RC Column Checking Results

Project Title : 광명 재정비 촉진지구 4R 주택재개발 정비사업 성능기반내진설계
Member Name : C1-1_1_B2 **Design by :** ㈜씨앤피동양

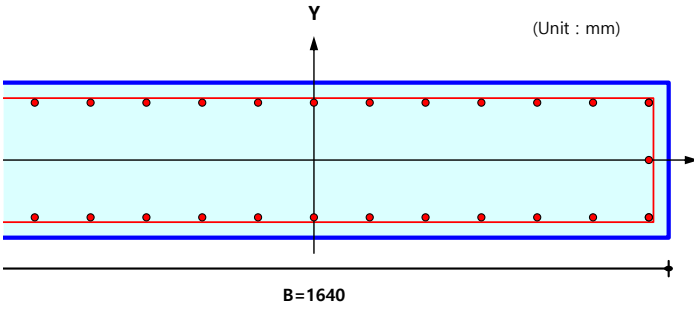
1. Design Condition

1.1 Material Property

Concrete	fck =	30	N/mm²
Main Bar	fy =	600	N/mm²
Hoop Bar	fys =	400	N/mm²

1.2 Section Property

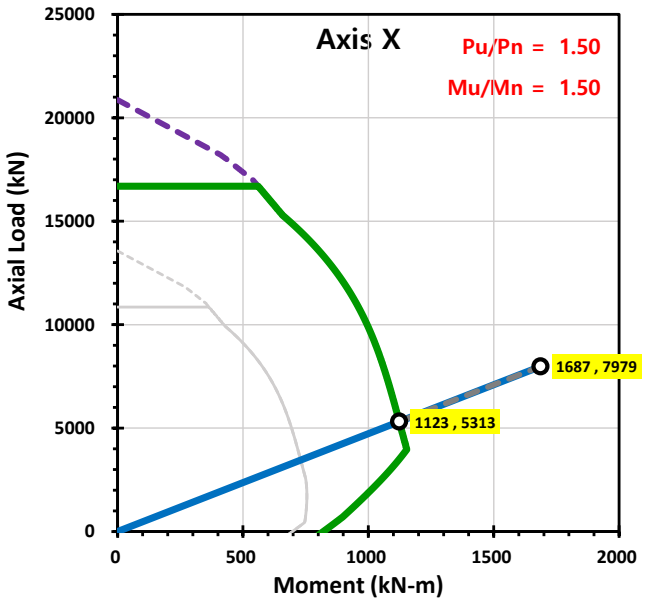
Height	H =	350	mm
Width	B =	1640	mm
Cover	Cc =	40	mm
Rebar	Layer 1 =	28 - 3 - D22	(Ast 1 = 10838.8 mm²)

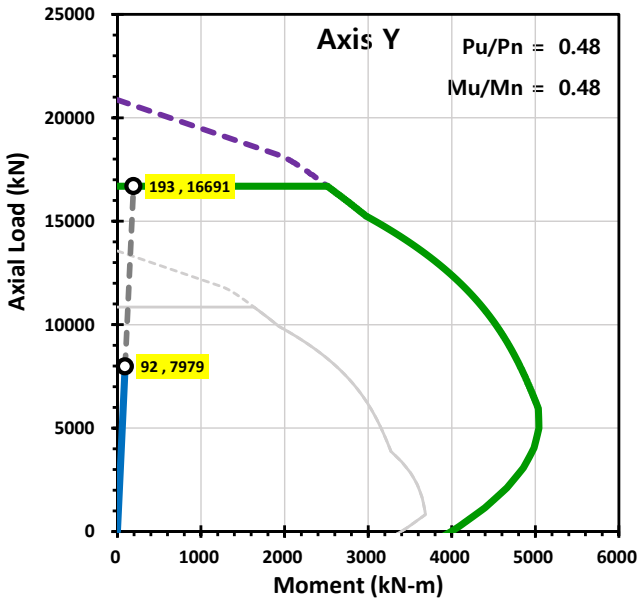


2. Axial and Moment Capacity

		About **Axis X**		About **Axis Y**	
• Applied Axial Force	Pu	7979.0	kN	7979.0	kN
• Applied Moment	Mu	1686.9	kN-m	92.1	kN-m

