



Project No. 24-0211	Project Name: Kingston Lands, Galway	Trial Pit ID SA07
Coordinates 526515.80 E 724790.44 N	Client: King Construction	
Method: Trial Pitting	Client's Representative: TOBIN / MKO	Sheet 1 of 1 Scale: 1:25
Plant: 29t Tracked Excavator	Elevation 22.07 mOD	Date: 06/06/2025
	Logger: OR	FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			21.92	0.15		MADE GROUND: Soft brown slightly gravelly sandy CLAY with fine roots (0.5-2.0mm). Sand is fine to coarse. Gravel is subrounded fine to coarse of various lithologies, predominantly granite. (Reworked topsoil)	
						Mottled reddish brown gravelly fine to coarse SAND with low cobble content. Gravel is subangular fine to coarse. Cobbles are subangular.	
			21.07	1.00		Brownish grey slightly silty gravelly fine to coarse SAND with low cobble and boulder content. Gravel is subangular fine to coarse. Cobbles and boulders are subangular.	
			20.17	1.90		End of trial pit at 1.90m	

Water Strikes		Depth: 1.90 Width: 2.10 Length: 4.10	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
			Last Updated 05/08/2025





Project No.
24-0211

Project Name:
Kingston Lands, Galway

Trial Pit ID

Coordinates

Client:
King Construction

SA08

526535.55 E
724707.38 N

Client's Representative:
TOBIN / MKO

Sheet 1 of 1
Scale: 1:25

Method:
Trial Pitting

Plant:
29t Tracked Excavator

Elevation
23.22 mOD

Date:
06/06/2025

Logger:
OR

FINAL

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			22.02	1.20		MADE GROUND: Brownish grey gravelly fine to coarse SAND with medium cobble content. Gravel is angular to subangular fine to coarse. Cobbles are angular.	
			20.32	2.90		Brownish grey gravelly slightly silty fine to coarse SAND with medium cobble and low boulder content. Gravel is angular to subrounded fine to coarse. Cobbles and boulders are subangular.	
						End of trial pit at 2.90m	

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Water Strikes		Depth: 2.90 Width: 2.65 Length: 3.05	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	



Project No. 24-0211	Project Name: Kingston Lands, Galway	Trial Pit ID SA09
Coordinates 526704.67 E 724741.13 N	Client: King Construction	
Method: Trial Pitting	Client's Representative: TOBIN / MKO	Sheet 1 of 1 Scale: 1:25
Plant: 29t Tracked Excavator	Elevation 23.92 mOD	Date: 04/06/2025
	Logger: OR	FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
						Firm brownish black amorphous PEAT with medium roots (2.0-5.0mm).	
		Water infiltrating along peat-boulders contact.	23.27	0.65		Brownish grey BOULDERS of granite. Boulders are subangular to subrounded. (Clean boulders with no other constituents coating them. Upper contact is obscured by groundwater.)	▼
			22.72	1.20		End of trial pit at 1.20m	

Water Strikes		Depth: 1.20 Width: 2.25 Length: 3.00	Remarks:
Struck at (m)	Remarks		
0.65	Water infiltrating along peat-boulders contact.	Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
			Last Updated 05/08/2025





CAUSEWAY
GEOTECH

Project No.
24-0211

Project Name:
Kingston Lands, Galway

Trial Pit ID

SA10

Coordinates

Client:
King Construction

Method:
Trial Pitting

526762.46 E
724729.26 N

Client's Representative:
TOBIN / MKO

Sheet 1 of 1
Scale: 1:25

Plant:

29t Tracked Excavator

Elevation

24.78 mOD

Date:

04/06/2025

Logger:

OR

FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			24.28	0.50		Firm brownish black sandy amorphous PEAT with fine roots (0.5-2.0mm)	
						Brownish grey slightly gravelly clayey fine to coarse SAND with low cobble content. Gravel is subangular fine to coarse. Cobbles are subangular.	
			23.38	1.40		End of trial pit at 1.40m	▼

Water Strikes		Depth: 1.40 Width: 1.50 Length: 3.30	Remarks:
Struck at (m)	Remarks		
1.40		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	



CAUSEWAY
GEOTECH

Project No.
24-0211

Project Name:
Kingston Lands, Galway

Trial Pit ID

SA11

Coordinates
526708.59 E
724700.35 N

Client:
King Construction

Client's Representative:
TOBIN / MKO

Sheet 1 of 1
Scale: 1:25

Method:
Trial Pitting

Plant:
29t Tracked Excavator

Elevation
26.70 mOD

Date:
04/06/2025

Logger:
OR

FINAL

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			26.35	0.35		MADE GROUND: Soft brown slightly gravelly sandy CLAY with fine roots (0.5-2.0mm). Sand is fine to coarse. Gravel is subrounded fine to coarse of various lithologies, predominantly granite. (Reworked topsoil)	
			25.80	0.90		Reddish brown gravelly slightly clayey fine to coarse SAND with low cobble content. Gravel is angular to subangular fine to coarse. Cobbles are subangular.	0.5
			25.55	1.15		Light brownish grey gravelly slightly clayey fine to coarse SAND with medium cobble content. Gravel is angular to subangular fine to coarse. Cobbles are subangular.	1.0
						End of trial pit at 1.15m	1.5
							2.0
							2.5
							3.0
							3.5
							4.0
							4.5

