

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
 191.333

Number of Panels: 8 Symmetry:

Panel No.	Panel Code	Panel Length	Sub-Divided Panel Length	Vertical Height	Sub-Divided Vertical
1	7	23.917	0.000	28.000	0.000
2	2	23.917	0.000	33.250	0.000
3	2	23.917	0.000	35.000	0.000
4	4	23.917	0.000	35.000	0.000
5	3	23.917	0.000	35.000	0.000
6	1	23.917	0.000	33.250	0.000
7	1	23.917	0.000	28.000	0.000
8	5	23.917	0.000	0.000	0.000

Superimposed Dead Load:

Uniform Dead Load (kips/ft)	
Loaded Chord	Unloaded Chord
0.355	0.000

Superimposed Dead Load:

Loaded Chord Dist.	Loaded Chord Load	Unloaded Chord Dist.	Unloaded Chord Load
0.000	28.160	0.000	0.000
23.917	62.790	0.000	0.000
47.833	52.440	0.000	0.000
71.750	54.970	0.000	0.000
95.667	53.790	0.000	0.000

119.583	54.970	0.000	0.000
143.500	52.440	0.000	0.000
167.417	62.790	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
L 3L 4
U 3U 4
U 3L 4
L 3U 4
U 4L 4
L 4L 5
U 4U 5
L 4U 5
U 4L 5
U 5L 5
L 5L 6
U 5U 6
L 5U 6
U 6L 6
L 6L 7
U 6U 7
L 6U 7
U 7L 7
L 7L 8
U 7L 8

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
 Rating Type: INV.
 Rating Live Load: HS20

Member Properties:

Member	Effective X (ft)	Length Y (ft)	Allowable Ten.	Stress Comp.	Gross Area	Net Area
L 0L 1	23.917	23.917	18150.0	14030.0	21.22	19.90
L 0U 1	36.823	36.823	18150.0	14277.0	41.21	41.21
U 1L 1	28.000	28.000	18150.0	5916.0	11.05	10.65
U 1U 2	24.486	24.486	18150.0	15011.0	34.10	34.10
L 1L 2	23.917	23.917	18150.0	14057.0	22.50	21.38
U 1L 2	36.824	36.824	18150.0	5684.0	17.00	16.99
U 2L 2	33.250	33.250	18150.0	9640.0	18.79	18.79
U 2U 3	23.981	23.981	18150.0	15016.0	38.03	38.03
L 2L 3	23.917	23.917	18150.0	14058.0	31.86	30.27
U 2L 3	40.958	40.958	18150.0	4423.0	15.48	15.48
U 3L 3	35.000	17.500	18150.0	9416.0	9.56	8.83
L 3L 4	23.917	23.917	18150.0	14057.0	37.50	35.62
U 3U 4	23.917	23.917	18150.0	15022.0	41.21	41.21
U 3L 4	42.391	21.196	18150.0	6622.0	10.49	9.91
L 3U 4	42.391	21.196	18150.0	6540.0	8.76	7.92
U 4L 4	35.000	17.500	18150.0	9563.0	9.90	9.22
L 4L 5	23.917	23.917	18150.0	14057.0	37.50	35.62
U 4U 5	23.917	23.917	18150.0	15022.0	41.21	41.21
L 4U 5	42.391	21.196	18150.0	6593.0	10.31	9.69
U 4L 5	42.391	21.196	18150.0	6353.0	9.67	8.96
U 5L 5	35.000	17.500	18150.0	9530.0	9.82	9.13
L 5L 6	23.917	23.917	18150.0	14058.0	31.86	30.27
U 5U 6	23.981	23.981	18150.0	15016.0	38.03	38.03
L 5U 6	40.958	40.958	18150.0	4489.0	15.36	15.36
U 6L 6	33.250	33.250	18150.0	9563.0	19.10	19.10
L 6L 7	23.917	23.917	18150.0	14057.0	22.50	21.38
U 6U 7	24.486	24.486	18150.0	15011.0	34.10	34.10
L 6U 7	36.824	36.824	18150.0	5646.0	16.70	16.64
U 7L 7	28.000	28.000	18150.0	5837.0	11.80	11.51
L 7L 8	23.917	23.917	18150.0	14057.0	22.50	21.38
U 7L 8	36.823	36.823	18150.0	14277.0	41.21	41.21

