SUPPORTING STATEMENT

Cliffdale Drive DG5
Proposed control kiosk, vent pipe and hardstanding area

1. Site Setting and Description

1.1. General Location

The proposed control kiosk, vent pipe, permanent hardstanding area and security fencing are to be located on a disused area of concreted land on the east side of Bank Road, Crumpsall, Manchester, OS Grid Ref 384235 402423.

1.2. Application Site

The proposed site is a disused, concrete-surfaced area of land and is the nearest available area of land in the vicinity of the flooding issue United Utilities are required to resolve. The site is overlooked by seven properties. Photographs of the site are in Appendix A.

The proposed kiosk measures L3.1m x W0.7m x H1.87m. It has been sized to be as discrete as possible within the constraints of housing the equipment it contains. The proposed vent stack measures H6.0m x Ø0.15m. The proposed security fencing will be palisade-type design and will be 2.4m high. The proposed access area measures L13m x W6m (at its longest dimensions). The total area of the application site is 508m^2. The proposed layout of these features is illustrated on drawing 80015995/01/6000.

2. Proposed Development

2.1. Requirement for Development

The scheme forms part of United Utilities (UU) AMP4 (Asset Management Plan 4) Programme. This is a major programme of work refurbishing and upgrading various UU assets across the region as required by the water industry regulator OFWAT (Office of Water Services), and the Environment Agency (EA), to be implemented between 2005 and 2010.

As a sewerage undertaker, UU is obligated to provide the appropriate facilities for the treatment of wastewater to the required standard by the Water Resources Act 1991 and the Urban Wastewater Treatment Regulations 1994.

During heavy rainfall the existing sewers in Cliffdale Drive become surcharged which results in flooding. The flooding at this location affects several properties on Cliffdale Drive.

The improvements are required to be operational by 31 March 2010.

To provide the necessary improvements, UU are proposing to construct an underground detention tank of sufficient capacity with pumps and control equipment to return stored flows to the sewerage system once the storm has abated. The tank will store flows and prevent flooding for storms up to and including the 1 in 20 year return period storm.

3. Site Selection

The site has been selected due it being the only available piece of land in the area with convenient proximity to the existing network. Storm flows will move under gravity down to this location where they will be collected. Once a suitable volume is accumulated, the flows are pumped via a rising main up to the existing sewer system.

4. Option Selection

In developing the solution for the works, a number of options were considered and discounted for the following reasons:

4.1. Disconnection

Disconnection of properties from the sewer network was considered but rejected in this case as the properties are affected by overland flooding consequently this option would not solve the flooding.

4.2. Separation of flows

This option would involve separation of the foul and surface water inputs to the sewer network in order to relieve the hydraulic overloading of the combined sewers in storm conditions. This option has been discounted because it would require provision of extensive new surface water networks, outfalls and new separate house connections on private property over a wide area which would have caused massive disruption to residents and road users.

4.3. On-line Storage

This would involve the laying of oversized gravity sewers in Cliffdale Drive to provide sufficient on-line storage volume to give 20 year flooding protection to the affected properties. This option has been rejected because the storage volume required to give 20 year flooding protection would require a pipe too large to achieve the necessary storage volume required and is therefore not feasible due to engineering, construction and economic reasons.

4.4. Transfer of flows to another Catchment

There is no other catchment or part of the same catchment to transfer flows to that would resolve the flooding.

4.5. Preferred Option: New Detention Tank

The new tank and sewers will eliminate flooding for storms up to and including the 1 in 20 year return period storm. This proposal limits construction to relatively short lengths of sewer combined with the new below ground tank in land off Bank Road. Duty and standby pumps will return flows to the sewer without the need for any overflow. The control system will delay the onset of pumping until there is capacity available in the sewer.

5. Environment & Ecology:

5.1. Energy

The pump return mechanism works on a demand basis, i.e. the existing system is designed to spill into storage tank only at times of heavy rainfall events. In this regard, electricity consumption is kept to a minimum, unlike a conventional pumping station.

5.2. Materials and Waste

This scheme does exceed £300k in capital value, and will therefore require a site waste management plan (SWMP).

5.3. Noise

The design provided by this solution is typical of those constructed in many locations across the north west by United Utilities. They do not generate any levels of noise perceivable by the public, and have not met objection based on noise issues previously. The plant and machinery (pumps) will be housed within the covered detention tank approximately 12 metres below ground. Noise levels will be limited to 85 dB (A) at 1m from the unit. Owing to the location of the pumps there is not expected to be any noticeable noise at the boundary of the site.

5.4. Odour

The design provided by this solution is typical of those constructed in many locations across the North West by United Utilities. They do not generate any levels of odour perceivable by the public, and have not met objection based on odour issues previously. On completion of the development, there will be no odour nuisance associated with the development. The tank will be covered to prevent odour emissions at ground level and a vent stack provides pressure relief to maintain atmospheric pressure within the tank during times of surcharge and pumping. Sewage will be returned to the system as soon as flow conditions permit.

5.5. Traffic Movements

This installation is typically maintained on a 12 service visit per annum. It is designed to operate remotely and when servicing is required, it would typically be attended by operatives in a light commercial vehicle (e.g. Transit van, or similar).

