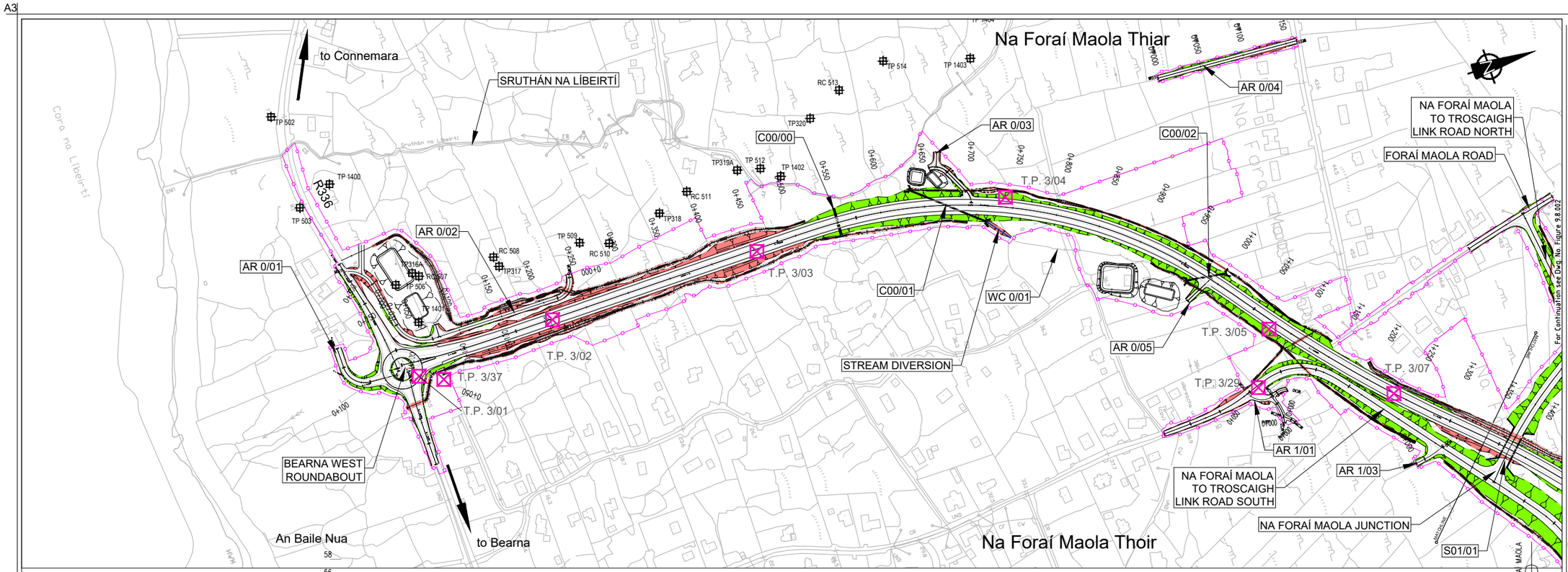
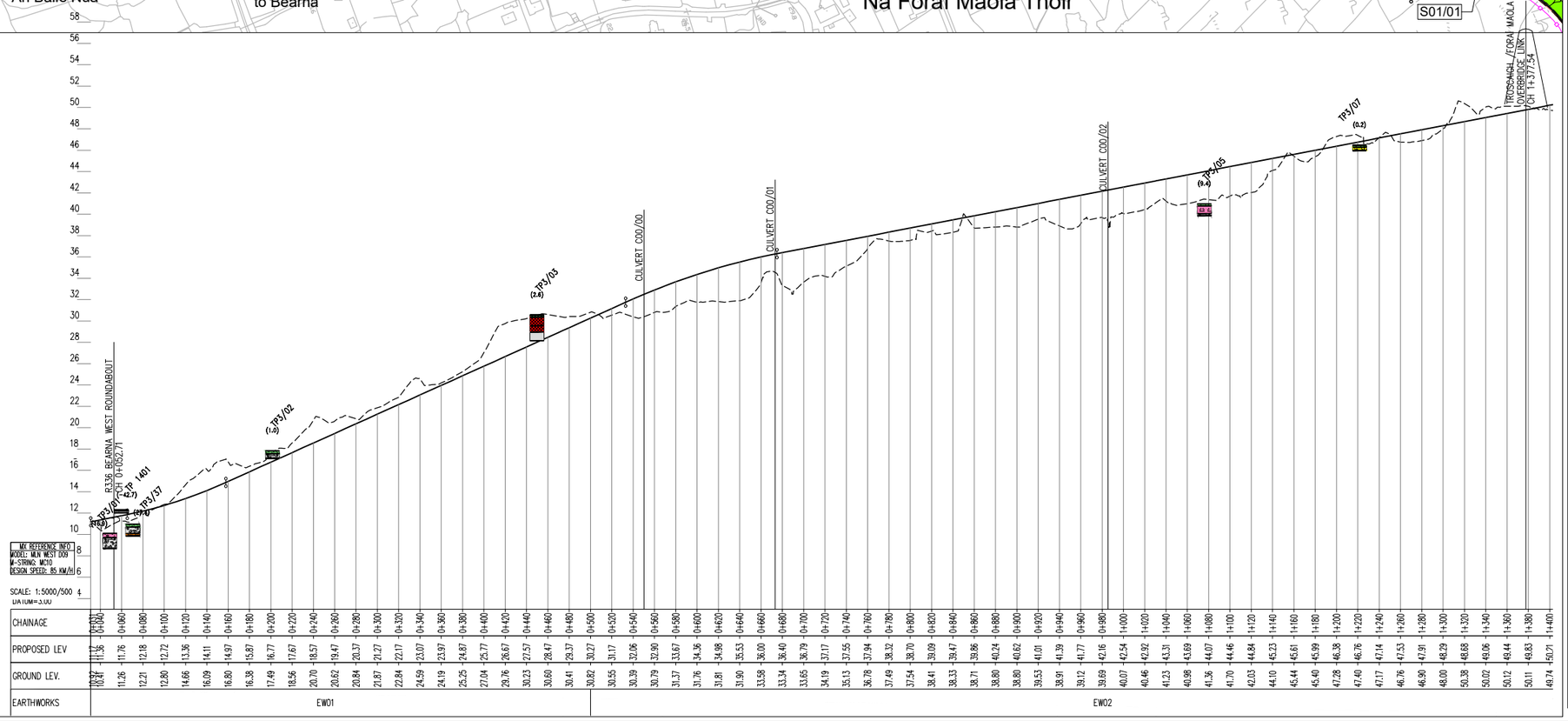
A3





EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics

- R19 GP3/24 / S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:

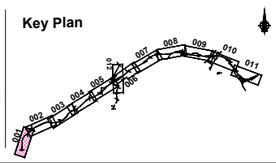
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients: An Roinn Iompair Department of Transport; Tionscadal Éireann Project Ireland 2040; N6 Galway City Transport Project; Comhairle Chontae na Gaillimhe Galway County Council; TII Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant: ARUP

Corporate House
City East Business Park
Ballybrit, Galway, Ireland.

Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title: N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3

Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title: Ground Investigation Plan & Profile

Mainline Plan/Profile - CH.0+000 to CH.1+350

Sheet 1 of 12

Drawing Status: **For Information**

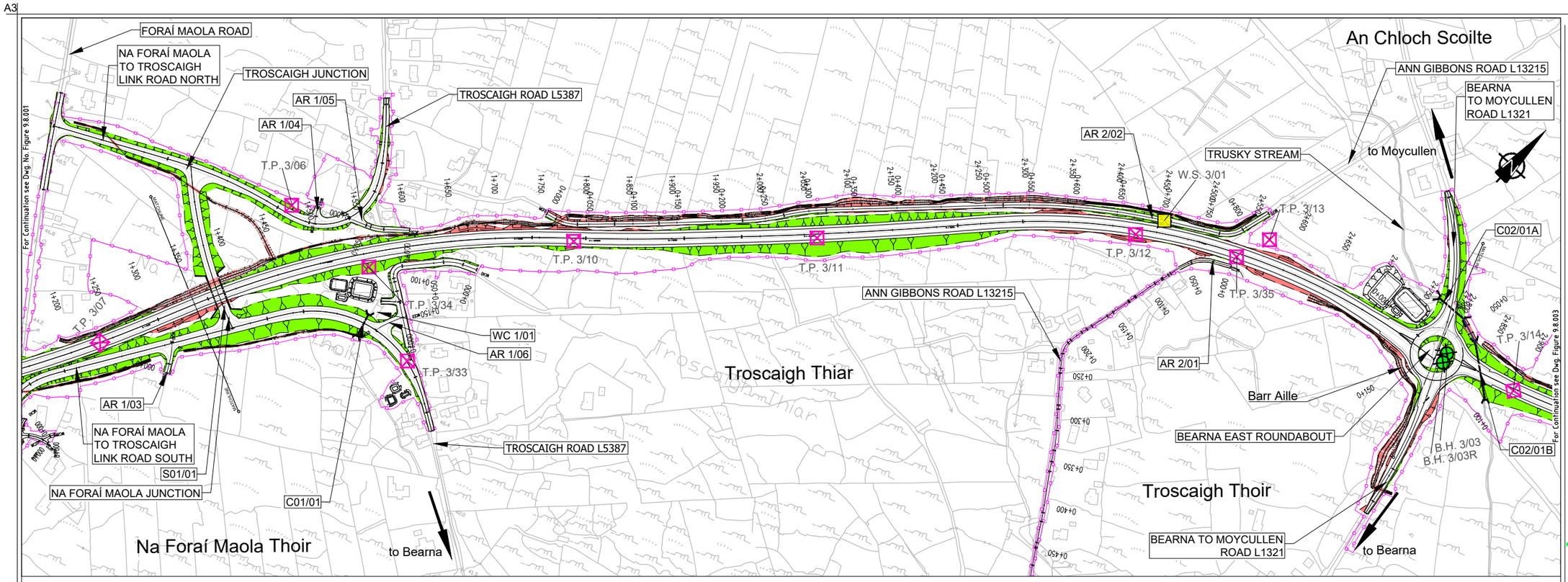
Job No	Drawing No	Issue
233985	Figure 9.8.001	I1

