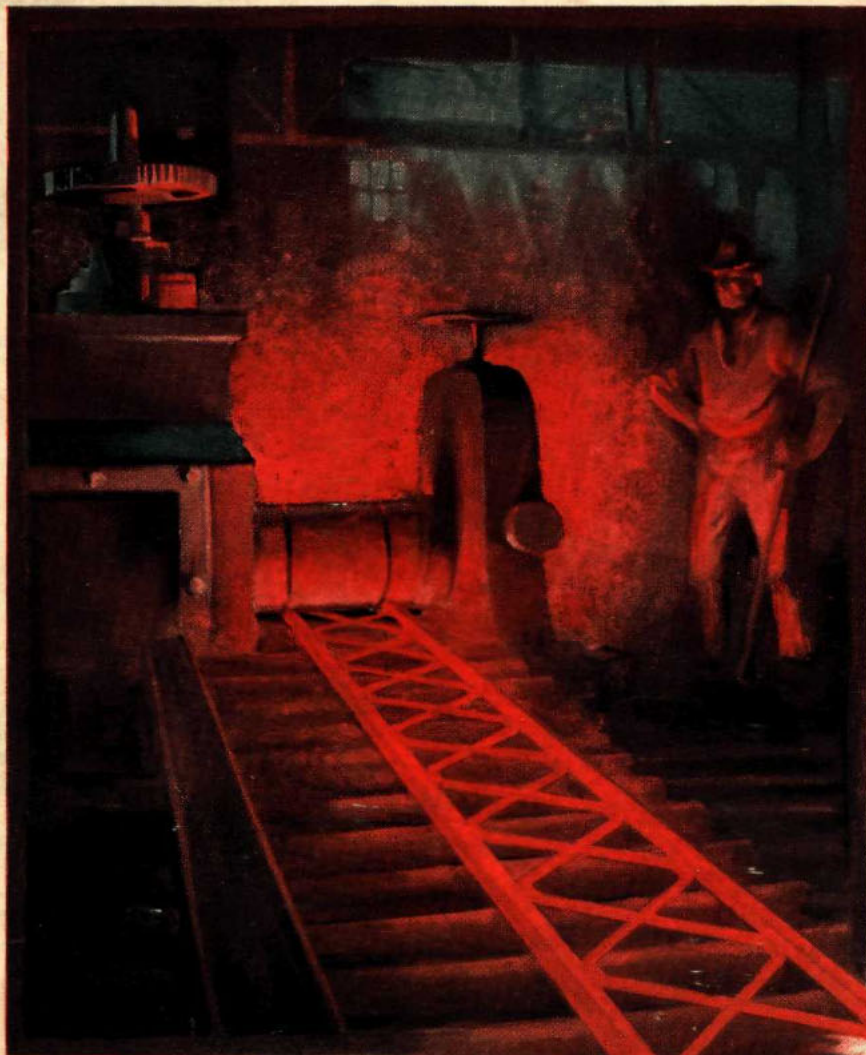


Charles M. Schwab
Memorial Library
Beth. Steel Co.



STEEL
JOISTS
FIRE — SAFE CONSTRUCTION

KALMAN STEEL CORPORATION

Subsidiary of Bethlehem Steel Corporation

General Offices



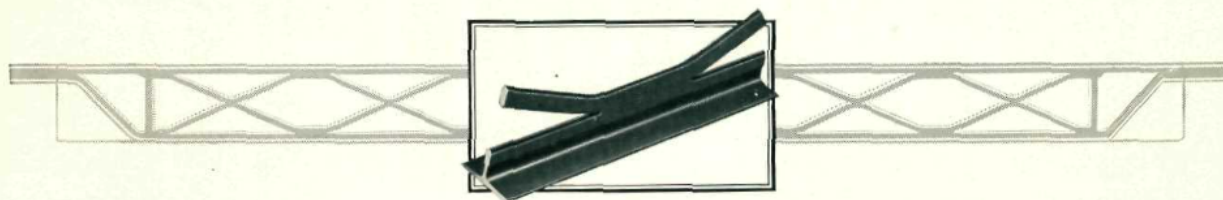
Bethlehem, Pa.

KALMANTRUSS JOISTS

AND FIRE-SAFE CONSTRUCTION

Kalmantruss Steel Joists are now available in a new series, conforming to the recommended standards of the Steel Joist Institute.

This book contains complete design data for the new joists together with important information on Kalman Fire-Safe Construction.



Kalman Fire-Safe Construction is Steel Joist Construction made safe, solid and complete by rigid bridging of joists, and other exclusive design features which combine joists, metal lath, concrete and secondary structural elements in distinctive ways that satisfy modern engineering and architectural requirements to a degree hitherto not possible.

Kalmantruss Joists are steel trusses formed by hot rolling from one solid piece.

Bearing ends are obtained by bending up lower chords. This detail correctly provides for the transfer of stress to supports and restraint against overturning.

These joists, in a range of depths and lengths to meet all usual conditions of loading and span, are carried in stock fully fabricated and reach the job ready for immediate use.

Kalmantruss Joists make possible an exceptional speed and flexibility of construction.

Erection of joists can proceed on several levels at one time.

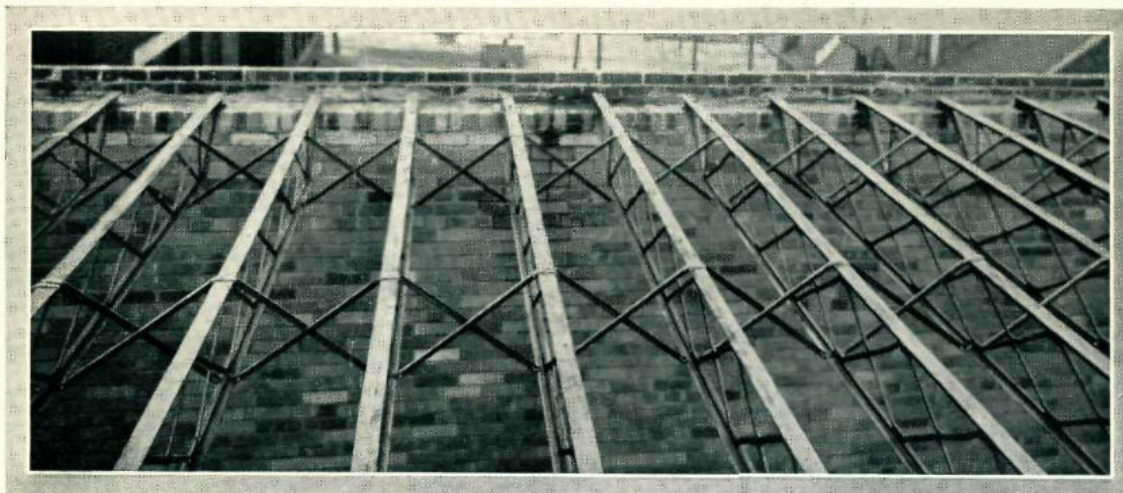
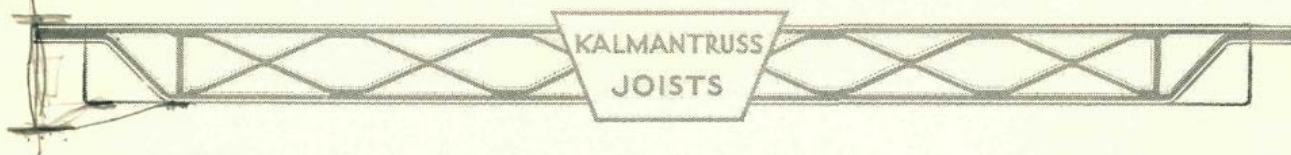
Problems of piping and other installations requiring concealment are aided by open webs of joists.

Absence of falsework gives full freedom of action to all building trades.

In these and many other respects this construction is strikingly fast and efficient.

Kalmantruss Joists have fire-resistive qualities which fit them for use, not only as superior substitutes for wood joists, but in buildings of many stories where wood construction could not be safely undertaken.

Proved performance justifies their use in hotels, apartment houses, schools, hospitals, store and office buildings, private residences, and other structures for human occupancy.



KALMANTRUSS RIGID BRIDGING

Proper and permanent bridging, or lateral bracing, of steel joists is a matter of utmost importance.

Without it joist construction is unbalanced and definitely incomplete.

Kalmantruss Rigid Bridging is a stiff cross bracing for Kalmantruss Joists.

It brings them to correct line.

It holds them firmly in place throughout construction.

It positively distributes load.

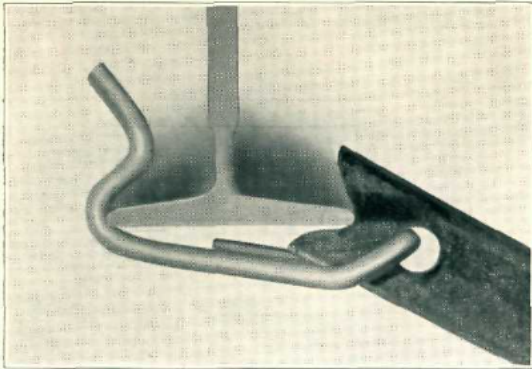
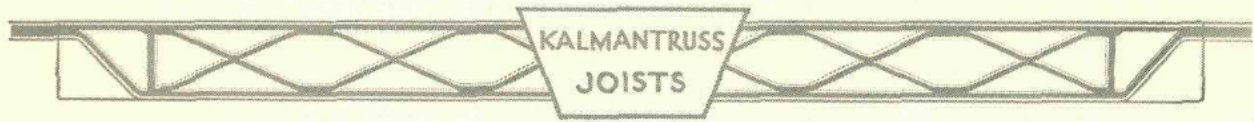
It greatly benefits the structure by giving rigidity which the joists alone cannot give.

It is an exclusive feature of Kalman Fire-Safe Construction.

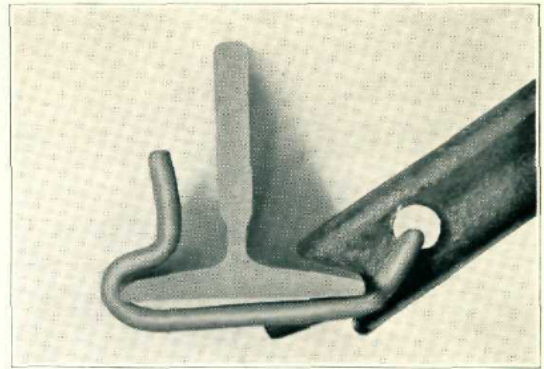
To the Architect this bridging means joists correctly spaced, uniformly plumb and straight, capable of withstanding shocks and uneven loading.

So called bridging of twisted wires cannot do this vital work.

To the Contractor this bridging is a simple and direct means for lining up and holding joists in place as erection proceeds. Its use makes for safety, speed, and consistently better results as construction stages progress. Twisted wires do not possess these advantages.



This is the way spreader and clip combine as a clamp for quick and positive attachment to a lower flange.



This shows how the clip is drawn tight about the flange as the spreader is raised into place.

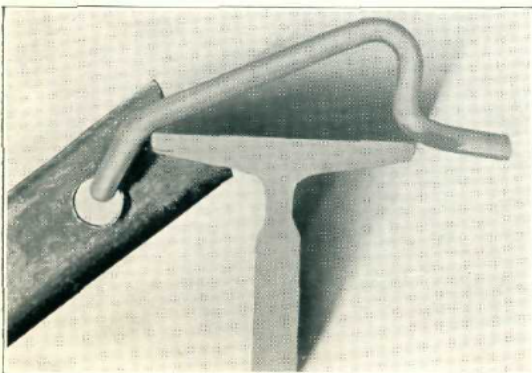
Kalmantruss Rigid Bridging consists of stiff diagonal struts—or spreaders—of 16 guage cold rolled channel, tightly attached to joist flanges by heavy wire clips.

This constitutes a bracing which acts under both compression and tension with proper balance and effective strength.

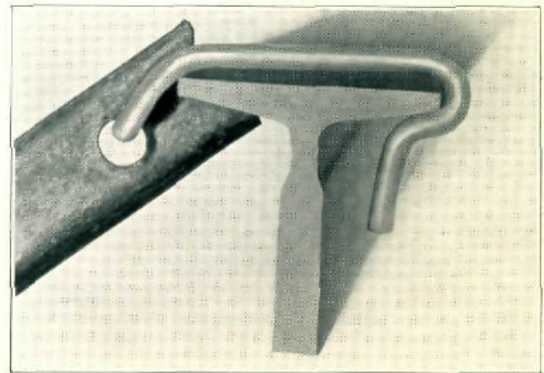
Spreaders are furnished in lengths to space joists in conformity with design layout.

Ease of installation is an outstanding feature as is also the fact that essential tightness is accomplished without dependence on workmen's skill.

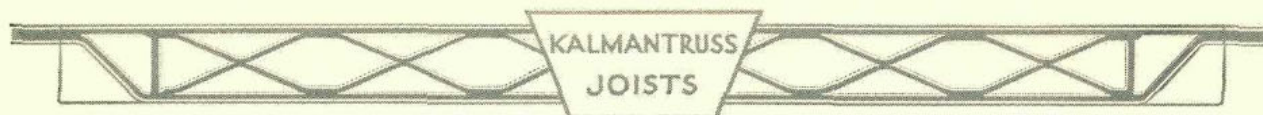
In making top flange connections the clip operates as shown below.



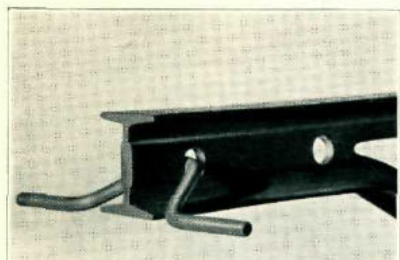
Hammer blows force clip over flange, duplicating tight lower connection.



This bridging is protected by U. S. Patent 173-5590 Nov. 12, 1929.



