APPENDIX M

Soil Summary for Montana, South Dakota, and Nebraska

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APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
MONTANA								
FEIS	0.00	25.17	No Changes from FEIS					
RV-1001	25.17	25.25	0.08	422.15	MT641	347661	301C	Marvan complex, 2 to 8 percent slopes
RV-1001	25.25	25.27	0.02	112.76	MT641	347792	901A	Lallie clay loam, 0 to 1 percent slopes
RV-1001	25.27	25.29	0.02	125.52	MT641	347832	W	Water
RV-1001	25.29	25.34	0.04	237.43	MT641	347792	901A	Lallie clay loam, 0 to 1 percent slopes
RV-1001	25.34	25.37	0.04	194.50	MT641	347797	90A	Harlake clay, 0 to 2 percent slopes
RV-1001	25.37	25.50	0.12	652.42	MT105	345542	27	Havre-Harlem silty clays
RV-1001	25.50	25.68	0.18	968.00	MT105	345540	25	Havre silty clay loam
RV-1001	25.68	25.68	0.00	3.24	MT105	345578	6	Cabbart-Delpoint complex, 9 to 35 percent slopes
FEIS	25.68	71.56	No Changes from FEIS					
RV-1002	71.56	71.72	0.16	827.69	MT105	345588	69	Thoeny-Phillips complex, 1 to 5 percent slopes
RV-1002	71.72	71.86	0.14	752.70	MT105	345595	75	Ustic Torrifluvents, gently sloping
RV-1002	71.86	72.21	0.35	1,856.20	MT105	345566	49	Phillips-Scobey complex, 2 to 9 percent slopes
FEIS	72.21	73.57	No Changes from FEIS					
RV-1003	109.54	109.64	0.10	528.21	MT055	344367	166	Yawdim-Badland-Gerdrum association
RV-1003	109.64	109.71	0.06	341.36	MT055	344316	12	Benz clay loam, 0 to 8 percent slopes
RV-1003	109.71	109.77	0.06	295.11	MT055	344409	46	Chinook fine sandy loam, 0 to 4 percent slopes
RV-1003	109.77	109.87	0.10	537.75	MT055	344427	62	Eapa-Gerdrum complex, 2 to 8 percent slopes
RV-1003	109.87	109.92	0.05	281.69	MT055	344318	121	Rominell loam, gullied, 0 to 8 percent slopes
RV-1003	109.92	110.20	0.28	1,461.49	MT055	344427	62	Eapa-Gerdrum complex, 2 to 8 percent slopes
RV-1003	110.20	110.31	0.11	594.25	MT055	344382	21	Busby-Twilight fine sandy loams, 2 to 8 percent slopes
FEIS	110.31	285.64	No Changes from FEIS					
SOUTH DAKOTA								
FEIS	285.64	296.22	No Change from FEIS					
RV-1004	296.22	296.45	0.23	1,229.47	SD063	355804	TxE	Twilight-Blackhall fine sandy loams, 9 to 25 percent slopes
RV-1004	296.45	296.52	0.07	343.56	SD063	355805	TyC	Twilight-Parchin fine sandy loams, 6 to 15 percent slopes
RV-1004	296.52	296.82	0.30	1,597.04	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
RV-1004	296.82	296.93	0.11	594.57	SD063	355729	CeE	Cabbart-Rock outcrop complex, 15 to 40 percent slopes
RV-1004	296.93	297.25	0.32	1,664.31	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
RV-1004	297.25	297.38	0.13	685.79	SD063	355722	BoD	Bullock-Cabbart complex, 6 to 25 percent slopes
RV-1004	297.38	297.44	0.06	300.25	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
RV-1004	297.44	297.49	0.05	272.14	SD063	355797	TnB	Tanna silty clay loam, 2 to 9 percent slopes
RV-1004	297.49	297.57	0.08	422.22	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
RV-1004	297.57	297.62	0.05	266.81	SD063	355797	TnB	Tanna silty clay loam, 2 to 9 percent slopes
RV-1004	297.62	297.67	0.05	288.63	SD063	355722	BoD	Bullock-Cabbart complex, 6 to 25 percent slopes
RV-1004	297.67	297.72	0.05	268.42	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
