Lampiran 3 Hasil Program *KENSLABS*

INPUT FILE NAME -D:\MIZAN\ANALISIS MIZAN (30 MEI 2018)\1.ANALISIS K400 T24.TXT

NUMBER OF PROBLEMS TO BE SOLVED = 1

TITLE -DAMAGE ANALYSIS WITH K400.T24

TYPE OF FOUNDATION (NFOUND) = 1
TYPE OF DAMAGE ANALYSIS (NDAMA) = 1
NUMBER OF PERIODS PER YEAR (NPY) = 1
NUMBER OF LOAD GROUPS (NLG) = 2
TOTAL NUMBER OF SLABS (NSLAB) = 1
TOTAL NUMBER OF JOINTS (NJOINT) = 0

ARRANGEMENT OF SLABS

SLAB NO.	NO. NODES (NX) IN X DIRECTION	NO. NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO) LEFT	RIGHT	BOTTOM	TOP
1	10	9	0	0	0	0

NUMBER OF LAYERS (NLAYER)----------= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)----------= 1
NUMBER OF NODES NOT IN CONTACT (NOTCON)----------= 0
NUMBER OF GAPS (NGAP)----------= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)----------= 3
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)- ----------= 0
BOND BETWEEN TWO LAYERS (NBOND)----------= 0
CONDITION OF WARPING (NTEMP)----------= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-------= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)----------= 1
NUMBER OF ADDITIONAL THICKNESSES FOR SLAB LAYER 1 (NAT1)------= 0
NUMBER OF ADDITIONAL THICKNESSES FOR SLAB LAYER 2 (NAT2)------= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)----------= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)----------= 9
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)----------= 1
TOLERANCE FOR ITERATIONS (DEL)----------= 0.001
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)----------= 2.54

SYSTEM OF UNITS (NUNIT)----------= 1
Length in cm, force in kN, stress in kPa, unit weight in kN/m^3
subgrade and dowel K value in MN/m^3, and temperature in C

MODULUS OF RUPTURE OF LAYER 1 (PMR(1))----------= 3789.902
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))----------= 0

FOR SLAB NO. 1 COORDINATES OF FINITE ELEMENT GRID ARE:
X = 0 30.48 60.96 91.44 121.92 182.88 243.84 335.28 426.72 500
Y = 0 25.4 50.8 99.06 147.32 195.58 246.38 304.8 360

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	24.00000	0.15000	2.700E+07

No. OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE: 4 8
NO. OF NODAL FORCES (NCNF) AND MOMENTS (NCMX AND NCMY) ARE: 0 0 0

FOR LOAD GROUP NO. 1 LOADS ARE APPLIED AS FOLLOWS:

SLAB NO. (LS)	X COORDINATES (XL1)	(XL2)	Y COORDINATES (YL1)	(YL2)	INTENSITY (QQ)
1	0.00000	10.26600	0.00000	14.14100	689.50000
1	0.00000	10.26600	36.65900	50.80000	689.50000
1	0.00000	10.26600	195.58000	209.72100	689.50000
1	0.00000	10.26600	232.23900	246.38000	689.50000

FOR LOAD GROUP NO. 2 LOADS ARE APPLIED AS FOLLOWS:

SLAB NO. (LS)	X COORDINATES (XL1)	(XL2)	Y COORDINATES (YL1)	(YL2)	INTENSITY (QQ)
1	0.00000	10.26600	0.00000	14.14100	689.50000
1	0.00000	10.26600	36.65900	50.80000	689.50000
1	0.00000	10.26600	195.58000	209.72100	689.50000
1	0.00000	10.26600	232.23900	246.38000	689.50000
1	111.65400	132.18600	0.00000	14.14100	689.50000
1	111.65400	132.18600	36.65900	50.80000	689.50000
1	111.65400	132.18600	195.58000	209.72100	689.50000
1	111.65400	132.18600	232.23900	246.38000	689.50000

NODES FOR STRESS PRINTOUT (NP) ARE: 1 19 37

NODES ON Y AXIS OF SYMMETRY (NODSY) ARE: 1 2 3 4 5 6 7 8 9

FOUNDATION ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE: 1
YOUNG'S MODULUS OF FOUNDATION (YMS) = 39600
POISSON'S RATIO OF FOUNDATION (PRS) = 0.45

