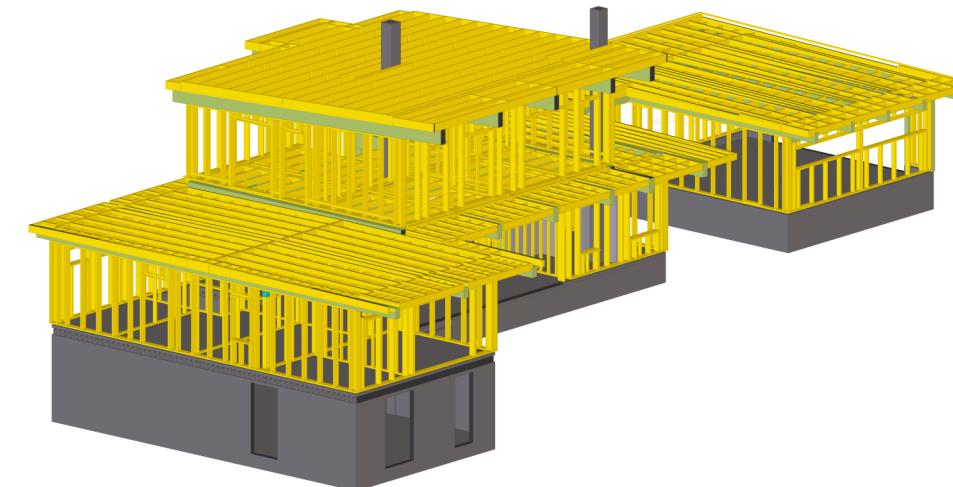
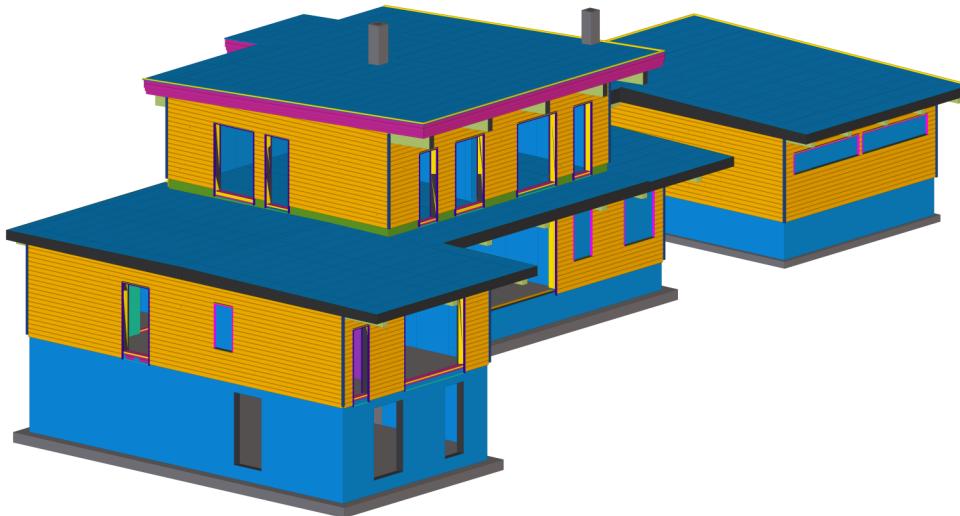


“Main Part Design OÜ” is **architecture** and **engineering EU company** that has many years of experience in the design of **timber frame and modular homes**. We cooperate with various companies, **producers of prefabricated timber frame houses in Estonia**. Main Part Design OÜ offering our customers a full package of services from the architectural design to **assembly management at the site**. All working documentation is prepared according to EU standards and producer wishes. The main export direction of our partners is to **Norway and Sweden**.

