SURVEYED LOCATION OF EXISTING BAILEY BRIDGE

PINCHBECK FOUL WATER PUMPING STATION

BLUE GOWT DRAIN

10" Al Pipe

12" P.V.C. Pipe

SEE NOTE 7

PERMANENT STORAGE OF TOPSOIL

TP2 (WM)

TP2 (RM)

TP1 (RM)

TP1 (WM)

See note 6

Dual 350mm dia Rising Main

178mm dia C.I. Water Main

Existing 6" dia PVC Water Main

PROPOSED CONTRACTOR'S COMPOUND AREA (30m x 45m)

PHASE 2

PHASE 3

ROAD 1

1m Verge 7.3m Roadway

1m Verge (not constructed as part of Phase 3)

SMH 1 SMH 2 SMH 3 SMH 4 SMH 5 SMH 6 SMH 7 SMH 8 SMH 9 SMH 10 SMH 11 SMH 12

FMH 1 FMH 2 FMH 3 FMH 4 FMH 5 FMH 6 FMH 7 FMH 8 FMH 9 FMH 10 FMH 11

525 DIA

225 DIA

175 DIA

2.4m X 90m VISIBILITY SPLAY

Fence Line

U-HAUL (PLOT 2)

SITE ACCESS

See note 3

EXISTING TEMPORARY OUTFALL DITCH

Diverted

ELECTRICITY

3.0m

1.5m

10.0m

9.0m

4.5m

6.0m

5.0m

350E 400E 450E 500E 550E 600E 650E

800N 750N 700N 650N 600N

N008 N007 N006 N009

N

DETERMINED PLAN

SOUTH HOLLAND DC HOUSING & PLANNING 17 DEC 2001 Ref: H433/01

KEY

CONTRACTOR'S WORKING AREA (ANY INREASE TO THIS AREA REQUESTED BY THE CONTRACTOR MUST BE AGREED BY THE ENGINEER).

GENERAL NOTES

1. All works to adoptable sewers shall comply with the 'Civil Engineering Specification for the Water Industry' – 5th Edition and the requirements of Anglian Water Services Ltd.

2. All roadworks and highway drainage works shall comply with the Lincolnshire C.C. "Development Road Specification and Construction"–1999 publication.

3. All stub connections shall be sealed in accordance with the specification. Marker posts shall be used to locate the termination of stub connections, outside of the carriageway. Stub connections shall be terminated at locations agreed with the Engineer. See drawing 30177/18 for details of stub connections

4. Tactile paving is required at all dropped crossing points where a footway is provided. layout is to be agreed with the Divisional Highways Manager.

5. A Road Signs and Markings drawing is to be provided by the Developer and approved by the Lincolnshire County Council. Signs and markings to be provided on site as approved.

6. A turning head is to be constructed at this location but not as part of this contract, Capping and Sub-base layers are to be laid to the hatched area shown.

7. Proposed access track to be constructed with 300mm layer of Type 1 sub-base on Terram 1500 geotextile membrane.

KEY TO SERVICES

Foul Water Sewer

Surface Water Sewer

Electricity to be Abandoned

TRIAL PITS TAKEN 15.3.2001

(WM) WATERMAIN
TP1 528.944 E 731.566 N LEVEL 2.213
TP2 485.768 E 767.853 N LEVEL 2.222

(RM) RISING MAIN
TP1 531.374 E 736.601 N LEVEL 1.872
TP2 481.608 E 755.076 N LEVEL 2.030

Rev	Revision	Drn	App	Date
D	TRIAL PITS ADDED. SMH12 AND ROAD GULLIES MOVED AWAY FROM RISING MAIN.	M.P.	NJO	5/9/01
C	MINOR AMENDMENTS	M.P.	N.J.O.	4.10.01
B	DRAINAGE INFORMATION ADDED	ADG	NO	13.6.01
A	ACCESS TO BAILEY BRIDGE AMENDED	ADG	NO	6.6.01

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Project
WARDENTREE LANE
SPALDING