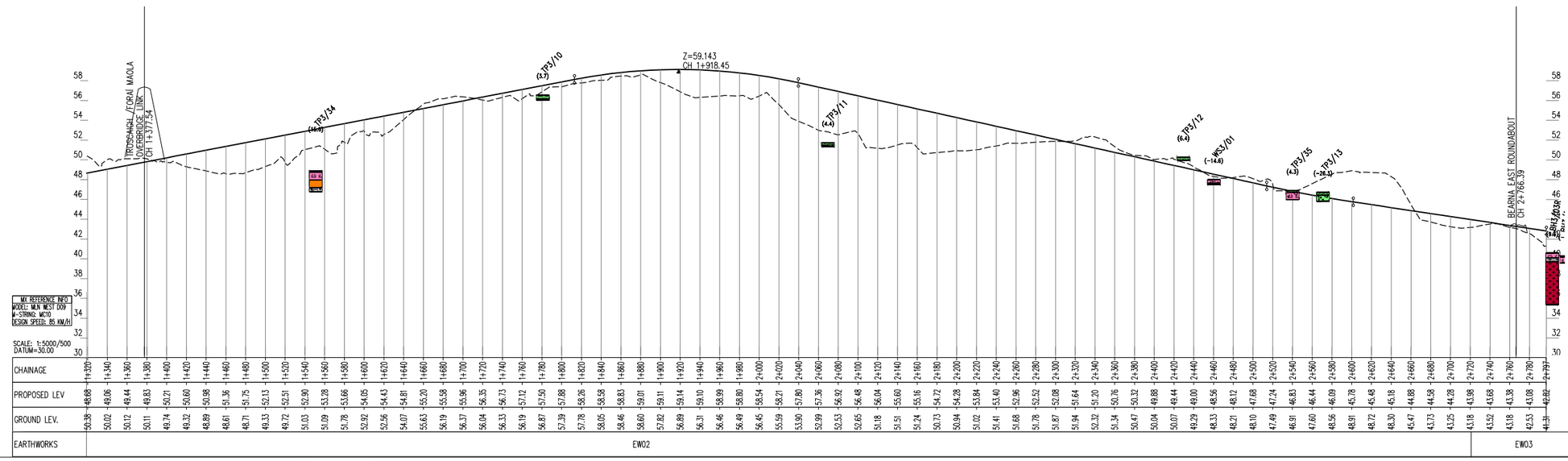
Do not scale

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 EnvironmentalUpdate2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

© Arup

A3





EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics

- R19 GP3/24 S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:

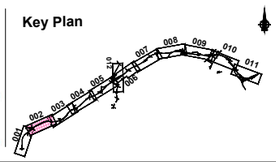
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients: An Roinn Iompair Department of Transport; Tionscadal Éireann Project Ireland 2040; N6 Galway City Transport Project; Comhairle Chontae na Gaillimhe Galway County Council; TII Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant: ARUP
Corporate House, City East Business Park, Ballybrit, Galway, Ireland.
Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title: N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3

Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title: Ground Investigation Plan & Profile
Mainline Plan/Profile - CH.1+350 to CH.2+799
Sheet 2 of 12

Drawing Status: For Information

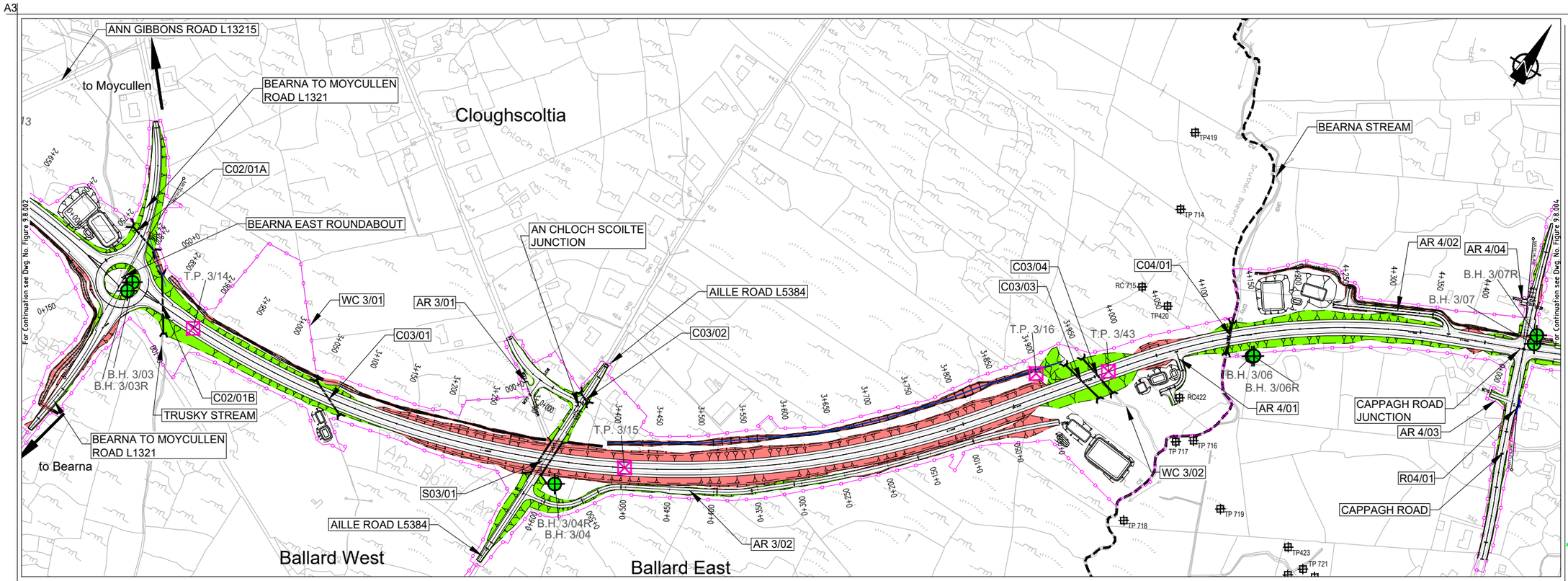
Job No	Drawing No	Issue
233985	Figure 9.8.002	I1

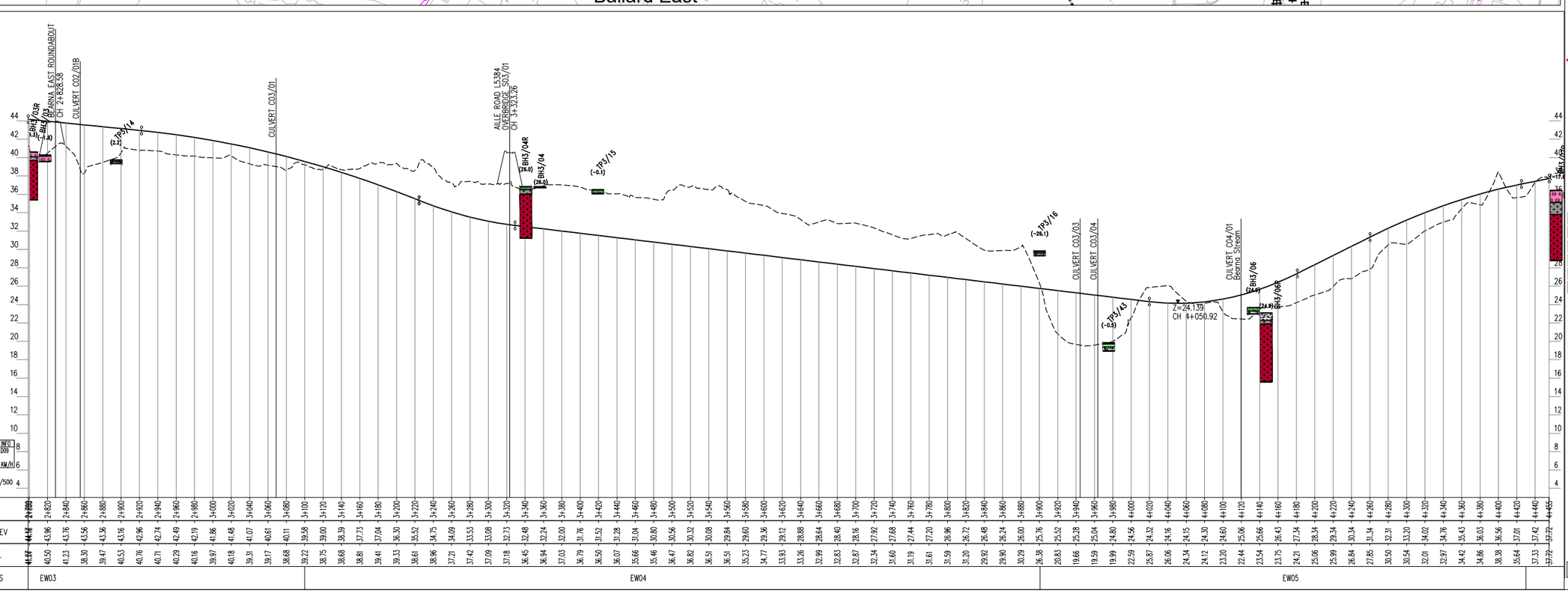
Do not scale

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 Environmental\Update2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

© Arup

A3





© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients

An Roinn Iompair Department of Transport

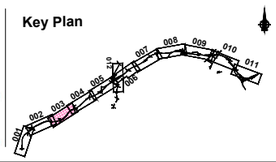
Tionscadal Éireann Project Ireland 2040

N6 Galway City Transport Project

Comhairle Chontae na Gaillimhe Galway County Council

TII Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant

ARUP

Corporate House
City East Business Park
Ballybrit, Galway, Ireland.

Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title

N6 Galway City Ring Road

Scale H 1:5000 / V 1:500 @ A3

Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title

Ground Investigation Plan & Profile

Mainline Plan/Profile - CH.2+799 to CH.4+455

Sheet 3 of 12

Drawing Status

For Information

Job No	Drawing No	Issue
233985	Figure 9.8.003	I1

© Arup

Do not scale

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 EnvironmentalUpdate2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics

R19 GP3/24 S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

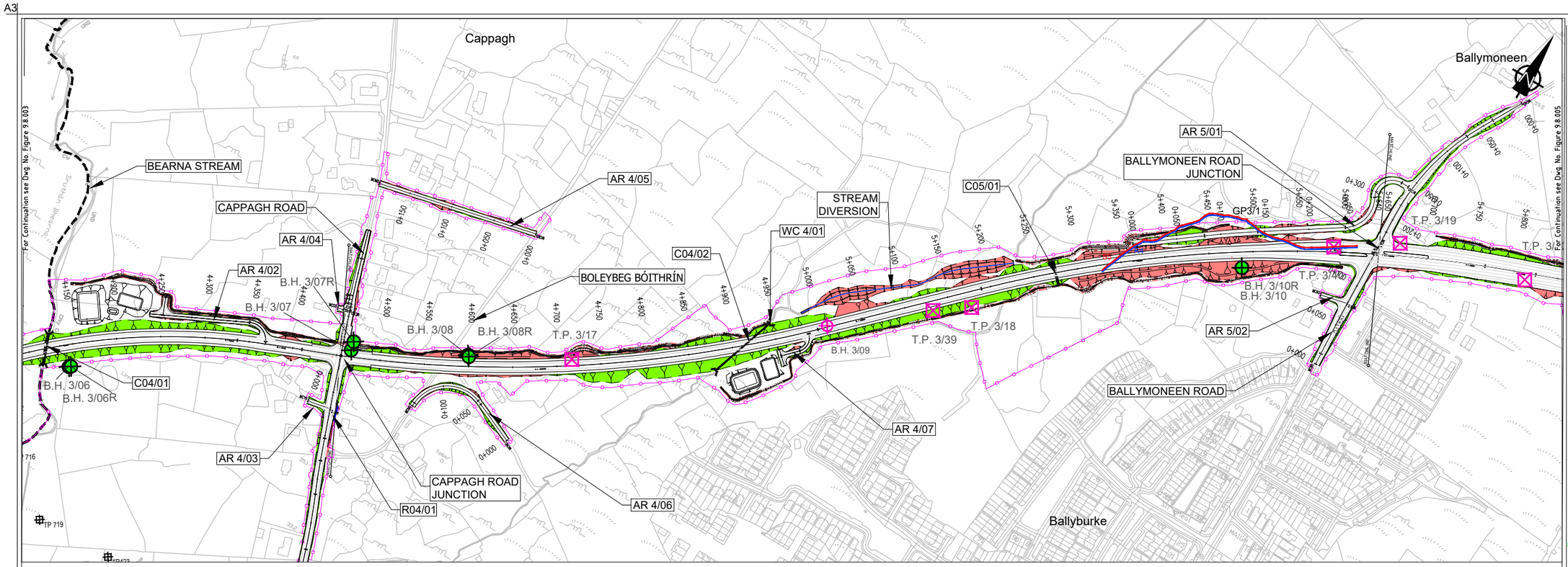
Geophysics

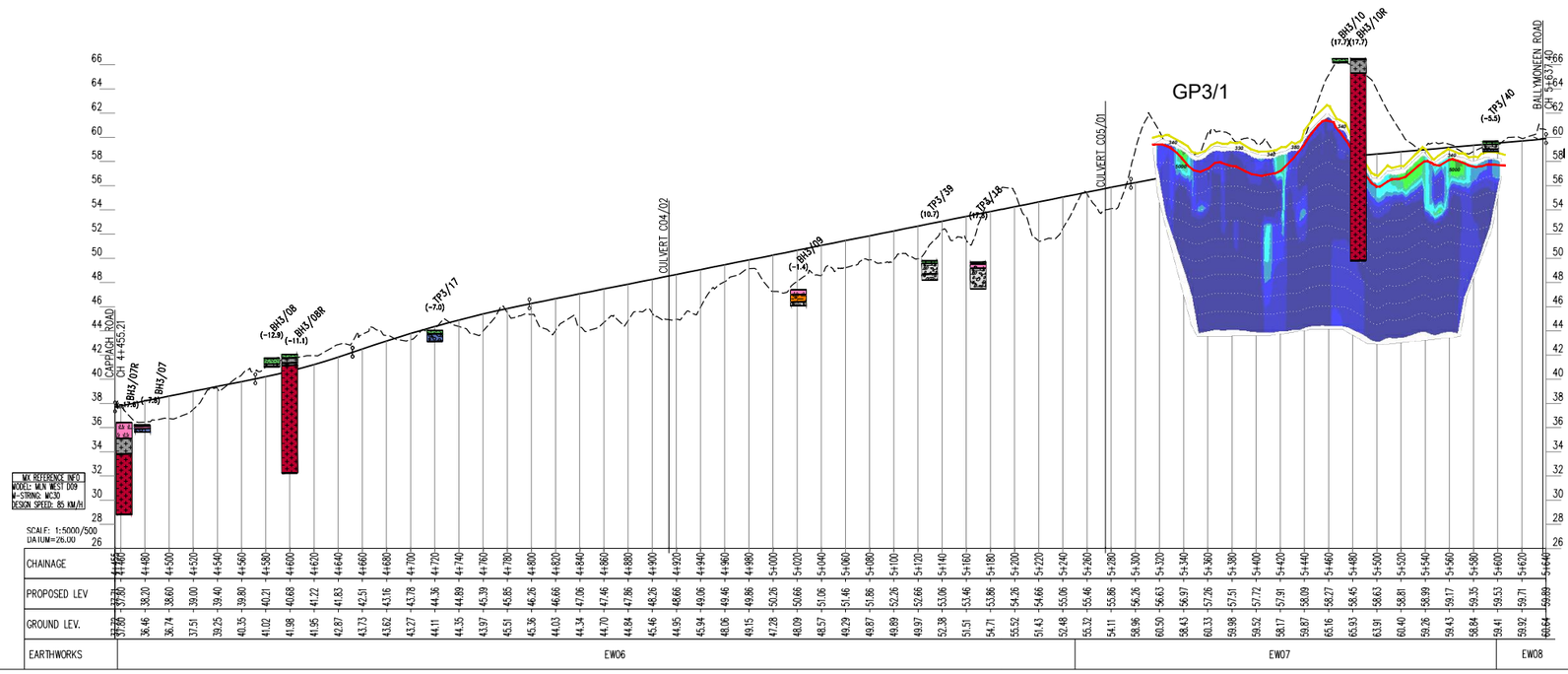
Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

A3





EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- or — Historical GI Locations Records (G.I. Code & Number)

Geophysics

- R19 GP3/24 S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [Si]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:

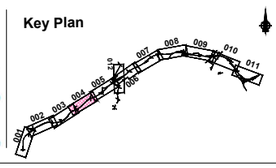
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients: An Roinn Iompair Department of Transport; Tionscadal Éireann Project Ireland 2040; N6 Galway City Transport Project; Comhairle Chontae na Gaillimhe Galway County Council; TII Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant: ARUP
Corporate House, City East Business Park, Ballybrit, Galway, Ireland.
Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title: N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3
Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title: Ground Investigation Plan & Profile
Mainline Plan/Profile - CH.4+455 to CH.5+640
Sheet 4 of 4 of 12

