Perhitungan Kolom K1

	dimensi kolom			
h	800	mm		
b	800	mm		
fy	400	Mpa		
Fc	25	Mpa		
tulangan utama	32	D	25	
tulangan utama yg ditinjau	9	D	25	
D (sengkang)	10	mm		
Ts	40	mm		

No baris	tepi serat ke pusat tulangan	Jumlah tulangan	Diameter tulangan	Luas tulangan
1	62.5	9	25	4417.864669
2	146.875	2	25	981.7477042
3	231.25	2	25	981.7477042
4	315.625	2	25	981.7477042
5	400	2	25	981.7477042
6	484.375	2	25	981.7477042
7	568.75	2	25	981.7477042
8	653.125	2	25	981.7477042
9	737.5	9	25	4417.864669

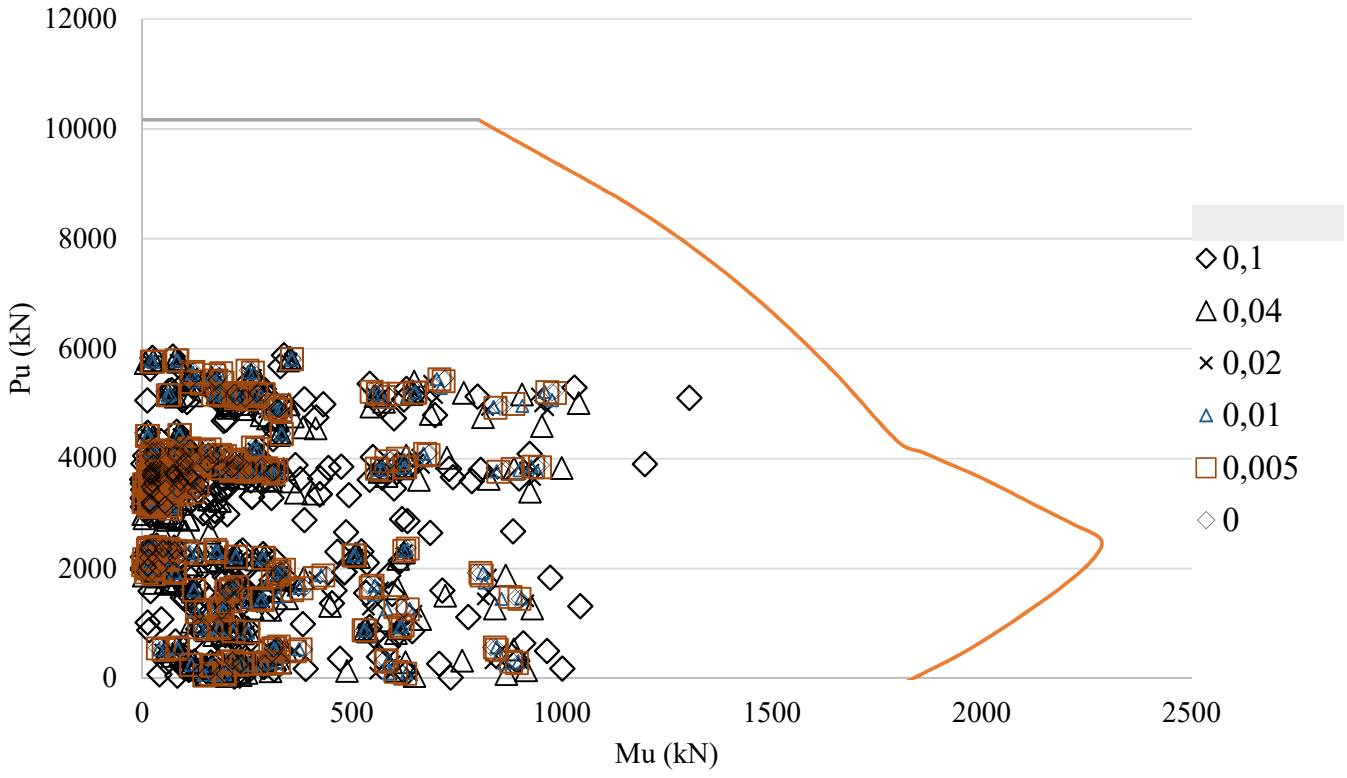
d'	62.5
d	737.5
Es	200000
B1	0.85
y	400.00

kondisi eksentrisitas kecil

Ag	640000
Ast	15707.96
ϕPn	10165.6834

Kondisi momen murni

c	80.7808548
a	68.6637266
cc	1167.283
Cs	599.862
Ts	1767.146
	0.000
Ts=Cc+Cs	1767.146
Mn	909.830197
ϕMn	591.389628
SNI ϕMn	767.669229
Mn digunakan	767.669229



Cb	442.5		C	a	Es1	Es2
		Eks kecil				
		C>Cb	717.5	609.875	-0.000084	0.00273868
			697.5	592.875	-0.000172	0.00273118
			677.5	575.875	-0.000266	0.00272325
			657.5	558.875	-0.000365	0.00271483
			637.5	541.875	-0.000471	0.00270588
			617.5	524.875	-0.000583	0.00269636
			597.5	507.875	-0.000703	0.00268619
			577.5	490.875	-0.000831	0.00267532
			557.5	473.875	-0.000969	0.00266368
			537.5	456.875	-0.001116	0.00265116
			517.5	439.875	-0.001275	0.00263768
			497.5	422.875	-0.001447	0.00262312
		Cb	442.5	376.125	-0.002000	0.00257627
		C<Cb	422.5	359.125	-0.002237	0.00255621
			402.5	342.125	-0.002497	0.00253416
			382.5	325.125	-0.002784	0.0025098
			362.5	308.125	-0.003103	0.00248276
			342.5	291.125	-0.003460	0.00245255
			322.5	274.125	-0.003860	0.0024186
			302.5	257.125	-0.004314	0.00238017
			282.5	240.125	-0.004832	0.00233628
			262.5	223.125	-0.005429	0.00228571
			242.5	206.125	-0.006124	0.0022268
			222.5	189.125	-0.006944	0.0021573
			202.5	172.125	-0.007926	0.00207407
			182.5	155.125	-0.009123	0.0019726
			162.5	138.125	-0.010615	0.00184615
			142.5	121.125	-0.012526	0.00168421
			122.5	104.125	-0.015061	0.00146939
			102.5	87.125	-0.018585	0.00117073
	eks. Kecil	momen murni	80.7808548			

Es3	Es4	Es5	Es6	Es7	Es8	Es9	Fs1
0.00238589	0.0020331	0.001680314	0.001328	0.000975	0.000622	0.000269	-16.7247
0.00236828	0.00200538	0.001642473	0.00128	0.000917	0.000554	0.000191	-34.4086
0.00234963	0.00197601	0.001602399	0.001229	0.000855	0.000482	0.000108	-53.1365
0.00232985	0.00194487	0.001559886	0.001175	0.00079	0.000405	2E-05	-73.0038
0.00230882	0.00191176	0.001514706	0.001118	0.000721	0.000324	-7.4E-05	-94.1176
0.00228644	0.00187652	0.001466599	0.001057	0.000647	0.000237	-0.00017	-116.599
0.00226255	0.00183891	0.001415272	0.000992	0.000568	0.000144	-0.00028	-140.586
0.00223701	0.0017987	0.00136039	0.000922	0.000484	4.55E-05	-0.00039	-166.234
0.00220964	0.00175561	0.00130157	0.000848	0.000393	-6.1E-05	-0.00051	-193.722
0.00218023	0.0017093	0.001238372	0.000767	0.000297	-0.00017	-0.00065	-223.256
0.00214855	0.00165942	0.00117029	0.000681	0.000192	-0.0003	-0.00079	-255.072
0.00211432	0.00160553	0.001096734	0.000588	7.91E-05	-0.00043	-0.00094	-289.447
0.00200424	0.0014322	0.000860169	0.000288	-0.00028	-0.00086	-0.00143	-400
0.0019571	0.00135799	0.000758876	0.00016	-0.00044	-0.00104	-0.00164	-400
0.00190528	0.0012764	0.000647516	1.86E-05	-0.00061	-0.00124	-0.00187	-400
0.00184804	0.00118627	0.00052451	-0.00014	-0.0008	-0.00146	-0.00212	-400
0.00178448	0.00108621	0.000387931	-0.00031	-0.00101	-0.00171	-0.00241	-400
0.0017135	0.00097445	0.000235401	-0.0005	-0.00124	-0.00198	-0.00272	-400
0.00163372	0.00084884	0.0000640	-0.00072	-0.00151	-0.00229	-0.00308	-400
0.00154339	0.00070661	-0.0001302	-0.00097	-0.0018	-0.00264	-0.00348	-400
0.00144027	0.00054425	-0.00035177	-0.00125	-0.00214	-0.00304	-0.00394	-400
0.00132143	0.00035714	-0.000607143	-0.00157	-0.00254	-0.0035	-0.00446	-400
0.00118299	0.00013918	-0.000904639	-0.00195	-0.00299	-0.00404	-0.00508	-400
0.00101966	-0.000118	-0.001255618	-0.00239	-0.00353	-0.00467	-0.00581	-400
0.00082407	-0.0004259	-0.001675926	-0.00293	-0.00418	-0.00543	-0.00668	-400
0.00058562	-0.0008014	-0.002188356	-0.00358	-0.00496	-0.00635	-0.00774	-400
0.00028846	-0.0012692	-0.002826923	-0.00438	-0.00594	-0.0075	-0.00906	-400
-0.0000921	-0.0018684	-0.003644737	-0.00542	-0.0072	-0.00897	-0.01075	-400
-0.00059694	-0.0026633	-0.004729592	-0.0068	-0.00886	-0.01093	-0.01299	-400
-0.00129878	-0.0037683	-0.006237805	-0.00871	-0.01118	-0.01365	-0.01612	-400

Fs2	Fs3	Fs4	Fs5	Fs6	Fs7	Fs8	Fs9	Cc
400	400	400	336.0627	265.5052	194.9477352	124.3902439	53.83275	10367875
400	400	400	328.4946	255.914	183.3333333	110.7526882	38.17204	10078875
400	400	395.203	320.4797	245.7565	171.0332103	96.3099631	21.58672	9789875
400	400	388.9734	311.9772	234.981	157.9847909	80.98859316	3.992395	9500875
400	400	382.3529	302.9412	223.5294	144.1176471	64.70588235	-14.70588	9211875
400	400	375.3036	293.3198	211.336	129.3522267	47.36842105	-34.61538	8922875
400	400	367.7824	283.0544	198.3264	113.5983264	28.87029289	-55.85774	8633875
400	400	359.7403	272.0779	184.4156	96.75324675	9.090909091	-78.57143	8344875
400	400	351.1211	260.3139	169.5067	78.69955157	-12.10762332	-102.9148	8055875
400	400	341.8605	247.6744	153.4884	59.30232558	-34.88372093	-129.0698	7766875
400	400	331.8841	234.058	136.2319	38.4057971	-59.42028986	-157.2464	7477875
400	400	321.1055	219.3467	117.5879	15.82914573	-85.92964824	-187.6884	7188875
400	400	286.4407	172.0339	57.62712	-56.77966102	-171.1864407	-285.5932	6394125
400	391.4201	271.5976	151.7751	31.95266	-87.86982249	-207.6923077	-327.5148	6105125
400	381.0559	255.2795	129.5031	3.726708	-122.0496894	-247.826087	-373.6025	5816125
400	369.6078	237.2549	104.902	-27.451	-159.8039216	-292.1568627	-400	5527125
400	356.8966	217.2414	77.58621	-62.069	-201.7241379	-341.3793103	-400	5238125
400	342.7007	194.8905	47.08029	-100.73	-248.540146	-396.350365	-400	4949125
400	326.7442	169.7674	12.7907	-144.186	-301.1627907	-400	-400	4660125
400	308.6777	141.3223	-26.0331	-193.388	-360.7438017	-400	-400	4371125
400	288.0531	108.8496	-70.354	-249.558	-400	-400	-400	4082125
400	264.2857	71.42857	-121.429	-314.286	-400	-400	-400	3793125
400	236.5979	27.83505	-180.928	-389.691	-400	-400	-400	3504125
400	203.9326	-23.5955	-251.124	-400	-400	-400	-400	3215125
400	164.8148	-85.1852	-335.185	-400	-400	-400	-400	2926125
394.5205	117.1233	-160.274	-400	-400	-400	-400	-400	2637125
369.2308	57.69231	-253.846	-400	-400	-400	-400	-400	2348125
336.8421	-18.4211	-373.684	-400	-400	-400	-400	-400	2059125
293.8776	-119.388	-400	-400	-400	-400	-400	-400	1770125
234.1463	-259.756	-400	-400	-400	-400	-400	-400	1481125

Cs9	Cs1	Cs2	Cs3	Cs4	Cs5	Cs6	Cs7
-73887.6321	1673266	371836.9	371836.943	309066.7	239797.0078	170527.35	101257.6977
-152012.5478	1673266	371836.9	371836.943	301636.7	230380.8222	159124.94	87869.05864
-234750.0046	1673266	371836.9	367127.4522	293768.1	220408.6993	147049.32	73689.94645
-322520.9188	1673266	371836.9	361011.5881	285420.7	209829.9074	134239.07	58648.22669
-415799.0277	1673266	371836.9	354511.9835	276549.7	198587.3481	120625.03	42662.71274
-515119.4432	1673266	371836.9	347591.3519	267103.9	186616.5259	106129.11	25641.69991
-621088.9242	1673266	371836.9	340207.4144	257025.9	173844.3097	90662.757	7481.205048
-734398.2827	1673266	371836.9	332312.0354	246249.7	160187.4379	74125.139	-11937.15959
-855837.4606	1673266	371836.9	323850.1718	234700.4	145550.7008	56400.965	-11886.6314
-986313.9726	1673266	371836.9	314758.5881	222291.7	129824.7182	37357.783	-34247.01294
-1126875.626	1673266	371836.9	304964.2733	208923.7	112883.2007	16842.664	-58335.73315
-1278738.718	1673266	371836.9	294382.4759	194481	94579.55113	-5321.9112	-84361.23489
-1767145.868	1673266	371836.9	260350.3393	148031.7	35713.15272	-55743.302	-168061.8951
-1767145.868	1673266	363413.7	245778.2141	128142.8	10507.31456	-86265.996	-203901.4463
-1767145.868	1673266	353238.6	229757.9274	106277.2	-17203.45162	-119822	-243302.6919
-1767145.868	1673266	341999.5	212062.3166	82125.12	-26949.93698	-156887.13	-286824.3293
-1767145.868	1673266	329520.2	192414.0867	55307.94	-60936.0644	-198042.21	-335148.3542
-1767145.868	1673266	315583.5	170471.173	25358.83	-98891.37459	-244003.72	-389116.0609
-1767145.868	1673266	299918.2	145806.6576	-8304.901	-141554.3201	-295665.88	-392699.0817
-1767145.868	1673266	282181.5	117880.7187	-25557.89	-189858.6469	-354159.4	-392699.0817
-1767145.868	1673266	261933.3	86000.66449	-69069.86	-245002.5244	-392699.08	-392699.0817
-1767145.868	1673266	238599.8	49262.6973	-119212.2	-308549.2785	-392699.08	-392699.0817
-1767145.868	1673266	211417.3	6464.859238	-177625.5	-382577.9713	-392699.08	-392699.0817
-1767145.868	1673266	179348.2	-23164.8335	-246540	-392699.0817	-392699.08	-392699.0817
-1767145.868	1673266	140944.4	-83630.36	-329067.3	-392699.0817	-392699.08	-392699.0817
-1767145.868	1649059	94123.38	-157348.605	-392699.1	-392699.0817	-392699.08	-392699.0817
-1767145.868	1537332	35777.15	-249212.879	-392699.1	-392699.0817	-392699.08	-392699.0817
-1767145.868	1394243	-18084.83	-366863.616	-392699.1	-392699.0817	-392699.08	-392699.0817
-1767145.868	1204432	-117208.7	-392699.082	-392699.1	-392699.0817	-392699.08	-392699.0817
-1767145.868	940547.2	-255015	-392699.082	-392699.1	-392699.0817	-392699.08	-392699.0817

Cs8	Pn (kN)	Mn (kN)	e	ϕ	ϕPn	ϕMn
					10165.68	0
					10165.68	200
					10165.68	800
31988.04258	13563.56426	1718.634	126.710	0.650	8816.317	1117.112
16613.17688	13139.42728	1809.685	137.729	0.650	8540.628	1176.295
330.5700296	12702.60225	1896.968	149.337	0.650	8256.691	1233.029
-16942.61366	12255.66419	1981.217	161.657	0.650	7966.182	1287.791
-14437.46624	11819.67843	2057.524	174.076	0.650	7682.791	1337.390
-33983.57438	11351.9578	2136.668	188.220	0.650	7378.773	1388.834
-54838.20858	10872.2726	2213.617	203.602	0.650	7066.977	1438.851
-77137.31962	10379.37977	2288.653	220.500	0.650	6746.597	1487.625
-101036.3669	9892.720002	2358.579	238.416	0.650	6430.268	1533.077
-126713.9479	9368.935996	2430.807	259.454	0.650	6089.808	1580.025
-154376.2694	8827.004433	2502.244	283.476	0.650	5737.553	1626.459
-184262.6973	8264.736665	2573.388	311.370	0.650	5372.079	1672.702
-280380.4884	6611.991871	2770.875	419.068	0.650	4297.795	1801.068
-321536.896	6147.382994	2774.290	451.296	0.670	4117.049	1858.008
-366783.3814	5664.407631	2773.830	489.695	0.691	3916.416	1917.848
-392699.0817	5206.071845	2763.810	530.882	0.715	3724.213	1977.118
-392699.0817	4734.661926	2742.605	579.261	0.742	3512.901	2034.887
-392699.0817	4241.94866	2716.824	640.466	0.772	3273.319	2096.449
-392699.0817	3781.046987	2676.898	707.978	0.805	3043.889	2155.007
-392699.0817	3322.333461	2632.342	792.317	0.843	2800.187	2218.636
-392699.0817	2844.009738	2577.670	906.350	0.886	2519.759	2283.785
-392699.0817	2381.249083	2512.673	1055.191	0.900	2143.124	2261.405
-392699.0817	1889.826876	2440.068	1291.160	0.900	1700.844	2196.061
-392699.0817	1460.09241	2362.649	1618.151	0.900	1314.083	2126.384
-392699.0817	989.6958303	2272.362	2296.021	0.900	890.726	2045.126
-392699.0817	492.3172651	2166.219	4400.048	0.900	443.086	1949.597
-392699.0817	-58.62005708	2025.015	-34544.750	0.900	-52.758	1822.514
-392699.0817	-662.2215064	1865.097	-2816.425	0.900		
-392699.0817	-1265.992387	1688.534	-1333.763	0.900		
-392699.0817	-1956.683085	1476.626	-754.658	0.900		
					0.000	767.669

Perhitungan Kolom K1A

	dimensi kolom		
h	800	mm	
b	800	mm	
fy	400	Mpa	
Fc	25	Mpa	
tulangan utama	32	D	25
tulangan utama yg ditinjau	9	D	25
D (sengkang)	10	mm	
Ts	40	mm	

No baris	tepi serat ke pusat tulangan	Jumlah tulangan	Diameter tulangan	Luas tulangan
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d'	62.5
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B1	0.85
y	400.00

kondisi eksentrisitas kecil

Ag	640000
Ast	15707.96
ϕPn	10165.6834

Kondisi momen murni

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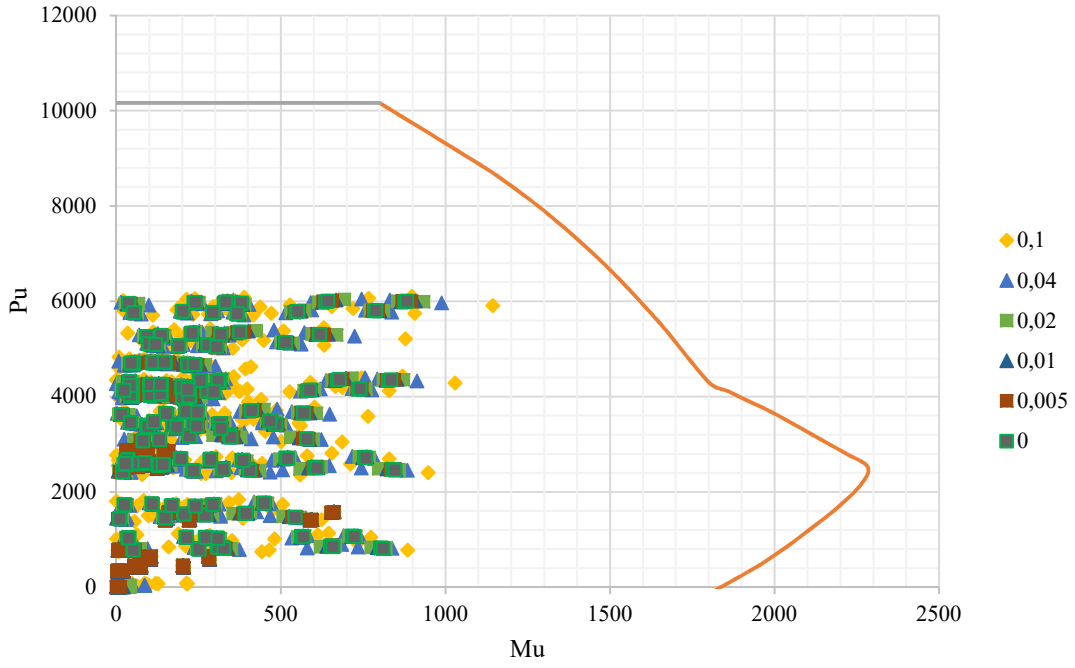
a	68.6637266
cc	1167.283
Cs	599.862
Ts	1767.146
	0.000
Ts=Cc+Cs	1767.146
Mn	909.830197
ϕMn	591.389628
SNI ϕMn	767.669229
Mn digunakan	767.669229



Cb	442.5		C	a	Es1	Es2
		Eks kecil				
		C>Cb	717.5	609.875	-0.000084	0.00273868
			697.5	592.875	-0.000172	0.00273118
			677.5	575.875	-0.000266	0.00272325
			657.5	558.875	-0.000365	0.00271483
			637.5	541.875	-0.000471	0.00270588
			617.5	524.875	-0.000583	0.00269636
			597.5	507.875	-0.000703	0.00268619
			577.5	490.875	-0.000831	0.00267532
			557.5	473.875	-0.000969	0.00266368
			537.5	456.875	-0.001116	0.00265116
			517.5	439.875	-0.001275	0.00263768
			497.5	422.875	-0.001447	0.00262312
		Cb	442.5	376.125	-0.002000	0.00257627
		C<Cb	422.5	359.125	-0.002237	0.00255621
			402.5	342.125	-0.002497	0.00253416
			382.5	325.125	-0.002784	0.0025098
			362.5	308.125	-0.003103	0.00248276
			342.5	291.125	-0.003460	0.00245255
			322.5	274.125	-0.003860	0.0024186
			302.5	257.125	-0.004314	0.00238017
			282.5	240.125	-0.004832	0.00233628
			262.5	223.125	-0.005429	0.00228571
			242.5	206.125	-0.006124	0.0022268
			222.5	189.125	-0.006944	0.0021573
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			162.5	138.125	-0.010615	0.00184615
			142.5	121.125	-0.012526	0.00168421
			122.5	104.125	-0.015061	0.00146939
			102.5	87.125	-0.018585	0.00117073
	eks. Kecil	momen murni	80.7808548			

Es3	Es4	Es5	Es6	Es7	Es8	Es9
0.00238589	0.0020331	0.00168031	0.001327526	0.000975	0.000622	0.000269
0.00236828	0.00200538	0.00164247	0.00127957	0.000917	0.000554	0.000191
0.00234963	0.00197601	0.0016024	0.001228782	0.000855	0.000482	0.000108
0.00232985	0.00194487	0.00155989	0.001174905	0.00079	0.000405	2E-05
0.00230882	0.00191176	0.00151471	0.001117647	0.000721	0.000324	-7.4E-05
0.00228644	0.00187652	0.0014666	0.00105668	0.000647	0.000237	-0.00017
0.00226255	0.00183891	0.00141527	0.000991632	0.000568	0.000144	-0.00028
0.00223701	0.0017987	0.00136039	0.000922078	0.000484	4.55E-05	-0.00039
0.00220964	0.00175561	0.00130157	0.000847534	0.000393	-6.1E-05	-0.00051
0.00218023	0.0017093	0.00123837	0.000767442	0.000297	-0.00017	-0.00065
0.00214855	0.00165942	0.00117029	0.000681159	0.000192	-0.0003	-0.00079
0.00211432	0.00160553	0.00109673	0.00058794	7.91E-05	-0.00043	-0.00094
0.00200424	0.0014322	0.00086017	0.000288136	-0.00028	-0.00086	-0.00143
0.0019571	0.00135799	0.00075888	0.000159763	-0.00044	-0.00104	-0.00164
0.00190528	0.0012764	0.00064752	1.86335E-05	-0.00061	-0.00124	-0.00187
0.00184804	0.00118627	0.00052451	-0.000137255	-0.0008	-0.00146	-0.00212
0.00178448	0.00108621	0.00038793	-0.000310345	-0.00101	-0.00171	-0.00241
0.0017135	0.00097445	0.0002354	-0.00050365	-0.00124	-0.00198	-0.00272
0.00163372	0.00084884	0.0000640	-0.00072093	-0.00151	-0.00229	-0.00308
0.00154339	0.00070661	-0.0001302	-0.000966942	-0.0018	-0.00264	-0.00348
0.00144027	0.00054425	-0.0003518	-0.001247788	-0.00214	-0.00304	-0.00394
0.00132143	0.00035714	-0.0006071	-0.001571429	-0.00254	-0.0035	-0.00446
0.00118299	0.00013918	-0.0009046	-0.001948454	-0.00299	-0.00404	-0.00508
0.00101966	-0.00011798	-0.0012556	-0.002393258	-0.00353	-0.00467	-0.00581
0.00082407	-0.00042593	-0.0016759	-0.002925926	-0.00418	-0.00543	-0.00668
0.00058562	-0.00080137	-0.0021884	-0.003575342	-0.00496	-0.00635	-0.00774
0.00028846	-0.00126923	-0.0028269	-0.004384615	-0.00594	-0.0075	-0.00906
-0.0000921	-0.00186842	-0.0036447	-0.005421053	-0.0072	-0.00897	-0.01075
-0.00059694	-0.00266327	-0.0047296	-0.006795918	-0.00886	-0.01093	-0.01299
-0.00129878	-0.00376829	-0.0062378	-0.008707317	-0.01118	-0.01365	-0.01612

