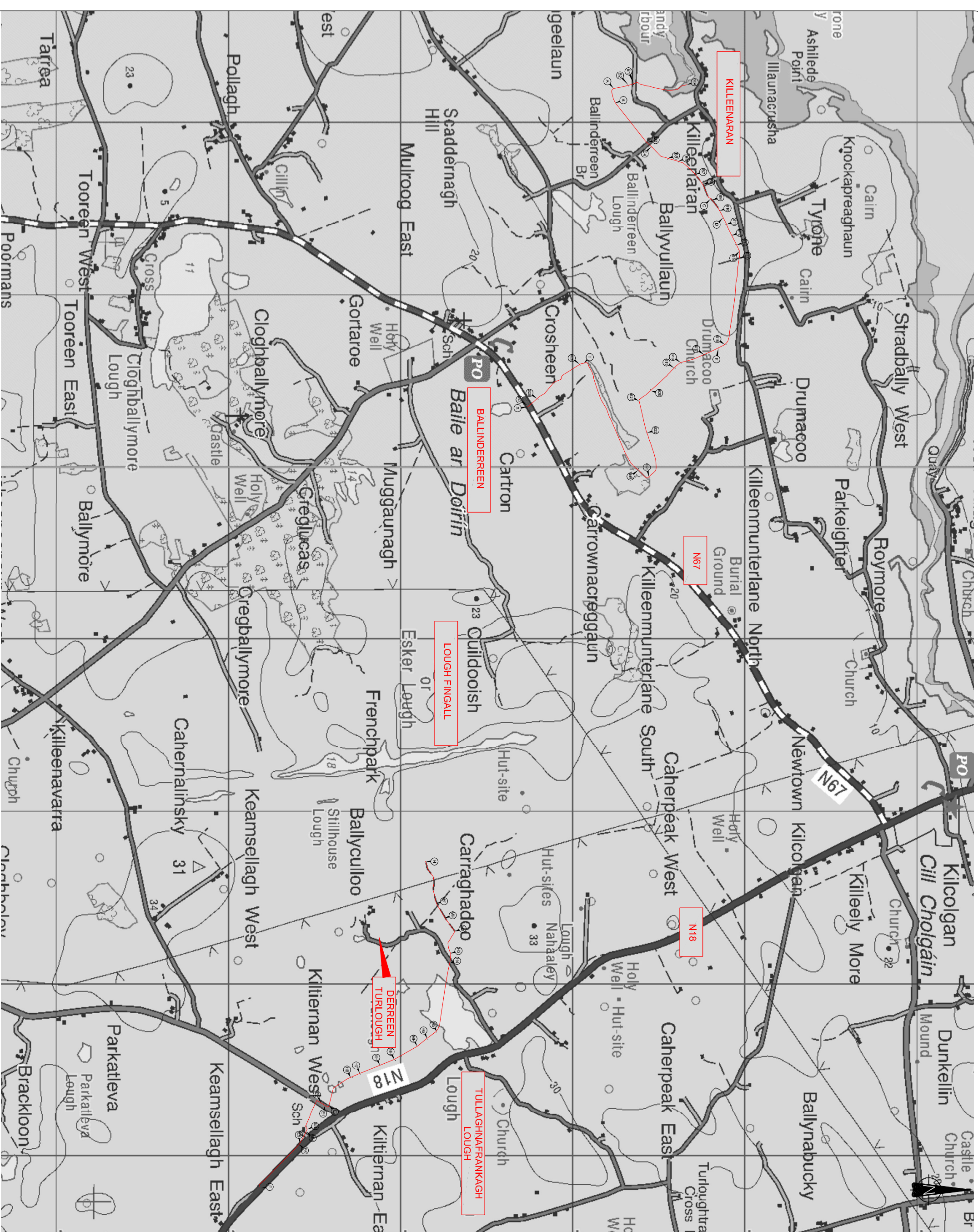


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[illegible]

client			
office of public works			
project			
south galway flood study			
stage			
preliminary			
title			
location map kiltiernan / ballinderreen			
scales			
1 / 10,000			
drawn	checked	approved	date
PM	TmG	CMG	Oct 2010

