

**FINANCE AND CIVIC DEVELOPMENT COMMITTEE**

*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

**SUBJECT: STILL CREEK WORKS YARD – PRELIMINARY DESIGN**

**RECOMMENDATIONS:**

1. THAT Council approve the preliminary design and cost estimate for the redevelopment of the Still Creek Works Yard and Recycling Depot project.
2. THAT Council authorize staff to proceed to the detailed design phase of the project, as outlined in this report.

**REPORT**

The Finance and Civic Development Committee, at its meeting held on 2011 January 27, received and adopted the *attached* report seeking approval of the preliminary design and cost estimate for the redevelopment of the Still Creek Works Yard and to proceed into detailed design of the facility.

Respectfully submitted,

Councillor D. Johnston  
Chair

Councillor N. Volkow  
Vice Chair

Councillor C. Jordan  
Member

Copied to:	City Manager Deputy City Managers (2) Director Planning & Building Director Engineering Director Parks, Recr. & Cult. Services Director Finance Chief Building Inspector
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**TO:** CHAIR AND MEMBERS  
FINANCE AND CIVIC DEVELOPMENT  
COMMITTEE

**DATE:** 2011 January 19

**FROM:** MAJOR CIVIC BUILDING PROJECT  
COORDINATION COMMITTEE

**SUBJECT:** **STILL CREEK WORKS YARD – PRELIMINARY DESIGN**

**PURPOSE:** To obtain Council approval of the preliminary design and cost estimate for the redevelopment of the Still Creek Works Yard and to proceed into detailed design of the facility.

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#### **RECOMMENDATIONS:**

1. **THAT** the Committee request Council to approve the preliminary design and cost estimate for the redevelopment of the Still Creek Works Yard and Recycling Depot project and authorize staff to proceed into detailed design as outlined in this report.

## **REPORT**

### **1.0 BACKGROUND:**

The redevelopment of the Still Creek Works Yard site is the first step to the overall redevelopment of the City's Works Yard. In the completed master plan, the Still Creek site was identified as the suitable location to relocate the City's higher truck movement operations from the City's current Works Yard at Laurel Street. The new Works Yard at Still Creek was also identified as a suitable site for the consolidation of Parks Operations services with the relocation of Parks Operations (including Development, Maintenance and Janitorial/Park Patrol) from the Laurel Street Works Yard and the Grass Crews from the City's nursery at Piper Ave.

The Still Creek redevelopment concept Master Plan was approved by Council on 2009 May 04. In November 2009, the City engaged Walter Francl Architecture as the lead consultant for the project following Council's approval on 2009 November 02. Preparation of the Still Creek site is key to the future redevelopment of the Works Yard as it will serve as the staging ground and allow the City to relocate a portion of Engineering and Parks Department's operations from the Laurel Street Yard without impacting service delivery to the community.

## **2.0 STILL CREEK WORKS YARD SITE:**

The proposed Still Creek Works Yard and Recycling Depot development site will include a 5 hectare (12 acre) Engineering and Parks facility to accommodate their operational needs including the City’s waste management and recycling operations that will help address the environmental service needs of the City. Developments to the west along Still Creek Avenue include the Costco Wholesale and Willingdon Business Park. To the north is the Burlington Northern Santa Fe rail line and to the east are existing industrial developments.

The project (see *Attachment “A”*) will comprise of two sites adjacent to the proposed Still Creek Avenue Connector, serving both public and City functions. The redeveloped Recycling Depot and Green Waste Depot will occupy the north site (Phase I) while the south site (Phase II) will be shared by the Engineering and Parks Departments operations. The construction of Still Creek Avenue connection, which is part of a separate capital project, will complete another east west transportation linkage in the Central Valley area of Burnaby and improve access to existing developments.

Beyond fulfilling the current and future operational requirements of the City’s Engineering and Parks operations, the project site and building concept presents opportunities to improve environmental considerations. In addition, the redeveloped Recycling Depot will have opportunities to engage the public in demonstration and educational facilities.

## **3.0 RECYCLING AND GREEN WASTE DEPOT (PHASE I):**

The first phase of the project is the redevelopment of the Recycling and Green Waste Depot located north of the proposed Still Creek Avenue connector. As the city’s existing Recycling Depot facility is located at the Still Creek site, the completion of the redeveloped Recycling Depot on the north site will be necessary prior to the commencement of works of the new Works Yard and staff car park area on the site south of Still Creek Avenue.

