BOARD OF PUBLIC WORKS

Auburn, Nebraska

AUBURN
BPW

Board Packet

April 19th at 11:30 a.m.

BPW Board Room

1600 O Street

Chairman – Chuck Knipe
Vice Chairman – Rich Wilson
Secretary – Michael Zaruba
Acting Secretary – David Grant
Board Member – Phil Shaw

AGENDA FOR THE REGULAR MEETING OF THE
BOARD OF PUBLIC WORKS TO BE HELD APRIL 19, 2023, AT 11:30 AM
AT THE BPW BOARD ROOM, 1600 O STREET, AUBURN NE

1) **Roll Call.**

2) **Announce** - The Open Meetings Act is posted on the northeast wall of the Board Room.

3) **Recognition of Guests** - Anyone wishing to be heard by the Board regarding non-agenda items may speak at this time. We request that you limit your speaking time to ten minutes per meeting.

4) **Discussion / action PERSONNEL** – Requested by the Board Chairman.

5) **Discussion** – **JANE ANDREW –** Request to address the Board with comments on wellhead protection and clean water revolving fund.

6) **Discussion / action - 2022 AUDIT REPORT** – Presentation of 2022 audit report and request for approval from the Board.

7) **Discussion / action – UPDATED ARC FLASH REPORT –** The updated report is available for discussion and questions.

8) **Discussion / action – CATALYST RECERTIFICATION POWERPLANT** – Electric Manager Kevin Kuhlman will provide updates to recertification requirements and progress.

9) **Discussion / action – PERU WATER LINE** – Update on the line will be provided.

10) **Discussion / action – APPRAISAL – SEWER LINE LINING PROJECT EASEMENT**– Board approval is requested to authorize Great Plains permission to move forward with easement appraisal.

11) **Discussion / action – WASTEWATER DUMPSTER –** Approval to purchase a replacement dumpster for the Wastewater Treatment Plant due to safety concerns with current dumpster.

12) **Discussion / action – NOD 1218 N STEET** – Request Board approval to release NOD due to satisfied payment.

13) **Discussion / action - WWTP BLOWER MAINTENANCE –** Approval is requested to approve annual maintenance for blowers at the Wastewater Treatment Plant.

14) **Discussion / action - HYDRANT BACKFLOW AND METER** – Board approval is requested to purchase a hydrant meter with backflow preventor to be used to meter water purchases from hydrants.

15) **Discussion / action - QUADIENT POSTAL METER RENTAL AGREEMENT** - Approval is requested to renew the postal meter agreement which will be expiring in July 2023.

16) **Discussion / action - ROOF BIDS** – Update on RFPs for roof bids.

The Board of Public Works could go into closed session on any of the agenda items listed above in accordance with the Nebraska Open Meetings Act.

17) Discussion / action – FINANCIALS:

a. Investments: All things cash: reconciliations, pledging, CDs, allocations

18) Discussion / action – GENERAL CONSENT ITEMS:

a. Approve previous meeting's minutes and dispense with reading of same.
b. Approve monthly compensation of management and employees as previously fixed by the Board.
c. Approve listing of checks written during month, claims submitted for payment, and recommended transfers.
d. Approve Free Service Reports.

19) REPORTS:

a. Electric
b. Power plant
c. Water/Wastewater
d. Office

20) Adjourn to the next regular meeting of the Board to be held May 17, 2023, at 11:30 a.m. at the BPW Board Room.

PERSONNEL – Requested by the Board Chairman

JANE ANDREW – Request to address the Board with comments on wellhead protection and clean water revolving fund.

2022 AUDIT REPORT - Hamilton & Associates will be at the meeting to present their findings and give you the 2022 financial reports.

UPDATED ARC FLASH REPORT FROM OLSSON – We have included a copy of the updated Arc Flash Report. This report has been updated from 2018 and includes the changes with the new switchgear, power plant generation transformers and voltage changes.

CATALYST RECERTIFICATION POWER PLANT – Olsson reached out to let us know stack testing is due in April and September. The EPA requires a 60-day notification, and the State of Nebraska also requires notification. An extension is requested. Kevin will work with Olsson and NDEE to move this forward.

PERU WATER LINE – Peru's contractor needs to complete the crossing under the railroad tracks and highway crossing in Peru. Once the piping is done, they will use a temporary pump to start filling and flushing the pipe. The contractor has started on the pump station and anticipates completion in early fall.

APPRAISAL – SEWER LINE LINING PROJECT EASEMENT - Great Plains has provided an estimated cost quote for a property easement that is needed to complete the sewer line lining project. We request direction to determine if the Board members wish to move forward with this piece of the project.

WASTEWATER DUMPSTER - GM Hunter was in the process of trying to find a dumpster for the Wastewater plant. W/WW Manager Slater does not believe the current dumpster can be used safely anymore. W/WW Manager has found a company that makes one and will meet the specifications required for the wastewater plant. We are asking for permission to purchase a dumpster. A quote for $3,304.00 is included in the packet for your review.

NOD – 1218 N STREET – Notice of Delinquency is satisfied; approval is requested to file with the courthouse.

WWTP BLOWER MAINTENANCE – Gardner Denver has provided an annual maintenance quote for the Wastewater Treatment Plant blower. This is the annual preventative maintenance agreement (PMA) that has been done since the blowers were installed in 2009. Last year's cost for PMA was $7,520.00. This year the cost is quoted at $12,067.24. A copy of this proposal is attached in your packet.

HYDRANT BACKFLOW AND METER – W/WW Manager is requesting to purchase a hydrant meter with backflow preventor. This allows contractors to purchase temporary water with meter reads for billing and provide backflow protection. We currently have one and Peru has one. We are able to use theirs but have occasions when we need three and switch the meter out multiple times a day. A quote from Municipal Supply is included in the packet for $3,947.00. (Quote has math error and correct cost is $2,947.00)

QUADIENT POSTAL METER RENTAL AGREEMENT – The current postage meter will no longer be serviced. There will be no change in cost. We request approval to upgrade our equipment and enter into a new agreement.

ROOF BIDS – Update: We do not believe any bids were received on this as of the RFP date of 03/24/2023. Dave had reached out to White Castle. We can reach out again to request a quote and provide it once we have the information available.

REPORTS – Report items will not be reviewed during the meeting unless Board Members have questions.

ELECTRIC –Crews have finished installing the new transformer and metering for the service at the new Christian Church recreation building. A new urd primary service was installed at UPS, and a new line pole was set for the service going to the U.P.S. building. This work was the result of damage caused to the cables by the Peru water line contractor, and due to the age of existing structure and old non jacketed cable. We received our latest arc flash study from Olsson and are reviewing that. Crews are starting on the seasonal URD services to homes (OH to URD) as well as starting the pole changes that need addressed. We are working on getting things lined up for a new 1700' underground service to a new cellular tower on the west edge of Brownville. Once the contractor completes the grade work on the easement we can proceed. Three line department employees attended classes put on by N.M.P.P. in Lincoln; a lot of useful information was given that day.

POWER PLANT – The guys finished the cooler work on generator #4, and a test run was made. Several air regulating valves for the natural gas switchover system were repaired due to air leaks caused by age; and all went well. The fuel tank auto fill project is progressing with some new valving, float switches, and controls being installed. Olsson was down and made the necessary changes with the feeder relay settings based on the data from the arc flash study. HK Scholz will be coming down to install the door and smoke alarms for the new sub-station building; the punch list for this project is getting closer to being completed.

WATER/WASTEWATER – Capped two wells before the first of April at the Dale Bohling, and Kevin Wheeler properties. The water service at 608 14th was disconnected due to a leak. A curb stop box at 702 N street has been repaired. An air leak was repaired on the vacuum system for the 6th Street Lift Station. Demolition started on Well House #20. Dave Pieters will begin construction on May 1st. The Wastewater Treatment Plant chlorine system and analyzer upgrade is installed. We are still working to install metal flashing around the roof of the Reservoir. Concrete has been poured at Well House #11 for the step at the door, and for the sidewalk repair that was removed from the water leak at the wellness center. The Water Treatment Plant made some repairs to the air compressor automatic moisture relief that has been installed at Nemaha's well. Water Service line locates and curb stop locates are in process. Attended a meeting with the City of Peru on April 3rd to discuss making up a contract as to what Auburn will be doing for them after the water main project is completed. This contract will be brought before the Board for approval. W/WW Manager Slater has been looking into the chloramines system for Peru. There are concerns that using this type of disinfection will pose a taste and smell problem. Hach put together a quote to upgrade the turbidimeters at the Water Treatment Plant, we have five analyzers that have become obsolete, and we are unable to get parts for repairs. We do still have a few parts for now, but soon we will be looking at replacing them. ESI water put together a price to service four clay valves in our system. One at the Reservoir, one at the 17th street pressure zone pit and two at the Clearwell by the old Water Treatment Plant. The two at Clear Wells need to be replaced because of the environment they are in when the pits become flooded with ground water. These pressure sustaining valves need to be rebuilt every 5 years.

OFFICE – We have contacted Rich Michel with IBEW for 2024 Contract Negotiation. We included a summary of the 2022 NMPP Electric, Water & Wastewater Rate Survey. A couple of things to note on the Water/Wastewater side, not all communities have water or wastewater treatment plants, so this is not an apple-to-apple comparison.

Total Customers this Month	**2,735**	**Days of Month**
Total Customer Minutes this Month	122,090,400	**31**

Outage Totals

		This Month	This Month Last Year
Unscheduled Outages			
Long	# Outages	3	1
	# Customers Out	11	1
	# Minutes Out	502	45
	# Customer Minutes Out	798	45
	# Within City System	3	1
	# Supply to City Minutes	0	0
Short	# Outages (Blinks)	0	0
	# Customers Affected	0	-
	# Within City System	0	0
	# Supply to City Minutes	0	0
Scheduled Outages			
Long	# Outages	0	0
	# Customers Out	0	0
	# Minutes Out	0	0
	# Customer Minutes Out	0	0
	# Within City System	0	0
	# Supply to City Minutes	0	0
Short	# Outages (Blinks)	0	0
	# Customers Affected	0	0
	# Within City System	0	0
	# Supply to City Minutes	0	0
Totals			
Total Long Outages		3	1
Total Short Outages (Blinks)		0	0
Total Customers Out (Long)		11	1
Total Customers Affected (Short- Blinks)		0	-
Total Customer Minutes Out		798	45
Total Outages Within City System		3	1
Total Outages in Supply to City		0	0

Number of Outages (by Cause)

Cause #	Description	Total This Month	This Month Last Year	Rolling AT	% AT
0	Supply to City	0	0	0	0%
1	Overhead Equipment Failure	1	1	4	5%
2	Underground Equipment Failure	0	1	20	23%
3	Weather	0	0	3	3%
4	Birds, Animals, Snakes, etc.	1	0	18	21%
5	Trees	0	0	7	8%
6	Foreign Interference	0	0	0	0%
7	Human	1	0	4	5%
8	Other	0	0	28	33%
9	Unknown	0	0	2	2%
	Total	3	2	86	

12 Month Outage Statistics

Index	As of This Month	As of This Month Last Year
ASAI (%)	99.9981	99.9863
CAIDI (Long) (min)	89.65	89.12
SAIDI (Long) (min)	10.19	72.09
SAIFI (Long) (ints/tot cust)	0.11	0.81
SAIFI (Short) (ints/tot cust)	0.00	0.00

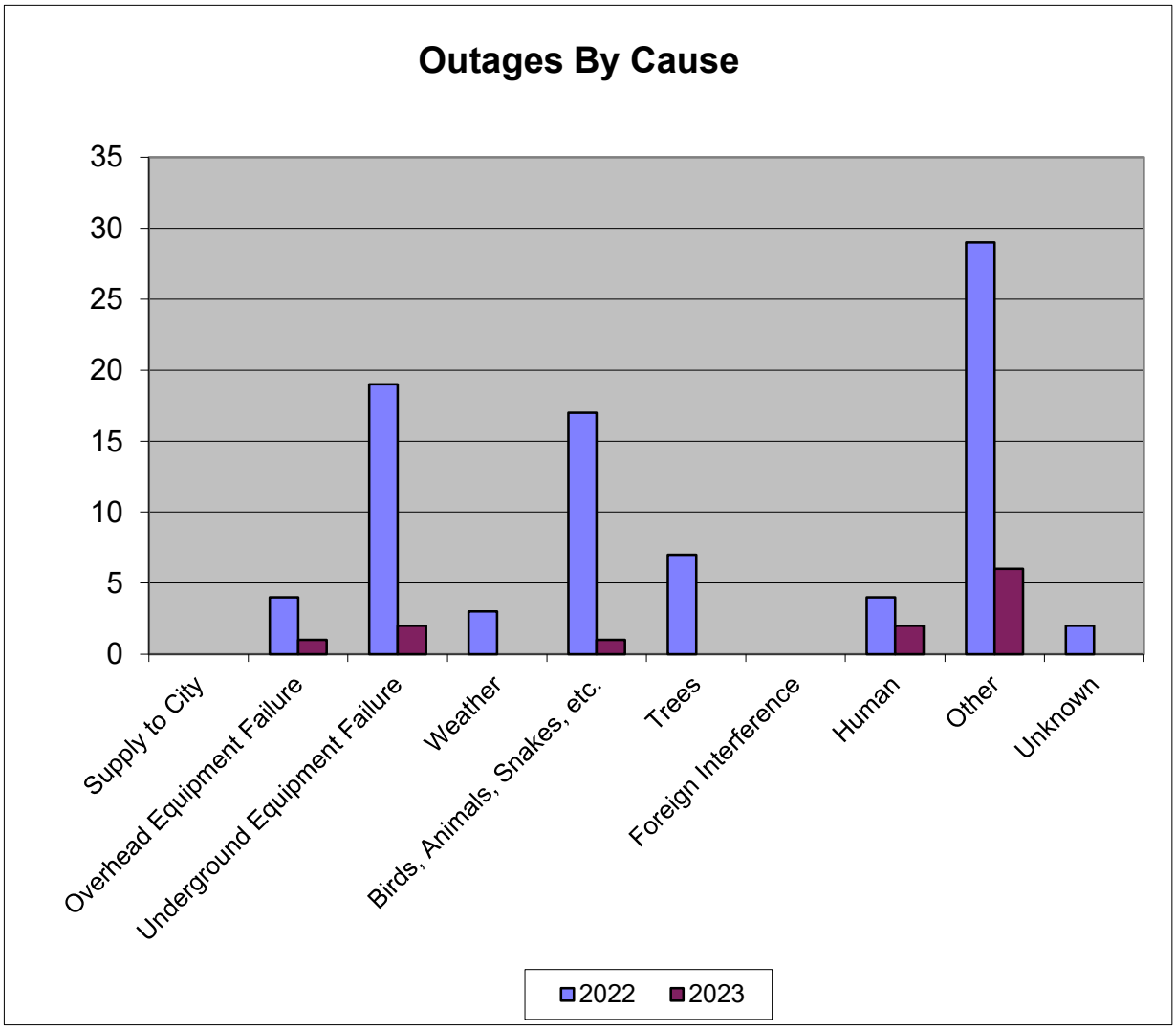
ASAI - Average Service Availability Index
(customer minutes available/total customer minutes, as a %)
CAIDI - Customer Average Interruption Duration Index
(average minutes interrupted per interrupted customer)
SAIDI - System Average Interruption Duration Index
(average minutes interrupted per customer for all customers)
SAIFI (Long) - System Average Interruption Frequency Index
(# of long interruptions per customer for all customers)
SAIFI (Short) - System Average Interruption Frequency Index
(# of short interruptions per customer for all customers)

S/U - Scheduled or Unscheduled
Ints - # of Interruptions
Long - >1 min; Short - <1 min
Cause # - see table on page 3

Outage Reasons

4/13/2023

Number of Outages (by Cause)	2022	2023	Increase
Supply to City	0	0	0%
Overhead Equipment Failure	4	1	-75%
Underground Equipment Failure	19	2	-89%
Weather	3	0	-3%
Birds, Animals, Snakes, etc.	17	1	-94%
Trees	7	0	-7%
Foreign Interference	0	0	0%
Human	4	2	-50%
Other	29	6	-79%
Unknown	2	0	-2%



BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

FINANCIAL REPORT

DECEMBER 31, 2022

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

OFFICIALS

Board of Trustees

Chuck Knipe	Chairman	January 1, 2025
Richard Wilson	Vice-Chairman	January 1, 2026
Michael Zaruba	Secretary	January 1, 2026
Phil Shaw	Member	January 1, 2025
David Grant	Member	January 1, 2024

Board of Public Work's Officials

David Hunter, Jr.	General Manager	Indefinite

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INDEPENDENT AUDITOR'S REPORT

To The Board of Trustees
Board of Public Works
Auburn, Nebraska

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the business-type activities, each major fund, and the aggregate remaining fund information of the Board of Public Works, Auburn, Nebraska, (the "Board of Public Works") a component unit of the City of Auburn, Nebraska, as of and for the year ended December 31, 2022, and the related notes to the financial statements, which collectively comprise the Board of Public Works' basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Board of Public Works as of December 31, 2022, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Board of Public Works and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Board of Public Works ability to continue as a going concern for the period January 1, 2023, through December 31, 2023.

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Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Board of Public Works internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Board of Public Works' ability to continue as a going concern for a reasonable period of time.

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We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter

Management has omitted management's discussion and analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic financial statements is not affected by this missing information.

Other Reporting Required by Government Auditing Standard

In accordance with *Government Auditing Standards*, we have also issued our report dated April 12, 2023 on our consideration of the Board of Public Works internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Board of Public Works internal control over financial reporting and compliance.

Council Bluffs, Iowa
April 12, 2023

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

STATEMENT OF NET POSITION – ENTERPRISE FUNDS
December 31, 2022

	Electric	Water	Wastewater	Garbage	Combined-Memorandum Only
ASSETS					
CURRENT ASSETS					
Cash on hand	$ 1,050	$ -	$ -	$ -	$ 1,050
Cash in bank	3,108,062	(747,761)	1,273,204	30,723	3,664,228
Certificates of deposit	1,571,552	-	-	-	1,571,552
Accounts receivable					
Utility customers	646,899	92,770	92,107	21,502	853,278
Less allowance for doubtful accounts	(6,190)	(1,058)	(1,252)	-	(8,500)
Net utility customer receivable	$ 640,709	$ 91,712	$ 90,855	$ 21,502	$ 844,778
Other	62,188	26,382	1,860	15	90,445
Total receivables	$ 702,897	$ 118,094	$ 92,715	$ 21,517	$ 935,223
Inventory	$ 867,003	$ 146,139	$ 9,647	$ -	$ 1,022,789
Prepaid insurance	106,342	31,744	20,633	-	158,719
Total current assets	$ 6,356,906	$ (451,784)	$ 1,396,199	$ 52,240	$ 7,353,561
PROPERTY, PLANT AND EQUIPMENT					
Land	$ 90,154	$ 61,090	$ 14,946	$ -	$ 166,190
Plant and equipment	27,149,874	12,812,213	10,901,876	-	50,863,963
Construction in progress	28,185	310,208	28,130	-	366,523
Less accumulated depreciation	(18,152,963)	(6,319,351)	(3,791,498)	-	(28,263,812)
Total plant, property and equipment	$ 9,115,250	$ 6,864,160	$ 7,153,454	$ -	$ 23,132,864
OTHER ASSETS					
Bond issue cost net of ammortization	$ -	$ -	$ 20,000	$ -	$ 20,000
DESIGNATED ASSETS					
Cash in bank	$ -	$ -	$ -	$ -	$ -
Certificates of deposit	4,647,985	734,069	1,026,163	-	6,408,217
Total designated assets	$ 4,647,985	$ 734,069	$ 1,026,163	$ -	$ 6,408,217
Total assets	$ 20,120,141	$ 7,146,445	$ 9,595,816	$ 52,240	$ 36,914,642

See Notes to Financial Statements

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

STATEMENT OF NET POSITION – ENTERPRISE FUNDS
December 31, 2022

	Electric	Water	Wastewater	Garbage	Combined-Memorandum Only
LIABILITIES AND NET ASSETS					
CURRENT LIABILITIES					
Accounts payable	$ 473,148	$ 38,299	$ 23,433	$ 20,223	$ 555,103
State energy assistance payable	47,639	-	-	-	47,639
Customer deposits	82,786	11,225	10,836	-	104,847
Accrued expenses	118,455	30,210	20,627	-	169,292
Accrued interest on note payable	-	3,506	1,589	-	5,095
Current portion of note payable	-	160,000	435,000	-	595,000
Total current liabilities	$ 722,028	$ 243,240	$ 491,485	$ 20,223	$ 1,476,976
LONG TERM DEBT					
Note payable- net of current portion shown above	$ -	$ 2,920,000	$ 710,000	$ -	$ 3,630,000
Total liabilities	$ 722,028	$ 3,163,240	$ 1,201,485	$ 20,223	$ 5,106,976
NET POSITION					
Investment in capital assets net of related debt	$ 9,115,250	$ 3,784,160	$ 6,036,585	$ -	$ 18,935,995
Unrestricted:					
Designated	4,188,869	546,125	1,032,886	-	5,767,880
Undesignated	6,093,994	(347,084)	1,324,862	31,832	7,103,604
Total unrestricted fund equity	$ 10,282,863	$ 199,041	$ 2,357,748	$ 31,832	$ 12,871,484
Total net position	$ 19,398,113	$ 3,983,201	$ 8,394,333	$ 32,018	$ 31,807,665
Total liabilities and net position	$ 20,120,141	$ 7,146,441	$ 9,595,818	$ 52,241	$ 36,914,641

See Notes to Financial Statements

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION – ENTERPRISE FUNDS
Year Ended December 31, 2022

	Electric	Water	Wastewater	Garbage	Combined-Memorandum Only
OPERATING REVENUES					
Utility sales	$ 5,447,660	$ 941,219	$ 887,436	$ 213,754	$ 7,490,069
Penalties	26,688	7,160	6,712	-	40,560
Grants	500	21,954	-	-	22,454
Other	1,016,582	116,189	11,807	-	1,144,578
Total operating revenues	$ 6,491,430	$ 1,086,522	$ 905,955	$ 213,754	$ 8,697,661
OPERATING EXPENSES					
Production and procurement	$ 3,685,985	$ 282,075	$ 167,435	$ 204,954	$ 4,340,449
Distribution	366,600	115,069	65,079	-	546,748
Customer accounting and collecting	162,372	63,520	27,998	8,614	262,504
Administrative and general	826,909	344,141	208,589	-	1,379,639
Payments to the city and villages	183,275	-	-	-	183,275
Inventory adjustment	16,449	14,442	6,574	-	37,465
Depreciation	591,228	301,783	269,409	-	1,162,420
Total operating expenses	$ 5,832,818	$ 1,121,030	$ 745,084	$ 213,568	$ 7,912,500
Operating income	$ 658,612	$ (34,508)	$ 160,871	$ 186	$ 785,161
NONOPERATING REVENUES (EXPENSES)					
Interest on investments	$ 170,753	$ 18,540	$ 28,728	$ -	$ 218,021
Other income	20,452	5,574	71	-	26,097
Amortization (of intangibles)	-	-	(6,667)	-	(6,667)
Interest expense and fiscal charges	-	(80,868)	(7,849)	-	(88,717)
Nonoperating revenues, (expenses), net	$ 191,205	$ (56,754)	$ 14,283	$ -	$ 148,734
Excess of revenues over expenses	$ 849,817	$ (91,262)	$ 175,154	$ 186	$ 933,895
NET POSITION - BEGINNING OF YEAR	18,548,296	4,074,463	8,217,479	31,832	30,872,070
Contributions in aid of construction	-	-	1,700	-	1,700
NET POSITION - END OF YEAR	$ 19,398,113	$ 3,983,201	$ 8,394,333	$ 32,018	$ 31,807,665

See Notes to Financial Statements

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

STATEMENT OF CASH FLOWS – ENTERPRISE FUNDS
Year Ended December 31, 2022

	Electric	Water	Wastewater	Garbage	Combined-Memorandum Only
CASH FLOWS FROM OPERATING ACTIVITIES					
Cash received from customers and users	$ 5,379,858	$ 939,454	$ 887,395	$ 208,610	$ 7,415,317
Cash received from other revenues	1,080,240	117,044	17,915	-	1,215,199
Cash received from grant revenues	500	21,954	-	-	22,454
Cash paid to suppliers for goods and services	(4,625,665)	(445,777)	(220,412)	(202,285)	(5,494,139)
Cash paid to employees and on their behalf	(806,192)	(377,332)	(244,689)	(7,912)	(1,436,125)
Net cash provided by operating activities	$ 1,028,741	$ 255,343	$ 440,209	$ (1,587)	$ 1,722,706
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Principal issued on notes payable	$ -	$ -	$ -	$ -	$ -
Principal paid on notes payable	-	(160,000)	(425,000)	-	(585,000)
Interest and fees paid on notes payable	-	(80,993)	(8,327)	-	(89,320)
Bond issue cost	-	-	-	-	-
Additions to property, plant and equipment	(255,464)	(146,900)	(125,866)	-	(528,230)
Contribution in aid of construction	-	-	1,700	-	1,700
Net cash provided by (used in) capital and related financing activities	$ (255,464)	$ (387,893)	$ (557,493)	$ -	$ (1,200,850)
CASH FLOWS FROM INVESTING ACTIVITIES					
Net sales (purchases) of certificates of deposits	$ (153,465)	$ (22,692)	$ (23,601)	$ -	$ (199,758)
Interest received on deposits	170,753	18,540	28,728	-	218,021
Net cash provided by (used in) investing activities	$ 17,288	$ (4,152)	$ 5,127	$ -	$ 18,263
NET INCREASE (DECREASE) IN CASH	$ 790,565	$ (136,702)	$ (112,157)	$ (1,587)	$ 540,119
CASH - BEGINNING OF YEAR	2,318,545	(611,062)	1,385,365	32,312	3,125,160
CASH - END OF YEAR	$ 3,109,110	$ (747,764)	$ 1,273,208	$ 30,725	$ 3,665,279

See Notes to Financial Statements

DRAFT

BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

STATEMENT OF CASH FLOWS – ENTERPRISE FUNDS
Year Ended December 31, 2022

	Electric	Water	Wastewater	Garbage	Combined-Memorandum Only
RECONCILIATION TO BALANCE SHEETS:					
Cash on hand	$ 1,050	$ -	$ -	$ -	$ 1,050
Cash in bank	3,108,062	(747,761)	1,273,204	30,723	3,664,228
Designated cash in bank		-	-	-	-
	$ 3,109,112	$ (747,761)	$ 1,273,204	$ 30,723	$ 3,665,278
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES					
Operating income (loss)	$ 658,612	$ (34,508)	$ 160,871	$ 186	$ 785,161
Adjustments to reconcile operating income (loss) to net cash provided by operating activities:					
Depreciation	591,228	301,783	269,409	-	1,162,420
Other nonoperating income	20,452	5,574	71	-	26,097
Changes in assets and liabilities:					
(Increase) Decrease in utility receivables	(94,785)	(1,194)	523	(5,144)	(100,600)
(Increase) Decrease in other receivables	16,518	(11,879)	(675)	-	3,964
(Increase) Decrease in inventory	(142,369)	(6,861)	112	-	(149,118)
(Increase) Decrease in prepaid insurance	(16,982)	(5,069)	(3,294)	-	(25,345)
Increase (Decrease) in accounts payable	(40,255)	12,587	11,217	3,453	(12,998)
Increase (Decrease) in state energy assistance	27,371	-	-	-	27,371
Increase (Decrease) in customer deposits	(388)	(571)	(564)	-	(1,523)
Increase (Decrease) in accrued expenses	9,339	(4,519)	2,539	(82)	7,277
Net cash provided by operating activities	$ 1,028,741	$ 255,343	$ 440,209	$ (1,587)	$ 1,722,706

See Notes to Financial Statements

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

STATEMENT OF FIDUCIARY NET POSITION – FIDUCIARY FUNDS
December 31, 2022

	Custodial Funds
ASSETS	
Cash	$ 17,902
Receivables	8,907
Total Assets	$ 26,809
NET POSITION	$ 26,809

See Notes to Financial Statements

DRAFT

BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION – FIDUCIARY FUNDS
Year Ended December 31, 2022

	Custodial Funds
ADDITIONS	
Billings for services	$ 143,180
Total additions	$ 143,180
DEDUCTIONS	
Payments to the villages	$ 137,915
Total deductions	$ 137,915
CHANGE IN NET POSITION	$ 5,265
NET POSITION, BEGINNING OF YEAR	21,544
NET POSITION, END OF YEAR	$ 26,809

See Notes to Financial Statements

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

1. Summary of Significant Accounting Policies

The Board of Public Works, Auburn, Nebraska (the "Board") operates under an appointed board form of government and provides electric, water, and wastewater services to the City of Auburn and electricity and water to the surrounding area. In addition, the Board collects fees for garbage service for the City of Auburn and the surrounding area and remits a flat fee to American Recycling and Sanitation for providing the service. The Board also provides billing services for the Village of Nemaha for its water, wastewater and trash services as well as the Village of Brownville for its water and wastewater services.

Measurement Focus and Basis of Accounting:

The financial statements are reported using the economic resources measurement focus and accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

The Board has prepared its financial statements in accordance with generally accepted accounting principles (GAAP), which is a comprehensive basis of accounting generally accepted in the United States of America. All relevant Financial Accounting Standards Board (FASB) Codification pronouncements issued on or before November 30, 1989 have been applied unless those pronouncements conflict with or contradict Governmental Accounting Standards Board (GASB) pronouncements, in which case GASB prevails. In accordance with GAAP, the Board has the option of following subsequent FASB pronouncements, subject to the same limitations. The Board has elected not to apply those pronouncements.

The Board distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Board's principal ongoing operations. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Reporting Entity:

The Board, for financial statement purposes, includes all of the funds and account groups relevant to the operation of the electric, water and wastewater facilities, as well as the account groups relevant to garbage fee collection. The Board is a component unit of the City of Auburn, Nebraska. These financial statements do not reflect any activity or transactions of the City of Auburn and do not present consolidated information. An audit of the City of Auburn was completed for the year ended September 30, 2020 and was filed under separate cover.

Fund Accounting:

The financial transactions of the Board are reported as individual funds in the fund financial statements. Each fund is accounted for by providing a separate set of self-balancing accounts that comprises its assets, deferred outflows of resources, liabilities, deferred inflows of resources, fund balances, revenues and expenditures/expenses. The various funds are reported by generic classification within the financial statements.

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

1. Summary of Significant Accounting Policies – Continued

The following fund types are used by the Board:

Enterprise Funds:

The electric, water, wastewater, and garbage departments operate as a business enterprise. The intent of the governing body is that the cost, including depreciation, of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges. The electric, water and wastewater funds are reported as major enterprise funds.

Fiduciary Funds:

Fiduciary funds are used to report assets held in a trustee or agency capacity for others and therefore, are not available to support the activities that make up the enterprise funds. The reporting focus is on net position and changes in net position and are reported using accounting principles similar to proprietary funds.

The Board's fiduciary funds, which are custodial funds, are presented in the fiduciary fund financial statements for the billings of utility services for the Village of Nemaha and Village of Brownville.

Cash, Investments and Cash Equivalents:

For purposes of the statements of cash flows, the Board of Public Works considers all highly liquid instruments with a maturity date of three months or less when purchased to be cash equivalents.

Investments:

Investments consist of certificates of deposit and are reported at fair value.

Receivables:

All receivables, including receivables from customers, are shown net of an allowance for uncollectible amounts, if applicable.

Inventory:

Inventory consists of expendable supplies held for consumption, and is valued at the lower of cost (average cost method) or market.

Property, Plant and Equipment:

Property, plant and equipment with useful lives of more than one year are stated at cost. Depreciation is provided using the straight-line method over the estimated economic useful lives of the respective assets.

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

1. Summary of Significant Accounting Policies – Continued

Maintenance and repair of property, plant and equipment that does not add to the asset's value or materially extend useful lives are charged to operations, and major improvements are capitalized. Upon retirement, sale or other disposition of property, plant and equipment, the cost and accumulated depreciation are eliminated from the accounts and gain or loss is included in operations. Assets, constructed by the Board, are classified as construction in process until those projects are closed and the asset is fully constructed, at which time they are reclassified to plant and equipment. Assets classified as construction in process that are partially placed in operation before the project is closed remain classified as construction in process and are depreciated over their useful lives.

Net Position:

Net position of the Board is classified in the statement of net position as follows:

Net investment in capital assets – Consists of capital assets, net of accumulated depreciation, and reduced by the balances of any outstanding borrowings used to finance the purchase or construction of those assets.

Unrestricted – Consists of all remaining assets that do not meet the definition of invested in capital assets, net of related debt, or restricted.

Designated – Consists of unrestricted assets that can only be used for specific purposes pursuant to constraints imposed by formal actions of the entity's Board of Trustees. These assets cannot be used for any other purpose unless the Board of Trustees removes or changes their specific use by taking the same type of action it used to designate those amounts.

Undesignated – Consists of all remaining unrestricted assets that do not meet the definition of designated.

Compensated Absences:

The Board's employees accumulate a limited amount of earned, but unused, vacation hours for subsequent use or for payment upon termination, death or retirement. The Board's liability for accumulated vacation has been computed based on rates of pay in effect at December 31, 2022.

Contributions-in-Aid of Construction and Contributed Capital:

Contributions of cash by governments, customers or developers are maintained by the Board as restricted assets and restricted liabilities until expended. When expended the contributions are recorded as property, plant and equipment and contributed capital. Further, a contribution may be in the form of a completed project in which the contributor's costs of construction is recorded directly into the property, plant and equipment and contributed capital accounts.

Use of Estimates:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

1. Summary of Significant Accounting Policies – Continued

Change in Accounting Principle:

In January 2017, the GASB issued Statement 84, *Fiduciary Activities*. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. This Statement describes four fiduciary funds that should be reported, if applicable: (1) pension (and other employee benefit) trust funds; (2) investment trust funds; (3) private-purpose trust funds, and (4) custodial funds. The provisions of this Statement became effective for the Board during calendar year 2020 with no material impact on the financial statements.

Subsequent Events:

Subsequent events have been evaluated through April 12, 2023, which is the date the financial statements were available to be issued. No subsequent events were noted.

2. Cash and Investments

Listed below is a summary of the deposit and investment portfolios that comprise cash and investments on the December 31, 2021 statement of net position including restricted cash and cash equivalents and certificates of deposits:

Deposits:

At December 31, 2021, deposits consisted of demand deposits and certificates of deposits and had the following balances:

Book Balance	$	11,643,998
Bank Balance	$	11,719,269

Of the total Board deposits, $500,000 was covered by federal depository insurance and $12,336,611 was covered by pledged securities that are being held in the pledging bank's trust department in the Board's name in the form of a joint safekeeping receipt.

Investments:

As of December 31, 2022, the Board had the following investments:

Investment Name	Maturities	Credit Rating		Carrying Value
Certificates of Deposit	2023 through 2024	N/A	$	7,979,790

State statutes authorize the Board to invest public funds in obligations of the United States government, its agencies and instrumentalities; certificates of deposit or other evidence of deposit at federally insured depository institutions approved by the Board Trustees. The Board currently invests in certificates of deposit. State law requires all funds in depositories to be fully insured or collateralized, and the Board's policy is to require depositories to provide pledged securities to cover deposits in excess of FDIC limits. At December 31, 2022, the Board's deposits were fully insured or collateralized.

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

3. Designated Assets

Designated assets represent money set aside for payment of loans, underground storage tanks, insurance costs, transportation and distribution and renovation and replacement of capital assets.

Assets designated for specific use by the Board of Trustees consisted of the following as of December 31, 2022:

Debt Reserves – Assets designated by the Board of Trustees to pay future payments on outstanding bonded indebtedness.

Future Capital Projects Reserves – Assets designated by the Board of Trustees to pay for future capital projects.

Emergency Operating Reserves – Assets designated by the Board of Trustees to pay for future unexpected operating costs.

Equipment Replacement Reserves – Assets designated by the Board of Trustees for future replacements of property, plant and equipment.

Fuel Tank Coverage Reserves – Assets designated by the Board of Trustees to provide self-insurance against future damage, replacement costs, or possible future environmental remediation costs associated with the Board's underground fuel storage tanks.

Insurance Deductible Reserves – Assets designated by the Board of Trustees to pay future insurance deductibles.

Undesignated Funds – Undesignated funds for Water and Wastewater were negative balances and were deducted from the subtotal of the respective funds.

Designated net position is maintained for the following funds as follows:

	Certificates of Deposit	Bank Deposits	Total Deposits
Electric			
Future Capital Project Reserves	$ 320,750	$ - -	$ 320,750
Emergency Operating Reserves	807,884	- -	807,884
Equipment Replacement Reserves	2,313,009	- -	2,313,009
Fuel Tank Coverage Reserves	1,100,000	- -	1,100,000
Insurance Deductible Reserves	106,342	- -	106,342
Sub-total Electric Reserves	$ 4,647,985	$ - -	$ 4,647,985
Water			
Future Capital Project Reserves	$ 388,000	$ - -	$ 388,000
Emergency Operating Reserves	524,039	- -	524,039
Equipment Replacement Reserves	849,067	- -	849,067
Insurance Deductible Reserves	31,744	- -	31,744
Undesignated Funds	(1,058,761)	- -	(1,058,761)
Sub-total Water Reserves	$ 734,089	$ - -	$ 734,089
Wastewater			
Future Capital Project Reserves	$ 117,750	- -	$ 117,750
Emergency Operating Reserves	825,214	- -	825,214
Equipment Replacement Reserves	69,289	- -	69,289
Insurance Deductible Reserves	20,633	- -	20,633
Undesignated Funds	(6,723)	- -	(6,723)
Sub-total Wastewater Reserves	$ 1,026,163	$ - -	$ 1,026,163
Total Designated Assets	$ 6,408,237	$ - -	$ 6,408,237

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

4. Property, Plant, and Equipment

The major classes of fixed assets by fund consisted of the following at December 31, 2022:

	Balance 1/1/2022	Increases	Decreases	Reclassifications	Balance 12/31/2022
Electric Fund					
Capital Assets Not Being Depreciated					
Land and Land Rights	$ 90,154	$ -	$ -	$ -	$ 90,154
Capital Assets Being Depreciated					
Plant and Structures	$ 11,541,754	$ -	$ -	$ 1,993,646	$ 13,535,400
Transmission, Distribution, Production, and Collection	11,338,023	7,584	-	191,982	11,537,589
Other	2,015,081	13,269	-	48,536	2,076,886
Total Depreciable Assets	$ 24,894,858	$ 20,853	$ -	$ 2,234,164	$ 27,149,875
Less: Accumulated Depreciation:	17,561,735	591,228	-	-	$ 18,152,963
Depreciable Capital Assts, Net	7,333,123	(570,375)	-	2,234,164	8,996,912
Construction in Process	2,027,737	234,611	-	(2,234,164)	28,184
Electric Fund Capital Assets, Net	$ 9,451,014	$ (335,764)	$ -	$ -	$ 9,115,250

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

4. Property, Plant, and Equipment – Continued

	Balance 1/1/2022	Increases	Decreases	Reclassifications	Balance 12/31/2022
Water Fund					
Capital Assets Not Being Depreciated					
Land and Land Rights	$ 61,090	$ -	$ -	$ -	$ 61,090
Capital Assets Being Depreciated					
Plant and Structures	$ 6,357,686	$ -	$ -	$ -	$ 6,357,686
Transmission, Distribution, Production, and Collection	4,836,119	-	-	119,907	4,956,026
Water Reservoirs	1,012,864	-	-	-	1,012,864
Other	481,142	4,495	-	-	485,637
Total Depreciable Assets	$ 12,687,811	$ 4,495	$ -	$ 119,907	$ 12,812,213
Less: Accumulated Depreciation:	6,017,568	301,783	-	-	$ 6,319,351
Depreciable Capital Assts, Net	6,670,243	(297,288)	-	119,907	6,492,862
Construction in Process	287,710	142,405	-	(119,907)	310,208
Water Fund Capital Assets, Net	$ 7,019,043	$ (154,883)	$ -	$ -	$ 6,864,160

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

4. Property, Plant, and Equipment – Continued

	Balance 1/1/2022	Increases	Decreases	Reclassifications	Balance 12/31/2022
Wastewater Fund					
Capital Assets Not Being Depreciated					
Land and Land Rights	$ 14,946	$ -	$ -	$ -	$ 14,946
Capital Assets Being Depreciated					
Plant and Structures	$ 7,201,381	$ -	$ -	$ -	$ 7,201,381
Transmission, Distribution, Production, and Collection	3,093,440	14,346	8,669	95,553	3,194,670
Other	505,601	224	-	-	505,825
Total Depreciable Assets	$ 10,800,422	$ 14,570	$ 8,669	$ 95,553	$ 10,901,876
Less: Accumulated Depreciation:	3,524,184	269,409	2,095	-	$ 3,791,498
Depreciable Capital Assts, Net	7,061,722	(254,839)	6,574	95,553	7,110,378
Construction in Process	5,813	117,870		(95,553)	28,130
Wasterwater Fund Capital Assets, Net	$ 7,076,668	$ (254,839)	$ 6,574	$ 95,553	$ 7,153,454

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

5. Accrued Payroll

The Board's employees accumulate vacation hours for subsequent use or for payment upon termination, retirement or death. Employees can also accumulate up to 900 hours maximum sick pay. The sick pay is to be used only if the employee or employee's spouse, child or parent is sick or becomes disabled while employed by the Board. 25% of an employee's accumulated sick pay is payable upon retirement or death if employee was employed for over 15 years, or is over the age of 62. Vacation, sick leave, and accrued salaries and wages at December 31, 2022 consisted of:

Vacation Leave	$ 95,615
Sick Leave	50,652
Salaries and Wages	20,269
	$ 166,536

6. Notes and Bond Payable

Water Department:

The Board took advances totaling $6,002,003 on a construction loan for a water treatment plant, a new well and a transmission main through Nebraska Department of Environmental Quality (NDEQ). During 2013, the project was completed and a permanent loan was established under a 30-year note. In November 2019 the loan was refinanced into combined utilities revenue refunding bonds series 2019 in the amount of $3,555,000. These bonds were used to pay the NDEQ loan and were sold at the face value of the bonds less an underwriter's discount. The balance of the bonds as of December 31, 2022 was $3,240,000. Interest rates for the bonds range from 1.75 % to 3.05%. The bonds are payable in semi-annual payments through December 2039. There are no applicable debt covenants or reserve requirements.

The total debt service of the above note payable to maturity is as follows:

Year Ending December 31:	Principal	Interest
2023	160,000	78,193
2024	165,000	75,349
2025	165,000	72,270
2026	165,000	68,640
2027	170,000	65,010
2028-2032	880,000	264,968
2033-2037	960,000	142,919
2038-2039	415,000	15,860
Total	$ 3,080,000	$ 783,209

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BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

6. Notes and Bond Payable – Continued

Wastewater Department:

The Board entered into an agreement to partially fund the construction of a wastewater treatment facility from a $6,591,000 Sewer Bond issued in September 2010, to the United States Department of Agriculture. In May 2013 the bond was refinanced into series 2013 Revenue Bonds in the amount of $6,150,000. On April 12, 2018, the Board issued combined utilities revenue bonds in the amount of $2,910,000. These bonds were used to pay off Series 2013 bonds and were sold at the face value of the bonds less an underwriter's discount. The balance of the bonds as of December 31, 2022 was $1,950,000. Interest rates for these bonds ranged from 1.5% to 2.65%. There are no applicable debt covenants or reserve requirements.

In January 2021, the bonds were refinanced into series 2021 combined utilities revenue refunding bonds in the amount of $1,980,000. The balance of the bonds as of December 31,202 was $1,145,000 Interest rates for the refinanced bonds range from 0.40% to 0.65%. The bonds are payable in semi-annual payments through October 2025.

The total debt service of the bond payable to maturity is as follows:

Year Ending December 31:	Principal	Interest
2023	435,000	6,355
2024	435,000	4,180
2025	275,000	1,788
Total	$ 1,145,000	$ 12,323

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7. Pension Plan

The Board has a single-employer, defined contribution plan for employees. Employees over 21 years of age who have completed one year of service are eligible for the pension plan. The Board contributed an amount equal to 6% of the compensation paid to each participant. All participating employees must contribute 4% to the plan and can have additional voluntary contributions. Employee forfeitures of matching contributions are used to reduce employer contributions. The total covered payroll for 2022 was $1,485,889. All contributions required for 2022, including $57,283 in employee contributions and $85,925 in contributions from the Board, have been transferred to the plan's trustee. All past service costs are vested and fully funded.

8. Employee Medical Insurance Claims

The Board adopted a partially self-funded health insurance plan for eligible employees effective January 1, 2013. Under the terms of the insurance policy, the Board is at risk for covered claims submitted, up to $7,000 per single plan, and $14,000 per family plan, per year. Provisions for losses expected under this program are recorded based upon the Board's estimates of the aggregate liability for claims incurred and totaled $439 for the year ended December 31, 2022. The amount of actual losses incurred could differ materially from the estimates reflected in these financial statements.

BOARD OF PUBLIC WORKS
AUBURN, NEBRASKA

NOTES TO FINANCIAL STATEMENTS
Year Ended December 31, 2022

9. Off Balance Sheet and Concentration of Credit Risk

The Board's receivables are due from customers for electric, water, wastewater, and garbage charges for the City of Auburn, Nebraska and for the electric and water charges for the surrounding area. None of the receivables are collateralized. In addition, the Board's cash and investments, as described in Note 2, are maintained primarily in two banks. To date, these concentrations of credit risk have not had any adverse effect on the results of operations of the Board.

10. Insurance - Risk Management

The Utility is exposed to various risks of loss, including those related to torts, theft of, damage to, and destruction of assets; errors and omissions, and natural disasters. Significant losses are covered by commercial insurance. Insurance does not cover transmission/distribution power lines, poles, towers or fixtures or street lights; therefore, the Board maintains a reserve to cover emergency situations for these categories. There have been no significant reductions in insurance coverage or settlement amounts exceeding insurance coverage for the current year.

11. Commitments

Since the early sixties, the Board has purchased more energy than it has generated as it has been more economical to purchase power from other power suppliers. The municipal power plant is now leased to Nebraska Public Power District (NPPD). NPPD pays the cost of all fuel used in generation. Current power suppliers include:

NPPD – Beginning May 1, 2001, the Board purchases all power and energy from NPPD under a 20-year contract except power and energy received from Western Area Power Administration (WAPA).

WAPA – Under the terms and provisions of the firm power contract which expires in 2050, the Board has been guaranteed firm power through 2050.

As of December 31, 2022, the Board had construction contracts in progress with remaining future commitments totaling $3,210,229.

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Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

To The Board of Trustees
Board of Public Works
Auburn, Nebraska

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and remaining fund information as of and for the year ended December 31, 2022, and the related notes to the financial statements, which collectively comprise Board of Public Works, Auburn, Nebraska's (the "Board of Public Works") basic financial statements, and have issued our report thereon dated April 12, 2023.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered Board of Public Works' internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Board of Public Works' internal control. Accordingly, we do not express an opinion on the effectiveness of Board of Public Works' internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Board of Public Works' financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

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Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Council Bluffs, Iowa
April 12, 2023

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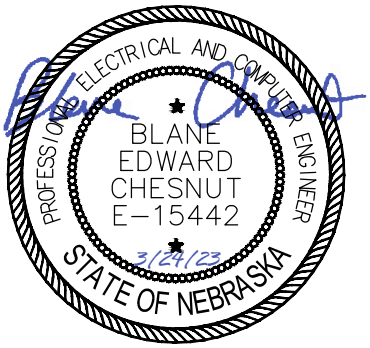
March 24, 2023

City of Auburn Board of Public Works
Attn: Mr. Dave Hunter
PO Box 288
1600 O Street
Auburn, Nebraska 68305



Re: Arc Flash Study
Auburn, Nebraska - 2023
Olsson Project No. 022-03726

Mr. Hunter:

We have completed our review of potential arc flash incident energies throughout Auburn's electrical system. The incident energy values are provided herein in Appendix A.

In our opinion, the completion of this review satisfies:

- National Electrical Safety Code (NESC) Rule 410 relating to an arc flash assessment.
- 29 CFR 1926 Subpart V paragraphs 1926.960(g)(1) and 1926.960(g)(2), commonly "OSHA requirements"

Methodology

Our review followed the methodology identified in IEEE 1584, Guide for Performing Arc Flash Hazard Calculations. SKM Power Tools computer software was used for system modeling. Short circuit fault current and arc flash incident energy calculations were completed as part of our analysis.

We used data collected through the GIS model. For any fuse information that was missing from the GIS model we used the previously recommended scheme for sizing line and tap fuses. This provided nearly full coordination between upstream substation devices and downstream transformer fuses.

The review also included an analysis of the substation relay overcurrent settings and a fuse coordination study. We have recommended modifying time-current element settings for the distribution feeders to coordinate with downstream devices.

Summary of Findings

F1: Flash Energy Level: Potential arc flash incident energies are moderate throughout most of Auburn's system.

F2: Based on the National Electrical Safety Code (NESC) requirements and the arc flash energies calculated for Auburn's system, FR clothing should be worn by utility personnel responsible for working on or near energized power system components.

F3: Working distances: Flash energies were calculated at working distances outlined in IEEE 1584 based on equipment voltage. Working distance should be observed and caution exercised when working on or near energized equipment. The further the distance between the arc flash and the worker, the lower the incident energy.

F4: Published standards and other literature relating to arc flash suggest that personnel exposure at working distances (presumed to apply to pad and grade mounted equipment) is unlikely to exceed approximately two seconds (2 sec.); it is considered likely that the individual will take evasive action during this time. The calculations therefore limit the clearing time to 2 seconds.

Personal Protective Equipment Ratings

The analysis and recommendations are based on the National Electrical Code (NEC) standards for Personal Protective Equipment (PPE). The ratings and PPE requirements are summarized below:

Incident energy exposures equal to 1.2cal/cm^2 up to 12cal/cm^2
Arc-rated clothing with an arc rating equal to or greater than the estimated incident energy
Long-sleeve shirt and pants OR coverall OR arc flash suit (SR)
Arc-rated face shield and arc-rated balaclava OR arc flash suit hood (SR)
Arc-rated outerwear (e.g., jacket, parka, rainwear, hard hat liner) (AN)
Heavy-duty leather gloves, arc-rated gloves, OR rubber insulating gloves with leather protectors (SR)
Hard hat
Safety glasses OR safety goggles (SR)
Hearing protection
Leather footwear
Incident energy exposures greater than 12cal/cm^2
Arc-rated clothing with an arc rating equal to or greater than the estimated incident energy
Long-sleeve shirt and pants OR coverall OR arc flash suit (SR)
Arc-rated arc flash suit hood
Arc-rated outerwear (e.g., jacket, parka, rainwear, hard hat liner) (AN)
Arc-rated gloves OR rubber insulating gloves with leather protectors (SR)
Hard hat
Safety glasses OR safety goggles (SR)
Hearing protection
Leather footwear
(SR) Selection of one in group is required.
(AN) As needed.

The utility should review NFPA 70E Article 130, including Table 130.5(G) for complete information.

NESC and NFPA Additional Information and Exceptions

- NESC Rule 410.a.3.b provides an exception allowing a reduction in the protection level if the required clothing may create additional or increased hazard. An example would be a circumstance where the required layers of FR garments make the necessary work more difficult to perform safely.

Recommendations

R1: Appendix A lists the worst case incident energy at each location studied for three (3) operating scenarios as follows:

Normal Operation – OPPD 69 kV source

Parallel Operation – OPPD 69 kV source and Power Plant Generation On-Line

Isolated Operation – Power Plant Generation Only (no OPPD source)

Knowing the incident energy values should allow standardizing on wearing PPE with a rating of up to 12 cal/cm^2 or a rating greater than 12 cal/cm^2 but less than 40 cal/cm^2.

R2: Relay settings modifications as shown in Appendix B are recommended. The recommended settings will provide improved coordination between the main and feeder breakers for normal operation as well as during hotline tagging operation.

R3: The fuse sizing scheme that was followed when fuse information was not available in the GIS:

a. 12.47 kV System

1) Radial Taps, with no downstream tap fuses:
   - Total kVA <300 1ph or 900 3ph: Use 40A Fuse
   - Total kVA >300 1ph or 900 3ph: Use 65A Fuse

2) Taps, radial or dual-fed, with one downstream tap fuse:
   - 1/0 ACSR and below: one size larger than fuse from item a (1)
   - Above 1/0 ACSR: 100A Fuse

3) Taps, radial or dual-fed, with two downstream tap fuses:
   - Use 100A fuse, except:
     - If the downstream is 100A, use 'solid blades'
     - If the location is on a main line (4/0 ACSR or 2/0 Cu or larger), use 'solid blades'

The above sizes will coordinate with each other, with the upstream breaker relays (based on the recommended settings revisions, and with a downstream transformer fuse (S&C Positrol Standard Speed) for most distribution transformers in Auburn's system and for most values of fault current.

Comments on Data

- Line Conductors: Conductor type/size information for Auburn's system was available for nearly all line segments.

- Fuses: Distribution transformer fuse type and sizes were based on Auburn's reported standards: S&C Positrol Fuses, Standard Speed, sized as follows:

  12.47 kV System: 1/3 of the transformer's kVA Rating (ex. 8 Amp fuse for 25 kVA transformer)

- Substation Devices and Coordination: Time-current characteristic (TCC) curves illustrating substation protective devices, line/tap fuses, and transformer fuses are provided in Appendix B for the 12.47 kV system.

  Coordination between substation relays and system fuses was achievable for most of Auburn's system and for most values of available fault current. The electro-mechanical relays original to the installations have been replaced with microprocessor relays. These modern devices, through their multiple curve selections and operating logic flexibility, allow greater settings selectivity and better coordination with multiple up- and down-stream protective devices. For fast clearing of bus fault on the Plant 12.47kV Switchgear, a zone selective interlock scheme has been used. This allows the main breaker to reduce time delay when it sees a fault, but that fault is not seen by any of the feeder relays.

  The West TCC attached shows typical recommended relay settings for the Plant sub feeder relays. The West – Hotline TCC shows the time current curve when the hotline tag is enabled. The South sub East feeder TCC shows typical recommended relay settings for the South Sub feeder relays. The Northwest feeder TCC shows a potential for better coordination between the relay and downstream S&C Positrol line fuses that warrants further discussion.

- Incident energy calculations were based on the slowest (time-delayed) relay curves. This will provide "worst case" results.

- Additional comments and bases for calculations are provided in the notes to the Appendix A tables.

Additional Comments

The Arc Flash Study's purpose, in accordance with industry standards, is to identify and assess risk associated with arc events. It should be noted that electric systems like Auburn's present many risks and exposures for personnel beyond the scope of the Arc Flash Study. Areas of concern for Auburn's system that had been previously identified in Electric Distribution System Reviews have been addressed, and no further concerns were noted as part of this review.

If you have any questions, please call me at (402) 938-4252.

Sincerely,

Blane E. Chesnut, P.E.

Appendix A

Arc Flash Incident Energies

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
0529-PRI	PD-0394	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0003
0529-SEC	PD-0397	0.24	5.22	2.53	5.22	2.53	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.1	(*N9) (*N24) (*S1)	# 0003
0627-SEC	PD-0261	0.24	4.48	1.84	4.48	1.84	0.9876	0.0000	PNL	VCB	12	14	10	25	38	18	4.00	(*N3) (*N24) (*S1)	# 0004
0659-PRI	NORTHWEST (HOSPITAL) 751	12.47	4.98	4.63	4.98	4.63	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.46	(*S0)	# 0006
0659-SEC	NORTHWEST (HOSPITAL) 751	0.24	0.94	0.40	0.94	0.40	1.95	0.0500	PNL	VCB	12	14	10	25	21	18	1.59	(*N9) (*N24) (*S0)	# 0006
0716-PRI	WEST 751	12.47	7.29	6.77	7.29	6.77	0.03	0.0500	SWG	VCB	30	45	30	152	25	36	0.67	(*S0)	# 0008
0716-SEC	WEST 751	0.24	0.94	0.40	0.94	0.40	1.95	0.0500	PNL	VCB	12	14	10	25	21	18	1.59	(*N9) (*N24) (*S0)	# 0008
0746-SEC	SOUTH 751	0.24	7.64	3.82	7.64	3.82	1.95	0.0500	PNL	VCB	12	14	10	25	95	18	17.2	(*N9) (*N24) (*S0)	# 0009
0832-PRI	PD-0003_9	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 0011
0832-SEC	PD-0149	0.24	2.36	0.92	2.36	0.92	0.3912	0.0000	PNL	VCB	12	14	10	25	14	18	0.77	(*N3) (*N24) (*S1)	# 0011
0852-PRI	WEST 751	12.47	3.58	3.33	3.58	3.33	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 0013
0852-SEC	PD-0031_6	0.24	3.70	1.50	3.70	1.50	0.3661	0.0000	PNL	VCB	12	14	10	25	18	18	1.19	(*N3) (*N24) (*S1)	# 0013
0853 AND 2868	SEL-751A SOUTHWEST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0015
0853-SEC	PD-0377	0.24	2.17	0.84	2.17	0.84	1.095	0.0000	PNL	VCB	12	14	10	25	24	18	1.95	(*N3) (*N24) (*S1)	# 0015
0859-SEC	PD-0279	0.24	8.83	3.85	8.83	3.85	0.4856	0.0000	PNL	VCB	12	14	10	25	40	18	4.27	(*N3) (*N24) (*S1)	# 0016
0861-PRI	PD-0399	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0018
0861-SEC	PD-0406	0.24	4.20	1.72	4.20	1.72	1.169	0.0000	PNL	VCB	12	14	10	25	41	18	4.41	(*N3) (*N24) (*S1)	# 0018
0887-PRI	PD-0003_9	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0020
0887-SEC	PD-0142	0.24	4.09	1.67	4.09	1.67	1.261	0.0000	PNL	VCB	12	14	10	25	42	18	4.61	(*N3) (*N24) (*S1)	# 0020
1/0 TO 4/0 TRANSITION POLE	SOUTH 751	12.47	1.48	1.35	1.48	1.35	0.1849	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*S1)	# 0022
1008-PRI	PD-0031_1	12.47	0.38	0.34	0.38	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*N24) (*S0)	# 0022
1008-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0023
1009-PRI	SEL-751A SOUTHWEST FDR	12.47	0.57	0.53	0.57	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 0025
1009-SEC	PD-0416	0.24	0.74	0.27	0.74	0.27	2	0.0000	PNL	VCB	12	14	10	25	17	18	1.06	(*N3) (*N9) (*N24) (*S0)	# 0025
1021-PRI	WEST 751	12.47	3.85	3.58	3.85	3.58	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 0027
1021-SEC	PD-0026_8	0.24	2.37	0.93	2.37	0.93	0.9056	0.0000	PNL	VCB	12	14	10	25	23	18	1.78	(*N3) (*N24) (*S1)	# 0027
1022-PRI	JOHNSON 751	12.47	0.65	0.59	0.65	0.59	1.206	0.0500	SWG	VCB	30	45	30	152	32	36	1.01	(*N3) (*S1)	# 0029
1022-SEC	PD-0002_5	0.24	2.43	0.95	2.43	0.95	0.8622	0.0000	PNL	VCB	12	14	10	25	23	18	1.74	(*N3) (*N24) (*S1)	# 0029
1033-PRI	PD-0030_1	12.47	0.39	0.35	0.39	0.35	2	0.0000	SWG	VCB	30	45	30	152	32	36	0.98	(*N9) (*N24) (*S0)	# 0030
1033-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0031
1037-PRI	PD-0013_2	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 0033
1037-SEC	PD-0013_2	0.24	3.88	1.83	3.88	1.83	2	0.0000	PNL	VCB	12	14	10	25	59	18	7.92	(*N9) (*N24) (*S0)	# 0033
1039-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0035
1039-SEC	PD-0009_1	0.24	2.76	1.27	2.76	1.27	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.38	(*N9) (*N24) (*S0)	# 0035

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
1040-SEC	PD-0037_1	0.24	2.25	1.01	2.25	1.01	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.25	(*N9) (*N24) (*S0)	# 0036
1041-PRI	PD-0022_2	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*S0)	# 0038
1041-SEC	PD-0014_13	0.24	1.83	0.70	1.83	0.70	1.828	0.0000	PNL	VCB	12	14	10	25	30	18	2.68	(*N3) (*N24) (*S1)	# 0038
1042-PRI	PD-0005_1	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 0040
1042-SEC	PD-0005_1	0.24	4.48	2.14	4.48	2.14	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.34	(*N9) (*N24) (*S0)	# 0040
1049-SEC	PD-0132	0.24	0.93	0.34	0.93	0.34	1.196	0.0000	PNL	VCB	12	14	10	25	14	18	0.82	(*N3) (*N24) (*S1)	# 0041
1056-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0043
1056-SEC	PD-0009_1	0.24	4.50	2.15	4.50	2.15	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.37	(*N9) (*N24) (*S0)	# 0043
1061 AND 1126 PRI	PD-0009_1	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N9) (*S0)	# 0045
1061-SEC	PD-0009_1	0.24	3.10	1.43	3.10	1.43	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.12	(*N9) (*N24) (*S0)	# 0045
1062 AND 2780 AND 1049 PRI	PD-0003_9	12.47	0.62	0.57	0.62	0.57	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.54	(*N9) (*S0)	# 0047
1062-SEC	PD-0131	0.24	0.65	0.27	0.65	0.27	2	0.0000	PNL	VCB	12	14	10	25	17	18	1.06	(*N9) (*N24) (*S0)	# 0047
1063-PRI	PD-0023_2	12.47	0.95	0.86	0.95	0.86	0.1108	0.0000	SWG	VCB	30	45	30	152	9	36	0.13	(*N3) (*S1)	# 0049
1063-SEC	PD-0023_2	0.24	4.95	2.38	4.95	2.38	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.5	(*N9) (*N24) (*S0)	# 0049
1064-PRI	SEL-751A HOWE FDR	12.47	0.49	0.45	0.44	0.40	1.95	0.0500	SWG	VCB	30	45	30	152	37	36	1.23	(*N9) (*N24) (*S0)	# 0050
1064-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0051
1066-PRI	PD-0009_1	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.94	(*N9) (*S0)	# 0053
1066-SEC	PD-0009_1	0.24	2.04	0.91	2.04	0.91	2	0.0000	PNL	VCB	12	14	10	25	37	18	3.81	(*N9) (*N24) (*S0)	# 0053
1074-SEC	SOUTH 751	0.24	6.38	3.14	6.38	3.14	1.95	0.0500	PNL	VCB	12	14	10	25	84	18	14.0	(*N9) (*N24) (*S0)	# 0055
1078-PRI	PD-0011_2	12.47	0.43	0.38	0.43	0.38	0.0664	0.0000	SWG	VCB	30	45	30	152	4	36	0.04	(*N3) (*S1)	# 0057
1078-SEC	PD-0011_2	0.24	5.16	2.15	5.16	2.15	1.748	0.0000	PNL	VCB	12	14	10	25	61	18	8.33	(*N3) (*N24) (*S1)	# 0057
1079-PRI	140	12.47	4.23	3.93	4.23	3.93	0.0141	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*N24) (*S0)	# 0058
1079-PRI (140 LineSide)	WEST 751	12.47	4.23	3.93	4.19	3.89	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N24) (*S0)	# 0059-Line
1079-SEC	140	0.24	8.95	3.91	8.95	3.91	0.4724	0.0000	PNL	VCB	12	14	10	25	40	18	4.22	(*N3) (*N24) (*S1)	# 0059
107-SEC	PD-0048	0.24	1.98	0.88	1.98	0.88	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.67	(*N9) (*N24) (*S0)	# 0054
1080-SEC	PD-0469	0.24	6.99	2.99	6.99	2.99	0.8116	0.0000	PNL	VCB	12	14	10	25	47	18	5.47	(*N3) (*N24) (*S1)	# 0060
1083-PRI	PD-0055	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0062
1083-SEC	PD-0055	0.24	4.16	1.97	4.16	1.97	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.58	(*N9) (*N24) (*S0)	# 0062
1084-PRI	PD-0025_1	12.47	0.25	0.23	0.25	0.23	0.1664	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*N24) (*S1)	# 0063
1084-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0064
1087-PRI	PD-0015_5	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0067
1087-SEC	PD-0015_5	0.24	4.09	1.94	4.09	1.94	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.40	(*N9) (*N24) (*S0)	# 0067
1088-SEC	PD-0284	0.24	3.74	1.52	3.74	1.52	0.3586	0.0000	PNL	VCB	12	14	10	25	18	18	1.18	(*N3) (*N24) (*S1)	# 0068
1094-PRI	SOUTH 751	12.47	1.31	1.19	1.17	1.07	0.2965	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*N24) (*S1)	# 0069
1094-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0070
1100-PRI	SEL-751A EAST FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 0072
1100-SEC	PD-0173	0.24	4.33	1.78	4.33	1.78	1.076	0.0000	PNL	VCB	12	14	10	25	39	18	4.20	(*N3) (*N24) (*S1)	# 0072
1101-SEC	PD-0009_1	0.24	4.46	2.13	4.46	2.13	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.30	(*N9) (*N24) (*S0)	# 0073

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
1103-PRI	SEL-751A EAST FDR	12.47	0.56	0.51	0.56	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.40	(*N9) (*S0)	# 0075
1103-SEC	PD-0189	0.24	4.26	1.75	4.26	1.75	1.123	0.0000	PNL	VCB	12	14	10	25	40	18	4.30	(*N3) (*N24) (*S1)	# 0075
1104-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 0077
1104-SEC	PD-0009_1	0.24	4.42	2.11	4.42	2.11	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.19	(*N9) (*N24) (*S0)	# 0077
1105-PRI	PD-0003_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0079
1105-SEC	PD-0138	0.24	4.64	1.92	4.64	1.92	0.9108	0.0000	PNL	VCB	12	14	10	25	37	18	3.84	(*N3) (*N24) (*S1)	# 0079
1106-PRI	PD-0019_5	12.47	0.28	0.25	0.20	0.18	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0081
1106-SEC	PD-0019_5	0.24	4.10	1.94	4.10	1.94	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.43	(*N9) (*N24) (*S0)	# 0081
1107-PRI	NORTHWEST (HOSPITAL) 751	12.47	7.03	6.53	7.03	6.53	0.03	0.0500	SWG	VCB	30	45	30	152	24	36	0.65	(*S0)	# 0083
1107-SEC	PD-0622	0.24	4.91	2.04	4.91	2.04	0.8004	0.0000	PNL	VCB	12	14	10	25	36	18	3.60	(*N3) (*N24) (*S1)	# 0083
1109-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 0085
1109-SEC	PD-0009_1	0.24	4.08	1.93	4.08	1.93	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.39	(*N9) (*N24) (*S0)	# 0085
1110-PRI	WEST 751	12.47	5.50	5.11	5.50	5.11	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 0087
1110-SEC	PD-0431	0.24	5.51	2.31	5.51	2.31	0.6146	0.0000	PNL	VCB	12	14	10	25	33	18	3.16	(*N3) (*N24) (*S1)	# 0087
1111-PRI	PD-0016_1	12.47	0.42	0.39	0.42	0.39	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.07	(*N9) (*S0)	# 0089
1111-SEC	PD-0016_1	0.24	4.33	2.06	4.33	2.06	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.97	(*N9) (*N24) (*S0)	# 0089
1113-PRI	PD-0009_1	12.47	0.31	0.29	0.31	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 0091
1113-SEC	PD-0009_1	0.24	4.06	1.92	4.06	1.92	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.33	(*N9) (*N24) (*S0)	# 0091
1114-PRI	SOUTH 751	12.47	1.27	1.16	1.14	1.04	0.3159	0.0500	SWG	VCB	30	45	30	152	22	36	0.56	(*N3) (*N24) (*S1)	# 0092
1114-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0093
1115-PRI	PD-0610	12.47	0.63	0.58	0.63	0.58	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.58	(*N9) (*S0)	# 0095
1115-SEC	PD-0611	0.24	2.19	0.85	2.19	0.85	1.08	0.0000	PNL	VCB	12	14	10	25	24	18	1.93	(*N3) (*N24) (*S1)	# 0095
1118-PRI	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0097
1118-PRI0	SEL-751A SOUTHWEST FDR	12.47	0.61	0.55	0.61	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0098
1118-SEC	PD-0379	0.24	3.02	1.20	3.02	1.20	0.5421	0.0000	PNL	VCB	12	14	10	25	20	18	1.40	(*N3) (*N24) (*S1)	# 0098
1120-PRI	SOUTH 751	12.47	1.24	1.13	1.12	1.02	0.3286	0.0500	SWG	VCB	30	45	30	152	22	36	0.57	(*N3) (*N24) (*S1)	# 0099
1120-SEC	SOUTH 751	0.24	9.37	4.76	9.37	4.76	1.95	0.0500	PNL	VCB	12	14	10	25	110	18	21.7	(*N9) (*N24) (*S0)	# 0100
1122-PRI	PD-0041	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0102
1122-SEC	PD-0041	0.24	6.21	3.05	6.21	3.05	2	0.0000	PNL	VCB	12	14	10	25	82	18	13.6	(*N9) (*N24) (*S0)	# 0102
1124-PRI	SEL-751A HOWE FDR	12.47	0.42	0.38	0.42	0.38	1.95	0.0500	SWG	VCB	30	45	30	152	33	36	1.05	(*N9) (*S0)	# 0001
1124-SEC	SEL-751A HOWE FDR	0.24	1.98	0.88	1.98	0.88	1.95	0.0500	PNL	VCB	12	14	10	25	36	18	3.67	(*N9) (*N24) (*S0)	# 0104
1125 AND 2341 AND 2474 PRI	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0106
1125-SEC	PD-0372	0.24	2.10	0.81	2.10	0.81	1.212	0.0000	PNL	VCB	12	14	10	25	25	18	2.07	(*N3) (*N24) (*S1)	# 0106
1126-SEC	PD-0009_1	0.24	2.13	0.95	2.13	0.95	2	0.0000	PNL	VCB	12	14	10	25	38	18	3.99	(*N9) (*N24) (*S0)	# 0107
1127-PRI	PD-0003_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0109

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
1127-SEC	PD-0137	0.24	2.25	0.88	2.25	0.88	1.014	0.0000	PNL	VCB	12	14	10	25	24	18	1.88	(*N3) (*N24) (*S1)	# 0109
1128-PRI	PD-0034_1	12.47	0.28	0.25	0.28	0.25	0.7828	0.0000	SWG	VCB	30	45	30	152	14	36	0.28	(*N3) (*N24) (*S1)	# 0110
1128-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0111
1129-PRI	PD-0026_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.83	(*N9) (*S0)	# 0113
1129-SEC	PD-0026_1	0.24	2.12	0.95	2.12	0.95	2	0.0000	PNL	VCB	12	14	10	25	38	18	3.97	(*N9) (*N24) (*S0)	# 0113
1130-PRI	PD-0014_3	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.94	(*N9) (*S0)	# 0115
1130-SEC	PD-0014_12	0.24	2.44	0.95	2.44	0.95	0.8574	0.0000	PNL	VCB	12	14	10	25	23	18	1.73	(*N3) (*N24) (*S1)	# 0115
1131-PRI	PD-0015_3	12.47	0.35	0.32	0.35	0.32	0.0243	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0116
1131-SEC	PD-0015_3	0.24	2.68	1.06	2.68	1.06	0.7001	0.0000	PNL	VCB	12	14	10	25	21	18	1.58	(*N3) (*N24) (*S1)	# 0117
1133-PRI	PD-0011_1	12.47	0.43	0.40	0.43	0.40	2	0.0000	SWG	VCB	30	45	30	152	34	36	1.10	(*N9) (*S0)	# 0119
1133-SEC	PD-0011_1	0.24	6.72	3.32	6.72	3.32	2	0.0000	PNL	VCB	12	14	10	25	87	18	14.8	(*N9) (*N24) (*S0)	# 0119
1138-PRI	PD-0025_3	12.47	0.26	0.24	0.26	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.67	(*N9) (*S0)	# 0121
1138-SEC	PD-0025_3	0.24	1.51	0.66	1.51	0.66	2	0.0000	PNL	VCB	12	14	10	25	30	18	2.72	(*N9) (*N24) (*S0)	# 0121
1139-PRI	PD-0032	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 0123
1139-SEC	PD-0032	0.24	2.79	1.28	2.79	1.28	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.44	(*N9) (*N24) (*S0)	# 0123
1140 (2) -SEC	PD-0067	0.24	1.99	0.89	1.99	0.89	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.71	(*N9) (*N24) (*S0)	# 0124
1140 AND 1140 (2) PRI	PD-0067	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 0126
1140-SEC	PD-0067	0.24	1.56	0.68	1.56	0.68	2	0.0000	PNL	VCB	12	14	10	25	31	18	2.81	(*N9) (*N24) (*S0)	# 0126
1144-PRI	PD-0009_1	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0128
1144-SEC	PD-0009_1	0.24	1.22	0.52	1.22	0.52	2	0.0000	PNL	VCB	12	14	10	25	26	18	2.13	(*N9) (*N24) (*S0)	# 0128
1146-PRI	PD-0009_1	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 0130
1146-SEC	PD-0009_1	0.24	3.10	1.43	3.10	1.43	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.12	(*N9) (*N24) (*S0)	# 0130
1148-PRI	SEL-751A SOUTHWEST FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0132
1148-SEC	PD-0410	0.24	2.31	0.90	2.31	0.90	0.9622	0.0000	PNL	VCB	12	14	10	25	23	18	1.83	(*N3) (*N24) (*S1)	# 0132
1150-PRI	PD-0009_1	12.47	0.39	0.35	0.39	0.35	2	0.0000	SWG	VCB	30	45	30	152	32	36	0.98	(*N9) (*S0)	# 0134
1150-SEC	PD-0009_1	0.24	0.95	0.40	0.95	0.40	2	0.0000	PNL	VCB	12	14	10	25	22	18	1.62	(*N9) (*N24) (*S0)	# 0134
1154 AND 2794 PRI	PD-0009_1	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0136
1154-SEC	PD-0009_1	0.24	0.94	0.39	0.94	0.39	2	0.0000	PNL	VCB	12	14	10	25	21	18	1.56	(*N9) (*N24) (*S0)	# 0136
1155-PRI	PD-0019_4	12.47	1.02	0.93	1.02	0.93	0.0977	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*N3) (*S1)	# 0138
1155-SEC	PD-0019_10	0.24	3.72	1.51	3.72	1.51	1.641	0.0000	PNL	VCB	12	14	10	25	46	18	5.38	(*N3) (*N24) (*S1)	# 0138
1156-PRI	PD-0027_3	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 0140
1156-SEC	PD-0027_3	0.24	4.04	1.91	4.04	1.91	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.30	(*N9) (*N24) (*S0)	# 0140
1157-PRI	JOHNSON 751	12.47	3.78	3.51	3.78	3.51	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 0142
1157-SEC	PD-0453	0.24	5.69	2.40	5.69	2.40	0.5706	0.0000	PNL	VCB	12	14	10	25	32	18	3.04	(*N3) (*N24) (*S1)	# 0142
1158-PRI	PD-0049_4	12.47	0.64	0.59	0.64	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.61	(*N9) (*S0)	# 0144
1158-SEC	PD-0514	0.24	4.61	1.90	4.61	1.90	0.9243	0.0000	PNL	VCB	12	14	10	25	37	18	3.87	(*N3) (*N24) (*S1)	# 0144
1160-PRI	NE (IND #2) 751	12.47	3.56	3.31	3.56	3.31	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 0146
1160-SEC	PD-0242	0.24	5.67	2.38	5.67	2.38	0.5763	0.0000	PNL	VCB	12	14	10	25	32	18	3.06	(*N3) (*N24) (*S1)	# 0146
1162-PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 0148

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
1162-SEC	PD-0009_1	0.24	2.98	1.38	2.98	1.38	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.87	(*N9) (*N24) (*S0)	# 0148
1164-PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0150
1164-PRI_1	PD-0015_6	12.47	2.84	2.60	2.84	2.60	0.1509	0.0000	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*S1)	# 0151
1164-SEC	PD-0009_1	0.24	3.00	1.38	3.00	1.38	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.91	(*N9) (*N24) (*S0)	# 0151
1164-SEC_1	PD-0249	0.24	3.72	1.51	3.72	1.51	0.3622	0.0000	PNL	VCB	12	14	10	25	18	18	1.19	(*N3) (*N24) (*S1)	# 0152
1166-SEC	PD-0471	0.24	3.35	1.35	3.35	1.35	0.4449	0.0000	PNL	VCB	12	14	10	25	19	18	1.29	(*N3) (*N24) (*S1)	# 0153
1171-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0155
1171-SEC	PD-0009_1	0.24	1.23	0.53	1.23	0.53	2	0.0000	PNL	VCB	12	14	10	25	26	18	2.14	(*N9) (*N24) (*S0)	# 0155
1172-PRI	PD-0009_6	12.47	0.26	0.23	0.26	0.23	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.65	(*N9) (*S0)	# 0157
1172-SEC	PD-0009_6	0.24	1.21	0.52	1.21	0.52	2	0.0000	PNL	VCB	12	14	10	25	26	18	2.11	(*N9) (*N24) (*S0)	# 0157
1175-SEC	PD-0014_6	0.24	1.29	0.48	1.29	0.48	0.2932	0.0000	PNL	VCB	12	14	10	25	7	18	0.29	(*N3) (*N24) (*S1)	# 0158
1181-SEC	PD-0251	0.24	3.32	1.34	3.32	1.34	0.4508	0.0000	PNL	VCB	12	14	10	25	19	18	1.30	(*N3) (*N24) (*S1)	# 0159
1182-PRI	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0161
1182-SEC	PD-0375	0.24	5.90	2.49	5.90	2.49	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N3) (*N9) (*N24) (*S0)	# 0161
1184-PRI	PD-0399	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0163
1184-SEC	PD-0407	0.24	6.04	2.55	6.04	2.55	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.4	(*N3) (*N9) (*N24) (*S1)	# 0163
1185-PRI	139	12.47	3.31	3.03	3.31	3.03	0.1112	0.0000	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 0164
1185-SEC	PD-0439	0.24	6.93	2.97	6.93	2.97	1.371	0.0000	PNL	VCB	12	14	10	25	64	18	9.15	(*N3) (*N24) (*S1)	# 0165
1187-SEC	SOUTH 751	0.24	5.16	2.49	5.16	2.49	1.95	0.0500	PNL	VCB	12	14	10	25	72	18	11.0	(*N9) (*N24) (*S0)	# 0166
1188-PRI	PD-0027_1	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 0168
1188-SEC	PD-0027_1	0.24	2.34	1.05	2.34	1.05	2	0.0000	PNL	VCB	12	14	10	25	41	18	4.44	(*N9) (*N24) (*S0)	# 0168
1189-PRI	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 0170
1189-SEC	PD-0009_1	0.24	2.31	1.04	2.31	1.04	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.37	(*N9) (*N24) (*S0)	# 0170
1192-PRI	PD-0027_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0172
1192-SEC	PD-0027_1	0.24	2.32	1.05	2.32	1.05	2	0.0000	PNL	VCB	12	14	10	25	41	18	4.40	(*N9) (*N24) (*S0)	# 0172
1193-PRI	PD-0055_1	12.47	0.68	0.63	0.68	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 0174
1193-SEC	PD-0055_1	0.24	4.72	2.26	4.72	2.26	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.91	(*N9) (*N24) (*S0)	# 0174
1194-PRI	PD-0011_3	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.12	(*N9) (*N24) (*S0)	# 0175
1194-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0176
1195-PRI	PD-0011_3	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.13	(*N9) (*N24) (*S0)	# 0177
1195-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0178
1196-PRI	PD-0003_9	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 0180
1196-SEC	PD-0018_9	0.24	6.54	2.79	6.54	2.79	0.9428	0.0000	PNL	VCB	12	14	10	25	49	18	5.90	(*N3) (*N24) (*S1)	# 0180
1198-PRI	PD-0026_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.83	(*N9) (*S0)	# 0182
1198-SEC	PD-0026_1	0.24	4.26	2.02	4.26	2.02	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.81	(*N9) (*N24) (*S0)	# 0182
1199-PRI	JOHNSON 751	12.47	0.71	0.64	0.71	0.64	0.9595	0.0500	SWG	VCB	30	45	30	152	29	36	0.88	(*N3) (*S1)	# 0184
1199-SEC	PD-0036_3	0.24	4.35	1.79	4.35	1.79	1.062	0.0000	PNL	VCB	12	14	10	25	39	18	4.16	(*N3) (*N24) (*S1)	# 0184
2002-PRI	PD-0005_10	12.47	0.48	0.44	0.48	0.44	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.21	(*N9) (*S0)	# 0186

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2002-SEC	PD-0007_23	0.24	4.06	1.66	4.06	1.66	1.288	0.0000	PNL	VCB	12	14	10	25	42	18	4.66	(*N3) (*N24) (*S1)	# 0186
2005-PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0188
2005-SEC	PD-0009_1	0.24	1.99	0.89	1.99	0.89	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.70	(*N9) (*N24) (*S0)	# 0188
2006 AND 2167 PRI	NORTHWEST (HOSPITAL) 751	12.47	4.92	4.57	4.92	4.57	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.46	(*S0)	# 0190
2006-SEC	NORTHWEST (HOSPITAL) 751	0.24	2.28	1.03	2.28	1.03	1.95	0.0500	PNL	VCB	12	14	10	25	40	18	4.33	(*N9) (*N24) (*S0)	# 0190
2009-PRI	PD-0009_1	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.94	(*N9) (*S0)	# 0192
2009-SEC	PD-0009_1	0.24	0.81	0.34	0.81	0.34	2	0.0000	PNL	VCB	12	14	10	25	19	18	1.34	(*N9) (*N24) (*S0)	# 0192
2011-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0194
2011-SEC	PD-0009_1	0.24	3.12	1.44	3.12	1.44	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.17	(*N9) (*N24) (*S0)	# 0194
2012-PRI	PD-0017	12.47	0.31	0.28	0.31	0.28	0.028	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*S1)	# 0003
2012-SEC	PD-0017	0.24	2.65	1.04	2.65	1.04	0.7158	0.0000	PNL	VCB	12	14	10	25	21	18	1.59	(*N3) (*N24) (*S1)	# 0196
2014-PRI	PD-0006_5	12.47	1.93	1.77	1.93	1.77	0.0372	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N3) (*S1)	# 0198
2014-SEC	PD-0006_5	0.24	2.64	1.20	2.64	1.20	2	0.0000	PNL	VCB	12	14	10	25	44	18	5.10	(*N9) (*N24) (*S0)	# 0198
2023-PRI	PD-0020_2	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.13	(*N9) (*S0)	# 0200
2023-SEC	PD-0020_2	0.24	7.64	3.82	7.64	3.82	2	0.0000	PNL	VCB	12	14	10	25	95	18	17.2	(*N9) (*N24) (*S0)	# 0200
2026-PRI	PD-0003_9	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0202
2026-SEC	PD-0140	0.24	0.97	0.35	0.97	0.35	1.07	0.0000	PNL	VCB	12	14	10	25	14	18	0.77	(*N3) (*N24) (*S1)	# 0202
2030-PRI	PD-0013_3	12.47	0.42	0.38	0.42	0.38	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.05	(*N9) (*N24) (*S0)	# 0203
2030-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0204
2031-PRI	PD-0010_9	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0206
2031-SEC	PD-0010_9	0.24	8.89	4.49	8.89	4.49	2	0.0000	PNL	VCB	12	14	10	25	106	18	20.4	(*N9) (*N24) (*S0)	# 0206
2033-PRI	PD-0042	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0208
2033-SEC	PD-0042	0.24	6.21	3.05	6.21	3.05	2	0.0000	PNL	VCB	12	14	10	25	82	18	13.6	(*N9) (*N24) (*S0)	# 0208
2034-PRI	PD-0009_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0210
2034-SEC	PD-0009_8	0.24	8.37	4.21	8.37	4.21	2	0.0000	PNL	VCB	12	14	10	25	102	18	19.0	(*N9) (*N24) (*S0)	# 0210
2035-PRI	PD-0010_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0212
2035-SEC	PD-0010_9	0.24	8.34	4.20	8.34	4.20	2	0.0000	PNL	VCB	12	14	10	25	101	18	19.0	(*N9) (*N24) (*S0)	# 0212
2036-PRI	PD-0009_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 0214
2036-SEC	PD-0009_8	0.24	8.40	4.23	8.40	4.23	2	0.0000	PNL	VCB	12	14	10	25	102	18	19.1	(*N9) (*N24) (*S0)	# 0214
2037-PRI	PD-0011_8	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0216
2037-SEC	PD-0011_8	0.24	8.32	4.18	8.32	4.18	2	0.0000	PNL	VCB	12	14	10	25	101	18	18.9	(*N9) (*N24) (*S0)	# 0216
2038-PRI	NE (IND #2) 751	12.47	3.73	3.47	3.73	3.47	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 0218
2038-SEC	PD-0295	0.24	14.81	6.62	14.81	6.62	0.3759	0.0000	PNL	VCB	12	14	10	25	49	18	5.86	(*N3) (*N24) (*S1)	# 0218
2046-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0220
2046-SEC	PD-0009_1	0.24	5.39	2.61	5.39	2.61	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 0220
2047-PRI	PD-0011_8	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.50	(*N9) (*S0)	# 0222
2047-SEC	PD-0011_8	0.24	7.10	3.53	7.10	3.53	2	0.0000	PNL	VCB	12	14	10	25	90	18	15.8	(*N9) (*N24) (*S0)	# 0222
2051-PRI	SOUTH 751	12.47	1.27	1.16	1.15	1.04	0.3115	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*N24) (*S1)	# 0223
2051-SEC	SOUTH 751	0.24	7.49	3.74	7.49	3.74	1.95	0.0500	PNL	VCB	12	14	10	25	94	18	16.8	(*N9) (*N24) (*S0)	# 0224

