

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

 Date: 07/06/2022 Project Code: BCIDB		 Engineering Designer Scale: NTS @ A1 NTS @ A3 Originator Code: JAC		Drawn: PT Checked: KM Approved: JB	QMS Code
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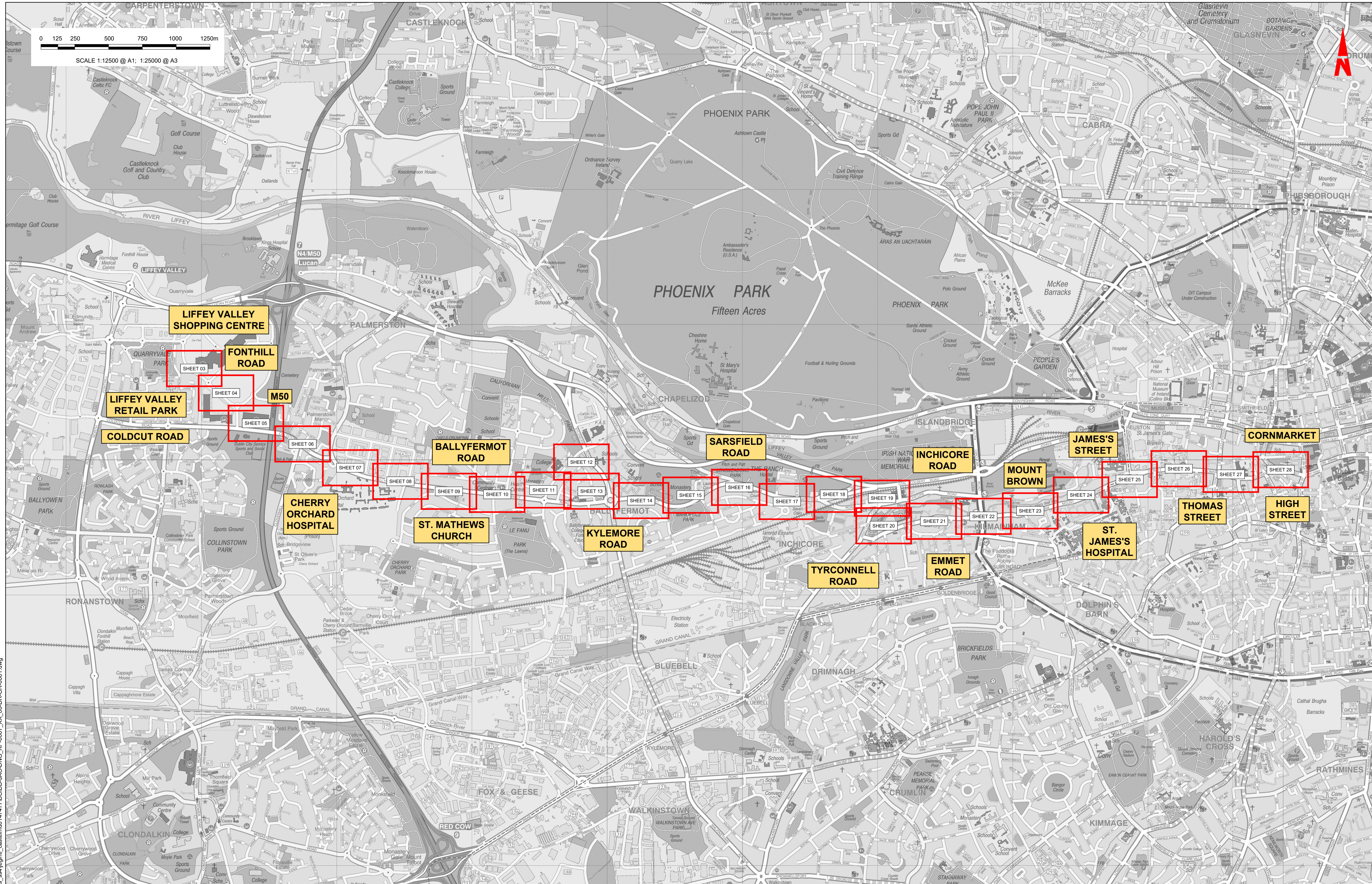
<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
<b>Drawing Title</b> LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS COVER SHEET			
<b>Drawing File Name</b> BCIDB-JAC-DNG_IX-0007_XX_00-DR-CR-0001	<b>Sheet Number</b> 01 of 01	<b>Status</b> A	<b>Rev</b> M01

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



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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

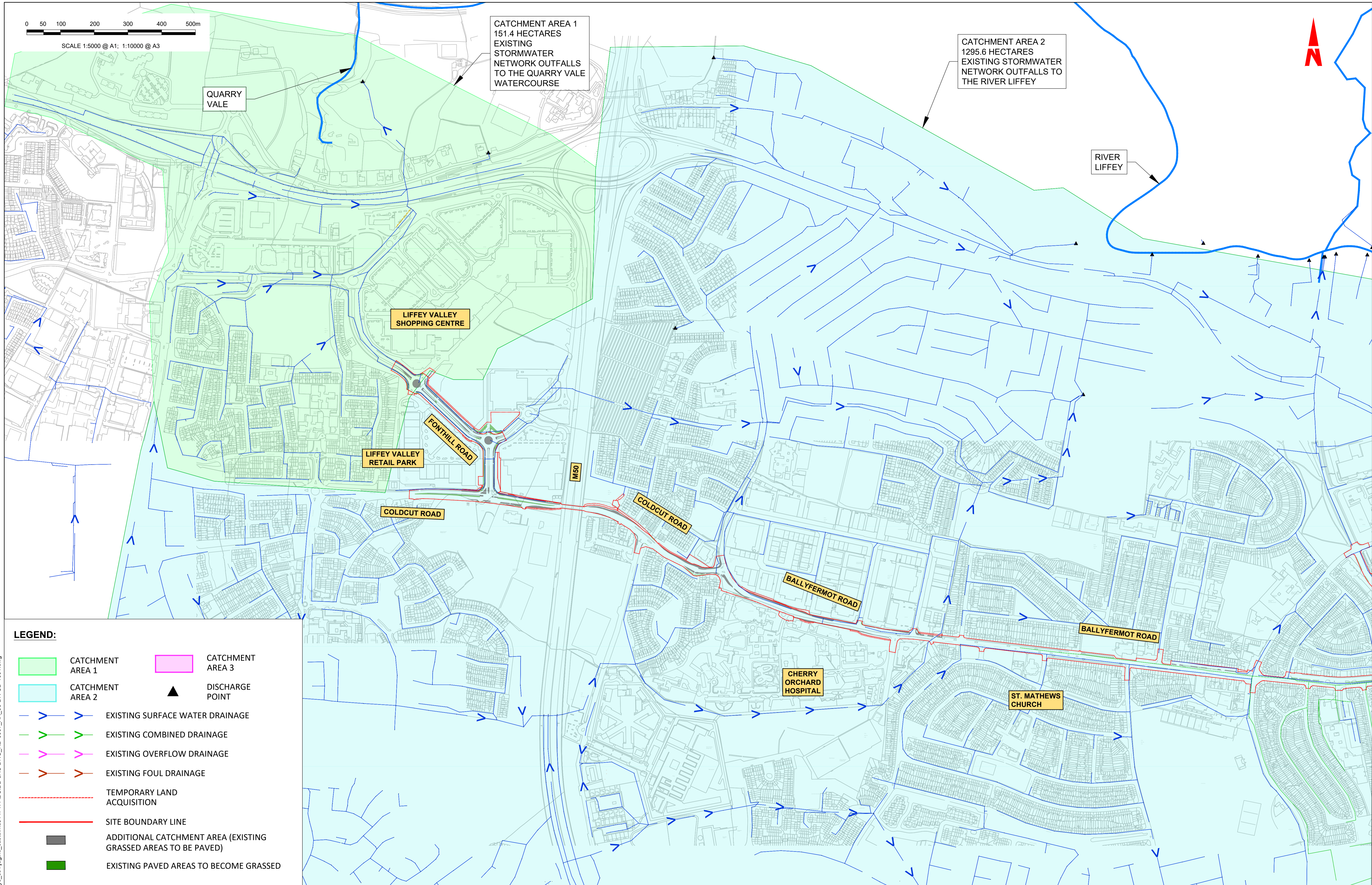
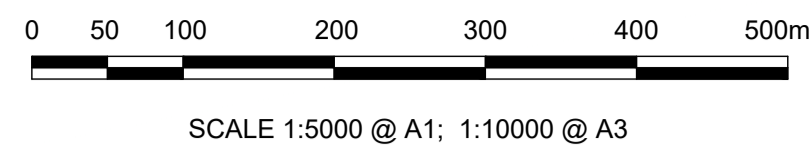
Drawn: PT Checked: KM Approved: JB

QMS Code:

Programme Title: <b>BUSCONNECTS DUBLIN</b>			
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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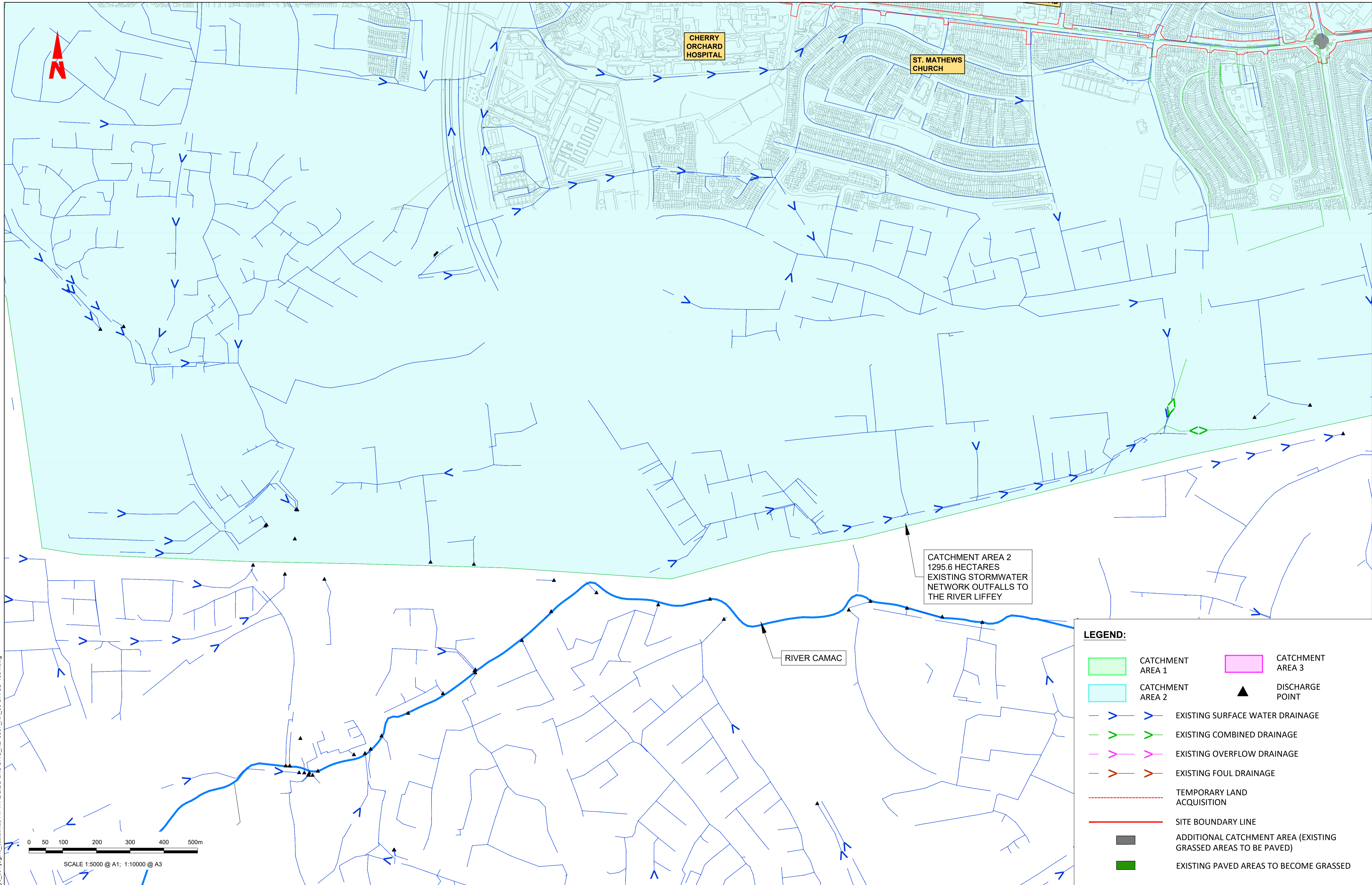
 Date: 07/06/2022 Project Code: BCIDB		 Scale: 1:5000 @ A1 1:10000 @ A3 Originator Code: JAC		Engineering Designer Drawn: PT Checked: KM Approved: JB	
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Programme Title <b>BUSCONNECTS DUBLIN          CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing 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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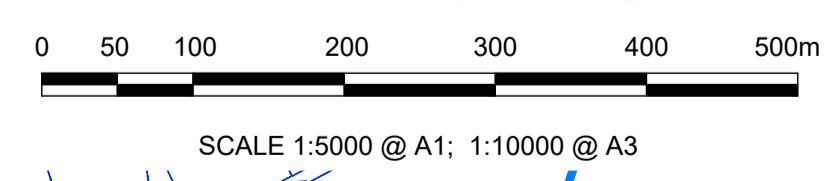


CATCHMENT AREA 2  
1295.6 HECTARES  
EXISTING STORMWATER  
NETWORK OUTFALLS TO  
THE RIVER LIFFEY

RIVER CAMAC

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

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

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

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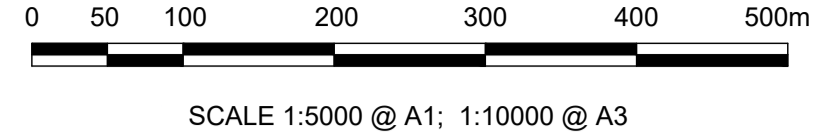
Date: 07/06/2022	Scale: 1:5000 @ A1 1:10000 @ A3	Drawn: PT	Checked: KM	Approved: JB
Project Code: BCIDB	Originator Code: JAC	QMS Code:		

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS</b>			
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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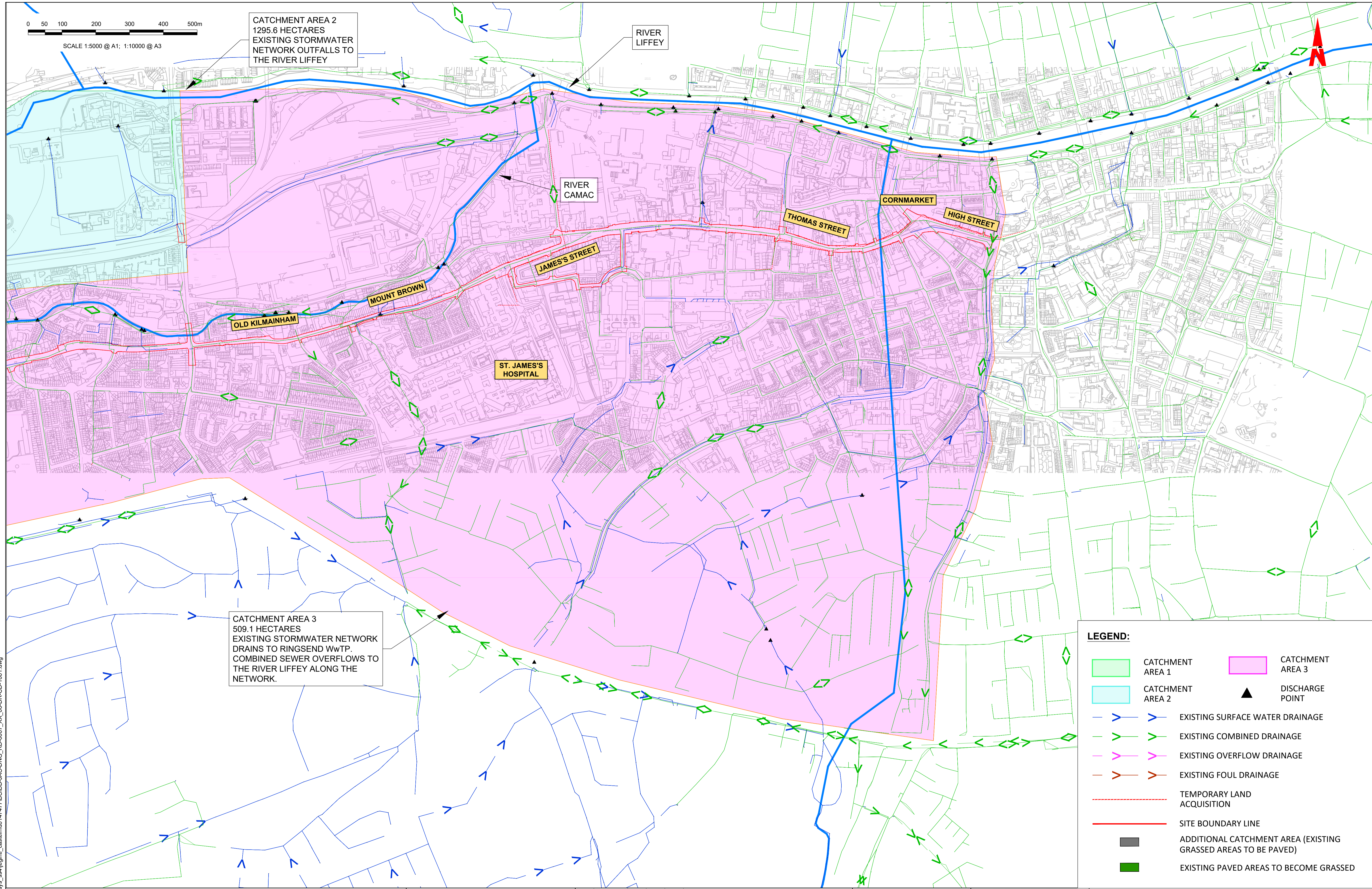
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CATCHMENT AREA 2  
1295.6 HECTARES  
EXISTING STORMWATER  
NETWORK OUTFALLS TO  
THE RIVER LIFFEY