5.6. Flood Risk
The project is designed to alleviate sewer flooding to the local community. The site is not situated within any surface flood risk area as defined by the Environment Agency.

5.7. Socio-economic
Several residential properties are to be removed from the flooding-risk register and therein their property value will no longer be impacted from flood risk.

5.8. Landscape / Visual impact
It is intended that the site will be largely screened from the rears of the properties on the south side of Cliffdale drive by the existing walls and fences to the rears of these properties. It is not possible to screen the site from the remaining affected properties, though it is thought that the proposals will bring a perceived improvement to the aspect currently experienced.

5.9. Ecology
A qualified UU ecologist conducted a walkover survey on 1st September 2009. No potential for protected species were identified. It was confirmed that the site is infested with Japanese Knotweed (see Section 8.4).

6. Community Consultation/ Involvement
The landowner has been consulted about the development by United Utilities' Valuation personnel. Letter-drops have been made, explaining the purpose and extent of the scheme and how the residents could become involved. United Utilities have also met the Local Authority's Highways Department.

7. Planning Requirement

7.1. Planning Permission
This document is in support of the proposed development requiring planning permission under the Town & Country Planning Act 1990. These elements comprise:-

MCC (Motor Control Centre) Kiosk
A dark green (BS4800 14.C.39) steel kiosk is proposed to house the electrics and controls for the associated pumping station. This will be L3.1m x W0.7m x H1.87m (inc. concrete plinth) and will be located as shown on drawing 80015995/01/6000.

Hardstanding Area
A hardstanding area is required to be constructed to facilitate the movement of operational vehicles to the site. The area is proposed to be surfaced with bitumen macadam. The access area will be approximately L25.0m x W20.0m and will be located as shown on drawing 80015995/01/6000.

Vent Stack
A vent stack is required as a standard safety feature to allow the rapid displacement of air volume in the tank during a storm even and to prevent the unlikely build up of otherwise potentially explosive gases within the tank. The pressure relief column measures H6.0m x Ø0.15m and will be located as shown on drawing 80015995/01/6000.

7.2. Permitted Development
The associated plant and machinery for the pumping station are permitted by virtue of the GPDO 1995 Part 16 Class A (e). These elements and their dimensions are listed in Table 1 and are illustrated on drawing 80015995/01/6000.

8. Construction Phase

8.1. Construction Programme/Timing
Construction is currently programmed to commence in November 2009, subject to planning permission, for a period of 20 weeks.

It is anticipated that construction will be limited to 0800 – 1800 (Mon-Fri) and Saturday mornings 0800 to 1200.

8.2. Traffic Management & Access

Permanent Traffic Movements:
On completion of the development there will be operational inspection and maintenance visits to the Cliffdale Road Detention Tank approximately once per month. The maintenance vehicle will park off the highway in the works compound. Exceptionally it may be necessary to use a tanker for cleaning purposes.

The need for operational attendance to deal with flooding incidents up to those expected in a 20 year return period will be removed.

Construction Traffic:
Vehicle movements will be intense during mobilisation on site for delivery of plant machinery/equipment but will level out during the course of the construction period.

Daily access will be required for site personnel. Parking of contractors vehicles on Bank Road and Cliffdale Drive will not be allowed unless specifically required for the construction work.

The following large goods vehicle movements are expected during the construction period:

Activity	Approx. No. of Vehicles
Excavated material away from site	271
Imported fill to site	45
Ready mixed concrete etc. to site	80
Prefab. components and building materials	35
Pipework and manholes etc.	12
Mechanical and electrical plant	4
Fuel etc.	6

Additionally there will be a small number of vehicle movements to bring construction plant to the site and remove it on completion. All vehicles leaving the site will be sheeted and cleaned to prevent material being deposited on the highway. The route for access to and egress from the site will be via Bank Road.

8.3. Contractor's Compound

The contractor's compound will be located within the existing field at the site of the detention tank. It will comprise of cabins to accommodate welfare facilities and offices plus an area for materials storage.

Wheel washing facilities will be provided during the course of the construction period.

8.4. Excavated Material

4600m^3 of spoil will be generated through the construction phase. Site investigations have revealed that the land is contaminated with Japanese Knotweed. All surface arisings will be taken off site to a suitably licenced tip.

9. Plans

Plans submitted in support of this application are:

- Planning Application drawing 80015995/01/6000

Table 1 – Proposed Structures

Ref	Structure	Planning Requirement	Max Height (m) Above Local Ground Level)	Depth (m)	Width (m)	Material & Finish
1	Control kiosk	Y	1.87	0.7	3.1	Steel, Dark Green (BS4899 14.C.39)
2	Vent pipe	Y	6.0	-	0.15 Ø	Dark green galvanised mild steel
4	Fencing	Y	2.4	-	-	Corrugated pales
5	Permanent hardstanding area	Y	Ground level	-	25.0 x 20.0	Bitumen macadam

APPENDIX A –
PROPOSED LOCATION PHOTOGRAPHS



Aerial photos of proposed location. Proposed hardstanding area overlaid in red (dimensions are approximate).