Title
ENGINEERING LAYOUT
PHASE 3

Drawn	Checked	Approved	Date
ADG	N.J.O.	G.A.J.	MAY 2001

Scales
1:500

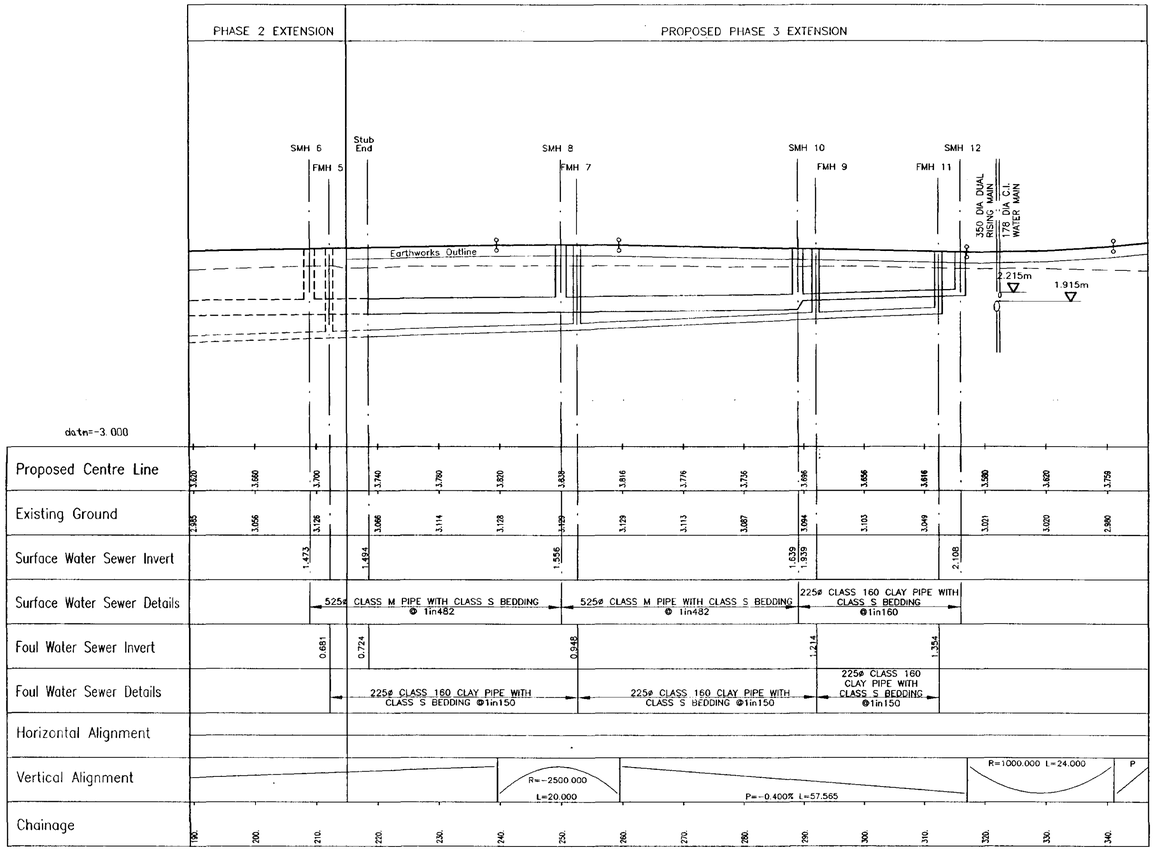
CAD Ref	Plot	Drawing No.	Rev
30177-Walldentree Lane-16		30177/16	D

1. All works to adoptable sewers shall comply with the 'Civil Engineering Specification for the Water Industry' – 5th Edition and the requirements of Anglian Water Services Ltd.

2. All roadworks and highway drainage works shall comply with the Lincolnshire C.C. "Development Road Specification and Construction"–1999 publication.

3. Precast concrete channel blocks, ref. Type KCS are required where proposed carriageway gradients are flatter than 1:150.

4. Concrete surround Class Z shall be provided to all pipework with less than 1.2m of cover.



ROAD AND DRAINAGE LONGITUDINAL SECTION

Rev	Revision	Drn	App	Date
B	SMH12 POSITION AMENDED	M.P.	N.J.O.	29.10.01
A	NOTES 3 & 4 ADDED EARTHWORKS OUTLINE ADDED	M.P.	N.J.O.	4.10.01