P - M Interaction Diagram





3. Shear Capacity

		Along **Axis X**				Along **Axis Y**			
• As - Hoop		2-D10 @ 300				7-D10 @ 300			
• Applied Shear Force	Vu	203.5	kN			14.9	kN		
• Design Shear Strength	Vc	835.4	kN			835.4	kN		
	Vs	249.6	kN			186.4	kN		
	Vn	835.4 + 249.6 =		1085.0	kN	835.4 + 186.4 =		1021.8	kN
• Shear Ratio	Vu / Vn	0.19	≤	1.00	**O.K**	0.01	≤	1.00	**O.K**

RC Column Checking Results

Project Title : 광명 재정비 촉진지구 4R 주택재개발 정비사업 성능기반내진설계
Member Name : C1-1_1_B1 **Design by :** ㈜씨앤피동양

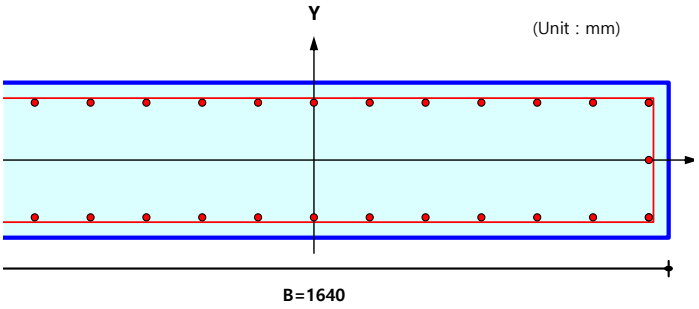
1. Design Condition

1.1 Material Property

Concrete	fck =	30	N/mm²
Main Bar	fy =	600	N/mm²
Hoop Bar	fys =	400	N/mm²

1.2 Section Property

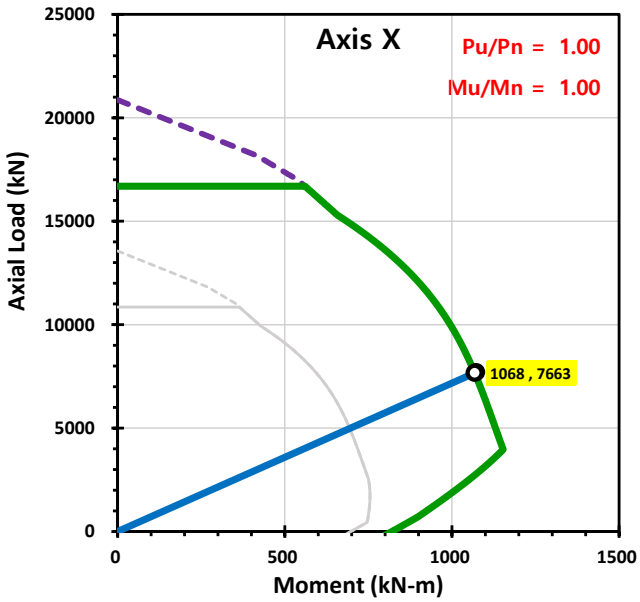
Height	H =	350	mm
Width	B =	1640	mm
Cover	Cc =	40	mm
Rebar	Layer 1 =	28 - 3 - D22	(Ast 1 = 10838.8 mm²)

