



UTILITY SERVICES INFRASTRUCTURE ASSESSMENT (USIA) REPORT

Crows Nest Metro – OSD Site B
Third.i

CONFIDENTIAL

Revision: 3.0 – PRELIMINARY | Issued: 17 September 2024

Document name: rp230811s0016

NDY
A TETRA TECH COMPANY

CONFIDENTIAL INFORMATION

This document is made available to the recipient on the express understanding that the information contained in it be regarded and treated by the recipient as strictly confidential. The contents of this document are intended only for the sole use of the recipient and should not be disclosed or furnished to any other person.

DISCLAIMER OF LIABILITY

The information contained in this document is provided under direction from the nominated client and addresses this direction. Any third party reviewing the content of this document needs to make their own assessment on the appropriateness of the information contained. NDY Management Pty Limited makes no assurance the information meets the needs of a third party and as such accepts no liability for any loss or damage incurred by third parties whatsoever as a result of using the information.

COPYRIGHT

© NDY Group 2024.

Learn more about NDY

Website: www.ndy.com

Twitter: @ndygroup

LinkedIn: www.linkedin.com/company/norman-disney-&-young

YouTube: <https://www.youtube.com/ndygroup>

Facebook: www.facebook.com/NDY-Group

Table of contents

1 EXECUTIVE SUMMARY	1
1.1 Purpose	1
1.2 Authority	1
1.3 GFA Schedule	1
2 POWER	2
2.1 Required Capacity Estimates	2
3 WATER	3
3.1 Capacity Estimates	3
3.2 Required Supply	3
4 SEWER	4
4.1 Capacity Estimates	4
4.2 Required Supply	4
5 NATURAL GAS	5
5.1 Capacity Estimates	5
5.2 Required Supply	5
6 TELECOMMUNICATIONS	6
6.1 Existing Infrastructure	6

1 EXECUTIVE SUMMARY

1.1 PURPOSE

This report has been produced by Norman Disney & Young and commissioned by Third.i as supporting document for Development Application.

The purpose of this report is to provide a desktop assessment of the authority services infrastructure and its general suitability for the proposed new Over Station Development (OSD) Site B associated with Crows Nest Metro station.

This report shall not be relied upon as providing any warranty or guarantee of the infrastructure, the building, its services or equipment.

1.2 AUTHORITY

Authority to undertake this report was provided by Third.i on 17th September 2024.

1.3 GFA SCHEDULE

Following gross floor areas apply to this development, based on architectural drawing set by Woods Bagot "For SSSA" Revision A dated 26 July 2024:

LEVEL		USE / TYPE		BUILDING HEIGHTS		FUNCTIONAL AREAS													CAR PARKING	
		RL	FL TO FL	Residential GFA	Retail GFA	Total GFA	Non-Residential GLAR	Residential NSA	Residential Balcony	Beds	Beds	Beds	Apts	Solar	Solar Quality Natural Light Outcome	Total Solar	Cross Vent	Residential Car Spaces	Spaces Incl Storage	
		m	m	m ²	m ²	m ²	m ²	m ²	m ²	1	2	3	No.					No.	No.	
Level 21	Roof / Resi	150.00	4.000			0			389											
Level 20	Resi	150.90	3.100	895		895		872	300											
Level 19	Resi	147.80	3.100	938		938		919	95											
Level 18	Resi	144.70	3.100	918		918		895	112											
Level 17	Resi	141.60	3.100	918		918		895	112											
Level 16	Resi	138.50	3.100	1038		1038		895	102											
Level 15	Resi	135.40	3.100	1038		1038		895	102											
Level 13	Resi	132.30	3.100	1038		1038		895	102											
Level 12	Resi	129.20	3.100	1038		1038		895	102											
Level 11	Resi	126.10	3.100	1038		1038		895	102											
Level 10	Resi	123.00	3.100	1038		1038		895	102											
Level 9	Resi	119.90	3.100	1038		1038		895	102											
Level 8	Resi	116.80	3.100	875		875		800	47											
Level 7	Resi	113.70	3.100	875		875		800	47											
Level 6	Cars	109.50	4.200																	
Level 5	Cars	106.50	3.000																	
Level 2	Plant	99.79	6.715			0														
Level 1	Non-Resi	95.00	4.765	18	210	349	210													
Ground	Non-Resi & Resi	91.55	3.450			416	137													
TOTAL				12,981	347	13,451	347	11,446	1,616	44	63	23	130	81	48	130	130	55	7	
										34%	48%	18%		62%	37%	100%	100%			

