				DES-C2 A	rc Flash F	Repor	t (Minim	um Uti	ility Fa	ult C	urrent	t)					
	\A/		Ave Ferrit							Bus Arc	Trip	Opening	A T:	Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration		Bus Bolted Fault (kA)	Fault	Time	Time	Arc Time (sec)	Boundary	Distance	Energy	Comments
	Cusc		Dus RV	Device Hame	Device Function	1,750	comigaration	cup (IIIII)	r date (10 t)	(kA)	(sec)	(sec)	(300)	(inches)	(inches)	(cal/cm2)	
Bus: C2GM		A	0.200	[Manual Time]		Other	VCD	22	1 200	0.472	0	0	1 2	25.6	10	2.1	
C2GM C2GM	X	Army parallel Army Source	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	1.290 1.288	0.473 0.473	0	0	2	25.6 25.6	18 18	2.1 2.1	
C2GM		Base Case	0.208	[Manual Time]		Other	VCB	32	1.288	0.473	0	0	2	25.6	18	2.1	
C2GM		Emergency	0.208	[Manual Time]		Other	VCB	32	1.190	0.434	0	0	2	24.2	18	1.9	
C2GM C2GM		Madigan parallel Madigan Source	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	1.290 1.287	0.473 0.472	0	0	2	25.6 25.6	18 18	2.1 2.1	
Bus: C4GM		inadidan Source	0.200	manual miner		Outer	VCD	J2	1.20/	0.7/2				23.0	10	<u> </u>	
C4GM	X	Army parallel	0.48	C4GM		Other	VCB	32	2.362	1.638	0.1	0	0.1	8.6	18	0.4	
C4GM		Army Source Base Case	0.48 0.48	C4GM		Other	VCB	32 32	2.352	1.630	0.1	0	0.1	8.6	18	0.4	
C4GM C4GM		Emergency	0.48	C4GM C4GM		Other Other	VCB VCB	32	2.351 1.708	1.630 1.165	0.1	0	0.1	8.6 6.9	18 18	0.4 0.3	
C4GM		Madigan parallel	0.48	C4GM		Other	VCB	32	2.362	1.638	0.1	0	0.1	8.6	18	0.4	
C4GM		Madigan Source	0.48	C4GM		Other	VCB	32	2.348	1.628	0.1	0	0.1	8.5	18	0.4	
Bus: C4GN C4GN	y	Army parallel	0.48	C4GN		Other	VCB	32	2.699	1.884	0.1	0	0.1	9,4	18	0.4	
C4GN		Army Source	0.48	C4GN C4GN		Other	VCB VCB	32	2.684	1.874	0.1	0	0.1	9.4	18	0.4	
C4GN	•	Base Case	0.48	C4GN		Other	VCB	32	2.683	1.873	0.1	0	0.1	9.4	18	0.4	
C4GN		Emergency Madigan parallel	0.48	C4GN		Other	VCB VCB	32 32	1.877	1.287	0.1	0	0.1	7.3	18	0.3	
C4GN C4GN		Madigan parallel Madigan Source	0.48 0.48	C4GN C4GN		Other Other	VCB VCB	32 32	2.698 2.679	1.884 1.870	0.1	0	0.1	9.4 9.4	18 18	0.4 0.4	
Bus: C4GO		in ladiadin Source		CIGIT		ouic.	700	, <u>, , , , , , , , , , , , , , , , , , </u>	2.075	1.070	U.1		, U.I	2.1		V. 1	
C4GO		Army parallel	0.48	C4GO		Other	VCB	32	5.635	3.581	0.017	0	0.017	4.8	18	0.1	
C4GO C4GO		Army Source Base Case	0.48 0.48	C4GO C4GO		Other Other	VCB VCB	32 32	5.558 5.551	3.530 3.526	0.018 0.018	0	0.018 0.018	4.9 4.9	18 18	0.1	
C4GO	Х	Emergency	0.48	C4GO		Other	VCB VCB	32	2.956	2.073	0.018	0	0.018	10	18	0.5	
C4GO		Madigan parallel	0.48	C4G0		Other	VCB	32	5.629	3.578	0.017	0	0.017	4.8	18	0.1	
C4GO		Madigan Source	0.48	C4G0		Other	VCB	32	5.529	3.510	0.018	0	0.018	4.9	18	0.2	
Bus: C41J C41J		Army parallel	0.48	C41.J		Other	VCB	32	8.091	5.968	0.013	0	0.013	5.6	18	0.2	
C41J		Army Source	0.48	C41J		Other	VCB	32	7.935	5.847	0.013	0	0.013	5.5	18	0.2	
C41J		Base Case	0.48	C41J		Other	VCB	32	7.901	5.821	0.013	0	0.013	5.5	18	0.2	
C41J C41J	X	Emergency Madigan parallel	0.48 0.48	C41J C41J		Other Other	VCB VCB	32 32	3.564 8.077	2.524 5.957	0.1 0.013	0	0.1 0.013	11.4 5.6	18 18	0.6 0.2	
C41J		Madigan Source	0.48	C41J		Other	VCB	32	7.875	5.801	0.013	0	0.013	5.5	18	0.2	
Bus: C41K		T	1											1	1 -		
C41K C41K	X	Army parallel Army Source	0.48 0.48	C41K C41K		Other Other	VCB VCB	32 32	1.788 1.783	1.223 1.219	0.1 0.1	0	0.1 0.1	7.1 7.1	18 18	0.3 0.3	
C41K		Base Case	0.48	C41K		Other	VCB VCB	32	1.783	1.219	0.1	0	0.1	7.1	18	0.3	
C41K		Emergency	0.48	C41K		Other	VCB	32	1.388	0.938	0.1	0	0.1	5.9	18	0.2	
C41K		Madigan parallel	0.48	C41K		Other	VCB	32	1.788	1.223	0.1	0	0.1	7.1	18	0.3	
C41K Bus: C42K		Madigan Source	0.48	C41K		Other	VCB	32	1.782	1.218	0.1	0	0.1	7.1	18	0.3	
C42K		Army parallel	0.48	1-2 F-TS-CC2		Other	VCB	32	5.349	3.391	0.051	0	0.051	9.1	18	0.4	
C42K		Army Source	0.48	1-2 F-TS-CC2		Other	VCB	32	5.282	3.346	0.051	0	0.051	9.1	18	0.4	
C42K C42K	У	Base Case Emergency	0.48 0.48	1-2 F-TS-CC2 C42K		Other Other	VCB VCB	32 32	5.276 2.873	3.342 2.012	0.051 0.1	0	0.051 0.1	9.1 9.8	18 18	0.4 0.5	
C42K		Madigan parallel	0.48	1-2 F-TS-CC2		Other	VCB VCB	32	5.345	3.388	0.051	0	0.051	9.0	18	0.3	
C42K		Madigan Source	0.48	1-2 F-TS-CC2		Other	VCB	32	5.256	3.329	0.051	0	0.051	9.1	18	0.4	
Bus: C42M C42M	v	Army parallol	0.48	C42M		Other	VCP	32	4.079	2.550	0.1	0	0.1	11.6	18	0.6	
C42M C42M	^	Army parallel Army Source	0.48	C42M C42M		Other	VCB VCB	32 32	4.079	2.550	0.1	0	0.1	11.5	18	0.6	
C42M		Base Case	0.48	C42M		Other	VCB	32	4.040	2.525	0.1	0	0.1	11.5	18	0.6	
C42M		Emergency	0.48	C42M		Other	VCB	32	2.456	1.706	0.1	0	0.1	8.8	18	0.4	
C42M C42M		Madigan parallel Madigan Source	0.48 0.48	C42M C42M		Other Other	VCB VCB	32 32	4.077 4.031	2.548 2.518	0.1 0.1	0	0.1	11.6 11.5	18 18	0.6 0.6	
Bus: C42N		II-ladidali Jource	U.TU	CTZIII		- Julei I	VCD	. JC	7.031	2.510	0.1	- 0	· U.1	11.3	1 10	0.0	
C42N	X	Army parallel	0.48	C42N		Other	VCB	32	2.193	1.515	0.1	0	0.1	8.2	18	0.3	
C42N C42N		Army Source	0.48 0.48	C42N		Other	VCB VCB	32	2.185 2.184	1.509	0.1	0	0.1	8.1	18 18	0.3 0.3	
C42N C42N		Base Case Emergency	0.48	C42N C42N		Other Other	VCB VCB	32 32	2.184 1.618	1.508 1.101	0.1 0.1	0	0.1 0.1	8.1 6.6	18 18	0.3	
C42N		Madigan parallel	0.48	C42N		Other	VCB	32	2.193	1.515	0.1	0	0.1	8.2	18	0.3	
C42N		Madigan Source	0.48	C42N		Other	VCB	32	2.182	1.507	0.1	0	0.1	8.1	18	0.3	
Bus: DES C2-2																	

				DES-C2 A	rc Flash I	Repor	t (Minim	um Uti	lity Fa	ult Cı	ırren	t)					
										Bus Arc	Trip	Opening		Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip	Upstream Trip	Equip	Electrode	Electrode	Bus Bolted Fault (kA)	Fault	Time	Time	Arc Time	Boundary	Distance	Energy	Comments
	Case		Dus Kv	Device Name	Device Function	Туре	Configuration	Gap (mm)	rault (KA)	(kA)	(sec)	(sec)	(sec)	(inches)	(inches)	(cal/cm2)	
DES C2-2	Х	Army parallel	0.48	DES-C2 MAIN 2		Other	VCB	32	13.829	10.370	0.5	0	0.5	80.1	18	13	
DES C2-2		Army Source	0.48	DES-C2 MAIN 2		Other	VCB	32	13.269	9.944	0.5	0	0.5	77.9	18	12.5	
DES C2-2 DES C2-2		Base Case	0.48	DES-C2 MAIN 2 DES-C2 MAIN 2		Other Other	VCB VCB	32 32	12.935 12.935	9.689 9.689	0.5 0.5	0	0.5 0.5	76.6 76	18 18	12.1 12	
DES C2-2 DES C2-2		Emergency Madigan parallel	0.48	DES-C2 MAIN 2 DES-C2 MAIN 2		Other	VCB VCB	32	13.721	10.287	0.5	0	0.5	79.7	18	12.9	
DES C2-2		Madigan Source	0.48	DES-C2 MAIN 2		Other	VCB	32	12.935	9.689	0.5	0	0.5	76.6	18	12.2	
