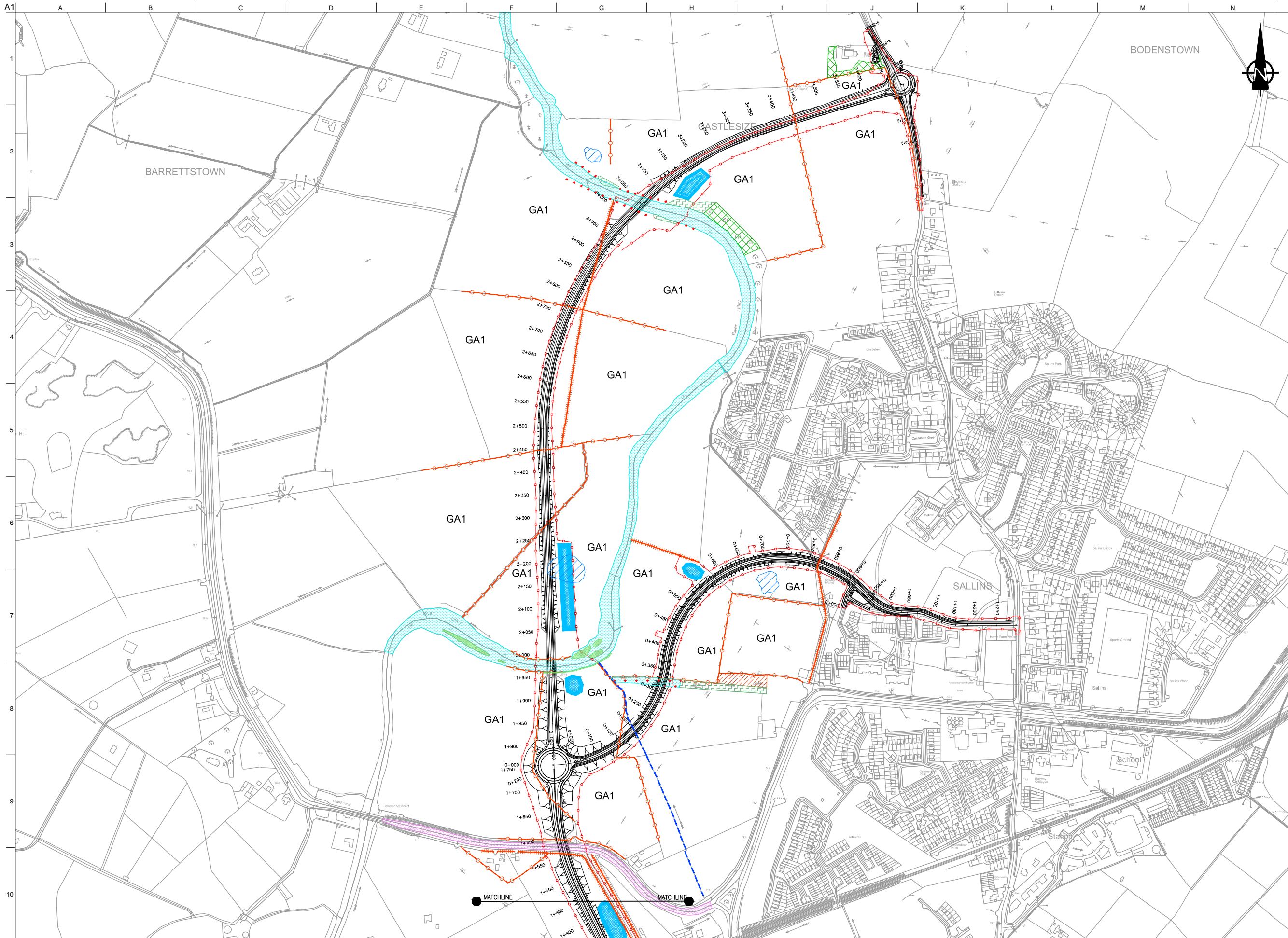


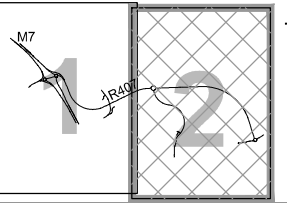
FOR INFORMATION

- Notes:
1. This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 2. These drawings are to be read in conjunction with all other relevant design drawings.

- Legend:
- CPO Line
 - Proposed Alignment
 - Plan Layout
 - Proposed Attenuation Ponds
 - GA1 Improved agricultural grassland
 - Amenity grassland / ornamental shrubs
 - Dry calcareous and neutral grassland
 - Dry meadows and grassy verges
 - Wet grassland
 - Reed and large sedge swamp
 - Tall herb swamp
 - Artificial lakes and ponds
 - Depositing / lowland rivers
 - Depositing rivers / Drainage ditches
 - Canals
 - Hedgerows
 - Treelines
 - Scrub / Immature woodland
 - Riparian woodland
 - Wet willow-alder-ash woodland
 - Mixed broadleaved woodland
 - Spoil and bare ground / Recolonizing bare ground



Key Plan



Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	EMC	EMC



Job Title
M7 Osberstown Interchange & R407 Sallins Bypass EIS

Scale at A3
 1:8000

Date:
 December 2013

Consultant
ARUP

Arup, 50 Ringsend Road
 Dublin 4
 Tel +353(0)1 233 4455 Fax +353(0)1 668 3169
 www.arup.ie