Although the Recycling and Green Waste depot operations will be consolidated into a reduced site area of 1.6 hectare (3.9 acre), it will be an improved facility compared to the existing one. The site will feature a roof structure, 8.5m in height, designed to cover the municipal curb side recycling (plastic, paper and containers), yard waste, food waste and the public yard waste drop off areas. The proposed roof is primarily designed to limit storm water run-off from the recyclables and the mixture of food and yard waste and in turn minimize the impact to adjacent water courses. The proposed roof will extend to a portion of the public drop off area, in efforts to provide some weather protection while also provide visual screening to the existing and future high rise development located in the East Brentwood area.

The Recycling Depot Office is a 55m<sup>2</sup> building located at the entrance to the site that includes a single washroom. The interior of the building will primarily be used for providing information to

the public regarding the City recycling operation. The washroom, accessible from the street, has been included as an amenity for the Central Valley Greenway. Located outside the Recycling Depot compound is a proposed demonstration garden area (Centre for Soil Health) that will replace the popular Demonstration Garden previously located at the depot site.

The design of the Recycling Depot Office, along with other accessory structures on site has been designed to utilize reclaimed construction materials salvaged from the recently demolished Burnaby Heights Resource Centre. The site's landscape features will include functional elements such as bio-swales, rain water cisterns and rain-garden that will enhance the public space and offer educational potential with respect to the site's water quality management.

#### **4.0 WORKS YARD (PHASE II):**

Phase II of the project is the development of the City's new Works Yard facility located south of Still Creek Avenue. The Works Yard will be home to the Engineering Department's Solid Waste Operations, Sign Shop, Traffic Bylaw Enforcement and various Parks Department's operations. The current number of full time staff is 200 during winter months while during the summer months the number of staff will approach 250 due to the increase in Parks operational requirements. The Works Yard site will feature two main buildings: the Operations facility Building and the Parks Equipment building and vehicle wash. The surrounding open area will primarily be used for surface parking of the City's municipal fleet and staff vehicles.

The main Operations Facility Building, with a total floor area of 2,500m<sup>2</sup> over two levels, will include offices, crew work stations, mustering areas, shop spaces (meters and sign making) and communal amenities such as locker rooms, showers and lunch areas serving both the Engineering and Parks Department. During the preliminary design phase the total floor area of this building has been optimized (reduced from 2,700 m<sup>2</sup>) from the original spatial program determined in the Master Plan.

To ensure that the sustainability objectives of the City are achieved, the Operations Facility Building will be designed in accordance with LEED principles with an aim to achieve a gold rating. Included in the design of the building is a green roof (50m<sup>2</sup>) located above the sign shop portion of the first floor that will be visible and accessible from the second floor.

The proposed Parks Equipment building, with a total floor area of 1,700 m<sup>2</sup> over two levels will primarily be used as secured storage for Parks' drive-on mowers, hand tools, minor equipment and large tractor mower. Located at the east end of the Equipment building is the Works Yard's welding shop and paint shop where the City's garbage containers will be repaired and restored. Located at the west end of the building, there is a provision for secured bicycle storage that will encourage the use of alternate modes of transportation by staff.

Due to the challenging geotechnical condition of the site and the more stringent seismic protection requirements as mandated by the BC Building Code, the project geotechnical

consultant has recommended that significant structures located within the site will require sub surface ground improvement measures to mitigate against foundation failure in a seismic event. Following an extensive review process, the most cost effective solution involves the installation of a Cement-Soil Mix (CSM) system, which consists of mixing cement with the existing soil to form a grid of ‘hardened’ soil down to firm bearing (approximately 14m in depth) beneath the foundation of the buildings.

Within the enclosed Works Yard site, there will be provision for about 170 City vehicle parking stalls. The diagonal orientation of the stalls enables on-site parking to be maximized while it also allows more efficient movement of larger fleet vehicles. The staff car park located at the eastern portion of the south site will include parking for 185 staff vehicles. With the close proximity of Still Creek to the Works Yard site, the design of the storm water management system utilizes surface detention and planted swale to improve the quality of run-off while adding green space within the parking areas.

As the Works Yard site is bounded by two water courses, Still Creek and the Beta Avenue tributary, at its perimeter, it is proposed that enhancement to the riparian areas by removing invasive species and increasing planting density within the project property. Other environmental amenities featured in this project include a provision for the eastward extension of the nature trail along the north bank of Still Creek. The preliminary design entails a 2m wide gravel trail along the riparian boundary of Still Creek and a 2.5m wide bridge structure spanning Beta Avenue tributary to connect with the current trail termination point.