Bus: DES-C2-1																	
DES-C2-1	X	Army parallel	0.48	DES-C2 MAIN 1		Other	VCB	32	14.080	10.559	0.5	0	0.5	80.6	18	13.2	
DES-C2-1 DES-C2-1		Army Source Base Case	0.48 0.48	DES-C2 MAIN 1 DES-C2 MAIN 1		Other Other	VCB VCB	32 32	13.499 13.499	10.119 10.119	0.5 0.5	0	0.5 0.5	78.3 78.2	18 18	12.6 12.5	
DES-C2-1		Emergency	0.48	DES-C2 MAIN 1		Other	VCB	32	13.499	10.119	0.5	0	0.5	78.2	18	12.5	
DES-C2-1		Madigan parallel	0.48	DES-C2 MAIN 1		Other	VCB	32	13.967	10.474	0.5	0	0.5	80.2	18	13.1	
DES-C2-1		Madigan Source	0.48	DES-C2 MAIN 1		Other	VCB	32	13.153	9.856	0.5	0	0.5	77	18	12.2	
Bus: DES-C2T1 PRI	~	Army parallol	12.0	CENI DI IC CD 2	E1/E0/E0 IEEE	Othor	VCP	152	10 101	0.426	0.016	0.002	0.000	25.6	10	2 E	
DES-C2T1 PRI	X	Army parallel	13.8	GEN BUS CB-3	51/50/50 IEEE	Other	VCB	152	10.191	9.426	0.016	0.083	0.099	35.6	18	3.5	
DES-C2T1 PRI		Army Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	5.160	4.783	0.016	0.083	0.099	23.7	18	1.8	
DES-C2T1 PRI		Base Case	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.939	4.578	0.016	0.083	0.099	22.9	18	1.8	
DES-C2T1 PRI		Emergency Madigan parallol	13.8	PF3-2 Φ	51/50	Other	VCB VCB	152	4.929	4.569	0.016	0.083	0.099	22.8	18	1.7	
DES-C2T1 PRI		Madigan parallel	13.8	GEN BUS CB-4	51/50/50 IEEE	Other	VCB	152	9.244	8.555	0.016	0.083	0.099	33.6	18	3.2	
DES-C2T1 PRI Bus: DES-C2T1 SW1		Madigan Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.169	3.863	0.016	0.083	0.099	20.9	18	1.5	
DES-C2T1 SW1	X	Army parallel	13.8	GEN BUS CB-3	51/50/50 IEEE	Other	VCB	152	10.191	9.426	0.016	0.083	0.099	35.6	18	3.5	
DES-C2T1 SW1		Army Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	5.160	4.783	0.016	0.083	0.099	23.7	18	1.8	
DES-C2T1 SW1		Base Case	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.939	4.579	0.016	0.083	0.099	22.9	18	1.8	
DES-C2T1 SW1 DES-C2T1 SW1		Emergency Madigan parallel	13.8 13.8	PF3-2 Φ GEN BUS CB-4	51/50 51/50/50 IEEE	Other Other	VCB VCB	152 152	4.929 9.244	4.569 8.555	0.016 0.016	0.083	0.099 0.099	22.8 33.6	18 18	1.7 3.2	
DES-C2T1 SW1		Madigan Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.169	3.863	0.016	0.083	0.099	20.9	18	1.5	
Bus: DES-C2T2 PRI		II-ladidali Source	13.0	11324	51/50	Other	VCD	132	1.105	J.005 I	0.010	0.005	0.055	20.5	10	1.3	
DES-C2T2 PRI	X	Army parallel	13.8	PSG-2 TIE Φ	51/50	Other	VCB	152	4.773	4.424	0.145	0.083	0.228	54.9	18	6.9	
DES-C2T2 PRI		Army Source	13.8	PSG-2 TIE Φ	51/50	Other	VCB	152	4.773	4.424	0.198	0.083	0.282	44.7	18	5 4.5	
DES-C2T2 PRI DES-C2T2 PRI		Base Case Emergency	13.8 13.8	PSG-2 MAIN 4 Φ PSG-2 MAIN 4 Φ	51/50 51/50	Other Other	VCB VCB	152 152	3.766 3.766	3.488 3.488	0.244 0.245	0.083	0.327	42 41.9	18 18	4.5	
DES-C2T2 PRI		Madigan parallel	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3,488	0.239	0.083	0.322	51.7	18	6.3	
DES-C2T2 PRI		Madigan Source	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.238	0.083	0.321	42.2	18	4.6	
Bus: DES-C2T2 SW1	•		120	DOC 2 TIE +	E4 /E0	Out) (CD	452	4 772	4 42 4	0.445	0.000	0.220	F4.0	10	6.0	
DES-C2T2 SW1 DES-C2T2 SW1	X	Army parallel Army Source	13.8 13.8	PSG-2 TIE Φ PSG-2 TIE Φ	51/50 51/50	Other Other	VCB VCB	152 152	4.773 4.773	4.424 4.424	0.145 0.198	0.083	0.228	54.9 44.7	18 18	6.9 5	
DES-C2T2 SW1		Base Case	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB VCB	152	3.766	3.488	0.198	0.083	0.282	42	18	4.5	
DES-C2T2 SW1		Emergency	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.245	0.083	0.328	41.9	18	4.5	
DES-C2T2 SW1		Madigan parallel	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.239	0.083	0.322	51.7	18	6.3	
DES-C2T2 SW1 Bus: E4GM		Madigan Source	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.238	0.083	0.321	42.2	18	4.6	
E4GM		Army parallel	0.48	E4GM		Other	VCB	32	2.984	2.094	0.1	0	0.1	10.1	18	0.5	
E4GM		Army Source	0.48	E4GM		Other	VCB	32	2.968	2.082	0.1	0	0.1	10.1	18	0.5	
E4GM		Base Case	0.48	E4GM		Other	VCB	32	2.961	2.077	0.1	0	0.1	10	18	0.5	
E4GM E4GM	X	Emergency Madigan parallol	0.48 0.48	E4GM E4GM		Other	VCB VCB	32 32	3.096 2.983	2.176 2.093	0.1	0	0.1	10.3 10.1	18 18	0.5 0.5	
E4GM E4GM		Madigan parallel Madigan Source	0.48	E4GM E4GM		Other Other	VCB VCB	32	2.963	2.093	0.1	0	0.1	10.1	18 18	0.5	
Bus: E4GN																	
E4GN		Army parallel	0.48	E4GN	·	Other	VCB	32	2.050	1.412	0.1	0	0.1	7.8	18	0.3	
E4GN		Army Source	0.48	E4GN		Other	VCB VCB	32	2.043	1.407 1.404	0.1	0	0.1	7.8 7.8	18 18	0.3 0.3	
E4GN E4GN	¥	Base Case Emergency	0.48 0.48	E4GN E4GN		Other Other	VCB VCB	32 32	2.040 2.096	1.404	0.1	0	0.1	7.8	18	0.3	
E4GN		Madigan parallel	0.48	E4GN		Other	VCB	32	2.050	1.411	0.1	0	0.1	7.8	18	0.3	
E4GN		Madigan Source	0.48	E4GN		Other	VCB	32	2.041	1.405	0.1	0	0.1	7.8	18	0.3	
Bus: E4GO		[A	0.40	F4C2		OH!	1/65	22	0.505	6.256	0.013		0.012	F ^	10	0.2	
E4GO E4GO		Army parallel Army Source	0.48 0.48	E4GO E4GO		Other Other	VCB VCB	32 32	8.595 8.464	6.356 6.255	0.013	0	0.013	5.9 5.8	18 18	0.2	
E4GO		Base Case	0.48	E4GO		Other	VCB VCB	32	8.383	6.192	0.013	0	0.013	5.8	18	0.2	
E4GO	Х	Emergency	0.48	E4GO		Other	VCB	32	9.968	7.413	0.013	0	0.013	6.5	18	0.2	
				· · · · · · · · · · · · · · · · · · ·													

				DES-C2 A	rc Flash I	Repor	t (Minim	um Uti	lity Fa	ault C	urrent	:)					
	\A/ayat		Ave Foult	Unatusana Tuin	Hastroom Trin	Fauin	Floatworks	Flootwoodo	Due Belted	Bus Arc	Trip	Opening	Aug Times	Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Fault	Time	Time	Arc Time (sec)	Boundary	Distance	Energy	Comments
E4GO		Madigan parallel	0.48	E4GO		Other	VCB	32	8.584	(kA) 6.347	(sec) 0.013	(sec)	0.013	(inches)	(inches)	(cal/cm2) 0.2	
E4GO E4GO		Madigan Source	0.48	E4GO		Other	VCB VCB	32	8.414	6.216	0.013	0	0.013	5.8	18	0.2	
Bus: E41J		I	1 0 40	E443		l ou) (CD	22	C 455	4 404	0.044		1 0 04 4	4.0	10	0.4	
E41J E41J		Army parallel Army Source	0.48 0.48	<u>E41J</u> E41J		Other Other	VCB VCB	32 32	6.155 6.095	4.481 4.436	0.014 0.014	0	0.014 0.014	4.8 4.8	18 18	0.1	
E41J		Base Case	0.48	E41J		Other	VCB	32	6.060	4.409	0.014	0	0.014	4.8	18	0.1	
E41J E41J	X	Emergency Madigan parallel	0.48 0.48	<u>E41J</u> E41J		Other Other	VCB VCB	32 32	6.692 6.150	4.893 4.478	0.013 0.014	0	0.013 0.014	<u>5</u> 4.8	18 18	0.2 0.1	
E41J		Madigan Source	0.48	E41J		Other	VCB	32	6.074	4.419	0.014	0	0.014	4.8	18	0.1	
Bus: E41K E41K		Aumor manallal	0.48	E41K		Other	VCB	32	2.050	1.412	0.1	0	0.1	7.8	18	0.3	
