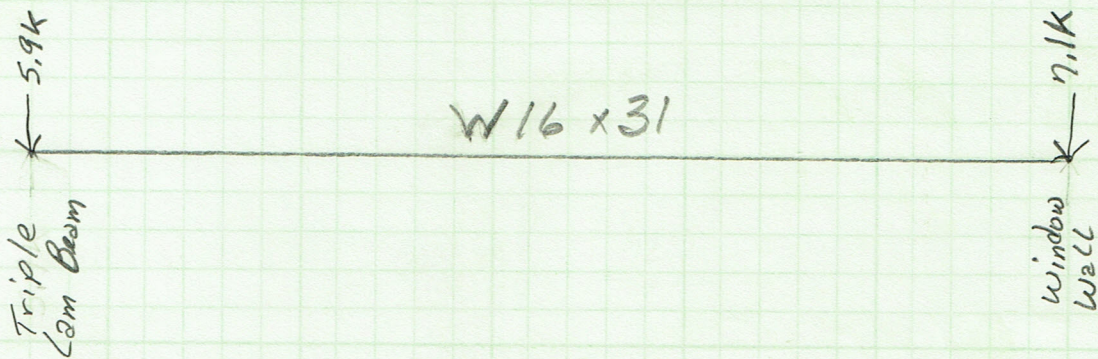


Reactions



Deflections, Max = $-.68''$

Max Deflection Allowed = $.87''$

To minimize deflection = Add Web Stiffener $\frac{1}{4}''$ thick steel plate both sides of web. Install Bee Stiffeners 3ft, 6ft & 9ft from both ends

```

*****
*   Computer Software   *
*         for          *
*   STRUCTURAL ANALYSIS *
*     Fourth Edition   *
*         by           *
*   Aslam Kassimali   *
*****

```

```

=====
General Structural Data
=====

```

```

Project Title : J.C.Beam
Structure Type : Beam
Number of Joints : 7
Number of Members : 6
Number of Material Property Sets (E) : 1
Number of Cross-Sectional Property Sets : 1

```

```

=====
Joint Coordinates
=====

```

Joint No.	X Coordinate
1	0.0000E+00
2	1.0800E+02
3	1.3200E+02
4	1.5600E+02
5	2.2800E+02
6	2.8800E+02
7	3.2600E+02

```

=====
Supports
=====

```

Joint No.	Y Restraint	Rotational Restraint
1	Yes	No
7	Yes	No

```

=====
Material Properties
=====

```

Material No.	Modulus of Elasticity (E)	Co-efficient of Thermal Expansion
1	2.9000E+07	0.0000E+00

=====
 Cross-Sectional Properties
 =====

Property No.	Moment of Inertia
1	3.7500E+02

=====
 Member Data
 =====

Member No.	Beginning Joint	End Joint	Material No.	Cross-Sectional Property No.
1	1	2	1	1
2	2	3	1	1
3	3	4	1	1
4	4	5	1	1
5	5	6	1	1
6	6	7	1	1

=====
 Joint Loads
 =====

Joint No.	Y Force	Moment
2	-3.5130E+03	0.0000E+00
3	-2.1080E+03	0.0000E+00
4	-2.1080E+03	0.0000E+00
5	-3.1120E+03	0.0000E+00
6	-2.1080E+03	0.0000E+00

***** End of Input Data *****

 * Results of Analysis *

=====
 Joint Displacements
 =====

Joint No.	Y Translation	Rotation (Rad)
1	0.0000E+00	-6.5194E-03
2	-5.9050E-01	-3.3638E-03
3	-6.5389E-01	-1.8985E-03
4	-6.8107E-01	-3.6344E-04
5	-5.5125E-01	3.8229E-03
6	-2.4462E-01	6.1246E-03
7	0.0000E+00	6.5936E-03

=====
 Member End Forces in Local Coordinates
 =====

Member	Joint	Shear Force	Moment
1	1	5.8843E+03	5.3106E-01
	2	-5.8843E+03	6.3551E+05
2	2	2.3711E+03	-6.3551E+05
	3	-2.3711E+03	6.9241E+05
3	3	2.6289E+02	-6.9242E+05
	4	-2.6289E+02	6.9874E+05
4	4	-1.8450E+03	-6.9874E+05
	5	1.8450E+03	5.6589E+05
5	5	-4.9571E+03	-5.6589E+05
	6	4.9571E+03	2.6847E+05
6	6	-7.0650E+03	-2.6847E+05
	7	7.0650E+03	-9.3294E-02

=====
 Support Reactions
 =====

Joint No.	Y Force	Moment
1	5.8843E+03	0.0000E+00
7	7.0650E+03	0.0000E+00

***** End of Analysis *****