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
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Engineering Designer: **Jacobs**

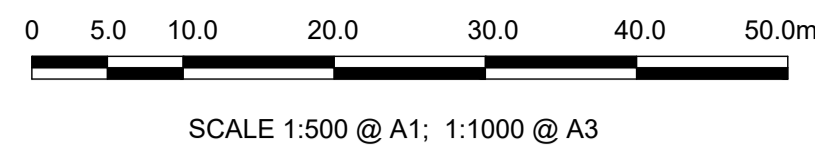
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Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS</b>			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1004	Sheet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

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Dublin  
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Cliath

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LIFFEY VALLEY SHOPPING CENTRE

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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<sub>att</sub>: 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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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

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:

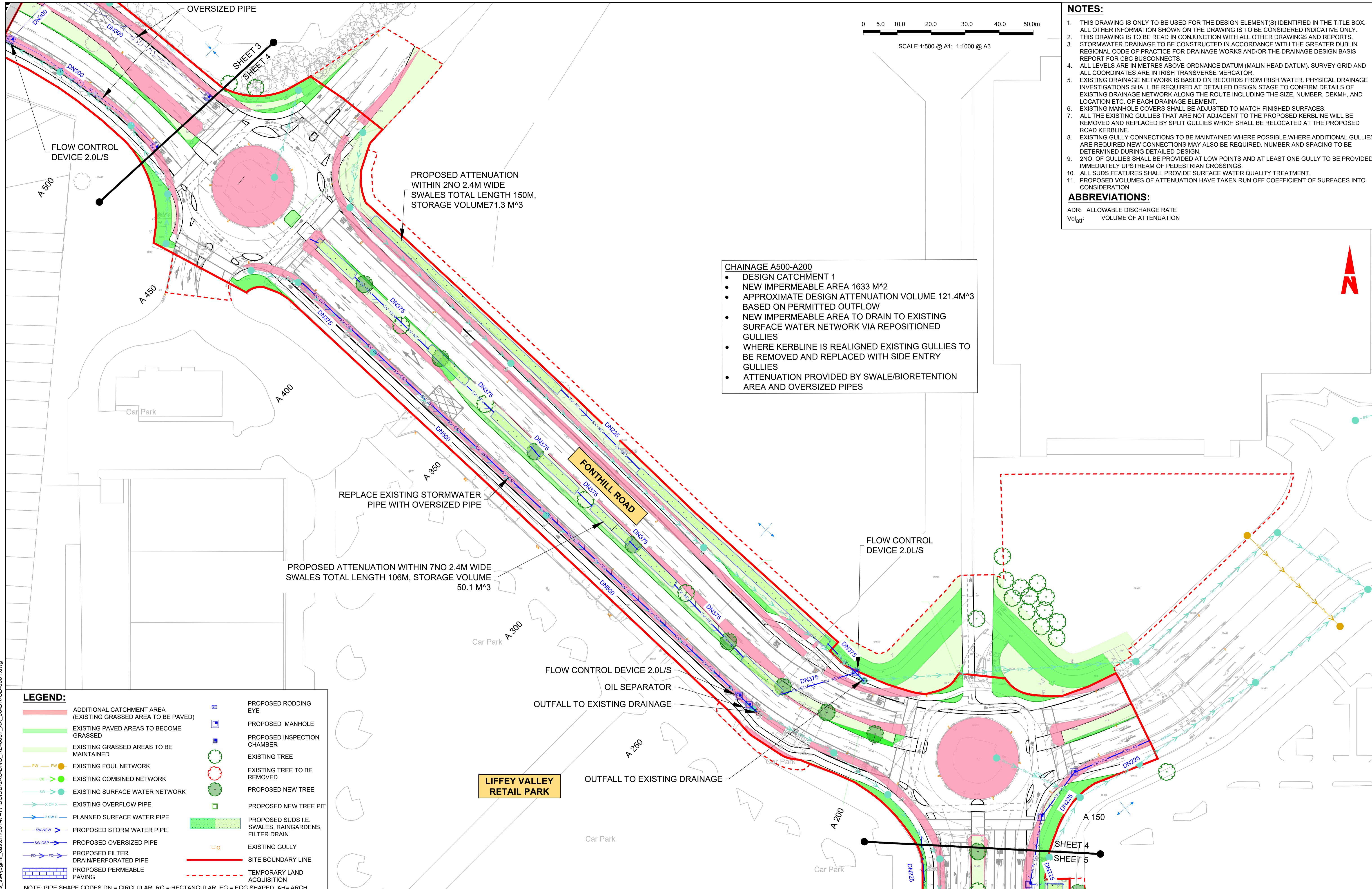
Programme Title: **BUSCONNECTS DUBLIN**  
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

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-0003  
Sheet Number: 03 of 28  
Status: A  
Rev: M01

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- 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
- 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<sub>att</sub>: VOLUME OF ATTENUATION

**CHAINAGE A500-A200**

- DESIGN CATCHMENT 1
- NEW IMPERMEABLE AREA 1633 M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 121.4M<sup>3</sup> 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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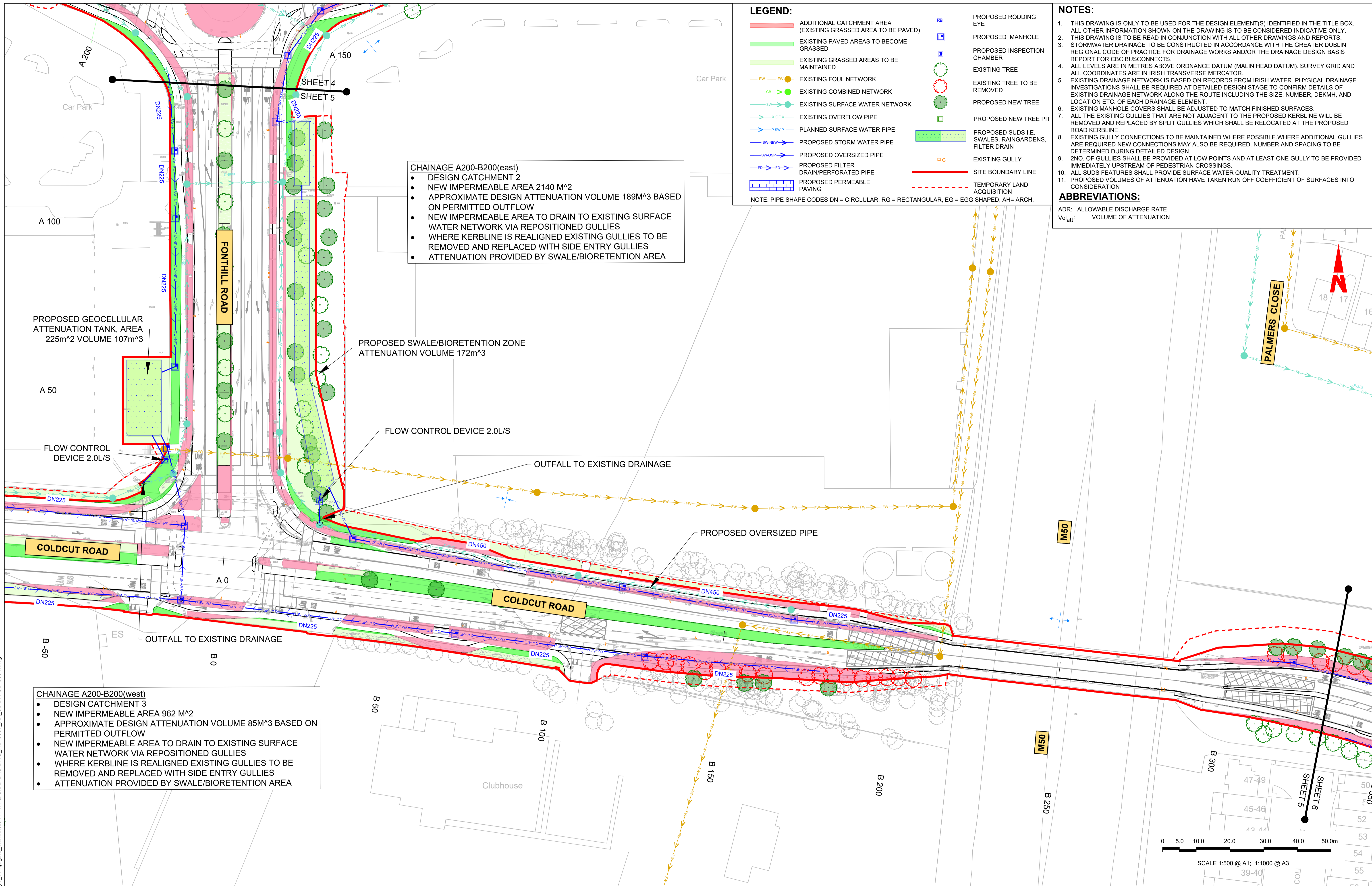
Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

 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			

<b>PROGRAMME TITLE</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
<b>DRAWING TITLE</b> 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 M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 189M<sup>3</sup> 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 SWALE/BIORETENTION ZONE  
ATTENUATION VOLUME 172m<sup>3</sup>

PROPOSED GEOCELLULAR ATTENUATION TANK, AREA 225m<sup>2</sup> VOLUME 107m<sup>3</sup>

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 M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 85M<sup>3</sup> 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:**

- 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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**ABBREVIATIONS:**

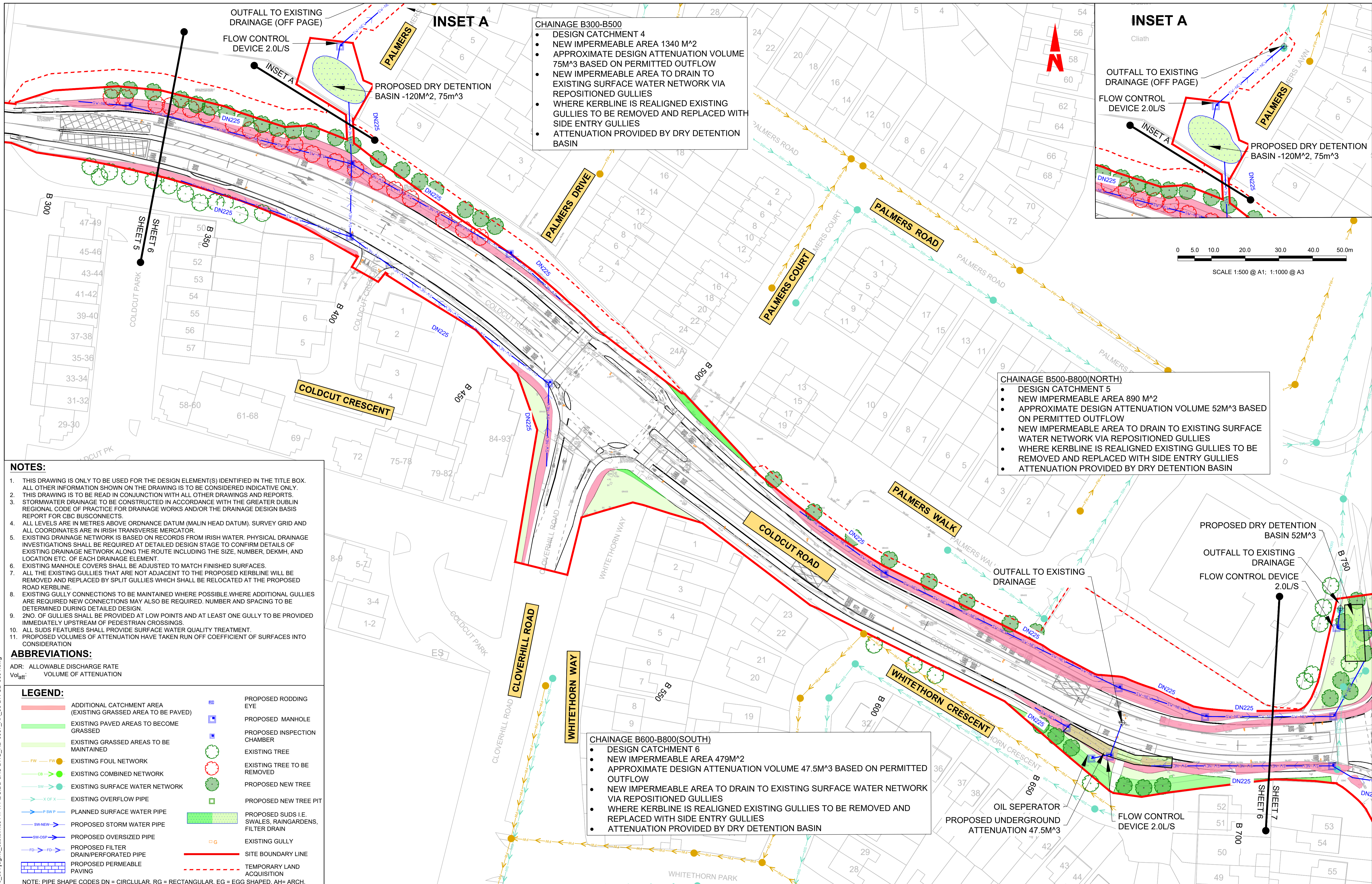
ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: VOLUME OF ATTENUATION