SITE AREA (m ²)			
1,872			
	PROPOSED	CAP	DIFFERENCE
Total FSR	7.4	7.5	-0.1
Resi GFA	12981	13006	-19
Metro GFA	875	FIXED	
Non-Residential GFA	922	936	-14
Carparks	65	65	0
Total GFA	13,863		

2 POWER

2.1 REQUIRED CAPACITY ESTIMATES

Based on maximum demand calculations conducted as part of concept design phase, the proposed new OSD Site B development required **995 kVA** power supply.

Suitable and compliant chamber provisions are to be documented in Architectural documentation for Development Application.

As part of Crows Nest Metro station construction, local infrastructure is undergoing upgrade works to cater for both developments – Metro station and OSD site B. New LV and HV conduits will be constructed, for details refer to Figure 1 below.

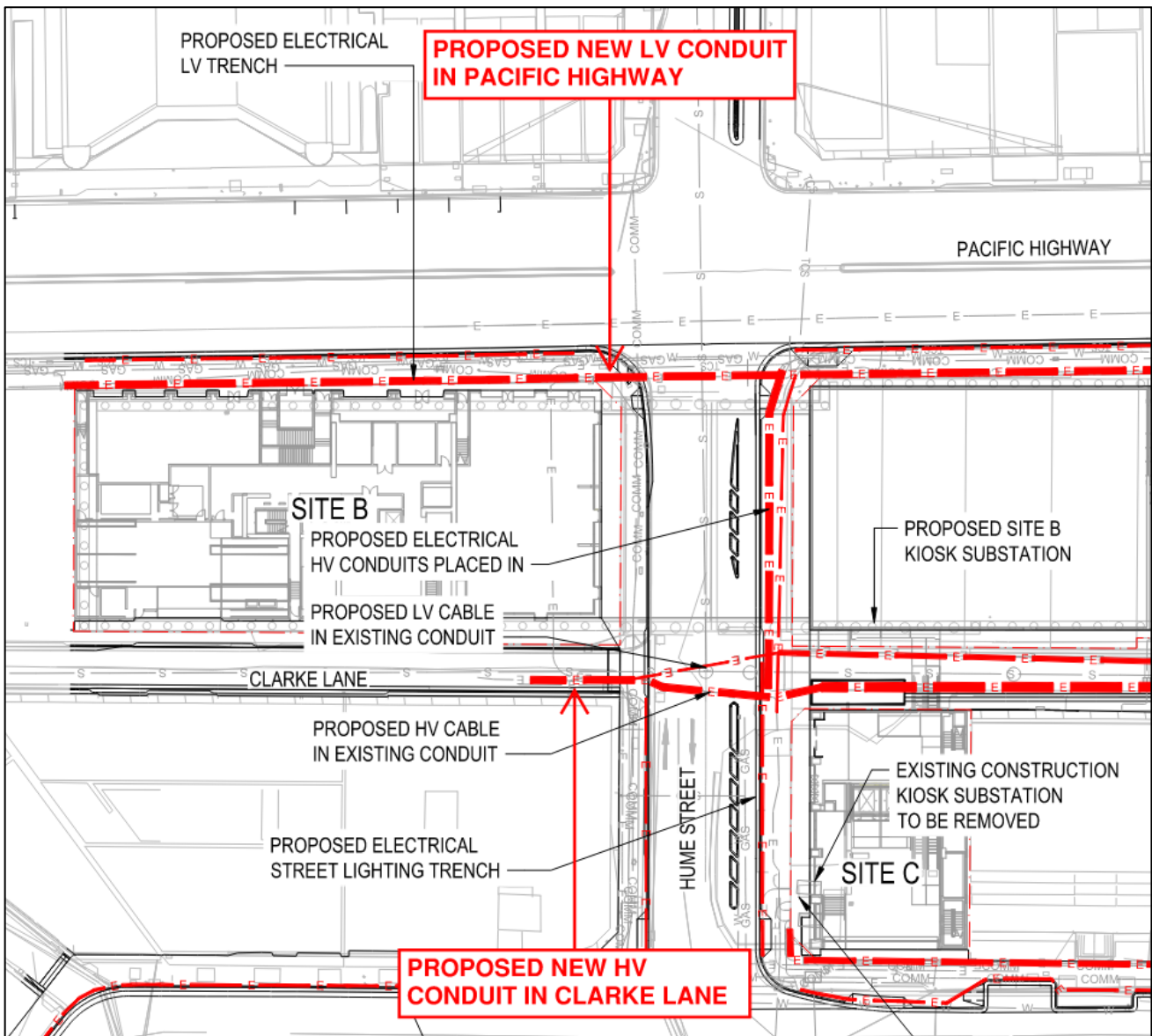


Figure 1 – Sydney Metro Crows Nest – Proposed Utilities Plan – showing proposed new LV and HV Conduits along site frontage, denote in red

3 WATER

3.1 CAPACITY ESTIMATES

Based on demand calculations conducted in accordance with AS/NZS 3500.1 and Sydney Water guidelines, following demand parameters apply to the proposed Crows Nest Metro OSD Site B development:

- Average daily demand: 42 kL/day
- Probable simultaneous flow (potable water, incl. landscape irrigation): 11.5 L/s
- Wet fire protection demand: 40 L/s.

3.2 REQUIRED SUPPLY

Based on calculated demand, it is estimated that a DN250 Sydney Water main would be sufficient to cater for the proposed new development, providing it achieves required minimum pressures for domestic and fire protection assisted operation.

As part of Crows Nest Metro station construction, local infrastructure is undergoing upgrade works to cater for both developments – Metro station and OSD site B. A new DN250 water main will be constructed with applicable connection points, for details refer to Figure 2 below.

