



Clare County Council

KILLALOE BYPASS, SHANNON BRIDGE CROSSING AND R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

VOLUME 3 - FIGURES



North Tipperary
County Council



February 2012



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



Roughan &
O'Donovan

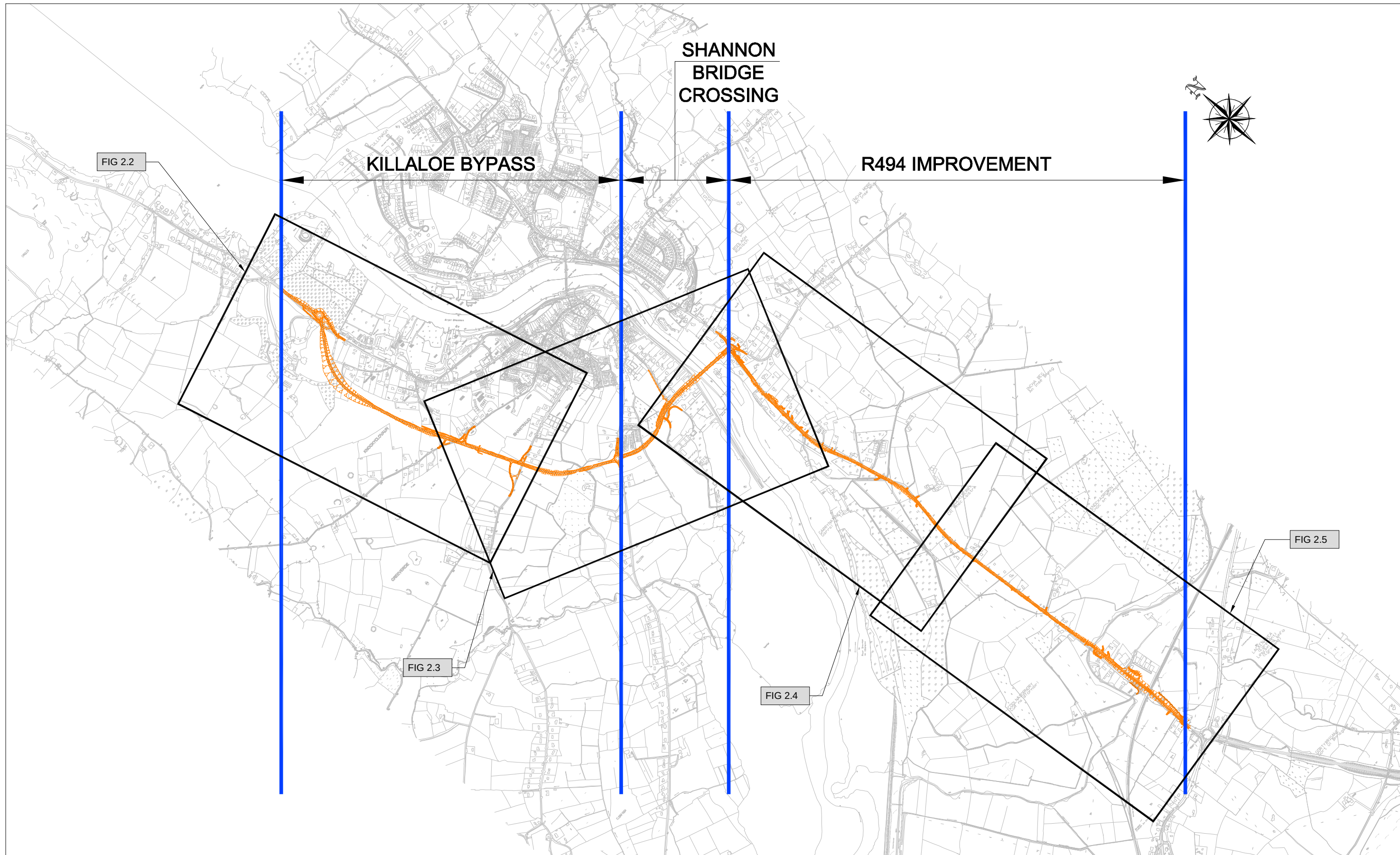


Killaloe Bypass, Shannon Bridge Crossing and R494 Improvement Environmental Impact Statement Volume 2

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KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

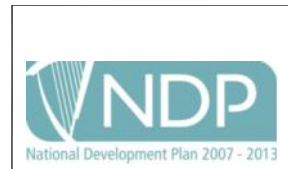


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Drawing Title

INDEX PLAN

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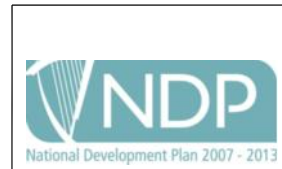
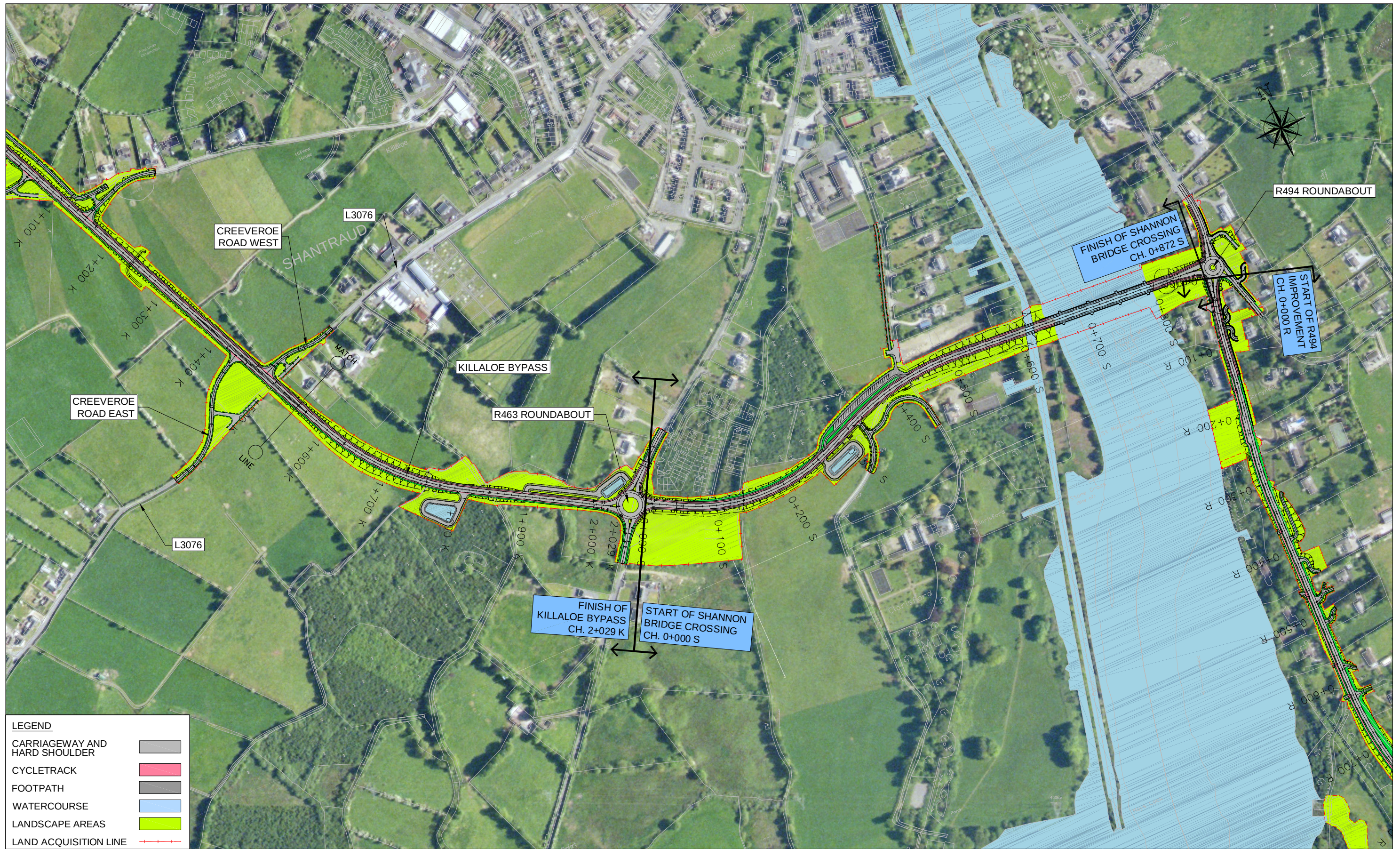
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Drawing Title				
KILLALOE BYPASS & SHANNON BRIDGE CROSSING SHEET 1 OF 2				
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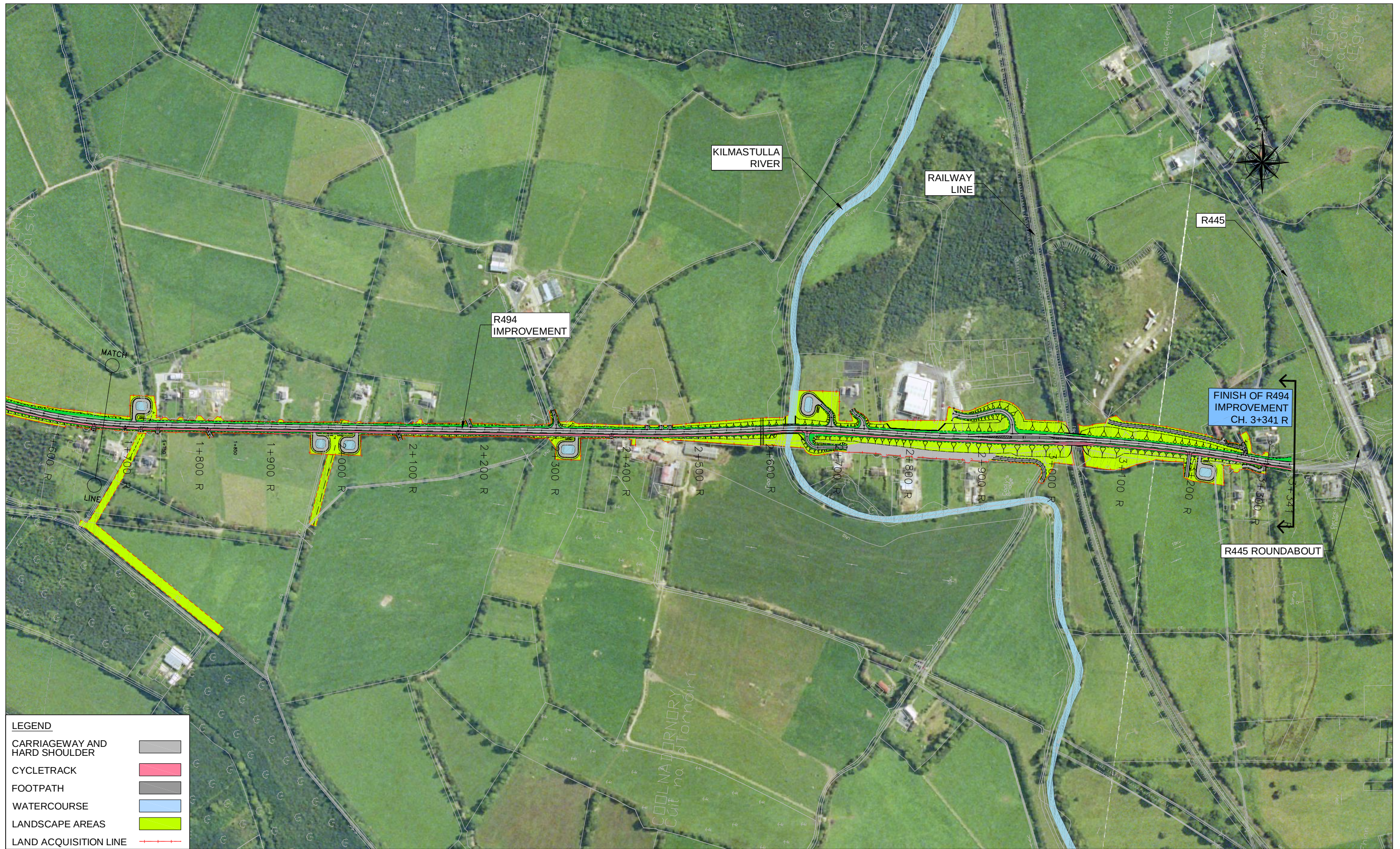
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KILLALOE BYPASS & SHANNON BRIDGE CROSSING SHEET 2 OF 2				
Drawn:	LA	Job No:	07.527	Drawing No:
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LEGEND

CARRIAGEWAY AND HARD SHOULDER

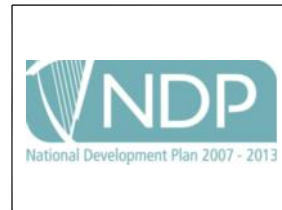
CYCLETRACK

FOOTPATH

WATERCOURSE

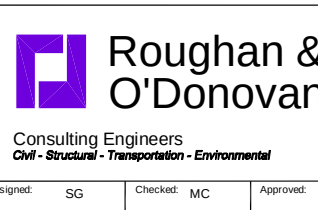
LANDSCAPE AREAS

LAND ACQUISITION LINE



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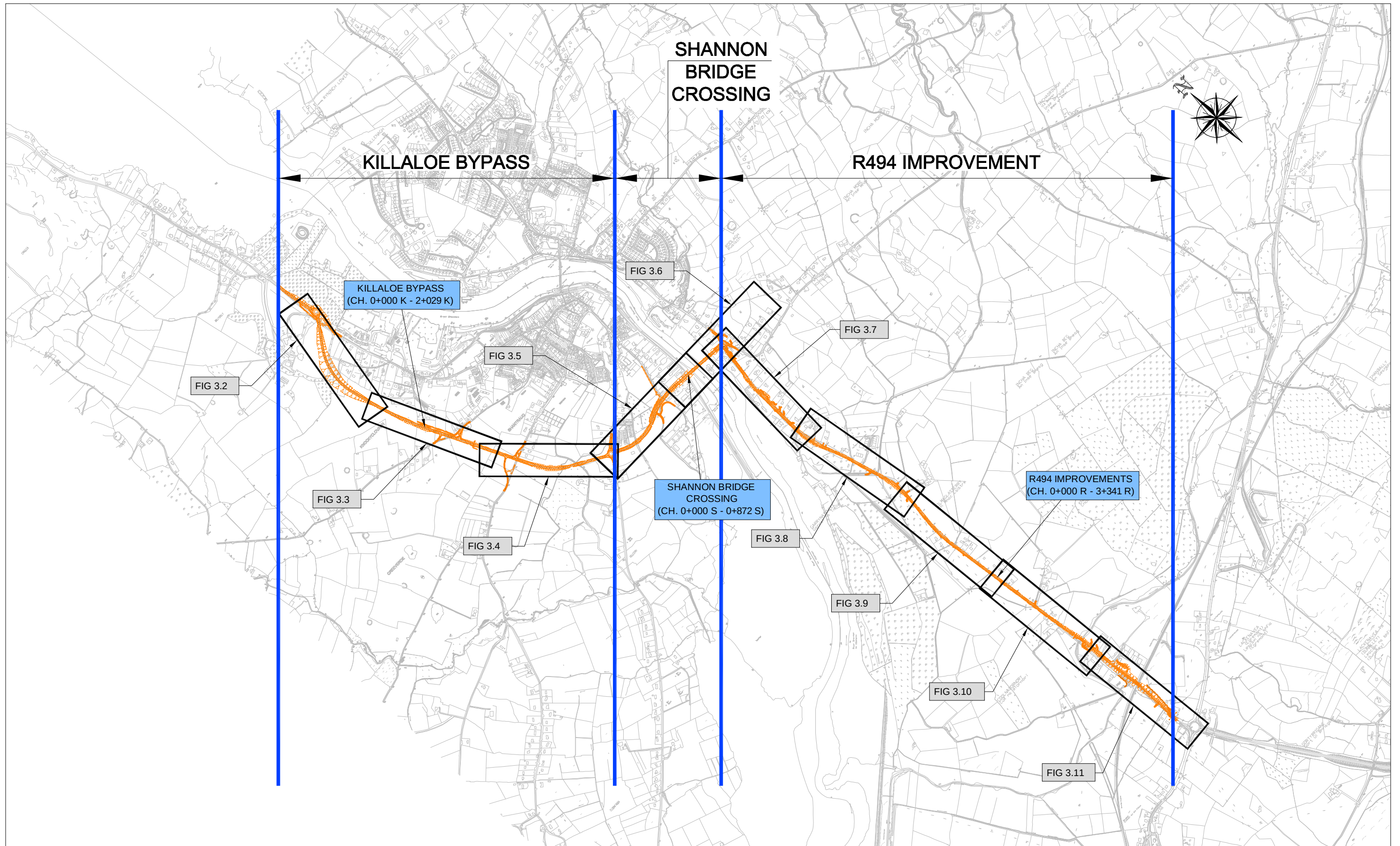
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Drawing Title

R494 IMPROVMENT
SHEET 2 OF 2

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Scale:	1:2500	Date:	JAN '12				



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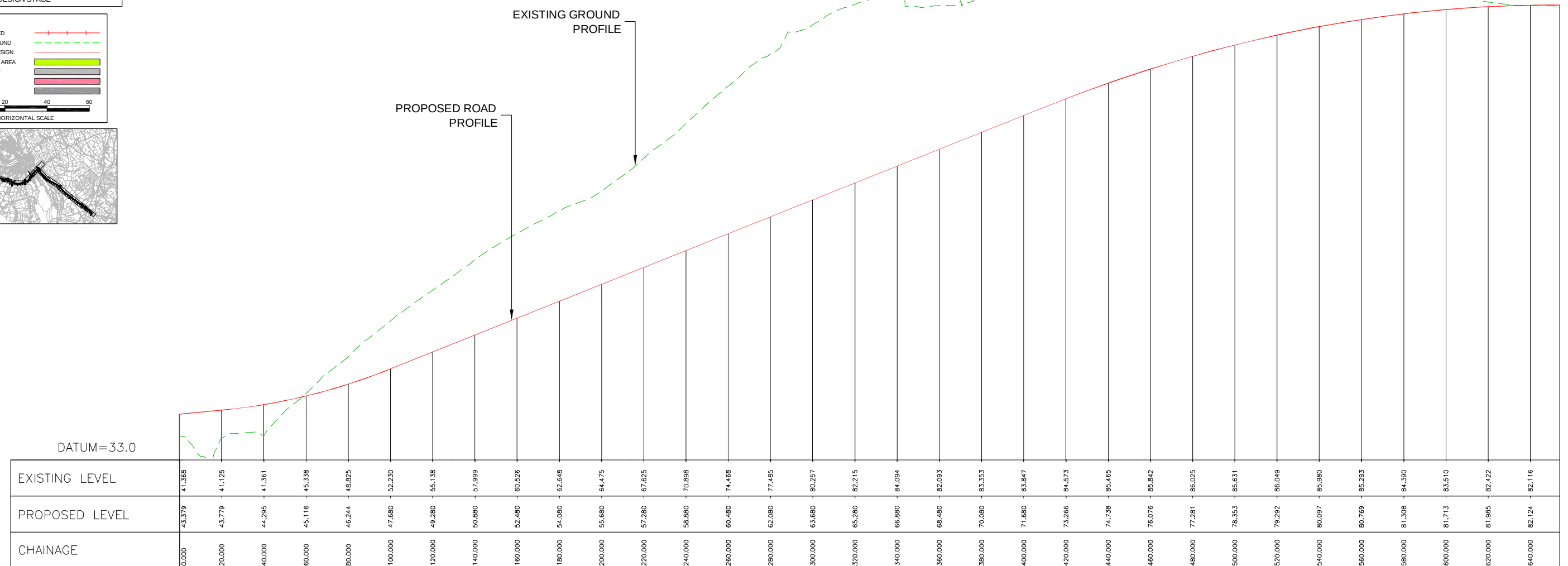
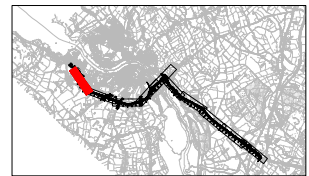
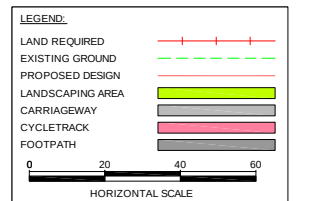
PLAN & PROFILE
SHEET LAYOUT

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NOTE:
PROPOSED ROAD LEVELS AS SHOWN ARE
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& R494 IMPROVEMENT**

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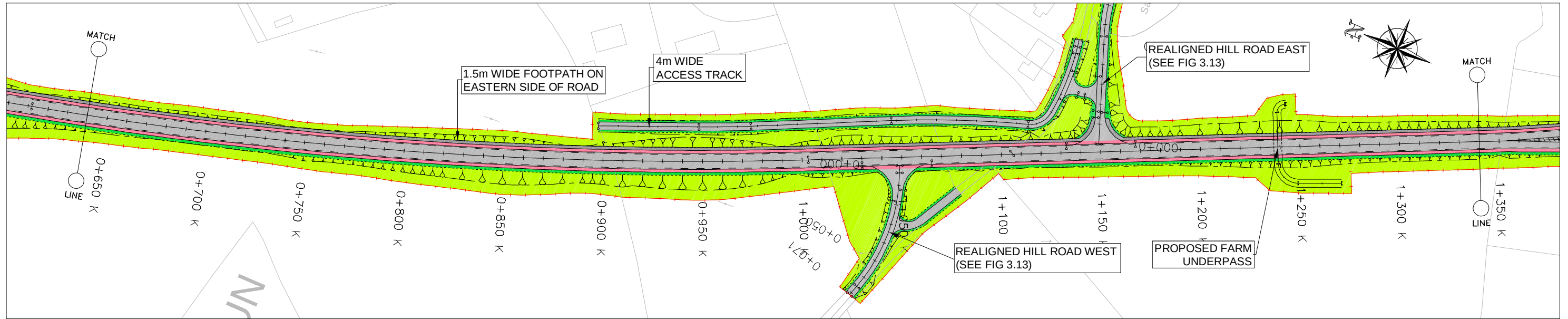
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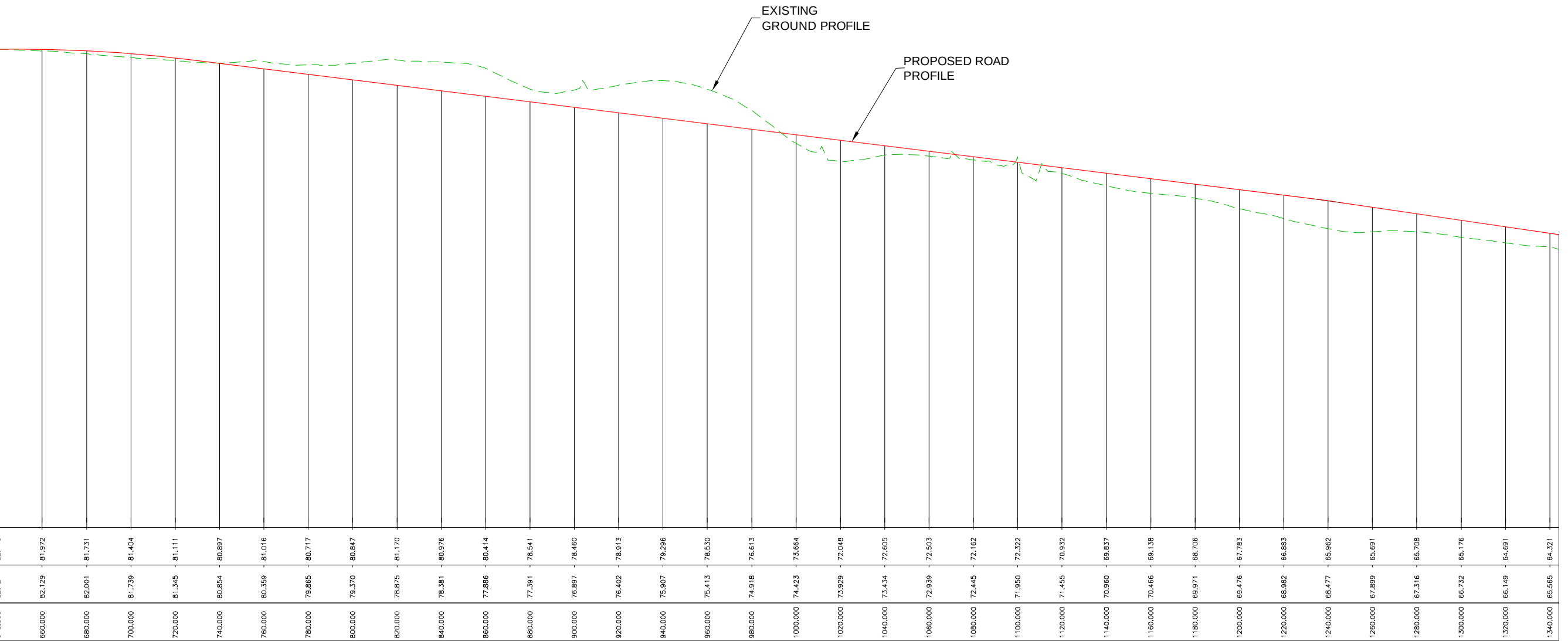
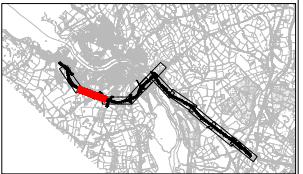
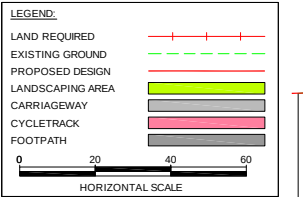
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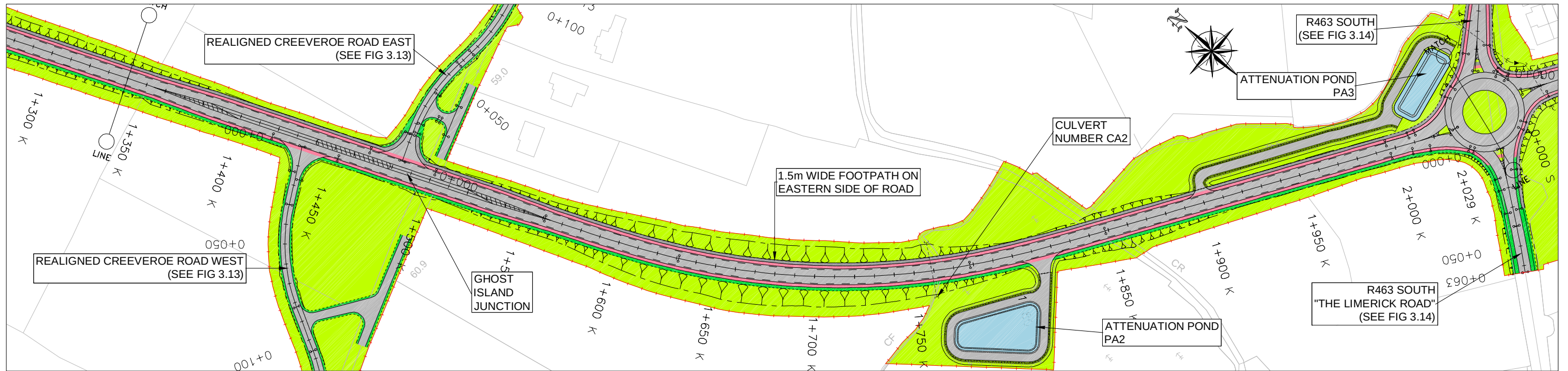
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KILLALOE BYPASS - PLAN & PROFILE
CH 0+000 K TO CH 0+640 K
SHEET 1 OF 10

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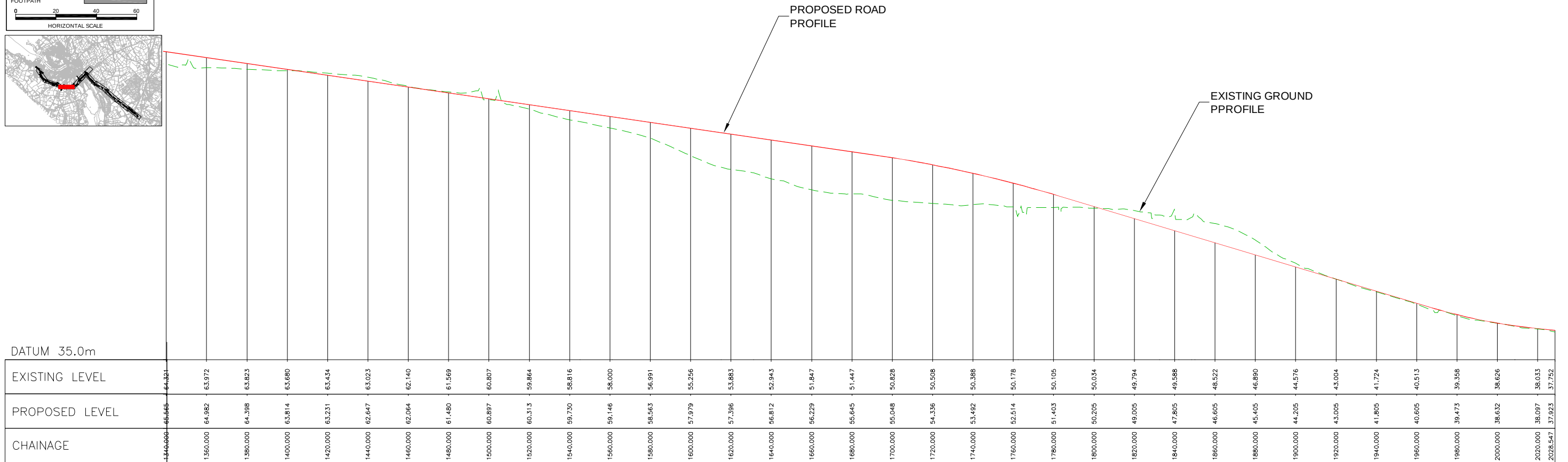
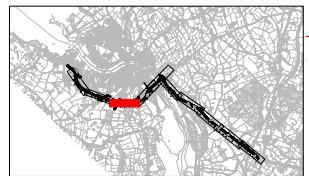
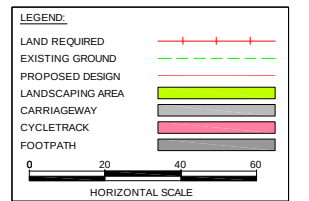


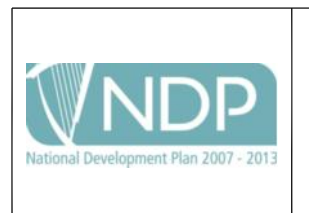
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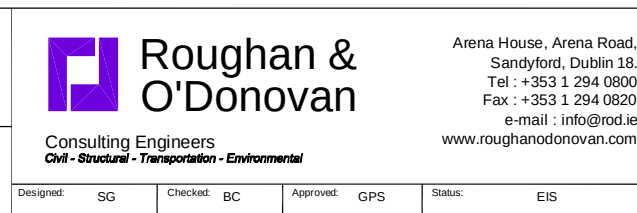
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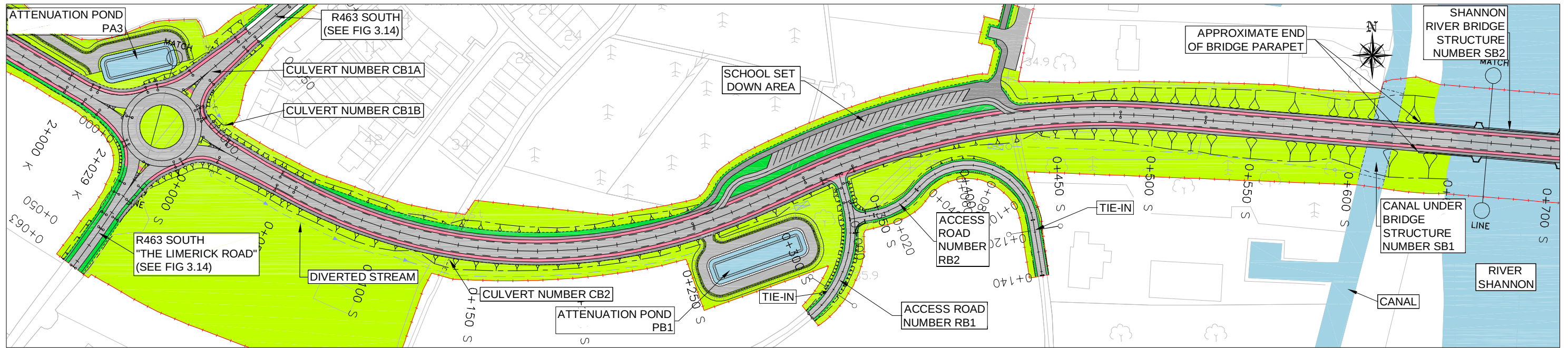
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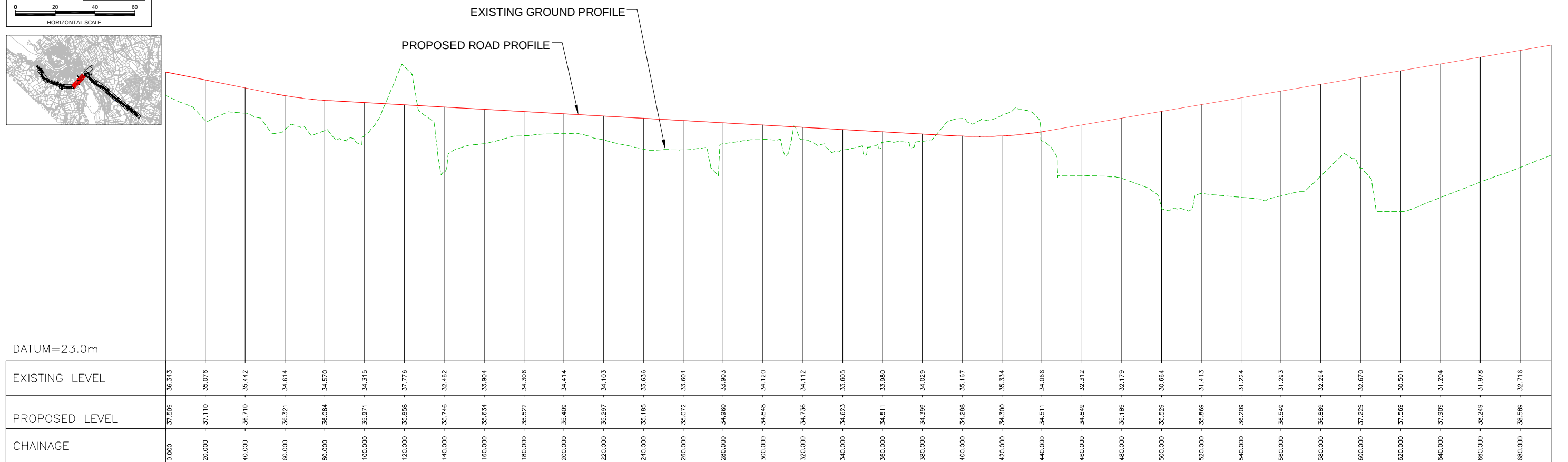
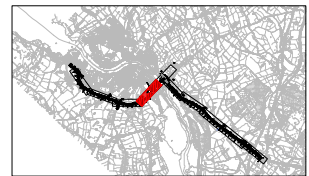
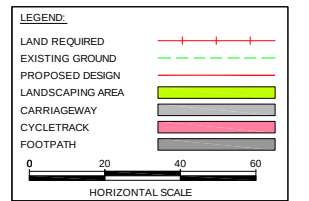
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KILLALOE BYPASS - PLAN & PROFILE
CH 1+340 K TO CH 2+035 K
SHEET 3 OF 10

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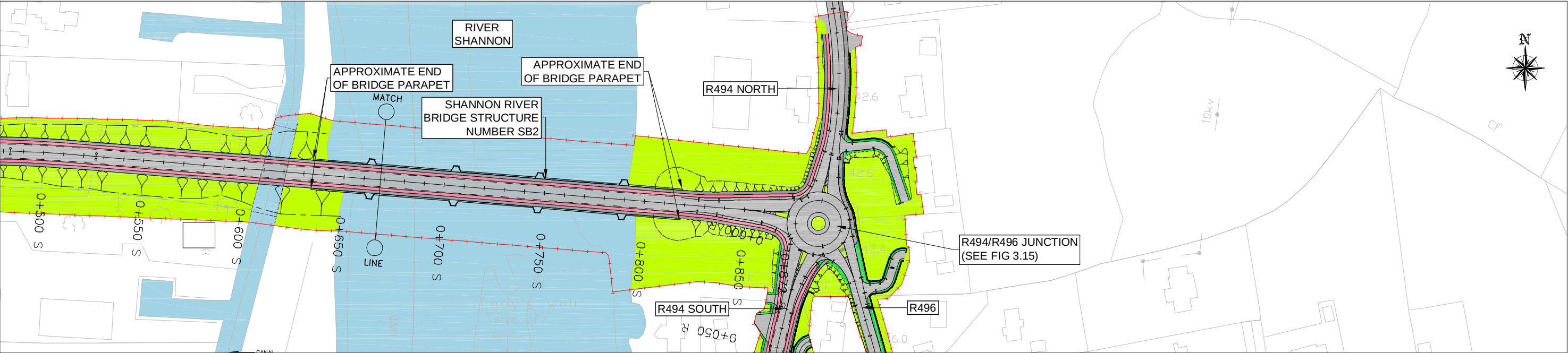
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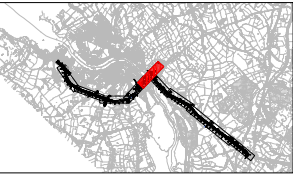
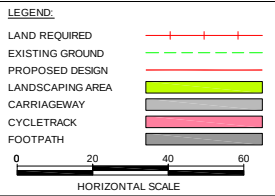
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SHANNON BRIDGE CROSSING - PLAN & PROFILE
CH 0+000 S TO CH 0+680 S
SHEET 4 OF 10

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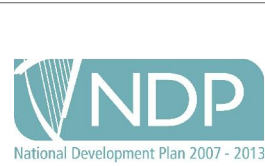


EXISTING
GROUND PROFILE

PROPOSED ROAD
PROFILE

DATUM=23.0m

EXISTING LEVEL	35.546	34.569	35.599	36.630	37.661	38.691	39.722	40.753	41.744	42.321
PROPOSED LEVEL	36.929	39.269	39.609	39.949	40.289	40.629	40.960	41.187	41.405	41.535
CHAINAGE	700.000	720.000	740.000	760.000	780.000	800.000	820.000	840.000	860.000	871.913



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



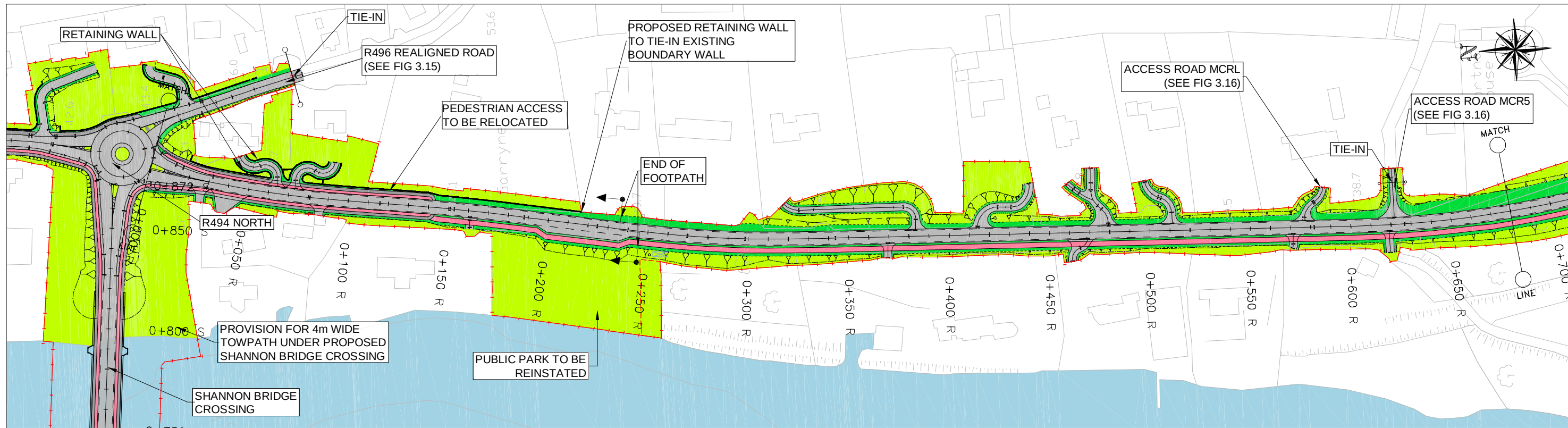
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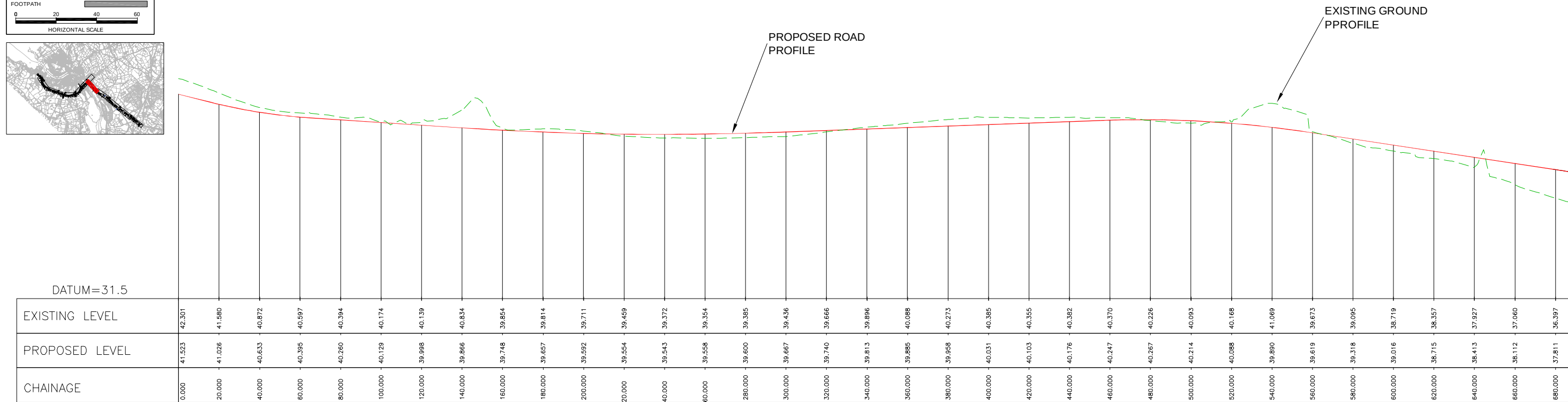
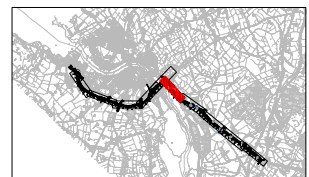
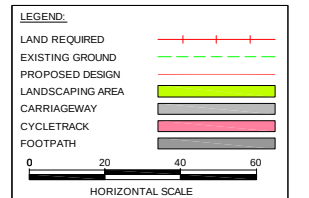
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SHANNON BRIDGE CROSSING - PLAN & PROFILE
CH 0+680 S TO TIE-IN WITH R494
SHEET 5 OF 10

