

## **SPECIFICATION FOR MAINTENANCE OF STORMWATER STRUCTURES**

### **1. SCOPE**

This specification sets out the requirements for routine maintenance of Stormwater Structures. Stormwater structures include culverts, manholes, sumps, slot drains, catch pits, soak pits, flumes, all marked outlets to subsoil drains, bridge deck drainage including channels and outlets, and including all culverts under accessways listed in the documents.

Routine maintenance comprises regular inspections, repair reporting and cleaning, but does not include repair work and emergency work.

Culverts with a waterway area greater than 3.5 m<sup>2</sup> are excluded from this specification.

To achieve the long term maintenance objectives of Transit New Zealand, the following principle shall be followed:

- (a) The Contractor shall undertake a detailed inspection programme in order to meet the response times, and shall undertake cleaning where required of all stormwater structures within the Contract.
- (b) The Contractor shall schedule the location of all faults or damage noticed during inspections and submit the schedule to the Engineer.
- (c) The Contractor shall record and schedule all work undertaken.
- (d) All blockages shall be reported immediately to the Engineer.

### **2. LOCATION**

A schedule of stormwater structures requiring maintenance shall be included by the Engineer in the Contract documents.

### **3. RESPONSE TIMES**

All stormwater structures shall be inspected at regular intervals (at least 6 monthly) to ensure that the cleaning programme maintains the requirements of this Contract.

| Should a blockage be reported or found it shall be cleared within the response times  
| scheduled by the Engineer in the Contract documents. The Contractor's monthly programme  
| of work shall be submitted to the Engineer before commencement of the work.

### **4. WORK SCHEDULE**

All work scheduled by the Contractor shall be in terms of Transit New Zealand State Highway Route Positions.

The Engineer may schedule problem catch pits, sumps, or culverts that require close inspection and frequent cleaning.

### **5. FAULT AND INSPECTION REPORTING**

Any faults or damage noticed by the Contractor shall be reported within one week to the Engineer. Apart from faults or damage to the stormwater structures the Contractor is required to indicate where upstream or downstream inverts may be blocked, or where culvert marker posts are missing.

| Fault reporting shall include a listing of State Highway, route position, fault type, repair  
| required.

The Contractor shall submit all inspection reports to the Engineer as a record of the condition of the stormwater structures at the time of inspection.

### **6. CLEANING**

Stormwater structures are deemed to be clean when 90% of the waterway area is clear of debris throughout the length of the structure, and this standard shall be maintained wherever practicable throughout the Contract.

Stormwater structures shall be cleaned, where possible, in conjunction with each inspection.

Foreign matter shall be removed from stormwater structures so that the normal water flow is maintained. Such foreign matter shall include all litter, rubbish, debris, detritus and

vegetation.

All wood debris jammed within structures must be removed. Care shall be taken so that stormwater structures or their linings are not damaged during cleaning operations. Damage arising from the Contractor's methods of work shall be remedied at the Contractor's expense.

| The channel area within five metres of culvert inlets and outlets shall be cleaned. Culvert inlet and outlet structures, such as headwalls, and the areas immediately adjacent to these, shall also be cleaned.

| The inverts of sumps and manholes, their gratings, covers, seatings and outlet pipes (first 150mm) shall be cleaned. Care shall be taken during cleaning not to push any debris into outlet pipes.

## **7. PERFORMANCE CRITERIA**

The performance of the Contractor during the contract period will be measured by the following criteria.

- a) That all cleaning is carried out in accordance with the requirements of this specification within the response times stated and that all stormwater structures remain clean.
- b) That no damage to existing stormwater structures or adjacent roading features is caused by the Contractor's operation.
- c) That accurate inspection reports are submitted to the Engineer.

## **8. BASIS OF PAYMENT**

The basis of payment shall be an all inclusive rate per km of road per month.