

BBNA
waghs
C242292

Shell Fourchon Junction

Column Layout

SK-2
Sep 04, 2024 at 10:21 AM
Shell Fourchon Junction underhung cra...

### Load Case

DL Dead load

CLL Collateral oad

RLL Roof Load

Crane load Asumed two cranes are in adjacent bay

WLx> Wind load +ve X Roof uplft

WLx< Wind load -ve X Roof uplft

WLz> Wind load +ve Z Roof uplft

WLz< Wind load -ve Z Roof uplft

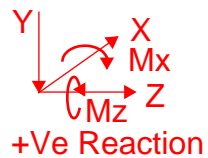
WLx1> Wind load +ve X Roof pressure

WLx1< Wind load -ve X Roof pressure

WLz1> Wind load +ve Z Roof pressure

WLz1< Wind load -ve Z Roof pressure

Wind loads are un factored load



DL-Dead Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
DL	G.A-G.1	-5.14	21.80	2.10	29.64	2.01
DL	G.B-G.1	0.02	37.47	1.99	28.34	0.69
DL	G.C-G.1	0.09	24.23	2.10	29.72	-0.12
DL	G.D-G.1	-0.59	14.91	2.08	28.47	-1.34
DL	G.E-G.1	4.13	63.36	3.17	43.51	-5.40
DL	G.A-G.2	-4.82	41.41	-1.07	-17.28	2.12
DL	G.B-G.2	0.11	56.41	-1.00	-16.14	0.17
DL	G.C-G.2	0.23	40.05	-1.12	-18.19	-1.17
DL	G.D-G.2	0.41	28.73	-1.12	-19.03	-3.21
DL	G.E-G.2	5.44	101.79	-1.56	-26.40	-9.86
DL	G.A-G.3	-4.54	42.14	0.68	9.77	1.79
DL	G.B-G.3	0.14	59.08	0.65	9.38	-0.15
DL	G.C-G.3	0.26	44.67	0.96	13.93	-1.51
DL	G.D-G.3	0.44	30.43	0.79	10.63	-3.56
DL	G.E-G.3	5.74	110.70	1.06	13.98	-10.42
DL	G.A-G.4	-5.37	21.33	-1.73	-28.65	1.92
DL	G.B-G.4	0.04	43.22	-1.63	-27.09	0.67
DL	G.C-G.4	0.11	35.44	-2.46	-40.56	-0.07
DL	G.D-G.4	-0.70	2.66	-0.05	-2.46	-1.20
DL	G.E-G.4	4.02	81.24	-3.85	-64.34	-4.88

CLL-Collateral Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
CLL	G.A-G.1	-0.44	3.47	0.62	8.77	0.43
CLL	G.B-G.1	0.01	5.20	0.55	7.76	0.18
CLL	G.C-G.1	0.02	3.49	0.61	8.50	0.00
CLL	G.D-G.1	0.05	1.21	0.63	8.48	-0.28
CLL	G.E-G.1	0.13	10.96	1.04	14.11	-1.04
CLL	G.A-G.2	-0.28	8.28	-0.31	-5.07	0.37
CLL	G.B-G.2	0.03	9.77	-0.28	-4.55	-0.02
CLL	G.C-G.2	0.06	7.46	-0.33	-5.39	-0.33
CLL	G.D-G.2	0.10	4.27	-0.38	-6.43	-0.80
CLL	G.E-G.2	0.36	20.49	-0.58	-9.77	-2.23
CLL	G.A-G.3	-0.28	7.68	0.19	2.65	0.34
CLL	G.B-G.3	0.03	9.42	0.16	2.28	-0.01
CLL	G.C-G.3	0.06	7.49	0.23	3.24	-0.29
CLL	G.D-G.3	0.10	3.90	0.22	2.73	-0.72
CLL	G.E-G.3	0.30	20.02	0.32	3.98	-2.01
CLL	G.A-G.4	-0.43	2.92	-0.49	-8.08	0.37
CLL	G.B-G.4	0.01	5.14	-0.43	-7.24	0.17
CLL	G.C-G.4	0.02	4.54	-0.62	-10.32	0.03
CLL	G.D-G.4	0.04	-1.97	-0.02	-0.90	-0.18
CLL	G.E-G.4	0.10	11.66	-1.11	-18.68	-0.73