Drawing Title
Habitats Map

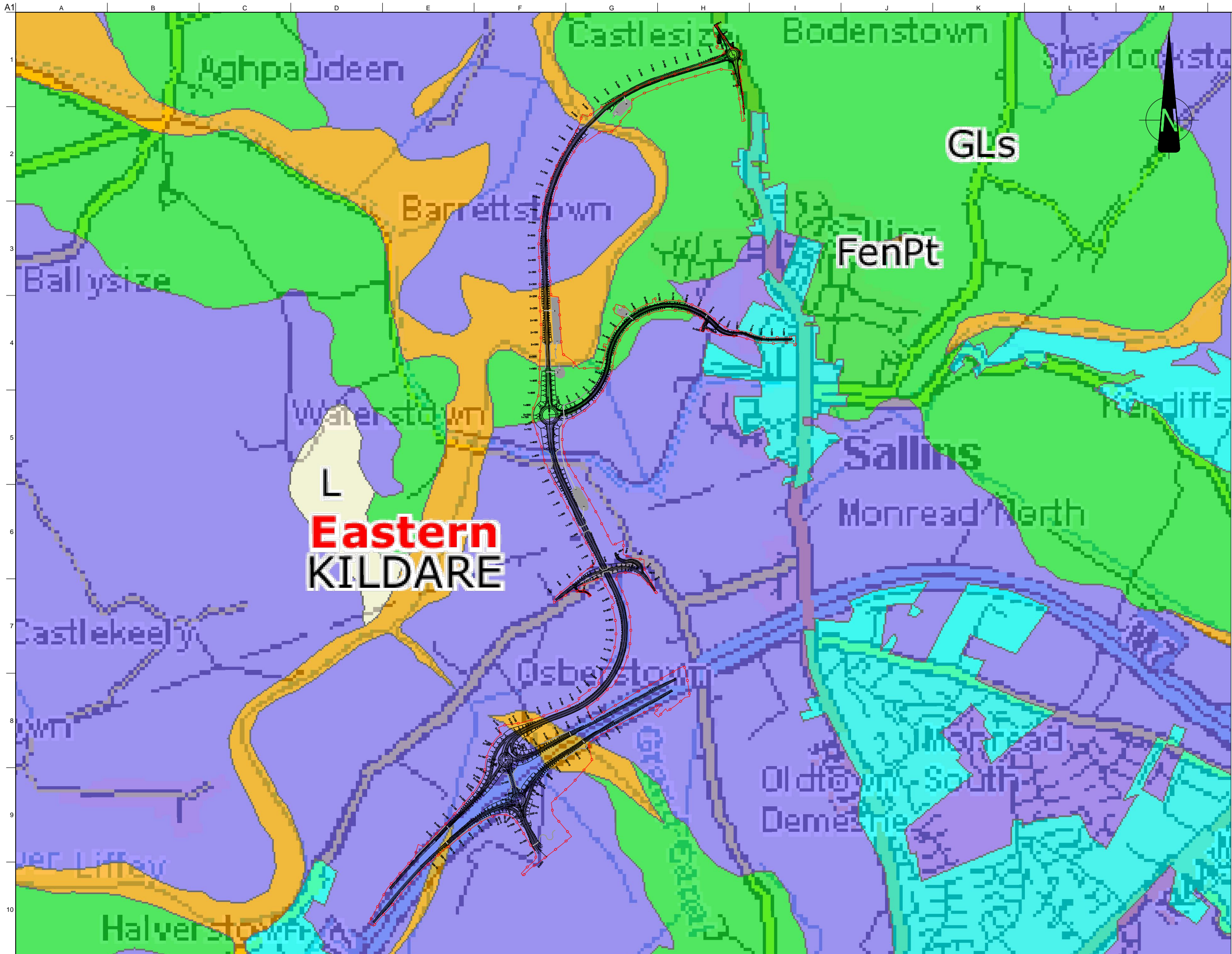
Sheet 2 of 2

Drawing Status
For Information

Job No
227136-00

Drawing No
Figure 14.2b

Issue
 -



FOR INFORMATION

Notes:
 1. This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 2. These drawings are to be read in conjunction with all other relevant design drawings.

Legend:

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond

RBD Subsoils

- Alluvium
- Beach sands and gravels
- Bedrock outcrop and subcrop
- Esker sands and gravels
- Glaciofluvial sands and gravels
- Lake sediments
- Made ground
- Marine/estuarine silts and clays
- Marsh
- Peat
- Scree
- Till derived chiefly from Devonian sandstones
- Till derived chiefly from Lower Palaeozoic rocks
- Till derived chiefly from Namurian rocks
- Till derived chiefly from granite
- Till derived chiefly from limestone
- Till derived chiefly from metamorphic rocks
- Till derived from metamorphic rocks
- Till derived from mixed Devonian and Carboniferous rocks
- Water
- Windblown sands

- RBD Boundaries
- County Boundaries

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Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	EMC	EMC

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Naas Town Council
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Air Roinn Iompair
Turasoireachta agus Spóirt
Department of Transport,
Tourism and Sport

NATIONAL DEVELOPMENT PLAN

Job Title
**M7 Osberstown Interchange
 & R407 Sallins Bypass EIS**

Scale at A3
 NTS

Date:
 December 2013

Consultant

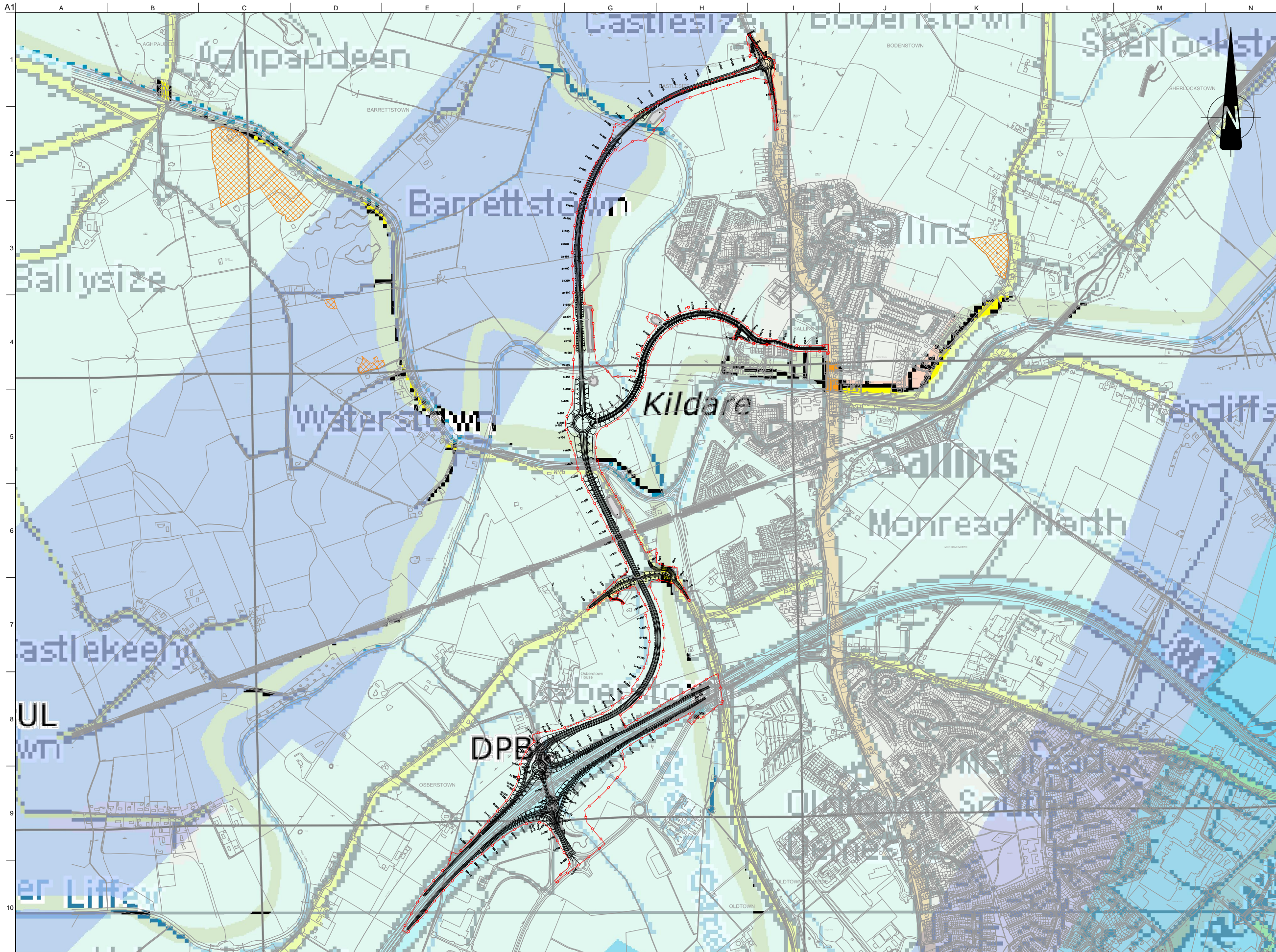
ARUP

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 Dublin 4
 Tel +353(0)1 233 4455 Fax +353(0)1 668 3169
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Drawing Title
 Drift Geology in Area

Drawing Status
For Information

Job No 227136-00	Drawing No Figure 15.1	Issue -
---------------------	---------------------------	------------



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Notes:
 1. This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 2. These drawings are to be read in conjunction with all other relevant design drawings.