E41K		Army parallel Army Source	0.48	E41K		Other	VCB VCB	32	2.030	1.412	0.1	0	0.1	7.8 7.8	18	0.3	
E41K		Base Case	0.48	E41K		Other	VCB	32	2.040	1.404	0.1	0	0.1	7.8	18	0.3	
E41K E41K	X	Emergency Madigan parallel	0.48 0.48	<u>E41K</u> E41K		Other Other	VCB VCB	32 32	2.096 2.050	1.445 1.411	0.1 0.1	0	0.1	7.9 7.8	18 18	0.3	
E41K		Madigan Source	0.48	E41K		Other	VCB	32	2.041	1.405	0.1	0	0.1	7.8	18	0.3	
Bus: E42K E42K	v	Army parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	5.106	3,229	0.052	0	0.052	9	18	0.4	
E42K E42K		Army Source	0.48	2-4 F-TS-EC2 2-4 F-TS-EC2		Other	VCB VCB	32	5.049	3.191	0.052	0	0.052	9	18	0.4	
E42K		Base Case	0.48	2-4 F-TS-EC2		Other	VCB	32	5.021	3.173	0.052	0	0.052	8.9	18	0.4	
E42K E42K		Emergency Madigan parallel	0.48 0.48	E42K 2-4 F-TS-EC2		Other Other	VCB VCB	32 32	5.541 5.102	3.519 3.227	0.018 0.052	0	0.018 0.052	4.9 9	18 18	0.2 0.4	
E42K		Madigan Source	0.48	2-4 F-TS-EC2		Other	VCB	32	5.028	3.177	0.052	0	0.052	8.9	18	0.4	
Bus: E42M E42M	Y	Army parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	5.106	3,229	0.052	0	0.052	9	18	0.4	
E42M	^	Army Source	0.48	2-4 F-TS-EC2		Other	VCB	32	5.049	3.191	0.052	0	0.052	9	18	0.4	
E42M		Base Case	0.48 0.48	2-4 F-TS-EC2 E42M		Other	VCB	32 32	5.021 5.541	3.173 3.519	0.052 0.018	0	0.052 0.018	8.9 4.9	18 18	0.4 0.2	
E42M E42M		Emergency Madigan parallel	0.48	2-4 F-TS-EC2		Other Other	VCB VCB	32	5.102	3.227	0.018	0	0.018	4.9 9	18	0.4	
E42M		Madigan Source	0.48	2-4 F-TS-EC2		Other	VCB	32	5.028	3.177	0.052	0	0.052	8.9	18	0.4	
Bus: E42N E42N		Army parallel	0.48	E42N		Other	VCB	32	2.050	1.412	0.1	0	0.1	7.8	18	0.3	
E42N		Army Source	0.48	E42N		Other	VCB	32	2.043	1.407	0.1	0	0.1	7.8	18	0.3	
E42N E42N	· ·	Base Case Emergency	0.48 0.48	<u>E42N</u> E42N		Other Other	VCB VCB	32 32	2.040 2.096	1.404 1.445	0.1 0.1	0	0.1	7.8 7.9	18 18	0.3 0.3	
E42N	^	Madigan parallel	0.48	E42N		Other	VCB	32	2.050	1.411	0.1	0	0.1	7.8	18	0.3	
E42N		Madigan Source	0.48	E42N		Other	VCB	32	2.041	1.405	0.1	0	0.1	7.8	18	0.3	
Bus: L2GM L2GM	X	Army parallel	0.208	L4GM		Other	VCB	32	3.247	1.284	0.1	0	0.1	7.6	18	0,3	
L2GM		Army Source	0.208	L4GM		Other	VCB	32	3.232	1.277	0.1	0	0.1	7.5	18	0.3	
L2GM L2GM		Base Case Emergency	0.208 0.208	L4GM L4GM		Other Other	VCB VCB	32 32	3.231 3.231	1.277 1.277	0.1 0.1	0	0.1 0.1	7.5 7.5	18 18	0.3	
L2GM		Madigan parallel	0.208	L4GM		Other	VCB	32	3.246	1.283	0.1	0	0.1	7.6	18	0.3	
L2GM Bus: L2GN		Madigan Source	0.208	L4GM		Other	VCB	32	3.226	1.275	0.1	0	0.1	7.5	18	0.3	
L2GN	Х	Army parallel	0.208	L4GN		Other	VCB	32	3.276	1.296	0.1	0	0.1	7.6	18	0.3	
L2GN		Army Source	0.208	L4GN		Other	VCB	32 32	3.262	1.290 1.289	0.1	0	0.1	7.6	18	0.3 0.3	
L2GN L2GN		Base Case Emergency	0.208 0.208	L4GN L4GN		Other Other	VCB VCB	32 32	3.260 3.260	1.289	0.1 0.1	0	0.1	7.6 7.6	18 18	0.3	
L2GN	_	Madigan parallel	0.208	L4GN		Other	VCB	32	3.275	1.296	0.1	0	0.1	7.6	18	0.3	
L2GN Bus: L4GM		Madigan Source	0.208	L4GN		Other	VCB	32	3.255	1.287	0.1	0	0.1	7.6	18	0.3	
L4GM		Army parallel	0.48	L4GM		Other	VCB	32	7.343	4.727	0.028	0	0.028	7.9	18	0.3	
L4GM L4GM		Army Source Base Case	0.48 0.48	L4GM L4GM		Other Other	VCB VCB	32 32	7.172 7.157	4.612 4.602	0.03	0	0.03	8 8.1	18 18	0.3	
L4GM L4GM		Emergency	0.48	L4GM L4GM		Other	VCB VCB	32	7.157	4.602	0.03	0	0.03	8.1	18	0.3	
L4GM		Madigan parallel	0.48	L4GM		Other	VCB	32	7.326	4.716	0.028	0	0.028	7.9	18	0.3	
L4GM Bus: L4GN	X	Madigan Source	0.48	L4GM		Other	VCB	32	7.097	4.562	0.1	0	0.1	17	18	1.1	
L4GN		Army parallel	0.48	L4GN		Other	VCB	32	7.701	4.969	0.025	0	0.025	7.5	18	0.3	
L4GN L4GN		Army Source Base Case	0.48 0.48	L4GN L4GN		Other Other	VCB VCB	32 32	7.512 7.496	4.842 4.831	0.026 0.026	0	0.026 0.026	7.7 7.7	18 18	0.3 0.3	
L4GN L4GN		Emergency	0.48	L4GN L4GN		Other	VCB VCB	32	7.496 7.495	4.831	0.026	0	0.026	7.7	18	0.3	
L4GN		Madigan parallel	0.48	L4GN		Other	VCB	32	7.682	4.956	0.025	0	0.025	7.5	18	0.3	

				DES-C2 A	rc Flash I	Repor	t (Minim	um Uti	ility Fa	ult C	urren	t)					
	\A/		A 5				<u>.</u>			Bus Arc	Trip	Opening	Aug Times	Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Fault (kA)	Time (sec)	Time (sec)	Arc Time (sec)	Boundary (inches)	Distance (inches)	Energy (cal/cm2)	Comments
L4GN	X	Madigan Source	0.48	L4GN		Other	VCB	32	7.430	4.786	0.027	0	0.027	7.8	18	0.3	
Bus: L4GO		11 10 41 441 1 55 41 55												,			
L4GO	X	Army parallel	0.48	L4G0		Other	VCB	32	11.675	8.726	0.014	0	0.014	7.4	18	0.3	
L4GO L4GO		Army Source Base Case	0.48 0.48	L4GO L4GO		Other Other	VCB VCB	32 32	11.309 11.226	8.446 8.382	0.014 0.014	0	0.014 0.014	7.3 7.3	18 18	0.3	
L4GO L4GO		Emergency	0.48	L4GO L4GO		Other	VCB VCB	32	11.226	8.358	0.014	0	0.014	7.3	18	0.3	
L4G0		Madigan parallel	0.48	L4G0		Other	VCB	32	11.636	8.697	0.014	0	0.014	7.4	18	0.3	
L4GO		Madigan Source	0.48	L4G0		Other	VCB	32	11.160	8.331	0.014	0	0.014	7.3	18	0.3	
Bus: L21K		I				0.1	1.00			1 251					- 10	2.2	
L21K L21K	X	Army parallel Army Source	0.208 0.208	<u>L41K</u> L41K		Other Other	VCB VCB	32 32	3.172 3.158	1.251 1.246	0.1	0	0.1	7.4 7.4	18 18	0.3	
L21K L21K		Base Case	0.208	L41K		Other	VCB VCB	32	3.151	1.242	0.1	0	0.1	7.4	18	0.3	
L21K		Emergency	0.208	L41K		Other	VCB	32	3.143	1.239	0.1	0	0.1	7.4	18	0.3	
L21K		Madigan parallel	0.208	L41K		Other	VCB	32	3.170	1.251	0.1	0	0.1	7.4	18	0.3	
L21K		Madigan Source	0.208	L41K		Other	VCB	32	3.152	1.243	0.1	0	0.1	7.4	18	0.3	
Bus: L41J L41J	Y	Army parallel	0.48	L413		Other	VCB	32	11.460	8.562	0.014	0	0.014	7.4	18	0.3	
L41J	^_	Army Source	0.48	L41J		Other	VCB	32	11.108	8.291	0.014	0	0.014	7.3	18	0.3	
L41J		Base Case	0.48	L41J	_	Other	VCB	32	11.027	8.229	0.014	0	0.014	7.2	18	0.3	
L41J		Emergency	0.48	L41J		Other	VCB	32	10.998	8.207	0.014	0	0.014	7.2	18	0.3	
L41J L41J		Madigan parallel Madigan Source	0.48 0.48	<u>L41J</u> L41J		Other Other	VCB VCB	32 32	11.423 10.963	8.533 8.180	0.014 0.014	0	0.014 0.014	7.3 7.2	18 18	0.3	
Bus: L41K		iriauluali Source	0.40	L41J		Oulei	νСВ	32	10.903	0.100	0.014		0.014	1.2	10	0.3	
L41K		Army parallel	0.48	L41K		Other	VCB	32	6.531	4.181	0.1	0	0.1	16.1	18	1	
L41K		Army Source	0.48	L41K		Other	VCB	32	6.400	4.094	0.1	0	0.1	15.9	18	1	
L41K		Base Case	0.48	L41K		Other	VCB	32	6.327	4.045	0.1	0	0.1	15.8	18	1	
L41K L41K	X	Emergency Madigan parallel	0.48 0.48	<u>L41K</u> L41K		Other Other	VCB VCB	32 32	6.258 6.518	4.561 4.173	0.1	0	0.1	16.8 16.1	18 18	1.1	