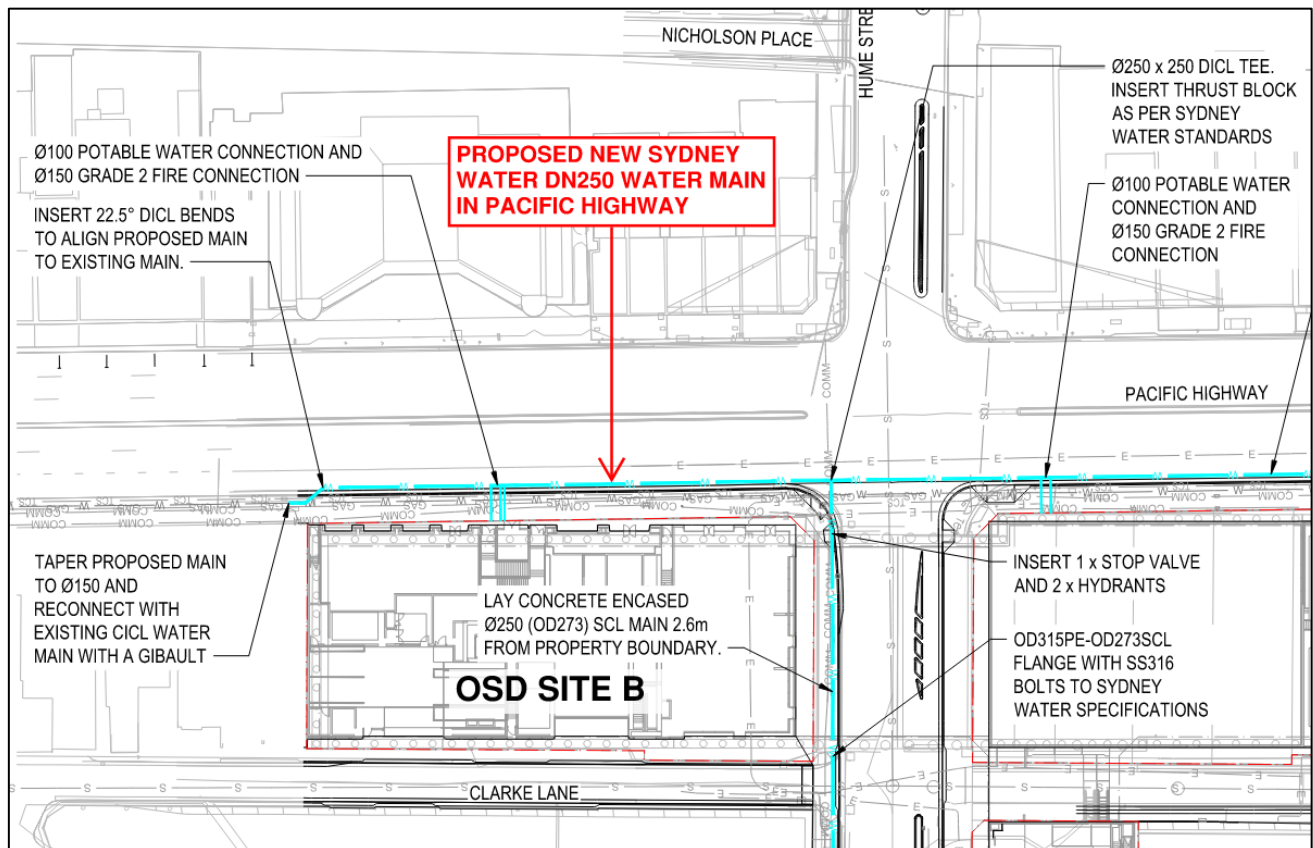


Figure 2 – Sydney Metro Crows Nest – Proposed Utilities Plan – showing proposed new DN250 Sydney Water main along OSD Site B frontage

4 SEWER

4.1 CAPACITY ESTIMATES

Based on demand calculations conducted in accordance with AS/NZS 3500.2 and Sydney Water guidelines, following demand parameters apply to the proposed Crows Nest Metro OSD Site B development:

- Average daily discharge: 39 kL/day

4.2 REQUIRED SUPPLY

Based on calculated discharge, a DN225 sewer main is sufficient to cater for the proposed new development, subject to Section 73 NOR by Sydney Water and available sewer main invert levels.

As part of Crows Nest Metro station construction, local infrastructure is undergoing upgrade works to cater for both developments – Metro station and OSD site B. Two new DN225 sewer sidelines will be constructed with connection to existing DN225 sewer main in Clarke Lane, for details refer to Figure 3 below.

