

**Flood Risk Assessment
For
Cold Store Extension Phase 2 & 3
Tomlinson's Dairies
Minera
Wrexham**

Issue No 1

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Flood Risk Assessment

Cold Store Extension Phase 2&3, Tomlinson's Dairies, Wrexham

1.0 Brief

- 1.1 ABA Consulting was instructed by Haston Reynolds on behalf of Tomlinson's Dairies to prepare a Flood Risk Assessment to support a Planning Application for the phased extension of buildings at Five Crosses Industrial Estate, Minera, Wrexham. This report covers the second and third phases of the planned expansion; the second phase being the enlargement of the existing cold store from that existing and proposed at Phase 1 and an extension of the existing Blow Moulding Building. An overview of the proposed expansion and information on the phasing is attached at Appendix F. This report describes the risks associated with flooding to the development on the completion of all three phases of the cold store expansion and describes measures required to reduce such risks.
- 1.2 The Phase 2 extension will occupy some 1139m² and is located to the east of the existing cold store and north of the phase 1 extension area. New hardstanding is proposed to accommodate vehicle storage and movements, which is located to the east of the enlarged cold store.
- 1.3 The Phase 3 expansion relates to extending the existing Blow Moulding Building. The extension will be to the north of the existing building and will occupy a footprint of some 1045m².
- 1.4 The Phase 2 development creates a need for additional car parking which will be located to the north east of the Cold Store Extensions. ABA Drawing 14150.600 at Appendix B indicates the areas to be developed under the Phase 1, Phase 2 and Phase 3 expansion works.

- 1.5 The proposed development will make use of some elements of the existing surface water drainage system, including the outfall from the site. New surface water drains will be routed to new attenuation, a combination of a pond and underground cellular storage, prior to discharge at the controlled rate via the existing outfall. As the new hardstanding area encroaches onto the areas of the existing attenuation pond a new larger pond will be created to replace the original. A description of the existing and proposed surface water systems are described in section 6, along with an assessment of any risks associated with the proposal.

2.0 Site Location

- 2.1 The site is located adjacent to Tomlinson's Dairies existing Cold Store on the Five Crosses Industrial Estate in Minera Wrexham. The extension abuts the east side of the existing building to the north of the proposed Phase 1 Cold Store extension.
- 2.2 Tomlinson's Dairies site is bounded by other industrial units forming the Industrial Estate to the west and south. To the east runs Gwernygaseg Road beyond which there is agricultural land. To the north is the route of a disused railway and agricultural land. There are some two residential properties to the south east of the Cold Store Phase 1 Extension located adjacent to Gwernygaseg Road.
- 2.3 A copy of Haston Reynolds drawings H0070-19-A1-PL-04 showing the Phase 2 site layout, and a copy of H0070-20-A1-PL-05 showing the Phase 3 site layout are provided at Appendix A. The drawings show the location of the new extensions and the modifications to the yard area. The drawing also indicates the position of the existing access to be used for all HGV access to the site. There is a new separate vehicular access for only cars serving the new car parking area.

3.0 Site Surveys and Investigations

- 3.1 A site investigation was undertaken on the site by Ground Investigations Specialist Limited 2004, report reference 457. Borehole indicated an average topsoil thickness of 0.4 metres, overlying Boulder Clay. The Boulder Clay consisted of stiff fissured mottled brown and grey very silty sandy gravelly clay. The strata is described as having low permeability and the clays were of low to medium plasticity. A copy of the site investigation report is attached at Appendix E.
- 3.2 A Topographical Survey has been undertaken and this is attached at Appendix B, Haston Reynolds drawing reference H0070-16-A1-SU-01.

4.0 Flood Plain and Flood Levels

- 4.1 Reference to the Environment Agency website indicates that the site lies within flood zone 1 and hence is land assessed as having a less than 1 in 1000 annual probability of river flooding. Surface water is generally routed via ditches to the River Gwenfro to the east of the site.
- 4.2 The site has a significant slope to the South East, where the existing attenuation pond and surface water outlet are located. The existing attenuation pond has a base level some 6m below the proposed ground floor level of the proposed extension.
- 4.3 The surrounding buildings form part of the Five Crosses Industrial Estate and due to the general slope of the land they are at a significantly higher level than the proposed extension and associated hardstanding and the development poses no risk of flooding.

5.0 Floor Levels of Proposed Buildings

- 5.1 The ground floor level of the Phase 1 and Phase 2 Cold Store Extensions will be the same as the existing store at 239.60m AOD. There will be a basement with a floor level of 236.25m AOD below the central section of the building. The basement stops short of the existing cold store external wall, such that the construction will not compromise the foundations of the existing structure. The basement will be fully tanked.
- 5.2 The Blow Moulding Building extension will have a floor level 239.70 to match the existing.
- 5.3 The yard level to the east of cold store extension is around 238.40m AOD. The new hardstanding will slope to the east to a minimum level approximately 237.70. Car Park levels will fall to a minimum level of 236.5m at the eastern edge of the car park. The maximum water level in the the balancing pond is will reach 236.0m and hence all yard areas are a minimum above the maximum water level in the pond.
- 5.4 The pond will have a minimum freeboard of 500mm above the maximum water level in the 1 in 100 plus climate change event.