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Approved: GPS

Status: EIS

Drawing Title

R494 IMPROVEMENT - PLAN & PROFILE

CH 0+000 R TO CH 0+680 R

SHEET 6 OF 10

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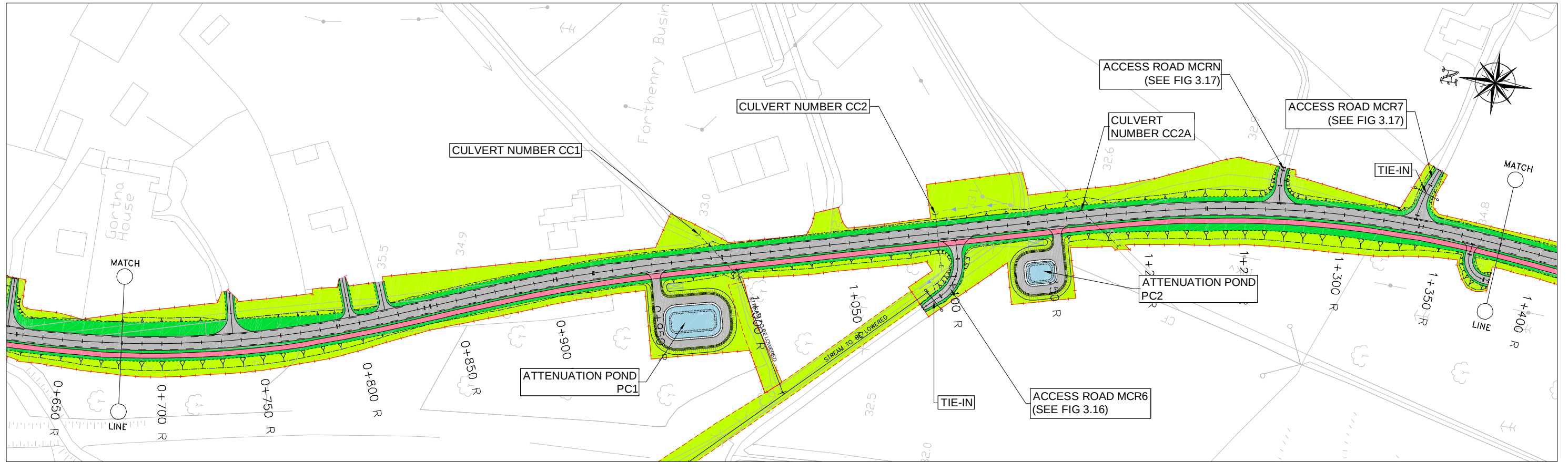
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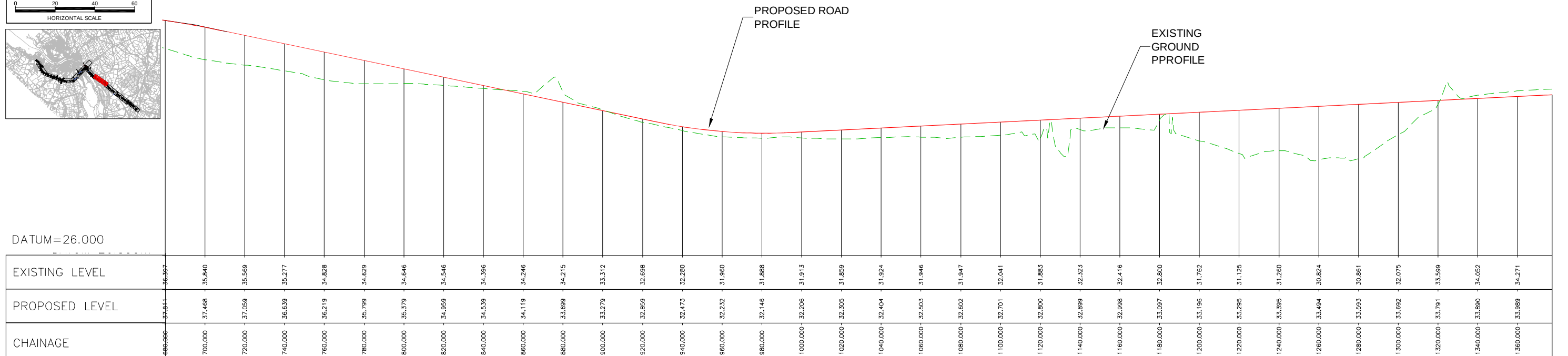
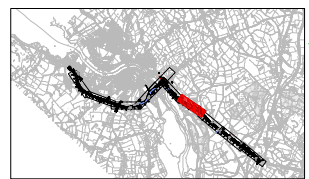
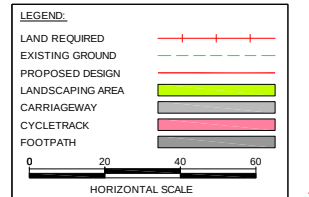
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National Development Plan 2007 - 2013

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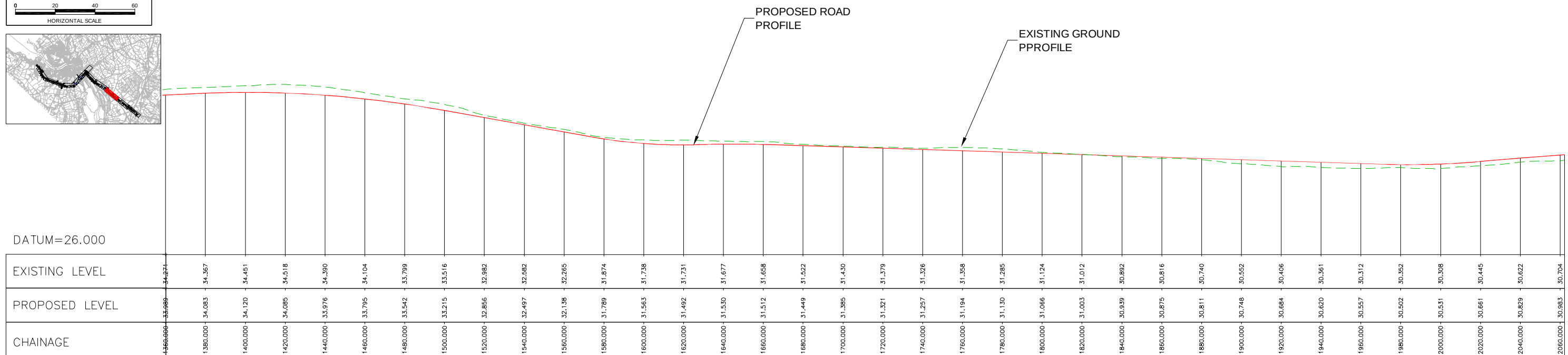
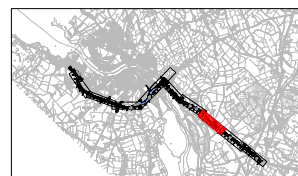
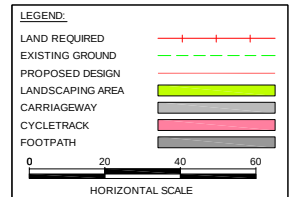
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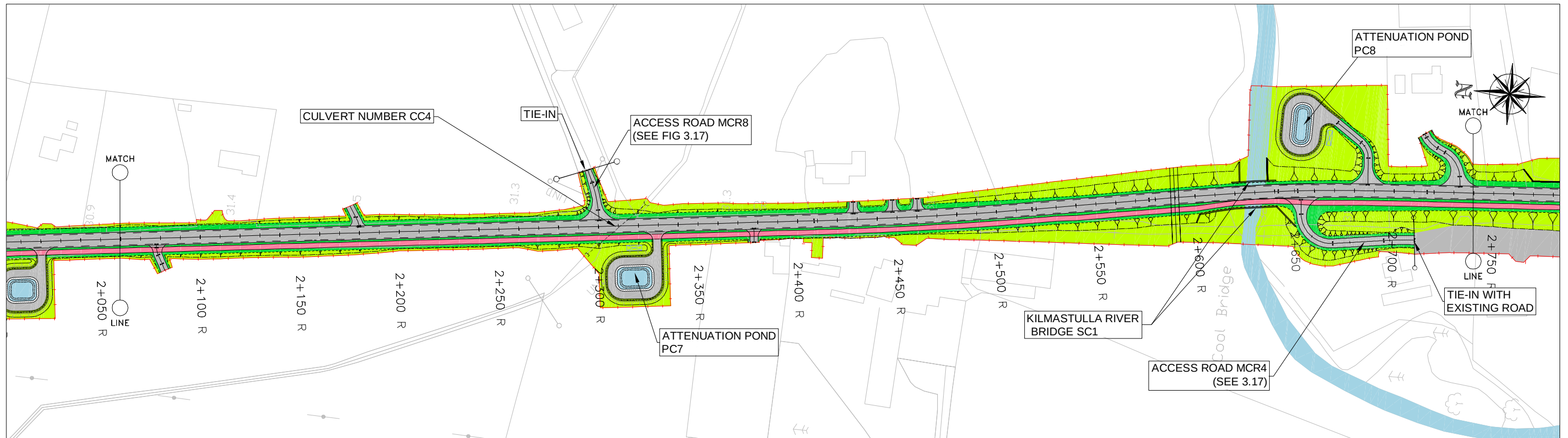
R494 IMPROVEMENTS - PLAN & PROFILE
CH 0+680 R TO CH 1+380 R
SHEET 7 OF 10

Drawn: LA	Job No: 07.527	Drawing No: FIG 3.8	Rev:
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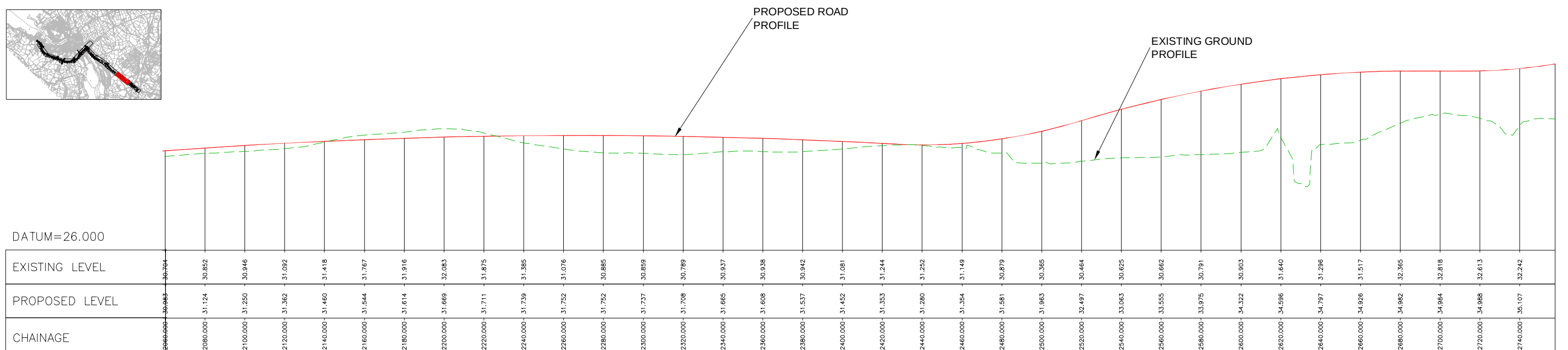
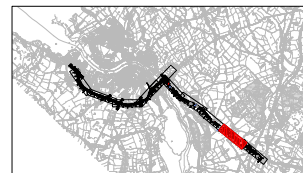
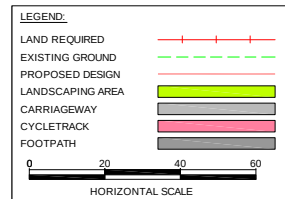


NOTE:
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NOTE:
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KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



Roughan & O'Donovan

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www.roughanodonovan.com

Drawing Title

R494 IMPROVEMENT - PLAN & PROFILE
CH 2+060 R TO CH 2+740 R
SHEET 9 OF 10

Drawn: LA	Job No: 07.527	Drawing No: FIG 3.10	Rev:
Scale: H=1:1000 V=1:100	Date: JAN '12		

Designed: SG

Checked: BC

Approved: GPS

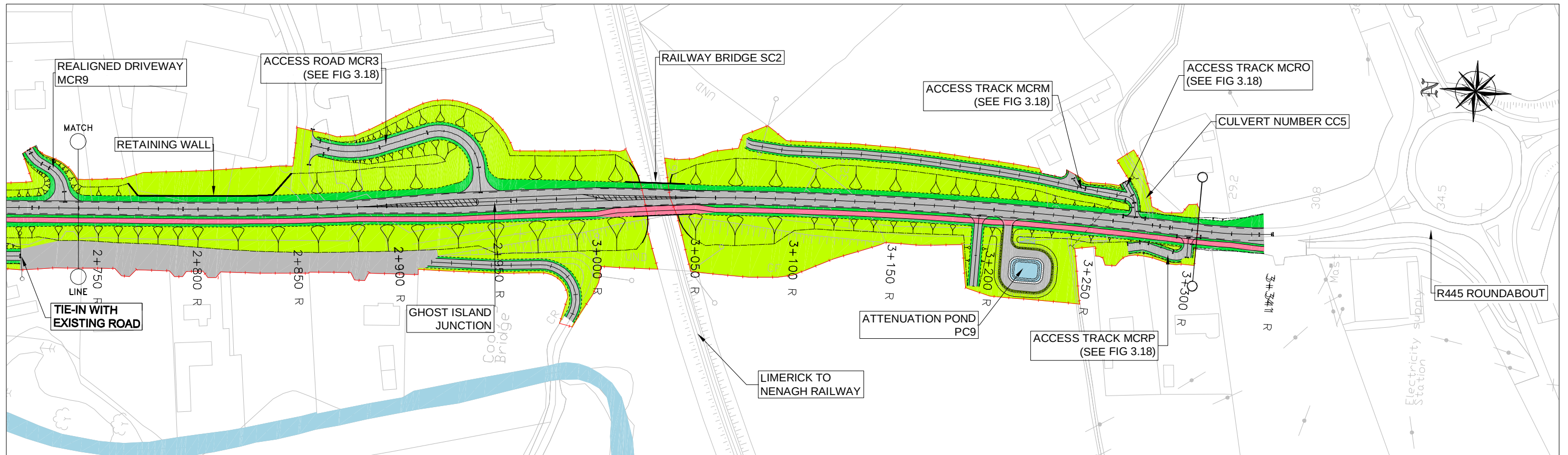
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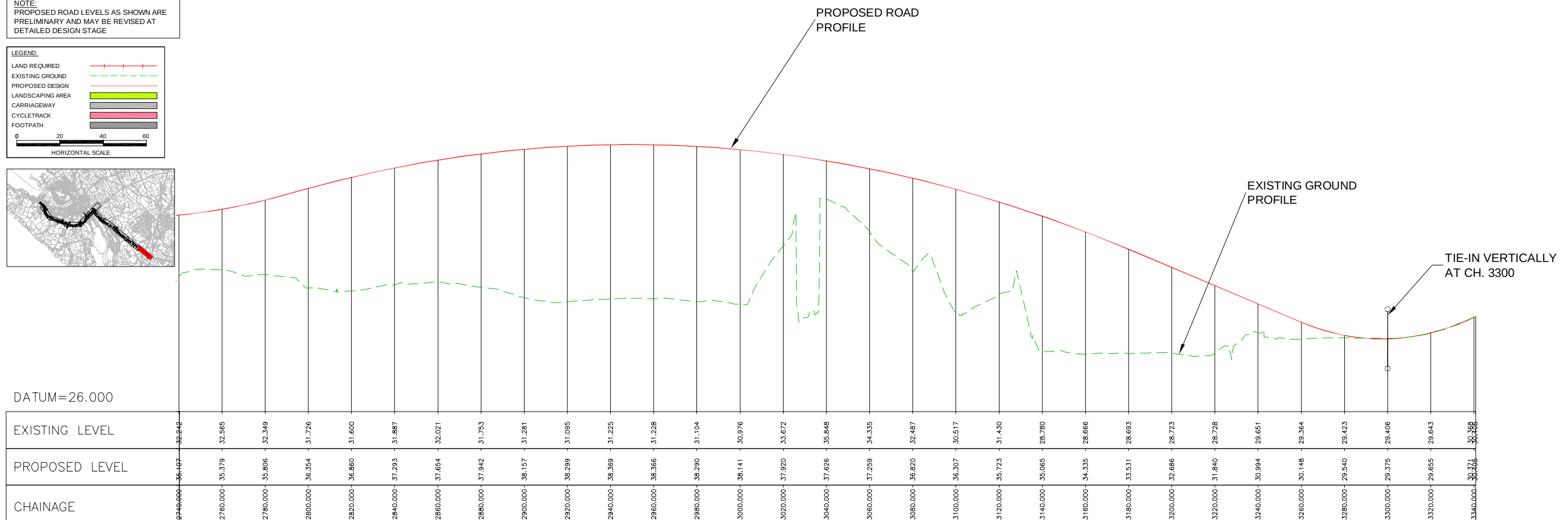
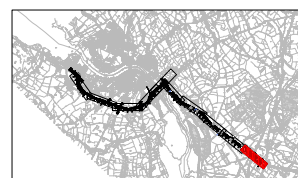
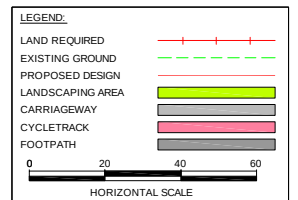
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Designed: SG

Checked: BC

Approved: GPS

Status: EIS

Drawing Title

R494 IMPROVEMENT - PLAN & PROFILE

CH 2+060 R TO CH 2+740 R

SHEET 10 OF 10

Drawn: LA

Job No: 07.527

Drawing No: FIG 3.11

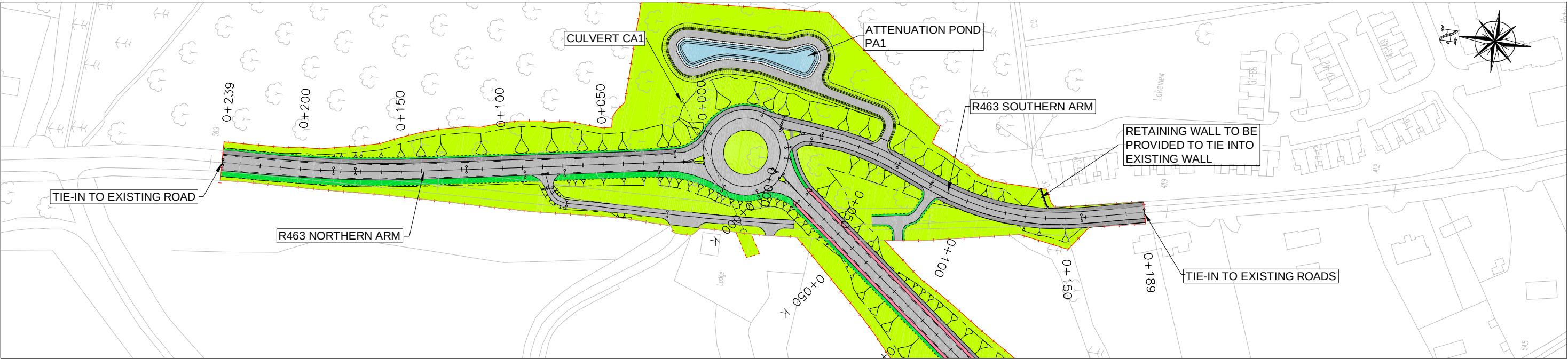
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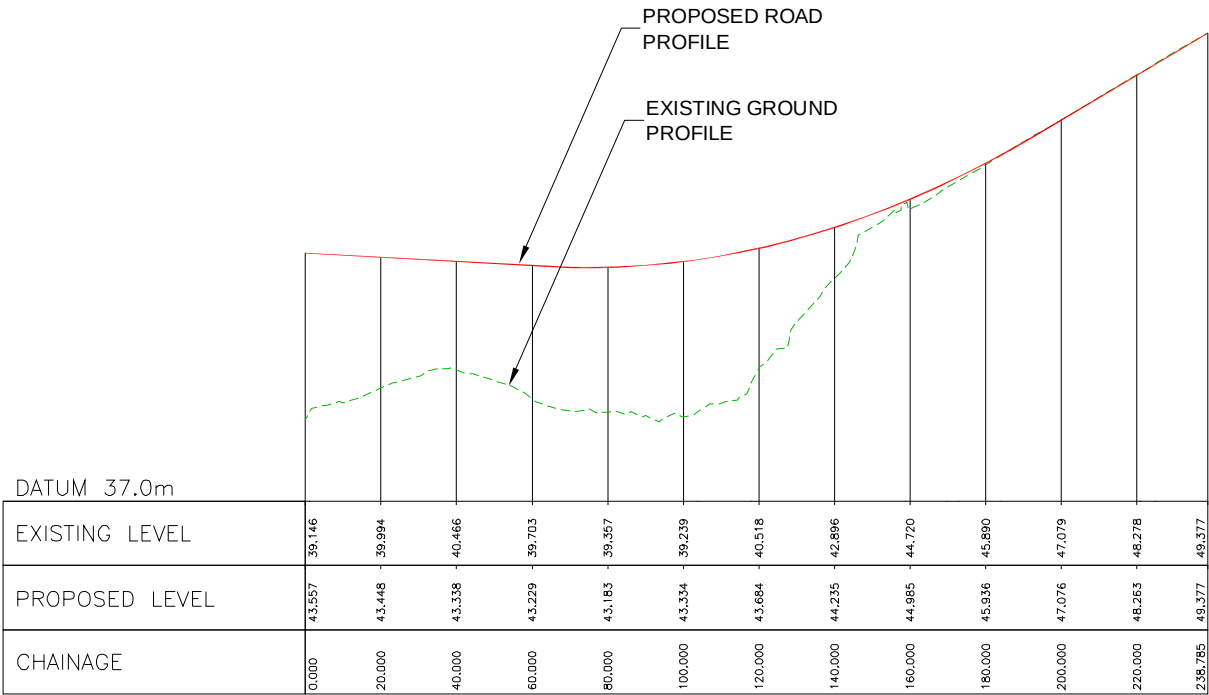
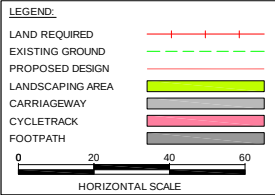
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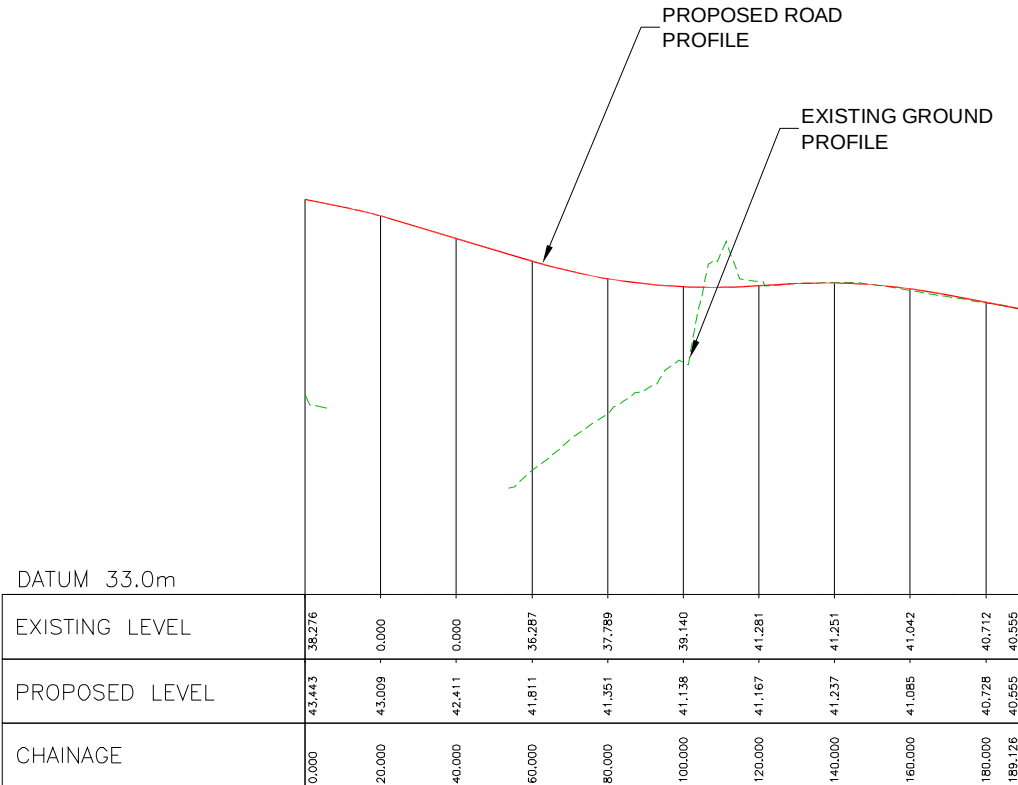
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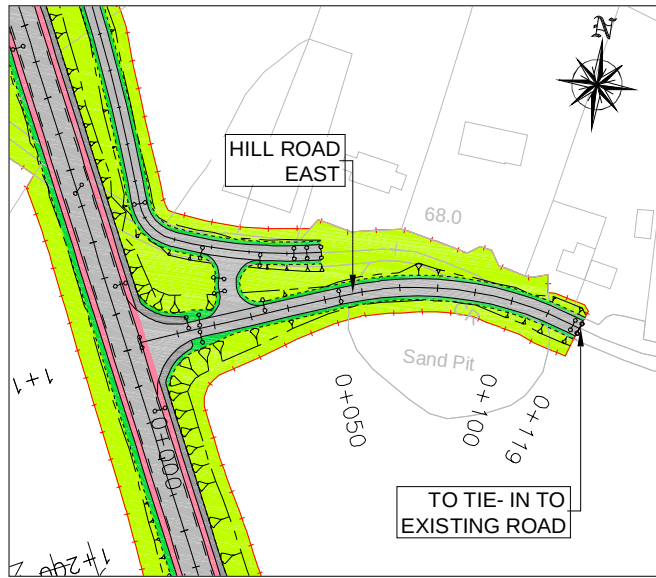
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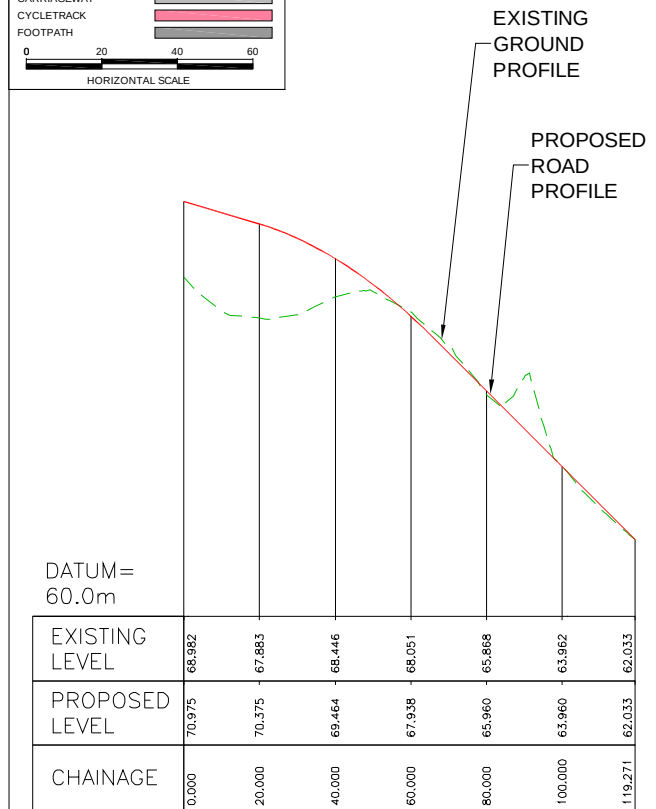
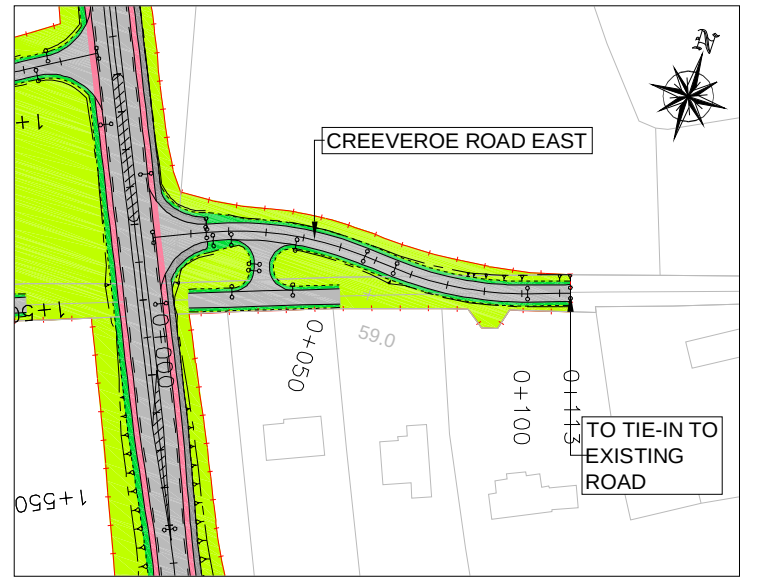
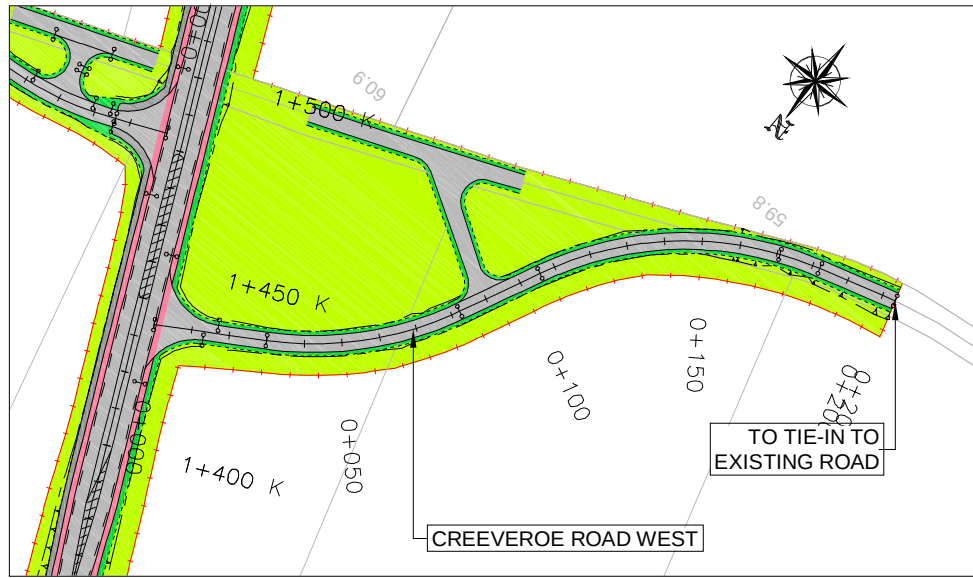
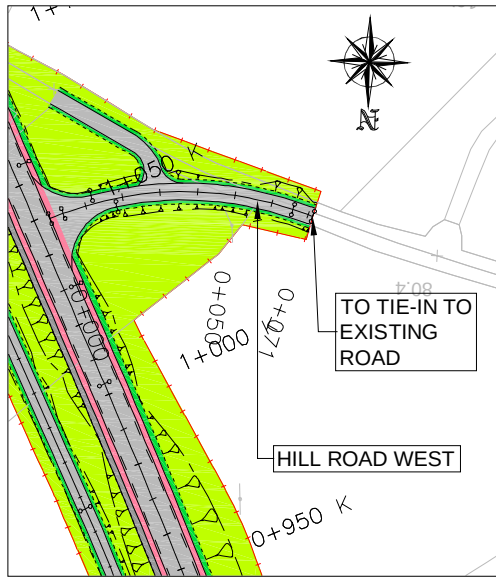
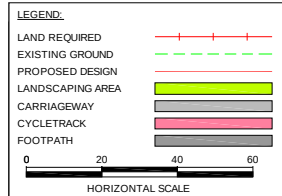
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SCALE H 1:1000 V 1:100



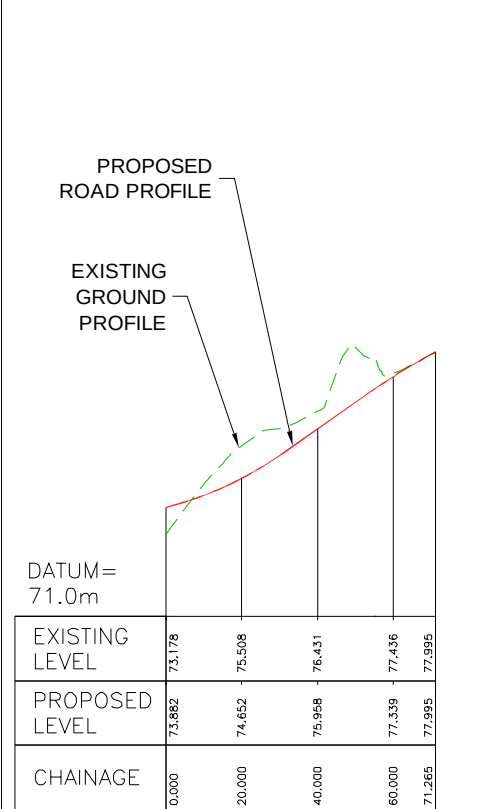
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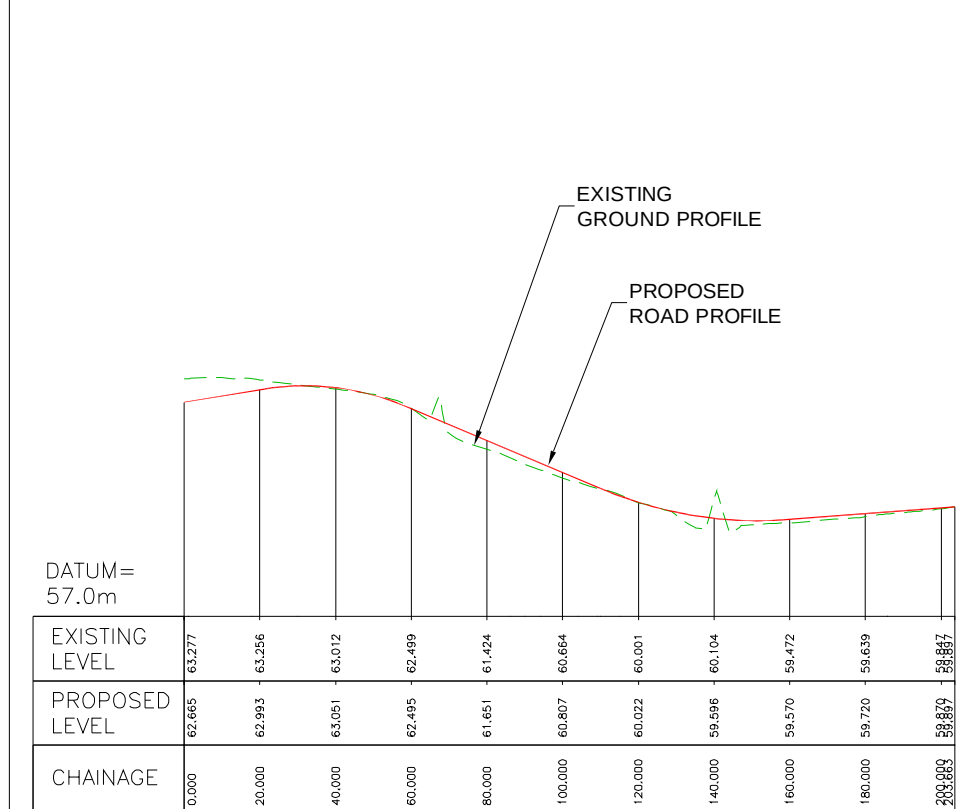
NOTE:
PROPOSED ROAD LEVELS AS SHOWN ARE
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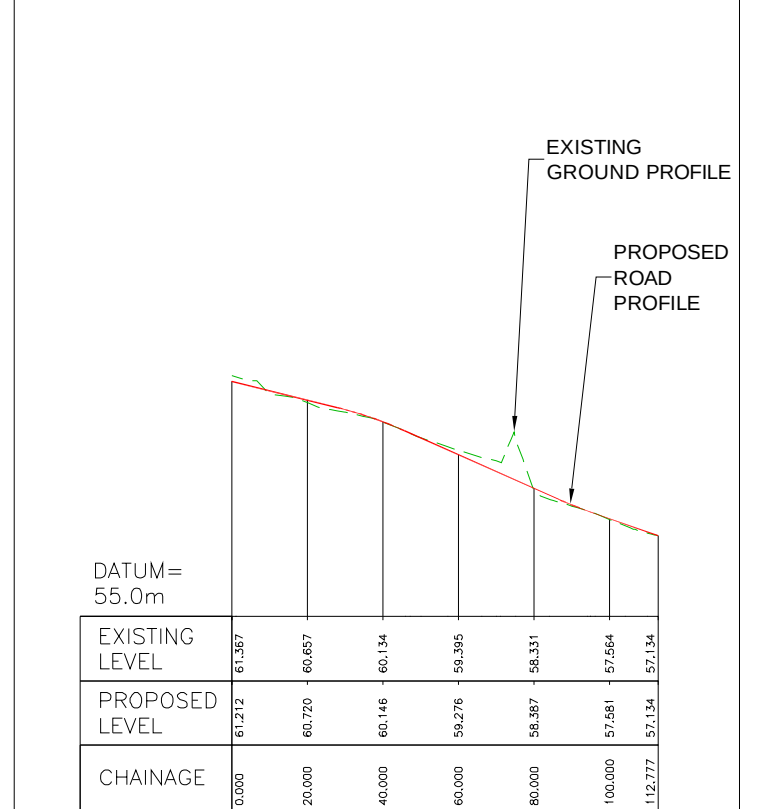
PROFILE OF HILL ROAD EAST
SCALE H 1:1000, V 1:100



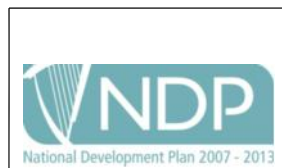
PROFILE OF HILL ROAD WEST
SCALE H 1:1000, V 1:100



PROFILE OF CREEVEROE ROAD WEST
SCALE H 1:1000, V 1:100



PROFILE OF CREEVEROE ROAD EAST
SCALE H 1:1000, V 1:100



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Department of Transport,
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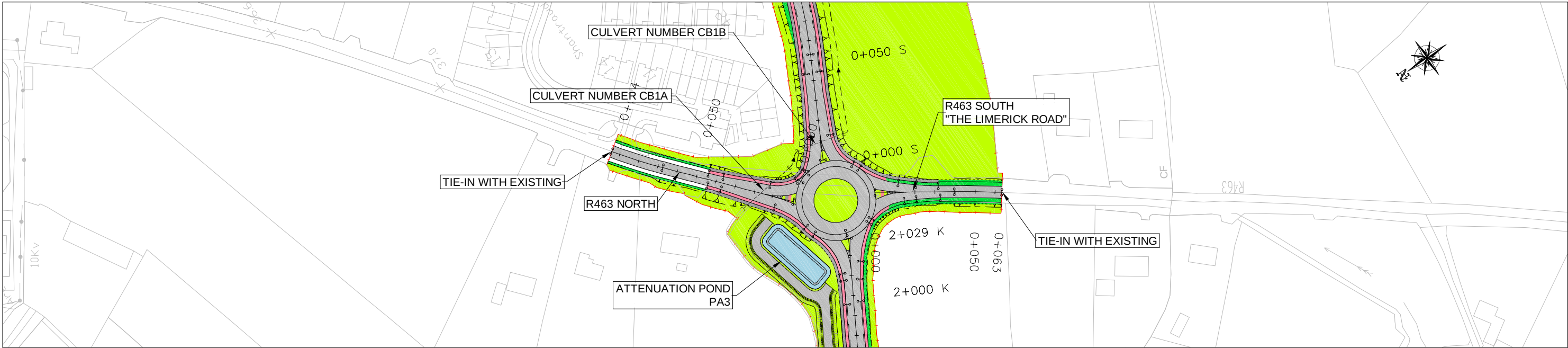
KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

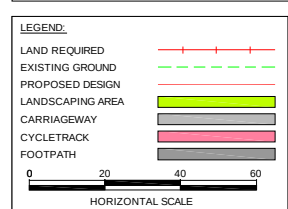
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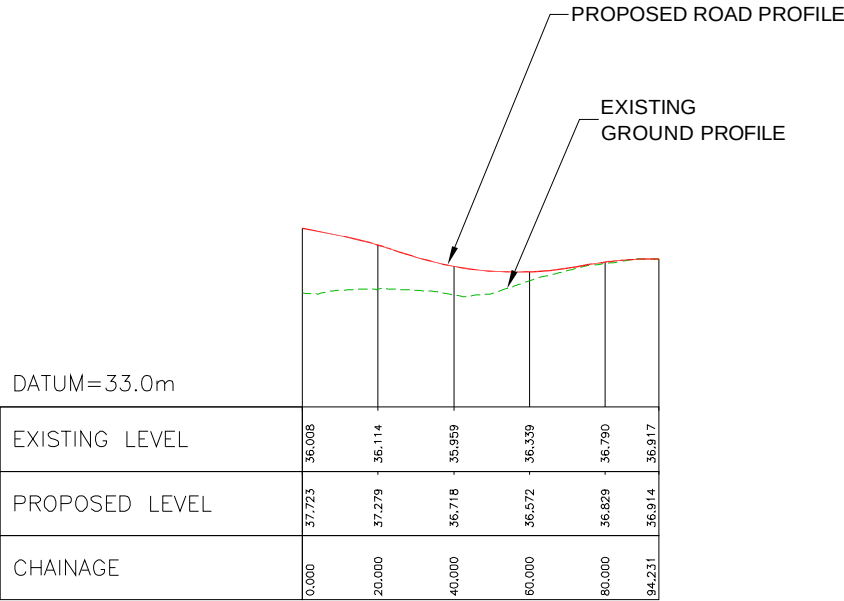
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KILLALOE BYPASS - PLAN & PROFILE HILL ROAD & CREEVEROE ROAD REALIGNMENT SHEET 2 OF 7			
Drawn: LA	Job No: 07.527	Drawing No: FIG 3.13	Rev:
Scale: (A3) H=1:1000 V=1:100	Date: JAN '12		



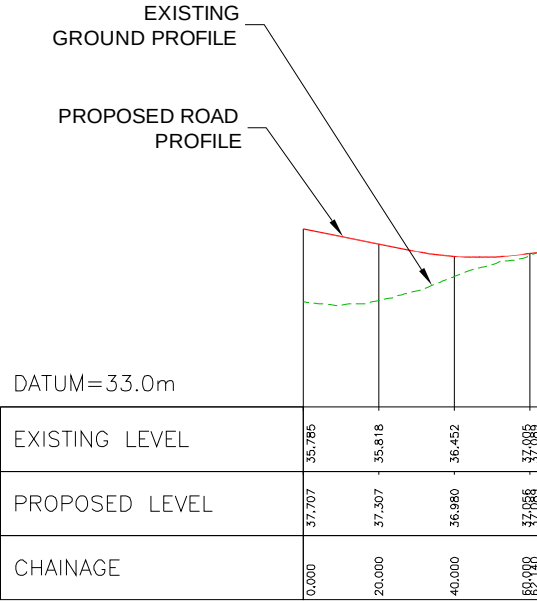
NOTE:
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DETAILED DESIGN STAGE



R463 SOUTH JUNCTION



PROFILE OF R463 NORTHERN ARM
SCALE H 1:1000, V 1:100

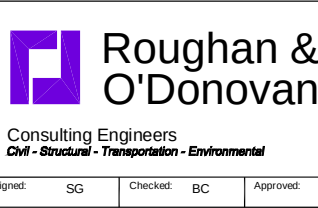


PROFILE OF R463 SOUTHERN ARM
"THE LIMERICK ROAD"
SCALE H 1:1000, V 1:100



KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

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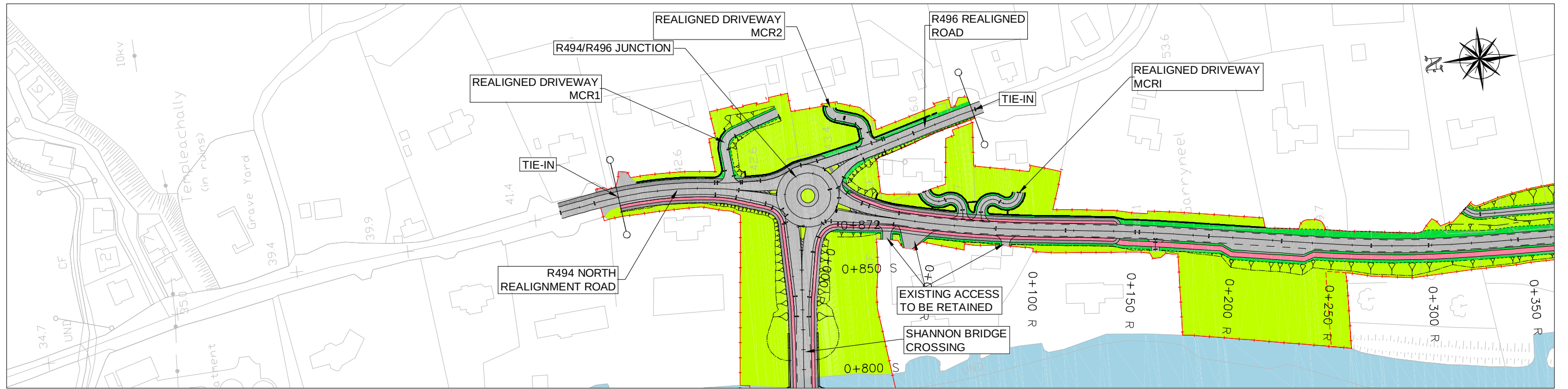
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Civil - Structural - Transportation - Environmental