OUR MAIN DESIGN SERVICE

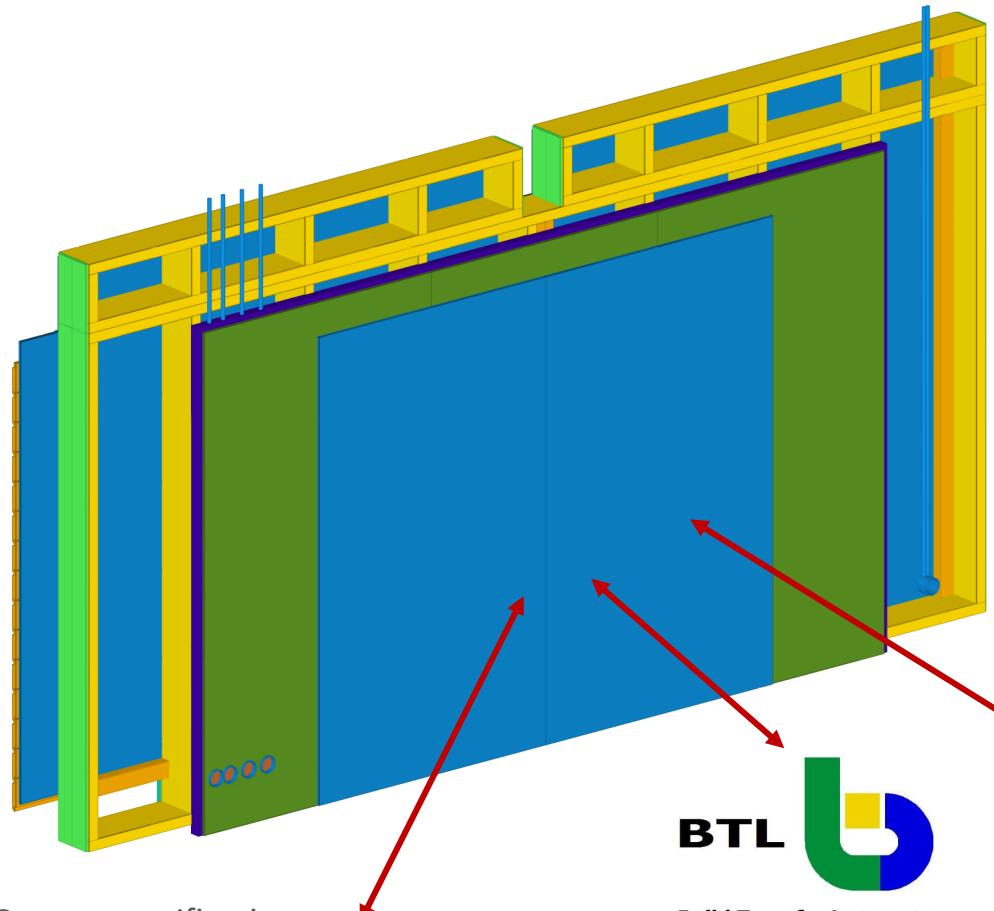
PREFABRICATED CUSTOM-MADE **TIMBER** BUILDINGS, TIMBER FRAME ELEMENTS AND MODULES

- **Architectural and Structural** design,
- Foundation design or Foundation load scheme,
- Building basic structural and **detail calculations**,
- **Timber frame** assembly and parts **drawings** with material specifications,
- Montage drawings and delivery **material specification**.



In our work, we implement the **Eurocodes, TEK10, 17** standards and different simulation tools, which can show building execution phases. The project documentation is made by using **TEKLA Structures** where all documents are bonded together dynamically. For better cooperation with customers, we use **Tekla BIMsight** tool for construction project collaboration. In general, the design of 2 store building **200m²** takes approximately **5-7 weeks** depending on the architecture complexity.