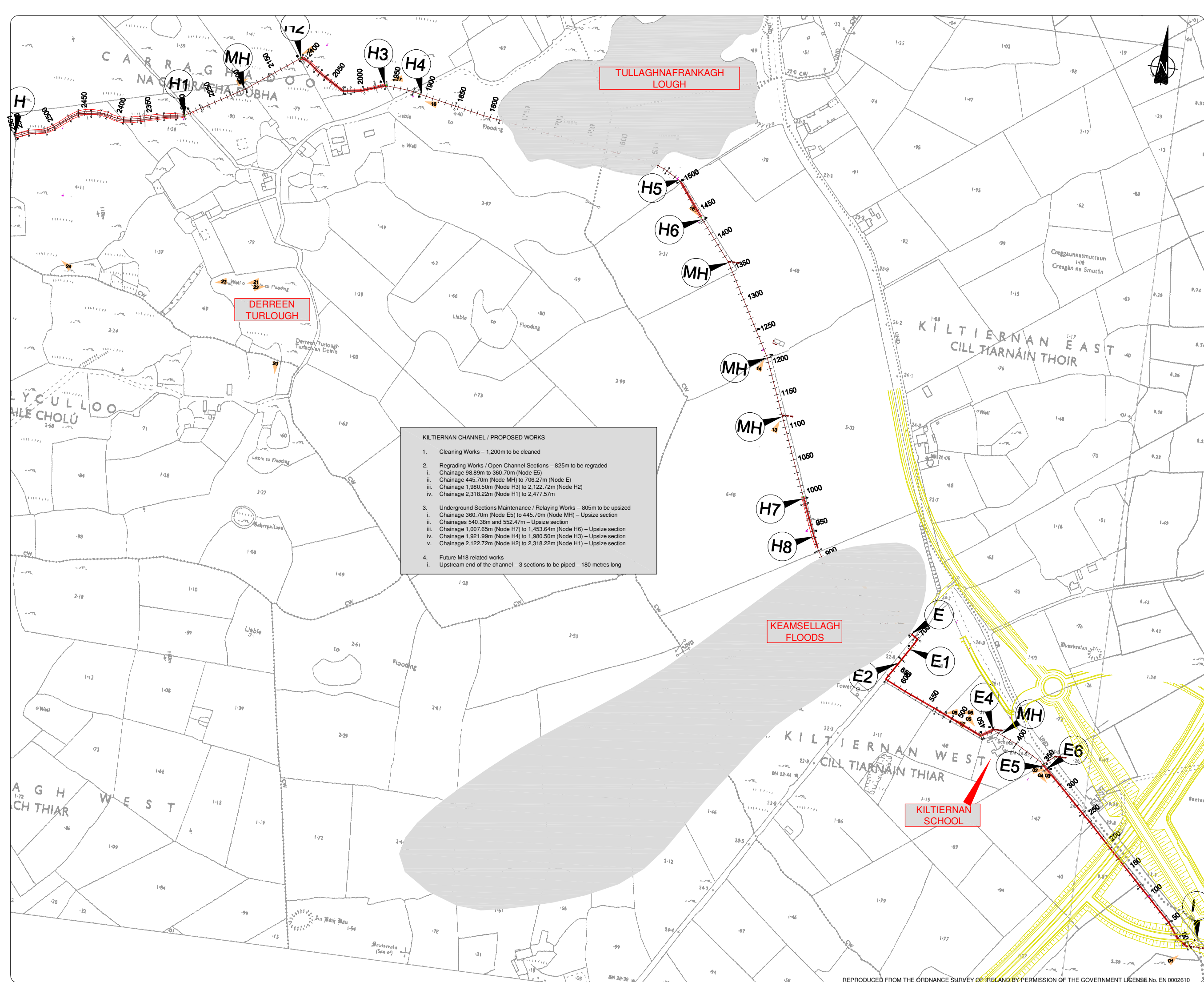
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LEGEND :

- OPEN CHANNEL SECTIONS
- 19 PHOTO - REFER TO APPENDIX E
- UNDERGROUND SECTIONS
- LOUGH / FLOOD PLAIN
- LAYOUT OF FUTURE M18