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<p>Date: 07/06/2022</p>		<p>Scale: 1:500 @ A1, 1:1000 @ A3</p>		<p>Drawn: PT</p>		<p>Checked: KM</p>		<p>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-0005</p>		<p>Sheet Number: 05 of 28</p>		<p>Status: A</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-0005</p>		<p>Sheet Number: 05 of 28</p>		<p>Status: A</p>	
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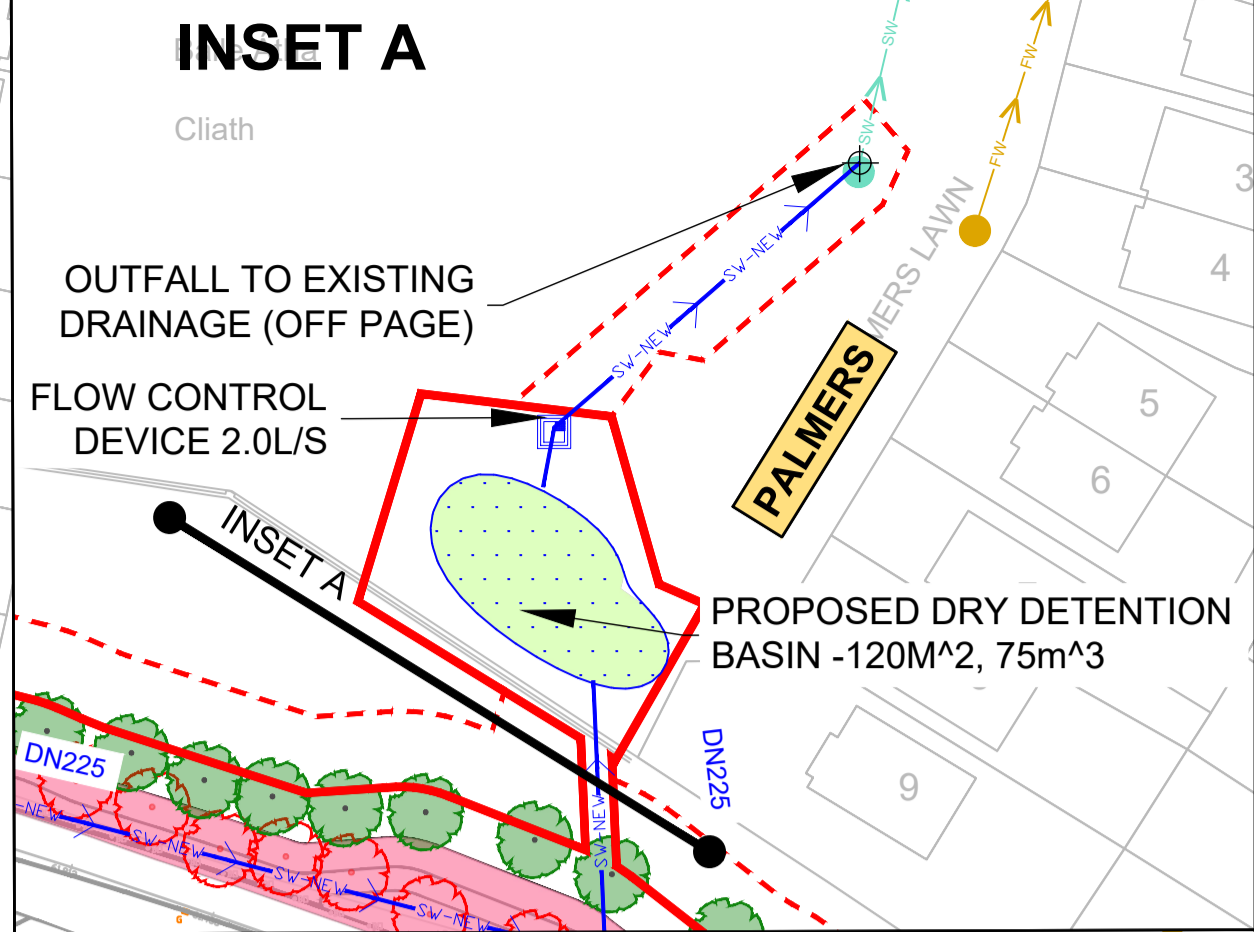
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**CHAINAGE B300-B500**

- DESIGN CATCHMENT 4
- NEW IMPERMEABLE AREA 1340 M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 75M<sup>3</sup> 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 M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 52M<sup>3</sup> 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 479M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 47.5M<sup>3</sup> 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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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: 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
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	PROPOSED PERMEABLE PAVING		

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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

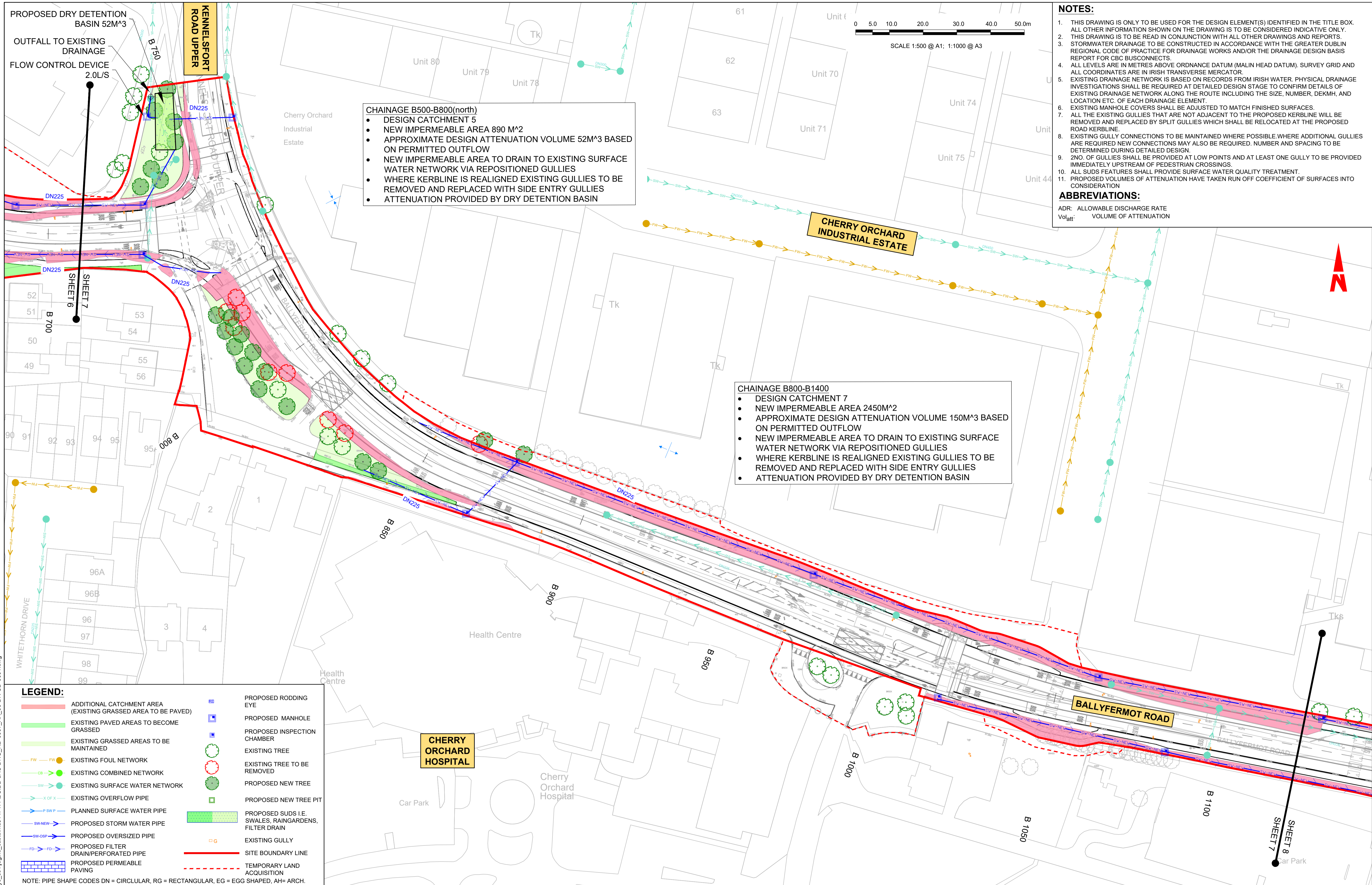
Project Code: BCIDB | Originator Code: JAC | QMS Code:

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-0006 | Sheet Number: 06 of 28 | Status: A | Rev: M01





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- 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.
- 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
- 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  
VolAtt: VOLUME OF ATTENUATION

**CHAINAGE B500-B800(north)**

- DESIGN CATCHMENT 5
- NEW IMPERMEABLE AREA 890 M^2
- APPROXIMATE DESIGN ATTENUATION VOLUME 52M^3 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 2450M^2
- APPROXIMATE DESIGN ATTENUATION VOLUME 150M^3 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
	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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<p>Date: 07/06/2022</p>		<p>Scale: 1:500 @ A1 1:1000 @ A3</p>		<p>Drawn: PT</p>		<p>Checked: KM</p>		<p>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-0001</p>		<p>Sheet Number: 07 of 28</p>		<p>Status: A</p>		<p>Rev: M01</p>	



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 2450M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 150M<sup>3</sup> 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

**CHERRY ORCHARD INDUSTRIAL ESTATE**

OUTFALL TO EXISTING DRAINAGE

FLOW CONTROL DEVICE 2.0L/S

**BALLYFERMOT ROAD**

**CHERRY ORCHARD HOSPITAL**

PROPOSED DRY DETENTION BASIN 235M<sup>2</sup>, 150M<sup>3</sup>

**BALLYFERMOT PRIMARY CARE CENTRE**

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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.
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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 = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

C:\pwworking\jacobs\_uk\_highways\_ssa\legintl\_caslehd01477\BCIDB-JAC-DNG\_RD-0007\_XX\_00-DR-CD-0001.dwg

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

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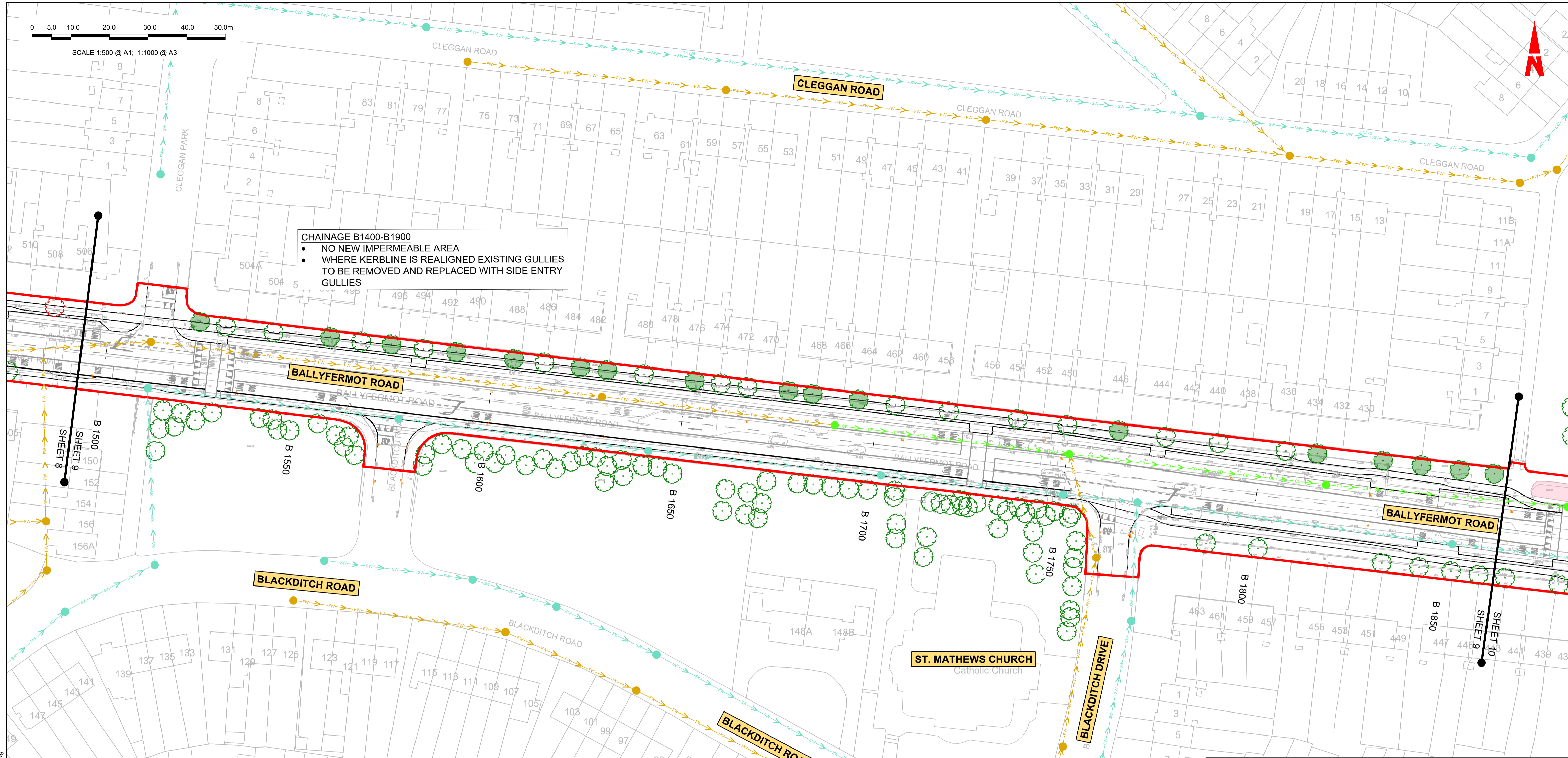


0 5.0 10.0 20.0 30.0 40.0 50.0m

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



CHAINAGE 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
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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: 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

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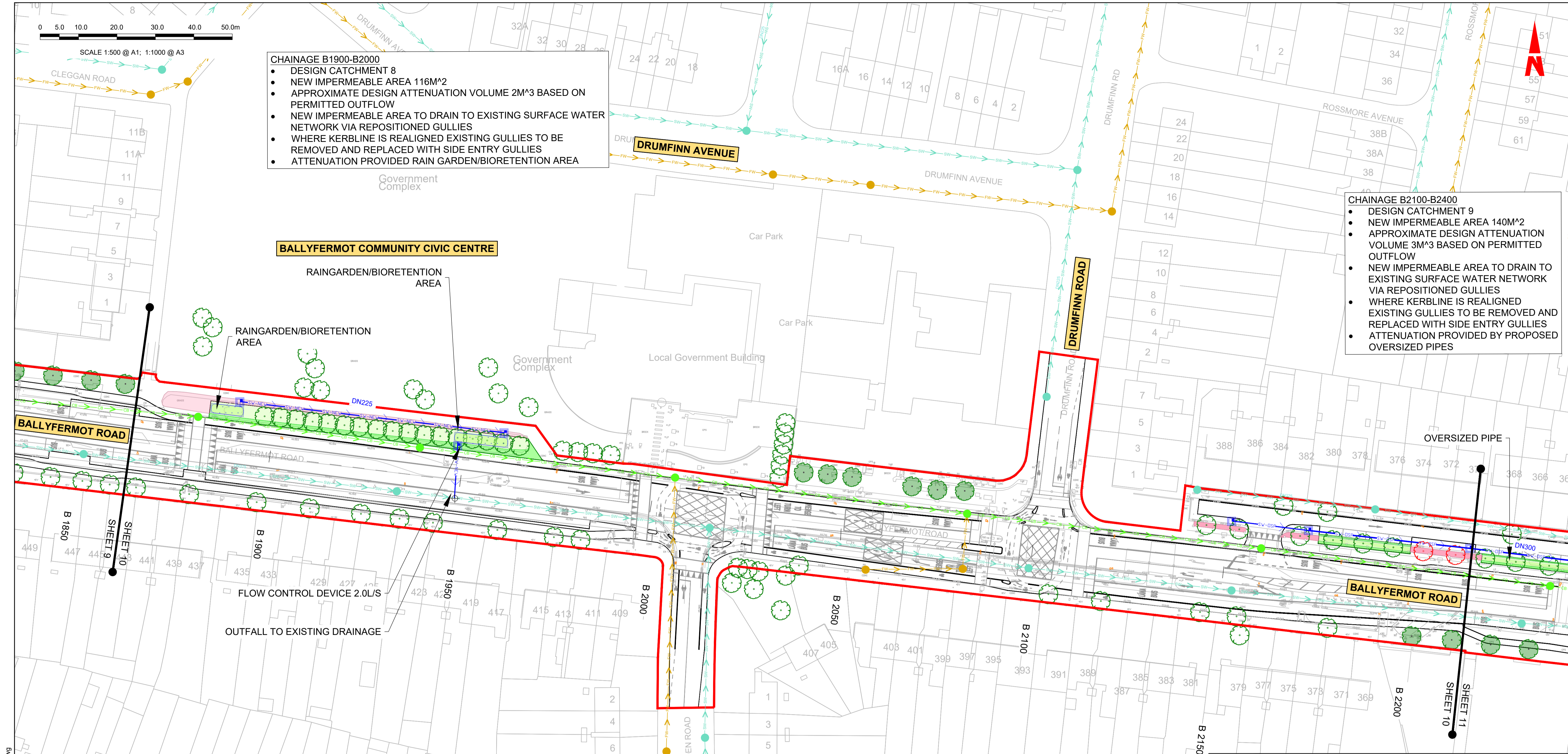




- CHAINAGE B1900-B2000**
- DESIGN CATCHMENT 8
  - NEW IMPERMEABLE AREA 116M<sup>2</sup>
  - APPROXIMATE DESIGN ATTENUATION VOLUME 2M<sup>3</sup> BASED ON PERMITTED OUTFLOW
  - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
  - WHERE KERBLINE IS REALIGNED EXISTING 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 140M<sup>2</sup>
  - APPROXIMATE DESIGN ATTENUATION VOLUME 3M<sup>3</sup> 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
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- 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<sub>att</sub>: VOLUME OF ATTENUATION

C:\pwworking\jacobs\_uk\_highways\_ssa\legintl\_caslehd0147477\BCIDB-JAC-DNG\_RD-0007\_XX\_00-DR-CD-0001.dwg

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Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.

