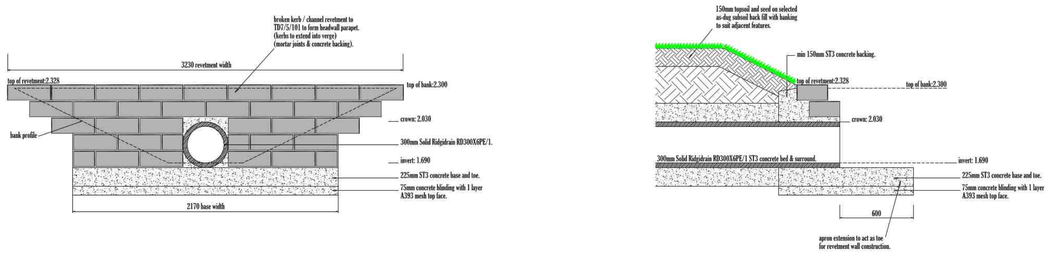
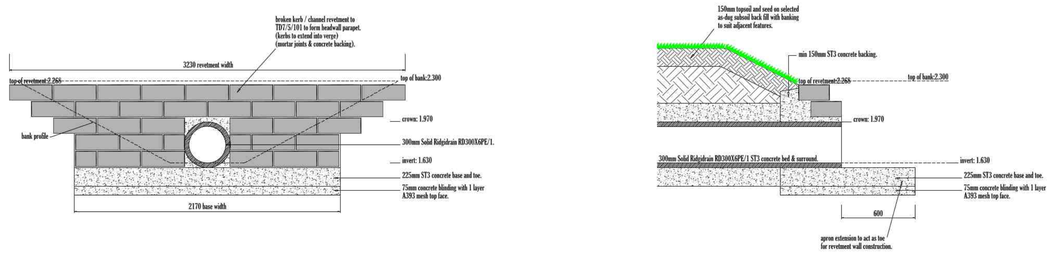


TRANSVERSE DITCH CULVERTING, HEADWALL HW3/1 DETAIL. SCALE 1:25



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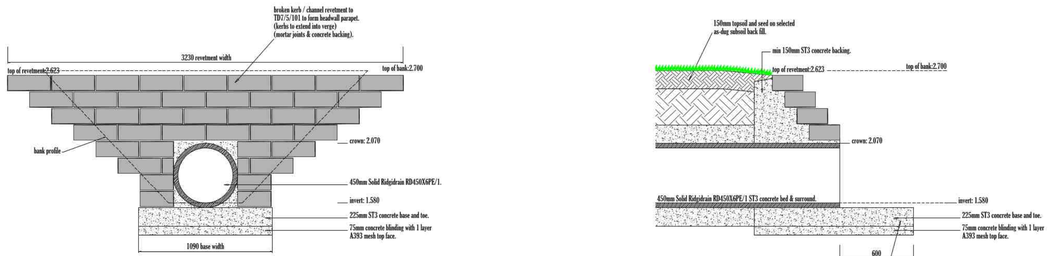

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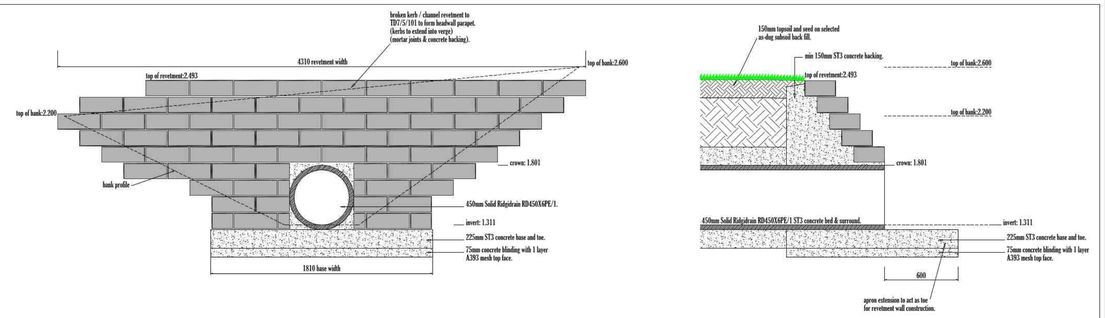

