



BRIDGE / MEMBER DATA

Structure I. D. HAM500

Material of Construction SS  
 Year of Construction 1959  
 Roadway Width 32.000  
 Center to Center Truss 38.833  
 Number of Spans 1  
 Live Load Distribution Factor 0.9370

Comments:

Truss I. D. 1 Truss Type: THROUGH

Span Length: Span 1  
 250.000

Number of Panels: 10 Symmetry:

Panel No.	Panel Code	Panel Length	Sub-Divided Panel Length	Vertical Height	Sub-Divided Vertical
1	7	25.000	0.000	28.000	0.000
2	2	25.000	0.000	34.670	0.000
3	2	25.000	0.000	38.670	0.000
4	2	25.000	0.000	40.000	0.000
5	4	25.000	0.000	40.000	0.000
6	3	25.000	0.000	40.000	0.000
7	1	25.000	0.000	38.670	0.000
8	1	25.000	0.000	34.670	0.000
9	1	25.000	0.000	28.000	0.000
10	5	25.000	0.000	0.000	0.000

Superimposed Dead Load:

Uniform Dead Load (kips/ft)	
Loaded Chord	Unloaded Chord
0.441	0.000

Superimposed Dead Load:

Loaded Chord		Unloaded Chord	
Dist.	Load	Dist.	Load
0.000	27.810	0.000	0.000
25.000	58.720	0.000	0.000
50.000	51.410	0.000	0.000

75.000	53.130	0.000	0.000
100.000	52.680	0.000	0.000
125.000	52.830	0.000	0.000
150.000	52.680	0.000	0.000
175.000	53.130	0.000	0.000
200.000	51.410	0.000	0.000
225.000	58.720	0.000	0.000

Truss Members Selected:

- L 0L 1
- L 0U 1
- U 1L 1
- U 1U 2
- L 1L 2
- U 1L 2
- U 2L 2
- U 2U 3
- L 2L 3
- U 2L 3
- U 3L 3
- U 3U 4
- L 3L 4
- U 3L 4
- U 4L 4
- L 4L 5
- U 4U 5
- U 4L 5
- L 4U 5
- U 5L 5
- L 5L 6
- U 5U 6
- L 5U 6
- U 5L 6
- U 6L 6
- L 6L 7
- U 6U 7
- L 6U 7
- U 7L 7
- L 7L 8
- U 7U 8
- L 7U 8
- U 8L 8
- L 8L 9
- U 8U 9
- L 8U 9
- U 9L 9
- L 9L10
- U 9L10

NOTE: All distances are shown in decimal feet, moments are shown in foot-kips, and shears are shown in kips. Section and section properties are shown as: in., in.\*\*2, in.\*\*3, and in.\*\*4. Axial loads are shown in kips.

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 0L 1

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 0L 1

Axial Dead Load	
Tension	Compression
290.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	29.45 R	25.98		53.00	41.81	36.89		25.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	30.46 R	26.88		76.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.31	HS126.18	227.1
5C1	14.44	0.00	577.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 0U 1

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14238.	17756.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	L 0U 1				

Axial Dead Load	
Tension	Compression
0.0	435.8

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	846.8	658.4	1108.3	396.9
OPER	1411.4	1097.3	1847.2	661.5

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane Live Load w/imp.	Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00	0.00
		-44.21 R	-39.01		53.00	-67.91	-59.92	25.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00	0.00
		-45.73 R	-40.35		76.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.84	HS116.90	210.4
5C1	14.47	0.00	578.6

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 1L 1

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5837.	7280.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
28.000	28.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	0.000	25.000	50.000	250.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	250.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	5C1		
Truss Member I. D.				