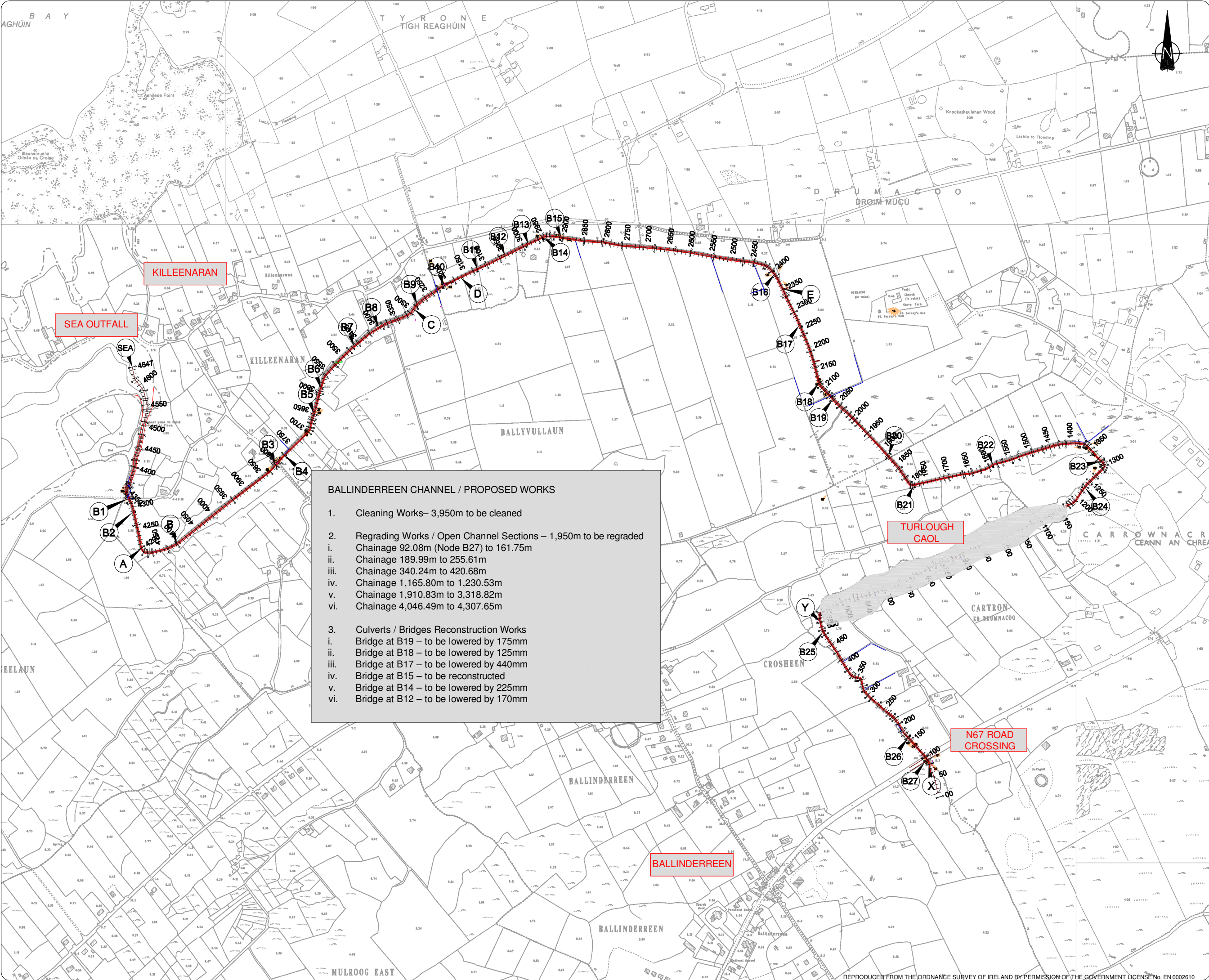
rev.	modifications	by	da

client			
OFFICE OF PUBLIC WORKS			
project			
SOUTH GALWAY FLOOD STUDY			
stage			
PRELIMINARY			
title			
KILTIERNAN CHANNEL LAYOUT PLAN			
scales			
1 / 2,500			
drawn	checked	approved	date
PM	TMcG	CMcC	Oct 2010

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LEGEND :

- OPEN CHANNEL SECTIONS
- 19 PHOTO - REFER TO APPENDIX E
- UNDERGROUND SECTIONS
- LOUGH / FLOOD PLAIN

rev.	modifications	by	da

client

OFFICE OF PUBLIC WORKS

project

SOUTH GALWAY FLOOD STUDY

stage

PRELIMINARY

title

BALLINDERREEN CHANNEL LAYOUT PLAN

scales

1 / 4,000

drawn	checked	approved	date
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4721/KB/03

revision

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LEGEND :

	GROUND LEVELS BELOW 0.0M
	GROUND LEVELS BETWEEN 0.0 AND 2.23M
	GROUND LEVELS BETWEEN 2.23 AND 5.0M
	GROUND LEVELS BETWEEN 5.0 AND 8.0M
	GROUND LEVELS BETWEEN 8.0 AND 11.0M
	GROUND LEVELS BETWEEN 11.0 AND 14.0M
	GROUND LEVELS BETWEEN 14.0 AND 19.0M
	GROUND LEVELS BETWEEN 19.0 AND 24.0M
	GROUND LEVELS BETWEEN 24.0 AND 29.0M
	GROUND LEVELS BETWEEN 29.0 AND 34.0M

NOTE : H.A.T. LEVEL 2.23M (OD MH)
SHOWN HATCHED RED

rev.	modifications		by	da

client
OFFICE OF PUBLIC WORKS

project
SOUTH GALWAY FLOOD STUDY

stage
PRELIMINARY

title
BALLINDERREEN AREA
EXTENT OF HIGH TIDES
GALWAY BAY (SOURCE INFOMAR)