Legend:

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond
- Legacy Landfill Site
- BV - Basalt and other Volcanic rocks
- CM - Cambrian Metasediments
- DDL - Dinantian Dolomitised Limestones
- DESSL - Dinantian early Sandstones, Shales and Limestones
- DKS - Devonian Kiltoran type Sandstones
- DLIL - Dinantian Lower Impure Limestones
- DMSC - Dinantian Mudstones and Sandstones Cork Group
- MSSL - Dinantian Mixed Sandstones, Shales and Limestones
- DORS - Devonian Old Red Sandstones
- DPBL - Dinantian Pure Bedded Limestones
- DPUL - Dinantian Pure Unbedded Limestones
- DS - Dinantian Sandstones
- DSL - Dinantian Shales and Limestones
- DUIL - Dinantian Upper Impure Limestones
- GII - Granites and other Igneous Intrusive rocks
- NSA - Namurian Sandstones
- NSH - Namurian Shales
- NU - Namurian Undifferentiated
- OM - Ordovician Metasediments
- OV - Ordovician Volcanics
- PM - Precambrian Marbles
- PQGS - Precambrian Quartzites, Gneisses and Schists
- PTMG - Permo Triassic Mudstones and Gypsum
- PTS - Permo Triassic Sandstones
- SMV - Silurian Metasediments and Volcanics

Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	EMC	EMC

Kildare County Council
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NDP
NATIONAL DEVELOPMENT PLAN

Job Title
**M7 Osberstown Interchange
& R407 Sallins Bypass EIS**

Scale at A3
NTS

Date:
December 2013

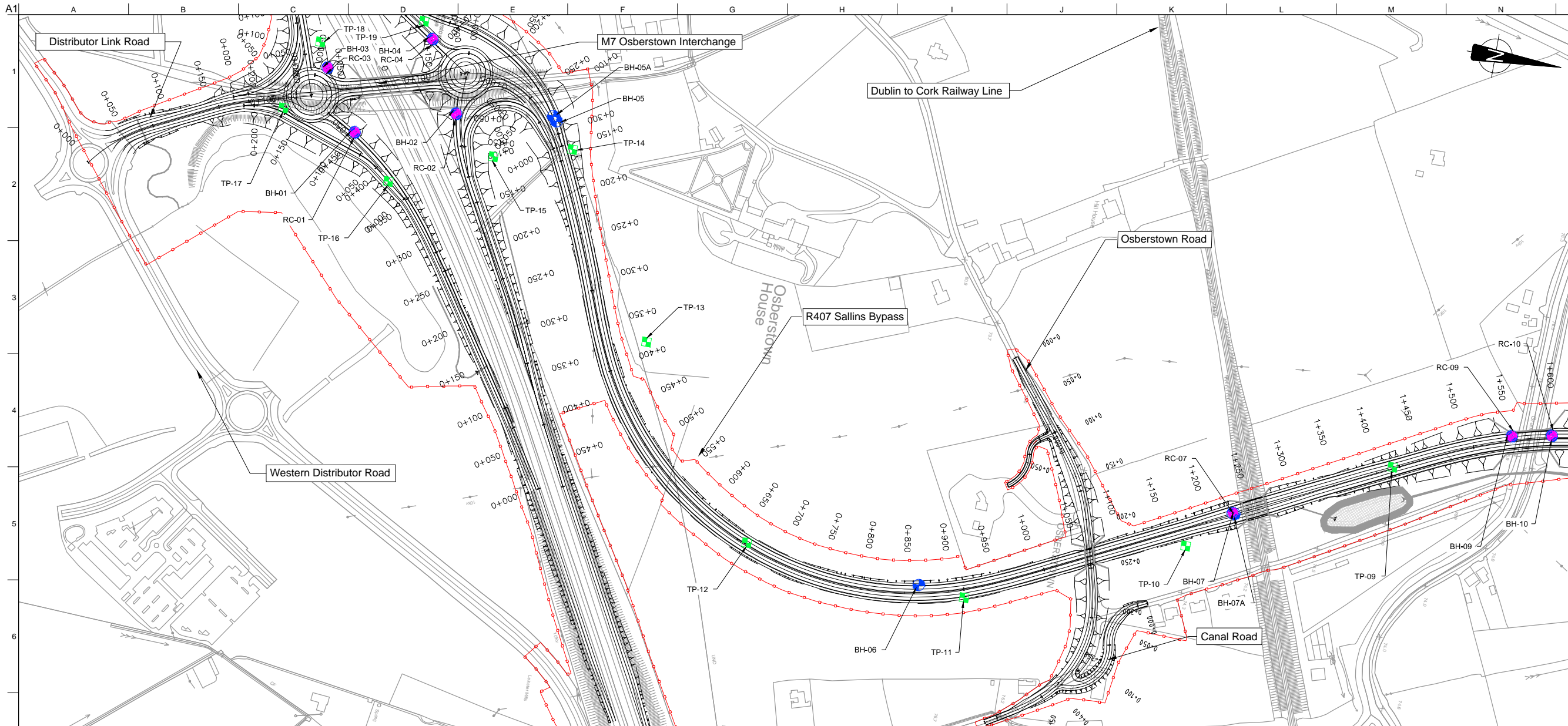
Consultant
ARUP

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Drawing Title
Bedrock Geology in Area

Drawing Status
For Information

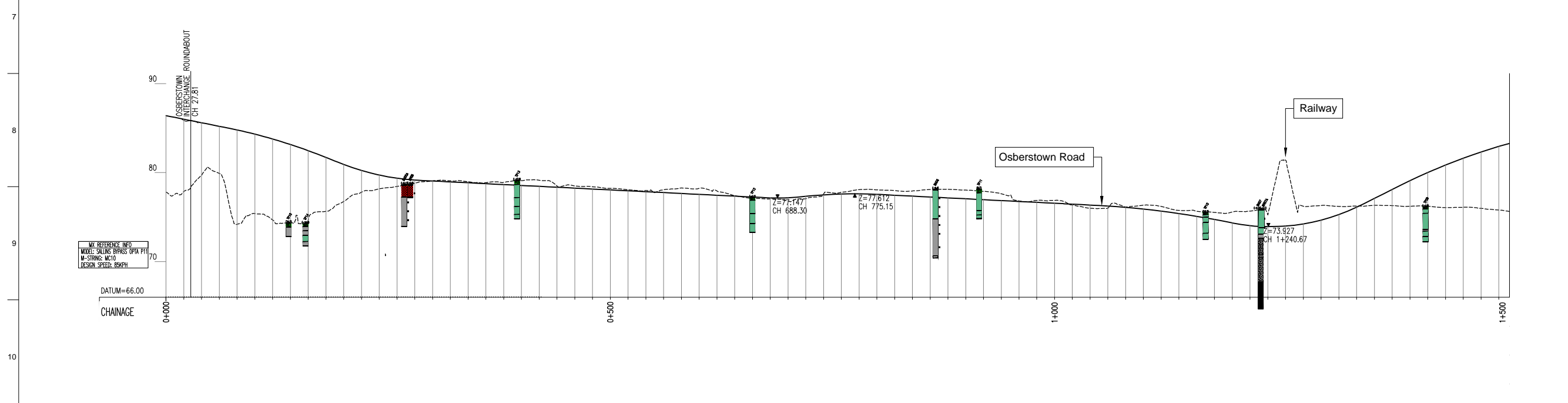
Job No 227136-00	Drawing No Figure 15.2	Issue -
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Notes:
 1. This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 2. These drawings are to be read in conjunction with all other relevant design drawings.

Exploration:	Eastings: (x)	Northings: (y)
BH-05	287976.426	221459.069
BH-05A	287971.222	221454.52
BH-06	288420.439	221950.469
BH-07	288279.914	222284.881
BH-07A	288280.291	222286.562
BH-09	288140.809	222579.141
BH-10	288132.539	222623.502
RC-01	288027.637	221237.48
RC-02	287987.426	221346.335
RC-03	287961.096	221194.926
RC-04	287909.18	221305.697
RC-07	288279.914	222284.881
RC-09	288140.809	222579.141
RC-10	288132.539	222623.502
TP-09	288198.173	222452.725
TP-10	288325.402	222238.736
TP-11	288425.674	222003.013
TP-12	288406.797	221751.387
TP-13	288203.531	221601.404
TP-14	288004.429	221482.152
TP-15	288027.753	221395.755



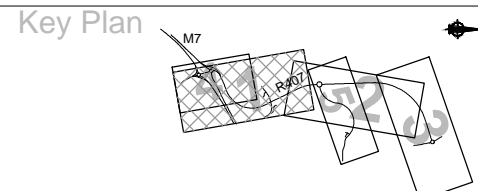
Legend:

Plan :

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond
- Trial Pit
- Bore Hole
- Window Sample

Profile :