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SPALDING

EXAMINED PLAN

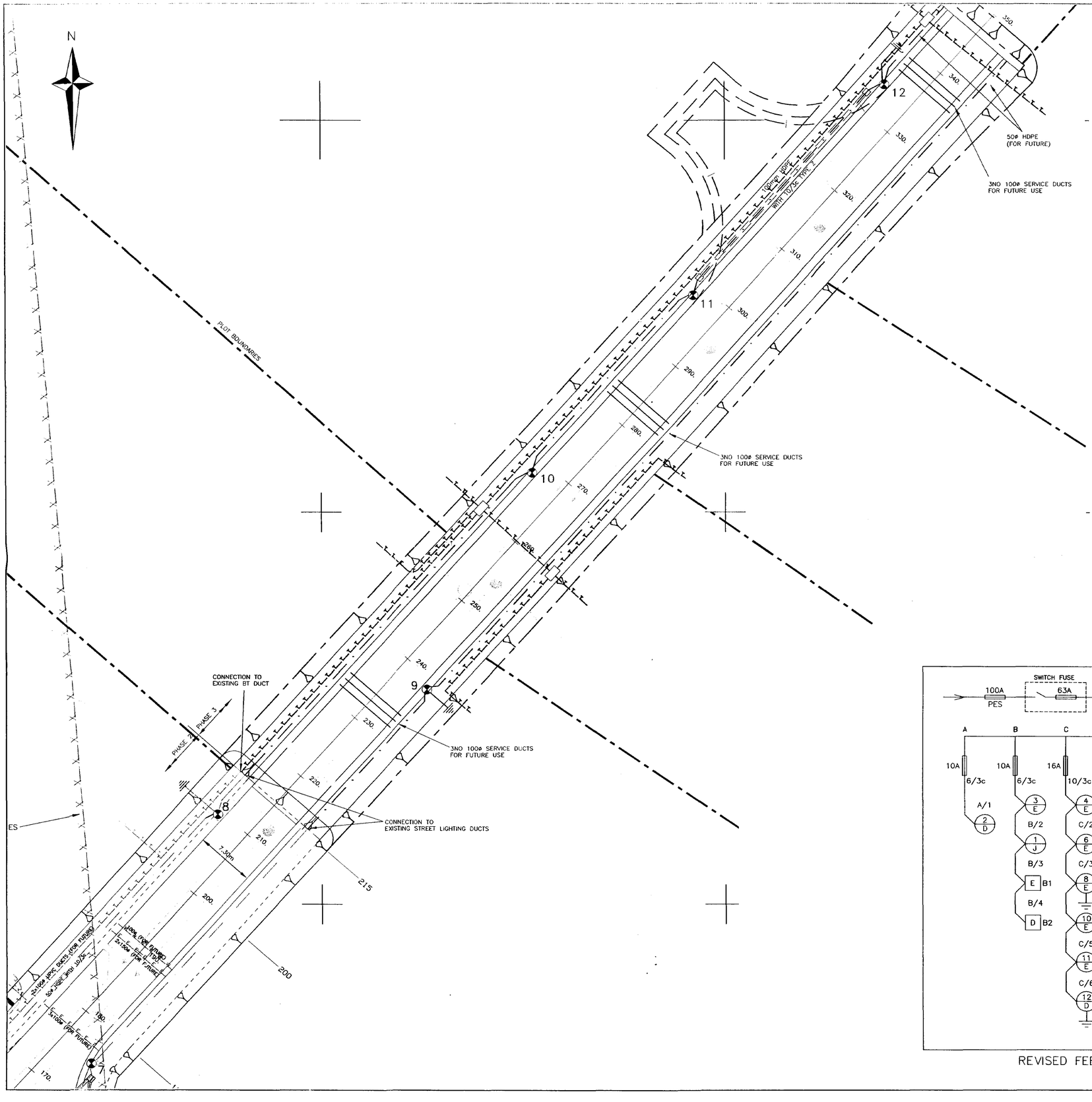
SOUTH HOLLAND DC HOUSING & PLANNING 17 DEC 2001 Ref: 1433/01

LONGITUDINAL SECTION
PHASE 3

Drawn	Checked	Approved	Date
DH	N.J.O.	G.A.J.	MAY 2001

Scales
1:500H. & 1:100V.

CAD Ref	Plot	Drawing No.	Rev
30177-WALDENTREE LANE/ 30177-17		30177/17	B



GENERAL NOTES

1. Setting out of street lighting columns shall be in accordance with Volume 3 – Specification appendix 1/12.
2. Setting out of ducting and jointing chambers shall be agreed with the Engineer.

KEY TO STREET LIGHTING

- 6 — 8 metre lighting column with 1 metre/5° bracket to Appendix 13/1 incorporating a 70W lantern to Appendix 14/2 S.H.W. Column centres are to be located 0.8m back from the kerb face, as agreed with the Engineer.
- (TYPE Z) — 100mm HDPE duct to Appendix 5/2 terminated in access boxes to SD14/6B. Type Z – indicates that a Class Z concrete bed and surround is required.
- 10/3c — 10/3c cable in 50mm HDPE duct to Appendix 5/2.
- 50mm HDPE duct (spare)

NOTE: Electrical testing shall be carried out to BS7671 including, additionally, a sheath test on armouring irrespective of being laid in duct.