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:
1 1 90 1 72

LOADS ARE APPLIED ON THE ELEMENT NO.(NE) WITH COORDINATES(XDA AND YDA)

1	-1.000	-0.326	-1.000	0.113	0.069
2	-1.000	-0.326	-0.113	1.000	0.069
6	-1.000	-0.326	-1.000	-0.443	0.069
6	-1.000	-0.326	0.443	1.000	0.069

LOADS ARE APPLIED ON THE ELEMENT NO.(NE) WITH COORDINATES(XDA AND YDA)

1	-1.000	-0.326	-1.000	0.113	0.069
2	-1.000	-0.326	-0.113	1.000	0.069
6	-1.000	-0.326	-1.000	-0.443	0.069
6	-1.000	-0.326	0.443	1.000	0.069
25	0.326	1.000	-1.000	0.113	0.069
33	-1.000	-0.663	-1.000	0.113	0.069
26	0.326	1.000	-0.113	1.000	0.069
34	-1.000	-0.663	-0.113	1.000	0.069
30	0.326	1.000	-1.000	-0.443	0.069

38 -1.000 -0.663 -1.000 -0.443 0.069
30 0.326 1.000 0.443 1.000 0.069
38 -1.000 -0.663 0.443 1.000 0.069

FOR PERIOD 1 TOTAL NO. OF LOAD REPETITIONS (TNLR) FOR EACH LOAD GROUP ARE:
17200 1183

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:
1 0.000 0.000 2 0.000 25.400 3 0.000 50.800
4 0.000 99.060 5 0.000 147.320 6 0.000 195.580
7 0.000 246.380 8 0.000 304.800 9 0.000 360.000
10 30.480 0.000 11 30.480 25.400 12 30.480 50.800
13 30.480 99.060 14 30.480 147.320 15 30.480 195.580
16 30.480 246.380 17 30.480 304.800 18 30.480 360.000
19 60.960 0.000 20 60.960 25.400 21 60.960 50.800
22 60.960 99.060 23 60.960 147.320 24 60.960 195.580
25 60.960 246.380 26 60.960 304.800 27 60.960 360.000
28 91.440 0.000 29 91.440 25.400 30 91.440 50.800
31 91.440 99.060 32 91.440 147.320 33 91.440 195.580
34 91.440 246.380 35 91.440 304.800 36 91.440 360.000
37 121.920 0.000 38 121.920 25.400 39 121.920 50.800
40 121.920 99.060 41 121.920 147.320 42 121.920 195.580
43 121.920 246.380 44 121.920 304.800 45 121.920 360.000
46 182.880 0.000 47 182.880 25.400 48 182.880 50.800
49 182.880 99.060 50 182.880 147.320 51 182.880 195.580
52 182.880 246.380 53 182.880 304.800 54 182.880 360.000
55 243.840 0.000 56 243.840 25.400 57 243.840 50.800
58 243.840 99.060 59 243.840 147.320 60 243.840 195.580
61 243.840 246.380 62 243.840 304.800 63 243.840 360.000
64 335.280 0.000 65 335.280 25.400 66 335.280 50.800
67 335.280 99.060 68 335.280 147.320 69 335.280 195.580
70 335.280 246.380 71 335.280 304.800 72 335.280 360.000
73 426.720 0.000 74 426.720 25.400 75 426.720 50.800
76 426.720 99.060 77 426.720 147.320 78 426.720 195.580
79 426.720 246.380 80 426.720 304.800 81 426.720 360.000
82 500.000 0.000 83 500.000 25.400 84 500.000 50.800
85 500.000 99.060 86 500.000 147.320 87 500.000 195.580
88 500.000 246.380 89 500.000 304.800 90 500.000 360.000

HALF BAND WIDTH (NB) = 270

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y
1 1.141E-04 -1.993E-18 2 1.023E-04 -3.266E-18 3 9.849E-05 -3.721E-18
4 7.741E-05 -3.356E-18 5 4.479E-05 -3.091E-18 6 5.251E-05 -4.169E-18
7 9.801E-05 -4.236E-18 8 1.190E-04 -2.518E-18 9 1.098E-04 -8.259E-19
10 9.828E-05 -1.140E-04 11 9.180E-05 -9.819E-05 12 8.913E-05 -8.440E-05
13 7.154E-05 -6.129E-05 14 4.679E-05 -5.566E-05 15 5.462E-05 -6.344E-05
16 9.316E-05 -5.875E-05 17 1.134E-04 -3.705E-05 18 1.072E-04 -2.517E-05
19 7.479E-05 -1.677E-04 20 7.224E-05 -1.500E-04 21 7.069E-05 -1.335E-04
22 6.017E-05 -1.072E-04 23 4.765E-05 -9.741E-05 24 5.589E-05 -9.883E-05