AXIAL CAPACITY REPORT

Structure I. D. HAM500

Truss I. D. 1
 Rating Type: INV.
 Rating Live Load: HS20

Member	Axial Capacity	TENSION		COMPRESSION		
		Axial Dead Load	Available Capacity	Axial Capacity	Axial Dead Load	Available Capacity
L 0L 1	303.1	210.6	176.8	-247.6	0.0	-374.0
L 0U 1	627.7	0.0	822.3	-489.3	-324.3	-294.7
U 1L 1	162.2	71.3	119.4	-54.4	0.0	-97.1
U 1U 2	519.4	0.0	703.3	-425.7	-306.6	-241.8
L 1L 2	325.6	210.6	199.2	-263.0	0.0	-389.4
U 1L 2	258.8	136.7	176.8	-80.4	0.0	-162.4
U 2L 2	286.2	0.0	312.0	-150.6	-43.0	-124.8
U 2U 3	579.2	0.0	792.7	-474.9	-355.8	-261.4
L 2L 3	461.0	299.4	281.3	-372.5	0.0	-552.2
U 2L 3	235.7	95.0	178.7	-56.9	0.0	-113.9
U 3L 3	134.5	0.0	142.7	-74.8	-13.7	-66.6
L 3L 4	542.6	354.9	329.7	-438.4	0.0	-651.4
U 3U 4	627.7	0.0	854.5	-514.9	-378.1	-288.0
U 3L 4	150.9	41.1	126.2	0.0	0.0	0.0
L 3U 4	120.6	0.0	120.6	0.0	0.0	0.0
U 4L 4	140.4	-5.7	143.8	-78.7	-5.7	-75.3
L 4L 5	542.6	354.9	329.7	-438.4	0.0	-651.4
U 4U 5	627.7	0.0	854.5	-514.9	-378.1	-288.0
L 4U 5	147.6	41.1	122.9	0.0	0.0	0.0
U 4L 5	136.5	0.0	136.5	0.0	0.0	0.0
U 5L 5	139.1	0.0	147.3	-77.8	-13.7	-69.6
L 5L 6	461.0	299.4	281.3	-372.5	0.0	-552.2
U 5U 6	579.2	0.0	792.7	-474.9	-355.8	-261.4
L 5U 6	234.0	95.0	177.0	-57.4	0.0	-114.3
U 6L 6	290.9	0.0	316.7	-151.9	-43.0	-126.1
L 6L 7	325.6	210.6	199.2	-263.0	0.0	-389.4
U 6U 7	519.4	0.0	703.3	-425.7	-306.6	-241.8
L 6U 7	253.5	136.7	171.5	-78.4	0.0	-160.4
U 7L 7	175.3	71.3	132.5	-57.3	0.0	-100.1
L 7L 8	325.6	210.6	199.2	-263.0	0.0	-389.4
U 7L 8	627.7	0.0	822.3	-489.3	-324.3	-294.7

RATING REPORT

Structure I. D. HAM500

Truss I. D. 1
 Rating Type: INV.
 Rating Live Load: HS20

	Available Capacity	Live Load + Impact	Rating Factor	Load Capacity (tons)
L 0L 1	176.8	32.13	5.50	198.1
L 0U 1	-294.7	-54.46	5.41	194.8
U 1L 1	119.4	29.35	4.07	146.5
U 1U 2	-241.8	-47.48	5.09	183.3
L 1L 2	199.2	32.13	6.20	223.2
U 1L 2	176.8	28.66	6.17	222.0
U 2L 2	-124.8	-16.25	7.68	276.6
U 2U 3	-261.4	-55.22	4.73	170.4
L 2L 3	281.3	46.38	6.07	218.4
U 2L 3	178.7	25.26	7.07	254.7
U 3L 3	-66.6	-15.73	4.24	152.5
L 3L 4	329.7	55.07	5.99	215.5
U 3U 4	-288.0	-58.75	4.90	176.5
U 3L 4	126.2	22.37	5.64	203.1
L 3U 4	120.6	16.55	7.29	262.3
U 4L 4	-75.3	0.00	999.00	999.0
L 4L 5	329.7	55.07	5.99	215.5
U 4U 5	-288.0	-58.75	4.90	176.5
L 4U 5	122.9	22.37	5.49	197.8
U 4L 5	136.5	16.55	8.25	297.0
U 5L 5	-69.6	-15.73	4.43	159.4
L 5L 6	281.3	46.38	6.07	218.4
U 5U 6	-261.4	-55.22	4.73	170.4
L 5U 6	177.0	25.26	7.01	252.2
U 6L 6	-126.1	-15.90	7.93	285.5
L 6L 7	199.2	32.13	6.20	223.2
U 6U 7	-241.8	-47.48	5.09	183.3
L 6U 7	171.5	28.66	5.98	215.4
U 7L 7	132.5	29.35	4.52	162.6
L 7L 8	199.2	32.13	6.20	223.2
U 7L 8	-294.7	-54.46	5.41	194.8

