

BXUV.D925							
Unrestrained Beam Ratings							
Normal Weight Concrete - 4-1/2 inch thick							
GCP Applied Technologies Inc. - Types MK-6/HY, MK-10 HB, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, RG, Z-106, Z106/G, Z-106/HY, Z-146T, Z-146 PC, Z-156, Z-156T, Z-156PC, MK-1000/HB, MK-1000/HB Extended Set							
<p>Future Floor - UL guidance on the use of insulation above concrete roof deck reads as follows; Roof Insulation -The type and thickness of roof insulation should be as specified in the individual designs. Less than the specified thickness could result in higher temperatures on the roof covering, while a greater thickness of insulation could cause earlier structural failure. Certified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating. When certified mineral and fiber boards, polystyrene insulation exceeding 5 pcf or polyisocyanurate insulation are used over the concrete in D900 Series designs, the unrestrained beam rating is increased by a minimum of 1/2 hr.</p>							
<p>The thicknesses below reflect the increased hourly rating and no further calculation is needed. For instance, if the building requires a 1-hour rating on the roof , made of concrete with insulation above the roof, and triggering the requirement for a 1/2 hour increase in the rating and W4 x 13 beams are used, the thickness for a 1-hour rating is 9/16", not 13/16".</p>							
Fluted Deck							
1-hour	1.5 hours	2 hours	3 hours	Size	x	Wt	W/D
9/16	13/16	1 1/8	1 13/16	W4	x	13	0.67
9/16	13/16	1 1/8	1 13/16	W5	x	16	0.664
9/16	3/4	1 1/16	1 11/16	W5	x	19	0.776
3/4	1 1/16	1 1/2	2 3/8	W6	x	8.5	0.374
3/4	1	1 7/16	2 5/16	W6	x	9	0.398
11/16	7/8	1 5/16	2 1/16	W6	x	12	0.526
11/16	7/8	1 5/16	2 1/16	W6	x	15	0.521
9/16	13/16	1 1/8	1 13/16	W6	x	16	0.684
9/16	13/16	1 1/8	1 13/16	W6	x	20	0.678
1/2	11/16	1	1 5/8	W6	x	25	0.839
3/4	1 1/16	1 1/2	2 3/8	W8	x	10	0.375
11/16	15/16	1 5/16	2 1/8	W8	x	13	0.483
5/8	7/8	1 1/4	2	W8	x	15	0.551
5/8	7/8	1 1/4	1 15/16	W8	x	18	0.583
9/16	13/16	1 1/8	1 13/16	W8	x	21	0.675
9/16	3/4	1 1/8	1 3/4	W8	x	24	0.704
1/2	11/16	1	1 5/8	W8	x	28	0.819
9/16	3/4	1 1/16	1 5/8	W8	x	31	0.803
1/2	11/16	1	1 9/16	W8	x	35	0.907
7/16	5/8	7/8	1 7/16	W8	x	40	1.03
7/16	9/16	13/16	1 5/16	W8	x	48	1.21
3/8	1/2	3/4	1 1/8	W8	x	58	1.44
3/8	7/16	11/16	1 1/16	W8	x	67	1.65
3/4	1	1 7/16	2 5/16	W10	x	12	0.392
11/16	15/16	1 5/16	2 1/8	W10	x	15	0.484
5/8	7/8	1 1/4	2	W10	x	17	0.543
5/8	13/16	1 3/16	1 15/16	W10	x	19	0.607
5/8	13/16	1 3/16	1 15/16	W10	x	22	0.606
9/16	3/4	1 1/8	1 3/4	W10	x	26	0.708
9/16	3/4	1 1/16	1 5/8	W10	x	30	0.809
9/16	3/4	1 1/16	1 11/16	W10	x	33	0.786
1/2	11/16	15/16	1 1/2	W10	x	39	0.929
7/16	5/8	7/8	1 3/8	W10	x	45	1.06
1/2	5/8	15/16	1 7/16	W10	x	49	1.01
7/16	5/8	7/8	1 3/8	W10	x	54	1.11
7/16	9/16	13/16	1 1/4	W10	x	60	1.22