- Proposed level
- Existing ground level
- Top Soil
- Made Ground
- Glacial Till
- Fluvio Glacial
- Alluvial
- Rock



Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	SOS	EMC

Kildare County Council
Comhairle Contae Chill Dara

Naas Town Council
Comhairle Baile an Naits

An Roinn Iompair
Turasóireachta agus Spóirt
Department of Transport,
Tourism and Sport

NATIONAL DEVELOPMENT PLAN

Job Title
M7 Osberstown Interchange
& R407 Sallins Bypass EIS

Scale at A3
1:5000/500

Date:
January 2013

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Dublin 4
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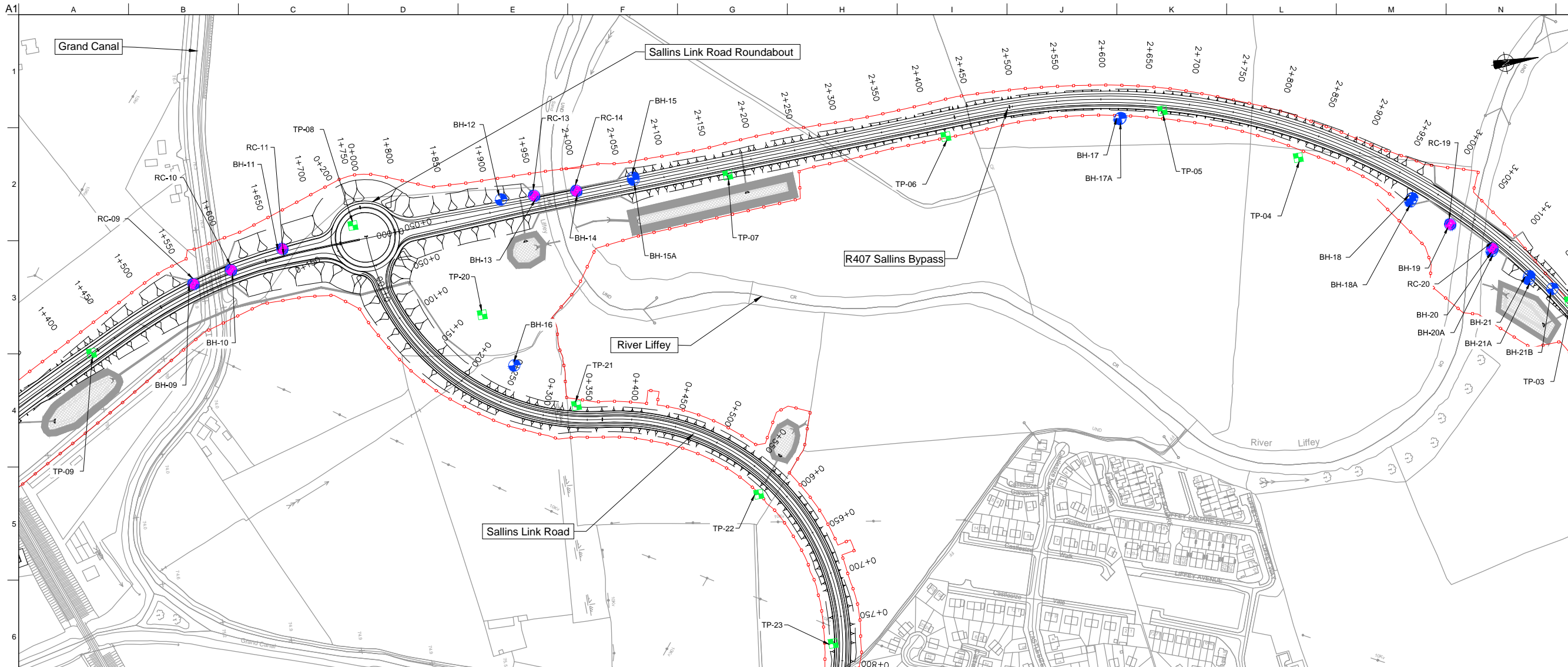
Drawing Title
Borehole Locations
Mainline
Sheet 1 of 5

Drawing Status
For Information

Job No
227136-00

Drawing No
Figure 15.3 a

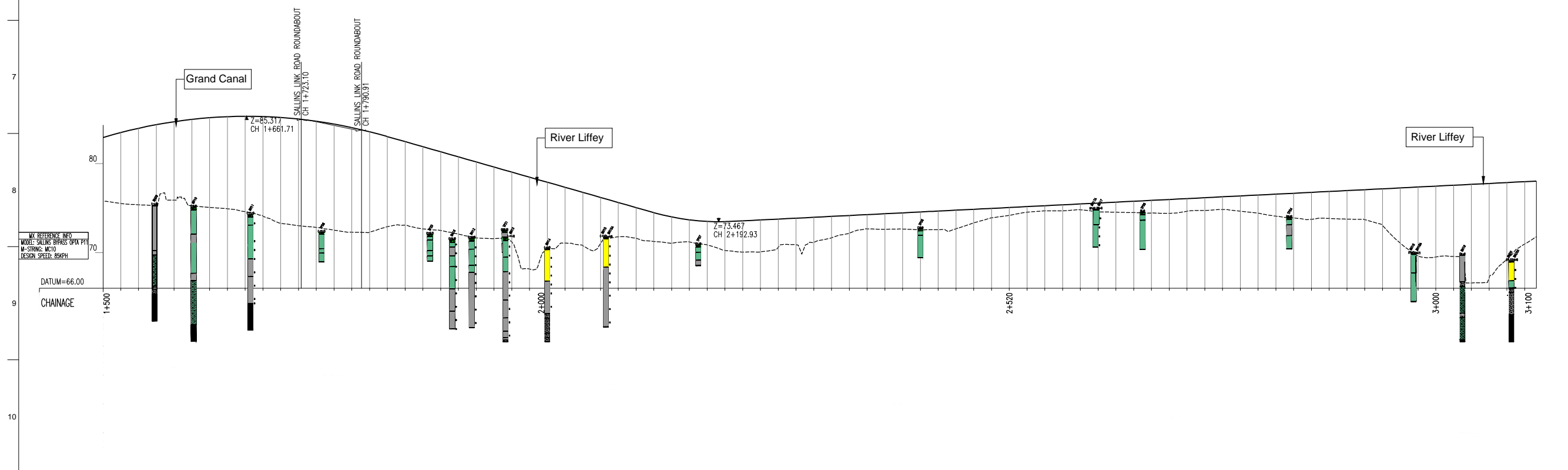
Issue
-



FOR INFORMATION

Notes:
 1. This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 2. These drawings are to be read in conjunction with all other relevant design drawings.

Exploration:	Eastings:(x)	Northings:(y)
BH-11	288118.827	222684.404
BH-12	288105.579	222936.417
BH-13	288107.593	222973.772
BH-14	288110.3	223021.508
BH-15	288106.384	223087.043
BH-15A	288108.765	223087.226
BH-17	288132.813	223639.263
BH-17A	288133.521	223637.756
BH-18	288277.097	223947.273
BH-18A	288280.126	223944.913
RC-11	288118.827	222684.404
RC-13	288107.593	222973.772
RC-14	288110.3	223021.508
TP-06	288120.026	223441.645
TP-07	288121.336	223192.333
TP-08	288106.146	222766.948



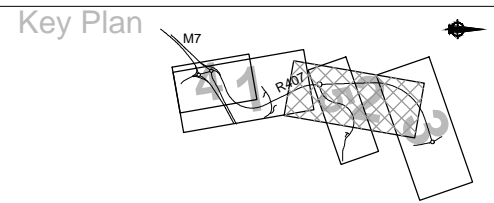
Legend:

Plan :

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond
- Trial Pit
- Bore Hole
- Window Sample

Profile :

- Proposed level
- Existing ground level
- Top Soil
- Made Ground
- Glacial Till
- Fluvio Glacial
- Alluvial
- Rock



Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	SOS	EMC

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NATIONAL DEVELOPMENT PLAN

Job Title
**M7 Osberstown Interchange
& R407 Sallins Bypass EIS**

Scale at A3
1:5000/500

Date:
January 2013

Consultant
ARUP

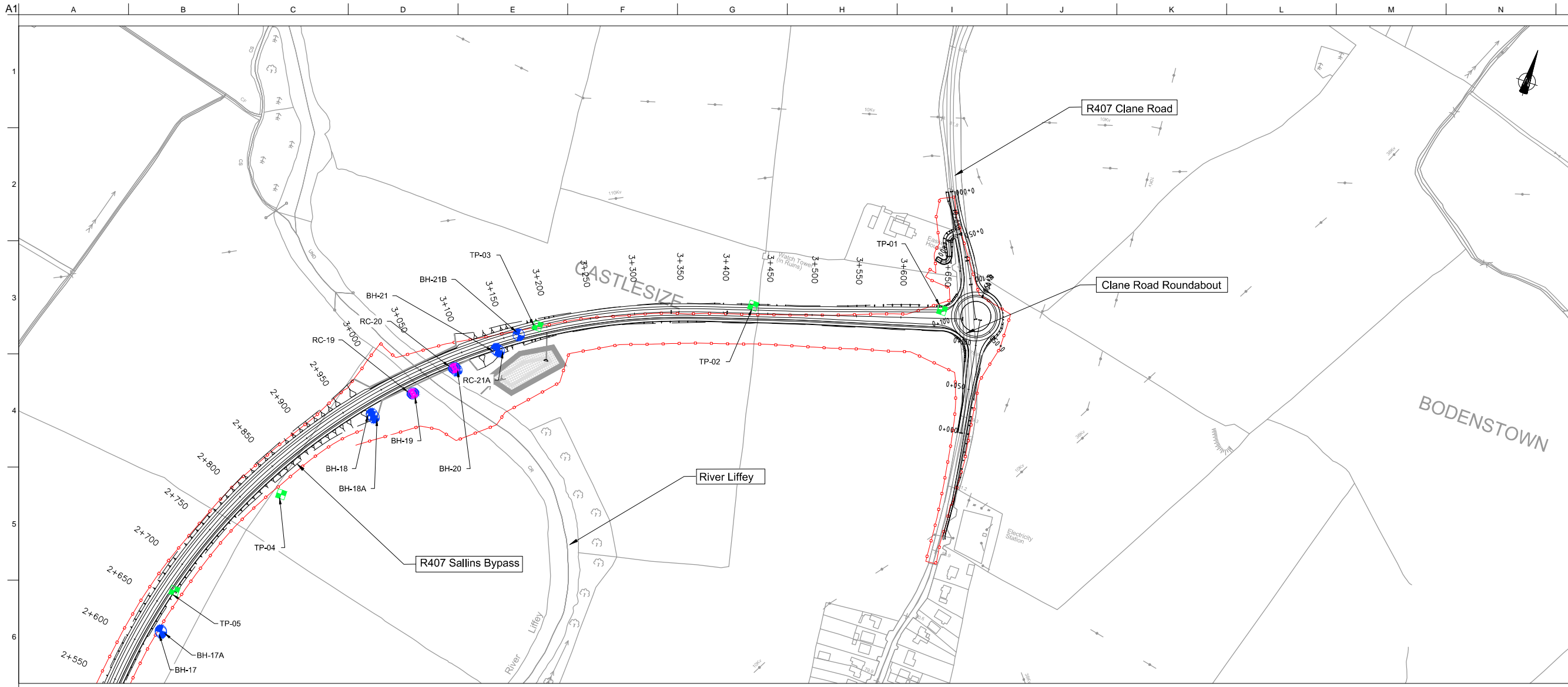
Arup, 50 Ringsend Road
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Drawing Title
**Borehole Locations
Mainline
Sheet 2 of 5**

Drawing Status
For Information

Job No
227136-00

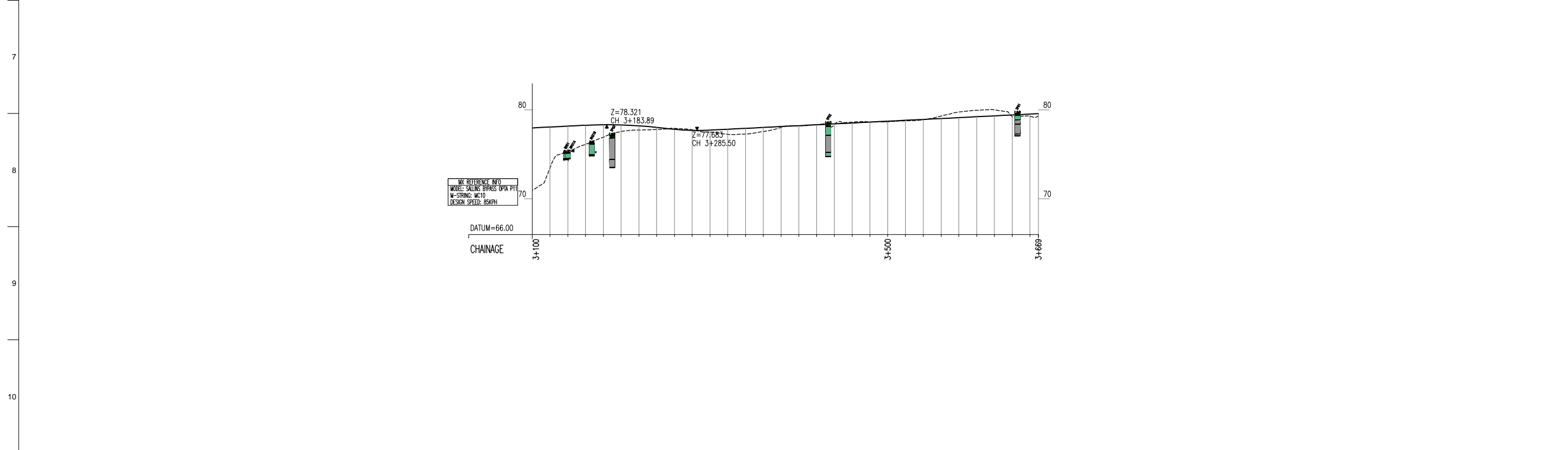
Issue No
Figure 15.3 b



FOR INFORMATION

Notes:
 1. This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 2. These drawings are to be read in conjunction with all other relevant design drawings.

Exploration:	Eastings:(x)	Northings:(y)
BH-19	288313.116	223984.651
BH-20	288347.795	224026.945
BH-20A	288350.691	224025.567
BH-21	288385.644	224062.357
BH-21A	288388.661	224061.463
BH-21B	288403.923	224085.916
RC-19	288313.116	223984.651
RC-20	288347.795	224026.945
TP-01	288844.73	224268.596
TP-02	288642.144	224203.649
TP-03	288420.576	224102.327
TP-04	288210.216	223828.774
TP-05	288132.361	223686.746



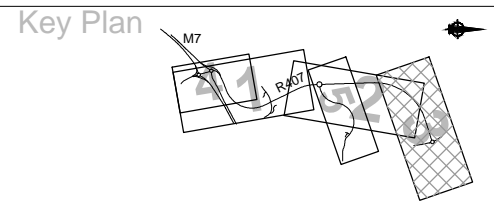
Legend:

Plan :

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond
- Trial Pit
- Bore Hole
- Window Sample

Profile :

- Proposed level
- Existing ground level
- Top Soil
- Made Ground
- Glacial Till
- Fluvio Glacial
- Alluvial
- Rock



Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	SOS	EMC

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Turasoireachta agus Spóirt
Department of Transport,
Tourism and Sport

NATIONAL DEVELOPMENT PLAN

Job Title
**M7 Osberstown Interchange
& R407 Sallins Bypass EIS**

Scale at A3
1:5000/500

Date:
January 2013

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Drawing Title
**Borehole Locations
Mainline
Sheet 3 of 5**