RV-1004	297.72	297.72	0.00	1.28	SD063	355722	BoD	Bullock-Cabbart complex, 6 to 25 percent slopes
FEIS	297.72	315.09	No Change from FEIS					
RV-1005	315.09	315.49	0.40	2,113.06	SD063	355804	TxE	Twilight-Blackhall fine sandy loams, 9 to 25 percent slopes
RV-1005	315.49	315.73	0.24	1,274.29	SD063	355781	RmB	Rhame-Parchin fine sandy loams, 2 to 6 percent slopes
RV-1005	315.73	315.75	0.02	112.35	SD063	355801	TtC	Trey-Fleak loamy fine sands, 2 to 15 percent slopes

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FEIS	315.75	331.94	No Change from FEIS					
RV-1006	331.94	331.98	0.04	205.92	SD063	355780	RhB	Rhame fine sandy loam, 2 to 6 percent slopes
RV-1006	331.98	332.23	0.26	1,348.26	SD063	355712	AkA	Archin-Bullock fine sandy loams, 0 to 4 percent slopes
RV-1006	332.23	332.33	0.09	495.02	SD063	355722	BoD	Bullock-Cabbart complex, 6 to 25 percent slopes
RV-1006	332.33	332.35	0.03	134.68	SD063	355717	AwB	Attewan loam, 2 to 6 percent slopes
RV-1006	332.35	332.37	0.02	108.87	SD063	355771	NaD	Nihill variant-Attewan complex, 4 to 40 percent slopes
RV-1006	332.37	332.43	0.06	314.55	SD063	355756	Ke	Korchea loam
RV-1006	332.43	332.50	0.06	341.42	SD063	355722	BoD	Bullock-Cabbart complex, 6 to 25 percent slopes
RV-1006	332.50	332.59	0.09	485.78	SD063	355712	AkA	Archin-Bullock fine sandy loams, 0 to 4 percent slopes
RV-1006	332.59	332.71	0.12	620.43	SD063	355722	BoD	Bullock-Cabbart complex, 6 to 25 percent slopes
RV-1006	332.71	332.93	0.22	1,152.80	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
FEIS	332.93	350.84	No Change from FEIS					
RV-1007	350.84	350.94	0.11	563.70	SD063	355723	BpB	Bullock-Parchin-Slickspots complex, 2 to 9 percent slopes
RV-1007	350.94	351.00	0.06	294.27	SD063	355724	BsA	Bullock-Slickspots complex, 0 to 4 percent slopes
RV-1007	351.00	351.10	0.10	517.69	SD063	355723	BpB	Bullock-Parchin-Slickspots complex, 2 to 9 percent slopes
RV-1007	351.10	351.18	0.08	415.73	SD063	355805	TyC	Twilight-Parchin fine sandy loams, 6 to 15 percent slopes
RV-1007	351.18	351.27	0.10	504.50	SD063	355781	RmB	Rhame-Parchin fine sandy loams, 2 to 6 percent slopes
RV-1007	351.27	351.30	0.02	124.21	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
RV-1007	351.30	351.48	0.18	970.55	SD063	355722	BoD	Bullock-Cabbart complex, 6 to 25 percent slopes
RV-1007	351.48	351.52	0.04	195.94	SD063	355804	TxE	Twilight-Blackhall fine sandy loams, 9 to 25 percent slopes
RV-1007	351.52	351.59	No Change from FEIS					
FEIS	354.42	354.62	0.20	1,066.46	SD063	355805	TyC	Twilight-Parchin fine sandy loams, 6 to 15 percent slopes
RV-1008	354.62	354.87	0.26	1,352.90	SD063	355805	TyC	Twilight-Parchin fine sandy loams, 6 to 15 percent slopes
RV-1008	354.87	354.92	0.05	247.79	SD063	355758	Km	Korchea-Archin complex
RV-1008	354.92	355.02	0.09	501.04	SD063	355729	CeE	Cabbart-Rock outcrop complex, 15 to 40 percent slopes
RV-1008	355.02	355.06	0.05	238.39	SD063	355783	RnB	Rhoades-Daglum loams, 2 to 9 percent slopes
RV-1008	355.06	355.22	0.15	814.28	SD063	355772	PbB	Parchin-Bullock fine sandy loams, 2 to 9 percent slopes
RV-1008	355.22	355.27	0.06	305.38	SD063	355723	BpB	Bullock-Parchin-Slickspots complex, 2 to 9 percent slopes
FEIS	355.27	361.76	No Change from FEIS					
