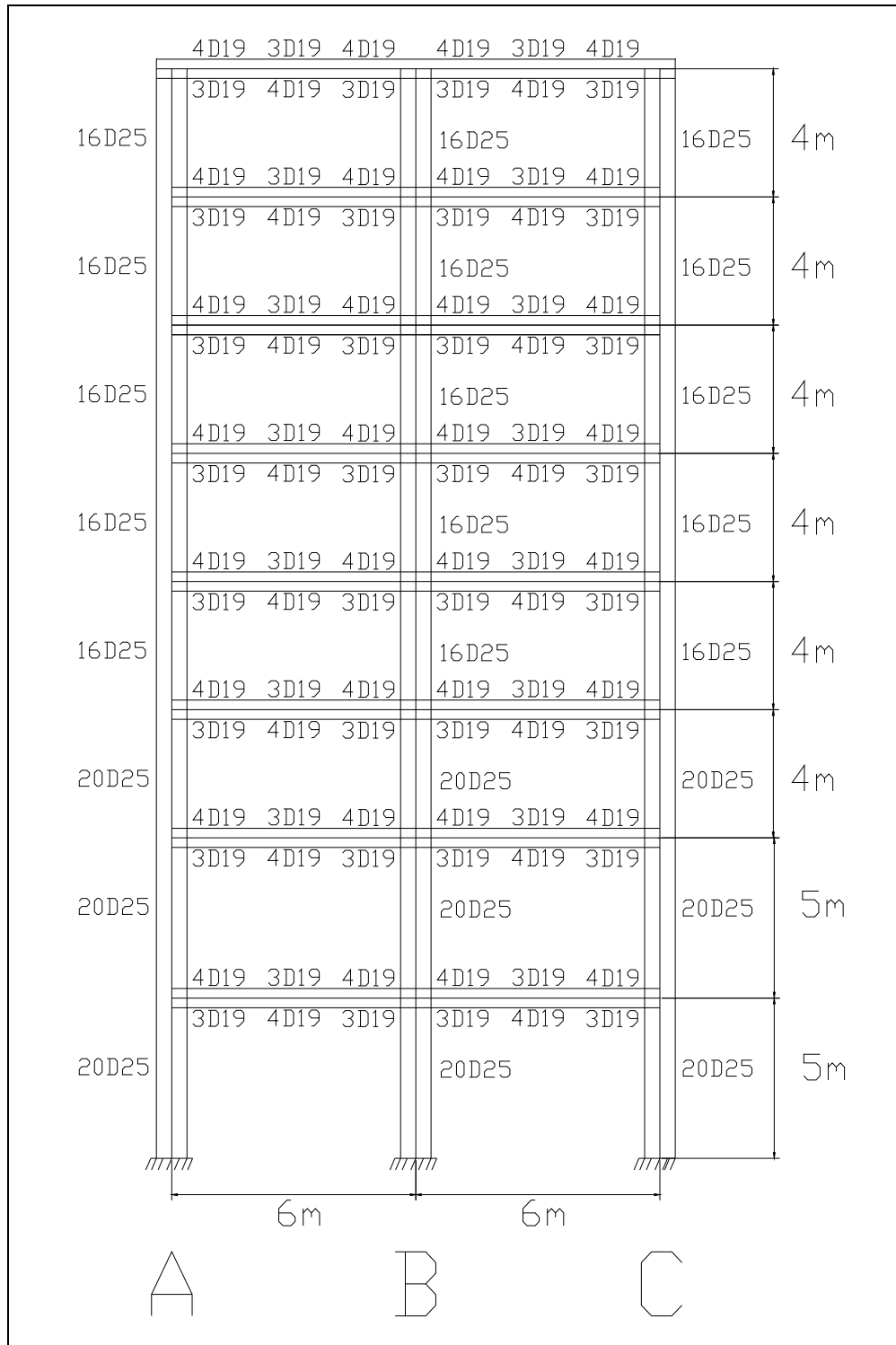


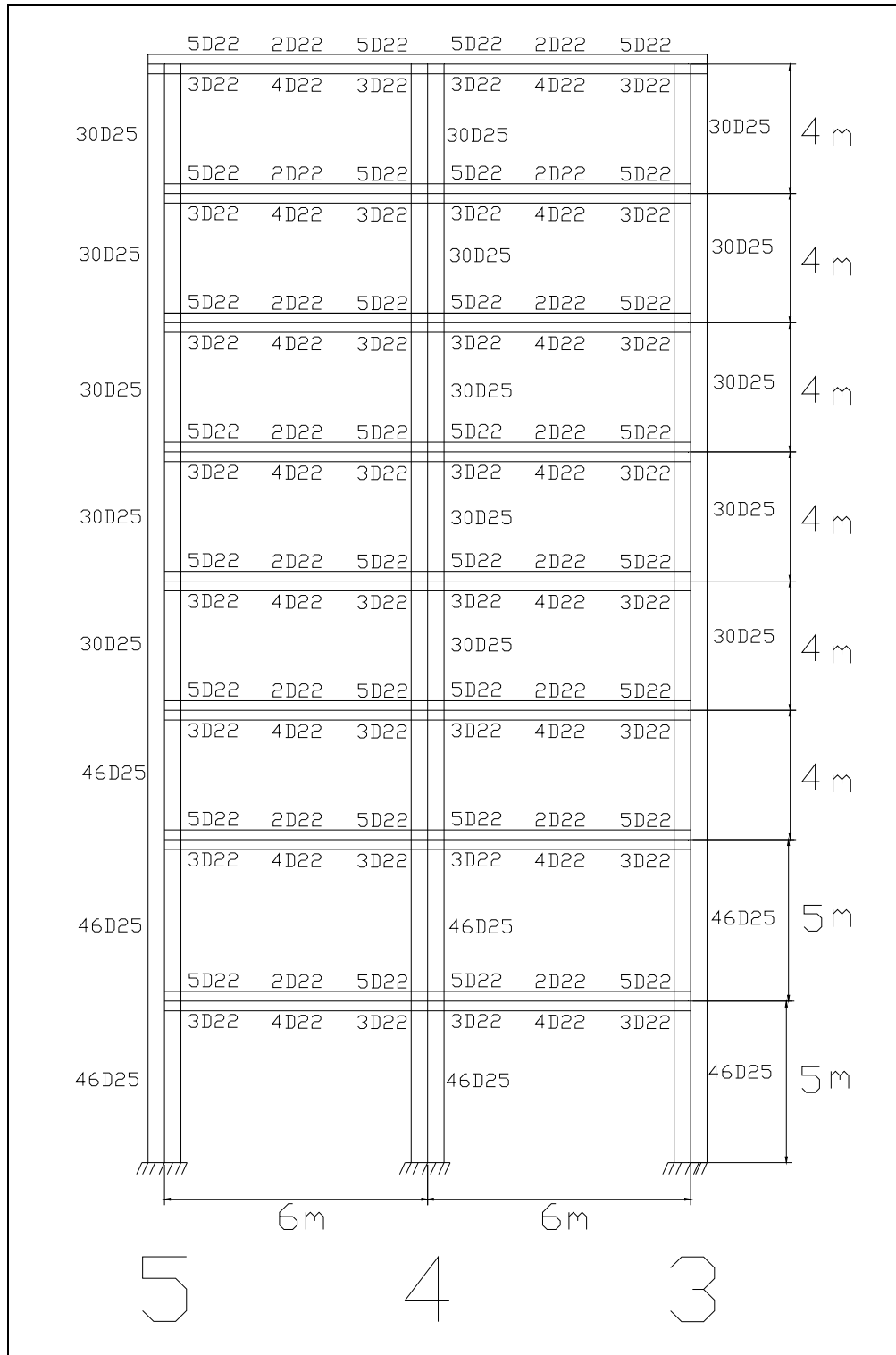
LAMPIRAN 1
PENULANGAN BALOK DAN KOLOM



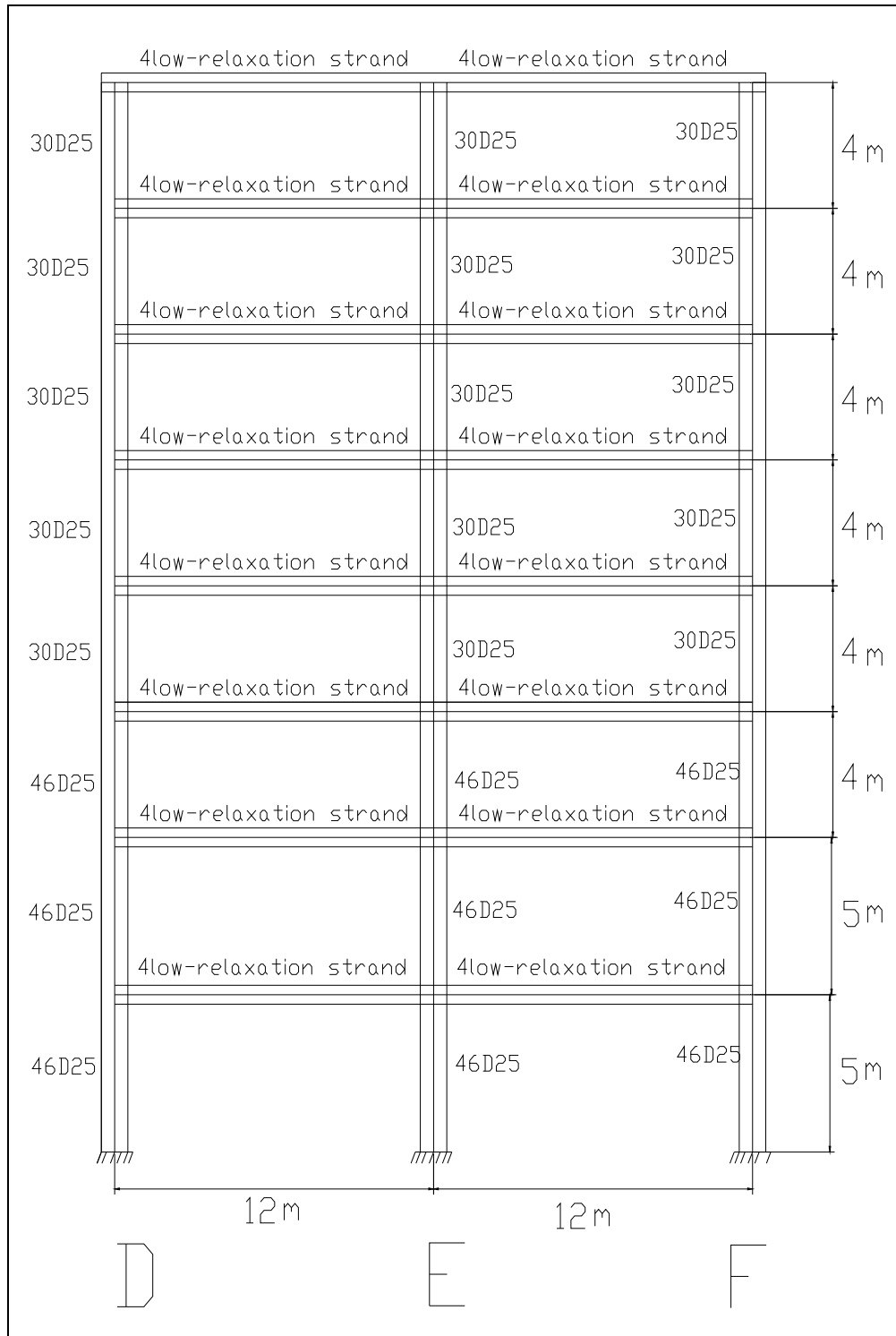
Gambar L1.1 Tulangan Balok dan Kolom Bangunan dengan As A-C dan As G-I Portal Balok Induk Arah X



Gambar L1.2 Tulangan Balok dan Kolom Bangunan dengan As A-C dan As G-I Portal Balok Anak Arah X