KALMANTRUSS JOIST ACCESSORIES

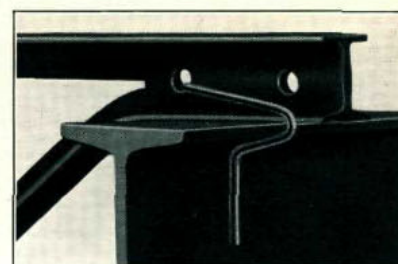


WALL ANCHOR

With masonry bearing walls, joists are securely held by $\frac{3}{8}$ " rod anchors passed through holes as shown above.

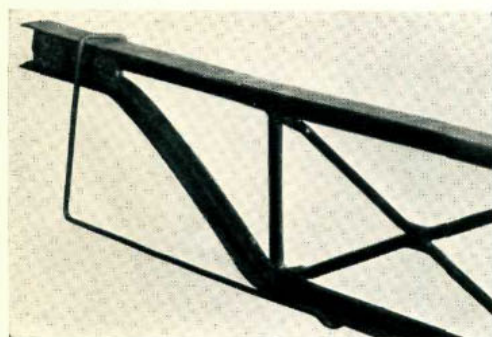
In Kalman Fire Safe Construction, details of joist anchorage, lath attachment, provision for wood top flooring, etc., are effectively accomplished through devices that are direct in action, easy to use and fully adapted to their respective purposes.

These details and devices play a most important part in making this advanced construction reliable and economical.



BEAM ANCHOR

Joists are attached to steel beams with $\frac{3}{16}$ " rods looped through holes and hammered around flanges of supporting beams.



FURRING EXTENSION ROD

These rods are attached to joists after erection to provide for the carrying of ceiling lath from the point where lower chord is bent up to face of bearing wall or other support.

Rods are put on prior to laying of floor lath and are finally held firmly in place by concrete floor slab.

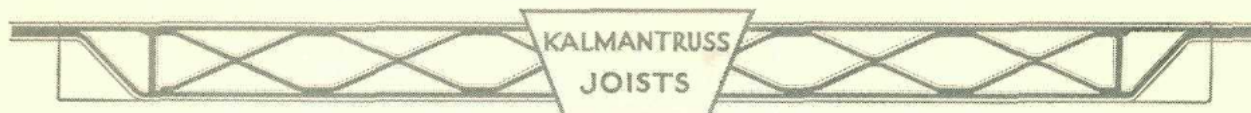
$\frac{3}{8}$ " RIB KALMANLATH

This superior steel lath is equally effective as a centering for concrete floor slabs and as a base for plaster ceilings.

When used as centering the strong V ribs give ample rigidity, the flat strand mesh—an exclusive feature of this lath—permits tight fastening to the joists and offers excellent protection against loss of concrete.

As a ceiling lath it provides a perfect plaster key and prevents plaster waste.



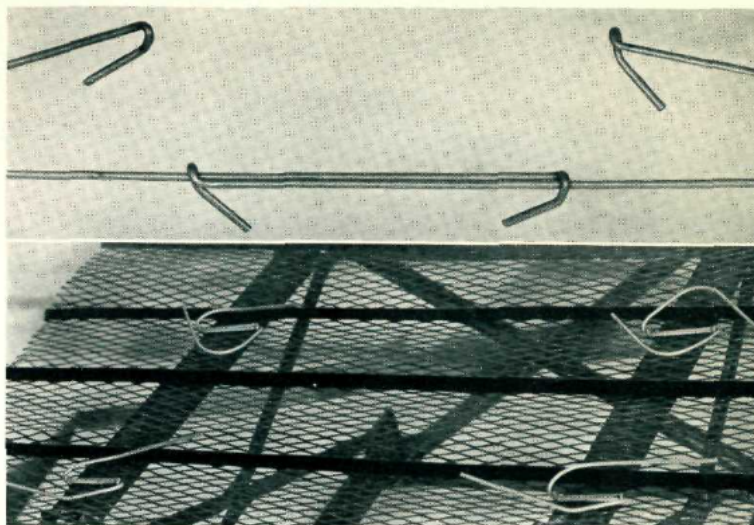


FLOOR LATH CLIPS

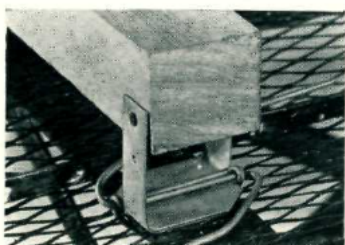
For fastening $\frac{3}{8}$ " rib Kalmanlath to joists these Floor Lath Clips are furnished.

They are used in pairs, as shown, are strong and positive in action and are unique in that they adjust perfectly to any and all widths of joist flange.

Looseness of fastening is avoided and in combination with joists properly bridged the lath so fastened does not sag under weight of concrete.

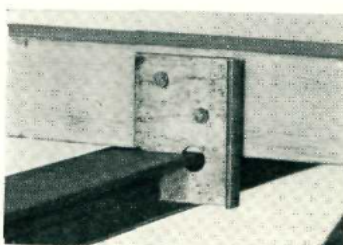


ANCHORS FOR NAILING STRIPS

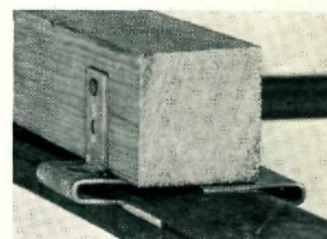


This type is used when nailing strips are embedded in concrete.

Strips may run across joists, with joists, or diagonally.



This anchor applies to nailing strips set across joists when lath and concrete are omitted. Anchors used in pairs attached to opposite sides of flange.



This type is used when nailing strips are set directly on joists, running lengthwise with them.



CEILING LATH CLIP

To attach $\frac{3}{8}$ " rib Kalmanlath to joists for plaster ceilings this simple clip of spring steel wire is provided.

It has advantages of speed in application and universal adaptability to joist flanges of various widths and to extension rods as well.

It is a distinct aid to economy in ceiling construction.



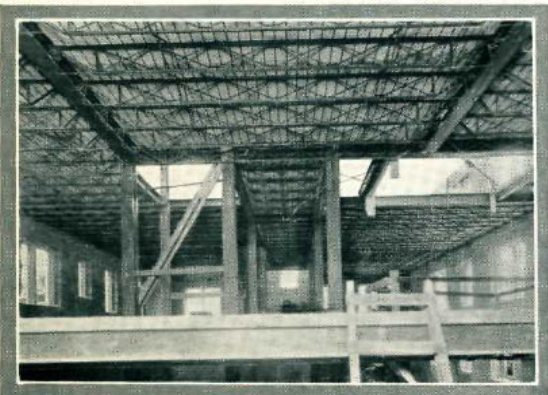
EAST LIBERTY POST OFFICE
PITTSBURGH, PA.
Haupt Co., Contractors



CATAWBA COUNTY HOSPITAL
NEWTON, N. C.
Q. E. Herman, Architect

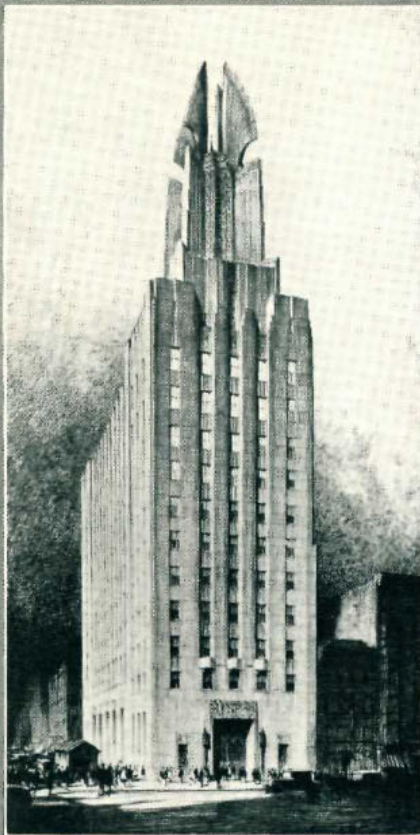


ROSS RESIDENCE
LAKE BLUFF, ILL.
L. G. Hallberg, Architect



BURD APARTMENTS
FLINT, MICH.
Geo. J. Backman, Architect

Representative
structures showing
range of building
types in which
Kalmantruss Joists
are used



GENESEE VALLEY TRUST CO.
ROCHESTER, N. Y.
Voorehees Gmelin & Walker
Architects



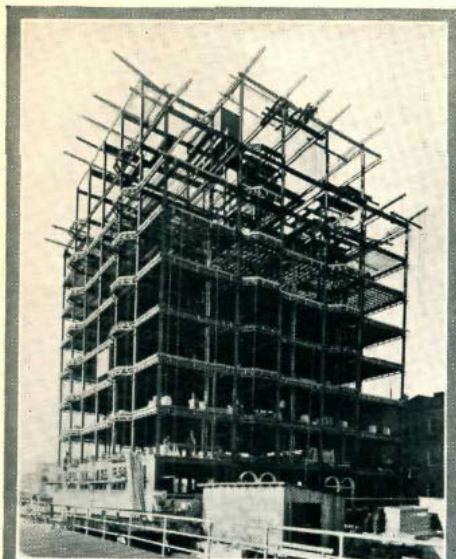
GENESEE VALLEY TRUST CO.
ROCHESTER, N. Y.



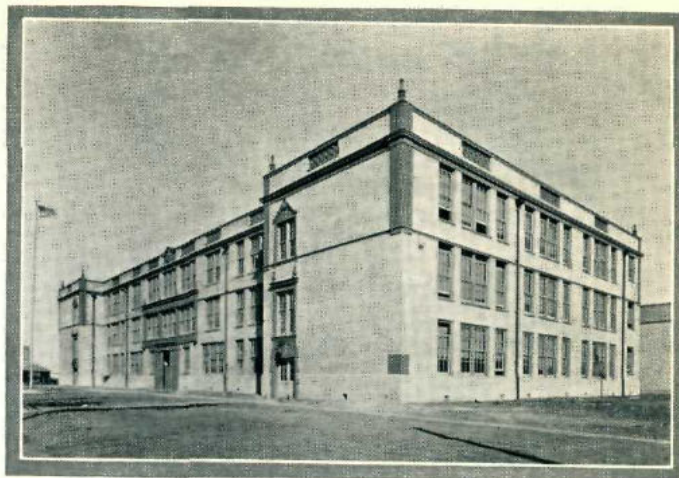
STORE AND APARTMENT BUILDING
ROCKFORD, ILL.
J. A. Barloga, Architect



CITY FINANCE AND INVESTMENT CO.
MILWAUKEE, WIS.
N. P. Backes, Architect



APARTMENT
BUILDING
ATLANTIC CITY
Benjamin Brown,
Architect



PHYLLIS WHEATLEY HIGH SCHOOL
HOUSTON, TEXAS
H. D. Payne, Architect; Bace Construction Co., Contractors



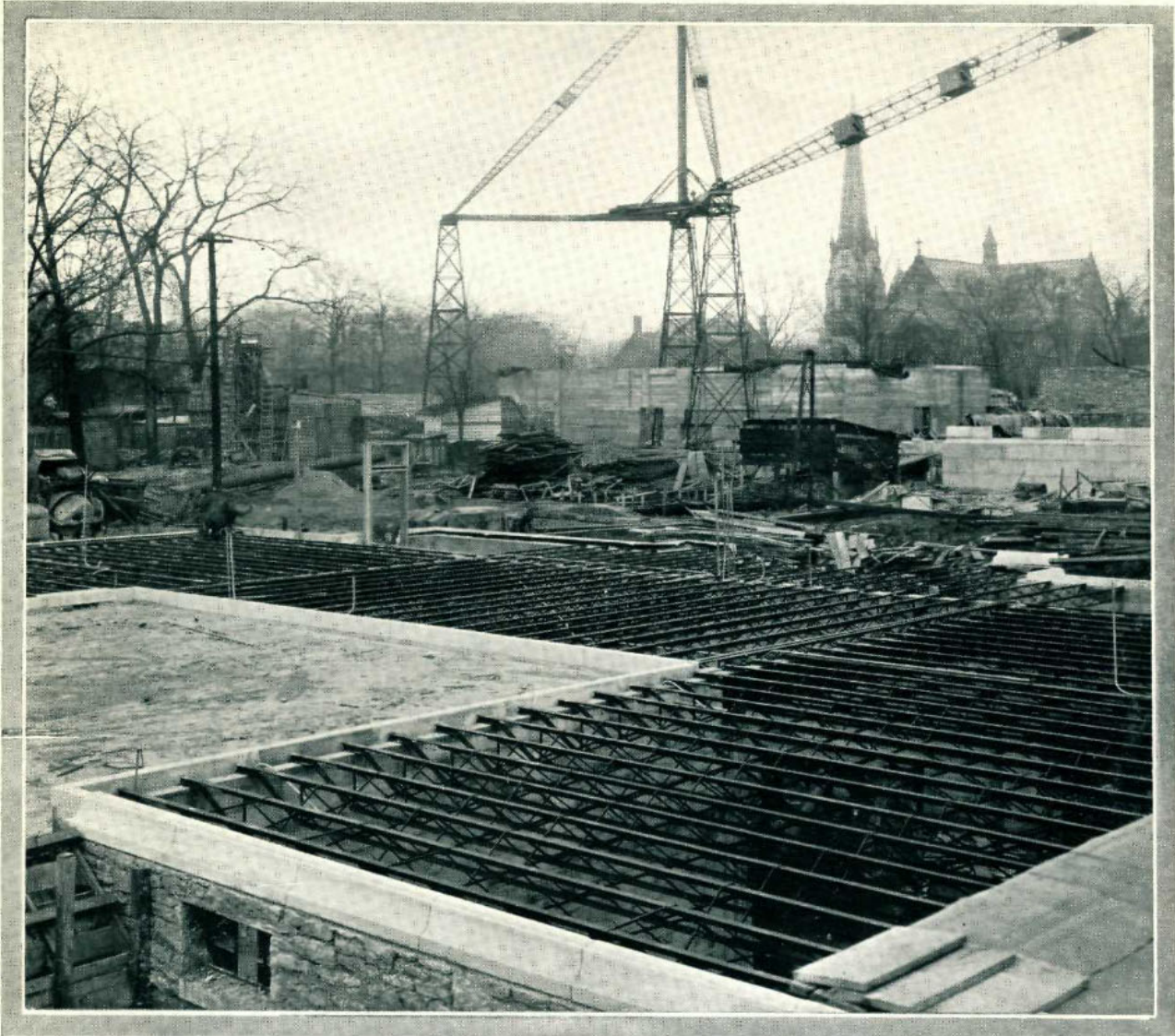
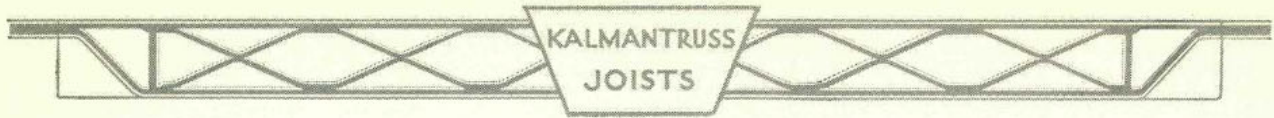
CRIMINAL COURTS BUILDING
NEW ORLEANS
Diboll & Owens, Architects; Harold Raymond, Engineer