## **5.0 PLANNING CONSIDERATIONS:**

The Still Creek Works Yard site is zoned CD Comprehensive Development District, utilizing the M2 and M3a Districts reflecting its current interim use, with the abutting area to the east, north and south zoned M2 General Industrial District. An amended rezoning application to reflect the proposed development has been initiated through the City’s Planning Department. An application for subdivision (SD#07-68) is currently in process with the Planning Department that includes both the north and south site.

Once completed, the Still Creek Works Yard will front to the connected Still Creek Avenue. The boulevard will include sidewalks, two rows of street trees on each side of the road and the Central Valley Greenway urban trail. To meet City standards and design objectives, the soft landscaping within the Works Yard front yard landscape setback, in combination with the landscaping within the road Right-of-Way, will further add to the amenity of the new collector road.

**6.0 PROJECT COST SUMMARY:**

Included below is a summary of the estimated preliminary project costs provided by the project’s Quantity Surveyor. The projects are separated into Phase I and II and are based on 2011 construction rates:

	<b>Phase I Green Waste / Recycling Depot</b>	<b>Phase II Works Yard</b>
<i>Net Building Costs</i>	\$2,300,000	\$14,300,000
<i>Site works (incl Seismic Protection)</i>	\$1,400,000	\$7,700,000
<i>Soft Costs</i>	\$400,000	\$2,000,000
<i>Equipment, Fitting and Furniture</i>	\$200,000	\$1,600,000
<i>Contingency (5%)</i>	\$200,000	\$1,300,000
<i>Subtotal</i>	\$4,500,000	\$26,900,000
<b>Total Estimated Project Cost (excl HST)</b>		\$31,400,000

Due to the large area and the persisting challenging geotechnical condition of the development site, a large proportion of the overall project cost consist of site works, relative to building costs. The order of magnitude cost estimate provided to Council at the end of the Master Plan phase was in the range of \$24 million. The increase in overall estimated project cost is primarily attributed by the significant seismic protection requirement for the proposed buildings. Due to a lack of detailed geotechnical and structural information available at the time, the seismic protection costs could not be fully considered during the Master Plan phase of the project.

Furthermore, the additional scope determined during the preliminary design phase includes the provision of the roof structure for the Recycling Depot that will provide shelter to the mixture of food and yard waste and other recyclables and provisions for extension of the nature trail along the north bank of Still Creek that include a bridge structure.

**7.0 FUNDING:**

Based on the preliminary design of the works yard prepared by Walter Francl Architecture, the estimated budget for the construction of buildings, siteworks, surface paving, on-site services, design fees and other fees and charges is estimated to be in the range \$31 million.

The project will be phased over a 3 year period and is included in the Service Centre component of the Provisional 2011 - 2016 Capital Program. Upon completion of the detailed design and construction documentation, appropriate adjustments will be made to the program for Council’s approval.

To: Finance and Civic Development Committee  
From: Major Civic Building Project Coordination Committee  
Re: Still Creek Works Yard – Preliminary Design  
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## 8.0 CONCLUSIONS AND RECOMMENDATIONS

The City’s consulting team, led by Walter Francl Architecture, has completed the preliminary design phase for the redevelopment of the Still Creek Works Yard and Recycling and Green Waste Depot project. While the proposed concept for the facility incorporates environmental and educational components, the new Works Yard will also improve operational efficiencies and service delivery by consolidating the City’s Engineering and Parks functions.

This report is intended to obtain approval, in principle, from the Finance and Civic Development Committee and Council on the preliminary design for the Still Creek Works Yard and to seek Council’s authority to proceed to the detailed design and construction document phase of the project.

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Basil Luksun, Chair Major Civic Building Project  
Coordination Committee

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Lambert Chu, Director Engineering