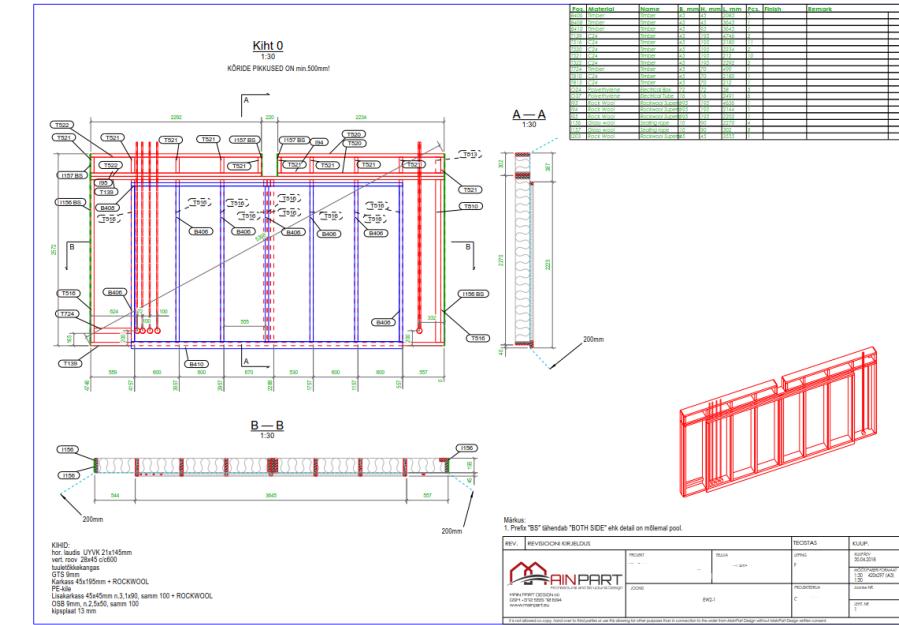
According to required **BIM model** output is possible to generate **panel assembly drawings, specifications** of elements or drawings of **specific parts** at any time. Also we can export **BTL files** or another supported format directly to wood **CNC machines**. For External Wall production we usually generate 4 sheet drawings and for Internal wall 2 -3 drawings, depending on the complexity. In every **drawing** sheet, we show 1 or 2 layers of material that need to be installed at this moment. Excel specification for **production elements** are exported directly from the BIM model and is the essential part of drawings. Additionally, in the corner of each drawing sheet, we duplicate a specification for installed materials. All **project documentation** is dynamically linked with each other and updated if the model changes in BIM.