L41K		Madigan Source	0.48	L41K		Other	VCB	32	6.343	4.055	0.1	0	0.1	15.8	18	1	
Bus: L42K																	
L42K	X	Army parallel	0.48	L42K		Other	VCB	32	10.328	7.691	0.013	0	0.013	6.6	18	0.2	
L42K L42K		Army Source Base Case	0.48 0.48	<u>L42K</u> L42K		Other Other	VCB VCB	32 32	10.112 9.971	7.525 7.416	0.013	0	0.013	6.5 6.5	18 18	0.2	
L42K L42K		Emergency	0.48	L42K		Other	VCB VCB	32	9.971	6.707	0.013	0	0.013	6.1	18	0.2	
L42K		Madigan parallel	0.48	L42K		Other	VCB	32	10.306	7.674	0.013	0	0.013	6.6	18	0.2	
L42K		Madigan Source	0.48	L42K		Other	VCB	32	10.024	7.457	0.013	0	0.013	6.5	18	0.2	
Bus: L42M	v	A	0.40	L 42M		Other	VCD	22	11 270	0.422	0.014	0	0.014	7.0	10	0.2	
L42M L42M	X	Army parallel Army Source	0.48 0.48	<u>L42M</u> L42M		Other Other	VCB VCB	32 32	11.278 11.013	8.422 8.218	0.014 0.014	0	0.014 0.014	7.3 7.2	18 18	0.3	
L42M		Base Case	0.48	L42M		Other	VCB	32	10.838	8.083	0.014	0	0.014	7.2	18	0.3	-
L42M		Emergency	0.48	L42M		Other	VCB	32	9.706	7.212	0.015	0	0.015	6.9	18	0.3	
L42M		Madigan parallel	0.48	L42M		Other	VCB	32	11.250	8.400	0.014	0	0.014	7.3	18	0.3	
L42M Bus: L42N		Madigan Source	0.48	L42M		Other	VCB	32	10.904	8.134	0.014	0	0.014	7.2	18	0.3	
L42N	Х	Army parallel	0.48	L42N		Other	VCB	32	6.539	4.775	0.013	0	0.013	4.9	18	0,2	
L42N		Army Source	0.48	L42N		Other	VCB	32	6.451	4.708	0.013	0	0.013	4.9	18	0.1	
L42N		Base Case	0.48	L42N		Other	VCB	32	6.393	4.663	0.013	0	0.013	4.9	18	0.1	
L42N		Emergency Madigan parallol	0.48 0.48	<u>L42N</u>		Other	VCB VCB	32 32	5.998	4.362	0.014	0	0.014	4.7	18	0.1	
L42N L42N		Madigan parallel Madigan Source	0.48	<u>L42N</u> L42N		Other Other	VCB VCB	32 32	6.530 6.415	4.768 4.680	0.013	0	0.013	4.9 4.9	18 18	0.2	
Bus: MBP		TI TOWN CO.	. 5.10	5 (61)		Culci	100	. JL			0.013					U.1	
MBP	X	Army parallel	0.208	[Manual Time]		Other	VCB	32	8.902	3.836	0	0	2	101.3	18	19	
MBP		Army Source	0.208	[Manual Time]		Other	VCB	32	8.798	3.788	0	0	2	100.5	18	18.7	
MBP MBP		Base Case Emergency	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	8.798 8.409	3.788 3.608	0	0	2	100.4 97.4	18 18	18.7 17.8	
MBP		Madigan parallel	0.208	[Manual Time]		Other	VCB VCB	32	8.882	3.827	0	0	2	101.1	18	18.9	
MBP		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.734	3.758	Ö	Ö	2	99.9	18	18.6	
Bus: S-CC2		1								1							
S-CC2		Army Course	0.48	1-2 F-TS-CC2		Other	VCB VCB	32	9.953	7.402	0.05	0	0.05	15	18	0.9	
S-CC2 S-CC2		Army Source Base Case	0.48 0.48	1-2 F-TS-CC2 1-2 F-TS-CC2		Other Other	VCB VCB	32 32	9.653 9.627	7.171 7.151	0.05 0.05	0	0.05	14.7 14.7	18 18	0.9	
S-CC2	Х	Emergency	0.48	S-CC (TS-CC2)		Other	VCB	32	3.928	2.795	0.03	0	0.03	18.9	18	1.3	
S-CC2		Madigan parallel	0.48	1-2 F-TS-CC2		Other	VCB	32	9.925	7.381	0.05	0	0.05	15	18	0.9	
S-CC2		Madigan Source	0.48	1-2 F-TS-CC2		Other	VCB	32	9.525	7.073	0.05	0	0.05	14.6	18	0.9	

				DES-C2 A	rc Flash R	Repor	t (Minim	um Uti	lity Fa	ult C	urrent	t)					
	Worst		Arc Fault	Upstream Trip	Upstream Trip	Equip	Electrode	Electrode	Bus Bolted	Bus Arc	Trip	Opening	Arc Time	Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Case	Scenario	Bus kV	Device Name	Device Function	Type	Configuration	Gap (mm)	Fault (kA)	Fault	Time	Time	(sec)	Boundary	Distance	Energy	Comments
Bus: S-EC2									` '	(kA)	(sec)	(sec)	` '	(inches)	(inches)	(cal/cm2)	
S-EC2	Y	Army parallel	0.48	2-4 F-TS-EC2	Ι	Other	VCB	32	10.182	7.579	0.05	0	0.05	15.5	18	0.9	
S-EC2		Army Source	0.48	2-4 F-TS-EC2		Other	VCB	32	9.884	7.349	0.05	0	0.05	15.2	18	0.9	
S-EC2		Base Case	0.48	2-4 F-TS-EC2		Other	VCB	32	9.724	7.226	0.05	0	0.05	15.1	18	0.9	
S-EC2		Emergency	0.48	S-EC2		Other	VCB	32	13.774	10.328	0.013	0	0.013	8.1	18	0.3	
S-EC2		Madigan parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	10.155	7.558	0.05	0	0.05	15.5	18	0.9	
S-EC2		Madigan Source	0.48	2-4 F-TS-EC2		Other	VCB	32	9.758	7.252	0.05	0	0.05	15.1	18	0.9	
Bus: S-N1C2																	
S-N1C2		Army parallel	0.48	1-4 F-S-N1C2		Other	VCB	32	13.047	9.775	0.051	0	0.051	18.4	18	1.2	
S-N1C2		Army Source	0.48	1-4 F-S-N1C2		Other	VCB	32	12.504	8.207	0.061	0	0.061	18.3	18	1.2	
S-N1C2		Base Case	0.48	1-4 F-S-N1C2		Other	VCB	32	12.457	8.175	0.061	0	0.061	18.4	18	1.2	
S-N1C2		Emergency	0.48	1-4 F-S-N1C2		Other	VCB	32	12.455	8.174	0.061	0	0.061	18.4	18	1.2	
S-N1C2	v	Madigan parallel	0.48	1-4 F-S-N1C2		Other	VCB VCB	32 32	12.989 12.260	9.731	0.051	0	0.051	18.4	18 18	1.2 1.3	
S-N1C2 Bus: S-N2C2		Madigan Source	0.48	1-4 F-S-N1C2		Other	VCB	. 32	12.200	8.044	0.064	U	0.064	18.7	1 10	1.3	
S-N2C2	Y	Army parallel	0.48	2-2 F-S-N2C2		Other	VCB	32	12,405	9.285	0.05	0	0.05	17.9	18	1.2	
S-N2C2	^	Army Source	0.48	2-2 F-S-N2C2		Other	VCB VCB	32	11.931	8.922	0.05	0	0.05	17.5	18	1.1	
S-N2C2		Base Case	0.48	2-2 F-S-N2C2		Other	VCB	32	11.663	8.717	0.05	0	0.05	17.2	18	1.1	
S-N2C2		Emergency	0.48	2-2 F-S-N2C2		Other	VCB	32	11.424	8.534	0.05	0	0.05	16.5	18	1	
S-N2C2		Madigan parallel	0.48	2-2 F-S-N2C2		Other	VCB	32	12.355	9.247	0.05	0	0.05	17.8	18	1.2	
S-N2C2		Madigan Source	0.48	2-2 F-S-N2C2		Other	VCB	32	11.718	8.759	0.05	0	0.05	17.3	18	1.1	
Bus: S-01C2																	
S-01C2	X	Army parallel	0.48	1-3 F-TS-01C2		Other	VCB	32	12.146	9.087	0.05	0	0.05	17.2	18	1.1	
S-01C2		Army Source	0.48	1-3 F-TS-01C2		Other	VCB	32	11.674	8.725	0.05	0	0.05	16.8	18	1.1	
S-01C2		Base Case	0.48	1-3 F-TS-01C2		Other	VCB	32	11.633	8.694	0.05	0	0.05	16.7	18	1.1	
S-01C2		Emergency	0.48	S-01C (TS-01C2)		Other	VCB	32	11.495	8.588	0.013	0	0.013	7.2	18	0.3	
S-01C2 S-01C2		Madigan parallel	0.48	1-3 F-TS-01C2		Other	VCB VCB	32 32	12.096 11.462	9.049	0.05	0	0.05 0.05	17.2	18 18	1.1	
S-01C2 Bus: S-02C2		Madigan Source	0.48	1-3 F-TS-01C2		Other	VCB	32	11.402	8.563	0.05		0.05	16.6	1 18	1.1	
S-02C2	Y	Army parallel	0.48	2-3 F-TS-02C2		Other	VCB	32	13.015	9.751	0.33	0	0.33	59.6	18	8.1	
S-02C2		Army Source	0.48	2-3 F-TS-02C2		Other	VCB	32	12.517	9.371	0.33	0	0.33	58	18	7.8	
S-02C2		Base Case	0.48	2-3 F-TS-02C2		Other	VCB	32	12.220	9.144	0.33	0	0.33	57.1	18	7.6	
S-02C2		Emergency	0.48	S-02C2		Other	VCB	32	11.724	8.764	0.073	0	0.073	22.5	18	1.7	
S-02C2		Madigan parallel	0.48	2-3 F-TS-02C2		Other	VCB	32	12.920	9.678	0.33	0	0.33	59.4	18	8.1	
S-02C2		Madigan Source	0.48	2-3 F-TS-02C2		Other	VCB	32	12.220	9.144	0.33	0	0.33	57.2	18	7.6	
Bus: SCC																	