DITHRIDGE APARTMENTS
PITTSBURGH, PA.
Charles Agnew, Architect



MAVERICK-CLARK BUILDING
SAN ANTONIO, TEXAS
George Willis, Architect



KALMANTRUSS JOISTS

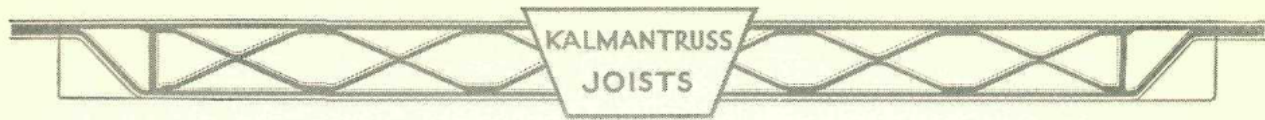
ON THE ART SCHOOL
GALLERY OF FINE ARTS, COLUMBUS, OHIO

RICHARDS, McCARTHY & BULFORD
Architects

This view of Kalmantruss Joists shows how they combine with Kalmantruss Rigid Bridging as a superior supporting system for fire-safe floor construction.

Accuracy of spacing, parallel alignment and correct uprightness of joists contribute vitally to produce a structural base on which subsequent operations proceed with assurance of uniform performance to the full intent of design and specification.

K A L M A N S T E E L C O M P A N Y



SPECIFICATIONS

COVERING KALMAN FIRE-SAFE CONSTRUCTION

GENERAL

Floor construction shall consist of a concrete slab of proper mix and thickness, and supported by a system of adequately designed and properly erected steel joists.

Ceilings shall consist of plaster on metal lath of specified weight.

Where wood finish is specified, wood sleepers shall be provided and installed in accordance with plans and specifications.

STEEL JOISTS

Floor supports shall consist of KALMANTRUSS Steel Joists as manufactured by the Kalman Steel Company. They shall have a double lattice web system integral with chords at joints, strands and intersections being accurately formed by a hot rolling process.

Bottom chords shall be bent up at supports and both top and bottom chords shall extend the full length of the joist. The chord and web system shall be continuous and of uniform section throughout.

Joists shall be given one shop coat of paint.

DESIGN

Steel joists shall be designed in conformity with the Standard Specifications for Steel Joists—of the Steel Joist Institute—(A.I.A. File 13-9) effective February 1, 1929.

Where partitions extend parallel to joists an additional joist shall be provided under the partition.

Where partitions extend across joists their weight must properly be included as a part of the dead load.

Maximum spacing of joists shall be 24" in floors and 30" in roofs, except that steel joists may be used to support wood or sheet metal roofs if not over seven feet (7) apart.

BEARING

Where joists rest on masonry or reinforced concrete supports a minimum bearing of 4 inches in length shall be provided.

On steel supports length of bearing shall be not less than 2½ inches.

Where joists rest on brick walls, bearing stress shall not exceed 200 pounds per square inch, and bearing plates shall be provided where necessary.

All masonry and steel supports shall be finished to a true level surface at proper elevation.

BRIDGING

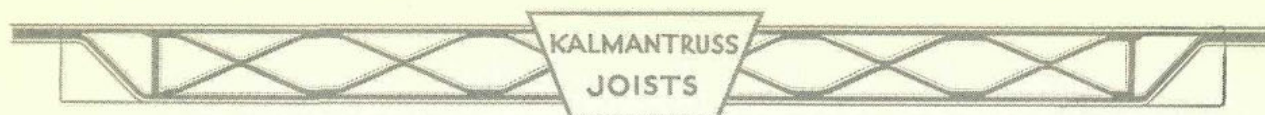
As soon as joists have been erected, and before application of construction loads, Kalmantruss Rigid Bridging shall be installed between the joists.

Bridging members shall be formed of ¾" cold rolled channels, not lighter than 16 gauge, furnished in proper lengths to space joists accurately. They shall be positively attached to both top and bottom chords of all joists with clips of galvanized wire.

Bridging shall be provided in accordance with the following table:

Span	Number of rows of bridging
Up to 14 feet	One row, near center
14 to 21 feet	Two rows, at third points
21 to 32 feet	Three rows at quarter points

(Specifications continued on page 10)



ANCHORS

Where joists bear on masonry walls, $\frac{3}{8}$ inch round wall anchors shall be provided for every third joist. Where joists rest on structural steel supports, they shall be secured to supports by $\frac{3}{16}$ inch rod anchors fastened over the flange of the supporting beam. All joists shall be so anchored.

FLOOR LATH

As centering for concrete floor or roof slabs rib lath shall be used as follows:

Joist spacing up to 20 inches
 $\frac{3}{8}$ inch rib Kalmanlath—weight 3.4 pounds per sq. yd.
 Joist spacing 20 to 24 inches
 $\frac{3}{8}$ inch rib Kalmanlath—weight 4 pounds per sq. yd.
 Joist spacing 24 to 30 inches
 $\frac{3}{4}$ inch rib Kalmanlath—weight 4.14 pounds per sq. yd.

Lath shall be laid ribs up, lengthwise across the joists and securely attached to the joist with Kalman Floor Lath Clips of 12 gauge galvanized wire, spaced not over 12 inches on centers.

When lath sheets are spliced between joists, lap shall be not less than 2 inches and ends shall be securely laced together with 18 gauge galvanized soft annealed wire. Splices shall be staggered.

CEILING LATH

For attached ceilings, metal lath shall be used as follows:

Joist spacing up to 20 inches
 3 pound flat rib or $\frac{3}{8}$ inch rib Kalmanlath
 Joist spacing from 20 to 24 inches
 3.4 pound $\frac{3}{8}$ inch rib Kalmanlath
 Joist spacing from 24 to 30 inches
 4 pound $\frac{3}{8}$ inch rib Kalmanlath

Lath shall be erected with ribs up, lengthwise across joists and securely attached to joists with Kalman Ceiling Lath Clips or with 18 gauge galvanized annealed tie wire applied at each lath rib.

Where lath sheets are spliced between joists, lap shall be not less than 4 inches and ends shall be securely laced together with 18 gauge galvanized annealed wire.

Where splices occur at joists, lap shall be not less than 2 inches. Splices shall be staggered.

FLOOR SLAB

Floor slab shall consist of 1:2:4 stone or gravel Portland Cement concrete not less than 2 inches thick. Maximum size of coarse aggregate shall not exceed $\frac{3}{4}$ inch.

Concrete shall be a dry mix and shall not be placed until bridging, floor lath and anchors have been completely installed as specified. Bulk concrete must not be dumped between joists during concreting operation.

Where cement, tile, terrazzo, etc., finish is specified, $\frac{1}{4}$ inch temperature rods, 12 inches centers both ways, shall be furnished.

NAILING STRIPS

Where a wood floor is specified, 2 inch by 2 inch, bevelled nailing strips shall be provided and set not more than 20 inches on centers.

Where the spacing of floor joists is 20 inches on centers, or less, nailing strips may be placed parallel to and directly over the joists. Where spacing of joists is greater than 20 inches on centers, nailing strips shall be placed across the joists. The underside of all nailing strips shall be set approximately 1 inch above joists and securely attached thereto by means of approved anchors spaced not more than 24 inches on centers.

TOTAL SAFE LOAD

IN POUNDS UNIFORMLY DISTRIBUTED.

JOISTS DESIGNED TO CONFORM TO THE STANDARDS
OF THE STEEL JOIST INSTITUTE.

Tensile Unit Stress 18,000 Pounds per Square Inch.

Safe loads are total loads and include both dead load and live loads. The dead load averages 40 pounds per square foot where 2 inch concrete slabs are used, including 10 pounds per square foot for plastered ceiling. Maximum deflections for tabulated spans and safe loads will not exceed 1-360th of the span. Tabulated safe loads are based on joists being properly braced laterally as in standard construction.

Joist Type	Joist Mark	Clear Span	Total Safe Load	TOTAL SAFE LOAD PER SQUARE FOOT FOR JOIST SPACINGS SHOWN															
				12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	26"	28"	30"
SJ 82	82-10	8'- 8"	3800	438	404	375	350	329	309	292	277	263	250	239	229	219	202	188	175
		9'- 0"	3800	422	390	362	338	317	298	281	267	253	241	230	220	211	195	181	169
		9'- 4"	3750	402	371	344	321	301	283	267	253	241	230	220	210	201	186	173	161
	82-11	9'- 4"	3750	402	371	344	321	301	283	267	253	241	230	220	210	201	186	173	161
		9'- 8"	3620	374	345	320	299	280	264	249	236	224	213	203	194	186	172	160	149
		10'- 0"	3500	350	323	300	280	263	248	234	222	211	201	192	184	176	162	150	140
	82-12	10'- 0"	3500	350	323	300	280	263	248	234	222	211	201	192	184	176	162	150	140
		10'- 4"	3390	328	303	281	262	246	232	219	207	197	188	179	171	164	151	140	131
		10'- 8"	3280	307	283	263	246	230	217	205	194	184	175	167	160	154	142	132	123
	82-13	10'- 8"	3280	307	283	263	246	230	217	205	194	184	175	167	160	154	142	132	123
		11'- 0"	3180	289	267	248	231	217	204	193	183	173	165	158	151	145	133	124	116
		11'- 4"	3090	273	252	234	218	205	193	182	172	164	156	149	142	137	126	117	109
	82-14	11'- 4"	3090	273	252	234	218	205	193	182	172	164	156	149	142	137	126	117	109
		11'- 8"	3000	257	237	220	206	193	181	171	162	154	147	140	134	129	119	110	103
		12'- 0"	2920	243	224	208	194	182	172	162	153	146	139	133	127	122	112	104	97
	82-15	12'- 0"	2920	243	224	208	194	182	172	162	153	146	139	133	127	122	112	104	97
		12'- 4"	2840	230	212	197	184	173	162	153	145	138	131	125	120	115	106	99	92
		12'- 8"	2760	218	201	187	174	164	154	145	138	131	125	119	114	109	101	93	87
	82-16	12'- 8"	2760	218	201	187	174	164	154	145	138	131	125	119	114	109	101	93	87
		13'- 0"	2690	207	191	177	166	155	146	138	131	124	118	113	108	104	96	89	83
		13'- 4"	2630	197	182	169	158	148	139	131	124	118	113	107	103	99	91	84	79
	82-17	13'- 4"	2630	197	182	169	158	148	139	131	124	118	113	107	103	99	91	84	79
		13'- 8"	2560	187	173	160	150	140	132	125	118	112	107	102	98	94	86	80	75
		14'- 0"	2500	179	165	153	143	134	126	119	113	107	102	98	93	90	83	77	72
	82-18	14'- 0"	2500	179	165	153	143	134	126	119	113	107	102	98	93	90	83	77	72
		14'- 4"	2440	170	157	146	136	128	120	113	107	102	97	93	89	85	78	73	68
		14'- 8"	2390	163	151	140	130	122	115	109	103	98	93	89	85	82	75	70	65
	82-19	14'- 8"	2390	163	151	140	130	122	115	109	103	98	93	89	85	82	75	70	65
		15'- 0"	2330	155	143	133	124	116	109	103	98	93	89	85	81	78	72	66	62
		15'- 4"	2280	149	138	128	119	112	105	99	94	89	85	81	78	75	69	64	60
	82-20	15'- 4"	2280	149	138	128	119	112	105	99	94	89	85	81	78	75	69	64	60
		15'- 8"	2230	142	131	122	114	107	100	95	90	85	81	77	74	71	66	61	57
		16'- 0"	2190	137	126	117	110	103	97	91	87	82	78	75	71	69	63	59	55
SJ 102	102- 8	9'- 2"	3800	414	382	355	331	311	292	276	261	248	237	226	216	207	191	177	166
		9'- 6"	3800	400	369	343	320	300	282	267	253	240	229	218	209	200	185	171	160
		10'- 0"	3800	380	351	326	304	285	268	253	240	228	217	207	198	190	175	163	152
	102- 9	10'- 0"	3800	380	351	326	304	285	268	253	240	228	217	207	198	190	175	163	152
		10'- 6"	3800	362	334	310	290	272	256	241	229	217	207	197	189	181	167	155	145
		10'-10"	3800	351	324	301	281	263	248	234	222	211	201	191	183	176	162	150	140
	102-10	10'-10"	3800	351	324	301	281	263	248	234	222	211	201	191	183	176	162	150	140
		11'- 0"	3800	345	318	296	276	259	244	230	218	207	197	188	180	173	159	148	138
		11'- 4"	3700	327	302	280	262	245	231	218	207	196	187	178	171	164	151	140	131
		11'- 8"	3600	308	284	264	246	231	217	205	195	185	176	168	161	154	142	132	123