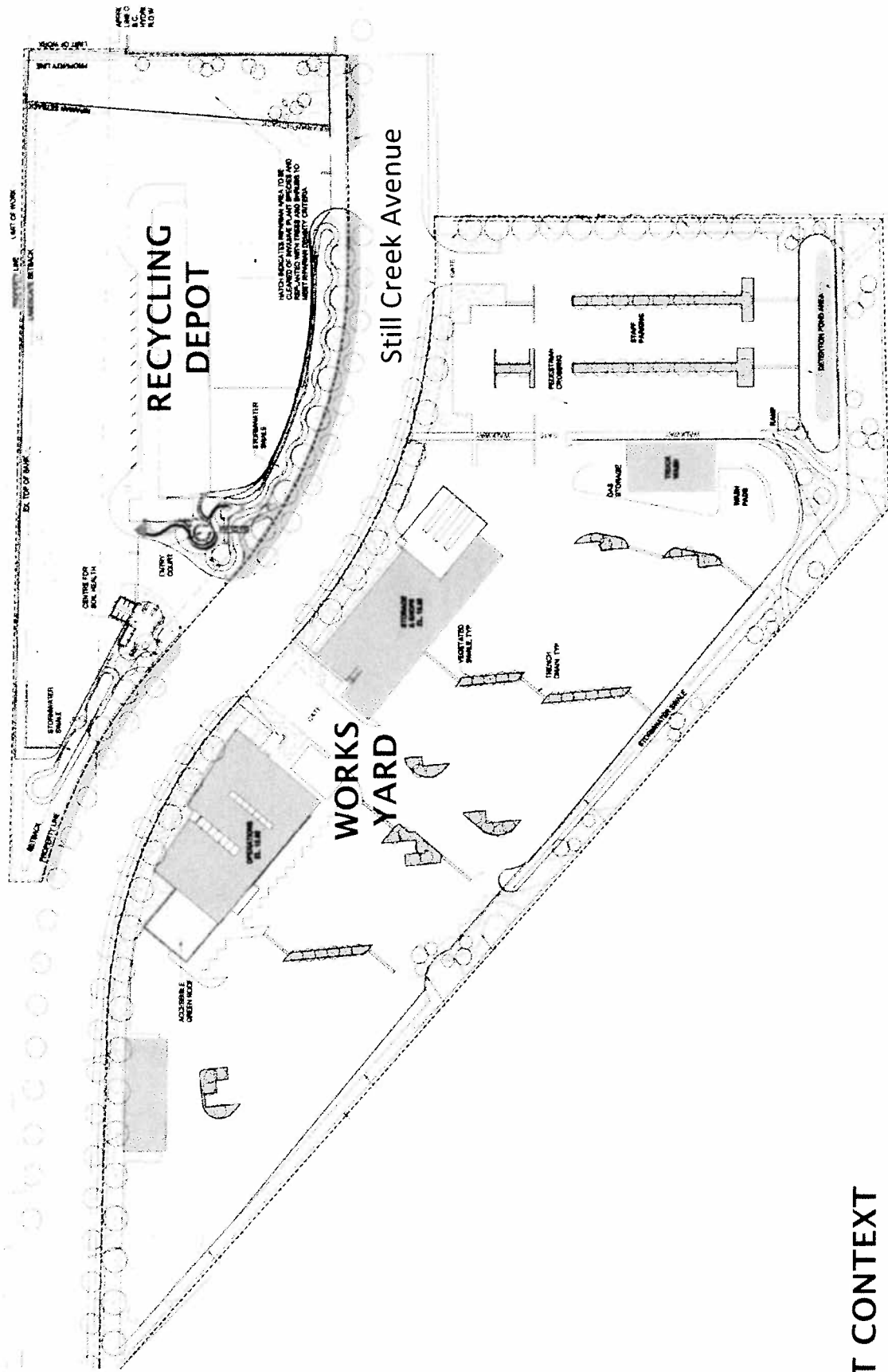
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Dave Ellenwood, Director Parks, Recreation &  
Cultural Services

JC/JT:ap/su  
*Attachment*

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Copied to: City Manager  
Deputy City Manager  
Director Finance  
Chief Building Inspector