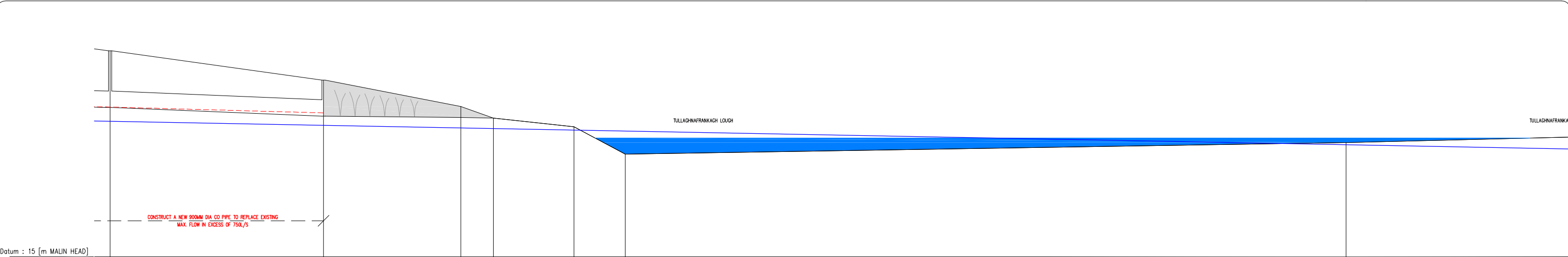
scales
1 / 2,500

drawn PM	checked TMcG	approved CMcC	date Oct 2010
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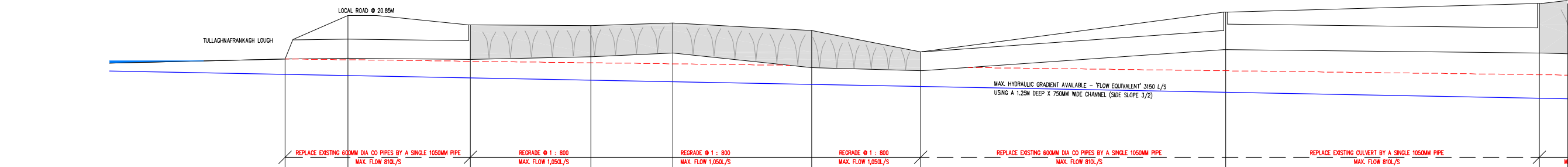
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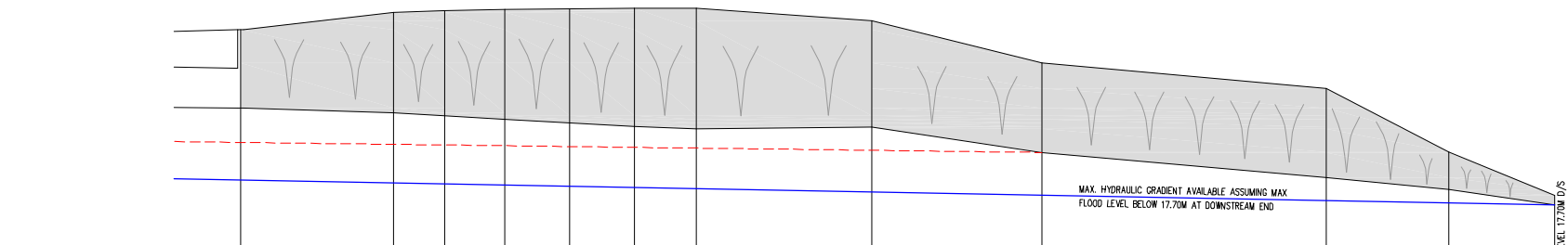
drawing no. 4721/KB/04	revision
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Node	M4	H6				H5				EXITING LOUGH				TULLAGHNAFRANKAGH LOUGH				H4											
Chainage [m]	1375.37	78.27				1430.64	50.36				1505.00	11.97	1518.97	29.56				1565.53	18.88	1565.41	264.4				1629.81	93.18			
Ground Level [m MALIN HEAD]	22.582	21.498				20.532				20.11				19.788				18.782				19.210							
Invert Level [m MALIN HEAD] & width of channel or dia. [mm]	20.88	1x600 CO PIPE				20.17	1200 to 1800				20.13	20.10	N/A (FLOOD PLAIN)				19.78	18.78	N/A (FLOOD PLAIN)				19.21	N/A (FLOOD PLAIN)					
Gradient		1/246				1/1171				1/428				1/93				1/19				N/A (FLOOD PLAIN)				N/A (FLOOD PLAIN)			
Nature of section	Manhole	Entering piped section				Open channel				Open channel												Flood Plain							
Max. hydraulic capacity of section [l/s]		219				205				340				N/A (FLOOD PLAIN)				N/A (FLOOD PLAIN)				N/A (FLOOD PLAIN)				N/A (FLOOD PLAIN)			



Datum : 15 [m MALIN HEAD]																		
Node	H4 (ENTERING LOUGH)		ROAD CROSSING (UNDER)		H3		-	-	-	H2		MH				H1		
Chainage [m]	93.18	1991.59	19.77	1991.71	38.74	1990.50	38.11	2018.61	25.83	2044.44	43.84	2086.28	34.44	2122.72	96.38	2218.10	99.12	2218.22
Ground Level [m MALIN HEAD]	19.435		20.85		20.51		20.488		20.571		20.332		19.663		20.907		21.187	
Invert Level [m MALIN HEAD] & width of channel or dia. [mm]	N/A (FLOOD PLAIN)		2x600 CO PIPES		2x600 CO PIPES		1200 to 1800		1200 to 1800		1200 to 1800		1200 to 1800		2x600 CO PIPES		800mm high x 1500mm wide culvert	
	19.43		19.45		19.41		19.49		19.61		19.16		19.06		18.73		18.61	
Gradient	N/A (FLOOD PLAIN)		-1/899		1/922		-1/454		-1/217		1/97		1/338		-1/144		1/869	
Nature of section	Exiting piped section		Surcharged section (neg. gradient)		Entering piped section		Open channel		Open channel		Open channel		Exiting piped section		Manhole		Entering culverted section	
Max. hydraulic capacity of section [l/s] N/A (FLOOD PLAIN)			226				Surcharged section (neg. gradient)		3025		741		Surcharged section (neg. gradient)		1442			