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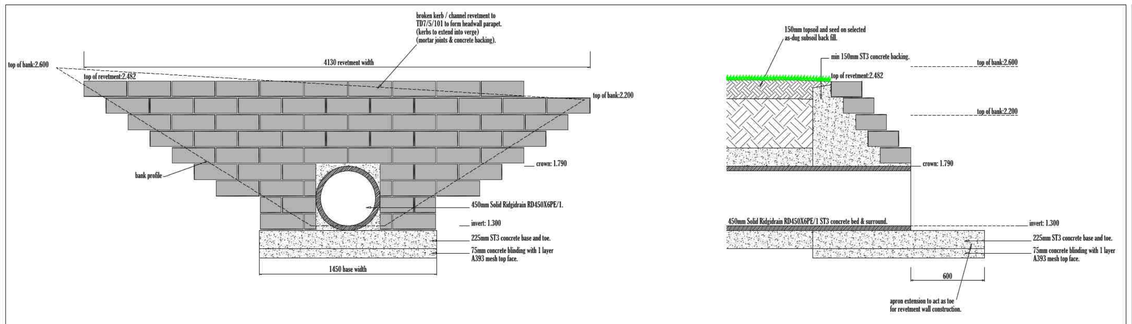

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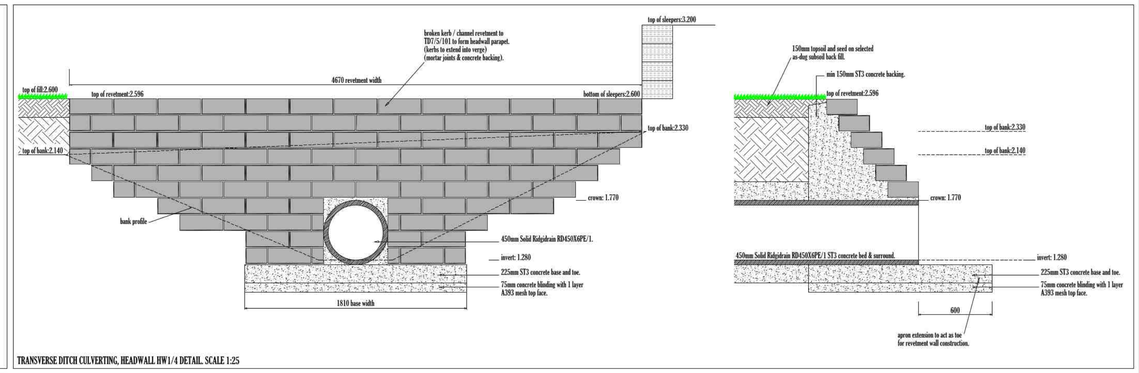
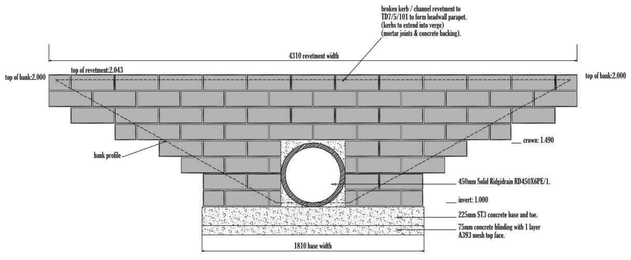
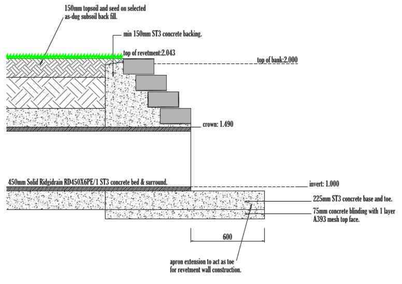


TRANSVERSE DITCH CULVERTING, HEADWALL HW1/4 DETAIL. SCALE 1:25





TRANSVERSE DITCH CULVERTING, HEADWALL HW1/5 DETAIL. SCALE 1:25

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NOTES:

ALL SEWERS PROPOSED FOR ADOPTION UNDER A SECTION 104 AGREEMENT OF THE WATER INDUSTRY ACT 1991 TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS AND SPECIFICATIONS OF SEWERAGE SECTOR GUIDANCE (SSG) V2.1 (UNE 2022) AND MCHOD AND CONSTRUCTION GUIDANCE (MCG) V2.2 (UNE 2022).
PRIVATE FOUL BRANCH CONNECTIONS TO BE 150mm dia. LAID NO FLATTER THAN 1:60 WHERE SERVING 9 PLOTS OR LESS AND 150mm dia. LAID NO FLATTER THAN 1:150 WHERE SERVING 10 PLOTS OR MORE. (UNLESS OTHERWISE STATED).
ALL SEWERS AND LATERAL DRAINS WITHIN DOMESTIC CURTILAGE OF DWARFER 100mm AND 150mm TO BE EITHER CLAY PIPES EXTRA STRENGTH OR PVC-U TO BS EN 1401-1:1998 & BS 4660:2000.
ALL PRIVATE BRANCH CONNECTIONS WITHIN ADOPTED HIGHWAY TO BE CLAY PIPES EXTRA STRENGTH.
ALL PIPEWORK TO BE LAID AND/OT TO SAFETY UNLESS OTHERWISE STATED.
ALL HIGHWAY DRAINAGE PIPES TO BE POLYPIPE HIGHGRAIN FULLY PERFORATED (IN FILTER STRIPS AND INFILTRATION SWALES) OR POLYPIPE HIGHGRAIN SOLID (IN ROAD LOCALISATIONS AND THROUGH PUBLIC OPEN SPACE) WITH CLASS S BEDDING (150mm - 5mm GRAVEL BED & SURROUND UNLESS DENOTED OTHERWISE). CONCRETE PROTECTION PROVIDED WHERE THE PIPE DOES NOT FORM PART OF A FILTER STRUCTURE AND COVER IS LESS THAN 1.2m.
ALL CLAY PIPES 150mmØ TO BE EXTRA STRENGTH WITH CONCRETE PROTECTION.
PRECAST CONCRETE PRODUCTS AND IN SITU CONCRETE TO CONFORM A MINIMUM CLASS 1 S.R.C.
STRUCTURAL CONCRETE TO BE IN ACCORDANCE WITH BS 5328 AND NOT TO BE LESS THAN GRADE FM25 WHEN REINFORCED AND GEN3 IN ALL OTHER SITUATIONS.
EAST CONCRETE SHALL BE FINISHED TO PRODUCE A "FAIR" SURFACE WHERE EXPOSED AND SHALL HAVE A "BISHOP" FINISH IN ALL OTHER SITUATIONS. (FINISHES AS DEFINED IN CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY - 5TH EDITION).
STEEL WORK SHALL BE IN ACCORDANCE WITH BS4483.
ALL MANHOLE COVERS TO BE 600x600 CLEAR OPENING (UNLESS STATED OTHERWISE) ON MANHOLE SCHEDULE or TYPE C (MANHOLES) IN ACCORDANCE WITH B.S. EN 124 CLASS B600 AND EMBOSSED FW OR SW AS APPROPRIATE.
THE SPECIFICATION IN ALL RESPECTS SHALL BE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION PUBLICATION IN FORCE IN THE COUNTY AT THE TIME OF CONSTRUCTION.
THE MINIMUM LONGITUDINAL FALL FOR HIGHWAYS, WITHOUT CHANNEL BLOCKS SHALL BE 1 in 150, AND WITH CHANNEL BLOCKS 1 in 250.
SEE CLAUSE 16.1 OF THE DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION. IN ADDITION, ENSURE THAT THE FIRST SECTION OF ANY SIDE ROAD FALLS AWAY FROM THE ROAD TO WHICH IT IS CONNECTING, IF GENERAL TOPOGRAPHY REQUIRES IT TO RISE, THIS CHANGE OF DIRECTION SHOULD TAKE PLACE AFTER THE FIRST SET OF GULLIES. THIS IS TO ENSURE A FALSE CHANNEL WITH ASSOCIATED DRAINAGE PROBLEMS IS NOT CREATED IN THE BELLMOUTH OF JUNCTIONS.
GENERAL DETERIORATION OF THE EXISTING HIGHWAY / FOOTWAY / VERGES CREATED THROUGH CONSTRUCTION OF THE NEW SECTION IN DEVELOPMENT WILL BE REINSTATED TO THE DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION AT THE DEVELOPERS OWN COST AT THE AGREEMENT OF THE INSPECTING HIGHWAY AND FLOOD AUTHORITY OFFICER.
NO PRIVATE SURFACE WATER SHALL DISCHARGE ON TO THE ADOPTABLE HIGHWAY.
NO PRIVATE STRUCTURAL FEATURES SHALL OVERHANG THE ADOPTABLE HIGHWAY.
NO PRIVATE RETAINING WALLS EXCEEDING 1.2m SHALL BE WITHIN 3.66m OF THE HIGHWAY BOUNDARY.
ALL SIGNS AND LINE MARKINGS ARE TO BE AGREED WITH THE SENIOR HIGHWAYS OFFICER PRIOR TO CONSTRUCTION.
BT CHAMBERS AND ANGLIAN WATER METERS ARE NOT TO BE LOCATED WITHIN PEDESTRIAN CROSSING POINTS OR VEHICLE ACCESSES.
ALL PARTS OF THE DEVELOPMENT OUTSIDE HIGHWAY ADOPTED AREAS AND PRIVATE PLOT CURTILAGE ARE TO BE MAINTAINED BY THE RESIDENT MANAGEMENT COMPANY.