RV-1009	361.76	361.94	0.18	968.85	SD019	353257	ZeB	Zeona loamy fine sand, 0 to 6 percent slopes
RV-1009	361.94	362.04	0.10	530.11	SD019	353141	AnA	Archin-Slickspots complex, 0 to 3 percent slopes
RV-1009	362.04	362.10	0.06	325.06	SD019	353147	Bd	Badland
RV-1009	362.10	362.14	0.04	218.82	SD019	353249	TfD	Twilight fine sandy loam, 3 to 25 percent slopes
RV-1009	362.14	362.18	0.03	180.33	SD019	353136	AeB	Absher-Slickspots complex, 0 to 9 percent slopes
RV-1009	362.18	362.31	0.14	714.69	SD105	354608	AbC	Bullock-Slickspots complex, 0 to 15 percent slopes
RV-1009	362.31	362.44	0.12	651.42	SD105	354666	TcD	Twilight-Marmarth-Parchin association, gently rolling
FEIS	362.44	366.31	No Change from FEIS					
RV-1010	366.31	366.33	0.02	112.45	SD105	354607	AaB	Bullock-Parchin loams, 0 to 9 percent slopes
RV-1010	366.33	366.39	0.06	305.84	SD105	354661	Sd	Shambo loam, channeled
RV-1010	366.39	366.78	0.39	2,079.01	SD105	354607	AaB	Bullock-Parchin loams, 0 to 9 percent slopes
RV-1010	366.78	366.82	0.04	189.28	SD105	354666	TcD	Twilight-Marmarth-Parchin association, gently rolling
FEIS	366.82	366.96	0.15	770.80	SD105	354666	TcD	Twilight-Marmarth-Parchin association, gently rolling
FEIS	370.16	370.18	0.02	93.70	SD105	354608	AbC	Bullock-Slickspots complex, 0 to 15 percent slopes
RV-1011	370.18	370.24	0.06	311.02	SD105	354608	AbC	Bullock-Slickspots complex, 0 to 15 percent slopes
RV-1011	370.24	370.29	0.05	267.50	SD105	354607	AaB	Bullock-Parchin loams, 0 to 9 percent slopes
RV-1011	370.29	370.47	0.18	935.48	SD105	354608	AbC	Bullock-Slickspots complex, 0 to 15 percent slopes

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RV-1011	370.47	370.66	0.20	1,037.17	SD105	354665	Tb	Trembles soils, channeled
RV-1011	370.66	370.68	0.01	62.30	SD105	354660	Sc	Shambo loam
RV-1011	370.68	370.75	0.08	399.79	SD105	354608	AbC	Bullock-Slickspots complex, 0 to 15 percent slopes
RV-1011	370.75	370.82	0.07	374.65	SD105	354660	Sc	Shambo loam
FEIS	370.82	380.56	No Change from FEIS					
RV-1012	380.56	380.73	0.18	926.05	SD601	355473	TwC	Twilight-Marmarth-Parchin fine sandy loams, 4 to 9 percent slopes
RV-1012	380.73	380.96	0.22	1,175.93	SD601	355426	BpB	Bullock-Parchin fine sandy loams, 0 to 4 percent slopes
RV-1012	380.96	381.20	0.25	1,308.86	SD601	355456	PbB	Parchin-Bullock fine sandy loams, 2 to 6 percent slopes
FEIS	381.20	388.26	No Change from FEIS					
RV-1013	388.26	388.39	0.13	690.11	SD601	355418	AsB	Assinniboine fine sandy loam, 2 to 6 percent slopes
RV-1013	388.39	388.59	0.19	1,026.83	SD601	355450	LcA	Loburn-Gerdrum loams, 0 to 3 percent slopes
RV-1013	388.59	388.77	0.19	978.29	SD601	355420	AtC	Assinniboine-Twilight fine sandy loams, 6 to 9 percent slopes
RV-1013	388.77	388.90	0.13	694.24	SD601	355426	BpB	Bullock-Parchin fine sandy loams, 0 to 4 percent slopes
FEIS	388.90	398.24	No Change from FEIS					
RV-1014	398.24	398.39	0.14	748.40	SD601	355430	DeC	Delridge-Cabbart loams, 6 to 15 percent slopes
RV-1014	398.39	398.49	0.11	560.27	SD601	355419	AsC	Assinniboine fine sandy loam, 6 to 9 percent slopes
RV-1014	398.49	398.55	0.06	321.68	SD601	355428	CaD	Cabbart loam, 9 to 40 percent slopes
RV-1014	398.55	398.68	0.13	674.13	SD601	355418	AsB	Assinniboine fine sandy loam, 2 to 6 percent slopes