3/8	1/2	3/4	1 3/16	W10	x	68	1.38
3/8	1/2	11/16	1 1/16	W10	x	77	1.54
3/8	7/16	5/8	1	W10	x	88	1.74
3/8	7/16	9/16	15/16	W10	x	100	1.97

BXUV.D925							
Unrestrained Beam Ratings							
Normal Weight Concrete - 4-1/2 inch thick							
GCP Applied Technologies Inc. - Types MK-6/HY, MK-10 HB, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, RG, Z-106, Z106/G, Z-106/HY, Z-146T, Z-146 PC, Z-156, Z-156T, Z-156PC, MK-1000/HB, MK-1000/HB Extended Set							
<p>Future Floor - UL guidance on the use of insulation above concrete roof deck reads as follows; Roof Insulation -The type and thickness of roof insulation should be as specified in the individual designs. Less than the specified thickness could result in higher temperatures on the roof covering, while a greater thickness of insulation could cause earlier structural failure. Certified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating. When certified mineral and fiber boards, polystyrene insulation exceeding 5 pcf or polyisocyanurate insulation are used over the concrete in D900 Series designs, the unrestrained beam rating is increased by a minimum of 1/2 hr.</p>							
<p>The thicknesses below reflect the increased hourly rating and no further calculation is needed. For instance, if the building requires a 1-hour rating on the roof , made of concrete with insulation above the roof, and triggering the requirement for a 1/2 hour increase in the rating and W4 x 13 beams are used, the thickness for a 1-hour rating is 9/16", not 13/16".</p>							
Fluted Deck							
1-hour	1.5 hours	2 hours	3 hours	Size	x	Wt	W/D
9/16	13/16	1 1/8	1 13/16	W4	x	13	0.67
3/8	3/8	9/16	7/8	W10	x	112	2.17
3/4	1	1 7/16	2 5/16	W12	x	14	0.405
11/16	15/16	1 3/8	2 3/16	W12	x	16	0.457
5/8	7/8	1 1/4	2	W12	x	19	0.54
5/8	13/16	1 3/16	1 7/8	W12	x	22	0.623
5/8	13/16	1 3/16	1 7/8	W12	x	26	0.612
9/16	13/16	1 1/8	1 3/4	W12	x	30	0.699
9/16	3/4	1 1/16	1 5/8	W12	x	35	0.81
1/2	11/16	1	1 9/16	W12	x	40	0.86
1/2	5/8	15/16	1 1/2	W12	x	45	0.974
7/16	5/8	7/8	1 3/8	W12	x	50	1.06
1/2	5/8	15/16	1 7/16	W12	x	53	1.02
7/16	5/8	7/8	1 3/8	W12	x	58	1.1
7/16	5/8	7/8	1 3/8	W12	x	65	1.11
7/16	9/16	13/16	1 1/4	W12	x	72	1.23
3/8	9/16	3/4	1 3/16	W12	x	79	1.34
3/8	1/2	11/16	1 1/8	W12	x	87	1.47
3/8	1/2	11/16	1 1/16	W12	x	96	1.61
3/8	7/16	5/8	1	W12	x	106	1.77
3/8	7/16	9/16	15/16	W12	x	120	1.99
3/8	3/8	9/16	13/16	W12	x	136	2.23
3/8	3/8	1/2	3/4	W12	x	152	2.45
3/8	3/8	7/16	11/16	W12	x	170	2.72
3/8	3/8	7/16	11/16	W12	x	190	3
3/8	3/8	3/8	5/8	W12	x	210	3.27
3/8	3/8	3/8	9/16	W12	x	230	3.55
3/8	3/8	3/8	9/16	W12	x	252	3.84
3/8	3/8	3/8	1/2	W12	x	279	4.19
3/8	3/8	3/8	1/2	W12	x	305	4.49
3/8	3/8	3/8	7/16	W12	x	336	4.85
11/16	7/8	1 5/16	2 1/16	W14	x	22	0.534
5/8	13/16	1 3/16	1 7/8	W14	x	26	0.628
5/8	13/16	1 3/16	1 7/8	W14	x	30	0.644
9/16	3/4	1 1/8	1 3/4	W14	x	34	0.725