6.0 Proposed Drainage

- 6.1 The proposed Phase 1 and 2 developments are partly located on the existing hard paved lorry circulation area. As part of the expansion there is a need for additional hard standing for vehicles standing and maneuvering. In total, Phases 1, 2 and 3 will create a net increase of 6,980m² of impermeable surface. In addition, the new car park will create an additional impermeable area of some 3544m². It is proposed that the existing drainage system will be supplemented

by new surface drains and existing runs will modified to route water round the new buildings to a new attenuation pond..

- 6.2 The existing dairy facility is served by two attenuation ponds. The smaller of the two attenuation ponds is located adjacent to the main site access and deals with surface water run-off from the site access which would be unaffected by the proposed development. The larger of the two ponds located to the east of the proposed extension deals with surface water from the roof areas and hard-standings around the existing buildings. The larger pond will be impacted by the planned phase 2 development and will be replaced by a new pond to attenuate run off from both the existing facility, the extensions to the cold store and eventually, the extension to the Blow Moulding Building (Phase 3).
- 6.3 The existing attenuation ponds were designed to take rainwater volumes calculated from standard storm return periods and were designed to have spare capacity should any be required at a future date. The purpose of the ponds is to attenuate flows back to “Greenfield Discharge Rates” and these are set by the Environment Agency, i.e. 3 to 5 litres per second per hectare. This allows clean water to be conveyed safely back to surface drainage systems such as ditches and watercourses without overstretching capacity.
- 6.4 Given the slope of the site all surface water up to and including the 1 in 100 year plus climate change events would need to be contained on site.
- 6.5 Allowing for all three Phases of the development, including the car park, a net additional 10,524m² of impermeable area is created, giving a total site impermeable area of 2.495 hectares. Based on this area Green Field run off at 5l/s/ha would be 12 litres / second.
- 6.6 In calculating storage capacity for attenuation it has been assumed that for all

storms up to and including the 100 year plus climate change event water will be stored below ground i.e. no surface flooding.

- 6.7 Calculations for the required attenuation volume for various storm events are attached at Appendix D. This includes 1 in 100 year plus climate change event. The calculations include for the full impermeable area feeding to the main attenuation pond, and calculates the storage required whilst restricting the discharge to the Green Field run off rate of 12l/s. The calculations indicate that with the increased area the 6 hour storm is critical, with storage requirements reaching to 1382m³.
- 6.8 It is proposed that new attenuation, consisting of a new attenuation pond linked to underground cellular storage pond will be provided to the east of the existing location. This has been designed to provide a storage capacity of 1,650m³ whilst maintaining a minimum 500mm freeboard. The calculations in Appendix D, indicate the system will attenuate all storm events up to the 1 in 100 year plus 30 year climate change event.
- 6.9 Foul drainage will be routed around the proposed extensions by gravity sewers and feed to the existing connection to the public sewers.

7.0 Conclusions

- 7.1 The proposed development is within flood zone 1 and at an elevated level relative to the land to the south west. Hence the risk of flooding from watercourses is not considered significant.
- 7.2 The surface water run-off from the site will be controlled and discharged at a restricted rate by the existing surface water attenuation system.

- 7.3 The modified surface drainage system will utilise SUDs principles with a balancing pond being used to attenuate the surface water run-off in a similar manner to the existing facility. Due to the increase in attenuation volume required, and the requirements for hardstanding space, it is not possible to achieve the storage by modification of the existing pond. A new pond providing a higher level of attenuation will be formed to the east of the original. This pond will permit some natural infiltration and evaporation, though permeability of the site is low.
- 7.4 The ground floor of the extension is higher than the surrounding ground levels and is not at risk from surface flows. The basement area will be fully tanked reinforced concrete structure which protects the building from any flood risk.
- 7.5 Foul water will be routed by gravity sewers and connected to the existing connection to the public combined sewer running to the east of the extension. This sewer runs north south across the site partly beneath the original attenuation pond. This sewer runs at considerable depth and surcharging of the drain does not put the development at risk.
- 7.6 The surface water system intercepts and controls surface water run offs to achieve a controlled discharge below green field run off rates. The addition of the new extension to the existing system will be compensated by the increased storage volume of the new pond. The pond has been designed with allowance for climate change and assists in reducing the risk of surface water related flooding.

