
Richmond Resilient Economy Strategy
Technical Report #2:
Industrial Land in Richmond

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Prepared for:
The City of Richmond

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1.0 Introduction

As part of the background analysis for the City of Richmond Resilient Economy Strategy, Coriolis identified the shortage of industrial lands as a possible barrier to the City's economic growth. Richmond has significant employment in sectors that require industrial land (e.g. manufacturing, distribution, transportation, logistics, etc.), but there is a perception in the business community that Richmond is running out of good quality, attractive industrial land in desirable locations. This perception contrasts with the industrial land inventory in the City's 2041 Employment Lands Strategy which suggested that the City of Richmond had about 1,100 acres of vacant industrial land in 2009, the second largest supply in Metro Vancouver. While this "on-paper" inventory seems significant, it is the business community's view that little of this land is actually available for industrial development for reasons such as location, ownership and control by government agencies, and land-use restrictions.

To better understand the current industrial land situation in Richmond, we updated the vacant industrial land inventory as of October 2013 and looked at the opportunity for additional industrial land in Richmond.

Based on discussions with City of Richmond staff, the opportunity to expand industrial development in Richmond includes the following options:

- Develop lands already designated for industrial uses that are currently vacant.
- Use lands outside the Agricultural Land Reserve (ALR) that are zoned for agriculture, but designated for industrial, in the OCP.
- Intensify the use of existing industrial properties.

This technical report summarizes the results of our work.

2.0 Approach

We looked at three types of lands that could potentially be suitable to accommodate industrial development in Richmond:

- *Vacant Industrial Land:* This is OCP-designated industrial land identified to be vacant in the Metro Vancouver 2010 Industrial Land Inventory and the 2041 Employment Lands Strategy.
- *Non-ALR Agricultural Land:* This is lands that are zoned for agriculture, designated for industrial, and excluded from the ALR.
- *Existing Industrial Properties:* These are properties that are currently developed below the typical density for industrial properties in Richmond and that have on-site capacity.

Following is a more detailed description of our approach to evaluating Richmond's industrial land inventory in each of these three categories.

2.1 Vacant Industrial Land Inventory Updates (Section 3.0):

1. We conducted fieldwork to update the 2010 vacant industrial land inventory as of October 2013 on a site-by-site basis, using the Richmond land industrial inventory map prepared by Metro Vancouver. For

each site identified as vacant in 2010, we confirmed whether or not it is still vacant, the type of development and the types of tenants.

2. After we identified all the sites that are no longer vacant, we looked at each newly developed property on the Richmond Interactive Map (RIM) system to obtain the site size and development application details of the new development.
3. Based on the information collected, we updated the land inventory table by location and ownership category presented in the 2041 Employment Lands Strategy and the industrial land inventory map from the 2010 Metro Vancouver Industrial Land Inventory.

2.2 Non-ALR Agricultural Land Inventory (section 4.0):

1. We identified all lands zoned for agricultural uses, designated for industrial, and excluded or subject to an application to be excluded from the ALR using the RIM system.
2. We collected information about each parcel, including the address, location, site size, zoning and OCP designation. We also conducted fieldwork to identify the current use of each property and whether or not it is currently used for agricultural activities.
3. We deducted lands that are already accounted for in the updated industrial land inventory.
4. We compiled the information in a summary table, prepared a locational map, and calculated the total amount of non-ALR agricultural lands.

2.3 Analysis of Underutilized Existing Industrial Properties (section 5.0):

1. We identified a sample of industrial properties that are currently developed below the typical density for industrial development in Richmond.
2. We collected information about each property, including the address, location, site size, zoning, current floor area ratio and types of tenants/occupants.
3. We compared the underutilized properties with the recently developed industrial properties.

3.0 Vacant Industrial Land Inventory Updates

3.1 Vacant Industrial Land Inventory

We used the two sources below to identify the vacant industrial land inventory as of 2010:

- *2041 Employment Lands Strategy*: The purpose of the 2041 Employment Lands Strategy (ELS) is to assess employment land needs within the City of Richmond to 2041 and to provide inputs to the 2041 OCP updates. Regarding industrial lands, the strategy quantifies the total amount of net available industrial land by location and ownership categories as of 2009.
- *Metro Vancouver 2010 Industrial Land Inventory*: The purpose of this study and inventory was to estimate how much land was allocated for industrial use in Metro Vancouver and where those industrial lands were located within the region, estimate how much of the industrial land base was utilized by industrial activity, and how much was vacant (not utilized by industry, but designated for future industrial development). The map produced by Metro Vancouver was used to identify all developed and vacant industrial lands in Richmond on a parcel-by-parcel basis.

Exhibits 1 and 2 show the vacant industrial land inventory in Richmond as of 2010 and updated to October 2013.

Exhibit 1 shows that as of October 2013 Richmond has about 792 acres of remaining vacant industrial land, the overwhelming majority of which is on government-owned and port/airport-oriented land (i.e. owned and/or controlled by YVR, Port Metro Vancouver, BC Ferries, City of Richmond and the Provincial Crown).

Exhibit 1: Vacant Industrial Land Inventory in Richmond as of October 2013

Location/Owner	Planning Area	Net Available Land in 2009 (Acres)	Net Industrial Land Inventory in 2013 (Acres)		
			Developed Land since 2009	Non-Developed but Used or Subject to a Development Application in 2013	Actually Available in 2013
YVR (1)	Sea Island	365	70	0	295
Port Metro Vancouver (2)	East Richmond	330	82	0	248
EcoWaste (3)	East Richmond	140	0	140	0
Mitchel Island (4)	North Richmond	120	0	2.5	117.5
River Road (5)	East Richmond	45	0	8	37
BC Ferries	South Richmond	40	0	0	40
City of Richmond	South Richmond	25	0	0	25
Riverport	East Richmond	20	0	0	20
Fraserwood Industrial Park (6)	East Richmond	15	3.5	0	11.5
Riverside Industrial Park (7)	South Richmond	10	1.75	1.25	7
Fraser River Pile & Dredge	South Richmond	10	0	0	10
Vulcan Way	North Richmond	10	0	0	10
Crown Provincial	South Richmond	5	0	0	5
City Centre (8)	City Centre	-34	0	0	-34
Total	All	1101	157.25	151.75	792

Source: 2041 Employment Lands Strategy, City of Richmond, Adopted on March 4, 2011. The updated figures are based on fieldwork conducted in October 2013.