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2052-PRI	PD-0016_9	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0226
2052-SEC	PD-0016_9	0.24	6.72	3.32	6.72	3.32	2	0.0000	PNL	VCB	12	14	10	25	87	18	14.8	(*N9) (*N24) (*S0)	# 0226
2059-PRI	SOUTH 751	12.47	1.34	1.23	1.21	1.10	0.2797	0.0500	SWG	VCB	30	45	30	152	21	36	0.53	(*N3) (*N24) (*S1)	# 0227
2059-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0228
2063-PRI	PD-0005_3	12.47	0.60	0.55	0.60	0.55	0.0269	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 0230
2063-PRI0	PD-0012_2	12.47	0.38	0.34	0.38	0.34	0.0451	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 0231
2063-PRI1	PD-0021_2	12.47	0.43	0.39	0.43	0.39	0.094	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*S1)	# 0232
2063-PRI2	PD-0021_2	12.47	0.43	0.39	0.43	0.39	0.0953	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*S1)	# 0233
2063-SEC	PD-0005_3	0.24	4.17	1.71	4.17	1.71	1.192	0.0000	PNL	VCB	12	14	10	25	41	18	4.46	(*N3) (*N24) (*S1)	# 0233
2063-SEC0	PD-0012_2	0.24	3.93	1.60	3.93	1.60	1.41	0.0000	PNL	VCB	12	14	10	25	44	18	4.92	(*N3) (*N24) (*S1)	# 0234
2065-PRI	PD-0003_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.50	(*N9) (*S0)	# 0236
2065-SEC	PD-0136	0.24	7.75	3.88	7.75	3.88	2	0.0000	PNL	VCB	12	14	10	25	96	18	17.5	(*N9) (*N24) (*S0)	# 0236
2066-PRI	PD-0062_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.78	(*N9) (*S0)	# 0238
2066-SEC	PD-0062_1	0.24	7.50	3.75	7.50	3.75	2	0.0000	PNL	VCB	12	14	10	25	94	18	16.8	(*N9) (*N24) (*S0)	# 0238
2070-PRI	PD-0015_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0240
2070-SEC	PD-0015_9	0.24	7.73	3.87	7.73	3.87	2	0.0000	PNL	VCB	12	14	10	25	96	18	17.4	(*N9) (*N24) (*S0)	# 0240
2073-PRI	PD-0060_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	47	36	1.80	(*N9) (*S0)	# 0242
2073-SEC	PD-0060_1	0.24	4.57	2.18	4.57	2.18	2	0.0000	PNL	VCB	12	14	10	25	66	18	9.54	(*N9) (*N24) (*S0)	# 0242
2074-PRI	PD-0014_8	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 0244
2074-SEC	PD-0014_8	0.24	4.32	2.06	4.32	2.06	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.96	(*N9) (*N24) (*S0)	# 0244
2075-PRI	PD-0019_9	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0246
2075-SEC	PD-0019_9	0.24	3.92	1.85	3.92	1.85	2	0.0000	PNL	VCB	12	14	10	25	59	18	8.00	(*N9) (*N24) (*S0)	# 0246
2076-PRI	PD-0060_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	47	36	1.79	(*N9) (*S0)	# 0248
2076-SEC	PD-0060_1	0.24	5.00	2.41	5.00	2.41	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.6	(*N9) (*N24) (*S0)	# 0248
2078-PRI	PD-0003_5	12.47	3.17	2.94	3.17	2.94	0.023	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0250
2078-SEC	PD-0003_5	0.24	9.72	4.95	9.72	4.95	2	0.0000	PNL	VCB	12	14	10	25	113	18	22.6	(*N9) (*N24) (*S0)	# 0250
2079-PRI	PD-0042_1	12.47	5.45	5.07	5.45	5.07	0.0135	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N24) (*S0)	# 0251
2079-SEC	PD-0042_1	0.24	2.55	1.00	2.55	1.00	0.7743	0.0000	PNL	VCB	12	14	10	25	22	18	1.65	(*N3) (*N24) (*S1)	# 0252
2082 AND 2083 PRI	PD-0016_4	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 0254
2082-SEC	PD-0016_4	0.24	2.29	1.03	2.29	1.03	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.35	(*N9) (*N24) (*S0)	# 0254
2083-SEC	PD-0016_4	0.24	2.29	1.03	2.29	1.03	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.35	(*N9) (*N24) (*S0)	# 0255
2085 AND 1175 PRI	PD-0012_5	12.47	0.26	0.23	0.26	0.23	0.047	0.0000	SWG	VCB	30	45	30	152	2	36	0.02	(*N3) (*S1)	# 0257
2085-SEC	PD-0013_4	0.24	2.05	0.79	2.05	0.79	0.2715	0.0000	PNL	VCB	12	14	10	25	10	18	0.45	(*N3) (*N24) (*S1)	# 0257
2090-PRI	PD-0031_4	12.47	2.79	2.55	2.79	2.55	0.157	0.0000	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 0259
2090-SEC	PD-0031_4	0.48	19.36	13.02	19.36	13.02	2	0.0000	PNL	VCB	12	14	10	25	211	18	61.4	(*N3) (*N9) (*N24) (*S0)	# 0259
2091-SEC	PD-0031_4	0.48	19.36	13.02	19.36	13.02	2	0.0000	PNL	VCB	12	14	10	25	211	18	61.4	(*N3) (*N9) (*N24) (*S0)	# 0260
2092-SEC	PD-0031_4	0.48	19.36	13.02	19.36	13.02	2	0.0000	PNL	VCB	12	14	10	25	211	18	61.4	(*N3) (*N9) (*N24) (*S0)	# 0261
2094-SEC	PD-0609	0.24	1.53	0.67	1.53	0.67	2	0.0000	PNL	VCB	12	14	10	25	30	18	2.74	(*N9) (*N24) (*S0)	# 0262
2095-PRI	JOHNSON 751	12.47	0.64	0.58	0.64	0.58	1.278	0.0500	SWG	VCB	30	45	30	152	33	36	1.04	(*N3) (*S1)	# 0264

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2095-SEC	PD-0004_11	0.24	1.53	0.67	1.53	0.67	2	0.0000	PNL	VCB	12	14	10	25	30	18	2.76	(*N9) (*N24) (*S0)	# 0264
2099-PRI	PD-0066	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 0266
2099-SEC	PD-0066	0.24	0.71	0.29	0.71	0.29	2	0.0000	PNL	VCB	12	14	10	25	18	18	1.17	(*N9) (*N24) (*S0)	# 0266
2106-PRI	PD-0035	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0268
2106-SEC	PD-0035	0.24	2.90	1.33	2.90	1.33	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.67	(*N9) (*N24) (*S0)	# 0268
2107-PRI	SEL-751A SOUTHWEST FDR	12.47	0.56	0.51	0.56	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.40	(*N9) (*S0)	# 0270
2107-SEC	PD-0312	0.24	2.82	1.12	2.82	1.12	0.6244	0.0000	PNL	VCB	12	14	10	25	21	18	1.49	(*N3) (*N24) (*S1)	# 0270
2109-SEC	NORTHWEST (HOSPITAL) 751	0.24	1.87	0.83	1.87	0.83	1.95	0.0500	PNL	VCB	12	14	10	25	35	18	3.46	(*N9) (*N24) (*S0)	# 0271
2110-PRI	PD-0009_1	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 0273
2110-SEC	PD-0009_1	0.24	2.11	0.94	2.11	0.94	2	0.0000	PNL	VCB	12	14	10	25	38	18	3.95	(*N9) (*N24) (*S0)	# 0273
2111 AND 2109 PRI	NORTHWEST (HOSPITAL) 751	12.47	4.64	4.32	4.64	4.32	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*S0)	# 0275
2111-SEC	NORTHWEST (HOSPITAL) 751	0.24	1.87	0.83	1.87	0.83	1.95	0.0500	PNL	VCB	12	14	10	25	35	18	3.45	(*N9) (*N24) (*S0)	# 0275
2113-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0277
2113-SEC	PD-0009_1	0.24	1.68	0.74	1.68	0.74	2	0.0000	PNL	VCB	12	14	10	25	32	18	3.05	(*N9) (*N24) (*S0)	# 0277
2115-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0279
2115-SEC	PD-0009_1	0.24	1.93	0.86	1.93	0.86	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.58	(*N9) (*N24) (*S0)	# 0279
2117-PRI	PD-0067	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 0281
2117-SEC	PD-0067	0.24	2.48	1.13	2.48	1.13	2	0.0000	PNL	VCB	12	14	10	25	43	18	4.76	(*N9) (*N24) (*S0)	# 0281
2118-PRI	PD-0063	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 0283
2118-SEC	PD-0063	0.24	2.59	1.18	2.59	1.18	2	0.0000	PNL	VCB	12	14	10	25	44	18	4.99	(*N9) (*N24) (*S0)	# 0283
2120-PRI	PD-0019_5	12.47	0.27	0.25	0.21	0.19	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0285
2120-SEC	PD-0019_5	0.24	1.98	0.88	1.98	0.88	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.68	(*N9) (*N24) (*S0)	# 0285
2121-PRI	PD-0004_6	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 0287
2121-SEC	PD-0004_6	0.24	2.08	0.93	2.08	0.93	2	0.0000	PNL	VCB	12	14	10	25	38	18	3.89	(*N9) (*N24) (*S0)	# 0287
2122-PRI	PD-0002_1	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0289
2122-SEC	PD-0002_1	0.24	2.13	0.95	2.13	0.95	2	0.0000	PNL	VCB	12	14	10	25	38	18	4.00	(*N9) (*N24) (*S0)	# 0289
2129-PRI	NE (IND #2) 751	12.47	2.76	2.56	2.76	2.56	0.03	0.0500	SWG	VCB	30	45	30	152	14	36	0.26	(*S0)	# 0291
2129-SEC	PD-0311	0.24	0.93	0.34	0.93	0.34	1.212	0.0000	PNL	VCB	12	14	10	25	14	18	0.83	(*N3) (*N24) (*S1)	# 0291
2131-PRI	PD-0022_7	12.47	2.44	2.23	2.44	2.23	0.2063	0.0000	SWG	VCB	30	45	30	152	23	36	0.59	(*N3) (*S1)	# 0293
2131-SEC	PD-0308	0.24	0.93	0.34	0.93	0.34	1.206	0.0000	PNL	VCB	12	14	10	25	14	18	0.82	(*N3) (*N24) (*S1)	# 0293
2133-SEC	PD-0309	0.24	0.98	0.36	0.98	0.36	1.066	0.0000	PNL	VCB	12	14	10	25	14	18	0.77	(*N3) (*N24) (*S1)	# 0294
2146-PRI	PD-0014_2	12.47	0.57	0.52	0.25	0.23	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 0296
2146-SEC	PD-0002_2	0.24	5.20	2.52	5.20	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 0296
2157-PRI	PD-0019_1	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.89	(*N9) (*S0)	# 0298
2157-SEC	PD-0019_1	0.24	2.03	0.91	2.03	0.91	2	0.0000	PNL	VCB	12	14	10	25	37	18	3.78	(*N9) (*N24) (*S0)	# 0298
2158-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0300
2158-SEC	PD-0009_1	0.24	2.00	0.89	2.00	0.89	2	0.0000	PNL	VCB	12	14	10	25	37	18	3.72	(*N9) (*N24) (*S0)	# 0300

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2159-PRI	PD-0003_1	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0302
2159-SEC	PD-0003_1	0.24	3.18	1.47	3.18	1.47	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.31	(*N9) (*N24) (*S0)	# 0302
2161-PRI	PD-0024_1	12.47	0.26	0.23	0.26	0.23	0.3371	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*N3) (*N24) (*S1)	# 0303
2161-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0304
2162-PRI	PD-0179	12.47	0.50	0.45	0.50	0.45	0.3727	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 0306
2162-SEC	PD-0179	0.24	5.26	2.55	5.26	2.55	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.2	(*N9) (*N24) (*S0)	# 0306
2165-PRI	NE (IND #2) 751	12.47	4.42	4.10	4.42	4.10	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 0308
2165-SEC	PD-0280	0.24	12.83	5.72	12.83	5.72	0.3494	0.0000	PNL	VCB	12	14	10	25	42	18	4.67	(*N3) (*N24) (*S1)	# 0308
2166-PRI	SOUTH 751	12.47	1.46	1.34	1.46	1.34	0.1898	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*S1)	# 0310
2166-SEC	SOUTH 751	0.24	5.02	2.42	5.02	2.42	1.95	0.0500	PNL	VCB	12	14	10	25	70	18	10.6	(*N9) (*N24) (*S0)	# 0310
2167-SEC	NORTHWEST (HOSPITAL) 751	0.24	5.59	2.72	5.59	2.72	1.95	0.0500	PNL	VCB	12	14	10	25	76	18	12.0	(*N9) (*N24) (*S0)	# 0311
2172-PRI	SEL-751A HOWE FDR	12.47	0.32	0.29	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.82	(*N9) (*N24) (*S0)	# 0312
2172-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0313
2176-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0315
2176-SEC	PD-0009_1	0.24	2.46	1.12	2.46	1.12	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.71	(*N9) (*N24) (*S0)	# 0315
2177-PRI	PD-0083	12.47	0.20	0.20	0.20	0.20	2	0.0000	SWG	VCB	30	45	30	152	57	36	3.03	(*N9) (*N_ka) (*N24) (*S1)	# 0316
2177-PRI (PD-0083 LineSide)	PD-0021	12.47	0.20	0.20	0.20	0.20	2	0.0000	SWG	VCB	30	45	30	152	57	36	3.03	(*N9) (*N_ka) (*N24) (*S1)	# 0318-Line
2177-SEC	PD-0367	0.24	2.02	0.78	2.02	0.78	1.346	0.0000	PNL	VCB	12	14	10	25	26	18	2.21	(*N3) (*N24) (*S1)	# 0317
2182-PRI	139	12.47	3.36	3.09	3.36	3.09	0.1078	0.0000	SWG	VCB	30	45	30	152	19	36	0.42	(*N3) (*N24) (*S1)	# 0318
2182-SEC	142	0.24	8.00	3.47	8.00	3.47	0.5972	0.0000	PNL	VCB	12	14	10	25	42	18	4.70	(*N3) (*N24) (*S1)	# 0319
2184-PRI	NE (IND #2) 751	12.47	3.28	3.05	3.28	3.05	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.31	(*S0)	# 0321
2184-SEC	PD-0240	0.24	7.34	3.16	7.34	3.16	0.726	0.0000	PNL	VCB	12	14	10	25	45	18	5.18	(*N3) (*N24) (*S1)	# 0321
2186-PRI	NORTHWEST (HOSPITAL) 751	12.47	2.76	2.56	2.76	2.56	0.03	0.0500	SWG	VCB	30	45	30	152	14	36	0.26	(*S0)	# 0323
2186-SEC	NORTHWEST (HOSPITAL) 751	0.24	8.51	4.29	8.51	4.29	1.95	0.0500	PNL	VCB	12	14	10	25	103	18	19.4	(*N9) (*N24) (*S0)	# 0323
2187-PRI	PD-0003_4	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.20	(*N9) (*N24) (*S0)	# 0324
2187-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0325
2189-PRI	PD-0028	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0327
2189-SEC	PD-0028	0.24	5.45	2.65	5.45	2.65	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.7	(*N9) (*N24) (*S0)	# 0327
2193-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 0329
2193-SEC	PD-0007_1	0.24	6.01	2.94	6.01	2.94	2	0.0000	PNL	VCB	12	14	10	25	80	18	13.1	(*N9) (*N24) (*S0)	# 0329
2196-PRI	PD-0006_2	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0331
2196-SEC	PD-0006_2	0.24	4.35	2.07	4.35	2.07	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.03	(*N9) (*N24) (*S0)	# 0331
2197-PRI	PD-0019_8	12.47	0.52	0.47	0.52	0.47	0.3503	0.0000	SWG	VCB	30	45	30	152	12	36	0.23	(*N3) (*S1)	# 0333

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2197-SEC	PD-0019_8	0.24	4.72	2.26	4.72	2.26	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.90	(*N9) (*N24) (*S0)	# 0333
2199-PRI	PD-0008_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0335
2199-SEC	PD-0008_8	0.24	5.98	2.93	5.98	2.93	2	0.0000	PNL	VCB	12	14	10	25	80	18	13.0	(*N9) (*N24) (*S0)	# 0335
2200-PRI	PD-0059	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0337
2200-SEC	PD-0059	0.24	4.16	1.97	4.16	1.97	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.57	(*N9) (*N24) (*S0)	# 0337
2201-PRI	JOHNSON 751	12.47	0.67	0.60	0.67	0.60	1.127	0.0500	SWG	VCB	30	45	30	152	31	36	0.96	(*N3) (*S1)	# 0339
2201-SEC	PD-0481	0.24	2.97	1.18	2.97	1.18	0.5624	0.0000	PNL	VCB	12	14	10	25	20	18	1.42	(*N3) (*N24) (*S1)	# 0339
2202-PRI	PD-0038	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0341
2202-SEC	PD-0038	0.24	2.77	1.27	2.77	1.27	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.40	(*N9) (*N24) (*S0)	# 0341
2203-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0343
2203-SEC	PD-0009_1	0.24	2.78	1.28	2.78	1.28	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.42	(*N9) (*N24) (*S0)	# 0343
2221-PRI	PD-0021_3	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*N24) (*S0)	# 0344
2221-SEC	PD-0338	0.24	2.59	1.02	2.59	1.02	0.7509	0.0000	PNL	VCB	12	14	10	25	22	18	1.63	(*N3) (*N24) (*S1)	# 0345
2222-PRI	SEL-751A SOUTHWEST FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0347
2222-SEC	PD-0412	0.24	2.35	0.91	2.35	0.91	0.9303	0.0000	PNL	VCB	12	14	10	25	23	18	1.80	(*N3) (*N24) (*S1)	# 0347
2224-PRI	NE (IND #2) 751	12.47	3.82	3.55	3.82	3.55	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 0349
2224-SEC	PD-0263	0.24	3.96	1.62	3.96	1.62	0.3203	0.0000	PNL	VCB	12	14	10	25	17	18	1.13	(*N3) (*N24) (*S1)	# 0349
2226-SEC	PD-0306	0.24	3.72	1.51	3.72	1.51	0.3623	0.0000	PNL	VCB	12	14	10	25	18	18	1.19	(*N3) (*N24) (*S1)	# 0350
2227-PRI	PD-0023_5	12.47	2.94	2.69	2.94	2.69	0.1409	0.0000	SWG	VCB	30	45	30	152	20	36	0.48	(*N3) (*S1)	# 0352
2227-SEC	PD-0305	0.24	5.30	2.22	5.30	2.22	0.1821	0.0000	PNL	VCB	12	14	10	25	15	18	0.89	(*N3) (*N24) (*S1)	# 0352
2228-PRI	PD-0005_10	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.18	(*N9) (*S0)	# 0354
2228-SEC	PD-0007_24	0.24	3.83	1.56	3.83	1.56	0.343	0.0000	PNL	VCB	12	14	10	25	18	18	1.16	(*N3) (*N24) (*S1)	# 0354
2231-PRI	PD-0067	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 0356
2231-SEC	PD-0067	0.24	2.03	0.91	2.03	0.91	2	0.0000	PNL	VCB	12	14	10	25	37	18	3.78	(*N9) (*N24) (*S0)	# 0356
2232-PRI	PD-0043_1	12.47	0.69	0.62	0.69	0.62	0.034	0.0000	SWG	VCB	30	45	30	152	3	36	0.03	(*N3) (*S1)	# 0358
2232-SEC	PD-0043_1	0.24	6.66	2.84	6.66	2.84	0.9069	0.0000	PNL	VCB	12	14	10	25	48	18	5.78	(*N3) (*N24) (*S1)	# 0358
2236-PRI	JOHNSON 751	12.47	1.13	1.03	1.13	1.03	0.318	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 0360
2236-SEC	PD-0014_11	0.24	3.25	1.30	3.25	1.30	0.4699	0.0000	PNL	VCB	12	14	10	25	19	18	1.32	(*N3) (*N24) (*S1)	# 0360
2237-PRI	SEL-751A HOWE FDR	12.47	0.30	0.27	0.30	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 0007
2237-PRI_1	PD-0018_1	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*S0)	# 0363
2237-SEC	PD-0364	0.24	2.26	0.88	2.26	0.88	1.01	0.0000	PNL	VCB	12	14	10	25	24	18	1.87	(*N3) (*N24) (*S1)	# 0363
2237-SEC_1	PD-0018_1	0.24	2.85	1.31	2.85	1.31	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.58	(*N9) (*N24) (*S0)	# 0364
2239-PRI	PD-0007	12.47	0.26	0.23	0.26	0.23	0.1581	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*N24) (*S1)	# 0365
2239-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0366
2240-PRI	PD-0014_8	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 0368
2240-SEC	PD-0014_8	0.24	5.78	2.82	5.78	2.82	2	0.0000	PNL	VCB	12	14	10	25	78	18	12.5	(*N9) (*N24) (*S0)	# 0368
2241-PRI	PD-0011_9	12.47	0.52	0.47	0.52	0.47	0.3509	0.0000	SWG	VCB	30	45	30	152	12	36	0.23	(*N3) (*S1)	# 0370
2241-SEC	PD-0011_9	0.24	5.80	2.83	5.80	2.83	2	0.0000	PNL	VCB	12	14	10	25	78	18	12.5	(*N9) (*N24) (*S0)	# 0370

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2242-PRI	PD-0349	12.47	0.28	0.25	0.28	0.25	0.2081	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*N3) (*N24) (*S1)	# 0371
2242-PRI1	PD-0024_1	12.47	0.27	0.24	0.27	0.24	0.3185	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*N3) (*N24) (*S1)	# 0372
2242-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0373
2243-PRI	PD-0009_8	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0375
2243-SEC	PD-0009_8	0.24	7.55	3.77	7.55	3.77	2	0.0000	PNL	VCB	12	14	10	25	94	18	17.0	(*N9) (*N24) (*S0)	# 0375
2244-PRI	PD-0011_3	12.47	0.43	0.40	0.43	0.40	2	0.0000	SWG	VCB	30	45	30	152	34	36	1.09	(*N9) (*N24) (*S0)	# 0376
2244-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0377
2245-PRI	PD-0057_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 0379
2245-SEC	PD-0057_1	0.24	7.02	3.49	7.02	3.49	2	0.0000	PNL	VCB	12	14	10	25	90	18	15.6	(*N9) (*N24) (*S0)	# 0379
2250-PRI	SEL-751A HOWE FDR	12.47	0.49	0.45	0.44	0.40	1.95	0.0500	SWG	VCB	30	45	30	152	37	36	1.24	(*N9) (*N24) (*S0)	# 0380
2250-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0381
2251-PRI	PD-0030_1	12.47	0.50	0.45	0.50	0.45	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.24	(*N9) (*S0)	# 0383
2251-SEC	PD-0324	0.24	5.03	2.10	5.03	2.10	1.877	0.0000	PNL	VCB	12	14	10	25	62	18	8.69	(*N3) (*N24) (*S1)	# 0383
2252-PRI	PD-0005_8	12.47	2.66	2.44	2.66	2.44	0.1722	0.0000	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*S1)	# 0385
2252-SEC	PD-0241	0.24	2.44	0.95	2.44	0.95	0.8555	0.0000	PNL	VCB	12	14	10	25	23	18	1.73	(*N3) (*N24) (*S1)	# 0385
2253-PRI	PD-0009_5	12.47	1.40	1.28	1.40	1.28	0.0583	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*N3) (*S1)	# 0387
2253-SEC	PD-0009_5	0.24	6.97	3.46	6.97	3.46	2	0.0000	PNL	VCB	12	14	10	25	89	18	15.5	(*N9) (*N24) (*S0)	# 0387
2256-PRI	NORTHWEST (HOSPITAL) 751	12.47	2.69	2.49	2.69	2.49	0.03	0.0500	SWG	VCB	30	45	30	152	13	36	0.26	(*S0)	# 0389
2256-SEC	NORTHWEST (HOSPITAL) 751	0.24	9.43	4.79	9.43	4.79	1.95	0.0500	PNL	VCB	12	14	10	25	111	18	21.8	(*N9) (*N24) (*S0)	# 0389
2257-PRI	PD-0035_2	12.47	2.75	2.52	2.75	2.52	0.1613	0.0000	SWG	VCB	30	45	30	152	21	36	0.52	(*N3) (*S1)	# 0391
2257-SEC	PD-0037_2	0.24	2.24	0.87	2.24	0.87	1.027	0.0000	PNL	VCB	12	14	10	25	24	18	1.89	(*N3) (*N24) (*S1)	# 0391
2258-PRI	SEL-751A HOWE FDR	12.47	0.32	0.29	0.32	0.29	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 0011
2258-SEC	PD-0359	0.24	2.08	0.80	2.08	0.80	1.235	0.0000	PNL	VCB	12	14	10	25	25	18	2.09	(*N3) (*N24) (*S1)	# 0393
2260-PRI	PD-0041	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0395
2260-SEC	PD-0041	0.24	2.77	1.27	2.77	1.27	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.40	(*N9) (*N24) (*S0)	# 0395
2261-PRI	PD-0027_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0397
2261-SEC	PD-0027_1	0.24	2.76	1.27	2.76	1.27	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.38	(*N9) (*N24) (*S0)	# 0397
2262-PRI	PD-0031_1	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.94	(*N9) (*N24) (*S0)	# 0398
2262-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0399
2268-PRI	PD-0049_4	12.47	0.66	0.61	0.66	0.61	2	0.0000	SWG	VCB	30	45	30	152	44	36	1.65	(*N9) (*S0)	# 0401
2268-SEC	PD-0513	0.24	5.18	2.16	5.18	2.16	1.727	0.0000	PNL	VCB	12	14	10	25	60	18	8.27	(*N3) (*N24) (*S1)	# 0401
2270-PRI	PD-0012_6	12.47	3.40	3.16	3.40	3.16	0.022	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0403
2270-SEC	PD-0248	0.24	3.94	1.60	3.94	1.60	1.401	0.0000	PNL	VCB	12	14	10	25	43	18	4.90	(*N3) (*N24) (*S1)	# 0403
2271-PRI	SEL-751A EAST FDR	12.47	0.51	0.46	0.51	0.46	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S1)	# 0405
2271-SEC	PD-0178	0.24	3.99	1.63	3.99	1.63	1.351	0.0000	PNL	VCB	12	14	10	25	43	18	4.80	(*N3) (*N24) (*S1)	# 0405

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2272-PRI	PD-0019_5	12.47	0.28	0.25	0.21	0.19	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0407
2272-SEC	PD-0019_5	0.24	4.10	1.94	4.10	1.94	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.43	(*N9) (*N24) (*S0)	# 0407
2273-PRI	NE (IND #2) 751	12.47	4.00	3.72	4.00	3.72	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.38	(*S0)	# 0409
2273-SEC	PD-0266	0.24	10.71	4.74	10.71	4.74	0.4985	0.0000	PNL	VCB	12	14	10	25	46	18	5.45	(*N3) (*N24) (*S1)	# 0409
2274-PRI	SEL-751A EAST FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.44	(*N9) (*S0)	# 0411
2274-SEC	SEL-751A EAST FDR	0.24	6.05	2.96	6.05	2.96	1.95	0.0500	PNL	VCB	12	14	10	25	81	18	13.2	(*N9) (*N24) (*S0)	# 0411
2276-PRI	PD-0183	12.47	0.57	0.52	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 0413
2276-SEC	PD-0008_2	0.24	4.85	2.33	3.96	1.90	2	0.0000	PNL	VCB	12	14	10	25	69	18	10.2	(*N9) (*N24) (*S0)	# 0413
2278 AND 2284 AND 2657 PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 0415
2278-SEC	PD-0009_1	0.24	5.20	2.52	5.20	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 0415
2279-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0416
2279-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0417
2280-PRI	PD-0183	12.47	0.57	0.52	0.46	0.42	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 0419
2280-SEC	PD-0008_2	0.24	5.52	2.68	2.01	0.98	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.8	(*N9) (*N24) (*S0)	# 0419
2281-PRI	139	12.47	3.43	3.15	3.43	3.15	0.1041	0.0000	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*N24) (*S1)	# 0420
2281-SEC	141	0.24	8.02	3.47	8.02	3.47	0.595	0.0000	PNL	VCB	12	14	10	25	42	18	4.69	(*N3) (*N24) (*S1)	# 0421
2283-SEC	PD-0290	0.24	7.82	3.38	7.82	3.38	0.6295	0.0000	PNL	VCB	12	14	10	25	43	18	4.82	(*N3) (*N24) (*S1)	# 0422
2284-SEC	PD-0009_1	0.24	5.20	2.52	5.20	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 0423
2286-PRI	PD-0029	12.47	0.31	0.29	0.31	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 0425
2286-SEC	PD-0029	0.24	3.41	1.59	3.41	1.59	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.82	(*N9) (*N24) (*S0)	# 0425
2288-PRI	PD-0008_5	12.47	1.51	1.38	1.51	1.38	0.0519	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N3) (*S1)	# 0427
2288-SEC	PD-0007_10	0.24	4.03	1.64	4.03	1.64	1.314	0.0000	PNL	VCB	12	14	10	25	42	18	4.72	(*N3) (*N24) (*S1)	# 0427
2289-PRI	NE (IND #2) 751	12.47	3.52	3.27	3.52	3.27	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 0429
2289-SEC	PD-0243	0.24	4.27	1.75	4.27	1.75	1.12	0.0000	PNL	VCB	12	14	10	25	40	18	4.30	(*N3) (*N24) (*S1)	# 0429
2291 AND 2296 AND 2295	PD-0003_9	12.47	0.62	0.57	0.62	0.57	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.55	(*N9) (*S0)	# 0431
2291-SEC	PD-0127	0.24	7.54	3.25	7.54	3.25	1.085	0.0000	PNL	VCB	12	14	10	25	59	18	7.97	(*N3) (*N24) (*S1)	# 0431
2293-PRI	PD-0018_5	12.47	3.09	2.83	3.09	2.83	0.127	0.0000	SWG	VCB	30	45	30	152	19	36	0.46	(*N3) (*S1)	# 0433
2293-SEC	PD-0018_11	0.24	6.62	2.82	6.62	2.82	1.559	0.0000	PNL	VCB	12	14	10	25	67	18	9.88	(*N3) (*N24) (*S1)	# 0433
2295-SEC	PD-0129	0.24	7.54	3.25	7.54	3.25	1.085	0.0000	PNL	VCB	12	14	10	25	59	18	7.97	(*N3) (*N24) (*S1)	# 0434
2296-SEC	PD-0128	0.24	7.54	3.25	7.54	3.25	1.085	0.0000	PNL	VCB	12	14	10	25	59	18	7.97	(*N3) (*N24) (*S1)	# 0435
2297-PRI	SEL-751A EAST FDR	12.47	0.55	0.51	0.55	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.39	(*N9) (*S0)	# 0437
2297-SEC	PD-0193	0.24	5.13	2.14	5.13	2.14	1.775	0.0000	PNL	VCB	12	14	10	25	61	18	8.41	(*N3) (*N24) (*S1)	# 0437
2299-PRI	PD-0049_4	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 0439
2299-SEC	PD-0049_6	0.24	6.02	2.55	6.02	2.55	1.141	0.0000	PNL	VCB	12	14	10	25	52	18	6.48	(*N3) (*N24) (*S1)	# 0439
2300-PRI	PD-0001_3	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0441
2300-SEC	PD-0321	0.24	5.35	2.24	5.35	2.24	1.577	0.0000	PNL	VCB	12	14	10	25	58	18	7.83	(*N3) (*N24) (*S1)	# 0441
2304-SEC	PD-0472	0.24	2.11	0.81	2.11	0.81	1.192	0.0000	PNL	VCB	12	14	10	25	25	18	2.04	(*N3) (*N24) (*S1)	# 0442

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2305-PRI	PD-0010_5	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0444
2305-SEC	PD-0010_5	0.24	1.97	0.88	1.97	0.88	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.67	(*N9) (*N24) (*S0)	# 0444
2306-PRI	PD-0006_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0446
2306-SEC	PD-0006_1	0.24	6.03	2.95	6.03	2.95	2	0.0000	PNL	VCB	12	14	10	25	80	18	13.1	(*N9) (*N24) (*S0)	# 0446
2307-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0448
2307-SEC	PD-0009_1	0.24	4.06	1.92	4.06	1.92	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.33	(*N9) (*N24) (*S0)	# 0448
2309-SEC	PD-0291	0.24	5.53	2.32	5.53	2.32	0.6084	0.0000	PNL	VCB	12	14	10	25	33	18	3.14	(*N3) (*N24) (*S1)	# 0449
2311-PRI	PD-0009_1	12.47	0.28	0.26	0.28	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 0451
2311-SEC	PD-0009_1	0.24	1.71	0.75	1.71	0.75	2	0.0000	PNL	VCB	12	14	10	25	33	18	3.12	(*N9) (*N24) (*S0)	# 0451
2313-PRI	PD-0034_1	12.47	0.30	0.27	0.30	0.27	0.6644	0.0000	SWG	VCB	30	45	30	152	13	36	0.25	(*N3) (*N24) (*S1)	# 0452
2313-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0453
2315-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0455
2315-SEC	PD-0009_1	0.24	5.15	2.49	5.15	2.49	2	0.0000	PNL	VCB	12	14	10	25	72	18	10.9	(*N9) (*N24) (*S0)	# 0455
2326-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0457
2326-SEC	PD-0009_1	0.24	5.05	2.44	5.05	2.44	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.7	(*N9) (*N24) (*S0)	# 0457
2327-SEC	PD-0191	0.24	4.82	2.00	4.82	2.00	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.82	(*N3) (*N9) (*N24) (*S0)	# 0458
2328-PRI	PD-0054	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0460
2328-SEC	PD-0054	0.24	3.20	1.48	3.20	1.48	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.35	(*N9) (*N24) (*S0)	# 0460
2329-PRI	PD-0067	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 0462
2329-SEC	PD-0067	0.24	3.02	1.39	3.02	1.39	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.94	(*N9) (*N24) (*S0)	# 0462
2331-PRI	PD-0041_1	12.47	2.41	2.23	2.41	2.23	0.0136	0.0000	SWG	VCB	30	45	30	152	4	36	0.04	(*N24) (*S0)	# 0463
2331-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0464
2332-PRI	PD-0031_2	12.47	0.76	0.69	0.76	0.69	0.1674	0.0000	SWG	VCB	30	45	30	152	10	36	0.16	(*N3) (*S1)	# 0467
2332-SEC	PD-0031_2	0.24	3.16	1.46	3.16	1.46	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.25	(*N9) (*N24) (*S0)	# 0467
2333-PRI	PD-0023_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*S0)	# 0469
2333-SEC	PD-0023_1	0.24	3.02	1.39	3.02	1.39	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.95	(*N9) (*N24) (*S0)	# 0469
2337-SEC	PD-0203	0.24	5.20	2.52	5.20	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 0470
2338-PRI	PD-0003_9	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 0472
2338-SEC	PD-0018_10	0.24	7.71	3.33	7.71	3.33	1.031	0.0000	PNL	VCB	12	14	10	25	58	18	7.77	(*N3) (*N24) (*S1)	# 0472
2339-PRI	NE (IND #2) 751	12.47	3.73	3.47	3.73	3.47	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 0474
2339-SEC	PD-0258	0.24	3.46	1.39	3.46	1.39	2	0.0000	PNL	VCB	12	14	10	25	49	18	6.03	(*N3) (*N9) (*N24) (*S0)	# 0474
2340-PRI	PD-0003_9	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0476
2340-SEC	PD-0139	0.24	3.68	1.49	3.68	1.49	1.692	0.0000	PNL	VCB	12	14	10	25	47	18	5.47	(*N3) (*N24) (*S1)	# 0476
2341-SEC	PD-0373	0.24	1.77	0.67	1.77	0.67	2	0.0000	PNL	VCB	12	14	10	25	31	18	2.81	(*N3) (*N9) (*N24) (*S0)	# 0477
2343-SEC	PD-0259	0.24	2.63	1.03	2.63	1.03	0.7283	0.0000	PNL	VCB	12	14	10	25	22	18	1.61	(*N3) (*N24) (*S1)	# 0478
2344-SEC	PD-0260	0.24	2.74	1.08	2.74	1.08	0.6639	0.0000	PNL	VCB	12	14	10	25	21	18	1.54	(*N3) (*N24) (*S1)	# 0479
2345-PRI	NORTHWEST (HOSPITAL) 751	12.47	3.71	3.45	3.71	3.45	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 0481

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2345-SEC	NORTHWEST (HOSPITAL) 751	0.24	3.88	1.83	3.88	1.83	1.95	0.0500	PNL	VCB	12	14	10	25	59	18	7.93	(*N9) (*N24) (*S0)	# 0481
2347-SEC	PD-0255	0.24	4.28	1.76	4.28	1.76	1.113	0.0000	PNL	VCB	12	14	10	25	40	18	4.28	(*N3) (*N24) (*S1)	# 0482
2348-PRI	PD-0019_5	12.47	0.27	0.25	0.21	0.19	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 0484
2348-SEC	PD-0019_5	0.24	4.74	2.27	4.74	2.27	2	0.0000	PNL	VCB	12	14	10	25	68	18	9.96	(*N9) (*N24) (*S0)	# 0484
2349-PRI	JOHNSON 751	12.47	0.69	0.63	0.69	0.63	1.004	0.0500	SWG	VCB	30	45	30	152	30	36	0.90	(*N3) (*S1)	# 0486
2349-SEC	PD-0476	0.24	2.43	0.95	2.43	0.95	0.865	0.0000	PNL	VCB	12	14	10	25	23	18	1.74	(*N3) (*N24) (*S1)	# 0486
2351-PRI	PD-0006_3	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 0488
2351-SEC	PD-0006_3	0.24	2.36	1.07	2.36	1.07	2	0.0000	PNL	VCB	12	14	10	25	41	18	4.50	(*N9) (*N24) (*S0)	# 0488
2352-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0490
2352-SEC	PD-0009_1	0.24	5.33	2.58	5.33	2.58	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.4	(*N9) (*N24) (*S0)	# 0490
2354-PRI	PD-0341	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*N24) (*S0)	# 0491
2354-SEC	PD-0341	0.24	4.64	2.22	4.64	2.22	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.71	(*N9) (*N24) (*S0)	# 0492
2355 AND 3359	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.142	0.0500	SWG	VCB	30	45	30	152	31	36	0.97	(*N3) (*S1)	# 0494
2355-SEC	PD-0488	0.24	1.89	0.72	1.89	0.72	1.668	0.0000	PNL	VCB	12	14	10	25	29	18	2.53	(*N3) (*N24) (*S1)	# 0494
2356-PRI	PD-0341	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*N24) (*S0)	# 0495
2356-SEC	PD-0341	0.24	1.74	0.77	1.74	0.77	2	0.0000	PNL	VCB	12	14	10	25	33	18	3.18	(*N9) (*N24) (*S0)	# 0496
2362-SEC	PD-0052	0.24	2.83	1.30	2.83	1.30	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.53	(*N9) (*N24) (*S0)	# 0497
2363-PRI	PD-0014	12.47	0.22	0.19	0.22	0.19	0.0417	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0498
2363-SEC	PD-0014	0.24	1.69	0.64	1.69	0.64	2	0.0000	PNL	VCB	12	14	10	25	30	18	2.68	(*N3) (*N9) (*N24) (*S0)	# 0499
2365-PRI	PD-0015	12.47	0.22	0.19	0.22	0.19	0.042	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0500
2365-SEC	PD-0015	0.24	1.69	0.64	1.69	0.64	2	0.0000	PNL	VCB	12	14	10	25	30	18	2.67	(*N3) (*N9) (*N24) (*S0)	# 0501
2366-PRI	PD-0024_1	12.47	0.27	0.24	0.27	0.24	0.3222	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*N3) (*N24) (*S1)	# 0502
2366-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0503
2367-PRI	PD-0002	12.47	0.33	0.30	0.33	0.30	0.0209	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N24) (*S0)	# 0504
2367-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0505
2368-PRI	PD-0009	12.47	0.24	0.21	0.24	0.21	0.0375	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0506
2368-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0507
2371-PRI	PD-0008	12.47	0.25	0.22	0.25	0.22	0.0364	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0508
2371-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0509
2372-PRI	PD-0046_1	12.47	0.67	0.62	0.67	0.62	0.0164	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*S0)	# 0511
2372-SEC	PD-0046_1	0.24	1.97	0.76	1.97	0.76	1.463	0.0000	PNL	VCB	12	14	10	25	27	18	2.33	(*N3) (*N24) (*S1)	# 0511
2373-PRI	PD-0019_5	12.47	0.27	0.25	0.21	0.19	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0513
2373-SEC	PD-0019_5	0.24	3.14	1.45	3.14	1.45	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.22	(*N9) (*N24) (*S0)	# 0513
2374-PRI	SEL-751A SOUTHWEST FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0515
2374-SEC	PD-0387	0.24	3.56	1.44	3.56	1.44	1.847	0.0000	PNL	VCB	12	14	10	25	48	18	5.76	(*N3) (*N24) (*S1)	# 0515

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2375-PRI	PD-0044_1	12.47	0.68	0.62	0.68	0.62	0.0235	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 0517
2375-SEC	PD-0044_1	0.24	3.47	1.40	3.47	1.40	1.985	0.0000	PNL	VCB	12	14	10	25	49	18	6.01	(*N3) (*N24) (*S1)	# 0517
2376-PRI	PD-0038_1	12.47	3.38	3.14	3.38	3.14	0.0221	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0519
2376-SEC	PD-0038_1	0.24	3.94	1.86	3.94	1.86	2	0.0000	PNL	VCB	12	14	10	25	59	18	8.06	(*N9) (*N24) (*S0)	# 0519
2379-PRI	PD-0013_5	12.47	2.80	2.60	2.80	2.60	0.0249	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*S0)	# 0521
2379-SEC	PD-0257	0.24	2.02	0.90	2.02	0.90	2	0.0000	PNL	VCB	12	14	10	25	37	18	3.76	(*N9) (*N24) (*S0)	# 0521
2381-PRI	SOUTH 751	12.47	1.46	1.33	1.43	1.31	0.1981	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 0522
2381-SEC	SOUTH 751	0.24	8.30	4.18	8.30	4.18	1.95	0.0500	PNL	VCB	12	14	10	25	101	18	18.9	(*N9) (*N24) (*S0)	# 0523
2382-PRI	SOUTH 751	12.47	1.75	1.60	1.75	1.60	0.1354	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 0525
2382-SEC	SOUTH 751	0.24	8.24	4.14	8.24	4.14	1.95	0.0500	PNL	VCB	12	14	10	25	100	18	18.7	(*N9) (*N24) (*S0)	# 0525
2383-PRI	PD-0002_9	12.47	0.54	0.49	0.54	0.49	0.3239	0.0000	SWG	VCB	30	45	30	152	12	36	0.22	(*N3) (*S1)	# 0527
2383-SEC	PD-0002_9	0.24	2.74	1.25	2.74	1.25	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.31	(*N9) (*N24) (*S0)	# 0527
2384-PRI	PD-0010	12.47	0.26	0.23	0.26	0.23	0.0465	0.0000	SWG	VCB	30	45	30	152	2	36	0.02	(*N3) (*N24) (*S1)	# 0528
2384-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0529
2385-PRI	PD-0023	12.47	0.19	0.19	0.19	0.19	0.0623	0.0000	SWG	VCB	30	45	30	152	10	36	0.09	(*N_ka) (*N24) (*S1)	# 0530
2385-SEC	PD-0023	0.24	2.67	1.05	2.67	1.05	1.581	0.0000	PNL	VCB	12	14	10	25	35	18	3.55	(*N3) (*N24) (*S1)	# 0531
2386-PRI	PD-0018	12.47	0.22	0.19	0.22	0.19	0.0418	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0532
2386-SEC	PD-0018	0.24	2.08	0.81	2.08	0.81	1.231	0.0000	PNL	VCB	12	14	10	25	25	18	2.09	(*N3) (*N24) (*S1)	# 0533
2391-PRI	PD-0025	12.47	0.18	0.18	0.18	0.18	0.1126	0.0000	SWG	VCB	30	45	30	152	13	36	0.16	(*N_ka) (*N24) (*S1)	# 0534
2391-SEC	PD-0025	0.24	2.69	1.23	2.69	1.23	2	0.0000	PNL	VCB	12	14	10	25	45	18	5.21	(*N9) (*N24) (*S0)	# 0535
2392-PRI	PD-0024	12.47	0.18	0.18	0.18	0.18	0.0627	0.0000	SWG	VCB	30	45	30	152	10	36	0.09	(*N_ka) (*N24) (*S1)	# 0536
2392-SEC	PD-0024	0.24	2.66	1.05	2.66	1.05	1.59	0.0000	PNL	VCB	12	14	10	25	36	18	3.56	(*N3) (*N24) (*S1)	# 0537
2393-PRI	PD-0022_3	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.19	(*N9) (*N24) (*S0)	# 0538
2393-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0539
2394-PRI	PD-0004_3	12.47	0.64	0.58	0.64	0.58	0.0254	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 0541
2394-SEC	PD-0004_3	0.24	3.92	1.60	3.92	1.60	1.415	0.0000	PNL	VCB	12	14	10	25	44	18	4.93	(*N3) (*N24) (*S1)	# 0541
2395-PRI	PD-0005	12.47	0.29	0.26	0.29	0.26	0.041	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0542
2395-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0543
2397-PRI	PD-0017_3	12.47	0.33	0.30	0.33	0.30	0.0349	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0544
2397-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0545
2398-PRI	PD-0015-1	12.47	0.52	0.47	0.52	0.47	0.3501	0.0000	SWG	VCB	30	45	30	152	12	36	0.23	(*N3) (*S1)	# 0547
2398-SEC	PD-0015-1	0.24	3.62	1.70	3.62	1.70	2	0.0000	PNL	VCB	12	14	10	25	56	18	7.31	(*N9) (*N24) (*S0)	# 0547
2399-SEC	PD-0468	0.24	5.51	2.31	5.51	2.31	1.452	0.0000	PNL	VCB	12	14	10	25	56	18	7.46	(*N3) (*N24) (*S1)	# 0548
2400-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 0550
2400-SEC	PD-0009_1	0.24	5.19	2.51	5.19	2.51	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.0	(*N9) (*N24) (*S0)	# 0550
2401-PRI	PD-0007_3	12.47	0.51	0.46	0.51	0.46	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.27	(*N9) (*S0)	# 0552
2401-SEC	PD-0322	0.24	4.41	2.10	4.41	2.10	1.858	0.0000	PNL	VCB	12	14	10	25	61	18	8.52	(*N24) (*S1)	# 0552
2406-PRI	PD-0004	12.47	0.31	0.28	0.31	0.28	0.0218	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N24) (*S0)	# 0553

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2406-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0554
2407-PRI	PD-0019_2	12.47	0.64	0.59	0.64	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.60	(*N9) (*S0)	# 0556
2407-SEC	PD-0019_2	0.24	1.47	0.64	1.47	0.64	2	0.0000	PNL	VCB	12	14	10	25	29	18	2.64	(*N9) (*N24) (*S0)	# 0556
2409-PRI	SEL-751A HOWE FDR	12.47	0.29	0.26	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.74	(*N9) (*S0)	# 0037
2409-SEC	PD-0369	0.24	1.30	0.56	1.30	0.56	2	0.0000	PNL	VCB	12	14	10	25	27	18	2.29	(*N9) (*N24) (*S0)	# 0558
2410-PRI	PD-0003_5	12.47	2.77	2.57	2.77	2.57	0.025	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*S0)	# 0560
2410-SEC	PD-0003_5	0.24	1.84	0.82	1.84	0.82	2	0.0000	PNL	VCB	12	14	10	25	34	18	3.39	(*N9) (*N24) (*S0)	# 0560
2411-PRI	PD-0016	12.47	0.24	0.22	0.24	0.22	0.0505	0.0000	SWG	VCB	30	45	30	152	2	36	0.02	(*N3) (*N24) (*S1)	# 0561
2411-SEC	PD-0016	0.24	2.45	0.96	2.45	0.96	1.966	0.0000	PNL	VCB	12	14	10	25	38	18	4.01	(*N3) (*N24) (*S1)	# 0562
2412-PRI	PD-0020_1	12.47	0.36	0.33	0.36	0.33	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.92	(*N9) (*S0)	# 0564
2412-SEC	PD-0020_1	0.24	2.92	1.34	2.92	1.34	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.72	(*N9) (*N24) (*S0)	# 0564
2413-PRI	PD-0012_4	12.47	1.15	1.05	1.15	1.05	0.0802	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*N3) (*S1)	# 0566
2413-SEC	PD-0012_4	0.24	4.26	2.02	4.26	2.02	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.81	(*N9) (*N24) (*S0)	# 0566
2417-PRI	PD-0020	12.47	0.20	0.18	0.20	0.18	0.0453	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0567
2417-SEC	PD-0020	0.24	1.58	0.69	1.58	0.69	1.883	0.0000	PNL	VCB	12	14	10	25	30	18	2.69	(*N24) (*S1)	# 0568
2422-PRI	PD-0014_8	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 0570
2422-SEC	PD-0014_8	0.24	4.51	2.16	4.51	2.16	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.42	(*N9) (*N24) (*S0)	# 0570
2423-PRI	PD-0012_1	12.47	0.41	0.37	0.41	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.04	(*N9) (*S0)	# 0572
2423-SEC	PD-0012_1	0.24	4.86	2.34	4.86	2.34	2	0.0000	PNL	VCB	12	14	10	25	69	18	10.3	(*N9) (*N24) (*S0)	# 0572
2425-PRI	PD-0014_4	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N9) (*N24) (*S0)	# 0573
2425-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0574
2426-PRI	PD-0003_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.50	(*N9) (*S0)	# 0576
2426-SEC	PD-0135	0.24	6.30	2.67	6.30	2.67	1.029	0.0000	PNL	VCB	12	14	10	25	50	18	6.16	(*N3) (*N24) (*S1)	# 0576
2427-PRI	PD-0048	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 0578
2427-SEC	PD-0048	0.24	5.02	2.42	5.02	2.42	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.6	(*N9) (*N24) (*S0)	# 0578
2428-PRI	PD-0048	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 0580
2428-SEC	PD-0048	0.24	4.99	2.40	4.99	2.40	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.5	(*N9) (*N24) (*S0)	# 0580
2429-PRI	PD-0046	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 0582
2429-SEC	PD-0046	0.24	3.33	1.55	3.33	1.55	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.64	(*N9) (*N24) (*S0)	# 0582
2430-PRI	PD-0024_5	12.47	4.45	4.13	4.45	4.13	0.0186	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 0584
2430-SEC	PD-0024_5	0.24	3.59	1.68	3.59	1.68	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.25	(*N9) (*N24) (*S0)	# 0584
2431-PRI	PD-0009_1	12.47	0.38	0.35	0.38	0.35	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.96	(*N9) (*S0)	# 0586
2431-SEC	PD-0009_1	0.24	3.30	1.54	3.30	1.54	2	0.0000	PNL	VCB	12	14	10	25	52	18	6.59	(*N9) (*N24) (*S0)	# 0586
2432-PRI	PD-0001_4	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 0588
2432-SEC	PD-0001_4	0.24	1.85	0.82	1.85	0.82	2	0.0000	PNL	VCB	12	14	10	25	35	18	3.40	(*N9) (*N24) (*S0)	# 0588
2433-PRI	PD-0003_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0590
2433-SEC	PD-0134	0.24	3.83	1.56	3.83	1.56	1.511	0.0000	PNL	VCB	12	14	10	25	45	18	5.12	(*N3) (*N24) (*S1)	# 0590
2434-PRI	PD-0033_1	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*N24) (*S0)	# 0591
2434-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0592
2435-PRI	PD-0033_1	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*N24) (*S0)	# 0593

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2435-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0594
2437-PRI	PD-0053	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0596
2437-SEC	PD-0053	0.24	1.94	0.87	1.94	0.87	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.61	(*N9) (*N24) (*S0)	# 0596
2438-SEC	PD-0450	0.24	2.16	0.84	2.16	0.84	1.114	0.0000	PNL	VCB	12	14	10	25	24	18	1.96	(*N3) (*N24) (*S1)	# 0597
2439 AND 3412 PRI	SOUTH 751	12.47	1.71	1.56	1.71	1.56	0.1414	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 0599
2439-SEC	SOUTH 751	0.24	2.47	1.12	2.47	1.12	1.95	0.0500	PNL	VCB	12	14	10	25	42	18	4.73	(*N9) (*N24) (*S0)	# 0599
2442-PRI	PD-0004_5	12.47	3.01	2.79	3.01	2.79	0.0238	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*S0)	# 0601
2442-SEC	PD-0004_5	0.24	8.14	4.09	8.14	4.09	2	0.0000	PNL	VCB	12	14	10	25	100	18	18.5	(*N9) (*N24) (*S0)	# 0601
2443-PRI	PD-0490	12.47	0.69	0.64	0.69	0.64	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.72	(*N9) (*S0)	# 0603
2443-SEC	PD-0490	0.24	6.38	3.14	6.38	3.14	2	0.0000	PNL	VCB	12	14	10	25	84	18	14.0	(*N9) (*N24) (*S0)	# 0603
2449-PRI	PD-0183	12.47	0.57	0.52	0.49	0.45	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 0605
2449-PRI0	PD-0183	12.47	0.57	0.52	0.49	0.45	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 0606
2449-SEC	PD-0004_2	0.24	6.55	3.23	6.55	3.23	2	0.0000	PNL	VCB	12	14	10	25	85	18	14.4	(*N9) (*N24) (*S0)	# 0606
2451-PRI	SOUTH 751	12.47	1.46	1.33	1.32	1.20	0.2337	0.0500	SWG	VCB	30	45	30	152	20	36	0.50	(*N3) (*N24) (*S1)	# 0607
2452-PRI	PD-0002_2	12.47	0.57	0.52	0.20	0.18	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0609
2452-SEC	PD-0014_2	0.24	6.39	3.15	6.39	3.15	2	0.0000	PNL	VCB	12	14	10	25	84	18	14.0	(*N9) (*N24) (*S0)	# 0609
2453-PRI	PD-0014_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0611
2453-SEC	PD-0014_8	0.24	6.79	3.36	6.79	3.36	2	0.0000	PNL	VCB	12	14	10	25	88	18	15.0	(*N9) (*N24) (*S0)	# 0611
2454-PRI	PD-0044_2	12.47	7.73	7.17	7.73	7.17	0.0137	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*N24) (*S0)	# 0612
2454-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0613
2458-PRI	PD-0007_8	12.47	0.54	0.49	0.54	0.49	0.3266	0.0000	SWG	VCB	30	45	30	152	12	36	0.22	(*N3) (*S1)	# 0615
2458-SEC	PD-0007_8	0.208	16.24	7.54	16.24	7.54	2	0.0000	PNL	VCB	12	14	10	25	150	18	35.7	(*N9) (*S0)	# 0616
2459-SEC	PD-0159	0.24	4.04	1.91	4.04	1.91	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.29	(*N9) (*N24) (*S0)	# 0616
2466 AND 2906 PRI	SOUTH 751	12.47	1.44	1.31	1.30	1.19	0.2384	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 0617
2466-SEC	SOUTH 751	0.24	2.62	1.19	2.62	1.19	1.95	0.0500	PNL	VCB	12	14	10	25	44	18	5.06	(*N9) (*N24) (*S0)	# 0618
2468-PRI	PD-0625	12.47	6.44	5.98	6.44	5.98	0.0155	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*S0)	# 0620
2468-SEC	PD-0006_13	0.24	3.82	1.55	3.82	1.55	0.3442	0.0000	PNL	VCB	12	14	10	25	18	18	1.16	(*N3) (*N24) (*S1)	# 0620
2469-PRI	PD-0009_1	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 0622
2469-SEC	PD-0009_1	0.24	2.28	1.03	2.28	1.03	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.33	(*N9) (*N24) (*S0)	# 0622
2470-PRI	PD-0019_5	12.47	0.27	0.25	0.20	0.18	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0624
2470-SEC	PD-0019_5	0.24	3.14	1.45	3.14	1.45	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.22	(*N9) (*N24) (*S0)	# 0624
2471 AND 2485 AND 2924 PRI	PD-0009_1	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0626
2471-SEC	PD-0009_1	0.24	3.10	1.43	3.10	1.43	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.12	(*N9) (*N24) (*S0)	# 0626
2472-PRI	PD-0033	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 0628
2472-SEC	PD-0033	0.24	3.04	1.41	3.04	1.41	2	0.0000	PNL	VCB	12	14	10	25	49	18	6.00	(*N9) (*N24) (*S0)	# 0628
2473-PRI	WEST 751	12.47	4.14	3.85	4.14	3.85	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*S0)	# 0630
2473-SEC	PD-0442	0.24	2.69	1.06	2.69	1.06	0.6937	0.0000	PNL	VCB	12	14	10	25	21	18	1.57	(*N3) (*N24) (*S1)	# 0630
2474-SEC	PD-0374	0.24	2.32	0.90	2.32	0.90	0.951	0.0000	PNL	VCB	12	14	10	25	23	18	1.82	(*N3) (*N24) (*S1)	# 0631
2475-PRI	PD-0012_7	12.47	3.91	3.63	3.91	3.63	0.0135	0.0000	SWG	VCB	30	45	30	152	5	36	0.06	(*S0)	# 0633
2475-SEC	PD-0012_7	0.24	1.71	0.65	1.71	0.65	2	0.0000	PNL	VCB	12	14	10	25	30	18	2.71	(*N3) (*N9) (*N24) (*S0)	# 0633

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2476-SEC	NORTHWEST (HOSPITAL) 751	0.24	3.06	1.41	3.06	1.41	1.95	0.0500	PNL	VCB	12	14	10	25	49	18	6.03	(*N9) (*N24) (*S0)	# 0634
2477-SEC	PD-0583	0.24	2.19	0.85	2.19	0.85	1.079	0.0000	PNL	VCB	12	14	10	25	24	18	1.93	(*N3) (*N24) (*S1)	# 0635
2485-SEC	PD-0009_1	0.24	1.91	0.85	1.91	0.85	2	0.0000	PNL	VCB	12	14	10	25	35	18	3.53	(*N9) (*N24) (*S0)	# 0636
2488-PRI	PD-0008_1	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.14	(*N9) (*S0)	# 0638
2488-SEC	PD-0008_1	0.208	5.02	2.16	5.02	2.16	2	0.0000	PNL	VCB	12	14	10	25	66	18	9.54	(*N9) (*S0)	# 0639
2491-PRI	PD-0008_1	12.47	0.51	0.46	0.51	0.46	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.27	(*N9) (*S0)	# 0640
2491-SEC	PD-0008_1	0.208	5.10	2.20	5.10	2.20	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.72	(*N9) (*S0)	# 0641
2492-PRI	PD-0008_1	12.47	0.48	0.44	0.48	0.44	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.22	(*N9) (*S0)	# 0642
2492-SEC	PD-0008_1	0.208	5.07	2.19	5.07	2.19	2	0.0000	PNL	VCB	12	14	10	25	66	18	9.65	(*N9) (*S0)	# 0643
2493-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0643
2499-PRI	SEL-751A EAST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0645
2499-SEC	PD-0168	0.24	3.38	1.36	3.38	1.36	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.87	(*N3) (*N9) (*N24) (*S0)	# 0645
2500-PRI	PD-0003_9	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0647
2500-SEC	PD-0143	0.24	3.79	1.54	3.79	1.54	1.55	0.0000	PNL	VCB	12	14	10	25	45	18	5.20	(*N3) (*N24) (*S1)	# 0647
2501 AND 3219 PRI	JOHNSON 751	12.47	0.65	0.59	0.65	0.59	1.186	0.0500	SWG	VCB	30	45	30	152	32	36	1.00	(*N3) (*S1)	# 0649
2501-SEC	PD-0502	0.24	6.04	2.55	6.04	2.55	1.132	0.0000	PNL	VCB	12	14	10	25	52	18	6.46	(*N3) (*N24) (*S1)	# 0649
2502-PRI	SEL-751A EAST FDR	12.47	0.42	0.38	0.42	0.38	1.95	0.0500	SWG	VCB	30	45	30	152	33	36	1.06	(*N9) (*N24) (*S0)	# 0650
2502-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0651
2503 AND 2514 PRI	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 0653
2503-SEC	PD-0009_1	0.24	5.06	2.44	5.06	2.44	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.7	(*N9) (*N24) (*S0)	# 0653
2505-SEC	PD-0166	0.24	3.91	1.85	3.91	1.85	2	0.0000	PNL	VCB	12	14	10	25	59	18	8.00	(*N9) (*N24) (*S0)	# 0654
2506-PRI	JOHNSON 751	12.47	0.67	0.61	0.67	0.61	1.104	0.0500	SWG	VCB	30	45	30	152	31	36	0.95	(*N3) (*S1)	# 0656
2506-SEC	PD-0478	0.24	4.18	1.98	4.18	1.98	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.63	(*N9) (*N24) (*S0)	# 0656
2508-PRI	PD-0004_2	12.47	0.56	0.51	0.56	0.51	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.40	(*N9) (*S0)	# 0658
2508-SEC	PD-0004_2	0.24	3.03	1.40	3.03	1.40	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.96	(*N9) (*N24) (*S0)	# 0658
2509-PRI	PD-0010_3	12.47	0.41	0.37	0.41	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.04	(*N9) (*N24) (*S0)	# 0659
2509-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0660
2512-PRI	PD-0014_4	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.94	(*N9) (*N24) (*S0)	# 0661
2512-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0662
2513-PRI	PD-0011_6	12.47	3.48	3.23	3.48	3.23	0.0186	0.0000	SWG	VCB	30	45	30	152	6	36	0.08	(*S0)	# 0664
2513-SEC	PD-0011_6	0.208	16.81	7.80	16.81	7.80	2	0.0000	PNL	VCB	12	14	10	25	154	18	37.0	(*N9) (*S0)	# 0665
2514-SEC	PD-0009_1	0.24	5.06	2.44	5.06	2.44	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.7	(*N9) (*N24) (*S0)	# 0665
2515-PRI	PD-0027_3	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0667
2515-SEC	PD-0027_3	0.24	5.01	2.42	5.01	2.42	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.6	(*N9) (*N24) (*S0)	# 0667
2517-PRI	JOHNSON 751	12.47	3.01	2.79	3.01	2.79	0.03	0.0500	SWG	VCB	30	45	30	152	14	36	0.29	(*S0)	# 0669

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2517-SEC	PD-0004_10	0.24	2.23	0.87	2.23	0.87	1.032	0.0000	PNL	VCB	12	14	10	25	24	18	1.89	(*N3) (*N24) (*S1)	# 0669
2518-PRI	PD-0035	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 0671
2518-SEC	PD-0035	0.24	2.00	0.89	2.00	0.89	2	0.0000	PNL	VCB	12	14	10	25	37	18	3.72	(*N9) (*N24) (*S0)	# 0671
2520-SEC	PD-0192	0.24	3.88	1.83	3.88	1.83	2	0.0000	PNL	VCB	12	14	10	25	59	18	7.92	(*N9) (*N24) (*S0)	# 0672
2523-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0674
2523-SEC	PD-0009_1	0.24	5.52	2.69	5.52	2.69	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.9	(*N9) (*N24) (*S0)	# 0674
2524-SEC	PD-0467	0.24	6.69	2.86	6.69	2.86	0.8965	0.0000	PNL	VCB	12	14	10	25	48	18	5.75	(*N3) (*N24) (*S1)	# 0675
2525-PRI	NE (IND #2) 751	12.47	3.39	3.15	3.39	3.15	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.32	(*S0)	# 0677
2525-SEC	PD-0239	0.24	19.96	8.83	19.96	8.83	0.5526	0.0000	PNL	VCB	12	14	10	25	75	18	11.7	(*N3) (*N24) (*S1)	# 0677
2526-PRI	PD-0011_3	12.47	0.44	0.40	0.44	0.40	2	0.0000	SWG	VCB	30	45	30	152	34	36	1.10	(*N9) (*N24) (*S0)	# 0678
2526-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0679
2527-PRI	PD-0031	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 0681
2527-SEC	PD-0031	0.24	2.91	1.34	2.91	1.34	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.70	(*N9) (*N24) (*S0)	# 0681
2528-PRI	PD-0013_1	12.47	0.40	0.36	0.40	0.36	2	0.0000	SWG	VCB	30	45	30	152	32	36	1.01	(*N9) (*S0)	# 0683
2528-SEC	PD-0013_1	0.24	2.98	1.37	2.98	1.37	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.85	(*N9) (*N24) (*S0)	# 0683
2529-PRI	PD-0022	12.47	0.19	0.19	0.19	0.19	0.0427	0.0000	SWG	VCB	30	45	30	152	8	36	0.06	(*N_ka) (*N24) (*S1)	# 0684
2529-SEC	PD-0022	0.24	2.28	0.89	2.28	0.89	0.9909	0.0000	PNL	VCB	12	14	10	25	24	18	1.86	(*N3) (*N24) (*S1)	# 0685
2534-PRI	PD-0005_2	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0687
2534-SEC	PD-0005_2	0.24	5.37	2.60	5.37	2.60	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 0687
2535-PRI	PD-0008_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0689
2535-SEC	PD-0008_8	0.24	7.20	3.58	7.20	3.58	2	0.0000	PNL	VCB	12	14	10	25	91	18	16.1	(*N9) (*N24) (*S0)	# 0689
2536-PRI	PD-0004_2	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0691
2536-SEC	PD-0004_2	0.24	5.36	2.60	5.36	2.60	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 0691
2537-PRI	PD-0033_2	12.47	0.71	0.64	0.71	0.64	0.0327	0.0000	SWG	VCB	30	45	30	152	3	36	0.03	(*N3) (*S1)	# 0693
2537-SEC	PD-0033_2	0.24	4.29	2.04	4.29	2.04	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.88	(*N9) (*N24) (*S1)	# 0693
2538-SEC	SOUTH 751	0.24	15.48	8.01	15.48	8.01	1.95	0.0500	PNL	VCB	12	14	10	25	156	18	37.7	(*N9) (*N24) (*S0)	# 0694
2539-PRI	PD-0007_5	12.47	0.25	0.22	0.10	0.09	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.63	(*N9) (*S0)	# 0696
2539-SEC	PD-0005_6	0.24	2.88	1.32	2.88	1.32	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.63	(*N9) (*N24) (*S0)	# 0696
2540-PRI	PD-0014_4	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N9) (*N24) (*S0)	# 0697
2540-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0698
2541-SEC	SOUTH 751	0.24	4.83	2.32	4.83	2.32	1.95	0.0500	PNL	VCB	12	14	10	25	69	18	10.2	(*N9) (*N24) (*S0)	# 0699
2542-PRI	PD-0014_2	12.47	0.57	0.53	0.21	0.19	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 0701
2542-SEC	PD-0002_2	0.24	3.75	1.76	3.75	1.76	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.62	(*N9) (*N24) (*S0)	# 0701
2544-PRI	PD-0014_2	12.47	0.57	0.53	0.18	0.16	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 0703
2544-SEC	PD-0002_2	0.24	2.54	1.15	2.54	1.15	2	0.0000	PNL	VCB	12	14	10	25	43	18	4.88	(*N9) (*N24) (*S0)	# 0703
2545-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0704
2545-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0705
2546-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0706

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2546-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0707
2547-PRI	SOUTH 751	12.47	1.46	1.33	1.32	1.21	0.2314	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 0708
2547-SEC	SOUTH 751	0.24	4.84	2.32	4.84	2.32	1.95	0.0500	PNL	VCB	12	14	10	25	69	18	10.2	(*N9) (*N24) (*S0)	# 0709
2548-PRI	SOUTH 751	12.47	1.48	1.35	1.34	1.22	0.227	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 0710
2548-SEC	SOUTH 751	0.24	5.96	2.92	5.96	2.92	1.95	0.0500	PNL	VCB	12	14	10	25	80	18	12.9	(*N9) (*N24) (*S0)	# 0711
2555-PRI	PD-0014_4	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.87	(*N9) (*N24) (*S0)	# 0712
2555-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0713
2557-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 0715
2557-SEC	PD-0007_1	0.24	4.59	2.20	4.59	2.20	2	0.0000	PNL	VCB	12	14	10	25	66	18	9.60	(*N9) (*N24) (*S0)	# 0715
2558-PRI	PD-0003	12.47	0.31	0.28	0.31	0.28	0.0286	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0716
2558-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0717
2559-PRI	PD-0008_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0719
2559-SEC	PD-0008_8	0.24	5.30	2.57	5.30	2.57	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.3	(*N9) (*N24) (*S0)	# 0719
2561-PRI	SEL-751A HOWE FDR	12.47	0.32	0.29	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*N24) (*S0)	# 0720
2561-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0721
2562-PRI	PD-0055_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.68	(*N9) (*S0)	# 0723
2562-SEC	PD-0483	0.24	3.13	1.45	3.13	1.45	1.815	0.0000	PNL	VCB	12	14	10	25	47	18	5.62	(*N24) (*S1)	# 0723
2563-PRI	JOHNSON 751	12.47	0.66	0.59	0.66	0.59	1.178	0.0500	SWG	VCB	30	45	30	152	32	36	0.99	(*N3) (*S1)	# 0725
2563-SEC	PD-0500	0.24	3.13	1.45	3.13	1.45	1.808	0.0000	PNL	VCB	12	14	10	25	47	18	5.61	(*N24) (*S1)	# 0725
2564-PRI	PD-0014_2	12.47	0.57	0.52	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0727
2564-SEC	PD-0002_2	0.24	6.87	3.40	6.87	3.40	2	0.0000	PNL	VCB	12	14	10	25	88	18	15.2	(*N9) (*N24) (*S0)	# 0727
2565-PRI	PD-0434	12.47	4.74	4.40	4.74	4.40	0.0144	0.0000	SWG	VCB	30	45	30	152	6	36	0.08	(*N24) (*S0)	# 0728
2565-SEC	PD-0434	0.24	17.70	7.89	17.70	7.89	0.2706	0.0000	PNL	VCB	12	14	10	25	44	18	5.09	(*N3) (*N24) (*S1)	# 0729
2568-PRI	PD-0007_5	12.47	0.25	0.23	0.10	0.09	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.64	(*N9) (*S0)	# 0731
2568-SEC	PD-0005_6	0.24	1.83	0.81	1.83	0.81	2	0.0000	PNL	VCB	12	14	10	25	34	18	3.37	(*N9) (*N24) (*S0)	# 0731
2569-PRI	PD-0007_5	12.47	0.25	0.23	0.10	0.09	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.64	(*N9) (*S0)	# 0733
2569-SEC	PD-0005_6	0.24	1.83	0.81	1.83	0.81	2	0.0000	PNL	VCB	12	14	10	25	34	18	3.36	(*N9) (*N24) (*S0)	# 0733
2570-PRI	PD-0005_6	12.47	0.27	0.25	0.24	0.22	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0735
2570-SEC	PD-0005_6	0.24	1.98	0.88	1.98	0.88	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.68	(*N9) (*N24) (*S0)	# 0735
2571-PRI	PD-0003_5	12.47	2.83	2.63	2.83	2.63	0.0247	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*S0)	# 0737
2571-SEC	PD-0003_5	0.24	2.09	0.94	2.09	0.94	2	0.0000	PNL	VCB	12	14	10	25	38	18	3.91	(*N9) (*N24) (*S0)	# 0737
2572-PRI	PD-0007_5	12.47	0.27	0.24	0.10	0.09	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 0739
2572-SEC	PD-0005_6	0.24	1.86	0.82	1.86	0.82	2	0.0000	PNL	VCB	12	14	10	25	35	18	3.42	(*N9) (*N24) (*S0)	# 0739
2574-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0740
2574-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0741
2575-PRI	NE (IND #2) 751	12.47	4.37	4.06	4.37	4.06	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 0743
2575-SEC	PD-0281	0.24	16.99	7.58	16.99	7.58	0.2915	0.0000	PNL	VCB	12	14	10	25	45	18	5.25	(*N3) (*N24) (*S1)	# 0743

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2576-PRI	NE (IND #2) 751	12.47	4.05	3.76	4.05	3.76	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.38	(*S0)	# 0745
2576-SEC	PD-0285	0.24	13.17	5.87	13.17	5.87	0.4706	0.0000	PNL	VCB	12	14	10	25	52	18	6.46	(*N3) (*N24) (*S1)	# 0745
2577-SEC	SEL-751A EAST FDR	0.24	6.75	3.34	6.75	3.34	1.95	0.0500	PNL	VCB	12	14	10	25	87	18	14.9	(*N9) (*N24) (*S0)	# 0746
2579-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0747
2579-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0748
2581-PRI	PD-0007_5	12.47	0.25	0.23	0.10	0.09	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.64	(*N9) (*S0)	# 0750
2581-SEC	PD-0005_6	0.24	1.19	0.51	1.19	0.51	2	0.0000	PNL	VCB	12	14	10	25	25	18	2.07	(*N9) (*N24) (*S0)	# 0750
2586-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0751
2586-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0752
2587-PRI	PD-0043_2	12.47	5.62	5.15	5.62	5.15	0.0463	0.0000	SWG	VCB	30	45	30	152	15	36	0.30	(*N3) (*N24) (*S1)	# 0753
2587-SEC	PD-0043_2	0.24	5.27	2.55	5.27	2.55	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.2	(*N9) (*N24) (*S0)	# 0754
2588-PRI	PD-0018_8	12.47	0.51	0.46	0.51	0.46	0.3608	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 0756
2588-SEC	PD-0018_8	0.24	4.43	2.11	4.43	2.11	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.22	(*N9) (*N24) (*S0)	# 0756
2589-PRI	PD-0005_6	12.47	0.28	0.26	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 0758
2589-SEC	PD-0005_6	0.24	3.80	1.79	3.80	1.79	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.73	(*N9) (*N24) (*S0)	# 0758
2590-PRI	PD-0183	12.47	0.38	0.35	0.17	0.15	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.97	(*N9) (*N24) (*S0)	# 0759
2590-SEC	PD-0004_2	0.24	3.74	1.76	3.74	1.76	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.59	(*N9) (*N24) (*S0)	# 0760
2591-PRI	PD-0007_5	12.47	0.27	0.25	0.09	0.09	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0762
2591-SEC	PD-0005_6	0.24	3.78	1.78	3.78	1.78	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.68	(*N9) (*N24) (*S0)	# 0762
2592-PRI	PD-0061_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	47	36	1.80	(*N9) (*S0)	# 0764
2592-SEC	PD-0061_1	0.24	4.31	2.05	4.31	2.05	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.94	(*N9) (*N24) (*S0)	# 0764
2594-PRI	PD-0028_4	12.47	2.85	2.61	2.85	2.61	0.1499	0.0000	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*S1)	# 0766
2594-SEC	PD-0028_4	0.208	15.59	7.24	15.59	7.24	2	0.0000	PNL	VCB	12	14	10	25	146	18	34.2	(*N9) (*S0)	# 0767
2595-PRI	SOUTH 751	12.47	1.29	1.17	1.16	1.06	0.3015	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*N24) (*S1)	# 0767
2595-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0768
2596-PRI	PD-0014_4	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 0769
2596-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0770
2597-PRI	PD-0006	12.47	0.28	0.26	0.28	0.26	0.0241	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N24) (*S0)	# 0771
2597-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0772
2598-PRI	PD-0022_9	12.47	0.50	0.46	0.50	0.46	0.3699	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 0774
2598-SEC	PD-0022_9	0.24	0.99	0.42	0.99	0.42	2	0.0000	PNL	VCB	12	14	10	25	22	18	1.67	(*N9) (*N24) (*S0)	# 0774
2599-PRI	PD-0005_6	12.47	0.28	0.25	0.24	0.22	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 0776
2599-SEC	PD-0005_6	0.24	2.94	1.35	2.94	1.35	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.77	(*N9) (*N24) (*S0)	# 0776
2600-PRI	PD-0014_4	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.88	(*N9) (*N24) (*S0)	# 0777
2600-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0778
2602-PRI	PD-0014_4	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*N24) (*S0)	# 0779

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2602-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0780
2606-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0782
2606-SEC	PD-0007_1	0.24	4.02	1.90	4.02	1.90	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.25	(*N9) (*N24) (*S0)	# 0782
2607-PRI	PD-0430	12.47	3.67	3.36	3.67	3.36	0.093	0.0000	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*N24) (*S1)	# 0783
2607-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0784
2608-PRI	PD-0036_1	12.47	0.71	0.64	0.71	0.64	0.0226	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 0786
2608-SEC	PD-0036_1	0.24	4.75	1.97	4.75	1.97	0.8625	0.0000	PNL	VCB	12	14	10	25	37	18	3.74	(*N3) (*N24) (*S1)	# 0786
2609-PRI	PD-0011_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0788
2609-SEC	PD-0011_8	0.24	5.02	2.42	5.02	2.42	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.6	(*N9) (*N24) (*S0)	# 0788
2610-PRI	PD-0061_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	47	36	1.80	(*N9) (*S0)	# 0790
2610-SEC	PD-0061_1	0.24	4.77	2.29	4.77	2.29	2	0.0000	PNL	VCB	12	14	10	25	68	18	10.0	(*N9) (*N24) (*S0)	# 0790
2611-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0792
2611-PRI2	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0793
2611-SEC	PD-0007_1	0.24	5.37	2.60	5.37	2.60	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 0793
2614-PRI	PD-0034_3	12.47	3.34	3.11	3.34	3.11	0.0222	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0795
2614-SEC	PD-0034_3	0.24	15.79	7.06	15.79	7.06	1.654	0.0000	PNL	VCB	12	14	10	25	128	18	27.6	(*N3) (*N24) (*S1)	# 0795
2616-PRI	PD-0014_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0797
2616-SEC	PD-0014_8	0.24	3.98	1.88	3.98	1.88	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.15	(*N9) (*N24) (*S0)	# 0797
2617-PRI	PD-0026_2	12.47	0.83	0.76	0.83	0.76	0.1412	0.0000	SWG	VCB	30	45	30	152	9	36	0.14	(*N3) (*S1)	# 0799
2617-SEC	PD-0026_2	0.24	4.57	2.18	4.57	2.18	2	0.0000	PNL	VCB	12	14	10	25	66	18	9.54	(*N9) (*N24) (*S0)	# 0799
2622-PRI	PD-0003_2	0.24	6.83	3.38	6.83	3.38	2	0.0000	PNL	VCB	12	14	10	25	88	18	15.1	(*N9) (*S0)	# 0801
2624-PRI	PD-0017_9	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 0802
2624-SEC	PD-0017_9	0.24	1.13	0.48	1.13	0.48	2	0.0000	PNL	VCB	12	14	10	25	24	18	1.96	(*N9) (*N24) (*S0)	# 0802
2628-PRI	PD-0023_7	12.47	0.51	0.46	0.51	0.46	0.3672	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 0804
2628-SEC	PD-0023_7	0.24	1.09	0.46	1.09	0.46	2	0.0000	PNL	VCB	12	14	10	25	24	18	1.87	(*N9) (*N24) (*S0)	# 0804
2629-PRI	PD-0003_5	12.47	2.90	2.69	2.90	2.69	0.0243	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*S0)	# 0806
2629-SEC	PD-0003_5	0.24	1.14	0.49	1.14	0.49	2	0.0000	PNL	VCB	12	14	10	25	25	18	1.97	(*N9) (*N24) (*S0)	# 0806
2630-PRI	PD-0034_1	12.47	0.30	0.27	0.30	0.27	0.6879	0.0000	SWG	VCB	30	45	30	152	13	36	0.26	(*N3) (*N24) (*S1)	# 0807
2630-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0808
2631-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0810
2631-SEC	PD-0009_1	0.24	1.93	0.86	1.93	0.86	2	0.0000	PNL	VCB	12	14	10	25	36	18	3.58	(*N9) (*N24) (*S0)	# 0810
2632 AND 1056 AND 742 PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0812
2632-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0813
2632-SEC	PD-0009_1	0.24	3.02	1.39	3.02	1.39	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.95	(*N9) (*N24) (*S0)	# 0813
2633-PRI	PD-0006_8	12.47	2.97	2.72	2.97	2.72	0.1378	0.0000	SWG	VCB	30	45	30	152	20	36	0.48	(*N3) (*S1)	# 0815
2633-SEC	PD-0006_8	0.24	9.82	5.00	9.82	5.00	2	0.0000	PNL	VCB	12	14	10	25	114	18	22.8	(*N9) (*N24) (*S0)	# 0815
2634-PRI	NE (IND #2) 751	12.47	3.91	3.63	3.91	3.63	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.37	(*S0)	# 0817
2634-PRI1	NE (IND #2) 751	12.47	3.79	3.52	3.79	3.52	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 0818
2634-SEC	PD-0288	0.24	9.65	4.24	9.65	4.24	0.6239	0.0000	PNL	VCB	12	14	10	25	50	18	6.07	(*N3) (*N24) (*S1)	# 0818

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2635-SEC	PD-0006_8	0.24	9.82	5.00	9.82	5.00	2	0.0000	PNL	VCB	12	14	10	25	114	18	22.8	(*N9) (*N24) (*S0)	# 0819
2640-SEC	PD-0492	0.24	9.07	4.59	9.07	4.59	2	0.0000	PNL	VCB	12	14	10	25	108	18	20.9	(*N9) (*N24) (*S0)	# 0820
2642-PRI	PD-0064_1	12.47	0.69	0.64	0.69	0.64	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.73	(*N9) (*S0)	# 0822
2642-SEC	PD-0064_1	0.24	3.44	1.60	3.44	1.60	2	0.0000	PNL	VCB	12	14	10	25	54	18	6.90	(*N9) (*S0)	# 0823
2647 AND 2648 AND 2649	JOHNSON 751	12.47	0.65	0.59	0.65	0.59	1.196	0.0500	SWG	VCB	30	45	30	152	32	36	1.00	(*N3) (*S1)	# 0824
2647-SEC	PD-0503	0.48	4.62	2.99	4.62	2.99	0.4562	0.0000	PNL	VCB	12	14	10	25	32	18	2.94	(*N3) (*N24) (*S1)	# 0824
2648-SEC	PD-0504	0.48	4.62	2.99	4.62	2.99	0.4562	0.0000	PNL	VCB	12	14	10	25	32	18	2.94	(*N3) (*N24) (*S1)	# 0825
2649-SEC	PD-0505	0.48	4.62	2.99	4.62	2.99	0.4562	0.0000	PNL	VCB	12	14	10	25	32	18	2.94	(*N3) (*N24) (*S1)	# 0826
2650-PRI	PD-0351	12.47	0.25	0.22	0.25	0.22	0.0359	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0827
2650-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0828
2651-PRI	PD-0001	12.47	0.34	0.31	0.34	0.31	0.02	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N24) (*S0)	# 0829
2651-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0830
2652-PRI	PD-0019_2	12.47	0.64	0.59	0.64	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.60	(*N9) (*S0)	# 0832
2652-SEC	PD-0019_2	0.24	2.03	0.90	2.03	0.90	2	0.0000	PNL	VCB	12	14	10	25	37	18	3.78	(*N9) (*N24) (*S0)	# 0832
2656-PRI	NORTHWEST (HOSPITAL) 751	12.47	5.23	4.86	5.23	4.86	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 0834
2656-SEC	NORTHWEST (HOSPITAL) 751	0.24	5.60	2.73	5.60	2.73	1.95	0.0500	PNL	VCB	12	14	10	25	76	18	12.0	(*N9) (*N24) (*S0)	# 0834
2657-SEC	PD-0009_1	0.24	5.20	2.52	5.20	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 0835
2658-PRI	SOUTH 751	12.47	1.65	1.51	1.65	1.51	0.1511	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 0837
2658-SEC	SOUTH 751	0.24	5.13	2.48	5.13	2.48	1.95	0.0500	PNL	VCB	12	14	10	25	72	18	10.9	(*N9) (*N24) (*S0)	# 0837
2659-PRI	PD-0004-1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 0839
2659-SEC	PD-0004-1	0.208	16.33	7.58	16.33	7.58	2	0.0000	PNL	VCB	12	14	10	25	151	18	35.9	(*N9) (*S0)	# 0840
2663-PRI	PD-0352	12.47	0.25	0.22	0.25	0.22	0.1686	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*N24) (*S1)	# 0840
2663-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0841
2664-PRI	PD-0001_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0843
2664-SEC	PD-0001_1	0.24	5.17	2.50	5.17	2.50	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.0	(*N9) (*N24) (*S0)	# 0843
2665-PRI	PD-0024_1	12.47	0.27	0.24	0.27	0.24	0.3195	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*N3) (*N24) (*S1)	# 0844
2665-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0845
2666-PRI	PD-0017_6	12.47	2.92	2.67	2.92	2.67	0.1429	0.0000	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*S1)	# 0847
2666-SEC	PD-0017_6	0.24	4.12	1.95	4.12	1.95	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.48	(*N9) (*N24) (*S0)	# 0847
2667-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0849
2667-SEC	PD-0009_1	0.24	4.33	2.06	4.33	2.06	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.98	(*N9) (*N24) (*S0)	# 0849
2669-PRI	PD-0032_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 0850
2669-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 0851
2671-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 0853
2671-SEC	PD-0007_1	0.24	6.40	3.15	6.40	3.15	2	0.0000	PNL	VCB	12	14	10	25	84	18	14.0	(*N9) (*N24) (*S0)	# 0853
2672-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 0855

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2672-SEC	PD-0007_1	0.24	6.39	3.15	6.39	3.15	2	0.0000	PNL	VCB	12	14	10	25	84	18	14.0	(*N9) (*N24) (*S0)	# 0855
2676 AND 2640 AND 2677 PRI	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.148	0.0500	SWG	VCB	30	45	30	152	32	36	0.97	(*N3) (*S1)	# 0857
2676-SEC	PD-0491	0.24	5.96	2.52	5.96	2.52	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.2	(*N3) (*N9) (*N24) (*S0)	# 0857
2677-SEC	PD-0493	0.24	5.79	2.44	5.79	2.44	2	0.0000	PNL	VCB	12	14	10	25	72	18	10.9	(*N3) (*N9) (*N24) (*S0)	# 0858
2678-SEC	JOHNSON 751	0.24	5.99	2.94	5.99	2.94	1.95	0.0500	PNL	VCB	12	14	10	25	80	18	13.0	(*N9) (*N24) (*S0)	# 0859
2679-PRI	PD-0050	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0861
2679-SEC	PD-0050	0.24	4.99	2.40	4.99	2.40	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.6	(*N9) (*N24) (*S0)	# 0861
2686-PRI	PD-0017_1	12.47	0.40	0.37	0.40	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.02	(*N9) (*S0)	# 0863
2686-SEC	PD-0017_1	0.24	2.89	1.33	2.89	1.33	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.66	(*N9) (*N24) (*S0)	# 0863
2688-PRI	PD-0012_6	12.47	3.53	3.28	3.53	3.28	0.0215	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0865
2688-SEC	PD-0246	0.24	4.10	1.68	4.10	1.68	1.25	0.0000	PNL	VCB	12	14	10	25	42	18	4.58	(*N3) (*N24) (*S1)	# 0865
2689-PRI	WEST 751	12.47	3.61	3.35	3.61	3.35	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 0867
2689-SEC	PD-0443	0.24	2.16	0.84	2.16	0.84	1.106	0.0000	PNL	VCB	12	14	10	25	24	18	1.96	(*N3) (*N24) (*S1)	# 0867
2690 AND 2748 AND 2476 PRI	NORTHWEST (HOSPITAL) 751	12.47	3.74	3.48	3.74	3.48	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 0869
2690-SEC	NORTHWEST (HOSPITAL) 751	0.24	2.20	0.99	2.20	0.99	1.95	0.0500	PNL	VCB	12	14	10	25	39	18	4.14	(*N9) (*N24) (*S0)	# 0869
2691-PRI	NE (IND #2) 751	12.47	3.42	3.17	3.42	3.17	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.32	(*S0)	# 0871
2691-SEC	PD-0235	0.24	4.09	1.67	4.09	1.67	1.258	0.0000	PNL	VCB	12	14	10	25	42	18	4.60	(*N3) (*N24) (*S1)	# 0871
2692-SEC	PD-0237	0.24	4.09	1.67	4.09	1.67	1.258	0.0000	PNL	VCB	12	14	10	25	42	18	4.60	(*N3) (*N24) (*S1)	# 0872
2693-SEC	PD-0316	0.24	1.97	0.76	1.97	0.76	1.47	0.0000	PNL	VCB	12	14	10	25	27	18	2.33	(*N3) (*N24) (*S1)	# 0873
2701 AND 2678 PRI	JOHNSON 751	12.47	0.68	0.61	0.68	0.61	1.085	0.0500	SWG	VCB	30	45	30	152	31	36	0.94	(*N3) (*S1)	# 0875
2701-SEC	JOHNSON 751	0.24	3.61	1.69	3.61	1.69	1.95	0.0500	PNL	VCB	12	14	10	25	56	18	7.29	(*N9) (*N24) (*S0)	# 0875
2702-PRI	PD-0039	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0877
2702-SEC	PD-0039	0.24	3.27	1.52	3.27	1.52	2	0.0000	PNL	VCB	12	14	10	25	52	18	6.50	(*N9) (*N24) (*S0)	# 0877
2703-PRI	PD-0034_1	12.47	0.29	0.26	0.29	0.26	0.7199	0.0000	SWG	VCB	30	45	30	152	14	36	0.26	(*N3) (*N24) (*S1)	# 0878
2703-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0879
2704-PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0881
2704-SEC	PD-0009_1	0.24	1.87	0.83	1.87	0.83	2	0.0000	PNL	VCB	12	14	10	25	35	18	3.45	(*N9) (*N24) (*S0)	# 0881
2705-PRI	PD-0020_4	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0883
2705-SEC	PD-0020_4	0.24	1.87	0.83	1.87	0.83	2	0.0000	PNL	VCB	12	14	10	25	35	18	3.44	(*N9) (*N24) (*S0)	# 0883
2707-PRI	JOHNSON 751	12.47	0.70	0.64	0.70	0.64	0.9793	0.0500	SWG	VCB	30	45	30	152	30	36	0.89	(*N3) (*S1)	# 0885
2707-SEC	PD-0036_5	0.24	1.35	0.58	1.35	0.58	2	0.0000	PNL	VCB	12	14	10	25	28	18	2.38	(*N9) (*N24) (*S0)	# 0885
2708-PRI	PD-0021_2	12.47	0.42	0.38	0.42	0.38	0.098	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*S1)	# 0887
2708-SEC	PD-0619	0.24	1.27	0.55	1.27	0.55	2	0.0000	PNL	VCB	12	14	10	25	27	18	2.23	(*N9) (*N24) (*S0)	# 0887
2709-PRI	PD-0016_2	12.47	0.34	0.31	0.34	0.31	0.05	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*N24) (*S1)	# 0888

