

Connection into existing sewer, contractor to review outfall conditions and confirm position and outfall level at least 1 week prior to construction work starting.

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Control chamber capable of discharging 15l/s in a 100yr + 40% CC event. vortex flow control. 0.8m head.

Connection into existing sewer, Section 106 approval required

Package Pump station TT pump system or similar approved. 15L/s discharge limit

Discharge based on 30% betterment over 1 year brownfield rates. as agreed in Drainage strategy document

Surface water attenuation unit to be provided. Crate Soakaway. 25m3 storage volume. size currently based on 800mm deep unit with 800mm minimum cover and 95% void ratio

**Key.**

- F1 (1200) CL 130.900 IL 130.000 Proposed foul sewer (invert level shown)
- C1 (1200) CL 130.900 IL 130.000 Proposed Combined water sewer
- S10 (1200) CL 131.050 IL 128.300 Proposed surface water drain (roof water/highway/treated external area flows only)
- 600/460/225 "non-accessible" inspection chambers
- Minimum 1200 "accessible" manholes
- Proposed road gully and lateral Connection
- Proposed Rodding Eye point
- Proposed channel drainage system - hauraton faserfix super or similar approved. 150mm wide.
- Existing drain
- Existing sewers to be diverted/made redundant /built over
- Indicative existing sewer easement
- Proposed surface water attenuation unit
- Proposed surface water flow control unit
- Proposed Oil/Petrol interceptor or drainage treatment unit  
Note: All Treatment units noted are for indicative costing purposes only. Full detailed design specification to be obtained from the manufacturers prior to any orders being placed.
- Proposed Package Pump station. - design by manufacturers  
Note: All Pump units noted are for indicative costing purposes only. Full detailed design specification to be obtained from the manufacturers prior to any orders being placed.

FFL 130.000 Proposed Finished Floor Level

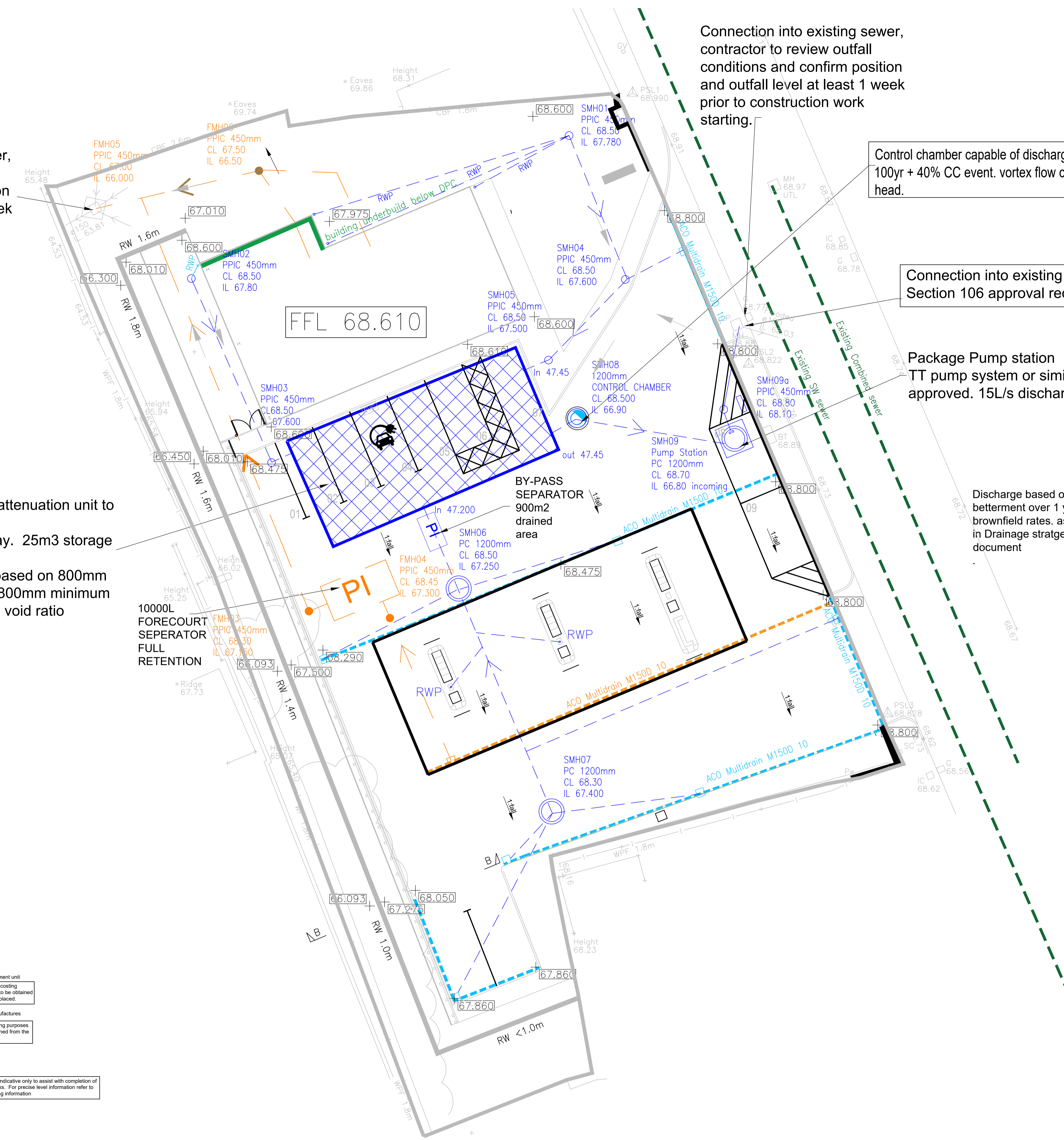
x131.05m  
1:35

Embankment (@1:3 unless stated)

