# 54.6 CLEANING DEBRIS FROM CULVERTS

# 54.6.1 GENERAL

The Work consists of the removal of silt or debris from culvert barrels and culvert sloped end sections to restore proper drainage. The culvert barrel is the portion of the culvert excluding the sloped ends.

# 54.6.2 EQUIPMENT

The Contractor shall supply all equipment necessary to complete the Work.

A water truck or vacuum truck are normally used for this activity and are not considered as specialized equipment.

## 54.6.3 PROCEDURES

## 54.6.3.1 Cleaning Culvert Barrels

The Contractor shall remove and dispose of material from the culvert barrel. When the debris blockage has been removed from the culvert barrel, the entire culvert, including the culvert inverts, shall be free of debris, allowing a normal flow of water. Debris is defined as beaver dams, wood, vegetative material, household items and other non-granular materials. Silt is not considered as debris under this specification.

If the culvert is blocked by silt, rock, or other granular material, the Engineer and the Contractor will determine the appropriate action including any specialized equipment required for cleaning the culvert.

#### 54.6.3.2 Cleaning Sloped Ends

The Contractor shall remove and dispose of material from the culvert ends to restore normal water flow. This will require 1 person with hand tools for a period of up to 1 man-hour of labour.

If the culvert end is blocked by silt, rock or other granular material requiring more than 1 man-hour of labour, the Engineer and the Contractor will determine the appropriate action and the specialized equipment required for cleaning the culvert ends.

# 54.6.4 ACCEPTANCE CRITERIA

The culvert barrel and/or culvert ends shall be free of debris and silt, rock or granular material, allowing a normal flow of water as determined by the Engineer.

#### 54.6.5 TIME TO COMPLETE

In urgent situations, the Contractor shall complete the Work within 2 calendar days of the issuance of the Work Order. In all other cases, the Work shall be completed within 30 calendar days of the issuance of the Work Order.

# 54.6.6 MEASUREMENT AND PAYMENT

# 54.6.6.1 Culvert Barrels

Measurement will be made in metres of the full length of culvert barrel, for a specific range of diameters, regardless of the size or length of blockage.

Payment will be made at the applicable unit price bid per metre for "Cleaning Culvert Barrel - up to 800 mm diameter," or "Cleaning Culvert Barrel - over 800 mm and less than 1500 mm diameter" and "Cleaning Culvert Barrel - 1500 mm and over". This payment will be full compensation for removing and disposing of debris from the culvert barrel, and all labour, materials, equipment, tools and incidentals necessary to complete the Work.

When debris is cleaned from the culvert barrel, removing and disposing of that debris from the sloped ends shall be incidental to the Work.

Payment for specialized equipment, if required, and as determined by the Engineer and the Contractor, will be paid as Extra Work in accordance with Specification 51.2, General (For Maintenance Work).

## 54.6.6.2 Sloped Ends

Measurement will be made of the number of sloped ends cleaned, regardless of the diameter of the pipe.

Payment will be made at the unit price bid per sloped end for "Cleaning Culvert Ends". This payment will be full compensation for removing and disposing of debris from the culvert end, and all labour, material, equipment, tools and incidentals necessary to complete the Work.

If the time required for cleaning a culvert end is 10 minutes or less, the Work will be considered a Routine Highway Maintenance Activity as defined in Specification 53.39, Highway Maintenance Work and no separate or additional payment will be made.

Payment for specialized equipment, if required, and as determined by the Engineer and the Contractor will be paid as Extra Work in accordance with Specification 51.2, General (For Maintenance Work).

#### 54.6.6.3 Reduced Time to Complete

In urgent situations where the Contractor is required to complete the Work within 2 calendar days of the issuance of the Work Order, an additional payment will be made at the unit price bid per occurrence for "Culvert Cleaning - Premium". This payment will be full compensation for complying with the accelerated scheduling required to complete the Work.

# 54.6.7 WARRANTY

There is no warranty period for this Work.