General Comments

Comment 1
The applicant should be advised that the limited desk-top checking by the Government on the drainage proposal covers only the fundamental aspects of the drainage design which will by no means relieve his/her obligations to ensure that (i) the proposed drainage works will not cause any adverse drainage or environmental impacts in the vicinity; and (ii) the proposed drainage works and the downstream drainage systems have the adequate capacity and are in good conditions to accommodate all discharge water collected from the application site (the Site) and all upstream catchments. The applicant shall effect any subsequent upgrading of these proposed works and the downstream drainage systems whenever necessary.
Response
Noted.

Comment 2
The cover levels of proposed u-channels and catch pits should be flushed with the adjoining ground levels.
Response
Noted. Please refer to drainage layout plan

Comment 3
The applicant should check and ensure that the existing drainage system to which the proposed connection will be made have adequate capacity and satisfactory condition to cater for the additional discharge from the Site. He/she should also ensure that the flow from the Site will not overload the existing drainage system.
Response
Noted.

Comment 4
4The existing discharge location to which the applicant proposed to discharge the stormwater from the Site is not maintained by DSD. The applicant should identify the owner of the existing discharge location to which the proposed connection will be made and obtain agreement from the owner prior to commencement of proposed works.
Response
Noted.

Comment 5
The applicant is reminded that all existing flow paths as well as the run-off falling onto and passing through the Site should be intercepted and disposed of via proper discharge points. The applicant shall also ensure that no works, including any site formation works, shall be carried out as may adversely interfere with the free flow condition of the existing drain, channels and watercourses on or in the vicinity of the subject site any time during or after the works.
Response
Noted.

Comment 6
The proposed drainage works, whether within or outside the Site, should be constructed and maintained by the applicant at his/her own expense.
Response
Noted.

Comment 7
For works to be undertaken outside the Site, the applicant should obtain prior agreement from the District Lands Officer/North of Lands Department and/or relevant private lot owners.
Response
Noted.

Comment 8
The applicant should make good all the adjacent affected areas upon the completion of the drainage works.
Response
Noted.

Comment 9
The applicant should construct and maintain the proposed drainage works properly and rectify the system if it is found to be inadequate or ineffective during operation.
Response
Noted.

Comment 10
As usual, the Government should be empowered to inspect conditions of the private drainage system and to enforce its cleansing by the owners, if necessity arises (e.g. upon receipt of complaints).
Response
Noted.

Comment 11
The existing drainage facilities, watercourse, river, channel and the like should not be affected and obstructed by the construction materials, waste or debris from the proposed uses.
Response
Noted.

Specific Comments

Comment 12
Paragraph 1.2 – It is advised by the applicant's representative that land filling works on Lot 751 S.B ss.1 in D.D. 82 is required, which contradicts this paragraph. The applicant should clarify.
Response
The existing site area of Lot.751 S.B RP is partly hard-paved with approximate levels of +9.10 mPD. For the Lot. 751 S.B ss.1, the land area will be filled to the same hard-paved level of Lot.751 S.B RP upon approval of application.

Comment 13
Section 1 – There are an existing streamcourse and a culvert within the non-building area. The applicant should add paragraph to elaborate on how these facilities would be affected by the land filling works and whether modification of these facilities are required.
Response
The 270 m2 non-building area will not be filled at any time. Part of the 108 m^2 non-building area will be filled. The existing streamcourse and a culvert will not be affected by the proposed land-filling works. Please refer to the land filling plan.

Comment 14
The applicant shall ensure all the proposed structures would be placed at least 3m away from the top of the bank of the streamcourse.
Response
Noted.

Comment 15
Drainage layout plan refers – (a) The applicant should indicate the proposed site formation level, the existing ground levels of the areas in the vicinity of the Site, the fall directions of the Site and the areas in the vicinity; (b) The applicant should indicate the sizes and gradients of the proposed u-channels and the proposed concrete pipe; (c) The applicant should indicate the direction of flow the proposed u-channels; (d) The applicant should consider providing the proposed u-channel along the site boundary; (e) The applicant should use more distinct legends for the proposed u-channel and the proposed concrete pipe for clarity; (f) It is noted that the formation level of the Site is higher than the adjacent lands. It appears that the existing flow paths of run-off falling onto and passing through the Site would be affected. Peripheral channels with proper discharge shall be provided at the toe of the raised platform so as to ensure no adverse drainage impact to lands and premises adjoining the Site; and (g) CP15: Invert level of the inlet is lower than that of the outlet. The applicant should review.
Response
Please refer to revised drainage layout plan.