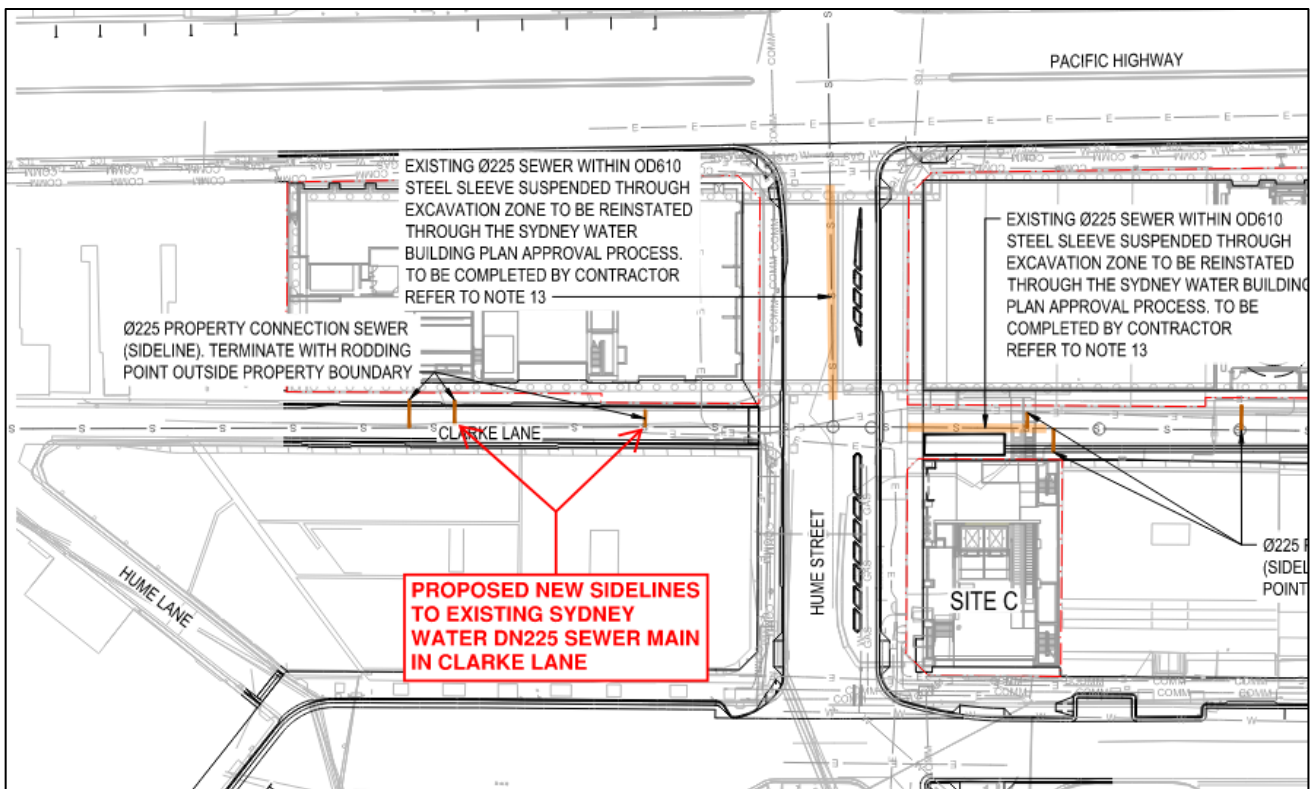


Figure 3 – Sydney Metro Crows Nest – Proposed Utilities Plan – showing proposed new DN225 Sydney Water sewer sidelines

5 NATURAL GAS

5.1 CAPACITY ESTIMATES

There is no requirement for Natural Gas supply for the proposed new Crows Nest Metro OSD Site B development. The building will be fully electrified.

5.2 REQUIRED SUPPLY

No Gas connection is required for this development.

As part of Crows Nest Metro station construction, local infrastructure is undergoing upgrade works to cater for both developments – Metro station and OSD site B. A new DN50 nylon NG main will be constructed along Hume Street and Pacific Highway, for details refer to Figure 4 below.

