

Appendix B11
Proposed Surface Water
Drainage Works



BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS

LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME

DRAWING SERIES NUMBER(S)	DRAWING SERIES DESCRIPTION
BCIDB-JAC-DNG_IX-0007_XX_00-DR-CR-0001	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. PROPOSED SURFACE WATER DRAINAGE WORKS. COVER SHEET
BCIDB-JAC-DNG_KP-0007_XX_00-DR-CR-0001	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. PROPOSED SURFACE WATER DRAINAGE WORKS. KEY PLAN
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1001 to 1004	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. CATCHMENT DRAWINGS
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0003 to 0028	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. PROPOSED SURFACE WATER DRAINAGE WORKS

PROPOSED SURFACE WATER DRAINAGE WORKS

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Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
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M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

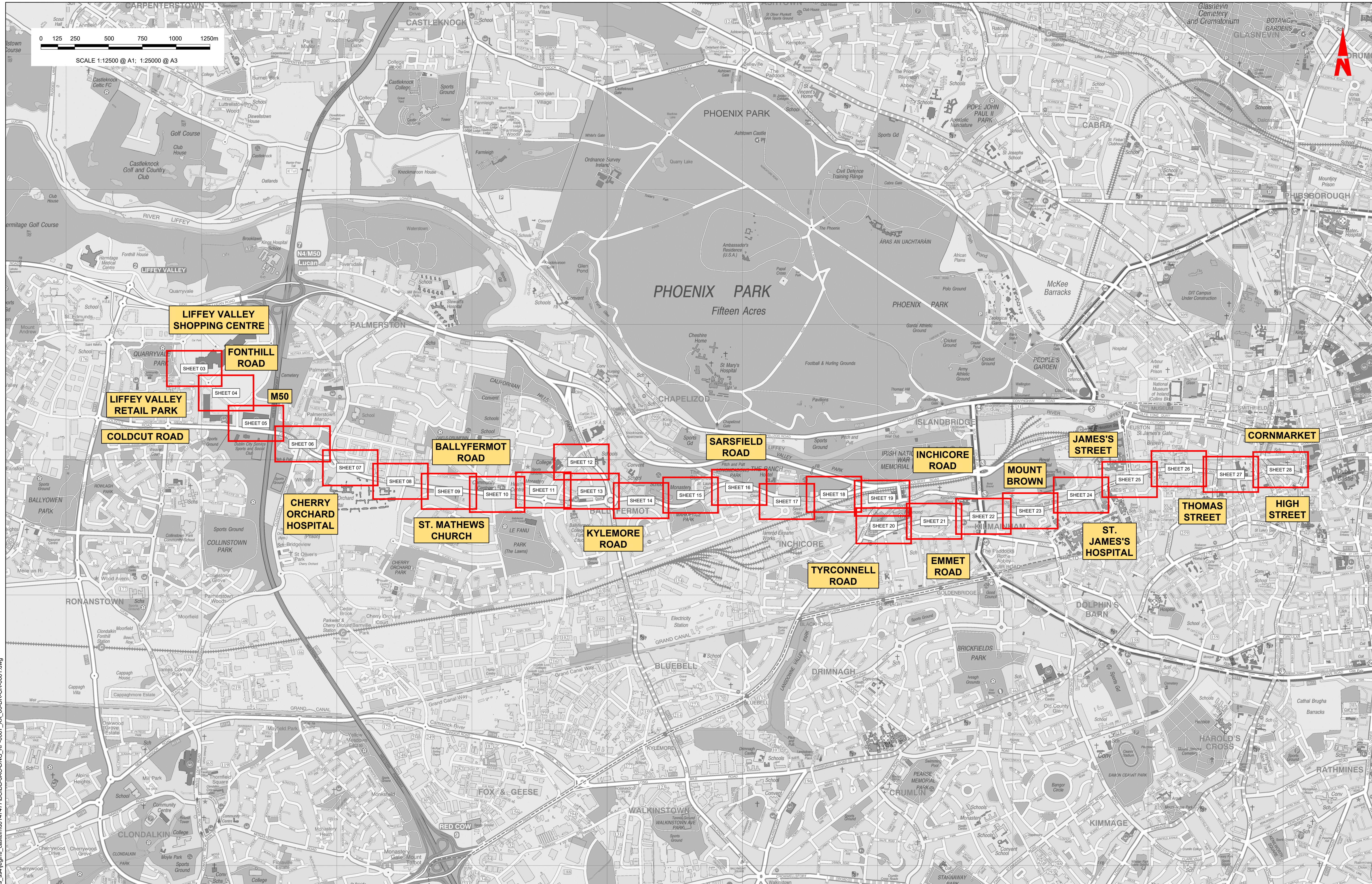
 Date: 07/06/2022 Project Code: BCIDB		 Scale: NTS @ A1 Originator Code: JAC		Engineering Designer Drawn: PT Checked: KM Approved: JB	
Client		QMS Code		Programme Title	

BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS COVER SHEET			
Drawing File Name	Sheet Number	Status	Rev
BCIDB-JAC-DNG_IX-0007_XX_00-DR-CR-0001	01 of 01	A	M01

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SCALE 1:12500 @ A1: 1:25000 @ A3



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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
 Údarás Náisiúnta Iompair
 National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:12500 @ A1
 1:25000 @ A3

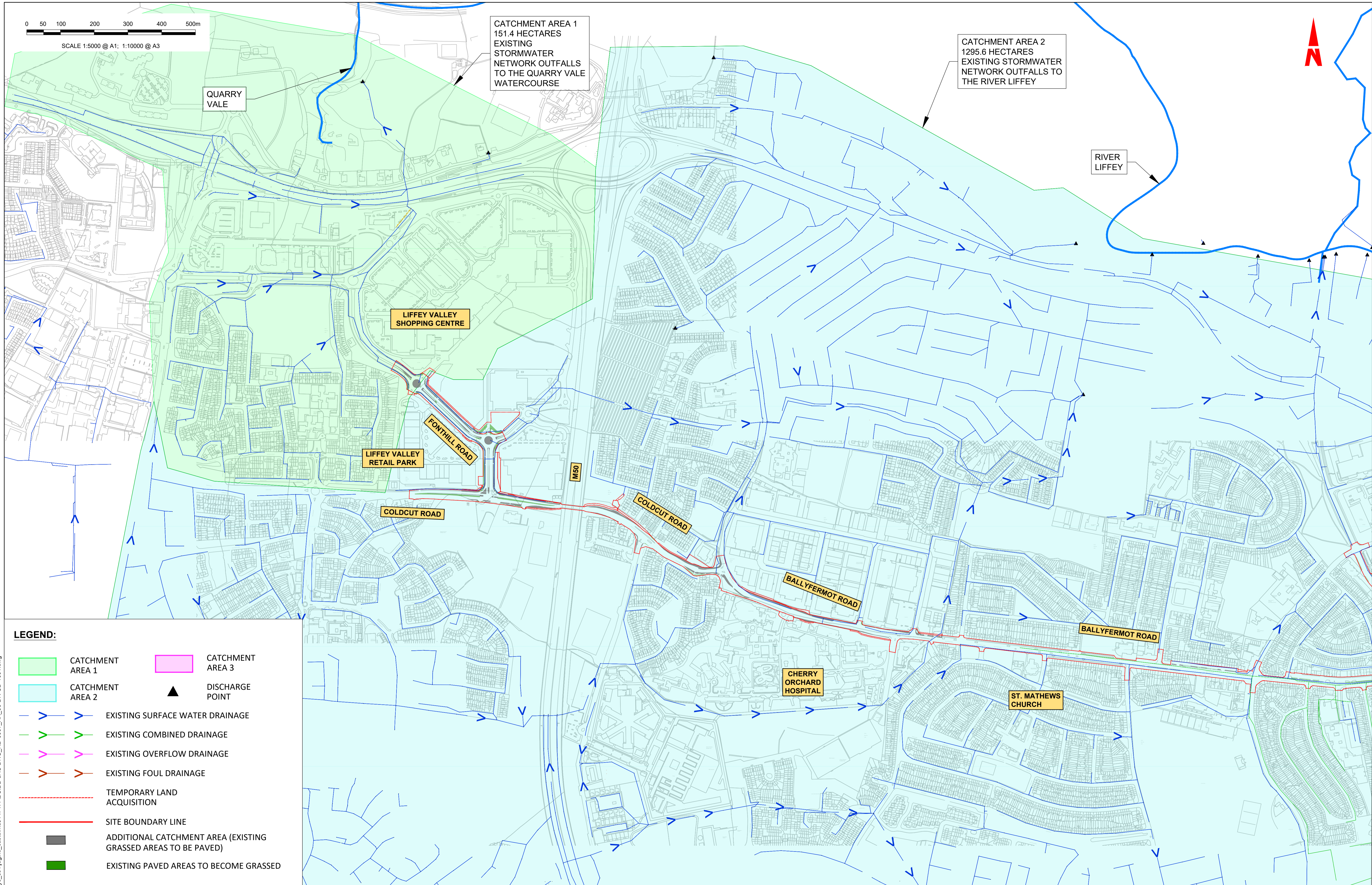
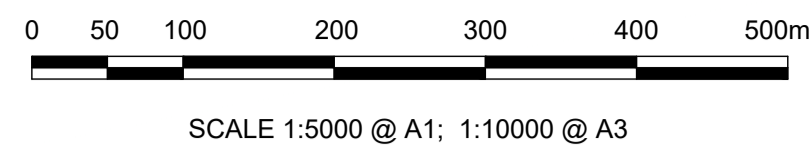
Project Code: BCIDB Originator Code: JAC

Drawn	Checked	Approved
PT	KM	JB

QMS Code

Programme Title: BUSCONNECTS DUBLIN			
CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS KEY PLAN			
Drawing File Name: BCIDB-JAC-DNG_KP-0007_XX_00-DR-CR-0001	Sheet Number: 01 of 01	Status: A	Rev: M01

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LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
- TEMPORARY LAND ACQUISITION
- SITE BOUNDARY LINE
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREAS TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED

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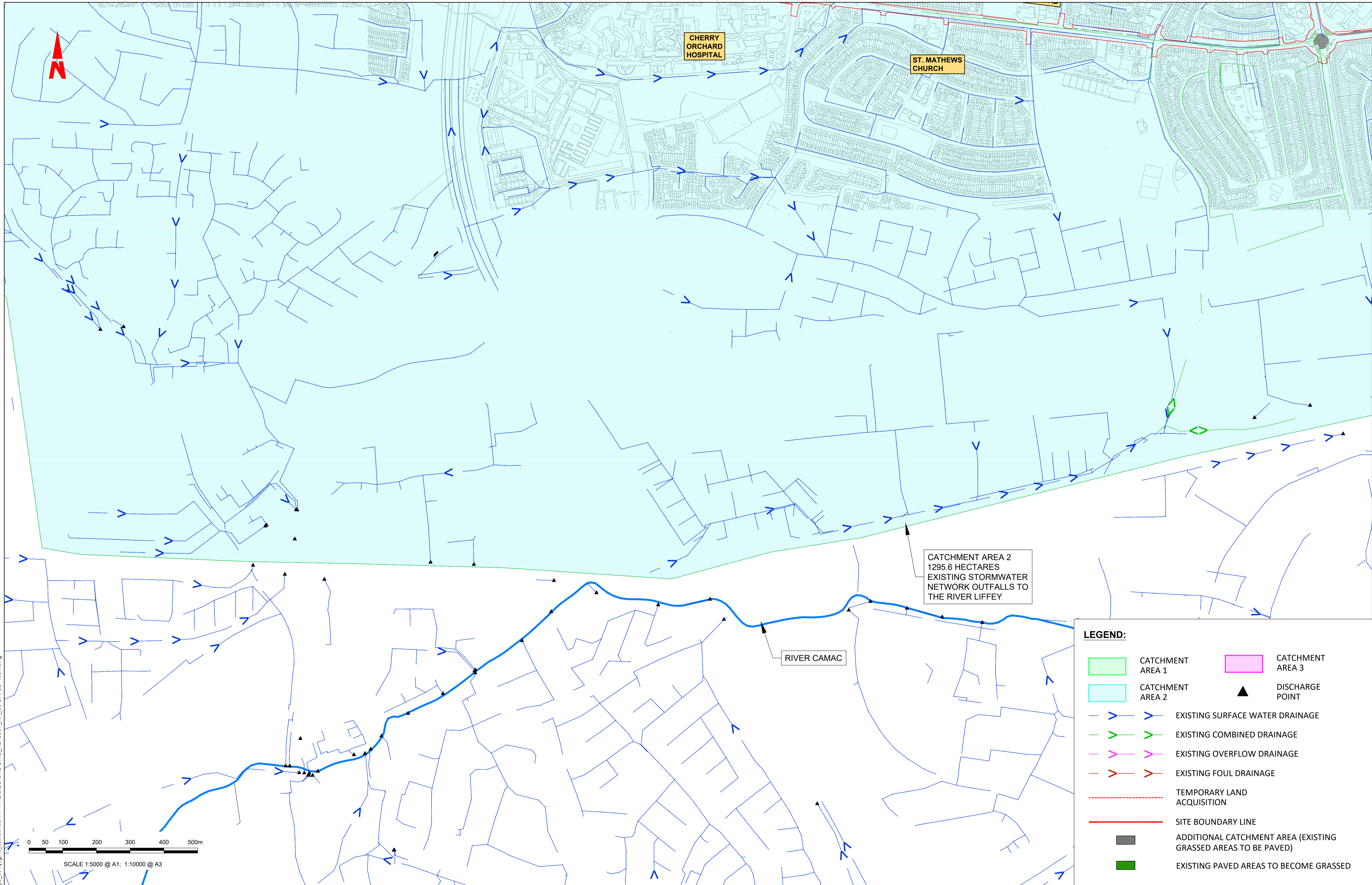
Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

 Údarás Náisiúnta Iompair National Transport Authority		 Engineering Designer		
Date	Scale	Drawn	Checked	Approved
07/06/2022	1:5000 @ A1 1:10000 @ A3	PT	KM	JB
Project Code	Originator Code	QMS Code		
BCIDB	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS			
Drawing File Name	Sheet Number	Status	Rev
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1001	01 of 04	A	M01

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LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
- TEMPORARY LAND ACQUISITION
- SITE BOUNDARY LINE
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREAS TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED

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Project Ireland 2040
 Building Ireland's Future

Rev	Date	Dwn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
 Údarás Náisiúnta Iompair
 National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:5000 @ A1, 1:10000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title	Drawing Title	Drawing File Name	Sheet Number	Status	Rev
BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS	BCIDB-JAC-DWG_RD-0007_XX_00-DR-CD-1002	02 of 04	A	M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

0 50 100 200 300 400 500m

SCALE 1:5000 @ A1; 1:10000 @ A3

CATCHMENT AREA 2
1295.6 HECTARES
EXISTING STORMWATER
NETWORK OUTFALLS TO THE
RIVER LIFFEY

RIVER LIFFEY

CATCHMENT AREA 3
509.1 HECTARES
EXISTING STORMWATER DRAINS
TO RINGSEND WwTP VIA
COMBINED SEWER NETWORK.
THERE ARE SOME SEPARATE
STORMWATER DISCHARGES TO
THE RIVER CAMAC.
THERE ARE COMBINED SEWER
OVERFLOWS TO THE RIVER
LIFFEY ALONG THE EXISTING
COMBINED NETWORK.

ST. JAMES'S
HOSPITAL

LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
- TEMPORARY LAND ACQUISITION
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- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREAS TO BE PAVED)
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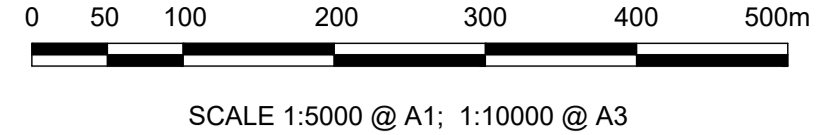
Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022	Scale: 1:5000 @ A1 1:10000 @ A3	Drawn: PT	Checked: KM	Approved: JB
Project Code: BCIDB	Originator Code: JAC	QMS Code:		

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1003	Sheet Number: 03 of 04	Status: A	Rev: M01

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CATCHMENT AREA 2
1295.6 HECTARES
EXISTING STORMWATER
NETWORK OUTFALLS TO
THE RIVER LIFFEY

RIVER
LIFFEY

RIVER
CAMAC

THOMAS STREET

CORNMARKET

HIGH STREET

JAMES'S STREET

MOUNT BROWN

OLD KILMAINHAM

ST. JAMES'S
HOSPITAL

CATCHMENT AREA 3
509.1 HECTARES
EXISTING STORMWATER NETWORK
DRAINS TO RINGSEND WwTP.
COMBINED SEWER OVERFLOWS TO
THE RIVER LIFFEY ALONG THE
NETWORK.

LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
- TEMPORARY LAND ACQUISITION
- SITE BOUNDARY LINE
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREAS TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED

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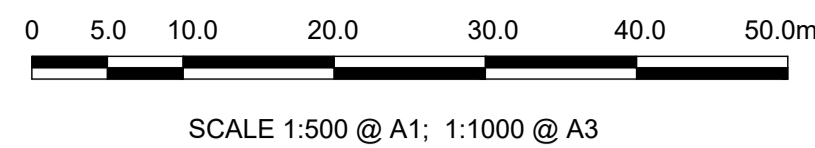
Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022	Scale: 1:5000 @ A1 1:10000 @ A3	Drawn: PT	Checked: KM	Approved: JB
Project Code: BCIDB	Originator Code: JAC	QMS Code:		

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1004	Sheet Number: 04 of 04	Status: A	Rev: M01

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GREENFORT LAWNS

Dublin
Baile Átha
Cliaith

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LIFFEY VALLEY SHOPPING CENTRE

NOTES:

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2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND REPORTS.
3. STORMWATER DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND/OR THE DRAINAGE DESIGN BASIS REPORT FOR CBC BUSCONNECTS.
4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM). SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEKMH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
8. EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION



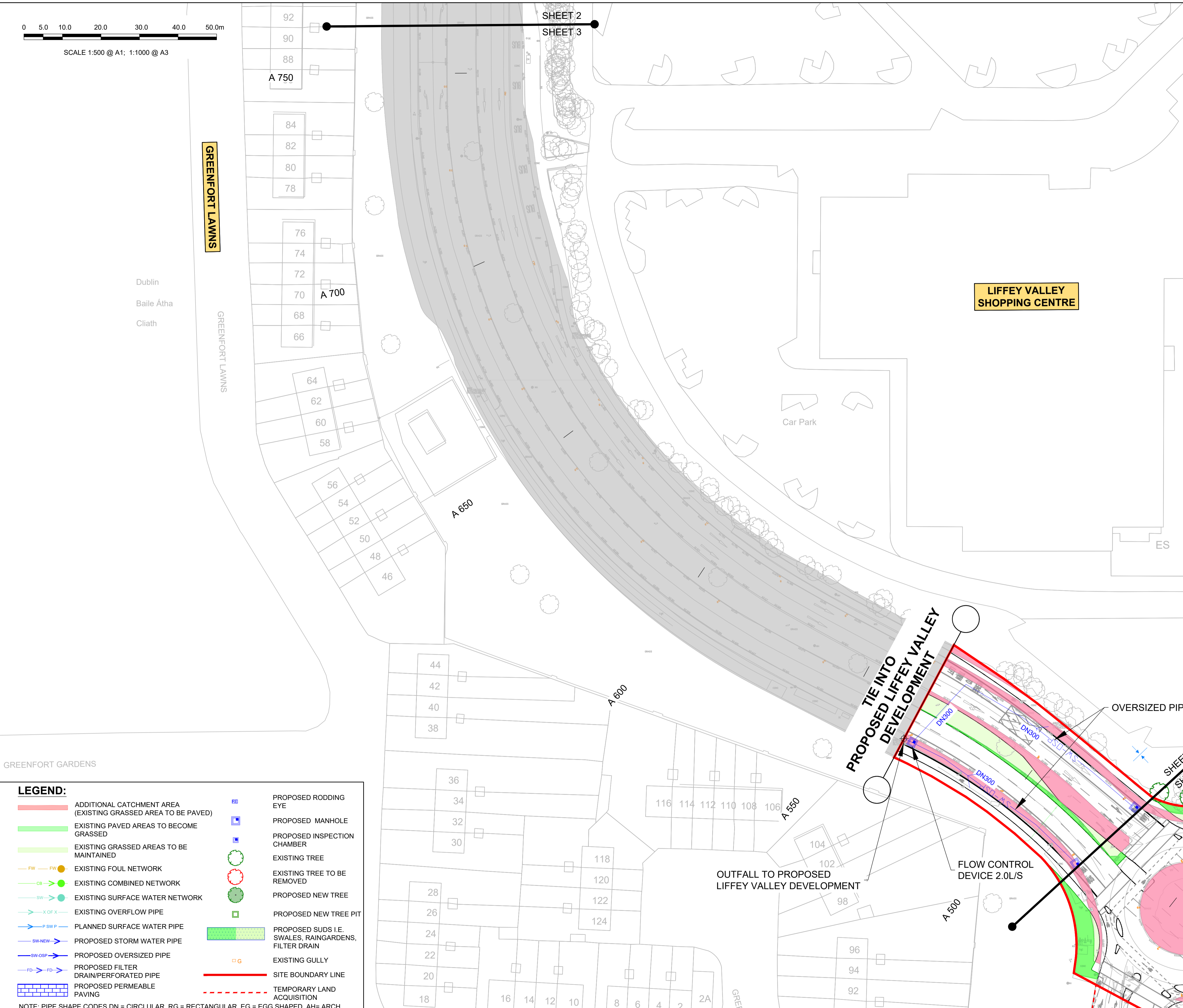
LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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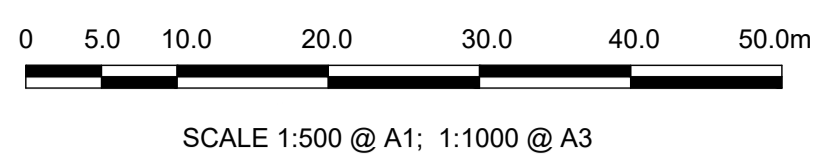
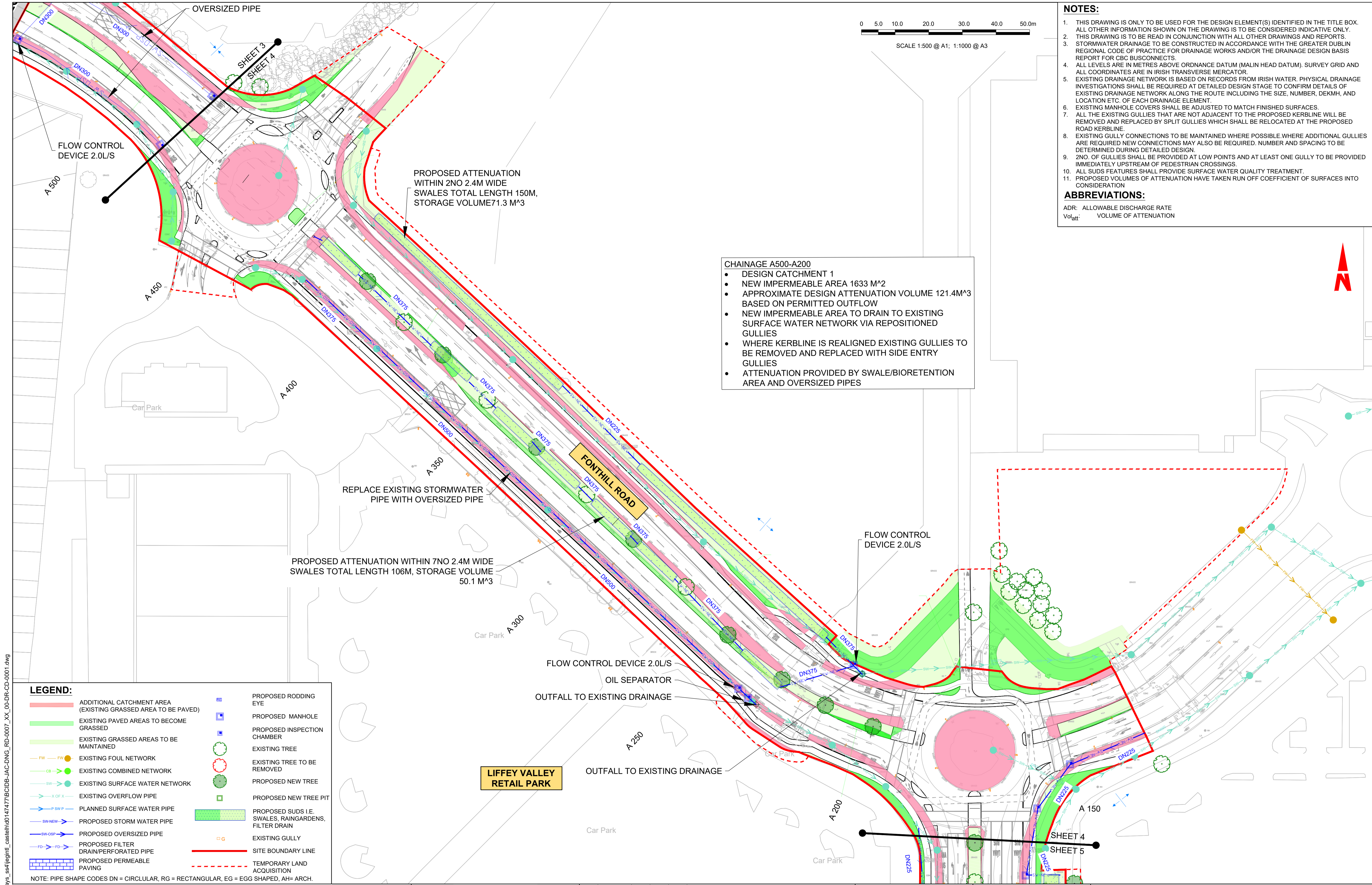


Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client		Engineering Designer	
NTA Údarás Náisiúnta Iompair National Transport Authority		Jacobs	
Date	Scale	Drawn	Checked
07/06/2022	1:500 @ A1 1:1000 @ A3	PT	KM
Approved	Project Code	Originator Code	QMS Code
JB	BCIDB	JAC	

Programme Title			
BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title			
LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name	Sheet Number	Status	Rev
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0003	03 of 28	A	M01

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 - EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
 - ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
 - EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
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 - ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 - PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION
- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

- CHAINAGE A500-A200**
- DESIGN CATCHMENT 1
 - NEW IMPERMEABLE AREA 1633 M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 121.4M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY SWALE/BIORETENTION AREA AND OVERSIZED PIPES

- LEGEND:**
- | | | | |
|--|---|--|--|
| | ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED) | | PROPOSED RODDING EYE |
| | EXISTING PAVED AREAS TO BECOME GRASSED | | PROPOSED MANHOLE |
| | EXISTING GRASSED AREAS TO BE MAINTAINED | | PROPOSED INSPECTION CHAMBER |
| | EXISTING FOUL NETWORK | | EXISTING TREE |
| | EXISTING COMBINED NETWORK | | EXISTING TREE TO BE REMOVED |
| | EXISTING SURFACE WATER NETWORK | | PROPOSED NEW TREE |
| | EXISTING OVERFLOW PIPE | | PROPOSED NEW TREE PIT |
| | PLANNED SURFACE WATER PIPE | | PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN |
| | PROPOSED STORM WATER PIPE | | EXISTING GULLY |
| | PROPOSED OVERSIZED PIPE | | SITE BOUNDARY LINE |
| | PROPOSED FILTER DRAIN/PERFORATED PIPE | | TEMPORARY LAND ACQUISITION |
| | PROPOSED PERMEABLE PAVING | | |
- NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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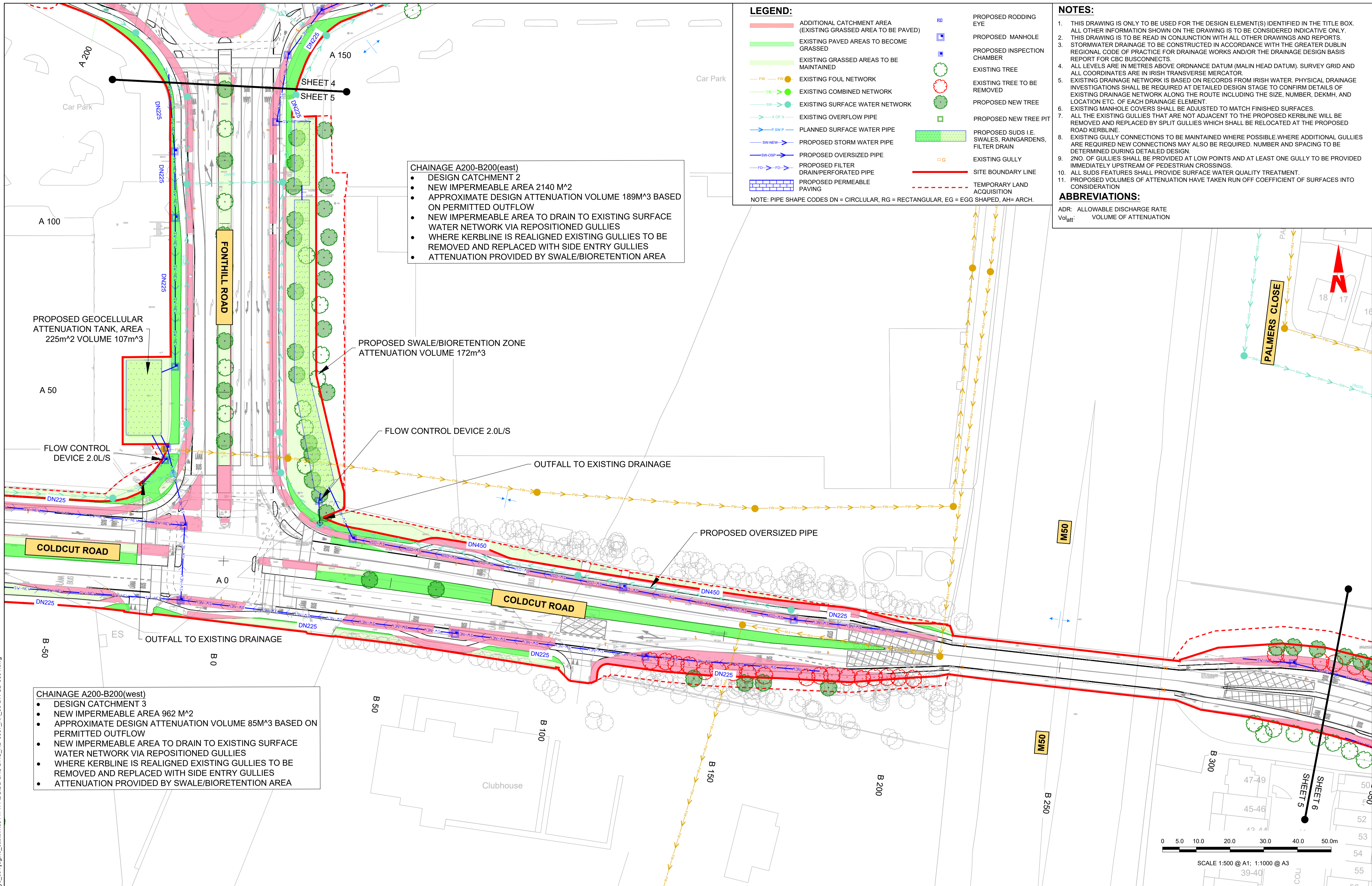
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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

 Údarás Náisiúnta Iompair National Transport Authority		Engineering Designer 		
Date	Scale	Drawn	Checked	Approved
07/06/2022	1:500 @ A1 1:1000 @ A3	PT	KM	JB
Project Code	Originator Code	QMS Code		
BCIDB	JAC			

PROGRAMME TITLE BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
DRAWING TITLE LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name	Sheet Number	Status	Rev
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0004	04 of 28	A	M01

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CHAINAGE A200-B200(east)

- DESIGN CATCHMENT 2
- NEW IMPERMEABLE AREA 2140 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 189M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY SWALE/BIORETENTION AREA

PROPOSED GEOCELLULAR ATTENUATION TANK, AREA 225m² VOLUME 107m³

PROPOSED SWALE/BIORETENTION ZONE ATTENUATION VOLUME 172m³

FLOW CONTROL DEVICE 2.0L/S

OUTFALL TO EXISTING DRAINAGE

PROPOSED OVERSIZED PIPE

OUTFALL TO EXISTING DRAINAGE

CHAINAGE A200-B200(west)

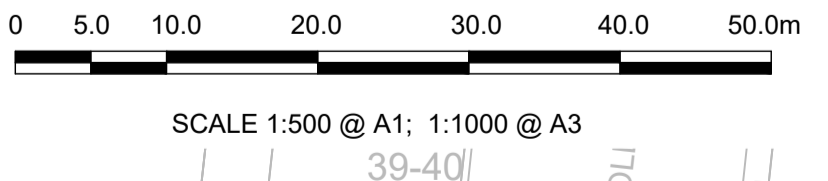
- DESIGN CATCHMENT 3
- NEW IMPERMEABLE AREA 962 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 85M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY SWALE/BIORETENTION AREA

LEGEND:

[Pink shaded area]	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)	[Blue square]	PROPOSED RODDING EYE
[Green shaded area]	EXISTING PAVED AREAS TO BECOME GRASSED	[Blue square]	PROPOSED MANHOLE
[Light green shaded area]	EXISTING GRASSED AREAS TO BE MAINTAINED	[Blue square]	PROPOSED INSPECTION CHAMBER
[Orange line]	EXISTING FOUL NETWORK	[Green circle]	EXISTING TREE
[Green line]	EXISTING COMBINED NETWORK	[Red circle]	EXISTING TREE TO BE REMOVED
[Blue line]	EXISTING SURFACE WATER NETWORK	[Green circle]	PROPOSED NEW TREE
[Blue line with 'X']	EXISTING OVERFLOW PIPE	[Green square]	PROPOSED NEW TREE PIT
[Blue line with 'P-SW-P']	PLANNED SURFACE WATER PIPE	[Green rectangle]	PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
[Blue line with 'SW-NEW']	PROPOSED STORM WATER PIPE	[Orange square]	EXISTING GULLY
[Blue line with 'SW-OSP']	PROPOSED OVERSIZED PIPE	[Red dashed line]	SITE BOUNDARY LINE
[Blue line with 'FD']	PROPOSED FILTER DRAIN/PERFORATED PIPE	[Red dashed line]	TEMPORARY LAND ACQUISITION
[Blue brick pattern]	PROPOSED PERMEABLE PAVING		