Fs1	Fs2	Fs3	Fs4	Fs5	Fs6	Fs7
-16.7247	400	400	400	336.0627	265.5052	194.9477
-34.4086	400	400	400	328.4946	255.914	183.3333
-53.1365	400	400	395.203	320.4797	245.7565	171.0332
-73.0038	400	400	388.9734	311.9772	234.981	157.9848
-94.1176	400	400	382.3529	302.9412	223.5294	144.1176
-116.599	400	400	375.3036	293.3198	211.336	129.3522
-140.586	400	400	367.7824	283.0544	198.3264	113.5983
-166.234	400	400	359.7403	272.0779	184.4156	96.75325
-193.722	400	400	351.1211	260.3139	169.5067	78.69955
-223.256	400	400	341.8605	247.6744	153.4884	59.30233
-255.072	400	400	331.8841	234.058	136.2319	38.4058
-289.447	400	400	321.1055	219.3467	117.5879	15.82915
-400	400	400	286.4407	172.0339	57.62712	-56.7797
-400	400	391.4201	271.5976	151.7751	31.95266	-87.8698
-400	400	381.0559	255.2795	129.5031	3.726708	-122.05
-400	400	369.6078	237.2549	104.902	-27.451	-159.804
-400	400	356.8966	217.2414	77.58621	-62.069	-201.724
-400	400	342.7007	194.8905	47.08029	-100.73	-248.54
-400	400	326.7442	169.7674	12.7907	-144.186	-301.163
-400	400	308.6777	141.3223	-26.0331	-193.388	-360.744
-400	400	288.0531	108.8496	-70.354	-249.558	-400
-400	400	264.2857	71.42857	-121.429	-314.286	-400
-400	400	236.5979	27.83505	-180.928	-389.691	-400
-400	400	203.9326	-23.5955	-251.124	-400	-400
-400	400	164.8148	-85.1852	-335.185	-400	-400
-400	394.5205	117.1233	-160.274	-400	-400	-400
-400	369.2308	57.69231	-253.846	-400	-400	-400
-400	336.8421	-18.4211	-373.684	-400	-400	-400
-400	293.8776	-119.388	-400	-400	-400	-400
-400	234.1463	-259.756	-400	-400	-400	-400

Fs8	Fs9	Cc	Cs9	Cs1	Cs2
124.3902439	53.83275261	10367875	-73887.6	1673266.243	371836.9
110.7526882	38.17204301	10078875	-152013	1673266.243	371836.9
96.3099631	21.58671587	9789875	-234750	1673266.243	371836.9
80.98859316	3.992395437	9500875	-322521	1673266.243	371836.9
64.70588235	-14.70588235	9211875	-415799	1673266.243	371836.9
47.36842105	-34.61538462	8922875	-515119	1673266.243	371836.9
28.87029289	-55.85774059	8633875	-621089	1673266.243	371836.9
9.090909091	-78.57142857	8344875	-734398	1673266.243	371836.9
-12.10762332	-102.9147982	8055875	-855837	1673266.243	371836.9
-34.88372093	-129.0697674	7766875	-986314	1673266.243	371836.9
-59.42028986	-157.2463768	7477875	-1126876	1673266.243	371836.9
-85.92964824	-187.6884422	7188875	-1278739	1673266.243	371836.9
-171.1864407	-285.5932203	6394125	-1767146	1673266.243	371836.9
-207.6923077	-327.5147929	6105125	-1767146	1673266.243	363413.7
-247.826087	-373.6024845	5816125	-1767146	1673266.243	353238.6
-292.1568627	-400	5527125	-1767146	1673266.243	341999.5
-341.3793103	-400	5238125	-1767146	1673266.243	329520.2
-396.350365	-400	4949125	-1767146	1673266.243	315583.5
-400	-400	4660125	-1767146	1673266.243	299918.2
-400	-400	4371125	-1767146	1673266.243	282181.5
-400	-400	4082125	-1767146	1673266.243	261933.3
-400	-400	3793125	-1767146	1673266.243	238599.8
-400	-400	3504125	-1767146	1673266.243	211417.3
-400	-400	3215125	-1767146	1673266.243	179348.2
-400	-400	2926125	-1767146	1673266.243	140944.4
-400	-400	2637125	-1767146	1649058.766	94123.38
-400	-400	2348125	-1767146	1537331.946	35777.15
-400	-400	2059125	-1767146	1394243.212	-18084.8
-400	-400	1770125	-1767146	1204431.625	-117209
-400	-400	1481125	-1767146	940547.2251	-255015

Cs3	Cs4	Cs5	Cs6	Cs7	Cs8	Pn (kN)
371836.9	309066.7	239797	170527.353	101257.7	31988.04258	13563.56
371836.9	301636.7	230380.8	159124.94	87869.06	16613.17688	13139.43
367127.5	293768.1	220408.7	147049.323	73689.95	330.5700296	12702.6
361011.6	285420.7	209829.9	134239.067	58648.23	-16942.6137	12255.66
354512	276549.7	198587.3	120625.03	42662.71	-14437.4662	11819.68
347591.4	267103.9	186616.5	106129.113	25641.7	-33983.5744	11351.96
340207.4	257025.9	173844.3	90662.7574	7481.205	-54838.2086	10872.27
332312	246249.7	160187.4	74125.1392	-11937.16	-77137.3196	10379.38
323850.2	234700.4	145550.7	56400.9654	-11886.63	-101036.367	9892.72
314758.6	222291.7	129824.7	37357.7833	-34247.01	-126713.948	9368.936
304964.3	208923.7	112883.2	16842.6644	-58335.73	-154376.269	8827.004
294382.5	194481	94579.55	-5321.9112	-84361.23	-184262.697	8264.737
260350.3	148031.7	35713.15	-55743.302	-168061.9	-280380.488	6611.992
245778.2	128142.8	10507.31	-86265.996	-203901.4	-321536.896	6147.383
229757.9	106277.2	-17203.45	-119822	-243302.7	-366783.381	5664.408
212062.3	82125.12	-26949.94	-156887.13	-286824.3	-392699.082	5206.072
192414.1	55307.94	-60936.06	-198042.21	-335148.4	-392699.082	4734.662
170471.2	25358.83	-98891.37	-244003.72	-389116.1	-392699.082	4241.949
145806.7	-8304.901	-141554.3	-295665.88	-392699.1	-392699.082	3781.047
117880.7	-25557.89	-189858.6	-354159.4	-392699.1	-392699.082	3322.333
86000.66	-69069.86	-245002.5	-392699.08	-392699.1	-392699.082	2844.01
49262.7	-119212.2	-308549.3	-392699.08	-392699.1	-392699.082	2381.249
6464.859	-177625.5	-382578	-392699.08	-392699.1	-392699.082	1889.827
-23164.8	-246540	-392699.1	-392699.08	-392699.1	-392699.082	1460.092
-83630.4	-329067.3	-392699.1	-392699.08	-392699.1	-392699.082	989.6958
-157349	-392699.1	-392699.1	-392699.08	-392699.1	-392699.082	492.3173
-249213	-392699.1	-392699.1	-392699.08	-392699.1	-392699.082	-58.62006
-366864	-392699.1	-392699.1	-392699.08	-392699.1	-392699.082	-662.2215
-392699	-392699.1	-392699.1	-392699.08	-392699.1	-392699.082	-1265.992
-392699	-392699.1	-392699.1	-392699.08	-392699.1	-392699.082	-1956.683

Mn (kN)	e	ϕ	ϕPn	ϕMn
			10165.68337	0
			10165.68337	200
			10165.68337	800
1718.634	126.710	0.650	8816.317	1117.112
1809.685	137.729	0.650	8540.628	1176.295
1896.968	149.337	0.650	8256.691	1233.029
1981.217	161.657	0.650	7966.182	1287.791
2057.524	174.076	0.650	7682.791	1337.390
2136.668	188.220	0.650	7378.773	1388.834
2213.617	203.602	0.650	7066.977	1438.851
2288.653	220.500	0.650	6746.597	1487.625
2358.579	238.416	0.650	6430.268	1533.077
2430.807	259.454	0.650	6089.808	1580.025
2502.244	283.476	0.650	5737.553	1626.459
2573.388	311.370	0.650	5372.079	1672.702
2770.875	419.068	0.650	4297.795	1801.068
2774.290	451.296	0.670	4117.049	1858.008
2773.830	489.695	0.691	3916.416	1917.848
2763.810	530.882	0.715	3724.213	1977.118
2742.605	579.261	0.742	3512.901	2034.887
2716.824	640.466	0.772	3273.319	2096.449
2676.898	707.978	0.805	3043.889	2155.007
2632.342	792.317	0.843	2800.187	2218.636
2577.670	906.350	0.886	2519.759	2283.785
2512.673	1055.191	0.900	2143.124	2261.405
2440.068	1291.160	0.900	1700.844	2196.061
2362.649	1618.151	0.900	1314.083	2126.384
2272.362	2296.021	0.900	890.726	2045.126
2166.219	4400.048	0.900	443.086	1949.597
2025.015	-34544.750	0.900	-52.758	1822.514
1865.097	-2816.425	0.900		
1688.534	-1333.763	0.900		
1476.626	-754.658	0.900		
			0.000	767.669

Perhitungan Kolom K2

	dimensi kolom			
h	800	mm		
b	800	mm		
fy	400	Mpa		
Fc	25	Mpa		
tulangan utama	32	D	25	
tulangan utama yg ditinjau	9	D	25	
D (sengkang)	10	mm		
Ts	40	mm		

No baris	tepi serat ke pusat tulangan	Jumlah tulangan	Diameter tulangan	Luas tulangan
1	62.5	9	25	4417.864669
2	146.875	2	25	981.7477042
3	231.25	2	25	981.7477042
4	315.625	2	25	981.7477042
5	400	2	25	981.7477042
6	484.375	2	25	981.7477042
7	568.75	2	25	981.7477042
8	653.125	2	25	981.7477042
9	737.5	9	25	4417.864669

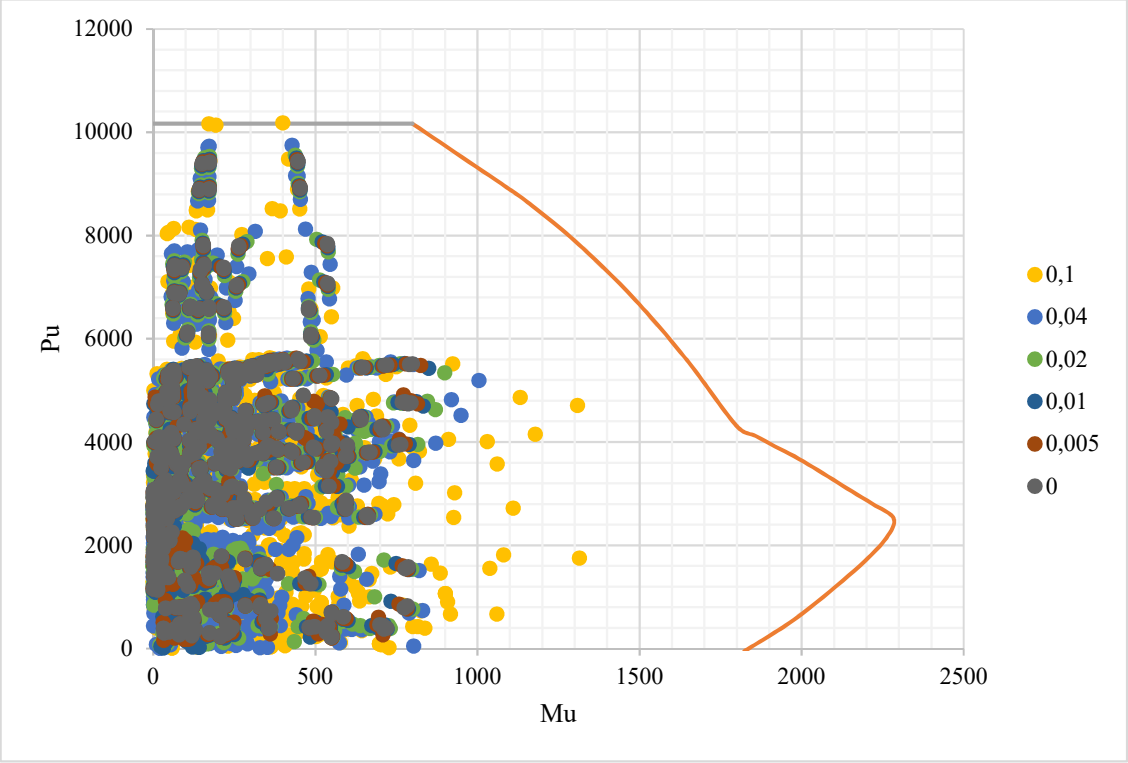
d'	62.5
d	737.5
Es	200000
B1	0.85
y	400.00

kondisi eksentrisitas kecil

Ag	640000
Ast	15707.96
ϕPn	10165.6834

Kondisi momen murni

c	80.7808548
a	68.6637266
cc	1167.283
Cs	599.862
Ts	1767.146
	0.000
Ts=Cc+Cs	1767.146
Mn	909.830197
ϕMn	591.389628
SNI ϕMn	767.669229
Mn digunakan	767.669229



Cb	442.5		C	a	Es1	Es2
		Eks kecil				
		C>Cb	717.5	609.875	-0.000084	0.00273868
			697.5	592.875	-0.000172	0.00273118
			677.5	575.875	-0.000266	0.00272325
			657.5	558.875	-0.000365	0.00271483
			637.5	541.875	-0.000471	0.00270588
			617.5	524.875	-0.000583	0.00269636
			597.5	507.875	-0.000703	0.00268619
			577.5	490.875	-0.000831	0.00267532
			557.5	473.875	-0.000969	0.00266368
			537.5	456.875	-0.001116	0.00265116
			517.5	439.875	-0.001275	0.00263768
			497.5	422.875	-0.001447	0.00262312
		Cb	442.5	376.125	-0.002000	0.00257627
		C<Cb	422.5	359.125	-0.002237	0.00255621
			402.5	342.125	-0.002497	0.00253416
			382.5	325.125	-0.002784	0.0025098
			362.5	308.125	-0.003103	0.00248276
			342.5	291.125	-0.003460	0.00245255
			322.5	274.125	-0.003860	0.0024186
			302.5	257.125	-0.004314	0.00238017
			282.5	240.125	-0.004832	0.00233628
			262.5	223.125	-0.005429	0.00228571
			242.5	206.125	-0.006124	0.0022268
			222.5	189.125	-0.006944	0.0021573
			202.5	172.125	-0.007926	0.00207407
			182.5	155.125	-0.009123	0.0019726
			162.5	138.125	-0.010615	0.00184615
			142.5	121.125	-0.012526	0.00168421
			122.5	104.125	-0.015061	0.00146939
			102.5	87.125	-0.018585	0.00117073
	eks. Kecil	momen murni	80.7808548			

Es3	Es4	Es5	Es6	Es7	Es8
0.00238589	0.0020331	0.001680314	0.001327526	0.000974739	0.000622
0.00236828	0.00200538	0.001642473	0.00127957	0.000916667	0.000554
0.00234963	0.00197601	0.001602399	0.001228782	0.000855166	0.000482
0.00232985	0.00194487	0.001559886	0.001174905	0.000789924	0.000405
0.00230882	0.00191176	0.001514706	0.001117647	0.000720588	0.000324
0.00228644	0.00187652	0.001466599	0.00105668	0.000646761	0.000237
0.00226255	0.00183891	0.001415272	0.000991632	0.000567992	0.000144
0.00223701	0.0017987	0.00136039	0.000922078	0.000483766	4.55E-05
0.00220964	0.00175561	0.00130157	0.000847534	0.000393498	-6.05E-05
0.00218023	0.0017093	0.001238372	0.000767442	0.000296512	-0.000174
0.00214855	0.00165942	0.00117029	0.000681159	0.000192029	-0.000297
0.00211432	0.00160553	0.001096734	0.00058794	7.91457E-05	-0.00043
0.00200424	0.0014322	0.000860169	0.000288136	-0.0002839	-0.000856
0.0019571	0.00135799	0.000758876	0.000159763	-0.00043935	-0.001038
0.00190528	0.0012764	0.000647516	1.86335E-05	-0.00061025	-0.001239
0.00184804	0.00118627	0.00052451	-0.000137255	-0.00079902	-0.001461
0.00178448	0.00108621	0.000387931	-0.000310345	-0.00100862	-0.001707
0.0017135	0.00097445	0.000235401	-0.00050365	-0.0012427	-0.001982
0.00163372	0.00084884	0.0000640	-0.00072093	-0.00150581	-0.002291
0.00154339	0.00070661	-0.0001302	-0.000966942	-0.00180372	-0.00264
0.00144027	0.00054425	-0.00035177	-0.001247788	-0.00214381	-0.00304
0.00132143	0.00035714	-0.000607143	-0.001571429	-0.00253571	-0.0035
0.00118299	0.00013918	-0.000904639	-0.001948454	-0.00299227	-0.004036
0.00101966	-0.00011798	-0.001255618	-0.002393258	-0.0035309	-0.004669
0.00082407	-0.00042593	-0.001675926	-0.002925926	-0.00417593	-0.005426
0.00058562	-0.00080137	-0.002188356	-0.003575342	-0.00496233	-0.006349
0.00028846	-0.00126923	-0.002826923	-0.004384615	-0.00594231	-0.0075
-0.0000921	-0.00186842	-0.003644737	-0.005421053	-0.00719737	-0.008974
-0.00059694	-0.00266327	-0.004729592	-0.006795918	-0.00886224	-0.010929
-0.00129878	-0.00376829	-0.006237805	-0.008707317	-0.01117683	-0.013646

Es9	Fs1	Fs2	Fs3	Fs4
0.000269164	-16.72473868	400	400	400
0.00019086	-34.40860215	400	400	400
0.000107934	-53.13653137	400	400	395.202952
1.9962E-05	-73.00380228	400	400	388.973384
-7.3529E-05	-94.11764706	400	400	382.3529412
-0.00017308	-116.5991903	400	400	375.3036437
-0.00027929	-140.5857741	400	400	367.7824268
-0.00039286	-166.2337662	400	400	359.7402597
-0.00051457	-193.7219731	400	400	351.1210762
-0.00064535	-223.255814	400	400	341.8604651
-0.00078623	-255.0724638	400	400	331.884058
-0.00093844	-289.4472362	400	400	321.1055276
-0.00142797	-400	400	400	286.440678
-0.00163757	-400	400	391.4201183	271.5976331
-0.00186801	-400	400	381.0559006	255.2795031
-0.00212255	-400	400	369.6078431	237.254902
-0.00240517	-400	400	356.8965517	217.2413793
-0.0027208	-400	400	342.7007299	194.8905109
-0.00307558	-400	400	326.744186	169.7674419
-0.00347727	-400	400	308.677686	141.322314
-0.00393584	-400	400	288.0530973	108.8495575
-0.00446429	-400	400	264.2857143	71.42857143
-0.0050799	-400	400	236.5979381	27.83505155
-0.00580618	-400	400	203.9325843	-23.59550562
-0.00667593	-400	400	164.8148148	-85.18518519
-0.0077363	-400	394.5205479	117.1232877	-160.2739726
-0.00905769	-400	369.2307692	57.69230769	-253.8461538
-0.01075	-400	336.8421053	-18.42105263	-373.6842105
-0.0129949	-400	293.877551	-119.3877551	-400
-0.01611585	-400	234.1463415	-259.7560976	-400

Fs5	Fs6	Fs7	Fs8	Fs9
336.0627178	265.5052265	194.9477352	124.3902439	53.83275261
328.4946237	255.9139785	183.3333333	110.7526882	38.17204301
320.4797048	245.7564576	171.0332103	96.3099631	21.58671587
311.9771863	234.9809886	157.9847909	80.98859316	3.992395437
302.9411765	223.5294118	144.1176471	64.70588235	-14.70588235
293.3198381	211.3360324	129.3522267	47.36842105	-34.61538462
283.0543933	198.3263598	113.5983264	28.87029289	-55.85774059
272.0779221	184.4155844	96.75324675	9.090909091	-78.57142857
260.3139013	169.5067265	78.69955157	-12.10762332	-102.9147982
247.6744186	153.4883721	59.30232558	-34.88372093	-129.0697674
234.057971	136.2318841	38.4057971	-59.42028986	-157.2463768
219.3467337	117.5879397	15.82914573	-85.92964824	-187.6884422
172.0338983	57.62711864	-56.77966102	-171.1864407	-285.5932203
151.7751479	31.95266272	-87.86982249	-207.6923077	-327.5147929
129.5031056	3.726708075	-122.0496894	-247.826087	-373.6024845
104.9019608	-27.45098039	-159.8039216	-292.1568627	-400
77.5862069	-62.06896552	-201.7241379	-341.3793103	-400
47.08029197	-100.729927	-248.540146	-396.350365	-400
12.79069767	-144.1860465	-301.1627907	-400	-400
-26.0330579	-193.3884298	-360.7438017	-400	-400
-70.3539823	-249.5575221	-400	-400	-400
-121.428571	-314.2857143	-400	-400	-400
-180.927835	-389.6907216	-400	-400	-400
-251.123596	-400	-400	-400	-400
-335.185185	-400	-400	-400	-400
-400	-400	-400	-400	-400
-400	-400	-400	-400	-400
-400	-400	-400	-400	-400
-400	-400	-400	-400	-400
-400	-400	-400	-400	-400

Cc	Cs9	Cs1	Cs2	Cs3	Cs4	Cs5	Cs6
10367875	-73887.63	1673266.243	371836.9	371836.943	309066.7	239797	170527.4
10078875	-152012.5	1673266.243	371836.9	371836.943	301636.7	230380.8	159124.9
9789875	-234750	1673266.243	371836.9	367127.452	293768.1	220408.7	147049.3
9500875	-322520.9	1673266.243	371836.9	361011.588	285420.7	209829.9	134239.1
9211875	-415799	1673266.243	371836.9	354511.983	276549.7	198587.3	120625
8922875	-515119.4	1673266.243	371836.9	347591.352	267103.9	186616.5	106129.1
8633875	-621088.9	1673266.243	371836.9	340207.414	257025.9	173844.3	90662.76
8344875	-734398.3	1673266.243	371836.9	332312.035	246249.7	160187.4	74125.14
8055875	-855837.5	1673266.243	371836.9	323850.172	234700.4	145550.7	56400.97
7766875	-986314	1673266.243	371836.9	314758.588	222291.7	129824.7	37357.78
7477875	-1126876	1673266.243	371836.9	304964.273	208923.7	112883.2	16842.66
7188875	-1278739	1673266.243	371836.9	294382.476	194481	94579.55	-5321.91
6394125	-1767146	1673266.243	371836.9	260350.339	148031.7	35713.15	-55743.3
6105125	-1767146	1673266.243	363413.7	245778.214	128142.8	10507.31	-86266
5816125	-1767146	1673266.243	353238.6	229757.927	106277.2	-17203.5	-119822
5527125	-1767146	1673266.243	341999.5	212062.317	82125.12	-26949.9	-156887
5238125	-1767146	1673266.243	329520.2	192414.087	55307.94	-60936.1	-198042
4949125	-1767146	1673266.243	315583.5	170471.173	25358.83	-98891.4	-244004
4660125	-1767146	1673266.243	299918.2	145806.658	-8304.9	-141554	-295666
4371125	-1767146	1673266.243	282181.5	117880.719	-25557.9	-189859	-354159
4082125	-1767146	1673266.243	261933.3	86000.6645	-69069.9	-245003	-392699
3793125	-1767146	1673266.243	238599.8	49262.6973	-119212	-308549	-392699
3504125	-1767146	1673266.243	211417.3	6464.85924	-177625	-382578	-392699
3215125	-1767146	1673266.243	179348.2	-23164.833	-246540	-392699	-392699
2926125	-1767146	1673266.243	140944.4	-83630.36	-329067	-392699	-392699
2637125	-1767146	1649058.766	94123.38	-157348.6	-392699	-392699	-392699
2348125	-1767146	1537331.946	35777.15	-249212.88	-392699	-392699	-392699
2059125	-1767146	1394243.212	-18084.83	-366863.62	-392699	-392699	-392699
1770125	-1767146	1204431.625	-117208.7	-392699.08	-392699	-392699	-392699
1481125	-1767146	940547.2251	-255015	-392699.08	-392699	-392699	-392699