Notes:

- The deductions for the industrial land inventory include the sites of the new Canada Post processing facility (built) and the future McArthurGlen Group Designer Outlet Centre (under construction), which together total approximately 70 acres.
- The deductions for the Port Metro Vancouver industrial land inventory include the following new developments:
 - A 22-acre Portside Warehousing Facility
 - A 20-acre Hopewell Distribution Centre – Phase 3
 - A 40-acre East Richmond Distribution Centre
- The EcoWaste properties are currently subject to a development application for a 169-acre industrial Logistics Park so we assume that all the land is currently used or intended to be used for EcoWaste activities.
- The deductions on Mitchel Island are for two parcels owned by the City of Richmond totaling about 2.5 acres of OCP-designated industrial land and currently used as parks.
- The deduction for the River Road corridor is the approximately 8-acre site at 4111 Boundary Road, which is currently subject to a development application for a new bus operations facility by Translink.
- The deductions for the Fraserwood Industrial Park industrial land inventory include the 3.5-acre land for a new office and warehousing building at 6900 Graybar Road.
- The deductions for the Riverside Industrial Park include the following properties:
 - A new office and warehousing development at 11520 Horseshoe Way (1.25 acre)
 - A new office building under construction at 11200 No 5 Rd (0.5 acre)
 - A site used for sand and gravel storage at 12360 No 5 Rd (1.25 acre)
- The figure illustrates the amount of OCP designated and developed industrial land in the City Centre that will undergo a land-use change in the future (i.e. from industrial to another use), which will reduce the total amount of industrial land in Richmond.

Exhibit 2: Vacant Industrial Land Inventory in Richmond as of October 2013

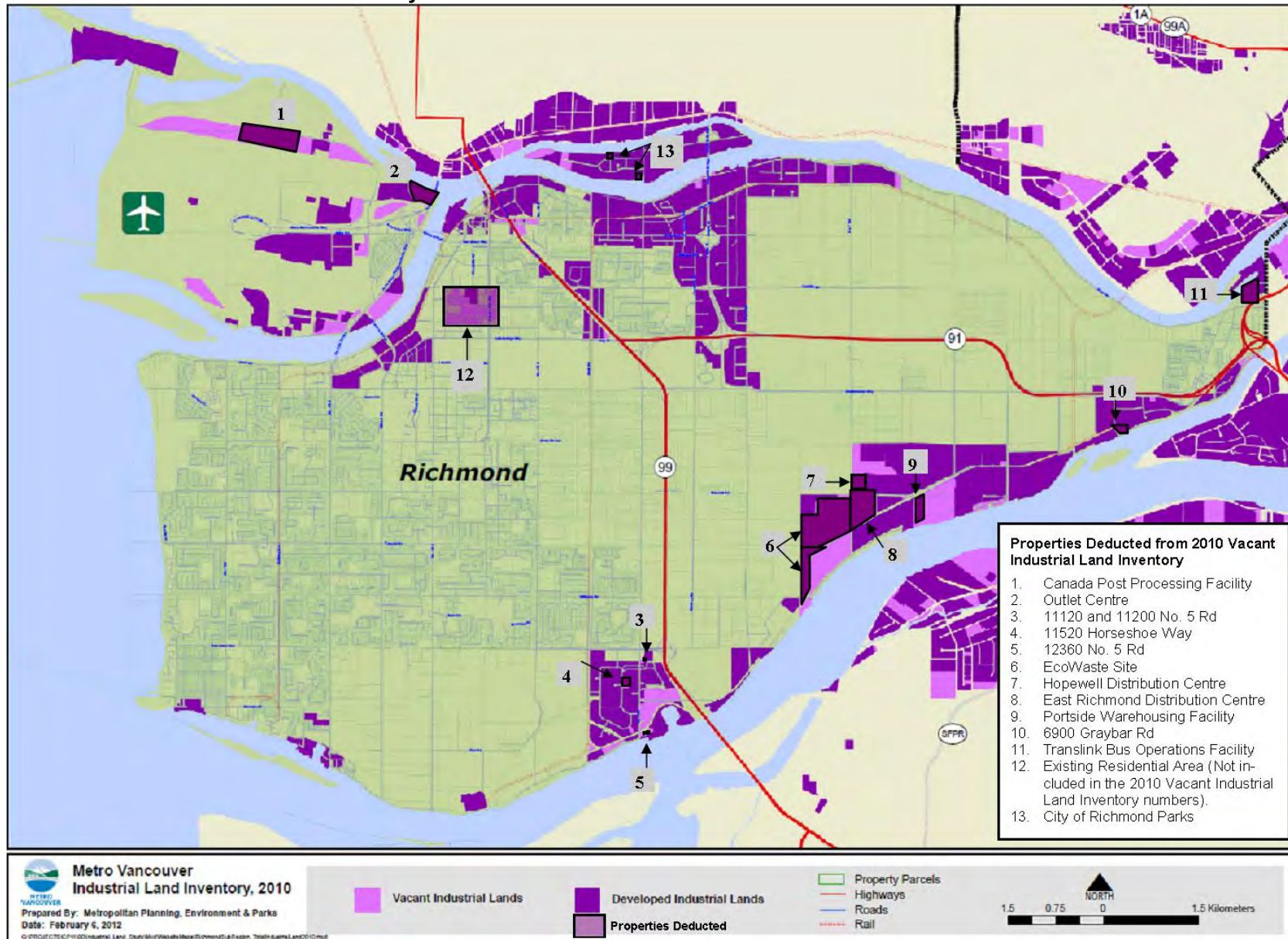


Exhibit 3 summarizes the available industrial land inventory by ownership categories and location. The data shows that of the 792 acres of available industrial land:

- 613 acres (77.4%) are owned and controlled by the federal government and federal agencies, the provincial government and provincial agencies or the City of Richmond.
- Of these 613 acres, 583 acres are port or airport-oriented lands, representing nearly 73.6% of the total available industrial inventory in Richmond. Most of these lands (543 acres) are owned and controlled by the Vancouver Airport Authority and Port Metro Vancouver.
- Privately-owned lands total about 179 acres, accounting for about 22.6% of total available industrial inventory in Richmond. Most of these lands (117.5 acres) are composed of very large waterfront parcels located on the west side of Mitchel Island, which are mainly suitable for users with land-intensive activities and requiring a waterfront access.
- This leaves about 68.5 acres of privately-owned land readily available for industrial development.

