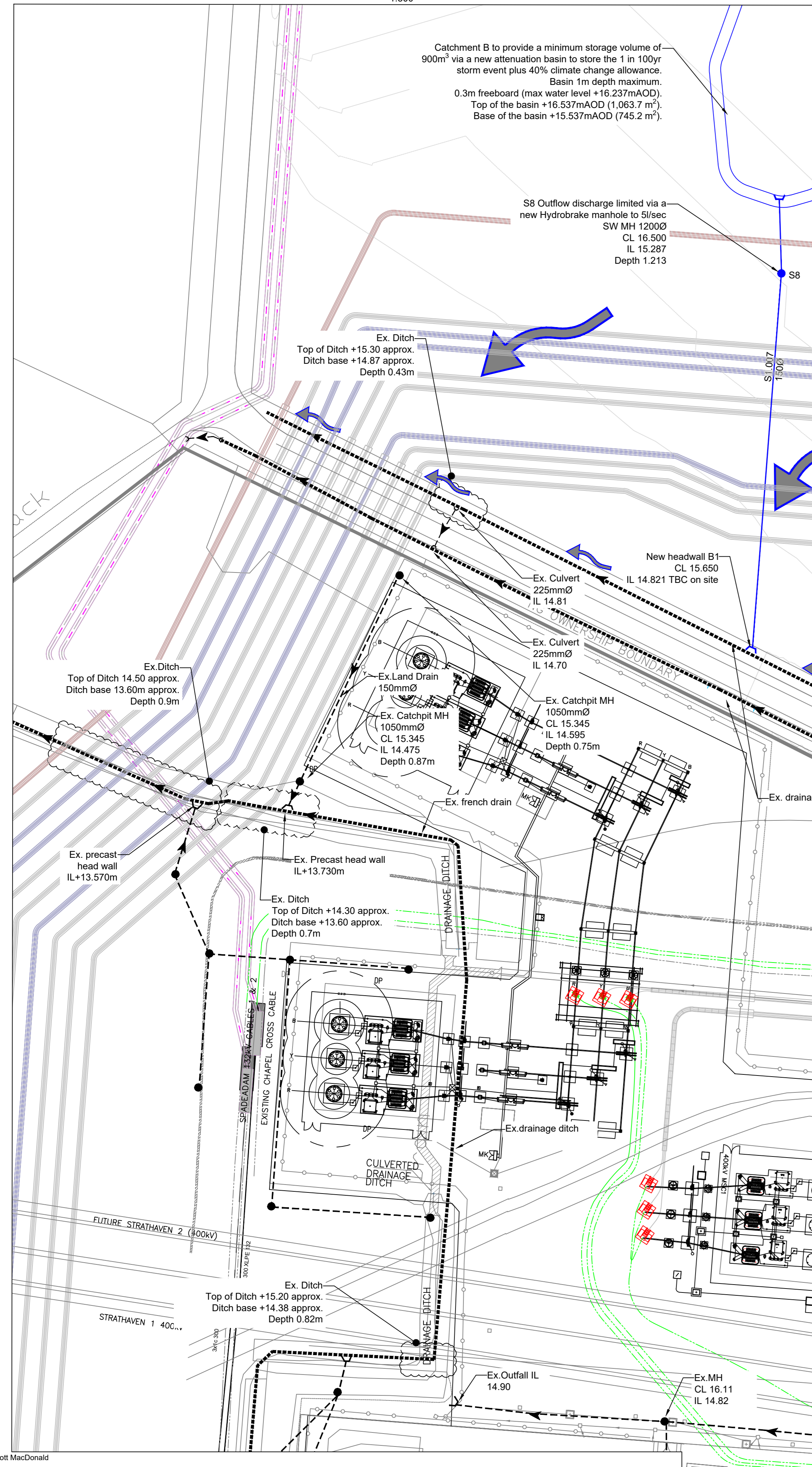
