Method Statement and Risk Assessment

Dalreoch CSO Overflow Pipe Installation

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Installation of Bolted Flap Valve and DN825 pre-cast concrete pipe through existing flood wall
River Leven – Dry Working Only Installation Method

1. Scope of Works

This method statement covers the controlled installation of a Bolted (to existing flood wall) flap valve and a DN825 pre-cast concrete pipe stub that penetrates a cored hole within an existing flood wall. The main stub operation will be executed exclusively from the landward side with no access, disturbance, or material deposition into the tidal river environment. The design ensures compliance with the Marine (Scotland) Act 2010 by avoiding licensable marine activities.

2. Key Objectives

- Ensure no person or equipment enters the riverbed or watercourse.

- Prevent any deposition of materials into the River Leven.

- Achieve secure and watertight fitting of flap valve bolted to the existing flood wall

- Demonstrate the activity falls outside marine licensing requirements.

3. Materials and Equipment

- Bolted flap valve

- DN825 Pre-cast concrete pipe stub (flush with or recessed from wall face)

-Crane set up on dry side and/or cantilevered scaffold system

-Lifting man basket

- Manual lifting aids / tripod hoist (dry side only)

- Temporary sealing plugs

-Waterproof sika (or equivalent) sealing products

- Internal access ladder or scaffold (landward side only)

- Torque tools (if required by manufacturer)