RV-1014	398.68	398.72	0.04	229.74	SD601	355423	BlE	Blackhall-Rock outcrop complex, 15 to 40 percent slopes
RV-1014	398.72	398.74	0.01	72.55	SD601	355418	AsB	Assinniboine fine sandy loam, 2 to 6 percent slopes
RV-1014	398.74	398.80	0.06	308.47	SD601	355424	BmE	Blackhall-Twilight fine sandy loams, 9 to 40 percent slopes
RV-1014	398.80	398.86	0.06	317.17	SD601	355428	CaD	Cabbart loam, 9 to 40 percent slopes
RV-1014	398.86	398.88	0.03	145.05	SD601	355432	EaB	Eapa loam, 2 to 6 percent slopes
RV-1014	398.88	398.89	0.00	23.14	SD601	355428	CaD	Cabbart loam, 9 to 40 percent slopes
RV-1014	398.89	398.93	0.05	245.16	SD601	355430	DeC	Delridge-Cabbart loams, 6 to 15 percent slopes
RV-1014	398.93	399.01	0.08	405.68	SD601	355428	CaD	Cabbart loam, 9 to 40 percent slopes
RV-1014	399.01	399.16	0.15	783.72	SD601	355418	AsB	Assinniboine fine sandy loam, 2 to 6 percent slopes
RV-1014	399.16	399.23	0.07	364.65	SD601	355430	DeC	Delridge-Cabbart loams, 6 to 15 percent slopes
RV-1014	399.23	399.31	0.08	403.73	SD601	355436	EgB	Eapa-Grail complex, 2 to 6 percent slopes
RV-1014	399.31	399.31	0.00	0.52	SD601	355418	AsB	Assinniboine fine sandy loam, 2 to 6 percent slopes
RV-1014	399.31	399.44	0.13	685.87	SD601	355436	EgB	Eapa-Grail complex, 2 to 6 percent slopes
RV-1014	399.44	399.54	0.10	539.73	SD601	355418	AsB	Assinniboine fine sandy loam, 2 to 6 percent slopes
RV-1014	399.54	399.63	0.09	470.93	SD601	355424	BmE	Blackhall-Twilight fine sandy loams, 9 to 40 percent slopes
RV-1014	399.63	399.69	0.07	346.04	SD601	355420	AtC	Assinniboine-Twilight fine sandy loams, 6 to 9 percent slopes
RV-1014	399.69	399.77	0.08	412.22	SD601	355428	CaD	Cabbart loam, 9 to 40 percent slopes
RV-1014	399.77	399.85	0.07	395.83	SD601	355424	BmE	Blackhall-Twilight fine sandy loams, 9 to 40 percent slopes
RV-1014	399.85	399.93	0.09	464.64	SD601	355428	CaD	Cabbart loam, 9 to 40 percent slopes
RV-1014	399.93	400.00	0.06	337.88	SD601	355424	BmE	Blackhall-Twilight fine sandy loams, 9 to 40 percent slopes
RV-1014	400.00	400.08	0.08	431.68	SD601	355428	CaD	Cabbart loam, 9 to 40 percent slopes
RV-1014	400.08	400.17	0.10	502.01	SD601	355419	AsC	Assinniboine fine sandy loam, 6 to 9 percent slopes
RV-1014	400.17	400.36	0.19	984.46	SD601	355424	BmE	Blackhall-Twilight fine sandy loams, 9 to 40 percent slopes
RV-1014	400.36	400.41	0.05	240.67	SD601	355423	BlE	Blackhall-Rock outcrop complex, 15 to 40 percent slopes
RV-1014	400.41	400.52	0.11	605.52	SD601	355424	BmE	Blackhall-Twilight fine sandy loams, 9 to 40 percent slopes
RV-1014	400.52	400.75	0.23	1,193.01	SD601	355430	DeC	Delridge-Cabbart loams, 6 to 15 percent slopes
RV-1014	400.75	400.78	0.04	190.39	SD601	355433	EaC	Eapa loam, 6 to 9 percent slopes

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FEIS	400.78	424.02	No Change from FEIS					
RV-1015	424.02	424.17	0.14	763.62	SD601	355466	St	Stetter clay
RV-1015	424.17	424.52	0.35	1,838.43	SD601	355462	SaD	Samsil clay, 6 to 25 percent slopes
RV-1015	424.52	424.64	0.12	627.02	SD601	355466	St	Stetter clay
RV-1015	424.64	424.69	0.06	297.50	SD601	355462	SaD	Samsil clay, 6 to 25 percent slopes
RV-1015	424.69	424.79	0.10	508.53	SD601	355466	St	Stetter clay