Axial Dead Load	
Tension	Compression
69.7	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	175.3	57.3	133.5	99.1
OPER	292.2	95.5	222.4	165.2

## Live Load Effect

Impact Factors: ten - .286 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	29.88	R	23.24	39.00	25.30	19.68	25.00	
		0.00	R	0.00	0.00	0.00	0.00	0.00	
OPER	5C1	22.60	R	17.58	37.00	0.00	0.00	0.00	
		0.00	R	0.00	0.00	0.00	0.00	0.00	

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.47	HS 89.34	160.8
5C1	9.84	0.00	393.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 1U 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14958.	18653.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.874	25.874	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.25	45.20	4124.31	2460.90	24.81	9.55	7.38

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
45.20	4124.31	2460.90	24.81

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 1U 2				

Axial Dead Load	
Tension	Compression
0.0	427.7

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	688.4	562.3	945.0	305.7
OPER	1147.4	937.2	1575.1	509.5

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane Live Load w/imp.	Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00	0.00
		-43.52 R	-38.40		78.00	-62.13	-54.82	50.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00	0.00
		-44.69 L	-39.43		38.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.92	HS 98.40	177.1
5C1	11.40	0.00	456.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 1L 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	L 1L 2				

Axial Dead Load	
Tension	Compression
290.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane Live Load w/imp.	Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	29.45 R	25.98		53.00	41.81	36.89	25.00
		0.00 R	0.00		0.00	0.00	0.00	0.00
OPER	5C1	30.46 R	26.88		76.00	0.00	0.00	0.00
		0.00 R	0.00		0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.31	HS126.18	227.1
5C1	14.44	0.00	577.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 1L 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	7915.	9870.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	19.10	533.00	174.00	0.00	5.28	3.02

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
19.10	708.48	135.48	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.340	0.660	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.340	0.660	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 1L 2				

Axial Dead Load	
Tension	Compression
184.6	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	290.9	125.7	180.1	236.5
OPER	484.8	209.6	300.2	394.2

## Live Load Effect

Impact Factors: ten - .146 comp - .300

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	24.33	R	21.22	78.00	33.76	29.45	50.00	
		-9.55	L	-7.35	-3.00	-7.61	-5.86	25.00	
OPER	5C1	24.92	R	21.73	101.00	0.00	0.00	0.00	
		-6.48	L	-4.99	-26.00	0.00	0.00	0.00	

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.34	HS106.69	192.0
5C1	12.05	0.00	481.9

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 2L 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	9039.	11272.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
34.670	34.670	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	19.10	533.00	174.00	0.00	5.28	3.02

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
19.10	708.48	135.48	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.508	-0.431	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.254	-0.492	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	5C1		
Truss Member I. D.				

Axial Dead Load	
Tension	Compression
0.0	75.3

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	290.9	143.6	336.1	98.4
OPER	484.8	239.3	560.1	164.0

## Live Load Effect

Impact Factors: ten - .265 comp - .161

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	17.63 L	13.93		22.00	13.95	11.02		50.00
		-15.96 R	-13.75		103.00	-20.06	-17.29		75.00
OPER	5C1	12.89 R	10.19		62.00	0.00	0.00		0.00
		-16.14 R	-13.91		126.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.91	HS 98.12	176.6
5C1	10.16	0.00	406.5

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 2U 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14972.	18671.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.318	25.318	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	52.00	4491.89	2777.39	22.52	9.29	7.31

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
52.00	4491.89	2777.39	22.52

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 2U 3				

Axial Dead Load	
Tension	Compression
0.0	491.8

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	792.0	647.5	1087.1	352.4
OPER	1320.0	1079.2	1811.8	587.4

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-49.76 R	-43.90		103.00	-71.54	-63.13		75.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-51.47 L	-45.41		63.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.93	HS 98.52	177.3
5C1	11.41	0.00	456.5

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 2L 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	40.50	1093.50	1284.58	9.00	5.20	5.63

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
39.83	1349.08	1071.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 2L 3