Exhibit 3: Richmond's Available Industrial Land Inventory by Ownership as of October 2013

Location/Owner	Land Actually Available (Acres)	Share of Total Inventory (%)
Government-owned Land	613	77.4%
Port or Airport-oriented	583	73.6%
YVR	295	37.2%
Port Metro Vancouver	248	31.3%
BC Ferries	40	5.1%
City of Richmond - South Richmond	25	3.2%
Crown Provincial	5	0.6%
Privately-owned Land	179	22.6%
EcoWaste	0	0.0%
Mitchel Island	117.5	14.8%
River Road	37	4.7%
Riverport	20	2.5%
Fraserwood Industrial Park	11.5	1.5%
Riverside Industrial Park	7	0.9%
Fraser River Pile & Dredge	10	1.3%
Vulcan Way	10	1.3%
City Centre	-34	-4.3%
Total	792.0	100.0%

Source: 2041 Employment Lands Strategy, City of Richmond, Adopted on March 4, 2011. The updated figures are based on fieldwork conducted in October 2013.

The updated inventory means that:

- With about 792 acres of vacant industrial land, Richmond is still home to the second largest “on-paper” vacant industrial land supply in Metro Vancouver after Surrey.

- However, the overwhelming majority of the available industrial land supply is owned and/or controlled by YVR and Port Metro Vancouver (583 acres or about 73.6% of the total inventory). Almost all of these lands are only suitable for port and airport-related developments.
- An additional 70 acres is owned and used by government agencies (40 acres by BC Ferries, 25 acres by the City of Richmond and 5 acres by the provincial government). It is unclear whether these lands are planned to be used to accommodate government activities or whether they are candidates for industrial development.
- The remaining is a relatively small share of the available industrial land inventory that is privately-owned (22.6% or 179 acres). A large share of the privately-owned lands (14.8% of the total inventory or 117.5 acres) is not suitable for small and medium-sized firms given the large size of the parcels and the location on Mitchel Island. This leaves about 60 acres of privately-owned available industrial land in Richmond for all potential industrial users, all of which is located along River Road and Vulcan Way, in Riverport, in the Fraserwood Industrial Park, and in the Riverside Business Park. Many privately-owned sites are not currently zoned for industrial uses (i.e. they will require rezoning) and/or may require assembly with adjacent properties to be suitable for industrial development, so the actual amount of readily available land may be even smaller than 60 acres.

3.2 Industrial Land and Properties for Sale

Exhibit 4 shows a sample of industrial lands and improved properties currently listed for sale in Richmond. Note that the table does not include industrial strata units, which appear to be the most common form of industrial properties currently listed for sale in Richmond.

Exhibit 4: Industrial Properties for Sale in Richmond as of November 6, 2013

Address	Type	Land Size	Building Size (Floorspace)	Zoning	Location
Industrial Land					
14940 Triangle Road	Vacant Serviced Industrial Land	5.04 Acres	None	IL (Light Industrial)	Riverport
9451 Van Horne Way	Vacant Serviced Industrial Land	0.63 Acres	None	IL (Light Industrial)	North Richmond
Improved Properties					
4460 Jacombs Road	Office/Industrial Building	2.10 Acres	40,084 square feet	IB-1 (Industrial Business Park)	Crestwood
2451 Vauxhall Place	Office/Industrial Building	0.42 Acres	10,252 Square feet	IL (Light Industrial)	North Richmond
12520 Mitchel Road	Industrial/Warehouse Building	7.62 acres	113,000 Square feet	I (General Industrial)	Mitchell Island
12111 Bridgeport Road	Industrial/Warehouse Building	1.48 acres	40,700 Square feet	IR-1 (Industrial Retail)	North Richmond
2440 Shell Road	Industrial/Warehouse Building	0.99 acres	7,630 square feet	IB-1 (Industrial Business Park)	North Richmond
11320 Horseshoe Way	Office/Warehouse Building	1.01 acres	25,018 square feet	IB-1 (Industrial Business Park)	Riverside

Source: Industrial lands and improved properties (non-strata) actively listed for sale by Colliers International, CBRE, Avison Young and Cushman and Wakefield in Richmond as of November 6, 2013.

We have these observations:

- Only two vacant serviced industrial lands are currently listed for sale in Richmond, one in Riverport and one in North Richmond. These two parcels total about 5.7 acres of readily available serviced industrial land.
- Improved industrial properties currently listed for sale vary widely in size, from less than 8,000 square feet to 113,000 square feet of building space. Note that several of these buildings are currently partially or entirely leased, so the amount of floorspace actually available is likely less than the total building size.
- Industrial strata units appear to be the most common type of industrial properties for sale in Richmond. We found over 20 units listed for sale throughout Richmond, with unit sizes ranging from about 2,000 to 7,000 square feet.

