hectares (12.35 acres);
- That tenure not exceed five years; and
- That road access be located south of the CSRD's Sanitary Landfill site.

These comments arose following a Public Information meeting held on March 25th, 2003. Given the history of the original application and the amount of controversy that the original application spurred, staff are of the opinion that the proposed amendment to the original License of Occupation can not be supported without soliciting public comment. However, if the applicant is amicable to amending the subject area as outlined on the attached sketch plan, the application can be supported without soliciting public input.

Staff suggest that the application be amended to include only a portion of Phase 3, Phase 4 & Phase 5. This will ensure that the concerns raised with the first application, in particular, protection of the buffer area will continue to be addressed. Staff have discussed this with Interoute Construction, they have advised that they are amicable to reducing the License of Occupation area to that outlined on the attached sketch plan.

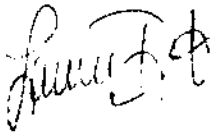
To summarize, if the applicant is amicable to amending the area as outlined on the attached sketch plan, the application will be supported subject to the following:

- That the type of activities permitted be limited to those uses identified in the Rural Residential - 60 Hectare Zoning District (RR60);
- Hours of operation be limited to Monday to Friday from 7:00 a.m. to 5:00 p.m.;
- That the size of operational area be amended as illustrated on the attached sketch plan;
- That tenure not exceed five years; and
- That road access be located south of the CSRD's Sanitary Landfill site.

As an aside, it appears that Interoute's Phase II and a portion of Phase III overlap with an application received from Front Counter B.C. on behalf of Ministry of Tourism, Sport and the Arts for a Golf Course Development (File No. 4404580).

Should you have any questions with respect to the above, please do not hesitate to contact me at (250) 837-3637.

Yours truly,

A handwritten signature in black ink, appearing to read 'Laurie Donato', with a stylized flourish at the end.

Laurie Donato
Manager of Development Services

cc: Darren Komonoski, Operations Manager
City of Revelstoke Engineering & Public Works Department



Catalyst Community and Resort Planning

April 23, 2008

MEMO TO: Hap Stelling, Director of Planning

MEMO FROM: Caroline Lamont, Catalyst Community and Resort Planning

SUBJECT: Proposed Golf Course Development on Westside Road
Considering New OCP Directions

1.0 PURPOSE:

This opinion responds to a request from the City of Revelstoke's Director of Planning to consider the land use implications of a proposed golf course development to be located on existing Crown lands situated on Westside Road, adjacent to Jordan Creek. The review considers the project in relation to the draft directions contained within the developing Official Community Plan (OCP).

2.0 STATUS OF THE OCP DIRECTIONS:

The draft Community Goals and Strategies guide the OCP Policies, Actions and Land Use. The consultants for the OCP and Community Development Action Plan (CDAP) are currently finalizing the Community Goals and Strategies (with the respective Steering Committees). The Community Goals and Strategies have established an integrated and strategic baseline as a framework for future community initiatives, including the OCP's land use and growth management policies. The (almost) finalized Goals and Strategies are attached as Appendix A.