9/16	3/4	1 1/16	1 5/8	W14	x	38	0.809
1/2	11/16	1	1 9/16	W14	x	43	0.874
1/2	5/8	15/16	1 1/2	W14	x	48	0.97
7/16	5/8	7/8	1 3/8	W14	x	53	1.06
7/16	5/8	7/8	1 3/8	W14	x	61	1.1

BXUV.D925							
Unrestrained Beam Ratings							
Normal Weight Concrete - 4-1/2 inch thick							
GCP Applied Technologies Inc. - Types MK-6/HY, MK-10 HB, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, RG, Z-106, Z106/G, Z-106/HY, Z-146T, Z-146 PC, Z-156, Z-156T, Z-156PC, MK-1000/HB, MK-1000/HB Extended Set							
<p>Future Floor - UL guidance on the use of insulation above concrete roof deck reads as follows; <i>Roof Insulation -The type and thickness of roof insulation should be as specified in the individual designs. Less than the specified thickness could result in higher temperatures on the roof covering, while a greater thickness of insulation could cause earlier structural failure. Certified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating. When certified mineral and fiber boards, polystyrene insulation exceeding 5 pcf or polyisocyanurate insulation are used over the concrete in D900 Series designs, the unrestrained beam rating is increased by a minimum of 1/2 hr.</i></p>							
<p>The thicknesses below reflect the increased hourly rating and no further calculation is needed. For instance, if the building requires a 1-hour rating on the roof , made of concrete with insulation above the roof, and triggering the requirement for a 1/2 hour increase in the rating and W4 x 13 beams are used, the thickness for a 1-hour rating is 9/16", not 13/16".</p>							
Fluted Deck							
1-hour	1.5 hours	2 hours	3 hours	Size	x	Wt	W/D
9/16	13/16	1 1/8	1 13/16	W4	x	13	0.67
7/16	9/16	13/16	1 1/4	W14	x	68	1.22
3/8	9/16	3/4	1 3/16	W14	x	74	1.32
3/8	1/2	3/4	1 1/8	W14	x	82	1.45
3/8	9/16	3/4	1 1/4	W14	x	90	1.31
3/8	1/2	3/4	1 1/8	W14	x	99	1.43
3/8	1/2	11/16	1 1/16	W14	x	109	1.57
3/8	7/16	5/8	1	W14	x	120	1.71
3/8	7/16	5/8	15/16	W14	x	132	1.89
3/8	7/16	9/16	15/16	W14	x	145	1.99
3/8	3/8	9/16	7/8	W14	x	159	2.16
3/8	3/8	1/2	13/16	W14	x	176	2.38
3/8	3/8	1/2	3/4	W14	x	193	2.6
3/8	3/8	7/16	11/16	W14	x	211	2.81
3/8	3/8	7/16	5/8	W14	x	233	3.08
3/8	3/8	3/8	5/8	W14	x	257	3.36
3/8	3/8	3/8	9/16	W14	x	283	3.66
3/8	3/8	3/8	1/2	W14	x	311	3.98
3/8	3/8	3/8	1/2	W14	x	342	4.32
3/8	3/8	3/8	7/16	W14	x	370	4.63
3/8	3/8	3/8	7/16	W14	x	398	4.93
3/8	3/8	3/8	7/16	W14	x	426	5.21
3/8	3/8	3/8	3/8	W14	x	455	5.53
3/8	3/8	3/8	3/8	W14	x	500	5.95
3/8	3/8	3/8	3/8	W14	x	550	6.43
3/8	3/8	3/8	3/8	W14	x	605	6.96
3/8	3/8	3/8	3/8	W14	x	665	7.49
3/8	3/8	3/8	3/8	W14	x	730	8.08
3/8	3/8	3/8	3/8	W14	x	808	8.75
5/8	7/8	1 1/4	2	W16	x	26	0.558
5/8	13/16	1 3/16	1 13/16	W16	x	31	0.661
9/16	3/4	1 1/8	1 3/4	W16	x	36	0.702
9/16	3/4	1 1/16	1 11/16	W16	x	40	0.78
1/2	11/16	1	1 9/16	W16	x	45	0.87