3.3 Implications of the Updated Industrial Land Inventory

1. Although Richmond is still home to a large “on-paper” vacant industrial land supply, the overwhelming majority of this supply is owned and controlled by government agencies (particularly YVR and Port Metro Vancouver) and not suitable for non-port/airport industrial uses. Privately-owned lands account for a relatively small share of the City’s total available industrial land inventory. Also, there is very little industrial land currently listed for sale in Richmond. This means that industrial growth prospects in Richmond depend heavily on the decisions made by these government agencies regarding the industrial lands they own (i.e. whether they are intended for government activities or for private sector development).
2. Many privately-owned sites are not currently zoned for industrial uses (i.e. they will require rezoning) and/or may require assembly with adjacent properties to be suitable for industrial development. The only opportunity on these lands is to increase their level of “availability” for industrial development by allowing a zoning change from AG1 to an industrial district and facilitating parcel assembly.
3. Except for a few vacant parcels, almost all privately-owned lands are currently improved with a residential property. The opportunity for industrial development is dependent on the owner being willing to sell the land. This could be a challenge, especially in cases where land assembly of adjacent properties is a necessary condition for industrial development.
4. The shortage of readily available industrial land raises the question as to whether there are opportunities to expand the City’s industrial land supply to lands with other land-use designations. One of the options is the agricultural land located outside the Agricultural Land Reserve, to which we now turn.

4.0 Non-ALR Agricultural Land Inventory and Opportunity

4.1 Inventory

The ALR accounts for about 39% of the City of Richmond's land base and contains the overwhelming majority of the agricultural lands. However, there are some agricultural lands located outside the ALR or that are subject to an application to be excluded from the ALR. These lands may constitute potential candidates for future industrial development depending on their location, size and surrounding environments.

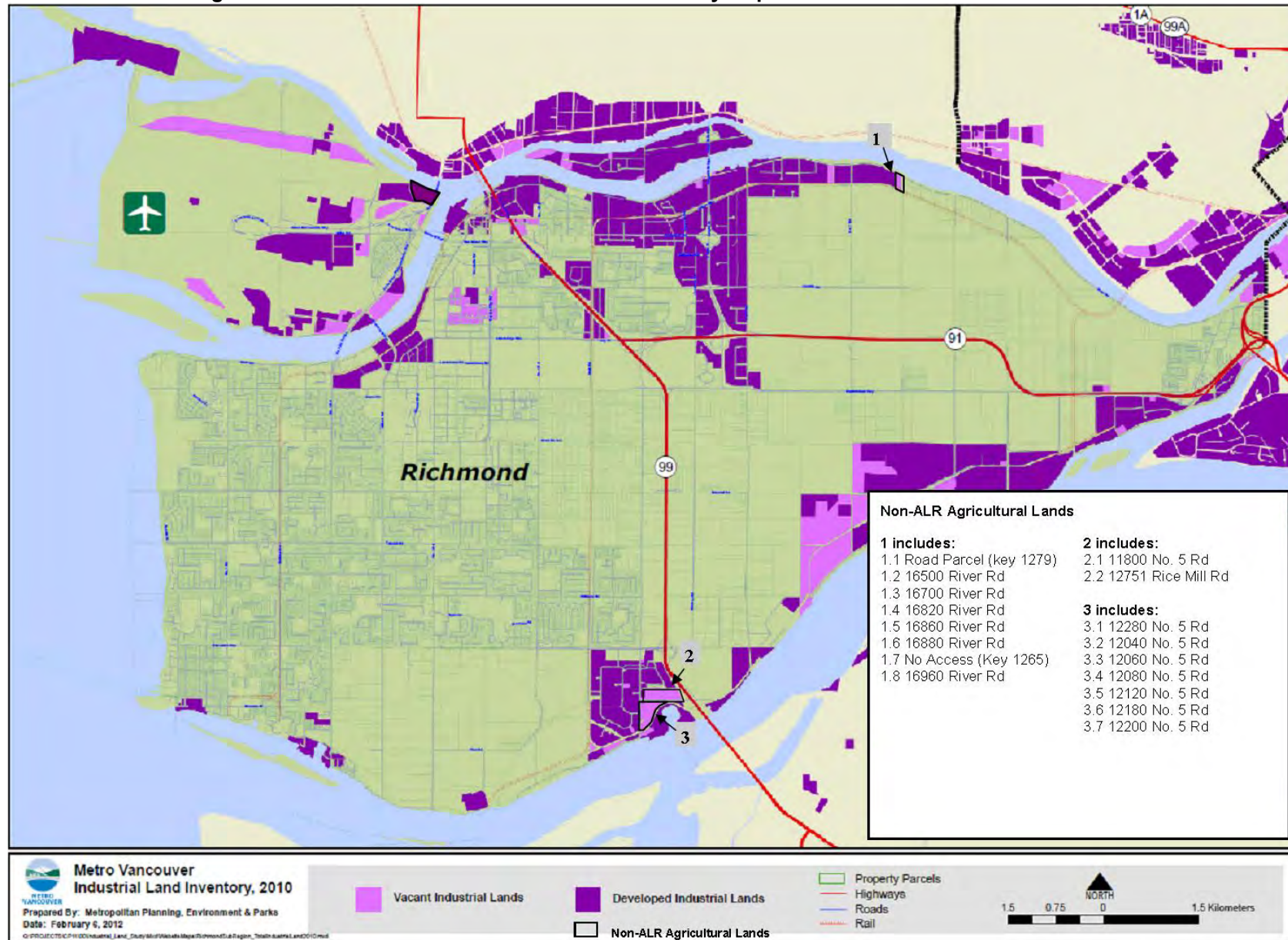
We use the Richmond Interactive Map system to identify all lands outside the ALR that are OCP-designated for industrial uses and zoned for agriculture uses. Exhibit 5 and 6 show the list of non-ALR Agricultural Lands identified.

