

TO : CITY MANAGER

2002 April 16

FROM : DIRECTOR PLANNING AND BUILDING

**SUBJECT : 5150 RIVERBEND DRIVE**  
**PRELIMINARY PLAN APPROVAL #01-325**  
**Addition of Turbo Generator Building to GVRD Refuse Incinerator Plant**  
***Big Bend Development Plan Area***

PURPOSE : To inform Council of an application for Preliminary Plan Approval for addition of a turbo generator building to the existing GVRD Refuse Incinerator Plant in the Big Bend.

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**RECOMMENDATION :**

1. **THAT** this report be received for information purposes.

**REPORT**

**1.0 INTRODUCTION**

The Planning and Building Department has received an application for Preliminary Plan Approval (PPA #01-325) for the addition of a turbo generator building and associated facilities to the existing GVRD Refuse Incinerator Plant at 5150 Riverbend Drive. Sketch #1 attached, shows the subject property in context with the Big Bend Development Plan.

The GVRD incinerator property has a site area of 1.793 ha and is located on the south side of Riverbend Drive just west of Wiggins Street (see attached Sketch # 2). The properties to the immediate east and north of the subject site are occupied by typical heavy industrial buildings and are designated for General Industrial use in the Big Bend Development Plan. Across Riverbend Drive to the northwest is a City owned linear park strip which connects to the Burnaby Fraser Foreshore Park. Further northwest across the railway is the site for the future Burnaby Business Park. To the immediate south of the subject property is Canada Lands' property which is currently designated for Business Centre use.

The Refuse Incinerator Plant was granted Preliminary Plan Approval in July, 1986 and the facility began operation in March of 1988. The facility has undergone several additions since its inception which have been approved through the usual Preliminary Plan Approval process.

The facility has been operated and maintained under contract by Montenay Inc. since startup. In March of 2000 a new contract with Montenay Inc. was signed for a further 25 years.

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Steam from the incinerator is supplied to the neighbouring Greencoast Papermill (formerly Crown Packaging) and as the papermill is in the process of downsizing, the GVRD proposes to divert the excess steam to a turbo generator to produce power. This power will be routed to an on-site switch yard which will step up the output from 13.8 kV to 69 kV in order to be consistent with B.C. Hydro transmission line requirements. The power will then be fed into the B.C. Hydro network.

## **2.0 PRELIMINARY PLAN APPROVAL PROPOSAL**

The subject PPA #01-325 consists of (see attached Sketches #3 and #4):

- a) An addition to the west side of the existing building to house the turbo generator with the addition generally measuring 101 ft. long by 49 ft. wide and 118 ft. high, and with a floor area of 9013 sq. ft.
- b) New cooling tower structure generally measuring 79 ft. long by 36 ft. wide and 35 ft. high with a floor area of 2,841 sq. ft.
- c) A small pump house with an area of 620 sq. ft. and with a height of 17 ft.
- d) A new switch yard with an area of 2,685 sq. ft.

The turbo generator building addition is attached to the existing principal building. The addition will be 118 ft. in height. The existing building is 94 ft. in height and an existing stack is approximately 250 ft. in height. The addition is substantially smaller relative to the size of the existing building. The other accessory structures will blend in with the existing industrial facilities. The proposed addition has been architecturally integrated with the existing industrial facility by the use of similar blue, fluted metal cladding and complies with the prevailing M3 Heavy Industrial District zoning.

All future use of the overall operation must continue to comply with the requirements of the Burnaby Noise or Sound Abatement Bylaw. The existing emergency plan for the facility will be amended to include the proposed additions and resolved in consultation with the Engineering Department.

Full time monitoring of stack emissions has been in place since start up, the limits of which are regulated under provincial legislation. The installation of the proposed turbogenerator will result in boiler improvements that are designed to lower emissions from the facility. The addition will not affect the throughput of the plant.