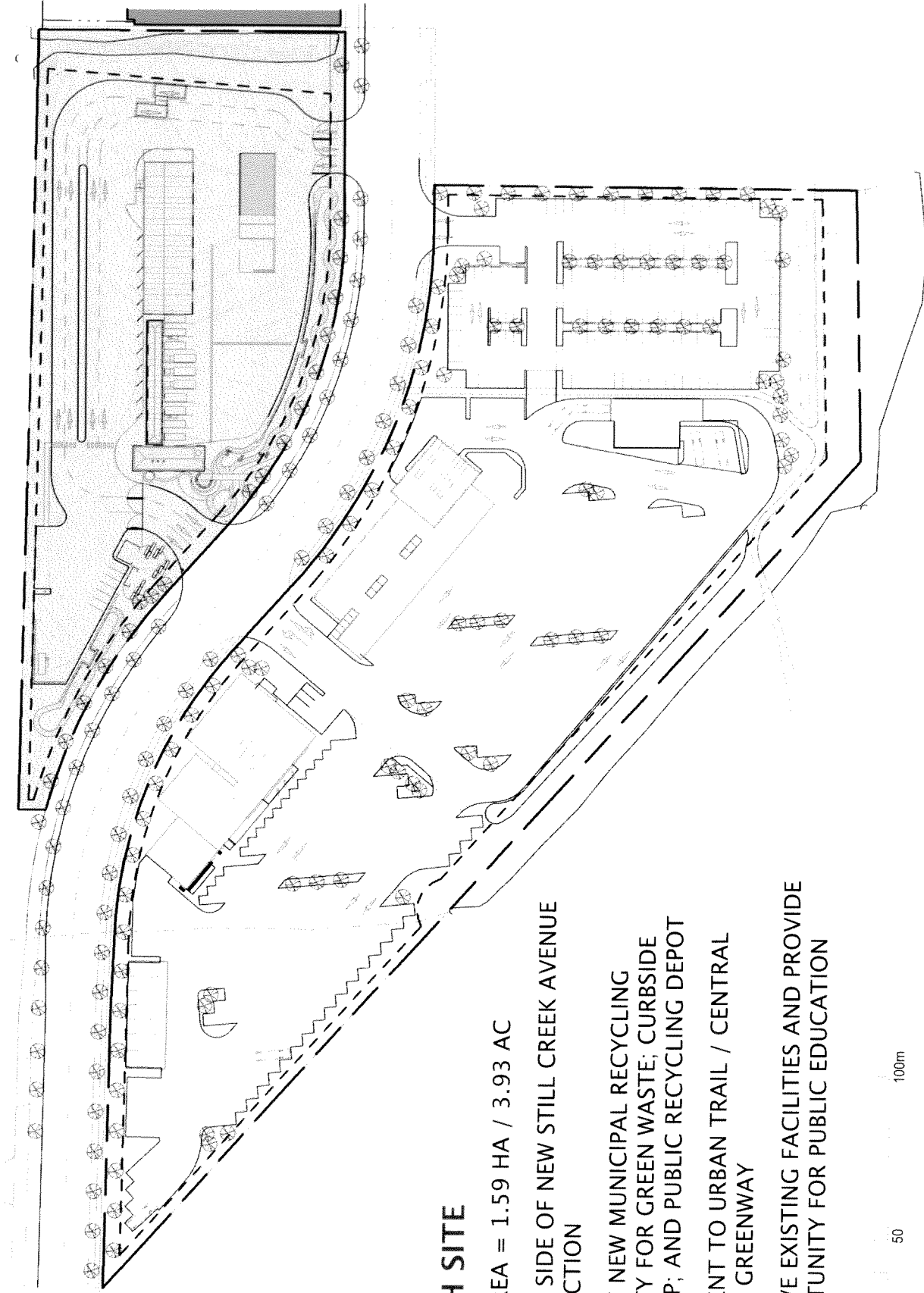


**PROJECT CONTEXT**  
**OVERALL LANDSCAPE SITE PLAN**

Attachment "A"