Exhibit 5: Non-ALR Agricultural Lands

ID	Address	Size (Acres)	Land-Use Designation	Zoning	Industrial Land Inventory	Location in ALR	Existing Land-Use
1.1	Road Parcel (Key 1279)	0.5	Industrial	AG1	Included	No	Vacant
1.2	16500 River Rd	1.8	Industrial	AG1	Included	No	Residential
1.3	16700 River Rd	4.1	Industrial	AG1	Included	No	Residential
1.4	16820 River Rd	1.9	Industrial	AG1	Included	No	Residential
1.5	16860 River Rd	1.8	Industrial	AG1	Included	No	Residential
1.6	16880 River Rd	1.8	Industrial	AG1	Included	No	Residential
1.7	No Access (Key 1265)	1.4	Industrial	AG1	Included	No	Residential
1.8	16960 River Rd	0.4	Industrial	AG1	Included	No	Residential
2.1	11800 No. 5 Rd	0.5	Industrial	AG1	Included	Yes. An application for exclusion from the ALR is in circulation since 2008.	Vacant
2.2	12751 Rice Mill Rd	20.4	Industrial and Conservation	AG1 (Rezoning application to I2)	Included	No	Vacant
3.1	12280 No 5 Rd - Owned by BC Ferries	21.0	Industrial	AG1	Included	No	Vacant
3.2	12040 No 5 Rd	0.5	Industrial	AG1	Included	No	Vacant
3.3	12060 No 5 Rd	0.3	Industrial	AG1	Included	No	Residential
3.4	12080 No 5 Rd	0.3	Industrial	AG1	Included	No	Residential
3.5	12120 No 5 Rd	1.7	Industrial	AG1	Included	No	Residential and blueberry crops
3.6	12180 No 5 Rd	0.6	Industrial	AG1	Included	No	Residential
3.7	12200 No 5 Rd	0.4	Industrial	AG1	Included	No	Residential
	Total	59.1	Not Applicable				
	Lands in Industrial Land Inventory	59.1					
	Not in Industrial Land Inventory	0					

Source: Compiled by Coriolis based on the information available in the Richmond Interactive Map (RIM) System

Exhibit 6: Non-ALR Agricultural Lands and 2010 Industrial Land Inventory Map



Exhibits 5 and 6 show that:

- The non-ALR agricultural lands are all concentrated along River Road in North-East Richmond and in the Riverside area in South Richmond.
- Of the 59.1 acres of non-ALR agricultural lands, 59.1 acres are already designated for industrial uses and included in the available industrial land inventory.
- All lands are currently zoned AG1, which is the zone that provides for a wide range of farming and compatible uses consistent with the provisions of the ALR and applies to traditional sites zoned for agricultural purposes. None of the lands is currently zoned for industrial purposes. Note that one property is currently subject to a rezoning application from AG1 to the light industrial district I2: 12751 Rice Mill Rd.
- The majority of the lands are either vacant or improved with a residential property. We only found evidence of active farming on one property (12120 No 5 Rd).

4.2 Implications for Industrial Development Potential on Non-ALR Agricultural Lands

1. There is limited opportunity to expand Richmond's industrial land inventory on non-ALR agricultural lands. All non-ALR lands are already included in the industrial inventory by being designated for industrial uses.
2. The only opportunity on these lands is to increase their level of "availability" for industrial development by allowing a zoning change from AG1 to an industrial district and facilitating parcel assembly. Except for three cases, all properties are smaller than 2 acres and have limited road frontage due to their long and narrow shape. These characteristics are not suitable for most industrial developments which will be looking for larger rectangular-shaped sites with good road frontage. Land assembly with adjacent properties would make these properties more suitable for industrial development.
3. These lands also involve the following impediments to industrial development:
 - a. Except for a few vacant parcels, almost all other lands are currently improved with a residential property. The opportunity for industrial development is dependent on the owner being willing to sell the land. This could be a challenge, especially in cases where land assembly of adjacent properties is a necessary condition for industrial development.
 - b. One of the two large sites (12280 No 5 Rd) is owned by BC Ferries and is part of the agency's ship repair property in South Richmond. It is unclear whether this 21-acre site is intended for future BC Ferries activities or for other industrial development as there is currently no active rezoning application for the site. Discussions with BC Ferries regarding the future of the site are needed in order to determine whether it could be considered as a readily available industrial site.
 - c. All of these lands are adjacent to the ALR, so the development process will require additional environmental impact assessment. This could also limit the types of activities and uses that could be allowed on these lands.

5.0 Density of Industrial Developments in Richmond

In this section, we review the zoning bylaw provisions for industrial developments and the density of recent and older industrial developments in Richmond.

5.1 Zoning Bylaw Provisions for Industrial Developments

The City of Richmond's zoning bylaw includes three zoning districts as shown on Exhibit 7.

Exhibit 7: City of Richmond's Industrial Zoning Districts

Zoning District	Purpose	Maximum Permitted Density (FAR)		Maximum Permitted Lot Coverage
		Base	With Bonus	
Industrial (I)	"The zone provides for a broad range of general and heavy industrial uses, with a range of compatible uses."	1.0	1.1	60%
Light Industrial (IL)	"The zone provides for a range of general industrial uses, with a limited range of compatible uses."	1.0 (1.2 in City Centre)	1.1 (1.3 in City Centre)	60% (80% in City Centre)
Industrial Business Park (IB1, IB2)	"The zone provides for a range of general industrial uses and stand-alone offices, with a limited range of compatible uses (IB1)."	1.0 (1.2 in City Centre)	1.1 (1.3 in City Centre)	60% (90% in City Centre)

Source: City of Richmond Zoning Bylaw

The data shows that:

- The permitted base density for industrial developments is 1.0 FAR in all three districts, except in the City Centre where it is 1.2 FAR in Light Industrial and Industrial Business Park districts.
- An additional density of 0.1 FAR is allowed to accommodate community amenity space.
- The maximum permitted lot coverage is 60%, except in the City Centre where it is 80% for the Light Industrial District and 90% for the Industrial Business Park district.

5.2 Recent Industrial Developments

We reviewed industrial developments that occurred since 2009 to examine the types of industrial buildings that have (or will be) developed in Richmond. Exhibits 8 and 9 show information about each new development, including the address, location, size, status, floor area ratio and types of tenants/occupants. This list of properties includes recent industrial developments as well as projects currently underway or in the approvals process.