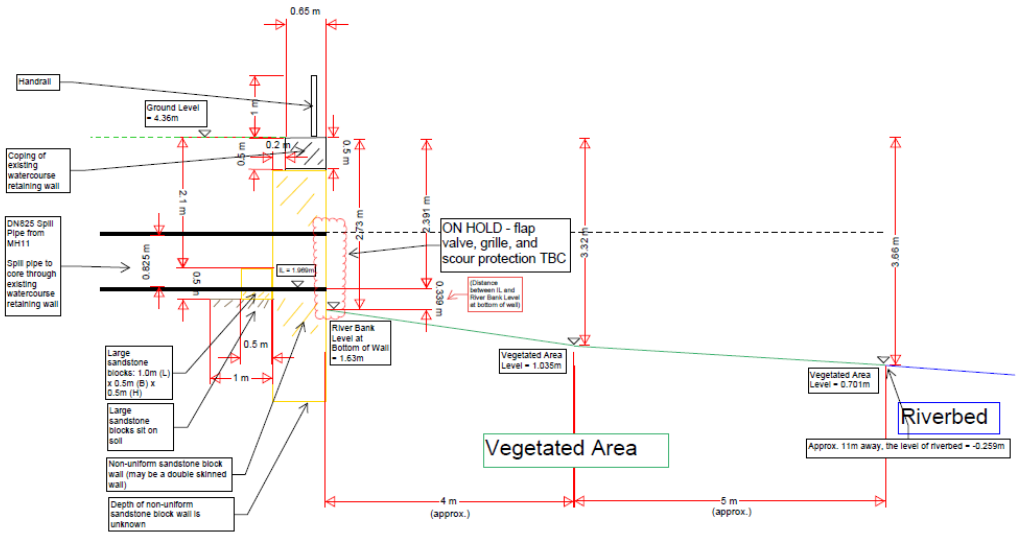
4. Methodology

a. Pre-Installation Setup

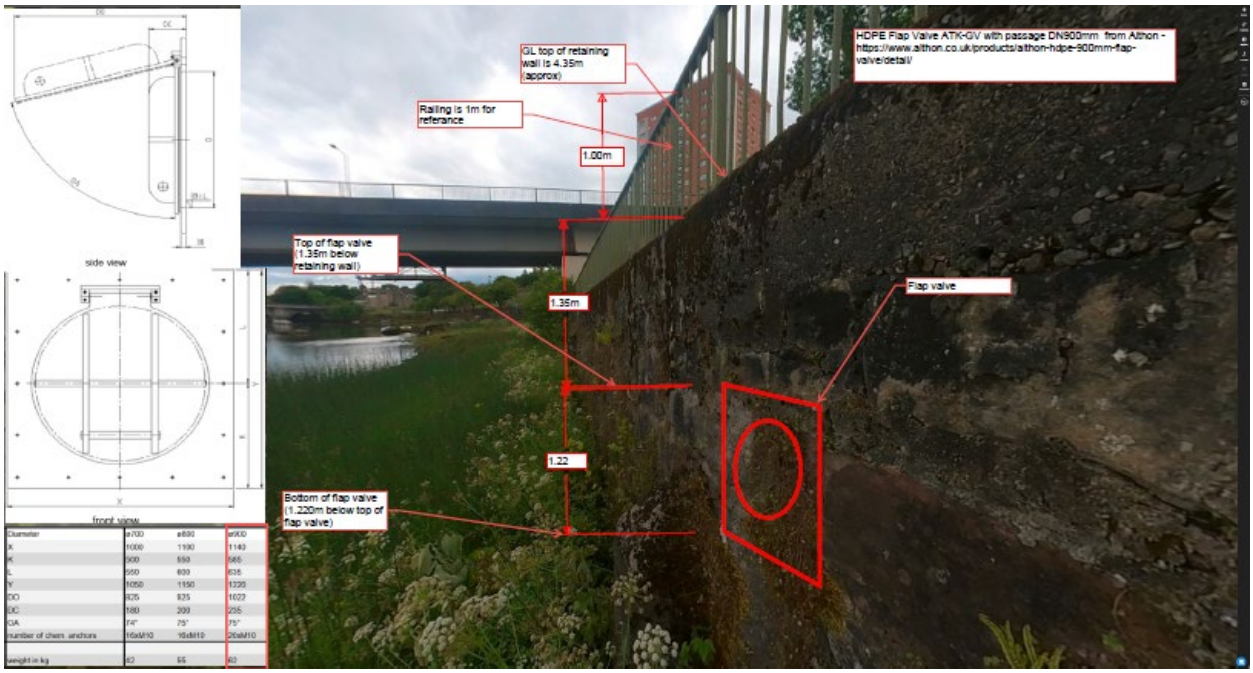
1. Monitor tide times and levels to ensure work can be safely carried out between tides

2. 1st Tide – Ensure debris control installed and removed daily on river side of flood wall under level of the core cutting - Core cut halfway through 850mm sandstone floodwall doe DN825 concrete pipe

3. 2nd Tide – Core cut second half 850mm sandstone floodwall and install DN825 concrete pipe with pre fitted bung on dry side – confirm stub correctly inserted through cored ends flush with flood wall on river side.



4. 3rd Tide – Using lifting equipment to lower flap valve and crane/scaffold to lower man basked, bolt, seal and finish flap valve to the river side of the flood wall.



5. 4th Tide – Undertake Post-Installation Checks, conduct water-tightness, backfill and remove debris control.

6. As per the existing outfall, we do not expect a need to lay scour protection. The invert level is approximately 339mm above the river bed and with the speed of the river and tidal pattern, the effect of the outfall on the riverbed is negligible.

5. Control Measures

- No access to river or riverbed.

- No projection into tidal waters.

-Lifting plans in place and agreed prior to work commencing

- All risk of deposition eliminated.

6. Environmental Safeguards

- Use debris control during coring.

- Visual inspections before and after works.

- Emergency spill kits available.

- No sealants or grouts that risk entering watercourse.

Risk Assessment Summary

Hazard	Risk	Mitigation
Debris entering river	Pollution of watercourse	Use containment sheeting and catchment trays
Accidental access to riverbed	Non-compliance with marine licensing	Site briefing, barriers, exclusion zone
Improper valve seating	Flooding, backflow	Pre-check alignment, certified installer
Confined space risk	Entrapment/asphyxiation	Rescue plan, permit to work
Manual handling	Strain injury	Lifting aids, two-person team