SECTION DATA (ASD/LFD)

Structure I. D. HAM500

Truss I. D. 1
 Rating Type: OPER.
 Rating Live Load: 5C1

Member Properties:

Member	Effective X (ft)	Length Y (ft)	Allowable Ten.	Stress Comp.	Gross Area	Net Area
L 0L 1	23.917	23.917	24750.0	17496.0	21.22	19.90
L 0U 1	36.823	36.823	24750.0	17804.0	41.21	41.21
U 1L 1	28.000	28.000	24750.0	7377.0	11.05	10.65
U 1U 2	24.486	24.486	24750.0	18720.0	34.10	34.10
L 1L 2	23.917	23.917	24750.0	17530.0	22.50	21.38
U 1L 2	36.824	36.824	24750.0	7088.0	17.00	16.99
U 2L 2	33.250	33.250	24750.0	12022.0	18.79	18.79
U 2U 3	23.981	23.981	24750.0	18726.0	38.03	38.03
L 2L 3	23.917	23.917	24750.0	17531.0	31.86	30.27
U 2L 3	40.958	40.958	24750.0	5515.0	15.48	15.48
U 3L 3	35.000	17.500	24750.0	11742.0	9.56	8.83
L 3L 4	23.917	23.917	24750.0	17530.0	37.50	35.62
U 3U 4	23.917	23.917	24750.0	18734.0	41.21	41.21
U 3L 4	42.391	21.196	24750.0	8258.0	10.49	9.91
L 3U 4	42.391	21.196	24750.0	8156.0	8.76	7.92
U 4L 4	35.000	17.500	24750.0	11926.0	9.90	9.22
L 4L 5	23.917	23.917	24750.0	17530.0	37.50	35.62
U 4U 5	23.917	23.917	24750.0	18734.0	41.21	41.21
L 4U 5	42.391	21.196	24750.0	8222.0	10.31	9.69
U 4L 5	42.391	21.196	24750.0	7922.0	9.67	8.96
U 5L 5	35.000	17.500	24750.0	11885.0	9.82	9.13
L 5L 6	23.917	23.917	24750.0	17531.0	31.86	30.27
U 5U 6	23.981	23.981	24750.0	18726.0	38.03	38.03
L 5U 6	40.958	40.958	24750.0	5598.0	15.36	15.36
U 6L 6	33.250	33.250	24750.0	11925.0	19.10	19.10
L 6L 7	23.917	23.917	24750.0	17530.0	22.50	21.38
U 6U 7	24.486	24.486	24750.0	18720.0	34.10	34.10
L 6U 7	36.824	36.824	24750.0	7041.0	16.70	16.64
U 7L 7	28.000	28.000	24750.0	7280.0	11.80	11.51
L 7L 8	23.917	23.917	24750.0	17530.0	22.50	21.38
U 7L 8	36.823	36.823	24750.0	17804.0	41.21	41.21

