



PB93-214591

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**U.S. - JAPAN COORDINATED PROGRAM
FOR
MASONRY BUILDING RESEARCH**

REPORT NO. 3.2 (b2)

**THE TRANSVERSE RESPONSE
OF
CLAY MASONRY WALLS
SUBJECTED TO STRONG MOTION
EARTHQUAKES**

Summary of Dynamic Test Results
Volume 2: Walls No. 4 and 6 (Group 1)

by

**Marcial Blondet
Ronald L. Mayes**

APRIL 1991

supported by:

**NATIONAL SCIENCE FOUNDATION
GRANT NO. CES-8518700**

COMPUTECH ENGINEERING SERVICES, INCORPORATED



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This report presents the results of a research project which was part of the U.S. Coordinated Program for Masonry Building Research. The program constitutes the United States part of the United States - Japan Coordinated Masonry Research Program conducted under the auspices of the Panel on Wind and Seismic Effects of the U.S.-Japan Natural Resources Development Program (UJNR).

This material is based on work supported by the National Science Foundation under the direction of Program Director, Dr. S.C. Liu.

Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of the National Science Foundation and/or the United States Government.



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INTRODUCTION

This report is Volume 2 of a four volume set of reports. It includes detailed test information on Walls No. 4 and 6 (Group 1), which were part of a test program on the out of plane response of nine reinforced, clay brick masonry walls that were subjected to simulated earthquake loading. The project was developed by Computech Engineering Services (CES), as part of the US/Japan Coordinated Program for Masonry Building Research (TCCMAR). Its main objective was to evaluate the influence of the amount of vertical reinforcement, vertical ledger load, height-to-thickness (H/t) ratio, rebar splicing, and extent of grouting on the out-of-plane response of the walls.

Testing was performed at the Earthquake Engineering Research Center (EERC), University of California, Berkeley. The walls were 20 and 25 feet high, with a nominal thickness of 6 inches; the vertical reinforcement consisted of 2 # 5 or 3 # 7 rebar with steel ratios of $0.16\rho_b$ and $0.50\rho_b$ respectively. Simulated earthquake motions were applied at the base and the top of each wall. The base motions corresponded to the seismic ground excitation; the top motions represented the response, at the diaphragm level, of a typical warehouse structure. Both stiff and flexible diaphragm conditions were considered. The seismic inputs were generated by scaling recorded ground motions in the time and frequency domains, to attain specified intensities of 0.1, 0.2, 0.4, and 0.8 EPA (Effective Peak Acceleration) for a rock site. The first three EPA levels corresponded, respectively, to the lower, medium and highest seismic zones of the United States. The 0.8 EPA motions represented events of twice the intensity specified by the SEAOC requirements for a soil type 1 site (S1), although the longer period part of these spectra are similar to the 0.4 EPA soil type 3 spectra.

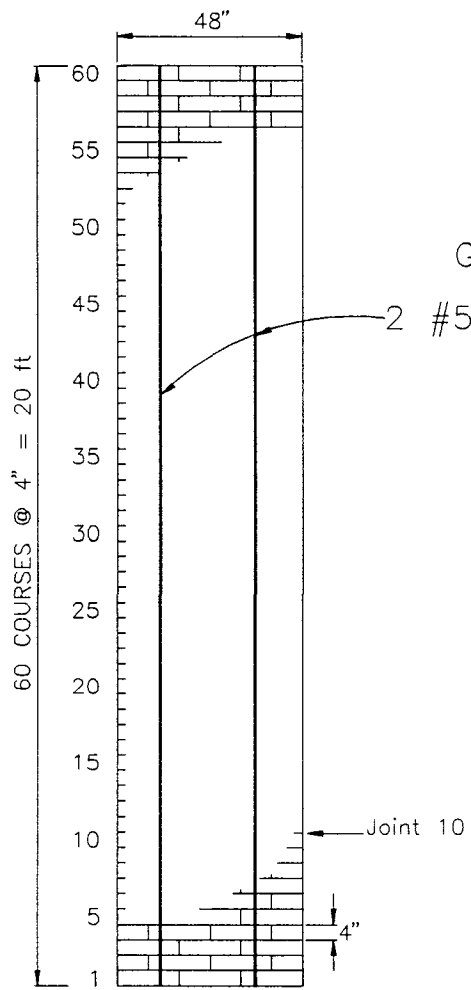
Volume 1 of the series provides detailed descriptions of the experimental setup, input signal characteristics, data processing techniques, and summary data derived from the dynamic tests. Volume 2 contains the results of the first group of walls (Group 1): Walls 4 and 6. Volume 3 contains the results from Group 2: Walls 8, 9, 10, and 11. Volume 4 contains the results from Group 3: Walls 3, 5, and 7.

This volume is organized as follows: First, a set of figures with construction drawings and test setup and instrumentation schematics is presented. This is followed by a table with test sequence and peak displacement, acceleration measured at the bottom, center and top of each wall, as well as measured peak rebar strain. For each run, a summary table is given indicating: a) peak values of input and global response (i.e., displacements and accelerations at the top, center and bottom of the wall, peak deflection, peak inertia force and bending moment, and seismic coefficient); b) summary of mechanical properties, average stiffness EI_{eq} , compared to code reference value EmI_g , and the average vibration frequency observed during the run; and c) local response, characterized by peak values of rebar strain, joint opening (near rebar), and faceshell compression strain and opening. Since these do not

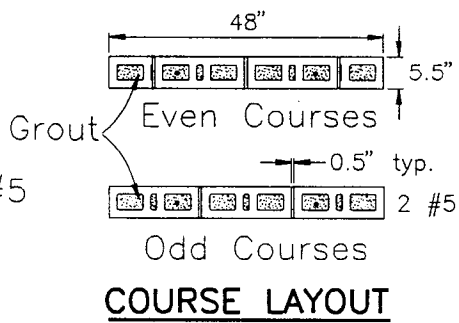
generally occur in the same joint, a joint near the center is selected, and the corresponding quantities recorded.

For each run, envelopes and representative patterns of wall displacement, relative deflection, and absolute acceleration and bending moment, followed by the distribution of rebar strain, joint opening (near the rebar location), and faceshell compressive strain and opening are given. Then, for the first run of each EPA level, or for each run where significant difference in input or response occurs, the following force deformation plots are included: total inertia force versus center deflection, center moment versus center deflection, and moment versus curvature at center joint.





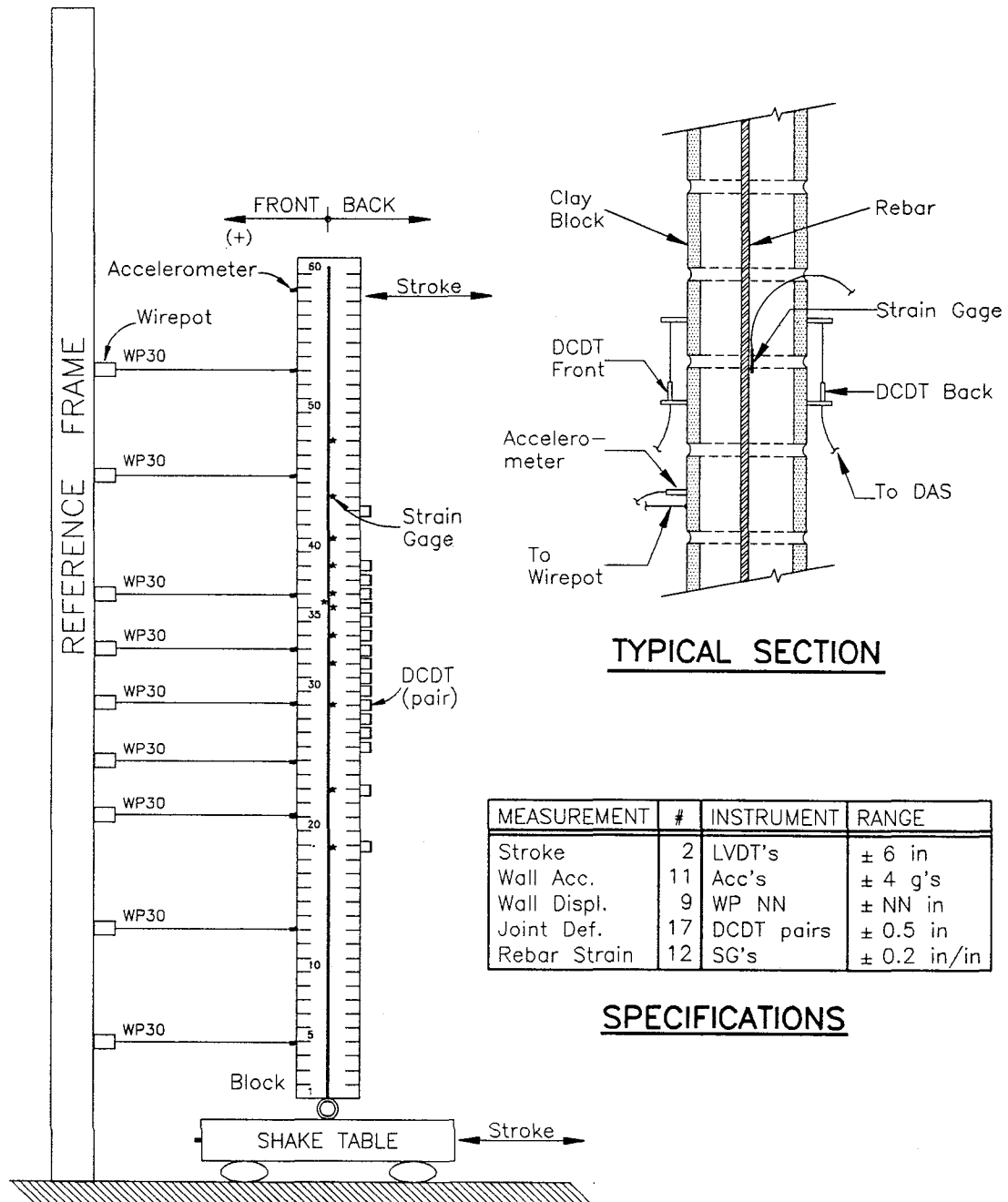
ELEVATION



Wall Height: 20 ft
 Nominal Thickness: 6"
 $H/t = 40$
 Vertical Reinf.: 2 #5
 No Splices
 Full Grouting
 Dead Load: 50 lb/ft

SPECIFICATIONS

WALL # 4 CONSTRUCTION DRAWINGS



WALL #4 INSTRUMENTATION SCHEMATICS

Wall No. 4: Test Sequence & Peak Measurements

No.	Run		EPA	Diaphragm	Displacement (in)			Acceleration (g)			Rebar Strain (in/in)
	ID				Bottom	Center	Top	Bottom	Center	Top	
1	MS1		0.10	Flexible	1.47	1.67	1.62	0.10	0.48	0.28	0.0010
2	MS2		0.10	Stiff	0.30	0.95	0.31	0.12	0.65	0.31	0.0015
3	TAFT1		0.10	Flexible	0.90	1.09	0.96	0.07	0.17	0.15	0.0006
4	ELC1		0.10	Stiff	1.39	2.52	1.52	0.16	0.58	0.42	0.0018
5	MS3		0.20	Flexible	2.93	3.39	3.49	0.26	0.60	0.37	0.0019
6	MS4		0.20	Stiff	3.93	4.62	4.62	0.26	0.42	0.44	0.0014
7	TAFT2		0.20	Flexible	2.56	3.74	2.90	0.18	0.71	0.32	0.0021
8	ELC2		0.20	Stiff	1.63	3.09	1.69	0.22	0.64	0.47	0.0018
9	MS5		0.40	Flexible	3.88	5.35	5.78	0.41	0.65	0.70	0.0018
10	MS6		0.40	Stiff	3.39	4.74	5.07	0.45	0.59	1.04	0.0019
11	ELC		0.40	Flexible	3.44	8.64	5.32	0.37	1.28	0.54	0.0058
12	BONDC		0.40	Flexible	2.72	8.40	4.01	0.34	1.12	0.43	0.0094
13	TAFTS		0.40	Stiff	5.35	8.10	5.35	0.39	0.84	0.73	0.0075
14	BONDCS		0.40	Stiff	2.70	5.32	3.26	0.34	0.99	0.80	0.0073
15	BONDCV1		0.40	Flexible	2.69	6.61	4.00	0.35	0.76	0.46	0.0083
16	BONDCV2		0.50	Flexible	4.01	10.45	5.94	0.53	0.99	1.04	0.0110
17	BONDCH		0.80	Flexible	3.33	13.38	5.84	0.72	1.35	1.36	0.0165
18	BONDCSH		0.80	Stiff	4.85	14.64	5.30	1.32	2.09	2.25	0.0200

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 1: MS1 0.10 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	1.62 in	Acc Top	0.28 g
Disp Cent	1.67 in	Acc Cent	0.48 g
Disp Bot	1.47 in	Acc Bot	0.10 g
Peak Defl	0.37 in		
Inertia Force	1.73 kips	Eqv Load	110.0 lb/ft
Bending Mt	66.90 kip-in	Seismic C	0.41
		C/Acc Bot	4.18

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	3.98 Hz	EIeqv	1085000 kip-in2
		EmIg/EIeqv	2.47

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain	0.0010	0.0010	in/in
Strain Ductility	0.40	0.40	in
Avg Joint Opening	0.0056	0.0056	in
Faceshell Comp. Strain	0.0003	0.0003	in/in
Faceshell Opening	0.0123	0.0123	in
Curvature	0.6100	0.6100	(1/in)*10-3
EI joint		110000	kip-in2

CES

October 9, 1989

10:18:13 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 2: MS2 0.10 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	0.31 in	Acc Top	0.31 g
Disp Cent	0.95 in	Acc Cent	0.65 g
Disp Bot	0.30 in	Acc Bot	0.12 g
Peak Defl	0.89 in		
Inertia Force	2.01 kips	Eqv Load	140.0 lb/ft
Bending Mt	81.09 kip-in	Seismic C	0.49
		C/Acc Bot	4.12

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	2.61 Hz	EIeqv	547000 kip-in2
		EmIg/EIeqv	4.90

LOCAL RESPONSE

Rebar Strain	Peak	Joint	28
Strain Ductility	0.0015	0.0015	in/in
	0.60	0.60	in
Avg Joint Opening	0.0091	0.0091	in
Faceshell Comp. Strain	0.0005	0.0004	in/in
Faceshell Opening	0.0197	0.0197	in
Curvature	0.9700	0.9700	(1/in)*10-3
EI joint		84000	kip-in2

CES

October 9, 1989

10:18:20 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 3: TAFT1 0.10 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	0.96 in	Acc Top	0.15 g
Disp Cent	1.09 in	Acc Cent	0.17 g
Disp Bot	0.90 in	Acc Bot	0.07 g
Peak Defl	0.37 in		
Inertia Force	0.63 kips	Eqv Load	40.0 lb/ft
Bending Mt	22.93 kip-in	Seismic C	0.14
		C/Acc Bot	2.09

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in ⁴	EmIg	2682000 kip-in ²
Avg Freq	2.47 Hz	EIeqv	372000 kip-in ²
		EmIg/EIeqv	7.21

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain	0.0006	0.0004	in/in
Strain Ductility	0.24	0.16	in
Avg Joint Opening	0.0032	0.0027	in
Faceshell Comp. Strain	0.0003	0.0001	in/in
Faceshell Opening	0.0069	0.0060	in
Curvature	0.3400	0.3000	(1/in)*10 ⁻³
EI joint		76000	kip-in ²

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 4: ELC1 0.10 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	1.52 in	Acc Top	0.42 g
Disp Cent	2.52 in	Acc Cent	0.58 g
Disp Bot	1.39 in	Acc Bot	0.16 g
Peak Defl	1.30 in		
Inertia Force	1.59 kips	Eqv Load	110.0 lb/ft
Bending Mt	67.40 kip-in	Seismic C	0.41
		C/Acc Bot	2.57

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	2.17 Hz	EIeqv	311000 kip-in2
		EmIg/EIeqv	8.62

LOCAL RESPONSE

Rebar Strain	Peak 0.0018	Joint 28 0.0014	in/in
Strain Ductility	0.72	0.56	in
Avg Joint Opening	0.0124	0.0081	in
Faceshell Comp. Strain	0.0006	0.0004	in/in
Faceshell Opening	0.0270	0.0179	in
Curvature EI joint	1.3300	0.8900	(1/in)*10-3
		76000	kip-in2

CES

October 9, 1989

10:18:35 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 5: MS3 0.20 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	3.49 in	Acc Top	0.37 g
Disp Cent	3.39 in	Acc Cent	0.60 g
Disp Bot	2.93 in	Acc Bot	0.26 g
Peak Defl	1.42 in		
Inertia Force	1.94 kips	Eqv Load	130.0 lb/ft
Bending Mt	78.95 kip-in	Seismic C	0.48
		C/Acc Bot	1.85

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in ⁴	EmIg	2682000 kip-in ²
Avg Freq	2.04 Hz	EIeqv	334000 kip-in ²
		EmIg/EIeqv	8.03

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain	0.0019	0.0014	in/in
Strain Ductility	0.76	0.56	in
Avg Joint Opening	0.0133	0.0082	in
Faceshell Comp. Strain	0.0006	0.0005	in/in
Faceshell Opening	0.0291	0.0179	in
Curvature	1.4400	0.8900	(1/in)*10 ⁻³
EI joint		89000	kip-in ²

CES

October 9, 1989

10:18:42 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 6: MS4 0.20 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	4.62 in	Acc Top	0.44 g
Disp Cent	4.62 in	Acc Cent	0.42 g
Disp Bot	3.93 in	Acc Bot	0.26 g
Peak Defl	1.10 in		
Inertia Force	1.40 kips	Eqv Load	80.0 lb/ft
Bending Mt	48.21 kip-in	Seismic C	0.29
		C/Acc Bot	1.13

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	2.53 Hz	EIeqv	263000 kip-in2
		EmIg/EIeqv	10.20

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain	0.0014	0.0010	in/in
Strain Ductility	0.56	0.40	in
Avg Joint Opening	0.0100	0.0060	in
Faceshell Comp. Strain	0.0004	0.0003	in/in
Faceshell Opening	0.0217	0.0132	in
Curvature	1.0600	0.6500	(1/in)*10-3
EI joint		74000	kip-in2

CES

October 9, 1989

10:18:50 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 7: TAFT2 0.20 EPA

Wall Weight: 5.47 kips	H/t Ratio: 40
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 50 lb/ft	Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	2.90 in	Acc Top	0.32 g
Disp Cent	3.74 in	Acc Cent	0.71 g
Disp Bot	2.56 in	Acc Bot	0.18 g
Peak Defl	1.94 in		
Inertia Force	2.32 kips	Eqv Load	150.0 lb/ft
Bending Mt	92.75 kip-in	Seismic C	0.57
		C/Acc Bot	3.14

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	1.31 Hz	EIeqv	287000 kip-in2
		EmIg/EIeqv	9.34

LOCAL RESPONSE

	Peak	Joint 28
Rebar Strain	0.0021	0.0016 in/in
Strain Ductility	0.84	0.64 in
Avg Joint Opening	0.0150	0.0098 in
Faceshell Comp. Strain	0.0008	0.0006 in/in
Faceshell Opening	0.0332	0.0213 in
Curvature	1.6500	1.0500 (1/in)*10-3
EI joint		88000 kip-in2

CES

October 9, 1989

10:18:57 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 8: ELC2 0.20 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	1.69 in	Acc Top	0.47 g
Disp Cent	3.09 in	Acc Cent	0.64 g
Disp Bot	1.63 in	Acc Bot	0.22 g
Peak Defl	1.80 in		
Inertia Force	1.87 kips	Eqv Load	130.0 lb/ft
Bending Mt	79.24 kip-in	Seismic C	0.48
		C/Acc Bot	2.19

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in ⁴	EmIg	2682000 kip-in ²
Avg Freq	1.77 Hz	EIeqv	264000 kip-in ²
		EmIg/EIeqv	10.16

LOCAL RESPONSE

Rebar Strain	Peak 0.0018	Joint 28 0.0015	in/in
Strain Ductility	0.72	0.60	in
Avg Joint Opening	0.0133	0.0093	in
Faceshell Comp. Strain	0.0011	0.0005	in/in
Faceshell Opening	0.0291	0.0205	in
Curvature	1.4400	1.0200	(1/in)*10 ⁻³
EI joint		78000	kip-in ²

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 9: MS5 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.78 in	Acc Top	0.70 g
Disp Cent	5.35 in	Acc Cent	0.65 g
Disp Bot	3.88 in	Acc Bot	0.41 g
Peak Defl	2.24 in		
Inertia Force	2.33 kips	Eqv Load	150.0 lb/ft
Bending Mt	90.80 kip-in	Seismic C	0.55
		C/Acc Bot	1.35

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in ⁴	EmIg	2682000 kip-in ²
Avg Freq	2.44 Hz	EIeqv	243000 kip-in ²
		EmIg/EIeqv	11.04

LOCAL RESPONSE

Rebar Strain	Peak	Joint	28
Strain Ductility	0.0018	0.0015	in/in
	0.72	0.60	in
Avg Joint Opening	0.0131	0.0095	in
Faceshell Comp. Strain	0.0014	0.0007	in/in
Faceshell Opening	0.0287	0.0205	in
Curvature	1.4600	1.0000	(1/in)*10 ⁻³
EI joint		91000	kip-in ²

CES

October 9, 1989

10:19:12 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 10: MS6 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.07 in	Acc Top	1.04 g
Disp Cent	4.74 in	Acc Cent	0.59 g
Disp Bot	3.39 in	Acc Bot	0.45 g
Peak Defl	2.02 in		
Inertia Force	1.59 kips	Eqv Load	110.0 lb/ft
Bending Mt	67.18 kip-in	Seismic C	0.41
		C/Acc Bot	0.91

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in ⁴	EmIg	2682000 kip-in ²
Avg Freq	1.65 Hz	EIeqv	200000 kip-in ²
		EmIg/EIeqv	13.41

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain	0.0019	0.0015	in/in
Strain Ductility	0.76	0.60	in
Avg Joint Opening	0.0137	0.0093	in
Faceshell Comp. Strain	0.0014	0.0005	in/in
Faceshell Opening	0.0295	0.0201	in
Curvature	1.4400	0.9800	(1/in)*10 ⁻³
EI joint		69000	kip-in ²

CES

October 9, 1989

10:19:19 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 11: ELC 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.32 in	Acc Top	0.54 g
Disp Cent	8.64 in	Acc Cent	1.28 g
Disp Bot	3.44 in	Acc Bot	0.37 g
Peak Defl	4.49 in		
Inertia Force	2.88 kips	Eqv Load	180.0 lb/ft
Bending Mt	109.48 kip-in	Seismic C	0.67
		C/Acc Bot	1.80

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	1.25 Hz	EIeqv	146000 kip-in2
		EmIg/EIeqv	18.37

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain	0.0058	0.0025	in/in
Strain Ductility	2.32	1.00	in
Avg Joint Opening	0.0242	0.0144	in
Faceshell Comp. Strain	0.0019	0.0008	in/in
Faceshell Opening	0.0461	0.0314	in
Curvature	2.2600	1.5500	(1/in)*10-3
EI joint		70000	kip-in2

CES

October 9, 1989

10:19:27 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 12: BONDC 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 50 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	4.01 in	Acc Top	0.43 g
Disp Cent	8.40 in	Acc Cent	1.12 g
Disp Bot	2.72 in	Acc Bot	0.34 g
Peak Defl	7.77 in		
Inertia Force	3.48 kips	Eqv Load	230.0 lb/ft
Bending Mt	140.23 kip-in	Seismic C	0.85
		C/Acc Bot	2.51

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	0.90 Hz	EIeqv	108000 kip-in2
		EmIg/EIeqv	24.83

LOCAL RESPONSE

Rebar Strain	Peak 0.0218	Joint 28 0.0057	in/in
Strain Ductility	8.72	2.28	in
Avg Joint Opening	0.0354	0.0238	in
Faceshell Comp. Strain	0.0015	0.0014	in/in
Faceshell Opening	0.0770	0.0524	in
Curvature	3.7800	2.6000	(1/in)*10-3
EI joint		54000	kip-in2

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 13: TAFTS 0.40 EPA

Wall Weight: 5.47 kips	H/t Ratio: 40
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 50 lb/ft	Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.35 in	Acc Top	0.73 g
Disp Cent	8.10 in	Acc Cent	0.84 g
Disp Bot	5.35 in	Acc Bot	0.39 g
Peak Defl	5.04 in		
Inertia Force	1.62 kips	Eqv Load	130.0 lb/ft
Bending Mt	75.28 kip-in	Seismic C	0.46
		C/Acc Bot	1.18

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	0.64 Hz	EIeqv	90000 kip-in2
		EmIg/EIeqv	29.80

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain	0.0075	0.0043	in/in
Strain Ductility	3.00	1.72	in
Avg Joint Opening	0.0256	0.0170	in
Faceshell Comp. Strain	0.0010	0.0009	in/in
Faceshell Opening	0.0547	0.0364	in
Curvature	2.6700	1.7600	(1/in)*10-3
EI joint		37000	kip-in2

CES

October 9, 1989

10:19:41 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 14: BONDCS 0.40 EPA

Wall Weight: 5.47 kips	H/t Ratio: 40
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 50 lb/ft	Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	3.26 in	Acc Top	0.80 g
Disp Cent	5.32 in	Acc Cent	0.99 g
Disp Bot	2.70 in	Acc Bot	0.34 g
Peak Defl	4.65 in		
Inertia Force	1.46 kips	Eqv Load	140.0 lb/ft
Bending Mt	82.94 kip-in	Seismic C	0.51
		C/Acc Bot	1.49

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	1.75 Hz	EIeqv	107000 kip-in2
		EmIg/EIeqv	25.07

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain	0.0073	0.0040	in/in
Strain Ductility	2.92	1.60	in
Avg Joint Opening	0.0243	0.0161	in
Faceshell Comp. Strain	0.0012	0.0008	in/in
Faceshell Opening	0.0517	0.0342	in
Curvature	2.5200	1.6400	(1/in)*10-3
EI joint		43000	kip-in2

CES

October 9, 1989

10:19:49 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 15: BONDCV1 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	4.00 in	Acc Top	0.46 g
Disp Cent	6.61 in	Acc Cent	0.76 g
Disp Bot	2.69 in	Acc Bot	0.35 g
Peak Defl	6.24 in		
Inertia Force	2.17 kips	Eqv Load	150.0 lb/ft
Bending Mt	89.11 kip-in	Seismic C	0.54
		C/Acc Bot	1.55

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	0.62 Hz	EIeqv	86000 kip-in2
		EmIg/EIeqv	31.19

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain	0.0083	0.0049	in/in
Strain Ductility	3.32	1.96	in
Avg Joint Opening	0.0298	0.0200	in
Faceshell Comp. Strain	0.0013	0.0008	in/in
Faceshell Opening	0.0648	0.0430	in
Curvature	3.1800	2.1000	(1/in)*10-3
EI joint		42000	kip-in2

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 16: BONDCV2 0.50 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.94 in	Acc Top	1.04 g
Disp Cent	10.45 in	Acc Cent	0.99 g
Disp Bot	4.01 in	Acc Bot	0.53 g
Peak Defl	9.55 in		
Inertia Force	2.59 kips	Eqv Load	190.0 lb/ft
Bending Mt	111.54 kip-in	Seismic C	0.68
		C/Acc Bot	1.28

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	0.70 Hz	EIEqv	70000 kip-in2
		EmIg/EIEqv	38.31

LOCAL RESPONSE

Rebar Strain	Peak	Joint	28
Strain Ductility	0.0110	0.0076	in/in
	4.40	3.04	in
Avg Joint Opening	0.0427	0.0297	in
Faceshell Comp. Strain	0.0019	0.0014	in/in
Faceshell Opening	0.0928	0.0645	in
Curvature	4.5600	3.1600	(1/in)*10-3
EI joint		35000	kip-in2

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 17: BONDCH 0.80 EPA

Wall Weight: 5.47 kips H/t Ratio: 40
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.84 in	Acc Top	1.36 g
Disp Cent	13.38 in	Acc Cent	1.35 g
Disp Bot	3.33 in	Acc Bot	0.72 g
Peak Defl	12.62 in		
Inertia Force	3.15 kips	Eqv Load	230.0 lb/ft
Bending Mt	139.80 kip-in	Seismic C	0.85
		C/Acc Bot	1.18

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in4	EmIg	2682000 kip-in2
Avg Freq	0.66 Hz	EIeqv	66000 kip-in2
		EmIg/EIeqv	40.64

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain	0.0165	0.0101	in/in
Strain Ductility	6.60	4.04	in
Avg Joint Opening	0.0625	0.0431	in
Faceshell Comp. Strain	0.0024	0.0015	in/in
Faceshell Opening	0.1300	0.0923	in
Curvature	6.4900	4.4700	(1/in)*10-3
EI joint		29000	kip-in2

CES

October 9, 1989

10:20:11 am

TCCMAR PROJECT

WALL No 4 DYNAMIC TEST Run No 18: BONDCHS 0.80 EPA

Wall Weight: 5.47 kips	H/t Ratio: 40
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : no

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.30 in	Acc Top	2.25 g
Disp Cent	14.64 in	Acc Cent	2.09 g
Disp Bot	4.85 in	Acc Bot	1.32 g
Peak Defl	16.00 in		
Inertia Force	3.08 kips	Eqv Load	220.0 lb/ft
Bending Mt	132.42 kip-in	Seismic C	0.81
		C/Acc Bot	0.61

MATERIAL & MECHANICAL PROPERTIES

f'm	5370 psi	Em (Code)	4030 ksi
Ig	666 in ⁴	EmIg	2682000 kip-in ²
Avg Freq	0.64 Hz	EIEqv	50000 kip-in ²
		EmIg/EIEqv	53.64

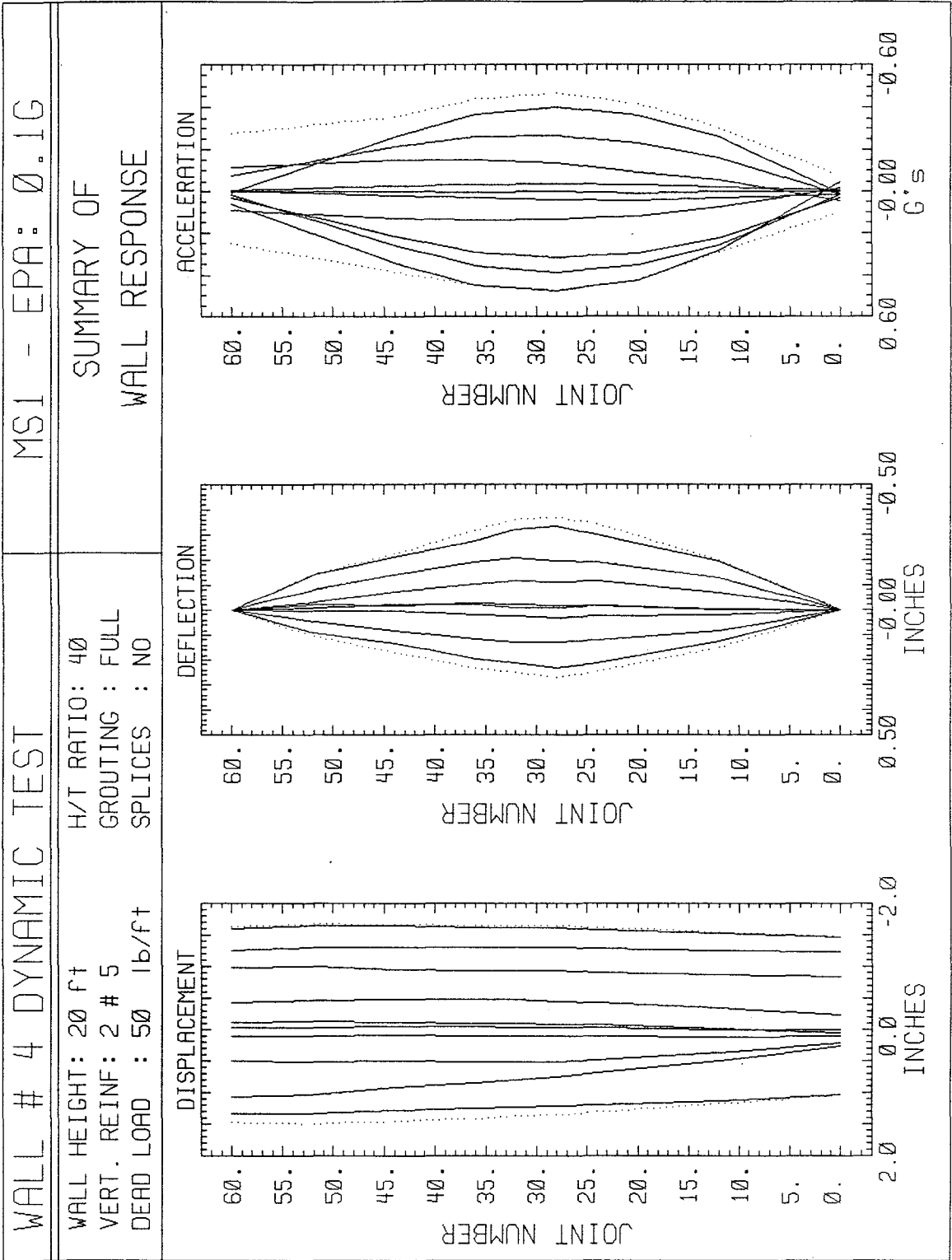
LOCAL RESPONSE

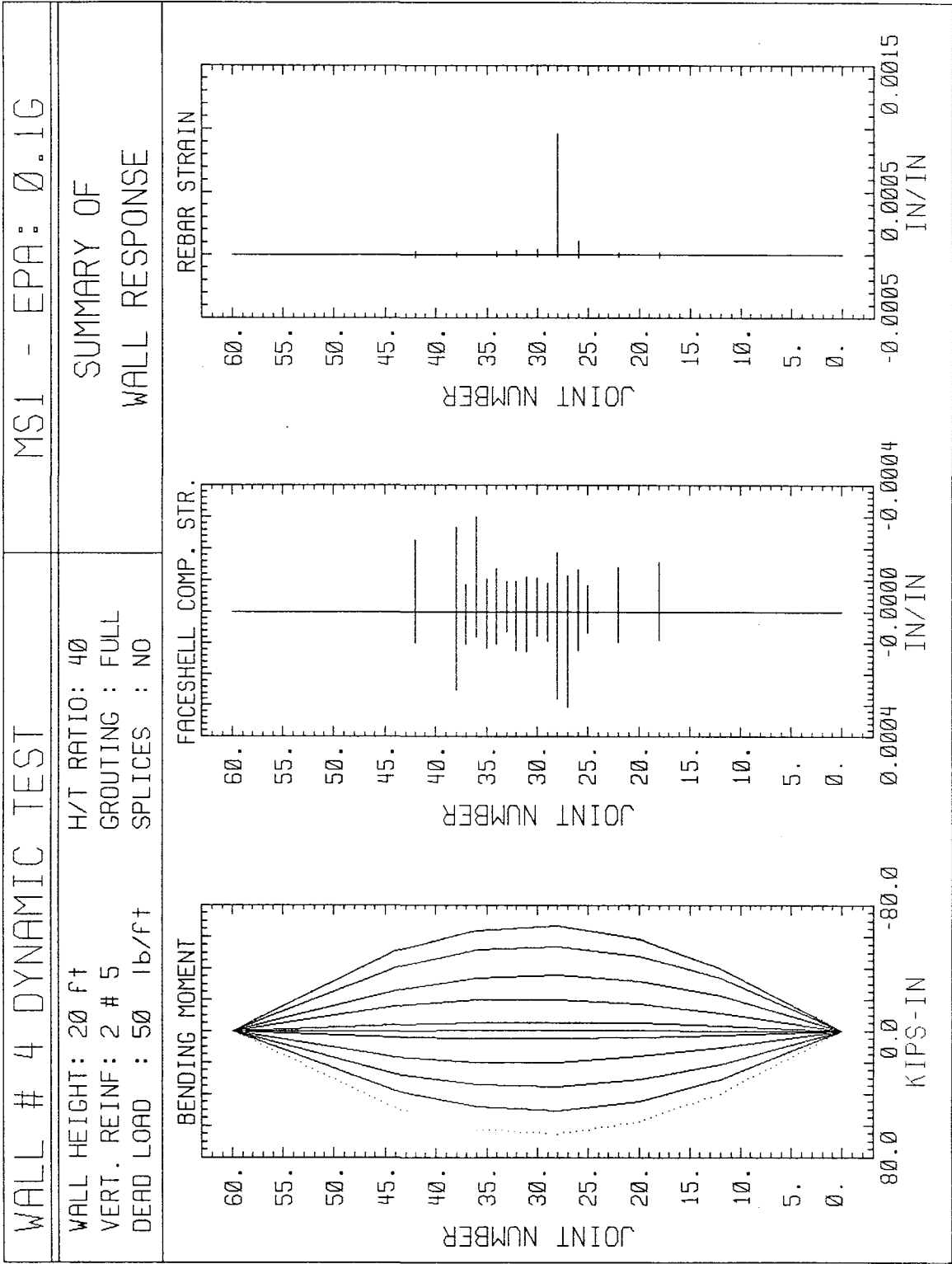
	Peak	Joint	28
Rebar Strain	0.0200	0.0113	in/in
Strain Ductility	8.00	4.52	in
Avg Joint Opening	0.0839	0.0510	in
Faceshell Comp. Strain	0.0029	0.0018	in/in
Faceshell Opening	0.1800	0.1100	in
Curvature	8.6800	5.2300	(1/in)*10 ⁻³
EI joint		25000	kip-in ²

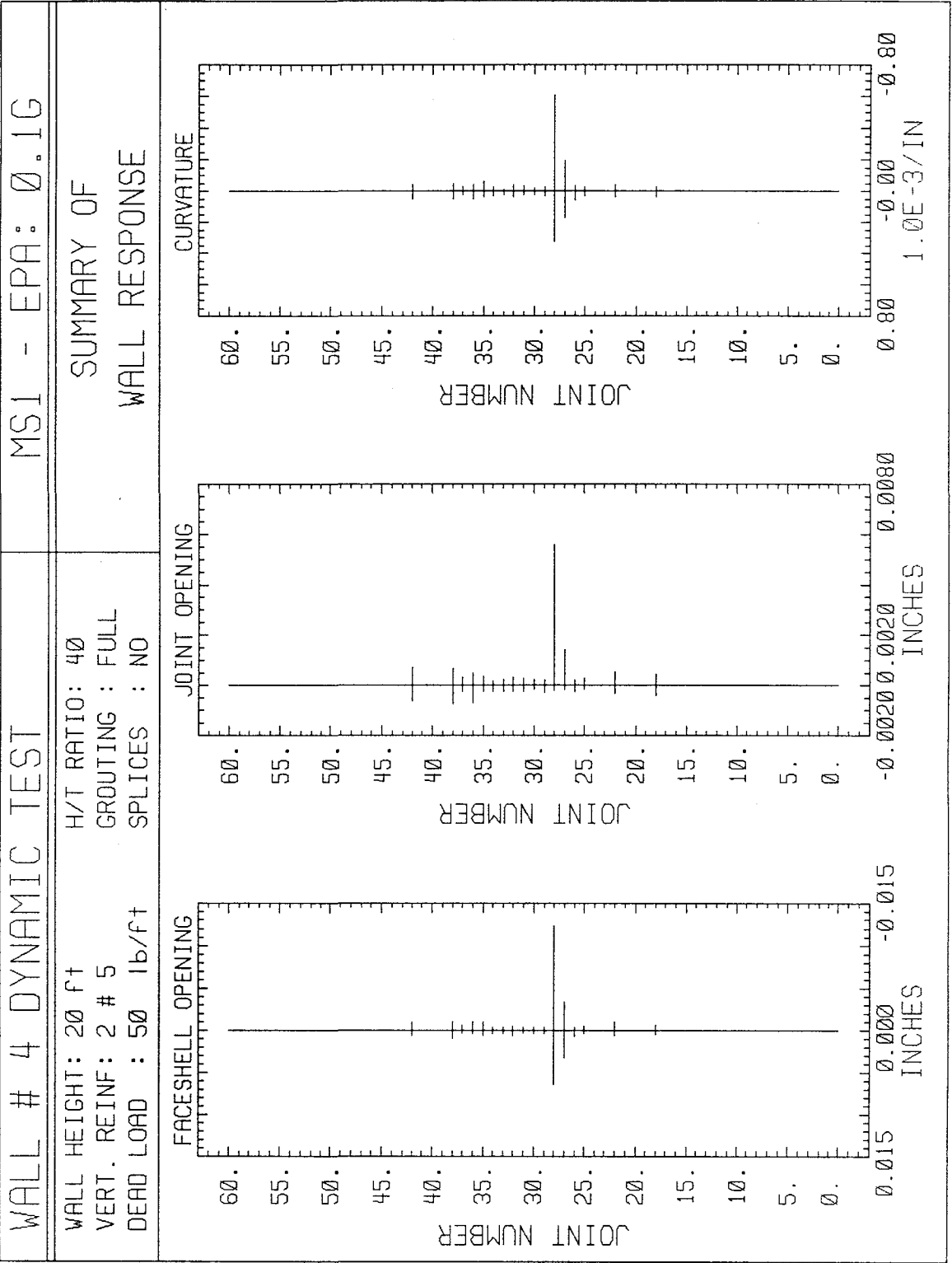
CES

October 9, 1989

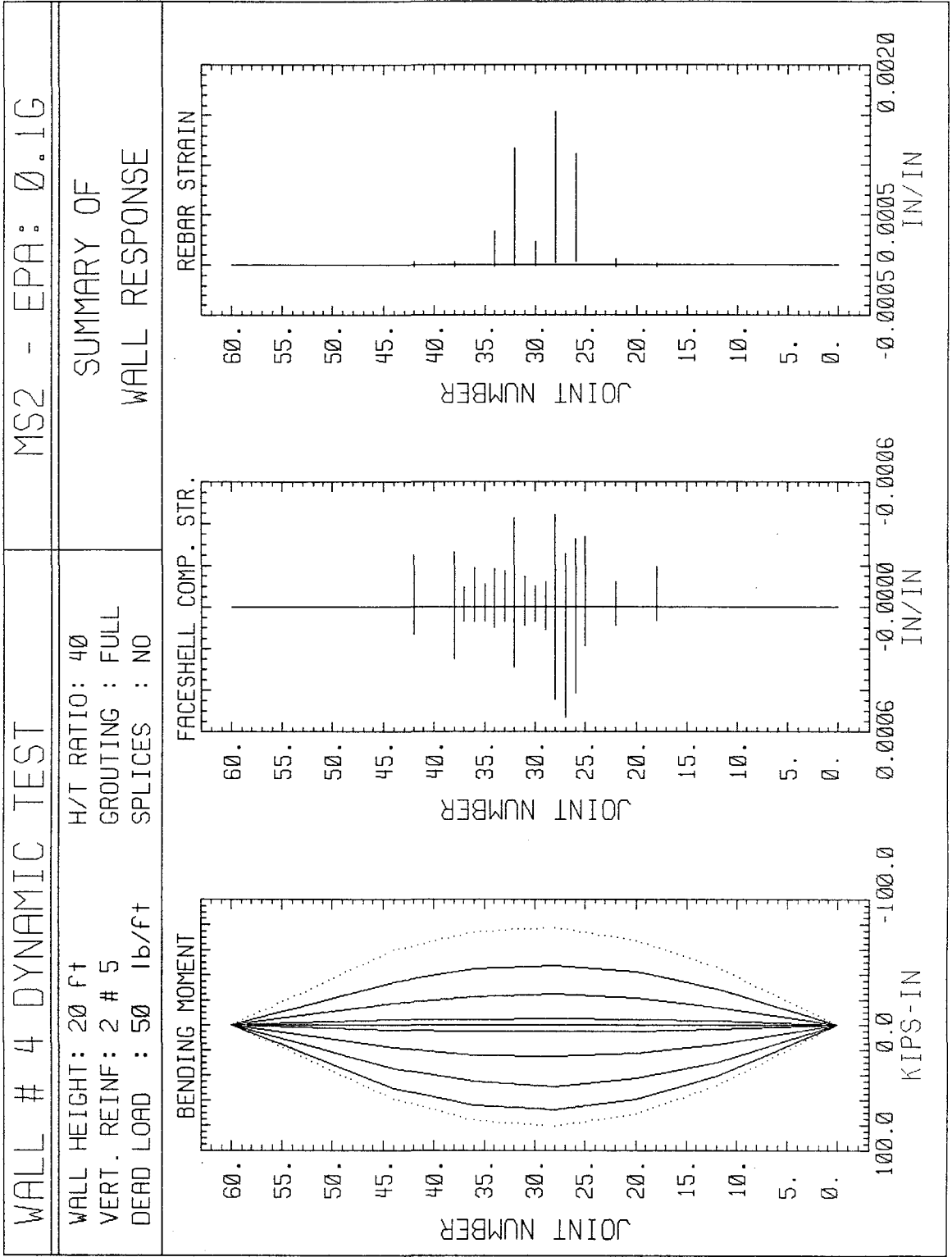
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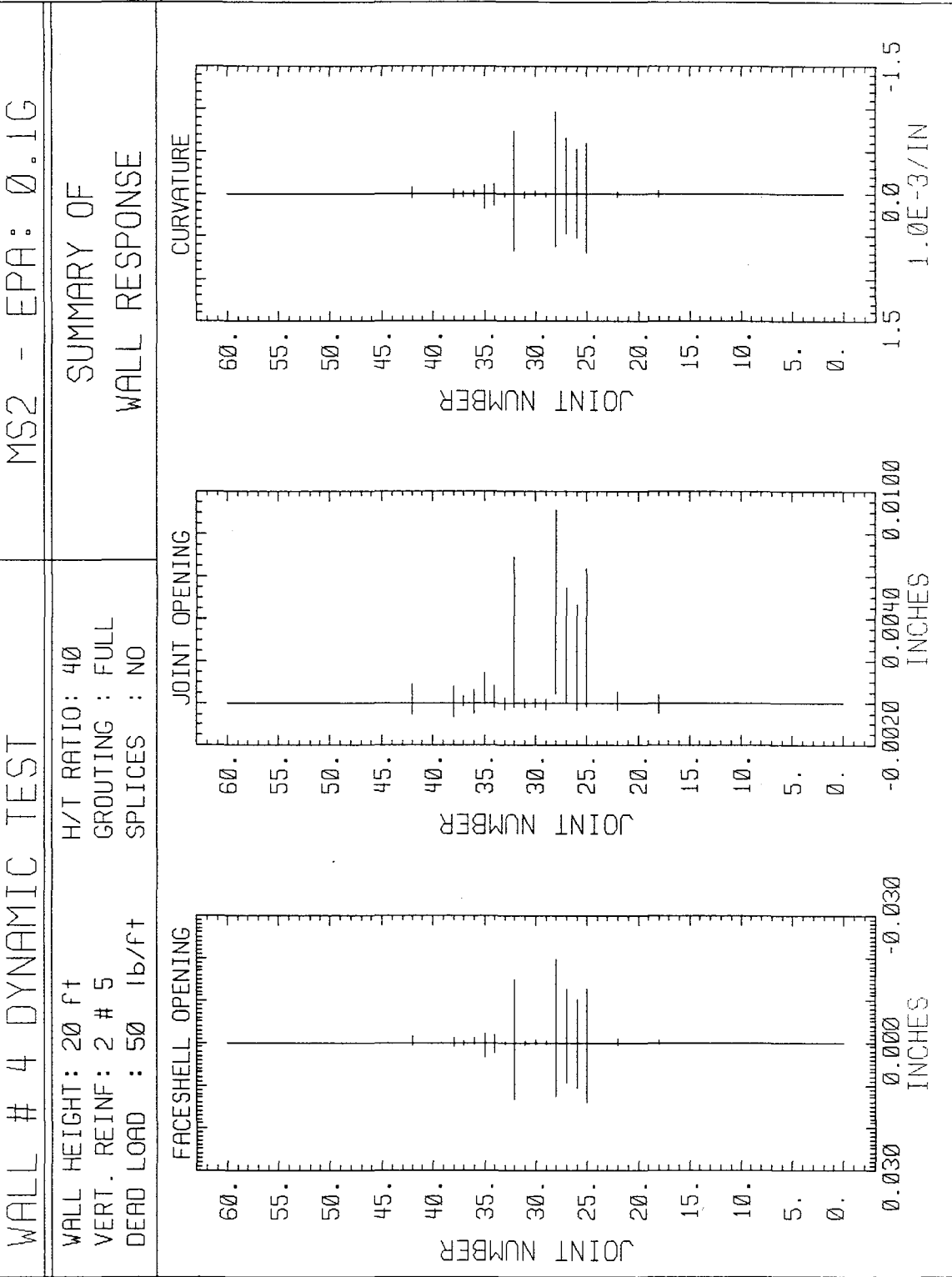


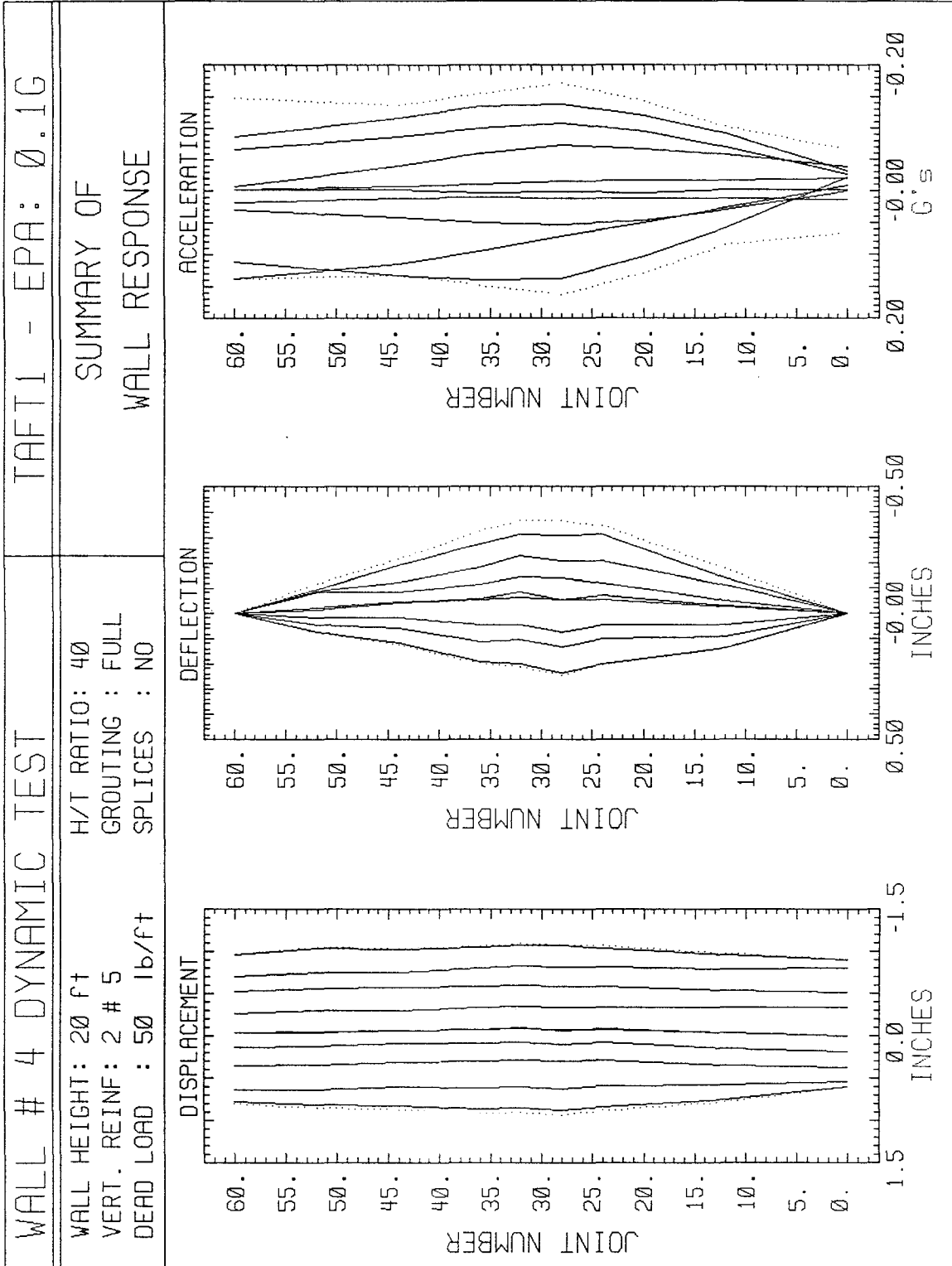


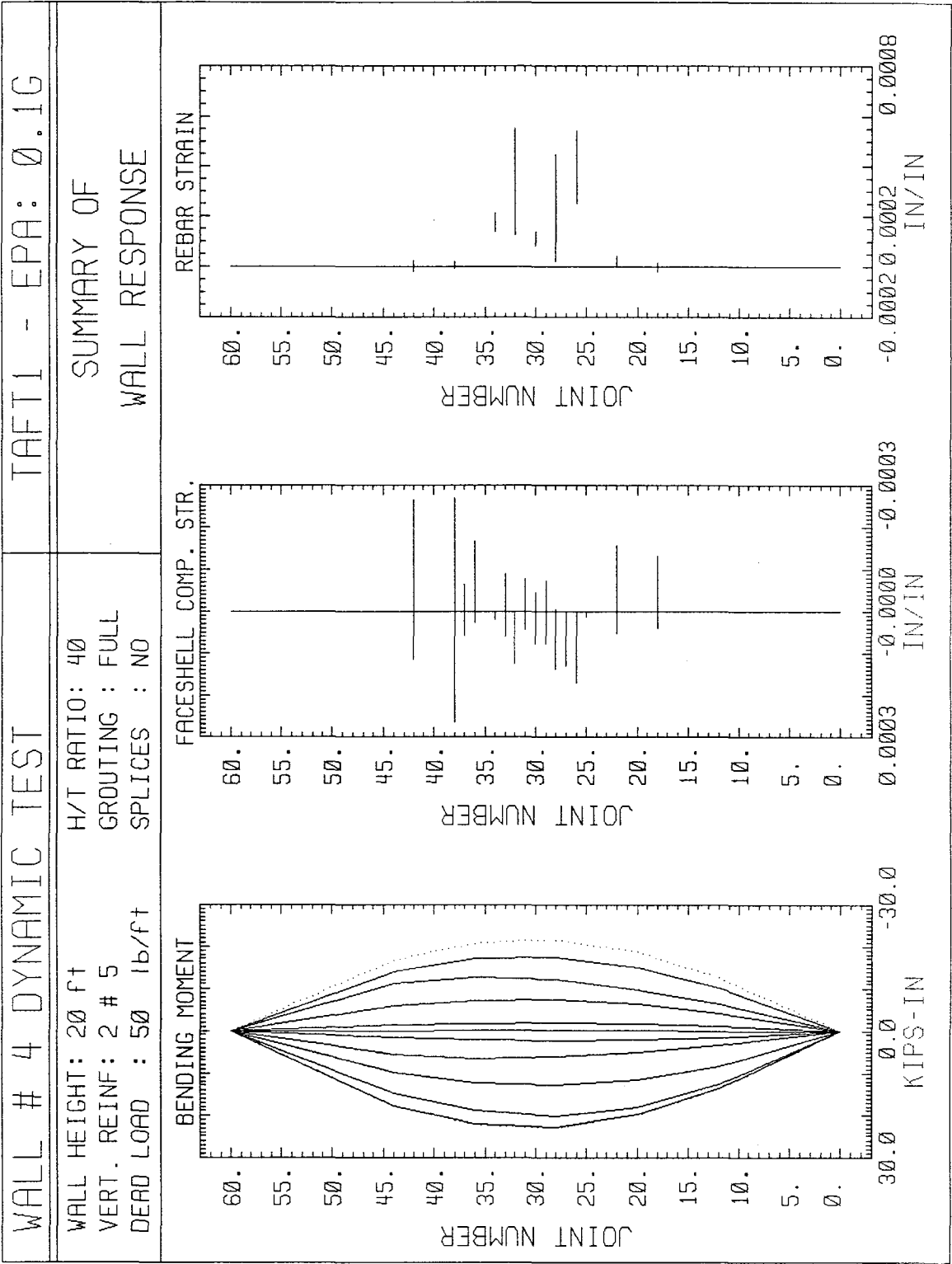


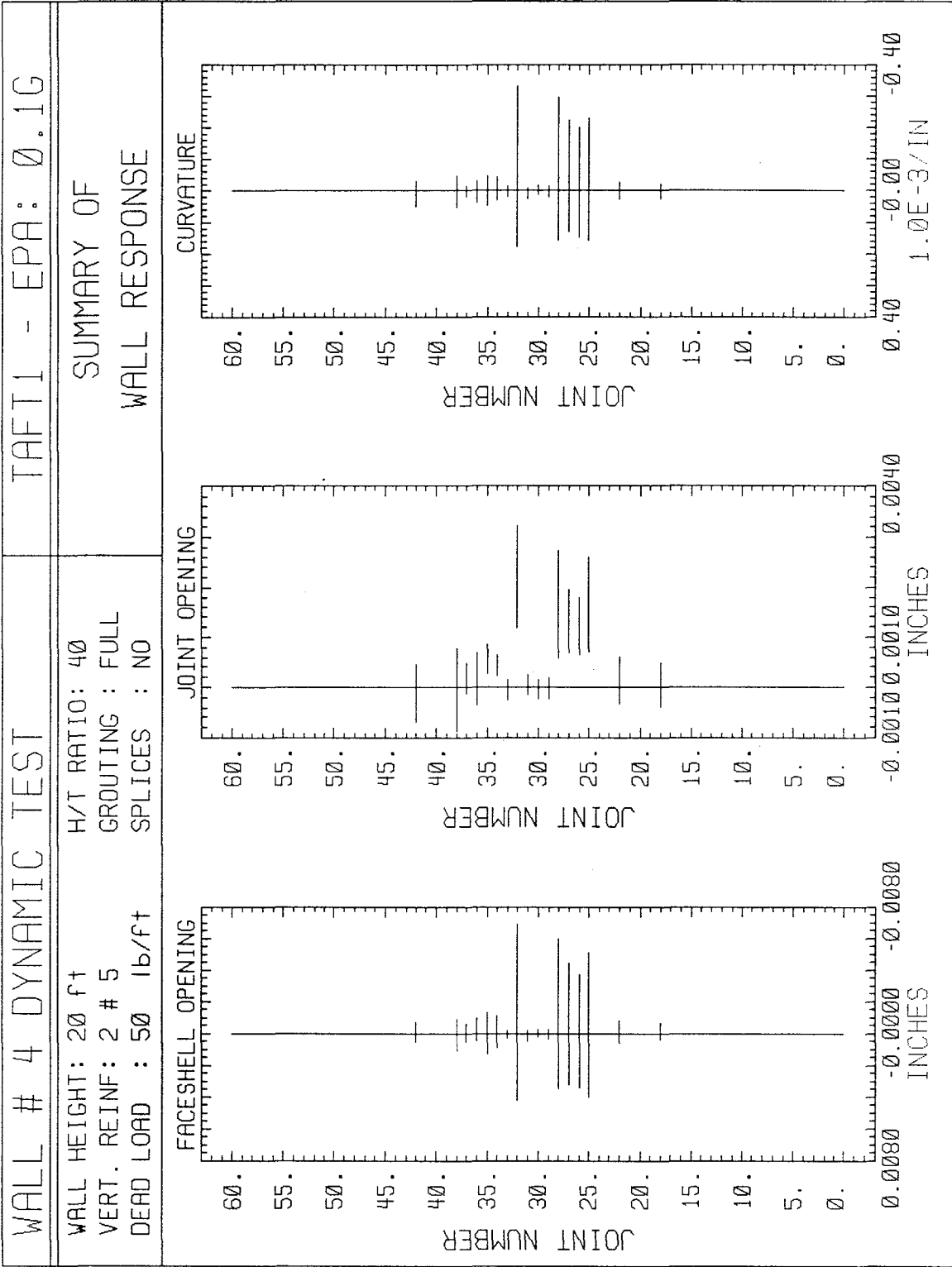
WALL # 4 DYNAMIC TEST	MS2 - EPA: 0.1G
WALL HEIGHT: 20 FT VERT. REINF: 2 # 5 DEAD LOAD : 50 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	

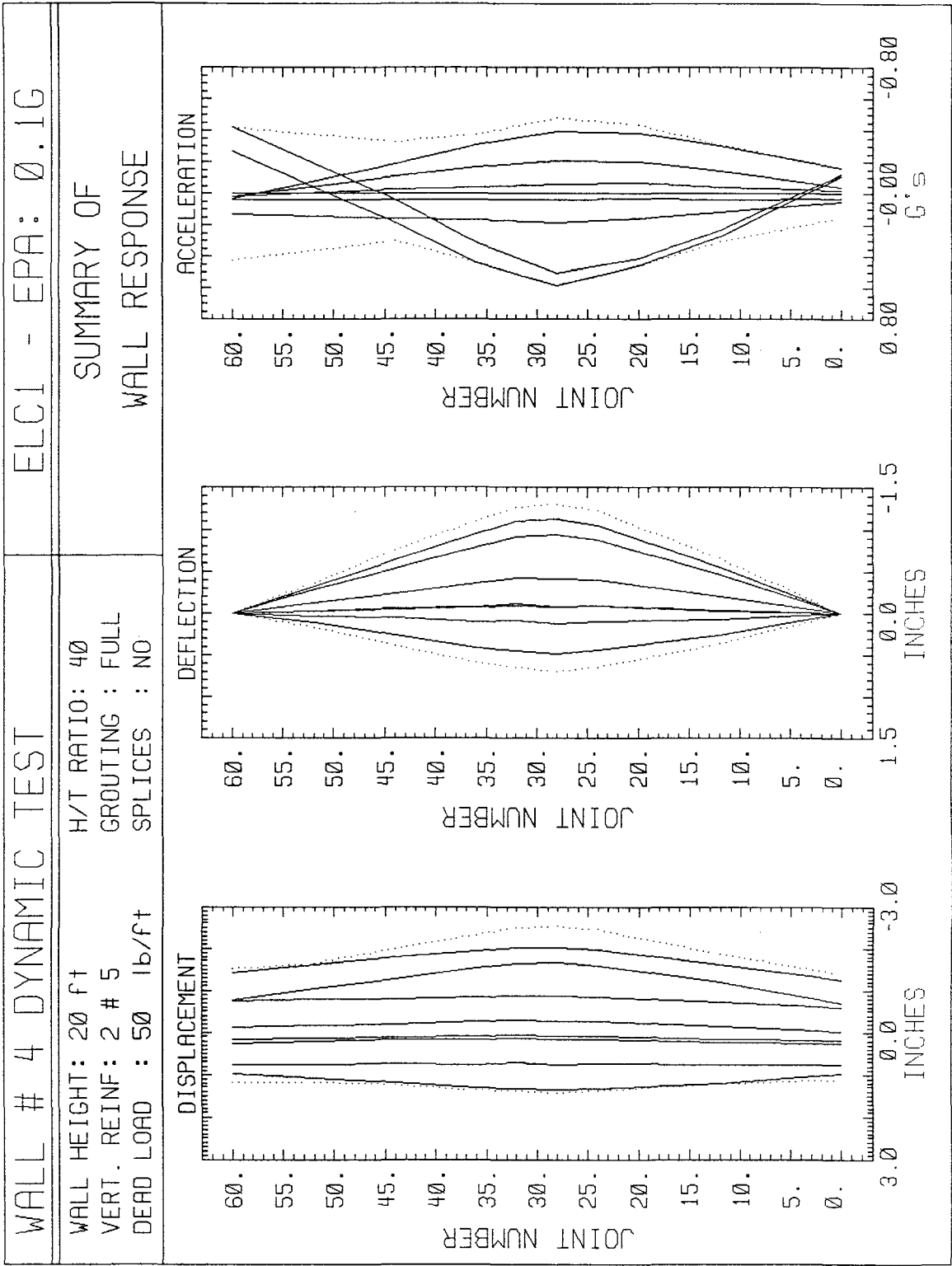


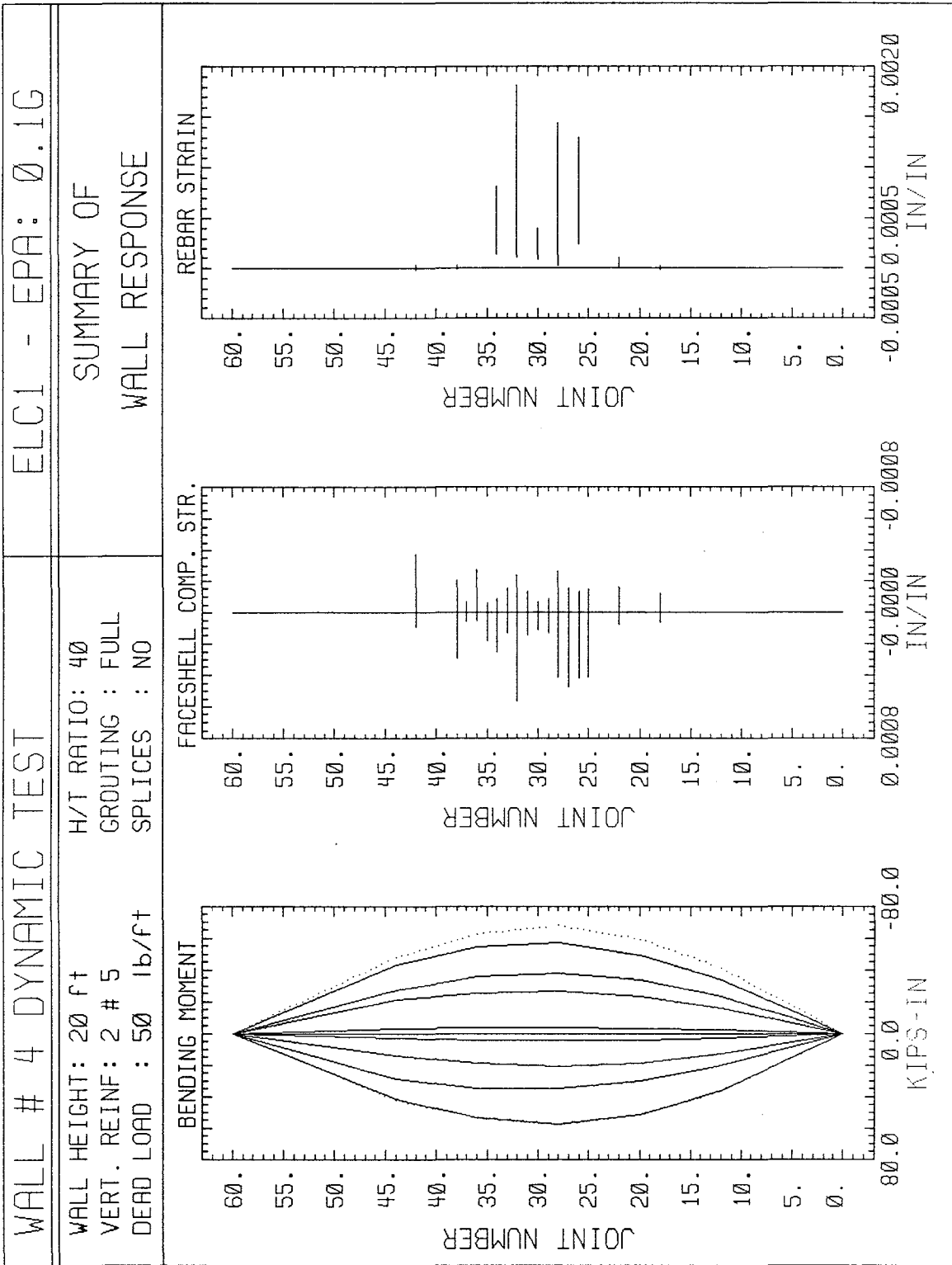












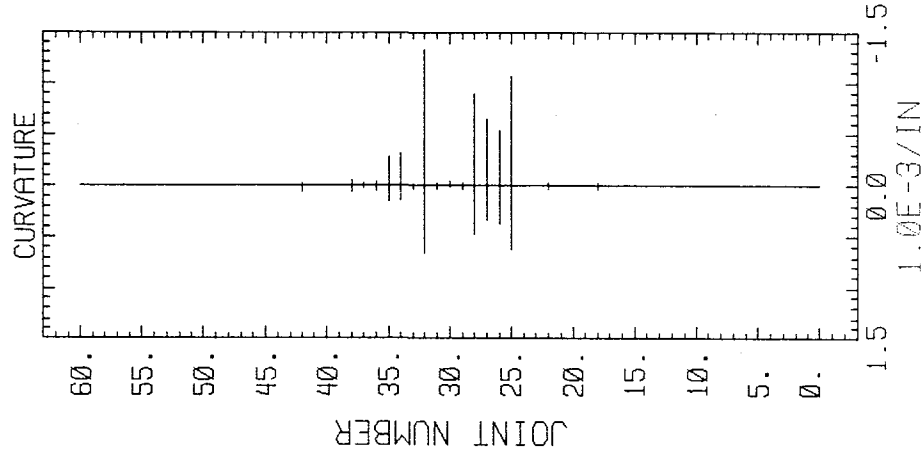
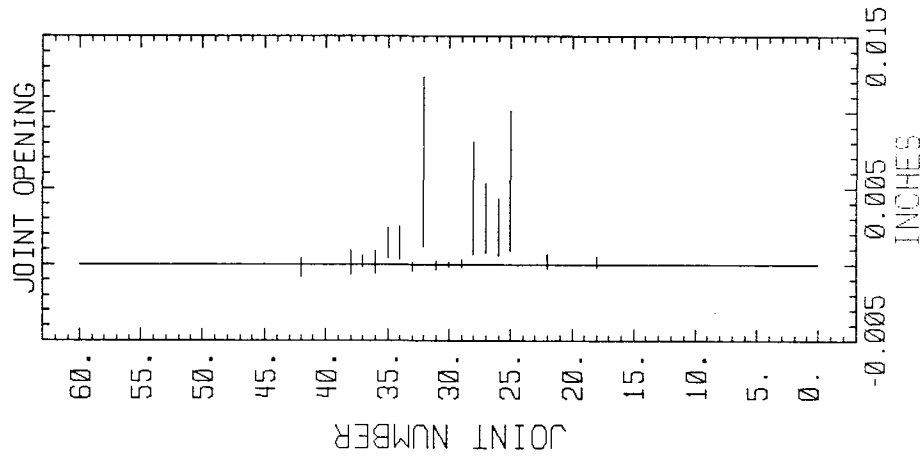
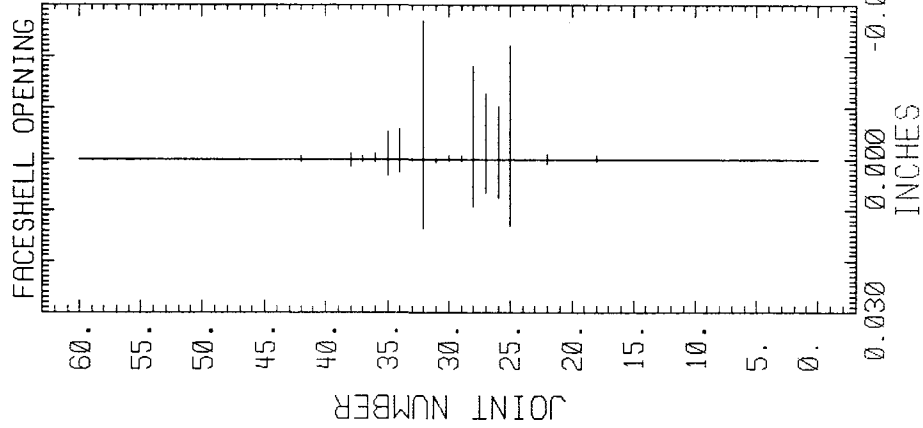
WALL # 4 DYNAMIC TEST

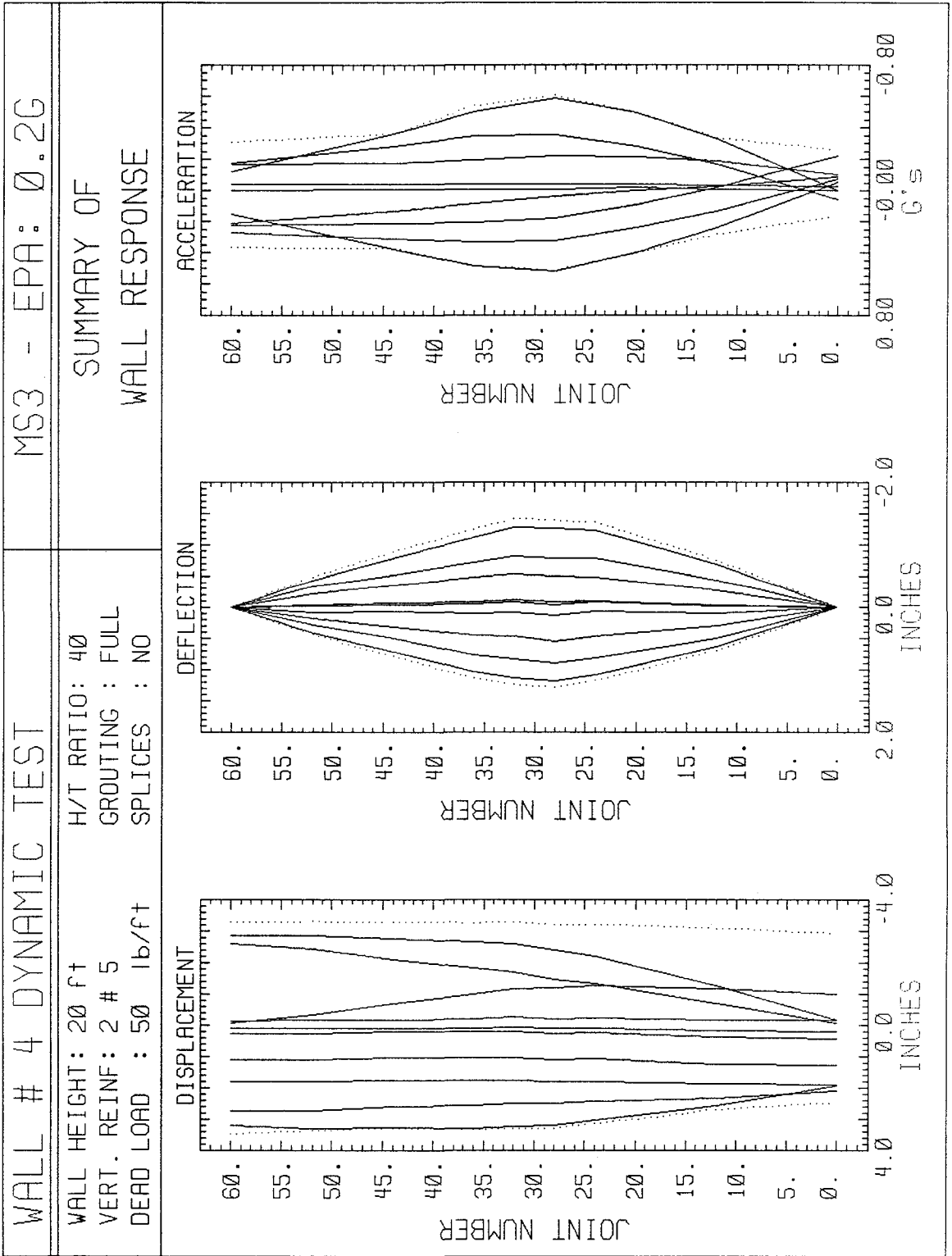
ELC1 - EPA: 0.1G

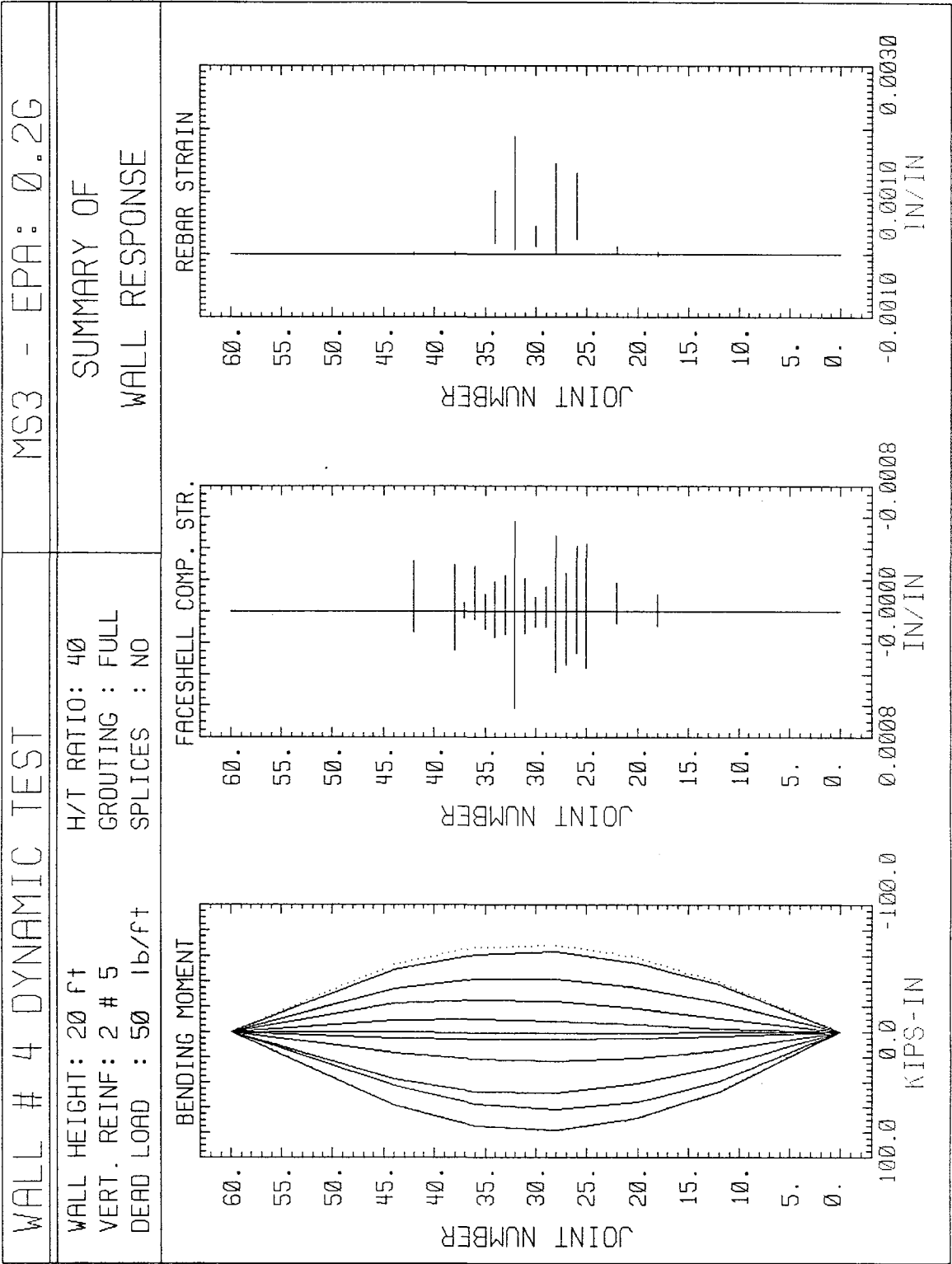
WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

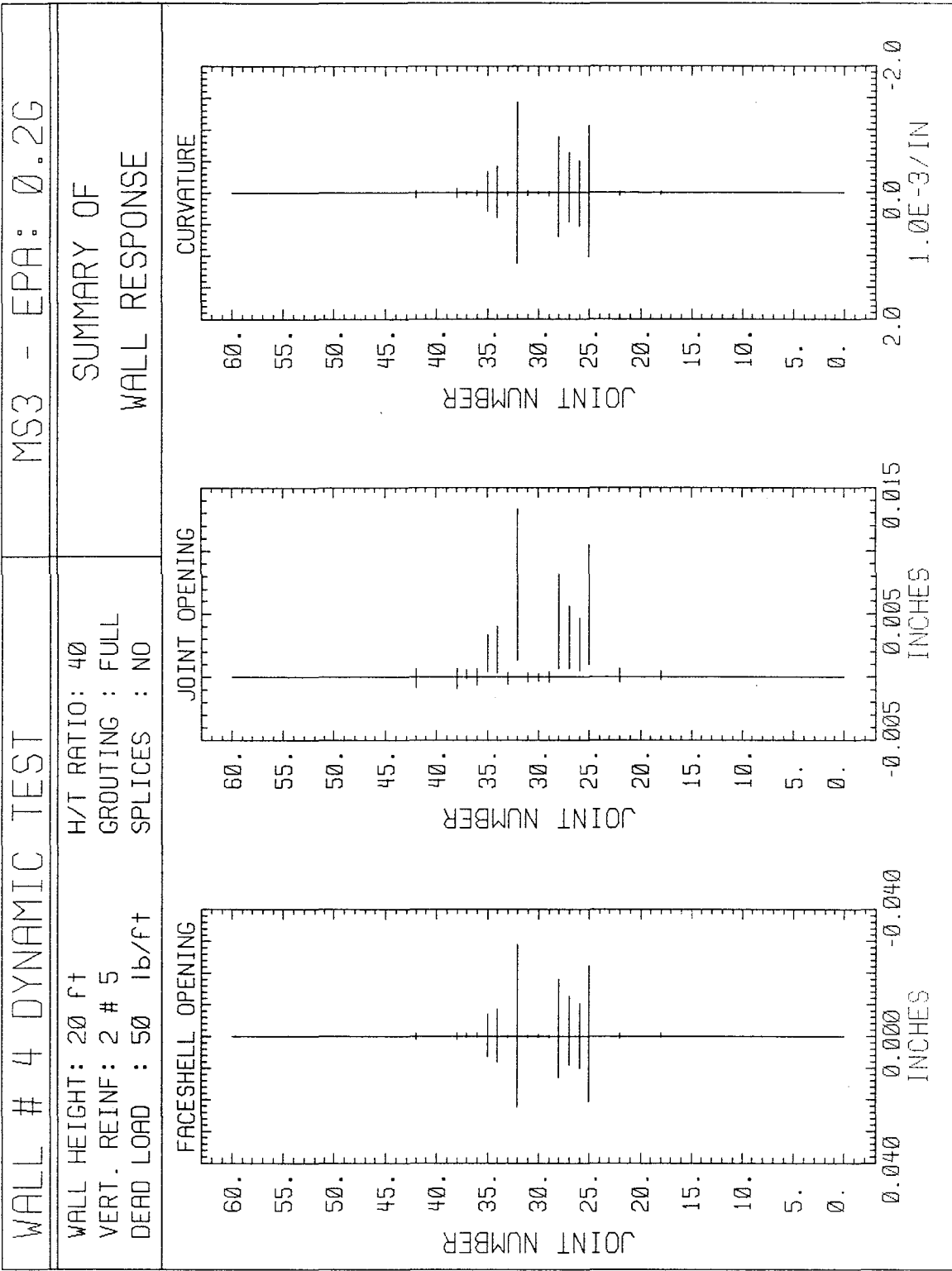
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

