

Clerk to the Council
Sarah Gaeta

Parish Council Office
Community Association Village Hall
Maldon Road
Hatfield Peverel
Essex CM3 2HP
Tel: (01245) 382865
Email: parishclerk@hatfieldpeverelpc.com

31st August 2026

To: Members of Hatfield Peverel Parish Council

You are hereby summoned to attend

**THE PARISH COUNCIL MEETING
TO BE HELD AT THE VILLAGE HALL
ON MONDAY 7TH SEPTEMBER 2026 AT 7.30 PM**

for the purpose of transacting the following business.

SL Gaeta

Clerk to the Council

A G E N D A

26/81 Apologies for Absence

26/82 Minutes of the Parish Council Meeting held on 3rd August 2026 to be taken as read and signed as a correct record by the Chairman.

26/83 Declarations of Interest (existence and nature) with regards to items on the Agenda. Councillors are reminded that the code of conduct that took effect from 3rd June 2024 provides that should they have a disclosable pecuniary interest in any matter under discussion, they should speak only in the public session, then withdraw from the room and not seek to influence a decision about the matter.

26/84 Essex County Councillor Update 5 minutes

26/85 Braintree District Councillor Update 5 minutes

26/86 Public Participation session with respect to items on the Agenda and other matters that are of mutual interest. To include a presentation relating to item 26/94(b).

3 minutes per person; 15 minutes max

26/87 Clerk's Update 5 minutes
To receive an update from the Clerk.

26/88 Finance and General Purposes 30 minutes

(a) To review the budget and approve any recommended virements.

(b) To consider a request to use the Outdoor Gym on the Recreation Ground for training sessions, to decide whether to grant permission, and to agree any charges or conditions if approved.

- (c) Further to resolution 25/217(a), to discuss and decide whether to (i) approve in principle the delivery of PWLB Phase 1 of the Village Hall Refurbishment, Accessibility and Asset Improvement Project in 2027; and (ii) approve funding for the feasibility and design stage of the proposed first-floor office accommodation, including necessary professional advice and the preparation of a detailed specification and scope of works.

26/89 Traffic

5 minutes

To receive an update on traffic matters.

26/90 Environment

5 minutes

To receive an update from the Environment Advisory Group.

26/91 Stone Path Meadow

5 minutes

To receive an update on Stone Path Meadow.

26/92 Section 106

5 minutes

To receive an update on S106 projects.

26/93 Communications

5 minutes

To receive an update on communications.

26/94 Keith Bigden Memorial Ground

20 minutes

- (a) To consider and determine a request from the Football Club to carry out rabbit control measures to prevent further damage to the pitches, including whether to grant permission and any conditions that may apply.
- (b) Further to the presentation during the public participation session, to discuss and determine whether the Council is, in principle, interested in pursuing further discussions regarding a potential private agreement for additional sports facilities at KBMG, with no commitment being made at this stage.

26/95 Community Park

20 minutes

- (a) To receive an update on the Community Park.
- (b) To discuss and decide whether to agree in principle to grant the Scout Group a 99-year lease on land within the Community Park for the purpose of constructing a new Scout hut, thereby providing the commitment required to support fundraising, with the precise location, lease terms, and all other associated arrangements to be negotiated and approved separately at a future meeting.

26/96 Youth Services

5 minutes

To receive an update on youth services.

26/97 Accounts for Payment

2 minutes

To agree the accounts for payment for August 2026.

26/98 Announcements

5 minutes

*Please direct any questions relating to items on the agenda to the Clerk by 9am on Friday 4th September.
The timings given above are for the Chairman's guidance.*

Date of next Parish Council Meeting – Monday 5th October

Financial Budget Comparison

Comparison between 01/04/26 and 20/08/26 inclusive. Includes due and unpaid transactions.

Excludes transactions with an invoice date prior to 01/04/26

		2026/2027	Revised	Actual Net	Balance
INCOME					
Council					
1	Precept	£190,000.00	£190,000.00	£95,000.00	-£95,000.00
2	Interest - Base Rate Tracker A/c	£600.00	£600.00	£252.16	-£347.84
3	Bank Interest - Business Prem Account	£0.00	£0.00	£0.00	£0.00
4	VAT Refund	£0.00	£0.00	£3,193.88	£3,193.88
5	Localism Fund	£0.00	£0.00	£0.00	£0.00
6	VAT Refund - Village Hall	£0.00	£0.00	£0.00	£0.00
7	Council Tax Collection Fund Surplus	£0.00	£0.00	£0.00	£0.00
8	Allotments	£4,500.00	£4,500.00	£0.00	-£4,500.00
10	VAT Refund as R&P	£0.00	£0.00	£0.00	£0.00
11	Electricity - Wayleave	£1.00	£1.00	£1.00	£0.00
12	Grant for Play Equipment - Awards for All	£0.00	£0.00	£0.00	£0.00
13	Grass Cutting for Essex County Council	£150.00	£150.00	£158.16	£8.16
14	Grant from Braintree District Council (inc S106)	£0.00	£0.00	£0.00	£0.00
15	Burial Fees	£7,000.00	£7,000.00	£4,940.00	-£2,060.00
16	Bowling Club Rent	£300.00	£300.00	£0.00	-£300.00
17	Football Club Rent	£1,400.00	£1,400.00	£300.00	-£1,100.00
18	Croquet club rent	£300.00	£300.00	£0.00	-£300.00

Financial Budget Comparison

Comparison between 01/04/26 and 20/08/26 inclusive. Includes due and unpaid transactions.

Excludes transactions with an invoice date prior to 01/04/26

		2026/2027	Revised	Actual Net	Balance
19	Street Cleaning for Braintree District Council	£4,000.00	£4,000.00	£4,080.65	£80.65
20	Playing Fields Grant - EPF Association	£0.00	£0.00	£0.00	£0.00
21	Essex County Council - Parish Paths Partnership - Grant	£0.00	£0.00	£0.00	£0.00
39	Grant from Essex County Council	£0.00	£0.00	£0.00	£0.00
43	Grant - Rural Community Council of Essex	£0.00	£0.00	£0.00	£0.00
45	Youth Capital Fund	£25.00	£20.00	£5.09	-£14.91
48	Biffaward - Play Equipment Grant	£0.00	£0.00	£0.00	£0.00
49	Compensation/Insurance	£0.00	£0.00	£0.00	£0.00
50	Bank Credits	£0.00	£0.00	£0.00	£0.00
74	Donations	£0.00	£0.00	£0.00	£0.00
76	Community Events	£4,872.50	£4,872.50	£1,116.70	-£3,755.80
77	Football Club Reinstatement Fund	£0.00	£0.00	£0.00	£0.00
78	Neighbourhood Plan	£0.00	£0.00	£0.00	£0.00
79	Administration and Advertising Fees	£3,400.00	£3,400.00	£200.52	-£3,199.48
80	Hire of Tennis Courts	£2,500.00	£2,500.00	£1,367.33	-£1,132.67
81	Hadfelda Square Car Park	£4,000.00	£4,000.00	£146.06	-£3,853.94
82	Community Park	£5,250.00	£5,250.00	£5,250.00	£0.00
83	Community Land	£0.00	£0.00	£0.00	£0.00

Financial Budget Comparison

Comparison between 01/04/26 and 20/08/26 inclusive. Includes due and unpaid transactions.

Excludes transactions with an invoice date prior to 01/04/26

		2026/2027	Revised	Actual Net	Balance
84	Investment Income	£8,000.00	£8,000.00	£1,410.32	-£6,589.68
85	Savings Interest	£850.00	£850.00	£495.16	-£354.84
Total Council		<u>£237,148.50</u>	<u>£237,143.50</u>	<u>£117,917.03</u>	<u>-£119,226.47</u>
Total Income		<u>£237,148.50</u>	<u>£237,143.50</u>	<u>£117,917.03</u>	<u>-£119,226.47</u>

Financial Budget Comparison

Comparison between 01/04/26 and 20/08/26 inclusive. Includes due and unpaid transactions.

Excludes transactions with an invoice date prior to 01/04/26

		2026/2027	Revised	Actual Net	Balance
EXPENDITURE					
Council					
51	Income Tax	£0.00	£0.00	£0.00	£0.00
52	National Insurance	£6,900.00	£10,397.00	£2,062.91	£8,334.09
53	Pension	£3,655.00	£4,425.00	£1,125.40	£3,299.60
56	Purchase of Assets	£0.00	£0.00	£0.00	£0.00
101	General Administration				
101/1	Accommodation - Office	£3,500.00	£3,500.00	£1,400.00	£2,100.00
101/2	Accommodation - Meetings	£0.00	£0.00	£0.00	£0.00
101/3	Office Sundries	£1,000.00	£1,000.00	£202.40	£797.60
101/4	Village Voice	£4,500.00	£4,500.00	£2,080.00	£2,420.00
101/5	Subscriptions and Donations	£3,100.00	£3,100.00	£680.96	£2,419.04
101/6	Audit Fees	£1,400.00	£1,400.00	£440.00	£960.00
101/7	Office Equipment	£600.00	£600.00	£257.94	£342.06
101/8	Accounting Services	£2,750.00	£2,750.00	£0.00	£2,750.00
101/9	Travel Expenses (exc staff)	£100.00	£150.00	£93.59	£56.41
101/10	Insurances	£2,000.00	£2,000.00	£1,724.96	£275.04
101/11	Telephone/internet	£720.00	£720.00	£175.85	£544.15
101/14	Bank Charges	£250.00	£250.00	£62.10	£187.90
101/15	Training	£8,500.00	£8,500.00	£4,242.00	£4,258.00
101/17	Election Costs	£0.00	£0.00	£0.00	£0.00
101/21	Legal and Professional Fees	£5,000.00	£5,000.00	£4,006.49	£993.51

Financial Budget Comparison

Comparison between 01/04/26 and 20/08/26 inclusive. Includes due and unpaid transactions.

Excludes transactions with an invoice date prior to 01/04/26

		2026/2027	Revised	Actual Net	Balance
101/22	Chairman's Allowance	£500.00	£500.00	£81.06	£418.94
101/23	Website/email licences	£2,500.00	£2,500.00	£380.04	£2,119.96
101/24	HR Assistance	£0.00	£0.00	£0.00	£0.00
101	Total	£36,420.00	£36,470.00	£15,827.39	£20,642.61
102	Playing Fields and Open Spaces				
102/1	Grass Cutting (village)	£8,000.00	£8,000.00	£3,995.00	£4,005.00
102/2	Repairs, maintenance and tree work	£12,000.00	£12,000.00	£3,319.72	£8,680.28
102/4	Litter Clearance including dog bins	£500.00	£500.00	£0.00	£500.00
102/5	Village Sign	£0.00	£0.00	£0.00	£0.00
102/6	Play Equipment	£500.00	£500.00	£0.00	£500.00
102/7	Public Seats (new and refurbish)	£1,000.00	£1,000.00	£0.00	£1,000.00
102/9	Footpath Maintenance	£0.00	£0.00	£0.00	£0.00
102/10	Rent of Storage	£540.00	£540.00	£216.65	£323.35
102/11	CCTV System	£0.00	£0.00	£0.00	£0.00
102/12	Special Constables	£0.00	£0.00	£0.00	£0.00
102/13	Bus Shelters	£0.00	£0.00	£0.00	£0.00
102/14	Litterpickers	£0.00	£0.00	£0.00	£0.00
102/15	Street Furniture	£0.00	£0.00	£0.00	£0.00
102/16	Duck Pond	£0.00	£0.00	£0.00	£0.00
102	Total	£22,540.00	£22,540.00	£7,531.37	£15,008.63

Financial Budget Comparison

Comparison between 01/04/26 and 20/08/26 inclusive. Includes due and unpaid transactions.

Excludes transactions with an invoice date prior to 01/04/26

		2026/2027	Revised	Actual Net	Balance
103	Biodiversity Initiatives	£150.00	£150.00	£0.00	£150.00
105	Keith Bigden Memorial Ground	£8,000.00	£8,000.00	£280.00	£7,720.00
106	Burial Ground				
106/1	General Maintenance	£1,400.00	£1,400.00	£405.00	£995.00
106/3	Grass Cutting	£5,000.00	£5,000.00	£2,555.00	£2,445.00
106/5	Water Charges	£100.00	£350.00	£263.50	£86.50
106/6	Reimbursement of Burial Fees	£0.00	£0.00	£0.00	£0.00
106/7	Rates	£400.00	£400.00	£122.22	£277.78
106	Total	£6,900.00	£7,150.00	£3,345.72	£3,804.28
107	Street Lighting				
107/1	Lighting Charges	£9,000.00	£7,000.00	£1,926.20	£5,073.80
107/2	Maintenance	£3,000.00	£3,000.00	£569.00	£2,431.00
107	Total	£12,000.00	£10,000.00	£2,495.20	£7,504.80
108	Allotments	£4,500.00	£4,500.00	£0.00	£4,500.00
109	Traffic	£2,000.00	£2,000.00	£0.00	£2,000.00
110	Youth Capital Fund	£0.00	£0.00	£0.00	£0.00
111	Staff Costs				
111/1	Staff Salary	£71,048.00	£83,875.00	£23,088.99	£60,786.01
111/3	Pension - employee	£0.00	£0.00	£0.00	£0.00
111/4	National Insurance - employee	£0.00	£0.00	£0.00	£0.00
111/5	Tax - employee	£0.00	£0.00	-£207.40	£207.40
111	Total	£71,048.00	£83,875.00	£22,881.59	£60,993.41

Financial Budget Comparison

Comparison between 01/04/26 and 20/08/26 inclusive. Includes due and unpaid transactions.

Excludes transactions with an invoice date prior to 01/04/26

		2026/2027	Revised	Actual Net	Balance
112	Community Events	£7,887.50	£7,887.50	£5,036.97	£2,850.53
113	Neighbourhood Plan	£0.00	£0.00	£0.00	£0.00
114	Hadfelda Square Car Park	£2,000.00	£2,000.00	£629.21	£1,370.79
115	Community Park	£22,180.00	£22,180.00	£2,880.05	£19,299.95
116	Community Association	£30,000.00	£30,000.00	£0.00	£30,000.00
117	Defibrillator and Maintenance	£450.00	£450.00	£0.00	£450.00
118	Heritage	£0.00	£0.00	£0.00	£0.00
119	Community Land	£0.00	£0.00	£515.00	-£515.00
120	VAT Repayment to Village Hall	£0.00	£0.00	£0.00	£0.00
121	Grant expenditure, inc S106	£2,000.00	£2,000.00	£12,110.79	-£10,110.79
122	Pension Administration	£200.00	£200.00	£37.50	£162.50
123	Staff Mileage	£425.00	£425.00	£119.95	£305.05
124	Staff Working from Home Allowance	£312.00	£312.00	£104.00	£208.00
125	Youth Services	£7,750.00	£7,750.00	£1,596.00	£6,154.00
126	Tennis Court Maintenance and Lighting	£1,182.00	£1,182.00	£104.02	£1,077.98
Total Council		<u>£248,499.50</u>	<u>£263,893.50</u>	<u>£78,683.07</u>	<u>£185,210.43</u>
Total Expenditure		<u>£248,499.50</u>	<u>£263,893.50</u>	<u>£78,683.07</u>	<u>£185,210.43</u>
Total Income		£237,148.50	£237,143.50	£117,917.03	-£119,226.47
Total Expenditure		£248,499.50	£263,893.50	£78,683.07	£185,210.43
Total Net Balance		-£11,351.00	-£26,750.00	£39,233.96	



