



## Ministry of Works & Transport: DRAINAGE DIVISION

# 

# **WORKING EFFECTIVELY TODAY FOR A SUSTAINABLE TOMORROW**

### REQUIREMENTS FOR LAND DEVELOPMENTS TO OBTAIN **DRAINAGE DESIGN APPROVAL**

The Ministry of Works and Transport is seeking to secure the safety of all citizens by ensuring to that all developers adhere to the prescribed drainage requirements. Unplanned developments and poor drainage systems leads to devastating flooding in Trinidad and Tobago. It is a breach of law and an offence to carry out development in Trinidad and Tobago without obtaining the necessary drainage approvals from the Ministry of Works and Transport and other relevant agencies.

- A copy of the Town and Country Planning Division's APPROVAL with the attached CADASTRAL SHEET and/or 1. SITE PLAN.
- A Location Plan of the proposed development. 2.
- Surveyed boundaries of the entire parcel of land indicating size, shape and dimensions. 3.
- Layout plans indicating size, shape and dimension of each proposed plot. 4.
- Details of the existing contours of the area in question at maximum vertical interval of 1.52m based on mean 5. sea level.
- A grading plan and detailed cross sections indicating the extent of proposed earthworks and indicating 6. measures designed to ensure slope stability and erosion control.
- A plan defining the drainage catchment areas and the associated sizes. 7.
- Details of any existing watercourses/drains within the site of the proposed land development. 8.
- Details of the proposed drainage layout, including all relevant drainage details and full details at points of 9. confluence and outfall.
- Details along a main drainage channel leading to a main watercourse. 10.
- Singular discharge into a main watercourse adjacent to or passing through the development site is 11. recommended.
- Gradient and profiles of storm water sewers with invert levels at each change of grade and direction 12.
- 'Longitudinal profiles and cross-sections of all drains and roadways. 13.
- Cylindrical culverts should not be less than 450mm in diameter. 14.
- Hydrologic and hydraulic calculations, together with the name and address of the Consultant. (Unless otherwise 15. agreed to with the Drainage Division, the 1 in 25-yr storm must be used in the design of conveyance systems and the detention pond; and the 1 in 50-yr storm for the discharge over the weir of the detention pond).
- Flow profiles (water levels) superimposed on proposed bank elevations (channel bank elevations) together 16. with backwater profiles where appropriate, for main discharge channels.
- Calculations for the pre-development and post-development peak discharges. 17.
- Design provision (eg. detention systems) for ensuring that post-development discharges into the main outfall 18. do not exceed the pre-development peak discharges.
- Design of sediment control structures to cater for sedimentation anticipated during and subsequent to 19. construction works.
- All Drawings must be stamped and signed by an Engineer registered with the Board of Engineering of Trinidad 20. and Tobago.
- All Drawings and reports must be legible to the satisfaction of the Drainage Division. 21.

#### **NOTES**

One (1) copy of each Drawing and one copy of the Drainage Report must initially be submitted. Upon approval by the Drainage Division, three (3) additional copies of the Drawings would be requested for signatures









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