SUMMARY OF
 WALL RESPONSE









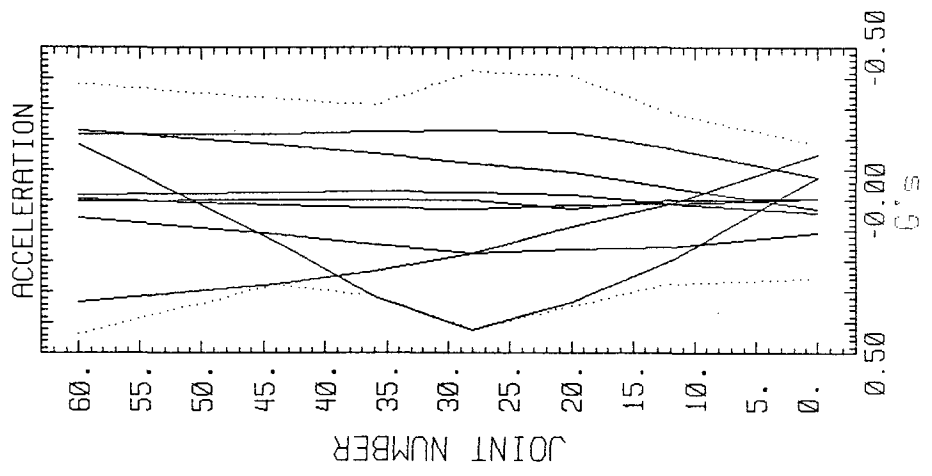
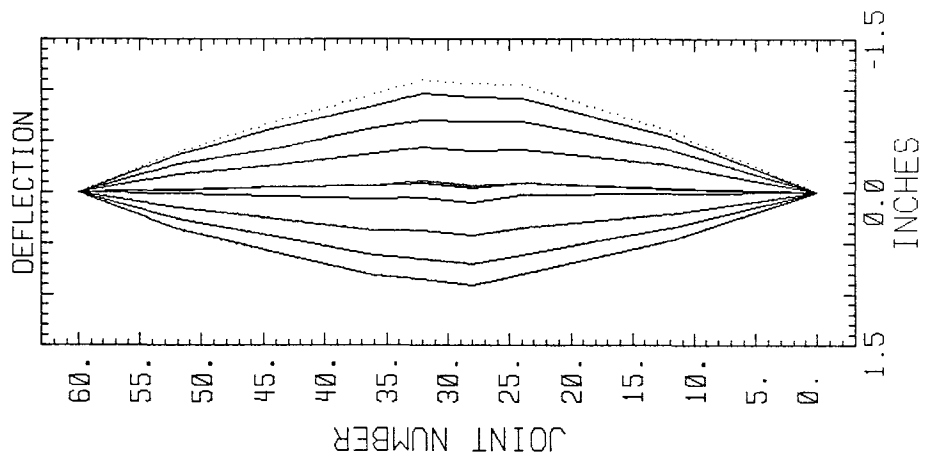
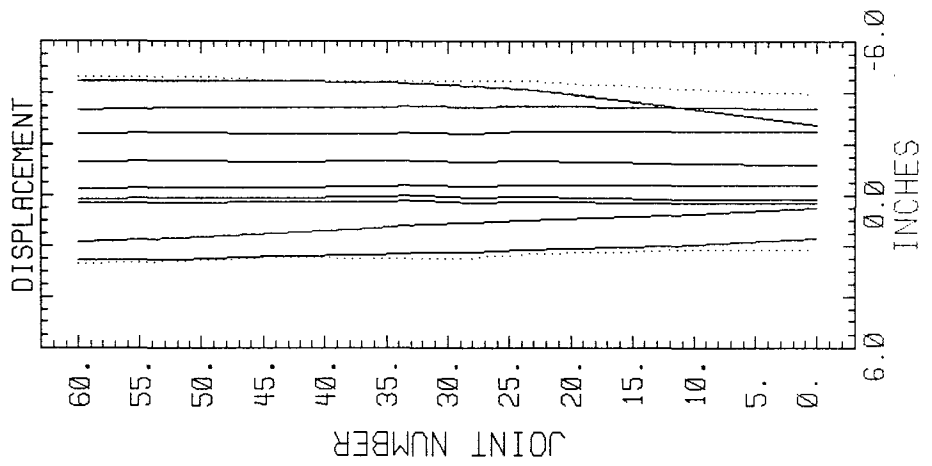
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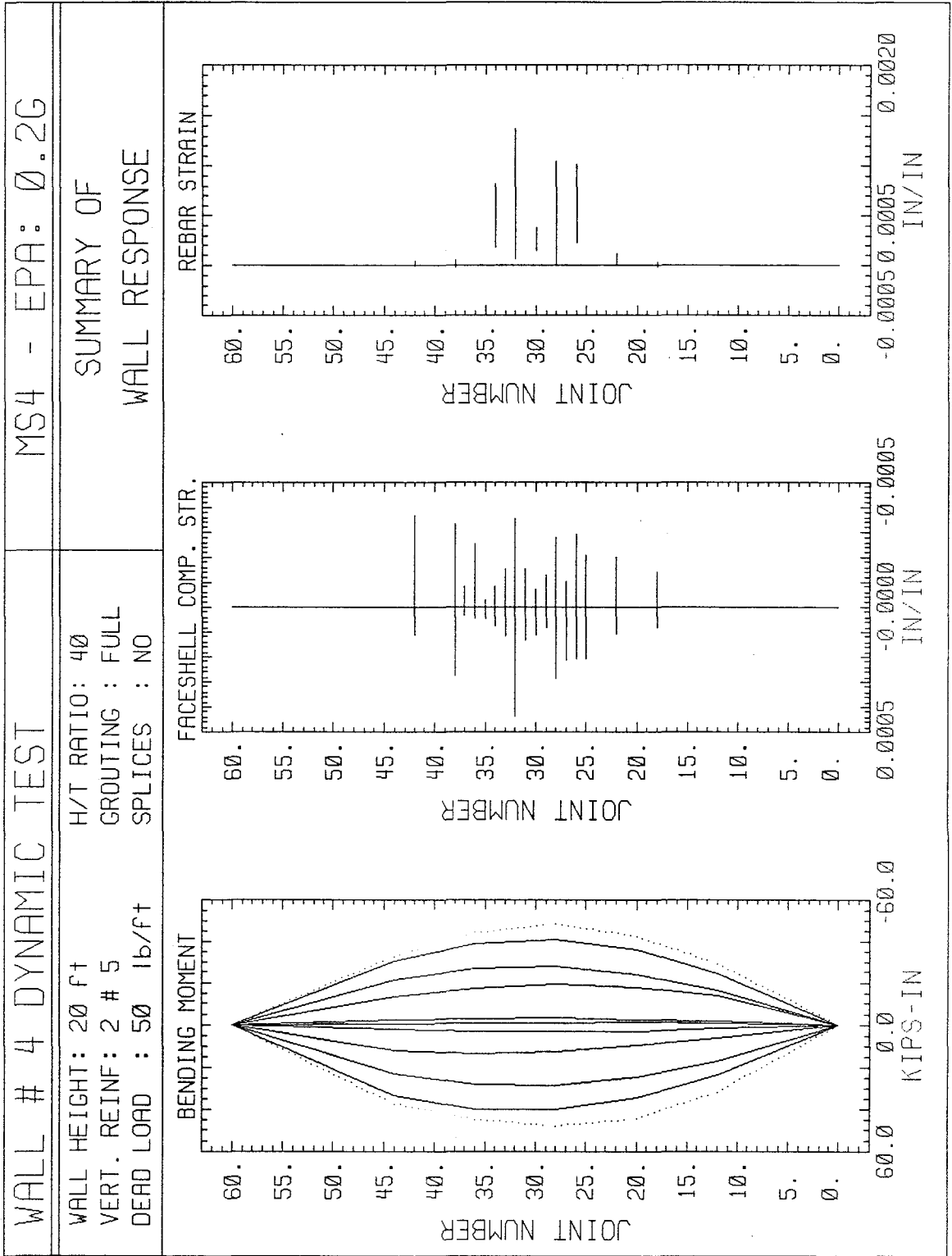
MS4 - EPA: 0.2G

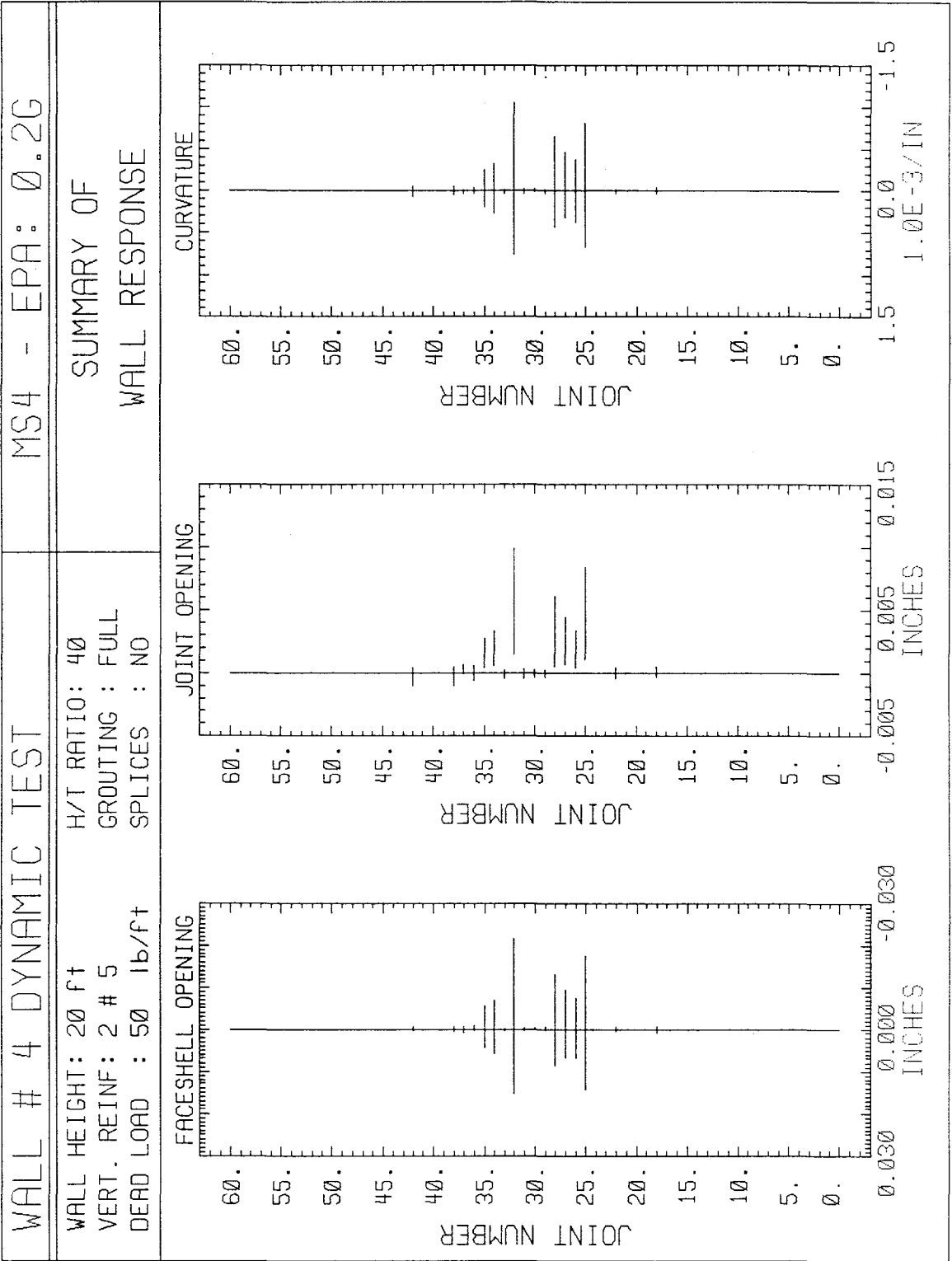
WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

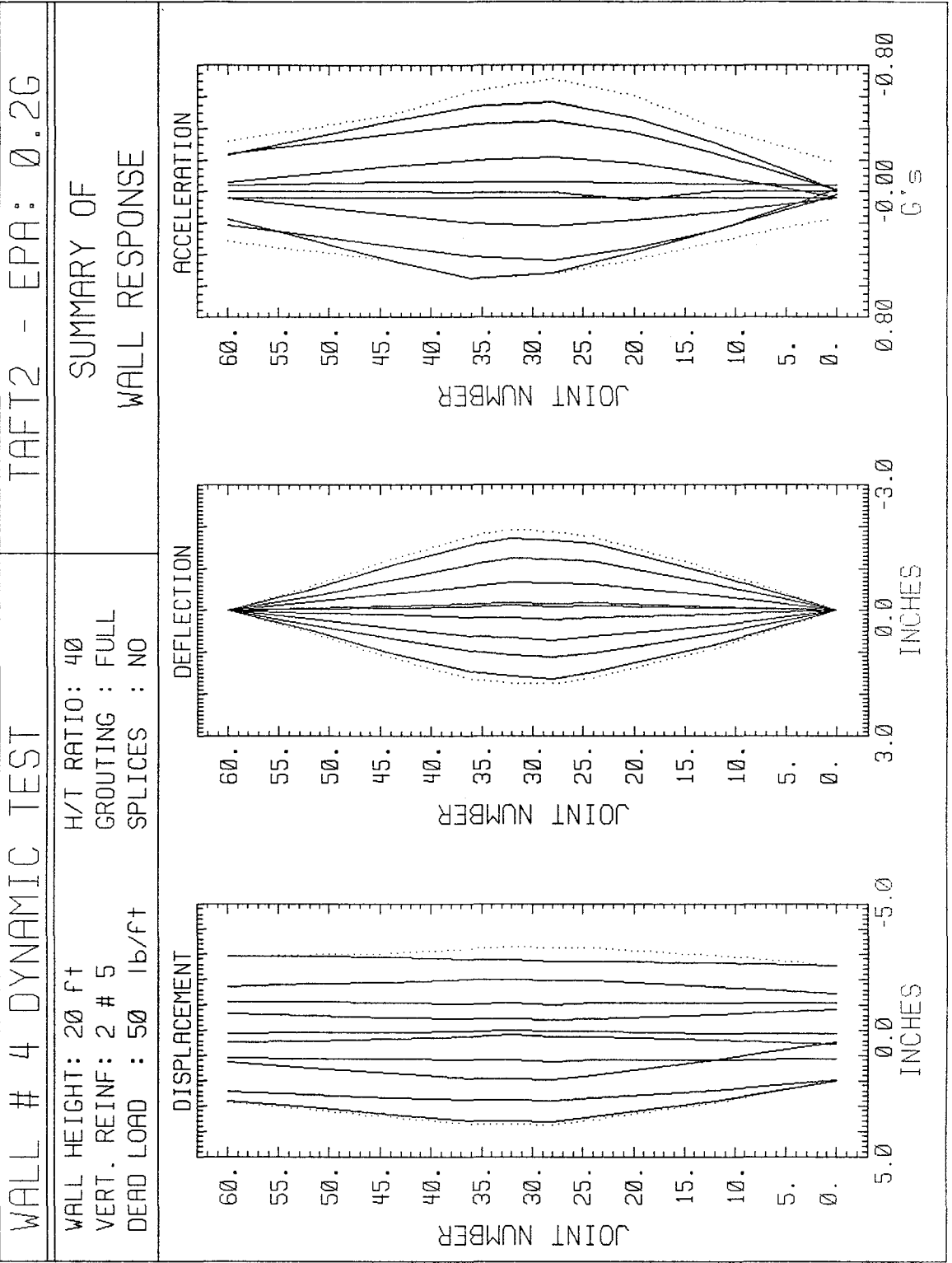
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

SUMMARY OF
 WALL RESPONSE









WALL # 4 DYNAMIC TEST

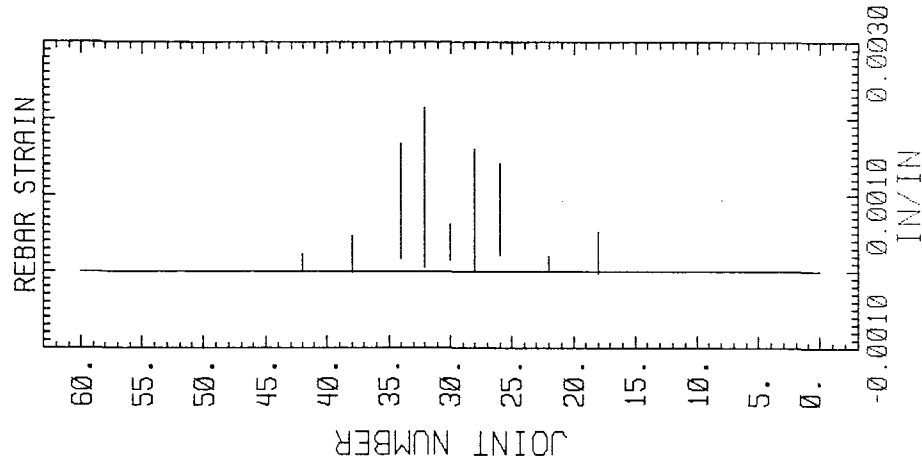
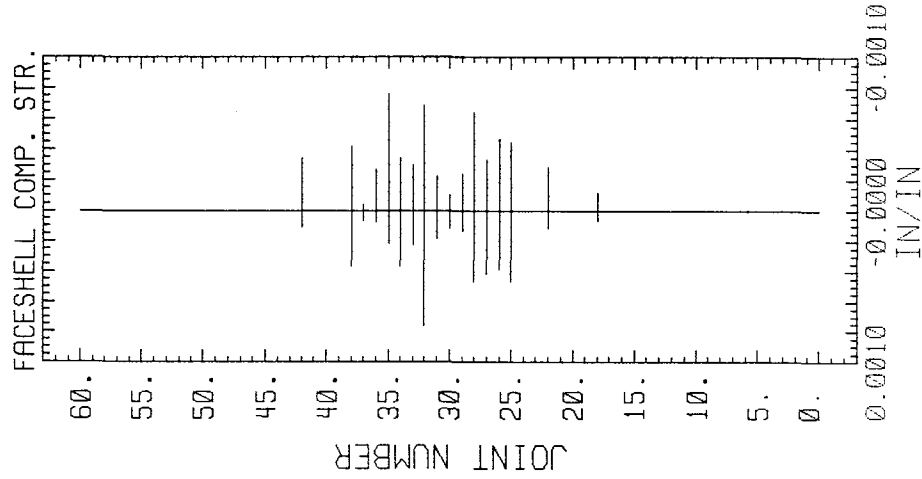
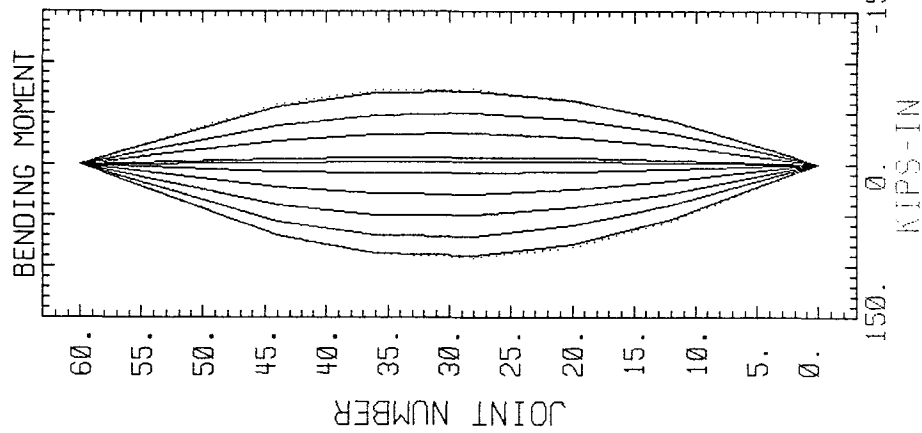
TAFT2 - EPA: 0.2G

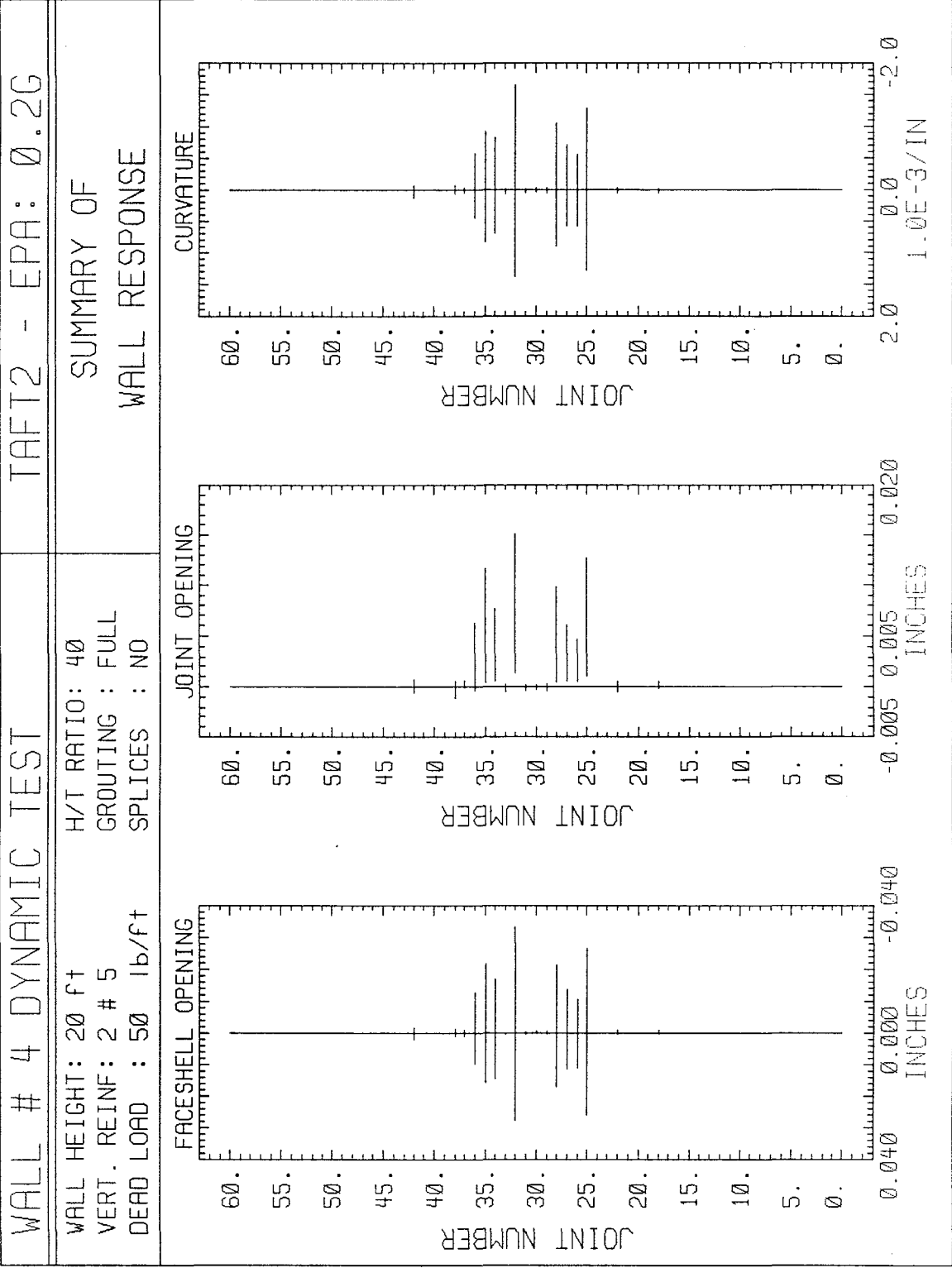
WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

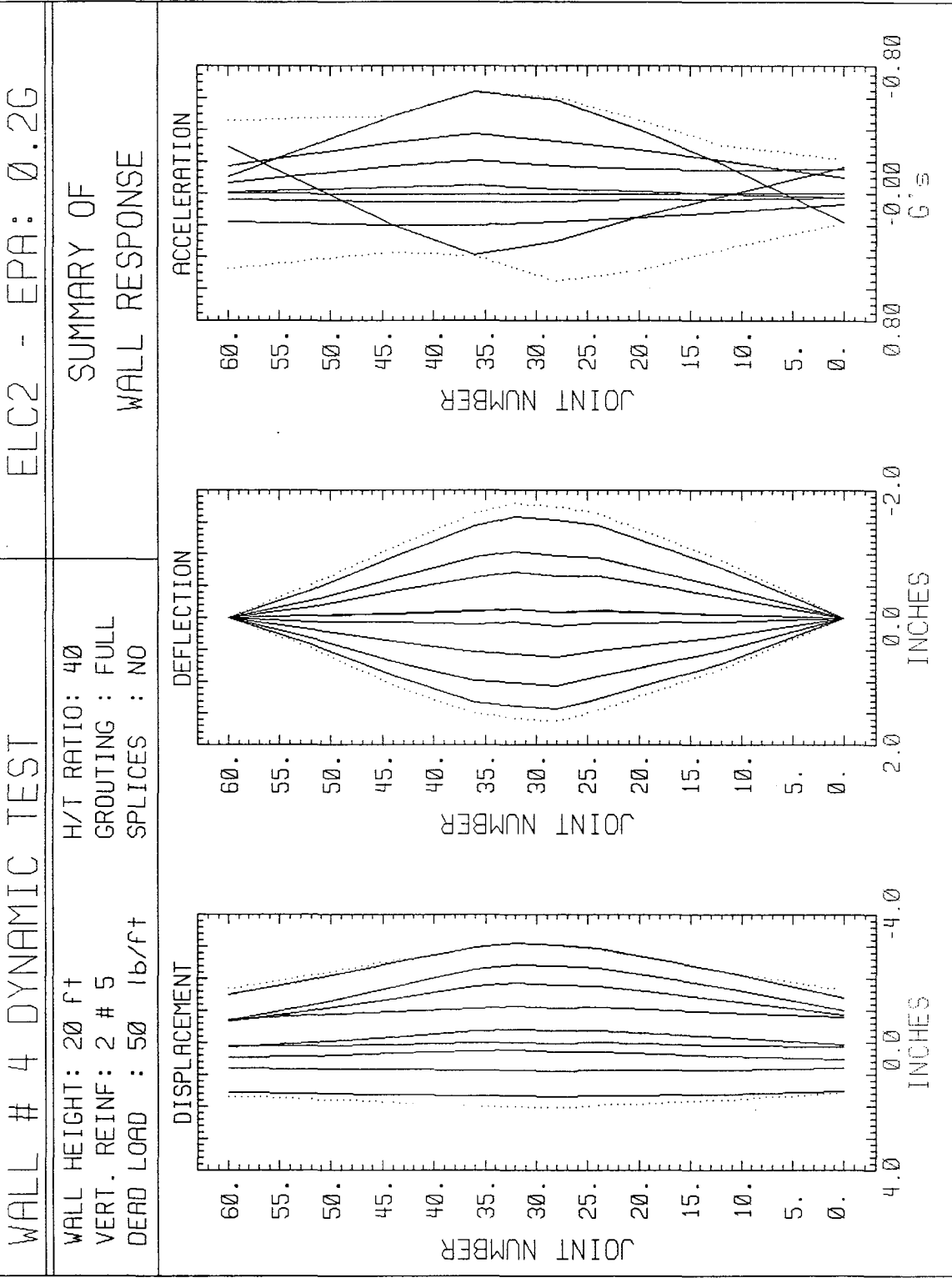
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

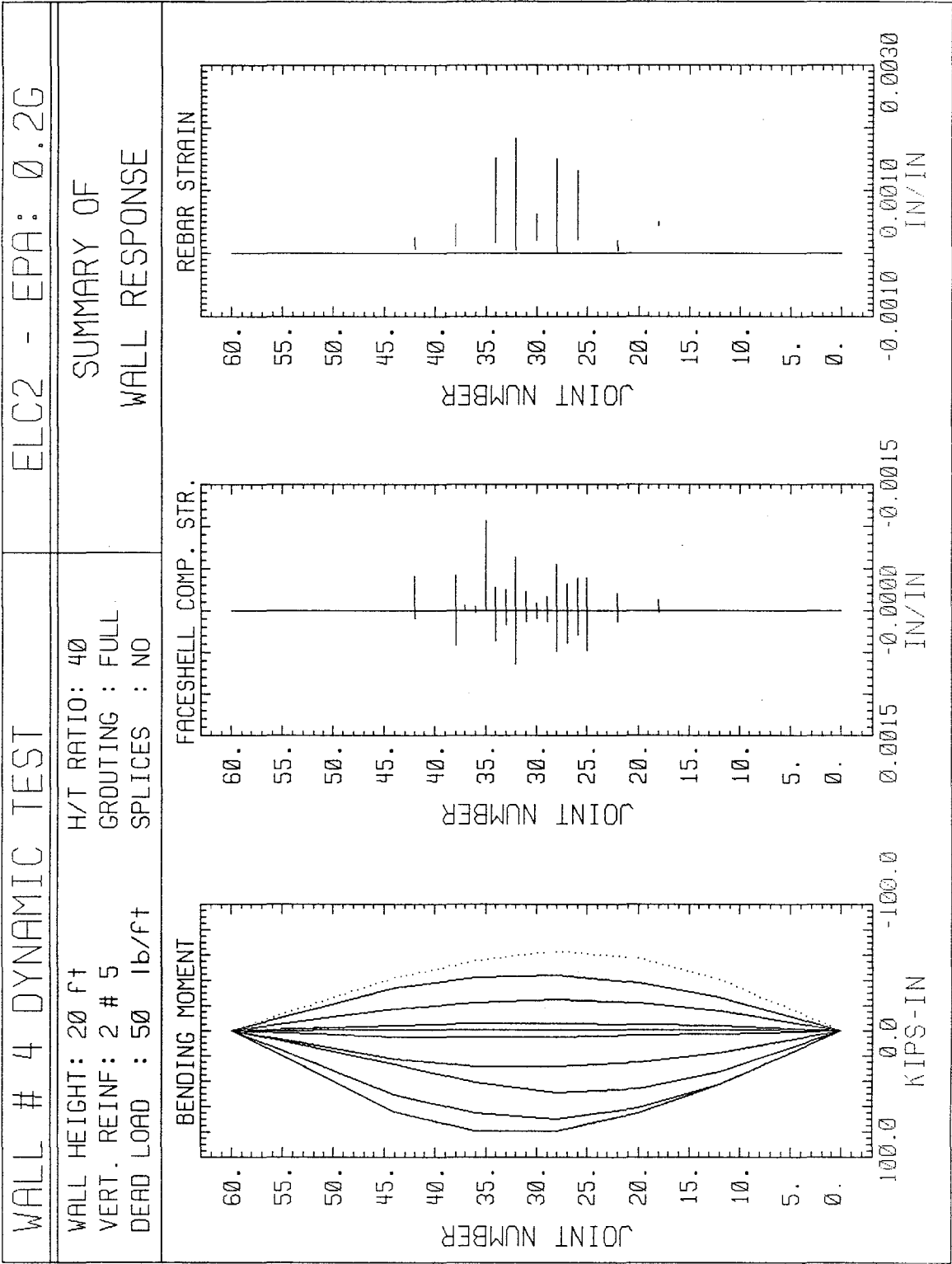
SUMMARY OF

WALL RESPONSE









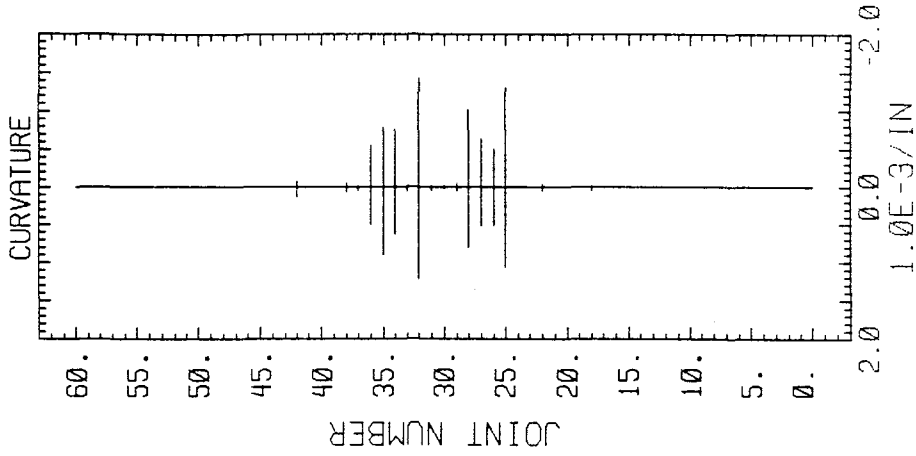
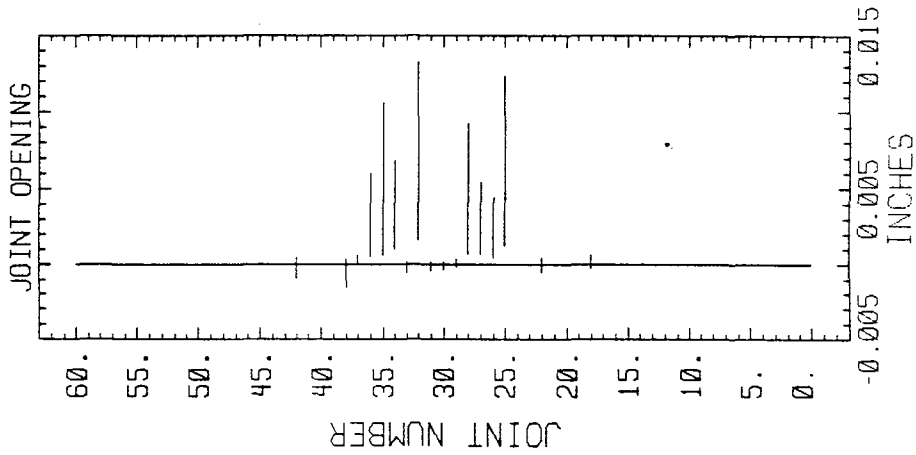
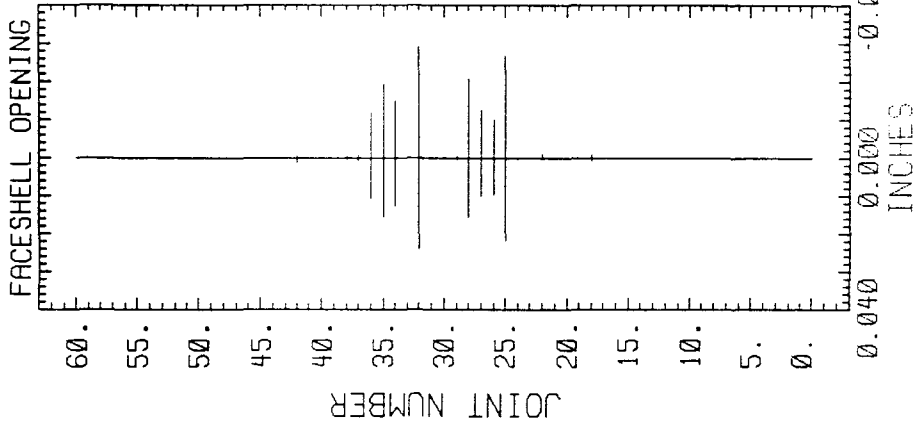
WALL # 4 DYNAMIC TEST

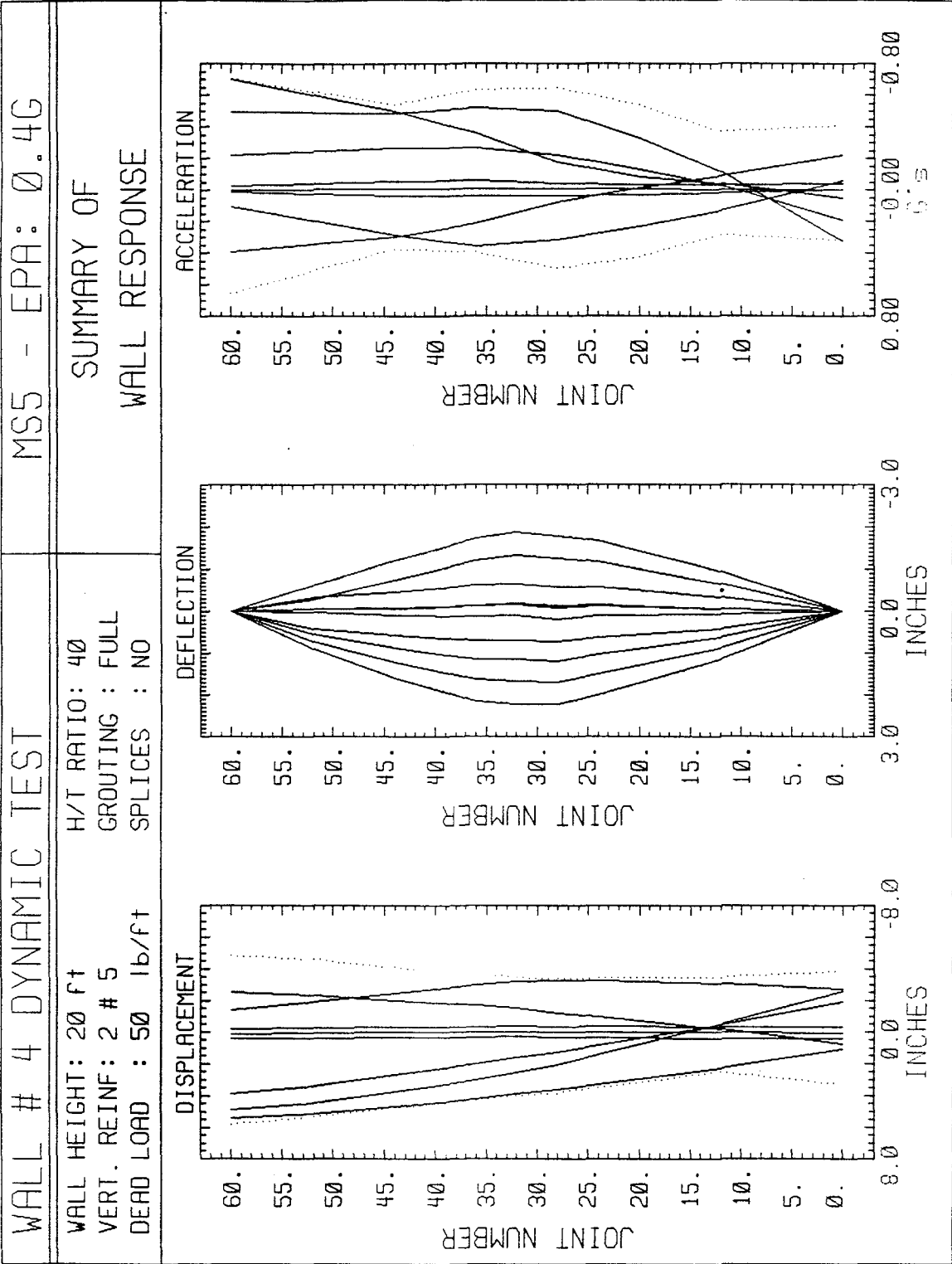
ELC2 - EPA: 0.2G

WALL HEIGHT: 20 ft
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

SUMMARY OF
 WALL RESPONSE





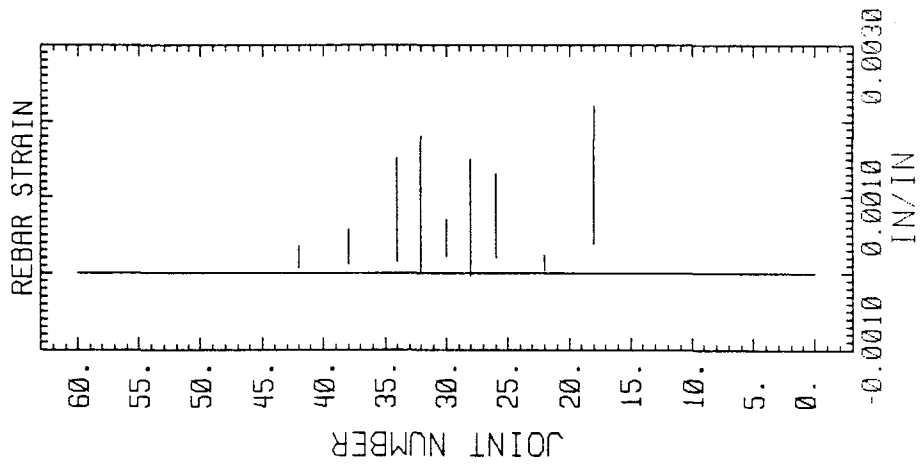
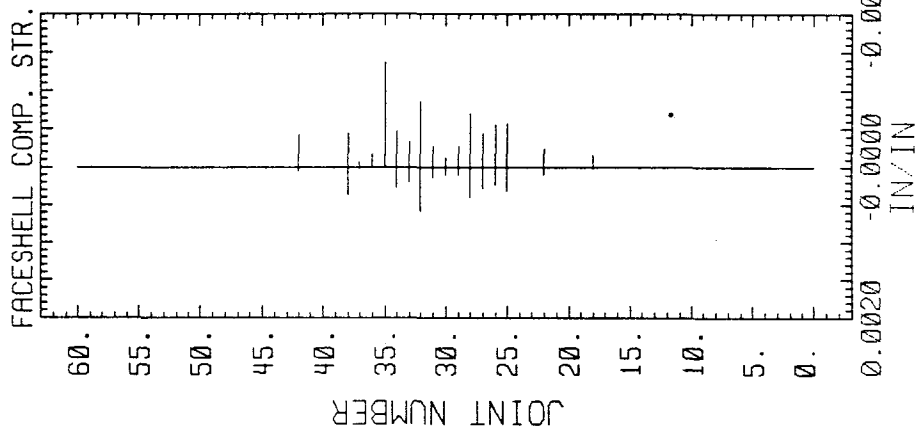
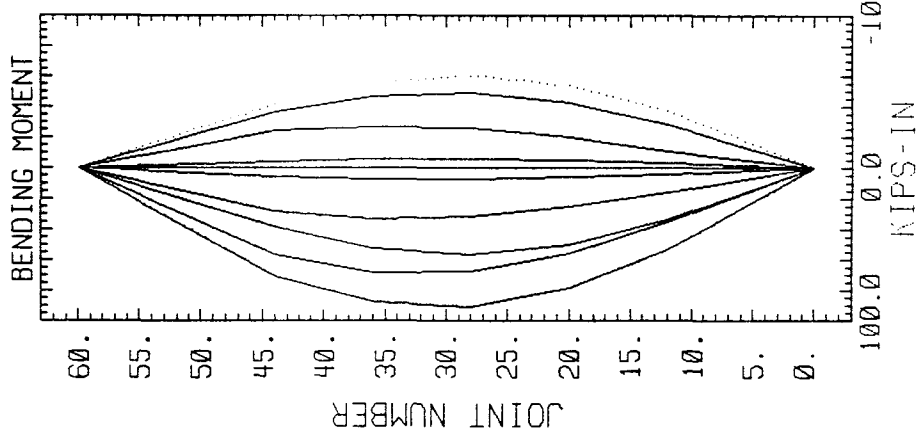
WALL # 4 DYNAMIC TEST

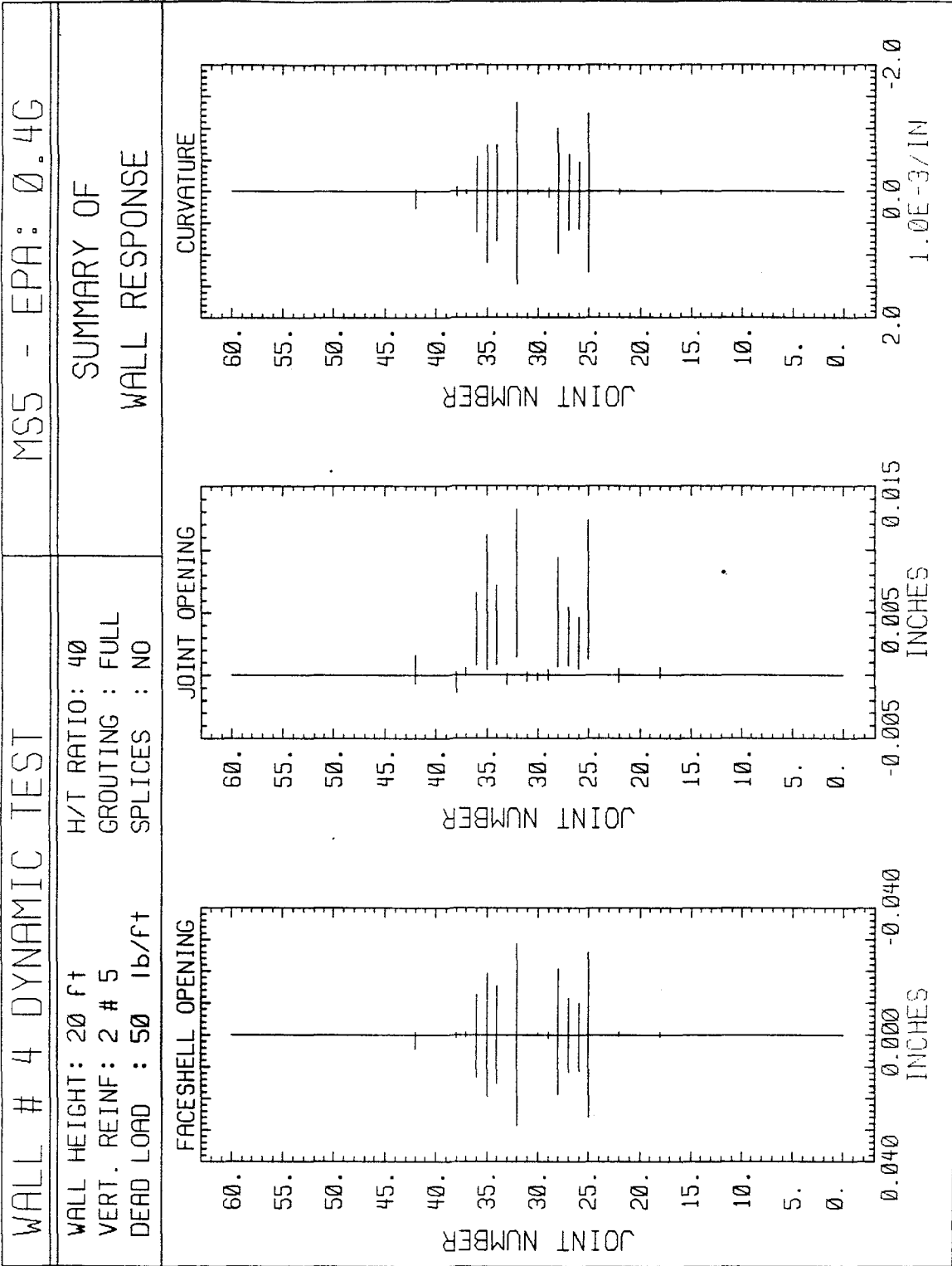
MS5 - EPA: 0.4G

WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

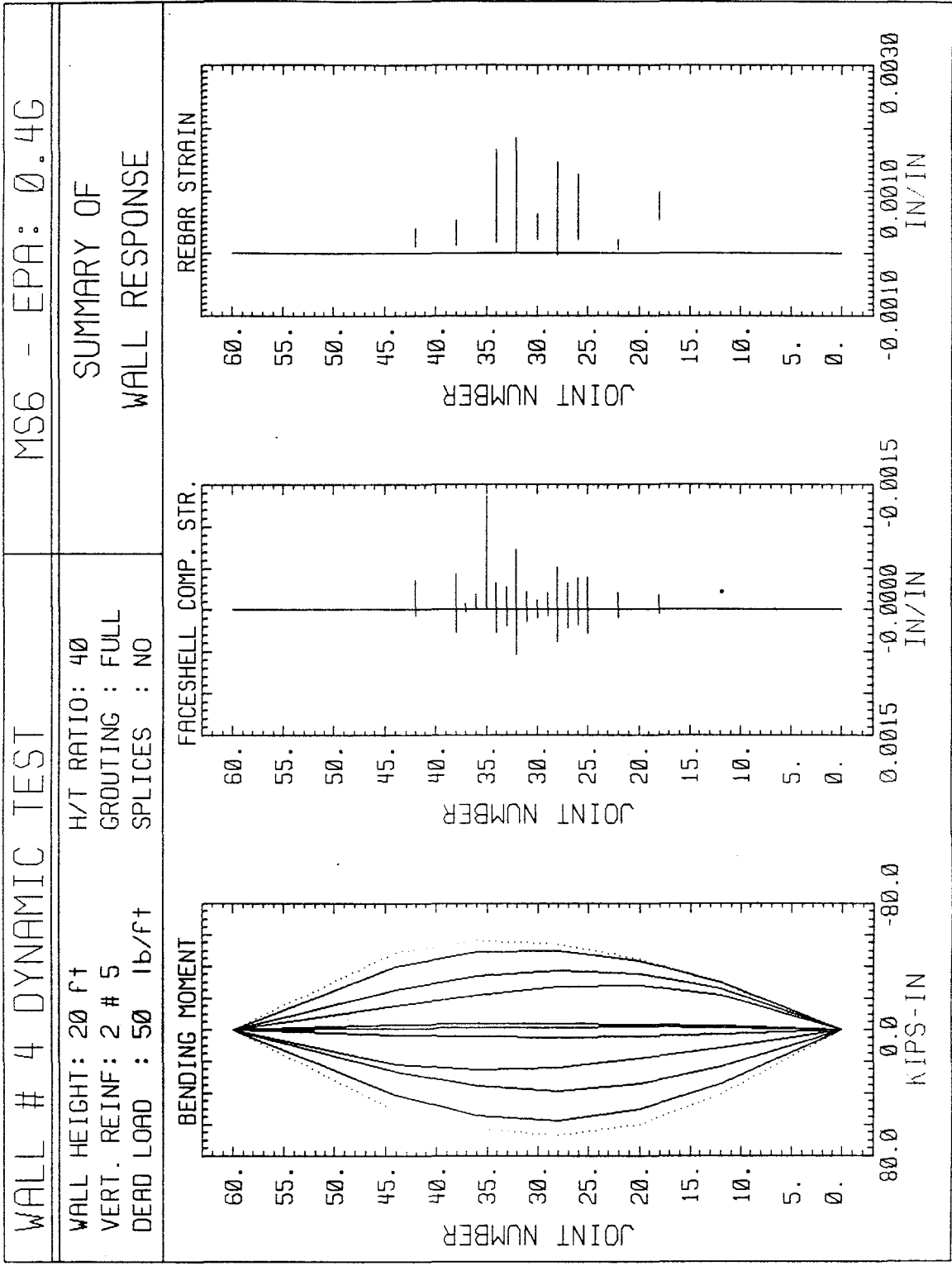
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

SUMMARY OF WALL RESPONSE





WALL # 4 DYNAMIC TEST	MS6 - EPA: 0.4G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 50 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



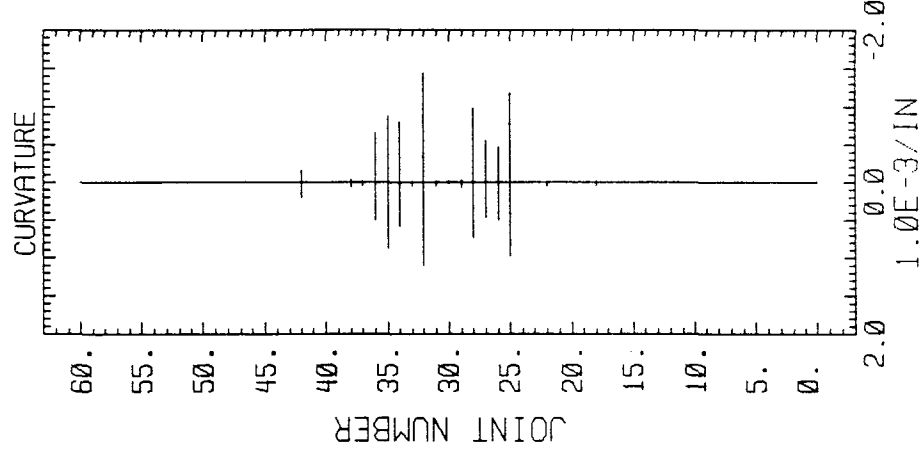
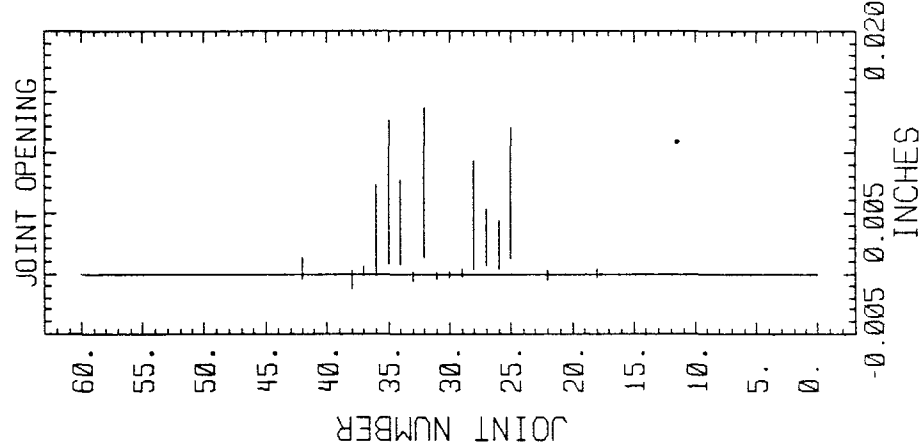
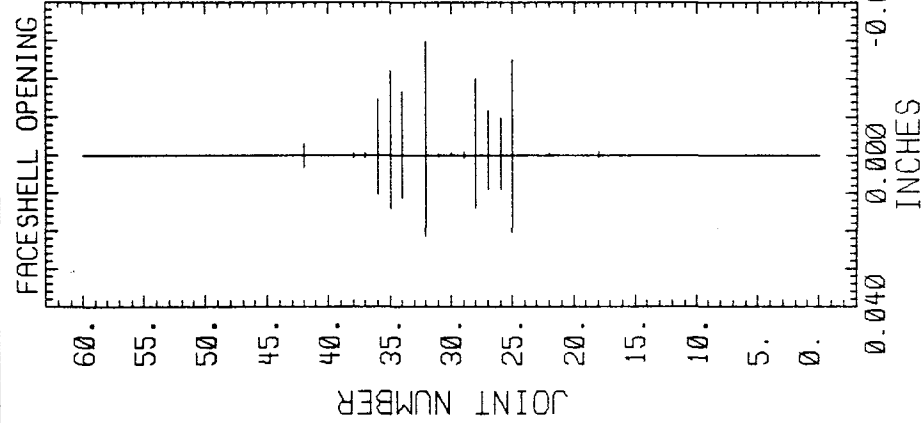
WALL # 4 DYNAMIC TEST

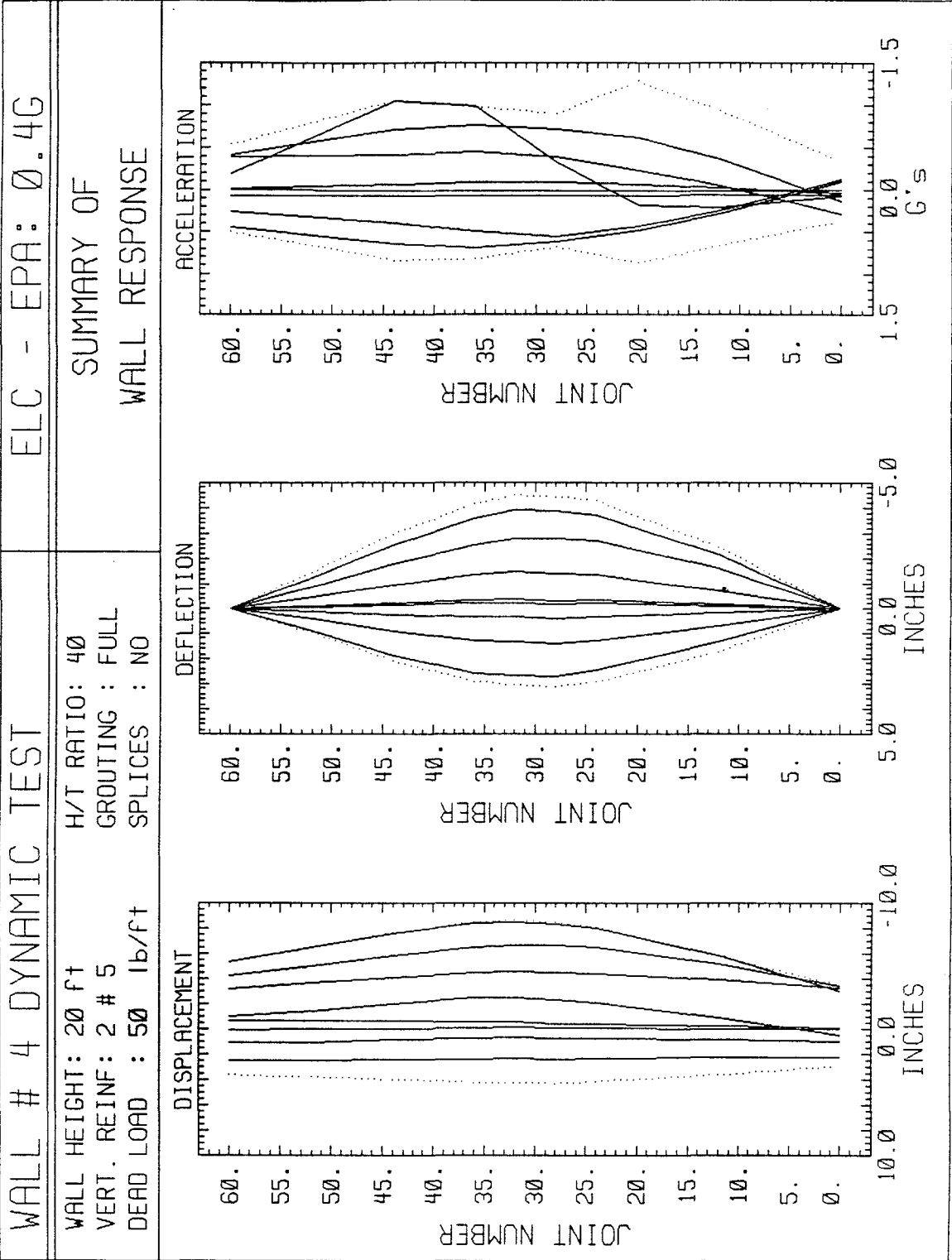
MS6 - EPA: 0.4G

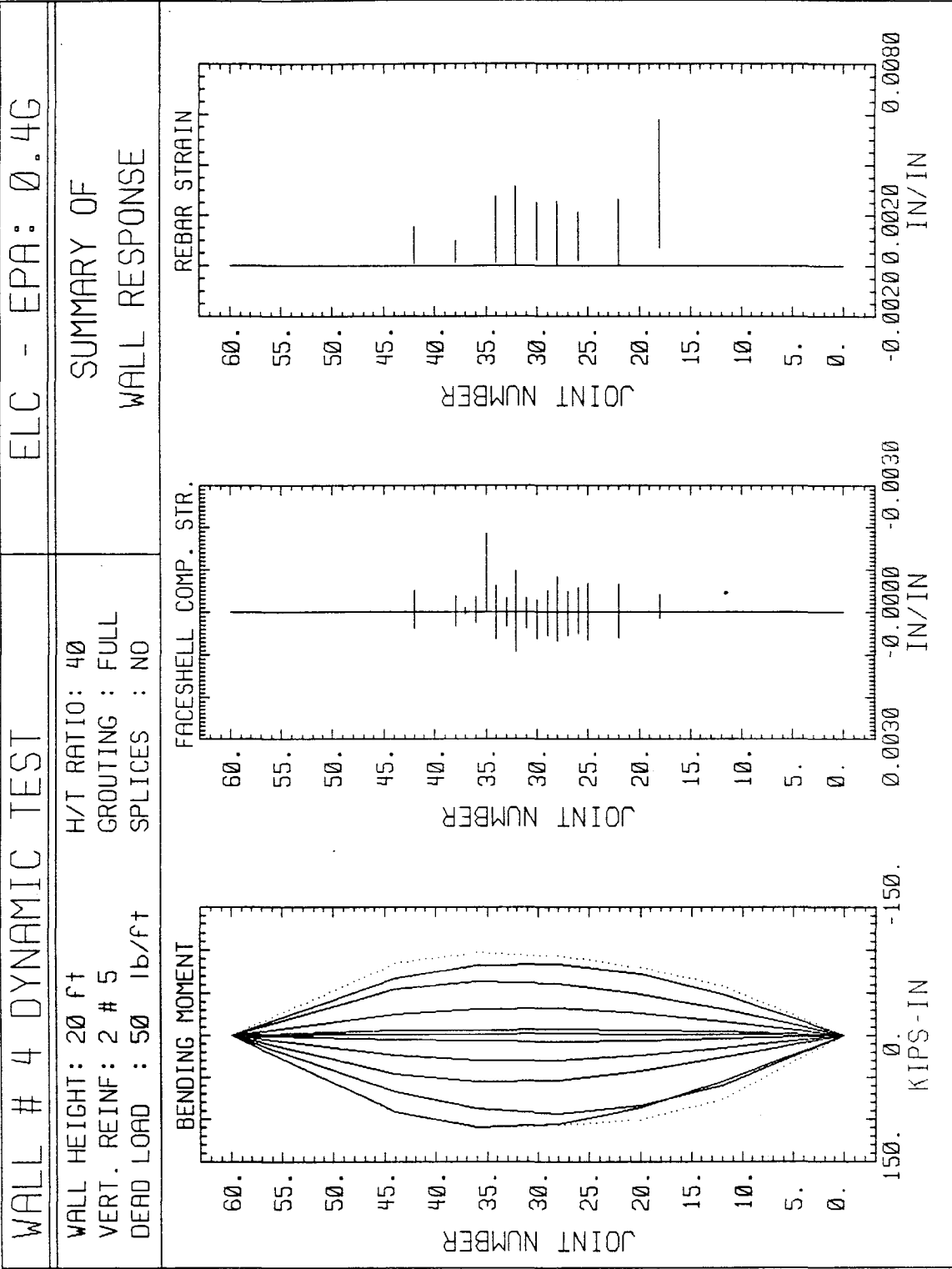
WALL HEIGHT: 20 ft
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

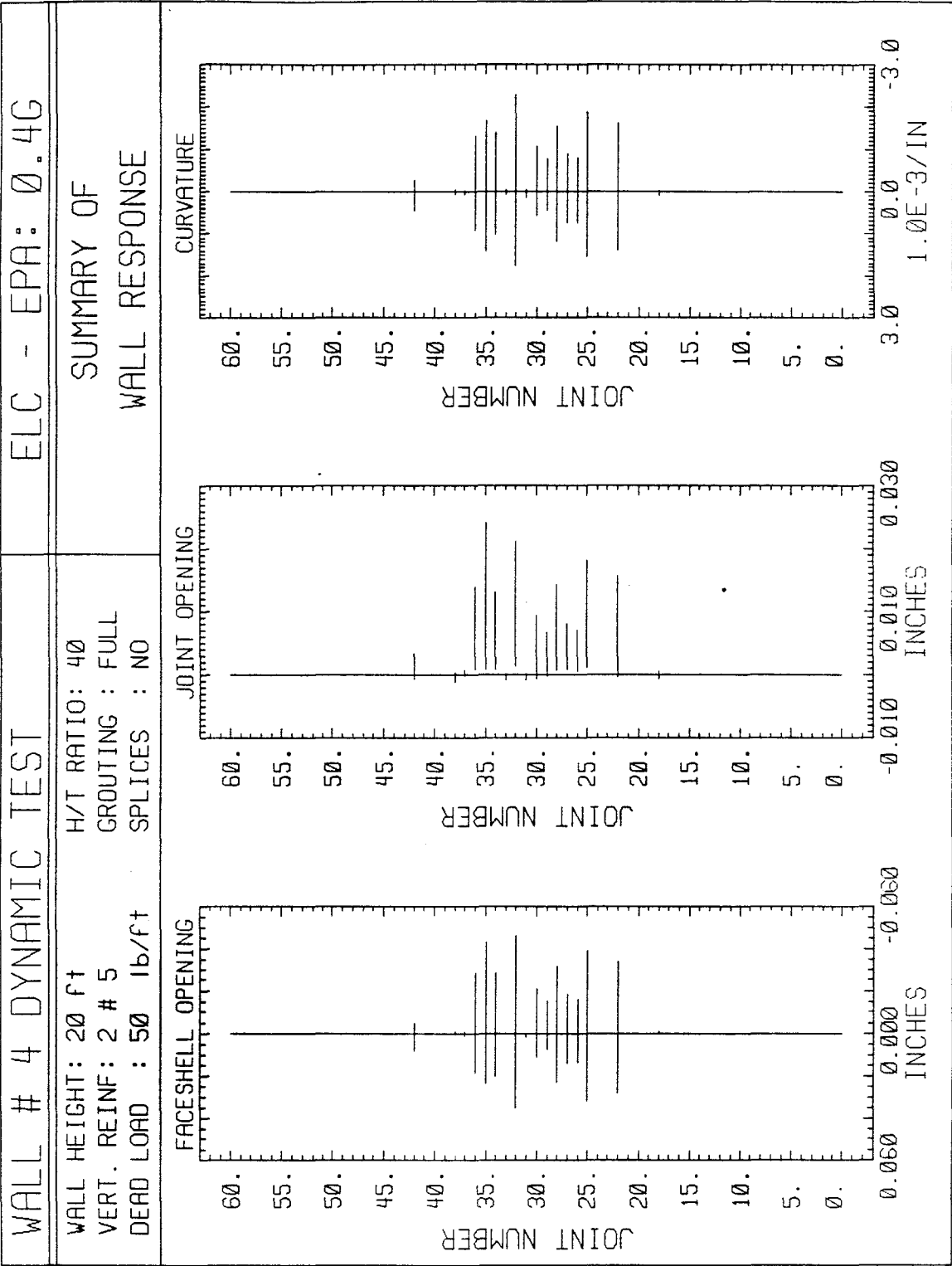
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

SUMMARY OF
 WALL RESPONSE









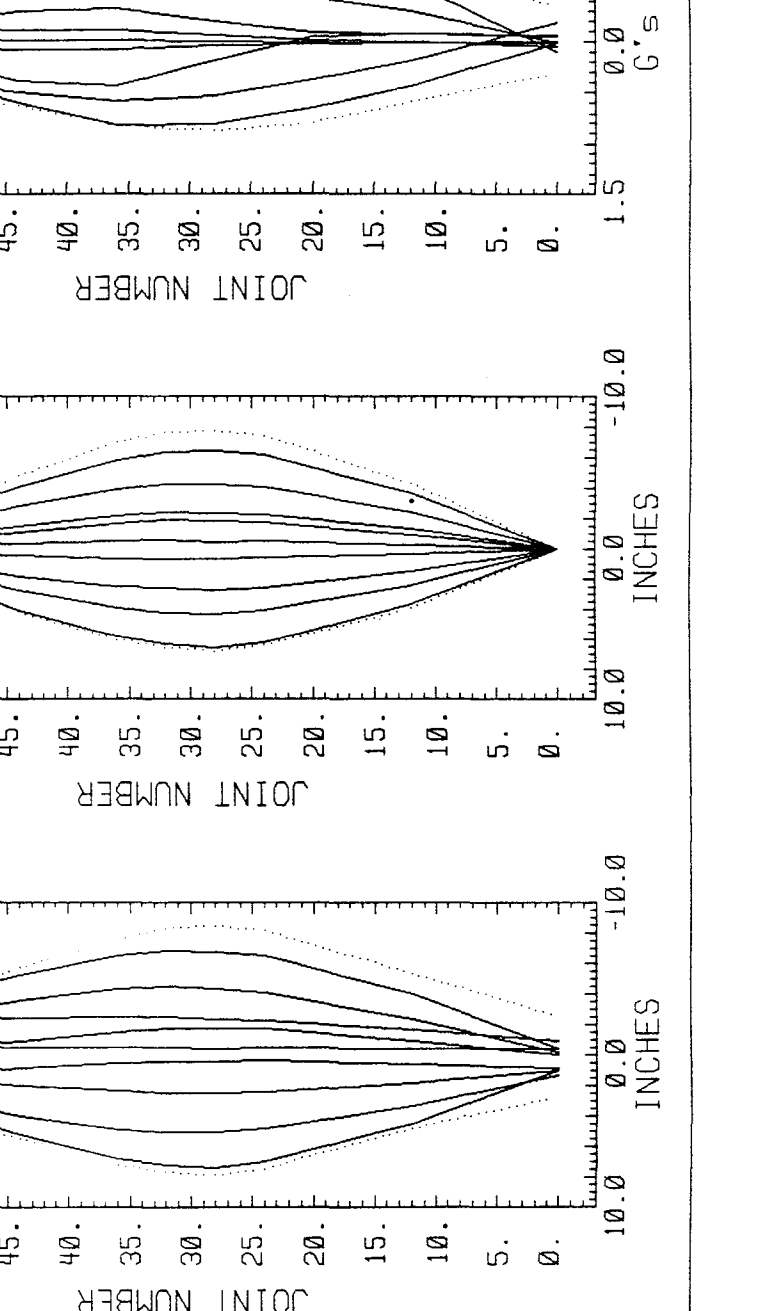
WALL # 4 DYNAMIC TEST

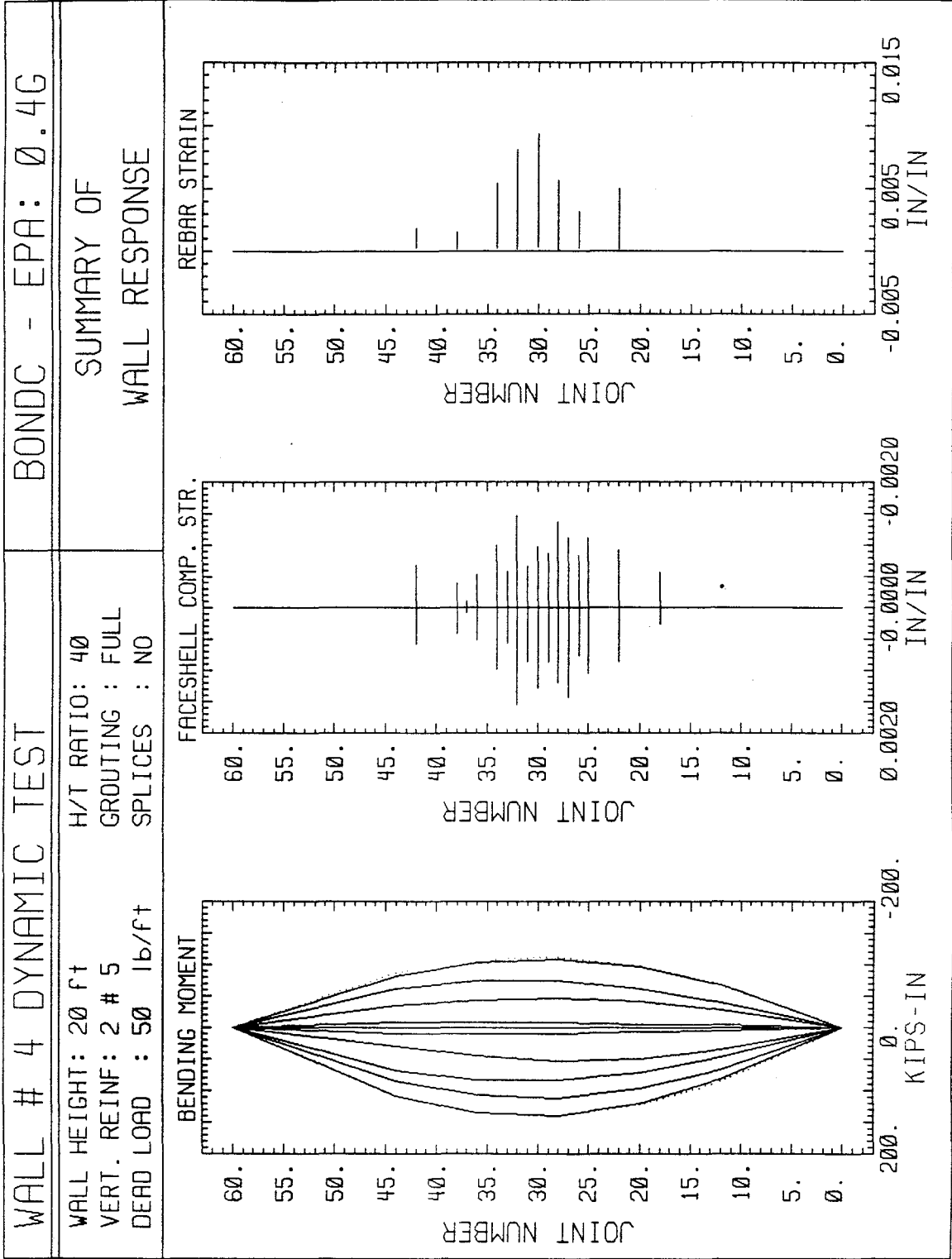
BOND C - EPA: 0.4G

WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

SUMMARY OF
 WALL RESPONSE





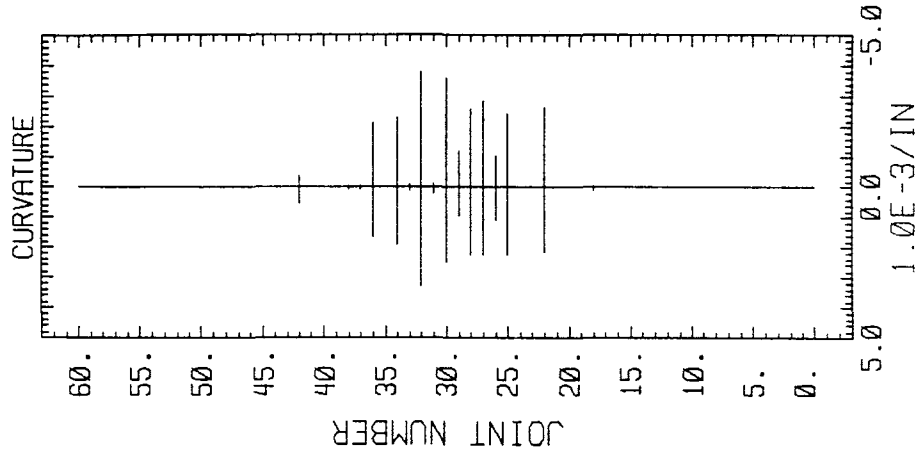
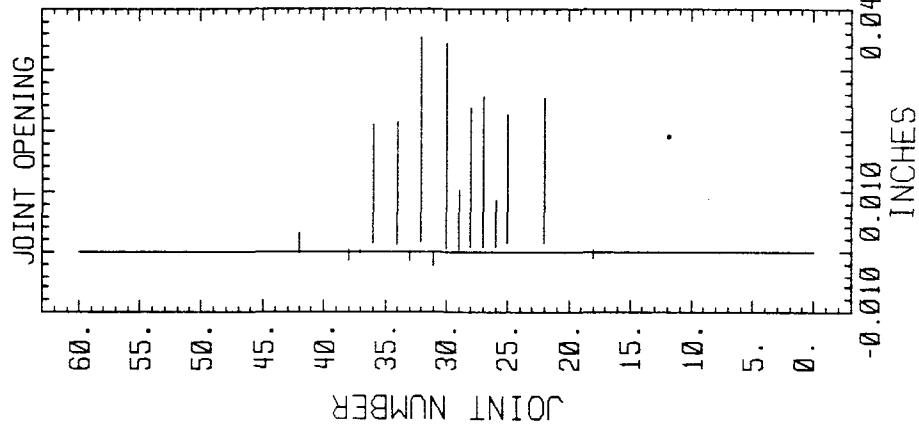
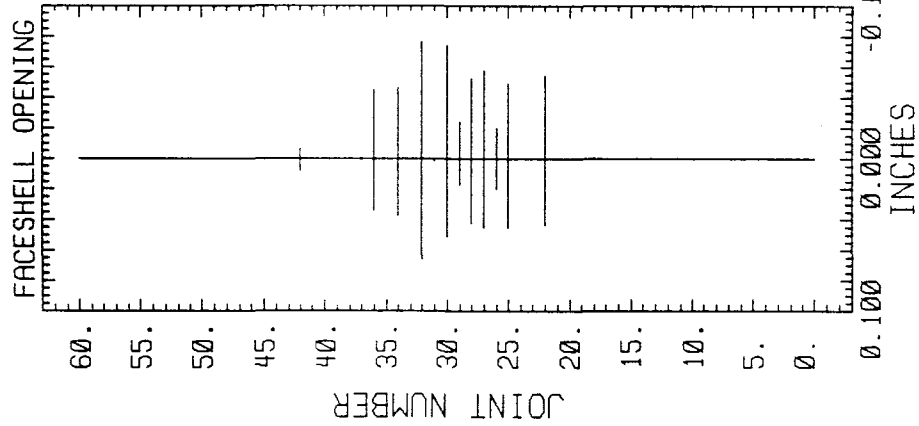
WALL # 4 DYNAMIC TEST