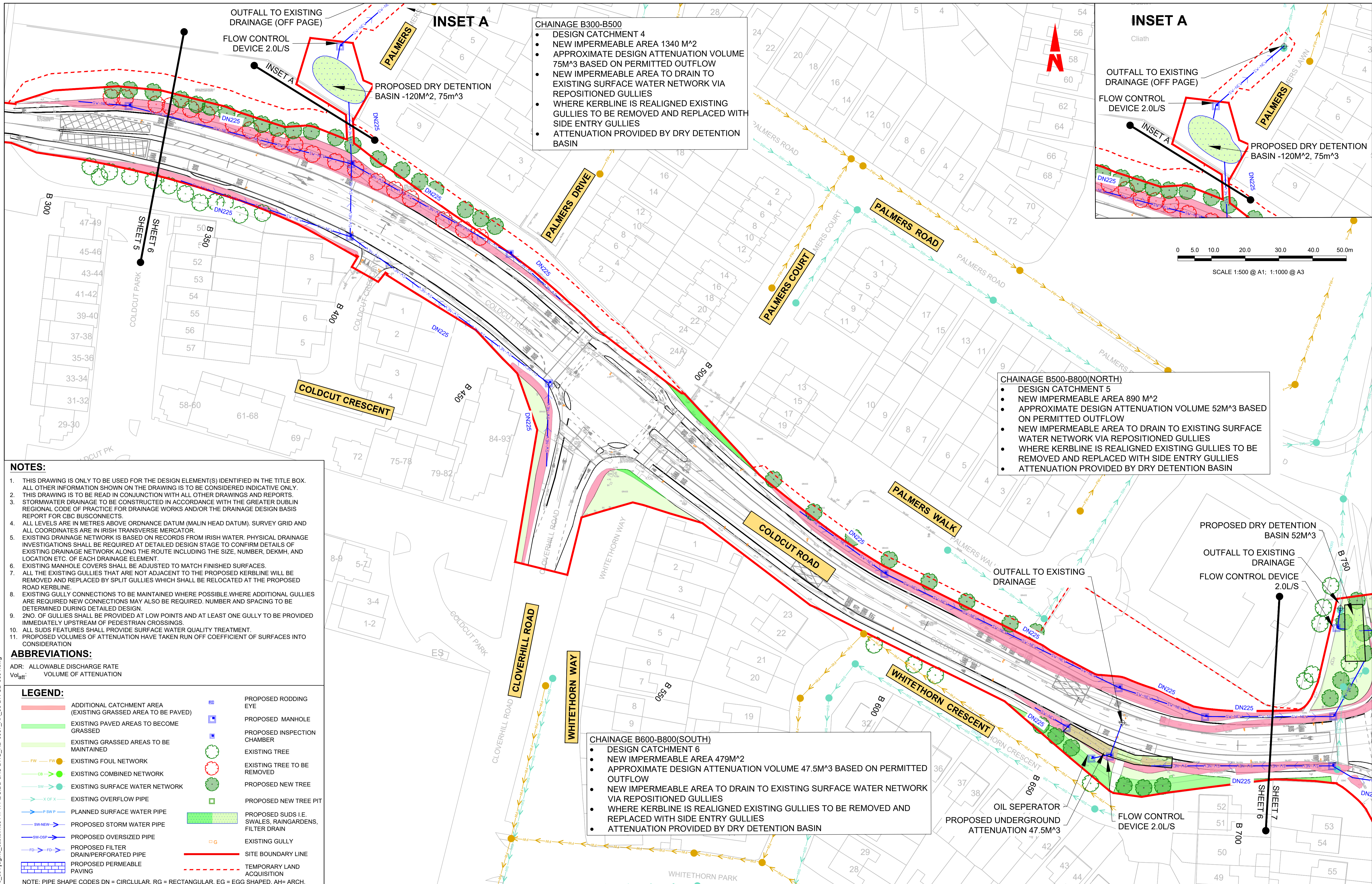
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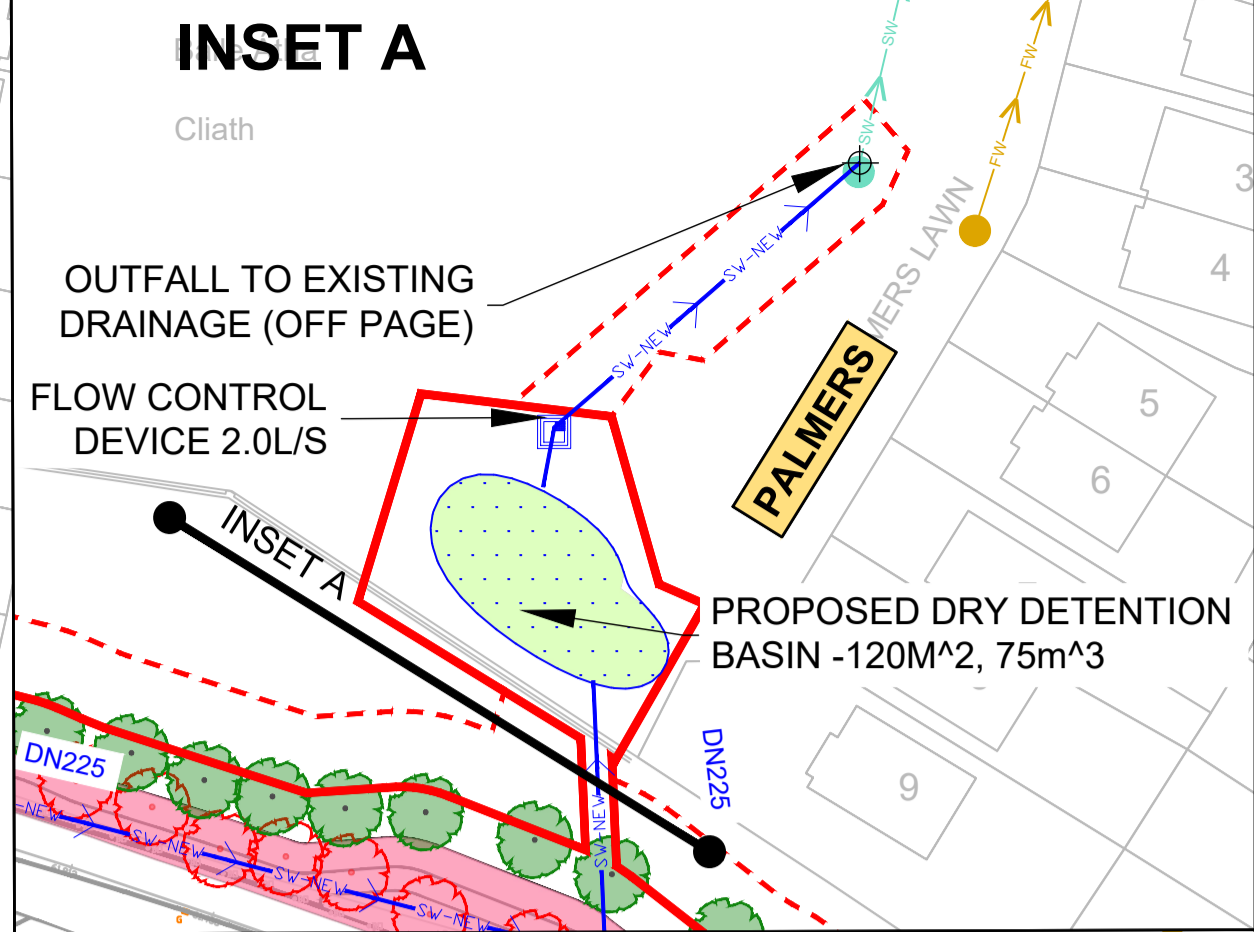
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		Rev	Date	Drn	Chk'd	App'd	Description										
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING												
<p>Date</p> <p>07/06/2022</p> <p>Scale</p> <p>1:500 @ A1 1:1000 @ A3</p> <p>Project Code</p> <p>BCIDB</p> <p>Originator Code</p> <p>JAC</p> <p>QMS Code</p>	<p>Drawn</p> <p>PT</p> <p>Checked</p> <p>KM</p> <p>Approved</p> <p>JB</p>	<p>Drawing Title</p> <p>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</p>															

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CHAINAGE B300-B500

- DESIGN CATCHMENT 4
- NEW IMPERMEABLE AREA 1340 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 75M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN



CHAINAGE B500-B800(NORTH)

- DESIGN CATCHMENT 5
- NEW IMPERMEABLE AREA 890 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 52M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

CHAINAGE B600-B800(SOUTH)

- DESIGN CATCHMENT 6
- NEW IMPERMEABLE AREA 479M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 47.5M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

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 11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION.

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

LEGEND:

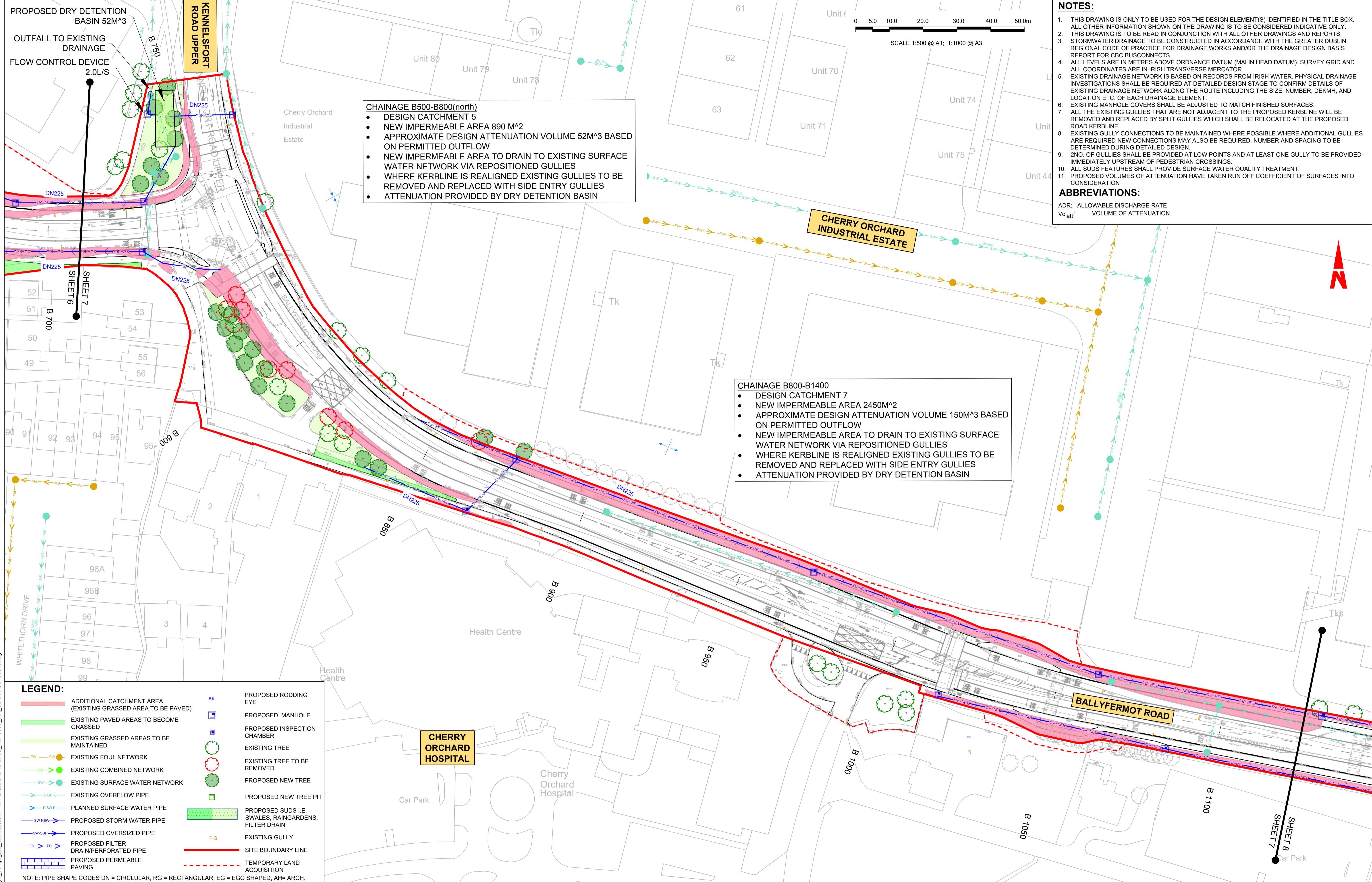
	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
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	PROPOSED PERMEABLE PAVING		

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<p>Rev M01 07/06/2022 PT KM JB ISSUED FOR PHASE 4: PLANNING</p>		<p>Client: NTA Údarás Náisiúnta Iompair National Transport Authority</p>		<p>Engineering Designer: Jacobs</p>		<p>Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</p>	
<p>Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3</p>		<p>Project Code: BCIDB Originator Code: JAC</p>		<p>Drawn: PT Checked: KM Approved: JB</p>		<p>Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</p>	
<p>Project Code: BCIDB</p>		<p>Originator Code: JAC</p>		<p>QMS Code:</p>		<p>Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0006 Sheet Number: 06 of 28 Status: A Rev: M01</p>	

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- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Volatt: VOLUME OF ATTENUATION

CHAINAGE B500-B800(north)

- DESIGN CATCHMENT 5
- NEW IMPERMEABLE AREA 890 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 52M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

CHAINAGE B800-B1400

- DESIGN CATCHMENT 7
- NEW IMPERMEABLE AREA 2450M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 150M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE CHAMBER
	EXISTING GRASSED AREAS TO BE MAINTAINED		EXISTING TREE
	EXISTING FOUL NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING COMBINED NETWORK		PROPOSED NEW TREE
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE PIT
	EXISTING OVERFLOW PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PLANNED SURFACE WATER PIPE		EXISTING GULLY
	PROPOSED STORM WATER PIPE		SITE BOUNDARY LINE
	PROPOSED OVERSIZED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED FILTER DRAIN/PERFORATED PIPE		
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

<p>Project Ireland 2040 Building Ireland's Future</p>		<p>Rev M01 Date 07/06/2022 Dm PT Chk'd KM App'd JB Description ISSUED FOR PHASE 4: PLANNING</p>		<p>Client NTA Údarás Náisiúnta Iompair National Transport Authority</p>		<p>Engineering Designer Jacobs</p>			<p>Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</p>		
<p>Date 07/06/2022 Scale 1:500 @ A1 1:1000 @ A3</p>		<p>Project Code BCIDB Originator Code JAC</p>		<p>Drawn PT Checked KM Approved JB</p>			<p>Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</p>				
<p>Project Code BCIDB Originator Code JAC</p>		<p>QMS Code</p>		<p>Drawing File Name BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0007</p>			<p>Sheet Number 07 of 28 Status A Rev M01</p>				

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

CHAINAGE B800-B1400

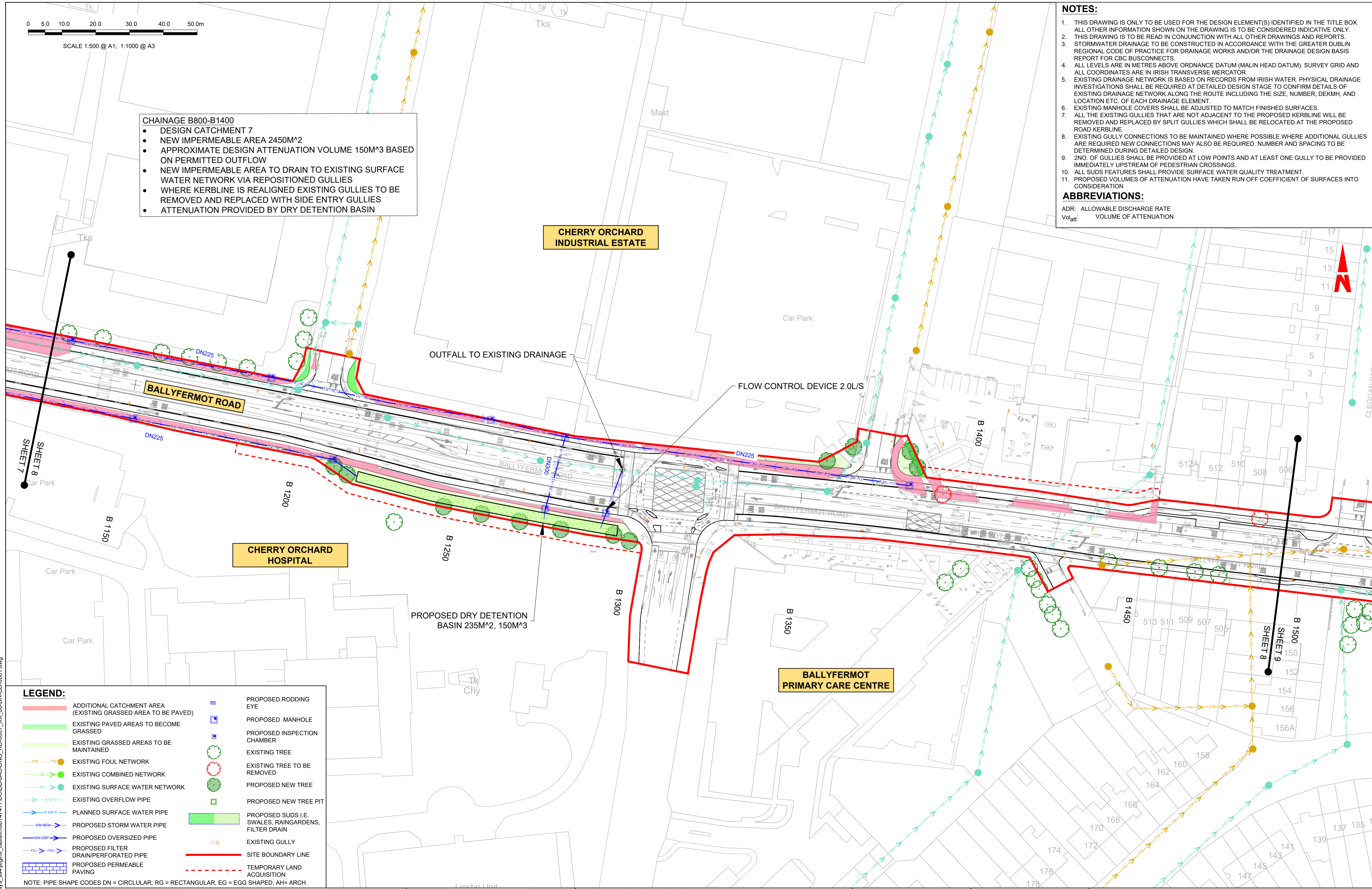
- DESIGN CATCHMENT 7
- NEW IMPERMEABLE AREA 2450M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 150M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

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4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM). SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEKMH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
8. EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE. WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
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10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
VolAtt: VOLUME OF ATTENUATION



LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- EXISTING FOUL NETWORK
- EXISTING COMBINED NETWORK
- EXISTING SURFACE WATER NETWORK
- EXISTING OVERFLOW PIPE
- PLANNED SURFACE WATER PIPE
- PROPOSED STORM WATER PIPE
- PROPOSED OVERSIZED PIPE
- PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA** Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3 Drawn: PT, Checked: KM, Approved: JB

Project Code: BCIDB Originator Code: JAC QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0008	Sheet Number: 08 of 28	Status: A	Rev: M01

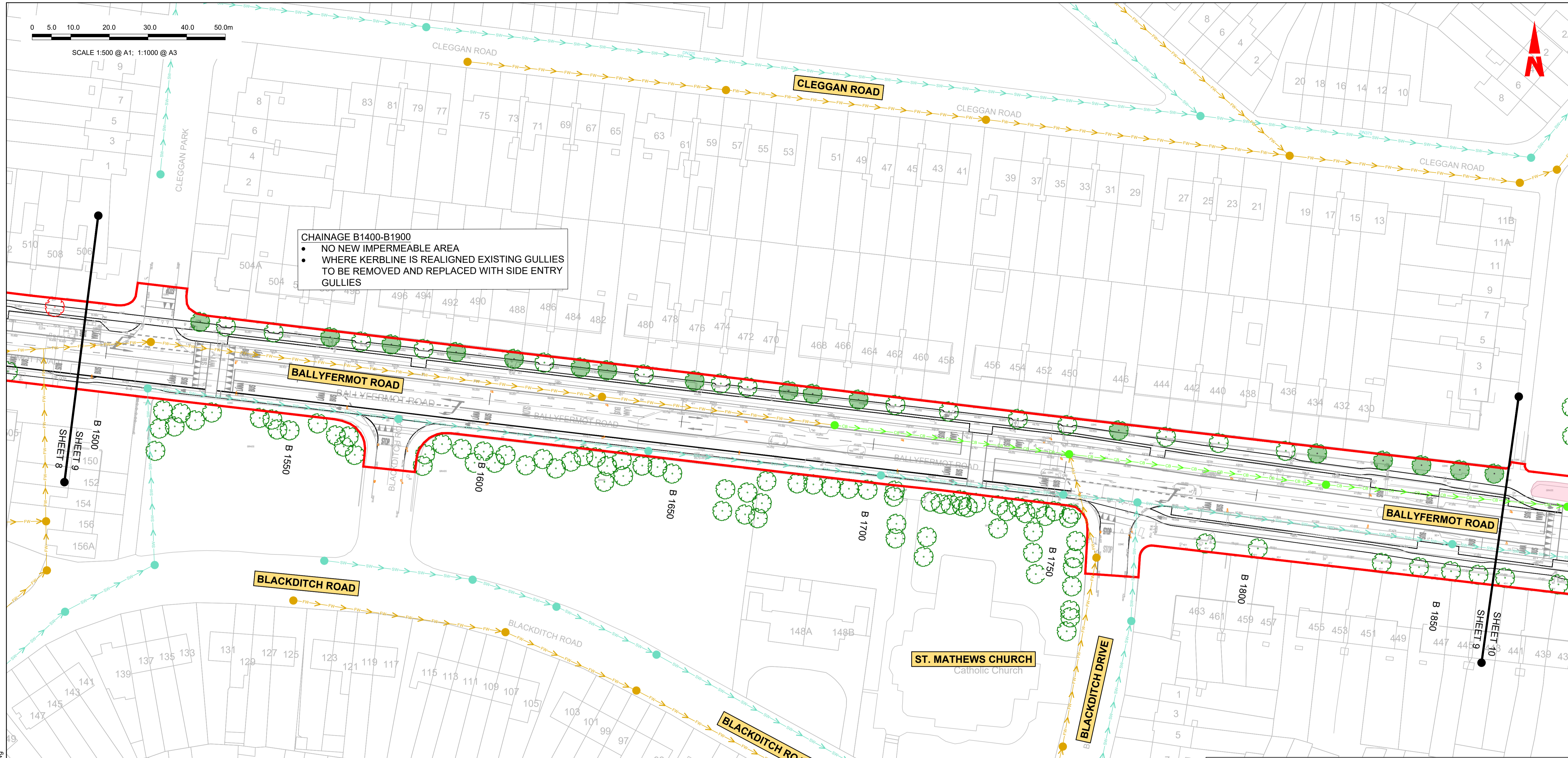
DO NOT SCALE USE FIGURED DIMENSIONS ONLY

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3



CHAINAGE B1400-B1900
• NO NEW IMPERMEABLE AREA
• WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODING DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH = ARCH.