Axial Dead Load	
Tension	Compression
413.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	606.6	485.7	358.6	733.7
OPER	1010.9	809.6	597.7	1222.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	42.05	R	37.10	78.00	60.03	52.97	50.00	
		0.00	R	0.00	0.00	0.00	0.00	0.00	
OPER	5C1	43.18	L	38.10	38.00	0.00	0.00	0.00	
		0.00	R	0.00	0.00	0.00	0.00	0.00	

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.97	HS119.48	215.1
5C1	13.84	0.00	553.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 2L 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	4117.	5134.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
42.741	42.741	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	15.60	425.00	95.80	0.00	5.22	2.48

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
15.60	587.24	67.82	0.89

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.425	0.595	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.425	0.595	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

	INV.	OPER	POST	SPEC
	HS20	5C1		
Truss I. D.				1
Truss Member I. D.			U 2L	3

Axial Dead Load	
Tension	Compression
123.9	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	237.6	53.4	163.3	127.7
OPER	396.0	89.0	272.1	212.9

## Live Load Effect

Impact Factors: ten - .159 comp - .270

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	22.03 R	19.01	103.00	28.01	24.17	75.00
		-14.81 L	-11.66	22.00	-11.46	-9.03	50.00
OPER	5C1	22.27 R	19.22	126.00	0.00	0.00	0.00
		-10.49 L	-8.26	-1.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.83	HS116.59	209.9
5C1	12.22	0.00	488.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 3L 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10618.	13241.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
38.670	19.335	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.517	-0.414	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.345	-0.483	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 3L 3				

Axial Dead Load	
Tension	Compression
0.0	36.3

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	175.3	104.2	197.1	82.4
OPER	292.2	173.7	328.5	137.4

## Live Load Effect

Impact Factors: ten - .234 comp - .175

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	18.85	L	15.28	47.00	16.28	13.19		75.00
		-15.38	R	-13.09	128.00	-17.66	-15.04		100.00
OPER	5C1	16.19	L	13.12	24.00	0.00	0.00		0.00
		-15.28	R	-13.00	151.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.67	HS 93.32	168.0
5C1	8.99	0.00	359.6

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 3U 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14975.	18675.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.035	25.035	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 3U 4				

Axial Dead Load	
Tension	Compression
0.0	536.9

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	846.8	692.5	1169.0	370.3
OPER	1411.4	1154.2	1948.3	617.2

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-54.15 L	-47.78		86.00	-78.16	-68.97		100.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-55.77 L	-49.21		84.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.74	HS 94.76	170.6
5C1	11.07	0.00	442.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 3L 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	49.50	1336.50	1505.17	9.00	5.20	5.51

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
48.67	1648.87	1256.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	5C1		
Truss Member I. D.				

Axial Dead Load	
Tension	Compression
485.7	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	741.4	593.7	450.0	885.1
OPER	1235.6	989.5	749.9	1475.2

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	49.13 R	43.35		103.00	70.64	62.33		75.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	50.82 L	44.84		63.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.37	HS127.39	229.3
5C1	14.76	0.00	590.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 3L 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	8643.	10779.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
46.048	23.024	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	13.20	350.00	50.00	0.00	5.15	1.95

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
12.88	470.25	35.82	0.78

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.428	0.619	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.428	0.619	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 3L 4				

Axial Dead Load  
Tension      Compression

93.1              0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	196.2	94.9	140.3	150.7
OPER	327.0	158.1	233.9	251.2

## Live Load Effect

Impact Factors: ten - .173    comp - .238

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	22.98	R	19.59	128.00	26.79	22.85		100.00
		-15.67	L	-12.66	47.00	-13.24	-10.69		75.00
OPER	5C1	22.83	R	19.47	151.00	0.00	0.00		0.00
		-13.46	L	-10.87	24.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.24	HS104.77	188.6
5C1	10.25	0.00	409.9

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 4L 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10272.	12809.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
40.000	20.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.480	-0.433	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.360	-0.520	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 4L 4				

Axial Dead Load	
Tension	Compression
0.0	14.4

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	175.3	100.8	184.0	92.1
OPER	292.2	168.0	306.6	153.6