RLL-Roof Live Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
RLL	G.A-G.1	-1.06	8.33	1.49	21.06	1.02
RLL	G.B-G.1	0.02	12.48	1.32	18.61	0.43
RLL	G.C-G.1	0.06	8.37	1.45	20.40	0.00
RLL	G.D-G.1	0.12	2.92	1.51	20.36	-0.66
RLL	G.E-G.1	0.31	26.30	2.49	33.87	-2.49
RLL	G.A-G.2	-0.66	19.87	-0.75	-12.18	0.89
RLL	G.B-G.2	0.08	23.44	-0.67	-10.91	-0.04
RLL	G.C-G.2	0.15	17.89	-0.79	-12.95	-0.79
RLL	G.D-G.2	0.25	10.24	-0.91	-15.44	-1.92
RLL	G.E-G.2	0.86	49.17	-1.38	-23.44	-5.35
RLL	G.A-G.3	-0.66	18.43	0.45	6.36	0.83
RLL	G.B-G.3	0.08	22.61	0.39	5.47	-0.03
RLL	G.C-G.3	0.14	17.96	0.55	7.78	-0.71
RLL	G.D-G.3	0.23	9.35	0.52	6.56	-1.73
RLL	G.E-G.3	0.72	48.06	0.76	9.54	-4.81
RLL	G.A-G.4	-1.02	7.01	-1.17	-19.39	0.88
RLL	G.B-G.4	0.02	12.33	-1.04	-17.38	0.41
RLL	G.C-G.4	0.05	10.90	-1.49	-24.76	0.07
RLL	G.D-G.4	0.09	-4.73	-0.04	-2.15	-0.44
RLL	G.E-G.4	0.23	28.00	-2.65	-44.83	-1.76

Crane Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
Crane	G.A-G.1	-0.61	53.56	3.97	96.87	4.83
Crane	G.B-G.1	0.00	33.64	3.92	95.63	-0.02
Crane	G.C-G.1	0.00	39.17	3.14	76.67	-0.02
Crane	G.D-G.1	0.00	38.76	3.48	85.18	0.01
Crane	G.E-G.1	1.93	84.06	5.05	128.77	-15.25
Crane	G.A-G.2	-3.58	69.43	4.21	100.17	8.19
Crane	G.B-G.2	0.00	50.98	4.16	98.87	-0.16
Crane	G.C-G.2	0.00	59.64	4.16	98.87	0.00
Crane	G.D-G.2	0.00	58.94	-3.81	-89.74	0.19
Crane	G.E-G.2	8.24	102.64	5.76	138.61	-25.51
Crane	G.A-G.3	-1.05	44.89	3.89	95.02	4.09
Crane	G.B-G.3	0.00	30.00	3.84	93.79	-0.07
Crane	G.C-G.3	0.00	35.04	3.07	75.04	0.01
Crane	G.D-G.3	0.00	34.08	3.35	82.61	0.08
Crane	G.E-G.3	2.20	64.63	5.32	131.46	-11.70
Crane	G.A-G.4	-0.22	23.86	3.14	82.75	1.67
Crane	G.B-G.4	0.00	15.03	3.10	81.67	-0.02
Crane	G.C-G.4	0.00	17.54	2.51	65.94	-0.01
Crane	G.D-G.4	0.00	7.96	0.87	42.42	-0.02
Crane	G.E-G.4	0.63	34.52	4.08	111.20	-4.72

WLx>Wind X Uplift Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLx>	G.A-G.1	-50.21	-149.41	-5.06	-60.31	37.25
WLx>	G.B-G.1	-3.96	67.25	-3.54	-36.40	35.76
WLx>	G.C-G.1	-3.38	-26.30	-4.26	-56.41	36.87
WLx>	G.D-G.1	-51.51	-120.55	-5.01	-73.28	38.40
WLx>	G.E-G.1	-5.25	61.48	-3.76	-49.13	54.70
WLx>	G.A-G.2	-79.62	-275.62	4.32	78.97	55.89
WLx>	G.B-G.2	-4.80	101.87	3.91	73.73	53.22
WLx>	G.C-G.2	-4.27	-56.66	2.86	49.24	54.94
WLx>	G.D-G.2	-81.91	-221.67	2.15	33.23	57.50
WLx>	G.E-G.2	-6.66	100.35	2.47	43.32	82.76
WLx>	G.A-G.3	-87.34	-289.86	-0.72	1.41	60.75
WLx>	G.B-G.3	-4.94	125.78	-0.21	9.92	57.44
WLx>	G.C-G.3	-4.40	-56.61	-1.39	-16.31	59.02
WLx>	G.D-G.3	-88.87	-238.76	-1.85	-28.22	61.37
WLx>	G.E-G.3	-6.76	121.50	-1.25	-14.16	87.88
WLx>	G.A-G.4	-65.72	-185.13	5.81	105.63	46.32
WLx>	G.B-G.4	-4.17	106.53	4.85	90.29	43.73
WLx>	G.C-G.4	-3.59	-34.17	4.93	84.49	44.70
WLx>	G.D-G.4	-65.90	-136.30	0.02	1.06	45.99
WLx>	G.E-G.4	-5.48	93.12	5.10	87.45	65.33