Designed:	SG	Checked:	BC	Approved:	GPS	Status:	EIS
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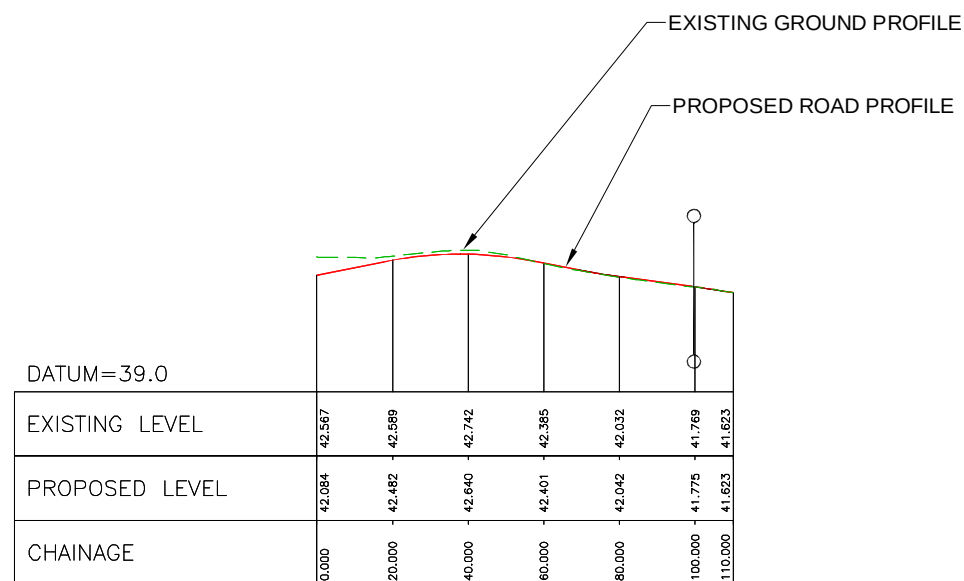
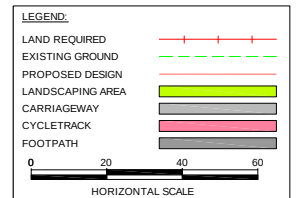
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KILLALOE BYPASS - PLAN & PROFILE
R463 SOUTH REALIGNMENT
SHEET 3 OF 7

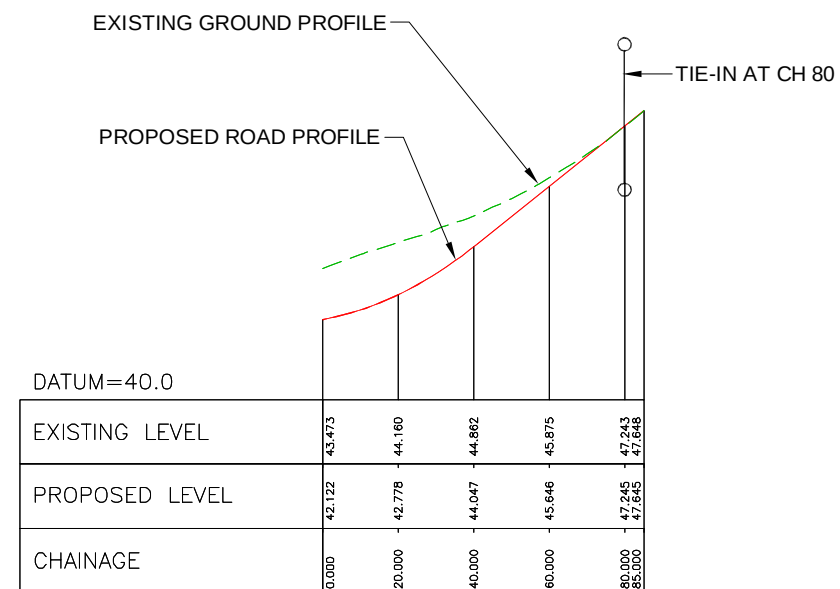
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NOTE:
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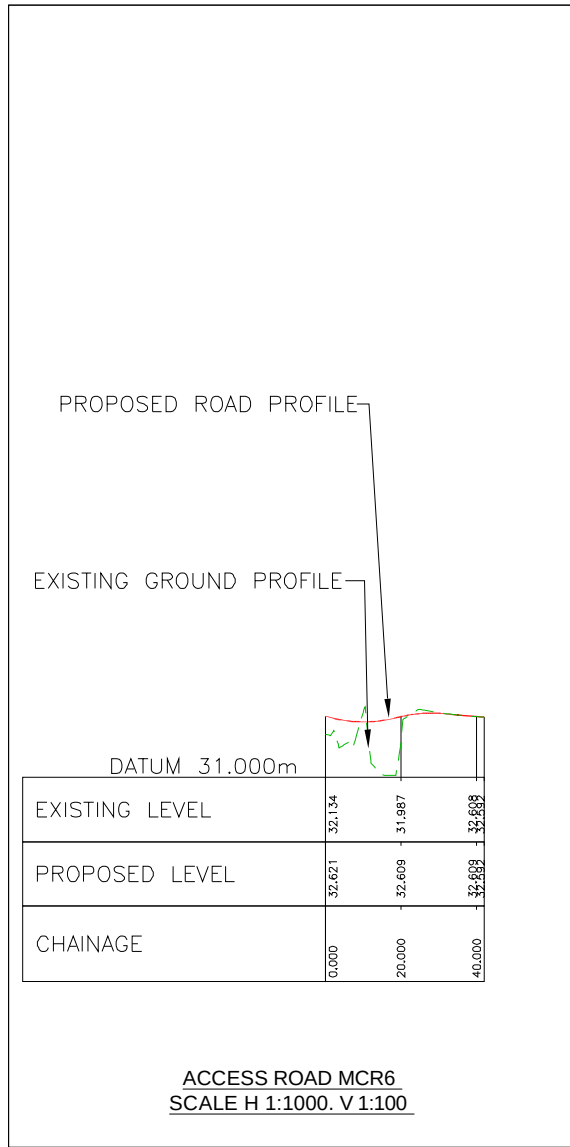
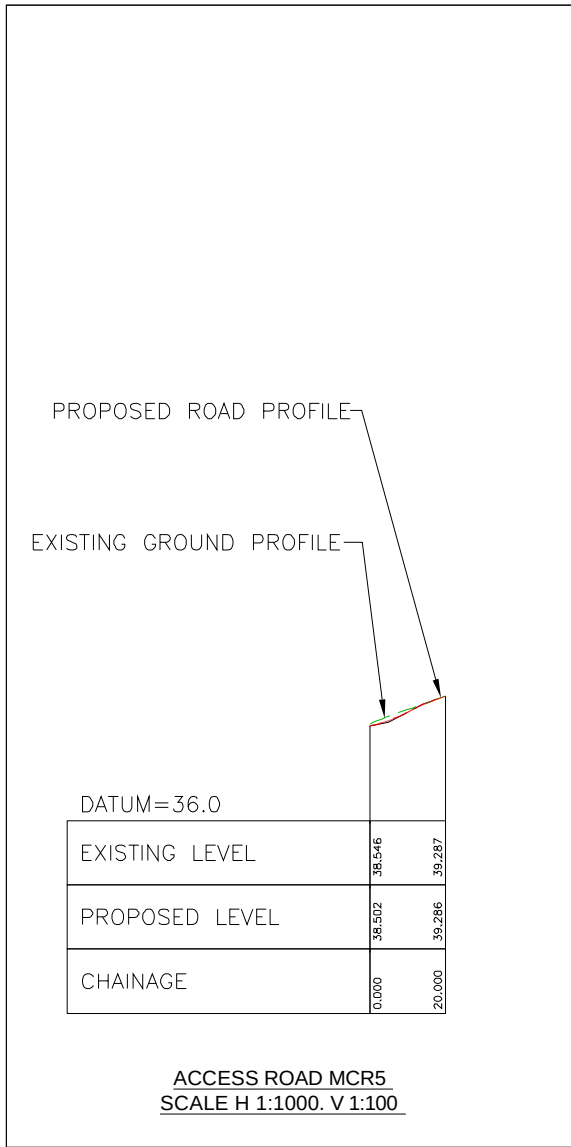
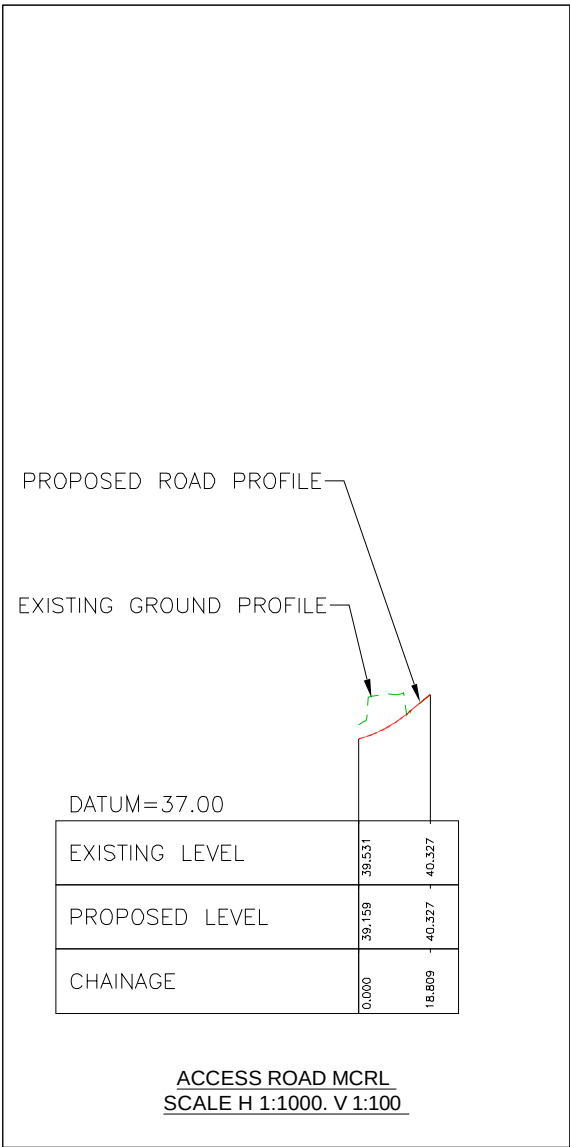
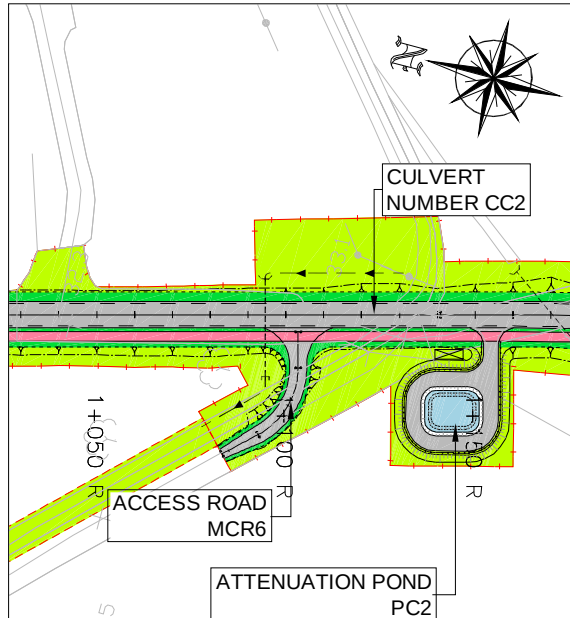
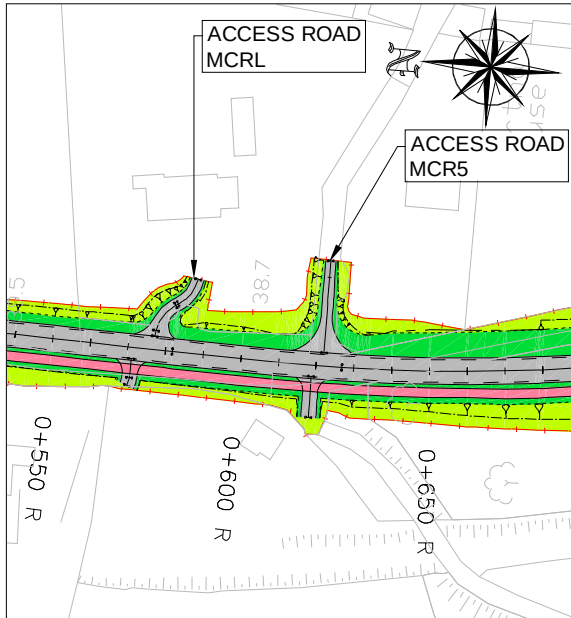
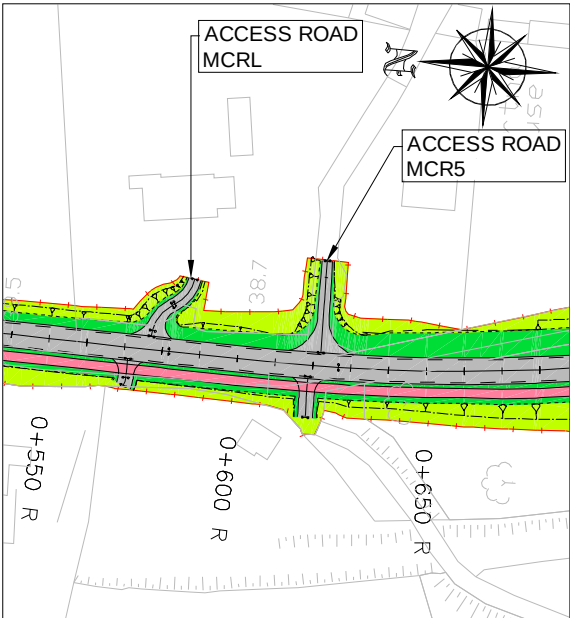
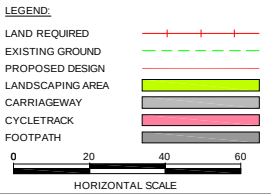


R494 NORTH REALIGNMENT ROAD



R496 REALIGNMENT ROAD

NOTE:
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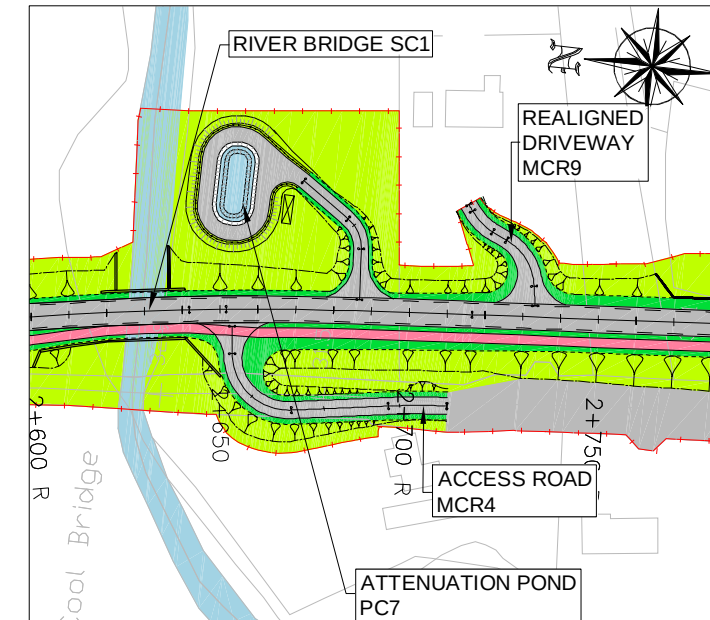
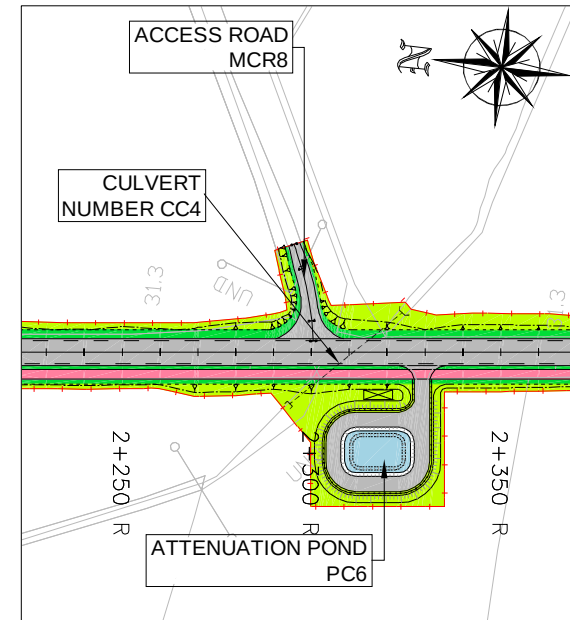
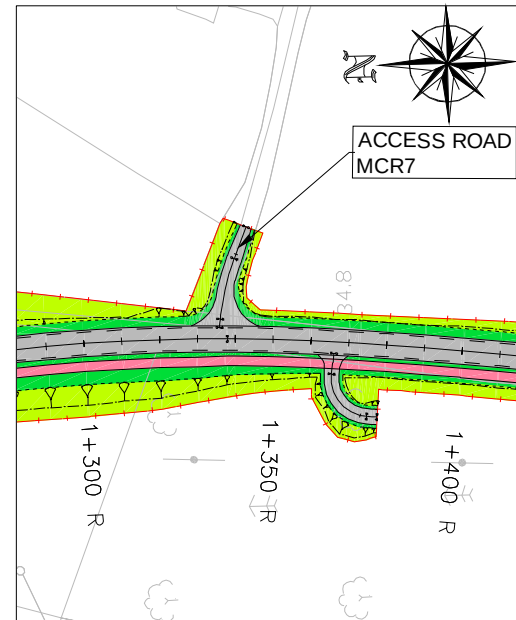
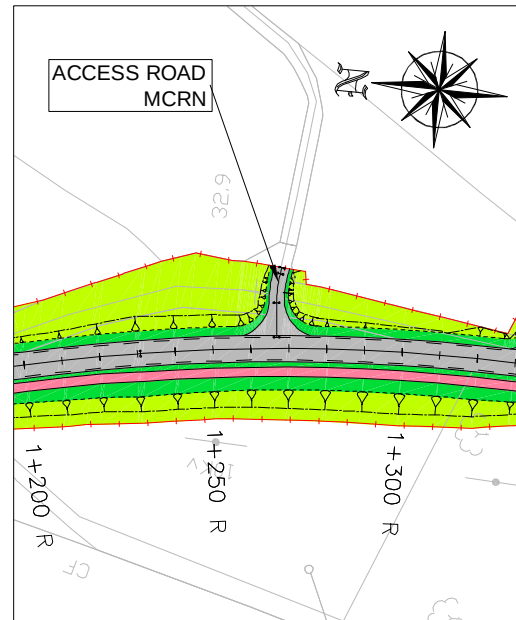
KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

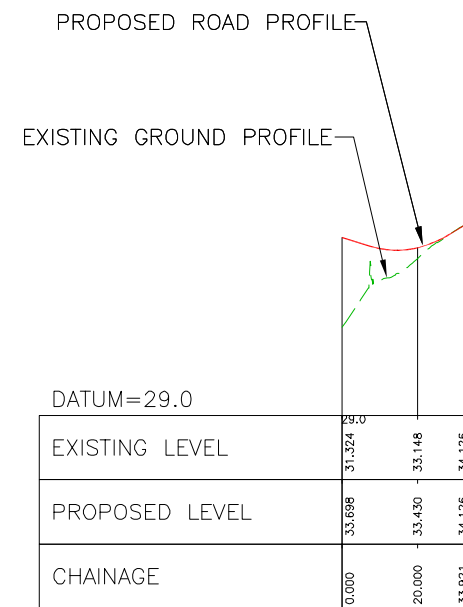
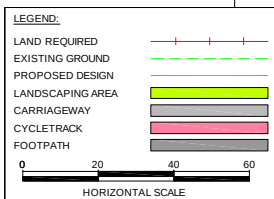


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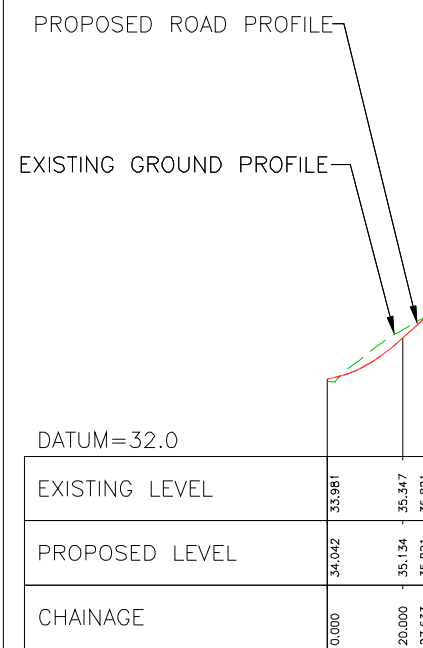
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Scale:	H=1:1000	Date:	JAN '12
		Drawing No:	FIG 3.16
		Rev:	



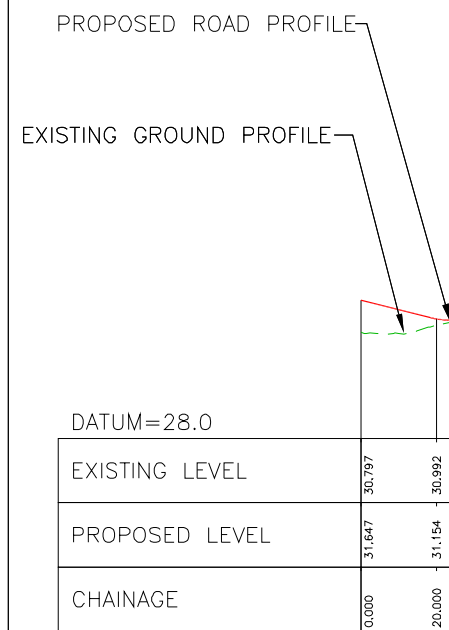
NOTE:
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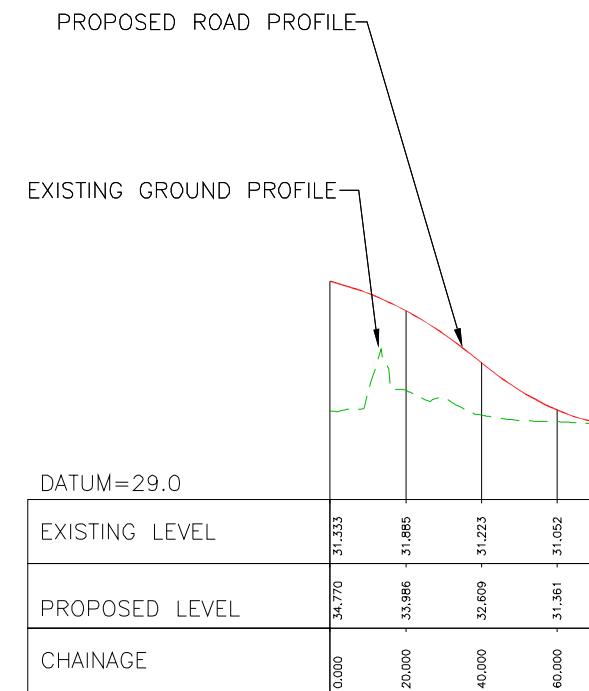
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SCALE H 1:1000. V 1:100



ACCESS ROAD MCR7
SCALE H 1:1000. V 1:100



ACCESS ROAD MCR8
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ACCESS ROAD MCR4
SCALE H 1:1000. V 1:100



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

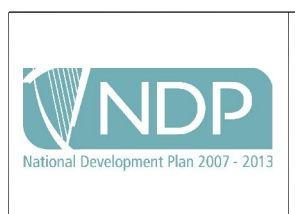
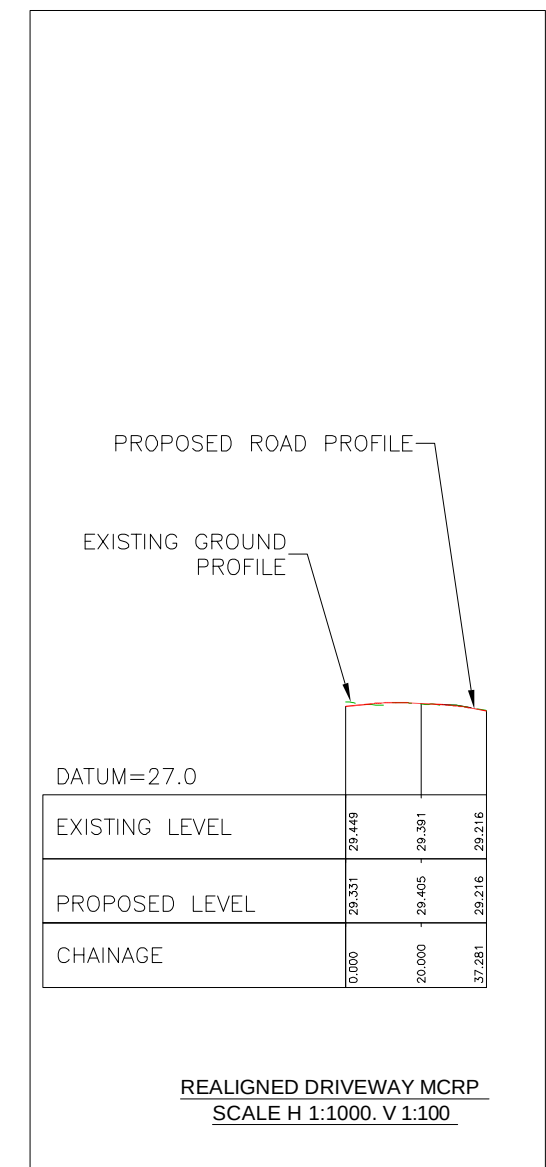
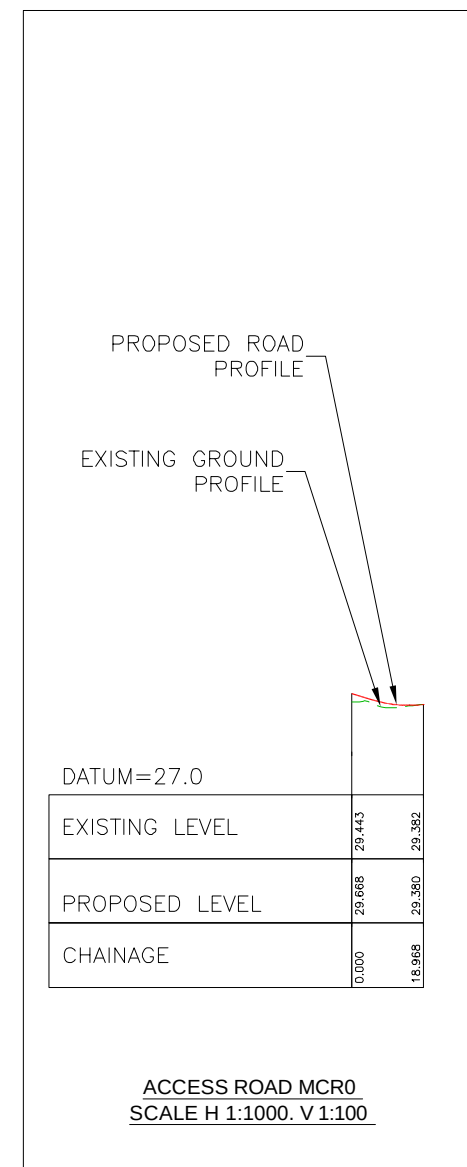
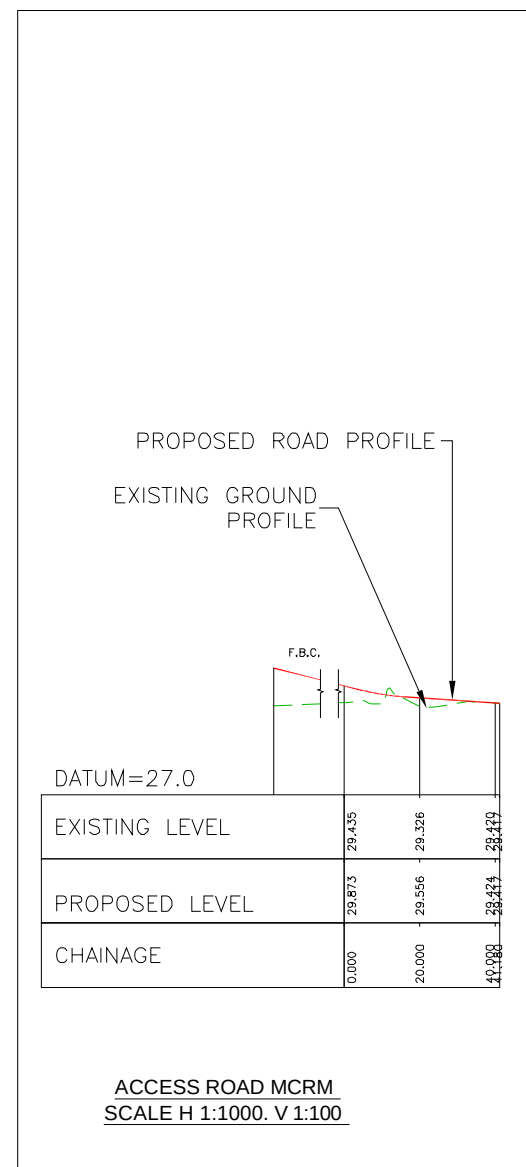
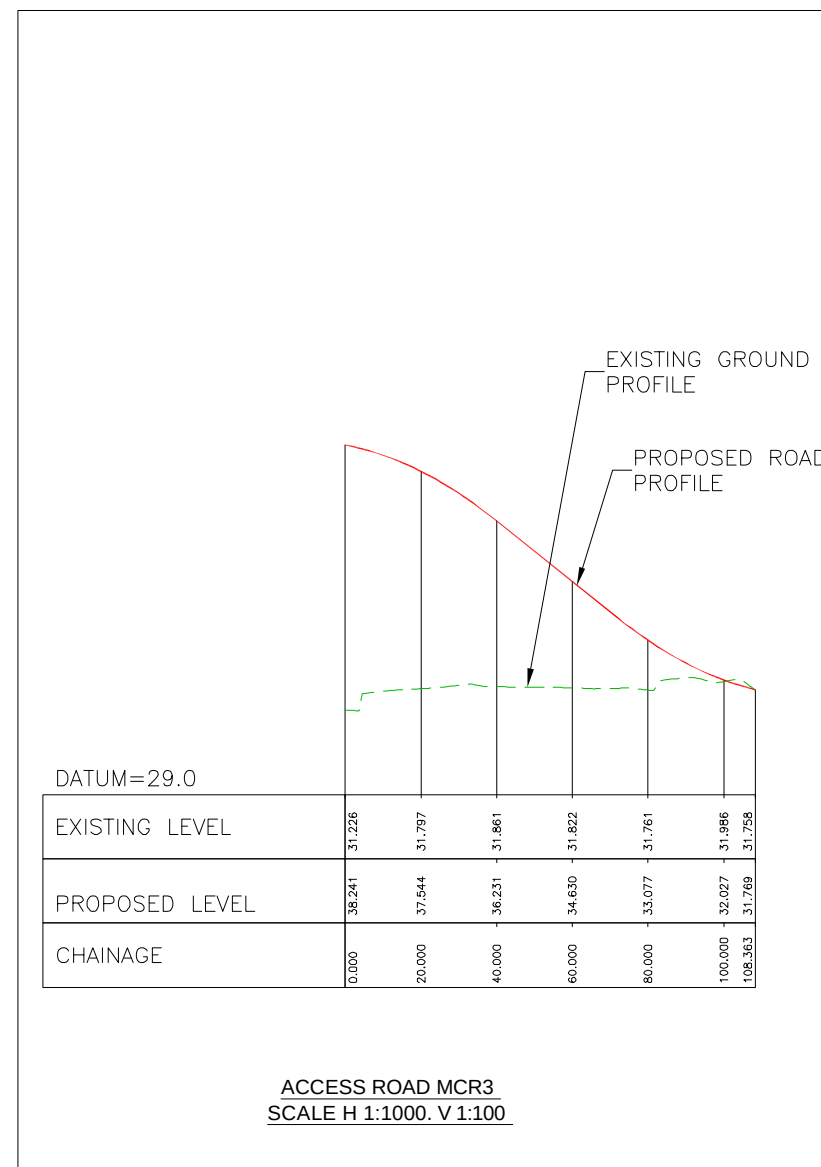
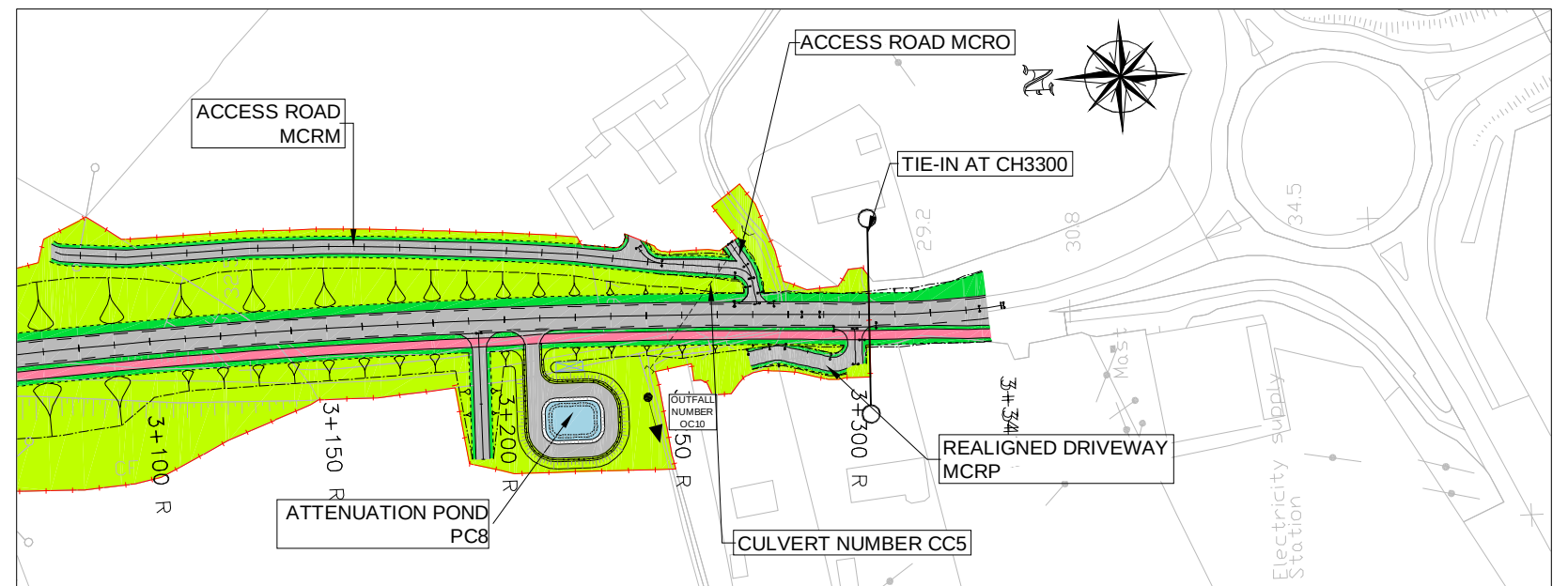
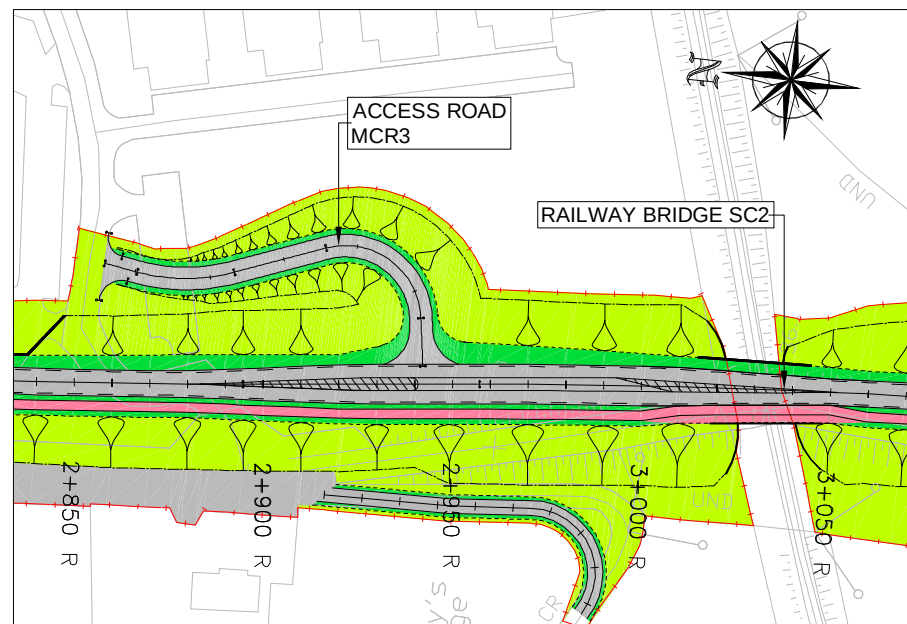
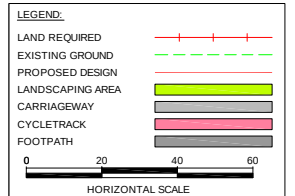
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Drawing Title			
R494 IMPROVEMENT - PLAN & PROFILE ACCESS ROADS SHEET 6 OF 7			
Drawn: LA	Job No: 07.527	Drawing No:	Rev:
Scale: H=1:1000	Date: JAN '12	FIG 3.17	

NOTE:
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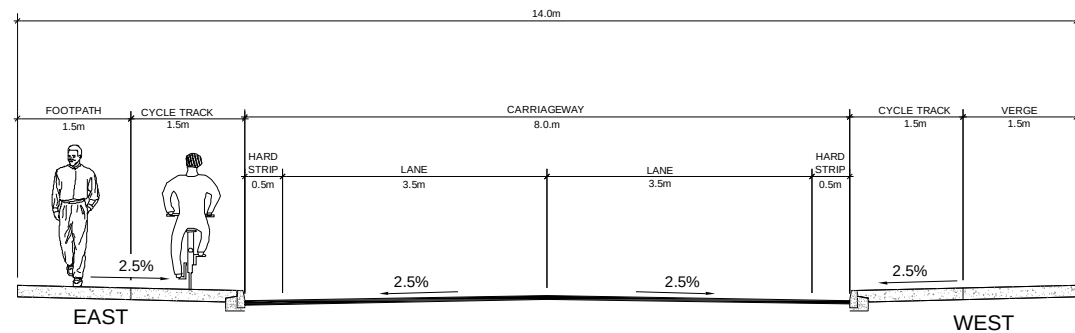
KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

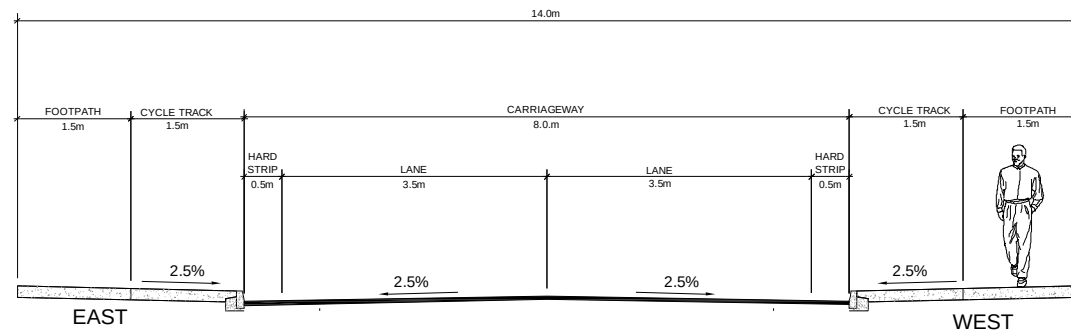


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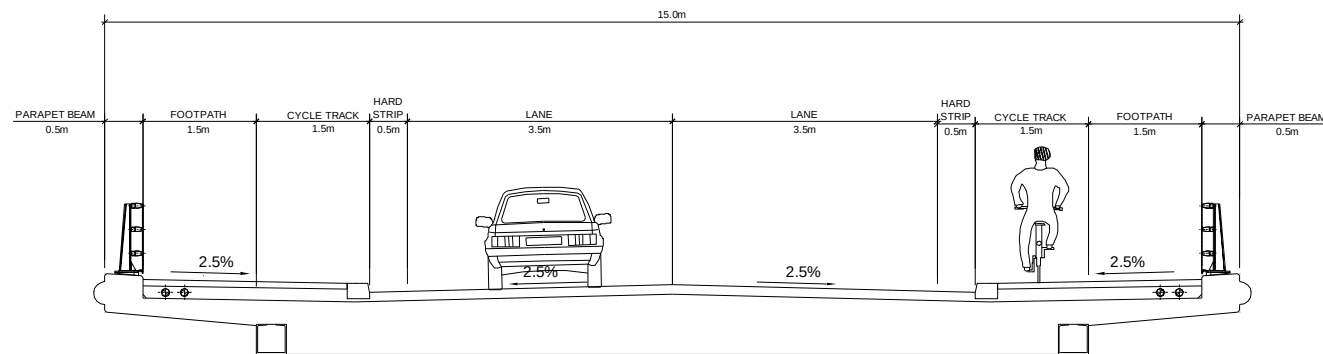
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ACCESS ROAD			
SHEET 7 OF 7			
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		Drawing No:	FIG 3.18
		Rev:	



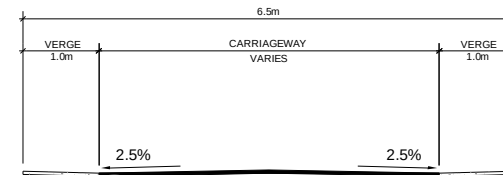
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SCALE 1:50



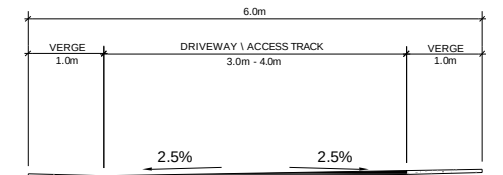
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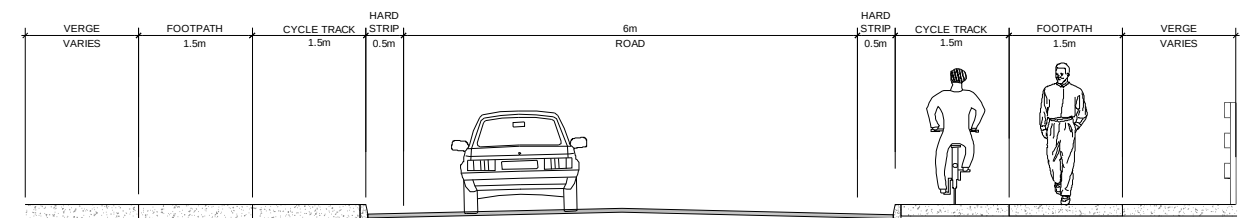
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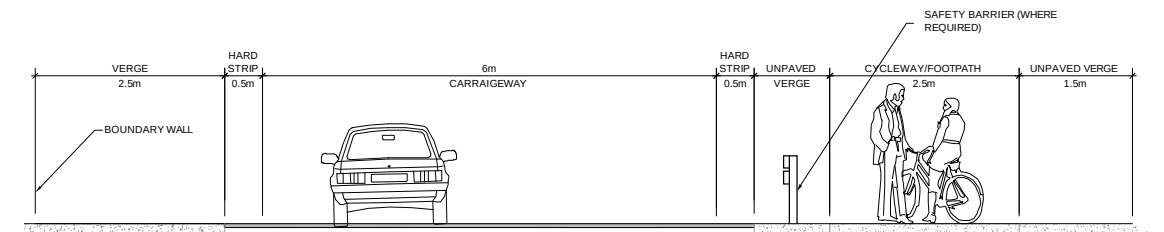
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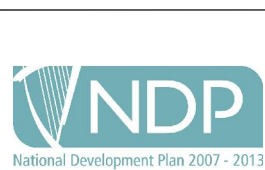
TYPICAL SECTION DETAIL FOR
DRIVEWAY / ACCESS TRACK
SCALE 1:50



TYPICAL CROSS SECTION
ALONG R494 CH 0+000 R - CH 0+144 R
(DESIGN SPEED 60 KPH - LOOKING SOUTH)
SCALE 1:50



TYPICAL CROSS SECTION
TYPE 3 SINGLE CARRIAGEWAY WITH 2.5m CYCLEWAY/FOOTPATH
ALONG R494 0+144 R - CH 3+341 R
(DESIGN SPEED 85kph - LOOKING SOUTH)
SCALE 1:50



KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

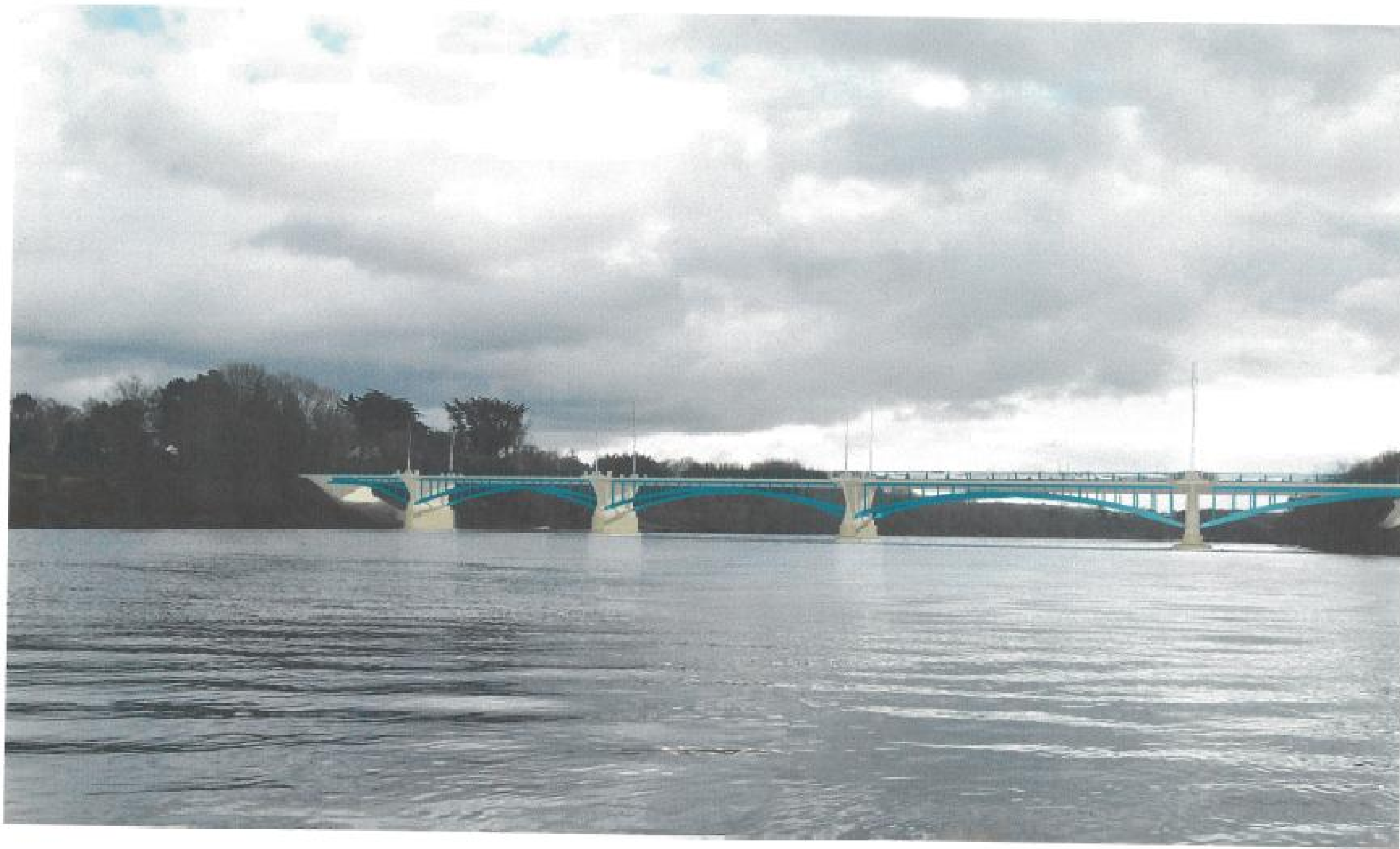
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Drawing Title				
TYPICAL ROAD CROSS SECTIONS				
Drawn:	LA	Job No:	07.527	Drawing No:
Scale:	AS SHOWN	Date:	JAN '12	FIG 3.19
Designed:	SG	Checked:	BC	Approved:
GPS	Status:	EIS		



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KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

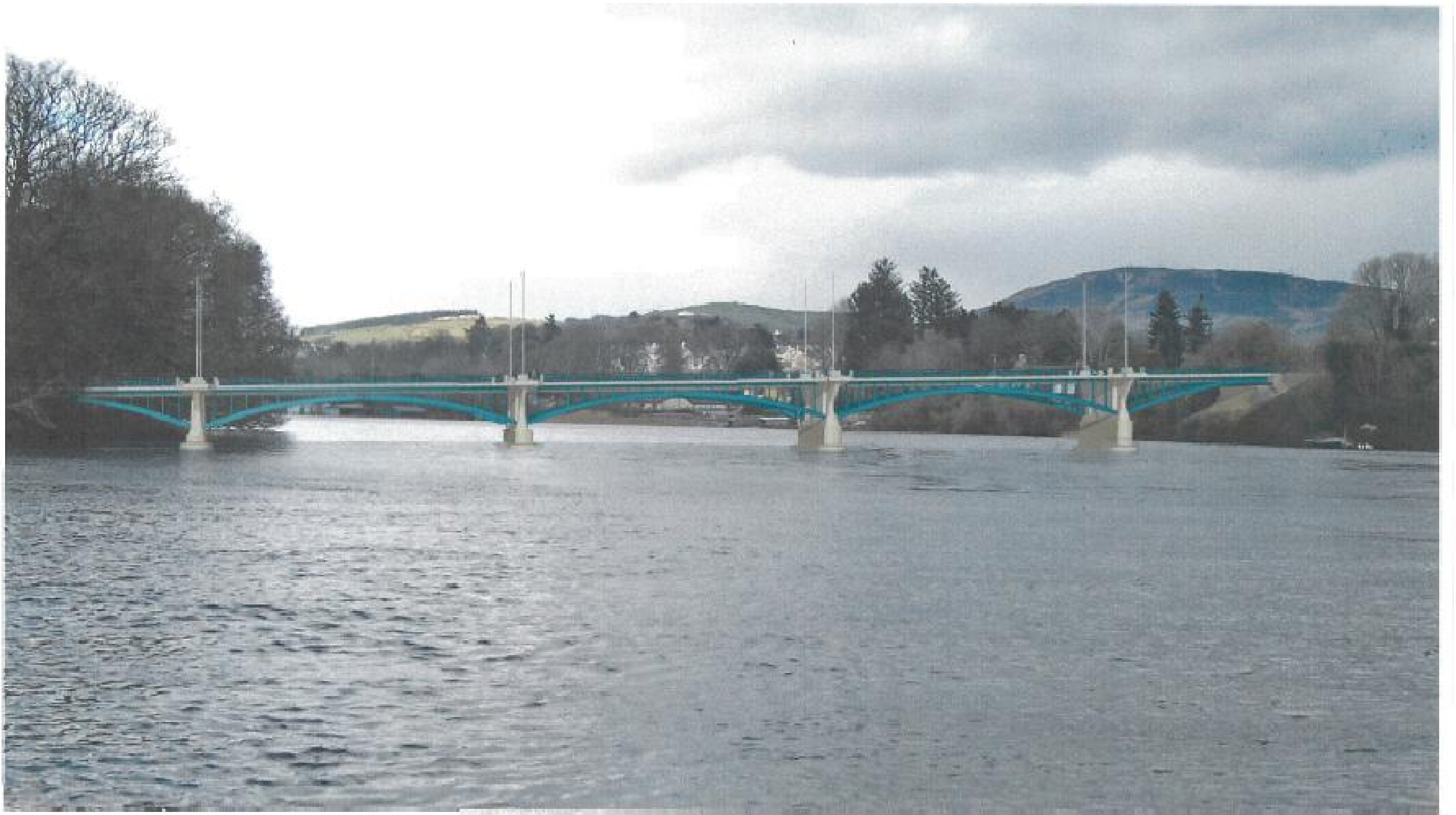


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Drawing Title				
SHAONNON BRIDGE PHOTOMONTAGE OF PREFERRED BRIDGE SHEET 1 OF 2				
Drawn:	LA	Job No:	07.527	Drawing No:
Scale:	N.T.S.	Date:	JAN '12	FIG 3.20



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KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



**Roughan &
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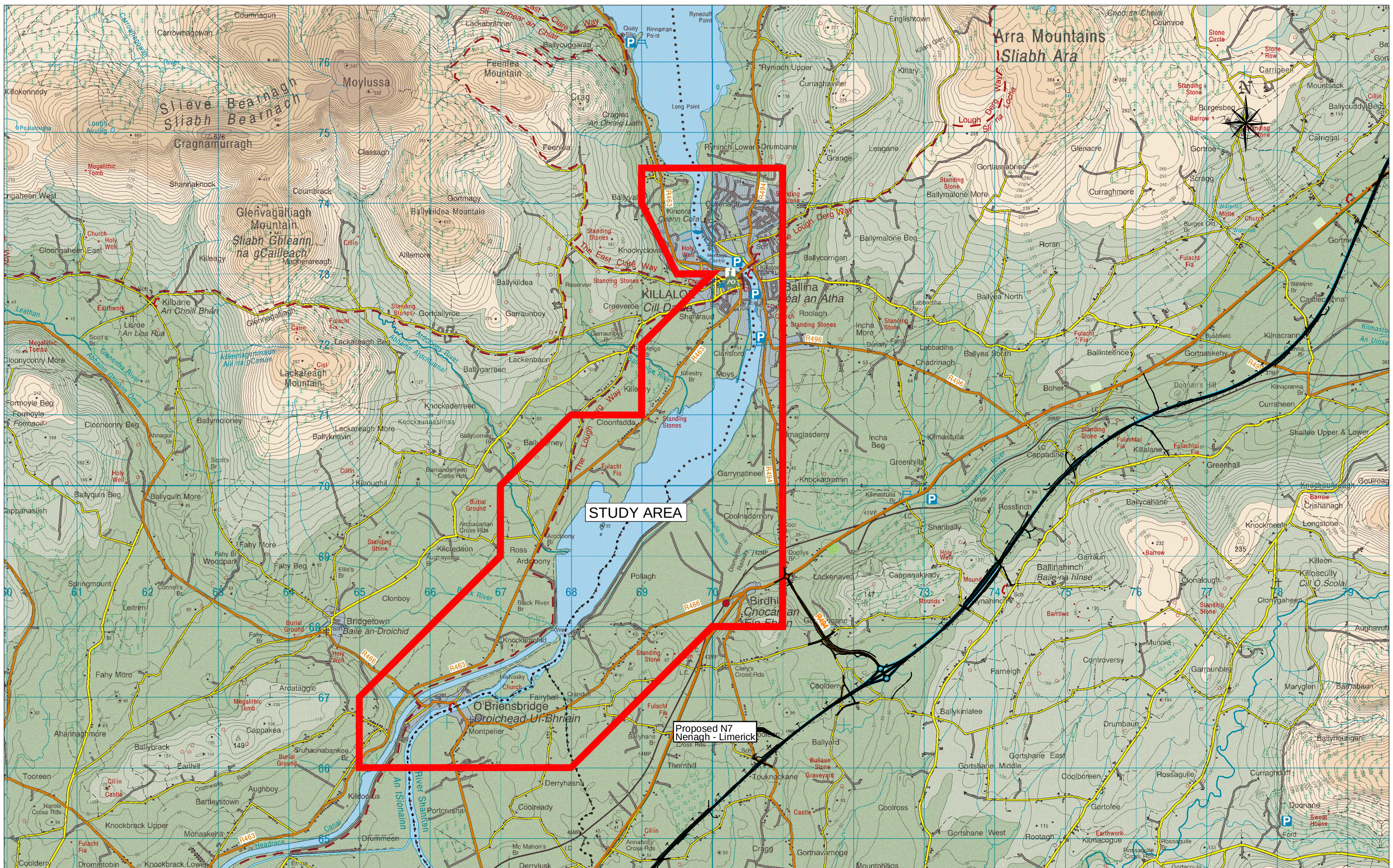
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Drawing Title

SHANNON BRIDGE
PHOTOMONTAGE OF PREFERRED BRIDGE
SHEET 2 OF 2

Drawn:	LA	Job No:	07.527	Drawing No:		Rev:	
Scale:	N.T.S.	Date:	JAN '12	FIG 3.21			



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**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
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ENVIRONMENTAL IMPACT STATEMENT

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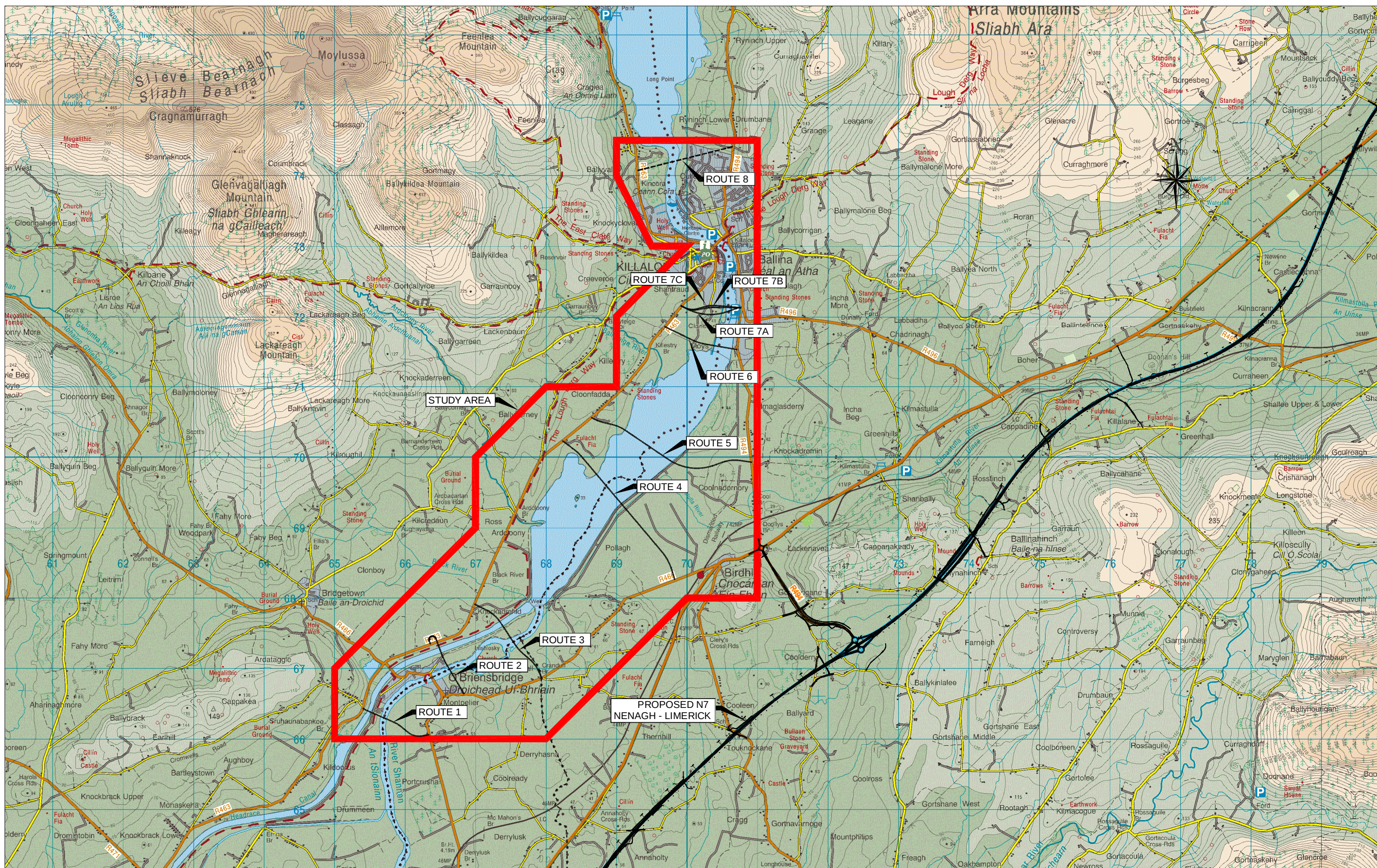
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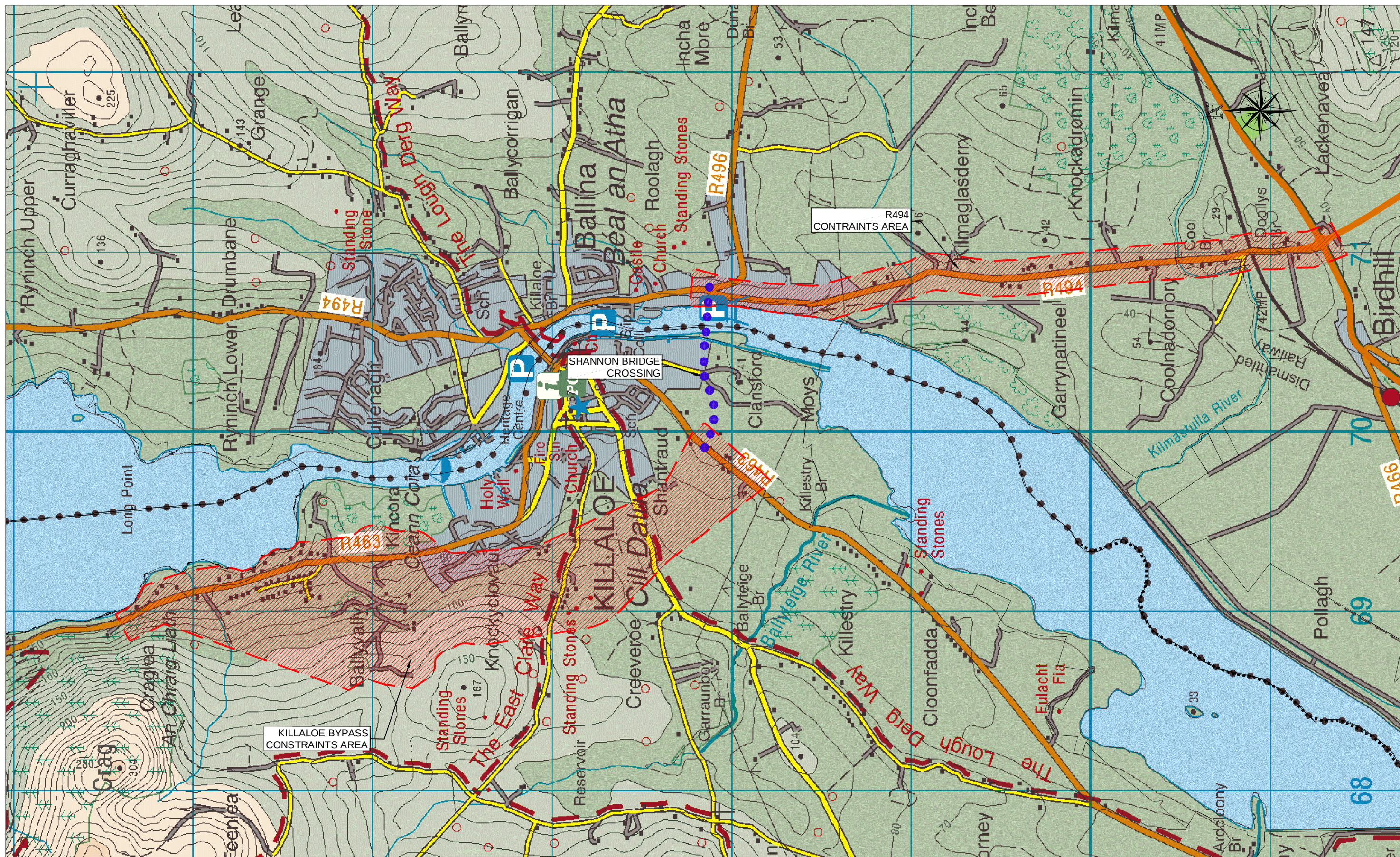
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Drawing Title			
CONSTRAINTS STUDY AREA SHANNON CROSSING STUDY (2005)			
Drawn: LA	Job No: 07.527	Drawing No:	Rev:
Scale: 1:25000 (A3)	Date: JAN 12	FIG 4.1	

DO NOT SCALE USE FIGURED DIMENSIONS ONLY





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ENVIRONMENTAL IMPACT STATEMENT

DEC 08 MC



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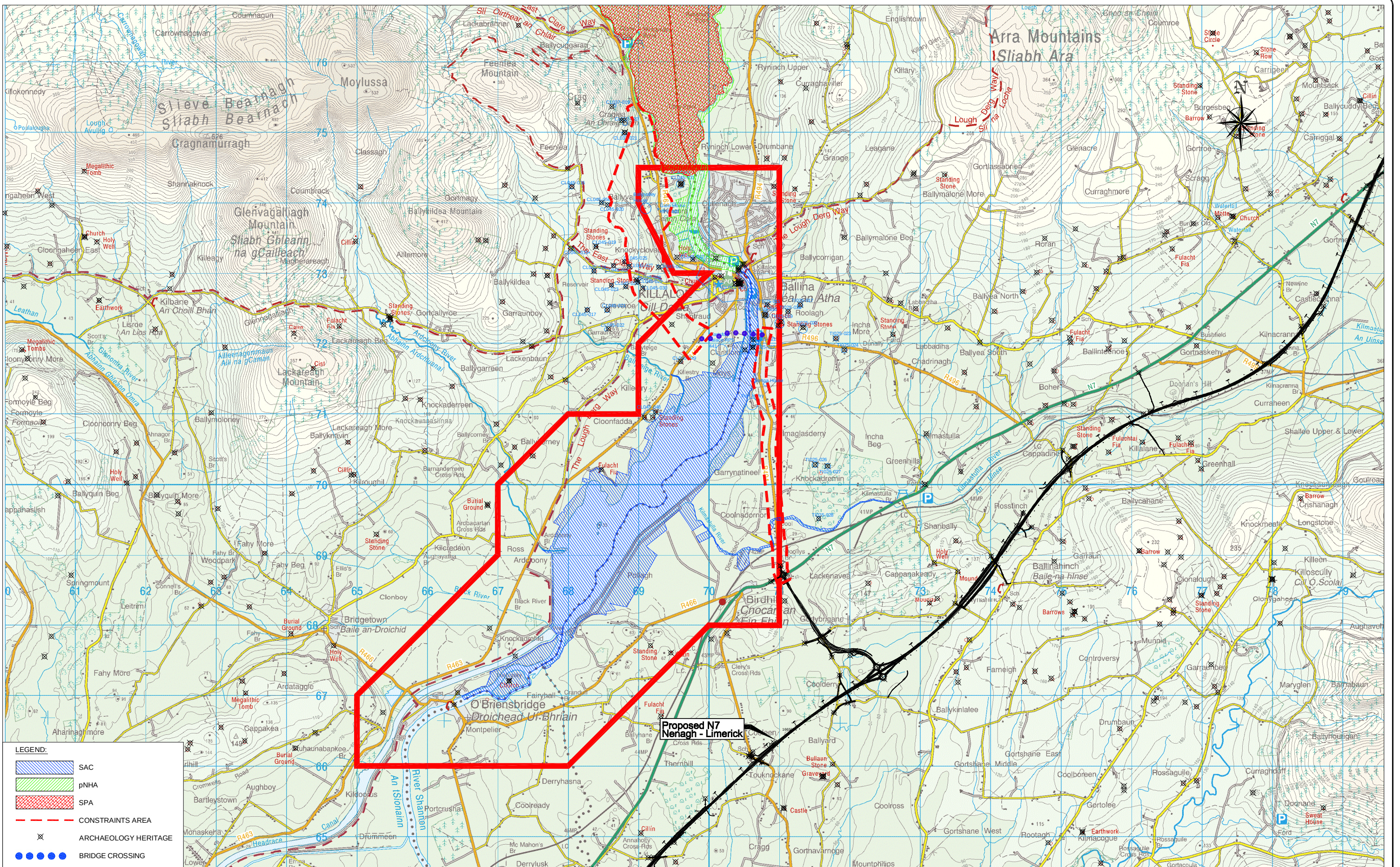
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Drawing Title

KILLALOE BYPASS & R494 IMPROVEMENT
CONSTRAINTS STUDY AREA

Drawn: LA	Job No: 07.527	Drawing No: FIG 4.3	Rev:
Scale: 1:10000	Date: JAN '12		

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National Development Plan 2007 - 2013



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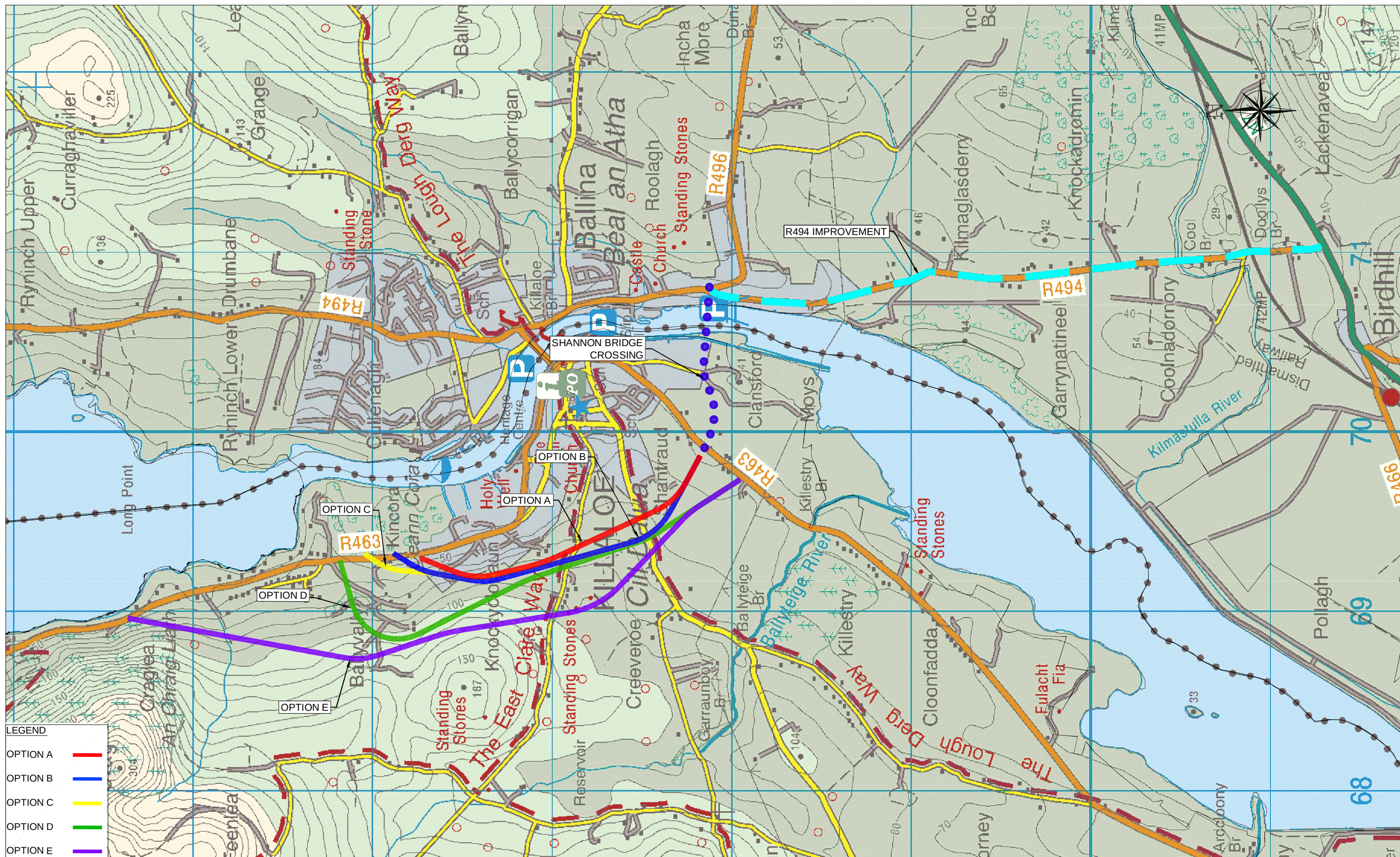
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Drawing Title

**SHANNON RIVER CROSSING
PRIMARY CONSTRAINTS IDENTIFIED**

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Scale:	1:25000	Date:	JAN 12	FIG 4.4			

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**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT**

DEC 08 MC

ENVIRONMENTAL IMPACT STATEMENT



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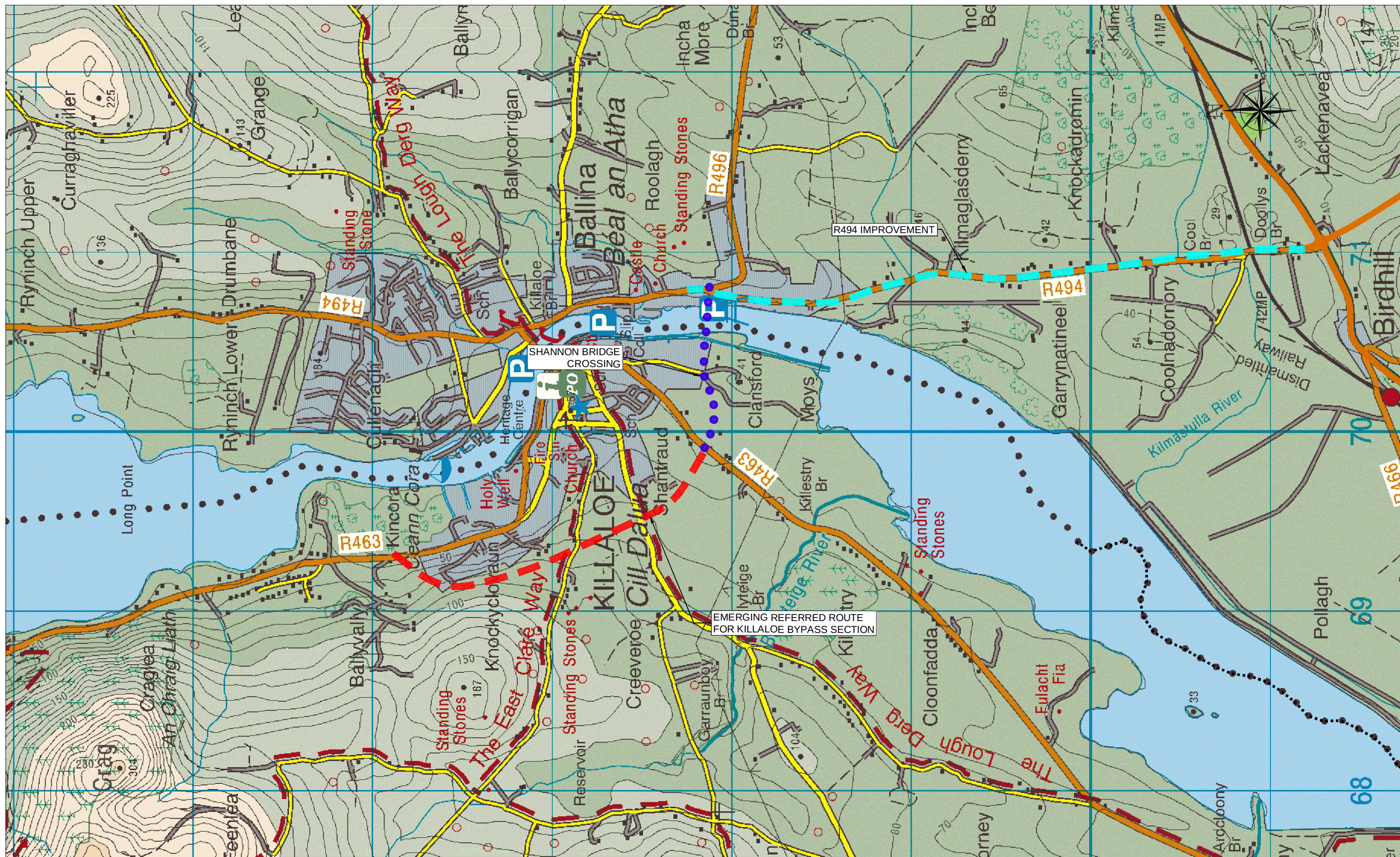
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Drawing Title
**KILLALOE BYPASS
ROUTE OPTIONS**

Drawn: LA	Job No: 07.527	Drawing No: FIG 4.5	Rev:
Scale: 1:10000	Date: JAN '12		



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DEC 08 MC

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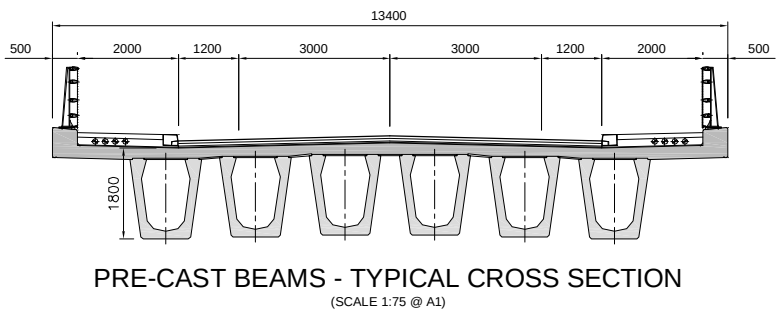
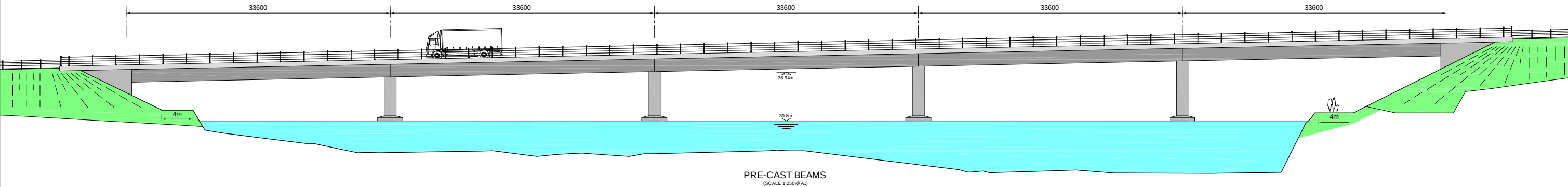
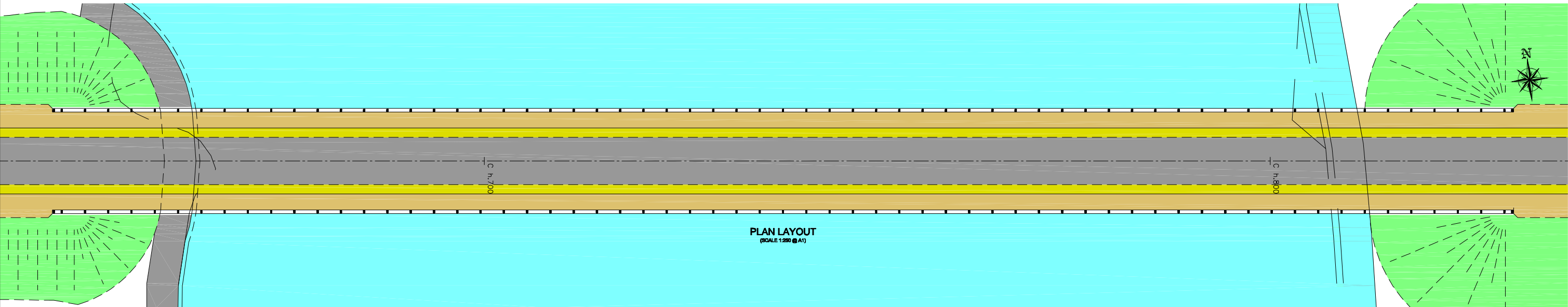
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Drawing Title

KILLALOE BYPASS
PREFERRED ROUTE

Drawn: LA	Job No: 07.527	Drawing No: FIG 4.6	Rev:
Scale: 1:10000	Date: JAN '12		

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KILLALOE BYPASS, SHANNON BRIDGE CROSSING
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ENVIRONMENTAL IMPACT STATEMENT

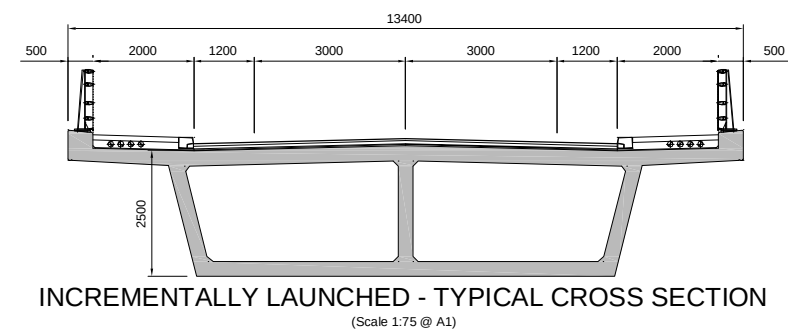
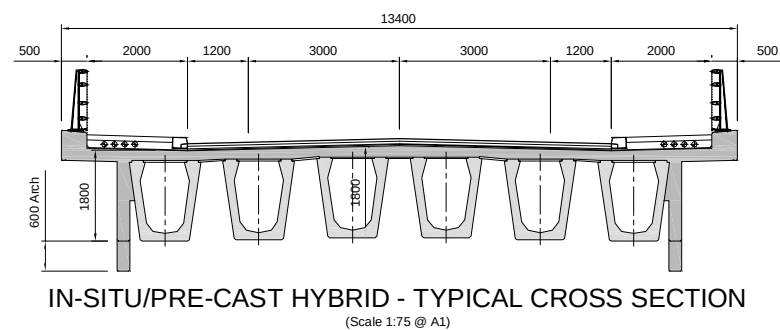
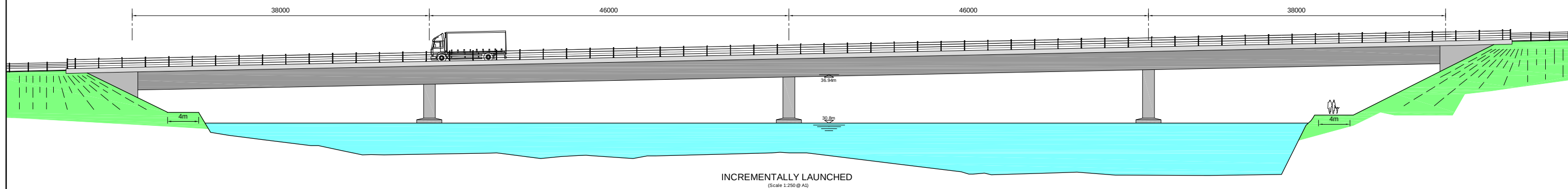
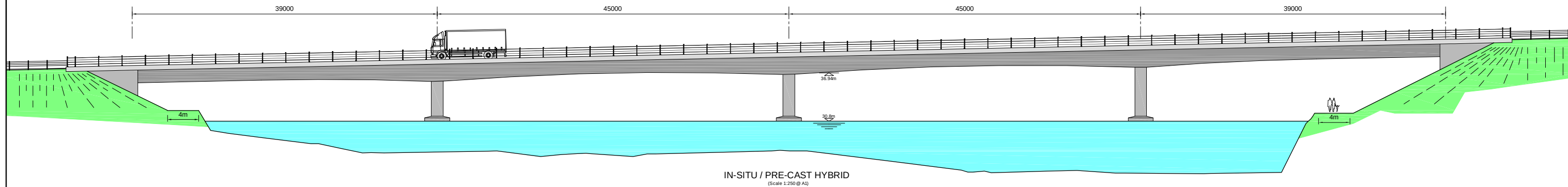


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Drawing Title			
SHANNON BRIDGE PRE-CAST BEAM & SLAB BRIDGE OPTION			
Drawn: LA	Job No: 07.527	Drawing No: FIG 4.7	Rev:
Scale: (A3)	Date: JAN '12		

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KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

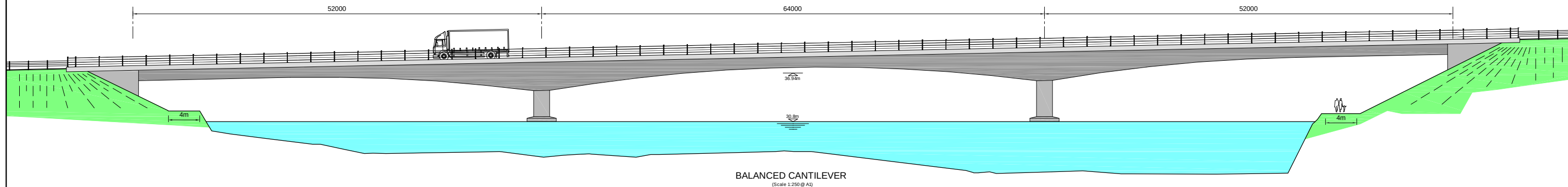
ENVIRONMENTAL IMPACT STATEMENT



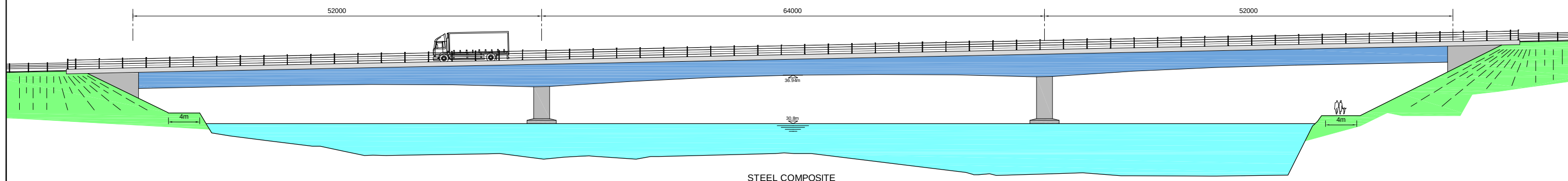
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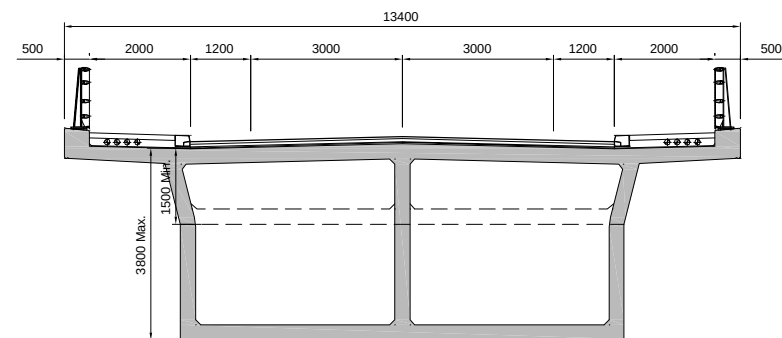
Drawing Title			
SHANNON BRIDGE IN-SITU/PRE-CAST HYBRID BRIDGE OPTION			
Drawn: LA	Job No: 07.527	Drawing No:	Rev:
Scale: (A3)	Date: JAN '12	FIG 4.8	



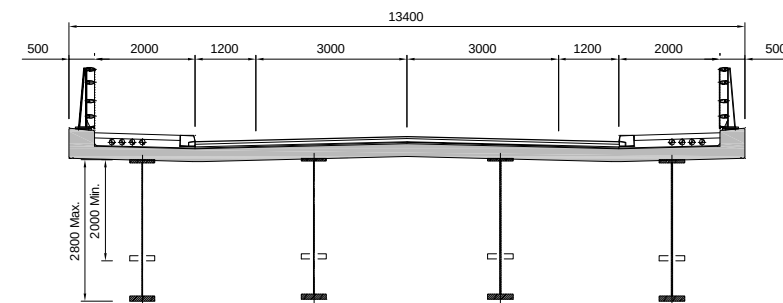
BALANCED CANTILEVER
(Scale 1:250 @ A1)



STEEL COMPOSITE
(Scale 1:250 @ A1)



BALANCED CANTILEVER - TYPICAL CROSS SECTION
(Scale 1:75 @ A1)



STEEL COMPOSITE - TYPICAL CROSS SECTION
(Scale 1:75 @ A1)



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

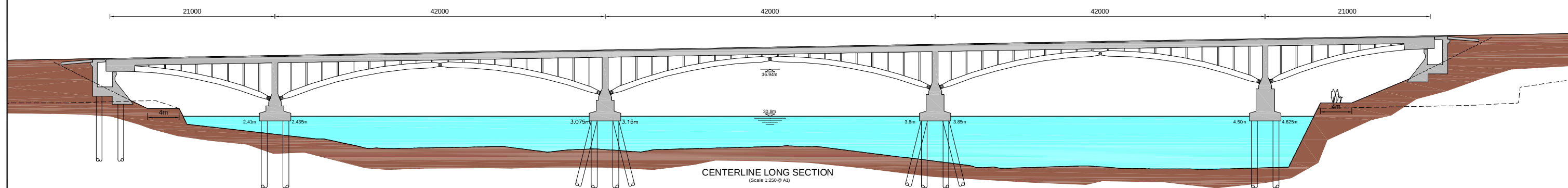
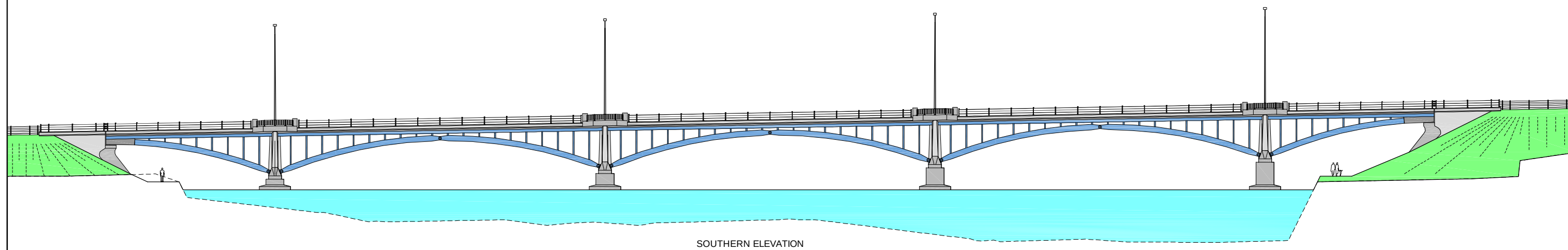
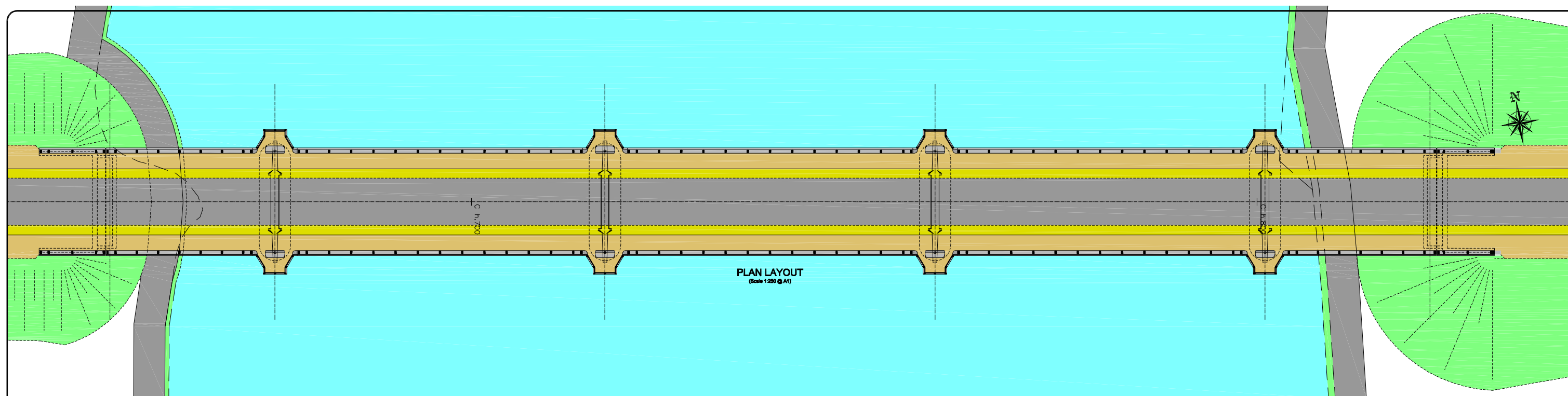
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Drawing Title			
SHANNON BRIDGE BALANCED CANTILEVER BRIDGE & STEEL COMPOSITE BRIDGE OPTIONS			
Drawn: LA	Job No: 07.527	Drawing No:	Rev:
Scale: (A3)	Date: JAN '12	FIG 4.9	