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2709-SEC	PD-0016_2	0.24	3.61	1.46	3.61	1.46	1.78	0.0000	PNL	VCB	12	14	10	25	47	18	5.64	(*N3) (*N24) (*S1)	# 0889
2710-SEC	PD-0165	0.24	3.82	1.80	3.82	1.80	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.78	(*N9) (*N24) (*S0)	# 0890
2711-PRI	SEL-751A EAST FDR	12.47	0.61	0.55	0.61	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 0892
2711-SEC	PD-0167	0.24	3.82	1.80	3.82	1.80	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.78	(*N9) (*N24) (*S0)	# 0892
2713-PRI	SEL-751A EAST FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0894
2713-PRI0	PD-0013_2	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 0895
2713-SEC	PD-0172	0.24	1.28	0.55	1.28	0.55	2	0.0000	PNL	VCB	12	14	10	25	27	18	2.24	(*N9) (*N24) (*S0)	# 0895
2714-PRI	JOHNSON 751	12.47	1.30	1.19	1.30	1.19	0.2386	0.0500	SWG	VCB	30	45	30	152	19	36	0.45	(*N3) (*S1)	# 0897
2714-SEC	PD-0009_10	0.24	2.09	0.81	2.09	0.81	1.228	0.0000	PNL	VCB	12	14	10	25	25	18	2.08	(*N3) (*N24) (*S1)	# 0897
2719-SEC	PD-0238	0.24	3.69	1.49	3.69	1.49	1.679	0.0000	PNL	VCB	12	14	10	25	46	18	5.45	(*N3) (*N24) (*S1)	# 0898
2723-PRI	PD-0012_6	12.47	3.50	3.25	3.50	3.25	0.0216	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0900
2723-SEC	PD-0247	0.24	5.98	2.53	5.98	2.53	0.5121	0.0000	PNL	VCB	12	14	10	25	31	18	2.89	(*N3) (*N24) (*S1)	# 0900
2727-PRI	PD-0001_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0902
2727-SEC	PD-0001_1	0.24	4.71	2.26	4.71	2.26	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.88	(*N9) (*N24) (*S0)	# 0902
2728-PRI	PD-0052	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 0904
2728-SEC	PD-0052	0.24	3.20	1.48	3.20	1.48	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.36	(*N9) (*N24) (*S0)	# 0904
2729-PRI	PD-0001_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0906
2729-SEC	PD-0001_1	0.24	4.37	2.08	4.37	2.08	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.06	(*N9) (*N24) (*S0)	# 0906
2730-PRI	PD-0030	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 0908
2730-SEC	PD-0030	0.24	3.33	1.55	3.33	1.55	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.64	(*N9) (*N24) (*S0)	# 0908
2731-PRI	SEL-751A EAST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0910
2731-SEC	PD-0170	0.24	3.39	1.58	3.39	1.58	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.78	(*N9) (*N24) (*S0)	# 0910
2733-PRI	PD-0010_1	12.47	0.46	0.42	0.46	0.42	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.15	(*N9) (*S0)	# 0912
2733-SEC	PD-0010_1	0.24	8.35	4.20	8.35	4.20	2	0.0000	PNL	VCB	12	14	10	25	101	18	19.0	(*N9) (*S0)	# 0913
2735-PRI	SEL-751A EAST FDR	12.47	0.57	0.53	0.57	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 0914
2735-SEC	PD-0177	0.24	3.37	1.57	3.37	1.57	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.75	(*N9) (*N24) (*S0)	# 0914
2737-PRI	PD-0180	12.47	0.50	0.45	0.50	0.45	0.3728	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 0916
2737-SEC	PD-0182	0.24	3.36	1.56	3.36	1.56	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.71	(*N9) (*N24) (*S0)	# 0916
2738-PRI	PD-0180	12.47	0.50	0.45	0.50	0.45	0.3721	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 0918
2738-SEC	PD-0181	0.24	3.36	1.56	3.36	1.56	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.71	(*N9) (*N24) (*S0)	# 0918
2739-PRI	PD-0032_4	12.47	2.76	2.53	2.76	2.53	0.1603	0.0000	SWG	VCB	30	45	30	152	21	36	0.52	(*N3) (*S1)	# 0920
2739-SEC	PD-0032_4	0.48	4.40	3.24	4.40	3.24	2	0.0000	PNL	VCB	12	14	10	25	83	18	13.8	(*N9) (*S0)	# 0921
2747-PRI	PD-0014_9	12.47	3.73	3.43	3.73	3.43	0.0901	0.0000	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 0922
2747-SEC	PD-0014_9	0.208	14.64	6.80	14.64	6.80	2	0.0000	PNL	VCB	12	14	10	25	140	18	32.0	(*N9) (*S0)	# 0923
2748-SEC	NORTHWEST (HOSPITAL) 751	0.24	3.76	1.77	3.76	1.77	1.95	0.0500	PNL	VCB	12	14	10	25	57	18	7.63	(*N9) (*N24) (*S0)	# 0923
2749-PRI	PD-0010_7	12.47	3.13	2.91	3.13	2.91	0.0232	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0925
2749-SEC	PD-0010_7	0.208	6.50	2.87	6.50	2.87	2	0.0000	PNL	VCB	12	14	10	25	79	18	12.8	(*N9) (*S0)	# 0926
2750-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 0927

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2750-SEC	PD-0009_1	0.24	2.96	1.36	2.96	1.36	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.81	(*N9) (*N24) (*S0)	# 0927
2751-PRI	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 0929
2751-SEC	PD-0376	0.24	3.04	1.40	3.04	1.40	1.973	0.0000	PNL	VCB	12	14	10	25	49	18	5.91	(*N24) (*S0)	# 0929
2752-PRI	NE (IND #2) 751	12.47	3.74	3.48	3.74	3.48	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 0931
2752-SEC	PD-0265	0.24	6.80	2.91	6.80	2.91	0.8638	0.0000	PNL	VCB	12	14	10	25	47	18	5.64	(*N3) (*N24) (*S1)	# 0931
2753-SEC	PD-0147	0.24	5.55	2.33	5.55	2.33	1.427	0.0000	PNL	VCB	12	14	10	25	56	18	7.38	(*N3) (*N24) (*S1)	# 0932
2754-PRI	PD-0003_5	12.47	2.79	2.59	2.79	2.59	0.0249	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*S0)	# 0934
2754-SEC	PD-0003_5	0.24	3.53	1.65	3.53	1.65	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.10	(*N9) (*N24) (*S0)	# 0934
2755-PRI	PD-0004_1	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.18	(*N9) (*S0)	# 0936
2755-SEC	PD-0004_1	0.24	3.16	1.46	3.16	1.46	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.26	(*N9) (*N24) (*S0)	# 0936
2756-PRI	PD-0014_8	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 0938
2756-SEC	PD-0014_8	0.24	4.06	1.92	4.06	1.92	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.33	(*N9) (*N24) (*S0)	# 0938
2757-SEC	PD-0146	0.24	4.88	2.03	4.88	2.03	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.95	(*N3) (*N9) (*N24) (*S1)	# 0939
2758-SEC	PD-0145	0.24	4.88	2.03	4.88	2.03	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.95	(*N3) (*N9) (*N24) (*S1)	# 0940
2759 AND 2758 AND 2757 PRI	PD-0003_9	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 0942
2759-SEC	PD-0144	0.24	4.88	2.03	4.88	2.03	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.95	(*N3) (*N9) (*N24) (*S1)	# 0942
2760-PRI	SOUTH 751	12.47	1.50	1.37	1.47	1.35	0.1873	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 0943
2760-SEC	SOUTH 751	0.24	3.02	1.40	3.02	1.40	1.95	0.0500	PNL	VCB	12	14	10	25	49	18	5.96	(*N9) (*N24) (*S0)	# 0944
2761-PRI	WEST 751	12.47	5.72	5.32	5.72	5.32	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.53	(*S0)	# 0946
2761-SEC	PD-0429	0.24	3.17	1.47	3.17	1.47	1.754	0.0000	PNL	VCB	12	14	10	25	47	18	5.51	(*N24) (*S1)	# 0946
2762-PRI	PD-0003_5	12.47	2.94	2.73	2.94	2.73	0.0241	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*S0)	# 0948
2762-SEC	PD-0003_5	0.24	5.54	2.70	5.54	2.70	2	0.0000	PNL	VCB	12	14	10	25	76	18	11.9	(*N9) (*N24) (*S0)	# 0948
2765-PRI	PD-0005_4	12.47	0.46	0.42	0.46	0.42	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.15	(*N9) (*N24) (*S0)	# 0949
2765-SEC	PD-0005_4	0.24	2.19	0.98	2.19	0.98	2	0.0000	PNL	VCB	12	14	10	25	39	18	4.12	(*N9) (*N24) (*S0)	# 0950
2766-PRI	PD-0055	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0952
2766-PRI_1	PD-0010_5	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 0953
2766-SEC	PD-0055	0.24	3.87	1.82	3.87	1.82	2	0.0000	PNL	VCB	12	14	10	25	59	18	7.89	(*N9) (*N24) (*S0)	# 0953
2766-SEC_1	PD-0010_5	0.24	3.79	1.78	3.79	1.78	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.71	(*N9) (*N24) (*S0)	# 0954
2767-PRI	PD-0001_2	12.47	0.69	0.63	0.69	0.63	0.0163	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*S0)	# 0956
2767-SEC	PD-0001_2	0.24	2.43	0.95	2.43	0.95	0.8598	0.0000	PNL	VCB	12	14	10	25	23	18	1.74	(*N3) (*N24) (*S1)	# 0956
2769-PRI	PD-0016_3	12.47	1.10	1.00	1.10	1.00	0.0865	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*N3) (*S1)	# 0958
2769-SEC	PD-0016_10	0.24	3.24	1.30	3.24	1.30	0.4736	0.0000	PNL	VCB	12	14	10	25	19	18	1.33	(*N3) (*N24) (*S1)	# 0958
2770-PRI	NE (IND #2) 751	12.47	3.86	3.59	3.86	3.59	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 0960
2770-SEC	PD-0262	0.24	2.34	0.91	2.34	0.91	0.9382	0.0000	PNL	VCB	12	14	10	25	23	18	1.81	(*N3) (*N24) (*S1)	# 0960
2771-PRI	PD-0018_2	12.47	0.33	0.30	0.33	0.30	0.0262	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0961
2771-SEC	PD-0018_2	0.24	1.98	0.76	1.98	0.76	1.436	0.0000	PNL	VCB	12	14	10	25	27	18	2.30	(*N3) (*N24) (*S1)	# 0962
2772-PRI	PD-0012_6	12.47	3.62	3.37	3.62	3.37	0.0211	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 0964

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2772-SEC	PD-0244	0.24	4.11	1.68	4.11	1.68	1.244	0.0000	PNL	VCB	12	14	10	25	42	18	4.57	(*N3) (*N24) (*S1)	# 0964
2773-PRI	PD-0399	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0966
2773-SEC	PD-0405	0.24	4.68	1.94	4.68	1.94	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.53	(*N3) (*N9) (*N24) (*S0)	# 0966
2774-PRI	PD-0409	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0968
2774-SEC	PD-0409	0.24	4.67	2.24	4.67	2.24	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.79	(*N9) (*N24) (*S0)	# 0968
2775-PRI	PD-0609	12.47	0.64	0.59	0.64	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.60	(*N9) (*S0)	# 0970
2775-SEC	PD-0609	0.24	2.16	0.97	2.16	0.97	2	0.0000	PNL	VCB	12	14	10	25	39	18	4.06	(*N9) (*N24) (*S0)	# 0970
2776-PRI	PD-0398	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0972
2776-SEC	PD-0398	0.24	1.69	0.74	1.69	0.74	2	0.0000	PNL	VCB	12	14	10	25	32	18	3.08	(*N9) (*N24) (*S0)	# 0972
2777-PRI	PD-0019_3	12.47	0.33	0.30	0.33	0.30	0.0351	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N3) (*N24) (*S1)	# 0973
2777-PRI1	PD-0031_1	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.88	(*N9) (*N24) (*S0)	# 0974
2777-SEC	PD-0019_3	0.24	3.08	1.23	3.08	1.23	1.079	0.0000	PNL	VCB	12	14	10	25	31	18	2.85	(*N3) (*N24) (*S1)	# 0975
2779-PRI	PD-0005_10	12.47	0.50	0.46	0.50	0.46	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.26	(*N9) (*S0)	# 0977
2779-SEC	PD-0007_21	0.24	2.32	0.90	2.32	0.90	0.9503	0.0000	PNL	VCB	12	14	10	25	23	18	1.82	(*N3) (*N24) (*S1)	# 0977
2780-SEC	PD-0130	0.24	3.24	1.30	3.24	1.30	0.4735	0.0000	PNL	VCB	12	14	10	25	19	18	1.33	(*N3) (*N24) (*S1)	# 0978
2785-PRI	PD-0014_8	12.47	0.58	0.54	0.58	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 0980
2785-SEC	PD-0014_8	0.24	2.93	1.35	2.93	1.35	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.74	(*N9) (*N24) (*S0)	# 0980
2786-PRI	PD-0014_4	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.82	(*N9) (*N24) (*S0)	# 0981
2786-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 0982
2788-SEC	PD-0328	0.24	0.67	0.28	0.67	0.28	2	0.0000	PNL	VCB	12	14	10	25	17	18	1.09	(*N9) (*N24) (*S0)	# 0983
2791-PRI	SEL-751A SOUTHWEST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0985
2791-SEC	PD-0386	0.24	2.31	0.90	2.31	0.90	0.96	0.0000	PNL	VCB	12	14	10	25	23	18	1.83	(*N3) (*N24) (*S1)	# 0985
2792-PRI	SEL-751A SOUTHWEST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 0987
2792-SEC	PD-0408	0.24	0.80	0.29	0.80	0.29	1.856	0.0000	PNL	VCB	12	14	10	25	17	18	1.07	(*N3) (*N24) (*S1)	# 0987
2793-PRI	PD-0031_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 0988
2794-SEC	PD-0009_1	0.24	0.77	0.32	0.77	0.32	2	0.0000	PNL	VCB	12	14	10	25	19	18	1.27	(*N9) (*N24) (*S0)	# 0989
2795-PRI	PD-0398	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 0991
2795-SEC	PD-0401	0.24	4.11	1.68	4.11	1.68	1.247	0.0000	PNL	VCB	12	14	10	25	42	18	4.58	(*N3) (*N24) (*S1)	# 0991
2797-PRI	SEL-751A EAST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.54	(*N9) (*S0)	# 0993
2797-SEC	PD-0158	0.24	4.11	1.68	4.11	1.68	1.247	0.0000	PNL	VCB	12	14	10	25	42	18	4.58	(*N3) (*N24) (*S1)	# 0993
2798-SEC	PD-0006_8	0.24	10.84	5.55	10.84	5.55	2	0.0000	PNL	VCB	12	14	10	25	122	18	25.5	(*N9) (*N24) (*S0)	# 0994
2800-SEC	PD-0009_1	0.48	3.41	2.48	3.41	2.48	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.4	(*N9) (*N24) (*S0)	# 0995
2801-SEC	PD-0009_1	0.48	3.41	2.48	3.41	2.48	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.4	(*N9) (*N24) (*S0)	# 0996
2802 AND 2801 AND 2800 PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0998
2802-SEC	PD-0009_1	0.48	3.41	2.48	3.41	2.48	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.4	(*N9) (*N24) (*S0)	# 0998
2806-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1000
2806-SEC	PD-0009_1	0.24	1.59	0.69	1.59	0.69	2	0.0000	PNL	VCB	12	14	10	25	31	18	2.86	(*N9) (*N24) (*S0)	# 1000

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2807-PRI	SEL-751A SOUTHWEST FDR	12.47	0.56	0.52	0.56	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 1002
2807-SEC	PD-0417	0.24	1.58	0.69	1.58	0.69	2	0.0000	PNL	VCB	12	14	10	25	31	18	2.86	(*N9) (*N24) (*S0)	# 1002
2808-PRI	NORTHWEST (HOSPITAL) 751	12.47	6.38	5.92	6.38	5.92	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.59	(*S0)	# 1004
2808-SEC	NORTHWEST (HOSPITAL) 751	0.24	1.76	0.78	1.76	0.78	1.95	0.0500	PNL	VCB	12	14	10	25	33	18	3.21	(*N9) (*N24) (*S0)	# 1004
2809-PRI	PD-0015_6	12.47	2.80	2.56	2.80	2.56	0.1555	0.0000	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 1006
2809-SEC	PD-0256	0.24	3.56	1.44	3.56	1.44	1.848	0.0000	PNL	VCB	12	14	10	25	48	18	5.76	(*N3) (*N24) (*S1)	# 1006
2810-PRI	PD-0036	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1008
2810-SEC	PD-0036	0.24	2.94	1.35	2.94	1.35	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.76	(*N9) (*N24) (*S0)	# 1008
2811-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1010
2811-SEC	PD-0009_1	0.24	2.93	1.35	2.93	1.35	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.75	(*N9) (*N24) (*S0)	# 1010
2812-PRI	SEL-751A SOUTHWEST FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 1012
2812-SEC	PD-0411	0.24	2.94	1.35	2.94	1.35	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.78	(*N9) (*N24) (*S0)	# 1012
2814-PRI	PD-0014_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 1014
2814-SEC	PD-0014_8	0.24	4.06	1.92	4.06	1.92	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.35	(*N9) (*N24) (*S0)	# 1014
2815-PRI	PD-0004_2	12.47	0.57	0.52	0.18	0.16	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 1016
2815-SEC	PD-0008_2	0.24	4.01	1.89	2.45	1.16	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.21	(*N9) (*N24) (*S0)	# 1016
2816-PRI	PD-0021_4	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 1018
2816-SEC	PD-0021_4	0.24	2.99	1.38	2.99	1.38	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.89	(*N9) (*N24) (*S0)	# 1018
2817-PRI	SOUTH 751	12.47	1.44	1.32	1.30	1.19	0.2402	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1019
2817-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1020
2818-PRI	PD-0009_9	12.47	0.53	0.48	0.53	0.48	0.3341	0.0000	SWG	VCB	30	45	30	152	12	36	0.22	(*N3) (*S1)	# 1022
2818-SEC	PD-0009_9	0.24	4.11	1.95	4.11	1.95	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.45	(*N9) (*N24) (*S0)	# 1022
2819-PRI	PD-0403	12.47	0.49	0.44	0.49	0.44	0.3862	0.0000	SWG	VCB	30	45	30	152	13	36	0.24	(*N3) (*S1)	# 1024
2819-SEC	PD-0403	0.24	4.00	1.89	4.00	1.89	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.19	(*N9) (*N24) (*S0)	# 1024
2820-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 1026
2820-SEC	PD-0009_1	0.24	2.87	1.32	2.87	1.32	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.61	(*N9) (*N24) (*S0)	# 1026
2821-PRI	PD-0398	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 1028
2821-SEC	PD-0404	0.24	3.79	1.54	3.79	1.54	1.558	0.0000	PNL	VCB	12	14	10	25	45	18	5.21	(*N3) (*N24) (*S1)	# 1028
2822-PRI	PD-0398	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 1030
2822-SEC	PD-0402	0.24	3.93	1.60	3.93	1.60	1.404	0.0000	PNL	VCB	12	14	10	25	43	18	4.91	(*N3) (*N24) (*S1)	# 1030
2823-PRI	PD-0394	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 1032
2823-SEC	PD-0396	0.24	4.68	1.94	4.68	1.94	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.52	(*N3) (*N9) (*N24) (*S0)	# 1032
2826 AND 2828 AND 2829 PRI	PD-0003_9	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 1034
2826-SEC	PD-0152	0.24	5.67	2.39	5.67	2.39	0.5757	0.0000	PNL	VCB	12	14	10	25	32	18	3.06	(*N3) (*N24) (*S1)	# 1034
2827-PRI	JOHNSON 751	12.47	0.68	0.62	0.68	0.62	1.063	0.0500	SWG	VCB	30	45	30	152	31	36	0.93	(*N3) (*S1)	# 1036

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2827-SEC	PD-0477	0.24	4.36	2.08	4.36	2.08	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.05	(*N9) (*N24) (*S0)	# 1036
2828-SEC	PD-0153	0.24	4.39	1.81	4.39	1.81	1.034	0.0000	PNL	VCB	12	14	10	25	39	18	4.10	(*N3) (*N24) (*S1)	# 1037
2829-SEC	PD-0154	0.24	4.39	1.81	4.39	1.81	1.034	0.0000	PNL	VCB	12	14	10	25	39	18	4.10	(*N3) (*N24) (*S1)	# 1038
2830-PRI	PD-0031_1	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N9) (*N24) (*S0)	# 1039
2830-SEC	PD-0332	0.48	2.08	1.29	2.08	1.29	1.115	0.0000	PNL	VCB	12	14	10	25	32	18	2.96	(*N3) (*N24) (*S1)	# 1040
2831-SEC	MaxTripTime @2.0s	0.48			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1041
2832-SEC	MaxTripTime @2.0s	0.48	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1042
2835-PRI	PD-0060	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1044
2835-SEC	PD-0060	0.24	2.93	1.35	2.93	1.35	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.75	(*N9) (*N24) (*S0)	# 1044
2836-SEC	PD-0148	0.24	4.87	2.02	4.87	2.02	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.93	(*N3) (*N9) (*N24) (*S1)	# 1045
2838-PRI	PD-0011_7	12.47	3.18	2.91	3.18	2.91	0.049	0.0000	SWG	VCB	30	45	30	152	11	36	0.18	(*N3) (*S1)	# 1047
2838-SEC	PD-0011_7	0.48	7.32	5.52	7.32	5.52	2	0.0000	PNL	VCB	12	14	10	25	118	18	24.3	(*N9) (*S0)	# 1048
2839-PRI	PD-0008_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1049
2839-SEC	PD-0008_8	0.24	14.10	7.30	14.10	7.30	2	0.0000	PNL	VCB	12	14	10	25	146	18	34.1	(*N9) (*N24) (*S0)	# 1049
2840-PRI	PD-0008_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1051
2840-SEC	PD-0008_8	0.24	14.14	7.32	14.14	7.32	2	0.0000	PNL	VCB	12	14	10	25	146	18	34.2	(*N9) (*N24) (*S0)	# 1051
2841-PRI	PD-0010_8	12.47	4.52	4.20	4.52	4.20	0.0238	0.0000	SWG	VCB	30	45	30	152	9	36	0.13	(*S0)	# 1053
2841-SEC	PD-0010_8	0.208	17.20	7.97	17.20	7.97	2	0.0000	PNL	VCB	12	14	10	25	156	18	37.9	(*N9) (*S0)	# 1054
2843-PRI	PD-0019	12.47	0.22	0.20	0.22	0.20	0.0301	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*N24) (*S0)	# 1054
2843-SEC	PD-0019	0.24	1.55	0.59	1.55	0.59	0.8719	0.0000	PNL	VCB	12	14	10	25	17	18	1.06	(*N3) (*N24) (*S1)	# 1055
2844-PRI	PD-0011_7	12.47	3.67	3.37	3.56	3.26	0.0428	0.0000	SWG	VCB	30	45	30	152	11	36	0.18	(*N3) (*N24) (*S1)	# 1056
2844-SEC	PD-0011_7	0.24	8.15	4.10	8.15	4.10	2	0.0000	PNL	VCB	12	14	10	25	100	18	18.5	(*N9) (*N24) (*S0)	# 1057
2845-PRI	PD-0433	12.47	3.75	3.44	3.75	3.44	0.0893	0.0000	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*N24) (*S1)	# 1058
2845-SEC	PD-0433	0.24	8.16	4.10	8.16	4.10	2	0.0000	PNL	VCB	12	14	10	25	100	18	18.5	(*N9) (*N24) (*S0)	# 1059
2846-PRI	PD-0016_6	12.47	3.75	3.48	3.75	3.48	0.0207	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 1061
2846-SEC	PD-0016_6	0.24	14.49	6.47	14.49	6.47	2	0.0000	PNL	VCB	12	14	10	25	136	18	30.5	(*N3) (*N9) (*N24) (*S0)	# 1061
2847-PRI	PD-0179	12.47	0.50	0.45	0.50	0.45	0.3782	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 1063
2847-SEC	PD-0179	0.24	5.81	2.84	5.81	2.84	2	0.0000	PNL	VCB	12	14	10	25	78	18	12.6	(*N9) (*N24) (*S0)	# 1063
2848-PRI	PD-0010-1	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 1065
2848-SEC	PD-0392	0.24	4.69	1.94	4.69	1.94	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.55	(*N3) (*N9) (*N24) (*S0)	# 1065
2849-PRI	PD-0010-1	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 1067
2849-SEC	PD-0010-1	0.24	2.95	1.36	2.95	1.36	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.79	(*N9) (*N24) (*S0)	# 1067
2850-PRI	PD-0010-1	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.50	(*N9) (*S0)	# 1069
2850-SEC	PD-0393	0.24	2.95	1.36	2.95	1.36	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.80	(*N9) (*N24) (*S0)	# 1069
2852-PRI	PD-0056	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 1071
2852-SEC	PD-0056	0.24	1.56	0.68	1.56	0.68	2	0.0000	PNL	VCB	12	14	10	25	31	18	2.82	(*N9) (*N24) (*S0)	# 1071
2853-PRI	PD-0002_6	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.83	(*N9) (*S0)	# 1073
2853-SEC	PD-0002_6	0.24	2.97	1.37	2.97	1.37	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.83	(*N9) (*N24) (*S0)	# 1073
2854-PRI	PD-0039_2	12.47	2.07	1.89	2.02	1.85	0.3048	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N3) (*N24) (*S1)	# 1074

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2854-SEC	PD-0039_2	0.24	5.52	2.69	5.52	2.69	2	0.0000	PNL	VCB	12	14	10	25	76	18	11.9	(*N9) (*N24) (*S0)	# 1075
2855-PRI	PD-0027_5	12.47	2.90	2.65	2.90	2.65	0.145	0.0000	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*S1)	# 1077
2855-SEC	PD-0027_5	0.208	51.38	16.61	51.38	16.61	2	0.0000	PNL	VCB	12	14	10	25	261	18	86.3	(*N9) (*S0)	# 1078
2856 AND 2859 PRI	PD-0011_9	12.47	0.52	0.47	0.52	0.47	0.3491	0.0000	SWG	VCB	30	45	30	152	12	36	0.22	(*N3) (*S1)	# 1079
2856-SEC	PD-0011_9	0.24	4.07	1.93	4.07	1.93	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.36	(*N9) (*N24) (*S0)	# 1079
2858-PRI	PD-0045_2	12.47	4.66	4.33	4.66	4.33	0.0197	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*N24) (*S0)	# 1080
2858-SEC	PD-0045_2	0.24	24.85	10.68	24.85	10.68	0.9255	0.0000	PNL	VCB	12	14	10	25	118	18	24.1	(*N3) (*N24) (*S1)	# 1081
2859-SEC	PD-0011_9	0.24	4.18	1.98	4.18	1.98	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.63	(*N9) (*N24) (*S0)	# 1082
2860-PRI	PD-0035	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1084
2860-SEC	PD-0035	0.24	2.46	1.11	2.46	1.11	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.70	(*N9) (*N24) (*S0)	# 1084
2861-PRI	SEL-751A HOWE FDR	12.47	0.32	0.29	0.32	0.29	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 0053
2861-PRI0	SEL-751A HOWE FDR	12.47	0.29	0.27	0.29	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 0054
2861-PRI1	SEL-751A HOWE FDR	12.47	0.29	0.26	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	26	36	0.74	(*N9) (*S0)	# 0055
2861-SEC	PD-0361	0.24	2.09	0.81	2.09	0.81	1.225	0.0000	PNL	VCB	12	14	10	25	25	18	2.08	(*N3) (*N24) (*S1)	# 1088
2862-PRI	PD-0430	12.47	3.71	3.40	3.71	3.40	0.0912	0.0000	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*N24) (*S1)	# 1089
2862-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1090
2863-SEC	SOUTH 751	0.24	4.93	2.37	4.93	2.37	1.95	0.0500	PNL	VCB	12	14	10	25	70	18	10.4	(*N9) (*N24) (*S0)	# 1091
2864-SEC	SOUTH 751	0.24	4.93	2.37	4.93	2.37	1.95	0.0500	PNL	VCB	12	14	10	25	70	18	10.4	(*N9) (*N24) (*S0)	# 1092
2865 AND 2864 AND 2863 PRI	SOUTH 751	12.47	1.76	1.61	1.76	1.61	0.1342	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 1094
2865-SEC	SOUTH 751	0.24	4.93	2.37	4.93	2.37	1.95	0.0500	PNL	VCB	12	14	10	25	70	18	10.4	(*N9) (*N24) (*S0)	# 1094
2866-PRI	PD-0030_2	12.47	0.80	0.73	0.80	0.73	0.153	0.0000	SWG	VCB	30	45	30	152	10	36	0.15	(*N3) (*S1)	# 1096
2866-SEC	PD-0030_2	0.24	4.43	2.11	4.43	2.11	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.21	(*N9) (*N24) (*S0)	# 1096
2867-PRI	SEL-751A EAST FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 1098
2867-SEC	PD-0176	0.24	5.60	2.35	5.60	2.35	1.388	0.0000	PNL	VCB	12	14	10	25	56	18	7.26	(*N3) (*N24) (*S1)	# 1098
2868-SEC	PD-0378	0.24	3.02	1.20	3.02	1.20	0.5429	0.0000	PNL	VCB	12	14	10	25	20	18	1.40	(*N3) (*N24) (*S1)	# 1099
2869-SEC	PD-0009_1	0.24	3.83	1.80	3.83	1.80	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.80	(*N9) (*N24) (*S0)	# 1100
2870-PRI	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1102
2870-SEC	SEL-751A SOUTHWEST FDR	0.24	3.25	1.51	3.25	1.51	1.95	0.0500	PNL	VCB	12	14	10	25	52	18	6.47	(*N9) (*N24) (*S0)	# 1102
2871-PRI	PD-0018_3	12.47	1.10	1.00	1.10	1.00	0.0859	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*N3) (*S1)	# 1104
2871-SEC	PD-0018_3	0.24	5.60	2.73	5.60	2.73	2	0.0000	PNL	VCB	12	14	10	25	76	18	12.0	(*N9) (*N24) (*S0)	# 1104
2872 AND 2873 AND 3562 PRI	SEL-751A SOUTHWEST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.50	(*N9) (*S0)	# 1106
2872-SEC	PD-0385	0.24	3.13	1.45	3.13	1.45	1.82	0.0000	PNL	VCB	12	14	10	25	47	18	5.63	(*N24) (*S1)	# 1106
2873-SEC	PD-0384	0.24	3.13	1.45	3.13	1.45	1.82	0.0000	PNL	VCB	12	14	10	25	47	18	5.63	(*N24) (*S1)	# 1107
2876-PRI	PD-0003_3	12.47	0.65	0.60	0.65	0.60	0.0165	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*S0)	# 1109
2876-SEC	PD-0003_3	0.24	1.15	0.49	1.15	0.49	2	0.0000	PNL	VCB	12	14	10	25	25	18	2.00	(*N9) (*N24) (*S0)	# 1109

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2879-PRI	PD-0050_1	12.47	0.67	0.62	0.67	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.68	(*N9) (*S0)	# 1111
2879-SEC	PD-0509	0.24	3.09	1.23	3.09	1.23	0.5193	0.0000	PNL	VCB	12	14	10	25	20	18	1.38	(*N3) (*N24) (*S1)	# 1111
2880-PRI	PD-0045_1	12.47	0.66	0.59	0.66	0.59	0.0645	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*S1)	# 1115
2880-SEC	PD-0045_1	0.208	6.31	2.77	6.31	2.77	2	0.0000	PNL	VCB	12	14	10	25	78	18	12.4	(*N9) (*S0)	# 1116
2883 AND 2884 AND 2885 PRI	NORTHWEST (HOSPITAL) 751	12.47	3.60	3.35	3.60	3.35	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 1117
2883-SEC	NORTHWEST (HOSPITAL) 751	0.48	4.29	3.15	4.29	3.15	1.95	0.0500	PNL	VCB	12	14	10	25	82	18	13.5	(*N9) (*N24) (*S0)	# 1117
2884-SEC	NORTHWEST (HOSPITAL) 751	0.48	4.32	3.17	4.32	3.17	1.95	0.0500	PNL	VCB	12	14	10	25	82	18	13.5	(*N9) (*N24) (*S0)	# 1118
2885-SEC	NORTHWEST (HOSPITAL) 751	0.48	4.29	3.15	4.29	3.15	1.95	0.0500	PNL	VCB	12	14	10	25	82	18	13.5	(*N9) (*N24) (*S0)	# 1119
2886-PRI	PD-0068	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 1121
2886-SEC	PD-0068	0.24	2.76	1.26	2.76	1.26	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.37	(*N9) (*N24) (*S0)	# 1121
2887-PRI	PD-0017_4	12.47	1.01	0.92	1.01	0.92	0.0995	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*N3) (*S1)	# 1123
2887-SEC	PD-0017_4	0.24	3.74	1.76	3.74	1.76	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.58	(*N9) (*N24) (*S0)	# 1123
2888-PRI	PD-0039_2	12.47	2.62	2.40	2.62	2.40	0.1786	0.0000	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*S1)	# 1125
2888-SEC	PD-0039_2	0.208	5.52	2.40	5.52	2.40	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.6	(*N9) (*S0)	# 1126
2889-PRI	PD-0039_2	12.47	2.58	2.37	2.58	2.37	0.1833	0.0000	SWG	VCB	30	45	30	152	22	36	0.56	(*N3) (*S1)	# 1127
2889-SEC	PD-0039_2	0.208	5.77	2.52	5.77	2.52	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.2	(*N9) (*S0)	# 1128
2890-PRI	PD-0484	12.47	0.64	0.58	0.64	0.58	0.2359	0.0000	SWG	VCB	30	45	30	152	11	36	0.19	(*N3) (*S1)	# 1129
2890-SEC	PD-0484	0.48	4.07	2.98	4.07	2.98	2	0.0000	PNL	VCB	12	14	10	25	79	18	12.7	(*N9) (*S0)	# 1130
2891-PRI	PD-0005_10	12.47	0.51	0.46	0.51	0.46	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.27	(*N9) (*S0)	# 1131
2891-SEC	PD-0007_20	0.24	3.25	1.30	3.25	1.30	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.62	(*N3) (*N9) (*N24) (*S0)	# 1131
2892-PRI	PD-0054_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.71	(*N9) (*S0)	# 1133
2892-SEC	PD-0482	0.24	3.56	1.44	3.56	1.44	1.856	0.0000	PNL	VCB	12	14	10	25	48	18	5.78	(*N3) (*N24) (*S1)	# 1133
2893-PRI	PD-0061	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 1135
2893-SEC	PD-0061	0.24	3.21	1.49	3.21	1.49	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.39	(*N9) (*N24) (*S0)	# 1135
2895-PRI	PD-0039_2	12.47	2.09	1.91	2.05	1.87	0.2979	0.0000	SWG	VCB	30	45	30	152	26	36	0.74	(*N3) (*N24) (*S1)	# 1136
2895-SEC	PD-0039_2	0.24	5.01	2.41	5.01	2.41	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.6	(*N9) (*N24) (*S0)	# 1137
2896-PRI	PD-0179	12.47	0.50	0.46	0.50	0.46	0.3695	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 1139
2896-PRI0	PD-0179	12.47	0.50	0.45	0.50	0.45	0.3716	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 1140
2896-SEC	PD-0179	0.24	5.60	2.73	5.60	2.73	2	0.0000	PNL	VCB	12	14	10	25	76	18	12.0	(*N9) (*N24) (*S0)	# 1140
2897-PRI	PD-0039_2	12.47	2.12	1.94	2.07	1.90	0.2888	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N3) (*N24) (*S1)	# 1141
2897-SEC	PD-0039_2	0.24	7.73	3.87	7.73	3.87	2	0.0000	PNL	VCB	12	14	10	25	96	18	17.4	(*N9) (*N24) (*S0)	# 1142
2898 AND 2899 AND 2900 PRI	SEL-751A SOUTHWEST FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 1144
2898-SEC	PD-0413	0.48	2.01	1.24	2.01	1.24	0.5302	0.0000	PNL	VCB	12	14	10	25	19	18	1.36	(*N3) (*N24) (*S1)	# 1144
2899-SEC	PD-0414	0.48	2.01	1.24	2.01	1.24	0.5302	0.0000	PNL	VCB	12	14	10	25	19	18	1.36	(*N3) (*N24) (*S1)	# 1145
2900-SEC	PD-0415	0.48	2.01	1.24	2.01	1.24	0.5302	0.0000	PNL	VCB	12	14	10	25	19	18	1.36	(*N3) (*N24) (*S1)	# 1146

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2901-PRI	SOUTH 751	12.47	1.29	1.18	1.16	1.06	0.3029	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*N24) (*S1)	# 1147
2901-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1148
2902-PRI	PD-0039_2	12.47	2.11	1.93	2.06	1.89	0.2918	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N3) (*N24) (*S1)	# 1149
2902-SEC	PD-0039_2	0.24	5.64	2.74	5.64	2.74	2	0.0000	PNL	VCB	12	14	10	25	77	18	12.1	(*N9) (*N24) (*S0)	# 1150
2903-PRI	PD-0039_2	12.47	2.09	1.91	2.04	1.87	0.2988	0.0000	SWG	VCB	30	45	30	152	26	36	0.74	(*N3) (*N24) (*S1)	# 1151
2903-SEC	PD-0039_2	0.24	5.63	2.74	5.63	2.74	2	0.0000	PNL	VCB	12	14	10	25	77	18	12.1	(*N9) (*N24) (*S0)	# 1152
2904-PRI	PD-0039_2	12.47	2.06	1.89	2.02	1.85	0.3061	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N3) (*N24) (*S1)	# 1153
2904-SEC	PD-0039_2	0.24	6.30	3.10	6.30	3.10	2	0.0000	PNL	VCB	12	14	10	25	83	18	13.8	(*N9) (*N24) (*S0)	# 1154
2906-SEC	SOUTH 751	0.24	5.39	2.61	5.39	2.61	1.95	0.0500	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 1155
2907-PRI	PD-0004_2	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 1157
2907-PRI0	PD-0004_2	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 1158
2907-SEC	PD-0004_2	0.24	4.88	2.35	4.88	2.35	2	0.0000	PNL	VCB	12	14	10	25	69	18	10.3	(*N9) (*N24) (*S0)	# 1158
2911 AND 1074 PRI	SOUTH 751	12.47	1.56	1.42	1.53	1.40	0.1746	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*N24) (*S1)	# 1159
2911-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1160
2912-PRI	PD-0025_2	12.47	0.90	0.82	0.90	0.82	0.1214	0.0000	SWG	VCB	30	45	30	152	9	36	0.13	(*N3) (*S1)	# 1162
2912-SEC	PD-0025_2	0.24	2.45	1.11	2.45	1.11	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.69	(*N9) (*N24) (*S0)	# 1162
2913-PRI	PD-0050_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 1164
2913-SEC	PD-0508	0.24	4.47	1.84	4.47	1.84	0.9916	0.0000	PNL	VCB	12	14	10	25	38	18	4.01	(*N3) (*N24) (*S1)	# 1164
2914-PRI	NORTHWEST (HOSPITAL) 751	12.47	5.23	4.86	5.23	4.86	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 1166
2914-SEC	NORTHWEST (HOSPITAL) 751	0.24	4.24	2.01	4.24	2.01	1.95	0.0500	PNL	VCB	12	14	10	25	62	18	8.76	(*N9) (*N24) (*S0)	# 1166
2915-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1168
2915-SEC	PD-0009_1	0.24	5.37	2.60	5.37	2.60	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 1168
2917-PRI	PD-0055	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1170
2917-SEC	PD-0055	0.24	4.32	2.06	4.32	2.06	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.96	(*N9) (*N24) (*S0)	# 1170
2918-PRI	SOUTH 751	12.47	1.48	1.35	1.45	1.33	0.1924	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 1171
2918-SEC	SOUTH 751	0.24	5.34	2.59	5.34	2.59	1.95	0.0500	PNL	VCB	12	14	10	25	74	18	11.4	(*N9) (*N24) (*S0)	# 1172
2919-PRI	PD-0039_2	12.47	1.99	1.82	1.95	1.79	0.3302	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N3) (*N24) (*S1)	# 1173
2919-SEC	PD-0039_2	0.24	5.06	2.44	5.06	2.44	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.7	(*N9) (*N24) (*S0)	# 1174
2920-PRI	PD-0039_2	12.47	2.05	1.88	2.01	1.84	0.3093	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N3) (*N24) (*S1)	# 1175
2920-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1176
2921-PRI	PD-0016_4	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 1178
2921-SEC	PD-0016_4	0.24	4.75	2.28	4.75	2.28	2	0.0000	PNL	VCB	12	14	10	25	68	18	9.98	(*N9) (*N24) (*S0)	# 1178
2922-PRI	PD-0005_9	12.47	0.53	0.48	0.53	0.48	0.0481	0.0000	SWG	VCB	30	45	30	152	4	36	0.03	(*N3) (*S1)	# 1180
2922-SEC	PD-0005_9	0.24	5.74	2.42	5.74	2.42	1.292	0.0000	PNL	VCB	12	14	10	25	54	18	6.96	(*N3) (*N24) (*S1)	# 1180
2923-PRI	PD-0083	12.47	0.20	0.20	0.20	0.20	2	0.0000	SWG	VCB	30	45	30	152	57	36	3.02	(*N9) (*N_ka) (*N24) (*S1)	# 1181
2923-SEC	PD-0368	0.24	3.72	1.75	3.72	1.75	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.55	(*N9) (*N24) (*S0)	# 1182
2924-SEC	PD-0009_1	0.24	4.96	2.39	4.96	2.39	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.5	(*N9) (*N24) (*S0)	# 1183

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2925-PRI	PD-0015-2	12.47	4.28	3.98	4.28	3.98	0.019	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*N24) (*S0)	# 1184
2925-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1185
2926-PRI	PD-0015-2	12.47	4.36	4.05	4.36	4.05	0.0188	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*N24) (*S0)	# 1186
2926-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1187
2927 AND 2928 AND 2929 PRI	PD-0004_1	12.47	0.53	0.48	0.53	0.48	2	0.0000	SWG	VCB	30	45	30	152	38	36	1.33	(*N9) (*S0)	# 1189
2927-SEC	PD-0004_1	0.24	3.03	1.40	3.03	1.40	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.97	(*N9) (*N24) (*S0)	# 1189
2928-SEC	PD-0004_1	0.24	3.03	1.40	3.03	1.40	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.97	(*N9) (*N24) (*S0)	# 1190
2929-SEC	PD-0004_1	0.24	3.03	1.40	3.03	1.40	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.97	(*N9) (*N24) (*S0)	# 1191
2931-PRI	PD-0025_4	12.47	2.94	2.70	2.94	2.70	0.1402	0.0000	SWG	VCB	30	45	30	152	20	36	0.48	(*N3) (*S1)	# 1193
2931-SEC	PD-0299	0.24	5.12	2.14	5.12	2.14	0.7257	0.0000	PNL	VCB	12	14	10	25	35	18	3.43	(*N3) (*N24) (*S1)	# 1193
2932-PRI	SOUTH 751	12.47	1.34	1.22	1.20	1.09	0.2831	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*N24) (*S1)	# 1194
2932-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1195
2933-PRI	PD-0018_6	12.47	2.79	2.55	2.79	2.55	0.2618	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N3) (*S1)	# 1197
2933-SEC	PD-0018_6	0.48	34.37	24.54	34.37	24.54	2	0.0000	PNL	VCB	12	14	10	25	321	18	119.9	(*N9) (*S0)	# 1198
2934-SEC	PD-0171	0.48	13.32	10.25	13.32	10.25	2	0.0000	PNL	VCB	12	14	10	25	178	18	46.9	(*N9) (*S0)	# 1199
2935-PRI	PD-0039_2	12.47	2.02	1.85	1.98	1.81	0.3211	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N3) (*N24) (*S1)	# 1199
2935-SEC	PD-0039_2	0.24	4.83	2.32	4.83	2.32	2	0.0000	PNL	VCB	12	14	10	25	69	18	10.2	(*N9) (*N24) (*S0)	# 1200
2936-SEC	PD-0014_8	0.24	3.60	1.69	3.60	1.69	2	0.0000	PNL	VCB	12	14	10	25	56	18	7.27	(*N9) (*N24) (*S0)	# 1201
2937-PRI	PD-0010_7	12.47	2.11	1.93	2.11	1.93	0.0332	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*N3) (*N24) (*S1)	# 1202
2937-SEC	PD-0010_7	0.24	8.13	4.08	8.13	4.08	2	0.0000	PNL	VCB	12	14	10	25	99	18	18.4	(*N9) (*N24) (*S0)	# 1203
2938-PRI	PD-0039	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 1205
2938-SEC	PD-0039	0.24	2.54	1.15	2.54	1.15	2	0.0000	PNL	VCB	12	14	10	25	43	18	4.88	(*N9) (*N24) (*S0)	# 1205
2939-PRI	PD-0039_2	12.47	2.04	1.87	2.00	1.83	0.3137	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N3) (*N24) (*S1)	# 1206
2939-SEC	PD-0039_2	0.24	7.00	3.47	7.00	3.47	2	0.0000	PNL	VCB	12	14	10	25	89	18	15.6	(*N9) (*N24) (*S0)	# 1207
2940-SEC	PD-0022-1	0.24	8.69	4.39	8.69	4.39	2	0.0000	PNL	VCB	12	14	10	25	104	18	19.9	(*N9) (*N24) (*S0)	# 1208
2942-SEC	PD-0022-1	0.24	8.69	4.39	8.69	4.39	2	0.0000	PNL	VCB	12	14	10	25	104	18	19.9	(*N9) (*N24) (*S0)	# 1209
2943-SEC	PD-0294	0.24	16.37	7.31	16.37	7.31	0.3119	0.0000	PNL	VCB	12	14	10	25	46	18	5.41	(*N3) (*N24) (*S1)	# 1210
2944-SEC	PD-0293	0.24	16.37	7.31	16.37	7.31	0.3119	0.0000	PNL	VCB	12	14	10	25	46	18	5.41	(*N3) (*N24) (*S1)	# 1211
2945-PRI	NE (IND #2) 751	12.47	3.74	3.48	3.74	3.48	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 1213
2945-SEC	PD-0292	0.24	16.37	7.31	16.37	7.31	0.3119	0.0000	PNL	VCB	12	14	10	25	46	18	5.41	(*N3) (*N24) (*S1)	# 1213
2946-PRI	PD-0036_2	12.47	2.80	2.57	2.80	2.57	0.1552	0.0000	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 1215
2946-SEC	PD-0036_2	0.208	14.56	6.76	14.56	6.76	2	0.0000	PNL	VCB	12	14	10	25	140	18	31.8	(*N9) (*S0)	# 1216
2947 AND 2948 AND 2949 PRI	PD-0014_1	12.47	0.41	0.37	0.41	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.03	(*N9) (*S0)	# 1217
2947-SEC	PD-0014_1	0.24	2.18	0.98	2.18	0.98	2	0.0000	PNL	VCB	12	14	10	25	39	18	4.11	(*N9) (*N24) (*S0)	# 1217
2948-SEC	PD-0014_1	0.24	2.18	0.98	2.18	0.98	2	0.0000	PNL	VCB	12	14	10	25	39	18	4.11	(*N9) (*N24) (*S0)	# 1218
2949-SEC	PD-0014_1	0.24	2.18	0.98	2.18	0.98	2	0.0000	PNL	VCB	12	14	10	25	39	18	4.11	(*N9) (*N24) (*S0)	# 1219
2952-PRI	PD-0007_7	12.47	3.76	3.49	3.76	3.49	0.0207	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 1221
2952-SEC	PD-0007_7	0.48	6.39	4.79	6.39	4.79	2	0.0000	PNL	VCB	12	14	10	25	108	18	20.9	(*N9) (*S0)	# 1222

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2954-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1222
2954-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1223
2955-SEC	PD-0155	0.24	5.25	2.19	5.25	2.19	1.667	0.0000	PNL	VCB	12	14	10	25	59	18	8.10	(*N3) (*N24) (*S1)	# 1224
2956-SEC	PD-0156	0.24	5.25	2.19	5.25	2.19	1.667	0.0000	PNL	VCB	12	14	10	25	59	18	8.10	(*N3) (*N24) (*S1)	# 1225
2957-PRI	SEL-751A EAST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.55	(*N9) (*S0)	# 1227
2957-SEC	PD-0157	0.24	5.25	2.19	5.25	2.19	1.667	0.0000	PNL	VCB	12	14	10	25	59	18	8.10	(*N3) (*N24) (*S1)	# 1227
2960-PRI	PD-0008_8	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 1229
2960-SEC	PD-0008_8	0.24	7.55	3.77	7.55	3.77	2	0.0000	PNL	VCB	12	14	10	25	94	18	17.0	(*N9) (*N24) (*S0)	# 1229
2961-PRI	PD-0063_1	12.47	0.71	0.65	0.71	0.65	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.76	(*N9) (*S0)	# 1231
2961-SEC	PD-0063_1	0.24	4.02	1.90	4.02	1.90	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.23	(*N9) (*N24) (*S0)	# 1231
2962-PR	PD-0007_2	12.47	0.52	0.47	0.52	0.47	0.032	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 1233
2962-SEC	PD-0007_2	0.24	3.65	1.48	3.65	1.48	1.726	0.0000	PNL	VCB	12	14	10	25	47	18	5.54	(*N3) (*N24) (*S1)	# 1233
2963-PRI	PD-0051_1	12.47	0.63	0.57	0.63	0.57	0.0379	0.0000	SWG	VCB	30	45	30	152	3	36	0.03	(*N3) (*S1)	# 1235
2963-SEC	PD-0051_1	0.24	6.46	2.75	6.46	2.75	0.9712	0.0000	PNL	VCB	12	14	10	25	49	18	5.98	(*N3) (*N24) (*S1)	# 1235
2964-PRI	PD-0039	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1237
2964-SEC	PD-0039	0.24	3.79	1.78	3.79	1.78	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.71	(*N9) (*N24) (*S0)	# 1237
2965 AND 2869 AND 1101 PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 1239
2965-SEC	PD-0009_1	0.24	3.76	1.77	3.76	1.77	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.64	(*N9) (*N24) (*S0)	# 1239
2967-PRI	SEL-751A HOWE FDR	12.47	0.51	0.47	0.51	0.47	1.95	0.0500	SWG	VCB	30	45	30	152	38	36	1.29	(*N9) (*S0)	# 1241
2967-SEC	PD-0325	0.24	5.19	2.17	5.19	2.17	1.723	0.0000	PNL	VCB	12	14	10	25	60	18	8.26	(*N3) (*N24) (*S1)	# 1241
2968-PRI	NE (IND #2) 751	12.47	3.99	3.71	3.99	3.71	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.38	(*S0)	# 1243
2968-SEC	PD-0298	0.24	8.49	3.69	8.49	3.69	0.5266	0.0000	PNL	VCB	12	14	10	25	41	18	4.43	(*N3) (*N24) (*S1)	# 1243
2970-PRI	WEST 751	12.47	3.44	3.19	3.44	3.19	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 1245
2970-SEC	PD-0446	0.24	5.61	2.36	5.61	2.36	0.5886	0.0000	PNL	VCB	12	14	10	25	33	18	3.09	(*N3) (*N24) (*S1)	# 1245
2971-SEC	PD-0447	0.24	5.61	2.36	5.61	2.36	0.5886	0.0000	PNL	VCB	12	14	10	25	33	18	3.09	(*N3) (*N24) (*S1)	# 1246
2972-SEC	PD-0448	0.24	5.61	2.36	5.61	2.36	0.5886	0.0000	PNL	VCB	12	14	10	25	33	18	3.09	(*N3) (*N24) (*S1)	# 1247
2973-PRI	SOUTH 751	12.47	1.25	1.14	1.12	1.02	0.3252	0.0500	SWG	VCB	30	45	30	152	22	36	0.57	(*N3) (*N24) (*S1)	# 1248
2973-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1249
2974-PRI	SOUTH 751	12.47	1.62	1.48	1.62	1.48	0.1572	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1251
2974-SEC	SOUTH 751	0.24	6.54	3.23	6.54	3.23	1.95	0.0500	PNL	VCB	12	14	10	25	85	18	14.4	(*N9) (*N24) (*S0)	# 1251
2975-PRI	SEL-751A HOWE FDR	12.47	0.34	0.31	0.34	0.31	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.87	(*N9) (*S0)	# 0059
2975-PRI0	SEL-751A HOWE FDR	12.47	0.34	0.31	0.34	0.31	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.86	(*N9) (*S0)	# 0060
2975-SEC	PD-0360	0.24	3.15	1.46	3.15	1.46	1.786	0.0000	PNL	VCB	12	14	10	25	47	18	5.57	(*N24) (*S1)	# 1254
2977-PRI	PD-0039_2	12.47	2.01	1.84	1.97	1.80	0.3251	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N3) (*N24) (*S1)	# 1255
2977-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1256
2978-PRI	PD-0063_1	12.47	0.71	0.66	0.71	0.66	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.78	(*N9) (*S0)	# 1258

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
2978-SEC	PD-0063_1	0.24	4.48	2.14	4.48	2.14	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.34	(*N9) (*N24) (*S0)	# 1258
2979-PRI	SOUTH 751	12.47	1.53	1.40	1.50	1.37	0.1822	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 1259
2979-SEC	SOUTH 751	0.24	5.79	2.83	5.79	2.83	1.95	0.0500	PNL	VCB	12	14	10	25	78	18	12.5	(*N9) (*N24) (*S0)	# 1260
2981-PRI	PD-0005_5	12.47	2.14	1.96	2.14	1.96	0.0328	0.0000	SWG	VCB	30	45	30	152	7	36	0.08	(*N3) (*S1)	# 1262
2981-SEC	PD-0005_5	0.24	3.49	1.63	3.49	1.63	2	0.0000	PNL	VCB	12	14	10	25	54	18	7.01	(*N9) (*N24) (*S0)	# 1262
2982-PRI	PD-0027_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 1264
2982-SEC	PD-0027_1	0.24	2.81	1.29	2.81	1.29	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.49	(*N9) (*N24) (*S0)	# 1264
2983-PRI	PD-0063_1	12.47	0.71	0.65	0.71	0.65	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.77	(*N9) (*S0)	# 1266
2983-SEC	PD-0063_1	0.24	4.71	2.26	4.71	2.26	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.88	(*N9) (*N24) (*S0)	# 1266
2984-PRI	PD-0063_1	12.47	0.71	0.65	0.71	0.65	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.77	(*N9) (*S0)	# 1268
2984-SEC	PD-0063_1	0.24	4.45	2.12	4.45	2.12	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.27	(*N9) (*N24) (*S0)	# 1268
2985-PRI	PD-0063_1	12.47	0.70	0.65	0.70	0.65	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.75	(*N9) (*S0)	# 1270
2985-SEC	PD-0063_1	0.24	7.22	3.59	7.22	3.59	2	0.0000	PNL	VCB	12	14	10	25	91	18	16.1	(*N9) (*N24) (*S0)	# 1270
2986-PRI	PD-0039_2	12.47	2.00	1.83	1.95	1.79	0.3291	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N3) (*N24) (*S1)	# 1271
2986-SEC	PD-0039_2	0.24	2.82	1.30	2.82	1.30	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.51	(*N9) (*N24) (*S0)	# 1272
2988-PRI	PD-0003_8	12.47	3.40	3.15	3.40	3.15	0.022	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 1274
2988-SEC	PD-0003_8	0.208	14.17	6.58	14.17	6.58	2	0.0000	PNL	VCB	12	14	10	25	137	18	30.9	(*N9) (*S0)	# 1275
2989-PRI	PD-0021_8	12.47	0.32	0.28	0.32	0.28	0.0554	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*N24) (*S1)	# 1275
2989-SEC	PD-0021_8	0.24	3.92	1.60	3.92	1.60	1.421	0.0000	PNL	VCB	12	14	10	25	44	18	4.94	(*N3) (*N24) (*S1)	# 1276
2990-PRI	PD-0017-1	12.47	0.52	0.47	0.52	0.47	0.3459	0.0000	SWG	VCB	30	45	30	152	12	36	0.22	(*N3) (*S1)	# 1278
2990-SEC	PD-0017-1	0.24	4.39	2.09	4.39	2.09	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.13	(*N9) (*N24) (*S0)	# 1278
2994-PRI	PD-0018_8	12.47	0.51	0.46	0.51	0.46	0.3585	0.0000	SWG	VCB	30	45	30	152	12	36	0.23	(*N3) (*S1)	# 1280
2994-SEC	PD-0018_8	0.24	6.41	3.16	6.41	3.16	2	0.0000	PNL	VCB	12	14	10	25	84	18	14.1	(*N9) (*N24) (*S0)	# 1280
2995-PRI	PD-0014_4	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.88	(*N9) (*N24) (*S0)	# 1281
2995-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1282
2996-PRI	SOUTH 751	12.47	1.16	1.06	1.04	0.95	0.3812	0.0500	SWG	VCB	30	45	30	152	23	36	0.61	(*N3) (*N24) (*S1)	# 1283
2996-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1284
2997-PRI	SOUTH 751	12.47	1.49	1.36	1.49	1.36	0.1829	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*S1)	# 1286
2997-SEC	SOUTH 751	0.24	8.02	4.03	8.02	4.03	1.95	0.0500	PNL	VCB	12	14	10	25	99	18	18.2	(*N9) (*N24) (*S0)	# 1286
2999-PRI	SOUTH 751	12.47	1.59	1.46	1.59	1.46	0.1615	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1288
2999-SEC	SOUTH 751	0.24	7.18	3.57	7.18	3.57	1.95	0.0500	PNL	VCB	12	14	10	25	91	18	16.0	(*N9) (*N24) (*S0)	# 1288
3000-PRI	SEL-751A EAST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 1290
3000-SEC	PD-0169	0.24	5.60	2.35	5.60	2.35	1.389	0.0000	PNL	VCB	12	14	10	25	56	18	7.27	(*N3) (*N24) (*S1)	# 1290
3001-PRI	SOUTH 751	12.47	1.53	1.40	1.50	1.37	0.181	0.0500	SWG	VCB	30	45	30	152	19	36	0.42	(*N3) (*N24) (*S1)	# 1291
3001-SEC	SOUTH 751	0.24	3.56	1.67	3.56	1.67	1.95	0.0500	PNL	VCB	12	14	10	25	55	18	7.17	(*N9) (*N24) (*S0)	# 1292
3002-PRI	PD-0006_4	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.14	(*N9) (*N24) (*S0)	# 1293
3002-SEC	PD-0006_4	0.24	5.38	2.61	5.38	2.61	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 1294
3004-PRI	WEST 751	12.47	3.26	3.03	3.26	3.03	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.31	(*S0)	# 1296
3004-SEC	PD-0449	0.24	4.52	1.86	4.52	1.86	0.9652	0.0000	PNL	VCB	12	14	10	25	38	18	3.95	(*N3) (*N24) (*S1)	# 1296
3005-PRI	PD-0028_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1298

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3005-PRI (PD-0028_1 LineSide)	SEL-751A HOWE FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1300-Line
3005-SEC	PD-0315	0.24	2.99	1.38	2.99	1.38	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.88	(*N9) (*N24) (*S0)	# 1298
3006-PRI	PD-0025_1	12.47	0.25	0.23	0.25	0.23	0.1626	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*N24) (*S1)	# 1299
3006-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1300
3007-PRI	SEL-751A EAST FDR	12.47	0.56	0.51	0.56	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.39	(*N9) (*S0)	# 1302
3007-SEC	PD-0190	0.24	5.01	2.08	5.01	2.08	1.901	0.0000	PNL	VCB	12	14	10	25	62	18	8.76	(*N3) (*N24) (*S1)	# 1302
3008-PRI	NC (NE) 751	12.47	5.20	4.83	5.20	4.83	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.48	(*S0)	# 1304
3008-SEC	PD-0585	0.24	8.44	3.67	8.44	3.67	0.5336	0.0000	PNL	VCB	12	14	10	25	41	18	4.46	(*N3) (*N24) (*S1)	# 1304
3009-PRI	PD-0014_7	12.47	3.27	3.04	3.27	3.04	0.0136	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*S0)	# 1306
3009-SEC	PD-0014_7	0.48	12.05	8.12	12.05	8.12	0.0249	0.0000	PNL	VCB	12	14	10	25	10	18	0.46	(*N3) (*S1)	# 1307
3010-PRI	SOUTH 751	12.47	1.64	1.50	1.64	1.50	0.153	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1308
3010-SEC	SOUTH 751	0.208	12.36	5.71	12.36	5.71	1.95	0.0500	PNL	VCB	12	14	10	25	125	18	26.6	(*N9) (*S0)	# 1309
3011 AND 3015 AND 3018 PRI	PD-0008_6	12.47	0.27	0.25	0.11	0.10	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 1310
3011-SEC	PD-0007_5	0.48	1.91	1.35	1.91	1.35	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.50	(*N9) (*N24) (*S0)	# 1310
3012 AND 3013 AND 3014 PRI	PD-0014_1	12.47	0.40	0.37	0.40	0.37	2	0.0000	SWG	VCB	30	45	30	152	32	36	1.02	(*N9) (*S0)	# 1312
3012-SEC	PD-0014_1	0.24	3.73	1.75	3.73	1.75	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.57	(*N9) (*N24) (*S0)	# 1312
3013-SEC	PD-0014_1	0.24	3.27	1.52	3.27	1.52	2	0.0000	PNL	VCB	12	14	10	25	52	18	6.52	(*N9) (*N24) (*S0)	# 1313
3014-SEC	PD-0014_1	0.24	3.27	1.52	3.27	1.52	2	0.0000	PNL	VCB	12	14	10	25	52	18	6.52	(*N9) (*N24) (*S0)	# 1314
3015-SEC	PD-0007_5	0.48	1.85	1.30	1.85	1.30	2	0.0000	PNL	VCB	12	14	10	25	46	18	5.29	(*N9) (*N24) (*S0)	# 1315
3016 AND 3017 AND 3019 PRI	PD-0014_1	12.47	0.39	0.35	0.39	0.35	2	0.0000	SWG	VCB	30	45	30	152	32	36	0.98	(*N9) (*S0)	# 1317
3016-SEC	PD-0014_1	0.24	3.50	1.63	3.50	1.63	2	0.0000	PNL	VCB	12	14	10	25	54	18	7.03	(*N9) (*N24) (*S0)	# 1317
3017-SEC	PD-0014_1	0.24	3.14	1.45	3.14	1.45	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.21	(*N9) (*N24) (*S0)	# 1318
3018-SEC	PD-0007_5	0.48	1.91	1.35	1.91	1.35	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.50	(*N9) (*N24) (*S0)	# 1319
3019-SEC	PD-0014_1	0.24	3.53	1.65	3.53	1.65	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.11	(*N9) (*N24) (*S0)	# 1320
3020 AND 3021 AND 3022 PRI	PD-0014_1	12.47	0.39	0.36	0.39	0.36	2	0.0000	SWG	VCB	30	45	30	152	32	36	0.99	(*N9) (*S0)	# 1322
3020-SEC	PD-0014_1	0.24	5.14	2.48	5.14	2.48	2	0.0000	PNL	VCB	12	14	10	25	72	18	10.9	(*N9) (*N24) (*S0)	# 1322
3021-SEC	PD-0014_1	0.24	5.19	2.51	5.19	2.51	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.0	(*N9) (*N24) (*S0)	# 1323
3022-SEC	PD-0014_1	0.24	5.22	2.53	5.22	2.53	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.1	(*N9) (*N24) (*S0)	# 1324
3023 AND 3024 AND 3025 PRI	PD-0014_1	12.47	0.40	0.36	0.40	0.36	2	0.0000	SWG	VCB	30	45	30	152	32	36	1.01	(*N9) (*S0)	# 1326
3023-SEC	PD-0014_1	0.24	2.96	1.36	2.96	1.36	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.81	(*N9) (*N24) (*S0)	# 1326
3024-SEC	PD-0014_1	0.24	3.11	1.44	3.11	1.44	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.16	(*N9) (*N24) (*S0)	# 1327
3025-SEC	PD-0014_1	0.24	2.96	1.36	2.96	1.36	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.81	(*N9) (*N24) (*S0)	# 1328
3026 AND 3027 AND 3028	PD-0011_4	12.47	0.27	0.24	0.15	0.13	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 1330
3026-SEC	PD-0008_6	0.48	1.18	0.81	1.04	0.71	2	0.0000	PNL	VCB	12	14	10	25	33	18	3.24	(*N9) (*N24) (*S0)	# 1330
3027-SEC	PD-0008_6	0.48	1.77	1.24	1.55	1.08	2	0.0000	PNL	VCB	12	14	10	25	44	18	5.04	(*N9) (*N24) (*S0)	# 1331
3028-SEC	PD-0008_6	0.48	1.72	1.20	1.50	1.05	2	0.0000	PNL	VCB	12	14	10	25	43	18	4.88	(*N9) (*N24) (*S0)	# 1332
3030-PRI	PD-0006_6	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 1334

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3030-SEC	PD-0006_6	0.48	5.72	4.26	5.72	4.26	2	0.0000	PNL	VCB	12	14	10	25	100	18	18.5	(*N9) (*S0)	# 1335
3031 AND 3032 PRI	PD-0021_1	12.47	0.36	0.32	0.36	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.90	(*N9) (*S0)	# 1336
3031-SEC	PD-0021_1	0.24	3.31	1.54	3.31	1.54	2	0.0000	PNL	VCB	12	14	10	25	52	18	6.60	(*N9) (*N24) (*S0)	# 1336
3032-SEC	PD-0021_1	0.24	4.35	2.07	4.35	2.07	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.03	(*N9) (*N24) (*S0)	# 1337
3033-PRI	PD-0040_1	12.47	0.69	0.63	0.69	0.63	0.2014	0.0000	SWG	VCB	30	45	30	152	10	36	0.17	(*N3) (*S1)	# 1339
3033-SEC	PD-0040_1	0.24	4.51	2.15	4.51	2.15	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.40	(*N9) (*N24) (*S0)	# 1339
3034-PRI	PD-0040_1	12.47	0.70	0.63	0.70	0.63	0.1998	0.0000	SWG	VCB	30	45	30	152	10	36	0.17	(*N3) (*S1)	# 1341
3034-SEC	PD-0040_1	0.24	3.71	1.74	3.71	1.74	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.52	(*N9) (*N24) (*S0)	# 1341
3036-PRI	SOUTH 751	12.47	1.34	1.22	1.20	1.09	0.2841	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*N24) (*S1)	# 1342
3036-SEC	SOUTH 751	0.24	5.31	2.57	5.31	2.57	1.95	0.0500	PNL	VCB	12	14	10	25	73	18	11.3	(*N9) (*N24) (*S0)	# 1343
3038-PRI	PD-0064_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.72	(*N9) (*S0)	# 1345
3038-SEC	PD-0064_1	0.24	4.49	2.14	4.49	2.14	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.36	(*N9) (*S0)	# 1346
3039-SEC	PD-0009_1	0.24	3.98	1.88	3.98	1.88	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.14	(*N9) (*N24) (*S0)	# 1346
3040-PRI	PD-0009_2	12.47	0.62	0.56	0.62	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.54	(*N9) (*S0)	# 1348
3040-PRI2	PD-0001_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1349
3040-SEC	PD-0009_2	0.24	4.00	1.89	4.00	1.89	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.21	(*N9) (*N24) (*S0)	# 1349
3041-PRI	SEL-751A SOUTHWEST FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 1351
3041-SEC	SEL-751A SOUTHWEST FDR	0.24	3.23	1.50	3.23	1.50	1.95	0.0500	PNL	VCB	12	14	10	25	51	18	6.42	(*N9) (*N24) (*S0)	# 1351
3042-PRI	PD-0002_7	12.47	3.61	3.35	3.61	3.35	0.0212	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 1353
3042-SEC	PD-0002_7	0.48	16.41	11.08	16.41	11.08	0.4181	0.0000	PNL	VCB	12	14	10	25	71	18	10.8	(*N3) (*S1)	# 1354
3043-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1355
3043-SEC	PD-0009_1	0.24	4.18	1.98	4.18	1.98	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.62	(*N9) (*N24) (*S0)	# 1355
3044-PRI	PD-0002_3	12.47	0.65	0.59	0.65	0.59	0.0248	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 1357
3044-SEC	PD-0002_3	0.24	4.31	1.77	4.31	1.77	1.091	0.0000	PNL	VCB	12	14	10	25	40	18	4.23	(*N3) (*N24) (*S1)	# 1357
3045-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 1359
3045-SEC	PD-0009_1	0.24	3.80	1.79	3.80	1.79	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.73	(*N9) (*N24) (*S0)	# 1359
3046-PRI	PD-0020_6	12.47	0.51	0.46	0.51	0.46	0.3557	0.0000	SWG	VCB	30	45	30	152	12	36	0.23	(*N3) (*S1)	# 1361
3046-SEC	PD-0020_6	0.24	3.81	1.79	3.81	1.79	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.75	(*N9) (*N24) (*S0)	# 1361
3047-PRI	PD-0039_2	12.47	2.05	1.88	2.01	1.84	0.3099	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N3) (*N24) (*S1)	# 1362
3047-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1363
3048-PRI	SOUTH 751	12.47	1.45	1.32	1.45	1.32	0.1937	0.0500	SWG	VCB	30	45	30	152	19	36	0.42	(*N3) (*S1)	# 1365
3048-SEC	SOUTH 751	0.24	5.35	2.59	5.35	2.59	1.95	0.0500	PNL	VCB	12	14	10	25	74	18	11.4	(*N9) (*N24) (*S0)	# 1365
3050-PRI	SOUTH 751	12.47	1.16	1.05	1.04	0.95	0.384	0.0500	SWG	VCB	30	45	30	152	23	36	0.61	(*N3) (*N24) (*S1)	# 1366
3050-SEC	SOUTH 751	0.24	7.19	3.57	7.19	3.57	1.95	0.0500	PNL	VCB	12	14	10	25	91	18	16.0	(*N9) (*N24) (*S0)	# 1367
3051-PRI	PD-0027	12.47	0.26	0.23	0.26	0.23	0.0771	0.0000	SWG	VCB	30	45	30	152	3	36	0.03	(*N3) (*N24) (*S1)	# 1368
3051-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1369
3052-PRI	PD-0007_4	12.47	1.77	1.62	1.77	1.62	0.0418	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N3) (*S1)	# 1371
3052-SEC	PD-0007_4	0.24	11.06	5.67	11.06	5.67	2	0.0000	PNL	VCB	12	14	10	25	124	18	26.1	(*N9) (*N24) (*S0)	# 1371
3053-PRI	SOUTH 751	12.47	1.51	1.38	1.48	1.35	0.1861	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 1372

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3053-SEC	SOUTH 751	0.24	6.71	3.32	6.71	3.32	1.95	0.0500	PNL	VCB	12	14	10	25	87	18	14.8	(*N9) (*N24) (*S0)	# 1373
3054-PRI	PD-0179	12.47	0.50	0.45	0.50	0.45	0.3758	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 1375
3054-SEC	PD-0179	0.24	4.86	2.34	4.86	2.34	2	0.0000	PNL	VCB	12	14	10	25	69	18	10.2	(*N9) (*N24) (*S0)	# 1375
3055-PRI	PD-0002_4	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 1377
3055-SEC	PD-0002_4	0.24	4.80	2.30	4.80	2.30	2	0.0000	PNL	VCB	12	14	10	25	68	18	10.1	(*N9) (*S0)	# 1378
3056-PRI	PD-0004-1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1379
3056-SEC	PD-0004-1	0.208	19.98	9.18	19.98	9.18	2	0.0000	PNL	VCB	12	14	10	25	172	18	44.1	(*N9) (*S0)	# 1380
3057-PRI	SOUTH 751	12.47	1.51	1.38	1.51	1.38	0.1791	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*N3) (*S1)	# 1381
3057-SEC	SOUTH 751	0.24	6.80	3.37	6.80	3.37	1.95	0.0500	PNL	VCB	12	14	10	25	88	18	15.1	(*N9) (*N24) (*S0)	# 1381
3058-PRI	JOHNSON 751	12.47	0.94	0.86	0.94	0.86	0.474	0.0500	SWG	VCB	30	45	30	152	23	36	0.60	(*N3) (*S1)	# 1383
3058-PRI0	JOHNSON 751	12.47	0.94	0.85	0.94	0.85	0.4789	0.0500	SWG	VCB	30	45	30	152	23	36	0.61	(*N3) (*S1)	# 1384
3058-SEC	PD-0023_9	0.24	6.09	2.58	6.09	2.58	1.109	0.0000	PNL	VCB	12	14	10	25	51	18	6.39	(*N3) (*N24) (*S1)	# 1384
3061-PRI	SOUTH 751	12.47	1.50	1.37	1.47	1.34	0.1892	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 1385
3061-SEC	SOUTH 751	0.24	5.58	2.72	5.58	2.72	1.95	0.0500	PNL	VCB	12	14	10	25	76	18	12.0	(*N9) (*N24) (*S0)	# 1386
3062-PRI	PD-0035	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1388
3062-SEC	PD-0035	0.24	4.01	1.90	4.01	1.90	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.23	(*N9) (*N24) (*S0)	# 1388
3063-PRI	SOUTH 751	12.47	1.69	1.54	1.69	1.54	0.1447	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1390
3063-SEC	SOUTH 751	0.24	5.78	2.82	5.78	2.82	1.95	0.0500	PNL	VCB	12	14	10	25	78	18	12.5	(*N9) (*N24) (*S0)	# 1390
3064-PRI	SOUTH 751	12.47	1.15	1.05	1.03	0.94	0.3889	0.0500	SWG	VCB	30	45	30	152	23	36	0.61	(*N3) (*N24) (*S1)	# 1391
3064-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1392
3065-PRI	NE (IND #2) 751	12.47	4.15	3.86	4.15	3.86	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*S0)	# 1394
3065-SEC	PD-0269	0.24	7.05	3.02	7.05	3.02	0.7965	0.0000	PNL	VCB	12	14	10	25	46	18	5.42	(*N3) (*N24) (*S1)	# 1394
3066-SEC	PD-0270	0.24	6.63	2.83	6.63	2.83	0.9154	0.0000	PNL	VCB	12	14	10	25	48	18	5.81	(*N3) (*N24) (*S1)	# 1395
3067-PRI	SEL-751A HOWE FDR	12.47	0.32	0.29	0.28	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*N24) (*S0)	# 1396
3067-SEC	PD-0344	0.24	4.24	2.02	4.24	2.02	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.77	(*N9) (*N24) (*S0)	# 1397
3068-SEC	PD-0390	0.24	4.47	2.13	4.47	2.13	1.793	0.0000	PNL	VCB	12	14	10	25	61	18	8.34	(*N24) (*S1)	# 1398
3069-SEC	PD-0271	0.24	6.83	2.92	6.83	2.92	0.8548	0.0000	PNL	VCB	12	14	10	25	47	18	5.62	(*N3) (*N24) (*S1)	# 1399
3070-PRI	SEL-751A EAST FDR	12.47	0.62	0.56	0.62	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.54	(*N9) (*S0)	# 1401
3070-SEC	PD-0160	0.24	5.17	2.50	5.17	2.50	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.0	(*N9) (*N24) (*S0)	# 1401
3071-PRI	SEL-751A EAST FDR	12.47	0.55	0.51	0.55	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	39	36	1.39	(*N9) (*S0)	# 1403
3071-SEC	PD-0195	0.24	4.80	2.31	4.80	2.31	2	0.0000	PNL	VCB	12	14	10	25	68	18	10.1	(*N9) (*N24) (*S0)	# 1403
3072-SEC	PD-0197	0.24	5.22	2.52	5.22	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S1)	# 1404
3073-SEC	PD-0196	0.24	4.69	2.25	4.69	2.25	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.83	(*N9) (*N24) (*S0)	# 1405
3074-PRI	SOUTH 751	12.47	1.16	1.05	1.04	0.95	0.3842	0.0500	SWG	VCB	30	45	30	152	23	36	0.61	(*N3) (*N24) (*S1)	# 1406
3074-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1407
3075-PRI	PD-0063_1	12.47	0.70	0.64	0.70	0.64	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.74	(*N9) (*S0)	# 1409
3075-SEC	PD-0063_1	0.24	6.91	3.42	6.91	3.42	2	0.0000	PNL	VCB	12	14	10	25	89	18	15.3	(*N9) (*N24) (*S0)	# 1409

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3076-PRI	NORTHWEST (HOSPITAL) 751	12.47	6.76	6.27	6.76	6.27	0.03	0.0500	SWG	VCB	30	45	30	152	24	36	0.62	(*S0)	# 1411
3076-SEC	PD-0624	0.24	4.91	2.04	4.91	2.04	2	0.0000	PNL	VCB	12	14	10	25	63	18	9.00	(*N3) (*N9) (*N24) (*S1)	# 1411
3077-PRI	NORTHWEST (HOSPITAL) 751	12.47	6.55	6.08	6.55	6.08	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.60	(*S0)	# 1413
3077-SEC	NORTHWEST (HOSPITAL) 751	0.24	4.92	2.37	4.92	2.37	1.95	0.0500	PNL	VCB	12	14	10	25	69	18	10.4	(*N9) (*N24) (*S0)	# 1413
3078-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 1415
3078-SEC	PD-0009_1	0.24	3.77	1.77	3.77	1.77	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.67	(*N9) (*N24) (*S0)	# 1415
3082-PRI	PD-0026_6	12.47	2.91	2.66	2.91	2.66	0.144	0.0000	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*S1)	# 1417
3082-SEC	PD-0026_6	0.48	14.99	11.56	14.99	11.56	2	0.0000	PNL	VCB	12	14	10	25	193	18	53.3	(*N9) (*S0)	# 1418
3083-PRI	PD-0183	12.47	0.56	0.52	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.41	(*N9) (*S0)	# 1419
3083-SEC	PD-0183	0.208	13.48	6.25	7.95	3.69	2	0.0000	PNL	VCB	12	14	10	25	133	18	29.2	(*N9) (*S0)	# 1420
3085 AND 3086 PRI	SEL-751A BROWNVILLE FDR	12.47	0.52	0.48	0.52	0.48	1.95	0.0500	SWG	VCB	30	45	30	152	38	36	1.31	(*N9) (*S0)	# 1421
3085-SEC	SEL-751A BROWNVILLE FDR	0.48	1.87	1.32	1.87	1.32	1.95	0.0500	PNL	VCB	12	14	10	25	46	18	5.37	(*N9) (*N24) (*S0)	# 1421
3086-SEC	SEL-751A BROWNVILLE FDR	0.48	1.92	1.35	1.92	1.35	1.95	0.0500	PNL	VCB	12	14	10	25	47	18	5.52	(*N9) (*N24) (*S0)	# 1422
3087 AND 3091 AND 3092 PRI	SOUTH 751	12.47	1.65	1.50	1.65	1.50	0.1521	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1424
3087-SEC	SOUTH 751	0.24	4.20	1.99	4.20	1.99	1.95	0.0500	PNL	VCB	12	14	10	25	62	18	8.66	(*N9) (*N24) (*S0)	# 1424
3088-PRI	PD-0035_1	12.47	0.68	0.62	0.68	0.62	0.2085	0.0000	SWG	VCB	30	45	30	152	11	36	0.17	(*N3) (*S1)	# 1426
3088-SEC	PD-0035_1	0.24	3.99	1.88	3.99	1.88	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.17	(*N9) (*N24) (*S0)	# 1426
3089-PRI	PD-0009_1	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.93	(*N9) (*S0)	# 1428
3089-SEC	PD-0009_1	0.24	3.12	1.44	3.12	1.44	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.18	(*N9) (*N24) (*S0)	# 1428
3090-PRI	SOUTH 751	12.47	1.47	1.34	1.47	1.34	0.1879	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*S1)	# 1430
3090-SEC	SOUTH 751	0.24	4.50	2.15	4.50	2.15	1.95	0.0500	PNL	VCB	12	14	10	25	65	18	9.39	(*N9) (*N24) (*S0)	# 1430
3091-SEC	SOUTH 751	0.24	3.74	1.76	3.74	1.76	1.95	0.0500	PNL	VCB	12	14	10	25	57	18	7.60	(*N9) (*N24) (*S0)	# 1431
3092-SEC	SOUTH 751	0.24	4.30	2.05	4.30	2.05	1.95	0.0500	PNL	VCB	12	14	10	25	63	18	8.91	(*N9) (*N24) (*S0)	# 1432
3093-PRI	SEL-751A HOWE FDR	12.47	0.48	0.43	0.48	0.43	1.95	0.0500	SWG	VCB	30	45	30	152	36	36	1.20	(*N9) (*S0)	# 1434
3093-SEC	PD-0335	0.24	3.42	1.38	3.42	1.38	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.96	(*N3) (*N9) (*N24) (*S0)	# 1434
3096 AND 3097 AND 3098 PRI	SOUTH 751	12.47	1.56	1.42	1.56	1.42	0.1684	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*N3) (*S1)	# 1436
3096-SEC	SOUTH 751	0.24	5.23	2.53	5.23	2.53	1.95	0.0500	PNL	VCB	12	14	10	25	73	18	11.1	(*N9) (*N24) (*S0)	# 1436
3097-SEC	SOUTH 751	0.24	5.71	2.78	5.71	2.78	1.95	0.0500	PNL	VCB	12	14	10	25	77	18	12.3	(*N9) (*N24) (*S0)	# 1437
3098-SEC	SOUTH 751	0.24	5.43	2.64	5.43	2.64	1.95	0.0500	PNL	VCB	12	14	10	25	75	18	11.6	(*N9) (*N24) (*S0)	# 1438
3099 AND 3101 AND 3104 PRI	NORTHWEST (HOSPITAL) 751	12.47	3.48	3.23	3.48	3.23	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 1440

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3099-SEC	NORTHWEST (HOSPITAL) 751	0.24	8.27	4.16	8.27	4.16	1.95	0.0500	PNL	VCB	12	14	10	25	101	18	18.8	(*N9) (*N24) (*S0)	# 1440
3100 AND 3105 AND 3068	SEL-751A SOUTHWEST FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 1442
3100 SEC	PD-0388	0.24	4.47	2.13	4.47	2.13	1.793	0.0000	PNL	VCB	12	14	10	25	61	18	8.34	(*N24) (*S1)	# 1442
3101-SEC	NORTHWEST (HOSPITAL) 751	0.24	7.34	3.66	7.34	3.66	1.95	0.0500	PNL	VCB	12	14	10	25	92	18	16.4	(*N9) (*N24) (*S0)	# 1443
3102-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 1445
3102-SEC	PD-0009_1	0.24	5.23	2.53	5.23	2.53	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.1	(*N9) (*N24) (*S0)	# 1445
3103-PRI	WEST 751	12.47	4.43	4.12	4.43	4.12	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 1447
3103-SEC	WEST 751	0.24	5.62	2.73	5.62	2.73	1.95	0.0500	PNL	VCB	12	14	10	25	76	18	12.1	(*N9) (*N24) (*S0)	# 1447
3104-SEC	NORTHWEST (HOSPITAL) 751	0.24	8.10	4.07	8.10	4.07	1.95	0.0500	PNL	VCB	12	14	10	25	99	18	18.4	(*N9) (*N24) (*S0)	# 1448
3105 SEC	PD-0389	0.24	4.60	1.90	4.60	1.90	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.36	(*N3) (*N9) (*N24) (*S0)	# 1449
3106-PRI	SOUTH 751	12.47	1.61	1.47	1.61	1.47	0.1585	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1451
3106-SEC	SOUTH 751	0.24	15.57	8.06	15.57	8.06	1.95	0.0500	PNL	VCB	12	14	10	25	156	18	37.9	(*N9) (*S0)	# 1452
3107-PRI	SEL-751A SOUTHWEST FDR	12.47	0.57	0.52	0.57	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 1453
3107-SEC	PD-0391	0.24	3.83	1.56	3.83	1.56	1.516	0.0000	PNL	VCB	12	14	10	25	45	18	5.13	(*N3) (*N24) (*S1)	# 1453
3108-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 1455
3108-SEC	PD-0009_1	0.24	3.57	1.67	3.57	1.67	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.20	(*N9) (*N24) (*S0)	# 1455
3109-PRI	PD-0027_3	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 1457
3109-SEC	PD-0027_3	0.24	3.55	1.66	3.55	1.66	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.14	(*N9) (*N24) (*S0)	# 1457
3110-PRI	SOUTH 751	12.47	1.67	1.52	1.67	1.52	0.1485	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1459
3110-SEC	SOUTH 751	0.24	5.14	2.48	5.14	2.48	1.95	0.0500	PNL	VCB	12	14	10	25	72	18	10.9	(*N9) (*N24) (*S0)	# 1459
3111-PRI	PD-0067	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 1461
3111-SEC	PD-0067	0.24	3.19	1.48	3.19	1.48	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.34	(*N9) (*N24) (*S0)	# 1461
3112-PRI	PD-0055	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1463
3112-SEC	PD-0055	0.24	3.77	1.77	3.77	1.77	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.66	(*N9) (*N24) (*S0)	# 1463
3113-PRI	PD-0037_1	12.47	3.50	3.25	3.50	3.25	0.0216	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 1465
3113-SEC	PD-0037_1	0.24	4.72	2.26	4.72	2.26	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.91	(*N9) (*N24) (*S0)	# 1465
3114-PRI	PD-0027_3	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 1467
3114-SEC	PD-0027_3	0.24	9.69	4.93	9.69	4.93	2	0.0000	PNL	VCB	12	14	10	25	113	18	22.5	(*N9) (*S0)	# 1468
3115-PRI	PD-0006-1	12.47	0.62	0.56	0.62	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.54	(*N9) (*S0)	# 1469
3115-SEC	PD-0006-1	0.208	13.26	6.15	13.26	6.15	2	0.0000	PNL	VCB	12	14	10	25	131	18	28.7	(*N9) (*S0)	# 1470
3116-PRI	PD-0025_4	12.47	2.79	2.56	2.79	2.56	0.1559	0.0000	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 1471
3116-SEC	PD-0301	0.24	3.33	1.34	3.33	1.34	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.78	(*N3) (*N9) (*N24) (*S0)	# 1471
3118-PRI	NC (NE) 751	12.47	5.80	5.39	5.80	5.39	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*S0)	# 1473
3118-SEC	PD-0563	0.24	5.00	2.08	5.00	2.08	0.7653	0.0000	PNL	VCB	12	14	10	25	35	18	3.52	(*N3) (*N24) (*S1)	# 1473
3120-PRI	PD-0025_4	12.47	2.84	2.60	2.84	2.60	0.1511	0.0000	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*S1)	# 1475