		REGRADE ● 1 : 800 MAX. FLOW > 2,000L/S				REGRADE ● 1 : 800 MAX. FLOW > 2,000L/S				REGRADE ● 1 : 800 MAX. FLOW > 2,000L/S								ASSUME MAX FLOOD L					
Datum : 15 [m MALIN HEAD]																							
Node	H1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H	
Chainage [m]	2318.22	30.41	2358.63	10.19	2368.82	11.95	2370.77	12.84	2381.61	12.92	2396.53	12.27	2408.80	34.97	2463.77	33.8	2477.57	56.51	2534.08	24.32	2558.40	21.09	2579.49
Ground Level [m MALIN HEAD]	21.187		21.521	21.557		21.581		21.596		21.604		21.604		21.556		20.518			20.012		18.742		17.888
Invert Level [m MALIN HEAD] & width of channel or dia. [mm]	19.61	2600 to 3800	19.67	2600 to 3800	19.67	2600 to 3800	19.60	2600 to 3800	19.59	2600 to 3800	19.55	2600 to 3800	19.41	2600 to 3800	19.24	2600 to 3800	18.73	2600 to 3800	18.23	2600 to 3800	17.89	N/A (FLOOD PLAIN)	17.70
Gradient		1/342	1/185	1/166	1/167	1/190	1/273	-1/1029						1/67		1/112			1/103		1/70		
Nature of section	Entering culverted section		Open channel				Open channel						Open channel			Open channel			Open channel		Open channel		Open channel
Max. hydraulic capacity of section [l/s]	7914		16085	18249		19627		19908		17520		Surcharged section (neg. gradient)		22078				17076		14437		N/A (FLOOD PLAIN)	

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Legend :

PROPOSED REGRADING AND/OR UPSIZING

OVERALL GRADIENT

rev.	modifications	by	da

client

OFFICE OF PUBLIC WORKS

project

SOUTH GALWAY FLOOD STUDY

stage

PRELIMINARY

title

KILTIERNAN CHANNEL
LONGITUDINAL SECTION
SHEET 2 OF 2

scales

1 / 1000 (H) 1 / 100 (V)

drawn

checked

approved

date

PM

TMcG

CMcC

Oct 2010

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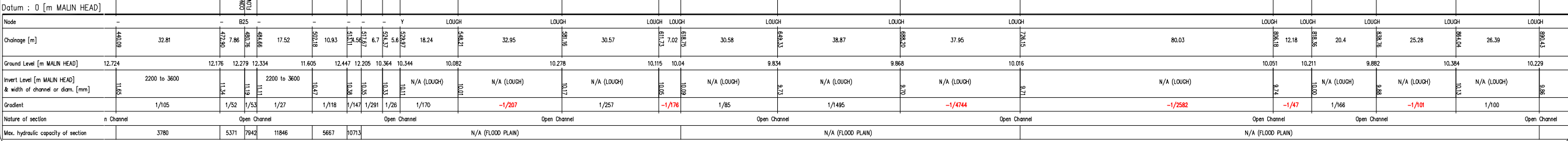
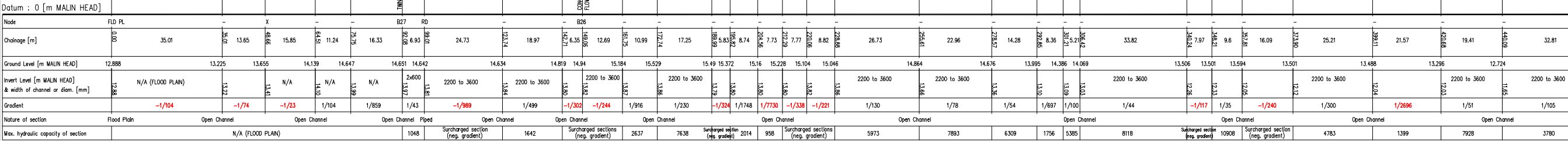
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— OVERALL GRADIENT