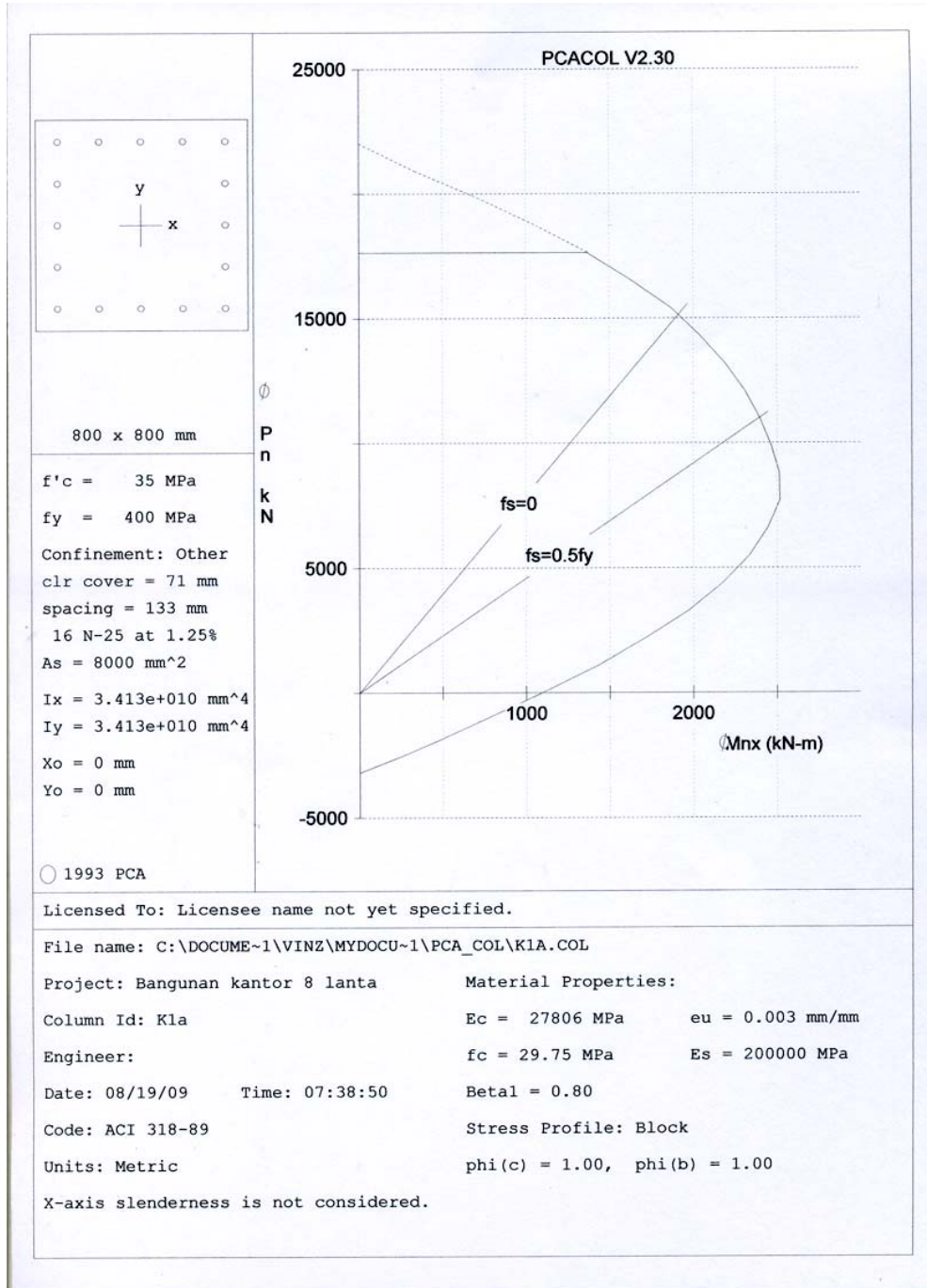


Gambar L1.3 Tulangan Balok dan Kolom Bangunan dengan As D-F Portal Balok B_{RC1}

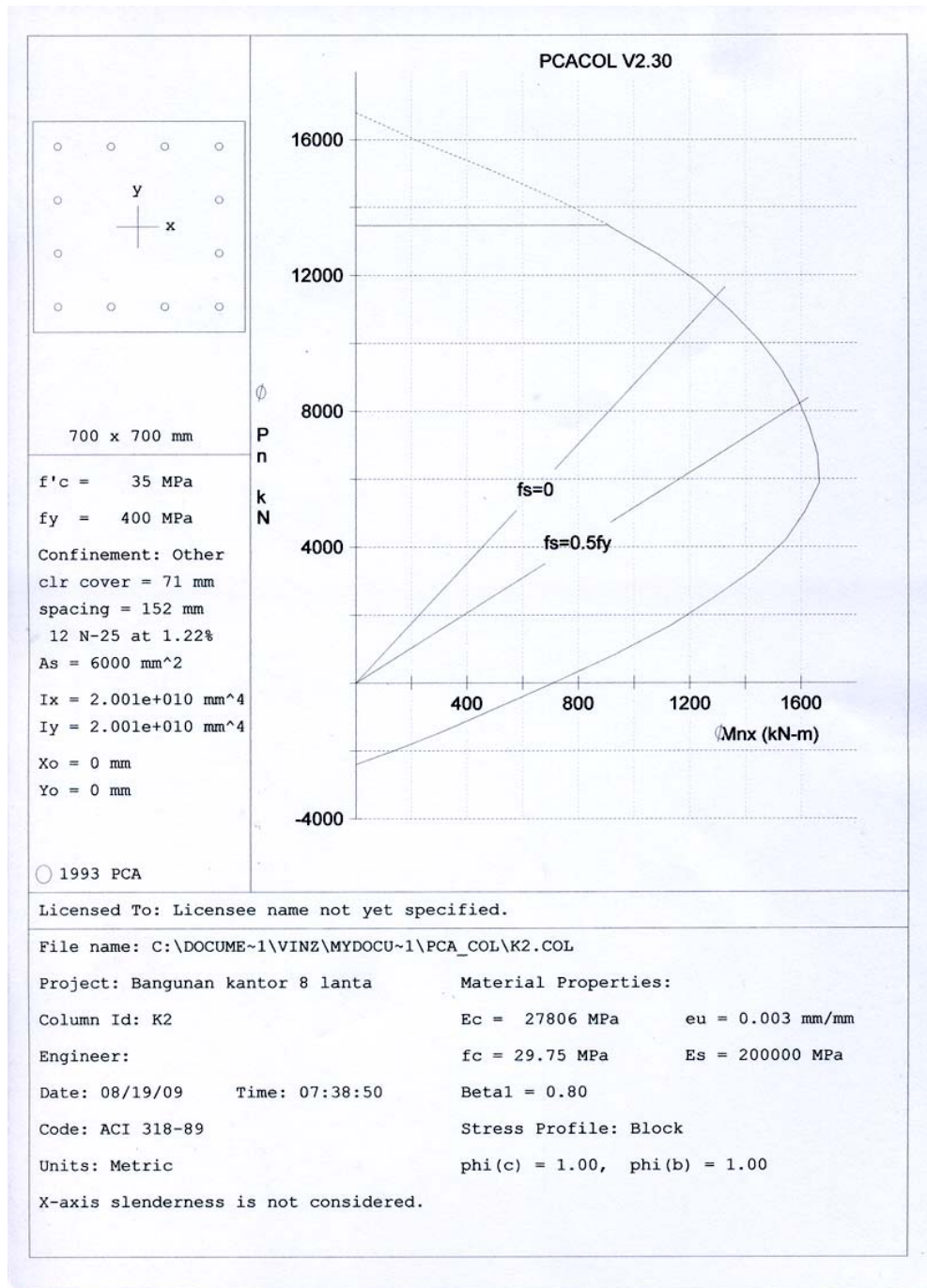


**Gambar L1.4 Tulangan Balok dan Kolom Bangunan dengan As D-F
Portal Balok B_{PC}**

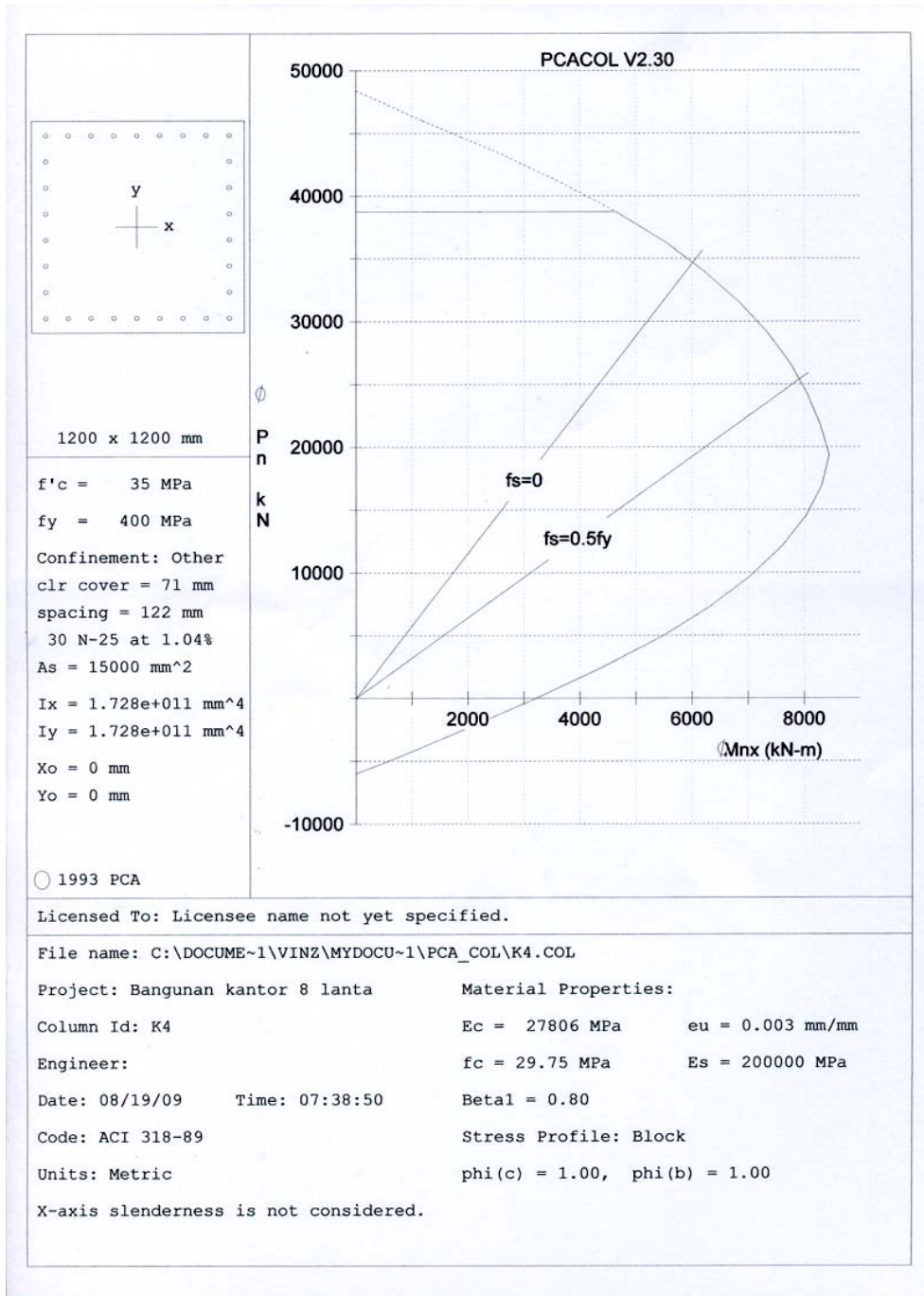
LAMPIRAN 2
DIAGRAM INTERAKSI KOLOM



Gambar L2.1 Diagram Interaksi Kolom K1a

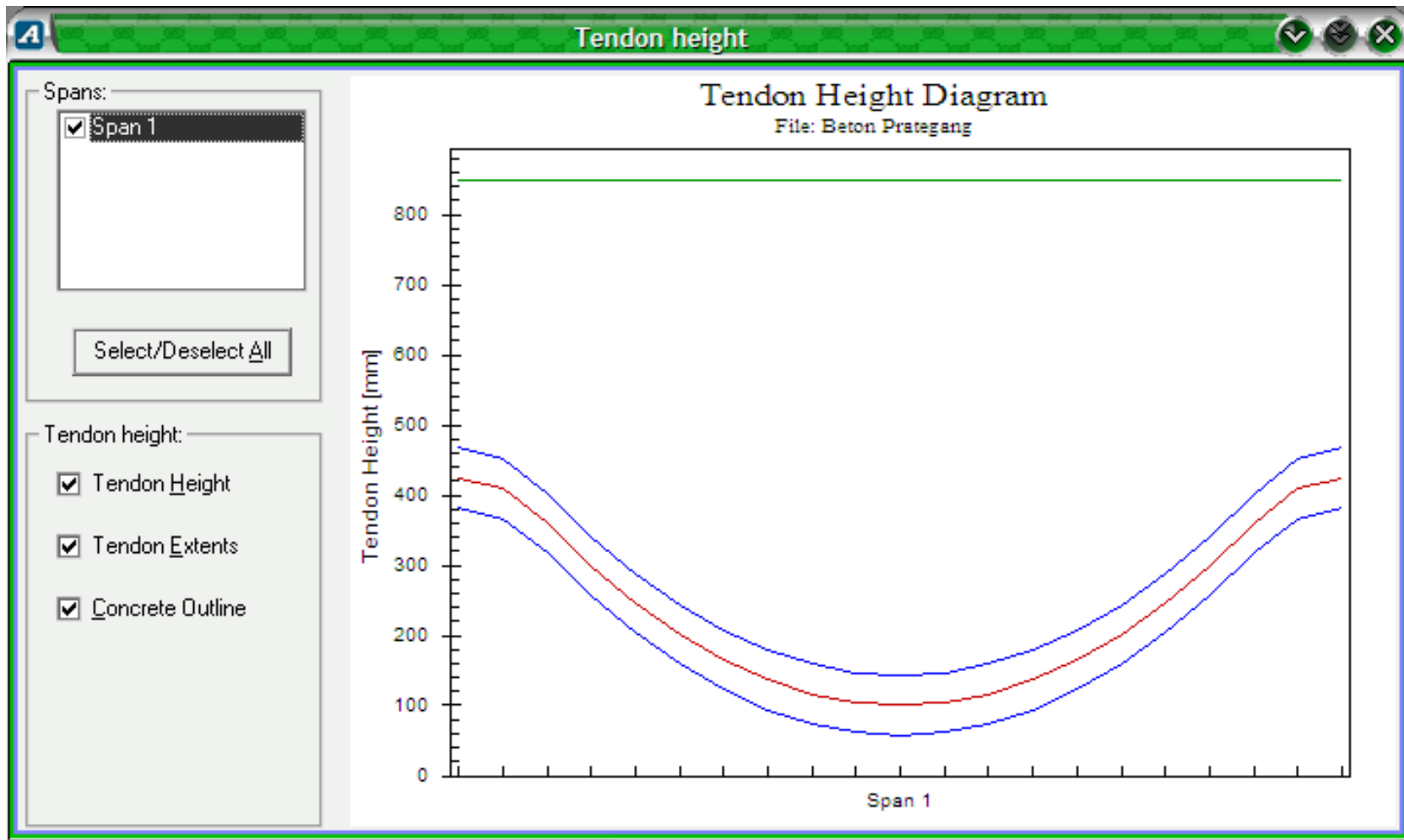


Gambar L2.2 Diagram Interaksi Kolom K2



Gambar L2.3 Diagram Interaksi Kolom K4

LAMPIRAN 3
HASIL *OUTPUT* PROGRAM ADAPT-PT



```

-----
|                               ADAPT CORPORATION                               |
|                               STRUCTURAL CONCRETE SOFTWARE SYSTEM           |
|                               1733 Woodside Road, Suite 220, Redwood City, California 94061 |
|-----|
|                               ADAPT-PT FOR POST-TENSIONED BEAM/SLAB DESIGN |
|                               Version 7.00 AMERICAN (ACI 318-02/IBC-03)   |
|                               ADAPT CORPORATION - Structural Concrete Software System |
|                               1733 Woodside Road, Suite 220, Redwood City, California 94061 |
|                               Phone: (650)306-2400, Fax: (650)364-4678    |
|                               Email: Support@AdaptSoft.com, Web site: http://www.AdaptSoft.com |
|-----|
DATE AND TIME OF PROGRAM EXECUTION:                               Sep 1,2009   At Time: 20:4
PROJECT FILE:                                                     Beton Prategang

```

```

P R O J E C T   T I T L E:
Balok Beton Prategang lantai2