Report Prepared By
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For ABA Consulting

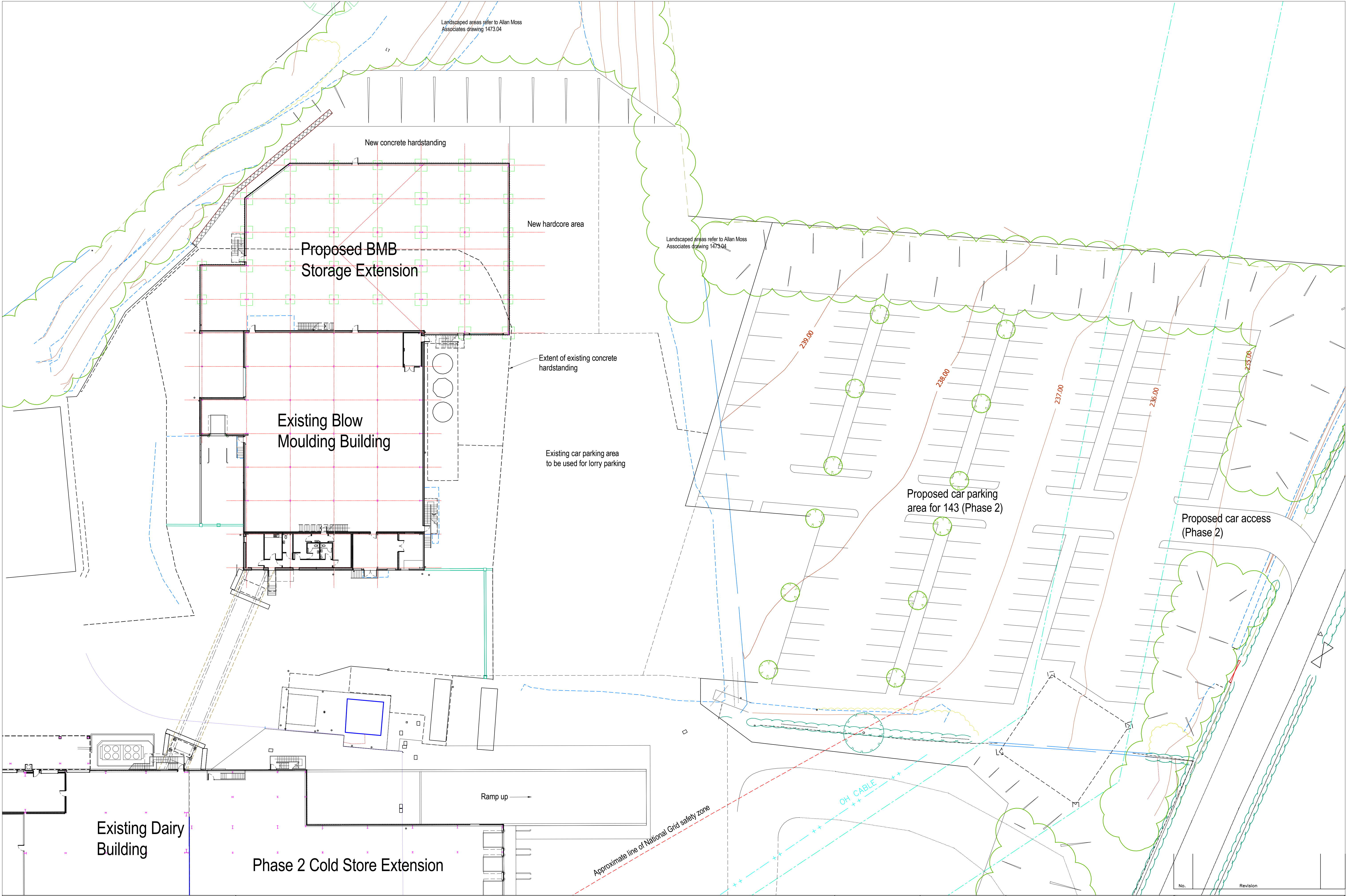


Appendix A

Plans

Haston Reynolds Ref. H0070-19-A1-PL-04

Haston Reynolds Ref. H0070-20-A1-PL-05



HASTON REYNOLDS
CHARTERED SURVEYORS



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DRAFT



DATE	July 2016	SCALE	1 : 250@A1
ORIGIN	CdsII	VERIFIED	ISR
FILE NAME	H0070-20BMBExtensionPL1c		
ISSUE	Planning	A1 Drawing	

