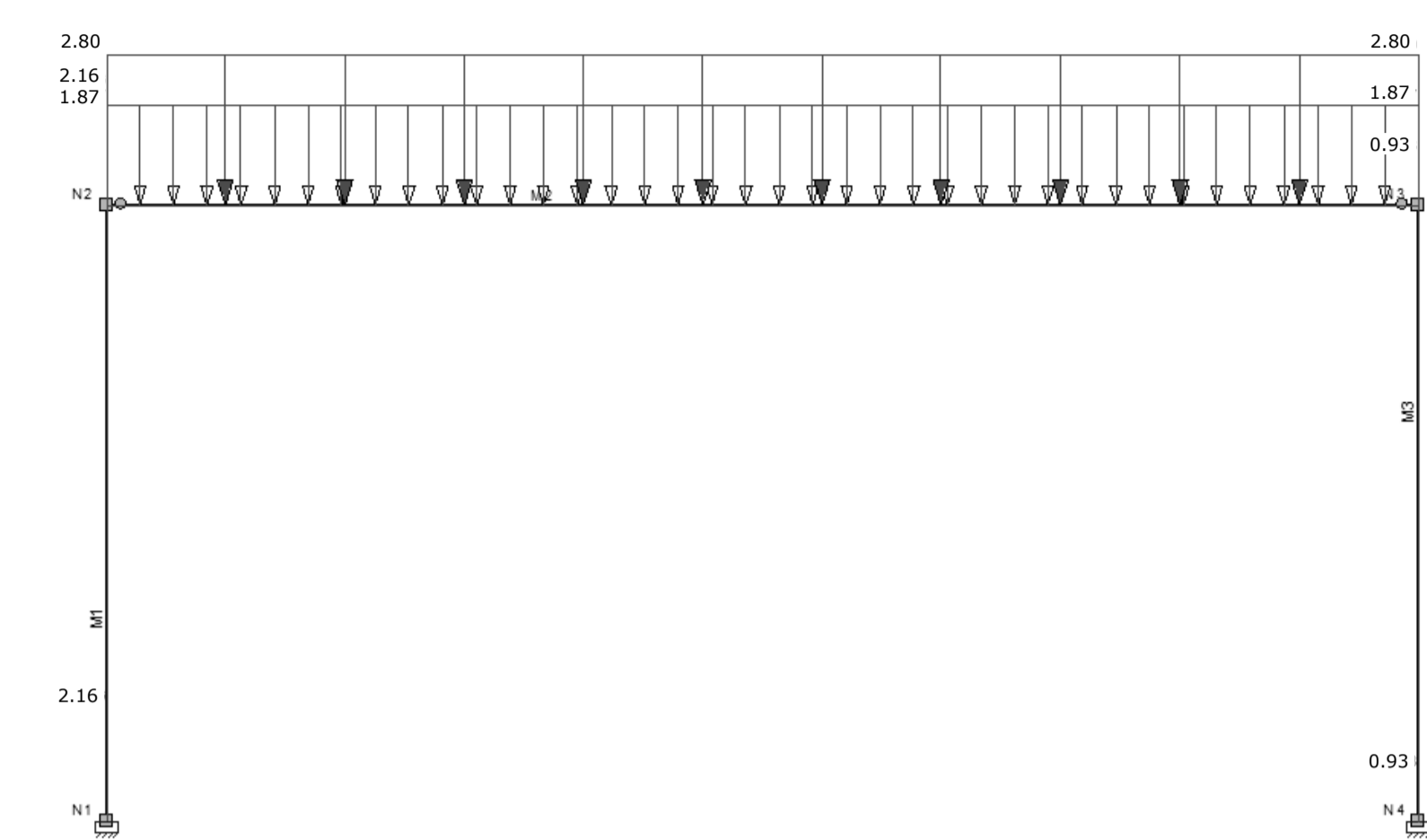