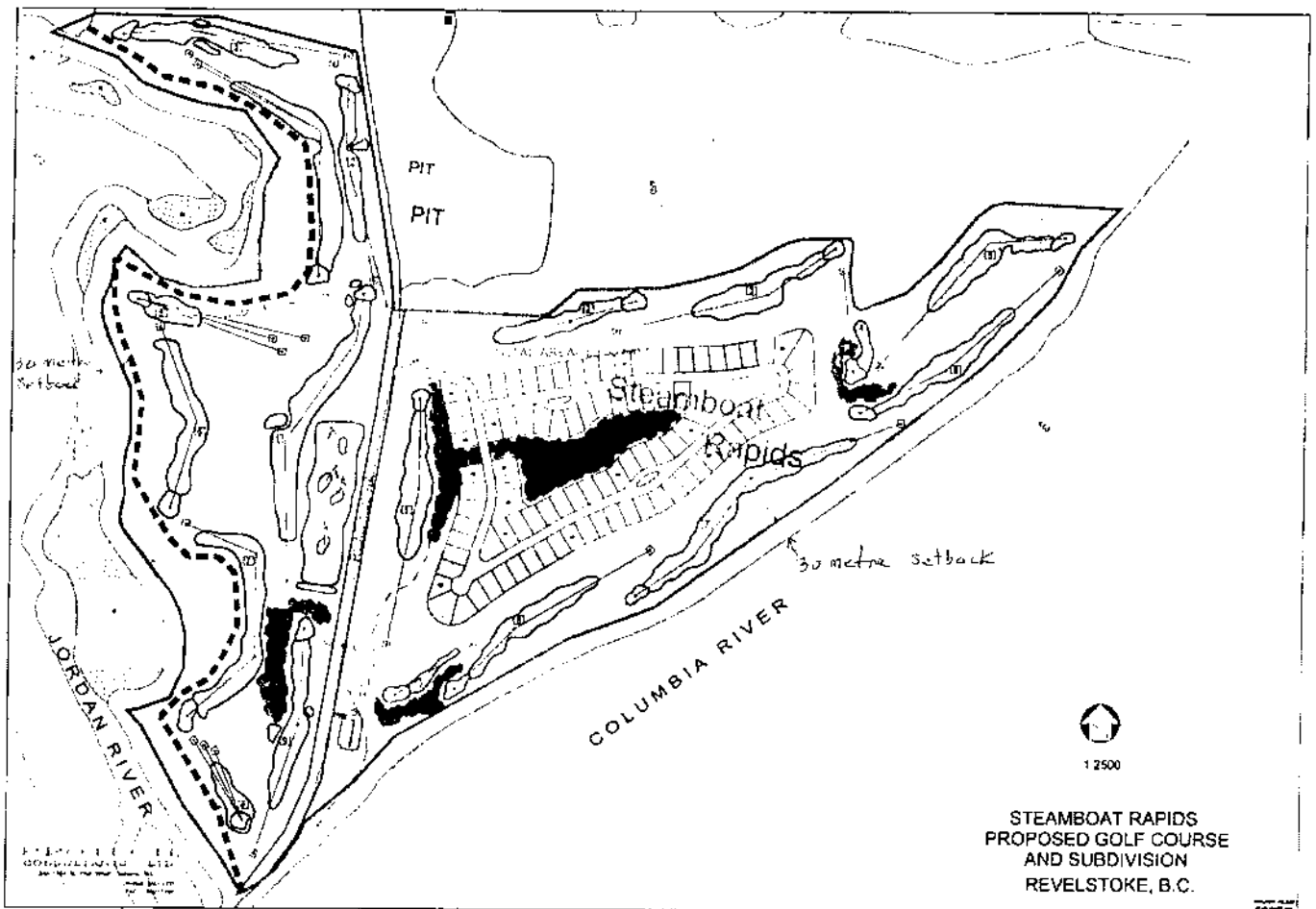


The OCP Policies, Land Use and Actions are currently being refined and organized to be consistent with the Community Goals and Strategies. It is anticipated that a draft OCP will be

available for public consideration in late May. The following analysis considers the proposed golf course development in relation to Community Goals and Strategies and preliminary OCP Policies, Actions and Land Use directions. Please recognize that the OCP Policy, Actions and Land Use are still considered draft and subject to more review by the City, consultants and the community.

3.0 PROPOSED DEVELOPMENT

The analysis of the proposed golf course has relied on the site plan submitted to the Ministry of Tourism, Sport and the Arts for acquisition of certain Crown lands on Westside Road for the purpose of a ninety one (91) lot single family subdivision and an 18 hole golf course. The site plan below illustrates the preliminary proposal:



4.0 ANALYSIS:

The following analysis has considered the implications of a golf course development located on Crown lands within the Westside Road area of Revelstoke, identifying both supporting and opposing directions as contained within the:

- draft Community Goals and Strategies;
- preliminary OCP Policies, Actions and Land Use directions; and
- findings and conclusions contained within the OCP Comprehensive Review Report (BHA, February 2008).

It should be recognized that this analysis has considered the Community Goals and Strategies only as they relate to the OCP's primary function to identify of future land use and growth areas. The review has not specifically weighed in on areas of interest included in the CDAP (particularly more specific economic or social objectives).

4.1 Supporting Community /OCP Directions:

The Community Goals and Strategies are shared by the OCP and the CDAP to ensure a consistent and sustainable approach to Revelstoke's future planning and development initiatives. The following Goals and Strategies (directly related to the OCP) appear to support the golf course development on Westside Road:

GOAL	STRATEGY	DISCUSSION
A Distinct, Diverse Community Where All Residents and Visitors Feel Welcome and Respected	Support the high quality of life that individuals and families enjoy by <u>fulfilling their lifelong health, cultural, educational, recreational, educational and economic needs.</u>	A new golf course development may complement the developing resort and construction economy, by providing not only employment but also a lasting recreational amenity.
Smart Growth and Integrated Land Use	<u>Provide and integrate a range of land uses</u> to facilitate the social, environmental and economic priorities of the community.	There are components of the potential golf resort development that may support this strategy, provided it is appropriately planned and developed to meet other Community Goals. At this time, however, only recreational and residential lands uses are considered.
Affordable Housing for Our Community	Expand and enhance the diversity of residential housing types to <u>meet the needs of residents and the workforce across every stage of life,</u> while delivering on affordability, livability, and special need priorities.	The golf resort development would provide a new supply of larger lot residential development.

GOAL	STRATEGY	DISCUSSION
Safe and Alternative Transportation Options	<u>Extend and enhance the recreational, all season and commuter trails network</u> to accessibly link all neighbourhoods to important community destinations and focal points.	The community has indicated a desire to extend the waterfront trail system along the west side of the Columbia River, including a bridge over the Jordan River. The proposed development may contribute to achieving this connection (although the trail is not shown on the existing plan).
High Quality Community, Arts, Culture and Recreational Facilities and Activities	<u>Facilitate public access to green spaces and the waterfront</u> for residents and visitors, unless the environmental integrity of the natural areas will be compromised.	Although not indicated on the plans at this time, the development has the potential to formalize public access to the waterfront trail and other natural areas.
	<u>Integrate resort and community arts, cultural and recreational amenities to offer four season experiences</u> for both residents and visitors.	The additional golf course amenity would enhance the four season experiences within Revelstoke (golf in spring, summer and fall and cross-country skiing in the winter).
Safe and Healthy Community	<u>Enhance emergency services</u> as needed to meet changing community conditions.	The development could facilitate the provision of services to the west side of the Columbia River.
Sustained and Diversified Economic Vitality	<u>Provide adequate properties and servicing for commercial and industrial development</u>	The golf course use in the Westside Road area would likely provide a commercial, recreation and accessory uses.

4.2 Opposing Community Goals and Community Strategies

The following Goals and Strategies (directly related to the OCP contents) may challenge the appropriateness of the proposed golf course and residential use on lands within the Westside Road area:

GOAL	STRATEGY	DISCUSSION
Smart Growth and Integrated Land Use	<u>Prevent urban sprawl by establishing clear limits for urban growth</u> and promoting a well-designed community.	The Westside Road area is distanced from the existing developed areas of the City. The form of residential development proposed is for large lot single family homes, typically associated as a form of sprawl (low density).