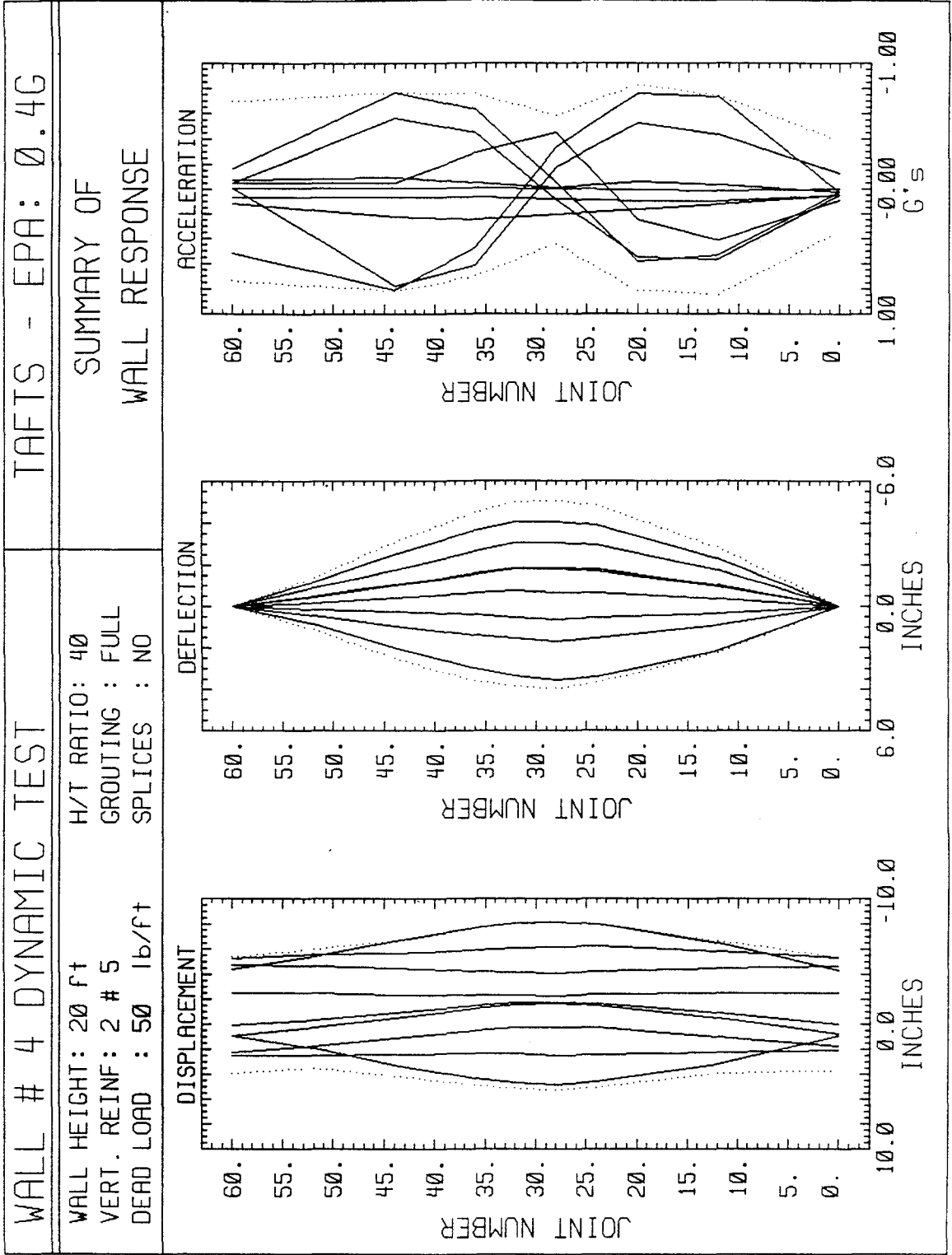
BOND - EPA: 0.4G

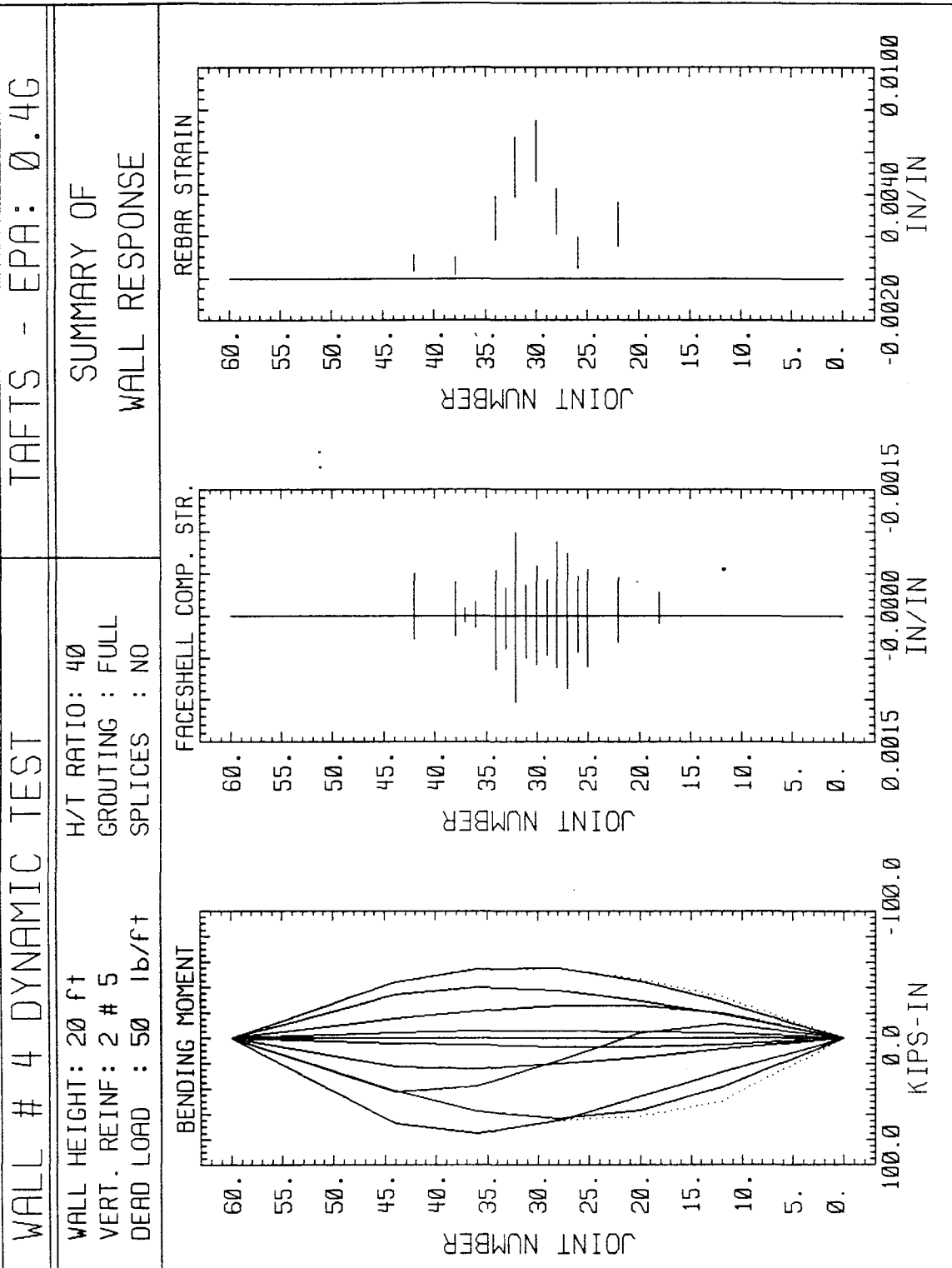
WALL HEIGHT: 20 ft
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

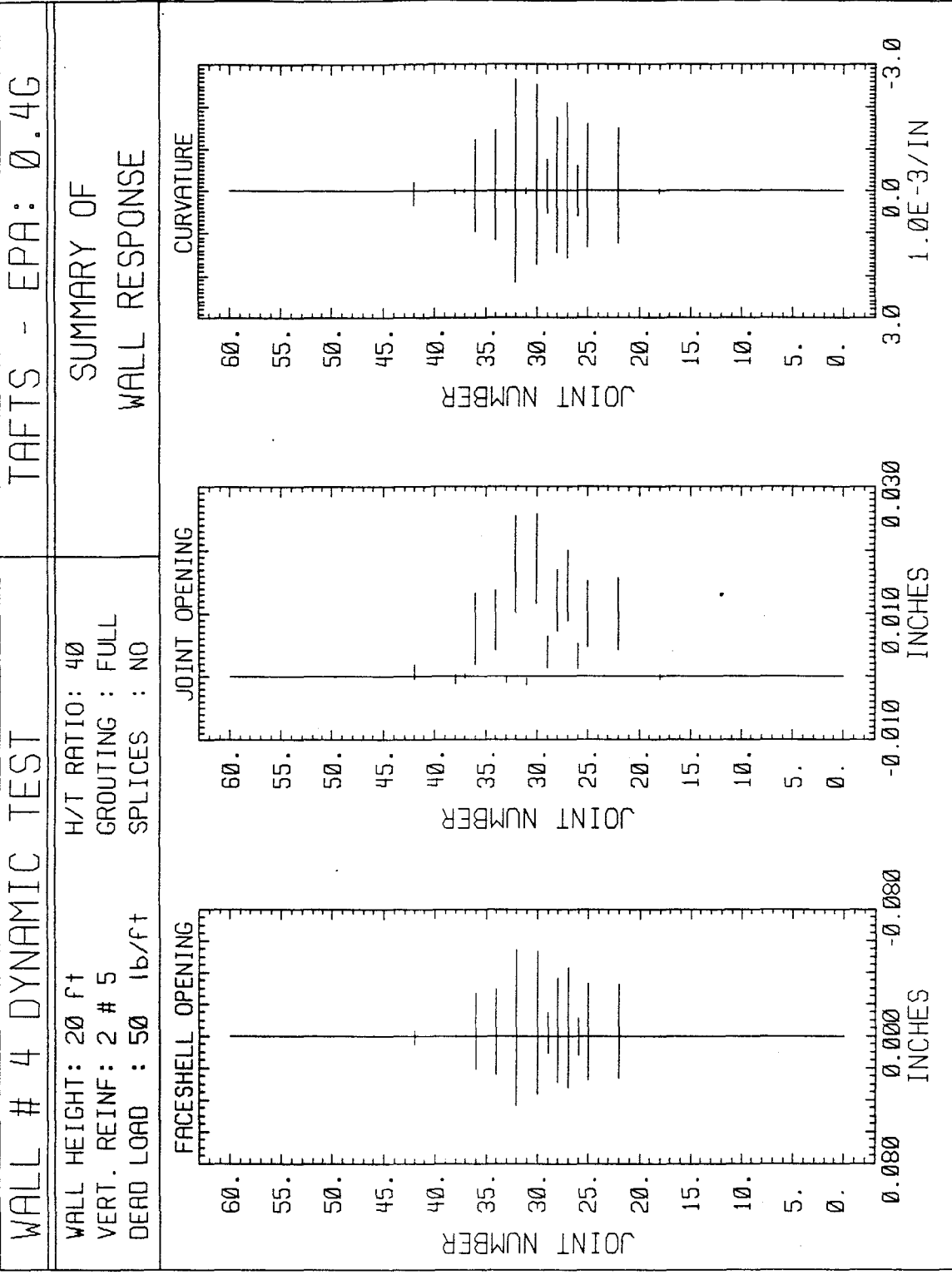
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

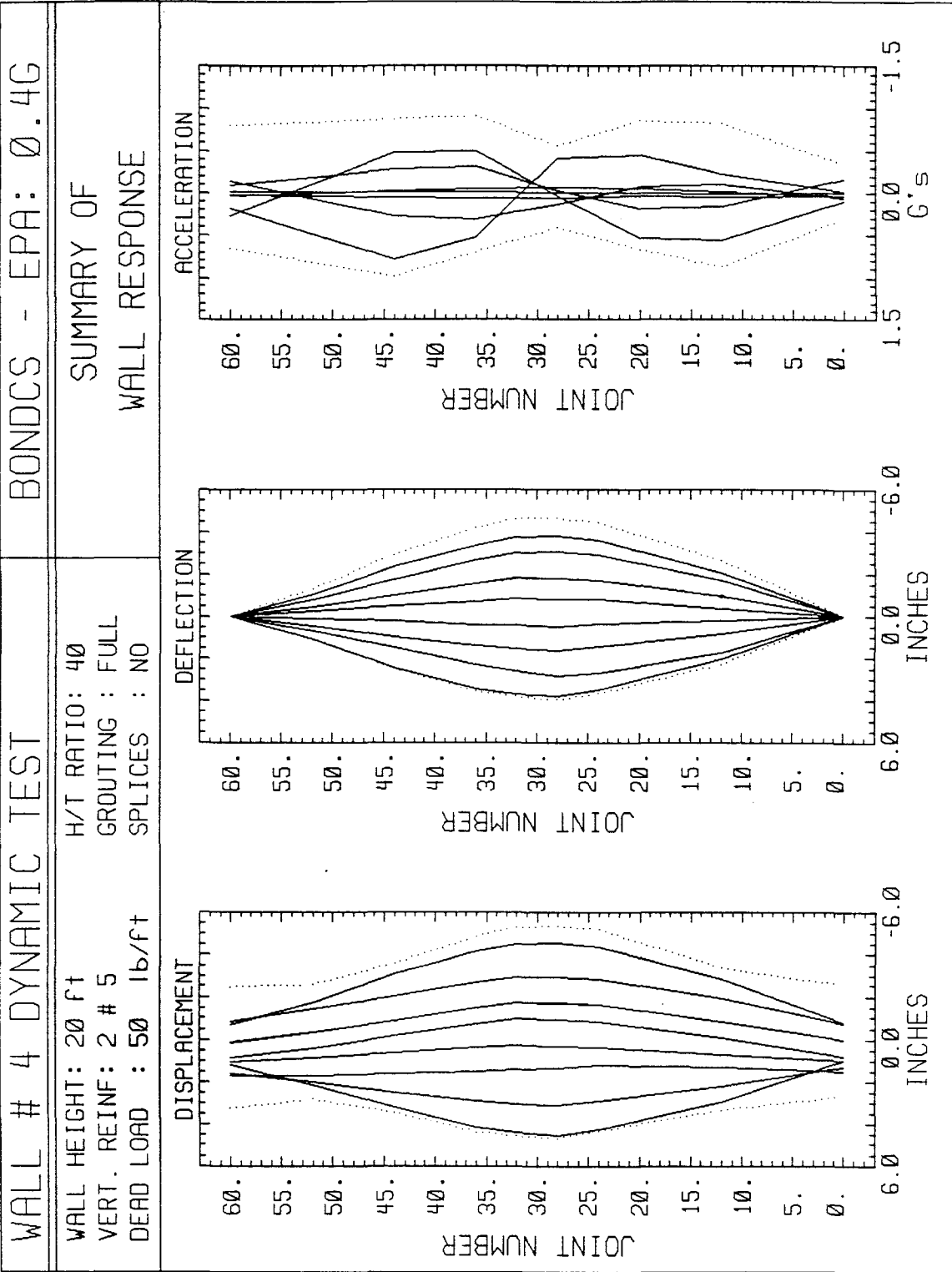
SUMMARY OF
 WALL RESPONSE

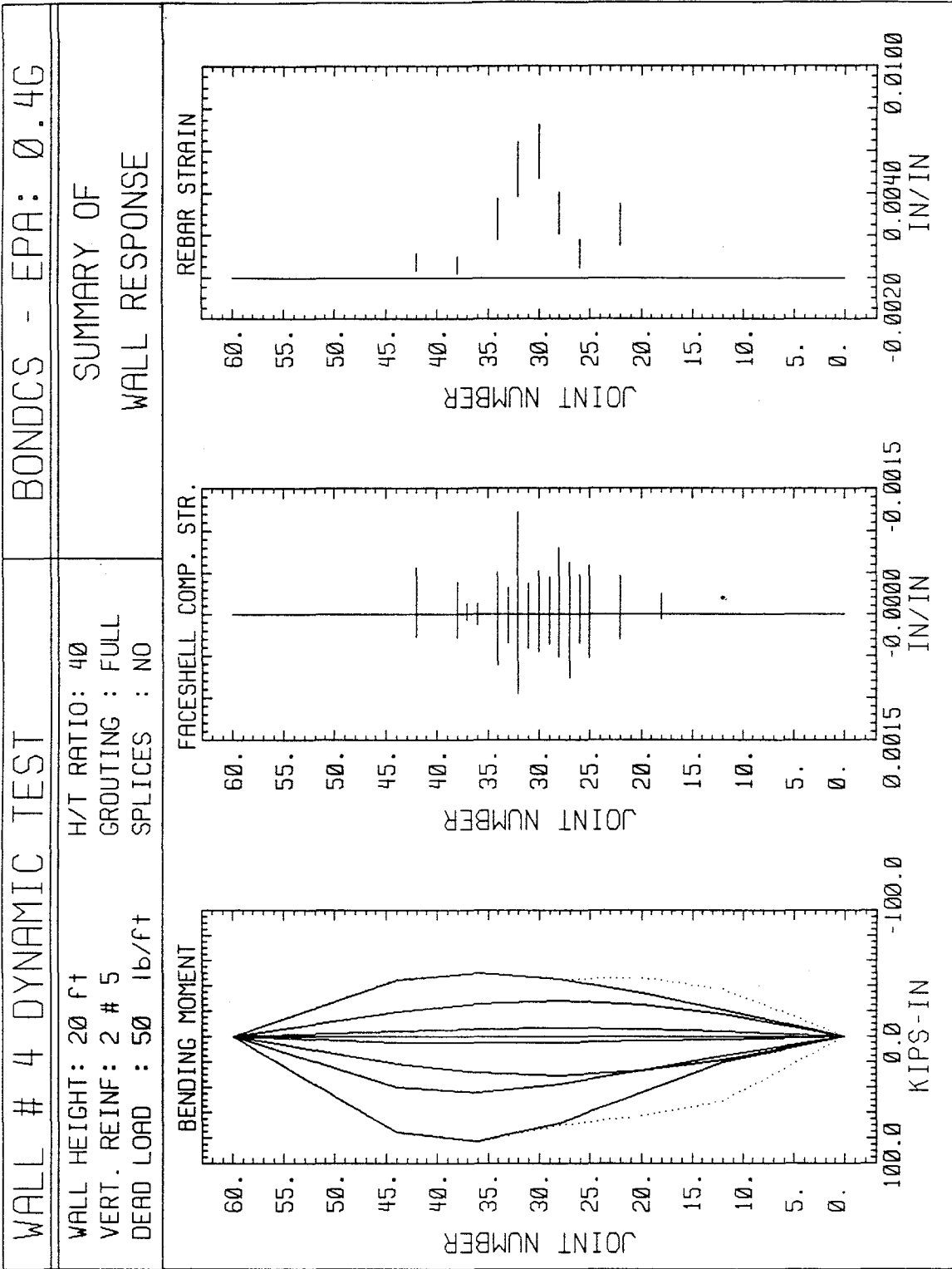


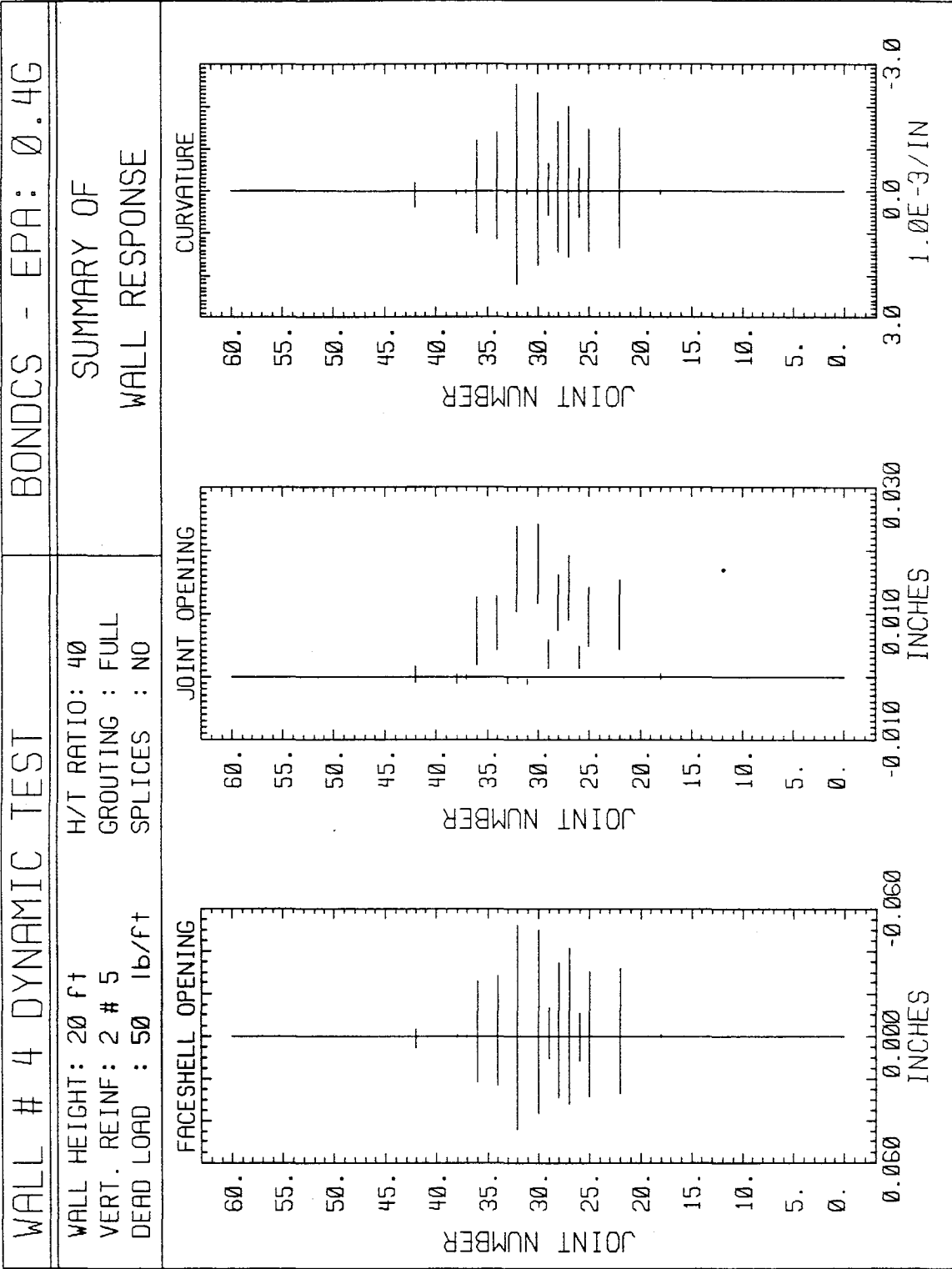


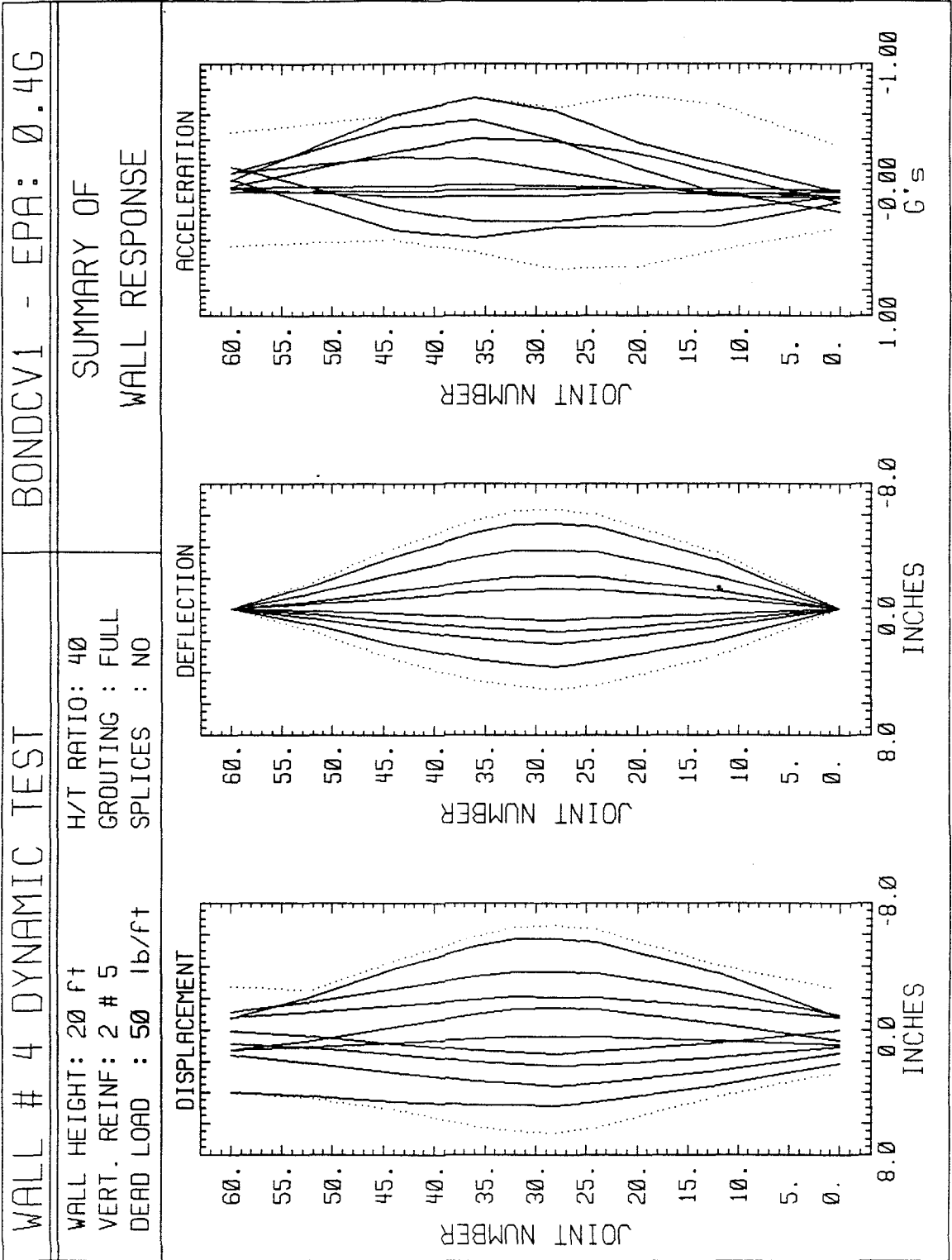


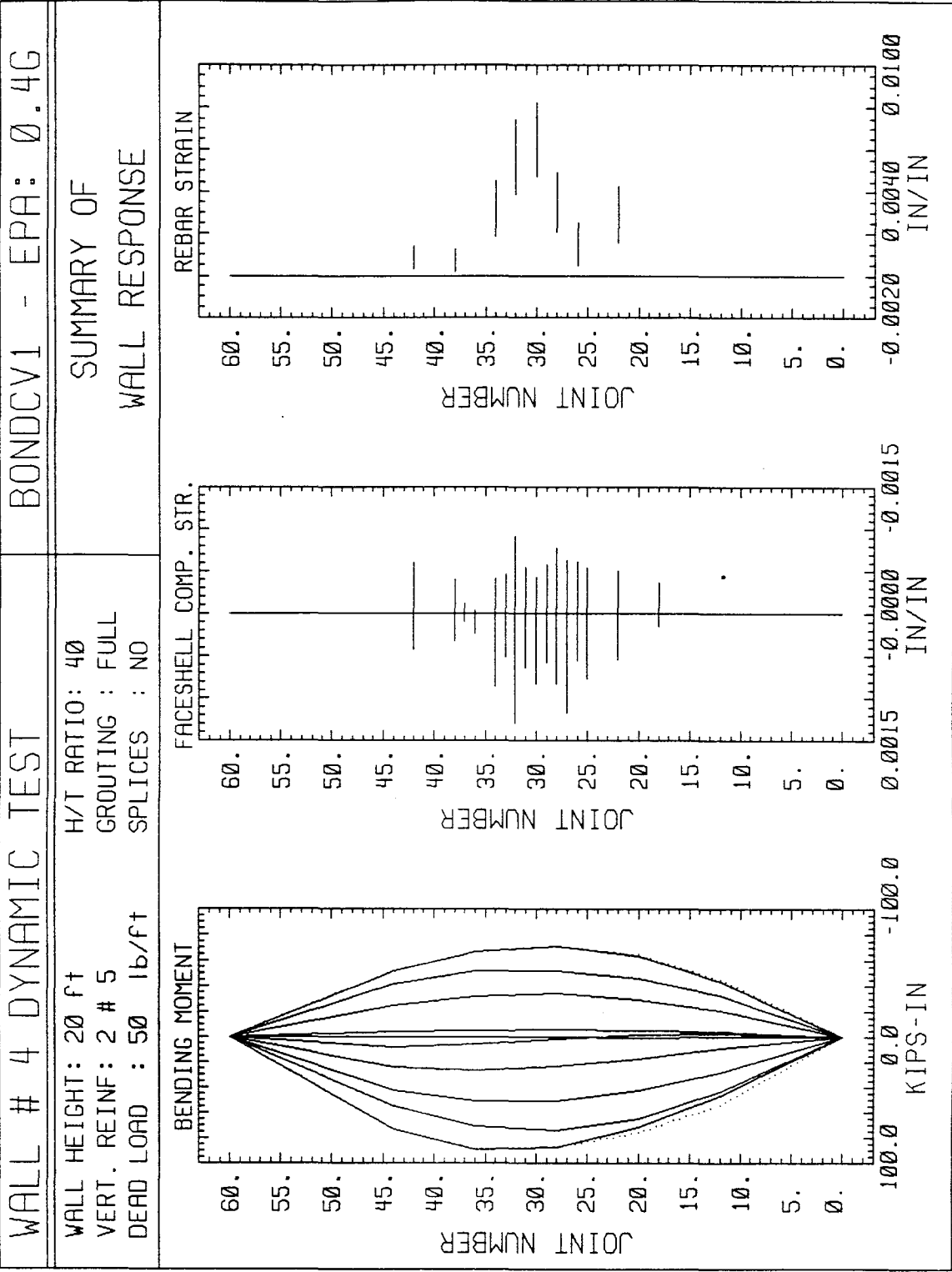


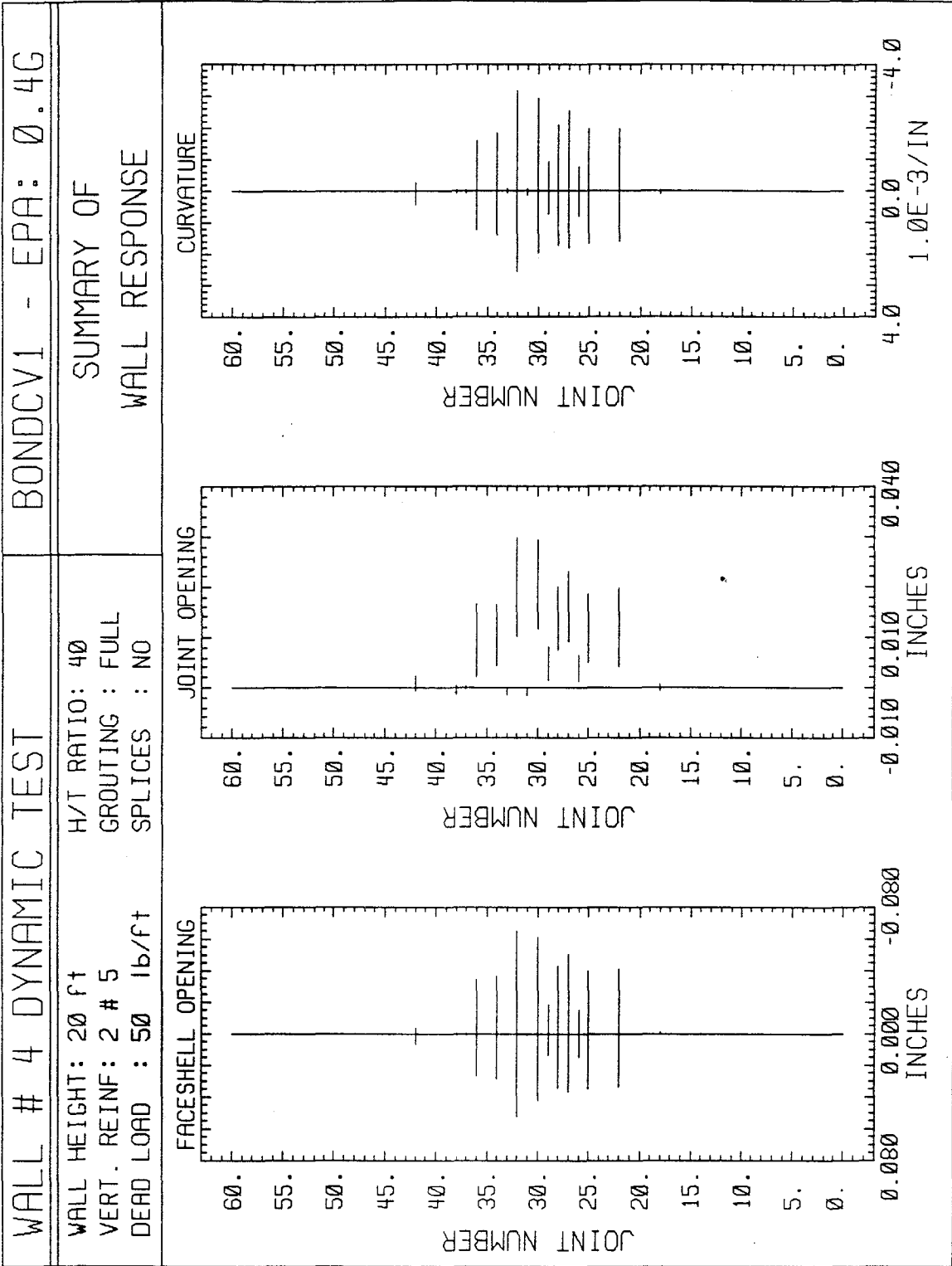








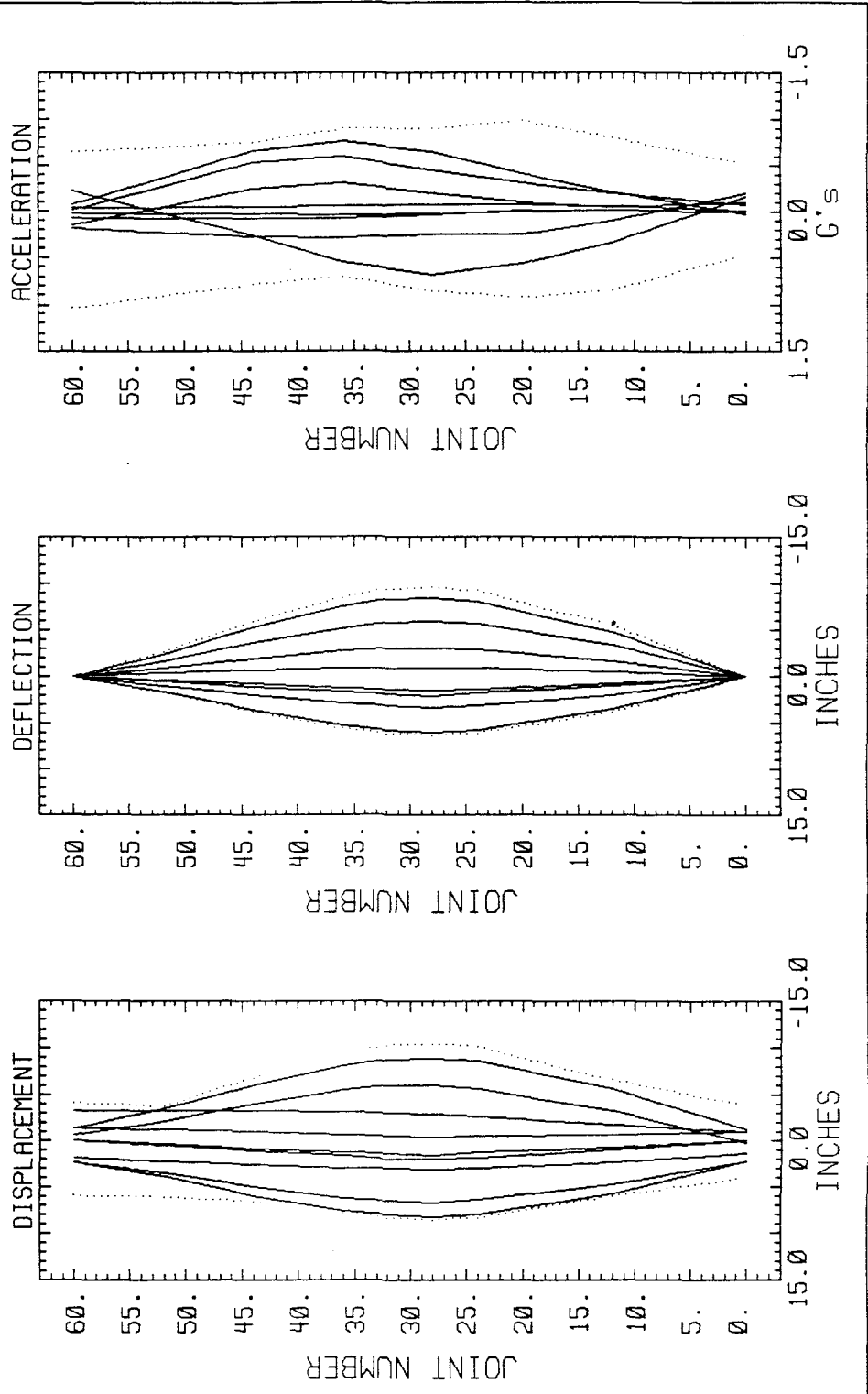


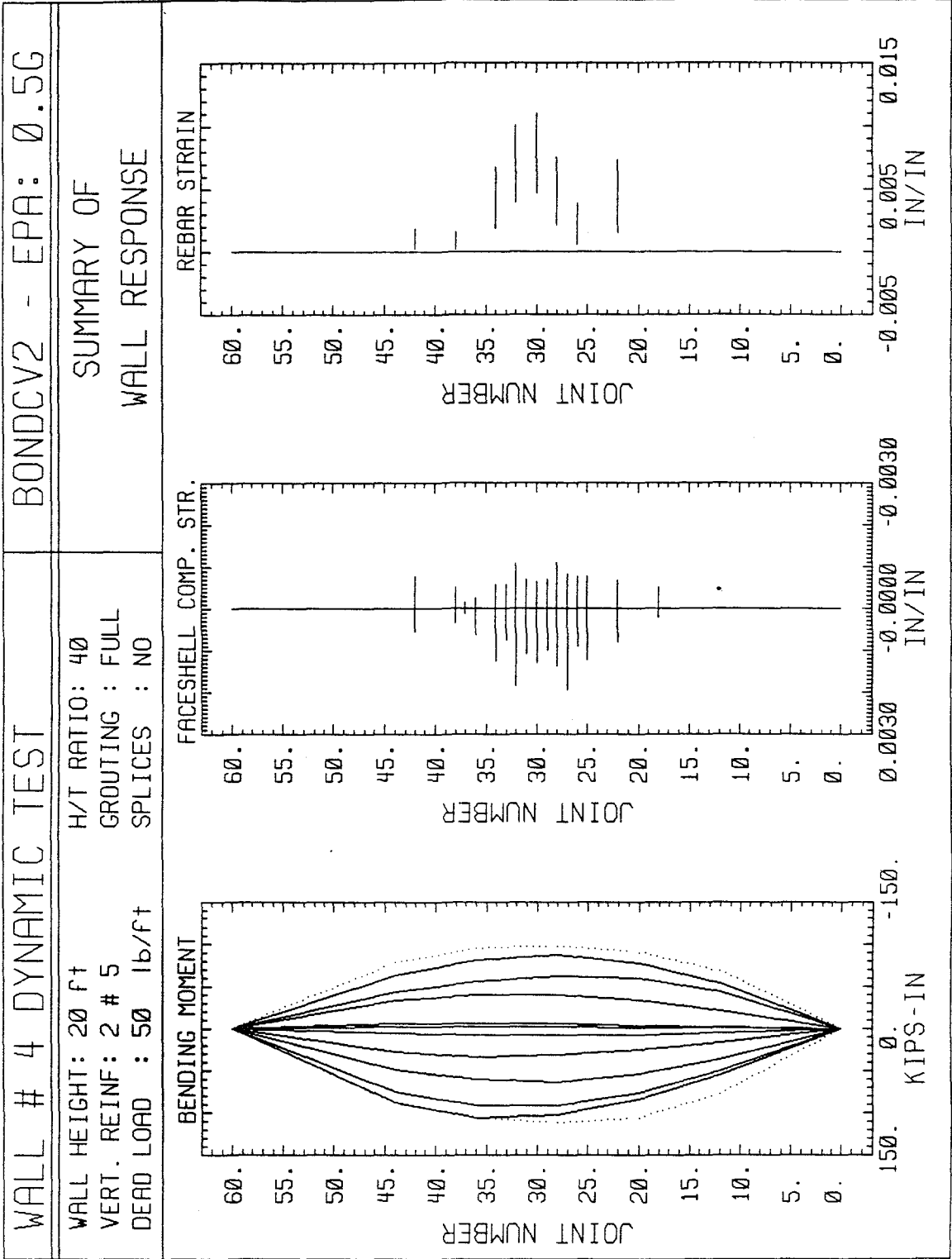


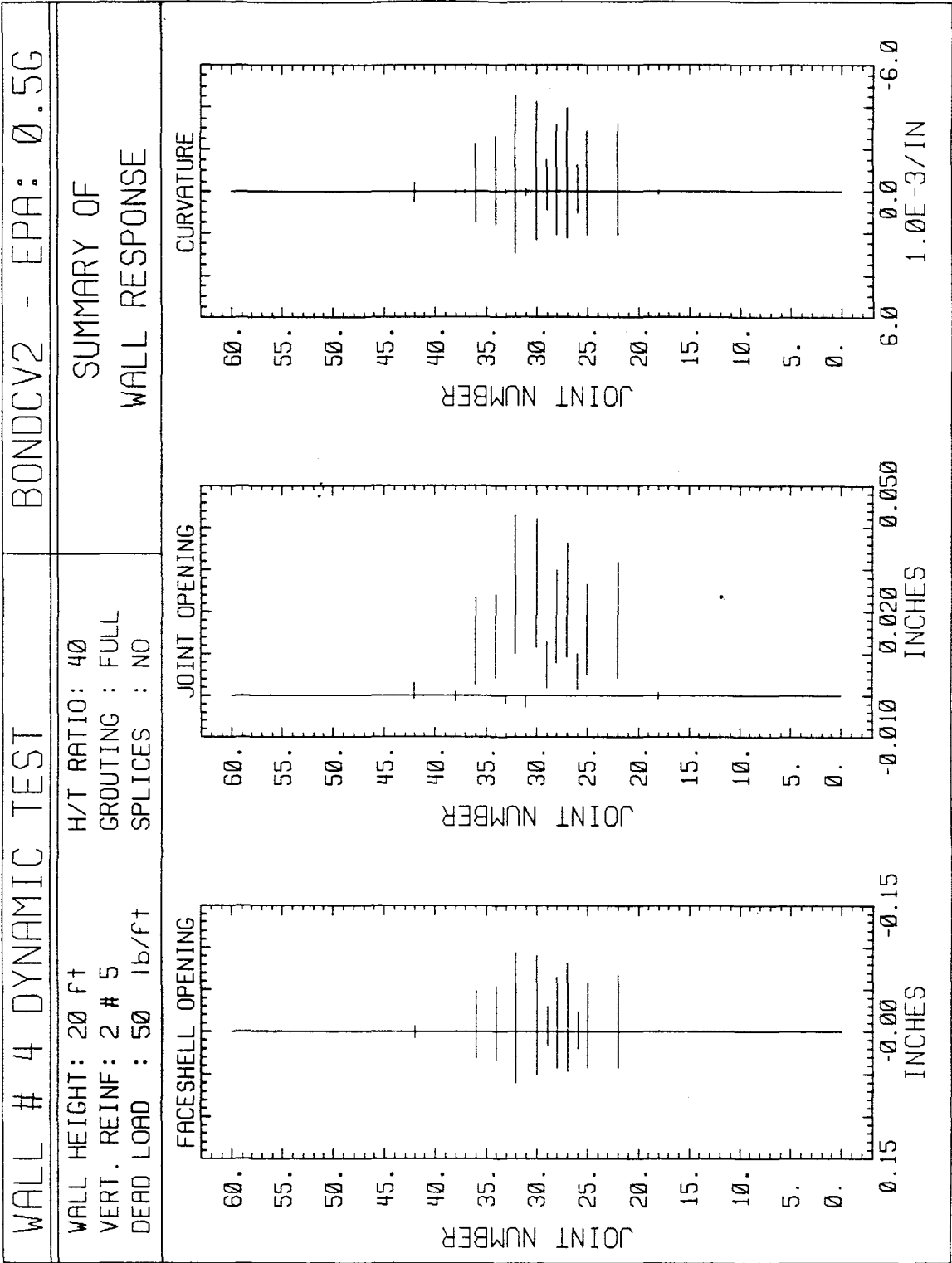
WALL # 4 DYNAMIC TEST

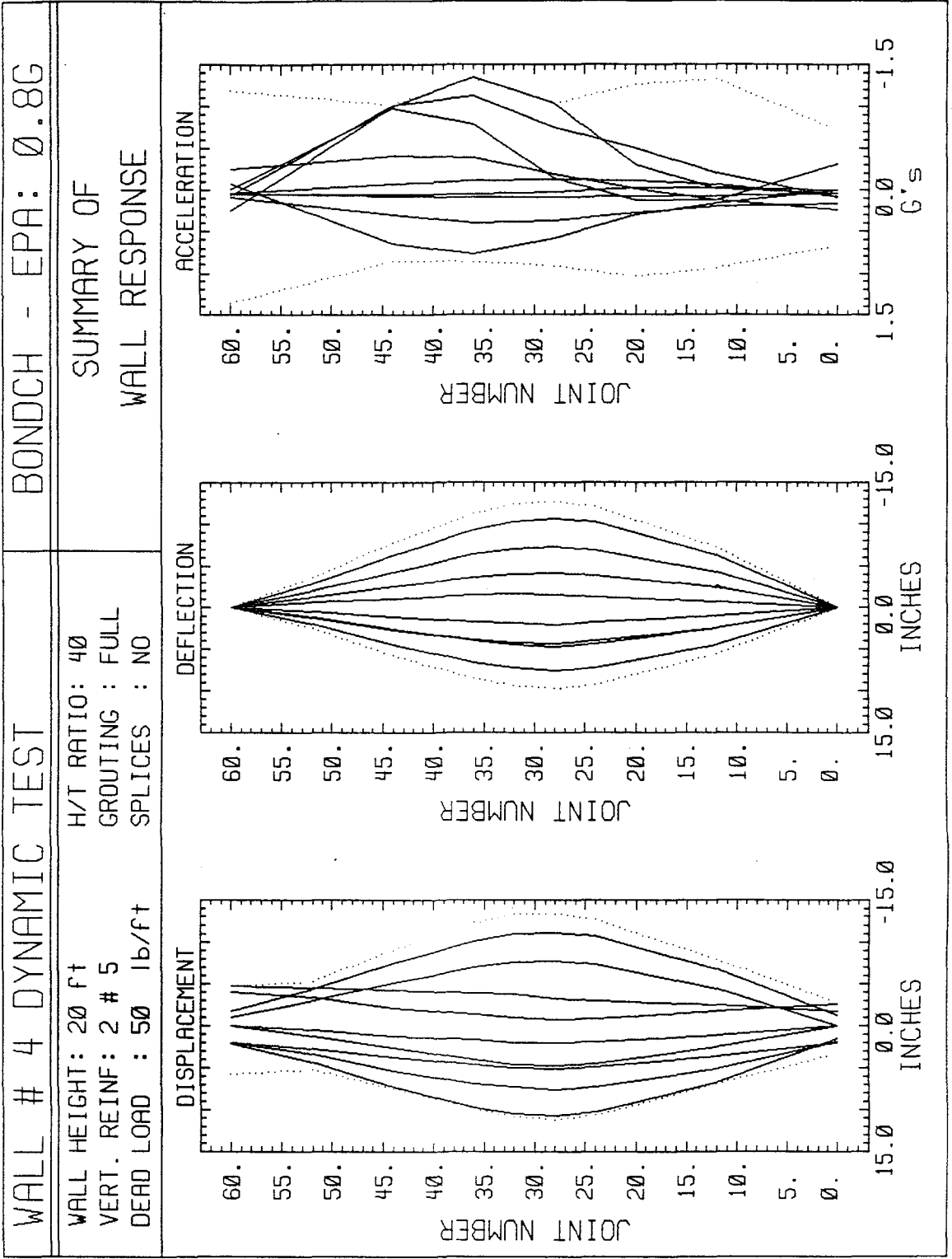
BONDVC2 - EPA: 0.5G

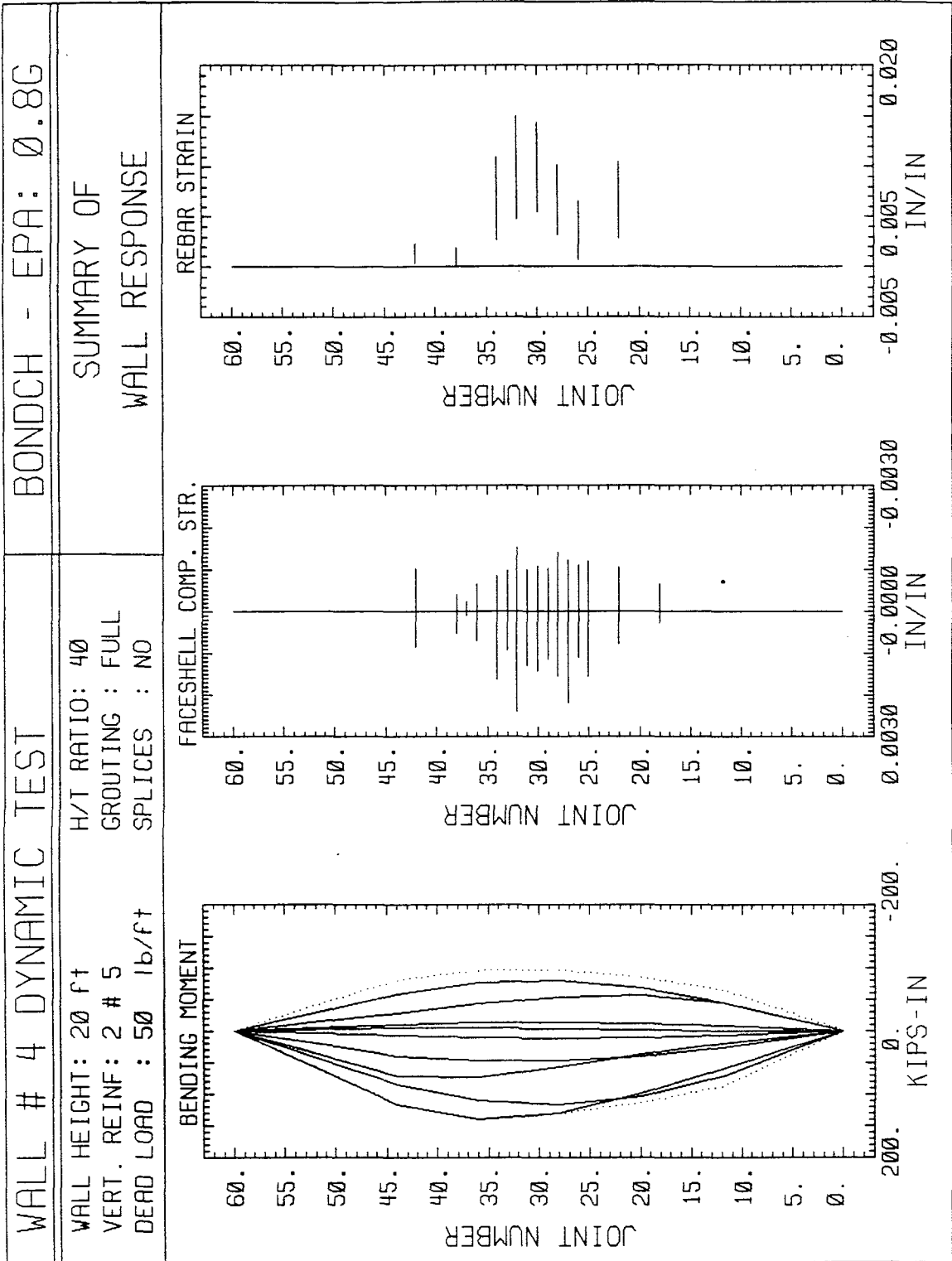
WALL HEIGHT: 20 ft H/T RATIO: 40
 VERT. REINF: 2 # 5 GROUTING : FULL
 DEAD LOAD : 50 lb/ft SPLICES : NO

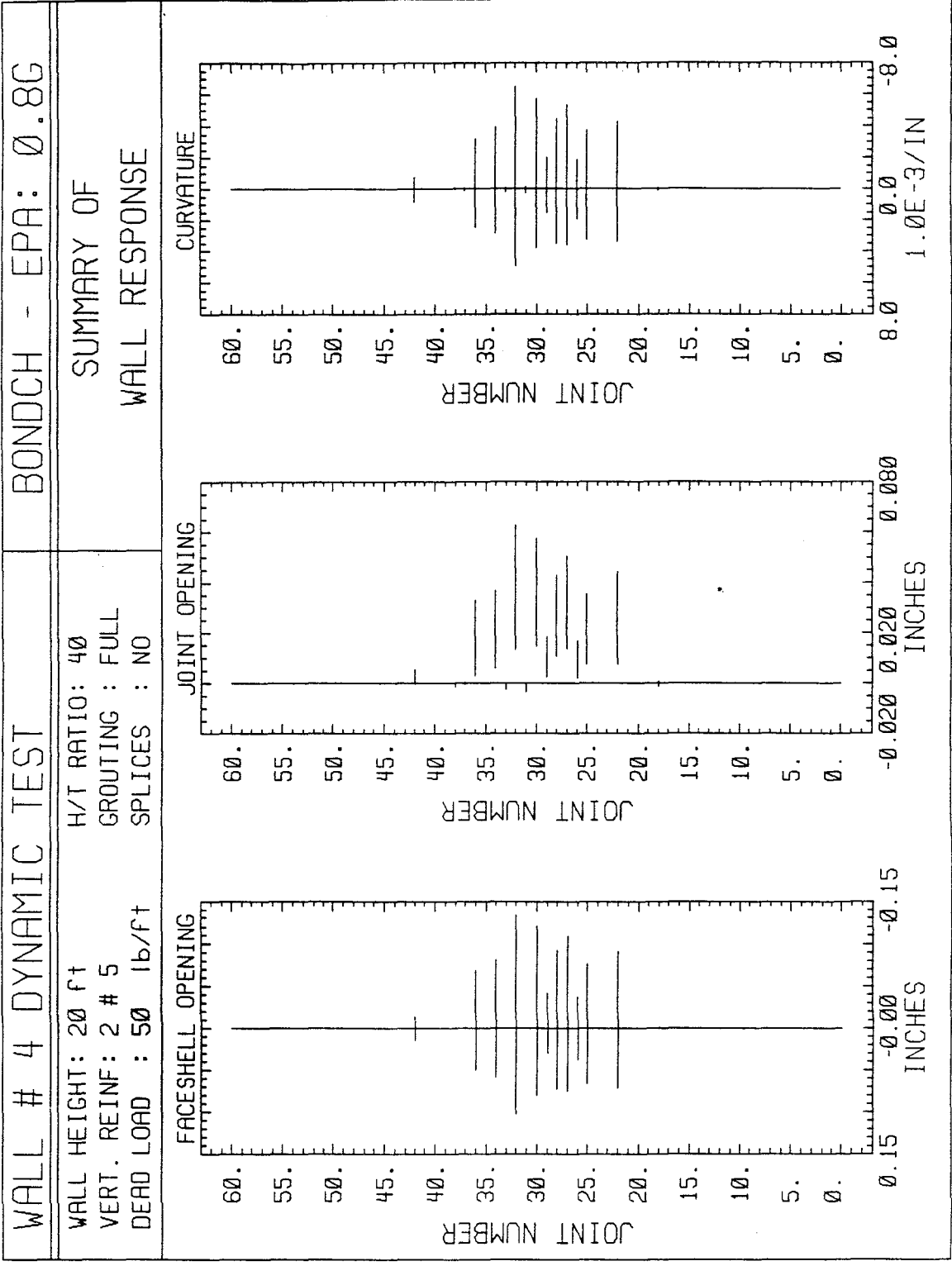


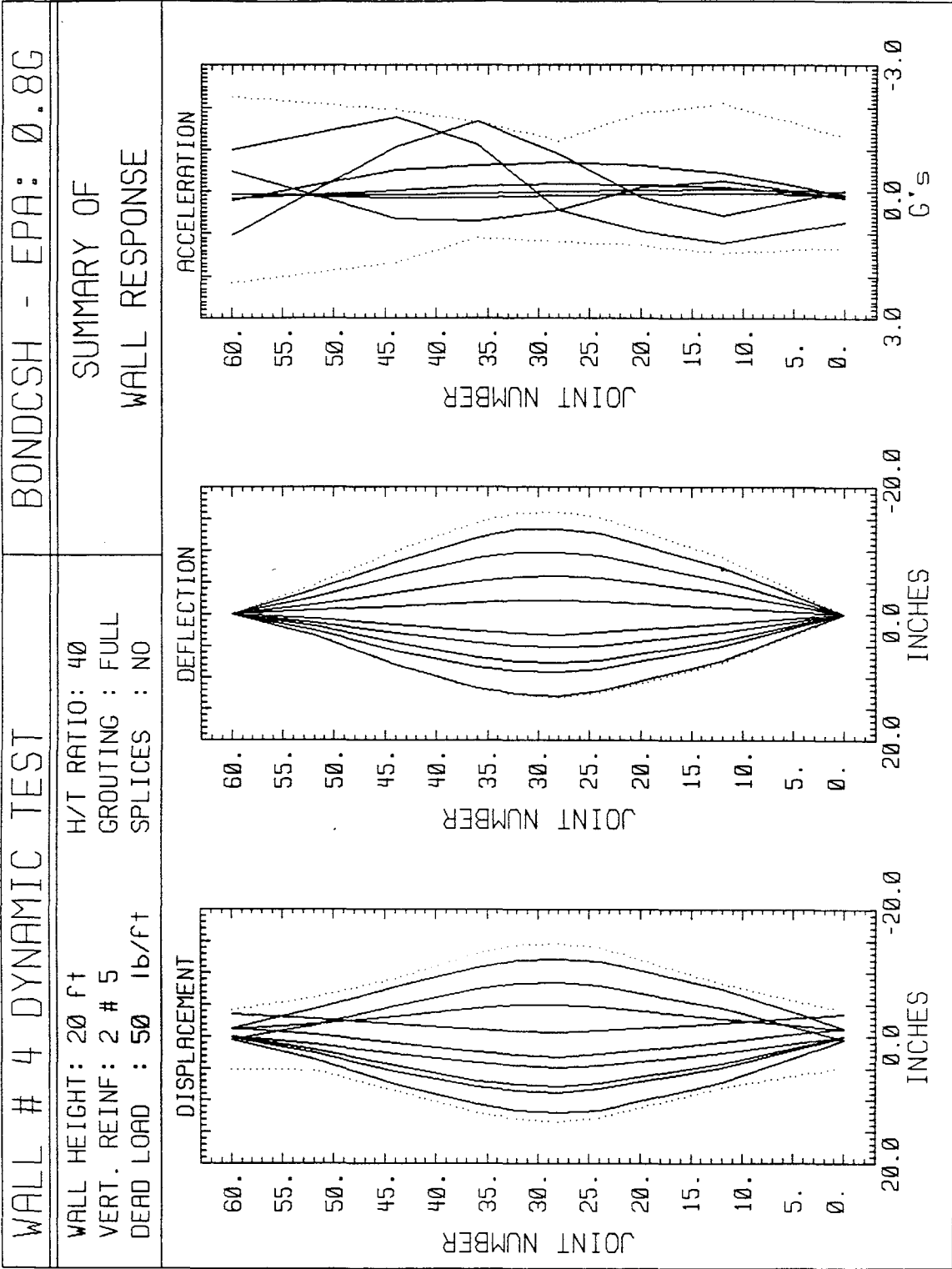












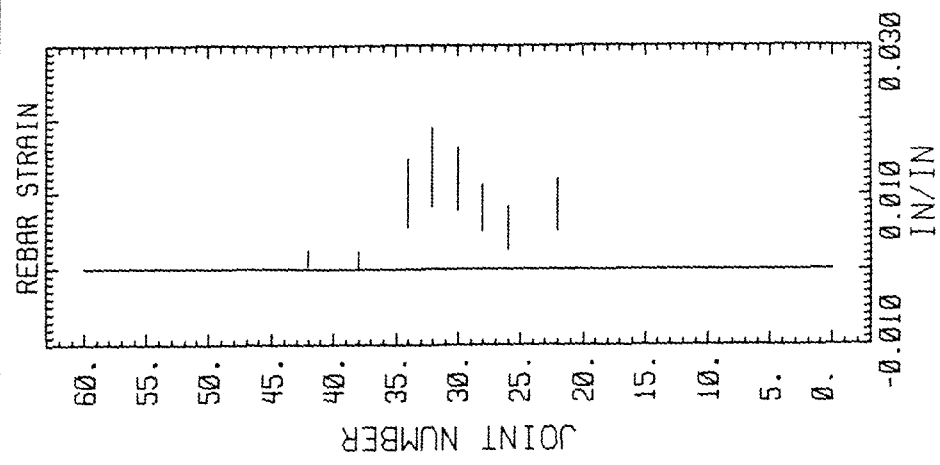
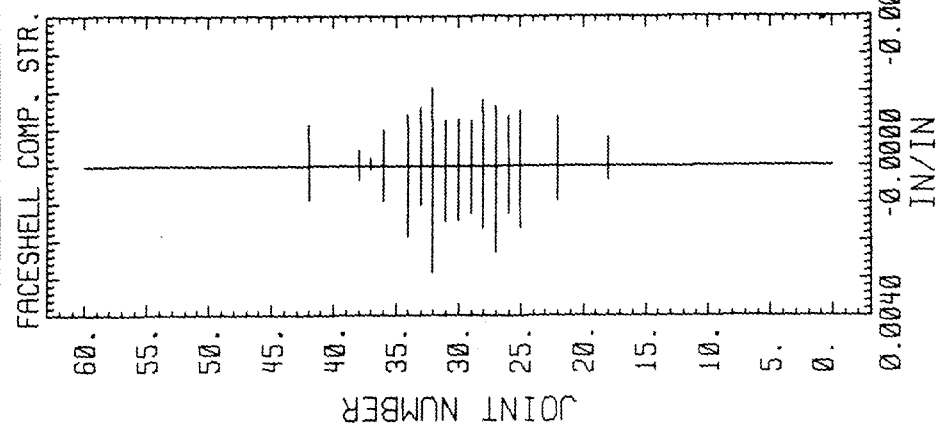
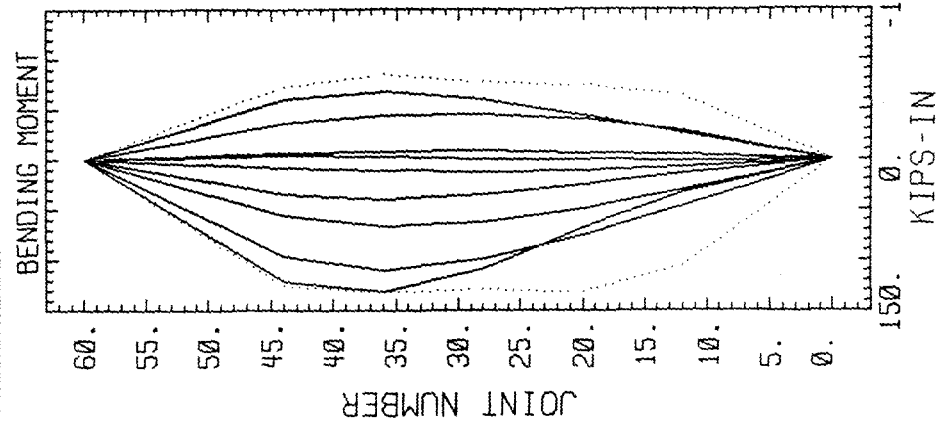
4 DYNAMIC TEST

BOND-CSH - EPA: 0.8G

WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

SUMMARY OF
 WALL RESPONSE

H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO



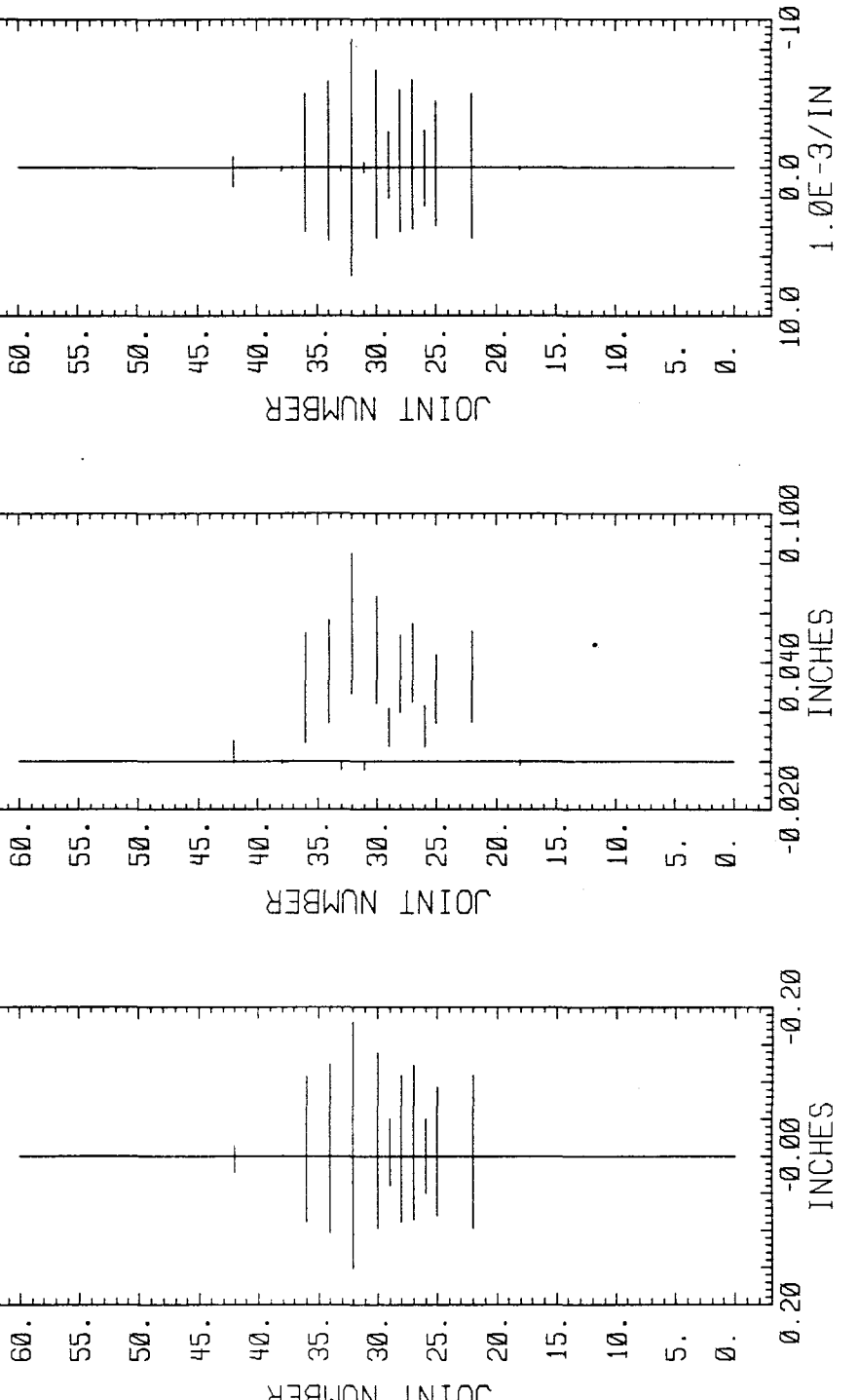
WALL # 4 DYNAMIC TEST

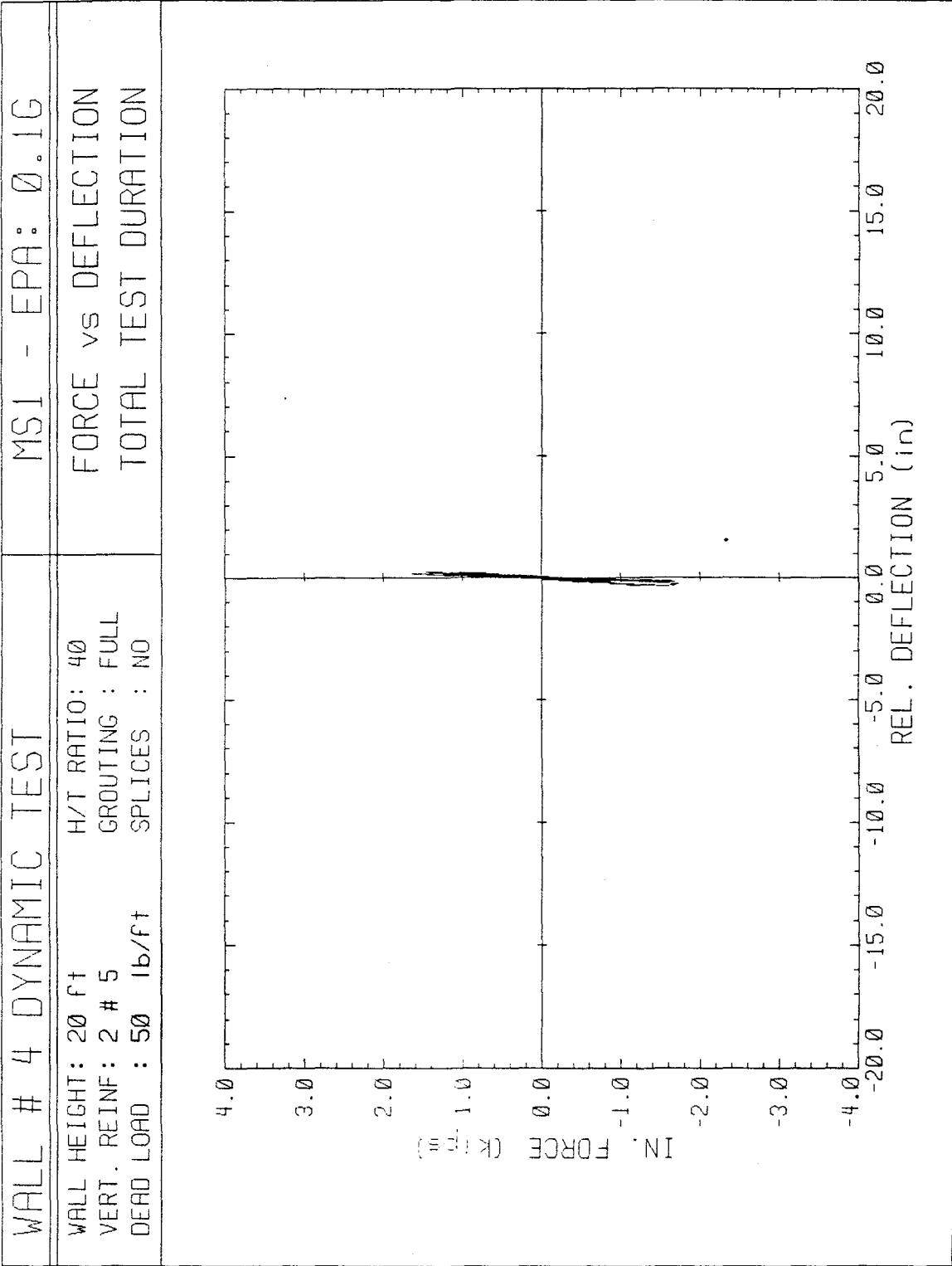
BONDCSH - EPA: 0.8G

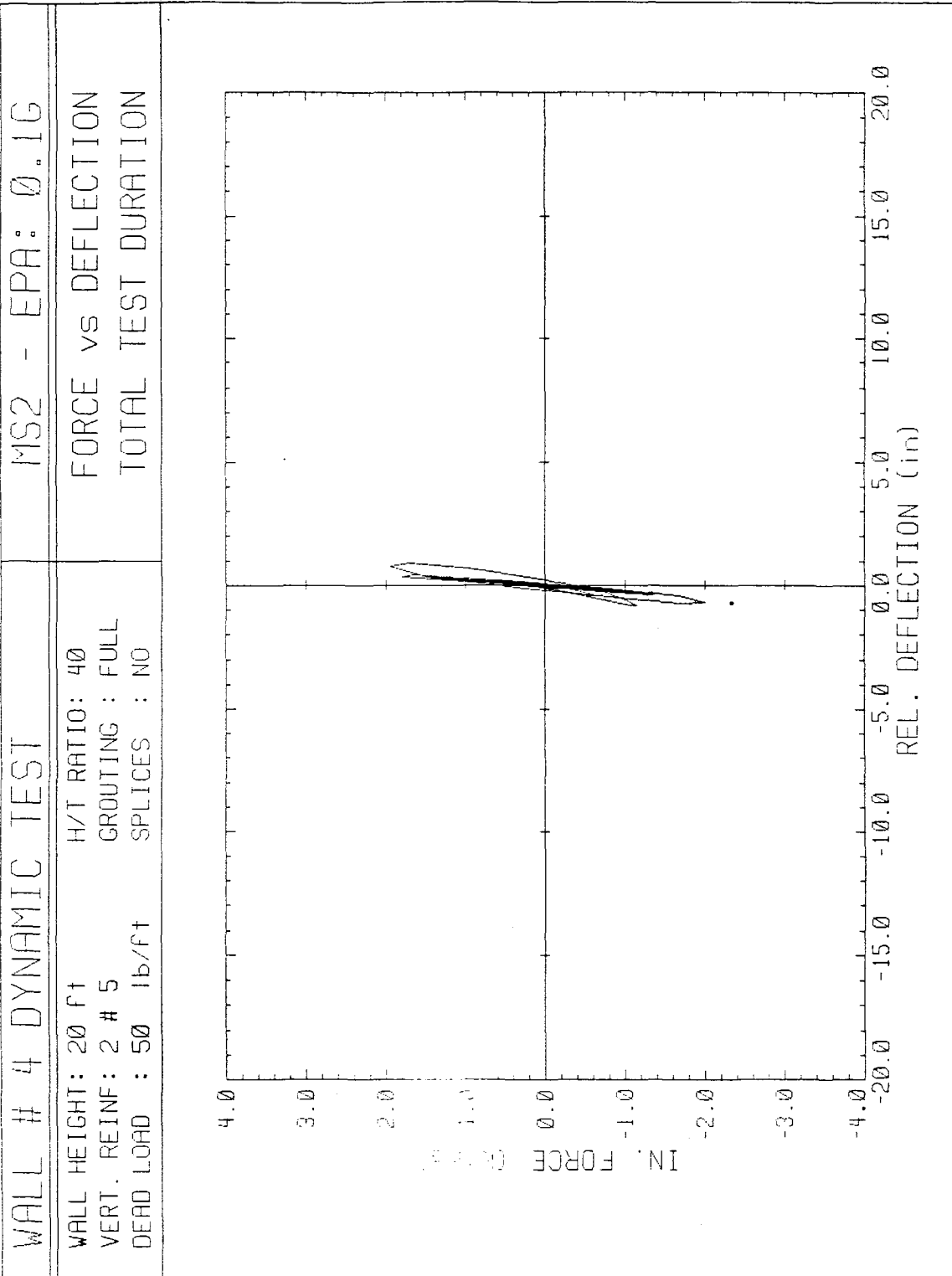
WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 50 lb/ft

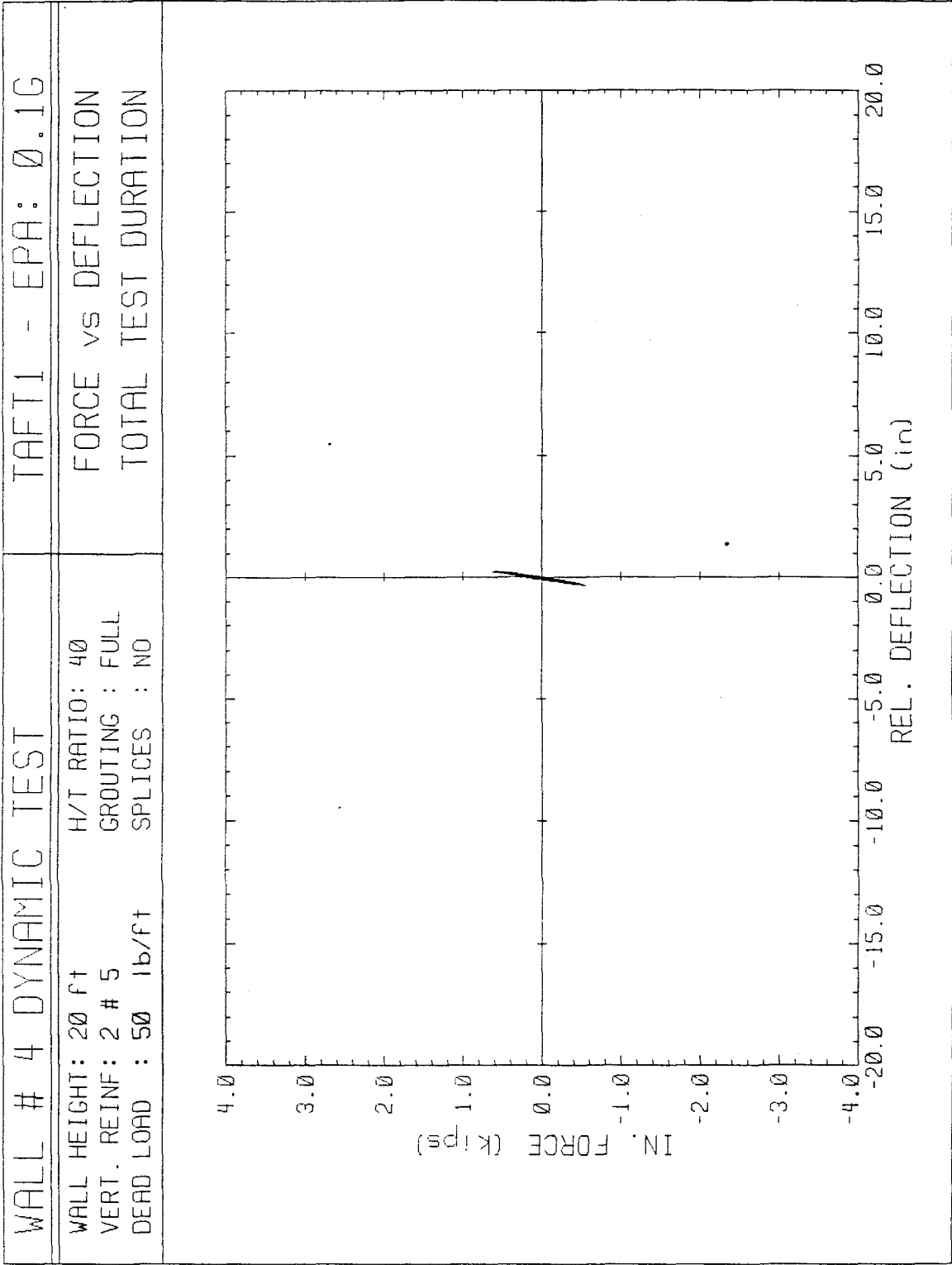
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