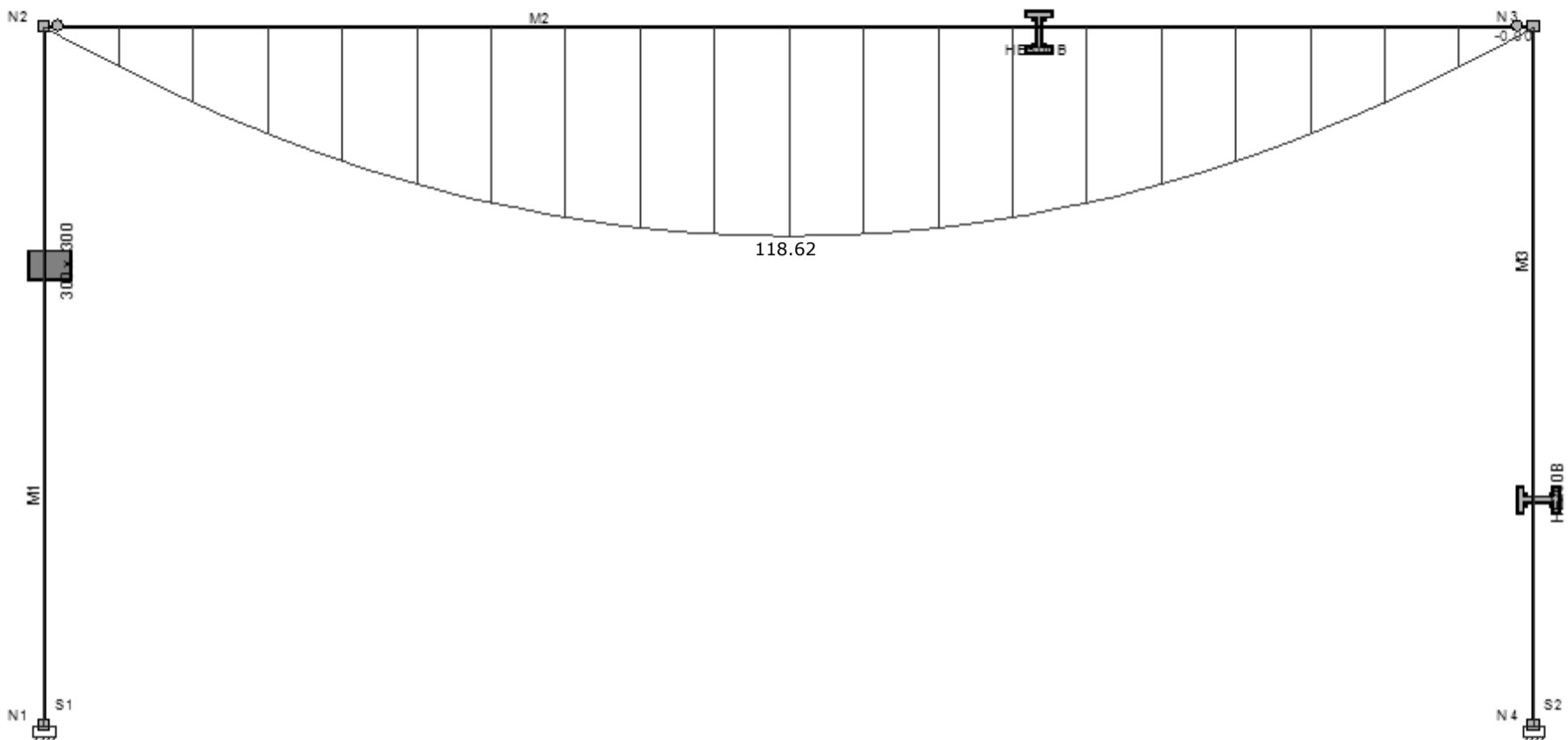