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- EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
- ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
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- ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

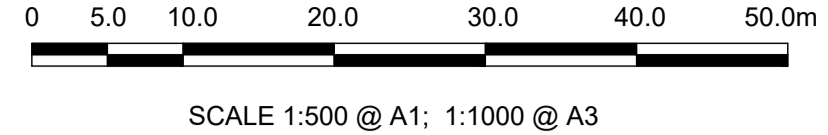
Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3
Drawn: PT, Checked: KM, Approved: JB

Project Code: BCIDB, Originator Code: JAC, QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0009	Sheet Number: 09 of 28	Status: A	Rev: M01

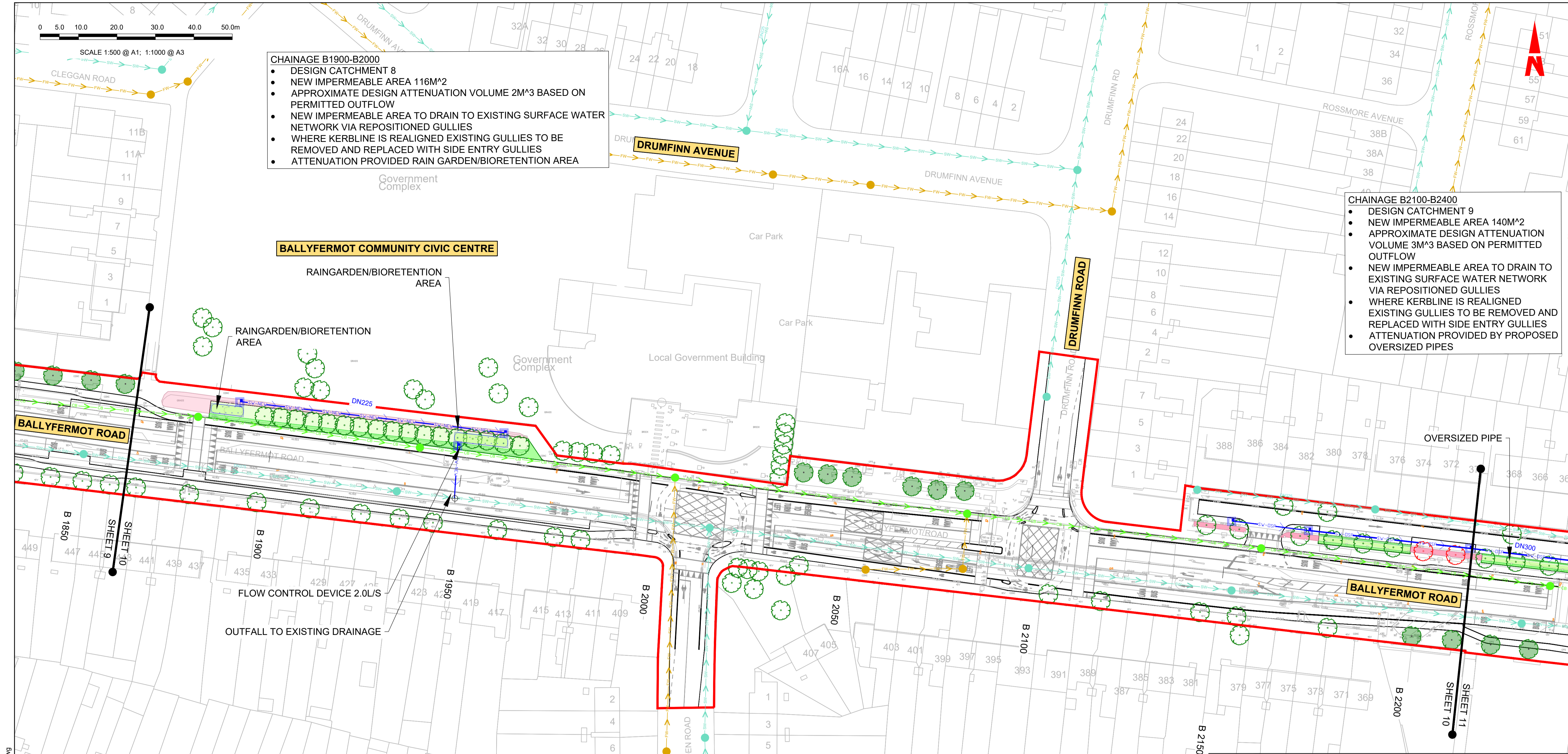
DO NOT SCALE USE FIGURED DIMENSIONS ONLY



- CHAINAGE B1900-B2000**
- DESIGN CATCHMENT 8
 - NEW IMPERMEABLE AREA 116M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 2M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED RAIN GARDEN/BIORETENTION AREA

- CHAINAGE B2100-B2400**
- DESIGN CATCHMENT 9
 - NEW IMPERMEABLE AREA 140M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 3M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY PROPOSED OVERSIZED PIPES

BALLYFERMOT COMMUNITY CIVIC CENTRE



- LEGEND:**
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
 - EXISTING PAVED AREAS TO BECOME GRASSED
 - EXISTING GRASSED AREAS TO BE MAINTAINED
 - EXISTING FOUL NETWORK
 - EXISTING COMBINED NETWORK
 - EXISTING SURFACE WATER NETWORK
 - EXISTING OVERFLOW PIPE
 - PLANNED SURFACE WATER PIPE
 - PROPOSED STORM WATER PIPE
 - PROPOSED OVERSIZED PIPE
 - PROPOSED FILTER DRAIN/PERFORATED PIPE
 - PROPOSED PERMEABLE PAVING
 - PROPOSED RODDING EYE
 - PROPOSED MANHOLE
 - PROPOSED INSPECTION CHAMBER
 - EXISTING TREE
 - EXISTING TREE TO BE REMOVED
 - PROPOSED NEW TREE
 - PROPOSED NEW TREE PIT
 - PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
 - EXISTING GULLY
 - SITE BOUNDARY LINE
 - TEMPORARY LAND ACQUISITION
- NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH = ARCH.

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 - ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 - PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION
- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Drawn: PT Checked: KM Approved: JB

QMS Code

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: **LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS**

Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0010	Sheet Number: 10 of 28	Status: A	Rev: M01
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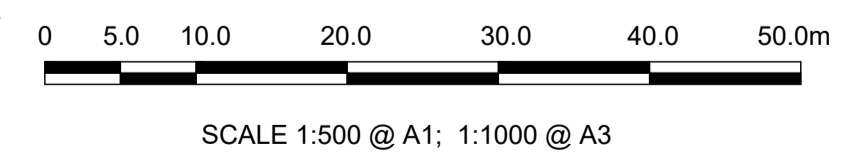
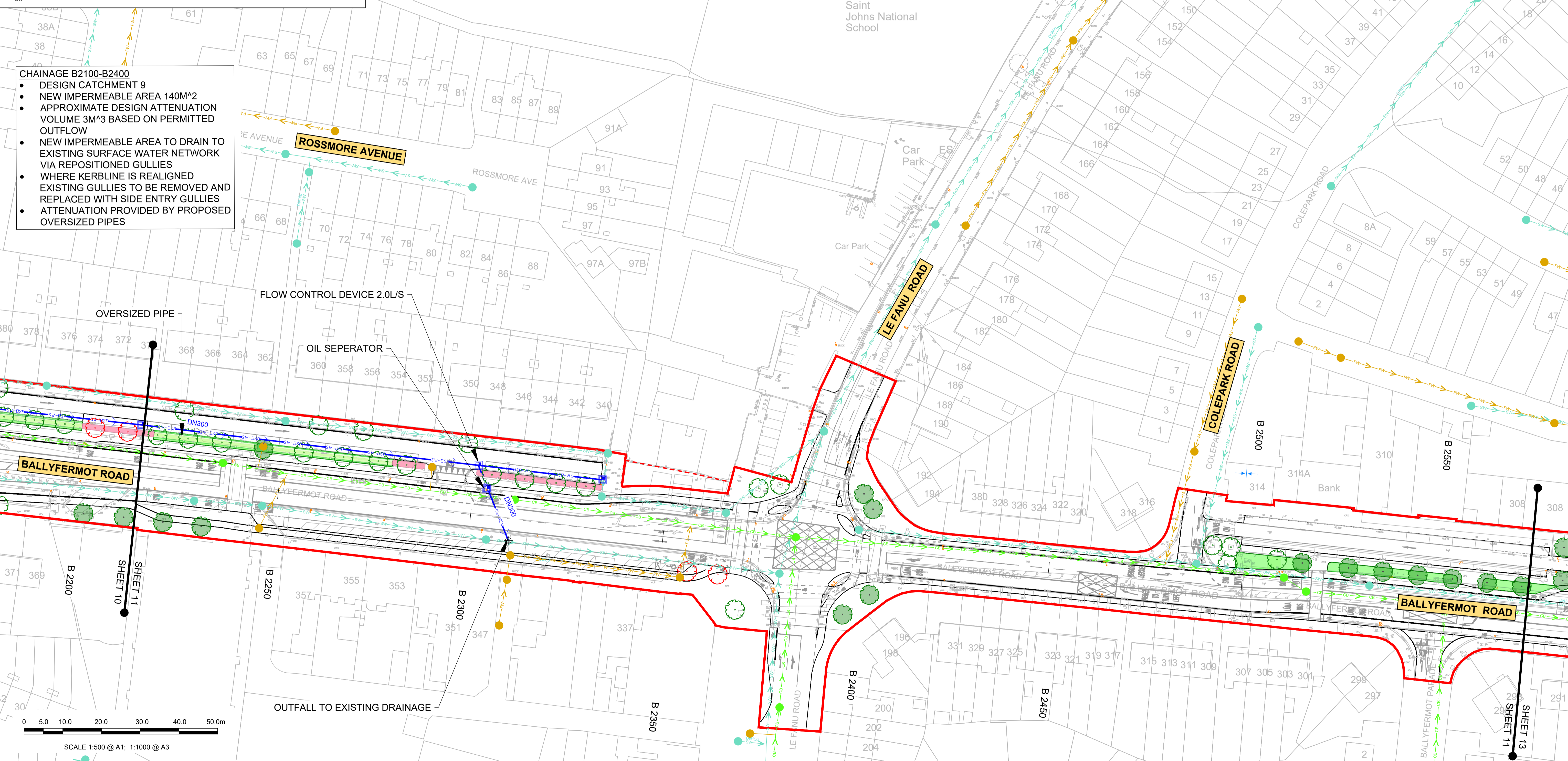
LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — FW EXISTING FOUL NETWORK
- CB — CB EXISTING COMBINED NETWORK
- SW — SW EXISTING SURFACE WATER NETWORK
- X OF X EXISTING OVERFLOW PIPE
- P SW P PLANNED SURFACE WATER PIPE
- SW NEW — PROPOSED STORM WATER PIPE
- SW OSP — PROPOSED OVERSIZED PIPE
- SW F — PROPOSED FILTER DRAIN/PERFORATED PIPE
- SW P — PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
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- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH = ARCH.

CHAINAGE B2100-B2400

- DESIGN CATCHMENT 9
- NEW IMPERMEABLE AREA 140M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 3M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY PROPOSED OVERSIZED PIPES



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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Date	07/06/2022	Scale	1:500 @ A1 1:1000 @ A3
Project Code	BCIDB	Originator Code	JAC
Client	NTA	Engineering Designer	Jacobs

	Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS	Drawing File Name BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0011
Sheet Number 11 of 28	Status A
Rev M01	Rev M01

Client NTA Údarás Náisiúnta Iompair National Transport Authority	Engineering Designer Jacobs
Date 07/06/2022	Scale 1:500 @ A1 1:1000 @ A3
Project Code BCIDB	Originator Code JAC
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS	Drawing File Name BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0011
Sheet Number 11 of 28	Status A
Rev M01	Rev M01

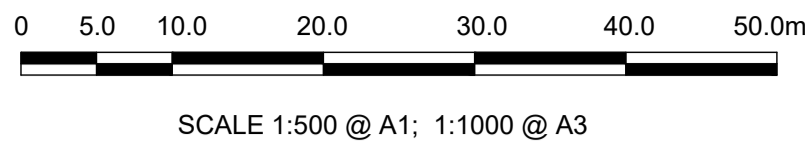
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11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION



CHAINAGE C400

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



LEGEND:

- | | | | |
|--|---|--|--|
| | ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED) | | PROPOSED RODDING EYE |
| | EXISTING PAVED AREAS TO BECOME GRASSED | | PROPOSED MANHOLE |
| | EXISTING GRASSED AREAS TO BE MAINTAINED | | PROPOSED INSPECTION CHAMBER |
| | EXISTING FOUL NETWORK | | EXISTING TREE |
| | EXISTING COMBINED NETWORK | | EXISTING TREE TO BE REMOVED |
| | EXISTING SURFACE WATER NETWORK | | PROPOSED NEW TREE |
| | EXISTING OVERFLOW PIPE | | PROPOSED NEW TREE PIT |
| | PLANNED SURFACE WATER PIPE | | PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN |
| | PROPOSED STORM WATER PIPE | | EXISTING GULLY |
| | PROPOSED OVERSIZED PIPE | | SITE BOUNDARY LINE |
| | PROPOSED FILTER DRAIN/PERFORATED PIPE | | TEMPORARY LAND ACQUISITION |
| | PROPOSED PERMEABLE PAVING | | |

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
 Údarás Náisiúnta Iompair
 National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN			
Drawing Title: CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0012	Sheet Number: 12 of 28	Status: A	Rev: M01

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- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

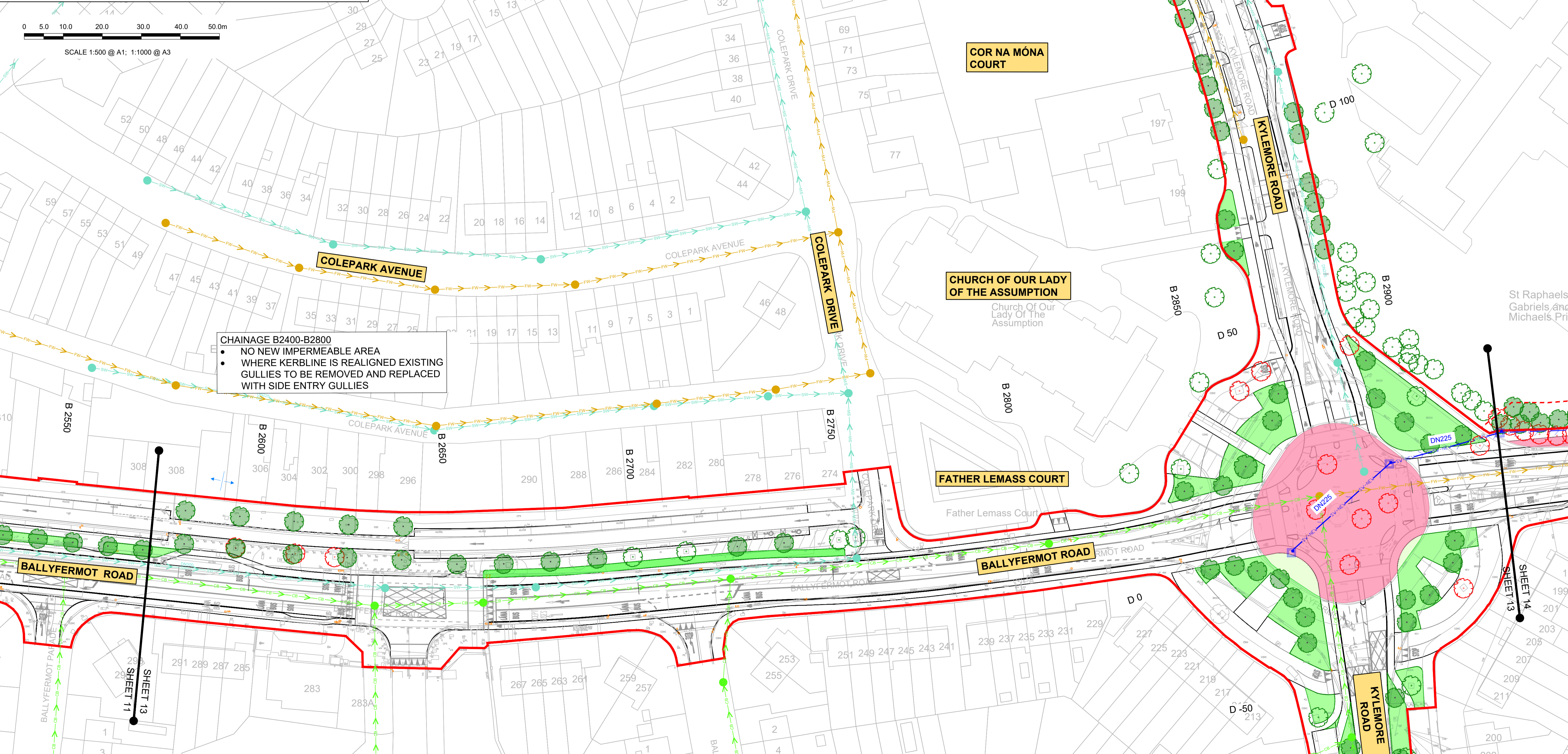
ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — EXISTING FOUL NETWORK
- CB — EXISTING COMBINED NETWORK
- SW — EXISTING SURFACE WATER NETWORK
- X OF X — EXISTING OVERFLOW PIPE
- P SW P — PLANNED SURFACE WATER PIPE
- SW-NEW — PROPOSED STORM WATER PIPE
- SW-OSP — PROPOSED OVERSIZED PIPE
- FD — PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
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NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.