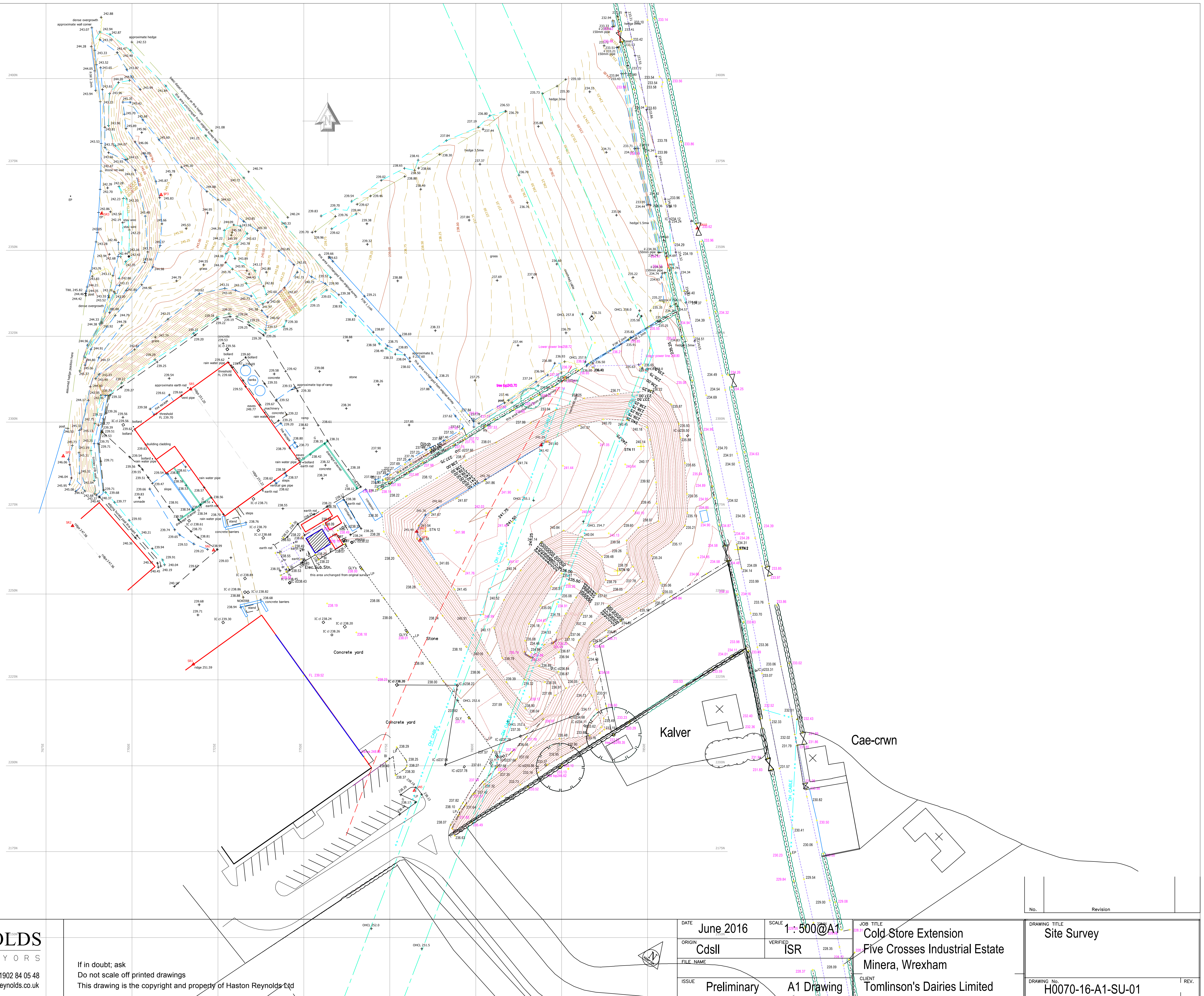
JOB TITLE	BMB Storage Extension Five Crosses Industrial Estate Minera, Wrexham
CLIENT	Tomlinson's Dairies Ltd

DRAWING TITLE	Site Layout Plan BMB Extension
DRAWING No.	H0070-20-A1-PL-05
REV.	

Appendix B

Topographic Survey

Haston Reynolds Ref H0070-16-A1-SU-01



Appendix C

Proposed Drainage Arrangement.