**United Kingdom
Debt Management
Office**

**PWLB FIXED RATE LOANS
ESTIMATED REPAYMENT COSTS**

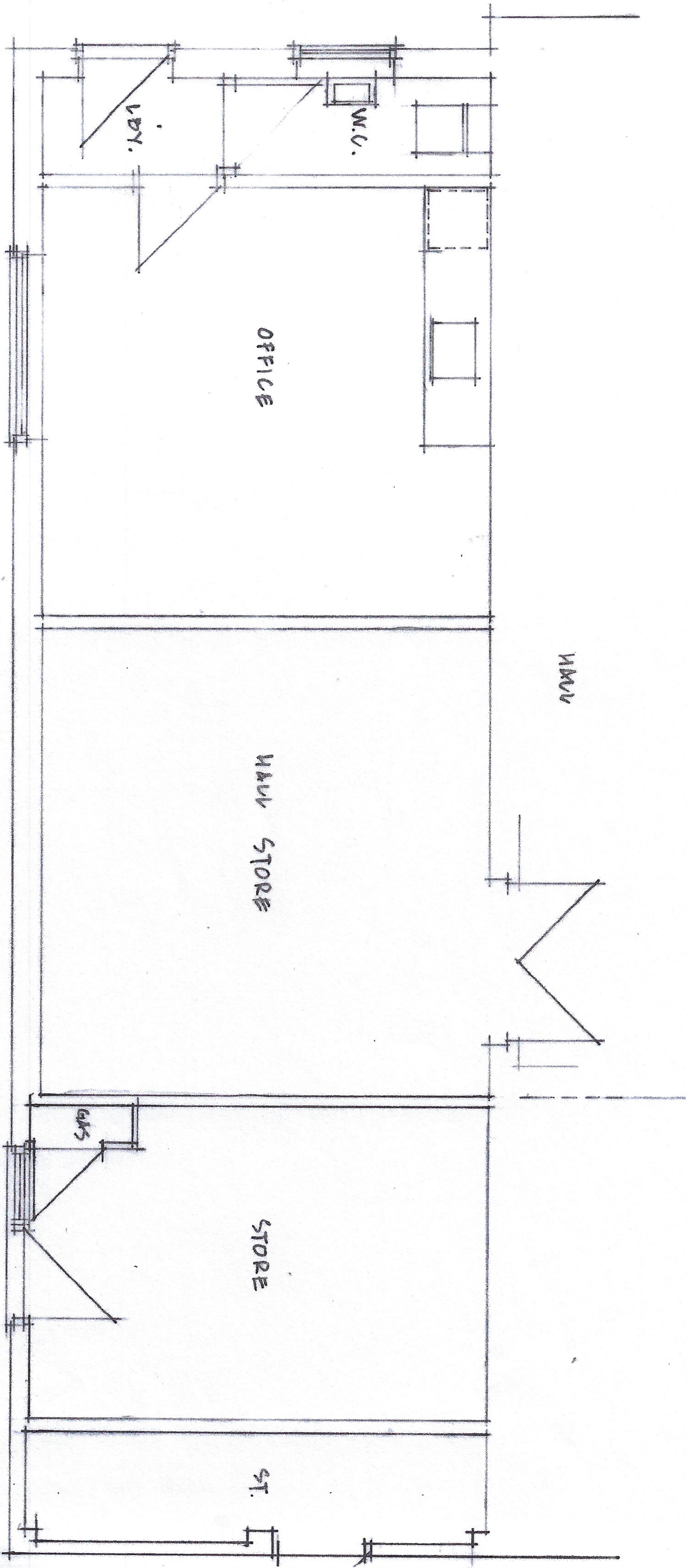
Amount of Advance: 500,000.00

Period (years)	Annuity			EIP			
	Rate %	½ Yearly Cost (£)	Total Cost (£)	Rate %	Initial ½ Yearly Costs (£)	Reduces by each ½ year (£)	Total Cost (£)
1 year	-	0.00	0.00	-	0.00	0.00	0.00
Over 1 not over 1½	-	0.00	0.00	-	0.00	0.00	0.00
Over 1½ not over 2	5.20	133,229.26	532,917.04	5.19	137,975.00	3,243.75	532,437.50
Over 2 not over 2½	5.23	107,979.97	539,899.85	5.22	113,050.00	2,610.00	539,150.00
Over 2½ not over 3	5.26	91,170.04	547,020.24	5.25	96,458.33	2,187.50	545,937.50
Over 3 not over 3½	5.28	79,167.87	554,175.09	5.28	84,628.57	1,885.71	552,800.00
Over 3½ not over 4	5.31	70,195.30	561,562.40	5.31	75,775.00	1,659.38	559,737.50
Over 4 not over 4½	5.34	63,232.55	569,092.95	5.33	68,880.56	1,480.56	566,625.00
Over 4½ not over 5	5.37	57,676.86	576,768.60	5.36	63,400.00	1,340.00	573,700.00
Over 5 not over 5½	5.39	53,129.85	584,428.35	5.38	58,904.55	1,222.73	580,700.00
Over 5½ not over 6	5.42	49,365.43	592,385.16	5.41	55,191.67	1,127.08	587,912.50
Over 6 not over 6½	5.45	46,191.76	600,492.88	5.43	52,036.54	1,044.23	595,025.00
Over 6½ not over 7	5.47	43,467.45	608,544.30	5.45	49,339.29	973.21	602,187.50
Over 7 not over 7½	5.50	41,129.59	616,943.85	5.48	47,033.33	913.33	609,600.00
Over 7½ not over 8	5.53	39,093.74	625,499.84	5.50	45,000.00	859.38	616,875.00
Over 8 not over 8½	5.55	37,291.59	633,957.03	5.53	43,236.76	813.24	624,425.00
Over 8½ not over 9	5.58	35,711.97	642,815.46	5.55	41,652.78	770.83	631,812.50
Over 9 not over 9½	5.61	34,307.17	651,836.23	5.58	40,265.79	734.21	639,500.00
Over 9½ not over 10	5.64	33,051.05	661,021.00	5.60	39,000.00	700.00	647,000.00
Over 10 not over 10½	5.67	31,922.47	670,371.87	5.63	37,884.52	670.24	654,825.00
Over 10½ not over 11	5.70	30,904.13	679,890.86	5.65	36,852.27	642.05	662,437.50
Over 11 not over 11½	5.73	29,981.74	689,580.02	5.68	35,939.13	617.39	670,400.00
Over 11½ not over 12	5.76	29,143.37	699,440.88	5.70	35,083.33	593.75	678,125.00
Over 12 not over 12½	5.79	28,379.03	709,475.75	5.73	34,325.00	573.00	686,225.00
Over 12½ not over 13	5.82	27,680.25	719,686.50	5.76	33,630.77	553.85	694,400.00
Over 13 not over 13½	5.86	27,055.92	730,509.84	5.78	32,968.52	535.19	702,300.00
Over 13½ not over 14	5.89	26,467.75	741,097.00	5.81	32,382.14	518.75	710,612.50
Over 14 not over 14½	5.92	25,926.40	751,865.60	5.83	31,816.38	502.59	718,625.00
Over 14½ not over 15	5.95	25,427.26	762,817.80	5.86	31,316.67	488.33	727,075.00
Over 15 not over 15½	5.98	24,966.30	773,955.30	5.88	30,829.03	474.19	735,200.00
Over 15½ not over 16	6.01	24,540.00	785,280.00	5.91	30,400.00	461.72	743,787.50
Over 16 not over 16½	6.04	24,145.25	796,793.25	5.93	29,976.52	449.24	752,025.00
Over 16½ not over 17	6.07	23,779.34	808,497.56	5.96	29,605.88	438.24	760,750.00
Over 17 not over 17½	6.10	23,439.82	820,393.70	5.98	29,235.71	427.14	769,100.00
Over 17½ not over 18	6.13	23,124.56	832,484.16	6.01	28,913.89	417.36	777,962.50
Over 18 not over 18½	6.16	22,831.62	844,769.94	6.03	28,588.51	407.43	786,425.00
Over 18½ not over 19	6.19	22,559.29	857,253.02	6.05	28,282.89	398.03	794,937.50

Period (years)	Annuity			EIP			
	Rate	½ Yearly	Total	Rate	Initial ½ Yearly	Reduces by	Total
	%	Cost (£)	Cost (£)	%	Costs (£)	each ½ year (£)	Cost (£)
Over 19 not over 19½	6.21	22,288.50	869,251.50	6.08	28,020.51	389.74	804,000.00
Over 19½ not over 20	6.24	22,052.79	882,111.60	6.10	27,750.00	381.25	812,625.00
Over 20 not over 20½	6.26	21,815.72	894,444.52	6.12	27,495.12	373.17	821,300.00
Over 20½ not over 21	6.29	21,611.58	907,686.36	6.14	27,254.76	365.48	830,025.00
Over 21 not over 21½	6.31	21,403.67	920,357.81	6.16	27,027.91	358.14	838,800.00
Over 21½ not over 22	6.34	21,226.96	933,986.24	6.18	26,813.64	351.14	847,625.00
Over 22 not over 22½	6.36	21,044.45	947,000.25	6.20	26,611.11	344.44	856,500.00
Over 22½ not over 23	6.38	20,873.37	960,175.02	6.22	26,419.57	338.04	865,425.00
Over 23 not over 23½	6.40	20,713.00	973,511.00	6.24	26,238.30	331.91	874,400.00
Over 23½ not over 24	6.42	20,562.68	987,008.64	6.26	26,066.67	326.04	883,425.00
Over 24 not over 24½	6.44	20,421.81	1,000,668.69	6.28	25,904.08	320.41	892,500.00
Over 24½ not over 25	6.46	20,289.82	1,014,491.00	6.30	25,750.00	315.00	901,625.00
Over 25 not over 25½	6.48	20,166.22	1,028,477.22	6.32	25,603.92	309.80	910,800.00
Over 25½ not over 26	6.50	20,050.51	1,042,626.52	6.33	25,440.38	304.33	919,362.50
Over 26 not over 26½	6.51	19,923.12	1,055,925.36	6.35	25,308.96	299.53	928,625.00
Over 26½ not over 27	6.53	19,821.82	1,070,378.28	6.36	25,159.26	294.44	937,250.00
Over 27 not over 27½	6.54	19,707.83	1,083,930.65	6.38	25,040.91	290.00	946,600.00
Over 27½ not over 28	6.56	19,619.42	1,098,687.52	6.39	24,903.57	285.27	955,287.50
Over 28 not over 28½	6.57	19,517.42	1,112,492.94	6.41	24,796.93	281.14	964,725.00
Over 28½ not over 29	6.58	19,420.91	1,126,412.78	6.42	24,670.69	276.72	973,475.00
Over 29 not over 29½	6.60	19,349.36	1,141,612.24	6.44	24,574.58	272.88	983,000.00
Over 29½ not over 30	6.61	19,263.07	1,155,784.20	6.45	24,458.33	268.75	991,812.50
Over 30 not over 30½	6.62	19,181.47	1,170,069.67	6.46	24,346.72	264.75	1,000,650.00
Over 30½ not over 31	6.63	19,104.31	1,184,467.22	6.48	24,264.52	261.29	1,010,300.00
Over 31 not over 31½	6.64	19,031.38	1,198,976.94	6.49	24,161.51	257.54	1,019,200.00
Over 31½ not over 32	6.65	18,962.48	1,213,598.72	6.50	24,062.50	253.91	1,028,125.00
Over 32 not over 32½	6.65	18,877.07	1,227,009.55	6.51	23,967.31	250.38	1,037,075.00
Over 32½ not over 33	6.66	18,815.57	1,241,827.62	6.52	23,875.76	246.97	1,046,050.00
Over 33 not over 33½	6.67	18,757.56	1,256,756.52	6.53	23,787.69	243.66	1,055,050.00
Over 33½ not over 34	6.68	18,702.87	1,271,795.16	6.54	23,702.94	240.44	1,064,075.00
Over 34 not over 34½	6.68	18,630.65	1,285,514.85	6.55	23,621.38	237.32	1,073,125.00
Over 34½ not over 35	6.69	18,582.08	1,300,745.60	6.56	23,542.86	234.29	1,082,200.00
Over 35 not over 35½	6.69	18,515.54	1,314,603.34	6.57	23,467.25	231.34	1,091,300.00
Over 35½ not over 36	6.70	18,472.55	1,330,023.60	6.58	23,394.44	228.47	1,100,425.00
Over 36 not over 36½	6.70	18,411.18	1,344,016.14	6.58	23,299.32	225.34	1,108,650.00
Over 36½ not over 37	6.71	18,373.29	1,359,623.46	6.59	23,231.76	222.64	1,117,812.50
Over 37 not over 37½	6.71	18,316.64	1,373,748.00	6.60	23,166.67	220.00	1,127,000.00
Over 37½ not over 38	6.71	18,262.16	1,387,924.16	6.61	23,103.95	217.43	1,136,212.50
Over 38 not over 38½	6.72	18,231.10	1,403,794.70	6.61	23,018.51	214.61	1,144,475.00
Over 38½ not over 39	6.72	18,180.76	1,418,099.28	6.62	22,960.26	212.18	1,153,725.00
Over 39 not over 39½	6.72	18,132.31	1,432,452.49	6.63	22,904.11	209.81	1,163,000.00
Over 39½ not over 40	6.72	18,085.69	1,446,855.20	6.63	22,825.00	207.19	1,171,287.50
Over 40 not over 40½	6.73	18,062.43	1,463,056.83	6.64	22,772.84	204.94	1,180,600.00
Over 40½ not over 41	6.73	18,019.29	1,477,581.78	6.64	22,697.56	202.44	1,188,900.00
Over 41 not over 41½	6.73	17,977.75	1,492,153.25	6.65	22,649.10	200.30	1,198,250.00

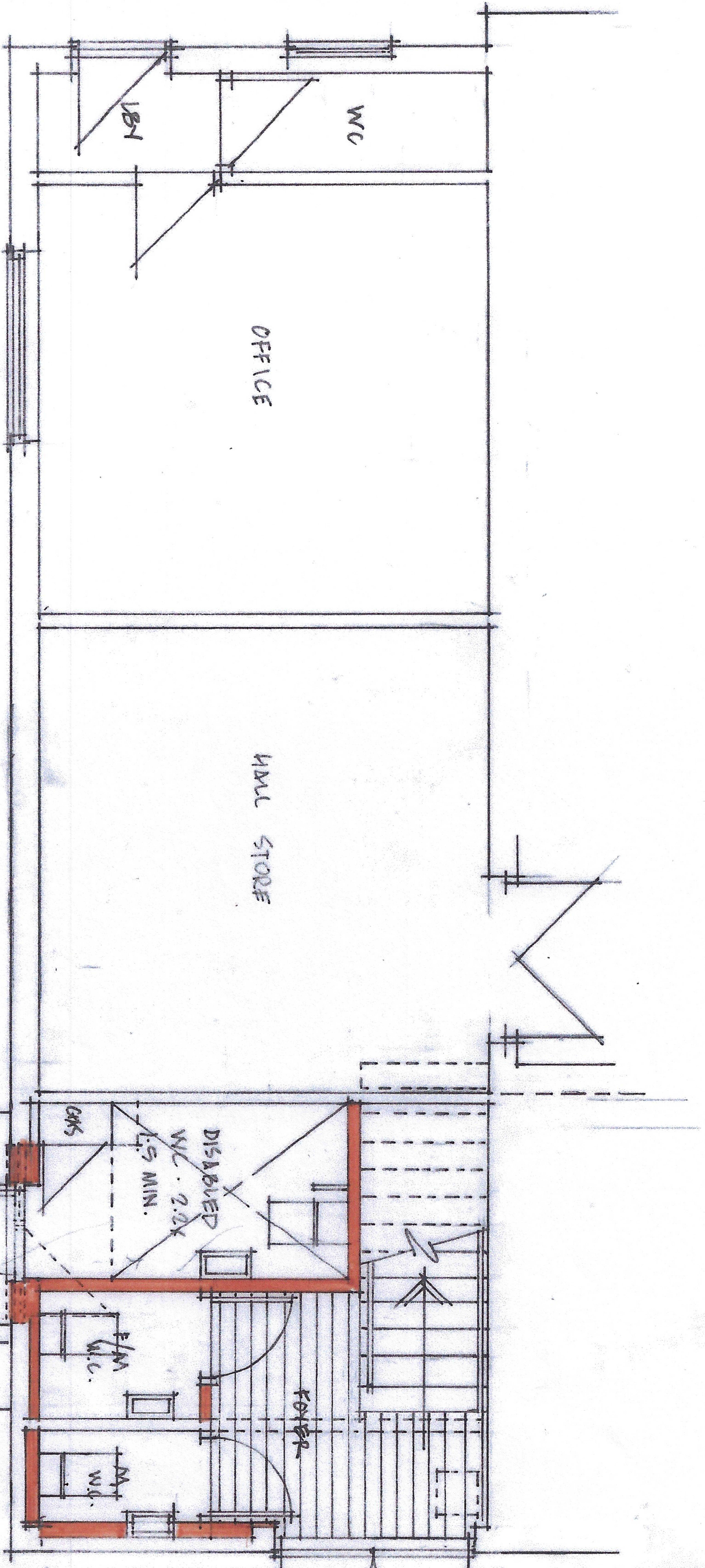
Period (years)	Annuity			EIP			
	Rate %	½ Yearly Cost (£)	Total Cost (£)	Rate %	Initial ½ Yearly Costs (£)	Reduces by each ½ year (£)	Total Cost (£)
Over 41½ not over 42	6.73	17,937.74	1,506,770.16	6.66	22,602.38	198.21	1,207,625.00
Over 42 not over 42½	6.73	17,899.20	1,521,432.00	6.66	22,532.35	195.88	1,215,950.00
Over 42½ not over 43	6.73	17,862.07	1,536,138.02	6.66	22,463.95	193.60	1,224,275.00
Over 43 not over 43½	6.73	17,826.30	1,550,888.10	6.67	22,422.13	191.67	1,233,700.00
Over 43½ not over 44	6.73	17,791.83	1,565,681.04	6.67	22,356.82	189.49	1,242,037.50
Over 44 not over 44½	6.73	17,758.61	1,580,516.29	6.68	22,317.98	187.64	1,251,500.00
Over 44½ not over 45	6.73	17,726.59	1,595,393.10	6.68	22,255.56	185.56	1,259,850.00
Over 45 not over 45½	6.73	17,695.72	1,610,310.52	6.69	22,219.51	183.79	1,269,350.00
Over 45½ not over 46	6.73	17,665.96	1,625,268.32	6.69	22,159.78	181.79	1,277,712.50
Over 46 not over 46½	6.72	17,614.89	1,638,184.77	6.69	22,101.34	179.84	1,286,075.00
Over 46½ not over 47	6.72	17,587.16	1,653,193.04	6.70	22,069.15	178.19	1,295,625.00
Over 47 not over 47½	6.72	17,560.41	1,668,238.95	6.70	22,013.16	176.32	1,304,000.00
Over 47½ not over 48	6.72	17,534.61	1,683,322.56	6.70	21,958.33	174.48	1,312,375.00
Over 48 not over 48½	6.71	17,487.14	1,696,252.58	6.70	21,904.64	172.68	1,320,750.00
Over 48½ not over 49	6.71	17,463.07	1,711,380.86	6.71	21,877.04	171.17	1,330,362.50
Over 49 not over 49½	6.71	17,439.85	1,726,545.15	6.71	21,825.51	169.44	1,338,750.00
Over 49½ not over 50	6.71	17,417.44	1,741,744.00	6.71	21,775.00	167.75	1,347,137.50

Note: 1. If a borrower wishes to make a premature repayment of a loan, either in whole or in part, it should contact the Board giving full details beforehand. The Board will usually agree to accept this request but it should be noted that a premium will be payable when the interest rate on the loan to be repaid is higher than the current rate applying to the premature repayment of a loan repayable by the same method and over the same period as that remaining on the loan which it is proposed to repay. When the interest rate on the loan to be repaid is lower than the current rate applying to the premature repayment, a discount will be allowed.