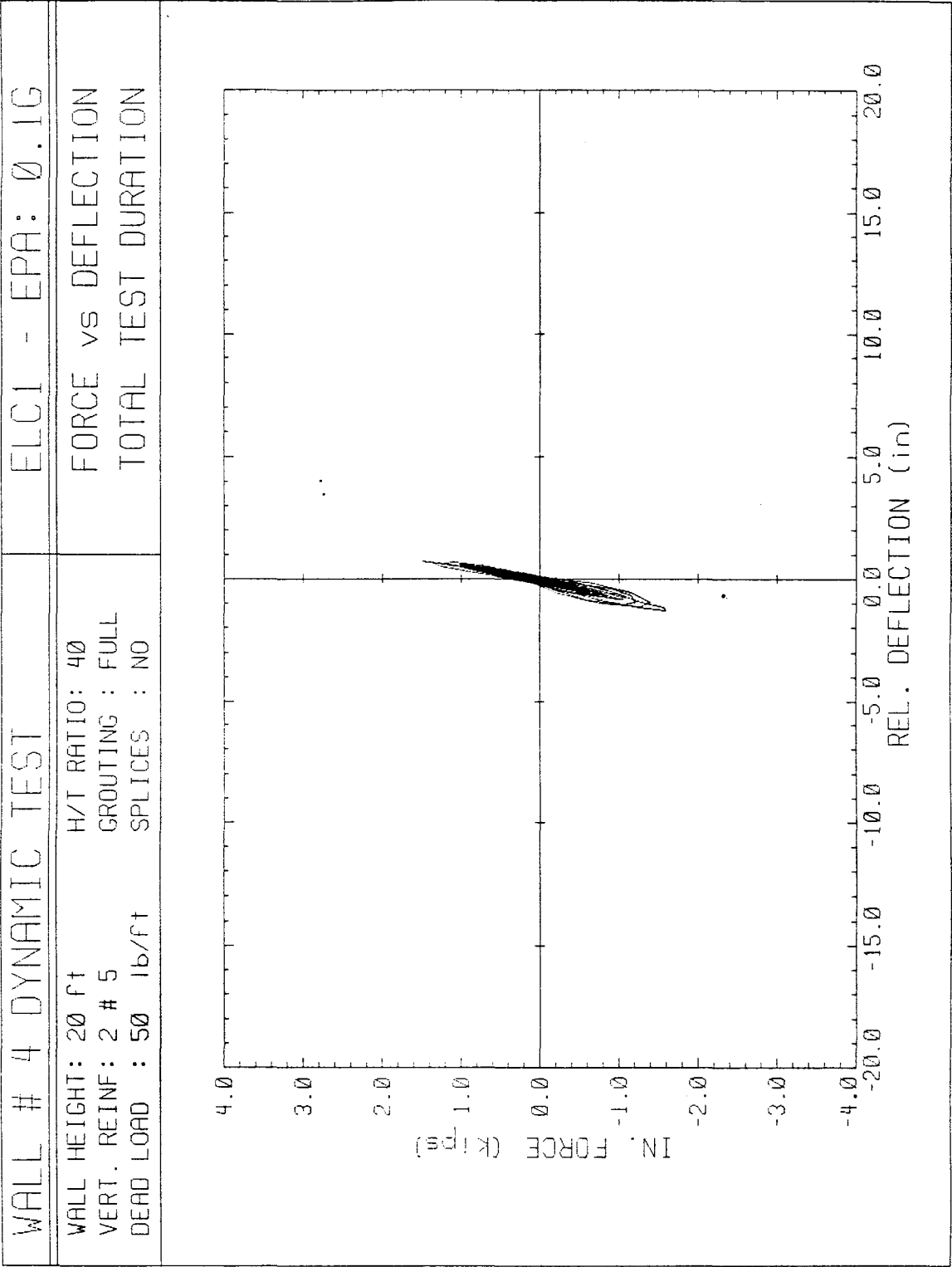
SUMMARY OF WALL RESPONSE

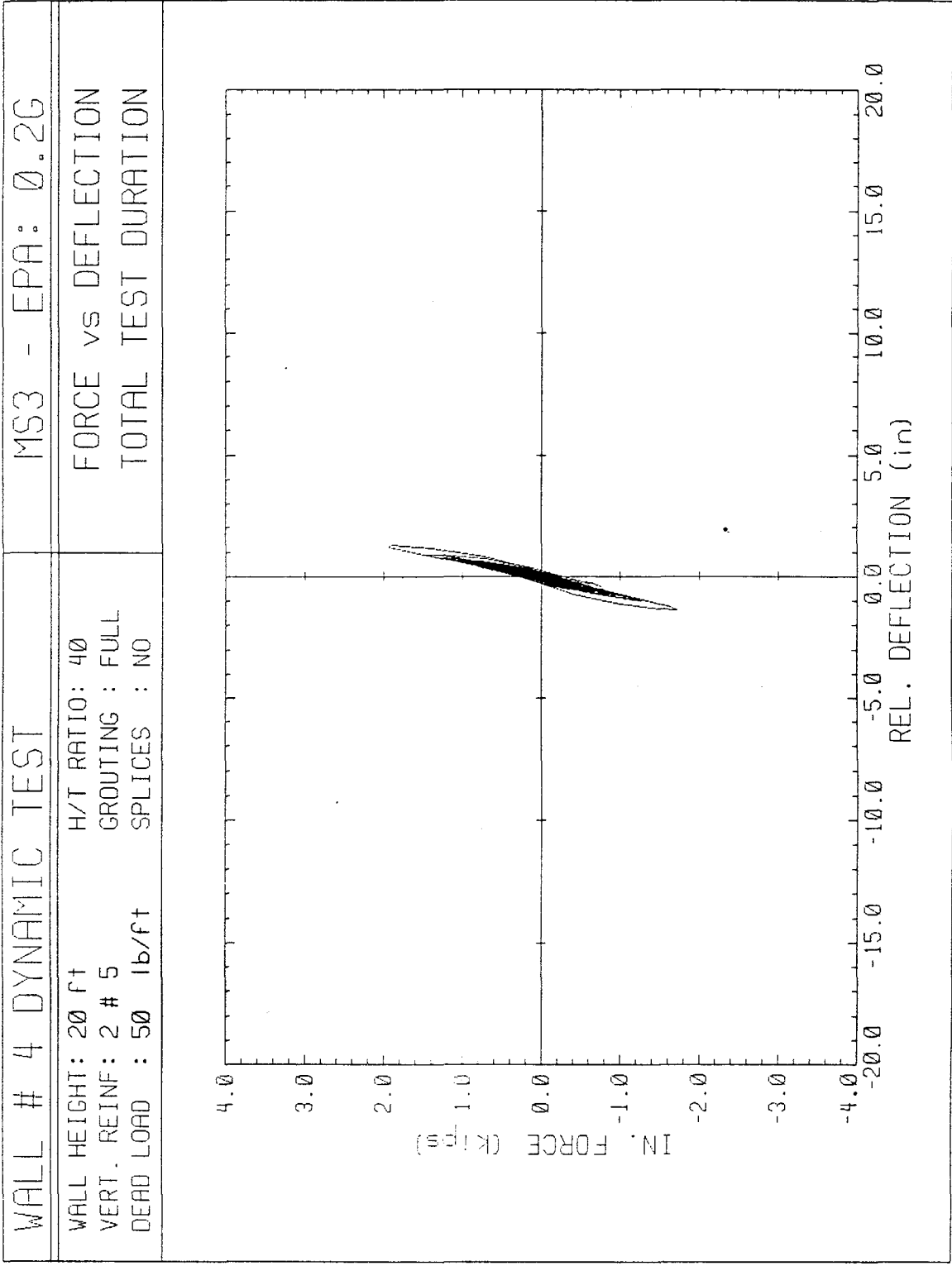


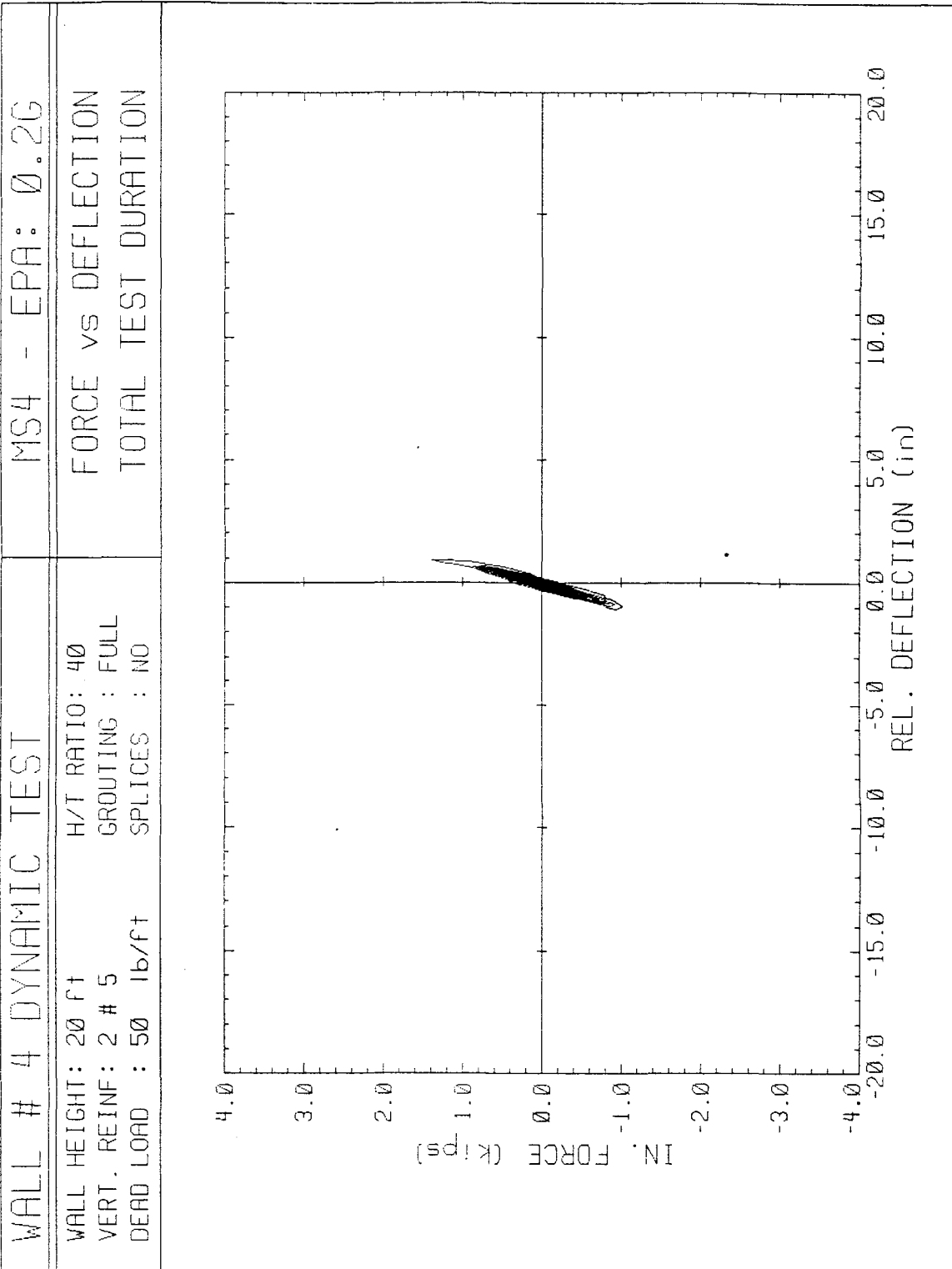


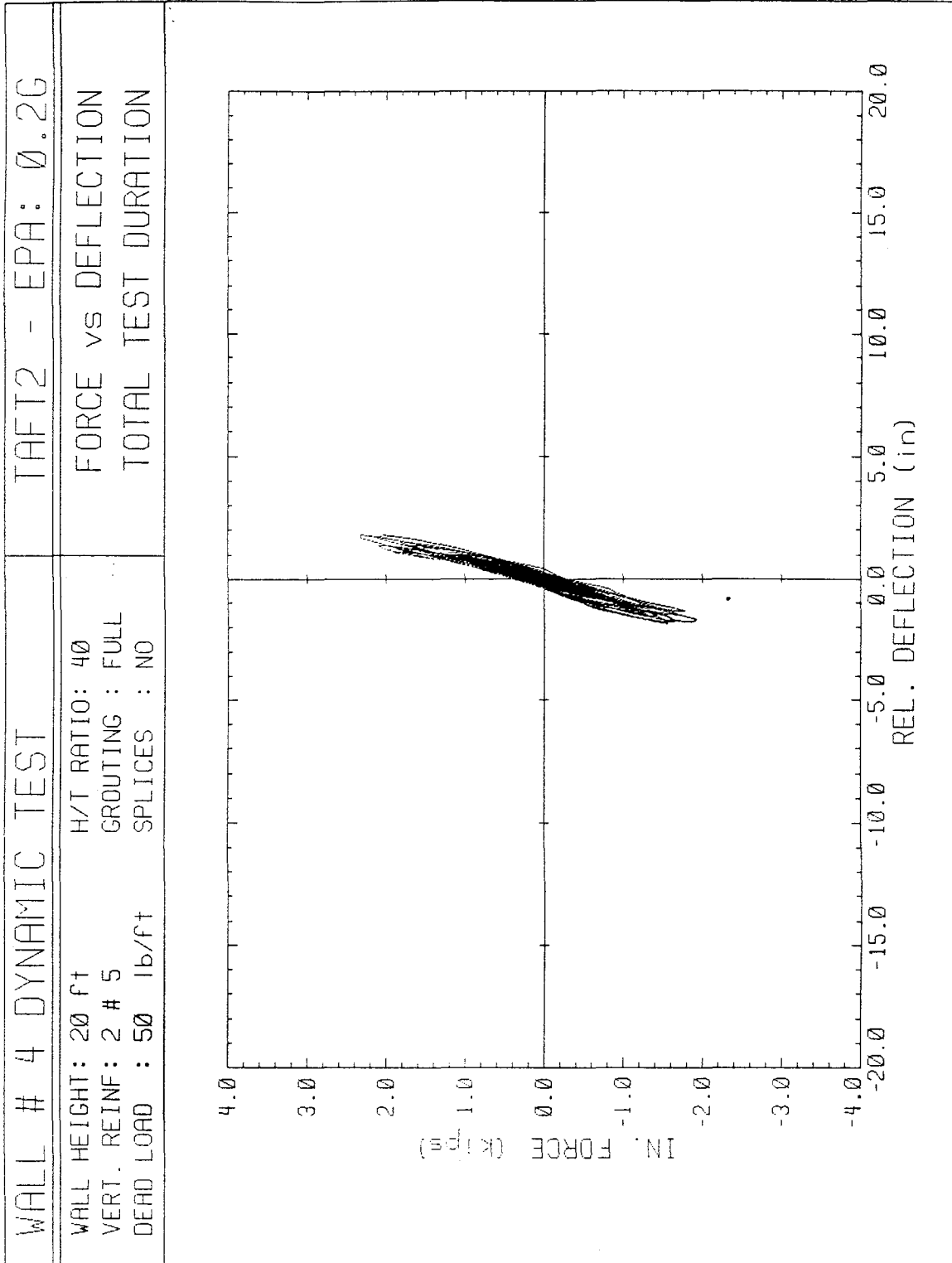




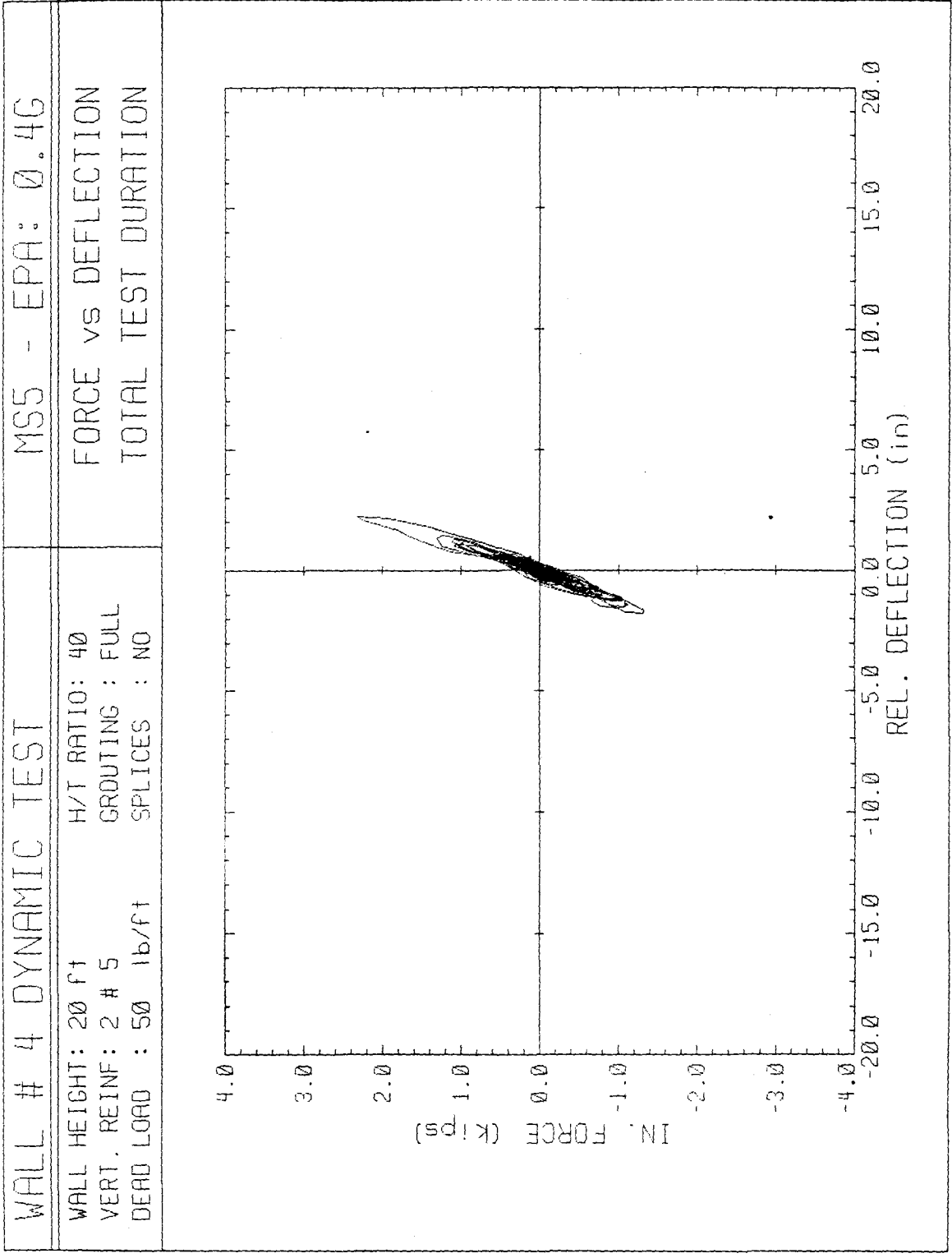


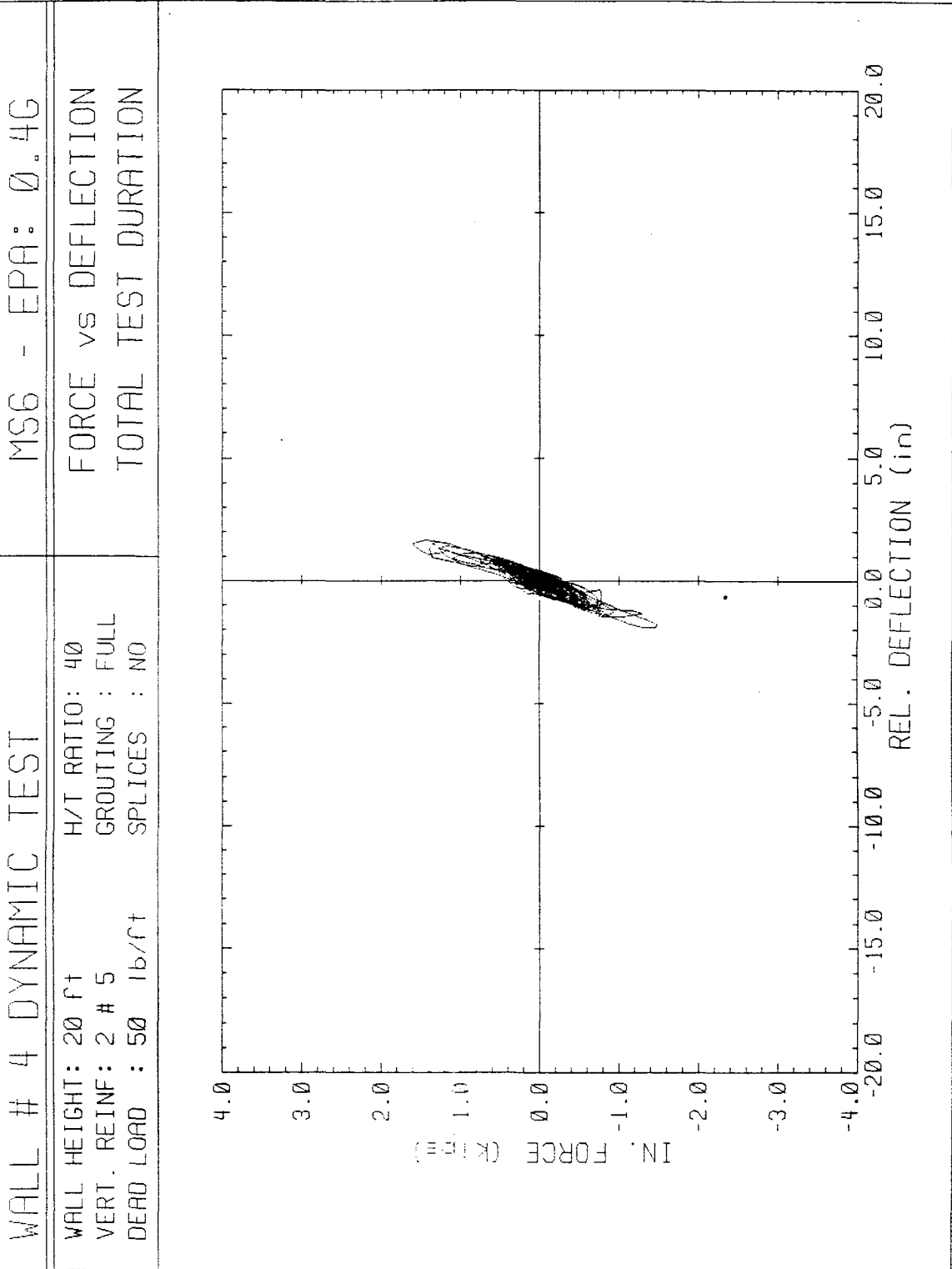


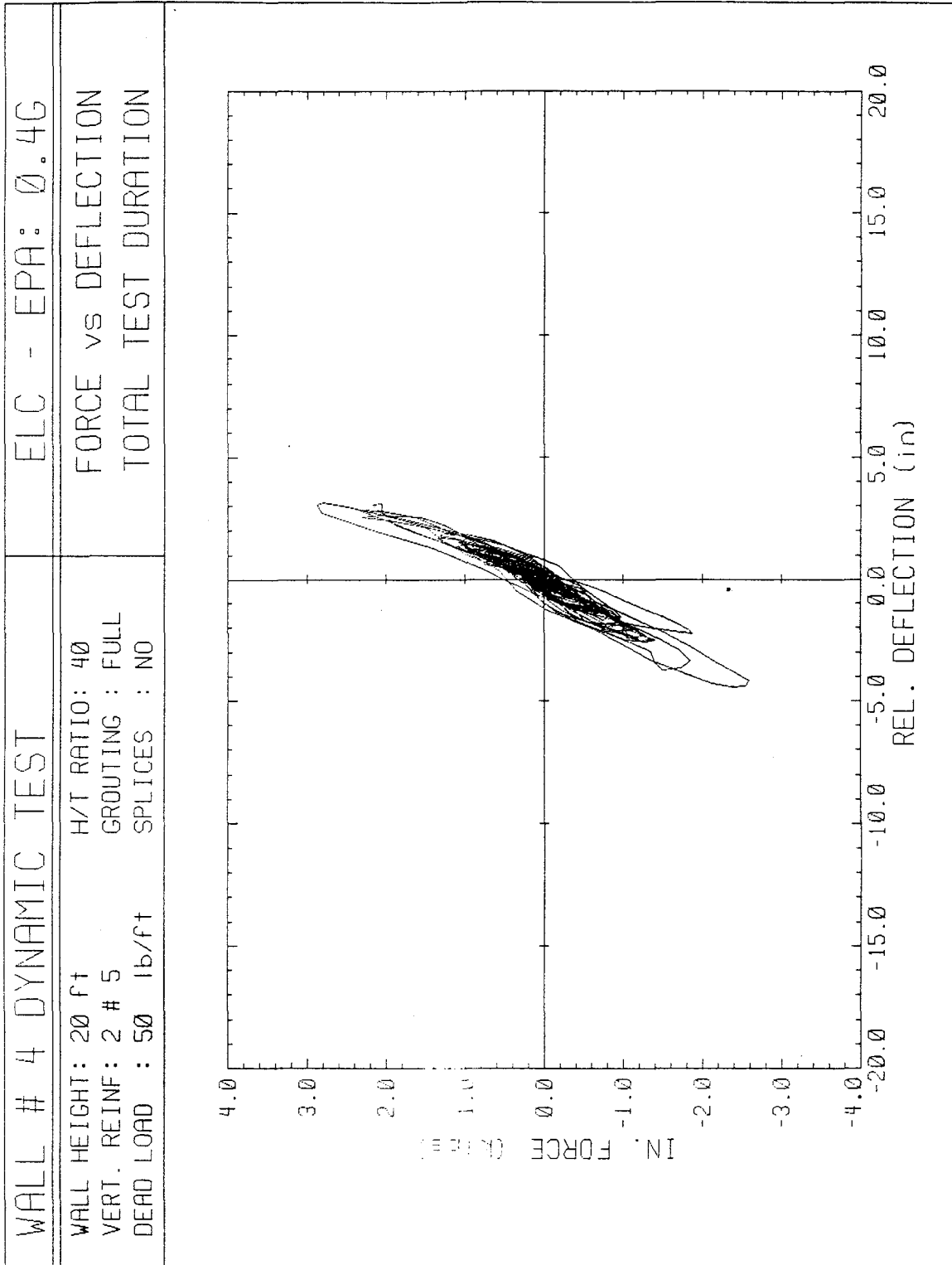


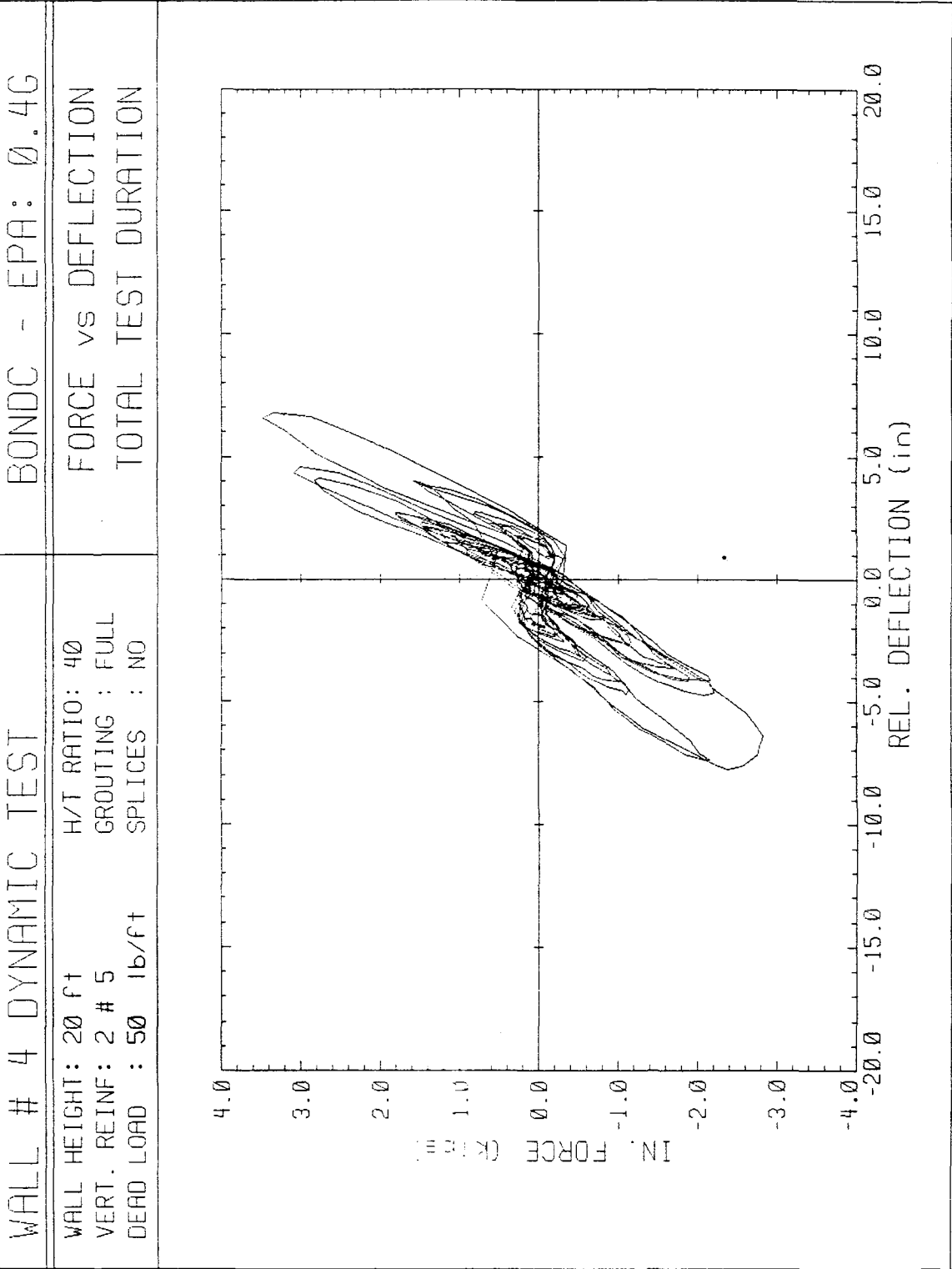


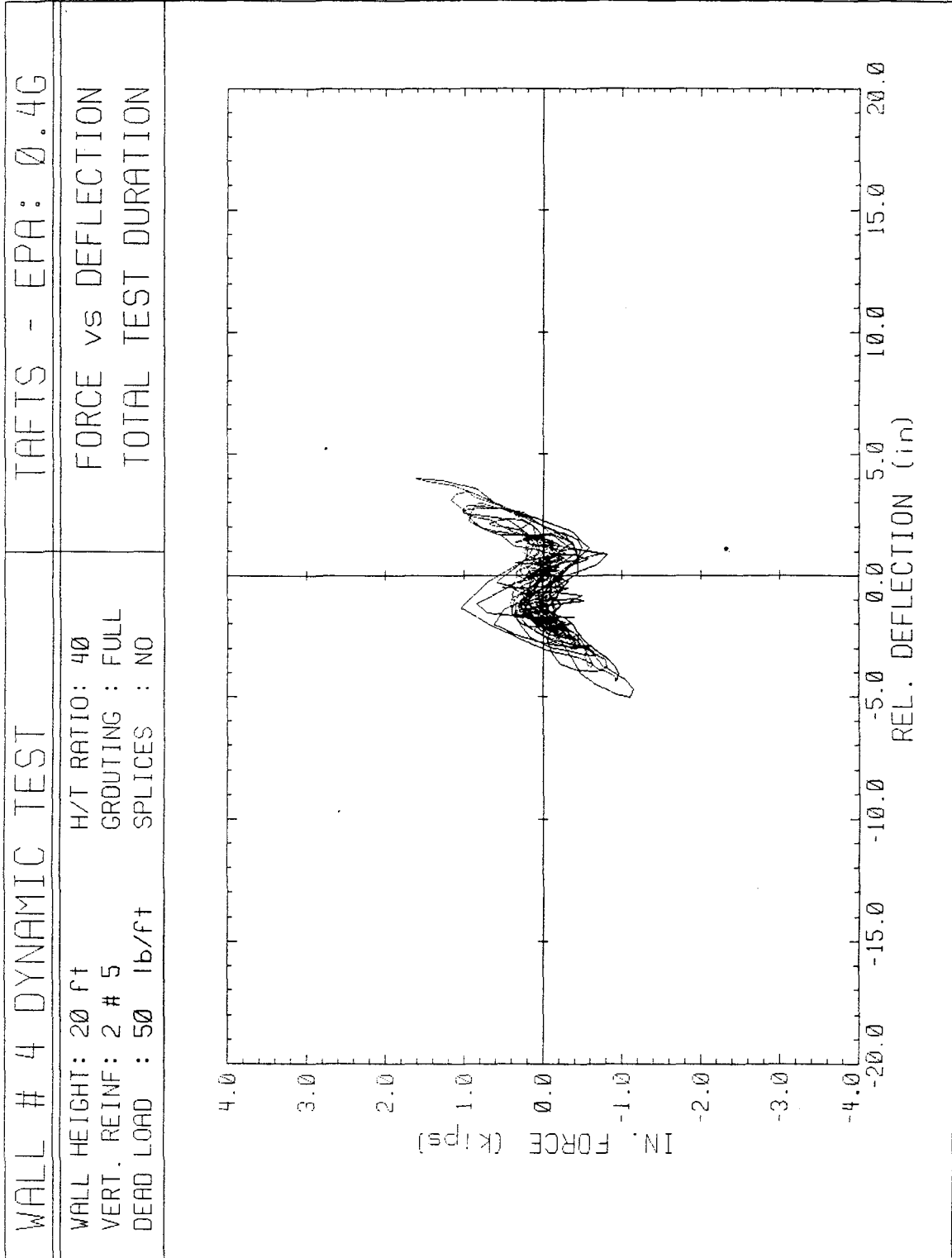
WALL # 4 DYNAMIC TEST	ELC2 - EPA: 0.2G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 50 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
FORCE vs DEFLECTION	
TOTAL TEST DURATION	











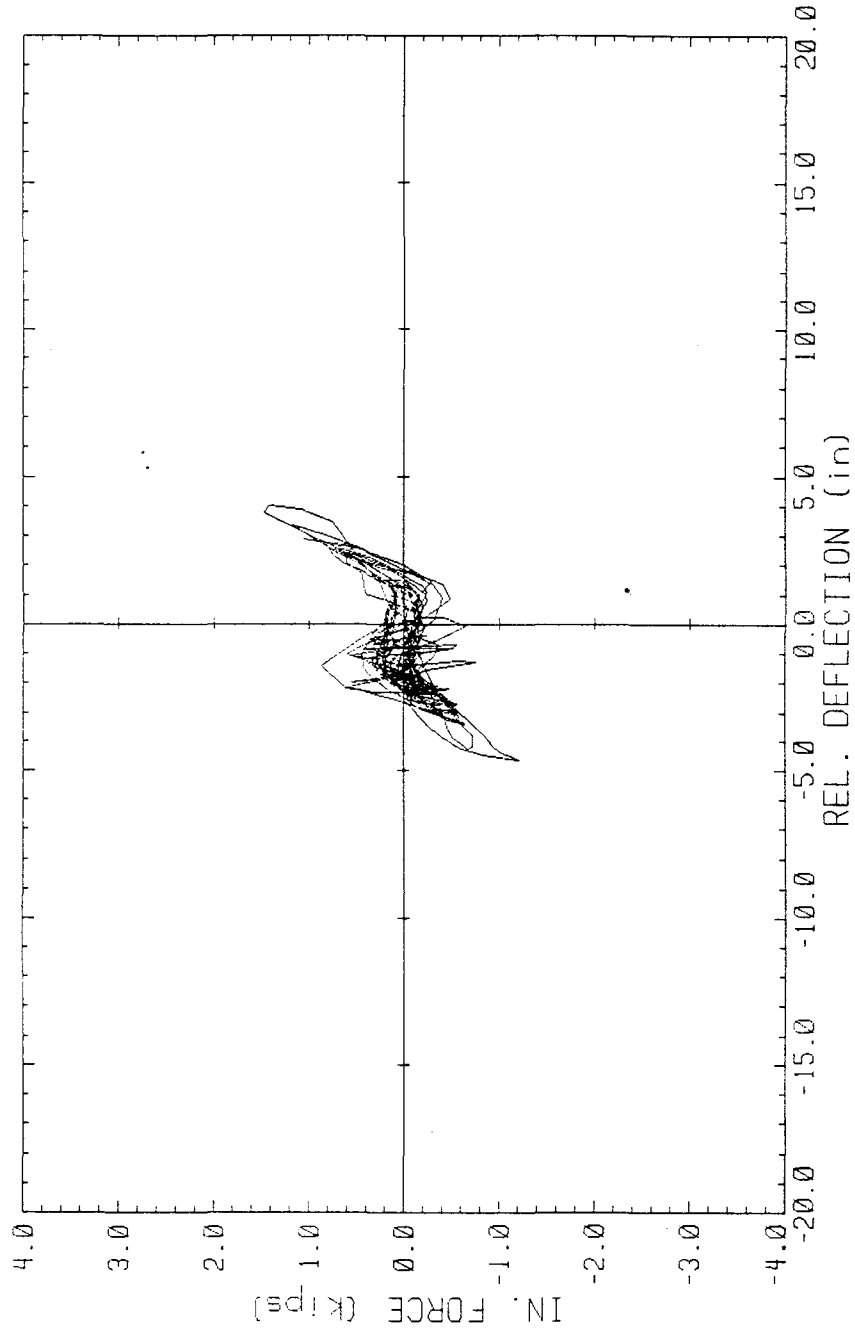
WALL # 4 DYNAMIC TEST

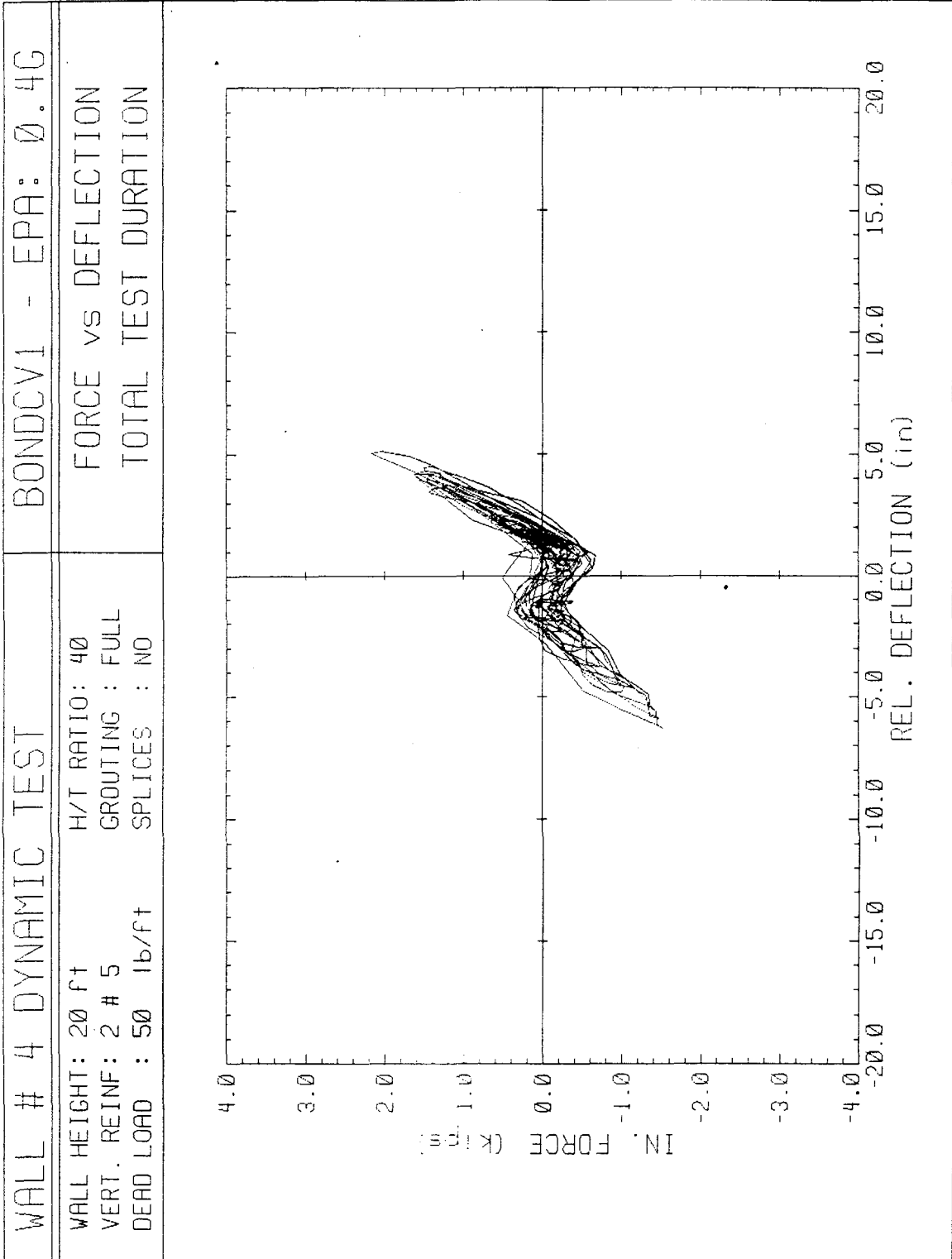
BONDACS - EPA: 0.4G

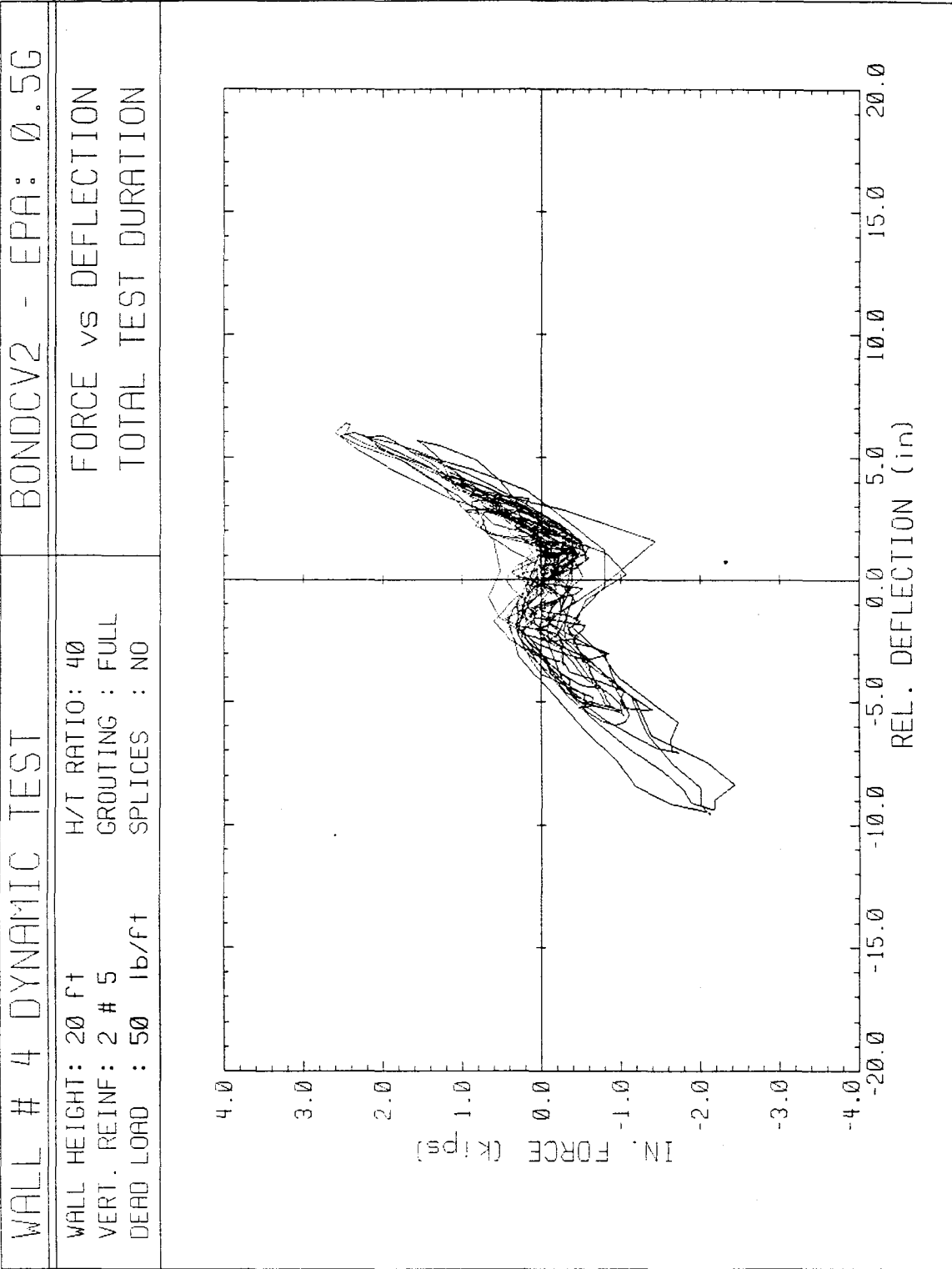
WALL HEIGHT: 20 ft
VERT. REINF: 2 # 5
DEAD LOAD : 50 lb/ft

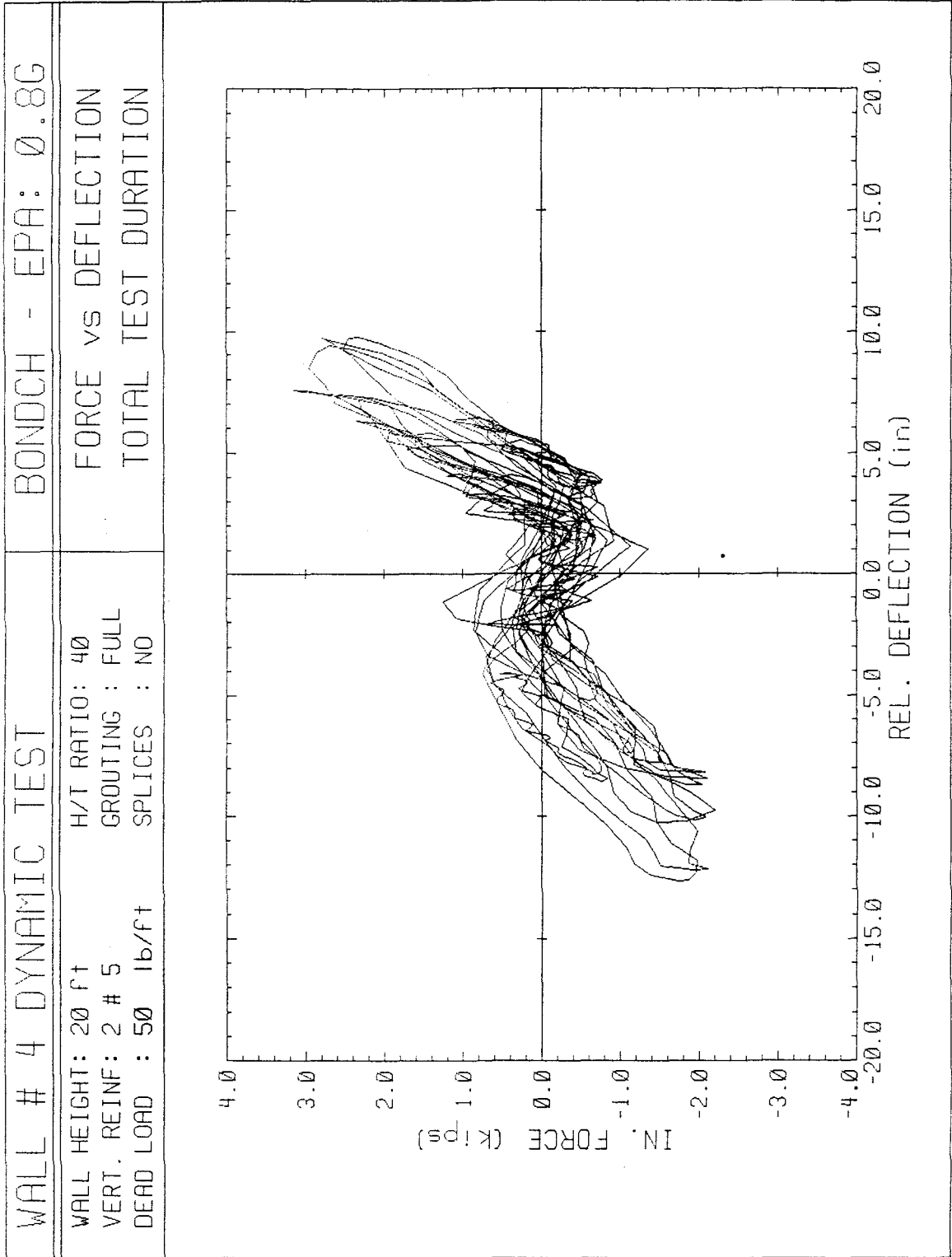
H/T RATIO: 40
GROUTING : FULL
SPLICES : NO

FORCE vs DEFLECTION
TOTAL TEST DURATION









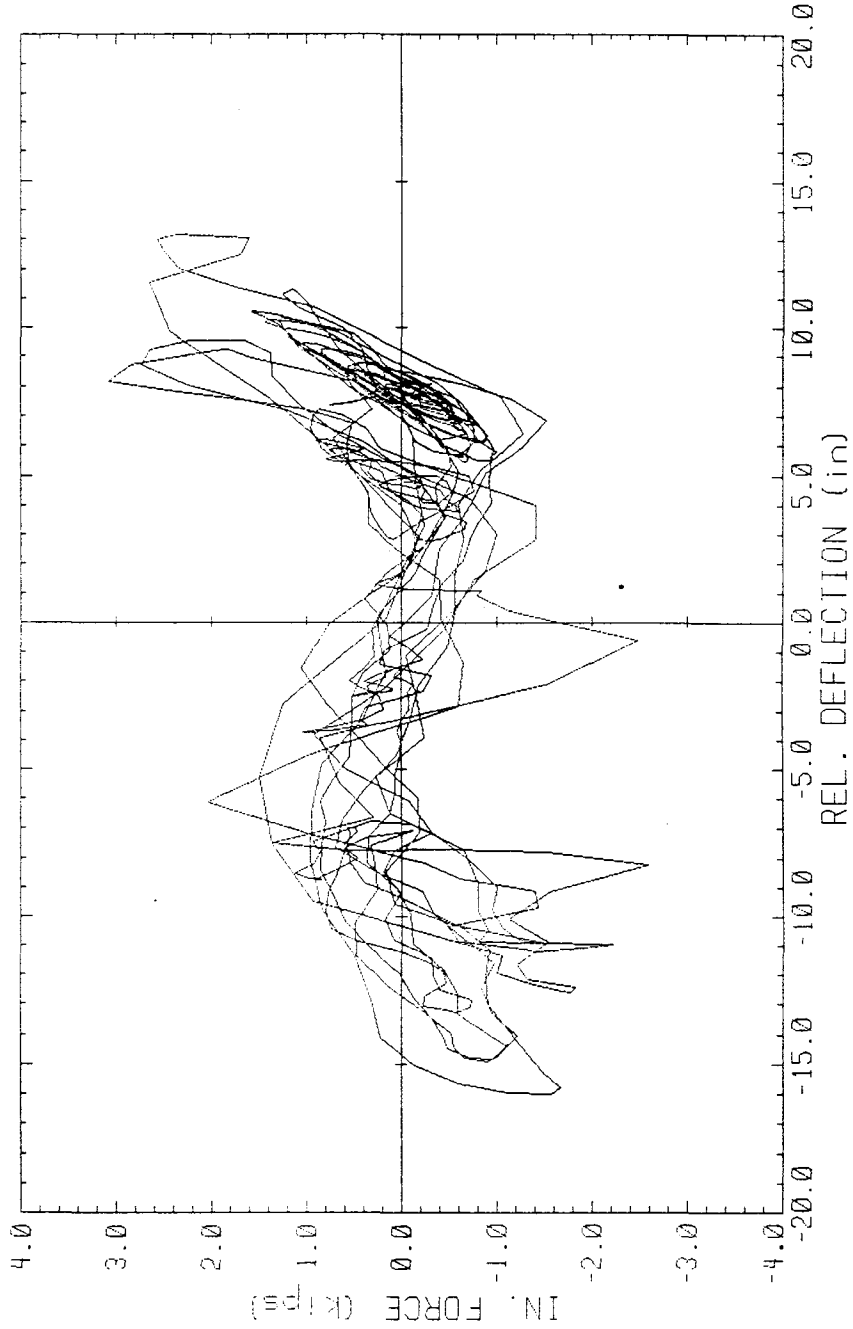
WALL # 4 DYNAMIC TEST

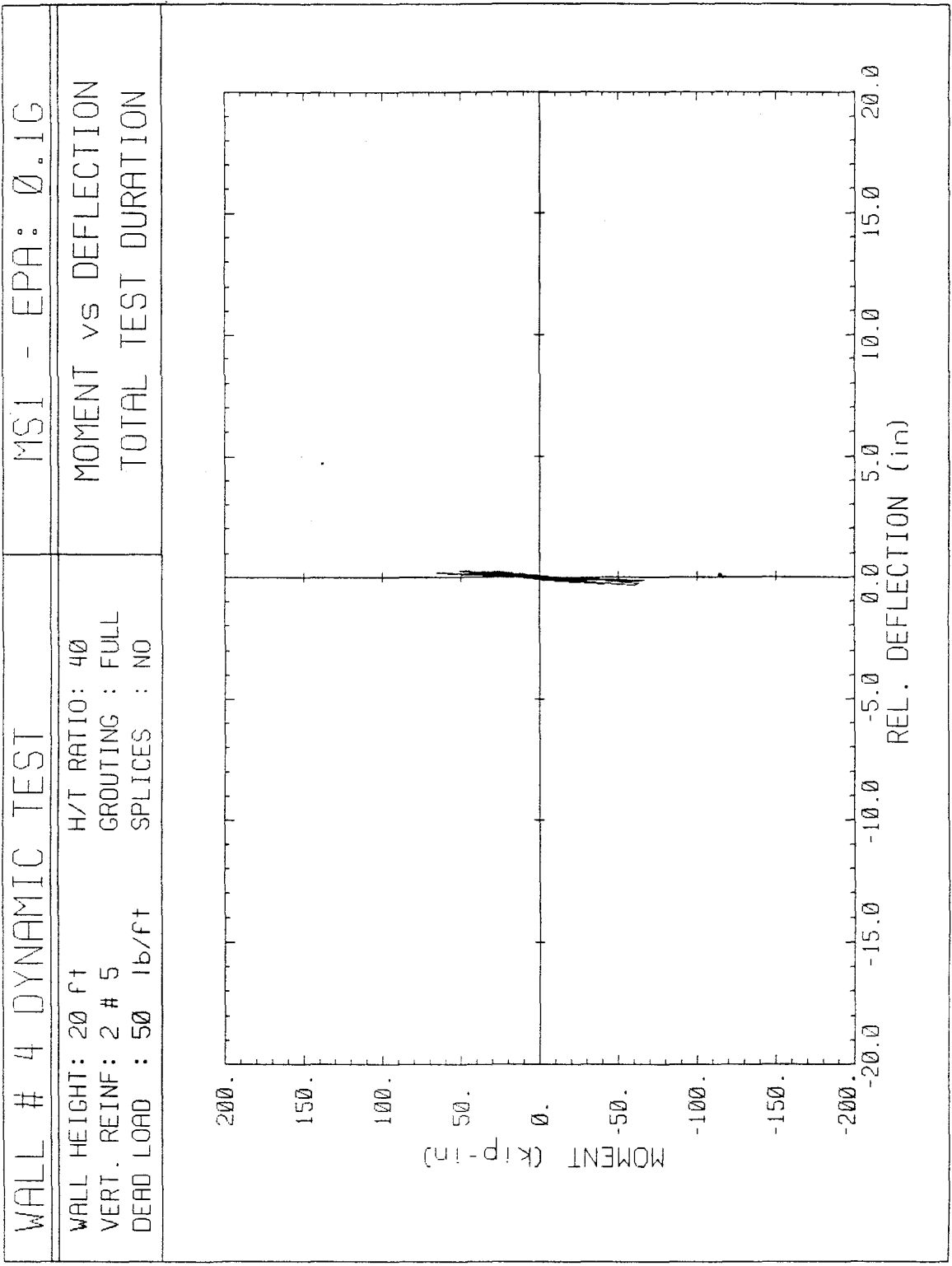
BONDSSH - EPA: 0.8G

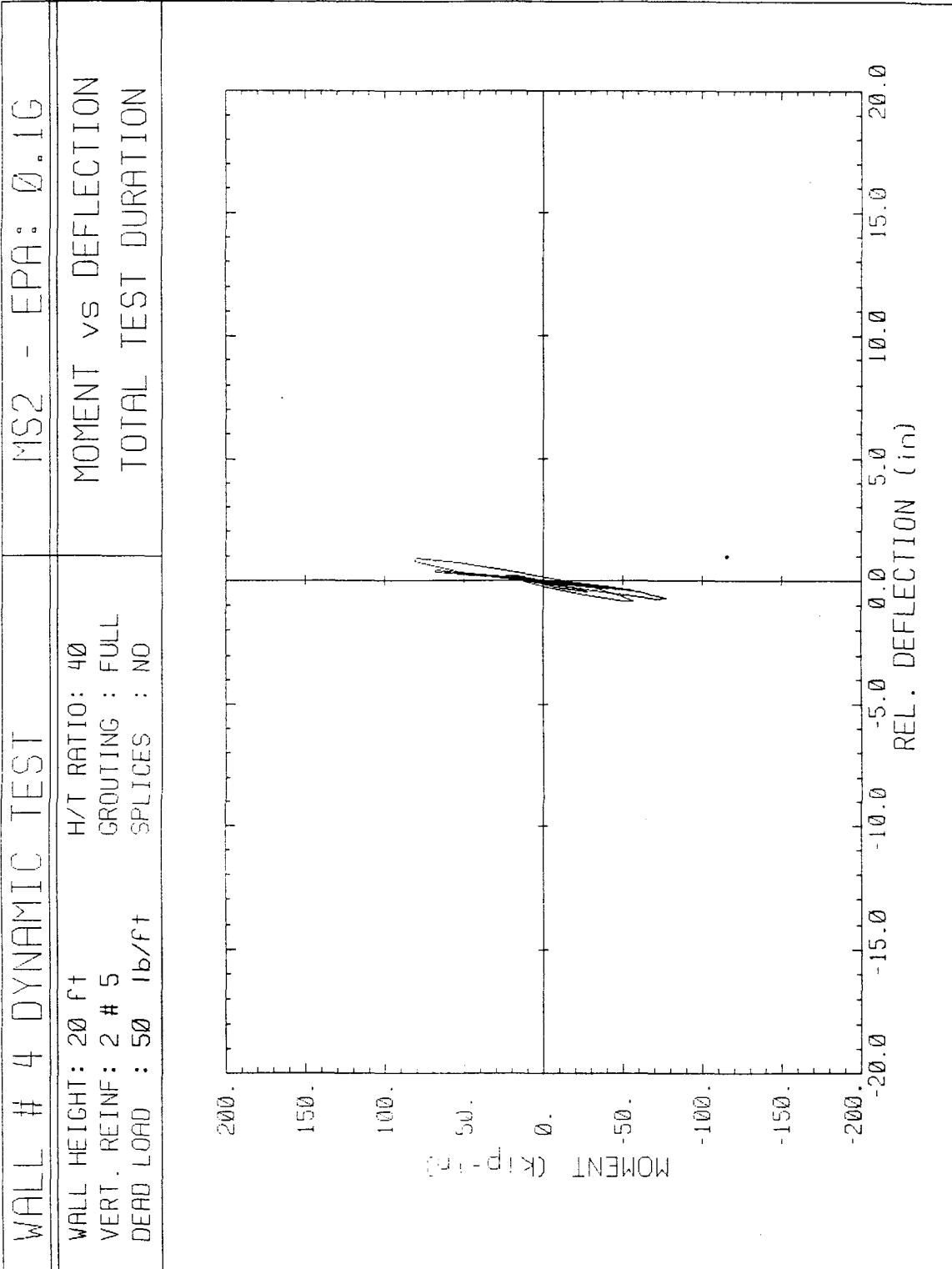
FORCE vs DEFLECTION
TOTAL TEST DURATION

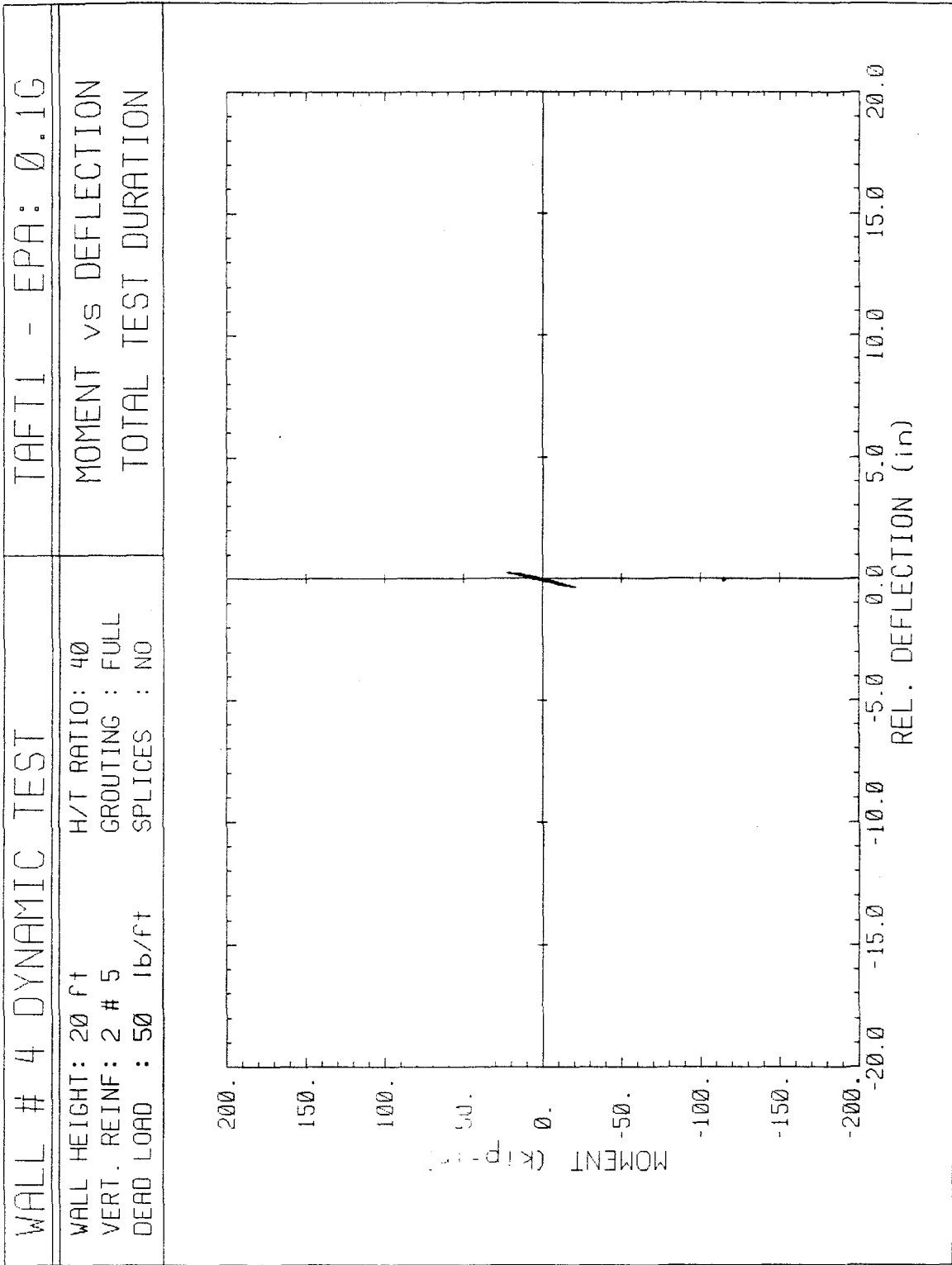
WALL HEIGHT: 20 ft
VERT. REINF: 2 # 5
DEAD LOAD : 50 lb/ft

H/T RATIO: 40
GROUTING : FULL
SPLICES : NO









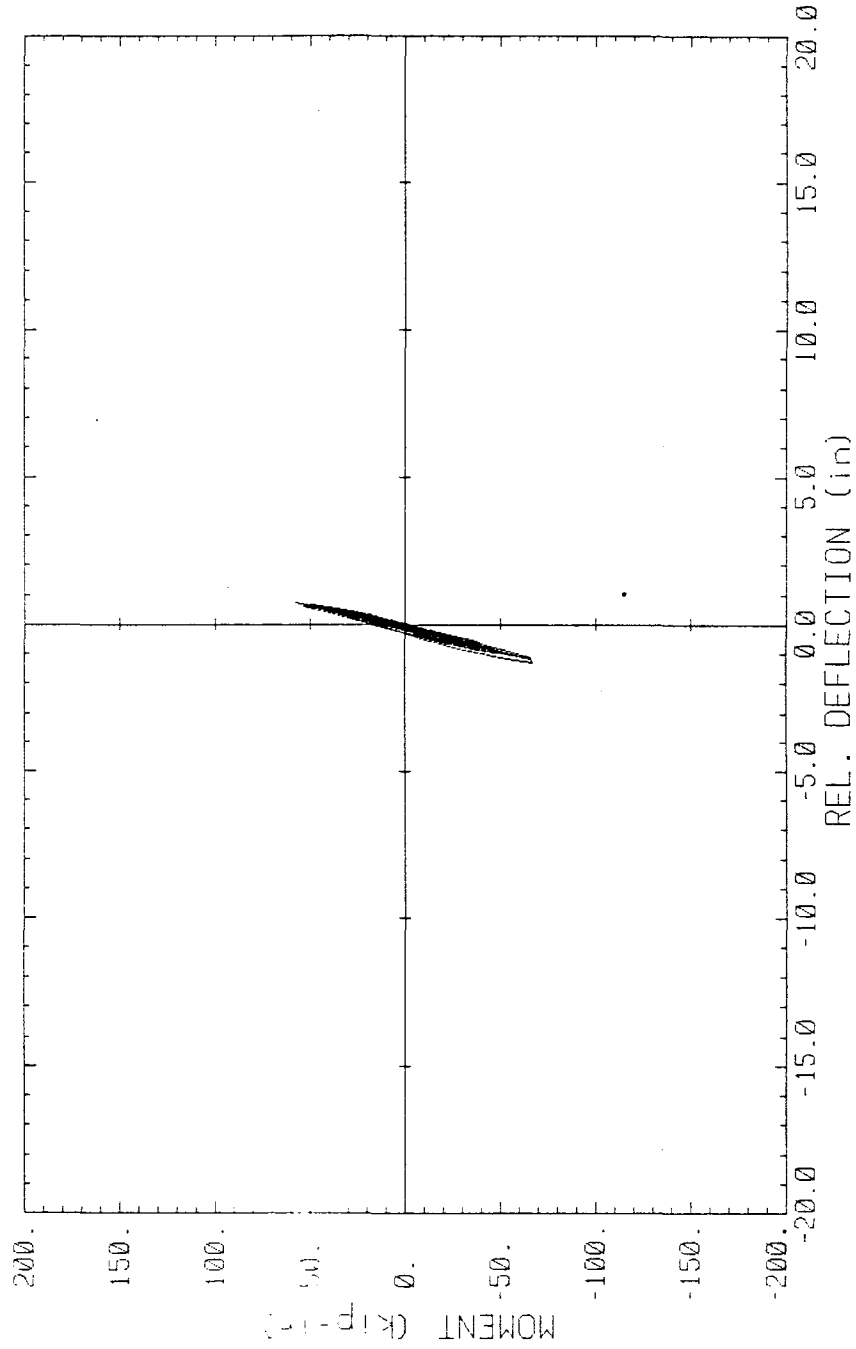
WALL # 4 DYNAMIC TEST

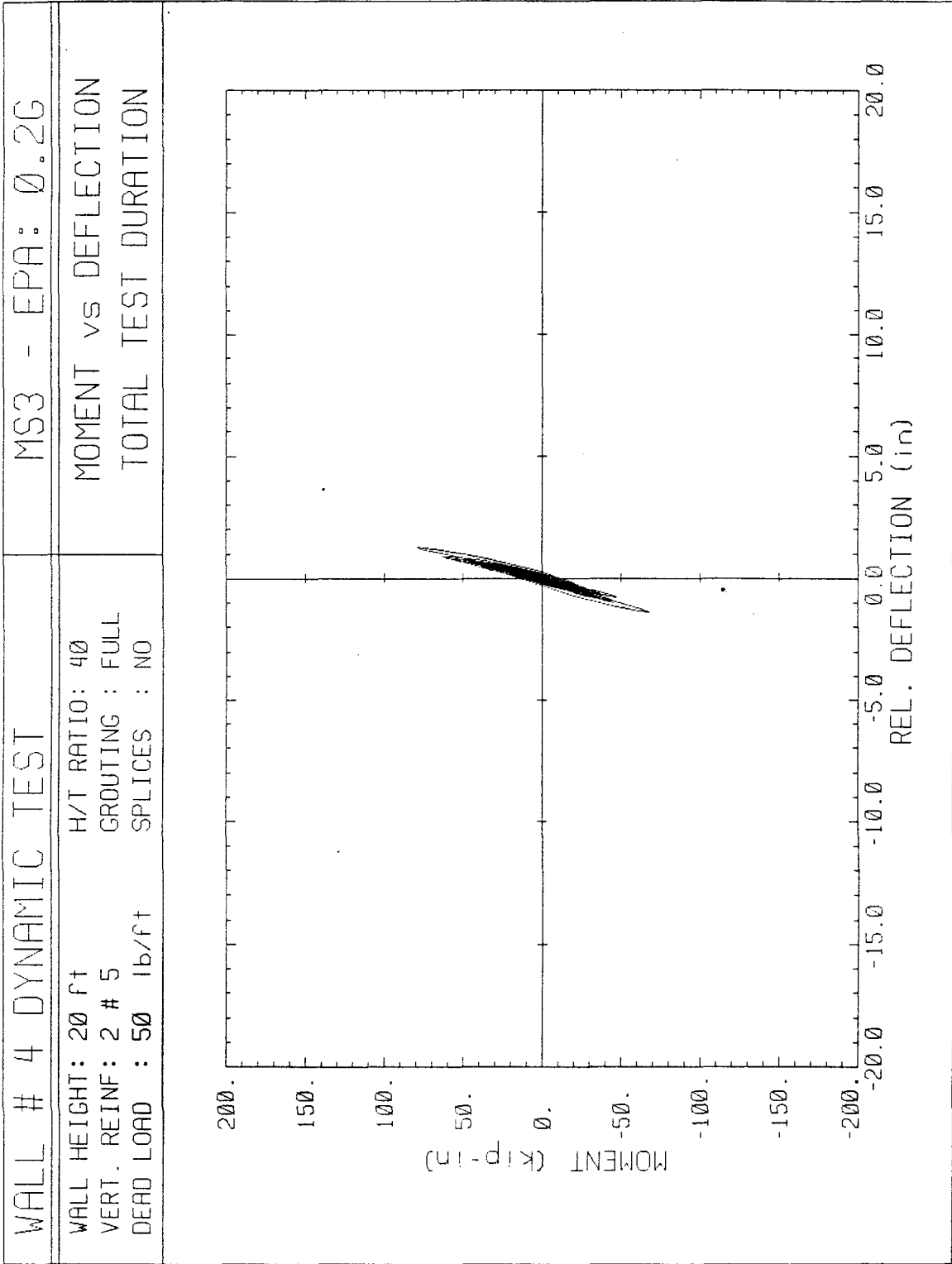
ELC1 - EPA: 0.1G

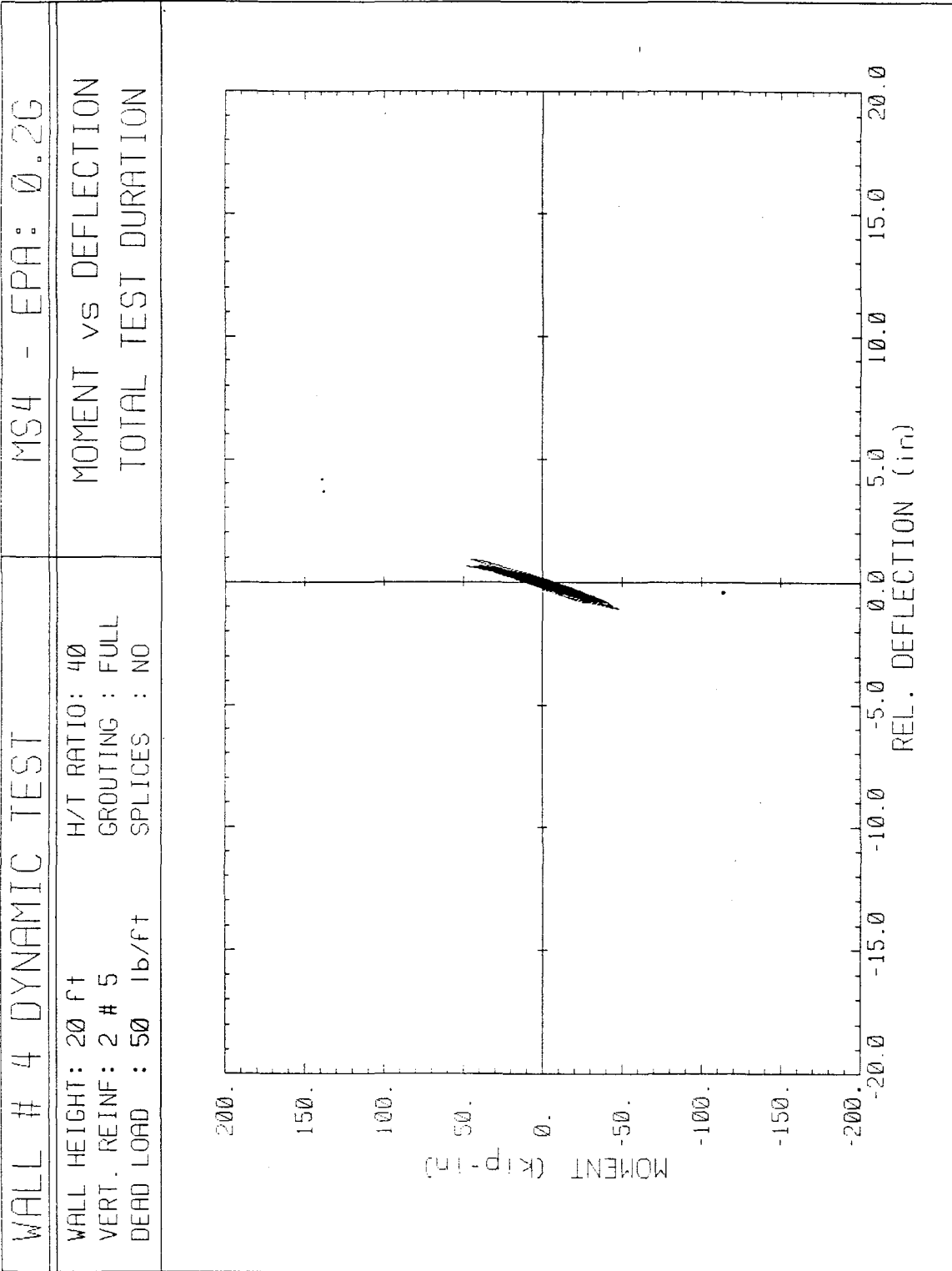
WALL HEIGHT: 20 ft
VERT. REINF: 2 # 5
DEAD LOAD : 50 lb/ft

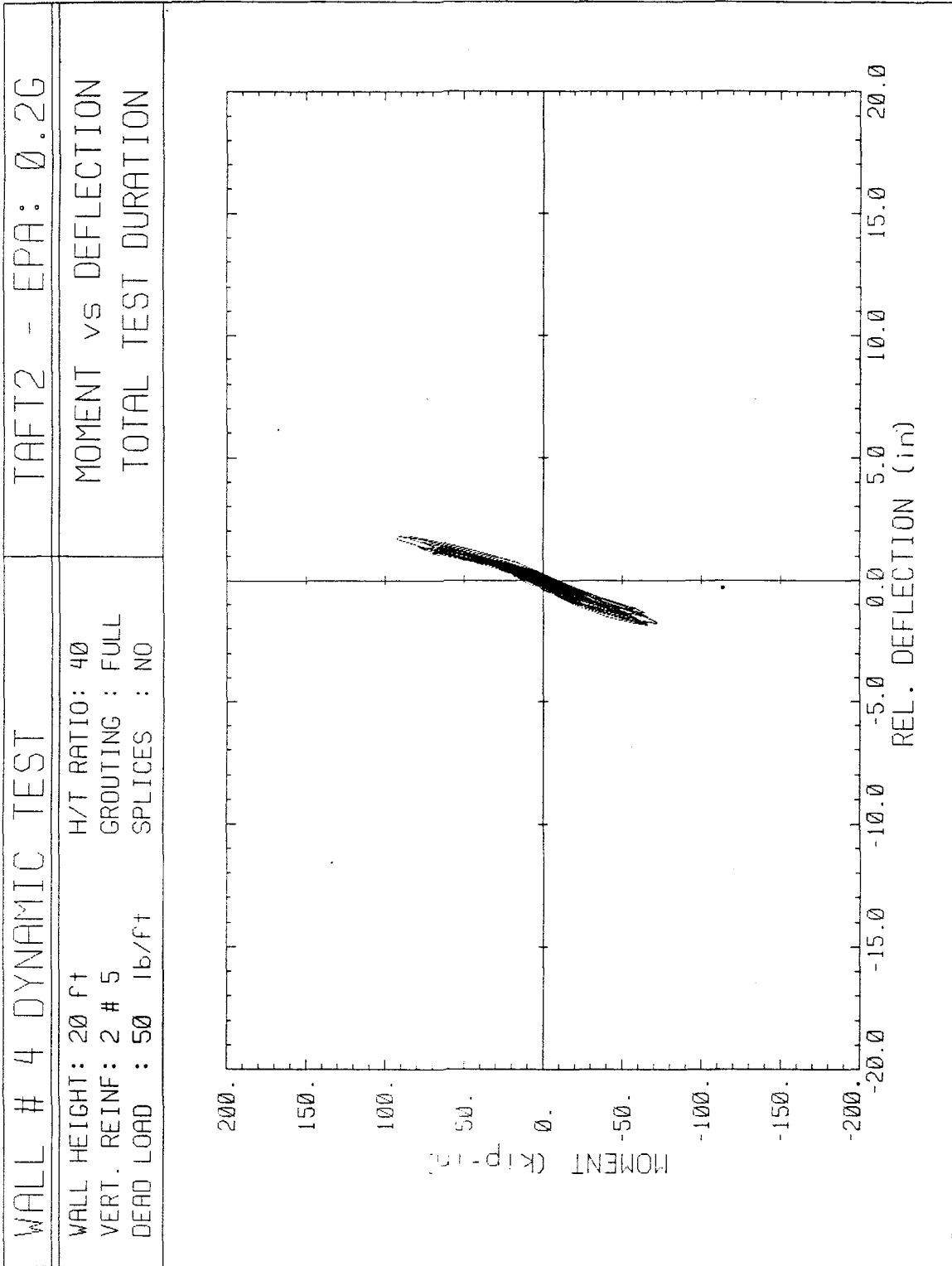
H/T RATIO: 40
GROUTING : FULL
SPLICES : NO

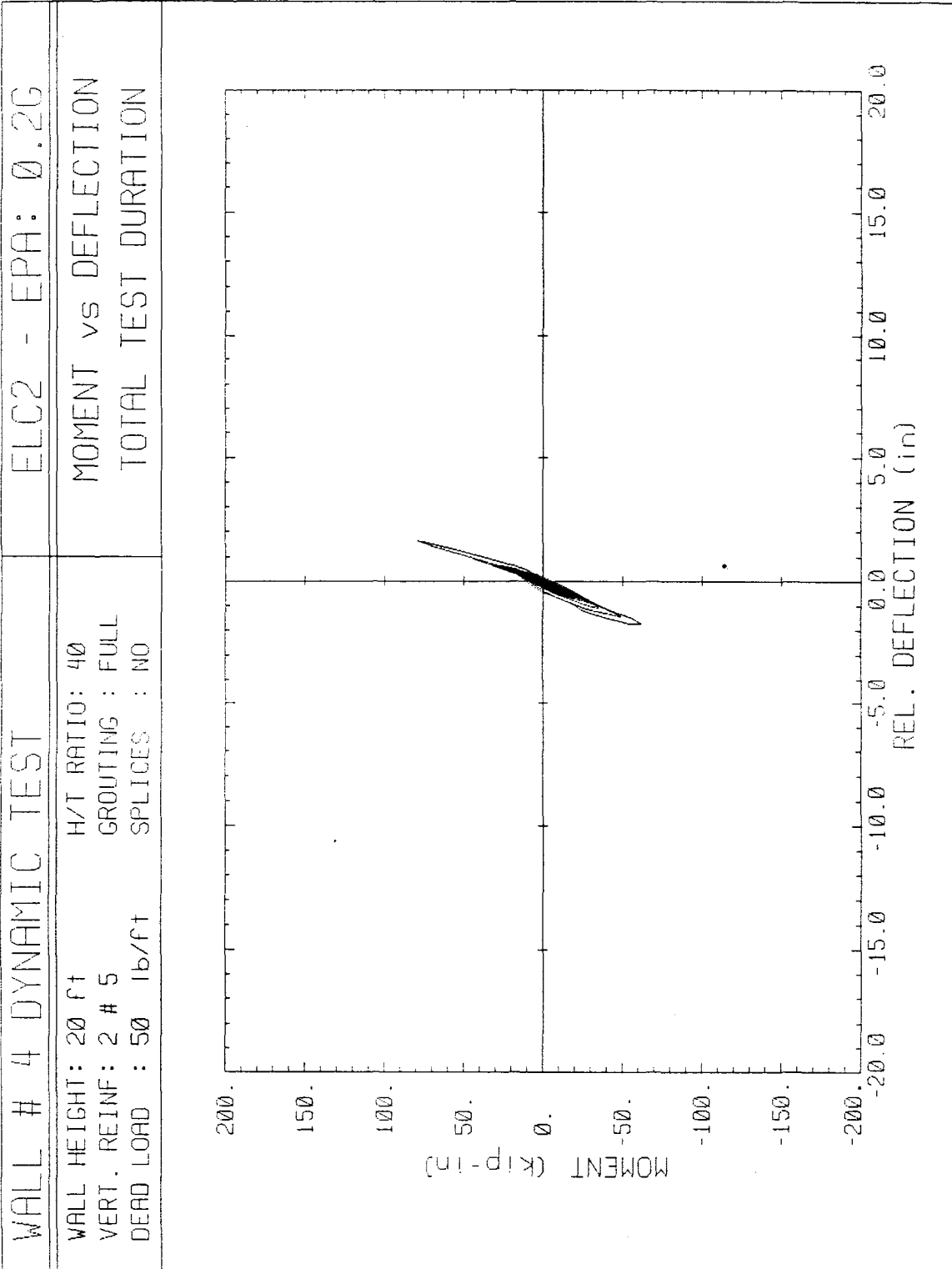
MOMENT vs DEFLECTION
TOTAL TEST DURATION

