FICHTNER
Consulting Engineers Limited

Kronospan

Additional PM Sources

Additional Information to Support Environmental Permit Application

Following on from the Schedule 5 Response No.3, dated 30 October 2019, Kronospan has carried out a further review of the dust extraction units on site. An updated list of dust extraction units has been provided together with technical datasheets for the units. This has shown that some of the assumptions used in the modelling to support the Schedule 5 response No. 3 were incorrect. The modelling has been re-run with the corrected inputs.

The following information has been produced and should replace the information provided in response to question 1.2 of Schedule 5 response No. 3.

An updated figure showing the location of each bag filter unit and the process area they serve is provided in Appendix C.

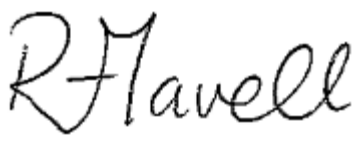
The dispersion plot files are presented in Appendix A, with the model input table for the additional sources provided in Appendix B. As presented, at the areas of relevant exposure, the predicted impact does not exceed any AQAL. The predicted impacts are based on the following highly conservative assumptions:

- flow rates are based on the maximum for the extraction equipment;
- the release rates of pollutants have been calculated assuming the release concentration from the datasheet - actual emissions maybe lower;
- each extraction unit continually operates at maximum capacity; and
- the entire PM release rate consists of only PM_{10} or $PM_{2.5}$ for comparison with the AQALs.

We trust that the information contained within this note is acceptable to you. Please feel free to contact either of the undersigned if you have any questions.

