



DESIGN PARAMETERS - CD 116 - GEOMETRIC DESIGN OF ROUNDABOUTS (COMPACT)		
INScribed CIRCLE DIAMETER (3.5.2)	-	For a normal roundabout should not exceed 36m
CIRCULATORY WIDTH (3.6)	-	Between 1.0 and 1.2 times the maximum entry width
ENTRY WIDTH (3.14)	-	Lanes to be between 3m and 4.5m
(3.14.1) 4.5m at single lane entries		
(3.14.2) Between 3m to 3.5m at multi-lane entries		
ENTRY KERB RADIUS (3.19.1 & 3.19.2)	-	Between 10m and 100m
EXIT KERB RADIUS (3.29.3)	-	Between 20m and 100m
EXIT WIDTH (3.28.1)	-	Should accommodate one more traffic lane than is present on the link downstream.
ENTRY PATH CURVATURE (3.28)	-	For a normal roundabout should not exceed 100m
ENTRY ANGLE (3.16.1)	-	Between 20 degrees and 60 degrees
FLARE (3.17.1)	-	Capacity can be the determining factor for the actual length

PLEASE REFER TO DRAWING
A13394-SK035 TRO LAYOUT FOR
PROPOSED WORKS ON LISDEY ROAD
TO REDUCE THE EXISTING SPEED FROM
50mph TO 40mph

ARM 3 - EXISTING A29 NORTH
INScribed CIRCLE DIAMETER - 28m
CIRCULATORY WIDTH - 1.2 times the entry width
ENTRY WIDTH - 4.5m
HALF WIDTH - 3.17m
ENTRY KERB RADIUS - 20m
EXIT KERB RADIUS - 20m
EXIT WIDTH - 5.15m
ENTRY PATH CURVATURE - 64.56m
ENTRY ANGLE - 52.11 degrees
FLARE - 23m

ARM 2 - EXISTING A29 SOUTH
INScribed CIRCLE DIAMETER - 28m
CIRCULATORY WIDTH - 1.2 times the entry width
ENTRY WIDTH - 4.5m
HALF WIDTH - 4.64m
ENTRY KERB RADIUS - 48m
EXIT KERB RADIUS - 20m
EXIT WIDTH - 4.75m
ENTRY PATH CURVATURE - 64.5m
ENTRY ANGLE - 52.05 degrees
FLARE - 2.6m

ARM 1 - HANBURY LINK WEST
INScribed CIRCLE DIAMETER - 28m
CIRCULATORY WIDTH - 1.2 times the entry width
ENTRY WIDTH - 4.5m
ENTRY KERB RADIUS - 3.00m
ENTRY KERB RADIUS - 40m
EXIT KERB RADIUS - 20m
EXIT WIDTH - 4.5m
ENTRY PATH CURVATURE - 64.5m
ENTRY ANGLE - 49.8 degrees
FLARE - 22.95m

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TO REDUCE THE EXISTING SPEED FROM
50mph TO 40mph

- NOTES:
- Where the Contractor undertakes or engages a third party to undertake temporary works design, or varies the Pell Frischmann design in any way, then the Contractor will take full responsibility and liability for all design aspects, including a Design Risk Assessment. The Contractor shall inform Pell Frischmann of any proposed variances to the design.
 - This drawing shall be read in conjunction with all other Electrical, Mechanical, Public Health & Architectural Drawings & The Specification.
 - Topographical information was provided by 3D Engineering Surveys and Pell Frischmann will not be held liable for any inaccuracies.
 - Barnham Road Roundabout and Northern Link Road designed by WSP. Pell Frischmann will not be held liable for any inaccuracies contained within this section.
 - Partial Western Link Road designed by CALA. Pell Frischmann will not be held liable for any inaccuracies contained within this section.

KEY:

A29 ROAD CORRIDOR

PROPOSED KERBS

Junction Visibility Splays based on Table 7.1 from Manual for Street. This applies to Western Link, Barnham Station Link and the Hanbury Link.

Table 7.1 Derived SSDs for Streets (figures rounded)										
Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48
Miles per hour	10	12	15	16	19	20	25	28	30	31
SSD (metres)	9	12	15	16	20	22	31	36	40	43
SSD adjusted for bonnet length. See 7.6.4	11	14	17	18	23	25	33	39	43	45

Additional features will be needed to achieve low speeds

Junction Visibility Splays based on Table 2.10 from DMRB CD 109. This applies to all junctions on A29 Link Road.

SSD (metres)	10	15	20	25	30	35	40	45	50
Design speed (km/h)	10	15	20	25	30	35	40	45	50
Design speed (mph)	6	9	12	16	19	22	25	28	31
Design speed (m/s)	2.8	4.2	5.6	6.9	8.3	9.7	11.0	12.4	13.8
Design speed (ft/s)	9.8	14.7	19.7	24.6	29.6	34.5	39.4	44.3	49.2
Design speed (km/h)	10	15	20	25	30	35	40	45	50
Design speed (mph)	6	9	12	16	19	22	25	28	31
Design speed (m/s)	2.8	4.2	5.6	6.9	8.3	9.7	11.0	12.4	13.8
Design speed (ft/s)	9.8	14.7	19.7	24.6	29.6	34.5	39.4	44.3	49.2
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Design Principles

Standards of Highway design are based on DMRB CD 116 & CD 109 and Manual for Streets to Road Design Speed of 30 mph for A29, East/West link and other link roads based on 20mph. The Minimum Road width for A29 is 6.75m, allowing for the flow of two way traffic. The Minimum Road width for East/West link and other link roads is 6m, allowing for the flow of two way traffic. The A29 will have 5m Wide Verges with a 5m wide two way Segregated Footway/Cycleway, running parallel with the alignment of the Carriageway.

P07	Details amended following comments from WSC	KM	TM	12.06.23
P06	Details amended following comments from WSC	KM	TM	30.01.23
P05	Additional details added in accordance with WSC	KM	TM	28.07.22
P04	Client Reference updated	KM	TM	10.01.22
P03	Scale Bar Added	KM	TM	05.11.21
P02	Minor amendments following comments from team	KM	TM	05.10.21
P01	ISSUED FOR REVIEW	KM	PW	13/08/2021
REV	DESCRIPTION	DRN	CHK/APP	DATE

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Client
CC Projects
Ashmarden Ltd
Hanbury (PM) Ltd

Project
BEW Parcel SC1

Drawing Title
A29 Link Road
A29-14 Roundabout
Design Audit

Drawing No.	Name	Date	Scale	Revision
A13394-PF-ZX-XX-DR-CD-00505	KM	July 2021	1:250 @ A0	P07
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Approved	TM	July 2021		

