



- NOTE:**
ALL BELOW GROUND DRAINAGE BRANCH PIPES TO MAIN RUNS SHALL PASS BENEATH FOUNDATIONS UNLESS OTHERWISE STATED.

NOTE:
DRAINAGE OUTSIDE OF ADAPTABLE HIGHWAY BOUNDARY BY OTHERS AS PART OF S278 WORKS PACKAGE

NOTE:
THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.

NOTE:
THE COVERS SHALL BE SET TO SAME LEVEL AND FALL AS ADJACENT GROUND.

NOTE:
ALL GULLIES SHALL BE TRAPPED AND RODDABLE (REFER TO DETAILS).

NOTE:
ALL HEADS OF RUNS ARE TO BE VENTED.
- NOTE:**
ADAPTABLE HIGHWAY BOUNDARY BY OTHERS

NOTE:
THE CONTRACTOR SHALL CHECK AND CONFIRM TO THE ENGINEER ASSUMED SIZES, DEPTHS, LEVELS AND LOCATIONS OF EXISTING SEWERS AND MANHOLES PRIOR TO CONSTRUCTION COMMENCING.

NOTE:
ALL CAST IRON DRAINAGE WITHIN CONCRETE SHALL BE AIR TESTED BEFORE CONCRETE IS POURED TO ENSURE THAT THE SYSTEM IS AIR TIGHT AND ADEQUATELY SEALED.

NOTE:
ALL DRAINAGE PIPES WITH LESS THAN 600mm COVER IN THE ROAD OR PRIVATE DRIVE SHALL BE PROTECTED WITH 150mm CONCRETE BED AND SURROUND.

NOTE:
REMOVABLE ACCESS PLATES TO BE PROVIDED ABOVE FFL FOR ALL RWP, SS AND SVP
- NOTE:**
SETTING OUT OF ALL RWP, STUB-STACK AND SVP POSITIONS BY ARCHITECT/M&E.

NOTE:
FOR EXTERNAL LEVELS INFORMATION REFER TO WYNNE - WILLIAMS DRAWING WWA/1611LL105.

NOTE:
THIS DRAWING HAS BEEN BASED ON TOPOGRAPHICAL SURVEY PREPARED BY ENGINEERING LAND & BUILDING SURVEYS REF B7542_TOPO_rev3 DATED MAY 2010 WHICH SHOULD BE REFERRED TO FOR KEY INFORMATION.

NOTE:
ALL PIPEWORK NOT CAST WITHIN CONCRETE AND GREATER THAN 600mm BELOW SLABS SHALL BE uPVC IN ACCORDANCE WITH ALL RELEVANT MANUFACTURING STANDARDS, WITH A 150mm SHINGLE SURROUND, EXCEPT SEWER CONNECTIONS THAT SHALL BE VITRIFIED CLAY PIPES IN ACCORDANCE WITH BS EN 285