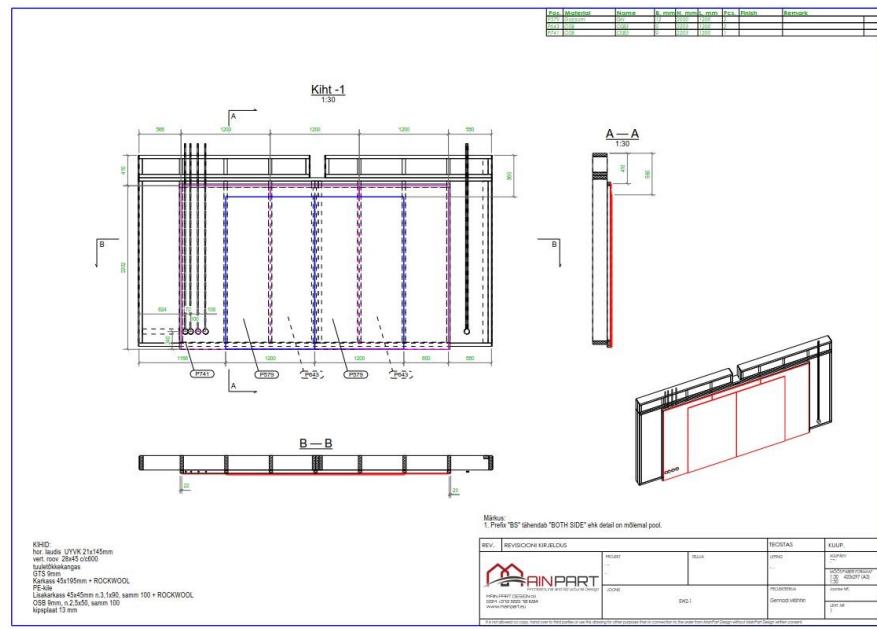
Output specification

EW main frame and subframe

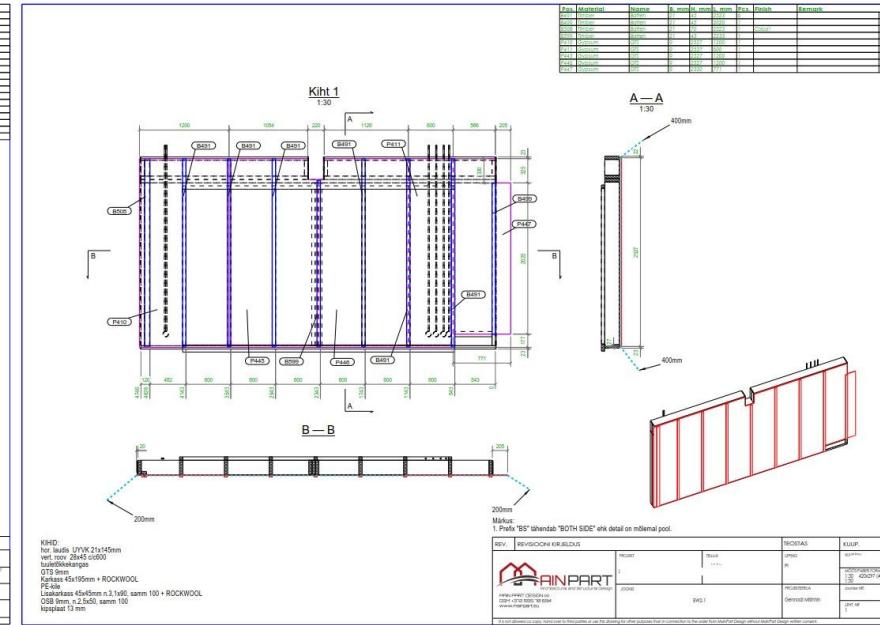
(+ electricity pipes and sockets if needed)



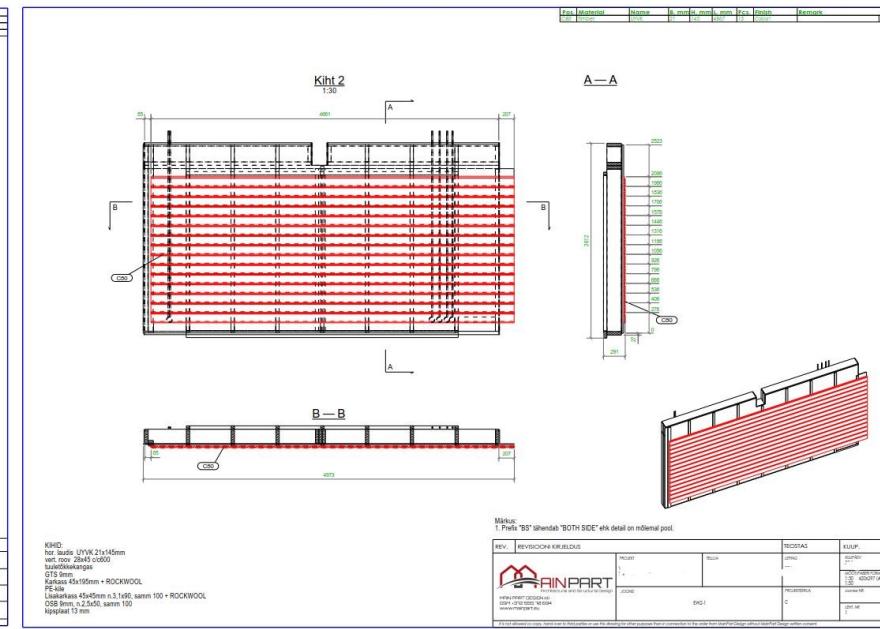
EW internal layer (2 x gypsum)