PART GROUND FLOOR PLAN 1:50 APPROX.
AS EXISTING. (SUBJECT TO DETAILED SURVEY)

PART GROUND FLOOR PLAN PROPOSED 1:50 APPROX.
EXISTING - (SUBJECT TO CHECK)



KITCHENETTE - 1/2 HD.
FIRE SHUTTER OVER

CLIMB UP 2

DN. 1#

CORRIDOR

MEETING ROOM (10)

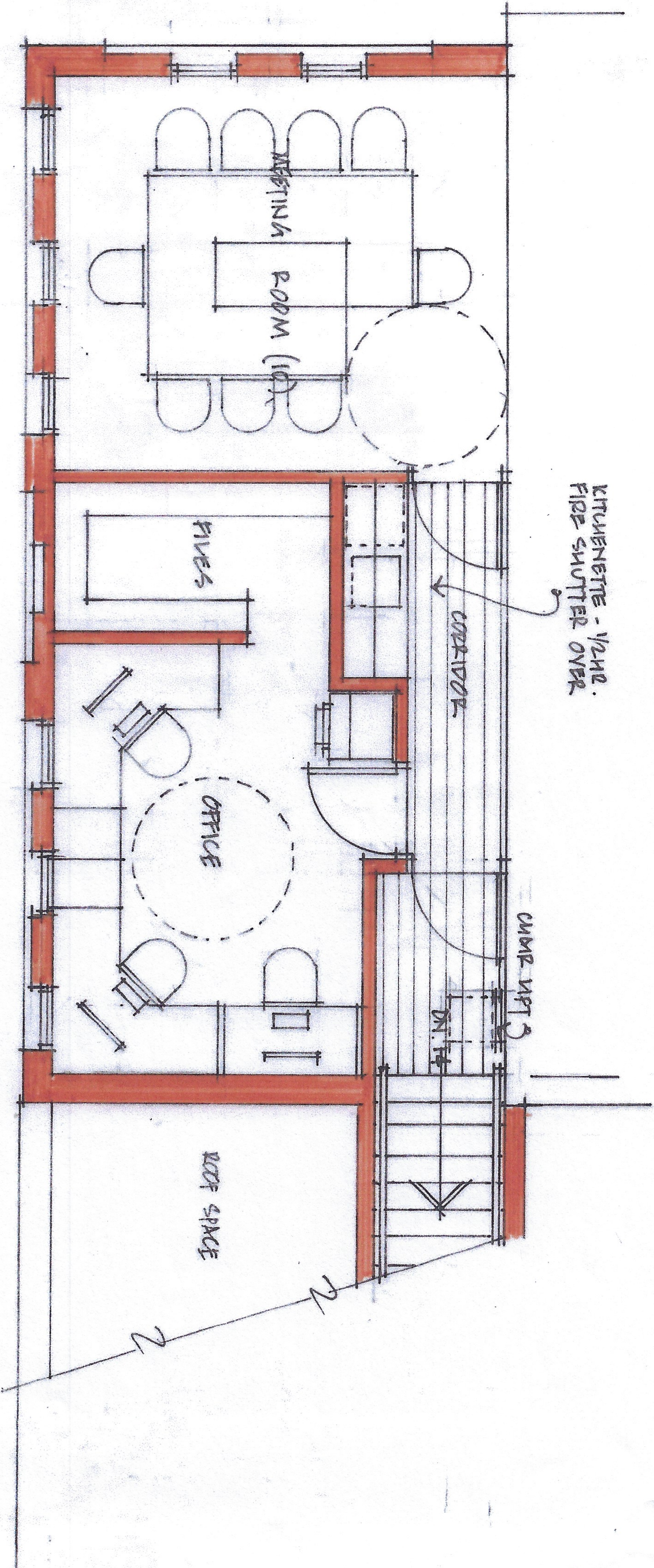
FILES

OFFICE

ROOF SPACE

FIRST FLOOR PLAN PROPOSED
EXISTING - (SUBJECT TO SURVEY)

1:50 APPROX



FRONT ELEVATION PROPOSED
AS EXISTING - (SUBJECT TO SURVEY)

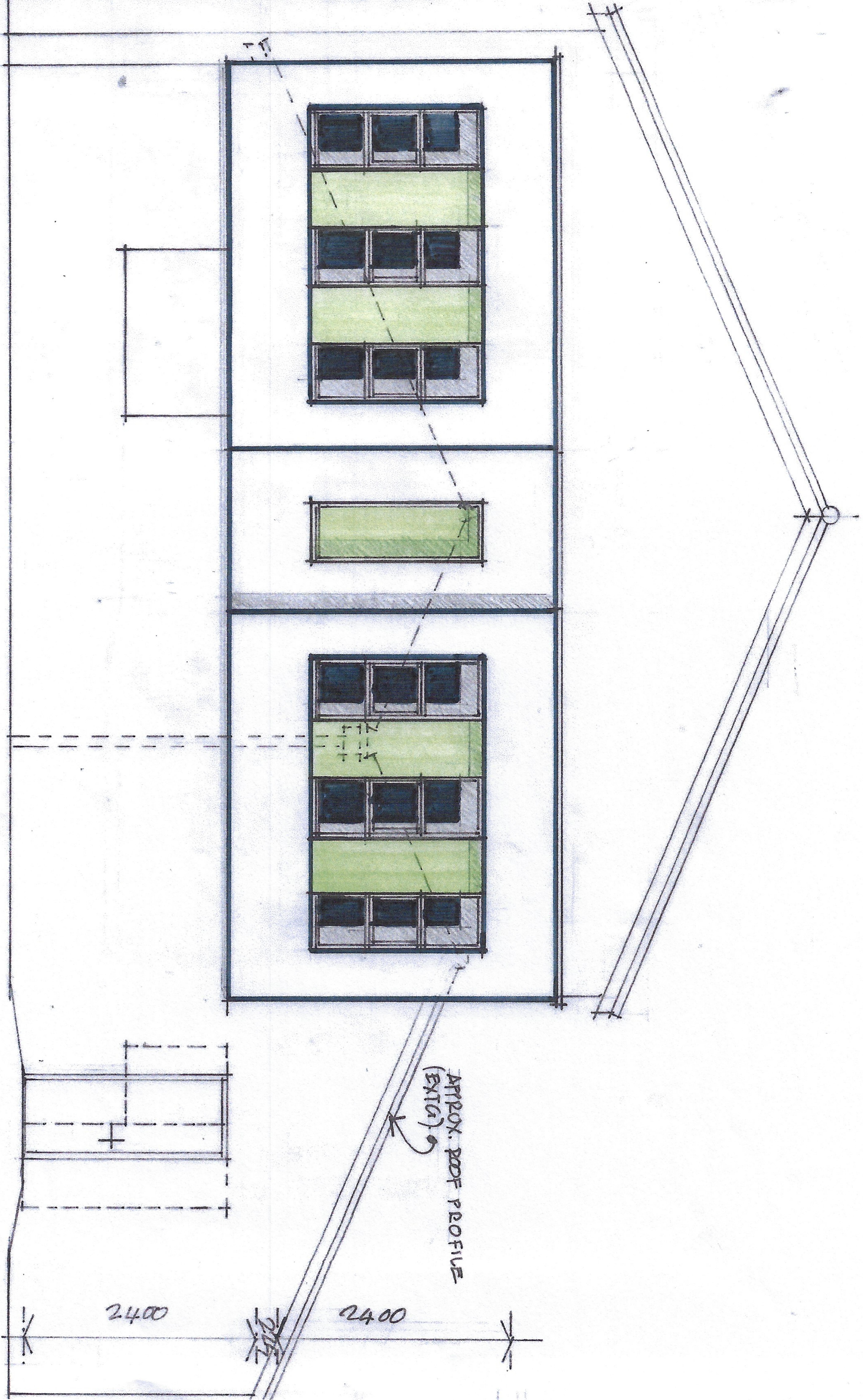
1:30 APPROX.

REAR ELEVATION PROPOSED
AS EXISTING - (SUBJECT TO SURVEY)

1:50 APPROX



SIDE ELEVATION PROPOSED 1:50 APPROX
AS EXISTING - (SUBJECT TO SURVEY)



PWLB Council Report

Village Hall Refurbishment, Accessibility and Asset Improvement Project – PHASE 1 - 2027

Prepared for: Parish Council

Asset: Village Hall, Maldon Road

Building Age: Approximately 45 Years

Purpose: Initial Project Scope and Funding Assessment for Potential PWLB Borrowing

The report is based on the existing village hall layout and site plan provided by the council, including the existing hall, office/store block, surrounding pathways and car park area. The proposed first-floor extension area is above the existing office, store, office and refuse area shown on the plan.

1. Executive Summary

The Village Hall is a well-used community asset that has served residents for approximately 45 years. As the building ages, significant investment is required to ensure its long-term sustainability, accessibility, safety and suitability for future community use.

The Council is considering a comprehensive programme of refurbishment and improvement works which would:

- Remove and replace the existing asbestos village hall roof.
- Improve thermal efficiency through modern insulation.
- Redesign and resurface the village hall car park.
- Create additional first-floor office accommodation.
- Improve accessibility through the provision of an externally accessible disabled WC.
- Extend the operational life of the community facility for future generations.

The project aligns with the Council's objectives of maintaining important community assets, improving accessibility, reducing future maintenance liabilities and increasing opportunities for community use and revenue generation.

Given that the estimated budget exceeds the maximum funding available under a single-year loan, it is recommended that the project be delivered in two phases. This report focuses on Phase 1 for 2027.

2. Background

The Village Hall was constructed in the early-1980s and forms an important community facility serving local residents, groups and organisations. The building includes:

- Main Hall
- Meeting Rooms
- Kitchen Facilities
- Offices
- Storage Areas
- Licensed Bar Area
- Toilet Facilities
- External Seating Areas
- Associated Car Parking

The building remains largely single storey, with office, store and refuse accommodation located on one side of the building. This area provides an opportunity for the creation of additional first-floor accommodation subject to structural assessment.

3. Project Objectives

The principal objectives of the project are:

Asset Preservation

To secure the long-term future of the Village Hall by replacing ageing building elements and reducing future maintenance requirements.

Accessibility

To improve accessibility for all users through the installation of a compliant disabled toilet facility.

Increased Functionality

To create additional office accommodation which may be used for:

- Parish Council administration
- Charity staff workspace
- Councillor workspace and meeting facility

Financial Sustainability

To reduce long-term maintenance liabilities and provide opportunities for future income generation through improved facilities.

4. Proposed Works

A. Roof Replacement – Main Hall

The existing pitched roof contains asbestos materials and is approaching the end of its useful lifespan.

The proposed works include:

- Specialist removal of asbestos roofing materials.
- Safe disposal by licensed contractors.
- Installation of a new insulated roof system.
- Associated roofline and rainwater goods works where required.
- Installation of PV solar panels.

Benefits

- Removal of asbestos-related maintenance issues.
 - Improved thermal performance.
 - Reduced energy consumption.
 - Increased lifespan of the building.
 - Removal of asbestos roofing allows for installation of PV solar panels.
-

B. First-Floor Office Accommodation

There is a proposal for the construction of a first-floor office facility above the existing ground-floor office and store accommodation. The area identified comprises the offices, stores and refuse area shown on the plan. The existing ground floor office accommodation provides workspace for a maximum of two desk-based employees and offers little opportunity for future expansion. By comparison, the proposed first-floor accommodation is estimated to provide approximately 40–50 square metres of usable office space following the inclusion of a staircase, WC and small kitchenette. This would comfortably accommodate six desk-based employees, with capacity for storage, small meetings and future operational growth. The proposal would therefore provide a significant enhancement to the Council's administrative accommodation and long-term service delivery capability.

The accommodation could provide:

- Dedicated Parish Council office accommodation, toilet and kitchen facilities.
- The current PC office could be utilised as a councillor workspace, councillor surgery or councillor meeting space, along with village hall staff as a workspace.

Key Considerations

A detailed structural assessment will be required to determine:

- Load-bearing capacity of existing walls.
- Adequacy of foundations.
- Fire safety requirements.

Benefits

- Better utilisation of existing building footprint.
 - Additional administrative space that meets health and safety requirements.
 - Future flexibility of use.
-

C. Disabled WC Installation

The project includes the conversion of an existing room to create an accessible toilet facility. The proposal is for this room to be the existing storage facility ('taxi office'), which could also accommodate the new staircase (see D).

The proposed facility would be designed to meet modern accessibility standards and improve inclusivity for all users of the building, recreation ground and sporting facilities. The toilet will be externally accessed.

Benefits

- Requirement for sports facilities.
 - Improved accessibility.
 - Greater compliance with current standards.
 - Enhanced user experience.
-

D. New Staircase

A staircase will be required to provide access to the proposed first-floor accommodation. The proposed location is the current storage facility ('taxi office').

Its design and positioning will be determined during the detailed design stage and will take account of:

- Building Regulations requirements.
- Fire safety considerations.
- Existing circulation routes.

- Accessibility requirements (for example, will include a stairlift).
-

5. Estimated Project Costs

Project Element	Estimated Cost
Roof works including PV panels	£200,000
First-Floor Office Construction, including disabled WC and staircase	£250,000
Professional Fees @ ~9%	£40,500
Associated works – fire alarms/electrics	£unknown

Overall Estimated Project Cost

> £490,500

This allowance is considered appropriate for early-stage project planning and potential PWLB borrowing considerations.

6. Risks and Constraints

The principal project risks include:

Structural Risk

The greatest uncertainty relates to the proposed first-floor office accommodation. The existing structure was originally designed as a single-storey building and may require strengthening works, although a timber frame construction could reduce the load on the foundations.

Construction Cost Inflation

Construction costs remain subject to market fluctuation.

Asbestos Findings

Asbestos survey has identified locations of asbestos in the building.

7. Surveys Required

Prior to progressing the scheme, the following surveys are recommended:

1. Asbestos Survey (completed, but more detail for construction works may be required).
 2. Building Survey.
 3. Structural Engineering Assessment.
 4. Ground Investigation (to determine depth of foundations, if required).
-

8. Funding Considerations

The Council may wish to fund the project through a combination of:

- Public Works Loan Board (PWLB) borrowing.
- Council reserves.
- Grant funding opportunities.

The Council may also wish to explore separate grant funding opportunities for solar PV panels as a future standalone sustainability project, thereby reducing the level of borrowing required.

9. Recommendation

It is recommended that the Council:

1. Supports the project in principle.
 2. Approves progression to feasibility and design stage.
 3. Commissions the necessary surveys and professional advice.
 4. Considers a future PWLB borrowing application based upon a provisional budget of £500,000 which is the maximum in any one year. Based on current PWLB rates, borrowing of £500,000 over a 50-year period is estimated to require annual repayments of approximately £34,800. Actual borrowing costs will depend on the prevailing PWLB rate at the point of loan drawdown. The RFO proposes to remove Village Hall funding from the budget for 2027/28 (currently £30k) to fund the loan repayments with limited impact to the precept. The RFO also recommends that the Sole Trustee grants the Parish Council rent free office space, saving an additional £250 per month. See Mitigation.
 5. Investigates external grant funding opportunities where available to fund the solar panels and/or disabled toilet portion.
-

10. Trustee Responsibilities

The Parish Council acts as the Sole Trustee of the Village Hall charity and therefore has a responsibility to ensure that the facility remains available, safe and fit for purpose for current and future generations of residents.

The Village Hall represents one of the Parish's most significant community assets and has provided an important social, recreational and community function for approximately 45 years. As with many buildings of its age, significant investment is now required to address ageing infrastructure and to ensure that the facility remains viable and accessible in the long term.

Whilst the building has continued to serve the community well, a combination of age, historic funding limitations, changing regulatory standards and the construction methods and materials available at the time of the original build have resulted in a growing need for capital investment. It is not uncommon for community buildings constructed through fundraising initiatives in the 1970s and 1980s to require substantial refurbishment several decades later.

The proposed project should therefore be viewed as the renewal and preservation of an important community asset rather than the creation of a new facility. The works are intended to secure the future of the Village Hall for the next generation of residents and users.

Relationship Between the Parish Council and the Charity

Whilst the Village Hall is operated through a charitable trust, the Parish Council, as Sole Trustee, remains ultimately responsible for ensuring that the charitable objectives continue to be delivered.

The charity's financial resources are primarily intended to support the operation, maintenance and day-to-day running of the facility. The scale of investment now required is significantly beyond the level that could reasonably be expected to be funded from normal operating income or accumulated reserves without severely impacting the charity's ongoing activities.

For this reason, borrowing through the Public Works Loan Board may represent the most practical mechanism for funding major capital works which will benefit the wider community over many decades.

Mitigating Financial Impact

The Council may wish to consider measures to help mitigate the cost of borrowing associated with this project.

One option would be for the Village Hall charity to discontinue the rental charge currently payable by the Parish Council for office accommodation. As the Parish Council serves as Sole Trustee, and the proposed

investment would directly enhance and protect a charitable asset, such an arrangement could reasonably be considered as part of the overall financial strategy supporting the project.

The removal of this internal rental charge would release approximately £3,000 per annum, which could then be allocated towards the repayment of the Public Works Loan Board (PWLB) borrowing requirement, while also recognising the substantial capital investment being made in the charity's asset.

A further option would be to suspend the Parish Council's annual Village Hall capital expenditure provision, currently budgeted at £30,000. Redirecting this allocation towards the PWLB repayments would enable the borrowing costs associated with this project to be met with only a limited increase in the precept specifically for this purpose.

In addition, the proposed Parish Council office accommodation includes a meeting room that would be available for use by both the Village Hall Management Committee and the Parish Council for meetings where public attendance is not required, such as working parties and informal discussions. This would reduce demand on existing Village Hall facilities and enable Room 3 to be made available for additional commercial hire, creating further income-generating opportunities for the charity.