As 3E-3F

```

```

1 - USER SPECIFIED   G E N E R A L   D E S I G N   P A R A M E T E R S
=====

```

```

CONCRETE:
STRENGTH at 28 days, for BEAMS/SLABS .....          45.00 N/mm^2
                    for COLUMNS .....              35.00 N/mm^2

MODULUS OF ELASTICITY for BEAMS/SLABS .....        31529.00 N/mm^2
                    for COLUMNS .....              27806.00 N/mm^2

CREEP factor for deflections for BEAMS/SLABS .....    2.00
CONCRETE WEIGHT .....                                NORMAL

SELF WEIGHT .....                                   2400.00 Kg/m^3

TENSION STRESS limits (multiple of (f'c)^1/2)
At Top .....                                        .500
At Bottom .....                                    .500

COMPRESSION STRESS limits (multiple of (f'c))
At all locations .....                              .450

REINFORCEMENT:
YIELD Strength .....                               400.00 N/mm^2
Minimum Cover at TOP .....                          40.00 mm
Minimum Cover at BOTTOM .....                       40.00 mm

POST-TENSIONING:
SYSTEM .....                                       BONDED
Ultimate strength of strand .....                 1860.00 N/mm^2
Average effective stress in strand (final) .....   1200.00 N/mm^2
Strand area.....                                  98.700 mm^2
Min CGS of tendon from TOP.....                    100.00 mm
Min CGS of tendon from BOTTOM for INTERIOR spans.. 100.00 mm
Min CGS of tendon from BOTTOM for EXTERIOR spans.. 100.00 mm
Min average precompression .....                  .85 N/mm^2
Max spacing between strands (factor of slab depth) 8.00