KEY TO TELECOM

- T T T T T T T T T — 100mm UPVC duct. (Class Z concrete bed and surround is required to ducts in carriageways and vehicle crossings)
- Joint Box, Ref JBF106

NOTE: British Telecommunications will supply to site, free of charge, the ducting and joint box accessories required to complete the works.

KEY TO WATER

- W W W W W W W W W — 250ø — 250mm UPVC duct with Class Z concrete bed and surround
- W W W W W W W W W — 100ø — 100mm UPVC duct with Class Z concrete bed and surround

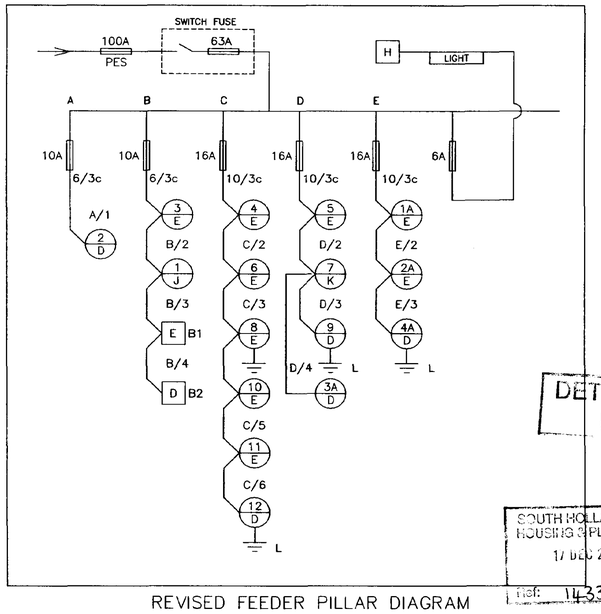
KEY TO ELECTRICITY

- E E E E E E E E E — 100ø — 100mm UPVC duct with Class Z concrete bed and surround. Class Z concrete bed and surround is not required for the 100mm duct alongside U-Hauls' boundary
- E E E E E E E E E — 150ø — 150mm UPVC duct with Class Z concrete bed and surround

KEY TO GAS

- G G G G G G G G G — 250ø — 250mm UPVC duct with Class Z concrete bed and surround

Rev	Revision	Drn	App	Date
B	SERVICE DUCTS ADDED.	M.P.	GAS	3.10.01
A	PROJECT TITLE AMENDED	M.P.	N.O.	11.9.01



REVISED FEEDER PILLAR DIAGRAM

DETERMINED PLAN

SOUTH HOLLAND DC HOUSING & PLANNING 17 DEC 2001 Ref: 143301

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Project
WARDENTREE LANE
SPALDING
PHASE 3 ROADWORKS

Title
SERVICES PLAN

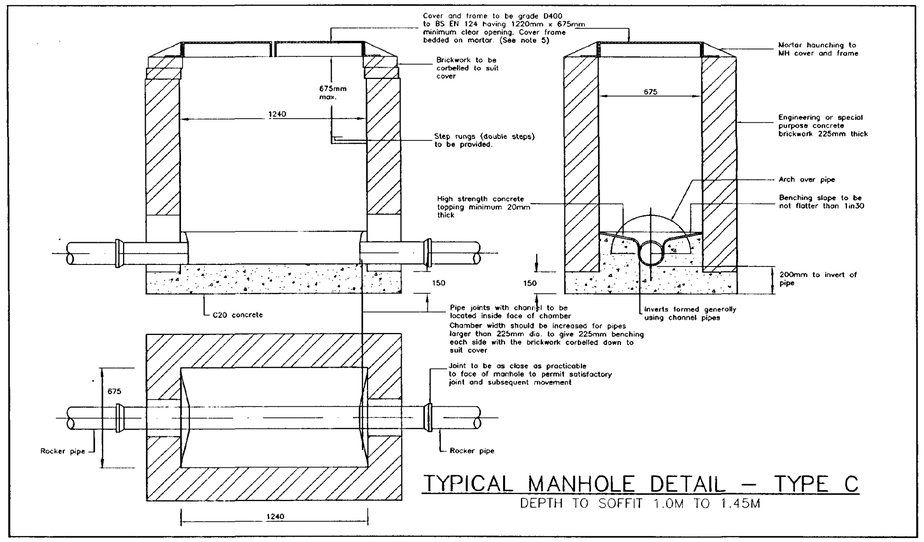
Drawn	Checked	Approved	Date
L.N.	N.J.O.	R.C.B.	3.7.01