## Live Load Effect

Impact Factors: ten - .210 comp - .191

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	17.76 L	14.67	72.00	16.92	13.98	100.00
		-16.11 R	-13.53	153.00	-16.88	-14.18	125.00
OPER	5C1	16.49 L	13.63	49.00	0.00	0.00	0.00
		-15.60 R	-13.10	176.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.46	HS109.16	196.5
5C1	9.85	0.00	393.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 4L 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	54.00	1458.00	1604.36	9.00	5.20	5.45

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
53.10	1798.77	1340.34	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	L 4L 5				

Axial Dead Load	
Tension	Compression
536.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	808.8	647.7	487.0	969.4
OPER	1347.9	1079.4	811.7	1615.6

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane Live Load w/imp.	Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	54.07 L	47.71		86.00	78.05	68.87	100.00
		0.00 R	0.00		0.00	0.00	0.00	0.00
OPER	5C1	55.69 L	49.14		84.00	0.00	0.00	0.00
		0.00 R	0.00		0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.24	HS124.80	224.6
5C1	14.58	0.00	583.1

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 4U 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14977.	18677.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 4U 5				

Axial Dead Load	
Tension	Compression
0.0	558.4

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	846.8	692.6	1181.9	357.5
OPER	1411.4	1154.3	1969.8	595.8

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-56.02 L	-49.43		111.00	-81.30	-71.74		125.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-57.20 R	-50.47		141.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.40	HS 87.94	158.3
5C1	10.42	0.00	416.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 4L 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5276.	6579.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.64	302.68	25.49	6.35	5.33	1.55

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	276.97	12.17	7.36

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.472	0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.472	0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	U 4L 5

Axial Dead Load	
Tension	Compression
42.0	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	0.0	128.2	0.0
OPER	255.7	0.0	213.7	0.0

## Live Load Effect

Impact Factors: ten - .189 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	21.89 R	18.40		153.00	23.15	19.46		125.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	21.19 R	17.82		176.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.54	HS110.77	199.4
5C1	10.08	0.00	403.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 4U 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5276.	6579.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.64	302.68	25.49	6.35	5.33	1.55

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	276.97	12.17	7.36

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.472	-0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.472	-0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 4U 5

Axial Dead Load	
Tension	Compression

0.0	0.0
-----	-----

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	0.0	153.4	0.0
OPER	255.7	0.0	255.7	0.0

## Live Load Effect

Impact Factors: ten - .212 comp - .000

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	17.48 L	14.43	72.00	16.48	13.60	100.00
		0.00 R	0.00	0.00	0.00	0.00	0.00
OPER	5C1	16.23 L	13.40	49.00	0.00	0.00	0.00
		0.00 R	0.00	0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	8.77	HS175.50	315.9
5C1	15.75	0.00	630.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 5L 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10272.	12809.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
40.000	20.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	250.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	1500.000	1800.000	3000.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	-1.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 5L 5				

Axial Dead Load	
Tension	Compression
-7.4	7.4

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	175.3	100.8	179.7	96.4
OPER	292.2	168.0	299.5	160.7

## Live Load Effect

Impact Factors: ten - .286 comp - .000

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	29.88 R	23.24	139.00	25.30	19.68	125.00
		0.00 R	0.00	0.00	0.00	0.00	0.00
OPER	5C1	22.60 R	17.58	137.00	0.00	0.00	0.00
		0.00 R	0.00	0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	999.00	HS999.00	999.0
5C1	999.00	999.00	999.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 5L 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	54.00	1458.00	1604.36	9.00	5.20	5.45

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
53.10	1798.77	1340.34	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	L 5L 6				

Axial Dead Load	
Tension	Compression
536.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	808.8	647.7	487.0	969.4
OPER	1347.9	1079.4	811.7	1615.6

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	54.07 R	47.71		164.00	78.05	68.87		150.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	55.69 R	49.14		166.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.24	HS124.80	224.6
5C1	14.58	0.00	583.1