GOAL	STRATEGY	DISCUSSION
Affordable Housing for Our Community	Expand and enhance the diversity of residential housing types to <u>meet the needs of residents and the workforce across every stage of life</u> , while delivering on affordability, livability, and special need priorities.	The addition of more development and service (golf course) workers may further exacerbate the challenge to provide affordable housing for local residents/employees.
	Secure suitable lands for the community's recognized <u>long term housing needs</u> .	The development of the Westside lands for a golf course and large lot subdivision could remove a potential supply of <u>long-term</u> affordable housing sites.
Excellence in Environmental Stewardship	Retain and, where possible, <u>enhance the functioning, biodiversity, connectivity, habitat conditions and natural heritage of ecosystems</u> within the community and the North Columbia area.	An initial environmental evaluation prepared as part of the OCP Comprehensive Review Report has indicated that the site has high environmental values. The value was based on the riparian ecosystems and wildlife corridors.
	<u>Maintain healthy fish and wildlife populations</u> in habitats surrounding the community.	The proposed golf course development is within close proximity to the riparian areas of Jordan Creek and the Columbia River (although a 30 metre setback appears to be provided).
	Protect and effectively managed the quantity and quality of local water sources, watercourses and groundwater flows.	
Safe and Alternative Transportation Options	Promote and where appropriate facilitate the <u>use of alternatives to private automobiles</u> , especially non-motorized transportation as part of healthy lifestyles, to reduce congestion and greenhouse gas emissions.	The Westside location encourages the use of a private automobile due to its distance from existing neighbourhoods, services and facilities. The provision of transit may be costly to this outlying area. The low-density housing will not support public transit. There has been no provision made for trail access along the Columbia River (the golf use in close proximity may conflict).
Effective and Efficient Infrastructure	Invest in short and long term <u>infrastructure that is sustainable, efficient, cost effective and funded by those using the systems</u> .	There may be a significant cost to extending (developer) and maintaining (City) local services.
Sustained and Diversified Economic Vitality	Provide <u>adequate properties and servicing for commercial and industrial development</u>	The golf course use on Westside Road area may compromise future industrial expansion sites to further facilitate a diversified local economy.
Safe and Healthy Community	<u>Enhance emergency services</u> as needed to meet changing community conditions.	There may be a significant cost to extending (developer) and maintaining (City) emergency services in this location.

4.3 Related Directions from the Preliminary OCP Policy, Land Use and Actions

As mentioned the OCP Policy, Actions and Land Use will include preliminary directions that may influence the form, character, environmental limitations and servicing options of the proposed golf course and residential use. The following list identifies possible directions that the City may impose with the adoption of the new OCP. This review not only considers the developing OCP policies but also the information contained within the OCP Comprehensive Review Report.

POLICY/ACTIONS	DISCUSSION
The need to land bank future development sites to meet long-term community needs including housing, infrastructure, parks, natural areas, etc.	The community has not recorded many comments regarding the Westside Road area during the OCP land use discussions. The community has only referenced the area as either a future growth area and trail connection or containing important natural areas. The development of lands on Westside Road for golf course development may require the OCP to identify other potential land for future City expansion, particularly related to long term housing needs, and industrial resource uses.
Secondary Plans	The OCP will identify and prioritize certain areas within the City that need more detailed secondary planning. Although Westside Road will likely not be a top priority, a secondary planning exercise will be recommended and likely moved forward if the proposal were to be realized. The secondary planning initiative would consider the community's mid and long term land needs, as well as other policy directions contained within the OCP (i.e. environmental values, servicing costs, community facilities, trails, open space, emergency services, etc. – see section 4.4)
Protection of Environmentally Sensitive Areas and water sources through riparian setback requirements and an environmental review process.	The draft OCP directions recommend the inclusion of an environmental review process to ensure that future developments will not negatively impact (through either working around the areas of concern or mitigating the impacts) the natural environment. The proponent should be aware that the OCP Comprehensive Review Report has indicated the subject lands have important environmental features including riparian areas, wildlife corridors, and public views of Mt. Boulder. A considerable portion of the Westside area has been designated with high environmental values.

POLICY/ACTIONS	DISCUSSION
Affordable Housing	The Community and OCP directions indicate that housing should be close to existing services and facilities. As a result the subject lands are not well suited for housing in the short or mid term, as there appears to be ample infill opportunities that would be more affordable and accessible to service. Regardless, in the long term the Westside area may be an appropriate housing location (planned, mixed use and compact neighbourhood).
Transportation Links	New developments are encouraged to provide linkages for their workforce and services through trails, sidewalks and transit.
Sustainability Targets	The OCP contains draft policies to embrace a zero waste policy, reduce effluent levels and decrease water consumption. The development would need to address the fulfillment of these targets.
Sustainable Energy	The OCP and CDAP encourage the use of renewable energy sources including the Community Energy initiative.

4.4 Land Use

The preliminary land use maps consider the Westside property as follows:

Water Service	Community Water connections are available in Big Eddy.
Sewage	Community Sewer connections are available on the east side of the Columbia River (note that the liquid waste management is currently being updated based on a more conservative growth projection).
Stormwater System	Community storm water connections are available on the east side of the Columbia.
Community Facilities	The majority of the City's community facilities and parks are located closer to Downtown.
Current Land Use Designations	The Westside Road area is currently designated as urban reserve, sand and gravel extraction, light industrial, heavy industrial and public uses (landfill).

