

Appendix K – Updated Scheme Costs and Damages

Preliminary Cost Estimates

Date:

28/03/2024

By:

JR

Checked:

SH

	Option 3: Raised Defences and River Duiske Storage	As per Option 3 without Tinnahinch Castle Works
Capital Cost		
Construction Cost Estimate(Incl. for unmeasured & Prelims)	€12,688,697	€11,913,688
Archaeology ⁺ (7.5-15%)	€1,268,870	€1,191,369
Environmental Monitoring/Mitigation (5%)	€634,435	€595,684
Sub-total for Construction Cost	€14,592,002	€13,700,741
Other Related Costs		
Fees and Supervision (10%)	€1,459,200	€1,370,074
Land Acquisition*	€450,000	€440,000
Art (1% up to €125k)	€125,000	€125,000
Surveys	€100,000	€100,000
Site investigation	€356,328	€356,328
Sub-total	€17,082,530	€16,092,144
Optimism Bias (20%)	€2,918,400	€2,740,148
Maintenance Costs (incl 20% Optimism Bias)	€3,270,971	€3,071,185
Total Project Cost	€23,271,902	€21,903,476

* Estimated individually based on anticipated landtake/cost of access, rounded up to nearest €25,000

⁺ 15 percent as standard, 10% where work on at River Duiske is reduced, 7.5% where it is avoided at Turf Market

Project Name: Graiguenamanagh Tinnahinch Flood Relief Scheme

Project No.: W3451

Date: 14/08/2024

Rates are based on assesment of recent tender prices, Spons Rates and the OPW Unit Cost Database (Oct 2013)
Construction Price Index (CPI) of 1.463 applied to amend OPW Unit rates for Oct 2021