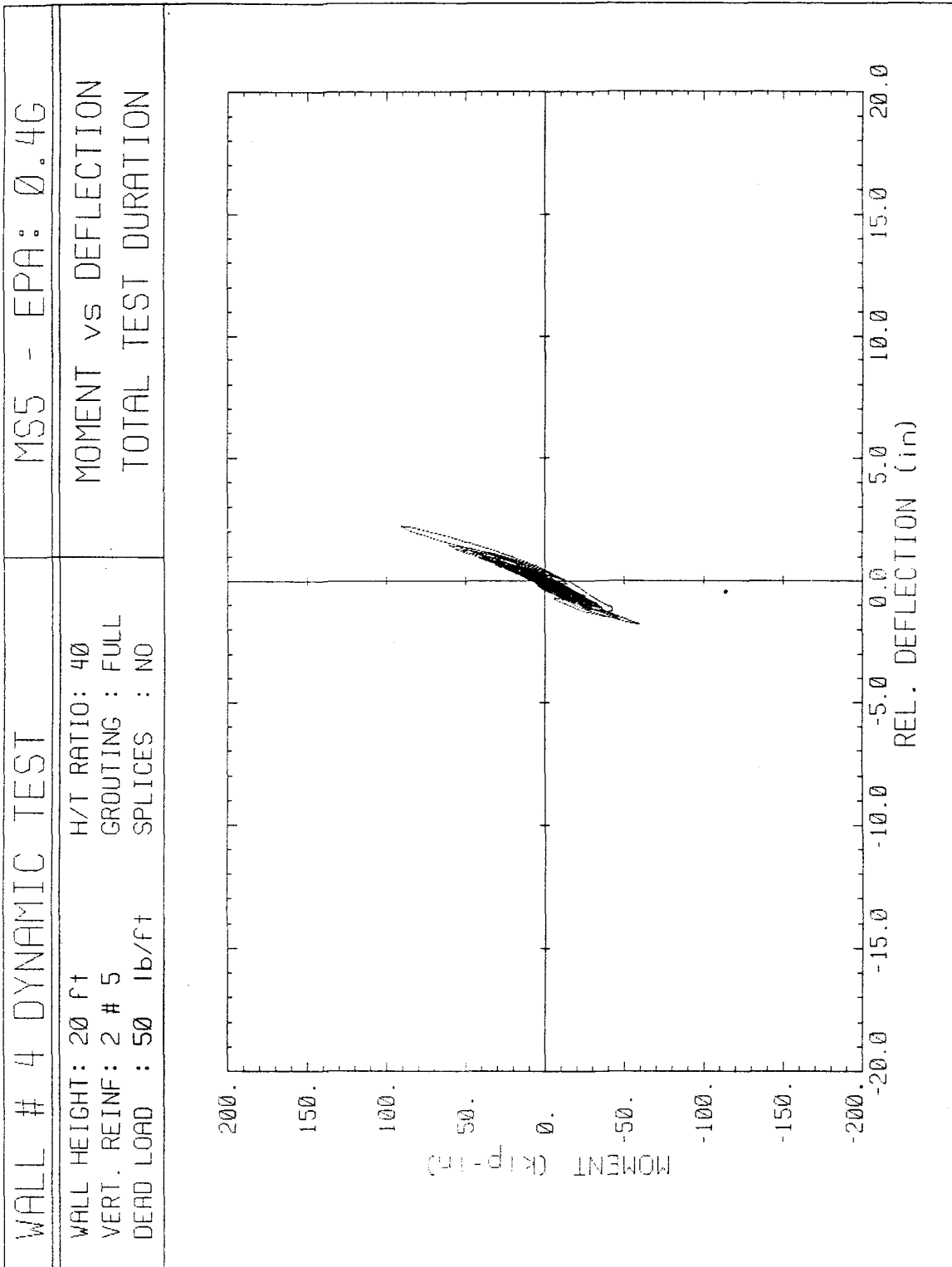


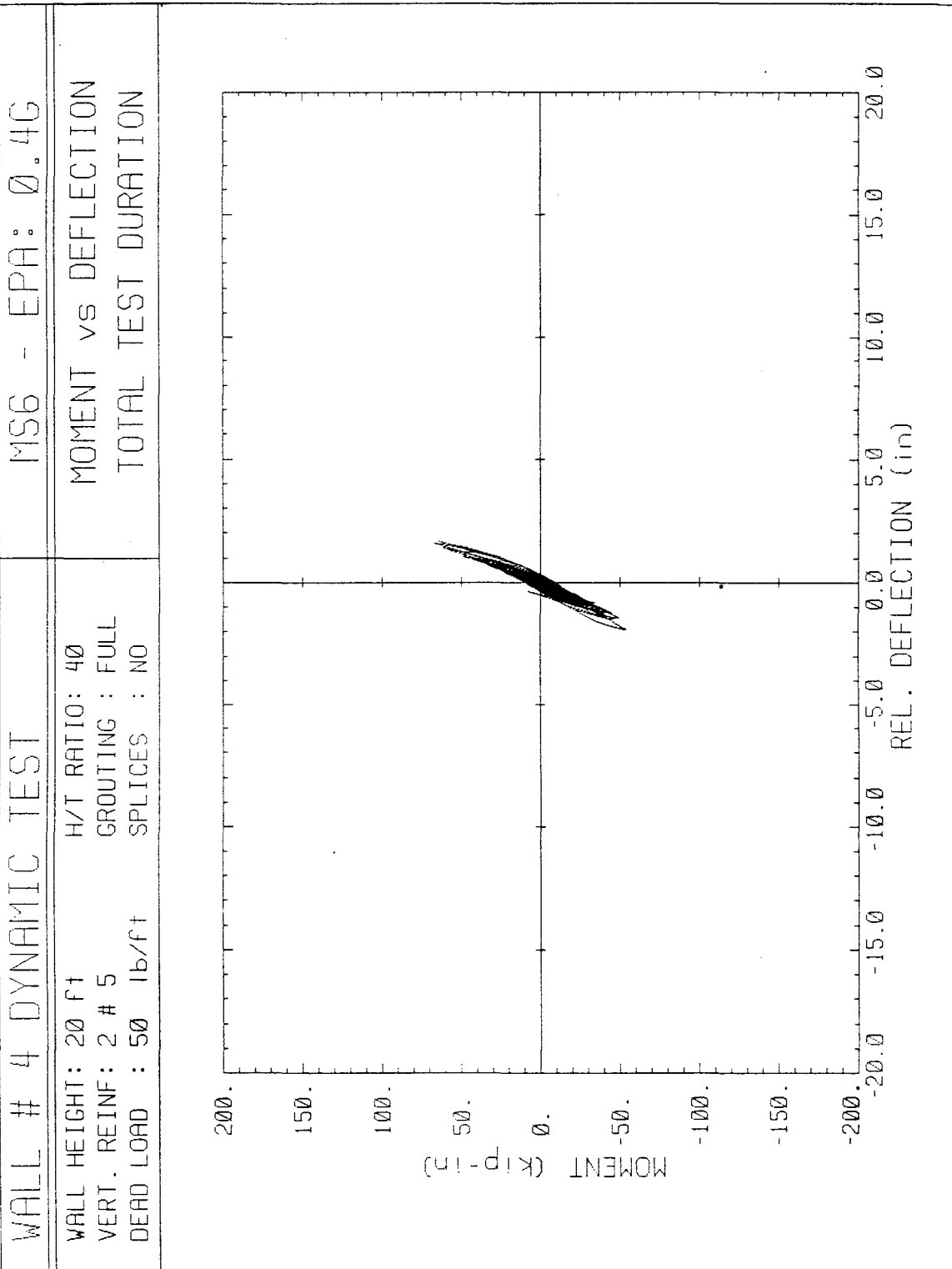


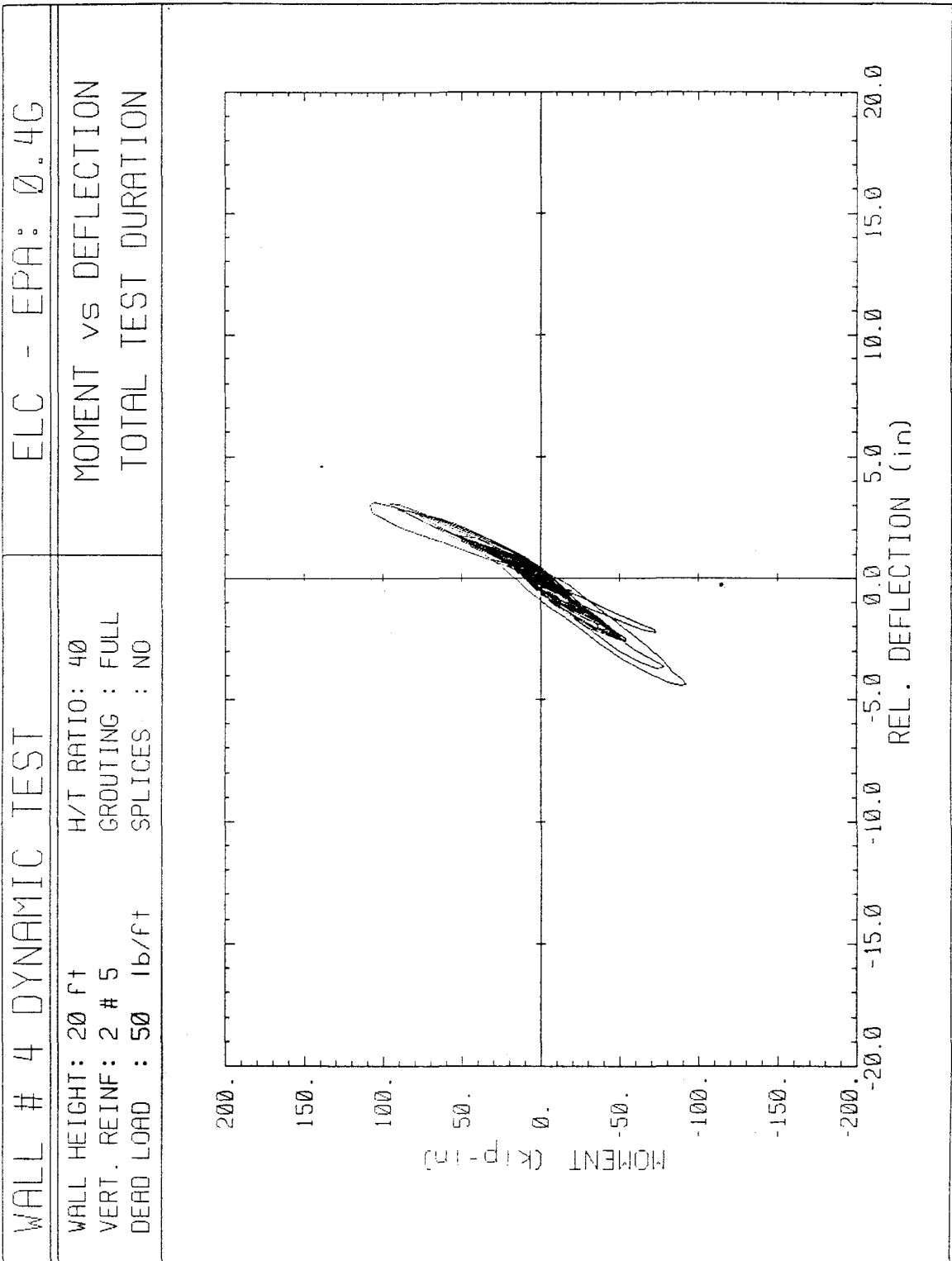


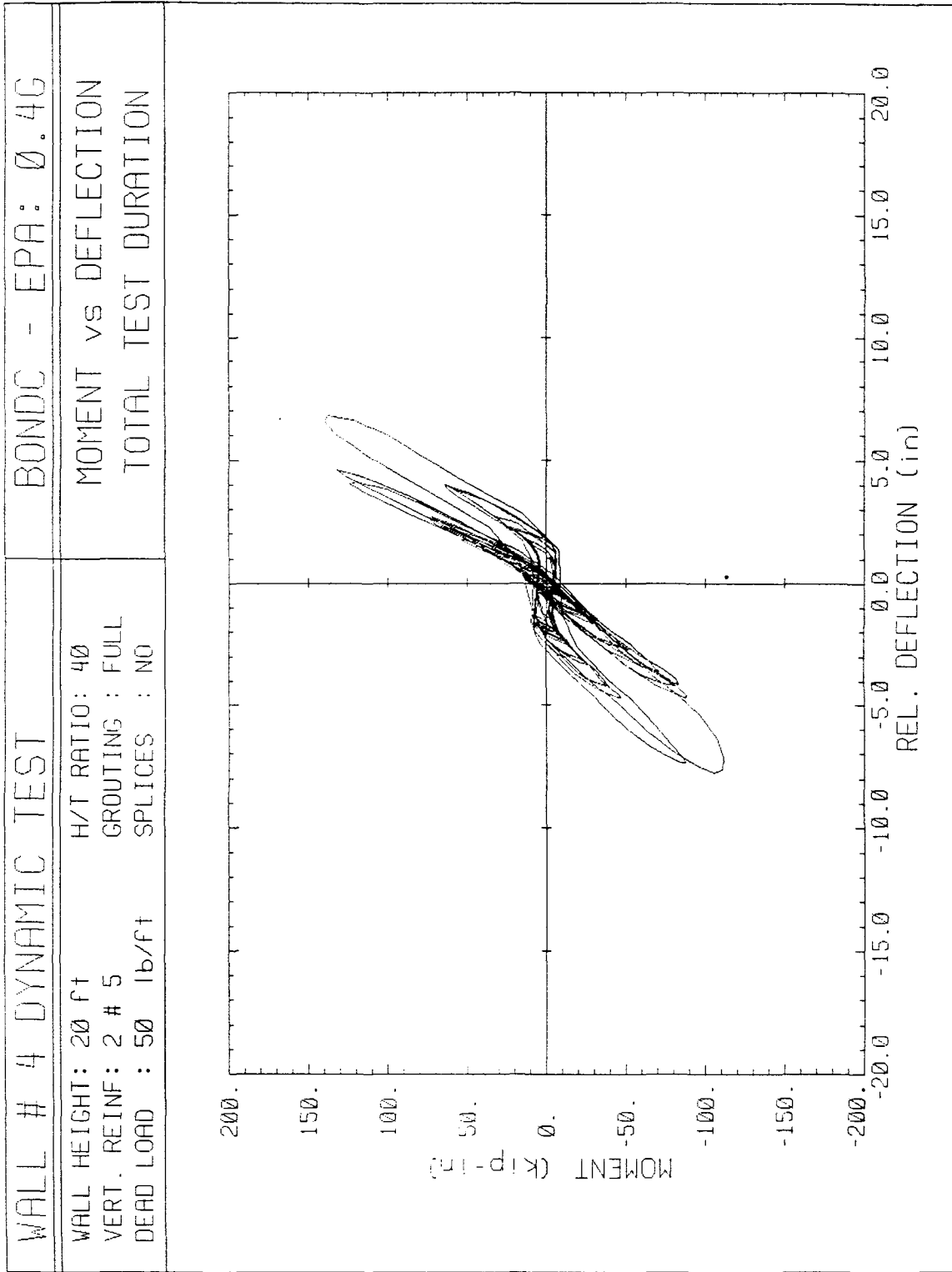


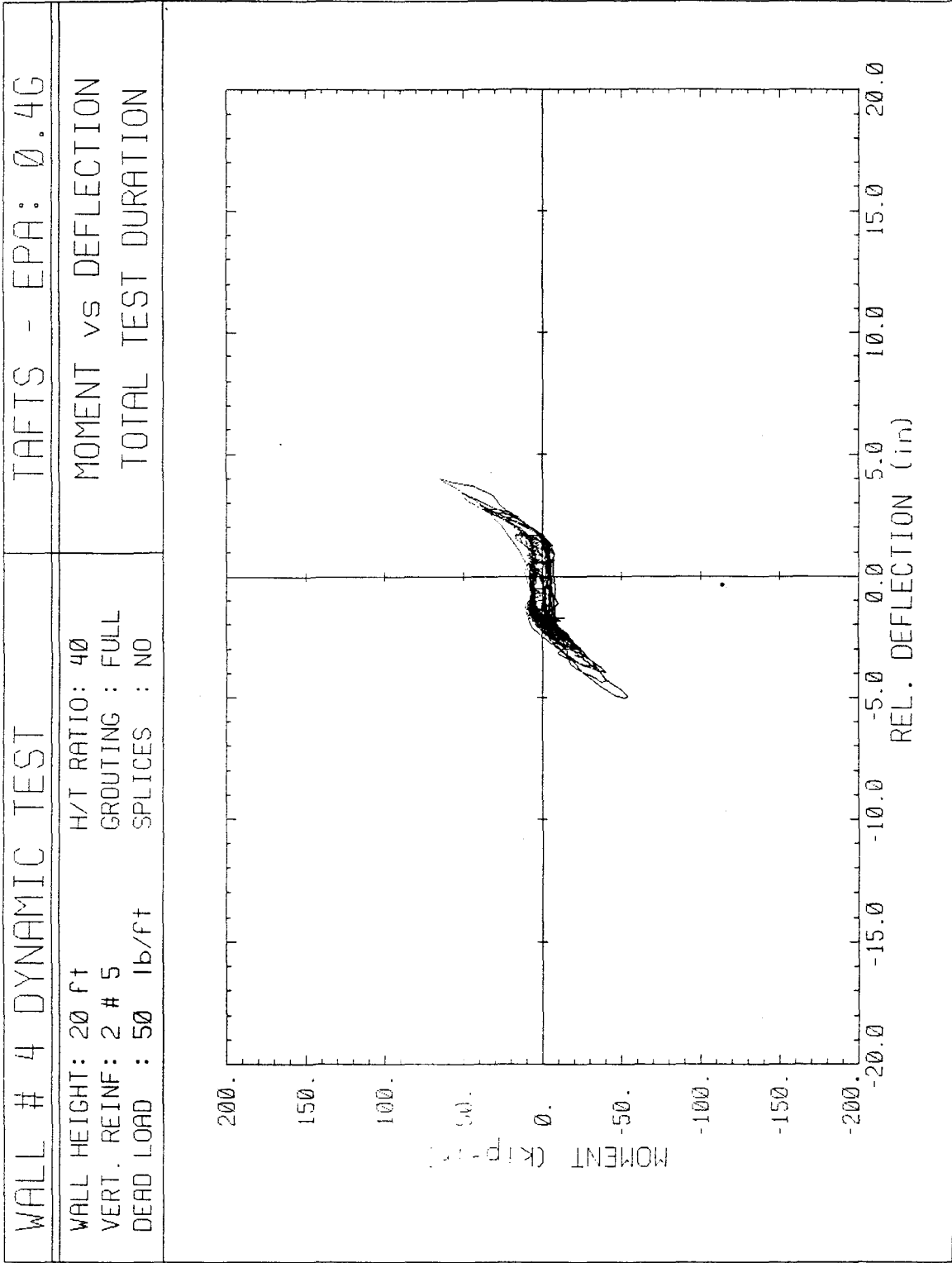


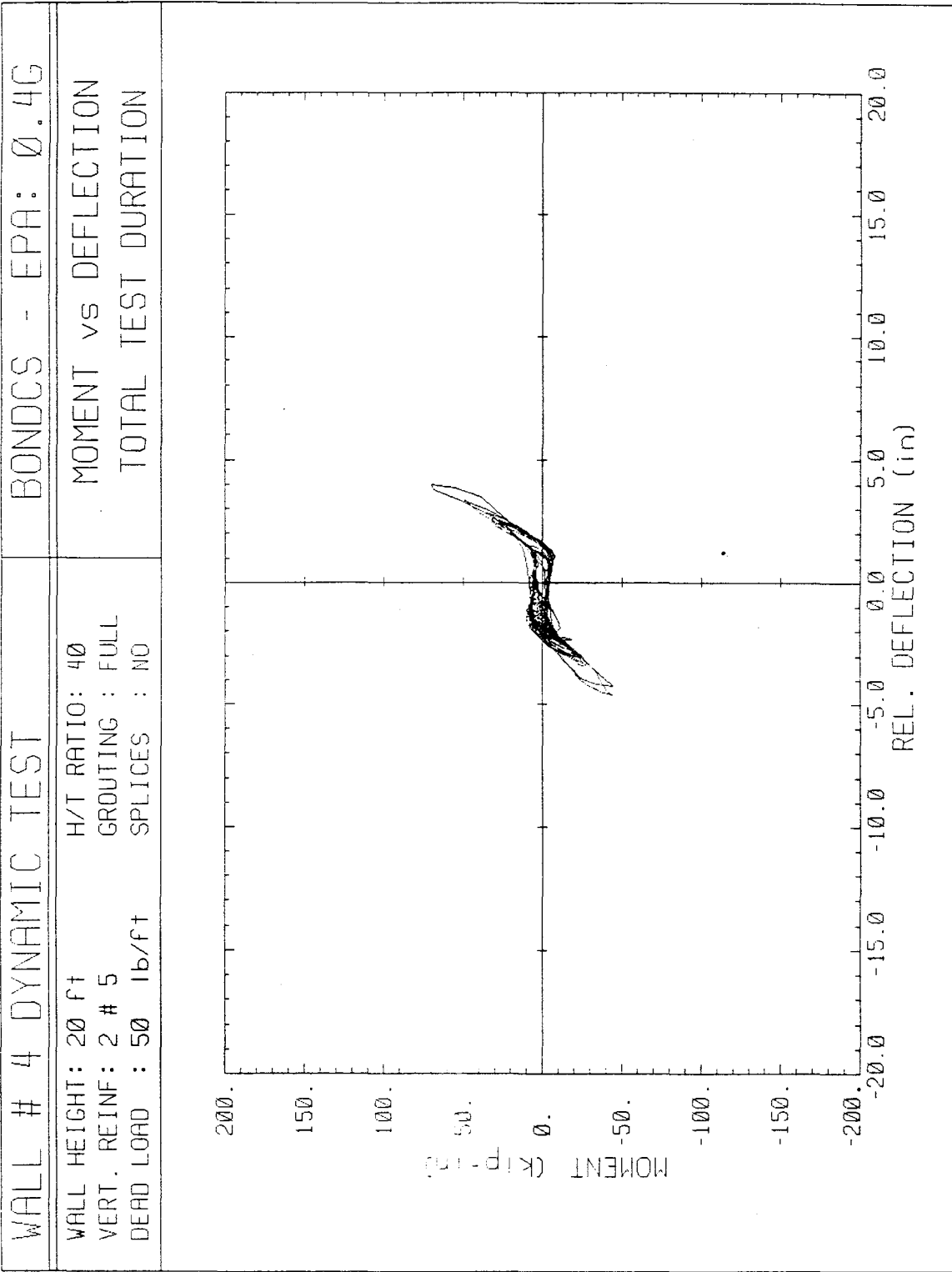


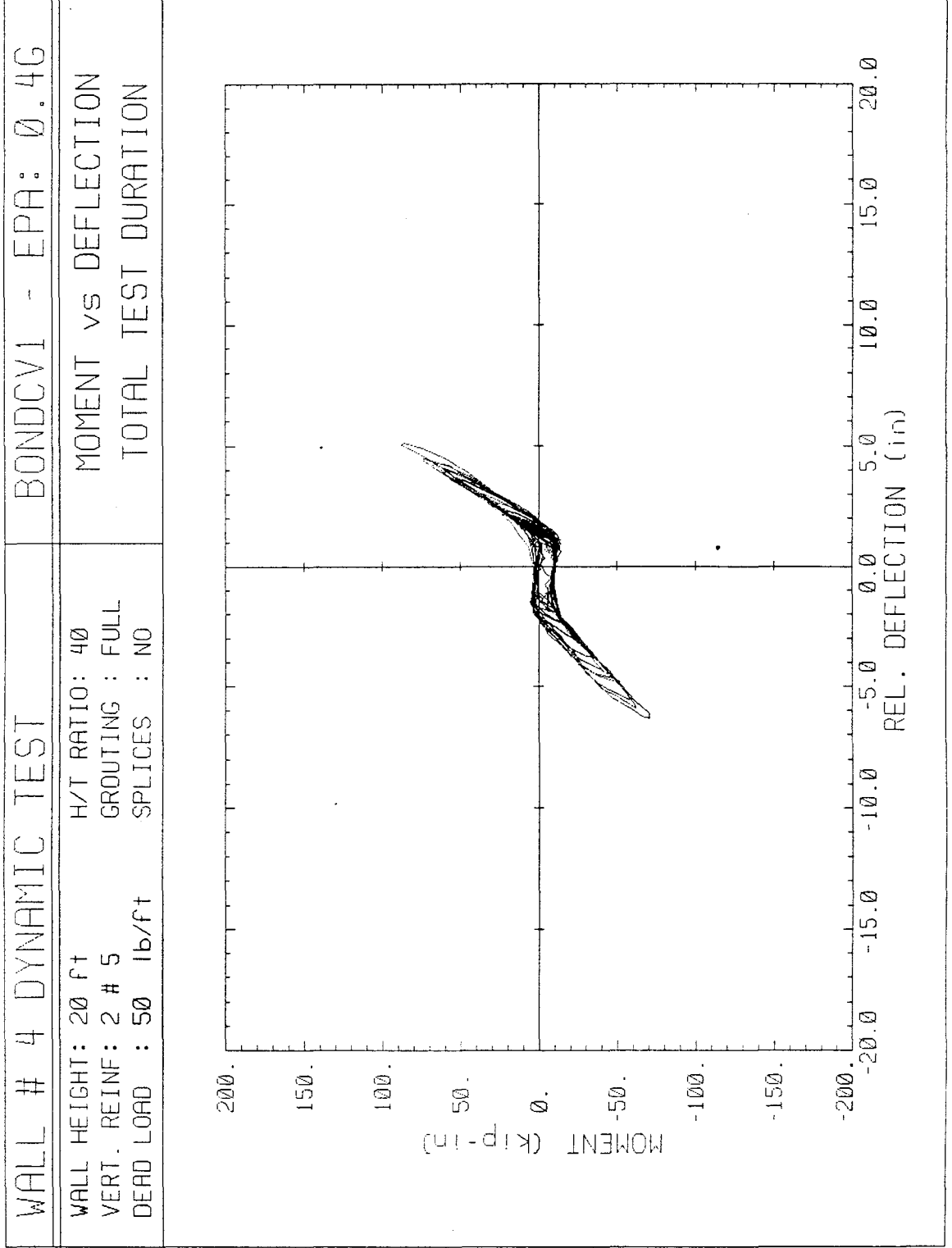


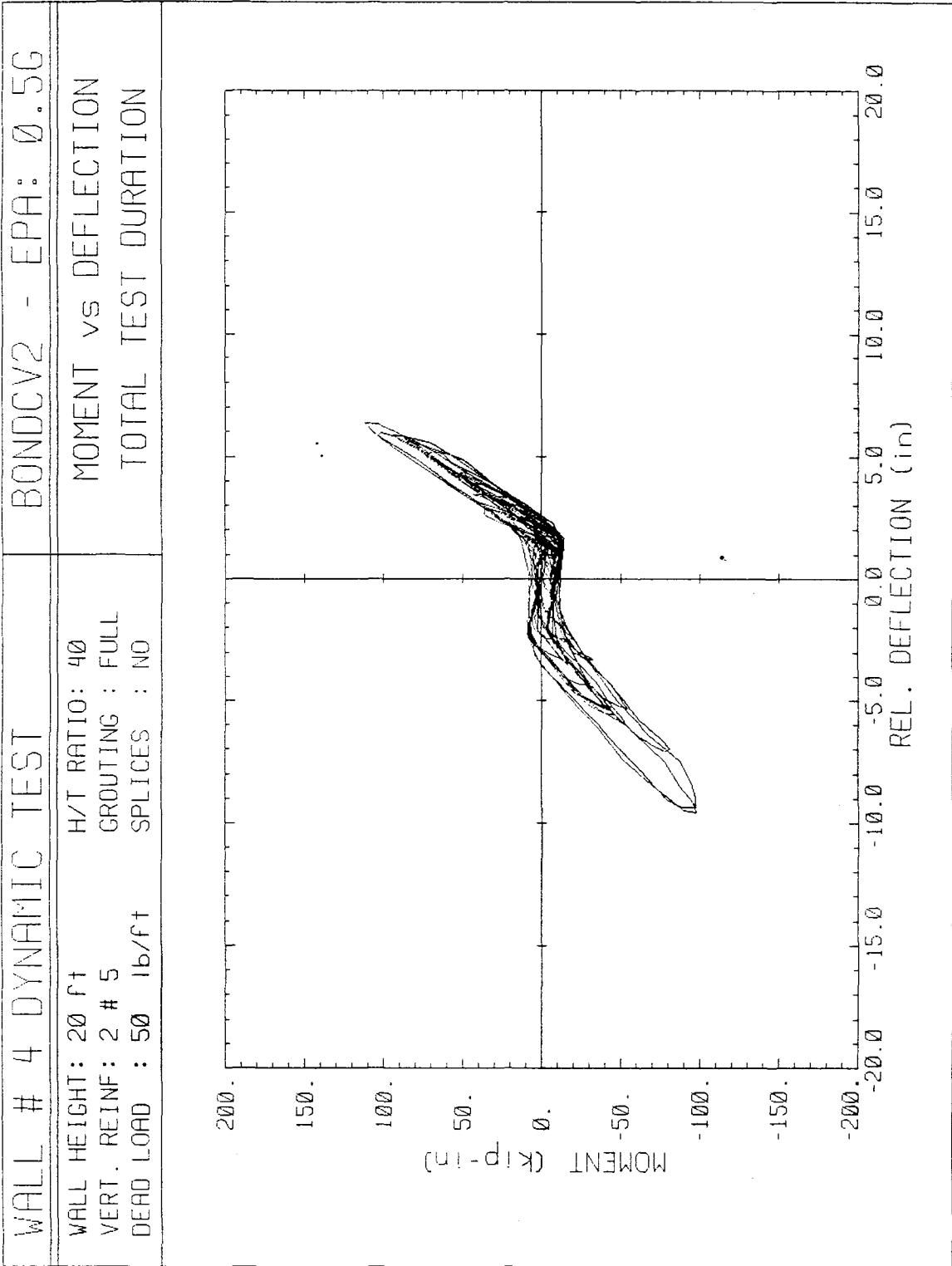


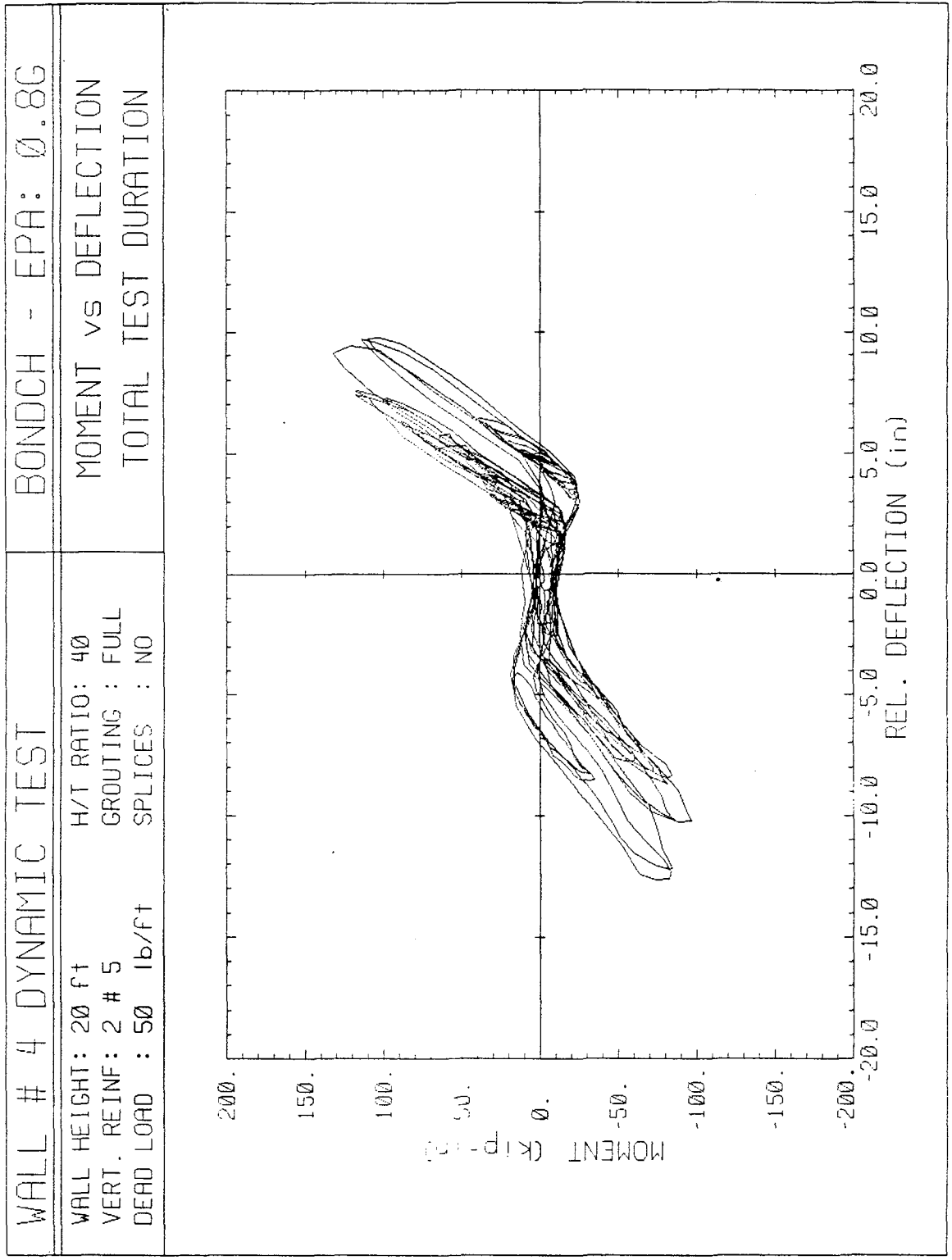










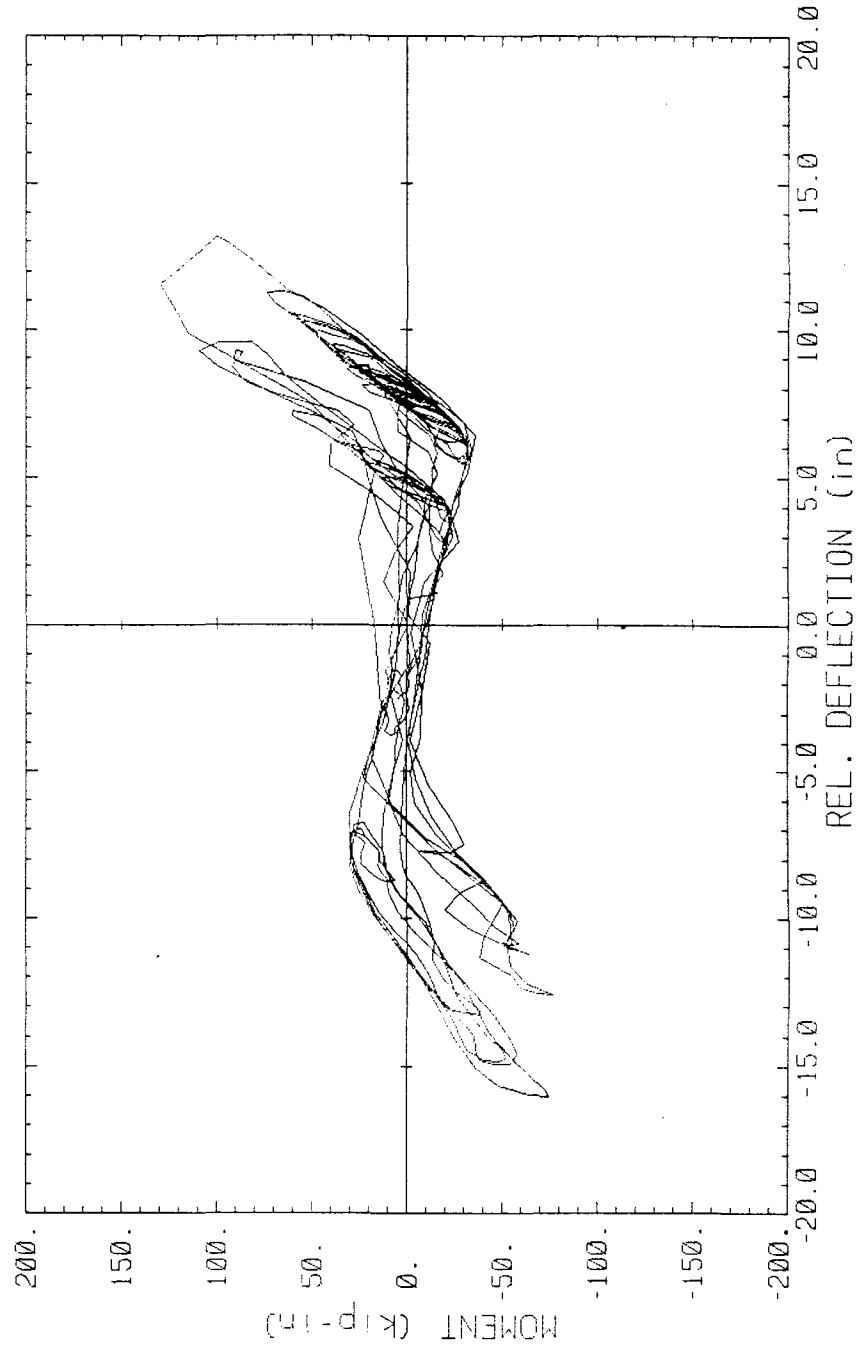


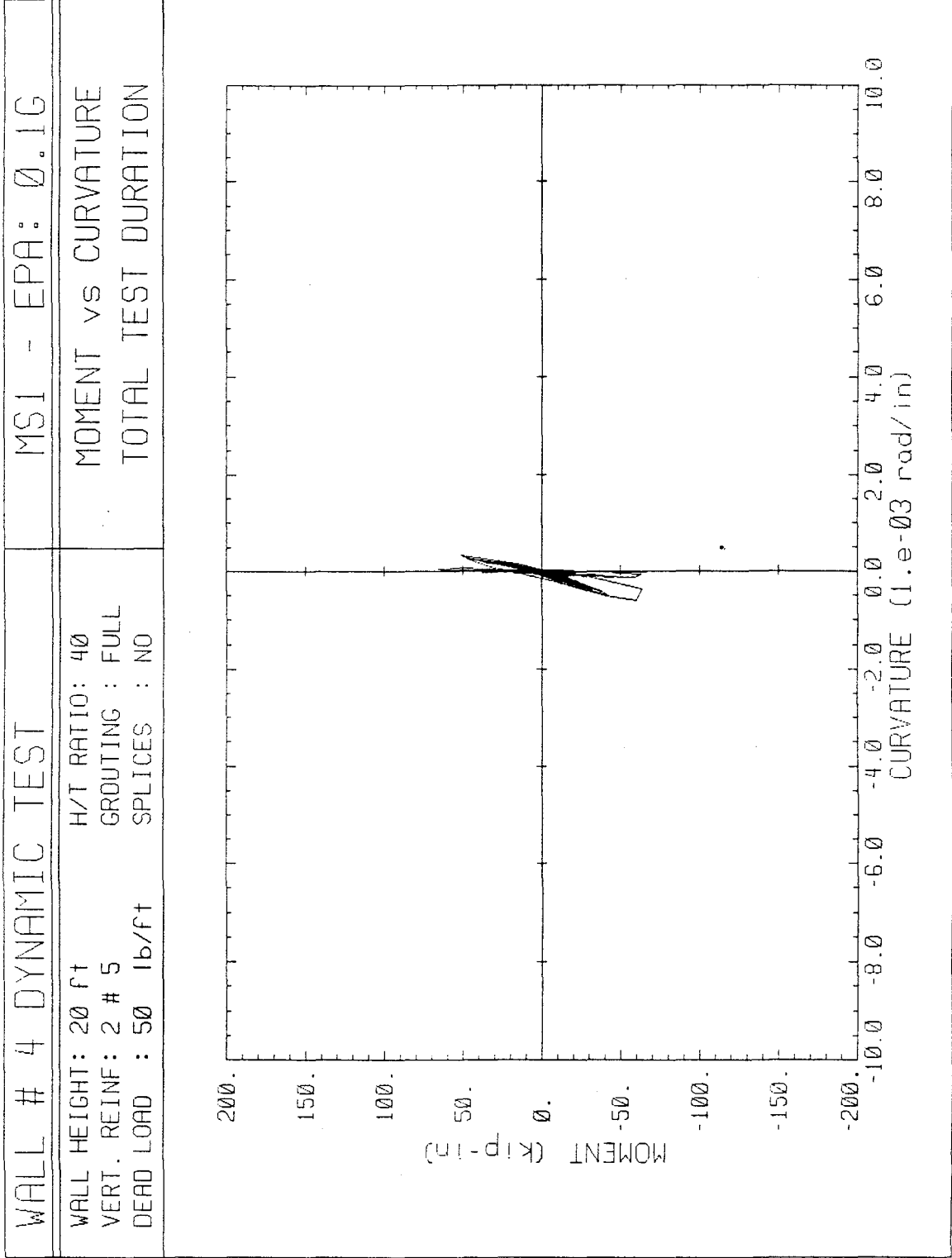
WALL # 4 DYNAMIC TEST

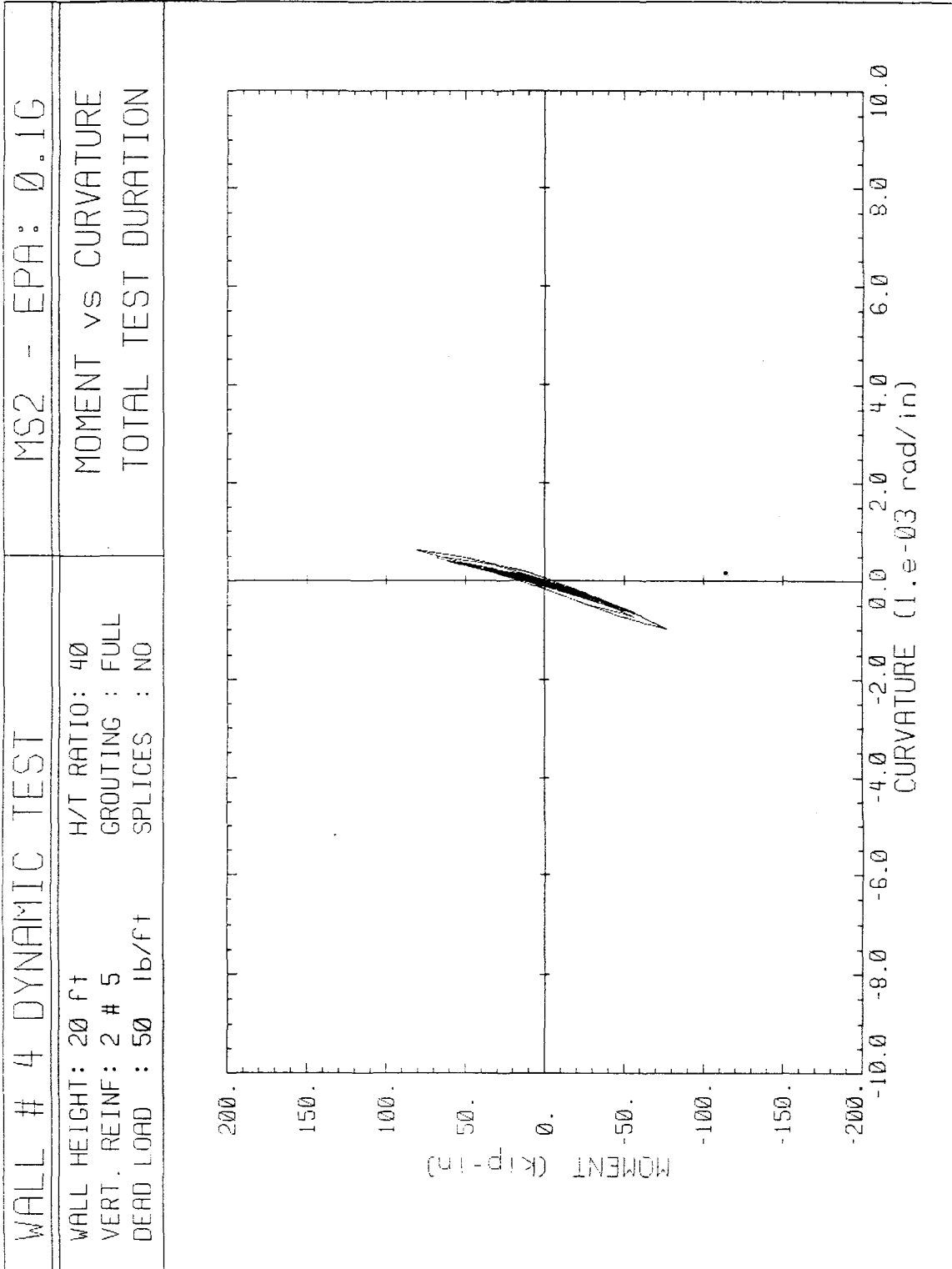
BONDCSH - EPA: 0.8G

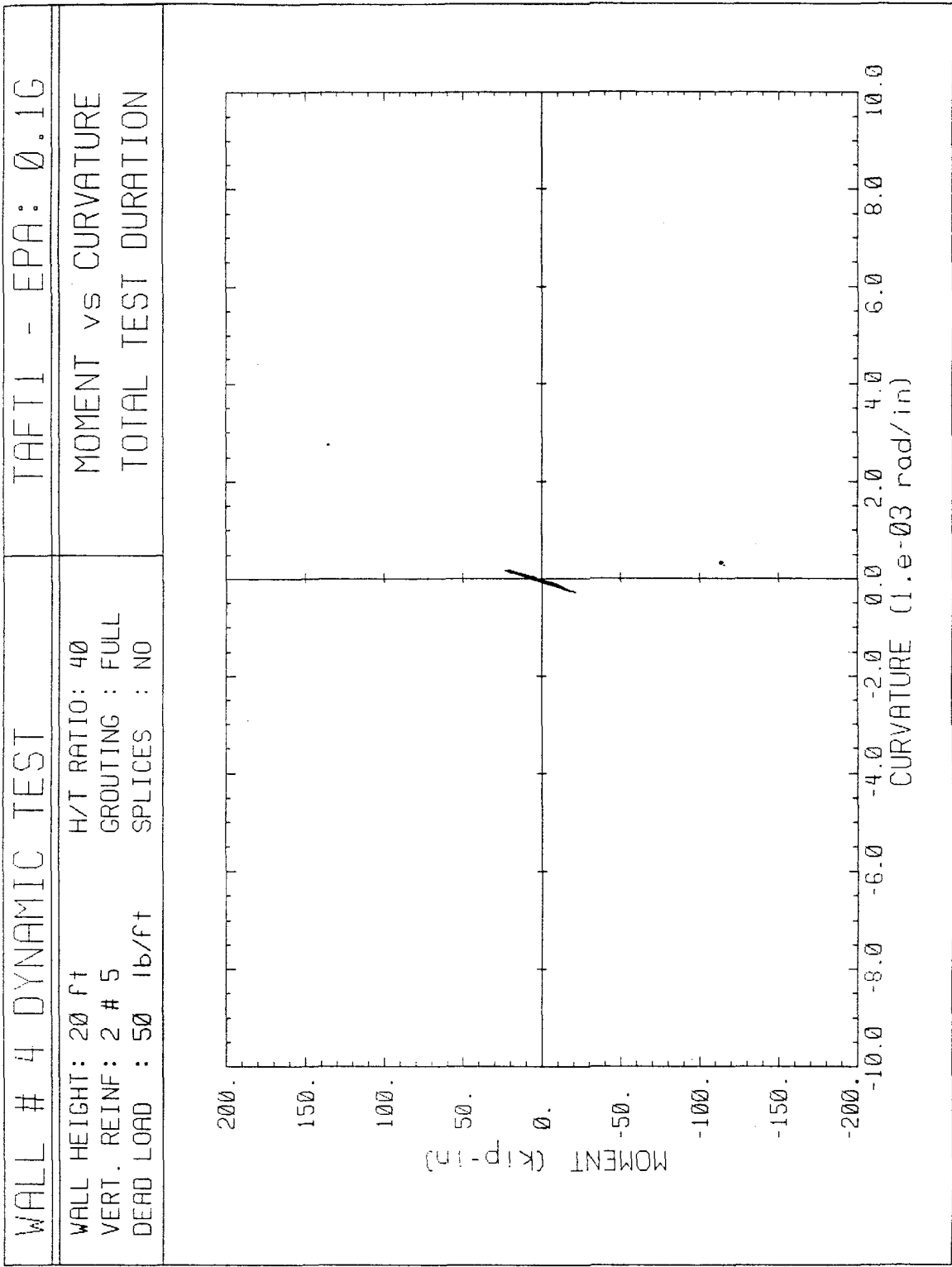
WALL HEIGHT: 20 ft H/T RATIO: 40
VERT. REINF: 2 # 5 GROUTING : FULL
DEAD LOAD : 50 lb/ft SPLICES : NO

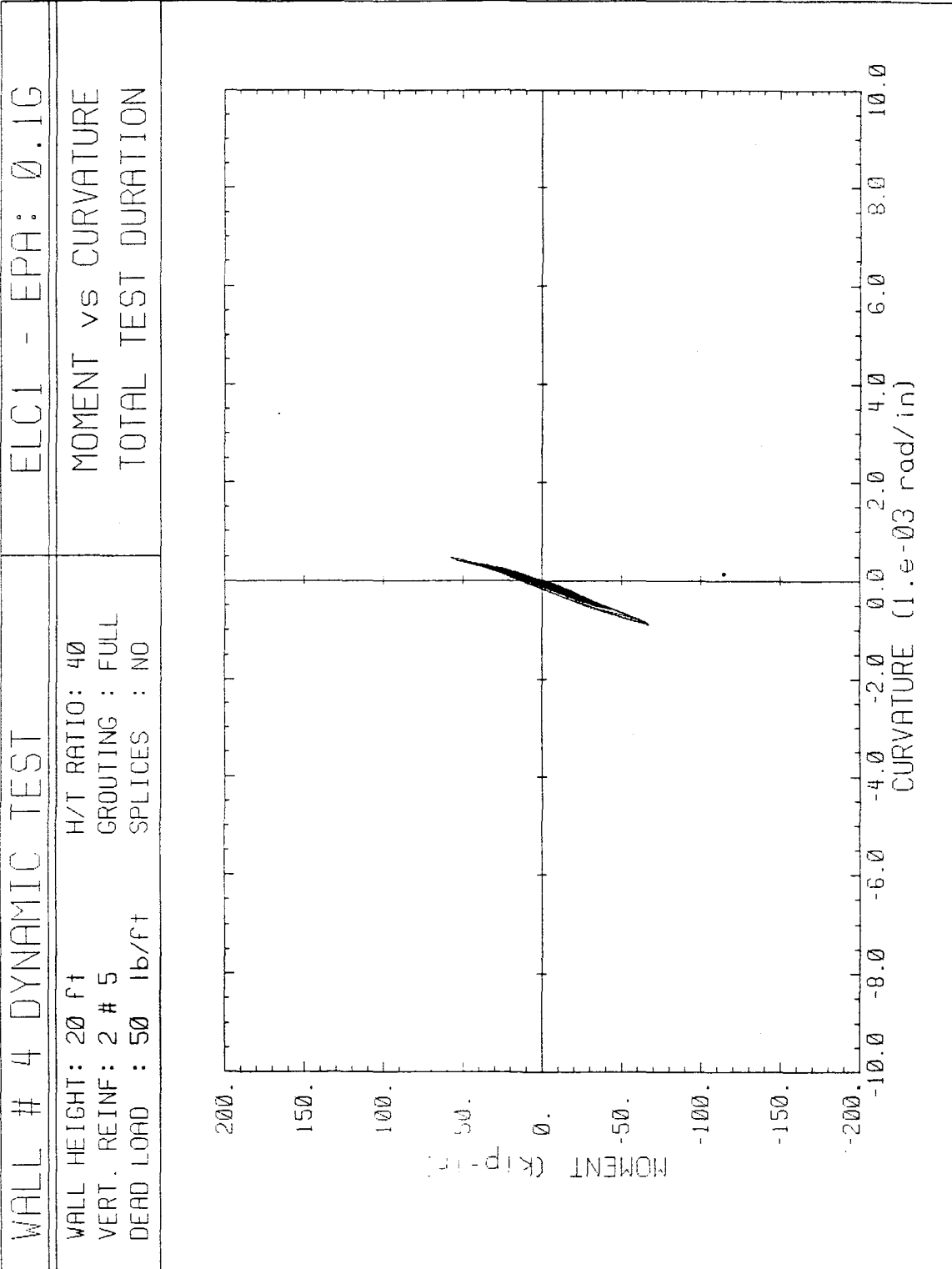
MOMENT vs DEFLECTION
TOTAL TEST DURATION