WLx<Wind X Uplift Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLx<	G.A-G.1	3.68	101.04	-1.65	-17.92	-35.58
WLx<	G.B-G.1	53.39	-136.90	-2.36	-30.39	-38.14
WLx<	G.C-G.1	3.05	-26.64	-4.94	-73.02	-36.53
WLx<	G.D-G.1	3.49	98.34	-4.28	-53.04	-33.95
WLx<	G.E-G.1	53.00	-211.16	-9.91	-136.52	-51.27
WLx<	G.A-G.2	4.17	163.64	1.73	32.31	-50.61
WLx<	G.B-G.2	81.64	-239.53	1.69	30.16	-54.57
WLx<	G.C-G.2	3.56	-56.53	2.14	32.13	-51.86
WLx<	G.D-G.2	3.87	150.93	3.35	59.95	-47.73
WLx<	G.E-G.2	80.36	-378.57	5.22	87.75	-73.46
WLx<	G.A-G.3	4.28	186.62	-0.15	3.27	-54.42
WLx<	G.B-G.3	88.81	-258.43	-0.40	-1.60	-58.93
WLx<	G.C-G.3	3.74	-56.96	-2.08	-33.02	-56.44
WLx<	G.D-G.3	4.09	174.42	-1.36	-12.84	-52.63
WLx<	G.E-G.3	88.83	-394.54	-2.93	-37.94	-82.56
WLx<	G.A-G.4	3.83	144.82	2.18	40.45	-42.94
WLx<	G.B-G.4	68.37	-178.98	2.47	44.53	-46.46
WLx<	G.C-G.4	3.32	-34.52	4.43	70.87	-45.22
WLx<	G.D-G.4	3.83	163.03	0.24	11.73	-43.15
WLx<	G.E-G.4	69.45	-255.60	10.13	170.44	-68.48

WLz>Wind Z Uplift Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLz>	G.A-G.1	-0.02	-60.83	-44.49	-870.98	-2.12
WLz>	G.B-G.1	7.21	-83.73	-42.77	-842.77	-0.59
WLz>	G.C-G.1	-0.37	-59.76	-39.98	-800.84	1.65
WLz>	G.D-G.1	-7.53	-41.30	-46.48	-915.77	5.05
WLz>	G.E-G.1	-1.52	-158.33	-65.58	-1365.19	12.68
WLz>	G.A-G.2	-0.14	-100.39	-33.49	-705.11	-1.66
WLz>	G.B-G.2	8.99	-126.10	-33.05	-695.97	0.73
WLz>	G.C-G.2	-0.66	-96.12	-28.56	-629.17	4.07
WLz>	G.D-G.2	-14.07	-76.22	-35.80	-754.97	9.12
WLz>	G.E-G.2	-2.38	-244.21	-49.96	-1128.19	21.26
WLz>	G.A-G.3	-0.01	-12.77	-35.60	-735.69	-0.90
WLz>	G.B-G.3	2.77	-25.56	-34.72	-719.93	-0.52
WLz>	G.C-G.3	-0.11	-14.46	-30.87	-663.27	0.16
WLz>	G.D-G.3	-1.54	4.69	-36.61	-765.51	1.17
WLz>	G.E-G.3	-0.23	-43.69	-53.10	-1172.92	3.24
WLz>	G.A-G.4	0.12	17.67	-31.53	-664.66	-2.85
WLz>	G.B-G.4	4.66	-4.79	-29.51	-635.10	-3.00
WLz>	G.C-G.4	0.12	6.99	-25.90	-582.65	-2.82
WLz>	G.D-G.4	0.09	14.13	-17.27	-452.89	-2.55
WLz>	G.E-G.4	4.62	-6.51	-44.08	-1018.16	-4.01