As previously mentioned, the community consultation to date has revealed very little information with regard to the preferred land use directions for the lands along the Westside

Road. The area has traditionally been considered as a future growth area, since it is not currently serviced. Any significant development would have to achieve urban servicing connections. Further, the community informally utilizes the Westside lands for passive recreation, notably connection to the surrounding mountain terrain and a pathway along the Columbia River. Wildlife relies on a similar connection. Any future plans should incorporate substantial natural corridor from the higher elevations along the Jordan River to the Columbia River.

5.0 CONCLUSION

The preliminary analysis concludes that the proposed golf course and 9-lot subdivision is not consistent with the Community's evolving Goals and Strategies as well as the directions of the new OCP. In particular, it is recommended that the City not pursue the proposed development at this time for the following reasons:

- Although it appears that the proposed golf course development use may complement Revelstoke's evolving resort and tourism economy, the proposed location along Westside Road appears to conflict with the Community Goals and Strategies to be a compact community (i.e. Smart Growth, avoid sprawl and increase densities within walking distance to existing services).
- The development would require a significant servicing investment. The City must be able to ensure that the cost of extending services will not have a negative impact on the City's financial status (i.e. new development shall pay its own way).
- The subject lands are considered to have high environmental values primarily due to wildlife corridors and riparian habitat.
- Development in the near term may compromise future growth potential of the City, notably mid to long term industrial and affordable housing uses.
- No major development should be considered for the Westside Road area until a secondary plan is completed. At this time it is anticipated that the new OCP will require the preparation of secondary plans for certain areas within the municipality. The Westside Road area will be recommended for a secondary plan, however, due to other priorities will likely not be considered for a few more years due to municipal budget and resource limitations.

Respectfully submitted,



Carline Lamont
Catalyst Community and Resort Planning

APPENDIX A

A DISTINCT, DIVERSE COMMUNITY WHERE ALL RESIDENTS AND VISITORS FEEL WELCOME AND RESPECTED

1. Retain Revelstoke's safe, small town character.
2. Continue to support and nurture citizen involvement in community actions and local decision-making
3. Support the high quality of life that individuals and families enjoy by fulfilling their lifelong health, cultural, educational, recreational, educational and economic needs.
4. Embrace and facilitate effective partnerships amongst community organizations and all levels of government.

SMART GROWTH AND INTEGRATED LAND USE

5. Prevent urban sprawl by establishing clear limits for urban growth and promoting a well-designed compact community.
6. Increase community knowledge, engagement and certainty about future land development.
7. Strive to become a leader in environmentally sustainable planning, development and building practices, recognizing the challenges of the local climate, location and terrain.
8. Provide and integrate a range of land uses to facilitate the social, environmental and economic priorities of the community.
9. Continue to support the importance of downtown Revelstoke as the focal point of the community, business and visitors.
10. Preserve the unique residential character of neighbourhoods.
11. Construct a built environment that respects the community's unique character and encourages quality design, durability, flexibility and ease of access.

AFFORDABLE HOUSING FOR OUR COMMUNITY

12. Expand and enhance the diversity of residential housing types to meet the needs of residents and the workforce across every stage of life, while delivering on affordability, livability, and special need priorities.
13. Increase acceptance and implementation of a range of *market incentives and/or government* initiatives to create a long term supply of affordable housing.
14. *Secure suitable lands* for the community's recognized long term housing needs.

EXCELLENCE IN ENVIRONMENTAL STEWARDSHIP

15. Retain and, where possible, enhance the functioning, biodiversity, connectivity, habitat conditions and natural heritage of ecosystems within the community and in the North Columbia area.
16. Maintain healthy fish and wildlife populations in habitats surrounding the community.
17. Retain and augment trees and treed areas within developed portions of the community.

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APPENDIX A

18. Continually work towards improving the local and regional air quality.
19. Encourage and support greenhouse gas neutral lifestyles and business practices.
20. Protect and effectively manage the quality and quantity of local water sources, watercourses and groundwater flows.
21. Manage visual impacts to retain the quality of the dark sky and public view corridors.
22. Eliminate use and provide for proper disposal of toxic substances.
23. Reduce unwarranted noise within the community.
24. Encourage sustainable purchasing policies and practices within the community.

PRESERVATION OF OUR HISTORY AND HERITAGE

25. Continue community enhancement by supporting heritage and revitalization initiatives.
26. Design new development to complement the community's historic character and traditional materials.
27. Showcase and celebrate our rich community history by promoting and expanding our museums and retaining heritage buildings and natural areas.

SAFE AND ALTERNATIVE TRANSPORTATION OPTIONS

28. Expand year round transportation modes, in cooperation with all levels of government, providing safe, efficient, affordable and environmentally sound options for residents and visitors,
29. Extend and enhance the recreational, all season and commuter trails network to accessibly link all neighbourhoods to important community destinations and focal points.
30. Plan, design and construct "Complete Streets".
31. Promote and where appropriate facilitate the use of alternatives to private automobiles, especially non-motorized transportation as part of healthy lifestyles, to reduce congestion and greenhouse gas emissions.
32. Meet community and visitor parking needs.
33. Provide a cost effective and efficient transit service that is accessible for all residents and visitors with the goal of reducing the reliance on the automobile. Specifically consider the service needs of seniors, persons living with disabilities and/or with lower incomes.
34. Enhance existing highway, railway and air transportation options to improve the safety, reliability, sustainability and cost of transportation to/from Revelstoke.

EFFECTIVE AND EFFICIENT INFRASTRUCTURE

35. Commit to and implement long term infrastructure planning, monitoring and reporting to ensure flexibility for service improvements to address changing community needs and consider potential climate change implications.