SCC	X	Army parallel	0.48	SCC		Other	VCB	32	4.753	3.416	0.33	0	0.33	29.4	18	2.6	
SCC		Army Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SCC		Base Case	0.48	[Manual Time]		Other	VCB	0	0.000	0.000	0.22		0	0	18	0	
SCC		Emergency Madigan parallal	0.48 0.48	SCC SCC		Other Other	VCB VCB	32 32	4.726 4.745	3.395	0.33	0	0.33	29.4 29.4	18 18	2.6 2.6	
SCC SCC		Madigan parallel Madigan Source	0.48	[Manual Time]		Other	VCB VCB	0 0	0.000	3.410 0.000	0.33		0.33	29.4	18	0	
Bus: SEC		inadidan Soulce	U.40	manual Hillel		Outel	VCD		0.000	0.000			U	· · ·	1 10	U I	
SEC	X	Army parallel	0.48	SEC		Other	VCB	32	16.236	12.177	0.065	0	0.065	24.7	18	2	
SEC		Army Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000	5.505	<u> </u>	0.003	0	18	0	
SEC		Base Case	0.48	[Manual Time]		Other	VCB	Ö	0.000	0.000			Ö	Ö	18	Ö	
SEC		Emergency	0.48	SEC	_	Other	VCB	32	15.788	11.844	0.065	0	0.065	24.3	18	1.9	
SEC		Madigan parallel	0.48	SEC		Other	VCB	32	16.170	12.128	0.065	0	0.065	24.6	18	2	
SEC		Madigan Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
Bus: SO1C		I			-												
SO1C		Army parallel	0.48	SO1C		Other	VCB	32	12.332	9.229	0.065	0	0.065	20.5	18	1.5	
SO1C		Army Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SO1C	v	Base Case	0.48	[Manual Time]		Other	VCB VCB	22	0.000	0.000	0.12	0	0 12	20	18	2.6	
SO1C SO1C	X	Emergency Madigan parallel	0.48 0.48	SO1C SO1C		Other Other	VCB VCB	32 32	12.017 12.285	7.880 9.193	0.13 0.065	0	0.13 0.065	29 20.5	18 18	2.6 1.5	
SOIC SOIC		Madigan barailei Madigan Source	0.48	[Manual Time]		Other	VCB VCB	0	0.000	0.000	0.005	U	0.065	0	18	0	
Bus: SO2C		madican Source	1 0.70	manual HIIICI		OUICI	VCD		0.000	0.000			U .	. ,	10		
SO2C		Army parallel	0.48	SO2C		Other	VCB	32	12.332	8.092	0.13	0	0.13	29.2	18	2.6	
SO2C		Army Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000	5.15	<u> </u>	0.13	0	18	0	
SO2C		Base Case	0.48	[Manual Time]		Other	VCB	Ö	0.000	0.000			Ö	Ö	18	Ö	
SO2C	X	Emergency	0.48	SO2C		Other	VCB	32	12.403	8.140	0.13	0	0.13	30.3	18	2.8	
SO2C		Madigan parallel	0.48	SO2C		Other	VCB	32	12.285	8.060	0.13	0	0.13	29.2	18	2.6	
SO2C		Madigan Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
Bus: TS-CC2																	

				DES-C2 A	rc Flash I	Repor	t (Minim	um Uti	lity Fa	ult Cu	urren	t)					
	Mount		Ave Fault	Hastwanna Tuin	Unatroppa Trip	Faurin	Floatwords	Flootwoodo	Due Delted	Bus Arc	Trip	Opening	Aug Times	Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Fault	Time	Time	Arc Time (sec)	Boundary	Distance	Energy	Comments
						- ' '				(kA)	(sec)	(sec)		(inches)	(inches)	(cal/cm2)	
TS-CC2 TS-CC2		Army parallel Army Source	0.48 0.48	1-2 F-TS-CC2 1-2 F-TS-CC2		ATS ATS	VCB VCB	32 32	10.695 10.348	7.974 7.706	0.05	0	0.05	15.8 15.5	18 18	0.9	
TS-CC2		Base Case	0.48	1-2 F-TS-CC2		ATS	VCB VCB	32	10.348	7.683	0.05	0	0.05	15.4	18	0.9	
TS-CC2	Х	Emergency	0.48	S-CC (TS-CC2)		ATS	VCB	32	4.038	2.878	0.2	Ö	0.2	19.3	18	1.3	
TS-CC2		Madigan parallel	0.48	1-2 F-TS-CC2		ATS	VCB	32	10.663	7.949	0.05	0	0.05	15.8	18	1	
TS-CC2		Madigan Source	0.48	1-2 F-TS-CC2		ATS	VCB	32	10.201	7.593	0.05	0	0.05	15.3	18	0.9	
Bus: TS-EC2 TS-EC2		Army parallel	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.717	7.991	0.05	0	0.05	16.1	18	1	
TS-EC2		Army Source	0.48	2-4 F-TS-EC2 2-4 F-TS-EC2		ATS	VCB VCB	32	10.717	7.733	0.05	0	0.05	15.8	18	1	
TS-EC2		Base Case	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.201	7.593	0.05	Ö	0.05	15.6	18	1	
TS-EC2		Emergency	0.48	S-EC2		ATS	VCB	32	14.969	11.230	0.013	0	0.013	8.5	18	0.4	
TS-EC2		Madigan parallel	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.686	7.967	0.05	0	0.05	16.1	18	1	
TS-EC2		Madigan Source	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.240	7.623	0.05	0	0.05	15.7	18	1 1	
Bus: TS-O1C2 TS-O1C2	Y	Army parallel	0.48	1-3 F-TS-01C2		ATS	VCB	32	12.496	9.355	0.05	0	0.05	17.6	18	1.2	
TS-01C2	_^	Army Source	0.48	1-3 F-TS-01C2		ATS	VCB	32	11.997	8.973	0.05	0	0.05	17.1	18	1.1	
TS-01C2		Base Case	0.48	1-3 F-TS-01C2		ATS	VCB	32	11.954	8.940	0.05	0	0.05	17.1	18	1.1	
TS-01C2		Emergency	0.48	S-01C (TS-01C2)	·-	ATS	VCB	32	11.828	8.844	0.013	0	0.013	7.3	18	0.3	
TS-01C2		Madigan parallel	0.48	1-3 F-TS-01C2		ATS	VCB VCB	32	12.443	9.314	0.05	0	0.05	17.5	18	1.1	
TS-O1C2 Bus: TS-O2C2		Madigan Source	0.48	1-3 F-TS-01C2		ATS	VCB	32	11.773	8.801	0.05	0	0.05	16.9	18	1.1	
TS-02C2	X	Army parallel	0.48	2-3 F-TS-02C2		ATS	VCB	32	13.145	9.850	0.33	0	0.33	60	18	8.2	
TS-02C2		Army Source	0.48	2-3 F-TS-O2C2		ATS	VCB	32	12.637	9.462	0.33	Ö	0.33	58.4	18	7.9	
TS-02C2		Base Case	0.48	2-3 F-TS-02C2		ATS	VCB	32	12.334	9.231	0.33	0	0.33	57.4	18	7.7	
TS-02C2		Emergency	0.48	S-02C2		ATS	VCB	32	11.832	8.847	0.073	0	0.073	22.6	18	1.7	
TS-02C2 TS-02C2		Madigan parallel Madigan Source	0.48 0.48	2-3 F-TS-02C2 2-3 F-TS-02C2		ATS ATS	VCB VCB	32 32	13.047 12.334	9.775 9.231	0.33	0	0.33	59.7 57.5	18 18	8.2 7.7	
Bus: TX-O16S PRI		IMadidan Source	0.48	2-3 F-13-02C2		AIS	VCB	32	12.334	9.231	0.33	Į U	0.33	3/.3	18	/./	
TX-O16S PRI	Х	Army parallel	0.48	F-O12GS		Other	VCB	32	11.952	8.939	0.014	0	0.014	7.5	18	0.3	
TX-O16S PRI		Army Source	0.48	F-012GS		Other	VCB	32	11.566	8.642	0.014	0	0.014	7.4	18	0.3	
TX-O16S PRI		Base Case	0.48	F-012GS		Other	VCB	32	11.476	8.574	0.014	0	0.014	7.4	18	0.3	
TX-O16S PRI TX-O16S PRI		Emergency Madigan parallel	0.48 0.48	S-O1C (TS-O1C2) F-O12GS		Other Other	VCB VCB	32 32	11.290 11.909	8.431 8.906	0.013 0.014	0	0.013 0.014	7.2 7.5	18 18	0.3 0.3	
TX-O16S PRI		Madigan Source	0.48	F-012GS F-012GS		Other	VCB VCB	32	11.403	8.518	0.014	0	0.014	7.4	18	0.3	
Bus: UPS INPUT		II-ladidan Source	1 0.10	1 01205		Ouici	VCD		11.105	0.510	0.011		0.011	/	10	0.5	
UPS INPUT PANEL	X	Army parallel	0.208	[Manual Time]		Other	VCB	32	8.997	3.880	0	0	2	102.1	18	19.2	
UPS INPUT PANEL		Army Source	0.208	[Manual Time]		Other	VCB	32	8.891	3.831	0	0	2	101.2	18	18.9	
UPS INPUT PANEL		Base Case	0.208	[Manual Time]		Other	VCB	32	8.891	3.831	0	0	2	101.2	18	18.9	
UPS INPUT PANEL UPS INPUT PANEL		Emergency Madigan parallel	0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	8.496 8.977	3.648 3.871	0	0	2	98.1 101.9	18 18	18 19.2	
UPS INPUT PANEL		Madigan Source	0.208	[Manual Time]		Other	VCB VCB	32	8.825	3.801	0	0	2	101.9	18	18.8	
Bus: UPS MOD 1																	
UPS MOD 1	X	Army parallel	0.208	[Manual Time]		Other	VCB	32	8.844	3.809	0	0	2	100.8	18	18.8	