Domestic Curtilage Drainage Notes

Plot 1 — DENOTES PLOT NUMBER
1.500 — DENOTES SUGGESTED FINISHED FLOOR LEVEL
(2.32) — DENOTES EXISTING GROUND LEVEL

- FW SEWER (S104) - DIA. GRAD & MATERIAL AS LAYOUT (PERFORATED PIPES).
- SW SEWER (S104) - DIA. GRAD & MATERIAL AS LAYOUT (SOLID PIPES).
- FW SEWER (S104) - 150mm Ø min 1:150 or 225mm Ø (min 1:225) (10+ PLOTS).
- FW PUMPING MAIN (S104) - 90mm HD HPPE SDR17 1:100.
- CULVERTED DRAIN - DIA, GRAD & MATERIAL AS LAYOUT (PERFORATED PIPES).
- CULVERTED DRAIN - DIA, GRAD & MATERIAL AS LAYOUT (SOLID PIPES).
- 150mm Ø gully connection (CLAY PIPES) HIGHWAY DRAINAGE (S38)
- 100mm Ø (min 1:80) 150mm Ø (min 1:150) SW HOUSE DRAIN (PRIVATE).
- 100mm Ø (min 1:80) 150mm Ø (min 1:150) FW HOUSE DRAIN (PRIVATE).

- RAINWATER PIPE ADAPTOR
- SVP ADAPTOR
- WASH BASIN / BATH / SHOWER ADAPTOR
- WC ADAPTOR
- BACK INLET GULLY
- RODDING EYE
- SOURCE CONTROL OUTLET WITH SILT TRAP AS DETAIL.
- SKEETAVAL HIGH PERFORMANCE DIFFUSER CONDUIT / OUTLET INSPECTION CHAMBER AS DETAIL.
- POLYPROPYLENE MINI ACCESS CHAMBER (PRIVATE) - STORM
- POLYPROPYLENE ACCESS CHAMBER (PRIVATE) - FOUL
- POLYPROPYLENE MINI ACCESS CHAMBER (PRIVATE) - FOUL
- DOMESTIC CURTILAGE PERMEABLE PAVED DRIVEWAY LEVELS TO BE SET SO AS TO PROMOTE FLOWS WITHIN THE SUB BASE RESERVOIR LAYER FROM SOURCE CONTROL OUTLETS TOWARDS DIFFUSER UNIT.
- PEDESTRIAN CROSSING POINT WITH TACTILE PAVING
- UNDER-DRAINED BIOAGESIC SWALE WITH PERFORATED PIPES, DIA, GRAD & MATERIAL AS LAYOUT. GRASSED SWALE ELEMENT (TOP SOIL&SEED) TO BE ADOPTED BY LCC UNDER SECTION 278 AGREEMENT PERFORATED PIPES TO BE ADOPTED BY AWS LTD UNDER SECTION 104 AGREEMENT.