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

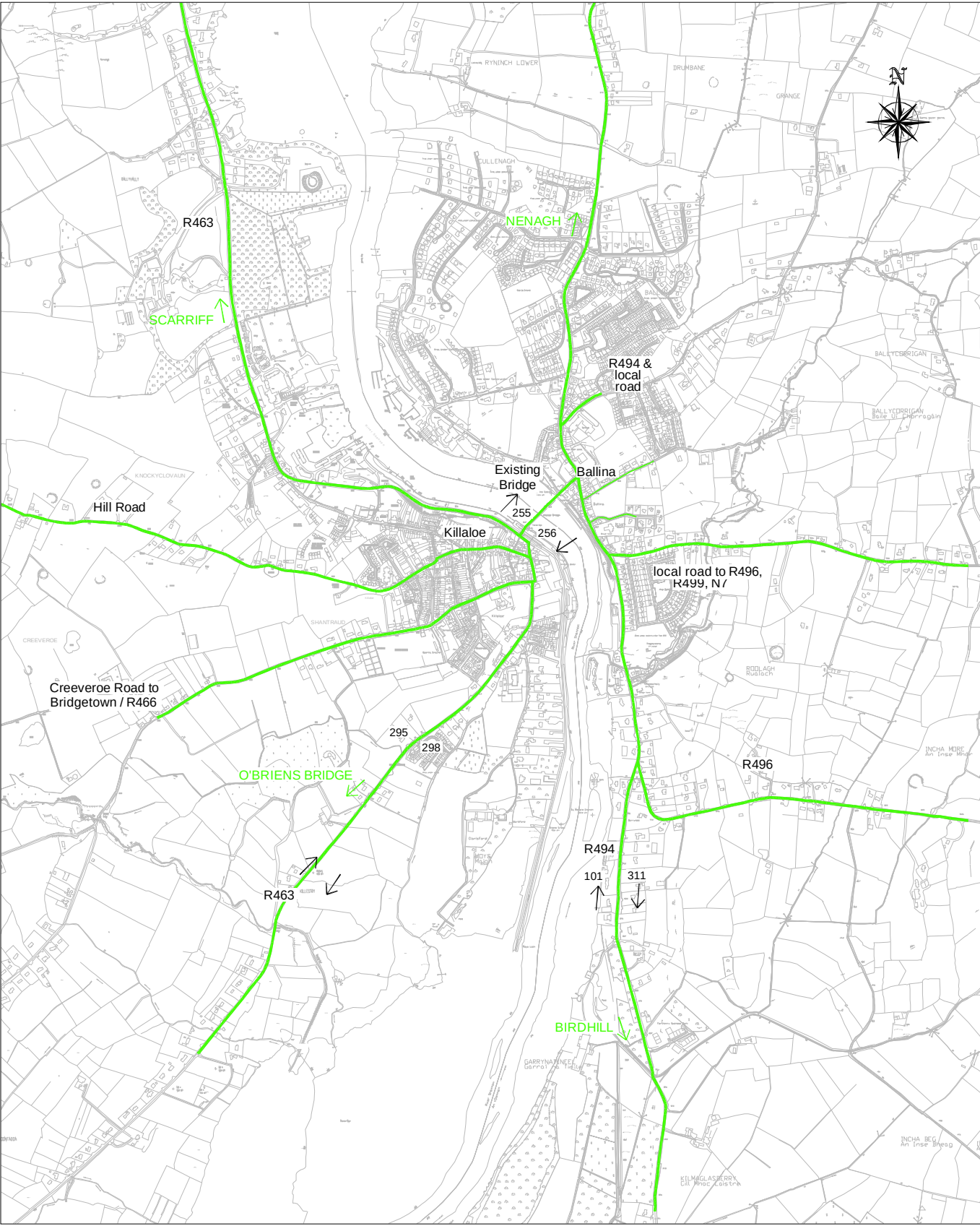
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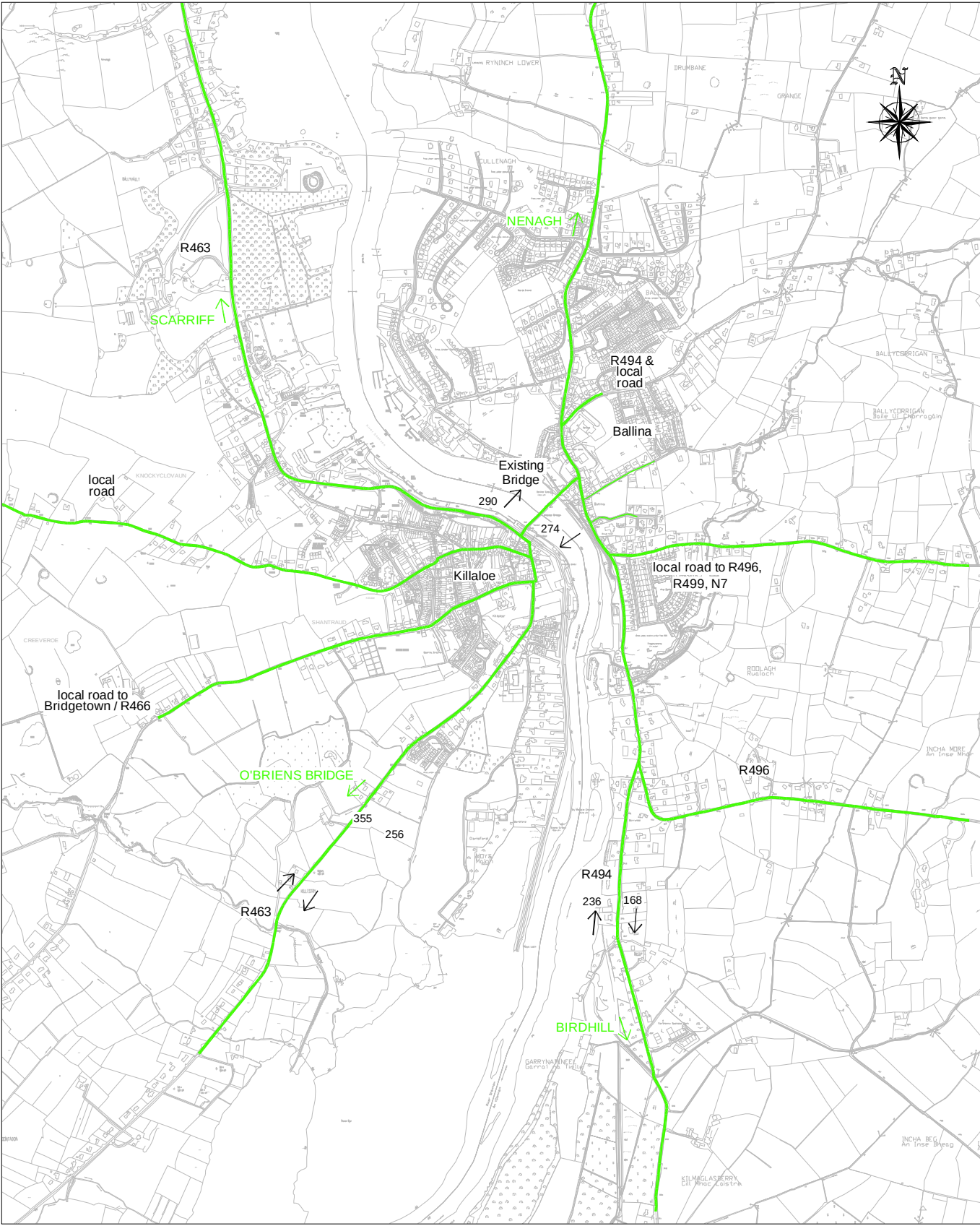
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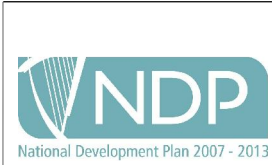
Drawing Title			
SHANNON BRIDGE MULTIPLE ARCH BRIDGE OPTION			
Drawn: LA	Job No: 07.527	Drawing No: FIG 4.10	Rev:
Scale: AS SHOWN (A3)	Date: JAN '12		



KILLALOE BYPASS:
2011 AM PEAK HOUR FLOWS



KILLALOE BYPASS:
2011 PM PEAK HOUR FLOWS



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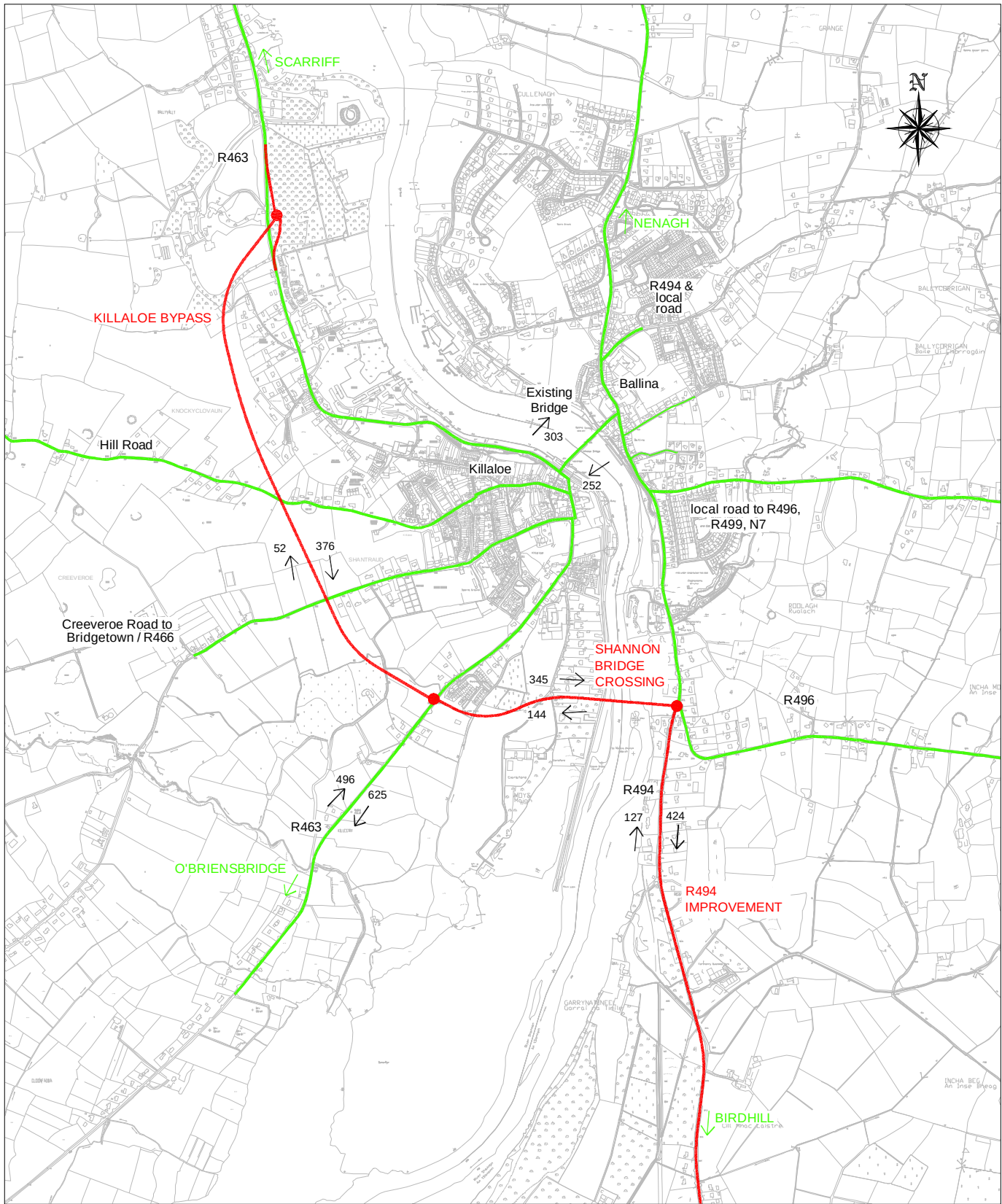
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Drawing Title

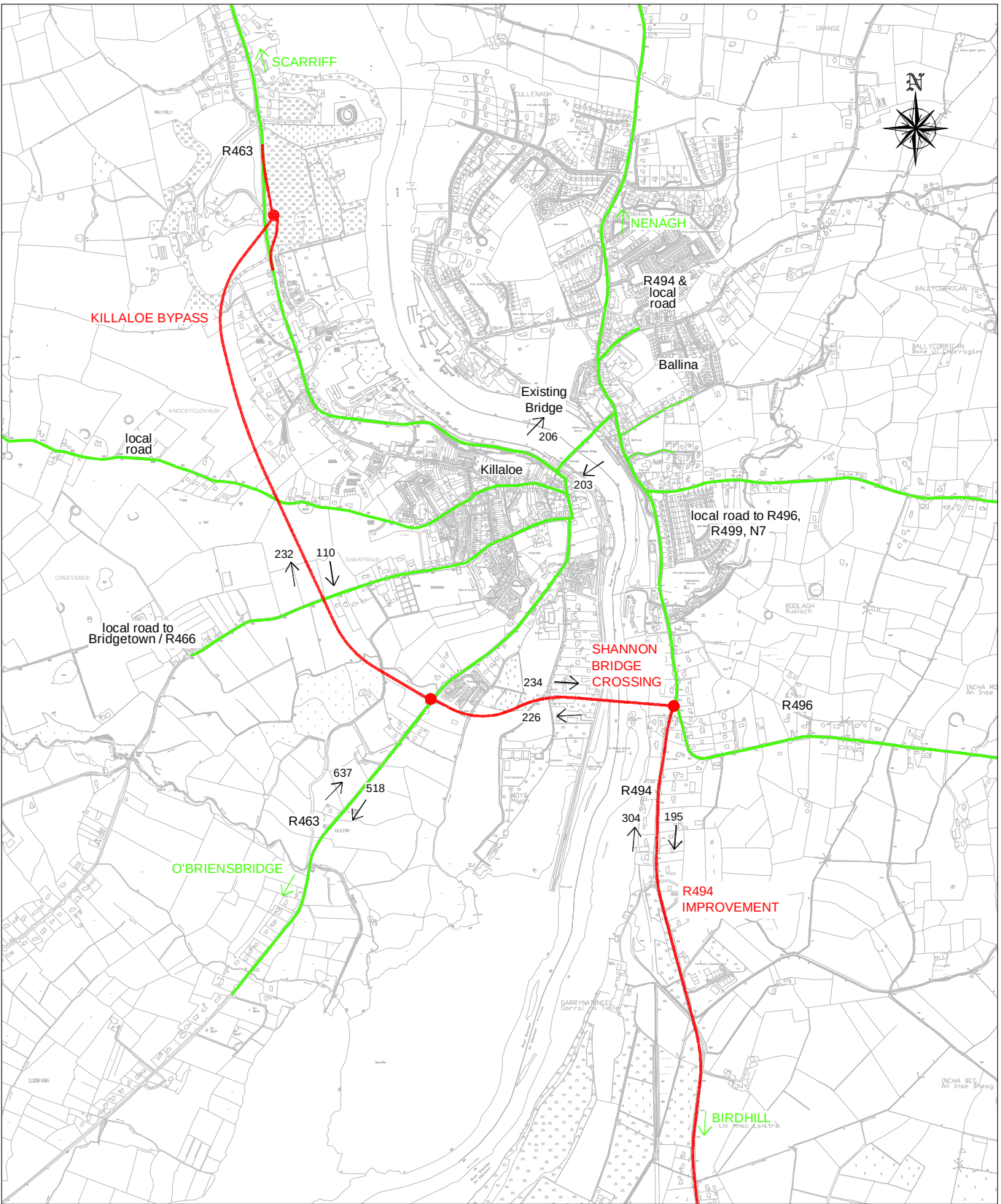
KILLALOE BYPASS & R494
TRAFFIC VOLUMES
2011 PEAK HOURS FLOW

Drawn: LA	Job No: 07-527	Drawing No: FIG 5.1	Rev:
Scale: (A3)	Date: JAN '12		

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KILLALOE BYPASS:
2027 AM PEAK HOUR FLOWS



KILLALOE BYPASS:
2027 PM PEAK HOUR FLOWS



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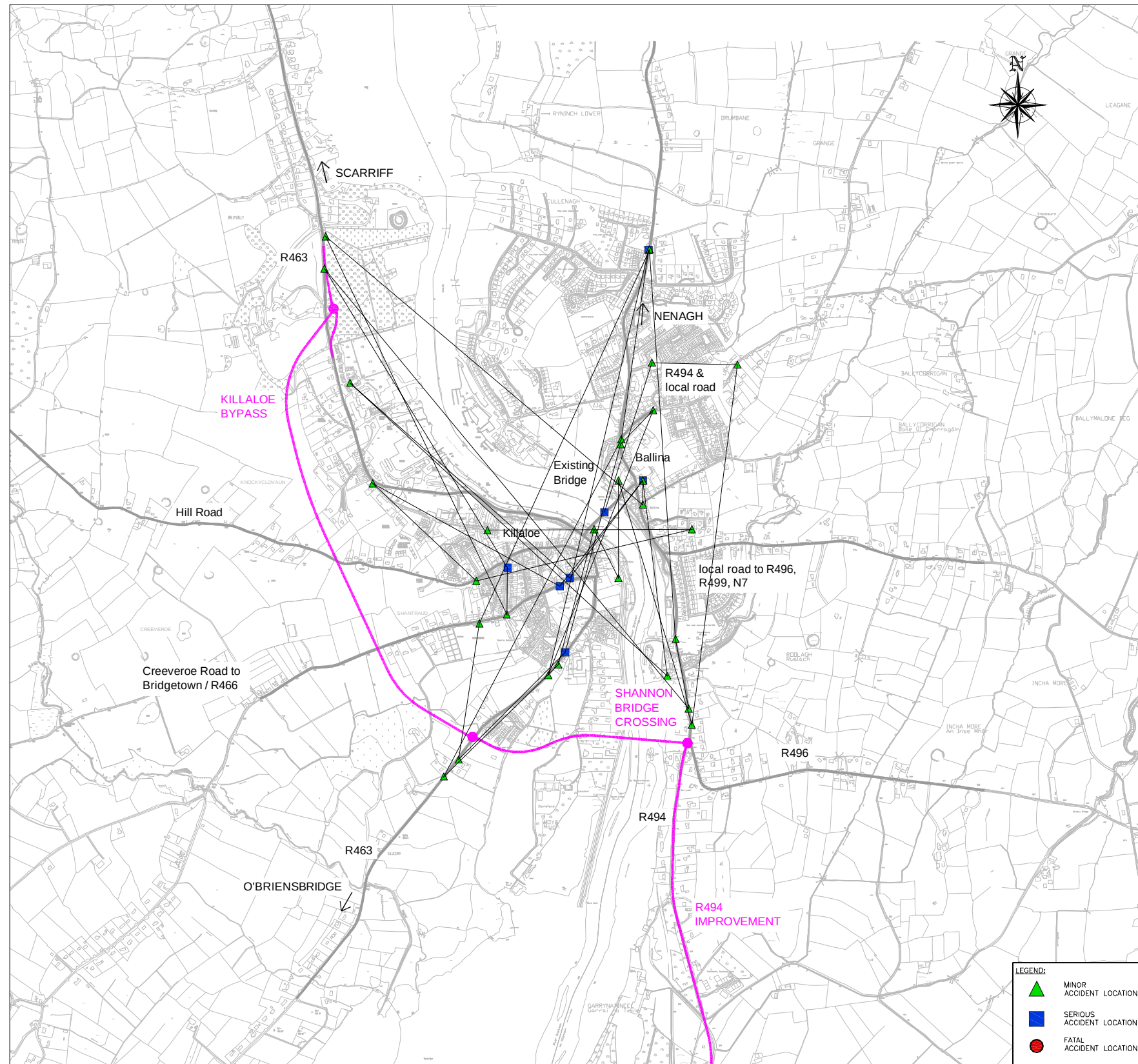


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Drawing Title				
KILLALOE BYPASS & R494 TRAFFIC VOLUMES 2027 PEAK HOUR FLOWS				
Drawn:	LA	Job No:	07-527	Drawing No:
Scale:	N.T.S.	Date:	JAN '12	FIG 5.2
				Rev:

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KILLALOE BYPASS:
ACCIDENT DATA RESULTS

KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

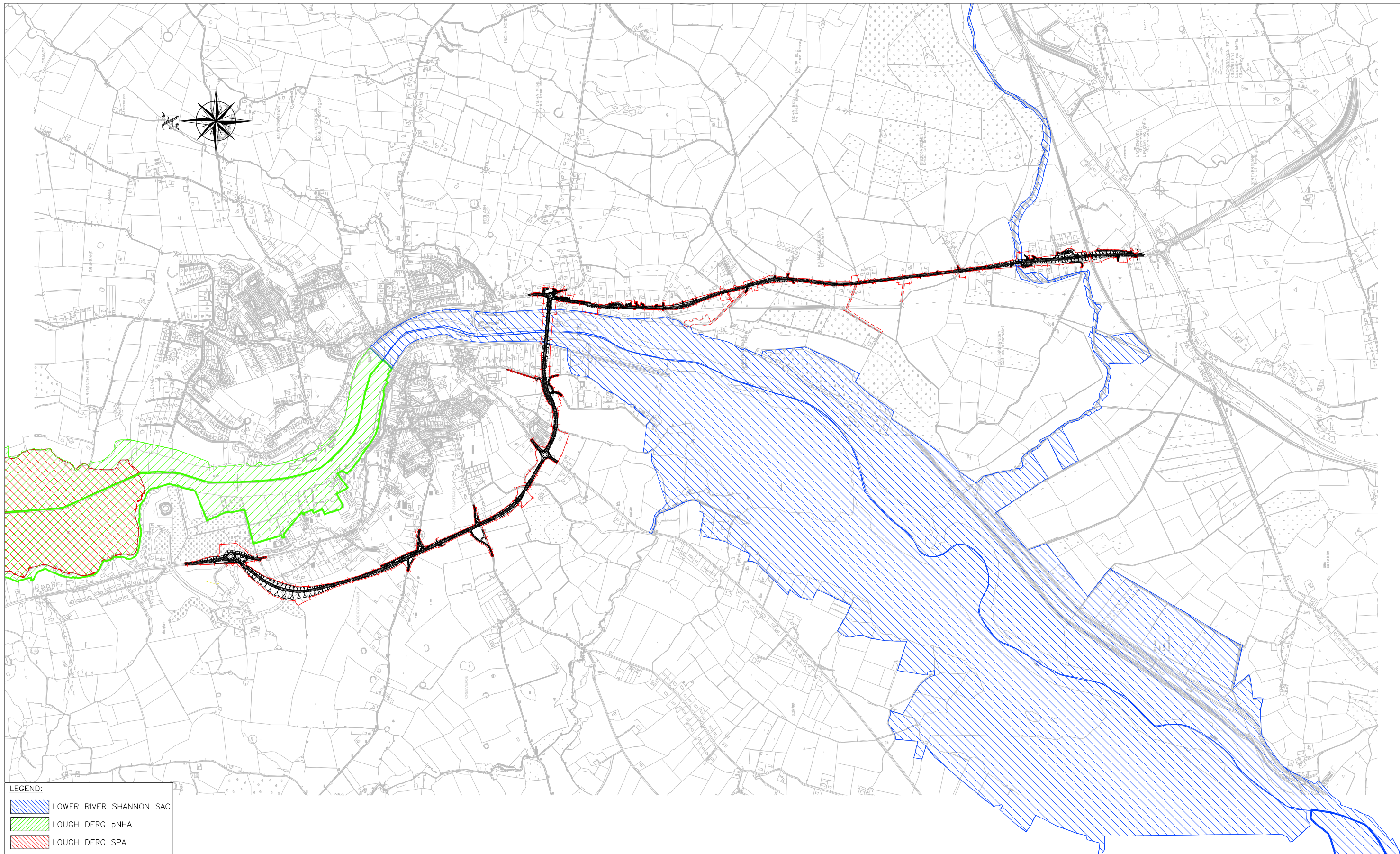
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Drawing Title			
KILLALOE BYPASS & R494 ACCIDENT DATA RECORDS 1996 - 2008			
Drawn: JMK	Job No: 07-527	Drawing No:	Rev:
Scale: (A3)	N.T.S.	Date: JAN '12	FIG 5.3

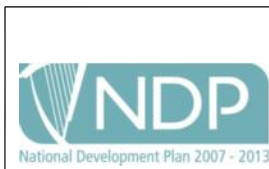


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LEGEND:

- LOWER RIVER SHANNON SAC
- LOUGH DERG pNHA
- LOUGH DERG SPA



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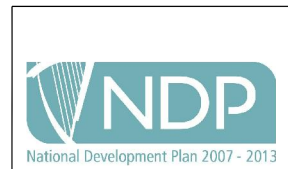
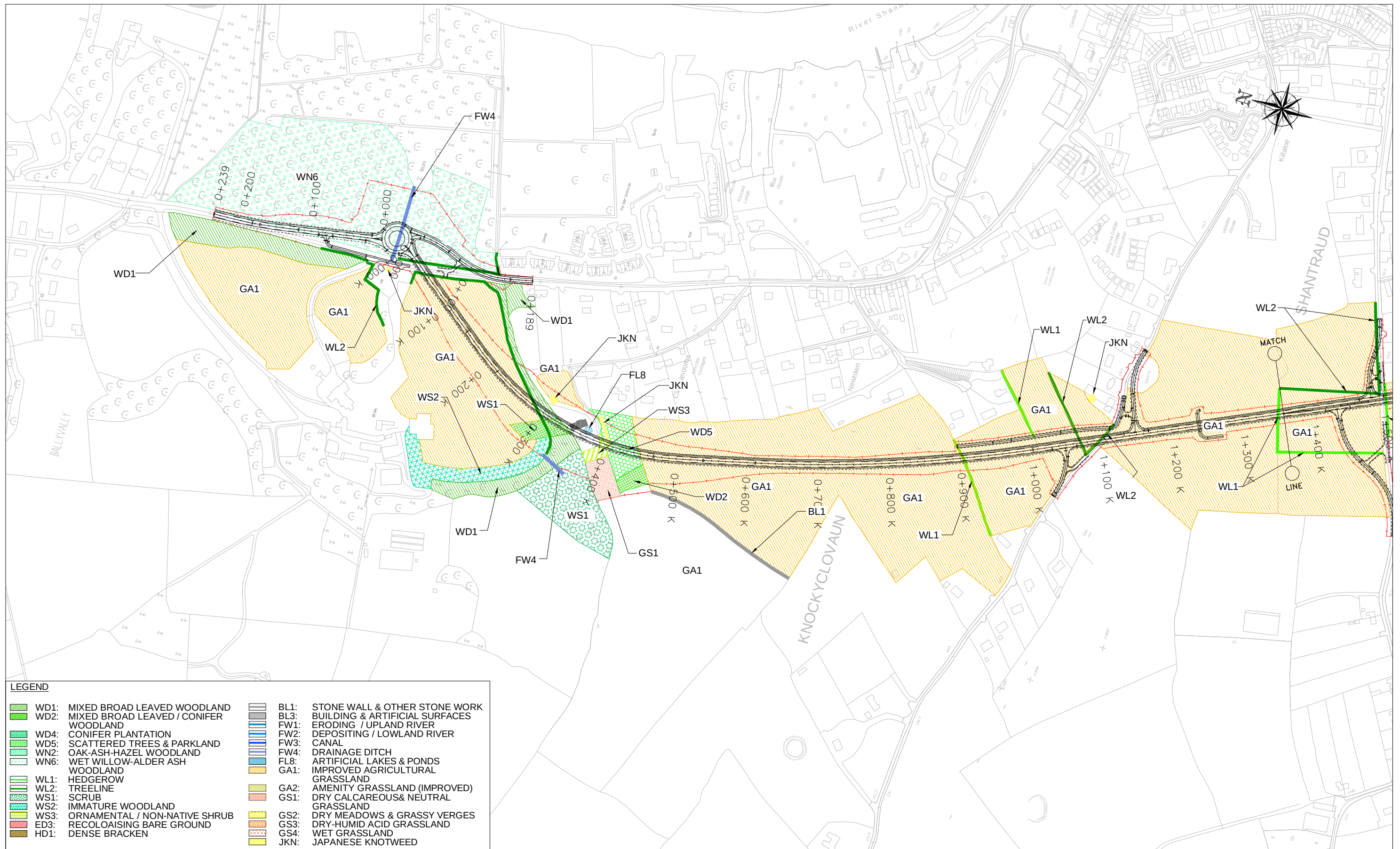
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Drawing Title

CONSERVATION DESIGNATIONS

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Scale:	1:2500	Date:	JAN '12	FIG 7.2.1			

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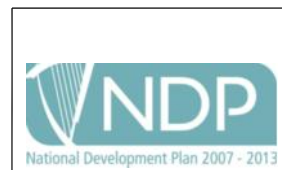
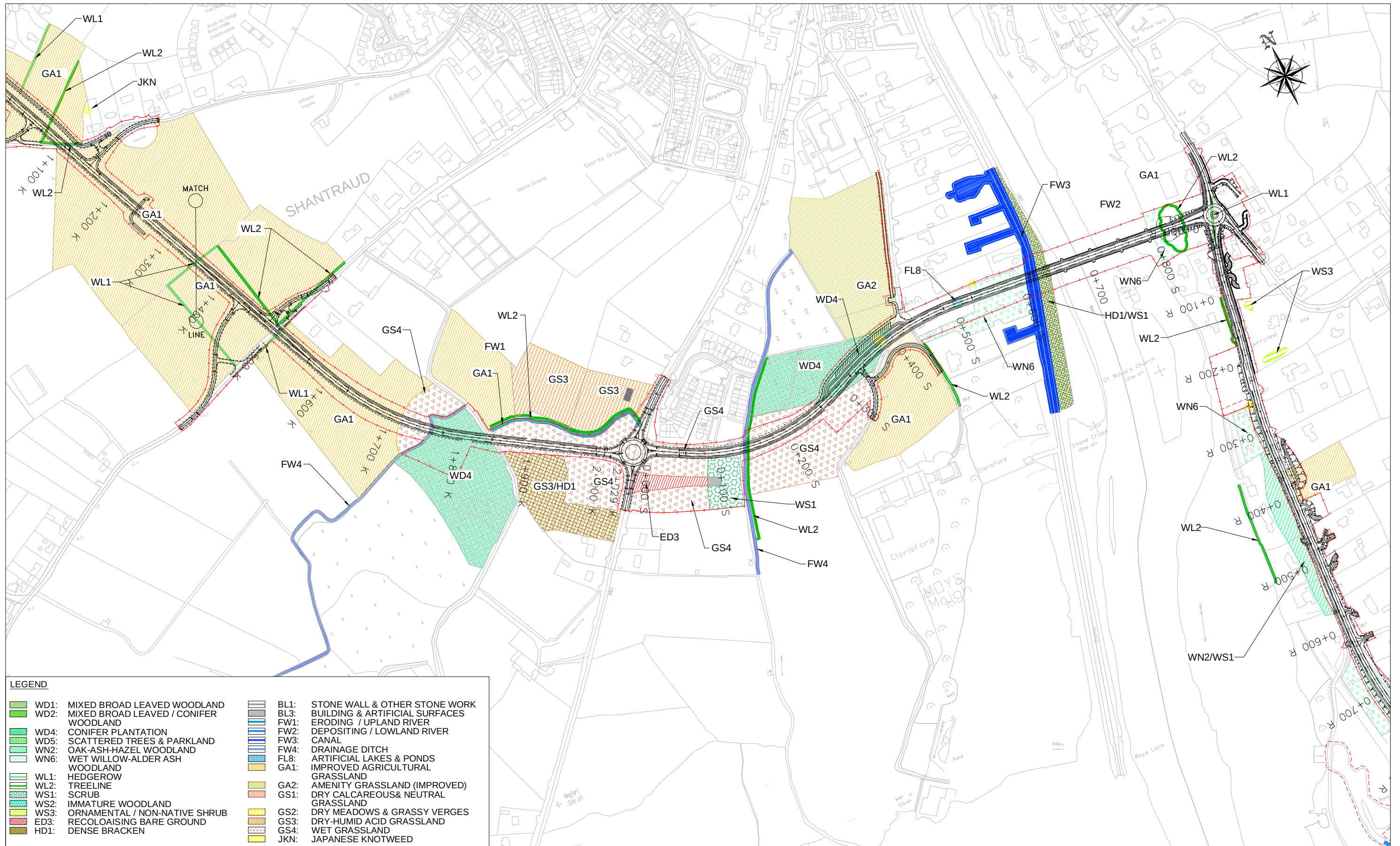
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Drawing Title

HABITAT MAP
SHEET 1 OF 4

Drawn: LA	Job No: 07.527	Drawing No: FIG 7.2.2	Rev:
Scale: 1:2500	Date: JAN '12		

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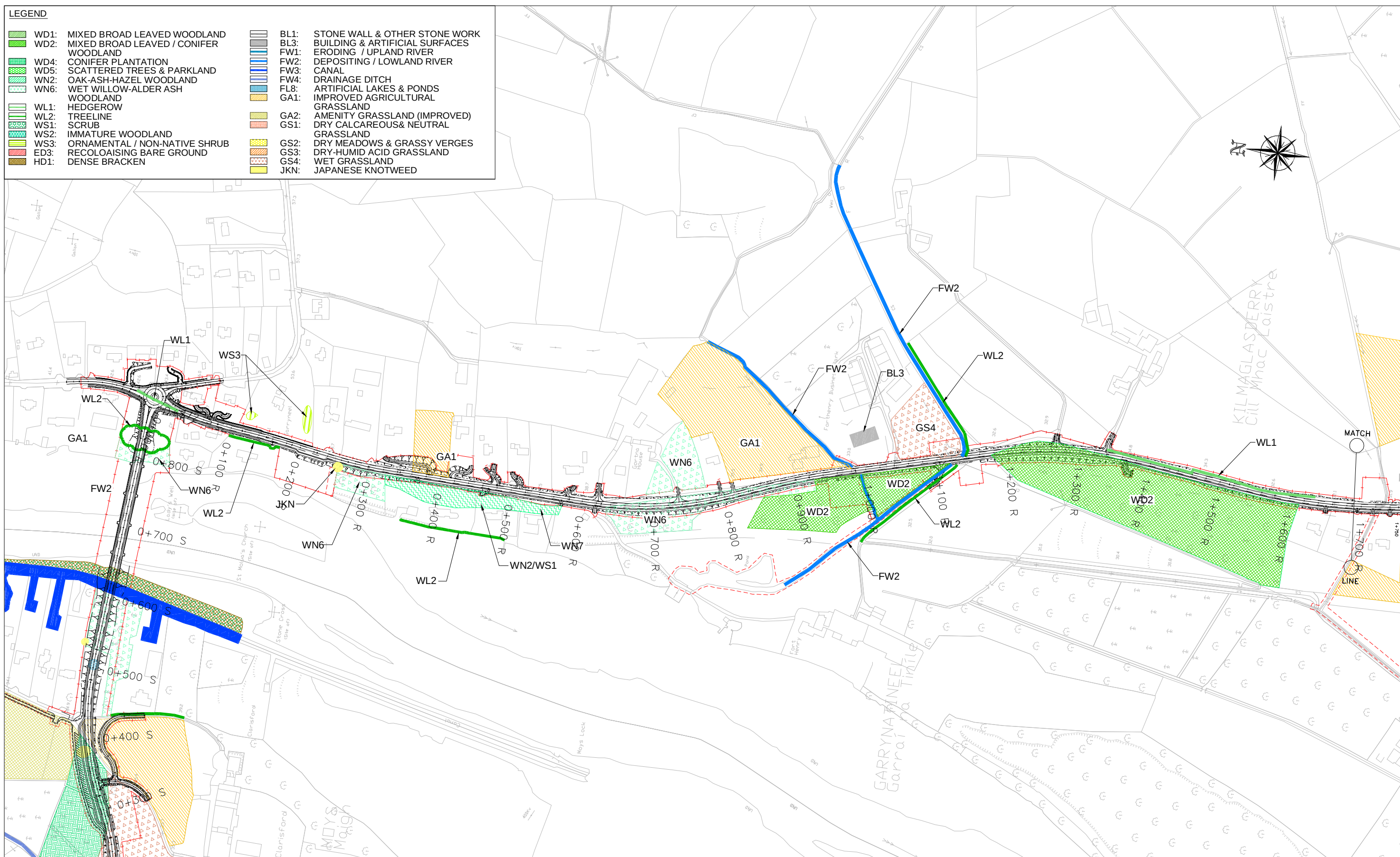
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Drawing Title			
HABITAT MAP SHEET 2 OF 4			
Drawn: LA	Job No: 07.527	Drawing No: FIG 7.2.3	Rev:
Scale: 1:2500	Date: JAN '12		

LEGEND

WD1: MIXED BROAD LEAVED WOODLAND	BL1: STONE WALL & OTHER STONE WORK
WD2: MIXED BROAD LEAVED / CONIFER WOODLAND	BL3: BUILDING & ARTIFICIAL SURFACES
WD4: CONIFER PLANTATION	FW1: ERODING / UPLAND RIVER
WD5: SCATTERED TREES & PARKLAND	FW2: DEPOSITING / LOWLAND RIVER
WN2: OAK-ASH-HAZEL WOODLAND	FW3: CANAL
WN6: WET WILLOW-ALDER ASH WOODLAND	FW4: DRAINAGE DITCH
WL1: HEDGEROW	FL8: ARTIFICIAL LAKES & PONDS
WL2: TREELINE	GA1: IMPROVED AGRICULTURAL GRASSLAND
WS1: SCRUB	GA2: AMENITY GRASSLAND (IMPROVED)
WS2: IMMATURE WOODLAND	GS1: DRY CALCAREOUS & NEUTRAL GRASSLAND
WS3: ORNAMENTAL / NON-NATIVE SHRUB	GS2: DRY MEADOWS & GRASSY VERGES
ED3: RECOLOASING BARE GROUND	GS3: DRY-HUMID ACID GRASSLAND
HD1: DENSE BRACKEN	GS4: WET GRASSLAND
	JKN: JAPANESE KNOTWEED



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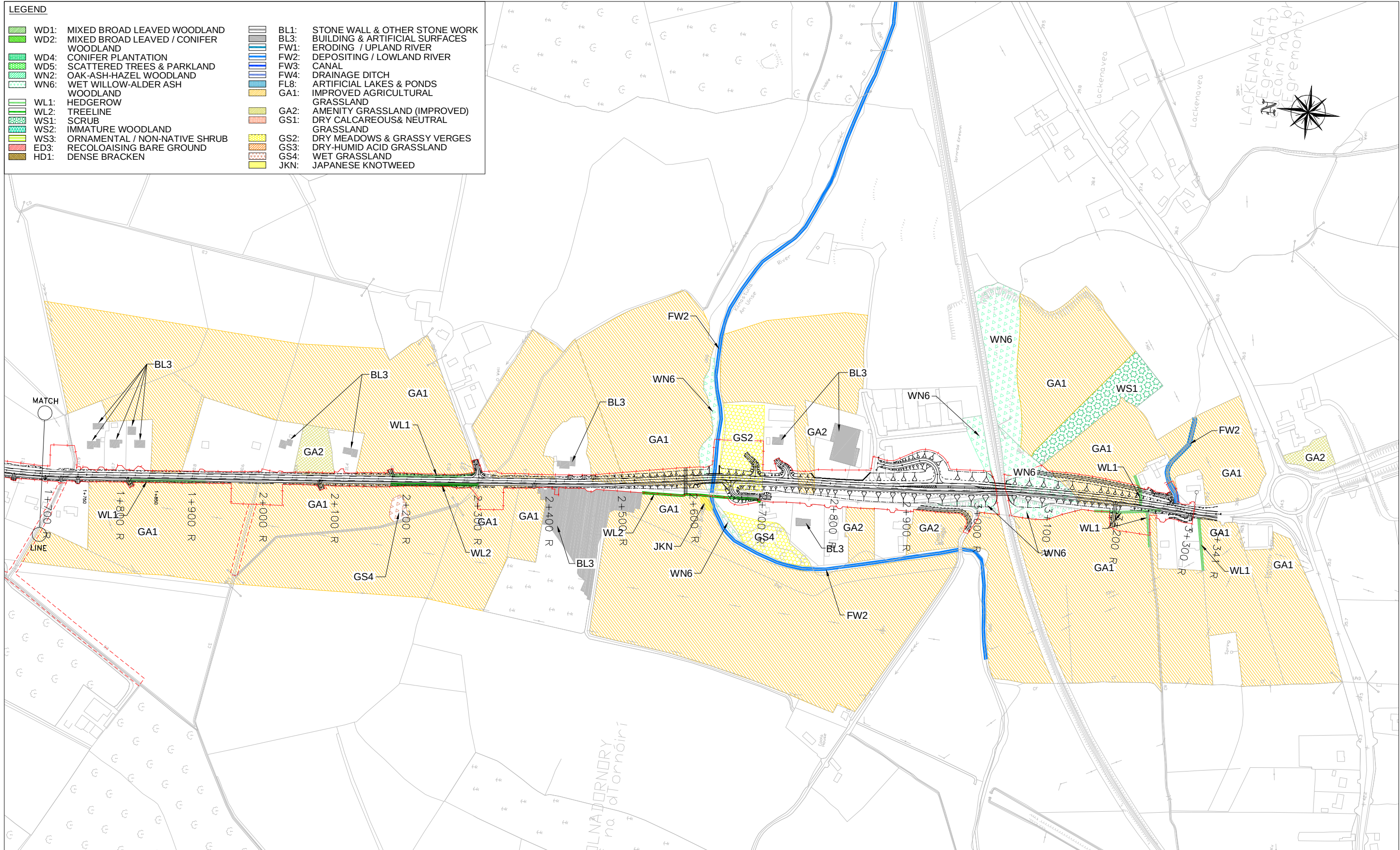
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Drawing Title

HABITAT MAP
SHEET 3 OF 4

Drawn: LA	Job No: 07.527	Drawing No: FIG 7.2.4	Rev:
Scale: (A3) 1:2500	Date: JAN '12		

LEGEND					
	WD1:	MIXED BROAD LEAVED WOODLAND		BL1:	STONE WALL & OTHER STONE WORK
	WD2:	MIXED BROAD LEAVED / CONIFER WOODLAND		BL3:	BUILDING & ARTIFICIAL SURFACES
	WD4:	CONIFER PLANTATION		FW1:	ERODING / UPLAND RIVER
	WD5:	SCATTERED TREES & PARKLAND		FW2:	DEPOSITING / LOWLAND RIVER
	WN2:	OAK-ASH-HAZEL WOODLAND		FW3:	CANAL
	WN6:	WET WILLOW-ALDER ASH WOODLAND		FW4:	DRAINAGE DITCH
	WL1:	HEDGEROW		FL8:	ARTIFICIAL LAKES & PONDS
	WL2:	TREELINE		GA1:	IMPROVED AGRICULTURAL GRASSLAND
	WS1:	SCRUB		GA2:	AMENITY GRASSLAND (IMPROVED)
	WS2:	IMMATURE WOODLAND		GS1:	DRY CALCAREOUS& NEUTRAL GRASSLAND
	WS3:	ORNAMENTAL / NON-NATIVE SHRUB		GS2:	DRY MEADOWS & GRASSY VERGES
	ED3:	RECOLOAISING BARE GROUND		GS3:	DRY-HUMID ACID GRASSLAND
	HD1:	DENSE BRACKEN		GS4:	WET GRASSLAND
				JKN:	JAPANESE KNOTWEED