## **3.0 PROPOSED STATUTORY RIGHT-OF-WAY REQUIREMENTS**

The GVRD and B.C. Hydro have also been in discussions with City staff regarding the alignment and routing of the outgoing 60 kV transmission line which will need to connect to the existing BC Hydro grid. The proposed electrical transmission linkage will require a statutory right-of-way across the linear park at 4739 Riverbend Drive which is zoned P3 (utilizing a former spur line corridor)

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to connect to the B.C. Hydro line within the east-west CN Railway utility corridor (see attached Sketch # 2).

Staff will work with B.C. Hydro to develop an acceptable routing plan for the transmission line and the connection for consideration of the granting of a statutory right-of-way by the Parks, Recreation and Culture Commission, subject to Council approval. Staff have informed B.C. Hydro that the connection across the park area should be provided on an underground wiring basis. It is acknowledged that this is a more costly alternative to an overhead connection. However, the undergrounding of the transmission line across the City park area and the Riverbend Drive right-of-way is in keeping with the longer term objectives for the enhancement of this public entrance to the Burnaby Fraser Foreshore Park and the future development of the Urban Trail system through this part of the Big Bend.

#### 4.0 CONCLUSION

The proposed addition to the existing industrial building complies with the prevailing M3 zoning and is in line with the designated General Industrial use in the Big Bend Development Plan.

The expansion, considering the scale of existing development on the property is integrated with the existing buildings and has limited additional visual impact. The proposed installation of the turbo generator with its accessory structures has the potential to reduce emissions due to boiler improvements, will help reduce noise levels by replacing the noisier existing air cooled condensers with quieter ones, and improve efficiency by utilizing the excess steam capacity.

Therefore, unless otherwise directed by Council, the subject Preliminary Plan Approval application will continue to be processed and approved once all usual requirements are met.



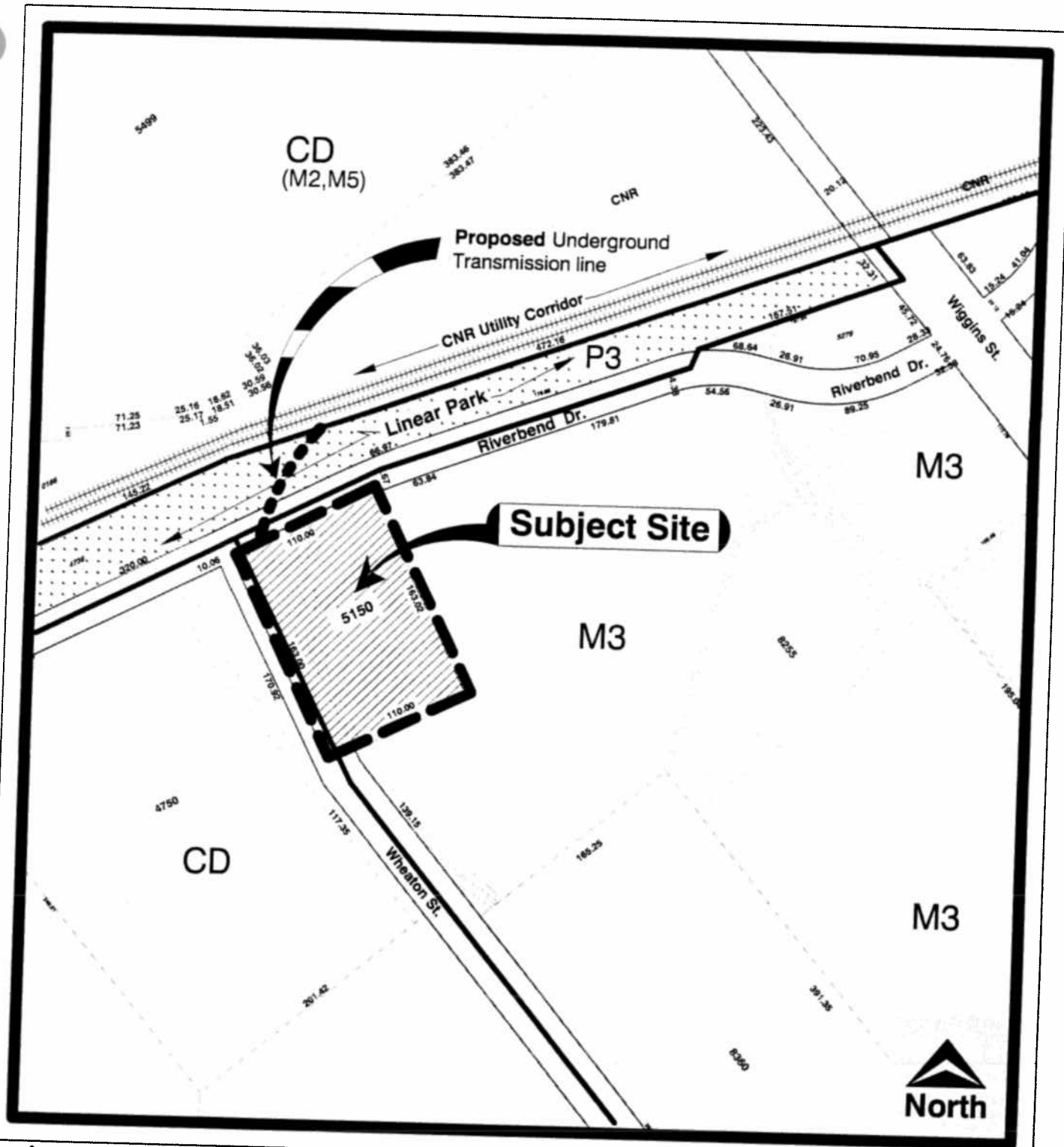
J. S. Belhouse  
Director Planning and Building