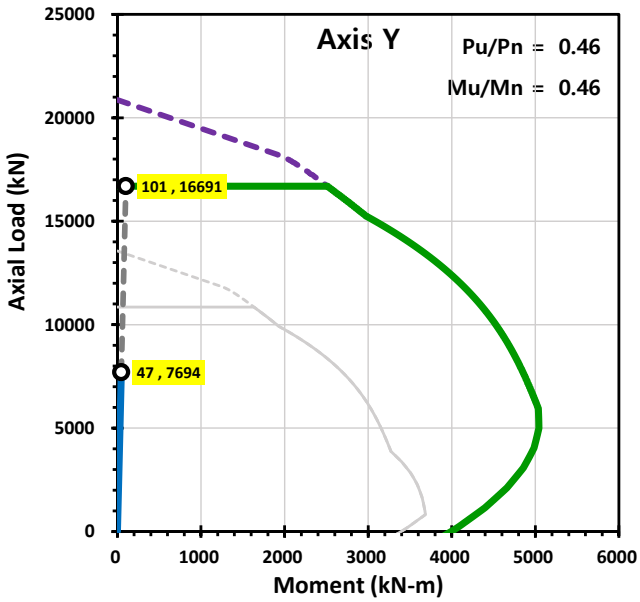


2. Axial and Moment Capacity

		About **Axis X**		About **Axis Y**	
• Applied Axial Force	Pu	7694.5	kN	7694.5	kN
• Applied Moment	Mu	1072.5	kN-m	46.6	kN-m

P - M Interaction Diagram





3. Shear Capacity

		Along **Axis X**				Along **Axis Y**			
• As - Hoop		2-D10 @ 300				7-D10 @ 300			
• Applied Shear Force	Vu	45.6	kN			1.8	kN		
• Design Shear Strength	Vc	820.6	kN			820.6	kN		
	Vs	249.6	kN			186.4	kN		
	Vn	820.6 + 249.6 =		1070.2	kN	820.6 + 186.4 =		1007.0	kN
• Shear Ratio	Vu / Vn	0.04	≤	1.00	**O.K**	0.00	≤	1.00	**O.K**

RC Column Checking Results

Project Title : 광명 재정비 촉진지구 4R 주택재개발 정비사업 성능기반내진설계
Member Name : C1-1_1_1F **Design by :** ㈜씨앤피동양

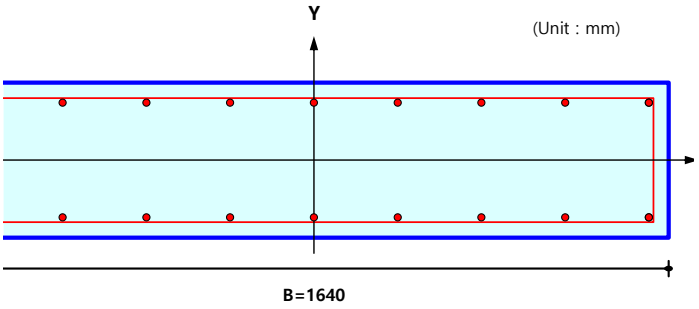
1. Design Condition

1.1 Material Property

Concrete	fck =	30	N/mm²
Main Bar	fy =	600	N/mm²
Hoop Bar	fys =	400	N/mm²

1.2 Section Property

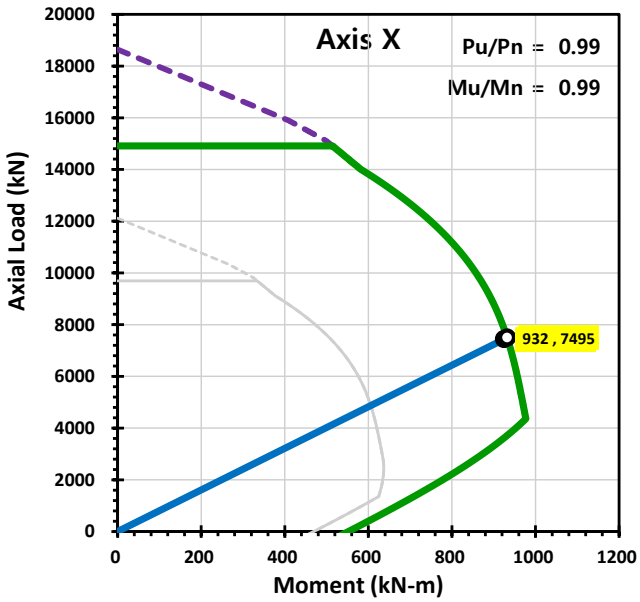
Height	H =	350	mm
Width	B =	1640	mm
Cover	Cc =	40	mm
Rebar	Layer 1 =	18 - 2 - D22	(Ast 1 = 6967.8 mm²)