ABA Consulting Reference 14150.600B

New Building
Extension Phase 1
= 888 sqm

New Building
Extension Phase 2
= 1168 sqm

New area of
Horstonding Phase 1

New area of
Horstonding Phase 2

New area of extension
to Phase 2, replacing
horstonding formed
in Phase 1

New Build
Phase iii

Existing Surface

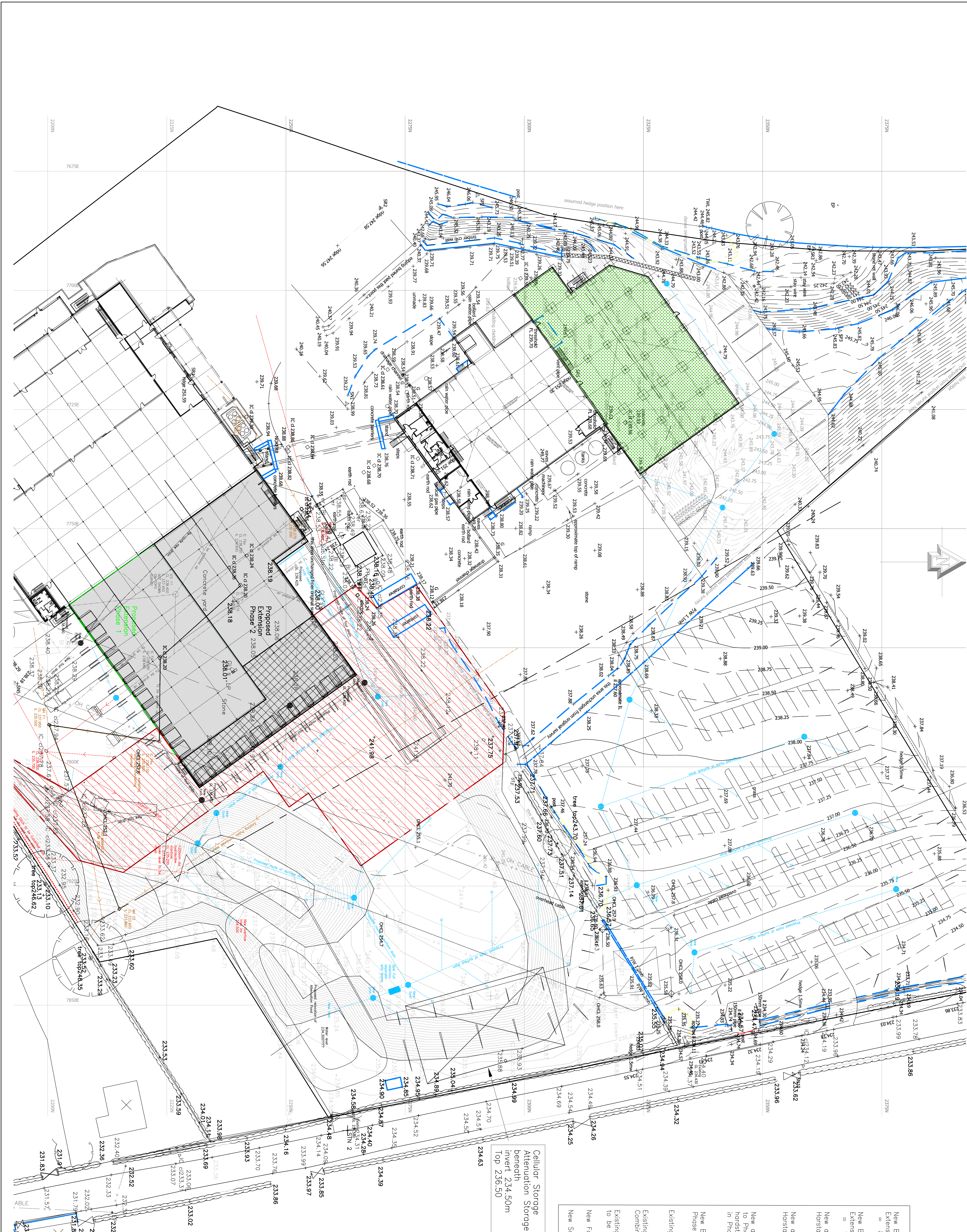
Existing Foul
Combined

Existing drainage
to be grubbed up

New Foul
Drainage

New Surface Drainage

Cellular Storage
Attenuation Storage
beneath
invert 234.50m
Top 236.50



PROJECT

Cold Store Extension
Fire Crosses Industrial
Estate Minera, Wrexham

DRAWING TITLE

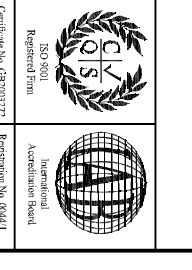
Proposed Drainage Layout
Phase 2

FOR APPROVAL



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UKAS
1135
Civil Engineering
001

DRAWN BY

N.W. Edge

DATE

20.07.16

CHECKED BY

MD

SCALE

1:250

REVISION

CLIENT

Haston Reynolds

REVISION

NO

DATE

DESCRIPTION

BY

PROJECT NO

14150

DRAWING NO

600

Appendix D

Attenuation Calculations

Project Number	14150	
Project Title	Tomlinsons Dairies ; Cold Store Extension Phase 1,2 & 3	
Discharge Area	2.4954	ha
Date	28.07.16	
Addtl Info		
r	40	
M5-60	17	

Existing Buildings	14430	m2
Phase 1 , 2 & 3 Expansion	10,524	m2
Total Impermeable	2.4954	ha

Total Impermeable Area	2.4954	ha
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Breakdown

Phase 1 Roof	888	m2
Phase 2 Roof	1168	m2
Phase 3 Roof	1045	m2
New Concrete Hardstanding	5543	m2
New Car Park	3544	m2
Total New Impermeable	12188	m2
Existing Impermeable		
Included above	1664	m2
Nett Increase	10524	m2



Wallingford Modified Rational Method

Sheet number: 01
Design (MT): 1 in 1 Year Storm Event
Project Number: 14150
Project Title: Tomlinsons Dairies ; Cold Store Extension Phase 1,2 & 3
Discharge Area: 2.4954 ha
Calc Date: 28.07.16
Addtl Info: 0