COST ESTIMATE - Option 3: Raised Defences and River Duiske Storage

Item No.	Description	Quantity	Units	Rate	Amount (€)
	Contract Costs				
1	Wall 1 - Retaining wall, Urban (with stone cladding), >100m in length, 1.2-2m in height	233	m	€2,710	€631,343
2	Flood Gate on Wall 1 - 7.5m length sliding gate, 1.4m height	1	m	€49,160	€49,160
3	Wall 2 - Retaining wall, Urban (with stone cladding), >100m in length, 1.2-2m in height	148	m	€2,710	€401,025
4	Flood Gate between Wall 1 & Wall 2 - 4.5 meter length, 1.2 meter height single hinge swing gate	1	m	€24,872	€24,872
5	Wall 3 - Retaining wall, Urban (with stone cladding), <100m in length, 0.6-1.2m in height	75	m	€2,866	€214,963
6	Wall 4 - Retaining wall, Urban (with stone cladding), <100m in length, 1.2-2m in height	20	m	€2,866	€57,324
7	Wall 5 - Retaining wall, Urban (with stone cladding), <100m in length, 0 - 0.6m in height	45	m	€1,839	€81,932
8	Wall 6 - Retaining wall, Urban (with stone cladding), <100m in length, 0 - 0.6m in height	38	m	€1,839	€69,886
9	Wall 7 - Retaining wall, Urban (with stone cladding), <100m in length, 2 - 3m in height	25	m	€4,143	€103,586
10	Wall 8A - Retaining wall, Urban (with stone cladding), >100m in length, 0.6m in height (plus wall improvements)	300	m	€1,745	€523,637
11	Demountable Flood barriers on Wall 8	9	No	€2,736	€24,624
12	Flood Gate on Wall 8A - 4m width swing gate, 1.2m height	1	Sum	€24,872	€24,872
13	Duiske Wall 1 - Retaining wall, Urban (with stone cladding), <100m in length, 1.2-2m in height	10	m	€2,866	€28,662
14	Duiske Wall 2 - Retaining wall, Urban (with stone cladding), <100m in length, 1.2-2m in height	44	m	€2,866	€126,112
15	Wall improvement	32	m	€1,433	€45,645
16	Embankment 1 - Rural clay embankment <100m, formed from imported material, height 1 - 2m	45	m	€440	€19,817
17	Embankment 2 - Rural clay embankment <100m, formed from imported material, height ranging from <1 - 3m	63	m	€361	€22,767
18	Embankment 3 - Rural clay embankment 100m - 1000m, formed from imported material, height 1 - 2m	240	m	€417	€100,075
19	Embankment 4 - Rural clay embankment <100m, formed from imported material, height ranging from <1 - 2m	40	m	€263	€10,505
20	Storage Embankment - Rural clay embankment <100m, formed from imported material	152	m	€1,208	€183,345
21	Storage Embankment - Flow Control Structure - Structural	1	Sum	€146,308	€146,308
22	Storage Embankment - Flow Control Structure - M&E	1	Sum	€146,308	€146,308
23	Sluice Gates on Barrow LB	2	No	€24,928	€49,856
24	Inlet structure for Sluice gate on Barrow incl. Automated Actuators	1	Sum	€102,416	€102,416
25	New Pumping station on Barrow Right Bank (Graig Quay) - 275 l/s	1	No	€523,856	€523,856
26	New Pumping station on Barrow Right Bank (Boat Club) - 50 l/s	1	No	€106,366	€106,366
27	Drainage to pumping station on right bank (Graig Quay - 525mm pipe diameter)	305	m	€732	€223,120
28	Drainage to pumping station on RB - Boat club (300mm diameter)	10	m	€439	€4,389
29	New Pumping station on Barrow Right Bank (The Hub) - 50 l/s	1	Sum	€106,366	€106,366
30	Drainage to pumping station on RB - Bthe Hub (300mm diameter)	45	m	€439	€19,752
31	Ground Raising required at Barrow defences	703	m2	€146	€102,835
32	Drainage LB	249	m	€732	€182,154
33	Duiske Wall 1 - Accommodation works associated with land owners	1	Sum	€73,154	€73,154
34	Pump station LB - Tinnahinch car park (50L/s)	1	Sum	€106,366	€106,366
35	Installation of NRV's	1	Sum	€292,616	€292,616
36	Allowance for Mobile Pumps	2	Sum	€146,308	€292,616
37	Duiske Debris Trap	1	Sum	€87,785	€87,785
38	Interlocking Sheet Piling Barrow RB	4732.35	m2	€179	€847,706
39	Interlocking Sheet Piling Barrow LB	3948	m2	€179	€707,205
40	Pump station LB - 450 L/s	1	sum	€664,312	€664,312
41	Bored Sheet Piling Barrow RB	258	nr	€455	€117,390
42	Wall 8B - Retaining wall, Urban (With stone cladding <100m in length, 2m in height	81	m	€2,866	€232,160
43	Ramps at Boat Club	1	Sum	€146,308	€146,308
44	Retaining Wall at Embankment 3	32	m2	€439	€14,046
45	Permanent Fencing (Miscellaneous)	1	Sum	€29,262	€29,262
46	Public Realm	1	Sum	€1,170,465	€1,170,465
47	Flood gate on wall 8B - 4m wide swing gate, 0.8m height	2	sum	€22,093	€44,185
48	Flood gate on wall 3 -4m length, single hinge swing gate, 1.4m height	1	Sum	€24,872	€24,872
49	Bridge Modifications	1	Sum	€43,892	€43,892
50	Access to Storage Embankment	160	m	€293	€46,819
	Sub-Total				€9,399,035
	Preliminary & General Items		15%		€1,409,855
	Unmeasured Items/Risk		20%		€1,879,807
	Construction Works (CW) Sub-Total				€12,688,697
	Regional Multiplier		1.00		€12,688,697
	Construction Works (CW) Total				€12,688,697

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46	Access to Storage Embankment	160	m	€293	€46,819
47	Allowance for wall and tying into high ground at end of Tinnahinch Carpark	1	Sum	€100,000	€100,000
	Sub-Total				€8,824,954
	Preliminary & General Items		15%		€1,323,743
	Unmeasured Items/Risk		20%		€1,764,991
	Construction Works (CW) Sub-Total				€11,913,688
	Regional Multiplier		1.00		€11,913,688
	Construction Works (CW) Total				€11,913,688

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