1/2	5/8	15/16	1 1/2	W16	x	50	0.962
7/16	5/8	7/8	1 3/8	W16	x	57	1.09
7/16	5/8	7/8	1 3/8	W16	x	67	1.09
7/16	9/16	13/16	1 1/4	W16	x	77	1.25
3/8	1/2	3/4	1 1/8	W16	x	89	1.43
3/8	1/2	11/16	1 1/16	W16	x	100	1.59

BXUV.D925							
Unrestrained Beam Ratings							
Normal Weight Concrete - 4-1/2 inch thick							
GCP Applied Technologies Inc. - Types MK-6/HY, MK-10 HB, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, RG, Z-106, Z106/G, Z-106/HY, Z-146T, Z-146 PC, Z-156, Z-156T, Z-156PC, MK-1000/HB, MK-1000/HB Extended Set							
<p>Future Floor - UL guidance on the use of insulation above concrete roof deck reads as follows; Roof Insulation -The type and thickness of roof insulation should be as specified in the individual designs. Less than the specified thickness could result in higher temperatures on the roof covering, while a greater thickness of insulation could cause earlier structural failure. Certified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating. When certified mineral and fiber boards, polystyrene insulation exceeding 5 pcf or polyisocyanurate insulation are used over the concrete in D900 Series designs, the unrestrained beam rating is increased by a minimum of 1/2 hr.</p>							
<p>The thicknesses below reflect the increased hourly rating and no further calculation is needed. For instance, if the building requires a 1-hour rating on the roof , made of concrete with insulation above the roof, and triggering the requirement for a 1/2 hour increase in the rating and W4 x 13 beams are used, the thickness for a 1-hour rating is 9/16", not 13/16".</p>							
Fluted Deck							
1-hour	1.5 hours	2 hours	3 hours	Size	x	Wt	W/D
9/16	13/16	1 1/8	1 13/16	W4	x	13	0.67
9/16	13/16	1 1/8	1 13/16	W18	x	35	0.672
9/16	3/4	1 1/16	1 11/16	W18	x	40	0.768
1/2	11/16	1	1 9/16	W18	x	46	0.876
1/2	11/16	1	1 9/16	W18	x	50	0.88
1/2	5/8	15/16	1 1/2	W18	x	55	0.963
7/16	5/8	7/8	1 7/16	W18	x	60	1.04
7/16	5/8	7/8	1 5/16	W18	x	65	1.13
7/16	9/16	13/16	1 1/4	W18	x	71	1.22
7/16	5/8	7/8	1 5/16	W18	x	76	1.13
7/16	9/16	13/16	1 1/4	W18	x	86	1.27
3/8	1/2	3/4	1 1/8	W18	x	97	1.42
3/8	1/2	11/16	1 1/16	W18	x	106	1.55
3/8	7/16	5/8	1	W18	x	119	1.72
3/8	7/16	5/8	15/16	W18	x	130	1.88
3/8	3/8	9/16	7/8	W18	x	143	2.05
3/8	3/8	1/2	13/16	W18	x	158	2.24
3/8	3/8	1/2	3/4	W18	x	175	2.46
9/16	3/4	1 1/16	1 11/16	W21	x	44	0.746
1/2	11/16	1	1 5/8	W21	x	50	0.838
1/2	11/16	15/16	1 1/2	W21	x	57	0.952
1/2	11/16	15/16	1 1/2	W21	x	62	0.952
7/16	5/8	7/8	1 7/16	W21	x	68	1.04
7/16	5/8	7/8	1 3/8	W21	x	73	1.11
7/16	9/16	13/16	1 1/4	W21	x	83	1.26
3/8	1/2	3/4	1 3/16	W21	x	93	1.4
3/8	9/16	3/4	1 1/4	W21	x	101	1.3
3/8	1/2	3/4	1 1/8	W21	x	111	1.43
3/8	1/2	11/16	1 1/16	W21	x	122	1.57
3/8	7/16	5/8	1	W21	x	132	1.68
3/8	7/16	5/8	15/16	W21	x	147	1.87
3/8	3/8	9/16	7/8	W21	x	166	2.09
3/8	3/8	1/2	13/16	W21	x	182	2.29