Cs7	Cs8	Pn (kN)	Mn (kN)	e	ϕ	ϕPn	ϕMn
						10165.68	0
						10165.68	200
						10165.68	800
101257.7	31988.04	13563.56	1718.634	126.710	0.650	8816.317	1117.112
87869.06	16613.18	13139.43	1809.685	137.729	0.650	8540.628	1176.295
73689.95	330.57	12702.6	1896.968	149.337	0.650	8256.691	1233.029
58648.23	-16942.6	12255.66	1981.217	161.657	0.650	7966.182	1287.791
42662.71	-14437.5	11819.68	2057.524	174.076	0.650	7682.791	1337.390
25641.7	-33983.6	11351.96	2136.668	188.220	0.650	7378.773	1388.834
7481.205	-54838.2	10872.27	2213.617	203.602	0.650	7066.977	1438.851
-11937.2	-77137.3	10379.38	2288.653	220.500	0.650	6746.597	1487.625
-11886.6	-101036	9892.72	2358.579	238.416	0.650	6430.268	1533.077
-34247	-126714	9368.936	2430.807	259.454	0.650	6089.808	1580.025
-58335.7	-154376	8827.004	2502.244	283.476	0.650	5737.553	1626.459
-84361.2	-184263	8264.737	2573.388	311.370	0.650	5372.079	1672.702
-168062	-280380	6611.992	2770.875	419.068	0.650	4297.795	1801.068
-203901	-321537	6147.383	2774.290	451.296	0.670	4117.049	1858.008
-243303	-366783	5664.408	2773.830	489.695	0.691	3916.416	1917.848
-286824	-392699	5206.072	2763.810	530.882	0.715	3724.213	1977.118
-335148	-392699	4734.662	2742.605	579.261	0.742	3512.901	2034.887
-389116	-392699	4241.949	2716.824	640.466	0.772	3273.319	2096.449
-392699	-392699	3781.047	2676.898	707.978	0.805	3043.889	2155.007
-392699	-392699	3322.333	2632.342	792.317	0.843	2800.187	2218.636
-392699	-392699	2844.01	2577.670	906.350	0.886	2519.759	2283.785
-392699	-392699	2381.249	2512.673	1055.191	0.900	2143.124	2261.405
-392699	-392699	1889.827	2440.068	1291.160	0.900	1700.844	2196.061
-392699	-392699	1460.092	2362.649	1618.151	0.900	1314.083	2126.384
-392699	-392699	989.6958	2272.362	2296.021	0.900	890.726	2045.126
-392699	-392699	492.3173	2166.219	4400.048	0.900	443.086	1949.597
-392699	-392699	-58.6201	2025.015	########	0.900	-52.758	1822.514
-392699	-392699	-662.222	1865.097	-2816.425	0.900		
-392699	-392699	-1265.99	1688.534	-1333.763	0.900		
-392699	-392699	-1956.68	1476.626	-754.658	0.900		
						0.000	767.669

Perhitungan Kolom K3

	dimensi kolom		
h	800	mm	
b	800	mm	
fy	400	Mpa	
Fc	25	Mpa	
tulangan utama	24	D	25
tulangan utama yg ditinjau	7	D	25
D (sengkang)	10	mm	
Ts	40	mm	

No baris	tepi serat ke pusat tulangan	Jumlah tulangan	Diameter tulangan	Luas tulangan
1	62.5	7	25	3436.116965
2	175	2	25	981.7477042
3	287.5	2	25	981.7477042
4	400	2	25	981.7477042
5	512.5	2	25	981.7477042
6	625	2	25	981.7477042
7	737.5	7	25	3436.116965
8	0	0	0	0
9	0	0	0	0

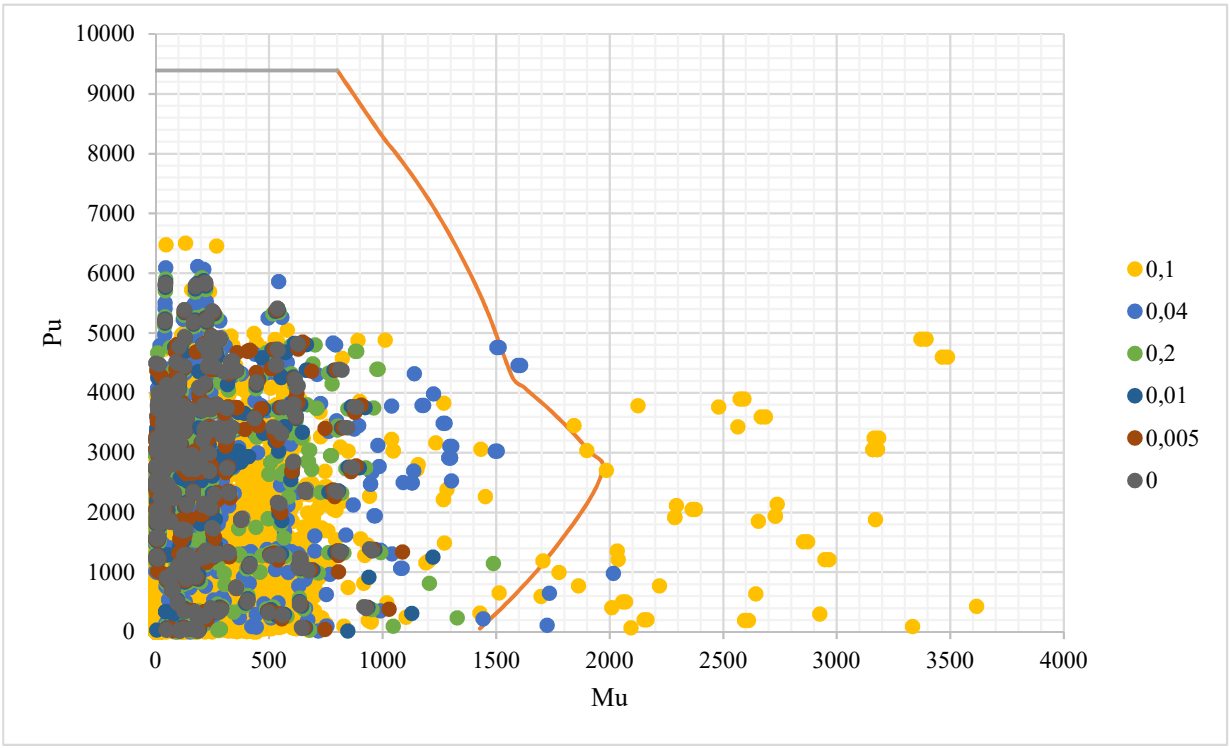
d'	62.5
d	737.5
Es	200000
B1	0.85
y	400.00

kondisi eksentrisitas kecil

Ag	640000		
Ast	11780.97		
ϕPn	9392.26252		1100

Kondisi momen murni

c	73.5998836		
a	62.5599011		
cc	1063.518		
Cs	310.928		
Ts	1374.447		
	0.000		
Ts=Cc+Cs	1374.447		
Mn	669.914858		
ϕMn	435.444658	Pn	
SNI ϕMn	565.240662		1100
Mn digunakan	565.240662		



Cb	442.5		C	a	Es1	Es2
		Eks kecil				
		C>Cb	717.5	609.875	0.000000	0.00273868
			697.5	592.875	0.000000	0.00273118
			677.5	575.875	0.000000	0.00272325
			657.5	558.875	0.000000	0.00271483
			637.5	541.875	0.000000	0.00270588
			617.5	524.875	0.000000	0.00269636
			597.5	507.875	0.000000	0.00268619
			577.5	490.875	0.000000	0.00267532
			557.5	473.875	0.000000	0.00266368
			537.5	456.875	0.000000	0.00265116
			517.5	439.875	0.000000	0.00263768
			497.5	422.875	0.000000	0.00262312
		Cb	442.5	376.125	0.000000	0.00257627
		C<Cb	422.5	359.125	0.000000	0.00255621
			402.5	342.125	0.000000	0.00253416
			382.5	325.125	0.000000	0.0025098
			362.5	308.125	0.000000	0.00248276
			342.5	291.125	0.000000	0.00245255
			322.5	274.125	0.000000	0.0024186
			302.5	257.125	0.000000	0.00238017
			282.5	240.125	0.000000	0.00233628
			262.5	223.125	0.000000	0.00228571
			242.5	206.125	0.000000	0.0022268
			222.5	189.125	0.000000	0.0021573
			202.5	172.125	0.000000	0.00207407
			182.5	155.125	0.000000	0.0019726
			162.5	138.125	0.000000	0.00184615
			142.5	121.125	0.000000	0.00168421
			122.5	104.125	0.000000	0.00146939
			102.5	87.125	0.000000	0.00117073
	eks. Kecil	momen murni	73.5998836			

Es3	Es4	Es5	Es6	Es7	Es8
0.00226829	0.00179791	0.00132753	0.000857143	0.000387	-8.4E-05
0.00224731	0.00176344	0.00127957	0.000795699	0.000312	-0.00017
0.00222509	0.00172694	0.00122878	0.000730627	0.000232	-0.00027
0.00220152	0.00168821	0.0011749	0.000661597	0.000148	-0.00037
0.00217647	0.00164706	0.00111765	0.000588235	5.88E-05	-0.00047
0.0021498	0.00160324	0.00105668	0.000510121	-3.6E-05	-0.00058
0.00212134	0.00155649	0.00099163	0.000426778	-0.00014	-0.0007
0.00209091	0.00150649	0.00092208	0.000337662	-0.00025	-0.00083
0.0020583	0.00145291	0.00084753	0.000242152	-0.00036	-0.00097
0.00202326	0.00139535	0.00076744	0.000139535	-0.00049	-0.00112
0.00198551	0.00133333	0.00068116	2.89855E-05	-0.00062	-0.00128
0.00194472	0.00126633	0.00058794	-9.04523E-05	-0.00077	-0.00145
0.00181356	0.00105085	0.00028814	-0.000474576	-0.00124	-0.002
0.0017574	0.00095858	0.00015976	-0.000639053	-0.00144	-0.00224
0.00169565	0.00085714	1.8634E-05	-0.000819876	-0.00166	-0.0025
0.00162745	0.0007451	-0.0001373	-0.001019608	-0.0019	-0.00278
0.00155172	0.00062069	-0.0003103	-0.001241379	-0.00217	-0.0031
0.00146715	0.00048175	-0.0005036	-0.001489051	-0.00247	-0.00346
0.00137209	0.00032558	-0.0007209	-0.001767442	-0.00281	-0.00386
0.00126446	0.00014876	-0.0009669	-0.002082645	-0.0032	-0.00431
0.00114159	-5.3097E-05	-0.0012478	-0.002442478	-0.00364	-0.00483
0.001	-0.00028571	-0.0015714	-0.002857143	-0.00414	-0.00543
0.00083505	-0.0005567	-0.0019485	-0.003340206	-0.00473	-0.00612
0.00064045	-0.0008764	-0.0023933	-0.003910112	-0.00543	-0.00694
0.00040741	-0.00125926	-0.0029259	-0.004592593	-0.00626	-0.00793
0.00012329	-0.00172603	-0.0035753	-0.005424658	-0.00727	-0.00912
-0.00023077	-0.00230769	-0.0043846	-0.006461538	-0.00854	-0.01062
-0.0006842	-0.00305263	-0.0054211	-0.007789474	-0.01016	-0.01253
-0.00128571	-0.00404082	-0.0067959	-0.00955102	-0.01231	-0.01506
-0.00212195	-0.00541463	-0.0087073	-0.012	-0.01529	-0.01859

Es9	Fs1	Fs2	Fs3	Fs4	Fs5	Fs6
0	0	400	400	359.5818815	265.5052265	171.4285714
0	0	400	400	352.688172	255.9139785	159.1397849
0	0	400	400	345.3874539	245.7564576	146.1254613
0	0	400	400	337.6425856	234.9809886	132.3193916
0	0	400	400	329.4117647	223.5294118	117.6470588
0	0	400	400	320.6477733	211.3360324	102.0242915
0	0	400	400	311.2970711	198.3263598	85.35564854
0	0	400	400	301.2987013	184.4155844	67.53246753
0	0	400	400	290.5829596	169.5067265	48.43049327
0	0	400	400	279.0697674	153.4883721	27.90697674
0	0	400	397.1014	266.6666667	136.2318841	5.797101449
0	0	400	388.9447	253.2663317	117.5879397	-18.09045226
0	0	400	362.7119	210.1694915	57.62711864	-94.91525424
0	0	400	351.4793	191.7159763	31.95266272	-127.8106509
0	0	400	339.1304	171.4285714	3.726708075	-163.9751553
0	0	400	325.4902	149.0196078	-27.45098039	-203.9215686
0	0	400	310.3448	124.137931	-62.06896552	-248.2758621
0	0	400	293.4307	96.35036496	-100.729927	-297.810219
0	0	400	274.4186	65.11627907	-144.1860465	-353.4883721
0	0	400	252.8926	29.75206612	-193.3884298	-400
0	0	400	228.3186	-10.61946903	-249.5575221	-400
0	0	400	200	-57.14285714	-314.2857143	-400
0	0	400	167.0103	-111.3402062	-389.6907216	-400
0	0	400	128.0899	-175.2808989	-400	-400
0	0	400	81.48148	-251.8518519	-400	-400
0	0	394.52055	24.65753	-345.2054795	-400	-400
0	0	369.23077	-46.15385	-400	-400	-400
0	0	336.84211	-136.8421	-400	-400	-400
0	0	293.87755	-257.1429	-400	-400	-400
0	0	234.14634	-400	-400	-400	-400

Fs7	Fs8	Fs9	Cc	Cs9
77.35191638	-16.72473868	0	10367875	0
62.3655914	-34.40860215	0	10078875	0
46.49446494	-53.13653137	0	9789875	0
29.65779468	-73.00380228	0	9500875	0
11.76470588	-94.11764706	0	9211875	0
-7.287449393	-116.5991903	0	8922875	0
-27.61506276	-140.5857741	0	8633875	0
-49.35064935	-166.2337662	0	8344875	0
-72.64573991	-193.7219731	0	8055875	0
-97.6744186	-223.255814	0	7766875	0
-124.6376812	-255.0724638	0	7477875	0
-153.7688442	-289.4472362	0	7188875	0
-247.4576271	-400	0	6394125	0
-287.5739645	-400	0	6105125	0
-331.6770186	-400	0	5816125	0
-380.3921569	-400	0	5527125	0
-400	-400	0	5238125	0
-400	-400	0	4949125	0
-400	-400	0	4660125	0
-400	-400	0	4371125	0
-400	-400	0	4082125	0
-400	-400	0	3793125	0
-400	-400	0	3504125	0
-400	-400	0	3215125	0
-400	-400	0	2926125	0
-400	-400	0	2637125	0
-400	-400	0	2348125	0
-400	-400	0	2059125	0
-400	-400	0	1770125	0
-400	-400	0	1481125	0

Cs1	Cs2	Cs3	Cs4	Cs5	Cs6	Cs7
1301429.3	371836.9	332156.5	239797	147437.5	55077.93	-57468.1583
1301429.3	371836.9	325388.7	230380.8	135373	40365.14	-118231.9816
1301429.3	371836.9	318221.2	220408.7	122596.2	24783.7	-182583.3369
1301429.3	371836.9	310617.7	209829.9	109042.1	8254.333	-250849.6035
1301429.3	371836.9	302537.1	198587.3	94637.59	-9312.17	-323399.2438
1301429.3	371836.9	293933.1	186616.5	79299.98	-7154.44	-400648.4558
1301429.3	371836.9	284753	173844.3	62935.57	-27111	-483069.1633
1301429.3	371836.9	274937.2	160187.4	45437.71	-48449.9	-571198.6643
1301429.3	371836.9	264417	145550.7	26684.39	-71319.8	-665651.3582
1301429.3	371836.9	253114	129824.7	6535.472	-95891.6	-767133.0898
1301429.3	368991.3	240937.2	112883.2	-15170.8	-122363	-876458.82
1301429.3	360983.5	227781.5	94579.55	-17760.3	-150962	-994574.5587
1301429.3	335229.4	185471.3	35713.15	-93182.8	-242941	-1374446.786
1301429.3	324201.8	167354.6	10507.31	-125478	-282325	-1374446.786
1301429.3	312078.4	147437.5	-17203.5	-160982	-325623	-1374446.786
1301429.3	298687.1	125437.5	-26949.9	-200200	-373449	-1374446.786
1301429.3	283818.2	101010	-60936.1	-243744	-392699	-1374446.786
1301429.3	267212.7	73729.61	-98891.4	-292374	-392699	-1374446.786
1301429.3	248547.7	43065.62	-141554	-347036	-392699	-1374446.786
1301429.3	227414.6	8346.884	-189859	-392699	-392699	-1374446.786
1301429.3	203289.1	-10425.6	-245003	-392699	-392699	-1374446.786
1301429.3	175487.4	-56099.9	-308549	-392699	-392699	-1374446.786
1301429.3	143099.8	-109308	-382578	-392699	-392699	-1374446.786
1301429.3	104889.8	-172082	-392699	-392699	-392699	-1374446.786
1301429.3	59132.12	-247255	-392699	-392699	-392699	-1374446.786
1282601.262	3345.339	-338905	-392699	-392699	-392699	-1374446.786
1195702.625	-45311.43	-392699	-392699	-392699	-392699	-1374446.786
1084411.387	-134344.4	-392699	-392699	-392699	-392699	-1374446.786
936780.1532	-252449.4	-392699	-392699	-392699	-392699	-1374446.786
731536.7307	-392699.1	-392699	-392699	-392699	-392699	-1374446.786

Cs8	Pn (kN)	Mn (kN)	e	ϕ	ϕPn	ϕMn
					9392.262524	0
					9392.262524	200
					9392.262524	800
0	12758.14	1536.276	120.415	0.650	8292.792	998.579
0	12365.42	1618.887	130.921	0.650	8037.521	1052.277
0	11966.57	1698.027	141.898	0.650	7778.269	1103.718
0	11561.04	1773.827	153.431	0.650	7514.673	1152.987
0	11148.19	1846.434	165.626	0.650	7246.325	1200.182
0	10748.19	1911.324	177.828	0.650	6986.322	1242.360
0	10318.49	1978.071	191.702	0.650	6707.021	1285.746
0	9879.055	2042.200	206.720	0.650	6421.386	1327.430
0	9428.822	2103.956	223.141	0.650	6128.734	1367.571
0	8966.591	2163.623	241.298	0.650	5828.284	1406.355
0	8488.124	2220.889	261.647	0.650	5517.280	1443.578
0	8010.352	2273.265	283.791	0.650	5206.729	1477.622
0	6541.398	2419.700	369.906	0.650	4251.908	1572.805
0	6126.368	2418.319	394.739	0.670	4102.975	1619.606
0	5698.815	2412.817	423.389	0.691	3940.205	1668.241
0	5277.634	2403.320	455.378	0.715	3775.405	1719.238
0	4852.556	2382.361	490.950	0.742	3600.374	1767.602
0	4433.085	2352.018	530.560	0.772	3420.810	1814.945
0	3997.431	2316.597	579.521	0.805	3218.087	1864.950
0	3558.612	2274.239	639.080	0.843	2999.332	1916.814
0	3171.57	2222.951	700.899	0.886	2809.974	1969.508
0	2745.548	2162.897	787.783	0.900	2470.993	1946.607
0	2296.923	2096.051	912.547	0.900	2067.231	1886.445
0	1896.818	2021.905	1065.945	0.900	1707.137	1819.714
0	1486.887	1939.753	1304.573	0.900	1338.199	1745.778
0	1031.623	1842.224	1785.753	0.900	928.461	1658.001
0	553.2731	1722.670	3113.599	0.900	497.946	1550.403
0	63.94885	1586.939	24815.749	0.900	57.554	1428.245
0	-490.787	1427.488	-2908.567	0.900		
0	-1125.28	1238.698	-1100.790	0.900		
					0.000	565.241

Perhitungan Kolom K5

	dimensi kolom		
h	800	mm	
b	400	mm	
fy	400	Mpa	
Fc	25	Mpa	
tulangan utama	12	D	25
tulangan utama yg ditinjau	5	D	25
D (sengkang)	10	mm	
Ts	40	mm	

No baris	tepi serat ke pusat tulangan	Jumlah tulangan	Diameter tulangan	Luas tulangan
1	62.5	3	25	1472.621556
2	231.25	2	25	981.7477042
3	400	2	25	981.7477042
4	568.75	2	25	981.7477042
5	737.5	3	25	1472.621556
6	0	0	25	0
7	0	0	25	0
8	0	0	0	0
9	0	0	0	0

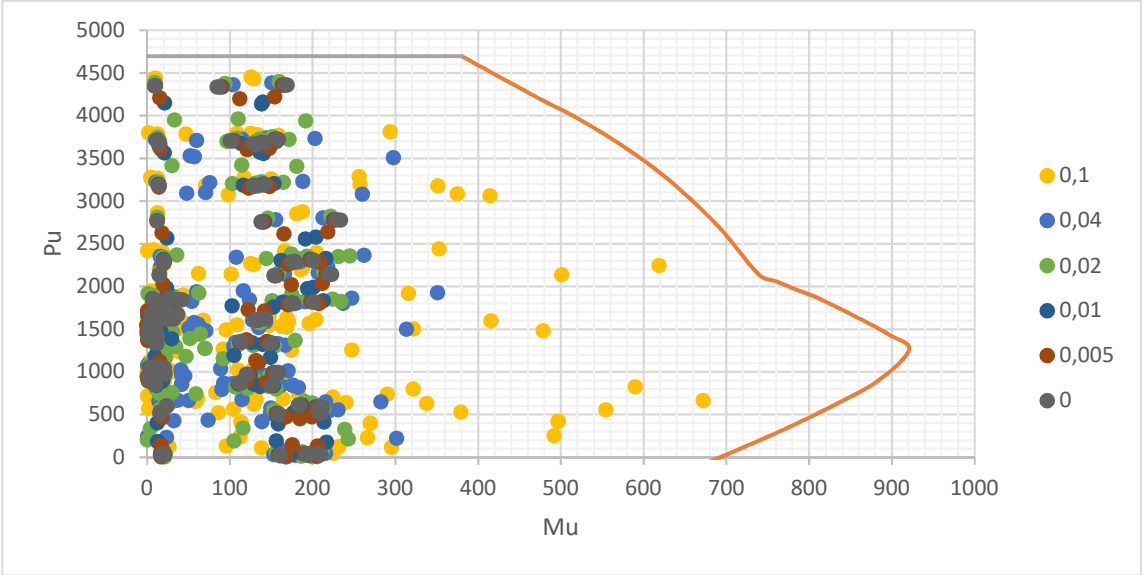
d'	62.5
d	737.5
Es	200000
B1	0.85
y	400.00

kondisi eksentrisitas kecil

Ag	320000	
Ast	5890.49	
ϕPn	4696.13126	1100

Kondisi momen murni

c	83.8977879
a	71.3131197
cc	606.162
Cs	375.586
Ts	981.748
	0.000
Ts=Cc+Cs	981.748
Mn	515.723391
ϕMn	335.220204
SNI ϕMn	435.141612
Mn digunakan	435.141612



Cb	442.5		C	a	Es1	Es2
		Eks kecil				
		C>Cb	717.5	609.875	0.000000	0.00273868
			697.5	592.875	0.000000	0.00273118
			677.5	575.875	0.000000	0.00272325
			657.5	558.875	0.000000	0.00271483
			637.5	541.875	0.000000	0.00270588
			617.5	524.875	0.000000	0.00269636
			597.5	507.875	0.000000	0.00268619
			577.5	490.875	0.000000	0.00267532
			557.5	473.875	0.000000	0.00266368
			537.5	456.875	0.000000	0.00265116
			517.5	439.875	0.000000	0.00263768
			497.5	422.875	0.000000	0.00262312
		Cb	442.5	376.125	0.000000	0.00257627
		C<Cb	422.5	359.125	0.000000	0.00255621
			402.5	342.125	0.000000	0.00253416
			382.5	325.125	0.000000	0.0025098
			362.5	308.125	0.000000	0.00248276
			342.5	291.125	0.000000	0.00245255
			322.5	274.125	0.000000	0.0024186
			302.5	257.125	0.000000	0.00238017
			282.5	240.125	0.000000	0.00233628
			262.5	223.125	0.000000	0.00228571
			242.5	206.125	0.000000	0.0022268
			222.5	189.125	0.000000	0.0021573
			202.5	172.125	0.000000	0.00207407
			182.5	155.125	0.000000	0.0019726
			162.5	138.125	0.000000	0.00184615
			142.5	121.125	0.000000	0.00168421
			122.5	104.125	0.000000	0.00146939
			102.5	87.125	0.000000	0.00117073
	eks. Kecil	momen murni	83.8977879			

Es3	Es4	Es5	Es6	Es7	Es8	Es9	Fs1
0.0020331	0.00132753	0.00062195	-8.362E-05	0	0	0	0
0.00200538	0.00127957	0.00055376	-0.000172	0	0	0	0
0.00197601	0.00122878	0.00048155	-0.0002657	0	0	0	0
0.00194487	0.0011749	0.00040494	-0.000365	0	0	0	0
0.00191176	0.00111765	0.00032353	-0.0004706	0	0	0	0
0.00187652	0.00105668	0.00023684	-0.000583	0	0	0	0
0.00183891	0.00099163	0.00014435	-0.0007029	0	0	0	0
0.0017987	0.00092208	4.5455E-05	-0.0008312	0	0	0	0
0.00175561	0.00084753	-6.0538E-05	-0.0009686	0	0	0	0
0.0017093	0.00076744	-0.00017442	-0.0011163	0	0	0	0
0.00165942	0.00068116	-0.0002971	-0.0012754	0	0	0	0
0.00160553	0.00058794	-0.00042965	-0.0014472	0	0	0	0
0.0014322	0.00028814	-0.00085593	-0.002	0	0	0	0
0.00135799	0.00015976	-0.00103846	-0.0022367	0	0	0	0
0.0012764	1.8634E-05	-0.00123913	-0.0024969	0	0	0	0
0.00118627	-0.00013725	-0.00146078	-0.0027843	0	0	0	0
0.00108621	-0.00031034	-0.0017069	-0.0031034	0	0	0	0
0.00097445	-0.00050365	-0.00198175	-0.0034599	0	0	0	0
0.00084884	-0.00072093	-0.0022907	-0.0038605	0	0	0	0
0.00070661	-0.00096694	-0.0026405	-0.004314	0	0	0	0
0.00054425	-0.00124779	-0.00303982	-0.0048319	0	0	0	0
0.00035714	-0.00157143	-0.0035	-0.0054286	0	0	0	0
0.00013918	-0.00194845	-0.00403608	-0.0061237	0	0	0	0
-0.00011798	-0.00239326	-0.00466854	-0.0069438	0	0	0	0
-0.00042593	-0.00292593	-0.00542593	-0.0079259	0	0	0	0
-0.00080137	-0.00357534	-0.00634932	-0.0091233	0	0	0	0
-0.00126923	-0.00438462	-0.0075	-0.0106154	0	0	0	0
-0.0018684	-0.00542105	-0.00897368	-0.0125263	0	0	0	0
-0.00266327	-0.00679592	-0.01092857	-0.0150612	0	0	0	0
-0.00376829	-0.00870732	-0.01364634	-0.0185854	0	0	0	0