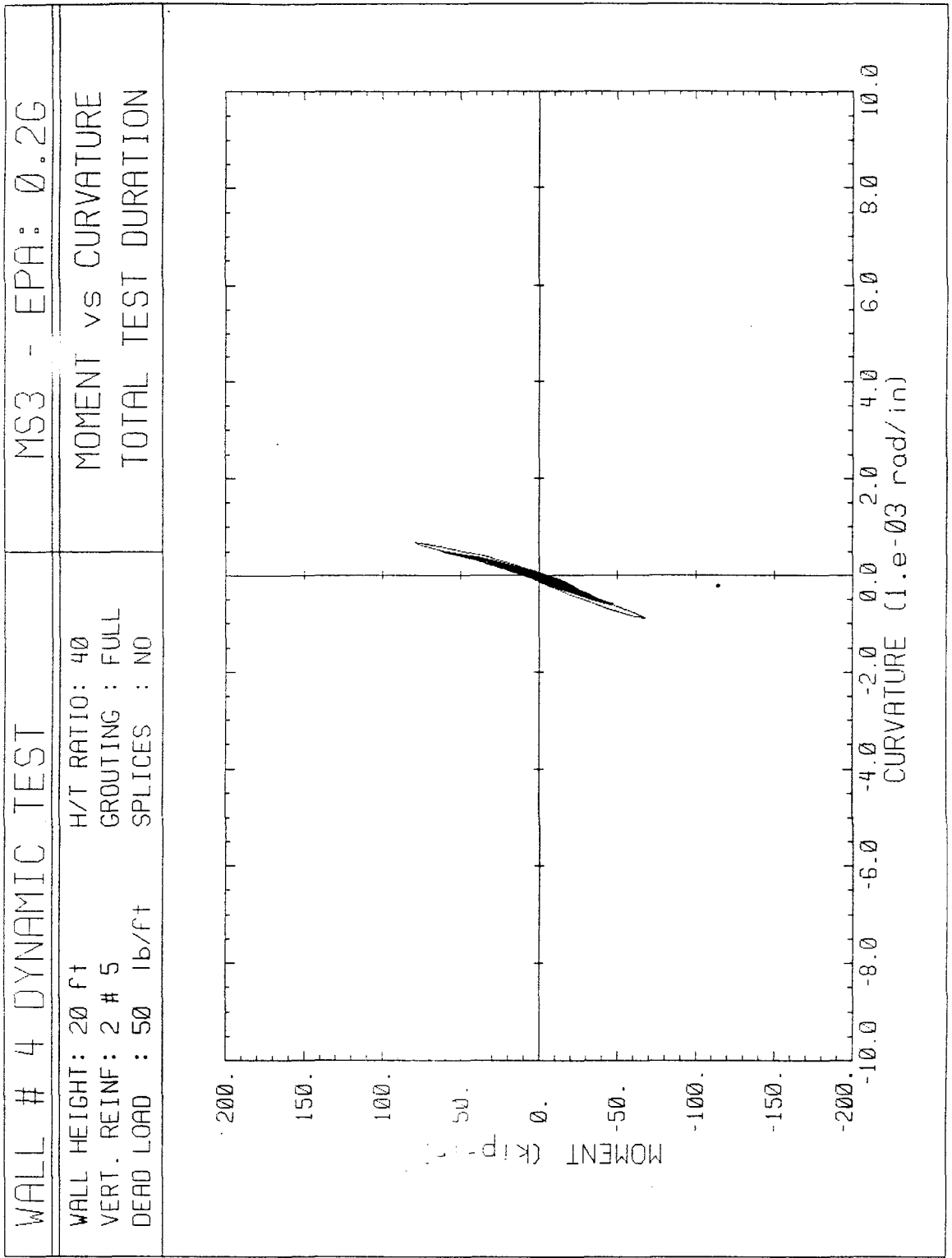


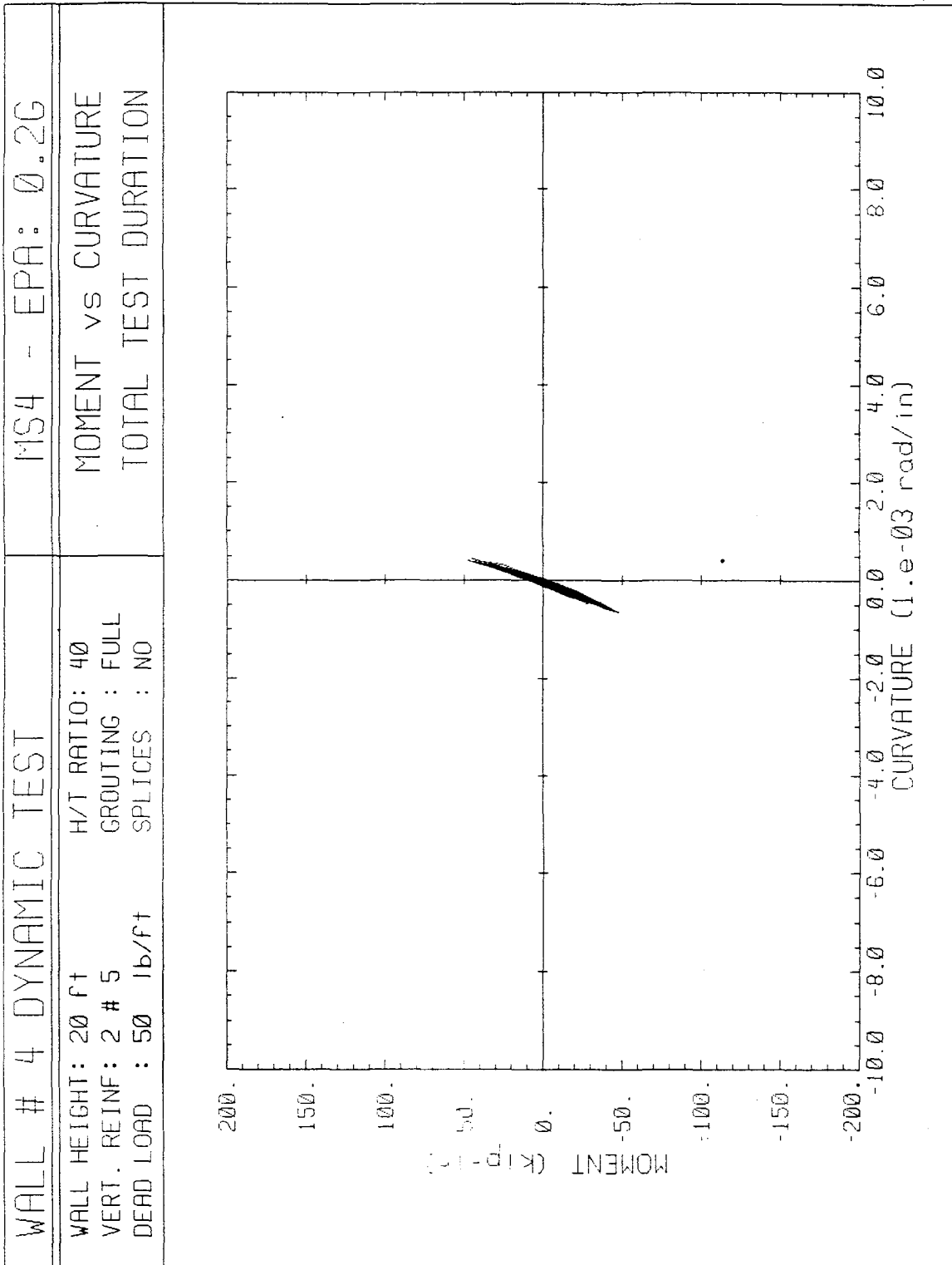


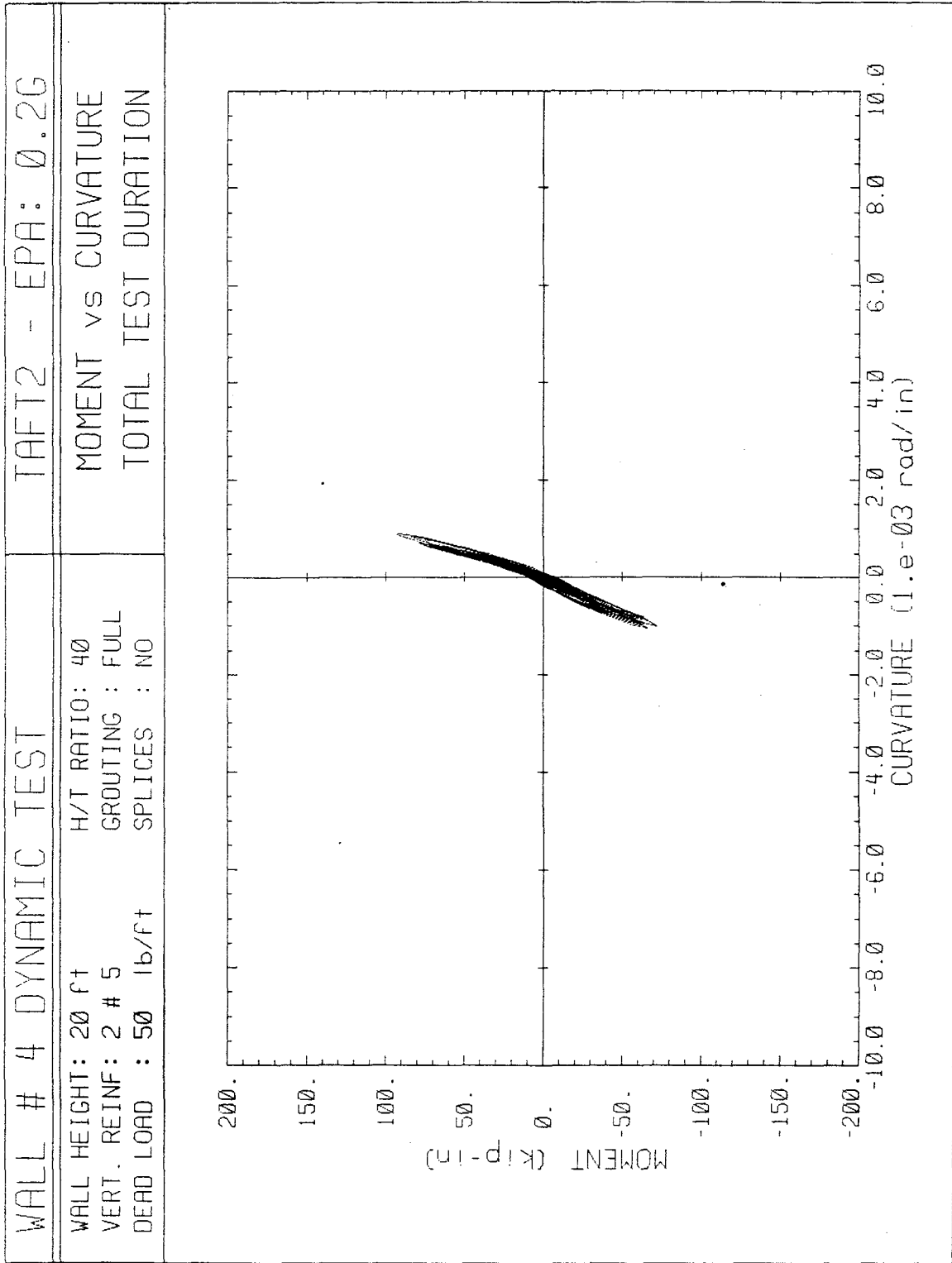


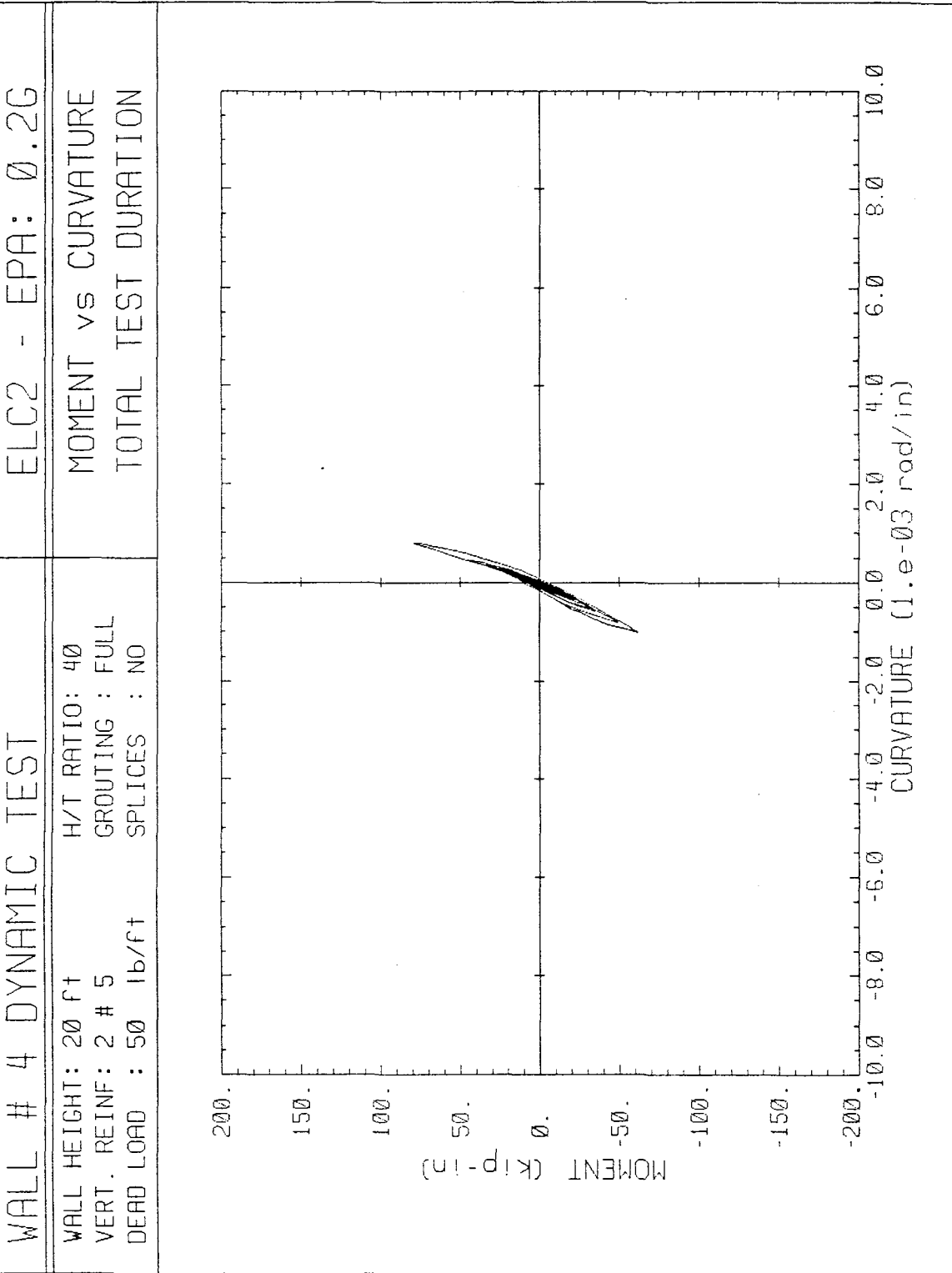


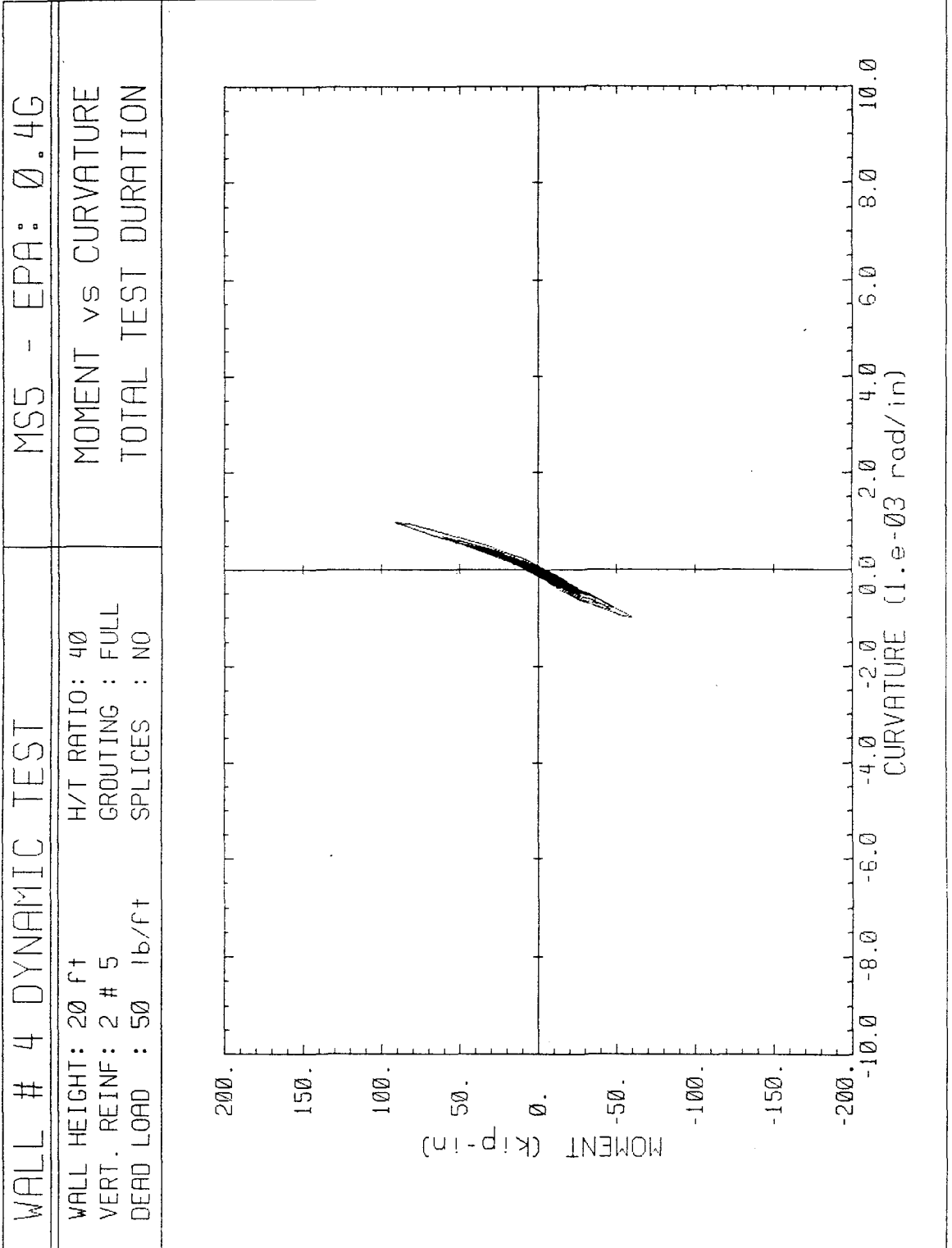


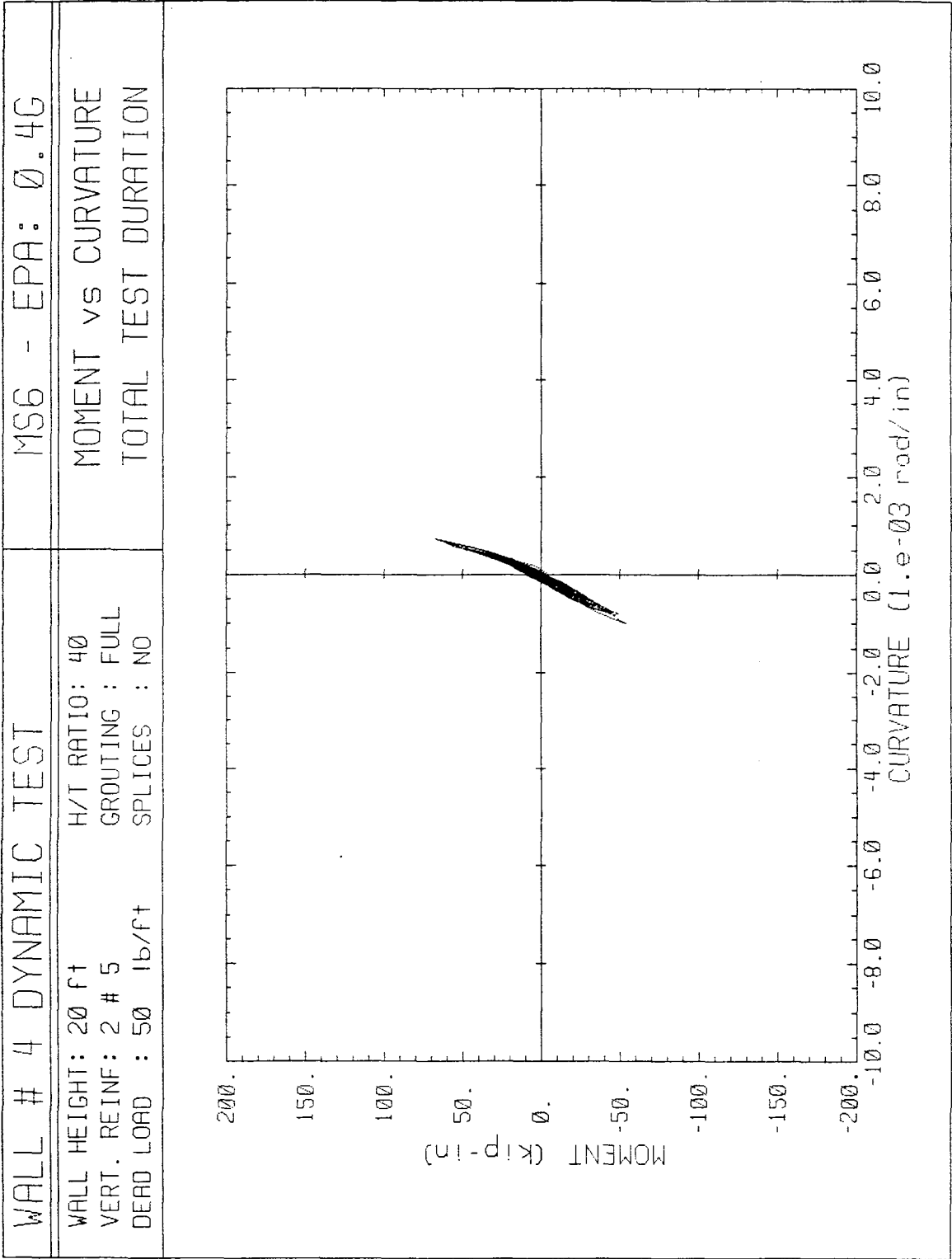


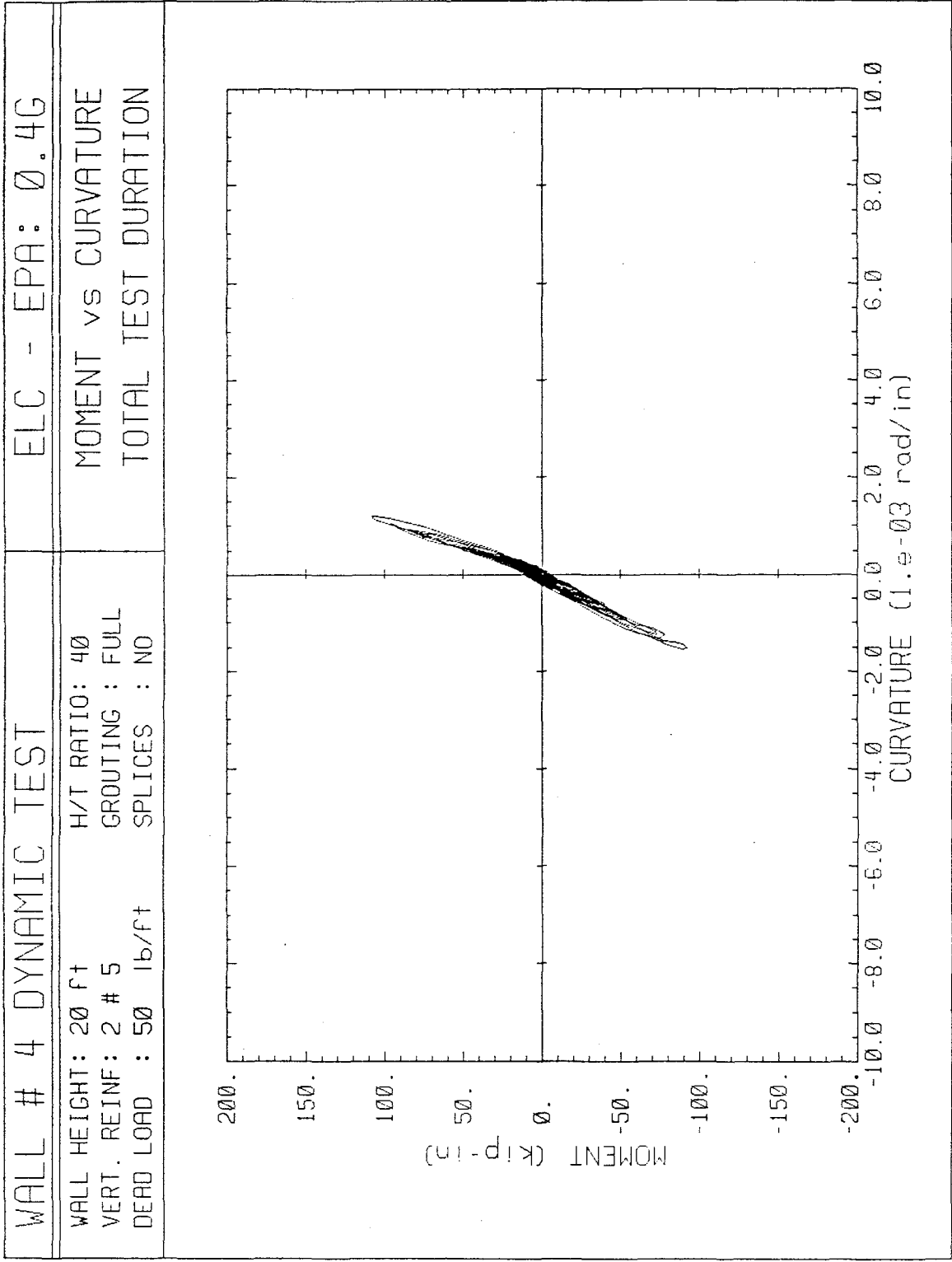


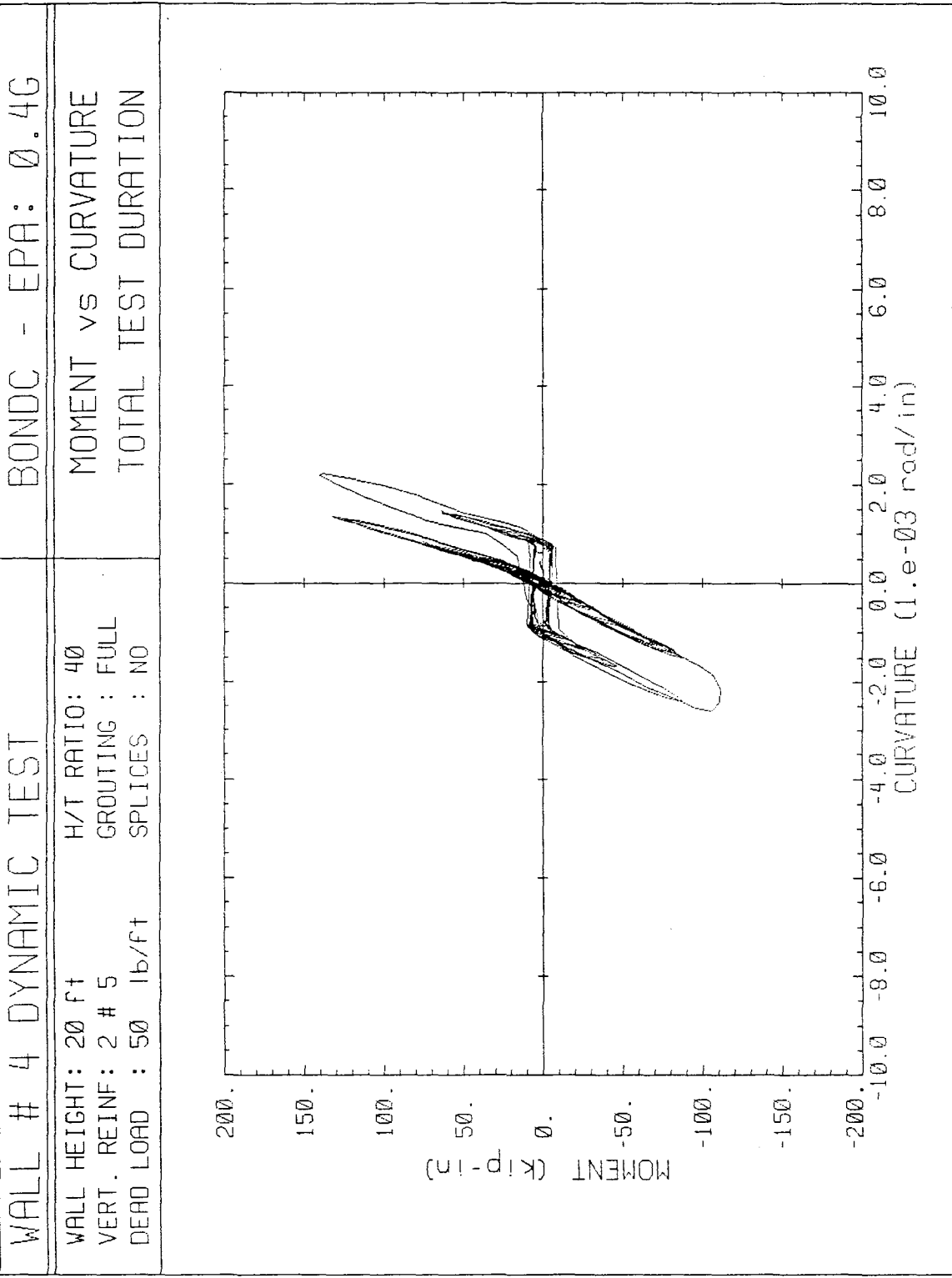


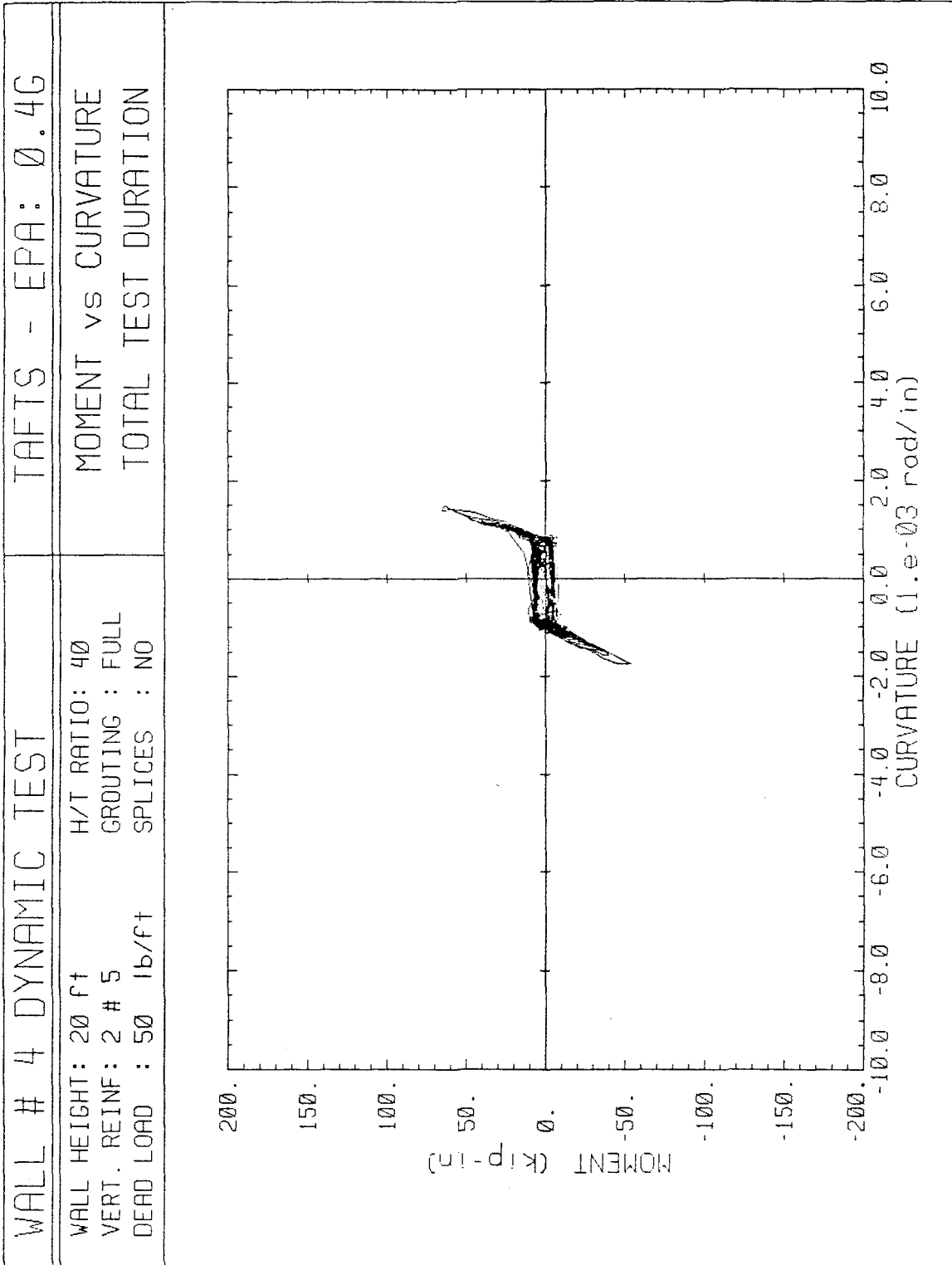


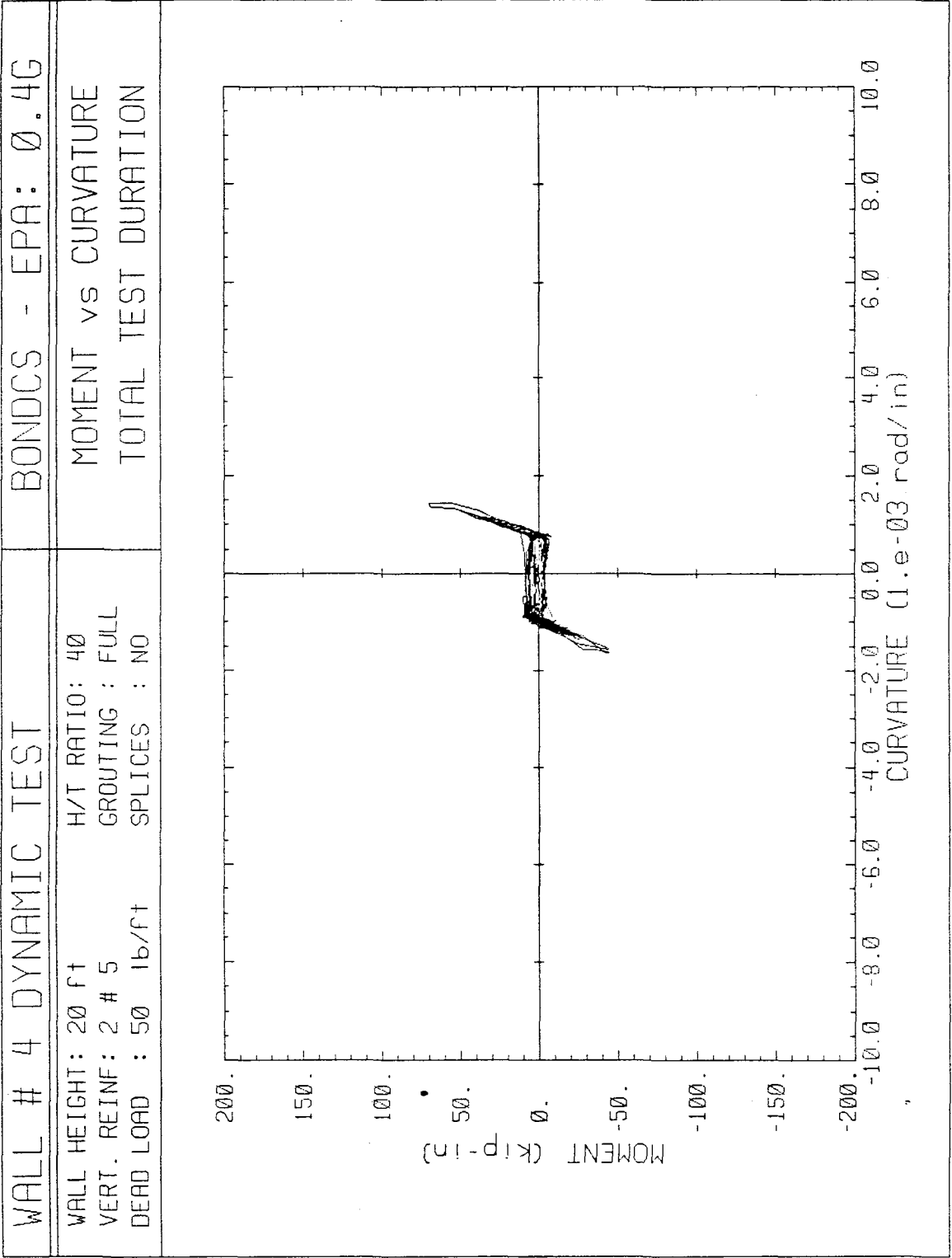


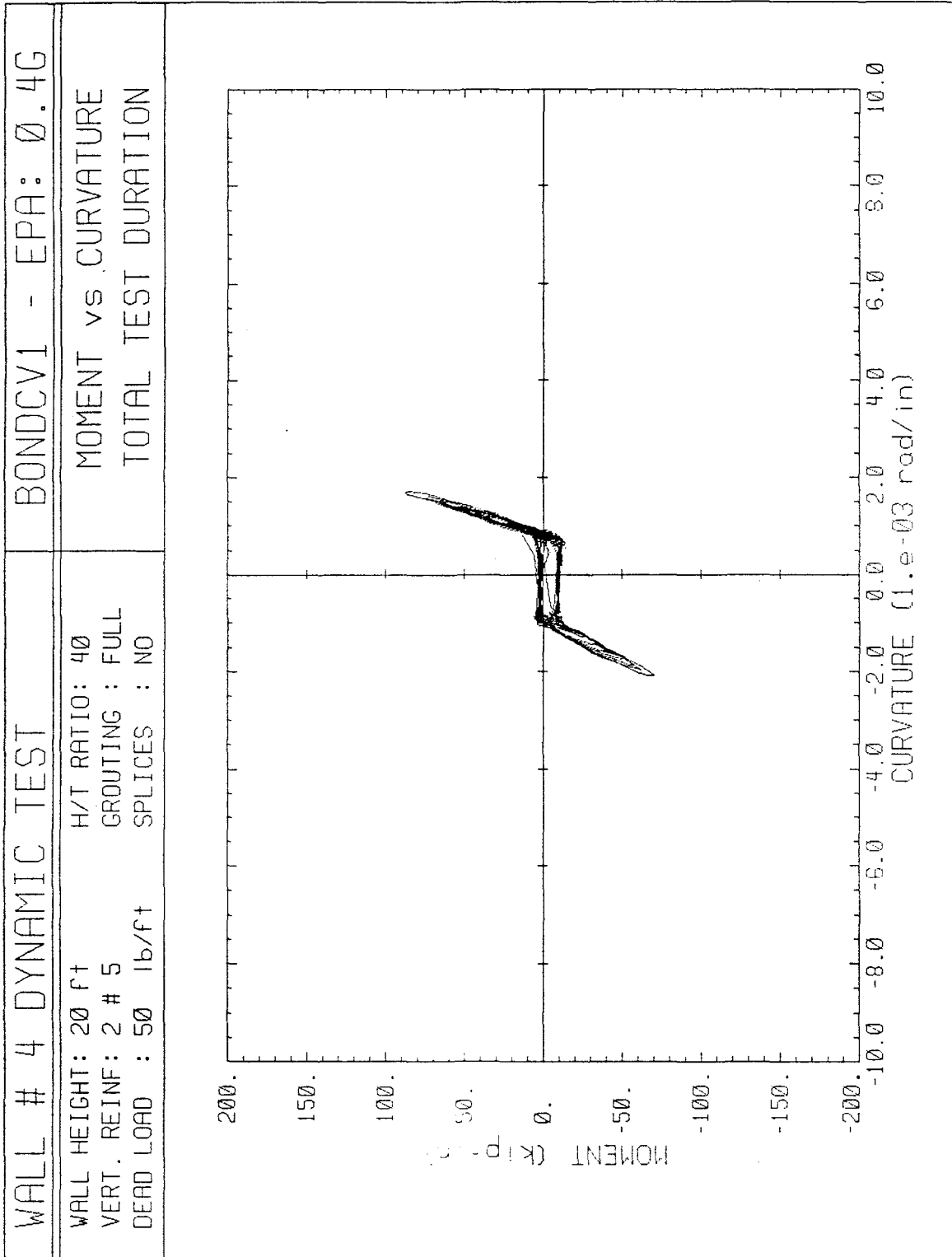


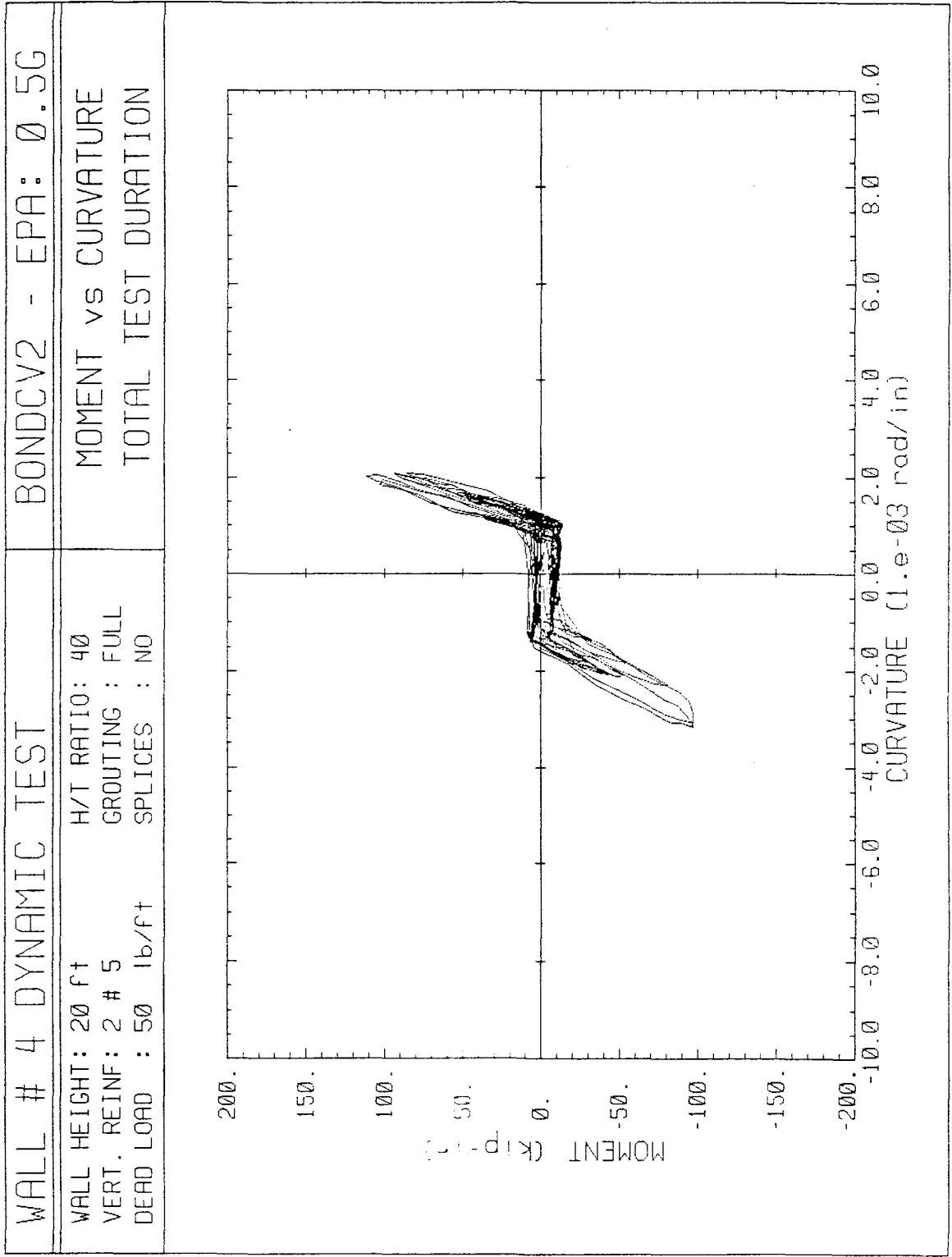


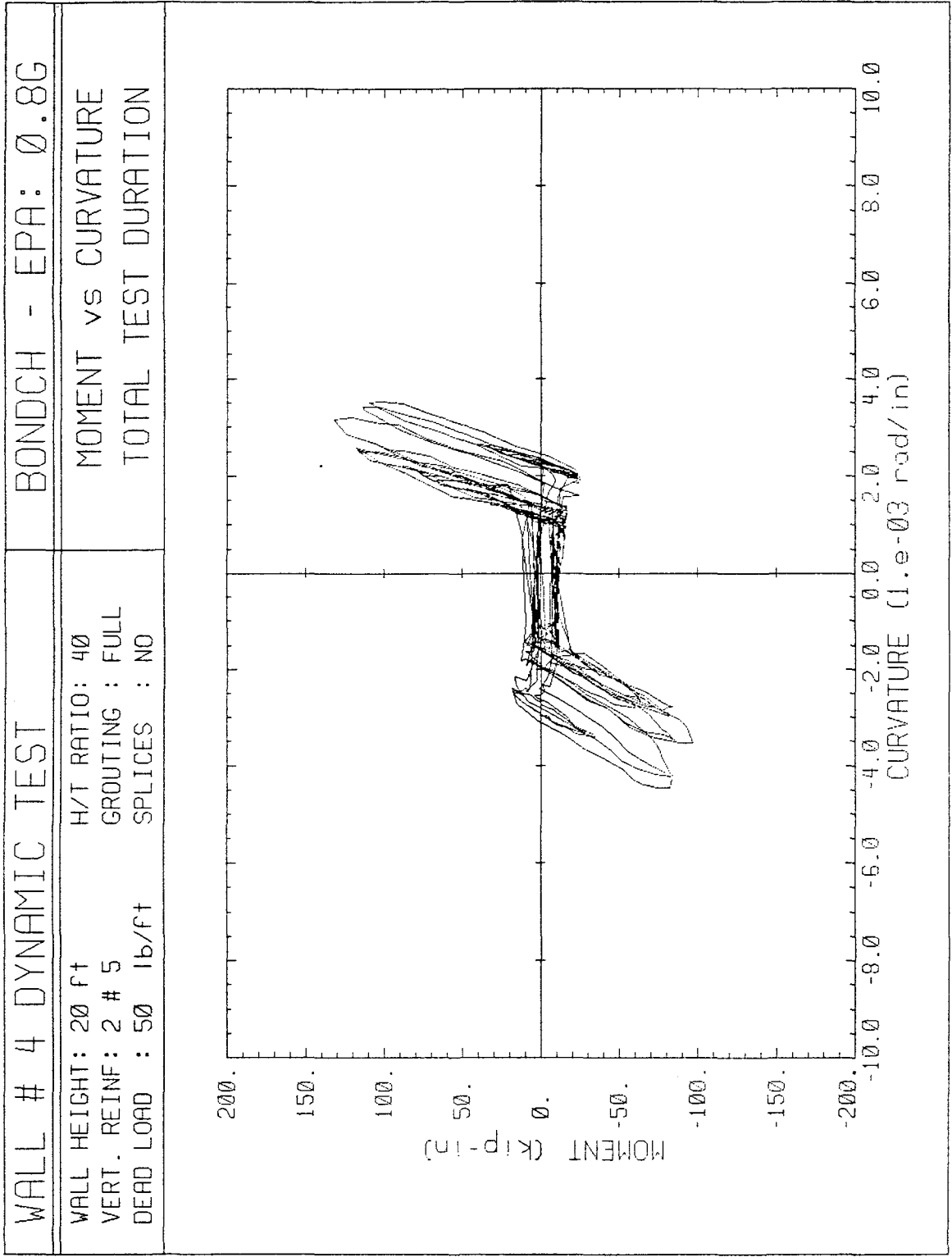












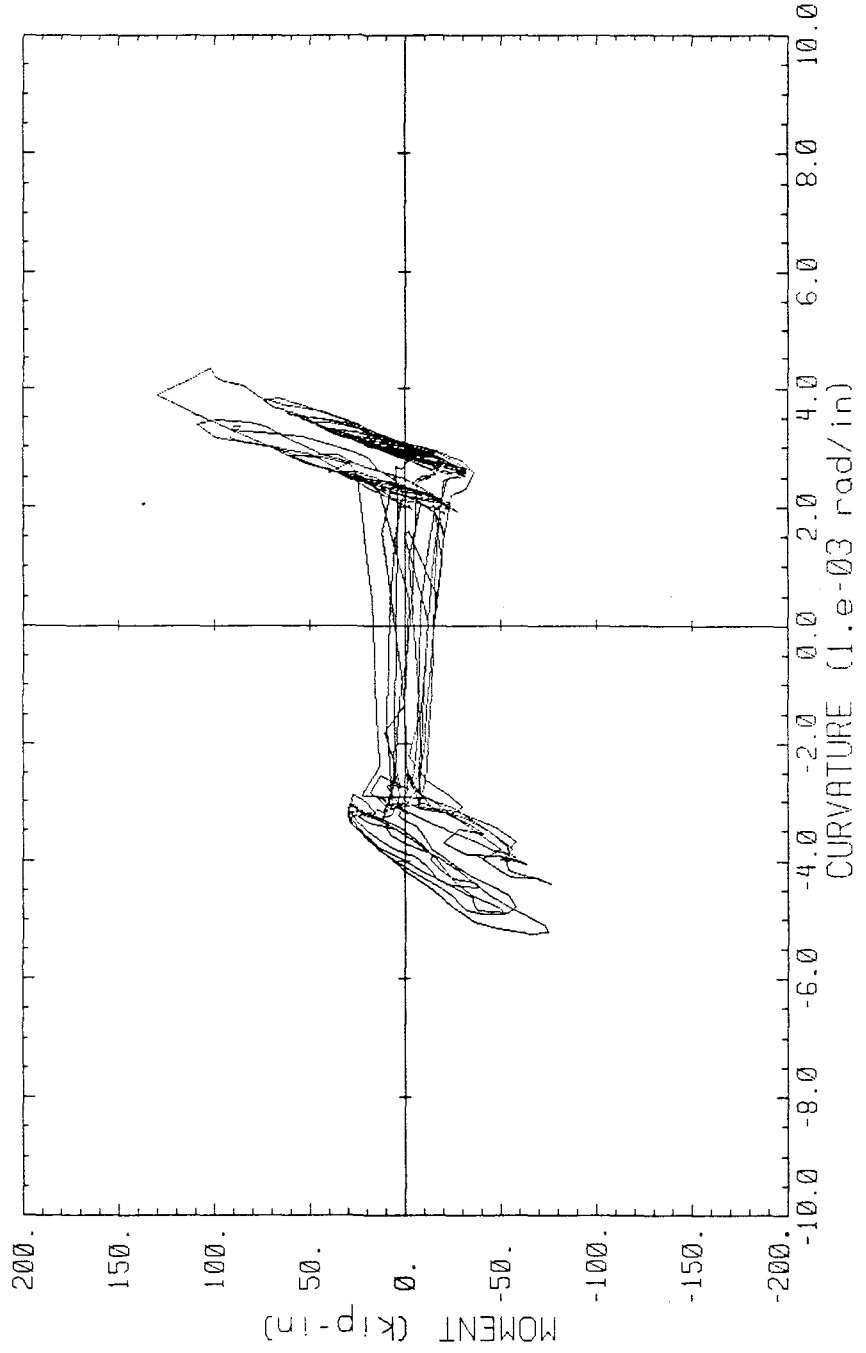
WALL # 4 DYNAMIC TEST

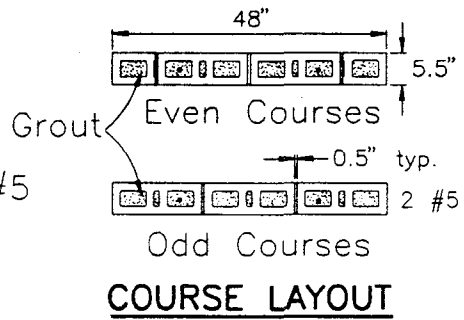
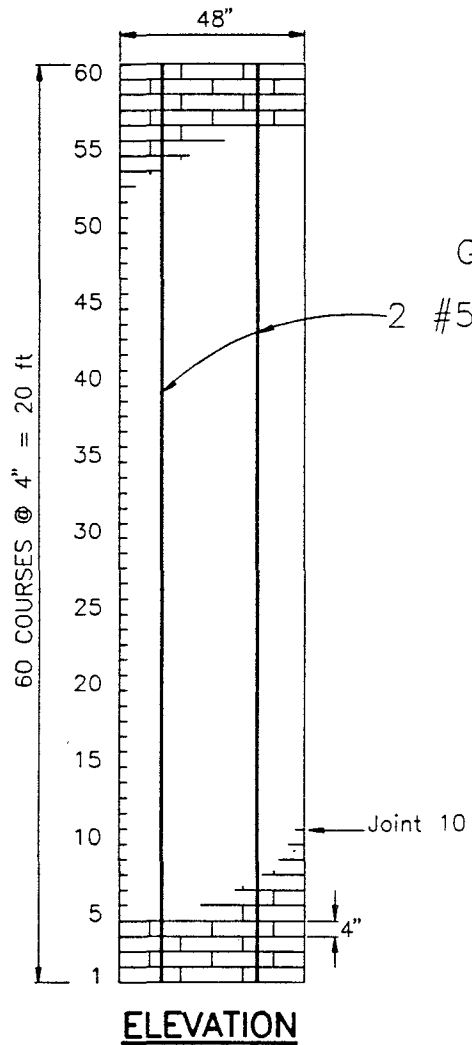
BONDCSH - EPA: 0.8G

WALL HEIGHT: 20 FT
VERT. REINF: 2 # 5
DEAD LOAD : 50 lb/ft

H/T RATIO: 40
GROUTING : FULL
SPLICES : NO

MOMENT vs CURVATURE
TOTAL TEST DURATION

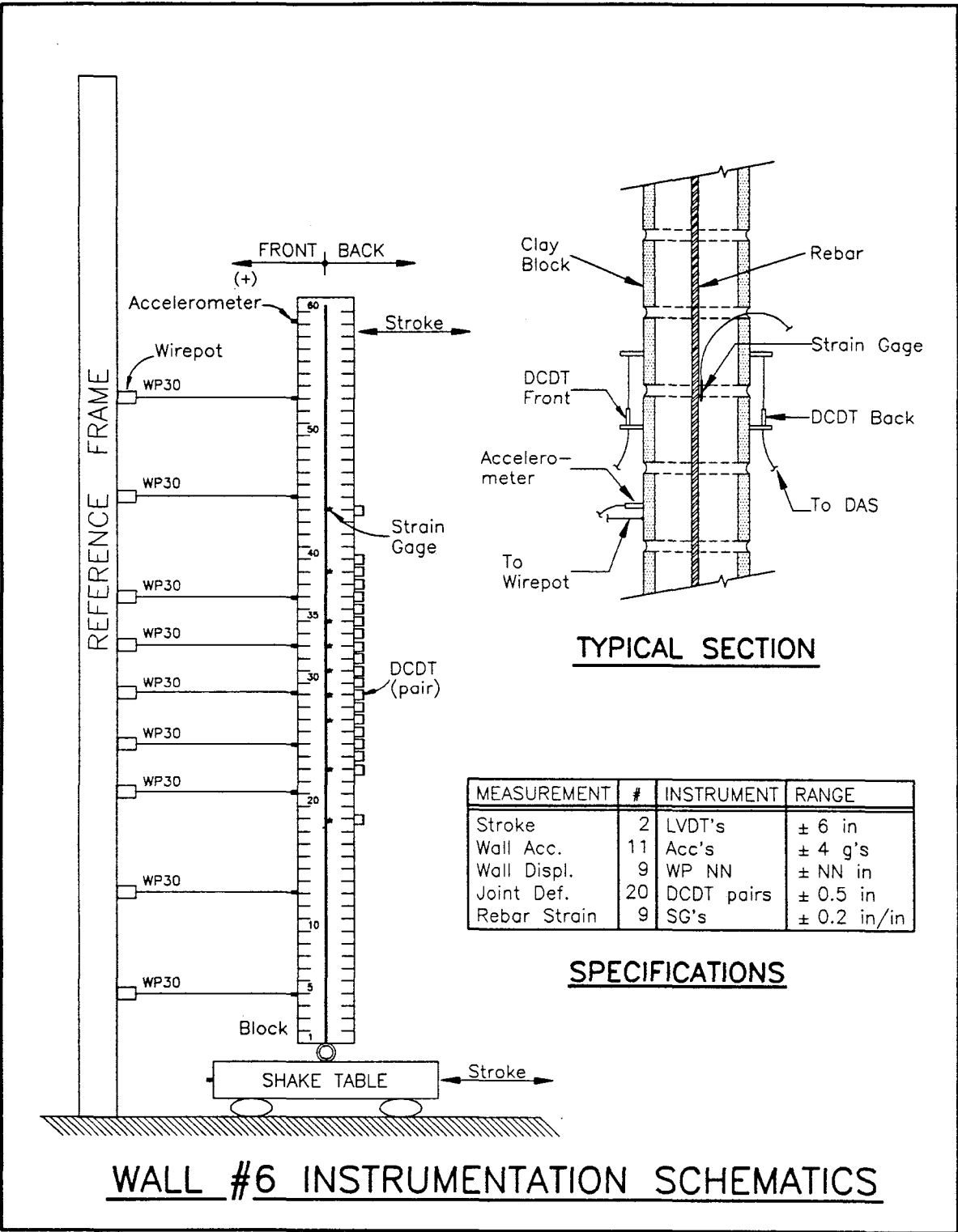




Wall Height: 20 ft
 Nominal Thickness: 6"
 $H/t = 40$
 Vertical Reinf.: 2 #5
 No Splices
 Full Grouting
 Dead Load: 300 lb/ft

SPECIFICATIONS

WALL #6 CONSTRUCTION DRAWINGS



Wall No. 6: Test Sequence & Peak Measurements

Run		EPA	Diaphragm	Displacement (in)			Acceleration (g)			Rebar Strain (in/in)
No	ID			Bottom	Center	Top	Bottom	Center	Top	
1	MS1	0.10	Flexible	1.33	1.47	1.45	0.08	0.55	0.24	
2	MS2	0.10	Stiff	0.27	0.78	0.29	0.10	0.62	0.29	
3	TAFT1	0.10	Flexible	0.81	0.88	0.84	0.07	0.14	0.13	
4	ELC1	0.10	Stiff	1.25	2.05	1.30	0.14	0.72	0.42	
5	MS3	0.20	Flexible	2.64	3.15	3.22	0.22	0.45	0.29	
6	MS4	0.20	Stiff	3.54	4.04	4.12	0.23	0.61	0.38	
7	TAFT2	0.20	Flexible	2.28	2.92	2.67	0.18	0.40	0.29	
8	ELC2	0.20	Stiff	1.46	2.62	1.62	0.19	0.63	0.40	
9	MS5	0.40	Flexible	3.42	4.88	5.33	0.38	0.67	0.60	
10	MS6	0.40	Stiff	2.96	4.13	4.59	0.39	0.53	0.60	
11	ELC	0.40	Flexible	3.00	5.51	4.76	0.36	0.81	0.47	
12	BONDC	0.40	Flexible	2.54	5.26	3.73	0.32	0.71	0.40	
13	TAFTS	0.40	Stiff	4.71	5.43	4.77	0.36	0.83	0.63	
14	BONDCS	0.40	Stiff	2.55	4.30	3.04	0.32	0.69	0.64	
15	BONDC2	0.40	Flexible	2.55	6.75	3.72	0.32	0.96	0.38	
16	BONDC3	0.50	Flexible	3.75	10.81	5.47	0.51	1.12	0.71	
17	BONDCH	0.80	Flexible	3.14	10.26	5.50	0.66	1.43	1.18	
18	BONDCHSH	0.80	Stiff	4.57	13.04	5.11	1.13	1.78	1.83	

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 1: MS1 0.10 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	1.45 in	Acc Top	0.24 g
Disp Cent	1.47 in	Acc Cent	0.55 g
Disp Bot	1.33 in	Acc Bot	0.08 g
Peak Defl	0.28 in		
Inertia Force	1.99 kips	Eqv Load	120.0 lb/ft
Bending Mt	73.66 kip-in	Seismic C	0.45
		C/Acc Bot	5.40

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in ⁴	EmIg	2669000 kip-in ²
Avg Freq	4.53 Hz	EIeqv	1578000 kip-in ²
		EmIg/EIeqv	1.69

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0040	0.0027	in
Faceshell Comp. Strain	0.0005	0.0005	in/in
Faceshell Opening	0.0070	0.0046	in
Curvature	0.1700	0.1700	(1/in)*10 ⁻³
EI joint		433000	kip-in ²

CES

October 9, 1989

10:13:29 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 2: MS2 0.10 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	0.29 in	Acc Top	0.29 g
Disp Cent	0.78 in	Acc Cent	0.62 g
Disp Bot	0.27 in	Acc Bot	0.10 g
Peak Defl	0.78 in		
Inertia Force	2.04 kips	Eqv Load	120.0 lb/ft
Bending Mt	73.88 kip-in	Seismic C	0.45
		C/Acc Bot	4.51

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	4.44 Hz	EIeqv	568000 kip-in2
		EmIg/EIeqv	4.70

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0154	0.0116	in
Faceshell Comp. Strain	0.0015	0.0015	in/in
Faceshell Opening	0.0263	0.0201	in
Curvature	1.3100	0.7800	(1/in)*10-3
EI joint		93000	kip-in2

CES

October 9, 1989

10:13:32 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 3: TAFT1 0.10 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	0.84 in	Acc Top	0.13 g
Disp Cent	0.88 in	Acc Cent	0.14 g
Disp Bot	0.81 in	Acc Bot	0.07 g
Peak Defl	0.16 in		
Inertia Force	0.46 kips	Eqv Load	30.0 lb/ft
Bending Mt	17.68 kip-in	Seismic C	0.11
		C/Acc Bot	1.55

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in ⁴	EmIg	2669000 kip-in ²
Avg Freq	3.45 Hz	EIeqv	663000 kip-in ²
		EmIg/EIeqv	4.03

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0036	0.0036	in
Faceshell Comp. Strain	0.0004	0.0001	in/in
Faceshell Opening	0.0063	0.0063	in
Curvature	0.2700	0.2400	(1/in)*10 ⁻³
EI joint		73000	kip-in ²

CES

October 9, 1989

10:13:34 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 4: ELC1 0.10 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	1.30 in	Acc Top	0.42 g
Disp Cent	2.05 in	Acc Cent	0.72 g
Disp Bot	1.25 in	Acc Bot	0.14 g
Peak Defl	0.98 in		
Inertia Force	1.96 kips	Eqv Load	130.0 lb/ft
Bending Mt	77.57 kip-in	Seismic C	0.47
		C/Acc Bot	3.38

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	2.62 Hz	EIeqv	475000 kip-in2
		EmIg/EIeqv	5.62

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0182	0.0149	in
Faceshell Comp. Strain	0.0020	0.0020	in/in
Faceshell Opening	0.0330	0.0259	in
Curvature	1.6500	1.0000	(1/in)*10-3
EI joint		77000	kip-in2

CES

October 9, 1989

10:13:38 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 5: MS3 0.20 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	3.22 in	Acc Top	0.29 g
Disp Cent	3.15 in	Acc Cent	0.45 g
Disp Bot	2.64 in	Acc Bot	0.22 g
Peak Defl	0.72 in		
Inertia Force	1.21 kips	Eqv Load	80.0 lb/ft
Bending Mt	50.09 kip-in	Seismic C	0.31
		C/Acc Bot	1.39

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in ⁴	EmIg	2669000 kip-in ²
Avg Freq	2.44 Hz	EIeqv	417000 kip-in ²
		EmIg/EIeqv	6.40

LOCAL RESPONSE

Rebar Strain	Peak	Joint	28
Strain Ductility	0.00	0.00	in/in
Avg Joint Opening	0.0129	0.0107	in
Faceshell Comp. Strain	0.0014	0.0014	in/in
Faceshell Opening	0.0232	0.0185	in
Curvature	1.1500	0.7100	(1/in)*10 ⁻³
EI joint		70000	kip-in ²

CES

October 9, 1989

10:13:50 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 6: MS4 0.20 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	4.12 in	Acc Top	0.38 g
Disp Cent	4.04 in	Acc Cent	0.61 g
Disp Bot	3.54 in	Acc Bot	0.23 g
Peak Defl	1.01 in		
Inertia Force	1.70 kips	Eqv Load	110.0 lb/ft
Bending Mt	67.73 kip-in	Seismic C	0.41
		C/Acc Bot	1.79

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in ⁴	EmIg	2669000 kip-in ²
Avg Freq	2.33 Hz	EIeqv	402000 kip-in ²
		EmIg/EIeqv	6.64

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0160	0.0138	in
Faceshell Comp. Strain	0.0018	0.0018	in/in
Faceshell Opening	0.0285	0.0239	in
Curvature	1.4300	0.9200	(1/in)*10 ⁻³
EI joint		74000	kip-in ²

CES

October 9, 1989

10:13:57 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 7: TAFT2 0.20 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	2.67 in	Acc Top	0.29 g
Disp Cent	2.92 in	Acc Cent	0.40 g
Disp Bot	2.28 in	Acc Bot	0.18 g
Peak Defl	0.80 in		
Inertia Force	1.40 kips	Eqv Load	80.0 lb/ft
Bending Mt	50.60 kip-in	Seismic C	0.31
		C/Acc Bot	1.71

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	2.32 Hz	EIeqv	380000 kip-in2
		EmIg/EIeqv	7.02

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0129	0.0108	in
Faceshell Comp. Strain	0.0014	0.0014	in/in
Faceshell Opening	0.0224	0.0185	in
Curvature	1.0700	0.7000	(1/in)*10-3
EI joint		71000	kip-in2

CES

October 9, 1989

10:14:05 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 8: ELC2 0.20 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	1.62 in	Acc Top	0.40 g
Disp Cent	2.62 in	Acc Cent	0.63 g
Disp Bot	1.46 in	Acc Bot	0.19 g
Peak Defl	1.47 in		
Inertia Force	1.75 kips	Eqv Load	120.0 lb/ft
Bending Mt	71.86 kip-in	Seismic C	0.44
		C/Acc Bot	2.30

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in ⁴	EmIg	2669000 kip-in ²
Avg Freq	2.14 Hz	EIeqv	293000 kip-in ²
		EmIg/EIeqv	9.11

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0195	0.0133	in
Faceshell Comp. Strain	0.0021	0.0021	in/in
Faceshell Opening	0.0340	0.0230	in
Curvature	1.6500	0.8800	(1/in)*10 ⁻³
EI joint		81000	kip-in ²

CES

October 9, 1989

10:14:12 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 9: MS5 0.40 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.33 in	Acc Top	0.60 g
Disp Cent	4.88 in	Acc Cent	0.67 g
Disp Bot	3.42 in	Acc Bot	0.38 g
Peak Defl	1.74 in		
Inertia Force	1.92 kips	Eqv Load	130.0 lb/ft
Bending Mt	78.05 kip-in	Seismic C	0.48
		C/Acc Bot	1.25

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	1.74 Hz	EIeqv	269000 kip-in2
		EmIg/EIeqv	9.92

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0172	0.0163	in
Faceshell Comp. Strain	0.0019	0.0019	in/in
Faceshell Opening	0.0301	0.0281	in
Curvature	1.4500	1.0700	(1/in)*10-3
EI joint		73000	kip-in2

CES

October 9, 1989

10:14:19 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 10: MS6 0.40 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	4.59 in	Acc Top	0.60 g
Disp Cent	4.13 in	Acc Cent	0.53 g
Disp Bot	2.96 in	Acc Bot	0.39 g
Peak Defl	1.29 in		
Inertia Force	1.40 kips	Eqv Load	90.0 lb/ft
Bending Mt	51.30 kip-in	Seismic C	0.31
		C/Acc Bot	0.80

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	1.83 Hz	EIeqv	239000 kip-in2
		EmIg/EIeqv	11.17

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0145	0.0112	in
Faceshell Comp. Strain	0.0016	0.0016	in/in
Faceshell Opening	0.0253	0.0191	in
Curvature	1.1700	0.7300	(1/in)*10-3
EI joint		68000	kip-in2

CES

October 9, 1989

10:14:27 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 11: ELC 0.40 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	4.76 in	Acc Top	0.47 g
Disp Cent	5.51 in	Acc Cent	0.81 g
Disp Bot	3.00 in	Acc Bot	0.36 g
Peak Defl	2.07 in		
Inertia Force	2.24 kips	Eqv Load	140.0 lb/ft
Bending Mt	86.48 kip-in	Seismic C	0.53
		C/Acc Bot	1.46

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	1.92 Hz	EIeqv	251000 kip-in2
		EmIg/EIeqv	10.63

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0210	0.0161	in
Faceshell Comp. Strain	0.0018	0.0018	in/in
Faceshell Opening	0.0444	0.0278	in
Curvature	2.1300	1.0600	(1/in)*10-3
EI joint		78000	kip-in2

CES

October 9, 1989

10:14:34 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 12: BONDC 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	3.73 in	Acc Top	0.40 g
Disp Cent	5.26 in	Acc Cent	0.71 g
Disp Bot	2.54 in	Acc Bot	0.32 g
Peak Defl	2.58 in		
Inertia Force	2.52 kips	Eqv Load	160.0 lb/ft
Bending Mt	93.05 kip-in	Seismic C	0.57
		C/Acc Bot	1.77

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	1.74 Hz	EIeqv	216000 kip-in2
		EmIg/EIeqv	12.36

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0262	0.0190	in
Faceshell Comp. Strain	0.0024	0.0024	in/in
Faceshell Opening	0.0560	0.0330	in
Curvature	2.7100	1.2700	(1/in)*10-3
EI joint		72000	kip-in2

CES

October 9, 1989

10:14:41 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 13: TAFTS 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	4.77 in	Acc Top	0.63 g
Disp Cent	5.43 in	Acc Cent	0.83 g
Disp Bot	4.71 in	Acc Bot	0.36 g
Peak Defl	3.06 in		
Inertia Force	2.53 kips	Eqv Load	170.0 lb/ft
Bending Mt	102.12 kip-in	Seismic C	0.62
		C/Acc Bot	1.73

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in ⁴	EmIg	2669000 kip-in ²
Avg Freq	1.22 Hz	EIeqv	200000 kip-in ²
		EmIg/EIeqv	13.35

LOCAL RESPONSE

Rebar Strain	Peak	Joint 28	
Strain Ductility	0.00	0.00	in/in
Avg Joint Opening	0.0309	0.0211	in
Faceshell Comp. Strain	0.0025	0.0025	in/in
Faceshell Opening	0.0658	0.0372	in
Curvature	3.1700	1.4700	(1/in)*10 ⁻³
EI joint		69000	kip-in ²

CES

October 9, 1989

10:14:49 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 14: BONDACS 0.40 EPA

Wall Weight: 5.47 kips H/t Ratio: 20
Vert. Reinf: 2 # 5 Grouting : Full
Dead Load: 300 lb/ft Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	3.04 in	Acc Top	0.64 g
Disp Cent	4.30 in	Acc Cent	0.69 g
Disp Bot	2.55 in	Acc Bot	0.32 g
Peak Defl	3.54 in		
Inertia Force	2.28 kips	Eqv Load	140.0 lb/ft
Bending Mt	86.51 kip-in	Seismic C	0.53
		C/Acc Bot	1.65

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	1.37 Hz	EIeqv	147000 kip-in2
		EmIg/EIeqv	18.16

LOCAL RESPONSE

Rebar Strain	Peak	Joint	28
Strain Ductility	0.00		in/in
Avg Joint Opening	0.0324	0.0202	in
Faceshell Comp. Strain	0.0022	0.0022	in/in
Faceshell Opening	0.0670	0.0358	in
Curvature	3.1500	1.4200	(1/in)*10-3
EI joint		61000	kip-in2

CES

October 9, 1989

10:14:56 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 15: BONDC2 0.40 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	3.72 in	Acc Top	0.38 g
Disp Cent	6.75 in	Acc Cent	0.96 g
Disp Bot	2.55 in	Acc Bot	0.32 g
Peak Defl	5.34 in		
Inertia Force	3.05 kips	Eqv Load	200.0 lb/ft
Bending Mt	120.38 kip-in	Seismic C	0.73
		C/Acc Bot	2.29

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	1.16 Hz	EIeqv	135000 kip-in2
		EmIg/EIeqv	19.77

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0415	0.0239	in
Faceshell Comp. Strain	0.0025	0.0021	in/in
Faceshell Opening	0.0869	0.0478	in
Curvature	4.1200	2.1800	(1/in)*10-3
EI joint		55000	kip-in2

CES

October 9, 1989

10:15:04 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 16: BONDC3 0.50 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.47 in	Acc Top	0.71 g
Disp Cent	10.81 in	Acc Cent	1.12 g
Disp Bot	3.75 in	Acc Bot	0.51 g
Peak Defl	9.61 in		
Inertia Force	3.05 kips	Eqv Load	210.0 lb/ft
Bending Mt	125.41 kip-in	Seismic C	0.76
		C/Acc Bot	1.50

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	0.95 Hz	EIeqv	78000 kip-in2
		EmIg/EIeqv	34.22

LOCAL RESPONSE

	Peak	Joint 28	
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0587	0.0406	in
Faceshell Comp. Strain	0.0047	0.0029	in/in
Faceshell Opening	0.1200	0.0857	in
Curvature	5.8800	4.1000	(1/in)*10-3
EI joint		30000	kip-in2

CES

October 9, 1989

10:15:11 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 17: BONDCH 0.80 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.50 in	Acc Top	1.18 g
Disp Cent	10.26 in	Acc Cent	1.43 g
Disp Bot	3.14 in	Acc Bot	0.66 g
Peak Defl	9.69 in		
Inertia Force	3.43 kips	Eqv Load	240.0 lb/ft
Bending Mt	146.46 kip-in	Seismic C	0.89
		C/Acc Bot	1.35

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	0.82 Hz	EIEqv	91000 kip-in2
		EmIg/EIEqv	29.33

LOCAL RESPONSE

	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0589	0.0378	in
Faceshell Comp. Strain	0.0045	0.0020	in/in
Faceshell Opening	0.1200	0.0793	in
Curvature	5.6700	3.8500	(1/in)*10-3
EI joint		36000	kip-in2

CES

October 9, 1989

10:15:18 am

TCCMAR PROJECT

WALL No 6 DYNAMIC TEST Run No 18: BONDCSH 0.80 EPA

Wall Weight: 5.47 kips	H/t Ratio: 20
Vert. Reinf: 2 # 5	Grouting : Full
Dead Load: 300 lb/ft	Splices : No

SUMMARY OF EXTREME VALUES

GLOBAL WALL RESPONSE

Disp Top	5.11 in	Acc Top	1.83 g
Disp Cent	13.04 in	Acc Cent	1.78 g
Disp Bot	4.57 in	Acc Bot	1.13 g
Peak Defl	12.86 in		
Inertia Force	2.72 kips	Eqv Load	200.0 lb/ft
Bending Mt	117.52 kip-in	Seismic C	0.72
		C/Acc Bot	0.63

MATERIAL & MECHANICAL PROPERTIES

f'm	5350 psi	Em (Code)	4010 ksi
Ig	666 in4	EmIg	2669000 kip-in2
Avg Freq	0.70 Hz	EIeqv	55000 kip-in2
		EmIg/EIeqv	48.53

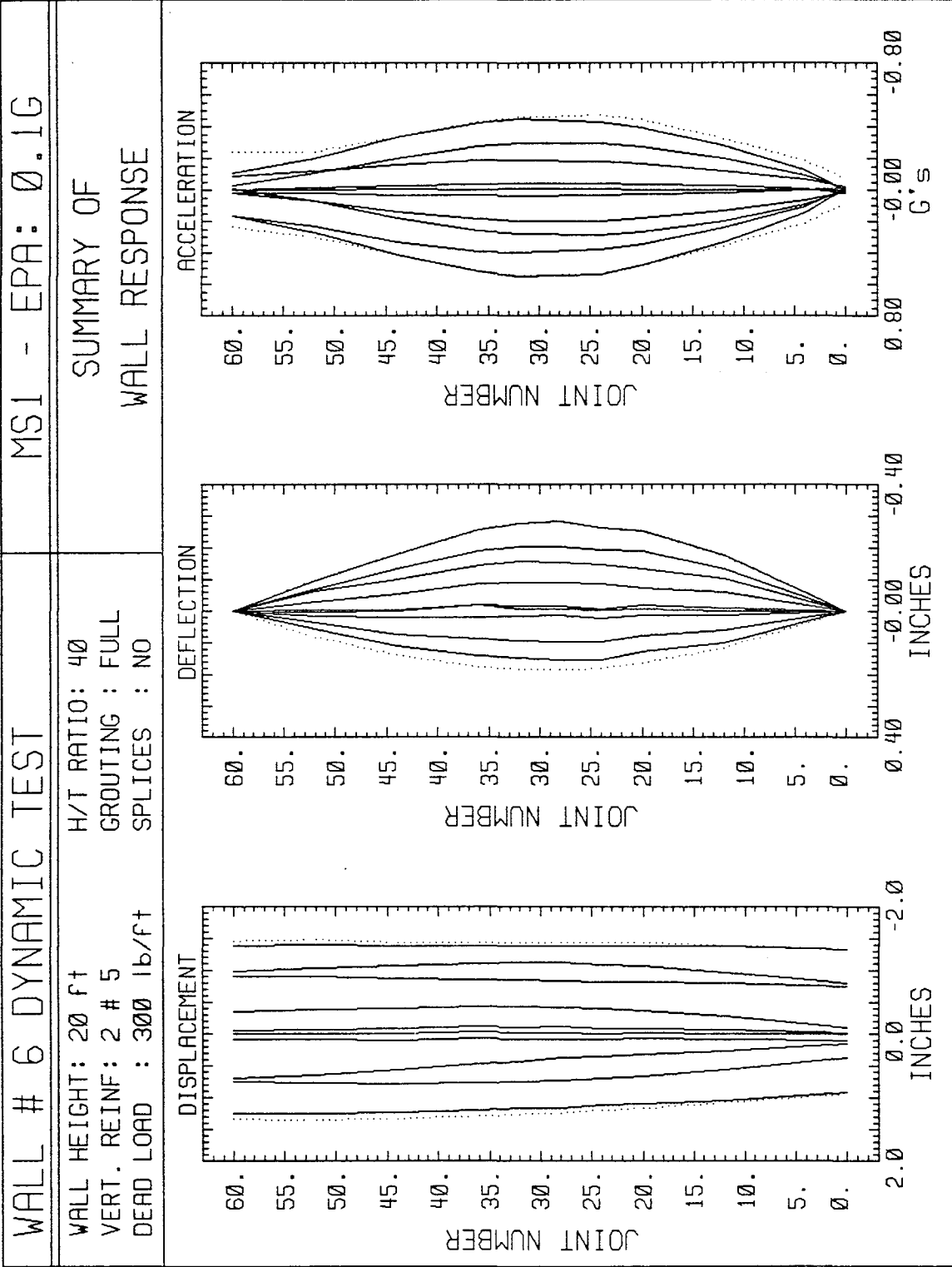
LOCAL RESPONSE

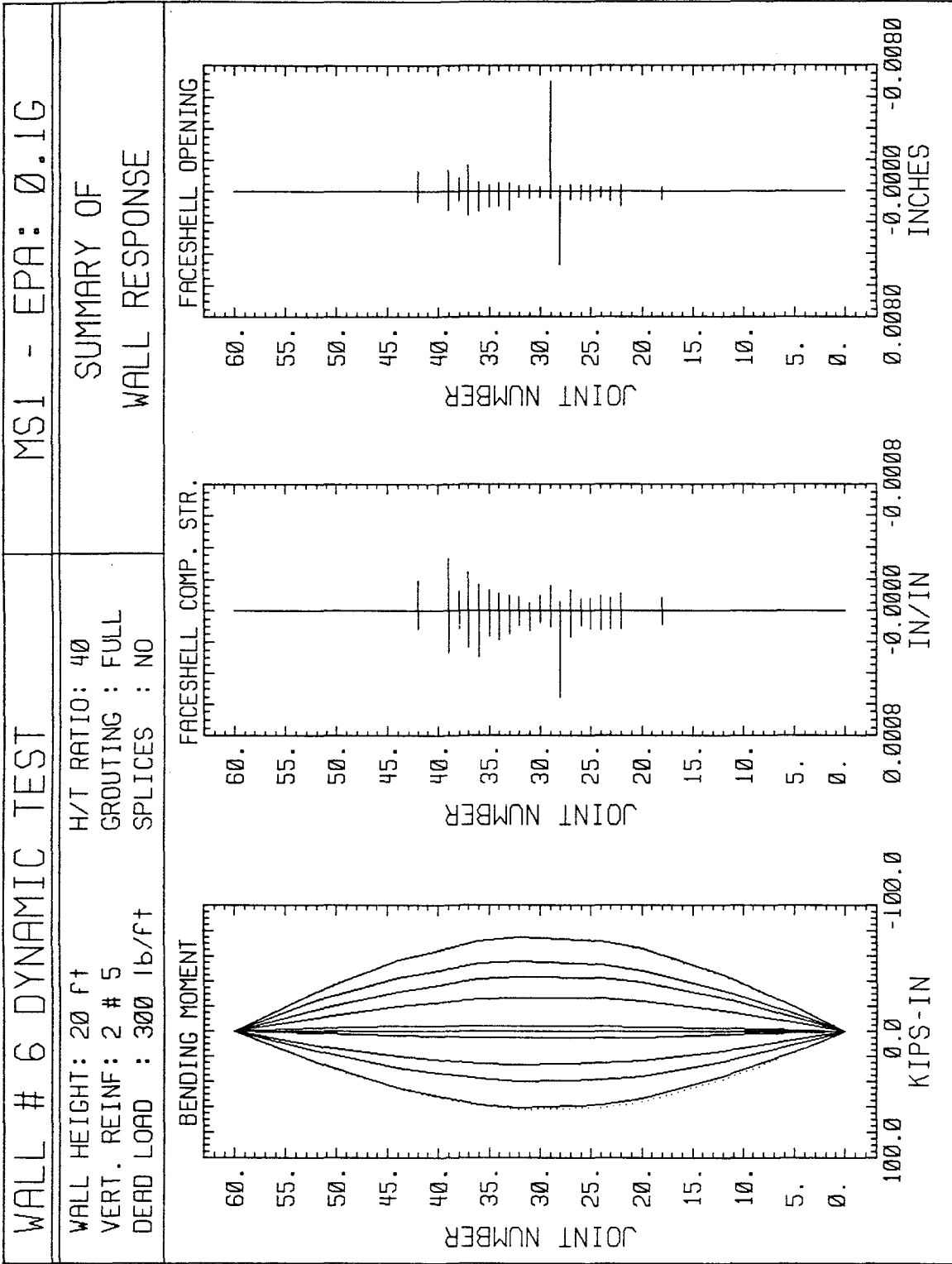
	Peak	Joint	28
Rebar Strain			in/in
Strain Ductility	0.00	0.00	in
Avg Joint Opening	0.0896	0.0463	in
Faceshell Comp. Strain	0.0053	0.0026	in/in
Faceshell Opening	0.1900	0.0970	in
Curvature	8.7500	4.8600	(1/in)*10-3
EI joint		22000	kip-in2

CES

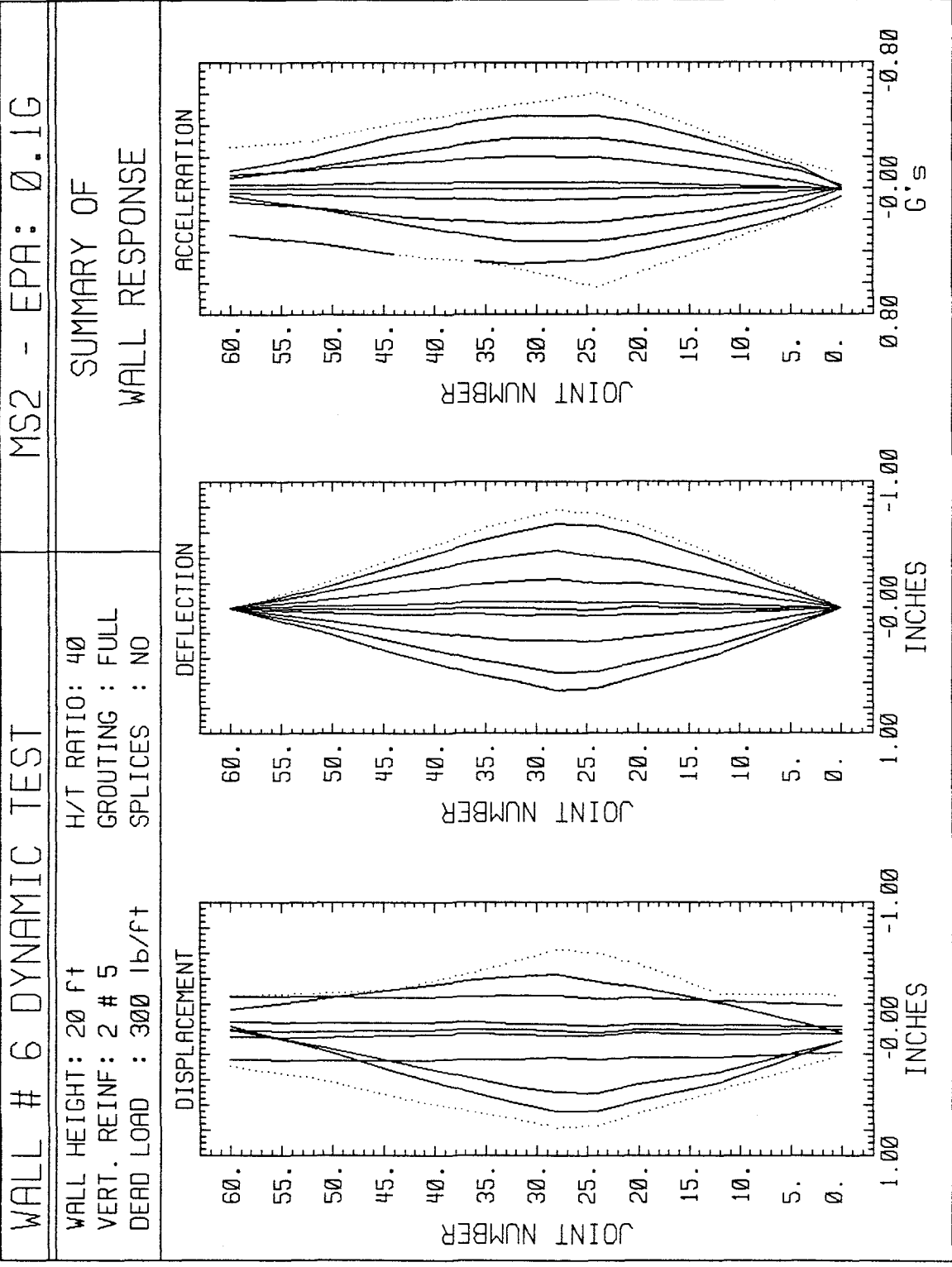
October 9, 1989

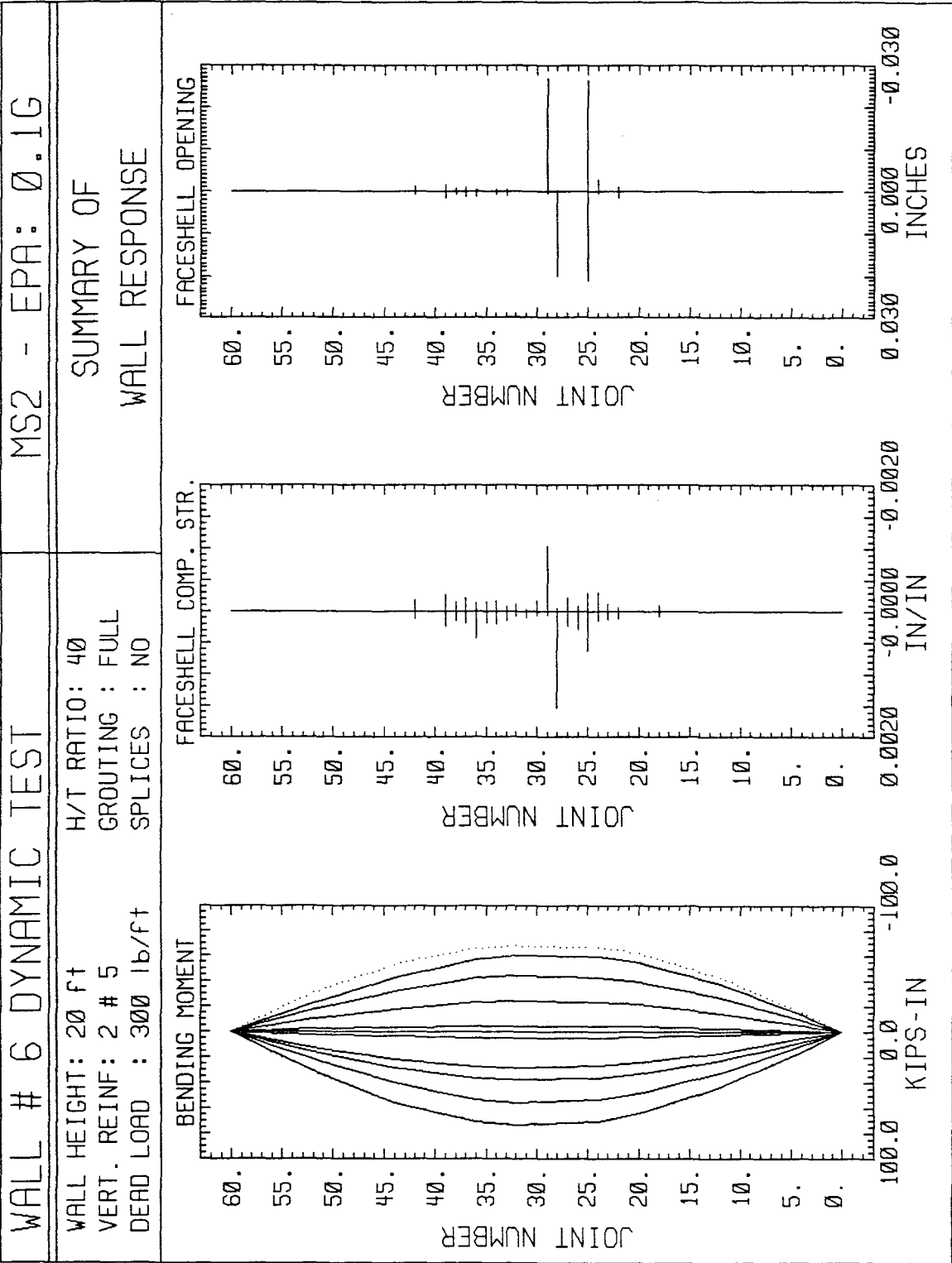
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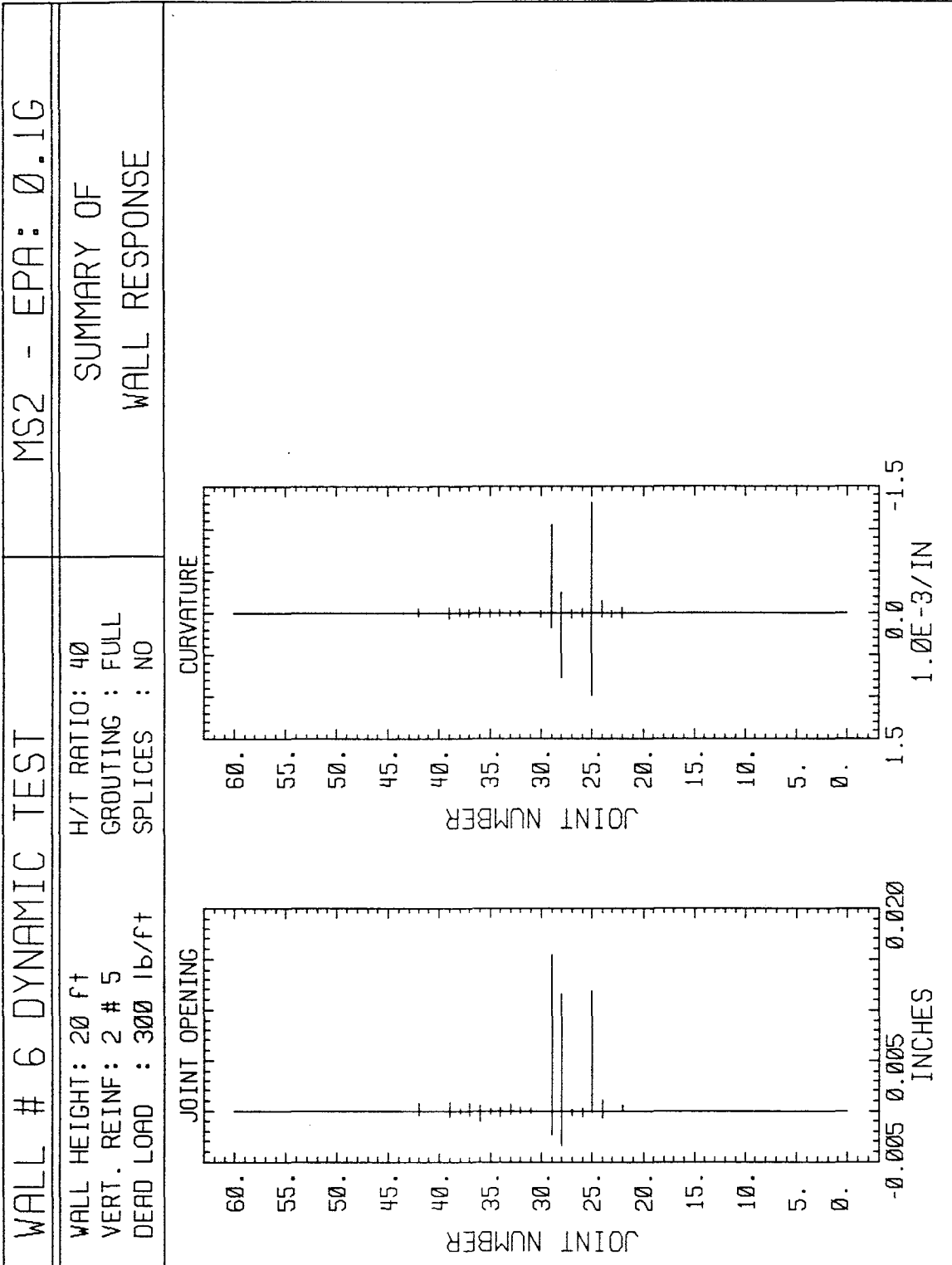


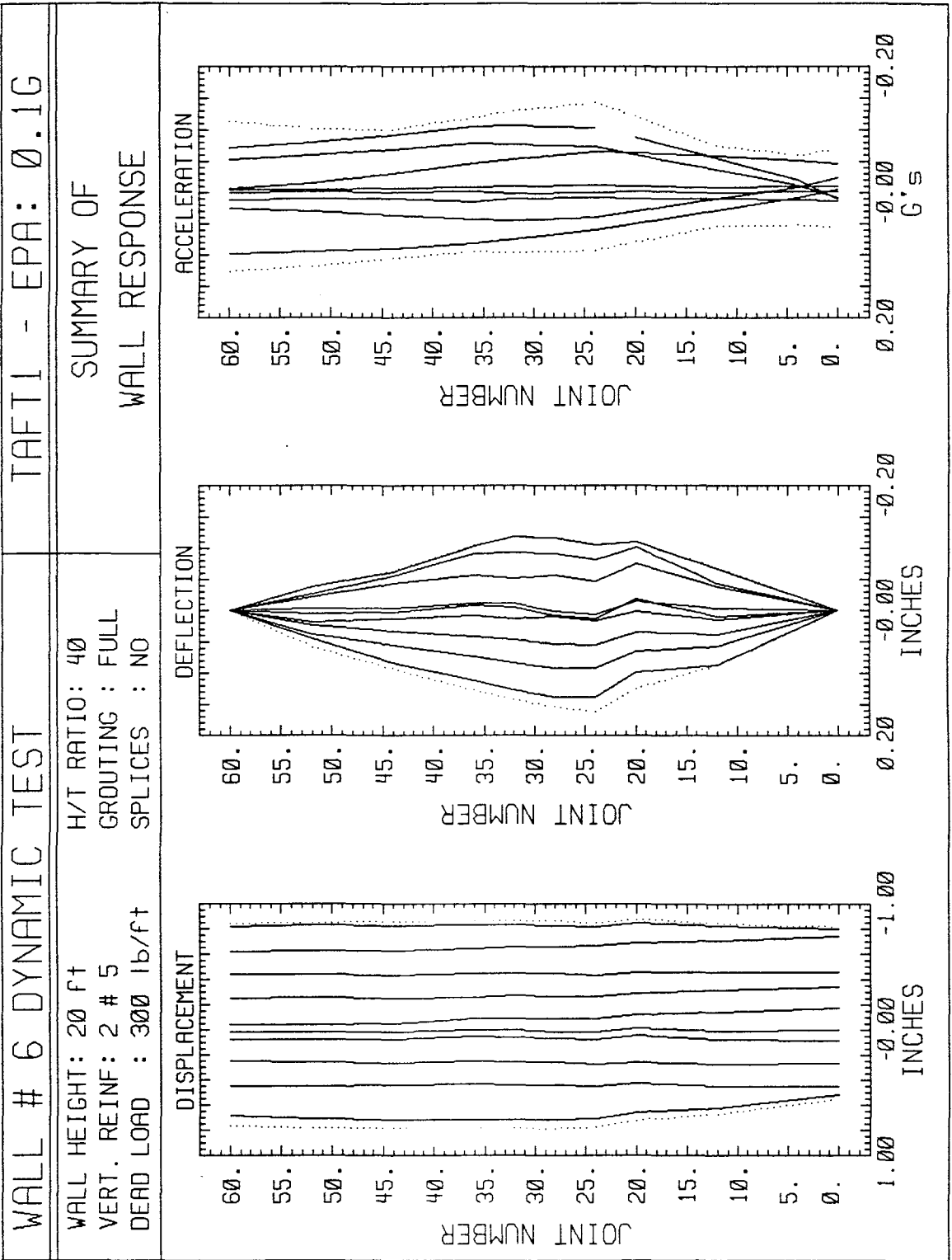


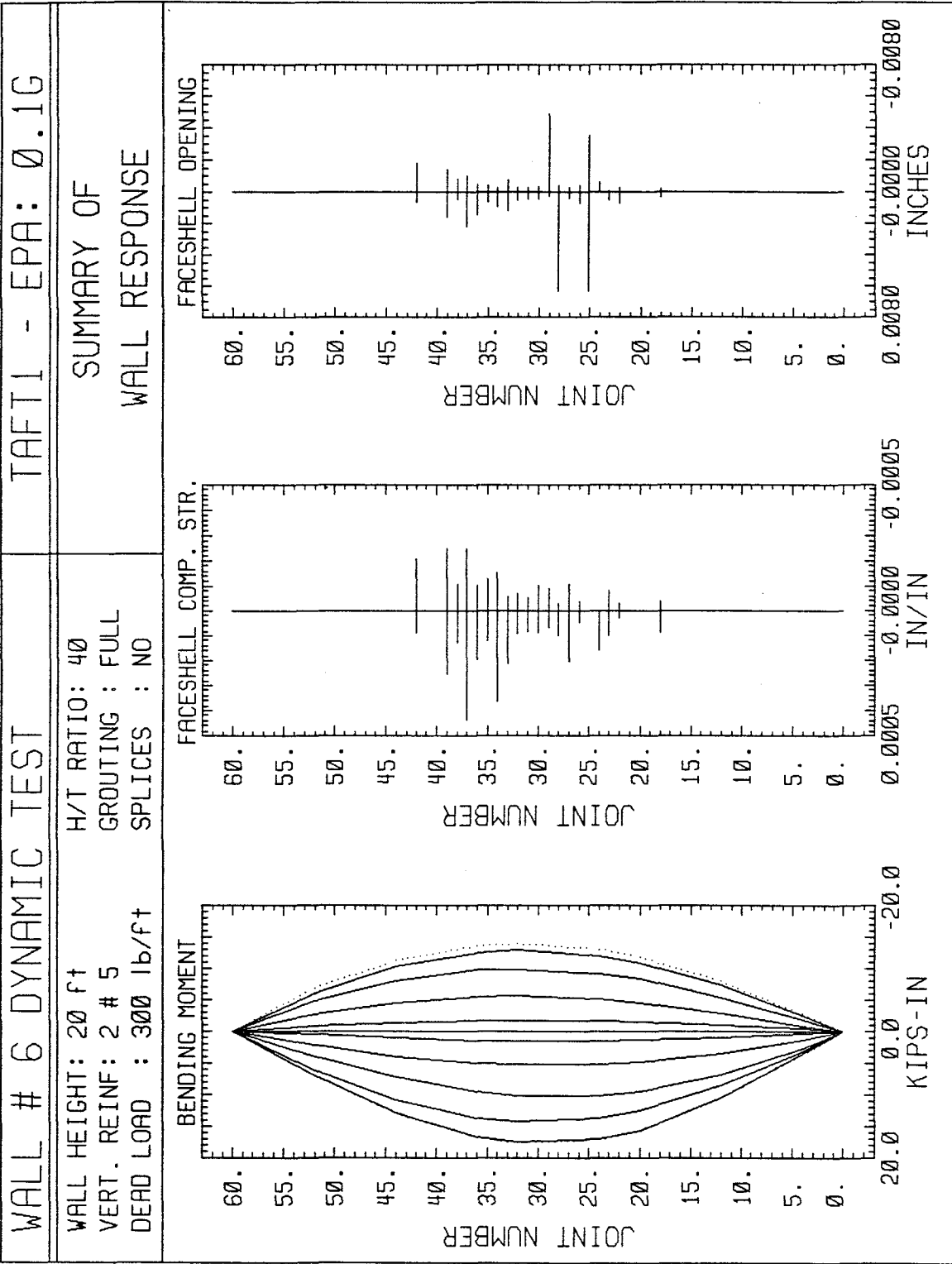
WALL # 6 DYNAMIC TEST	MSI - EPA: 0.1G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



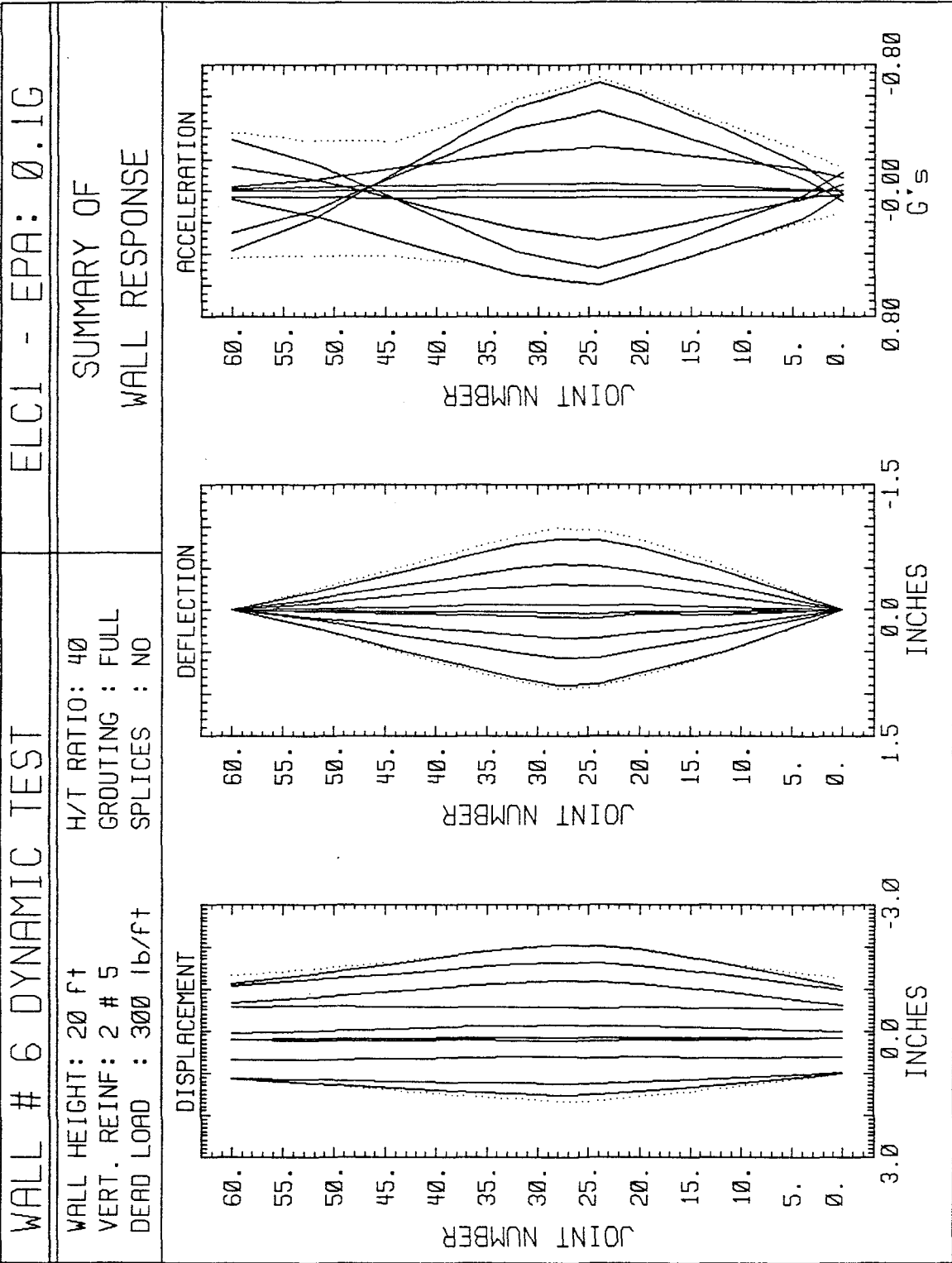


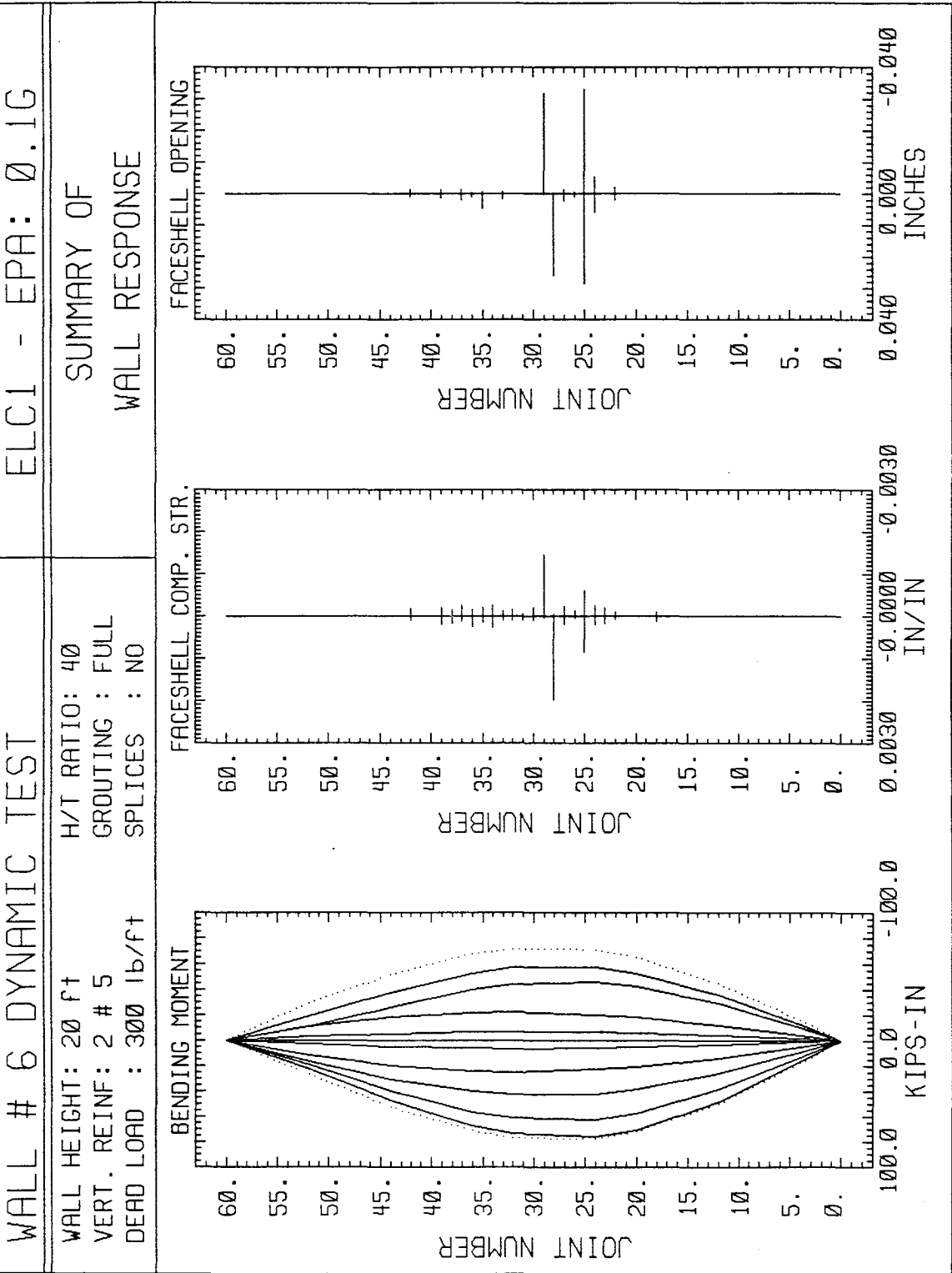


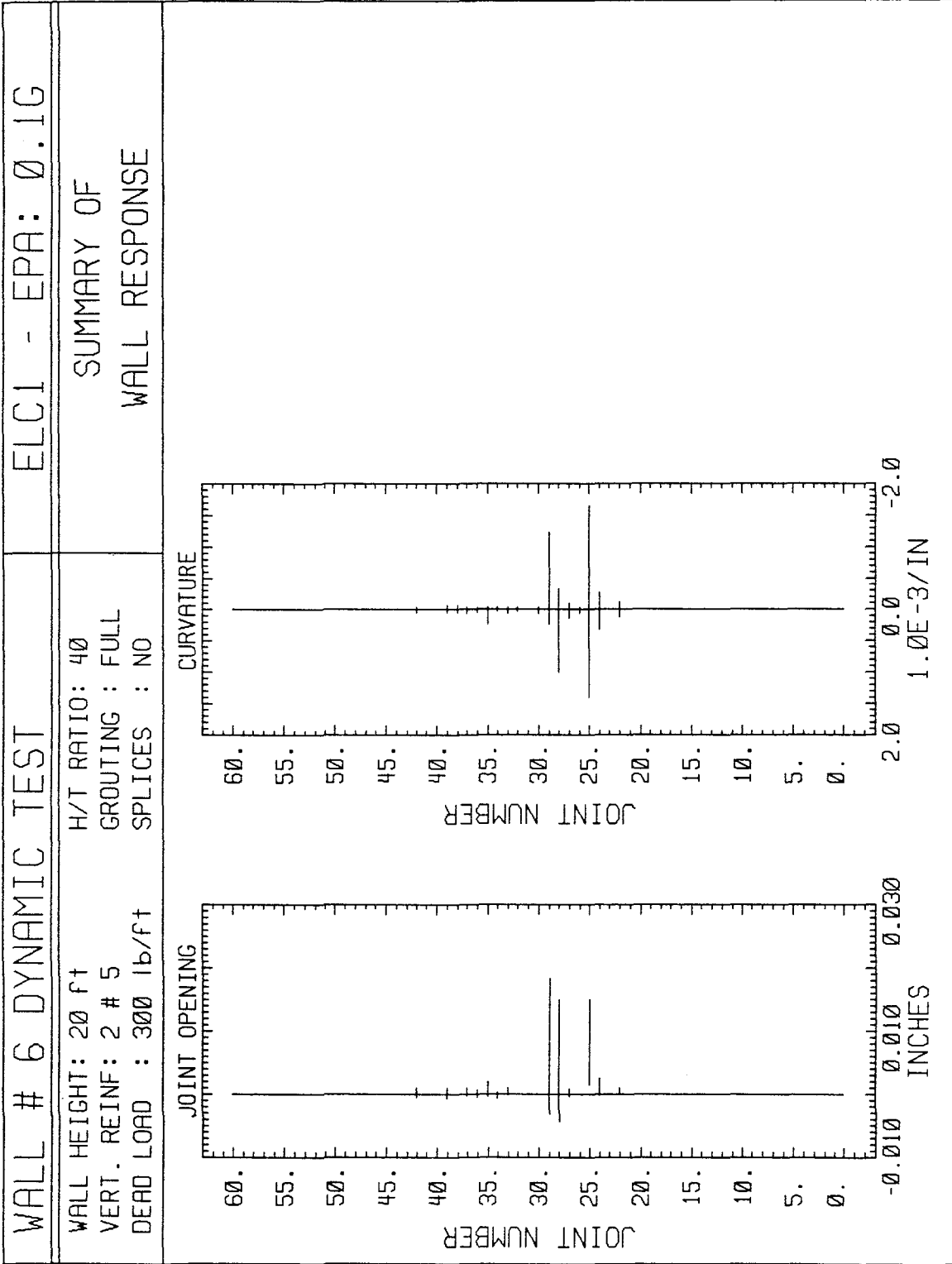


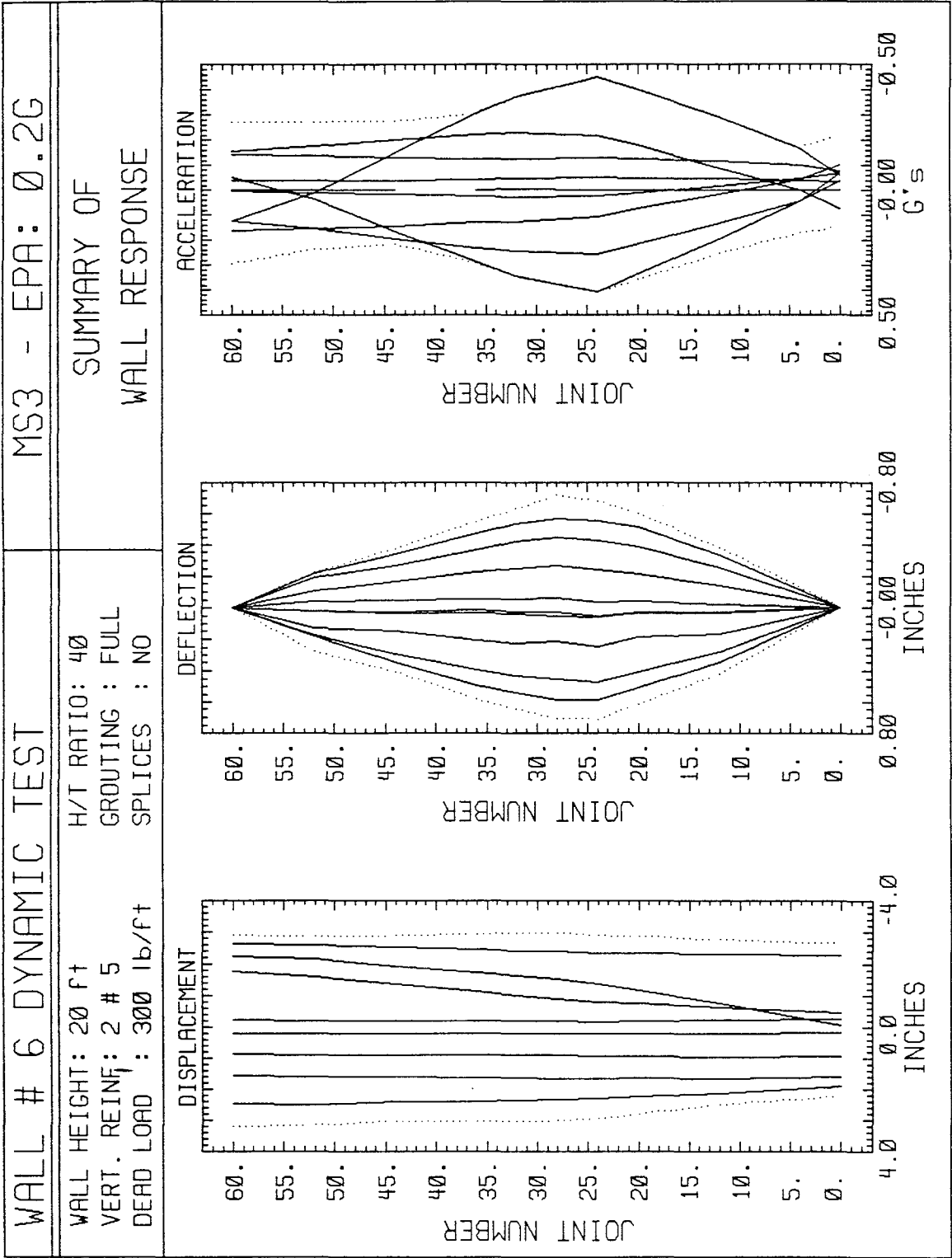


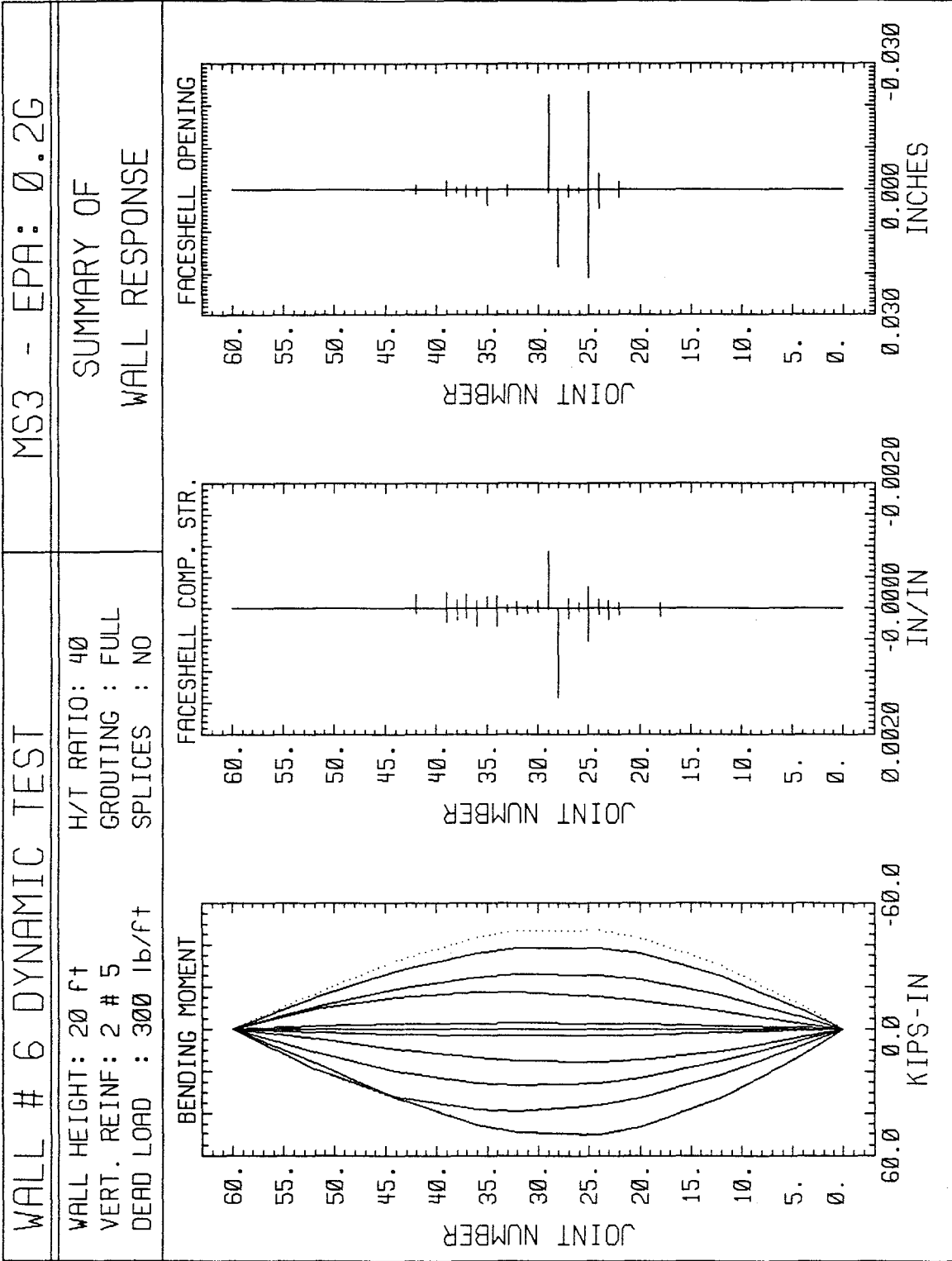
WALL # 6 DYNAMIC TEST	TAFT1 - EPA: 0.1G
WALL HEIGHT: 20 FT VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