UPS MOD 1		Army Source	0.208	[Manual Time]		Other	VCB VCB	32 32	8.741	3.762	0	0	2	100 100	18	18.6	
UPS MOD 1 UPS MOD 1		Base Case Emergency	0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32	8.741 8.354	3.762 3.583	0	0	2	96.9	18 18	18.6 17.7	
UPS MOD 1		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.825	3.800	0	0	2	100.7	18	18.8	
UPS MOD 1		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.678	3.732	0	Ö	2	99.5	18	18.4	
Bus: UPS MOD 2		I		I										1			
UPS MOD 2	Х	Army parallel	0.208	[Manual Time]		Other	VCB VCB	32	8.844	3.809	0	0	2	100.8	18	18.8	
UPS MOD 2 UPS MOD 2		Army Source Base Case	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	8.741 8.741	3.762 3.762	0	0	2	100 100	18 18	18.6 18.6	
UPS MOD 2 UPS MOD 2		Emergency	0.208	[Manual Time]		Other	VCB VCB	32	8.354	3.583	0	0	2	96.9	18	17.7	
UPS MOD 2		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.825	3.800	0	0	2	100.7	18	18.8	
UPS MOD 2		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.678	3.732	0	0	2	99.5	18	18.4	
Bus: UPS MOD 3		la u	1 0 200	504 LT: 3		- Out) (CD	22	0.044	2.000				100.0	10	40.0	
UPS MOD 3	X	Army parallel	0.208	[Manual Time]		Other	VCB VCB	32 32	8.844 8.741	3.809 3.762	0	0	2	100.8 100	18 18	18.8 18.6	
UPS MOD 3 UPS MOD 3		Army Source Base Case	0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32	8.741 8.741	3.762	0	0	2	100	18	18.6	
UPS MOD 3		Emergency	0.208	[Manual Time]		Other	VCB	32	8.354	3.583	0	0	2	96.9	18	17.7	
UPS MOD 3		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.825	3.800	0	0	2	100.7	18	18.8	
UPS MOD 3		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.678	3.732	00	0	2	99.5	18	18.4	
Bus: UPS OUT		Aum un un un lloi	0.200	[Manual Times]		OH	VCD	32	1.000	0.750			2	J 25 4	10	3 F I	
UPS OUT		Army parallel	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0		35.1	18	3.5	

				DES-C2 A	Arc Flash I	Repor	t (Minim	um Uti	lity Fa	ault C	urren	t)					
	\\/t		A 5	Harton on Tria	Harden Tria	Farria	Flooding	Ele etue de	D Dalkard	Bus Arc	Trip	Opening	Aug Times	Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Fault	Time	Time	Arc Time (sec)	Boundary	Distance	Energy	Comments
	Case		Dus KV	Device Name	Device i diredon	Турс	Configuration	Gap (IIIII)	Tault (KA)	(kA)	(sec)	(sec)	(300)	(inches)	(inches)	(cal/cm2)	
UPS OUT		Army Source	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
UPS OUT	X	Base Case	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
UPS OUT UPS OUT		Emergency Madigan parallel	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	1.996 1.996	0.758 0.758	0	0	2	35.1 35.1	18 18	3.5 3.5	
UPS OUT		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
Bus: UPS OUT PUT		1 100 100 100					, , , ,		113.70								
UPS OUT PUT PANEL	X	Army parallel	0.208	[Manual Time]		Other	VCB	32	8.808	3.793	0	0	2	100.5	18	18.7	
UPS OUT PUT PANEL		Army Source	0.208	[Manual Time]		Other	VCB	32	8.707	3.746	0	0	2	99.7	18	18.5	
UPS OUT PUT PANEL UPS OUT PUT PANEL		Base Case Emergency	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	8.707 8.323	3.746 3.569	0	0	2	99.7 96.7	18 18	18.5 17.6	-
UPS OUT PUT PANEL		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.789	3.784	0	0	2	100.4	18	18.7	
UPS OUT PUT PANEL		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.644	3.717	0	Ö	2	99.2	18	18.4	
Bus: UPS-MOD 1 OUT			1 1		Ī							1	1	T		1	
UPS-MOD 1 OUT		Army parallel	0.208	[Manual Time]		Other	VCB VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT UPS-MOD 1 OUT	Y	Army Source Base Case	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	1.994 1.994	0.757 0.757	0	0	2	35.1 35.1	18 18	3.5 3.5	
UPS-MOD 1 OUT	^_	Emergency	0.208	[Manual Time]		Other	VCB VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
Bus: UPS-MOD 3 OUT		Aum rapuallal	0.200	[Manual Times]		OH	\/CD	22	1.004	0.757		_	-	25.4	10	2 - 1	
UPS-MOD 3 OUT UPS-MOD 3 OUT		Army parallel Army Source	0.208 0.208	[Manual Time] [Manual Time]		Other Other	VCB VCB	32 32	1.994 1.994	0.757 0.757	0	0	2	35.1 35.1	18 18	3.5 3.5	
UPS-MOD 3 OUT	X	Base Case	0.208	[Manual Time]		Other	VCB VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 3 OUT		Emergency	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	Ö	2	35.1	18	3.5	
UPS-MOD 3 OUT		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 3 OUT		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
Bus: UPS-MOD2 OUT UPS-MOD2 OUT		Army parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT		Army Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT	Х	Base Case	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	Ö	2	35.1	18	3.5	
UPS-MOD2 OUT		Emergency	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT		Madigan parallel	0.208	[Manual Time]		Other	VCB	32 32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT MCC: MCC O2C4		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0		35.1	18	3.5	
MCC O2C4		Army parallel	0.48	MCC O2C4		MCC	VCB	25	12.551	9.655	0.013	0	0.013	7.3	18	0.3	
MCC O2C4		Army Source	0.48	MCC O2C4		MCC	VCB	25	12.235	9.407	0.013	0	0.013	7.2	18	0.3	
MCC O2C4		Base Case	0.48	MCC O2C4		MCC	VCB	25	12.025	9.242	0.013	0	0.013	7.1	18	0.3	
MCC 02C4	X	Emergency Madigan parallal	0.48 0.48	MCC 02C4		MCC MCC	VCB VCB	25	12.574 12.517	9.673	0.013	0	0.013	7.3	18 18	0.3	
MCC O2C4 MCC O2C4		Madigan parallel Madigan Source	0.48	MCC O2C4 MCC O2C4		MCC	VCB VCB	25 25	12.517	9.629 9.304	0.013	0	0.013	7.3 7.2	18	0.3	-
MCC: MCC O2C5		iriaalaan Soarce	. 0.10 .	MCC OZCT		I PICC	VCD	ب دے	12.101	1 3.301	1 0.013		0.013	/.~	10	0.5	
MCC O2C5	X	Army parallel	0.48	MCC O2C5		MCC	VCB	25	8.990	6.842	0.073	0	0.073	17.7	18	1.2	
MCC O2C5		Army Source	0.48	MCC O2C5		MCC	VCB	25	8.746	6.649	0.073	0	0.073	17.4	18	1.1	
MCC O2C5 MCC O2C5		Base Case	0.48 0.48	MCC 02C5 MCC 02C5		MCC MCC	VCB VCB	25 25	8.608	6.540	0.073 0.073	0	0.073	17.2	18	1.1 1.1	
MCC 02C5 MCC 02C5		Emergency Madigan parallel	0.48	MCC 02C5 MCC 02C5		MCC	VCB VCB	25 25	8.076 8.966	6.118 6.823	0.073	0	0.073	16.8 17.6	18 18	1.1	
MCC 02C5		Madigan Source	0.48	MCC 02C5		MCC	VCB VCB	25	8.637	6.563	0.073	0	0.073	17.0	18	1.1	
Panel: C2GM2											_	1					
C2GM2	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	1.223	0.466	0	0	2	18.6	18	1.3	
C2GM2 C2GM2		Army Source	0.208 0.208	[Manual Time]		Panel	VCB VCB	25 25	1.221 1.221	0.465 0.465	0	0	2	18.6	18 18	1.3 1.3	