The installation of solar panels as part of the project would also provide a long-term financial benefit to the Village Hall through reduced electricity costs, helping to lower ongoing operating expenses and improve the sustainability of the facility.

Strategic Consideration

The fundamental consideration for members is whether the Village Hall remains a valuable and important community facility that should continue to serve residents over the next 40–50 years. If the answer is yes, then investment in the long-term preservation and improvement of the building is consistent with both the Council's community leadership role and its responsibilities as Sole Trustee of the charity.

Conclusion

The proposed refurbishment and enhancement project represents a significant investment in a key community asset. The scheme would address ageing infrastructure, improve accessibility, enhance functionality and extend the useful life of the Village Hall for many years to come. Subject to the outcome of detailed surveys and professional assessments, the project appears capable of delivering substantial long-term benefits for residents, user groups, staff, the wider community and the environment.



SolarGreen



Hatfield Peverel Village Hall

Energy Upgrade programme

Issue Date: 20/10/25

Issued By: JAF

TABLE OF CONTENTS

Scope of Works.....	2
Enabling Works & Site Logistics	2
Part 2 – ECIR (Electrical Condition Inspection Report)	2
Part 3 – Phase 1: Main Hall Roof	3
Part 4 – PV Installation (Main Roof).....	3
Part 5 – Phase 2: Remaining Roofs (Funding Dependent).....	3
Notifications, Compliance & Records.....	3
Health & Safety (Key Risks & Controls).....	4
ECIR – Costings (2 options)	4
Option 1 – Standard ECIR with Sampled Circuit level to assess general building electrical health	4
Purpose	4
Extent & limits (agree in advance).....	4
Sampling plan (risk-led, expand if issues found).....	4
What’s included vs excluded	5
Benefits of a sampled EICR	5
Potential pitfalls.....	5
Deliverables	5
Typical re-inspection interval (guide).....	5
OPTION 2 – Enhanced ECIR WITH maximum available CIRCUIT testing TO ASSESS building electrical health and circuit layout	6
Purpose	6
Scope & Extent (no sampling).....	6
Method (overview)	6
Deliverables	7
Benefits vs a sampled EICR	7
What’s outside scope (but flagged if seen).....	7
Estimated Cost Breakdown all works.....	8

Project Plan – Hatfield Peverel Village Hall, Essex

Roof Replacement (Asbestos) & PV Installation Programme

SCOPE OF WORKS

- 1) Building of formal specification for roof and electrical installation works for tender
- 2) Planning & Mobilisation (CDM 2015, notifications, site set-up).
- 3) ECIR – Full inspection and testing of all circuits and points (Part 2).
- 4) Phase 1 – Main hall roof: remove asbestos roof and install 100mm+ insulated composite trapezoidal metal roof (walkable).
- 5) PV installation on main roof and integration into electrical system (MCS, DNO G98/G99).
- 6) Phase 2 – Remaining roof areas (funding dependent): repeat sequence of scaffold → asbestos removal → insulated re-sheeting.

ENABLING WORKS & SITE LOGISTICS

- Scaffolding with edge protection, debris netting and crash decks at entrances.
- Compound formed from 5 parking bays near the car-park entrance for deliveries, storage and telehandler.
- Car park to remain operational where safe; traffic management and pedestrian segregation in place.
- Hall main entrance maintained; short closures only during high-risk lifts.
- Children's playground closed during overhead works (falling materials risk) with secure fencing and signage.
- Weather strategy: phased strip-and-cover, temporary over-sheeting/shrink-wrap, emergency membranes to protect the interior.

PART 2 – ECIR (ELECTRICAL CONDITION INSPECTION REPORT)

- Undertake an EICR (see options 1 or 2): identify boards, protective devices, circuits and outlets.
- Test polarity, Zs, R1+R2, insulation resistance, RCD performance and bonding; update schedules and labels.

- Report with C1/C2/C3/FI per BS 7671; remedials listed to enable PV connection and safe operation.
- Confirm capacity, spare ways, main earthing/bonding adequacy and SPDs/AFDDs as applicable.
- Option 1 (8 working days) , Option 2 (15-20 working Days)

PART 3 – PHASE 1: MAIN HALL ROOF

- Erect scaffold and protection (5 working days).
- Licensed asbestos removal with air monitoring and consignment notes (10 working days).
- Install composite trapezoidal metal roof sheets ($\geq 100\text{mm}$ insulation), sealed and weather-tight (25 working days).
- Maintain smallest practicable open section; temporary over-sheeting overnight and during adverse weather.

PART 4 – PV INSTALLATION (MAIN ROOF)

- PV mounting compatible with new metal roof; fit modules and balance-of-system.
- Install inverters, AC/DC isolation, surge protection; integrate into distribution with LOTO procedures.
- Commission (IV tests, insulation, PR checks) and issue MCS handover; submit G98/G99 to DNO.
- Programme: 15 working days starting next working day after Phase 1 installation (unless a PV start is set).

PART 5 – PHASE 2: REMAINING ROOFS (FUNDING DEPENDENT)

- Mirrors Phase 1: scaffold → asbestos removal → insulated re-sheeting.
- Indicative duration: 30 working days once funding is confirmed.

NOTIFICATIONS, COMPLIANCE & RECORDS

- HSE (ASB5) – Asbestos removal: notify ≥ 14 calendar days in advance.
- CDM 2015 – Appoint Principal Designer & Principal Contractor; Construction Phase Plan in place.
- Building Control – Roof replacement and insulation upgrade (Part L).
- Waste – Hazardous waste consignment notes (asbestos) and duty-of-care documentation.
- DNO – G98 or G99 notification/approval; witness testing as required.

- MCS – Design, commissioning and handover documentation for the PV system.

HEALTH & SAFETY (KEY RISKS & CONTROLS)

- Asbestos: licensed contractor, air monitoring, enclosure/control measures, decontamination, consignment notes.
- Work at height: edge protection, crash decks, safe access/egress, competent MEWP/telehandler operators.
- Falling objects: exclusion zones, debris netting, lifting plans, playground closure and signage.
- Weather: stop-work thresholds for high winds/rain; temporary waterproofing; sequencing to minimise exposure.
- Public interface: traffic management, delivery marshals, segregated pedestrian routes, clear comms with hall users.
- Electrical: lock-out/tag-out, no live working without justification; verification/commissioning per BS 7671.

Note: Plan subject to detailed RAMS, weather constraints, access agreements, and funding for Phase 2.

ECIR – COSTINGS (2 OPTIONS)

As Discussed in the project scope meetings 2 option for the level of ECIR should be brought reviewed.

OPTION 1 – STANDARD ECIR WITH SAMPLED CIRCUIT LEVEL TO ASSESS GENERAL BUILDING ELECTRICAL HEALTH

PURPOSE

Check if the fixed wiring is safe for continued use and record defects with EICR codes (C1/C2/C3/FI). Based on **BS 7671** (Appx 6 forms/coding) and **IET Guidance Note 3 (GN3)**.

EXTENT & LIMITS (AGREE IN ADVANCE)

- List all areas and boards included; note any areas not accessible on the day.
- State that this is a **sampled** inspection/testing approach to control cost and downtime.

SAMPLING PLAN (RISK-LED, EXPAND IF ISSUES FOUND)

- **Visual:** 100% external visual across all areas (hall, café/kitchen, meeting rooms, WCs, plant, external).
- **Internal inspections:**
 - Main intake/earthing: sample, aim high where practicable.
 - Distribution boards: external 100%; open and inspect a **representative subset** of ways across all boards, prioritising café/kitchen and high-load circuits.
 - Accessories: open a **sample** (**≈10–25%**) overall; **increase** in higher-risk zones (café/kitchen, cleaners' sockets, stage/AV outlets).
- **Testing:**
 - Test a **meaningful sample** of final circuits (continuity, polarity, Zs, IR with safeguards).
 - **RCDs:** function checks on all; instrument tests on a sample (do more on higher-risk circuits).
- **Escalation rule:** any C1/C2/FI in the sample → **increase the sample** (up to full inspection/testing in that area).

WHAT'S INCLUDED VS EXCLUDED

- **Included:** fixed wiring up to points of use, DBs, main earthing/bonding.
- **Related but separate:** fire alarm, emergency lighting, PAT, catering equipment servicing, lightning protection (report obvious concerns; recommend separate checks).

BENEFITS OF A SAMPLED EICR

- **Lower cost and less disruption** (shorter outages; important for café fridges/trading and hall bookings).
- **Focus on risk** (more depth where problems are likelier).
- **Scalable** (expand only if evidence warrants it).

POTENTIAL PITFALLS

- **Hidden one-off defects may be missed** if they're outside the sample.
- **Weak records/access = weak sample** (if drawings or historical data are poor, sampling may be unsuitable).
- **Too many limitations reduce confidence** in the overall verdict.
- **Operational trips** (RCD tests can affect refrigeration/coffee machines—plan outages).

DELIVERABLES

- EICR (IET model form) showing: scope, agreed limitations, observations with codes, test data for sampled circuits/boards, overall result (Satisfactory/Unsatisfactory), and **recommended next inspection date** with justification.

TYPICAL RE-INSPECTION INTERVAL (GUIDE)

- Public assembly with café: often ~3 years, but set by risk (usage, condition, maintenance quality, environment).

Estimated Cost: £3200.00

OPTION 2 – ENHANCED ECIR WITH MAXIMUM AVAILABLE CIRCUIT TESTING TO ASSESS BUILDING ELECTRICAL HEALTH AND CIRCUIT LAYOUT

PURPOSE

- Verify the fixed installation is safe for continued use and fully documented.
- Record observations with **C1 / C2 / C3 / FI** and issue *Satisfactory/Unsatisfactory* outcome (BS 7671 Appx 6; GN3).

SCOPE & EXTENT (NO SAMPLING)

- **Areas:** Main hall, café/kitchen, both meeting rooms, WCs, plant, circulation, external lighting.
- **Boards:** All distribution boards and sub-boards.
- **Circuits:** **100%** of final circuits tested and listed.
- **Drawings:** Up-to-date single-line schematic, DB schedules, and floor-plan layouts showing circuit coverage and IDs.

METHOD (OVERVIEW)

1) Pre-work

- Agree outages, out-of-hours access for the café refrigeration, and critical loads.
- Review any existing records; confirm earthing system, bonding, and supply characteristics.
- Note known constraints (asbestos register, locked areas, height/access).

2) Inspection (visual + internal)

- **100% external visual** across all areas.
- **100% DB internal checks:** enclosure IP/integrity, signs of heat, terminations, CPC continuity arrangements, RCD/AFDD/SPD presence, device ratings/labels, circuit identification.
- Representative **accessory checks** opened where safe (sockets, spurs, isolators, accessories with signs of heat/damage).

3) Testing (all circuits)

- Supply: **Ze**, PFC/PSCC, main bonding verification.
- **Continuity** (including ring final R1/RN/R2), **polarity**, **insulation resistance** (with safe methods/250 V where sensitive equipment present), **Zs** at end points, **functional RCD/RCBO** tests ($x^{1/2}/x1/x5$ as applicable, $0^\circ/180^\circ$), and **disconnection times**.

- Functional checks of controls/isolation, emergency switching, phase sequence (if 3-phase equipment), and any fixed appliances within scope.

4) Coding & escalation

- Defects coded **C1/C2/C3/FI** per GN3; immediate dangers made safe or isolated.
- Photographic evidence for significant observations.
- Clear remedial recommendations with priorities.

DELIVERABLES

- **EICR (IET model form)**: full inspection schedule + **complete test results for every circuit**.
- **DB schedules** (clean, corrected, and labelled), unique circuit IDs.
- **Single-line schematic** (supply → main switch → DBs → key loads) and **floor plans** showing circuit coverage.
- **Defect log with photos** and a prioritised remedials list.
- **Next inspection interval** recommendation (risk-based; village hall with public assembly typically ~3 years).

BENEFITS VS A SAMPLED EICR

Benefits

- Maximum confidence: no sampling risk; defects less likely to be missed.
- Complete, clean documentation to manage maintenance and future works.
- Easier fault-finding later (accurate drawings and labels).

Trade-offs / pitfalls to plan for

- More downtime and access needs (coordinate café refrigeration, events).
- Higher cost/time than sampling.
- Some accessories may need opening/removal (minor making-good may be required).
- Sensitive/IT/catering kit must be protected or isolated during IR/RCD testing.

WHAT'S OUTSIDE SCOPE (BUT FLAGGED IF SEEN)

- Fire alarm & emergency lighting tests (separate standards), PAT, catering equipment servicing, lightning protection.

Estimated Cost: **£8000.00**

ESTIMATED COST BREAKDOWN ALL WORKS

Description of works (Phase 1) (all fees are estimates until formal quotes are issued)	Line Cost ext. Vat
Writing a full project specification and getting example working costs and drawings ready for tender issue and cost expectation (Fee included in Solar Green Package if awarded)	£4000.00
Project applications and Health and safety documents compiled and issued	£2700.00
Site set up including 8 weeks hire of containers and lifting equipment	
Container delivery 2 x 20ft	£750.00
Rental cost 2 x 20ft containers (8 weeks)	£640.00
Container Collection 2 x 20ft	£750.00
Fencing and Signage (around the compound approx. 45m)	£675.00
Telehandler (6 week Hire)	£3300.00
Telehandler delivery and collection	£1000.00
Scaffolding handrail with brick guards	£9000.00
Scaffold tower with loading bay	£4000.00
Safety netting (internal to Hall)	£1800.00
ECIR Costs as per previous section	
Electrical Panel upgrade excluding remedials from the ECIR	£6223.00
Asbestos removal and disposal	£22200.00
Roof Replacement works	£48400.00
Installation of Main roof PV system No battery 44.6kWp (solar Edge Optimised for safety and efficiency)	£41080.00
Total electrical Works with option 2 and no remedials	£14223.00 + Vat
Total Roof works excluding the installation of PV	£99215.00 +Vat

I have also attached the Solar Edge design which I have put your energy profile into to show realistic returns on the PV system. It is my opinion that the building would benefit from additional PV installed during Phase 2 on the lower roof areas and potentially a battery once some monitoring data can be gained to see if a battery would be beneficial over the sale of exported energy.

I have also included the K2 framework design that shows the wind loadings etc for the project.

I would like to talk you through this document once you have the ability so we are able to progress to potentially issuing the official tender docs.

Kind regards

James Fordham



| Connecting Strength

K2 Base Report



Hatfield Perveral Village Hall

Customer	Hatfield Peveral Parish Council
Project address	4 Maldon Rd, Hatfield Peverel, Chelmsford CM3 2HW, UK
Planned installation date	01/09/2026
Company	Solar Green LTD
Address	The Street Unit 9a Nash Hall, CM59NL, High Ongar
Tel.	01245400200
E-Mail	james@solar-green.co.uk
Planner	James Fordham
Issue date	20/10/2025
Version	K2 Base Version 3.2.61.0



Contents

Project overview	4
Area 1	7
Assembly plan	8
Results	11
Structural analysis report	14
Area 2	19
Assembly plan	20
Results	23
Structural analysis report	26

About us

K2 Systems. Innovative mounting system from a strong team.

Since 2004 we have been developing pioneering and highly functional mounting system solutions for photovoltaic installations around the world. Our systems are designed in our own product development department where we continually optimize and adapt mounting systems to the ever-changing market.

A knowledgeable and friendly team

Just like a mountain climbing team, K2 Systems is built on mutual trust. This applies to our customer service as well as within the company itself, because we believe a trusting partnership leads to successful photovoltaic projects.

Our employees place total focus on the needs and wishes of our customer. This is true in all company departments.

10 locations and worldwide sales network

In our international team, everyone works together to provide customers with competent, comprehensive and entirely personalized service.

This is especially true in the constant training our employees undergo with regards to product optimization, quality assurance, or innovations in construction techniques.

Quality management and certificates

K2 Systems stands for Connecting Strength, the highest quality, and precision-crafted and customized components. Our customers and business partners deeply appreciate all of these factors. Three independent authorities have tested, confirmed, and certified our skills and components. External authorities are not the only ones to have put K2 Systems to the test. Our internal quality control ensures that all our products are subject to a constant review process.

These measures all ensure the outstanding quality standards that exemplify products from K2 Systems, and which we maintain through largely exclusive "Made in Germany" or "Made in Europe" practices.



Product guarantee

K2 Systems offers a 12-year product warranty on all products in its integrated range. The use of high quality materials and a three-level quality inspection ensure these standards.

In a nutshell

As roof-top specialists, we offer effective and economical solutions for roofs all around the world and provide professional, fast and reliable support for our customers in the solar industry.

The static report is not including module and building verification.