Scales: 1:250

CAD Ref: Plot

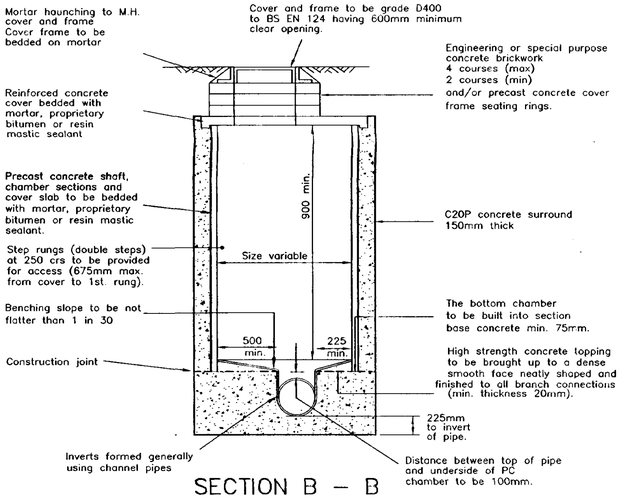
Drawing No. 30177/19

Rev B

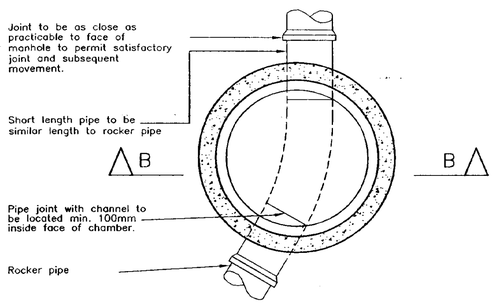


TYPICAL MANHOLE DETAIL – TYPE C

DEPTH TO SOFFIT 1.0M TO 1.45M



SECTION B – B



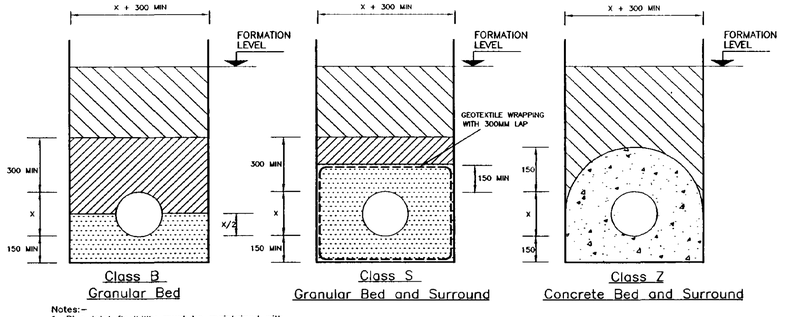
TYPICAL MANHOLE DETAIL – TYPE B

DEPTH TO SOFFIT 1.46 – 3.0m

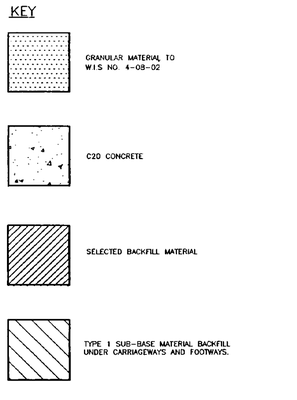
MANHOLE SCHEDULE

Manhole Ref	Cover Level (m)	Manhole Plan	Pipes (mm)	Invert Levels (m)	Manhole Depth to Invert (m)	Manhole Size (mm)	Manhole Type
S8	3.82	2, 0	0 – 525 1 – 525 2 – 300	1.556 1.556 1.781	2.264	1500	B
S10	3.69	2, 0	0 – 525 1 – 225 2 – 375	1.639 1.939 1.789	2.051	1500	B
S12	3.57	1, 2, 3, 4, 0	0 – 225 1 – 150 2 – 150 3 – 150 4 – 150	2.108 2.183 2.183 2.183 2.183	1.472	1200	B
F7	3.79	1, 2, 3, 0	0 – 225 1 – 225 2 – 225 3 – 225	0.948 0.948 0.948 0.948	2.842	1350	B
F9	3.65	1, 2, 3, 0	0 – 225 1 – 225 2 – 225 3 – 225	1.214 1.214 1.214 1.214	2.436	1350	B
F11	3.57	1, 0	0 – 225 1 – 225	1.354 1.354	2.216	1200	B

NOTES:–
1. Cover levels relate to finished road levels. Covers are to be set at base course level as part of this contract.
2. Manholes F7, F9 & F11 – 255mm foul water stub connections are to be laid at a gradient of 1 in 150. Pipes are to be clay, CLASS 160 with Class S bedding.
3. Manhole S8 – 300mm diameter surface water stub connection is to be laid at a gradient of 1 in 150. Pipes are to be clay, Class 120 with Class S bedding.
4. Manhole S10 – 375mm diameter surface water stub connection is to be laid at a gradient of 1 in 150. Pipes are to be concrete class M with class S bedding.