TOTAL SAFE LOAD TABLE — Continued

Joist Type	Joist Mark	Clear Span	Total Safe Load	TOTAL SAFE LOAD PER SQUARE FOOT FOR JOIST SPACINGS SHOWN																
				12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	26"	28"	30"	
SJ 102 (Cont.)	102-11	11'- 8"	3600	308	284	264	246	231	217	205	195	185	176	168	161	154	142	132	123	
		12'- 0"	3500	292	270	250	234	219	206	195	184	175	167	159	152	146	135	125	117	
		12'- 6"	3360	269	248	231	215	202	190	179	170	161	154	147	140	135	124	115	108	
	102-12	12'- 6"	3360	269	248	231	215	202	190	179	170	161	154	147	140	135	124	115	108	
		13'- 0"	3230	248	229	213	198	186	175	165	157	149	142	135	129	124	114	106	99	
		13'- 4"	3150	236	218	202	189	177	167	157	149	142	135	129	123	118	109	101	94	
	102-13	13'- 4"	3150	236	218	202	189	177	167	157	149	142	135	129	123	118	109	101	94	
		13'- 8"	3070	225	208	193	180	169	159	150	142	135	129	123	117	113	104	96	90	
		14'- 0"	3000	214	198	183	171	161	151	143	135	128	122	117	112	107	99	92	86	
	102-14	14'- 2"	2960	209	193	179	167	157	148	139	132	125	119	114	109	105	96	90	84	
		14'- 6"	2900	200	185	171	160	150	141	133	126	120	114	109	104	100	92	86	80	
		15'- 0"	2800	187	173	160	150	140	132	125	118	112	107	102	98	94	86	80	75	
	102-15	15'- 0"	2800	187	173	160	150	140	132	125	118	112	107	102	98	94	86	80	75	
		15'- 4"	2740	179	165	153	143	134	126	119	113	107	102	98	93	90	83	77	72	
		15'-10"	2650	167	154	143	134	125	118	111	105	100	95	91	87	84	77	72	67	
	102-16	15'-10"	2650	167	154	143	134	125	118	111	105	100	95	91	87	84	77	72	67	
		16'- 0"	2620	164	151	141	131	123	116	109	104	98	94	89	86	82	76	70	66	
		16'- 4"	2570	157	145	135	126	118	111	105	99	94	90	86	82	79	72	67	63	
		16'- 8"	2520	151	139	129	121	113	107	101	95	91	86	82	79	76	70	65	60	
SJ 103	103- 9	10'- 0"	3900	390	360	334	312	293	275	260	246	234	223	213	203	195	180	167	156	
		10'- 6"	3900	371	342	318	297	278	262	247	234	223	212	202	194	186	171	159	148	
		10'-10"	3900	360	332	309	288	270	254	240	227	216	206	196	188	180	166	154	144	
	103-10	10'-10"	3900	360	332	309	288	270	254	240	227	216	206	196	188	180	166	154	144	
		11'- 0"	3900	355	328	304	284	266	251	237	224	213	203	194	185	178	164	152	142	
		11'- 4"	3900	344	318	295	275	258	243	229	217	206	197	188	179	172	159	147	138	
		11'- 8"	3900	334	308	286	267	251	236	223	211	200	191	182	174	167	154	143	134	
	103-11	11'- 8"	3900	334	308	286	267	251	236	223	211	200	191	182	174	167	154	143	134	
		12'- 0"	3900	325	300	279	260	244	229	217	205	195	186	177	170	163	150	139	130	
		12'- 6"	3900	312	288	267	250	234	220	208	197	187	178	170	163	156	144	134	125	
	103-12	12'- 6"	3900	312	288	267	250	234	220	208	197	187	178	170	163	156	144	134	125	
		13'- 0"	3900	300	277	257	240	225	212	200	189	180	171	164	157	150	138	129	120	
		13'- 4"	3900	293	270	251	234	220	207	195	185	176	167	160	153	147	135	126	117	
	103-13	13'- 4"	3900	293	270	251	234	220	207	195	185	176	167	160	153	147	135	126	117	
		13'- 8"	3900	285	263	244	228	214	201	190	180	171	163	155	149	143	132	122	114	
		14'- 0"	3900	279	258	239	223	209	197	186	176	167	159	152	146	140	129	120	112	
		14'- 2"	3860	272	251	233	218	204	192	181	172	163	155	148	142	136	126	117	109	
	103-14	14'- 2"	3860	272	251	233	218	204	192	181	172	163	155	148	142	136	126	117	109	
		14'- 6"	3780	261	241	224	209	196	184	174	165	157	149	142	136	131	120	112	105	
		15'- 0"	3640	243	224	208	194	182	172	162	153	146	139	133	127	122	112	104	97	
	103-15	15'- 0"	3640	243	224	208	194	182	172	162	153	146	139	133	127	122	112	104	97	
		15'- 4"	3570	233	215	200	186	175	164	155	147	140	133	127	122	117	108	100	93	
		15'-10"	3450	218	201	187	174	164	154	145	138	131	125	119	114	109	101	93	87	
	103-16	15'-10"	3450	218	201	187	174	164	154	145	138	131	125	119	114	109	101	93	87	
		16'- 0"	3420	214	198	183	171	161	151	143	135	128	122	117	112	107	99	92	86	
		16'- 4"	3350	205	189	176	164	154	145	137	129	123	117	112	107	103	95	88	82	
		16'- 8"	3280	197	182	169	158	148	139	131	124	118	113	107	103	99	91	84	79	
	103-17	16'- 8"	3280	197	182	169	158	148	139	131	124	118	113	107	103	99	91	84	79	
		17'- 0"	3220	189	174	162	151	142	133	126	119	113	108	103	99	95	87	81	76	
		17'- 6"	3120	178	164	153	142	134	126	119	112	107	102	97	93	89	82	76	71	
	103-18	17'- 6"	3120	178	164	153	142	134	126	119	112	107	102	97	93	89	82	76	71	
		18'- 0"	3040	169	156	145	135	127	119	113	107	101	97	92	88	85	78	72	68	
		18'- 4"	2980	163	150	140	130	122	115	109	103	98	93	89	85	82	75	70	65	
	103-19	18'- 4"	2980	163	150	140	130	122	115	109	103	98	93	89	85	82	75	70	65	
		18'- 8"	2930	157	145	135	126	118	111	105	99	94	90	86	82	79	72	67	63	
		19'- 0"	2880	151	139	129	121	113	107	101	95	91	86	82	79	76	70	65	60	
		19'- 2"	2850	149	138	128	119	112	105	99	94	89	85	81	78	75	69	64	60	
	103-20	19'- 2"	2850	149	138	128	119	112	105	99	94	89	85	81	78	75	69	64	60	
		19'- 6"	2800	144	133	123	115	108	102	96	91	86	82	79	75	72	66	62	58	
		20'- 0"	2730	137	126	117	110	103	97	91	87	82	78	75	71	69	63	59	55	
SJ 104	104-14	14'- 2"	4400	321	286	266	248	233	219	207	196	186	177	169	162	155	143	133	124	
		14'- 6"	4400	307	280	260	243	228	214	202	192	182	173	165	158	152	140	130	121	

TOTAL SAFE LOAD TABLE—Continued

Joist Type	Joist Mark	Clear Span	Total Safe Load	TOTAL SAFE LOAD PER SQUARE FOOT FOR JOIST SPACINGS SHOWN																
				12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	26"	28"	30"	
SJ 104 (Cont.)	104-14	15'- 0"	4400	293	271	251	235	220	207	196	185	176	168	160	153	147	135	126	117	
	104-15	15'- 0"	4400	293	271	251	235	220	207	196	185	176	168	160	153	147	135	126	117	
		15'- 4"	4350	284	262	243	227	213	200	189	179	170	162	155	148	142	131	122	114	
		15'-10"	4200	265	245	227	212	199	187	177	167	159	151	145	138	133	122	114	106	
	104-16	15'-10"	4200	265	245	227	212	199	187	177	167	159	151	145	138	133	122	114	106	
		16'- 0"	4160	260	240	223	208	195	184	173	164	156	149	142	136	130	120	111	104	
		16'- 4"	4080	250	231	214	200	188	176	167	158	150	143	136	130	125	115	107	100	
		16'- 8"	4000	240	222	206	192	180	169	160	152	144	137	131	125	120	111	103	96	
	104-17	16'- 8"	4000	240	222	206	192	180	169	160	152	144	137	131	125	120	111	103	96	
		17'- 0"	3920	231	213	198	185	173	163	154	146	139	132	126	120	115	107	99	92	
		17'- 6"	3810	218	201	187	174	163	154	145	138	131	125	119	114	109	101	93	87	
	104-18	17'- 6"	3810	218	201	187	174	163	154	145	138	131	125	119	114	109	101	93	87	
		18'- 0"	3700	206	190	177	165	155	145	137	130	124	118	112	107	103	95	88	82	
		18'- 4"	3640	199	184	171	159	149	140	133	126	119	114	109	104	100	92	85	80	
	104-19	18'- 4"	3640	199	184	171	159	149	140	133	126	119	114	109	104	100	92	85	80	
		18'- 8"	3570	191	176	164	153	143	135	127	121	115	109	104	100	96	88	82	76	
		19'- 0"	3510	185	171	159	148	139	131	123	117	111	106	101	97	93	85	79	74	
		19'- 2"	3480	182	168	156	146	137	128	121	115	109	104	99	95	91	84	78	73	
	104-20	19'- 2"	3480	182	168	156	146	137	128	121	115	109	104	99	95	91	84	78	73	
		19'- 6"	3420	175	162	150	140	131	124	117	111	105	100	95	91	88	81	75	70	
		20'- 0"	3330	167	154	143	134	125	118	111	105	100	95	91	87	84	77	72	67	
SJ 123	123- 7	10'- 0"	4400	440	406	377	352	330	311	293	278	264	251	240	230	220	203	189	176	
		10'- 6"	4400	419	387	359	335	314	296	279	265	251	239	229	219	210	193	180	168	
		11'- 0"	4400	400	369	343	320	300	282	267	253	240	229	218	209	200	185	171	160	
	123- 8	11'- 0"	4400	400	369	343	320	300	282	267	253	240	229	218	209	200	185	171	160	
		11'- 6"	4400	383	354	328	306	287	270	255	242	230	219	209	200	192	177	164	153	
		12'- 0"	4400	367	339	315	294	275	259	245	232	220	210	200	191	184	169	157	147	
	123- 9	12'- 0"	4400	367	339	315	294	275	259	245	232	220	210	200	191	184	169	157	147	
		12'- 6"	4400	352	325	302	282	264	248	235	222	211	201	192	184	176	163	151	141	
		13'- 0"	4400	338	312	290	271	254	239	226	214	203	193	185	177	169	156	145	135	
	123-10	13'- 0"	4400	338	312	290	271	254	239	226	214	203	193	185	177	169	156	145	135	
		13'- 6"	4400	326	301	279	261	244	230	217	206	196	186	178	170	163	150	140	130	
		14'- 0"	4400	314	290	269	251	236	222	209	198	188	180	171	164	157	145	135	126	
	123-11	14'- 0"	4400	314	290	269	251	236	222	209	198	188	180	171	164	157	145	135	126	
		14'- 6"	4230	292	269	250	233	219	206	195	184	175	167	159	152	146	135	125	117	
		15'- 0"	4090	273	252	234	218	205	193	182	172	164	156	149	142	136	126	117	109	
	123-12	15'- 0"	4090	273	252	234	218	205	193	182	172	164	156	149	142	136	126	117	109	
		15'- 6"	3960	256	236	219	204	192	180	170	161	153	146	139	133	128	118	110	102	
		16'- 0"	3830	239	221	205	192	180	169	160	151	144	137	131	125	120	111	103	96	
	123-13	16'- 0"	3830	239	221	205	192	180	169	160	151	144	137	131	125	120	111	103	96	
		16'- 6"	3720	225	208	193	180	169	159	150	142	135	129	123	118	113	104	97	90	
		17'- 0"	3610	212	196	182	170	159	150	141	134	127	121	116	111	106	98	91	85	
	123-14	17'- 0"	3610	212	196	182	170	159	150	141	134	127	121	116	111	106	98	91	85	
		17'- 6"	3500	200	185	172	160	150	141	133	126	120	114	109	104	100	92	86	80	
		18'- 0"	3410	190	175	162	152	142	134	126	120	114	108	103	99	95	87	81	76	
	123-15	18'- 0"	3410	190	175	162	152	142	134	126	120	114	108	103	99	95	87	81	76	
		18'- 6"	3320	179	165	154	143	134	127	120	113	108	103	98	94	90	83	77	72	
		19'- 0"	3230	170	157	146	136	127	120	113	107	102	97	93	89	85	78	73	68	
	123-16	19'- 0"	3230	170	157	146	136	127	120	113	107	102	97	93	89	85	78	73	68	
		19'- 6"	3150	161	149	138	129	121	114	107	102	97	92	88	84	81	74	69	64	
		20'- 0"	3070	153	141	131	122	115	108	102	97	92	87	83	80	77	71	66	61	
	123-17	20'- 0"	3070	153	141	131	122	115	108	102	97	92	87	83	80	77	71	66	61	
		20'- 6"	2990	146	135	125	117	110	103	97	92	88	83	80	76	73	67	63	58	
		21'- 0"	2920	139	128	119	111	104	98	93	88	83	79	76	73	70	64	60	56	
	123-18	21'- 0"	2920	139	128	119	111	104	98	93	88	83	79	76	73	70	64	60	56	
		21'- 6"	2850	133	123	114	106	100	94	89	84	80	76	73	69	67	61	57	53	
		22'- 0"	2790	127	117	109	102	95	90	85	80	76	73	69	66	64	59	54	51	
	123-19	22'- 0"	2790	127	117	109	102	95	90	85	80	76	73	69	66	64	59	54	51	
		22'- 6"	2730	121	112	104	97	91	85	81	76	73	69	66	63	61	56	52	48	
		23'- 0"	2670	116	107	99	93	87	82	77	73	70	66	63	61	58	54	50	46	
	123-20	23'- 0"	2670	116	107	99	93	87	82	77	73	70	66	63	61	58	54	50	46	
		23'- 6"	2610	111	102	95	89	83	78	74	70	67	63	61	58	56	51	48	44	