CHAINAGE B2400-B2800

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

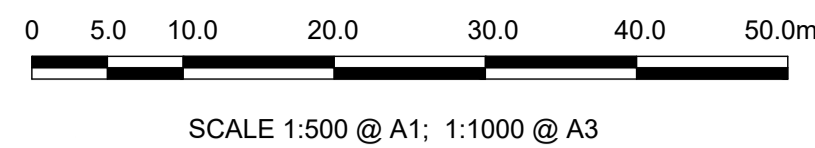
NTA
Údarás Náisiúnta Iompair
National Transport Authority

Jacobs

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0013	Sheet Number 13 of 28	Status A	Rev M01



CHAINAGE B2800-B3600

- DESIGN CATCHMENT 10
- NEW IMPERMEABLE AREA 3358M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 298M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN AND FILTER DRAINS

PROPOSED 0.5M FILTER DRAIN
TOTAL LENGTH 200M
ATTENUATION VOLUME 29M³

ST GABRIEL'S NATIONAL SCHOOL

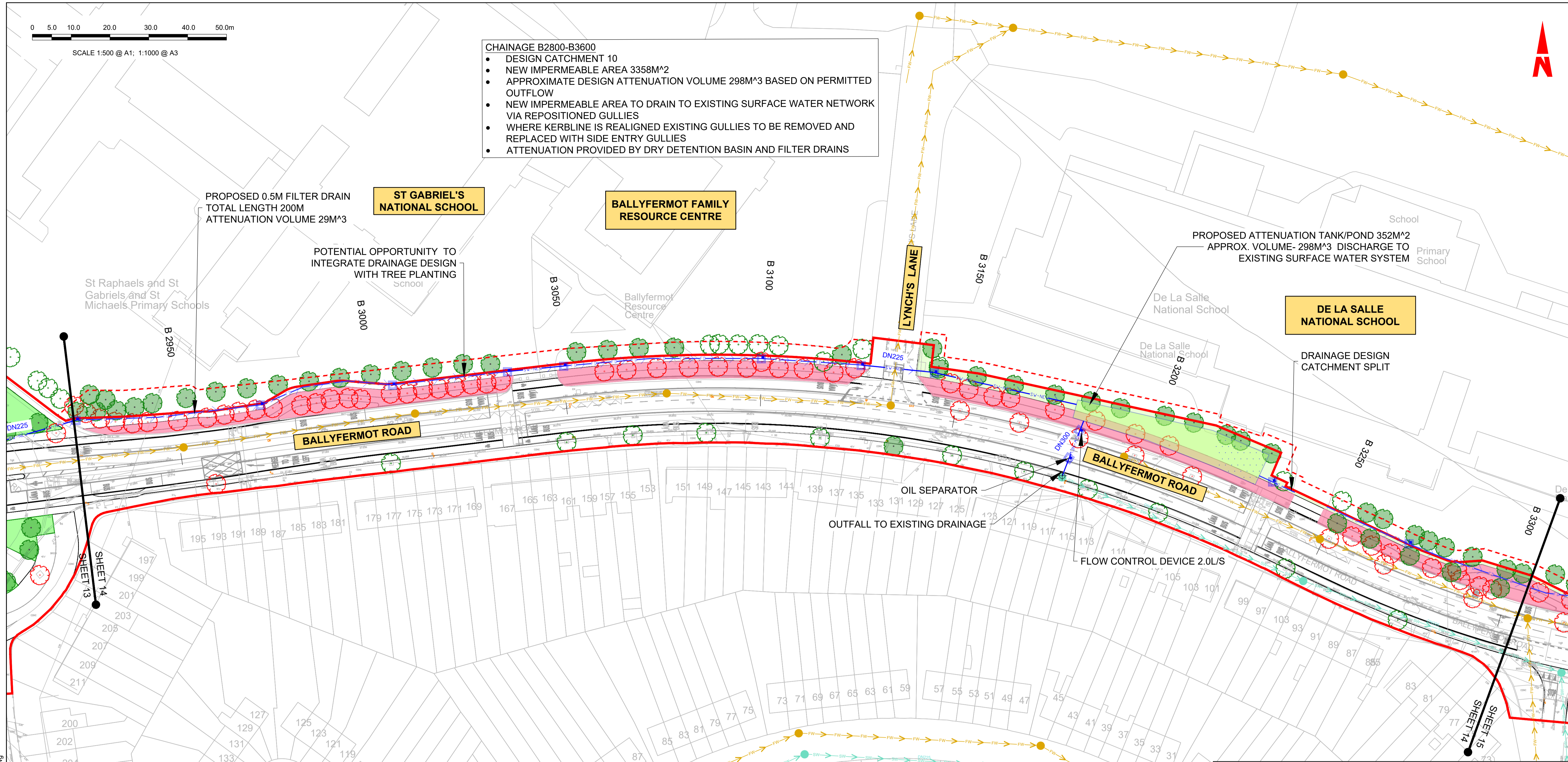
BALLYFERMOT FAMILY RESOURCE CENTRE

PROPOSED ATTENUATION TANK/POND 352M²
APPROX. VOLUME- 298M³ DISCHARGE TO EXISTING SURFACE WATER SYSTEM

DE LA SALLE NATIONAL SCHOOL

POTENTIAL OPPORTUNITY TO INTEGRATE DRAINAGE DESIGN WITH TREE PLANTING

DRAINAGE DESIGN CATCHMENT SPLIT



LEGEND:

- | | |
|---|--|
| ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED) | PROPOSED RODDING EYE |
| EXISTING PAVED AREAS TO BECOME GRASSED | PROPOSED MANHOLE |
| EXISTING GRASSED AREAS TO BE MAINTAINED | PROPOSED INSPECTION CHAMBER |
| EXISTING FOUL NETWORK | EXISTING TREE |
| EXISTING COMBINED NETWORK | EXISTING TREE TO BE REMOVED |
| EXISTING SURFACE WATER NETWORK | PROPOSED NEW TREE |
| EXISTING OVERFLOW PIPE | PROPOSED NEW TREE PIT |
| PLANNED SURFACE WATER PIPE | PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN |
| PROPOSED STORM WATER PIPE | EXISTING GULLY |
| PROPOSED OVERSIZED PIPE | SITE BOUNDARY LINE |
| PROPOSED FILTER DRAIN/PERFORATED PIPE | TEMPORARY LAND ACQUISITION |
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ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

C:\pwworking\jacobs_uk_highways_ssa\legintl_castlehd0147477\BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0001.dwg

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M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Drawn: PT Checked: KM Approved: JB

QMS Code:

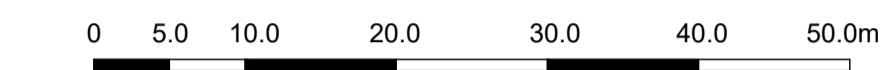
Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0014	Sheet Number: 14 of 28	Status: A	Rev: M01

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SCALE 1:500 @ A1; 1:1000 @ A3

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CHAINAGE B2800-B3600

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- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

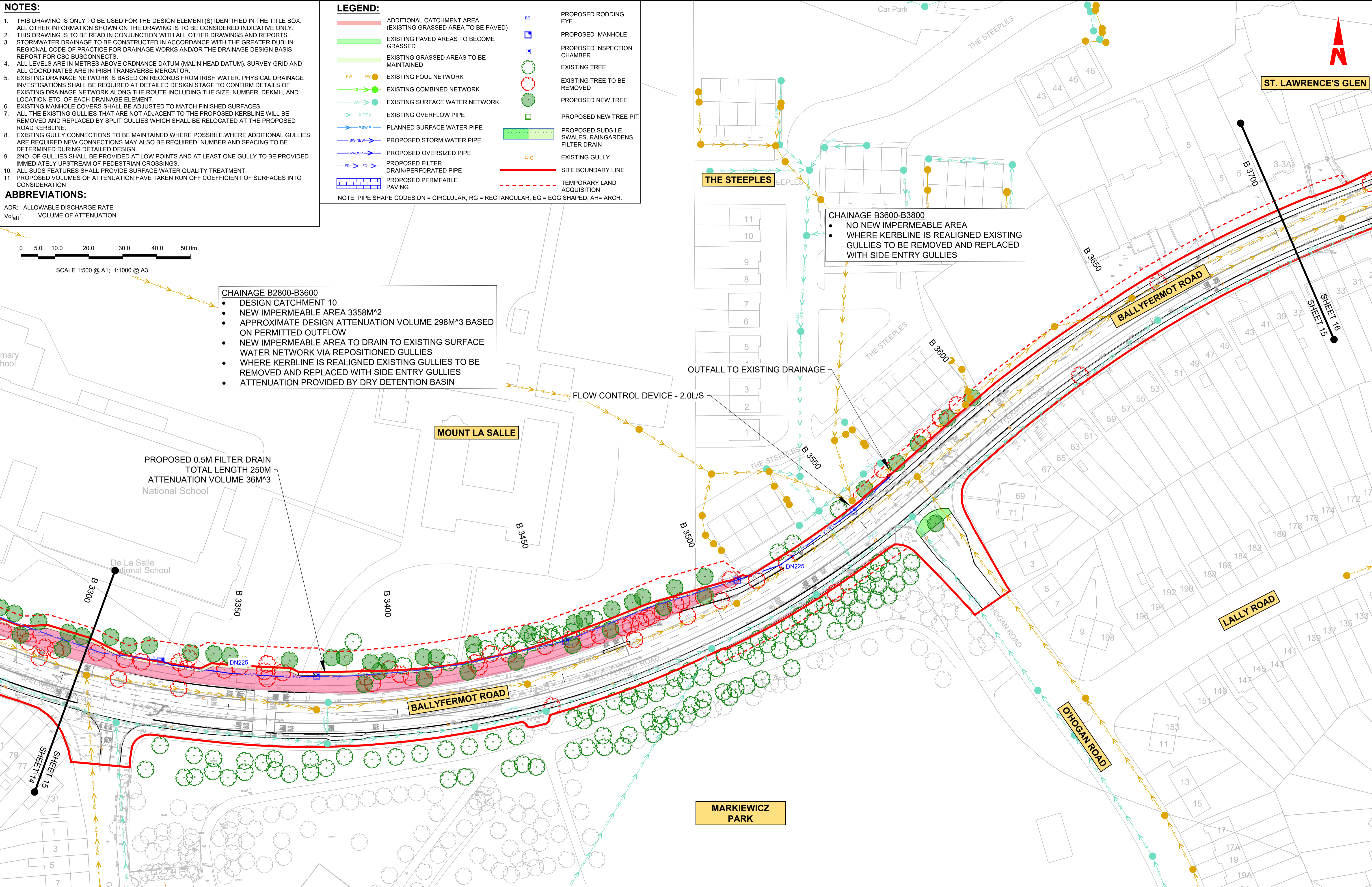
PROPOSED 0.5M FILTER DRAIN
TOTAL LENGTH 250M
ATTENUATION VOLUME 36M³
National School

CHAINAGE B3600-B3800

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

FLOW CONTROL DEVICE - 2.0L/S

OUTFALL TO EXISTING DRAINAGE



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Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0015	Sheet Number: 15 of 28	Status: A	Rev: M01

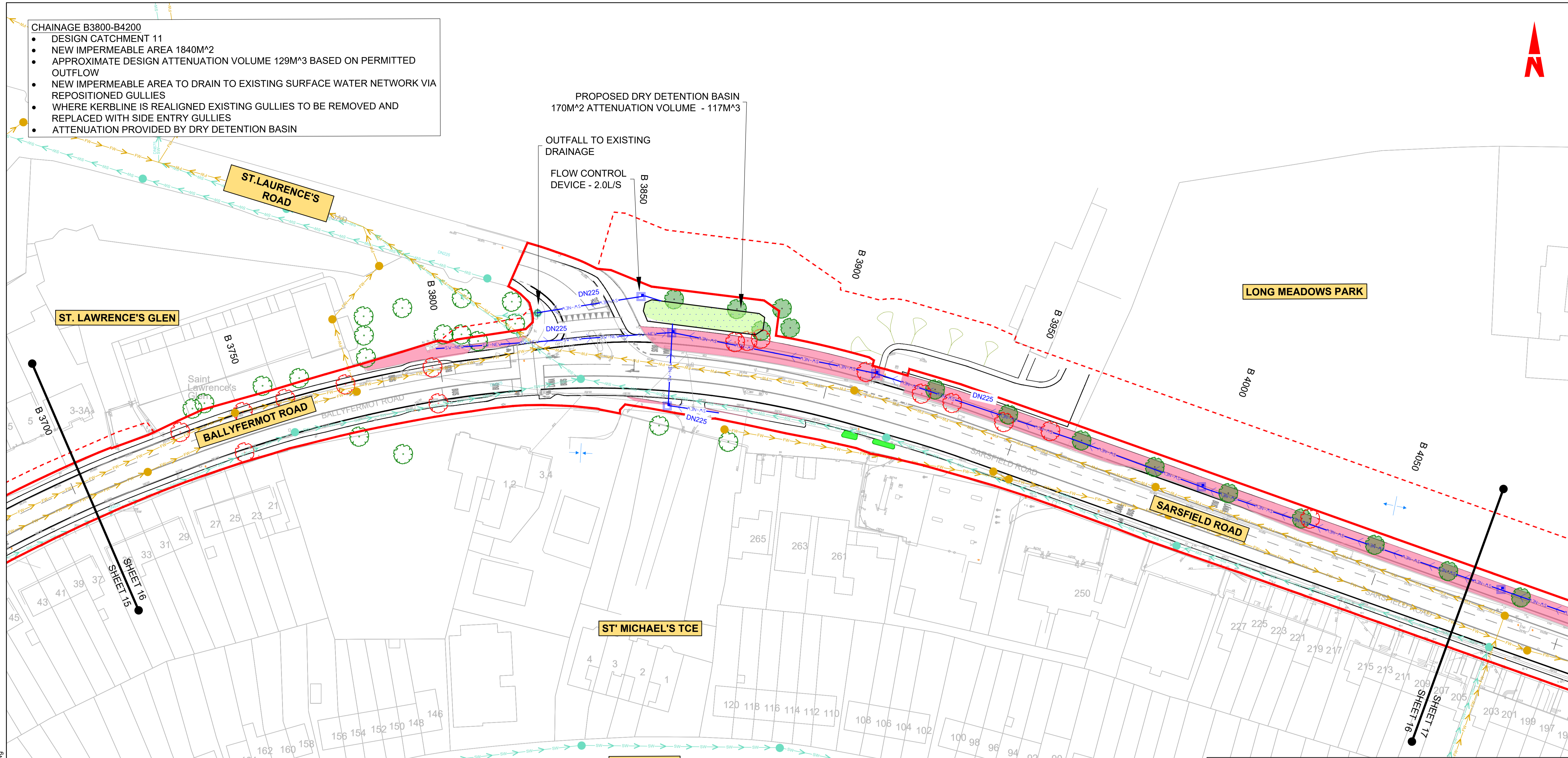


- CHAINAGE B3800-B4200
- DESIGN CATCHMENT 11
 - NEW IMPERMEABLE AREA 1840M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 129M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY DRY DETENTION BASIN

PROPOSED DRY DETENTION BASIN
170M² ATTENUATION VOLUME - 117M³

OUTFALL TO EXISTING DRAINAGE

FLOW CONTROL DEVICE - 2.0L/S



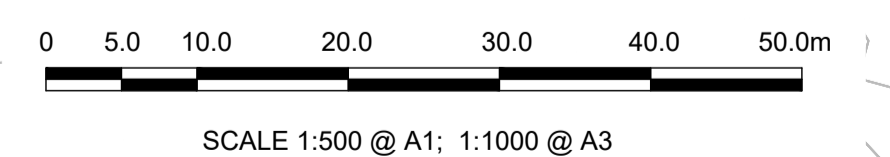
- LEGEND:**
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
 - EXISTING PAVED AREAS TO BECOME GRASSED
 - EXISTING GRASSED AREAS TO BE MAINTAINED
 - EXISTING FOUL NETWORK
 - EXISTING COMBINED NETWORK
 - EXISTING SURFACE WATER NETWORK
 - EXISTING OVERFLOW PIPE
 - PLANNED SURFACE WATER PIPE
 - PROPOSED STORM WATER PIPE
 - PROPOSED OVERSIZED PIPE
 - PROPOSED FILTER DRAIN/PERFORATED PIPE
 - PROPOSED PERMEABLE PAVING
 - PROPOSED RODDING EYE
 - PROPOSED MANHOLE CHAMBER
 - EXISTING TREE
 - EXISTING TREE TO BE REMOVED
 - PROPOSED NEW TREE
 - PROPOSED NEW TREE PIT
 - PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
 - EXISTING GULLY
 - SITE BOUNDARY LINE
 - TEMPORARY LAND ACQUISITION
- NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH = ARCH.

