ITEM	12
MANAGER'S REPORT NO.	81
COUNCIL MEETING	1979 11 26

REPORT:

Tahsis Company Ltd. has submitted building plans for construction of a Remanufacturing Plant on a 20-acre site at 8356 Wiggins Street. Pile and footing permits have been issued and work on that stage of construction is presently under way.

Construction on the 20-acre site will consist of an office building of 3,000 square feet, a remanufacturing plant of 77,000 square feet, a kiln/dry shed of 32,000 square feet, and a sticker stacker enclosure of 2,000 square feet. The proposed building development will be approximately 12% of the site area, with a possible future expansion of buildings to a maximum 20% development on the site area.

It is our understanding that the large fully blacktopped millyard area will be a lumber storage and forklift type operation, used solely by employee personnel. Public access will be limited to the front office building off Thorne Avenue.

During final plan checking, now in progress prior to the issuance of a full building permit, the Tahsis Company Ltd. has been requested to change its proposed storm/roof drainage system to convey all roof drainage in fully underground piping lines in accordance with Burnaby Building By-Law.

The drainage plans, as submitted, propose to convey roof water via downpipes from the roofs and to dump onto splash pads on the adjacent yard surface. The company representatives believe that for this particular mill/yard operation on a large hardsurfaced site, surface drainage to main catchbasins on larger sized underground storm lines is superior to long underground lateral runs of smaller sized lines. We met with company representatives on 1979 November 13 to discuss the company design as it has been submitted and as it differs from the required application of the Municipal Building By-Law. (Attachment No. 1)

Points to be considered in the Tahsis Company Ltd. drainage design are:

1. The site is 20 acres in extent, fully hardsurfaced, with building roofs covering only 12% of the total acreage. Hence, 88% of the site has to utilize surface drainage to catchbasins which in turn connect to the site storm drainage system.

2. Lumber mill operating experience indicates overwhelmingly that surface drainage is superior to underground systems where smaller pipes, in the order of 4", 6", 8" diameter, would be used to intercept the building downpipes.

3. The entire 20-acre site is private property occupied by only one company, and to which the public does not have access, except by special pass issued by the company.

4. The requirements for underground drainage comes from the local Building By-Law No. 6333, Section 11:

   "11. All buildings hereafter erected shall be provided with proper leaders for conducting water from the roof to the gound and such leaders connected with a sewer, street ditch or dry-well in such a manner to protect the walls, basements and foundations of any building from damage."

   Neither the National Building Code nor the B.C. Plumbing Code extend to the regulation of underground storm drainage.

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In this particular case, we believe the Tahsis Company Ltd. storm design can be supported. However, we do not believe we have latitude to make exceptions to the valid by-law requirement as it now stands. Hence, for this case and for possible future cases of development of large hard-surfaced sites, whereon roof coverage is a small percentage of the overall site area, and whereon access by the public or by more than one occupier is restricted, we would propose that an amendment of the Building By-Law be considered.

Accordingly, we would propose that Section 11 of the Burnaby Building By-Law No. 6333 be amended by the adoption of a new subsection (b) as follows:

11. (a) add words "except as follows:"

new proposed section (b) Single entity industrial buildings situated on a consolidated property site of not less than five acres, and having building roof coverage not exceeding 20% of the site, and which site is totally hard-surfaced, except for required landscaped areas, and to which site public access is restricted, may discharge roof storm water via downpipes direct to ground level splash pads, provided all building floor levels are above the exterior adjacent finished grade and provided the overall site contains an underground storm drainage system sized in accordance with engineering practice.

M.J. Jones
CHIEF BUILDING INSPECTOR

AB:MJJ:lm
Enc.

c.c. MUNICIPAL ENGINEER
MUNICIPAL SOLICITOR
PLANNING DIRECTOR
Austin Brown, Supervisor,
Plumbing & Gas Inspections

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File: 42(b)

November 13, 1979

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NOV 13 1979
BUILDING INSPECTOR'S OFFICE

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

Attention Mr. A. R. Brown, Supervisor Plumbing & Gas Inspections

Gentlemen:

Re New Remanufacturing Plant
Building Roof Drain

This letter is our formal request that you approve our proposal to discharge the roof drainage from the main building to splash pads on to the blacktop to be then carried with other surface drainage through the main drainage system. We request this because it is our firm belief that in this instance this is better practise.

Over 25 years of experience in grading, blacktopping, and draining millyards where lumber is stored and handled by forklift, it is our firm conclusion that surface drainage should be employed whereever possible and, where underground drains are necessary, they should be a good size. In the Burnaby plant we propose to carry two large drains: one down each side of the property, and to apply surface drainage to catch basins directly over the main drain lines.

The drainage of the main building roof underground would require fairly long laterals which economics dictate to be relatively small lines, and it is our view that this water would be better handled over the surface to the main catch basins.

The obvious disadvantage to this proposal is snow melt from the roof freezing at the discharge of the down pipes. In this case the building is unheated and this problem should be minimal, and in the area of the main entrance to the building we propose to carry the drainage underground. In other areas there is little, if any, pedestrian traffic, and the areas will have to be salted in cold weather for good forklift operation.

Inasmuch as the building represents only 12% of the total area, the building water will only add to, but will not change, the overall requirement for operating procedures which involve salting or sanding.

With respect, we request your approval of this roof drainage system.

Yours truly,

W. G. Beale, P. Eng.
Manager, Planning & Engineering

WGB/rj