Project overview

Roofs

Roof	System	Module	Height	Quantity	Total power
Area 1  Trapezoidal	MiniRail MK2	AIKO-A620-MAH72Mw (2278×1134×35) 2,278×1,134×35 mm 620 Wp	6.00 m	36	22.32 kWp
Area 2  Trapezoidal	MiniRail MK2	AIKO-A620-MAH72Mw (2278×1134×35) 2,278×1,134×35 mm 620 Wp	6.00 m	36	22.32 kWp
Total				72	44.64 kWp

Project information

Address	4 Maldon Rd, Hatfield Peverel, Chelmsford CM3 2HW, UK
Planned installation date	01/09/2026
Customer	Hatfield Peveral Parish Council
Author	James Fordham

Load settings

Design method	BS EN
Failure consequence class (CC)	CC2
Design working life	25 years
Terrain category	Country Terrain
Basic wind speed	22.0 m/s
Distance to shoreline	7.70 km
Snow load zone	3
Snow load on ground level	0.50 kN/m ²

Material values

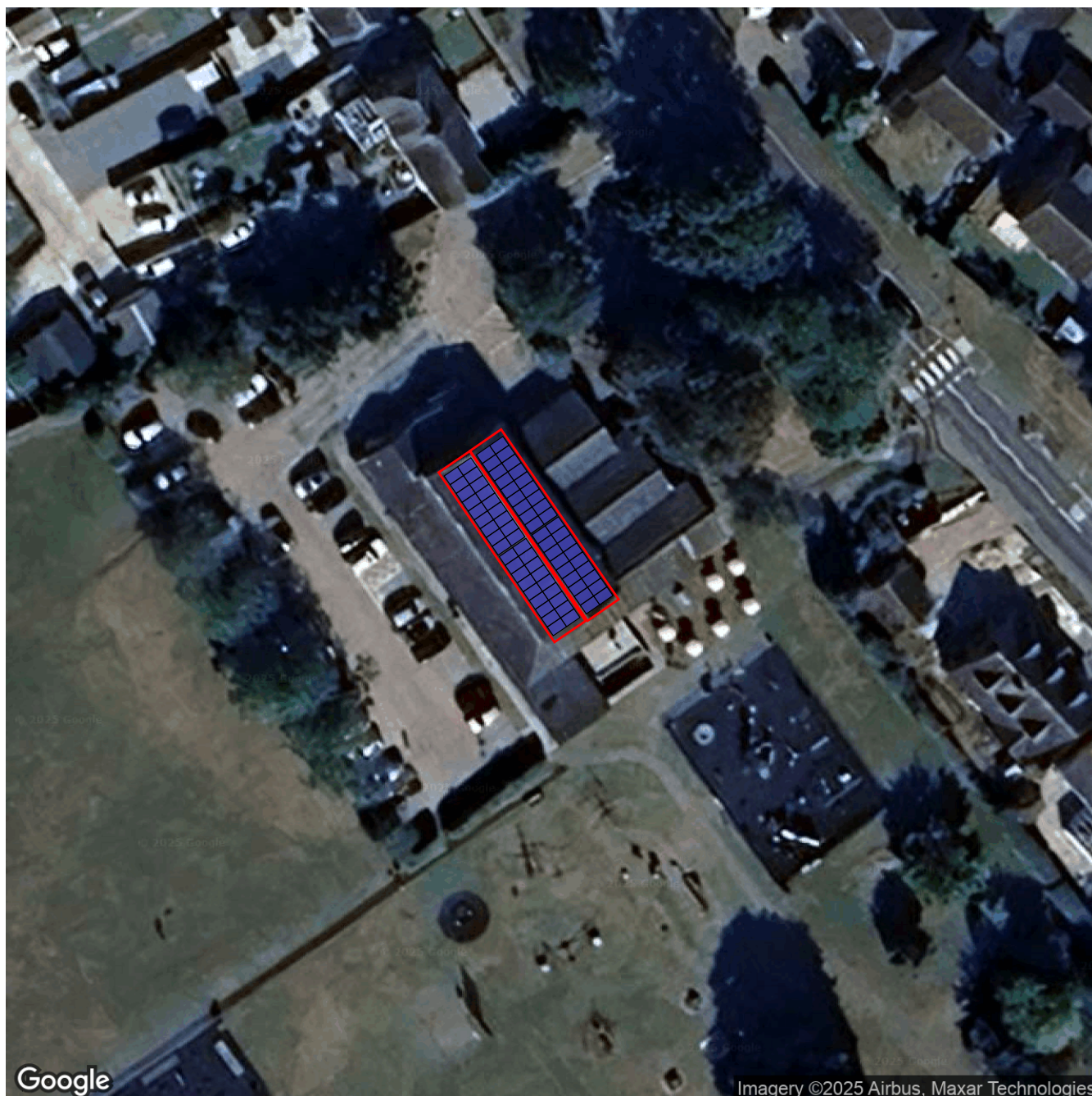
For material information refer to the product catalogue:

[K2 Catalogue \(k2-systems.com\)](https://k2-systems.com)



THE PROJECT IS VERIFIED.
please check the warning(s)!

Hatfield Perveral Village Hall

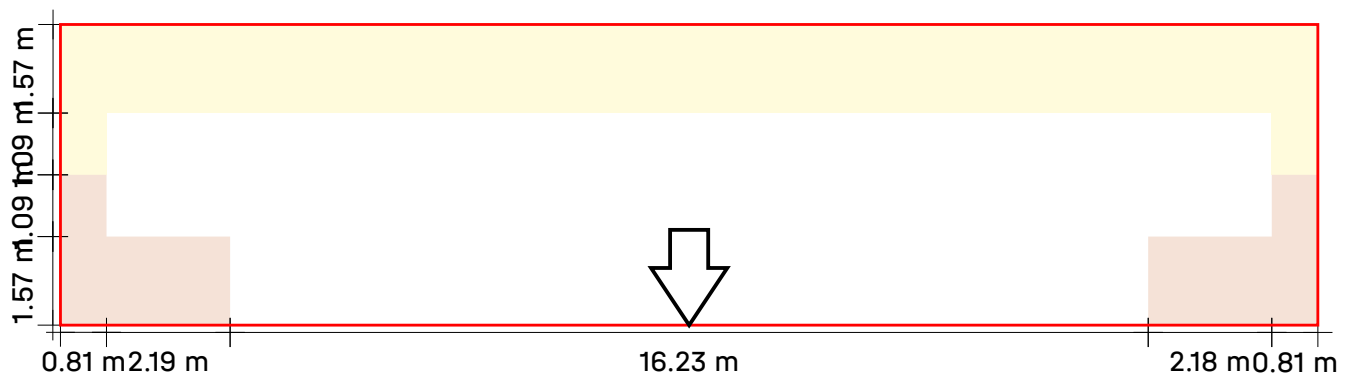


Project information

Address	4 Maldon Rd, Hatfield Peverel, Chelmsford CM3 2HW, UK
Planned installation date	01/09/2026
Customer	Hatfield Peveral Parish Council
Author	James Fordham

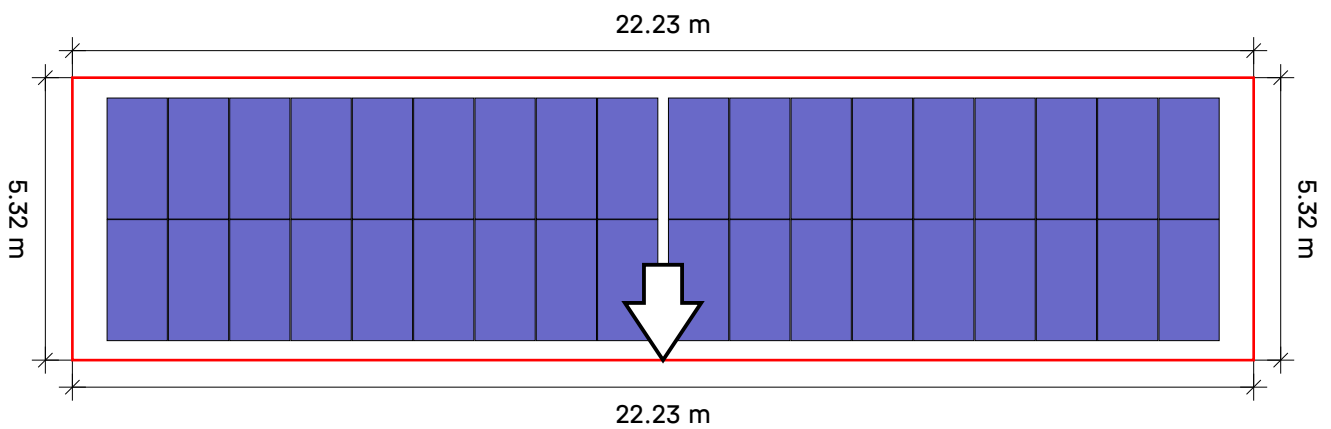


Area 1



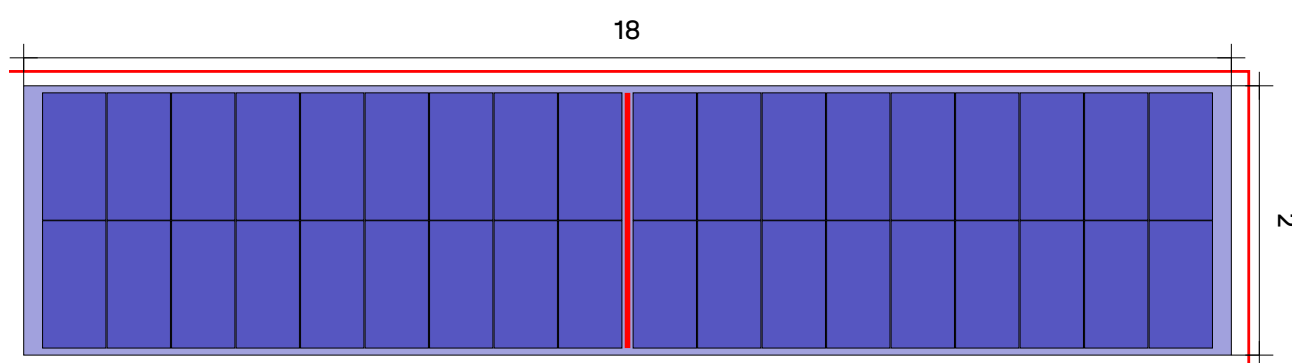


Area 1



Roof	System	Module	Height	Quantity	Total power
<u>Area 1</u>	<u>MiniRail MK2</u>	AIKO-A620-MAH72Mw (2278×1134×35) 2,278×1,134×35 mm 620 Wp	6.00 m	36	22.32 kWp
 Trapezoidal					

Area 1 | Module array 1



Roof ① Module array ①

Mounting System

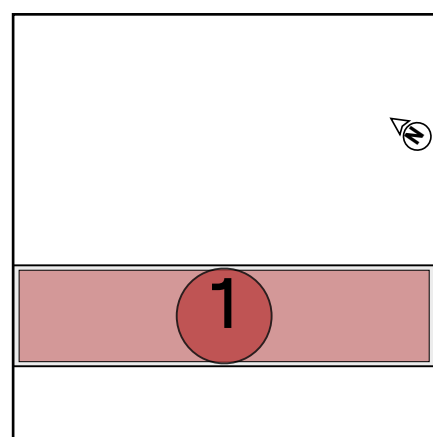
[MiniRail MK2](#)

Module

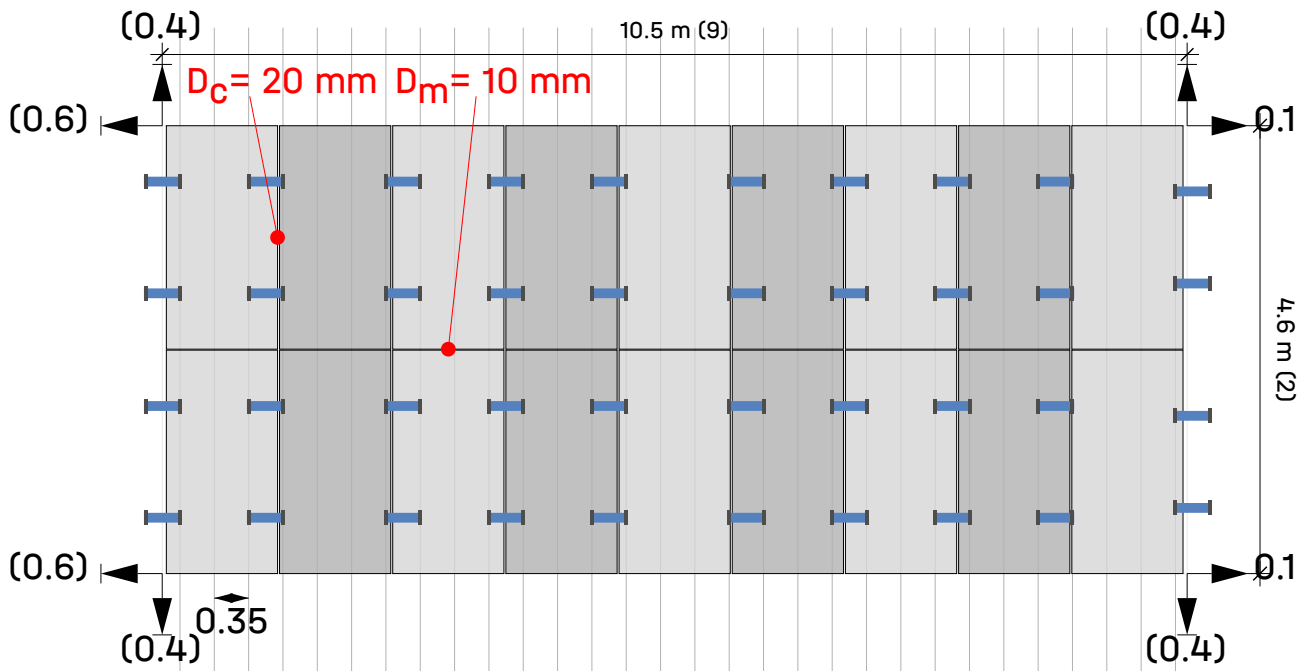
36(22.32 kWp) x AIKO-A620-MAH72Mw
(2278×1134×35)

Row spacing

2.29 m



Area 1 | Module array 1 | Module block 1

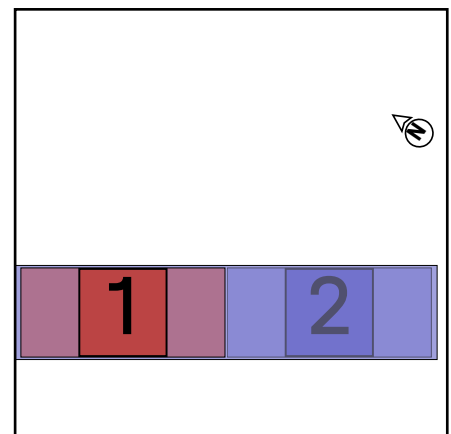


Roof ① Module array ① Module block 1

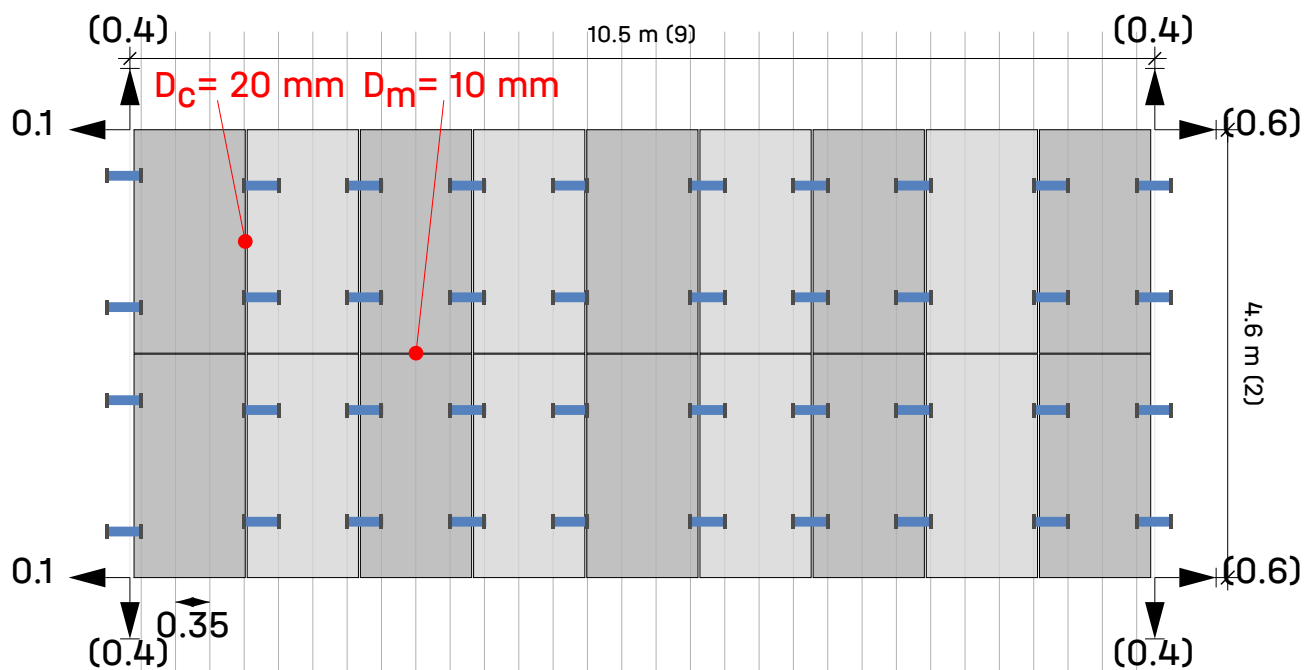
Modules $9 \times 2 = 18$

Legend

- Fastener
- ➔ Dist. to neighbour module block/array [m]
- D_c Distance for clamping between modules
- D_m Distance between modules



Area 1 | Module array 1 | Module block 2

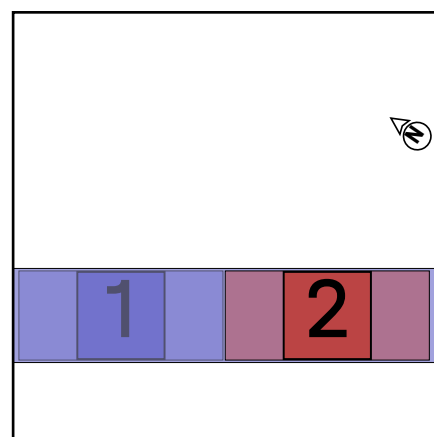


Roof ① Module array ① Module block 2

Modules $9 \times 2 = 18$

Legend

- Fastener
- ➔ Dist. to neighbour module block/array [m]
- D_c Distance for clamping between modules
- D_m Distance between modules