25 8.375E-05 -9.031E-05 26 1.018E-04 -6.543E-05 27 9.996E-05 -4.676E-05
28 5.339E-05 -1.856E-04 29 5.298E-05 -1.702E-04 30 5.263E-05 -1.558E-04
31 4.842E-05 -1.331E-04 32 4.495E-05 -1.212E-04 33 5.365E-05 -1.162E-04
34 7.370E-05 -1.050E-04 35 8.921E-05 -8.200E-05 36 9.038E-05 -6.175E-05
37 3.629E-05 -1.831E-04 38 3.721E-05 -1.717E-04 39 3.790E-05 -1.605E-04
40 3.796E-05 -1.423E-04 41 3.979E-05 -1.303E-04 42 4.875E-05 -1.218E-04
43 6.406E-05 -1.094E-04 44 7.735E-05 -8.883E-05 45 8.032E-05 -6.943E-05
46 1.366E-05 -1.558E-04 47 1.593E-05 -1.491E-04 48 1.795E-05 -1.427E-04
49 2.196E-05 -1.317E-04 50 2.776E-05 -1.222E-04 51 3.628E-05 -1.130E-04
52 4.685E-05 -1.014E-04 53 5.696E-05 -8.494E-05 54 6.119E-05 -6.844E-05
55 2.726E-06 -1.162E-04 56 5.066E-06 -1.134E-04 57 7.304E-06 -1.105E-04
58 1.193E-05 -1.047E-04 59 1.784E-05 -9.845E-05 60 2.504E-05 -9.132E-05
61 3.306E-05 -8.224E-05 62 4.091E-05 -6.968E-05 63 4.493E-05 -5.682E-05
64 -1.880E-06 -6.970E-05 65 -3.493E-07 -6.904E-05 66 1.203E-06 -6.832E-05
67 4.561E-06 -6.643E-05 68 8.741E-06 -6.364E-05 69 1.357E-05 -5.976E-05
70 1.877E-05 -5.434E-05 71 2.384E-05 -4.651E-05 72 2.656E-05 -3.786E-05
73 -1.346E-06 -4.433E-05 74 -7.384E-07 -4.448E-05 75 -3.286E-08 -4.450E-05
76 1.757E-06 -4.394E-05 77 4.194E-06 -4.260E-05 78 7.113E-06 -4.043E-05
79 1.033E-05 -3.727E-05 80 1.345E-05 -3.277E-05 81 1.487E-05 -2.769E-05
82 -2.226E-07 -3.864E-05 83 -2.433E-07 -3.893E-05 84 -2.262E-07 -3.899E-05
85 4.757E-07 -3.850E-05 86 1.802E-06 -3.734E-05 87 3.615E-06 -3.548E-05
88 5.881E-06 -3.288E-05 89 8.422E-06 -2.946E-05 90 9.564E-06 -2.596E-05

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAX.SHEAR	MAJOR	MINOR
1	1	-1661.655	0.000	0.000	830.828	0.000	-1661.655
19	1	-316.405	0.000	0.000	158.202	0.000	-316.405
37	1	96.782	0.000	0.000	48.391	96.782	0.000

MAXIMUM STRESS (SMAX) IN LAYER 1 IS -1661.655 (NODE 1)
FOR PERIOD 1 LOAD GROUP 1 CRACKING INDEX (CI) FOR LAYER 1 IS .00000E+00