RV-1015	424.79	425.06	0.27	1,431.14	SD601	355452	Lg	Lohmiller silty clay loam, channeled
RV-1015	425.06	425.10	0.04	197.08	SD601	355462	SaD	Samsil clay, 6 to 25 percent slopes
RV-1015	425.10	425.49	0.40	2,092.65	SD601	355452	Lg	Lohmiller silty clay loam, channeled
RV-1015	425.49	425.67	0.18	934.54	SD601	355460	PsC	Pierre-Samsil clays, 6 to 15 percent slopes
RV-1015	425.67	425.72	0.05	280.69	SD601	355462	SaD	Samsil clay, 6 to 25 percent slopes
RV-1015	425.72	426.06	0.34	1,795.36	SD601	355463	SbE	Samsil-Rock outcrop complex, 15 to 40 percent slopes
RV-1015	426.06	426.12	0.05	277.97	SD601	355462	SaD	Samsil clay, 6 to 25 percent slopes
RV-1015	426.12	426.34	0.22	1,182.05	SD601	355463	SbE	Samsil-Rock outcrop complex, 15 to 40 percent slopes
RV-1015	426.34	426.37	0.03	165.97	SD601	355462	SaD	Samsil clay, 6 to 25 percent slopes
RV-1015	426.37	426.53	0.16	829.58	SD601	355451	Ld	Lohmiller silty clay loam
FEIS	426.53	426.83	No Change from FEIS					
RV-1016	426.83	427.26	0.43	2,266.02	SD601	355462	SaD	Samsil clay, 6 to 25 percent slopes
RV-1016	427.26	427.76	0.51	2,672.30	SD601	355452	Lg	Lohmiller silty clay loam, channeled
RV-1016	427.76	428.01	0.25	1,312.83	SD601	355451	Ld	Lohmiller silty clay loam
RV-1016	428.01	428.23	0.21	1,128.21	SD601	355452	Lg	Lohmiller silty clay loam, channeled
RV-1016	428.23	428.67	0.45	2,366.03	SD601	355445	KyA	Kyle clay, 0 to 2 percent slopes
RV-1016	428.67	428.87	0.19	1,021.62	SD601	355460	PsC	Pierre-Samsil clays, 6 to 15 percent slopes
RV-1016	428.87	428.90	0.03	146.29	SD601	355445	KyA	Kyle clay, 0 to 2 percent slopes
RV-1016	428.90	429.05	0.16	831.14	SD601	355460	PsC	Pierre-Samsil clays, 6 to 15 percent slopes
RV-1016	429.05	429.09	0.03	183.88	SD601	355457	PeB	Pierre clay, 2 to 6 percent slopes
RV-1016	429.09	429.19	0.11	558.59	SD601	355452	Lg	Lohmiller silty clay loam, channeled
RV-1016	429.19	429.40	0.21	1,101.67	SD601	355451	Ld	Lohmiller silty clay loam
RV-1016	429.40	429.56	0.16	838.89	SD601	355446	KyB	Kyle clay, 2 to 6 percent slopes
RV-1016	429.56	429.67	0.11	584.84	SD601	355451	Ld	Lohmiller silty clay loam
RV-1016	429.67	429.97	0.30	1,599.88	SD601	355439	Gc	Glenberg fine sandy loam
RV-1016	429.97	430.05	0.07	395.52	SD601	355422	Bb	Bankard gravelly loamy sand
RV-1016	430.05	430.06	0.01	52.91	SD601	355477	W	Water
RV-1016	430.06	430.08	0.02	120.81	SD605	356130	W	Water
RV-1016	430.08	430.16	0.07	389.16	SD605	356101	Rv	Riverwash
RV-1016	430.16	430.23	0.07	389.83	SD605	356040	Gb	Glenberg fine sandy loam
RV-1016	430.23	430.35	0.12	647.23	SD605	356043	Ha	Haverson silt loam
RV-1016	430.35	430.50	0.15	781.12	SD605	356062	Lo	Lohmiller silty clay
RV-1016	430.50	430.72	0.22	1,148.66	SD605	356005	BaA	Baca silt loam, 0 to 4 percent slopes
RV-1016	430.72	430.85	0.13	703.98	SD605	356063	Lp	Lohmiller silty clay, channeled
RV-1016	430.86	430.90	0.04	211.19	SD055	354112	Lp	Lohmiller silty clay, channeled
RV-1016	430.90	431.00	0.10	552.11	SD055	354106	KyB	Kyle clay, 3 to 6 percent slopes
RV-1016	431.00	431.13	0.13	685.96	SD055	354141	PkE	Pierre-Samsil clays, 15 to 25 percent slopes
RV-1016	431.13	431.36	0.22	1,177.50	SD055	354155	SbF	Samsil clay, 25 to 60 percent slopes
RV-1016	431.36	431.46	0.10	533.30	SD055	354162	StF	Schamber-Samsil complex, 6 to 60 percent slopes
