

Reactions - Girder 1

Girder 1 Service Vertical Reactions - k

Supp/Node	Noncomp Dead	Super-Imposed Dead	Max Live+Impact	Min Live+Impact	Sidewalk Max	Sidewalk Min
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Governing

1	1	117.20	28.93	72.94	-21.84	0.00	0.00
	Steel	45.45					
	Concrete	71.75					

Global x concurrent LL+I rot. 0.0021 -0.0006 deg
 Global y concurrent LL+I rot. 0.0219 -0.0064 deg

Max LL+I Contribution by Lane
 1 2
 63.62 9.32

Concurrent reactions using same governing loaded lanes as for Max LL+I

Concurrent at gdr 2 - 68.47
 Concurrent at gdr 3 - 61.33
 Concurrent at gdr 4 - 30.17

2	25	442.78	109.43	193.52	-46.44	0.00	0.00
	Steel	174.44					
	Concrete	268.34					

Global x concurrent LL+I rot. 0.0007 -0.0015 deg
 Global y concurrent LL+I rot. 0.0142 -0.0140 deg

Max LL+I Contribution by Lane
 1 2
 157.87 35.64

Concurrent reactions using same governing loaded lanes as for Max LL+I

Concurrent at gdr 2 - 143.37
 Concurrent at gdr 3 - 118.46
 Concurrent at gdr 4 - 45.27

3	69	443.86	110.42	181.82	-30.78	0.00	0.00
	Steel	174.87					
	Concrete	268.98					

Global x concurrent LL+I rot. 0.0015 -0.0017 deg
 Global y concurrent LL+I rot. 0.0181 -0.0158 deg

Max LL+I Contribution by Lane
 1 2
 149.07 32.75

Concurrent reactions using same governing loaded lanes as for Max LL+I

Concurrent at gdr 2 - 156.68
 Concurrent at gdr 3 - 118.72
 Concurrent at gdr 4 - 46.98

4	113	148.61	37.45	84.70	-19.05	0.00	0.00
	Steel	57.14					
	Concrete	91.47					

Global x concurrent LL+I rot. 0.0040 -0.0012 deg
 Global y concurrent LL+I rot. 0.0087 -0.0295 deg

Max LL+I Contribution by Lane
 1 2
 69.01 15.69

Concurrent reactions using same governing loaded lanes as for Max LL+I

Concurrent at gdr 2 - 70.13
 Concurrent at gdr 3 - 56.13
 Concurrent at gdr 4 - 23.02

Truck Loading

1	1	62.20	-4.53
2	25	80.90	-17.90
3	69	78.05	-9.62
4	113	68.34	-6.76

Lane Loading

1	1	72.94	-6.64
2	25	193.52	-27.00
3	69	181.82	-14.47
4	113	84.70	-9.85

Fatigue Truck

1	1	43.34	-3.48
2	25	49.20	-13.79
3	69	48.45	-7.38
4	113	43.41	-5.19

Reactions - Girder 2

Girder 2 Service Vertical Reactions - k

Supp/Node	Noncomp Dead	Super-Imposed Dead	Max Live+ Impact	Min Live+ Impact	Sidewalk	
					Max	Min

Governing

1	2	144.87	36.28	77.67	-6.33	0.00	0.00
	Steel	57.18					
	Concrete	87.69					

Global x concurrent LL+I rot. 0.0018 -0.0005 deg
 Global y concurrent LL+I rot. 0.0187 -0.0055 deg

Max LL+I Contribution by Lane
 1 2
 44.79 32.88

Concurrent reactions using same governing loaded lanes as for Max LL+I

Concurrent at gdr 1 - 58.91
 Concurrent at gdr 3 - 64.13
 Concurrent at gdr 4 - 33.29

2	36	420.62	103.03	161.32	-12.07	0.00	0.00
	Steel	166.70					
	Concrete	253.92					

Global x concurrent LL+I rot. 0.0008 -0.0009 deg
 Global y concurrent LL+I rot. 0.0112 -0.0117 deg

Max LL+I Contribution by Lane
 1 2
 87.20 74.11

Concurrent reactions using same governing loaded lanes as for Max LL+I

Concurrent at gdr 1 - 165.98
 Concurrent at gdr 3 - 127.76
 Concurrent at gdr 4 - 46.33

3	80	448.68	110.96	172.08	-12.24	0.00	0.00
	Steel	174.38					
	Concrete	274.31					

Global x concurrent LL+I rot. 0.0011 -0.0013 deg
 Global y concurrent LL+I rot. 0.0134 -0.0118 deg

Max LL+I Contribution by Lane
₁ ₂
 96.60 75.47

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 153.96
 Concurrent at gdr 3 - 126.40
 Concurrent at gdr 4 - 45.76

4 124 155.84 39.38 79.72 -7.02 0.00 0.00
 Steel 59.95
 Concrete 95.90

Global x concurrent LL+I rot. 0.0030 -0.0009 deg
 Global y concurrent LL+I rot. 0.0064 -0.0218 deg

Max LL+I Contribution by Lane
₁ ₂
 44.80 34.92

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 70.55
 Concurrent at gdr 3 - 59.28
 Concurrent at gdr 4 - 22.32