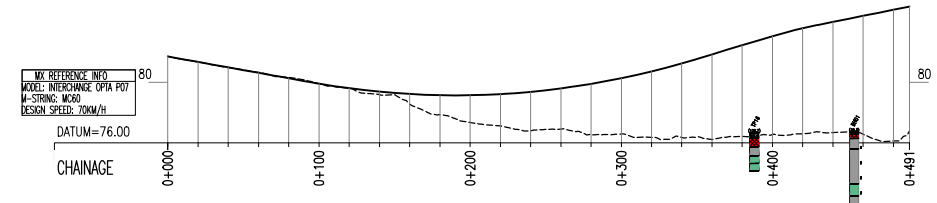
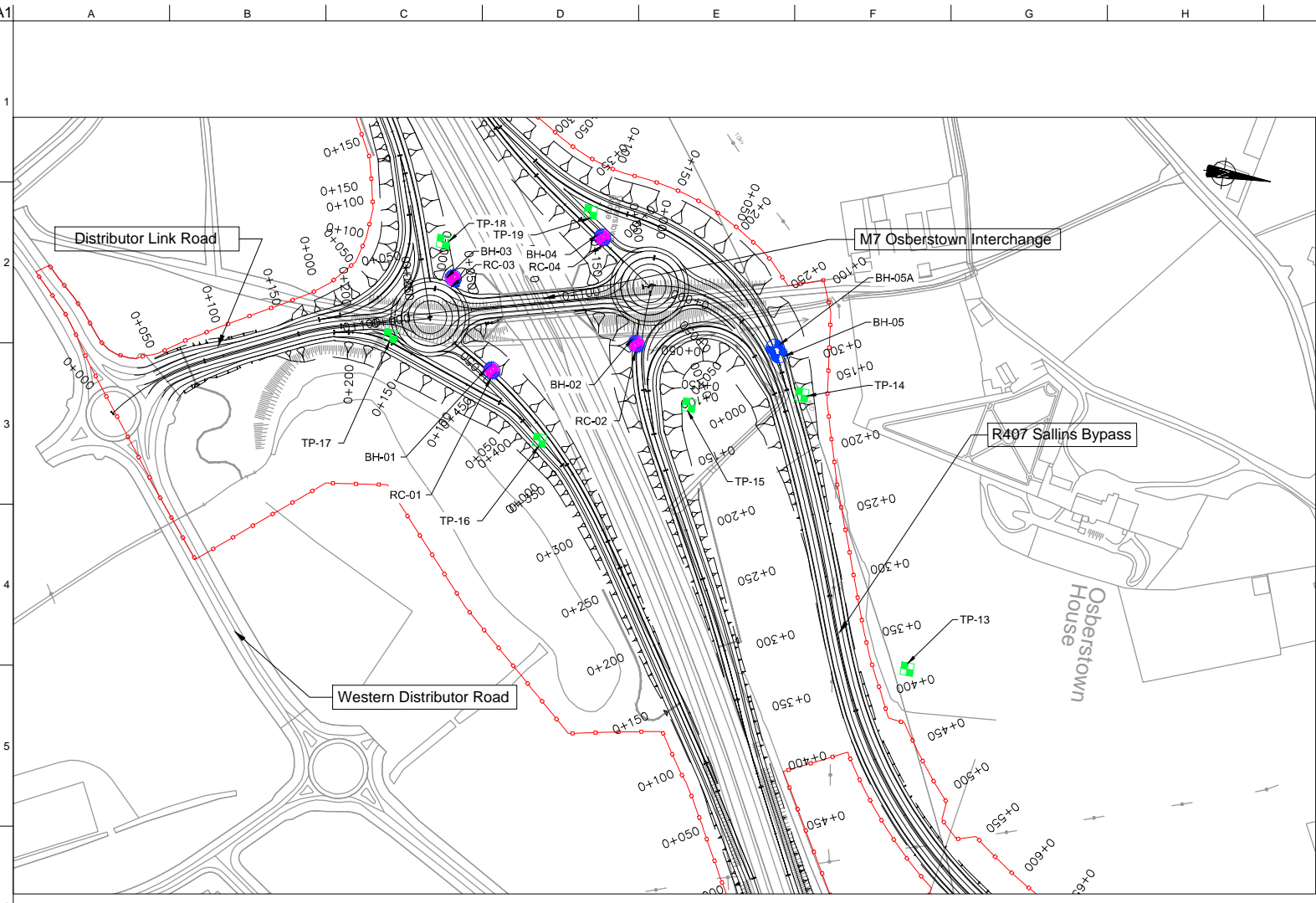
Drawing Status
For Information

Job No 227136-00	Drawing No Figure 15.3 c	Issue -
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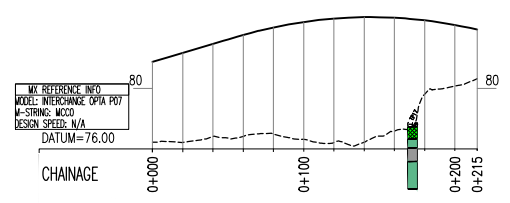
FOR INFORMATION

- Notes:**
- This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 - These drawings are to be read in conjunction with all other relevant design drawings.

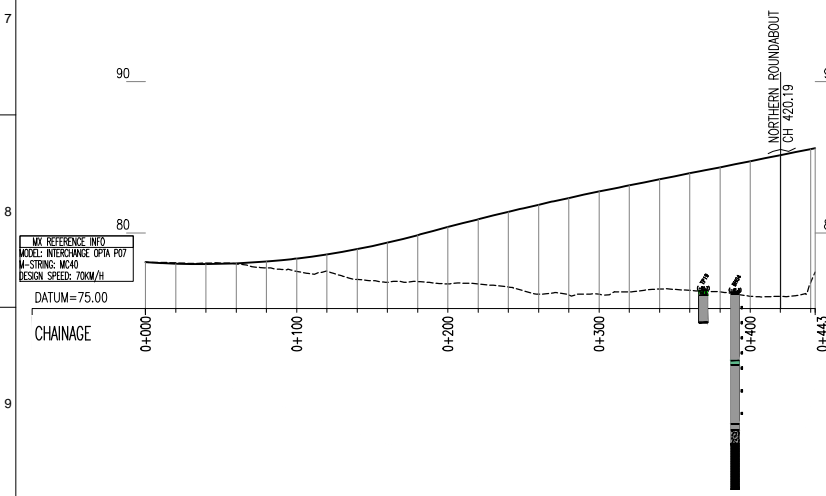
Exploration:	Eastings:(x)	Northings:(y)
BH-01	288027.637	221237.48
BH-02	287987.426	221346.335
BH-03	287961.096	221194.926
BH-04	287909.18	221305.697
TP-16	288075.468	221284.071
TP-17	288014.172	221153.796
TP-18	287933.848	221182.036
TP-19	287890.822	221292.978