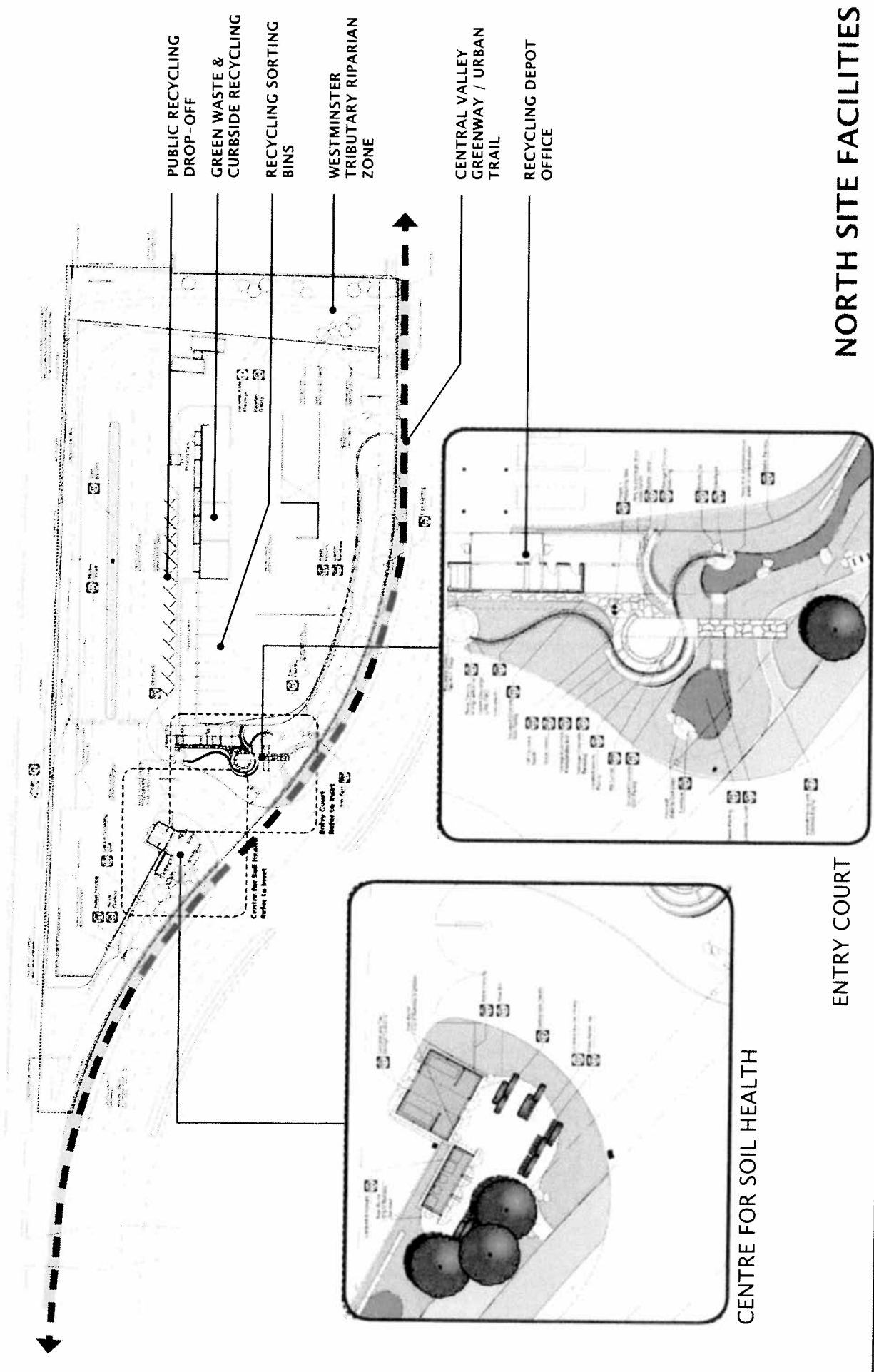




## **NORTH SITE**

- SITE AREA = 1.59 HA / 3.93 AC
- NORTH SIDE OF NEW STILL CREEK AVENUE CONNECTION
- SITE OF NEW MUNICIPAL RECYCLING FACILITY FOR GREEN WASTE; CURBSIDE PICK-UP; AND PUBLIC RECYCLING DEPOT
- ADJACENT TO URBAN TRAIL / CENTRAL VALLEY GREENWAY
- IMPROVE EXISTING FACILITIES AND PROVIDE OPPORTUNITY FOR PUBLIC EDUCATION