Water Strikes		Depth: 1.15 Width: 1.80 Length: 2.65	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	

RECEIVED: 16/10/2025



Project No. 24-0211	Project Name: Kingston Lands, Galway	Trial Pit ID SA12
Coordinates 526764.22 E 724652.48 N	Client: King Construction	
Method: Trial Pitting	Client's Representative: TOBIN / MKO	Sheet 1 of 1 Scale: 1:25
Plant: 29t Tracked Excavator	Elevation 29.01 mOD	Date: 09/06/2025
	Logger: OR	FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			28.76	0.25		TOPSOIL with fine roots (0.5-2.0mm).	
			27.86	1.15		Mottled reddish brown slightly gravelly silty fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular.	0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5
			27.86	1.15		Light brownish grey slightly silty gravelly fine to coarse SAND with medium cobble content. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular.	
			27.41	1.60		End of trial pit at 1.60m	

Water Strikes		Depth: 1.60 Width: 1.50 Length: 2.65	Remarks: Incorrectly labelled as SA14 in photographs.
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	



CAUSEWAY
GEOTECH

Project No. 24-0211	Project Name: Kingston Lands, Galway	Trial Pit ID SA13
Coordinates 526725.30 E 724619.89 N	Client: King Construction	
Method: Trial Pitting	Client's Representative: TOBIN / MKO	Sheet 1 of 1 Scale: 1:25
Plant: 29t Tracked Excavator	Elevation 25.16 mOD	Date: 09/06/2025

Logger:
OR

FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			24.96	0.20		TOPSOIL with fine roots (0.5-2.0mm).	
						Dark brown angular to subangular COBBLES with a little clay.	
			24.21	0.95		Firm dark brownish black slightly gravelly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular.	0.5
			23.91	1.25		Light brownish grey slightly gravelly clayey fine to coarse SAND with low cobble content. Gravel is subangular fine to coarse. Cobbles are angular.	1.0
			23.06	2.10		End of trial pit at 2.10m	1.5 2.0 2.5 3.0 3.5 4.0 4.5

Water Strikes		Depth: 2.10 Width: 2.80 Length: 3.40	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulders / possible bedrock.
		Last Updated 05/08/2025	



CAUSEWAY
GEOTECH

Project No.
24-0211

Project Name:
Kingston Lands, Galway

Trial Pit ID

Coordinates

Client:
King Construction

SA15

526654.29 E
724675.68 N

Client's Representative:
TOBIN / MKO

Sheet 1 of 1
Scale: 1:25

Method:
Trial Pitting

Plant:
29t Tracked Excavator

Elevation
27.39 mOD

Date:
09/06/2025

Logger:
OR

FINAL

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			27.09	0.30		TOPSOIL with fine roots (0.5-2.0mm).	
			26.74	0.65		Dark reddish brown slightly gravelly silty fine to coarse SAND with low cobble content. Gravel is subangular fine to coarse. Cobbles are subangular.	0.5
						End of trial pit at 0.65m	1.0
							1.5
							2.0
							2.5
							3.0
							3.5
							4.0
							4.5

RECEIVED: 16/10/2025

Water Strikes		Depth: 0.65 Width: 1.80 Length: 3.45	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	



CAUSEWAY
GEOTECH

Project No.
24-0211

Project Name:
Kingston Lands, Galway

Trial Pit ID

SA16

Coordinates

Client:
King Construction

Method:
Trial Pitting

526652.34 E
724619.48 N

Client's Representative:
TOBIN / MKO

Sheet 1 of 1
Scale: 1:25

Plant:
29t Tracked Excavator

Elevation
24.98 mOD

Date:
09/06/2025

Logger:
OR

FINAL

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			24.68	0.30		TOPSOIL with fine roots (0.5-2.0mm).	
						Mottled dark reddish brown slightly gravelly silty fine to coarse SAND with medium cobble content. Gravel is subangular fine to coarse. Cobbles are subangular.	0.5
			23.93	1.05		Light brownish grey gravelly slightly silty fine to coarse SAND with high cobble content. Gravel is subangular fine to coarse. Cobbles are subangular.	1.0
							1.5
			22.98	2.00		End of trial pit at 2.00m	2.0
							2.5
							3.0
							3.5
							4.0
							4.5