600mm high Retaining wall/SE detail

600mm high Underbuild detail

Levels provided are indicative only to assist with completion of drainage design works. For precise level information refer to architects/landscaping information



**General Notes**

- Do not scale this drawing. If in doubt, consult with the Engineer
- This drawing is to be read in conjunction with all other relevant Engineers, Architects and Specialist design drawings and specifications.
  - All dimensions and levels are in metres unless noted otherwise.
  - This drawing is for information purposes and all information displayed is subject to detailed design.
  - Cover levels noted are indicative or best design levels. constructed levels should take into account as-built surfacing levels and gradients.
  - The Contractor shall be responsible for checking all tie-ins for line and level with existing foul and surface water systems before commencing any works.
  - The Engineer shall be notified immediately, in writing, should any errors or discrepancies be found prior to the commencement or continuation of any works. All work is to be carried out in accordance with current British Standards, Building Regulations and NHBC Standards.
  - All drainage work is to be strictly in accordance with the requirements of the Building Regulations 2010, Approved Document Part H, "Drainage and waste disposal".
  - It is the responsibility of the Contractor to execute the works at all times in strict accordance with the requirements of the Health and Safety at Work Act 1974, and the C.D.M. Regulations 2015. The Contractor will be deemed to have allowed for full compliance, including full liaison with the Principle Contractor, within his rates.
  - All existing land drains encountered on site during construction are to be re-connected.
  - Should any departure from the proposed slab or external levels be considered, agreement shall be sought from the Engineer immediately and prior to the commencement or continuation of any works. Proposals should take full account of all restrictions to the slab level.
  - Temporary protection to be provided to drainage work during construction as necessary.
  - Power supply to separator/treatment units, alarm, panel, vent etc to be provided by contractor in accordance with manufacturers recommendations.
  - Topographical survey shown is based upon BHB existing site drawing 3548-02
  - Architects layout shown is based upon BHB Site Layout drawing no. 3548-10  
This layout may be subject to change and is intended for indicative purposes only.

**Specification Notes**

- The following types of pipe may be used unless noted or agreed otherwise:
  - Pipes up to 300mm diameter to be Structured Wall to BS EN 13476, Polypropylene to BS EN 1852 or PVC-U to BS EN 1401.
  - Pipes 300mm diameter or over to be Concrete to BS 5911.
- Both Clay and Concrete pipes shall be strength class 120 (100/150mm min crushing strength 28kN/m). Thermoplastic pipes shall have a minimum ring stiffness of S14.
- Pipes which run adjacent to buildings shall be installed in strict accordance with Part H, Clauses 2.23 to 2.25.
- All pipes, chambers and fittings shall be installed, bedded and backfilled in accordance with the manufacturers instructions subject to the following minimum requirements:

Pipe Location	Cover to crown	Clay/Concrete Pipe * Bedding	Plastic Pipe Bedding	Backfill
Roads (HGV)	>1.2m	Class S	Class S (Stor2)	Type 1 Granular
	<1.2m	Class 'A' (Concrete)	Class 'A' (Concrete)	
Drives / car parking	>0.9m	Class S (Concrete)	Class S (Stor2)	Type 1 Granular
	<0.9m	Class 'A' (Concrete)	Class 'A' (Concrete)	
Hard and soft Landscaping	>0.6m	Class S (Concrete)	Class S (Stor2)	Suitable as dug material
	<0.6m	Class 'A' (Concrete)	Class 'A' (Concrete)	

- The first flexible joint in pipes adjoining a manhole shall be a maximum length of 600mm from the inside face of the manhole, connecting to a rocker pipe. The length of the rocker pipe shall be as follows:

Pipe diameter	Length of Rocker pipe
150-600mm	600mm
675-750mm	1000mm
over 750mm	1250mm

- All manholes and inspection chambers situated in areas subject to vehicular loading to have class D400 covers and frames to BS EN124 and those not subject to vehicular loading to have class minimum class B125 covers and frames.
- Drainage frames must be tied to manhole risers by use of manufacturers ties (eg. Polypipe ref FRK500 fixing kit and FRK501 black ties.) The ground works contractor will be held fully responsible for any accidents due to incorrect fitting or failure to use the correct manufacturers fixing equipment.
- All drains in the vicinity of existing or proposed trees to be constructed in accordance with the requirements of NHBC Practice Note 3.

REV	DATE	DESCRIPTION	BY
P04	30.08.24	Site layout updated.	EB
P03	11.06.24	Levels amended	BD
P02	05.10.23	Revised to pumping station requirement	BD
P01	20.08.23	Initial issue.	BD

CLIENT  
**Mr Arif Asmal**

PROJECT  
**Heckmonwike Road, Dewsbury, Leeds**

DRAWING TITLE  
**Proposed Drainage Layout**

**PRELIMINARY/COSTING**



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DRAWN BY	DATE	CHECKED BY	SCALE	SHEET SIZE	REVISION
EB	August 2023	PR	As Shown @ A1	A1	P04
ABA PROJECT No			DRAWING No		
16524			16524-ABA-23-00-DR-C-500		