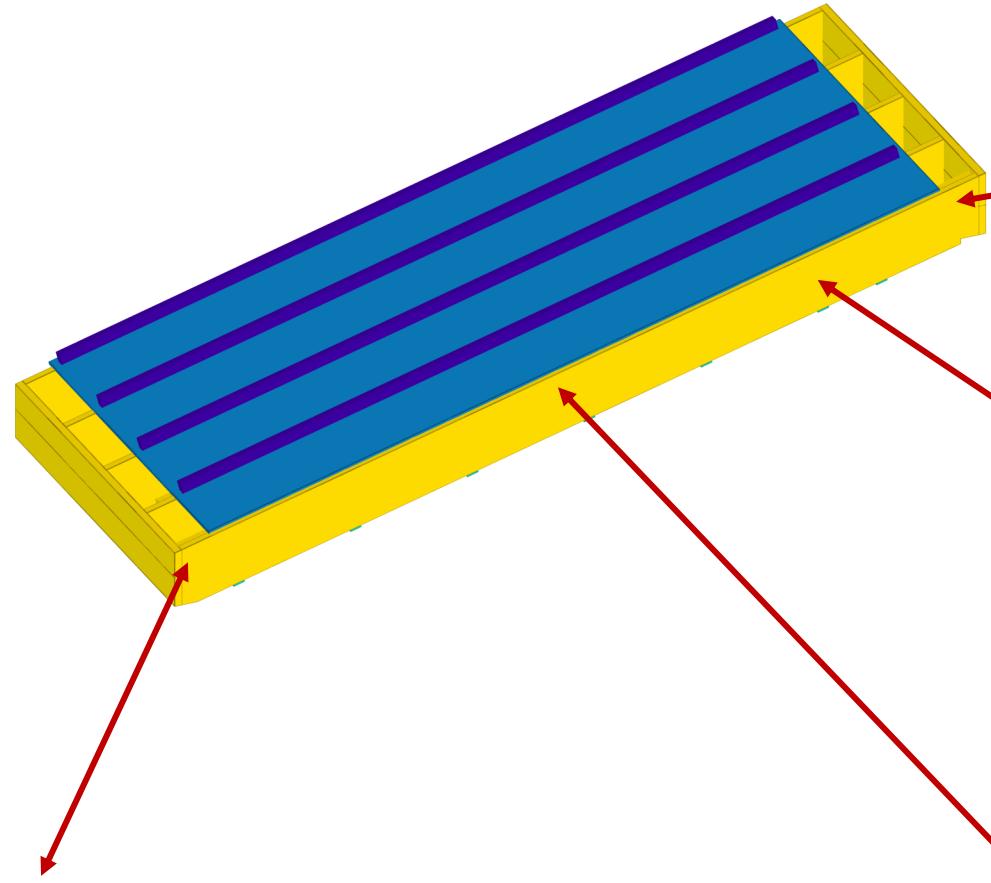
EW outside layer (gypsum and battens)



EW outside layer (cladding)