RECEIVED: 16/10/2025

Water Strikes		Depth: 2.00 Width: 1.60 Length: 2.50	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	



CAUSEWAY
GEOTECH

Project No. 24-0211	Project Name: Kingston Lands, Galway	Trial Pit ID SA18
Coordinates 526565.65 E 724643.04 N	Client: King Construction	
Method: Trial Pitting	Client's Representative: TOBIN / MKO	Sheet 1 of 1 Scale: 1:25
Plant: 29t Tracked Excavator	Elevation 23.26 mOD	Date: 05/06/2025
	Logger: OR	FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			22.86	0.40		MADE GROUND: Soft brown slightly gravelly sandy CLAY with fine roots (0.5-2.0mm). Sand is fine to coarse. Gravel is subrounded fine to coarse of various lithologies, predominantly granite. (Reworked topsoil)	
						Reddish brown gravelly slightly silty fine to coarse SAND with medium cobble content. Gravel is subangular fine to coarse. Cobbles are subangular.	
			22.06	1.20		End of trial pit at 1.20m	

Water Strikes		Depth: 1.20 Width: 1.60 Length: 2.35	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	



Project No. 24-0211	Project Name: Kingston Lands, Galway	Trial Pit ID SA19
Coordinates 526587.20 E 724590.45 N	Client: King Construction	
Method: Trial Pitting	Client's Representative: TOBIN / MKO	Sheet 1 of 1 Scale: 1:25
Plant: 29t Tracked Excavator	Elevation 24.08 mOD	Date: 05/06/2025
	Logger: OR	FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			23.78	0.30		TOPSOIL with fine roots (0.5-2.0mm).	
						Reddish brown gravelly slightly silty fine to coarse SAND with medium cobble and boulder content. Gravel is subangular fine to coarse. Cobbles and boulders are subangular.	0.5 1.0
			22.68	1.40		End of trial pit at 1.40m	1.5 2.0 2.5 3.0 3.5 4.0 4.5

Water Strikes		Depth: 1.40 Width: 1.70 Length: 2.50	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	



CAUSEWAY
GEOTECH

Project No. 24-0211	Project Name: Kingston Lands, Galway	Trial Pit ID SA20
Coordinates 526560.01 E 724550.00 N	Client: King Construction	
Method: Trial Pitting	Client's Representative: TOBIN / MKO	Sheet 1 of 1 Scale: 1:25
Plant: 29t Tracked Excavator	Elevation 22.45 mOD	Date: 05/06/2025
	Logger: OR	FINAL

RECEIVED: 16/10/2025

Depth (m)	Sample / Tests	Field Records	Level (mOD)	Depth (m)	Legend	Description	Water
			22.00	0.45		MADE GROUND: Soft brown slightly gravelly sandy CLAY with fine roots (0.5-2.0mm). Sand is fine to coarse. Gravel is subrounded fine to coarse of various lithologies, predominantly granite. (Reworked topsoil)	
						Dark reddish brown gravelly slightly silty fine to coarse SAND with medium cobble content. Gravel is angular to subangular fine to coarse. Cobbles are subangular.	0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5
			21.20	1.25		End of trial pit at 1.25m	

Water Strikes		Depth: 1.25 Width: 1.60 Length: 2.60	Remarks:
Struck at (m)	Remarks		
		Stability: Stable	Termination Reason Terminated at refusal on boulder / possible bedrock.
		Last Updated 05/08/2025	

Soakaway Infiltration Test

Project No.: 24-0211
Site: Kingston Lands, Galway
Test Location: SA01
Test Date: 04 June 2025



*Analysis using method as described in BRE DG 365 (2016)
 and CIRIA Report C753-The SUDS Manual (2015)*

	width (m)	length (m)
test pit top dimensions	1.40	2.45
test pit base dimensions	1.40	2.20
test pit depth (m)	1.80	

depth to groundwater before adding water (m) = Dry

Time (mins)	Depth to water surface (m)	Head of water in pit (m)
0	1.00	0.80
2	1.05	0.75
4	1.05	0.75
6	1.05	0.75
8	1.10	0.70
10	1.17	0.63
14	1.22	0.58
18	1.25	0.55
22	1.30	0.50
26	1.39	0.41
31	1.39	0.41
36	1.45	0.35
46	1.54	0.26
56	1.80	0.00

RESULTS (FROM GRAPH BELOW)

Test start
 75% head of water at 0.60 m
 depth to water surface (target) 1.20 m
 time to reach target depth 12.0 mins