Fs2	Fs3	Fs4	Fs5	Fs6	Fs7	Fs8	Fs9
400	400	265.5052	124.3902	-16.7247	0	0	0
400	400	255.914	110.7527	-34.4086	0	0	0
400	395.203	245.7565	96.30996	-53.1365	0	0	0
400	388.9734	234.981	80.98859	-73.0038	0	0	0
400	382.3529	223.5294	64.70588	-94.1176	0	0	0
400	375.3036	211.336	47.36842	-116.599	0	0	0
400	367.7824	198.3264	28.87029	-140.586	0	0	0
400	359.7403	184.4156	9.090909	-166.234	0	0	0
400	351.1211	169.5067	-12.1076	-193.722	0	0	0
400	341.8605	153.4884	-34.8837	-223.256	0	0	0
400	331.8841	136.2319	-59.4203	-255.072	0	0	0
400	321.1055	117.5879	-85.9296	-289.447	0	0	0
400	286.4407	57.62712	-171.186	-400	0	0	0
400	271.5976	31.95266	-207.692	-400	0	0	0
400	255.2795	3.726708	-247.826	-400	0	0	0
400	237.2549	-27.451	-292.157	-400	0	0	0
400	217.2414	-62.069	-341.379	-400	0	0	0
400	194.8905	-100.73	-396.35	-400	0	0	0
400	169.7674	-144.186	-400	-400	0	0	0
400	141.3223	-193.388	-400	-400	0	0	0
400	108.8496	-249.558	-400	-400	0	0	0
400	71.42857	-314.286	-400	-400	0	0	0
400	27.83505	-389.691	-400	-400	0	0	0
400	-23.5955	-400	-400	-400	0	0	0
400	-85.1852	-400	-400	-400	0	0	0
394.5205	-160.274	-400	-400	-400	0	0	0
369.2308	-253.846	-400	-400	-400	0	0	0
336.8421	-373.684	-400	-400	-400	0	0	0
293.8776	-400	-400	-400	-400	0	0	0
234.1463	-400	-400	-400	-400	0	0	0

Cc	Cs9	Cs1	Cs2	Cs3	Cs4	Cs5	Cs6
5183938	0	557755.4	371836.943	239797	101257.7	-24629.211	0
5039437.5	0	557755.4	371836.943	230380.8	87869.06	-50670.849	0
4894937.5	0	557755.4	367127.4522	220408.7	73689.95	-78250.002	0
4750437.5	0	557755.4	361011.5881	209829.9	58648.23	-107506.97	0
4605937.5	0	557755.4	354511.9835	198587.3	42662.71	-138599.68	0
4461437.5	0	557755.4	347591.3519	186616.5	25641.7	-171706.48	0
4316937.5	0	557755.4	340207.4144	173844.3	7481.205	-207029.64	0
4172437.5	0	557755.4	332312.0354	160187.4	-11937.16	-244799.43	0
4027937.5	0	557755.4	323850.1718	145550.7	-11886.63	-285279.15	0
3883437.5	0	557755.4	314758.5881	129824.7	-34247.01	-328771.32	0
3738937.5	0	557755.4	304964.2733	112883.2	-58335.73	-375625.21	0
3594437.5	0	557755.4	294382.4759	94579.55	-84361.23	-426246.24	0
3197062.5	0	557755.4	260350.3393	35713.15	-168061.9	-589048.62	0
3052562.5	0	557755.4	245778.2141	10507.31	-203901.4	-589048.62	0
2908062.5	0	557755.4	229757.9274	-17203.45	-243302.7	-589048.62	0
2763562.5	0	557755.4	212062.3166	-26949.94	-286824.3	-589048.62	0
2619062.5	0	557755.4	192414.0867	-60936.06	-335148.4	-589048.62	0
2474562.5	0	557755.4	170471.173	-98891.37	-389116.1	-589048.62	0
2330062.5	0	557755.4	145806.6576	-141554.3	-392699.1	-589048.62	0
2185562.5	0	557755.4	117880.7187	-189858.6	-392699.1	-589048.62	0
2041062.5	0	557755.4	86000.66449	-245002.5	-392699.1	-589048.62	0
1896562.5	0	557755.4	49262.6973	-308549.3	-392699.1	-589048.62	0
1752062.5	0	557755.4	6464.859238	-382578	-392699.1	-589048.62	0
1607562.5	0	557755.4	-23164.83347	-392699.1	-392699.1	-589048.62	0
1463062.5	0	557755.4	-83630.35999	-392699.1	-392699.1	-589048.62	0
1318562.5	0	549686.3	-157348.6047	-392699.1	-392699.1	-589048.62	0
1174062.5	0	512444	-249212.8788	-392699.1	-392699.1	-589048.62	0
1029562.5	0	464747.7	-366863.6158	-392699.1	-392699.1	-589048.62	0
885062.5	0	401477.2	-392699.0817	-392699.1	-392699.1	-589048.62	0
740562.5	0	313515.7	-392699.0817	-392699.1	-392699.1	-589048.62	0

Cs7	Cs8	Pn (kN)	Mn (kN)	e	ϕ	ϕPn	ϕMn
						4696.131262	0
						4696.131262	200
						4696.131262	380
0	0	6429.955352	735.013	114.311	0.650	4179.471	477.759
0	0	6236.608889	775.160	124.292	0.650	4053.796	503.854
0	0	6035.669011	812.708	134.651	0.650	3923.185	528.260
0	0	5830.175664	848.274	145.497	0.650	3789.614	551.378
0	0	5620.855283	882.098	156.933	0.650	3653.556	573.364
0	0	5407.336011	914.249	169.076	0.650	3514.768	594.262
0	0	5189.196202	944.805	182.072	0.650	3372.978	614.123
0	0	4965.955801	973.857	196.107	0.650	3227.871	633.007
0	0	4757.928002	997.985	209.752	0.650	3092.653	648.690
0	0	4522.757884	1024.350	226.488	0.650	2939.793	665.827
0	0	4280.579447	1049.565	245.192	0.650	2782.377	682.217
0	0	4030.547467	1073.790	266.413	0.650	2619.856	697.963
0	0	3293.770889	1136.918	345.172	0.650	2140.951	738.997
0	0	3073.653374	1135.829	369.537	0.670	2058.499	760.692
0	0	2846.021076	1132.640	397.973	0.691	1967.761	783.116
0	0	2630.557342	1127.407	428.581	0.715	1881.794	806.501
0	0	2384.09896	1120.198	469.862	0.742	1768.892	831.136
0	0	2125.733029	1111.098	522.689	0.772	1640.331	857.384
0	0	1910.322548	1090.580	570.888	0.805	1537.884	877.959
0	0	1689.592282	1066.450	631.188	0.843	1424.052	898.844
0	0	1458.06835	1039.197	712.722	0.886	1291.831	920.716
0	0	1213.283629	1008.667	831.353	0.900	1091.955	907.800
0	0	951.9570981	974.658	1023.847	0.900	856.761	877.193
0	0	767.7062951	940.415	1224.967	0.900	690.936	846.374
0	0	562.7407685	898.512	1596.671	0.900	506.467	808.661
0	0	336.4533647	849.192	2523.953	0.900	302.808	764.273
0	0	62.84681726	784.508	12482.865	0.900	56.562	706.058
0	0	-247.0001645	709.488	-2872.420	0.900	-222.300	638.539
0	0	-480.6061592	642.249	-1336.331	0.900		
0	0	-713.0676259	568.580	-797.371	0.900		
						0.000	435.142

Perhitungan Kolom K7

	dimensi kolom		
h	400	mm	
b	200	mm	
fy	400	Mpa	
Fc	25	Mpa	
tulangan utama	8	D	16
tulangan utama yg ditinjau	4	D	16
D (sengkang)	10	mm	
Ts	40	mm	

No baris	tepi serat ke pusat tulangan	Jumlah tulangan	Diameter tulangan	Luas tulangan
1	58	2	16	402.1238597
2	152.6666667	2	16	402.1238597
3	247.3333333	2	16	402.1238597
4	342	2	16	402.1238597
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0

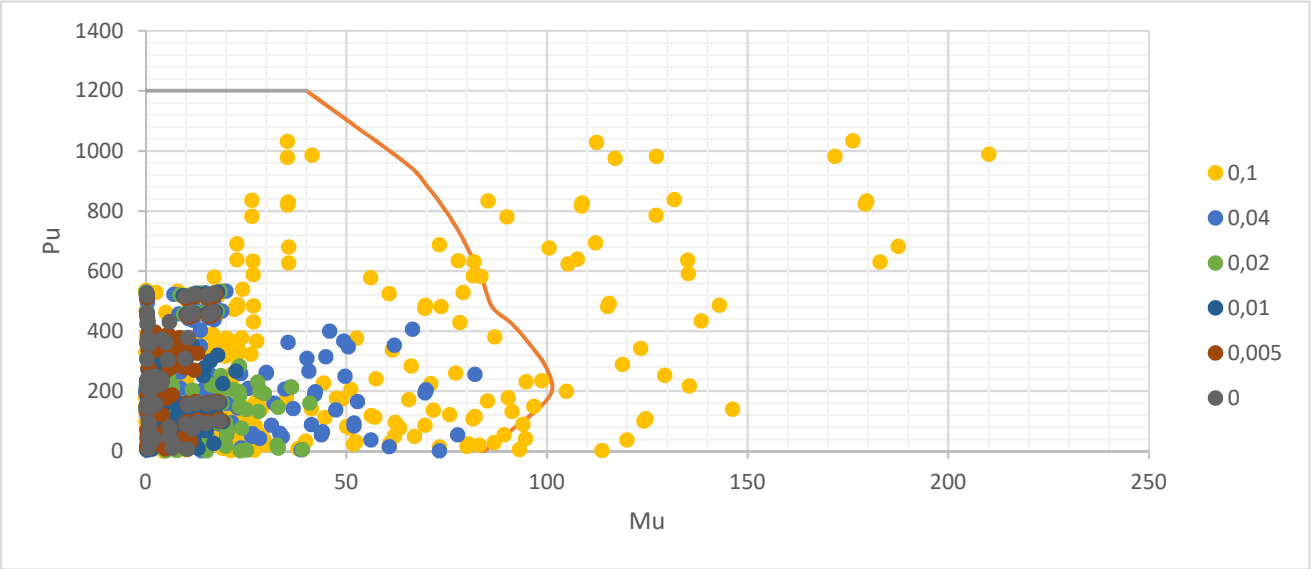
d'	58
d	342
Es	200000
B1	0.85
y	200.00

kondisi eksentrisitas kecil

Ag	80000		
Ast	1608.50		
ϕPn	1200.79318		1100

Kondisi momen murni

c	68.5287894		
a	58.249471		
cc	247.560		
Cs	74.139		
Ts	321.699		
	0.000		
Ts=Cc+Cs	321.699		
Mn	71.8424322		
ϕMn	46.6975809	Pn	
SNI ϕMn	51.0081268		1100
Mn digunakan	51.0081268		

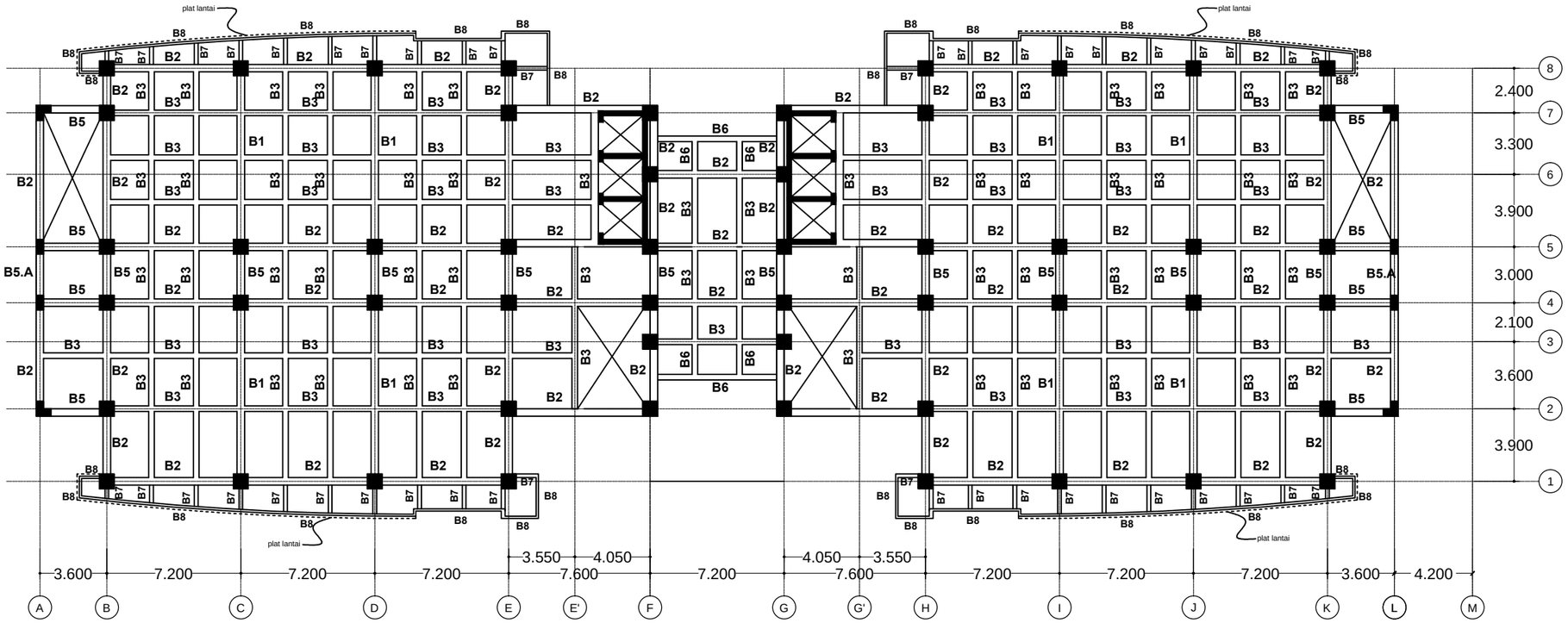


Cb	205.2		C	a	Es1	Es2
		Eks kecil				
		C>Cb	322	273.7	0.000000	0.00245963
			302	256.7	0.000000	0.00242384
			282	239.7	0.000000	0.00238298
			262	222.7	0.000000	0.00233588
			242	205.7	0.000000	0.00228099
			222	188.7	0.000000	0.00221622
		Cb	205.2	174.42	0.000000	0.00215205
		C<Cb	185.2	157.42	0.000000	0.00206048
			165.2	140.42	0.000000	0.00194673
			145.2	123.42	0.000000	0.00180165
			125.2	106.42	0.000000	0.00161022
			105.2	89.42	0.000000	0.00134601
			85.2	72.42	0.000000	0.00095775

Es3	Es4	Es5	Es6	Es7	Es8	Es9	Fs1
0.00157764	0.00069565	-0.0001863	0	0	0	0	0
0.00148344	0.00054305	-0.0003974	0	0	0	0	0
0.00137589	0.00036879	-0.0006383	0	0	0	0	0
0.00125191	0.00016794	-0.000916	0	0	0	0	0
0.00110744	-6.6116E-05	-0.0012397	0	0	0	0	0
0.00093694	-0.00034234	-0.0016216	0	0	0	0	0
0.00076803	-0.00061598	-0.002	0	0	0	0	0
0.000527	-0.00100648	-0.00254	0	0	0	0	0
0.0002276	-0.00149153	-0.0032107	0	0	0	0	0
-0.00015427	-0.00211019	-0.0040661	0	0	0	0	0
-0.00065815	-0.00292652	-0.0051949	0	0	0	0	0
-0.00135361	-0.00405323	-0.0067529	0	0	0	0	0
-0.00237559	-0.00570892	-0.0090423	0	0	0	0	0

Fs2	Fs3	Fs4	Fs5	Fs6	Fs7	Fs8	Fs9
400	315.528	139.1304	-37.2671	0	0	0	0
400	296.6887	108.6093	-79.4702	0	0	0	0
400	275.1773	73.75887	-127.66	0	0	0	0
400	250.3817	33.58779	-183.206	0	0	0	0
400	221.4876	-13.2231	-247.934	0	0	0	0
400	187.3874	-68.4685	-324.324	0	0	0	0
400	153.6062	-123.197	-400	0	0	0	0
400	105.3996	-201.296	-400	0	0	0	0
389.3462	45.52058	-298.305	-400	0	0	0	0
360.3306	-30.854	-400	-400	0	0	0	0
322.0447	-131.629	-400	-400	0	0	0	0
269.2015	-270.722	-400	-400	0	0	0	0
191.5493	-400	-400	-400	0	0	0	0

Cc	Cs9	Cs1
1163225	0	152304.4118
1090975	0	152304.4118
1018725	0	152304.4118
946475	0	152304.4118
874225	0	152304.4118
801975	0	152304.4118
741285	0	152304.4118
669035	0	152304.4118
596785	0	148020.2836
524535	0	136352.391
452285	0	120956.7372
380035	0	99707.2226
307785	0	68481.41011



DENAH BALOK LANTAI 4

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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WAKIL REKTOR I

PENANGGUNG JAWAB

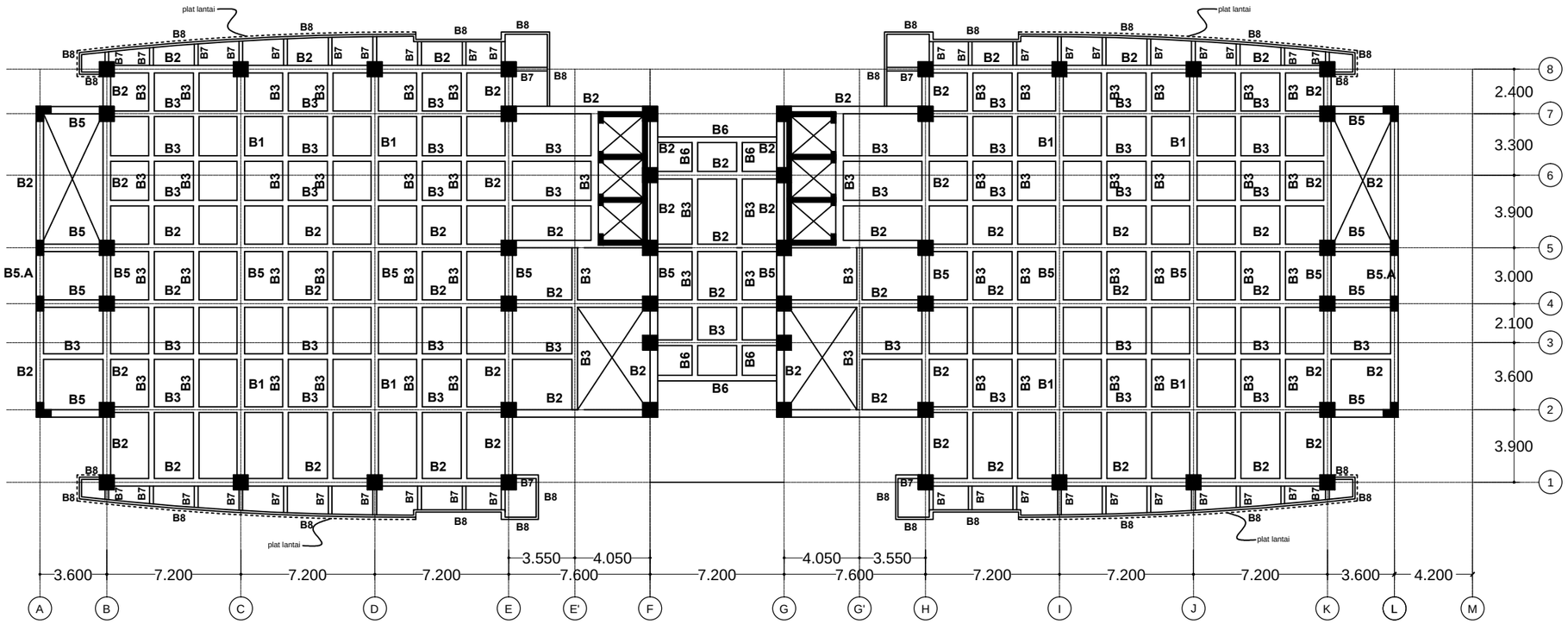
Drs. H. M. ALFIAN DARMAWAN

TIM PERENCANA

	NAMA	PARAF
ARSITEK	BAMBANG BUDIARTO	
	ARWAN SURYANTO, S.T., M.Sc.	
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.6	50



DENAH BALOK LANTAI 5

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

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TIM PERENCANA

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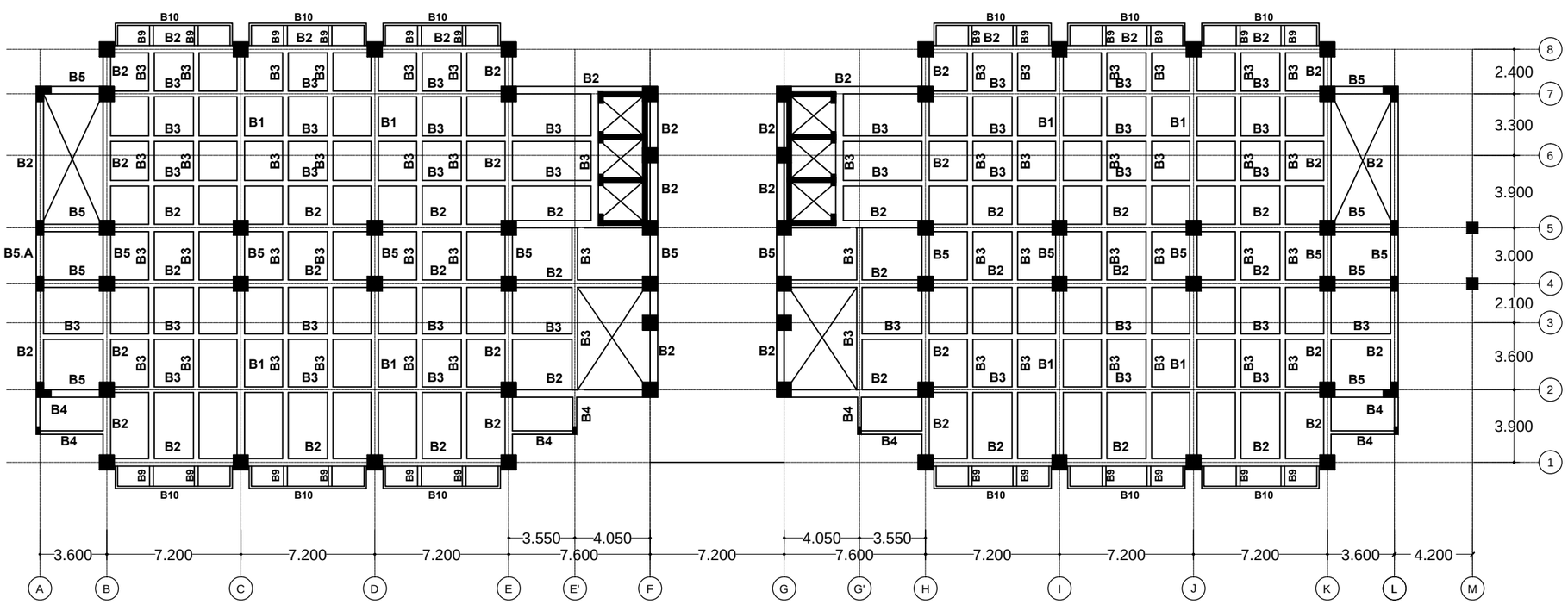
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.7	50



DENAH BALOK LANTAI DASAR

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

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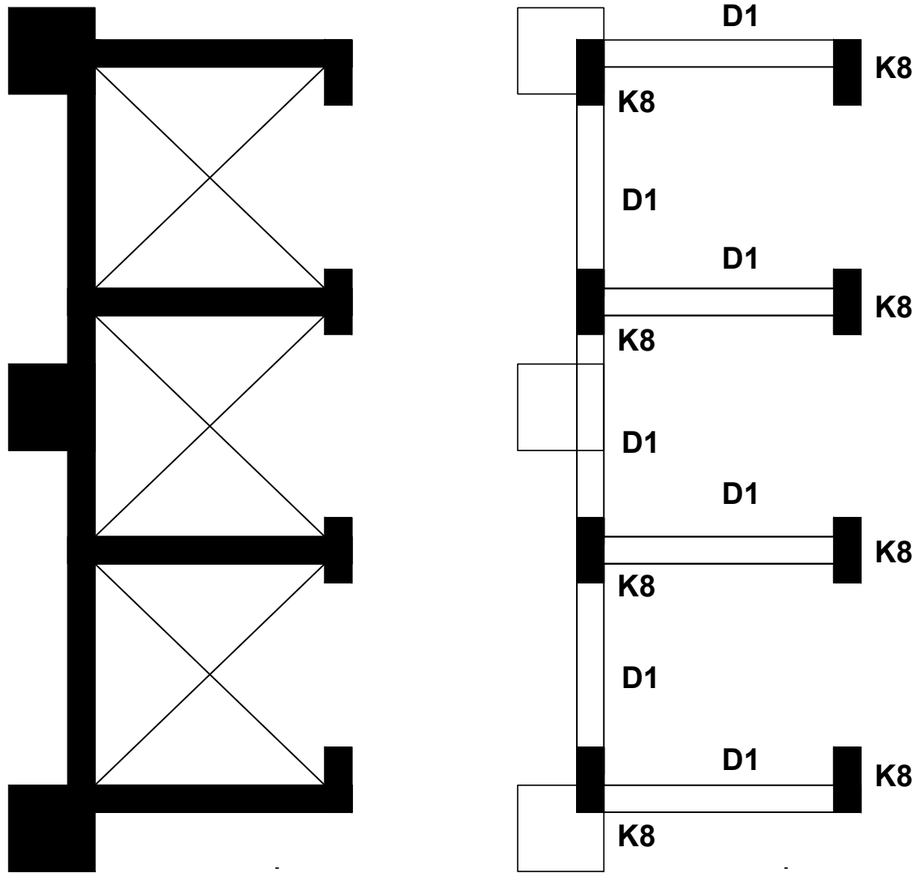
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.2	50