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3120-SEC	PD-0300	0.24	4.65	1.92	4.65	1.92	0.9063	0.0000	PNL	VCB	12	14	10	25	37	18	3.83	(*N3) (*N24) (*S1)	# 1475
3121-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1477
3121-SEC	PD-0009_1	0.24	3.36	1.57	3.36	1.57	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.73	(*N9) (*N24) (*S0)	# 1477
3122-SEC	PD-0302	0.24	2.85	1.13	2.85	1.13	0.6096	0.0000	PNL	VCB	12	14	10	25	20	18	1.48	(*N3) (*N24) (*S1)	# 1478
3123-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1480
3123-SEC	PD-0009_1	0.24	3.04	1.40	3.04	1.40	2	0.0000	PNL	VCB	12	14	10	25	49	18	6.00	(*N9) (*N24) (*S0)	# 1480
3125-PRI	PD-0025_4	12.47	2.70	2.47	2.70	2.47	0.1673	0.0000	SWG	VCB	30	45	30	152	21	36	0.53	(*N3) (*S1)	# 1482
3125-SEC	PD-0304	0.24	3.70	1.50	3.70	1.50	0.3666	0.0000	PNL	VCB	12	14	10	25	18	18	1.19	(*N3) (*N24) (*S1)	# 1482
3126-SEC	PD-0303	0.24	3.70	1.50	3.70	1.50	0.3665	0.0000	PNL	VCB	12	14	10	25	18	18	1.19	(*N3) (*N24) (*S1)	# 1483
3127-PRI	PD-0006_7	12.47	5.66	5.26	5.66	5.26	0.0193	0.0000	SWG	VCB	30	45	30	152	9	36	0.13	(*S0)	# 1485
3127-SEC	PD-0006_7	0.208	23.98	10.75	23.98	10.75	2	0.0000	PNL	VCB	12	14	10	25	191	18	52.3	(*N9) (*S0)	# 1486
3128-PRI	NC (NE) 751	12.47	5.63	5.23	5.63	5.23	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.52	(*S0)	# 1487
3128-PRI1	NC (NE) 751	12.47	4.58	4.25	4.58	4.25	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*S0)	# 1488
3128-SEC	PD-0533	0.24	3.54	1.43	3.54	1.43	1.881	0.0000	PNL	VCB	12	14	10	25	48	18	5.82	(*N3) (*N24) (*S1)	# 1488
3129-SEC	PD-0534	0.24	2.97	1.37	2.97	1.37	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.83	(*N9) (*N24) (*S0)	# 1489
3130-PRI	SOUTH 751	12.47	1.57	1.43	1.54	1.40	0.1727	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*N24) (*S1)	# 1490
3130-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1491
3131-PRI	NC (NE) 751	12.47	5.22	4.85	5.22	4.85	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 1493
3131-SEC	PD-0586	0.24	4.44	1.83	4.44	1.83	1.004	0.0000	PNL	VCB	12	14	10	25	38	18	4.03	(*N3) (*N24) (*S1)	# 1493
3133-PRI	PD-0017_2	12.47	0.55	0.50	0.55	0.50	2	0.0000	SWG	VCB	30	45	30	152	39	36	1.38	(*N9) (*S0)	# 1495
3133-SEC	PD-0205	0.24	3.58	1.67	3.58	1.67	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.22	(*N9) (*N24) (*S0)	# 1495
3134-PRI	PD-0517	12.47	3.75	3.44	3.75	3.44	0.0893	0.0000	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1497
3134-SEC	PD-0518	0.24	4.93	2.05	4.93	2.05	1.984	0.0000	PNL	VCB	12	14	10	25	63	18	8.98	(*N3) (*N24) (*S1)	# 1497
3135-PRI	PD-0017_2	12.47	0.54	0.50	0.54	0.50	2	0.0000	SWG	VCB	30	45	30	152	39	36	1.37	(*N9) (*S0)	# 1499
3135-SEC	PD-0233	0.24	4.29	2.04	4.29	2.04	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.88	(*N9) (*N24) (*S1)	# 1499
3136-PRI	NC (NE) 751	12.47	5.01	4.66	5.01	4.66	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.47	(*S0)	# 1501
3136-SEC	PD-0584	0.24	7.17	3.08	7.17	3.08	0.7656	0.0000	PNL	VCB	12	14	10	25	46	18	5.32	(*N3) (*N24) (*S1)	# 1501
3137-PRI	SEL-751A HOWE FDR	12.47	0.29	0.26	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	26	36	0.74	(*N9) (*S0)	# 0064
3137-SEC	SEL-751A HOWE FDR	0.24	4.36	2.08	4.36	2.08	1.95	0.0500	PNL	VCB	12	14	10	25	64	18	9.05	(*N9) (*N24) (*S0)	# 1503
3138-PRI	PD-0183	12.47	0.38	0.35	0.13	0.12	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.97	(*N9) (*N24) (*S0)	# 1504
3138-SEC	PD-0004_2	0.24	8.35	4.20	8.35	4.20	2	0.0000	PNL	VCB	12	14	10	25	101	18	19.0	(*N9) (*N24) (*S0)	# 1505
3140-PRI	PD-0029	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 1507
3140-SEC	PD-0029	0.24	3.75	1.77	3.75	1.77	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.63	(*N9) (*N24) (*S0)	# 1507
3141-SEC	PD-0253	0.48	4.07	2.61	4.07	2.61	0.4139	0.0000	PNL	VCB	12	14	10	25	27	18	2.32	(*N3) (*N24) (*S1)	# 1508
3142-PRI	PD-0015_6	12.47	2.82	2.59	2.82	2.59	0.153	0.0000	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 1510
3142-SEC	PD-0252	0.48	4.02	2.58	4.02	2.58	0.4236	0.0000	PNL	VCB	12	14	10	25	27	18	2.34	(*N3) (*N24) (*S1)	# 1510
3143-SEC	PD-0254	0.48	4.34	2.80	4.34	2.80	0.3642	0.0000	PNL	VCB	12	14	10	25	26	18	2.19	(*N3) (*N24) (*S1)	# 1511
3147-PRI	PD-0049_4	12.47	0.68	0.63	0.68	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 1513
3147-SEC	PD-0049_5	0.24	4.36	2.07	4.36	2.07	1.927	0.0000	PNL	VCB	12	14	10	25	62	18	8.71	(*N24) (*S1)	# 1513
3148-PRI	PD-0022_6	12.47	3.64	3.34	3.64	3.34	0.0941	0.0000	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1515
3148-SEC	PD-0524	0.24	6.14	2.60	6.14	2.60	1.089	0.0000	PNL	VCB	12	14	10	25	51	18	6.33	(*N3) (*N24) (*S1)	# 1515

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3151-PRI	PD-0062	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.74	(*N9) (*S0)	# 1517
3151-SEC	PD-0062	0.24	3.87	1.82	3.87	1.82	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.89	(*N9) (*N24) (*S0)	# 1517
3152-PRI	PD-0012_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 1519
3152-SEC	PD-0012_8	0.24	4.03	1.90	4.03	1.90	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.26	(*N9) (*N24) (*S0)	# 1519
3153-PRI	PD-0062	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 1521
3153-SEC	PD-0062	0.24	3.73	1.75	3.73	1.75	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.57	(*N9) (*N24) (*S0)	# 1521
3154-PRI	PD-0010_2	12.47	0.43	0.39	0.43	0.39	0.0389	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 1523
3154-SEC	PD-0010_2	0.24	4.10	1.68	4.10	1.68	1.248	0.0000	PNL	VCB	12	14	10	25	42	18	4.58	(*N3) (*N24) (*S1)	# 1523
3155-PRI	PD-0012_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 1525
3155-SEC	PD-0012_8	0.24	4.03	1.91	4.03	1.91	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.27	(*N9) (*N24) (*S0)	# 1525
3156-PRI	PD-0014_2	12.47	0.57	0.53	0.14	0.13	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 1527
3156-SEC	PD-0002_2	0.24	5.57	2.71	5.57	2.71	2	0.0000	PNL	VCB	12	14	10	25	76	18	12.0	(*N9) (*N24) (*S0)	# 1527
3157-PRI	PD-0048_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.71	(*N9) (*S0)	# 1529
3157-SEC	PD-0048_1	0.24	4.95	2.38	4.95	2.38	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.5	(*N9) (*N24) (*S0)	# 1529
3158-PRI	PD-0013	12.47	0.23	0.20	0.23	0.20	0.2026	0.0000	SWG	VCB	30	45	30	152	5	36	0.06	(*N3) (*N24) (*S1)	# 1530
3158-SEC	PD-0013	0.24	3.59	1.68	3.59	1.68	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.25	(*N9) (*N24) (*S0)	# 1531
3159-PRI	PD-0012_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 1533
3159-SEC	PD-0012_8	0.24	3.88	1.83	3.88	1.83	2	0.0000	PNL	VCB	12	14	10	25	59	18	7.92	(*N9) (*N24) (*S0)	# 1533
3160-PRI	JOHNSON 751	12.47	0.69	0.62	0.69	0.62	1.041	0.0500	SWG	VCB	30	45	30	152	30	36	0.92	(*N3) (*S1)	# 1535
3160-SEC	JOHNSON 751	0.24	7.52	3.76	7.52	3.76	1.95	0.0500	PNL	VCB	12	14	10	25	94	18	16.9	(*N9) (*N24) (*S0)	# 1535
3161-PRI	PD-0062_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.79	(*N9) (*S0)	# 1537
3161-SEC	PD-0062_1	0.24	6.71	3.32	6.71	3.32	2	0.0000	PNL	VCB	12	14	10	25	87	18	14.8	(*N9) (*N24) (*S0)	# 1537
3162-PRI	JOHNSON 751	12.47	0.68	0.62	0.68	0.62	1.047	0.0500	SWG	VCB	30	45	30	152	30	36	0.92	(*N3) (*S1)	# 1539
3162-SEC	JOHNSON 751	0.24	7.01	3.48	7.01	3.48	1.95	0.0500	PNL	VCB	12	14	10	25	90	18	15.6	(*N9) (*N24) (*S0)	# 1539
3163-PRI	PD-0062_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.79	(*N9) (*S0)	# 1541
3163-SEC	PD-0062_1	0.24	7.02	3.48	7.02	3.48	2	0.0000	PNL	VCB	12	14	10	25	90	18	15.6	(*N9) (*N24) (*S0)	# 1541
3164-PRI	PD-0062_1	12.47	0.72	0.66	0.72	0.66	2	0.0000	SWG	VCB	30	45	30	152	46	36	1.78	(*N9) (*S0)	# 1543
3164-SEC	PD-0062_1	0.24	6.17	3.03	6.17	3.03	2	0.0000	PNL	VCB	12	14	10	25	82	18	13.5	(*N9) (*N24) (*S0)	# 1543
3165-PRI	PD-0039_2	12.47	2.15	1.97	2.10	1.93	0.2797	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N3) (*N24) (*S1)	# 1544
3165-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1545
3166-PRI	PD-0001_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1547
3166-SEC	PD-0001_1	0.24	5.44	2.64	5.44	2.64	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.7	(*N9) (*N24) (*S0)	# 1547
3167-PRI	PD-0014_2	12.47	0.57	0.53	0.14	0.13	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 1549
3167-SEC	PD-0002_2	0.24	4.73	2.27	4.73	2.27	2	0.0000	PNL	VCB	12	14	10	25	68	18	9.94	(*N9) (*N24) (*S0)	# 1549
3168-PRI	PD-0049_3	12.47	0.65	0.59	0.65	0.59	0.0646	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*S1)	# 1551
3168-PRI (PD-0049_3 LineSide)	JOHNSON 751	12.47	0.65	0.59	0.65	0.59	1.181	0.0500	SWG	VCB	30	45	30	152	32	36	0.99	(*N3) (*S1)	# 1554-Line
3168-SEC	PD-0049_3	0.48	4.78	3.09	4.78	3.09	0.4267	0.0000	PNL	VCB	12	14	10	25	31	18	2.85	(*N3) (*N24) (*S1)	# 1551
3169-PRI	SEL-751A HOWE FDR	12.47	0.26	0.24	0.26	0.24	1.95	0.0500	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 0068

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3169-SEC	PD-0371	0.48	2.15	1.52	2.15	1.52	2	0.0000	PNL	VCB	12	14	10	25	51	18	6.25	(*N9) (*N24) (*S0)	# 1553
3170-SEC	PD-0185	0.24	3.57	1.44	3.57	1.44	1.837	0.0000	PNL	VCB	12	14	10	25	48	18	5.74	(*N3) (*N24) (*S1)	# 1554
3172-PRI	NC (NE) 751	12.47	6.05	5.62	6.05	5.62	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.56	(*S0)	# 1556
3172-SEC	PD-0546	0.24	5.02	2.09	5.02	2.09	0.7611	0.0000	PNL	VCB	12	14	10	25	35	18	3.51	(*N3) (*N24) (*S1)	# 1556
3173-SEC	PD-0547	0.24	5.02	2.09	5.02	2.09	0.7611	0.0000	PNL	VCB	12	14	10	25	35	18	3.51	(*N3) (*N24) (*S1)	# 1557
3174-SEC	PD-0548	0.24	5.02	2.09	5.02	2.09	0.7611	0.0000	PNL	VCB	12	14	10	25	35	18	3.51	(*N3) (*N24) (*S1)	# 1558
3175-PRI	SEL-751A EAST FDR	12.47	0.56	0.52	0.56	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 1560
3175-SEC	PD-0184	0.24	3.57	1.44	3.57	1.44	1.837	0.0000	PNL	VCB	12	14	10	25	48	18	5.74	(*N3) (*N24) (*S1)	# 1560
3176-PRI	PD-0019_5	12.47	0.27	0.25	0.18	0.16	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 1562
3176-SEC	PD-0019_5	0.24	3.67	1.72	3.67	1.72	2	0.0000	PNL	VCB	12	14	10	25	56	18	7.42	(*N9) (*N24) (*S0)	# 1562
3177-SEC	PD-0186	0.24	3.58	1.45	3.58	1.45	1.827	0.0000	PNL	VCB	12	14	10	25	48	18	5.72	(*N3) (*N24) (*S1)	# 1563
3178-PRI	PD-0427	12.47	7.62	7.08	7.62	7.08	0.0137	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*S0)	# 1565
3178-SEC	PD-0422	0.24	5.06	2.11	5.06	2.11	0.7464	0.0000	PNL	VCB	12	14	10	25	35	18	3.48	(*N3) (*N24) (*S1)	# 1565
3179-SEC	PD-0535	0.24	5.00	2.08	5.00	2.08	0.7676	0.0000	PNL	VCB	12	14	10	25	35	18	3.53	(*N3) (*N24) (*S1)	# 1566
3180-PRI	SOUTH 751	12.47	1.66	1.52	1.66	1.52	0.1497	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1568
3180-SEC	SOUTH 751	0.208	17.61	8.15	17.61	8.15	1.95	0.0500	PNL	VCB	12	14	10	25	159	18	38.8	(*N9) (*S0)	# 1569
3181-PRI	PD-0427	12.47	6.52	6.06	6.52	6.06	0.0138	0.0000	SWG	VCB	30	45	30	152	8	36	0.10	(*S0)	# 1570
3181-SEC	PD-0425	0.24	13.49	6.02	13.49	6.02	0.3173	0.0000	PNL	VCB	12	14	10	25	41	18	4.48	(*N3) (*N24) (*S1)	# 1570
3182-PRI	PD-0017_2	12.47	0.55	0.50	0.55	0.50	2	0.0000	SWG	VCB	30	45	30	152	39	36	1.37	(*N9) (*S0)	# 1572
3182-SEC	PD-0232	0.24	6.19	2.62	6.19	2.62	1.888	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N3) (*N24) (*S1)	# 1572
3183-PRI	PD-0017_2	12.47	0.54	0.50	0.54	0.50	2	0.0000	SWG	VCB	30	45	30	152	39	36	1.36	(*N9) (*S0)	# 1574
3183-SEC	PD-0234	0.24	6.16	2.61	6.16	2.61	1.917	0.0000	PNL	VCB	12	14	10	25	73	18	11.2	(*N3) (*N24) (*S1)	# 1574
3185-PRI	PD-0004-1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 1576
3185-SEC	PD-0004-1	0.208	23.91	10.72	23.91	10.72	2	0.0000	PNL	VCB	12	14	10	25	191	18	52.2	(*N9) (*S0)	# 1577
3187-PRI	PD-0002_8	12.47	4.57	4.19	4.57	4.19	0.0637	0.0000	SWG	VCB	30	45	30	152	16	36	0.34	(*N3) (*S1)	# 1578
3187-SEC	PD-0002_8	0.24	19.07	9.80	19.07	9.80	2	0.0000	PNL	VCB	12	14	10	25	178	18	46.7	(*N9) (*N24) (*S0)	# 1578
3189 AND 3190 AND 3191 PRI	PD-0046	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 1580
3189-SEC	PD-0046	0.48	2.30	1.64	2.30	1.64	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.76	(*N9) (*N24) (*S0)	# 1580
3190-SEC	PD-0046	0.48	2.30	1.64	2.30	1.64	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.76	(*N9) (*N24) (*S0)	# 1581
3191-SEC	PD-0046	0.48	2.30	1.64	2.30	1.64	2	0.0000	PNL	VCB	12	14	10	25	53	18	6.76	(*N9) (*N24) (*S0)	# 1582
3192-PRI	PD-0427	12.47	7.42	6.89	7.42	6.89	0.0138	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*S0)	# 1584
3192-SEC	PD-0426	0.24	7.85	3.39	7.85	3.39	0.6245	0.0000	PNL	VCB	12	14	10	25	43	18	4.80	(*N3) (*N24) (*S1)	# 1584
3193-PRI	PD-0427	12.47	7.97	7.40	7.97	7.40	0.0137	0.0000	SWG	VCB	30	45	30	152	9	36	0.12	(*S0)	# 1586
3193-PRI (PD-0427 LineSide)	WEST 751	12.47	7.97	7.40	7.97	7.40	0.03	0.0500	SWG	VCB	30	45	30	152	26	36	0.73	(*S0)	# 1590-Line
3193-SEC	PD-0421	0.24	7.16	3.07	7.16	3.07	0.7687	0.0000	PNL	VCB	12	14	10	25	46	18	5.33	(*N3) (*N24) (*S1)	# 1586
3194-SEC	PD-0231	0.24	4.94	2.05	4.94	2.05	1.979	0.0000	PNL	VCB	12	14	10	25	63	18	8.97	(*N3) (*N24) (*S0)	# 1587
3195-SEC	PD-0211	0.24	4.27	2.03	4.27	2.03	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.84	(*N9) (*N24) (*S0)	# 1588
3196-PRI	PD-0394	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.50	(*N9) (*S0)	# 1590
3196-SEC	PD-0395	0.24	5.17	2.16	5.17	2.16	1.742	0.0000	PNL	VCB	12	14	10	25	60	18	8.31	(*N3) (*N24) (*S1)	# 1590
3197-SEC	PD-0009_1	0.48	2.62	1.87	2.62	1.87	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.78	(*N9) (*N24) (*S0)	# 1591

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3198-SEC	PD-0022-1	0.48	4.97	3.22	4.97	3.22	2	0.0000	PNL	VCB	12	14	10	25	84	18	14.0	(*N3) (*N9) (*N24) (*S0)	# 1592
3199-SEC	PD-0009_1	0.48	2.68	1.92	2.68	1.92	2	0.0000	PNL	VCB	12	14	10	25	59	18	8.00	(*N9) (*N24) (*S0)	# 1593
3203-PRI	PD-0056_1	12.47	0.68	0.63	0.68	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 1595
3203-SEC	PD-0056_1	0.24	4.95	2.38	4.95	2.38	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.5	(*N9) (*N24) (*S0)	# 1595
3204-PRI	PD-0056_1	12.47	0.68	0.63	0.68	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 1597
3204-SEC	PD-0056_1	0.24	3.06	1.41	3.06	1.41	2	0.0000	PNL	VCB	12	14	10	25	49	18	6.04	(*N9) (*N24) (*S0)	# 1597
3206-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 1599
3206-SEC	PD-0007_1	0.24	4.41	2.10	4.41	2.10	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.16	(*N9) (*N24) (*S0)	# 1599
3207-PRI	PD-0027_2	12.47	0.82	0.75	0.82	0.75	0.1445	0.0000	SWG	VCB	30	45	30	152	9	36	0.15	(*N3) (*S1)	# 1601
3207-SEC	PD-0027_2	0.24	5.30	2.57	5.30	2.57	2	0.0000	PNL	VCB	12	14	10	25	73	18	11.3	(*N9) (*N24) (*S0)	# 1601
3210-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1602
3210-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1603
3212-PRI	PD-0025_7	12.47	4.38	4.07	4.38	4.07	0.0188	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 1605
3212-SEC	PD-0025_7	0.24	9.90	5.04	9.90	5.04	2	0.0000	PNL	VCB	12	14	10	25	114	18	23.0	(*N9) (*N24) (*S0)	# 1605
3213-PRI	SOUTH 751	12.47	1.23	1.12	1.10	1.00	0.3395	0.0500	SWG	VCB	30	45	30	152	23	36	0.58	(*N3) (*N24) (*S1)	# 1606
3213-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1607
3214-PRI	SOUTH 751	12.47	1.22	1.11	1.09	1.00	0.343	0.0500	SWG	VCB	30	45	30	152	23	36	0.58	(*N3) (*N24) (*S1)	# 1608
3214-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1609
3215-PRI	PD-0012	12.47	0.24	0.22	0.24	0.22	0.0866	0.0000	SWG	VCB	30	45	30	152	3	36	0.03	(*N3) (*N24) (*S1)	# 1610
3215-SEC	PD-0012	0.24	3.22	1.29	3.22	1.29	2	0.0000	PNL	VCB	12	14	10	25	47	18	5.57	(*N3) (*N9) (*N24) (*S0)	# 1611
3216-PRI	PD-0001_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1613
3216-SEC	PD-0001_1	0.24	3.01	1.39	3.01	1.39	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.92	(*N9) (*N24) (*S0)	# 1613
3217-PRI	PD-0179	12.47	0.50	0.45	0.50	0.45	0.3733	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 1615
3217-SEC	PD-0179	0.24	3.78	1.78	3.78	1.78	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.68	(*N9) (*N24) (*S0)	# 1615
3219-SEC	PD-0501	0.24	3.56	1.44	3.56	1.44	1.847	0.0000	PNL	VCB	12	14	10	25	48	18	5.76	(*N3) (*N24) (*S1)	# 1616
3220 AND 3221 AND 3222 PRI	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.151	0.0500	SWG	VCB	30	45	30	152	32	36	0.98	(*N3) (*S1)	# 1618
3220-SEC	PD-0494	0.24	3.75	1.52	3.75	1.52	1.599	0.0000	PNL	VCB	12	14	10	25	46	18	5.29	(*N3) (*N24) (*S1)	# 1618
3221-SEC	PD-0495	0.24	3.57	1.44	3.57	1.44	1.832	0.0000	PNL	VCB	12	14	10	25	48	18	5.73	(*N3) (*N24) (*S1)	# 1619
3222-SEC	PD-0496	0.24	3.75	1.52	3.75	1.52	1.599	0.0000	PNL	VCB	12	14	10	25	46	18	5.29	(*N3) (*N24) (*S1)	# 1620
3224 AND 3224 (2) AND 3225	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.161	0.0500	SWG	VCB	30	45	30	152	32	36	0.98	(*N3) (*S1)	# 1622
3224-SEC	PD-0498	0.24	3.75	1.52	3.75	1.52	1.603	0.0000	PNL	VCB	12	14	10	25	46	18	5.30	(*N3) (*N24) (*S1)	# 1622
3224-SEC (2)	PD-0497	0.24	3.59	1.45	3.59	1.45	1.802	0.0000	PNL	VCB	12	14	10	25	48	18	5.68	(*N3) (*N24) (*S1)	# 1623
3225-SEC	PD-0499	0.24	3.58	1.45	3.58	1.45	1.819	0.0000	PNL	VCB	12	14	10	25	48	18	5.71	(*N3) (*N24) (*S1)	# 1624
3227-SEC	PD-0382	0.24	4.30	1.77	4.30	1.77	1.095	0.0000	PNL	VCB	12	14	10	25	40	18	4.24	(*N3) (*N24) (*S1)	# 1625
3228-SEC	PD-0381	0.24	4.30	1.77	4.30	1.77	1.095	0.0000	PNL	VCB	12	14	10	25	40	18	4.24	(*N3) (*N24) (*S1)	# 1626
3229 AND 3228 AND 3227 PRI	SEL-751A SOUTHWEST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 1628

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3229-SEC	PD-0380	0.24	4.30	1.77	4.30	1.77	1.095	0.0000	PNL	VCB	12	14	10	25	40	18	4.24	(*N3) (*N24) (*S1)	# 1628
3230-PRI	PD-0028_1	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 1630
3230-SEC	PD-0320	0.24	4.04	1.65	4.04	1.65	1.303	0.0000	PNL	VCB	12	14	10	25	42	18	4.69	(*N3) (*N24) (*S1)	# 1630
3232-PRI	PD-0409	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 1632
3232-SEC	PD-0409	0.24	3.95	1.87	3.95	1.87	2	0.0000	PNL	VCB	12	14	10	25	59	18	8.09	(*N9) (*N24) (*S0)	# 1632
3233-SEC	PD-0286	0.24	5.28	2.21	5.28	2.21	0.6785	0.0000	PNL	VCB	12	14	10	25	34	18	3.32	(*N3) (*N24) (*S1)	# 1633
3233-SEC0	PD-0287	0.24	5.28	2.21	5.28	2.21	0.6785	0.0000	PNL	VCB	12	14	10	25	34	18	3.32	(*N3) (*N24) (*S1)	# 1634
3234-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1636
3234-SEC	PD-0009_1	0.24	4.02	1.90	4.02	1.90	2	0.0000	PNL	VCB	12	14	10	25	60	18	8.25	(*N9) (*N24) (*S0)	# 1636
3235-PRI	NE (IND #2) 751	12.47	3.84	3.57	3.84	3.57	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 1638
3235-SEC	PD-0289	0.24	5.39	2.26	5.39	2.26	0.6459	0.0000	PNL	VCB	12	14	10	25	33	18	3.24	(*N3) (*N24) (*S1)	# 1638
3236-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1640
3236-SEC	PD-0009_1	0.24	4.20	1.99	4.20	1.99	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.66	(*N9) (*N24) (*S0)	# 1640
3237-PRI	SOUTH 751	12.47	1.30	1.19	1.16	1.06	0.3025	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*N24) (*S1)	# 1641
3237-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1642
3238-PRI	PD-0034	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1644
3238-SEC	PD-0034	0.24	5.04	2.43	5.04	2.43	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.7	(*N9) (*N24) (*S0)	# 1644
3239-PRI	SOUTH 751	12.47	1.60	1.46	1.60	1.46	0.1596	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1646
3239-SEC	SOUTH 751	0.24	8.07	4.05	8.07	4.05	1.95	0.0500	PNL	VCB	12	14	10	25	99	18	18.3	(*N9) (*N24) (*S0)	# 1646
3243-PRI	SOUTH 751	12.47	1.26	1.15	1.13	1.03	0.3194	0.0500	SWG	VCB	30	45	30	152	22	36	0.56	(*N3) (*N24) (*S1)	# 1647
3243-SEC	SOUTH 751	0.24	6.55	3.23	6.55	3.23	1.95	0.0500	PNL	VCB	12	14	10	25	85	18	14.4	(*N9) (*N24) (*S0)	# 1648
3244-SEC	PD-0007_18	0.24	5.42	2.27	5.42	2.27	1.523	0.0000	PNL	VCB	12	14	10	25	57	18	7.68	(*N3) (*N24) (*S1)	# 1649
3245-SEC	PD-0296	0.24	9.25	4.05	9.25	4.05	0.4424	0.0000	PNL	VCB	12	14	10	25	39	18	4.10	(*N3) (*N24) (*S1)	# 1650
3246-SEC	PD-0297	0.24	8.27	3.59	8.27	3.59	0.5565	0.0000	PNL	VCB	12	14	10	25	41	18	4.54	(*N3) (*N24) (*S1)	# 1651
3247-PRI	PD-0016-1	12.47	0.52	0.47	0.52	0.47	0.3437	0.0000	SWG	VCB	30	45	30	152	12	36	0.22	(*N3) (*S1)	# 1653
3247-SEC	PD-0016-1	0.24	3.89	1.84	3.89	1.84	2	0.0000	PNL	VCB	12	14	10	25	59	18	7.95	(*N9) (*N24) (*S0)	# 1653
3248-PRI	PD-0026	12.47	0.26	0.23	0.26	0.23	0.0774	0.0000	SWG	VCB	30	45	30	152	3	36	0.03	(*N3) (*N24) (*S1)	# 1654
3248-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1655
3249-PRI	PD-0055_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 1657
3249-SEC	PD-0055_1	0.24	4.51	2.16	4.51	2.16	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.41	(*N9) (*N24) (*S0)	# 1657
3250-PRI	PD-0001_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 1659
3250-SEC	PD-0001_1	0.24	4.18	1.98	4.18	1.98	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.61	(*N9) (*N24) (*S0)	# 1659
3251-PRI	PD-0048_1	12.47	0.68	0.63	0.68	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 1661
3251-SEC	PD-0048_1	0.24	4.72	2.26	4.72	2.26	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.90	(*N9) (*N24) (*S0)	# 1661
3252-PRI	PD-0048_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 1663
3252-SEC	PD-0048_1	0.24	4.71	2.26	4.71	2.26	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.89	(*N9) (*N24) (*S0)	# 1663
3253-PRI	PD-0008_7	12.47	6.14	5.70	6.14	5.70	0.0157	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*S0)	# 1665
3253-SEC	PD-0008_7	0.24	9.23	4.68	9.23	4.68	2	0.0000	PNL	VCB	12	14	10	25	109	18	21.3	(*N9) (*N24) (*S0)	# 1665
3254-PRI	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1666
3254-SEC	PD-0016_5	12.47	3.23	2.96	3.23	2.96	0.1156	0.0000	SWG	VCB	30	45	30	152	19	36	0.44	(*N3) (*N24) (*S1)	# 1667

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3255-PRI	PD-0018_4	12.47	3.96	3.68	3.96	3.68	0.02	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N24) (*S0)	# 1668
3255-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1669
3258-PRI	PD-0011_5	12.47	2.86	2.62	2.86	2.62	0.1491	0.0000	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1670
3258-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1671
3262-PRI	SOUTH 751	12.47	1.54	1.41	1.51	1.38	0.178	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*N24) (*S1)	# 1672
3262-SEC	SOUTH 751	0.24	8.77	4.43	8.77	4.43	1.95	0.0500	PNL	VCB	12	14	10	25	105	18	20.1	(*N9) (*N24) (*S0)	# 1673
3263-PRI	SOUTH 751	12.47	1.52	1.39	1.49	1.36	0.1831	0.0500	SWG	VCB	30	45	30	152	19	36	0.42	(*N3) (*N24) (*S1)	# 1674
3263-SEC	SOUTH 751	0.24	8.38	4.22	8.38	4.22	1.95	0.0500	PNL	VCB	12	14	10	25	102	18	19.1	(*N9) (*N24) (*S0)	# 1675
3264-PRI	SOUTH 751	12.47	1.30	1.19	1.17	1.07	0.2958	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*N24) (*S1)	# 1676
3264-SEC	SOUTH 751	0.24	8.33	4.19	8.33	4.19	1.95	0.0500	PNL	VCB	12	14	10	25	101	18	19.0	(*N9) (*N24) (*S0)	# 1677
3270-PRI	SEL-751A HOWE FDR	12.47	0.34	0.31	0.34	0.31	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.86	(*N9) (*S0)	# 0074
3270-SEC	PD-0358	0.24	3.65	1.71	3.65	1.71	2	0.0000	PNL	VCB	12	14	10	25	56	18	7.38	(*N9) (*N24) (*S0)	# 1679
3273-PRI	PD-0490	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.71	(*N9) (*S0)	# 1681
3273-SEC	PD-0490	0.24	5.97	2.92	5.97	2.92	2	0.0000	PNL	VCB	12	14	10	25	80	18	13.0	(*N9) (*N24) (*S0)	# 1681
3274-PRI	PD-0018_4	12.47	4.01	3.73	4.01	3.73	0.0198	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N24) (*S0)	# 1682
3274-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1683
3275 AND 0746 PRI	SOUTH 751	12.47	1.65	1.51	1.65	1.51	0.1509	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1685
3275-SEC	SOUTH 751	0.24	4.12	1.95	4.12	1.95	1.95	0.0500	PNL	VCB	12	14	10	25	61	18	8.47	(*N9) (*N24) (*S0)	# 1685
3276-PRI	SEL-751A EAST FDR	12.47	0.56	0.52	0.56	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.41	(*N9) (*S0)	# 1687
3276-SEC	PD-0188	0.24	3.30	1.32	3.30	1.32	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.71	(*N3) (*N9) (*N24) (*S0)	# 1687
3277-PRI	SEL-751A EAST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 1689
3277-SEC	PD-0163	0.24	3.39	1.36	3.39	1.36	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.90	(*N3) (*N9) (*N24) (*S0)	# 1689
3278-SEC	PD-0161	0.24	3.39	1.36	3.39	1.36	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.90	(*N3) (*N9) (*N24) (*S0)	# 1690
3279-SEC	PD-0162	0.24	3.39	1.36	3.39	1.36	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.90	(*N3) (*N9) (*N24) (*S0)	# 1691
3280-PRI	SEL-751A EAST FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 1693
3280-SEC	PD-0174	0.24	3.33	1.34	3.33	1.34	2	0.0000	PNL	VCB	12	14	10	25	48	18	5.78	(*N3) (*N9) (*N24) (*S0)	# 1693
3281-PRI	SEL-751A EAST FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.44	(*N9) (*S0)	# 1695
3281-PRI_1	PD-0017_6	12.47	2.99	2.74	2.99	2.74	0.1358	0.0000	SWG	VCB	30	45	30	152	20	36	0.48	(*N3) (*S1)	# 1696
3281-SEC	PD-0175	0.24	4.00	1.63	4.00	1.63	1.339	0.0000	PNL	VCB	12	14	10	25	43	18	4.77	(*N3) (*N24) (*S1)	# 1696
3281-SEC_1	PD-0017_6	0.24	5.74	2.80	5.74	2.80	2	0.0000	PNL	VCB	12	14	10	25	78	18	12.4	(*N9) (*N24) (*S0)	# 1697
3282-SEC	PD-0004_8	0.24	6.50	3.21	6.50	3.21	2	0.0000	PNL	VCB	12	14	10	25	85	18	14.3	(*N9) (*N24) (*S0)	# 1698
3283-PRI	PD-0012_3	12.47	0.41	0.37	0.41	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.03	(*N9) (*N24) (*S0)	# 1699
3283-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1700
3284-PRI	PD-0017_6	12.47	3.09	2.84	3.09	2.84	0.1264	0.0000	SWG	VCB	30	45	30	152	19	36	0.46	(*N3) (*S1)	# 1702

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3284-SEC	PD-0017_6	0.24	5.76	2.81	5.76	2.81	2	0.0000	PNL	VCB	12	14	10	25	78	18	12.5	(*N9) (*N24) (*S0)	# 1702
3285-PRI	PD-0039_1	12.47	2.17	1.99	2.17	1.99	0.2619	0.0000	SWG	VCB	30	45	30	152	25	36	0.67	(*N3) (*N24) (*S1)	# 1703
3285-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1704
3286-PRI	PD-0039_1	12.47	2.15	1.97	2.15	1.97	0.2667	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N3) (*N24) (*S1)	# 1705
3286-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1706
3287-PRI	PD-0017_6	12.47	3.04	2.79	3.04	2.79	0.1308	0.0000	SWG	VCB	30	45	30	152	20	36	0.47	(*N3) (*S1)	# 1708
3287-SEC	PD-0017_6	0.24	7.57	3.78	7.57	3.78	2	0.0000	PNL	VCB	12	14	10	25	95	18	17.0	(*N9) (*N24) (*S0)	# 1708
3288-PRI	PD-0017_6	12.47	2.95	2.70	2.95	2.70	0.1399	0.0000	SWG	VCB	30	45	30	152	20	36	0.48	(*N3) (*S1)	# 1710
3288-SEC	PD-0017_6	0.24	8.81	4.45	8.81	4.45	2	0.0000	PNL	VCB	12	14	10	25	105	18	20.2	(*N9) (*N24) (*S0)	# 1710
3289-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1712
3289-SEC	PD-0009_1	0.24	5.00	2.41	5.00	2.41	2	0.0000	PNL	VCB	12	14	10	25	70	18	10.6	(*N9) (*N24) (*S0)	# 1712
3290-PRI	PD-0017_6	12.47	3.01	2.76	3.01	2.76	0.1341	0.0000	SWG	VCB	30	45	30	152	20	36	0.47	(*N3) (*S1)	# 1714
3290-SEC	PD-0017_6	0.24	5.18	2.50	5.18	2.50	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.0	(*N9) (*N24) (*S0)	# 1714
3291-PRI	PD-0062	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.74	(*N9) (*S0)	# 1716
3291-SEC	PD-0062	0.24	3.68	1.73	3.68	1.73	2	0.0000	PNL	VCB	12	14	10	25	56	18	7.46	(*N9) (*N24) (*S0)	# 1716
3294-PRI	PD-0057_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 1718
3294-SEC	PD-0057_1	0.24	5.46	2.65	5.46	2.65	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.7	(*N9) (*N24) (*S0)	# 1718
3295-PRI	PD-0065	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.74	(*N9) (*S0)	# 1720
3295-SEC	PD-0065	0.24	3.50	1.63	3.50	1.63	2	0.0000	PNL	VCB	12	14	10	25	54	18	7.04	(*N9) (*N24) (*S0)	# 1720
3297-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 1722
3297-SEC	PD-0009_1	0.24	1.77	0.78	1.77	0.78	2	0.0000	PNL	VCB	12	14	10	25	33	18	3.24	(*N9) (*N24) (*S0)	# 1722
3298-SEC	PD-0009_1	0.24	2.28	1.03	2.28	1.03	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.32	(*N9) (*N24) (*S0)	# 1723
3299-PRI	WEST 751	12.47	6.26	5.81	6.26	5.81	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.58	(*S0)	# 1725
3299-SEC	PD-0042_3	0.24	3.98	1.62	3.98	1.62	1.358	0.0000	PNL	VCB	12	14	10	25	43	18	4.81	(*N3) (*N24) (*S1)	# 1725
3301-PRI	PD-0330	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 1726
3301-PRI_1	SOUTH 751	12.47	1.63	1.49	1.63	1.49	0.1555	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1728
3301-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1728
3301-SEC_1	SOUTH 751	0.24	5.69	2.77	5.69	2.77	1.95	0.0500	PNL	VCB	12	14	10	25	77	18	12.3	(*N9) (*N24) (*S0)	# 1729
3302-PRI	SOUTH 751	12.47	1.64	1.50	1.64	1.50	0.1523	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1731
3302-SEC	SOUTH 751	0.24	4.80	2.31	4.80	2.31	1.95	0.0500	PNL	VCB	12	14	10	25	68	18	10.1	(*N9) (*N24) (*S0)	# 1731
3303-PRI	SOUTH 751	12.47	1.65	1.51	1.65	1.51	0.1512	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1733
3303-SEC	SOUTH 751	0.24	4.12	1.95	4.12	1.95	1.95	0.0500	PNL	VCB	12	14	10	25	61	18	8.48	(*N9) (*N24) (*S0)	# 1733
3304-PRI	NORTHWEST (HOSPITAL) 751	12.47	6.93	6.43	6.93	6.43	0.03	0.0500	SWG	VCB	30	45	30	152	24	36	0.64	(*S0)	# 1735
3304-SEC	PD-0623	0.24	4.02	1.64	4.02	1.64	1.325	0.0000	PNL	VCB	12	14	10	25	43	18	4.74	(*N3) (*N24) (*S1)	# 1735
3305-PRI	SEL-751A HOWE FDR	12.47	0.30	0.27	0.30	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0076
3305-SEC	PD-0363	0.24	4.91	2.36	4.91	2.36	2	0.0000	PNL	VCB	12	14	10	25	69	18	10.4	(*N9) (*N24) (*S0)	# 1737
3306-PRI	SEL-751A HOWE FDR	12.47	0.30	0.27	0.30	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 0078

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3306-PRI1	SEL-751A HOWE FDR	12.47	0.30	0.27	0.30	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 0079
3306-PRI2	SEL-751A HOWE FDR	12.47	0.30	0.27	0.30	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 0080
3306-SEC	PD-0362	0.48	2.48	1.55	2.48	1.55	2	0.0000	PNL	VCB	12	14	10	25	52	18	6.45	(*N3) (*N9) (*N24) (*S0)	# 1741
3309 AND 1187 PRI	SOUTH 751	12.47	1.71	1.56	1.71	1.56	0.1423	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1743
3309-SEC	SOUTH 751	0.24	3.23	1.50	3.23	1.50	1.95	0.0500	PNL	VCB	12	14	10	25	51	18	6.43	(*N9) (*N24) (*S0)	# 1743
3311 AND 3312 PRI	PD-0009_1	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.74	(*N9) (*S0)	# 1745
3311-SEC	PD-0009_1	0.24	2.36	1.07	2.36	1.07	2	0.0000	PNL	VCB	12	14	10	25	41	18	4.49	(*N9) (*N24) (*S0)	# 1745
3312-SEC	PD-0009_1	0.24	2.45	1.11	2.45	1.11	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.69	(*N9) (*N24) (*S0)	# 1746
3313-PRI	SOUTH 751	12.47	1.49	1.36	1.46	1.33	0.1903	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 1747
3313-SEC	SOUTH 751	0.24	7.95	3.99	7.95	3.99	1.95	0.0500	PNL	VCB	12	14	10	25	98	18	18.0	(*N9) (*N24) (*S0)	# 1748
3315-PRI	PD-0054_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.72	(*N9) (*S0)	# 1750
3315-SEC	PD-0054_1	0.24	5.21	2.52	5.21	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 1750
3316-PRI	PD-0015_4	12.47	1.02	0.93	1.02	0.93	0.097	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*N3) (*S1)	# 1752
3316-PRI (2)	PD-0016_3	12.47	1.09	1.00	1.09	1.00	0.0872	0.0000	SWG	VCB	30	45	30	152	8	36	0.12	(*N3) (*S1)	# 1753
3316-SEC	PD-0015_4	0.24	5.20	2.52	5.20	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 1753
3316-SEC (2)	PD-0016_11	0.24	7.03	3.01	7.03	3.01	0.8022	0.0000	PNL	VCB	12	14	10	25	46	18	5.44	(*N3) (*N24) (*S1)	# 1754
3317-PRI	PD-0004_8	12.47	3.10	2.84	3.10	2.84	0.1262	0.0000	SWG	VCB	30	45	30	152	19	36	0.46	(*N3) (*S1)	# 1756
3317-SEC	PD-0004_8	0.24	5.77	2.82	5.77	2.82	2	0.0000	PNL	VCB	12	14	10	25	78	18	12.5	(*N9) (*N24) (*S0)	# 1756
3318-PRI	PD-0047_1	12.47	0.61	0.55	0.61	0.55	0.0264	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 1758
3318-SEC	PD-0047_1	0.24	4.41	1.81	4.41	1.81	1.025	0.0000	PNL	VCB	12	14	10	25	39	18	4.08	(*N3) (*N24) (*S1)	# 1758
3319-PRI	PD-0006_9	12.47	6.21	5.77	6.21	5.77	0.0156	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*S0)	# 1760
3319-SEC	PD-0006_9	0.24	3.13	1.45	3.13	1.45	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.21	(*N9) (*N24) (*S0)	# 1760
3320-PRI	NORTHWEST (HOSPITAL) 751	12.47	2.92	2.71	2.92	2.71	0.03	0.0500	SWG	VCB	30	45	30	152	14	36	0.28	(*S0)	# 1762
3320-SEC0	NORTHWEST (HOSPITAL) 751	0.24	15.98	8.27	15.98	8.27	1.95	0.0500	PNL	VCB	12	14	10	25	159	18	38.9	(*N9) (*N24) (*S0)	# 1762
3321-PRI	PD-0054_1	12.47	0.69	0.64	0.69	0.64	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.73	(*N9) (*S0)	# 1764
3321-SEC	PD-0054_1	0.24	4.17	1.98	4.17	1.98	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.60	(*N9) (*N24) (*S0)	# 1764
3322-PRI	PD-0054_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.72	(*N9) (*S0)	# 1766
3322-SEC	PD-0054_1	0.24	5.49	2.67	5.49	2.67	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.8	(*N9) (*N24) (*S0)	# 1766
3325-PRI	PD-0008_1	12.47	0.49	0.45	0.49	0.45	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.24	(*N9) (*S0)	# 1768
3325-SEC	PD-0008_1	0.24	9.68	4.93	9.68	4.93	2	0.0000	PNL	VCB	12	14	10	25	113	18	22.5	(*N9) (*S0)	# 1769
3326-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 1770
3326-SEC	PD-0009_1	0.24	7.67	3.84	7.67	3.84	2	0.0000	PNL	VCB	12	14	10	25	95	18	17.3	(*N9) (*S0)	# 1771
3327-PRI	PD-0008_1	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.18	(*N9) (*S0)	# 1772
3327-SEC	PD-0008_1	0.24	9.21	4.67	9.21	4.67	2	0.0000	PNL	VCB	12	14	10	25	109	18	21.2	(*N9) (*S0)	# 1773
3328-PRI	SOUTH 751	12.47	1.47	1.34	1.33	1.21	0.2293	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 1773
3328-SEC	SOUTH 751	0.24	7.01	3.48	7.01	3.48	1.95	0.0500	PNL	VCB	12	14	10	25	90	18	15.6	(*N9) (*N24) (*S0)	# 1774
3329-PRI	PD-0055_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.71	(*N9) (*S0)	# 1776
3329-SEC	PD-0055_1	0.24	5.67	2.76	5.67	2.76	2	0.0000	PNL	VCB	12	14	10	25	77	18	12.2	(*N9) (*N24) (*S0)	# 1776

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3330-PRI	SOUTH 751	12.47	1.48	1.35	1.34	1.22	0.2259	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 1777
3330-SEC	SOUTH 751	0.24	6.72	3.32	6.72	3.32	1.95	0.0500	PNL	VCB	12	14	10	25	87	18	14.8	(*N9) (*N24) (*S0)	# 1778
3332-PRI	PD-0004_8	12.47	3.15	2.89	3.15	2.89	0.1219	0.0000	SWG	VCB	30	45	30	152	19	36	0.45	(*N3) (*S1)	# 1780
3332-SEC	PD-0004_8	0.48	10.93	8.37	10.93	8.37	2	0.0000	PNL	VCB	12	14	10	25	156	18	37.8	(*N9) (*N24) (*S0)	# 1780
3334-PRI	PD-0171	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 1782
3334-SEC	PD-0171	0.24	21.70	11.02	21.70	11.02	2	0.0000	PNL	VCB	12	14	10	25	193	18	53.0	(*N9) (*S0)	# 1783
3335-PRI	PD-0004_7	12.47	5.85	5.43	5.85	5.43	0.0158	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*S0)	# 1784
3335-SEC	PD-0004_7	0.208	19.02	8.77	19.02	8.77	2	0.0000	PNL	VCB	12	14	10	25	166	18	42.0	(*N9) (*S0)	# 1785
3336-PRI	PD-0058	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 1786
3336-SEC	PD-0058	0.208	9.87	4.51	9.87	4.51	2	0.0000	PNL	VCB	12	14	10	25	107	18	20.7	(*N9) (*S0)	# 1787
3337-PRI	PD-0053_1	12.47	0.69	0.64	0.69	0.64	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.72	(*N9) (*S0)	# 1788
3337-SEC	PD-0053_1	0.24	3.72	1.75	3.72	1.75	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.55	(*N9) (*N24) (*S0)	# 1788
3338-PRI	PD-0014_4	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.87	(*N9) (*N24) (*S0)	# 1789
3338-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1790
3339-PRI	PD-0010_4	12.47	1.27	1.16	1.27	1.16	0.0682	0.0000	SWG	VCB	30	45	30	152	8	36	0.10	(*N3) (*S1)	# 1792
3339-SEC	PD-0010_4	0.24	3.70	1.74	3.70	1.74	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.50	(*N9) (*N24) (*S0)	# 1792
3340-PRI	PD-0031_2	12.47	0.77	0.70	0.77	0.70	0.1657	0.0000	SWG	VCB	30	45	30	152	10	36	0.16	(*N3) (*S1)	# 1794
3340-SEC	PD-0031_2	0.24	5.04	2.43	5.04	2.43	2	0.0000	PNL	VCB	12	14	10	25	71	18	10.7	(*N9) (*N24) (*S0)	# 1794
3342-PRI	PD-0053_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.72	(*N9) (*S0)	# 1796
3342-SEC	PD-0053_1	0.24	3.59	1.68	3.59	1.68	2	0.0000	PNL	VCB	12	14	10	25	55	18	7.25	(*N9) (*N24) (*S0)	# 1796
3343-PRI	PD-0053_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.72	(*N9) (*S0)	# 1798
3343-SEC	PD-0053_1	0.24	5.48	2.66	5.48	2.66	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.7	(*N9) (*N24) (*S0)	# 1798
3344-PRI	PD-0032_2	12.47	0.76	0.69	0.76	0.69	0.1679	0.0000	SWG	VCB	30	45	30	152	10	36	0.16	(*N3) (*S1)	# 1800
3344-SEC	PD-0032_2	0.24	3.64	1.71	3.64	1.71	2	0.0000	PNL	VCB	12	14	10	25	56	18	7.36	(*N9) (*N24) (*S0)	# 1800
3345-PRI	PD-0484	12.47	0.63	0.57	0.63	0.57	0.2445	0.0000	SWG	VCB	30	45	30	152	11	36	0.19	(*N3) (*S1)	# 1802
3345-SEC	PD-0484	0.24	3.44	1.61	3.44	1.61	2	0.0000	PNL	VCB	12	14	10	25	54	18	6.91	(*N9) (*N24) (*S0)	# 1802
3347-PRI	SOUTH 751	12.47	1.44	1.32	1.31	1.19	0.2373	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1803
3347-SEC	SOUTH 751	0.24	3.97	1.88	3.97	1.88	1.95	0.0500	PNL	VCB	12	14	10	25	60	18	8.13	(*N9) (*N24) (*S0)	# 1804
3348-PRI	SOUTH 751	12.47	1.42	1.30	1.29	1.18	0.2441	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1805
3348-SEC	SOUTH 751	0.24	5.70	2.78	5.70	2.78	1.95	0.0500	PNL	VCB	12	14	10	25	77	18	12.3	(*N9) (*N24) (*S0)	# 1806
3349-PRI	PD-0003_7	12.47	4.05	3.72	4.05	3.72	0.0366	0.0000	SWG	VCB	30	45	30	152	10	36	0.17	(*N3) (*S1)	# 1808
3349-SEC	PD-0003_7	0.208	35.64	14.19	35.64	14.19	2	0.0000	PNL	VCB	12	14	10	25	232	18	71.3	(*N9) (*S0)	# 1809
3350-PRI	PD-0021_5	12.47	3.65	3.35	3.65	3.35	0.0938	0.0000	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1810
3350-SEC	PD-0545	0.24	4.97	2.07	4.97	2.07	1.942	0.0000	PNL	VCB	12	14	10	25	63	18	8.87	(*N3) (*N24) (*S1)	# 1810
3351-PRI	SOUTH 751	12.47	1.60	1.46	1.60	1.46	0.1604	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1812
3351-SEC	SOUTH 751	0.24	5.26	2.55	5.26	2.55	1.95	0.0500	PNL	VCB	12	14	10	25	73	18	11.2	(*N9) (*N24) (*S0)	# 1812
3352-PRI	SOUTH 751	12.47	1.51	1.38	1.49	1.36	0.1845	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 1813
3352-SEC	SOUTH 751	0.24	5.86	2.86	5.86	2.86	1.95	0.0500	PNL	VCB	12	14	10	25	79	18	12.7	(*N9) (*N24) (*S0)	# 1814
3353-SEC	SOUTH 751	0.24	5.91	2.89	5.91	2.89	1.95	0.0500	PNL	VCB	12	14	10	25	79	18	12.8	(*N9) (*N24) (*S0)	# 1815
3354-PRI	NC (NE) 751	12.47	5.71	5.31	5.71	5.31	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.53	(*S0)	# 1817
3354-SEC	PD-0558	0.24	6.44	2.74	6.44	2.74	0.9765	0.0000	PNL	VCB	12	14	10	25	49	18	6.00	(*N3) (*N24) (*S1)	# 1817
3355-PRI	SOUTH 751	12.47	1.40	1.28	1.27	1.15	0.2531	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*N24) (*S1)	# 1818

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3355-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1819
3356-PRI	PD-0007_6	12.47	5.44	5.05	5.44	5.05	0.0155	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 1821
3356-SEC	PD-0007_6	0.208	14.90	6.92	14.90	6.92	2	0.0000	PNL	VCB	12	14	10	25	142	18	32.6	(*N9) (*S0)	# 1822
3357-SEC	SOUTH 751	0.24	3.07	1.42	3.07	1.42	1.95	0.0500	PNL	VCB	12	14	10	25	50	18	6.07	(*N9) (*N24) (*S0)	# 1822
3359-SEC	PD-0489	0.24	3.57	1.44	3.57	1.44	1.83	0.0000	PNL	VCB	12	14	10	25	48	18	5.73	(*N3) (*N24) (*S1)	# 1823
3360-PRI	WEST 751	12.47	8.27	7.67	8.27	7.67	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.75	(*S0)	# 1825
3360-SEC	PD-0420	0.24	4.84	2.01	4.84	2.01	0.826	0.0000	PNL	VCB	12	14	10	25	36	18	3.66	(*N3) (*N24) (*S1)	# 1825
3361-SEC	PD-0007_17	0.24	4.18	1.71	4.18	1.71	1.186	0.0000	PNL	VCB	12	14	10	25	41	18	4.44	(*N3) (*N24) (*S1)	# 1826
3362-PRI	NC (NE) 751	12.47	4.59	4.26	4.59	4.26	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*S0)	# 1828
3362-SEC	PD-0596	0.24	5.75	2.42	5.75	2.42	0.5568	0.0000	PNL	VCB	12	14	10	25	32	18	3.01	(*N3) (*N24) (*S1)	# 1828
3363-SEC	PD-0578	0.24	6.17	2.61	6.17	2.61	0.4803	0.0000	PNL	VCB	12	14	10	25	31	18	2.81	(*N3) (*N24) (*S1)	# 1829
3364-SEC	PD-0199	0.24	4.27	1.75	4.27	1.75	1.119	0.0000	PNL	VCB	12	14	10	25	40	18	4.29	(*N3) (*N24) (*S1)	# 1830
3365-PRI	NC (NE) 751	12.47	5.40	5.01	5.40	5.01	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*S0)	# 1832
3365-SEC	PD-0577	0.24	5.82	2.46	5.82	2.46	0.5424	0.0000	PNL	VCB	12	14	10	25	32	18	2.97	(*N3) (*N24) (*S1)	# 1832
3366-PRI	NC (NE) 751	12.47	4.30	4.00	4.30	4.00	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*S0)	# 1834
3366-SEC	PD-0605	0.24	4.92	2.04	4.92	2.04	0.7975	0.0000	PNL	VCB	12	14	10	25	36	18	3.59	(*N3) (*N24) (*S1)	# 1834
3367-SEC	PD-0579	0.24	6.17	2.61	6.17	2.61	0.4803	0.0000	PNL	VCB	12	14	10	25	31	18	2.81	(*N3) (*N24) (*S1)	# 1835
3368-PRI	PD-0064	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 1837
3368-SEC	PD-0064	0.24	4.53	2.16	4.53	2.16	2	0.0000	PNL	VCB	12	14	10	25	65	18	9.45	(*N9) (*N24) (*S0)	# 1837
3369-PRI	NC (NE) 751	12.47	5.32	4.95	5.32	4.95	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 1839
3369-SEC	PD-0582	0.24	5.51	2.31	5.51	2.31	0.6155	0.0000	PNL	VCB	12	14	10	25	33	18	3.16	(*N3) (*N24) (*S1)	# 1839
3370-PRI	NC (NE) 751	12.47	4.34	4.03	4.34	4.03	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 1841
3370-PRI0	NC (NE) 751	12.47	4.26	3.96	4.26	3.96	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*S0)	# 1842
3370-SEC	PD-0599	0.24	4.84	2.01	4.84	2.01	2	0.0000	PNL	VCB	12	14	10	25	63	18	8.86	(*N3) (*N9) (*N24) (*S0)	# 1842
3371 AND 3374 AND 3388 PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 1844
3371-SEC	PD-0009_1	0.24	4.23	2.01	4.23	2.01	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.74	(*N9) (*N24) (*S0)	# 1844
3372-PRI	NC (NE) 751	12.47	4.42	4.10	4.42	4.10	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 1846
3372-SEC	PD-0597	0.24	5.44	2.28	5.44	2.28	0.6333	0.0000	PNL	VCB	12	14	10	25	33	18	3.20	(*N3) (*N24) (*S1)	# 1846
3373-PRI	PD-0023_4	12.47	5.37	4.99	5.37	4.99	0.0165	0.0000	SWG	VCB	30	45	30	152	8	36	0.10	(*S0)	# 1848
3373-SEC	PD-0527	0.24	4.36	1.79	4.36	1.79	1.055	0.0000	PNL	VCB	12	14	10	25	39	18	4.15	(*N3) (*N24) (*S1)	# 1848
3374-SEC	PD-0009_1	0.24	4.23	2.01	4.23	2.01	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.74	(*N9) (*N24) (*S0)	# 1849
3375-PRI	NC (NE) 751	12.47	4.58	4.26	4.58	4.26	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*S0)	# 1851
3375-SEC	PD-0010_11	0.24	4.71	1.95	4.71	1.95	0.8781	0.0000	PNL	VCB	12	14	10	25	37	18	3.77	(*N3) (*N24) (*S1)	# 1851
3377-PRI	NC (NE) 751	12.47	4.42	4.11	4.42	4.11	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 1853
3377-SEC	PD-0604	0.24	3.98	1.62	3.98	1.62	1.356	0.0000	PNL	VCB	12	14	10	25	43	18	4.81	(*N3) (*N24) (*S1)	# 1853
3378-PRI	SEL-751A EAST FDR	12.47	0.55	0.51	0.55	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	39	36	1.38	(*N9) (*S0)	# 1855
3378-SEC	PD-0200	0.24	4.28	1.76	4.28	1.76	1.114	0.0000	PNL	VCB	12	14	10	25	40	18	4.28	(*N3) (*N24) (*S1)	# 1855
3379-PRI	NC (NE) 751	12.47	4.93	4.58	4.93	4.58	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.46	(*S0)	# 1857
3379-SEC	PD-0588	0.24	4.16	1.71	4.16	1.71	1.198	0.0000	PNL	VCB	12	14	10	25	41	18	4.47	(*N3) (*N24) (*S1)	# 1857
3381 AND 3353 PRI	SOUTH 751	12.47	1.67	1.53	1.67	1.53	0.148	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1859

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3381-SEC	SOUTH 751	0.24	3.60	1.68	3.60	1.68	1.95	0.0500	PNL	VCB	12	14	10	25	56	18	7.26	(*N9) (*N24) (*S0)	# 1859
3382 AND 3507 PRI	JOHNSON 751	12.47	0.67	0.60	0.67	0.60	1.128	0.0500	SWG	VCB	30	45	30	152	31	36	0.96	(*N3) (*S1)	# 1861
3382-SEC	PD-0485	0.24	4.71	1.95	4.71	1.95	0.8788	0.0000	PNL	VCB	12	14	10	25	37	18	3.77	(*N3) (*N24) (*S1)	# 1861
3383-PRI	PD-0063	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 1863
3383-SEC	PD-0063	0.24	4.36	2.08	4.36	2.08	2	0.0000	PNL	VCB	12	14	10	25	64	18	9.06	(*N9) (*N24) (*S0)	# 1863
3384-PRI	PD-0516	12.47	5.34	4.96	5.34	4.96	0.0166	0.0000	SWG	VCB	30	45	30	152	8	36	0.10	(*S0)	# 1865
3384-SEC	PD-0515	0.24	4.04	1.65	4.04	1.65	1.306	0.0000	PNL	VCB	12	14	10	25	42	18	4.70	(*N3) (*N24) (*S1)	# 1865
3385-PRI	NC (NE) 751	12.47	5.07	4.71	5.07	4.71	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.47	(*S0)	# 1867
3385-SEC	PD-0587	0.24	4.97	2.07	4.97	2.07	0.7791	0.0000	PNL	VCB	12	14	10	25	36	18	3.55	(*N3) (*N24) (*S1)	# 1867
3386-PRI	NC (NE) 751	12.47	4.83	4.49	4.83	4.49	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.45	(*S0)	# 1869
3386-SEC	PD-0589	0.24	4.73	1.96	4.73	1.96	0.8718	0.0000	PNL	VCB	12	14	10	25	37	18	3.76	(*N3) (*N24) (*S1)	# 1869
3387-SEC	PD-0522	0.24	4.63	1.92	4.63	1.92	0.9126	0.0000	PNL	VCB	12	14	10	25	37	18	3.84	(*N3) (*N24) (*S1)	# 1870
3388-SEC	PD-0009_1	0.24	4.23	2.01	4.23	2.01	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.74	(*N9) (*N24) (*S0)	# 1871
3389-PRI	PD-0023_4	12.47	4.86	4.52	4.86	4.52	0.0176	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 1873
3389-SEC	PD-0531	0.24	6.13	2.60	6.13	2.60	0.4866	0.0000	PNL	VCB	12	14	10	25	31	18	2.82	(*N3) (*N24) (*S1)	# 1873
3390-PRI	NC (NE) 751	12.47	5.55	5.16	5.55	5.16	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 1875
3390-SEC	PD-0575	0.24	5.24	2.19	5.24	2.19	0.688	0.0000	PNL	VCB	12	14	10	25	34	18	3.34	(*N3) (*N24) (*S1)	# 1875
3391-PRI	PD-0023_4	12.47	5.46	5.08	5.46	5.08	0.0163	0.0000	SWG	VCB	30	45	30	152	8	36	0.10	(*S0)	# 1877
3391-SEC	PD-0526	0.24	7.51	3.24	7.51	3.24	0.3169	0.0000	PNL	VCB	12	14	10	25	27	18	2.32	(*N3) (*N24) (*S1)	# 1877
3393-PRI	SOUTH 751	12.47	1.30	1.19	1.17	1.06	0.2989	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*N24) (*S1)	# 1878
3393-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1879
3394 AND 3357 PRI	SOUTH 751	12.47	1.70	1.56	1.70	1.56	0.1426	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1881
3394-SEC	SOUTH 751	0.24	6.99	3.47	6.99	3.47	1.95	0.0500	PNL	VCB	12	14	10	25	89	18	15.5	(*N9) (*N24) (*S0)	# 1881
3396-SEC	PD-0553	0.24	7.79	3.37	7.79	3.37	0.635	0.0000	PNL	VCB	12	14	10	25	43	18	4.84	(*N3) (*N24) (*S1)	# 1882
3397-SEC	PD-0552	0.24	7.79	3.37	7.79	3.37	0.635	0.0000	PNL	VCB	12	14	10	25	43	18	4.84	(*N3) (*N24) (*S1)	# 1883
3398-PRI	NC (NE) 751	12.47	6.45	5.99	6.45	5.99	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.59	(*S0)	# 1885
3398-SEC	PD-0551	0.24	7.79	3.37	7.79	3.37	0.635	0.0000	PNL	VCB	12	14	10	25	43	18	4.84	(*N3) (*N24) (*S1)	# 1885
3399-PRI	NC (NE) 751	12.47	5.57	5.18	5.57	5.18	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.52	(*S0)	# 1887
3399-SEC	PD-0006_10	0.24	7.70	3.32	7.70	3.32	0.6517	0.0000	PNL	VCB	12	14	10	25	43	18	4.91	(*N3) (*N24) (*S1)	# 1887
3400-SEC	PD-0198	0.24	5.29	2.21	5.29	2.21	1.631	0.0000	PNL	VCB	12	14	10	25	59	18	7.99	(*N3) (*N24) (*S1)	# 1888
3401-SEC	PD-0006_11	0.24	7.70	3.32	7.70	3.32	0.6517	0.0000	PNL	VCB	12	14	10	25	43	18	4.91	(*N3) (*N24) (*S1)	# 1889
3402-SEC	PD-0006_12	0.24	7.70	3.32	7.70	3.32	0.6517	0.0000	PNL	VCB	12	14	10	25	43	18	4.91	(*N3) (*N24) (*S1)	# 1890
3403-PRI	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.137	0.0500	SWG	VCB	30	45	30	152	31	36	0.97	(*N3) (*S1)	# 1892
3403-SEC	PD-0487	0.24	5.05	2.10	5.05	2.10	0.7505	0.0000	PNL	VCB	12	14	10	25	35	18	3.49	(*N3) (*N24) (*S1)	# 1892
3404 AND 3406 AND 3416 PRI	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 1894
3404-SEC	PD-0009_1	0.24	5.41	2.63	5.41	2.63	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.6	(*N9) (*N24) (*S0)	# 1894
3405-PRI	PD-0026_4	12.47	3.73	3.42	3.73	3.42	0.0903	0.0000	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1896
3405-SEC	PD-0581	0.24	7.66	3.31	7.66	3.31	0.6597	0.0000	PNL	VCB	12	14	10	25	44	18	4.94	(*N3) (*N24) (*S1)	# 1896
3406-SEC	PD-0009_1	0.24	5.50	2.67	5.50	2.67	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.8	(*N9) (*N24) (*S0)	# 1897
3407-PRI	PD-0028_3	12.47	4.20	3.90	4.20	3.90	0.0146	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*S0)	# 1899

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3407-SEC	PD-0028_9	0.24	9.86	4.34	9.86	4.34	0.3877	0.0000	PNL	VCB	12	14	10	25	37	18	3.86	(*N3) (*N24) (*S1)	# 1899
3408-PRI	SOUTH 751	12.47	1.69	1.54	1.69	1.54	0.1451	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1901
3408-SEC	SOUTH 751	0.24	8.14	4.09	8.14	4.09	1.95	0.0500	PNL	VCB	12	14	10	25	100	18	18.5	(*N9) (*N24) (*S0)	# 1901
3409 AND 3505 PRI	JOHNSON 751	12.47	0.67	0.61	0.67	0.61	1.11	0.0500	SWG	VCB	30	45	30	152	31	36	0.96	(*N3) (*S1)	# 1903
3409-SEC	PD-0479	0.24	5.66	2.38	5.66	2.38	1.348	0.0000	PNL	VCB	12	14	10	25	55	18	7.14	(*N3) (*N24) (*S1)	# 1903
3410-PRI	SEL-751A EAST FDR	12.47	0.55	0.50	0.55	0.50	1.95	0.0500	SWG	VCB	30	45	30	152	39	36	1.38	(*N9) (*S0)	# 1905
3410-SEC	PD-0202	0.24	5.05	2.10	5.05	2.10	1.857	0.0000	PNL	VCB	12	14	10	25	62	18	8.64	(*N3) (*N24) (*S1)	# 1905
3411-SEC	PD-0201	0.24	5.01	2.08	5.01	2.08	1.905	0.0000	PNL	VCB	12	14	10	25	62	18	8.77	(*N3) (*N24) (*S1)	# 1906
3412-SEC	SOUTH 751	0.24	1.90	0.85	1.90	0.85	1.95	0.0500	PNL	VCB	12	14	10	25	35	18	3.52	(*N9) (*N24) (*S0)	# 1907
3413-PRI	NC (NE) 751	12.47	6.33	5.88	6.33	5.88	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.58	(*S0)	# 1909
3413-PRI0	NC (NE) 751	12.47	5.96	5.53	5.96	5.53	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*S0)	# 1910
3413-SEC	PD-0550	0.24	3.76	1.53	3.76	1.53	0.3553	0.0000	PNL	VCB	12	14	10	25	18	18	1.18	(*N3) (*N24) (*S1)	# 1910
3414-PRI	SOUTH 751	12.47	1.40	1.27	1.26	1.15	0.2551	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*N24) (*S1)	# 1911
3414-SEC	SOUTH 751	0.24	7.35	3.66	7.35	3.66	1.95	0.0500	PNL	VCB	12	14	10	25	93	18	16.4	(*N9) (*N24) (*S0)	# 1912
3415-PRI	NC (NE) 751	12.47	5.47	5.08	5.47	5.08	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 1914
3415-SEC	PD-0562	0.24	7.69	3.32	7.69	3.32	0.6544	0.0000	PNL	VCB	12	14	10	25	44	18	4.92	(*N3) (*N24) (*S1)	# 1914
3416-SEC	PD-0009_1	0.24	5.48	2.66	5.48	2.66	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.8	(*N9) (*N24) (*S0)	# 1915
3418-PRI	NC (NE) 751	12.47	7.48	6.95	7.38	6.85	0.03	0.0500	SWG	VCB	30	45	30	152	25	36	0.69	(*N24) (*S0)	# 1916
3418-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 1917
3419-PRI	PD-0517	12.47	3.59	3.29	3.59	3.29	0.0964	0.0000	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1919
3419-SEC	PD-0018_13	0.24	9.49	4.16	9.49	4.16	0.6481	0.0000	PNL	VCB	12	14	10	25	50	18	6.18	(*N3) (*N24) (*S1)	# 1919
3420-PRI	PD-0022_6	12.47	3.82	3.50	3.82	3.50	0.0867	0.0000	SWG	VCB	30	45	30	152	17	36	0.38	(*N3) (*S1)	# 1921
3420-SEC	PD-0523	0.24	9.48	4.16	9.48	4.16	0.6483	0.0000	PNL	VCB	12	14	10	25	50	18	6.18	(*N3) (*N24) (*S1)	# 1921
3421-SEC	PD-0007_13	0.24	11.10	4.92	11.10	4.92	0.4645	0.0000	PNL	VCB	12	14	10	25	46	18	5.29	(*N3) (*N24) (*S1)	# 1922
3422-PRI	NC (NE) 751	12.47	5.55	5.15	5.55	5.15	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 1924
3422-SEC	PD-0559	0.24	11.75	5.22	11.75	5.22	0.4156	0.0000	PNL	VCB	12	14	10	25	44	18	5.03	(*N3) (*N24) (*S1)	# 1924
3423-PRI	PD-0026_4	12.47	3.85	3.53	3.85	3.53	0.0854	0.0000	SWG	VCB	30	45	30	152	17	36	0.38	(*N3) (*S1)	# 1926
3423-SEC	PD-0580	0.24	8.77	3.82	8.77	3.82	0.7725	0.0000	PNL	VCB	12	14	10	25	53	18	6.74	(*N3) (*N24) (*S1)	# 1926
3424-PRI	SOUTH 751	12.47	1.62	1.48	1.62	1.48	0.1558	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1928
3424-SEC	SOUTH 751	0.24	5.66	2.76	5.66	2.76	1.95	0.0500	PNL	VCB	12	14	10	25	77	18	12.2	(*N9) (*N24) (*S0)	# 1928
3425-PRI	PD-0028_3	12.47	4.08	3.79	4.08	3.79	0.0147	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*S0)	# 1930
3425-SEC	PD-0028_11	0.24	8.00	3.46	8.00	3.46	0.949	0.0000	PNL	VCB	12	14	10	25	56	18	7.46	(*N3) (*N24) (*S1)	# 1930
3426-SEC	PD-0007_12	0.24	9.57	4.20	9.57	4.20	0.6351	0.0000	PNL	VCB	12	14	10	25	50	18	6.12	(*N3) (*N24) (*S1)	# 1931
3427-PRI	PD-0005_7	12.47	3.75	3.44	3.75	3.44	0.0402	0.0000	SWG	VCB	30	45	30	152	11	36	0.18	(*N3) (*S1)	# 1933
3427-PRI (PD-0005_7 LineSide)	NC (NE) 751	12.47	5.24	4.87	5.24	4.87	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 1938-Line
3427-SEC	PD-0005_7	0.48	10.92	8.37	10.92	8.37	2	0.0000	PNL	VCB	12	14	10	25	156	18	37.8	(*N9) (*S0)	# 1934
3429-PRI	SOUTH 751	12.47	1.73	1.58	1.73	1.58	0.1382	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 1935
3429-SEC	SOUTH 751	0.24	6.25	3.07	6.25	3.07	1.95	0.0500	PNL	VCB	12	14	10	25	82	18	13.7	(*N9) (*N24) (*S0)	# 1935
3430-PRI	NC (NE) 751	12.47	6.89	6.39	6.89	6.39	0.03	0.0500	SWG	VCB	30	45	30	152	24	36	0.63	(*S0)	# 1937
3430-SEC	PD-0554	0.24	7.92	3.43	7.92	3.43	0.971	0.0000	PNL	VCB	12	14	10	25	57	18	7.55	(*N3) (*N24) (*S1)	# 1937

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3432-SEC	PD-0576	0.24	3.20	1.28	3.20	1.28	0.485	0.0000	PNL	VCB	12	14	10	25	19	18	1.34	(*N3) (*N24) (*S1)	# 1938
3433 AND 3490 PRI	SOUTH 751	12.47	1.66	1.52	1.66	1.52	0.1491	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 1940
3433-SEC	SOUTH 751	0.24	3.07	1.42	3.07	1.42	1.95	0.0500	PNL	VCB	12	14	10	25	50	18	6.05	(*N9) (*N24) (*S0)	# 1940
3435-SEC	PD-0276	0.24	3.59	1.45	3.59	1.45	0.389	0.0000	PNL	VCB	12	14	10	25	18	18	1.22	(*N3) (*N24) (*S1)	# 1941
3436-SEC	PD-0275	0.24	3.22	1.29	3.22	1.29	0.4806	0.0000	PNL	VCB	12	14	10	25	19	18	1.33	(*N3) (*N24) (*S1)	# 1942
3437-PRI	NC (NE) 751	12.47	4.72	4.39	4.72	4.39	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.44	(*S0)	# 1944
3437-SEC	PD-0028_6	0.24	3.54	1.43	3.54	1.43	0.3984	0.0000	PNL	VCB	12	14	10	25	18	18	1.24	(*N3) (*N24) (*S1)	# 1944
3439-PRI	NE (IND #2) 751	12.47	6.57	6.11	6.57	6.11	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.61	(*S0)	# 1946
3439-SEC	PD-0274	0.24	3.39	1.36	3.39	1.36	0.4336	0.0000	PNL	VCB	12	14	10	25	19	18	1.28	(*N3) (*N24) (*S1)	# 1946
3440-PRI	SOUTH 751	12.47	1.46	1.33	1.32	1.21	0.2319	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 1947
3440-SEC	SOUTH 751	0.24	2.93	1.35	2.93	1.35	1.95	0.0500	PNL	VCB	12	14	10	25	48	18	5.75	(*N9) (*N24) (*S0)	# 1948
3442-PRI	SOUTH 751	12.47	1.45	1.32	1.31	1.20	0.2349	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1949
3442-SEC	SOUTH 751	0.24	5.15	2.49	5.15	2.49	1.95	0.0500	PNL	VCB	12	14	10	25	72	18	10.9	(*N9) (*N24) (*S0)	# 1950
3443-PRI	SOUTH 751	12.47	1.46	1.33	1.32	1.20	0.2326	0.0500	SWG	VCB	30	45	30	152	20	36	0.50	(*N3) (*N24) (*S1)	# 1951
3443-SEC	SOUTH 751	0.24	6.17	3.03	6.17	3.03	1.95	0.0500	PNL	VCB	12	14	10	25	82	18	13.5	(*N9) (*N24) (*S0)	# 1952
3444-PRI	SEL-751A EAST FDR	12.47	0.40	0.37	0.40	0.37	1.95	0.0500	SWG	VCB	30	45	30	152	32	36	1.02	(*N9) (*N24) (*S0)	# 1953
3444-SEC	SEL-751A EAST FDR	0.24	2.99	1.38	2.99	1.38	1.95	0.0500	PNL	VCB	12	14	10	25	49	18	5.88	(*N9) (*N24) (*S0)	# 1954
3445-PRI	SOUTH 751	12.47	1.43	1.31	1.30	1.18	0.2409	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1955
3445-SEC	SOUTH 751	0.24	3.23	1.50	3.23	1.50	1.95	0.0500	PNL	VCB	12	14	10	25	51	18	6.42	(*N9) (*N24) (*S0)	# 1956
3446-PRI	SOUTH 751	12.47	1.45	1.32	1.31	1.20	0.2352	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1957
3446-SEC	SOUTH 751	0.24	5.15	2.49	5.15	2.49	1.95	0.0500	PNL	VCB	12	14	10	25	72	18	10.9	(*N9) (*N24) (*S0)	# 1958
3447-PRI	SOUTH 751	12.47	1.44	1.31	1.30	1.19	0.2389	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1959
3447-SEC	SOUTH 751	0.24	6.04	2.96	6.04	2.96	1.95	0.0500	PNL	VCB	12	14	10	25	80	18	13.1	(*N9) (*N24) (*S0)	# 1960
3449-PRI	PD-0020_3	12.47	0.32	0.29	0.32	0.29	0.0535	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*N24) (*S1)	# 1961
3449-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 1962
3450-PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 1964
3450-SEC	PD-0009_1	0.24	4.67	2.24	4.67	2.24	2	0.0000	PNL	VCB	12	14	10	25	67	18	9.78	(*N9) (*N24) (*S0)	# 1964
3453-PRI	SOUTH 751	12.47	1.47	1.34	1.33	1.21	0.2303	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 1965
3453-SEC	SOUTH 751	0.24	8.54	4.30	8.54	4.30	1.95	0.0500	PNL	VCB	12	14	10	25	103	18	19.5	(*N9) (*N24) (*S0)	# 1966
3454-PRI	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 1968
3454-SEC	PD-0007_1	0.24	5.36	2.60	5.36	2.60	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 1968
3455-PRI	SOUTH 751	12.47	1.47	1.34	1.33	1.22	0.2284	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 1969
3455-SEC	SOUTH 751	0.24	8.55	4.31	8.55	4.31	1.95	0.0500	PNL	VCB	12	14	10	25	103	18	19.5	(*N9) (*N24) (*S0)	# 1970
3459-PRI	PD-0024_4	12.47	0.56	0.51	0.56	0.51	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.40	(*N9) (*S0)	# 1972
3459-SEC	PD-0024_4	0.24	5.47	2.66	5.47	2.66	2	0.0000	PNL	VCB	12	14	10	25	75	18	11.7	(*N9) (*N24) (*S0)	# 1972
3460-PRI	SOUTH 751	12.47	1.45	1.32	1.31	1.20	0.2352	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1973
3460-SEC	SOUTH 751	0.24	9.28	4.71	9.28	4.71	1.95	0.0500	PNL	VCB	12	14	10	25	109	18	21.4	(*N9) (*N24) (*S0)	# 1974
3461-PRI	PD-0003_6	12.47	0.28	0.26	0.28	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 1976
3461-SEC	PD-0003_6	0.24	7.60	3.80	7.60	3.80	2	0.0000	PNL	VCB	12	14	10	25	95	18	17.1	(*N9) (*S0)	# 1977
3462-PRI	PD-0011_7	12.47	3.20	2.94	3.20	2.94	0.0485	0.0000	SWG	VCB	30	45	30	152	11	36	0.18	(*N3) (*S1)	# 1978

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3462-SEC	PD-0011_7	0.24	11.20	5.75	11.20	5.75	2	0.0000	PNL	VCB	12	14	10	25	125	18	26.5	(*N9) (*S0)	# 1979
3463-PRI	PD-0008_1	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.13	(*N9) (*S0)	# 1980
3463-SEC	PD-0008_1	0.24	9.70	4.93	9.70	4.93	2	0.0000	PNL	VCB	12	14	10	25	113	18	22.5	(*N9) (*S0)	# 1981
3464-SEC	PD-0542	0.24	3.05	1.21	3.05	1.21	0.5339	0.0000	PNL	VCB	12	14	10	25	20	18	1.39	(*N3) (*N24) (*S1)	# 1981
3465-SEC	PD-0561	0.24	3.72	1.51	3.72	1.51	0.3632	0.0000	PNL	VCB	12	14	10	25	18	18	1.19	(*N3) (*N24) (*S1)	# 1982
3466-SEC	PD-0560	0.24	3.76	1.53	3.76	1.53	0.3548	0.0000	PNL	VCB	12	14	10	25	18	18	1.18	(*N3) (*N24) (*S1)	# 1983
3468-SEC	PD-0564	0.24	4.12	1.68	4.12	1.68	0.2977	0.0000	PNL	VCB	12	14	10	25	17	18	1.10	(*N3) (*N24) (*S1)	# 1984
3472-PRI	NC (NE) 751	12.47	5.48	5.10	5.48	5.10	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 1986
3472-SEC	PD-0007_11	0.24	10.54	4.65	10.54	4.65	0.515	0.0000	PNL	VCB	12	14	10	25	47	18	5.53	(*N3) (*N24) (*S1)	# 1986
3473-PRI	NC (NE) 751	12.47	5.32	4.95	5.32	4.95	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 1988
3473-SEC	PD-0007_16	0.24	9.12	3.99	9.12	3.99	0.7072	0.0000	PNL	VCB	12	14	10	25	52	18	6.45	(*N3) (*N24) (*S1)	# 1988
3474-PRI	NE (IND #2) 751	12.47	6.87	6.38	6.87	6.38	0.03	0.0500	SWG	VCB	30	45	30	152	24	36	0.63	(*S0)	# 1990
3474-SEC	PD-0277	0.24	9.76	4.29	9.76	4.29	0.6084	0.0000	PNL	VCB	12	14	10	25	49	18	5.99	(*N3) (*N24) (*S1)	# 1990
3475-PRI	NE (IND #2) 751	12.47	7.24	6.72	7.24	6.72	0.03	0.0500	SWG	VCB	30	45	30	152	25	36	0.66	(*S0)	# 1992
3475-SEC	PD-0278	0.24	12.07	5.37	12.07	5.37	0.3938	0.0000	PNL	VCB	12	14	10	25	44	18	4.92	(*N3) (*N24) (*S1)	# 1992
3476-PRI	PD-0021_5	12.47	3.91	3.58	3.91	3.58	0.0833	0.0000	SWG	VCB	30	45	30	152	17	36	0.38	(*N3) (*S1)	# 1994
3476-SEC	PD-0543	0.24	9.60	4.22	9.60	4.22	0.6305	0.0000	PNL	VCB	12	14	10	25	50	18	6.10	(*N3) (*N24) (*S1)	# 1994
3477-PRI	PD-0021_5	12.47	3.79	3.47	3.79	3.47	0.0879	0.0000	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 1996
3477-SEC	PD-0544	0.24	11.71	5.20	11.71	5.20	0.418	0.0000	PNL	VCB	12	14	10	25	44	18	5.05	(*N3) (*N24) (*S1)	# 1996
3479-PRI	PD-0009_7	12.47	3.83	3.51	3.83	3.51	0.0862	0.0000	SWG	VCB	30	45	30	152	17	36	0.38	(*N3) (*S1)	# 1998
3479-SEC	PD-0009_7	0.208	14.90	6.92	14.90	6.92	2	0.0000	PNL	VCB	12	14	10	25	142	18	32.6	(*N9) (*S0)	# 1999
3480-PRI	SOUTH 751	12.47	1.42	1.29	1.28	1.17	0.246	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*N24) (*S1)	# 1999
3480-SEC	SOUTH 751	0.24	5.14	2.48	5.14	2.48	1.95	0.0500	PNL	VCB	12	14	10	25	72	18	10.9	(*N9) (*N24) (*S0)	# 2000
3481-PRI	SOUTH 751	12.47	1.41	1.29	1.28	1.17	0.2486	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*N24) (*S1)	# 2001
3481-SEC	SOUTH 751	0.24	4.67	2.24	4.67	2.24	1.95	0.0500	PNL	VCB	12	14	10	25	67	18	9.79	(*N9) (*N24) (*S0)	# 2002
3482-PRI	SOUTH 751	12.47	1.48	1.35	1.34	1.22	0.2274	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 2003
3482-SEC	SOUTH 751	0.24	3.57	1.67	3.57	1.67	1.95	0.0500	PNL	VCB	12	14	10	25	55	18	7.20	(*N9) (*N24) (*S0)	# 2004
3484-PRI	SOUTH 751	12.47	1.46	1.34	1.33	1.21	0.2307	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 2005
3484-SEC	SOUTH 751	0.24	6.85	3.39	6.85	3.39	1.95	0.0500	PNL	VCB	12	14	10	25	88	18	15.2	(*N9) (*N24) (*S0)	# 2006
3485-PRI	PD-0019_7	12.47	0.51	0.46	0.51	0.46	0.3607	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 2008
3485-SEC	PD-0019_7	0.24	4.91	2.36	4.91	2.36	2	0.0000	PNL	VCB	12	14	10	25	69	18	10.4	(*N9) (*N24) (*S0)	# 2008
3486-PRI	SOUTH 751	12.47	1.41	1.28	1.27	1.16	0.2506	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*N24) (*S1)	# 2009
3486-SEC	SOUTH 751	0.24	4.53	2.17	4.53	2.17	1.95	0.0500	PNL	VCB	12	14	10	25	66	18	9.46	(*N9) (*N24) (*S0)	# 2010
3487-PRI	SOUTH 751	12.47	1.48	1.35	1.34	1.23	0.2246	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 2011
3487-SEC	SOUTH 751	0.24	8.56	4.32	8.56	4.32	1.95	0.0500	PNL	VCB	12	14	10	25	103	18	19.6	(*N9) (*N24) (*S0)	# 2012
3488-PRI	SOUTH 751	12.47	1.67	1.52	1.67	1.52	0.1487	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2014
3488-SEC	SOUTH 751	0.208	11.26	5.18	11.26	5.18	1.95	0.0500	PNL	VCB	12	14	10	25	117	18	24.0	(*N9) (*S0)	# 2015
3490-SEC	SOUTH 751	0.24	6.97	3.46	6.97	3.46	1.95	0.0500	PNL	VCB	12	14	10	25	89	18	15.5	(*N9) (*N24) (*S0)	# 2015
3491-PRI	SOUTH 751	12.47	1.49	1.36	1.46	1.34	0.1898	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*N3) (*N24) (*S1)	# 2016
3491-SEC	SOUTH 751	0.24	6.07	2.97	6.07	2.97	1.95	0.0500	PNL	VCB	12	14	10	25	81	18	13.2	(*N9) (*N24) (*S0)	# 2017
3492-PRI	NE (IND #2) 751	12.47	6.50	6.04	6.50	6.04	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.60	(*S0)	# 2019

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3492-PRI0	NE (IND #2) 751	12.47	6.29	5.84	6.29	5.84	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.58	(*S0)	# 2020
3492-SEC	PD-0273	0.24	7.14	3.06	7.14	3.06	0.7732	0.0000	PNL	VCB	12	14	10	25	46	18	5.34	(*N3) (*N24) (*S1)	# 2020
3493-PRI	PD-0023_4	12.47	4.52	4.20	4.52	4.20	0.0184	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2022
3493-SEC	PD-0532	0.24	7.96	3.45	7.96	3.45	0.6041	0.0000	PNL	VCB	12	14	10	25	42	18	4.72	(*N3) (*N24) (*S1)	# 2022
3494-PRI	NC (NE) 751	12.47	5.46	5.07	5.46	5.07	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 2024
3494-SEC	PD-0007_14	0.24	9.57	4.20	9.57	4.20	0.6359	0.0000	PNL	VCB	12	14	10	25	50	18	6.12	(*N3) (*N24) (*S1)	# 2024
3494-SEC0	PD-0007_15	0.24	9.57	4.20	9.57	4.20	0.6359	0.0000	PNL	VCB	12	14	10	25	50	18	6.12	(*N3) (*N24) (*S1)	# 2025
3495-PRI	PD-0516	12.47	5.19	4.82	5.19	4.82	0.0169	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2027
3495-SEC	PD-0516	0.24	7.75	3.88	7.75	3.88	2	0.0000	PNL	VCB	12	14	10	25	96	18	17.5	(*N9) (*N24) (*S0)	# 2027
3496-PRI	PD-0023_4	12.47	5.13	4.77	5.13	4.77	0.017	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2029
3496-SEC	PD-0528	0.24	6.15	2.61	6.15	2.61	1.086	0.0000	PNL	VCB	12	14	10	25	51	18	6.33	(*N3) (*N24) (*S1)	# 2029
3497-PRI	PD-0022_6	12.47	3.54	3.25	3.54	3.25	0.0987	0.0000	SWG	VCB	30	45	30	152	18	36	0.41	(*N3) (*S1)	# 2031
3497-SEC	PD-0525	0.24	8.93	3.90	8.93	3.90	0.4753	0.0000	PNL	VCB	12	14	10	25	40	18	4.23	(*N3) (*N24) (*S1)	# 2031
3498-PRI	PD-0028_3	12.47	4.38	4.07	4.38	4.07	0.0145	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*S0)	# 2033
3498-SEC	PD-0028_8	0.24	5.16	2.16	5.16	2.16	0.7122	0.0000	PNL	VCB	12	14	10	25	35	18	3.40	(*N3) (*N24) (*S1)	# 2033
3499-PRI	NC (NE) 751	12.47	4.50	4.18	4.50	4.18	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*S0)	# 2035
3499-SEC	PD-0598	0.24	5.26	2.20	5.26	2.20	1.654	0.0000	PNL	VCB	12	14	10	25	59	18	8.06	(*N3) (*N24) (*S1)	# 2035
3500-PRI	PD-0517	12.47	3.46	3.18	3.46	3.18	0.1026	0.0000	SWG	VCB	30	45	30	152	18	36	0.41	(*N3) (*S1)	# 2037
3500-SEC	PD-0018_14	0.24	5.77	2.43	5.77	2.43	0.5523	0.0000	PNL	VCB	12	14	10	25	32	18	2.99	(*N3) (*N24) (*S1)	# 2037
3501-PRI	NE (IND #2) 751	12.47	6.21	5.77	6.21	5.77	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.57	(*S0)	# 2039
3501-SEC	PD-0272	0.24	5.36	2.24	5.36	2.24	1.57	0.0000	PNL	VCB	12	14	10	25	58	18	7.81	(*N3) (*N24) (*S1)	# 2039
3502-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 2040
3504-PRI	SOUTH 751	12.47	1.78	1.63	1.78	1.63	0.1314	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 2042
3504-SEC	SOUTH 751	0.48	9.78	7.47	9.78	7.47	1.95	0.0500	PNL	VCB	12	14	10	25	145	18	33.5	(*N9) (*S0)	# 2043
3505-SEC	PD-0480	0.24	2.83	1.12	2.83	1.12	0.6183	0.0000	PNL	VCB	12	14	10	25	21	18	1.49	(*N3) (*N24) (*S1)	# 2043
3506-PRI	PD-0003_9	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2045
3506-SEC	PD-0141	0.24	2.14	0.83	2.14	0.83	1.142	0.0000	PNL	VCB	12	14	10	25	25	18	1.99	(*N3) (*N24) (*S1)	# 2045
3507-SEC	PD-0486	0.24	2.83	1.12	2.83	1.12	0.6196	0.0000	PNL	VCB	12	14	10	25	21	18	1.49	(*N3) (*N24) (*S1)	# 2046
3508-PRI	PD-0028_1	12.47	0.61	0.56	0.61	0.56	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2048
3508-PRI1	PD-0028_1	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.50	(*N9) (*S0)	# 2049
3508-PRI10	PD-0031_1	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.89	(*N9) (*N24) (*S0)	# 2049
3508-PRI11	PD-0031_1	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.89	(*N9) (*N24) (*S0)	# 2050
3508-PRI13	SEL-751A HOWE FDR	12.47	0.46	0.42	0.46	0.42	1.95	0.0500	SWG	VCB	30	45	30	152	35	36	1.15	(*N9) (*S0)	# 2052
3508-PRI14	PD-0341	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.82	(*N9) (*N24) (*S0)	# 2052
3508-PRI2	SEL-751A HOWE FDR	12.47	0.57	0.53	0.57	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 2055
3508-PRI3	SEL-751A HOWE FDR	12.47	0.57	0.52	0.57	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 2056
3508-PRI4	PD-0008_4	12.47	0.52	0.47	0.52	0.47	2	0.0000	SWG	VCB	30	45	30	152	38	36	1.30	(*N9) (*S0)	# 2057
3508-PRI5	PD-0030_1	12.47	0.52	0.48	0.52	0.48	2	0.0000	SWG	VCB	30	45	30	152	38	36	1.32	(*N9) (*S0)	# 2058
3508-PRI6	PD-0030_1	12.47	0.51	0.46	0.51	0.46	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.27	(*N9) (*S0)	# 2059