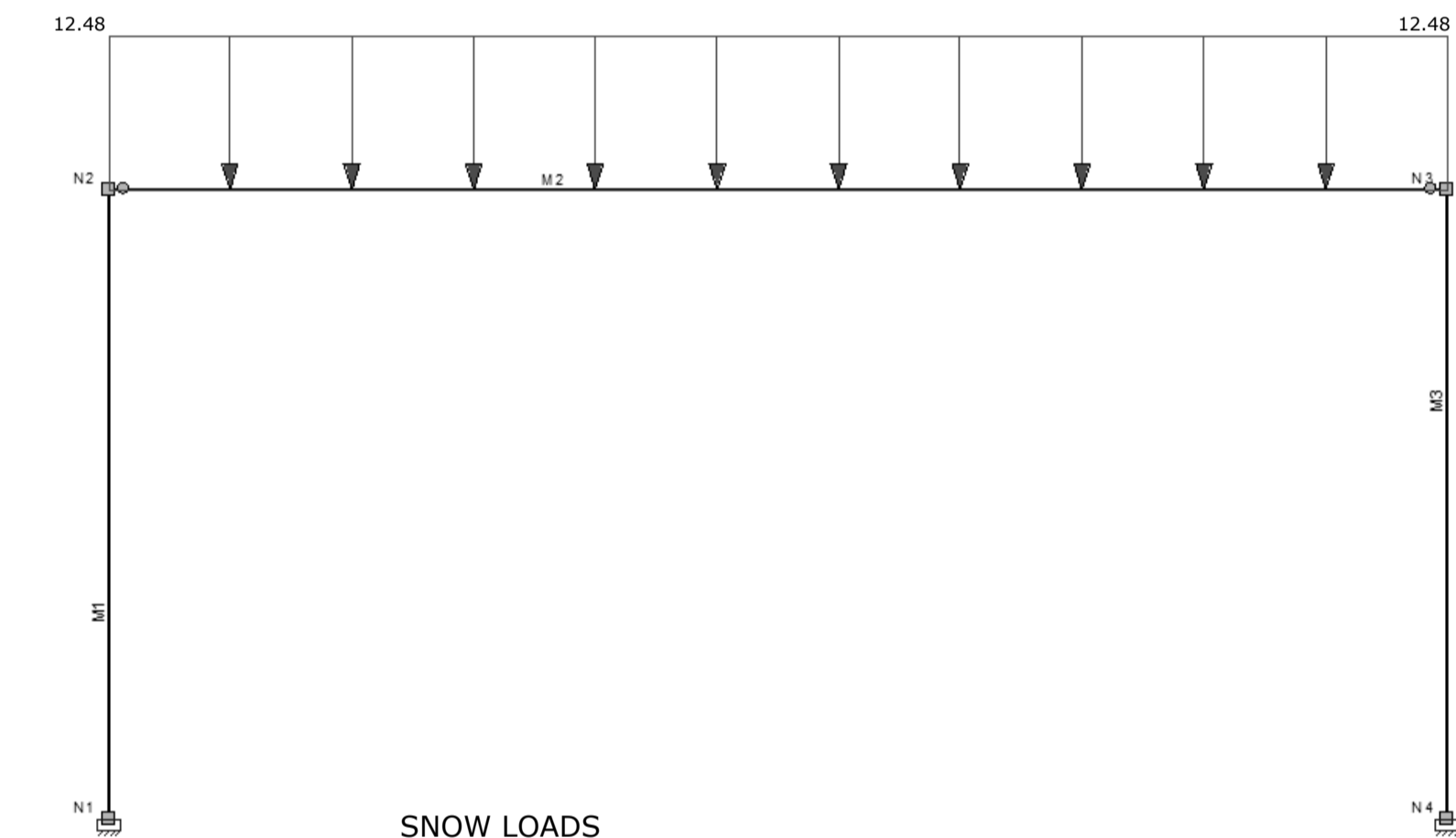
# CALCULATION OF FRAME - STRUCTURAL PART