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APPENDIX A

36. Invest in short and long term infrastructure that is sustainable, efficient, cost effective and funded by those using the systems.
37. Support servicing efficiencies through infrastructure sharing with public, private and not for profit organizations.
38. Strive to achieve zero waste through solid waste management practices, in cooperation with the regional district.
39. Deliver high quality dependable potable water supplies for the community.
40. Recognize the potential for limited sources of clean water over the long-term and take actions to enhance water conservation and maintain high water quality in local waterways and aquifers.
41. Ensure that the treatment of wastewater and biosolids are undertaken at a standard as to not negatively impact the natural environment.
42. Establish environmentally sensitive stormwater management and flood control measures which replicate natural hydrological systems and functions.
43. Continue and expand a state of the art communications network.
44. Enhance energy conservation and provide renewable, secure and sustained energy options within the region.
45. Provide necessary properties and facilities for emergency services, in cooperation with all levels of government.

HIGH QUALITY COMMUNITY, ARTS, CULTURE AND RECREATIONAL FACILITIES AND ACTIVITIES

45. Maintain the scale, diversity and management of parks and green space and when necessary, expand to meet the needs of surrounding neighbourhoods and the entire community.
46. Facilitate *public* access to green spaces and the waterfront for residents and visitors, unless the environmental integrity of the natural areas will be compromised.
47. Design and manage community facilities, parks and gathering areas to encourage *interaction and shared activities*.
48. Continually *improve facilities and programs* to be accessible and meet the evolving needs of the community.
49. Provide public opportunities for *local artists and crafts people* to display their works.
50. *Integrate resort and community arts, cultural and recreational amenities* to offer four season experiences for both residents and visitors.
51. Provide a *rich array of cultural activities* with adequate facilities and resources to showcase the community's offerings and entertain residents and visitors.
52. Encourage the regional district and provincial agencies to effectively manage *front country and backcountry* recreational opportunities to retain quality experiences in ecologically healthy environments.

APPENDIX A

SUSTAINED AND DIVERSIFIED ECONOMIC VITALITY

53. Support and attract a skilled workforce through continued investment in the community's physical and social infrastructure and activities.
54. Expand the workforce by reducing social and economic barriers.
55. Provide adequate properties and servicing for commercial development
56. Encourage and accommodate year round economic diversification.
57. Improve community self-reliance and ability to respond to possible affects of global determinants.
58. Encourage and support local businesses and entrepreneurs.
59. Expand community capacity to attract, market to and host visitors from many nations, having them leave the region as Revelstoke ambassadors.
60. Retain the uniqueness of Revelstoke's historic, natural and cultural flavour as an important community and tourism attractant.
61. Retain and enhance a strong forest sector through safe, sustainable forest practices and diverse forest products.
62. Support the ongoing promotion, enhancement and intensification of Revelstoke's downtown business area.
63. Effective management and accountability for the City's fiscal budgets and operations together with securing financial resources from senior governments and other sources.

SAFE AND HEALTHY COMMUNITY

64. Retain a strong sense of community safety with low crime rates.
65. Enhance emergency services as needed to meet changing community conditions.
66. Meet the needs of a growing and changing population with appropriate health and wellness facilities and services.
67. Provide assistance for residents to access out-of-town health care when necessary.
68. Continually improve the physical, mental, spiritual and social health of residents.
69. Promote and encourage healthy lifestyle choices for all residents.
70. Recognize that substance abuse is limiting the social and economic life of individuals, families and the community and take actions to reduce impacts.
71. Improve the accessibility and inclusiveness of the community for residents and visitors with disabilities.

APPENDIX A

LIFELONG LEARNING OPPORTUNITIES FOR ALL RESIDENTS

72. Support and provide facilities and activities to continue the excellence in formal education and varied informal learning opportunities for children and youth.
73. Enhance adult education opportunities to support new and long-time residents to secure employment and pursue continuous learning.
74. Become a leader in globally sustainable and environmentally responsible lifestyles through continuous community learning opportunities.

CONFIDENTIAL

April 11, 2008

MEMO TO: Alan Mason, Revelstoke Economic Development

MEMO FROM: Caroline Lamont, Catalyst Community and Resort Planning

SUBJECT: Proposed Industrial Use on Westside Road

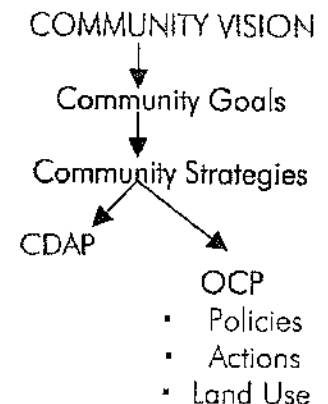
1.0 PURPOSE:

This opinion responds to a request from the City of Revelstoke's Director of Community Economic Development to consider the land use implications of a prospective high tech industrial use to be located on substantial acreage along Westside Road. The review considers the project in relation to the draft directions contained within the developing Official Community Plan (OCP).

2.0 STATUS OF THE OCP DIRECTIONS:

The directions of the new OCP consider Community Goals and Strategies (draft) and preliminary Policies, Actions and Land Use. The Steering Committee and consultants have developed the Community Goals and Strategies jointly for the Community Development Action Plan (CDAP) and the OCP. The Community Goals and Strategies have established an integrated and strategic baseline in which to develop future community initiatives, notably including OCP's land use and growth management policies. The (almost) finalized Goals and Strategies are attached as Appendix A.

The OCP Policies, Land Use and Actions are currently being prepared to be consistent with the Community Goals and Strategies. It is anticipated that a draft OCP will be available for public consideration in late May. The following analysis considers the related Community Goals and Strategies and recognizes informing OCP Policies, Land Use and Actions.