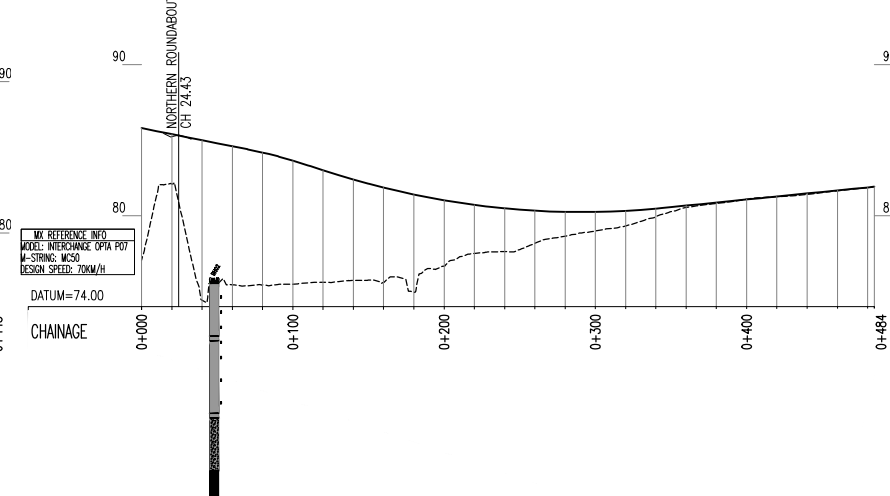
WESTBOUND DIVERGE SLIP



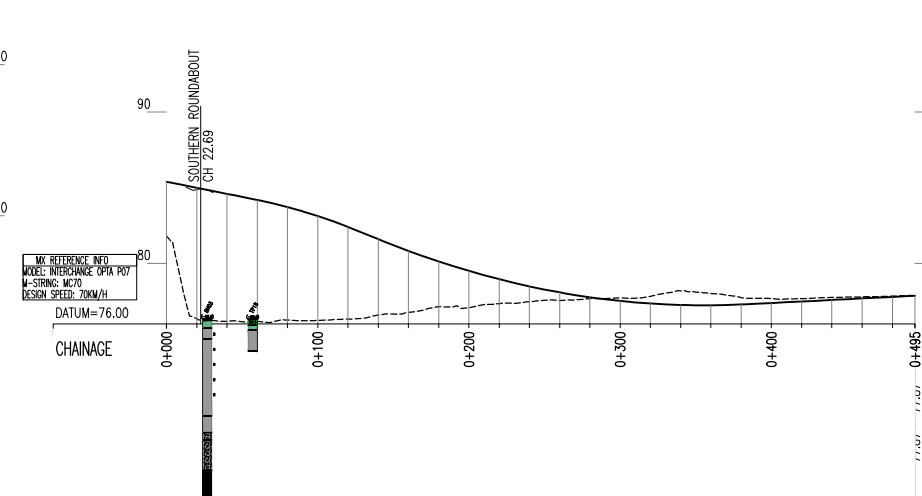
WESTBOUND SEGREGATED DIVERGE LANE



EASTBOUND DIVERGE SLIP



EASTBOUND MERGE SLIP



WESTBOUND MERGE SLIP

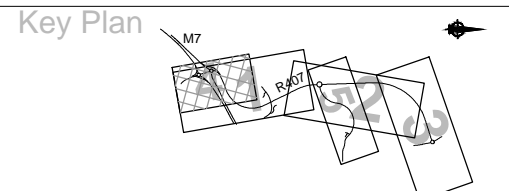
Legend:

Plan :

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond
- Trial Pit
- Bore Hole
- Window Sample

Profile :

- Proposed level
- Existing ground level
- Top Soil
- Made Ground
- Glacial Till
- Fluvio Glacial
- Alluvial
- Rock



Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	SOS	EMC

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Job Title
**M7 Osberstown Interchange
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Date:
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Drawing Title
**Borehole Locations - Sideroads
Osberstown Interchange
Sheet 4 of 5**

Drawing Status
For Information

Job No
227136-00

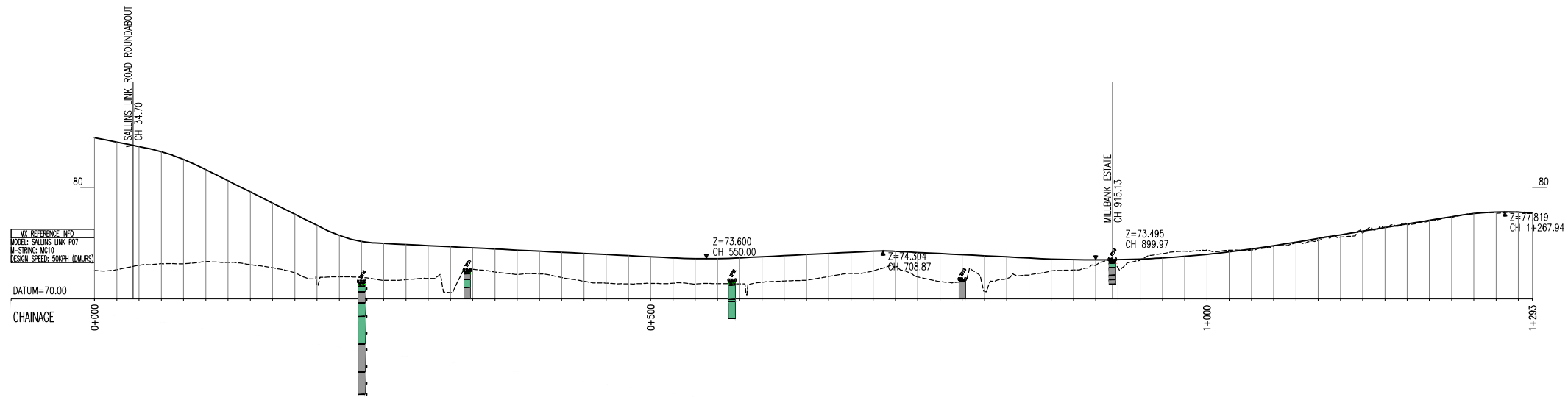
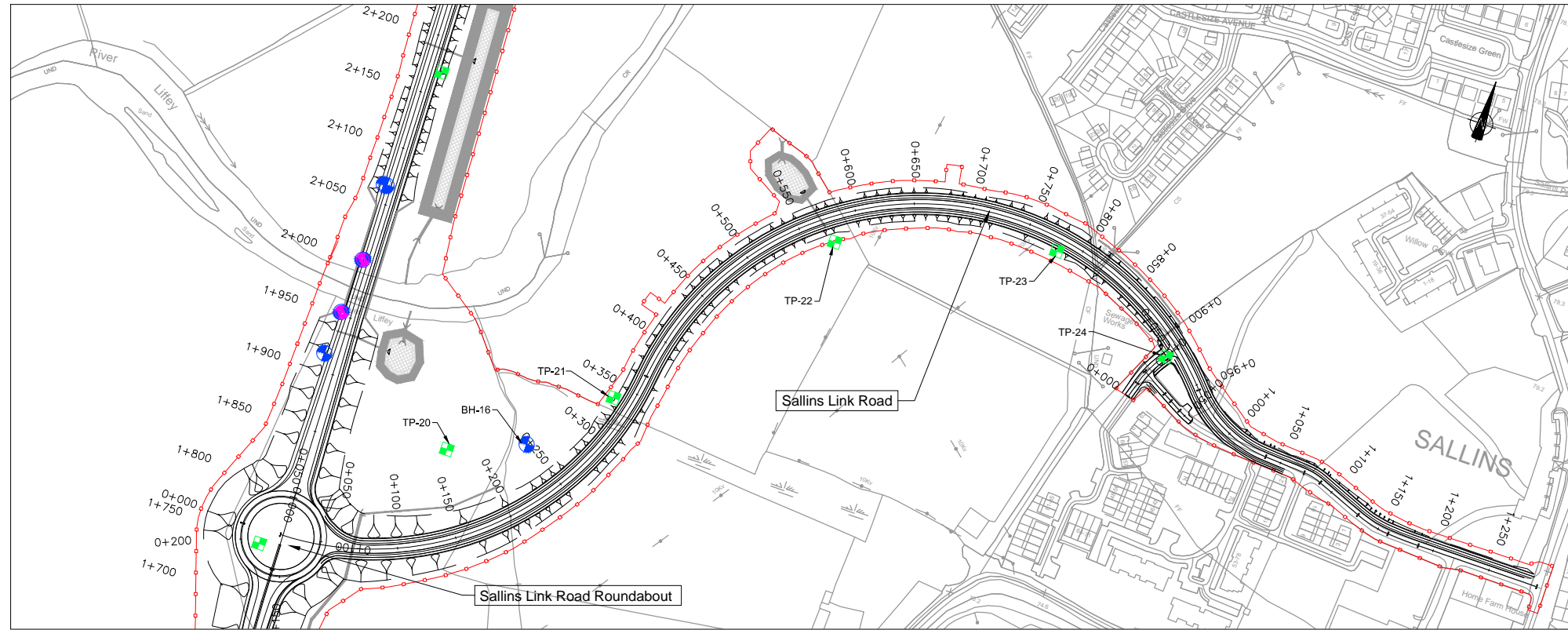
Drawing No
Figure 15.3 d

Issue
-

FOR INFORMATION

- Notes:**
1. This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 2. These drawings are to be read in conjunction with all other relevant design drawings.