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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: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</b>			
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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- 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.
- 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.
- 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
- 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<sub>att</sub>: VOLUME OF ATTENUATION

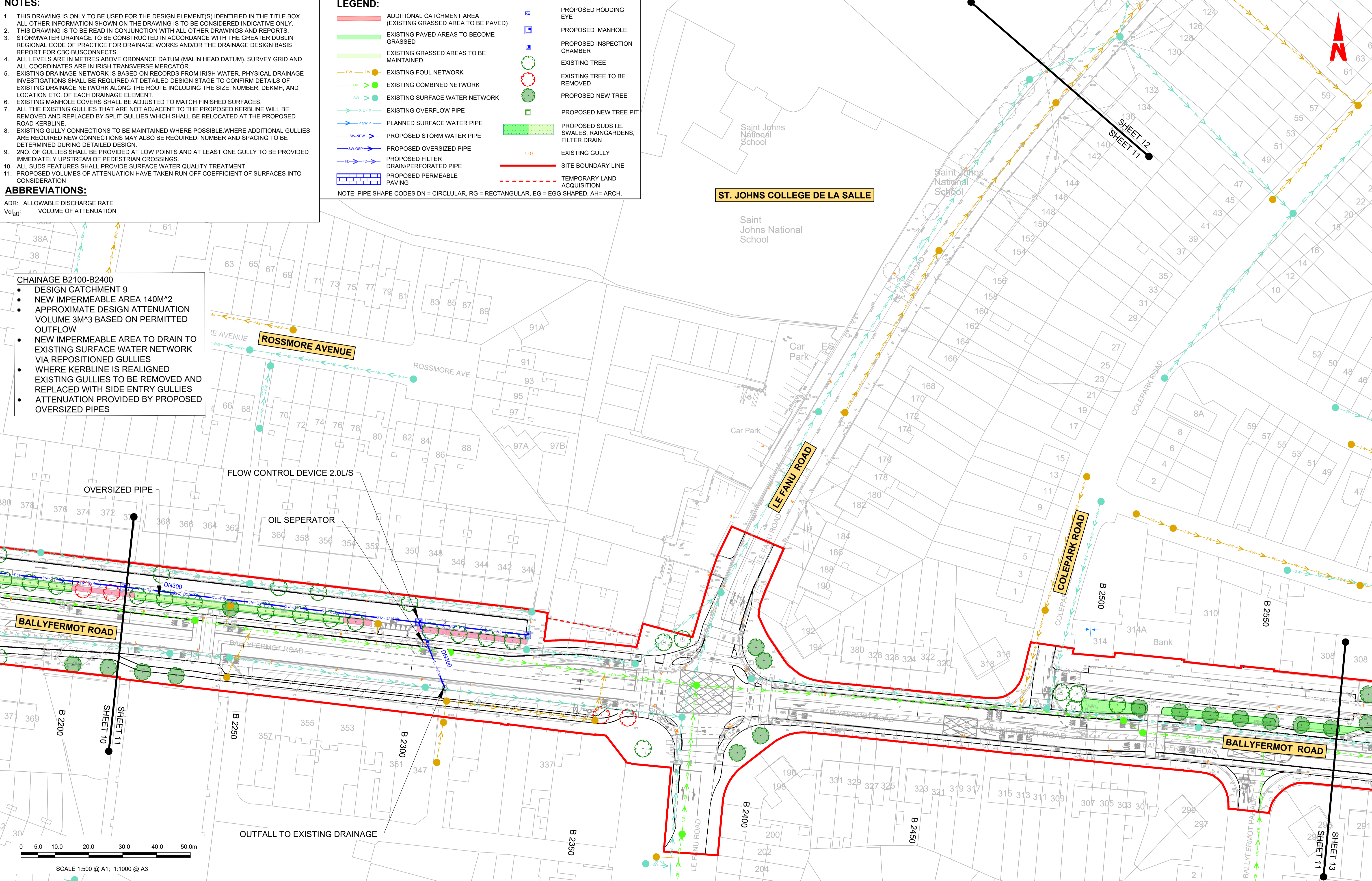
**CHAINAGE B2100-B2400**

- DESIGN CATCHMENT 9
- NEW IMPERMEABLE AREA 140M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 3M<sup>3</sup> 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

**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

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

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

Scale	1:500 @ A1 1:1000 @ A3
Drawn	PT
Checked	KM
Approved	JB
Project Code	BCIDB
Originator Code	JAC
QMS Code	
Sheet Number	11 of 28
Status	A
Rev	M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

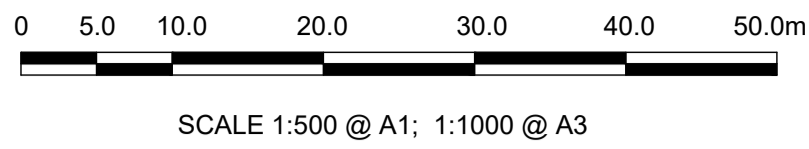


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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: 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 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 CODING 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

 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 <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
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-0012	12 of 28	A	M01

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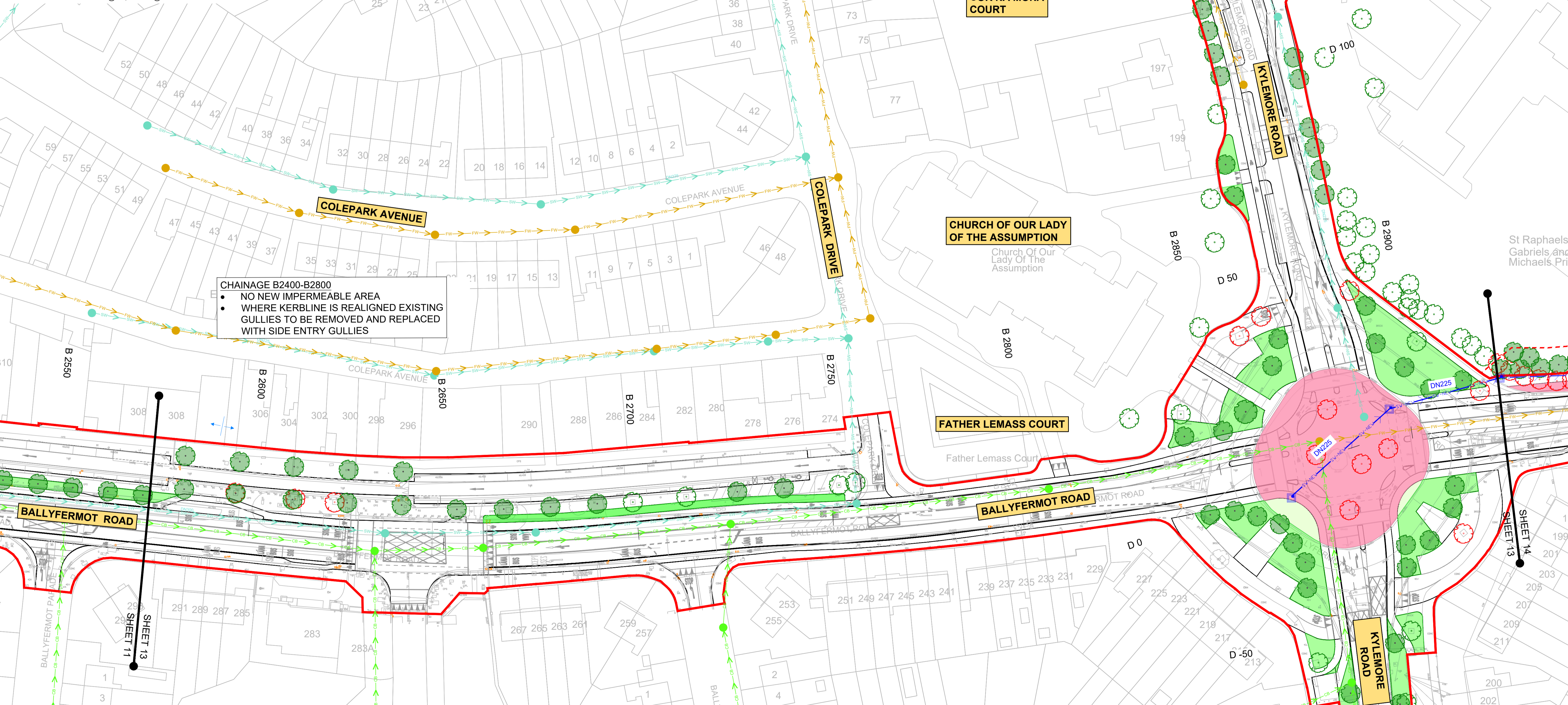
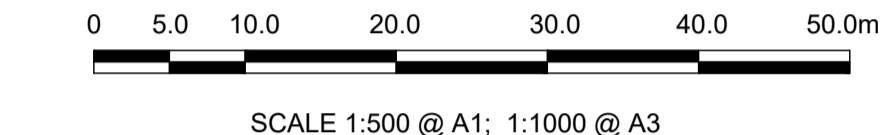
**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: 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
- EXISTING GULLY
- SITE BOUNDARY LINE
- - - TEMPORARY LAND ACQUISITION

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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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

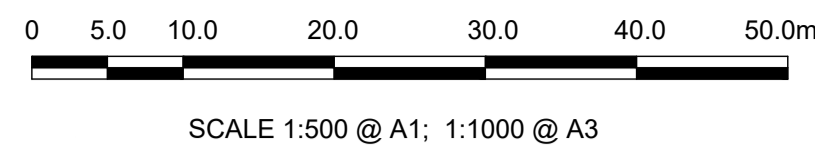
Engineering Designer: **Jacobs**

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: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</b>			
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 3358M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 298M<sup>3</sup> 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 29M<sup>3</sup>

**ST GABRIEL'S NATIONAL SCHOOL**

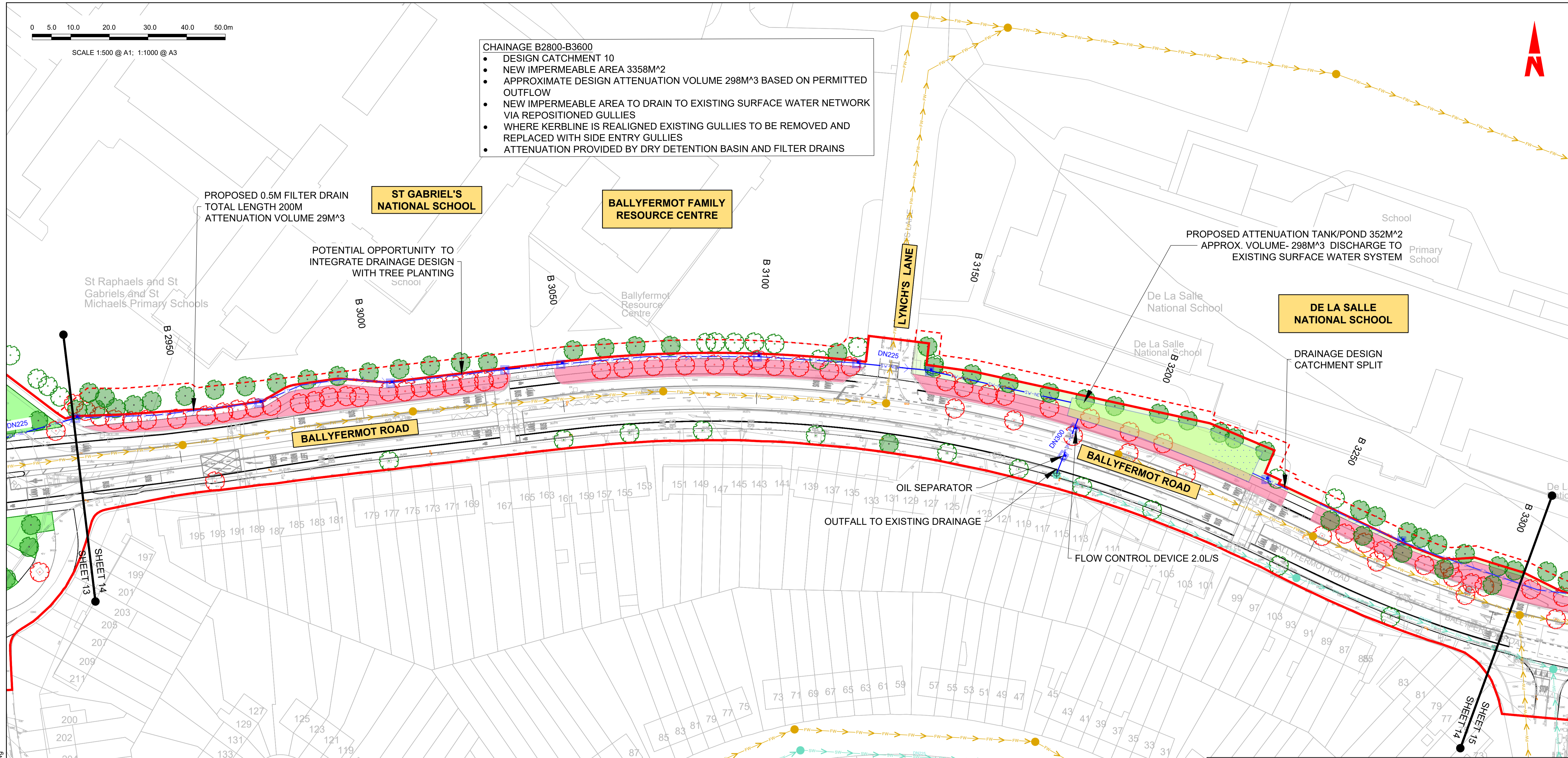
**BALLYFERMOT FAMILY RESOURCE CENTRE**

PROPOSED ATTENUATION TANK/POND 352M<sup>2</sup>  
APPROX. VOLUME- 298M<sup>3</sup> 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                           |
|  | PROPOSED PERMEABLE PAVING                                     |  |  |

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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: 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: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</b>			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0014	Sheet Number: 14 of 28	Status: A	Rev: M01

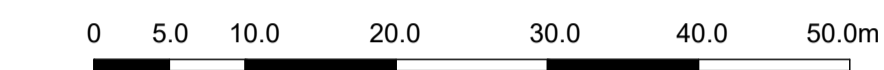


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- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM), SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
- EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED 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.
- 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.
- 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
- 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<sub>att</sub>: VOLUME OF ATTENUATION



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
- 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.