0 50 100m



PUBLIC RECYCLING  
DROP-OFF

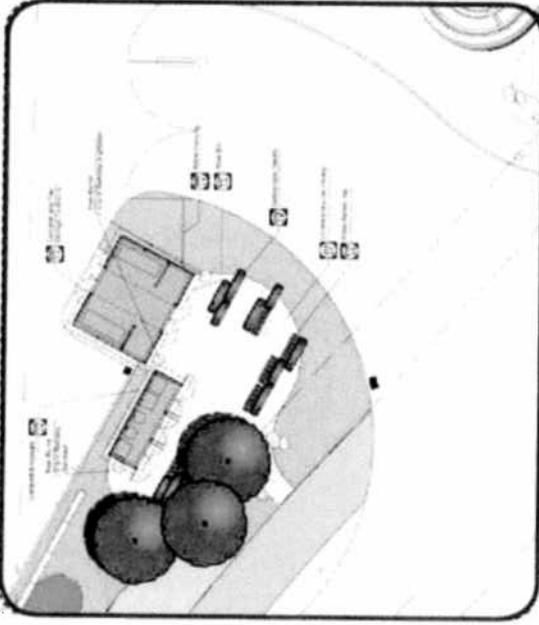
GREEN WASTE &  
CURBSIDE RECYCLING

RECYCLING SORTING  
BINS

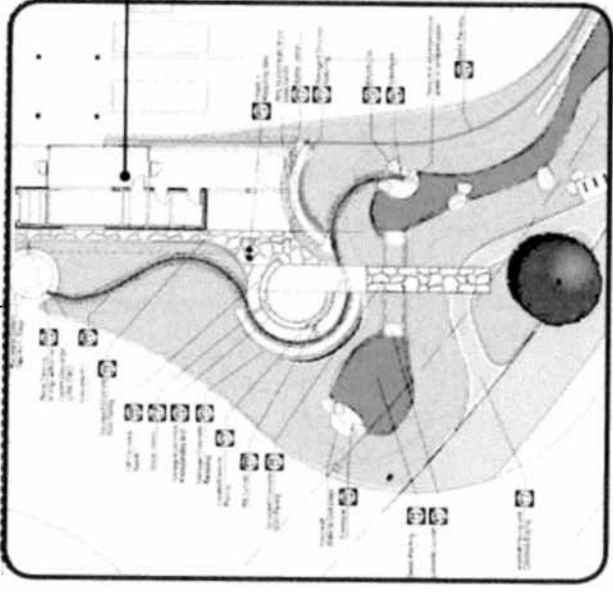
WESTMINSTER  
TRIBUTARY RIPARIAN  
ZONE

CENTRAL VALLEY  
GREENWAY / URBAN  
TRAIL

RECYCLING DEPOT  
OFFICE



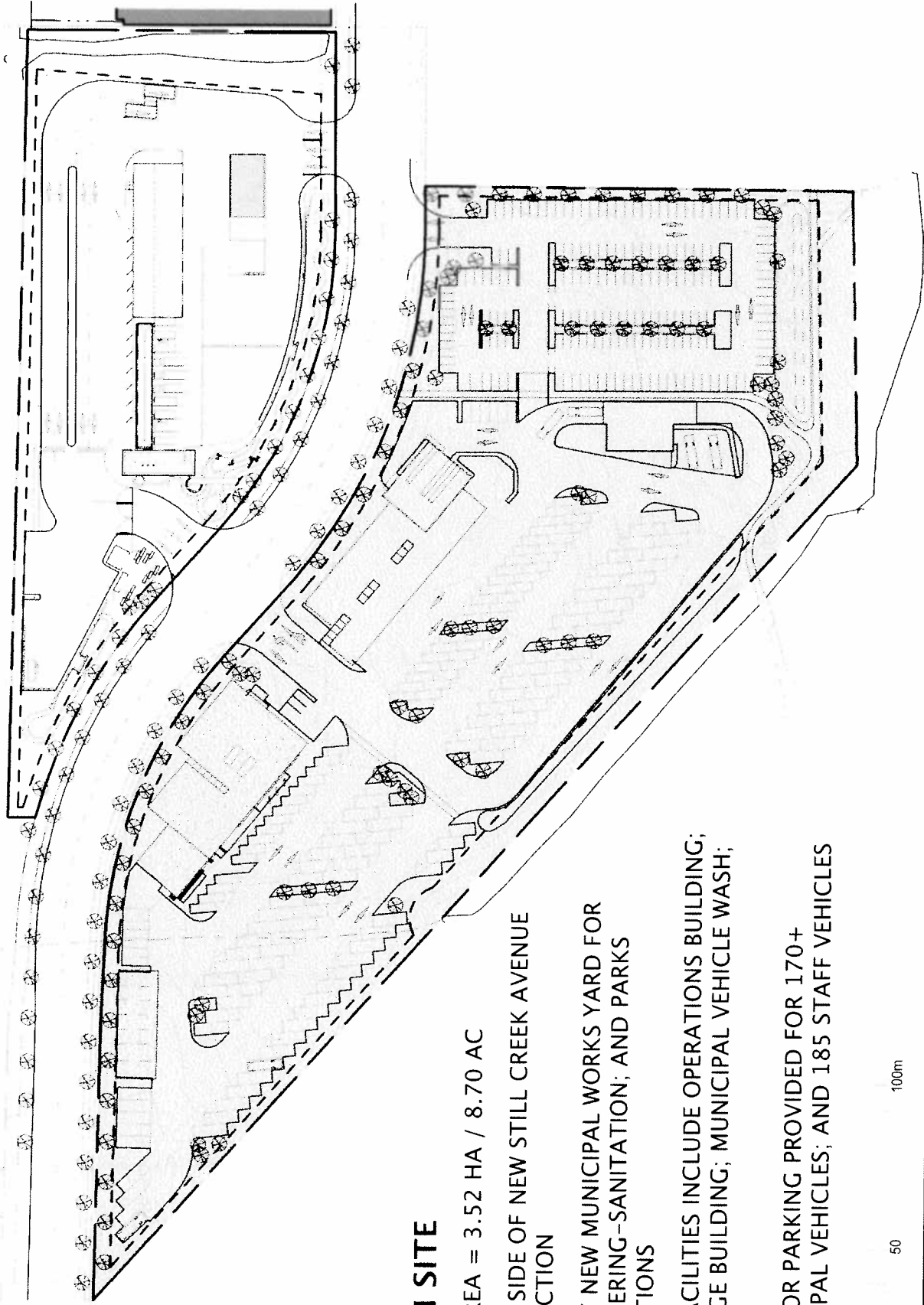
CENTRE FOR SOIL HEALTH



ENTRY COURT

# NORTH SITE FACILITIES

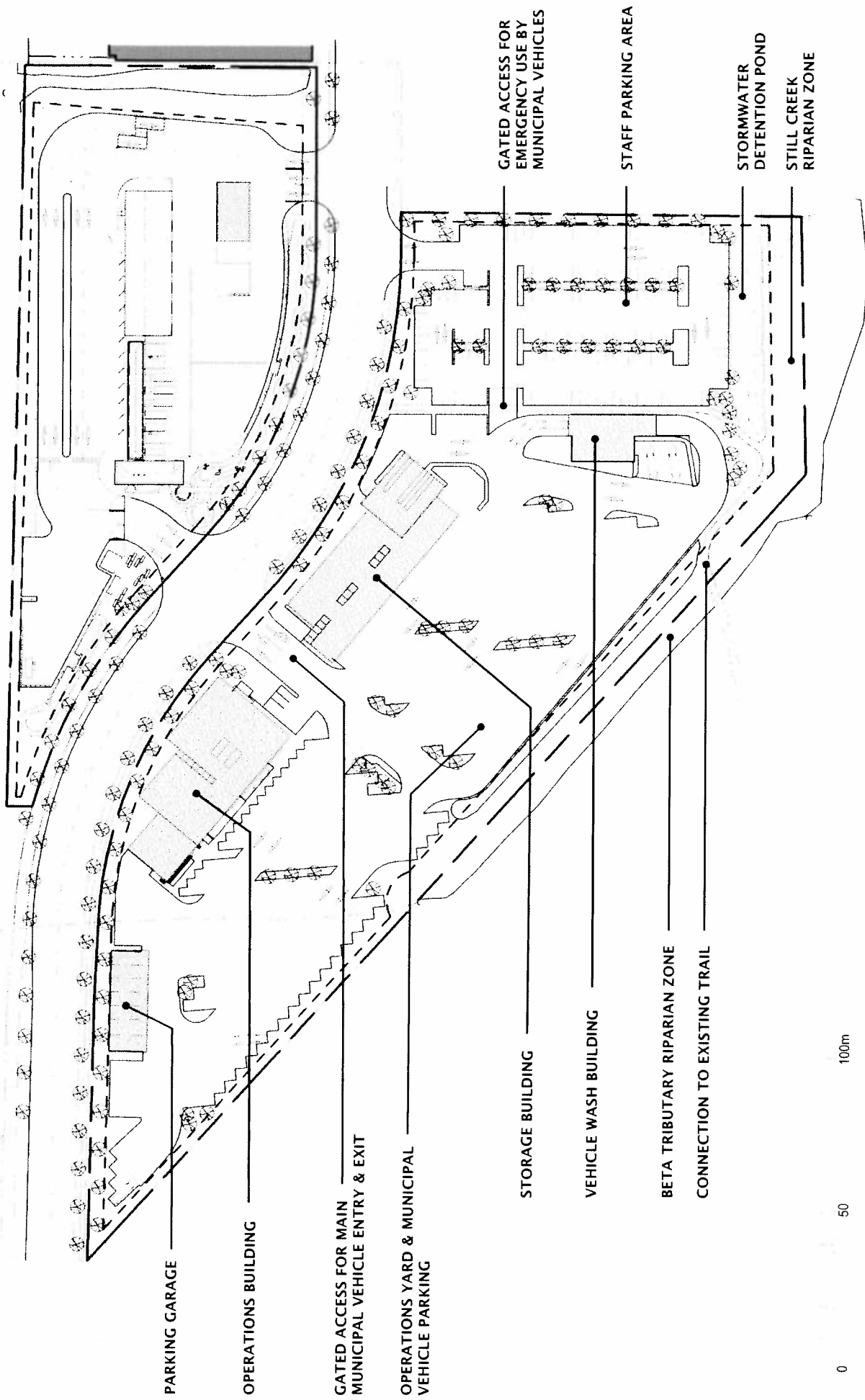




## **SOUTH SITE**

- SITE AREA = 3.52 HA / 8.70 AC
- SOUTH SIDE OF NEW STILL CREEK AVENUE CONNECTION
- SITE OF NEW MUNICIPAL WORKS YARD FOR ENGINEERING – SANITATION; AND PARKS OPERATIONS
- NEW FACILITIES INCLUDE OPERATIONS BUILDING; STORAGE BUILDING; MUNICIPAL VEHICLE WASH;
- EXTERIOR PARKING PROVIDED FOR 170+ MUNICIPAL VEHICLES; AND 185 STAFF VEHICLES

0 50 100m



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