PERIOD 1 LOAD GROUP 2 AND CYCLE NO. 1

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y
1 1.870E-04 -1.764E-18 2 1.770E-04 -2.998E-18 3 1.745E-04 -3.617E-18
4 1.535E-04 -3.551E-18 5 1.244E-04 -3.411E-18 6 1.500E-04 -4.414E-18
7 2.263E-04 -4.491E-18 8 2.739E-04 -2.921E-18 9 2.705E-04 -1.057E-18
10 1.755E-04 -1.001E-04 11 1.702E-04 -9.077E-05 12 1.686E-04 -8.291E-05
13 1.493E-04 -6.842E-05 14 1.256E-04 -6.375E-05 15 1.510E-04 -6.712E-05
16 2.221E-04 -6.127E-05 17 2.694E-04 -4.417E-05 18 2.682E-04 -3.449E-05
19 1.641E-04 -1.541E-04 20 1.611E-04 -1.478E-04 21 1.598E-04 -1.418E-04
22 1.426E-04 -1.311E-04 23 1.232E-04 -1.218E-04 24 1.482E-04 -1.127E-04
25 2.145E-04 -1.012E-04 26 2.609E-04 -8.483E-05 27 2.613E-04 -6.847E-05
28 1.599E-04 -2.064E-04 29 1.552E-04 -2.023E-04 30 1.542E-04 -1.976E-04
31 1.367E-04 -1.902E-04 32 1.144E-04 -1.763E-04 33 1.388E-04 -1.553E-04
34 2.066E-04 -1.385E-04 35 2.514E-04 -1.229E-04 36 2.505E-04 -9.994E-05
37 1.538E-04 -2.992E-04 38 1.454E-04 -2.834E-04 39 1.447E-04 -2.696E-04
40 1.281E-04 -2.467E-04 41 1.026E-04 -2.286E-04 42 1.264E-04 -2.122E-04
43 1.956E-04 -1.909E-04 44 2.377E-04 -1.589E-04 45 2.352E-04 -1.258E-04
46 8.707E-05 -4.023E-04 47 8.933E-05 -3.784E-04 48 9.213E-05 -3.544E-04
49 8.937E-05 -3.138E-04 50 8.698E-05 -2.910E-04 51 1.092E-04 -2.794E-04
52 1.540E-04 -2.530E-04 53 1.882E-04 -2.018E-04 54 1.937E-04 -1.578E-04

55 3.722E-05 -3.538E-04 56 4.212E-05 -3.397E-04 57 4.658E-05 -3.252E-04
58 5.414E-05 -2.998E-04 59 6.561E-05 -2.797E-04 60 8.577E-05 -2.614E-04
61 1.131E-04 -2.358E-04 62 1.387E-04 -1.959E-04 63 1.484E-04 -1.567E-04
64 4.942E-06 -2.419E-04 65 9.528E-06 -2.365E-04 66 1.402E-05 -2.314E-04
67 2.344E-05 -2.210E-04 68 3.586E-05 -2.095E-04 69 5.094E-05 -1.957E-04
70 6.761E-05 -1.775E-04 71 8.389E-05 -1.514E-04 72 9.195E-05 -1.236E-04
73 -7.129E-07 -1.630E-04 74 1.353E-06 -1.621E-04 75 3.682E-06 -1.610E-04
76 9.497E-06 -1.571E-04 77 1.761E-05 -1.510E-04 78 2.750E-05 -1.423E-04
79 3.846E-05 -1.307E-04 80 4.905E-05 -1.149E-04 81 5.372E-05 -9.775E-05
82 8.663E-07 -1.431E-04 83 7.175E-07 -1.433E-04 84 6.178E-07 -1.429E-04
85 2.827E-06 -1.399E-04 86 7.456E-06 -1.345E-04 87 1.402E-05 -1.270E-04
88 2.226E-05 -1.173E-04 89 3.147E-05 -1.049E-04 90 3.558E-05 -9.281E-05

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAX.SHEAR	MAJOR	MINOR
1	1	-1477.861	0.000	0.000	738.930	0.000	-1477.861
19	1	-428.083	0.000	0.000	214.042	0.000	-428.083
37	1	-1320.339	0.000	0.000	660.170	0.000	-1320.339

MAXIMUM STRESS (SMAX) IN LAYER 1 IS -1477.861 (NODE 1)
FOR PERIOD 1 LOAD GROUP 2 CRACKING INDEX (CI) FOR LAYER 1 IS .00000E+00

FOR LAYER 1 SUM OF CRACKING INDEX (SUMCI) = .00000E+00
DESIGN LIFE (DL) IN YEARS = 1000.00