**CHAINAGE B2800-B3600**

- DESIGN CATCHMENT 10
- NEW IMPERMEABLE AREA 3358M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 298M<sup>3</sup> 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

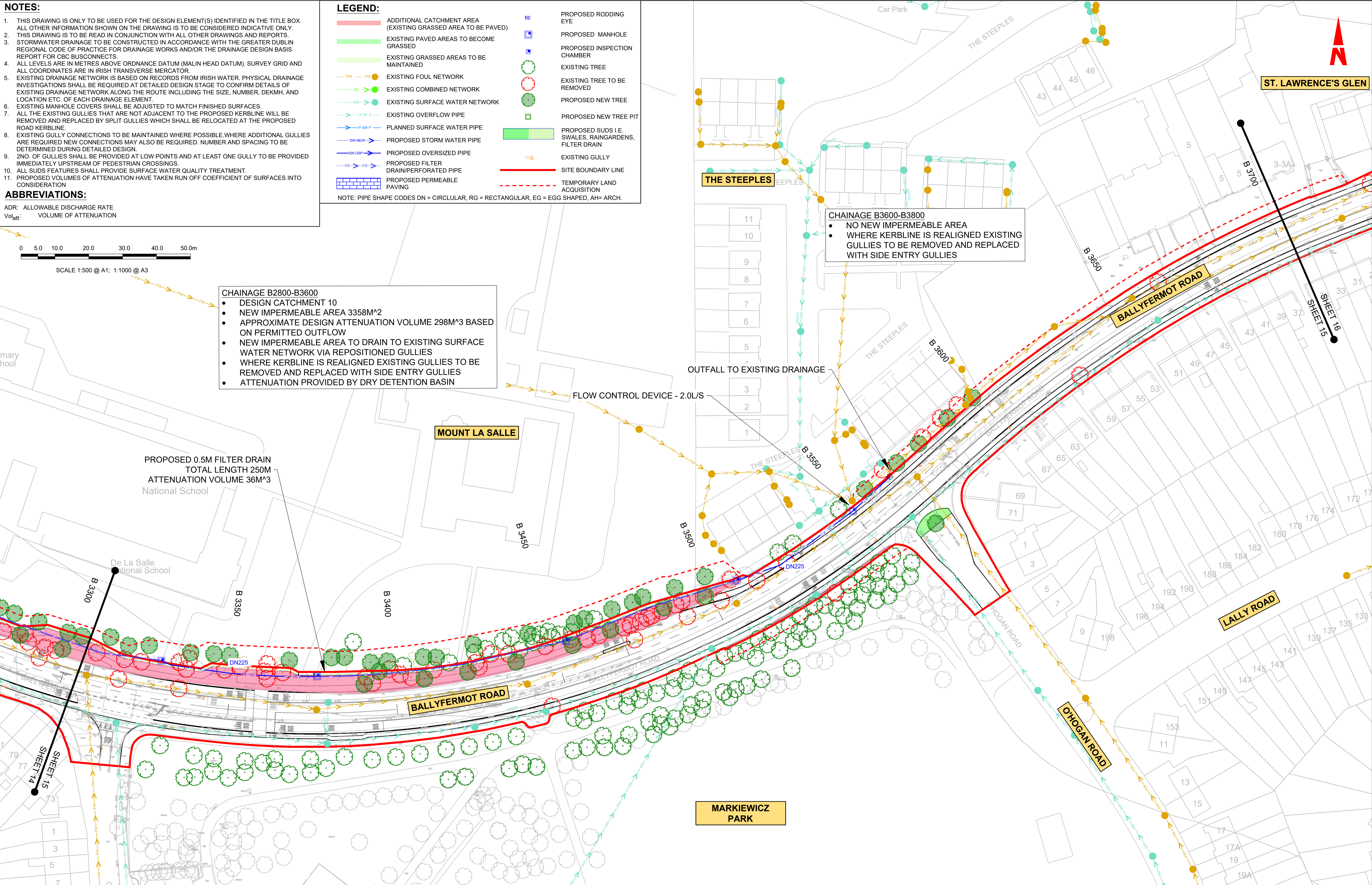
**PROPOSED 0.5M FILTER DRAIN**  
TOTAL LENGTH 250M  
ATTENUATION VOLUME 36M<sup>3</sup>  
National School

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



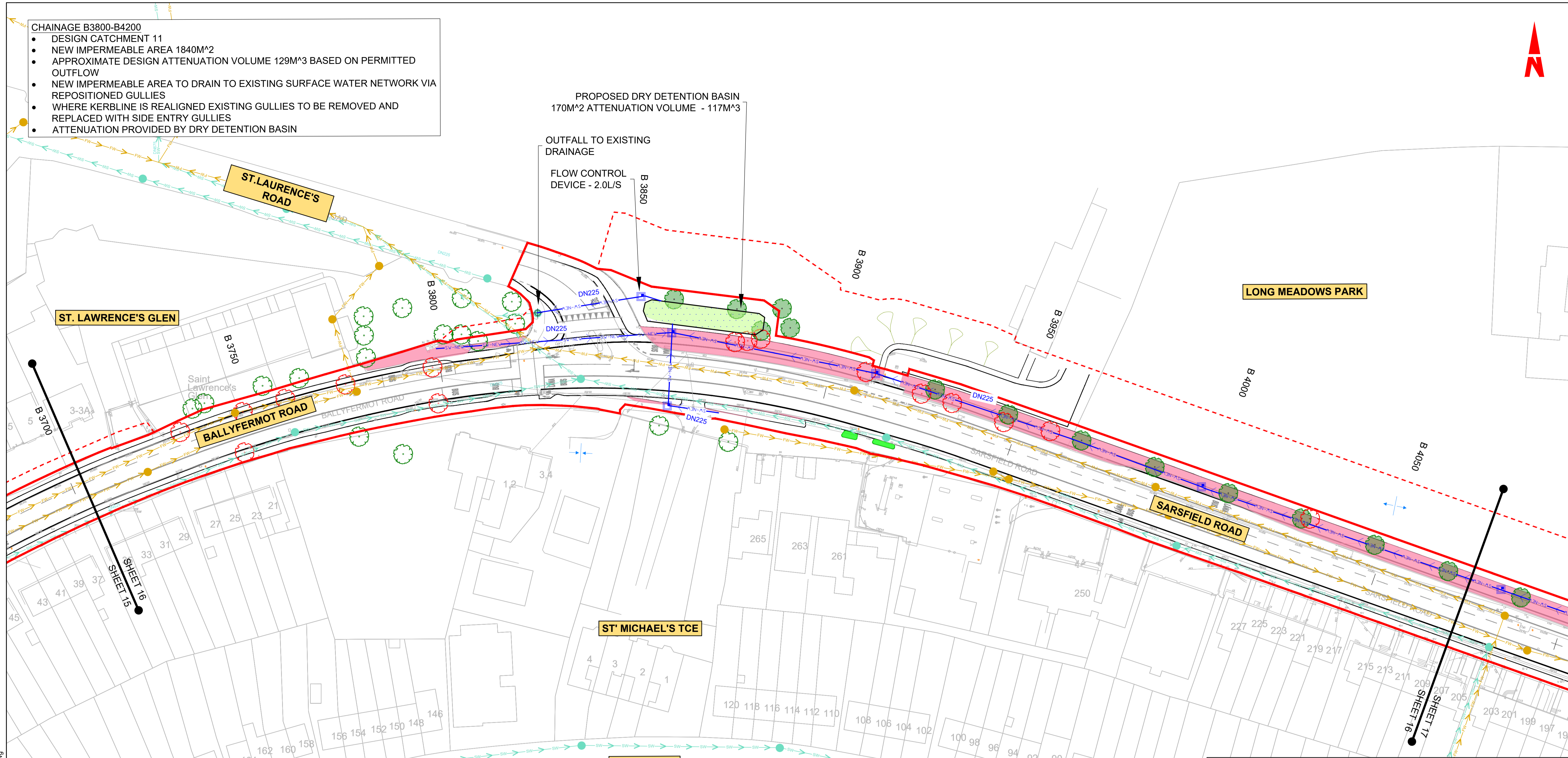


- CHAINAGE B3800-B4200
- DESIGN CATCHMENT 11
  - NEW IMPERMEABLE AREA 1840M<sup>2</sup>
  - APPROXIMATE DESIGN ATTENUATION VOLUME 129M<sup>3</sup> BASED ON PERMITTED OUTFLOW
  - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
  - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
  - ATTENUATION PROVIDED BY DRY DETENTION BASIN

PROPOSED DRY DETENTION BASIN  
170M<sup>2</sup> ATTENUATION VOLUME - 117M<sup>3</sup>

OUTFALL TO EXISTING DRAINAGE

FLOW CONTROL DEVICE - 2.0L/S



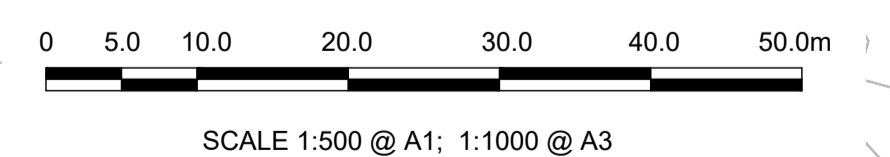
- LEGEND:**
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
  - EXISTING PAVED AREAS TO BECOME GRASSED
  - EXISTING GRASSED AREAS TO BE MAINTAINED
  - EXISTING FOUL NETWORK
  - EXISTING COMBINED NETWORK
  - EXISTING SURFACE WATER NETWORK
  - EXISTING OVERFLOW PIPE
  - PLANNED SURFACE 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
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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: VOLUME OF ATTENUATION



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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**

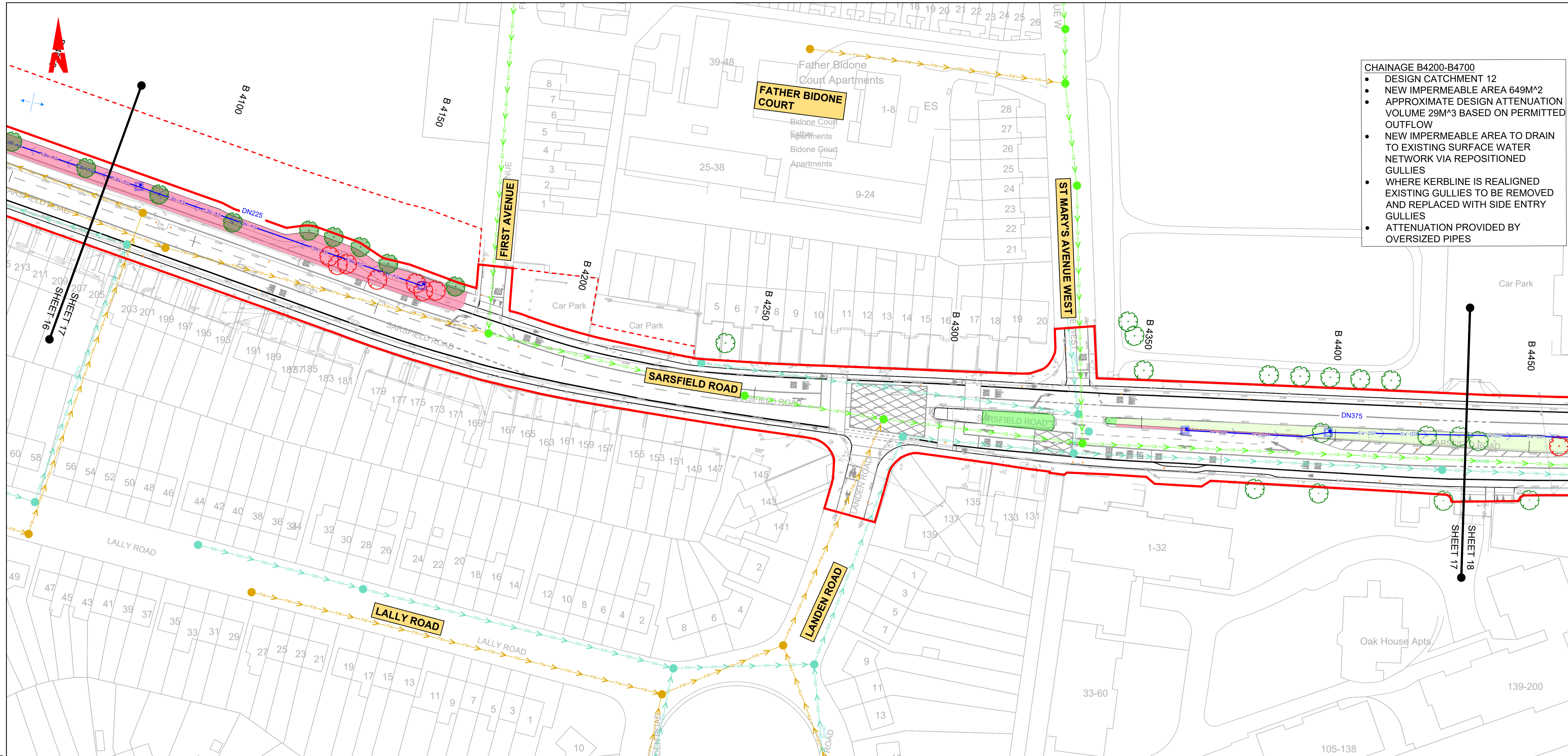
Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

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

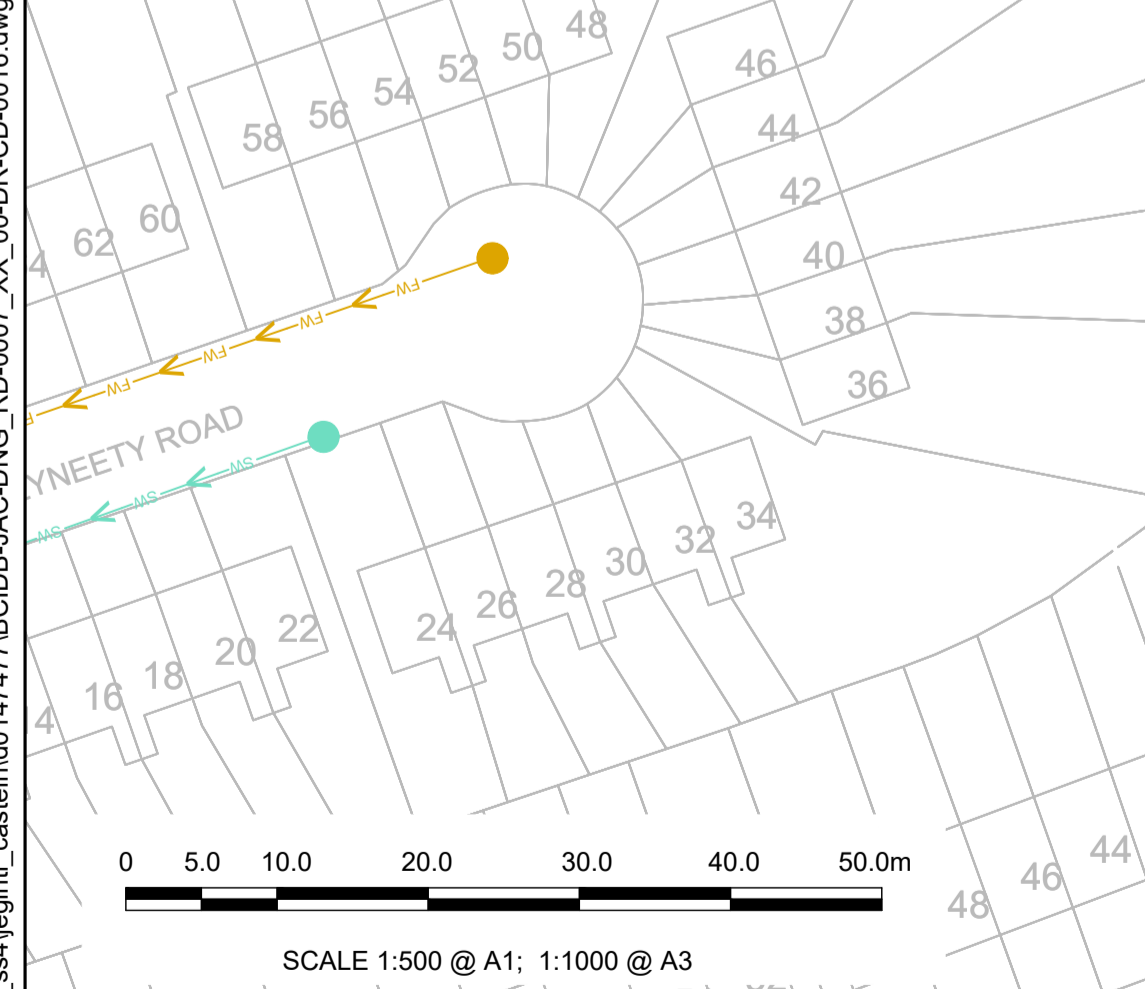
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0016	Sheet Number: 16 of 28	Status: A	Rev: M01

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- CHAINAGE B4200-B4700**
- DESIGN CATCHMENT 12
  - NEW IMPERMEABLE AREA 649M<sup>2</sup>
  - APPROXIMATE DESIGN ATTENUATION VOLUME 29M<sup>3</sup> 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		

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- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: 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**  
Údarás Náisiúnta Iompair  
National Transport Authority