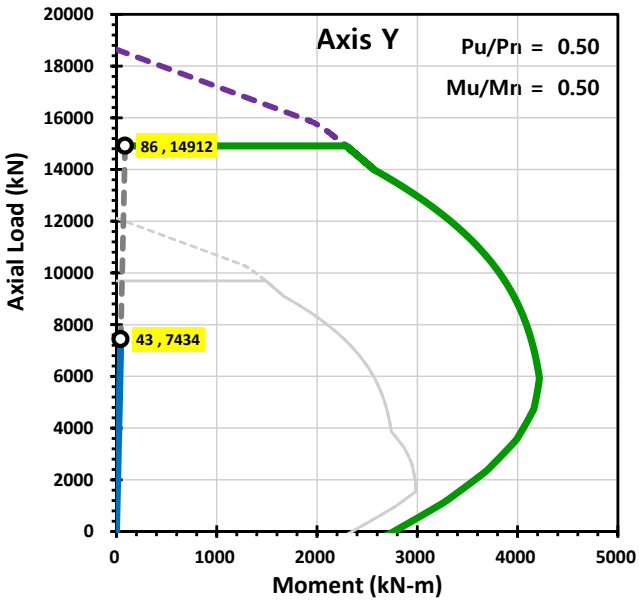


2. Axial and Moment Capacity

		About **Axis X**		About **Axis Y**	
• Applied Axial Force	Pu	7433.6	kN	7433.6	kN
• Applied Moment	Mu	924.6	kN-m	43.0	kN-m

P - M Interaction Diagram





3. Shear Capacity

			Along **Axis X**				Along **Axis Y**			
• As - Hoop			2-D10 @ 300				9-D10 @ 300			
• Applied Shear Force	Vu		66.1	kN			3.9	kN		
• Design Shear Strength	Vc		807.0	kN			807.0	kN		
	Vs		249.6	kN			239.7	kN		
	Vn		807 + 249.6 =			1056.6 kN	807 + 239.7 =			1046.7 kN
• Shear Ratio	Vu / Vn		0.06	≤	1.00	**O.K**	0.00	≤	1.00	**O.K**

RC Column Checking Results

Project Title : 광명 재정비 촉진지구 4R 주택재개발 정비사업 성능기반내진설계
Member Name : C1-1_1_2F **Design by :** ㈜씨앤피동양

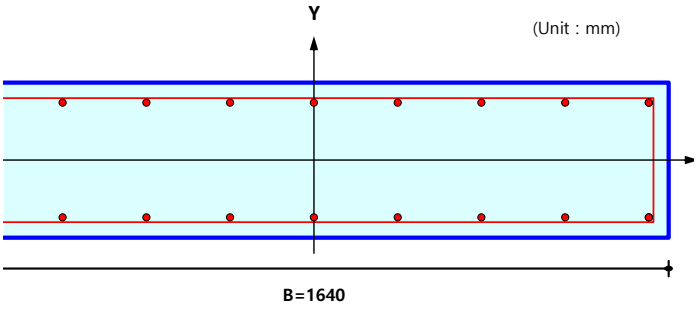
1. Design Condition

1.1 Material Property

Concrete	fck =	30	N/mm²
Main Bar	fy =	600	N/mm²
Hoop Bar	fys =	400	N/mm²

1.2 Section Property

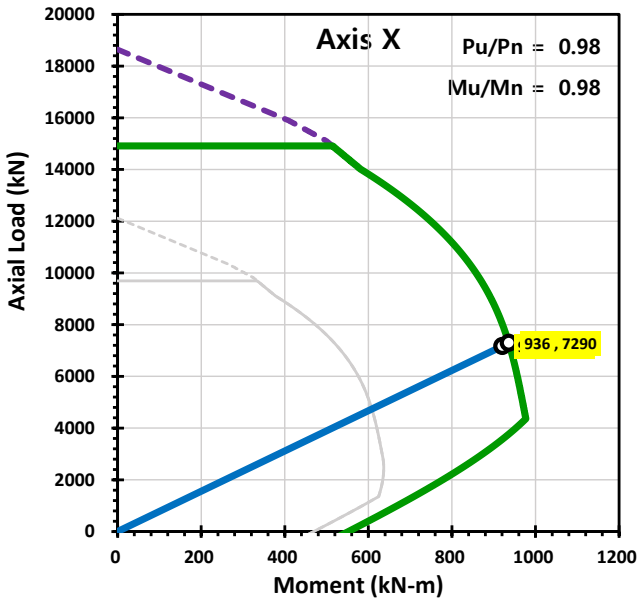
Height	H =	350	mm
Width	B =	1640	mm
Cover	Cc =	40	mm
Rebar	Layer 1 =	18 - 2 - D22	(Ast 1 = 6967.8 mm²)