Exhibit 8: Recent or Planned Industrial Developments in Richmond, 2010 to 2013

ID	Name / Address	Approximate Buildable Floorspace (Sq. Ft.)	Approximate Land Area (Sq. Ft.)	Floor Area Ratio (FAR)	Type	Status	Tenants
1	11200 No. 5 Rd (a)	5,014	20,038	0.25	One-storey office building	Under Construction	Bank Branch
2	11520 Horseshoe Way (b)	23,000	56,628	0.41	Office and Warehouse Building	Built	Vacant - Leasing
3	Hopewell Distribution Centre (b)	1,205,400	2,500,000	0.48	3 distribution centre buildings" Building A: 484,000 Sq. Ft., Building B: 443,000 Sq. Ft. and Building C: 278,400 Sq. Ft.	Built	Hopewell Logistics
4	East Richmond Distribution Centre (b)	916,000	2,448,943	0.37	4 Distribution centre buildings of approximately 321,000 sq. ft., 315,000 sq. ft., 210,000 sq. ft. and 70,000 sq. ft.	Built	Nippon Express, Containerworld, Kuehne + Nagel, Acklands Grainger and other logistics, supply management and distribution companies.
5	Portside Warehousing Facility	230,000	960,000	0.24	Large Warehousing and Distribution Centre	Built	Portside Warehousing & Distribution Company
6	6900 Graybar Road (b)	225,580	459,307	0.49	3 Office and Warehouse Buildings: Building A: 19,226 sq. ft., Building B: 79,185 Sq. Ft. and Building C: 50,203 Sq. Ft.	Built	Distributor of construction specialty products, medical office, warehousing & storage services, building material wholesale, aquarium product wholesale, fabrics wholesale, electrical equipment wholesale.
7	Canada Post Processing Facility (c)	700,000	1,830,000	0.38	Large Airport-oriented processing facility	Built	Canada Post
8	Designer Outlet Centre (c)	340,000	1,220,000	0.28	Large Outlet Shopping Centre	Under Construction	78 Luxury retailers
9	2760-2800 Smith St. (a)	8,077	11,840	0.68	Two-storey light industrial building.	Under Construction	Unknown
10	9111 Beckwith Rd. (a)	43,150	48,787	0.88	Two small warehouse style buildings (about 21,750 sq. ft. each).	Approvals Process	Unknown

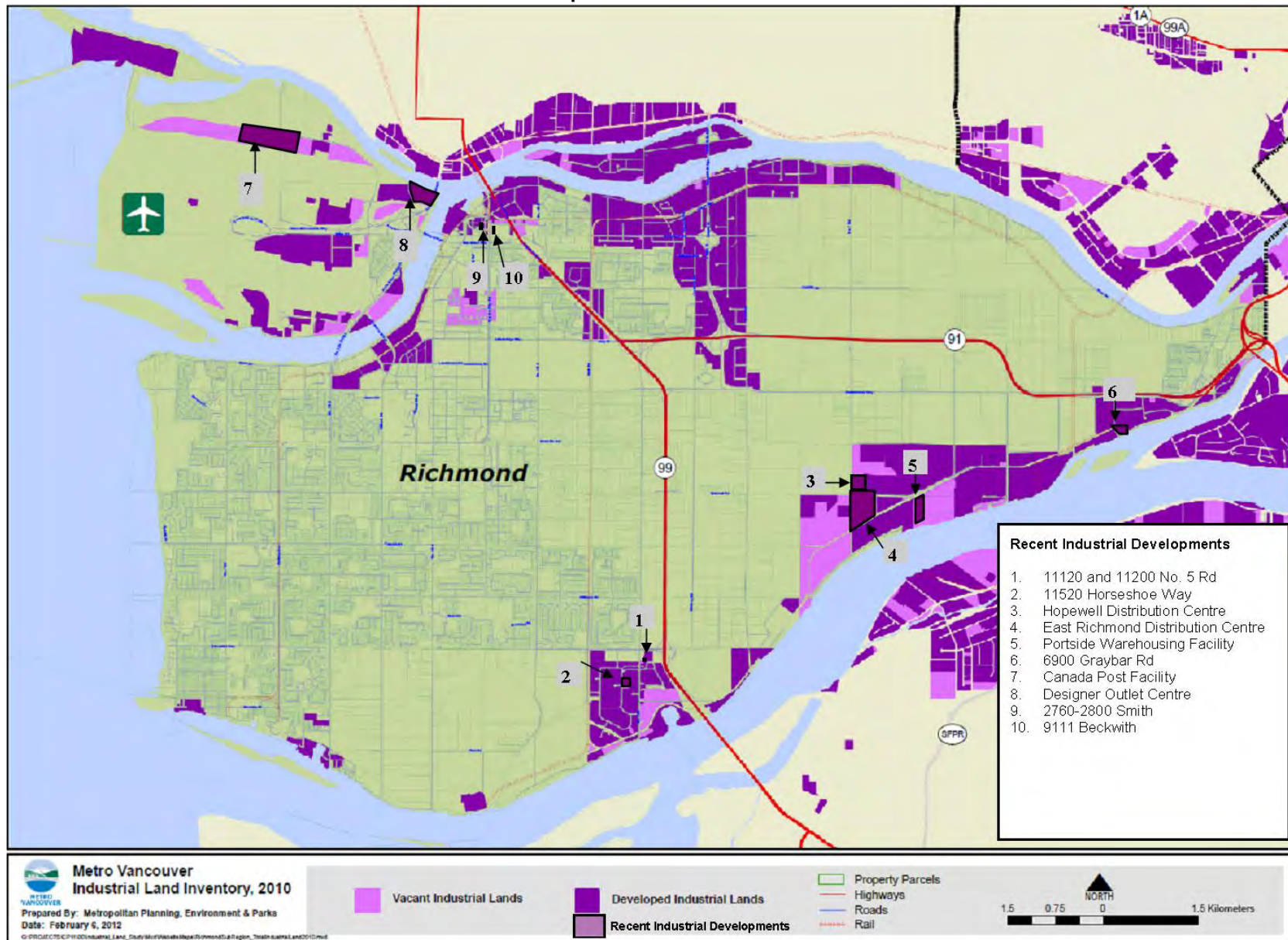
Source: Compiled by Coriolis based on the following sources: a) City of Richmond Development Application or Staff Report, b) Property Listing, c) newspaper articles. Note that we had to rely on information available in newspaper articles for the Canada Post Processing Facility and the Designer Outlet Centre because no official information was available from the City of Richmond or the Vancouver International Airport Authority. Note that the buildable floorspace and land area figures are approximate.

We have the following observations:

- None of the industrial properties we reviewed are developed at the maximum density allowed in the City's bylaw (1.0 FAR).

