DART ENGINEERS LTD
CIVIL AND STRUCTURAL ENGINEERING

Job no: 26974

Pitt Street, Darfield

Surface Water Drainage Maintenance Schedule

Attenuation Tank / Basin Maintenance Schedule

General

The attenuation tank / basin system shall remain private and the responsibility for the ongoing inspection, management and maintenance of the system shall rest with the site owner / management company. The system shall be maintained to ensure continued hydraulic performance, storage capacity and flood mitigation functionality throughout the lifetime of the development.

Routine Maintenance Schedule

Frequency	Maintenance Activity
Monthly	Visual inspection of all inlets, outlets, headwalls, control chambers and gratings for debris, blockage or damage.
Monthly	Remove leaves, litter, vegetation and debris from drainage inlets and outlet structures.
Every 3 Months	Inspect catchpits, silt traps and inspection chambers for sediment accumulation and clean where necessary.
Every 6 Months	Inspect the attenuation tank / basin for standing water, surcharge, erosion, settlement or signs of structural distress.
Every 6 Months	Inspect flow control devices, hydrobrakes, penstocks or orifice plates to confirm correct operation and remove obstructions.
Every 6 Months	Inspect embankments, side slopes and surrounding landscaped areas for erosion, animal burrowing or instability.
Annually	Jet wash and cleanse associated pipework where required to maintain free flow conditions.
Annually	Remove accumulated silt and sediment from the attenuation tank / basin where necessary to maintain design storage volume.
Annually	Inspect geotextiles, crate systems or proprietary attenuation units (where accessible) for evidence of clogging or deterioration.
Following Extreme Rainfall Events	Inspect the system for surcharge, blockage, erosion, scour or structural damage and undertake remedial works where necessary.

Operational Requirements

- The attenuation system shall only receive surface water runoff as designed.
- Oils, chemicals, concrete washout, silts or contaminated liquids shall not be discharged into the system.
- Vegetation growth shall be controlled to maintain access and hydraulic performance.
- Heavy vehicles or storage loading shall not be permitted over underground attenuation systems unless specifically designed for such loading.
- Any defects identified during inspections shall be repaired promptly by a suitably qualified contractor.
- Maintenance and inspection records shall be retained by the site owner / management company for future reference.

Responsibility

The site owner / management company shall remain responsible for ensuring the attenuation tank / basin system operates effectively throughout the lifetime of the development and that all maintenance activities are undertaken in accordance with good drainage management practice and manufacturer recommendations where applicable.

Hydrobrake Manhole Maintenance Schedule

General

The hydrobrake manhole system shall remain private and the responsibility for the ongoing inspection, management and maintenance of the system shall rest with the site owner / management company. The system shall be maintained to ensure continued flow control performance and to minimise the risk of blockage, surcharge or hydraulic failure.

Routine Maintenance Schedule

Frequency	Maintenance Activity
Monthly	Visual inspection of chamber covers, access points and surrounding areas for signs of damage, surcharge or settlement.
Monthly	Inspect inlet and outlet pipework for debris, silt accumulation or obstruction.
Every 3 Months	Remove silt, debris and sediment from the chamber base where necessary.
Every 6 Months	Inspect the hydrobrake flow control device for blockage, corrosion, wear or damage.
Every 6 Months	Confirm the hydrobrake remains securely fixed and operating in accordance with the design flow rate.
Every 6 Months	Inspect chamber benching and internal surfaces for deterioration or damage.
Annually	Jet wash associated pipework and chamber benching to maintain free flow conditions.
Annually	Full inspection by a competent drainage contractor to confirm operational performance and hydraulic efficiency.
Following Extreme Rainfall Events	Inspect the system for surcharge, blockage, silting or structural damage and undertake remedial works where necessary.

Operational Requirements

- The hydrobrake manhole shall remain accessible for inspection and maintenance at all times.
- No oils, chemicals, concrete washout or construction debris shall be permitted to enter the system.
- Vegetation growth around access chambers shall be controlled to maintain safe access.
- Any defects identified during inspections shall be repaired promptly by a suitably qualified contractor.
- Maintenance and inspection records shall be retained by the site owner / management company for future reference.

Responsibility

The site owner / management company shall remain responsible for ensuring the hydrobrake manhole system operates effectively throughout the lifetime of the development and that all maintenance activities are undertaken in accordance with good drainage management practice and manufacturer recommendations where applicable.

Channel Drains / ACO Channels / Gullies Maintenance Schedule

General

The channel drains, ACO channels and gullies shall remain private and the responsibility for the ongoing inspection, management and maintenance of the system shall rest with the site owner / management company. The system shall be maintained to ensure continued surface water collection, unrestricted hydraulic performance and to minimise the risk of blockage or localised flooding.

Routine Maintenance Schedule

Frequency	Maintenance Activity
Monthly	Visual inspection of channel drains, ACO channels, gullies and gratings for debris, blockage, damage or settlement.
Monthly	Remove leaves, litter, sediment and debris from channels, gratings and gully pots.
Every 3 Months	Inspect gully pots and catchpits for silt accumulation and remove deposits where necessary.
Every 3 Months	Check inlet and outlet connections for blockage or restricted flow conditions.
Every 6 Months	Inspect drainage falls and confirm free discharge to downstream drainage systems.
Every 6 Months	Inspect gratings, frames and channel units for movement, cracking, corrosion or deterioration.
Annually	Jet wash channels, gullies and associated drainage pipework where required to maintain free flow conditions.
Annually	Undertake full clean of gully pots and sediment traps using specialist vacuum equipment where necessary.
Following Extreme Rainfall Events	Inspect the system for surcharge, blockage, silting or structural damage and undertake remedial works where necessary.

Operational Requirements

- The drainage system shall be kept free from debris, vegetation and silt accumulation at all times.
- Oils, chemicals, concrete washout or contaminated liquids shall not be discharged into the surface water system unless specifically designed for such treatment.
- Damaged gratings, covers or channel sections shall be repaired or replaced promptly to maintain safe operation.
- Access points and maintenance chambers shall remain accessible at all times for inspection and cleaning operations.
- Any defects identified during inspections shall be repaired promptly by a suitably qualified contractor.
- Maintenance and inspection records shall be retained by the site owner / management company for future reference.

Responsibility

The site owner / management company shall remain responsible for ensuring the channel drains, ACO channels and gullies operate effectively throughout the lifetime of the development and that all maintenance activities are undertaken in accordance with good drainage management practice and manufacturer recommendations where applicable.