3/8	3/8	1/2	3/4	W21	x	201	2.5
1/2	11/16	1	1 5/8	W24	x	55	0.828
1/2	11/16	15/16	1 1/2	W24	x	62	0.934
1/2	11/16	15/16	1 1/2	W24	x	68	0.942
7/16	5/8	7/8	1 7/16	W24	x	76	1.05
7/16	9/16	13/16	1 5/16	W24	x	84	1.15
7/16	9/16	13/16	1 1/4	W24	x	94	1.28

BXUV.D925							
Unrestrained Beam Ratings							
Normal Weight Concrete - 4-1/2 inch thick							
GCP Applied Technologies Inc. - Types MK-6/HY, MK-10 HB, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, RG, Z-106, Z106/G, Z-106/HY, Z-146T, Z-146 PC, Z-156, Z-156T, Z-156PC, MK-1000/HB, MK-1000/HB Extended Set							
<p>Future Floor - UL guidance on the use of insulation above concrete roof deck reads as follows; <i>Roof Insulation -The type and thickness of roof insulation should be as specified in the individual designs. Less than the specified thickness could result in higher temperatures on the roof covering, while a greater thickness of insulation could cause earlier structural failure. Certified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating. When certified mineral and fiber boards, polystyrene insulation exceeding 5 pcf or polyisocyanurate insulation are used over the concrete in D900 Series designs, the unrestrained beam rating is increased by a minimum of 1/2 hr.</i></p>							
<p>The thicknesses below reflect the increased hourly rating and no further calculation is needed. For instance, if the building requires a 1-hour rating on the roof , made of concrete with insulation above the roof, and triggering the requirement for a 1/2 hour increase in the rating and W4 x 13 beams are used, the thickness for a 1-hour rating is 9/16", not 13/16".</p>							
Fluted Deck							
1-hour	1.5 hours	2 hours	3 hours	Size	x	Wt	W/D
9/16	13/16	1 1/8	1 13/16	W4	x	13	0.67
3/8	1/2	3/4	1 3/16	W24	x	103	1.4
7/16	9/16	13/16	1 1/4	W24	x	104	1.24
3/8	1/2	3/4	1 3/16	W24	x	117	1.38
3/8	1/2	11/16	1 1/16	W24	x	131	1.54
3/8	7/16	5/8	1	W24	x	146	1.7
3/8	7/16	5/8	15/16	W24	x	162	1.88
3/8	3/8	9/16	7/8	W24	x	176	2.03
3/8	3/8	9/16	13/16	W24	x	192	2.2
3/8	3/8	1/2	13/16	W24	x	207	2.36
3/8	3/8	1/2	3/4	W24	x	229	2.6
3/8	3/8	7/16	11/16	W24	x	250	2.81
3/8	3/8	7/16	5/8	W24	x	279	3.11
3/8	3/8	3/8	5/8	W24	x	306	3.37
3/8	3/8	3/8	9/16	W24	x	335	3.66
3/8	3/8	3/8	1/2	W24	x	370	3.98
7/16	5/8	7/8	1 7/16	W27	x	84	1.03
7/16	9/16	13/16	1 5/16	W27	x	94	1.15
7/16	9/16	13/16	1 1/4	W27	x	102	1.24
3/8	1/2	3/4	1 3/16	W27	x	114	1.39
3/8	1/2	11/16	1 1/16	W27	x	129	1.56
3/8	1/2	11/16	1 1/16	W27	x	146	1.55
3/8	7/16	5/8	1	W27	x	161	1.7
3/8	7/16	5/8	15/16	W27	x	178	1.87
3/8	3/8	9/16	7/8	W27	x	194	2.03
3/8	3/8	1/2	13/16	W27	x	217	2.26
3/8	3/8	1/2	3/4	W27	x	235	2.43
3/8	3/8	1/2	3/4	W27	x	258	2.64
3/8	3/8	7/16	11/16	W27	x	281	2.86
3/8	3/8	7/16	5/8	W27	x	307	3.11
3/8	3/8	3/8	5/8	W27	x	336	3.33
3/8	3/8	3/8	9/16	W27	x	368	3.64