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3508-PRI7	PD-0031_1	12.47	0.50	0.45	0.50	0.45	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.25	(*N9) (*S0)	# 2060
3508-PRI9	PD-0031_1	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.90	(*N9) (*N24) (*S0)	# 2060
3508-SEC	PD-0318	0.24	2.24	0.87	2.24	0.87	1.026	0.0000	PNL	VCB	12	14	10	25	24	18	1.89	(*N3) (*N24) (*S1)	# 2061
3509-PRI	JOHNSON 751	12.47	1.60	1.46	1.60	1.46	0.1601	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2063
3509-SEC	PD-0007_9	0.24	2.11	0.82	2.11	0.82	1.183	0.0000	PNL	VCB	12	14	10	25	25	18	2.04	(*N3) (*N24) (*S1)	# 2063
3510-PRI	NC (NE) 751	12.47	6.03	5.60	6.03	5.60	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.56	(*S0)	# 2065
3510-SEC	PD-0557	0.24	1.93	0.74	1.93	0.74	1.573	0.0000	PNL	VCB	12	14	10	25	28	18	2.44	(*N3) (*N24) (*S1)	# 2065
3511-PRI	PD-0053_1	12.47	0.69	0.64	0.69	0.64	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.73	(*N9) (*S0)	# 2067
3511-SEC	PD-0053_1	0.24	5.22	2.52	5.22	2.52	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.1	(*N9) (*N24) (*S0)	# 2067
3516-PRI	NC (NE) 751	12.47	7.25	6.73	7.25	6.73	0.03	0.0500	SWG	VCB	30	45	30	152	25	36	0.66	(*S0)	# 2069
3516-SEC	PD-0555	0.24	12.84	5.72	12.84	5.72	0.3493	0.0000	PNL	VCB	12	14	10	25	42	18	4.67	(*N3) (*N24) (*S1)	# 2069
3521-PRI	PD-0010_6	12.47	3.68	3.42	3.68	3.42	0.0209	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N24) (*S0)	# 2070
3521-SEC	PD-0010_6	0.24	11.03	5.66	11.03	5.66	2	0.0000	PNL	VCB	12	14	10	25	123	18	26.0	(*N9) (*N24) (*S0)	# 2071
3523-PRI	PD-0017_5	12.47	3.67	3.37	3.67	3.37	0.0926	0.0000	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*N24) (*S1)	# 2072
3523-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 2073
3524-PRI	PD-0010_6	12.47	3.67	3.41	3.67	3.41	0.021	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N24) (*S0)	# 2074
3524-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 2075
3525-PRI	PD-0055_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.71	(*N9) (*S0)	# 2077
3525-SEC	PD-0055_1	0.24	6.71	3.32	6.71	3.32	2	0.0000	PNL	VCB	12	14	10	25	87	18	14.8	(*N9) (*N24) (*S0)	# 2077
3526-PRI	PD-0028_3	12.47	4.07	3.78	4.07	3.78	0.0147	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*S0)	# 2079
3526-SEC	PD-0028_10	0.24	11.87	5.27	11.87	5.27	0.4072	0.0000	PNL	VCB	12	14	10	25	44	18	4.99	(*N3) (*N24) (*S1)	# 2079
3527-PRI	NC (NE) 751	12.47	4.36	4.05	4.36	4.05	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 2081
3527-SEC	PD-0603	0.24	9.76	4.29	9.76	4.29	0.6087	0.0000	PNL	VCB	12	14	10	25	49	18	5.99	(*N3) (*N24) (*S1)	# 2081
3528-PRI	PD-0028_3	12.47	4.54	4.22	4.54	4.22	0.0144	0.0000	SWG	VCB	30	45	30	152	6	36	0.08	(*S0)	# 2083
3528-SEC	PD-0028_7	0.24	4.15	1.70	4.15	1.70	1.213	0.0000	PNL	VCB	12	14	10	25	41	18	4.50	(*N3) (*N24) (*S1)	# 2083
3529-PRI	PD-0005_10	12.47	0.52	0.47	0.52	0.47	2	0.0000	SWG	VCB	30	45	30	152	38	36	1.30	(*N9) (*S0)	# 2085
3529-SEC	PD-0007_19	0.24	6.05	2.56	6.05	2.56	2	0.0000	PNL	VCB	12	14	10	25	74	18	11.4	(*N3) (*N9) (*N24) (*S0)	# 2085
3530-PRI	PD-0398	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 2087
3530-SEC	PD-0400	0.24	6.08	2.57	6.08	2.57	1.985	0.0000	PNL	VCB	12	14	10	25	74	18	11.4	(*N3) (*N24) (*S1)	# 2087
3531-PRI	PD-0023_4	12.47	5.03	4.68	5.03	4.68	0.0172	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2089
3531-SEC	PD-0529	0.24	6.14	2.60	6.14	2.60	1.089	0.0000	PNL	VCB	12	14	10	25	51	18	6.33	(*N3) (*N24) (*S1)	# 2089
3532-PRI	WEST 751	12.47	5.55	5.16	5.55	5.16	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 2091
3532-SEC	PD-0014_10	0.24	8.08	3.50	8.08	3.50	0.9285	0.0000	PNL	VCB	12	14	10	25	56	18	7.38	(*N3) (*N24) (*S1)	# 2091
3536-PRI	PD-0011_5	12.47	2.90	2.65	2.90	2.65	0.1449	0.0000	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 2092
3536-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 2093
3537-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 2094
3537-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 2095
3540-PRI	PD-0023_4	12.47	4.73	4.40	4.73	4.40	0.0179	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2097

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3540-SEC	PD-0530	0.24	5.47	2.30	5.47	2.30	0.6237	0.0000	PNL	VCB	12	14	10	25	33	18	3.18	(*N3) (*N24) (*S1)	# 2097
3541-PRI	SEL-751A EAST FDR	12.47	0.55	0.51	0.55	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.39	(*N9) (*S0)	# 2099
3541-SEC	PD-0194	0.24	3.94	1.60	3.94	1.60	1.4	0.0000	PNL	VCB	12	14	10	25	43	18	4.90	(*N3) (*N24) (*S1)	# 2099
3542-PRI	PD-0427	12.47	7.09	6.58	7.09	6.58	0.0138	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*S0)	# 2101
3542-SEC	PD-0423	0.24	5.90	2.49	5.90	2.49	0.5268	0.0000	PNL	VCB	12	14	10	25	31	18	2.93	(*N3) (*N24) (*S1)	# 2101
3543-PRI	PD-0427	12.47	6.83	6.34	6.83	6.34	0.0138	0.0000	SWG	VCB	30	45	30	152	8	36	0.11	(*S0)	# 2103
3543-SEC	PD-0424	0.24	4.40	1.81	4.40	1.81	1.03	0.0000	PNL	VCB	12	14	10	25	39	18	4.09	(*N3) (*N24) (*S1)	# 2103
3544-PRI	SOUTH 751	12.47	1.70	1.55	1.70	1.55	0.1438	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2105
3544-SEC	SOUTH 751	0.24	4.13	1.96	4.13	1.96	1.95	0.0500	PNL	VCB	12	14	10	25	61	18	8.49	(*N9) (*N24) (*S0)	# 2105
3548-PRI	NC (NE) 751	12.47	5.70	5.30	5.70	5.30	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.53	(*S0)	# 2107
3548-SEC	PD-0539	0.24	4.23	1.73	4.23	1.73	1.148	0.0000	PNL	VCB	12	14	10	25	40	18	4.36	(*N3) (*N24) (*S1)	# 2107
3549-SEC	PD-0540	0.24	4.23	1.73	4.23	1.73	1.148	0.0000	PNL	VCB	12	14	10	25	40	18	4.36	(*N3) (*N24) (*S1)	# 2108
3550-SEC	PD-0541	0.24	4.23	1.73	4.23	1.73	1.148	0.0000	PNL	VCB	12	14	10	25	40	18	4.36	(*N3) (*N24) (*S1)	# 2109
3551-PRI	NC (NE) 751	12.47	5.77	5.36	5.77	5.36	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.53	(*S0)	# 2111
3551-SEC	PD-0536	0.24	8.82	3.85	8.82	3.85	0.7629	0.0000	PNL	VCB	12	14	10	25	53	18	6.70	(*N3) (*N24) (*S1)	# 2111
3552-SEC	PD-0537	0.24	8.82	3.85	8.82	3.85	0.7629	0.0000	PNL	VCB	12	14	10	25	53	18	6.70	(*N3) (*N24) (*S1)	# 2112
3553-SEC	PD-0538	0.24	8.82	3.85	8.82	3.85	0.7629	0.0000	PNL	VCB	12	14	10	25	53	18	6.70	(*N3) (*N24) (*S1)	# 2113
3555 AND 3199 AND 3197 PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2115
3555-SEC	PD-0009_1	0.48	2.82	2.03	2.82	2.03	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.46	(*N9) (*N24) (*S0)	# 2115
3556-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2117
3556-SEC	PD-0009_1	0.24	3.29	1.53	3.29	1.53	2	0.0000	PNL	VCB	12	14	10	25	52	18	6.56	(*N9) (*N24) (*S0)	# 2117
3557-PRI	SEL-751A EAST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.50	(*N9) (*S0)	# 2119
3557-SEC	SEL-751A EAST FDR	0.24	3.95	1.87	3.95	1.87	1.95	0.0500	PNL	VCB	12	14	10	25	59	18	8.09	(*N9) (*N24) (*S0)	# 2119
3558-SEC	SOUTH 751	0.24	4.31	2.05	4.31	2.05	1.95	0.0500	PNL	VCB	12	14	10	25	63	18	8.94	(*N9) (*N24) (*S0)	# 2120
3559-SEC	SOUTH 751	0.24	3.97	1.87	3.97	1.87	1.95	0.0500	PNL	VCB	12	14	10	25	60	18	8.13	(*N9) (*N24) (*S0)	# 2121
3562-SEC	PD-0383	0.24	3.71	1.50	3.71	1.50	1.653	0.0000	PNL	VCB	12	14	10	25	46	18	5.40	(*N3) (*N24) (*S1)	# 2122
3563-PRI	NC (NE) 751	12.47	4.37	4.06	4.37	4.06	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*S0)	# 2124
3563-SEC	PD-0010_12	0.24	3.74	1.52	3.74	1.52	0.3582	0.0000	PNL	VCB	12	14	10	25	18	18	1.18	(*N3) (*N24) (*S1)	# 2124
3565-PRI	SEL-751A SOUTHWEST FDR	12.47	0.56	0.51	0.56	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.40	(*N9) (*S0)	# 2126
3565-SEC	PD-0418	0.24	2.57	1.01	2.57	1.01	0.7665	0.0000	PNL	VCB	12	14	10	25	22	18	1.65	(*N3) (*N24) (*S1)	# 2126
3566-PRI	NC (NE) 751	12.47	4.20	3.90	4.20	3.90	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*S0)	# 2128
3566-SEC	PD-0010_13	0.24	3.52	1.42	3.52	1.42	0.4026	0.0000	PNL	VCB	12	14	10	25	18	18	1.24	(*N3) (*N24) (*S1)	# 2128
3568-PRI	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2130
3568-SEC	PD-0009_1	0.24	2.40	1.08	2.40	1.08	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.57	(*N9) (*N24) (*S0)	# 2130
3572-PRI	PD-0026_3	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2132
3572-SEC	PD-0026_3	0.24	5.19	2.51	5.19	2.51	2	0.0000	PNL	VCB	12	14	10	25	72	18	11.0	(*N9) (*N24) (*S0)	# 2132
3573-PRI	SEL-751A EAST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2134
3573-SEC	PD-0164	0.24	4.05	1.65	4.05	1.65	1.296	0.0000	PNL	VCB	12	14	10	25	42	18	4.68	(*N3) (*N24) (*S1)	# 2134

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
3577-PRI	WEST 751	12.47	5.17	4.80	5.17	4.80	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.48	(*S0)	# 2136
3577-SEC	143	0.24	8.95	3.91	8.95	3.91	0.4732	0.0000	PNL	VCB	12	14	10	25	40	18	4.22	(*N3) (*N24) (*S1)	# 2136
3578-SEC	SOUTH 751	0.24	6.21	3.05	6.21	3.05	1.95	0.0500	PNL	VCB	12	14	10	25	82	18	13.6	(*N9) (*N24) (*S0)	# 2137
3584-PRI	NC (NE) 751	12.47	5.90	5.48	5.90	5.48	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*S0)	# 2139
3584-PRI0	NC (NE) 751	12.47	5.85	5.43	5.85	5.43	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*S0)	# 2140
3584-SEC	PD-0003_10	0.24	5.54	2.33	5.54	2.33	0.6058	0.0000	PNL	VCB	12	14	10	25	33	18	3.13	(*N3) (*N24) (*S1)	# 2140
3587 AND 3578 PRI	SOUTH 751	12.47	1.73	1.58	1.73	1.58	0.1393	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2142
3587-SEC	SOUTH 751	0.24	2.68	1.22	2.68	1.22	1.95	0.0500	PNL	VCB	12	14	10	25	45	18	5.20	(*N9) (*N24) (*S0)	# 2142
3588-PRI	PD-0002_9	12.47	0.54	0.49	0.54	0.49	0.3272	0.0000	SWG	VCB	30	45	30	152	12	36	0.22	(*N3) (*S1)	# 2144
3588-SEC	PD-0002_9	0.208	7.91	3.55	7.91	3.55	2	0.0000	PNL	VCB	12	14	10	25	91	18	16.1	(*N9) (*S0)	# 2145
3592-PRI	PD-0010_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.50	(*N9) (*S0)	# 2146
3592-SEC	PD-0010_9	0.24	6.82	3.37	6.82	3.37	2	0.0000	PNL	VCB	12	14	10	25	88	18	15.1	(*N9) (*N24) (*S0)	# 2146
3593-PRI	PD-0018_8	12.47	0.51	0.46	0.51	0.46	0.3617	0.0000	SWG	VCB	30	45	30	152	13	36	0.23	(*N3) (*S1)	# 2148
3593-SEC	PD-0018_8	0.24	7.21	3.59	7.21	3.59	2	0.0000	PNL	VCB	12	14	10	25	91	18	16.1	(*N9) (*N24) (*S0)	# 2148
3594-PRI	PD-0014_8	12.47	0.58	0.54	0.58	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 2150
3594-SEC	PD-0014_8	0.24	4.06	1.92	4.06	1.92	2	0.0000	PNL	VCB	12	14	10	25	61	18	8.34	(*N9) (*N24) (*S0)	# 2150
3597-PRI	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 2151
3597-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 2152
3615 AND 3559 AND 3558 PRI	SOUTH 751	12.47	1.67	1.53	1.67	1.53	0.1472	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2154
3615-SEC	SOUTH 751	0.24	8.51	4.29	8.51	4.29	1.95	0.0500	PNL	VCB	12	14	10	25	103	18	19.4	(*N9) (*N24) (*S0)	# 2154
3627-PRI	NC (NE) 751	12.47	5.40	5.01	5.40	5.01	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*S0)	# 2156
3627-SEC	NC (NE) 751	0.48	4.67	3.44	4.67	3.44	1.95	0.0500	PNL	VCB	12	14	10	25	87	18	14.8	(*N9) (*S0)	# 2157
3634-PRI	NC (NE) 751	12.47	4.57	4.25	4.57	4.25	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*S0)	# 2158
3634-SEC	NC (NE) 751	0.208	23.24	10.47	23.24	10.47	1.95	0.0500	PNL	VCB	12	14	10	25	188	18	50.8	(*N9) (*S0)	# 2159
4/0 TO #4	JOHNSON 751	12.47	0.71	0.65	0.71	0.65	0.9315	0.0500	SWG	VCB	30	45	30	152	29	36	0.86	(*N3) (*S1)	# 2160
4/0 TO 1/0	JOHNSON 751	12.47	0.72	0.65	0.72	0.65	0.931	0.0500	SWG	VCB	30	45	30	152	29	36	0.86	(*N3) (*S1)	# 2161
4/0 TO 1/0 CBL	JOHNSON 751	12.47	0.68	0.62	0.68	0.62	1.059	0.0500	SWG	VCB	30	45	30	152	31	36	0.93	(*N3) (*S1)	# 2162
518-PRI	SEL-751A HOWE FDR	12.47	0.32	0.29	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.82	(*N9) (*N24) (*S0)	# 2162
518-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 2163
522-PRI	SEL-751A HOWE FDR	12.47	0.32	0.29	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.82	(*N9) (*N24) (*S0)	# 2164
522-PRI1	SEL-751A HOWE FDR	12.47	0.32	0.29	0.28	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*N24) (*S0)	# 2165
522-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 2166
559 AND 747 AND 561 PRI	PD-0046	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 2168
559-SEC	PD-0046	0.24	2.43	1.10	2.43	1.10	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.65	(*N9) (*N24) (*S0)	# 2168
560-SEC	PD-0007_22	0.24	2.39	0.93	2.39	0.93	0.8968	0.0000	PNL	VCB	12	14	10	25	23	18	1.77	(*N3) (*N24) (*S1)	# 2169

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
561-SEC	PD-0046	0.24	2.43	1.10	2.43	1.10	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.65	(*N9) (*N24) (*S0)	# 2170
562-PRI	NE (IND #2) 751	12.47	3.08	2.86	3.08	2.86	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.29	(*S0)	# 2172
562-SEC	PD-0310	0.24	0.79	0.28	0.79	0.28	1.93	0.0000	PNL	VCB	12	14	10	25	17	18	1.10	(*N3) (*N24) (*S1)	# 2172
577-PRI	PD-0009_6	12.47	0.25	0.23	0.25	0.23	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.65	(*N9) (*S0)	# 2174
577-SEC	PD-0009_6	0.24	0.86	0.36	0.86	0.36	2	0.0000	PNL	VCB	12	14	10	25	20	18	1.43	(*N9) (*N24) (*S0)	# 2174
602-PRI	PD-0067	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2176
602-SEC	PD-0067	0.24	2.99	1.38	2.99	1.38	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.87	(*N9) (*N24) (*S0)	# 2176
604-PRI	PD-0007_3	12.47	0.51	0.46	0.51	0.46	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.28	(*N9) (*S0)	# 2178
604-PRI (PD-0007_3 LineSide)	SEL-751A HOWE FDR	12.47	0.51	0.46	0.51	0.46	1.95	0.0500	SWG	VCB	30	45	30	152	37	36	1.28	(*N9) (*S0)	# 2184-Line
604-SEC	PD-0323	0.24	0.77	0.28	0.77	0.28	2	0.0000	PNL	VCB	12	14	10	25	17	18	1.11	(*N3) (*N9) (*N24) (*S0)	# 2178
607 (2) -PRI	PD-0009_6	12.47	0.25	0.23	0.25	0.23	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.64	(*N9) (*S0)	# 2180
607 (2) -SEC	PD-0009_6	0.24	1.64	0.72	1.64	0.72	2	0.0000	PNL	VCB	12	14	10	25	32	18	2.97	(*N9) (*N24) (*S0)	# 2180
607-PRI	PD-0009_6	12.47	0.25	0.23	0.25	0.23	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.64	(*N9) (*S0)	# 2182
607-SEC	PD-0009_6	0.24	0.76	0.32	0.76	0.32	2	0.0000	PNL	VCB	12	14	10	25	19	18	1.26	(*N9) (*N24) (*S0)	# 2182
610-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2184
610-SEC	PD-0009_1	0.24	0.74	0.31	0.74	0.31	2	0.0000	PNL	VCB	12	14	10	25	18	18	1.22	(*N9) (*N24) (*S0)	# 2184
612-PRI	PD-0029_1	12.47	0.84	0.77	0.84	0.77	0.1384	0.0000	SWG	VCB	30	45	30	152	9	36	0.14	(*N3) (*S1)	# 2186
612-SEC	PD-0029_1	0.24	0.75	0.31	0.75	0.31	2	0.0000	PNL	VCB	12	14	10	25	18	18	1.23	(*N9) (*N24) (*S0)	# 2186
613-PRI	PD-0034_2	12.47	0.75	0.69	0.75	0.69	0.0158	0.0000	SWG	VCB	30	45	30	152	2	36	0.01	(*S0)	# 2188
613-SEC	PD-0034_2	0.24	3.29	1.32	3.29	1.32	0.4588	0.0000	PNL	VCB	12	14	10	25	19	18	1.31	(*N3) (*N24) (*S1)	# 2188
623-PRI	PD-0026_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 2190
623-SEC	PD-0026_1	0.24	0.42	0.42	0.42	0.42	2	0.0000	PNL	VCB	12	14	10	25	12	18	0.49	(*N9) (*N_ka) (*N24) (*S0)	# 2190
624-PRI	PD-0009_1	12.47	0.26	0.24	0.26	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.67	(*N9) (*S0)	# 2192
624-SEC	PD-0009_1	0.24	0.61	0.25	0.61	0.25	2	0.0000	PNL	VCB	12	14	10	25	16	18	0.96	(*N9) (*N24) (*S0)	# 2192
653-PRI	PD-0049_4	12.47	0.67	0.61	0.67	0.61	2	0.0000	SWG	VCB	30	45	30	152	44	36	1.67	(*N9) (*S0)	# 2194
653-SEC	PD-0049_7	0.24	3.45	1.39	3.45	1.39	2	0.0000	PNL	VCB	12	14	10	25	49	18	6.01	(*N3) (*N9) (*N24) (*S0)	# 2194
655-PRI	PD-0028_1	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 2196
655-SEC	PD-0319	0.24	0.73	0.26	0.73	0.26	2	0.0000	PNL	VCB	12	14	10	25	16	18	1.03	(*N3) (*N9) (*N24) (*S0)	# 2196
657-PRI	PD-0022_4	12.47	0.85	0.77	0.85	0.77	0.1375	0.0000	SWG	VCB	30	45	30	152	9	36	0.14	(*N3) (*S1)	# 2198
657-SEC	PD-0022_10	0.24	1.31	0.49	1.31	0.49	0.5991	0.0000	PNL	VCB	12	14	10	25	12	18	0.60	(*N3) (*N24) (*S1)	# 2198
662-PRI	PD-0009_1	12.47	0.40	0.37	0.40	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.02	(*N9) (*S0)	# 2200
662-SEC	PD-0009_1	0.24	0.81	0.34	0.81	0.34	2	0.0000	PNL	VCB	12	14	10	25	19	18	1.35	(*N9) (*N24) (*S0)	# 2200
676-PRI	PD-0009_4	12.47	0.42	0.38	0.42	0.38	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.05	(*N9) (*N24) (*S0)	# 2201
676-SEC	MaxTripTime @2.0s	0.24	0.00	0.00	0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0.00	(*N2) (*N9) (*N_ka) (*N24) (*S1)	# 2202
697-PRI	PD-0027_3	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2204
697-SEC	PD-0027_3	0.24	3.03	1.40	3.03	1.40	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.96	(*N9) (*N24) (*S0)	# 2204
698-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2206
698-SEC	PD-0009_1	0.24	3.07	1.42	3.07	1.42	2	0.0000	PNL	VCB	12	14	10	25	50	18	6.06	(*N9) (*N24) (*S0)	# 2206

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
742-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2208
742-SEC	PD-0009_1	0.24	1.05	0.45	1.05	0.45	2	0.0000	PNL	VCB	12	14	10	25	23	18	1.81	(*N9) (*N24) (*S0)	# 2208
747-SEC	PD-0046	0.24	2.53	1.15	2.53	1.15	2	0.0000	PNL	VCB	12	14	10	25	43	18	4.86	(*N9) (*N24) (*S0)	# 2209
755-PRI	SEL-751A HOWE FDR	12.47	0.28	0.25	0.28	0.25	1.95	0.0500	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 0082
755-SEC	PD-0084	0.24	0.97	0.41	0.97	0.41	2	0.0000	PNL	VCB	12	14	10	25	22	18	1.64	(*N9) (*N24) (*S0)	# 2211
757-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2213
757-SEC	PD-0009_1	0.24	2.36	1.07	2.36	1.07	2	0.0000	PNL	VCB	12	14	10	25	41	18	4.49	(*N9) (*N24) (*S0)	# 2213
759-PRI	NE (IND #2) 751	12.47	4.20	3.91	4.20	3.91	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*S0)	# 2215
759-SEC	PD-0283	0.24	2.64	1.04	2.64	1.04	0.7234	0.0000	PNL	VCB	12	14	10	25	22	18	1.60	(*N3) (*N24) (*S1)	# 2215
761-PRI0	PD-0012_2	12.47	0.37	0.34	0.37	0.34	0.0457	0.0000	SWG	VCB	30	45	30	152	3	36	0.02	(*N3) (*S1)	# 2217
761-SEC0	PD-0012_2	0.24	3.01	1.39	3.01	1.39	2	0.0000	PNL	VCB	12	14	10	25	49	18	5.92	(*N9) (*N24) (*S0)	# 2217
765-PRI	JOHNSON 751	12.47	0.71	0.64	0.71	0.64	0.9574	0.0500	SWG	VCB	30	45	30	152	29	36	0.87	(*N3) (*S1)	# 2219
765-SEC	PD-0036_4	0.24	0.72	0.26	0.72	0.26	2	0.0000	PNL	VCB	12	14	10	25	16	18	1.02	(*N3) (*N9) (*N24) (*S0)	# 2219
770-PRI	PD-0009_1	12.47	0.31	0.29	0.31	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 2221
770-SEC	PD-0009_1	0.24	2.38	1.08	2.38	1.08	2	0.0000	PNL	VCB	12	14	10	25	41	18	4.53	(*N9) (*N24) (*S0)	# 2221
774-PRI	PD-0067	12.47	0.26	0.24	0.26	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.68	(*N9) (*S0)	# 2223
774-SEC	PD-0067	0.24	1.50	0.65	1.50	0.65	2	0.0000	PNL	VCB	12	14	10	25	30	18	2.69	(*N9) (*N24) (*S0)	# 2223
775-PRI	SEL-751A HOWE FDR	12.47	0.47	0.43	0.47	0.43	1.95	0.0500	SWG	VCB	30	45	30	152	36	36	1.19	(*N9) (*S0)	# 2225
775-SEC	PD-0336	0.24	1.25	0.46	1.25	0.46	0.6512	0.0000	PNL	VCB	12	14	10	25	12	18	0.62	(*N3) (*N24) (*S1)	# 2225
779-SEC	PD-0317	0.24	1.14	0.42	1.14	0.42	2	0.0000	PNL	VCB	12	14	10	25	22	18	1.71	(*N3) (*N9) (*N24) (*S1)	# 2226
796-PRI	PD-0003_9	12.47	0.60	0.55	0.60	0.55	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 2228
796-SEC	PD-0133	0.24	5.37	2.25	5.37	2.25	0.6525	0.0000	PNL	VCB	12	14	10	25	34	18	3.25	(*N3) (*N24) (*S1)	# 2228
801-PRI	JOHNSON 751	12.47	1.16	1.05	1.16	1.05	0.3054	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*S1)	# 2230
801-SEC	PD-0010_10	0.24	4.41	1.82	4.41	1.82	1.023	0.0000	PNL	VCB	12	14	10	25	39	18	4.07	(*N3) (*N24) (*S1)	# 2230
810-PRI	PD-0022_1	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*S0)	# 2232
810-SEC	PD-0022_1	0.24	2.70	1.24	2.70	1.24	2	0.0000	PNL	VCB	12	14	10	25	45	18	5.24	(*N9) (*N24) (*S0)	# 2232
811-PRI	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2234
811-SEC	PD-0009_1	0.24	2.27	1.02	2.27	1.02	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.29	(*N9) (*N24) (*S0)	# 2234
813 AND 1166 AND 2304 PRI	JOHNSON 751	12.47	0.88	0.80	0.88	0.80	0.5552	0.0500	SWG	VCB	30	45	30	152	24	36	0.65	(*N3) (*S1)	# 2236
813-SEC	PD-0470	0.24	2.53	0.99	2.53	0.99	0.7878	0.0000	PNL	VCB	12	14	10	25	22	18	1.67	(*N3) (*N24) (*S1)	# 2236
816-PRI	NE (IND #2) 751	12.47	3.59	3.34	3.59	3.34	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2238
816-SEC	PD-0307	0.24	1.11	0.41	1.11	0.41	2	0.0000	PNL	VCB	12	14	10	25	22	18	1.66	(*N3) (*N9) (*N24) (*S0)	# 2238
831-PRI	PD-0004_1	12.47	0.55	0.51	0.55	0.51	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.39	(*N9) (*S0)	# 2240
831-SEC	PD-0004_1	0.24	0.97	0.41	0.97	0.41	2	0.0000	PNL	VCB	12	14	10	25	22	18	1.65	(*N9) (*N24) (*S0)	# 2240
848-PRI	PD-0026_1	12.47	0.32	0.30	0.32	0.30	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.83	(*N9) (*S0)	# 2242
848-SEC	PD-0026_1	0.24	2.30	1.04	2.30	1.04	2	0.0000	PNL	VCB	12	14	10	25	40	18	4.37	(*N9) (*N24) (*S0)	# 2242

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
851-PRI	PD-0019_5	12.47	0.27	0.25	0.19	0.17	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2244
851-SEC	PD-0019_5	0.24	2.18	0.98	2.18	0.98	2	0.0000	PNL	VCB	12	14	10	25	39	18	4.11	(*N9) (*N24) (*S0)	# 2244
856-PRI	SEL-751A HOWE FDR	12.47	0.29	0.26	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	26	36	0.74	(*N9) (*S0)	# 0084
856-SEC	PD-0365	0.24	1.85	0.71	1.85	0.71	1.793	0.0000	PNL	VCB	12	14	10	25	30	18	2.65	(*N3) (*N24) (*S1)	# 2246
857-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2248
857-SEC	PD-0009_1	0.24	2.43	1.10	2.43	1.10	2	0.0000	PNL	VCB	12	14	10	25	42	18	4.64	(*N9) (*N24) (*S0)	# 2248
858-PRI	SOUTH 751	12.47	1.62	1.48	1.62	1.48	0.1569	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2250
858-SEC	SOUTH 751	0.24	5.39	2.61	5.39	2.61	1.95	0.0500	PNL	VCB	12	14	10	25	74	18	11.5	(*N9) (*N24) (*S0)	# 2250
865-PRI	PD-0002_4	12.47	0.46	0.42	0.41	0.38	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.17	(*N9) (*N24) (*S0)	# 2251
865-SEC	MaxTripTime @2.0s	0.24			0.00	0.00	2	0.0000	PNL	VCB	12	14	10	25	0	18	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 2252
866-PRI	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2254
866-SEC	PD-0009_1	0.24	4.23	2.01	4.23	2.01	2	0.0000	PNL	VCB	12	14	10	25	62	18	8.75	(*N9) (*N24) (*S0)	# 2254
872-PRI	PD-0006_5	12.47	1.85	1.69	1.85	1.69	0.0396	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*N3) (*S1)	# 2256
872-SEC	PD-0456	0.24	4.47	1.84	4.47	1.84	0.9898	0.0000	PNL	VCB	12	14	10	25	38	18	4.00	(*N3) (*N24) (*S1)	# 2256
873-SEC	PD-0264	0.24	0.90	0.32	0.90	0.32	1.351	0.0000	PNL	VCB	12	14	10	25	15	18	0.88	(*N3) (*N24) (*S1)	# 2257
877-PRI	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2259
877-SEC	PD-0009_1	0.24	3.84	1.81	3.84	1.81	2	0.0000	PNL	VCB	12	14	10	25	58	18	7.83	(*N9) (*N24) (*S0)	# 2259
888-PRI	PD-0009_1	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.87	(*N9) (*S0)	# 2261
888-SEC	PD-0009_1	0.24	3.71	1.74	3.71	1.74	2	0.0000	PNL	VCB	12	14	10	25	57	18	7.51	(*N9) (*N24) (*S0)	# 2261
903-PRI	PD-0009_6	12.47	0.25	0.23	0.25	0.23	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.65	(*N9) (*S0)	# 2263
903-SEC	PD-0009_6	0.24	0.89	0.37	0.89	0.37	2	0.0000	PNL	VCB	12	14	10	25	21	18	1.50	(*N9) (*N24) (*S0)	# 2263
BROWNVILLE - NEMAHA (1940)	PD-0009_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 2264
BROWNVILLE FDR	SEL-751A BROWNVILLE FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2265
BUS - 1234	SEL-751A HOWE FDR	12.47	0.29	0.26	0.29	0.26	1.95	0.0500	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 0119
BUS- 12345	SEL-751A BROWNVILLE FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2268
BUS- 12346	SEL-751A BROWNVILLE FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2269
BUS-0001	SEL-751A HOWE FDR	12.47	0.46	0.42	0.46	0.42	1.95	0.0500	SWG	VCB	30	45	30	152	35	36	1.17	(*N9) (*S0)	# 0086
BUS-0002	SEL-751A HOWE FDR	12.47	0.44	0.41	0.44	0.41	1.95	0.0500	SWG	VCB	30	45	30	152	34	36	1.12	(*N9) (*S0)	# 0087
BUS-0002_1	SEL-751A EAST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.55	(*N9) (*S0)	# 2272
BUS-0002_2	JOHNSON 751	12.47	0.66	0.59	0.66	0.59	1.172	0.0500	SWG	VCB	30	45	30	152	32	36	0.99	(*N3) (*S1)	# 2270
BUS-0003_2	JOHNSON 751	12.47	0.65	0.59	0.65	0.59	1.193	0.0500	SWG	VCB	30	45	30	152	32	36	1.00	(*N3) (*S1)	# 2273
BUS-0003_3	SEL-751A HOWE FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 2274

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0003_5	PD-0009_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 2275
BUS-0003_8	JOHNSON 751	12.47	4.12	3.83	4.12	3.83	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*S0)	# 2280
BUS-0004	SEL-751A HOWE FDR	12.47	0.44	0.40	0.44	0.40	1.95	0.0500	SWG	VCB	30	45	30	152	34	36	1.11	(*N9) (*S0)	# 0088
BUS-0004_1	SEL-751A BROWNVILLE FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.51	(*N9) (*S0)	# 2278
BUS-0004_3	JOHNSON 751	12.47	0.64	0.58	0.64	0.58	1.24	0.0500	SWG	VCB	30	45	30	152	33	36	1.02	(*N3) (*S1)	# 2280
BUS-0004_4	SEL-751A HOWE FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2281
BUS-0004_5	PD-0009_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.83	(*N9) (*S0)	# 2282
BUS-0005	SEL-751A HOWE FDR	12.47	0.43	0.39	0.43	0.39	1.95	0.0500	SWG	VCB	30	45	30	152	34	36	1.08	(*N9) (*S0)	# 0089
BUS-0005_1	SEL-751A BROWNVILLE FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2284
BUS-0005_2	JOHNSON 751	12.47	0.64	0.58	0.64	0.58	1.274	0.0500	SWG	VCB	30	45	30	152	33	36	1.04	(*N3) (*S1)	# 2285
BUS-0005_3	SEL-751A HOWE FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2286
BUS-0006	SEL-751A HOWE FDR	12.47	0.42	0.38	0.42	0.38	1.95	0.0500	SWG	VCB	30	45	30	152	33	36	1.05	(*N9) (*S0)	# 0090
BUS-0006_1	SEL-751A BROWNVILLE FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 2290
BUS-0006_2	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 2291
BUS-0006_3	PD-0019_2	12.47	0.65	0.59	0.65	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.61	(*N9) (*S0)	# 2292
BUS-0006_3 (PD-0019_2 LineSide)	JOHNSON 751	12.47	0.62	0.56	0.62	0.56	1.401	0.0500	SWG	VCB	30	45	30	152	34	36	1.11	(*N3) (*S1)	# 2305-Line
BUS-0006_5	NE (IND #2) 751	12.47	3.71	3.45	3.71	3.45	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 2294
BUS-0006_7	SOUTH 751	12.47	1.77	1.62	1.77	1.62	0.133	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 2295
BUS-0007	SEL-751A HOWE FDR	12.47	0.39	0.36	0.39	0.36	1.95	0.0500	SWG	VCB	30	45	30	152	32	36	0.99	(*N9) (*S0)	# 0091
BUS-0007_1	PD-0007_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.43	(*N9) (*S0)	# 2298
BUS-0007_2	PD-0005_10	12.47	0.64	0.59	0.64	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.60	(*N9) (*S0)	# 2299
BUS-0007_2 (PD-0005_10 LineSide)	PD-0019_2	12.47	0.64	0.59	0.64	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.60	(*N9) (*S0)	# 2312-Line
BUS-0007_4	NE (IND #2) 751	12.47	3.59	3.34	3.59	3.34	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2301
BUS-0008_2	PD-0005_10	12.47	0.64	0.59	0.64	0.59	2	0.0000	SWG	VCB	30	45	30	152	43	36	1.59	(*N9) (*S0)	# 2304
BUS-0008_4	NE (IND #2) 751	12.47	3.52	3.27	3.52	3.27	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 2306
BUS-0009	SEL-751A HOWE FDR	12.47	0.37	0.34	0.37	0.34	1.95	0.0500	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*S0)	# 0093
BUS-0009_2	PD-0005_10	12.47	0.62	0.57	0.62	0.57	2	0.0000	SWG	VCB	30	45	30	152	42	36	1.55	(*N9) (*S0)	# 2309
BUS-0009_4	NE (IND #2) 751	12.47	3.48	3.23	3.48	3.23	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 2311

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0009_5	SOUTH 751	12.47	1.74	1.59	1.74	1.59	0.1365	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2312
BUS-0010_1	PD-0007_1	12.47	0.57	0.53	0.57	0.53	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 2324
BUS-0010_1 (PD-0007_1 LineSide)	SEL-751A EAST FDR	12.47	0.57	0.53	0.57	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 2325-Line
BUS-0010_2	PD-0005_10	12.47	0.54	0.49	0.54	0.49	2	0.0000	SWG	VCB	30	45	30	152	39	36	1.34	(*N9) (*S0)	# 2316
BUS-0010_4	NE (IND #2) 751	12.47	4.25	3.95	4.25	3.95	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*S0)	# 2318
BUS-0011	SEL-751A HOWE FDR	12.47	0.35	0.32	0.35	0.32	1.95	0.0500	SWG	VCB	30	45	30	152	30	36	0.89	(*N9) (*S0)	# 0095
BUS-0011_1	SEL-751A EAST FDR	12.47	0.57	0.52	0.57	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 2320
BUS-0011_2	PD-0005_10	12.47	0.48	0.44	0.48	0.44	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.21	(*N9) (*S0)	# 2321
BUS-0011_3	SEL-751A HOWE FDR	12.47	0.58	0.53	0.58	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 2322
BUS-0011_4	PD-0012_6	12.47	3.66	3.40	3.66	3.40	0.021	0.0000	SWG	VCB	30	45	30	152	7	36	0.09	(*S0)	# 2323
BUS-0012	SEL-751A HOWE FDR	12.47	0.33	0.30	0.33	0.30	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 0096
BUS-0012_1	PD-0008_1	12.47	0.48	0.44	0.48	0.44	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.21	(*N9) (*S0)	# 2325
BUS-0012_3	PD-0020_2	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.13	(*N9) (*S0)	# 2327
BUS-0012_4	SEL-751A HOWE FDR	12.47	0.54	0.49	0.54	0.49	1.95	0.0500	SWG	VCB	30	45	30	152	39	36	1.35	(*N9) (*S0)	# 2328
BUS-0012_5	PD-0015_6	12.47	2.65	2.43	2.65	2.43	0.174	0.0000	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*S1)	# 2329
BUS-0012_6	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2330
BUS-0013	SEL-751A HOWE FDR	12.47	0.32	0.29	0.32	0.29	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.82	(*N9) (*S0)	# 0097
BUS-0013_1	SEL-751A EAST FDR	12.47	0.59	0.54	0.59	0.54	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 2332
BUS-0013_2	PD-0022_2	12.47	0.40	0.36	0.40	0.36	2	0.0000	SWG	VCB	30	45	30	152	32	36	1.00	(*N9) (*S0)	# 2333
BUS-0013_3	SEL-751A HOWE FDR	12.47	0.54	0.49	0.54	0.49	1.95	0.0500	SWG	VCB	30	45	30	152	39	36	1.35	(*N9) (*S0)	# 2334
BUS-0014	SEL-751A EAST FDR	12.47	0.57	0.52	0.57	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 2335
BUS-0014 (PD-0008_2 LineSide)	PD-0008_2	12.47	0.57	0.52	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 2349-Line
BUS-0014_1	SEL-751A HOWE FDR	12.47	0.50	0.46	0.50	0.46	1.95	0.0500	SWG	VCB	30	45	30	152	37	36	1.27	(*N9) (*S0)	# 2336
BUS-0014_2	PD-0009_1	12.47	0.28	0.26	0.28	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 2337
BUS-0014_3	NE (IND #2) 751	12.47	3.25	3.02	3.25	3.02	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.31	(*S0)	# 2338
BUS-0015	SEL-751A EAST FDR	12.47	0.57	0.52	0.57	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 2339
BUS-0015_1	PD-0022_2	12.47	0.38	0.34	0.38	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*S0)	# 2340
BUS-0015_3	PD-0009_1	12.47	0.28	0.26	0.28	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 2342
BUS-0015_4	NE (IND #2) 751	12.47	3.88	3.60	3.88	3.60	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.37	(*S0)	# 2343
BUS-0016	SEL-751A EAST FDR	12.47	0.57	0.52	0.57	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.42	(*N9) (*S0)	# 2345

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0016_2	PD-0005_6	12.47	0.28	0.26	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 2347
BUS-0016_3	NE (IND #2) 751	12.47	3.94	3.66	3.94	3.66	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.37	(*S0)	# 2348
BUS-0017	SEL-751A EAST FDR	12.47	0.51	0.46	0.51	0.46	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S1)	# 2349
BUS-0017_2	PD-0005_6	12.47	0.28	0.25	0.24	0.22	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2351
BUS-0017_3	NE (IND #2) 751	12.47	4.09	3.80	4.09	3.80	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.38	(*S0)	# 2352
BUS-0018_2	PD-0005_6	12.47	0.28	0.25	0.24	0.22	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2354
BUS-0018_3	NE (IND #2) 751	12.47	4.49	4.17	4.49	4.17	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*S0)	# 2355
BUS-0019_2	PD-0007_5	12.47	0.27	0.25	0.09	0.09	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2357
BUS-0019_4	NE (IND #2) 751	12.47	4.02	3.74	4.02	3.74	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.38	(*S0)	# 2359
BUS-002	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2360
BUS-0020_2	PD-0007_5	12.47	0.27	0.25	0.11	0.10	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2363
BUS-0020_3	NC (NE) 751	12.47	5.85	5.43	5.85	5.43	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*S0)	# 2364
BUS-0021_1	PD-0008_6	12.47	0.27	0.25	0.11	0.10	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2366
BUS-0021_2	NC (NE) 751	12.47	5.62	5.22	5.62	5.22	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.52	(*S0)	# 2367
BUS-0021_3	NE (IND #2) 751	12.47	4.32	4.01	4.32	4.01	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*S0)	# 2368
BUS-0022	SEL-751A EAST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 2371
BUS-0022_2	PD-0008_6	12.47	0.27	0.25	0.11	0.10	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2372
BUS-0022_4	PD-0004_8	12.47	3.19	2.93	3.19	2.93	0.1187	0.0000	SWG	VCB	30	45	30	152	19	36	0.44	(*N3) (*S1)	# 2374
BUS-0023_1	PD-0007_5	12.47	0.25	0.23	0.10	0.09	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.64	(*N9) (*S0)	# 2376
BUS-0023_2	NC (NE) 751	12.47	5.59	5.19	5.59	5.19	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.52	(*S0)	# 2377
BUS-0023_3	PD-0004_8	0.24	14.22	7.36	14.22	7.36	2	0.0000	PNL	VCB	12	14	10	25	147	18	34.4	(*N9) (*N24) (*S0)	# 2377
BUS-0024_1	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2380
BUS-0024_2	NC (NE) 751	12.47	5.41	5.03	5.41	5.03	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*S0)	# 2381
BUS-0025	PD-0004_4	12.47	0.48	0.43	0.48	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.20	(*N9) (*N24) (*S0)	# 2381
BUS-0025_1	NC (NE) 751	12.47	5.13	4.77	5.13	4.77	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.48	(*S0)	# 2383
BUS-0025_2	WEST 751	12.47	7.60	7.05	7.60	7.05	0.03	0.0500	SWG	VCB	30	45	30	152	25	36	0.70	(*S0)	# 2384
BUS-0026	SEL-751A EAST FDR	12.47	0.57	0.53	0.57	0.53	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 2385
BUS-0026_1	PD-0031_1	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.87	(*N9) (*N24) (*S0)	# 2385
BUS-0027	SEL-751A HOWE FDR	12.47	0.36	0.32	0.36	0.32	1.95	0.0500	SWG	VCB	30	45	30	152	30	36	0.90	(*N9) (*S0)	# 0098
BUS-0027_1	SEL-751A EAST FDR	12.47	0.57	0.52	0.57	0.52	1.95	0.0500	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 2388
BUS-0027_3	PD-0031_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 2388
BUS-0028	SEL-751A HOWE FDR	12.47	0.38	0.34	0.38	0.34	1.95	0.0500	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*S0)	# 0099
BUS-0028_1	PD-0017_2	12.47	0.55	0.50	0.55	0.50	2	0.0000	SWG	VCB	30	45	30	152	39	36	1.38	(*N9) (*S0)	# 2391
BUS-0028_3	SEL-751A HOWE FDR	12.47	0.33	0.30	0.30	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 2391

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0029_1	PD-0004_1	12.47	0.51	0.46	0.51	0.46	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.27	(*N9) (*S0)	# 2394
BUS-0029_2	PD-0034_1	12.47	0.28	0.25	0.28	0.25	0.7743	0.0000	SWG	VCB	30	45	30	152	14	36	0.27	(*N3) (*N24) (*S1)	# 2394
BUS-0030	PD-0011	12.47	0.35	0.31	0.35	0.31	0.1396	0.0000	SWG	VCB	30	45	30	152	5	36	0.06	(*N3) (*S1)	# 0101
BUS-0030 (PD-0011 LineSide)	SEL-751A HOWE FDR	12.47	0.37	0.34	0.37	0.34	1.95	0.0500	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*S0)	# 2407-Line
BUS-0032	SEL-751A HOWE FDR	12.47	0.35	0.32	0.35	0.32	1.95	0.0500	SWG	VCB	30	45	30	152	30	36	0.89	(*N9) (*S0)	# 0103
BUS-0032_1	NE (IND #2) 751	12.47	3.13	2.90	3.13	2.90	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.30	(*S0)	# 2403
BUS-0033	SEL-751A HOWE FDR	12.47	0.32	0.29	0.32	0.29	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 0104
BUS-0034	SEL-751A HOWE FDR	12.47	0.35	0.32	0.35	0.32	1.95	0.0500	SWG	VCB	30	45	30	152	30	36	0.90	(*N9) (*S0)	# 0105
BUS-0035	SEL-751A HOWE FDR	12.47	0.34	0.31	0.34	0.31	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*S0)	# 0106
BUS-0036	SEL-751A HOWE FDR	12.47	0.33	0.30	0.33	0.30	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 0107
BUS-0038	SEL-751A HOWE FDR	12.47	0.32	0.29	0.32	0.29	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 0109
BUS-0038_1	NE (IND #2) 751	12.47	3.88	3.61	3.88	3.61	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.37	(*S0)	# 2412
BUS-0038_2	NORTHWEST (HOSPITAL) 751	12.47	4.81	4.47	4.81	4.47	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.45	(*S0)	# 2413
BUS-0039	SEL-751A HOWE FDR	12.47	0.32	0.29	0.32	0.29	1.95	0.0500	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 0110
BUS-0039_1	PD-0008_1	12.47	0.45	0.41	0.45	0.41	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.14	(*N9) (*S0)	# 2415
BUS-0040	SEL-751A HOWE FDR	12.47	0.30	0.28	0.30	0.28	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 0111
BUS-0040_1	NE (IND #2) 751	12.47	2.73	2.54	2.73	2.54	0.03	0.0500	SWG	VCB	30	45	30	152	14	36	0.26	(*S0)	# 2418
BUS-0041	SEL-751A HOWE FDR	12.47	0.30	0.27	0.30	0.27	1.95	0.0500	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 0112
BUS-0042	SEL-751A HOWE FDR	12.47	0.28	0.25	0.28	0.25	1.95	0.0500	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 0113
BUS-0043	SEL-751A HOWE FDR	12.47	0.27	0.25	0.27	0.25	1.95	0.0500	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 0114
BUS-0043_2	NE (IND #2) 751	12.47	3.86	3.59	3.86	3.59	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 2424
BUS-0043_3	WEST 751	12.47	6.38	5.93	6.38	5.93	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.59	(*S0)	# 2425
BUS-0043_4	T1 FUSE 40E	12.47	8.69	7.96	4.36	3.99	0.4087	0.0000	SWG	VCB	30	45	30	152	59	36	2.63	(*N3) (*S0)	# 2426
BUS-0044	SEL-751A HOWE FDR	12.47	0.27	0.25	0.27	0.25	1.95	0.0500	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0115
BUS-0044_1	NE (IND #2) 751	12.47	3.79	3.52	3.79	3.52	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 2428
BUS-0044_2	WEST 751	12.47	5.72	5.32	5.72	5.32	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.53	(*S0)	# 2429
BUS-0045	SEL-751A HOWE FDR	12.47	0.27	0.24	0.27	0.24	1.95	0.0500	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 0116
BUS-0045_1	PD-0004_1	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.19	(*N9) (*S0)	# 2431

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0045_2	STATION SERVICE FDR 751	0.48	11.42	8.77	11.42	8.77	1.95	0.0500	PNL	VCB	12	14	10	25	161	18	39.7	(*N9) (*S0)	# 2432
BUS-0046	PD-0009_1	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.19	(*N9) (*S0)	# 2433
BUS-0048	JOHNSON 751	12.47	1.51	1.38	1.51	1.38	0.1787	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*N3) (*S1)	# 2435
BUS-0050	PD-0009_1	12.47	0.46	0.42	0.46	0.42	2	0.0000	SWG	VCB	30	45	30	152	35	36	1.15	(*N9) (*S0)	# 2438
BUS-0050_1	JOHNSON 751	12.47	1.28	1.16	1.28	1.16	0.2489	0.0500	SWG	VCB	30	45	30	152	20	36	0.46	(*N3) (*S1)	# 2439
BUS-0050_2	NC (NE) 751	12.47	5.72	5.32	5.72	5.32	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.53	(*S0)	# 2440
BUS-0051	PD-0009_1	12.47	0.44	0.40	0.44	0.40	2	0.0000	SWG	VCB	30	45	30	152	34	36	1.11	(*N9) (*S0)	# 2442
BUS-0051_1	SEL-751A EAST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 2443
BUS-0052	PD-0014_1	12.47	0.44	0.40	0.44	0.40	2	0.0000	SWG	VCB	30	45	30	152	34	36	1.10	(*N9) (*S0)	# 2446
BUS-0052_1	JOHNSON 751	12.47	1.16	1.05	1.16	1.05	0.3049	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*N3) (*S1)	# 2447
BUS-0052_2	PD-0011_4	12.47	0.27	0.25	0.15	0.14	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2448
BUS-0052_3	NE (IND #2) 751	12.47	3.21	2.98	3.21	2.98	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.30	(*S0)	# 2449
BUS-0053	PD-0011_4	12.47	0.27	0.25	0.15	0.14	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2451
BUS-0054	PD-0019_5	12.47	0.27	0.25	0.18	0.16	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2453
BUS-0055	PD-0019_5	12.47	0.27	0.25	0.19	0.17	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2455
BUS-0056	SOUTH 751	12.47	1.47	1.34	1.33	1.21	0.2289	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*N24) (*S1)	# 2456
BUS-0057	SEL-751A EAST FDR	12.47	0.60	0.55	0.60	0.55	1.95	0.0500	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 2458
BUS-0057_1	NC (NE) 751	12.47	5.51	5.12	5.51	5.12	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 2459
BUS-0058_1	NC (NE) 751	12.47	5.48	5.10	5.48	5.10	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*S0)	# 2460
BUS-0059	PD-0014_1	12.47	0.41	0.37	0.41	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.04	(*N9) (*S0)	# 2461
BUS-0065	PD-0014_1	12.47	0.41	0.37	0.41	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.02	(*N9) (*S0)	# 2465
BUS-0066	NE (IND #2) 751	12.47	3.87	3.59	3.87	3.59	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 2466
BUS-0067	JOHNSON 751	12.47	1.12	1.02	1.12	1.02	0.3273	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 2467
BUS-0069	JOHNSON 751	12.47	1.11	1.01	1.11	1.01	0.3328	0.0500	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 2469
BUS-007	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2470
BUS-0070_1	JOHNSON 751	12.47	1.03	0.94	1.03	0.94	0.3893	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*S1)	# 2471
BUS-0071	JOHNSON 751	12.47	0.96	0.87	0.96	0.87	0.4585	0.0500	SWG	VCB	30	45	30	152	23	36	0.59	(*N3) (*S1)	# 2473
BUS-0072	JOHNSON 751	12.47	0.95	0.87	0.95	0.87	0.4652	0.0500	SWG	VCB	30	45	30	152	23	36	0.60	(*N3) (*S1)	# 2474
BUS-0075	JOHNSON 751	12.47	0.91	0.82	0.91	0.82	0.5192	0.0500	SWG	VCB	30	45	30	152	24	36	0.63	(*N3) (*S1)	# 2477
BUS-0077	JOHNSON 751	12.47	0.88	0.80	0.88	0.80	0.5545	0.0500	SWG	VCB	30	45	30	152	24	36	0.65	(*N3) (*S1)	# 2479

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0078	JOHNSON 751	12.47	0.85	0.78	0.85	0.78	0.598	0.0500	SWG	VCB	30	45	30	152	25	36	0.68	(*N3) (*S1)	# 2480
BUS-0079	JOHNSON 751	12.47	0.81	0.73	0.81	0.73	0.6846	0.0500	SWG	VCB	30	45	30	152	26	36	0.73	(*N3) (*S1)	# 2481
BUS-008	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2482
BUS-0081	SOUTH 751	12.47	1.69	1.55	1.69	1.55	0.1444	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2485
BUS-0082	JOHNSON 751	12.47	0.79	0.72	0.79	0.72	0.7219	0.0500	SWG	VCB	30	45	30	152	27	36	0.75	(*N3) (*S1)	# 2486
BUS-0082_1	SOUTH 751	12.47	1.71	1.56	1.71	1.56	0.1413	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2487
BUS-0083	JOHNSON 751	12.47	0.77	0.70	0.77	0.70	0.7736	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*N3) (*S1)	# 2488
BUS-0083_2	SOUTH 751	12.47	1.68	1.53	1.68	1.53	0.1465	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2490
BUS-0084_2	SOUTH 751	12.47	1.58	1.44	1.55	1.41	0.1707	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*N3) (*N24) (*S1)	# 2491
BUS-0084_3	WEST 751	12.47	5.40	5.02	5.40	5.02	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*S0)	# 2493
BUS-0085	PD-0009_1	12.47	0.42	0.39	0.42	0.39	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.07	(*N9) (*S0)	# 2494
BUS-0085_1	JOHNSON 751	12.47	0.71	0.65	0.71	0.65	0.931	0.0500	SWG	VCB	30	45	30	152	29	36	0.86	(*N3) (*S1)	# 2495
BUS-0086	PD-0009_1	12.47	0.41	0.38	0.41	0.38	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.04	(*N9) (*S0)	# 2496
BUS-0086_1	JOHNSON 751	12.47	0.71	0.64	0.71	0.64	0.9485	0.0500	SWG	VCB	30	45	30	152	29	36	0.87	(*N3) (*S1)	# 2497
BUS-0086_2	NC (NE) 751	12.47	5.39	5.01	5.39	5.01	0.03	0.0500	SWG	VCB	30	45	30	152	21	36	0.50	(*S0)	# 2498
BUS-0086_3	PD-0398	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.49	(*N9) (*S0)	# 2499
BUS-0087	PD-0009_1	12.47	0.41	0.37	0.41	0.37	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.03	(*N9) (*S0)	# 2500
BUS-0087_1	JOHNSON 751	12.47	0.70	0.63	0.70	0.63	0.9866	0.0500	SWG	VCB	30	45	30	152	30	36	0.89	(*N3) (*S1)	# 2501
BUS-0088	PD-0009_1	12.47	0.37	0.34	0.37	0.34	2	0.0000	SWG	VCB	30	45	30	152	31	36	0.95	(*N9) (*S0)	# 2502
BUS-0089	JOHNSON 751	12.47	0.69	0.63	0.69	0.63	1.019	0.0500	SWG	VCB	30	45	30	152	30	36	0.91	(*N3) (*S1)	# 2504
BUS-009	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.53	(*N9) (*S0)	# 2505
BUS-0090	JOHNSON 751	12.47	0.69	0.62	0.69	0.62	1.037	0.0500	SWG	VCB	30	45	30	152	30	36	0.92	(*N3) (*S1)	# 2506
BUS-0090_1	NORTHWEST (HOSPITAL) 751	12.47	3.64	3.38	3.64	3.38	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2507
BUS-0090_2	NORTH (IND #1) 751	12.47	8.56	7.94	8.56	7.94	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*S0)	# 2508
BUS-0091	JOHNSON 751	12.47	0.68	0.62	0.68	0.62	1.055	0.0500	SWG	VCB	30	45	30	152	31	36	0.93	(*N3) (*S1)	# 2509
BUS-0091_1	NORTHWEST (HOSPITAL) 751	12.47	3.60	3.34	3.60	3.34	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2510
BUS-0091_2	WEST 751	12.47	5.28	4.90	5.28	4.90	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 2511
BUS-0092	NC (NE) 751	12.47	5.28	4.90	5.28	4.90	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.49	(*S0)	# 2512
BUS-0092_1	NORTHWEST (HOSPITAL) 751	12.47	3.51	3.26	3.51	3.26	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 2513

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0093	NORTHWEST (HOSPITAL) 751	12.47	3.06	2.84	3.06	2.84	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.29	(*S0)	# 2518
BUS-0095	SOUTH 751	12.47	1.68	1.54	1.68	1.54	0.1459	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2519
BUS-0096	SOUTH 751	12.47	1.66	1.51	1.66	1.51	0.15	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2521
BUS-0097	SOUTH 751	12.47	1.65	1.51	1.65	1.51	0.1505	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2522
BUS-0102	WEST 751	12.47	5.06	4.70	5.06	4.70	0.03	0.0500	SWG	VCB	30	45	30	152	20	36	0.47	(*S0)	# 2524
BUS-0104	PD-0022-1	12.47	4.54	4.22	4.54	4.22	0.0184	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2526
BUS-0104 (PD-0022-1 LineSide)	WEST 751	12.47	4.54	4.22	4.54	4.22	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.42	(*S0)	# 2536-Line
BUS-0105	NC (NE) 751	12.47	4.88	4.53	4.88	4.53	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.45	(*S0)	# 2527
BUS-0106_1	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2529
BUS-0106_2	NC (NE) 751	12.47	4.78	4.44	4.78	4.44	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.45	(*S0)	# 2530
BUS-0107	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2531
BUS-0107_1	PD-0028_3	12.47	4.32	4.01	4.32	4.01	0.0145	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*S0)	# 2532
BUS-0108	PD-0019_5	12.47	0.28	0.25	0.21	0.19	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2533
BUS-0108 (PD-0019_5 LineSide)	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2543-Line
BUS-0108_1	NC (NE) 751	12.47	4.67	4.34	4.67	4.34	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.44	(*S0)	# 2534
BUS-0109	NC (NE) 751	12.47	4.48	4.16	4.48	4.16	0.03	0.0500	SWG	VCB	30	45	30	152	18	36	0.42	(*S0)	# 2535
BUS-0111_1	WEST 751	12.47	4.54	4.22	4.54	4.22	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.42	(*S0)	# 2536
BUS-0112	PD-0009_1	12.47	0.36	0.32	0.36	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.90	(*N9) (*S0)	# 2537
BUS-0113	PD-0009_1	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.90	(*N9) (*S0)	# 2539
BUS-0116	WEST 751	12.47	3.97	3.69	3.97	3.69	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.37	(*S0)	# 2540
BUS-0117	WEST 751	12.47	3.77	3.50	3.77	3.50	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 2541
BUS-0118	SOUTH 751	12.47	1.66	1.52	1.66	1.52	0.1488	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2542
BUS-01214	PD-0398	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 2544
BUS-0122	PD-0028_3	12.47	4.16	3.86	4.16	3.86	0.0146	0.0000	SWG	VCB	30	45	30	152	6	36	0.07	(*S0)	# 2546
BUS-0122_2	WEST 751	12.47	3.69	3.43	3.69	3.43	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 2548
BUS-0123	JOHNSON 751	12.47	2.57	2.39	2.57	2.39	0.03	0.0500	SWG	VCB	30	45	30	152	13	36	0.25	(*S0)	# 2549
BUS-0124	JOHNSON 751	12.47	2.35	2.18	2.35	2.18	0.03	0.0500	SWG	VCB	30	45	30	152	12	36	0.23	(*S0)	# 2551
BUS-0125	JOHNSON 751	12.47	1.78	1.63	1.78	1.63	0.131	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 2552
BUS-0129	PD-0009_1	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2553
BUS-0129_1	WEST 751	12.47	3.66	3.40	3.66	3.40	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.35	(*S0)	# 2554
BUS-0130	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2556
BUS-0130_1	WEST 751	12.47	3.62	3.36	3.62	3.36	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2557
BUS-0131	NC (NE) 751	12.47	4.62	4.29	4.62	4.29	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.43	(*S0)	# 2558
BUS-0131_1	SOUTH 751	12.47	1.31	1.20	1.19	1.08	0.2891	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*N24) (*S1)	# 2554
BUS-0135	PD-0014_8	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.46	(*N9) (*S0)	# 2559
BUS-0137	WEST 751	12.47	3.57	3.32	3.57	3.32	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2560
BUS-0140	WEST 751	12.47	3.54	3.28	3.54	3.28	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 2563
BUS-0141	PD-0009_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 2564

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0141_1	WEST 751	12.47	3.44	3.19	3.44	3.19	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.32	(*S0)	# 2565
BUS-0142	PD-0009_1	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 2566
BUS-0143	PD-0027_1	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 2567
BUS-0144	PD-0035_2	12.47	2.81	2.57	2.81	2.57	0.1546	0.0000	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 2568
BUS-0145	PD-0035_2	12.47	2.79	2.56	2.79	2.56	0.1563	0.0000	SWG	VCB	30	45	30	152	21	36	0.51	(*N3) (*S1)	# 2569
BUS-0146	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2570
BUS-0147	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2571
BUS-0147_1	PD-0035_2	12.47	2.70	2.47	2.70	2.47	0.1674	0.0000	SWG	VCB	30	45	30	152	21	36	0.53	(*N3) (*S1)	# 2572
BUS-0148	PD-0027_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2573
BUS-0152	PD-0027_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2575
BUS-0154	PD-0021_3	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 2572
BUS-0161	PD-0009_1	12.47	0.32	0.29	0.32	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.81	(*N9) (*S0)	# 2577
BUS-0161_1	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2578
BUS-0162	PD-0029	12.47	0.31	0.29	0.31	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 2579
BUS-0162_1	PD-0009_1	12.47	0.27	0.24	0.27	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2580
BUS-0163	PD-0009_1	12.47	0.26	0.24	0.26	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.67	(*N9) (*S0)	# 2581
BUS-0165	JOHNSON 751	12.47	0.69	0.62	0.69	0.62	1.025	0.0500	SWG	VCB	30	45	30	152	30	36	0.91	(*N3) (*S1)	# 2582
BUS-0166	JOHNSON 751	12.47	0.68	0.62	0.68	0.62	1.048	0.0500	SWG	VCB	30	45	30	152	30	36	0.92	(*N3) (*S1)	# 2583
BUS-0166_1	PD-0035_2	12.47	2.68	2.46	2.68	2.46	0.1699	0.0000	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*S1)	# 2584
BUS-0173	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2586
BUS-0176	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 2587
BUS-0179	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 2588
BUS-0180	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2589
BUS-0181_1	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2592
BUS-0182	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 2593
BUS-0182_1	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.157	0.0500	SWG	VCB	30	45	30	152	32	36	0.98	(*N3) (*S1)	# 2594
BUS-0183	JOHNSON 751	12.47	0.66	0.59	0.66	0.59	1.17	0.0500	SWG	VCB	30	45	30	152	32	36	0.99	(*N3) (*S1)	# 2595
BUS-0185	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2596
BUS-0190	SOUTH 751	12.47	1.63	1.49	1.63	1.49	0.1545	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2598
BUS-0194	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2599
BUS-0194_1	PD-0023_4	12.47	4.58	4.25	4.58	4.25	0.0183	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2600
BUS-0195	PD-0516	12.47	5.26	4.89	5.26	4.89	0.0167	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2601
BUS-0196	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2602
BUS-0196_1	PD-0517	12.47	3.65	3.35	3.65	3.35	0.0937	0.0000	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2603
BUS-0201	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 2604
BUS-0202	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2605
BUS-0208	PD-0009_1	12.47	0.26	0.24	0.26	0.24	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.67	(*N9) (*S0)	# 2606
BUS-0211	PD-0004_1	12.47	0.57	0.52	0.57	0.52	2	0.0000	SWG	VCB	30	45	30	152	40	36	1.44	(*N9) (*S0)	# 2607
BUS-0212	PD-0004_1	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.44	(*N9) (*S0)	# 2608
BUS-0212_1	PD-0007_5	12.47	0.25	0.23	0.10	0.09	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.64	(*N9) (*S0)	# 2609

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0213	PD-0050_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 2611
BUS-0213 (PD-0050_1 LineSide)	PD-0048_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 2623-Line
BUS-0219	SEL-751A HOWE FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2618
BUS-0220	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2619
BUS-0225	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2620
BUS-0228	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2621
BUS-0229	WEST 751	12.47	8.13	7.55	8.13	7.55	0.03	0.0500	SWG	VCB	30	45	30	152	26	36	0.74	(*S0)	# 2622
BUS-023	PD-0009_1	12.47	0.36	0.33	0.36	0.33	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.92	(*N9) (*S0)	# 2623
BUS-0237	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2624
BUS-0240	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2625
BUS-0244	WEST 751	12.47	8.48	7.86	8.48	7.86	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.77	(*S0)	# 2626
BUS-0246	WEST 751	12.47	5.97	5.54	5.97	5.54	0.03	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*S0)	# 2627
BUS-0247	MaxTripTime @2.0s	12.47			0.00	0.00	2	0.0000	SWG	VCB	30	45	30	152	0	36	0	(*N2) (*N9) (*N_ka) (*N24) (*S0)	# 2624
BUS-0267	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2630
BUS-0271	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2631
BUS-0276	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2632
BUS-0281	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2633
BUS-0288	SOUTH 751	12.47	1.75	1.60	1.75	1.60	0.1363	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2637
BUS-0291	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2638
BUS-0292	SOUTH 751	12.47	1.73	1.58	1.73	1.58	0.1386	0.0500	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2640
BUS-0293	PD-0055	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 2641
BUS-0293 (PD-0055 LineSide)	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 2653-Line
BUS-0293_1	SOUTH 751	12.47	1.29	1.18	1.17	1.06	0.2998	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*N24) (*S1)	# 2637
BUS-0299	PD-0055_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 2643
BUS-0302	SOUTH 751	12.47	1.77	1.62	1.77	1.62	0.1323	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 2644
BUS-0303	SOUTH 751	0.24	22.22	11.25	22.22	11.25	1.95	0.0500	PNL	VCB	12	14	10	25	195	18	54.2	(*N9) (*S0)	# 2645
BUS-0304	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 2646
BUS-0304_1	SOUTH 751	12.47	1.77	1.62	1.77	1.62	0.1332	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 2647
BUS-0305	SOUTH 751	0.208	32.73	13.49	32.73	13.49	1.95	0.0500	PNL	VCB	12	14	10	25	224	18	67.3	(*N9) (*S0)	# 2648
BUS-0308	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 2649
BUS-0309	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2650
BUS-0312	PD-0009_1	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N9) (*S0)	# 2651
BUS-0313	PD-0009_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*S0)	# 2652
BUS-0314	PD-0009_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.84	(*N9) (*S0)	# 2653
BUS-0320	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2654
BUS-0342	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2655
BUS-0360	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2656
BUS-0366	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2657
BUS-0373	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2658
BUS-0381	PD-0399	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2659

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-0382	PD-0014_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2660
BUS-0389	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 2661
BUS-0398	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 2666
BUS-0399	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.76	(*N9) (*S0)	# 2667
BUS-0408	PD-0063	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 2668
BUS-0408 (PD-0063 LineSide)	PD-0062	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 2681-Line
BUS-0417	PD-0009_1	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 2669
BUS-0418	PD-0009_1	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 2670
BUS-0419	PD-0009_1	12.47	0.29	0.26	0.29	0.26	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.74	(*N9) (*S0)	# 2671
BUS-0420	PD-0009_1	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 2672
BUS-0421	PD-0009_1	12.47	0.28	0.26	0.28	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.73	(*N9) (*S0)	# 2673
BUS-0422	PD-0067	12.47	0.28	0.26	0.28	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 2674
BUS-0422 (PD-0067 LineSide)	PD-0009_1	12.47	0.28	0.26	0.28	0.26	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 2688-Line
BUS-0423	PD-0067	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.72	(*N9) (*S0)	# 2675
BUS-0424	PD-0067	12.47	0.28	0.25	0.28	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.71	(*N9) (*S0)	# 2676
BUS-0434	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2677
BUS-0492	PD-0005_10	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.17	(*N9) (*S0)	# 2678
BUS-0909	SOUTH 751	12.47	1.54	1.40	1.54	1.40	0.1733	0.0500	SWG	VCB	30	45	30	152	18	36	0.41	(*N3) (*S1)	# 2679
BUS-0912	JOHNSON 751	12.47	3.27	3.04	3.27	3.04	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.31	(*S0)	# 2680
BUS-0913	JOHNSON 751	12.47	3.08	2.86	3.08	2.86	0.03	0.0500	SWG	VCB	30	45	30	152	15	36	0.29	(*S0)	# 2681
BUS-0923	PD-0009_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2682
BUS-0928_1	PD-0025_4	12.47	2.89	2.65	2.89	2.65	0.1452	0.0000	SWG	VCB	30	45	30	152	20	36	0.49	(*N3) (*S1)	# 2684
BUS-0932_1	PD-0049_4	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 2687
BUS-0933	PD-0049_4	12.47	0.67	0.62	0.67	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.68	(*N9) (*S0)	# 2688
BUS-0983	PD-0014_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.47	(*N9) (*S0)	# 2691
BUS-1001	JOHNSON 751	12.47	0.66	0.59	0.66	0.59	1.173	0.0500	SWG	VCB	30	45	30	152	32	36	0.99	(*N3) (*S1)	# 2692
BUS-1002	PD-0055_1	12.47	0.69	0.63	0.69	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.71	(*N9) (*S0)	# 2693
BUS-1003	PD-0055_1	12.47	0.68	0.63	0.68	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 2694
BUS-1004	PD-0055_1	12.47	0.68	0.63	0.68	0.63	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.70	(*N9) (*S0)	# 2695
BUS-1029	PD-0031_1	12.47	0.36	0.33	0.36	0.33	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.92	(*N9) (*N24) (*S0)	# 2690
BUS-1275	SOUTH 751	12.47	1.36	1.24	1.34	1.22	0.227	0.0500	SWG	VCB	30	45	30	152	19	36	0.45	(*N3) (*N24) (*S1)	# 2691
BUS-15KV-PDC-FDR	PD-0218	12.47	5.10	4.74	5.10	4.74	1.95	0.0500	SWG	VCB	30	45	30	152	154	36	11.7	(*N9) **** Missing TCC Curve (Lib Info: SEL, 751, 50P/51P, 5A nom., Manual 20120903) (*S1)	# 2420
BUS-15KV-PDC-GEN	TDC 787	12.47	5.16	4.79	1.00	0.93	1.917	0.0833	SWG	VCB	30	45	30	152	86	36	4.74	(*N9) (*S0)	# 2434
BUS-2131	SOUTH 751	12.47	1.63	1.49	1.63	1.49	0.154	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2698
BUS-2132	SOUTH 751	12.47	1.61	1.47	1.61	1.47	0.1583	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2699
BUS-2921	SOUTH 751	12.47	1.62	1.48	1.62	1.48	0.157	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2700

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
BUS-3124	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.137	0.0500	SWG	VCB	30	45	30	152	31	36	0.97	(*N3) (*S1)	# 2703
BUS-3291	PD-0031_1	12.47	0.35	0.32	0.35	0.32	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.89	(*N9) (*N24) (*S0)	# 2698
BUS-3821	SOUTH 751	12.47	1.59	1.45	1.59	1.45	0.1627	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2705
BUS-5KV-G1-G6	PD-0236	4.16	11.03	9.60	6.60	5.75	1.95	0.0500	SWG	VCB	30	45	30	104	226	36	21.4	(*N9) **** Missing TCC Curve (Lib Info: SEL, 751, 50P/51P, 5A nom., Manual 20120903) (*S0)	# 2452
BUS-5KV-G1-G6 (PD-0236 LineSide)	PD-0236	4.16	11.03	9.60	9.62	8.37	1.95	0.0500	SWG	VCB	30	45	30	104	226	36	21.4	(*N9) **** Missing TCC Curve (Lib Info: SEL, 751, 50P/51P, 5A nom., Manual 20120903) (*S1)	# 2454-Line
BUS-5KV-G2-G5	PD-0225	4.16	10.50	9.15	3.09	2.69	1.95	0.0500	SWG	VCB	30	45	30	104	134	36	9.48	(*N9) **** Missing TCC Curve (Lib Info: SEL, 700G, 50P/51P, 5A, 20100521) (*S0)	# 2450
BUS-5KV-G2-G5 (5kv Main LineSide)	5kv Main	4.16	10.50	9.15	3.78	3.30	1.95	0.0500	SWG	VCB	30	45	30	104	222	36	20.9	(*N9) (*S0)	# 2451-Line
BUS-7826	PD-0025_1	12.47	0.25	0.22	0.25	0.22	0.1673	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*N24) (*S1)	# 2703
BUS-8392	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.144	0.0500	SWG	VCB	30	45	30	152	31	36	0.97	(*N3) (*S1)	# 2710
BUS-9881	PD-0025_1	12.47	0.25	0.22	0.25	0.22	0.1684	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*N24) (*S1)	# 2706
BUS-GEN6	PD-0227	4.16	10.98	9.56	8.77	7.64	1.95	0.0500	SWG	VCB	30	45	30	104	225	36	21.3	(*N9) **** Missing TCC Curve (Lib Info: SEL, 700G, 50P/51P, 5A, 20100521) (*S0)	# 2523
BUS-KS-AUB-1240	NC (NE) 751	12.47	7.54	7.00	7.54	7.00	0.03	0.0500	SWG	VCB	30	45	30	152	25	36	0.69	(*S0)	# 2271
BUS-KS-AUB-1270	NC (NE) 751	12.47	6.22	5.78	6.22	5.78	0.03	0.0500	SWG	VCB	30	45	30	152	23	36	0.57	(*S0)	# 2622
BUS-KS-AUB-1525	WEST 751	12.47	4.68	4.35	4.68	4.35	0.03	0.0500	SWG	VCB	30	45	30	152	19	36	0.44	(*S0)	# 2525
BUS-KS-AUB-1647	JOHNSON 751	12.47	8.59	7.97	8.59	7.97	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*S0)	# 2277
BUS-KS-AUB-1648	SOUTH 751	12.47	1.77	1.62	1.77	1.62	0.1323	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 2665
BUS-T3-15KV	TDC 787	12.47	5.14	4.78	4.14	3.85	1.917	0.0833	SWG	VCB	30	45	30	152	155	36	11.8	(*N9) (*S0)	# 2441
BUS-T3-5KV	5kv Main	4.16	10.55	9.20	3.76	3.28	1.95	0.0500	SWG	VCB	30	45	30	104	223	36	21.0	(*N9) (*S0)	# 2454
BUS-T4-15KV	PD-0236	12.47	5.15	4.79	1.13	1.05	1.95	0.0500	SWG	VCB	30	45	30	152	65	36	3.03	(*N9) **** Missing TCC Curve (Lib Info: SEL, 751, 50P/51P, 5A nom., Manual 20120903) (*S0)	# 2445
BUS-T4-5KV	PD-0236	4.16	11.07	9.64	4.39	3.83	1.95	0.0500	SWG	VCB	30	45	30	104	227	36	21.5	(*N9) **** Missing TCC Curve (Lib Info: SEL, 751, 50P/51P, 5A nom., Manual 20120903) (*S1)	# 2456

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
EAST FDR	SEL-751A EAST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2515
END OF BROWNVILLE SEGMENT0	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2715
GRAF - JOHNSON (575)	JOHNSON 751	12.47	0.67	0.60	0.67	0.60	1.131	0.0500	SWG	VCB	30	45	30	152	31	36	0.97	(*N3) (*S1)	# 2714
HOWE - BRAT. UNION (1090)	SEL-751A HOWE FDR	12.47	0.47	0.43	0.47	0.43	1.95	0.0500	SWG	VCB	30	45	30	152	36	36	1.19	(*N9) (*S0)	# 2686
HOWE FDR	SEL-751A HOWE FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2716
JOHNSON FDR	JOHNSON 751	12.47	8.59	7.97	8.59	7.97	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*S0)	# 2717
JUNCTION ENCLOSER	PD-0015_1	12.47	0.41	0.38	0.41	0.38	2	0.0000	SWG	VCB	30	45	30	152	33	36	1.04	(*N9) (*S0)	# 2718
Junction Enclosure	PD-0057_1	12.47	0.68	0.62	0.68	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.69	(*N9) (*S0)	# 2736
NORTH CENTRAL FDR	NC (NE) 751	12.47	8.47	7.86	8.47	7.86	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.77	(*S0)	# 2725
NORTHEAST 1500KVA-2-SEC	PD-0017_7	0.48	26.07	19.54	26.07	19.54	2	0.0000	PNL	VCB	12	14	10	25	275	18	93.6	(*N9) (*S0)	# 2720
NORTHEAST 150KVA-2-PRI	PD-0017_7	12.47	2.78	2.55	2.78	2.55	0.2634	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N3) (*S1)	# 2719
NORTHEAST 150KVA-PRI	PD-0017_11	12.47	2.75	2.52	2.75	2.52	0.2692	0.0000	SWG	VCB	30	45	30	152	29	36	0.87	(*N3) (*S1)	# 2721
NORTHEAST 150KVA-SEC	PD-0017_11	0.48	26.00	19.50	26.00	19.50	2	0.0000	PNL	VCB	12	14	10	25	275	18	93.3	(*N9) (*S0)	# 2722
NORTHEAST 750KVA-PRI	PD-0017_10	12.47	2.77	2.54	2.77	2.54	0.2652	0.0000	SWG	VCB	30	45	30	152	29	36	0.86	(*N3) (*S1)	# 2723
NORTHEAST 750KVA-PRI (PD-0017_10 LineSide)	NORTHWEST (HOSPITAL) 751	12.47	3.51	3.26	3.51	3.26	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.33	(*S0)	# 2746-Line
NORTHEAST 750KVA-SEC	PD-0017_10	0.48	15.12	11.65	15.12	11.65	2	0.0000	PNL	VCB	12	14	10	25	194	18	53.8	(*N9) (*S0)	# 2724
NORTHEAST FDR	NE (IND #2) 751	12.47	8.59	7.97	8.59	7.97	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*S0)	# 2727
NORTHWEST FDR	NORTHWEST (HOSPITAL) 751	12.47	8.60	7.97	8.60	7.97	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*S0)	# 2731
OVH TO UDR	PD-0004_1	12.47	0.49	0.45	0.49	0.45	2	0.0000	SWG	VCB	30	45	30	152	37	36	1.23	(*N9) (*S0)	# 2735
OVH TO UDR CABL1	PD-0055_1	12.47	0.67	0.62	0.67	0.62	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.68	(*N9) (*S0)	# 2736
OVH TO UDR CBL	PD-0050_1	12.47	0.66	0.61	0.66	0.61	2	0.0000	SWG	VCB	30	45	30	152	44	36	1.66	(*N9) (*S0)	# 2737
OVH TO UDR PRI 5	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2738
OVH TO UDR PRI4	PD-0038	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2739
OVH TO UDR_1	PD-0490	12.47	0.69	0.64	0.69	0.64	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.73	(*N9) (*S0)	# 2753
OVH TO UDR_1 (PD-0490 LineSide)	JOHNSON 751	12.47	0.66	0.60	0.66	0.60	1.147	0.0500	SWG	VCB	30	45	30	152	32	36	0.97	(*N3) (*S1)	# 2773-Line
OVH TO UDR_2	PD-0019_5	12.47	0.27	0.25	0.19	0.18	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2754
OVH TO UDR_3	NORTHWEST (HOSPITAL) 751	12.47	3.55	3.30	3.55	3.30	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2755

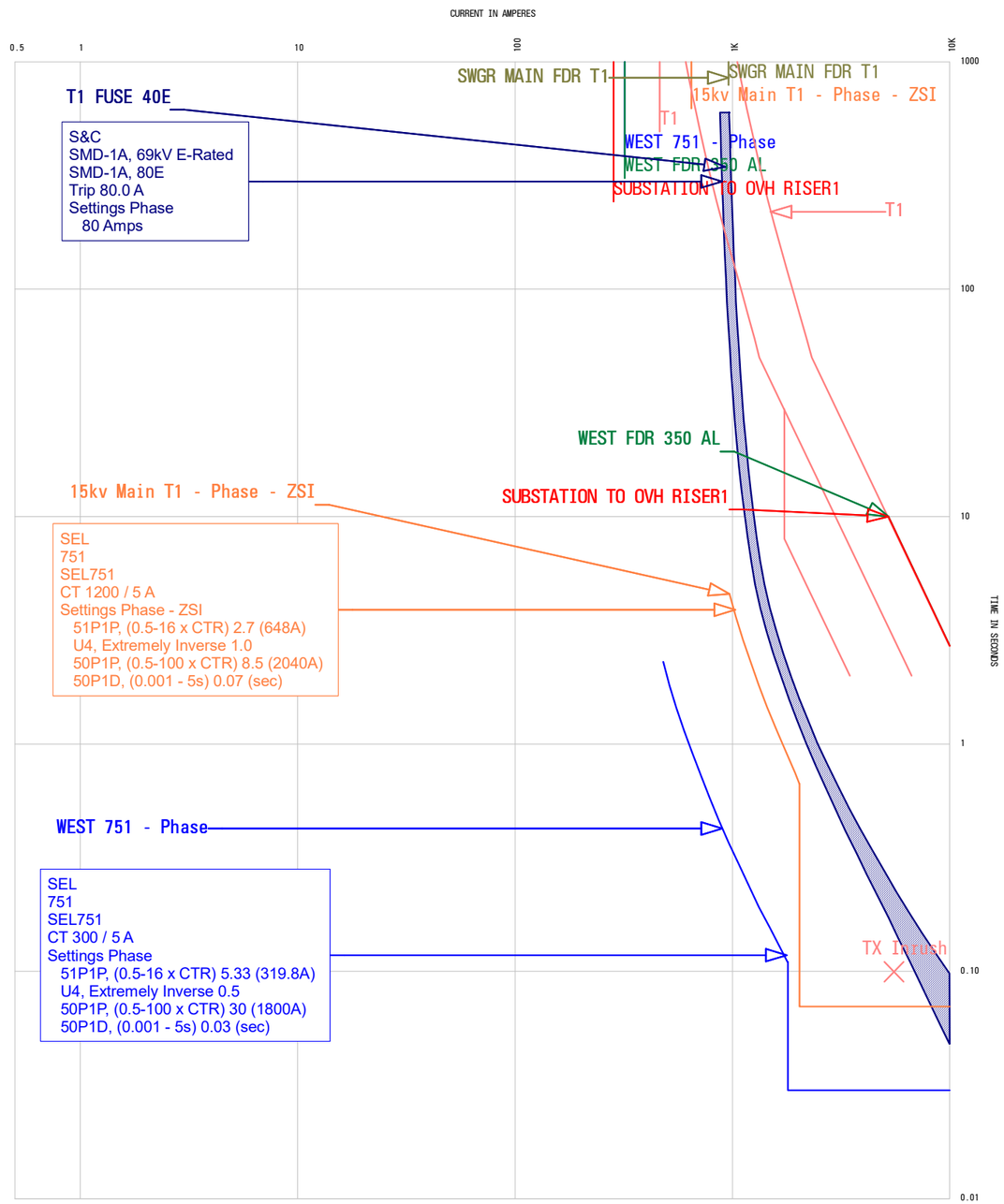
Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
OVH TO UDR_4	SEL-751A SOUTHWEST FDR	12.47	0.61	0.56	0.61	0.56	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.52	(*N9) (*S0)	# 2756
OVH TO UDR1	PD-0009_1	12.47	0.36	0.33	0.36	0.33	2	0.0000	SWG	VCB	30	45	30	152	30	36	0.92	(*N9) (*S0)	# 2741
OVH TO UDR-1 POLE 1140	NORTHWEST (HOSPITAL) 751	12.47	2.96	2.75	2.96	2.75	0.03	0.0500	SWG	VCB	30	45	30	152	14	36	0.28	(*S0)	# 2740
OVH TO UDR1_1	PD-0019_5	12.47	0.27	0.25	0.21	0.19	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2742
OVH TO UDR1_2	PD-0394	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2743
OVH TO UDR2	PD-0027_1	12.47	0.30	0.28	0.30	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2744
OVH TO UDR2_1	PD-0009_1	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2745
OVH TO UDR2_2	PD-0012_8	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2746
OVH TO UDR2_2 (PD-0012_8 LineSide)	PD-0398	12.47	0.59	0.54	0.59	0.54	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.48	(*N9) (*S0)	# 2765-Line
OVH TO UDR3	PD-0029	12.47	0.31	0.29	0.31	0.29	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.80	(*N9) (*S0)	# 2747
OVH TO UDR4	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2748
OVH TO UDR5	PD-0045	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.77	(*N9) (*S0)	# 2749
OVH TO UDR6	PD-0047	12.47	0.30	0.27	0.30	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 2750
OVH TO UDR7	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2751
OVH TO UDR8	PD-0009_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	28	36	0.79	(*N9) (*S0)	# 2752
OVH TO UNG	SOUTH 751	12.47	1.28	1.17	1.15	1.05	0.3061	0.0500	SWG	VCB	30	45	30	152	22	36	0.55	(*N3) (*N24) (*S1)	# 2755
OVH TO URD	SOUTH 751	12.47	1.65	1.51	1.65	1.51	0.1516	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2758
OVH TO URD1	SOUTH 751	12.47	1.63	1.49	1.63	1.49	0.1542	0.0500	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2759
POLE 340	SEL-751A BROWNVILLE FDR	12.47	0.52	0.48	0.52	0.48	1.95	0.0500	SWG	VCB	30	45	30	152	38	36	1.31	(*N9) (*S0)	# 2760
POLE ID 3040	PD-0009_1	12.47	0.29	0.27	0.29	0.27	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.75	(*N9) (*S0)	# 2761
POLE ID 3045	PD-0055	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2762
POLE ID 3090	PD-0055	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2763
POLE ID 740	PD-0008_6	12.47	0.27	0.25	0.11	0.10	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.70	(*N9) (*S0)	# 2764
POLE ID 800	PD-0009_1	12.47	0.47	0.43	0.47	0.43	2	0.0000	SWG	VCB	30	45	30	152	36	36	1.19	(*N9) (*S0)	# 2765
POLE ID 855	PD-0021_4	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2766
POLE ID 865	PD-0020_4	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	26	36	0.70	(*N9) (*S0)	# 2767
POLE ID TAG 1015	NE (IND #2) 751	12.47	3.02	2.80	3.02	2.80	0.03	0.0500	SWG	VCB	30	45	30	152	14	36	0.29	(*S0)	# 2768
POLE TAG ID 1050	PD-0022_6	12.47	3.51	3.22	3.51	3.22	0.1004	0.0000	SWG	VCB	30	45	30	152	18	36	0.41	(*N3) (*S1)	# 2769
POLE TAG ID 1275	SEL-751A HOWE FDR	12.47	0.33	0.30	0.33	0.30	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.83	(*N9) (*S0)	# 0117
POLE TAG ID 1285	SEL-751A HOWE FDR	12.47	0.33	0.30	0.33	0.30	1.95	0.0500	SWG	VCB	30	45	30	152	29	36	0.83	(*N9) (*S0)	# 0118
POLE TAG ID 450	NE (IND #2) 751	12.47	2.69	2.50	2.69	2.50	0.03	0.0500	SWG	VCB	30	45	30	152	13	36	0.26	(*S0)	# 2773
POLE TAG ID 555	SEL-751A EAST FDR	12.47	0.55	0.51	0.55	0.51	1.95	0.0500	SWG	VCB	30	45	30	152	39	36	1.38	(*N9) (*S0)	# 2774
POLE TAG ID 575	PD-0026_4	12.47	3.70	3.40	3.70	3.40	0.0914	0.0000	SWG	VCB	30	45	30	152	18	36	0.39	(*N3) (*S1)	# 2775
POLE TAG ID 615	PD-0021_2	12.47	0.42	0.38	0.42	0.38	0.0986	0.0000	SWG	VCB	30	45	30	152	5	36	0.05	(*N3) (*S1)	# 2776
POLE TAG ID 70	PD-0427	12.47	6.40	5.94	6.40	5.94	0.0138	0.0000	SWG	VCB	30	45	30	152	7	36	0.10	(*S0)	# 2778