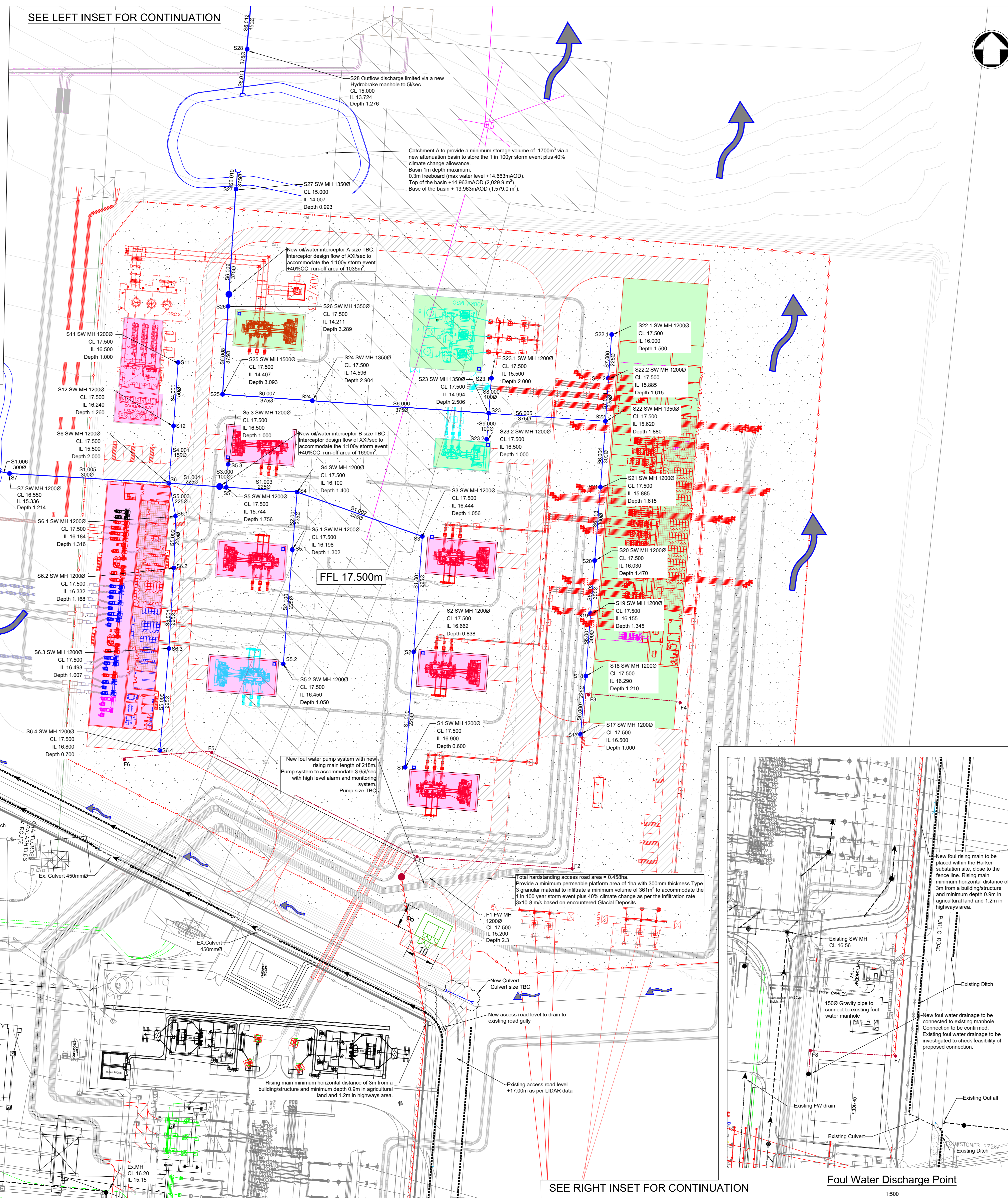