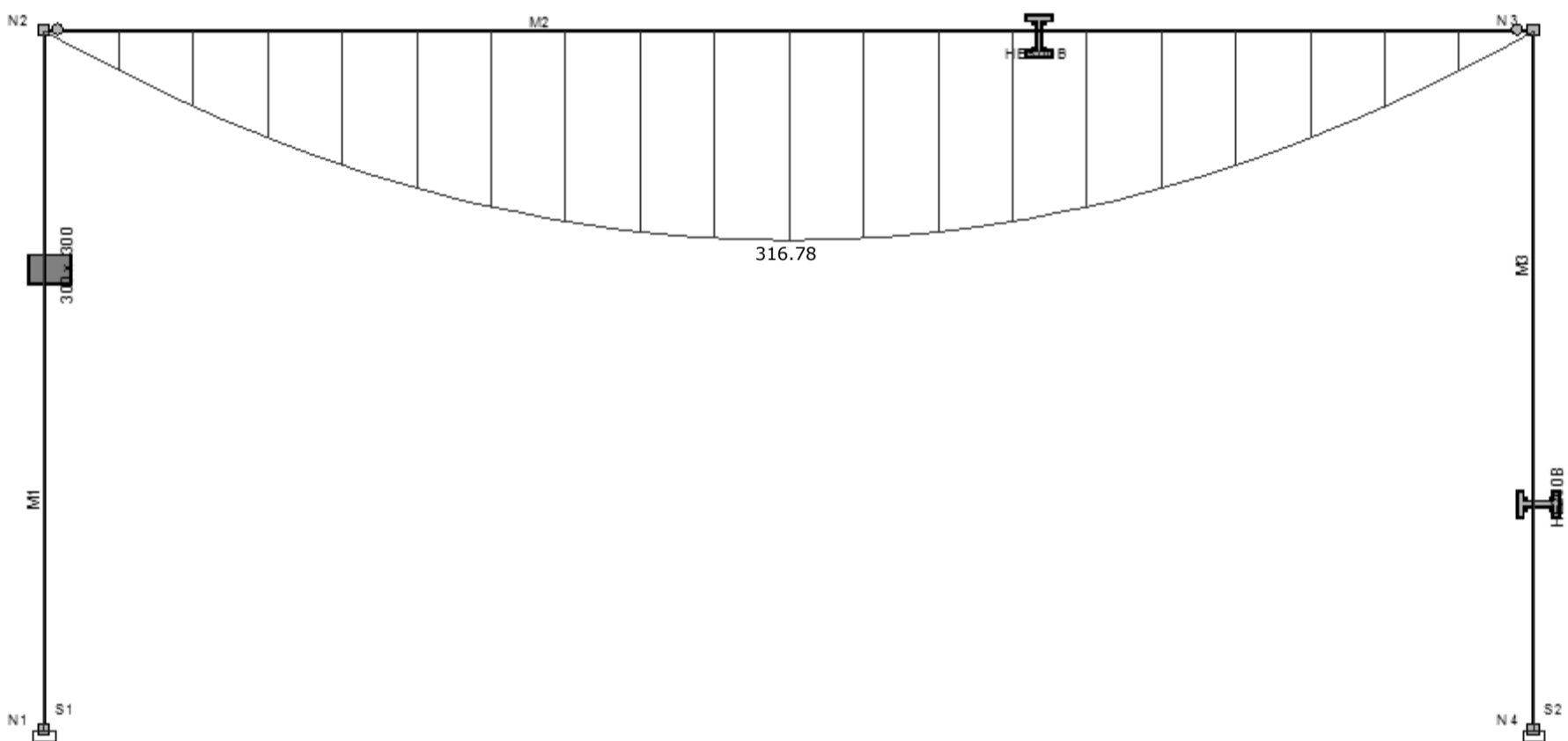
PERMANENT ACTIONS



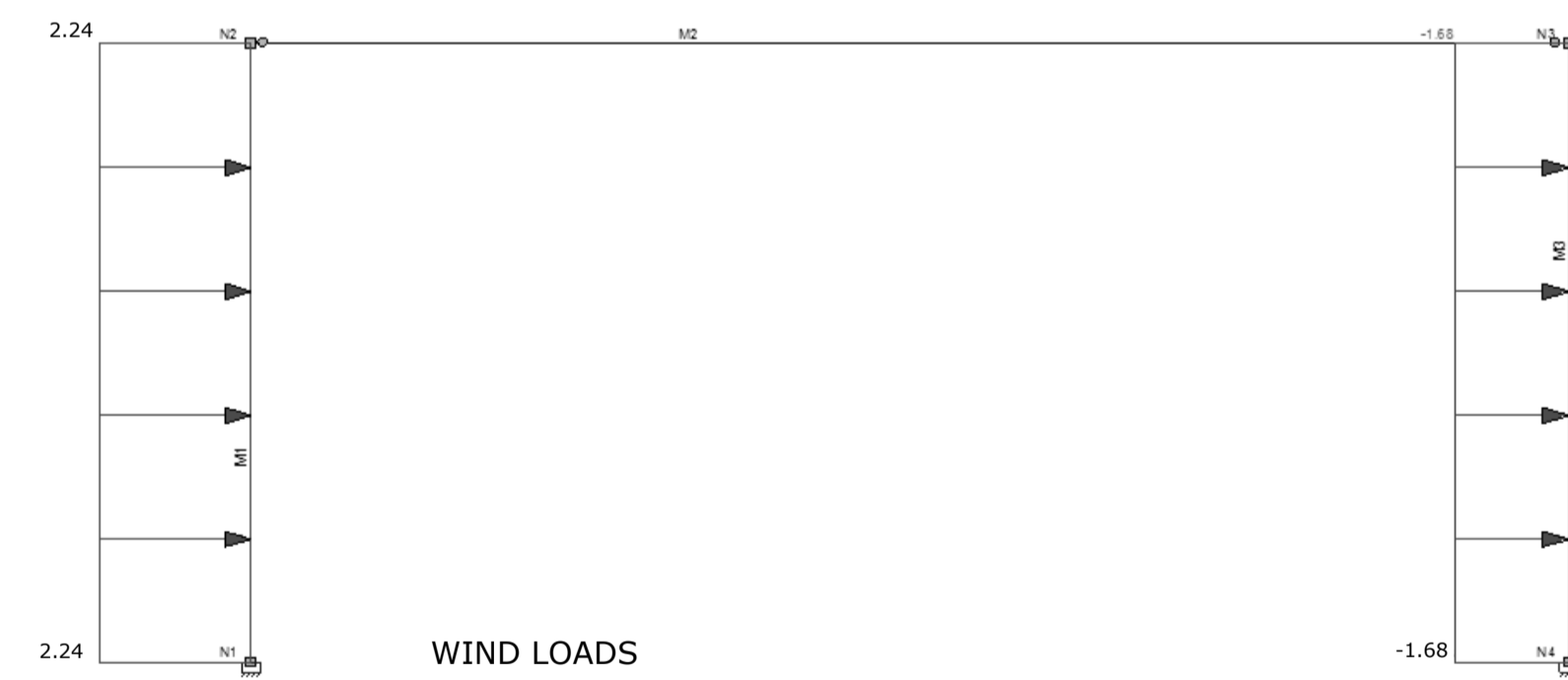
PERMANENT ACTION BENDING MOMENTS



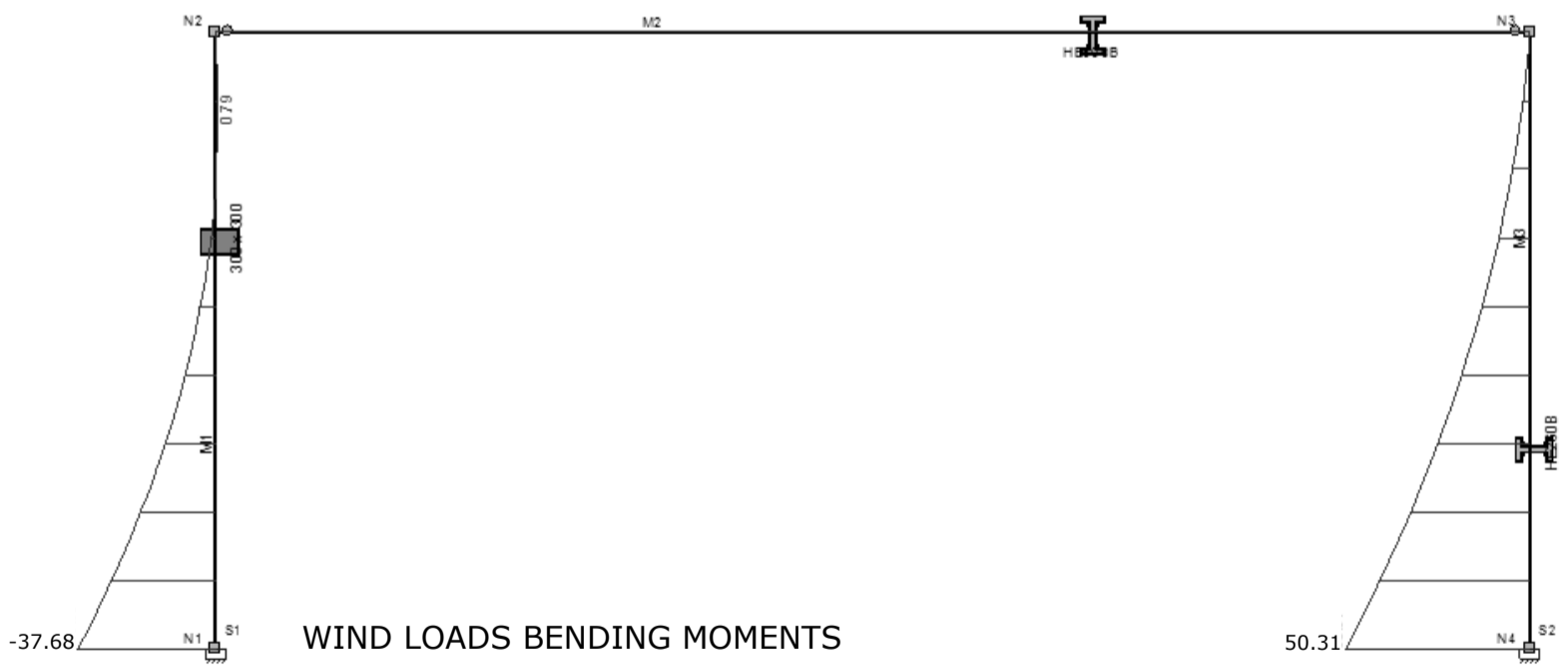
SNOW LOADS



SNOW LOADS BENDING MOMENTS



