

TO: MUNICIPAL MANAGER 1990 SEPTEMBER 21

FROM: DIRECTOR ENGINEERING

SUBJECT: BIG BEND WESTERN SECTOR DRAINAGE STUDY RELATIVE TO EXTENSION OF FILL PERMIT FOR C.N. REAL ESTATE LANDS

PURPOSE: To update Council on the status of the Drainage Study for the Western Sector of the Big Bend Area relative to a request from C.N. Real Estate to extend its fill permit for lands west of Byrne Road.

RECOMMENDATIONS:

1. THAT the fill permit issued to C.N. Real Estate be expanded to include additional lands as shown on Figure 1 attached.
2. THAT the fill permit be extended for a further two months subject to the additional conditions outlined in this report.
3. THAT a copy of this report be forwarded to C.N. Real Estate, Suite 20, 999 West Hastings Street, Vancouver, B.C., V6C 2W2.

SUMMARY:

This report reviews the status of the consultant's report on drainage in the subject area relative to a request to allow landfilling to continue on the CN lands and to expand the fill area. It is concluded that landfilling may proceed subject to certain conditions which have been agreed to by the applicant.

REPORT

1.0 BACKGROUND

Kerr Wood Leidal Associates Ltd. has been engaged to prepare a comprehensive drainage plan for the western sector of the Big Bend area. In addition to providing recommendations for upgrading and/or replacing drainage facilities, this plan is to provide a framework to assist staff in reviewing proposals to implement the varied objectives embodied in the Big Bend Development Plan, including landfill activities.

2.0 STATUS OF DRAINAGE STUDY

We have now received reports on Phases I & II of the three phase Big Bend Western Sector Drainage Study. Phase I consisted of an overview assessment to determine the baseline data collection program while Phase II provides the Master Drainage Plan as well as the Hydrogeological investigation results. Phase III which represents the final summary report together with sub-reports addressing the agricultural, park and environmental aspects is due to be completed by 1990 November. The Drainage Plan provides the Municipality with a comprehensive document to guide our

capital program for drainage improvements to the western sector of the Big Bend. The collection of baseline data for the Phase II hydrogeological program was delayed due to the wet May and June. That information has now been collected and based on the data to date, the preliminary conclusions are that the linear fills placed during construction of Marine Way, the new golf course and the railway, do not appear to have significantly restricted subsurface drainage in the Big Bend area. However, disruption of old ditches and/or lack of maintenance of some ditches may have resulted in a higher water table in some areas. Our consultants have made recommendations for further investigation around the market gardens and the Fraser Foreshore Park area to confirm these conclusions.

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They have also made recommendations that landfilling may be allowed to proceed providing that:

- "1. Strict controls are maintained on the quality of fill.
2. Provision be made as part of any fill permit (issued prior to the report being finalized) for perimeter ditching to allow drainage enhancement if necessary. At this time we are not aware of any areas where there is a drainage problem. However, when the current study is completed there is some possibility that one or more areas requiring drainage enhancement will be delineated. In these areas, there will likely be a requirement for new ditches graded to invert elevations below 2m, to allow free drainage of groundwater into the local diversion creek ditches."

Your Director Engineering concurs with these recommendations and can apply them within the confines of an extension of the existing fill permit.

3.0 C.N. REAL ESTATE'S LANDFILL APPLICATION

Council at its meeting of 1990 May 07 authorized the Director Engineering to issue a fill permit under specific limits on C.N. Real Estate's lands. Council at its meeting of 1990 July 23 extended that permit for an additional two months pending receipt and review of the Comprehensive Drainage Plan for the Western Sector of the Big Bend.

In that regard CNRE has submitted a report on the status of their present fill permit. To date CNRE have received approximately 56,820m³ (approximately 75,000 cubic yards) of fill placed within the approved limits. The report received from their geotechnical consulting engineer indicates no problems or complications with the present filling program which is proceeding in accordance with their recommendations. Staff concur with this report and have noted no problems to date. Council may recall that in the 1990 May 07 report we advised that:

"The 15 acre interim site proposed by CNRE conceivably could receive two lifts of 1m (3ft) depth over the summer "filling season". This volume would translate into approximately 150,000 cubic yards which, although fairly insignificant in the overall scheme of development, would represent a reasonable initial program."