Yours sincerely

FICHTNER Consulting Engineers Limited



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Associate Senior Consultant

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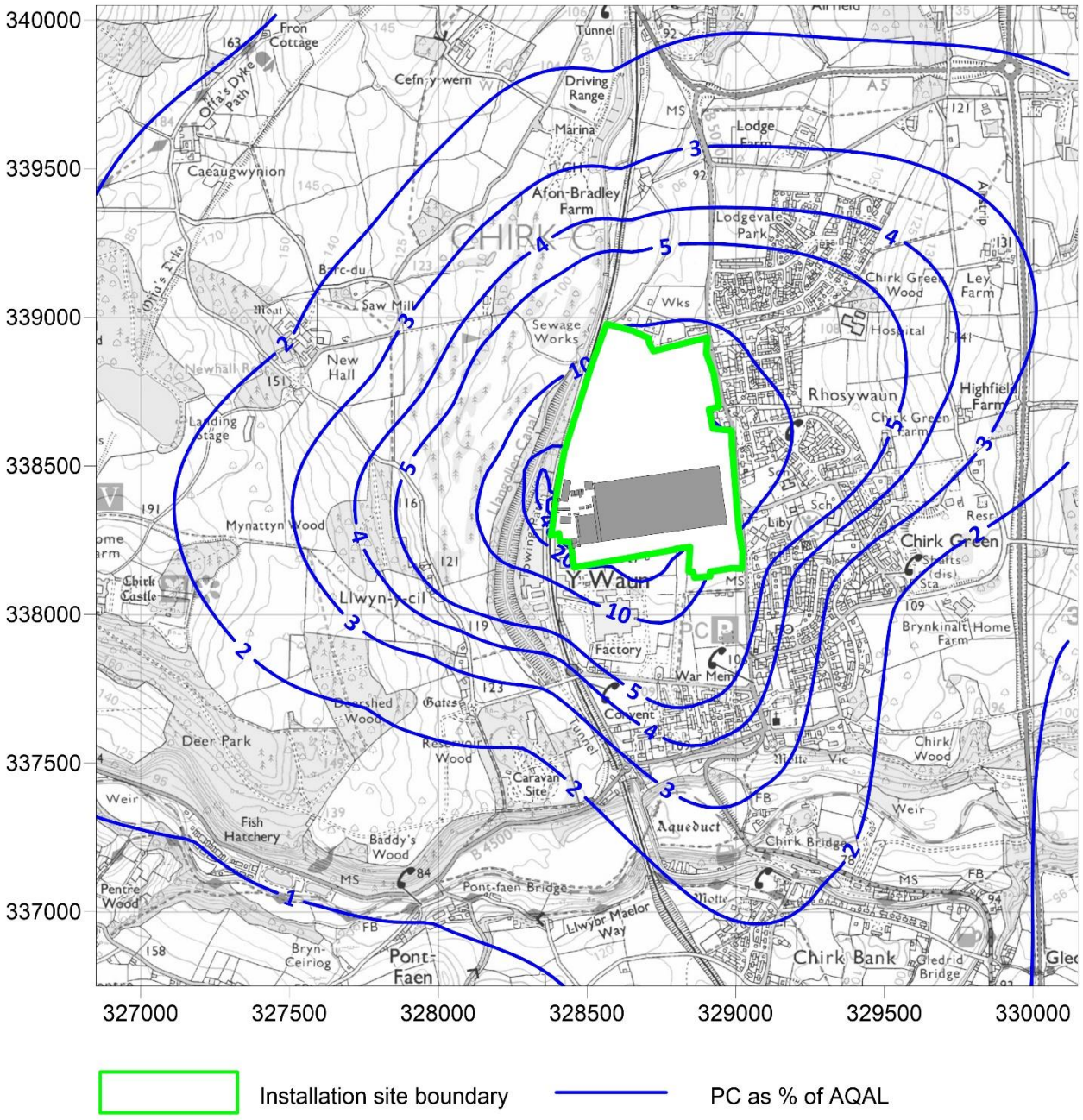
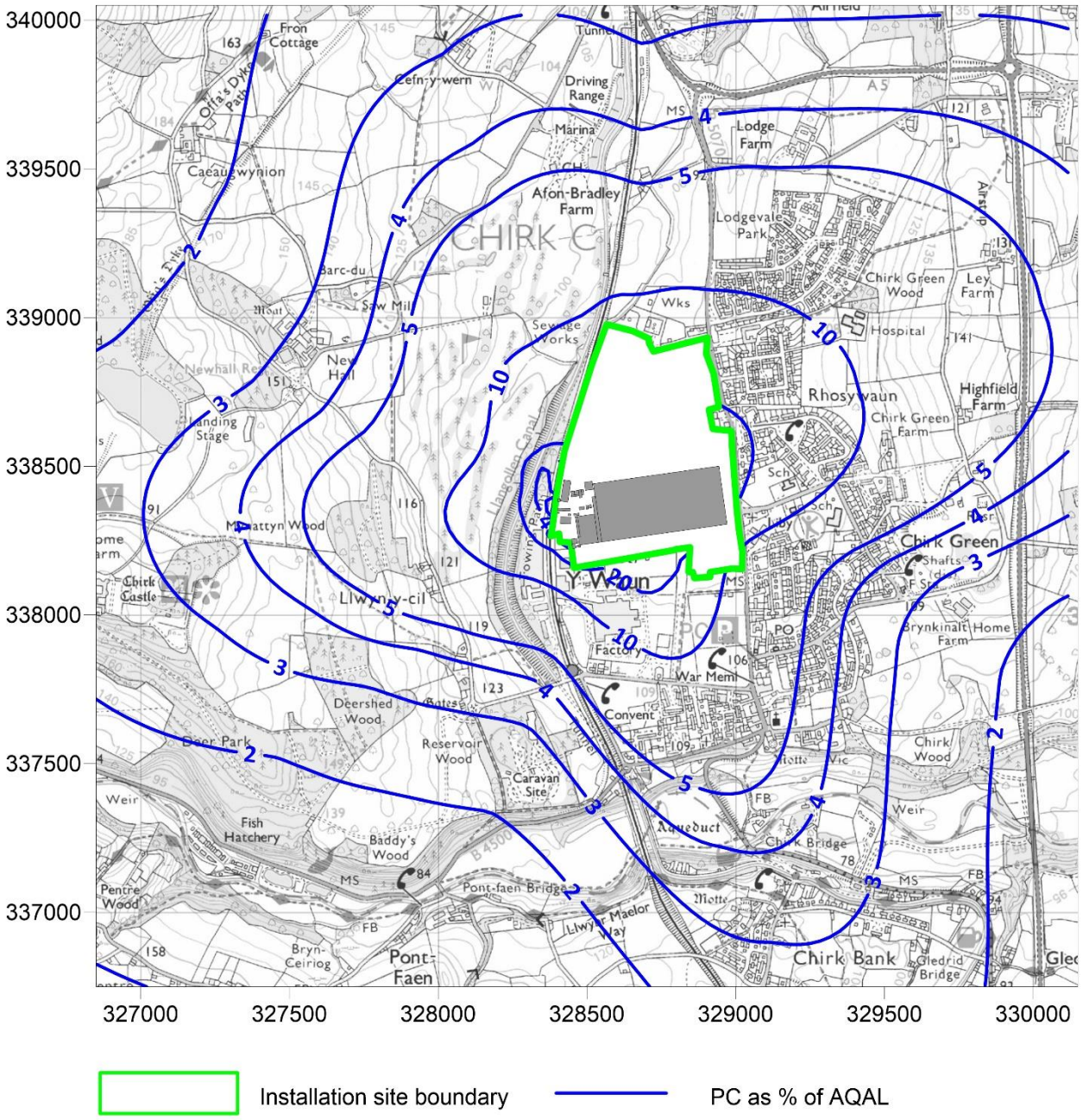
A Figures