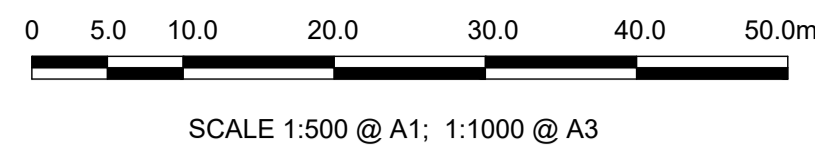
Engineering Designer: **Jacobs**

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 <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
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
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
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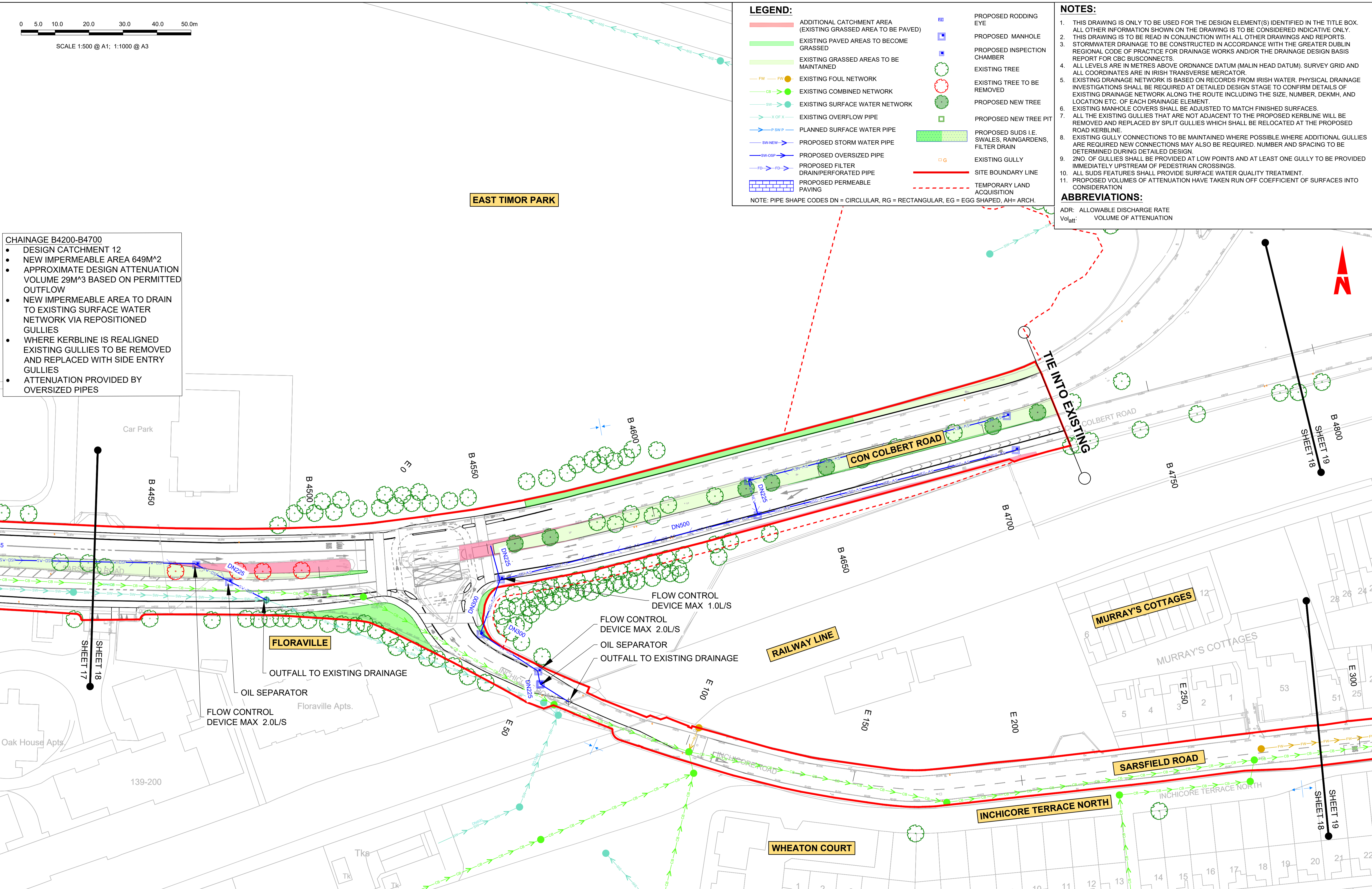
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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: VOLUME OF ATTENUATION

**CHAINAGE B4200-B4700**

- DESIGN CATCHMENT 12
- NEW IMPERMEABLE AREA 649M<sup>2</sup>
- APPROXIMATE DESIGN ATTENUATION VOLUME 29M<sup>3</sup> 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

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

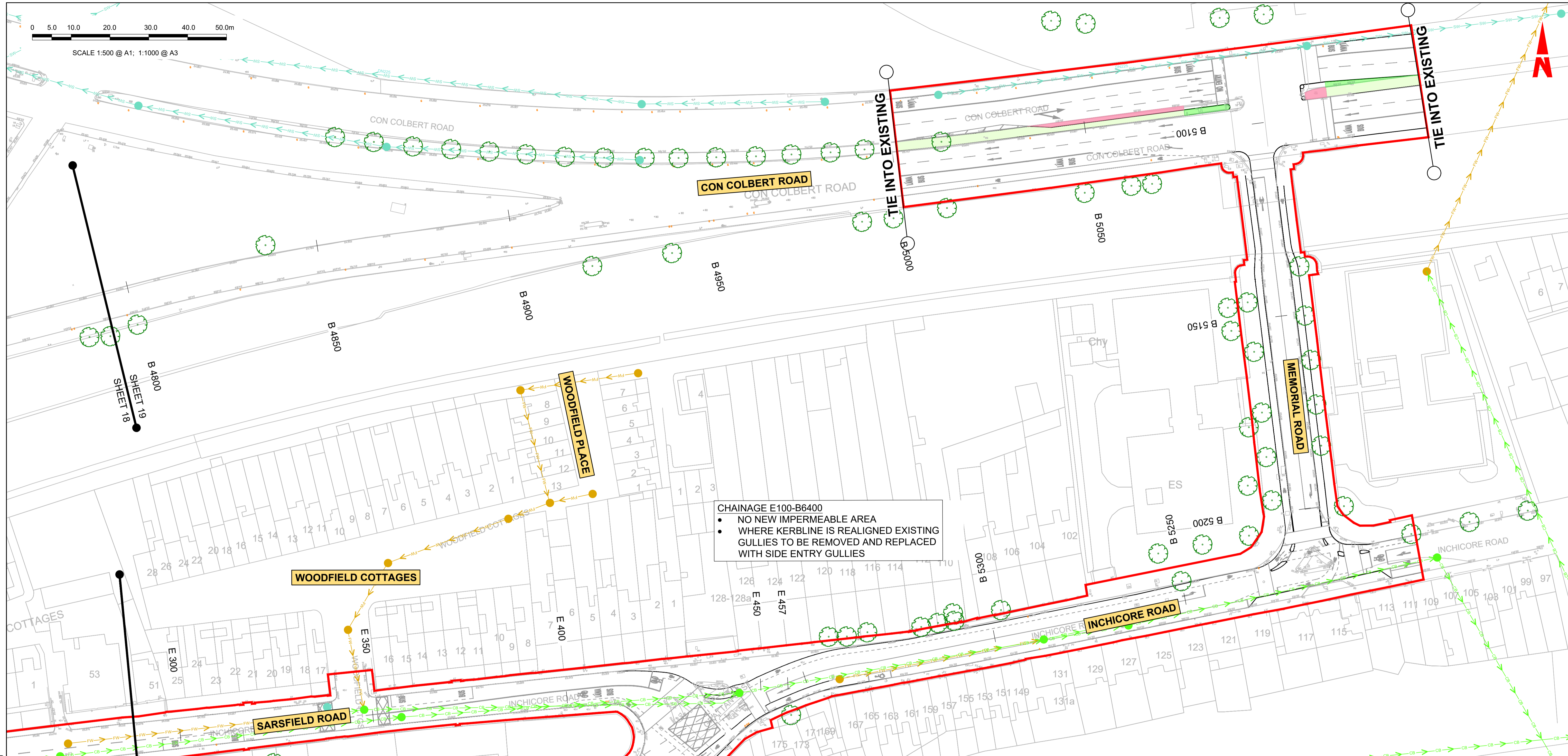
Project Code: BCIDB, Originator Code: JAC, QMS Code:

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</b>			
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



CON COLBERT ROAD

WOODFIELD PLACE

WOODFIELD COTTAGES

SARSFIELD ROAD

INCHICORE ROAD

MEMORIAL ROAD

ALTHAM COURT

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
  - 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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- 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<sub>att</sub>: 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**  
 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	Checked	Approved
PT	KM	JB

QMS Code

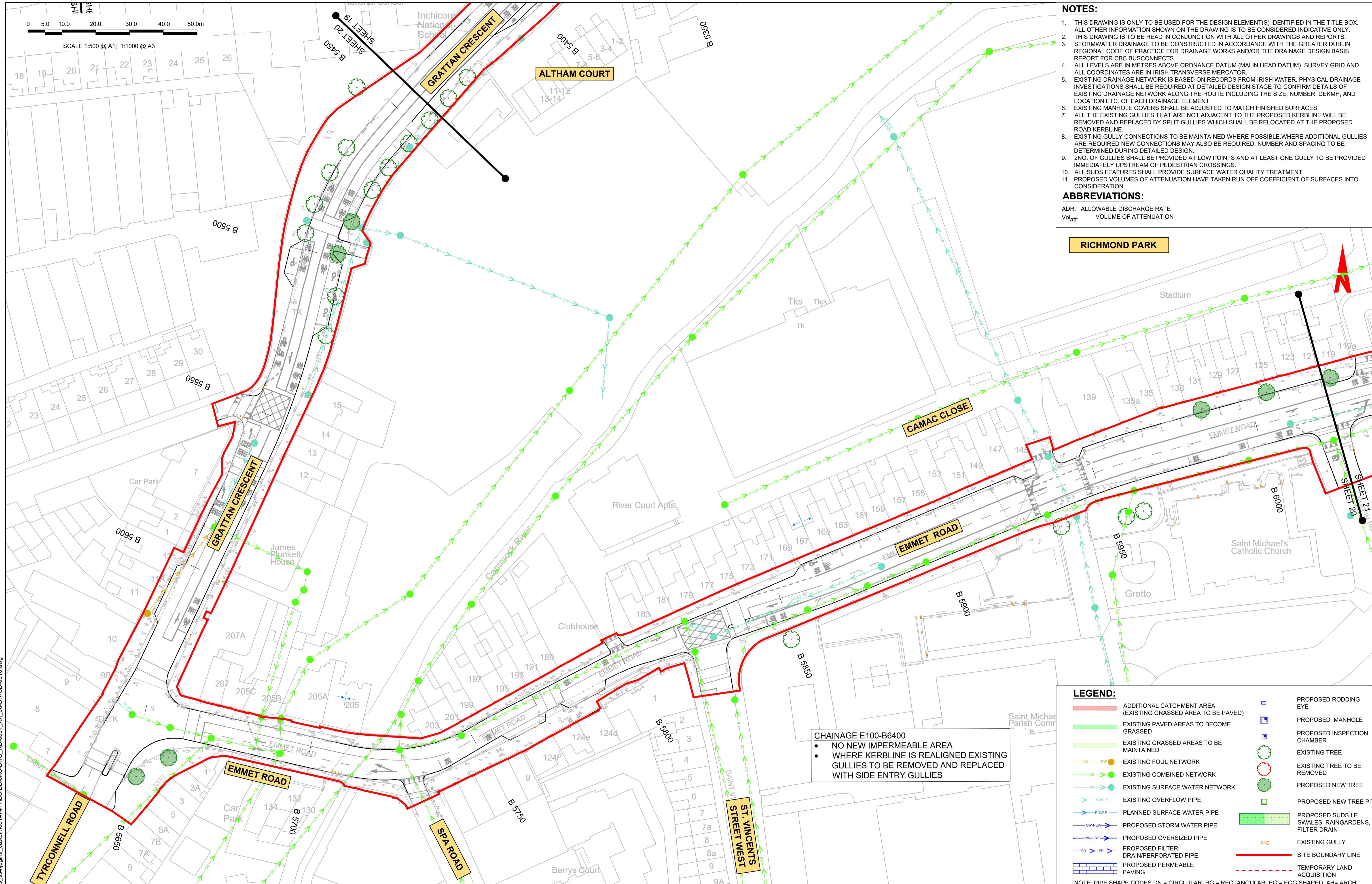
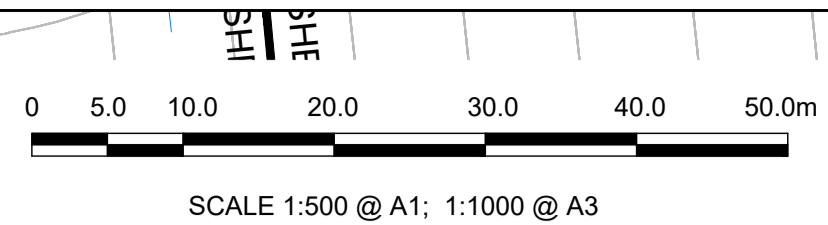
Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

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

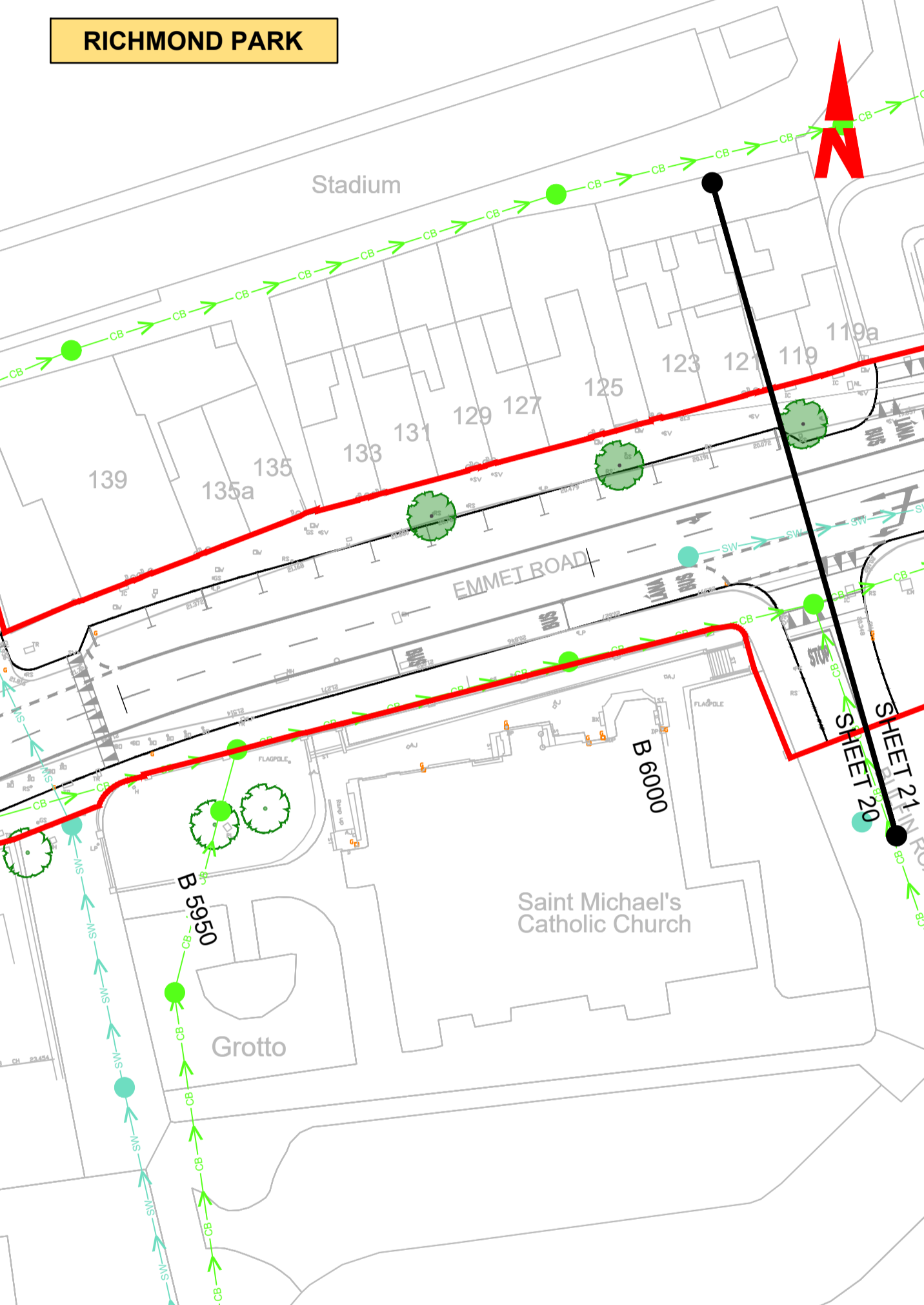
Drawing File Name: BCIDB-JAC-DNG\_RD-0007\_XX\_00-DR-CD-0019

Sheet Number: 19 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  
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)
  - 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
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  - PROPOSED RODDING EYE
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- 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