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Although the filling operation during the summer has been less than that which could have been achieved within the terms of the existing interim permit, CNRE has requested an expansion of the fill permit area in order to address areas which require removal of peat and replacement with structural fills. It is necessary to treat these areas in order to provide access and a coordinated approach to site development.

CNRE have requested (see attached), as part of this report, that the fill permit be expanded to include their entire site (including road allowances) with the following exceptions: existing water courses, the Greater Vancouver Sewerage & Drainage District's sanitary sewer main, and an existing area of waste material that requires further geotechnical investigation. CNRE has proposed to stay 30m away from these locations. These areas would be addressed at a future date with more detailed engineering plans. In addition, we would have CNRE stay 15m from all site boundaries to allow perimeter ditching to be installed, if necessary, as recommended by our consultants.

4.0 RELATIONSHIP TO PROPOSED LAND EXCHANGE

As Council is aware, negotiations are underway regarding a proposed land exchange between the Corporation and the CNR. It should be recognized that the subject application relates solely to the CNRE lands, including internal undeveloped road allowances, and does not include the Municipal lands to the west.

5.0 SUMMARY CONCLUSION

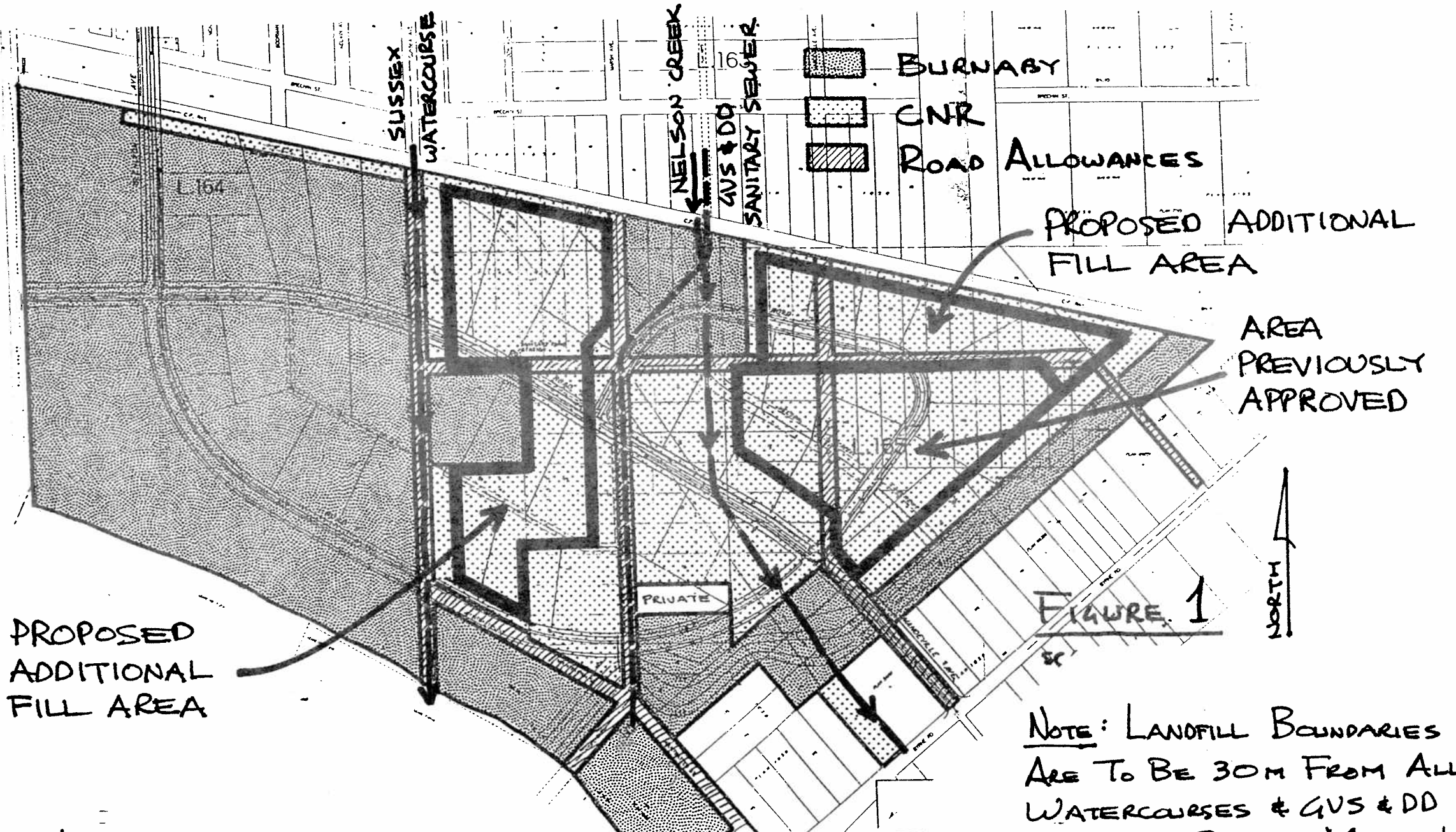
The Corporation's consultants have undertaken sufficient work on the drainage plan to make recommendations that landfilling be allowed to proceed subject to certain conditions outlined herein. CNRE has agreed to adhere to these recommendations which will be included in any extensions or expansions to existing permits.