Figure 1: Annual Mean PM10 Impact – Other Sources - % of AQAL



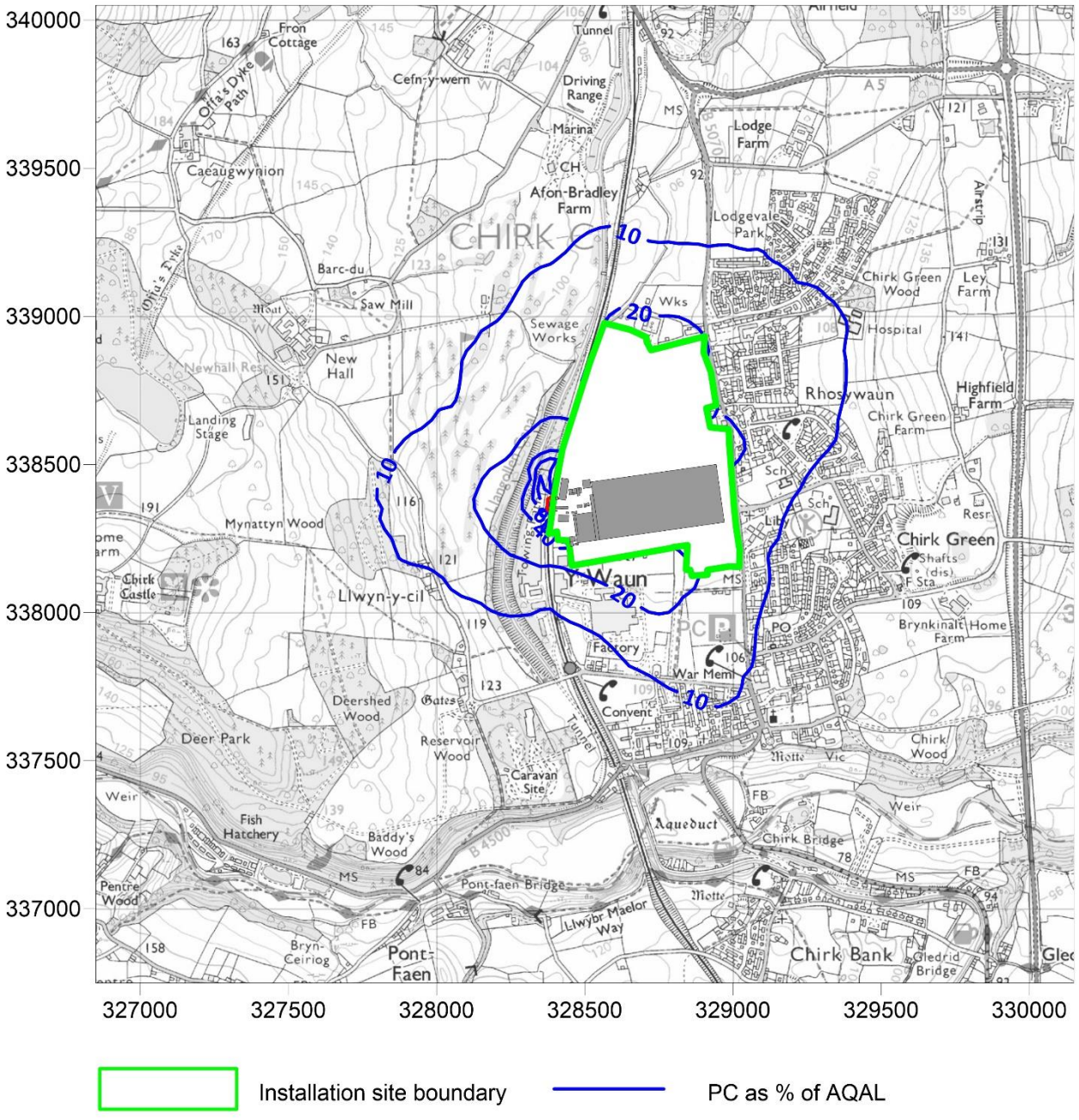
Notes: Assumes entire dust emissions are only PM10 and all sources are continually operating