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 5U 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14977.	18677.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 5U 6				

Axial Dead Load	
Tension	Compression
0.0	558.4

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	846.8	692.6	1181.9	357.5
OPER	1411.4	1154.3	1969.8	595.8

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-56.02 L	-49.43		111.00	-81.30	-71.74		125.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-57.20 R	-50.47		141.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.40	HS 87.94	158.3
5C1	10.42	0.00	416.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 5U 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5276.	6579.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.64	302.68	25.49	6.35	5.33	1.55

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	276.97	12.17	7.36

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.590	-0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.590	-0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	L 5U 6				

Axial Dead Load	
Tension	Compression
42.0	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	0.0	128.2	0.0
OPER	255.7	0.0	213.7	0.0

## Live Load Effect

Impact Factors: ten - .189 comp - .000

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	21.89 L	18.40	97.00	23.15	19.46	125.00
		0.00 R	0.00	0.00	0.00	0.00	0.00
OPER	5C1	21.19 L	17.82	74.00	0.00	0.00	0.00
		0.00 R	0.00	0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.54	HS110.77	199.4
5C1	10.08	0.00	403.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 5L 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5276.	6579.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.64	302.68	25.49	6.35	5.33	1.55

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	276.97	12.17	7.36

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.590	0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.590	0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

	INV.	OPER	POST	SPEC
	HS20	5C1		
Truss I. D.				1
Truss Member I. D.				U 5L 6

Axial Dead Load	
Tension	Compression
0.0	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	0.0	153.4	0.0
OPER	255.7	0.0	255.7	0.0

## Live Load Effect

Impact Factors: ten - .212 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	17.48 R	14.43		178.00	16.48	13.60		150.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	16.23 R	13.40		201.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	8.77	HS175.50	315.9
5C1	15.75	0.00	630.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 6L 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10232.	12760.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
40.000	20.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	10.93	181.44	40.53	-0.93	4.08	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.50	283.64	27.82	-0.28

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.433	0.480	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.520	0.360	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	U 6L 6

Axial Dead Load	
Tension	Compression
0.0	14.4

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	160.0	93.0	168.6	84.3
OPER	266.6	155.0	281.1	140.5

## Live Load Effect

Impact Factors: ten - .210 comp - .191

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	17.76	R	14.67	178.00	16.92	13.98		150.00
		-16.11	L	-13.53	97.00	-16.88	-14.18		125.00
OPER	5C1	16.49	R	13.63	201.00	0.00	0.00		0.00
		-15.60	L	-13.10	74.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.99	HS 99.88	179.8
5C1	9.01	0.00	360.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 6L 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	49.50	1336.50	1505.17	9.00	5.20	5.51

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
48.67	1648.87	1256.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 6L 7

Axial Dead Load	
Tension	Compression

485.7	0.0
-------	-----

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	741.4	593.7	450.0	885.1
OPER	1235.6	989.5	749.9	1475.2

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	49.13 L	43.35		147.00	70.64	62.33		175.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	50.82 R	44.84		187.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.37	HS127.39	229.3
5C1	14.76	0.00	590.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 6U 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14975.	18675.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.035	25.035	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 6U 7				

Axial Dead Load	
Tension	Compression
0.0	536.9

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	846.8	692.5	1169.0	370.3
OPER	1411.4	1154.2	1948.3	617.2

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-54.15 R	-47.78		164.00	-78.16	-68.97		150.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-55.77 R	-49.21		166.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.74	HS 94.76	170.6
5C1	11.07	0.00	442.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 6U 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	8643.	10779.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
46.048	23.024	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	13.20	350.00	50.00	0.00	5.15	1.95

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
12.88	470.25	35.82	0.78

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.619	-0.428	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.619	-0.428	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 6U 7

Axial Dead Load	
Tension	Compression

93.1	0.0
------	-----

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	196.2	94.9	140.3	150.7
OPER	327.0	158.1	233.9	251.2

