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- KEY**
- SITE BOUNDARY
  - PROPOSED ADOPTABLE STORM SEWER
  - PROPOSED ADOPTABLE HEADWALL
  - PROPOSED ADOPTABLE FOUL WATER SEWER
  - EXISTING 800mm ADJUNCTION
  - DUNLEY BROOK (CULVERTED WATERCOURSE)
  - POROUS PAVING (INFILTRATION TO THE GROUND)
  - UNLINED POROUS PAVING (OUTFALL TO GRAVITY SEWER NETWORK)
  - PLOTS DISCHARGING TO SOAKAWAY
  - PLOTS DISCHARGING TO GRAVITY SEWER NETWORK
  - DRAINAGE EASEMENT
  - APPROXIMATE FINISHED FLOOR LEVEL
  - BANKING
  - EXPOSED BRICKWORK WITH NUMBER OF COURSES
  - MASONRY RETAINING WALL WITH HEIGHT
  - GRAVEL BOARD WITH HEIGHT
  - TANKING WITH NUMBER OF COURSES

**NOTES:**

ALL DESIGN INFORMATION IS PRELIMINARY AND SUBJECT TO DETAILED DESIGN.

SEVERN TRENT WATER, WORCESTERSHIRE COUNTY COUNCIL & THE LLFA WILL NEED TO APPROVE THE DRAINAGE PRINCIPLES.

REV	DESCRIPTION	DATE	BY	AUTH
A	DRAINAGE STRATEGY UPDATED TO NEW LAYOUT	05.10.20	NN	CAO

CLIENT		BARRATT WEST MIDLANDS	
PROJECT			
LAND WEST OF PEARL LANE STOURPORT ON SEVERN			
TITLE			
DRAINAGE STRATEGY SHEET 2			
STATUS			
PRELIMINARY/FOR PLANNING			
DRAWN	AUTHORISED	SCALE	DATE
PB	CAO	1:500@A0	07.10.19
PROJECT NO.		DRAWING NO.	
0056		4	
		REV	
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Development Design Solutions Ltd  
Unit 23 Bessington  
Bromsgrove Enterprise Park  
Sutton Road  
Bromsgrove  
B60 3ET  
www.development-design.co.uk

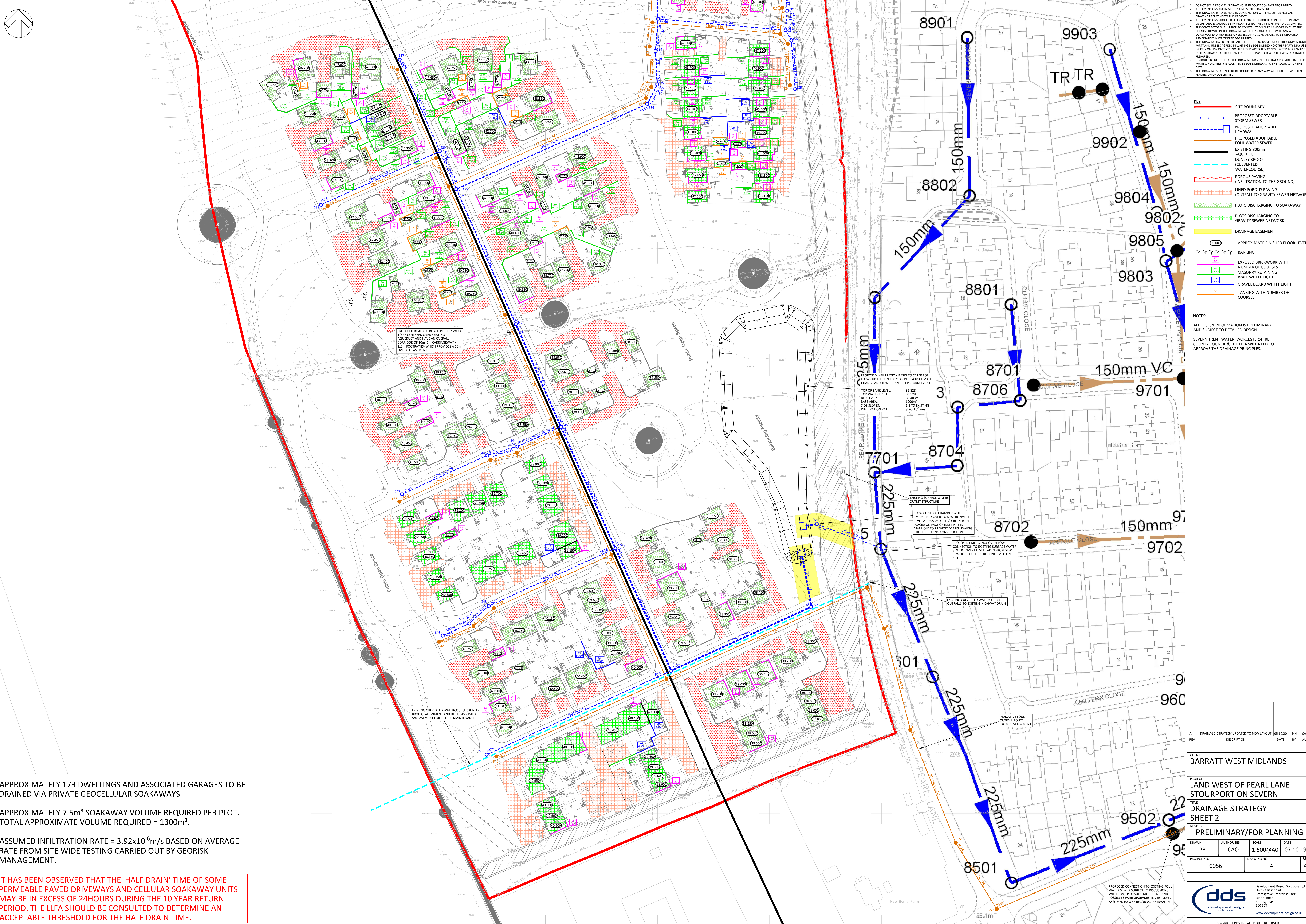
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APPROXIMATELY 173 DWELLINGS AND ASSOCIATED GARAGES TO BE DRAINED VIA PRIVATE GEOCELLULAR SOAKAWAYS.