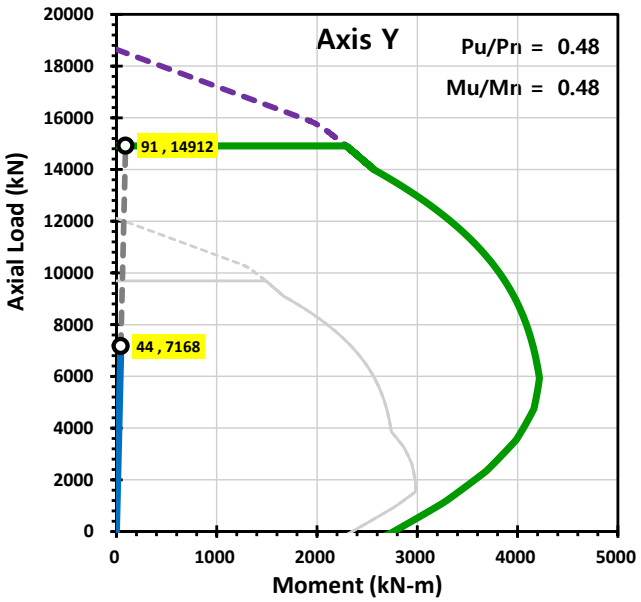


2. Axial and Moment Capacity

		About **Axis X**		About **Axis Y**	
• Applied Axial Force	Pu	7168.5	kN	7168.5	kN
• Applied Moment	Mu	920.7	kN-m	43.8	kN-m

P - M Interaction Diagram





3. Shear Capacity

		Along **Axis X**				Along **Axis Y**			
• As - Hoop		2-D10 @ 300				9-D10 @ 300			
• Applied Shear Force	Vu	40.1	kN			1.7	kN		
• Design Shear Strength	Vc	793.1	kN			793.1	kN		
	Vs	249.6	kN			239.7	kN		
	Vn	793.1 + 249.6 =		1042.7	kN	793.1 + 239.7 =		1032.8	kN
• Shear Ratio	Vu / Vn	0.04	≤	1.00	**O.K**	0.00	≤	1.00	**O.K**

RC Column Checking Results

Project Title : 광명 재정비 촉진지구 4R 주택재개발 정비사업 성능기반내진설계
Member Name : C1-1_1_3F **Design by :** ㈜씨앤피동양