IMPORTANT NOTE:- WHERE THE LAYOUT SHOWS A PIPE LINKING TWO OR MORE IN SALE SECTIONS CROSSING UNDER AN ADOPTABLE ROAD OR IMPORTANT ACCESS A TRADITIONAL NON-PORIOUS PIPE SHALL BE USED WITH MATERIALS AS SHOWN ON THE LAYOUT. THE SECTION BETWEEN THE ADOPTABLE ROAD OR IMPORTANT ACCESS TO BE PROVIDED WITH A 150mm THICK C32/40 CONCRETE PROTECTION DUE TO THE SHALLOW NATURE OF UNDER DRAINED SWALES.

BENDING OF PLASTIC PIPES IS NOW NO LONGER PERMITTED BY AWS LTD. CURVATURE ALIGNMENT TO BE ACHIEVED BY THE USE OF PROPRIETARY BEND UNITS AND SHORT LENGTHS OF STRAIGHT PIPE TO ACHIEVE THE REQUIRED CURVATURE ALIGNMENT WITHIN THE LIMITS OF THE FILTER DRAIN TRENCH. CONSTRUCTION CONTRACTOR TO PRODUCE PIPE LINE SCHEDULES FOR APPROVAL TO DEMONSTRATE HOW THIS IS TO BE ACHIEVED ON A SITE SPECIFIC AND PIPE RUN SPECIFIC BASIS.

POLYPROPYLENE ACCESS CHAMBERS (TYPE 1) TO BE USED UP TO 1.0m DEEP.
POLYPROPYLENE ACCESS CHAMBERS (TYPE 4) TO BE USED UP TO 2.0m DEEP SERVING MAX. 3 PLOTS.
ALL CHAMBERS ON SEWERS AND LATERALS WITHIN GARDEN AREAS, FOOTWAYS AND DRIVEWAYS TO BE FITTED WITH BS EN 124 GRADE B125 COVERS.
CHAMBERS WITHIN PARKING COURTYARDS TO BE FITTED WITH BS EN 124 GRADE D 400 COVERS.
CHAMBERS WITHIN FOOTWAYS, DRIVEWAYS AND PARKING COURTYARDS TO BE PROVIDED WITH 150mm DEEP C20 CONCRETE COLLAR.
WHERE CHAMBERS ARE WITHIN 1.2m OF ANY BUILDING AND THE INVERT LEVEL OF THE CHAMBER IS MORE THAN 600mm DEEP ENSURE BUILDING FOUNDATION IS LOCALLY DEEPENED SO THAT BOTTOM OF FOUNDATION IS 150mm BELOW CHAMBER INVERT LEVEL.
DOMESTIC DRAINAGE TO BE EPTIC OR CLAY.
150mm Ø DOMESTIC DRAINAGE (not S104) TO BE LAID NO FLATTER THAN 1:60 GRADIENT.
150mm Ø DOMESTIC DRAINAGE (not S104) TO BE LAID NO FLATTER THAN 1:150 GRADIENT.

TL 250 — Proposed 5 metre galvanised T/S lighting column c/w column root protection to 42a (LCC) spec. Column to have vertically mounted 60no Aspects EVO 1 0.5ARm 3000K CLO fasiers. Lantern to have 7 pin NEMA socket c/w Wireless SAM 321/10 Bat Part Night (ART 4000-0600) photocell. Lantern inclination to be 0°.

DO NOT SCALE. USE FIGURED DIMENSIONS ONLY. CHECK ON SITE AND ALL DISCREPANCIES TO BE REPORTED TO HALL infrastructure DESIGN Ltd.

AMENDMENTS:

REF.	DESCRIPTION.	DATE.	BY.
A	Street lighting note amended.	14.12.23	GWB

CLIENT:
Cyden Homes Ltd

PROJECT:
Tytton Lane East
Wyberton
Boston

TITLE:
Transverse Ditches Headwall Details

SCALE:	DATE:	SIZE:
as stated	March 2023	A1

DRAWING No:	DRAWN BY:	CHECKED BY:
2001/12-A		

HALL INFRASTRUCTURE DESIGN LTD.
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