## Live Load Effect

Impact Factors: ten - .173 comp - .238

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	22.98 L	19.59		122.00	26.79	22.85		150.00
		-15.67 R	-12.66		203.00	-13.24	-10.69		175.00
OPER	5C1	22.83 L	19.47		99.00	0.00	0.00		0.00
		-13.46 R	-10.87		226.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.24	HS104.77	188.6
5C1	10.25	0.00	409.9

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 7L 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10731.	13382.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
38.670	19.335	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.49	266.41	43.94	-0.32	4.82	1.96

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.15	371.16	31.23	0.42

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.414	0.517	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.483	0.345	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

RATING REPORT

Rating Types and Vehicles

Structure I. D. HAM500

INV. OPER POST SPEC  
HS20 5C1

Truss I. D. 1  
Truss Member I. D. U 7L 7

Axial Dead Load  
Tension Compression  
0.0 36.3

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	169.8	102.5	191.6	80.7
OPER	283.1	170.9	319.4	134.6

Live Load Effect

Impact Factors: ten - .234 comp - .175

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	18.85	R	15.28	203.00	13.89	11.25	175.00	
		-15.38	L	-13.09	122.00	-15.84	-13.48	150.00	
OPER	5C1	16.19	R	13.12	226.00	0.00	0.00	0.00	
		-15.28	L	-13.00	99.00	0.00	0.00	0.00	

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.10	HS101.94	183.5
5C1	8.81	0.00	352.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 7L 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	40.50	1093.50	1284.58	9.00	5.20	5.63

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
39.83	1349.08	1071.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 7L 8

Axial Dead Load	
Tension	Compression
413.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	606.6	485.7	358.6	733.7
OPER	1010.9	809.6	597.7	1222.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	42.05 L	37.10		172.00	60.03	52.97		200.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	43.18 R	38.10		212.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.97	HS119.48	215.1
5C1	13.84	0.00	553.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 7U 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14972.	18671.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.318	25.318	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	52.00	4491.89	2777.39	22.52	9.29	7.31

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
52.00	4491.89	2777.39	22.52

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 7U 8				

Axial Dead Load	
Tension	Compression
0.0	491.8

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	792.0	647.5	1087.1	352.4
OPER	1320.0	1079.2	1811.8	587.4

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-49.76 L	-43.90		147.00	-71.54	-63.13		175.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-51.47 R	-45.41		187.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.93	HS 98.52	177.3
5C1	11.41	0.00	456.5

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 7U 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	4049.	5049.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
42.743	42.743	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	15.00	424.84	90.60	-0.02	5.32	2.46

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
14.95	580.84	62.61	0.87

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.595	-0.425	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.595	-0.425	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 7U 8

Axial Dead Load	
Tension	Compression
123.9	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	227.6	50.5	153.3	124.8
OPER	379.4	84.2	255.5	208.0

## Live Load Effect

Impact Factors: ten - .159 comp - .270

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	22.03 L	19.01	147.00	28.01	24.17	175.00
		-14.81 R	-11.66	228.00	-11.46	-9.03	200.00
OPER	5C1	22.27 L	19.22	124.00	0.00	0.00	0.00
		-10.49 R	-8.26	251.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.47	HS109.49	197.1
5C1	11.47	0.00	458.9

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 8L 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	9039.	11272.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
34.670	34.670	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	19.10	533.00	174.00	0.00	5.28	3.02

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
19.10	708.48	135.48	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.431	0.508	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.492	0.254	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	U 8L 8

Axial Dead Load	
Tension	Compression
0.0	75.3

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	290.9	143.6	336.1	98.4
OPER	484.8	239.3	560.1	164.0

## Live Load Effect

Impact Factors: ten - .265 comp - .161

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	17.63 R	13.93	228.00	11.54	9.12	200.00
		-15.96 L	-13.75	147.00	-18.19	-15.67	175.00
OPER	5C1	12.89 L	10.19	188.00	0.00	0.00	0.00
		-16.14 L	-13.91	124.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.41	HS108.23	194.8
5C1	10.16	0.00	406.5