VT:hr

Atts.

cc: Director Engineering  
Chief Building Inspector  
Director Parks Recreation and Cultural Services.





## Planning And Building Department

Scale: 1 : 4000

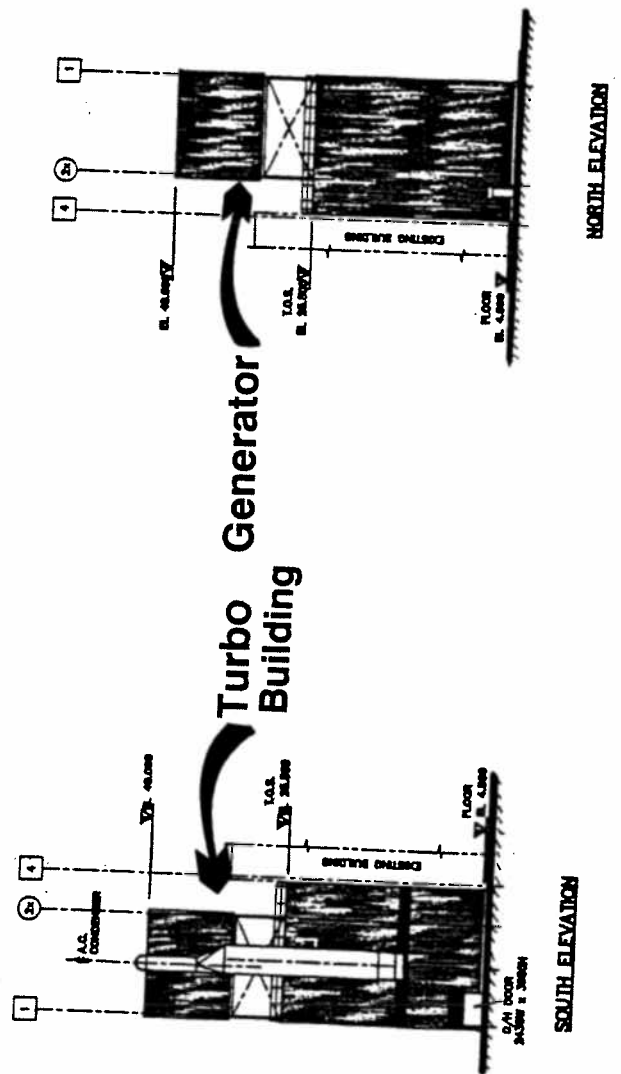
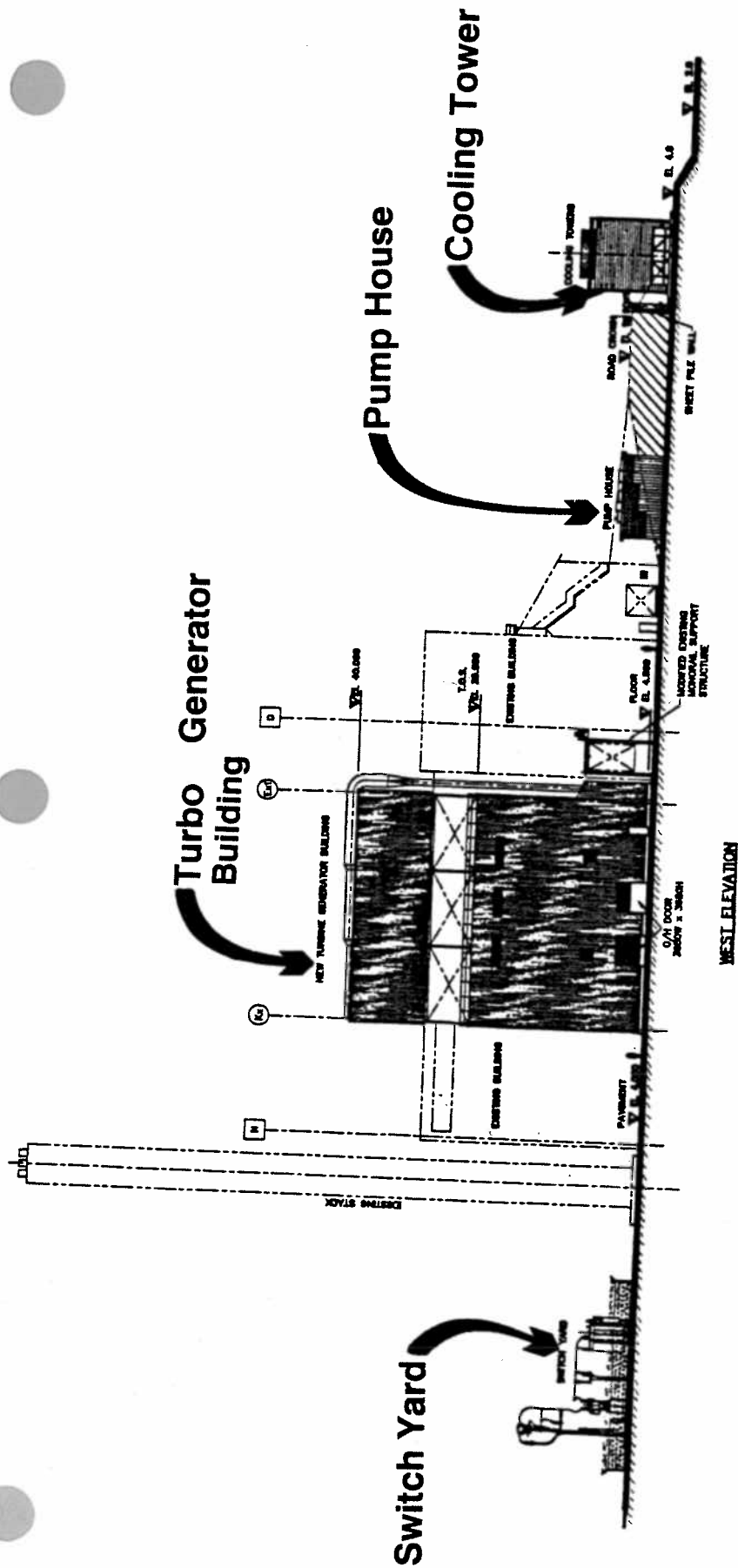
Drawn By: J.P.C.

Date: April 2002

**PPA # 01- 325**  
5150 Riverbend Dr.

Sketch # 2





Sketch # 4