Figure 2: Annual Mean PM10 Impact – Total Installation - % of AQAL



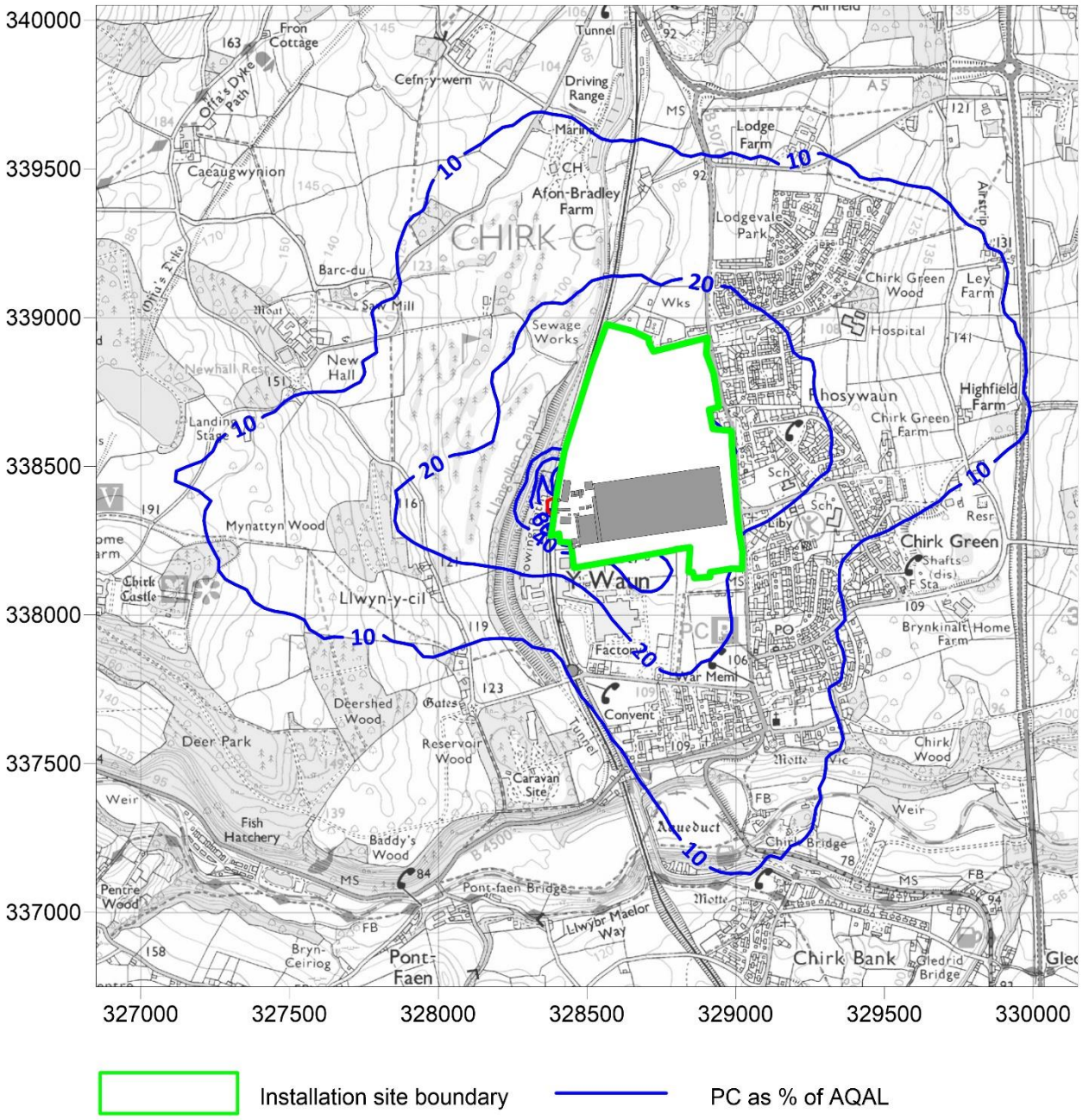
Notes: Assumes entire dust emissions are only PM10 and all sources are continually operating