KOLOM K8 (250 x 500 MM)	
TUMPUAN	LAPANGAN
10 D 25	10 D 25
SKG D10 - 100	SKG D10 - 150

D1 (TEBAL 250 MM)
PENAMPANG
D 16 - 200
D 13 - 200

DENAH DINDING SHEAR WALL

SKALA 1 :

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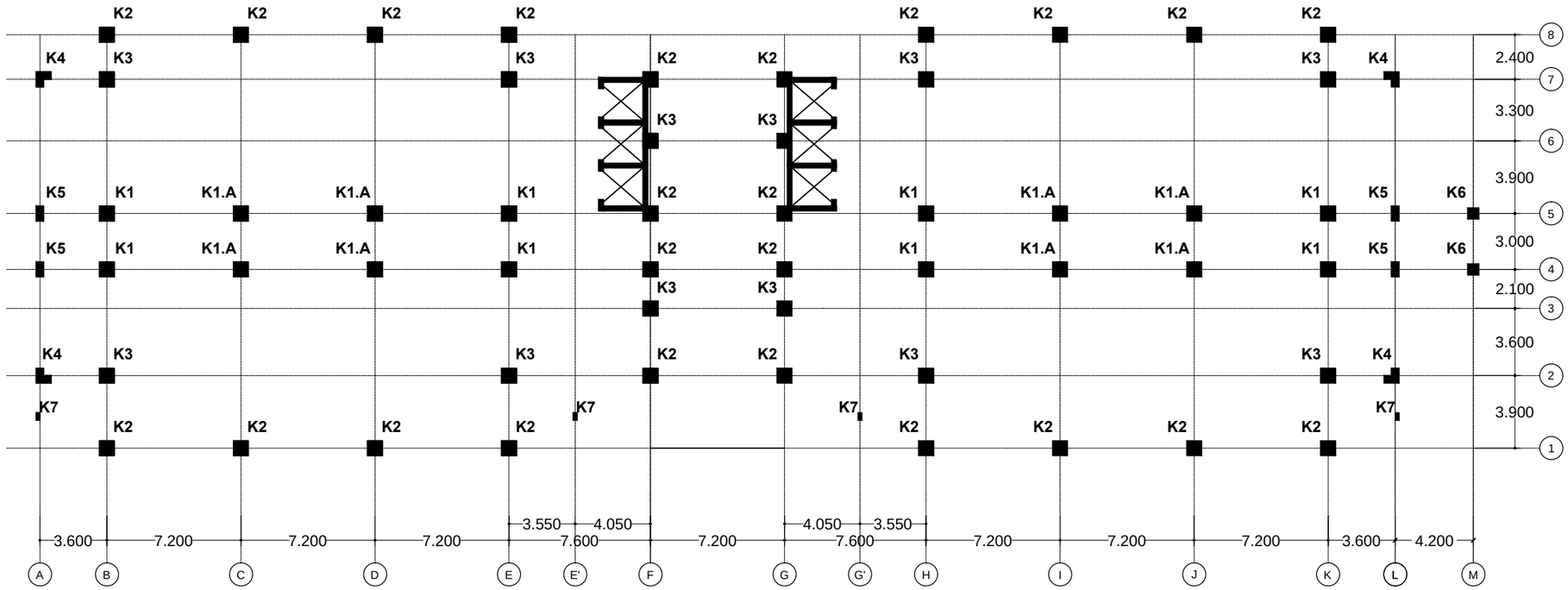
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.10	50



DENAH KOLOM LANTAI 1

SKALA 1 : 250

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

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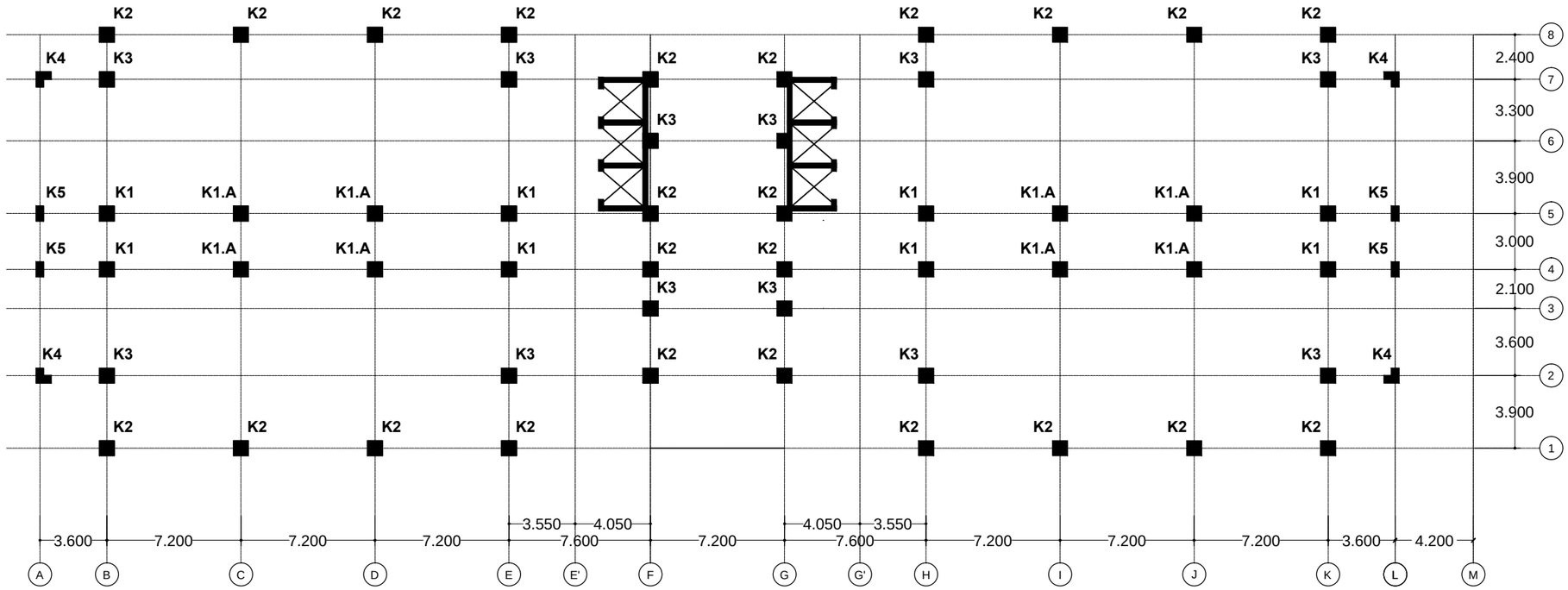
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.3	50



DENAH KOLOM LANTAI 2

SKALA 1 : 250

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

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TIM PERENCANA

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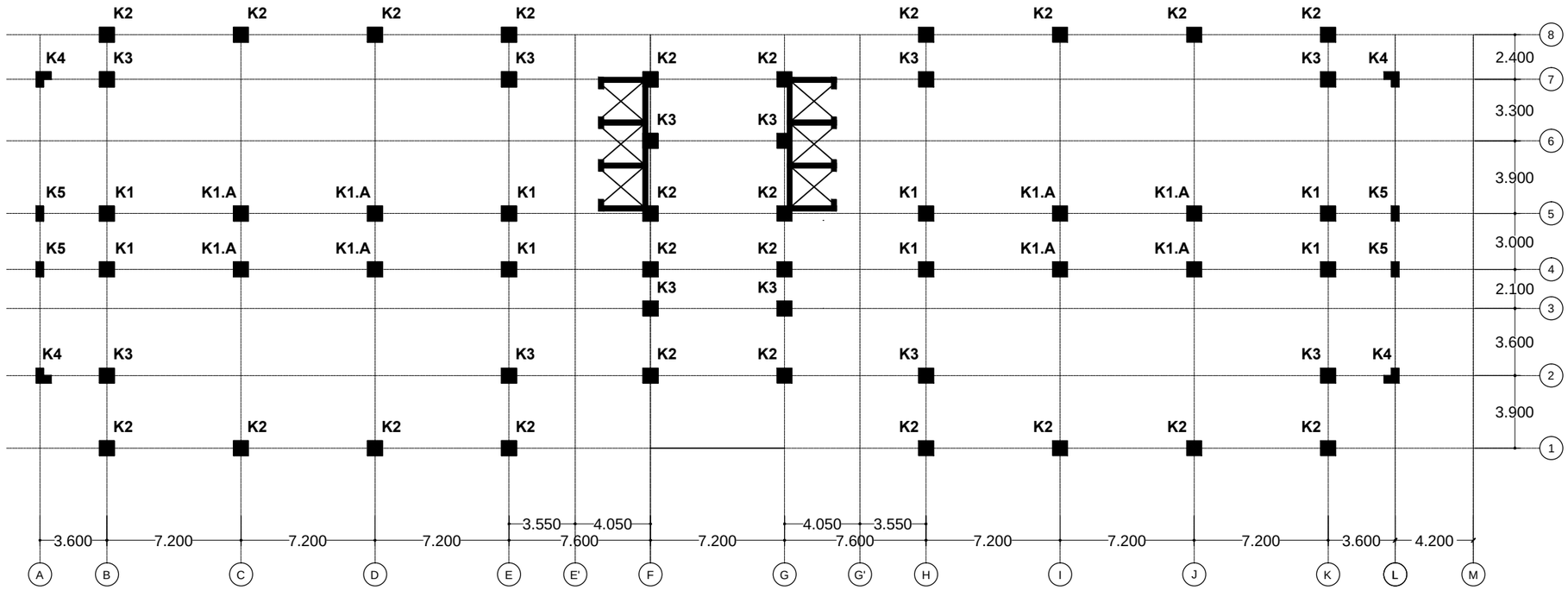
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.4	50



DENAH KOLOM LANTAI 3

SKALA 1 : 250

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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TIM PERENCANA

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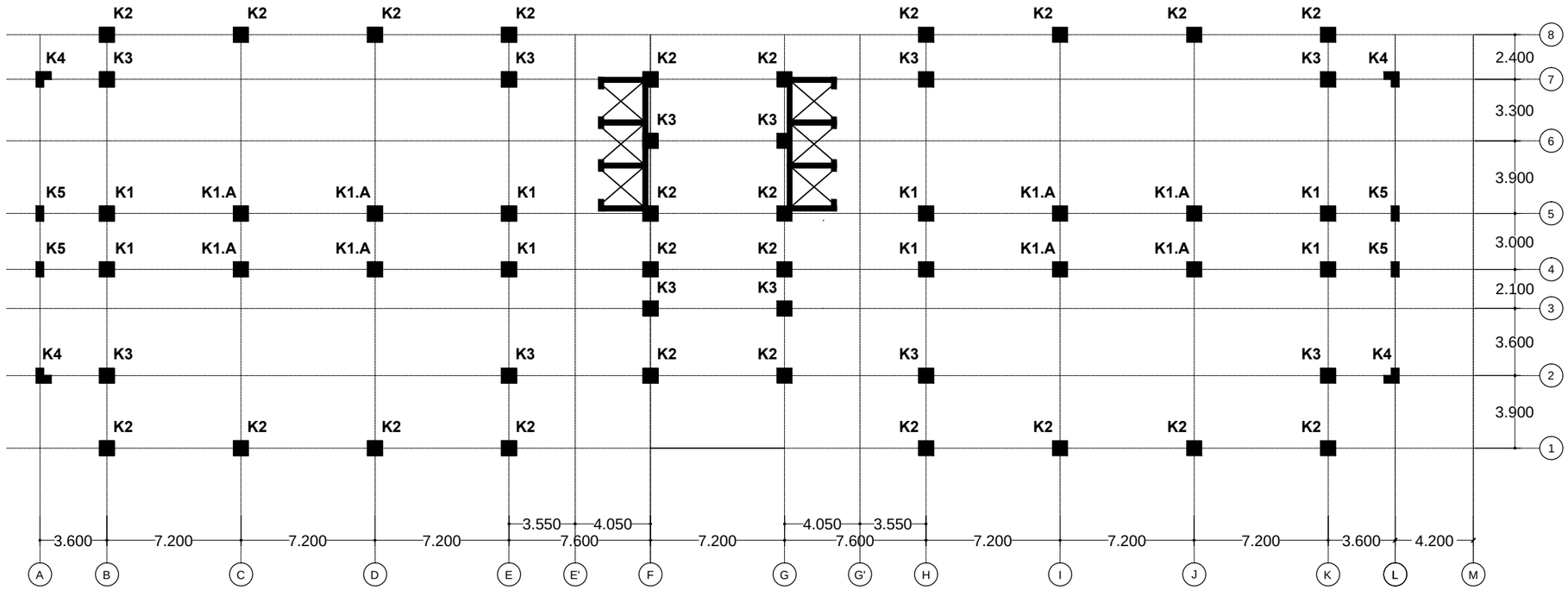
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.5	50



DENAH KOLOM LANTAI 4

SKALA 1 : 250

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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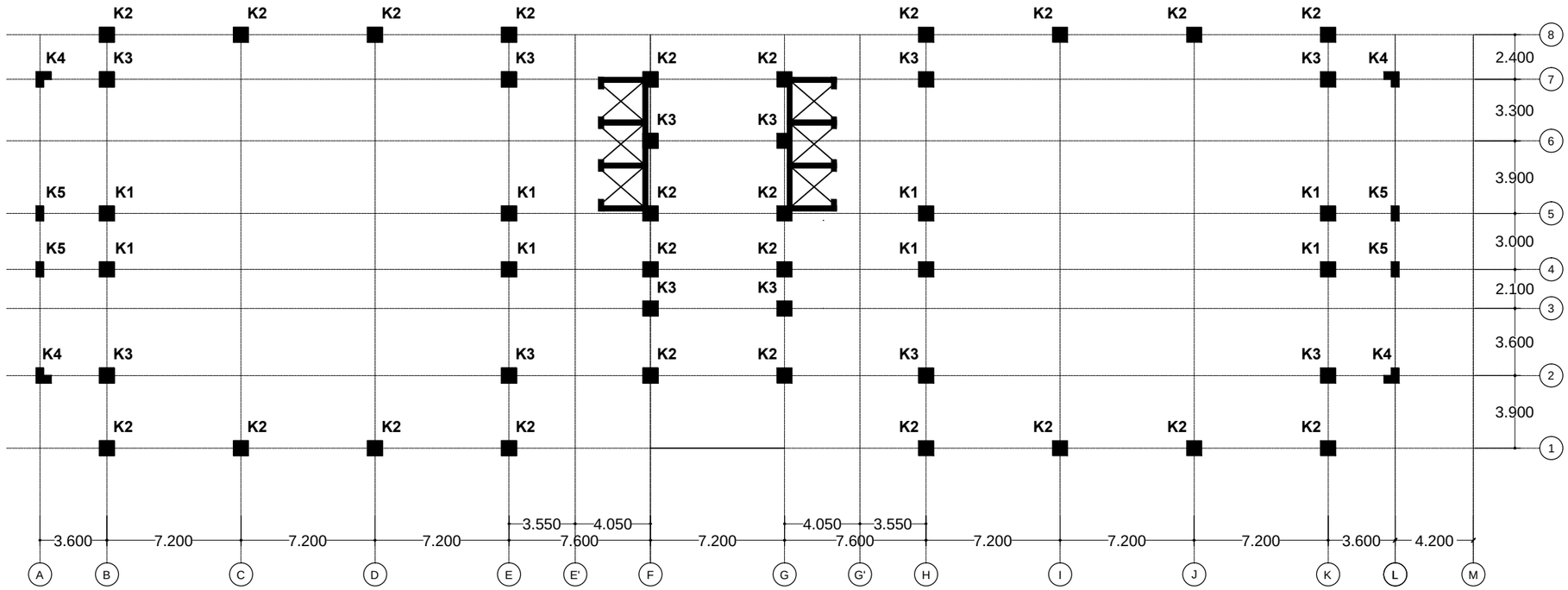
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.6	50



DENAH KOLOM LANTAI 5

SKALA 1 : 250

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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TIM PERENCANA

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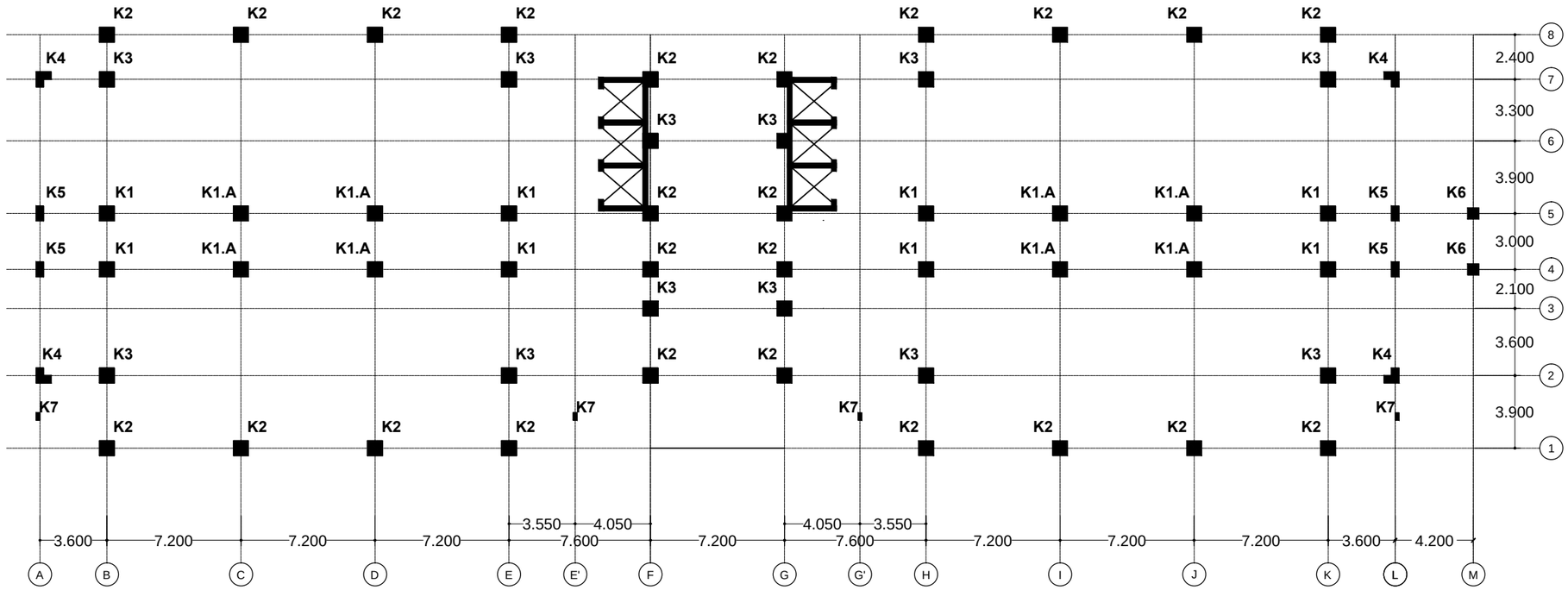
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.7	50



DENAH KOLOM LANTAI DASAR

SKALA 1 : 250

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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TIM PERENCANA

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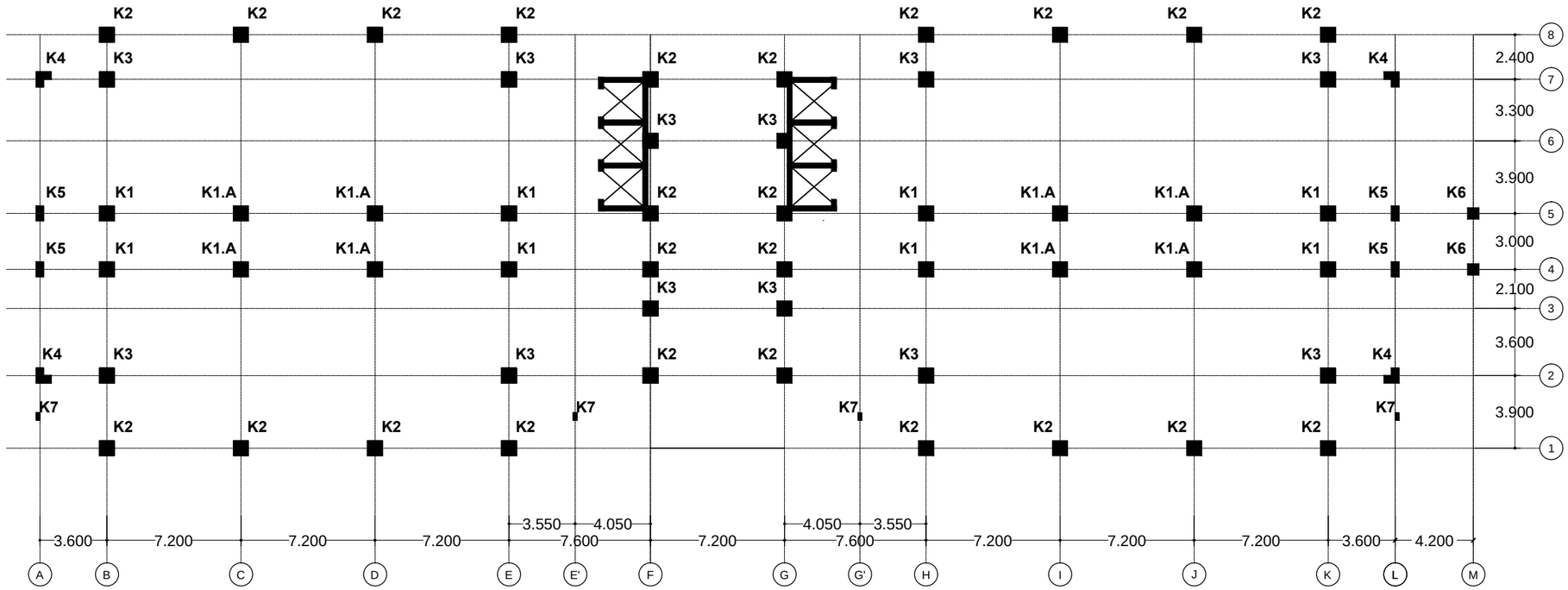
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.2	50



DENAH KOLOM LANTAI SEMI BASEMENT

SKALA 1 : 250

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

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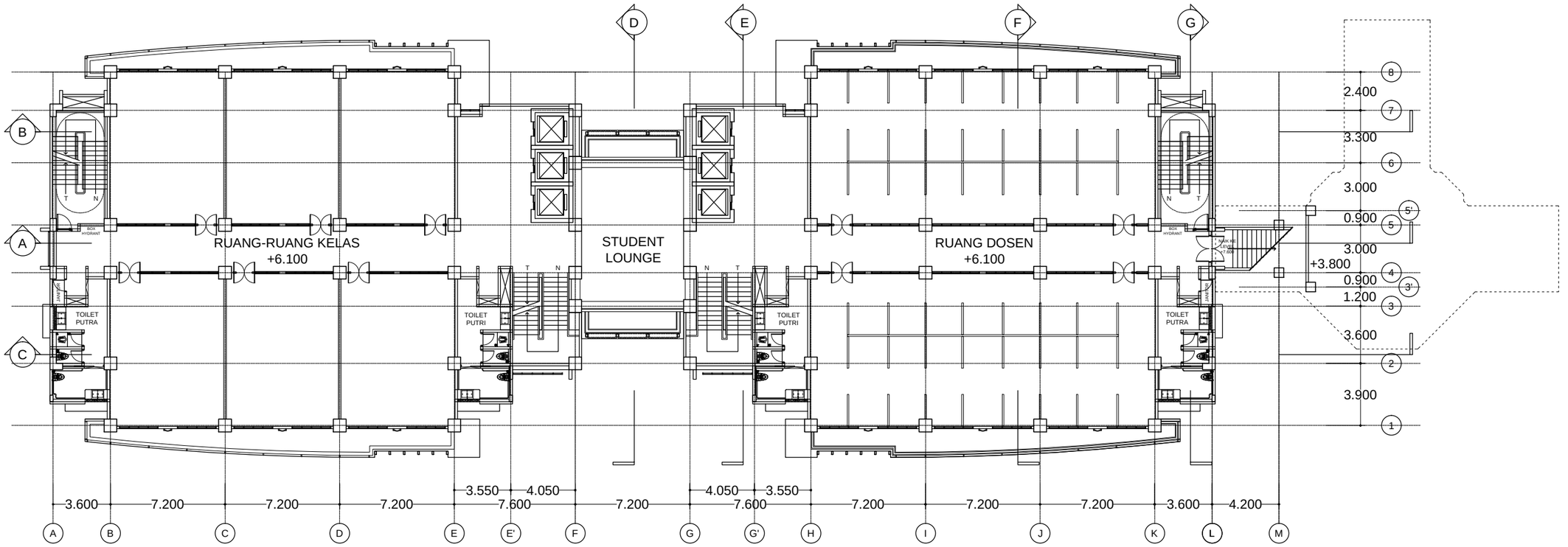
DIGAMBAR	MASYKUR AZIZI,S.T.	