Drawing Status: For Information

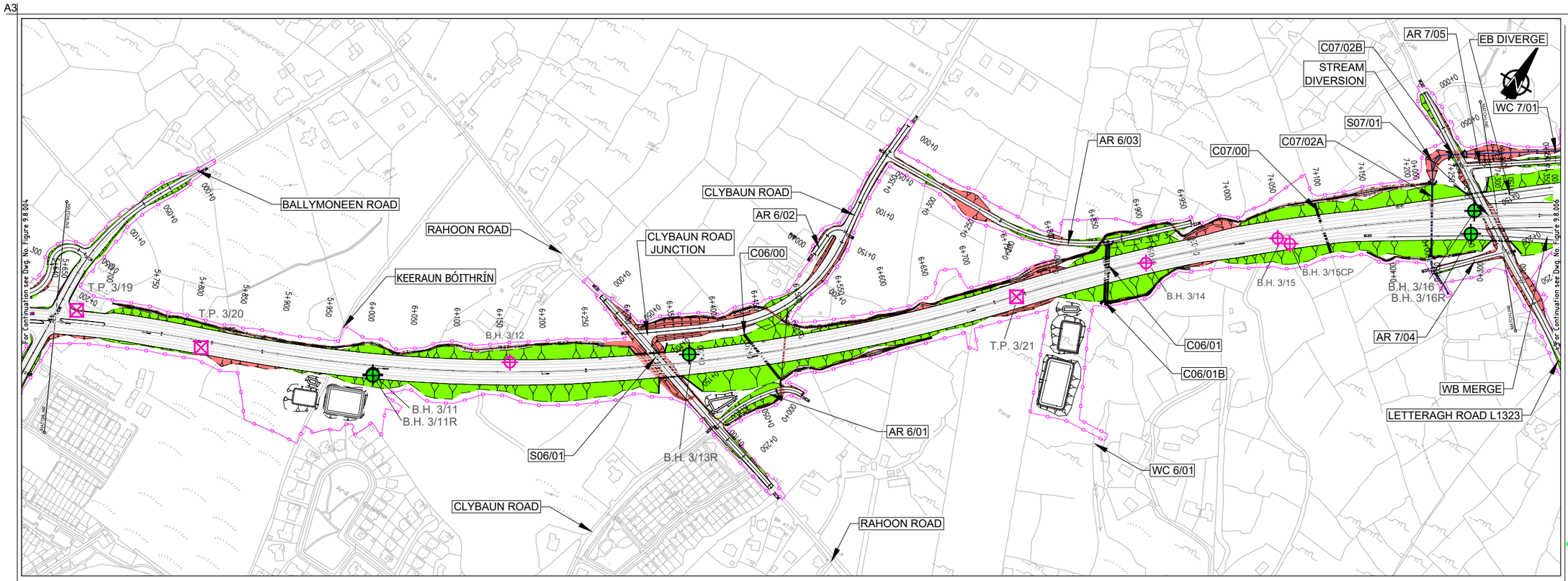
Job No	Drawing No	Issue
233985	Figure 9.8.004	I1

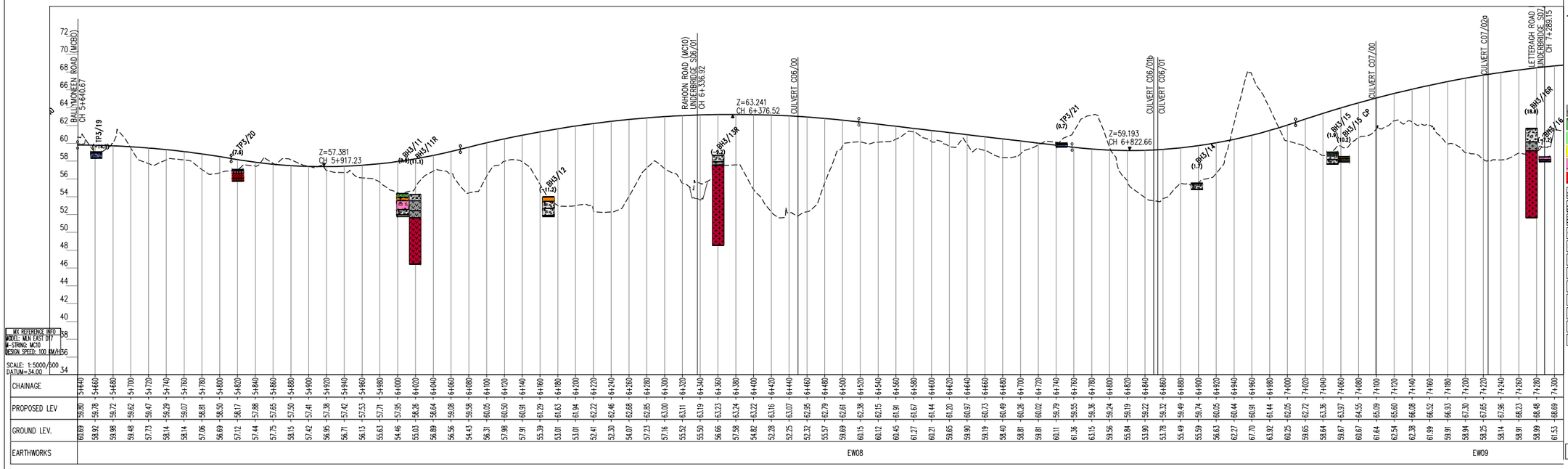
Do not scale

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 Environmental\Update2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

© Arup

A3





© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients

An Roinn Iompair Department of Transport

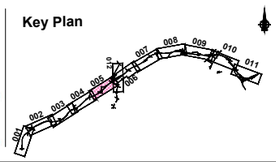
Tionscadal Éireann Project Ireland 2040

N6 Galway City Transport Project

Comhairle Chontae na Gaillimhe Galway County Council

Tii Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant

ARUP

Corporate House
City East Business Park
Ballybrit, Galway, Ireland.

Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title

N6 Galway City Ring Road

Scale H 1:5000 / V 1:500 @ A3

Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title

Ground Investigation Plan & Profile

Mainline Plan/Profile - CH.5+640 to CH.7+300

Sheet 5 of 12

Drawing Status

For Information

Job No	Drawing No	Issue
233985	Figure 9.8.005	I1

EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics

- R19 GP3/24 S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

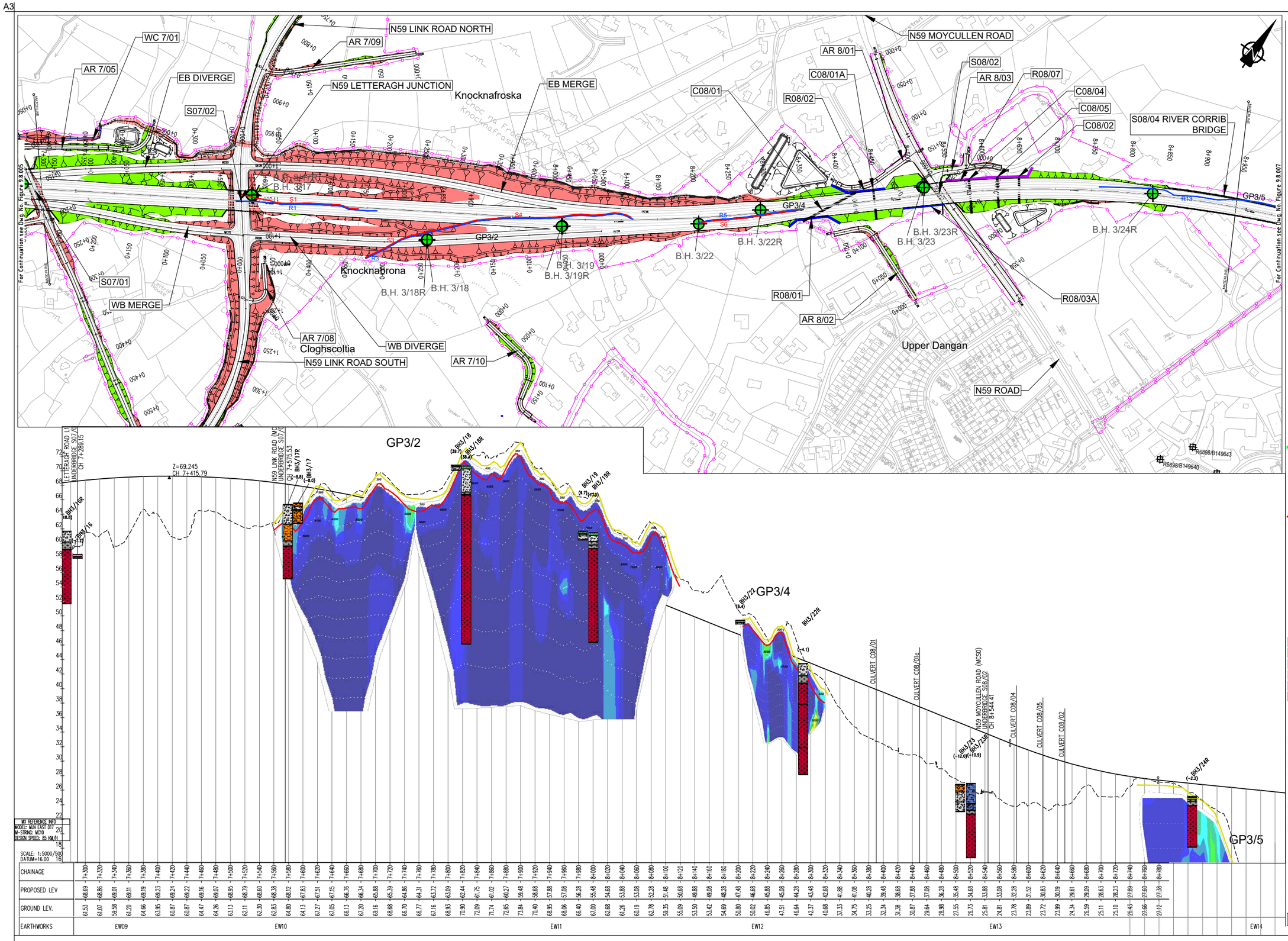
20.0 40.0 80.0 160 320 640 1280 2560

Do not scale

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 Environmental\Update2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