TOTAL SAFE LOAD TABLE—Continued

Joist Type	Joist Mark	Clear Span	Total Safe Load	TOTAL SAFE LOAD PER SQUARE FOOT FOR JOIST SPACINGS SHOWN															
				12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	26"	28"	30"
SJ 124	123-20	24'- 0"	2560	107	99	92	86	80	76	71	68	64	61	58	56	54	49	46	43
	124-12	15'- 0"	4600	307	283	263	245	230	217	205	194	184	175	167	160	153	142	131	123
		15'- 6"	4600	297	274	254	237	223	210	198	187	178	170	162	155	148	137	127	119
		16'- 0"	4600	288	265	246	230	216	203	192	182	173	164	157	150	144	133	123	115
	124-13	16'- 0"	4600	288	265	246	230	216	203	192	182	173	164	157	150	144	133	123	115
		16'- 6"	4600	279	257	239	223	209	197	186	176	167	159	152	146	139	129	120	112
		17'- 0"	4510	265	245	227	212	199	187	177	168	159	152	145	138	133	122	114	106
	124-14	17'- 0"	4510	265	245	227	212	199	187	177	168	159	152	145	138	133	122	114	106
		17'- 6"	4380	250	231	214	200	188	177	167	158	150	143	136	131	125	116	107	100
		18'- 0"	4260	237	218	203	189	178	167	158	149	142	135	129	123	118	109	101	95
	124-15	18'- 0"	4260	237	218	203	189	178	167	158	149	142	135	129	123	118	109	101	95
		18'- 6"	4140	224	207	192	179	168	158	149	141	134	128	122	117	112	103	96	90
		19'- 0"	4030	212	196	182	170	159	150	141	134	127	121	116	111	106	98	91	85
	124-16	19'- 0"	4030	212	196	182	170	159	150	141	134	127	121	116	111	106	98	91	85
		19'- 6"	3930	202	186	173	161	151	142	134	127	121	115	110	105	101	93	86	81
		20'- 0"	3830	192	177	164	153	144	135	128	121	115	109	104	100	96	88	82	77
	124-17	20'- 0"	3830	192	177	164	153	144	135	128	121	115	109	104	100	96	88	82	77
		20'- 6"	3740	182	168	156	146	137	129	122	115	109	104	99	95	91	84	78	73
		21'- 0"	3650	174	160	149	139	130	123	116	110	104	99	95	91	87	80	74	69
	124-18	21'- 0"	3650	174	160	149	139	130	123	116	110	104	99	95	91	87	80	74	69
		21'- 6"	3570	166	153	142	133	125	117	111	105	100	95	91	87	83	77	71	66
		22'- 0"	3480	158	146	135	126	119	112	105	100	95	90	86	82	79	73	68	63
	124-19	22'- 0"	3480	158	146	135	126	119	112	105	100	95	90	86	82	79	73	68	63
		22'- 6"	3410	151	139	129	121	113	107	101	95	91	86	82	79	76	70	65	60
		23'- 0"	3330	145	134	124	116	109	102	97	92	87	83	79	76	73	67	62	58
	124-20	23'- 0"	3330	145	134	124	116	109	102	97	92	87	83	79	76	73	67	62	58
		23'- 6"	3260	139	128	119	111	104	98	93	88	83	79	76	73	70	64	60	56
		24'- 0"	3190	133	123	114	106	100	94	89	84	80	76	73	69	67	61	57	53
SJ 125	125- 9	12'- 0"	5000	417	385	357	333	312	294	278	263	250	238	227	217	208	192	178	167
		12'- 6"	5000	400	369	343	320	300	282	267	253	240	229	218	209	200	185	171	160
		13'- 0"	5000	385	355	330	308	288	271	256	243	231	220	210	201	192	177	165	154
	125-10	13'- 0"	5000	385	355	330	308	288	271	256	243	231	220	210	201	192	177	165	154
		13'- 6"	5000	370	342	317	296	278	261	247	234	222	212	202	193	185	171	159	148
		14'- 0"	5000	357	330	306	285	268	252	238	226	214	204	195	186	179	165	153	143
	125-11	14'- 0"	5000	357	330	306	285	268	252	238	226	214	204	195	186	179	165	153	143
		14'- 6"	5000	345	318	296	276	259	243	230	218	207	197	188	180	172	159	148	138
		15'- 0"	5000	333	308	286	267	250	235	222	211	200	191	182	174	167	154	143	133
	125-12	15'- 0"	5000	333	308	286	267	250	235	222	211	200	191	182	174	167	154	143	133
		15'- 6"	5000	323	298	276	258	242	228	215	204	194	184	176	168	161	149	138	129
		16'- 0"	5000	312	288	268	250	234	220	208	197	187	179	170	163	156	144	134	125
	125-13	16'- 0"	5000	312	288	268	250	234	220	208	197	187	179	170	163	156	144	134	125
		16'- 6"	5000	303	280	260	242	227	214	202	191	182	173	165	158	151	140	130	121
		17'- 0"	5000	294	271	252	235	221	208	196	186	176	168	160	153	147	136	126	118
	125-14	17'- 0"	5000	294	271	252	235	221	208	196	186	176	168	160	153	147	136	126	118
		17'- 6"	5000	286	264	245	228	214	202	190	180	171	163	156	149	143	132	122	114
		18'- 0"	5000	278	256	238	222	208	196	185	175	167	159	152	145	139	128	119	111
	125-15	18'- 0"	5000	278	256	238	222	208	196	185	175	167	159	152	145	139	128	119	111
		18'- 6"	5000	270	249	232	216	203	191	180	171	162	154	147	141	135	125	116	108
		19'- 0"	5000	263	243	226	211	197	186	176	166	158	150	144	137	132	121	113	105
	125-16	19'- 0"	5000	263	243	226	211	197	186	176	166	158	150	144	137	132	121	113	105
		19'- 6"	4850	249	230	213	199	187	176	166	157	149	142	136	130	124	115	107	100
		20'- 0"	4730	236	218	203	189	177	167	158	149	142	135	129	123	118	109	101	95
	125-17	20'- 0"	4730	236	218	203	189	177	167	158	149	142	135	129	123	118	109	101	95
		20'- 6"	4620	225	208	193	180	169	159	150	142	135	129	123	118	113	104	97	90
		21'- 0"	4510	215	198	184	172	161	152	143	136	129	123	117	112	107	99	92	86
	125-18	21'- 0"	4510	215	198	184	172	161	152	143	136	129	123	117	112	107	99	92	86
		21'- 6"	4400	205	189	175	164	153	144	136	129	123	117	112	107	102	94	88	82
		22'- 0"	4300	196	180	168	156	147	138	130	123	117	112	107	102	98	90	84	78
	125-19	22'- 0"	4300	196	180	168	156	147	138	130	123	117	112	107	102	98	90	84	78
		22'- 6"	4210	187	173	160	150	140	132	125	118	112	107	102	98	94	86	80	75
		23'- 0"	4120	179	165	154	143	134	126	119	113	107	102	98	93	90	83	77	72
	125-20	23'- 0"	4120	179	165	154	143	134	126	119	113	107	102	98	93	90	83	77	72

TOTAL SAFE LOAD TABLE—Continued

Joist Type	Joist Mark	Clear Span	Total Safe Load	TOTAL SAFE LOAD PER SQUARE FOOT FOR JOIST SPACINGS SHOWN																
				12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	26"	28"	30"	
SJ 125 (Cont.)	125-20	23'- 6"	4030	171	158	147	137	129	121	114	108	103	98	94	90	86	79	74	69	
		24'- 0"	3940	164	152	141	131	123	116	110	104	99	94	90	86	82	76	70	66	
SJ 126	126- 9	12'- 0"	5400	450	415	386	360	337	318	300	284	270	257	245	235	225	208	193	180	
		12'- 6"	5400	432	399	370	346	324	305	288	273	259	247	236	225	216	199	185	173	
		13'- 0"	5400	415	383	356	332	312	293	277	262	249	237	227	217	208	192	178	166	
	126-10	13'- 0"	5400	415	383	356	332	312	293	277	262	249	237	227	217	208	192	178	166	
		13'- 6"	5400	400	369	343	320	300	282	267	253	240	228	218	209	200	185	171	160	
		14'- 0"	5400	386	356	331	309	289	272	257	244	231	220	210	201	193	178	165	154	
	126-11	14'- 0"	5400	386	356	331	309	289	272	257	244	231	220	210	201	193	178	165	154	
		14'- 6"	5400	372	344	319	298	279	263	248	235	223	213	203	194	186	172	160	149	
		15'- 0"	5400	360	332	309	288	270	254	240	227	216	206	196	188	180	166	154	144	
	126-12	15'- 0"	5400	360	332	309	288	270	254	240	227	216	206	196	188	180	166	154	144	
		15'- 6"	5400	348	322	299	279	261	246	232	220	209	199	190	182	174	161	149	139	
		16'- 0"	5400	338	312	289	270	253	238	225	213	203	193	184	176	169	156	145	135	
	126-13	16'- 0"	5400	338	312	289	270	253	238	225	213	203	193	184	176	169	156	145	135	
		16'- 6"	5400	327	302	280	262	245	231	218	207	196	187	179	171	164	151	140	131	
		17'- 0"	5400	318	293	272	254	238	224	212	201	191	182	173	166	159	147	136	127	
	126-14	17'- 0"	5400	318	293	272	254	238	224	212	201	191	182	173	166	159	147	136	127	
		17'- 6"	5400	309	285	264	247	231	218	206	195	185	176	168	161	154	142	132	123	
		18'- 0"	5400	300	277	257	240	225	212	200	190	180	171	164	157	150	138	129	120	
	126-15	18'- 0"	5400	300	277	257	240	225	212	200	190	180	171	164	157	150	138	129	120	
		18'- 6"	5400	292	270	250	234	219	206	195	184	175	167	159	152	146	135	125	117	
		19'- 0"	5400	284	263	244	227	213	201	190	180	171	162	155	148	142	131	122	114	
	126-16	19'- 0"	5400	284	263	244	227	213	201	190	180	171	162	155	148	142	131	122	114	
		19'- 6"	5400	277	256	237	222	208	196	185	175	166	158	151	145	138	128	119	111	
		20'- 0"	5400	270	249	231	216	203	191	180	171	162	154	147	141	135	125	116	108	
	126-17	20'- 0"	5400	270	249	231	216	203	191	180	171	162	154	147	141	135	125	116	108	
		20'- 6"	5400	263	243	226	211	198	186	176	166	158	151	144	137	132	122	113	105	
		21'- 0"	5400	257	237	220	206	193	182	172	162	154	147	140	134	129	119	110	103	
	126-18	21'- 0"	5400	257	237	220	206	193	182	172	162	154	147	140	134	129	119	110	103	
		21'- 6"	5400	251	232	215	201	188	177	167	159	151	143	137	131	126	116	108	100	
		22'- 0"	5300	241	222	207	193	181	170	161	152	145	138	131	126	120	111	103	96	
	126-19	22'- 0"	5300	241	222	207	193	181	170	161	152	145	138	131	126	120	111	103	96	
		22'- 6"	5180	230	213	197	184	173	163	153	145	138	132	126	120	115	106	99	92	
		23'- 0"	5070	220	204	189	176	165	156	147	139	132	126	120	115	110	102	94	88	
	126-20	23'- 0"	5070	220	204	189	176	165	156	147	139	132	126	120	115	110	102	94	88	
		23'- 6"	4960	211	195	181	169	158	149	141	133	127	121	115	110	106	97	90	84	
		24'- 0"	4860	202	187	174	162	152	143	135	128	122	116	110	106	101	93	87	81	
SJ 145	145- 9	14'- 0"	5800	414	382	355	331	311	292	276	261	248	237	226	216	207	191	177	166	
		14'- 6"	5800	400	369	343	320	300	282	267	253	240	229	218	209	200	185	171	160	
		15'- 0"	5800	387	357	331	309	290	273	258	244	232	221	211	202	193	178	166	155	
		15'- 2"	5800	382	353	328	306	287	270	255	242	230	219	209	200	191	177	164	153	
	145-10	15'- 2"	5800	382	353	328	306	287	270	255	242	230	219	209	200	191	177	164	153	
		15'- 6"	5800	374	345	321	299	281	264	249	236	225	214	204	195	187	173	160	150	
		16'- 0"	5800	363	335	311	290	272	256	242	229	218	207	198	189	181	167	155	145	
		16'- 4"	5800	355	328	304	284	266	251	237	224	213	203	194	185	178	164	152	142	
	145-11	16'- 4"	5800	355	328	304	284	266	251	237	224	213	203	194	185	178	164	152	142	
		16'- 8"	5800	348	321	298	278	261	246	232	220	209	199	190	182	174	161	149	139	
		17'- 0"	5800	341	315	293	273	256	241	228	216	205	195	186	178	171	158	146	137	
		17'- 6"	5800	331	306	284	265	249	234	221	209	199	189	181	173	166	153	142	133	
	145-12	17'- 6"	5800	331	306	284	265	249	234	221	209	199	189	181	173	166	153	142	133	
		18'- 0"	5800	322	297	276	258	242	227	215	204	193	184	176	168	161	149	138	129	
		18'- 4"	5670	309	285	265	248	232	218	206	195	186	177	169	161	155	143	133	124	
		18'- 8"	5570	298	275	256	239	224	211	199	188	179	170	163	156	149	138	128	119	
	145-13	18'- 8"	5570	298	275	256	239	224	211	199	188	179	170	163	156	149	138	128	119	
		19'- 0"	5470	288	266	247	230	216	203	192	182	173	165	157	150	144	133	123	115	
		19'- 6"	5330	273	252	234	219	205	193	182	173	164	156	149	143	137	126	117	109	
		19'-10"	5240	264	244	226	211	198	187	176	167	159	151	144	138	132	122	113	106	
	145-14	19'-10"	5240	264	244	226	211	198	187	176	167	159	151	144	138	132	122	113	106	
		20'- 0"	5200	260	240	223	208	195	184	173	164	156	149	142	136	130	120	111	104	
		20'- 6"	5070	247	228	212	198	186	175	165	156	148	141	135	129	124	114	106	99	
21'- 0"		4950	236	218	202	189	177	166	157	149	141	135	129	123	118	109	101	94		