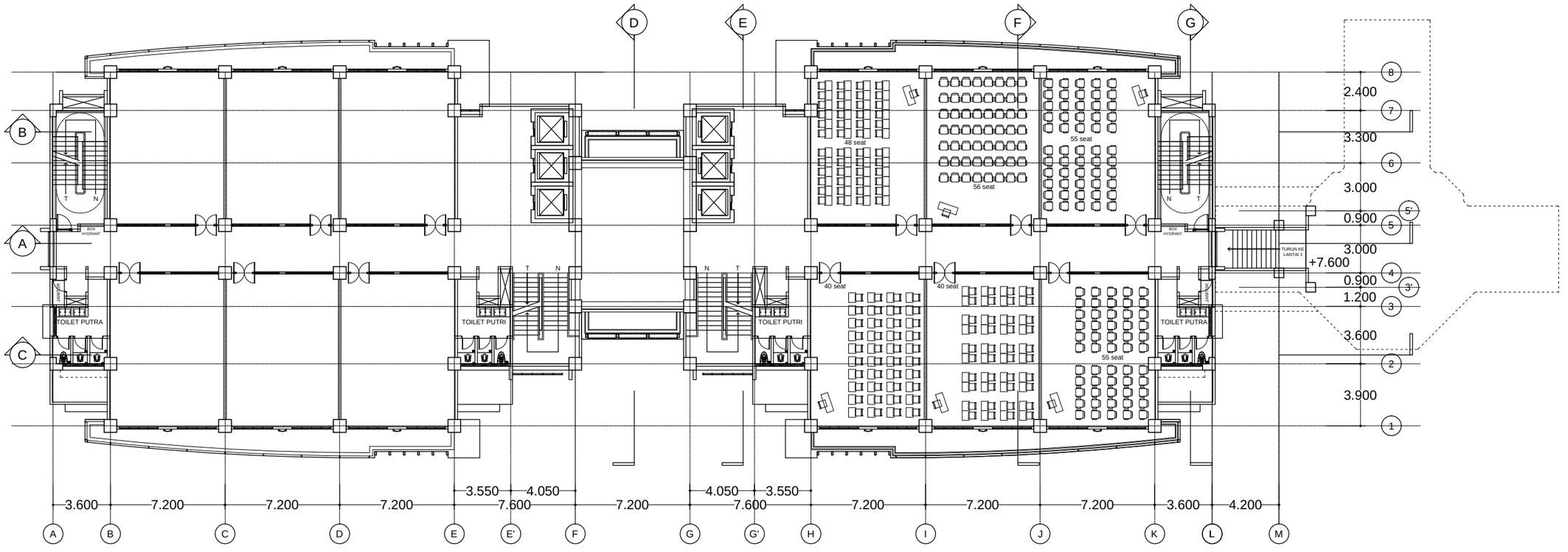
JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.1	50



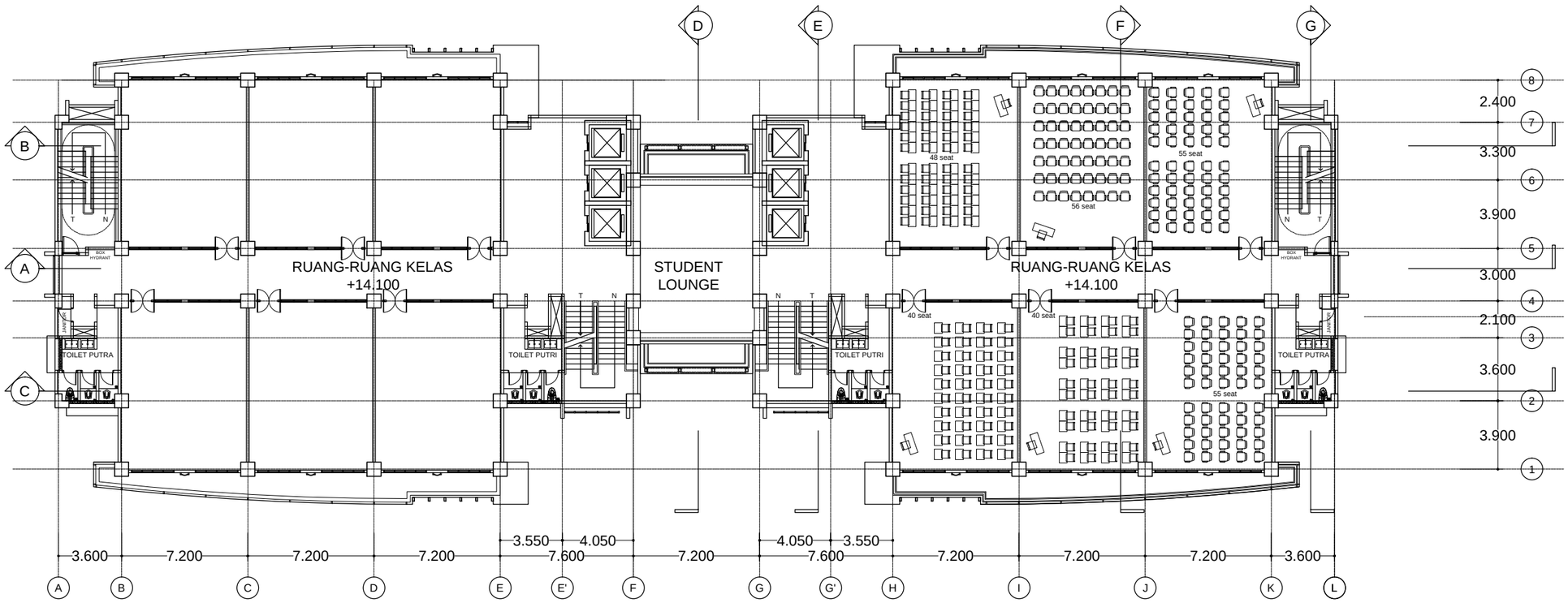
DENAH LANTAI 1

SKALA 1 : 250



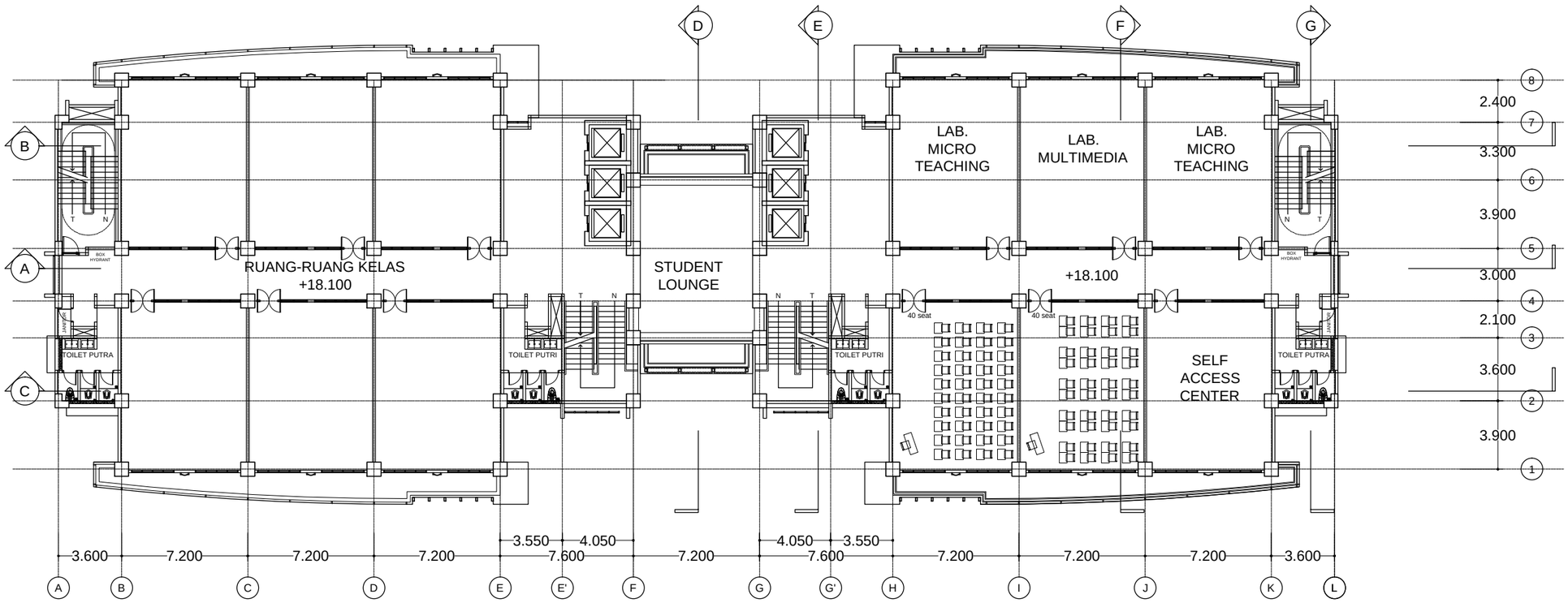
DENAH LANTAI 2

SKALA 1 : 250



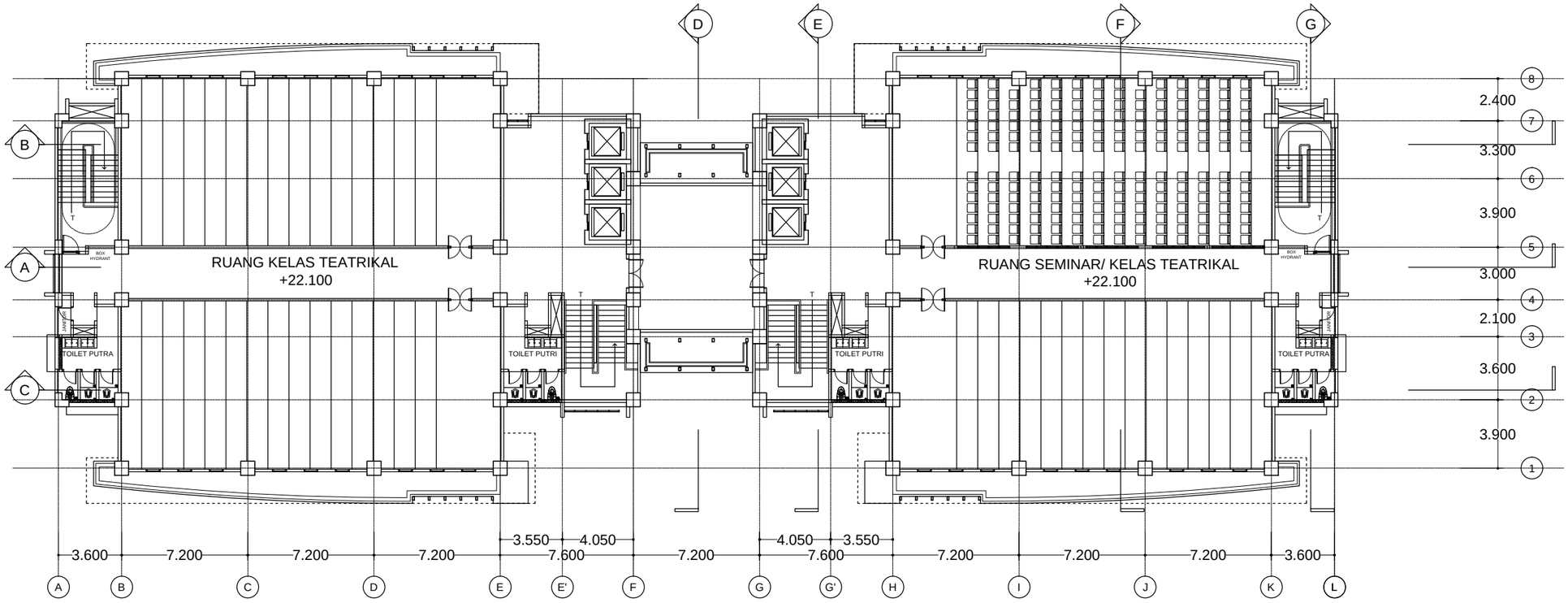
DENAH LANTAI 3

SKALA 1 : 250



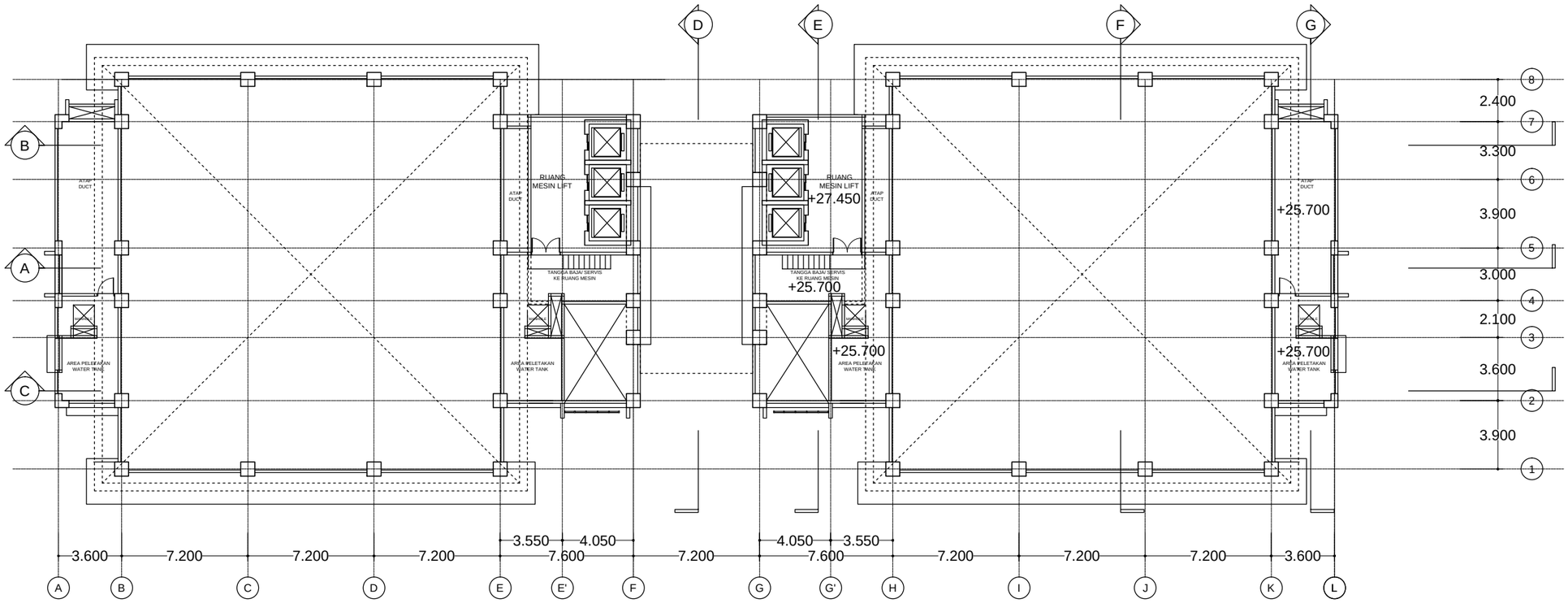
DENAH LANTAI 4

SKALA 1 : 250



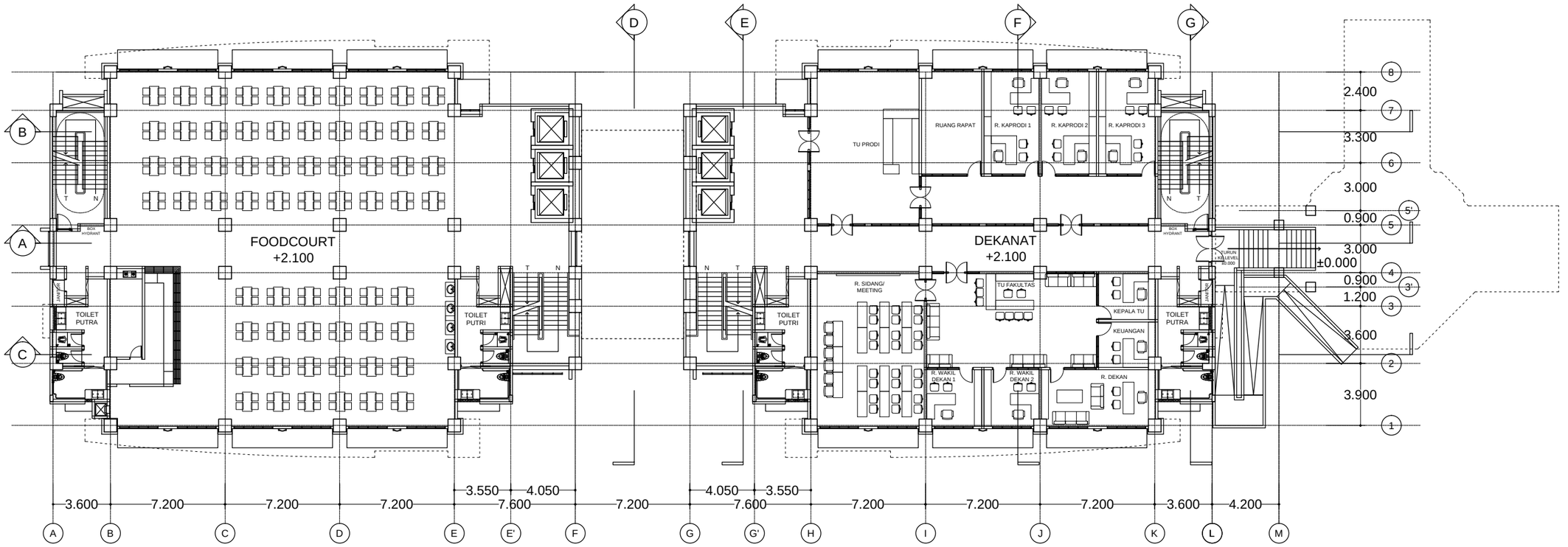
DENAH LANTAI 5

SKALA 1 : 250



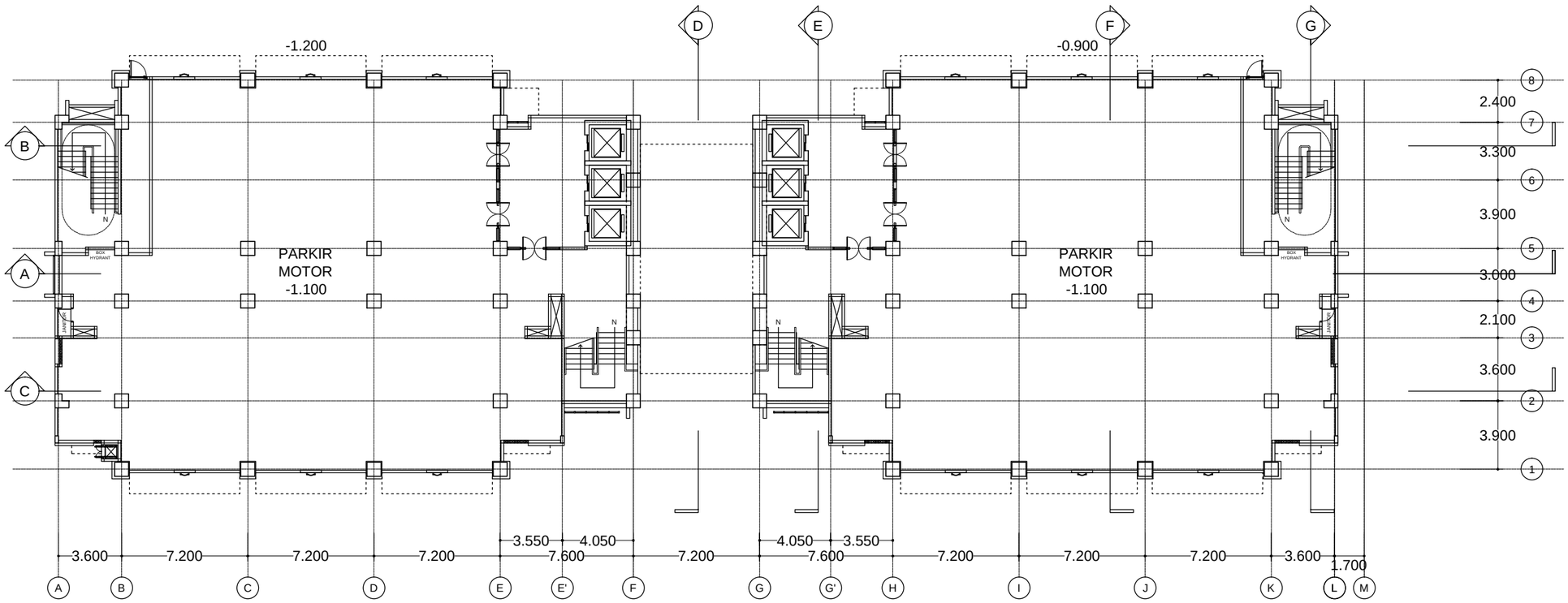
DENAH LANTAI ATAP

SKALA 1 : 250



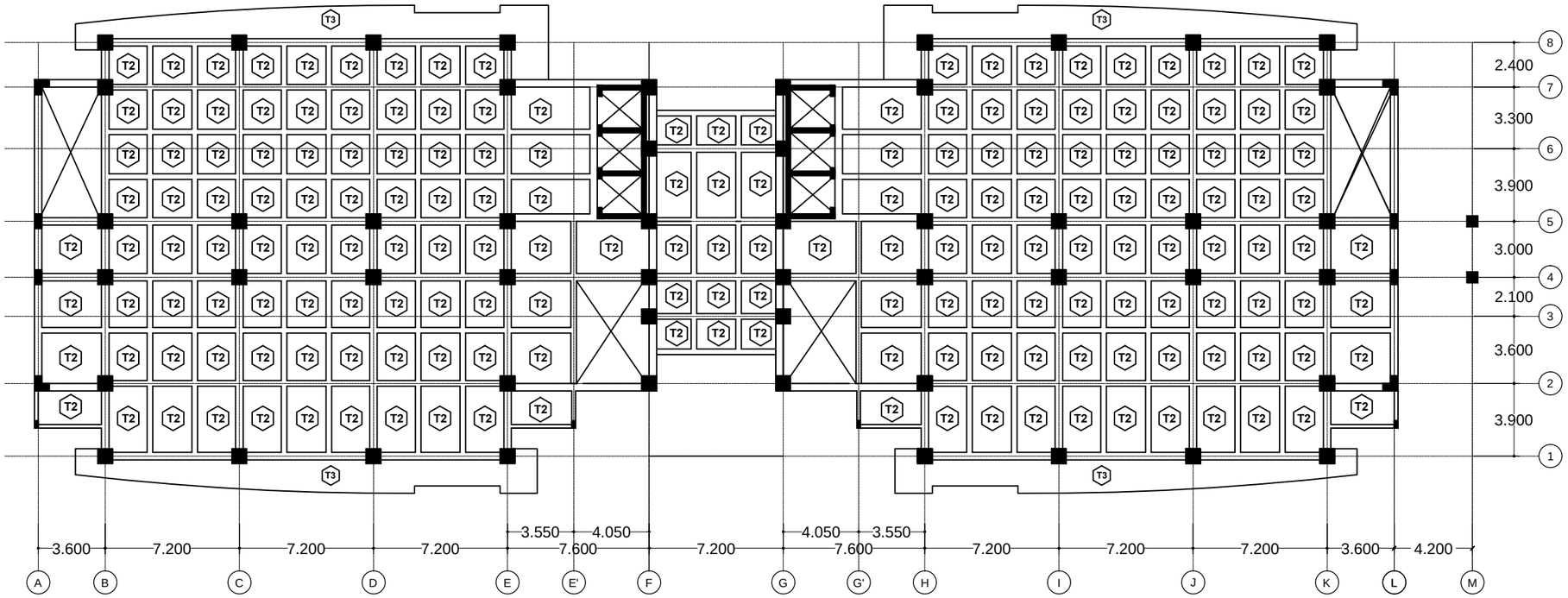
DENAH LANTAI DASAR

SKALA 1 : 250



DENAH SEMI BASEMENT

SKALA 1 : 250



DENAH PLAT LANTAI 1

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

MENGETAHUI/ MENYETUJUI

Dr. Ir.GUNAWAN BUDIYANTO, M.P.
WAKIL REKTOR I

PENANGGUNG JAWAB

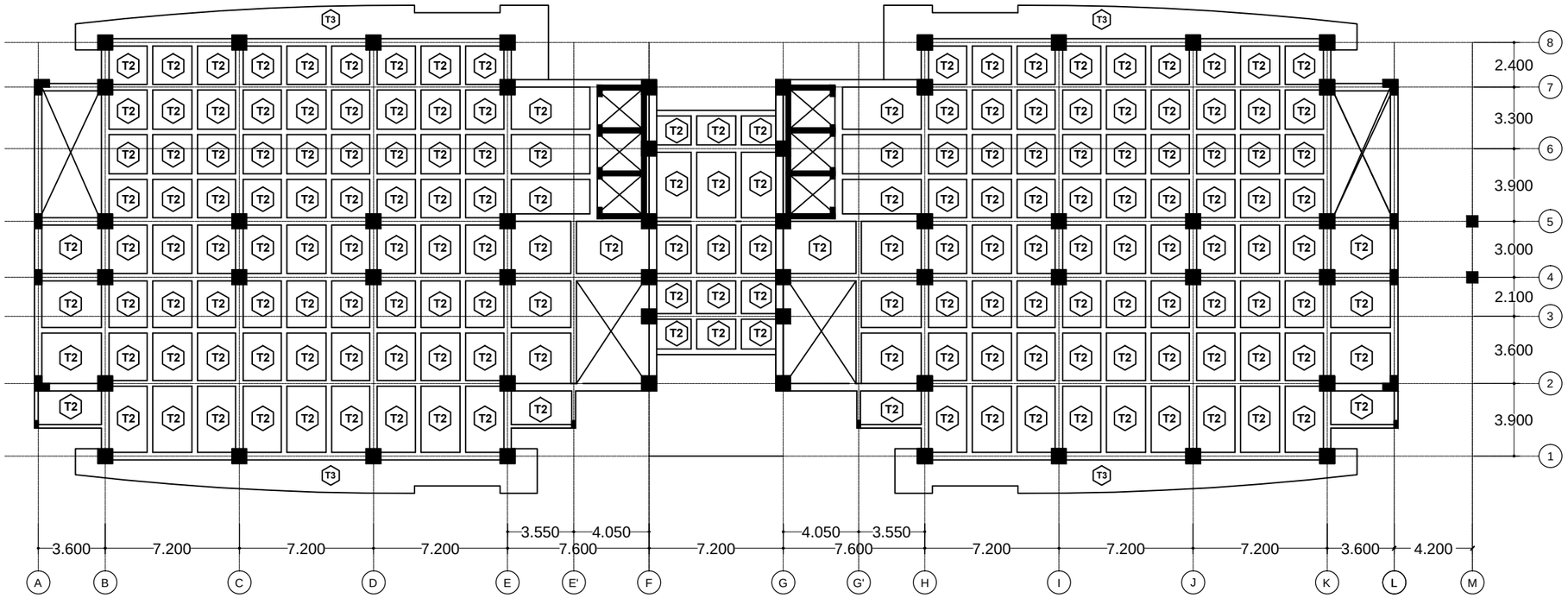
Drs. H. M. ALFIAN DARMAWAN

TIM PERENCANA

	NAMA	PARAF
ARSITEK	BAMBANG BUDIARTO	
	ARWAN SURYANTO, S.T., M.Sc.	
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	T.3	50