Notes:–
1. Pipe joint flexibility must be maintained with the use of class Z concrete bed and surround. Bituminous impregnated boarding 18mm thick should be used for pipes less than 450mm dia. at each pipe joint.
2. pipe trenches in rock shall be cut to a depth of 150mm below pipe barrel or X/4 which ever is the greater



ADOPTABLE SEWERS
TRENCH AND BEDDING DETAILS

TABLE 1

Note.–
The trench widths given in this table are relevant to the pipe sizes and depths shown on the drainage layout and long section drawings. Any changes to the pipe sizes or depths, as detailed, may result in a revision to the maximum trench widths.

PIPE DIAMETER	GRANULAR BEDDING MATERIAL TO BS 882
150	10 OR 14mm NOMINAL SINGLE SIZE 14mm TO 5mm GRADED
225 300	10,14 OR 20mm NOMINAL SINGLE SIZE OR 14mm–5mm/20mm–5mm GRADED
OVER 300 TO 550	14 OR 20mm NOMINAL SINGLE SIZE OR 14mm–5mm/20mm–5mm GRADED
OVER 550	14, 20 OR 40mm NOMINAL SINGLE SIZE OR 14mm–5mm/20mm–5mm/40mm–5mm GRADED

DIAMETER	300mm above crown of pipe
150	0.60m
225	0.70m
300	0.80m
375	1.05m
450	1.15m
525	1.20m
600	1.35m
750	1.40m
825	1.40m
900	1.75m
1125	1.95m

DETERMINED PLAN

PLANNING & DEVELOPMENT SERVICES
17 DEC 2001
Ref: 1H-33/01

GENERAL NOTES

1. All works to adoptable sewers shall comply with the 'Civil Engineering Specification for the Water Industry' – 5th Edition and the requirements of the Anglian Water Services Ltd.
2. Materials for adoptable sewers to be clay and concrete as approved for use by Anglian Water Services Ltd.
3. Manhole covers shall bear the Anglian Water logo and be marked FW or SW. Minimum manhole frame depth shall be 150mm.
4. All step rungs and ladders are to be manufactured from stainless steel.
5. All concrete below ground, including precast concrete products should be suitable for Class 1 soil conditions in accordance with B.R.E. Digest 363.

Rev	Revision	Drn	App	Date
B	COVER LEVEL SMH12 AMENDED	M.P.	N.J.O.	29.10.01
A	TYPE A MANHOLE DELETED	M.P.	N.J.O.	03.10.01

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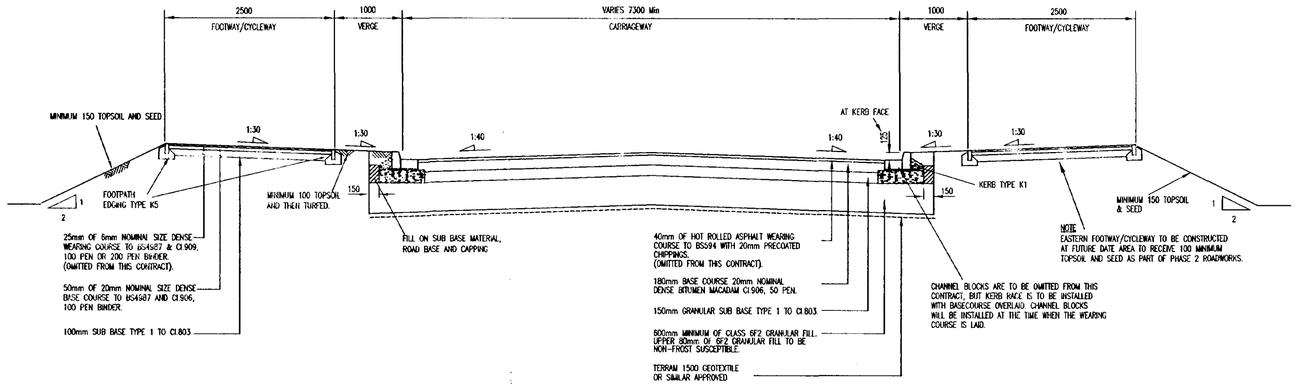
Project
WARDENTREE LANE
SPALDING
PHASE 3 ROADWORKS

Title
DRAINAGE CONSTRUCTION DETAILS

Drawn	Checked	Approved	Date
L.N.	N.J.O.	G.A.J.	20.1.00

Scales
N.T.S.