C2GM2 C2GM2		Base Case Emergency	0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	1.131	0.465	0	0	2	18.6 17.6	18 18	1.3	
C2GM2		Madigan parallel	0.208	[Manual Time]		Panel	VCB VCB	25	1.222	0.466	0	0	2	18.6	18	1.3	
C2GM2		Madigan Source	0.208	[Manual Time]		Panel		25		0.465	0	0	2	18.6	18	1.3	
Panel: C2GN			1		1												
C2GN	X	Army parallel	0.208	[Manual Time]		Panel	VCB VCB	25	0.705	0.258	0	0	2	12.6	18	0.7	
C2GN C2GN		Army Source Base Case	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.705 0.705	0.258 0.258	0	0	2	12.6 12.6	18 18	0.7 0.7	
C2GN C2GN		Emergency	0.208	[Manual Time]		Panel	VCB VCB	25	0.705	0.236	0	0	2	12.3	18	0.7	
C2GN		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.705	0.258	0	0	2	12.6	18	0.7	
C2GN		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.705	0.257	0	0	2	12.6	18	0.7	
Panel: C2GO		I	1 0 000	Fb4 1) (CD	2= 1	0.670	001		_		400	1 40	0 -	
C2GO C2GO	X	Army parallel	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.678 0.677	0.247	0	0	2	12.3 12.3	18 18	0.7 0.7	
CZGU		Army Source	U.2U8	rmanual rimel	I .	гапеі	VCB	25	/\d.U	0.24/	ı U	. 0		12.5	19	U./	

				DES-C2 A	rc Flash	Repor	t (Minim	um Uti	lity Fa	ault C	urren	t)					
	14/		A 5	Hastones Tria	Harton Tria	Fauta	Flooting	Ele etue de	D Dalta d	Bus Arc	Trip	Opening	A Ti	Est Arc Flash	Working	Incident	
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Fault	Time	Time	Arc Time	Boundary	Distance	Energy	Comments
	Case		Dus KV	Device Name	Device Function	Турс	Corniguration	Gap (IIIII)	radic (KA)	(kA)	(sec)	(sec)	(sec)	(inches)	(inches)	(cal/cm2)	
C2G0		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.677	0.247	0	0	2	12.3	18	0.7	
C2GO C2GO		Emergency Madigan parallel	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.650 0.678	0.236 0.247	0	0	2	11.9 12.3	18 18	0.6 0.7	
C2GO		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.677	0.247	0	0	2	12.3	18	0.7	
Panel: C21J										1							
C21J	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.752	0.276	0	0	2	13.2	18	0.7	
C21J C21J		Army Source Base Case	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.751 0.751	0.276 0.276	0	0	2	13.2 13.2	18 18	0.7 0.7	
C21J		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.719	0.263	0	Ö	2	12.8	18	0.7	
C21J		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.752	0.276	0	0	2	13.2	18	0.7	
C21J		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.751	0.276	0	0		13.2	18	0.7	
Panel: C21K C21K	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.624	0.226	0	0	2	11.6	18	0.6	
C21K		Army Source	0.208	[Manual Time]		Panel	VCB	25	0.623	0.226	0	Ö	2	11.6	18	0.6	
C21K		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.623	0.226	0	0	2	11.6	18	0.6	
C21K C21K		Emergency Madigan parallel	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.599 0.624	0.217 0.226	0	0	2	11.3 11.6	18 18	0.6 0.6	
C21K		Madigan Source	0.208	[Manual Time]		Panel	VCB VCB	25 25	0.623	0.226	0	0	2	11.6	18	0.6	
Panel: C22K																	
C22K	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.676	0.246	0	0	2	12.3	18	0.7	
C22K C22K		Army Source Base Case	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.676 0.676	0.246 0.246	0	0	2	12.3 12.3	18 18	0.6 0.6	
C22K		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.649	0.236	0	0	2	11.9	18	0.6	
C22K		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.676	0.246	0	0	2	12.3	18	0.6	
C22K		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.675	0.246	0	0	2	12.3	18	0.6	
Panel: C22M C22M	Y	Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	n	ο .	2	12.2	18	0.6	
C22M	^	Army Source	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	0	0	2	12.1	18	0.6	
C22M		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	0	0	2	12.1	18	0.6	
C22M		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.640	0.232	0	0	2	11.8	18	0.6	
C22M C22M		Madigan parallel Madigan Source	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.667 0.667	0.243 0.243	0	0	2	12.2 12.1	18 18	0.6 0.6	
Panel: C22N		Triadigan Source	1 0.200 1	THURIDAN TIMET		- runci	VCD		0.007	0,215	- V			12.1		0.0	
C22N	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.8	18	0.6	
C22N C22N		Army Source Base Case	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.636 0.636	0.231 0.231	0	0	2	11.7 11.7	18 18	0.6 0.6	
C22N		Emergency	0.208	[Manual Time]		Panel	VCB VCB	25	0.636	0.231	0	0	2	11.7	18	0.6	
C22N		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.7	18	0.6	
C22N		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.7	18	0.6	
Panel: E2GM E2GM		Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
E2GM		Army Source	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
E2GM		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
E2GM	X	Emergency Madigan parallal	0.208	[Manual Time]		Panel	VCB	25	0.659	0.240	0	0	2	12	18	0.6	
E2GM E2GM		Madigan parallel Madigan Source	0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.654 0.654	0.238	0	0	2	12 12	18 18	0.6 0.6	
Panel: E2GN		II Idaldali SoulCC	0.200			i dilci	VCD	رے	0.057	0.230	<u> </u>				10	0.0	
E2GN		Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.230	0	0	2	11.7	18	0.6	
E2GN		Army Source	0.208	[Manual Time]		Panel	VCB VCB	25	0.633	0.229	0	0	2	11.7 11.7	18	0.6	
E2GN E2GN	¥	Base Case Emergency	0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.633 0.637	0.229	0	0	2	11.7	18 18	0.6 0.6	
E2GN	^	Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.231	0	0	2	11.7	18	0.6	
E2GN		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
Panel: E2GO E2GO		Army parallol	0,208	[Manual Time]		Panel	VCP	25	0.687	0.251	0	0	2	12.4	18	0.7	
E2GO E2GO		Army parallel Army Source	0.208	[Manual Time] [Manual Time]		Panel	VCB VCB	25 25	0.686	0.251	0	0	2	12.4	18	0.7	
E2GO		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.686	0.250	0	0	2	12.4	18	0.7	
E2GO	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.692	0.253	0	0	2	12.5	18	0.7	
E2GO E2GO		Madigan parallel Madigan Source	0.208 0.208	[Manual Time] [Manual Time]		Panel Panel	VCB VCB	25 25	0.687 0.686	0.251 0.250	0	0	2	12.4 12.4	18 18	0.7 0.7	
Panel: E21J		in iduludii Soulce	1 0.200 1	iriailual IIIIIEI		rallel	VCD	- 23	0.000	0.230	U			12.7	10	U./	
E21J		Army parallel	0.208	[Manual Time]		Panel	VCB	25	0.679	0.248	0	0	2	12.3	18	0.7	