3.0 ANALYSIS:

The implications of a potential high tech facility along the Westside Road consider supporting and opposing directions of the Community Goals and Strategies. In addition, this summary has identified certain OCP Policies/Actions and Land Use that may be included in the final OCP that could influence the location, servicing requirements and character of the proposed industrial use.

3.1 Supporting Community /OCP Directions:

The OCP and the CDAP Goals and Strategies share these directions to facilitate a consistent and sustainable approach to Revelstoke's future planning and development. The following Goals and Strategies (directly related to the OCP contents) appear to support the proposed high tech industrial use on the Westside Road:

GOAL	STRATEGY	DISCUSSION
A Distinct, Diverse Community Where All Residents and Visitors Feel Welcome and Respected	Support the high quality of life that individuals and families enjoy by <u>fulfilling their lifelong health, cultural, educational, recreational, educational and economic needs.</u>	A high tech industrial use will further diversify the economy providing greater opportunities for local residents.
Smart Growth and Integrated Land Use	<u>Provide and integrate a range of land uses</u> to facilitate the social, environmental and economic priorities of the community.	The expanded industrial land use will support this strategy, provided it is appropriately planned and developed to meet other Community Goals.
Excellence in Environmental Stewardship	<u>Reduce unwanted noise</u> within the community.	Moving large industrial users (even if high tech) to the Westside Road area would reduce unwanted noise (likely traffic) through the community.
Effective and Efficient Infrastructure	Continue and expand <u>a state of the art communications network.</u>	A high tech business would likely assist in the enhancement of Revelstoke's communications network.
Sustained and Diversified Economic Vitality	<u>Provide adequate properties and servicing for commercial and industrial development.</u>	The Westside Road area would provide the necessary industrial lands.
	<u>Encourage and accommodate year round economic diversification.</u>	The Westside Road property, although not within the immediate growth area of the City could allow for the accommodation of a significant industrial user.
	Improve <u>community self-reliance</u> and ability to respond to possible affects of global determinants.	A high tech industry would provide for a year round economic generator and likely improve community self-reliance. There may be smaller suppliers or related services also starting up in the vicinity. Land use should consider the potential for drawing related industry.
	Encourage and support local businesses and entrepreneurs.	

3.2 Opposing Community Goals and Community Strategies

The following Goals and Strategies (directly related to the OCP contents) may challenge the proposed high tech industrial use on the Westside Road:

GOAL	STRATEGY	DISCUSSION
Smart Growth and Integrated Land Use	<u>Prevent urban sprawl by establishing clear limits for urban growth and promoting a well-designed community.</u>	The Westside Road area is distanced from the existing developed areas of the municipality.
Affordable Housing for Our Community	Expand and enhance the diversity of residential housing types to <u>meet the needs of residents and the workforce across every stage of life</u> , while delivering on affordability, livability, and special need priorities. Secure suitable lands for the community's recognized <u>long term housing needs</u> .	The addition of another major employer may further exacerbate the challenging to provide affordable housing for local residents/employees. The development of the Westside Road lands removes a potential supply of long-term affordable housing sites.
Safe and Alternative Transportation Options	Promote and where appropriate facilitate the <u>use of alternatives to private automobiles</u> , especially non-motorized transportation as part of healthy lifestyles, to reduce congestion and greenhouse gas emissions.	The location encourages the use of a private automobile due to its distance from existing neighbourhoods, services and facilities.
Effective and Efficient Infrastructure	Invest in short and long term <u>infrastructure that is sustainable, efficient, cost effective and funded by those using the systems.</u>	There may be a significant cost to extending and maintaining local services.
Safe and Healthy Community	<u>Enhance emergency services</u> as needed to meet changing community conditions.	There may be a significant cost to extending and maintaining emergency services.

3.3 Related Directions from the Preliminary OCP Policy, Land Use and Actions

As mentioned the preliminary OCP Policy/Actions and Land Use contain directions that may influence the form, character and servicing design of the proposed industrial use. The following list identifies possible directions that the City may impose with the adoption of the new OCP.

POLICY/ACTIONS	DISCUSSION
The need to land bank future development sites to meet long-term community needs including housing, infrastructure, parks, natural areas, etc.	The Westside Road lands had little community interest during the OCP land use discussions. The community referenced the area as either a future growth area or natural areas. The disposition of a large portion of Westside Road to one user would require the OCP to identify other potential land for future City expansion.
Secondary Plans	The OCP will identify and prioritize certain areas within the City that need more detailed secondary planning. Although Westside Road is not a top priority, a secondary planning exercise will be recommended and likely moved forward if the proposal were to be realized.
Protection of Environmentally Sensitive Areas and water sources through riparian setback requirements and an environmental review process.	The draft OCP directions recommend the inclusion of an environmental review process to ensure that future developments will not negatively impact (through either working around the areas of concern or mitigating the impacts) the natural environment. The proponent should be aware that the OCP Backgrounder has indicated that a portion of the Westside Road lands have important environmental features including riparian areas, wildlife corridors, and public views of Mt. Boulder. A considerable portion of the Westside area has been designated as either High or Moderate Areas of Environmental Sensitivity.
Improve the connections to the backcountry	The Westside Road area provides direct access to the natural environment, most prevalently used by snowmobilers.