```

Tendon profile type and support widths..... (see section 9)

ANALYSIS OPTIONS USED:

Structural system BEAM
 Moment of Inertia over support is NOT INCREASED
 Effective flange width consideration YES
 Effective flange width implementation method ACI-318

2 - I N P U T G E O M E T R Y

2.1.1 PRINCIPAL SPAN DATA OF UNIFORM SPANS

S P A N	F O R M	LENGTH	WIDTH	DEPTH	TOP FLANGE		BOTTOM/MIDDLE FLANGE		REF	MULTIPLIER
					width	thick.	width	thick.		
N	M	m	mm	mm	mm	mm	mm	mm	mm	left right
1	1	12.00	400	850					850	.50 .50

LEGEND:

- 1 - SPAN
- C = Cantilever
- 3 - FORM
 - 1 = Rectangular section
 - 2 = T or Inverted L section
 - 3 = I section
 - 4 = Extended T or L section
 - 7 = Joist
 - 8 = Waffle
- 11 - Top surface to reference line

2.2 - S U P P O R T W I D T H A N D C O L U M N D A T A

JOINT	SUPPORT		LOWER COLUMN				UPPER COLUMN			
	WIDTH	LENGTH	B(DIA)	D	CBC*	LENGTH	B(DIA)	D	CBC*	
	mm	m	mm	mm		m	mm	mm		
1	0	5.00	1500	1500	(1)	.00	0	0	(1)	
2	0	5.00	1500	1500	(1)	.00	0	0	(1)	

*THE COLUMN BOUNDARY CONDITION CODES (CBC)

- Fixed at both ends ... (STANDARD) = 1
- Hinged at near end, fixed at far end = 2
- Fixed at near end, hinged at far end = 3
- Fixed at near end, roller with rotational fixity at far end .. = 4

3 - INPUT APPLIED LOADING

```

<---CLASS--->          <-----TYPE----->
D = DEAD LOAD          U = UNIFORM          P = PARTIAL UNIFORM
L = LIVE LOAD          C = CONCENTRATED     M = APPLIED MOMENT
                        Li= LINE LOAD
SW= SELF WEIGHT Computed from geometry input and treated as dead loading
Unit selfweight W = 2400.0 Kg/m^3

