TABLE 1 - PERMANENT TRENCH REINSTATEMENT OUTSIDE LIMIT OF NEW SURFACING

CLAUSE	LAYER	PERMITTED MATERIALS	SPEC.	COURSE THICKNESS (MIN) FOR REINSTATEMENT					
				TYPE 1a (>30 TO 125 MSA)	TYPE 1 (>10 TO 30 MSA)	TYPE 2 (2.5 TO 10 MSA)	TYPE 3 (0.5 TO 2.5 MSA)	TYPE 4 (UP TO 0.5 MSA)	RIGID
BASE (ROAD-BASE)		ROLLED ASPHALT BASE	SHW CLAUSE 904	315	250	185	90	50	AS STATED IN THE CONTRACT
		DENSE BASE	SHW CLAUSE 903	315	250	185	90	50	
		WET LEAN CONCRETE 4	SHW CLAUSE 1030	210*	210*	210*	170	150	
SUB BASE		GRANULAR SUB-BASE (TYPE 1)	SHW CLAUSE 803						
		WET LEAN CONCRETE 4	SHW CLAUSE 1030	300	280	260	260**	300**	

* For roads designed to carry more than 25msa, the binder course materials should be increased by a minimum of 8mm.

** Thickness of sub-base to be increased to ensure minimum reinstatement depth of 450mm.

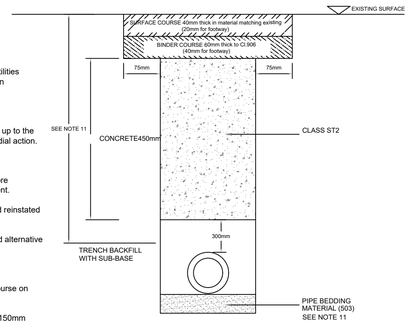
GENERAL NOTES

1. Reinstatement of openings in highways shall comply with the 'specification for the reinstatement of openings in highways - April 2010' issued by the highways authorities and utilities committee (hauc). The minimum dimension is to be increased as necessary to ensure a finish depth of cover shall be in accordance with Natural Joint Utilities Group publication "Guidelines on the positioning and colour codes and positioning of utilities' Apparatus". Any variation described in appendix 5/2
2. The guarantee period shall begin on completion of the permanent reinstatement and shall run for two years, or three years in the case of deep openings.
3. The contractor shall be responsible for inspecting and ensuring that the reinstatement complies with the required performance criteria throughout the interim reinstatement and up to the end of the guarantee period. The quality of the reinstatement shall be assessed relative to the adjacent surfaces when determining whether a reinstatement requires any remedial action.
4. Reinstatement of service duct suffixed 'E' comprised flexible surfacing only.
5. Base and edge preparation shall be in accordance with section s6.5.1 and s6.5.2 of 'NRSWA 1991 specification for the reinstatement of opening in highways. Immediately before bituminous layers are reinstated, edges of existing material shall be cleaned of all loose material and be coated with an appropriate hot bituminous binder or equivalent treatment.
6. If any part of the reinstatement is within 250mm of an adjacent patch, ironwork or pavement edge, then the existing surface course needs to be trimmed back to the feature and reinstated as part of the works.
7. Where existing road surfaces have been treated or constructed using specialist applied surfacing, the surface shall be permanently reinstated using like materials, or an agreed alternative in accordance with sections s6.4.5.1 to s6.4.5.5 of 'NRSWA 1991 specification for the reinstatement of opening in highways.
8. Where the reinstatement falls within carriageway which is to be overlaid, the surface and binder course may be replaced with a single layer of dense material to BS EN 13108
9. Where the reinstated surface is to be subsequently excavated or abandoned, the interim reinstatement shall consist of a minimum of 100mm of single course dense surface course on 150mm sub-base.
10. Other areas, verges, grassed areas, unpaved footpaths, shall be reinstated to match the the existing surface, after backfilling with acceptable material to a depth not less than 150mm below the finished surface.
11. Where p.v.c ducts are provided the whole bedding shall be standard mix ST2 concrete.