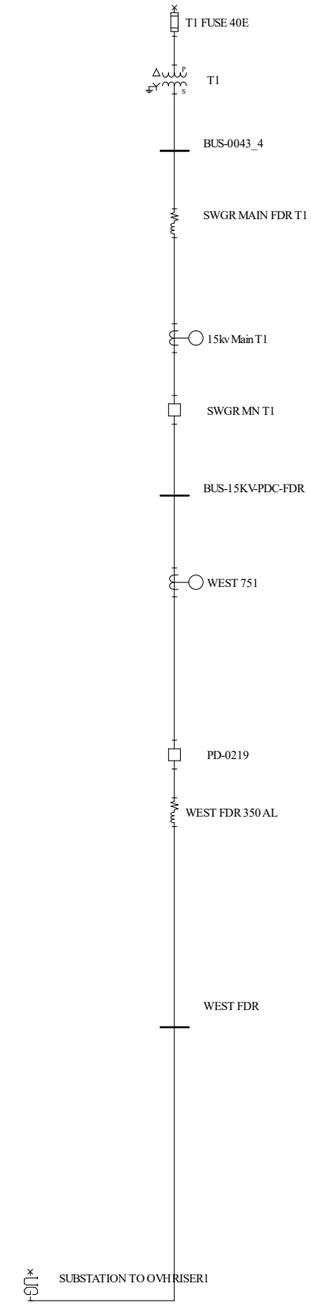
Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
POLE TAG ID 825	NC (NE) 751	12.47	7.24	6.72	7.14	6.63	0.03	0.0500	SWG	VCB	30	45	30	152	25	36	0.66	(*N24) (*S0)	# 2775
POLE TAG ID 845	PD-0031_1	12.47	0.33	0.30	0.33	0.30	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 2776
POLE TAG ID 975	PD-0031_1	12.47	0.34	0.31	0.34	0.31	2	0.0000	SWG	VCB	30	45	30	152	29	36	0.85	(*N9) (*N24) (*S0)	# 2777
POLE-1175	NORTHWEST (HOSPITAL) 751	12.47	3.79	3.52	3.79	3.52	0.03	0.0500	SWG	VCB	30	45	30	152	17	36	0.36	(*S0)	# 2782
POLE-1190	NORTHWEST (HOSPITAL) 751	12.47	3.64	3.38	3.64	3.38	0.03	0.0500	SWG	VCB	30	45	30	152	16	36	0.34	(*S0)	# 2783
Pole-175	SOUTH 751	12.47	1.33	1.21	1.19	1.09	0.2871	0.0500	SWG	VCB	30	45	30	152	22	36	0.54	(*N3) (*N24) (*S1)	# 2780
SOUTH FDR	SOUTH 751	12.47	1.79	1.63	1.79	1.63	0.1305	0.0500	SWG	VCB	30	45	30	152	17	36	0.38	(*N3) (*S1)	# 2520
SOUTH SUB	SEL-787 W2	12.47	2.22	2.03	2.22	2.03	1.487	0.0833	SWG	VCB	30	45	30	152	79	36	4.12	(*N3) (*S1)	# 2786
SOUTH SUB (SEL-751 LineSide)	SEL-787 W1	12.47	5.14	4.71	5.14	4.71	1.031	0.1333	SWG	VCB	30	45	30	152	110	36	6.87	(*N3) (*S0)	# 2790-Line
SOUTH SUB (SEL-787 W2 LineSide)	SEL-751	12.47	2.22	2.03	2.22	2.03	1.487	0.0833	SWG	VCB	30	45	30	152	79	36	4.12	(*N3) (*S1)	# 2789-Line
SOUTH SUB SPARE FDR	SEL-751A SPARE FDR	12.47	2.21	2.03	2.21	2.03	0.2913	0.0500	SWG	VCB	30	45	30	152	30	36	0.89	(*N3) (*S1)	# 2517
SOUTHEAST FDR	SEL-751A SOUTHEAST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2791
SOUTHWEST FDR	SEL-751A SOUTHWEST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2793
SUBSTATION UDR TO OVH	SEL-751A SOUTHWEST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	43	36	1.56	(*N9) (*S0)	# 2790
SWITCH AUB-2070 OVH TO UDR	PD-0003_9	12.47	0.58	0.53	0.58	0.53	2	0.0000	SWG	VCB	30	45	30	152	41	36	1.45	(*N9) (*S0)	# 2791
SWITCH BUS	SEL-751A SOUTHEAST FDR	12.47	0.62	0.57	0.62	0.57	1.95	0.0500	SWG	VCB	30	45	30	152	42	36	1.56	(*N9) (*S0)	# 2793
TAG ID 920	PD-0021_5	12.47	3.62	3.32	3.62	3.32	0.0949	0.0000	SWG	VCB	30	45	30	152	18	36	0.40	(*N3) (*S1)	# 2794
UDR SIZE 1/0 TO 2	PD-0490	12.47	0.69	0.64	0.69	0.64	2	0.0000	SWG	VCB	30	45	30	152	45	36	1.73	(*N9) (*S0)	# 2796
UDR TO OVH PRI	PD-0009_6	12.47	0.25	0.23	0.25	0.23	2	0.0000	SWG	VCB	30	45	30	152	24	36	0.65	(*N9) (*S0)	# 2797
UDR TO OVH PRI4	PD-0037	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.78	(*N9) (*S0)	# 2798
UDR TO OVH1	PD-0027_3	12.47	0.27	0.25	0.27	0.25	2	0.0000	SWG	VCB	30	45	30	152	25	36	0.69	(*N9) (*S0)	# 2799
UDR TO OVH2	PD-0027_1	12.47	0.31	0.28	0.31	0.28	2	0.0000	SWG	VCB	30	45	30	152	27	36	0.79	(*N9) (*S0)	# 2800
URD TO OVH	NORTHWEST (HOSPITAL) 751	12.47	7.71	7.16	7.71	7.16	0.03	0.0500	SWG	VCB	30	45	30	152	26	36	0.71	(*S0)	# 2801
URD-0313	SOUTH 751	12.47	1.78	1.62	1.78	1.62	0.132	0.0500	SWG	VCB	30	45	30	152	17	36	0.39	(*N3) (*S1)	# 2802
WEST FDR	WEST 751	12.47	8.58	7.96	8.58	7.96	0.03	0.0500	SWG	VCB	30	45	30	152	27	36	0.78	(*S0)	# 2808
For additional information refer to NFPA 70 E, Standard for Electrical Safety in the Workplace.																		(*N_ka) - Out of IEEE 1584 kA Range. Lee Equation Used. Consider NESC/EPRI method to compare	

Bus Name	Protective Device Name	Bus kV	Bus Bolted Fault (kA)	Bus Arcing Fault (kA)	Prot Dev Bolted Fault (kA)	Prot Dev Arcing Fault (kA)	Trip/ Delay Time (sec.)	Breaker Opening Time/Tol (sec.)	Equip Type	Electrode Config	Box Width (in)	Box Height (in)	Box Depth (in)	Gap (mm)	Arc Flash Boundary (in)	Working Distance (in)	Incident Energy (cal/cm2)	PPE Level / Notes (*N)	Label #
																		(*N2) < 80% Cleared Fault Threshold	
																		(*N3) - Arcing Current Low Tolerances Used	
																		(*N9) - Max Arcing Duration Reached	
																		(*N24) - Non-3-Phase Bus	
																		IEEE 1584 2018 Bus + Line Side - Unbalanced/Single Phase Fault80% Cleared Fault Threshold, mis-coordination not checked	
																		Worst Case:	
																		(*S0) - Base Project	
																		(*S1) - Gens Only	
																		(*S2) - OPPD Only	

Appendix B

Protective Device Time Current Curves

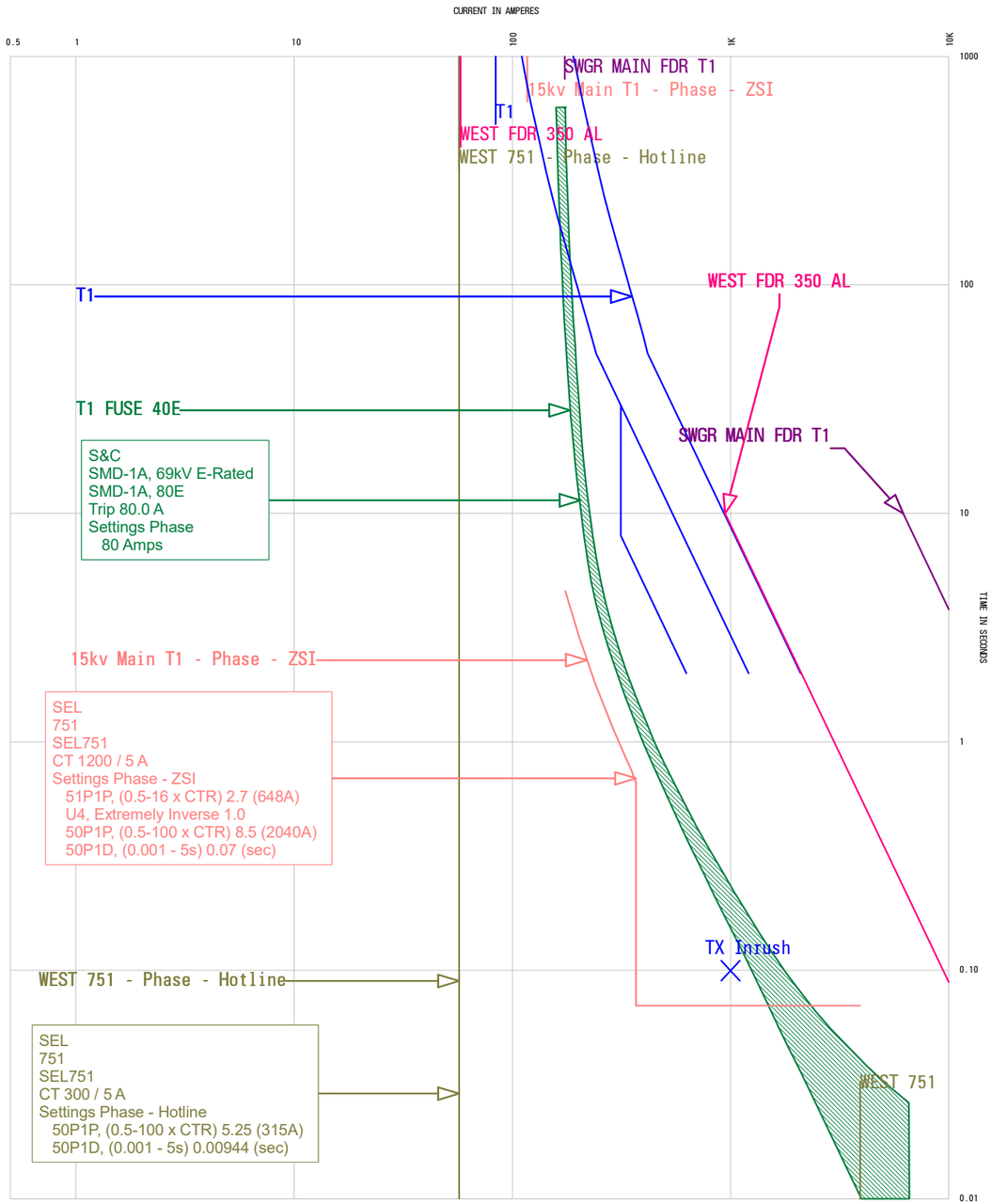


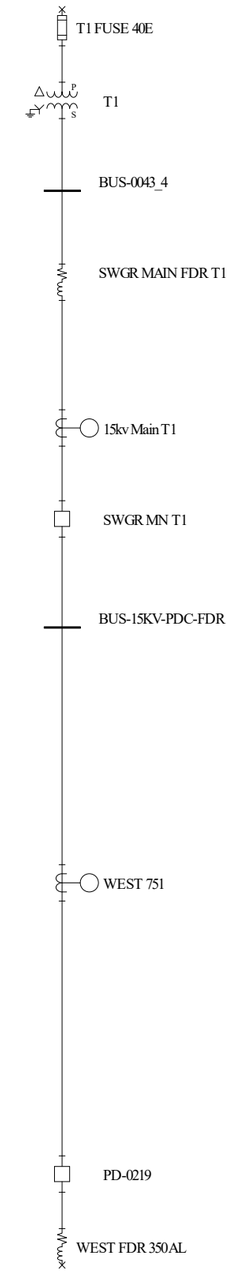


x 1

TCC Name: 15kV West Feeder Phase
Oneline: 15kV West Feeder Phase

Reference Voltage: 12470

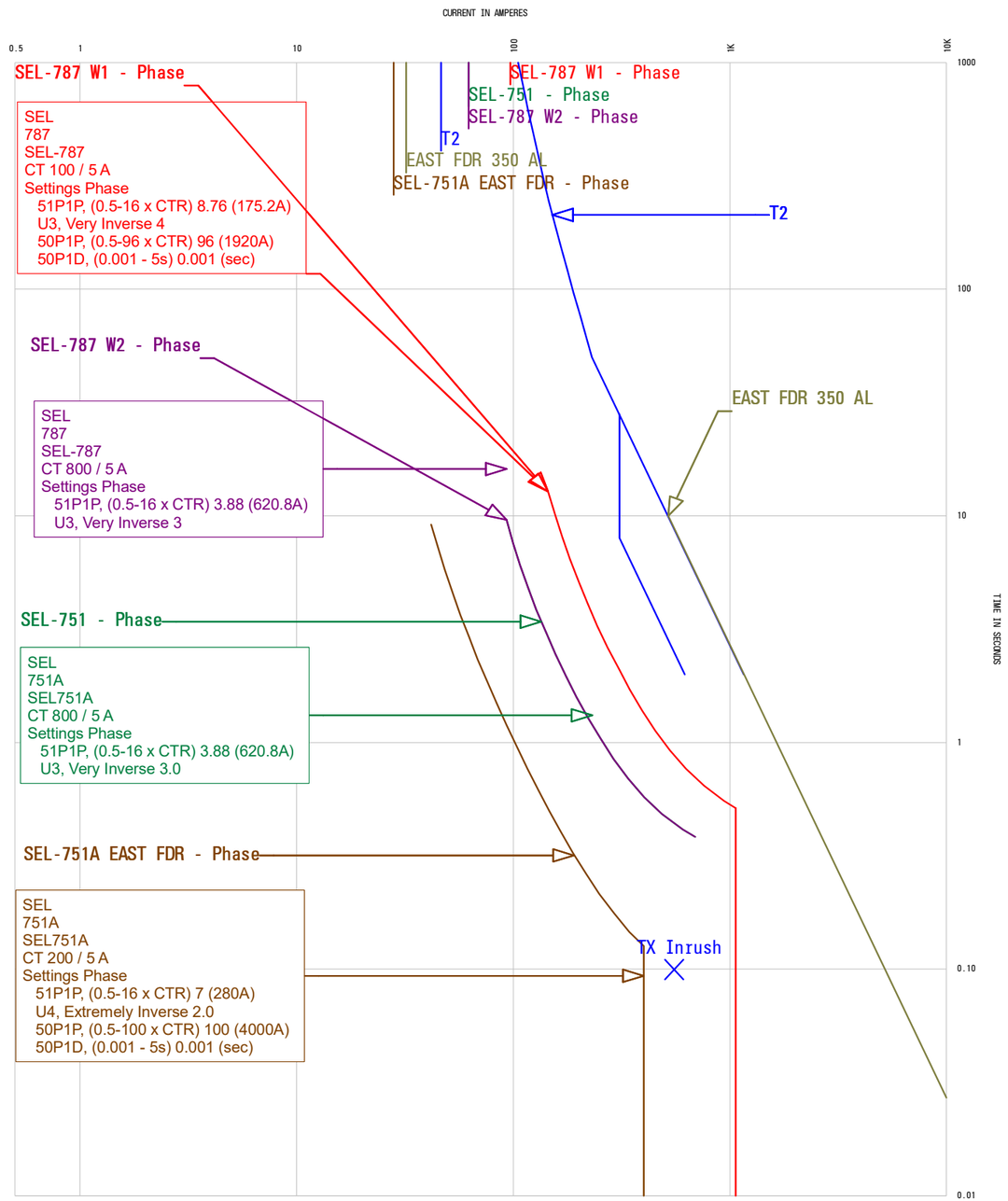


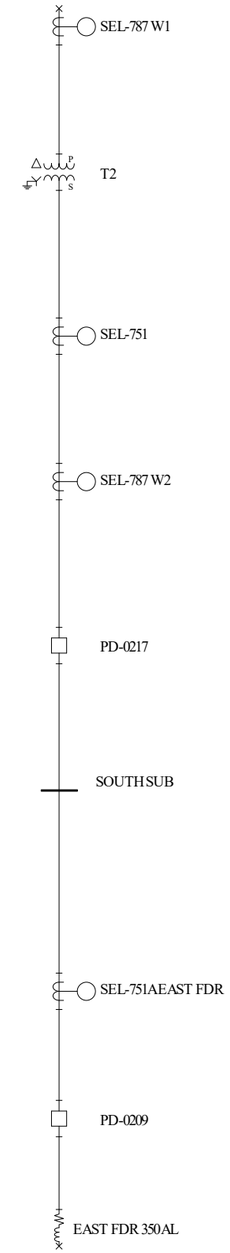


x 1

TCC Name: 15kV West Feeder Phase Hotline
Oneline: 15kV West Feeder Phase Hotline

Reference Voltage: 69000

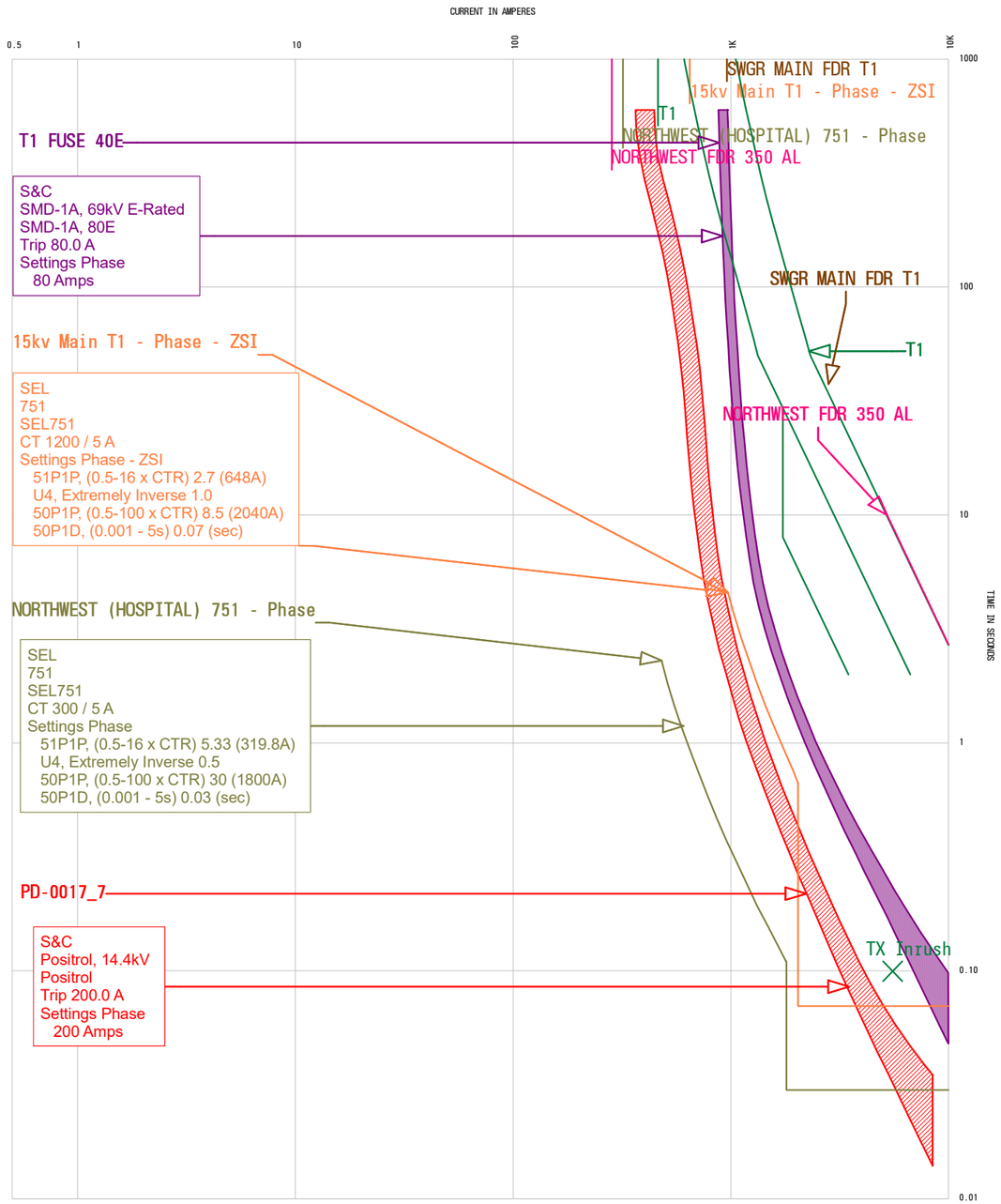


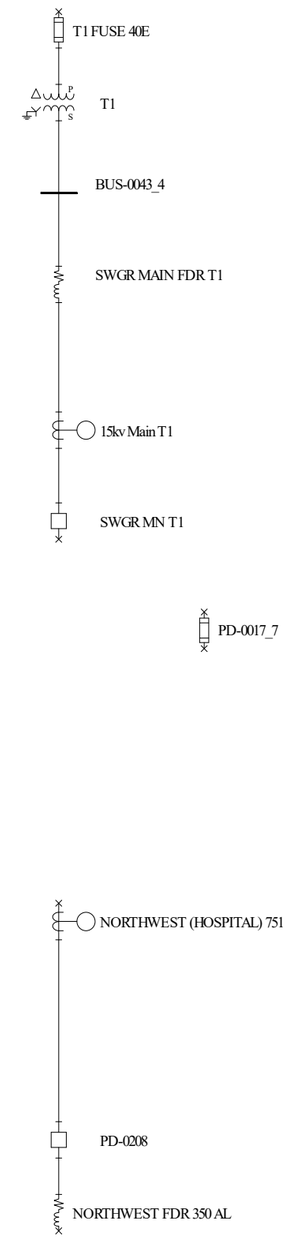


x 10

TCC Name: 15kV South Sub Feeder Phase
Oneline: 15kV South Sub Feeder Phase

Reference Voltage: 12470

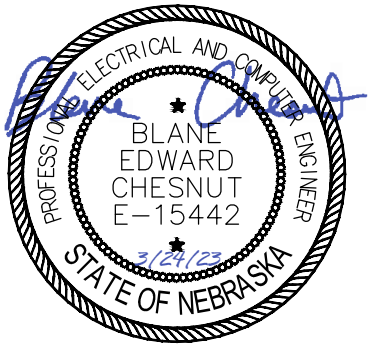




x 1

TCC Name: 15kV NW Feeder Phase
Oneline: 15kV NW Feeder Phase

Reference Voltage: 12470


PROFESSIONAL ELECTRICAL AND COMPUTER ENGINEER
BLANE
EDWARD
CHESNUT
E-15442
3/24/23
STATE OF NEBRASKA

Great Plains Appraisal, Inc.
PO BOX 6415 • Lincoln, NE 68506-0415
(402) 476-1144
www.gpappraisal.com

Cody Gerdes, MAI
Lori L. Johnson, MAI
Jason L. Pickerel, MAI

Date of Agreement: Monday, April 3, 2023

David Hunter
Auburn Board of Public Works
1600 O Street
Auburn, NE 68305
dhunter@auburnbpw.com

Contact: Richard or Jane Andrew

Cody Gerdes, MAI
President, Great Plains Appraisal
402-476-1144
cgerdes@gpappraisal.com

PROFESSIONAL SERVICE AGREEMENT ("Agreement")

This Professional Services Agreement (this "Agreement") is made and entered into on April 3, 2023 (the "Effective Date"), by and between Great Plains Appraisal and Auburn Board of Public Works (herein referred to as "Client").

Project Name	Andrew Auburn Easements
Property Identification	1509 F St, Auburn, NE 68305
Property Type	Land
Property Contact	Richard or Jane Andrew
Interest Valued	Market Value - Fee Simple
Intended User(s)	The appraisal will be prepared for the above-mentioned client. Intended users include the client and **Angelo Ligouri, County Attorney, Nemaha County, 1805 N St. Auburn, NE 68305** *Note: No other users are intended by Appraiser. Appraiser shall consider the intended users when determining the level of detail to be provided in the Appraisal Report.* *The client is also hereby informed that if this engagement is directly with the owner of the Property, the Appraisal may not be accepted by many federally insured lenders due to FIRREA Compliance and would likely not be accepted for future financing of said property.*
Intended Use	The report to be performed under this Agreement ("Appraisal") is intended for Acquisition/Disposition. *Note: No other use is intended by Appraiser. The intended use as stated shall be used by Appraiser in determining the appropriate Scope of Work for the assignment.*
Type of Value	Before and after with proposed sanitary sewer easements
Date of Value	Date of inspection
Report Type	Appraisal Report
Level of Analysis	Summary
Professional Fee	**$4,400 for appraisal, $300/hour for testimony, depositions, travel, and prep as needed**
Expenses	Fees include all associated expenses with written appraisal.
Payment Terms	Appraiser shall invoice Client for services rendered pursuant to this Agreement based upon the fees specified in this Agreement. Appraiser's invoices are considered due upon receipt by Client and shall be deemed delinquent if not paid within five (5) days of the date of Appraiser's invoice.

SCOPE OF WORK

Site Inspection	on-site
Valuation Approaches	Appraiser will provide the Appraisal in accordance with Uniform Standards of Professional Appraisal (USPAP), The Code of Professional Ethics of the Appraisal Institute, Standards of Professional Appraisal Practice of the Appraisal Institute, and State Licensing Laws. Appraiser will research relevant market data, and perform analysis to the extent necessary to produce credible appraisal results. Appraiser anticipates developing the following valuation approaches: ▸ Sales Comparison Approach The scope of work will be included in the Appraisal. A copy of the Assumptions and Limiting Conditions, which appear in the Appraisal, is available upon request. *Note: Appraiser shall use all approaches necessary to develop a credible opinion of value.*
Delivery	**5-6 weeks (effective from date of 50% retainer or signed/returned engagement contract, whichever is later)**
Number of Reports	One (1) Electronic Final Appraisal
Acceptance Date	These specifications are subject to modification if this Agreement is not accepted within 5 business days from the date of this letter.

PROPERTY DATA REQUEST

Please forward any additional materials you would consider relevant in the analysis of the subject property. Such items may include, as applicable, an accurate property description, site survey, current rent roll, copies of leases, at least three years of historical operating statements, purchase and sale agreement, title report, any environmental reports or other third party reports, or any other sources of information known to exist that may impact the valuation of the property.

Our ability to honor the terms of this Agreement will require Client's response within five (5) business days. If you have questions regarding the enclosed, please feel free to contact me. Great Plains Appraisal appreciates this opportunity to be of service to you on this assignment and looks forward to serving you. If you have additional questions, please contact us.

I, David Hunter, agree to the above stated terms and authorize Great Plains Appraisal to prepare the above referenced appraisal.

_____ Date: _____

David Hunter

Respectfully,

GREAT PLAINS APPRAISAL

Cody Gerdes, MAI
President, Great Plains Appraisal

TERMS AND CONDITIONS

CONFIDENTIALITY

Appraiser shall not provide a copy of the written Appraisal Report to, or disclose the results of the appraisal prepared in accordance with this Agreement to, any party other than Client, unless Client authorizes, except as stipulated in the Confidentiality Section of the Ethics Rule of the Uniform Standards of Professional Appraisal Practice (USPAP).

USE OF EMPLOYEES OR INDEPENDENT CONTRACTORS

Appraiser may use employees or independent contractors at Appraiser's discretion to complete the assignment, unless otherwise agreed by the parties. Notwithstanding, Appraiser shall sign the written Appraisal Report and take full responsibility for the services provided as a result of this Agreement.

SERVICES NOT PROVIDED

The fees set forth in this Agreement apply to the appraisal services rendered by Appraiser as set forth in this Agreement. Unless otherwise specified herein, Appraiser's services for which the fees in this Agreement apply shall not include meetings with persons other than Client or Client's agents or professional advisors; Appraiser's deposition(s) or testimony before judicial, arbitration or administrative tribunals; or any preparation associated with such depositions or testimony. Any additional services performed by Appraiser not set forth in this Agreement will be performed on terms and conditions set forth in an amendment to this Agreement, or in a separate agreement.

TESTIMONY AT COURT OR OTHER PROCEEDINGS

Unless otherwise stated in this Agreement, Client agrees that Appraiser's assignment pursuant to this Agreement shall not include Appraiser's participation in or preparation for, whether voluntarily or pursuant to subpoena, any oral or written discovery; sworn testimony in a judicial, arbitration or administrative proceeding; or attendance at any judicial, arbitration or administrative proceeding relating to this assignment.

CHANGES TO AGREEMENT

Any changes to the assignment as outlined in this Agreement shall necessitate a new Agreement. The identity of the Client, intended users, or intended use; the date of value; type of value; or property appraised cannot be changed without a new Agreement.

CANCELLATION

Client may cancel this Agreement at any time prior to Appraiser's delivery of the Appraisal Report upon written notification to Appraiser. Client shall pay Appraiser for work completed on assignment prior to Appraiser's receipt of written cancellation notice, unless otherwise agreed upon by Appraiser and Client in writing.

GOVERNING LAW AND JURISDICTION

This Agreement shall be governed by the law of the state in which Appraiser's office as specified in this Agreement is located, exclusive of that state's choice of law rules. The parties agree that any legal proceeding brought by either party to interpret or enforce this Agreement, or to enforce an arbitration award entered pursuant to this Agreement, shall be brought in a state or federal court having jurisdiction over the location of Appraiser's office as specified in this Agreement, and the parties hereby waive any objections to the personal jurisdiction of said court.

APPRAISER INDEPENDENCE

Appraiser cannot agree to provide a value opinion that is contingent on a predetermined amount. Appraiser cannot guarantee the outcome of the assignment in advance. Appraiser cannot ensure that the opinion of value developed as a result of this Assignment will serve to facilitate any specific objective of Client or others or advance any particular cause. Appraiser's opinion of value will be developed competently and with independence, impartiality and objectivity.

NOTICES

Any notice or request required or permitted to be given to any party shall be given in writing and shall be delivered to the receiving party by: a) registered or certified mail, postage prepaid; (b) overnight courier, such as Federal Express, United Parcel Service or equivalent; or (c) hand delivery. The address for delivery of any notice shall be the address for the party as specified in this Agreement, or at such other address as party may designate by written notice to the other party in conformance with this paragraph. Unless otherwise specified herein, notice shall be effective the date it is postmarked or given to a third party for delivery to the receiving party, whether or not the receiving party signs for or accepts delivery of such notice.

NO THIRD-PARTY BENEFICIARIES

Nothing in this Agreement shall create a contractual relationship between Appraiser or Client and any third party, or any cause of action in favor of any third party. This Agreement shall not be construed to render any person or entity a third party beneficiary of this Agreement, including, but not limited to, any third parties identified herein.

MEDIATION & ARBITRATION

In the event of a dispute concerning the subject matter of this Agreement, the parties shall in good faith attempt to resolve such dispute by negotiation between the parties' principals, or, if such negotiation is unsuccessful, by mediation conducted by a third-party mediator. If such mediation results in an impasse, the parties shall submit their dispute to binding arbitration. Such mediation or, if necessary, binding arbitration shall be conducted pursuant to

the mediation procedures or the commercial arbitration rules of the American Arbitration Association. Any arbitration shall be conducted in the city in which Appraiser's office as specified herein is located. The parties shall share equally the costs of any mediation. In the event of binding arbitration, the arbitrators shall, in addition to any relief appropriate to be awarded to the prevailing party, enter an award in favor of the prevailing party for that party's costs of the arbitration, including the party's reasonable attorneys' fees and arbitration expenses incurred in prosecuting or defending the arbitration proceeding. Subject to the right of the prevailing party to recover its share of the costs of the arbitration services pursuant to the arbitrator's award, the costs of the arbitration services shall be borne equally by the parties. If the prevailing party seeks judicial confirmation of any arbitration award entered pursuant to this Agreement, the court shall, in addition to any other appropriate relief, enter an award to the prevailing party in such confirmation proceeding for its reasonable attorneys' fees and litigation expenses incurred in confirming or successfully opposing the confirmation of such an award.

SPECIAL OR CONSEQUENTIAL DAMAGES

Neither party shall under any circumstances be liable to the other party for special, exemplary, punitive or consequential damages, including, without limitation, loss of profits or damages proximately caused by loss of use of any property, whether arising from either party's negligence, breach of the Agreement or otherwise, whether or not a party was advised, or knew, of the possibility of such damages, or such possibility was foreseeable by that party. In no event shall Appraiser be liable to Client for any amounts that exceed the fees and costs paid by Client to Appraiser pursuant to this Agreement.

ASSIGNMENT

Neither party may assign this Agreement to a third party without the express written consent of the other party, which the non-assigning party may withhold in its sole discretion. In the event this Agreement is assigned by mutual consent of the parties, it shall become binding on the assigning party's permitted assigns.

SEVERABILITY

In the event any provision of this Agreement shall be determined to be void or unenforceable by any court of competent jurisdiction, then such determination shall not affect any other provision of this Agreement and all such other provisions shall remain in full force and effect. Template for Agreement for Professional Valuation Services

CLIENT'S DUTY TO INDEMNIFY APPRAISER

Client agrees to defend, indemnify and hold harmless Appraiser from any damages, losses or expenses, including attorneys' fees and litigation expenses at trial or on appeal, arising from allegations asserted against Appraiser by any third party that if proven to be true would constitute a breach by Client of any of Client's obligations, representations or warranties made in this Agreement, or any violation by Client of any federal, state or local law, ordinance or regulation, or common law (a "Claim"). In the event of a Claim, Appraiser shall promptly notify Client of such Claim, and shall cooperate with Client in the defense or settlement of any Claim. Client shall have the right to select legal counsel to defend any Claim, provided that Appraiser shall have the right to engage independent counsel at Appraiser's expense to monitor the defense or settlement of any Claim. Client shall have the right to settle any Claim, provided that Appraiser shall have the right to approve any settlement that results in any modification of Appraiser's rights under this Agreement, which approval will not be unreasonably withheld, delayed or conditioned.

CLIENT'S REPRESENTATIONS AND WARRANTIES

Client represents and warrants to Appraiser that (1) Client has all right, power and authority to enter into this Agreement; (2) Client's duties and obligations under this Agreement do not conflict with any other duties or obligations assumed by Client under any agreement between Client and any other party; and (3) Client has not engaged Appraiser, nor will Client use Appraiser's Appraisal Report, for any purposes that violate any federal, state or local law, regulation or ordinance or common law.

EXTENT OF AGREEMENT

This Agreement represents the entire and integrated agreement between the Client and Appraiser and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by a written instrument signed by both Client and Appraiser. This Agreement includes the following Appendices, which are incorporated into, and made a part of this Agreement:

Appendix A: Extraordinary Assumptions and Hypothetical Conditions contained within the appraisal report

Appendix B: Information Request

Agenda Item #11

PO Box 388 Litchfield, MI 49252-0388 Phone: 517.542.2903 www.JescoOnline.com

Customer Quote: 114724
Date: 04/11/23
Page: 1
Product Line: D
Revision Status: REVISED
Quoted By: ERIC BAUMGARTNER

Bill To: *MISC* Customer Code: XXXEND

* (NEW ACCOUNT)
*
*
*

Ship To:

AUBURN BOARD OF PUBLIC WORKS
ALLEN SLATER 402-414-2667
aslater@auburnbpw.com
AUBURN NE 68305
NEBRASKA USA

Customer RFQ	Date Wanted	Ship-Via	F.O.B.	Payment Terms	Sales Rep	Sales Tax
	A.S.A.P.	RDWY/PREPA	Litchfield, MI	CREDIT REVIEW	EB / /	NonTax

Item Code	Description	Qty Quoted	Price	Net Each	Extended Price
	SALES & USE TAX NOT INCLUDED				
	SPECIAL ORDER, NON-RETURNABLE,NON-CANCELLABLE				
	** FREIGHT HAS BEEN ESTIMATED & WILL GET AN				
	UPDATED FREIGHT COST AT TIME OF SHIPMENT *				

	PM6138 VISTA GREEN PAINT (DUMPERS/CARTS)				
211551	JESCOHUSKYDUMPER 2 CU YD 4000# CAP	1	1963.00	1963.00	1963.00
	EXTRA HEAVY DUTY 64"L X 59.5"W X 46"H				
	(68.5"OL)				
	2.5" X 48" FORK OPENING STACKABLE				
	** WITH TRIP ROPE & SAFETY CHAIN **				
220064	DUMPER LID FOR 2 YD REGULAR TYPE A OR C	1	464.00	464.00	464.00
	*** SEE NOTES BELOW ***				
	SELECT STYLE A OR STYLE C **				

240231	DUMPER CASTER SET 2R & 2S 6X2 PH 4000# CAP	1	173.00	173.00	173.00
	** CASTERS WILL ADD 7.5" TO OVERALL HT **				
230150	DUMPER WELDED WATER TIGHT 100% BODY SEAMS	1	90.00	90.00	90.00
230145	DUMPER DRAIN W/1" PLUG INSTALLED__BACK LEFT__	1	85.00	85.00	85.00
	SIDE BACK CORNER				
	**********				
	WELDED WATERTIGHT 6"UP ONLY				
	**********				
	** DOCK TO DOCK W/O LIMITED OR RESTRICTED				
	DELIVERY **				
	LEAD TIME: 7-10 DAYS				
	QUOTE VALID 10 DAYS				
				WT	SQ FT
			SUBTOTAL	841	

CONTINUED ...

PO Box 388 Litchfield, MI 49252-0388 Phone: 517.542.2903 www.JescoOnline.com

Agenda Item #11

Customer Quote: 114724
Date: 04/11/23
Page: 2
Product Line: D
Revision Status: REVISED
Quoted By: ERIC BAUMGARTNER

Bill To: *MISC* Customer Code: XXXEND

* (NEW ACCOUNT)
*
*
*

Ship To:

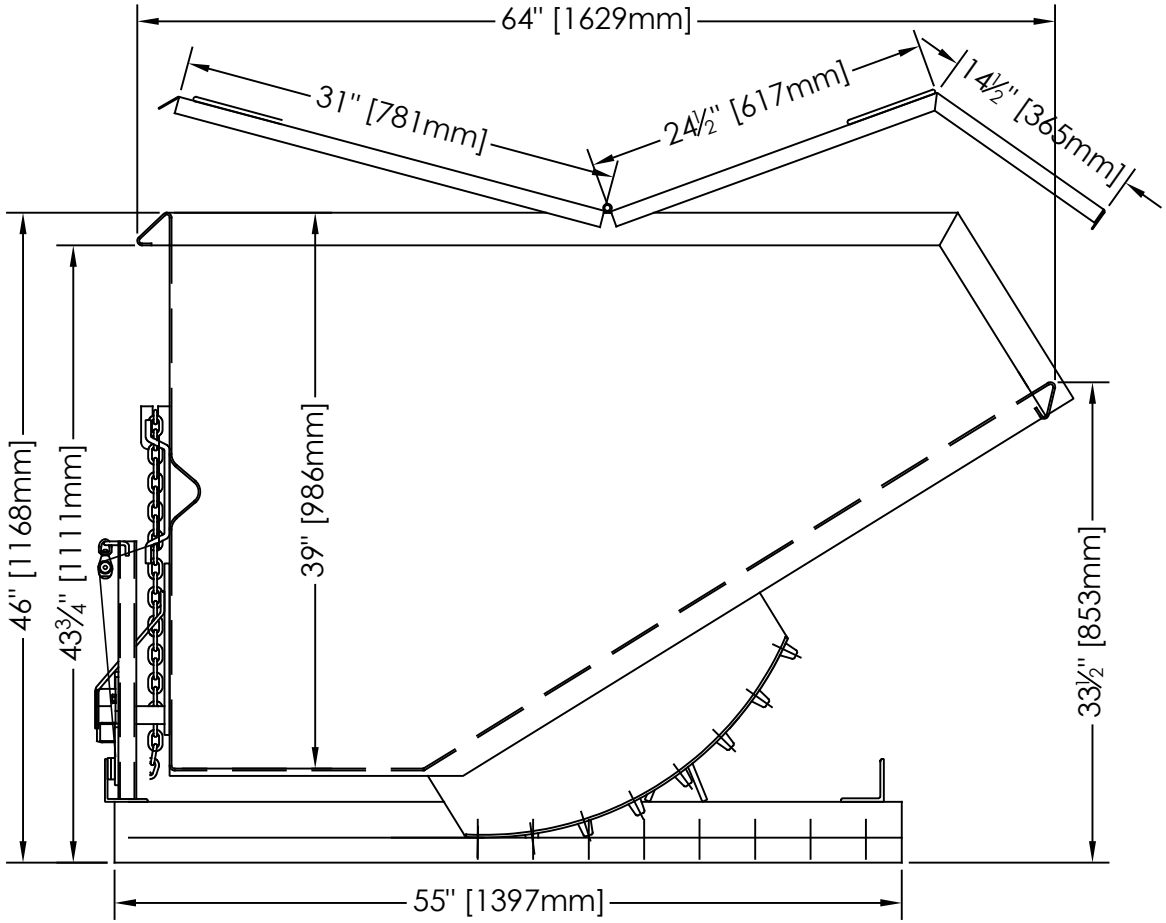
AUBURN BOARD OF PUBLIC WORKS
ALLEN SLATER 402-414-2667
aslater@auburnbpw.com
AUBURN NE 68305
NEBRASKA USA

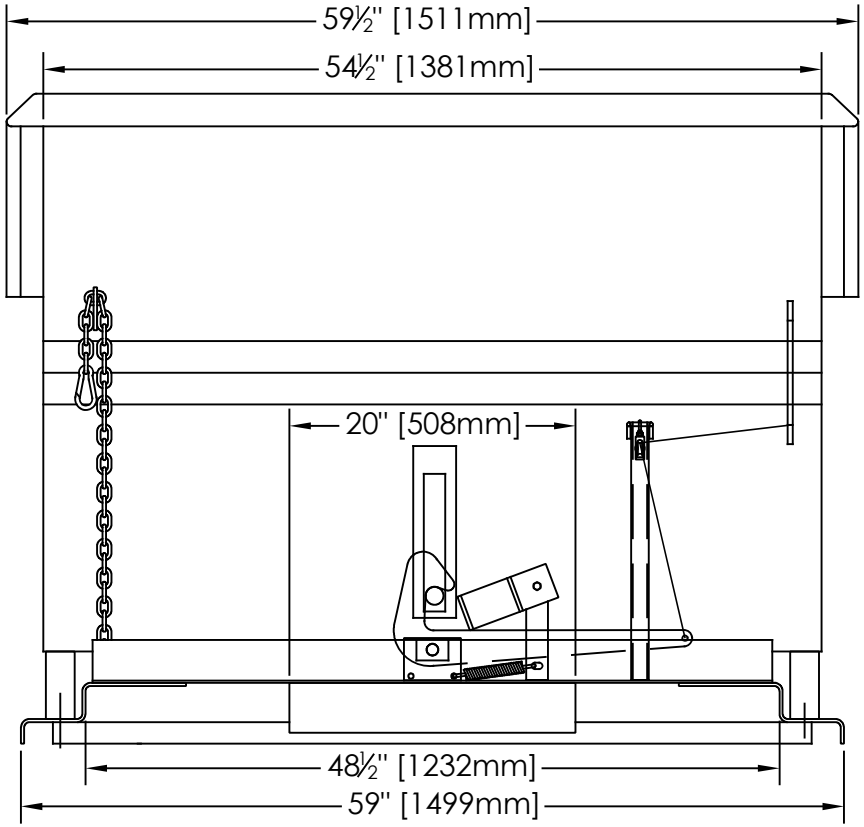
Customer RFQ	Date Wanted	Ship-Via	F.O.B.	Payment Terms	Sales Rep	Sales Tax
	A.S.A.P.	RDWY/PREPA	Litchfield, MI	CREDIT REVIEW	EB / /	NonTax

Item Code	Description	Qty Quoted	Price	Net Each	Extended Price

Subtotal	2775.00
Freight Chrg	529.00
(US DOLLARS) TOTAL AMOUNT	3304.00

jesco®
~Since 1932~





FIRST PART
APPROVAL REQUIRED
APPROVED BY _____
DATE

DESCRIPTION JESCOHUSKYDUMPER® - 2 YD DUMPER C-STYLE LID - FORMED BASE		
DRAWN BY JP	SCALE	MATERIAL
CHK'D	DATE 10/24/14	DRAWING NO. 2 YD - C LID
TRACED	APP'D	

NOTICE OF SATISFIED DELINQUENCIES

TO WHOM IT MAY CONCERN, the following described real estates have water and sewer service from the Auburn Board of Public Works (BPW), 1600 O Street, Auburn NE 68305 on which the included list of water and sewer debts have been paid in full and are fully and completely satisfied;

Property Owned by:

Lechner, Robert John – REED & GILMORES ADD TO AUBURN BLCK 2LTS 4, 5, 6 & E1/2 VAC ALLEY
1218 N ST, Nemaha County, Nebraska

(Physical address: 1218 N Street, Auburn, NE – Account #5004200.01)

NOW THEREFORE BE IT RESOLVED by the Board of Public Works of the City of Auburn, Nebraska to pass and approve this NOTICE this 19th day of April 2023.

_____
Chairman

ATTEST:

_____
Board Member

STATE OF NEBRASKA, COUNTY OF NEMAHA)) ss.

On _____, 2023, before me, a Notary Public in and for Nemaha County in the State of Nebraska, personally appeared a Board Member of Board of Public Works, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

_____
Tamara L. Westhart, Notary Public

Quote Number	00006876	Created Date	3/27/2023
Payment Type	Fixed	SAP sales order number	941363
		Expiration Date	6/23/2023
Prepared By	Bonnie Walker	Contact Name	Dave Hunter
Email	bonnie.walker@irco.com		
Phone	(724) 239-1607		
Quote To	63982 Highway 136 Auburn, Nebraska 68305 United States		

Product Details

Product Line	CF
Channel Partner	MORSE EQUIPMENT

Gardner Denver offers a service program to help our customers enjoy enhanced reliability from their Gardner Denver blowers and prevent costly down time.

This program reflects the desire of Gardner Denver Service Personnel to prevent equipment failure and to solve root cause blower problems. Blower problems are often the result of operational, system, installation, or other peripheral causes that are easily determined by personnel trained and certified by Gardner Denver. Participants in this program benefit from the combined knowledge and experience within the Gardner Denver Engineered Products Division.

Participants in this program will receive the attention of Gardner Denver Factory Service Personnel who will make an annual or semi-annual service call (usually dictated by the severity of the blower service), at which time the following will be performed:

1. Bearing replacement as needed for PMA
2. Inspection and evaluation of shaft seals – replaced as needed
3. Inspection and evaluation of bearing housing, reservoir, retainers, bearing hardware, gaskets, shims,spacers and associated hardware
4. Lubrication change and oiler inspection, if applicable
5. Coupling inspection and evaluation
6. Laser shaft alignment to hot condition
7. Motor evaluation, amp check
8. Blower operational check; vibration readings, bearing temperature readings, surge check and recommendation for correction, if needed
9. Installation inspection for pipe misalignment, foundation deficiencies with recommendations
10. Valve inspection for proper operation
11. Controls inspection and operational adjustments
12. Filter inspection and recommendations (Customer to clean filter but must keep a record)

At the conclusion of the service detailed above, the customer will be provided with a comprehensive report complete with a vibration report and recommendations. The cost of this service includes bearing replacement for each blower as necessary and seal inspection for each blower. In the event a bearing change is not recommended the bearing kit will remain with the customer for renewed PMA's or for future use as consumable parts. If any additional parts are identified as problematic, their replacement will be offered at a 20% subscriber discount. If the blower is in or is restored to a warrantable condition and routine maintenance is performed, a one-year Gardner Denver Factory Warranty will be applied to the blower. This partnership program between Gardner Denver and the owner requires periodic maintenance by the operator in accordance with the O&M manual. This service is offered in accordance with our standard Terms & Conditions attached.

If the blower cannot be placed in warrantable condition on-site, we will recommend that it be sent to the factory or to a local authorized service center for a complete disassembly and inspection, after which a complete repair proposal will be made. Any required motor work should be completed prior to the arrival of the Gardner Denver Service Technician to preclude return trips.

Factory warranty will cover defects in material and workmanship of the blower or failure resulting from services provided. We will make every effort to give warranty repairs priority status if necessary. Failures beyond Gardner Denver's control are not covered. These include such circumstances as motor failures, blower failures resulting from surge conditions, unusual damage to the blower or accessories, product misuse, pre-existing conditions, improper maintenance or operation, acts of God, or other incidental situations. Gardner Denver will utilize every effort to assist the customer should any type of problem arise.

It is the responsibility of the customer to provide a safe working environment for the service technician.

Price below to include all equipment list on next page

Total Amount	USD 12,067.24

PLEASE SUBMIT PURCHASE ORDER TO:

Gardner Denver Nash

Service.CF@irco.com

Please note as this is an estimated quote, actual hours and expenses would be invoiced. This service is offered in accordance with our standard rates, and Gardner Denver T & C's apply.

Please note that once a Service Visit has been scheduled, time has been reserved in the schedule exclusively for you. If the visit is cancelled less than 24 hours before it is scheduled to take place, a minimum cancellation fee of $500 or 10% of the total visit (whichever is greater) will be charged.

Emergency Service Rates
Service rates for emergency field service requests (typically 2 weeks or less from request to departure) will incur 20% for labor and travel rates before a technician or engineer departs and will be communicated in advance.

To avoid a cancellation fee, please provide notice at least 24 hours prior to your appointment.

You can cancel or reschedule an appointment by emailing us at: Service.CF@irco.com or calling 1-800-GDNASH1 (1-877-436-2741)

Asset	Serial Number	Serial Description	Product Model
A-0132989	P012775	P012775 -	732
A-0248226	P012776	P012776 -	732
A-0248227	P012777	P012777 -	732

By signing below, customer agrees to the Terms and Conditions of printed documentation" below the amounts"

Municipal Supply, Inc.

Municipal, Contractors & Industrial Supplies
21644 William Circle
402-408-0500
Gretna, NE 68028
1-844-417-7370
FAX 402-408-0499

QUOTATION

Quoted to: Auburn Bd PW
1604 O Street
Auburn, NE 68305

Fax:

Attention: Alan Slater

Date: 4-13-2023

Job Name: Backflow tester for Hydrant

Location: Auburn, NE

F.O.B. JOBSITE

	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENSION
Stock wichita 2	1	3 FIRE HYD-STD 3" Neptune Std. Rd. Gallon Fire Hydrant Meter	1,603.00	1,603.00
6	1	Watts 2" LF919-QT-S Reduced Pressure Zone Backflow Preventer	1,212.00	1,212.00
11	1	AD-11SW 2½" FNST x 2" MIPT Swivel Adapter	97.00	97.00
6	1	AD-12A 2½" MNST x 2" MIPT Bress Adapter	35.00	35.00
			TOTAL	$3,947.00

Please let us know if we can be of service to you.

Thanks,

Todd A Spath

3:28

402-430-4989

AUTHORIZED BY: _____

Engineering Specification

Job Name **Fire Hydrant Backflow**

Job Location **Auburn B of PW**

Engineer _____

Approval _____

Contractor _____

Approval _____

Contractor's P.O. No. _____

Representative **Municipal Supply Inc of Omaha**

LEAD FREE*

Series LF919

Reduced Pressure Zone Assemblies

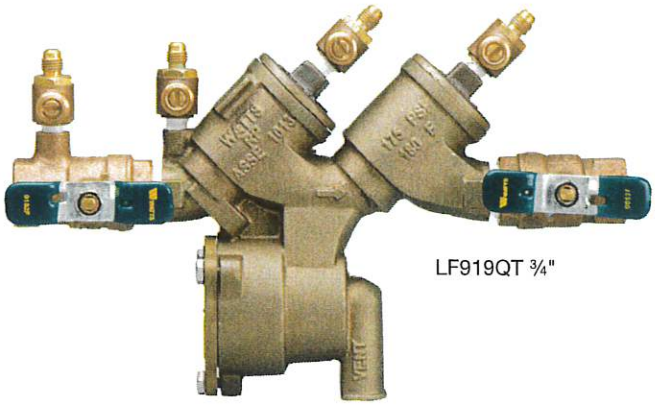
Sizes: ½" – 2"

Series LF919 Reduced Pressure Zone Backflow Assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. This series can be used in a variety of installations, including the prevention of health hazard cross-connections or for containment at the service line entrance.

This series features two poppet style check valves, replaceable check seats, with an intermediate relief valve. Its compact modular design facilitates easy maintenance and assembly access. Sizes ½" – 1" shutoffs have tee handles. The LF919 features Lead Free* construction to comply with Lead Free* installation requirements.

Features

- Separate access covers for the check valves and relief valve for ease of maintenance
- Top entry-all check internals easily accessible
- All rubber elastomers of chloramine resistant material
- Check valve poppet assemblies are fully guided by innovative plastic seat guide
- Replaceable push-in check valve and relief valve seats eliminates threads from the water way
- EZ twist relief valve cover quarter-turn locking joint captures the spring load during repair to facilitate disassembly
- Innovative check valve plastic cover bushing provides trouble free guiding of the check valve poppet
- Bottom mounted relief valve provides reduced installation clearances
- Compact, space saving design
- No special tools required for servicing
- Top mounted test cocks for ease in testing and reduced installation clearances
- Standardly furnished with NPT body connections



LF919QT ¾"

Specifications

A Reduced Pressure Zone Assembly shall be installed at each potential health hazard location to prevent backflow due to backsiphonage and/or backpressure. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating check valves. Seats and seat discs shall be replaceable in both check valves and the relief valve without the use of special tools. Service of all internal check valve components shall be through top mounted access covers threaded to the main valve body. The check valve poppet assembly shall be guided via the use of a corrosion resistant plastic guide. The check valve and relief valve seats shall be push-in type. The relief valve cover shall be secured with stainless steel bolts and shall utilize a quarter-turn locking joint to capture the spring load of the relief valve. The relief valve shall have an internal sensing line to sense the inlet water supply. All rubber elastomers shall be of chloramine resistant material. The assembly shall also include two resilient seated isolation valves, four top-mounted resilient seated test cocks and an air gap drain fitting. The Lead Free* Reduced Pressure Zone Assembly shall comply with state codes and standards, where applicable, requiring reduced lead content. The assembly shall be a Watts Series LF919.

Now Available
WattsBox Insulated Enclosures.
For more information, refer to literature ES-WB.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE

Inquire with governing authorities for local installation requirements

***The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

WATTS®

Agenda Item #14

Models

Suffix

QT	quarter-turn ball valves
S	bronze strainer

Materials

Body:	Lead Free* Cast Copper Silicon Alloy
Discs:	Silicone rubber
Check Seats:	Replaceable polymer
Cover Bolts:	Stainless steel

Approvals

ASSE 1013 · UPC · CSA C US · NSF Certified to NSF/ANSI/CAN 61-9 · USC-FCCCHR

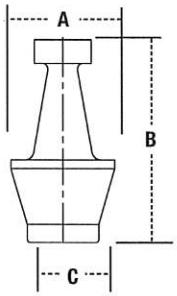
Approved by the Foundation for Cross-Connection Control and Research at The University of Southern California. (for sizes ¾"-2")

Pressure — Temperature

Temperature Range: 33ºF – 180ºF (0.5ºC – 82ºC)

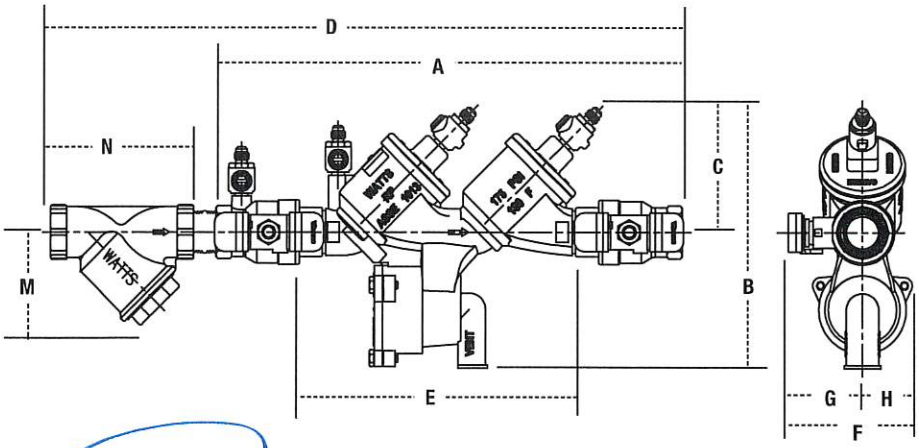
Maximum Working Pressure: 175psi (12.1 bar)

Air Gaps



AIR GAP MODEL	SIZES	DIMENSIONS						WEIGHT	
		A		B		C (NPT)			
		in.	mm	in.	mm	in.	mm	lbs.	kg
919AGC	¼" – 1"	2⅜	60	3⅛	79	½	13	.63	.28
919AGF	1¼" – 2"	4⅜	111	8 7/16	214	2	50	3.5	1.6

Dimensions — Weights

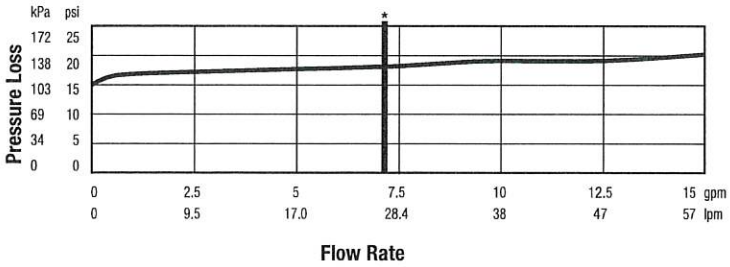


LF919QT, LF919QT-S

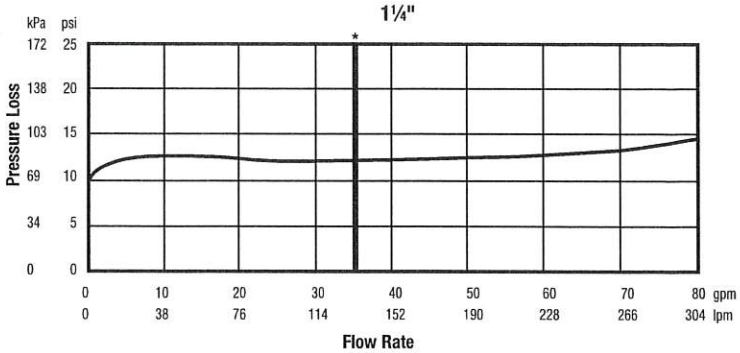
SIZE	DIMENSIONS																STRAINER DIMENSIONS				WEIGHT	
	A		B		C		D		E (LF)		F		G		H		M		N			
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs
1/2	9 1/2	241	6 7/8	175	2 7/8	73	12 3/4	324	5 3/4	146	3 3/8	86	1 7/8	48	1 9/16	40	2 3/4	70	2 1/4	57	5.8	2.6
3/4	12 1/8	307	7 7/16	188	3 1/2	88	15 1/2	393	7 11/16	195	3 5/8	92	2 1/16	52	1 9/16	40	1 5/8	41	3 3/16	81	8.3	3.7
1	14 1/2	368	8	202	3 7/8	98	19 9/16	487	9 3/16	233	4	102	2 7/16	62	1 9/16	40	2 1/8	54	3 3/4	95	11.8	5.4
1 1/4	18 1/8	461	11 7/16	290	5 1/8	129	23 1/4	591	11 11/16	297	5 1/8	130	2 5/8	67	2 1/2	64	2 1/2	64	4 7/16	113	22.3	10.1
1 1/2	18 3/4	476	11 7/16	290	5 1/8	129	25 1/16	637	11 11/16	297	5 5/8	143	3 1/8	79	2 1/2	64	3	76	4 7/8	124	28.3	12.8
2	21 1/16	535	12 1/16	307	5 5/8	142	28 13/16	732	13 3/8	340	5 15/16	151	3 7/16	87	2 1/2	64	3 9/16	90	5 15/16	151	37.3	16.9

Capacities

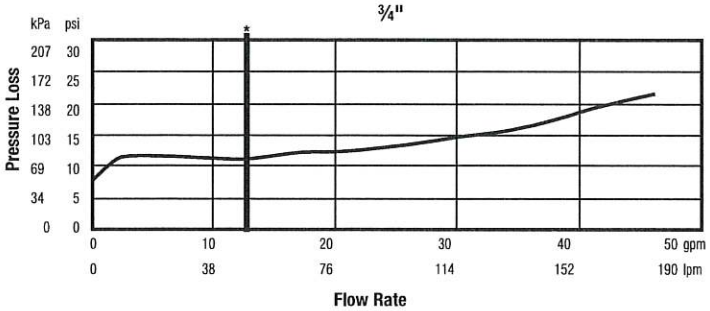
½"



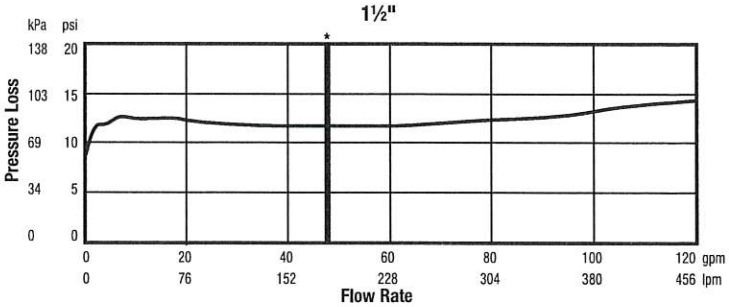
1¼"



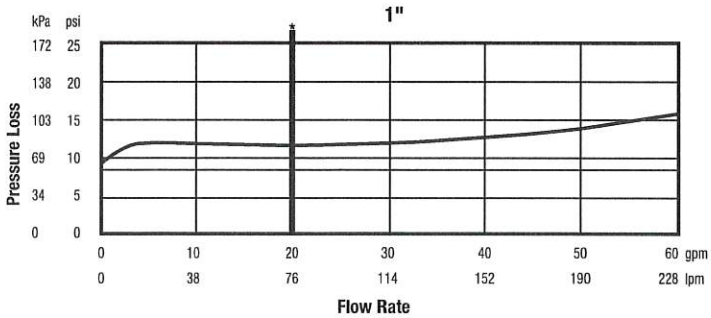
¾"



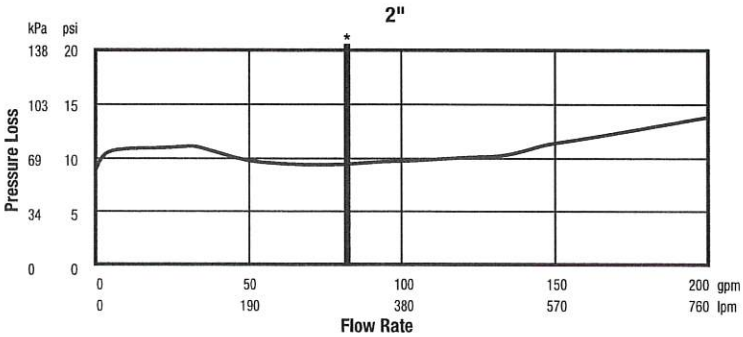
1½"



1"



2"



*Typical maximum system flow rate (7.5 feet/sec., 2.3 meters/sec.)

USA: T: (978) 689-6066 • F: (978) 975-8350 • Watts.com
Canada: T: (888) 208-8927 • F: (905) 332-7068 • Watts.ca
Latin America: T: (52) 55-4122-0138 • Watts.com

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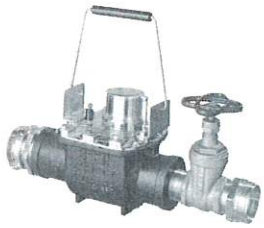
A PRODUCT SHEET OF NEPTUNE TECHNOLOGY GROUP

Fire Hydrant Meter

SIZE: 3"



The Neptune® Fire Hydrant water meter is designed for mobile use in metering flows from fire hydrants. The meter measures a wide flow range to maximize revenue. It meets or exceeds the latest performance requirements of AWWA. Maximum flow rates may be exceeded by 25% for intermittent flows.

The Fire Hydrant water meter consists of a lightweight, aluminum maincase fitted with a 2" gate valve, a turbine measuring element, and a roll-sealed register.

Construction

The aluminum maincase is Xylan® coated for corrosion resistance and is lightweight, compact, and easy to handle. This meter features a unique "balanced handle" which makes carrying and installing it easier than any other fire hydrant meter on the market. A 2" gate valve enables the user to regulate the water flow without opening and closing the fire hydrant.

The unitized measuring element (UME) allows for quick and easy interchangeability.

Exclusive dual graphite bearings provide equalized rotor loading for accuracy over a broad flow range. The thrust-compensated rotor configuration relieves pressure on the thrust bearings, which minimizes wear and provides sustained accuracy over an extended operating life. A tamper-resistant stainless steel calibration vane allows recalibration of the UME to lengthen service life and to ensure accurate registration.

The roll-sealed register eliminates leaking and fogging. A magnetic drive couples the register with the measuring element.

Warranty

Neptune provides a limited warranty for performance, materials, and workmanship. See warranty statement for details.

KEY BENEFITS

Roll-Sealed Register

- Permanently-sealed, magnetic-driven register assembly eliminates leaking and fogging
- Locking register lid secures during transportation, protecting register lens
- Glass lens ensures readability and scratch resistance
- Tamperproof design prevents vandalism and allows in-service replacement of register

Cast Aluminum Maincase

- NSF/ANSI 372
- Xylan coating ensures maximum corrosion resistance
- Lightweight material ensures easy handling
- Single, balanced carrying handle provides for easy, one-person installation
- 2" gate valve allows safe pressurization of measuring element and regulation of water flow

Turbine Measuring Element

- Wide flow ranges at 98.5%-101.5% accuracy ensure maximized revenues
- Direct coupling of rotor to gear train ensures accurate registration
- UME makes maintenance easier and faster
- Stainless steel calibration vane ensures accurate registration and makes calibration easier

Specifications

Application

- Cold water measurement of flow in one direction

Maximum operating pressure

- 150 psi

Normal operation range

- 5-450 gpm (at accuracy of 100 +/- 1.5%)

Register type

- Direct reading, center sweep, roll-sealed magnetic drive with low-flow indicator
- Bronze box with locking cover

Strainer

- Die cast aluminum

Registration

- Per sweep hand revolution: 100 gallons, 10 cubic feet, 1 cubic metre

Register capacity (six-wheel odometer)

- 100,000,000 gallons
- 10,000,000 cubic feet
- 1,000,000 cubic metres

Measuring element

- AWWA Class II Turbine

Options

Size

- 2½" outlet (with 2½" gate valve)

Strainer

- Stainless steel (internal)

Orifice plate

- Size for application

Units of measure

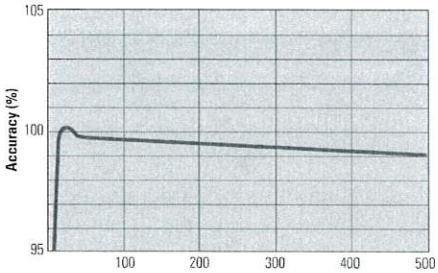
- U.S. gallons, cubic feet, cubic metres

Connections

- Less Coupling: 3" x 2" NPT
- With Coupling: 2½" NH

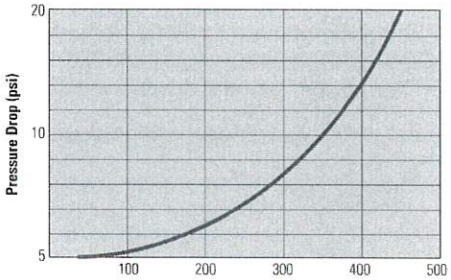
ACCURACY CHART

(Rate of Flow in Gallons per Minute)



PRESSURE LOSS CHART

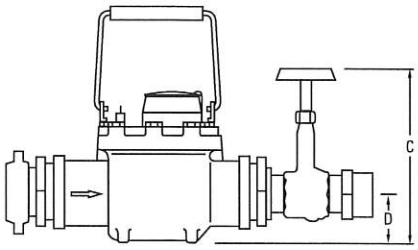
(Rate of Flow in Gallons per Minute)



These charts show typical meter performance. Individual results may vary.

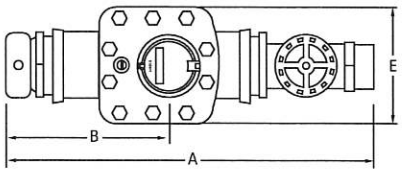
Operating Characteristics

Meter Size	Normal Operating Range @ 100% Accuracy (+/- 1.5%)	Maximum Intermittent Flow	AWWA Standard
3"	5 to 450 US gpm 1.14 to 102.2 m³/h	560 US gpm 127.2 m³/h	8 to 435 US gpm 1.8 to 98.8 m³/h



Dimensions

3" Fire Hydrant	A inches	B inches	C inches	D inches	E Inches	Weight lbs.
Less Coupling	15 ½	7 ½	11 ½	2 ⅞	7 ½	23
With Coupling	19 ¼	10	11 ½	2 ⅞	7 ½	29



NEPTUNE TECHNOLOGY GROUP

#winyourday
neptunetg.com

Neptune Technology Group
1600 Alabama Highway 229
Tallassee, AL 36078
800-633-8754 f 334-283-7293

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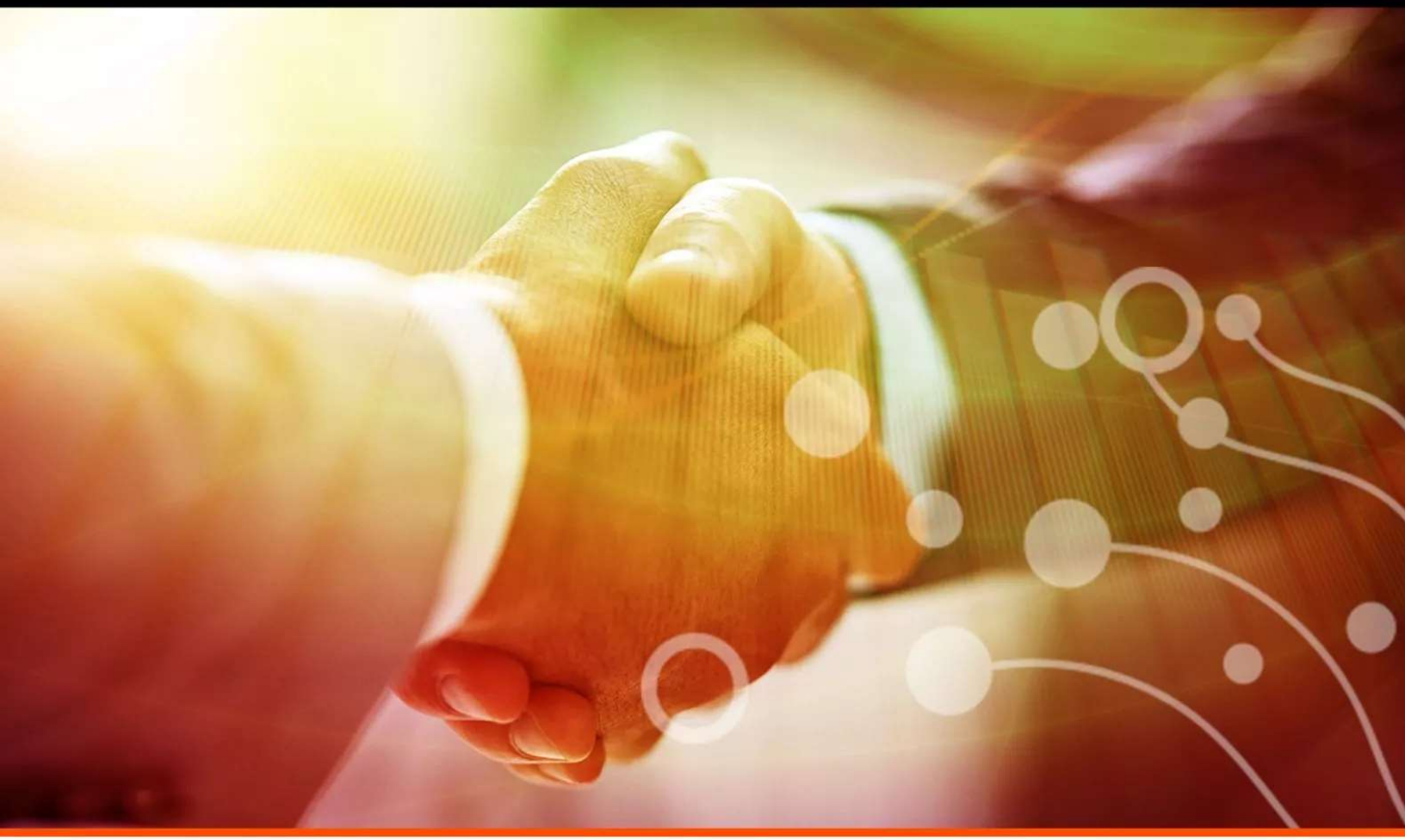

Quadient Proposal for AUBURN BOARD OF PUBLIC WORKS

Prepared for:

Tamara Westhart

twesthart@auburnbpw.com

AUBURN BOARD OF PUBLIC WORKS

Prepared by:

Alexis DiMarzio

A.dimarzio@quadient.com

972-820-2949 Ext. 62949

Quadient, Inc.

478 Wheelers Farms Road
Milford, CT 06461
203.301.3400

Overview

Dear Tamara Westhart,

This exclusive offer includes the **iX-3** postage meter, maintenance, and rate change protection for only **$39.99** per month.

The **iX-3 Mailing System** features:

- User friendly navigation and a Rate Wizard that simplifies rate selection and ensures postage accuracy every time.
- Space saving, built-in weighing platform with Smart Start technology
- Convenient ATM-style postage downloads with High speed internet connection or iMeter™ PC Link
- Up to 6,500 impressions per ink cartridge with Low Ink E-mail Alerts for efficient planning
- Convenient access to postal and department usage on Myquadient for reporting at your fingertips
- Automated USPS ® Rate Change updates

Click here to learn more about the iX-3 postage meter today!

We appreciate your business!

Sincerely,

Alexis DiMarzio
A.dimarzio@quadient.com
972-820-2949 Ext. 62949

*** **Please Note: This meter connects through a high-speed digital connection for postage downloads and rate change and software updates.**

Any changes, addition, or modifications to the agreement must be accompanied by the signers initials.

If the address or company name on the form needs to be adjusted, please contact me before you sign and I will send you an updated copy. ***

Statement of Confidentiality
This proposal and supporting materials contain confidential and proprietary business information of Quadient, Inc. These materials may be printed or photocopied for use in evaluating the proposed project, but are not to be shared with other parties.

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Postage Meter Rental Agreement

Product: Quadient IX-3

Offer Includes
Products: 5 lb Scale, Moistener
Service Products: Depot Maintenance, Rate Change Protection
EasyInk: ☐ (Quadient Postage Funding and LAN required)

Billing Information
Billing CSN#: 60554188
Company Name: AUBURN BOARD OF PUBLIC WORKS
DBA:
Address: 1600 O St AUBURN,NE68305
Contact: Tamara Westhart
Email: twesthart@auburnbpw.com
Phone: (402) 274-4981 Fax:
Office#: 2620 - Lincoln Main Post Office / Mail Drop:
Post Office ZIP Code:

Agreement Information
Date Sent: 4/7/2023
Offer Valid Until:
Replaces Meter S/N: 10282978

Payment Information and Schedule
Billing Frequency: Quarterly
Monthly Payment: $39.99 (Plus applicable taxes) Shipping and handling: $19.99
Number of Months: 36

Installation Address
Company Name: AUBURN BOARD OF PUBLIC WORKS
Address: 1600 O St AUBURN,NE68305
Contact: Tamara Westhart
Email: twesthart@auburnbpw.com
Phone: (402) 274-4981 Fax:
Office#: 2620 - Lincoln Main Post Office / Mail Drop Off:
Post Office ZIP Code:

Postage Meter Funding	
Postage Funding Option:	Quadient Postage Funding
Use my POC/TMS Account #:	☑
My POC/TMS Account#: 8080665	

Existing customers who currently fund the Postage account by ACH Debit will not be converted to a Postage Funding Account unless initialed here:

Approval & Terms

Guided by Quadient, Inc.'s Sustainable Design and Responsible Manufacturing Policy, our Products may contain reused components. For more Information visit https://www.quadient.com/about-us/sustainable-design-and-manufacturing.

This document consists of a Postage Meter Rental Agreement and an Online Services and Software Agreement with Quadient, Inc. Your signature constitutes an offer to enter into such agreements, and acknowledges that you have received, read, and agree to all applicable terms and conditions (version Rental-Terms-V9-2020), which are also available at www.quadient.com/Rental-Terms-V9-2020, and that you are authorized to sign the agreements on behalf of the customer identified above. The applicable agreements will become binding on the companies identified above only after an authorized individual accepts your offer by signing below, or when the equipment is shipped to you.

Name:
Title:
Date: Authorized Signature:

Alexis DiMarzioA.dimarzio@quadient.com PH: 972-820-2949 Ext. 62949 FAX: 203-301-2811
Quadient, Inc. 478 Wheelers Farms Road, Milford, CT 06461

Agenda Item #15

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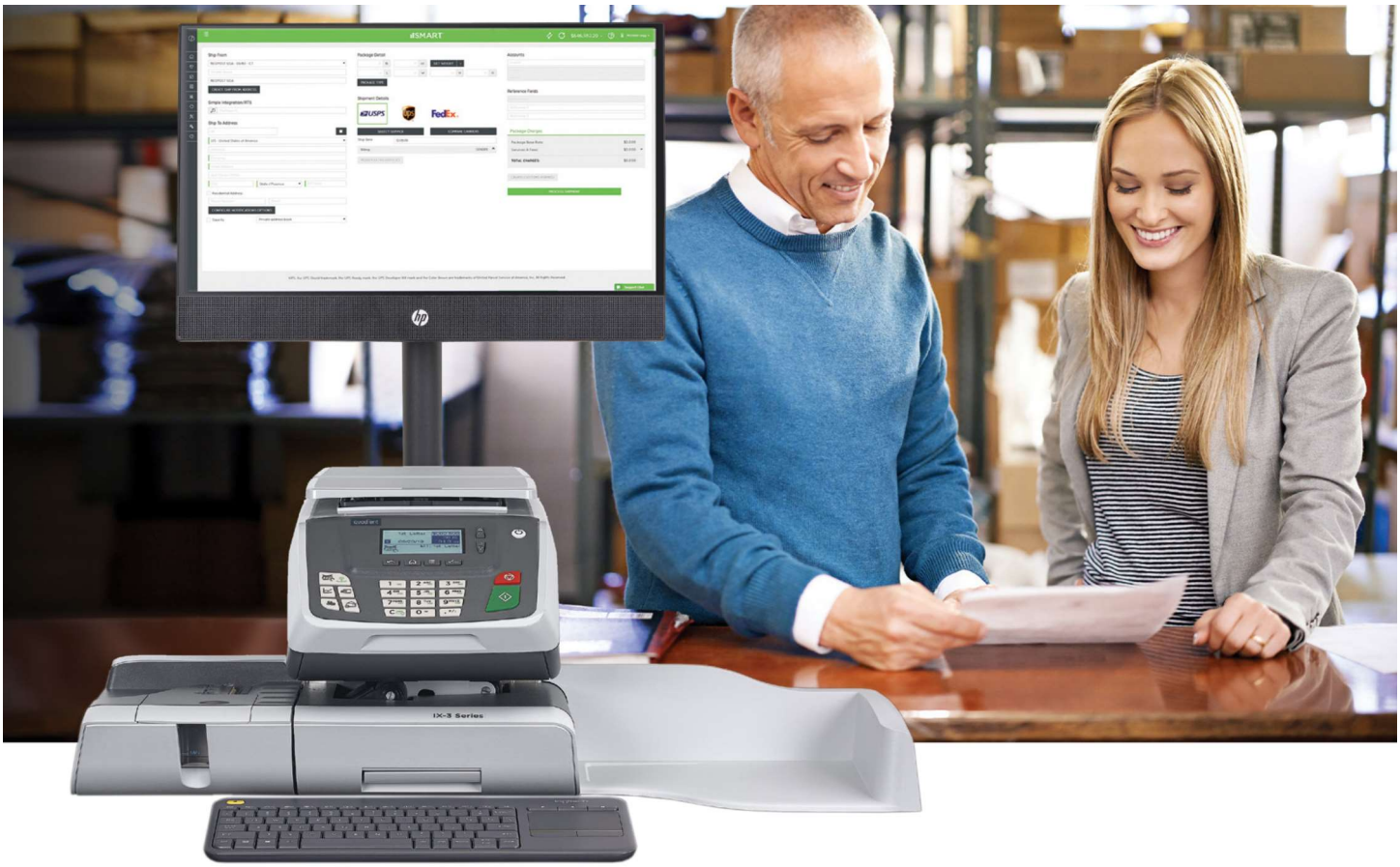
PRACTICAL MAIL MANAGEMENT SYSTEM FOR SMALL BUSINESSES

Compact. Cost-Effective. Effortless.



iX-3 Series

The iX-3 Series offers small offices the most pragmatic choice for delivering effortless mailing and shipping operations. Don't let the compact design fool you — the iX-3 is extremely powerful. This system meets the latest USPS® Intelligent Mail Indicia (IMI) and Dimensional Weighing (DIM) requirements.

When powered by S.M.A.R.T.® software, the iX-3 transforms into your powerful partner, creating a consolidated and organized epicenter that streamlines workflows. S.M.A.R.T. combines essential operations into a powerful, user-friendly, all-in-one solution.

UNITED STATES POSTAL SERVICE®
Approved IMI Postage Solution

EXPERIENCE
A rich history of world-class leadership

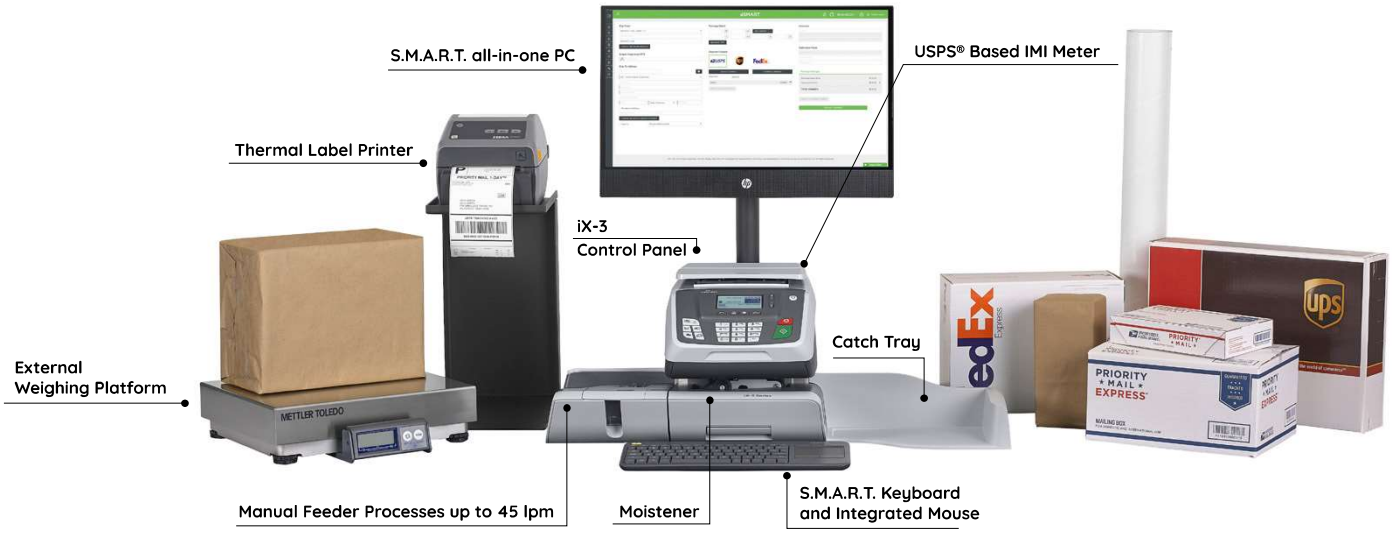
PROVEN RESULTS
96% customer satisfaction rate

EXPERTISE
8 billion personalized experiences annually

BACKED BY THE EXPERTS
Gartner, Forrester, and Aspire

Revolutionize Mail Management with S.M.A.R.T.

S.M.A.R.T. provides the ultimate Shipping, Mailing, Accounting, Reporting and Tracking experience – all from a single dashboard! This solution combines leading edge technologies to improve customer interactions and business processes. A consistent look and feel across each element provides familiarity to users, making navigation simple and intuitive. S.M.A.R.T. fuels stronger business communications with your internal and external customers by providing detailed shipping and tracking notifications, chargeback accounting with postage meter reconciliation, and extensive reporting options to name a few.



SHIPPING

This best-in-class powerhouse shipping application allows you to process parcels using USPS, UPS®, FedEx® and DHL®. S.M.A.R.T. is fully IM®pb compliant, and offers commercial base pricing discounts, address corrections, free insurance on Priority Mail™ and Priority Mail Express™ and more.

With S.M.A.R.T. you can:

- View rates and services across all carriers from one screen. S.M.A.R.T. will automatically **rate shop** to identify the lowest cost or fastest delivery method of processing parcels, saving time and money.
- Externally prepare shipments with traveler documents from any desktop, leaving the mail room full control of carriers and rates with **Desktop RTS** (Request to Send). **Desktop RTS** increases efficiency in the mail room by decreasing the number of work steps it takes to process a shipment.
- Assign carrier selection and printing permissions to users outside of the mail room with **Desktop Print**. Desktop printing provides flexibility within an organization while decreasing mail room workload.
- Establish potential cost saving opportunities, decrease the number of work steps to process items, and better organize shipments when using **multi-package shipments**.
- Increase efficiency, minimize errors associated with manual entry, and decrease key strokes when using **Simple Integration**. S.M.A.R.T. extracts shipment details from a remote file using a unique ID, and auto populates recipient details within the shipping application, reducing processing efforts.

MAILING

Take full control of your iX-3 and create an unparalleled user experience. S.M.A.R.T. takes all the features from a traditional mailing system control panel and applies them to an all-in-one interactive PC.

- Print discounted postage and seal envelopes at **up to 45 letters per minute**.
- Large descriptive buttons and prompts make navigation a breeze.
- The **Rate Wizard** simplifies the process of selecting the correct postal rate and class. With clear step-by-step instructions, the selection process has never been easier.
- Increase mail-processing throughput and save time with **Scan and Drop**. Continuously run mail without interruption while charging back postage expenses to accounts or departments.

ACCOUNTING

S.M.A.R.T. provides up to five levels of accounting for total postage reconciliation. This level of granularity supports even the most demanding business requirements.