Results | Area 1

Roof	System	Module	Height	Quantity	Total power
<u>Area 1</u>  Trapezoidal	<u>MiniRail MK2</u>	AIKO-A620-MAH72Mw (2278×1134×35) 2,278×1,134×35 mm 620 Wp	6.00 m	36	22.32 kWp

Module

Name	AIKO-A620-MAH72Mw (2278×1134×35)
Manufacturer	Shanghai AIKO Energy Co., Ltd.
Output power	620 Wp
Dimensions	2,278×1,134×35 mm
Weight	28.2 kg

Components

Fastener	Thread-forming metal screw 6.0×25
Base rails	K2 MiniRail MK2

Loads on modules (module dimensioning)

No. Module Array	Array	A-TrA [m ²]	ultimate state [Pa]				Serviceability [Pa]			
			Pressure ⊥	Pressure ∥	Uplift ⊥	Uplift ∥	Pressure ⊥	Pressure ∥	Uplift ⊥	Uplift ∥
1	field area	2.58	857.8	370.3	-495.4	71.0	580.4	254.0	-302.1	71.0
1	ridge	2.58	857.8	370.3	-721.0	71.0	580.4	254.0	-452.5	71.0
1	gableboard	2.58	857.8	370.3	-1,043.3	71.0	580.4	254.0	-667.3	71.0
1	corner region (eave)	2.58	1,051.2	370.3	-1,075.5	71.0	709.3	254.0	-688.8	71.0



Results | Area 1

Utilisation result

No.	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1
1	corner region (eave)	55.0	79.5	34.1
No.	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1
1	corner region (eave)	55.0	79.5	34.1
No.	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1
1	corner region (eave)	55.0	79.5	34.1
No.	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1
1	corner region (eave)	55.0	79.5	34.1



Results | Area 1

Note

- The structure was statically verified in accordance with Eurocode 9: Design of aluminium structures (DIN EN 1999-1-1:2021) and offers sufficient load-bearing capacity and stability for the loads specified in the chapter 'Maximum actions on the components'.
- Adjustment factor for wind load regarding service life period, f_W , is according to DIN EN 1991-1-4/ NA, NDP for 4.2 (2P) note 5, table 3
- Adjustment factor for snow load regarding service life period, f_S , is according to DIN EN 1991-1-3/ annex D, table 4
- The structural design complies with BS EN 1990 - Basis of Structural Design.
- Snow loads are determined in accordance with National Annex BS NA EN 1991-1-3 (2018) - UK National Annex to EC1 - Action on structures - general actions - snow loads.
- Wind loads are determined in accordance with National Annex BS NA EN 1991-1-4 - UK National Annex to EC1 - Action on structures, general actions - wind actions.
- Service life is recognised according to 'Eurocode EN 1991 - Action on structures, Snow loads' and 'Eurocode EN 1991 - Actions on structures, Wind actions'. Subject to the Building Regulations and for security-relevant reasons the installation has to be dismantled at the end of its service life.
- Failure consequence class is considered according to 'Eurocode EN 1990 - Basis of structural design'.
- The person responsible for the execution of the work must check the load assumptions made with the conditions on site. If deviations are found, the person who prepared the static calculation must be consulted immediately.
- Please note our General Terms and Conditions of Use (TCU-E) in their currently valid version, available at: <https://k2-systems.com/en/digital-services/general-terms-and-conditions-of-use-for-entrepreneurs-tcu-e/>

Please note in particular § 1, Special provisions for K2 Base, clause 3 ("Technical and specialist requirements on the Customer's premises."), § 6 ("Limitation of warranty") and § 7 ("Limitation of liability").



Structural analysis report | Area 1

General information

Name	Hatfield Perveral Village Hall
Mounting System	MiniRail MK2
Author	James Fordham

Location information

Address	4 Maldon Rd, Hatfield Peverel, Chelmsford CM3 2HW, UK
Ground elevation	42.20 m

Roof information

Building height	6.00 m
Roof type	Gable roof
Roof pitch	40°
Roof covering	Trapezoidal
Min. roof edge distance	0.00 m
Crest distance	350.0 mm
Crest width	22.0 mm
Crest height	40.0 mm
Roof material	Steel
Sheet quality	S235
Sheet thickness	0.500 mm

Loads

Design method	BS EN
Failure consequence class (CC)	CC2
Design working life	25 years
Terrain category	Country Terrain
Distance to shoreline	7.70 km

Wind load

Velocity pressure, 50 years	$q_{p,50} = 0.700 \text{ kN/m}^2$
Adjustment factor for service life	$f_w = 1.000$
Velocity pressure, 25 years	$q_{p,25} = 0.645 \text{ kN/m}^2$

Structural analysis report | Area 1

Roof areas

No. Module Array	Array	load impact area [m ²]	maxCpe	minCpe	wind pressure [kN/m ²]	wind suction [kN/m ²]
1	field area	2.58	0.600	-0.600	0.387	-0.387
1	ridge	2.58	0.600	-0.833	0.387	-0.537
1	gableboard	2.58	0.600	-1.167	0.387	-0.752
1	corner region (eave)	2.58	0.800	-1.200	0.516	-0.773

Snow load

Snow load zone	3
Snow guard	No
Snow load on ground level	$s_k = 0.500 \text{ kN/m}^2$
Shape Coefficient for Snow	$\mu_i = 0.800$
Factor for roof pitch	$d_i = 0.766$
Snow load on roof, 50 year	$s_{i,50} = 0.306 \text{ kN/m}^2$
Adjustment factor for service life	$f_s = 1.000$
Snow load on roof, 25 years	$s_{i,25} = 0.285 \text{ kN/m}^2$

Dead Load

Weight of module	$G_M = 28.2 \text{ kg}$
Weight of mounting system per module	$= 0.9 \text{ kg}$
Module area	$A_M = 2.58 \text{ m}^2$
Dead weight of module per m ²	$= 10.92 \text{ kg/m}^2$
Dead weight of mounting system per m ²	$= 0.35 \text{ kg/m}^2$
Total Dead Load (excl. ballast) per m ²	$= 0.11 \text{ kN/m}^2$



Structural analysis report | Area 1

Load Combinations

Ultimate limit state

Partial safety factor unfavourable permanent load	$\gamma_{G,sup} = 1.35$
Partial safety factor favourable permanent load	$\gamma_{G,inf} = 1.00$
Partial safety factor destabilising permanent load	$\gamma_{G,dst} = 1.10$
Partial safety factor stabilising permanent load	$\gamma_{G,stab} = 0.90$
Partial safety factor variable loads	$\gamma_Q = 1.50$
Combination coefficient with regards to wind	$\psi_{0,W} = 0.60$
Combination coefficient with regards to Snow	$\psi_{0,S} = 0.50$
Importance factor permanent	$\kappa_{Fl,G} = 1.00$
Importance factor variable	$\kappa_{Fl,Q} = 1.00$
Characteristic dead weight	G_k
Characteristic snow load on the roof	$S_{i,n}$
Characteristic wind load	W_k

Load case combination 01	$LCC\ 01_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * S_{i,n}$
Load case combination 02	$LCC\ 02_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * W_{k,Pressure}$
Load case combination 03	$LCC\ 03_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * (W_{k,Pressure} + \psi_{0,S} * S_{i,n})$
Load case combination 04	$LCC\ 04_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * (S_{i,n} + \psi_{0,W} * W_{k,Pressure})$
Load case combination 06	$LCC\ 06_{uls} = \gamma_{G,inf} * G_k + \gamma_Q * \kappa_{Fl,Q} * W_{k,Suction}$

Serviceability limit state

Combination coefficient with regards to wind	$\psi_{0,W} = 0.60$
Combination coefficient with regards to Snow	$\psi_{0,S} = 0.50$

Load case combination 01	$LCC\ 01_{sls} = G_k + S_{i,n}$
Load case combination 02	$LCC\ 02_{sls} = G_k + W_{k,Pressure}$
Load case combination 03	$LCC\ 03_{sls} = G_k + W_{k,Pressure} + \psi_{0,S} * S_{i,n}$
Load case combination 04	$LCC\ 04_{sls} = G_k + S_{i,n} + \psi_{0,W} * W_{k,Pressure}$
Load case combination 06	$LCC\ 06_{sls} = G_k + W_{k,Suction}$

Maximum load on modules (Mounting system dimensioning)

No. Module Array	Array	A-TrA [m ²]	ultimate state [kN/m ²]				Serviceability [kN/m ²]			
			Pressure ⊥	Pressure 	Uplift ⊥	Uplift 	Pressure ⊥	Pressure 	Uplift ⊥	Uplift
1	field area	2.58	0.858	0.370	-0.495	0.071	0.580	0.254	-0.302	0.071
1	ridge	2.58	0.858	0.370	-0.721	0.071	0.580	0.254	-0.452	0.071
1	gableboard	2.58	0.858	0.370	-1.043	0.071	0.580	0.254	-0.667	0.071
1	corner region (eave)	2.58	1.051	0.370	-1.075	0.071	0.709	0.254	-0.689	0.071



Structural analysis report | Area 1

Resistance Values of Components

Base Rails

Base Rails	A [cm ²]	I _y [cm ⁴]	I _z [cm ⁴]	W _y [cm ³]	W _z [cm ³]	F _{p,Rd} [kN]
K2 MiniRail MK2	2.710	2.15	9.27	1.37	2.17	1.42

F_{p,Rd} Pull-through resistance

Module clamp

module clamp	R _{D,Uplift,Perpendicular} [kN]	R _{D,Pressure,Perpendicular} [kN]	R _{D,Pressure,Parallel} [kN]
OneMid Black Set 30-42	5.00	-	1.04
K2 Clamp EC 25-40 Black	0.00	-	0.00

Fastener

Fastener	R _{D,Uplift,Perpendicular} [kN]	R _{D,Pressure,Perpendicular} [kN]	R _{D,Pressure,Parallel} [kN]
Thread-forming metal screw 6.0×25	0.65	0.00	0.62

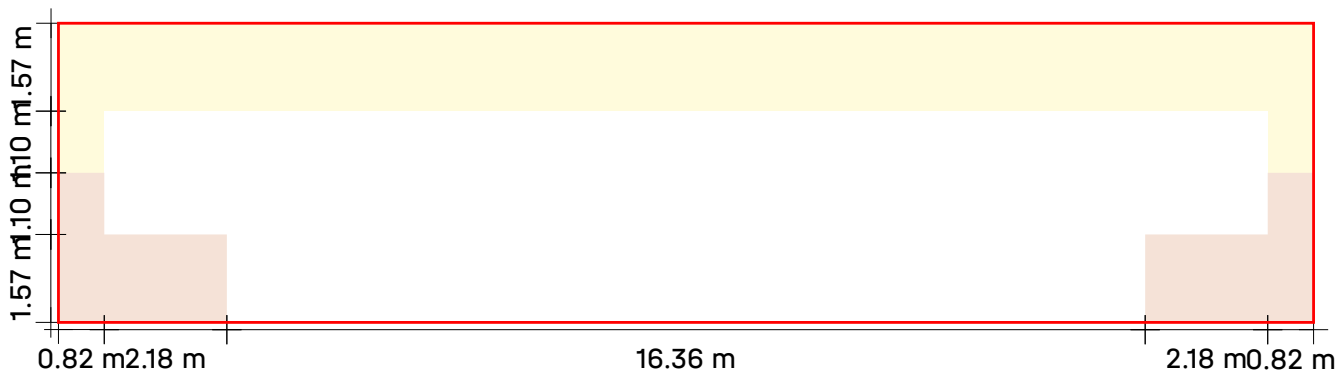
Utilisation result

No. Module Array	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1
1	corner region (eave)	55.0	79.5	34.1
No. Module Array	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1
1	corner region (eave)	55.0	79.5	34.1
No. Module Array	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1



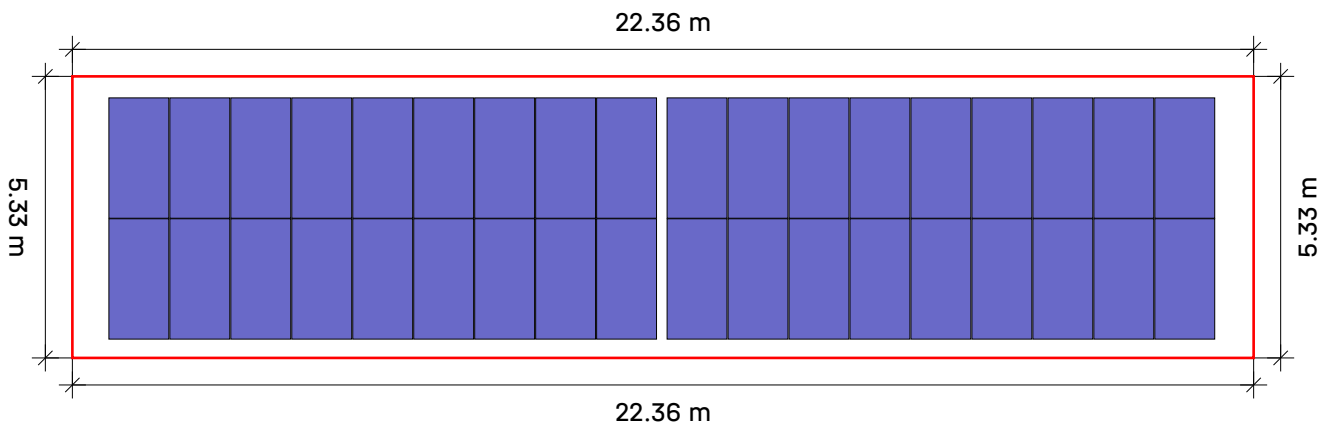
Area 2

1	corner region (eave)	55.0	79.5	34.1
No.	roof areas	ultimate limit state	ultimate limit state	Pull Through
Module Array		Rails [%]	screw [%]	utilisation [%]
1	field area	46.7	39.4	15.7
1	ridge	46.7	55.0	22.9
1	gableboard	48.2	77.3	33.1
1	corner region (eave)	55.0	79.5	34.1



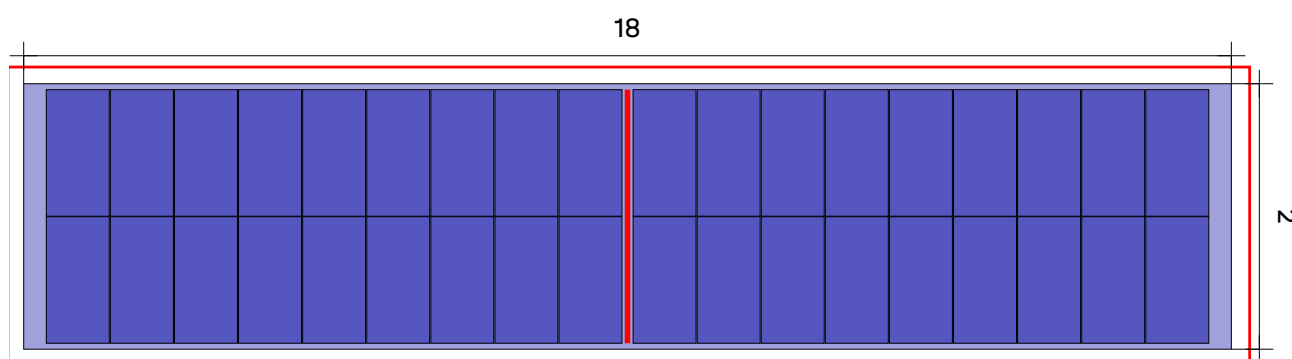


Area 2



Roof	System	Module	Height	Quantity	Total power
<u>Area 2</u>  Trapezoidal	<u>MiniRail MK2</u>	AIKO-A620-MAH72Mw (2278×1134×35) 2,278×1,134×35 mm 620 Wp	6.00 m	36	22.32 kWp

Area 2 | Module array 1



Roof ② Module array ①

Mounting System

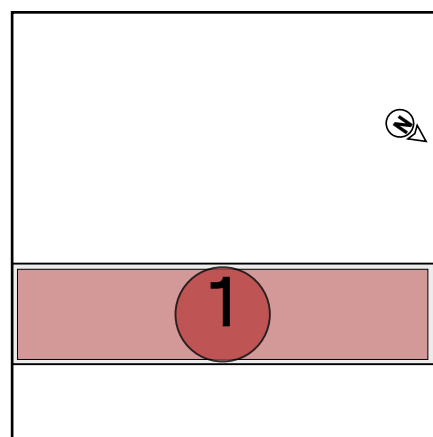
[MiniRail MK2](#)