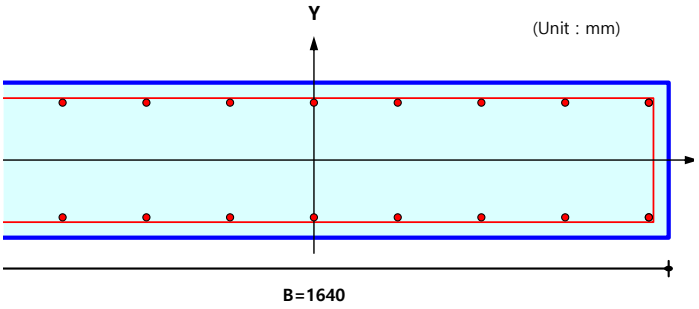
1. Design Condition

1.1 Material Property

Concrete	fck =	30	N/mm²
Main Bar	fy =	600	N/mm²
Hoop Bar	fys =	400	N/mm²

1.2 Section Property

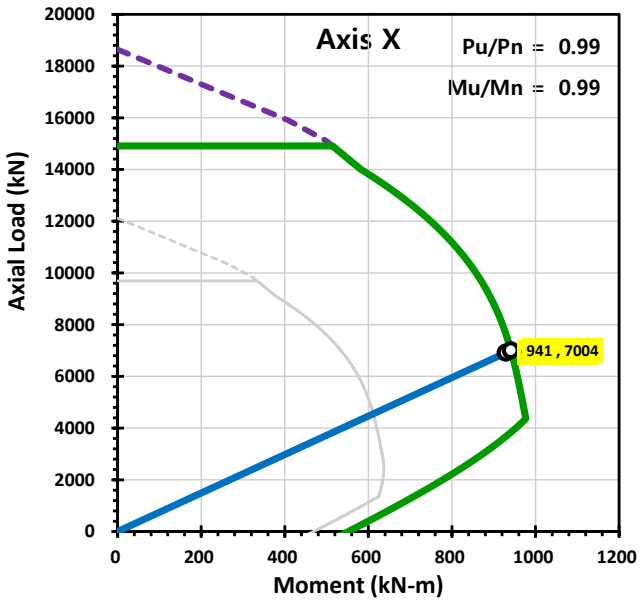
Height	H =	350	mm
Width	B =	1640	mm
Cover	Cc =	40	mm
Rebar	Layer 1 =	18 - 2 - D22	(Ast 1 = 6967.8 mm²)

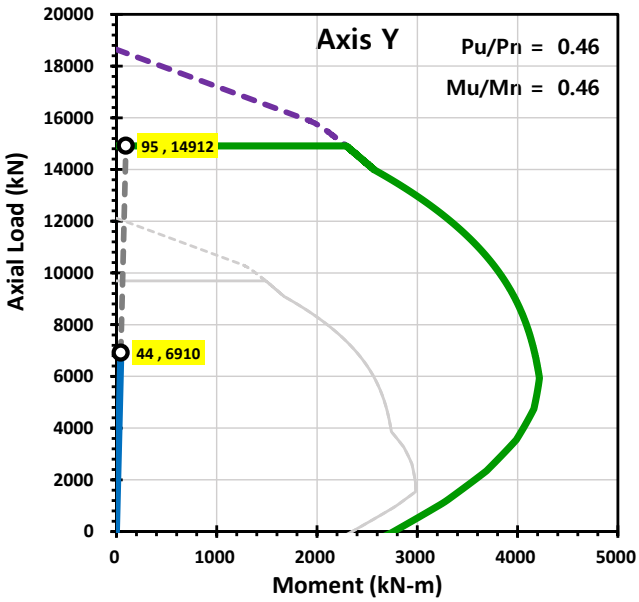


2. Axial and Moment Capacity

		About **Axis X**		About **Axis Y**	
• Applied Axial Force	Pu	6909.6	kN	6909.6	kN
• Applied Moment	Mu	928.6	kN-m	43.8	kN-m

P - M Interaction Diagram





3. Shear Capacity

		Along **Axis X**				Along **Axis Y**			
• As - Hoop		2-D10 @ 300				9-D10 @ 300			
• Applied Shear Force	Vu	51.5	kN			2.7	kN		
• Design Shear Strength	Vc	779.6	kN			779.6	kN		
	Vs	249.6	kN			239.7	kN		
	Vn	779.6 + 249.6 =		1029.2	kN	779.6 + 239.7 =		1019.3	kN
• Shear Ratio	Vu / Vn	0.05	≤	1.00	**O.K**	0.00	≤	1.00	**O.K**

RC Column Checking Results

Project Title : 광명 재정비 촉진지구 4R 주택재개발 정비사업 성능기반내진설계
Member Name : C1-1_1_4F **Design by :** ㈜씨앤피동양