- Postal account reporting tracks spending down to 1/10 of a cent, providing the tools you need to stay on top of expenses.
- **Chargeback accounting** lets you bill vendors, customers or departments for mailing/shipping costs and allows you to recoup postage dollars that would otherwise slip through the cracks.
- Supports: **Budgets, handling charges** and **surcharges**, as well as an **unlimited** number of **accounts** or **departments**.

REPORTING

Easily produce informative reports and color graphs that give you the details you need.

- Generate postage expense reports by: mail class, weight break, presort, ascending and descending register values, account/department, operator, cost center, pre-defined or custom time periods – and more!
- Set it and forget it – S.M.A.R.T.'s **report scheduler** automatically runs and emails reports to a designated recipient or group based upon user-defined parameters

TRACKING

Always know when and where your items are with S.M.A.R.T. Tracking.

- Ensure delivery of every parcel and retain tracking history for up to **13 months**.
- Keep your customers informed by providing delivery **email alerts** each step of the way.
- Obtain **consolidated views** of your mail room's activities to better manage mailing and shipping operations.

Leading Edge Technology. Simple Navigation. Fueling stronger business communications with your internal and external customers. The iX-Series with S.M.A.R.T. will revolutionize your mail room operations.

SPECIFICATIONS

USPS® based IMI meter	Standard
Processing speed iX-3 HF	Up to 45 lpm
Onscreen DIM calculations	Standard
Weighing platform (integrated)	5 lb. standard
Accounts/departments	50 standard
Envelope minimum	3.5” X 5”
Envelope maximum	10” X 13”
Envelope thickness	Up to 3/8”
Envelope orientation	Landscape or portrait
Connectivity	LAN standard
Rate shortcut keys	5
Job imprint memories	9
Neoslogan	10
Incoming date stamp	Standard
Postage meter tapes	Standard
Integrated automatic label dispenser	Standard
4-digit PIN code	Standard
Low-ink email alerts	Standard
Automatic postal rates download	Standard

OPTIONS

Differential weighing	Available
External weighing platform	Available 10, 30 or 70 lb.
Accounts/departments upgrade	100, 300 or unlimited with S.M.A.R.T.
Wireless Barcode scanner	Available
E-Services with Electronic Return Receipt™	Available
WiFi Adapter	Available
IPV6	Available
S.M.A.R.T. Mail Room Software Includes: 5 Mailroom Operators and 250 Desktop RTS/Print Users	Available
Additional Desktop RTS/ Print licenses	Available

SYSTEM DIMENSIONS

iX-3 with integrated 5 lb. scale	10” X 17” X 10.5”
iX-3 with integrated feeder and catch tray	28.5” X 17” X 10.5”

S.M.A.R.T REQUIREMENTS

PC required - not supported on Mac
Operating system: Microsoft Windows 10 Professional and Enterprise – 32/64 bit (desktop)
Browsers: Microsoft Internet Explorer (IE11), Microsoft Edge, Mozilla Firefox, or Google Chrome
Device Manager
Windows recognized inkjet, laserjet or thermal label printer with a minimum quality of 203 dpi (USPS requirement)
Quadient Postage Funding

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Because connections matter.

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About Quadient®

Quadient is the driving force behind the world’s most meaningful customer experiences. By focusing on three key solution areas including Intelligent Communication Automation, Parcel Locker Solutions and Mail-Related Solutions, Quadient helps simplify the connection between people and what matters. Quadient supports hundreds of thousands of customers worldwide in their quest to create relevant, personalized connections and achieve customer experience excellence. Quadient is listed in compartment B of Euronext Paris (QDT) and is part of the CAC® Mid & Small and EnterNext® Tech 40 indices.

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Ink Supply Management
Simplified

Your postage meter is smarter than you think. It can even order ink cartridges for you at exactly the right time. As a result, there's no need to:

- Closely monitor the ink level in your mailing system
- Ensure orders are placed early enough to avoid running out of ink and disrupting your mail flow
- Take time out of your schedule to call or go online to order ink
- Communicate with company purchasing staff to request an ink order

It's actually as simple as it sounds. Just leave your meter connected to your local area network. When the ink level reaches 20%, your meter alerts Quadient that you'll need a replacement cartridge soon. Quadient will promptly ship you a new ink cartridge so that it arrives before your system runs out of ink.

You'll also get notification emails when each ink order is created and when each replacement cartridge ships.

Best of all, your ink orders are charged to your Postage Funding account, so you'll get a single bill for both the postage you download and the ink cartridges you buy.

There's no fees of any kind, and you can opt out whenever you want.

Combined Financial Statements

2023	YTD	Dec 2023	Nov 2023	Oct 2023	Sept 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	YTD	Mar 2023	Feb 2023	Jan 2023
Total Operating Rev	2,161,595	0	0	0	0	0	0	0	0	0	2,161,595	729,447	709,146	723,002
Total Other Revenue	103,939	0	0	0	0	0	0	0	0	0	103,939	10,981	23,706	69,252
Total Non Operating Rev	6,370	0	0	0	0	0	0	0	0	0	6,370	1,491	706	4,173
TOTAL REVENUE	2,271,903	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2,271,903	**741,919**	**733,558**	**796,427**
Total Operating Exp	(576,965)	0	0	0	0	0	0	0	0	0	(576,965)	(69,917)	(77,555)	(429,493)
Total Admin & Gen Exp	(221,686)	0	0	0	0	0	0	0	0	0	(221,686)	(48,542)	(47,740)	(125,404)
Total Depreciation Exp	(175,527)	0	0	0	0	0	0	0	0	0	(175,527)	(47,886)	(47,886)	(79,755)
Total Non Operating Exp	(22,683)	0	0	0	0	0	0	0	0	0	(22,683)	(7,310)	(8,269)	(7,104)
TOTAL EXPENSES	(996,862)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	(996,862)	**(173,656)**	**(181,450)**	**(641,756)**
NET INCOME	658,740	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	658,740	**568,264**	**552,108**	**(461,632)**
less W & WW P&I	170,063	0	0	0	0	0	0	0	0	0	170,063	56,688	56,688	56,687
Adjusted Net Income	488,676	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	488,676	**511,576**	**495,420**	**(518,319)**

2022	YTD	Dec 2022	Nov 2022	Oct 2022	Sept 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	YTD	Mar 2022	Feb 2022	Jan 2022
Total Operating Rev	8,228,289	776,224	626,196	601,139	729,239	769,011	746,215	722,599	599,620	582,223	2,075,822	689,182	676,370	710,271
Total Other Revenue	463,494	32,313	33,832	34,466	57,517	39,432	36,047	35,968	38,358	32,480	123,081	58,547	31,713	32,821
Total Non Operating Rev	245,964	18,110	10,219	74,503	1,564	10,006	10,344	13,223	5,679	70,315	32,002	2,328	21,436	8,237
TOTAL REVENUE	**8,937,747**	**826,648**	**670,247**	**710,108**	**788,320**	**818,449**	**792,606**	**771,789**	**643,657**	**685,017**	**2,230,906**	**750,058**	**729,518**	**751,330**
Total Operating Exp	(5,113,024)	(525,635)	(379,143)	(377,162)	(470,920)	(454,941)	(450,533)	(457,194)	(368,254)	(349,805)	(1,279,436)	(395,488)	(405,648)	(478,301)
Total Admin & Gen Exp	(1,554,558)	(129,928)	(124,763)	(132,155)	(122,017)	(148,687)	(123,266)	(114,768)	(129,516)	(138,653)	(390,805)	(151,302)	(107,385)	(132,119)
Total Depreciation Exp	(957,060)	(79,755)	(79,755)	(79,755)	(79,755)	(79,755)	(79,755)	(79,755)	(79,755)	(79,755)	(239,265)	(79,755)	(79,755)	(79,755)
Total Non Operating Exp	(114,062)	(6,618)	(6,010)	(6,211)	(12,137)	(7,257)	(12,667)	(9,268)	(7,538)	6,018	(52,374)	(31,958)	(7,340)	(13,076)
TOTAL EXPENSES	**(7,738,703)**	**(741,936)**	**(589,671)**	**(595,283)**	**(684,829)**	**(690,640)**	**(666,221)**	**(660,985)**	**(585,064)**	**(562,195)**	**(1,961,881)**	**(658,502)**	**(600,128)**	**(703,250)**
NET INCOME	**1,199,013**	**84,713**	**80,545**	**114,826**	**103,491**	**127,809**	**126,385**	**110,805**	**58,593**	**122,822**	**269,025**	**91,555**	**129,391**	**48,080**
less P&I Payment	677,064	56,422	56,422	56,422	56,422	56,422	56,422	56,422	56,422	56,422	169,266	56,422	56,422	56,422
Adjusted Net Income	**521,949**	**28,291**	**24,123**	**58,404**	**47,069**	**71,387**	**69,963**	**54,383**	**2,171**	**66,400**	**99,759**	**35,133**	**72,969**	**(8,342)**

Electric Department

2023	Dec 2023	Nov 2023	Oct 2023	Sept 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	YTD 3/31/2023	Mar 2023	Feb 2023	Jan 2023
Total Operating Rev	0	0	0	0	0	0	0	0	0	1,661,705	560,708	545,407	555,590
Total Other Revenue	0	0	0	0	0	0	0	0	0	106,382	25,647	24,722	56,013
Total Non Operating Rev	0	0	0	0	0	0	0	0	0	14,171	6,326	3,147	4,699
TOTAL REVENUE	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,782,258**	**592,680**	**573,276**	**616,302**
Total Operating Exp	0	0	0	0	0	0	0	0	0	(1,027,705)	(333,677)	(345,300)	(348,728)
Total Admin & Gen Exp	0	0	0	0	0	0	0	0	0	(274,085)	(101,679)	(88,551)	(83,855)
Total Depreciation Exp	0	0	0	0	0	0	0	0	0	(95,607)	(31,869)	(31,869)	(31,869)
Total Non Operating Exp	0	0	0	0	0	0	0	0	0	(1,960)	(1,568)	(392)	0
TOTAL EXPENSES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(1,399,357)**	**(468,793)**	**(466,112)**	**(464,452)**
NET INCOME	0	0	0	0	0	0	0	0	0	382,901	123,887	107,165	151,849

2022	Dec 2022	Nov 2022	Oct 2022	Sept 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	YTD 3/31/2022	Mar 2022	Feb 2022	Jan 2022
Total Operating Rev	610,183	459,627	426,487	548,167	586,567	572,365	552,251	436,293	422,074	1,589,131	525,926	521,600	541,605
Total Other Revenue	22,102	17,996	18,503	22,417	22,824	22,369	23,370	25,351	20,731	87,780	47,880	20,073	19,827
Total Non Operating Rev	11,797	8,751	59,713	320	5,021	9,909	8,731	5,703	60,498	22,652	2,196	14,690	5,766
TOTAL REVENUE	**644,082**	**486,374**	**504,703**	**570,904**	**614,412**	**604,643**	**584,351**	**467,346**	**503,302**	**1,699,564**	**576,003**	**556,364**	**567,197**
Total Operating Exp	(435,266)	(286,797)	(304,052)	(328,777)	(381,567)	(379,874)	(392,088)	(310,713)	(278,333)	(1,094,541)	(327,173)	(344,412)	(412,079)
Total Admin & Gen Exp	(88,944)	(73,968)	(80,120)	(77,240)	(101,385)	(84,233)	(72,664)	(89,350)	(77,875)	(250,736)	(90,894)	(69,790)	(90,051)
Total Depreciation Exp	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	0	(31,869)	(31,869)	(31,869)
Total Non Operating Exp	(142)	(70)	(142)	(2,676)	(429)	0	0	(101)	17,506	(29,043)	(23,707)	98	(5,435)
TOTAL EXPENSES	**(556,221)**	**(392,704)**	**(416,183)**	**(440,562)**	**(515,250)**	**(495,976)**	**(496,621)**	**(432,033)**	**(370,571)**	**(1,374,320)**	**(473,643)**	**(445,973)**	**(539,434)**
NET INCOME	87,861	93,670	88,520	130,342	99,162	108,667	87,730	35,313	132,732	325,244	102,360	110,390	27,763

Water Department

2023	Dec 2023	Nov 2023	Oct 2023	Sept 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	YTD 3/31/2023	Mar 2023	Feb 2023	Jan 2023
Total Operating Rev	0	0	0	0	0	0	0	0	0	221,492	76,823	70,958	73,711
Total Other Revenue	0	0	0	0	0	0	0	0	0	39,132	8,669	20,932	9,531
Total Non Operating Rev	0	0	0	0	0	0	0	0	0	(783)	73	(502)	(354)
TOTAL REVENUE	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**259,841**	**85,565**	**91,389**	**82,888**
Total Operating Exp	0	0	0	0	0	0	0	0	0	(110,392)	(31,792)	(38,205)	(40,395)
Total Admin & Gene Exp	0	0	0	0	0	0	0	0	0	(85,464)	(30,076)	(29,930)	(25,458)
Total Depreciation Exp	0	0	0	0	0	0	0	0	0	(71,829)	(23,943)	(23,943)	(23,943)
Total Non Operating Exp	0	0	0	0	0	0	0	0	0	(21,001)	(6,687)	(7,739)	(6,574)
TOTAL EXPENSES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(288,686)**	**(92,499)**	**(99,818)**	**(96,370)**
NET INCOME	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(28,845)**	**(6,934)**	**(8,430)**	**(13,482)**
less P&I Accrual for NEDQ										59,724	19,908	19,908	19,908
Adjusted Net Income	0	0	0	0	0	0	0	0	0	(88,569)	(26,842)	(28,338)	(33,389)

2022	Dec 2022	Nov 2022	Oct 2022	Sept 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	YTD 3/31/2022	Mar 2022	Feb 2022	Jan 2022
Total Operating Rev	73,856	70,531	81,630	88,851	91,633	82,985	82,373	75,474	70,564	223,021	76,348	67,331	79,342
Total Other Revenue	$8,282	$11,896	$10,991	$32,450	$13,061	$9,749	$10,390	$9,967	$10,011	$28,087	$7,853	$9,686	$10,548
Total Non Operating Rev	$5,059	$122	$4,200	$815	$4,127	$37	$4,168	($261)	$152	$5,652	($55)	$3,432	$2,275
TOTAL REVENUE	**$87,197**	**$82,548**	**$96,822**	**$122,116**	**$108,820**	**$92,771**	**$96,932**	**$85,180**	**80,726**	**256,760**	**84,146**	**80,449**	**92,165**
Total Operating Exp	($41,459)	($47,688)	($33,979)	($107,352)	($36,653)	($38,517)	($28,832)	($22,522)	($25,256)	($77,640)	($24,667)	($23,707)	($29,266)
Total Admin & General Exp	($26,556)	($30,522)	($35,622)	($28,618)	($30,786)	($23,932)	($28,436)	($24,454)	($34,832)	($87,228)	($35,909)	($24,672)	($26,647)
Total Depreciation Exp	($23,943)	($23,943)	($23,943)	($23,943)	($23,943)	(23,943)	(23,943)	(23,943)	(23,943)	0	(23,943)	(23,943)	(23,943)
Total Non Operating Exp	($5,946)	($5,410)	($5,539)	($8,732)	($6,139)	($11,978)	($8,579)	($6,749)	($10,779)	($21,264)	($7,562)	($6,749)	($6,953)
TOTAL EXPENSES	**($97,904)**	**($107,563)**	**($99,083)**	**($168,645)**	**($97,521)**	**($98,370)**	**($89,790)**	**($77,668)**	**($94,810)**	**($186,132)**	**($92,081)**	**($79,072)**	**($86,809)**
NET INCOME	**($10,707)**	**($25,045)**	**($2,261)**	**($46,529)**	**$11,299**	**($5,600)**	**$7,142**	**$7,512**	**($14,085)**	**$70,628**	**($7,935)**	**$1,377**	**$5,357**
less P&I Accrual for NEDQ	20,316.00	20,316.00	20,316.00	20,316.00	20,316.00	20,316.00	20,316.00	20,316.00	20,316.00	60,948.08	20,316.00	20,316.04	20,316.04
Adjusted Net Income	($31,023)	($45,361)	($22,577)	($66,845)	($9,017)	($25,916)	($13,174)	($12,804)	($34,401)	$9,680	($28,251)	($18,939)	($14,959)

Wastewater Department

2023	Dec 2023	Nov 2023	Oct 2023	Sept 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	YTD 3/31/2023	Mar 2023	Feb 2023	Jan 2023
Total Operating Rev	0	0	0	0	0	0	0	0	0	218,933	72,086	73,012	73,835
Total Other Rev	0	0	0	0	0	0	0	0	0	4,404	763	1,439	2,203
Total Non Operating Rev	0	0	0	0	0	0	0	0	0	2,454	1,418	1,208	(172)
TOTAL REVENUE	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**225,791**	**74,267**	**75,658**	**75,866**
Total Operating Exp	0	0	0	0	0	0	0	0	0	(54,982)	(17,340)	(18,398)	(19,244)
Total Admin & Gen Exp	0	0	0	0	0	0	0	0	0	(52,367)	(18,466)	(17,809)	(16,092)
Total Depreciation Exp	0	0	0	0	0	0	0	0	0	(71,829)	(23,943)	(23,943)	(23,943)
Total Non Operating Exp	0	0	0	0	0	0	0	0	0	(1,682)	(623)	(530)	(530)
TOTAL EXPENSES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(180,860)**	**(60,372)**	**(60,679)**	**(59,809)**
NET INCOME	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**44,931**	**13,895**	**14,979**	**16,058**
less P&I Payment Accrual	0	0	0	0	0	0	0	0	0	110,340	36,780	36,780	36,780
Adjusted Net Income	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(65,408)**	**(22,885)**	**(21,801)**	**(20,722)**

2022	Dec 2022	Nov 2022	Oct 2022	Sept 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	YTD 3/31/2022	Mar 2022	Feb 2022	Jan 2022
Total Operating Rev	72,337	76,194	77,253	76,405	75,027	75,044	72,204	72,116	73,872	216,670	71,245	71,795	73,630
Total Other Rev	609	2,503	2,712	1,058	2,325	2,429	687	1,728	576	3,891	1,675	980	1,236
Total Non Operating Rev	1,254	1,347	10,590	429	858	398	323	237	9,665	3,698	187	3,314	197
TOTAL REVENUE	**74,200**	**80,044**	**90,555**	**77,892**	**78,209**	**77,871**	**73,214**	**74,080**	**84,113**	**224,259**	**73,108**	**76,089**	**75,062**
Total Operating Exp	(27,977)	(24,005)	(17,764)	(17,816)	(19,902)	(15,205)	(19,446)	(18,244)	(29,601)	(68,382)	(27,093)	(21,056)	(20,233)
Total Admin & General Exp	(14,428)	(20,273)	(16,413)	(16,159)	(16,516)	(15,101)	(13,668)	(15,712)	(25,946)	(52,841)	(24,499)	(12,922)	(15,421)
Total Depreciation Exp	(23,943)	(23,943)	(23,943)	(23,943)	(23,943)	(23,943)	(23,943)	(23,943)	(23,943)	0	(23,943)	(23,943)	(23,943)
Total Non Operating Exp	(530)	(530)	(530)	(729)	(689)	(689)	(689)	(689)	(709)	(2,067)	(689)	(689)	(689)
TOTAL EXPENSES	**(66,878)**	**(68,751)**	**(58,650)**	**(58,647)**	**(61,050)**	**(54,938)**	**(57,746)**	**(58,587)**	**(80,200)**	**(123,290)**	**(76,223)**	**(58,610)**	**(60,286)**
NET INCOME	**7,323**	**11,293**	**31,906**	**19,245**	**17,159**	**22,933**	**15,469**	**15,493**	**3,913**	**100,969**	**(3,115)**	**17,479**	**14,776**
less P&I Payment Accrual	36,106	36,106	36,106	36,106	36,106	36,106	36,106	36,106	36,106	108,318	36,106	36,106	36,106
Adjusted Net Income	**(28,783)**	**(24,813)**	**(4,200)**	**(16,861)**	**(18,947)**	**(13,173)**	**(20,637)**	**(20,613)**	**(32,193)**	**(7,349)**	**(39,221)**	**(18,627)**	**(21,330)**

Garbage Department

2023	Dec 2023	Nov 2023	Oct 2023	Sept 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	YTD 3/31/2023	Mar 2023	Feb 2023	Jan 2023
Total Operating Rev	0	0	0	0	0	0	0	0	0	59,464	19,830	19,769	19,866
Total Other Revenue	0	0	0	0	0	0	0	0	0	4,389	1,550	1,335	1,504
Total Non Operating Rev	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUE	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**63,854**	**21,379**	**21,104**	**21,371**
Total Operating Exp	0	0	0	0	0	0	0	0	0	(62,863)	(20,785)	(20,952)	(21,126)
Total Admin & Gen Exp	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Depreciation Exp	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Non Operating Exp	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EXPENSES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(62,863)**	**(20,785)**	**(20,952)**	**(21,126)**
NET INCOME	0	0	0	0	0	0	0	0	0	991	594	151	245
less Principal Payment	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Net Income	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**991**	**594**	**151**	**245**

2022	Dec 2022	Nov 2022	Oct 2022	Sept 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	YTD 3/31/2022	Mar 2022	Feb 2022	Jan 2022
Total Operating Rev	19,849	19,843	15,769	15,815	15,785	15,822	15,771	15,738	15,714	47,000	15,662	15,644	15,694
Total Other Revenue	1,321	1,437	2,259	1,592	1,223	1,499	1,520	1,312	1,163	3,323	1,138	974	1,211
Total Non Operating Rev	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUE	**21,170**	**21,280**	**18,028**	**17,407**	**17,008**	**17,321**	**17,292**	**17,050**	**16,876**	**50,323**	**16,801**	**16,617**	**16,905**
Total Operating Exp	(20,933)	(20,653)	(21,367)	(16,975)	(16,819)	(16,937)	(16,828)	(16,775)	(16,615)	(49,749)	(16,555)	(16,473)	(16,722)
Total Admin & Gen Exp	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Depreciation Exp	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Non Operating Exp	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EXPENSES	**(20,933)**	**(20,653)**	**(21,367)**	**(16,975)**	**(16,819)**	**(16,937)**	**(16,828)**	**(16,775)**	**(16,615)**	**(49,749)**	**(16,555)**	**(16,473)**	**(16,722)**
NET INCOME	236	627	(3,339)	432	188	385	464	275	261	574	246	145	184
less Principal Payment									0	0	0	0	0
Adjusted Net Income	**236**	**627**	**(3,339)**	**432**	**188**	**385**	**464**	**275**	**261**	**574**	**246**	**145**	**184**

Report Criteria:
Print Outstanding Checks and Deposits and Bank and Book Adjustments

Auburn State Bank (Checking Acct) (1)
March 31, 2023

Account: 1010202
Bank Account Number: 191494

Bank Statement Balance:	3,005,906.04	Book Balance Previous Month:	2,822,441.45
Outstanding Deposits:	6,135.75	Total Receipts:	792,793.95
Outstanding Checks:	44,974.67	Total Disbursements:	640,477.63
Bank Adjustments:	7,690.65	Book Adjustments:	.00
Bank Balance:	2,974,757.77	Book Balance:	2,974,757.77

Outstanding Deposits

Deposit Number	Deposit Amount	Deposit Number	Deposit Amount	Deposit Number	Deposit Amount	Deposit Number	Deposit Amount
1212	12.99	1218	1,616.15	1219	4,506.61		
						Total:	6,135.75

Deposits cleared: 70 items Deposits Outstanding: 3 items

Outstanding Checks

Check Number	Check Amount	Check Number	Check Amount	Check Number	Check Amount	Check Number	Check Amount
2	643.26-	47087	142.10	47498	3.80	47862	26,959.51
3	18.89	47155	15.61	47504	103.26	48141	718.33
4	7.20-	47157	32.53	47505	186.56	331231	47.76
6	55.03	47235	113.23	47676	30.00	331231	15,714.00
8	283.90-	47426	297.66	47733	32.55	331231	1,438.21
						Total:	44,974.67

Checks cleared: 103 items Checks Outstanding: 20 items

Bank Adjustments

Description	Amount	Description	Amount
Mid American Benefit o/s	7,321.07	Mutual of Omaha o/s	369.58
		Total:	7,690.65

Book Adjustments

No book adjustments found!

Report Criteria:

Print Outstanding Checks and Deposits and Bank and Book Adjustments

Report Criteria:

Print Outstanding Checks and Deposits and Bank and Book Adjustments

Auburn State Bank-DESIGNATED FUNDS (MMG) (2)

March 31, 2023

Account: 1010204

Bank Account Number: 457285

Bank Statement Balance:	1,070,764.59	Book Balance Previous Month:	1,069,725.23
Outstanding Deposits:	.00	Total Receipts:	1,039.36
Outstanding Checks:	.00	Total Disbursements:	.00
Bank Adjustments:	.00	Book Adjustments:	.00
Bank Balance:	1,070,764.59	Book Balance:	1,070,764.59

Outstanding Deposits

No outstanding deposits found!

Deposits cleared: 1 items Deposits Outstanding: 0 items

Outstanding Checks

No outstanding checks found!

Checks cleared: 0 items Checks Outstanding: 0 items

Bank Adjustments

No bank adjustments found!

Book Adjustments

No book adjustments found!

CD - I N V E S T M E N T S - March 2023

GL	ISSUED/ RENEWED DATE	MATURITY DATE	NUM.	TERM	INT.	RATE	OWNER	BANK	ORIGINAL$	CURRENT$
ELECTRIC DEPARTMENT										
1200	03/16/23	04/16/24	25693	12 MO	CMPQ	3.80%	Capitol Reserves	ASB	199,778.04	199,778.04
1200	06/26/18	05/26/23	24384	59 MO	CMPSA	3.14%	Capitol Reserves	ASB	460,449.47	529,303.15
1200	10/16/18	09/16/23	24493	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	557,918.77	635,084.96
1200	10/16/18	09/16/23	24494	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	442,540.14	503,748.21
1200	10/16/18	09/16/23	24495	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	442,540.14	503,748.21
1200	10/16/18	09/16/23	24496	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	417,524.06	475,272.17
1200	10/16/18	09/16/23	24497	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	207,255.55	235,921.24
1200	10/16/18	09/16/23	24498	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	255,809.71	291,190.95
1200	10/16/18	09/16/23	24499	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	286,669.02	326,318.45
1200	01/06/23	07/06/24	25513	18 MO	CMPQ	3.75%	Capitol Reserves	ASB	731,965.61	731,965.61
1200	01/06/23	07/06/24	25514	18 MO	CMPQ	3.75%	Capitol Reserves	ASB	584,556.69	584,556.69
1200	01/06/23	07/06/24	25515	18 MO	CMPQ	3.75%	Capitol Reserves	ASB	584,556.92	584,556.92
1200	10/29/18	10/29/23	764563	60MO	CMPQ	3.29%	Capitol Reserves	UBT	185,527.44	212,921.64
1200	10/29/18	10/29/23	764605	60MO	CMPQ	3.29%	Capitol Reserves	UBT	166,270.64	190,821.48
1200	10/29/18	10/29/23	764633	60MO	CMPQ	3.29%	Capitol Reserves	UBT	189,537.15	217,523.43
								TOTAL ELECTRIC INVESTMENTS		**$6,222,711.15**
WATER DEPARTMENT										
1200	10/16/2018	09/16/23	24500	59 MO	CMPSA	3.29%	Capitol Reserves	ASB	$ 211,525.58	$ 240,781.85
1200	8/3/2018	7/3/2023	24427	59 MO	CMPSA	3.14%	Capitol Reserves	ASB	191,071.52	216,260.64
1200	6/26/2018	5/26/2023	24385	59 MO	CMPSA	3.14%	Capitol Reserves	ASB	241,007.39	277,046.61
								TOTAL WATER INVESTMENTS		**$734,089.10**
SEWER DEPARTMENT										
1200	10/16/18	09/16/23	24501	59 MO	CMPQ	3.29%	Capitol Reserves	ASB	$ 457,305.34	$ 520,555.63
1200	10/16/18	09/16/23	24502	59 MO	CMPQ	3.29%	Capitol Reserves	ASB	71,900.01	81,844.55
1200	01/06/23	07/06/24	25516	18 MO	CMPQ	3.75%	Capitol Reserves	ASB	422,276.54	422,276.54
								TOTAL W.W. INVESTMENTS		**$1,024,676.72**
								TOTAL INVESTMENTS		**$7,981,476.97**

CMPQ = compound quarterly
CMPSA = compound semi-annually
CMPA = compound annually

INTEREST ALLOCATION								
AUBURN STATE BANK RECONCILIATION - Through 3/31/2023								
.		Prior Months balance #457285 $1069725.23	Allocation		Deposits/ Transfers	Increase/ Decrease in Designated Funds	Checks/ Transfers/ Adjustments	Ending Balance #457285 1070764.59
E.Prev.Bal.		$816,145.00	**76.3%**					
$792.98		$792.98						
E. REV.%	**76.3%**	$816,145.00	100.0%	interest	$792.98			**$816,937.94**
				rounding	-$0.04		$0.00	
		$816,145.00	100.0%			792.94		
		$0.00						**$816,937.94**
W Prev. Bal.		$158,608.48	**14.83%**				$0.00	
$154.14		$154.14						
W. REV.%	**14.83%**	$158,608.48	100.0%	interest	$154.14			**$158,762.62**
				rounding				
		$158,608.48	100.00%		.	154.14		
		$0.00						**$158,762.62**
WW.Prev.Bal.		$94,971.74	**8.88%**					
$92.30		$92.30		rounding			$0.00	
WW. REV%	**8.88%**	$94,971.74	100.0%	interest	$92.30			**$95,064.04**
		$94,971.74	100.00%			92.30		
		$0.00	100.00%					**$95,064.04**
Interest =	**1,039.36**	**$1,069,725.23**	√		**$1,039.37**	**1,039.37**		**$1,070,764.59**
** adjusted for rounding								
						INTEREST		$792.94
						INTEREST		154.14
						INTEREST		$92.30
						Total Interest		**1,039.36**

2022 Interest			**2023 Interest**		
Dec	3,587.57		Dec		
Nov	3,186.78		Nov		
Oct	3,083.63		Oct		
Sept	1,441.97		Sept		
Aug	1,446.43		Aug		
Jul	1,357.76		Jul		
June	813.21		Jun		
May	451.53		May		
Apr	436.81		Apr		
Mar	427.19		Mar	3,863.84	
Feb	369.61		Feb	3,333.27	
Jan	400.48		Jan	3,640.79	
	13,415.40	YTD Interest		10,837.90	YTD Interest

PLEDGING ANALYSIS

Auburn State Bank - March 2023 Pledge Analysis

PLEDGE#	ISSUE DATE	ORIGINAL AMOUNT	MATURITY	SECURITY PLEDGED	RATING-SP/Moodys	3/31/2023
91282CCE9	03/28/22	$ 2,000,000.00	05/31/28	UNITED STATES TREASURY	NR	$ 1,775,312.00
912828Z94	07/18/22	$ 500,000.00	02/15/30	UNITED STATES TREASURY	NR	$ 437,383.00
91282CBS9	08/17/22	$ 500,000.00	03/01/28	UNITED STATES TREASURY	NR	$ 445,293.00
112128KG7	12/19/17	$ 100,000.00	12/15/23	BROKEN BOW NEB GO	NR	$ 98,950.00
112128KN2	12/19/17	$ 130,000.00	12/15/29	BROKEN BOW NEB GO	NR	$ 128,922.30
31395WHN0	07/01/05	$ 1,330,000.00	07/15/25	FHLMC REMIC SERIES 3005 ED	NR	$ 37,093.21
3137FL2Q6	04/20/20	$ 2,000,000.00	01/25/26	FHLMC REMIC SERIES K-F58	NR	$ 534,188.25
3137FL7L2	03/28/19	$ 1,300,000.00	02/25/26	FHLMC REMIC SERIES K-F60	NR	$ 415,960.32
3137FMCW0	08/07/19	$ 2,000,000.00	05/25/29	FHMS KF63 A	NR	$ 1,233,436.64
3140LANP6	01/01/21	$ 500,000.00	01/01/31	FNMA MBS BLLN MULTI 7+	NR	$ 412,859.54
3140LE6E2	09/20/22	$ 500,000.00	12/01/27	FNMA MBS 2ND LIEN MULT	NR	$ 454,163.54
3136AYEX7	09/01/17	$ 500,000.00	09/25/35	FNMA REMIC TRUST 2017-83	NR	$ 144,858.48
34682EML4	03/01/19	$ 330,000.00	09/01/36	FORT BEND CNTY TEX MUN UTIL DI	NR	$ 311,388.00
3617LUUA4	06/27/22	$ 1,100,000.00	02/20/70	GNMA HMBS	NR	$ 551,093.71
38376RB70	04/09/20	$ 1,150,000.00	10/20/66	GNMA REMIC TRUST 2016-H23	NR	$ 580,508.58
38378BA74	08/01/12	$ 875,000.00	11/16/51	GNMA REMIC TRUST 2012-100 AC	NR	$ 205,582.56
414108KB5	05/15/20	$ 375,000.00	08/15/36	HARRIS CO TX FRESH WTR SUPP	NR	$ 294,776.25
564386SA9	02/14/22	$ 700,000.00	02/15/31	MANSFIELD TEX INDPT SCH DIST	NR	$ 581,140.00
64044XCH2	05/15/19	$ 290,000.00	12/15/29	NEMAHA. CO NE SCH DIST LTD TAX	NR	$ 287,358.10
803770WZ5	01/19/23	$ 1,000,000.00	12/15/43	SARPY COUNTY NEB SCH DIST NO 037	NR	$ 1,001,540.00
83165BBH4	03/01/19	$ 1,000,000.00	08/25/28	SBA PC VAR QTRLY ADJ	NR	$ 381,296.43
83165BBN1	04/18/19	$ 1,000,000.00	07/25/29	SBA POOL VARIABLE RATE	NR	$ 500,730.55
78443VAG7	01/25/07	$ 1,000,000.00	01/25/42	SLM STUDENT LOAN TR 2007-1	NR	$ 737,091.30
78443FAF4	07/19/07	$ 1,000,000.00	01/25/43	SLM STUDENT LOAN TR 2007-5	NR	$ 512,699.86
878867AF7	04/15/20	$ 600,000.00	11/01/34	TECUMSEH NE RFD BDS	NR	$ 551,244.00
	BOOK VALUE	**$21,780,000.00**			**MKT. VALUE**	**$12,614,869.62**

PLEDGING ANALYSIS (cont.)

AUBURN STATE BANK BALANCES - March 2023		
Flexible Spending #443450		$13,277.68
MMG # 457285	(T/D,Ins.,Rev.)	$1,070,764.59
MMG #191494	E,W,WW Rev.	$2,792,939.23
SNA #191460	E,W,WW Rev.	$212,966.81
		$4,089,948.31

Bank/CDs **Total**
$11,450,158.73

RECAP:	Original Pledge	Market Value
F.D.I.C.	$250,000.00	$250,000.00
Pledges	$21,780,000.00	$12,614,869.62
Sub-total	$22,030,000.00	$12,864,869.62
Bank/CDx1.05	$12,022,666.67	$12,022,666.67
Difference	**$10,007,333.33**	**$842,202.95**

Need additional pledge in the amount of = $00.00

Auburn State Bank C.D.'s - March 2023	
24384	$529,303.15
24385	$277,046.61
24427	$216,260.64
24493	$635,084.96
24494	$503,748.21
24495	$503,748.21
24496	$475,272.17
24497	$235,921.24
24498	$291,190.95
24499	$326,318.45
24500	$240,781.85
24501	$520,555.63
24502	$81,844.55
25513	$731,965.61
25514	$584,556.69
25515	$584,556.92
25516	$422,276.54
25693	$199,778.04
	$7,360,210.42

Proof	
CD Totals All Institutions	**$7,981,476.97**

Union Bank & Trust Company - March 2023 Pledge Analysis						
PLEDGE #	**ISSUE DATE**	**AMOUNT**	**MATURITY**	**SECURITY PLEDGED**	**RATING-SP/Moodys**	**3/31/2023**
91282CCZ2	11/17/21	310,000.00	9/30/2026	UNITED STATES TREASURY NOTE		$280,525.82
38381WT99	09/05/19	232,775.85	07/20/49	US TREASURER BILL	AAA	$153,638.87
	BOOK VALUE	**$542,775.85**			**MKT. VALUE**	**$434,164.69**

BANK BALANCES - March 2023	
	$4,089,948.31

Bank/CDs Total	
$621,266.55	√

RECAP:	Original Pledge	Market Value
F.D.I.C.	$250,000.00	$250,000.00
Pledges	$542,775.85	$434,164.69
Sub-total	$792,775.85	$684,164.69
Bank/CDx1.05	$652,329.88	$652,329.88
Difference	**$140,445.97**	**$31,834.81**

Need additional pledge in the amount of = $0.00

Union Bank C.D.'s - March 2023		
764563	$212,921.64	
764605	$190,821.48	
764633	$217,523.43	
TOTAL	**$621,266.55**	√√

Report Criteria:
Report type: Summary

Check Issue Date	Check Number	Payee	Description	Amount
04/19/2023	48188	A-1 Cellular	IPAD CASE	49.99
04/19/2023	48189	Altec Industries Inc	Boom Saddle - 970061241 - Unit 8	301.75
04/19/2023	48190	American Recycling & Sanitation	CONTRACTED AMOUNT	20,110.02
04/19/2023	48191	Ameritas Life Insurance Corp	PLAN ADMIN FEES	250.00
04/19/2023	48192	Auburn Auto Center	UNIT 9 TIRES	515.54
04/19/2023	48193	B 103	COOP AD	171.00
04/19/2023	48194	Board Of Public Works	NORTH WELL FIELD	22,737.33
04/19/2023	48195	Border States Industries Inc	Carlon Clear Quick-Set Cement - VC9983 - 8 oz	13,265.44
04/19/2023	48196	Bulldog Auto Supply	BIG TEX TRAILER LAMP & BULB	450.95
04/19/2023	48197	Capital Business Systems, Inc	LANIER COPIER	362.64
04/19/2023	48198	Capital One Spark Business	ROUND SHOVEL	2,775.37
04/19/2023	48199	Caselle Inc	CONTRACT SUPPORT 5/01/2023-5/31/2023	1,940.00
04/19/2023	48200	CCS Inc	BORING 4" PIPE	2,360.00
04/19/2023	48201	City of Auburn	FRANCHISE FEE	17,126.11
04/19/2023	48202	County Publications	MINUTES & NOTICE	235.68
04/19/2023	48203	Credit Information Services	CREDIT CHECKS	99.60
04/19/2023	48204	DataShield Corporation	COMP RECYCLE	564.55
04/19/2023	48205	DHHS State of Nebraska	FLUORIDE	215.75
04/19/2023	48206	Eggers Brothers Inc	OIL FILTERS	2,025.34
04/19/2023	48207	Filter Care of Nebraska	UNIT 10 FILTERS CLEANED	93.95
04/19/2023	48208	Glenn's Corner Market	PP BATHROOM SUPPLIES	91.63
04/19/2023	48209	Grainger Inc	3 IN DUCT GALV STEEL	84.03
04/19/2023	48210	Hach Chemical Company	DR2800 PREVENTIVE MAINTENANCE PARTNERSHIP RE	459.62
04/19/2023	48211	Hamilton Associates PC	PROGRESS BILLING FOR SERVICES	13,250.00
04/19/2023	48212	Hawkins Inc	CHLORINE CYLINDERS	492.01
04/19/2023	48213	HDR Engineering Inc	PROFESSIONAL SERVICES 2/26 - 4/1/23	1,693.79
04/19/2023	48214	HireRight Solutions LLC	BACKGROUND CHECK	78.20
04/19/2023	48215	HOA Solutions Inc	YASKAWA FILTERS	116.07
04/19/2023	48216	Husker Electric	Quellet Heater OHVU5000ROCCF1-HL-T5	1,801.98
04/19/2023	48217	Jackson Services Inc.	UNIFORMS	1,941.34
04/19/2023	48218	Jerry's Electric Inc.	Transformer Ground Straps	166.04
04/19/2023	48219	Johnny's Tire & Battery	UNIT 23 TIRE REPAIR	20.00
04/19/2023	48220	Lawson Products Inc	WASHER - FLAT BRASS 1/2 IN	204.00
04/19/2023	48221	League Association of Risk Management	CRIME POLICY EFF 1/26/2023-1/26/2024	1,613.00
04/19/2023	48222	Lincoln Winwater	VALVE - BALL 1 IN BRASS	935.91
04/19/2023	48223	Lynch's Hardware & Gifts	COMPUTER RISER REPAIR	3.77
04/19/2023	48224	McMaster-Carr Supply Company	5312K11 - Tight Seal SS Bolt Clamp	180.77
04/19/2023	48225	Metron-Farnier LLC	VERIZON WIRELESS SERVICE	10.65
04/19/2023	48226	Mid-America Structures	9X11 STUDIO BUILDING	7,241.15
04/19/2023	48227	Nebraska Municipal Power Pool	UTILITY TRAINING	2,323.30
04/19/2023	48228	Needles I Upholstery & Carpet	COAT ZIPPER-KOPERSKI	24.00
04/19/2023	48229	Nemaha County Sheriffs Office	BREATH TEST	25.00
04/19/2023	48230	Nemaha Natural Resources District	CLOSURE OF WELL	165.95
04/19/2023	48231	Omaha Door & Window	OVERHEAD DOOR REPAIR	2,101.88
04/19/2023	48232	One Call Concepts Inc	LOCATES	172.61
04/19/2023	48233	Petty Cash	SPRINKLER REPAIR PARTS	7.52
04/19/2023	48234	Pinpoint Auburn, Inc	PHONE SERVICE 4/01/2023-4/30/2023	432.13
04/19/2023	48235	PIP Marketing Signs & Print	STATEMENTS	2,294.75
04/19/2023	48236	Rhodus, Cady	CLEANING	426.00
04/19/2023	48237	Sack Lumber Company	GALV ROLL VALLEY	1,012.10
04/19/2023	48238	Safety-Kleen Systems Inc	30G PARTS WASHER SERVICE - SOLVENT	409.61
04/19/2023	48239	Scantron Technology Solutions	NEW COMPUTER CITY HALL	10,839.17
04/19/2023	48240	Truck Center Companies	UNIT 4 COOLANT REPAIR	1,521.71
04/19/2023	48241	US Cellular	MONTHLY SERVICE CHG - 3/10/203-4/09/2023	787.77
04/19/2023	48242	Village of Brownville	MARCH WASTE WATER	10,801.69

Check Issue Date	Check Number	Payee	Description	Amount
04/19/2023	48243	Village Of Johnson	FRANCHISE FEE	5,043.40
04/19/2023	48244	Village of Nemaha	MARCH GARBAGE	5,891.76
04/19/2023	48245	Water Engineering Inc	MONTHLY AGREEMENT	432.11
04/19/2023	48246	Wesco Distribution Inc	CONNECTOR BLOCK - 2 POINT	3,310.02
04/19/2023	48247	Western Area Power Administration	ENERGY- MARCH 2023	28,956.14
04/19/2023	48248	Zoro Tools Inc	G2354317 - NEMA 10"X10" WALL MOUNT ENCLOSURE	238.77
Grand Totals:				193,252.36

Report Criteria:
Report type: Summary

Report Criteria:

Summary report

Check Issue Date	Check Number	Payee	Amount
04/19/2023	48249	Anderson, Tatiana	201.66
04/19/2023	48250	Auburn Christian Church	150.00
04/19/2023	48251	Dunekacke, Shannon	50.00
04/19/2023	48252	Ellis, Lily O	88.88
04/19/2023	48253	Parsons, Kiley	149.11
04/19/2023	48254	St of NE-DHHS Acct	258.00
04/19/2023	48255	Wheeler, Stacey	300.00
Grand Totals:			1,197.65

March Claims Transfer Request - ASB Money Market to Checking

Vendor Claims		194,450.01
Prior Month ACH Claims		390,989.92
Payroll		100,000.00
	Payments	685,439.93
Bank Balance Checking	2/28/2023	212,966.81
O/S Checks & ACH		44,974.67
O/S Deposits		6,135.75
		174,127.89
Payments - Balance		(511,312.04)
Operational Transfer Request		614,000.00
Estimated Ending Balance		102,687.96

Prior Month ACH Claims	**390,989.92**
AFLAC	271.16
Ameritas	8,197.59
ASB	250.00
ASSURITY	102.79
BCBS	15,070.74
Black Hills Energy	117.15
NSF Checks	283.90
Chase Paymentech	1,796.83
DIRECT DEPOSIT TOTAL	47,669.22
FNCM WWTP Bond	3,197.50
Guardian Life	1,457.10
IBEW 1536	675.43
IRS	17,912.64
Mid-American Benefits	1,577.69
Mutual of Omaha	355.18
NDOR W/H	6,227.29
NE Dept of Revenue	28,732.16
NPPD	222,150.39
Southwest Power Pool	28,997.36
The Principal Group	1,639.18
United Parcel Service	156.55
Verizon Wireless	131.32
WEX Fleet Universal	3,335.25

Cost of Unbilled
Services Provided to the City of Auburn
2023

Month	Labor	Equipment	Materials	Street Lights Utility Bill	Inspections	Free Water Service	Free Sewer Service	Total
January	19,704.19	12,915.00	1,374.31	2,445.17				36,438.67
February	8,108.68	5,305.00	66.97	2,140.73				15,621.38
March	4,067.32	1,150.00	338.84	2,279.97				7,836.13
April								0.00
May								0.00
June								0.00
July								0.00
August								0.00
September								0.00
October								0.00
November								0.00
December								0.00
Grand Totals	**$31,880.19**	**$19,370.00**	**$1,780.12**	**$6,865.87**	**$0.00**	**$0.00**	**$0.00**	**$59,896.18**

Activity Code	Activity Description	Task Number	Task Title	Date	Hours
	Total Activity: 100 Regular:				3,159.50
	Total Activity: 200 Overtime:				74.00
	Total Activity: 300 Vacation:				247.00
	Total Activity: 401 Sick:				208.75
	Total Activity: 500 Leave Without Pay:				5.50
	Total Activity: 810 Peru - Regular:				50.00
	Total Activity: 811 Peru - Overtime:				4.00
	Total Activity: 812 Nemaha - Regular:				19.00
	Total Activity: 820 Johnson - Regular:				1.00
	Total Activity: 827 Peru - CTE:				13.50
	Total Activity: 828 Auburn - Regular:				29.00
	Total Activity: 901 Comp Time Used:				20.25
	Total Activity: 902 Comp Time Earned:				23.00
	Grand Totals:				3,854.50

Village of Brownville
2023 Costs Incurred and Billed

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Labor for Billing	250.00	250.00	250.00										**750.00**
Billing Charge for Bills Sent	56.50	57.00	57.50										**171.00**
Verizon SCADA	45.53	46.16	-46.16										**45.53**
Shipping Samples													**0.00**
Mileage													**0.00**
Materials	15.07												**15.07**
Credit													**0.00**
Water Meters													**0.00**
Meals													**0.00**
Labor - Electric REG													**0.00**
Labor - Elec OT													**0.00**
Labor- Water REG	100.00												**100.00**
Labor- WW REG													**0.00**
Labor- Admin REG	100.00												**100.00**
Labor - Water OT													**0.00**
Labor - WW OT													**0.00**
Labor - HOLDBL													**0.00**
Equipment													**0.00**
Monthly Totals	**567.10**	**353.16**	**261.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1,181.60**

Village of Johnson
2023 Costs Incurred and Billed

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Shipping Samples													**0.00**
Mileage			13.10										**13.10**
Materials													**0.00**
Water Meters													**0.00**
Meals													**0.00**
Labor - Electric REG													**0.00**
Labor- Water REG													**0.00**
Labor- WW REG		300.00	50.00										**350.00**
Labor- Admin REG													**0.00**
Labor - Water OT													**0.00**
Labor - WW OT													**0.00**
Labor - HOLDBL													**0.00**
Equipment		345.00											**345.00**
Monthly Totals	**0.00**	**645.00**	**63.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**708.10**

Village of Nemaha
2023 Costs Incurred and Billed

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Labor for Billing	200.00	200.00	200.00										**600.00**
Billing Charge for Bills Sent	50.00	50.00	50.00										**150.00**
Verizon SCADA			89.93										
Shipping Samples	11.69	11.67	23.24										**46.60**
Mileage	149.54	101.26	152.29										**403.09**
Materials		316.75	63.05										**379.80**
Water Meters													**0.00**
Meals													**0.00**
Labor- Water REG	387.50	1,937.50	1,050.00										**3,375.00**
Labor- WW REG	75.00	37.50	75.00										**187.50**
Labor- Admin REG	100.00	100.00	100.00										**300.00**
Labor - Water OT													**0.00**
Labor - WW OT													**0.00**
Labor - HOLDBL													**0.00**
Equipment		400.00											**400.00**
Monthly Totals	**973.73**	**3,154.68**	**1,803.51**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5,841.99**

City of Peru
2023 Costs Incurred and Billed

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Verizon SCADA	91.07	92.32	87.55										**270.94**
Shipping Samples	11.69	11.67	11.62										**34.98**
Mileage	534.61	433.74	529.17										**1,497.52**
Materials	712.41	149.84											**862.25**
Water Meters													**0.00**
Bulk Water													**0.00**
Meals													**0.00**
Finance Fees	85.10												
Labor- Water REG	2,450.00	2,150.00	2,475.00										**7,075.00**
Labor- WW REG	225.00												**225.00**
Labor- Admin REG	350.00	350.00	350.00										**1,050.00**
Labor - Water OT/CTE	850.00	850.00	1,075.00										**2,775.00**
Labor - WW OT													**0.00**
Labor - HOLDBL	100.00												**100.00**
Equipment	655.00												**655.00**
Monthly Totals	**6,064.88**	**4,037.57**	**4,528.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**14,545.69**

Summary Comparison

Average Typical Electric Bills
2022

Summer	2021 * NMPP/MEAN Members Average	2022 * NMPP/MEAN Members Average	Percent Increase/ Decrease
Residential Class			
500 kWh	$72.11	$73.21	1.5%
1,000 kWh	$126.65	$128.17	1.2%
2,500 kWh	$286.11	$288.82	0.9%
General Service Class			
6 kW & 2,500 kWh	$310.20	$315.42	1.7%
12 kW & 5,000 kWh	$594.77	$601.66	1.2%
24 kW & 10,000 kWh	$1,128.97	$1,141.94	1.1%
60 kW & 25,000 kWh	$2,634.52	$2,671.40	1.4%
Large Light and Power Class			
100 kW & 55,000 kWh	$5,035.14	$5,108.79	1.5%
500 kW & 225,000 kWh	$21,319.24	$21,614.58	1.4%
1,000 kW & 525,000 kWh	$46,912.67	$47,500.29	1.3%

Winter			
Residential Class			
500 kWh	$69.25	$70.54	1.9%
1,000 kWh	$118.19	$120.20	1.7%
2,500 kWh	$253.58	$257.91	1.7%
All-Electric/Winter Heat 2,500 kWh	$243.55	$248.29	1.9%
General Service Class			
6 kW & 2,500 kWh	$292.93	$299.08	2.1%
12 kW & 5,000 kWh	$549.31	$558.81	1.7%
24 kW & 10,000 kWh	$1,022.74	$1,041.92	1.9%
60 kW & 25,000 kWh	$2,407.73	$2,448.22	1.7%
All-Electric/Winter Heat 60 kW & 25,000 kWh	$2,327.03	$2,371.49	1.9%
Large Light and Power Class			
100 kW & 55,000 kWh	$4,640.01	$4,713.68	1.6%
500 kW & 225,000 kWh	$19,460.75	$19,746.81	1.5%
1,000 kW & 525,000 kWh	$42,880.00	$43,442.92	1.3%

* Average of towns that occur in both surveys

Residential - Summer

Typical Electric Bills
Ranking for 500 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$38.90
2	Chappell, NE	51.28
3	Lake View, IA	55.00
4	Torrington, WY	56.40
5	Grand Island, NE	56.65
6	Wilber, NE	56.75
7	Gothenburg, NE	57.35
8	Auburn, NE	57.75
8	Yuma, CO	57.75
10	Wahoo, NE	58.10
11	Spalding, NE	59.73
12	Hastings, NE	60.00
13	Blue Hill, NE	60.45
14	Laurel, NE	60.65
15	Beatrice, NE	61.50
16	Holdrege, NE	61.95
17	Winside, NE	62.25
18	Fort Collins, CO	62.28
19	Sergeant Bluff, IA	62.85
20	Ord, NE	63.36
21	Wauneta, NE	63.75
22	Lincoln Electric System, NE	63.78
23	Gunnison, CO	64.55
24	Julesburg, CO	65.50
25	Wray, CO	65.60
26	Superior, NE	65.93
27	Wisner, NE	67.70
28	Syracuse, NE	67.80
29	Hickman, NE	67.95
30	Benkelman, NE	68.00
31	St. Paul, NE	68.01
32	Beloit, KS	68.03
33	Fountain, CO	68.54
34	Holy Cross Energy, CO	68.88
35	Glenwood Springs, CO	69.15
36	Sidney, NE	69.25
37	Gillette, WY	70.00
38	Curtis, NE	70.55
39	Delta, CO	70.95
40	Cambridge, NE	71.87
41	Imperial, NE	71.90
42	Walthill, NE	72.16
43	Fairmont, NE	72.40
44	Loup PD, NE	73.25
45	Deshler, NE	73.50
46	Crete, NE	73.85
47	Lexington, NE	74.00
48	David City, NE	74.25
49	DeWitt, NE	75.25
50	Stromsburg, NE	75.60
51	Waverly Light and Power, IA	$75.70
52	Fairbury, NE	76.25
53	Tecumseh, NE	76.53
54	Wayne, NE	76.60
55	Holyoke, CO	76.68
56	Central City, NE	76.75
57	South Sioux City, NE	76.85
58	Northeast Nebraska PPD - Lease Towns, NE	77.61
59	Arnold, NE	77.95
60	Pender, NE	78.49
61	Alliance, NE	78.66
62	Spencer, NE	78.66
63	Sutton, NE	78.88
64	Nebraska City, NE	79.17
65	Sargent, NE	79.75
66	Plainview, NE	80.62
67	Belleville, KS	81.04
68	Omaha PPD, NE	82.18
69	Haxtun, CO	82.41
70	Springfield, CO	82.50
71	Kingman, KS	84.03
72	Grant, NE	84.28
73	Morrill, NE	84.31
74	Y-W Electric Association, CO	84.96
75	Nebraska PPD, NE	85.60
76	Lamar, CO	85.80
77	Trinidad, CO	86.65
78	Evergy (Kansas Metro), KS	86.79
79	Aspen, CO	87.49
80	Holly, CO	87.88
81	Evergy (Kansas Central), KS	88.18
82	Neligh, NE	88.65
83	Highline Electric Association, CO	89.40
84	West Point, NE	89.50
85	Kimball, NE	89.71
86	Arapahoe, NE	90.15
87	Butler PPD, NE	91.81
88	Red Cloud, NE	92.15
89	Rockford, IA	93.82
90	Wheat Belt PPD, NE	94.85
91	Chimney Rock PPD, NE	96.55
92	Scribner, NE	96.75
93	Dawson PPD - Lease Towns, NE	97.71
94	Ansley, NE	98.85
95	Stuart, NE	101.25
96	PREMA, NE	109.38

MEAN Member Average	$74.43
Other NMPP Member Average	$72.06
Total Survey Average	$74.92
High % of Average	146.0%
Low % of Average	51.9%

Residential - Summer
Typical Electric Bills
Ranking for 1,000 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$67.85
2	Chappell, NE	87.55
3	Blue Hill, NE	91.03
4	Lake View, IA	95.00
5	Wilber, NE	95.25
6	Spalding, NE	95.82
7	Grand Island, NE	98.70
8	Wahoo, NE	98.95
9	Gothenburg, NE	102.10
10	Auburn, NE	102.50
11	Hastings, NE	104.00
12	Ord, NE	104.76
13	Torrington, WY	104.81
14	Sergeant Bluff, IA	105.70
15	Yuma, CO	108.25
16	Wauneta, NE	108.75
17	Lincoln Electric System, NE	108.78
18	Laurel, NE	109.30
19	Gunnison, CO	110.60
20	Beatrice, NE	111.00
21	Holdrege, NE	111.30
22	Superior, NE	112.12
23	Winside, NE	114.00
24	Gillette, WY	115.00
25	St. Paul, NE	115.81
26	Curtis, NE	116.10
27	Wisner, NE	116.40
28	Wallhill, NE	118.12
29	Benkelman, NE	118.50
29	Julesburg, CO	118.50
29	Sidney, NE	118.50
32	Hickman, NE	119.16
33	Loup PD, NE	120.50
34	Deshler, NE	121.00
35	Delta, CO	121.40
36	Lexington, NE	121.50
37	Fountain, CO	121.78
38	Fort Collins, CO	122.35
39	Wray, CO	123.20
40	Glenwood Springs, CO	123.30
41	Syracuse, NE	123.60
42	Imperial, NE	123.80
43	Fairmont, NE	123.85
44	David City, NE	124.25
45	Holy Cross Energy, CO	125.16
46	Northeast Nebraska PPD - Lease Towns, NE	126.05
47	Cambridge, NE	126.17
48	DeWitt, NE	126.50
49	Crete, NE	128.20
50	Stromsburg, NE	128.80
51	Beloit, KS	$129.96
52	South Sioux City, NE	131.41
53	Wayne, NE	133.20
54	Sutton, NE	134.01
55	Omaha PPD, NE	134.36
56	Fairbury, NE	134.50
57	Alliance, NE	134.66
58	Pender, NE	135.00
59	Nebraska City, NE	136.29
60	Central City, NE	136.53
61	Highline Electric Association, CO	138.53
62	Tecumseh, NE	138.64
63	Arnold, NE	140.15
64	Spencer, NE	140.67
65	Waverly Light and Power, IA	140.84
66	Y-W Electric Association, CO	141.08
67	Holyoke, CO	142.76
68	Wheat Belt PPD, NE	143.67
69	Plainview, NE	143.84
70	Haxtun, CO	143.95
71	Nebraska PPD, NE	144.08
72	Grant, NE	144.38
73	Sargent, NE	146.00
74	Chimney Rock PPD, NE	146.55
75	Belleville, KS	148.08
76	Morrill, NE	148.62
77	Aspen, CO	151.43
78	Butler PPD, NE	151.69
79	West Point, NE	153.00
80	Kingman, KS	153.81
81	Springfield, CO	155.50
82	Dawson PPD - Lease Towns, NE	155.66
83	Lamar, CO	156.10
84	Red Cloud, NE	156.30
85	Neligh, NE	156.40
86	Kimball, NE	158.25
87	Evergy (Kansas Metro), KS	158.47
88	Trinidad, CO	159.30
89	Rockford, IA	160.24
90	Evergy (Kansas Central), KS	161.78
91	Scribner, NE	164.40
92	Arapahoe, NE	166.60
93	Stuart, NE	169.38
94	Holly, CO	171.01
95	PREMA, NE	172.20
96	Ansley, NE	175.85

MEAN Member Average	$129.92
Other NMPP Member Average	$126.40
Total Survey Average	$129.95
High % of Average	135.3%
Low % of Average	52.2%

Residential - Summer
Typical Electric Bills
Ranking for 2,500 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$154.70
2	Blue Hill, NE	173.70
3	Lake View, IA	186.05
4	Spalding, NE	193.00
5	Chappell, NE	196.38
6	Ord, NE	198.06
7	Wilber, NE	210.75
8	Wahoo, NE	221.50
9	Hickman, NE	224.15
10	Grand Island, NE	224.85
11	Lincoln Electric System, NE	232.28
12	Sergeant Bluff, IA	234.25
13	Hastings, NE	236.00
14	Gothenburg, NE	236.35
15	Auburn, NE	236.75
16	Walthill, NE	243.22
17	Curtis, NE	243.75
17	Wauneta, NE	243.75
19	Gunnison, CO	248.75
20	Gillette, WY	250.00
21	Torrington, WY	250.02
22	Superior, NE	250.67
23	Laurel, NE	255.25
24	Loup PD, NE	255.50
25	Highline Electric Association, CO	258.08
26	St. Paul, NE	259.21
27	Holdrege, NE	259.35
28	Beatrice, NE	259.50
29	Yuma, CO	259.75
30	Wisner, NE	262.50
31	Deshler, NE	263.50
32	Benkelman, NE	264.00
32	Lexington, NE	264.00
34	Sutton, NE	264.90
35	Sidney, NE	266.25
36	David City, NE	266.75
37	DeWitt, NE	269.00
38	Winside, NE	269.25
39	Fairmont, NE	270.85
40	Northeast Nebraska PPD - Lease Towns, NE	271.36
41	Delta, CO	272.75
42	South Sioux City, NE	276.24
43	Julesburg, CO	277.50
44	Imperial, NE	279.50
45	Fountain, CO	281.49
46	Glenwood Springs, CO	285.75
47	Stromsburg, NE	288.40
48	Cambridge, NE	289.07
49	Wheat Belt PPD, NE	290.15
50	Omaha PPD, NE	290.90
51	Syracuse, NE	$291.00
52	Crete, NE	291.25
53	Beloit, KS	291.44
54	Holy Cross Energy, CO	293.99
55	Wray, CO	296.00
56	Chimney Rock PPD, NE	296.55
57	Spencer, NE	297.95
58	Pender, NE	298.09
59	Alliance, NE	302.66
60	Nebraska City, NE	302.93
61	Wayne, NE	303.00
62	Holyoke, CO	304.15
63	Haxtun, CO	304.73
64	Y-W Electric Association, CO	305.06
65	Central City, NE	306.03
66	Fairbury, NE	309.25
67	Fort Collins, CO	317.32
68	Nebraska PPD, NE	319.55
69	Grant, NE	324.68
70	Tecumseh, NE	324.97
71	PREMA, NE	325.45
72	Arnold, NE	326.75
73	Dawson PPD - Lease Towns, NE	329.52
74	Butler PPD, NE	331.34
75	Plainview, NE	333.50
76	Rockford, IA	335.56
77	Morrill, NE	341.55
78	West Point, NE	343.50
79	Waverly Light and Power, IA	343.79
80	Sargent, NE	344.75
81	Neligh, NE	346.45
82	Scribner, NE	347.55
83	Red Cloud, NE	348.75
84	Belleville, KS	349.20
85	Kingman, KS	363.15
86	Kimball, NE	363.85
87	Stuart, NE	365.13
88	Lamar, CO	367.00
89	Evergy (Kansas Metro), KS	373.52
90	Springfield, CO	374.50
91	Trinidad, CO	377.25
92	Arapahoe, NE	390.10
93	Evergy (Kansas Central), KS	392.07
94	Ansley, NE	406.84
95	Holly, CO	420.40
96	Aspen, CO	421.98

MEAN Member Average	$293.50
Other NMPP Member Average	$283.20
Total Survey Average	$290.66
High % of Average	145.2%
Low % of Average	53.2%

Residential - Winter
Typical Electric Bills
Ranking for 500 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$38.90
2	Torrington, WY	47.30
3	Chappell, NE	51.28
4	Lake View, IA	55.00
5	Wahoo, NE	55.60
6	Lincoln Electric System, NE	55.63
7	Gothenburg, NE	55.65
8	Grand Island, NE	56.20
9	Wilber, NE	56.75
10	Yuma, CO	57.75
11	Loup PD, NE	58.25
12	Auburn, NE	59.00
12	Julesburg, CO	59.00
14	Fort Collins, CO	59.30
15	Spalding, NE	59.73
16	Hastings, NE	60.00
17	Blue Hill, NE	60.45
18	Laurel, NE	60.65
19	Beatrice, NE	61.50
20	Superior, NE	61.63
21	Holdrege, NE	61.95
22	Winside, NE	62.25
23	Syracuse, NE	62.75
24	Sergeant Bluff, IA	62.85
25	Hickman, NE	62.95
26	Benkelman, NE	63.00
27	Ord, NE	63.36
28	Sutton, NE	63.43
29	Central City, NE	64.00
30	Gunnison, CO	64.55
31	Fairmont, NE	64.60
32	Wisner, NE	65.20
33	Wray, CO	65.60
34	Sargent, NE	66.22
35	Wauneta, NE	66.75
36	Northeast Nebraska PPD - Lease Towns, NE	67.88
37	St. Paul, NE	68.01
38	Beloit, KS	68.03
39	Fountain, CO	68.54
40	Cambridge, NE	69.05
41	Holy Cross Energy, CO	69.08
42	Glenwood Springs, CO	69.15
43	Sidney, NE	69.25
44	Omaha PPD, NE	69.40
45	Gillette, WY	70.00
46	Curtis, NE	70.55
47	Fairbury, NE	70.75
48	Delta, CO	70.95
49	Neligh, NE	71.00
50	DeWitt, NE	71.50
51	Lexington, NE	$71.85
52	Imperial, NE	71.90
53	Walthill, NE	72.16
54	Tecumseh, NE	72.41
55	Evergy (Kansas Metro), KS	72.41
56	David City, NE	73.00
57	Nebraska PPD, NE	73.49
58	Deshler, NE	73.50
59	Crete, NE	73.85
60	Grant, NE	75.14
61	Arnold, NE	75.45
62	Stromsburg, NE	75.60
63	Plainview, NE	75.92
64	Waverly Light and Power, IA	75.95
65	Nebraska City, NE	76.55
66	Holyoke, CO	76.68
67	Scribner, NE	76.70
68	South Sioux City, NE	76.85
69	Pender, NE	78.58
70	Alliance, NE	78.66
71	Spencer, NE	78.66
72	Wayne, NE	79.70
73	Haxtun, CO	80.02
74	Kimball, NE	80.35
75	Evergy (Kansas Central), KS	80.82
76	Belleville, KS	81.04
77	Y-W Electric Association, CO	82.35
78	Springfield, CO	82.50
79	Butler PPD, NE	83.80
80	Kingman, KS	83.99
81	Morrill, NE	84.31
82	West Point, NE	84.50
83	Lamar, CO	85.80
84	Holly, CO	86.16
85	Trinidad, CO	86.65
86	Arapahoe, NE	87.45
87	Aspen, CO	87.49
88	Highline Electric Association, CO	89.40
89	Dawson PPD - Lease Towns, NE	91.45
90	Red Cloud, NE	92.15
91	Rockford, IA	93.82
92	Wheat Belt PPD, NE	94.85
93	Chimney Rock PPD, NE	96.55
94	Stuart, NE	97.20
95	Ansley, NE	97.90
96	PREMA, NE	109.38

MEAN Member Average	$72.21
Other NMPP Member Average	$68.78
Total Survey Average	$71.95
High % of Average	152.0%
Low % of Average	54.1%

Residential - Winter
Typical Electric Bills
Ranking for 1,000 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$67.85
2	Torrington, WY	86.61
3	Chappell, NE	87.55
4	Blue Hill, NE	91.03
5	Wahoo, NE	91.33
6	Grand Island, NE	92.10
7	Lincoln Electric System, NE	92.48
8	Superior, NE	94.06
9	Lake View, IA	95.00
10	Wilber, NE	95.25
11	Spalding, NE	95.82
12	Gothenburg, NE	96.41
13	St. Paul, NE	98.26
14	Loup PD, NE	98.50
15	Beatrice, NE	99.75
16	Lexington, NE	100.50
17	Hastings, NE	101.84
18	Sergeant Bluff, IA	103.70
19	Central City, NE	104.00
20	Ord, NE	104.76
21	Benkelman, NE	104.90
22	Auburn, NE	105.00
23	Julesburg, CO	105.50
24	Northeast Nebraska PPD - Lease Towns, NE	106.59
25	Omaha PPD, NE	107.63
26	Yuma, CO	108.25
27	Wisner, NE	108.90
28	Hickman, NE	109.15
29	Sutton, NE	109.21
30	Laurel, NE	109.30
31	Holdrege, NE	109.62
32	Gunnison, CO	110.60
33	DeWitt, NE	111.50
34	Sargent, NE	112.22
35	Neligh, NE	112.30
36	Fairmont, NE	112.70
37	Syracuse, NE	113.50
38	Winside, NE	114.00
39	Wauneta, NE	114.75
40	Gillette, WY	115.00
41	Sidney, NE	115.10
42	Curtis, NE	116.10
43	Nebraska PPD, NE	116.16
44	Fort Collins, CO	116.38
45	David City, NE	118.00
46	Walthill, NE	118.12
47	Deshler, NE	118.50
48	Imperial, NE	119.06
49	Scribner, NE	120.15
50	Cambridge, NE	120.60
51	Fairbury, NE	$121.06
52	Crete, NE	121.20
53	Delta, CO	121.40
54	Fountain, CO	121.78
55	Stromsburg, NE	122.28
56	Wray, CO	123.20
57	Glenwood Springs, CO	123.30
58	Alliance, NE	124.34
59	Holy Cross Energy, CO	125.56
60	Grant, NE	125.94
61	Nebraska City, NE	127.89
62	South Sioux City, NE	129.54
63	Evergy (Kansas Metro), KS	129.72
64	Beloit, KS	129.96
65	Arnold, NE	130.15
66	Tecumseh, NE	130.40
66	Wayne, NE	130.40
68	Waverly Light and Power, IA	131.30
69	Kimball, NE	132.86
70	Pender, NE	133.48
71	Plainview, NE	134.44
72	Haxtun, CO	135.56
73	Butler PPD, NE	135.67
74	Y-W Electric Association, CO	135.86
75	Highline Electric Association, CO	138.53
76	West Point, NE	139.00
77	Spencer, NE	140.67
78	Holyoke, CO	142.76
79	Dawson PPD - Lease Towns, NE	143.13
80	Wheat Belt PPD, NE	143.67
81	Evergy (Kansas Central), KS	144.86
82	Belleville, KS	145.58
83	Red Cloud, NE	146.40
84	Chimney Rock PPD, NE	146.55
85	Morrill, NE	148.62
86	Trinidad, CO	151.30
87	Aspen, CO	151.43
88	Kingman, KS	153.73
89	Springfield, CO	155.50
90	Lamar, CO	156.10
91	Stuart, NE	157.32
92	Arapahoe, NE	158.95
93	Rockford, IA	160.24
94	Holly, CO	167.57
95	PREMA, NE	172.20
96	Ansley, NE	172.52

MEAN Member Average	$123.06
Other NMPP Member Average	$117.16
Total Survey Average	$121.77
High % of Average	141.7%
Low % of Average	55.7%

Residential - Winter
Typical Electric Bills
Ranking for 2,500 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$154.70
2	Superior, NE	172.46
3	Blue Hill, NE	173.70
4	Wahoo, NE	183.88
5	Lake View, IA	186.05
6	Lexington, NE	186.45
7	Auburn, NE	188.25
8	St. Paul, NE	189.01
9	Grand Island, NE	189.30
10	Omaha PPD, NE	189.47
11	Lincoln Electric System, NE	191.53
12	Spalding, NE	193.00
13	Central City, NE	193.10
14	Chappell, NE	196.38
15	Neligh, NE	196.60
16	Ord, NE	198.06
17	Hickman, NE	198.40
18	Torrington, WY	204.52
19	Hastings, NE	207.69
20	DeWitt, NE	209.00
21	Beatrice, NE	210.75
22	Wilber, NE	210.75
23	Gothenburg, NE	211.80
24	Sergeant Bluff, IA	217.25
25	Benkelman, NE	217.40
26	Scribner, NE	218.25
26	Wauneta, NE	218.25
28	Loup PD, NE	218.50
29	Northeast Nebraska PPD - Lease Towns, NE	222.71
30	Wisner, NE	232.50
31	Nebraska PPD, NE	233.07
32	Sutton, NE	235.31
33	David City, NE	236.50
34	Fairmont, NE	237.35
35	Syracuse, NE	242.50
36	Walthill, NE	243.22
37	Curtis, NE	243.75
38	Julesburg, CO	245.00
39	Holdrege, NE	245.07
40	Tecumseh, NE	248.60
41	Gunnison, CO	248.75
42	Stromsburg, NE	249.29
43	Gillette, WY	250.00
44	Sidney, NE	250.10
45	Sargent, NE	250.22
46	Imperial, NE	251.06
47	Deshler, NE	253.50
48	Alliance, NE	253.64
49	Crete, NE	254.25
50	Fairbury, NE	254.86
51	Laurel, NE	$255.25
52	Highline Electric Association, CO	258.08
53	Yuma, CO	259.75
54	Nebraska City, NE	263.03
55	South Sioux City, NE	263.10
56	Wayne, NE	264.50
57	Winside, NE	269.25
58	Delta, CO	272.75
59	Butler PPD, NE	275.19
60	Cambridge, NE	275.25
61	Grant, NE	278.34
62	Haxtun, CO	279.11
63	Arnold, NE	279.25
64	Fountain, CO	281.49
65	West Point, NE	284.50
66	Glenwood Springs, CO	285.75
67	Kimball, NE	287.15
68	Pender, NE	288.29
69	Red Cloud, NE	289.35
70	Wheat Belt PPD, NE	290.15
71	Beloit, KS	291.44
72	Y-W Electric Association, CO	292.00
73	Holy Cross Energy, CO	295.00
74	Wray, CO	296.00
75	Chimney Rock PPD, NE	296.55
76	Waverly Light and Power, IA	297.35
77	Spencer, NE	297.95
78	Dawson PPD - Lease Towns, NE	298.19
79	Evergy (Kansas Metro), KS	301.65
80	Fort Collins, CO	302.40
81	Holyoke, CO	304.15
82	Plainview, NE	310.01
83	Evergy (Kansas Central), KS	320.19
84	Stuart, NE	322.02
85	PREMA, NE	325.45
86	Rockford, IA	335.56
87	Belleville, KS	339.20
88	Trinidad, CO	339.25
89	Morrill, NE	341.55
90	Kingman, KS	362.96
91	Lamar, CO	367.00
92	Arapahoe, NE	373.45
93	Springfield, CO	374.50
94	Ansley, NE	389.26
95	Holly, CO	411.79
96	Aspen, CO	421.98

MEAN Member Average	$267.82
Other NMPP Member Average	$247.15
Total Survey Average	$260.54
High % of Average	162.0%
Low % of Average	59.4%

Residential - Winter

Typical Electric Bills
Ranking for 2,500 kWh - All-Electric/Winter Heat
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$154.70
2	Cambridge, NE	162.65
3	Wilber, NE	165.30
4	Lexington, NE	169.55
5	Beatrice, NE	169.80
6	Superior, NE	172.46
7	Blue Hill, NE	173.70
8	Ord, NE	183.81
9	Wahoo, NE	183.88
10	Lake View, IA	186.05
11	Waverly Light and Power, IA	186.77
12	Auburn, NE	188.25
13	Laurel, NE	188.65
14	St. Paul, NE	189.01
15	Grand Island, NE	189.30
16	Omaha PPD, NE	189.47
17	DeWitt, NE	189.75
18	Lincoln Electric System, NE	191.53
19	Spalding, NE	193.00
20	Central City, NE	193.10
21	Torrington, WY	196.22
22	Chappell, NE	196.38
23	Neligh, NE	196.60
24	Wallhill, NE	197.05
25	Hickman, NE	198.40
26	Hastings, NE	207.69
27	Gothenburg, NE	211.80
28	Scribner, NE	216.75
29	Sergeant Bluff, IA	217.25
30	Benkelman, NE	217.40
31	Wauneta, NE	218.25
32	Loup PD, NE	218.50
33	Sidney, NE	221.60
34	Northeast Nebraska PPD - Lease Towns, NE	222.71
35	Sutton, NE	225.86
36	Wisner, NE	226.03
37	Fairmont, NE	227.60
38	South Sioux City, NE	230.42
39	Deshler, NE	230.50
40	Nebraska PPD, NE	233.07
41	Tecumseh, NE	234.85
42	Syracuse, NE	235.50
43	David City, NE	236.50
44	Curtis, NE	243.75
45	Julesburg, CO	245.00
46	Holdrege, NE	245.07
47	Gunnison, CO	248.75
48	Stromsburg, NE	249.29
49	Gillette, WY	250.00
50	Sargent, NE	250.22
51	Imperial, NE	$251.06
52	Alliance, NE	253.64
53	Crete, NE	254.25
54	Fairbury, NE	254.86
55	Spencer, NE	257.31
56	Highline Electric Association, CO	258.08
57	Yuma, CO	259.75
58	Nebraska City, NE	263.03
59	Wayne, NE	264.50
60	Evergy (Kansas Metro), KS	266.25
61	Winside, NE	269.25
62	Grant, NE	271.06
63	Delta, CO	272.75
64	Butler PPD, NE	273.69
65	Fort Collins, CO	277.62
66	Haxtun, CO	279.11
67	Arnold, NE	279.25
68	Fountain, CO	281.49
69	West Point, NE	284.50
70	Glenwood Springs, CO	285.75
71	Arapahoe, NE	287.00
72	Kimball, NE	287.15
73	Pender, NE	288.29
74	Red Cloud, NE	289.35
75	Wheat Belt PPD, NE	290.15
76	Beloit, KS	291.44
77	Y-W Electric Association, CO	292.00
78	Holy Cross Energy, CO	295.00
79	Wray, CO	296.00
80	Chimney Rock PPD, NE	296.55
81	Dawson PPD - Lease Towns, NE	298.19
82	Holyoke, CO	304.15
83	Stuart, NE	307.96
84	Plainview, NE	310.01
85	Evergy (Kansas Central), KS	320.19
86	PREMA, NE	325.45
87	Rockford, IA	335.56
88	Belleville, KS	339.20
89	Trinidad, CO	339.25
90	Morrill, NE	341.55
91	Kingman, KS	362.96
92	Lamar, CO	367.00
93	Springfield, CO	374.50
94	Ansley, NE	389.26
95	Holly, CO	411.79
96	Aspen, CO	421.98

MEAN Member Average	$262.29
Other NMPP Member Average	$234.18
Total Survey Average	$251.97
High % of Average	167.5%
Low % of Average	61.4%

General Service - Summer
Typical Electric Bills
Ranking for 6 kW & 2,500 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$154.70
2	Chappell, NE	197.10
3	Lake View, IA	236.05
4	Blue Hill, NE	238.83
5	Grand Island, NE	241.75
6	Lincoln Electric System, NE	251.10
7	Auburn, NE	251.25
8	Gothenburg, NE	254.76
9	North Central PPD - Lease Towns, NE	256.41
10	Wahoo, NE	260.25
11	Gillette, WY	260.49
12	Omaha PPD, NE	261.45
13	Superior, NE	261.62
14	Sergeant Bluff, IA	263.75
15	Highline Electric Association, CO	265.04
16	Yuma, CO	267.50
17	Hastings, NE	268.15
18	Winside, NE	268.50
19	Laurel, NE	268.60
20	Gunnison, CO	273.25
21	Holy Cross Energy, CO	274.04
22	Delta, CO	275.00
23	Northeast Nebraska PPD - Lease Towns, NE	277.68
24	Benkelman, NE	279.75
25	Loup PD, NE	280.75
26	Holdrege, NE	283.50
27	Imperial, NE	285.75
28	David City, NE	289.25
29	Wheat Belt PPD, NE	290.15
30	Sutton, NE	290.78
31	St. Paul, NE	290.80
32	Deshler, NE	291.00
33	Fountain, CO	291.59
34	Julesburg, CO	294.50
35	Glenwood Springs, CO	295.00
36	Syracuse, NE	295.75
37	Wray, CO	296.00
38	Beatrice, NE	297.50
39	Wauneta, NE	298.00
40	Waverly Light and Power, IA	298.04
41	Norris PPD - Lease Towns, NE	299.61
42	Wilber, NE	300.42
43	Fort Collins, CO	300.84
44	Lexington, NE	300.95
45	Curtis, NE	301.00
46	Spalding, NE	301.50
47	Sidney, NE	302.38
48	Hickman, NE	304.00
49	Fairmont, NE	304.58
50	Haxtun, CO	304.73
51	Chimney Rock PPD, NE	$305.00
52	Alliance, NE	305.03
53	Plainview, NE	307.95
54	Holyoke, CO	312.30
55	Aspen, CO	312.69
56	Nebraska PPD, NE	312.92
57	Belleville, KS	314.45
58	Crete, NE	319.50
59	Ord, NE	320.37
60	Fairbury, NE	325.75
61	Beloit, KS	326.16
62	Tecumseh, NE	326.26
63	Arnold, NE	326.75
64	Wayne, NE	327.25
65	Wisner, NE	328.00
66	Dawson PPD - Lease Towns, NE	329.52
67	Walthill, NE	330.75
68	Y-W Electric Association, CO	335.95
69	Central City, NE	336.24
70	Pender, NE	337.68
71	Stromsburg, NE	341.60
72	Torrington, WY	346.25
73	Evergy (Kansas Metro), KS	347.45
74	Neligh, NE	349.55
75	Evergy (Kansas Central), KS	351.59
76	DeWitt, NE	352.50
77	Nebraska City, NE	352.54
78	Cambridge, NE	361.15
79	Red Cloud, NE	363.25
80	Sargent, NE	364.00
81	Morrill, NE	366.00
82	Lamar, CO	368.75
83	West Point, NE	370.28
84	Springfield, CO	371.00
85	Butler PPD, NE	372.60
86	Kimball, NE	372.92
87	PREMA, NE	373.22
88	Kingman, KS	379.40
89	Rockford, IA	380.59
90	Grant, NE	381.88
91	Spencer, NE	387.68
92	South Sioux City, NE	389.01
93	Holly, CO	391.90
94	Scribner, NE	396.90
95	Trinidad, CO	405.00
96	Arapahoe, NE	427.26
97	Ansley, NE	434.15
98	Stuart, NE	443.12

MEAN Member Average	$314.84
Other NMPP Member Average	$315.74
Total Survey Average	$314.06
High % of Average	141.1%
Low % of Average	49.3%

General Service - Summer
Typical Electric Bills
Ranking for 12 kW & 5,000 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$299.45
2	Lake View, IA	388.75
3	Chappell, NE	405.75
4	Blue Hill, NE	446.30
5	Omaha PPD, NE	476.10
6	Gillette, WY	482.19
7	Highline Electric Association, CO	484.54
8	Gothenburg, NE	484.63
9	Spalding, NE	487.92
10	Hastings, NE	489.40
11	North Central PPD - Lease Towns, NE	490.10
12	Superior, NE	491.24
13	Sergeant Bluff, IA	492.50
14	Auburn, NE	495.50
15	Red Cloud, NE	501.50
16	Grand Island, NE	508.50
17	Laurel, NE	509.75
18	Gunnison, CO	514.00
19	Wahoo, NE	518.50
20	Yuma, CO	520.00
21	Lincoln Electric System, NE	521.05
22	Holy Cross Energy, CO	529.19
23	Fairmont, NE	530.08
24	Winside, NE	531.00
25	Northeast Nebraska PPD - Lease Towns, NE	534.12
26	Lexington, NE	535.20
27	Wauneta, NE	540.25
28	Delta, CO	540.50
29	Waverly Light and Power, IA	543.54
30	Curtis, NE	547.00
30	Deshler, NE	547.00
32	Ord, NE	548.12
33	St. Paul, NE	551.80
34	Haxtun, CO	552.86
35	Loup PD, NE	553.50
36	Hickman, NE	554.00
37	David City, NE	557.00
38	Imperial, NE	557.50
39	Wheat Belt PPD, NE	558.60
40	Holdrege, NE	561.75
41	Fountain, CO	562.79
42	Norris PPD - Lease Towns, NE	565.48
43	Syracuse, NE	565.50
44	Benkelman, NE	566.70
45	Sutton, NE	569.31
46	Glenwood Springs, CO	572.00
47	Beatrice, NE	575.00
48	Walthill, NE	579.00
49	Julesburg, CO	581.25
50	Holyoke, CO	581.27
51	Wray, CO	$584.00
52	Belleville, KS	598.90
53	Chimney Rock PPD, NE	600.60
54	Fort Collins, CO	606.63
55	Nebraska PPD, NE	607.77
56	Central City, NE	609.74
57	DeWitt, NE	610.00
58	Sidney, NE	614.75
59	Neligh, NE	616.36
60	Wisner, NE	617.00
61	Wayne, NE	619.50
62	Fairbury, NE	621.50
63	Beloit, KS	622.30
64	Aspen, CO	626.73
65	Alliance, NE	630.26
66	Crete, NE	630.35
67	Tecumseh, NE	630.63
68	Butler PPD, NE	631.95
69	Dawson PPD - Lease Towns, NE	636.14
70	Wilber, NE	644.46
71	Pender, NE	646.59
72	Nebraska City, NE	648.90
73	Stromsburg, NE	655.20
74	Y-W Electric Association, CO	659.89
75	Arnold, NE	664.25
76	Evergy (Kansas Metro), KS	675.68
77	Spencer, NE	675.99
78	Torrington, WY	678.50
79	Grant, NE	682.38
80	Cambridge, NE	685.32
81	Rockford, IA	699.81
82	Evergy (Kansas Central), KS	701.65
83	Kimball, NE	705.98
84	South Sioux City, NE	706.36
85	Lamar, CO	709.50
86	PREMA, NE	710.62
87	Plainview, NE	723.90
88	Kingman, KS	726.55
89	Sargent, NE	730.00
90	Morrill, NE	734.85
91	West Point, NE	736.80
92	Scribner, NE	748.40
93	Stuart, NE	764.42
94	Springfield, CO	770.50
95	Holly, CO	776.30
96	Trinidad, CO	786.00
97	Arapahoe, NE	805.26
98	Ansley, NE	834.10

MEAN Member Average	$597.72
Other NMPP Member Average	$602.12
Total Survey Average	$596.96
High % of Average	139.7%
Low % of Average	50.2%

General Service - Summer
Typical Electric Bills
Ranking for 24 kW & 10,000 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$588.95
2	Winside, NE	709.76
3	Lake View, IA	747.50
4	Wilber, NE	771.50
5	Chappell, NE	777.50
6	Blue Hill, NE	810.75
7	Spalding, NE	860.76
8	Omaha PPD, NE	861.62
9	Gillette, WY	872.45
10	Highline Electric Association, CO	903.54
11	Hastings, NE	931.90
12	Laurel, NE	934.75
13	North Central PPD - Lease Towns, NE	935.94
14	Red Cloud, NE	938.00
15	Gothenburg, NE	944.38
16	Grand Island, NE	949.00
17	Superior, NE	950.48
18	Lincoln Electric System, NE	964.55
19	Auburn, NE	965.50
20	Fairmont, NE	981.08
21	Sergeant Bluff, IA	986.00
22	Gunnison, CO	995.50
23	Wahoo, NE	999.00
24	Ord, NE	1,003.62
25	Lexington, NE	1,003.70
26	Northeast Nebraska PPD - Lease Towns, NE	1,006.15
27	Yuma, CO	1,025.00
28	Wheat Belt PPD, NE	1,027.95
29	Fountain, CO	1,030.61
30	St. Paul, NE	1,031.30
31	Waverly Light and Power, IA	1,034.54
32	Wauneta, NE	1,035.25
33	Curtis, NE	1,039.00
34	Holy Cross Energy, CO	1,039.47
35	Delta, CO	1,039.50
36	Loup PD, NE	1,041.00
37	David City, NE	1,044.50
38	Deshler, NE	1,047.00
39	Haxtun, CO	1,049.11
40	Walthill, NE	1,052.00
41	Imperial, NE	1,053.00
42	Hickman, NE	1,054.00
43	Sutton, NE	1,063.56
44	Syracuse, NE	1,073.00
45	Benkelman, NE	1,074.90
46	Holdrege, NE	1,092.00
47	Norris PPD - Lease Towns, NE	1,097.23
48	Neligh, NE	1,106.36
49	DeWitt, NE	1,110.00
50	Chimney Rock PPD, NE	1,110.60
51	Holyoke, CO	$1,119.22
52	Julesburg, CO	1,121.25
53	Glenwood Springs, CO	1,126.00
54	Beatrice, NE	1,130.00
55	Sidney, NE	1,149.50
56	Butler PPD, NE	1,150.65
57	Central City, NE	1,156.74
58	Wray, CO	1,160.00
59	Nebraska PPD, NE	1,161.33
60	Belleville, KS	1,167.80
61	Fort Collins, CO	1,189.13
62	Wisner, NE	1,195.00
63	Alliance, NE	1,200.76
64	Crete, NE	1,203.35
65	Wayne, NE	1,204.00
66	Pender, NE	1,208.24
67	Fairbury, NE	1,213.00
68	Tecumseh, NE	1,213.63
69	Beloit, KS	1,214.57
70	Spencer, NE	1,219.14
71	Dawson PPD - Lease Towns, NE	1,238.55
72	Nebraska City, NE	1,239.53
73	Rockford, IA	1,244.34
74	Cambridge, NE	1,271.32
75	Y-W Electric Association, CO	1,271.71
76	Stromsburg, NE	1,282.40
77	PREMA, NE	1,282.87
78	Grant, NE	1,283.38
79	Arnold, NE	1,286.25
80	Evergy (Kansas Metro), KS	1,332.13
81	South Sioux City, NE	1,341.06
82	Torrington, WY	1,342.99
83	Stuart, NE	1,362.02
84	Kimball, NE	1,372.10
85	Aspen, CO	1,374.06
86	Plainview, NE	1,379.88
87	Lamar, CO	1,391.00
88	West Point, NE	1,397.35
89	Springfield, CO	1,399.96
90	Evergy (Kansas Central), KS	1,401.78
91	Sargent, NE	1,420.00
92	Kingman, KS	1,420.85
93	Morrill, NE	1,422.70
94	Scribner, NE	1,424.40
95	Holly, CO	1,545.11
96	Trinidad, CO	1,548.00
97	Arapahoe, NE	1,561.26
98	Ansley, NE	1,634.00