© Arup

A3



EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- or — Historical GI Locations Records (G.I. Code & Number)

Geophysics

R19 GP3/24 S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [Si]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:

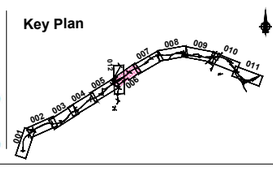
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients: An Roinn Iompair Department of Transport; Tionscadal Éireann Project Ireland 2040; N6 Galway City Transport Project; Comhairle Chontae na Gaillimhe Galway County Council; TII Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant: ARUP
Corporate House, City East Business Park, Ballybrit, Galway, Ireland.
Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title: N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3
Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title: Ground Investigation Plan & Profile
Mainline Plan/Profile - CH.7+300 to CH.8+950
Sheet 6 of 12

Drawing Status: For Information

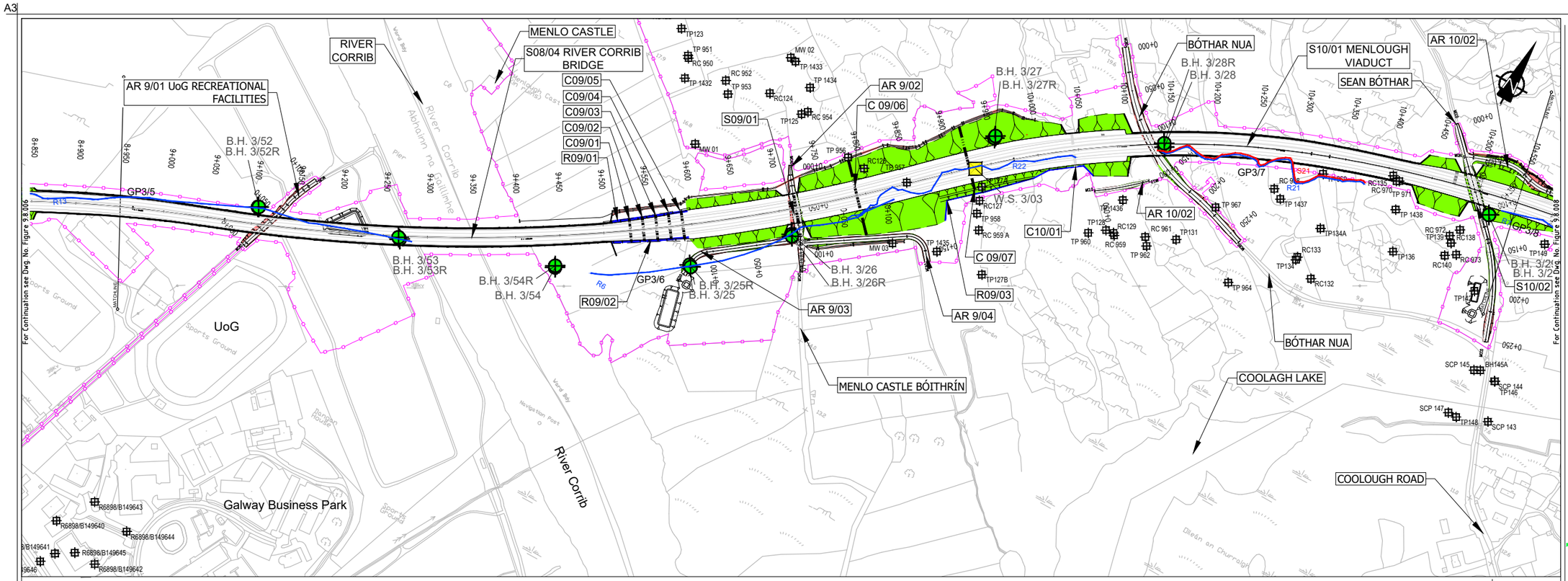
Job No	Drawing No	Issue
233985	Figure 9.8.006	I1

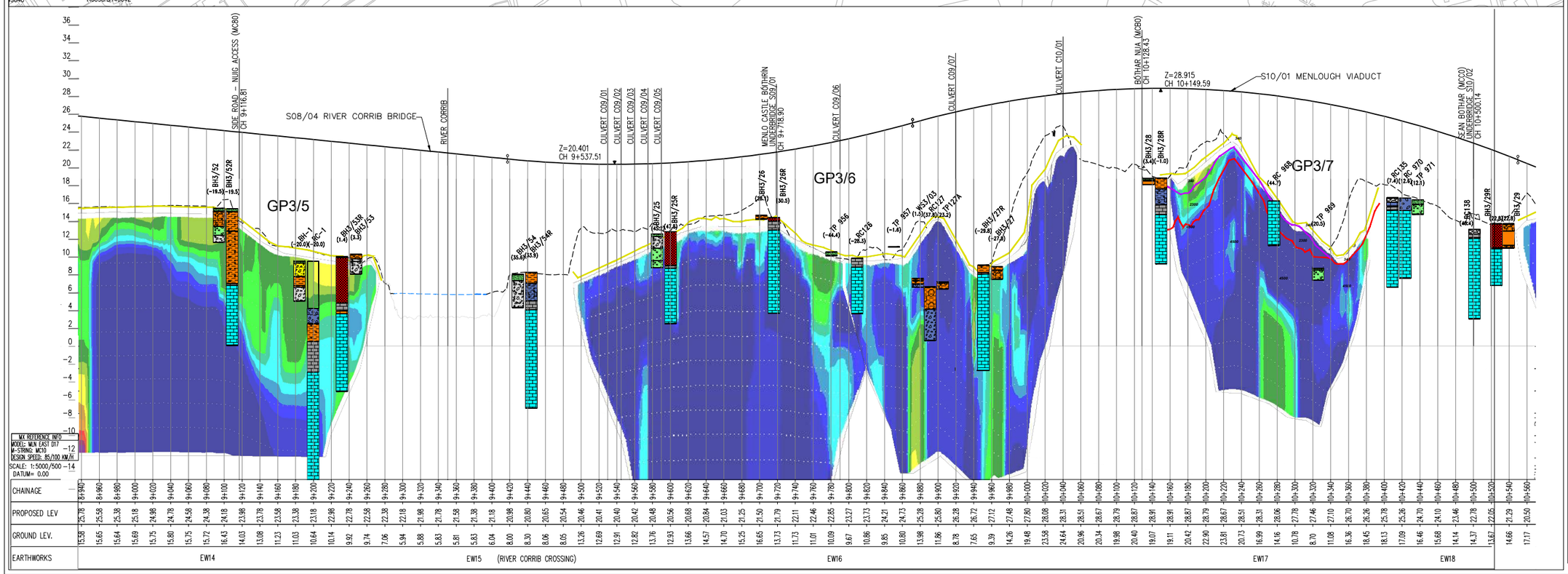
Do not scale

© Arup

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 Environmental\Update2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

A3





EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- or — Historical GI Locations Records (G.I. Code & Number)

Geophysics

- R19 GP3/24 / S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:

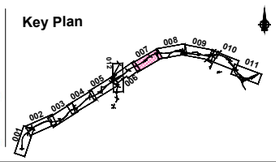
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients: An Roinn Iompair Department of Transport; Tionscadal Éireann Project Ireland 2040; N6 Galway City Transport Project; Comhairle Chontae na Gaillimhe Galway County Council; Transport Infrastructure Ireland

Key Plan



Consultant: ARUP
Corporate House, City East Business Park, Ballybrit, Galway, Ireland.
Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title: N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3
Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title: Ground Investigation Plan & Profile
Mainline Plan /Profile - CH.8+950 to CH.10+550
Sheet 7 of 12