3/8	3/8	3/8	7/16	W27	x	539	5.08
1/2	5/8	15/16	1 7/16	W30	x	90	1.02
7/16	5/8	7/8	1 3/8	W30	x	99	1.12
7/16	9/16	13/16	1 5/16	W30	x	108	1.21
3/8	9/16	3/4	1 1/4	W30	x	116	1.3
3/8	1/2	3/4	1 3/16	W30	x	124	1.39
3/8	1/2	11/16	1 1/8	W30	x	132	1.47
3/8	7/16	11/16	1 1/16	W30	x	148	1.64

BXUV.D925							
Unrestrained Beam Ratings							
Normal Weight Concrete - 4-1/2 inch thick							
GCP Applied Technologies Inc. - Types MK-6/HY, MK-10 HB, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, RG, Z-106, Z106/G, Z-106/HY, Z-146T, Z-146 PC, Z-156, Z-156T, Z-156PC, MK-1000/HB, MK-1000/HB Extended Set							
<p>Future Floor - UL guidance on the use of insulation above concrete roof deck reads as follows; Roof Insulation -The type and thickness of roof insulation should be as specified in the individual designs. Less than the specified thickness could result in higher temperatures on the roof covering, while a greater thickness of insulation could cause earlier structural failure. Certified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating. When certified mineral and fiber boards, polystyrene insulation exceeding 5 pcf or polyisocyanurate insulation are used over the concrete in D900 Series designs, the unrestrained beam rating is increased by a minimum of 1/2 hr.</p>							
<p>The thicknesses below reflect the increased hourly rating and no further calculation is needed. For instance, if the building requires a 1-hour rating on the roof , made of concrete with insulation above the roof, and triggering the requirement for a 1/2 hour increase in the rating and W4 x 13 beams are used, the thickness for a 1-hour rating is 9/16", not 13/16".</p>							
Fluted Deck							
1-hour	1.5 hours	2 hours	3 hours	Size	x	Wt	W/D
9/16	13/16	1 1/8	1 13/16	W4	x	13	0.67
3/8	7/16	11/16	1 1/16	W30	x	173	1.66
3/8	7/16	5/8	15/16	W30	x	191	1.85
3/8	3/8	9/16	7/8	W30	x	211	2.01
3/8	3/8	1/2	13/16	W30	x	235	2.24
3/8	3/8	1/2	3/4	W30	x	261	2.46
3/8	3/8	7/16	11/16	W30	x	292	2.73
3/8	3/8	7/16	5/8	W30	x	326	3.05
3/8	3/8	3/8	5/8	W30	x	357	3.31
3/8	3/8	3/8	9/16	W30	x	391	3.59
7/16	9/16	13/16	1 5/16	W33	x	118	1.21
3/8	9/16	3/4	1 3/16	W33	x	130	1.32
3/8	1/2	3/4	1 1/8	W33	x	141	1.43
3/8	1/2	11/16	1 1/8	W33	x	152	1.53
3/8	7/16	5/8	1	W33	x	169	1.7
3/8	7/16	5/8	1	W33	x	201	1.79
3/8	7/16	9/16	15/16	W33	x	221	1.97
3/8	3/8	9/16	7/8	W33	x	241	2.13
3/8	3/8	1/2	13/16	W33	x	263	2.33
3/8	3/8	1/2	3/4	W33	x	291	2.55
3/8	3/8	7/16	11/16	W33	x	318	2.77
3/8	3/8	7/16	5/8	W33	x	354	3.05
3/8	3/8	3/8	5/8	W33	x	387	3.31
7/16	9/16	13/16	1 1/4	W36	x	135	1.29
3/8	1/2	3/4	1 1/8	W36	x	150	1.43
3/8	1/2	11/16	1 1/8	W36	x	160	1.51
3/8	1/2	11/16	1 1/16	W36	x	170	1.6
3/8	7/16	5/8	1	W36	x	182	1.72
3/8	7/16	5/8	1	W36	x	194	1.81
3/8	7/16	9/16	15/16	W36	x	210	1.96
3/8	7/16	9/16	15/16	W36	x	230	1.95