Comment 16
Catchment area plan refers – (a) The applicant should review the runoff coefficients (C) of the outside catchment areas as most of these areas are carriageway; and (b) The applicant should advise why the Site could be split into 2 catchment areas.
Response
a) runoff coefficients (C) revised to 0.95. b) Design consideration as follows: 1. The 270 m^2 non-building area is divided into separate catchment areas because of the existing slope. 2. The remaining site catchment is designed on the assumption that surface runoff will flow toward the lower ground on both sides of the site. As the east and west sides of the site have elevation differences relative to the adjoining ground, splitting the catchment into two parts allows the design parameters to be assigned more appropriately and improves the accuracy of the assessment. 3. Surface runoff from Catchment Area 2 is also taken to flow evenly toward the lower ground on both sides of the site.

Comment 17
Connection detail refers – (a) The applicant should indicate the invert level of the existing streamcourse; and (b) It seems that the proposed concrete pipe protrudes above ground/does not have sufficient cover. The applicant should review.
Response
Revised. Please refer to Connection detail plan

Comment 18
Section plans – The plans should clearly any walls would be erected or kerbs would be laid along the boundary of the Site, the proposed and existing drainage facilities, flow direction, the existing ground level of the adjacent lands and the formation level of the Site.
Response
Revised. Please refer to section plan

Comment 19
The applicant should supplement the calculation for rainfall intensity, design of the proposed concrete pipe, and checking on the sufficiency of the existing drainage system.
Response
Please refer to drainage proposal

Comment 20
The applicant should supplement typical details of the proposed drainage facilities.
Response
Please refer to drainage proposal

Comment 21
The applicant should provide photos showing the conditions of the site and the adjoining areas, the existing drainage facilities and the proposed final discharge point. A plan should be submitted to indicate the locations of the camera and directions of all photos taken.
Response
Please refer to drainage proposal

Response to DSD comment (ver 2)

Comment 1
The applicant should be advised that the limited desk-top checking by the Government on the drainage proposal covers only the fundamental aspects of the drainage design which will by no means relieve his obligations to ensure that (i) the proposed drainage works will not cause any adverse drainage or environmental impacts in the vicinity; and (ii) the proposed drainage works and the downstream drainage systems have the adequate capacity and are in good conditions to accommodate all discharge water collected from the application site (the Site) and all upstream catchments. The applicant shall affect any subsequent upgrading of these proposed works and the downstream drainage systems whenever necessary.
Response
(i) The applicant ensures that the proposed drainage works will not cause any adverse drainage or environmental impacts in the vicinity. (ii) The applicant ensures that the proposed drainage works and the downstream drainage systems have the adequate capacity and are in good conditions to accommodate all discharge water collected from the application site (the Site) and all upstream catchments. Please refer to drainage proposal. (iii) The applicant ensures that any subsequent upgrading of these proposed works and the downstream drainage systems will be taken by applicant whenever necessary.

Comment 2
Drainage layout plan: The applicant should indicate that CP15 and CP30 are catch pits with trap.
Response
Reviewed and revised. The CP 15 will use Backdrop Manhole and CP 30 will use Catch pit with trap. Please refer to Drainage layout plan

Comment 3
Section plan (A-A): The proposed UC along the toe of the slope is missing. The applicant should review.
Response
Revised. Please refer to Section plan (A-A)

Comment 4
Design calculation refers. (a) The applicant should supplement checking on the sufficiency of the existing drainage system; (b) The applicant should advise the sections of channels that collect surface runoff from “catchment area A & half catchment area 2” and “catchment area B & half catchment area 2”; (c) Catchment area 3 was not considered in the calculation. The applicant should review; (d) The applicant should advise why there are two design calculations for pipes downstream to CP30 with different design runoffs; and (e) The applicant should supplement design calculation for pipe downstream to CP15.
Response
(a) The existing drainage system is sufficient. Please refer to the drainage proposal. (b) This was a typographical error. The wording has been revised to “catchment area A & half of catchment area 3” and “catchment area B & half of catchment area 3”. (b) Please refer to the drainage proposal. (c) Reviewed. Please drainage proposal. (e) Please refer to the drainage proposal.

Comment 5
Photo 5: The applicant should advise the meaning of “cross need to be removed”.
Response
Revised. Please refer to Photo 5