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

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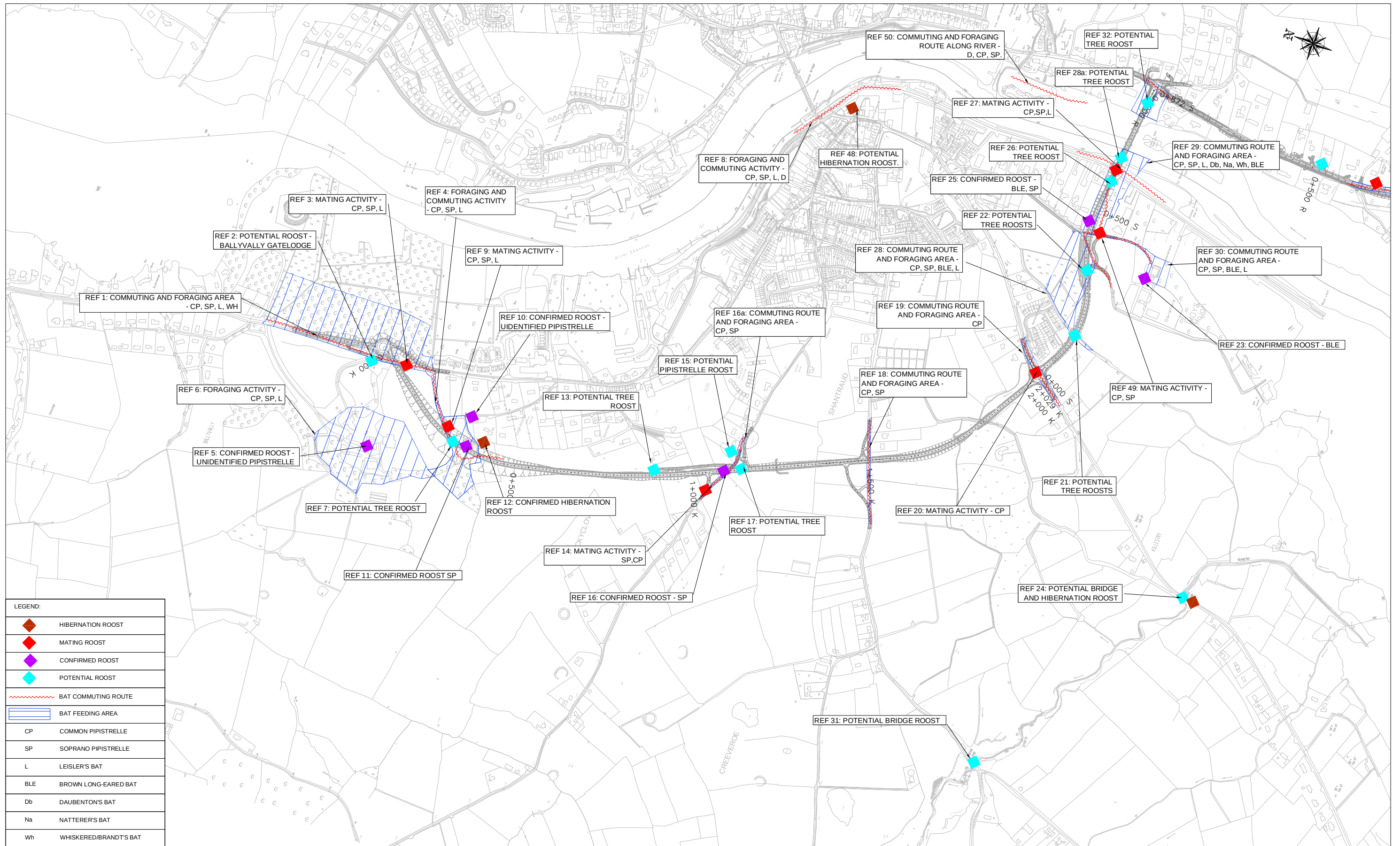
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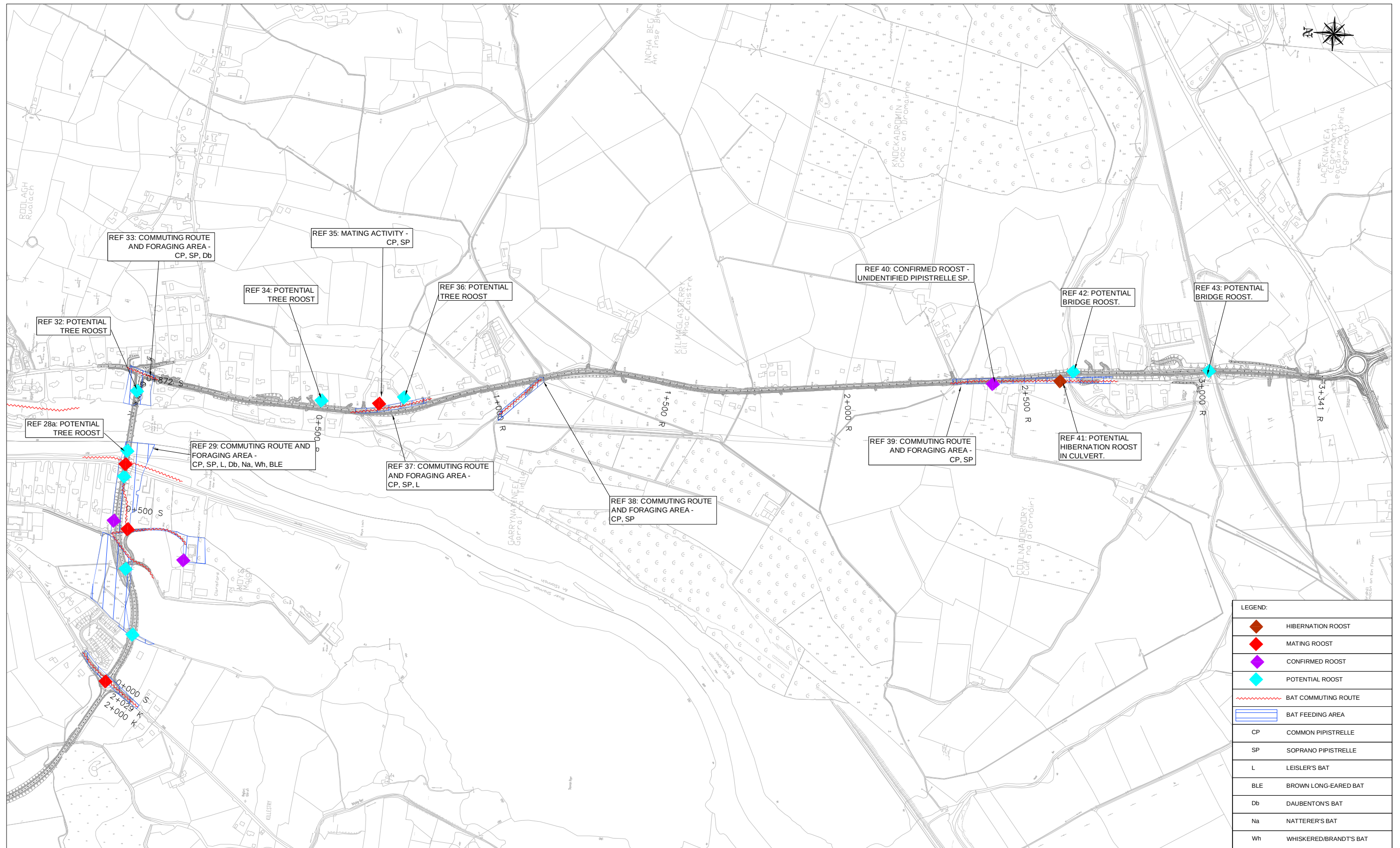
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Drawing Title: **HABITAT MAP SHEET 4 OF 4**

Drawn: LA	Job No: 07.527	Drawing No: FIG 7.2.5	Rev:
Scale: 1:2500	Date: JAN '12		

Designed: SG Checked: BC Approved: RTP Status: EIS





KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



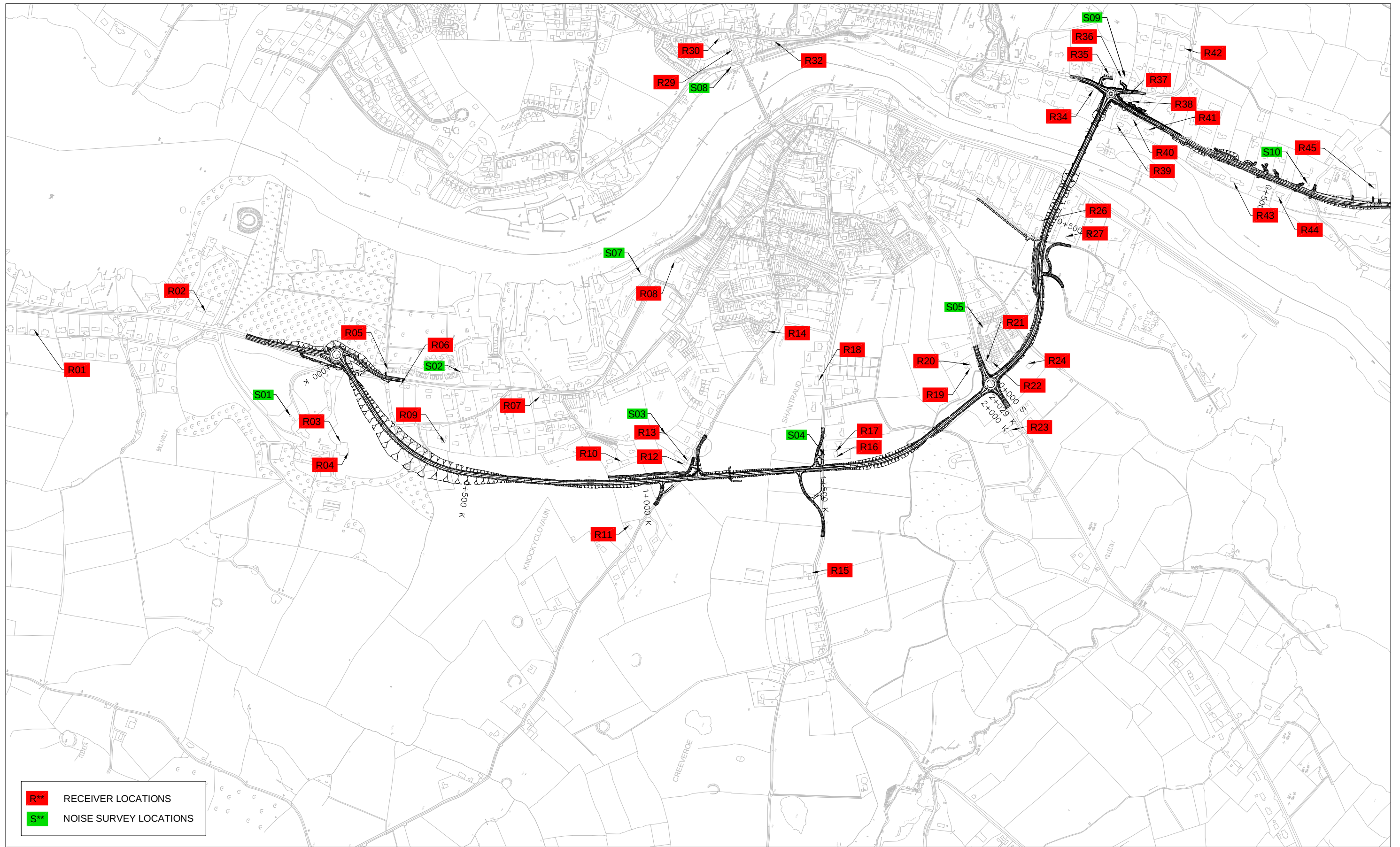
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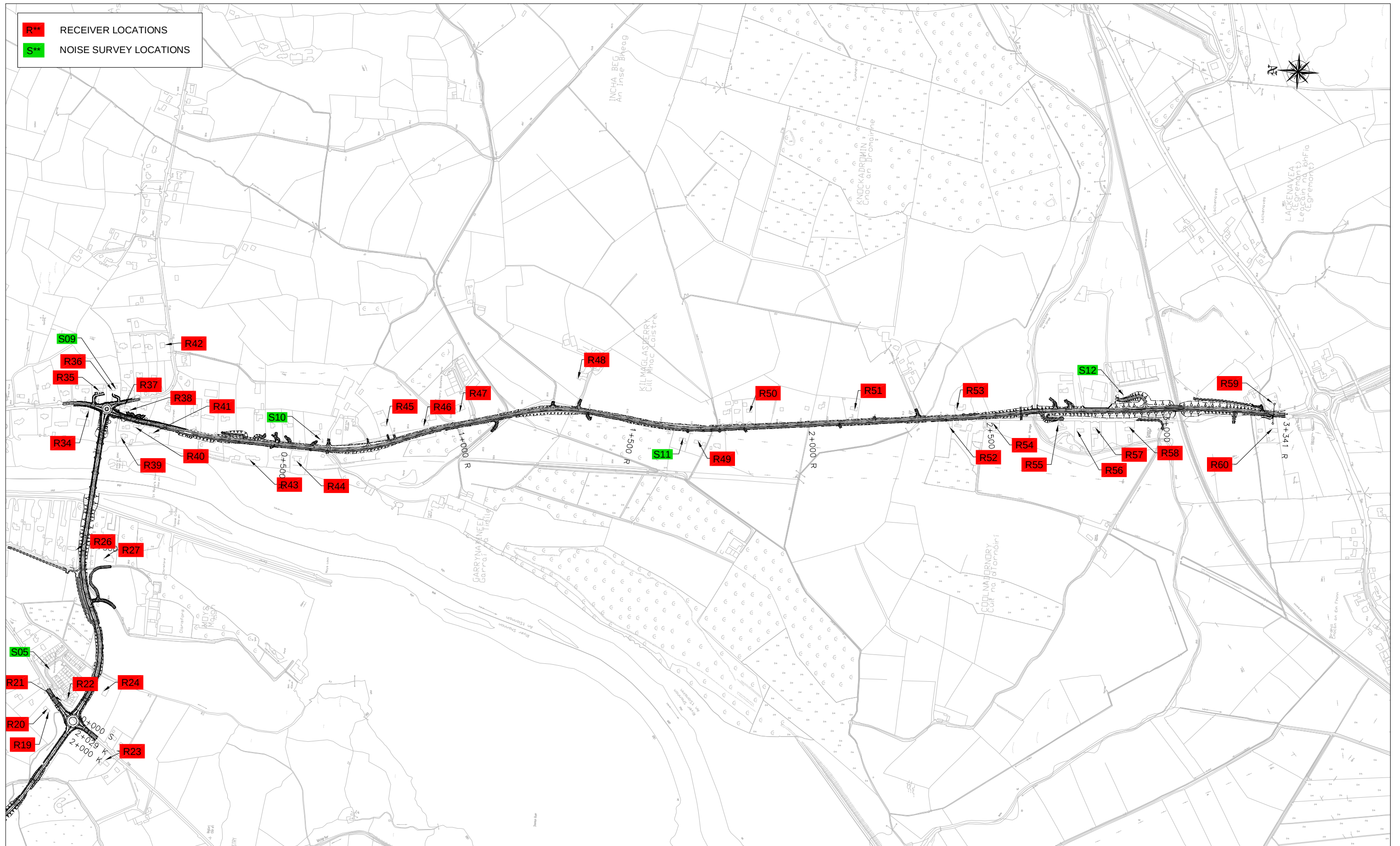
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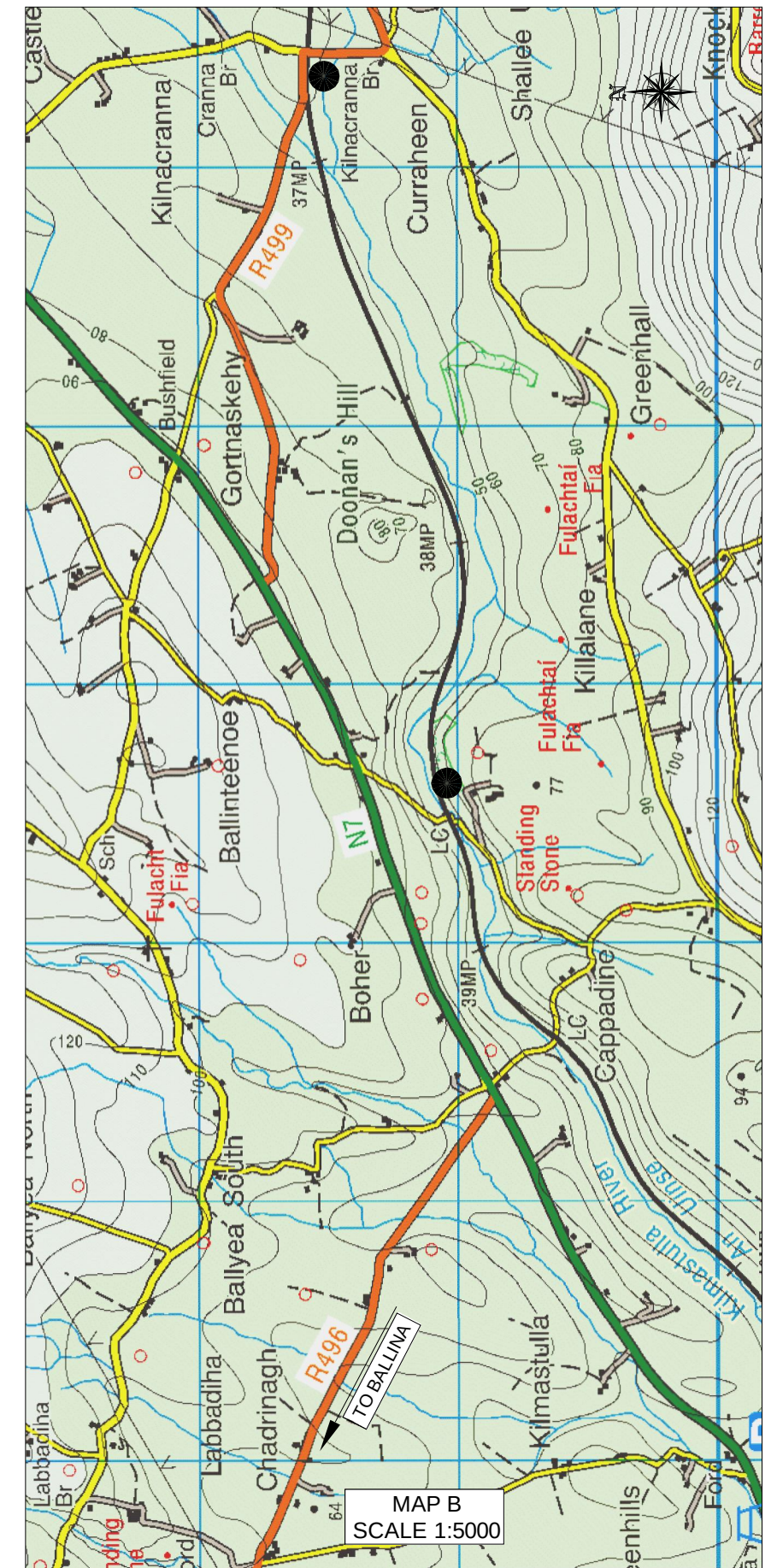
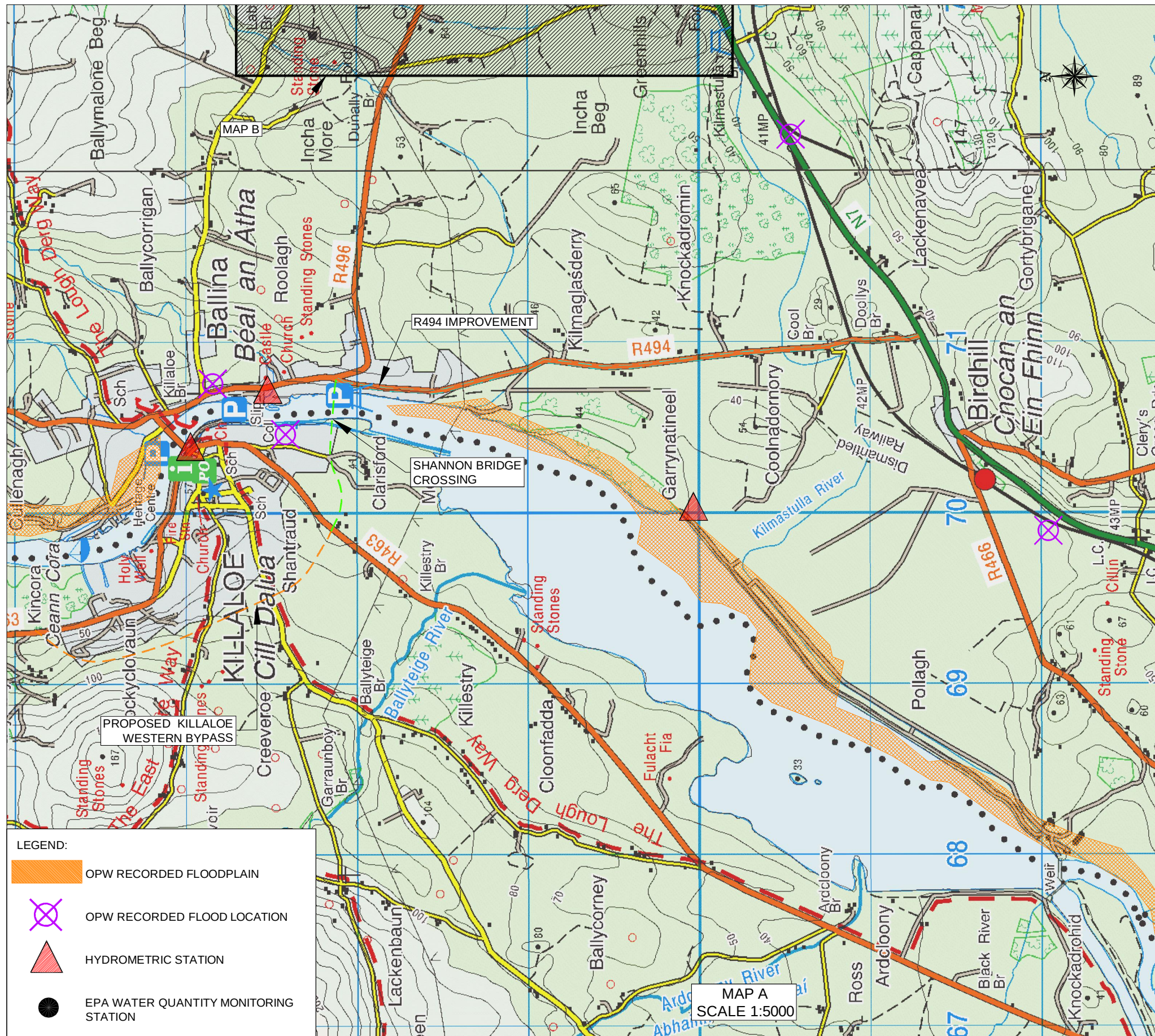
BAT SURVEY
SHEET 2 OF 2

Drawn:	LA	Job No:	07.527	Drawing No:	FIG 7.2.7	Rev:	
Scale:	1:5000	Date:	JAN '12				

DO NOT SCALE USE FIGURED DIMENSIONS ONLY







KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



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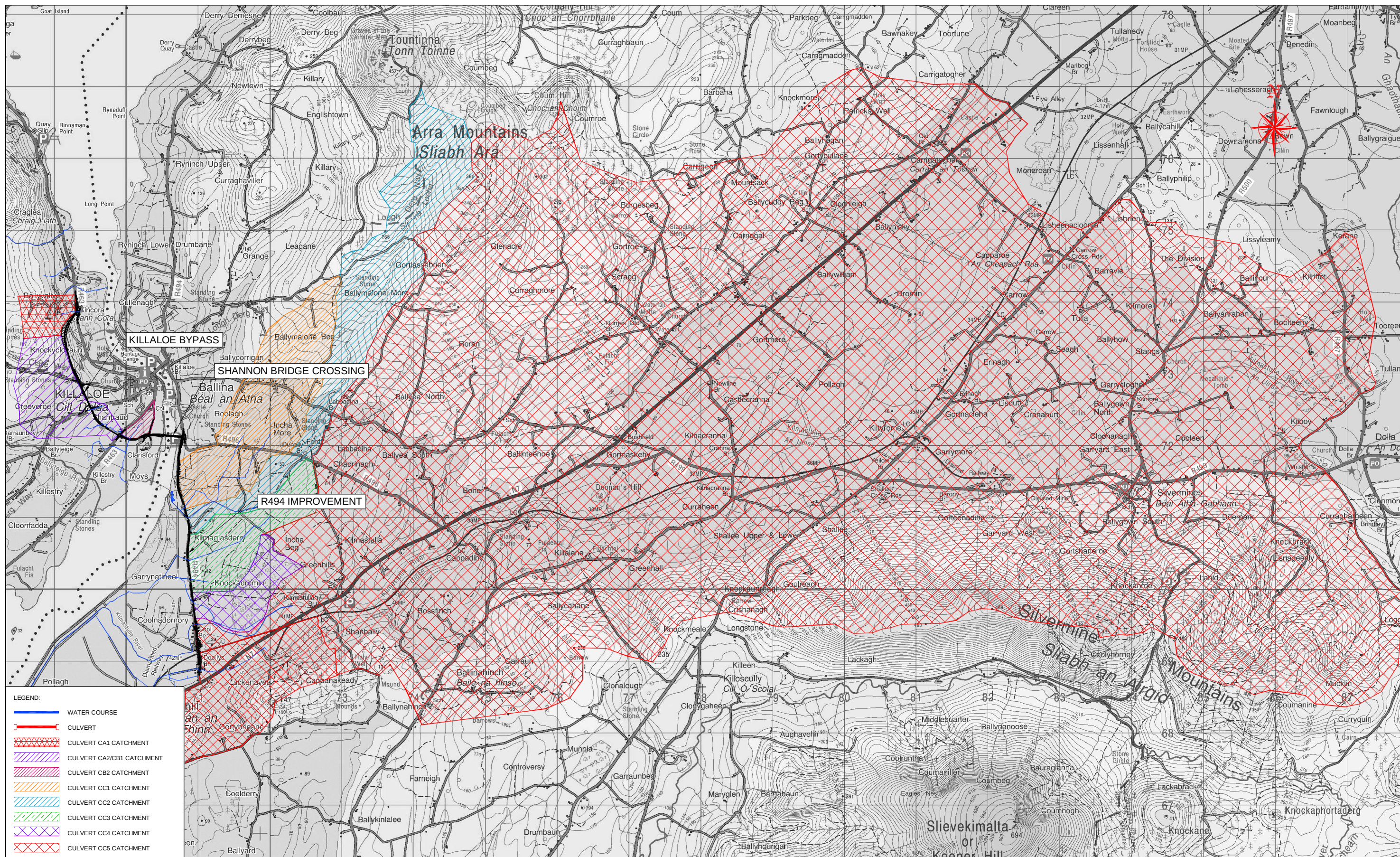
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Drawing Title

SURFACE WATER QUALITY
AND EXISTING FLOODING

Drawn: LA	Job No: 07.527	Drawing No: FIG 7.5.1	Rev:
Scale: 1:5000	Date: JAN '12		

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



- LEGEND:
- WATER COURSE
 - CULVERT
 - CULVERT CA1 CATCHMENT
 - CULVERT CA2/CB1 CATCHMENT
 - CULVERT CB2 CATCHMENT
 - CULVERT CC1 CATCHMENT
 - CULVERT CC2 CATCHMENT
 - CULVERT CC3 CATCHMENT
 - CULVERT CC4 CATCHMENT
 - CULVERT CC5 CATCHMENT



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



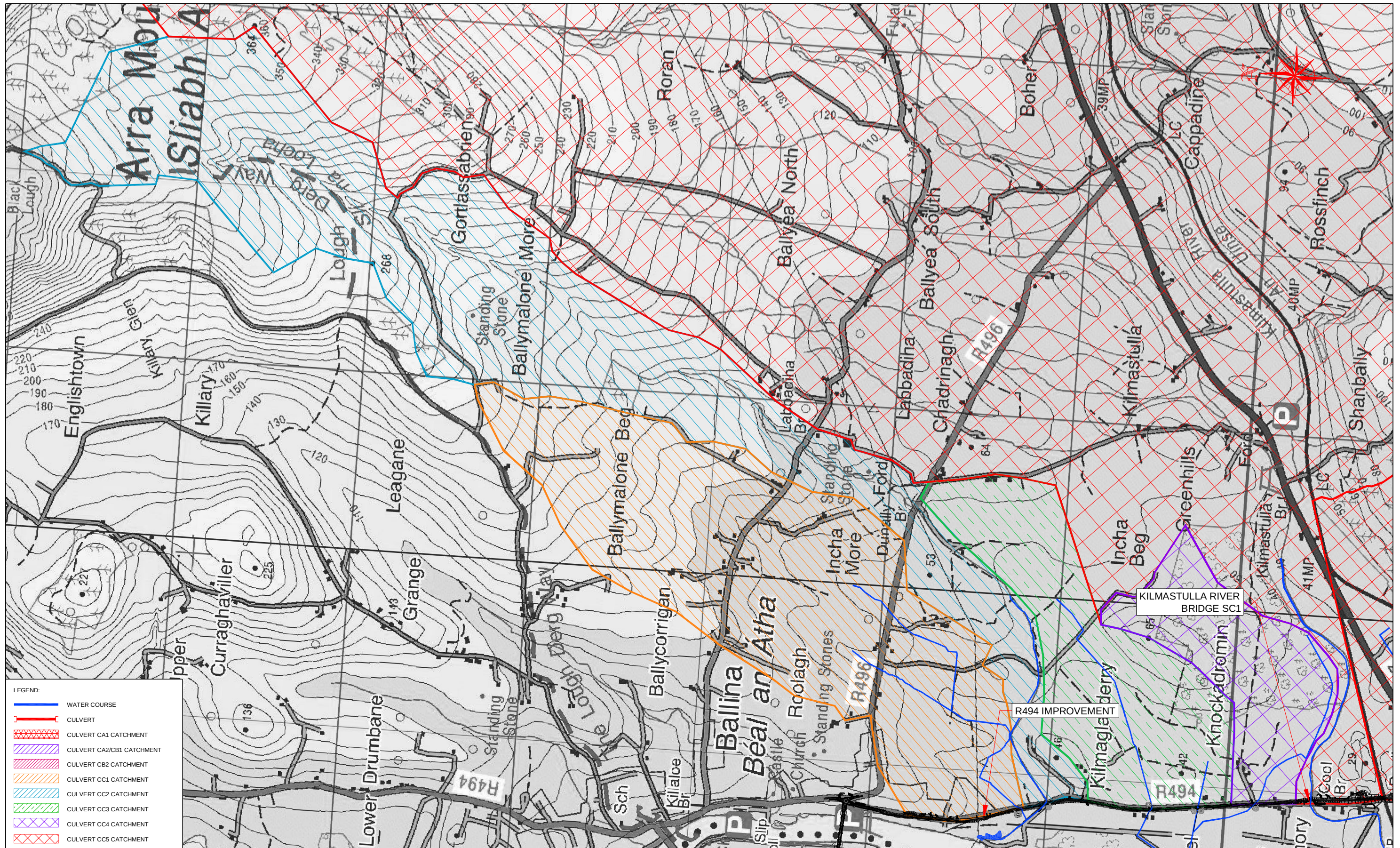
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Drawing Title
HYDROLOGY - SURFACE CATCHMENTS
HYDROLOGICAL FEATURES & DIRECTION
OF RUNOFF FLOW (SHEET 1 OF 2)

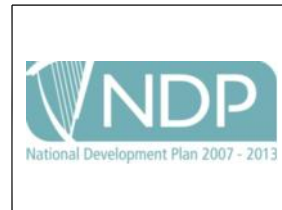
Drawn:	LA	Job No:	07.527	Drawing No:	FIG 7.5.2.1	Rev:
Scale:	1:25000	Date:	JAN '12			

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



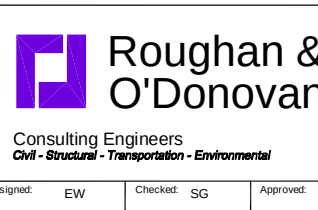
LEGEND:

- WATER COURSE
- CULVERT
- CULVERT CA1 CATCHMENT
- CULVERT CA2/CB1 CATCHMENT
- CULVERT CB2 CATCHMENT
- CULVERT CC1 CATCHMENT
- CULVERT CC2 CATCHMENT
- CULVERT CC3 CATCHMENT
- CULVERT CC4 CATCHMENT
- CULVERT CC5 CATCHMENT



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Consulting Engineers
Civil - Structural - Transportation - Environmental

Designed:	EW	Checked:	SG	Approved:	RTP	Status:	EIS
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Drawing Title

**HYDROLOGY - SURFACE CATCHMENTS
HYDROLOGICAL FACTORS & DIRECTION
OF RUNOFF FLOW (SHEET 2 OF 2)**

Drawn:	LA	Job No:	07.527	Drawing No:	FIG 7.5.2.2	Rev:	
Scale:	1:2000	Date:	JAN '12				

KEY:

100k Structural linework

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

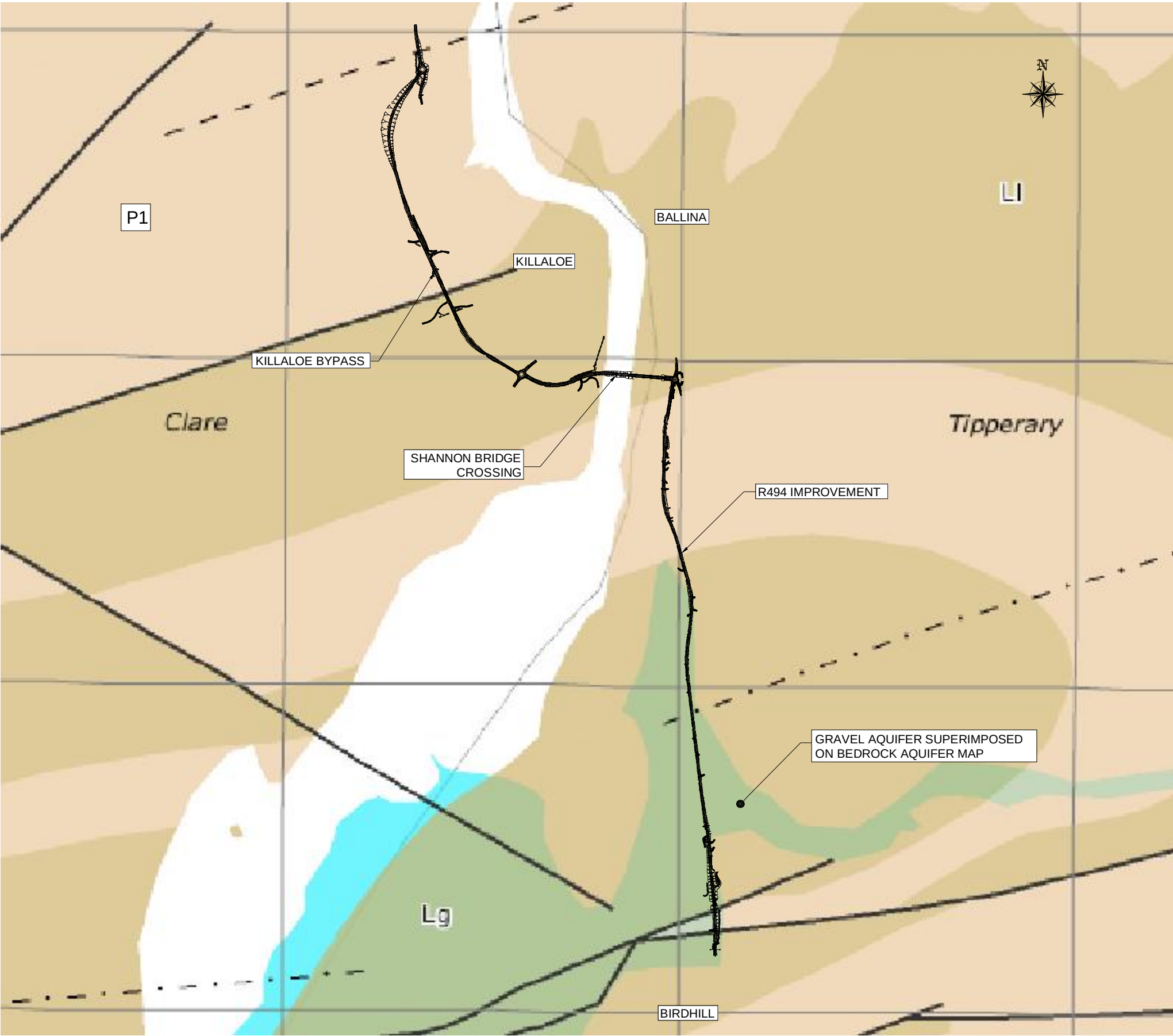
Faults 500k

National Draft Bedrock Aquifer Map

- RF - Regionally Important Aquifer - Fissured Bedrock
- RK - Regionally Important Aquifer - Karstified
- RKd - Regionally Important Aquifer - Karstified (diffused)
- RKc - Locally Important Aquifer - Karstified (conduit)
- Lm - Locally Important Aquifer - Bedrock which is Generally Moderately Productive
- Lk - Locally Important Aquifer - Karstified
- LI - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones
- PI - Poor Aquifer - Bedrock which is Generally Unproductive Except for Local Zones
- Pu - Poor Aquifer - Bedrock which is Generally Unproductive
- Unclassified

National Draft Gravel Aquifer Map

- Rq - Regionally important extensive sandigraveis aquiferes



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

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Drawing Title			
BEDROCK AQUIFER MAP			
Drawn:	LA	Job No:	07.527
Scale:	N.T.S.	Date:	JAN '12
		Drawing No:	FIG 7.5.3
		Rev:	

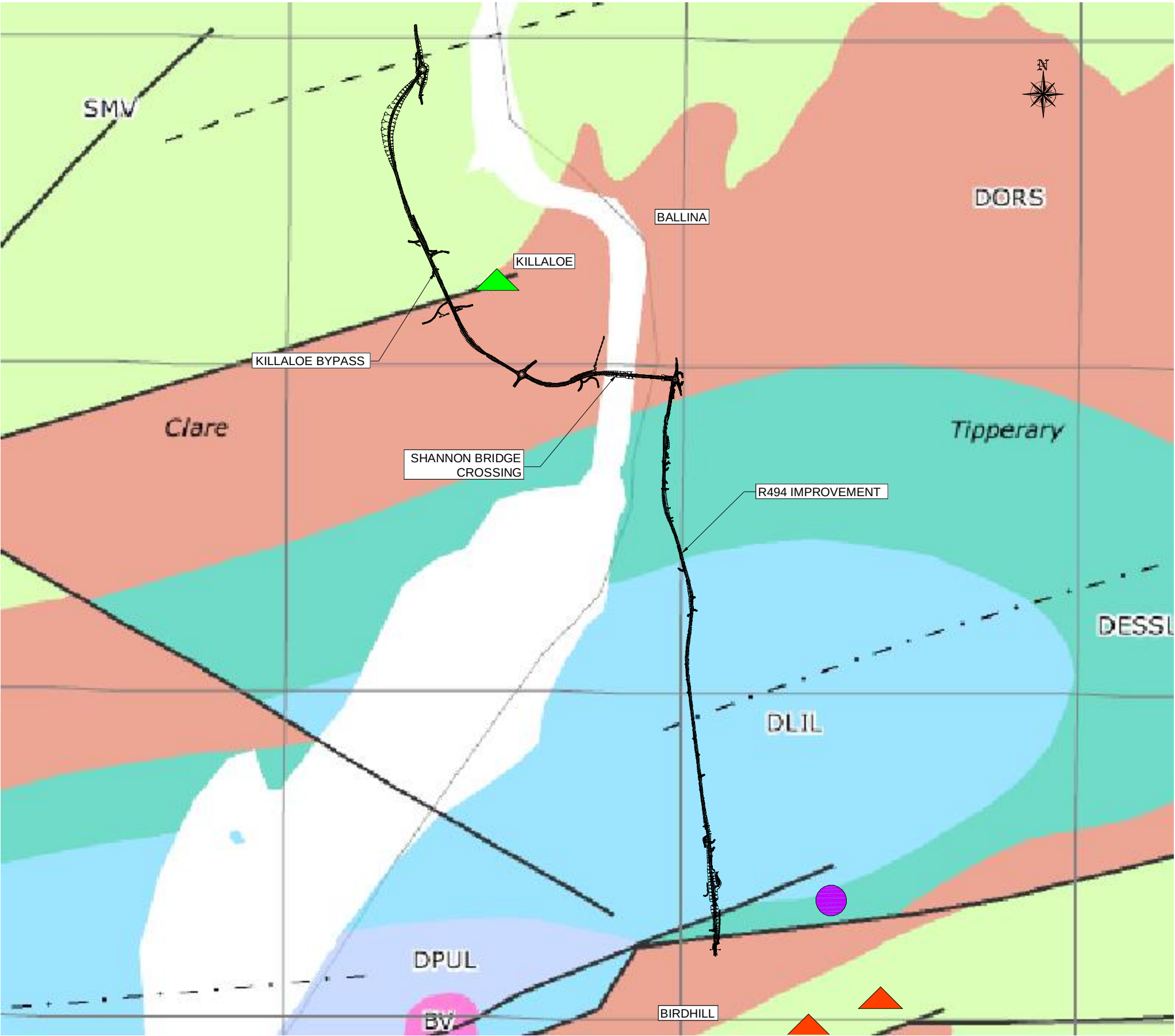
KEY:

100k Structural linework

- Anticlinal axis
- Antiformal axis
- Fault
- Line of cross section
- Slide
- Synclinal axis
- Synformal axis
- Thrust
- Faults 500k

National Draft Bedrock Aquifer Map

- BV - Basalts and other Volcanic rocks
- CM - Cambrian Metasediments
- DDL - Dinantian Dolomitic Limestones
- DESSL - Dinantian early Sandstones Shales and Limestone
- DKS - Devonian Kiltorcan type Sandstone
- DLIL - Dinantian Lower Impure Limestone
- DMSC - Dinantian Mudstones and Sandstones Cork Group
- MSSLI - Dinantian Mixed Sandstones Shales and Limestone
- DORS - Devonian Old Red Sandstone
- DPBL - Dinantian Pure Bedded Limestone
- Dpul -
- DS - Dinantian Sandstone
- DSL - Dinantian Shales and Limestone
- DUIL - Dinantian Upper Impure Limestone
- GII - Granites and other igneous intrusive Rocks
- NSA - Namurian Sandstones
- Mineral Localities
 - Metallic
 - Non-metallic
- Quarries (Active 2001)
 - Quarries



