



- Notes:**
- DO NOT SCALE FROM THIS DRAWING.
  - All dimensions are in millimetres Unless Noted Otherwise (u.n.o.)
  - Drawing is to be read in conjunction with all relevant architect's drawings. Any inconsistencies should be reported to PRP immediately.
  - All levels and dimensions are to be checked on site before any work commences.
  - For more information see PRP drawings:  
63199 - 100series - Drainage and External Works  
63199 - 200series - Foundations  
63199 - 300series - Superstructure
  - The Health and Safety at Work act is to be complied with at all times. Attention is drawn to the wearing of hard hats, safety boots, reflective clothing, and the use of any other required safety equipment.
- Drainage:**
- The position, line, level and diameter of all existing drainage apparatus should be confirmed on site prior to the commencement of the works. Any discrepancies should be reported to PRP immediately.
  - The connection of foul and surface water drainage to the existing public sewer system shall be subject to the approval of the water authority
  - For positions of all rainwater pipes & foul outlets refer to Architect's drawings.
  - All drainage works shall be carried out in accordance with Water UK Sewerage Sector Guidance - "Design Construction Guidance"
  - All joints between precast manhole components shall have a minimum uncompressed thickness of 10mm of proprietary bitumen or resin mastic sealant.
  - Storm & foul branch connections are to be laid at gradients of between 1:10 & 1:80
  - All in-situ concrete shall be minimum grade GEN3.
  - Precast concrete cover & reducing slabs to be heavy duty reinforced concrete to BS 5911.
  - Manhole covers & frames shall be manufactured in cast iron or ductile iron & shall comply with requirements of BS EN 124 & shall be kite marked or equivalent.
  - All completed work shall be suitably protected from damage by construction work. Damaged drainage will not be accepted. It is recommended that no heavy loading or underground work is permitted above or near unprotected drainage, and that dumpers, trucks, fork lifts or other heavy vehicles are not driven along or near pipe runs
  - Inspection chambers, soakaways and flow control units are to be installed strictly in accordance with manufacturer guidance and instructions

- External Works:**
- Prior to any works being carried out within or immediately adjacent to the public highway, a scheme for the safe control of traffic and pedestrians is to be agreed with the Highway Authority and implemented
  - Any utilities shown on this drawing are indicative only. It is the Contractor's responsibility to trace and indicate the precise location and nature of all services.
  - The Developer/Contractor shall be responsible for liaison with the Statutory Undertakers and other cable service companies for the provision of all required services, diversion.
  - Special care is to be taken when excavating in the vicinity of existing tress, it is not intended that any tree roots should be severed or damaged and specialist advice should be sought when major roots present a problem.
  - The formation of all surfaces shall be trimmed, rolled and treated with a glyphosphate based weedkiller in accordance with the manufacturers instructions prior to laying the sub-base
  - All in situ concrete shall be Designated Concrete GEN3 produced in accordance with BS 8500-2006.
  - In all instances sulphate resisting cement is to be used.
  - Half Battered and Splayed kerbs face shall be 125mm above the channel level. Bullnosed kerb shall be 0-6mm above wearing course for pedestrian crossing and 25mm for vehicular access
  - The minimum depth of concrete below all kerbs shall be 150mm. Kerbs shall be laid on a 10-40mm bed of Class 1 cement mortar unless laid with the foundation in one operation.
  - Adequate bond must be made between foundation and haunch if laid in more than one operation. Preferred method of bonding to be by means of steel U-bars reinforcement, any other method to be approved by PRP.
  - Mortar joints between kerbs not to be provided unless specified. Gaps between kerbs to be 1 to 2mm.
  - The sub-grade shall be prepared to falls to ensure that construction thickness' remain uniform. Following trimming of the sub-grade it shall be protected against the ingress of water, failure to do so will seriously weaken the sub-grade.
  - All soft spots shall be excavated and replaced with compacted sub-base material
  - The minimum total carriageway construction thickness shall not be less than 450mm.
  - All materials used in top 450mm of carriageway construction shall be non-frost susceptible.

P2	20/04/2021	Carparking spaces updated	MS / HP
P1	24/03/2021	DRAFT - Issued for comments	MS / HP
Rev	Date	Description	By / Chk



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Client:	Chhaya Hare Wilson Ltd		
Architect:	Bernard Murray Design		
Project:	Transport House Hillingdon UB10 0LY		
Title:	Drainage & External Works Layout		
Status:	<b>PRELIMINARY</b>		
Engineer:	MS	Date:	March 2021
Drawn:	GF	Scales @ A1:	
Checked:	HP		1:100
Project No:	63199	Drg No:	101
		Rev:	P2