```

SPAN	CLASS	TYPE	Intensity kN/m ²	(From ... (m	To) m)	(M or C ...At) (kN-m or kN...m)	Total on Trib kN/m
1	2	3	4	5	6	7	8
1	L	U	2.500	.00	12.00		1.000
1	D	U	6.900	.00	12.00		2.760
1	D	U	1.450	.00	12.00		.580
1	SW	U		.00	12.00		8.005

NOTE: LIVE LOADING is SKIPPED with a skip factor of 1.00

3.1 - LOADING AS APPEARS IN USER'S INPUT SCREEN PRIOR TO PROCESSING

SPAN	CLASS	TYPE	UNIFORM				
			LINE (kN/m)	(CON. or PART.) (kN@m or m-m)	(M O M E N T) (kN-m @ m)		
1	2	3	4	5	6	7	8
1	L	U	2.500				
1	D	U	6.900				
1	D	U	1.450				

NOTE: SELFWEIGHT INCLUSION REQUIRED

LIVE LOADING is SKIPPED with a skip factor of 1.00

4 - CALCULATED SECTION PROPERTIES

4.1 For Uniform Spans and Cantilevers only

SPAN	Tributary Width			Effective Width			
	AREA mm ²	Yb mm	Yt mm	b_eff mm	I mm ⁴	Yb mm	Yt mm
1	2	3	4	5	6	7	8
1	340000.00	425.00	425.00	.00	.2047E+11	425.00	425.00

Note:

--- = Span/Cantilever is Nonuniform, see block 4.2

5 - DEAD LOAD MOMENTS, SHEARS & REACTIONS

SPAN	< 5.1 SPAN MOMENTS (kNm) >			< 5.2 SPAN SHEARS (kN) >	
	M(l)*	Midspan	M(r)*	SH(l)	SH(r)
1	-134.51	69.70	-134.51	-68.07	68.07

Note:

* = Centerline moments

JOINT	< 5.3 REACTIONS (kN) >		<- 5.4 COLUMN MOMENTS (kNm) ->	
			Lower columns	Upper columns
1	68.07		-134.51	.00
2	68.07		134.51	.00

6 - LIVE LOAD MOMENTS, SHEARS & REACTIONS

<-- 6.1 LIVE LOAD SPAN MOMENTS (kNm) and SHEAR FORCES (kN) -->

SPAN	<---- left* ---->		<---- midspan ---->		<---- right* ---->		<--SHEAR FORCE-->	
	max	min	max	min	max	min	left	right
1	-11.86	.00	6.14	.00	-11.86	.00	-6.00	6.00

Note:

* = Centerline moments

JOINT	<- 6.2 REACTIONS (kN) ->		<----- 6.3 COLUMN MOMENTS (kNm) ----->			
	max	min	<--- LOWER COLUMN --->		<--- UPPER COLUMN --->	
1	6.00	.00	max	min	max	min
2	6.00	.00	11.86	.00	.00	.00

Note: Block 6.1 through 6.3 values are maxima of all skipped loading cases

8 - SUM OF DEAD AND LIVE MOMENTS (kNm)

Maxima of dead load and live load span moments combined
for serviceability checks (1.00DL + 1.00LL)

<---- left* ----> <---- midspan ----> <---- right* ---->

SPAN	max	min	max	min	max	min
-1-----2-----3-----4-----5-----6-----7-----						
1	-146.36	-134.50	75.84	69.70	-146.36	-134.50

Note:
* = Centerline

8 - SUM OF DEAD AND LIVE MOMENTS (kNm)

Maxima of dead load and live load span moments combined
for serviceability checks (1.00DL + 1.00LL)

SPAN	max	min	max	min	max	min
-1-----2-----3-----4-----5-----6-----7-----						
1	-146.36	-134.50	75.84	69.70	-146.36	-134.50

Note:
* = Centerline

9 - SELECTED POST-TENSIONING FORCES AND TENDON PROFILES

9.1 PROFILE TYPES AND PARAMETERS

LEGEND:

For Span:

- 1 = reversed parabola
- 2 = simple parabola with straight portion over support
- 3 = harped tendon

For Cantilever:

- 1 = simple parabola
- 2 = partial parabola
- 3 = harped tendon

9.2	TENDON		PROFILE		
	TYPE	X1/L	X2/L	X3/L	A/L
	-1-----2-----3-----4-----5-----				
1	1	.100	.500	.100	.000

9.3 - SELECTED POST-TENSIONING FORCES AND TENDON DRAPE

Tendon editing mode selected: TENDON SELECTION

SPAN	SELECTED VALUES			CALCULATED VALUES			
	FORCE (kN/-)	DISTANCE OF CGS (mm)			P/A (N/mm^2)	Wbal (kN/-)	Wbal (DL)
		Left	Center	Right			

--1-----2-----3-----4-----5-----6-----7-----8--
1 486.249 425.00 100.00 425.00 1.43 8.779 77

Approximate weight of strand 40.3 Kg

9.35 - TENDON SELECTION DATA:

TYPE	SEL.	FORCE (kN)	<----- TENDON EXTENTIS ----->
			<1>
--1-----2-----3-----4-----5-----6-----7-----8--			
B	2	119.46	<====|
C	2	119.46	|====>

9.5 R E Q U I R E D M I N I M U M P O S T - T E N S I O N I N G F O R C E S (kN)

SPAN	<- BASED ON STRESS CONDITIONS ->			<- BASED ON MINIMUM P/A ->		
	LEFT*	CENTER	RIGHT*	LEFT	CENTER	RIGHT
--1-----2-----3-----4-----5-----6-----7-----						
1	.00	.00	.00	289.00	289.00	289.00

Note:
* = Centerline

9.6 S E R V I C E S T R E S S E S (N/mm^2) (tension shown positive)

	L E F T *				R I G H T *				
	T O P		B O T T O M		T O P		B O T T O M		
	max-T	max-C	max-T	max-C	max-T	max-C	max-T	max-C	
--1-----2-----3-----4-----5-----6-----7-----8-----9--									
1		-.49		-2.43		-.49		-2.43	

Note:
* = Centerline

	C E N T E R			
	T O P		B O T T O M	
	max-T	max-C	max-T	max-C
--1-----2-----3-----4-----5-----				
1		-1.67		-1.32

9.7 P O S T - T E N S I O N I N G B A L A N C E D M O M E N T S , S H E A R S & R E A C T I O N S

SPAN	<-- S P A N M O M E N T S (kNm) -->			<-- SPAN SHEARS (kN) -->	
	left*	midspan	right*	SH(l)	SH(r)
--1-----2-----3-----4-----5-----6-----					
1	93.74	-64.29	93.74	.00	.00

Note:
* = Centerline

```

-----
          <--REACTIONS (kN)-->          <-- COLUMN MOMENTS (kNm) -->
-joint-----2-----Lower columns-----Upper columns-----
  1              .000                93.740                .000
  2              .000               -93.740                .000

```

10 - FACTORED MOMENTS & REACTIONS

Calculated as (1.20D + 1.60L + 1.00 secondary moment effects)

10.1 FACTORED DESIGN MOMENTS (kNm)

```

          <----- left* ----->  <----- midspan ---->  <----- right* ----->
SPAN      max      min      max      min      max      min
-1-----2-----3-----4-----5-----6-----7-----
  1      -86.64   -67.66   187.21   177.38   -86.64   -67.66

```

Note:

* = Centerline

10.2 SECONDARY MOMENTS (kNm)

```

SPAN      <-- left* -->  <- midspan ->  <-- right* -->
-1-----2-----3-----4-----
  1          93.74          93.74          93.74

```

Note:

* = Centerline

```

          10.3 FACTORED REACTIONS          10.4 FACTORED COLUMN MOMENTS (kNm)
              (kN)          <-- LOWER column -->  <-- UPPER column -->
JOINT      max      min      max      min      max      min
-1-----2-----3-----4-----5-----6-----7-----
  1          91.28      81.68      -67.66      -86.64      .00      .00
  2          91.28      81.68       86.64       67.66       .00      .00

```

11 - MILD STEEL

SPECIFIC CRITERIA for ONE-WAY or BEAM SYSTEM

- Minimum steel 0.004A
- Moment capacity > factored (design) moment

```

Support cut-off length for minimum steel(length/span) ... .17
Span cut-off length for minimum steel(length/span) ... .33

```

Top bar extension beyond where required 300.00 mm
 Bottom bar extension beyond where required 300.00 mm