POLICY/ACTIONS	DISCUSSION
Affordable Housing	<p>The Community and OCP directions indicate that housing should be close to existing services and facilities, as such the site is not well suited to provide housing in the short or long term (next 10 years) as there appears to be ample infill opportunities that would be more affordable and accessible to service. Regardless, in the long term the Westside area may be an appropriate housing location.</p> <p>In addition, draft policy directions indicate that new development may be subject to either inclusionary zoning or a service charge for the provision of affordable housing. Typically such charges are applied to commercial and industrial development. RMR was required to provide 10% of their bed units as affordable housing.</p>
Transportation Links	New developments are encouraged to also link to their workforce and services through trails, sidewalks and transit.
Sustainability Targets	The OCP contains draft policies to embrace a zero waste policy, reduce effluent levels and decrease water consumption. Such a large industrial development would likely challenge such targets.
Sustainable Energy	The OCP and CDAP encourage the use of renewable energy sources including the Community Energy initiative.
Municipal Resources	The municipality may need to accommodate a significant number of new residents. If a large industrial user should come to town, existing growth forecasts should be updated. Further municipal taxes related to community facilities and services will need to be revisited

3.4 Land Use

The preliminary land use maps consider the Westside property as follows:

Water Service	Community Water connections are available in Big Eddy.
Sewage	Community Sewer connections are available on the east side of the Columbia River (note that the liquid waste management is currently being updated based on a more conservative growth projection).

Stormwater System	Community Storm connections are available on the east side of the Columbia.
Community Facilities	The majority of the City's community facilities and parks are located closer to Downtown.
Current Land Use Designations	The Westside Road area is currently designated as urban reserve, sand and gravel extraction, light industrial, heavy industrial and public uses (landfill).

As previously mentioned the community consultation to date has revealed very little with regard to the preferred land use directions for Westside Road. Clearly as the area has been considered a future growth area, it is not currently serviced and therefore any significant industrial installation would have to achieve these connections. Further the community informally uses the Westside lands for passive recreation, notably connection to the surrounding mountain terrain and a pathway along the Columbia River. Any development likely should consider the importance of retaining a corridor from the higher elevations to the river.

4.0 CONCLUSIONS

The following provides a summary of key findings from the analysis:

- In review of the Community Goals and Strategies, it appears that a high tech industrial development (whether on the Westside Road or elsewhere in the City) would be consistent with community and economic directions of the community.
- The proposed location of Westside Road may conflict with the desire to move Revelstoke towards being a more compact community. If it is clear that the economic and social benefits of the proposal outweigh this concern, then consideration should be given to preparing the secondary plan for the area concurrent with the proposed high tech development approvals. This could be a requirement of the proponent for the anticipated industrial change of use or perhaps a City driven initiative. Although the rest of the City may not need to expand to the Westside area for many years, the secondary plan would take a more comprehensive look at the area to ensure that other Community Goals and Strategies could be upheld in the long term.
- It should be recognized that such a large industrial user may not be appropriate immediately adjacent to existing urban land uses (noise, light, traffic, etc), therefore the Westside location would be favourable.
- A secondary planning exercise should also investigate the likelihood of smaller industrial entrepreneurs and suppliers wanting to locate in close proximity to the industrial complex. Such development could be mixed use.

- Discussions regarding the provision of affordable housing to offset the generation of new jobs should be factored into any future discussions (such as with the RMR development) with the proponent of the industrial use.
- The City should ensure that the cost of extending services would not have a negative impact on the City's financial status (i.e. new development pays its own way).
- The project should be subject to an environmental review by a qualified environmental professional and accepted by the City and responsible senior agencies/ministries.
- The OCP process should investigate alternative long term development areas for the community, firm up requirements for a Westside Road secondary plan (considering industrial use, community facilities, open space, trails, natural areas, etc) implement an environmental review process, and retain connections to the backcountry.
- The proponent of the project should be informed about the importance of moving towards becoming a more sustainable community as stated in the Community Vision', Community Goals and Strategies and the directions of the OCP.

Respectfully submitted,

Caroline Lamont
Catalyst Community and Resort Planning

APPENDIX A

A DISTINCT, DIVERSE COMMUNITY WHERE ALL RESIDENTS AND VISITORS FEEL WELCOME AND RESPECTED

1. Retain Revelstoke's safe, small town character.
2. Continue to support and nurture citizen involvement in community actions and local decision-making
3. Support the high quality of life that individuals and families enjoy by fulfilling their lifelong health, cultural, educational, recreational, educational and economic needs.
4. Embrace and facilitate effective partnerships amongst community organizations and all levels of government.

SMART GROWTH AND INTEGRATED LAND USE

5. Prevent urban sprawl by establishing clear limits for urban growth and promoting a well-designed compact community.
6. Increase community knowledge, engagement and certainty about future land development.
7. Strive to become a leader in environmentally sustainable planning, development and building practices, recognizing the challenges of the local climate, location and terrain.
8. Provide and integrate a range of land uses to facilitate the social, environmental and economic priorities of the community.
9. Continue to support the importance of downtown Revelstoke as the focal point of the community, business and visitors.
10. Preserve the unique residential character of neighbourhoods.
11. Construct a built environment that respects the community's unique character and encourages quality design, durability, flexibility and ease of access.

AFFORDABLE HOUSING FOR OUR COMMUNITY

12. Expand and enhance the diversity of residential housing types to meet the needs of residents and the workforce across every stage of life, while delivering on affordability, livability, and special need priorities.
13. Increase acceptance and implementation of a range of *market incentives and/or government* initiatives to create a long term supply of affordable housing.
14. *Secure suitable lands* for the community's recognized long term housing needs.

EXCELLENCE IN ENVIRONMENTAL STEWARDSHIP

15. Retain and, where possible, enhance the functioning, biodiversity, connectivity, habitat conditions and natural heritage of ecosystems within the community and in the North Columbia area.
16. Maintain healthy fish and wildlife populations in habitats surrounding the community.
17. Retain and augment trees and treed areas within developed portions of the community.