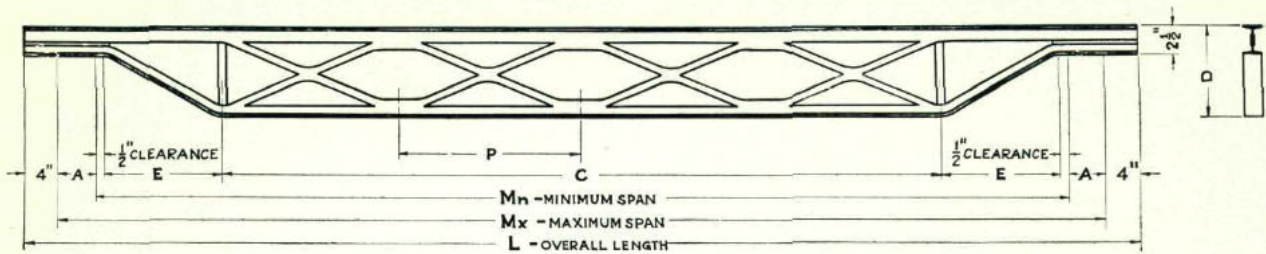
TOTAL SAFE LOAD TABLE—Continued

Joist Type	Joist Mark	Clear Span	Total Safe Load	TOTAL SAFE LOAD PER SQUARE FOOT FOR JOIST SPACINGS SHOWN																
				12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	26"	28"	30"	
SJ 145 (Cont.)	145-15	21'- 0"	4950	236	218	202	189	177	166	157	149	141	135	129	123	118	109	101	94	
		21'- 6"	4840	225	208	193	180	169	159	150	142	135	129	123	117	113	104	96	90	
		22'- 0"	4730	215	199	184	172	161	152	143	136	129	123	117	112	108	99	92	86	
		22'- 2"	4690	212	195	181	169	159	149	141	134	127	121	115	110	106	98	91	85	
	145-16	22'- 2"	4690	212	195	181	169	159	149	141	134	127	121	115	110	106	98	91	85	
		22'- 6"	4620	205	190	176	164	154	145	137	130	123	117	112	107	103	95	88	82	
		23'- 0"	4520	197	181	168	157	147	139	131	124	118	112	107	103	98	91	84	79	
		23'- 4"	4450	191	176	163	153	143	135	127	120	114	109	104	99	95	88	82	76	
	145-17	23'- 4"	4450	191	176	163	153	143	135	127	120	114	109	104	99	95	88	82	76	
		23'- 8"	4390	186	171	159	148	139	131	124	117	111	106	101	97	93	86	80	74	
		24'- 0"	4330	180	167	155	144	135	127	120	114	108	103	98	94	90	83	77	72	
		24'- 6"	4240	173	160	148	138	130	122	115	109	104	99	94	90	87	80	74	69	
	145-18	24'- 6"	4240	173	160	148	138	130	122	115	109	104	99	94	90	87	80	74	69	
		25'- 0"	4160	166	154	143	133	125	118	111	105	100	95	91	87	83	77	71	67	
		25'- 4"	4100	162	149	139	129	121	114	108	102	97	93	88	84	81	75	69	65	
		25'- 8"	4050	158	146	135	126	118	111	105	100	95	90	86	82	79	73	68	63	
	145-19	25'- 8"	4050	158	146	135	126	118	111	105	100	95	90	86	82	79	73	68	63	
		26'- 0"	4000	154	142	132	123	116	109	103	97	92	88	84	80	77	71	66	62	
		26'- 6"	3920	148	137	126	118	111	104	99	93	89	85	81	77	74	68	63	59	
		26'-10"	3880	144	133	123	115	108	102	96	91	86	82	79	75	72	66	62	58	
	145-20	26'-10"	3880	144	133	123	115	108	102	96	91	86	82	79	75	72	66	62	58	
		27'- 0"	3850	143	132	123	114	107	101	95	90	86	82	78	75	72	66	61	57	
		27'- 6"	3780	137	126	117	110	103	97	91	87	82	78	75	71	69	63	59	55	
		28'- 0"	3710	133	123	114	106	100	94	89	84	80	76	73	69	67	61	57	53	
SJ 146	146- 9	14'- 0"	6200	443	409	380	354	332	313	295	280	266	253	242	231	222	204	190	177	
		14'- 6"	6200	428	395	367	342	321	302	285	270	257	244	233	223	214	197	183	171	
		15'- 0"	6200	413	382	354	331	310	292	276	261	248	236	226	216	207	191	177	165	
		15'- 2"	6200	409	377	350	327	306	288	273	258	245	234	223	213	204	189	175	163	
	146-10	15'- 2"	6200	409	377	350	327	306	288	273	258	245	234	223	213	204	189	175	163	
		15'- 6"	6200	400	369	343	320	300	283	267	253	240	229	218	209	200	185	172	160	
		16'- 0"	6200	387	358	332	310	291	274	258	245	232	221	211	202	194	179	166	155	
		16'- 4"	6200	380	350	325	304	285	268	253	240	228	217	207	198	190	175	163	152	
	146-11	16'- 4"	6200	380	350	325	304	285	268	253	240	228	217	207	198	190	175	163	152	
		16'- 8"	6200	372	343	319	298	279	263	248	235	223	213	203	194	186	172	159	149	
		17'- 0"	6200	365	337	313	292	274	258	243	230	219	208	199	190	182	168	156	146	
		17'- 6"	6200	354	327	304	283	266	250	236	224	213	202	193	185	177	164	152	142	
	146-12	17'- 6"	6200	354	327	304	283	266	250	236	224	213	202	193	185	177	164	152	142	
		18'- 0"	6200	345	318	295	276	258	243	230	218	207	197	188	180	172	159	148	138	
		18'- 4"	6200	338	312	290	271	254	239	225	214	203	193	185	176	169	156	145	135	
		18'- 8"	6200	332	306	285	266	249	235	221	210	199	190	181	173	166	153	142	133	
	146-13	18'- 8"	6200	332	306	285	266	249	235	221	210	199	190	181	173	166	153	142	133	
		19'- 0"	6200	326	301	280	261	245	230	218	206	196	187	178	170	163	151	140	131	
		19'- 6"	6200	318	294	273	254	239	225	212	201	191	182	174	166	159	147	136	127	
		19'-10"	6200	313	289	268	250	235	221	208	198	188	179	171	163	156	144	134	125	
	146-14	19'-10"	6200	313	289	268	250	235	221	208	198	188	179	171	163	156	144	134	125	
		20'- 0"	6200	310	286	266	248	232	219	207	196	186	177	169	162	155	143	133	124	
		20'- 6"	6200	303	279	259	242	227	214	202	191	181	173	165	158	151	140	130	121	
		21'- 0"	6200	295	272	253	236	221	208	197	187	177	169	161	154	148	136	127	118	
	146-15	21'- 0"	6200	295	272	253	236	221	208	197	187	177	169	161	154	148	136	127	118	
		21'- 6"	6200	288	266	247	231	216	204	192	182	173	165	157	150	144	133	124	115	
		22'- 0"	6200	282	260	241	225	211	199	188	178	169	161	154	147	141	130	121	113	
		22'- 2"	6170	278	257	239	223	209	197	186	176	167	159	152	145	139	128	119	111	
	146-16	22'- 2"	6170	278	257	239	223	209	197	186	176	167	159	152	145	139	128	119	111	
		22'- 6"	6070	270	249	231	216	202	190	180	170	162	154	147	141	135	124	116	108	
		23'- 0"	5940	258	238	221	207	194	182	172	163	155	148	141	135	129	119	111	103	
		23'- 4"	5860	251	232	215	201	188	177	167	159	151	143	137	131	126	116	108	100	
	146-17	23'- 4"	5860	251	232	215	201	188	177	167	159	151	143	137	131	126	116	108	100	
		23'- 8"	5770	244	225	209	195	183	172	163	154	147	140	133	127	122	113	105	98	
		24'- 0"	5700	237	219	204	190	178	168	158	150	143	136	130	124	119	110	102	95	
		24'- 6"	5580	228	210	195	182	171	161	152	144	137	130	124	119	114	105	98	91	
	146-18	24'- 6"	5580	228	210	195	182	171	161	152	144	137	130	124	119	114	105	98	91	
		25'- 0"	5460	218	202	187	175	164	154	146	138	131	125	119	114	109	101	94	87	

TOTAL SAFE LOAD TABLE—Continued

Joist Type	Joist Mark	Clear Span	Total Safe Load	TOTAL SAFE LOAD PER SQUARE FOOT FOR JOIST SPACINGS SHOWN																
				12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	26"	28"	30"	
SJ 146 (Cont.)	146-18	25'- 4"	5390	213	196	182	170	160	150	142	134	128	122	116	111	106	98	91	85	
		25'- 8"	5320	207	191	178	166	155	146	138	131	124	118	113	108	104	96	89	83	
	146-19	25'- 8"	5320	207	191	178	166	155	146	138	131	124	118	113	108	104	96	89	83	
		26'- 0"	5260	202	187	173	162	152	143	135	128	121	116	110	106	101	93	87	81	
		26'- 6"	5160	195	180	167	156	146	137	130	123	117	111	106	102	97	90	83	78	
		26'-10"	5090	190	175	163	152	142	134	126	120	114	108	103	99	95	88	81	76	
	146-20	26'-10"	5090	190	175	163	152	142	134	126	120	114	108	103	99	95	88	81	76	
		27'- 0"	5060	187	173	161	150	141	132	125	118	113	107	102	98	94	87	80	75	
		27'- 6"	4970	181	167	155	145	136	128	121	114	108	103	99	94	90	83	77	72	
		28'- 0"	4880	174	161	149	139	131	123	116	110	105	100	95	91	87	80	75	70	
SJ-166	166-12A	20'- 8"	6400	310	286	266	248	232	218	206	196	186	177	169	162	155	143	133	124	
		21'- 0"	6400	305	282	262	244	228	215	203	193	183	174	166	159	152	141	131	122	
		21'- 4"	6400	300	277	257	240	225	212	200	190	180	172	164	157	150	139	129	120	
	166-13	21'- 4"	6400	300	277	257	240	225	212	200	190	180	172	164	157	150	139	129	120	
		21'- 8"	6400	295	273	253	236	222	209	197	187	177	169	161	154	148	136	127	118	
		22'- 0"	6400	291	268	249	233	218	205	194	184	175	166	159	152	146	134	125	116	
	166-13A	22'- 0"	6400	291	268	249	233	218	205	194	184	175	166	159	152	146	134	125	116	
		22'- 4"	6400	287	265	246	229	215	202	191	181	172	164	157	150	144	132	123	115	
		22'- 8"	6400	283	261	242	226	212	200	188	178	170	161	154	147	141	130	121	113	
	166-14	22'- 8"	6400	283	261	242	226	212	200	188	178	170	161	154	147	141	130	121	113	
		23'- 0"	6400	278	257	238	222	209	197	186	176	167	159	152	145	139	128	119	111	
		23'- 4"	6400	274	253	235	219	206	194	183	173	164	156	149	143	137	126	117	110	
	166-14A	23'- 4"	6400	274	253	235	219	206	194	183	173	164	156	149	143	137	126	117	110	
		23'- 8"	6400	270	249	231	216	203	191	180	170	162	154	147	141	135	124	115	108	
		24'- 0"	6400	267	246	228	213	200	188	178	169	160	152	146	139	133	123	114	107	
	166-15	24'- 0"	6400	267	246	228	213	200	188	178	169	160	152	146	139	133	123	114	107	
		24'- 4"	6360	261	241	224	208	196	184	174	165	157	149	143	136	130	120	112	105	
		24'- 8"	6270	254	234	218	203	191	179	169	160	153	145	139	133	127	117	109	102	
	166-15A	24'- 8"	6270	254	234	218	203	191	179	169	160	153	145	139	133	127	117	109	102	
		25'- 0"	6190	248	229	212	198	186	175	165	156	149	142	135	129	124	114	106	99	
		25'- 4"	6110	241	223	207	193	181	170	161	152	145	138	132	126	121	111	103	97	
	166-16	25'- 4"	6110	241	223	207	193	181	170	161	152	145	138	132	126	121	111	103	97	
		25'- 8"	6030	235	217	202	188	176	166	157	149	141	134	128	123	118	108	101	94	
		26'- 0"	5950	229	211	196	183	172	162	153	145	137	131	125	119	114	106	98	92	
	166-16A	26'- 0"	5950	229	211	196	183	172	162	153	145	137	131	125	119	114	106	98	92	
		26'- 4"	5880	223	206	191	179	168	158	149	141	134	128	122	117	112	103	96	89	
		26'- 8"	5800	218	201	187	174	163	154	145	137	131	124	119	114	109	101	93	87	
	166-17	26'- 8"	5800	218	201	187	174	163	154	145	137	131	124	119	114	109	101	93	87	
		27'- 0"	5720	212	196	182	170	159	150	141	134	127	121	116	111	106	98	91	85	
		27'- 4"	5660	207	191	177	165	155	146	138	131	124	118	113	108	103	95	89	83	
	166-17A	27'- 4"	5660	207	191	177	165	155	146	138	131	124	118	113	108	103	95	89	83	
		27'- 8"	5590	202	186	173	161	151	142	135	128	121	115	110	105	101	93	87	81	
		28'- 0"	5520	197	182	169	158	148	139	132	125	118	113	108	103	99	91	85	79	
	166-18	28'- 0"	5520	197	182	169	158	148	139	132	125	118	113	108	103	99	91	85	79	
		28'- 4"	5460	193	178	165	154	145	136	129	122	115	110	105	100	96	89	83	77	
		28'- 8"	5400	188	174	161	150	141	133	126	119	113	108	103	98	94	87	81	75	
	166-18A	28'- 8"	5400	188	174	161	150	141	133	126	119	113	108	103	98	94	87	81	75	
		29'- 0"	5330	184	170	158	147	138	130	123	116	110	105	100	96	92	85	79	73	
		29'- 4"	5280	180	166	154	144	135	127	120	114	108	103	98	94	90	83	77	72	
	166-19	29'- 4"	5280	180	166	154	144	135	127	120	114	108	103	98	94	90	83	77	72	
		29'- 8"	5210	176	162	151	141	132	124	117	111	106	100	96	92	88	81	75	70	
		30'- 0"	5150	172	159	147	137	129	121	114	108	103	98	94	90	86	79	74	69	
	166-19A	30'- 0"	5150	172	159	147	137	129	121	114	108	103	98	94	90	86	79	74	69	
		30'- 4"	5100	168	155	144	135	126	119	112	106	101	96	92	88	84	78	72	67	
		30'- 8"	5050	164	152	141	132	123	116	109	104	99	94	90	86	82	76	71	66	
	166-20	30'- 8"	5050	164	152	141	132	123	116	109	104	99	94	90	86	82	76	71	66	
		31'- 0"	4990	161	148	138	129	121	114	107	102	97	92	88	84	81	74	69	64	
		31'- 4"	4940	158	145	135	126	118	111	105	100	95	90	86	82	79	73	68	63	
	166-20A	31'- 4"	4940	158	145	135	126	118	111	105	100	95	90	86	82	79	73	68	63	
		31'- 8"	4890	154	142	132	123	115	109	103	97	93	88	84	80	77	71	66	62	
		32'- 0"	4830	151	139	129	121	113	107	101	95	91	86	82	79	75	70	65	60	