E21J		Army Source	0.208	[Manual Time]		Panel	VCB	25	0.679	0.247	0	0	2	12.3	18	0.7	
E21J		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.679	0.247	0	0	2	12.3	18	0.7	

Arc Fault Bus Name Worst Scenario Arc Fault Upstream Irip Upstream Irip Equip Electrode Electrode Bus Bolted Fault Time Arc Time Boundary	Working Incident
Arc Fault Bus Name Scenario Boundary	
Bus kV Device Name Device Function Type Configuration Gap (mm) Fault (kA) (kA) (sec) (sec) (inches)	Distance Energy Comments (inches) (cal/cm2)
E21J X Emergency 0.208 [Manual Time] Panel VCB 25 0.684 0.249 0 0 2 12.4	18 0.7
Color Colo	18 0.7
E213 Madigan Source 0.208 [Manual Time] Panel VCB 25 0.679 0.247 0 0 2 12.3	18 0.7
Panel: E21K	18 0.6
E21K Army Source 0.208 Manual Time Panel VCB 25 0.633 0.230 0 0 2 11.7	18 0.6
E21K Base Case 0.208 [Manual Time] Panel VCB 25 0.633 0.229 0 0 2 11.7	18 0.6
E21K	18 0.6
E21K Madigan parallel 0.208 [Manual Time] Panel VCB 25 0.633 0.230 0 0 2 11.7	18 0.6 18 0.6
Panel: E22K	18 0.6
E22K Army parallel 0.208 [Manual Time] Panel VCB 25 0.675 0.246 0 0 2 12.2	18 0.6
E22K	18 0.6
E22K Base Case 0.208 [Manual Time] Panel VCB 25 0.674 0.246 0 0 2 12.2	18 0.6 18 0.7
E22K X Emergency 0.208 [Manual Time] Panel VCB 25 0.680 0.248 0 0 2 12.3	18 0.6
E22K Madigan Source 0.208 [Manual Time] Panel VCB 25 0.674 0.246 0 0 2 12.2	18 0.6
Panel: E22M	
E22M	18 0.6 18 0.6
E22M	18 0.6 18 0.6
E22M X Emergency 0.208 [Manual Time] Panel VCB 25 0.680 0.248 0 0 2 12.3	18 0.7
E22M Madigan parallel 0.208 [Manual Time] Panel VCB 25 0.675 0.246 0 0 2 12.2	18 0.6
	18 0.6
Panel: E22N	18 0.6
E22N Army Source 0.208 [Manual Time] Panel VCB 25 0.633 0.229 0 0 2 11.7	18 0.6
E22N Base Case 0.208 [Manual Time] Panel VCB 25 0.633 0.229 0 0 2 11.7	18 0.6
E22N X Emergency 0.208 [Manual Time] Panel VCB 25 0.637 0.231 0 0 2 11.8	18 0.6
E22N Madigan parallel 0.208 [Manual Time] Panel VCB 25 0.633 0.230 0 0 2 11.7	18 0.6 18 0.6
Panel: L2GM1	18 0.0
L2GM1 X Army parallel 0.208 L4GM Panel VCB 25 3.036 1.248 0.1 0 0.1 5.5	18 0.2
L2GM1 Army Source 0.208 L4GM Panel VCB 25 3.023 1.242 0.1 0 0.1 5.4	18 0.2
L2GM1 Base Case 0.208	18 0.2 18 0.2
L2GM1 Madigan parallel 0.208 L4GM Panel VCB 25 3.024 1.247 0.1 0 0.1 5.5	18 0.2
L2GM1 Madigan Source 0.208 L4GM Panel VCB 25 3.018 1.240 0.1 0 0.1 5.4	18 0.2
Panel: L2GM2	10 100
L2GM2	18 0.2 18 0.2
L2GM2 Base Case 0.208 L4GM Panel VCB 25 3.022 1.242 0.1 0 0.1 5.4	18 0.2
L2GM2 Emergency 0.208 L4GM Panel VCB 25 3.022 1.242 0.1 0 0.1 5.4	18 0.2
L2GM2 Madigan parallel 0.208 L4GM Panel VCB 25 3.034 1.247 0.1 0 0.1 5.5	18 0.2
L2GM2	18 0.2
Fortic: LCG/N1 X Army parallel 0.208 L4GN Panel VCB 25 2.968 1,218 0.1 0 0.1 5.4	18 0.2
L2GN1 Army Source 0.208 L4GN Panel VCB 25 2.957 1.213 0.1 0 0.1 5.4	18 0.2
L2GN1 Base Case 0.208 L4GN Panel VCB 25 2.956 1.212 0.1 0 0.1 5.4	18 0.2
L2GN1 Emergency 0.208 L4GN Panel VCB 25 2.956 1.212 0.1 0 0.1 5.4	18 0.2 18 0.2
L2GN1 Madigan Source 0.208 L4GN Panel VCB 25 2.952 1.210 0.1 0 0.1 3.7 1.25N1 Madigan Source 0.208 L4GN Panel VCB 25 2.952 1.210 0.1 0 0.1 5.3	18 0.2
Panel: L2GO	
L2GO X Army parallel 0.208 [Manual Time] Panel VCB 25 2.395 0.831 0 0 2 27.5	18 2.4
L2GO Armv Source 0.208 [Manual Time] Panel VCB 25 2.388 0.828 0 0 2 27.4 L2GO Base Case 0.208 [Manual Time] Panel VCB 25 2.388 0.828 0 0 2 27.4	18 2.3 18 2.3
L2GO Base Case 0.208 [Manual Time] Panel VCB 25 2.388 0.828 0 0 2 27.4	18 2.3
L2GO Madigan parallel 0.208 Manual Timel Panel VCB 25 2.394 0.830 0 0 2 27.5	18 2.4
L2GO Madigan Source 0.208 [Manual Time] Panel VCB 25 2.384 0.827 0 0 2 27.4	18 2.3
Panel: L21K1	18 1.8
L21K1	18 1.8 18 1.8
L21K1 Base Case 0.208 L21K1 Panel VCB 25 2.631 0.920 1.363 0 1.363 23.1	18 1.8
L21K1 Emergency 0.208 L21K1 Panel VCB 25 2.631 0.920 1.363 0 1.363 23.1	18 1.8

				DES-C2 A	rc Flash F	Repor	t (Minim	um Uti	ility Fa	ult Cı	ırren	t)					
Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration		Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
L21K1		Madigan parallel	0.208	L21K1		Panel	VCB	25	2.643	0.924	1.352	0	1.352	23.1	18	1.8	
L21K1	Х	Madigan Source	0.208	L21K1		Panel	VCB	25	2.631	0.920	1.363	0	1.363	23.1	18	1.8	
Panel: L22K																	
L22K	X	Army parallel	0.208	L42K		Panel	VCB	25	2.350	0.944	0.1	0	0.1	4.5	18	0.1	
L22K		Army Source	0.208	L42K		Panel	VCB	25	2.342	0.941	0.1	0	0.1	4.5	18	0.1	
L22K		Base Case	0.208	L42K		Panel	VCB	25	2.338	0.940	0.1	0	0.1	4.5	18	0.1	
L22K		Emergency	0.208	L42K		Panel	VCB	25	2.335	0.938	0.1	0	0.1	4.5	18	0.1	
L22K		Madigan parallel	0.208	L42K		Panel	VCB	25	2.349	0.944	0.1	0	0.1	4.5	18	0.1	
L22K		Madigan Source	0.208	L42K		Panel	VCB	25	2.339	0.940	0.1	0	0.1	4.5	18	0.1	
Panel: L22M																	
L22M	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	1.385	0.533	0	0	2	20.3	18	1.5	
L22M		Army Source	0.208	[Manual Time]		Panel	VCB	25	1.382	0.532	0	0	2	20.3	18	1.5	
L22M		Base Case	0.208	[Manual Time]		Panel	VCB	25	1.381	0.531	0	0	2	20.3	18	1.5	
L22M		Emergency	0.208	[Manual Time]		Panel	VCB	25	1.381	0.531	0	0	2	20.3	18	1.5	
L22M		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	1.384	0.532	0	0	2	20.3	18	1.5	
L22M		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	1.381	0.531	0	0	2	20.3	18	1.5	
Panel: L22N																	
L22N	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	1.332	0.511	0	0	2	19.8	18	1.4	
L22N		Armv Source	0.208	[Manual Time]		Panel	VCB	25	1.330	0.510	0	0	2	19.8	18	1.4	
L22N		Base Case	0.208	[Manual Time]		Panel	VCB	25	1.329	0.510	0	0	2	19.8	18	1.4	
L22N		Emergency	0.208	[Manual Time]		Panel	VCB	25	1.329	0.510	0	0	2	19.7	18	1.4	
L22N		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	1.332	0.511	0	0	2	19.8	18	1.4	
L22N		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	1.329	0.510	0	0	2	19.8	18	1.4	
Panel: PNL-L21J			1 1						,				1	1			
PNL-L21J	X	Army parallel	0.208	[Manual Time]		Panel	VCB	25	2.391	0.829	0	0	2	27.4	18	2.4	
PNL-L21J		Army Source	0.208	[Manual Time]		Panel	VCB	25	2.384	0.827	0	0	2	27.4	18	2.3	
PNL-L21J		Base Case	0.208	[Manual Time]		Panel	VCB	25	2.384	0.827	0	0	2	27.4	18	2.3	
PNL-L21J		Emergency	0.208	[Manual Time]		Panel	VCB	25	2.384	0.827	0	0	2	27.4	18	2.3	
PNL-L21J		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	2.390	0.829	0	0	2	27.4	18	2.4	
PNL-L21J		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	2.380	0.825	0	0	2	27.3	18	2.3	