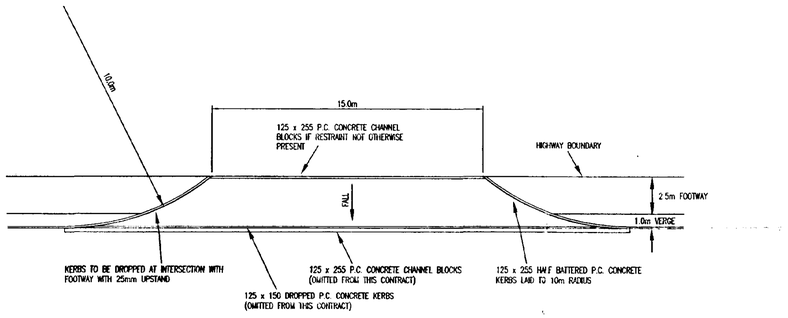
CAD Ref	Plot	Drawing No.	Rev
30177–WARDENTREE LANE/ 30177–20drainage constr.		30177/20	B



TYPICAL ROAD CROSS SECTION

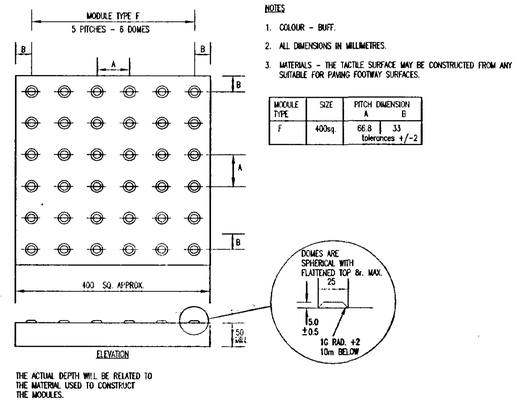
N.T.S.

NOTE:- PAVEMENT CONSTRUCTION IS TO COMPRISE A MINIMUM OF 450mm OF NON FROST SUSCEPTIBLE CONSTRUCTION.



HEAVY DUTY VEHICLE ACCESS CROSSING

NOTE:- VEHICLE ACCESS SHALL BE CONSTRUCTED AS THE ADJOINING CARRIAGEWAY



NOTES

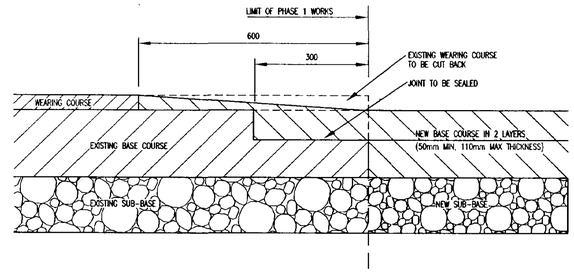
1. COLOUR - BUFF.
2. ALL DIMENSIONS IN MILLIMETRES.
3. MATERIALS - THE TACTILE SURFACE MAY BE CONSTRUCTED FROM ANY SUITABLE FOR PAVING FOOTWAY SURFACES.

MODULE TYPE	SIZE	PITCH DIMENSION A	PITCH DIMENSION B
F	400sq	66.8	33
		tolerances +/-2	

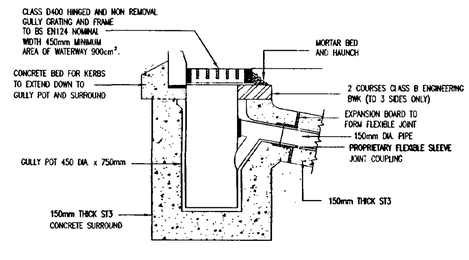
THE ACTUAL DEPTH WILL BE RELATED TO THE MATERIAL USED TO CONSTRUCT THE MODULES.