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- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION



C:\pwworking\jacobs_uk_highways_ssa\legintl_caslehd0147477\BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0016.dwg

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Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

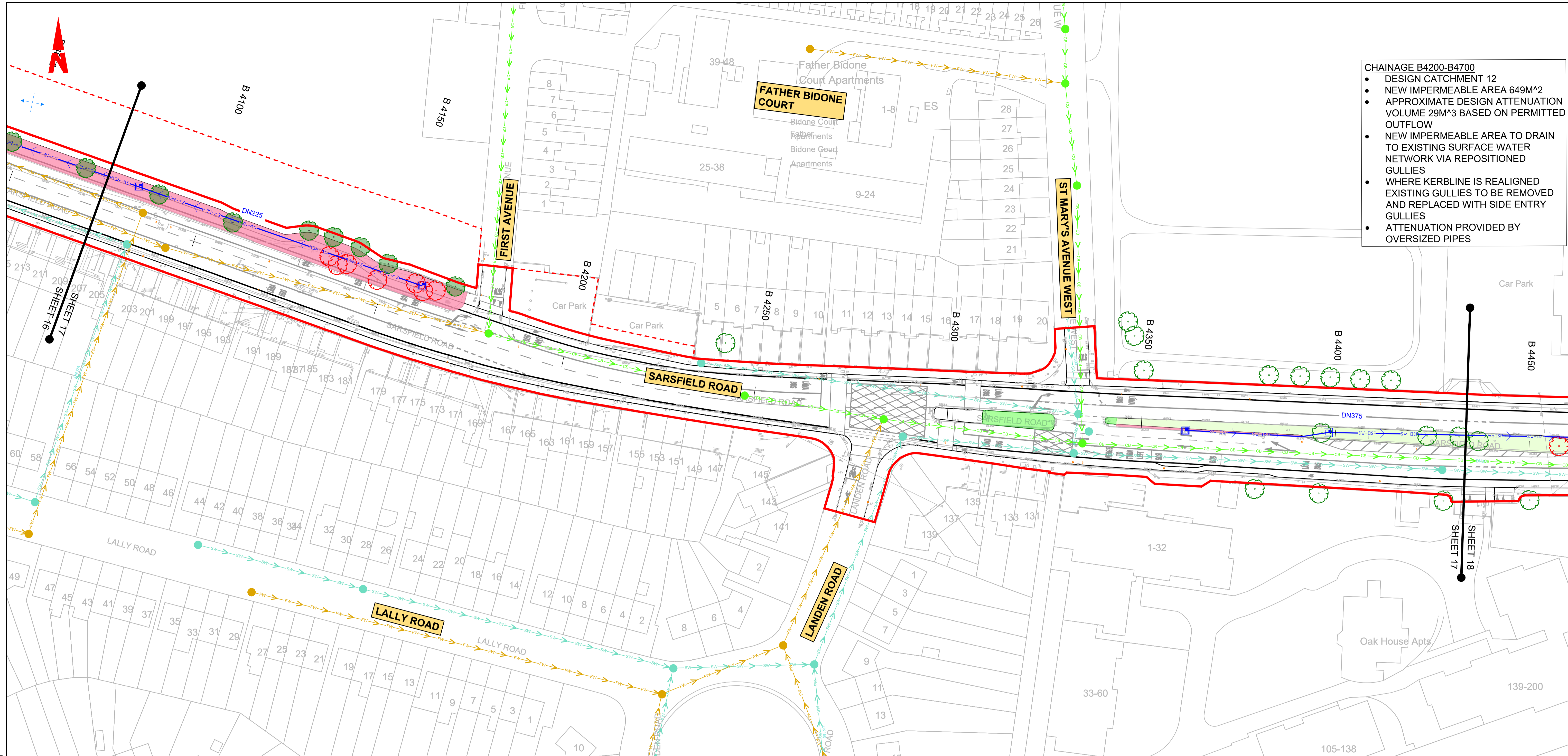
Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

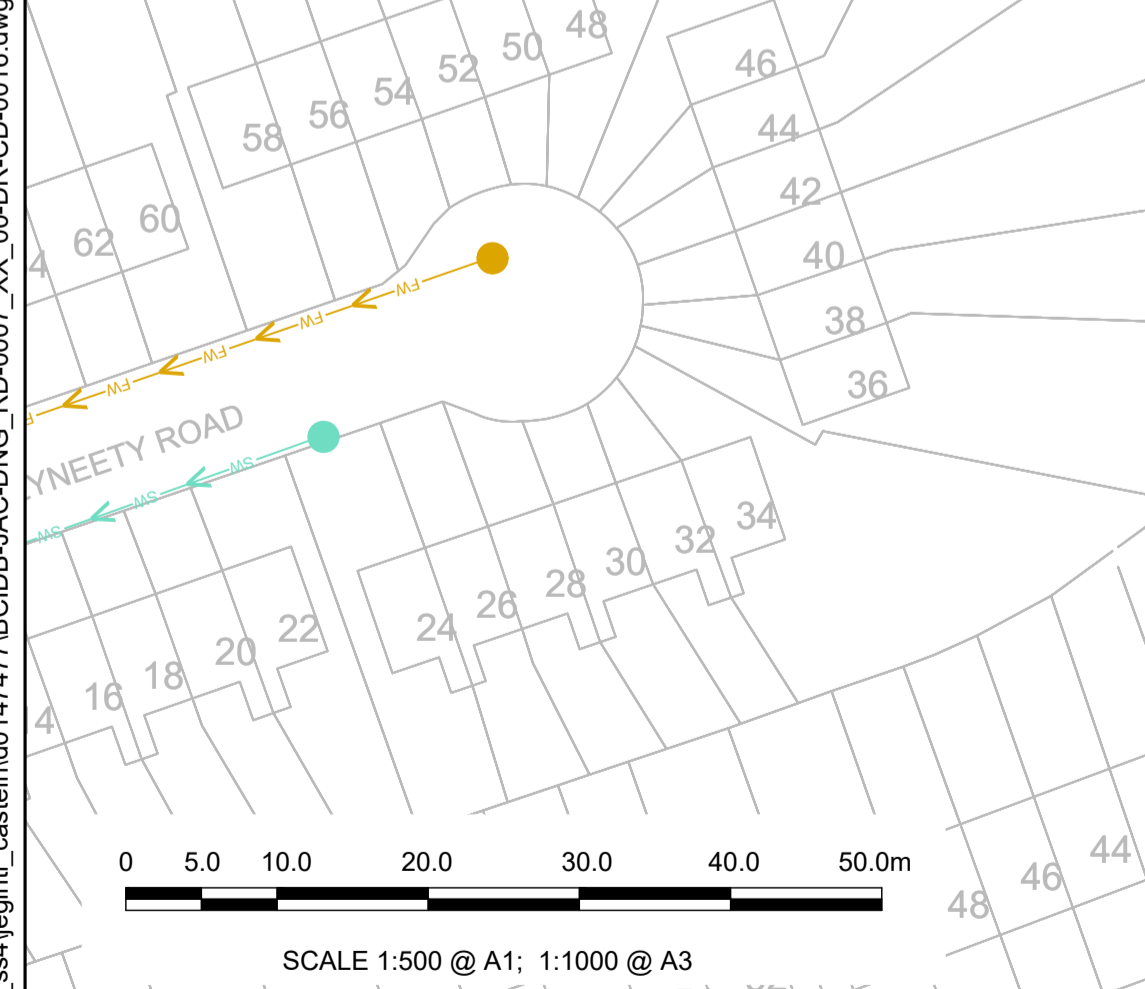
Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0016	Sheet Number: 16 of 28	Status: A	Rev: M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



- CHAINAGE B4200-B4700**
- DESIGN CATCHMENT 12
 - NEW IMPERMEABLE AREA 649M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 29M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY OVERSIZED PIPES



LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		EGG SHAPED, EG = EGG SHAPED, AH= ARCH.

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Date: 07/06/2022 Scale: 1:500 @ A1
1:1000 @ A3

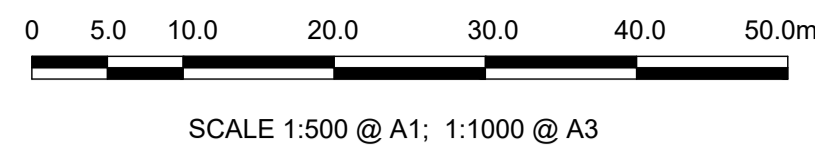
Engineering Designer: **Jacobs**

Drawn: PT Checked: KM Approved: JB

Project Code: BCIDB Originator Code: JAC QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0017	Sheet Number: 17 of 28	Status: A	Rev: M01

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LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — FW EXISTING FOUL NETWORK
- CB — CB EXISTING COMBINED NETWORK
- SW — SW EXISTING SURFACE WATER NETWORK
- X OF X EXISTING OVERFLOW PIPE
- P-SW P PLANNED SURFACE WATER PIPE
- SW-NEW PROPOSED STORM WATER PIPE
- SW-OSP PROPOSED OVERSIZED PIPE
- PROPOSED FILTER DRAIN/PERFORATED PIPE
- FD — FD PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
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- EXISTING GULLY
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- - - TEMPORARY LAND ACQUISITION

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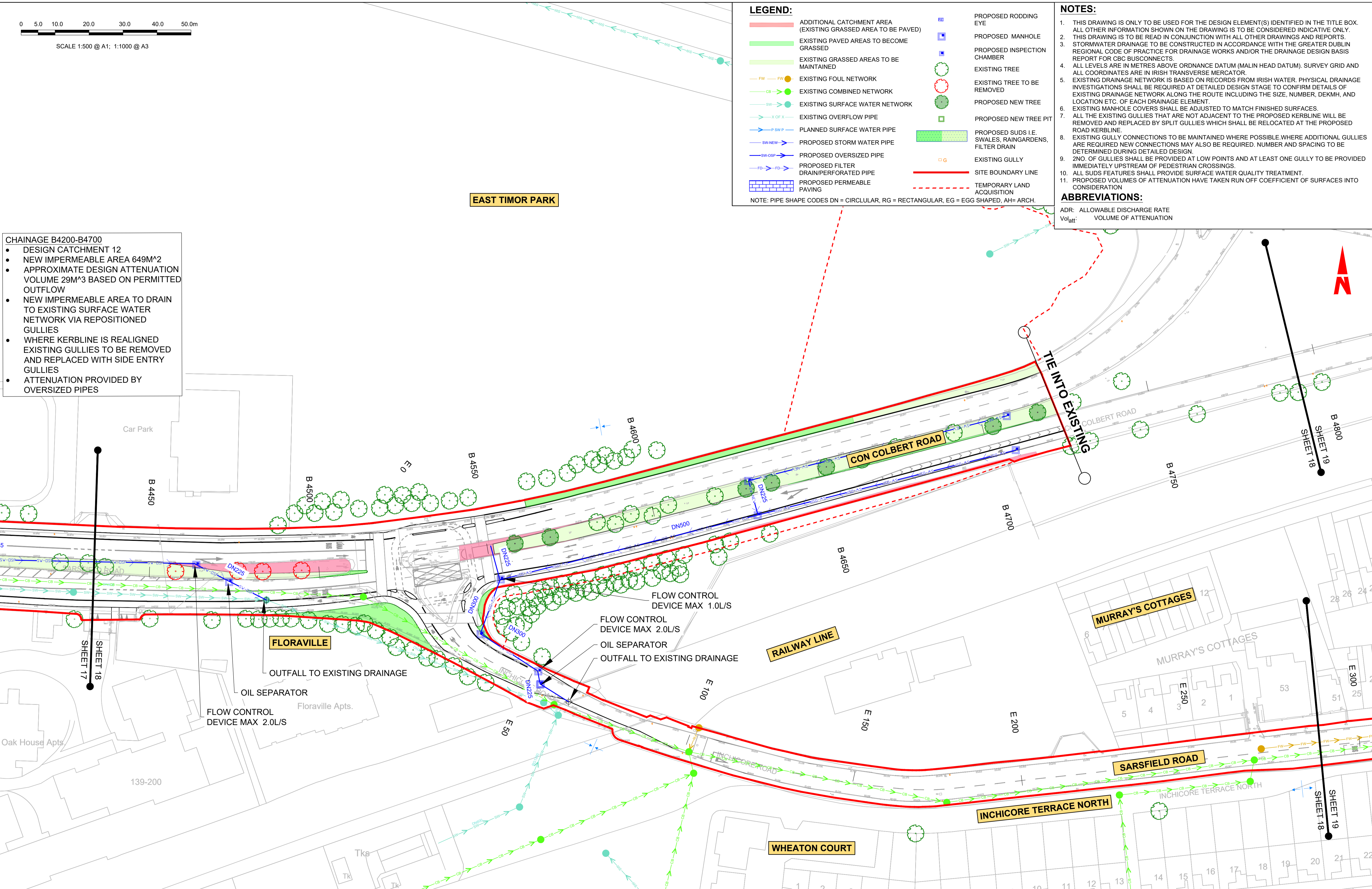
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ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

CHAINAGE B4200-B4700

- DESIGN CATCHMENT 12
- NEW IMPERMEABLE AREA 649M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 29M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
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Project Ireland 2040
Building Ireland's Future

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M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3
Drawn: PT, Checked: KM, Approved: JB

Project Code: BCIDB, Originator Code: JAC, QMS Code:

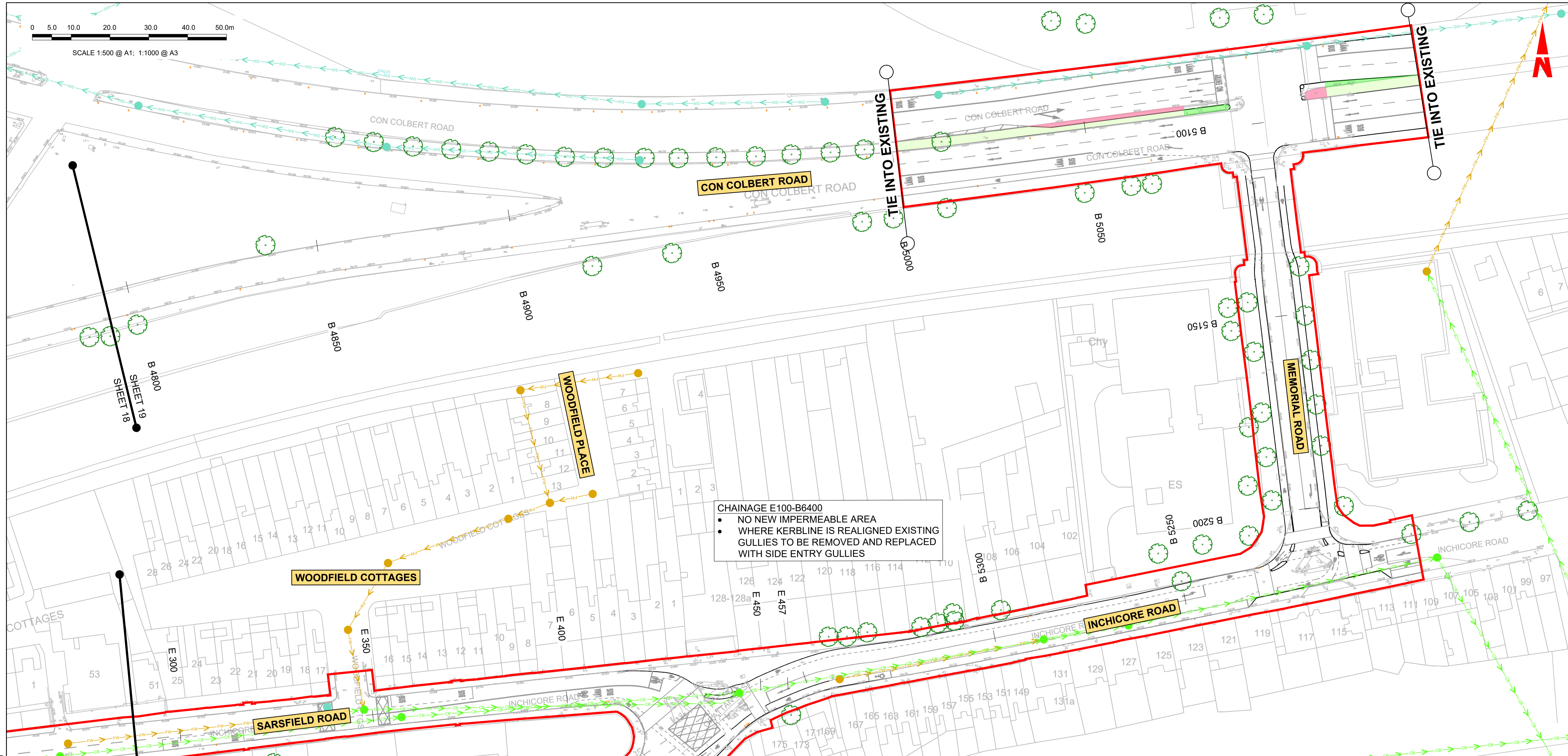
Programme Title: **BUSCONNECTS DUBLIN**
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME
PROPOSED SURFACE WATER DRAINAGE WORKS

Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0018
Sheet Number: 18 of 28
Status: A
Rev: M01

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3



CHAINAGE E100-B6400

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
 - EXISTING PAVED AREAS TO BECOME GRASSED
 - EXISTING GRASSED AREAS TO BE MAINTAINED
 - EXISTING FOUL NETWORK
 - EXISTING COMBINED NETWORK
 - EXISTING SURFACE WATER NETWORK
 - EXISTING OVERFLOW PIPE
 - PLANNED SURFACE WATER PIPE
 - PROPOSED STORM WATER PIPE
 - PROPOSED OVERSIZED PIPE
 - PROPOSED FILTER DRAIN/PERFORATED PIPE
 - PROPOSED PERMEABLE PAVING
 - PROPOSED RODDING EYE
 - PROPOSED MANHOLE
 - PROPOSED INSPECTION CHAMBER
 - EXISTING TREE
 - EXISTING TREE TO BE REMOVED
 - PROPOSED NEW TREE
 - PROPOSED NEW TREE PIT
 - PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
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- ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Date: 07/06/2022 Scale: 1:500 @ A1
1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

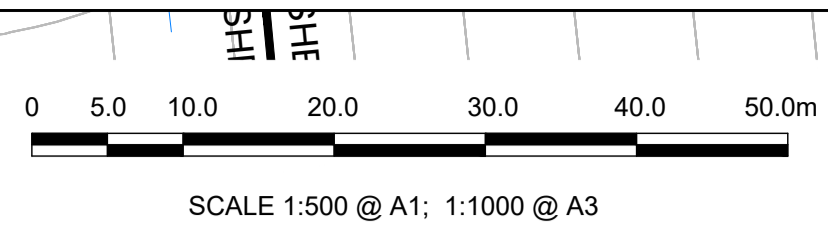
Engineering Designer: **Jacobs**

Drawn: PT Checked: KM Approved: JB

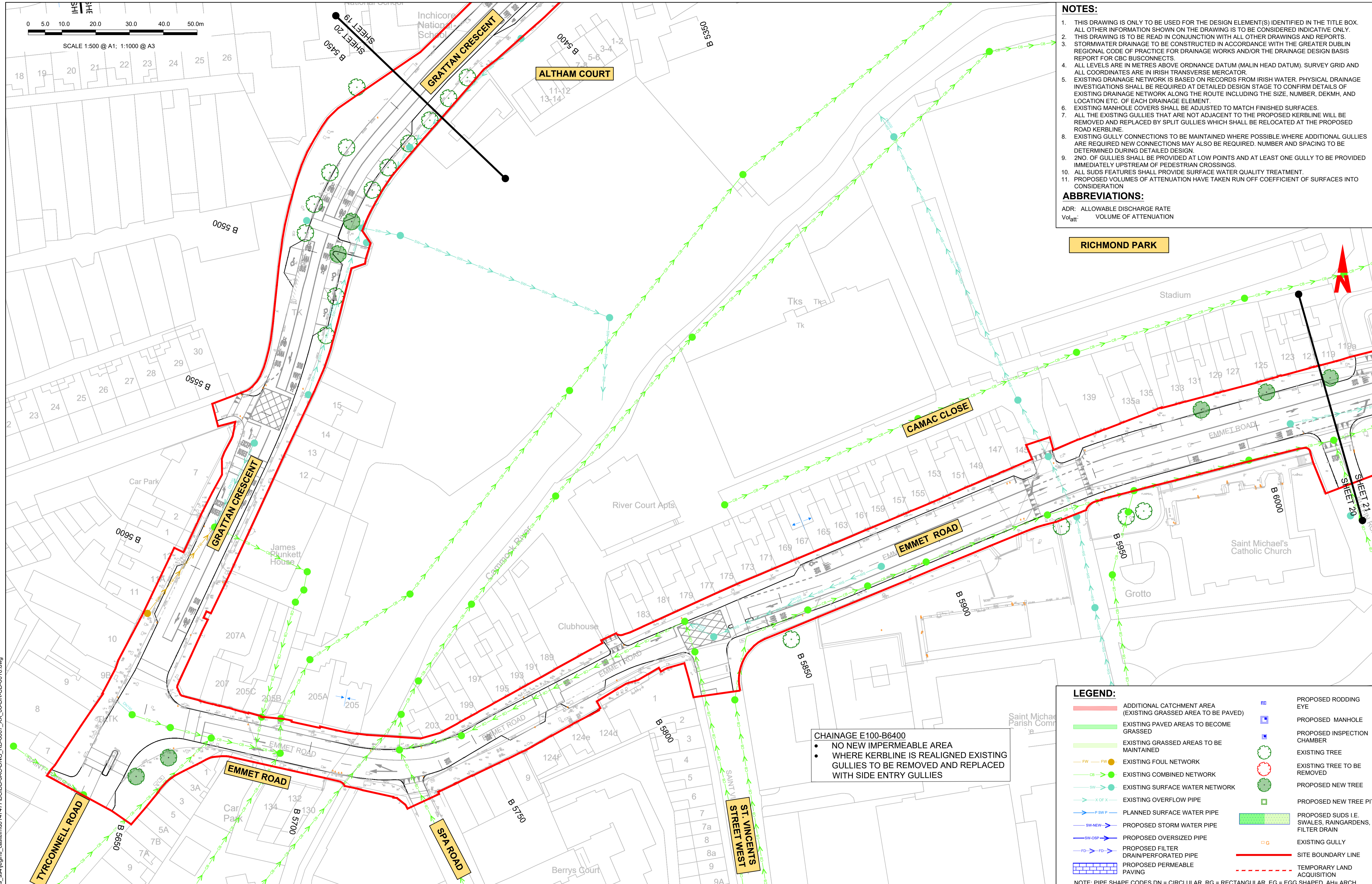
QMS Code

Programme Title	Drawing Title	Drawing File Name	Sheet Number	Status	Rev
BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS	BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0019	19 of 28	A	M01