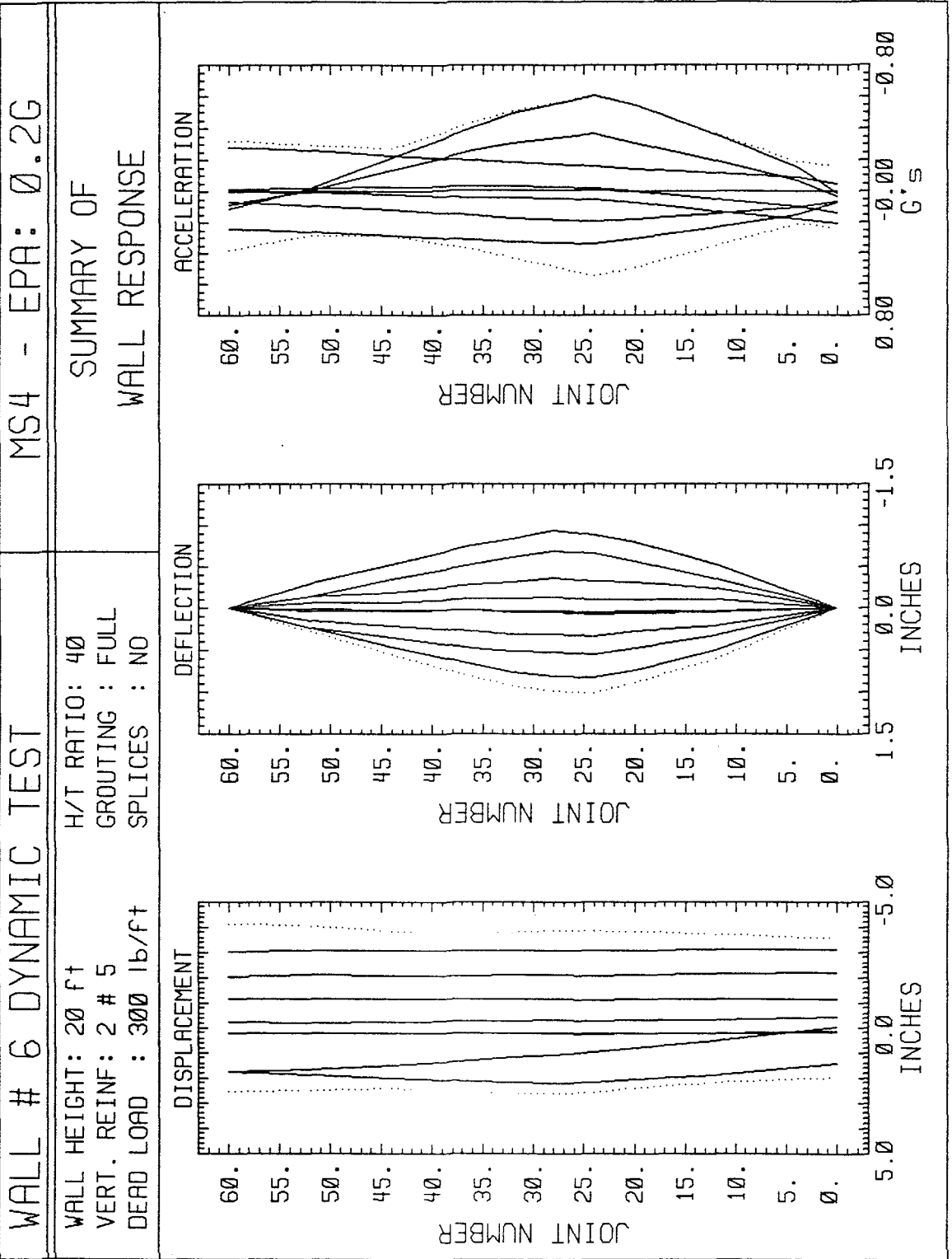


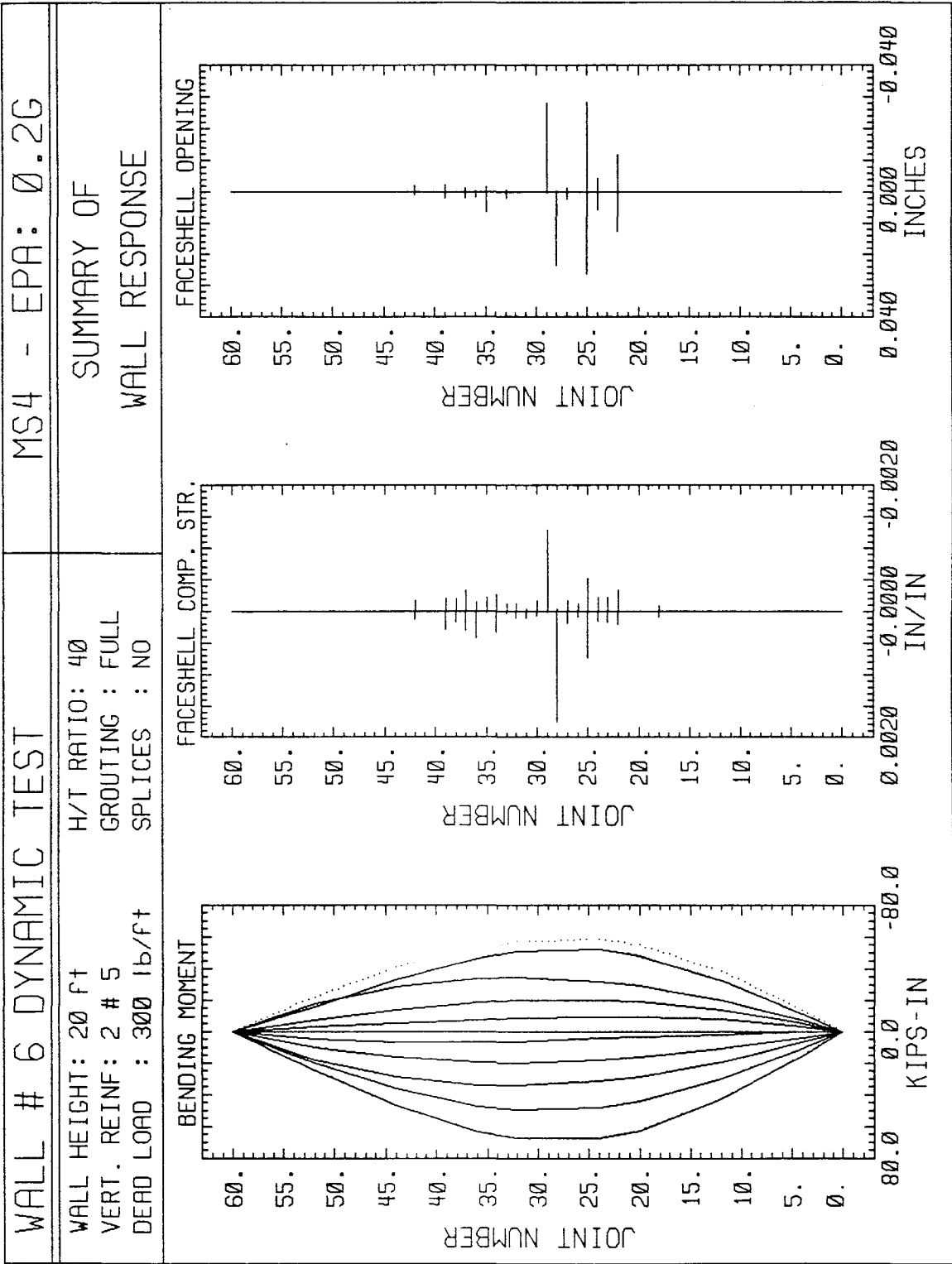


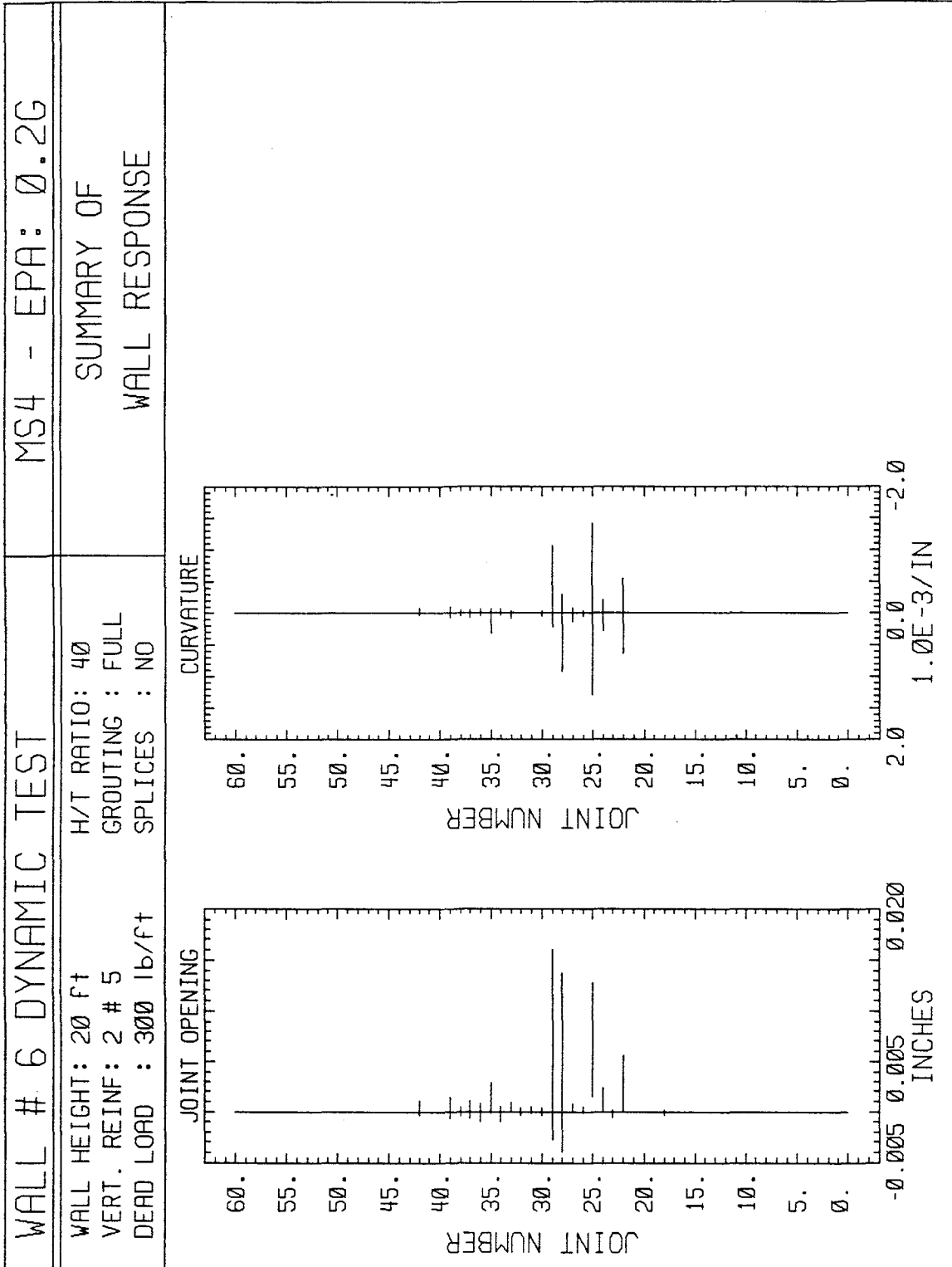




<p>WALL # 6 DYNAMIC TEST</p>	<p>MS3 - EPA: 0.2G</p>
<p>WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft</p>	<p>H/T RATIO: 40 GROUTING : FULL SPLICES : NO</p>
<p>SUMMARY OF WALL RESPONSE</p>	







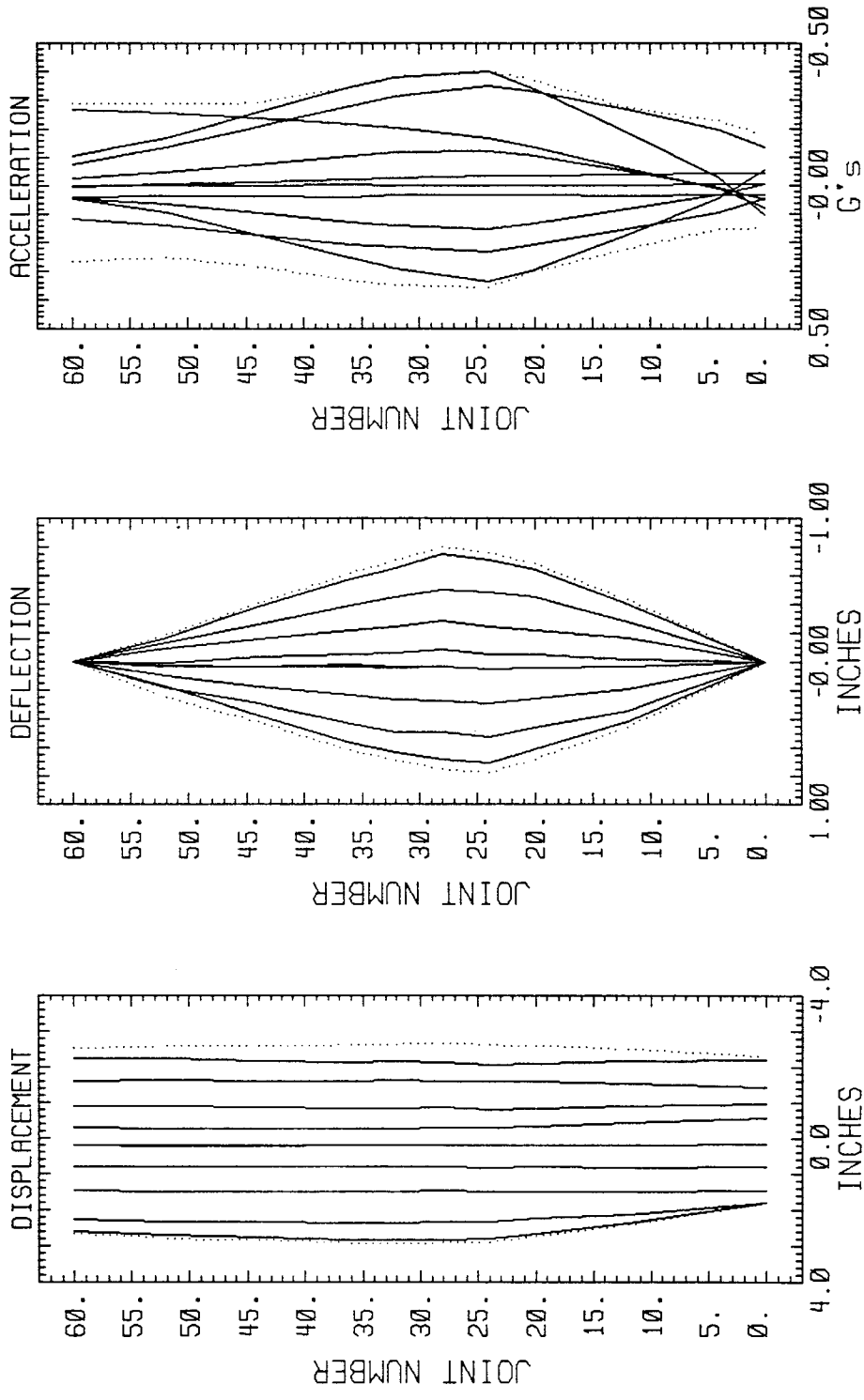
WALL # 6 DYNAMIC TEST

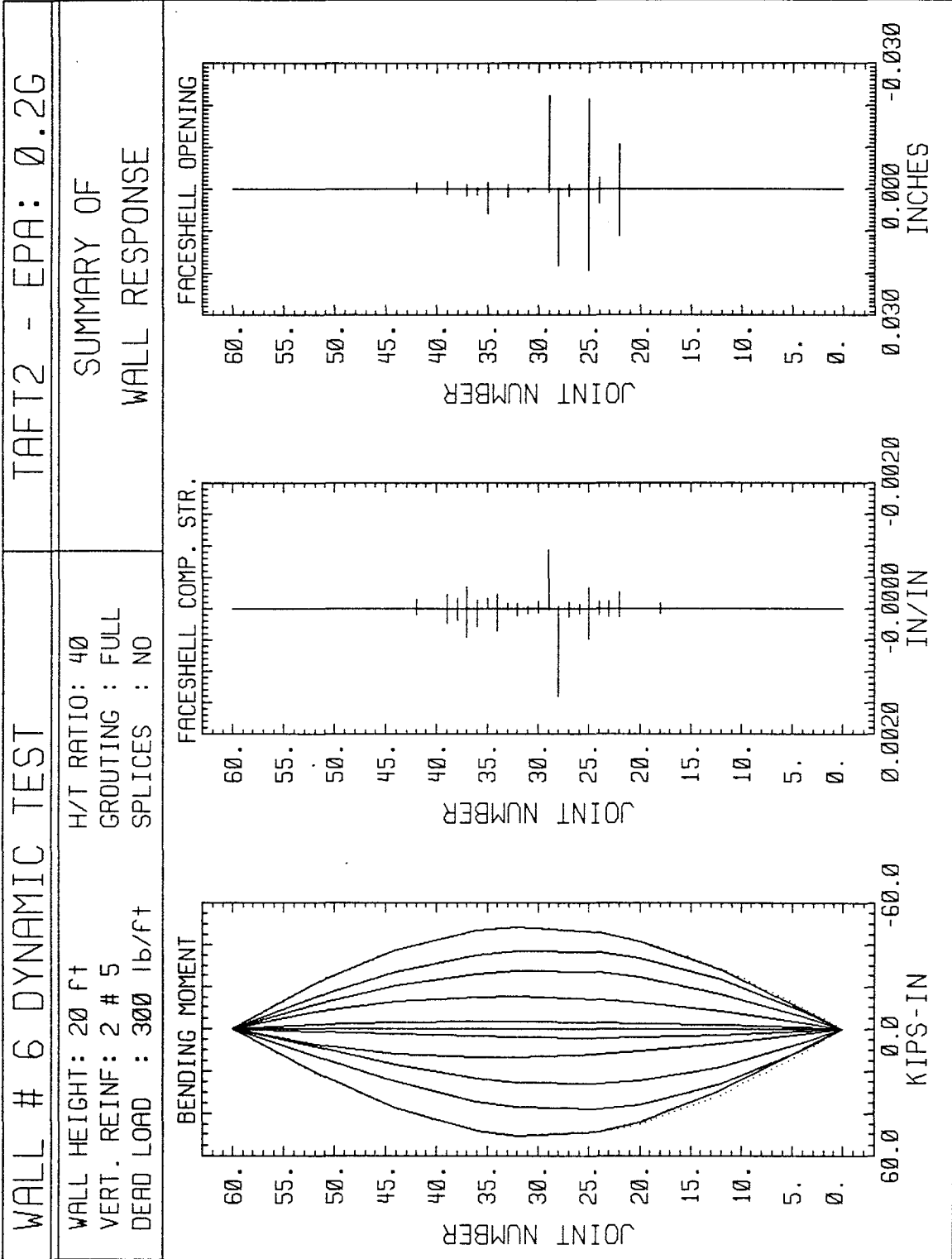
TAFT2 - EPA: 0.2G

SUMMARY OF WALL RESPONSE

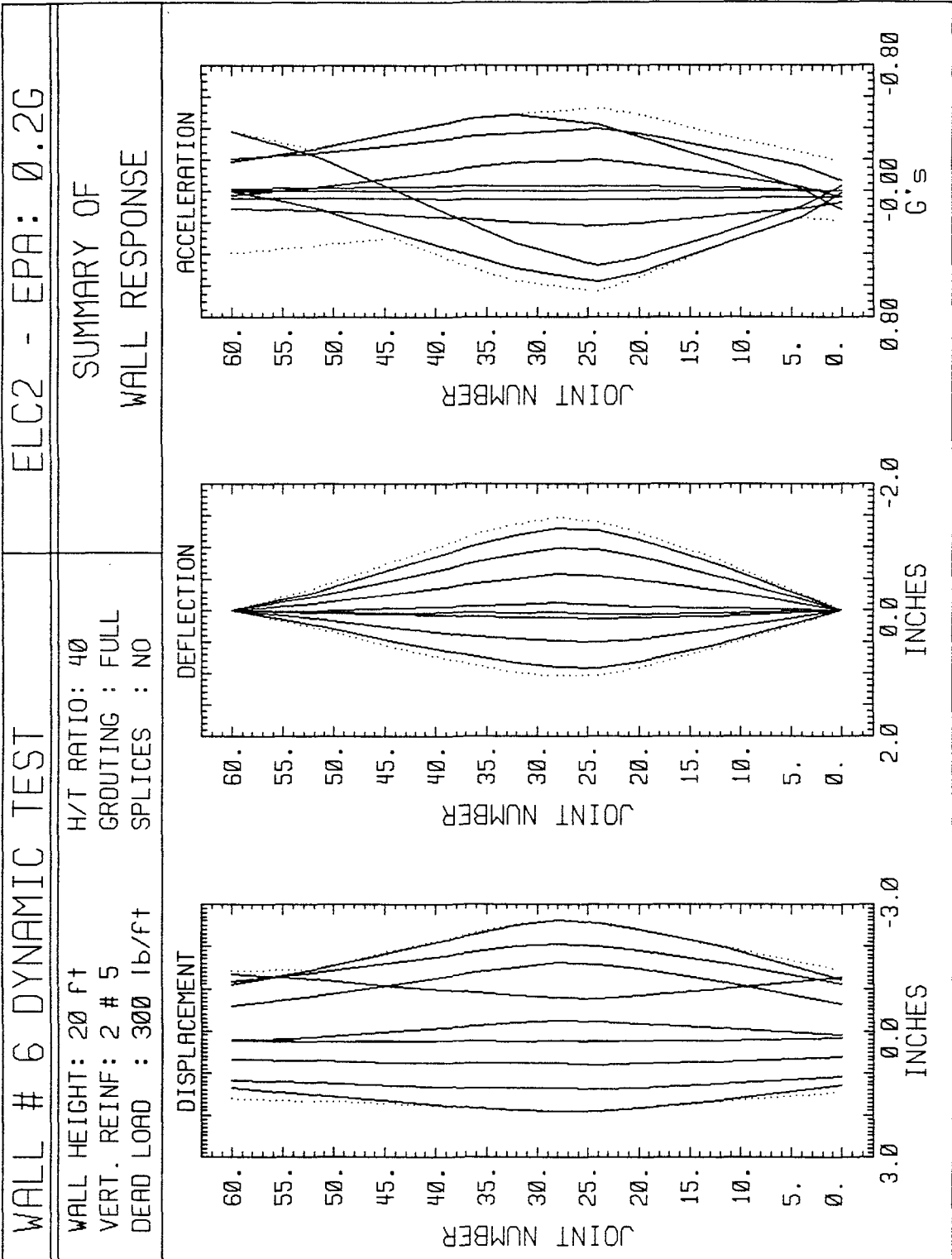
WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 300 lb/ft

H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

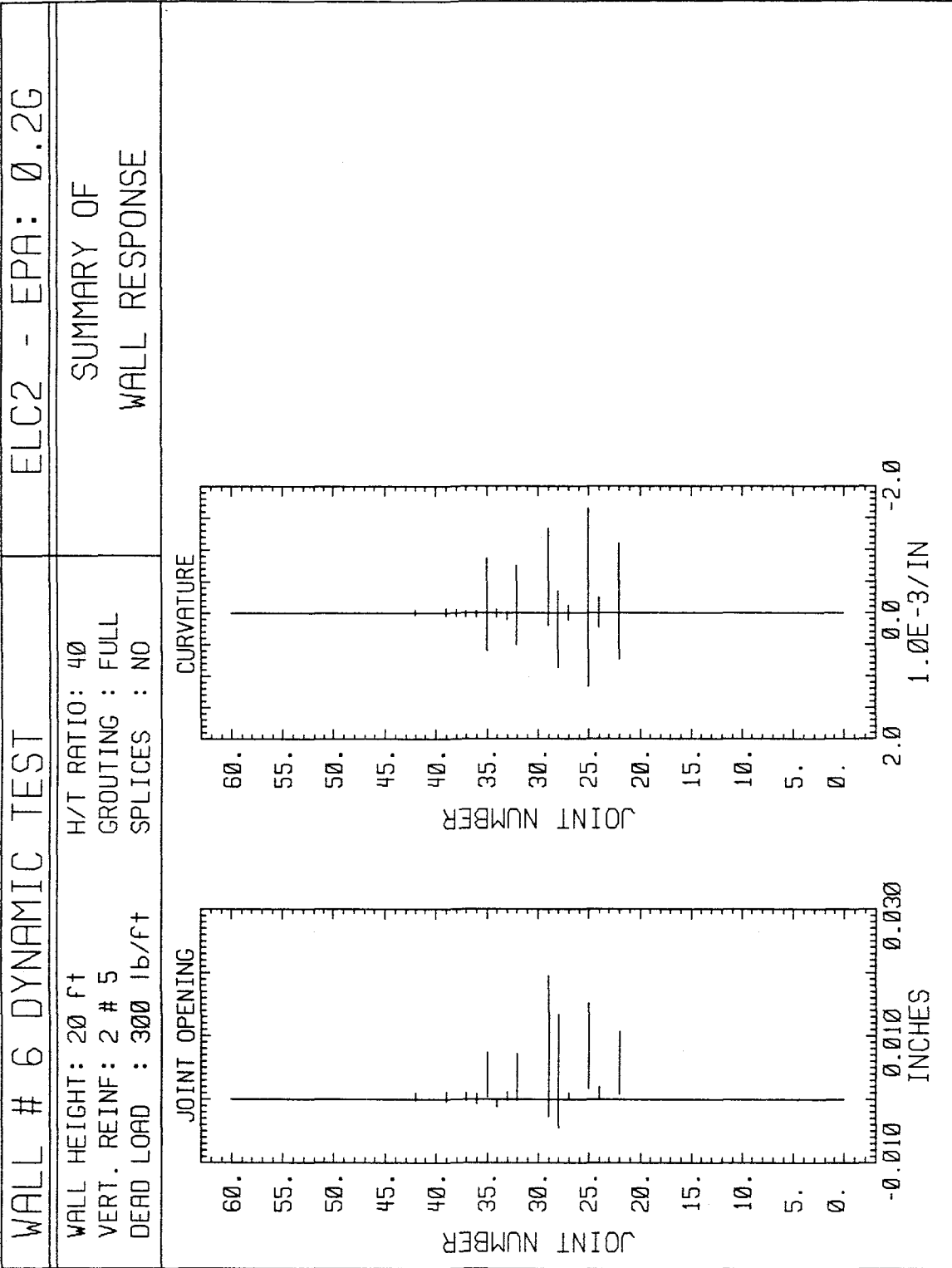




WALL # 6 DYNAMIC TEST	TAFT2 - EPA: 0.2G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



WALL # 6 DYNAMIC TEST	ELC2 - EPA: 0.2G
WALL HEIGHT: 20 FT VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



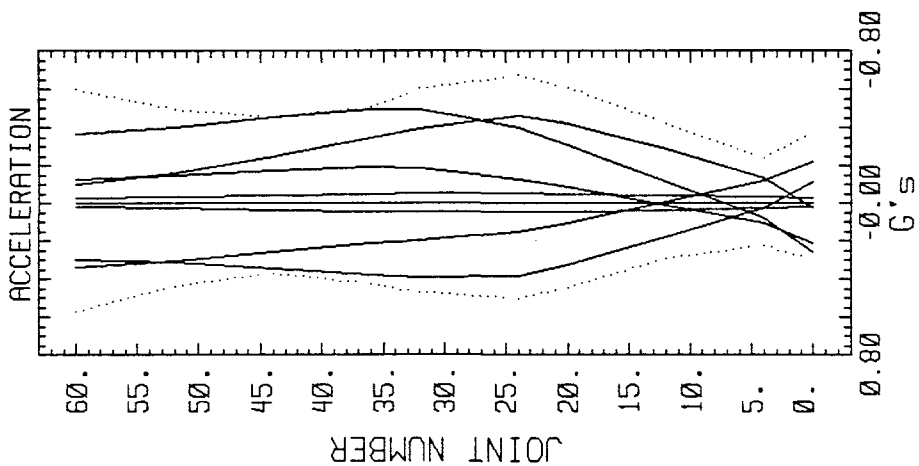
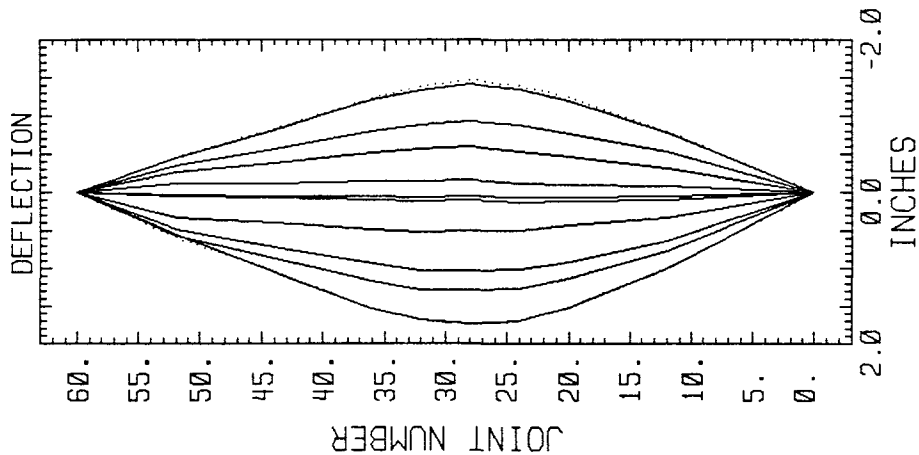
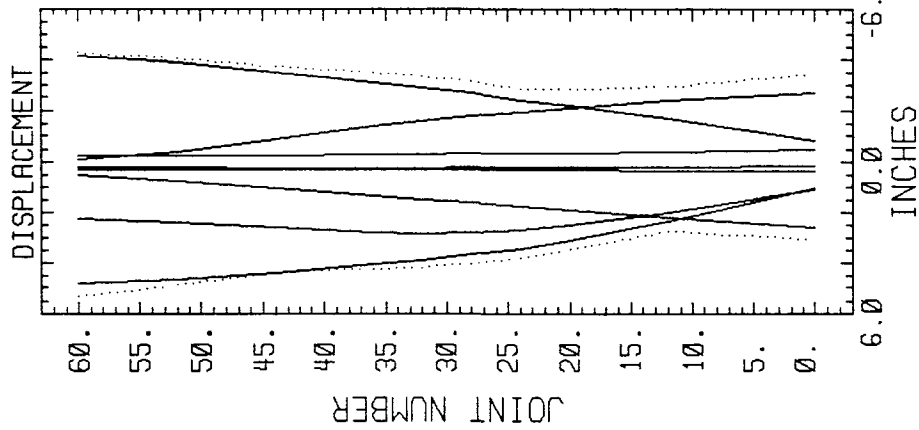
WALL # 6 DYNAMIC TEST

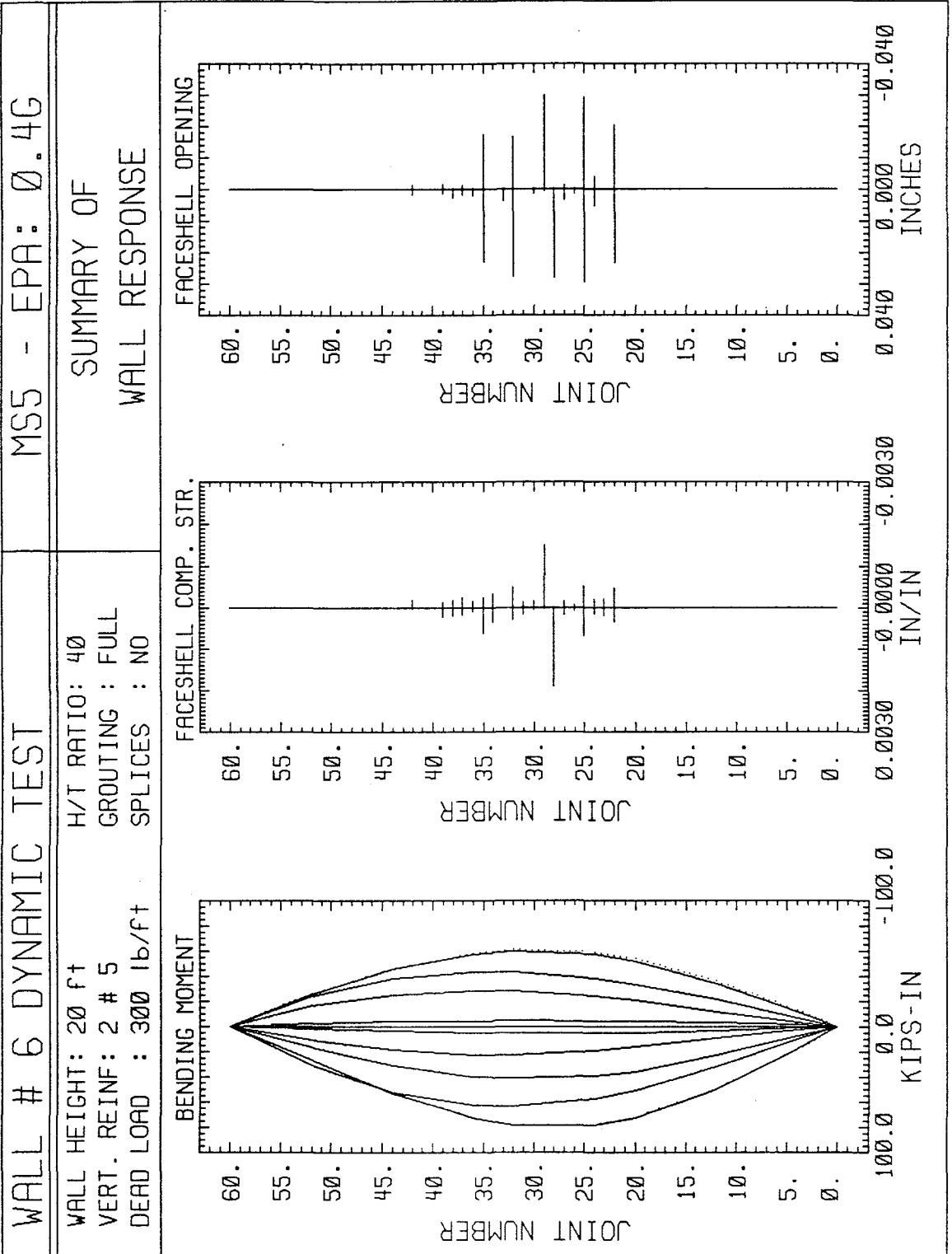
MSS - EPA: 0.4G

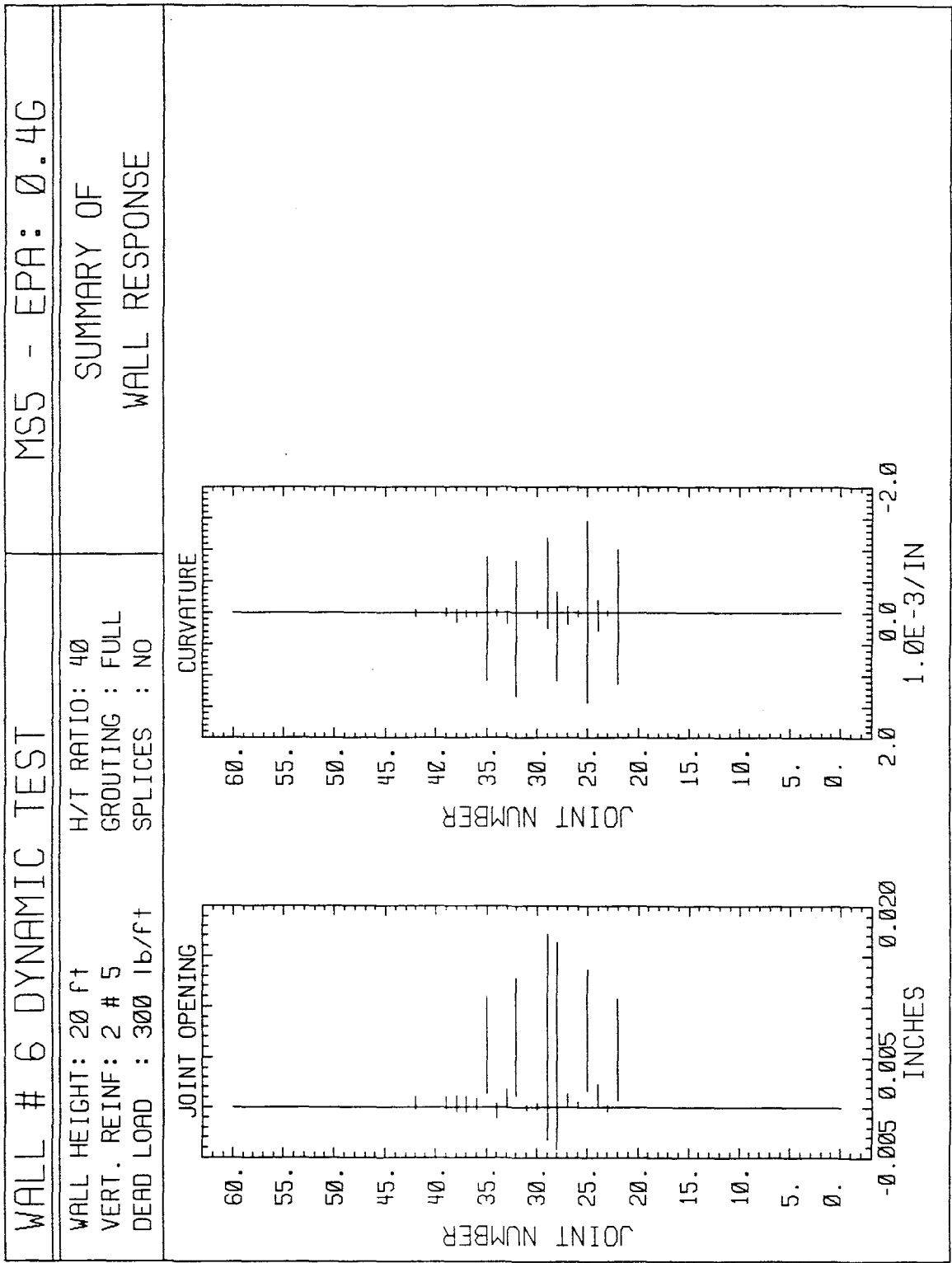
WALL HEIGHT: 20 ft
 VERT. REINF: 2 # 5
 DEAD LOAD : 300 lb/ft

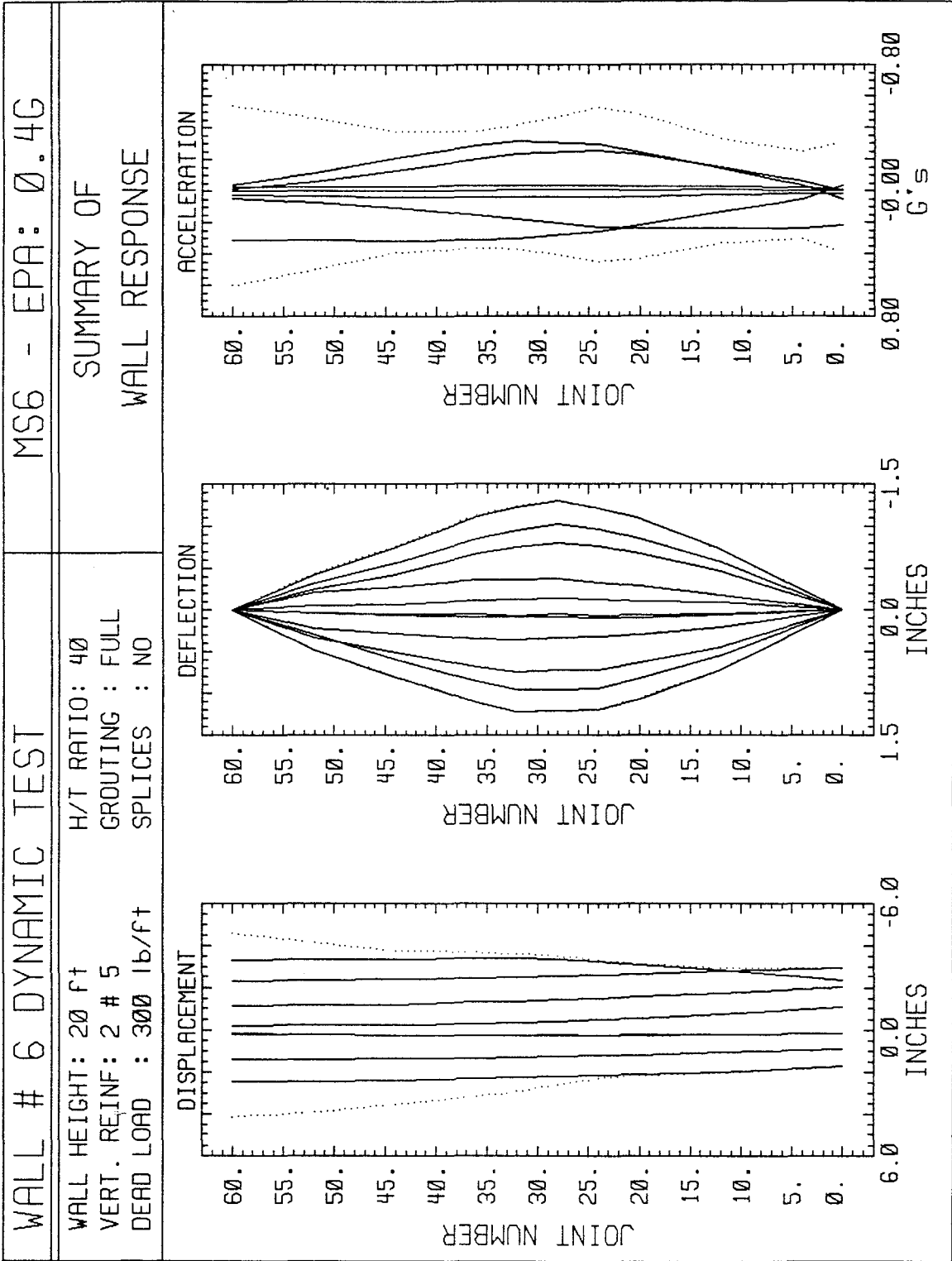
SUMMARY OF
 WALL RESPONSE

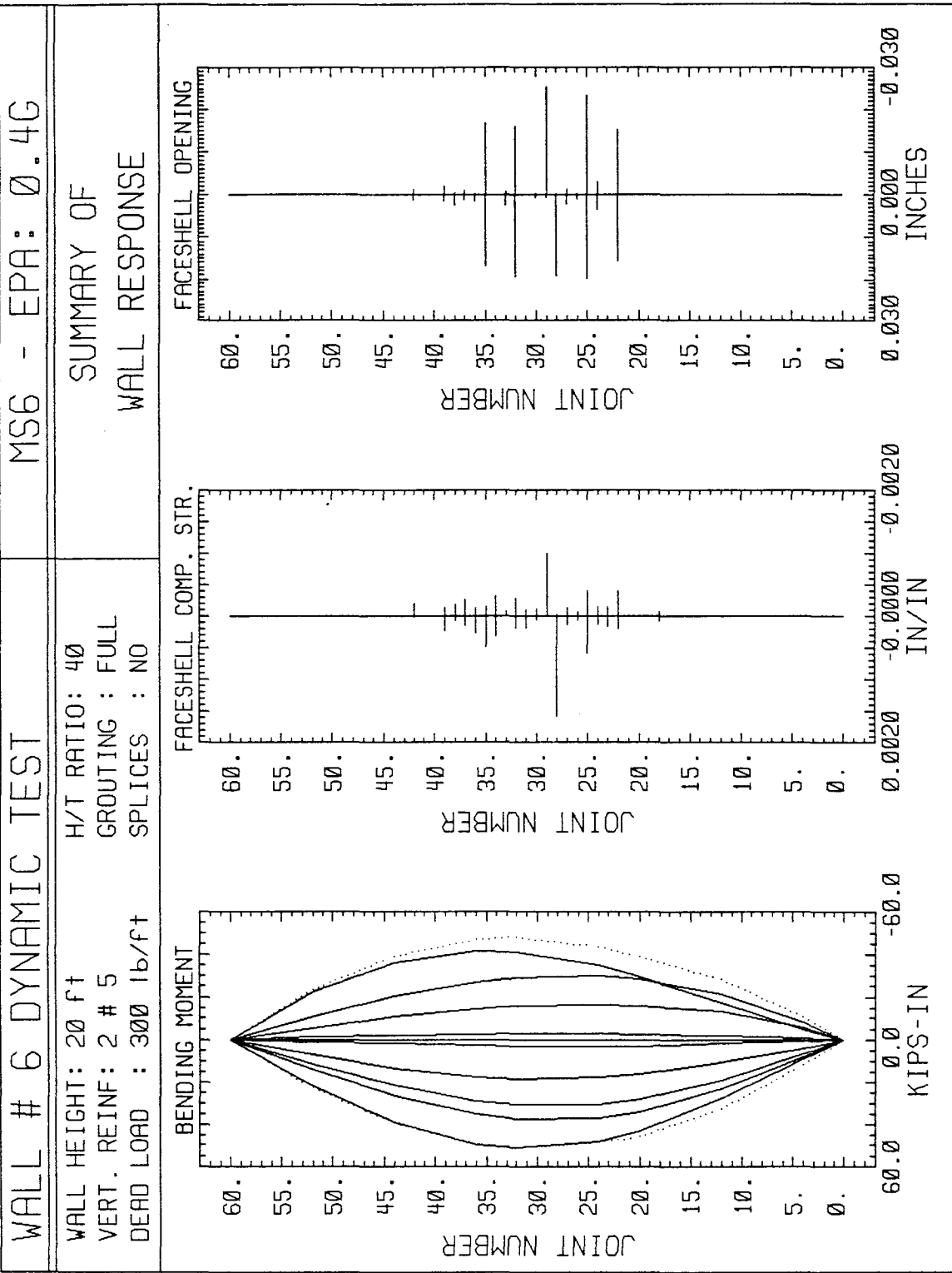
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

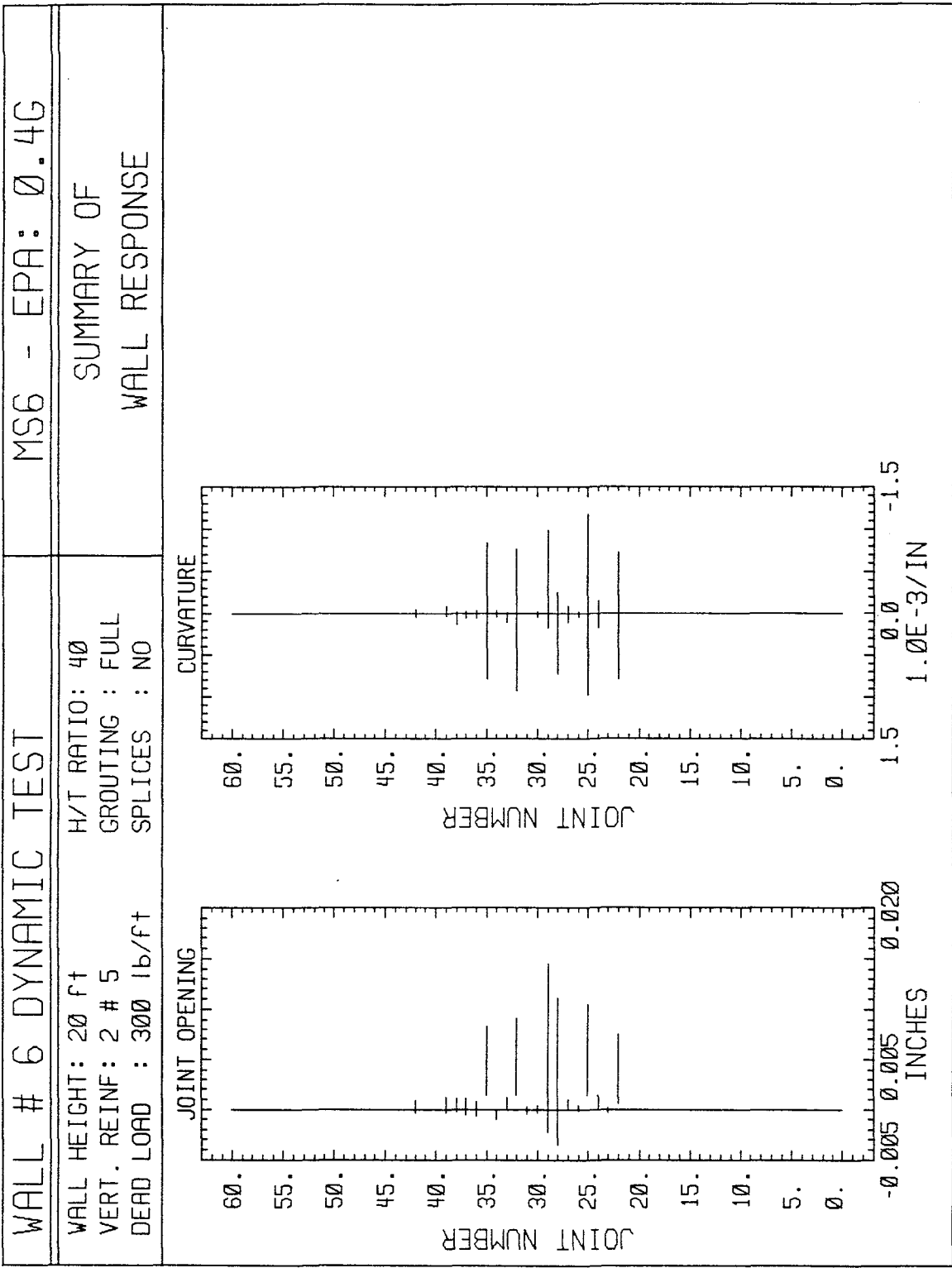


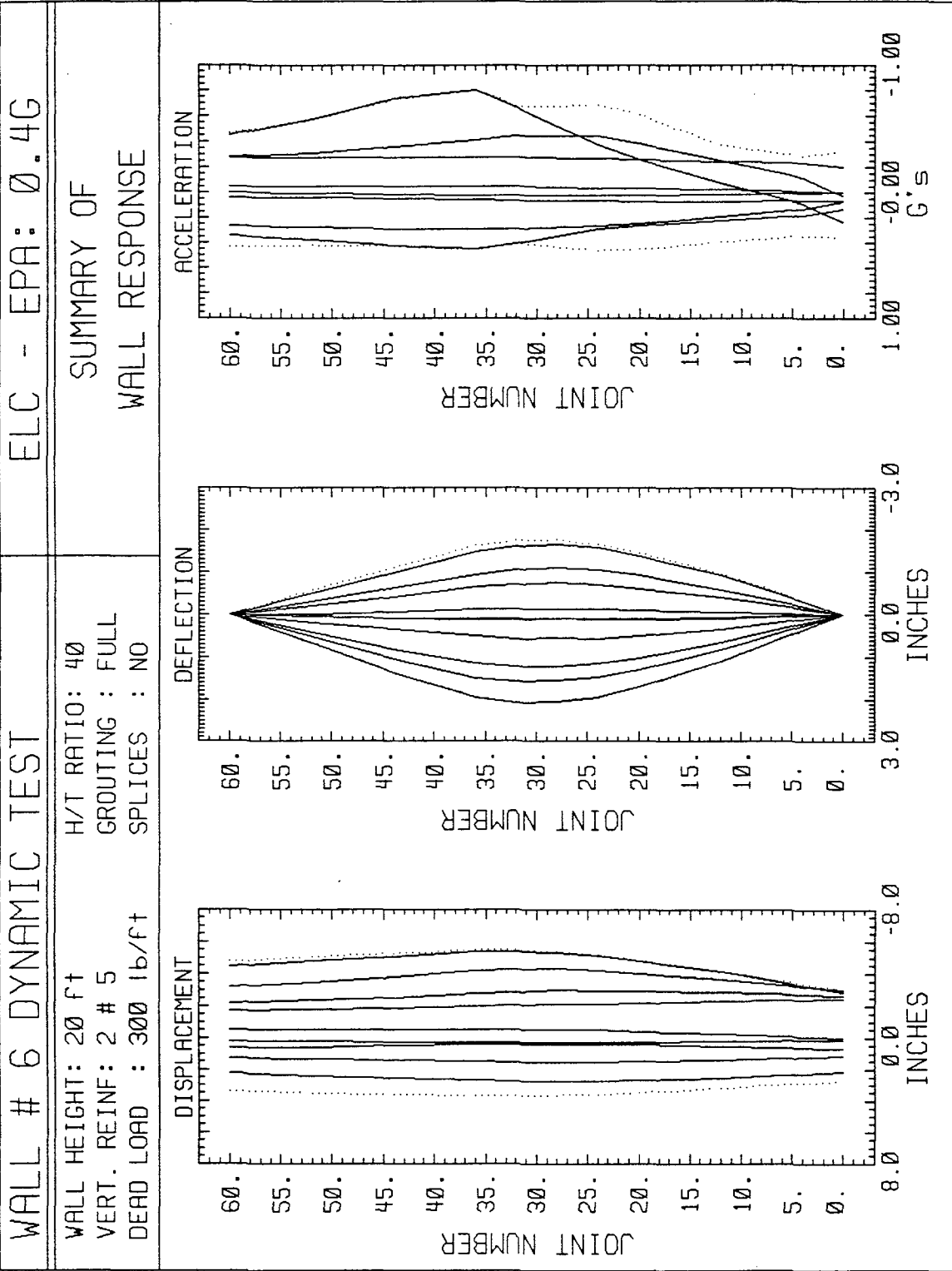


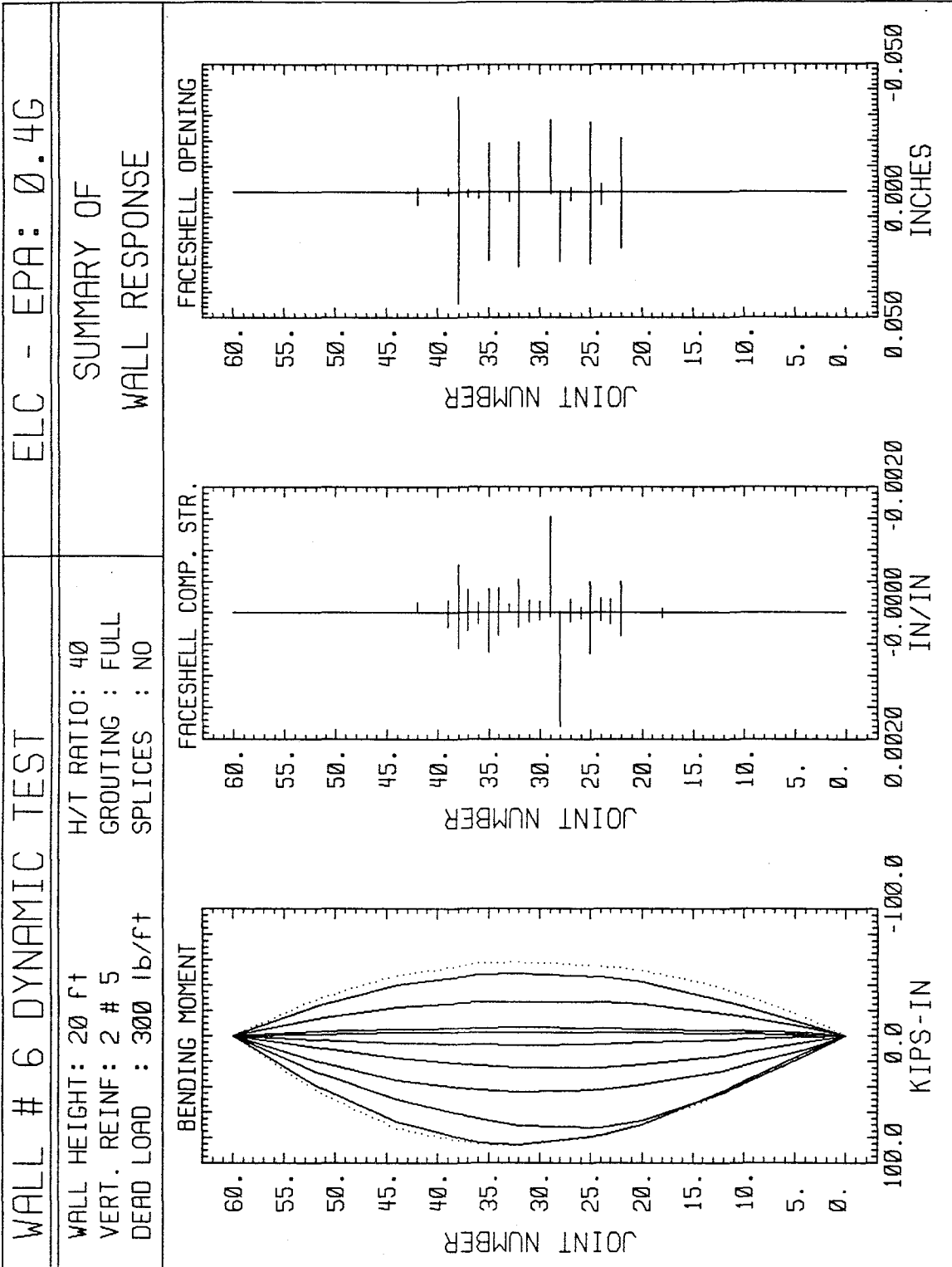




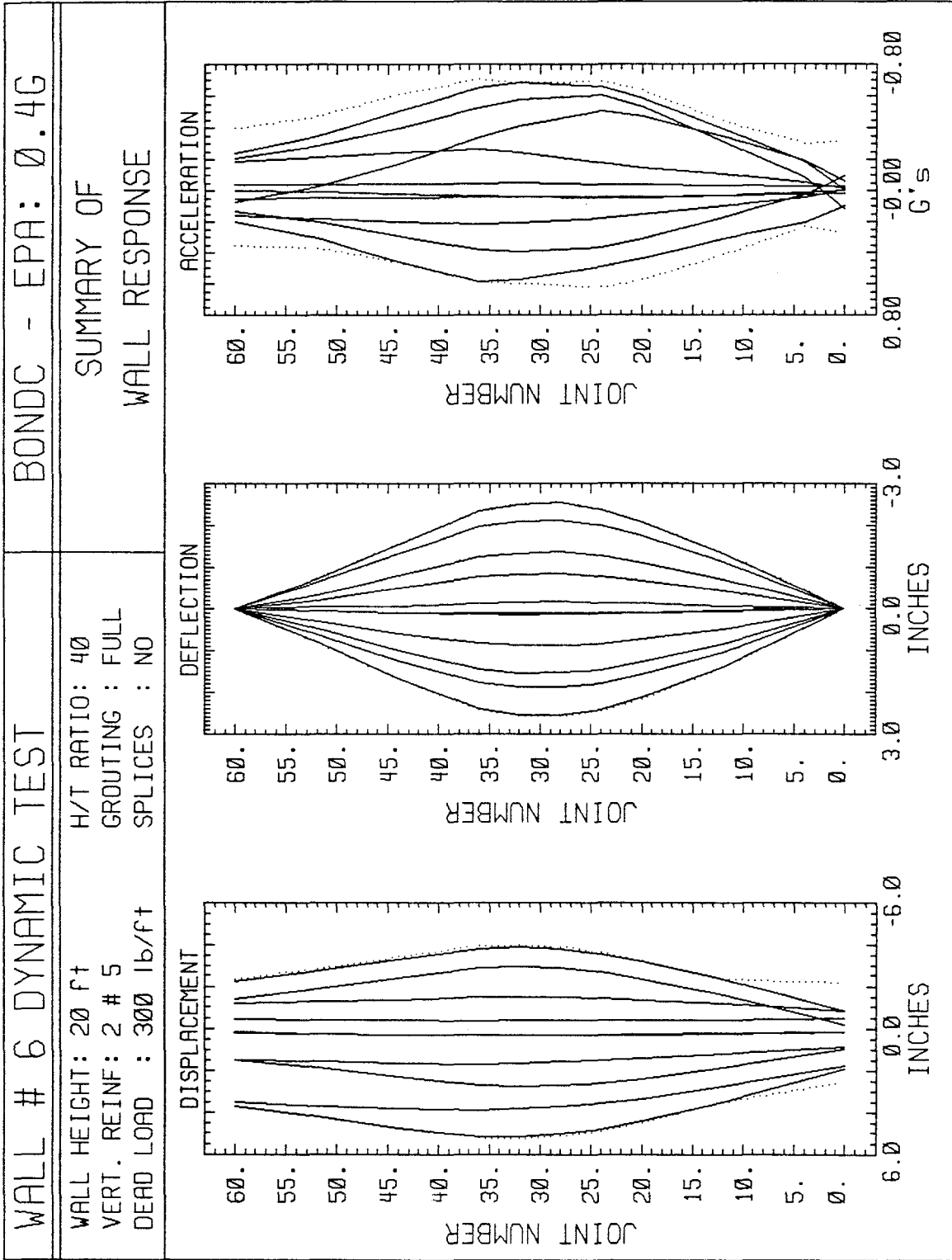




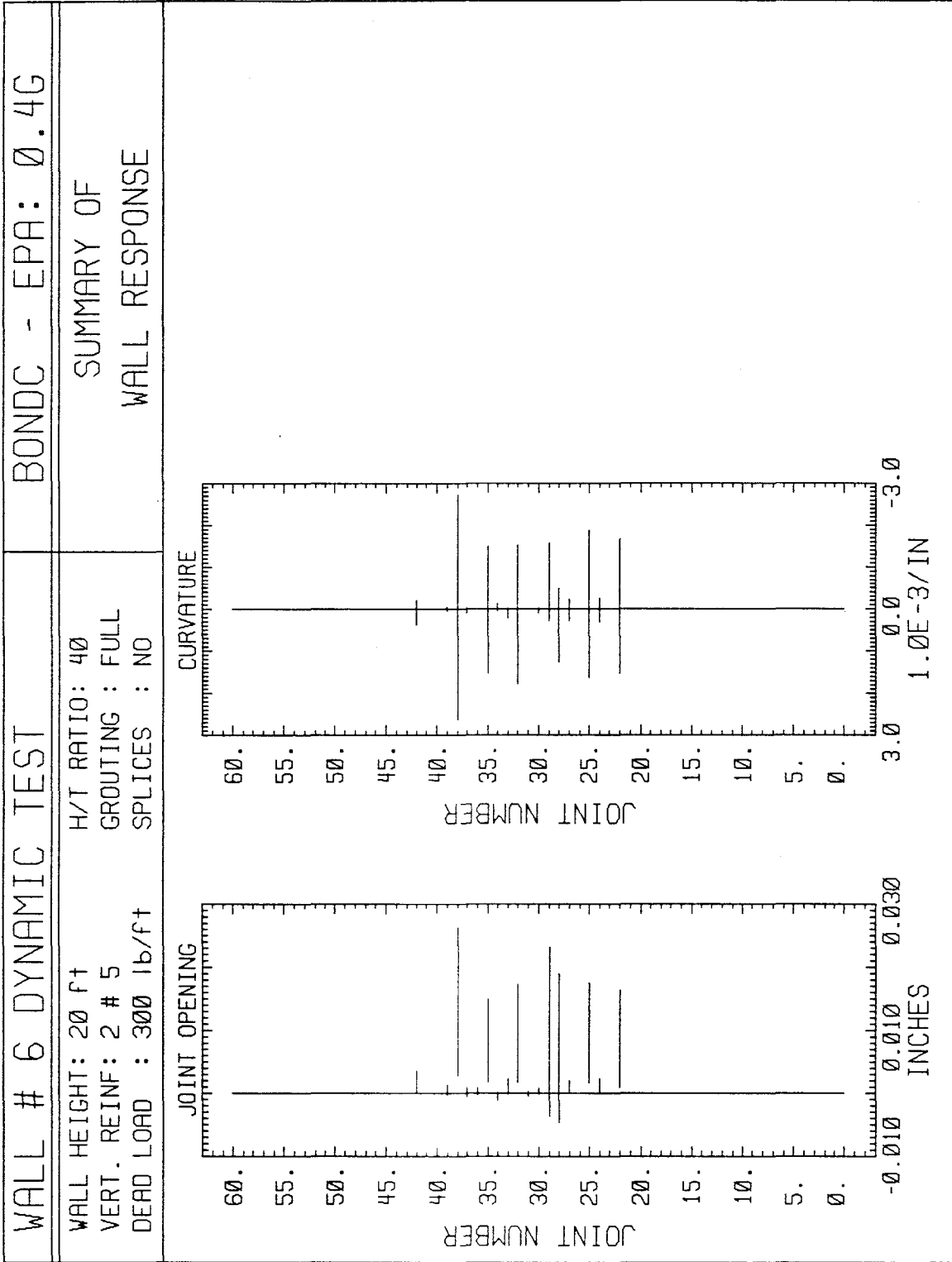




WALL # 6 DYNAMIC TEST	ELC - EPA: Ø.4G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



WALL # 6 DYNAMIC TEST	BOND ^c - EPA: 0.4G
WALL HEIGHT: 20 FT VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