MEAN Member Average	$1,142.31
Other NMPP Member Average	$1,134.94
Total Survey Average	$1,129.99
High % of Average	144.6%
Low % of Average	52.1%

General Service - Summer
Typical Electric Bills
Ranking for 60 kW & 25,000 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$1,457.45
2	Hickman, NE	1,481.63
3	Winside, NE	1,654.40
4	Wilber, NE	1,675.40
5	Lincoln Electric System, NE	1,759.25
6	Lake View, IA	1,823.75
7	Chappell, NE	1,892.75
8	Wahoo, NE	1,893.75
9	Spalding, NE	1,979.28
10	Beatrice, NE	2,035.00
11	Gillette, WY	2,051.39
12	Curtis, NE	2,110.00
13	Lexington, NE	2,114.30
14	Blue Hill, NE	2,121.10
15	Omaha PPD, NE	2,124.26
16	Wauneta, NE	2,140.35
17	Norris PPD - Lease Towns, NE	2,166.27
18	Laurel, NE	2,209.75
19	Red Cloud, NE	2,247.50
20	Hastings, NE	2,259.40
21	South Sioux City, NE	2,270.41
22	North Central PPD - Lease Towns, NE	2,273.47
23	Sergeant Bluff, IA	2,315.00
24	Gothenburg, NE	2,323.63
25	Superior, NE	2,328.19
26	Fairmont, NE	2,334.08
27	Highline Electric Association, CO	2,344.30
28	Ord, NE	2,370.12
29	Auburn, NE	2,375.50
30	St. Paul, NE	2,380.50
31	Holy Cross Energy, CO	2,388.26
32	Waverly Light and Power, IA	2,407.30
33	Fountain, CO	2,430.73
34	Gunnison, CO	2,440.00
35	Neligh, NE	2,460.11
36	Grand Island, NE	2,460.50
37	Chimney Rock PPD, NE	2,465.00
38	Wheat Belt PPD, NE	2,465.54
39	Walthill, NE	2,471.00
40	Syracuse, NE	2,487.00
41	Tecumseh, NE	2,487.40
42	Northeast Nebraska PPD - Lease Towns, NE	2,488.29
43	Loup PD, NE	2,503.50
44	Haxtun, CO	2,537.86
45	Imperial, NE	2,539.50
46	Yuma, CO	2,542.50
47	Sutton, NE	2,546.31
48	Deshler, NE	2,547.00
49	Nebraska PPD, NE	2,566.81
50	Delta, CO	2,572.50
51	Scribner, NE	$2,572.70
52	Benkelman, NE	2,599.50
53	DeWitt, NE	2,610.00
54	Beloit, KS	2,679.48
55	Holdrege, NE	2,682.75
56	Y-W Electric Association, CO	2,698.71
57	Butler PPD, NE	2,706.75
58	Fort Collins, CO	2,727.41
59	Julesburg, CO	2,741.25
60	Glenwood Springs, CO	2,788.00
61	Central City, NE	2,797.74
62	Stromsburg, NE	2,805.60
63	David City, NE	2,815.00
64	Spencer, NE	2,848.59
65	Wayne, NE	2,862.50
66	Rockford, IA	2,877.91
67	Wray, CO	2,888.00
68	Pender, NE	2,893.19
69	Nebraska City, NE	2,898.53
70	Cambridge, NE	2,919.82
71	Crete, NE	2,922.35
72	Alliance, NE	2,925.32
73	Wisner, NE	2,929.00
74	Belleville, KS	2,954.25
75	Holyoke, CO	2,971.95
76	Torrington, WY	2,981.05
77	Fairbury, NE	2,987.50
78	Aspen, CO	2,997.34
79	PREMA, NE	2,999.62
80	West Point, NE	3,003.25
81	Sargent, NE	3,012.00
82	Evergy (Kansas Metro), KS	3,067.61
83	Grant, NE	3,086.38
84	Dawson PPD - Lease Towns, NE	3,088.31
85	Sidney, NE	3,097.50
86	Stuart, NE	3,144.02
87	Arnold, NE	3,155.75
88	Plainview, NE	3,347.82
89	Springfield, CO	3,364.90
90	Kimball, NE	3,370.46
91	Evergy (Kansas Central), KS	3,502.15
92	Kingman, KS	3,569.00
93	Trinidad, CO	3,815.00
94	Arapahoe, NE	3,829.26
95	Lamar, CO	3,840.00
96	Holly, CO	3,856.01
97	Morrill, NE	3,906.00
98	Ansley, NE	4,033.70

MEAN Member Average	$2,751.09
Other NMPP Member Average	$2,584.94
Total Survey Average	$2,647.86
High % of Average	152.3%
Low % of Average	55.0%

General Service - Winter
Typical Electric Bills
Ranking for 6 kW & 2,500 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$154.70
2	Lincoln Electric System, NE	179.10
3	Chappell, NE	191.90
4	Northeast Nebraska PPD - Lease Towns, NE	229.03
5	Superior, NE	230.11
6	Omaha PPD, NE	234.90
7	North Central PPD - Lease Towns, NE	235.95
8	Lake View, IA	236.05
9	Blue Hill, NE	238.83
10	Wahoo, NE	242.25
11	Benkelman, NE	245.25
12	Nebraska PPD, NE	249.67
13	Gothenburg, NE	254.76
14	Grand Island, NE	258.50
15	Gillette, WY	260.49
16	Julesburg, CO	262.00
17	Syracuse, NE	262.15
18	Loup PD, NE	262.85
19	Sergeant Bluff, IA	263.75
20	Auburn, NE	265.00
21	Highline Electric Association, CO	265.04
22	Fort Collins, CO	265.34
23	Beatrice, NE	266.30
24	Norris PPD - Lease Towns, NE	267.08
25	Yuma, CO	267.50
26	Hastings, NE	268.15
27	Winside, NE	268.50
28	Laurel, NE	268.60
29	Deshler, NE	271.00
30	Holdrege, NE	273.00
31	Gunnison, CO	273.25
32	Delta, CO	275.00
33	Holy Cross Energy, CO	275.05
34	Lexington, NE	275.90
35	Sutton, NE	275.96
36	Fairmont, NE	277.65
37	David City, NE	278.00
37	Wisner, NE	278.00
39	Torrington, WY	278.25
40	Haxtun, CO	279.11
41	Arnold, NE	279.25
42	Imperial, NE	285.75
43	Waverly Light and Power, IA	286.29
44	Hickman, NE	289.00
45	Wheat Belt PPD, NE	290.15
46	St. Paul, NE	290.80
47	Evergy (Kansas Metro), KS	291.15
48	Fountain, CO	291.59
49	Stromsburg, NE	292.04
50	Fairbury, NE	292.75
51	Glenwood Springs, CO	$295.00
52	Wray, CO	296.00
53	Crete, NE	296.75
54	Dawson PPD - Lease Towns, NE	298.19
55	Wilber, NE	300.42
56	Wauneta, NE	300.50
57	Curtis, NE	301.00
58	Spalding, NE	301.50
59	Sidney, NE	302.38
60	Scribner, NE	303.40
61	Tecumseh, NE	304.09
62	Chimney Rock PPD, NE	305.00
63	Alliance, NE	305.03
64	Sargent, NE	306.60
65	Wayne, NE	306.75
66	Central City, NE	308.74
67	Neligh, NE	309.60
68	Plainview, NE	310.27
69	Evergy (Kansas Central), KS	310.39
70	Belleville, KS	311.95
71	Holyoke, CO	312.30
72	Aspen, CO	312.69
73	Ord, NE	320.37
74	Y-W Electric Association, CO	322.89
75	Beloit, KS	326.16
76	Walthill, NE	330.75
77	DeWitt, NE	333.00
78	Grant, NE	336.30
79	Pender, NE	336.38
80	Butler PPD, NE	336.46
81	Nebraska City, NE	339.41
82	Red Cloud, NE	343.25
83	West Point, NE	343.28
84	Cambridge, NE	347.02
85	Kimball, NE	360.58
86	Morrill, NE	366.00
87	Lamar, CO	368.75
88	Springfield, CO	371.00
89	PREMA, NE	373.22
90	Kingman, KS	379.21
91	Rockford, IA	380.59
92	Stuart, NE	381.74
93	Holly, CO	383.29
94	Trinidad, CO	385.00
95	Spencer, NE	387.68
96	South Sioux City, NE	389.01
97	Arapahoe, NE	419.66
98	Ansley, NE	419.90

MEAN Member Average	$300.39
Other NMPP Member Average	$298.13
Total Survey Average	$297.67
High % of Average	141.1%
Low % of Average	52.0%

General Service - Winter
Typical Electric Bills
Ranking for 12 kW & 5,000 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$299.45
2	Lincoln Electric System, NE	377.05
3	Omaha PPD, NE	383.80
4	Superior, NE	388.21
5	Lake View, IA	388.75
6	Chappell, NE	398.15
7	Wahoo, NE	425.50
8	Northeast Nebraska PPD - Lease Towns, NE	436.82
9	Gothenburg, NE	445.26
10	Blue Hill, NE	446.30
11	North Central PPD - Lease Towns, NE	456.01
12	Wisner, NE	464.50
13	Fairmont, NE	476.90
14	Norris PPD - Lease Towns, NE	478.73
15	Auburn, NE	479.00
16	Nebraska PPD, NE	481.27
17	Lexington, NE	481.40
18	Gillette, WY	482.19
19	Beatrice, NE	483.80
20	Highline Electric Association, CO	484.54
21	Laurel, NE	486.75
22	Spalding, NE	487.92
23	Hastings, NE	489.40
24	Grand Island, NE	490.50
25	Sergeant Bluff, IA	492.50
26	David City, NE	494.50
27	Red Cloud, NE	495.50
28	Benkelman, NE	496.10
29	Haxtun, CO	499.11
30	Deshler, NE	502.00
31	Syracuse, NE	509.50
32	Gunnison, CO	514.00
32	Hickman, NE	514.00
34	Loup PD, NE	515.00
35	Julesburg, CO	516.25
36	Waverly Light and Power, IA	517.04
37	Imperial, NE	520.00
37	Yuma, CO	520.00
39	Stromsburg, NE	523.04
40	Central City, NE	525.34
41	Fairbury, NE	528.25
42	Winside, NE	531.00
43	Holy Cross Energy, CO	531.21
44	Neligh, NE	532.76
45	Sutton, NE	535.17
46	Fort Collins, CO	535.63
47	Holdrege, NE	538.13
48	Wayne, NE	539.50
49	Scribner, NE	540.40
50	Delta, CO	540.50
51	Torrington, WY	$542.50
52	DeWitt, NE	544.00
53	Curtis, NE	547.00
54	Ord, NE	548.12
55	St. Paul, NE	551.80
56	Arnold, NE	554.25
57	Wheat Belt PPD, NE	558.60
58	Butler PPD, NE	559.66
59	Fountain, CO	562.79
60	Evergy (Kansas Metro), KS	563.07
61	Crete, NE	563.85
62	Wauneta, NE	564.25
63	Glenwood Springs, CO	572.00
64	Dawson PPD - Lease Towns, NE	573.49
65	Walthill, NE	579.00
66	Holyoke, CO	581.27
67	Tecumseh, NE	581.66
68	Belleville, KS	583.90
69	Wray, CO	584.00
70	Grant, NE	590.30
71	Evergy (Kansas Central), KS	597.36
72	Nebraska City, NE	598.50
73	Sargent, NE	599.60
74	Chimney Rock PPD, NE	600.60
75	Sidney, NE	614.75
76	Beloit, KS	622.30
77	Aspen, CO	626.73
78	Alliance, NE	630.26
79	Y-W Electric Association, CO	633.77
80	Kimball, NE	634.62
81	West Point, NE	634.80
82	Pender, NE	637.02
83	Wilber, NE	644.46
84	Cambridge, NE	656.94
85	Stuart, NE	667.94
86	Spencer, NE	675.99
87	Plainview, NE	689.79
88	Rockford, IA	699.81
89	South Sioux City, NE	706.36
90	Lamar, CO	709.50
91	PREMA, NE	710.62
92	Trinidad, CO	716.00
93	Kingman, KS	726.16
94	Morrill, NE	734.85
95	Holly, CO	759.09
96	Springfield, CO	770.50
97	Arapahoe, NE	781.41
98	Ansley, NE	796.10

MEAN Member Average	$561.75
Other NMPP Member Average	$553.36
Total Survey Average	$555.10
High % of Average	143.4%
Low % of Average	53.9%

General Service - Winter
Typical Electric Bills
Ranking for 24 kW & 10,000 kWh
2022

Rank	Respondent	Typical Bill
1	Fort Morgan, CO	$588.95
2	Lincoln Electric System, NE	676.55
3	Superior, NE	704.43
4	Winside, NE	709.76
5	Omaha PPD, NE	720.54
6	Lake View, IA	747.50
7	Wahoo, NE	756.00
8	Chappell, NE	759.90
9	Wilber, NE	771.50
10	Blue Hill, NE	810.75
11	Northeast Nebraska PPD - Lease Towns, NE	811.55
12	Wisner, NE	817.50
13	Auburn, NE	824.00
14	Gothenburg, NE	826.26
15	Laurel, NE	854.25
16	Spalding, NE	860.76
17	North Central PPD - Lease Towns, NE	867.76
18	Gillette, WY	872.45
19	Fairmont, NE	875.40
20	Lexington, NE	892.40
21	David City, NE	894.50
22	Sergeant Bluff, IA	898.00
23	Norris PPD - Lease Towns, NE	902.05
24	Highline Electric Association, CO	903.54
25	Red Cloud, NE	907.00
26	Nebraska PPD, NE	908.31
27	Beatrice, NE	918.80
28	Central City, NE	926.34
29	Neligh, NE	930.26
30	Hastings, NE	931.90
31	Benkelman, NE	933.70
32	Haxtun, CO	939.11
33	Grand Island, NE	939.50
34	Imperial, NE	940.50
35	DeWitt, NE	944.00
36	Deshler, NE	952.00
37	Hickman, NE	964.00
38	Syracuse, NE	964.50
39	Scribner, NE	977.40
40	Loup PD, NE	977.50
41	Waverly Light and Power, IA	978.54
42	Stromsburg, NE	985.04
43	St. Paul, NE	990.30
44	Julesburg, CO	991.25
45	Gunnison, CO	995.50
46	Fairbury, NE	999.25
47	Ord, NE	1,003.62
48	Wayne, NE	1,005.00
49	Butler PPD, NE	1,006.07
50	Sutton, NE	1,017.02
51	Wauneta, NE	$1,019.25
52	Yuma, CO	1,025.00
53	Wheat Belt PPD, NE	1,027.95
54	Fountain, CO	1,030.61
55	Curtis, NE	1,039.00
56	Delta, CO	1,039.50
57	Holdrege, NE	1,042.13
58	Holy Cross Energy, CO	1,043.52
59	Fort Collins, CO	1,047.13
60	Crete, NE	1,049.35
61	Arnold, NE	1,051.25
62	Walthill, NE	1,052.00
63	Torrington, WY	1,070.99
64	Grant, NE	1,098.30
65	Evergy (Kansas Metro), KS	1,106.91
66	Nebraska City, NE	1,110.38
67	Chimney Rock PPD, NE	1,110.60
68	Tecumseh, NE	1,111.08
69	Dawson PPD - Lease Towns, NE	1,113.25
70	Holyoke, CO	1,119.22
71	Glenwood Springs, CO	1,126.00
72	Belleville, KS	1,127.80
73	Sargent, NE	1,143.60
74	West Point, NE	1,145.35
75	Sidney, NE	1,149.50
76	Wray, CO	1,160.00
77	Pender, NE	1,167.02
78	Evergy (Kansas Central), KS	1,171.31
79	Kimball, NE	1,182.70
80	Stuart, NE	1,200.74
81	Alliance, NE	1,200.76
82	Beloit, KS	1,214.57
83	Cambridge, NE	1,214.94
84	Spencer, NE	1,219.14
85	Y-W Electric Association, CO	1,219.46
86	Rockford, IA	1,244.34
87	Plainview, NE	1,269.10
88	PREMA, NE	1,282.87
89	South Sioux City, NE	1,341.06
90	Aspen, CO	1,374.06
91	Trinidad, CO	1,378.00
92	Lamar, CO	1,391.00
93	Springfield, CO	1,399.96
94	Kingman, KS	1,420.08
95	Morrill, NE	1,422.70
96	Arapahoe, NE	1,504.91
97	Holly, CO	1,510.68
98	Ansley, NE	1,548.50

MEAN Member Average	$1,058.49
Other NMPP Member Average	$1,020.35
Total Survey Average	$1,034.80
High % of Average	149.6%
Low % of Average	56.9%

General Service - Winter
Typical Electric Bills
Ranking for 60 kW & 25,000 kWh
2022

Rank	Respondent	Typical Bill
1	Hickman, NE	$1,391.63
2	Fort Morgan, CO	1,457.45
3	Superior, NE	1,653.06
4	Winside, NE	1,654.40
5	Wilber, NE	1,675.40
6	Lincoln Electric System, NE	1,684.25
7	Wahoo, NE	1,708.75
8	Omaha PPD, NE	1,771.56
9	Scribner, NE	1,780.70
10	Lake View, IA	1,823.75
11	Chappell, NE	1,845.15
12	Beatrice, NE	1,857.50
13	Auburn, NE	1,859.00
14	Norris PPD - Lease Towns, NE	1,863.86
15	Wisner, NE	1,876.50
16	Laurel, NE	1,956.75
17	Gothenburg, NE	1,969.26
18	Spalding, NE	1,979.28
19	Lexington, NE	2,001.80
20	Wauneta, NE	2,026.75
21	Northeast Nebraska PPD - Lease Towns, NE	2,042.96
22	Gillette, WY	2,051.39
23	Fairmont, NE	2,070.90
24	Tecumseh, NE	2,089.90
25	Sergeant Bluff, IA	2,095.00
26	North Central PPD - Lease Towns, NE	2,103.01
27	St. Paul, NE	2,106.00
28	Curtis, NE	2,110.00
29	Nebraska PPD, NE	2,112.35
30	Blue Hill, NE	2,121.10
31	Central City, NE	2,129.34
32	South Sioux City, NE	2,140.91
33	Neligh, NE	2,140.95
34	Red Cloud, NE	2,141.50
35	DeWitt, NE	2,144.00
36	Imperial, NE	2,202.00
37	Benkelman, NE	2,246.50
38	Grand Island, NE	2,252.00
39	Haxtun, CO	2,259.11
40	Hastings, NE	2,259.40
41	Waverly Light and Power, IA	2,277.60
42	Deshler, NE	2,302.00
43	Highline Electric Association, CO	2,344.30
44	Butler PPD, NE	2,345.30
45	Loup PD, NE	2,365.00
46	David City, NE	2,367.50
47	Ord, NE	2,370.12
48	Syracuse, NE	2,385.00
49	Stromsburg, NE	2,396.80
50	Holy Cross Energy, CO	2,398.37
51	Fairbury, NE	$2,412.25
52	Julesburg, CO	2,416.25
53	Fountain, CO	2,430.73
54	Gunnison, CO	2,440.00
55	Sutton, NE	2,462.57
56	Chimney Rock PPD, NE	2,465.00
57	Wheat Belt PPD, NE	2,465.54
58	Walthill, NE	2,471.00
59	Nebraska City, NE	2,499.53
60	Crete, NE	2,505.85
61	Fort Collins, CO	2,521.01
62	Yuma, CO	2,542.50
63	Arnold, NE	2,552.00
64	Holdrege, NE	2,554.13
65	Evergy (Kansas Metro), KS	2,556.10
66	Delta, CO	2,572.50
67	Belleville, KS	2,584.25
68	Grant, NE	2,622.30
69	West Point, NE	2,643.25
70	Wayne, NE	2,657.50
71	Torrington, WY	2,674.55
72	Beloit, KS	2,679.48
73	Y-W Electric Association, CO	2,698.71
74	Sargent, NE	2,705.00
75	Pender, NE	2,757.02
76	Cambridge, NE	2,776.44
77	Stuart, NE	2,780.24
78	Glenwood Springs, CO	2,788.00
79	Kimball, NE	2,826.94
80	Dawson PPD - Lease Towns, NE	2,845.54
81	Spencer, NE	2,848.59
82	Rockford, IA	2,877.91
83	Wray, CO	2,888.00
84	Evergy (Kansas Central), KS	2,893.15
85	Alliance, NE	2,925.32
86	Plainview, NE	2,970.82
87	Holyoke, CO	2,971.95
88	Aspen, CO	2,997.34
89	PREMA, NE	2,999.62
90	Sidney, NE	3,097.50
91	Springfield, CO	3,364.90
92	Trinidad, CO	3,515.00
93	Kingman, KS	3,567.06
94	Morrill, NE	3,666.00
95	Arapahoe, NE	3,675.41
96	Holly, CO	3,769.94
97	Ansley, NE	3,805.70
98	Lamar, CO	3,840.00

MEAN Member Average	$2,541.27
Other NMPP Member Average	$2,347.11
Total Survey Average	$2,436.61
High % of Average	157.6%
Low % of Average	57.1%

General Service - Winter

Typical Electric Bills
Ranking for All Electric Winter Heat 60 kw and 25,000 KWh
2022

Rank	Respondent	Typical Bill
1	Hickman, NE	$1,391.63
2	Beatrice, NE	1,440.00
3	Fort Morgan, CO	1,457.45
4	Cambridge, NE	1,458.54
5	Lexington, NE	1,632.80
6	Superior, NE	1,653.06
7	Winside, NE	1,654.40
8	Wilber, NE	1,675.40
9	Lincoln Electric System, NE	1,684.25
10	Wahoo, NE	1,708.75
11	Ord, NE	1,763.22
12	Omaha PPD, NE	1,771.56
13	Scribner, NE	1,780.70
14	Lake View, IA	1,823.75
15	Wisner, NE	1,839.75
16	Chappell, NE	1,845.15
17	Auburn, NE	1,859.00
18	Norris PPD - Lease Towns, NE	1,863.86
19	Torrington, WY	1,873.68
20	Nebraska PPD, NE	1,906.69
21	Laurel, NE	1,956.75
22	Gothenburg, NE	1,969.26
23	Spalding, NE	1,979.28
24	Evergy (Kansas Metro), KS	2,004.42
25	Wauneta, NE	2,026.75
26	Haxtun, CO	2,037.83
27	Northeast Nebraska PPD - Lease Towns, NE	2,042.96
28	Deshler, NE	2,043.00
29	Gillette, WY	2,051.39
30	Fairmont, NE	2,070.90
31	Tecumseh, NE	2,089.90
32	Sergeant Bluff, IA	2,095.00
33	North Central PPD - Lease Towns, NE	2,103.01
34	St. Paul, NE	2,106.00
35	Curtis, NE	2,110.00
36	Blue Hill, NE	2,121.10
37	Central City, NE	2,129.34
38	Neligh, NE	2,140.95
39	Red Cloud, NE	2,141.50
40	DeWitt, NE	2,144.00
41	South Sioux City, NE	2,192.62
42	Imperial, NE	2,202.00
43	Benkelman, NE	2,246.50
44	Grand Island, NE	2,252.00
45	Hastings, NE	2,259.40
46	Spencer, NE	2,271.96
47	Waverly Light and Power, IA	2,277.60
48	Sutton, NE	2,339.55
49	Highline Electric Association, CO	2,344.30
50	Butler PPD, NE	2,345.30
51	Arapahoe, NE	$2,360.85
52	Loup PD, NE	2,365.00
53	David City, NE	2,367.50
54	Syracuse, NE	2,385.00
55	Stromsburg, NE	2,396.80
56	Holy Cross Energy, CO	2,398.37
57	Fairbury, NE	2,412.25
58	Julesburg, CO	2,416.25
59	Fountain, CO	2,430.73
60	Gunnison, CO	2,440.00
61	Chimney Rock PPD, NE	2,465.00
62	Wheat Belt PPD, NE	2,465.54
63	Walthill, NE	2,471.00
64	Nebraska City, NE	2,499.53
65	Crete, NE	2,505.85
66	Fort Collins, CO	2,521.01
67	Yuma, CO	2,542.50
68	Arnold, NE	2,552.00
69	Holdrege, NE	2,554.13
70	Delta, CO	2,572.50
71	Belleville, KS	2,584.25
72	Grant, NE	2,622.30
73	West Point, NE	2,643.25
74	Wayne, NE	2,657.50
75	Stuart, NE	2,671.34
76	Beloit, KS	2,679.48
77	Y-W Electric Association, CO	2,698.71
78	Sargent, NE	2,705.00
79	Pender, NE	2,757.02
80	Glenwood Springs, CO	2,788.00
81	Kimball, NE	2,826.94
82	Dawson PPD - Lease Towns, NE	2,845.54
83	Rockford, IA	2,877.91
84	Wray, CO	2,888.00
85	Evergy (Kansas Central), KS	2,893.15
86	Alliance, NE	2,925.32
87	Plainview, NE	2,970.82
88	Holyoke, CO	2,971.95
89	Aspen, CO	2,997.34
90	PREMA, NE	2,999.62
91	Sidney, NE	3,097.50
92	Springfield, CO	3,364.90
93	Trinidad, CO	3,515.00
94	Kingman, KS	3,567.06
95	Morrill, NE	3,666.00
96	Holly, CO	3,769.94
97	Ansley, NE	3,805.70
98	Lamar, CO	3,840.00

MEAN Member Average	$2,496.54
Other NMPP Member Average	$2,246.24
Total Survey Average	$2,366.63
High % of Average	162.3%
Low % of Average	58.8%

Large Light and Power Class - Summer

Typical Electric Bills
Ranking for 100 kW & 55,000 kWh
2022

Rank	Respondent	Typical Bill
1	Hickman, NE	$2,801.83
2	Winside, NE	3,104.00
3	Wilber, NE	3,147.00
4	Lincoln Electric System, NE	3,323.55
5	Lake View, IA	3,616.25
6	Wahoo, NE	3,662.25
7	Blue Hill, NE	3,806.50
8	Fort Morgan, CO	3,862.26
9	Beatrice, NE	3,905.00
10	Lexington, NE	3,938.00
11	Curtis, NE	3,938.00
12	Chappell, NE	4,027.30
13	Norris PPD - Lease Towns, NE	4,062.17
14	Gillette, WY	4,079.99
15	Auburn, NE	4,145.00
16	Sutton, NE	4,269.00
17	Wauneta, NE	4,270.75
18	Holdrege, NE	4,310.25
19	Cambridge, NE	4,315.50
20	Omaha PPD, NE	4,326.66
21	Butler PPD, NE	4,383.40
22	Sergeant Bluff, IA	4,413.00
23	Hastings, NE	4,428.52
24	Waverly Light and Power, IA	4,438.10
25	South Sioux City, NE	4,462.31
26	Chimney Rock PPD, NE	4,505.00
27	Grand Island, NE	4,505.50
28	Laurel, NE	4,556.00
29	Highline Electric Association, CO	4,601.50
30	Gothenburg, NE	4,623.40
31	Ord, NE	4,670.00
32	Torrington, WY	4,672.08
33	Superior, NE	4,693.81
34	Gunnison, CO	4,717.50
35	PREMA, NE	4,736.70
36	St. Paul, NE	4,743.50
37	Wheat Belt PPD, NE	4,782.68
38	Tecumseh, NE	4,807.00
39	Nebraska PPD, NE	4,811.99
40	Northeast Nebraska PPD - Lease Towns, NE	4,813.57
41	Loup PD, NE	4,840.00
42	Neligh, NE	4,851.25
43	Julesburg, CO	4,886.00
44	Scribner, NE	4,982.50
45	Holy Cross Energy, CO	5,013.61
46	Fairmont, NE	5,016.00
47	Fountain, CO	5,059.44
48	North Central PPD - Lease Towns, NE	5,088.32
49	Wisner, NE	5,113.50
50	Benkelman, NE	5,117.50
51	Fort Collins, CO	5,120.61
52	Delta, CO	5,139.50
53	Central City, NE	5,196.85
54	Syracuse, NE	5,205.00
55	Imperial, NE	5,207.00
56	Fairbury, NE	5,265.00
57	Stromsburg, NE	5,274.08
58	Y-W Electric Association, CO	5,295.54
59	David City, NE	5,335.00
60	Yuma, CO	5,343.50
61	Crete, NE	5,511.50
62	Beloit, KS	5,552.71
63	Grant, NE	$5,558.00
64	Wayne, NE	5,627.50
65	DeWitt, NE	5,650.50
66	Nebraska City, NE	5,732.48
67	West Point, NE	5,823.15
68	Holyoke, CO	5,977.65
69	Sargent, NE	6,042.40
70	Alliance, NE	6,046.12
71	Sidney, NE	6,072.50
72	Evergy (Kansas Metro), KS	6,186.97
73	Belleville, KS	6,227.35
74	Dawson PPD - Lease Towns, NE	6,304.22
75	Aspen, CO	6,778.00
76	Springfield, CO	6,829.50
77	Kimball, NE	6,915.25
78	Arapahoe, NE	7,141.00
79	Kingman, KS	7,387.80
80	Evergy (Kansas Central), KS	7,412.55
81	Morrill, NE	7,715.20
82	Lamar, CO	7,972.00
83	Trinidad, CO	7,981.00
84	Holly, CO	8,418.83

MEAN Member Average	$5,200.13
Other NMPP Member Average	$5,047.31
Total Survey Average	$5,101.09
High % of Average	165.0%
Low % of Average	54.9%

Large Light and Power Class - Summer
Typical Electric Bills
Ranking for 500 kW & 225,000 kWh
2022

Rank	Respondent	Typical Bill
1	Wilber, NE	$11,792.00
2	Hickman, NE	12,449.63
3	Winside, NE	13,700.00
4	Blue Hill, NE	15,359.10
5	Lake View, IA	15,723.75
6	Wahoo, NE	15,763.75
7	Hastings, NE	15,967.77
8	Fort Morgan, CO	16,703.62
9	Lincoln Electric System, NE	17,030.00
10	Ord, NE	17,057.00
11	Lexington, NE	17,198.00
12	Beatrice, NE	17,275.00
13	Curtis, NE	17,330.00
14	Gillette, WY	17,358.99
15	Chappell, NE	17,363.50
16	Cambridge, NE	17,532.50
17	Auburn, NE	17,845.00
18	Wauneta, NE	18,164.75
19	Holdrege, NE	18,369.75
20	Omaha PPD, NE	18,555.86
21	Norris PPD - Lease Towns, NE	18,616.87
22	Sutton, NE	18,975.00
23	Grand Island, NE	19,172.50
24	Chimney Rock PPD, NE	19,185.00
25	Butler PPD, NE	19,255.30
26	Superior, NE	19,314.69
27	Sergeant Bluff, IA	19,335.00
28	Waverly Light and Power, IA	19,455.10
29	Torrington, WY	19,617.60
30	South Sioux City, NE	19,770.81
31	Loup PD, NE	19,781.25
32	Laurel, NE	19,880.00
33	Gunnison, CO	19,912.50
34	Highline Electric Association, CO	19,919.50
35	Gothenburg, NE	20,241.30
36	DeWitt, NE	20,567.50
37	Dawson PPD - Lease Towns, NE	20,572.29
38	St. Paul, NE	20,638.50
39	PREMA, NE	20,714.50
40	Central City, NE	20,742.01
41	Wheat Belt PPD, NE	20,801.48
42	Tecumseh, NE	20,853.00
43	Julesburg, CO	20,881.00
44	Neligh, NE	20,910.65
45	Nebraska PPD, NE	20,921.99
46	Holy Cross Energy, CO	21,002.56
47	Northeast Nebraska PPD - Lease Towns, NE	21,082.65
48	Fairmont, NE	21,162.00
49	Fountain, CO	21,534.53
50	Delta, CO	21,592.50
51	Scribner, NE	21,657.50
52	Syracuse, NE	21,855.00
53	Wisner, NE	21,912.50
54	Yuma, CO	22,082.50
55	Benkelman, NE	22,263.50
56	Imperial, NE	22,385.00
57	Fairbury, NE	22,555.00
58	West Point, NE	22,639.25
59	Crete, NE	22,985.00
60	Y-W Electric Association, CO	23,044.86
61	Alliance, NE	23,091.44
62	Stromsburg, NE	23,144.80
63	North Central PPD - Lease Towns, NE	$23,197.05
64	Fort Collins, CO	23,280.61
65	Beloit, KS	23,389.56
66	David City, NE	23,775.00
67	Evergy (Kansas Metro), KS	23,946.09
68	Wayne, NE	24,502.50
69	Nebraska City, NE	24,749.03
70	Grant, NE	24,830.00
71	Sidney, NE	25,487.50
72	Sargent, NE	25,728.00
73	Belleville, KS	25,988.25
74	Holyoke, CO	26,046.75
75	Evergy (Kansas Central), KS	26,224.28
76	Kingman, KS	28,261.00
77	Aspen, CO	28,414.39
78	Springfield, CO	28,982.50
79	Arapahoe, NE	30,163.00
80	Kimball, NE	30,339.17
81	Morrill, NE	33,114.00
82	Lamar, CO	33,142.00
83	Trinidad, CO	33,495.00
84	Holly, CO	34,578.13

MEAN Member Average	$22,093.35
Other NMPP Member Average	$21,324.46
Total Survey Average	$21,502.38
High % of Average	160.8%
Low % of Average	54.8%

Large Light and Power Class - Summer
Typical Electric Bills
Ranking for 1,000 kW & 525,000 kWh
2022

Rank	Respondent	Typical Bill
1	Wilber, NE	$25,372.00
2	Hickman, NE	26,901.63
3	Winside, NE	29,570.00
4	Auburn, NE	32,377.00
5	Blue Hill, NE	33,368.10
6	Wahoo, NE	34,648.75
7	Lake View, IA	34,773.75
8	Hastings, NE	35,702.77
9	Lincoln Electric System, NE	35,830.00
10	Ord, NE	36,137.00
11	Omaha PPD, NE	36,314.31
12	Fort Morgan, CO	37,261.57
13	Curtis, NE	37,360.00
14	Beatrice, NE	37,575.00
15	Lexington, NE	37,763.00
16	Cambridge, NE	38,192.50
17	Chappell, NE	38,221.50
18	Gillette, WY	38,673.99
19	Holdrege, NE	39,343.50
20	Norris PPD - Lease Towns, NE	39,774.70
21	Wauneta, NE	40,519.75
22	Grand Island, NE	41,277.50
23	Chimney Rock PPD, NE	41,385.00
24	Sutton, NE	41,505.00
25	Waverly Light and Power, IA	41,787.60
26	Butler PPD, NE	41,841.08
27	Sergeant Bluff, IA	42,065.00
28	Superior, NE	42,130.94
29	Loup PD, NE	42,281.25
30	Torrington, WY	42,924.40
31	South Sioux City, NE	43,355.81
32	DeWitt, NE	43,597.50
33	Central City, NE	43,787.91
34	Highline Electric Association, CO	43,949.50
35	Laurel, NE	44,110.00
36	Gothenburg, NE	44,127.30
37	Northeast Nebraska PPD - Lease Towns, NE	44,220.07
38	Gunnison, CO	44,462.50
39	Dawson PPD - Lease Towns, NE	44,638.55
40	Nebraska PPD, NE	45,328.01
41	PREMA, NE	45,616.50
42	Wheat Belt PPD, NE	45,639.23
43	St. Paul, NE	45,713.50
44	Tecumseh, NE	45,723.00
45	Julesburg, CO	46,256.00
46	Neligh, NE	46,269.90
47	Scribner, NE	47,497.50
48	Holy Cross Energy, CO	47,897.52
49	Fairmont, NE	48,012.00
50	Fountain, CO	48,032.63
51	Wisner, NE	48,222.50
52	Delta, CO	48,362.50
53	Crete, NE	48,790.00
54	Fairbury, NE	49,015.00
55	Benkelman, NE	49,103.50
56	West Point, NE	49,198.25
57	Imperial, NE	49,405.00
58	Syracuse, NE	49,755.00
59	North Central PPD - Lease Towns, NE	49,760.91
60	Fort Collins, CO	49,953.41
61	Stromsburg, NE	50,069.60
62	Yuma, CO	50,592.50
63	Y-W Electric Association, CO	$50,763.49
64	David City, NE	51,375.00
65	Alliance, NE	51,426.44
66	Evergy (Kansas Metro), KS	52,380.56
67	Grant, NE	52,962.50
68	Beloit, KS	53,309.88
69	Wayne, NE	54,353.75
70	Nebraska City, NE	54,794.78
71	Sidney, NE	56,712.50
72	Evergy (Kansas Central), KS	57,136.67
73	Sargent, NE	57,482.00
74	Holyoke, CO	57,855.75
75	Belleville, KS	59,419.25
76	Aspen, CO	62,405.70
77	Kingman, KS	64,509.00
78	Springfield, CO	65,082.50
79	Kimball, NE	66,161.97
80	Arapahoe, NE	66,518.00
81	Morrill, NE	73,406.00
82	Lamar, CO	74,607.00
83	Trinidad, CO	76,255.00
84	Holly, CO	80,381.31

MEAN Member Average	$48,614.21
Other NMPP Member Average	$46,849.16
Total Survey Average	$47,174.29
High % of Average	170.4%
Low % of Average	53.8%

Large Light and Power Class - Winter

Typical Electric Bills
Ranking for 100 kW & 55,000 kWh
2022

Rank	Respondent	Typical Bill
1	Hickman, NE	$2,651.83
2	Sutton, NE	3,084.90
3	Winside, NE	3,104.00
4	Wilber, NE	3,147.00
5	Lincoln Electric System, NE	3,158.55
6	Wahoo, NE	3,287.25
7	Scribner, NE	3,438.50
8	Superior, NE	3,491.54
9	Norris PPD - Lease Towns, NE	3,526.02
10	Beatrice, NE	3,562.50
11	Omaha PPD, NE	3,564.16
12	Lake View, IA	3,616.25
13	North Central PPD - Lease Towns, NE	3,634.91
14	Cambridge, NE	3,659.50
15	Lexington, NE	3,660.50
16	Laurel, NE	3,747.00
17	Butler PPD, NE	3,758.10
18	Blue Hill, NE	3,806.50
19	Fort Morgan, CO	3,862.26
20	Loup PD, NE	3,902.50
21	Auburn, NE	3,910.00
22	Holdrege, NE	3,911.25
23	Chappell, NE	3,927.30
24	Curtis, NE	3,938.00
25	Nebraska PPD, NE	3,951.75
26	Sergeant Bluff, IA	3,993.00
27	South Sioux City, NE	4,009.81
28	Gothenburg, NE	4,019.65
29	Tecumseh, NE	4,042.90
30	Northeast Nebraska PPD - Lease Towns, NE	4,050.32
31	Wauneta, NE	4,054.75
32	Gillette, WY	4,079.99
33	St. Paul, NE	4,162.00
34	Grand Island, NE	4,204.00
35	Waverly Light and Power, IA	4,228.60
36	Neligh, NE	4,264.65
37	Torrington, WY	4,401.08
38	Hastings, NE	4,428.52
39	Benkelman, NE	4,462.50
40	Chimney Rock PPD, NE	4,505.00
41	Stromsburg, NE	4,518.08
42	Julesburg, CO	4,523.50
43	David City, NE	4,542.50
44	Highline Electric Association, CO	4,601.50
45	Fairmont, NE	4,603.00
46	Imperial, NE	4,632.00
47	Ord, NE	4,670.00
48	Fairbury, NE	4,701.50
49	Gunnison, CO	4,717.50
50	Grant, NE	4,723.00
51	Crete, NE	4,731.50
52	PREMA, NE	4,736.70
53	Fort Collins, CO	4,776.61
54	Wheat Belt PPD, NE	4,782.68
55	Wisner, NE	4,838.50
56	Central City, NE	4,844.75
57	Nebraska City, NE	4,955.48
58	Evergy (Kansas Metro), KS	5,026.19
59	Syracuse, NE	5,035.00
60	Holy Cross Energy, CO	5,035.84
61	Fountain, CO	5,059.44
62	Delta, CO	5,139.50
63	West Point, NE	$5,223.15
64	Y-W Electric Association, CO	5,295.54
65	Yuma, CO	5,343.50
66	Sargent, NE	5,359.00
67	Wayne, NE	5,368.50
68	Belleville, KS	5,477.35
69	Kimball, NE	5,500.85
70	Beloit, KS	5,552.71
71	DeWitt, NE	5,650.50
72	Dawson PPD - Lease Towns, NE	5,867.47
73	Arapahoe, NE	5,916.00
74	Holyoke, CO	5,977.65
75	Alliance, NE	6,046.12
76	Sidney, NE	6,072.50
77	Evergy (Kansas Central), KS	6,186.56
78	Aspen, CO	6,778.00
79	Springfield, CO	6,829.50
80	Trinidad, CO	7,281.00
81	Morrill, NE	7,315.20
82	Kingman, KS	7,383.54
83	Lamar, CO	7,972.00
84	Holly, CO	8,229.47

MEAN Member Average	$4,884.97
Other NMPP Member Average	$4,576.39
Total Survey Average	$4,690.83
High % of Average	175.4%
Low % of Average	56.5%

Large Light and Power Class - Winter

Typical Electric Bills
Ranking for 500 kW & 225,000 kWh
2022

Rank	Respondent	Typical Bill
1	Hickman, NE	$11,699.63
2	Wilber, NE	11,792.00
3	Sutton, NE	13,505.50
4	Winside, NE	13,700.00
5	Superior, NE	14,123.56
6	Wahoo, NE	14,138.75
7	Cambridge, NE	14,622.50
8	Scribner, NE	14,777.50
9	Blue Hill, NE	15,359.10
10	Omaha PPD, NE	15,398.36
11	Lake View, IA	15,723.75
12	Beatrice, NE	15,737.50
13	North Central PPD - Lease Towns, NE	15,930.00
14	Lexington, NE	15,965.50
15	Hastings, NE	15,967.77
16	Norris PPD - Lease Towns, NE	16,056.63
17	Laurel, NE	16,195.00
18	Holdrege, NE	16,280.25
19	Butler PPD, NE	16,297.47
20	Auburn, NE	16,520.00
21	Lincoln Electric System, NE	16,580.00
22	Loup PD, NE	16,600.00
23	Fort Morgan, CO	16,703.62
24	Chappell, NE	16,863.50
25	South Sioux City, NE	16,933.31
26	Nebraska PPD, NE	17,006.33
27	Ord, NE	17,057.00
28	Wauneta, NE	17,184.75
29	Curtis, NE	17,330.00
30	Gillette, WY	17,358.99
31	Tecumseh, NE	17,413.50
32	Sergeant Bluff, IA	17,435.00
33	Grand Island, NE	17,480.00
34	Gothenburg, NE	17,485.05
35	Northeast Nebraska PPD - Lease Towns, NE	17,506.27
36	Dawson PPD - Lease Towns, NE	18,132.53
37	Neligh, NE	18,182.65
38	St. Paul, NE	18,196.00
39	Torrington, WY	18,372.60
40	Waverly Light and Power, IA	18,382.60
41	Central City, NE	18,516.51
42	Julesburg, CO	19,093.50
43	Chimney Rock PPD, NE	19,185.00
44	Benkelman, NE	19,238.50
45	Fairmont, NE	19,297.00
46	Stromsburg, NE	19,644.80
47	Imperial, NE	19,760.00
48	Crete, NE	19,835.00
49	Fairbury, NE	19,902.50
50	Gunnison, CO	19,912.50
51	Highline Electric Association, CO	19,919.50
52	David City, NE	19,987.50
53	West Point, NE	20,389.25
54	DeWitt, NE	20,567.50
55	Grant, NE	20,655.00
56	PREMA, NE	20,714.50
57	Wisner, NE	20,787.50
58	Wheat Belt PPD, NE	20,801.48
59	Evergy (Kansas Metro), KS	20,953.52
60	Syracuse, NE	21,005.00
61	Holy Cross Energy, CO	21,093.52
62	Nebraska City, NE	21,284.03
63	Fountain, CO	$21,534.53
64	Fort Collins, CO	21,560.61
65	Delta, CO	21,592.50
66	Evergy (Kansas Central), KS	22,062.85
67	Yuma, CO	22,082.50
68	Belleville, KS	22,738.25
69	Wayne, NE	22,897.50
70	Sargent, NE	22,955.00
71	Y-W Electric Association, CO	23,044.86
72	Alliance, NE	23,091.44
73	Beloit, KS	23,389.56
74	Kimball, NE	23,703.97
75	Arapahoe, NE	24,038.00
76	Sidney, NE	25,487.50
77	Holyoke, CO	26,046.75
78	Kingman, KS	28,243.56
79	Aspen, CO	28,414.39
80	Springfield, CO	28,982.50
81	Trinidad, CO	30,095.00
82	Lamar, CO	31,017.00
83	Morrill, NE	31,114.00
84	Holly, CO	33,803.45

MEAN Member Average	$20,652.79
Other NMPP Member Average	$19,065.68
Total Survey Average	$19,624.21
High % of Average	172.3%
Low % of Average	59.6%

Large Light and Power Class - Winter

Typical Electric Bills
Ranking for 1,000 kW & 525,000 kWh
2022

Rank	Respondent	Typical Bill
1	Wilber, NE	$25,372.00
2	Hickman, NE	25,401.63
3	Auburn, NE	26,064.50
4	Winside, NE	29,570.00
5	Sutton, NE	29,889.50
6	Superior, NE	30,518.31
7	Wahoo, NE	31,023.75
8	Cambridge, NE	31,817.50
9	Scribner, NE	32,477.50
10	Blue Hill, NE	33,368.10
11	Beatrice, NE	34,237.50
12	Norris PPD - Lease Towns, NE	34,473.49
13	Lake View, IA	34,773.75
14	Lincoln Electric System, NE	34,780.00
15	Holdrege, NE	34,865.25
16	Lexington, NE	35,065.50
17	North Central PPD - Lease Towns, NE	35,226.82
18	Loup PD, NE	35,525.00
19	Butler PPD, NE	35,672.41
20	Hastings, NE	35,702.77
21	Ord, NE	36,137.00
22	Laurel, NE	36,200.00
23	Omaha PPD, NE	36,314.31
24	Northeast Nebraska PPD - Lease Towns, NE	36,707.50
25	Nebraska PPD, NE	36,918.37
26	South Sioux City, NE	36,968.31
27	Chappell, NE	37,221.50
28	Fort Morgan, CO	37,261.57
29	Curtis, NE	37,360.00
30	Sergeant Bluff, IA	37,965.00
31	Grand Island, NE	38,170.00
32	Gothenburg, NE	38,221.05
33	Tecumseh, NE	38,272.50
34	Wauneta, NE	38,409.75
35	Gillette, WY	38,673.99
36	Central City, NE	38,949.41
37	Waverly Light and Power, IA	39,680.10
38	Dawson PPD - Lease Towns, NE	39,759.04
39	St. Paul, NE	40,131.00
40	Torrington, WY	40,269.40
41	Neligh, NE	40,506.40
42	Chimney Rock PPD, NE	41,385.00
43	Crete, NE	42,490.00
44	Julesburg, CO	42,643.50
45	Stromsburg, NE	42,649.60
46	Benkelman, NE	42,678.50
47	Fairbury, NE	43,462.50
48	David City, NE	43,537.50
49	DeWitt, NE	43,597.50
50	Imperial, NE	43,780.00
51	Highline Electric Association, CO	43,949.50
52	Fairmont, NE	43,982.00
53	Gunnison, CO	44,462.50
54	Grant, NE	44,612.50
55	West Point, NE	44,698.25
56	Wisner, NE	45,597.50
57	PREMA, NE	45,616.50
58	Wheat Belt PPD, NE	45,639.23
59	Evergy (Kansas Metro), KS	46,384.18
60	Fort Collins, CO	46,653.41
61	Nebraska City, NE	47,234.78
62	Evergy (Kansas Central), KS	47,426.68
63	Fountain, CO	$48,032.63
64	Syracuse, NE	48,055.00
65	Holy Cross Energy, CO	48,109.75
66	Delta, CO	48,362.50
67	Wayne, NE	50,108.75
68	Yuma, CO	50,592.50
69	Y-W Electric Association, CO	50,763.49
70	Sargent, NE	50,970.00
71	Alliance, NE	51,426.44
72	Belleville, KS	52,169.25
73	Kimball, NE	52,236.37
74	Beloit, KS	53,309.88
75	Arapahoe, NE	54,268.00
76	Sidney, NE	56,712.50
77	Holyoke, CO	57,855.75
78	Aspen, CO	62,405.70
79	Kingman, KS	64,468.31
80	Springfield, CO	65,082.50
81	Trinidad, CO	68,605.00
82	Morrill, NE	69,406.00
83	Lamar, CO	69,982.00
84	Holly, CO	78,573.72

MEAN Member Average	$45,610.58
Other NMPP Member Average	$41,863.15
Total Survey Average	$43,213.08
High % of Average	181.8%
Low % of Average	58.7%

Summary Comparison

Average Typical Sewer Bills
2022 NMPP Energy
Typical Sewer Bill Survey

	2022 Average monthly bill	2022 Average $/1,000 gal. or $/134 cf	2022 Max bill	2022 Min bill
Residential Class				
3,000 gal. or 401 cf $35.20	$27.92	$9.31	$67.58	$6.85
5,000 gal. or 667 cf $42.00	$32.04	$6.41	$70.00	$9.63
8,000 gal. or 1,070 cf $52.50	$38.31	$4.79	$82.85	$12.00
Commercial Class				
15,000 gal. or 2,005 cf $168.00	$64.72	$4.31	$254.80	$12.00
20,000 gal. or 2,674 cf $186.00	$76.87	$3.84	$268.05	$12.00

Residential Class	2021 Average $/1,000 gal. or $/134 cf	2022 Average $/1,000 gal. or $/134 cf	Percent Increase/ Decrease
3,000 gal. or 401 cf	$8.91	$9.31	4.5%
5,000 gal. or 667 cf	$6.13	$6.41	4.6%
8,000 gal. or 1,070 cf	$4.58	$4.79	4.5%
Commercial Class			
15,000 gal. or 2,005 cf	$4.05	$4.31	6.7%
20,000 gal. or 2,674 cf	$3.58	$3.84	7.4%

Residential
Typical Sewer Bills
Ranking For 3,000 gal.
2022

	Respondent	3,000 gal.
1	Alliance, NE	$6.85
2	Ord, NE	9.40
3	Alma, NE	9.90
4	Red Cloud, NE	12.00
4	Wauneta, NE	12.00
6	Holly, CO	12.38
7	Niobrara, NE	13.25
8	Curtis, NE	14.52
9	Arnold, NE	15.00
9	Blue Hill, NE	15.00
9	Exeter, NE	15.00
12	Grant, NE	16.00
12	Morrill, NE	16.00
14	Benkelman, NE	16.80
15	Arapahoe, NE	17.20
16	Spencer, NE	18.00
16	Springfield, CO	18.00
18	Central City, NE	18.35
19	Tecumseh, NE	18.89
20	Pender, NE	19.01
21	Potter, NE	19.11
22	David City, NE	19.30
23	Wilber, NE	19.49
24	Holdrege, NE	19.83
25	DeWitt, NE	20.00
25	Imperial, NE	20.00
27	Haxtun, CO	21.00
28	Loup City, NE	21.25
28	Syracuse, NE	21.25
30	Belleville, KS	22.04
31	Holyoke, CO	22.62
32	Grand Island, NE	23.80
33	Stuart, NE	24.00
34	Laurel, NE	24.30
35	Kingman, KS	25.00
36	Deshler, NE	25.55
37	Hastings, NE	25.70
38	Hartington, NE	25.75
39	Atkinson, NE	26.00
39	Beatrice, NE	26.00
39	Sutton, NE	26.00
42	Rockford, IA	26.54
43	West Point, NE	26.68
44	Lexington, NE	26.75
44	Wray, CO	26.75
46	Plainview, NE	27.50
47	Kimball, NE	27.62
48	Sidney, NE	28.32
49	Osceola, NE	28.75
50	Beloit, KS	28.77

Total Survey Average	$27.92
High % of Average	242.0%
Low % of Average	24.5%

Residential
Typical Sewer Bills
Ranking For 3,000 gal.
2022

	Respondent	3,000 gal.
51	Fort Collins, CO	$29.85
52	Chadron, NE	30.00
52	Julesburg, CO	30.00
54	Nebraska City, NE	30.12
55	Fort Morgan, CO	30.35
56	Walthill, NE	30.75
57	Fairbury, NE	31.73
58	Gillette, WY	32.23
59	Delta, CO	32.50
60	Wahoo, NE	33.65
61	Stromsburg, NE	33.78
62	Wisner, NE	34.00
63	Chappell, NE	34.20
64	Torrington, WY	34.35
65	Gothenburg, NE	35.02
66	Yuma, CO	35.15
67	Auburn, NE	35.20
68	Superior, NE	35.38
69	Bassett, NE	36.25
70	Wayne, NE	36.86
71	Albion, NE	37.82
72	Neligh, NE	38.50
73	Lake View, IA	39.35
74	St. Paul, NE	39.60
75	Winside, NE	40.00
76	Scribner, NE	40.10
77	Cairo, NE	42.00
78	South Sioux City, NE	42.38
79	Eagle, NE	43.00
80	Sargent, NE	44.00
81	Gunnison, CO	44.14
82	Cambridge, NE	44.45
83	Fairmont, NE	44.65
84	Hickman, NE	51.10
85	Dakota City, NE	62.00
86	Murray, NE	67.58

Total Survey Average	$27.92
High % of Average	242.0%
Low % of Average	24.5%

Residential
Typical Sewer Bills
Ranking For 5,000 gal.
2022

	Respondent	5,000 gal.
1	Alliance, NE	$9.63
2	Alma, NE	11.00
2	Ord, NE	11.00
4	Red Cloud, NE	12.00
4	Wauneta, NE	12.00
6	Holly, CO	12.38
7	Niobrara, NE	13.25
8	Exeter, NE	15.00
9	Grant, NE	16.00
9	Morrill, NE	16.00
11	Curtis, NE	16.20
12	Arnold, NE	17.00
13	Arapahoe, NE	18.00
13	Spencer, NE	18.00
13	Springfield, CO	18.00
16	Potter, NE	19.11
17	Blue Hill, NE	20.00
17	DeWitt, NE	20.00
17	Imperial, NE	20.00
20	Benkelman, NE	20.50
21	Haxtun, CO	21.00
22	Pender, NE	21.01
23	Holyoke, CO	22.62
24	Central City, NE	23.55
25	Stuart, NE	24.00
26	Wilber, NE	24.05
27	Tecumseh, NE	24.58
28	Loup City, NE	24.75
28	Syracuse, NE	24.75
30	Hartington, NE	25.75
31	David City, NE	26.00
31	Sutton, NE	26.00
33	Lexington, NE	26.75
33	Wray, CO	26.75
35	Holdrege, NE	27.71
36	Laurel, NE	28.00
37	Osceola, NE	28.75
38	Deshler, NE	29.25
39	Belleville, KS	29.40
40	Chadron, NE	30.00
41	Julesburg, CO	30.50
42	Kimball, NE	31.37
43	Atkinson, NE	32.00
43	Beatrice, NE	32.00
45	Sidney, NE	32.20
46	Delta, CO	32.50
46	Plainview, NE	32.50
48	Hastings, NE	33.15
49	Wisner, NE	34.00
50	Grand Island, NE	34.16

Total Survey Average	$32.04
High % of Average	218.4%
Low % of Average	30.1%

Residential
Typical Sewer Bills
Ranking For 5,000 gal.
2022

	Respondent	5,000 gal.
51	Gothenburg, NE	$35.02
52	Fort Morgan, CO	35.03
53	Yuma, CO	35.15
54	Walthill, NE	35.75
55	West Point, NE	35.98
56	Nebraska City, NE	36.00
57	Rockford, IA	36.90
58	Fort Collins, CO	37.18
59	Beloit, KS	37.26
60	Kingman, KS	38.00
61	Gillette, WY	39.05
62	Fairbury, NE	39.20
63	Wahoo, NE	39.75
64	Winside, NE	40.00
65	Torrington, WY	40.55
66	Superior, NE	40.63
67	Chappell, NE	41.00
68	Auburn, NE	42.00
68	Cairo, NE	42.00
70	Albion, NE	42.69
71	Stromsburg, NE	42.72
72	Bassett, NE	43.75
73	Gunnison, CO	44.14
74	Scribner, NE	45.50
75	St. Paul, NE	46.00
76	Cambridge, NE	48.75
77	Neligh, NE	49.50
78	Sargent, NE	50.00
79	Eagle, NE	51.00
80	Fairmont, NE	51.75
81	Wayne, NE	52.10
82	South Sioux City, NE	54.94
83	Lake View, IA	56.75
84	Hickman, NE	58.10
85	Murray, NE	67.58
86	Dakota City, NE	70.00

Total Survey Average	$32.04
High % of Average	218.4%
Low % of Average	30.1%

Residential
Typical Sewer Bills
Ranking For 8,000 gal.
2022

	Respondent	8,000 gal.
1	Wauneta, NE	$12.00
2	Holly, CO	12.38
3	Alma, NE	12.65
4	Niobrara, NE	13.25
5	Ord, NE	13.40
6	Alliance, NE	13.82
7	Exeter, NE	15.00
8	Grant, NE	16.00
8	Morrill, NE	16.00
8	Red Cloud, NE	16.00
11	Spencer, NE	18.00
11	Springfield, CO	18.00
13	Curtis, NE	18.72
14	Potter, NE	19.11
15	Arapahoe, NE	19.20
16	Arnold, NE	20.00
16	DeWitt, NE	20.00
16	Imperial, NE	20.00
19	Haxtun, CO	21.00
20	Holyoke, CO	22.62
21	Stuart, NE	24.00
22	Pender, NE	24.03
23	Hartington, NE	25.75
24	Sutton, NE	26.00
25	Benkelman, NE	26.05
26	Lexington, NE	26.75
26	Wray, CO	26.75
28	Blue Hill, NE	27.50
29	Osceola, NE	28.75
30	Loup City, NE	30.00
30	Syracuse, NE	30.00
32	Wilber, NE	30.89
33	Julesburg, CO	31.25
34	Central City, NE	31.35
35	Delta, CO	32.50
36	Chadron, NE	32.84
37	Tecumseh, NE	33.14
38	Laurel, NE	33.55
39	Wisner, NE	34.00
40	Deshler, NE	34.80
41	Gothenburg, NE	35.02
42	Yuma, CO	35.15
43	David City, NE	36.05
44	Kimball, NE	36.99
45	Sidney, NE	38.02
46	Holdrege, NE	39.57
47	Plainview, NE	40.00
47	Winside, NE	40.00
49	Belleville, KS	40.44
50	Atkinson, NE	41.00

Total Survey Average	$38.31
High % of Average	216.2%
Low % of Average	31.3%

Residential
Typical Sewer Bills
Ranking For 8,000 gal.
2022

	Respondent	8,000 gal.
50	Beatrice, NE	$41.00
52	Cairo, NE	42.00
53	Fort Morgan, CO	42.05
54	Walthill, NE	43.25
55	Gunnison, CO	44.14
56	Hastings, NE	44.36
57	Nebraska City, NE	44.84
58	Fort Collins, CO	48.17
59	Superior, NE	48.50
60	Wahoo, NE	48.90
61	Gillette, WY	49.28
62	Grand Island, NE	49.76
63	Torrington, WY	49.85
64	West Point, NE	49.97
65	Beloit, KS	49.99
66	Albion, NE	50.03
67	Fairbury, NE	50.46
68	Chappell, NE	51.20
69	Auburn, NE	52.20
70	Rockford, IA	52.44
71	Scribner, NE	53.60
72	Bassett, NE	55.00
73	Cambridge, NE	55.20
74	St. Paul, NE	55.60
75	Stromsburg, NE	56.13
76	Kingman, KS	57.50
77	Sargent, NE	59.00
78	Fairmont, NE	62.40
79	Eagle, NE	63.00
80	Neligh, NE	66.00
81	Murray, NE	67.58
82	Hickman, NE	68.60
83	South Sioux City, NE	73.78
84	Wayne, NE	74.96
85	Dakota City, NE	82.00
86	Lake View, IA	82.85

Total Survey Average	$38.31
High % of Average	216.2%
Low % of Average	31.3%

Commercial
Typical Sewer Bills
Ranking For 15,000 gal.
2022

	Respondent	15,000 gal.
1	Wauneta, NE	$12.00
2	Niobrara, NE	13.25
3	Exeter, NE	15.00
4	Grant, NE	16.00
5	Alma, NE	16.50
6	Ord, NE	19.00
7	Potter, NE	19.11
8	DeWitt, NE	20.00
8	Spencer, NE	20.00
10	Haxtun, CO	21.00
11	Arapahoe, NE	22.00
12	Alliance, NE	23.55
13	Curtis, NE	24.60
14	Hartington, NE	25.75
15	Sutton, NE	26.00
16	Holyoke, CO	26.11
17	Arnold, NE	27.00
18	Imperial, NE	28.00
19	Osceola, NE	28.75
20	Red Cloud, NE	30.00
21	Julesburg, CO	33.00
22	Pender, NE	33.04
23	Wisner, NE	34.00
24	Yuma, CO	35.15
25	Stuart, NE	37.00
26	Benkelman, NE	39.00
27	Winside, NE	40.00
28	Cairo, NE	42.00
29	Syracuse, NE	42.25
30	Springfield, CO	42.52
31	Chadron, NE	42.65
32	Loup City, NE	43.25
33	Gothenburg, NE	45.94
34	Wilber, NE	46.85
35	Deshler, NE	47.75
36	Holly, CO	48.38
37	Central City, NE	49.55
38	Morrill, NE	50.00
39	Kimball, NE	50.11
40	Laurel, NE	50.50
41	Delta, CO	51.76
42	Tecumseh, NE	53.76
43	Blue Hill, NE	57.00
44	David City, NE	59.50
45	Walthill, NE	60.75
46	Sidney, NE	62.10
47	Beatrice, NE	63.00
48	Plainview, NE	63.50
49	Lexington, NE	65.00
50	Nebraska City, NE	66.56

Total Survey Average	$64.72
High % of Average	393.7%
Low % of Average	18.5%

Commercial
Typical Sewer Bills
Ranking For 15,000 gal.
2022

	Respondent	15,000 gal.
51	Wray, CO	$66.60
52	Belleville, KS	66.86
53	Albion, NE	67.09
54	Holdrege, NE	67.15
55	Cambridge, NE	70.25
56	Hastings, NE	70.45
57	Scribner, NE	72.50
58	Murray, NE	75.26
59	St. Paul, NE	78.00
60	Atkinson, NE	79.00
61	Beloit, KS	79.69
62	Sargent, NE	80.00
63	Bassett, NE	81.25
64	West Point, NE	82.50
65	Superior, NE	84.69
66	Torrington, WY	85.61
67	Grand Island, NE	86.03
68	Fairmont, NE	87.25
69	Gunnison, CO	87.94
70	Rockford, IA	88.70
71	Eagle, NE	91.00
72	Wahoo, NE	91.56
73	Chappell, NE	96.75
74	Hickman, NE	97.25
75	Kingman, KS	103.00
76	Neligh, NE	104.50
77	Dakota City, NE	110.00
78	South Sioux City, NE	117.74
79	Stromsburg, NE	121.13
80	Fort Collins, CO	134.41
81	Fairbury, NE	137.16
82	Lake View, IA	143.75
83	Gillette, WY	168.41
84	Auburn, NE	169.00
85	Wayne, NE	179.30
86	Fort Morgan, CO	254.80

Total Survey Average	$64.72
High % of Average	393.7%
Low % of Average	18.5%

Commercial
Typical Sewer Bills
Ranking For 20,000 gal.
2022

	Respondent	20,000 gal.
1	Wauneta, NE	$12.00
2	Niobrara, NE	13.25
3	Exeter, NE	15.00
4	Grant, NE	16.00
5	Potter, NE	19.11
6	Alma, NE	19.25
7	DeWitt, NE	20.00
7	Spencer, NE	20.00
9	Haxtun, CO	21.00
10	Ord, NE	23.00
11	Arapahoe, NE	24.00
12	Hartington, NE	25.75
13	Sutton, NE	26.00
14	Holyoke, CO	26.11
15	Imperial, NE	28.00
16	Osceola, NE	28.75
17	Curtis, NE	28.80
18	Alliance, NE	30.52
19	Arnold, NE	32.00
20	Wisner, NE	34.00
21	Julesburg, CO	34.25
22	Yuma, CO	35.15
23	Stuart, NE	37.00
24	Pender, NE	38.73
25	Red Cloud, NE	40.00
25	Winside, NE	40.00
27	Cairo, NE	42.00
28	Benkelman, NE	48.25
29	Chadron, NE	49.68
30	Morrill, NE	50.00
31	Syracuse, NE	51.00
32	Loup City, NE	52.00
33	Gothenburg, NE	52.59
34	Springfield, CO	56.69
35	Deshler, NE	57.00
36	Wilber, NE	58.25
37	Kimball, NE	59.48
38	Laurel, NE	59.75
39	Delta, CO	62.46
40	Central City, NE	62.55
41	Holly, CO	63.38
42	Tecumseh, NE	68.01
43	Blue Hill, NE	69.50
44	Walthill, NE	73.25
45	Wray, CO	74.50
46	Murray, NE	75.26
47	Plainview, NE	76.00
48	David City, NE	76.25
49	Lexington, NE	77.75
50	Beatrice, NE	78.00

Total Survey Average	$76.87
High % of Average	348.7%
Low % of Average	15.6%

Commercial
Typical Sewer Bills
Ranking For 20,000 gal.
2022

	Respondent	20,000 gal.
51	Albion, NE	$79.30
52	Cambridge, NE	81.00
53	Nebraska City, NE	81.28
54	Belleville, KS	83.14
55	Scribner, NE	86.00
56	Holdrege, NE	86.88
57	Hastings, NE	89.11
58	Atkinson, NE	94.00
58	St. Paul, NE	94.00
60	Sargent, NE	95.00
61	Bassett, NE	100.00
62	Beloit, KS	100.91
63	Torrington, WY	101.11
64	Superior, NE	101.33
65	Fairmont, NE	105.00
66	West Point, NE	105.79
67	Wahoo, NE	106.81
68	Gunnison, CO	110.19
69	Eagle, NE	111.00
70	Grand Island, NE	111.99
71	Hickman, NE	113.00
72	Sidney, NE	113.80
73	Rockford, IA	114.60
74	Chappell, NE	119.75
75	Dakota City, NE	130.00
76	Neligh, NE	132.00
77	Kingman, KS	135.50
78	Stromsburg, NE	143.48
79	South Sioux City, NE	149.14
80	Fort Collins, CO	152.12
81	Fairbury, NE	157.89
82	Gillette, WY	185.46
83	Auburn, NE	186.00
84	Lake View, IA	187.25
85	Wayne, NE	217.40
86	Fort Morgan, CO	268.05

Total Survey Average	$76.87
High % of Average	348.7%
Low % of Average	15.6%

Summary Comparison

Average Typical Water Bills
2022 NMPP Energy
Typical Water Bill Survey

	2022 Average monthly bill	2022 Average $/1,000 gal. or $/134 cf	2022 Max bill	2022 Min bill
Residential Class				
3,000 gal. or 401 cf #32 32	$27.67	$9.22	$67.75	$10.62
5,000 gal. or 667 cf #41 42	$32.07	$6.41	$73.62	$12.94
8,000 gal. or 1,070 cf #55 10	$38.89	$4.86	$88.53	$16.44
Commercial Class				
15,000 gal. or 2,005 cf #151 10	$90.87	$6.06	$466.85	$24.00
20,000 gal. or 2,674 cf 170 00	$102.64	$5.13	$478.10	$24.00

Residential Class	2021 Average $/1,000 gal. or $/134 cf	2022 Average $/1,000 gal. or $/134 cf	Percent Increase/ Decrease
3,000 gal. or 401 cf	$9.06	$9.22	1.8%
5,000 gal. or 667 cf	$6.25	$6.41	2.6%
8,000 gal. or 1,070 cf	$4.71	$4.86	3.1%
Commercial Class			
15,000 gal. or 2,005 cf	$5.76	$6.06	5.1%
20,000 gal. or 2,674 cf	$4.87	$5.13	5.4%

Residential
Typical Water Bills
Ranking For 5,000 gal.
2022

	Respondent	5,000 gal.
1	Holyoke, CO	$12.94
2	Eagle, NE	13.95
3	Ord, NE	15.00
4	Curtis, NE	15.91
5	Grand Island, NE	16.95
6	Springfield, CO	18.50
7	Atkinson, NE	19.00
8	Arnold, NE	19.25
9	Wray, CO	19.30
10	Stuart, NE	19.65
11	Albion, NE	20.10
12	Spalding, NE	20.17
13	Lexington, NE	20.25
14	Central City, NE	20.66
15	Bassett, NE	21.20
16	Holdrege, NE	21.29
17	Tecumseh, NE	21.35
18	Belleville, KS	21.87
19	Wilber, NE	22.15
20	Imperial, NE	22.25
21	Yuma, CO	22.62
22	Wahoo, NE	22.96
23	Hastings, NE	23.83
24	Blue Hill, NE	24.00
24	Laurel, NE	24.00
24	Sutton, NE	24.00
24	Wisner, NE	24.00
28	Alliance, NE	24.63
29	Kingman, KS	24.75
30	Nebraska City, NE	24.78
31	Superior, NE	25.00
32	Chadron, NE	25.47
33	Alma, NE	25.50
34	Red Cloud, NE	25.83
35	Beatrice, NE	26.00
36	South Sioux City, NE	26.03
37	Loup City, NE	26.25
37	Neligh, NE	26.25
39	Grant, NE	26.50
39	Sidney, NE	26.50
41	Gunnison, CO	26.99
42	Pender, NE	27.05
43	Crete, NE	27.57
44	Aspen, CO	27.76
45	Gillette, WY	28.50
46	Winside, NE	28.75
47	Lake View, IA	29.12
48	West Point, NE	30.04
49	Exeter, NE	30.25
50	Hartington, NE	31.00

Total Survey Average	$32.07
High % of Average	229.6%
Low % of Average	40.4%

Residential
Typical Water Bills
Ranking For 5,000 gal.
2022

	Respondent	5,000 gal.
51	Niobrara, NE	$31.25
52	Delta, CO	31.80
53	Haxtun, CO	32.00
54	Holly, CO	32.46
55	Fort Collins, CO	32.47
56	Gothenburg, NE	32.64
57	Wayne, NE	32.75
58	Hickman, NE	33.60
59	Morrill, NE	33.75
60	Julesburg, CO	33.80
61	Chappell, NE	34.50
62	Fairmont, NE	35.00
63	Dakota City, NE	35.25
64	Sargent, NE	36.00
65	Beaver City, NE	36.25
66	Spencer, NE	37.00
67	DeWitt, NE	37.53
68	Cambridge, NE	37.65
69	Kimball, NE	37.75
70	Deshler, NE	38.25
71	Torrington, WY	39.33
72	Arapahoe, NE	39.75
73	Cairo, NE	40.53
74	Dalton, NE	40.60
75	Auburn, NE	41.42
76	Plainview, NE	42.00
77	Osceola, NE	45.50
78	David City, NE	45.55
79	Rockford, IA	45.60
80	Syracuse, NE	45.85
81	Walthill, NE	47.00
82	Murray, NE	47.50
83	St. Paul, NE	48.23
84	Sergeant Bluff, IA	48.40
85	Beloit, KS	49.45
86	Potter, NE	50.51
87	Stromsburg, NE	64.42
88	Fountain, CO	64.91
89	Benkelman, NE	66.50
90	Scribner, NE	72.25
91	Fort Morgan, CO	73.62

Total Survey Average	$32.07
High % of Average	229.6%
Low % of Average	40.4%

Residential
Typical Water Bills
Ranking For 8,000 gal.
2022

	Respondent	8,000 gal.
1	Holyoke, CO	$16.44
2	Ord, NE	18.00
3	Eagle, NE	19.20
4	Curtis, NE	19.69
5	Central City, NE	20.66
6	Grand Island, NE	21.35
7	Arnold, NE	21.80
8	Stuart, NE	22.80
9	Lexington, NE	23.25
10	Albion, NE	23.82
11	Sutton, NE	24.00
11	Wisner, NE	24.00
13	Springfield, CO	24.50
14	Spalding, NE	24.67
15	Atkinson, NE	25.00
16	Wray, CO	25.30
17	Tecumseh, NE	25.65
18	Bassett, NE	26.60
18	Imperial, NE	26.60
20	Wahoo, NE	27.05
21	Wilber, NE	27.10
22	Holdrege, NE	27.12
23	Yuma, CO	28.17
24	Blue Hill, NE	28.20
25	Laurel, NE	30.00
26	Belleville, KS	30.04
27	Red Cloud, NE	30.33
28	Sidney, NE	30.40
29	Crete, NE	30.57
30	Alma, NE	30.90
31	Alliance, NE	31.04
32	Nebraska City, NE	31.06
33	South Sioux City, NE	31.40
34	Loup City, NE	31.50
35	Grant, NE	31.90
35	Superior, NE	31.90
37	Haxtun, CO	32.00
38	Hastings, NE	32.48
39	Gothenburg, NE	32.64
40	Beatrice, NE	32.75
41	Chadron, NE	34.12
42	Kingman, KS	34.50
43	Gunnison, CO	34.50
44	Neligh, NE	34.65
45	Niobrara, NE	35.00
46	Exeter, NE	35.50
47	West Point, NE	36.47
48	Hartington, NE	37.00
48	Winside, NE	37.00
50	Pender, NE	37.62

Total Survey Average	$38.89
High % of Average	227.6%
Low % of Average	42.3%

Residential
Typical Water Bills
Ranking For 8,000 gal.
2022

	Respondent	8,000 gal.
51	Morrill, NE	$38.25
52	Wayne, NE	38.60
53	Julesburg, CO	39.50
54	Chappell, NE	40.20
55	Aspen, CO	40.48
56	Delta, CO	40.50
57	Gillette, WY	41.10
57	Hickman, NE	41.10
59	Fort Collins, CO	41.40
60	Holly, CO	41.46
61	Sargent, NE	41.70
62	Beaver City, NE	41.80
63	Fairmont, NE	42.50
64	Lake View, IA	42.56
65	Cambridge, NE	42.90
66	Kimball, NE	43.18
67	DeWitt, NE	43.98
68	Spencer, NE	44.50
69	Arapahoe, NE	45.00
70	Cairo, NE	45.18
71	Dalton, NE	45.55
72	Deshler, NE	46.05
73	Dakota City, NE	46.50
74	Torrington, WY	47.10
75	Plainview, NE	48.00
76	Potter, NE	50.51
77	Syracuse, NE	52.60
78	St. Paul, NE	52.91
79	Osceola, NE	53.75
80	Auburn, NE	55.07
81	Walthill, NE	55.10
82	David City, NE	55.78
83	Rockford, IA	63.36
84	Murray, NE	64.00
85	Sergeant Bluff, IA	66.55
86	Beloit, KS	66.84
87	Stromsburg, NE	74.89
88	Benkelman, NE	77.00
89	Scribner, NE	79.00
90	Fort Morgan, CO	85.95
91	Fountain, CO	88.53

Total Survey Average	$38.89
High % of Average	227.6%
Low % of Average	42.3%

Commercial
Typical Water Bills
Ranking For 15,000 gal.
2022

	Respondent	15,000 gal.
1	Sutton, NE	$24.00
2	Holyoke, CO	24.57
3	Ord, NE	25.00
4	Haxtun, CO	27.00
5	Arnold, NE	27.75
6	Central City, NE	28.76
7	Lexington, NE	30.25
8	Albion, NE	32.47
9	Gothenburg, NE	32.64
10	Eagle, NE	33.90
11	Stuart, NE	35.15
12	Spalding, NE	35.17
13	Curtis, NE	35.21
14	Springfield, CO	38.50
15	Wilber, NE	38.65
16	Bassett, NE	39.20
17	Yuma, CO	41.12
18	Alma, NE	43.50
18	Sidney, NE	43.50
20	Imperial, NE	43.75
20	Loup City, NE	43.75
20	Niobrara, NE	43.75
23	Laurel, NE	44.00
24	Wisner, NE	45.00
25	Atkinson, NE	48.00
26	Tecumseh, NE	48.45
27	Wray, CO	49.80
28	Potter, NE	50.51
29	Holdrege, NE	50.87
30	Hartington, NE	51.00
31	Chappell, NE	53.50
32	South Sioux City, NE	53.68
33	Neligh, NE	54.25
34	Sargent, NE	55.00
35	Cambridge, NE	55.15
36	Julesburg, CO	55.30
37	Kimball, NE	55.85
38	Grand Island, NE	55.99
39	Winside, NE	56.25
40	Dalton, NE	57.10
41	Arapahoe, NE	57.25
41	Kingman, KS	57.25
43	DeWitt, NE	59.03
44	Fairmont, NE	60.00
45	Superior, NE	60.40
46	Plainview, NE	62.00
46	Spencer, NE	62.00
48	Holly, CO	62.46
49	Dakota City, NE	63.75
50	Gunnison, CO	65.25

Total Survey Average	$90.87
High % of Average	513.7%
Low % of Average	26.4%

Commercial
Typical Water Bills
Ranking For 15,000 gal.
2022

	Respondent	15,000 gal.
51	Beatrice, NE	$65.90
52	Belleville, KS	68.11
53	Nebraska City, NE	71.18
54	Wahoo, NE	72.38
55	Lake View, IA	73.92
56	Walthill, NE	74.00
57	Hickman, NE	76.50
58	Exeter, NE	78.75
59	West Point, NE	79.96
60	Deshler, NE	80.25
61	Pender, NE	83.21
62	Blue Hill, NE	88.75
63	Red Cloud, NE	91.00
64	Cairo, NE	93.19
65	Torrington, WY	93.75
66	Alliance, NE	95.88
67	Chadron, NE	99.05
68	Murray, NE	102.50
69	St. Paul, NE	103.90
70	Rockford, IA	104.80
71	Beloit, KS	107.41
72	Sergeant Bluff, IA	108.90
73	Hastings, NE	118.83
74	Wayne, NE	123.75
75	Osceola, NE	126.50
76	Aspen, CO	131.89
77	Crete, NE	134.44
78	Delta, CO	135.00
79	Beaver City, NE	135.75
80	Grant, NE	145.75
81	Gillette, WY	149.00
82	Auburn, NE	151.10
83	Stromsburg, NE	190.35
84	Benkelman, NE	218.25
85	Fort Collins, CO	222.96
86	Morrill, NE	232.50
87	Syracuse, NE	252.50
88	David City, NE	265.95
89	Fort Morgan, CO	409.79
90	Fountain, CO	428.17
91	Scribner, NE	466.85

Total Survey Average	$90.87
High % of Average	513.7%
Low % of Average	26.4%

Commercial
Typical Water Bills
Ranking For 20,000 gal.
2022

	Respondent	20,000 gal.
1	Sutton, NE	$24.00
2	Ord, NE	30.00
3	Haxtun, CO	30.35
4	Holyoke, CO	30.39
5	Arnold, NE	32.00
6	Gothenburg, NE	32.64
7	Lexington, NE	35.25
8	Central City, NE	36.86
9	Albion, NE	38.66
10	Stuart, NE	40.40
11	Curtis, NE	41.51
12	Spalding, NE	42.67
13	Eagle, NE	46.50
14	Wilber, NE	46.90
15	Bassett, NE	48.20
16	Springfield, CO	48.50
17	Niobrara, NE	50.00
18	Yuma, CO	50.37
19	Potter, NE	50.51
20	Imperial, NE	51.00
21	Alma, NE	52.50
21	Loup City, NE	52.50
23	Laurel, NE	54.00
24	Tecumseh, NE	55.61
25	Atkinson, NE	58.00
26	Wray, CO	59.80
27	Wisner, NE	60.00
28	Holdrege, NE	60.57
29	Hartington, NE	61.00
30	South Sioux City, NE	62.63
31	Chappell, NE	63.00
32	Cambridge, NE	63.90
33	Sargent, NE	64.50
34	Kimball, NE	64.90
35	Grand Island, NE	65.03
36	Dalton, NE	65.35
37	Arapahoe, NE	66.00
38	Julesburg, CO	67.30
39	Neligh, NE	68.25
40	DeWitt, NE	69.78
41	Winside, NE	70.00
42	Plainview, NE	72.00
43	Superior, NE	72.20
44	Fairmont, NE	72.50
45	Kingman, KS	73.50
46	Spencer, NE	74.50
47	Beatrice, NE	77.15
48	Holly, CO	77.46
49	Dakota City, NE	80.00
50	Gunnison, CO	80.02

Total Survey Average	$102.64
High % of Average	465.8%
Low % of Average	23.4%

Commercial
Typical Water Bills
Ranking For 20,000 gal.
2022

	Respondent	20,000 gal.
51	Nebraska City, NE	$81.24
52	Belleville, KS	81.73
53	Wahoo, NE	84.39
54	Exeter, NE	87.50
54	Walthill, NE	87.50
56	West Point, NE	90.66
57	Deshler, NE	93.25
58	Sidney, NE	93.50
59	Blue Hill, NE	95.75
60	Lake View, IA	96.32
61	Red Cloud, NE	98.50
62	Hickman, NE	99.00
63	Pender, NE	100.81
64	Cairo, NE	100.94
65	Alliance, NE	106.55
66	Torrington, WY	106.70
67	St. Paul, NE	111.70
68	Chadron, NE	113.43
69	Murray, NE	130.00
70	Hastings, NE	133.21
71	Wayne, NE	133.50
72	Rockford, IA	134.40
73	Delta, CO	135.00
74	Beloit, KS	136.39
75	Sergeant Bluff, IA	139.15
76	Crete, NE	139.44
77	Osceola, NE	140.25
78	Beaver City, NE	145.00
79	Aspen, CO	148.44
80	Grant, NE	154.75
81	Gillette, WY	170.00
82	Auburn, NE	173.85
83	Stromsburg, NE	207.80
84	Fort Collins, CO	235.23
85	Benkelman, NE	235.75
86	Morrill, NE	240.00
87	Syracuse, NE	266.00
88	David City, NE	285.30
89	Fountain, CO	428.17
90	Fort Morgan, CO	430.34
91	Scribner, NE	478.10

Total Survey Average	$102.64
High % of Average	465.8%
Low % of Average	23.4%

Residential
Typical Water Bills
Ranking For 3,000 gal.
2022

	Respondent	3,000 gal.
1	Holyoke, CO	$10.62
2	Eagle, NE	10.80
3	Ord, NE	13.00
4	Grand Island, NE	14.41
5	Springfield, CO	14.50
6	Atkinson, NE	15.00
7	Wray, CO	15.30
8	Stuart, NE	15.40
9	Curtis, NE	15.91
10	Belleville, KS	16.42
11	Spalding, NE	17.17
12	Holdrege, NE	17.41
13	Arnold, NE	17.55
14	Bassett, NE	17.60
15	Albion, NE	17.63
16	Hastings, NE	18.09
17	Kingman, KS	18.25
18	Tecumseh, NE	18.49
19	Wilber, NE	18.85
20	Imperial, NE	19.35
21	Chadron, NE	19.73
22	Laurel, NE	20.00
23	Pender, NE	20.03
24	Gillette, WY	20.10
25	Lake View, IA	20.16
26	Aspen, CO	20.21
27	Wahoo, NE	20.23
28	Lexington, NE	20.25
29	Superior, NE	20.40
30	Nebraska City, NE	20.61
31	Neligh, NE	20.65
32	Central City, NE	20.66
33	Alliance, NE	20.73
34	Blue Hill, NE	21.20
35	Beatrice, NE	21.50
36	Alma, NE	21.90
37	South Sioux City, NE	22.45
38	Yuma, CO	22.62
39	Loup City, NE	22.75
40	Gunnison, CO	22.78
41	Red Cloud, NE	22.83
42	Grant, NE	22.90
43	Winside, NE	23.25
44	Sidney, NE	23.90
45	Sutton, NE	24.00
45	Wisner, NE	24.00
47	Crete, NE	25.57
48	West Point, NE	25.77
49	Delta, CO	26.00
50	Holly, CO	26.46

Total Survey Average	$27.67
High % of Average	244.8%
Low % of Average	38.4%

Residential
Typical Water Bills
Ranking For 3,000 gal.
2022

	Respondent	3,000 gal.
51	Exeter, NE	$26.75
52	Fort Collins, CO	26.80
53	Hartington, NE	27.00
54	Dakota City, NE	27.75
55	Hickman, NE	28.60
56	Niobrara, NE	28.75
57	Wayne, NE	28.85
58	Fairmont, NE	30.00
58	Julesburg, CO	30.00
60	Chappell, NE	30.70
61	Morrill, NE	30.75
62	Haxtun, CO	32.00
62	Spencer, NE	32.00
64	Sargent, NE	32.20
65	Auburn, NE	32.32
66	Beaver City, NE	32.55
67	Gothenburg, NE	32.64
68	Deshler, NE	33.05
69	DeWitt, NE	33.23
70	Rockford, IA	33.76
71	Kimball, NE	34.13
72	Cambridge, NE	34.15
73	Arapahoe, NE	36.25
74	Sergeant Bluff, IA	36.30
75	Murray, NE	36.50
76	Torrington, WY	36.74
77	Dalton, NE	37.30
78	Cairo, NE	37.43
79	Beloit, KS	37.86
80	Plainview, NE	38.00
81	David City, NE	38.73
82	Osceola, NE	40.00
83	Syracuse, NE	41.35
84	Walthill, NE	41.60
85	St. Paul, NE	45.11
86	Potter, NE	50.51
87	Fountain, CO	51.19
88	Stromsburg, NE	57.44
89	Benkelman, NE	59.50
90	Fort Morgan, CO	65.40
91	Scribner, NE	67.75

Total Survey Average	$27.67
High % of Average	244.8%
Low % of Average	38.4%

AMERICAN PUBLIC POWER ASSOCIATION (APPA)

March Washington Report

Resolutions Approved at Legislative Rally Address Transformer Supply Chain Crisis, Tax Credits

The American Public Power Association's Legislative and Resolutions Committee on Feb. 28 approved eight policy resolutions during APPA's 2023 Legislative Rally in Washington, D.C., including a resolution that urges immediate federal efforts to address the current supply chain crisis for critical grid components, such as distribution transformers. Another approved resolution calls for Congress to abandon the indiscriminate, across-the-board spending cuts imposed by sequestration on direct payment bonds and remove the needless threat of statutory Pay-As-You-Go Act sequestration from refundable direct pay tax credits for public power utilities. Rep. Mike Thompson (D-CA) at the Rally received APPA's Public Service Award. Thompson was honored by APPA for exceptional leadership on numerous issues of importance to public power.

Groups Say Department of Energy Proposal Raises Reliability, Affordability Questions

Reliability and affordability for U.S. electric utilities and their customers could be threatened under a Department of Energy Notice of Proposed Rulemaking related to energy conservation standards for distribution transformers, APPA and the National Rural Electric Cooperative Association told the Department of Justice. Separately, a broad coalition representing stakeholders in the distribution transformer supply chain including APPA urged the Department of Energy to reconsider its intention to increase energy conservation standards for distribution transformers.

EPA Reaffirms Underpinnings of Mercury and Air Toxics Standards for Power Plants

The Environmental Protection Agency on Feb. 17 issued a final rule that reaffirmed the scientific, economic, and legal underpinnings of the 2012 Mercury and Air Toxics Standards for power plants, which required significant reductions of mercury, acid gases, and other harmful pollutants. The pre-publication version of the final rule is available here.

Meanwhile, at the Federal Energy Regulatory Commission.....

- **Supply Chain.** The Federal Energy Regulatory Commission should engage with other policymakers and industry partners on distribution transformer supply chain constraints to support reliability, security, resilience, affordability, and economic development, the American Public Power Association said in recent comments filed at FERC.
- **Reliability.** FERC should work to ensure that any directives FERC ultimately issues in an ongoing proceeding related to inverter-based resources and reliability are harmonized with related work already underway by the North American Electric Reliability Corporation and the power sector, APPA and other groups recently said.
- **Reliability.** FERC on Feb. 16 approved two new extreme cold weather reliability standards aimed at implementing key recommendations from a joint inquiry into 2021's Winter Storm Uri to prevent a recurrence of the power outages affecting millions of people in Texas and the South Central U.S.