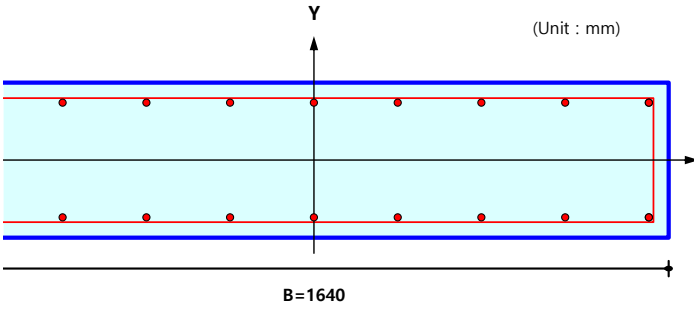
1. Design Condition

1.1 Material Property

Concrete	fck =	30	N/mm²
Main Bar	fy =	600	N/mm²
Hoop Bar	fys =	400	N/mm²

1.2 Section Property

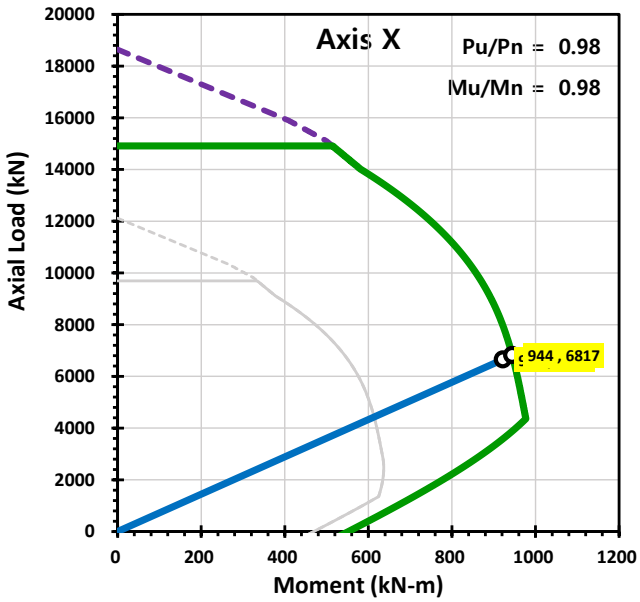
Height	H =	350	mm
Width	B =	1640	mm
Cover	Cc =	40	mm
Rebar	Layer 1 =	18 - 2 - D22	(Ast 1 = 6967.8 mm²)

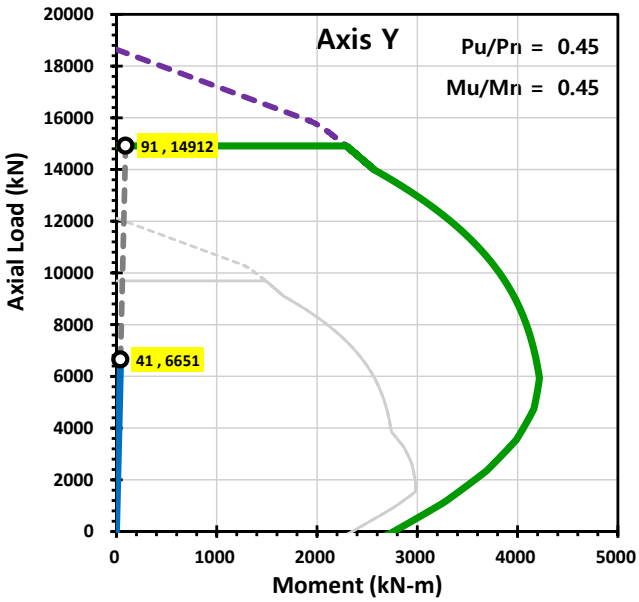


2. Axial and Moment Capacity

		About **Axis X**		About **Axis Y**	
• Applied Axial Force	Pu	6650.7	kN	6650.7	kN
• Applied Moment	Mu	921.7	kN-m	40.7	kN-m

P - M Interaction Diagram





3. Shear Capacity

		Along **Axis X**				Along **Axis Y**			
• As - Hoop		2-D10 @ 300				9-D10 @ 300			
• Applied Shear Force	Vu	43.2	kN			2.0	kN		
• Design Shear Strength	Vc	766.1	kN			766.1	kN		
	Vs	249.6	kN			239.7	kN		
	Vn	766.1 + 249.6 =		1015.7	kN	766.1 + 239.7 =		1005.8	kN
• Shear Ratio	Vu / Vn	0.04	≤	1.00	**O.K**	0.00	≤	1.00	**O.K**

RC Column Checking Results

Project Title : 광명 재정비 촉진지구 4R 주택재개발 정비사업 성능기반내진설계
Member Name : C1-1_1_5F **Design by :** ㈜씨앤피동양