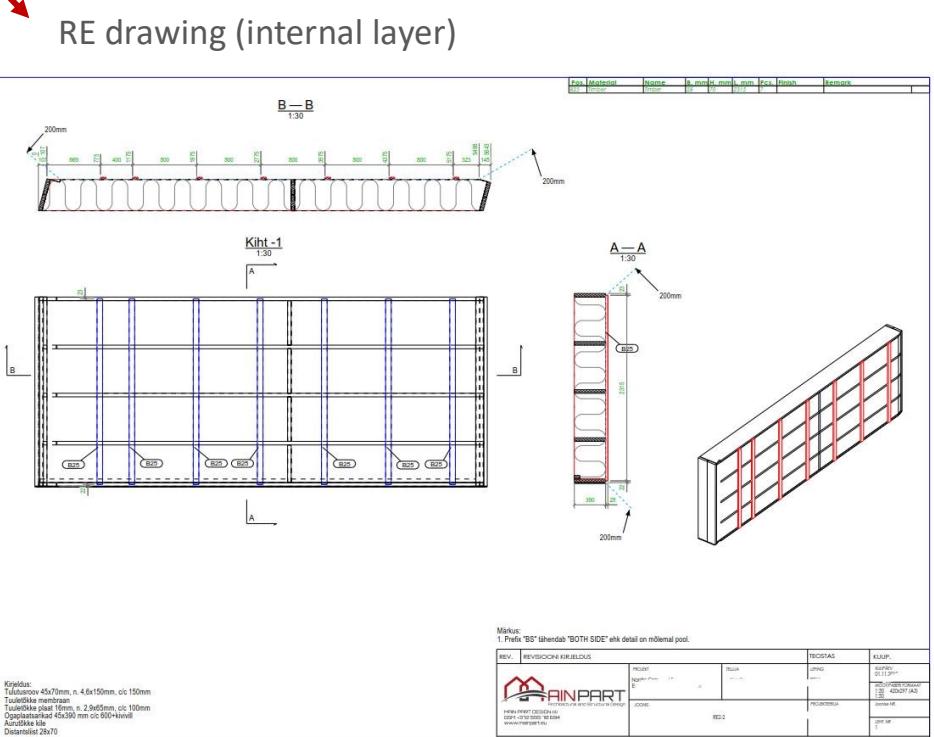


From **BIM model** we can export exact **truss** or **rafter** shape for calculation in RoofCon & TrussCon Software and production parts drawings using **Mitek nailplates**. For **Roof elements assembly drawings** we use same templates like in wall elements drawings. Usually, we generate 2 - 3 drawing sheets depending on multiplicity assembly layers. **Ceiling elements** are not so complicated as roof or walls elements, so usually, we show all production materials in one assembly drawing.