Module

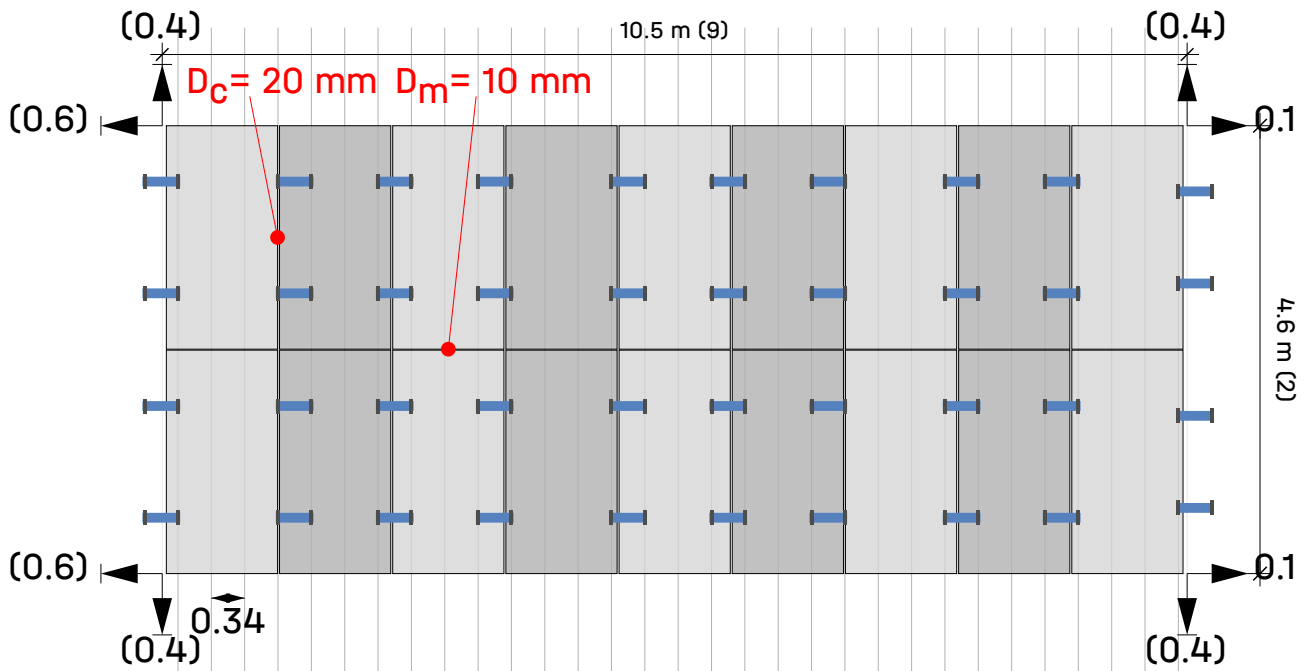
36(22.32 kWp) x AIKO-
A620-MAH72Mw
(2278×1134×35)

Row spacing

2.29 m



Area 2 | Module array 1 | Module block 1

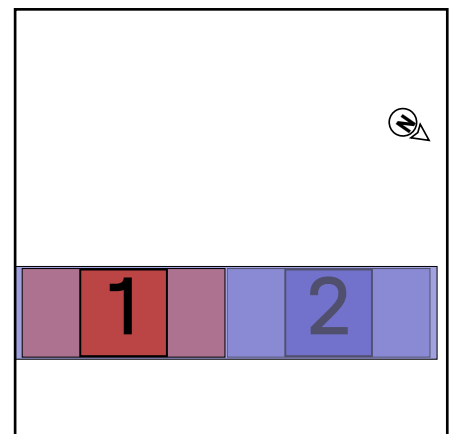


Roof (2) Module array (1) Module block 1

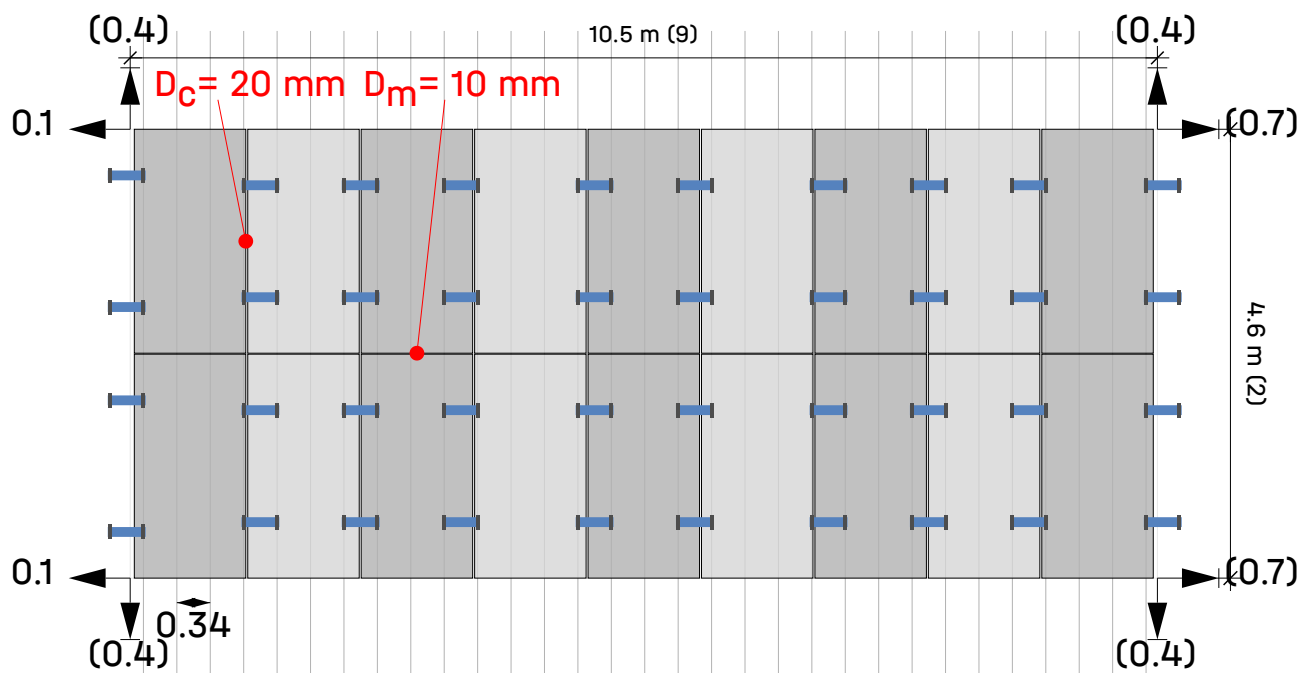
Modules $9 \times 2 = 18$

Legend

- Fastener
- ➔ Dist. to neighbour module block/array [m]
- D_c Distance for clamping between modules
- D_m Distance between modules



Area 2 | Module array 1 | Module block 2

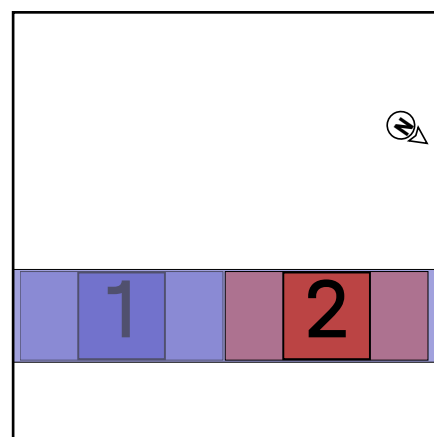


Roof ② Module array ① Module block 2

Modules $9 \times 2 = 18$

Legend

- Fastener
- ➔ Dist. to neighbour module block/array [m]
- D_c Distance for clamping between modules
- D_m Distance between modules



Results | Area 2

Roof	System	Module	Height	Quantity	Total power
<u>Area 2</u>  Trapezoidal	<u>MiniRail MK2</u>	AIKO-A620-MAH72Mw (2278×1134×35) 2,278×1,134×35 mm 620 Wp	6.00 m	36	22.32 kWp

Module

Name	AIKO-A620-MAH72Mw (2278×1134×35)
Manufacturer	Shanghai AIKO Energy Co., Ltd.
Output power	620 Wp
Dimensions	2,278×1,134×35 mm
Weight	28.2 kg

Components

Fastener	Thread-forming metal screw 6.0×25
Base rails	K2 MiniRail MK2

Loads on modules (module dimensioning)

No. Module Array	Array	A-TrA [m ²]	ultimate state [Pa]				Serviceability [Pa]			
			Pressure ⊥	Pressure ∥	Uplift ⊥	Uplift ∥	Pressure ⊥	Pressure ∥	Uplift ⊥	Uplift ∥
1	field area	2.58	857.8	370.3	-495.4	71.0	580.4	254.0	-302.1	71.0
1	ridge	2.58	857.8	370.3	-721.0	71.0	580.4	254.0	-452.5	71.0
1	gableboard	2.58	857.8	370.3	-1,043.3	71.0	580.4	254.0	-667.3	71.0
1	corner region (eave)	2.58	1,051.2	370.3	-1,075.5	71.0	709.3	254.0	-688.8	71.0



Results | Area 2

Utilisation result

No.	roof areas	ultimate limit state	ultimate limit state	Pull Through
Module Array		Rails [%]	screw [%]	utilisation [%]
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1
1	corner region (eave)	52.1	79.5	34.1

No.	roof areas	ultimate limit state	ultimate limit state	Pull Through
Module Array		Rails [%]	screw [%]	utilisation [%]
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1
1	corner region (eave)	52.1	79.5	34.1

No.	roof areas	ultimate limit state	ultimate limit state	Pull Through
Module Array		Rails [%]	screw [%]	utilisation [%]
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1
1	corner region (eave)	52.1	79.5	34.1

No.	roof areas	ultimate limit state	ultimate limit state	Pull Through
Module Array		Rails [%]	screw [%]	utilisation [%]
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1
1	corner region (eave)	52.1	79.5	34.1

Results | Area 2

Note

- The structure was statically verified in accordance with Eurocode 9: Design of aluminium structures (DIN EN 1999-1-1:2021) and offers sufficient load-bearing capacity and stability for the loads specified in the chapter 'Maximum actions on the components'.
- Adjustment factor for wind load regarding service life period, f_W , is according to DIN EN 1991-1-4/ NA, NDP for 4.2 (2P) note 5, table 3
- Adjustment factor for snow load regarding service life period, f_S , is according to DIN EN 1991-1-3/ annex D, table 4
- The structural design complies with BS EN 1990 - Basis of Structural Design.
- Snow loads are determined in accordance with National Annex BS NA EN 1991-1-3 (2018) - UK National Annex to EC1 - Action on structures - general actions - snow loads.
- Wind loads are determined in accordance with National Annex BS NA EN 1991-1-4 - UK National Annex to EC1 - Action on structures, general actions - wind actions.
- Service life is recognised according to 'Eurocode EN 1991 - Action on structures, Snow loads' and 'Eurocode EN 1991 - Actions on structures, Wind actions'. Subject to the Building Regulations and for security-relevant reasons the installation has to be dismantled at the end of its service life.
- Failure consequence class is considered according to 'Eurocode EN 1990 - Basis of structural design'.
- The person responsible for the execution of the work must check the load assumptions made with the conditions on site. If deviations are found, the person who prepared the static calculation must be consulted immediately.
- Please note our General Terms and Conditions of Use (TCU-E) in their currently valid version, available at: <https://k2-systems.com/en/digital-services/general-terms-and-conditions-of-use-for-entrepreneurs-tcu-e/>

Please note in particular § 1, Special provisions for K2 Base, clause 3 ("Technical and specialist requirements on the Customer's premises."), § 6 ("Limitation of warranty") and § 7 ("Limitation of liability").

- As the crest distance and the crest width do not correspond to the hole pattern of the MiniRail, a minimal crest width of 29.5 mm is recommended for crest spacing so that the EPDM tape can seal properly.



Structural analysis report | Area 2

General information

Name	Hatfield Perveral Village Hall
Mounting System	MiniRail MK2
Author	James Fordham

Location information

Address	4 Maldon Rd, Hatfield Peverel, Chelmsford CM3 2HW, UK
Ground elevation	42.20 m

Roof information

Building height	6.00 m
Roof type	Gable roof
Roof pitch	40°
Roof covering	Trapezoidal
Min. roof edge distance	0.00 m
Crest distance	340.0 mm
Crest width	22.0 mm
Crest height	40.0 mm
Roof material	Steel
Sheet quality	S235
Sheet thickness	0.500 mm

Loads

Design method	BS EN
Failure consequence class (CC)	CC2
Design working life	25 years
Terrain category	Country Terrain
Distance to shoreline	7.70 km

Wind load

Velocity pressure, 50 years	$q_{p,50} = 0.700 \text{ kN/m}^2$
Adjustment factor for service life	$f_w = 0.921$
Velocity pressure, 25 years	$q_{p,25} = 0.645 \text{ kN/m}^2$

Structural analysis report | Area 2

Roof areas

No. Module Array	Array	load impact area [m ²]	maxCpe	minCpe	wind pressure [kN/m ²]	wind suction [kN/m ²]
1	field area	2.58	0.600	-0.600	0.387	-0.387
1	ridge	2.58	0.600	-0.833	0.387	-0.537
1	gableboard	2.58	0.600	-1.167	0.387	-0.752
1	corner region (eave)	2.58	0.800	-1.200	0.516	-0.773

Snow load

Snow load zone	3
Snow guard	No
Snow load on ground level	$s_k = 0.500 \text{ kN/m}^2$
Shape Coefficient for Snow	$\mu_i = 0.800$
Factor for roof pitch	$d_i = 0.766$
Snow load on roof, 50 year	$s_{i,50} = 0.306 \text{ kN/m}^2$
Adjustment factor for service life	$f_s = 0.929$
Snow load on roof, 25 years	$s_{i,25} = 0.285 \text{ kN/m}^2$

Dead Load

Weight of module	$G_M = 28.2 \text{ kg}$
Weight of mounting system per module	$= 0.9 \text{ kg}$
Module area	$A_M = 2.58 \text{ m}^2$
Dead weight of module per m ²	$= 10.92 \text{ kg/m}^2$
Dead weight of mounting system per m ²	$= 0.35 \text{ kg/m}^2$
Total Dead Load (excl. ballast) per m ²	$= 0.11 \text{ kN/m}^2$



Structural analysis report | Area 2

Load Combinations

Ultimate limit state

Partial safety factor unfavourable permanent load	$\gamma_{G,sup} = 1.35$
Partial safety factor favourable permanent load	$\gamma_{G,inf} = 1.00$
Partial safety factor destabilising permanent load	$\gamma_{G,dst} = 1.10$
Partial safety factor stabilising permanent load	$\gamma_{G,stab} = 0.90$
Partial safety factor variable loads	$\gamma_Q = 1.50$
Combination coefficient with regards to wind	$\psi_{0,W} = 0.60$
Combination coefficient with regards to Snow	$\psi_{0,S} = 0.50$
Importance factor permanent	$\kappa_{Fl,G} = 1.00$
Importance factor variable	$\kappa_{Fl,Q} = 1.00$
Characteristic dead weight	G_k
Characteristic snow load on the roof	$S_{i,n}$
Characteristic wind load	W_k

Load case combination 01	$LCC\ 01_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * S_{i,n}$
Load case combination 02	$LCC\ 02_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * W_{k,Pressure}$
Load case combination 03	$LCC\ 03_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * (W_{k,Pressure} + \psi_{0,S} * S_{i,n})$
Load case combination 04	$LCC\ 04_{uls} = \gamma_{G,sup} * \kappa_{Fl,G} * G_k + \gamma_Q * \kappa_{Fl,Q} * (S_{i,n} + \psi_{0,W} * W_{k,Pressure})$
Load case combination 06	$LCC\ 06_{uls} = \gamma_{G,inf} * G_k + \gamma_Q * \kappa_{Fl,Q} * W_{k,Suction}$

Serviceability limit state

Combination coefficient with regards to wind	$\psi_{0,W} = 0.60$
Combination coefficient with regards to Snow	$\psi_{0,S} = 0.50$

Load case combination 01	$LCC\ 01_{sls} = G_k + S_{i,n}$
Load case combination 02	$LCC\ 02_{sls} = G_k + W_{k,Pressure}$
Load case combination 03	$LCC\ 03_{sls} = G_k + W_{k,Pressure} + \psi_{0,S} * S_{i,n}$
Load case combination 04	$LCC\ 04_{sls} = G_k + S_{i,n} + \psi_{0,W} * W_{k,Pressure}$
Load case combination 06	$LCC\ 06_{sls} = G_k + W_{k,Suction}$

Maximum load on modules (Mounting system dimensioning)

No. Module Array	Array	A-TrA [m ²]	ultimate state [kN/m ²]				Serviceability [kN/m ²]			
			Pressure ⊥	Pressure 	Uplift ⊥	Uplift 	Pressure ⊥	Pressure 	Uplift ⊥	Uplift
1	field area	2.58	0.858	0.370	-0.495	0.071	0.580	0.254	-0.302	0.071
1	ridge	2.58	0.858	0.370	-0.721	0.071	0.580	0.254	-0.452	0.071
1	gableboard	2.58	0.858	0.370	-1.043	0.071	0.580	0.254	-0.667	0.071
1	corner region (eave)	2.58	1.051	0.370	-1.075	0.071	0.709	0.254	-0.689	0.071



Structural analysis report | Area 2

Resistance Values of Components

Base Rails

Base Rails	A [cm ²]	I _y [cm ⁴]	I _z [cm ⁴]	W _y [cm ³]	W _z [cm ³]	F _{p,Rd} [kN]
K2 MiniRail MK2	2.710	2.15	9.27	1.37	2.17	1.42

F_{p,Rd} Pull-through resistance

Module clamp

module clamp	R _{D,Uplift,Perpendicular} [kN]	R _{D,Pressure,Perpendicular} [kN]	R _{D,Pressure,Parallel} [kN]
OneMid Black Set 30-42	5.00	-	1.04
K2 Clamp EC 25-40 Black	0.00	-	0.00

Fastener

Fastener	R _{D,Uplift,Perpendicular} [kN]	R _{D,Pressure,Perpendicular} [kN]	R _{D,Pressure,Parallel} [kN]
Thread-forming metal screw 6.0×25	0.65	0.00	0.62

Utilisation result

No.	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
Module Array				
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1
1	corner region (eave)	52.1	79.5	34.1
No.	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
Module Array				
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1
1	corner region (eave)	52.1	79.5	34.1
No.	roof areas	ultimate limit state Rails [%]	ultimate limit state screw [%]	Pull Through utilisation [%]
Module Array				
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1



Structural analysis report | Area 2

1	corner region (eave)	52.1	79.5	34.1
No.	roof areas	ultimate limit state	ultimate limit state	Pull Through
Module Array		Rails [%]	screw [%]	utilisation [%]
1	field area	44.2	39.4	15.7
1	ridge	44.2	55.0	22.9
1	gableboard	45.8	77.3	33.1
1	corner region (eave)	52.1	79.5	34.1



Thank you for choosing a K2 mounting system.