Duration (hrs)	Z1 (mm)	r	M5-60	M5-D (mm)	Z2 (mm)	MT-D (mm)	i (mm/hr)	Areal Reduction Factor	Cv	Area (ha)	Qp Discharge (l/s)	Permissible Discharge Rate (l/s)	Rqd storage (100%) (l)	Rqd storage (100%) (m3)
0.083	0.38	40	17	6.46	0.62	4.01	48.26	1.00	0.75	2.4954	326.03	12.00	93,832	93.83
0.30	0.63	40	17	10.71	0.61	6.53	21.78	1.00	0.75	2.4954	147.13	12.00	145,942	145.94
0.50	0.80	40	17	13.60	0.62	8.43	16.86	1.00	0.75	2.4954	113.94	12.00	183,489	183.49
1.00	1.00	40	17	17.00	0.64	10.88	10.88	1.00	0.75	2.4954	73.51	12.00	221,431	221.43
2.00	1.20	40	17	20.40	0.65	13.26	6.63	1.00	0.75	2.4954	44.79	12.00	236,119	236.12
4.00	1.40	40	17	23.80	0.66	15.71	3.93	1.00	0.75	2.4954	26.53	12.00	209,260	209.26
6.00	1.55	40	17	26.35	0.68	17.92	2.99	1.00	0.75	2.4954	20.18	12.00	176,613	176.61
10.00	1.70	40	17	28.90	0.68	19.65	1.97	1.00	0.75	2.4954	13.28	12.00	45,989	45.99
24.00	2.20	40	17	37.40	0.70	26.18	1.09	1.00	0.75	2.4954	7.37	12.00	-400,033	-400.03
48.00	2.60	40	17	44.20	0.72	31.82	0.66	1.00	0.75	2.4954	4.48	12.00	-1,299,556	-1299.56



Wallingford Modified Rational Method

Sheet number: 02
Design (MT): 1 in 5 Year Storm Event
Project Number: 14150
Project Title: Tomlinsons Dairies ; Cold Store Extension Phase 1,2 & 3
Discharge Area: 2.4954 ha
Calc Date: 28.07.16
Addtl Info: 0

Duration (hrs)	Z1 (mm)	r	M5-60	M5-D (mm)	Z2 (mm)	MT-D (mm)	i (mm/hr)	Areal Reduction Factor	Cv	Area (ha)	Qp Discharge (l/s)	Permissible Discharge Rate (l/s)	Rqd storage (100%) (l)	Rqd storage (100%) (m3)
0.083	0.38	40	17	6.46	1.02	6.59	79.39	1.00	0.75	2.4954	536.37	12.00	156,681	156.68
0.30	0.63	40	17	10.71	1.03	11.03	36.77	1.00	0.75	2.4954	248.44	12.00	255,351	255.35
0.50	0.80	40	17	13.60	1.03	14.01	28.02	1.00	0.75	2.4954	189.28	12.00	319,112	319.11
1.00	1.00	40	17	17.00	1.03	17.51	17.51	1.00	0.75	2.4954	118.30	12.00	382,690	382.69
2.00	1.20	40	17	20.40	1.03	21.01	10.51	1.00	0.75	2.4954	70.98	12.00	424,668	424.67
4.00	1.40	40	17	23.80	1.03	24.51	6.13	1.00	0.75	2.4954	41.41	12.00	423,446	423.45
6.00	1.55	40	17	26.35	1.03	27.14	4.52	1.00	0.75	2.4954	30.56	12.00	400,929	400.93
10.00	1.70	40	17	28.90	1.03	29.77	2.98	1.00	0.75	2.4954	20.11	12.00	292,013	292.01
24.00	2.20	40	17	37.40	1.02	38.15	1.59	1.00	0.75	2.4954	10.74	12.00	-108,939	-108.94
48.00	2.60	40	17	44.20	1.02	45.08	0.94	1.00	0.75	2.4954	6.35	12.00	-977,037	-977.04



Wallingford Modified Rational Method

Sheet number: 01
Design (MT): 1 in 10 Year Storm Event
Project Number: 14150
Project Title: Tomlinsons Dairies ; Cold Store Extension Phase 1,2 & 3
Discharge Area: 2.4954 ha
Calc Date: 28.07.16
Addtl Info: 0

Duration (hrs)	Z1 (mm)	r	M5-60	M5-D (mm)	Z2 (mm)	MT-D (mm)	i (mm/hr)	Areal Reduction Factor	Cv	Area (ha)	Qp Discharge (l/s)	Permissible Discharge Rate (l/s)	Rqd storage (100%) (l)	Rqd storage (100%) (m3)
0.083	0.38	40	17	6.46	1.20	7.75	93.40	1.00	0.75	2.4954	631.02	12.00	184,964	184.96
0.30	0.63	40	17	10.71	1.23	13.17	43.91	1.00	0.75	2.4954	296.68	12.00	307,450	307.45
0.50	0.80	40	17	13.60	1.24	16.86	33.73	1.00	0.75	2.4954	227.88	12.00	388,577	388.58
1.00	1.00	40	17	17.00	1.24	21.08	21.08	1.00	0.75	2.4954	142.42	12.00	469,522	469.52
2.00	1.20	40	17	20.40	1.24	25.30	12.65	1.00	0.75	2.4954	85.45	12.00	528,866	528.87
4.00	1.40	40	17	23.80	1.24	29.51	7.38	1.00	0.75	2.4954	49.85	12.00	545,010	545.01
6.00	1.55	40	17	26.35	1.22	32.15	5.36	1.00	0.75	2.4954	36.20	12.00	522,701	522.70
10.00	1.70	40	17	28.90	1.20	34.68	3.47	1.00	0.75	2.4954	23.43	12.00	411,510	411.51
24.00	2.20	40	17	37.40	1.19	44.51	1.85	1.00	0.75	2.4954	12.53	12.00	45,704	45.70
48.00	2.60	40	17	44.20	1.17	51.71	1.08	1.00	0.75	2.4954	7.28	12.00	-815,778	-815.78