Output specification

OBJECT	PO	MATERIAL/CLASS	NAME	B, mm	H, mm	L, mm	mm	m ²	m ³	AMOUNT	WEIGHT, -	PREFR -	CLAS -	COMME -	PHASE	ELEMENT
RE2-1		B5	C24	2380	718	6643	14.7	0.05	3	4	14	T	5	-1		ELEMENT
RE2-1	B27	Timber	Timber	45	70	2073	14.5	0.03	7	14	T	5	0			ELEMENT
RE2-1	R2	Glass wool	Sealing Rope	10	115	2571	5.6	0.01	1	0	T	5	0			ELEMENT
RE2-1	R10	Timber	Sealing Rope	10	95	2571	33.4	0.03	5	0	T	5	0			ELEMENT
RE2-1	R4	Glass wool	Sealing Rope	10	115	2571	5.6	0.01	1	0	T	5	0			ELEMENT
RE2-1	T1	C24	R1	45	398	6653	33.3	0.57	6	282	T	6	0			ELEMENT
RE2-1	T77	C24	Timber	45	195	2390	4.7	0.04	2	20	T	5	0			ELEMENT
RE2-1	T78	C24	Timber	45	195	2390	2.3	0.01	2	2	T	5	0			ELEMENT
RE2-1	T79	C24	Timber	45	195	665	2.2	0.02	4	8	T	6	0			ELEMENT
RE2-1	T80	C24	Timber	45	195	510	0.01	2	4	T	5	0			ELEMENT	
RE2-1	T81	C24	Timber	45	195	2390	3.1	0.01	4	8	T	5	0			ELEMENT
RE2-1	T193	C24	Timber	45	220	6223	5.2	0.05	1	25	T	6	0			ELEMENT
RE2-1	T194	Timber	Timber	45	70	2390	2.3	0.01	1	3	T	5	0			ELEMENT
RE2-1	T247	C24	Timber	45	195	2390	2.3	0.01	2	3	T	5	0			ELEMENT
RE2-1	T252	C24	P1	45	218	2360	2.4	0.02	1	11	T	5	0			ELEMENT
RE2-1	P29	Agree proted	DWD T-G	16	2325	5000	11.62	1	133	T	11	1				
RE2-1	O5	AEROD	Väliharjutus	100	160	700	0.7	1	133	T	11	0				
RE2-1	I12	Rock Wool	Rock Wool	390				12,000		241	T	11	0			
RE2-1			Tulidekose membraan													
RE2-2			Aurukese kile													
RE2-2			2410	504	5643		1	732								
RE2-2	B5	C24	Timber	45	70	4900	14.7	0.05	3	21	T	14	1			ELEMENT
RE2-2	B25	Timber	Timber	28	70	2310	16.2	0.03	7	14	T	5	-1			ELEMENT
RE2-2	B48	C24	Timber	45	70	2390	14.7	0.05	1	7	T	14	1			ELEMENT
RE2-2	R2	Glass wool	Sealing Rope	10	115	2571	5.6	0.01	1	0	T	5	0			ELEMENT
RE2-2	R10	Timber	Sealing Rope	10	95	2571	33.4	0.03	5	0	T	5	0			ELEMENT
RE2-2	T1	C24	R1	45	398	6653	33.3	0.57	6	282	T	6	0			ELEMENT
RE2-2	T77	C24	Timber	45	195	2390	4.7	0.04	2	20	T	5	0			ELEMENT
RE2-2	T79	C24	Timber	45	195	665	2.2	0.02	4	8	T	6	0			ELEMENT
RE2-2	T193	C24	Timber	45	195	2390	3.1	0.01	4	8	T	5	0			ELEMENT
RE2-2	T194	C24	Timber	45	70	2390	2.3	0.01	1	3	T	5	0			ELEMENT
RE2-2	T247	C24	P1	45	181	2360	2.4	0.02	1	9	T	5	0			ELEMENT
RE2-2	T248	C24	P1	45	218	2360	2.4	0.02	1	11	T	5	0			ELEMENT
RE2-2	P31	Agree proted	DWD T-H	16	2365	5000	11.62	1	136	T	11	1				
RE2-2	I12	Rock Wool	Rock Wool	390				12,000		241	T	11	0			
RE2-2			Tulidekose membraan													
RE2-2			Aurukese kile													
RE2-3			2410	504	5643		1	744								
RE2-3	B5	C24	Timber	45	70	4900	19.6	0.05	4	28	T	14	1			ELEMENT
RE2-3	B20	Timber	Timber	28	70	1343	8.4	0.02	7	7	T	5	-1			ELEMENT
RE2-3	B48	Timber	Timber	28	70	2310	17.1	0.01	1	0	T	5	-1			ELEMENT
RE2-3	R2	Glass wool	Sealing Rope	10	115	2571	5.6	0.01	1	0	T	5	0			ELEMENT
RE2-3	R10	Timber	Sealing Rope	10	95	2571	16.7	0.01	3	0	T	5	0			ELEMENT
RE2-3	T1	C24	R1	45	398	5553	27.8	0.48	6	256	T	5	0			ELEMENT
RE2-3	T77	C24	Timber	45	195	470	7.7	0.04	2	20	T	5	0			ELEMENT
RE2-3	T79	C24	Timber	45	195	555	3.3	0.03	6	12	T	6	0			ELEMENT
RE2-3	T80	C24	Timber	45	195	470	0.9	0.03	1	4	T	5	0			ELEMENT
RE2-3	T193	C24	Timber	45	70	2390	2.3	0.01	1	3	T	5	0			ELEMENT
RE2-3	T194	C24	Timber	45	195	470	0.9	0.01	2	4	T	5	0			ELEMENT
RE2-3	T247	C24	P1	45	181	2360	2.4	0.02	1	9	T	5	0			ELEMENT
RE2-3	T248	C24	P1	45	218	2360	2.4	0.02	1	11	T	5	0			ELEMENT
RE2-3			Tulidekose membraan													
RE2-3			Aurukese kile													
RE2-3			2410	504	5643		1	744								
RE2-3	B5	C24	Timber	45	70	4900	0.9	0.05	4	28	T	14	1			ELEMENT
RE2-3	B155	C24	Timber	45	95	2454	0.9	0.03	12	12	T	5	0			ELEMENT
RE2-3	T192	C24	Timber	45	70	3087	3.1	0.01	1	4	T	5	0			ELEMENT
RE2-3	T194	C24	Timber	45	70	2390	2.3	0.01	1	3	T	5	0			ELEMENT
RE2-3	T247	C24	P2	45	181	2360	2.4	0.02	1	9	T	5	0			ELEMENT



RE drawing (internal layer)



[Sample video 1.](#)

[Sample video 2.](#)

[Sample video 3.](#)



Additionally, we also offer:

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