Figure 3: Maximum Daily Mean PM10 Impact – Other Sources - % of AQAL



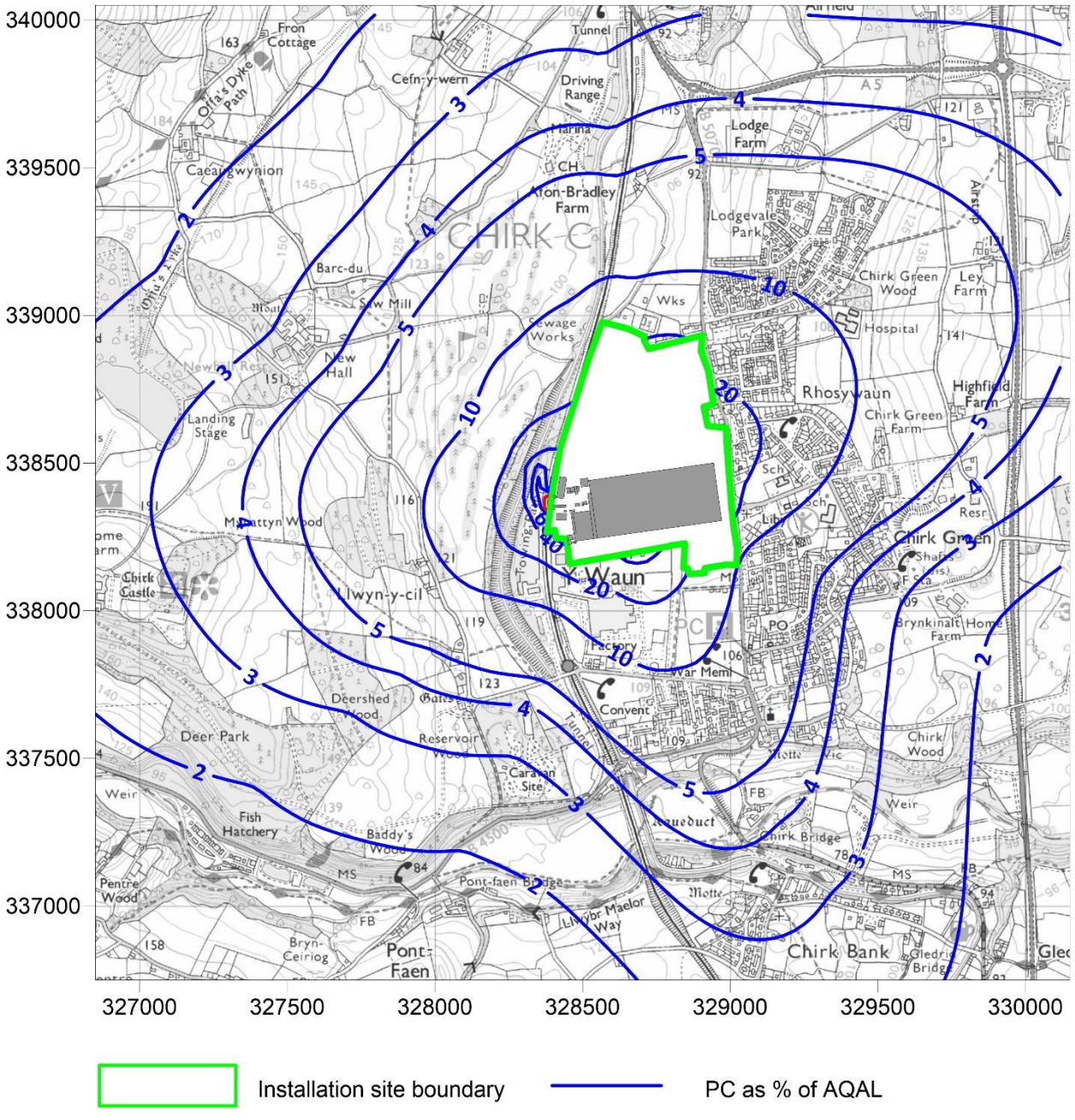
Notes: Assumes entire dust emissions are only PM10 and all sources are continually operating