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KILLALOE BYPASS, SHANNON BRIDGE CROSSING
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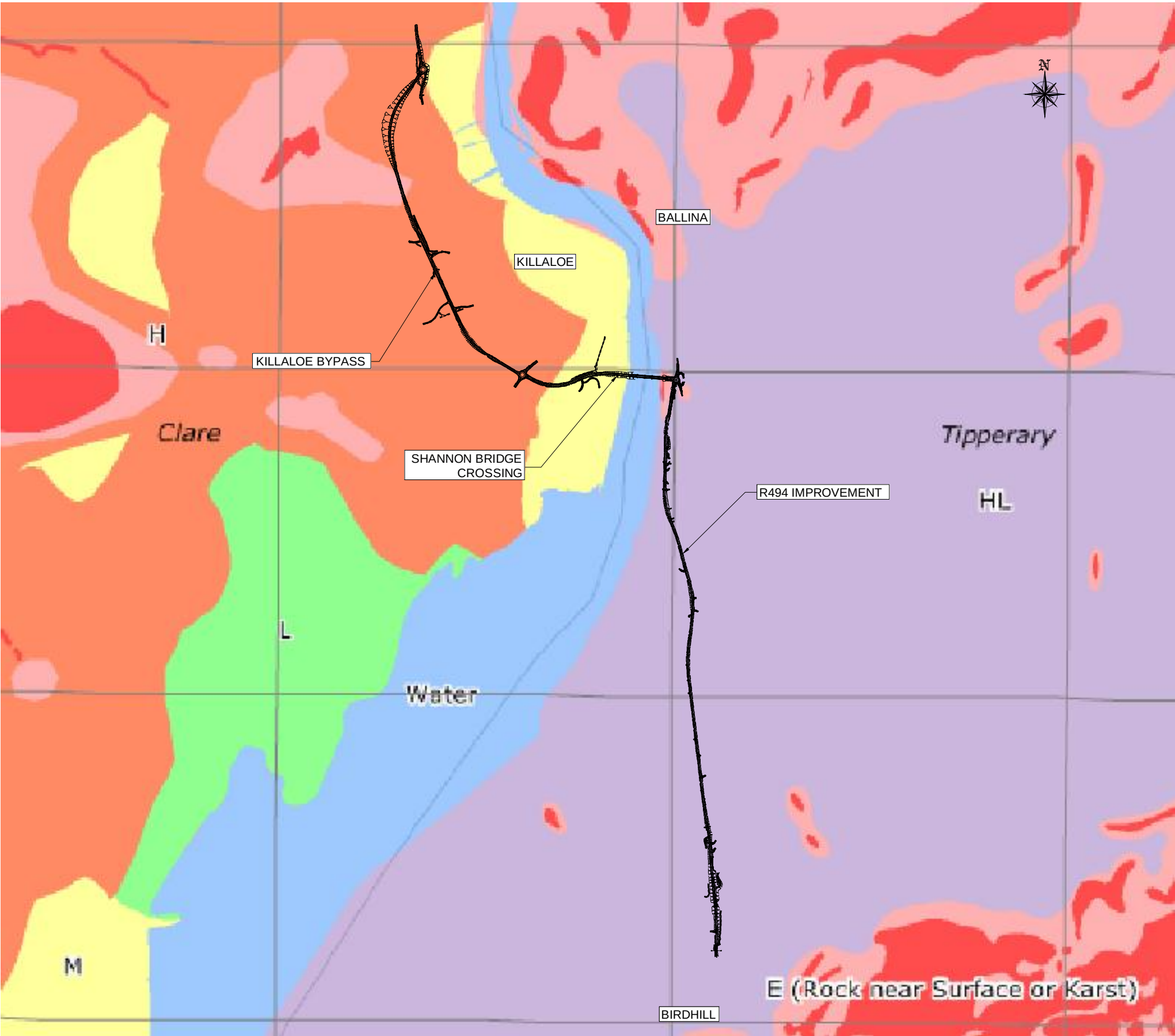
Drawing Title

BEDROCK GEOLOGY MAP

Drawn: LA	Job No: 07.527	Drawing No: FIG 7.5.4	Rev:
Scale: N.T.S.	Date: JAN '12		

KEY:

- Irish Interim Vulnerability**
- E (Rock near Surface or Karst)
 - E-Extreme
 - H-High
 - M-Moderate
 - L-Low
 - HL- High to Low. Only an interim study took place
 - Water



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**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
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ENVIRONMENTAL IMPACT STATEMENT

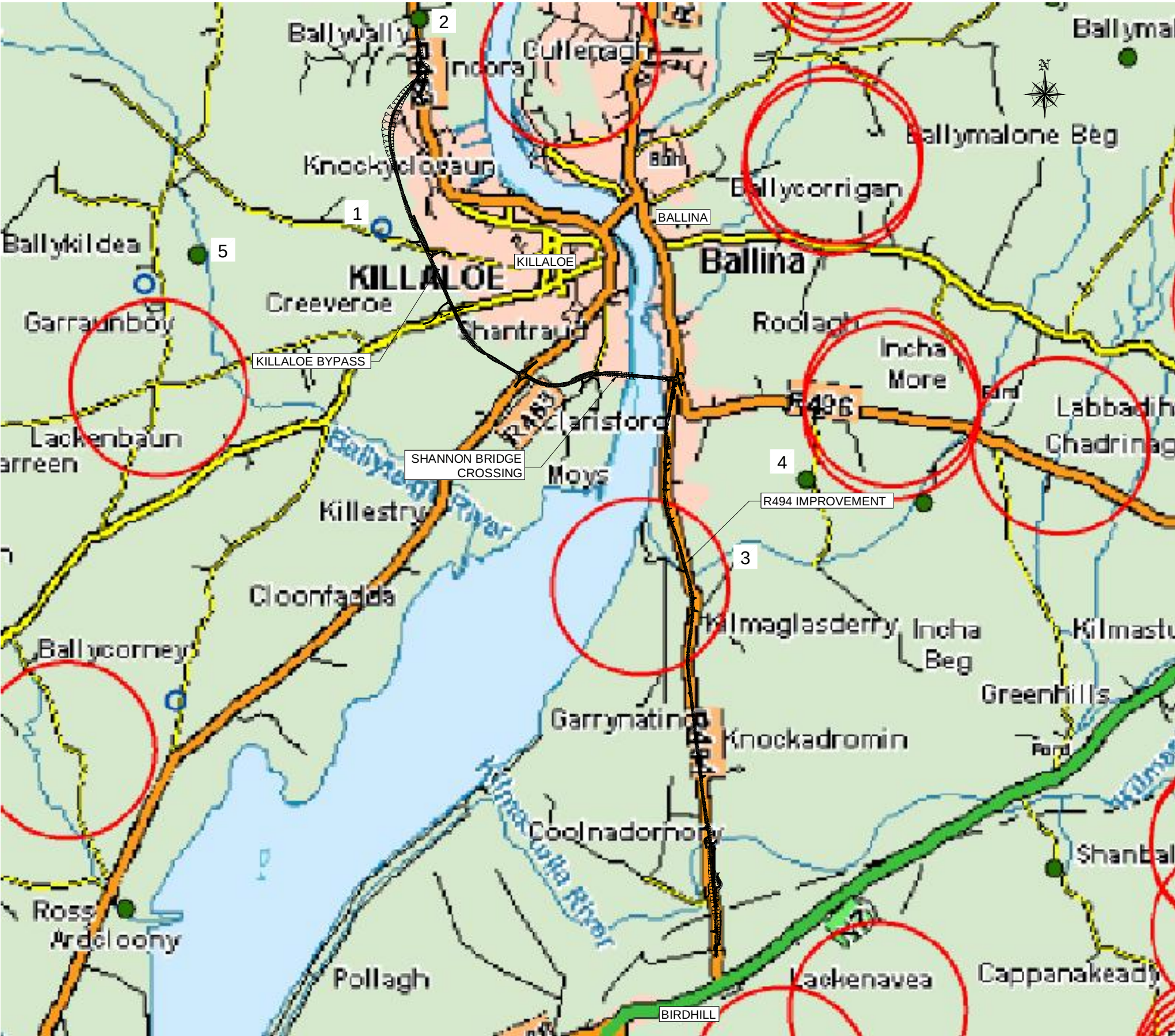


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Drawing Title			
AQUIFER AND GROUNDWATER VULNERABILITY MAP			
Drawn:	LA	Job No:	07.527
Scale:	N.T.S.	Date:	JAN '12
		Drawing No:	FIG 7.5.5
		Rev:	

- KEY:
- Wells Accuracy within 10m to 50m
 - Wells Accuracy within 100m
 - Wells Accuracy within 200m
 - Wells Accuracy within 500m
 - Wells Accuracy within 1km



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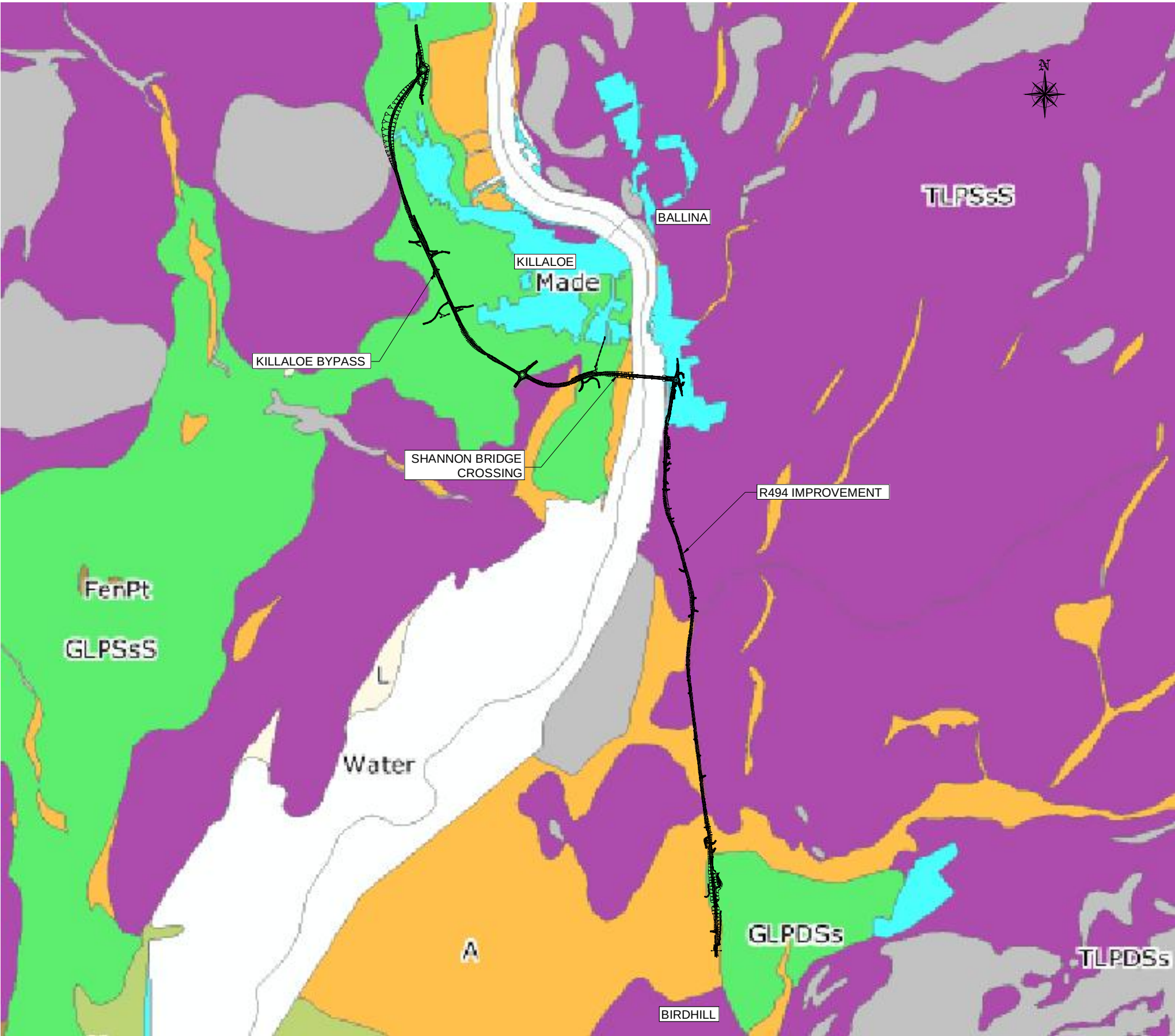
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Drawing Title				
GROUNDWATER WELL MAP				
Drawn:	LA	Job No:	07.527	Drawing No:
Scale:	N.T.S.	Date:	JAN '12	FIG 7.5.6
				Rev:

KEY:

- Shannon 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 Sandstone
 - Till derived chiefly from Lower palaeozoic rocks
 - Till derived chiefly from Namurian rocks
 - Till derived chiefly from basic igneous rocks
 - Till derived chiefly from cherts
 - Till derived chiefly from granite
 - Till derived chiefly from limestone
 - Till derived chiefly from metamorphic rocks
 - Till derived from mixed Devonian and Carboniferous rocks
 - Water
 - Windblown sands



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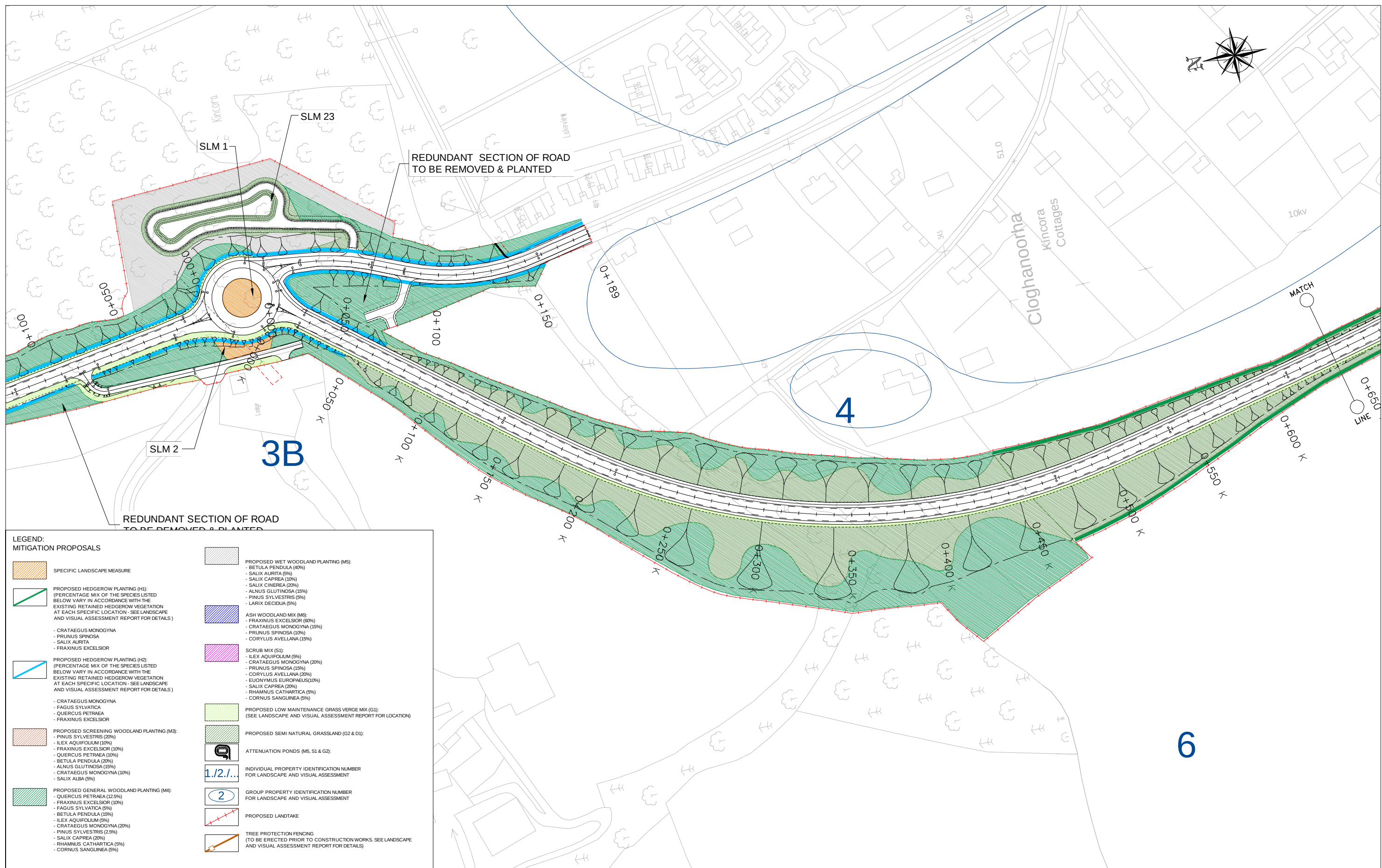
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Drawing Title

**PROPOSED AMENDMENT
EAST CLARE LAP 2005
SUBSOIL GEOLOGY**

Drawn: LA	Job No: 07.527	Drawing No: FIG 7.6.1	Rev:
Scale: (A3)	N.T.S.	Date: JAN '12	



LEGEND:
MITIGATION PROPOSALS

SPECIFIC LANDSCAPE MEASURE

PROPOSED HEDGEROW PLANTING (H1):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- PRUNUS SPINOSA
- SALIX ALBA
- FRAXINUS EXCELSIOR

PROPOSED HEDGEROW PLANTING (H2):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- FAGUS SYLVATICA
- QUERCUS PETRAEA
- FRAXINUS EXCELSIOR

PROPOSED SCREENING WOODLAND PLANTING (M3):

- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

PROPOSED GENERAL WOODLAND PLANTING (M4):

- QUERCUS PETRAEA (12.5%)
- FRAXINUS EXCELSIOR (10%)
- FAGUS SYLVATICA (5%)
- BETULA PENDULA (15%)
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PINUS SYLVESTRIS (2.5%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED WET WOODLAND PLANTING (M5):

- BETULA PENDULA (40%)
- SALIX ALBA (5%)
- SALIX CAPREA (10%)
- SALIX CINEREA (20%)
- ALNUS GLUTINOSA (15%)
- PINUS SYLVESTRIS (5%)
- LARIX DECIDUA (5%)

ASH WOODLAND MIX (M6):

- FRAXINUS EXCELSIOR (60%)
- CRATAEGUS MONOGYNA (15%)
- PRUNUS SPINOSA (10%)
- CORYLUS AVELLANA (15%)

SCRUB MIX (S1):

- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PRUNUS SPINOSA (15%)
- CORYLUS AVELLANA (20%)
- EUONYMUS EUROPAEUS (10%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED LOW MAINTENANCE GRASS VERGE MIX (G1):
(SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR LOCATION)

PROPOSED SEMI NATURAL GRASSLAND (G2 & D1):

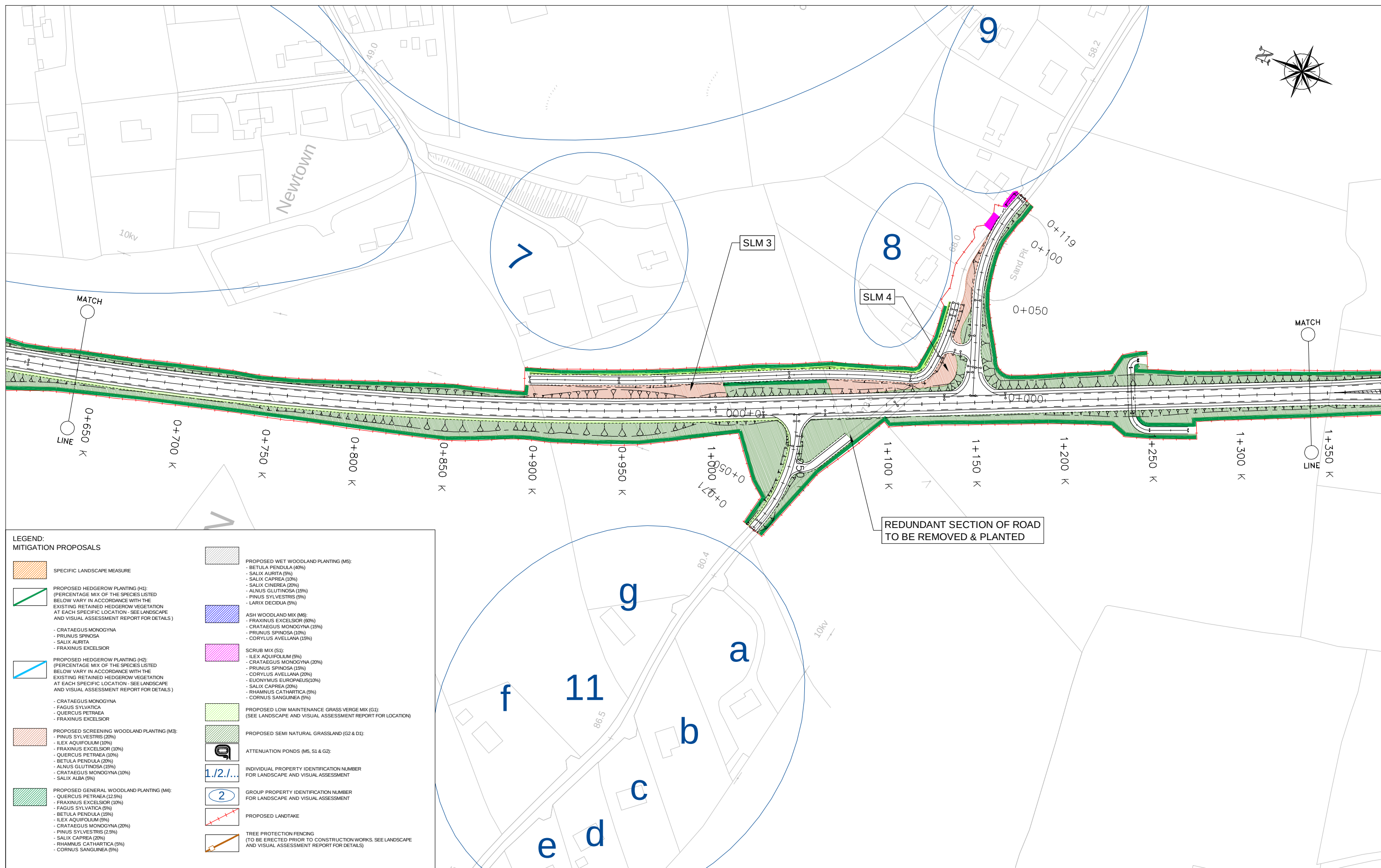
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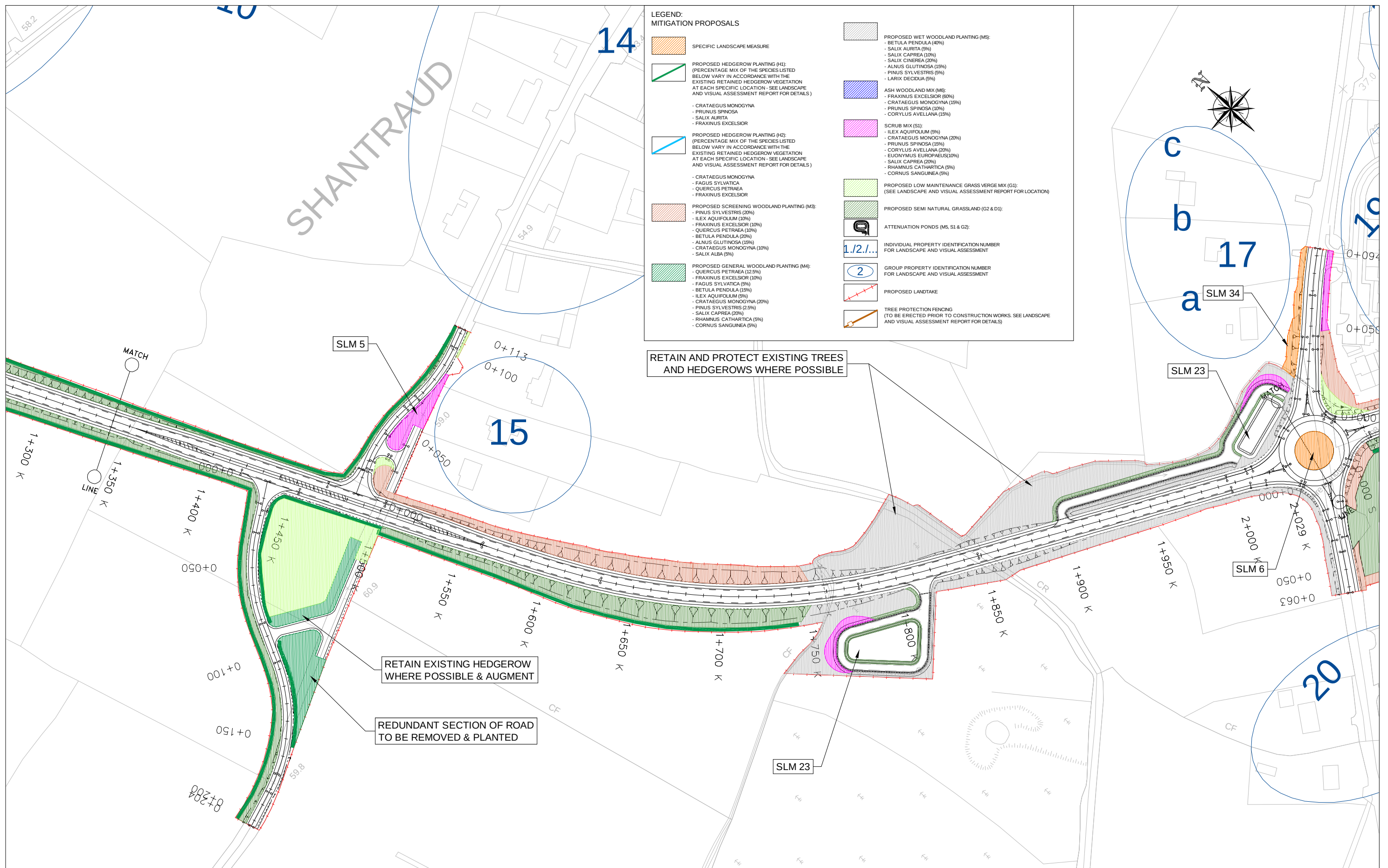
INDIVIDUAL PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

GROUP PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

PROPOSED LANDTAKE

TREE PROTECTION FENCING
(TO BE ERECTED PRIOR TO CONSTRUCTION WORKS. SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)





LEGEND: MITIGATION PROPOSALS

SPECIFIC LANDSCAPE MEASURE

PROPOSED HEDGEROW PLANTING (H1):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- PRUNUS SPINOSA
- SALIX AURITA
- FRAXINUS EXCELSIOR

PROPOSED HEDGEROW PLANTING (H2):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- FAGUS SYLVATICA
- QUERCUS PETRAEA
- FRAXINUS EXCELSIOR

PROPOSED SCREENING WOODLAND PLANTING (M3):

- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

PROPOSED GENERAL WOODLAND PLANTING (M4):

- QUERCUS PETRAEA (12.5%)
- FRAXINUS EXCELSIOR (10%)
- FAGUS SYLVATICA (5%)
- BETULA PENDULA (15%)
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PINUS SYLVESTRIS (2.5%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED WET WOODLAND PLANTING (M5):

- BETULA PENDULA (40%)
- SALIX AURITA (5%)
- SALIX CAPREA (20%)
- SALIX CINEREA (20%)
- ALNUS GLUTINOSA (15%)
- PINUS SYLVESTRIS (5%)
- LARIX DECIDUA (5%)

ASH WOODLAND MIX (M6):

- FRAXINUS EXCELSIOR (60%)
- CRATAEGUS MONOGYNA (15%)
- PRUNUS SPINOSA (10%)
- CORYLUS AVELLANA (15%)
- CORYLUS AVELLANA (15%)

SCRUB MIX (S1):

- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PRUNUS SPINOSA (15%)
- CORYLUS AVELLANA (20%)
- EUONYMUS EUROPAEUS (10%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED LOW MAINTENANCE GRASS VERGE MIX (G1):
(SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR LOCATION)

PROPOSED SEMI NATURAL GRASSLAND (G2 & D1):

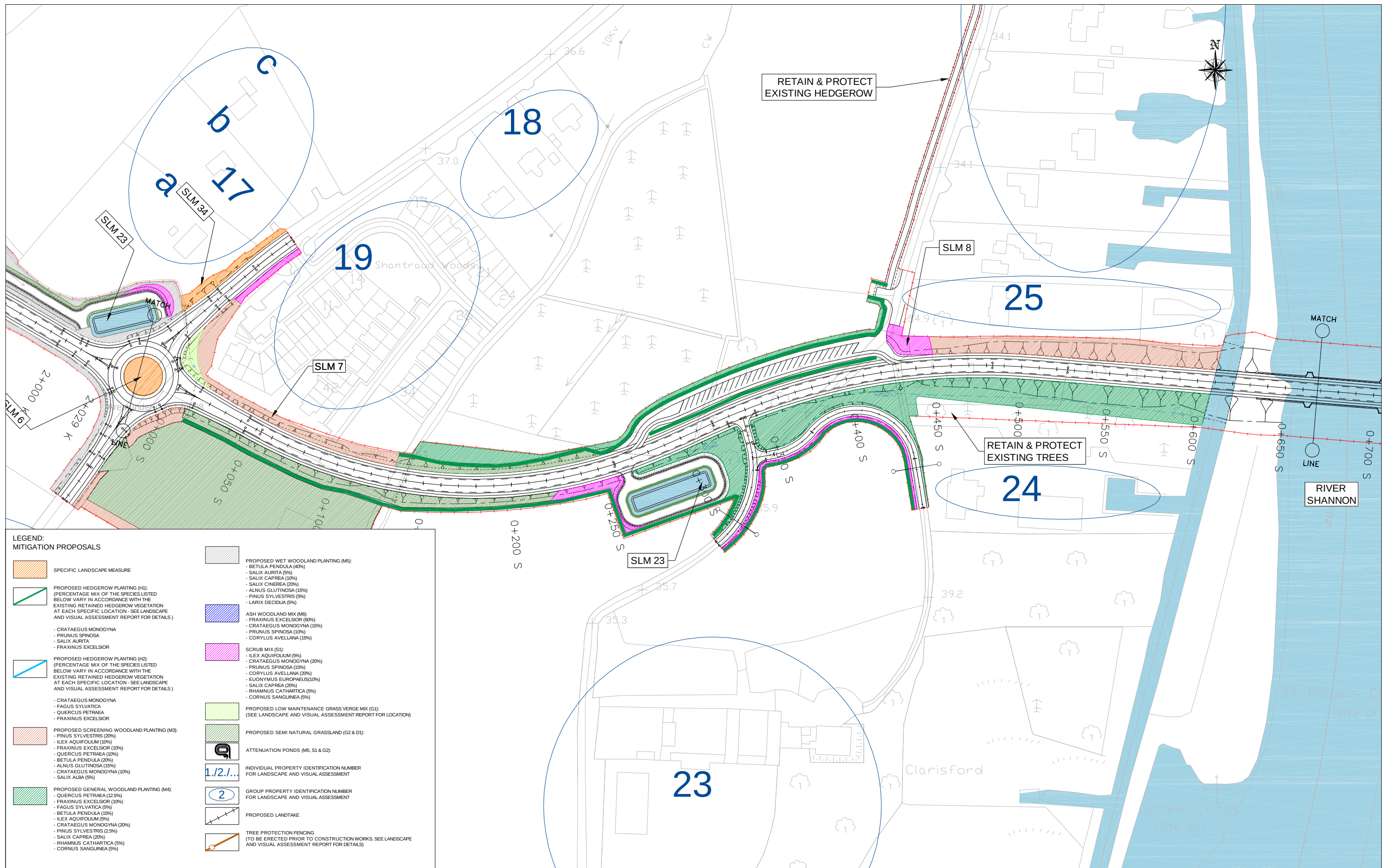
ATTENUATION PONDS (M5, S1 & G2):

INDIVIDUAL PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

GROUP PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

PROPOSED LANDTAKE

TREE PROTECTION FENCING
(TO BE ERRECTED PRIOR TO CONSTRUCTION WORKS. SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)



LEGEND:
MITIGATION PROPOSALS

SPECIFIC LANDSCAPE MEASURE

PROPOSED HEDGEROW PLANTING (H1):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- PRUNUS SPINOSA
- SALIX ALBA
- FRAXINUS EXCELSIOR

PROPOSED HEDGEROW PLANTING (H2):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- FAGUS SYLVATICA
- QUERCUS PETRAEA
- FRAXINUS EXCELSIOR

PROPOSED SCREENING WOODLAND PLANTING (M3):

- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

PROPOSED GENERAL WOODLAND PLANTING (M4):

- QUERCUS PETRAEA (12.5%)
- FRAXINUS EXCELSIOR (10%)
- FAGUS SYLVATICA (5%)
- BETULA PENDULA (15%)
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PINUS SYLVESTRIS (2.5%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED WET WOODLAND PLANTING (M5):

- BETULA PENDULA (40%)
- SALIX ALBA (5%)
- SALIX CAPREA (10%)
- SALIX CINEREA (20%)
- ALNUS GLUTINOSA (15%)
- PINUS SYLVESTRIS (5%)
- LARIX DECIDUA (5%)

ASH WOODLAND MIX (M6):

- FRAXINUS EXCELSIOR (60%)
- CRATAEGUS MONOGYNA (15%)
- PRUNUS SPINOSA (10%)
- CORYLUS AVELLANA (15%)

SCRUB MIX (S1):

- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PRUNUS SPINOSA (15%)
- CORYLUS AVELLANA (20%)
- EUONYMUS EUROPAEUS (10%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED LOW MAINTENANCE GRASS VERGE MIX (G1):
(SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR LOCATION)

PROPOSED SEMI NATURAL GRASSLAND (G2 & D1):

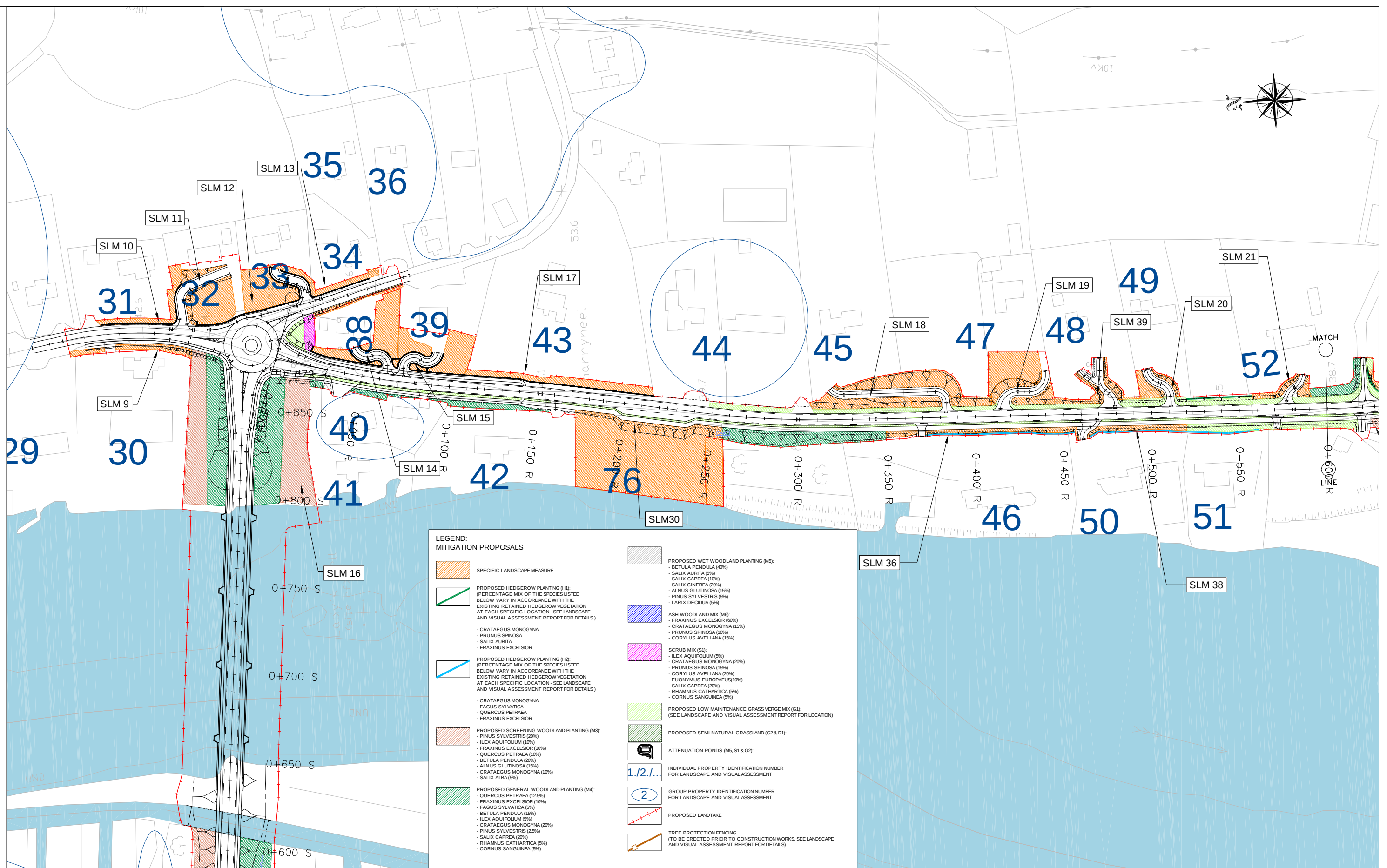
ATTENUATION PONDS (M5, S1 & G2):

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GROUP PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

PROPOSED LANDTAKE

TREE PROTECTION FENCING
(TO BE ERECTED PRIOR TO CONSTRUCTION WORKS. SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)



KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



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Drawing Title				
R494 IMPROVEMENT LANDSCAPE MITIGATION PLAN SHEET 5 OF 9				
Drawn:	LA	Job No:	07.527	Drawing No:
Scale:	1:1000	Date:	JAN 12	FIG 8.5

LEGEND:
MITIGATION PROPOSALS

SPECIFIC LANDSCAPE MEASURE

PROPOSED HEDGEROW PLANTING (H1):
(PERCENTAGE MIX OF THE SPECIES LISTED
BELOW VARY IN ACCORDANCE WITH THE
EXISTING RETAINED HEDGEROW VEGETATION
AT EACH SPECIFIC LOCATION - SEE LANDSCAPE
AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- PRUNUS SPINOSA
- SALIX ALBA
- FRAXINUS EXCELSIOR

PROPOSED HEDGEROW PLANTING (H2):
(PERCENTAGE MIX OF THE SPECIES LISTED
BELOW VARY IN ACCORDANCE WITH THE
EXISTING RETAINED HEDGEROW VEGETATION
AT EACH SPECIFIC LOCATION - SEE LANDSCAPE
AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- FAGUS SYLVATICA
- QUERCUS PETRAEA
- FRAXINUS EXCELSIOR

PROPOSED SCREENING WOODLAND PLANTING (M3):
- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

PROPOSED GENERAL WOODLAND PLANTING (M4):
- QUERCUS PETRAEA (12.5%)
- FRAXINUS EXCELSIOR (10%)
- FAGUS SYLVATICA (5%)
- BETULA PENDULA (15%)
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PINUS SYLVESTRIS (2.5%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED WET WOODLAND PLANTING (M5):
- BETULA PENDULA (40%)
- SALIX ALBA (5%)
- SALIX CAPREA (10%)
- SALIX CINEREA (20%)
- ALNUS GLUTINOSA (15%)
- PINUS SYLVESTRIS (5%)
- LARIX DECIDUA (5%)

ASH WOODLAND MIX (M6):
- FRAXINUS EXCELSIOR (60%)
- CRATAEGUS MONOGYNA (15%)
- PRUNUS SPINOSA (10%)
- CORYLUS AVELLANA (15%)

SCRUB MIX (S1):
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PRUNUS SPINOSA (15%)
- CORYLUS AVELLANA (20%)
- EUONYMUS EUROPAEUS (10%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED LOW MAINTENANCE GRASS VERGE MIX (G1):
(SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR LOCATION)

PROPOSED SEMI NATURAL GRASSLAND (G2 & D1):

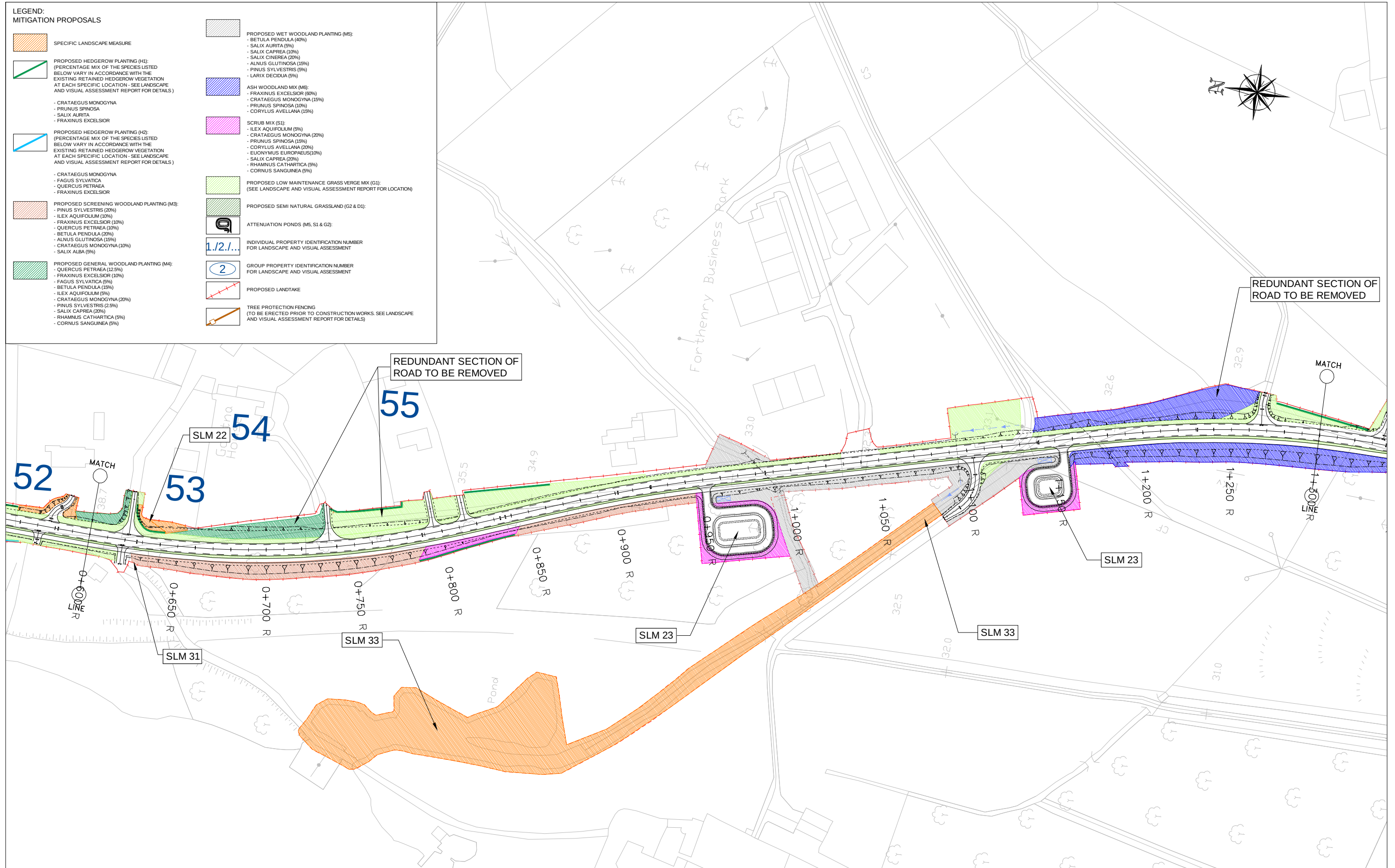
ATTENUATION PONDS (M5, S1 & G2):

1/2/...
INDIVIDUAL PROPERTY IDENTIFICATION NUMBER
FOR LANDSCAPE AND VISUAL ASSESSMENT

2
GROUP PROPERTY IDENTIFICATION NUMBER
FOR LANDSCAPE AND VISUAL ASSESSMENT

PROPOSED LANDTAKE

TREE PROTECTION FENCING
(TO BE ERECTED PRIOR TO CONSTRUCTION WORKS. SEE LANDSCAPE
AND VISUAL ASSESSMENT REPORT FOR DETAILS)



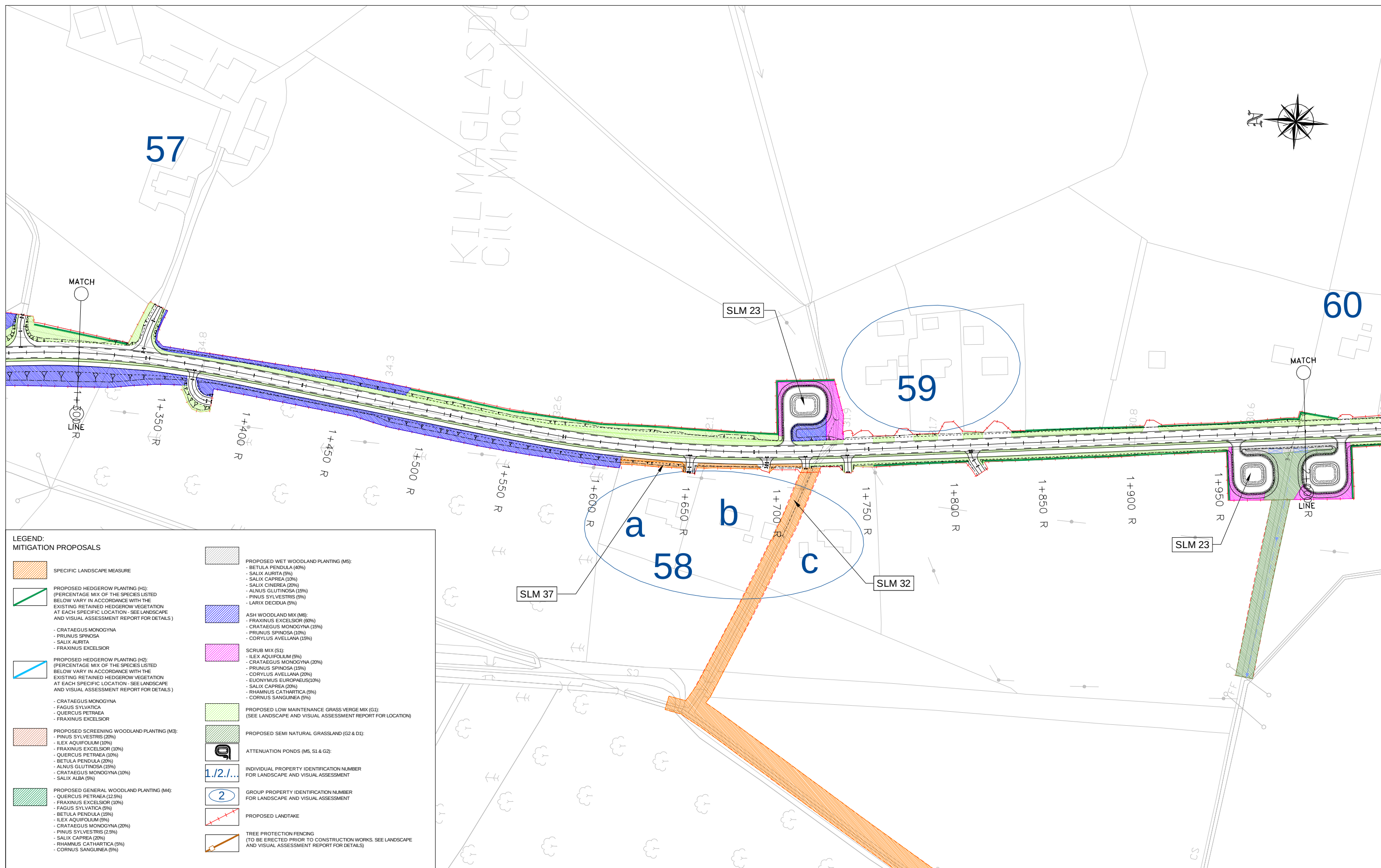
KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