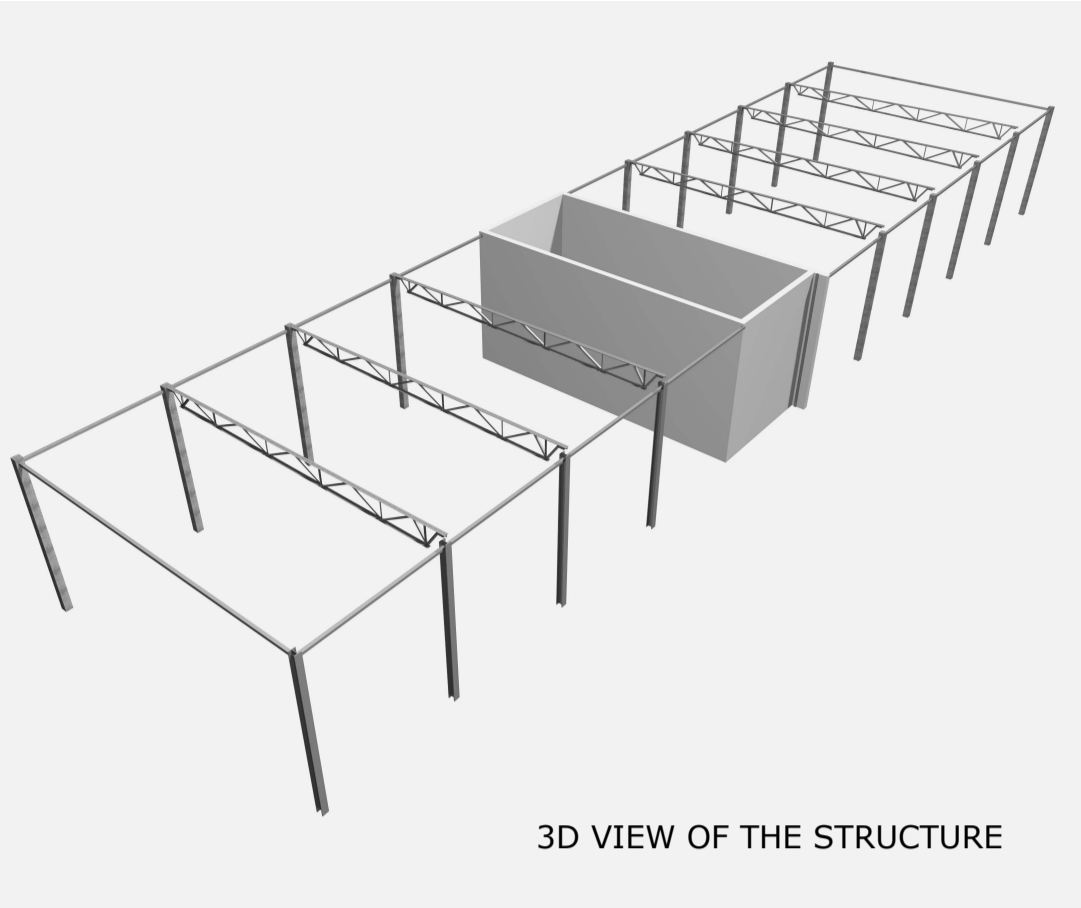
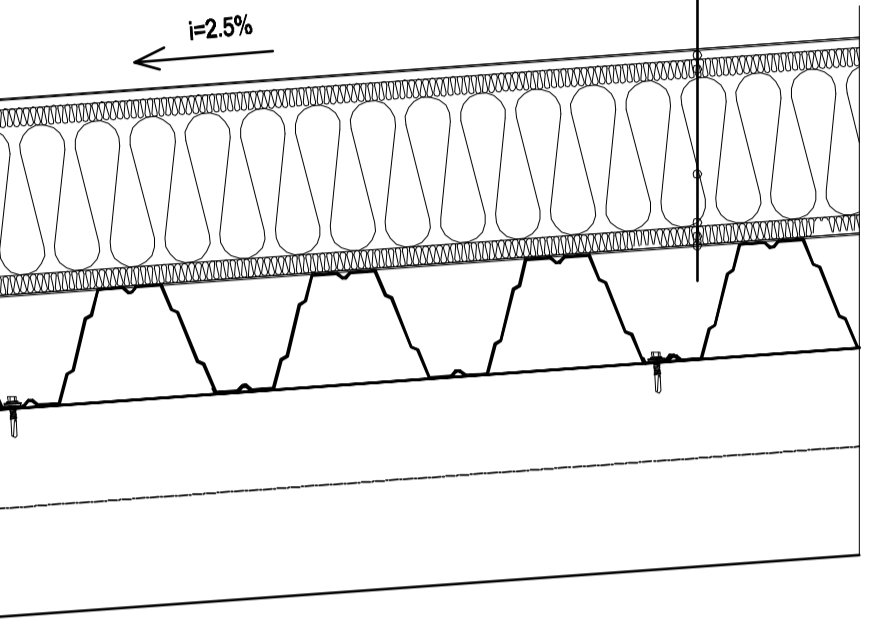
WIND LOADS



WIND LOADS BENDING MOMENTS

## DECK DETAIL

- Two layers roll roofing
- Heat insulation of solid rock wool compressive strength of 80 kPa, thickness 30mm
- Heat insulation of solid rock wool compressive strength of 30 kPa, thickness 130mm
- Vapor barrier stabilized PE film (thickness 200MKM)
- Heat insulation of solid rock wool compressive strength of 80 kPa, thickness 30mm
- Profiled steel sheets