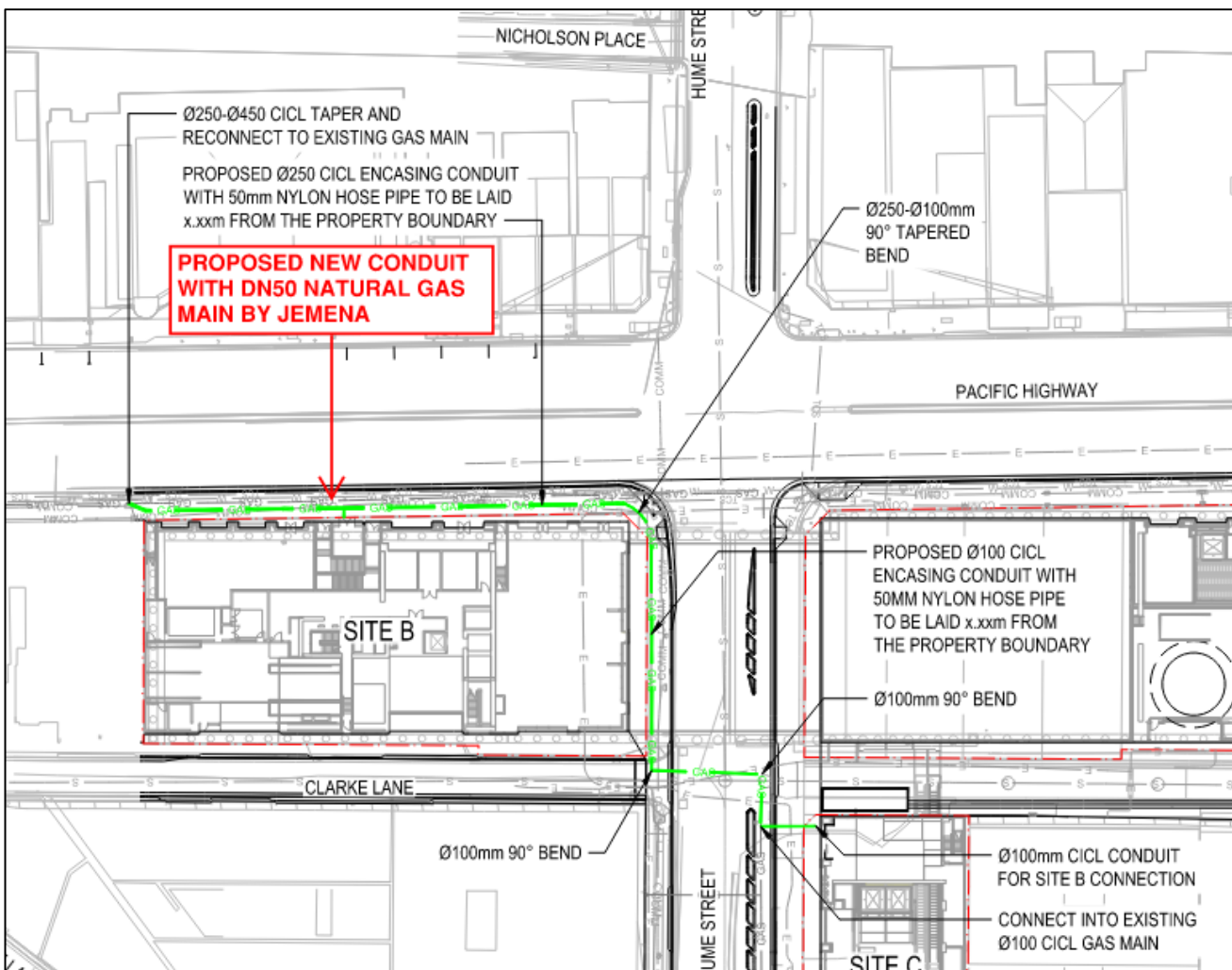


Figure 4 – Sydney Metro Crows Nest – Proposed Utilities Plan – showing proposed new DN50 Jemena gas main

6 TELECOMMUNICATIONS

6.1 EXISTING INFRASTRUCTURE

NBN is the most suitable telecommunications supplier in this area and for this particular development. Other providers, such as Telstra, Optus and TPG also have infrastructure in the vicinity of the site.

CONTACT US

AUSTRALIA

ADELAIDE

T: +61 8 8290 6800
E: adelaide@ndy.com

BRISBANE

T: +61 7 3120 6800
E: brisbane@ndy.com

CANBERRA

T: +61 2 6295 1788
E: canberra@ndy.com

GOLD COAST

T: +61 7 5512 1235
E: goldcoast@ndy.com

MELBOURNE

T: +61 3 9862 6800
E: melbourne@ndy.com

PERTH

T: +61 8 9281 6800
E: perth@ndy.com

SYDNEY

T: +61 2 9928 6800
E: sydney@ndy.com

CANADA

VANCOUVER

T: +1 604 734 9338
E: vancouver@ndy.com

NEW ZEALAND

AUCKLAND

T: +64 9 307 6596
E: auckland@ndy.com

WELLINGTON

T: +64 4 471 0151
E: wellingtonadmin@ndy.com

UNITED KINGDOM

LONDON

T: +44 20 7553 9494
E: london@ndy.com

IRELAND

DUBLIN

T: +353 1 264 6995
E: dublin@ndy.com

Join us on social media at
www.ndy.com/followus



CONFIDENTIAL INFORMATION: This document is given with the understanding that the information within is private. Please keep it confidential and don't share with anyone else. Take proper care to make sure that others can't see or access this document. It's meant only for you.

DISCLAIMER OF LIABILITY: The information in this document is provided under direction of the client and follows their instructions. Any third party reviewing the content should make their own assessment on whether the information is appropriate to them. NDY makes no assurance the information meets the needs of a third party and does not accept liability for any loss or damage incurred by third parties as a result of using the information.

COPYRIGHT © NDY Group 2024: No part of this document can be copied or sent without written permission from NDY. All rights are reserved.