Drawing Status: For Information

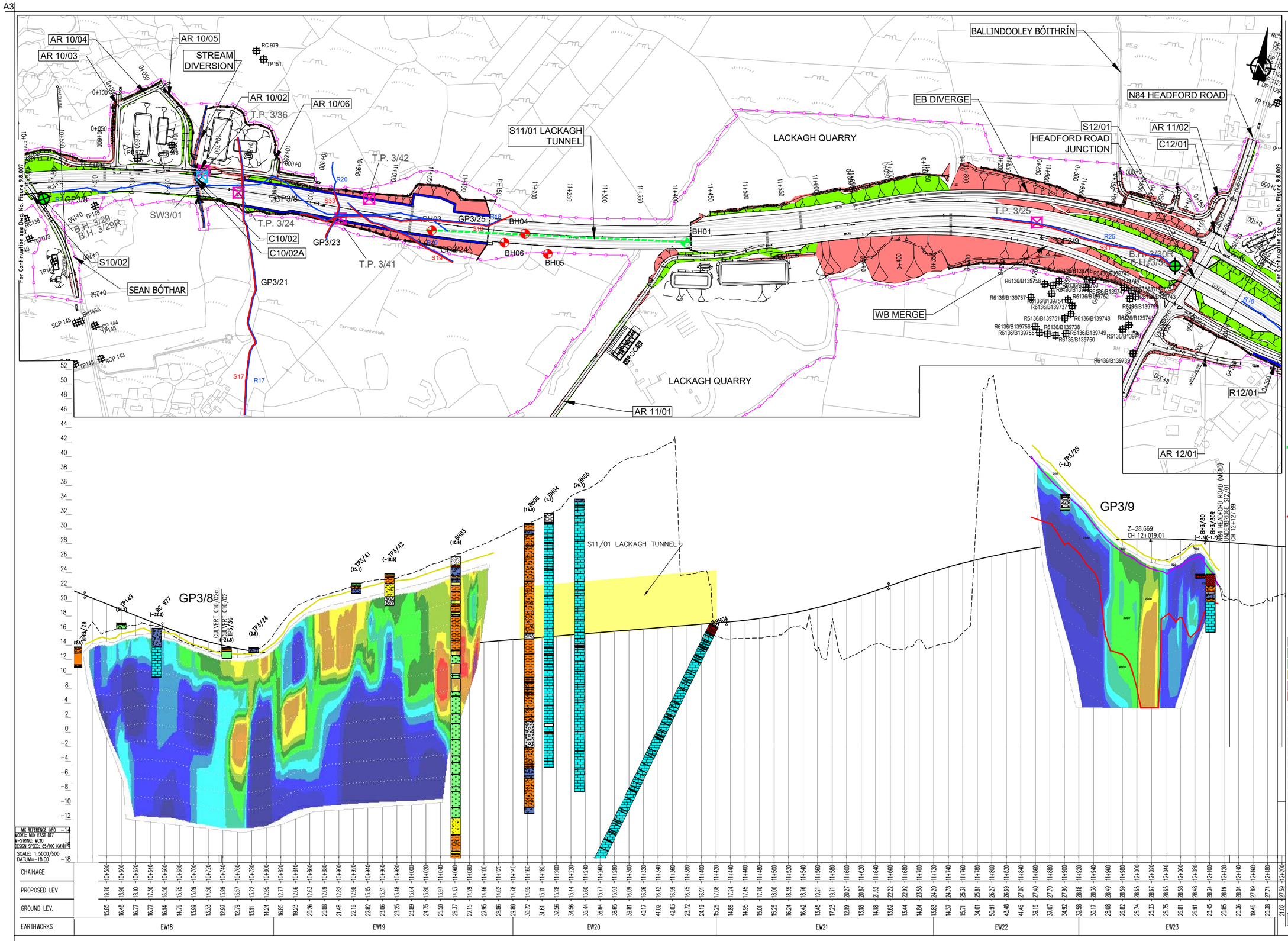
Job No	Drawing No	Issue
233985	Figure 9.8.007	I1

Do not scale

© Arup

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 EnvironmentalUpdate2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

A3



© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients

An Roinn Iompair
Department of Transport

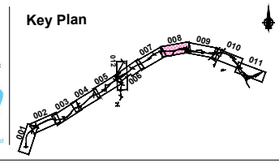
Tionscadal Éireann
Project Ireland
2040

N6 Galway City Transport Project

Comhairle Chontae na Gaillimhe
Galway County Council

TII
Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Key Plan



Consultant

ARUP

Corporate House
City East Business Park
Ballybrit, Galway, Ireland.

Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title
N6 Galway City Ring Road

Scale H 1:5000 / V 1:500 @ A3

Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title
Ground Investigation Plan & Profile
Mainline Plan /Profile - CH.10+550 to CH.12+200
Sheet 8 of 12

Drawing Status
For Information

Job No	Drawing No	Issue
233985	Figure 9.8.008	I1

EIA REPORT

Legend:

PLAN
- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology
- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics
- R19 GP3/24 S19 — Geophysics Locations

PROFILE
- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology
- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics
Layers from Seismic Refraction Model:
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

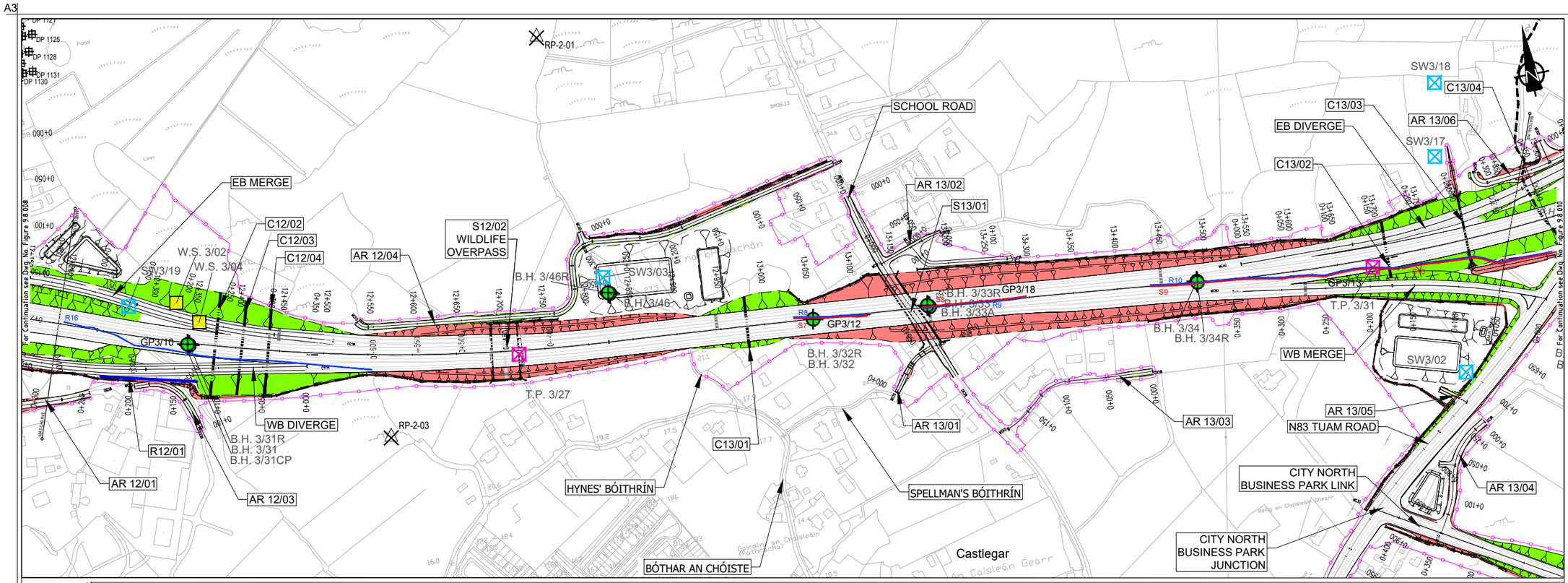
20.0 40.0 80.0 160 320 640 1280 2560

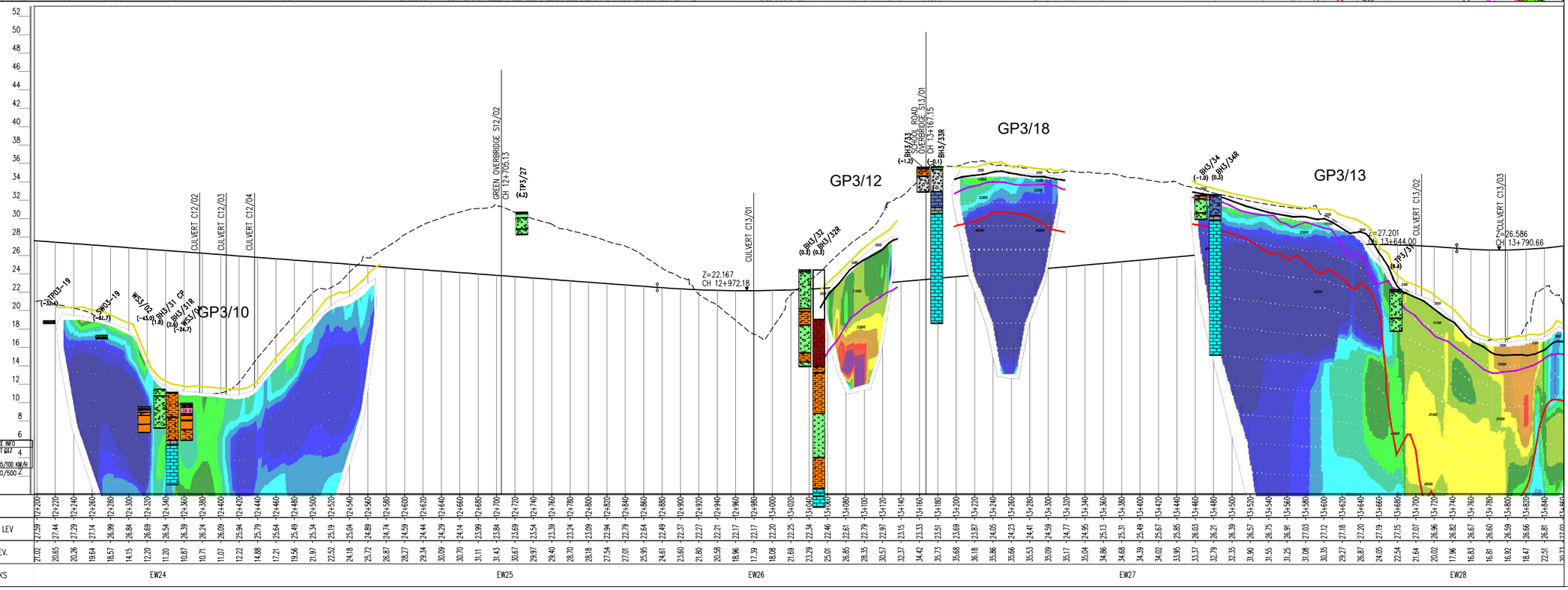
Do not scale

© Arup

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 Environmental\Update2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