3/8	3/8	9/16	7/8	W36	x	232	2.15
3/8	3/8	9/16	7/8	W36	x	245	2.08
3/8	3/8	1/2	13/16	W36	x	256	2.37
3/8	3/8	9/16	7/8	W36	x	260	2.18
3/8	3/8	1/2	13/16	W36	x	280	2.35
3/8	3/8	1/2	3/4	W36	x	300	2.5
3/8	3/8	7/16	11/16	W36	x	328	2.73
3/8	3/8	7/16	11/16	W36	x	359	2.97
3/8	3/8	3/8	5/8	W36	x	393	3.25

BXUV.D925							
Unrestrained Beam Ratings							
Normal Weight Concrete - 4-1/2 inch thick							
GCP Applied Technologies Inc. - Types MK-6/HY, MK-10 HB, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, RG, Z-106, Z106/G, Z-106/HY, Z-146T, Z-146 PC, Z-156, Z-156T, Z-156PC, MK-1000/HB, MK-1000/HB Extended Set							
<p>Future Floor - UL guidance on the use of insulation above concrete roof deck reads as follows; <i>Roof Insulation -The type and thickness of roof insulation should be as specified in the individual designs. Less than the specified thickness could result in higher temperatures on the roof covering, while a greater thickness of insulation could cause earlier structural failure. Certified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating. When certified mineral and fiber boards, polystyrene insulation exceeding 5 pcf or polyisocyanurate insulation are used over the concrete in D900 Series designs, the unrestrained beam rating is increased by a minimum of 1/2 hr.</i></p>							
<p>The thicknesses below reflect the increased hourly rating and no further calculation is needed. For instance, if the building requires a 1-hour rating on the roof , made of concrete with insulation above the roof, and triggering the requirement for a 1/2 hour increase in the rating and W4 x 13 beams are used, the thickness for a 1-hour rating is 9/16", not 13/16".</p>							
Fluted Deck							
1-hour	1.5 hours	2 hours	3 hours	Size	x	Wt	W/D
9/16	13/16	1 1/8	1 13/16	W4	x	13	0.67
3/8	3/8	3/8	9/16	W36	x	439	3.57
3/8	3/8	3/8	1/2	W36	x	527	4.22
3/8	3/8	3/8	7/16	W36	x	650	5.08
3/8	3/8	3/8	3/8	W36	x	798	6.09
3/8	1/2	3/4	1 3/16	W40	x	149	1.37
3/8	1/2	11/16	1 1/8	W40	x	167	1.53
3/8	7/16	11/16	1 1/16	W40	x	183	1.66
3/8	7/16	11/16	1 1/16	W40	x	199	1.64
3/8	7/16	5/8	15/16	W40	x	211	1.9
3/8	7/16	5/8	1	W40	x	215	1.76
3/8	3/8	9/16	7/8	W40	x	235	2.1
3/8	3/8	9/16	7/8	W40	x	249	2.02
3/8	3/8	1/2	13/16	W40	x	264	2.36
3/8	3/8	1/2	13/16	W40	x	277	2.25
3/8	3/8	1/2	3/4	W40	x	278	2.48
3/8	3/8	1/2	13/16	W40	x	297	2.41
3/8	3/8	1/2	3/4	W40	x	324	2.61
3/8	3/8	7/16	11/16	W40	x	327	2.89
3/8	3/8	7/16	11/16	W40	x	331	2.9
3/8	3/8	7/16	11/16	W40	x	362	2.9
3/8	3/8	7/16	11/16	W40	x	372	2.98
3/8	3/8	3/8	5/8	W40	x	392	3.38
3/8	3/8	7/16	5/8	W40	x	397	3.15
3/8	3/8	3/8	5/8	W40	x	431	3.42
3/8	3/8	3/8	9/16	W40	x	503	3.93
3/8	3/8	3/8	1/2	W40	x	593	4.56
3/8	7/16	5/8	1	W44	x	230	1.77
3/8	7/16	9/16	7/8	W44	x	262	2
3/8	3/8	9/16	13/16	W44	x	290	2.2
3/8	3/8	1/2	3/4	W44	x	335	2.52