DIMENSIONS OF KALMANTRUSS JOISTS

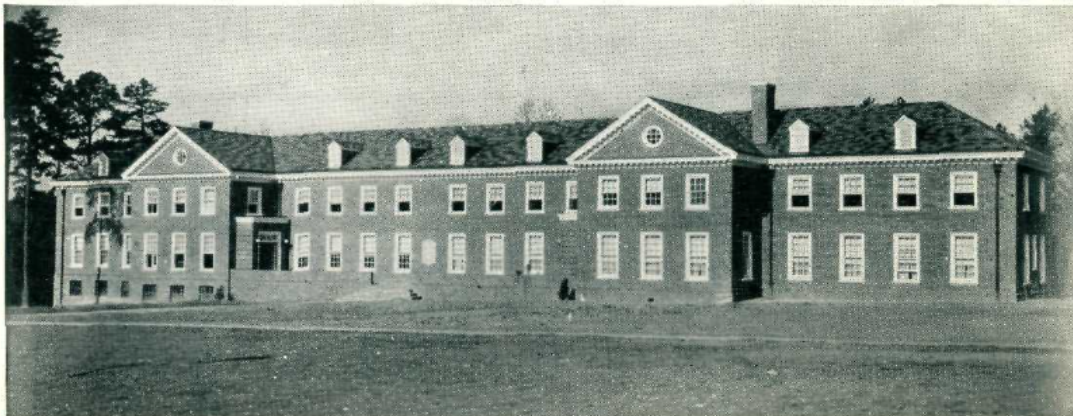


Mark	D in.	Mn Ft.-in.	Mx Ft.-in.	L Ft.-in.	P in.	C Ft.-in.	E in.	A in.	Total Safe Load
82- 1	8	2- 8	3- 4	4- 0	16	1-4	7 1/2	4	3800
82- 2	8	3- 4	4- 0	4- 8	16	1-4	11 1/2	4	3800
82- 3	8	4- 0	4- 8	5- 4	16	2-8	7 1/2	4	3800
82- 4	8	4- 8	5- 4	6- 0	16	2-8	11 1/2	4	3800
82- 5	8	5- 4	6- 0	6- 8	16	4-0	7 1/2	4	3800
82- 6	8	6- 0	6- 8	7- 4	16	4-0	11 1/2	4	3800
82- 7	8	6- 8	7- 4	8- 0	16	5-4	7 1/2	4	3800
82- 8	8	7- 4	8- 0	8- 8	16	5-4	11 1/2	4	3800
82- 9	8	8- 0	8- 8	9- 4	16	6-8	7 1/2	4	3800
82-10	8	8- 8	9- 4	10- 0	16	6-8	11 1/2	4	See safe load table
82-11	8	9- 4	10- 0	10- 8	16	8-0	7 1/2	4	
82-12	8	10- 0	10- 8	11- 4	16	8-0	11 1/2	4	
82-13	8	10- 8	11- 4	12- 0	16	9-4	7 1/2	4	
82-14	8	11- 4	12- 0	12- 8	16	9-4	11 1/2	4	
82-15	8	12- 0	12- 8	13- 4	16	10-8	7 1/2	4	
82-16	8	12- 8	13- 4	14- 0	16	10-8	11 1/2	4	
82-17	8	13- 4	14- 0	14- 8	16	12-0	7 1/2	4	
82-18	8	14- 0	14- 8	15- 4	16	12-0	11 1/2	4	
82-19	8	14- 8	15- 4	16- 0	16	13-4	7 1/2	4	
82-20	8	15- 4	16- 0	16- 8	16	13-4	11 1/2	4	
102- 1	10	3- 4	4- 2	4-10	20	1-8	9 1/2	5	3800
102- 2	10	4- 2	5- 0	5- 8	20	1-8	14 1/2	5	3800
102- 3	10	5- 0	5-10	6- 6	20	3-4	9 1/2	5	3800
102- 4	10	5-10	6- 8	7- 4	20	3-4	14 1/2	5	3800
102- 5	10	6- 8	7- 6	8- 2	20	5-0	9 1/2	5	3800
102- 6	10	7- 6	8- 4	9- 0	20	5-0	14 1/2	5	3800
102- 7	10	8- 4	9- 2	9-10	20	6-8	9 1/2	5	3800
102- 8	10	9- 2	10- 0	10- 8	20	6-8	14 1/2	5	See safe load table
102- 9	10	10- 0	10-10	11- 6	20	8-4	9 1/2	5	
102-10	10	10-10	11- 8	12- 4	20	8-4	14 1/2	5	
102-11	10	11- 8	12- 6	13- 2	20	10-0	9 1/2	5	
102-12	10	12- 6	13- 4	14- 0	20	10-0	14 1/2	5	
102-13	10	13- 4	14- 2	14-10	20	11-8	9 1/2	5	
102-14	10	14- 2	15- 0	15- 8	20	11-8	14 1/2	5	
102-15	10	15- 0	15-10	16- 6	20	13-4	9 1/2	5	
102-16	10	15-10	16- 8	17- 4	20	13-4	14 1/2	5	
103- 9	10	10- 0	10-10	11- 6	20	8-4	9 1/2	5	See safe load table
103-10	10	10-10	11- 8	12- 4	20	8-4	14 1/2	5	
103-11	10	11- 8	12- 6	13- 2	20	10-0	9 1/2	5	
103-12	10	12- 6	13- 4	14- 0	20	10-0	14 1/2	5	
103-13	10	13- 4	14- 2	14-10	20	11-8	9 1/2	5	
103-14	10	14- 2	15- 0	15- 8	20	11-8	14 1/2	5	
103-15	10	15- 0	15-10	16- 6	20	13-4	9 1/2	5	
103-16	10	15-10	16- 8	17- 4	20	13-4	14 1/2	5	
103-17	10	16- 8	17- 6	18- 2	20	15-0	9 1/2	5	
103-18	10	17- 6	18- 4	19- 0	20	15-0	14 1/2	5	
103-19	10	18- 4	19- 2	19-10	20	16-8	9 1/2	5	
103-20	10	19- 2	20- 0	20- 8	20	16-8	14 1/2	5	
104-14	10	14- 2	15- 0	15- 8	20	11-8	14 1/2	5	See safe load table
104-15	10	15- 0	15-10	16- 6	20	13-4	9 1/2	5	
104-16	10	15-10	16- 8	17- 4	20	13-4	14 1/2	5	See safe load table
104-17	10	16- 8	17- 6	18- 2	20	15-0	9 1/2	5	
104-18	10	17- 6	18- 4	19- 0	20	15-0	14 1/2	5	
104-19	10	18- 4	19- 2	19-10	20	16-8	9 1/2	5	
104-20	10	19- 2	20- 0	20- 8	20	16-8	14 1/2	5	
123- 1	12	4- 0	5- 0	5- 8	24	2-0	11 1/2	6	4400
123- 2	12	5- 0	6- 0	6- 8	24	2-0	17 1/2	6	4400
123- 3	12	6- 0	7- 0	7- 8	24	4-0	11 1/2	6	4400
123- 4	12	7- 0	8- 0	8- 8	24	4-0	17 1/2	6	4400
123- 5	12	8- 0	9- 0	9- 8	24	6-0	11 1/2	6	4400
123- 6	12	9- 0	10- 0	10- 8	24	6-0	17 1/2	6	4400
123- 7	12	10- 0	11- 0	11- 8	24	8-0	11 1/2	6	See safe load table
123- 8	12	11- 0	12- 0	12- 8	24	8-0	17 1/2	6	
123- 9	12	12- 0	13- 0	13- 8	24	10-0	11 1/2	6	
123-10	12	13- 0	14- 0	14- 8	24	10-0	17 1/2	6	
123-11	12	14- 0	15- 0	15- 8	24	12-0	11 1/2	6	
123-12	12	15- 0	16- 0	16- 8	24	12-0	17 1/2	6	
123-13	12	16- 0	17- 0	17- 8	24	14-0	11 1/2	6	
123-14	12	17- 0	18- 0	18- 8	24	14-0	17 1/2	6	
123-15	12	18- 0	19- 0	19- 8	24	16-0	11 1/2	6	
123-16	12	19- 0	20- 0	20- 8	24	16-0	17 1/2	6	
123-17	12	20- 0	21- 0	21- 8	24	18-0	11 1/2	6	See safe load table
123-18	12	21- 0	22- 0	22- 8	24	18-0	17 1/2	6	
123-19	12	22- 0	23- 0	23- 8	24	20-0	11 1/2	6	
123-20	12	23- 0	24- 0	24- 8	24	20-0	17 1/2	6	
124-12	12	15- 0	16- 0	16- 8	24	12-0	17 1/2	6	See safe load table
124-13	12	16- 0	17- 0	17- 8	24	14-0	11 1/2	6	
124-14	12	17- 0	18- 0	18- 8	24	14-0	17 1/2	6	
124-15	12	18- 0	19- 0	19- 8	24	16-0	11 1/2	6	
124-16	12	19- 0	20- 0	20- 8	24	16-0	17 1/2	6	
124-17	12	20- 0	21- 0	21- 8	24	18-0	11 1/2	6	
124-18	12	21- 0	22- 0	22- 8	24	18-0	17 1/2	6	
124-19	12	22- 0	23- 0	23- 8	24	20-0	11 1/2	6	
124-20	12	23- 0	24- 0	24- 8	24	20-0	17 1/2	6	
125- 9	12	12- 0	13- 0	13- 8	24	10-0	11 1/2	6	See safe load table
125-10	12	13- 0	14- 0	14- 8	24	10-0	17 1/2	6	
125-11	12	14- 0	15- 0	15- 8	24	12-0	11 1/2	6	
125-12	12	15- 0	16- 0	16- 8	24	12-0	17 1/2	6	
125-13	12	16- 0	17- 0	17- 8	24	14-0	11 1/2	6	
125-14	12	17- 0	18- 0	18- 8	24	14-0	17 1/2	6	
125-15	12	18- 0	19- 0	19- 8	24	16-0	11 1/2	6	
125-16	12	19- 0	20- 0	20- 8	24	16-0	17 1/2	6	
125-17	12	20- 0	21- 0	21- 8	24	18-0	11 1/2	6	
125-18	12	21- 0	22- 0	22- 8	24	18-0	17 1/2	6	
125-19	12	22- 0	23- 0	23- 8	24	20-0	11 1/2	6	
125-20	12	23- 0	24- 0	24- 8	24	20-0	17 1/2	6	
126- 9	12	12- 0	13- 0	13- 8	24	10-0	11 1/2	6	See safe load table
126-10	12	13- 0	14- 0	14- 8	24	10-0	17 1/2	6	
126-11	12	14- 0	15- 0	15- 8	24	12-0	11 1/2	6	
126-12	12	15- 0	16- 0	16- 8	24	12-0	17 1/2	6	