Roughan & O'Donovan
Consulting Engineers
Civil - Structural - Transportation - Environmental

Arena House, Arena Road,
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Tel : +353 1 294 0800
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e-mail : info@rod.ie
www.roughanodonovan.com

Drawing Title			
R494 IMPROVEMENTS LANDSCAPE MITIGATION PLAN SHEET 6 OF 9			
Drawn:	LA	Job No:	07.527
Scale:	1:1000	Date:	JAN '12
		Drawing No:	FIG 8.6
		Rev:	



LEGEND: MITIGATION PROPOSALS

SPECIFIC LANDSCAPE MEASURE

PROPOSED HEDGEROW PLANTING (H1):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- PRUNUS SPINOSA
- SALIX ALBA
- FRAXINUS EXCELSIOR

PROPOSED HEDGEROW PLANTING (H2):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- FAGUS SYLVATICA
- QUERCUS PETRAEA
- FRAXINUS EXCELSIOR

PROPOSED SCREENING WOODLAND PLANTING (M3):

- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

PROPOSED GENERAL WOODLAND PLANTING (M4):

- QUERCUS PETRAEA (12.5%)
- FRAXINUS EXCELSIOR (10%)
- FAGUS SYLVATICA (5%)
- BETULA PENDULA (15%)
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PINUS SYLVESTRIS (2.5%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED WET WOODLAND PLANTING (M5):

- BETULA PENDULA (40%)
- SALIX ALBA (5%)
- SALIX CAPREA (10%)
- SALIX CINEREA (20%)
- ALNUS GLUTINOSA (15%)
- PINUS SYLVESTRIS (5%)
- LARIX DECIDUA (5%)

ASH WOODLAND MIX (M6):

- FRAXINUS EXCELSIOR (60%)
- CRATAEGUS MONOGYNA (15%)
- PRUNUS SPINOSA (10%)
- CORYLUS AVELLANA (15%)

SCRUB MIX (S1):

- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PRUNUS SPINOSA (15%)
- CORYLUS AVELLANA (20%)
- EUONYMUS EUROPAEUS (10%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED LOW MAINTENANCE GRASS VERGE MIX (G1):
(SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR LOCATION)

PROPOSED SEMI NATURAL GRASSLAND (G2 & D1):

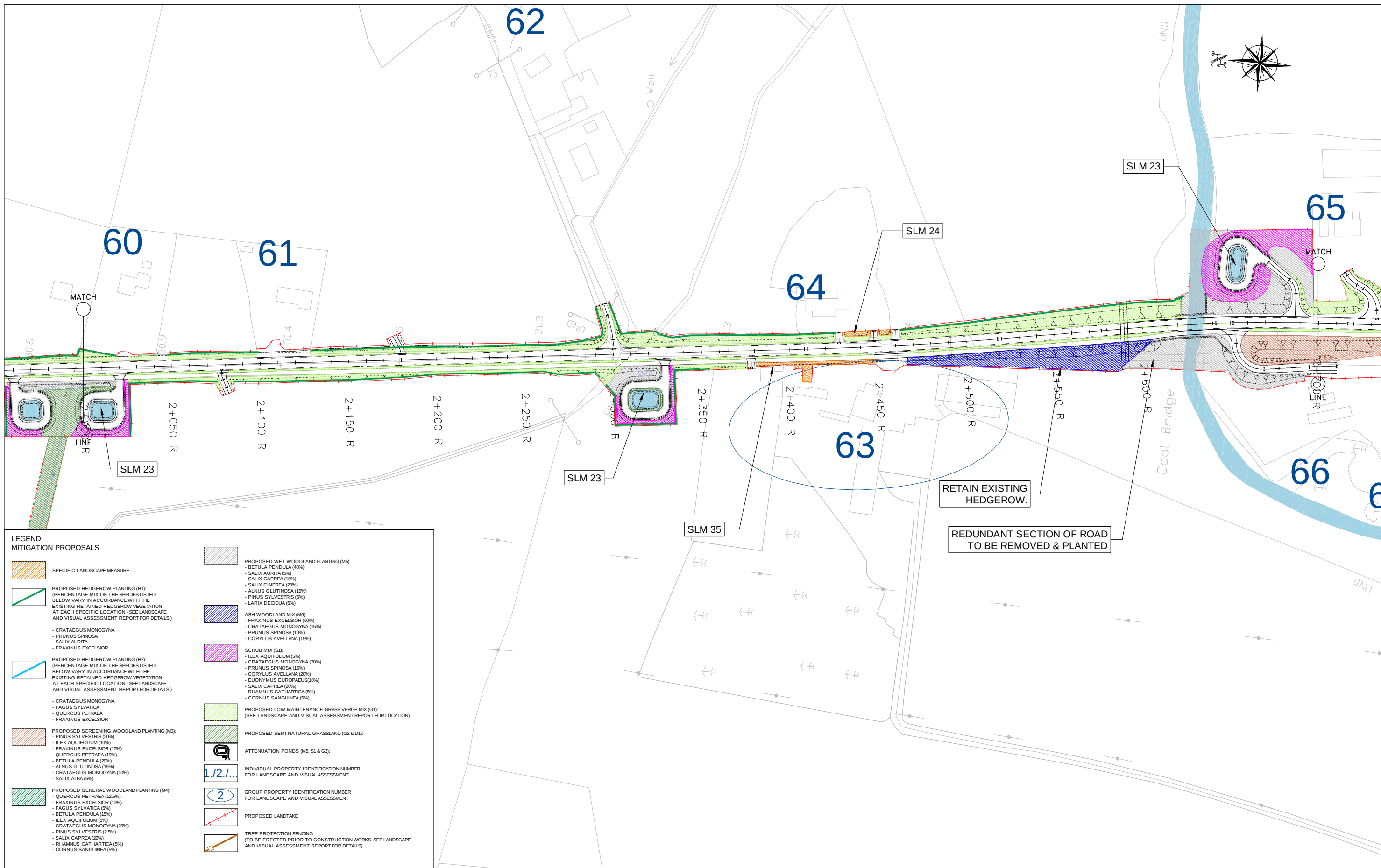
ATTENUATION PONDS (M5, S1 & G2):

INDIVIDUAL PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

GROUP PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

PROPOSED LANDTAKE

TREE PROTECTION FENCING
(TO BE ERECTED PRIOR TO CONSTRUCTION WORKS. SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)



LEGEND: MITIGATION PROPOSALS

SPECIFIC LANDSCAPE MEASURE

PROPOSED HEDGEROW PLANTING (H1):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- PRUNUS SPINOSA
- SALIX ALBA
- FRAXINUS EXCELSIOR

PROPOSED HEDGEROW PLANTING (H2):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

- CRATAEGUS MONOGYNA
- FAGUS SYLVATICA
- QUERCUS PETRAEA
- FRAXINUS EXCELSIOR

PROPOSED SCREENING WOODLAND PLANTING (M3):

- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

PROPOSED GENERAL WOODLAND PLANTING (M4):

- QUERCUS PETRAEA (12.5%)
- FRAXINUS EXCELSIOR (10%)
- FAGUS SYLVATICA (5%)
- BETULA PENDULA (15%)
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PINUS SYLVESTRIS (2.5%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED WET WOODLAND PLANTING (M5):

- BETULA PENDULA (40%)
- SALIX ALBA (5%)
- SALIX CAPREA (10%)
- SALIX CINEREA (20%)
- ALNUS GLUTINOSA (15%)
- PINUS SYLVESTRIS (5%)
- LARIX DECIDUA (5%)

ASH WOODLAND MIX (M6):

- FRAXINUS EXCELSIOR (60%)
- CRATAEGUS MONOGYNA (15%)
- PRUNUS SPINOSA (10%)
- CORYLUS AVELLANA (15%)

SCRUB MIX (S1):

- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PRUNUS SPINOSA (15%)
- CORYLUS AVELLANA (10%)
- EUONYMUS EUROPAEUS (10%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

PROPOSED LOW MAINTENANCE GRASS VERGE MIX (G1):
(SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR LOCATION)

PROPOSED SEMI NATURAL GRASSLAND (G2 & D1):

ATTENUATION PONDS (M5, S1 & G2):

INDIVIDUAL PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

GROUP PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

PROPOSED LANDTAKE

TREE PROTECTION FENCING
(TO BE ERECTED PRIOR TO CONSTRUCTION WORKS. SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)

LEGEND:
MITIGATION PROPOSALS

 SPECIFIC LANDSCAPE MEASURE

 PROPOSED HEDGEROW PLANTING (H1):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)
- CRATAEGUS MONOGYNA
- PRUNUS SPINOSA
- SALIX ALBA
- FRAXINUS EXCELSIOR

 PROPOSED HEDGEROW PLANTING (H2):
(PERCENTAGE MIX OF THE SPECIES LISTED BELOW VARY IN ACCORDANCE WITH THE EXISTING RETAINED HEDGEROW VEGETATION AT EACH SPECIFIC LOCATION - SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)
- CRATAEGUS MONOGYNA
- FAGUS SYLVATICA
- QUERCUS PETRAEA
- FRAXINUS EXCELSIOR

 PROPOSED SCREENING WOODLAND PLANTING (M3):
- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

 PROPOSED GENERAL WOODLAND PLANTING (M4):
- QUERCUS PETRAEA (12.5%)
- FRAXINUS EXCELSIOR (10%)
- FAGUS SYLVATICA (5%)
- BETULA PENDULA (15%)
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PINUS SYLVESTRIS (2.5%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

 PROPOSED WET WOODLAND PLANTING (M5):
- BETULA PENDULA (40%)
- SALIX ALBA (5%)
- SALIX CAPREA (10%)
- SALIX CINEREA (20%)
- ALNUS GLUTINOSA (15%)
- PINUS SYLVESTRIS (5%)
- LARIX DECIDUA (5%)

 ASH WOODLAND MIX (M6):
- FRAXINUS EXCELSIOR (60%)
- CRATAEGUS MONOGYNA (15%)
- PRUNUS SPINOSA (10%)
- CORYLUS AVELLANA (15%)

 SCRUB MIX (S1):
- ILEX AQUIFOLIUM (5%)
- CRATAEGUS MONOGYNA (20%)
- PRUNUS SPINOSA (15%)
- CORYLUS AVELLANA (20%)
- EUONYMUS EUROPAEUS (10%)
- SALIX CAPREA (20%)
- RHAMNUS CATHARTICA (5%)
- CORNUS SANGUINEA (5%)

 PROPOSED LOW MAINTENANCE GRASS VERGE MIX (G1):
(SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR LOCATION)

 PROPOSED SEMI NATURAL GRASSLAND (G2 & D1):
- PINUS SYLVESTRIS (20%)
- ILEX AQUIFOLIUM (10%)
- FRAXINUS EXCELSIOR (10%)
- QUERCUS PETRAEA (10%)
- BETULA PENDULA (20%)
- ALNUS GLUTINOSA (15%)
- CRATAEGUS MONOGYNA (10%)
- SALIX ALBA (5%)

 ATTENUATION PONDS (M5, S1 & G2):
1/2/...

 INDIVIDUAL PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

 GROUP PROPERTY IDENTIFICATION NUMBER FOR LANDSCAPE AND VISUAL ASSESSMENT

 PROPOSED LANDTAKE

 TREE PROTECTION FENCING
(TO BE ERECTED PRIOR TO CONSTRUCTION WORKS. SEE LANDSCAPE AND VISUAL ASSESSMENT REPORT FOR DETAILS)



National Development Plan 2007 - 2013



GOVERNMENT OF IRELAND



Department of Transport, Tourism and Sport



An Roinn Iompair Turasóireachta agus Spóirt

KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



Roughan & O'Donovan

Consulting Engineers
Civil - Structural - Transportation - Environmental

Designed: SG Checked: BC Approved: GPS Status: EIS

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Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
www.roughanodonovan.com

Drawing Title

**R494 IMPROVEMENT
LANDSCAPE MITIGATION PLAN
SHEET 9 OF 9**

Drawn: LA	Job No: 07.527	Drawing No: FIG 8.9	Rev:
Scale: 1:1000	Date: JAN '12		

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Feb 02, 2012 - 4:14pm Drawing Location: L:\acaddwg\2007\07527\Drawings\EIS Drawings\EIS DRAFT 1\Chapter 8\FIG 8.9.dwg

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



EXISTING VIEW OF LOCATION OF PROPOSED
KILLALOE BYPASS FROM BALLINA MARINA

		   An Roinn Iompair Turasoireachta agus Spóirt Department of Transport, Tourism and Sport		KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT		 Roughan & O'Donovan Arena House, Arena Road, Sandyford, Dublin 18. Tel : +353 1 294 0800 Fax : +353 1 294 0820 e-mail : info@rod.ie www.roughanodonovan.com		Drawing Title EXISTING VIEW AT KILLALOE BYPASS FROM BALLINA MARINA							
ENVIRONMENTAL IMPACT STATEMENT						Consulting Engineers <i>Civil - Structural - Transportation - Environmental</i>		Drawn: LA		Job No: 07.527		Drawing No:		Rev:	
								Designed: SG		Checked: BC		Approved: GPS		Status: EIS	
								Scale: (A3) N.T.S.		Date: JAN 12		FIG 8.10			



PROPOSED VIEW OF KILLALOE BYPASS
FROM BALLINA MARINA



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

KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT

**Roughan &
O'Donovan**
Consulting Engineers
Civil - Structural - Transportation - Environmental

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Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
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www.roughanodonovan.com

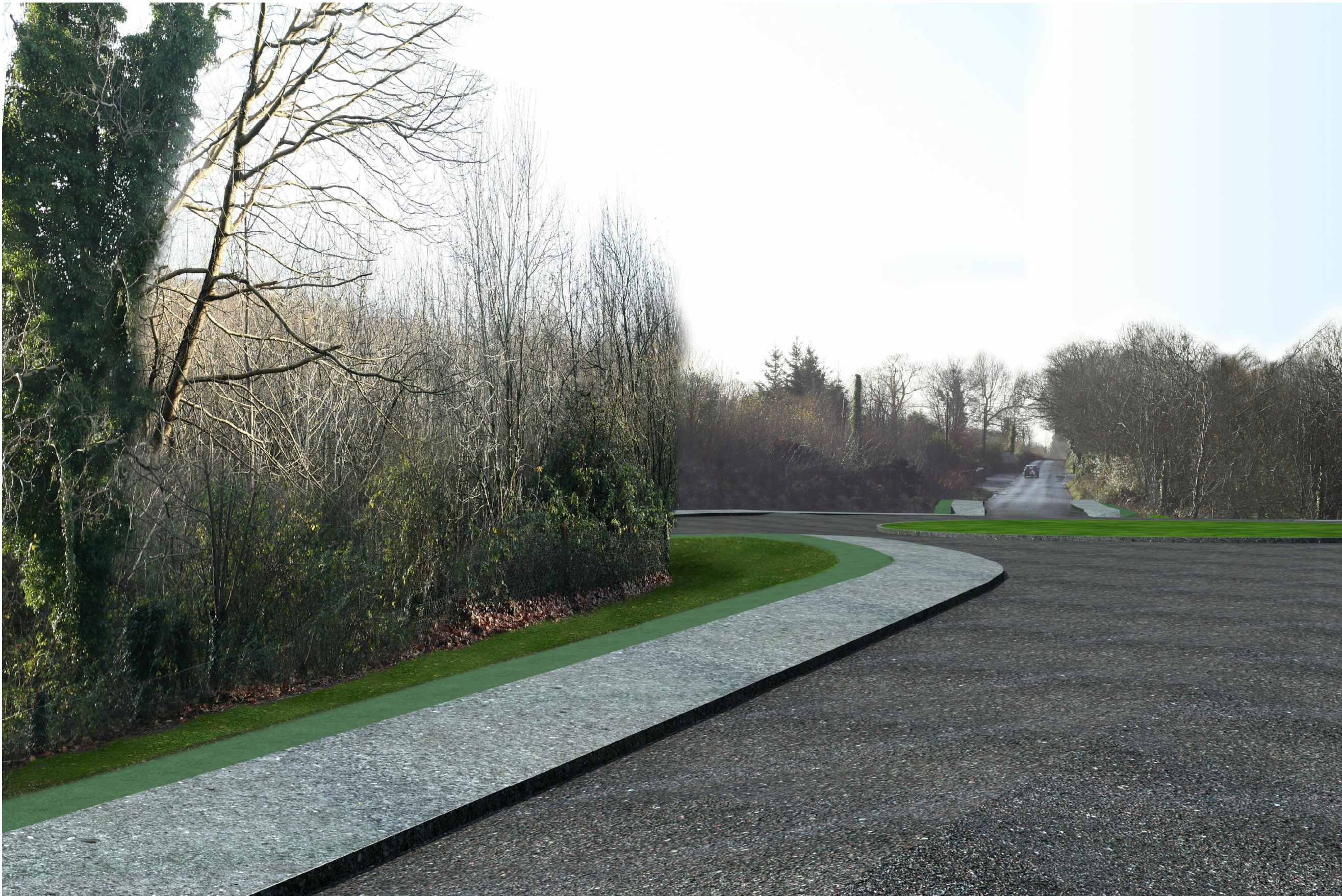
Drawing Title
**PROPOSED VIEW AT
KILLALOE BYPASS FROM BALLINA MARINA**

Drawn: LA	Job No: 07.527	Drawing No: FIG 8.11	Rev:
Scale: (A3) N.T.S.	Date: JAN '12		



VIEW OF EXISTING R463 ROAD (LOOKING SOUTH) AT LOCATION OF PROPOSED INTERSECTION WITH SHANNON BRIDGE CROSSING/KILLALOE BYPASS

 National Development Plan 2007 - 2013	  An Roinn Iompair Turasoireachta agus Spóirt Department of Transport, Tourism and Sport	KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT ENVIRONMENTAL IMPACT STATEMENT	 Roughan & O'Donovan Consulting Engineers <i>Civil - Structural - Transportation - Environmental</i> Arena House, Arena Road, Sandyford, Dublin 18. Tel : +353 1 294 0800 Fax : +353 1 294 0820 e-mail : info@rod.ie www.roughanodonovan.com <table><tr><td>Designed:</td><td>SG</td><td>Checked:</td><td>BC</td><td>Approved:</td><td>GPS</td><td>Status:</td><td>EIS</td></tr></table>	Designed:	SG	Checked:	BC	Approved:	GPS	Status:	EIS	Drawing Title EXISTING VIEW ON R463 ROAD (LOOKING SOUTH) <table><tr><td>Drawn:</td><td>LA</td><td>Job No:</td><td>07.527</td><td>Drawing No:</td><td>FIG 8.12</td><td>Rev:</td><td></td></tr><tr><td>Scale:</td><td>N.T.S.</td><td>Date:</td><td>JAN '12</td><td></td><td></td><td></td><td></td></tr></table>	Drawn:	LA	Job No:	07.527	Drawing No:	FIG 8.12	Rev:		Scale:	N.T.S.	Date:	JAN '12				
Designed:	SG	Checked:	BC	Approved:	GPS	Status:	EIS																					
Drawn:	LA	Job No:	07.527	Drawing No:	FIG 8.12	Rev:																						
Scale:	N.T.S.	Date:	JAN '12																									



**VIEW OF PROPOSED INTERSECTION OF SHANNON BRIDGE
CROSSING/KILLALOE BYPASS R463 ROAD (LOOKING SOUTH)**



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

**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT**

ENVIRONMENTAL IMPACT STATEMENT



**Roughan &
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Fax : +353 1 294 0820
e-mail : info@rod.ie
www.roughanodonovan.com

Drawing Title

**PROPOSED VIEW OF INTERSECTION
OF SHANNON BRIDGE CROSSING/KILLALOE
BYPASS R463 ROAD (LOOKING SOUTH)**

Drawn: LA	Job No: 07.527	Drawing No: FIG 8.13	Rev:
Scale: (A3)	N.T.S.	Date: JAN '12	



**EXISTING VIEW OF R494 / R496 JUNCTION
AT ROOLAGH (LOOKING NORTH)**



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

**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT**

ENVIRONMENTAL IMPACT STATEMENT



Consulting Engineers
Civil - Structural - Transportation - Environmental

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Sandyford, Dublin 18.
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Fax : +353 1 294 0820
e-mail : info@rod.ie
www.roughanodonovan.com

Drawing Title

**EXISTING VIEW OF R494 / R496 JUNCTION
AT ROOLAGH (LOOKING NORTH)**

Drawn: LA	Job No: 07.527	Drawing No: FIG 8.14	Rev:
Scale: (A3) N.T.S.	Date: JAN '12		



**PROPOSED VIEW OF R494 / R496 JUNCTION
AT ROOLAGH (LOOKING NORTH)**



**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT**

ENVIRONMENTAL IMPACT STATEMENT



Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
www.roughanodonovan.com

Drawing Title				
PROPOSED VIEW OF R494 / R496 JUNCTION AT ROOLAGH(LOOKING NORTH)				
Drawn:	LA	Job No:	07.527	Drawing No:
Scale:	N.T.S.	Date:	JAN '12	FIG 8.15
Rev:				



EXISTING VIEW FROM
BALLYVALLY GATE LODGE (LOOKING EAST)

 National Development Plan 2007 - 2013		  An Roinn Iompair Turasóireachta agus Spóirt Department of Transport, Tourism and Sport		KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT		 Roughan & O'Donovan Consulting Engineers <i>Civil - Structural - Transportation - Environmental</i> Arena House, Arena Road, Sandyford, Dublin 18. Tel : +353 1 294 0800 Fax : +353 1 294 0820 e-mail : info@rod.ie www.roughanodonovan.com		Drawing Title EXISTING VIEW FROM BALLYVALLY GATE LODGE (LOOKING EAST)													
ENVIRONMENTAL IMPACT STATEMENT						Designed: SG		Checked: BC		Approved: GPS		Status: EIS		Drawn: LA		Job No: 07.527		Drawing No: FIG 8.16		Rev:	
														Scale: (A3) N.T.S.		Date: JAN '12					



**PROPOSED VIEW FROM
BALLYVALLY GATE LODGE (LOOKING EAST)**



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

**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT**

ENVIRONMENTAL IMPACT STATEMENT



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Drawing Title

**PROPOSED VIEW FROM
BALLYVALLY GATE LODGE (LOOKING EAST)**

Drawn: LA	Job No: 07.527	Drawing No: FIG 8.17	Rev:
Scale: (A3) N.T.S.	Date: JAN '12		



PHOTOVIEW 1



PHOTOVIEW 2



PHOTOVIEW 3



PHOTOVIEW 4

PHOTOVIEW 1
VIEW TAKEN ON THE R463 OF
BALLYVALLEY ENTRANCE
DIRECTED NORTHWARDS
OUT OF KILLALOE TOWN.

PHOTOVIEW 2
NORTH WESTWARD VIEW OF
THE MATURE TREES ON THE
SOUTHERN BOUNDARY OF
BALLYVALLEY DEMESNE.

PHOTOVIEW 3
NORTH WESTWARD VIEW OF
PASTURE FIELDS WEST OF
KILLALOE TOWN.

PHOTOVIEW 4
SOUTH EASTWARD VIEW
FROM THE HILL ROAD OF
PASTURE IN THE
FOREGROUND AND BALLINA
TOWN ON THE VALLEY
OPPOSITE.



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

KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

ENVIRONMENTAL IMPACT STATEMENT



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Drawing Title

PHOTOVIEW SHEET 1 OF 4
VIEW 1 to 4

Drawn:	PC	Job No:	07.527	Drawing No:	FIG 8.18	Rev:	
Scale:	N.T.S.	Date:	JAN '12				



PHOTOVIEW 5



PHOTOVIEW 6



PHOTOVIEW 7



PHOTOVIEW 8



PHOTOVIEW 9

PHOTOVIEW 5
WESTWARD VIEW FROM
BALLINA TOWN OF KILLALOE
TOWN ACROSS THE RIVER
SHANNON.

PHOTOVIEW 6
SOUTH EASTWARD VIEW
FROM SHANTRAUD ROAD OF
PASTURELAND.

PHOTOVIEW 7
TAKEN OF LOW LYING FIELDS
FROM R463 NORTH OF
KILLALOE LOOKING NORTH
WEST.

PHOTOVIEW 8
SOUTH EASTWARD VIEW
FROM SHANTRAUD WOODS
RESIDENTIAL DEVELOPMENT

PHOTOVIEW 9
NORTH WESTWARD VIEW
FROM LOCAL ROAD
ADJACENT TO CLARISFORD
HOUSE



**KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT**

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Drawing Title			
PHOTOVIEW SHEET 2 OF 4 VIEW 5 to 9			
Drawn:	PC	Job No:	07.527
Scale:	N.T.S.	Date:	JAN '12
		Drawing No:	FIG 8.19
		Rev:	



PHOTOVIEW 10



PHOTOVIEW 11



PHOTOVIEW 12



PHOTOVIEW 13



PHOTOVIEW 14

PHOTOVIEW 10
VIEW SOUTH TOWARDS
CLARISFORD HOUSE

PHOTOVIEW 11
WESTWARD VIEW OF ROAD
JUNCTION BETWEEN THE
R496 AND R494 SOUTH OF
BALLINA TOWN.

PHOTOVIEW 12
NORTH EASTWARD VIEW OF
EXISTING HOUSES ADJACENT
TO THE R496 AND THE R494
ROAD JUNCTION.

PHOTOVIEW 13
SOUTHWARD VIEW OF
EXISTING CLOSED CANOPY
HEDGEROW VEGETATION ON
THE R494

PHOTOVIEW 14
NORTH WESTWARD VIEW OF
RIVER SHANNON, TAKEN
FROM BALLINA TOWN PARK
OF THE PROPOSED LOCATION
OF THE BRIDGE CROSSING



PHOTOVIEW 15



PHOTOVIEW 16



PHOTOVIEW 17



PHOTOVIEW 18



PHOTOVIEW 19

PHOTOVIEW 15
SOUTHWARD VIEW ON THE
R494 WHERE WESTWARD
GLIMPSE OF THE RIVER
SHANNON IS POSSIBLE

PHOTOVIEW 16
SOUTHWARD VIEW OF
EXISTING EMO GARAGE ON
THE R494.

PHOTOVIEW 17
SOUTHWARD VIEW TAKEN ON
R494 AT CH. 1300 APPROX.

PHOTOVIEW 18
SOUTHWARD VIEW TAKEN ON
R494 AT CH. 1850 APPROX.

PHOTOVIEW 19
SOUTHWARD VIEW TAKEN ON
R494 AT CH. 2300 APPROX.

PHOTOVIEW 20
EASTWARD VIEW TAKEN ON
R494 AT CH. 2700 APPROX.

PHOTOVIEW 21
NORTHWARD VIEW TAKEN ON
R494 AT CH. 3338 APPROX.



PHOTOVIEW 20



PHOTOVIEW 21



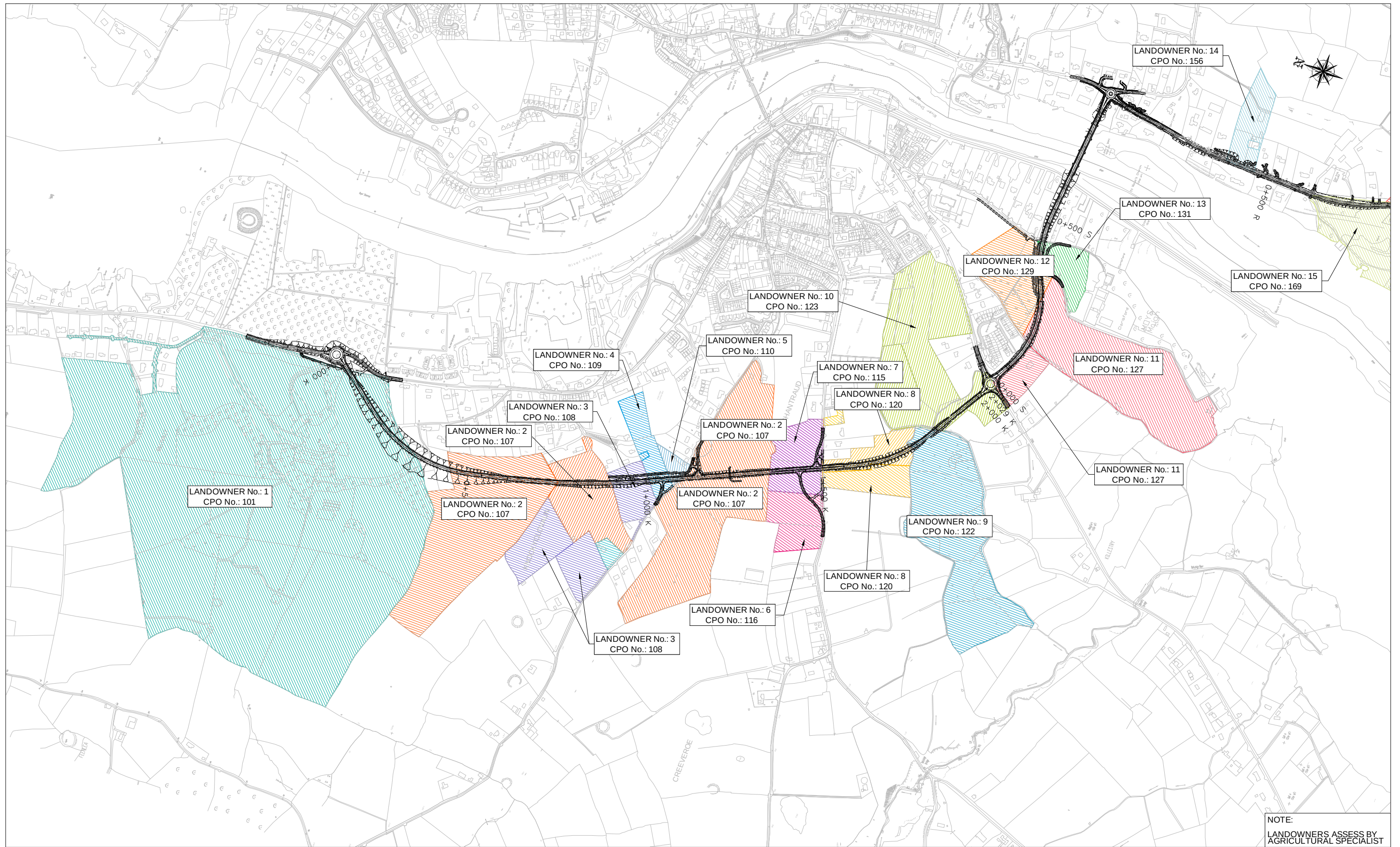
KILLALOE BYPASS, SHANNON BRIDGE CROSSING
& R494 IMPROVEMENT

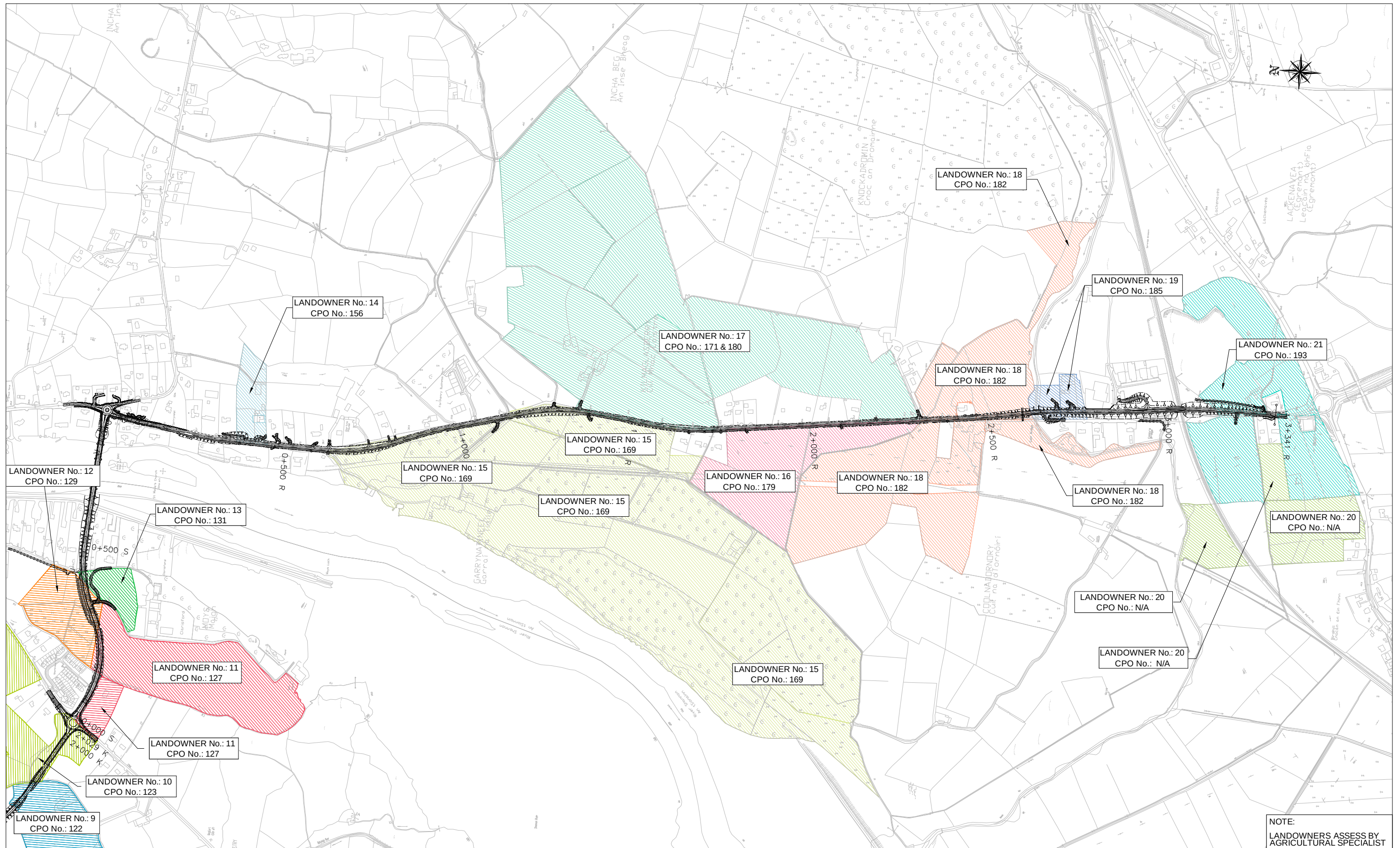
ENVIRONMENTAL IMPACT STATEMENT



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Drawing Title			
PHOTOVIEW SHEET 4 OF 4 VIEW 15 TO 21			
Drawn:	PC	Job No:	07.527
Scale:	N.T.S.	Date:	JAN '12
		Drawing No:	FIG 8.21
		Rev:	





KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

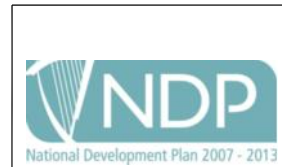
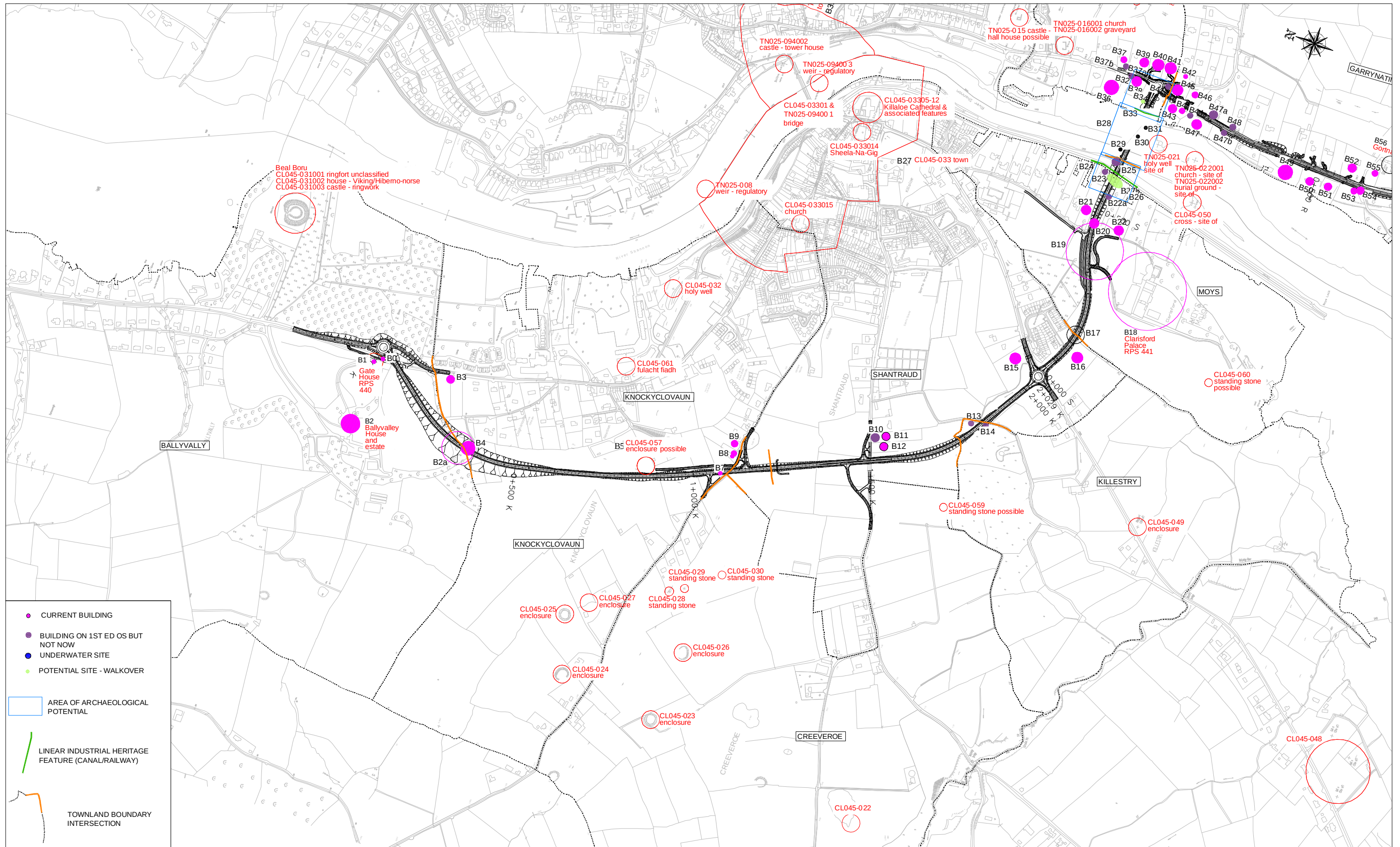
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Drawing Title			
AGRICULTURAL LAND OWNERSHIP			
SHEET 2 OF 2			
Drawn:	JG	Job No:	07-527
Scale:	1:5000 @ A1	Date:	JAN 12
		Drawing No:	FIG 9.2
		Rev:	



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Turasoireachta agus Spóirt
Department of Transport,
Tourism and Sport

KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

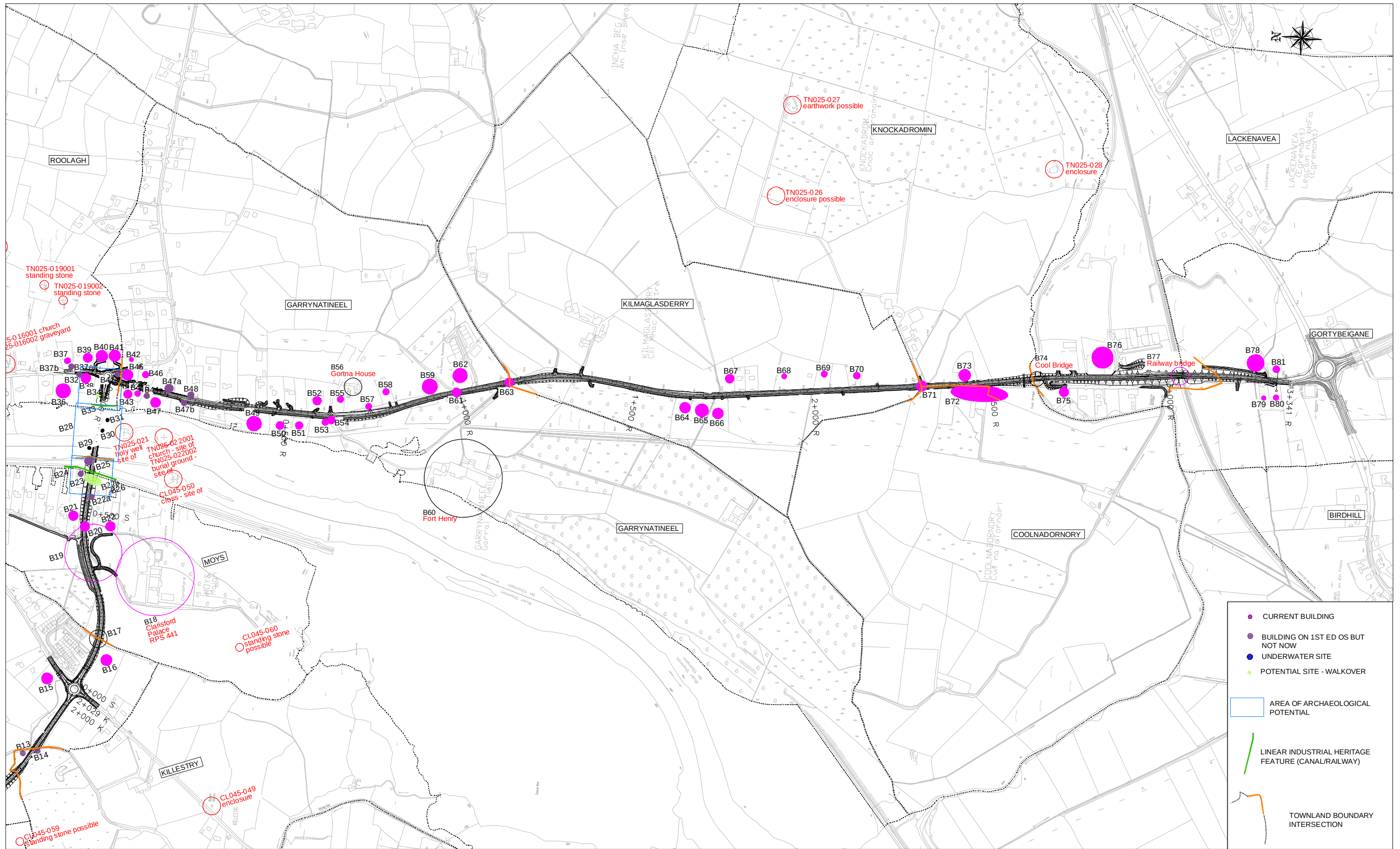
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Drawing Title			
ARCHAEOLOGY, ARCHITECTURE & CULTURAL HERITAGE - SHEET 1 OF 2			
Drawn:	LA	Job No:	07.527
Scale:	1:5000	Date:	JAN '12
		Drawing No:	FIG 10.1
		Rev:	



- CURRENT BUILDING
- BUILDING ON 1ST ED OS BUT NOT NOW
- UNDERWATER SITE
- POTENTIAL SITE - WALKOVER
- AREA OF ARCHAEOLOGICAL POTENTIAL
- LINEAR INDUSTRIAL HERITAGE FEATURE (CANAL/RAILWAY)
- TOWNLAND BOUNDARY INTERSECTION



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KILLALOE BYPASS, SHANNON BRIDGE CROSSING & R494 IMPROVEMENT

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Drawing Title

ARCHAEOLOGY, ARCHITECTURE
& CULTURAL HERITAGE - SHEET 2 OF 2

Drawn: LA	Job No: 07.527	Drawing No: FIG 10.2	Rev:
Scale: 1:5000	Date: JAN '12		