REINFORCEMENT based on NO REDISTRIBUTION of factored moments

11.1 TOTAL WEIGHT OF REBAR = .0 Kg AVERAGE = .0 Kg/m²
 TOTAL AREA COVERED = 4.80 m²

11.2.1 STEEL AT MID - SPAN

TOP					BOTTOM							
SPAN	As (mm ²)	DIFFERENT REBAR CRITERIA			As (mm ²)	DIFFERENT REBAR CRITERIA						
		<---ULT---	MIN--D+.25L->			<---ULT---	MIN--D+.25L->					
		1	2	3		4	5	6				
		0	(0	0	0)		0	(0	0	0)

11.3.1 STEEL AT SUPPORTS

TOP					BOTTOM					
JOINT	As (mm ²)	DIFFERENT REBAR CRITERIA			As (mm ²)	DIFFERENT REBAR CRITERIA				
		<---ULT---	MIN--D+.25L->			<---ULT---	MIN--D+.25L->			
		1	2	3		4	5	6		
1	0	(0	0	0)	0	(0	0	0)
2	0	(0	0	0)	0	(0	0	0)

12 - SHEAR DESIGN FOR BEAMS AND ONE-WAY SLAB SYSTEMS

=====

No shear reinforcement required

13 - MAXIMUM S P A N D E F L E C T I O N S

=====

Concrete's modulus of elasticity $E_c = 31529 \text{ N/mm}^2$
 Creep factor $K = 2.00$
 Ieffective/Igross... (due to cracking) $K = 1.00$

Where stresses exceed $0.5(f_c')^{1/2}$ cracking of section is allowed for.
 Values in parentheses are (span/max deflection) ratios

<.....DEFLECTION ARE ALL IN mm , DOWNWARD POSITIVE.....>

SPAN	DL	DL+PT	DL+PT+CREEP	LL	DL+PT+LL+CREEP
1	1.0	.1	.4 (32886)	.1 (*****)	.5 (26565)

 14 - I N I T I A L C O N D I T I O N S T R E S S C H E C K & R E I N F O R C E M E N T R E Q U I R E M E N T S

14.1 Parameters specified as input for initial stress checks:

Concrete f`c (initial/final)	.75	Tensile stresses divided by (f`c)^1/2	
PT force (initial/final) ...	1.15	Top fiber	..... .25
Dead loading (initial/final)	1.00	Bottom fiber	..... .25
Live loading (initial/final)	.00	Compression as ratio of f`c ....	.60

Note: Reinforcement reported in this data block is in addition to that reported in data block 11 for minimum strength reinforcement required by code.

14.2 N O a d d e d M I L D R E I N F O R C E M E N T i s r e q u i r e d a t M I D - S P A N o r S U P P O R T

14.3 Compressive stresses

COMPRESSIVE stresses are within allowable limit (.60 * f`ci)
 MAXIMUM stress..... = .06 * f`ci
 (f`ci = initial concrete strength)

15 - REINFORCEMENT DUE TO MOMENTS FROM LATERAL FORCES

o Lateral moments are considered with positive and reversed directions
o Percentage of post-tensioning considered in resisting lateral moments= 25 %
o Factored moments calculated are the larger from the followings equations
i) $M_u = (1.20M_d + .50M_l + 1.00M_{sec} + 1.00M_{lat})$
ii) $M_u = (.90M_d + .00M_l + 1.00M_{sec} + 1.00M_{lat})$
Where, M_d = dead load moments;
 M_l = live load moments;
 M_{sec} = secondary moments; and
 M_{lat} = lateral moments.

15.1 INPUTTED LATERAL MOMENTS AND THE RESULTING COMBINED MOMENTS kNm

span	<- I N P U T -> LATERAL MOMENTS		<----- CALCULATED FACTORED SPAN MOMENTS M_u ----->					
	left	right	LEFT		MID-SPAN		RIGHT	
			neg-----pos		neg-----pos		neg-----pos	
1	197.30	194.90	-270.89	169.99	-39.63	376.55	-268.49	167.59

Note: Moments listed under 4,5,8,9 are reduced to face-of-support, if applicable.
For distribution of moments see file LATBM.DAT

15.2 COLUMN MOMENTS AND MOMENTS TO BE TRANSFERRED AT SUPPORT

JNT	MAX COLUMN MU	
	neg-----pos	
1	-270.89	169.99
2	-167.59	268.49

15.3 LEGENDS AND NOTES FOR MILD STEEL

Columns 2 and the like in following block list total rebar due to lateral forces. These are not in addition to other considerations reported in preceding blocks.
For details of rebar reinforcement refer to file LATSTL.DAT

SPAN (mm ²) Ult	SELECTION OF REBAR AT MID - SPAN		SELECTION
	<----- TOP STEEL ----->	<----- BOTTOM STEEL ---->	
	SELECTION	Ult	
1	908 (908)	3 #22 x 12600 mm	

15.5 SELECTION OF REBAR AT S U P P O R T S

<----- T O P S T E E L ----->				<----- B O T T O M S T E E L ---->				
JNT (mm ²) Ult		S E L E C T I O N		(mm ²) Ult		S E L E C T I O N		
1	2	3	4	5	6	7	8	9
1	737	(737	)	2 #22 x	6600 mm			
2	728	(728	)	2 #22 x	6600 mm			

16 - FRICTION, ELONGATION AND LONG TERM STRESS LOSSES

16.6 LONG TERM STRESS LOSS CALCULATIONS

16.6.1 INPUT PARAMETERS :

Type of strand	LOW LAX	
Modulus of elasticity of strand	189610.00	N/mm ²
Average weight of concrete	NORMAL	
Estimate age of concrete at stressing	5	days
Modulus of elasticity of concrete at stressing	21538.00	N/mm ²
Modulus of elasticity of concrete at 28 days	31529.00	N/mm ²
Estimate of average relative humidity	80.00	%
Volume to surface ratio of member	136.00	mm

16.6.2 CALCULATED LONG-TERM STRESS LOSS(average of all tendons) :

SPAN	<----- STRESS (N/mm ²) ----->		
	start	center	right
1	54.02	61.30	54.02

16.7 FRICTION AND ELONGATION CALCULATIONS

16.7.1 INPUT PARAMETERS :

Coefficient of angular friction (meu) .....	.250	/rad
Coefficient of wobble friction (K) .....	.0066	/m
Ultimate strength of strand	1860.0	N/mm ²
Ratio of jacking stress to strand's ultimate strength ....	.800	
Anchor set	6.000	mm
Cross-sectional area of strand	98.700	mm ²

16.7.2 CALCULATED STRESSES(average of all tendons) :

SPAN	m	P	<TENDON HEIGHT(mm)>			Horizontal ratios			<-- STRESS(N/mm ²)-->		
			start	center	right	X1/L	X2/L	X3/L	start	center	right
1	12.00	1	425.	100.	425.	.10	.50	.10	1154.83	1231.63	1154.83

Note: P= tendon profile (refer to legend of data block 9)

Stresses at each location are the average of strands after anchor set,
and after long-term losses

16.8 TENDON SELECTION AND DATA:

TYPE	OFF	FORCE	<----- TENDON EXTENTS ----->			ELONGATION		Stress ratios	
			CAN	S	P A N S	LEFT	RIGHT	Anch.	Max.
1	2	119.46	<1>			(mm)	(mm)		
B	2	119.46	<===|			80.	0.	.67	.71

C 2 119.46 |===> 0. 80. .67 .71
Note: Force is the average value per strand (kN)
Stress ratios are at anchorage (7) and maximum along tendon (8)

ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM DATE: Sep 1,2009 TIME: 19:56
 Data ID: Beton Pr Output File ID: LTLOSS.DAT