DIMENSIONS OF KALMANTRUSS JOISTS

Mark	D in.	Mn Ft.-in.	Mx Ft.-in.	L Ft.-in.	P in.	C Ft.-in.	E In.	A In.	Total Safe Load
126-13	12	16- 0	17- 0	17- 8	24	14- 0	11 1/2	6	See safe load table
126-14	12	17- 0	18- 0	18- 8	24	14- 0	17 1/2	6	
126-15	12	18- 0	19- 0	19- 8	24	16- 0	11 1/2	6	
126-16	12	19- 0	20- 0	20- 8	24	16- 0	17 1/2	6	
126-17	12	20- 0	21- 0	21- 8	24	18- 0	11 1/2	6	
126-18	12	21- 0	22- 0	22- 8	24	18- 0	17 1/2	6	
126-19	12	22- 0	23- 0	23- 8	24	20- 0	11 1/2	6	
126-20	12	23- 0	24- 0	24- 8	24	20- 0	17 1/2	6	
145- 1	14	4- 8	5-10	6- 6	28	2- 4	13 1/2	7	5800
145- 2	14	5-10	7- 0	7- 8	28	2- 4	20 1/2	7	5800
145- 3	14	7- 0	8- 2	8-10	28	4- 8	13 1/2	7	5800
145- 4	14	8- 2	9- 4	10- 0	28	4- 8	20 1/2	7	5800
145- 5	14	9- 4	10- 6	11- 2	28	7- 0	13 1/2	7	5800
145- 6	14	10- 6	11- 8	12- 4	28	7- 0	20 1/2	7	5800
145- 7	14	11- 8	12-10	13- 6	28	9- 4	13 1/2	7	5800
145- 8	14	12-10	14- 0	14- 8	28	9- 4	20 1/2	7	5800
145- 9	14	14- 0	15- 2	15-10	28	11- 8	13 1/2	7	See safe load table
145-10	14	15- 2	16- 4	17- 0	28	11- 8	20 1/2	7	
145-11	14	16- 4	17- 6	18- 2	28	14- 0	13 1/2	7	
145-12	14	17- 6	18- 8	19- 4	28	14- 0	20 1/2	7	
145-13	14	18- 8	19-10	20- 6	28	16- 4	13 1/2	7	
145-14	14	19-10	21- 0	21- 8	28	16- 4	20 1/2	7	
145-15	14	21- 0	22- 2	22-10	28	18- 8	13 1/2	7	
145-16	14	22- 2	23- 4	24- 0	28	18- 8	20 1/2	7	
145-17	14	23- 4	24- 6	25- 2	28	21- 0	13 1/2	7	See safe load table
145-18	14	24- 6	25- 8	26- 4	28	21- 0	20 1/2	7	
145-19	14	25- 8	26-10	27- 6	28	23- 4	13 1/2	7	
145-20	14	26-10	28- 0	28- 8	28	23- 4	20 1/2	7	
146- 9	14	14- 0	15- 2	15-10	28	11- 8	13 1/2	7	
146-10	14	15- 2	16- 4	17- 0	28	11- 8	20 1/2	7	
146-11	14	16- 4	17- 6	18- 2	28	14- 0	13 1/2	7	
146-12	14	17- 6	18- 8	19- 4	28	14- 0	20 1/2	7	
146-13	14	18- 8	19-10	20- 6	28	16- 4	13 1/2	7	See safe load table
146-14	14	19-10	21- 0	21- 8	28	16- 4	20 1/2	7	
146-15	14	21- 0	22- 2	22-10	28	18- 8	13 1/2	7	
146-16	14	22- 2	23- 4	24- 0	28	18- 8	20 1/2	7	
146-17	14	23- 4	24- 6	25- 2	28	21- 0	13 1/2	7	
146-18	14	24- 6	25- 8	26- 4	28	21- 0	20 1/2	7	
146-19	14	25- 8	26-10	27- 6	28	23- 4	13 1/2	7	
146-20	14	26-10	28- 0	28- 8	28	23- 4	20 1/2	7	

Mark	D in.	Mn Ft.-in.	Mx Ft.-in.	L Ft.-in.	P in.	C Ft.-in.	E In.	A In.	Total Safe Load
166- 1	16	5- 4	6- 0	6- 8	32	2- 8	15 1/2	4	6400
166- 1A	16	6- 0	6- 8	7- 4	32	2- 8	19 1/2	4	6400
166- 2	16	6- 8	7- 4	8- 0	32	2- 8	23 1/2	4	6400
166- 2A	16	7- 4	8- 0	8- 8	32	2- 8	27 1/2	4	6400
166- 3	16	8- 0	8- 8	9- 4	32	5- 4	15 1/2	4	6400
166- 3A	16	8- 8	9- 4	10- 0	32	5- 4	19 1/2	4	6400
166- 4	16	9- 4	10- 0	10- 8	32	5- 4	23 1/2	4	6400
166- 4A	16	10- 0	10- 8	11- 4	32	5- 4	27 1/2	4	6400
166- 5	16	10- 8	11- 4	12- 0	32	8- 0	15 1/2	4	6400
166- 5A	16	11- 4	12- 0	12- 8	32	8- 0	19 1/2	4	6400
166- 6	16	12- 0	12- 8	13- 4	32	8- 0	23 1/2	4	6400
166- 6A	16	12- 8	13- 4	14- 0	32	8- 0	27 1/2	4	6400
166- 7	16	13- 4	14- 0	14- 8	32	10- 8	15 1/2	4	6400
166- 7A	16	14- 0	14- 8	15- 4	32	10- 8	19 1/2	4	6400
166- 8	16	14- 8	15- 4	16- 0	32	10- 8	23 1/2	4	6400
168- 8A	16	15- 4	16- 0	16- 8	32	10- 8	27 1/2	4	6400
166- 9	16	16- 0	16- 8	17- 4	32	13- 4	15 1/2	4	6400
166- 9A	16	16- 8	17- 4	18- 0	32	13- 4	19 1/2	4	6400
166-10	16	17- 4	18- 0	18- 8	32	13- 4	23 1/2	4	6400
166-10A	16	18- 0	18- 8	19- 4	32	13- 4	27 1/2	4	6400
166-11	16	18- 8	19- 4	20- 0	32	16- 0	15 1/2	4	6400
166-11A	16	19- 4	20- 0	20- 8	32	16- 0	19 1/2	4	6400
166-12	16	20- 0	20- 8	21- 4	32	16- 0	23 1/2	4	6400
166-12A	16	20- 8	21- 4	22- 0	32	16- 0	27 1/2	4	See safe load table
166-13	16	21- 4	22- 0	22- 8	32	18- 8	15 1/2	4	
166-13A	16	22- 0	22- 8	23- 4	32	18- 8	19 1/2	4	
166-14	16	22- 8	23- 4	24- 0	32	18- 8	23 1/2	4	
166-14A	16	23- 4	24- 0	24- 8	32	18- 8	27 1/2	4	
166-15	16	24- 0	24- 8	25- 4	32	21- 4	15 1/2	4	
166-15A	16	24- 8	25- 4	26- 0	32	21- 4	19 1/2	4	
166-16	16	25- 4	26- 0	26- 8	32	21- 4	23 1/2	4	
166-16A	16	26- 0	26- 8	27- 4	32	21- 4	27 1/2	4	See safe load table
166-17	16	26- 8	27- 4	28- 0	32	24- 0	15 1/2	4	
166-17A	16	27- 4	28- 0	28- 8	32	24- 0	19 1/2	4	
166-18	16	28- 0	28- 8	29- 4	32	24- 0	23 1/2	4	
166-18A	16	28- 8	29- 4	30- 0	32	24- 0	27 1/2	4	
166-19	16	29- 4	30- 0	30- 8	32	26- 8	15 1/2	4	
166-19A	16	30- 0	30- 8	31- 4	32	26- 8	19 1/2	4	
166-20	16	30- 8	31- 4	32- 0	32	26- 8	23 1/2	4	
166-20A	16	31- 4	32- 0	32- 8	32	26- 8	27 1/2	4	



O. U. A. M. Orphanage, Lexington, N. C.

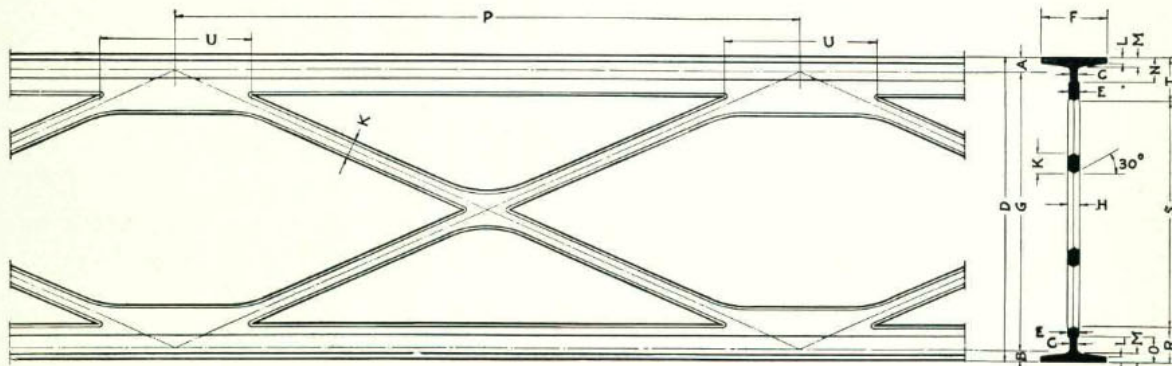
Architect, Herbert Hunter.

PROPERTIES OF KALMANTRUSS SECTIONS



Type	Depth in.	Moment of Inertia Axis 1-1 in. ⁴	Section Modulus Axis 1-1 in. ³	Top Chord				r of Top Plate Axis 2-2 in.	Bottom Chord Area in. ²	Web		Strut		Resist- ing Moment in. lbs.	Maximum End Reaction lbs.
				Area in. ²	r Axis 2-2 in.	r Axis 3-3 in.	Section Modu- lus Axis 3-3 in. ³			Area in. ²	r Axis 2-2 in.	Area in. ²	r Axis 2-2 in.		
SJ 82	8	12.2	2.92	.467	.344	.363	.074	.425	.401	.151	.078	.156	.072	52 500	1900
SJ 102	10	18.8	3.50	.444	.353	.323	.059	.425	.381	.170	.077	.234	.091	63 000	1900
SJ 103	10	23.4	4.56	.585	.351	.435	.116	.444	.489	.197	.096	.234	.091	82 000	1950
SJ 104	10	28.9	5.56	.715	.425	.431	.133	.524	.604	.206	.101	.234	.091	100 000	2200
SJ 123	12	32.5	5.11	.542	.368	.374	.086	.444	.454	.233	.094	.234	.091	92 000	2200
SJ 124	12	40.5	6.39	.670	.438	.366	.098	.524	.567	.244	.099	.234	.091	115 000	2300
SJ 125	12	48.8	7.89	.840	.443	.500	.183	.557	.702	.238	.111	.234	.091	142 000	2500
SJ 126	12	63.5	9.72	1.078	.563	.486	.216	.679	.918	.246	.116	.234	.091	175 000	2700
SJ 145	14	64.1	8.67	.790	.455	.440	.143	.557	.651	.284	.108	.328	.108	156 000	2900
SJ 146	14	84.9	11.39	1.027	.576	.431	.168	.679	.865	.294	.113	.328	.108	205 000	3100
SJ 166	16	115.9	12.89	1.083	.578	.421	.174	.689	.892	.335	.127	.438	.126	232 000	3200

DIMENSIONS OF KALMANTRUSS SECTIONS (INCHES)



Type	D	G	F	A	B	C	E	H	K	L	M	N	O	P	R	S	T	U
SJ 82	8	7.492	1.625	.330	.178	.140	.255	.280	.620	.120	.244	.890	.244	16	.657	6.138	1.205	4.38
SJ 102	10	9.554	1.625	.290	.156	.140	.255	.274	.700	.120	.244	.890	.244	20	.579	8.306	1.115	4.34
SJ 103	10	9.353	1.680	.415	.232	.160	.310	.348	.666	.145	.272	1.042	.492	20	.832	7.749	1.413	5.02
SJ 104	10	9.370	2.000	.400	.230	.186	.325	.369	.665	.150	.301	1.071	.521	20	.869	7.687	1.444	5.18
SJ 123	12	11.462	1.680	.345	.193	.160	.310	.337	.785	.145	.272	1.042	.492	24	.725	10.000	1.275	4.99
SJ 124	12	11.468	2.000	.337	.195	.186	.325	.356	.787	.150	.301	1.071	.521	24	.756	9.938	1.306	5.14
SJ 125	12	11.275	2.125	.465	.260	.200	.355	.406	.702	.162	.322	1.288	.593	24	.975	9.360	1.665	5.77
SJ 126	12	11.295	2.625	.446	.259	.234	.368	.424	.704	.170	.370	1.336	.641	24	1.025	9.260	1.715	6.03
SJ 145	14	13.385	2.125	.401	.214	.200	.355	.391	.835	.162	.322	1.288	.593	28	.832	11.641	1.527	5.72
SJ 146	14	13.391	2.625	.389	.220	.234	.368	.408	.839	.170	.370	1.336	.641	28	.882	11.541	1.577	5.96
SJ 166	16	15.377	2.667	.401	.222	.276	.410	.462	.855	.170	.370	1.336	.641	32	.868	13.569	1.563	5.90

KALMAN PRODUCTS

FOR CONCRETE CONSTRUCTION

Corrugated Bars
Column Spirals
Wire Fabric
Expanded Metal
Slab Spacers
Beam Chairs
Rib Chairs
Bar Chairs
High Chairs
Screed Chairs
Bar Clips
Bar Mats
Inserts
Anchor Slot
Expansion Joint Filler
Removable Steel Tile
Permanent Steel Tile
Column Forms
Kalmantruss Reinforcement

FOR CONCRETE ROAD BUILDING

Center Strip
Road Fabric
Bar Mats
Expansion Joint
Bar Supports

FOR HOME BUILDING USE

Package Receivers
Dome Dampers
Chimney Thimbles
Lintel Angles
Coal Chute Doors
Ash Dumps
Ash Pit Doors
Flue Clean-out Doors
Basement Windows
Wall Plugs
Wall Ties

FOR FIREPROOFING AND GENERAL BUILDING USE

$\frac{3}{8}$ " Rib Kalmanlath
 $\frac{3}{4}$ " Rib Lath
Diamond Mesh Lath
Cup Lath
Sheet Lath
Flat Rib Lath
Cold Rolled Channels
Hot Rolled Channels
Stucco Reinforcement
Metal Furring
Hanger Rods
Kalmantrim
Steel Jamb and Buck
Steel Buck
Corner Bead
Base Screed
Base Bead
Concealed Picture Mould

KALMAN STEEL COMPANY

Albany	Charlotte	Minneapolis	Philadelphia
Atlanta	Chicago	Newark	St. Louis
Baltimore	Dayton	New Haven	St. Paul
Boston	Detroit	New York	Syracuse
Buffalo	Houston	Niles	Washington
Cleveland	Milwaukee	Pittsburg	Youngstown

Export Office—New York