rev.	modifications	by	da

PRELIMINARY

BALLINDERREEN CHANNEL
LONGITUDINAL SECTION
SHEET 1 OF 4

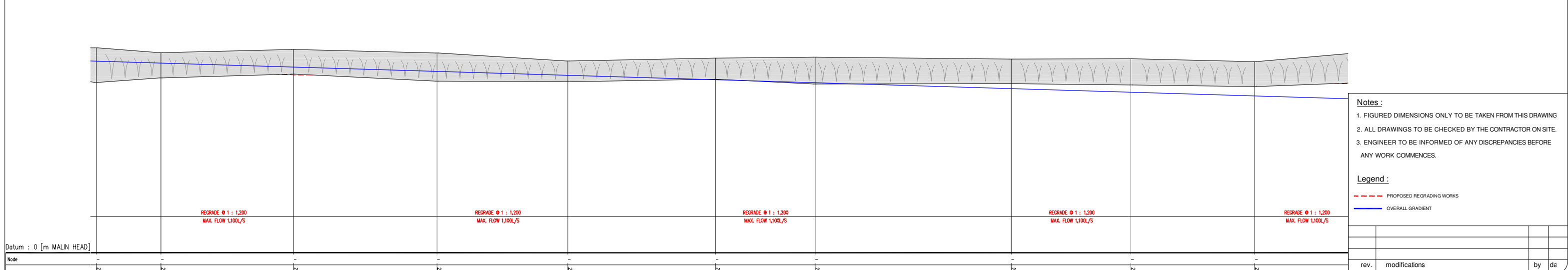
1 / 1000 (H)	1 / 100 (V)
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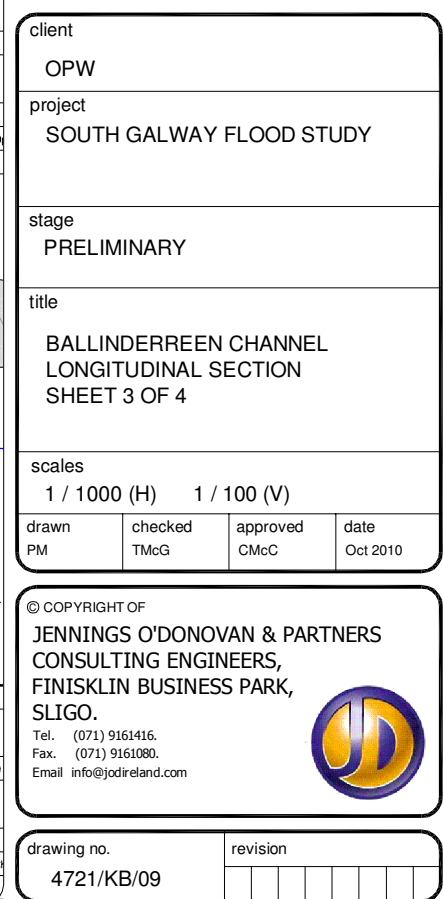
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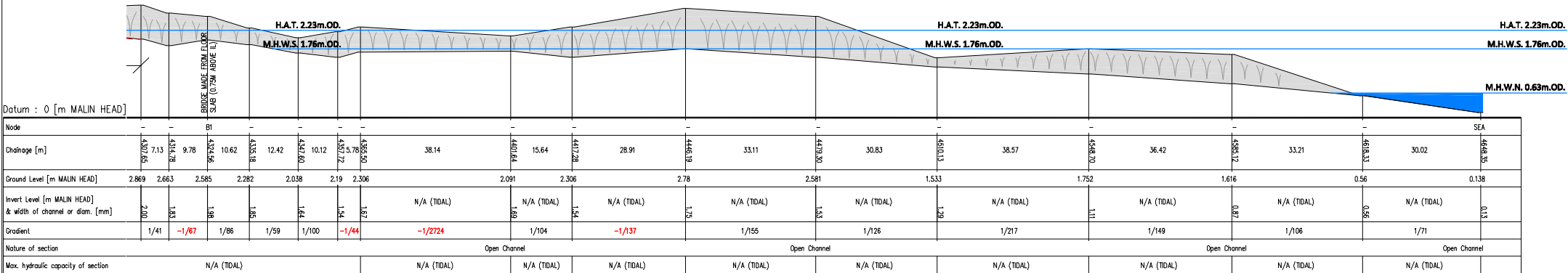
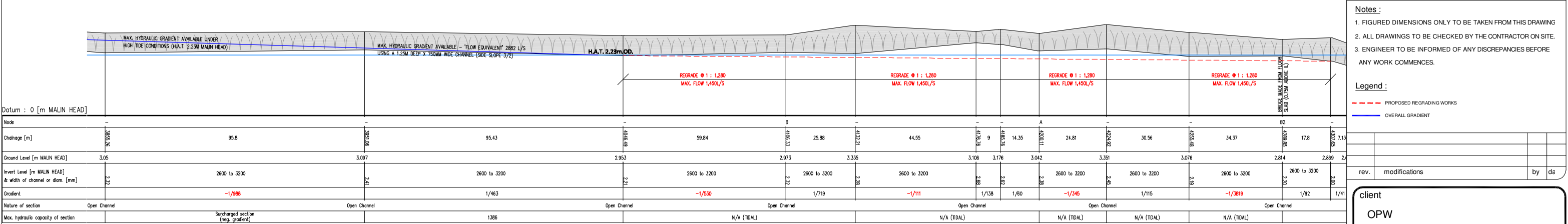
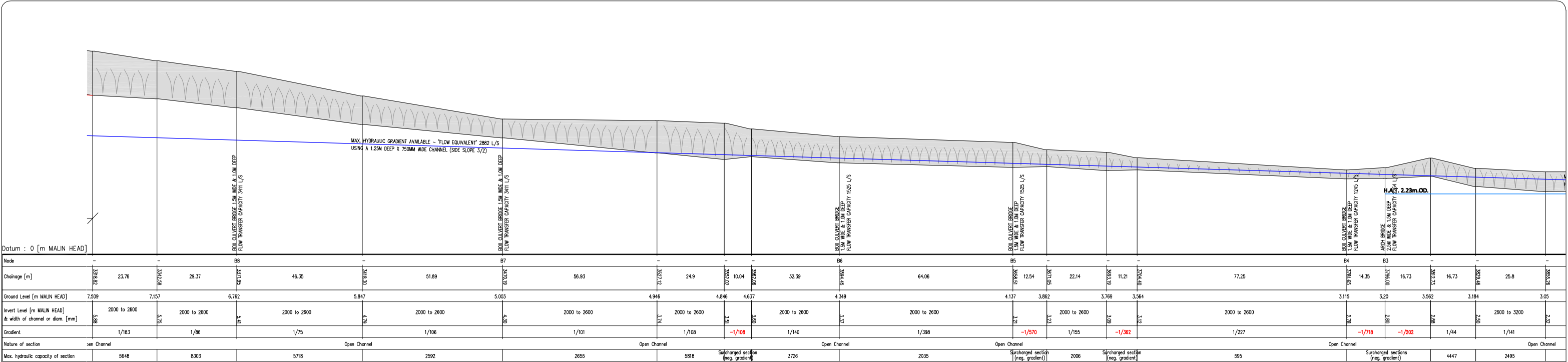
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— OVERALL GRADIENT