=====

SUMMARY OF LONG TERM STRESS LOSS AT 1/20TH POINTS

- fpi = stress in tendon at transfer
- LT Loss = Long Term Stress Loss

SPAN = 1 LENGTH = 12.00 meter				
X/L	X m	fpi N/mm ²	LT Loss N/mm ²	Final Stress N/mm ²
.00	.00	1208.84	54.01	1154.83
.05	.60	1227.79	55.67	1172.14
.10	1.20	1246.29	57.18	1189.11
.15	1.80	1257.48	57.88	1199.60
.20	2.40	1267.46	59.43	1208.03
.25	3.00	1277.45	59.56	1217.89
.30	3.60	1287.44	61.33	1226.10
.35	4.20	1292.60	61.42	1231.18
.40	4.80	1292.79	61.28	1231.51
.45	5.40	1292.90	61.30	1231.60
.50	6.00	1292.93	61.30	1231.63
.55	6.60	1292.90	61.30	1231.60
.60	7.20	1292.79	61.28	1231.51
.65	7.80	1292.60	61.42	1231.18
.70	8.40	1287.44	61.33	1226.10
.75	9.00	1277.45	59.56	1217.89
.80	9.60	1267.46	59.43	1208.03
.85	10.20	1257.48	57.88	1199.60
.90	10.80	1246.29	57.18	1189.11
.95	11.40	1227.79	55.67	1172.14
1.00	12.00	1208.84	54.01	1154.83

```

=====
ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM  DATE: Sep  1,2009  TIME: 20:01
Data ID: Beton Pr                          Output File ID:    WBAL.DAT
POST-TENSIONING BALANCED LOADING
=====

```

```

<-----TYPE----->
1 = UNIFORM          3 = PARTIAL UNIFORM
2 = CONCENTRATED    4 = APPLIED MOMENT

```

SPAN	CLASS	TYPE	(Uniform) (kN/m)	(Con. or part.) (kN@m or m-m)	(M o m e n t) (kN-m @ m)		
-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
1	1	3	43.897	.00	1.20		
1	1	3	43.897	10.80	12.00		
1	1	3	-10.974	1.20	6.00		
1	1	3	-10.974	6.00	10.80		

ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM DATE: Sep 1,2009 TIME: 20:01
 Data ID: Beton Pr Output File ID: PTCGS.DAT

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SUMMARY OF TENDON HEIGHTS AT 1/20TH POINTS. Heights in each span are measured from the reference point. Negative number = below reference point

CGS = Centroid of tendon

SPAN =	1	LENGTH =	12.00 meter
X/L	X	CGS	
	m	mm	
.00	.00	425.00	
.05	.60	408.75	
.10	1.20	360.00	
.15	1.80	299.06	
.20	2.40	246.25	
.25	3.00	201.56	
.30	3.60	165.00	
.35	4.20	136.56	
.40	4.80	116.25	
.45	5.40	104.06	
.50	6.00	100.00	
.55	6.60	104.06	
.60	7.20	116.25	
.65	7.80	136.56	
.70	8.40	165.00	
.75	9.00	201.56	
.80	9.60	246.25	
.85	10.20	299.06	
.90	10.80	360.00	

ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM DATE: Sep 1,2009 TIME: 20:01
 Data ID: Beton Pr Output File ID: MOMENTS.DAT

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SUMMARY OF BENDING SPAN MOMENTS AT 1/20TH POINTS
 UNITS ARE ALL IN (kNm)

Note: for LEFT CANTILEVER (if any) X/L= 0.00 is at tip of cantilever,
 and X/L= 1.00 is at first support

SPAN = 1		LENGTH = 12.00 meter				
X/L	X	DL	LL(min)	LL(max)	PT	SECONDARY
.00	.00	-.13451E+03	-.11856E+02	.00000E+00	.93743E+02	.93740E+02
.05	.60	-.95712E+02	-.84365E+01	.00000E+00	.85842E+02	.93740E+02
.10	1.20	-.60996E+02	-.53765E+01	.00000E+00	.62137E+02	.93740E+02
.15	1.80	-.30365E+02	-.26765E+01	.00000E+00	.32506E+02	.93740E+02
.20	2.40	-.38175E+01	-.33649E+00	.00000E+00	.68262E+01	.93740E+02
.25	3.00	.18646E+02	.00000E+00	.16435E+01	-.14903E+02	.93740E+02
.30	3.60	.37024E+02	.00000E+00	.32635E+01	-.32681E+02	.93740E+02
.35	4.20	.51319E+02	.00000E+00	.45235E+01	-.46509E+02	.93740E+02
.40	4.80	.61529E+02	.00000E+00	.54235E+01	-.56386E+02	.93740E+02
.45	5.40	.67656E+02	.00000E+00	.59635E+01	-.62312E+02	.93740E+02
.50	6.00	.69698E+02	.00000E+00	.61435E+01	-.64288E+02	.93740E+02
.55	6.60	.67656E+02	.00000E+00	.59635E+01	-.62312E+02	.93740E+02
.60	7.20	.61529E+02	.00000E+00	.54235E+01	-.56386E+02	.93740E+02
.65	7.80	.51319E+02	.00000E+00	.45235E+01	-.46509E+02	.93740E+02
.70	8.40	.37024E+02	.00000E+00	.32635E+01	-.32682E+02	.93740E+02
.75	9.00	.18645E+02	.00000E+00	.16435E+01	-.14903E+02	.93740E+02
.80	9.60	-.38175E+01	-.33649E+00	.00000E+00	.68262E+01	.93740E+02
.85	10.20	-.30365E+02	-.26765E+01	.00000E+00	.32506E+02	.93740E+02
.90	10.80	-.60996E+02	-.53765E+01	.00000E+00	.62137E+02	.93740E+02
.95	11.40	-.95712E+02	-.84365E+01	.00000E+00	.85842E+02	.93740E+02
1.00	12.00	-.13451E+03	-.11856E+02	.00000E+00	.93743E+02	.93740E+02

ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM DATE: Sep 1,2009 TIME: 20:01
 Data ID: Beton Pr Output File ID: SHEARS.DAT

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SUMMARY OF SHEAR FORCES ALONG SPANS AT 1/20TH POINTS
 UNITS ARE ALL IN (kN)

Note: for LEFT CANTILEVER (if any) X/L= 0.00 is at tip of cantilever,
 and X/L= 1.00 is at first support

SPAN = 1		LENGTH = 12.00 meter				
X/L	X	DL	LL(pos)	LL(neg)	PT	SECONDARY
.00	.00	-.68070E+02	.00000E+00	-.60000E+01	.19362E-04	.00000E+00
.05	.60	-.61263E+02	.00000E+00	-.54000E+01	.26338E+02	.00000E+00
.10	1.20	-.54456E+02	.00000E+00	-.48000E+01	.52677E+02	.00000E+00
.15	1.80	-.47649E+02	.00000E+00	-.42000E+01	.46092E+02	.00000E+00
.20	2.40	-.40842E+02	.00000E+00	-.36000E+01	.39508E+02	.00000E+00
.25	3.00	-.34035E+02	.00000E+00	-.30000E+01	.32923E+02	.00000E+00
.30	3.60	-.27228E+02	.00000E+00	-.24000E+01	.26338E+02	.00000E+00
.35	4.20	-.20421E+02	.00000E+00	-.18000E+01	.19754E+02	.00000E+00
.40	4.80	-.13614E+02	.00000E+00	-.12000E+01	.13169E+02	.00000E+00
.45	5.40	-.68070E+01	.00000E+00	-.60000E+00	.65846E+01	.00000E+00
.50	6.00	.38179E-05	.25000E-06	.00000E+00	.76432E-05	.00000E+00
.55	6.60	.68070E+01	.60000E+00	.00000E+00	-.65846E+01	.00000E+00
.60	7.20	.13614E+02	.12000E+01	.00000E+00	-.13169E+02	.00000E+00
.65	7.80	.20421E+02	.18000E+01	.00000E+00	-.19754E+02	.00000E+00
.70	8.40	.27228E+02	.24000E+01	.00000E+00	-.26338E+02	.00000E+00
.75	9.00	.34035E+02	.30000E+01	.00000E+00	-.32923E+02	.00000E+00
.80	9.60	.40842E+02	.36000E+01	.00000E+00	-.39508E+02	.00000E+00
.85	10.20	.47649E+02	.42000E+01	.00000E+00	-.46092E+02	.00000E+00
.90	10.80	.54456E+02	.48000E+01	.00000E+00	-.52677E+02	.00000E+00
.95	11.40	.61263E+02	.54000E+01	.00000E+00	-.26338E+02	.00000E+00
1.00	12.00	.68070E+02	.60000E+01	.00000E+00	-.46248E-05	.00000E+00

ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM DATE: Sep 1,2009 TIME: 20:01
 Data ID: Beton Pr Output File ID: STRESSES.DAT