Figure 4: Maximum Daily Mean PM10 Impact – Total Installation - % of AQAL



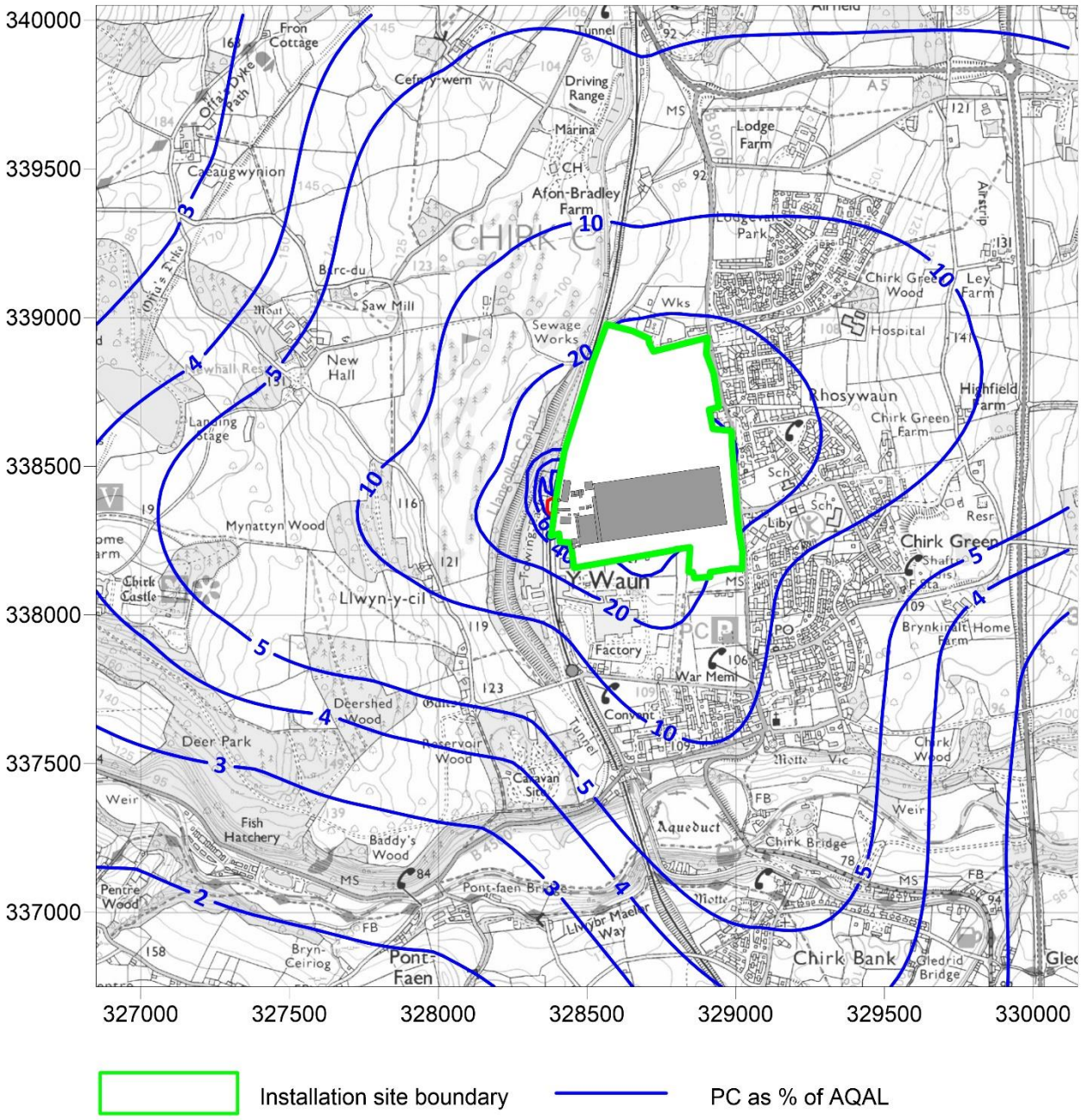
Notes: Assumes entire dust emissions are only PM10 and all sources are continually operating

Figure 5: Annual Mean PM2.5 Impact – Other Sources - % of AQAL



Notes: Assumes entire dust emissions are only PM2.5 and all sources are continually operating

Figure 6: Annual Mean PM2.5 Impact – Total Installation - % of AQAL



Notes: Assumes entire dust emissions are only PM2.5 and all sources are continually operating