DENAH PLAT LANTAI 2

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

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PENANGGUNG JAWAB

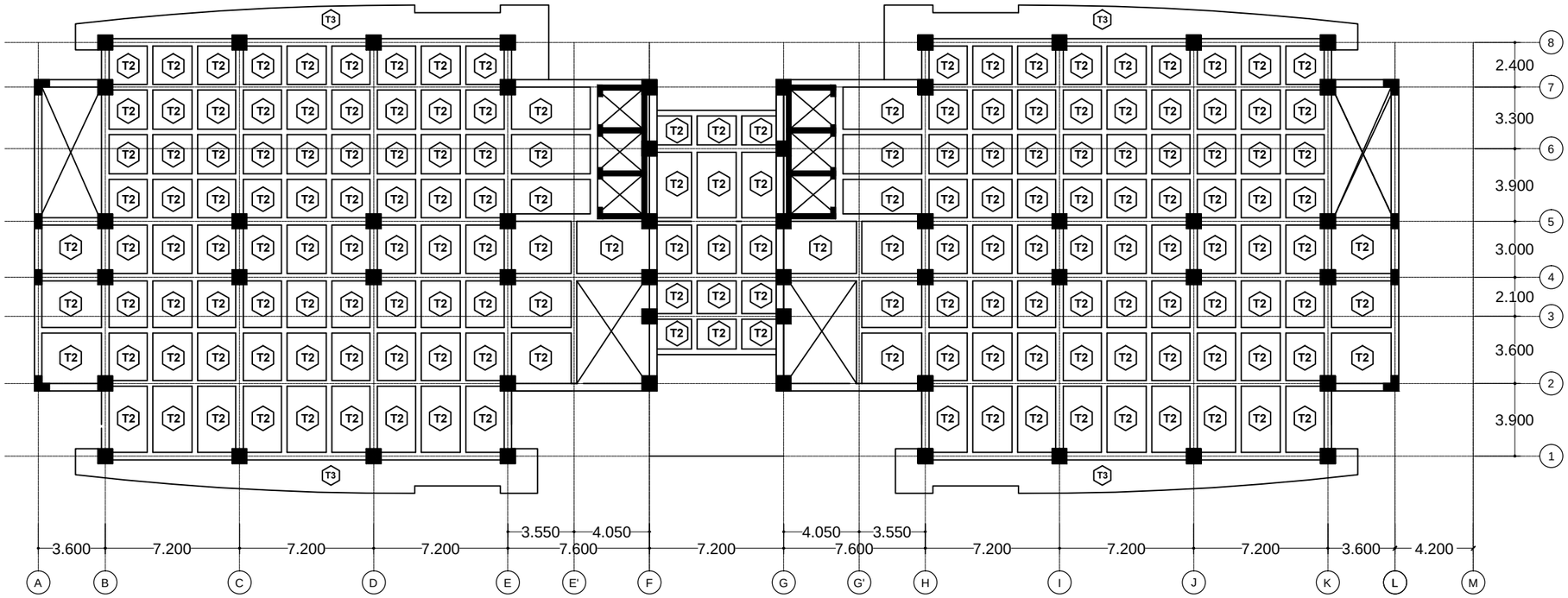
Drs. H. M. ALFIAN DARMAWAN

TIM PERENCANA

	NAMA	PARAF
ARSITEK	BAMBANG BUDIARTO	
	ARWAN SURYANTO, S.T., M.Sc.	
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	T.4	50



DENAH PLAT LANTAI 3

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

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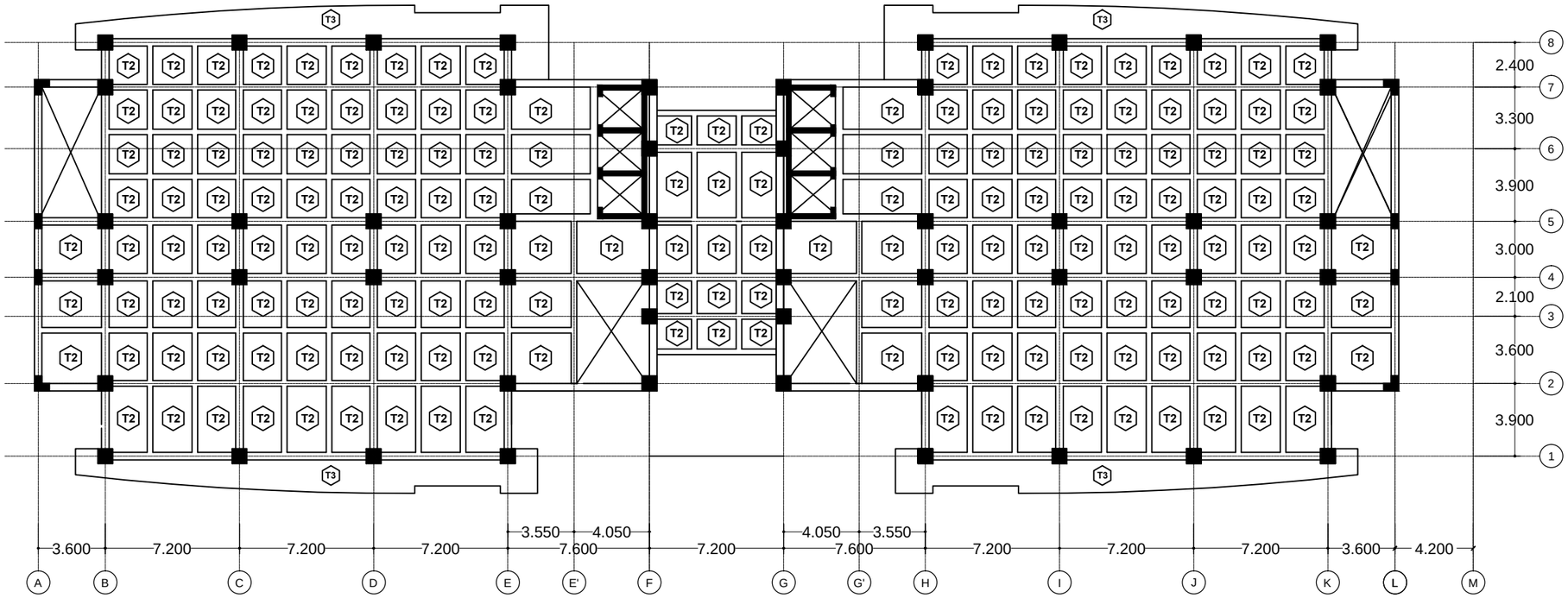
TIM PERENCANA

	NAMA	PARAF
ARSITEK	BAMBANG BUDIARTO	
	ARWAN SURYANTO, S.T., M.Sc.	
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	T.5	50



DENAH PLAT LANTAI 4

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

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	NAMA	PARAF
ARSITEK	BAMBANG BUDIARTO	
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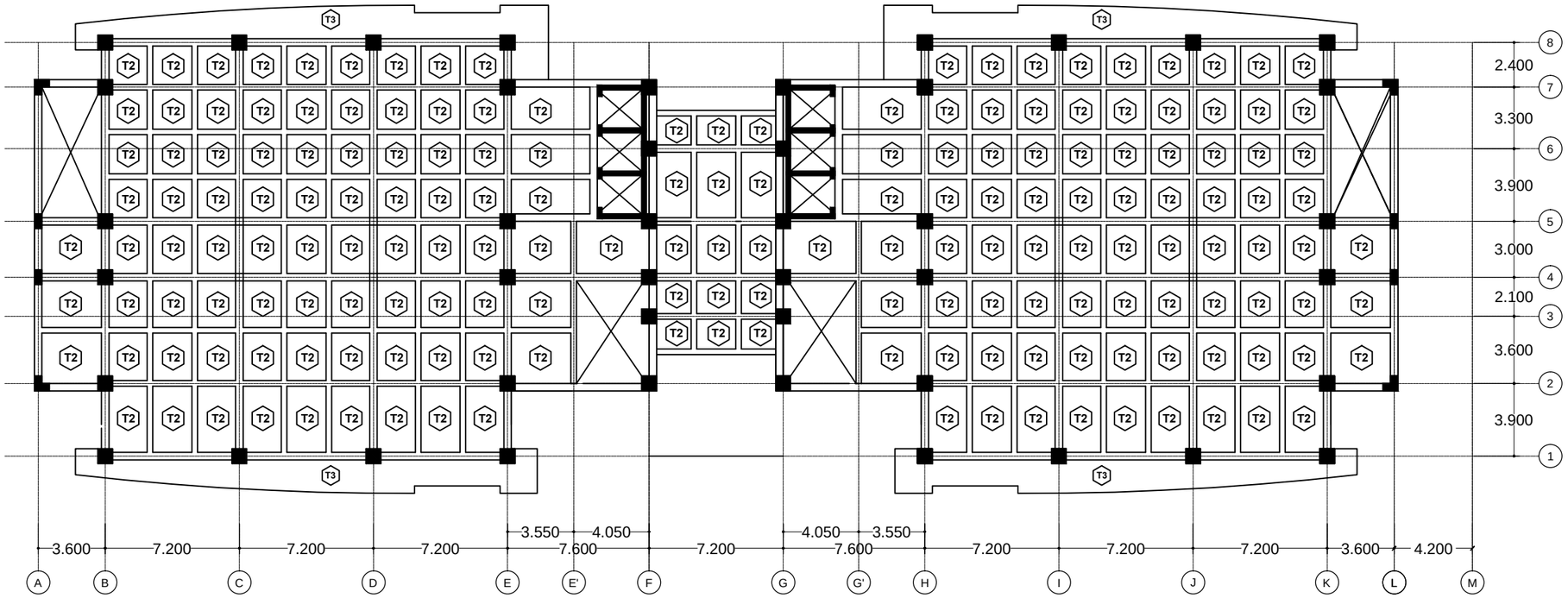
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	T.6	50



DENAH PLAT LANTAI 5

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

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ARSITEK	BAMBANG BUDIARTO	
	ARWAN SURYANTO, S.T., M.Sc.	
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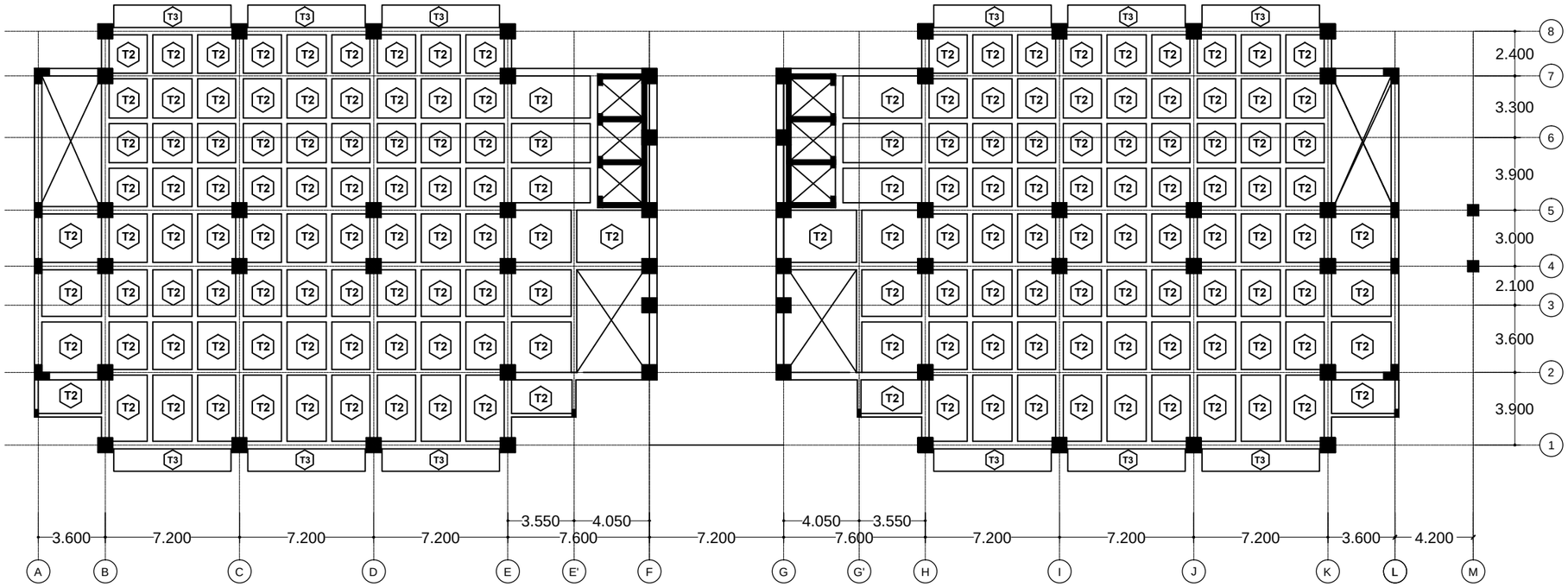
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	T.7	50



DENAH PLAT LANTAI DASAR

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

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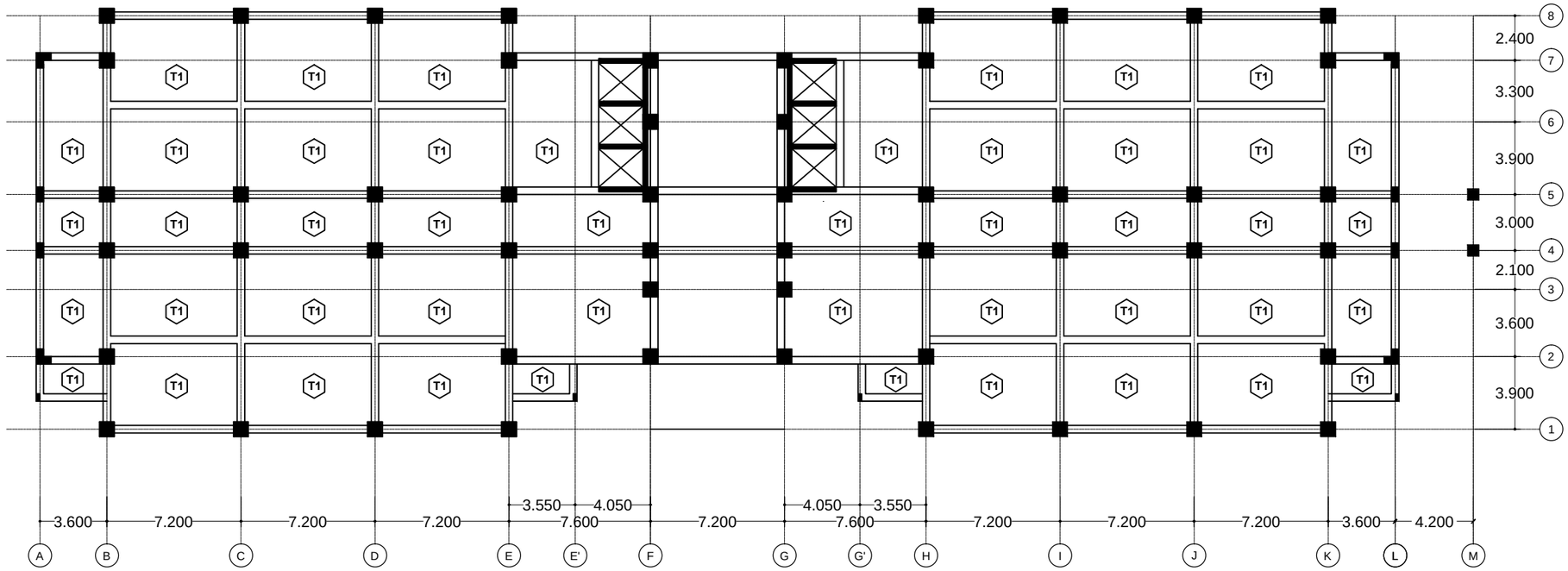
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	T.2	50

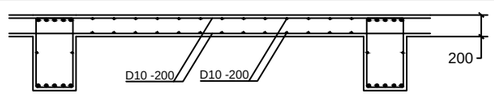


DENAH PLAT LANTAI SEMI BASEMENT

SKALA 1 : 250

SPESIFIKASI BAHAN :
MUTU BETON (f'c) = 25 MPa, SLUMP 10 +/- 2 CM
MUTU BAJA, Ø > 13 MM, fy 400 MPa (DEFORM)
MUTU BAJA, Ø < 13 MM, fy 240 MPa (POLOS)

TEBAL PLAT SEMI BASEMENT
(T 1) = 200 MM



CATATAN/ KETERANGAN

REVISI

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NAMA BANGUNAN

GEDUNG KULIAH
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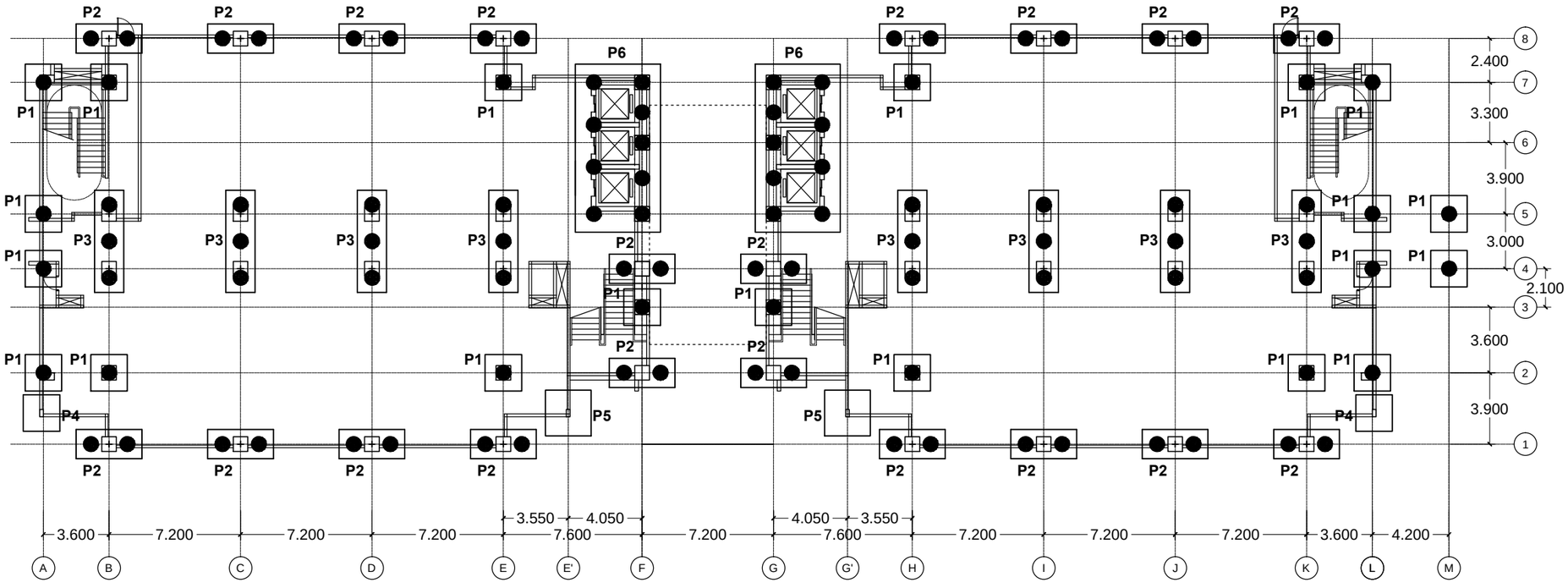
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	T.1	50



DENAH PONDASI

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

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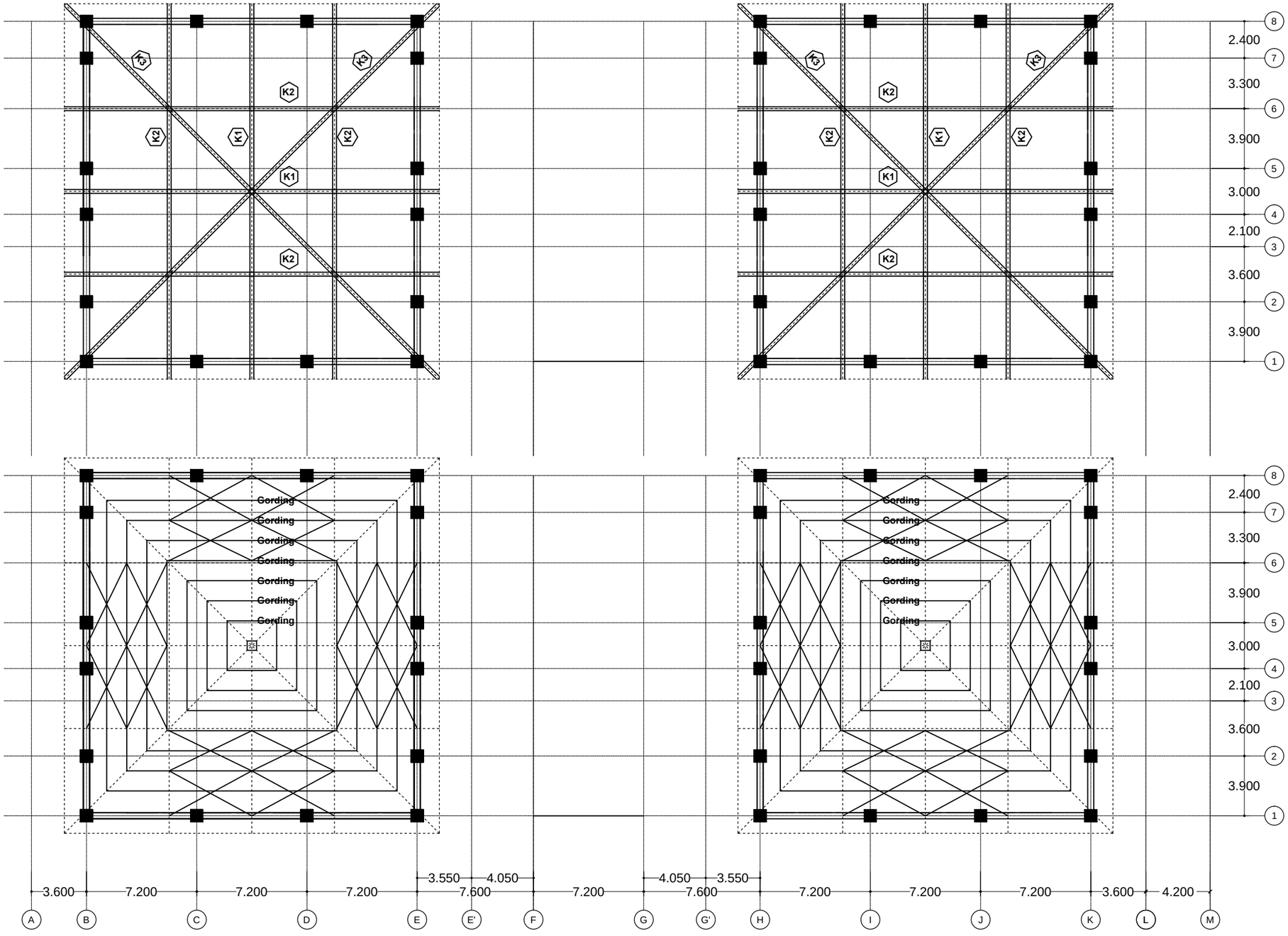
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	P.1	50