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Legend :

--- PROPOSED REGRADING WORKS

--- OVERALL GRADIENT

rev.	modifications	by	date

client
OPW

project
SOUTH GALWAY FLOOD STUDY

stage
PRELIMINARY

title
BALLINDERREEN CHANNEL
LONGITUDINAL SECTION
SHEET 4 OF 4

scales
1 / 1000 (H) 1 / 100 (V)

drawn	checked	approved	date
PM	TMcG	CMcC	Oct 2010

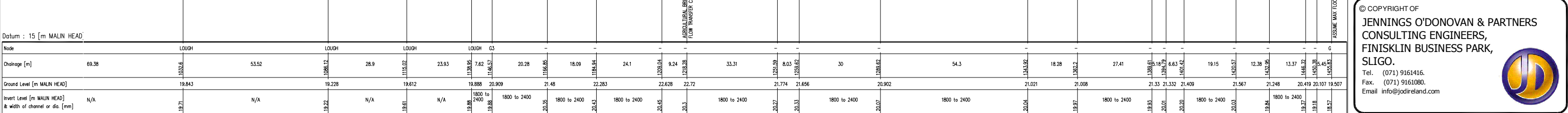
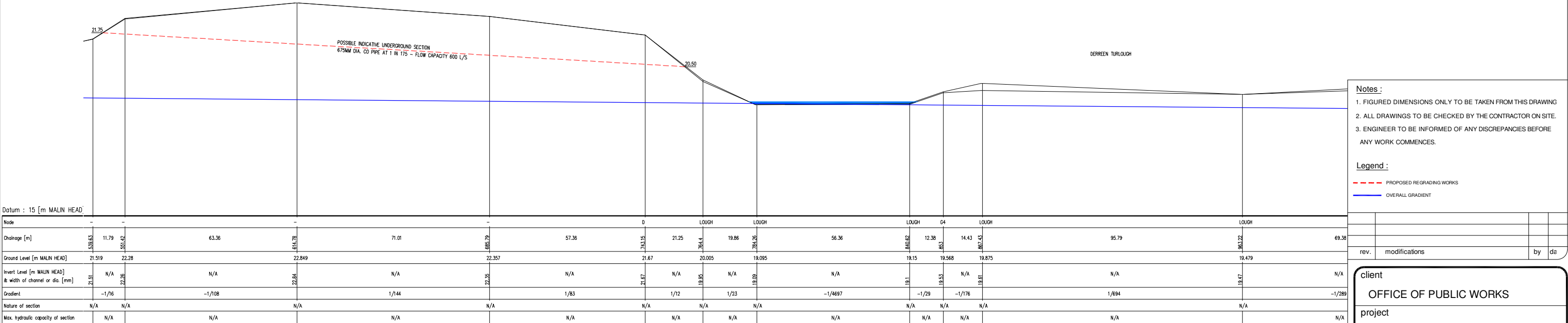
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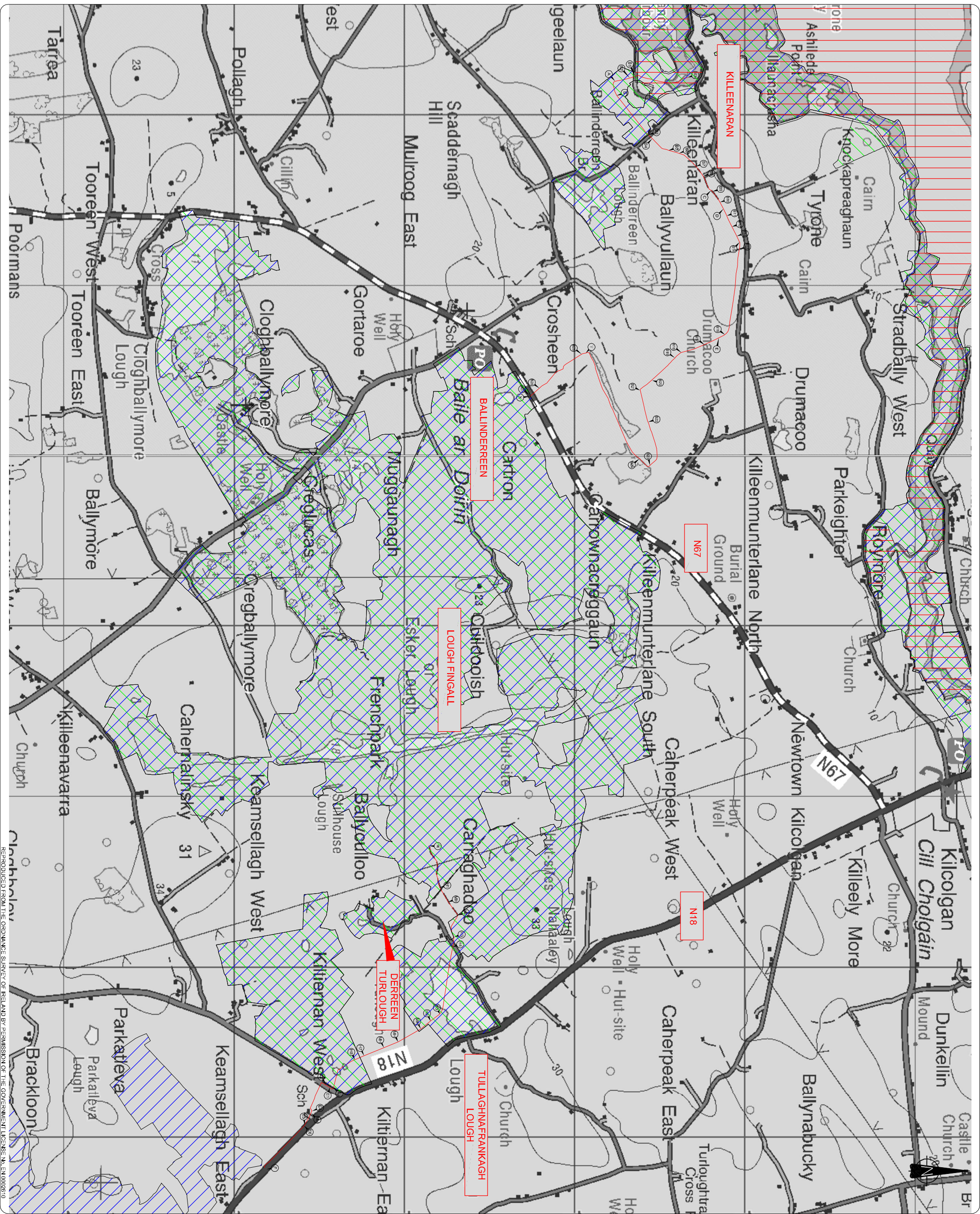
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LEGEND :

- SPECIAL PROTECTION AREAS
- SPECIAL AREAS OF CONSERVATION
- PROPOSED NATURAL HERITAGE AREAS

rev.	modifications	by	date

client	OFFICE OF PUBLIC WORKS			
project	SOUTH GALWAY FLOOD STUDY			
stage	PRELIMINARY			
title	DESIGNATED AREAS KILTIERNAN / BALLINDERREEN			
scales	1 / 10,000			
drawn	checked	approved	date	
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LEGEND :

- KILTIERNAN CHANNEL
- - - - KILTIERNAN CHANNEL - UP/S SECTION PIPED UNDER N18
- LAYOUT OF FUTURE M18

rev.	modifications	by	da

client
OFFICE OF PUBLIC WORKS

project
SOUTH GALWAY FLOOD STUDY

stage
PRELIMINARY

title
LAYOUT OF THE FUTURE M18
MOTORWAY

scales
1 / 2,000 (A3) 1 / 1,000 (A1)

drawn PM	checked TMcG	approved CMcC	date Oct 2010
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