WLz<Wind Z Uplift Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLz<	G.A-G.1	0.10	13.63	36.62	769.71	-1.97
WLz<	G.B-G.1	3.01	1.73	35.82	754.73	-1.91
WLz<	G.C-G.1	0.05	8.03	31.91	697.65	-1.64
WLz<	G.D-G.1	0.01	18.51	38.43	819.07	-1.24
WLz<	G.E-G.1	2.37	-0.45	52.42	1205.20	-1.58
WLz<	G.A-G.2	0.02	-12.27	39.07	803.51	-1.66
WLz<	G.B-G.2	4.15	-31.35	38.18	787.22	-1.29
WLz<	G.C-G.2	-0.09	-15.75	34.52	734.24	-0.50
WLz<	G.D-G.2	-0.52	2.05	42.50	876.98	0.69
WLz<	G.E-G.2	1.04	-51.92	59.97	1311.43	2.61
WLz<	G.A-G.3	-0.10	-91.14	33.94	722.47	-2.50
WLz<	G.B-G.3	10.31	-126.52	33.36	711.17	-0.53
WLz<	G.C-G.3	-0.55	-97.68	28.44	638.91	2.51
WLz<	G.D-G.3	-11.27	-72.70	34.55	752.33	7.09
WLz<	G.E-G.3	-1.90	-245.98	50.28	1158.30	17.36
WLz<	G.A-G.4	-0.30	-58.50	39.42	803.72	-0.21
WLz<	G.B-G.4	4.37	-76.09	36.66	762.27	0.99
WLz<	G.C-G.4	-0.40	-75.84	35.95	757.53	2.75
WLz<	G.D-G.4	-9.00	9.75	17.82	479.74	5.45
WLz<	G.E-G.4	-1.31	-163.93	61.61	1327.99	12.09

WLx1>Wind X pressure Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLx1>	G.A-G.1	-53.72	-39.59	4.63	52.32	43.73
WLx1>	G.B-G.1	-4.26	120.62	3.40	36.57	39.59
WLx1>	G.C-G.1	-3.51	22.20	4.19	62.63	38.81
WLx1>	G.D-G.1	-47.51	-74.05	3.26	40.12	37.53
WLx1>	G.E-G.1	-4.65	128.41	3.69	48.25	49.00
WLx1>	G.A-G.2	-85.57	-51.73	-4.38	-81.04	67.03
WLx1>	G.B-G.2	-5.30	222.30	-3.48	-65.64	59.97
WLx1>	G.C-G.2	-4.50	47.05	-1.69	-24.71	58.58
WLx1>	G.D-G.2	-75.37	-119.39	-2.53	-45.45	56.52
WLx1>	G.E-G.2	-5.75	230.86	-2.30	-40.40	74.19
WLx1>	G.A-G.3	-93.18	-79.55	0.56	-4.70	71.11
WLx1>	G.B-G.3	-5.39	240.84	0.16	-9.83	63.80
WLx1>	G.C-G.3	-4.61	47.26	1.79	29.02	62.57
WLx1>	G.D-G.3	-83.06	-144.41	0.91	7.85	60.74
WLx1>	G.E-G.3	-5.97	252.33	1.17	13.32	80.58
WLx1>	G.A-G.4	-69.72	-85.62	-5.68	-103.99	52.14
WLx1>	G.B-G.4	-4.42	163.03	-4.57	-85.41	47.45
WLx1>	G.C-G.4	-3.70	28.24	-3.57	-56.50	46.95
WLx1>	G.D-G.4	-63.46	-135.94	-0.18	-8.85	46.07
WLx1>	G.E-G.4	-5.09	177.13	-4.72	-80.32	62.21

WLx1<Wind X pressure Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLx1<	G.A-G.1	4.11	86.08	1.82	21.61	-34.72
WLx1<	G.B-G.1	44.74	-51.58	1.86	20.63	-38.07
WLx1<	G.C-G.1	3.86	21.85	3.47	45.04	-39.47
WLx1<	G.D-G.1	4.72	88.58	4.40	63.12	-41.50
WLx1<	G.E-G.1	53.79	20.14	9.90	137.11	-69.66
WLx1<	G.A-G.2	5.25	161.35	-1.55	-28.34	-54.43
WLx1<	G.B-G.2	74.10	-88.35	-1.79	-33.14	-60.01
WLx1<	G.C-G.2	5.24	47.12	-2.47	-43.04	-62.24
WLx1<	G.D-G.2	6.22	172.02	-2.09	-33.34	-65.67
WLx1<	G.E-G.2	89.41	46.10	-5.06	-84.14	-112.69
WLx1<	G.A-G.3	5.31	180.60	0.27	-0.31	-57.95
WLx1<	G.B-G.3	81.38	-111.56	0.24	-1.46	-63.83
WLx1<	G.C-G.3	5.30	47.33	1.11	12.09	-65.82
WLx1<	G.D-G.3	6.24	191.77	1.77	26.14	-68.86
WLx1<	G.E-G.3	96.64	18.60	2.97	39.84	-117.89
WLx1<	G.A-G.4	4.24	125.21	-2.09	-37.87	-41.96
WLx1<	G.B-G.4	59.82	-92.33	-2.28	-41.29	-45.86
WLx1<	G.C-G.4	3.99	29.20	-4.22	-72.86	-46.94
WLx1<	G.D-G.4	4.80	108.64	-0.04	-2.09	-48.44
WLx1<	G.E-G.4	69.61	-18.48	-9.74	-163.01	-81.58