Catchment A Discharge Point



Catchment B to provide a minimum storage volume of 900m<sup>3</sup> via a new attenuation basin to store the 1 in 100yr storm event plus 40% climate change allowance. Basin 1m depth maximum. 0.3m freeboard (max water level +16.237m AOD). Top of the basin +15.537m AOD (1,053.7 m<sup>3</sup>). Base of the basin +15.537m AOD (745.2 m<sup>3</sup>).

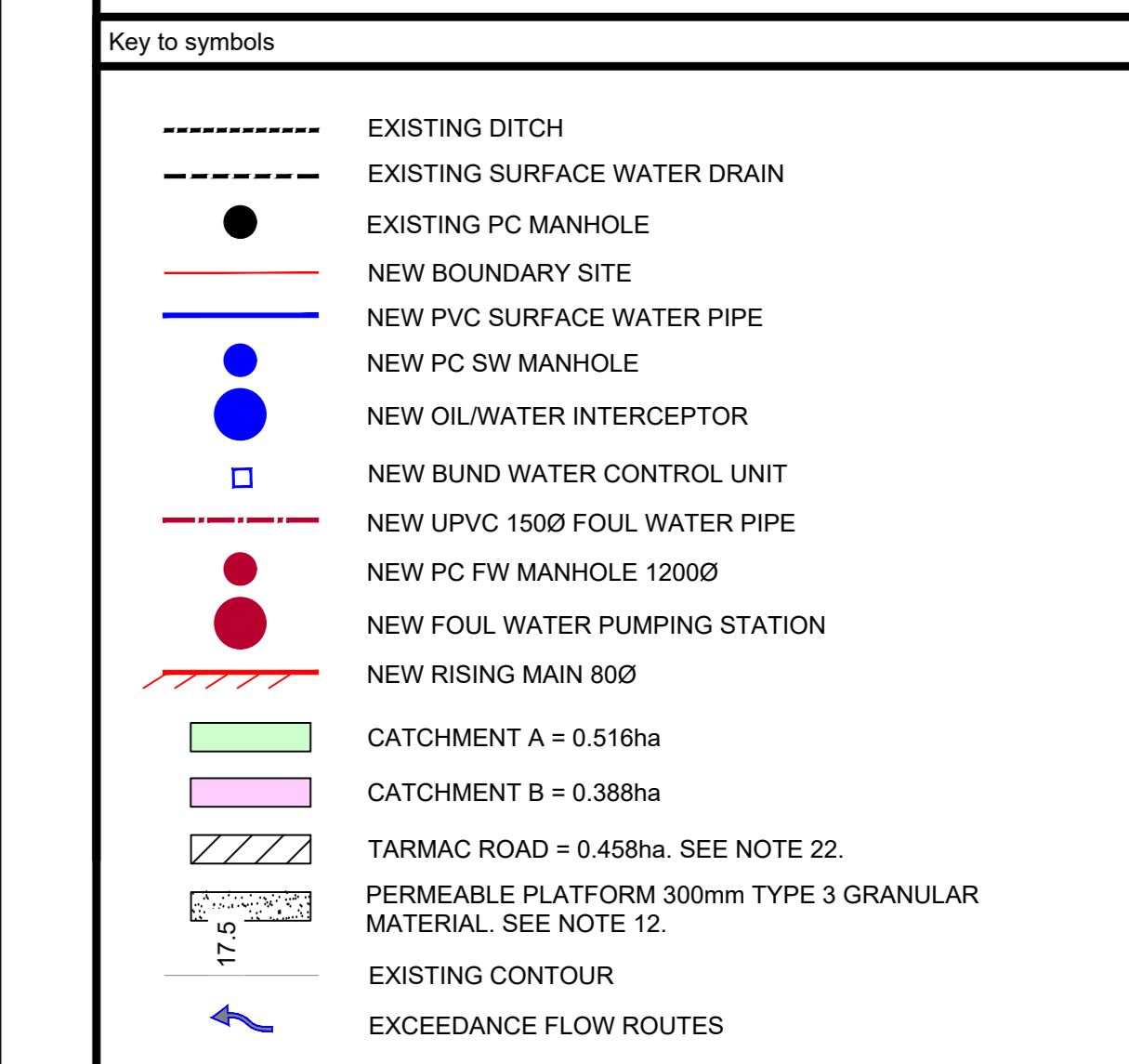


FFL 17.500m

SEE RIGHT INSET FOR CONTINUATION

Foul Water Discharge Point

- Notes
- Do not scale from this drawing.
  - All dimensions are in millimetres and levels in metres AOD (relative to Ordnance Datum Newlyn) unless otherwise stated.
  - Mott MacDonald are not responsible for the information provided by others upon which this drawing is based.
  - Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald.
  - This drawing is to be read in conjunction with all relevant documents and drawings.
  - No authorised disclosure, storage or copying.
  - All work to be in accordance with IFC Specification: TS 2.10.09 Site Drainage Specification and TS 2.10.01 Oil Containment Guidance.
  - All SuDS (drainage systems including detention basins, ponds, swales etc.) are to be constructed in accordance with Ciria 753, the SuDS Manual 2015.
  - All spatial coordinates relate to the Ordnance Survey, British National Grid (OSGB36).
  - Installation of all Proprietary products as per the Suppliers Manufacturer Guidelines and Recommendations.
  - It is anticipated that there will be no significant increase in runoff rate through the outfall as the system has been designed to maintain reduced discharge rates via orifice control. Refer to the Drainage Strategy for details.
  - Provide a minimum permeable platform area of 1ha minimum with 300mm thickness Type 3 material to infiltrate a minimum volume of 361m<sup>3</sup> to accommodate the 1 in 100 year storm event plus 40% climate change to drain the internal roads (0.458ha) as per the infiltration rate 3x10<sup>-8</sup> m/s based on encountered Glacial Deposits. Infiltration rate based on fill soil from table 25.1 from SuDS C753 manual.