AXIAL CAPACITY REPORT

Structure I. D. HAM500

Truss I. D. 1
 Rating Type: OPER.
 Rating Live Load: 5C1

Member	Axial Capacity	TENSION		COMPRESSION		
		Axial Dead Load	Available Capacity	Axial Capacity	Axial Dead Load	Available Capacity
L 0L 1	505.2	210.6	294.6	-412.7	0.0	-623.3
L 0U 1	1046.1	0.0	1370.4	-815.6	-324.3	-491.2
U 1L 1	270.3	71.3	199.0	-90.6	0.0	-161.9
U 1U 2	865.6	0.0	1172.2	-709.5	-306.6	-403.0
L 1L 2	542.6	210.6	332.0	-438.4	0.0	-649.1
U 1L 2	431.3	136.7	294.6	-133.9	0.0	-270.6
U 2L 2	476.9	0.0	519.9	-251.1	-43.0	-208.1
U 2U 3	965.4	0.0	1321.2	-791.6	-355.8	-435.7
L 2L 3	768.3	299.4	468.9	-620.8	0.0	-920.3
U 2L 3	392.8	95.0	297.8	-94.9	0.0	-189.9
U 3L 3	224.1	0.0	237.8	-124.7	-13.7	-111.1
L 3L 4	904.3	354.9	549.4	-730.7	0.0	-1085.6
U 3U 4	1046.1	0.0	1424.2	-858.1	-378.1	-480.0
U 3L 4	251.5	41.1	210.3	0.0	0.0	0.0
L 3U 4	201.0	0.0	201.0	0.0	0.0	0.0
U 4L 4	234.0	-5.7	239.7	-131.2	-5.7	-125.5
L 4L 5	904.3	354.9	549.4	-730.7	0.0	-1085.6
U 4U 5	1046.1	0.0	1424.2	-858.1	-378.1	-480.0
L 4U 5	246.0	41.1	204.9	0.0	0.0	0.0
U 4L 5	227.5	0.0	227.5	0.0	0.0	0.0
U 5L 5	231.9	0.0	245.5	-129.7	-13.7	-116.1
L 5L 6	768.3	299.4	468.9	-620.8	0.0	-920.3
U 5U 6	965.4	0.0	1321.2	-791.6	-355.8	-435.7
L 5U 6	389.9	95.0	294.9	-95.6	0.0	-190.6
U 6L 6	484.8	0.0	527.9	-253.2	-43.0	-210.2
L 6L 7	542.6	210.6	332.0	-438.4	0.0	-649.1
U 6U 7	865.6	0.0	1172.2	-709.5	-306.6	-403.0
L 6U 7	422.5	136.7	285.8	-130.7	0.0	-267.4
U 7L 7	292.2	71.3	220.9	-95.5	0.0	-166.8
L 7L 8	542.6	210.6	332.0	-438.4	0.0	-649.1
U 7L 8	1046.1	0.0	1370.4	-815.6	-324.3	-491.2

RATING REPORT

Structure I. D. HAM500

Truss I. D. 1
 Rating Type: OPER.
 Rating Live Load: 5C1

	Available Capacity	Live Load + Impact	Rating Factor	Load Capacity (tons)
L 0L 1	294.6	27.75	10.62	424.7
L 0U 1	-491.2	-42.72	11.50	460.0
U 1L 1	199.0	22.43	8.87	354.9
U 1U 2	-403.0	-40.60	9.93	397.0
L 1L 2	332.0	27.75	11.96	478.6
U 1L 2	294.6	24.72	11.92	476.7
U 2L 2	-208.1	-15.28	13.62	544.7
U 2U 3	-435.7	-46.69	9.33	373.3
L 2L 3	468.9	39.66	11.82	472.9
U 2L 3	297.8	23.32	12.77	510.8
U 3L 3	-111.1	-14.46	7.68	307.2
L 3L 4	549.4	46.57	11.80	471.9
U 3U 4	-480.0	-48.61	9.88	395.0
U 3L 4	210.3	20.57	10.23	409.0
L 3U 4	201.0	14.00	14.35	574.2
U 4L 4	-125.5	0.00	999.00	999.0
L 4L 5	549.4	46.57	11.80	471.9
U 4U 5	-480.0	-48.61	9.88	395.0
L 4U 5	204.9	20.57	9.96	398.4
U 4L 5	227.5	14.00	16.25	650.1
U 5L 5	-116.1	-14.46	8.03	321.1
L 5L 6	468.9	39.66	11.82	472.9
U 5U 6	-435.7	-46.69	9.33	373.3
L 5U 6	294.9	23.32	12.65	505.8
U 6L 6	-210.2	-15.28	13.76	550.2
L 6L 7	332.0	27.75	11.96	478.6
U 6U 7	-403.0	-40.60	9.93	397.0
L 6U 7	285.8	24.72	11.56	462.5
U 7L 7	220.9	22.43	9.85	393.9
L 7L 8	332.0	27.75	11.96	478.6
U 7L 8	-491.2	-42.72	11.50	460.0