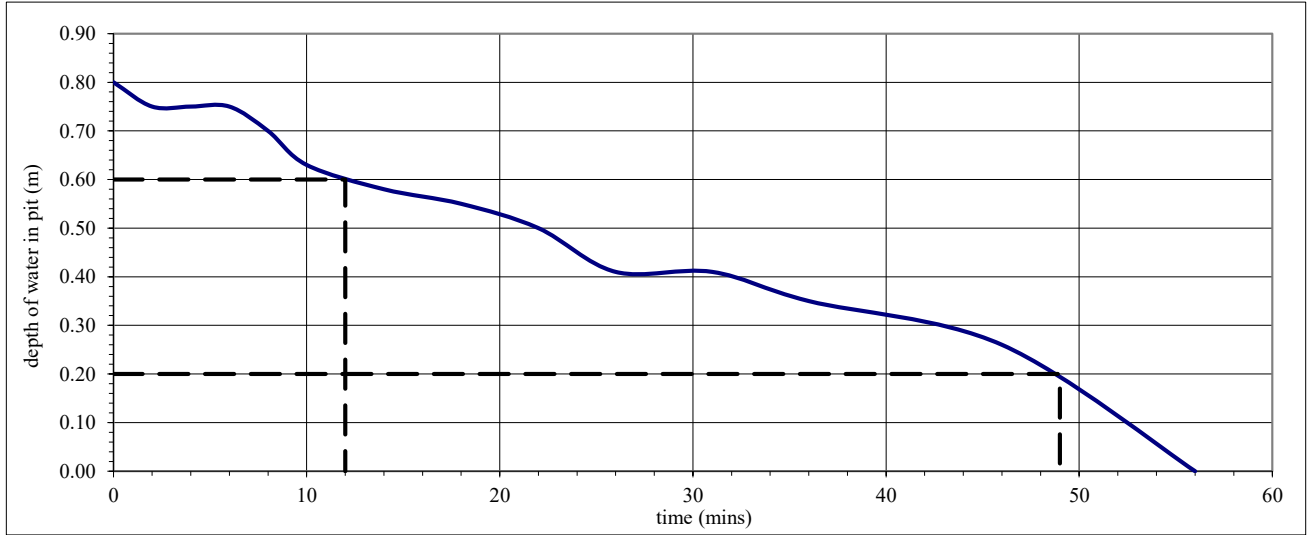
Test end
 25% head of water at 0.20 m
 depth to water surface (target) 1.60 m
 time to reach target depth 49.0 mins

soil infiltration rate $f = \frac{V_{p75-25}}{a_{s50} \times t_{p75-25}}$

Test infiltration rate (f) = 9.50E-05 m/s

TARGET DEPTHS AND CALCULATED VALUES

Time (mins)	Depth to water surface (m)	Head of water in pit (m)	Time elapsed, t_{p75-25} (mins)	Volume of water lost, V_{p75-25} (m ³)	Area of walls and base at 50% drop, a_{s50} (m ²)	Soil infiltration rate, (m/min)	Soil infiltration rate, f (m/h)
12	1.20	0.60	37	1.26	5.99	5.7E-03	0.342
49	1.60	0.20					



Soakaway Infiltration Test

Project No.: 24-0211
Site: Kingston Lands, Galway
Test Location: SA02
Test Date: 04 June 2025



*Analysis using method as described in BRE DG 365 (2016)
 and CIRIA Report C753-The SUDS Manual (2015)*

	width (m)	length (m)
test pit top dimensions	1.90	3.35
test pit base dimensions	1.55	2.85
test pit depth (m)	1.80	

depth to groundwater before adding water (m) = Dry

Time (mins)	Depth to water surface (m)	Head of water in pit (m)
0	1.00	0.80
2	1.04	0.76
4	1.05	0.75
6	1.06	0.74
8	1.10	0.70
11	1.17	0.63
13	1.22	0.58
15	1.25	0.55
18	1.30	0.50
23	1.38	0.42
28	1.40	0.40
33	1.45	0.35
40	1.54	0.26
50	1.60	0.20
62	1.68	0.12

RESULTS (FROM GRAPH BELOW)

Test start
 75% head of water at 0.60 m
 depth to water surface (target) 1.20 m
 time to reach target depth 12.0 mins

Test end
 25% head of water at 0.20 m
 depth to water surface (target) 1.60 m
 time to reach target depth 50.0 mins

soil infiltration rate $f = \frac{V_{p75-25}}{a_{s50} \times t_{p75-25}}$

Test infiltration rate (f) = 1.05E-04 m/s

TARGET DEPTHS AND CALCULATED VALUES

Time (mins)	Depth to water surface (m)	Head of water in pit (m)	Time elapsed, t_{p75-25} (mins)	Volume of water lost, V_{p75-25} (m ³)	Area of walls and base at 50% drop, a_{s50} (m ²)	Soil infiltration rate, (m/min)	Soil infiltration rate, f (m/h)
12	1.20	0.60	38	1.93	8.03	6.3E-03	0.379
50	1.60	0.20					