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SUMMARY OF BENDING STRESSES AT 1/20TH POINTS
 UNITS ARE ALL IN (N/mm²)

NOTE: stresses at centerlines, or next to centerline points may not be of practical significance if these points fall over the supports. Use the stresses which fall within the net span length as given at top of each table below. Where applicable, reduced moments are used.
 If live load (LL) is included, its maximum value at any point is used.
 Tension is shown positive.
 Stress COMBINATION used is (1.00DL + 1.00LL + 1.00PT)

SPAN = 1 LENGTH = 12.00 meter (Net span from .00 to 12.00 m)

X/L	X	<--- D L --->		<----- L L ----->				<--- P T --->	
		top	bottom	top		bottom		top	bottom
				max-T	max-C	max-T	max-C		
.00	.00	2.79	-2.79	.25	.00	.00	-.25	-3.29	.61
.05	.60	1.99	-1.99	.18	.00	.00	-.18	-3.14	.42
.10	1.20	1.27	-1.27	.11	.00	.00	-.11	-2.67	-.09
.15	1.80	.63	-.63	.06	.00	.00	-.06	-2.07	-.72
.20	2.40	.08	-.08	.01	.00	.00	-.01	-1.54	-1.26
.25	3.00	-.39	.39	.00	-.03	.03	.00	-1.10	-1.72
.30	3.60	-.77	.77	.00	-.07	.07	.00	-.75	-2.10
.35	4.20	-1.07	1.07	.00	-.09	.09	.00	-.46	-2.40
.40	4.80	-1.28	1.28	.00	-.11	.11	.00	-.26	-2.60
.45	5.40	-1.40	1.40	.00	-.12	.12	.00	-.14	-2.72
.50	6.00	-1.45	1.45	.00	-.13	.13	.00	-.10	-2.76
.55	6.60	-1.40	1.40	.00	-.12	.12	.00	-.14	-2.72
.60	7.20	-1.28	1.28	.00	-.11	.11	.00	-.26	-2.60
.65	7.80	-1.07	1.07	.00	-.09	.09	.00	-.46	-2.40
.70	8.40	-.77	.77	.00	-.07	.07	.00	-.75	-2.10
.75	9.00	-.39	.39	.00	-.03	.03	.00	-1.10	-1.72
.80	9.60	.08	-.08	.01	.00	.00	-.01	-1.54	-1.26
.85	10.20	.63	-.63	.06	.00	.00	-.06	-2.07	-.72

SPAN = 1 LENGTH = 12.00 meter (Net span from .00 to 12.00 m)

X/L	X	<----- COMBINED ----->			
		top		bottom	
		max-T	max-C	max-T	max-C
.00	.00	-----	-.49	-----	-2.43
.05	.60	-----	-1.16	-----	-1.74
.10	1.20	-----	-1.40	-----	-1.47
.15	1.80	-----	-1.44	-----	-1.40
.20	2.40	-----	-1.47	-----	-1.35
.25	3.00	-----	-1.53	-----	-1.34

.30	3.60	-----	-1.58	-----	-1.33
.35	4.20	-----	-1.62	-----	-1.33
.40	4.80	-----	-1.65	-----	-1.32
.45	5.40	-----	-1.66	-----	-1.32
.50	6.00	-----	-1.67	-----	-1.32
.55	6.60	-----	-1.66	-----	-1.32
.60	7.20	-----	-1.65	-----	-1.32
.65	7.80	-----	-1.62	-----	-1.33
.70	8.40	-----	-1.58	-----	-1.33
.75	9.00	-----	-1.53	-----	-1.34
.80	9.60	-----	-1.47	-----	-1.35
.85	10.20	-----	-1.44	-----	-1.40
.90	10.80	-----	-1.40	-----	-1.47
.95	11.40	-----	-1.16	-----	-1.74
1.00	12.00	-----	-.49	-----	-2.43

STRESSES AT FACES OF SUPPORTS

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=====
SPAN = 1   LENGTH = 12.00 meter   (Net span from .00 to 12.00 m )
                                <----- L L ----->
                                top          bottom
X/L      X      <--- D L --->  max-T  max-C  max-T  max-C  <--- P I --->
                                top    bottom  top    bottom
-----
face of support at left
.00      .00      2.79  -2.79   .25   .00   .00   -.25  -3.29   .61

face of support at right
1.00    12.00    2.79  -2.79   .25   .00   .00   -.25  -3.29   .61

                                <----- COMBINED ----->
                                top          bottom
X/L      X      max-T  max-C  max-T  max-C
-----
face of support at left
.00      .00      -----  -.49  -----  -2.43

face of support at right
1.00    12.00    -----  -.49  -----  -2.43

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ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM DATE: Sep 1,2009 TIME: 20:01
 Data ID: Beton Pr Output File ID: PTREQ.DAT

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SUMMARY OF POST-TENSIONING REQUIRED AT 1/20TH POINTS FOR THE ENTIRE TRIBUTARY
 UNITS ARE ALL IN (kN)

Note: for LEFT CANTILEVER (if any) X/L= 0.00 is at tip of cantilever,
 and X/L= 1.00 is at first support

SPAN = 1 LENGTH = 12.00 meter
 X/L X PT

.00	.00	.0000E+00
.05	.60	.0000E+00
.10	1.20	.0000E+00
.15	1.80	.0000E+00
.20	2.40	.0000E+00
.25	3.00	.0000E+00
.30	3.60	.0000E+00
.35	4.20	.0000E+00
.40	4.80	.0000E+00
.45	5.40	.0000E+00
.50	6.00	.0000E+00
.55	6.60	.0000E+00
.60	7.20	.0000E+00
.65	7.80	.0000E+00
.70	8.40	.0000E+00
.75	9.00	.0000E+00
.80	9.60	.0000E+00
.85	10.20	.0000E+00
.90	10.80	.0000E+00
.95	11.40	.0000E+00
1.00	12.00	.0000E+00

=====

SUMMARY OF POST-TENSIONING REQUIRED AT FACES OF SUPPORTS

SPAN = 1 LENGTH = 12.00 meter
 X/L X PT

face of support at left
 .00 .00 .0000E+00

face of support at right
 1.00 12.00 .0000E+00

ADAPT STRUCTURAL CONCRETE SOFTWARE SYSTEM DATE: Sep 1,2009 TIME: 20:01
 Data ID: Beton Pr Output File ID: REBAR.DAT

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SUMMARY OF REBAR REQUIRED AT 1/20TH POINTS

Note: for LEFT CANTILEVER (if any) X/L= 0.00 is at tip of cantilever,
 and X/L= 1.00 is at first support

SPAN = 1		LENGTH = 12.00 meter; CLEAR from .00 to 12.00 m			
X/L	X m	<--Factored moments (kNm)-->		<--Reinforcement (mm ²)-->	
		MAXIMUM	MINIMUM	TOP	BOTTOM
.00	.00	-67.672	-86.642	.00	.00
.05	.60	-21.114	-34.613	.00	.00
.10	1.20	20.545	11.942	.00	.00
.15	1.80	57.302	53.020	.00	.00
.20	2.40	89.159	88.621	.00	.00
.25	3.00	118.745	116.115	.00	.00
.30	3.60	143.390	138.169	.00	.00
.35	4.20	162.560	155.323	.00	.00
.40	4.80	176.252	167.575	.00	.00
.45	5.40	184.469	174.927	.00	.00
.50	6.00	187.207	177.378	.00	.00
.55	6.60	184.469	174.927	.00	.00
.60	7.20	176.252	167.575	.00	.00
.65	7.80	162.560	155.323	.00	.00
.70	8.40	143.390	138.169	.00	.00
.75	9.00	118.744	116.114	.00	.00
.80	9.60	89.159	88.621	.00	.00
.85	10.20	57.302	53.020	.00	.00

REBAR REQUIRED AT FACES OF SUPPORTS

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SPAN = 1		LENGTH = 12.00 meter; CLEAR from .00 to 12.00 m			
X/L	X m	<--Factored moments (kNm)-->		<--Reinforcement (mm ²)-->	
		MAXIMUM	MINIMUM	TOP	BOTTOM
face of support at left					
.00	.00	-67.672	-86.642	.00	.00
face of support at right					
1.00	12.00	-67.672	-86.642	.00	.00