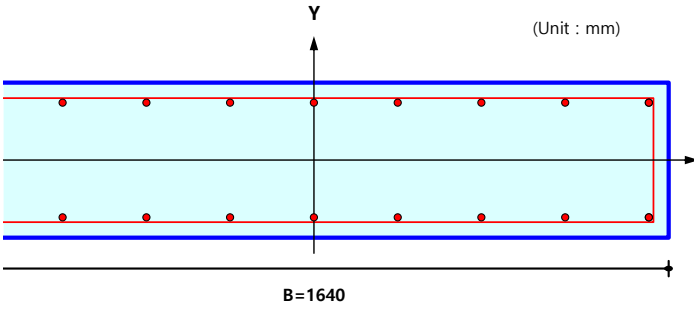
1. Design Condition

1.1 Material Property

Concrete	fck =	30	N/mm²
Main Bar	fy =	600	N/mm²
Hoop Bar	fys =	400	N/mm²

1.2 Section Property

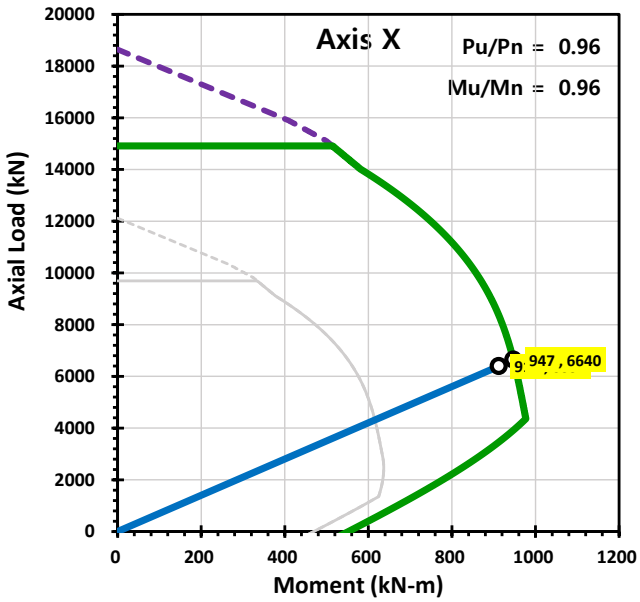
Height	H =	350	mm
Width	B =	1640	mm
Cover	Cc =	40	mm
Rebar	Layer 1 =	18 - 2 - D22	(Ast 1 = 6967.8 mm²)

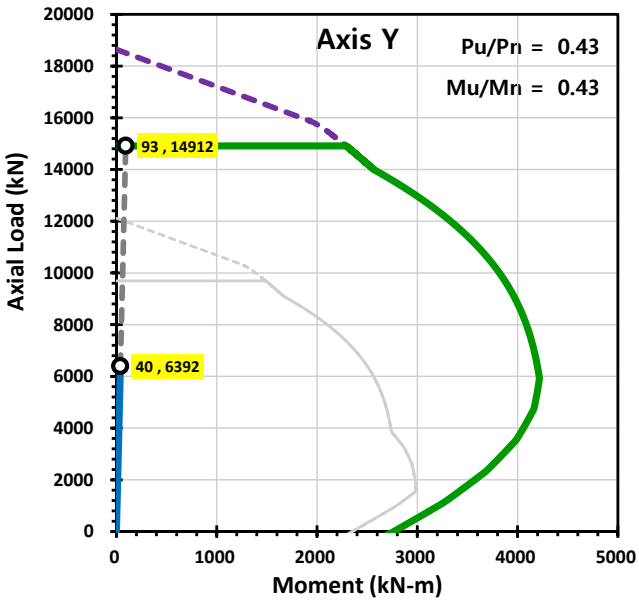


2. Axial and Moment Capacity

		About **Axis X**		About **Axis Y**	
• Applied Axial Force	Pu	6391.8	kN	6391.8	kN
• Applied Moment	Mu	912.3	kN-m	39.8	kN-m

P - M Interaction Diagram





3. Shear Capacity

		Along **Axis X**				Along **Axis Y**			
• As - Hoop		2-D10 @ 300				9-D10 @ 300			
• Applied Shear Force	Vu	43.4	kN			1.9	kN		
• Design Shear Strength	Vc	752.6	kN			752.6	kN		
	Vs	249.6	kN			239.7	kN		
	Vn	752.6 + 249.6 =		1002.2	kN	752.6 + 239.7 =		992.3	kN
• Shear Ratio	Vu / Vn	0.04	≤	1.00	**O.K**	0.00	≤	1.00	**O.K**