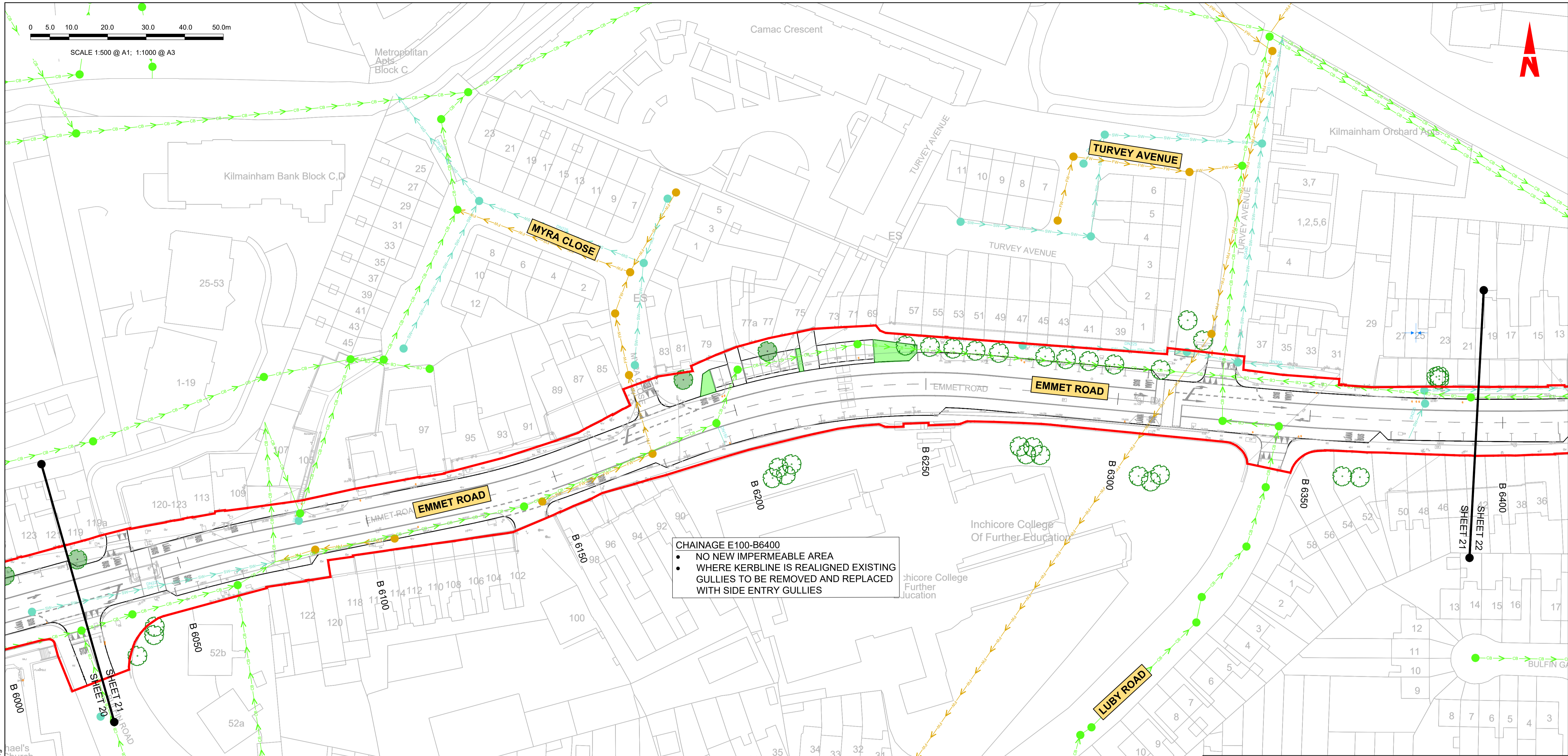
Drawn: PT Checked: KM Approved: JB

QMS Code:

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</b>			
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 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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- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: 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

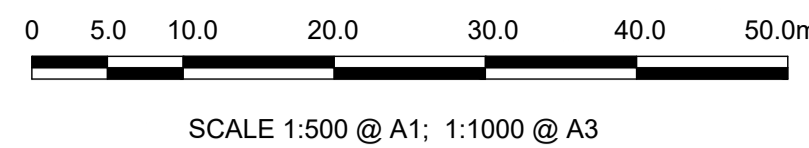
Project Code: BCIDB Originator Code: JAC

Drawn: PT Checked: KM Approved: JB

QMS Code

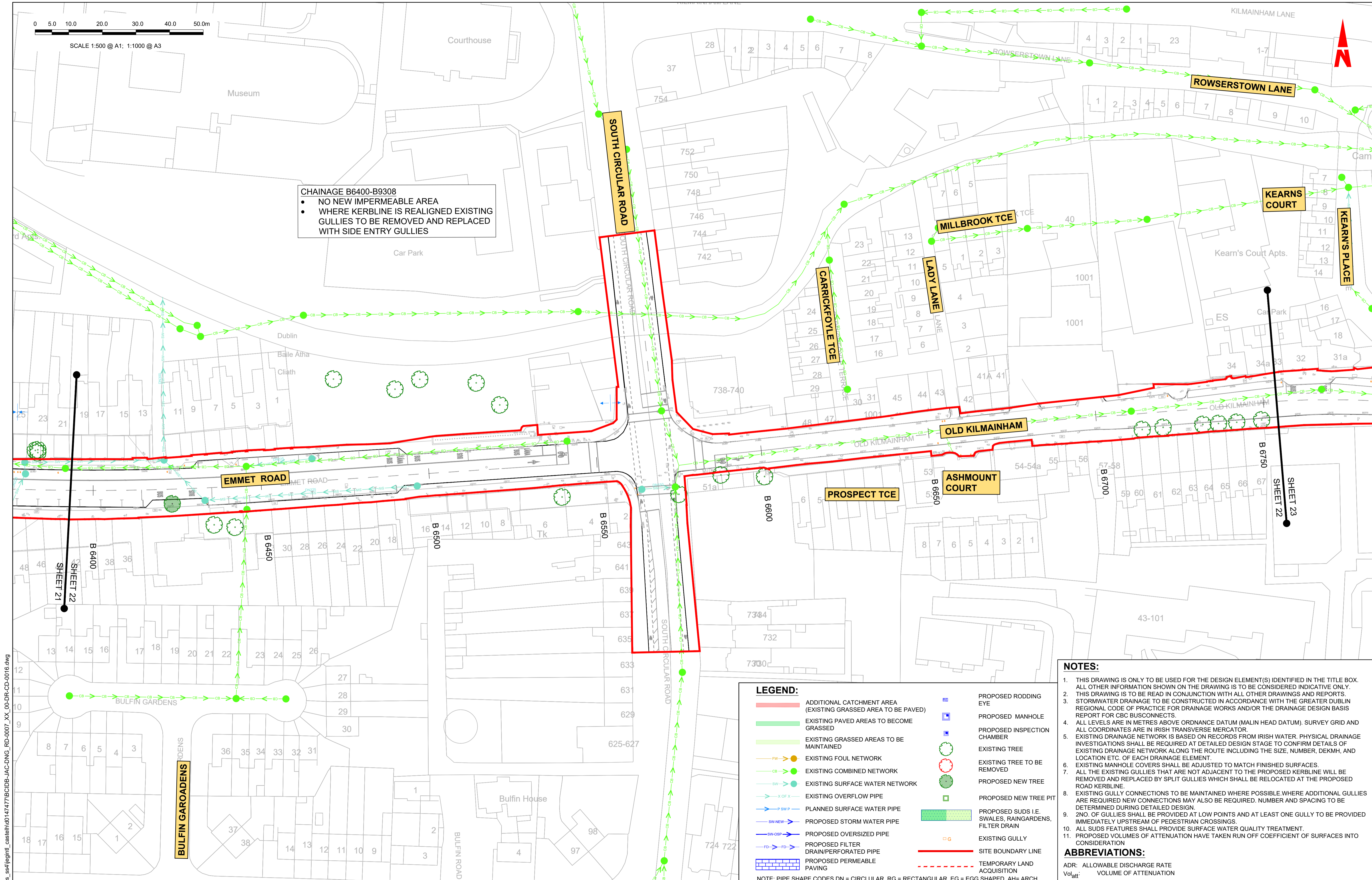
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</b>			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0021	Sheet Number: 21 of 28	Status: A	Rev: M01





**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.

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**Project Ireland 2040**  
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	Checked	Approved
PT	KM	JB

QMS Code

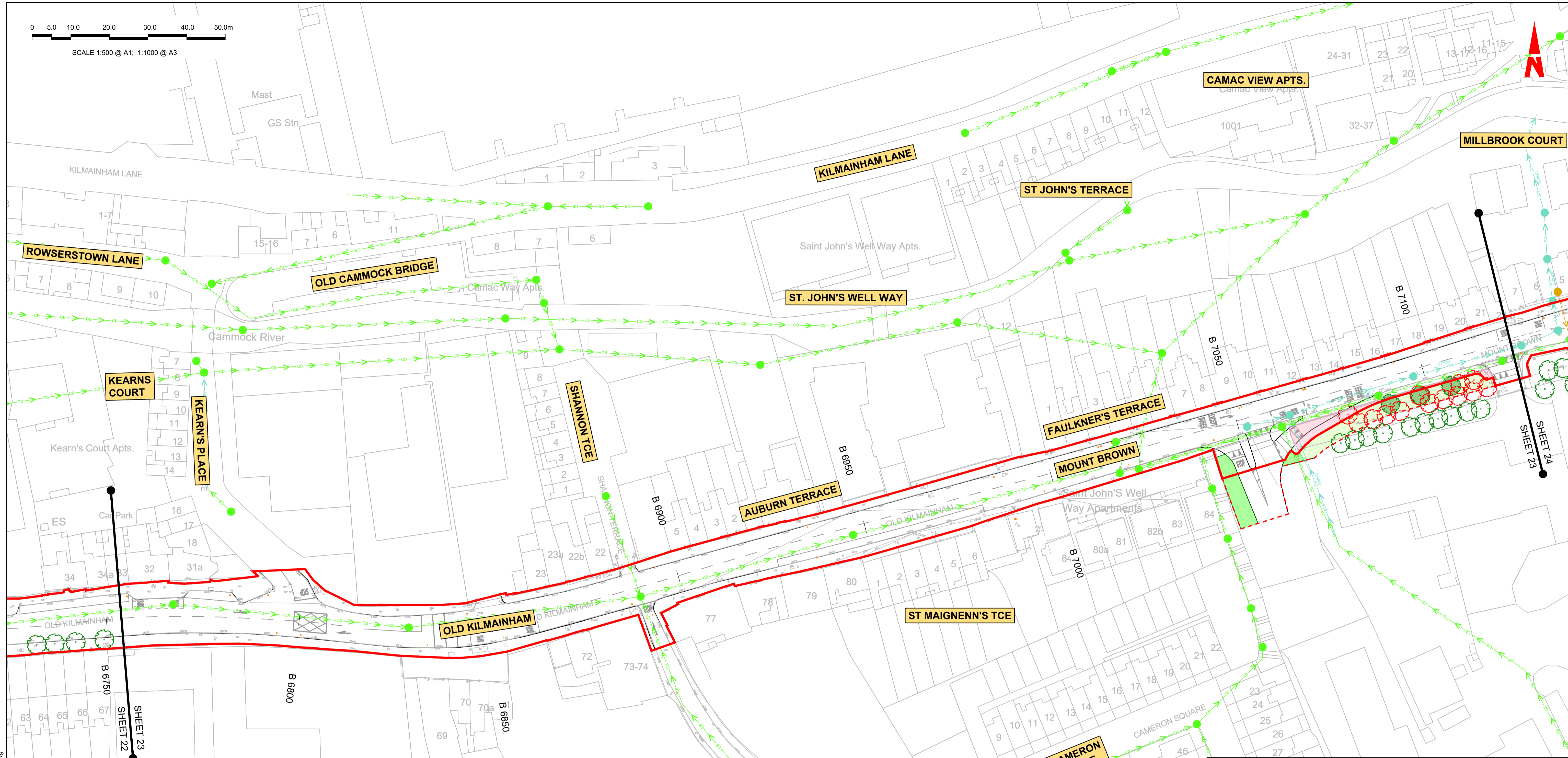
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</b>			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0022	Sheet Number: 22 of 28	Status: A	Rev: M01

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 GRASSSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSSED
- EXISTING GRASSSED 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 CODING 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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- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND REPORTS.
- 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.
- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM), SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
- 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.
- 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<sub>att</sub>: 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

Project Code: BCIDB Originator Code: JAC

Drawn: PT Checked: KM Approved: JB

QMS Code

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

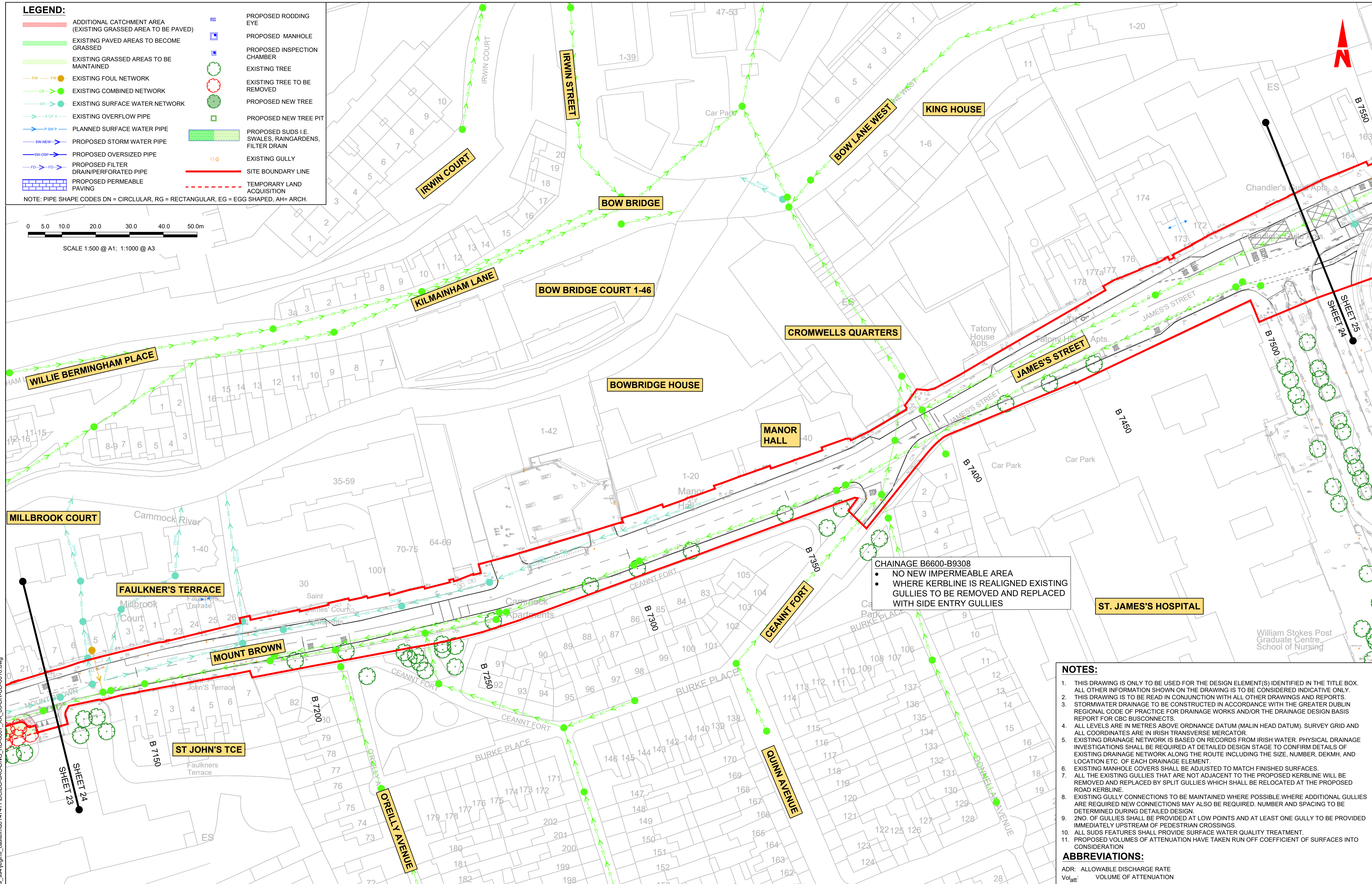
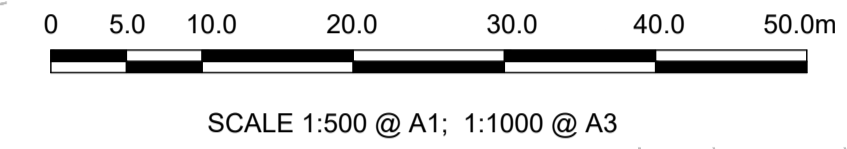
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**LEGEND:**

	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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  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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  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<sup>att</sup>: 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



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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
Vol<sub>att</sub>: VOLUME OF ATTENUATION