- NOTES**
- No deviation from the details shown on this drawing is allowed without CampbellReith's prior permission in writing.
 - Read this drawing with all Architects, Services Engineers and CampbellReith's relevant details and drawings. All setting out dimensions are per the Architects drawings and procedures.
 - All works are to be in accordance with the relevant specifications issued by CampbellReith, British Standard Codes of Practice, statutory requirements and the Contract Documents.
 - DRAWING STATUS
 - P - PRELIMINARY - Evolving drawings for approval, Tenders, Billings, etc.
 - C - CONSTRUCTION - Fully developed drawings issued under instruction for construction.
 - ONLY STATUS C DRAWINGS TO BE USED FOR CONSTRUCTION
 - SUITABILITY CODE
 - WORK IN PROGRESS
 - S0 - Work in progress
 - SHARED (NON-CONTRACTUAL)
 - S1 - For coordination, S2 - For information, S3 - For internal review and comment, S4 - For construction reference
 - DOCUMENTATION (FOR CONTRACTOR PURPOSES)
 - D1 - For co-ordinating, D2 - For Tender, D3 - For contractor design, D4 - For mechanical environment
 - CONSTRUCTION
 - C1 - For construction, C2 - For construction but with comments (i.e. areas in grey/white), C3 - Comprehensive revisions required
 - Existing details shown on this drawing including kerbstones, sewerage, stormwater, sub-drainage, levels & areas etc. Must be confirmed on site by the contractor for their accuracy. If any discrepancies occur the engineer must be informed.
 - The proposed building outlines shown on this drawing are indicative only. Refer to architects layouts for exact external outline of proposed buildings.
 - External site water pipes, & internal water, gas, oil & floor gully locations/connections etc. Shown on this drawing are approximate/indicative only. Refer to archs drgs for their exact locations & types.
 - All external adaptable storm pipework & lateral connections shown falls of 1:120 unless stated otherwise.
 - All external private storm pipework & lateral connections shown on this drawing are to be 1000 & are to have a minimum fall of 1:100 unless stated otherwise. All external private foul pipework & lateral connections shown on this drg are to be 1000 & are to have minimum falls of 1:80 unless stated otherwise.
 - Existing adopted/drop-down adopted storm & foul water mains & sewers which have been made redundant by new identified systems, shall be abandoned/removed. Existing sewers & manholes are to be abandoned/removed in compliance with L.A. specifications.
 - Cover levels shown on this drawing are approximate & are to be adjusted to suit finished pavement levels on site by contractor. Covers shall be oriented to suit pavement finishes.
 - UNDESIRABLE DRAINAGE CONNECTIONS
 - a) All undesirable foul connections upto first external inspection chamber/manhole are to be 1000 & are to have a minimum fall of 1:80 unless stated otherwise. After first external inspection chamber/manhole connections are to be 1000 & have a minimum fall of 1:80 unless stated otherwise.
 - b) All undesirable storm connections upto first external inspection chamber/manhole are to be 1000 & are to have a minimum fall of 1:80 unless stated otherwise. After first external inspection chamber/manhole connections are to be 1000 & have a minimum fall of 1:100 unless stated otherwise.
 - c) Final orientation & position of first external chambers receiving underside connections are to be determined on site by contractor.
 - d) Bends along underside connections are to be long radius 5:45° Bends at bottom of abandoned/vent pipes are to be long radius 90°.
 - e) All under side drainage connections are to be clear of unit foundations unless unavoidable. Refer to CRH structural drawings for exact location of unit foundations.
 - f) Finished underside drainage route connections in Bend & straight connections are to be determined on site to suit the number of bends in each connection is to be kept to a minimum.
 - All adaptable storm sewerage runs to be laid soft to suit unless stated otherwise. All adaptable storm sewerage runs to be laid soft to suit unless stated otherwise. All non-adaptable storm sewerage runs to be laid soft to suit unless stated otherwise.
 - External rainwater pipes are to be rodable above ground (refer to details).
 - All works are non-adaptable unless stated otherwise.
 - Adaptable pipe work to be concrete or unlined clay.
 - Class 2 concrete encasement required where vertical clearance between two pipes is less than 300mm.
 - For the provision of land drainage if required refer to landscape architect for details/specification.
 - At least one vent pipe at the head of each run shall vent to the atmosphere.
 - All adaptable drainage shown on this drawing shall be constructed in accordance with water authorities association sewers for adoption 7th edition.

LEGEND

- PROPOSED FOUL WATER SEWER.
- PROPOSED FOUL WATER MANHOLE AND SEWER.
- PROPOSED FOUL WATER INSPECTION CHAMBER.
- PROPOSED FOUL WATER RODDING EYE.
- PROPOSED STORM WATER PIPE INVERT LEVEL MARKER.
- PROPOSED FOUL WATER STUB STACK.
- PROPOSED SOIL VENT PIPE.
- PROPOSED FLOOR GULLY.
- PROPOSED COMBINED WATER SEWER.
- PROPOSED COMBINED WATER MANHOLE AND SEWER.
- PIPE INFO: -PIPE DIA. FALL OF PIPE/LENGTH. 1:100/10m.
- DIRECTION OF FLOW ALONG PIPE.
- EXISTING THAMES COMBINED WATER SEWER WITH 6m WIDE EASEMENT.
- EXTENT OF BUILDING BASEMENT.
- PROPOSED SITE BOUNDARY.
- ALTERNATIVE COMBINED WATER SEWER ROUTE.

*CIPIC - DENOTES CAST IN PILE CAP
*CIGB - DENOTES CAST IN GROUND BEAM
*CTGB - DENOTES CUT THROUGH GROUND BEAM AND CELCORE LOCALLY REMOVED

NOTE:
ALL PIPES ARE TO PASS BENEATH GROUND BEAMS AND PILE CAPS UNLESS NOTED OTHERWISE.

P3	ISSUED FOR TENDER	01.12.16	ST
P2	ISSUED FOR TENDER	28.06.16	MG
P1	ISSUED FOR INFORMATION	24.03.16	MG
State/No	Description	Date	By

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Job Title	GREENWOOD CENTRE
Client	KIER

PROPOSED FOUL WATER DRAINAGE LAYOUT

Drawn	MG	Date	JUN16	Scale @ A0	1:100	CI checked	RAI	CR Project No.	12291
Orig No.	12291-CRH-GC-XX-DR-C-5056	Stability	D2	State/Revision	P3				

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