Systems from K2 Systems are quick and easy to install.

We hope these instructions have helped.

Please contact us with any questions or suggestions for improvement.

Our contact data:

k2-systems.com/en/contact

Our General Terms of Business apply. Please refer to k2-systems.com

K2 Solar Mounting Solutions Ltd

Unit 46 Easter Park

Benyon Road

Aldermaston, RG7 2PQ

Great Britain

+44 1189 701280

info@k2-systems.uk.com

k2-systems.com/en

HATFIELD PERVERAL VILLAGE HALL
Maldon Road, Hatfield Peverel, CM3 2HW, United Kingdom | 17 Oct 2025



SYSTEM OVERVIEW



72 PV modules



1 Inverter



36 Optimizers

FINANCIAL OVERVIEW

Net Payments	Lifetime Bill Savings (NPV)	System Profit (NPV)	Internal Return Rate (IRR)	Payback Period
£ 41,080	£ 339,998	£ 298,918	25.03 %	4.3 years

SIMULATION RESULTS



Installed DC Power
44.64 kWp



Max Achieved AC Power
30.00 kW



Annual Usable Solar Production
43.34 MWh



Annual CO₂ Emission Saved
8.38 t



Annual Equivalent Trees Planted
385



Max Achieved DC Power
37.23 kW



DC/AC Oversizing
124 %



Max Active AC Power
30.00 kW



Performance Ratio
91 %



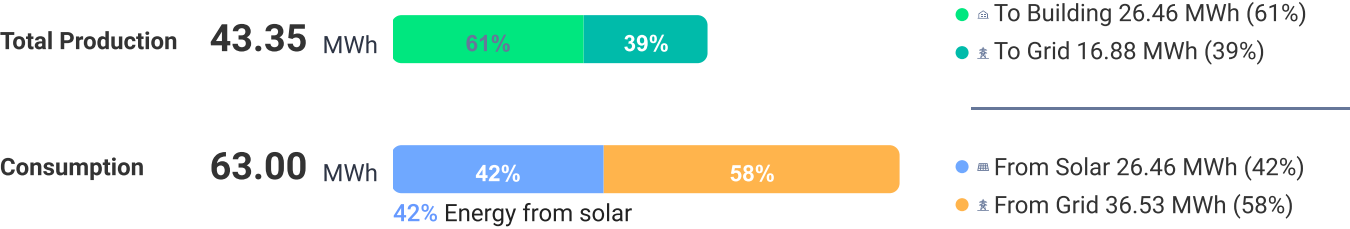
Annual Specific Production
971 kWh/kWp

HATFIELD PERVERAL VILLAGE HALL

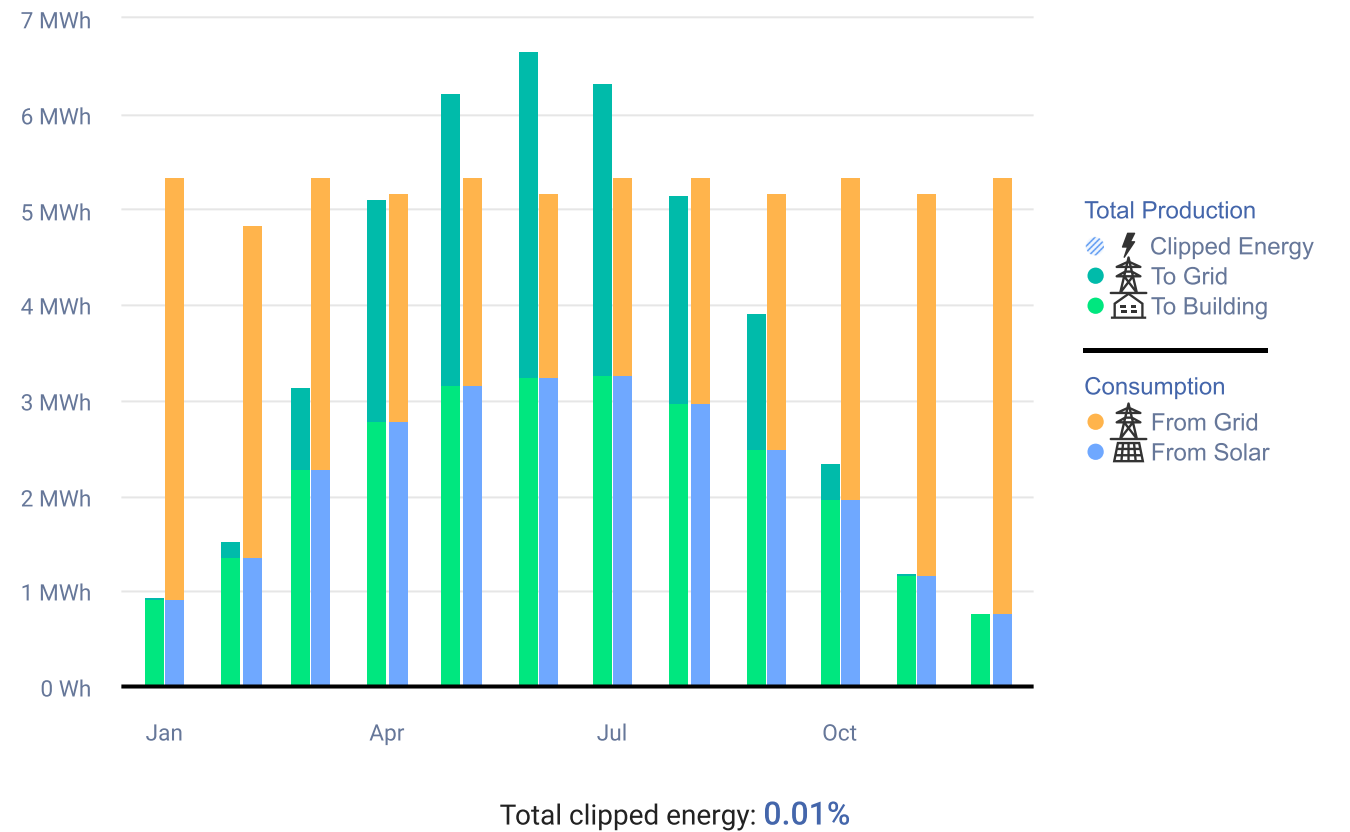
Maldon Road, Hatfield Peverel, CM3 2HW, United Kingdom | 17 Oct 2025



ANNUAL CONSUMPTION AND PRODUCTION RESULTS



ESTIMATED MONTHLY ENERGY



HATFIELD PERVERAL VILLAGE HALL

Maldon Road, Hatfield Peverel, CM3 2HW, United Kingdom | 17 Oct 2025



PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
36	AIKO, AIKO-A620-MAH72Mw (user-defined)	22.3 kWp			237°	21°
36	AIKO, AIKO-A620-MAH72Mw (user-defined)	22.3 kWp			57°	21°
Total: 72		44.6 kWp				

ESTIMATED BILL SAVINGS YEAR 1

Avg. Monthly			
Current Monthly Bill	Monthly Bill with SolarEdge	Net Bill Monthly Savings	Bill Offset
£ 1,229.58	£ 477.68	£ 751.89	61.15 %
Estimated Net Lifetime Bill Savings			
£ 339,998			
Utility Provider: UK provider Utility Rate: HPVH			
Export Rate: 15p export (0.15 £/kWh)			

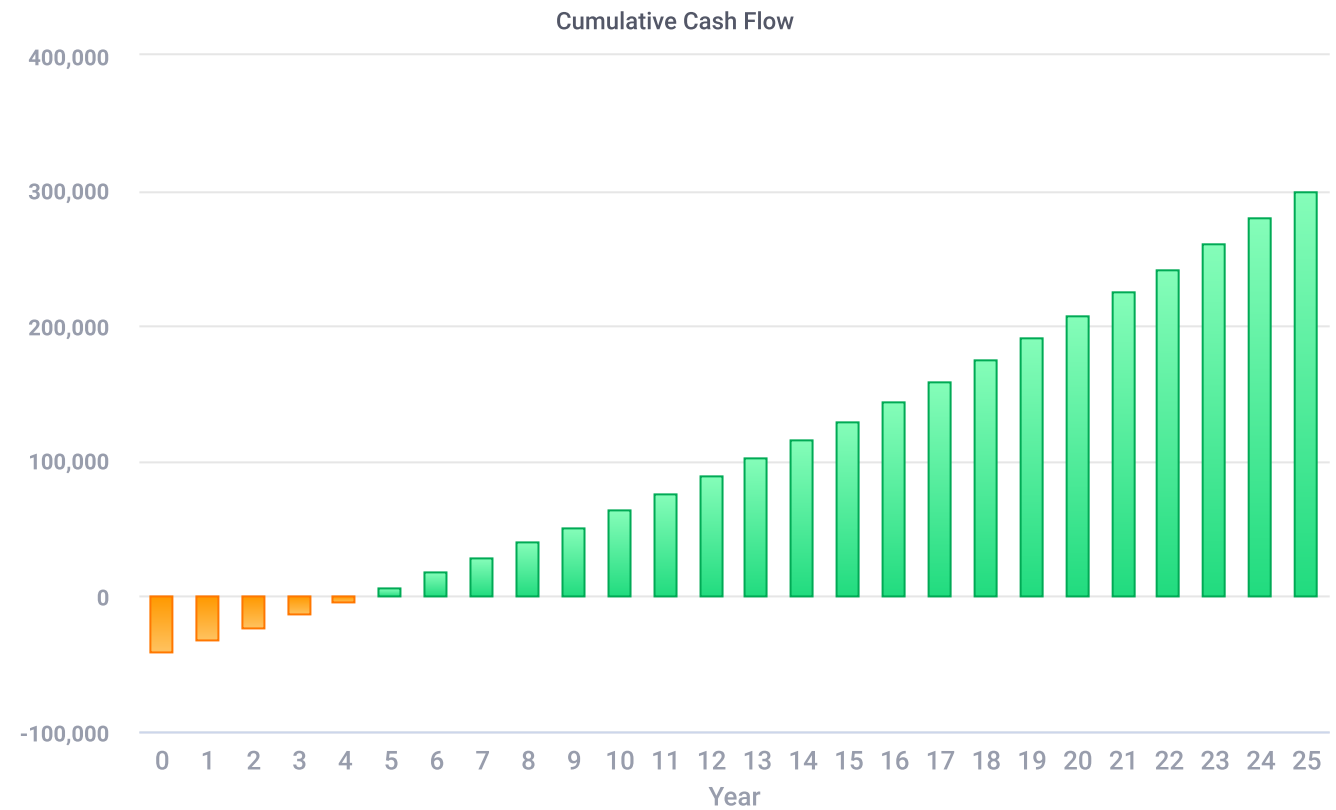
HATFIELD PERVERAL VILLAGE HALL

Maldon Road, Hatfield Peverel, CM3 2HW, United Kingdom | 17 Oct 2025



DETAILED FINANCIAL ANALYSIS

System Price	Maintenance Cost (NPV)	Returns from Incentives (NPV)	Net Payments	Lifetime Bill Savings (NPV)
£ 41,080	£ N/A	£ N/A	£ 41,080	£ 339,998
System Profit (NPV)	Internal Return Rate (IRR)	Return Of Investment (ROI)	Levelized Cost Of Energy (LCOE)	Payback Period
£ 298,918	25.03 %	727.65 %	£/kWh 0.039	4.3 years



YEARLY CASH FLOW

# Year	System Price	Net Bill Savings	Annual Cash Flow	Cumulative Cash Flow
0	£ -41,080.00	£ 0.00	£ -41,080.00	£ -41,080.00
1		£ 9,022.69	£ 9,022.69	£ -32,057.31

HATFIELD PERVERAL VILLAGE HALL
Maldon Road, Hatfield Peverel, CM3 2HW, United Kingdom | 17 Oct 2025



YEARLY CASH FLOW (CONTINUED)

# Year	System Price	Net Bill Savings	Annual Cash Flow	Cumulative Cash Flow
2		£ 9,315.98	£ 9,315.98	£ -22,741.33
3		£ 9,618.80	£ 9,618.80	£ -13,122.53
4		£ 9,931.46	£ 9,931.46	£ -3,191.06
5		£ 10,254.29	£ 10,254.29	£ 7,063.23
6		£ 10,587.61	£ 10,587.61	£ 17,650.84
7		£ 10,931.78	£ 10,931.78	£ 28,582.62
8		£ 11,287.13	£ 11,287.13	£ 39,869.75
9		£ 11,654.02	£ 11,654.02	£ 51,523.77
10		£ 12,032.84	£ 12,032.84	£ 63,556.61
11		£ 12,423.98	£ 12,423.98	£ 75,980.59
12		£ 12,827.83	£ 12,827.83	£ 88,808.42
13		£ 13,244.79	£ 13,244.79	£ 102,053.22
14		£ 13,675.31	£ 13,675.31	£ 115,728.53
15		£ 14,119.81	£ 14,119.81	£ 129,848.34
16		£ 14,578.75	£ 14,578.75	£ 144,427.09
17		£ 15,052.60	£ 15,052.60	£ 159,479.69
18		£ 15,541.87	£ 15,541.87	£ 175,021.56
19		£ 16,047.04	£ 16,047.04	£ 191,068.60
20		£ 16,568.65	£ 16,568.65	£ 207,637.25
21		£ 17,107.22	£ 17,107.22	£ 224,744.47
22		£ 17,663.30	£ 17,663.30	£ 242,407.76
23		£ 18,237.46	£ 18,237.46	£ 260,645.22
24		£ 18,830.31	£ 18,830.31	£ 279,475.53
25		£ 19,442.43	£ 19,442.43	£ 298,917.96
Total:		£ 339,997.96	£ 298,917.96	

HATFIELD PERVERAL VILLAGE HALL
Maldon Road, Hatfield Peverel, CM3 2HW, United Kingdom | 17 Oct 2025



BILL OF MATERIALS (BOM)

Items	Part Number	Quantity
 SE30K		1
 S1200		36
 AIKO-A620-MAH72Mw		72
K2 framwork		1
Installation Works Roof		72
Electrical Installation		1
Access equipment		1
Electrical installation kit pv		1
Managment		1

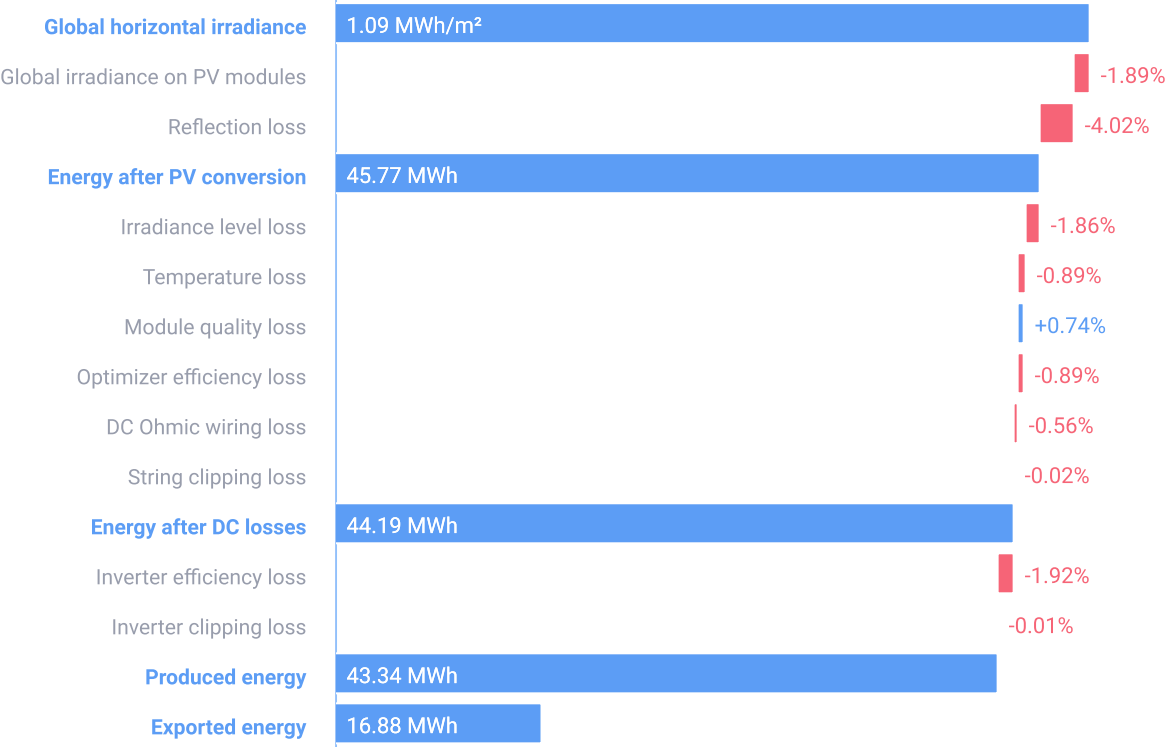
ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
 1 SE30K x 37.23kW 124% Oversizing	2 x strings	 18 x S1200 (2:1)	 36

HATFIELD PERVERAL VILLAGE HALL
Maldon Road, Hatfield Peverel, CM3 2HW, United Kingdom | 17 Oct 2025



SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	BST (London)
Weather station	Andrewsfield (15 km away)
Station altitude	87 m
Station data source	Meteonorm 8.2
Grid	400V L-L, 230V L-N



LOSS FACTORS

Near shading	Enabled
Albedo	0.20
Bi-Facial Albedo	0.30
Soiling/Snow	0%
Incidence angle modifier (IAM), ASHRAE b0 param.	0.05
Thermal loss factor Uc (const) Flush mount	20
Thermal loss factor Uc (const) Tilted	29
LID loss factor	0%
System unavailability	0%