DENAH RANGKA ATAP

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

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GEDUNG KULIAH
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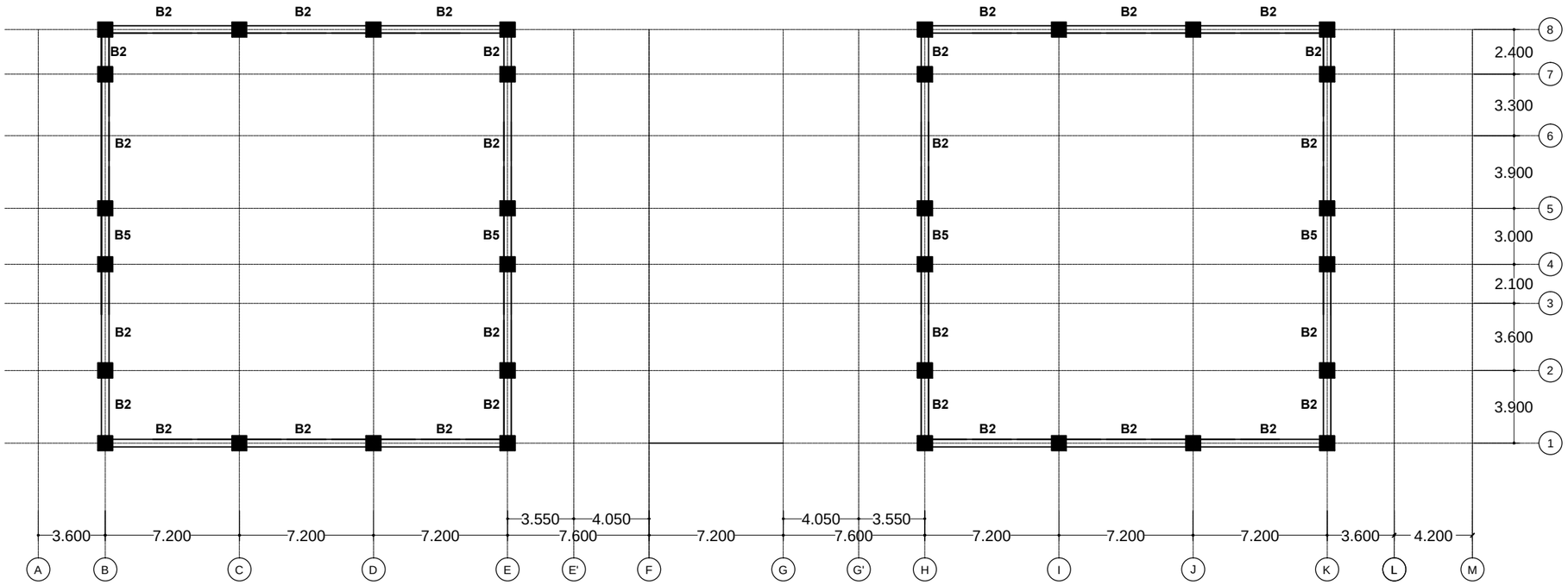
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	R.1	50



DENAH RING BALOK

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

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NAMA BANGUNAN

GEDUNG KULIAH E-6 DAN E-7 (*TWIN BUILDING*)

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WAKIL REKTOR I

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TIM PERENCANA

	NAMA	PARAF
ARSITEK	BAMBANG BUDIARTO	
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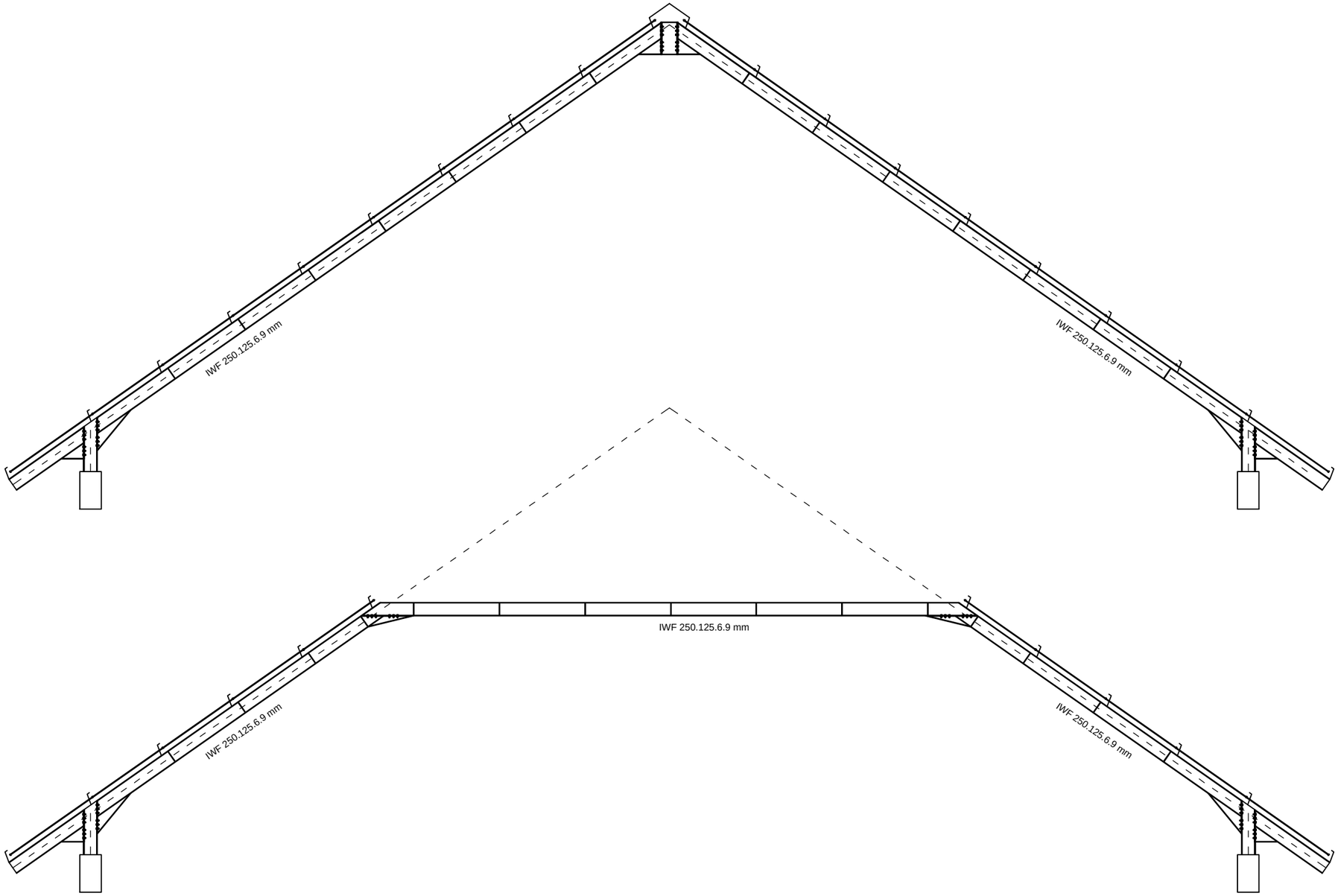
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.9	50



SPESIFIKASI:
Gording Profil Light Lips Channel C 200.75.20.3,2 mm
Sagrod P12 - 1300 mm

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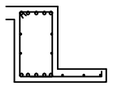
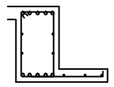
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	R.2	50

BALOK / POSISI	BALOK B1 (400 x 700 MM)		BALOK B2 (400 x 700 MM)		BALOK B3 (300 x 500 MM)		BALOK B4 (200 x 500 MM)	
	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN
POTONGAN								
TUL. ATAS	10 D 25	10 D 25	7 D 25	3 D 25	4 D 19	4 D 19	4 D 16	4 D 16
TUL. SAMPING	4 D 10	4 D 10	4 D 10	4 D 10	2 D 10	2 D 10	2 D 10	2 D 10
TUL. BAWAH	5 D 25	5 D 25	3 D 25	5 D 25	4 D 19	4 D 19	4 D 16	4 D 16
SENGKANG	D 10 - 100	D 10 - 150	D 10 - 100	D 10 - 150	D 10 - 100	D 10 - 150	D 10 - 100	D 10 - 150

BALOK / POSISI	BALOK B5 (400 x 700 MM)		BALOK B5.A (400 x 700 MM)		BALOK B6 (300 x 450 MM)		BALOK B7 (200 x 450 MM)		BALOK B8 (120 x 450 MM)	
	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN
POTONGAN			 D 10 - 150	 D 10 - 150						
TUL. ATAS	5 D 25	5 D 25	5 D 25	5 D 25	4 D 19	4 D 19	3 D 16	3 D 16	2 D 13	2 D 13
TUL. SAMPING	4 D 10	4 D 10	4 D 10	4 D 10	2 D 10	2 D 10	2 D 10	2 D 10	2 D 10	2 D 10
TUL. BAWAH	5 D 25	5 D 25	5 D 25	5 D 25	3 D 19	3 D 19	2 D 16	2 D 16	2 D 13	2 D 13
SENGKANG	D 10 - 100	D 10 - 150	D 10 - 100	D 10 - 150	D 10 - 100	D 10 - 150	D 10 - 100	D 10 - 100	D 10 - 150	D 10 - 150

BALOK / POSISI	BALOK B9 (200 x 300 MM)		BALOK B10 (120 x 300 MM)		SLOOF S1 (400 x 700 MM)		SLOOF S2 (400 x 700 MM)	
	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN
POTONGAN								
TUL. ATAS	3 D 16	3 D 16	2 D 13	2 D 13	5 D 25	5 D 25	4 D 25	4 D 25
TUL. SAMPING					4 D 10	4 D 10	4 D 10	4 D 10
TUL. BAWAH	2 D 16	2 D 16	2 D 13	2 D 13	5 D 25	5 D 25	4 D 25	4 D 25
SENGKANG	D 10 - 100	D 10 - 100	D 10 - 150	D 10 - 150	D 10 - 100	D 10 - 150	D 10 - 100	D 10 - 150

SPESIFIKASI BAHAN :
MUTU BETON (f'c) = 25 MPa, Slump 10 +/- 2 cm
MUTU BAJA, Ø > 13 MM, fy 400 MPa (DEFORM)
MUTU BAJA, Ø < 13 MM, fy 240 MPa (POLOS)

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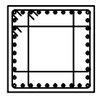
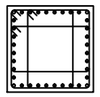
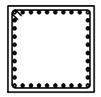
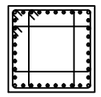
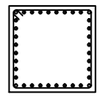
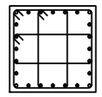
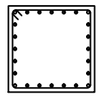
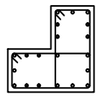
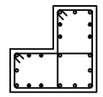
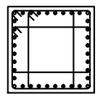
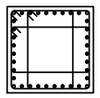
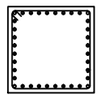
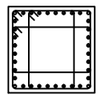
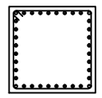
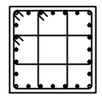
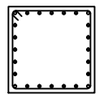
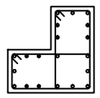
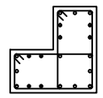
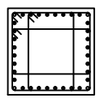
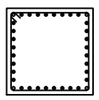
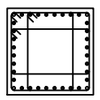
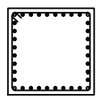
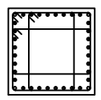
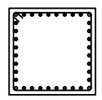
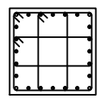
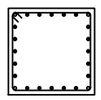
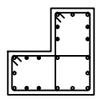
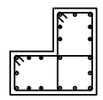
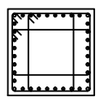
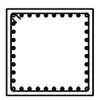
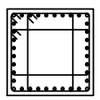
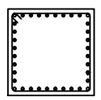
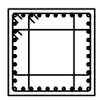
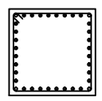
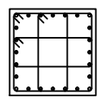
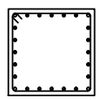
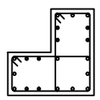
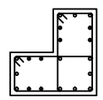
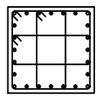
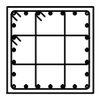
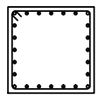
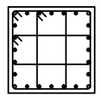
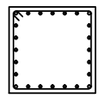
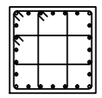
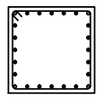
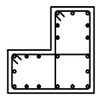
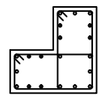
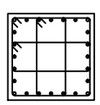
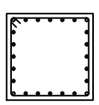
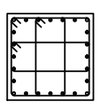
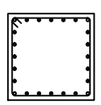
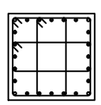
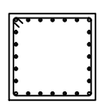
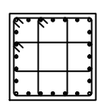
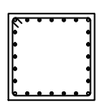
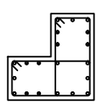
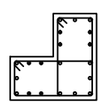
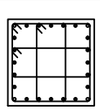
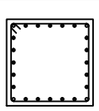
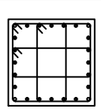
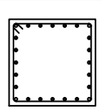
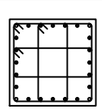
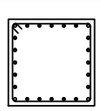
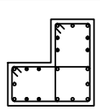
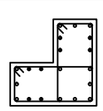
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.8	50

KOLOM / LANTAI	KOLOM K1 (800 x 800 MM)		KOLOM K1.A (800 x 800 MM)		KOLOM K2 (800 x 800 MM)		KOLOM K3 (800 x 800 MM)		KOLOM K4 (L. 400 x 800 MM)	
	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN
BASEMENT										
TUL. UTAMA	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	24 D 25	24 D 25	20 D 25	20 D 25
SENGKANG	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2D10 - 100	2D10 - 150
LT. DASAR										
TUL. UTAMA	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	24 D 25	24 D 25	20 D 25	20 D 25
SENGKANG	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2D10 - 100	2D10 - 150
LANTAI 1										
TUL. UTAMA	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	24 D 25	24 D 25	20 D 25	20 D 25
SENGKANG	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2D10 - 100	2D10 - 150
LANTAI 2										
TUL. UTAMA	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	32 D 25	24 D 25	24 D 25	20 D 25	20 D 25
SENGKANG	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2D10 - 100	2D10 - 150
LANTAI 3										
TUL. UTAMA	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	20 D 25	20 D 25
SENGKANG	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2D10 - 100	2D10 - 150
LANTAI 4										
TUL. UTAMA	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	24 D 25	20 D 25	20 D 25
SENGKANG	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2D10 - 100	2D10 - 150
LANTAI 5										
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SENGKANG	2 D10 - 100	D10 - 150			2 D10 - 100	D10 - 150	2 D10 - 100	D10 - 150	2D10 - 100	2D10 - 150

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NO.	URAIAN	TANGGAL	PARAF

NAMA BANGUNAN

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MENGETAHUI/ MENYETUJUI

Dr. Ir.GUNAWAN BUDIYANTO, M.P.
WAKIL REKTOR I

PENANGGUNG JAWAB

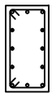
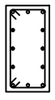
Drs. H. M. ALFIAN DARMAWAN

TIM PERENCANA

	NAMA	PARAF
ARSITEK	BAMBANG BUDIARTO	
	ARWAN SURYANTO, S.T., M.Sc.	
STRUKTUR	BAGUS SUBANDONO,S.T., M.Eng.	
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.8	50

KOLOM / LANTAI	KOLOM K5 (400 x 800 MM)		KOLOM K6 (600 x 600 MM)		KOLOM K7 (200 x 400 MM)	
	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN	TUMPUAN	LAPANGAN
BASEMENT						
TUL. UTAMA	12 D 25	12 D 25	12 D 25	12 D 25	8 D 16	8 D 16
SENGKANG	D10 - 100	D10 - 150	D10 - 100	D10 - 150	D10 - 100	D10 - 150
LT. DASAR						
TUL. UTAMA	12 D 25	12 D 25	12 D 25	12 D 25	8 D 16	8 D 16
SENGKANG	D10 - 100	D10 - 150	D10 - 100	D10 - 150	D10 - 100	D10 - 150
LANTAI 1						
TUL. UTAMA	12 D 25	12 D 25	12 D 25	12 D 25	8 D 16	8 D 16
SENGKANG	D10 - 100	D10 - 150	D10 - 100	D10 - 150	D10 - 100	D10 - 150
LANTAI 2						
TUL. UTAMA	12 D 25	12 D 25				
SENGKANG	D10 - 100	D10 - 150				
LANTAI 3						
TUL. UTAMA	12 D 25	12 D 25				
SENGKANG	D10 - 100	D10 - 150				
LANTAI 4						
TUL. UTAMA	12 D 25	12 D 25				
SENGKANG	D10 - 100	D10 - 150				
LANTAI 5						
TUL. UTAMA	12 D 25	12 D 25				
SENGKANG	D10 - 100	D10 - 150				

SPESIFIKASI BAHAN :
MUTU BETON (f'c) = 25 MPa, Slump 10 +/- 2 cm
MUTU BAJA, Ø > 13 MM, fy 400 MPa (DEFORM)
MUTU BAJA, Ø < 13 MM, fy 240 MPa (POLOS)

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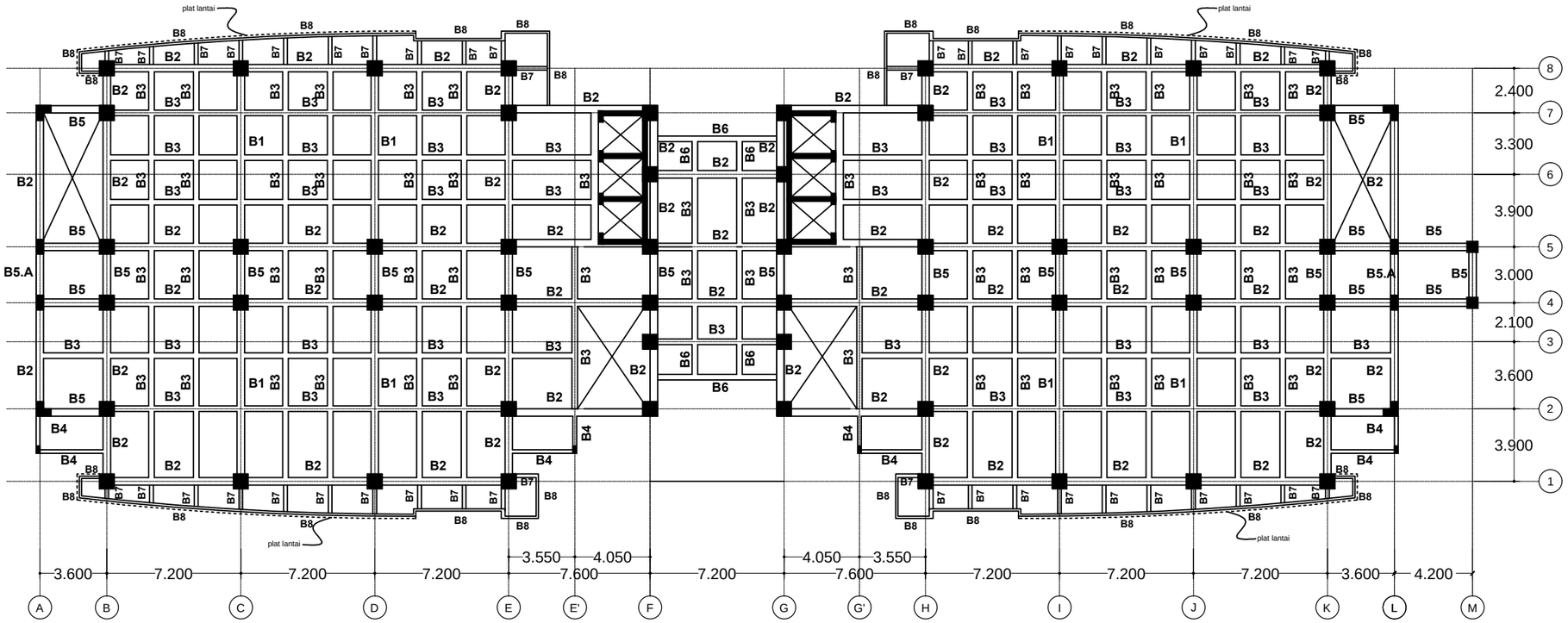
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	K.9	50



DENAH BALOK LANTAI 1

SKALA 1 : 250

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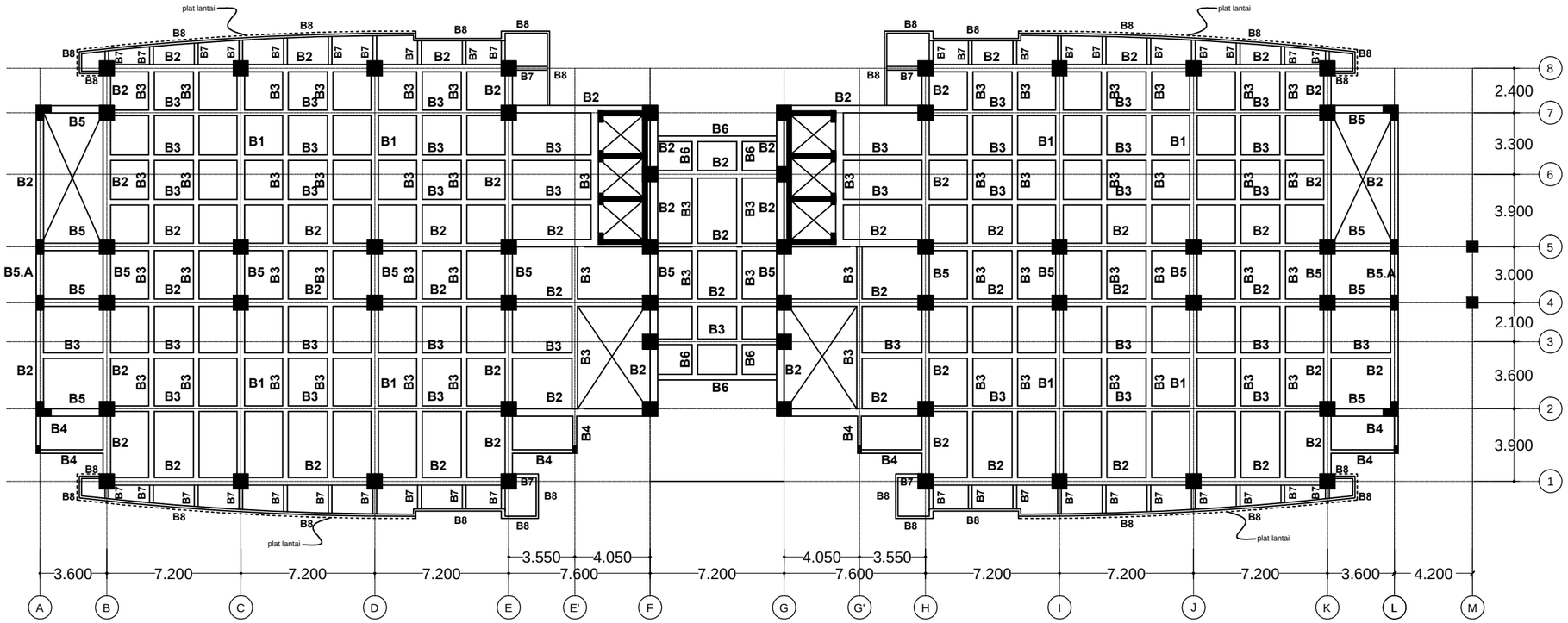
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.3	50



DENAH BALOK LANTAI 2

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

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TIM PERENCANA

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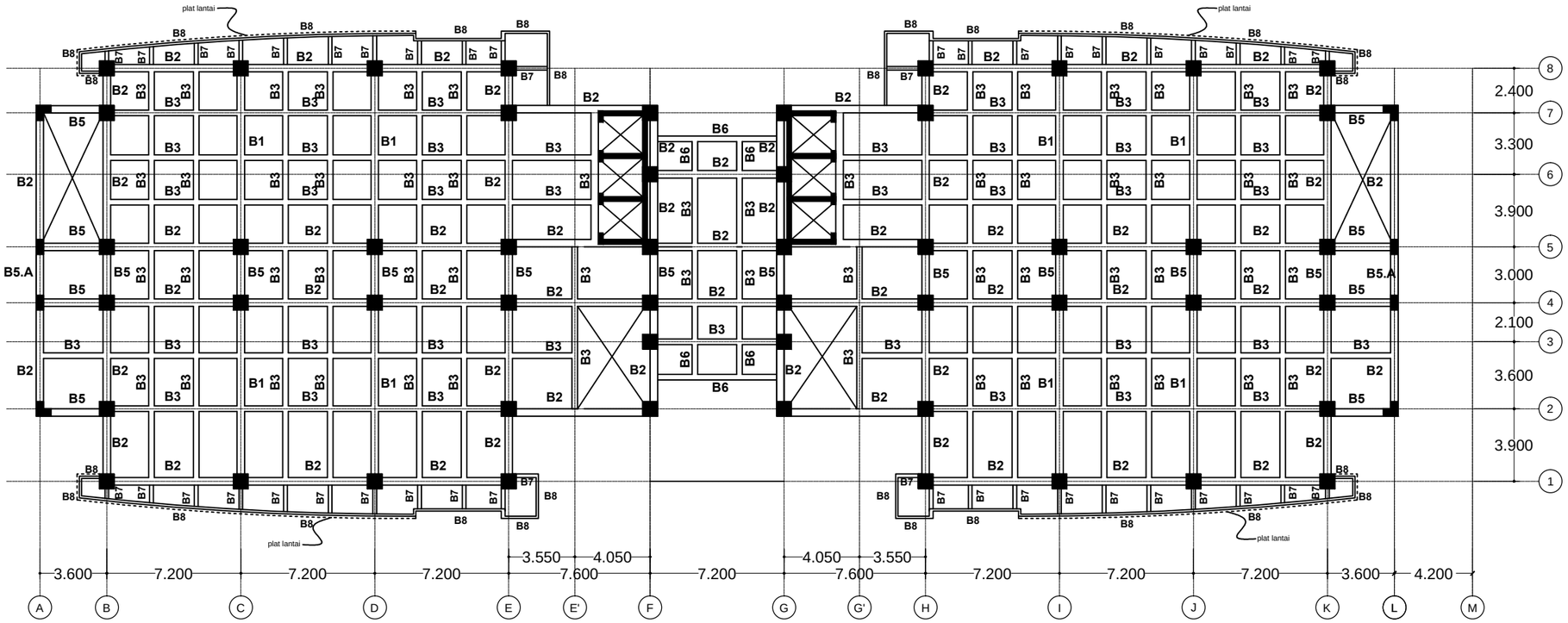
MEKANIKAL ELEKTRIKAL	Ir. AGUS JAMAL, M.Eng. APEI	
DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.4	50



DENAH BALOK LANTAI 3

SKALA 1 : 250

CATATAN/ KETERANGAN

REVISI

NO.	URAIAN	TANGGAL	PARAF

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DIGAMBAR	MASYKUR AZIZI,S.T.	

JUDUL GAMBAR	SKALA

KODE GAMBAR	NO. GAMBAR	JML. LEMBAR
STRK	B.5	50