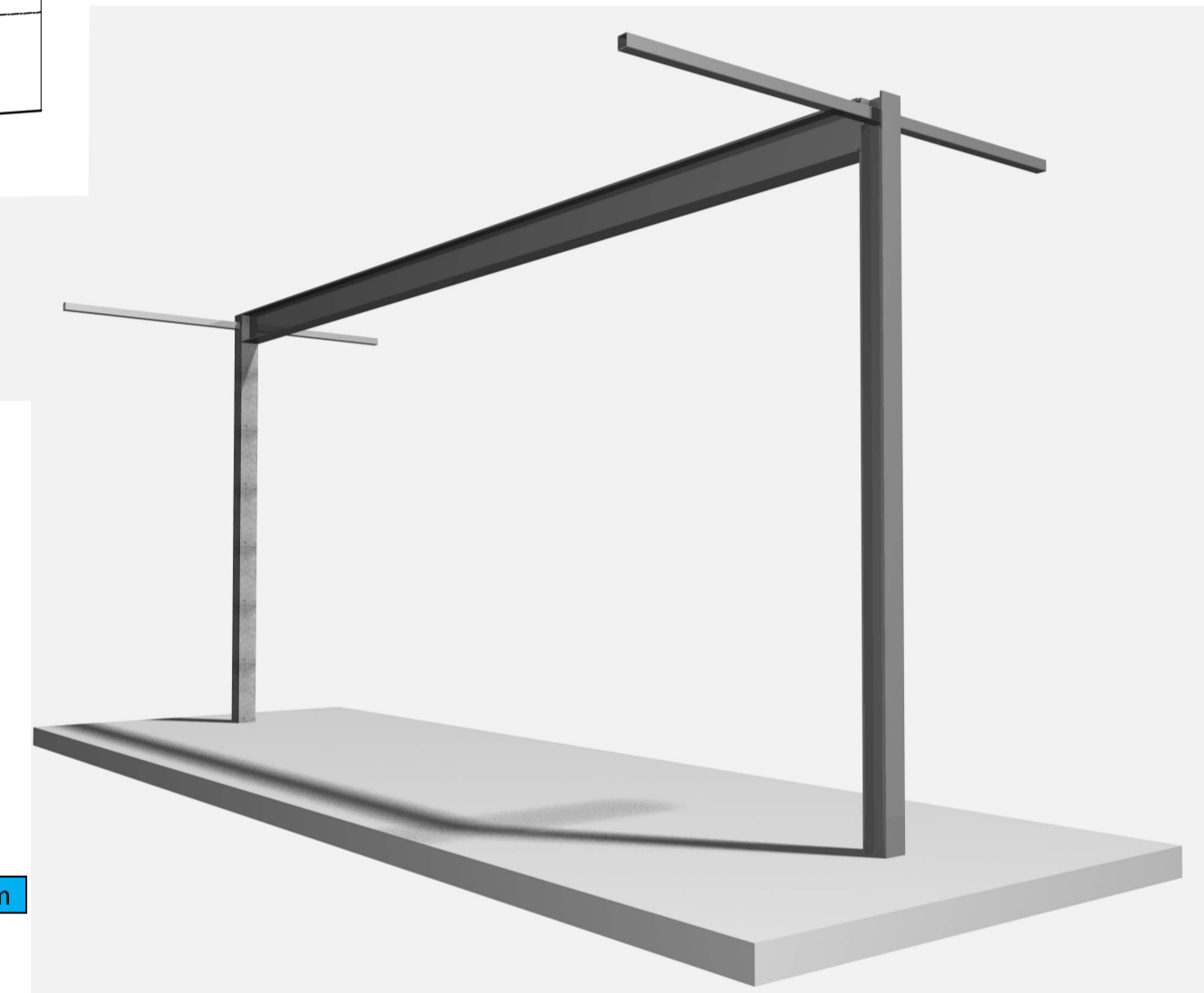


3D VIEW OF THE STRUCTURE

## PERMANENT LOAD DECK TABLE (DEAD LOADS)

DECK		
COMPOSITION	KG/m <sup>2</sup>	
Two layers roll roofing	2x1,9	
Heat insulation of solid rock wool compressive strength of 80 kPa, thickness 30mm	4,5	
Heat insulation of solid rock wool compressive strength of 30 kPa, thickness 130mm	19,5	
Vapor barrier stabilized PE film (thickness 200MKM)	0,00023	
Heat insulation of solid rock wool compressive strength of 80 kPa, thickness 30mm	4,5	
Profiled steel sheets	15,3	
<b>TOTAL</b>	<b>47,60</b>	<b>2,80 KN/m</b>