TYPICAL DETAIL OF TACTILE PAVING

(OMITTED FROM THIS CONTRACT)

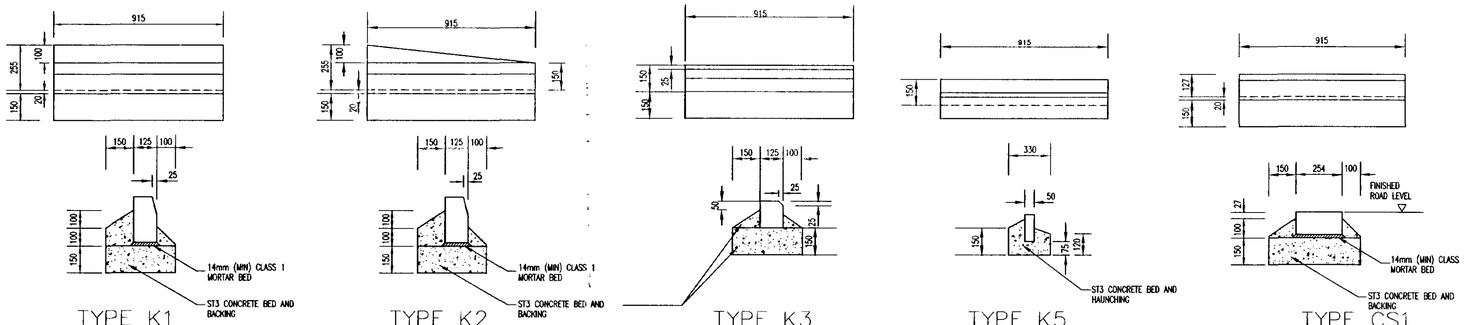


TYPICAL DETAIL OF CONSTRUCTION JOINT WITH EXISTING PAVEMENT

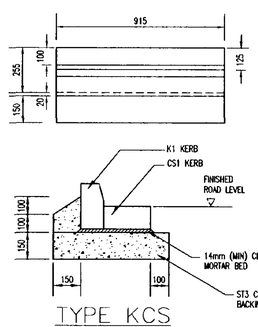


TYPICAL GULLY DETAIL

NOTE:-
1. THE FOLLOWING MARKINGS MUST APPEAR ON ALL GULLY COVERS AND FRAMES:-
   (i) THE MARK OF THE CERTIFICATION BODY
   (ii) THE MANUFACTURERS NAME IN FULL
   (iii) THE EN CLASS
2. CONCRETE BED AND SURROUND TO CONNECTION IS TO EXTEND FOR FULL DEPTH.
3. GULLY CONNECTIONS SHALL BE 150mm DIAMETER WITH CLASS Z CONCRETE BED AND SURROUND AS DETAILED DRAWING No. 30177/06. GULLY CONNECTIONS SHALL BE 22kN/m STRENGTH CLAY PIPES, OR AN ALTERNATIVE PIPE FROM TABLE 5.1 OF THE LINCOLNSHIRE C.C. "DEVELOPMENT ROAD SPECIFICATION AND CONSTRUCTION - 1999".
4. TRENCHES UNDER CARRIAGEWAYS SHALL BE BACKFILLED WITH TYPE 1 SUB-BASE MATERIAL.
5. GRATINGS ARE TO BE SET AT BASECOURSE LEVEL AS PART OF THIS CONTRACT.



NOTE:- RADIUS KERBS AND CHANNELS SHALL BE USED IN CURVES OF RADIUS 12m OR LESS. FOR RADII BETWEEN 12m AND 80m INCLUSIVE, STRAIGHT KERBS OF LENGTH 600mm MUST BE USED, UNLESS CHANNELS ARE REQUIRED, IN WHICH CASE RADIUS KERBS AND CHANNELS WILL BE REQUIRED. FOR RADII GREATER THAN 80m AND ALL STRAIGHTS, KERBS OF 900mm LENGTH MUST BE USED.



TYPE KCS
(CHANNEL KERB DETAIL)

DETERMINED PLAN

SCANNED IMAGES RECEIVED 17 DEC 2001 Ref: 143191

GENERAL NOTES

1. All roadworks and highway drainage works shall comply with the Lincolnshire C.C. 'Development Road Specification and Construction - 1999 publication'.
2. Works indicated as being 'Omitted from this contract' will be completed as part of a finishing works contract.
3. The proposed kerbing layout is to be agreed by the Engineer.

Rev	Revision	Drn	App	Date
A	MINOR AMENDMENTS	M.P.	GAJ	4.10.01

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Project
WARDENTREE LANE
SPALDING
PHASE 3 ROADWORKS

Title
HIGHWAY CONSTRUCTION DETAILS

Drawn	Checked	Approved	Date
L.N.	NSD	GAJ	

Scales: N.T.S.

CAD Ref	Plot	Drawing No.	Rev
		30177/21	A