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18. Continually work towards improving the local and regional air quality.
19. Encourage and support greenhouse gas neutral lifestyles and business practices.
20. Protect and effectively manage the quality and quantity of local water sources, watercourses and groundwater flows.
21. Manage visual impacts to retain the quality of the dark sky and public view corridors.
22. Eliminate use and provide for proper disposal of toxic substances.
23. Reduce unwarranted noise within the community.
24. Encourage sustainable purchasing policies and practices within the community.

PRESERVATION OF OUR HISTORY AND HERITAGE

25. Continue community enhancement by supporting heritage and revitalization initiatives.
26. Design new development to complement the community's historic character and traditional materials.
27. Showcase and celebrate our rich community history by promoting and expanding our museums and retaining heritage buildings and natural areas.

SAFE AND ALTERNATIVE TRANSPORTATION OPTIONS

28. Expand year round transportation modes, in cooperation with all levels of government, providing safe, efficient, affordable and environmentally sound options for residents and visitors,
29. Extend and enhance the recreational, all season and commuter trails network to accessibly link all neighbourhoods to important community destinations and focal points.
30. Plan, design and construct "Complete Streets".
31. Promote and where appropriate facilitate the use of alternatives to private automobiles, especially non-motorized transportation as part of healthy lifestyles, to reduce congestion and greenhouse gas emissions.
32. Meet community and visitor parking needs.
33. Provide a cost effective and efficient transit service that is accessible for all residents and visitors with the goal of reducing the reliance on the automobile. Specifically consider the service needs of seniors, persons living with disabilities and/or with lower incomes.
34. Enhance existing highway, railway and air transportation options to improve the safety, reliability, sustainability and cost of transportation to/from Revelstoke.

EFFECTIVE AND EFFICIENT INFRASTRUCTURE

35. Commit to and implement long term infrastructure planning, monitoring and reporting to ensure flexibility for service improvements to address changing community needs and consider potential climate change implications.

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36. Invest in short and long term infrastructure that is sustainable, efficient, cost effective and funded by those using the systems.
37. Support servicing efficiencies through infrastructure sharing with public, private and not for profit organizations.
38. Strive to achieve zero waste through solid waste management practices, in cooperation with the regional district.
39. Deliver high quality dependable potable water supplies for the community.
40. Recognize the potential for limited sources of clean water over the long-term and take actions to enhance water conservation and maintain high water quality in local waterways and aquifers.
41. Ensure that the treatment of wastewater and biosolids are undertaken at a standard as to not negatively impact the natural environment.
42. Establish environmentally sensitive stormwater management and flood control measures which replicate natural hydrological systems and functions.
43. Continue and expand a state of the art communications network.
44. Enhance energy conservation and provide renewable, secure and sustained energy options within the region.
45. Provide necessary properties and facilities for emergency services, in cooperation with all levels of government.

HIGH QUALITY COMMUNITY, ARTS, CULTURE AND RECREATIONAL FACILITIES AND ACTIVITIES

45. Maintain the scale, diversity and management of parks and green space and when necessary, expand to meet the needs of surrounding neighbourhoods and the entire community.
46. Facilitate public access to green spaces and the waterfront for residents and visitors, unless the environmental integrity of the natural areas will be compromised.
47. Design and manage community facilities, parks and gathering areas to encourage interaction and shared activities.
48. Continually improve facilities and programs to be accessible and meet the evolving needs of the community.
49. Provide public opportunities for local artists and crafts people to display their works.
50. Integrate resort and community arts, cultural and recreational amenities to offer four season experiences for both residents and visitors.
51. Provide a rich array of cultural activities with adequate facilities and resources to showcase the community's offerings and entertain residents and visitors.
52. Encourage the regional district and provincial agencies to effectively manage front country and backcountry recreational opportunities to retain quality experiences in ecologically healthy environments.

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SUSTAINED AND DIVERSIFIED ECONOMIC VITALITY

53. Support and attract a skilled workforce through continued investment in the community's physical and social infrastructure and activities.
54. Expand the workforce by reducing social and economic barriers.
55. Provide adequate properties and servicing for commercial development
56. Encourage and accommodate year round economic diversification.
57. Improve community self-reliance and ability to respond to possible affects of global determinants.
58. Encourage and support local businesses and entrepreneurs.
59. Expand community capacity to attract, market to and host visitors from many nations, having them leave the region as Revelstoke ambassadors.
60. Retain the uniqueness of Revelstoke's historic, natural and cultural flavour as an important community and tourism attractant.
61. Retain and enhance a strong forest sector through safe, sustainable forest practices and diverse forest products.
62. Support the ongoing promotion, enhancement and intensification of Revelstoke's downtown business area.
63. Effective management and accountability for the City's fiscal budgets and operations together with securing financial resources from senior governments and other sources.

SAFE AND HEALTHY COMMUNITY

64. Retain a strong sense of community safety with low crime rates.
65. Enhance emergency services as needed to meet changing community conditions.
66. Meet the needs of a growing and changing population with appropriate health and wellness facilities and services.
67. Provide assistance for residents to access out-of-town health care when necessary.
68. Continually improve the physical, mental, spiritual and social health of residents.
69. Promote and encourage healthy lifestyle choices for all residents.
70. Recognize that substance abuse is limiting the social and economic life of individuals, families and the community and take actions to reduce impacts.
71. Improve the accessibility and inclusiveness of the community for residents and visitors with disabilities.

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LIFELONG LEARNING OPPORTUNITIES FOR ALL RESIDENTS

72. Support and provide facilities and activities to continue the excellence in formal education and varied informal learning opportunities for children and youth.
73. Enhance adult education opportunities to support new and long-time residents to secure employment and pursue continuous learning.
74. Become a leader in globally sustainable and environmentally responsible lifestyles through continuous community learning opportunities.