- Only one property achieves a density above 0.8 FAR, which is a light industrial development located on a small site (11,840 square feet).
- All other developments are developed with a density below 0.7 FAR, and most of them with a density below 0.5 FAR.

Exhibit 9: Location of Recent or Planned Industrial Developments in Richmond



- The size and density of the recent development vary widely depending on the location of the property and specific activities located in them. The types of industrial developments are:
 - Large port or airport-oriented distribution, warehousing and processing centres. These developments have buildable floorspace ranging from about 225,000 square feet to 1.2 million square feet and a density ranging from about 0.25 to 0.5 FAR.
 - Small and medium-sized office and storage/warehousing buildings. These developments range from about 8,000 to 43,000 square feet of buildable space and from 0.4 to 0.9 FAR. They house a large array of business types, including distributors and wholesalers, medical offices, warehousing & storage services, etc.
 - Non-industrial developments. Two projects on OCP-designated industrial lands are commercial developments with no industrial uses; the Designer Outlet Centre at Sea Island and the development at 11200 No. 5 Rd. The former will have about 340,000 square feet of retail space and a density of 0.28 FAR and the latter has about 5,000 square feet of office space and a density of 0.25 FAR.

5.3 Density of Older Industrial Properties

We examine a sample of older industries properties to compare their density with the zoning bylaw provisions and the density of more recent developments. Exhibit 10 shows information about each property. Aerial photographs of each property are included in Attachments 1 to 4.

Exhibit 10: Density of Older Industrial Properties in Richmond

Attachment	Name / Address	Buildable Floorspace (Sq. Ft.)	Land Area (Sq. Ft.)	Floor Area Ratio (FAR)	Type	Status	Tenants
1	12000 Jacobson Way	19,005	61,855	0.31	Warehouse building	Built	Ideon Packaging LLP - General Warehousing
2	7960 River Rd	8,800	31,798	0.28	Stand-alone office and warehouse building	Built	Vacant
3	12831 Horseshoe Place	370,984	1,023,660	0.36	Office and Distribution Centre	Built	London Drugs Headquarters and main distribution centre
4	12631 Vulcan Way	105,018	557,350	0.19	Office and Distribution Centre	Built	Cathey Importers 2000 Ltd.

We have the following observations:

- The density of older industrial properties is similar to that of recent or planned industrial developments, suggesting that the low density is attributable to the land requirements of firms located in these properties.
- These properties house land-intensive activities such as distribution, storage, warehousing and heavy industry activities which all require vast amounts of on-site undeveloped land (e.g. for moving and storing trucks, security buffer zones, surface parking, etc.).

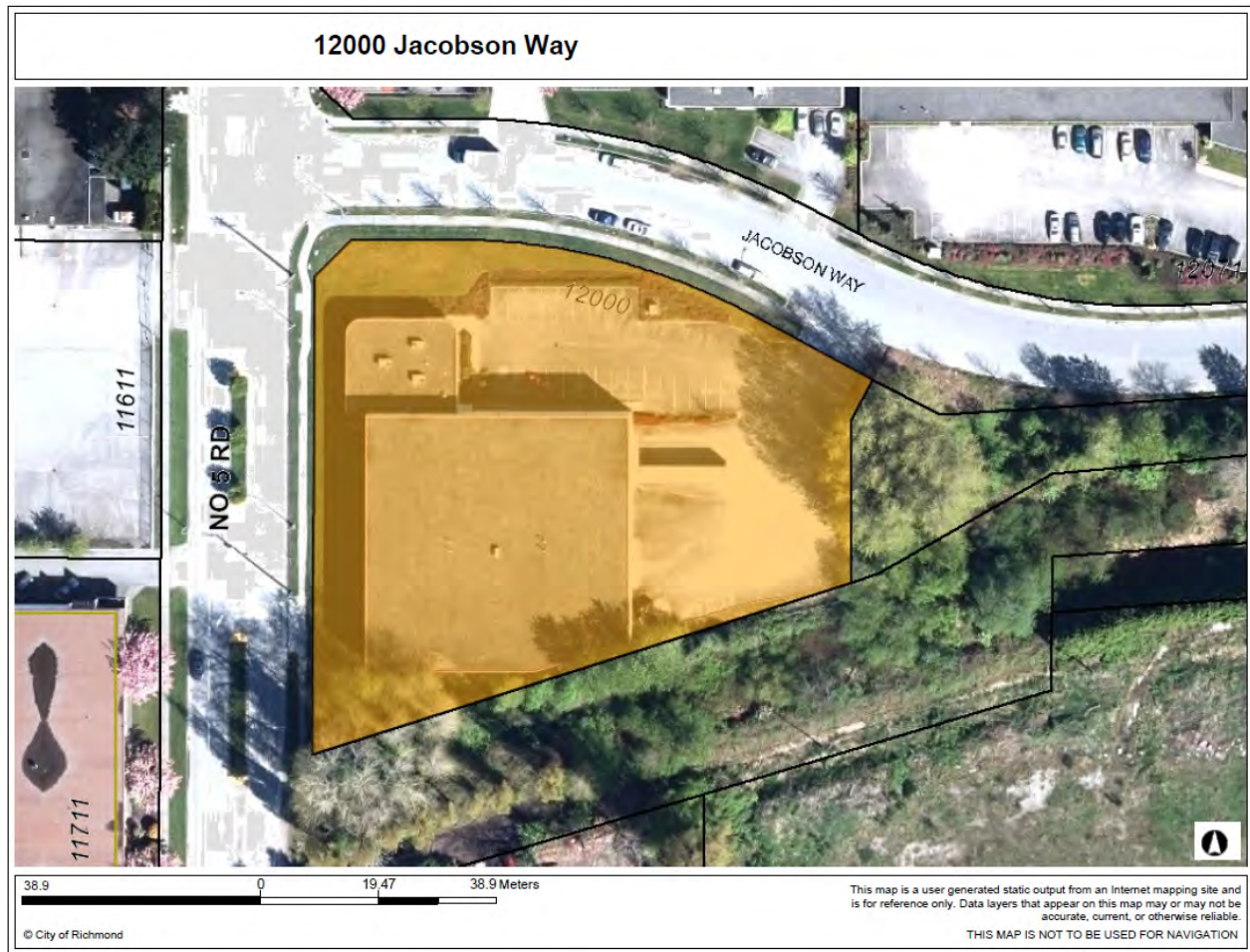
- Some properties are located on odd-shaped sites or lands with rail or water frontage, which makes some parts of the properties unsuitable for development.