A3





EIA REPORT

Legend:

PLAN

- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics

- R19 GP3/24 / S19 — Geophysics Locations

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [Si]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:

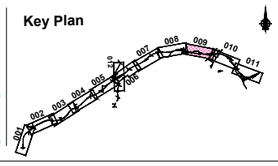
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients: An Roinn Iompair Department of Transport; Tionscadal Éireann Project Ireland 2040; N6 Galway City Transport Project; Comhairle Chontae na Gaillimhe Galway County Council; TII Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant: ARUP
Corporate House, City East Business Park, Ballybrit, Galway, Ireland.
Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title: N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3
Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title: Ground Investigation Plan & Profile
Mainline Plan/Profile - CH.12+200 to CH.13+850
Sheet 9 of 12

Drawing Status: For Information

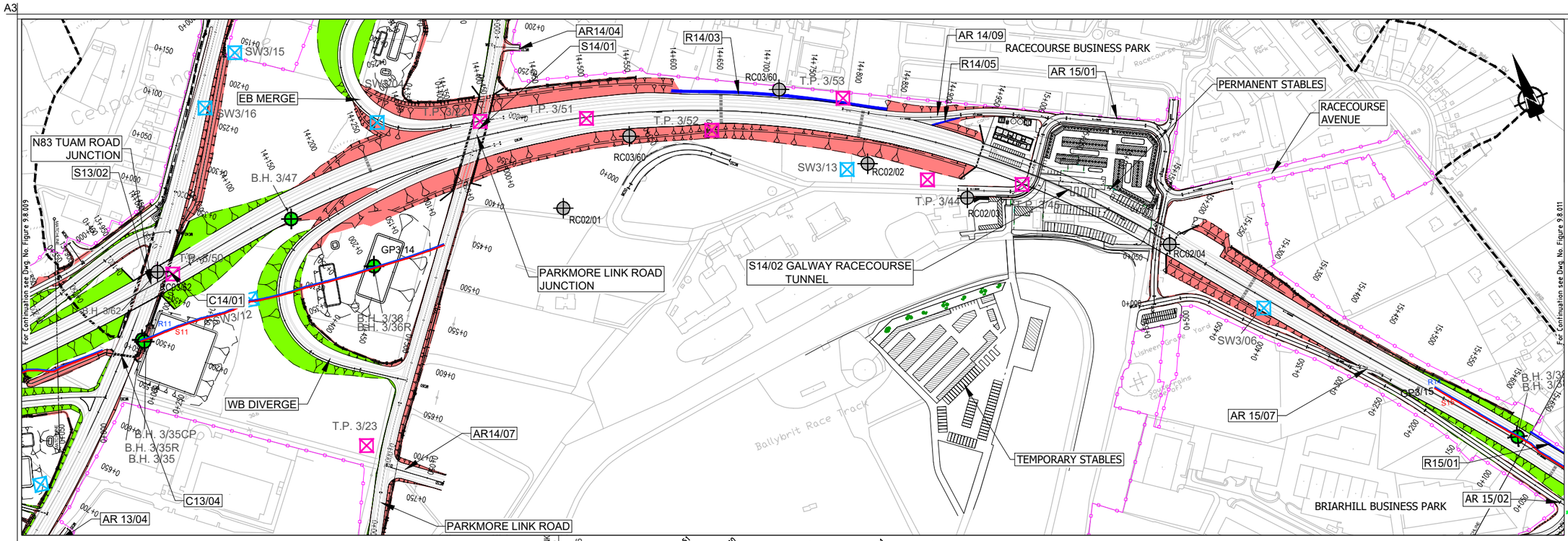
Job No	Drawing No	Issue
233985	Figure 9.8.009	I1

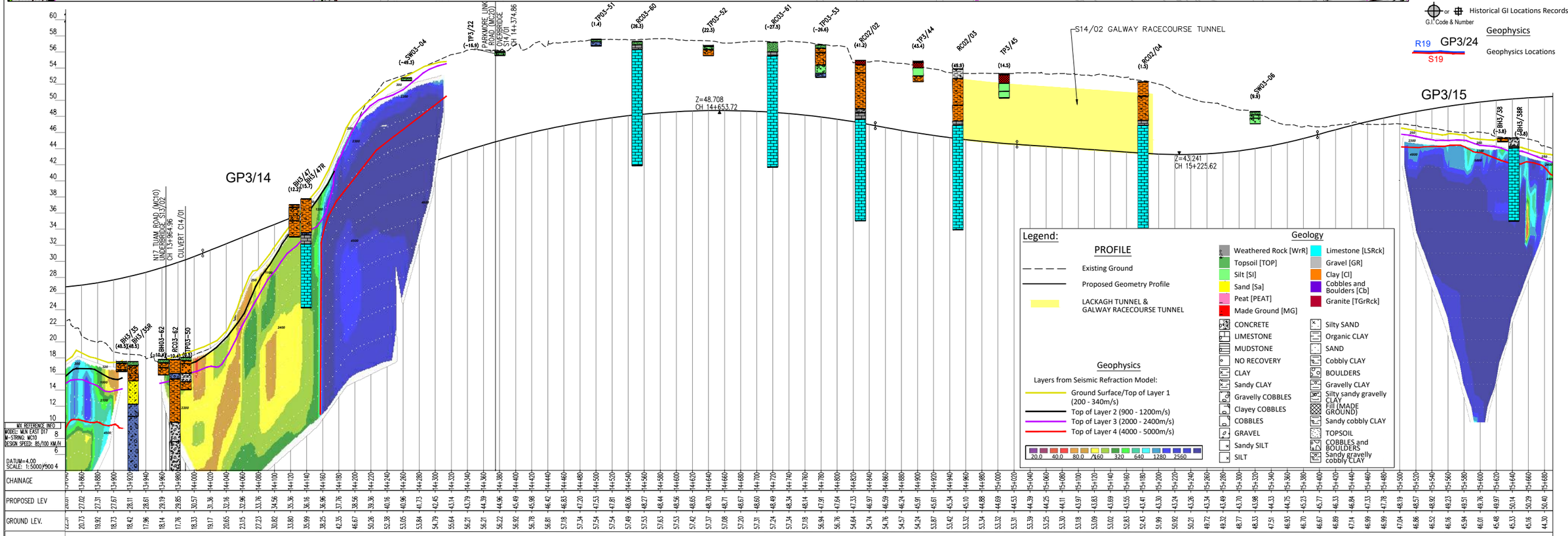
© Arup

Do not scale

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 Environmental\Update2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

A3





EIA REPORT

Legend:

PLAN

- City Boundary
- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin / Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

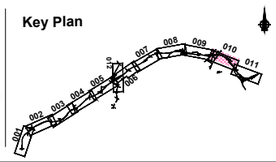
Geophysics

- R19 / S19 GP3/24 — Geophysics Locations

© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients: An Roinn Iompair Department of Transport; Tionscadal Éireann Project Ireland 2040; N6 Galway City Transport Project; Comhairle Chontae na Gaillimhe Galway County Council; Tii Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant: ARUP
Corporate House, City East Business Park, Ballybrit, Galway, Ireland.
Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title: N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3

Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title: Ground Investigation Plan & Profile
Mainline Plan/Profile - CH.13+850 to CH.15+650
Sheet 10 of 12

Drawing Status: For Information

Job No	Drawing No	Issue
233985	Figure 9.8.010	I1

Do not scale

© Arup

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 EnvironmentalUpdate2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg

A3

For Continuation see Dwg. Figure 9.8.010

Legend:

PLAN
- City Boundary
- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin/ Wetlands

Geology
- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics
- R19 GP3/24 / S19 — Geophysics Locations

EIA REPORT

Legend:

PROFILE
- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geology
- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

Geophysics

Layers from Seismic Refraction Model:
- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