Exploration:	Eastings:(x)	Northings:(y)
BH-16	288292.026	222919.787
TP-20	288229.634	222893.652
TP-21	288348.103	222980.938
TP-22	288481.226	223166.199
TP-23	288660.654	223220.628
TP-24	288776.716	223166.438



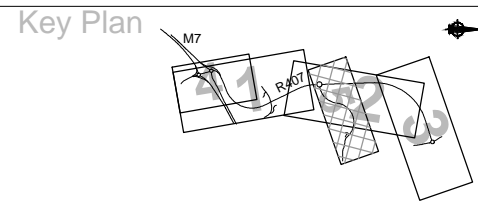
Legend:

Plan :

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond
- Trial Pit
- Bore Hole
- Window Sample

Profile :

- Proposed level
- Existing ground level
- Top Soil
- Made Ground
- Glacial Till
- Fluvio Glacial
- Alluvial
- Rock



Issue	Date	By	Chkd	Appd
-	Dec 2013	KJ	SOS	EMC

Kildare County Council
Comhairle Contae Chill Dara

Naas Town Council
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An Roinn Iompair
Turasoireachta agus Spóirt
Department of Transport,
Tourism and Sport

NATIONAL DEVELOPMENT PLAN

Job Title
**M7 Osberstown Interchange
& R407 Sallins Bypass EIS**

Scale at A3
1:5000/500

Date:
January 2013

Consultant
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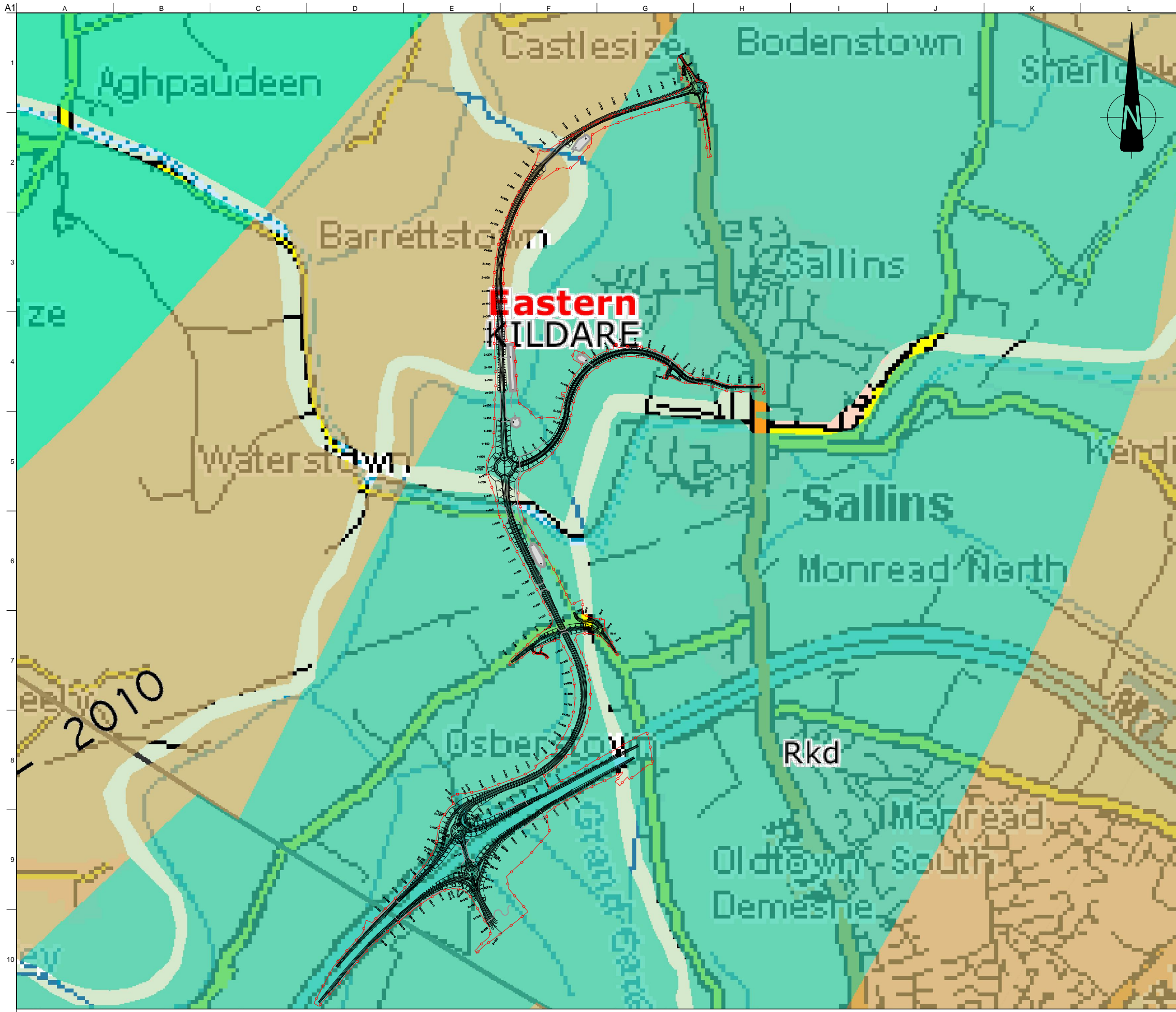
Drawing Title
**Borehole Locations - Sideroads
Sallins Link Road
Sheet 5 of 5**

Drawing Status
For Information

Job No
227136-00

Drawing No
Figure 15.3 e

Issue
-



FOR INFORMATION

- Notes:
- This Drawing is only to be used for the Design Element identified in the title box. All other information shown on the drawing is to be considered indicative only.
 - These drawings are to be read in conjunction with all other relevant design drawings.

Legend:

- CPO Line
- Proposed Alignment
- Plan Layout
- Attenuation Pond

Aquifer Classification:

- Rg - Regionally important, extensive sand/gravels aquifers
- Lg - Locally important, sand/gravel aquifers

National Draft Bedrock Aquifer Map

- Rf - Regionally Important Aquifer - Fissured bedrock
- Rk - Regionally Important Aquifer - Karstified
- Rkd - Regionally Important Aquifer - Karstified (diffuse)
- Rkc - Regionally Important Aquifer - Karstified (conduit)
- Lm - Locally Important Aquifer - Bedrock which is Generally Moderately Productive
- Lk - Locally Important Aquifer - Karstified
- Ll - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones
- Pl - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones
- Pu - Poor Aquifer - Bedrock which is Generally Unproductive
- Unclassified

Bedrock Faults 100k

- Anticlinal axis
- Antiformal axis
- Fault
- line of cross section
- Slide
- Synclinal axis
- Synformal axis
- Thrust

- RBD Boundaries
- County Boundaries

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-	Dec 2013	KJ	EMC	EMC

Kildare County Council
Comhairle Contae Chill Dara

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Turasóireachta agus Spóirt
Department of Transport,
Tourism and Sport

NATIONAL DEVELOPMENT PLAN

Job Title
**M7 Osberstown Interchange
& R407 Sallins Bypass EIS**

Scale at A3
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Date:
December 2013

Consultant

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Dublin 4
Tel +353(0)1 233 4455 Fax +353(0)1 668 3169
www.arup.ie

Drawing Title
Aquifer Classification

Drawing Status
For Information

Job No 227136-00	Drawing No Figure 16.1	Issue -
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