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- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
VolAtt: VOLUME OF ATTENUATION



CHAINAGE E100-B6400
 • NO NEW IMPERMEABLE AREA
 • WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

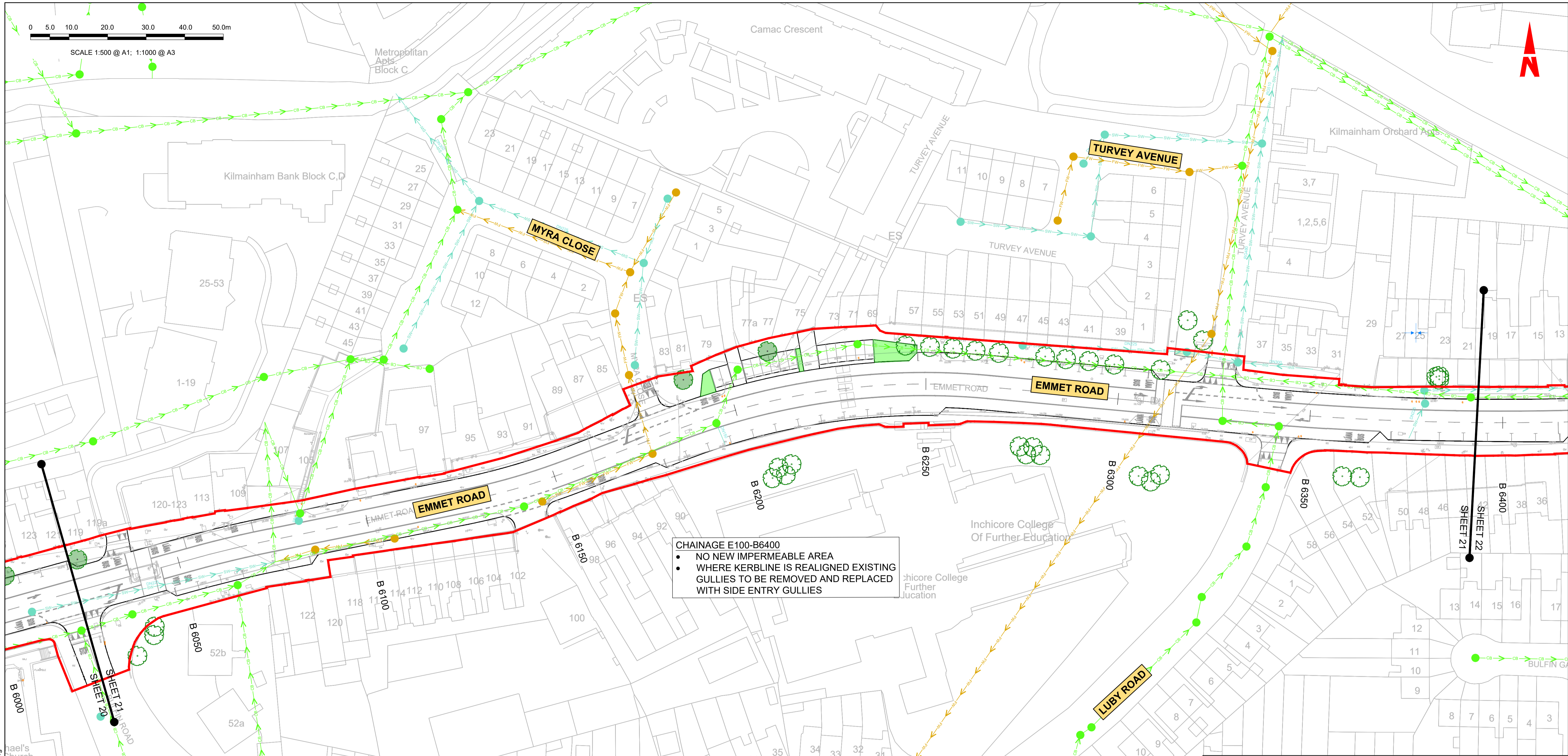
Drawn: PT Checked: KM Approved: JB

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS

Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0020 Sheet Number: 20 of 28 Status: A Rev: M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



CHAINAGE E100-B6400

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSSED		PROPOSED MANHOLE
	EXISTING GRASSSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

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- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

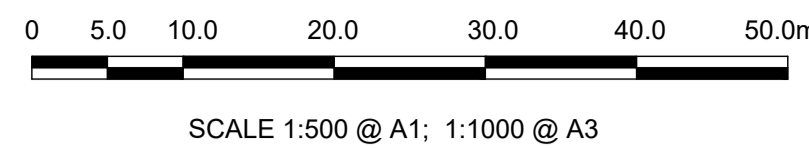
Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

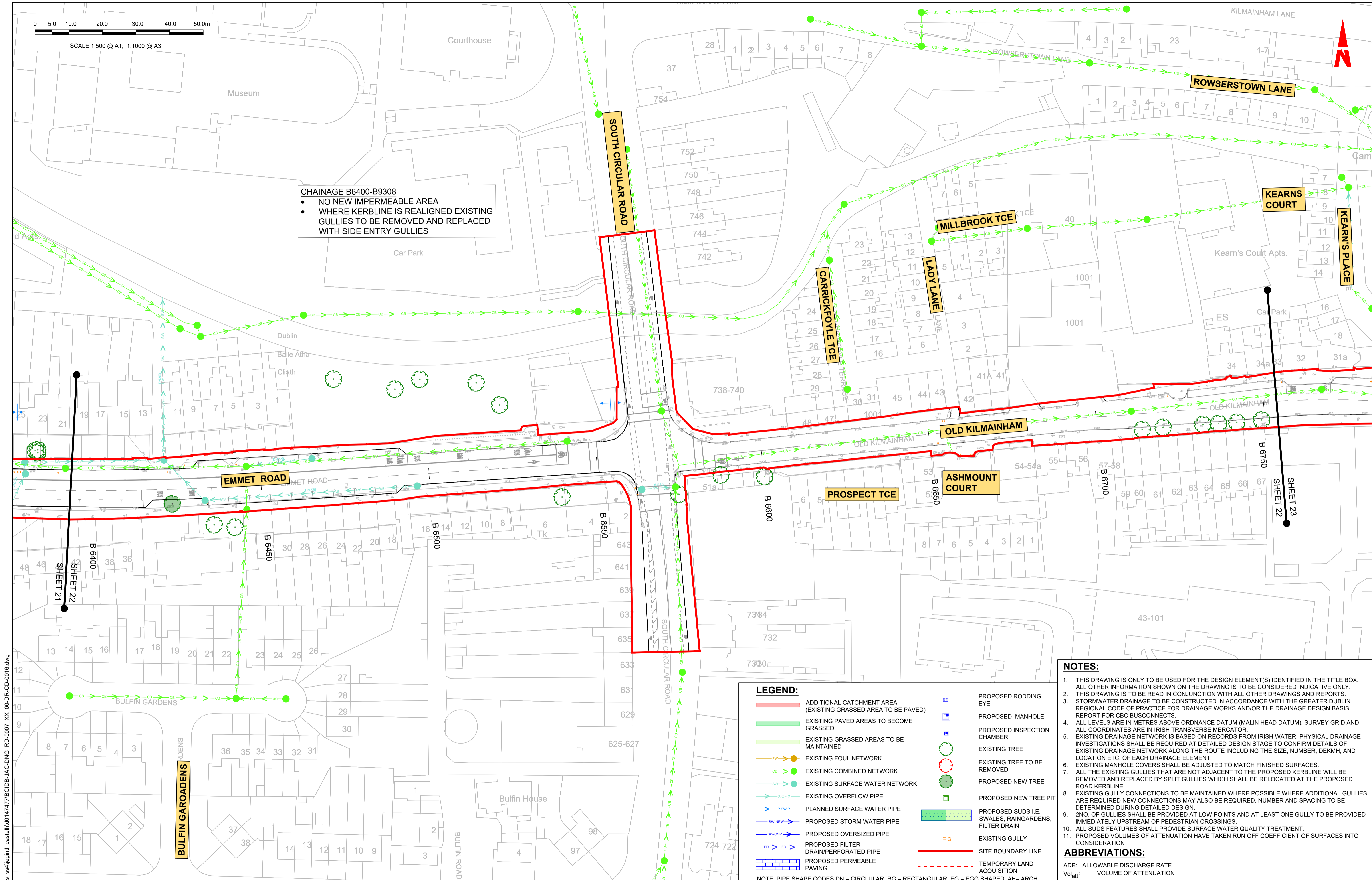
Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0021	Sheet Number: 21 of 28	Status: A	Rev: M01



CHAINAGE B6400-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		EGG SHAPED, AH= ARCH.

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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Building Ireland's Future

Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Engineering Designer: **Jacobs**

Drawn: PT	Checked: KM	Approved: JB
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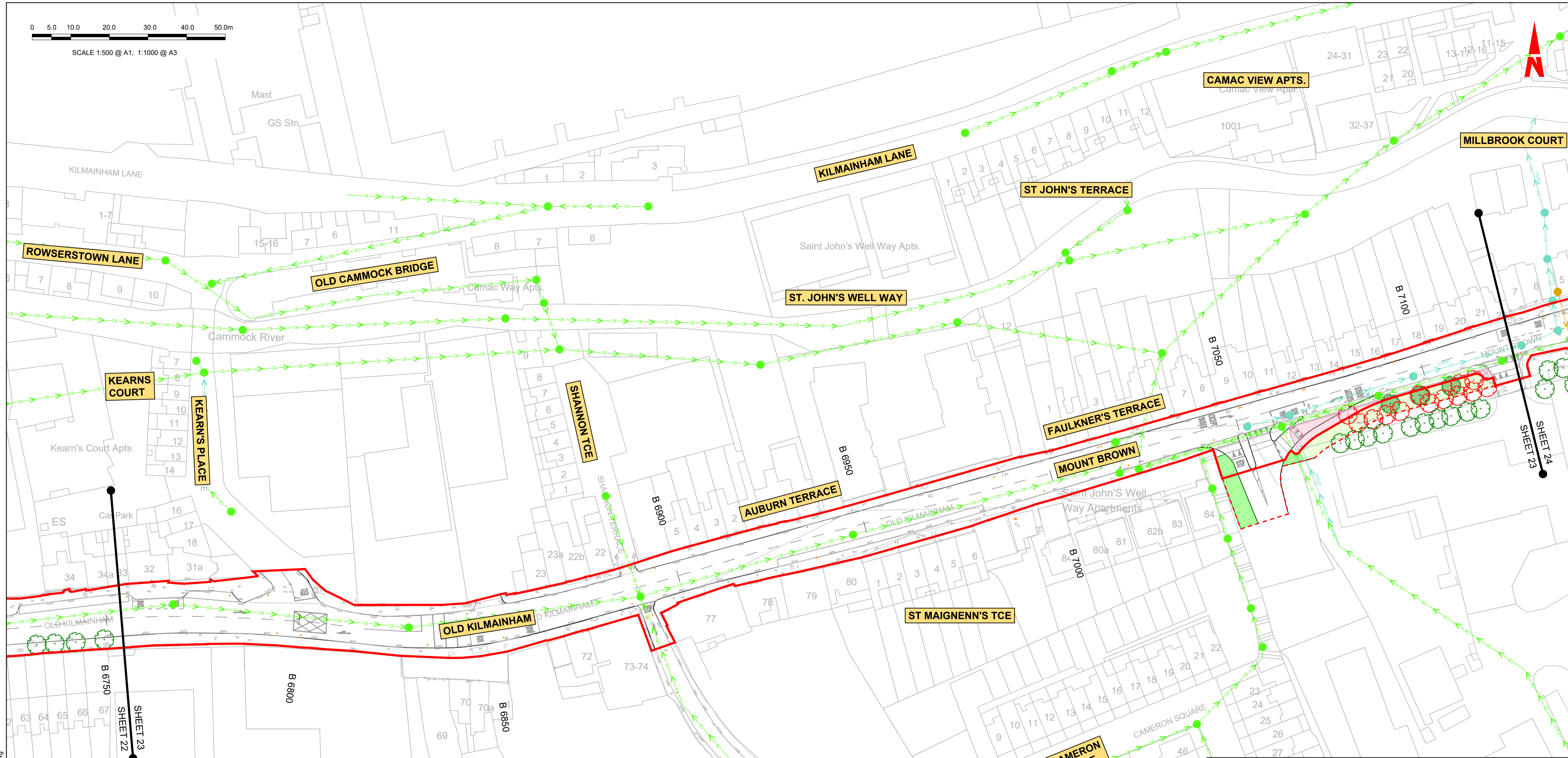
QMS Code

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0022	Sheet Number: 22 of 28	Status: A	Rev: M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3



LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- EXISTING FOUL NETWORK
- EXISTING COMBINED NETWORK
- EXISTING SURFACE WATER NETWORK
- EXISTING OVERFLOW PIPE
- PLANNED SURFACE WATER PIPE
- PROPOSED STORM WATER PIPE
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CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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ABBREVIATIONS:

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Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Drawn: PT Checked: KM Approved: JB

QMS Code

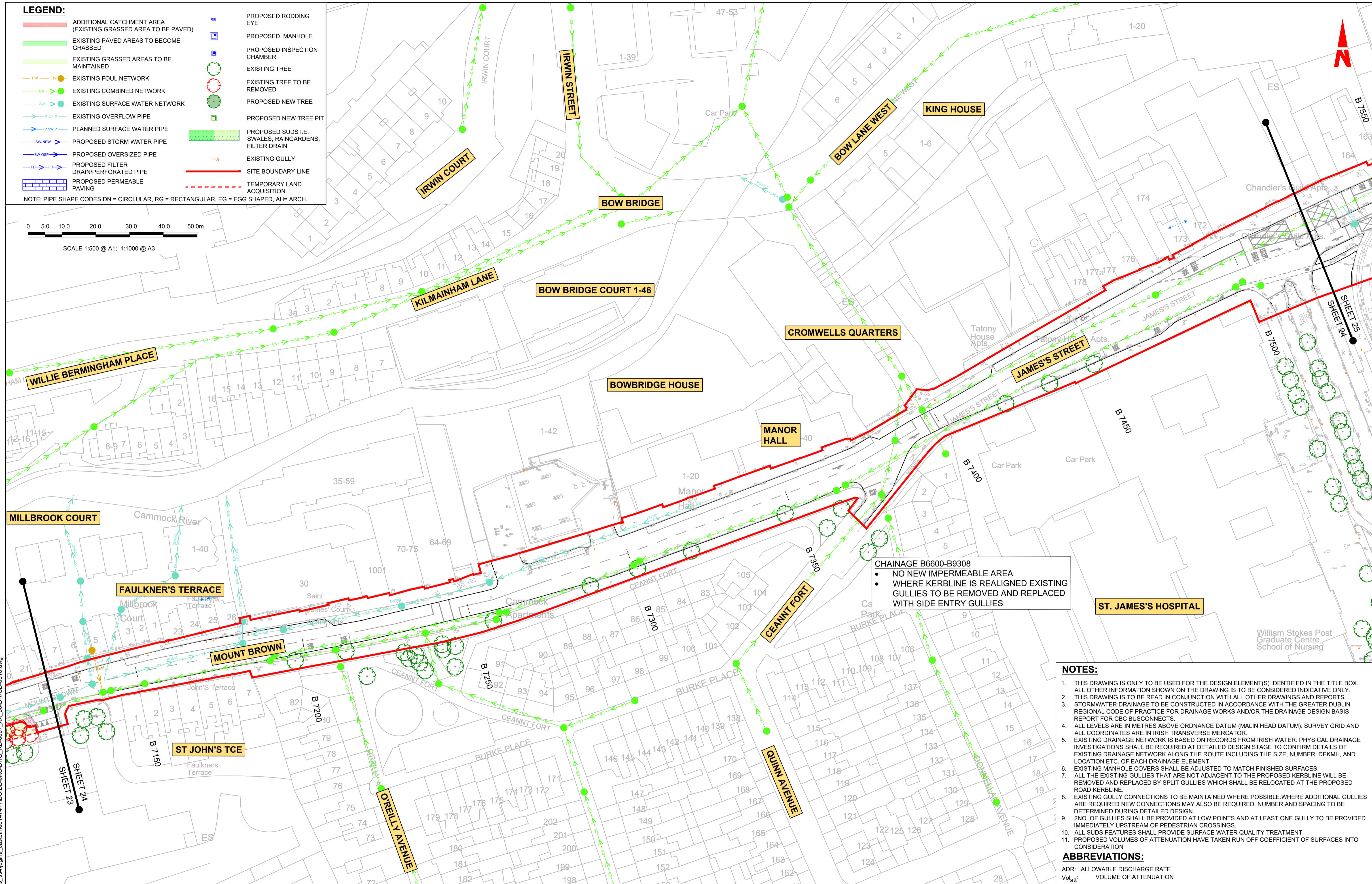
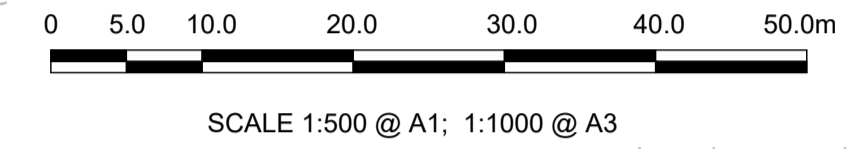
Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0023	Sheet Number: 23 of 28	Status: A	Rev: M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.



CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

- NOTES:**
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 3. STORMWATER DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND/OR THE DRAINAGE DESIGN BASIS REPORT FOR CBC BUSCONNECTS.
 4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM), SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
 5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEPTH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
 6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
 7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
 8. EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE. WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
 9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
 10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol^{att}: VOLUME OF ATTENUATION

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Project Ireland 2040
Building Ireland's Future

Rev	Date	Dm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS

Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0024 | Sheet Number: 24 of 28 | Status: A | Rev: M01

NOTES:

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4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM), SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEPTH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
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9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

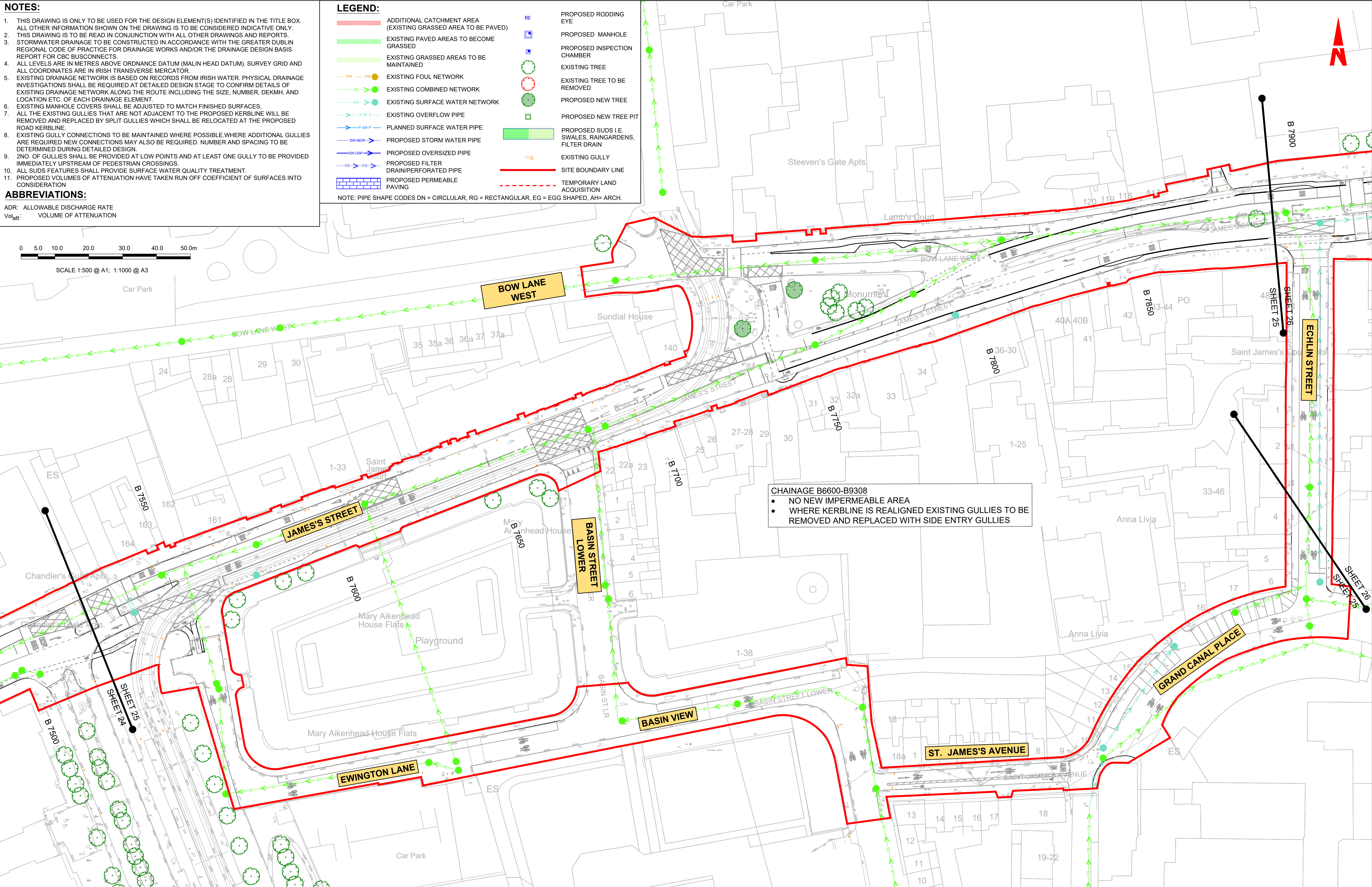
LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- EXISTING FOUL NETWORK
- EXISTING COMBINED NETWORK
- EXISTING SURFACE WATER NETWORK
- EXISTING OVERFLOW PIPE
- PLANNED SURFACE WATER PIPE
- PROPOSED STORM WATER PIPE
- PROPOSED OVERSIZED PIPE
- PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.



SCALE 1:500 @ A1; 1:1000 @ A3



CHAINAGE B6600-B9308
 • NO NEW IMPERMEABLE AREA
 • WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022	Scale: 1:500 @ A1, 1:1000 @ A3	Drawn: PT	Checked: KM	Approved: JB
Project Code: BCIDB	Originator Code: JAC	QMS Code:		

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0025	Sheet Number: 25 of 28	Status: A	Rev: M01

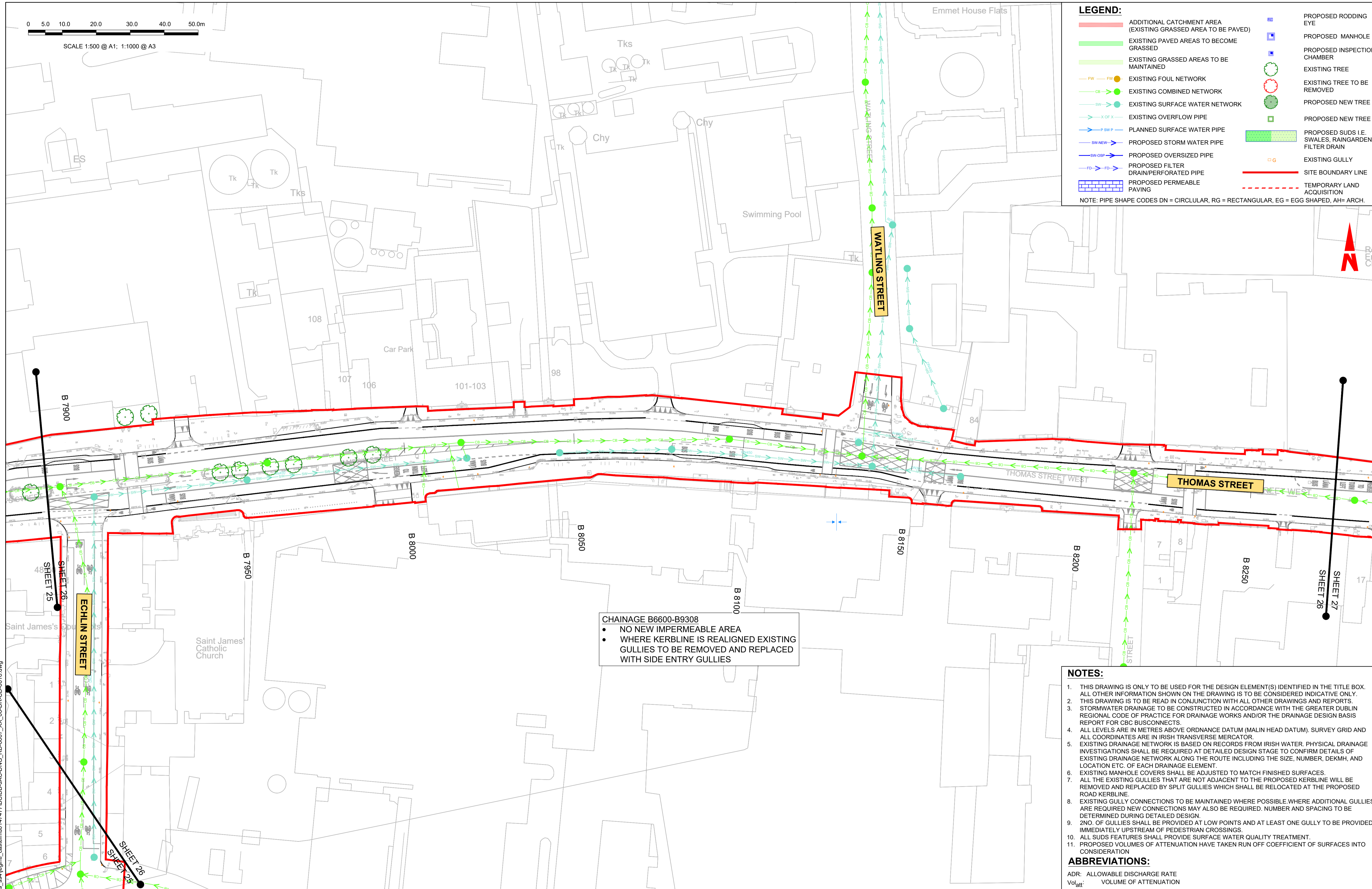
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SCALE 1:500 @ A1; 1:1000 @ A3

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — FV EXISTING FOUL NETWORK
- CB — EXISTING COMBINED NETWORK
- SW — EXISTING SURFACE WATER NETWORK
- X OF X EXISTING OVERFLOW PIPE
- P SWP PLANNED SURFACE WATER PIPE
- SW-NEW PROPOSED STORM WATER PIPE
- SW-OSP PROPOSED OVERSIZED PIPE
- FD — FD PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- SITE BOUNDARY LINE
- - - TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.



CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
 Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
 Údarás Náisiúnta Iompair
 National Transport Authority

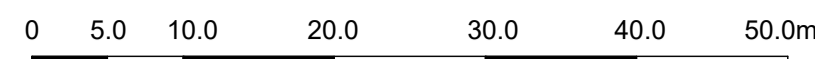
Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0026	Sheet Number: 26 of 28	Status: A	Rev: M01

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SCALE 1:500 @ A1; 1:1000 @ A3

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ABBREVIATIONS:

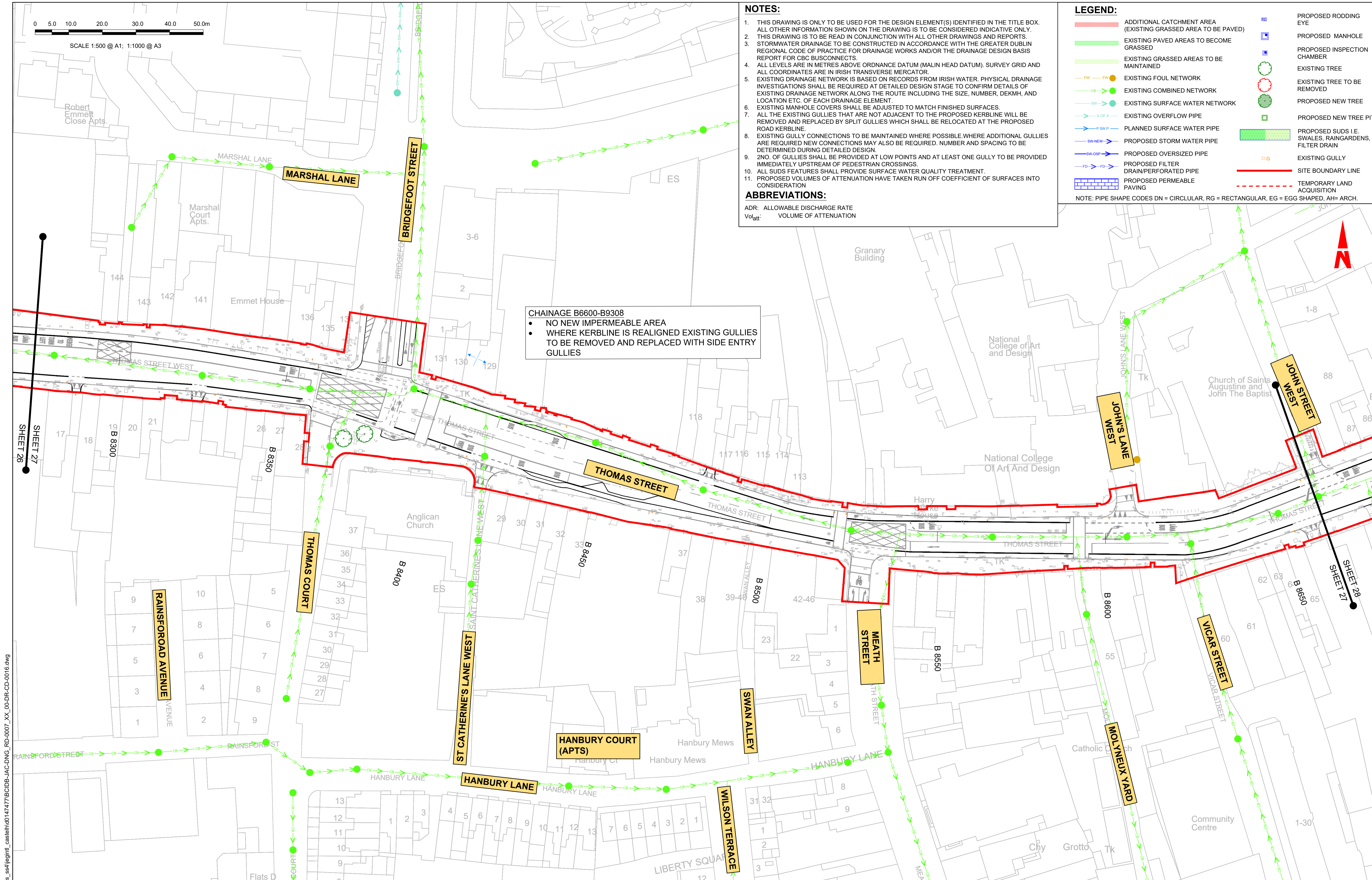
ADR: ALLOWABLE DISCHARGE RATE
VolAtt: VOLUME OF ATTENUATION

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
 - EXISTING PAVED AREAS TO BECOME GRASSED
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CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



C:\pwworking\jacobs_uk_highways_ssa\legintl_castlehd0147477\BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0016.dwg

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Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

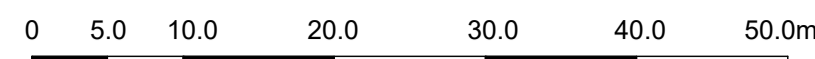
Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3
Drawn: PT, Checked: KM, Approved: JB

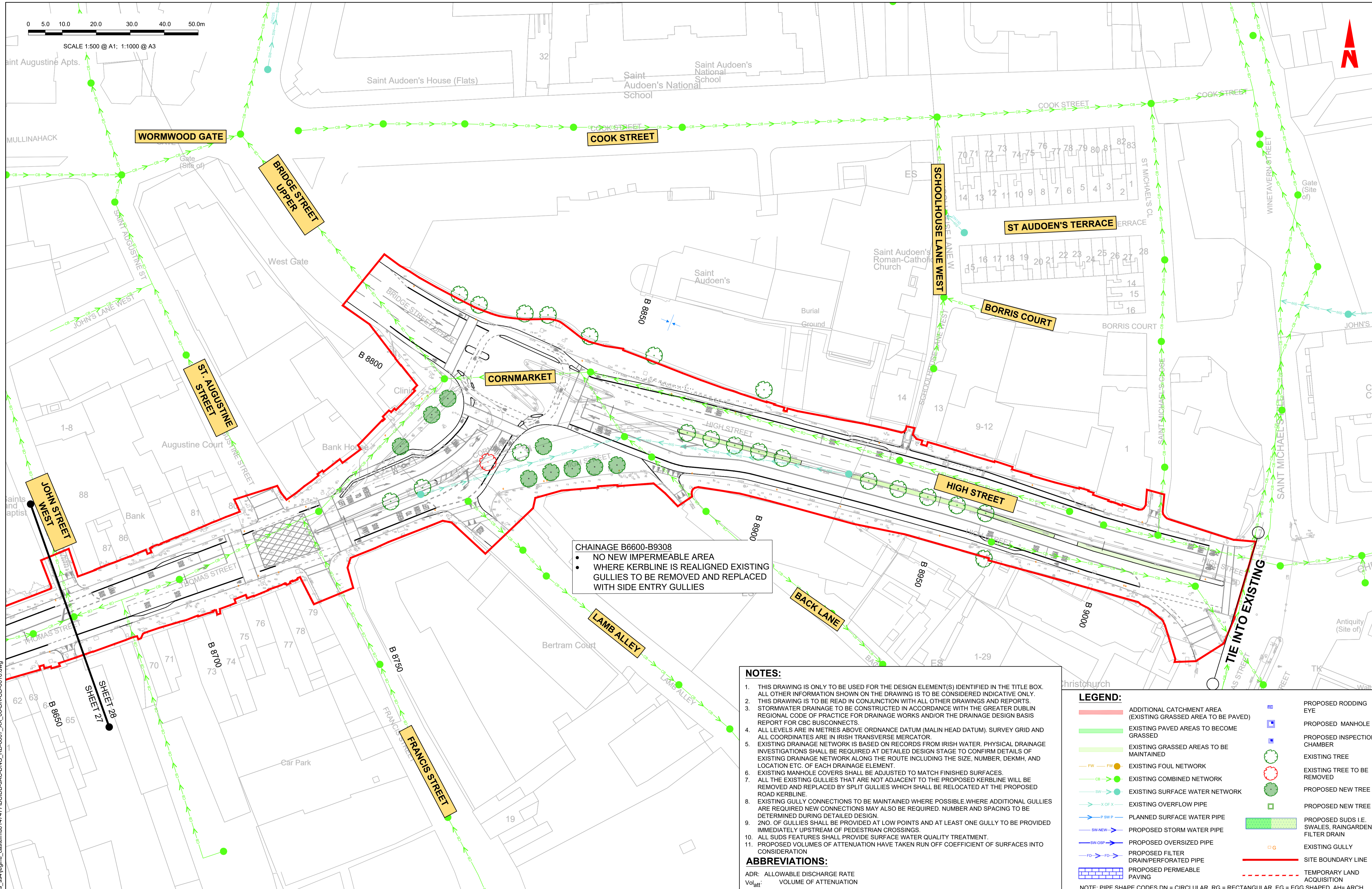
Project Code: BCIDB, Originator Code: JAC, QMS Code:

Programme Title	Drawing Title	Drawing File Name	Sheet Number	Status	Rev
BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS	BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0027	27 of 28	A	M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



SCALE 1:500 @ A1; 1:1000 @ A3



CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

- NOTES:**
1. THIS DRAWING IS ONLY TO BE USED FOR THE DESIGN ELEMENT(S) IDENTIFIED IN THE TITLE BOX. ALL OTHER INFORMATION SHOWN ON THE DRAWING IS TO BE CONSIDERED INDICATIVE ONLY.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND REPORTS.
 3. STORMWATER DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND/OR THE DRAINAGE DESIGN BASIS REPORT FOR CBC BUSCONNECTS.
 4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM). SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
 5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEKMH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
 6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
 7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
 8. EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
 9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
 10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
 Vol_{att}: VOLUME OF ATTENUATION

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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b. This drawing is to be used for the design element identified in the title box. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.

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d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this information. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

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Project Ireland 2040
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