Wallingford Modified Rational Method

Sheet number: 03
Design (MT): 1 in 30 Year Storm Event
Project Number: 14150
Project Title: Tomlinsons Dairies ; Cold Store Extension Phase 1,2 & 3
Discharge Area: 2.4954 ha
Calc Date: 28.07.16
Addtl Info: 0

Duration (hrs)	Z1 (mm)	r	M5-60	M5-D (mm)	Z2 (mm)	MT-D (mm)	i (mm/hr)	Areal Reduction Factor	Cv	Area (ha)	Qp Discharge (l/s)	Permissible Discharge Rate (l/s)	Rqd storage (100%) (l)	Rqd storage (100%) (m3)
0.083	0.38	40	17	6.46	1.46	9.43	113.63	1.00	0.75	2.4954	767.74	12.00	225,816	225.82
0.30	0.63	40	17	10.71	1.51	16.17	53.91	1.00	0.75	2.4954	364.21	12.00	380,389	380.39
0.50	0.80	40	17	13.60	1.53	20.81	41.62	1.00	0.75	2.4954	281.17	12.00	484,506	484.51
1.00	1.00	40	17	17.00	1.54	26.18	26.18	1.00	0.75	2.4954	176.88	12.00	593,567	593.57
2.00	1.20	40	17	20.40	1.53	31.21	15.61	1.00	0.75	2.4954	105.44	12.00	672,759	672.76
4.00	1.40	40	17	23.80	1.53	36.41	9.10	1.00	0.75	2.4954	61.51	12.00	712,885	712.89
6.00	1.55	40	17	26.35	1.51	39.79	6.63	1.00	0.75	2.4954	44.80	12.00	708,562	708.56
10.00	1.70	40	17	28.90	1.50	43.35	4.34	1.00	0.75	2.4954	29.29	12.00	622,387	622.39
24.00	2.20	40	17	37.40	1.47	54.98	2.29	1.00	0.75	2.4954	15.48	12.00	300,411	300.41
48.00	2.60	40	17	44.20	1.42	62.76	1.31	1.00	0.75	2.4954	8.83	12.00	-547,012	-547.01



Wallingford Modified Rational Method

Sheet number: 03
Design (MT): 1 in 50 Year Storm Event
Project Number: 14150
Project Title: Tomlinsons Dairies ; Cold Store Extension Phase 1,2 & 3
Discharge Area: 2.4954 ha
Calc Date: 28.07.16
Addtl Info: 0

Duration (hrs)	Z1 (mm)	r	M5-60	M5-D (mm)	Z2 (mm)	MT-D (mm)	i (mm/hr)	Areal Reduction Factor	Cv	Area (ha)	Qp Discharge (l/s)	Permissible Discharge Rate (l/s)	Rqd storage (100%) (l)	Rqd storage (100%) (m3)
0.083	0.38	40	17	6.46	1.61	10.40	125.31	1.00	0.75	2.4954	846.62	12.00	249,385	249.38
0.30	0.63	40	17	10.71	1.67	17.89	59.62	1.00	0.75	2.4954	402.80	12.00	422,068	422.07
0.50	0.80	40	17	13.60	1.70	23.12	46.24	1.00	0.75	2.4954	312.41	12.00	540,740	540.74
1.00	1.00	40	17	17.00	1.73	29.41	29.41	1.00	0.75	2.4954	198.70	12.00	672,130	672.13
2.00	1.20	40	17	20.40	1.72	35.09	17.54	1.00	0.75	2.4954	118.53	12.00	767,034	767.03
4.00	1.40	40	17	23.80	1.71	40.70	10.17	1.00	0.75	2.4954	68.74	12.00	817,084	817.08
6.00	1.55	40	17	26.35	1.70	44.80	7.47	1.00	0.75	2.4954	50.44	12.00	830,334	830.33
10.00	1.70	40	17	28.90	1.68	48.55	4.86	1.00	0.75	2.4954	32.80	12.00	748,914	748.91
24.00	2.20	40	17	37.40	1.64	61.34	2.56	1.00	0.75	2.4954	17.27	12.00	455,055	455.05
48.00	2.60	40	17	44.20	1.58	69.84	1.45	1.00	0.75	2.4954	9.83	12.00	-375,002	-375.00