Truck Loading

1 2 72.18 -4.15
 2 36 84.06 -7.91
 3 80 84.34 -7.94
 4 124 72.12 -4.70

Lane Loading

1 2 77.67 -6.10
 2 36 161.32 -11.93
 3 80 172.08 -12.02
 4 124 79.72 -6.88

Fatigue Truck

1 2 32.03 -3.18
 2 36 36.07 -6.11
 3 80 36.11 -6.11
 4 124 30.57 -3.59

Reactions - Girder 3

Girder 3 Service Vertical Reactions - k

Supp/Node	Noncomp Dead	Super-Imposed Dead	Max Live+ Impact	Min Live+ Impact	Sidewalk Max	Sidewalk Min
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Governing

1 3 163.62 40.80 80.98 -7.35 0.00 0.00
 Steel 65.49
 Concrete 98.13

Global x concurrent LL+I rot. 0.0024 -0.0007 deg
 Global y concurrent LL+I rot. 0.0246 -0.0077 deg

Max LL+I Contribution by Lane
₁ ₂
 35.97 45.00

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 17.51
 Concurrent at gdr 2 - 56.17
 Concurrent at gdr 4 - 85.63

2 47 498.32 121.73 186.84 -16.27 0.00 0.00
 Steel 198.61
 Concrete 299.70

Global x concurrent LL+I rot. 0.0011 -0.0010 deg
 Global y concurrent LL+I rot. 0.0129 -0.0154 deg

Max LL+I Contribution by Lane

1 2
 78.19 108.65

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 49.29
 Concurrent at gdr 2 - 127.37
 Concurrent at gdr 4 - 145.30

3 91 441.93 109.55 173.43 -16.89 0.00 0.00
 Steel 171.27
 Concrete 270.66

Global x concurrent LL+I rot. 0.0012 -0.0013 deg
 Global y concurrent LL+I rot. 0.0136 -0.0122 deg

Max LL+I Contribution by Lane

1 2
 75.82 97.61

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 46.02
 Concurrent at gdr 2 - 126.16
 Concurrent at gdr 4 - 156.04

4 135 154.20 39.11 80.33 -7.39 0.00 0.00
 Steel 59.37
 Concrete 94.83

Global x concurrent LL+I rot. 0.0031 -0.0009 deg
 Global y concurrent LL+I rot. 0.0067 -0.0221 deg

Max LL+I Contribution by Lane

1 2
 34.38 45.95

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 22.20
 Concurrent at gdr 2 - 61.78
 Concurrent at gdr 4 - 71.05

Truck Loading

1 3 72.28 -4.92
 2 47 84.82 -10.22
 3 91 84.31 -10.58
 4 135 71.95 -4.85

Lane Loading

1 3 80.98 -7.25
 2 47 186.84 -15.46
 3 91 173.43 -16.16
 4 135 80.33 -7.16

Fatigue Truck

1 3 31.34 -3.78
 2 47 36.80 -7.89
 3 91 36.01 -8.19
 4 135 30.83 -3.70

Reactions - Girder 4

Girder 4 Service Vertical Reactions - k

Supp/Node	Noncomp Dead	Super- Imposed Dead	Max Live+ Impact	Min Live+ Impact	Sidewalk	
					Max	Min

Governing

1 4 204.61 49.60 100.02 -14.97 0.00 0.00
 Steel 83.59
 Concrete 121.02

Global x concurrent LL+I rot. 0.0036 -0.0011 deg
 Global y concurrent LL+I rot. 0.0362 -0.0114 deg

Max LL+I Contribution by Lane
 1 2
 23.98 76.04

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 18.43
 Concurrent at gdr 2 - 53.30
 Concurrent at gdr 3 - 71.92

2 48 436.13 106.66 172.21 -24.09 0.00 0.00
 Steel 178.49
 Concrete 257.64

Global x concurrent LL+I rot. 0.0011 -0.0017 deg
 Global y concurrent LL+I rot. 0.0182 -0.0225 deg

Max LL+I Contribution by Lane
 1 2
 32.12 140.10

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 51.39
 Concurrent at gdr 2 - 121.29
 Concurrent at gdr 3 - 176.45

3 92 425.50 106.19 184.17 -38.79 0.00 0.00
 Steel 166.58
 Concrete 258.92

Global x concurrent LL+I rot. 0.0016 -0.0017 deg
 Global y concurrent LL+I rot. 0.0186 -0.0167 deg

Max LL+I Contribution by Lane
 1 2
 33.54 150.63

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 47.31
 Concurrent at gdr 2 - 118.67
 Concurrent at gdr 3 - 158.07

4 136 154.56 38.80 85.59 -17.78 0.00 0.00
 Steel 59.65
 Concrete 94.90

Global x concurrent LL+I rot. 0.0042 -0.0013 deg
 Global y concurrent LL+I rot. 0.0092 -0.0298 deg

Max LL+I Contribution by Lane
 1 2
 16.42 69.17

Concurrent reactions using same governing loaded lanes
 as for Max LL+I

Concurrent at gdr 1 - 23.03
 Concurrent at gdr 2 - 59.15
 Concurrent at gdr 3 - 71.79

Truck Loading

1 4 75.35 -9.17

MDX reaction -unit4.txt

2	48	80.46	-7.71
3	92	77.84	-15.22
4	136	68.28	-6.91

Lane Loading

1	4	100.02	-13.51
2	48	172.21	-11.68
3	92	184.17	-23.40
4	136	85.59	-10.23

Fatigue Truck

1	4	46.03	-7.04
2	48	48.81	-5.94
3	92	48.37	-11.77
4	136	43.12	-5.28