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 8L 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 8L 9

Axial Dead Load	
Tension	Compression
290.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	29.45 L	25.98	197.00	41.81	36.89	225.00
		0.00 R	0.00	0.00	0.00	0.00	0.00
OPER	5C1	30.46 L	26.88	174.00	0.00	0.00	0.00
		0.00 R	0.00	0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.31	HS126.18	227.1
5C1	14.44	0.00	577.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 8U 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14958.	18653.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.874	25.874	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.25	45.20	4124.31	2460.90	24.81	9.55	7.38

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
45.20	4124.31	2460.90	24.81

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



RATING REPORT

Rating Types and Vehicles

Structure I. D. HAM500

INV. OPER POST SPEC  
HS20 5C1

Truss I. D. 1  
Truss Member I. D. U 8U 9

Axial Dead Load  
Tension Compression  
0.0 427.7

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	688.4	562.3	945.0	305.7
OPER	1147.4	937.2	1575.1	509.5

Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-43.52 L	-38.40	172.00	-62.13	-54.82	200.00		
OPER	5C1	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-44.69 R	-39.43	212.00	0.00	0.00	0.00		

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.92	HS 98.40	177.1
5C1	11.40	0.00	456.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 8U 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	8378.	10448.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	17.01	465.27	164.98	-0.50	5.23	3.11

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
17.01	653.98	126.46	0.36

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.660	-0.340	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.660	-0.340	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 8U 9

Axial Dead Load	
Tension	Compression
184.6	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	259.1	118.6	148.4	229.3
OPER	431.9	197.6	247.3	382.2

## Live Load Effect

Impact Factors: ten - .146 comp - .300

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	24.33 L	21.22	172.00	33.76	29.45	200.00
		-9.55 R	-7.35	253.00	-7.61	-5.86	225.00
OPER	5C1	24.92 L	21.73	149.00	0.00	0.00	0.00
		-6.48 R	-4.99	276.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.39	HS 87.88	158.2
5C1	9.92	0.00	396.9

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 9L 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	6004.	7487.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
28.000	28.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
13.66	11.30	309.96	43.43	1.71	5.24	1.96

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.93	405.90	30.73	2.43

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	225.000	250.000	250.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	250.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

		INV.	OPER	POST	SPEC
		HS20	5C1		
Truss I. D.	1				
Truss Member I. D.	U 9L 9				

Axial Dead Load	
Tension	Compression
69.7	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	166.5	56.4	124.7	98.3
OPER	277.6	94.0	207.8	163.8

## Live Load Effect

Impact Factors: ten - .286 comp - .000

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Truck Live Load Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Lane Live Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	29.88 R	23.24	239.00	20.48	15.93	225.00
		0.00 R	0.00	0.00	0.00	0.00	0.00
OPER	5C1	22.60 R	17.58	237.00	0.00	0.00	0.00
		0.00 R	0.00	0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	4.17	HS 83.47	150.3
5C1	9.20	0.00	367.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 9L10

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D. HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	L 9L10

Axial Dead Load	
Tension	Compression
290.2	0.0

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	29.45 L	25.98		197.00	41.81	36.89		225.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	30.46 L	26.88		174.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	6.31	HS126.18	227.1
5C1	14.44	0.00	577.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 9L10

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14238.	17756.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						



## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

INV.	OPER	POST	SPEC
HS20	5C1		

Truss I. D.	1
Truss Member I. D.	U 9L10

Axial Dead Load	
Tension	Compression

0.0	435.8
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Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	846.8	658.4	1108.3	396.9
OPER	1411.4	1097.3	1847.2	661.5

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-44.21 L	-39.01		197.00	-67.91	-59.92		225.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-45.73 L	-40.35		174.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	5.84	HS116.90	210.4
5C1	14.47	0.00	578.6