WLz1>Wind Z pressure Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLz1>	G.A-G.1	-12.08	30.90	-28.71	-662.41	10.32
WLz1>	G.B-G.1	-0.14	73.65	-28.96	-664.26	6.38
WLz1>	G.C-G.1	0.11	39.81	-24.12	-594.93	3.76
WLz1>	G.D-G.1	0.48	-0.34	-30.07	-706.43	-0.18
WLz1>	G.E-G.1	1.58	150.28	-39.05	-1027.81	-9.68
WLz1>	G.A-G.2	-1.79	129.06	-44.34	-891.76	3.88
WLz1>	G.B-G.2	0.54	140.15	-43.14	-872.09	-1.38
WLz1>	G.C-G.2	0.92	114.19	-40.01	-828.55	-5.67
WLz1>	G.D-G.2	1.50	72.84	-47.57	-963.48	-12.19
WLz1>	G.E-G.2	6.47	290.07	-68.71	-1461.55	-32.54
WLz1>	G.A-G.3	-6.75	17.89	-37.22	-781.32	5.43
WLz1>	G.B-G.3	-0.04	46.62	-36.52	-769.46	3.39
WLz1>	G.C-G.3	0.08	26.35	-32.49	-712.30	2.08
WLz1>	G.D-G.3	0.25	12.06	-38.38	-821.05	0.10
WLz1>	G.E-G.3	0.77	94.59	-56.77	-1275.80	-4.46
WLz1>	G.A-G.4	0.20	31.96	-35.51	-747.78	-2.40
WLz1>	G.B-G.4	2.02	22.47	-33.39	-717.96	-2.98
WLz1>	G.C-G.4	0.28	30.73	-30.94	-686.13	-3.47
WLz1>	G.D-G.4	0.35	4.44	-18.07	-491.90	-4.24
WLz1>	G.E-G.4	5.24	53.17	-52.74	-1200.23	-8.15

WLz1<Wind Z pressure Load						
Load Case	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MZ [k-ft]
WLz1<	G.A-G.1	0.16	30.00	38.53	788.25	-1.61
WLz1<	G.B-G.1	0.62	26.89	37.65	774.04	-2.32
WLz1<	G.C-G.1	0.28	24.83	34.22	723.83	-2.93
WLz1<	G.D-G.1	0.36	25.15	40.11	826.77	-3.89
WLz1<	G.E-G.1	3.65	51.81	55.46	1226.75	-8.10
WLz1<	G.A-G.2	-4.13	25.00	37.36	768.62	3.67
WLz1<	G.B-G.2	0.07	43.36	36.73	758.04	1.62
WLz1<	G.C-G.2	0.20	25.61	32.56	697.20	0.13
WLz1<	G.D-G.2	0.40	7.57	39.18	810.67	-2.11
WLz1<	G.E-G.2	1.04	92.29	56.19	1232.49	-8.20
WLz1<	G.A-G.3	-0.15	124.22	39.30	798.05	2.37
WLz1<	G.B-G.3	0.57	131.17	38.23	780.49	-2.28
WLz1<	G.C-G.3	0.90	113.79	35.52	742.72	-6.13
WLz1<	G.D-G.3	1.41	63.08	40.94	837.23	-12.00
WLz1<	G.E-G.3	7.45	277.25	60.31	1294.73	-30.65
WLz1<	G.A-G.4	-12.63	20.67	25.68	574.60	9.79
WLz1<	G.B-G.4	-0.13	77.00	24.46	559.31	6.60
WLz1<	G.C-G.4	0.05	55.31	18.38	467.93	4.63
WLz1<	G.D-G.4	-1.21	-38.17	17.38	458.62	1.67
WLz1<	G.E-G.4	1.07	163.70	30.88	814.31	-4.47