B Additional PM Sources Model Inputs

Table 1: Additional PM Sources Model Inputs

Drawing Ref	Area	Manufacturer	Serial No.	Discharge Height (m)	Diameter (m)	Flow Rate (m3/h)	Release Conc. (mg/m³)	Flow Rate (m3/s)	Release Rate (g/s)
B01	MDF Finishing Line Sander	Scheuch	F5447/97	11.50	1.4	170,000	5	47.22	0.236
B02	MDF Finishing Line Kontra Saws	Scheuch	F0123/17	19.79	1	40,000	5	11.11	0.056
B03	MDF 2 Cross Cut Saw & Hoggers	Ceatec	CDRW005/10	19.79	1.8	50,000	<5	13.89	0.069
B04	MDF 1 Cross Cut Saw & Hoggers	Scheuch	F5975/98	19.48	1.6	45,700	<5	12.69	0.063
C05	MDF 1 Recycle Cyclone x1 (start up and shutdown only)	-	-	-	-	-	-	-	-
C06	MDF 2 Recycle Cyclone x2 (start up and shutdown only)	-	-	-	-	-	-	-	-
B07	246 Cyclone De-dusting	Scheuch	F1145/17	33.15	1.5	30,000	2	8.33	0.017
B08	MDF 1&2 Extraction	Scheuch	F5976/98	14.73	2.8	147,300	<5	40.92	0.205
B09	Particle Board Sifter (Bab 2)	Ceatec	CDRW016/15	9.40	1.3	24,600	<5	6.83	0.034
B10	Particle Board General Line Extraction (423)	Scheuch	F5445/97	18.23	2.2	96,000	<5	26.67	0.133
B11	Hamatec Dust Cleaning	Scheuch	F0074/19	5.40	0.8	30,000	2	8.33	0.017
B12	Particle Board Core Layer De-dust	Ceatec	CDRW003/18	9.78	1.5	75,000	<5	20.83	0.104
B13	Particle Board Surface Layer De-dust	Ceatec	CDRW002/18	9.78	1.5	60,000	<5	16.67	0.083
B14	Particle Board Conidur De-dust	Ceatec	CDRW001/18	9.78	1.5	60,000	<5	16.67	0.083
B15	Particle Board Mat Former	Ceatec	CDRW018/19	16.6	1.9	80,000	<5	22.22	0.111
B16	Particle Board Sander	Scheuch	F3747/16	16.64	5.7	170,000	5	47.22	0.236
B17	T&G	Ceatec	CDRW038/14	18.17	5.4	30,000	<5	8.33	0.042
B18	Particle Board Ferro	Ceatec	CDRW013/14	19.32	7.5	60,000	<5	16.67	0.083
B19	P1 MF Press & Lath Machine	Scheuch	F0661/16	21.67	1.5	57,500	2	15.97	0.032
B20	P2 MF Press	Scheuch	F0646/16	21.67	1.5	57,500	2	15.97	0.032
B21	P3 MF Press	LHS	F719-12	20.35	1.5	24,050	5	6.68	0.033
B22	P4 MF Press	Scheuch	F0187/17	16.52	1.5	57,500	2	15.97	0.032
B23	Log Yard Filter (Formally Particle Board Mat Former (422))	Scheuch	F5448/97	16.51	1.4	43,020	<5	11.95	0.060
B24	Chip Preparation Building - Line No.1	LHS	F049-01	13.16	0.9	90,000	5	25.00	0.125
B25	Chip Preparation Building - Line No.2	Ceatec	CDRW012/13	13.16	1.6	96,000	<5	26.67	0.133
B26	Particle Board Pre-screening Air Grader - Line No.1 & Line No.2	Scheuch	F2036/18	8.73	0.4	60,000	2	16.67	0.033
B27	Kronoplus Silo Filter	LHS	F078-03	13.32	0.4	9,800	5	2.72	0.014
B28	Worktop Line	Scheuch	F2058/18	12.28	1.3	70,000	2	19.44	0.039
B29	Flooring Line No.2 & Selco Saw	LHS	F024-99	9.98	2.3	89,250	5	24.79	0.124
B30	Flooring Line No.1	Scheuch	F0649/17	11.23	1.8	105,000	2	29.17	0.058
B31	Flooring Line No.3	LHS	F077-00	11.28	1.8	98,000	5	27.22	0.136

C Emission Point and Particle Filtration Points Drawings