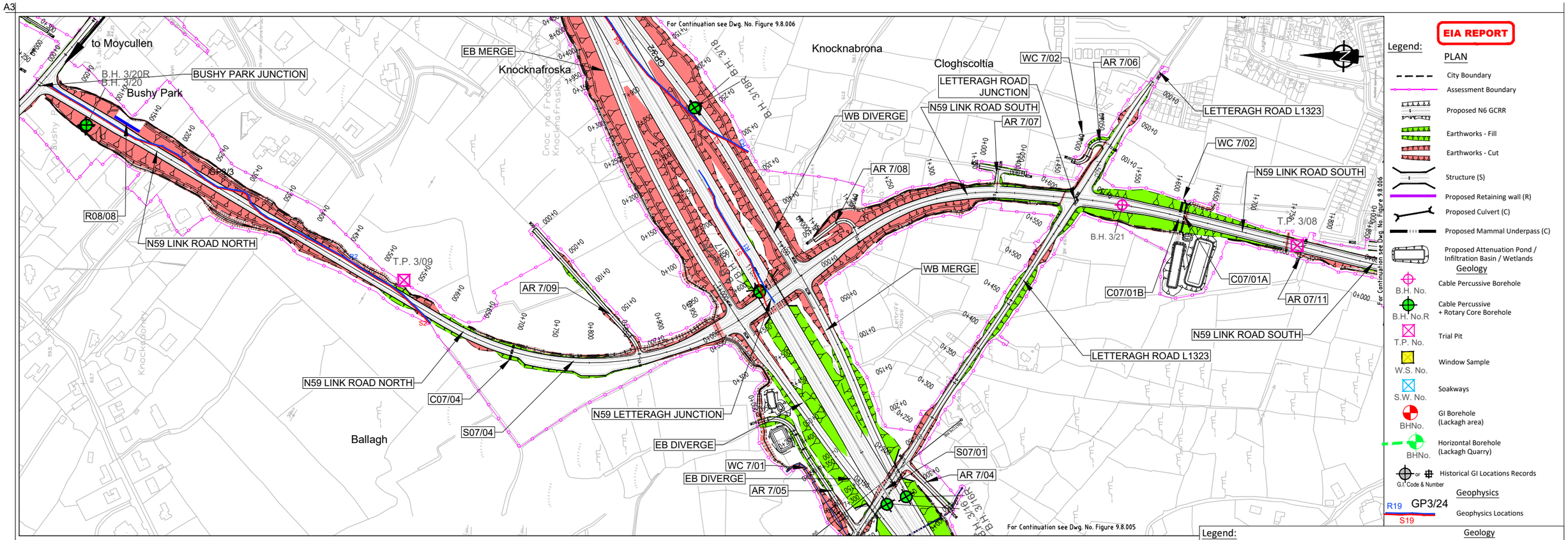
20.0 40.0 80.0 160 320 640 1280 2560

MX REFERENCE INFO
MODEL: MUN EAST D17
M-STRING: MC10 15
DESIGN SPEED: 85/100 KM/H

SCALE: 1:5000/500
DATUM=14.00

| CHAINAGE | 15+660 | 15+680 | 15+700 | 15+720 | 15+740 | 15+760 | 15+780 | 15+800 | 15+820 | 15+840 | 15+860 | 15+880 | 15+900 | 15+920 | 15+940 | 15+960 | 15+980 | 16+000 | 16+020 | 16+040 | 16+060 | 16+080 | 16+100 | 16+120 | 16+140 | 16+160 | 16+180 | 16+200 | 16+220 | 16+240 | 16+260 | 16+280 | 16+300 | 16+320 | 16+340 | 16+360 | 16+380 | 16+400 | 16+420 | 16+440 | 16+460 | 16+480 | 16+500 | 16+520 | 16+540 | 16+560 | 16+580 | 16+600 | 16+620 | 16+640 | 16+660 | 16+680 | 16+700 | 16+720 | 16+740 | 16+760 | 16+780 | 16+800 | 16+820 | 16+840 | 16+860 | 16+880 | 16+900 | 16+920 | 16+940 | 16+960 | 16+980 | 17+000 | 17+020 | 17+040 | 17+060 | 17+080 | 17+100 | 17+120 | 17+140 | 17+160 | 17+180 | 17+200 | 17+220 | 17+240 | 17+260 | 17+280 | 17+300 | 17+320 | 17+340 | 17+360 | 17+380 | 17+400 | 17+420 | 17+440 | 17+460 | 17+480 | 17+500 | 17+520 | 17+540 |
|---|---|---

A3



EIA REPORT

Legend:

PLAN

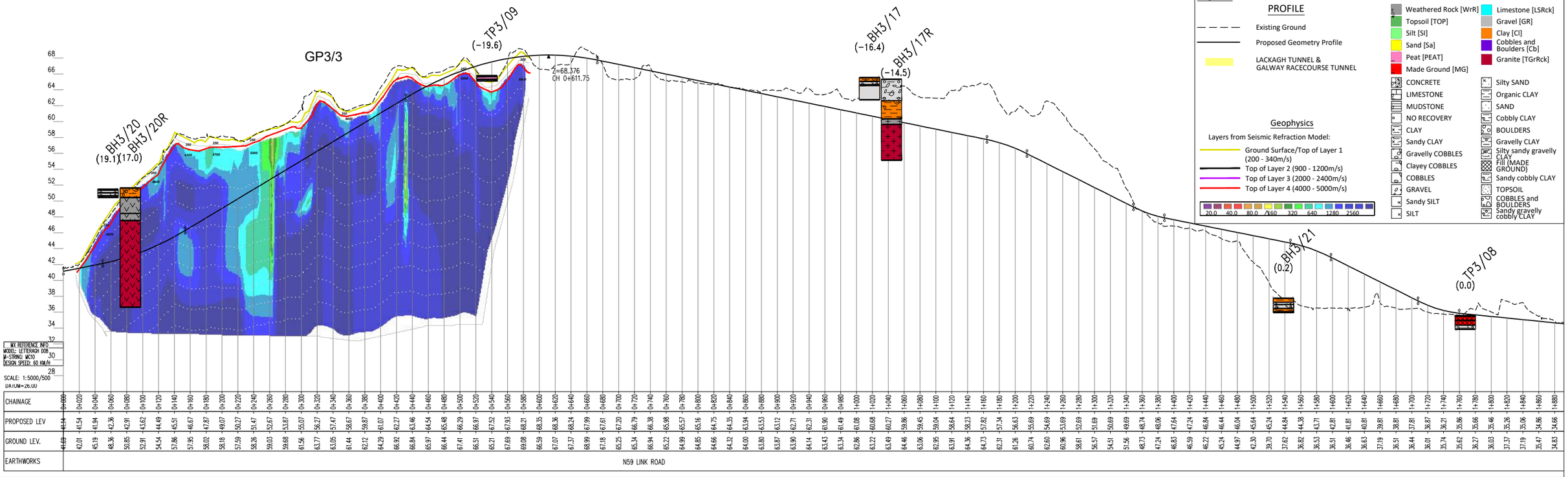
- City Boundary
- Assessment Boundary
- Proposed N6 GCRR
- Earthworks - Fill
- Earthworks - Cut
- Structure (S)
- Proposed Retaining wall (R)
- Proposed Culvert (C)
- Proposed Mammal Underpass (C)
- Proposed Attenuation Pond / Infiltration Basin / Wetlands

Geology

- B.H. No. — Cable Percussive Borehole
- B.H. No.R — Cable Percussive + Rotary Core Borehole
- T.P. No. — Trial Pit
- W.S. No. — Window Sample
- S.W. No. — Soakways
- BHNo. — GI Borehole (Lackagh area)
- BHNo. — Horizontal Borehole (Lackagh Quarry)
- G.I. Code & Number — Historical GI Locations Records

Geophysics

- R19 GP3/24 / S19 — Geophysics Locations



Legend:

PROFILE

- Existing Ground
- Proposed Geometry Profile
- LACKAGH TUNNEL & GALWAY RACECOURSE TUNNEL

Geophysics

Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (200 - 340m/s)
- Top of Layer 2 (900 - 1200m/s)
- Top of Layer 3 (2000 - 2400m/s)
- Top of Layer 4 (4000 - 5000m/s)

20.0 40.0 80.0 160 320 640 1280 2560

Geology

- Weathered Rock [WrR]
- Topsoil [TOP]
- Silt [SI]
- Sand [Sa]
- Peat [PEAT]
- Made Ground [MG]
- CONCRETE
- LIMESTONE
- MUDSTONE
- NO RECOVERY
- CLAY
- Sandy CLAY
- Gravelly COBBLES
- Clayey COBBLES
- COBBLES
- GRAVEL
- Sandy SILT
- SILT
- Limestone [LSRck]
- Gravel [GR]
- Clay [Cl]
- Cobbles and Boulders [Cb]
- Granite [TGrRck]
- Silty SAND
- Organic CLAY
- SAND
- Cobbly CLAY
- BOULDERS
- Gravelly CLAY
- Silty sandy gravelly CLAY
- Fill (MADE GROUND)
- Sandy cobbly CLAY
- TOPSOIL
- COBBLES and BOULDERS
- Sandy gravelly cobbly CLAY

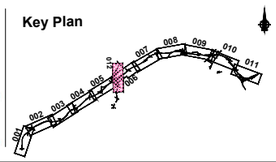
© National Mapping Division of Tailte Éireann. All rights reserved. Licence number CYAL50333446

Clients

An Roinn Iompair Department of Transport | Tionscadal Éireann Project Ireland 2040 | N6 Galway City Transport Project

Comhairle Chontae na Gaillimhe Galway County Council | Bonneagar Iompair Éireann Transport Infrastructure Ireland

Key Plan



Consultant

ARUP

Corporate House
City East Business Park
Ballybrit, Galway, Ireland.

Tel +353 (0)91 460675
www.N6GalwayCity.ie
www.arup.ie

Job Title

N6 Galway City Ring Road

Scale: H 1:5000 / V 1:500 @ A3

Date: February 2025

Issue	Date	By	Chkd	Appd
I1	28/02/2025	SK	EC	MH

Drawing Title

Ground Investigation Plan & Profile

N59 Plan/Profile - Mainline CH.7+570

Sheet 12 of 12

Drawing Status: **For Information**

Job No	Drawing No	Issue
233985	Figure 9.8.012	I1

Do not scale

© Arup

\\global\europe\Dublin\Jobs\233000\233985-00\4. Internal\4-02 Drawings\4-02-19 EnvironmentalUpdate2024\EIA N6GCRR\6.17-2024 Soils and Geology\Figure 9.8.001 to 012_2024.dwg