Wallingford Modified Rational Method

Sheet number: 04
Design (MT): 1 in 100 Year Storm Event +30%
Project Number: 14150
Project Title: Tomlinsons Dairies ; Cold Store Extension Phase 1,2 & 3
Discharge Area: 2.4954 ha
Calc Date: 28.07.16
Addtl Info: 0

Duration (hrs)	Z1 (mm)	r	M5-60	M5-D (mm)	Z2 (mm)	MT-D (mm)	i (mm/hr)	Areal Reduction Factor	Cv	Area (ha)	Qp Discharge (l/s)	Qp Discharge +30% (l/s)	Permissable Discharge Rate (l/s)	Rqd Storage (130%) (l)	Rqd Storage (130%) (m3)
0.083	0.38	40	17	6.46	1.84	11.89	143.21	1.00	0.75	2.4954	967.57	1257.84	12.00	372,256	372.26
0.30	0.63	40	17	10.71	1.95	20.88	69.62	1.00	0.75	2.4954	470.34	611.44	12.00	647,397	647.40
0.50	0.80	40	17	13.60	1.99	27.06	54.13	1.00	0.75	2.4954	365.70	475.42	12.00	834,149	834.15
1.00	1.00	40	17	17.00	2.03	34.51	34.51	1.00	0.75	2.4954	233.16	303.11	12.00	1,047,988	1047.99
2.00	1.20	40	17	20.40	2.02	41.21	20.60	1.00	0.75	2.4954	139.21	180.97	12.00	1,216,575	1216.57
4.00	1.40	40	17	23.80	2.01	47.84	11.96	1.00	0.75	2.4954	80.80	105.04	12.00	1,339,812	1339.81
6.00	1.55	40	17	26.35	1.97	51.91	8.65	1.00	0.75	2.4954	58.45	75.99	12.00	1,382,151	1382.15
10.00	1.70	40	17	28.90	1.96	56.64	5.66	1.00	0.75	2.4954	38.27	49.75	12.00	1,359,053	1359.05
24.00	2.20	40	17	37.40	1.89	70.69	2.95	1.00	0.75	2.4954	19.90	25.87	12.00	1,198,253	1198.25
48.00	2.60	40	17	44.20	1.81	80.00	1.67	1.00	0.75	2.4954	11.26	14.64	12.00	456,020	456.02

Appendix E

Site Investigation

Appendix F

Proposed Phased Development of Tomlinson's Dairies Overview

F1. INTRODUCTION

- F1.1 Tomlinson's Dairies Limited (TDL) principally operates from the Five Crosses Industrial Estate in Minera, Wrexham and is currently the largest processor of liquid milk in Wales, with a throughput of approximately 95 million litres of milk per annum.
- F1.2 Tomlinson's Dairies Limited has recently been selected by J Sainsbury to process 100 million litres of milk and cream for sale in their stores in Wales and parts of England from July 2017. This will generate a further 60 full time jobs at the Five Crosses site, together with many more jobs in the wider rural economy.
- F1.3 Whilst the existing Five Crosses Dairy has sufficient capacity to process the additional milk, delivery is constrained principally due to insufficient cold storage capacity, insufficient storage for the increased number of poly bottles that will be blow moulded on site and inadequate staff car parking.
- F1.4 In order to help facilitate the required increase in output and the associated increase in employment, Tomlinson's Dairies Limited needs to increase the size of its cold storage facilities through the extension of the existing main dairy building, provide additional poly bottle production and storage facilities through the extension of the existing blow moulding building and to re-organise and extend on-site car parking.
- F1.5 Given that the dairy has to continue operating throughout the development process, the development will be arranged into three Phases, with each Phase being the subject of a separate planning application. The development comprised within each Phase will broadly be as follows:

Phase 1

- Extension of the main dairy building to provide approximately 36% of the required additional cold storage capacity and additional first floor office accommodation; and
- Extension of the hardstanding to the east of the main dairy to facilitate the circulation and manoeuvring of goods vehicles and the interim provision of additional car parking.

Phase 2

- Extension of the main dairy building to provide the remaining 64% of the required additional capacity;
- Re-positioning of the main surface water attenuation pool;
- Removal of the majority of the earth mound to the east of the main dairy building;
- Repositioning of the main parking area for goods vehicles;

- Formation of a new staff car park with car-only access off Gwern y gasseg Road; and
- Establishment of extensive structural landscaping for the dairy site as a whole.

Phase 3

- Extension of the existing blow moulding building to facilitate increased production and to provide storage for the additional poly bottles;
- Establishment of additional structural landscaping.

F1.6 Whilst forming an integral part of a holistic proposal, this planning application and the associated submission deal specifically with the Phase 1 development.

F1.7 Precise details for the developments proposed within Phases 2 and 3 will be submitted within subsequent planning applications.

F1.8 The planning application for the Phase 1 cold store extension is being made by Tomlinson's Dairies Limited which is the freeholder owner of the site.