  - FEM method design criteria and CV coefficient for winter set to 1.0.
  - Downpipe locations to be confirmed by architect's layout.
  - Existing drainage based on Lidar survey provided by National Grid and topographic survey by Central Alliance Survey dated 2019.
  - Existing drainage based on survey information.
  - 19.1 Drawing Number 2380335\_P - Rev B (2) by Central Alliance Survey dated Oct 19.
  - 19.2 Drawing Number 06\_18242\_03 1 of 2 by LSTC Group dated Sep'18.
  - 19.3 Drawing Number 100682 by Centara dated Jan'13.
  - Pipe to be encased in concrete when minimum cover < 600mm.
  - For the bund drainage, a new oil discriminating pump/bund control unit will be connected to a new oilwater interceptor connected to new surface water underground drainage prior to discharge into existing watercourse.
  - Existing drainage based on survey information.
  - 19.1 Drawing Number 2380335\_P - Rev B (2) by Central Alliance Survey dated Oct 19.
  - 19.2 Drawing Number 06\_18242\_03 1 of 2 by LSTC Group dated Sep'18.
  - 19.3 Drawing Number 100682 by Centara dated Jan'13.
  - Pipe to be encased in concrete when minimum cover < 600mm.
  - For the bund drainage, a new oil discriminating pump/bund control unit will be connected to a new oilwater interceptor connected to new surface water underground drainage prior to discharge into existing watercourse.
  - Existing drainage based on survey information.



TOTAL SITE AREA = 6.11ha
TOTAL HARDSTANDING AREA = 1.363ha
TOTAL ROAD AREA = 0.458ha
TOTAL ROOF AREA = 0.587ha
TOTAL TRANSFORMERS AREA = 0.273ha

Reference drawings

Rev	Date	Drawn	Description	Checked	App'd
P01	09/05/2022	ARD	FIRST ISSUE	RMG	SA

Client

**nationalgrid**

Master Scheme No: 101268 Sub-Scheme No: \*\*\* Site: HARKER 400/275/132kV SUBSTATION

Scheme Name: HARKER ENERGY ENABLEMENT SCHEME

Document Title: HARKER 400/132kV GIS SUBSTATION DRAINAGE LAYOUT

Created by: A. Ruiz-Diaz Date: 09/05/22 Checked by: R. McGowan Date: 09/05/22 Approved by: S. Anantharam Date: 09/05/22

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