We would, therefore, recommend extending CNRE's fill permit for a further period of two months and expanding the area as detailed above.


DIRECTOR ENGINEERING

BCD/PB:je
Attach.

cc: Director Planning & Building Inspection
Director Administrative & Community Services
Municipal Solicitor



PROPOSED
ADDITIONAL
FILL AREA

PROPOSED ADDITIONAL
FILL AREA

AREA
PREVIOUSLY
APPROVED

AREA OF PROPOSED CNRE
LANDFILL PERMIT.

1990 SEPT. 21.

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NOTE: LANDFILL BOUNDARIES
ARE TO BE 30M FROM ALL
WATERCOURSES & GVS & DD
SANITARY SEWER MAIN &
15M FROM ALL EXTERIOR
PROPERTY LINES.

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CN Immeubles
Real Estate

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Vancouver, British Columbia
V6C 2W7

999 Hastings Street West
Burnaby, B.C.
V5G 2W7

September 11, 1990

RECEIVED IN
ENGINEERING DEPT.
Barry Davis
SEP 13 1990

<i>BLD</i>	<i>BLD</i>
<i>W.S.</i>	

The Corporation of the District of Burnaby
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Attention: **Mr. Barry Davis, P.Eng.**
Acting Works Engineer

Dear Barry

RE: Land Fill Permit #D35191 - CN Real Estate Lands West of Byrne Road

On May 7, 1990 Burnaby Council agreed to issue an interim Fill Permit to CN Real Estate to allow for filling on a portion of CNRE's lands west of Byrne Road pending receipt and review of the Western Big Bend drainage study. I understand that the drainage study is now in hand and that it concludes that the filling on CNRE's lands will not have an adverse effect on drainage provided that existing watercourses are maintained.

We therefore ask that Burnaby now expand our permit to include those CNRE's lands noted in our application letter of January 9, 1990.

In addition or modification to our January 9, 1990 letter we would note the following:

- CNRE will not place fill material closer than 30 meters to any existing watercourse or the GVRD sewerline without first preparing an engineered design and obtaining Burnaby's (and GVRD's, if needed) approval.
- CNRE is not asking for permission to fill in the area covered by "old building waste". This area will require further geotechnical investigation and the material may have to be removed prior to placing preload fill.
- The "Proposed Filling Plan" included road allowances which belong to Burnaby. As it is impractical to avoid these areas and in all likelihood these road allowances will be exchanged for new road allowances; we seek your approval to place fill on these areas.

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The Geotechnical report addresses the need to remove some of the peat from certain areas of CNRE lands. This removal, particularly in area where the peat is thickest, will greatly improve long term settlements. At this time the peat will be stockpiled on site. Should we decide to remove the peat from site at a later date we will make a separate application for a "Soil Removal Permit".

We trust that you will find the foregoing satisfactory and look forward to receiving a "normal" Fill Permit, so that we might proceed with our filling program on our lands.

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Yours truly,



Larry Morgan, P.Eng.
Senior Development Manager
CN Real Estate
LM/trf

Encl.