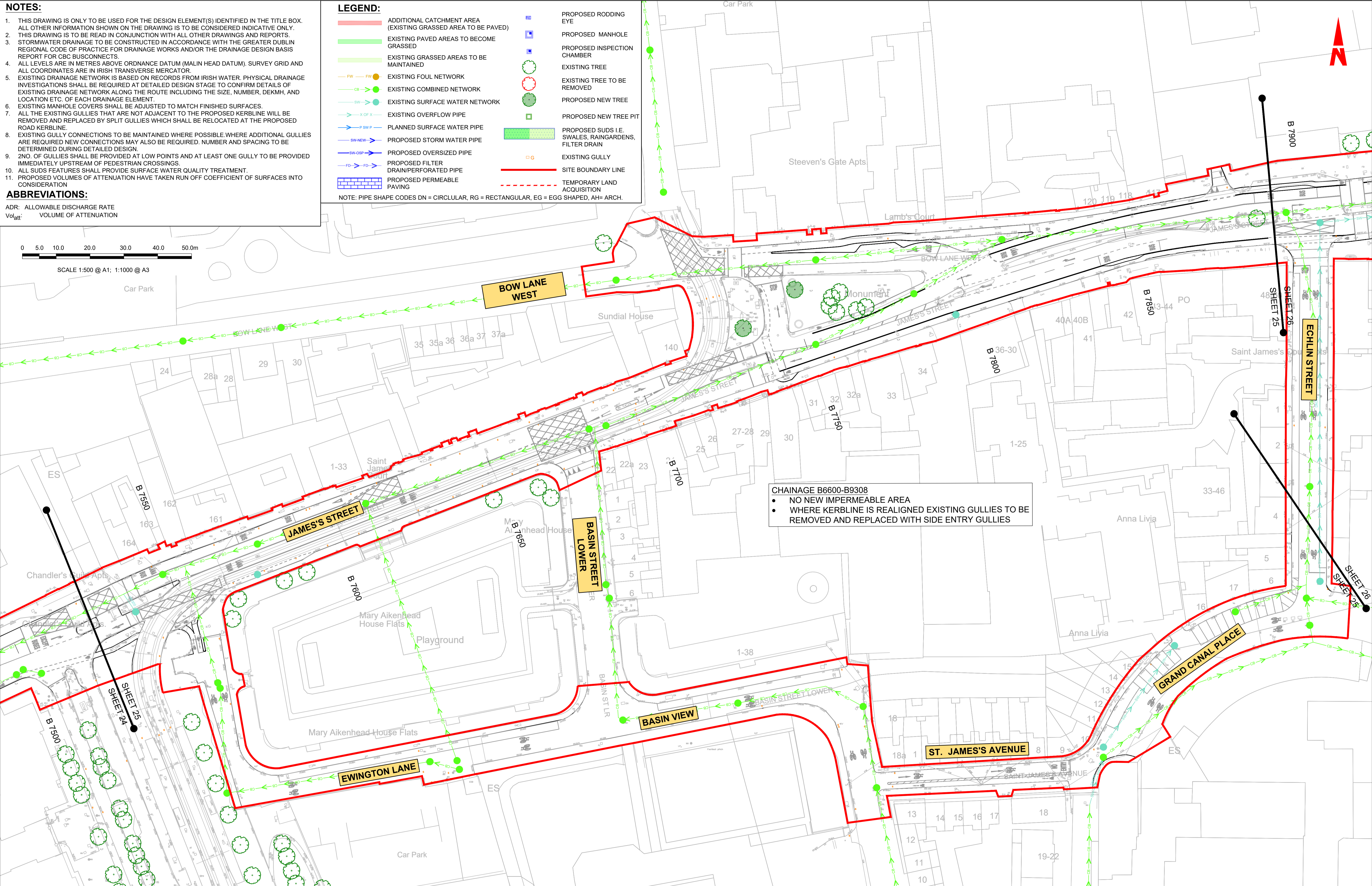
**LEGEND:**

- |  |   |  |  |
|--|---|--|--|
|  | 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 = 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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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: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
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



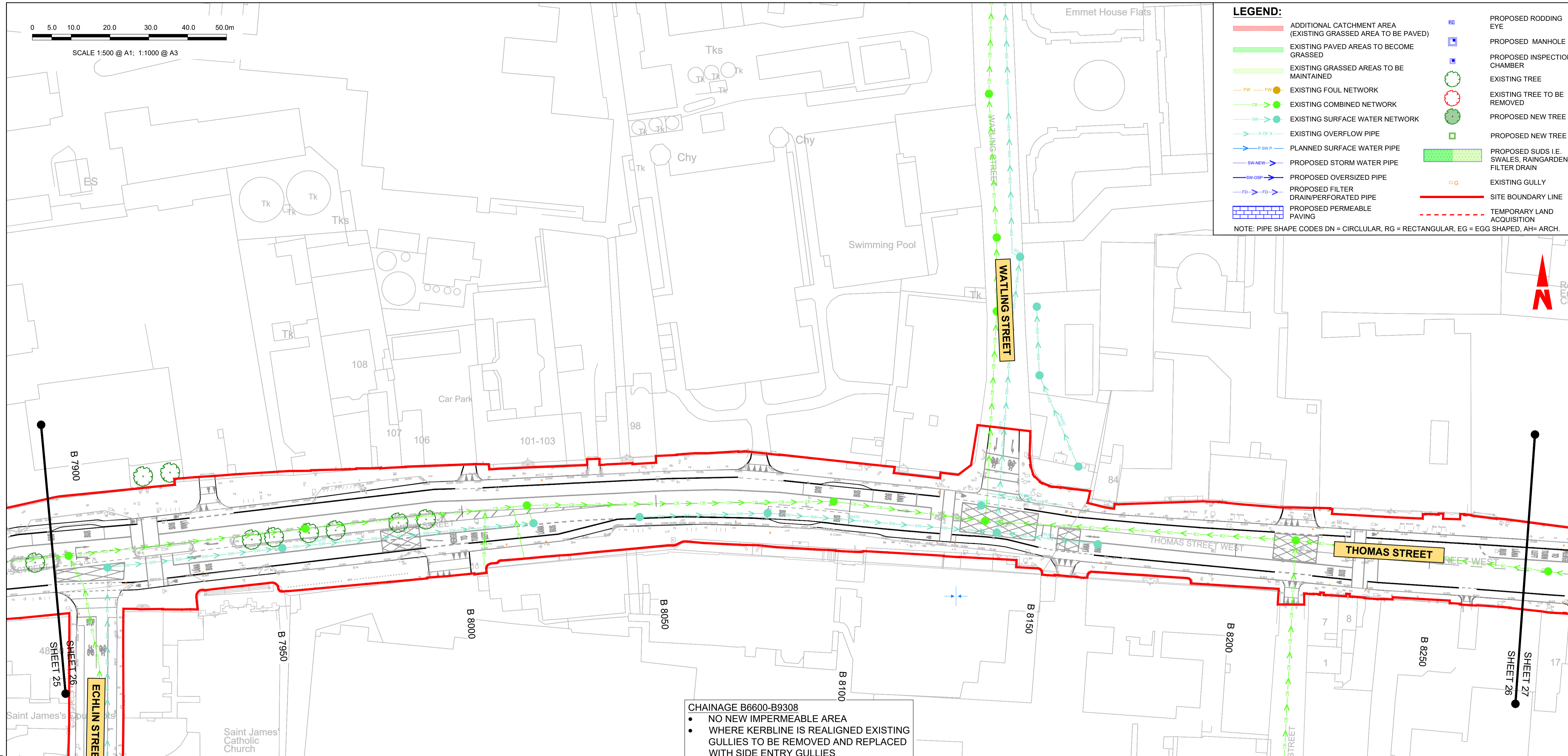
0 5.0 10.0 20.0 30.0 40.0 50.0m

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
- 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
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CHAINAGE B6600-B9308

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- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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C:\pwworking\jacobs\_uk\_highways\_ssa\legintl\_castlehd0147477\BCIDB-JAC-DNG\_RD-0007\_XX\_00-DR-CD-0016.dwg

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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**

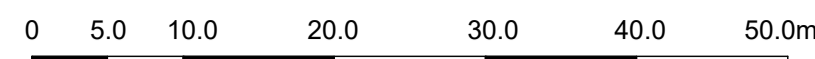
Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

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

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
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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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:**

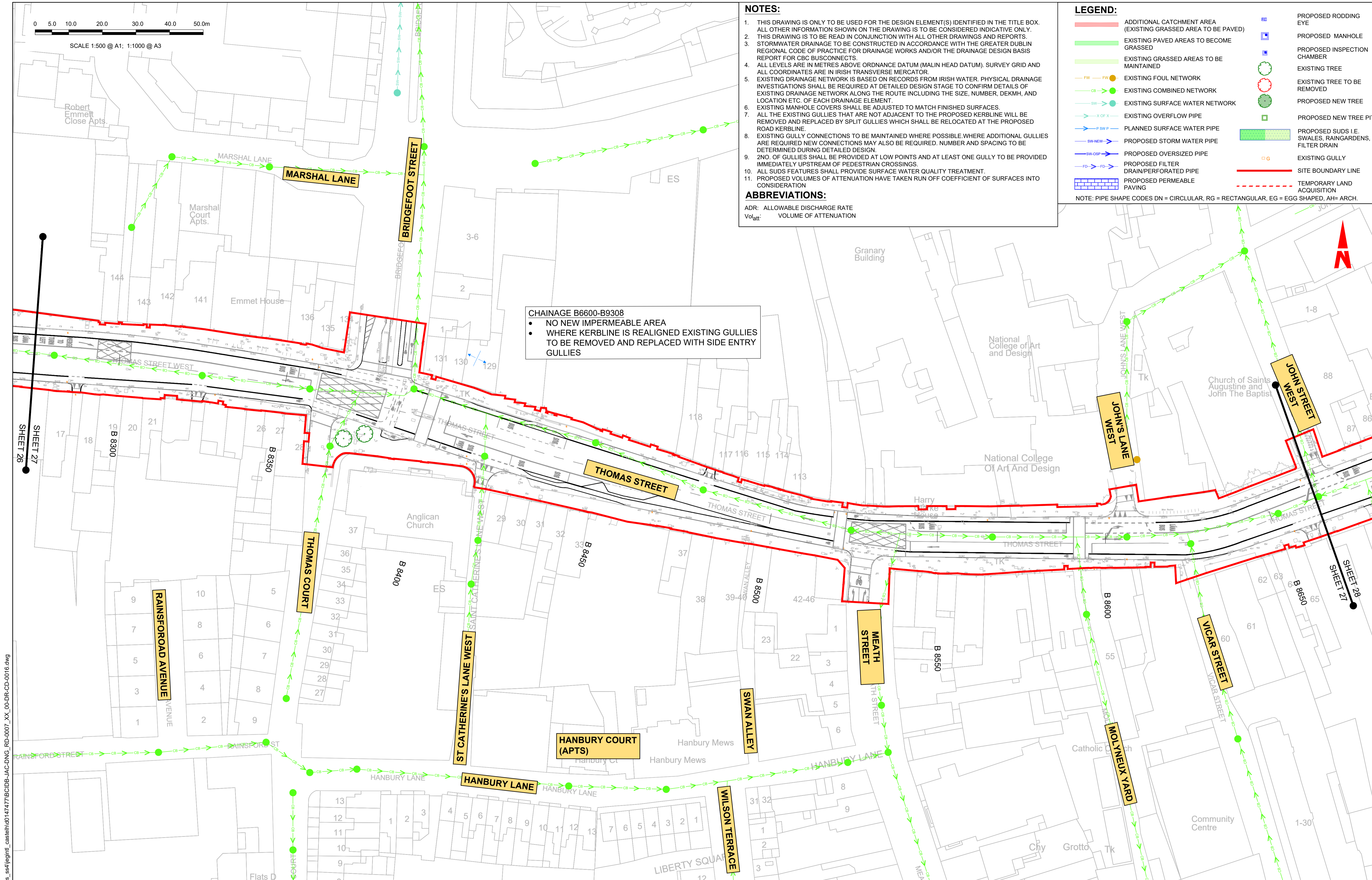
ADR: ALLOWABLE DISCHARGE RATE  
VolAtt: VOLUME OF ATTENUATION

**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 = 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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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**

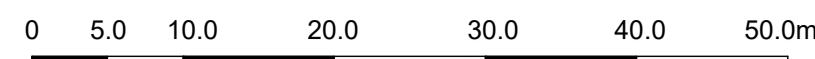
Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

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

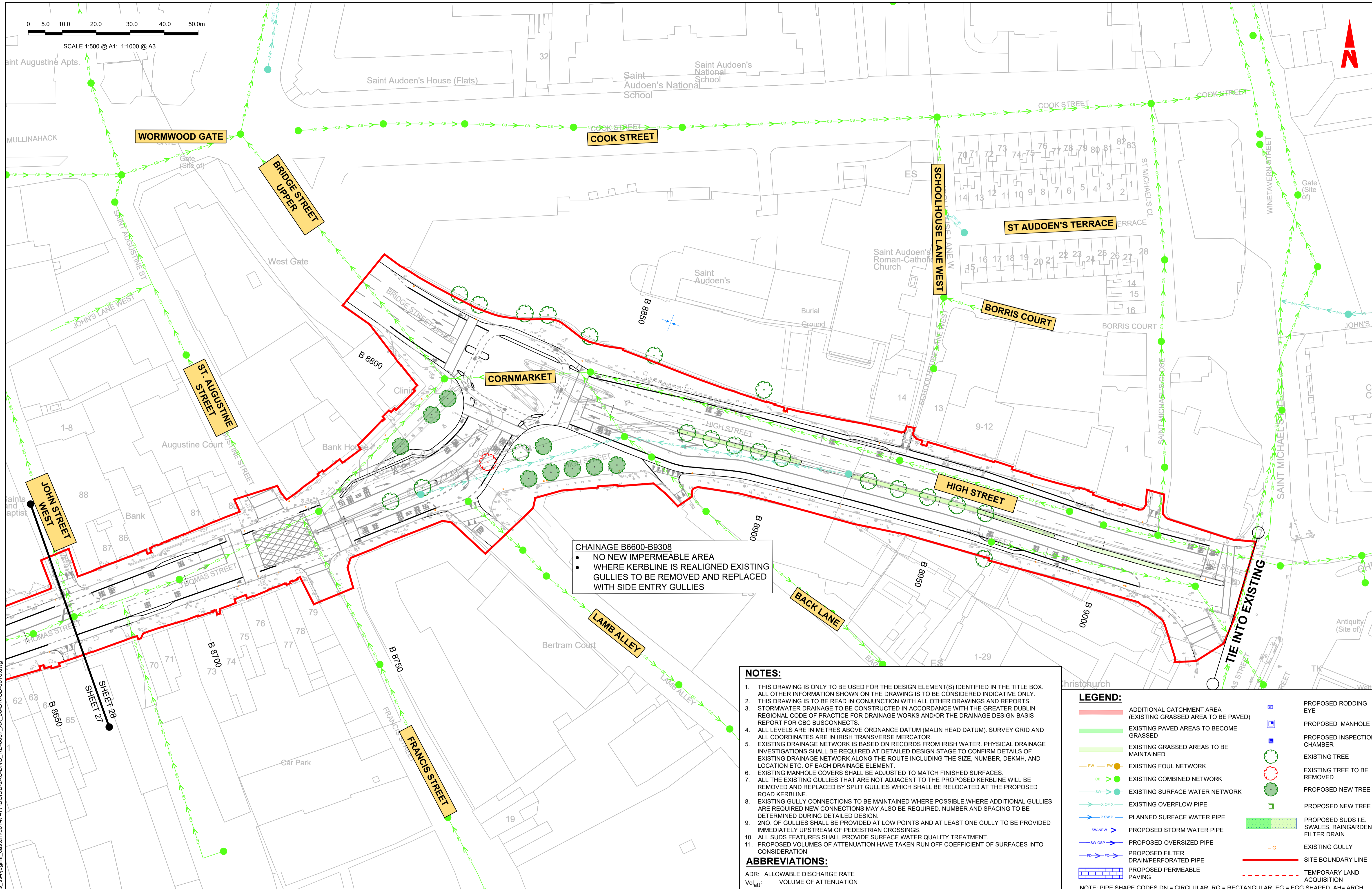
Programme Title	Drawing Title	Drawing File Name	Sheet Number	Status	Rev
BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS	BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0027	27 of 28	A	M01

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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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**ABBREVIATIONS:**

ADR: ALLOWABLE DISCHARGE RATE  
 Vol<sub>att</sub>: 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	Drn	Chk'd	App'd	Description
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Client: **NTA**  
 Údarás Náisiúnta Iompair  
 National Transport Authority

Engineering Designer: **Jacobs**

Date	Scale	Drawn	Checked	Approved
07/06/2022	1:500 @ A1 1:1000 @ A3	PT	KM	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	Sheet Number	Status	Rev
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0028	28 of 28	A	M01