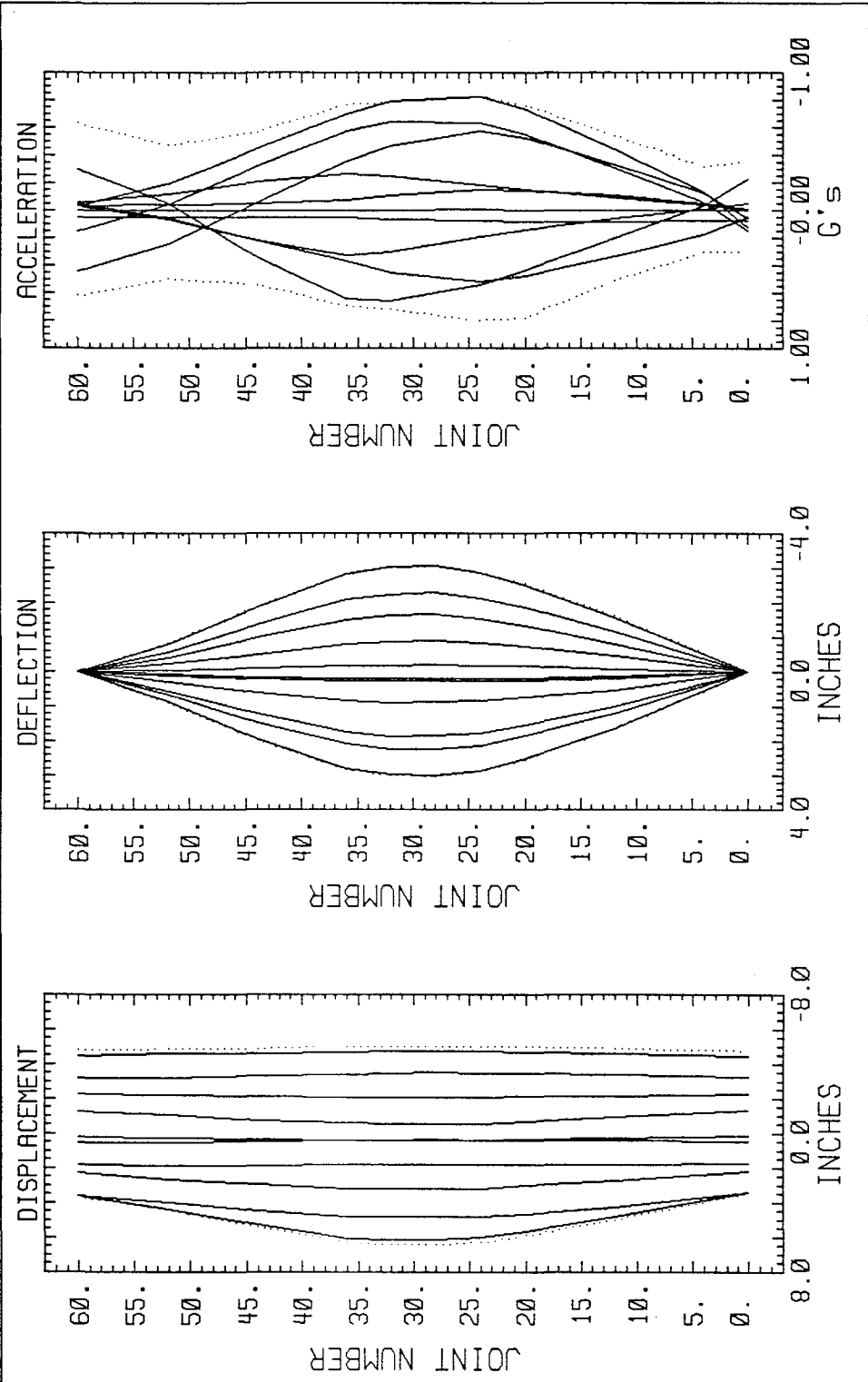
WALL # 6 DYNAMIC TEST

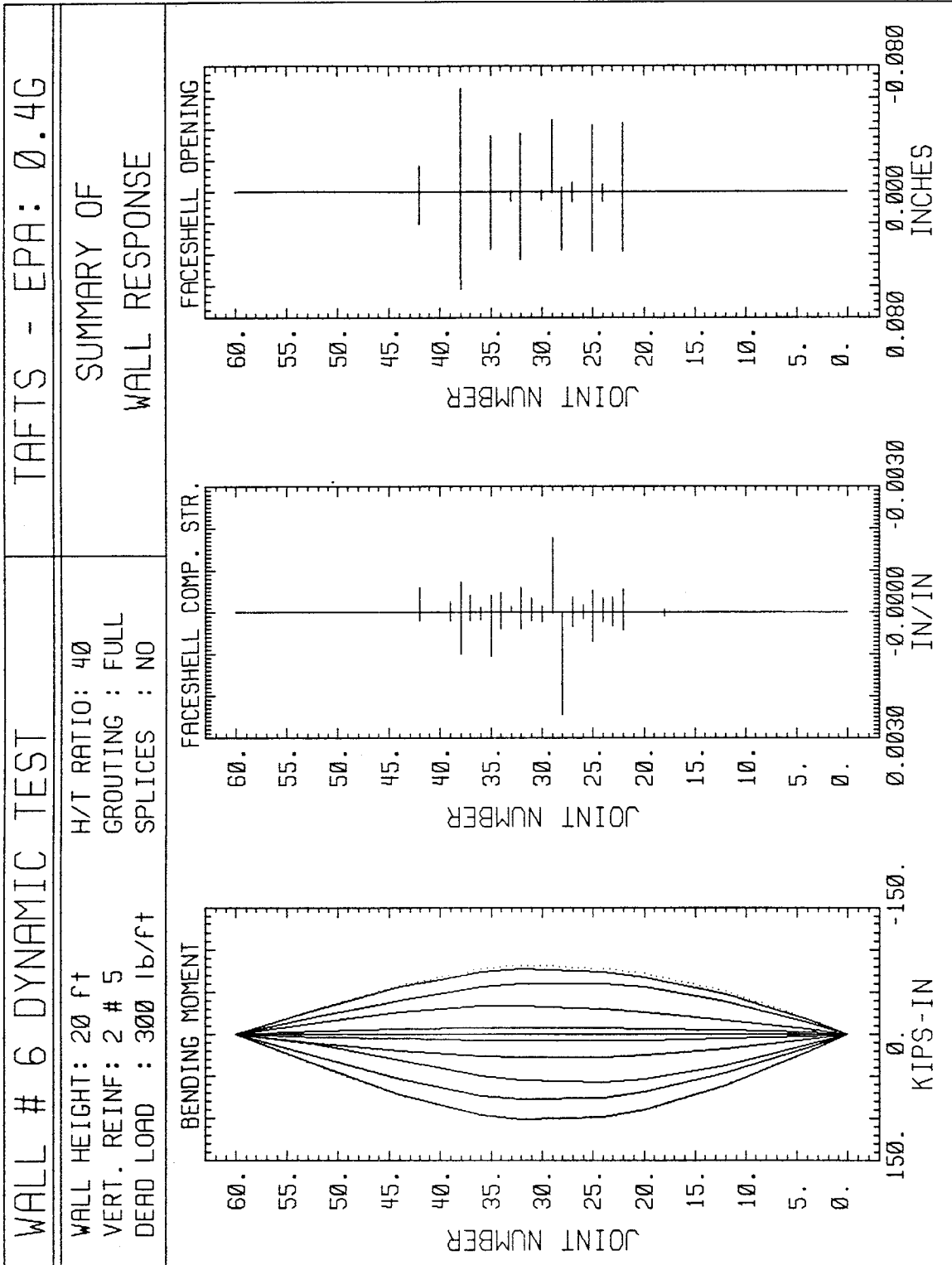
TAFTS - EPA: 0.4G

WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 300 lb/ft

H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

SUMMARY OF
 WALL RESPONSE





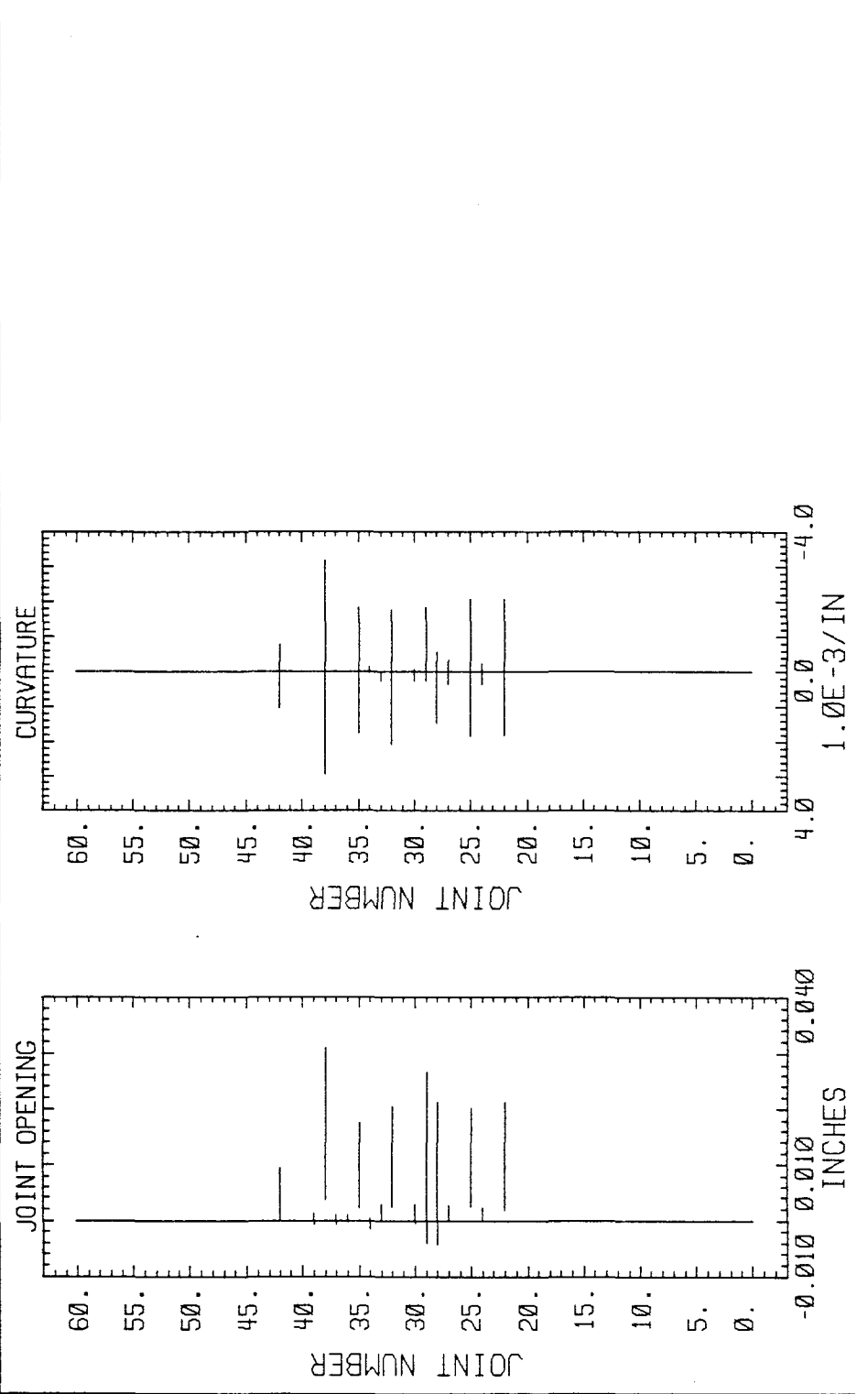
WALL # 6 DYNAMIC TEST

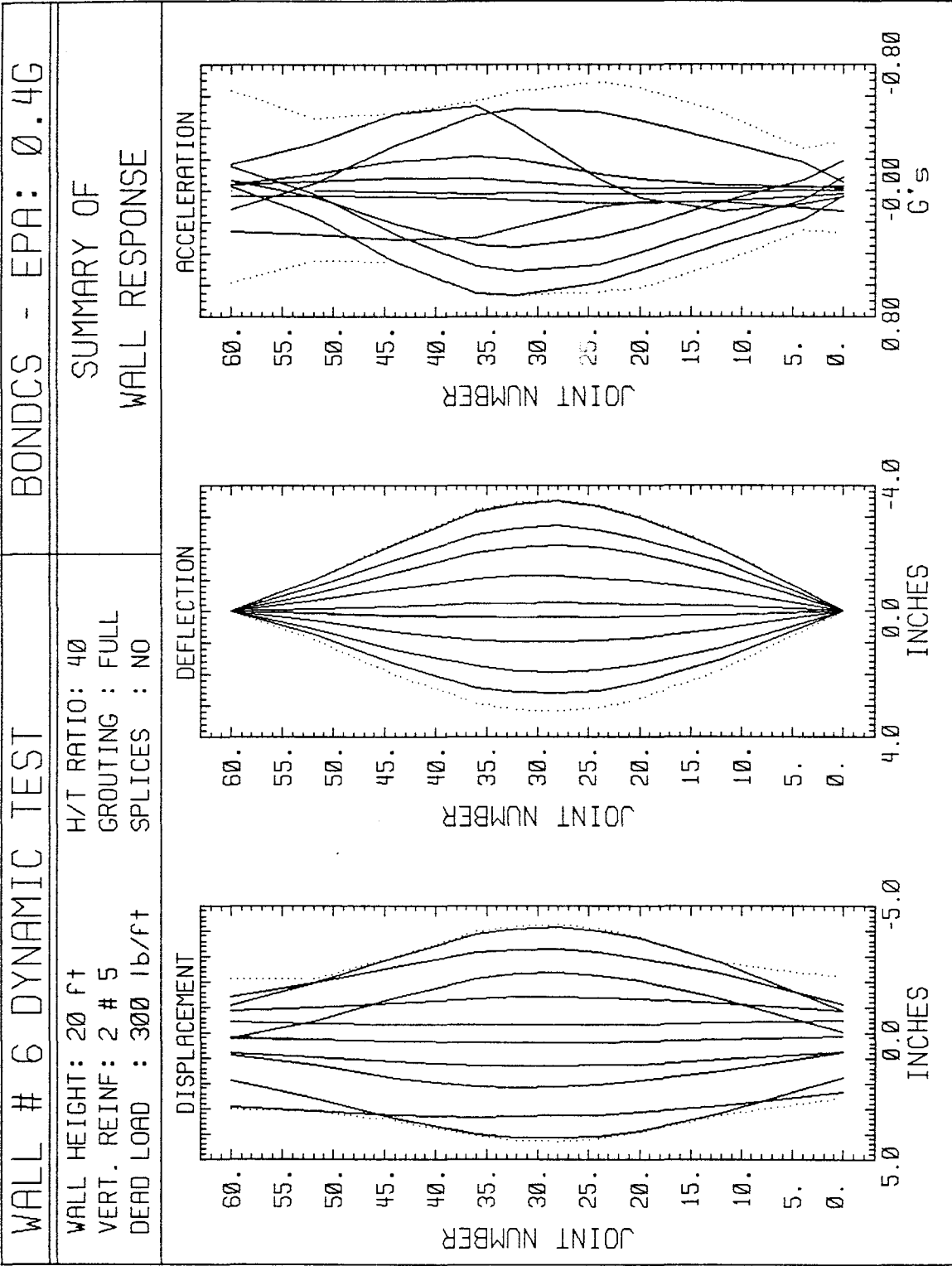
TAFTS - EPA: 0.4G

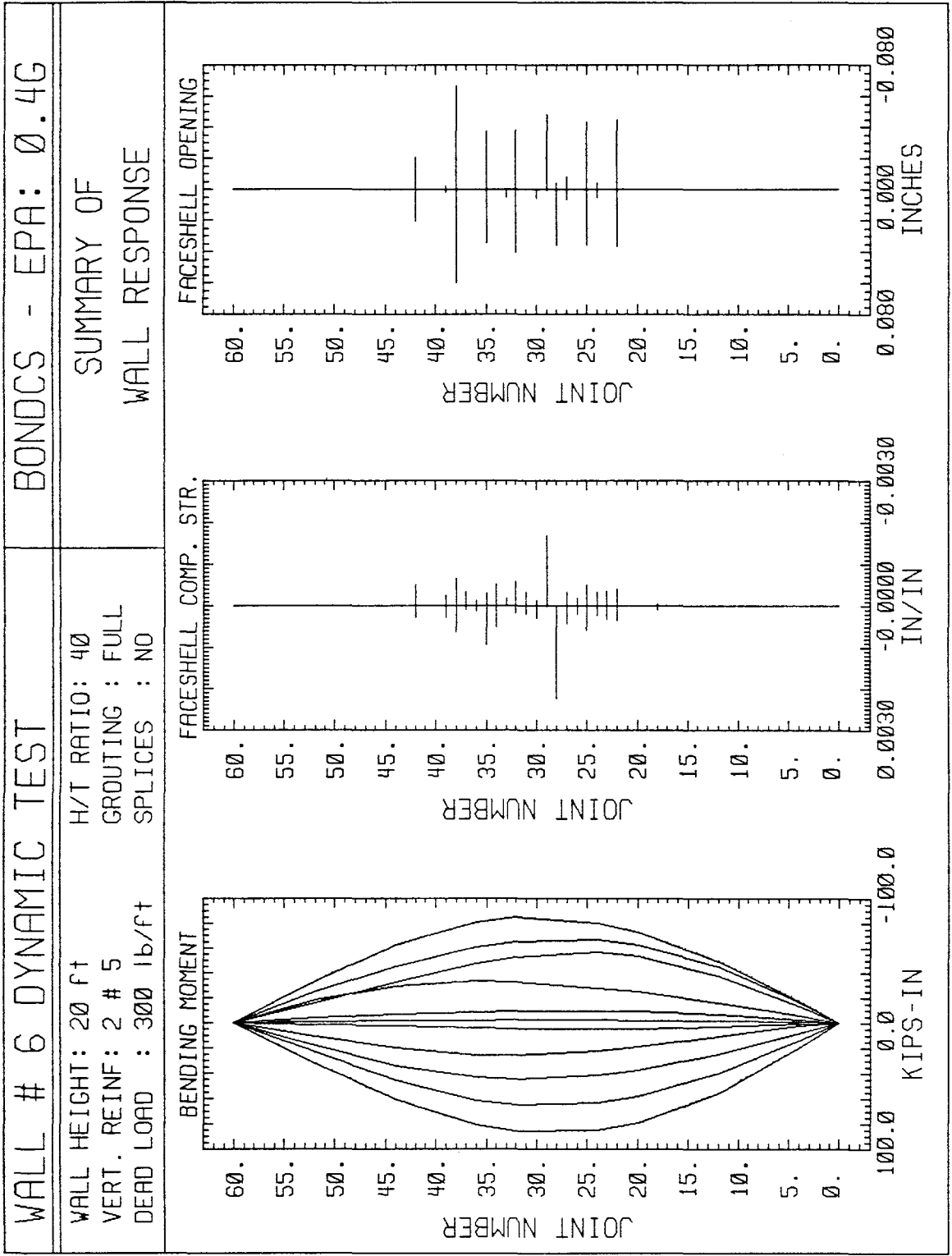
WALL HEIGHT: 20 FT
 VERT. REINF: 2 # 5
 DEAD LOAD : 300 lb/ft

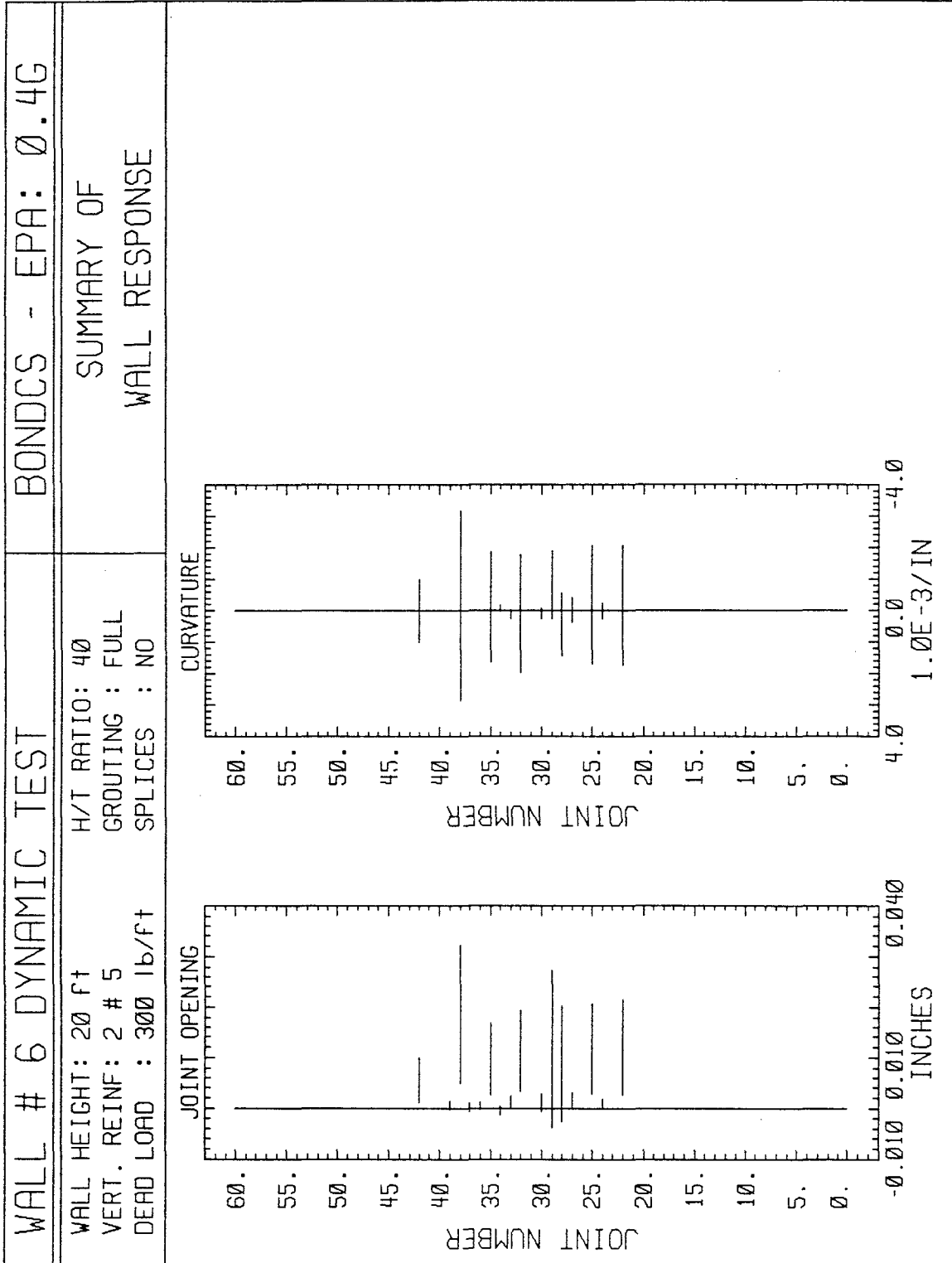
H/T RATIO: 40
 GROUTING : FULL
 SPLICES : NO

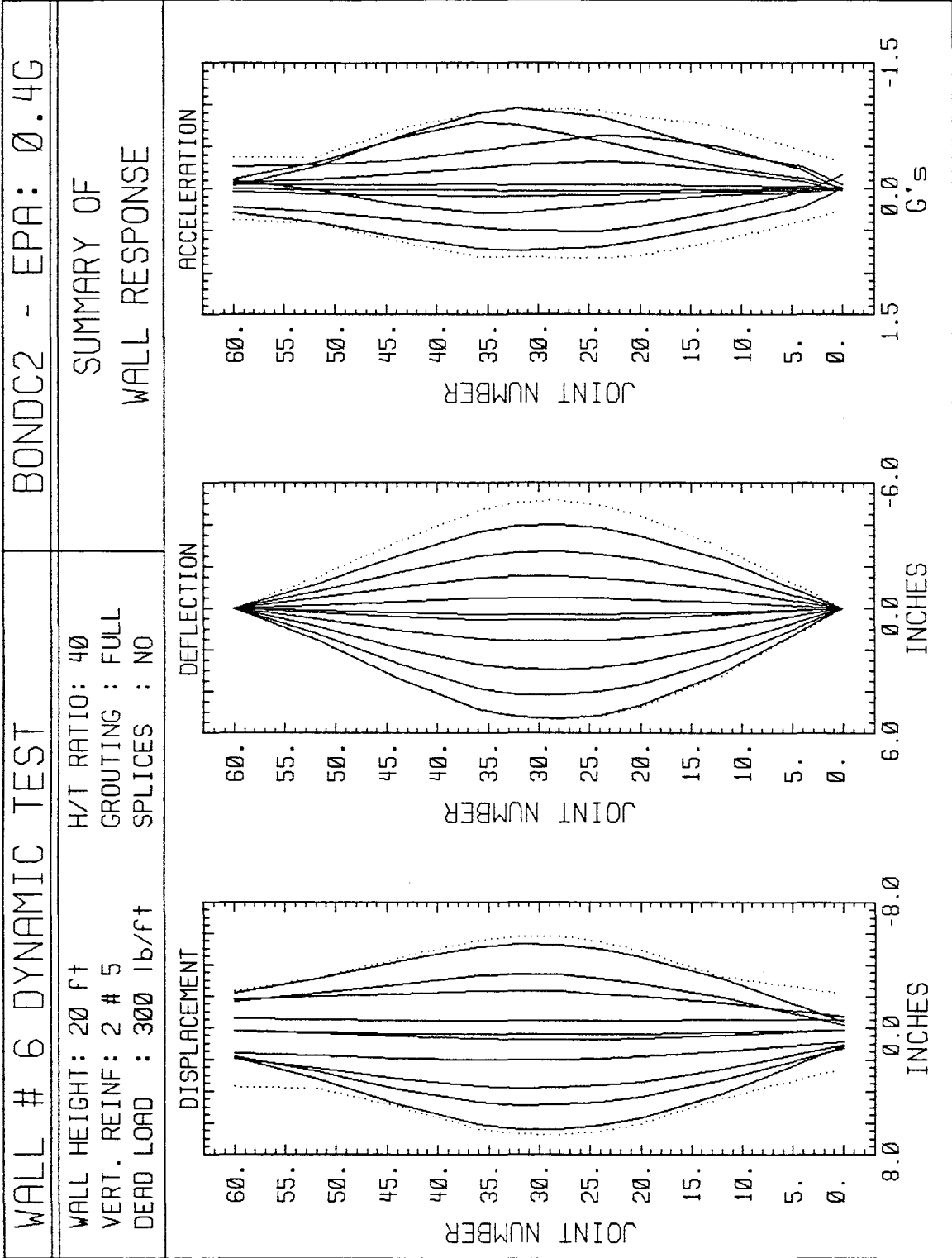
SUMMARY OF
 WALL RESPONSE

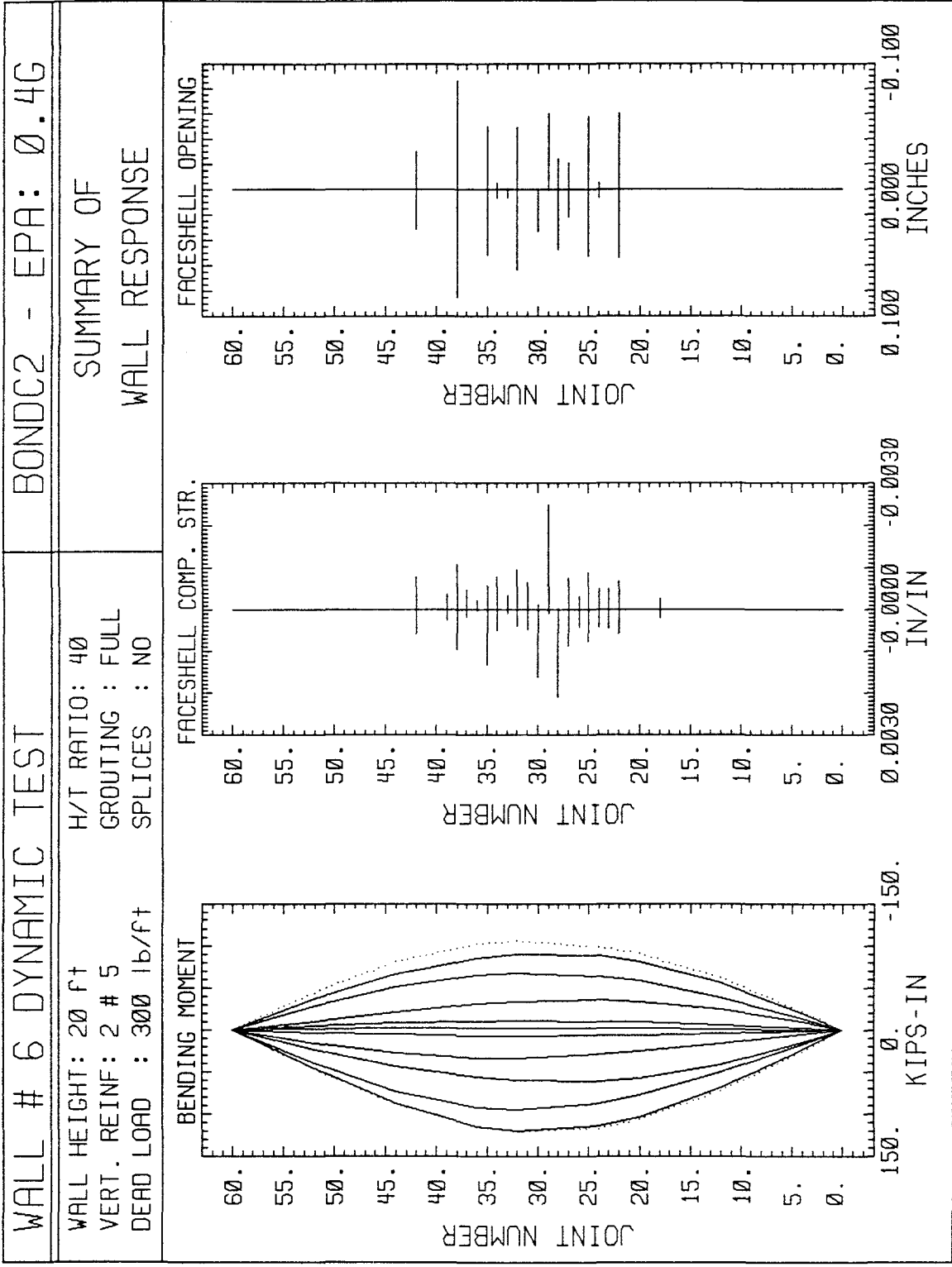




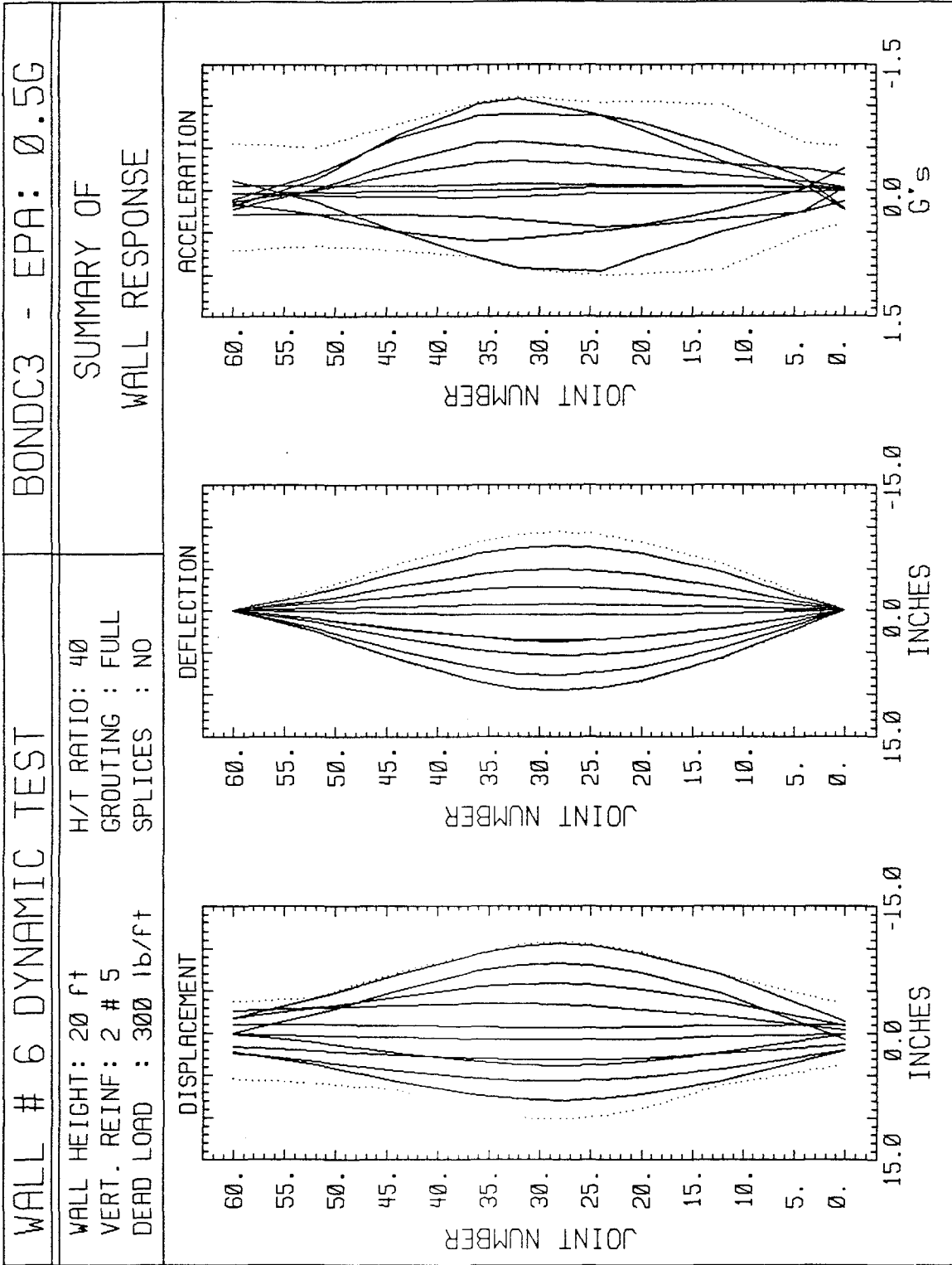


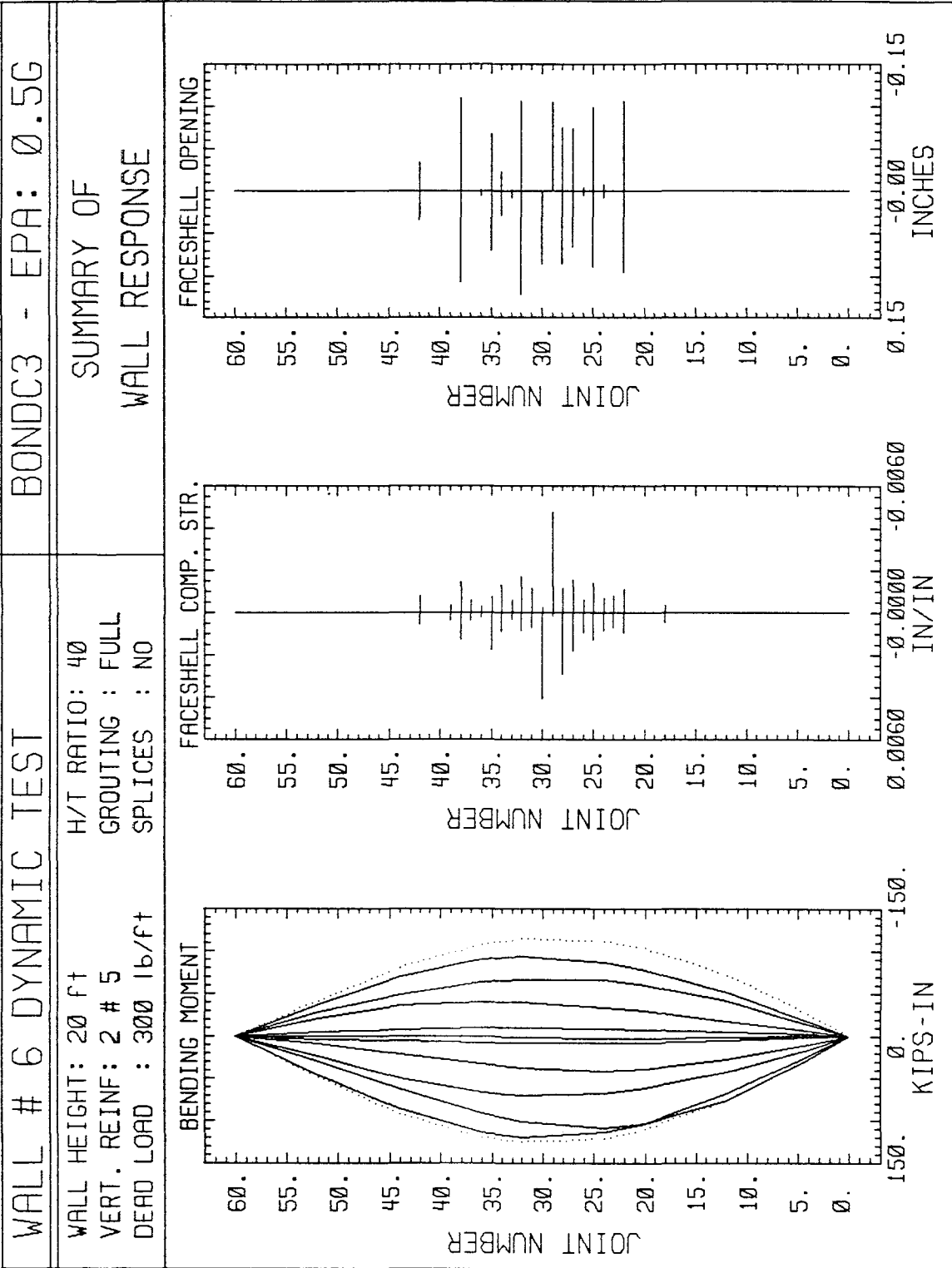


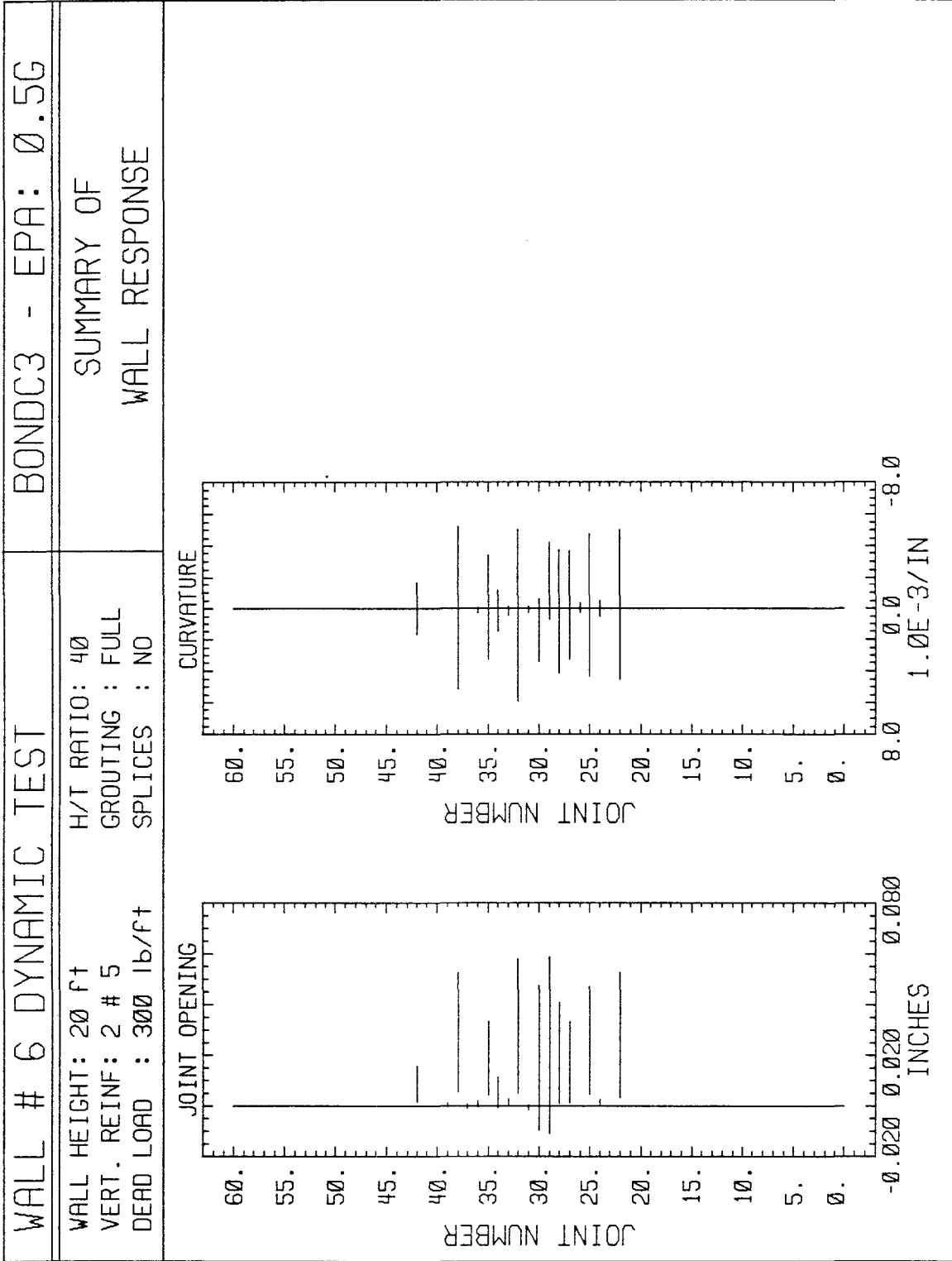


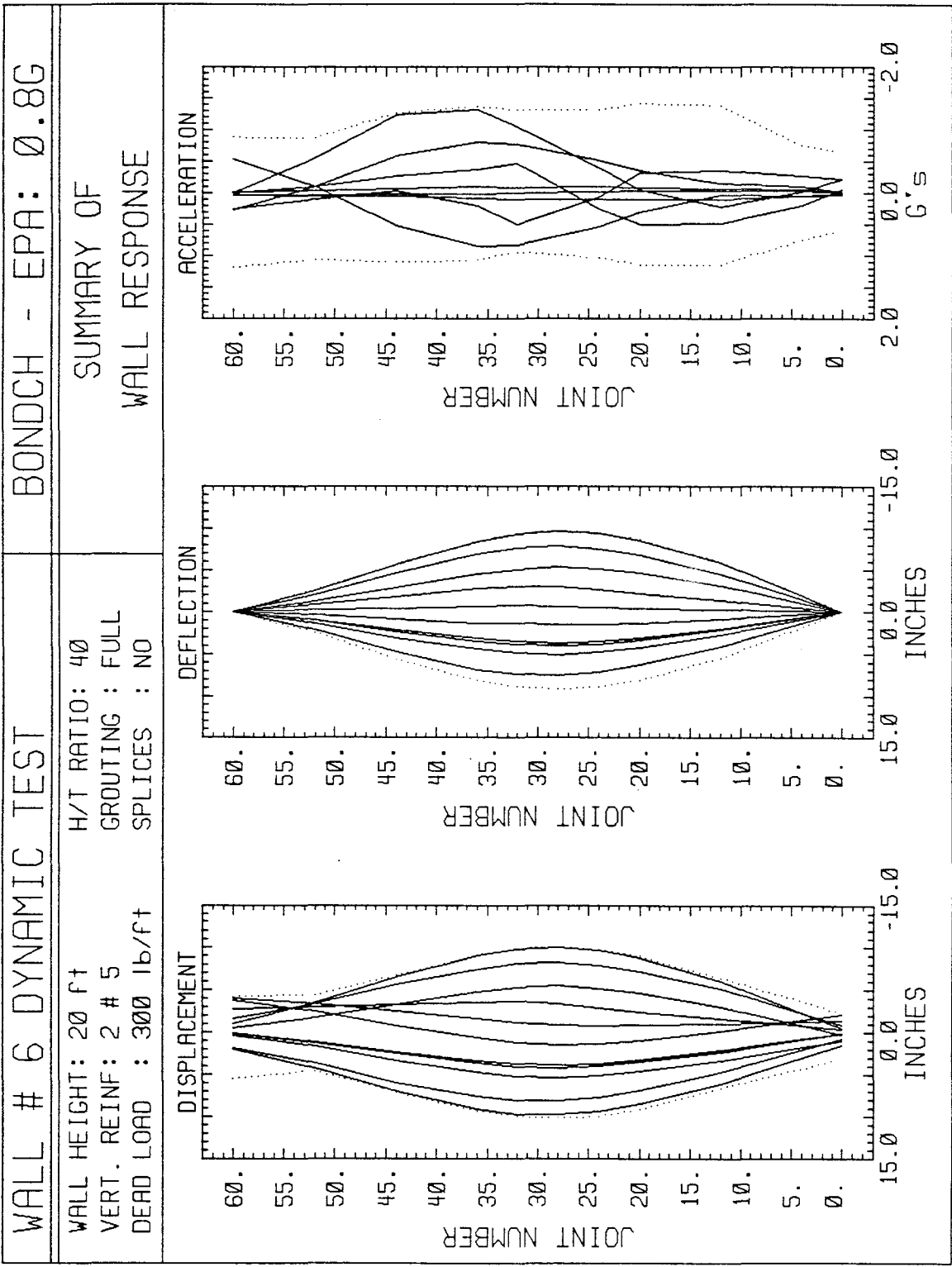


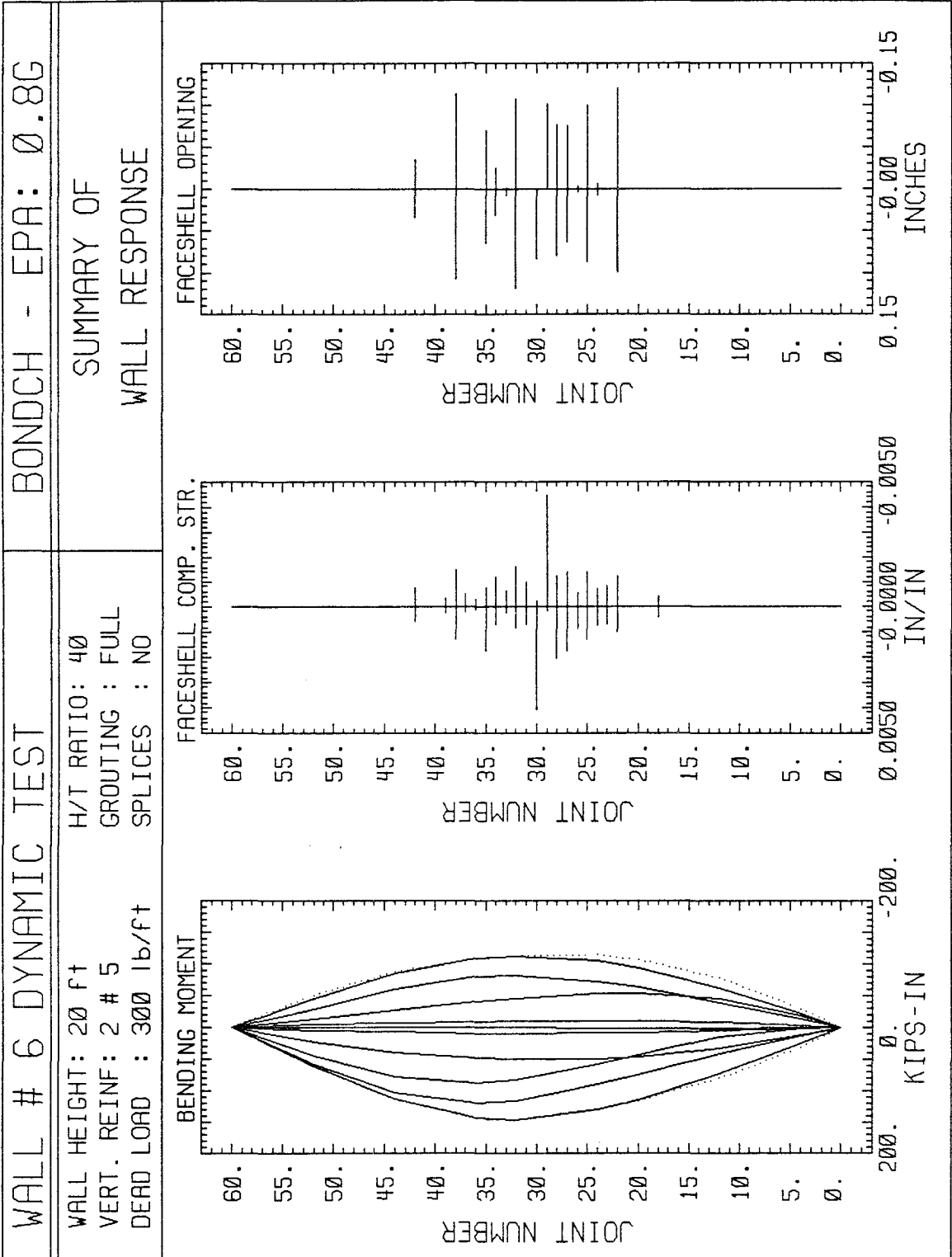
WALL # 6 DYNAMIC TEST	BONDC2 - EPA: 0.4G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	



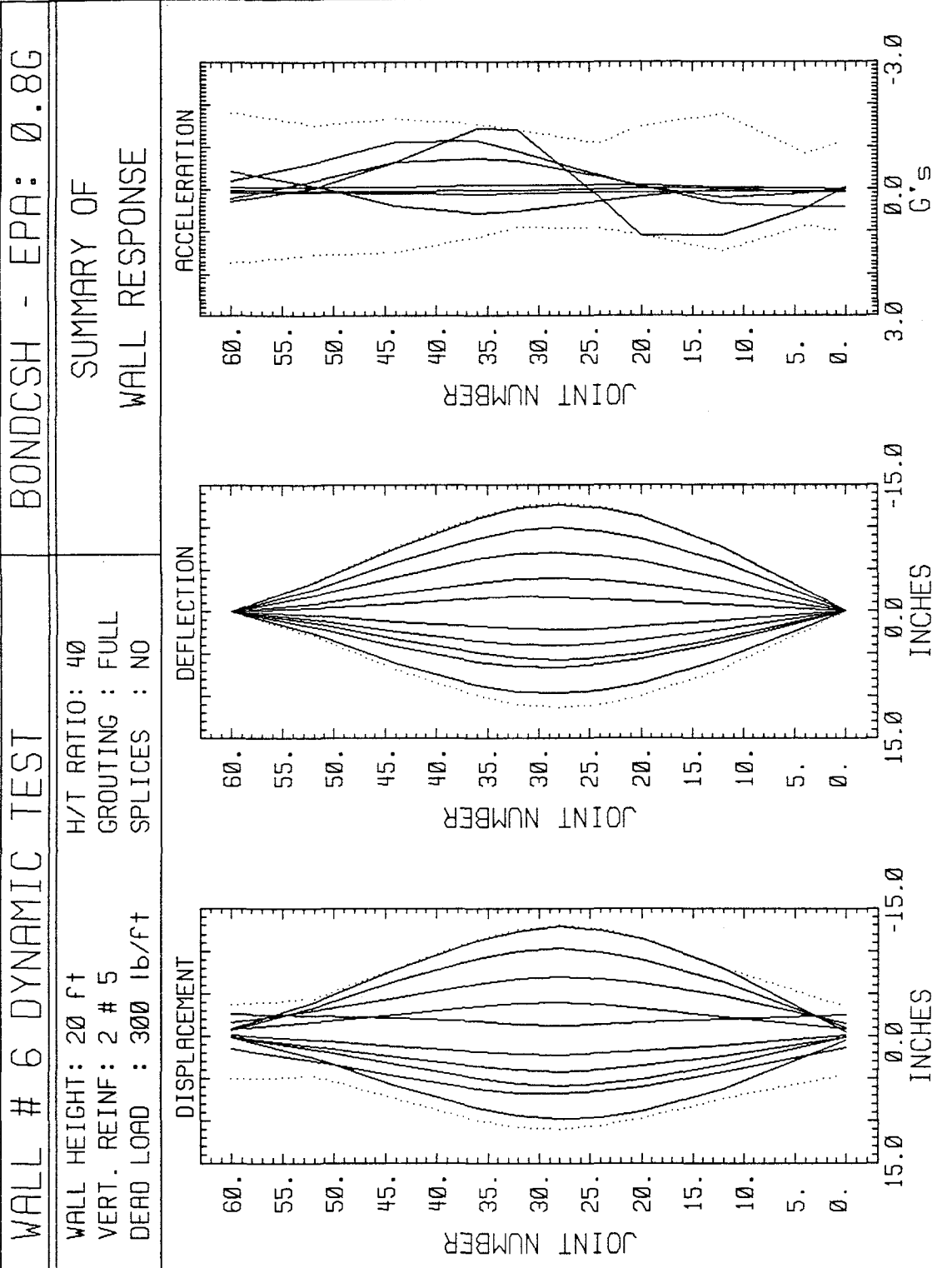


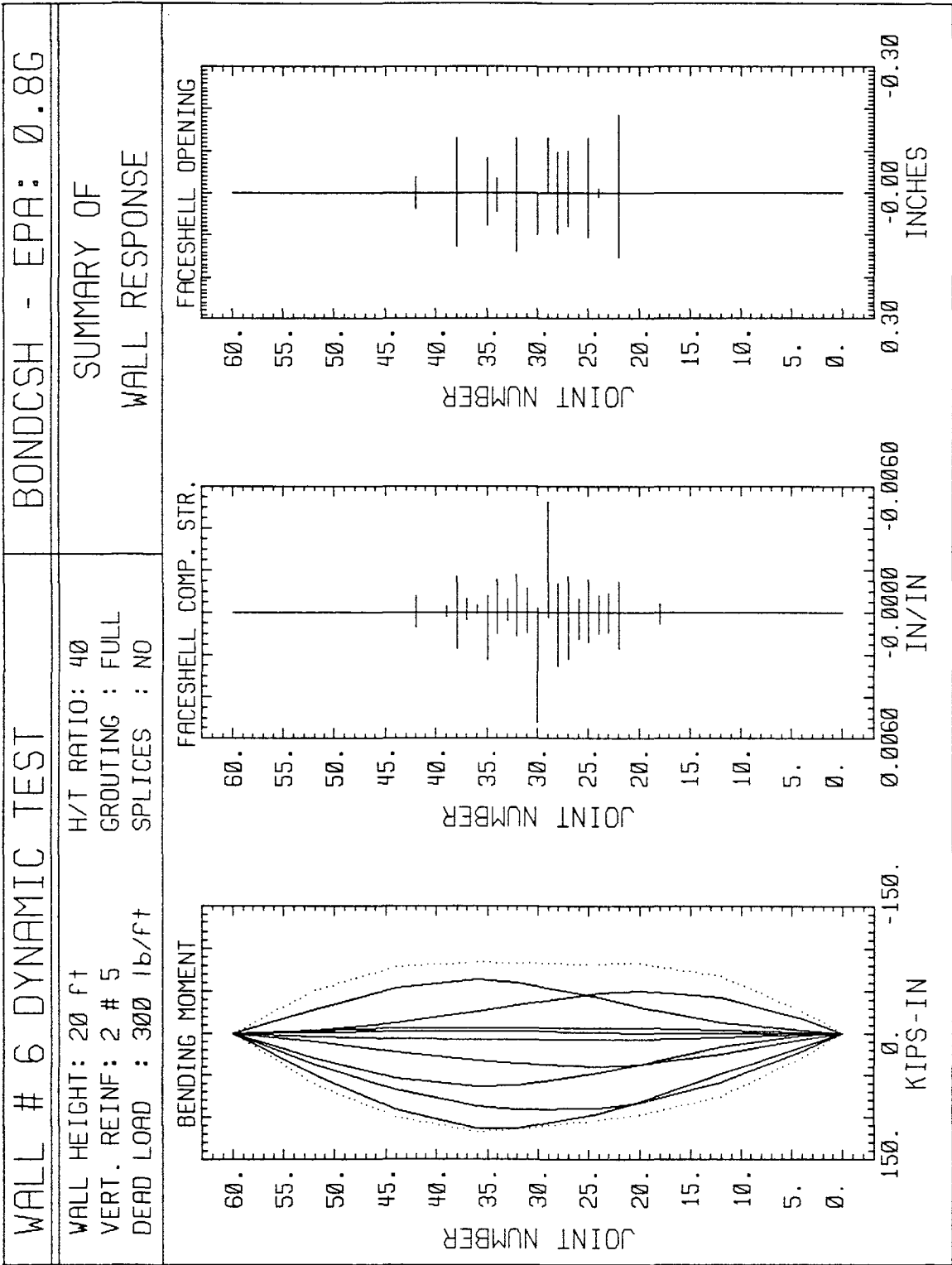


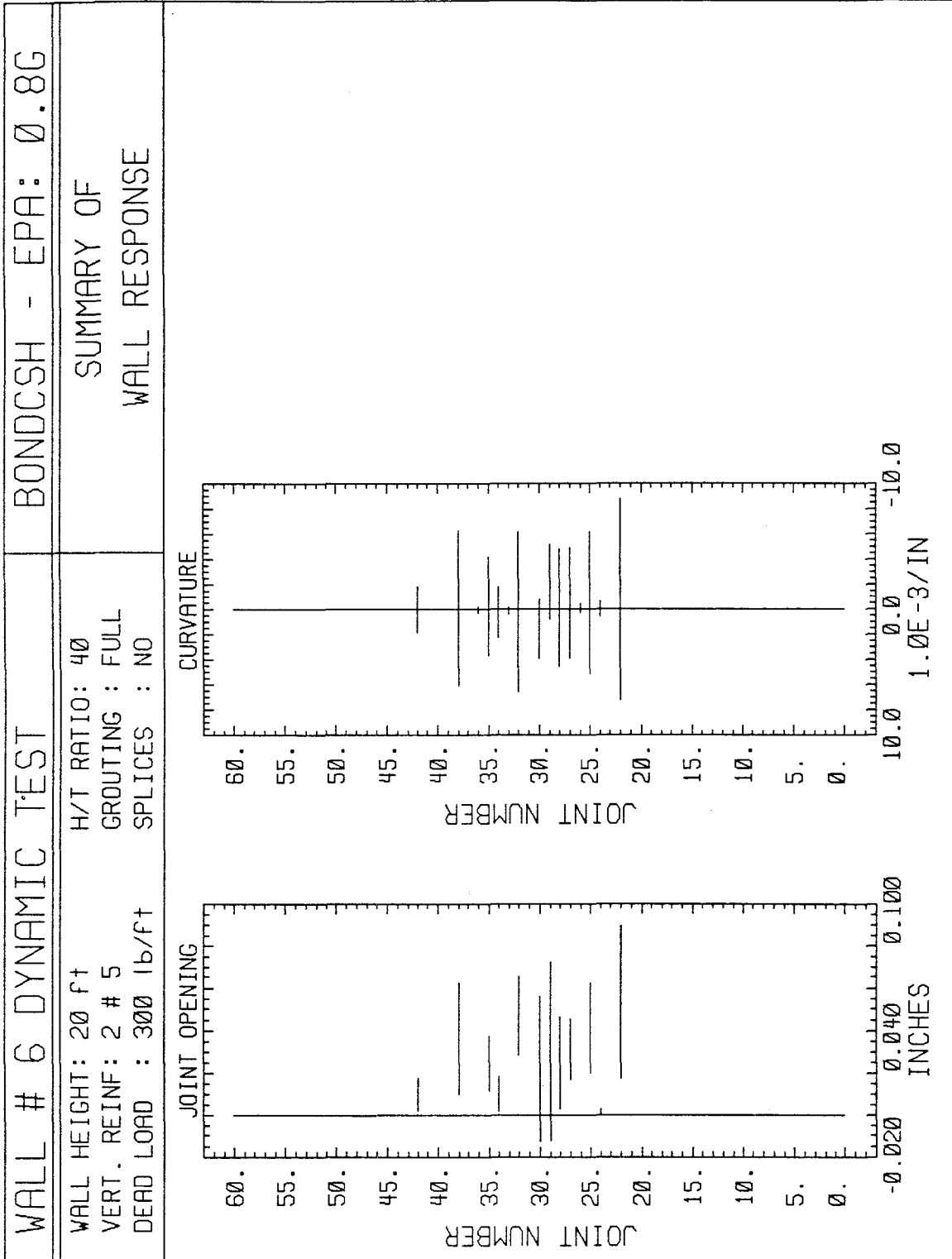


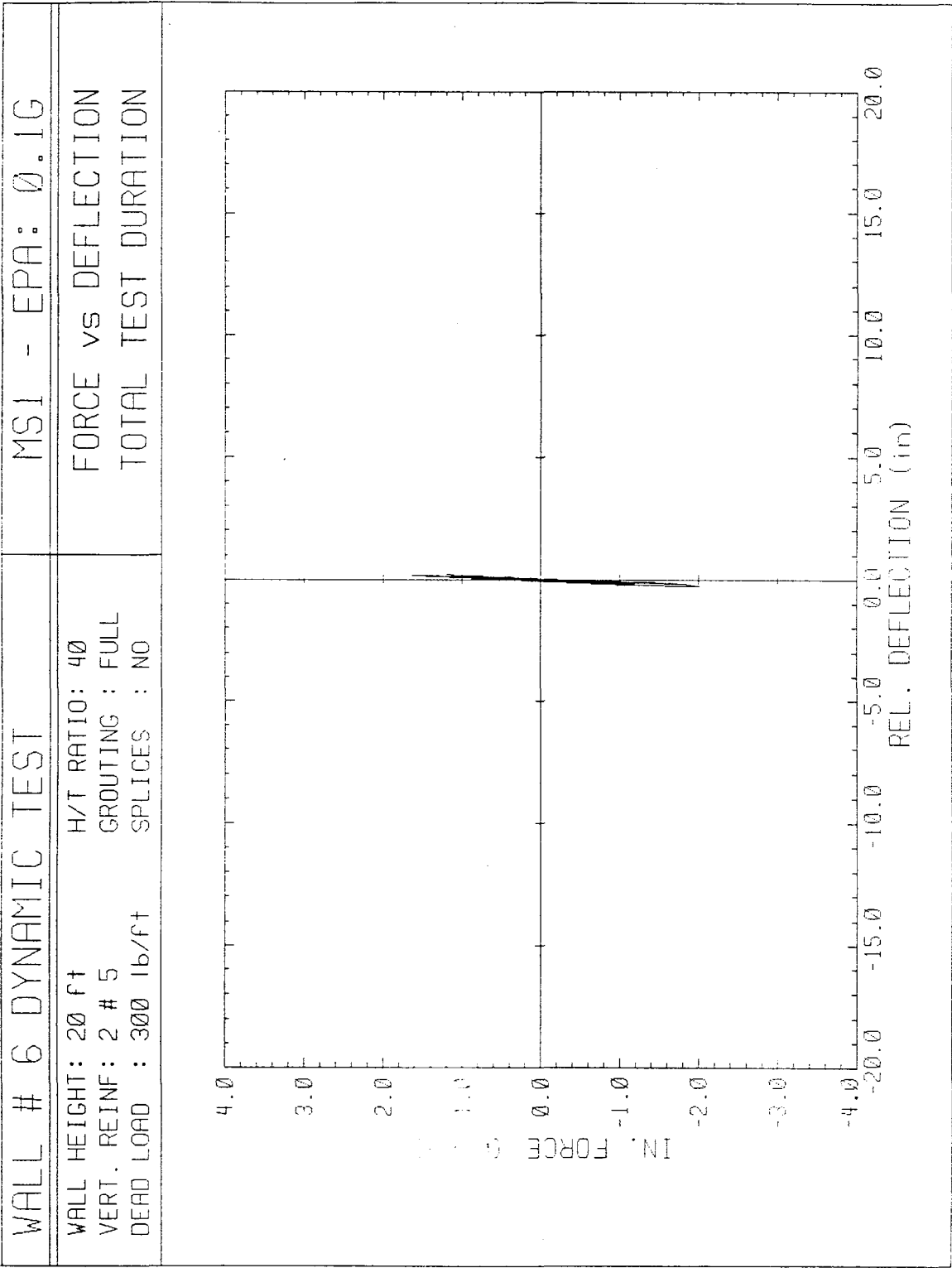


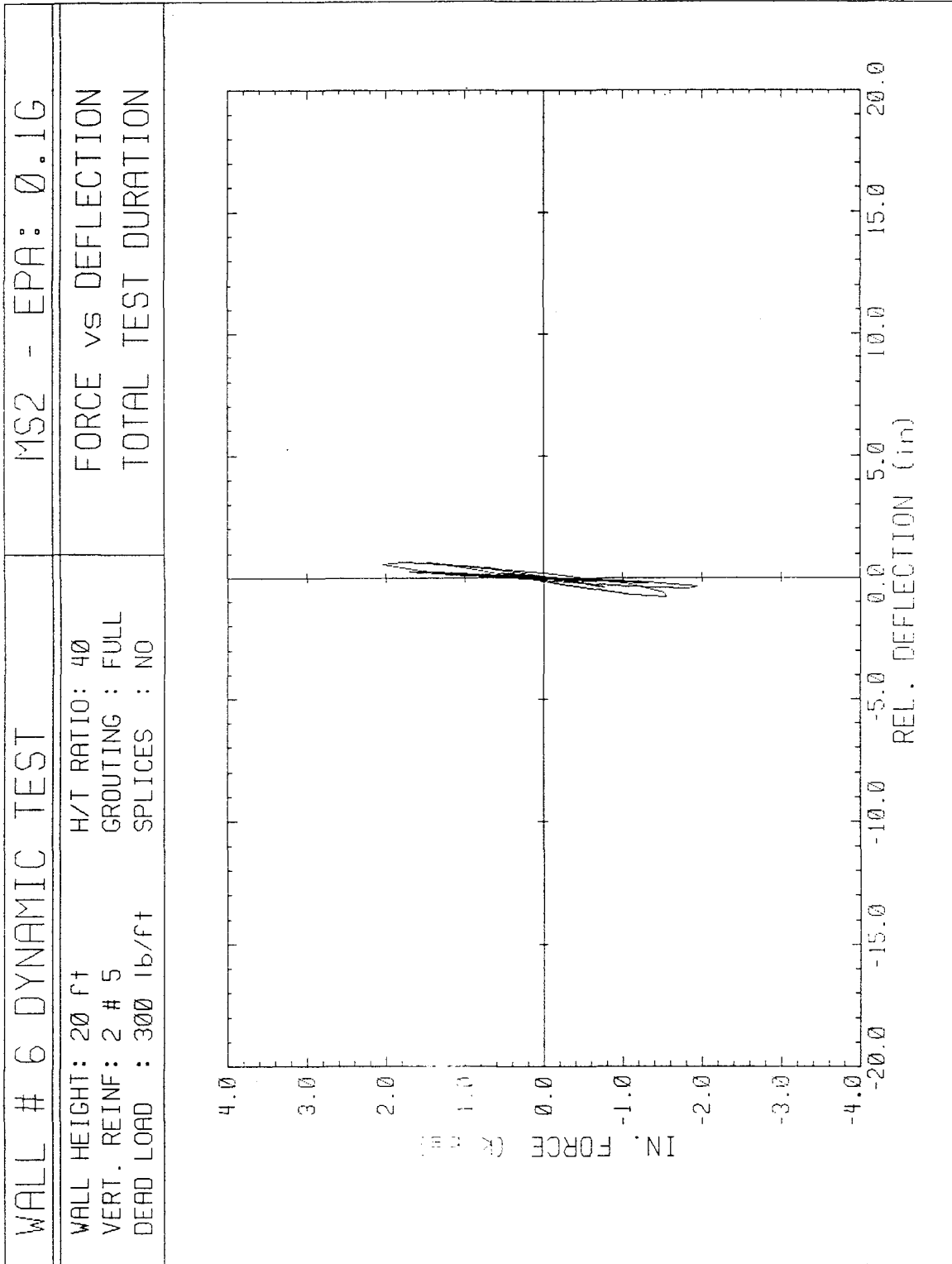
WALL # 6 DYNAMIC TEST	BONDCH - EPA: Ø.8G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
SUMMARY OF WALL RESPONSE	

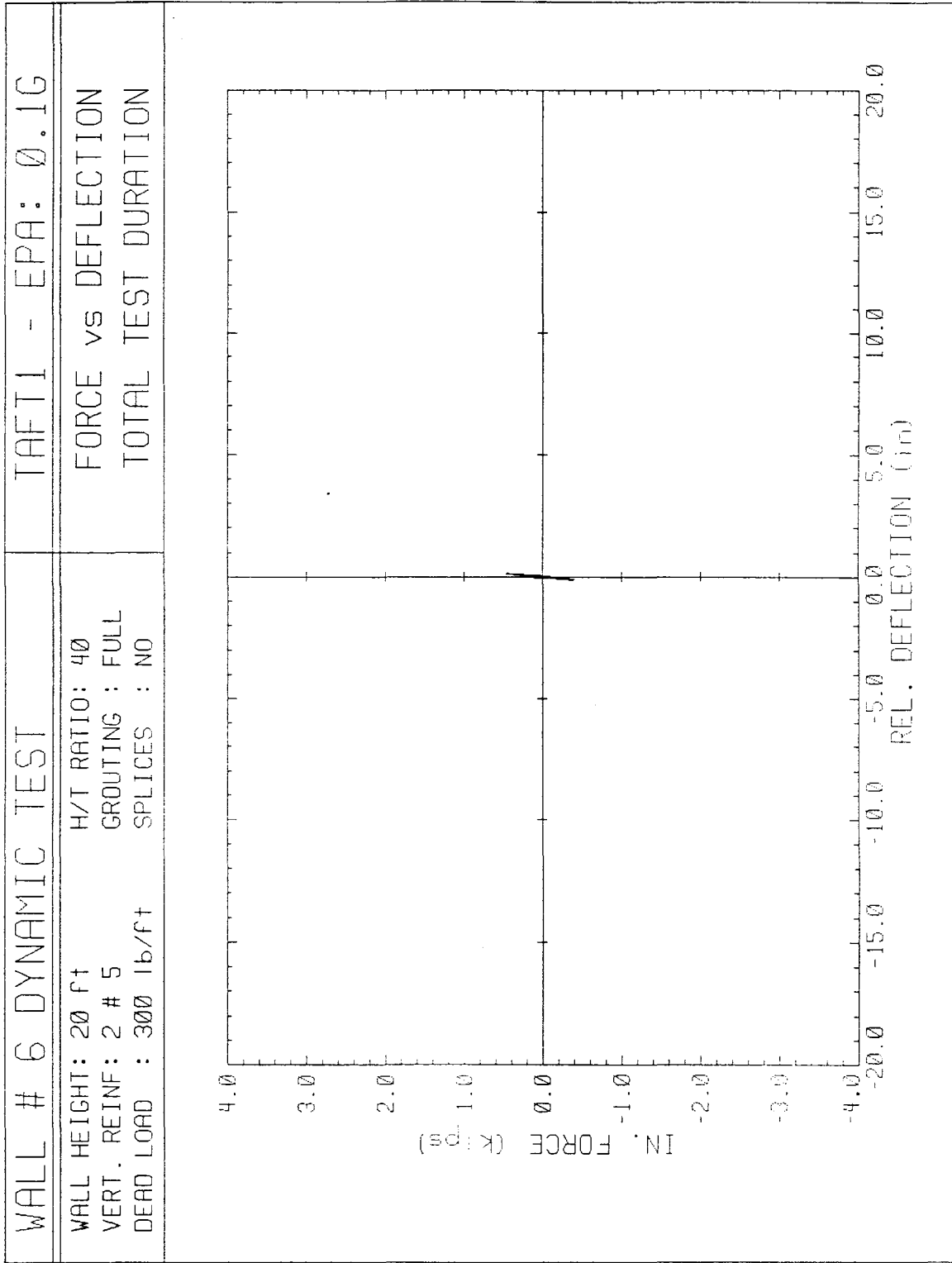


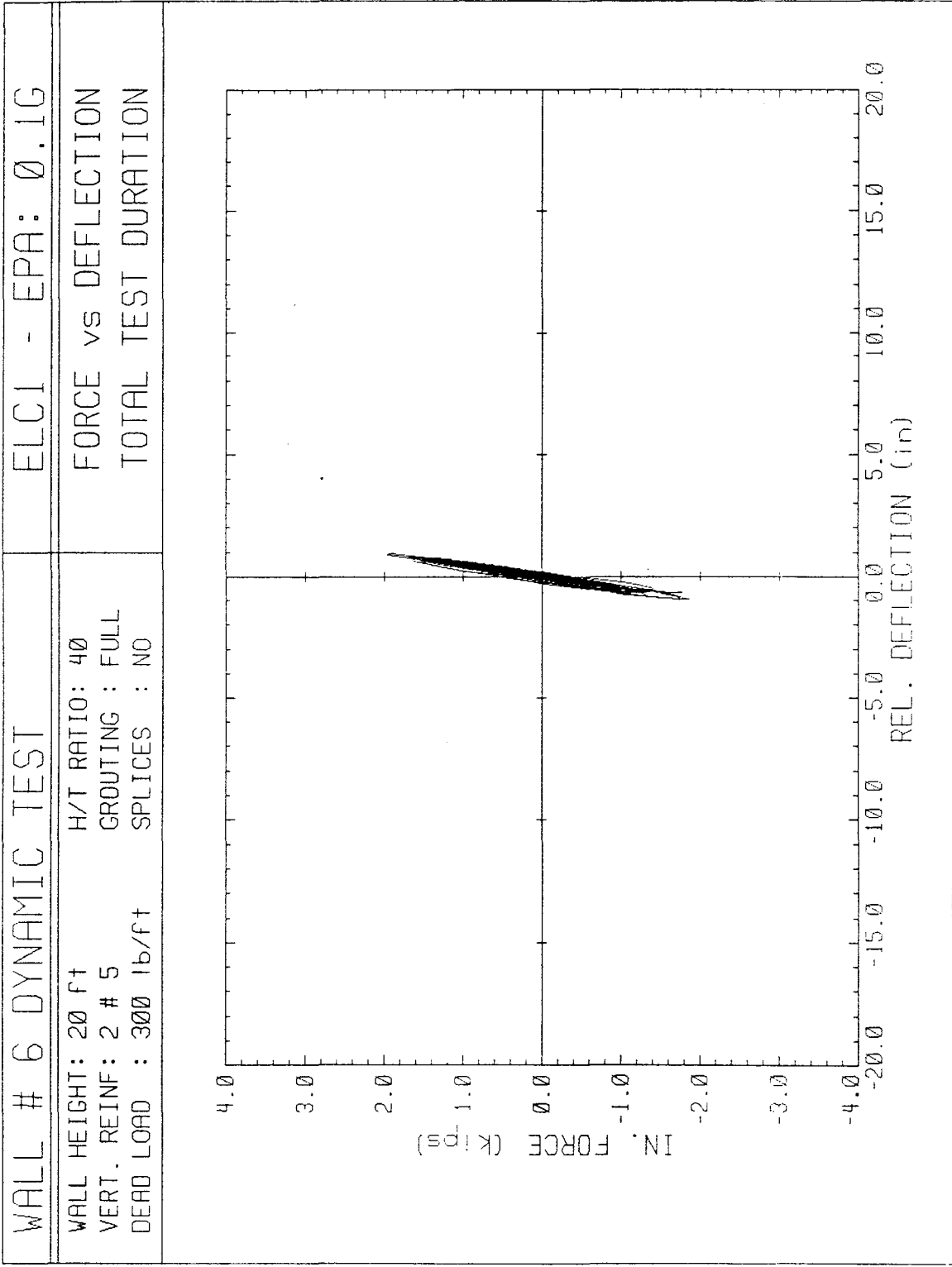


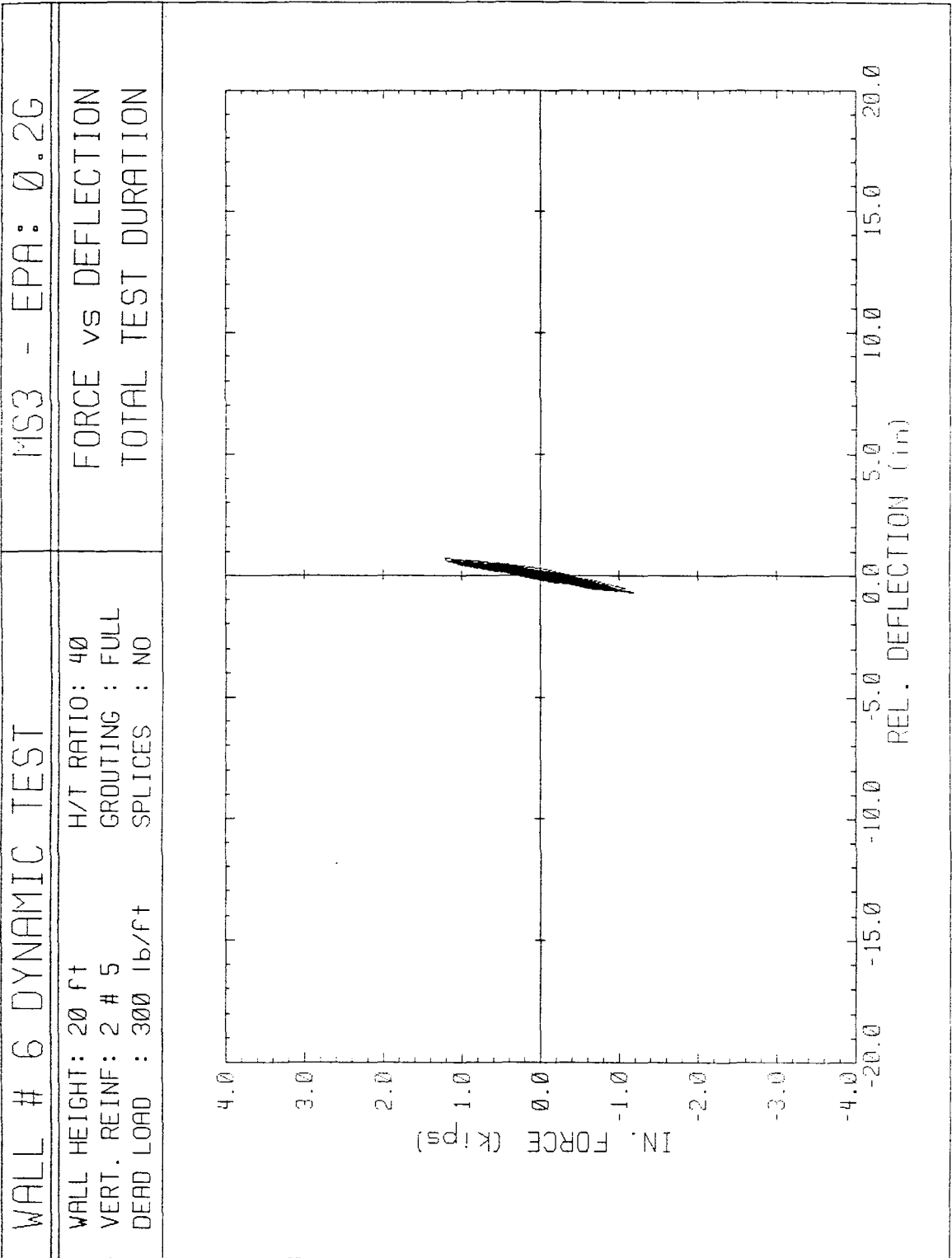


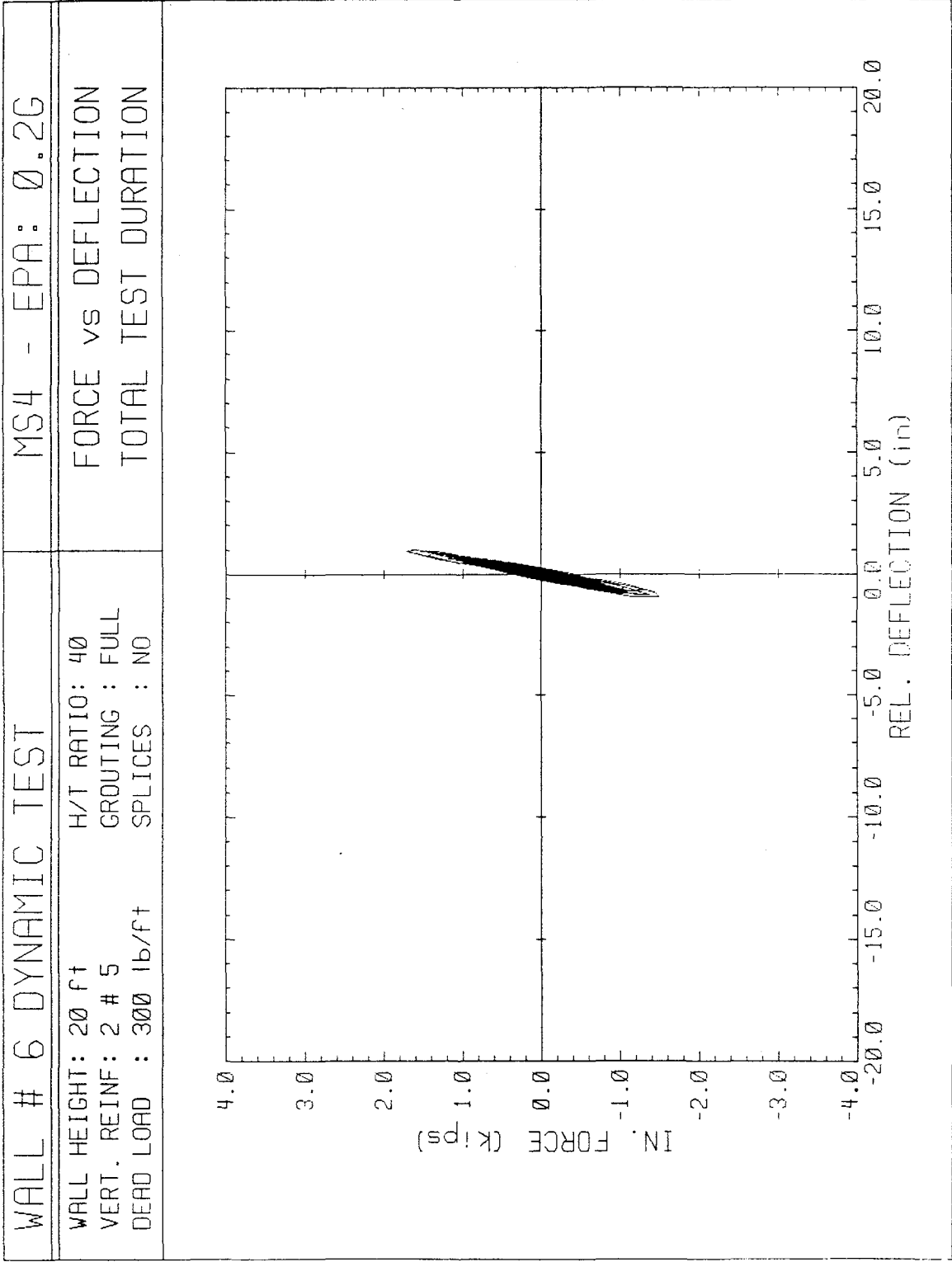


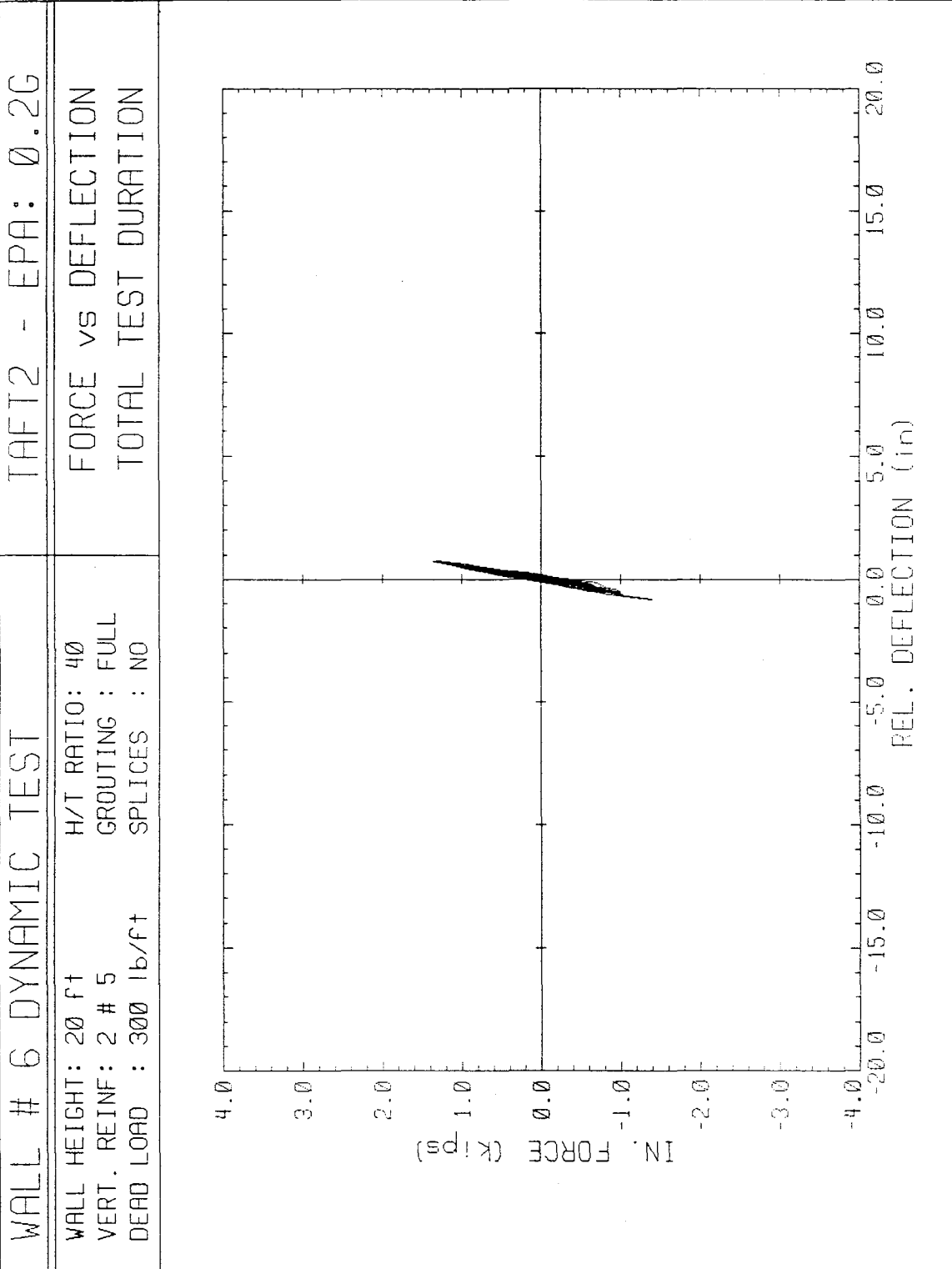


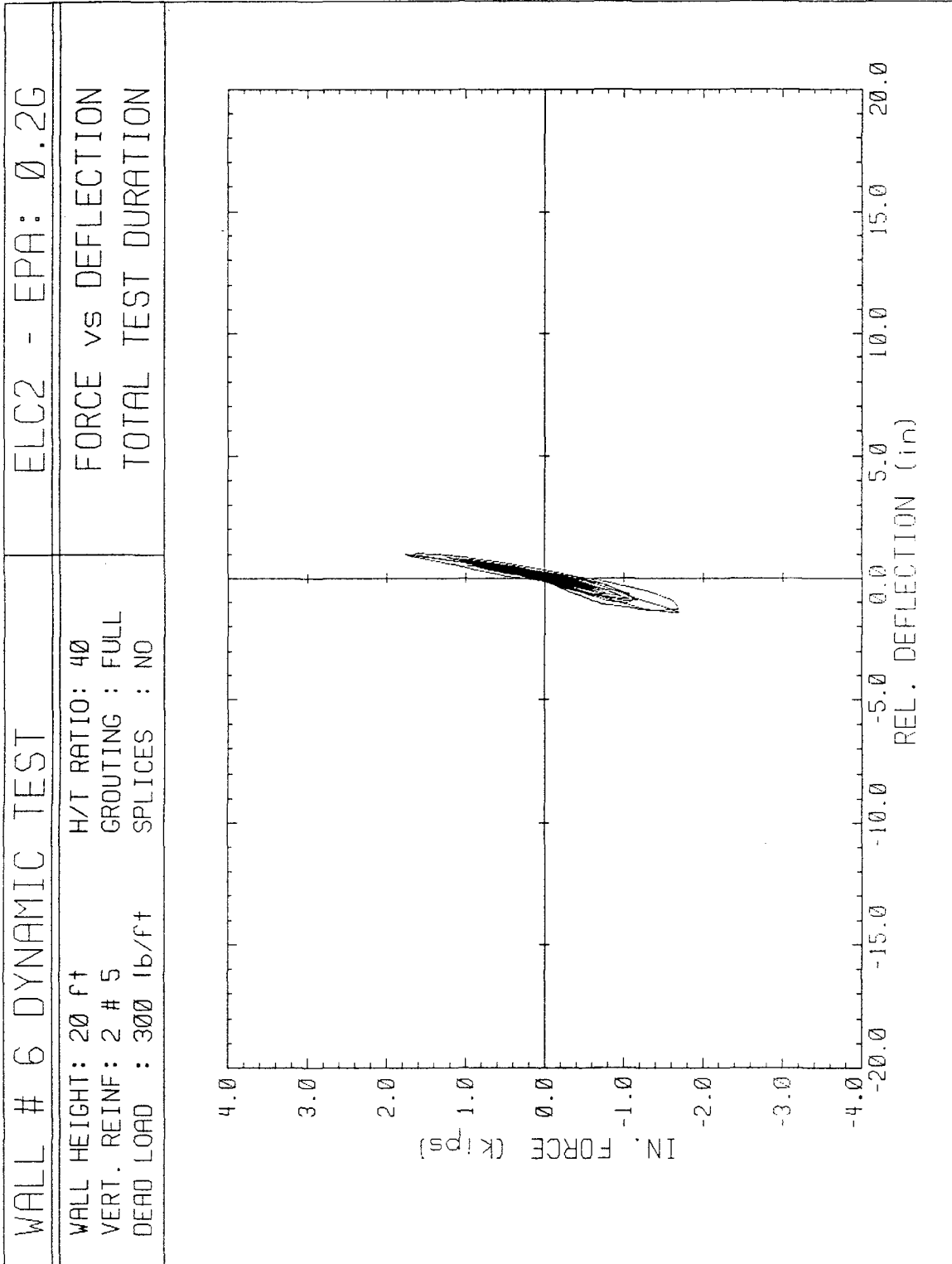












WALL # 6 DYNAMIC TEST	MS5 - EPA: 0.4G
WALL HEIGHT: 20 ft VERT. REINF: 2 # 5 DEAD LOAD : 300 lb/ft	H/T RATIO: 40 GROUTING : FULL SPLICES : NO
FORCE vs DEFLECTION	
TOTAL TEST DURATION	