47,60 x 6 (distance between frames) = 285,60 Kg/m = 2,80 KN//m



3D VIEW OF CALCULATED FRAME

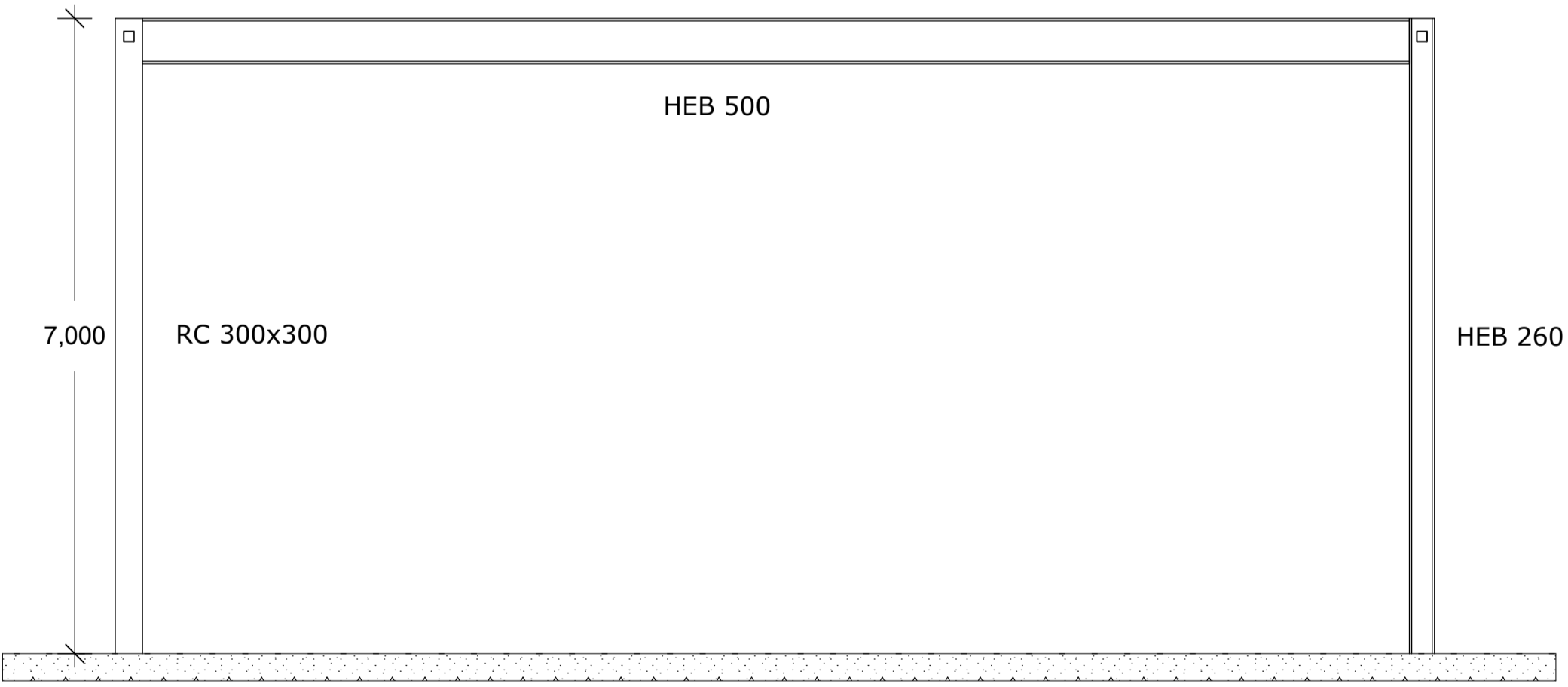
MEMBER	L.Case	Mb	Mmax	X-Mmax	Me	X-M0	T/C	Nxmax	Vb	Vmax	Ve
M1	LC1	-0.00			0.00		C	-47.77	-0.00	0.00	0.00
M1	LC2	-37.68	0.79	5.860	0.00	5.021	-	0.00	13.13	13.13	-1.88
M1	LC3	-0.00			0.00		C	-88.92	-0.00	0.00	0.00
M2	LC1	-0.00	118.62	7.125	0.00		-	0.00	33.30	-33.30	-33.30
M2	LC2	-0.00			0.00		C	-1.88	-0.00	0.00	0.00
M2	LC3	-0.00	316.78	7.125	0.00		-	0.00	88.92	88.92	-88.92
M3	LC1	-0.00			0.00		C	-39.53	-0.00	0.00	0.00
M3	LC2	-0.00			50.31		-	0.00	1.88	13.14	13.14
M3	LC3	-0.00			0.00		C	-88.92	-0.00	0.00	0.00

Member forces table

## LOADS TABLE

	Label	Type	Value begin	Value end	Dist Begin	Dist end	Direction	Member
LC1	LD1	qG	1.00	1.00	0.000	L	Z"	M1
	LD2	qG	1.00	1.00	0.000	L	Z"	M2
	LD3	qG	1.00	1.00	0.000	L	Z"	M3
	LD4	q	2.80	2.80	0.000	L	Z'	M2
LC2	LD5	q	2.24	2.24	0.000	L	Z'	M1
	LD6	q	-1.68	-1.68	0.000	L	Z'	M3
LC3	LD7	q	12.48	12.48	0.000	L	Z'	M2

LC1 (Permanent loads)  
LC2 (Wind load)  
LC3 (Snow load)



FRONTAL VIEW OF CALCULATED FRAME

This structural part consists of the calculation of frame. We are going to dimensioning the beam. After the calculations, I can say the profile HEB 500 will support the expected loads.

	Name and Surname	Signature	Date	VILNIUS GEDIMINAS TECHNICAL UNIVERSITY	
Student	Francisco Marco L3pez			Automobilių prekybos salono Turgelių g. 1 Vilniuje statybos projektavimas Construction planning of the car shopping center at Turgelių str. 1 in Vilnius	
Supervisor	Jonas Šaparauskas				
Consultant	Vaidotas Šapalas			Department of Contruction Technology and Management	Page
Head of department	Edmundas Kazimieras Zavadskas				5/7
Reviewer				STRUCTURAL PART	