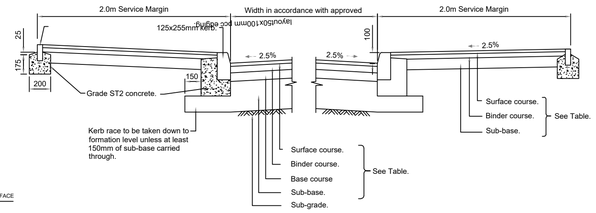
TREATMENT OF STATUTORY UNDERTAKER'S APPARATUS

Any Statutory Undertaker's Apparatus that is exposed during excavation of trenches shall be treated in manner described below unless otherwise described in the Contract:

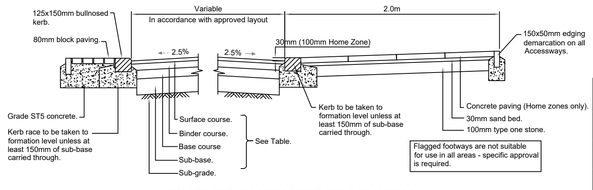
- Exposed services shall received 150mm sand surround
- no service shall be directly encased in concrete



TYPICAL SECTION OF PERMANENT TRENCH REINSTATEMENT



LOCAL RESIDENTIAL STREET, CONNECTOR STREETS AND INDUSTRIAL ROADS. TYPICAL CROSS SECTION.



SHADED SURFACE AND HOME ZONE STANDARD TYPICAL DETAIL

Alternative footway construction - Home Zones and Conservation Areas.

Standard 80mm concrete block paviours.

Flags or small unit paving - (Not suitable for footway vehicular crossings or other area vulnerable to vehicular traffic).

PAVEMENT DESIGN

ROAD LAYER	MATERIAL	MATERIAL CHOICES	LOCAL RESIDENTIAL STREET (msa- 3-) in mm	CONNECTOR STREET (msa- 4.5) mm	INDUSTRIAL ROAD (msa- 11)- in mm
SURFACE COURSE	10mm stone mastic asphalt surface course SMA 10 surf 40 /60	SMA, Thin Surface Course Systems, AC, HRA	50	50	50
BINDER COURSE	0 /20, AC 20 HDM bin 40 /60	AC (DBM 50, HDM 50), HRA	60	60	60
BASE COURSE	0 /32, AC 32 HDM base 40 /60	AC	130	150	170

msa - Traffic in Million Standard Axles for 40 year period.

1. Total Asphalt thickness depends on the traffic (msa)
2. The total Asphalt thickness for Key routes and New roads shall be designed using actual / forecast traffic (msa) using DMRB Standards
3. All longitudinal joints in all layers shall be situated outside wheel track zones, refer MCHW Cl 903.21.

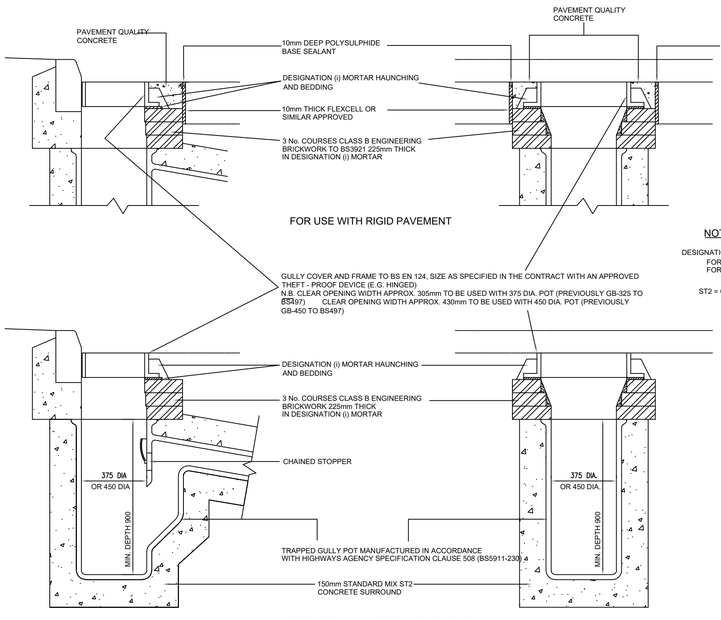
PAVEMENT FOUNDATION DESIGN

	SUBBASE ON CAPPING			SUBBASE ONLY
CBR%	CAPPING (mm) + SUB-BASE (mm)			SUB-BASE (mm)
<2.5	Ground improvement will need to be considderedto improve the subgrade CBR			
2.5	430	250	OR	420
3	380	230		370
4	320	220		320
5-15	260 - 160	200		280 - 210
>15	150	200*		200*

*Minimum required type 1 subbase thickness to achieve 450mm (from the designed final surface) of non-frost susceptible material