5.4 Implications for the Intensification of Industrial Properties

1. None of the industrial properties we reviewed (either older or recent developments) are developed at the maximum density allowed in the City's bylaw. The "lower than bylaw" density of industrial developments is attributable to the combination of the following factors:
 - a. The preference of end-users and tenants for single-storey industrial buildings.
 - b. The maximum land coverage of 60% for industrial developments, which in the case of a single-storey building limits the maximum density achievable to 0.6 FAR.
 - c. The large land requirements of industrial end-users and tenants, including for surface parking, storage, truck movements, etc.
2. The following impediments exist regarding the intensification of existing industrial properties:
 - a. Some properties are located on odd-shaped sites or lands with rail or water frontage, which makes some parts of the properties unsuitable for development.
 - b. Industrial firms usually seek out one-storey buildings with large floor plates. It is unusual for an industrial property to have more than one floor, except for office space. In many cases, the maximum density achievable on an industrial site is about 0.6 FSR because of the maximum permitted lot coverage of 60%.
 - c. Except for buildings with leasable office space, industrial properties are usually occupied by a single firm for practical reasons (i.e. incompatibility of uses, safety, confidentiality, insurance, etc.). There would likely be little demand for leased industrial space on existing single-tenant/user industrial properties.
3. Actions to consider to address the intensification of industrial developments include:
 - a. The increase of the current maximum site coverage in the zoning bylaw. An action identified in the 2041 Employment Lands Strategy regarding industrial development is to increase to maximum lot coverage requirement up to 75% (or even remove it from the zoning bylaw) provided that the parking and loading requirements are met on site (2041 Employment Lands Strategy, p.11). This proposed measure may still be relevant today to permit the intensification of existing properties.

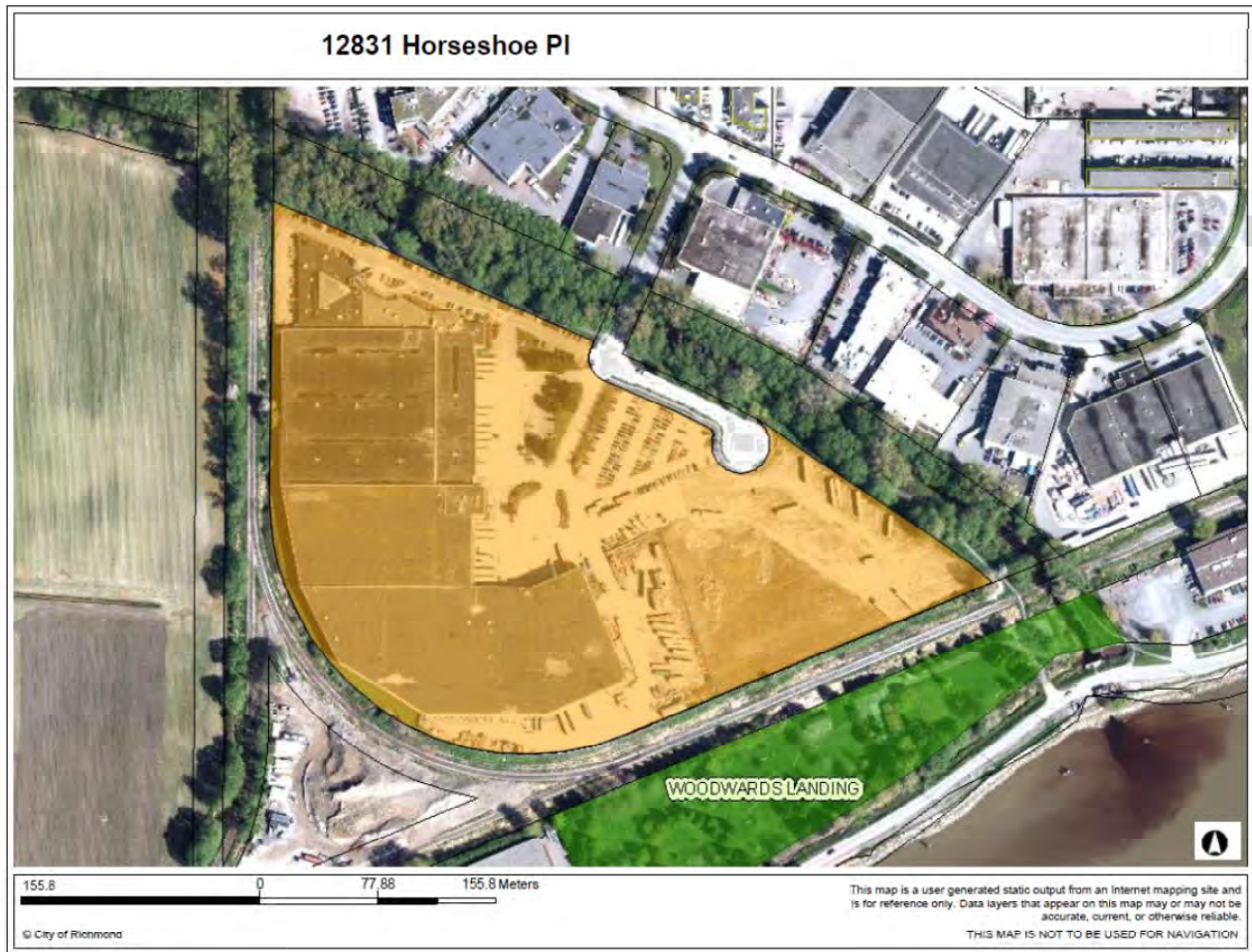
Attachments

Attachment 1





Attachment 3



Attachment 4