APPROXIMATELY 7.5m<sup>3</sup> SOAKAWAY VOLUME REQUIRED PER PLOT. TOTAL APPROXIMATE VOLUME REQUIRED = 1300m<sup>3</sup>.

ASSUMED INFILTRATION RATE = 3.92x10<sup>-6</sup>m/s BASED ON AVERAGE RATE FROM SITE WIDE TESTING CARRIED OUT BY GEORISK MANAGEMENT.

IT HAS BEEN OBSERVED THAT THE 'HALF DRAIN' TIME OF SOME PERMEABLE PAVED DRIVEWAYS AND CELLULAR SOAKAWAY UNITS MAY BE IN EXCESS OF 24HOURS DURING THE 10 YEAR RETURN PERIOD. THE LLFA SHOULD BE CONSULTED TO DETERMINE AN ACCEPTABLE THRESHOLD FOR THE HALF DRAIN TIME.



PROPOSED INFILTRATION BASIN TO CATER FOR FLOWS UP TO THE 1 IN 100 YEAR PLUS 40% CLIMATE CHANGE AND 10% URBAN CREEP STORM EVENT.

TOP OF BANK LEVEL: 36.82m  
TOP WATER LEVEL: 36.52m  
BED LEVEL: 35.40m  
BASE AREA: 1900m<sup>2</sup>  
SIDE SLOPES: 1:3 TO EXISTING  
INFILTRATION RATE: 3.26x10<sup>-6</sup> m/s

EXISTING SURFACE WATER OUTLET STRUCTURE

FLOW CONTROL CHAMBER WITH EMERGENCY OVERFLOW WITH INVERT LEVEL AT 36.53m. GRILLSCREEN TO BE PLACED ON FACE OF INLET PIPE IN MANHOLE TO PREVENT DEBRIS LEAVING THE SITE DURING CONSTRUCTION.

PROPOSED EMERGENCY OVERFLOW CONNECTION TO EXISTING SURFACE WATER SEWER. INVERT LEVEL TAKEN FROM STW SEWER RECORDS TO BE CONFIRMED ON SITE.

EXISTING CULVERTED WATERCOURSE OUTFALL TO EXISTING HIGHWAY DRAIN

INDICATIVE FOUL OUTFALL ROUTE FROM DEVELOPMENT

PROPOSED CONNECTION TO EXISTING FOUL WATER SEWER SUBJECT TO DISCUSSIONS WITH STW. HYDRAULIC MODELLING AND POSSIBLE SEWER UPGRADES. INVERT LEVEL ASSUMED (SEWER RECORDS ARE INVALID)