FOOTWAY AND CYCLEWAY PAVEMENT DESIGN

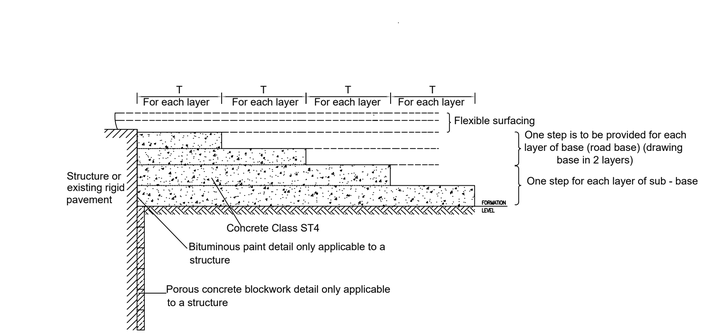
TYPE	CBR	SUB-BASE (mm)	BASE (mm) AC 32 dense base 100 / 150	BINDER COURSE (mm) AC 20 dense bin 100 /150	SURFACE COURSE (mm) AC 6 dense surf 100 /150 or 15/10F HRA Surf 100/150
Pedestrian only Footway / Cycleway or Footpath	≥ 2.5%	100	0	50	20
Vehicular Footway Crossing or Light-Vehicle footways / cycleways	≥ 2.5%	225	0	50	20
Heavy-vehicle footways / cycleways	≥ 2.5%	320	90	0	25
	≥ 2.5% & ≤ 4%	210	90	0	25



NOTE

DESIGNATION (i) = 1 : 0-1/4 : 3 (Cement : Lime : Sand)
FOR CONTRACTS NOT UNDER THE HIGHWAYS AGENCY SPECIFICATION FOR HIGHWAY WORKS, REFERENCES SHALL BE READ AS:

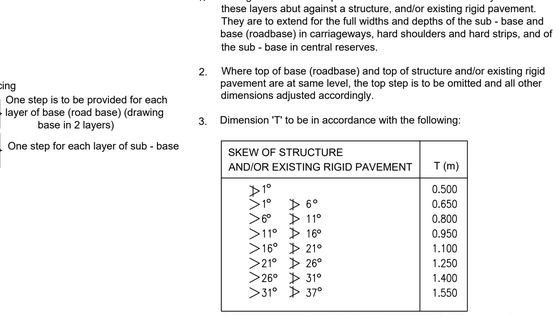
ST2 = C10 MORTAR DESIGNATION - REFER SERIES SHW 2400, TABLE 24/1.



OVERLAY

ROLLING BLOCK & PAVEMENT ADJACENT TO STRUCTURE

Steps in new construction courses to stagger joints in accordance with Cl.903. Joints shall be 300mm offset from layer beneath



INLAY

NOTES:

1. Joints shall not coincide with wheel path. Ref Cl 903.21
2. Where sub-base is to be laid existing bituminous surface adequate drainage shall provided. Install SAMI

Interlayer) at the base course to delay / stop a longitudinal reflective cracking appear in the future. Total width = 300+300+200=

GENERAL REQUIREMENTS

1. Rolling blocks are to be provided in sub - base and base layers wherever these layers abut against a structure, and/or existing rigid pavement. They are to extend for the full widths and depths of the sub - base and base (roadbase) in carriageways, hard shoulders and hard strips, and of the sub - base in central reserves.
2. Where top of base (roadbase) and top of structure and/or existing rigid pavement are at same level, the top step is to be omitted and all other dimensions adjusted accordingly.
3. Dimension 'T' to be in accordance with the following:

SKEW OF STRUCTURE AND/OR EXISTING RIGID PAVEMENT	T (m)
⩾1°	0.500
>1° ⩾ 6°	0.650
>6° ⩾ 11°	0.800
>11° ⩾ 16°	0.950
>16° ⩾ 21°	1.100
>21° ⩾ 26°	1.250
>26° ⩾ 31°	1.400
>31° ⩾ 37°	1.550

For a structure and/or existing rigid pavement of skew greater Than 37 degrees the rolling block is to be as shown on the drawings.

General Notes

1. Do not scale this drawing.
2. All dimensions are in millimeters unless stated otherwise.
3. This drawing is to be read in conjunction with all other relevant drawings & specifications.
4. All proprietary items to be installed in strict compliance with manufacturers instructions and recommendations.
5. No works shall commence on site until approval has been obtained from all relevant Agencies / Authorities.
6. All dimensions referred to in this drawing must be verified.

rev	description	drawn	date
P01	First Issue	SG	29.09.25

Preliminary

ELSTON ENGINEERING
1 Chapel Farm Close, Elston, Newark, Nottinghamshire, NG23 5PW
W: www.elstonengineering.com
E: enquiries@elstonengineering.com
T: 07931 391372

client: HARRON HOMES

project: Land off Roslyn Avenue, Netherton, Huddersfield

drawing title: Section 38 Construction Details - Sheet 1

Drawing Number:		Drawn by:	Checked by:
EE100008-218		SG	SG
Project ref:	scale:	date:	original paper size:
EE100008	NTS	29.09.2025	A1