RV-1016	431.46	432.29	0.83	4,389.46	SD055	354094	KeA	Kirley clay loam, 0 to 2 percent slopes

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RV-1016	432.29	432.65	0.36	1,919.41	SD055	354153	RkD	Ree-Vivian complex, 6 to 15 percent slopes
RV-1016	432.65	432.96	0.31	1,615.36	SD055	354148	ReA	Ree loam, 0 to 2 percent slopes
RV-1016	432.96	433.10	0.14	725.69	SD055	354162	StF	Schamber-Samsil complex, 6 to 60 percent slopes
RV-1016	433.10	433.28	0.18	969.67	SD055	354155	SbF	Samsil clay, 25 to 60 percent slopes
RV-1016	433.28	433.44	0.16	849.06	SD055	354141	PkE	Pierre-Samsil clays, 15 to 25 percent slopes
RV-1016	433.44	433.54	0.10	548.12	SD055	354106	KyB	Kyle clay, 3 to 6 percent slopes
RV-1016	433.54	433.62	0.07	391.68	SD055	354112	Lp	Lohmiller silty clay, channeled
RV-1016	433.62	433.77	0.15	805.01	SD055	354106	KyB	Kyle clay, 3 to 6 percent slopes
RV-1016	433.77	434.14	0.37	1,928.80	SD055	354141	PkE	Pierre-Samsil clays, 15 to 25 percent slopes
RV-1016	434.14	434.39	0.26	1,356.97	SD055	354157	SdF	Samsil-Rock outcrop complex, 15 to 60 percent slopes
RV-1016	434.39	434.46	0.07	359.47	SD055	354162	StF	Schamber-Samsil complex, 6 to 60 percent slopes
RV-1016	434.46	436.12	1.65	8,733.89	SD055	354148	ReA	Ree loam, 0 to 2 percent slopes
FEIS	436.12	447.36	No Change from FEIS					
RV-1017	447.16	447.36	0.20	1,081.02	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
RV-1017	447.36	447.49	0.13	664.60	SD055	354104	Ko	Kolls clay
RV-1017	447.49	447.70	0.21	1,118.17	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
RV-1017	447.70	447.82	0.12	627.61	SD055	354135	OwC	Ottumwa-Lakoma silty clays, 6 to 9 percent slopes
RV-1017	447.82	448.25	0.43	2,283.39	SD055	354109	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1017	448.25	448.35	0.09	482.29	SD055	354166	Wd	Wendte-Herdcamp silty clays, channeled
RV-1017	448.35	448.42	0.07	394.27	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
RV-1017	448.42	448.45	0.03	180.47	SD055	354133	OvA	Ottumwa-Capa complex, 0 to 3 percent slopes
RV-1017	448.45	448.72	0.26	1,396.78	SD055	354108	LaC	Lakoma silty clay, 6 to 9 percent slopes
RV-1017	448.72	448.77	0.05	278.95	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
FEIS	448.77	449.60	No Change from FEIS					
RV-1018	449.60	449.63	0.03	154.24	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
RV-1018	449.63	449.76	0.13	690.24	SD055	354108	LaC	Lakoma silty clay, 6 to 9 percent slopes
RV-1018	449.76	450.13	0.37	1,960.79	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
FEIS	450.13	452.01	No Change from FEIS					
RV-1019	452.01	452.05	0.04	215.45	SD055	354135	OwC	Ottumwa-Lakoma silty clays, 6 to 9 percent slopes
RV-1019	452.05	452.50	0.45	2,384.33	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
RV-1019	452.50	452.53	0.03	139.19	SD055	354108	LaC	Lakoma silty clay, 6 to 9 percent slopes
RV-1019	452.53	452.66	0.13	702.15	SD055	354109	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1019	452.66	452.80	0.14	720.09	SD055	354108	LaC	Lakoma silty clay, 6 to 9 percent slopes
RV-1019	452.80	452.84	0.04	227.70	SD055	354133	OvA	Ottumwa-Capa complex, 0 to 3 percent slopes
RV-1019	452.84	452.90	0.06	322.33	SD055	354085	Ct	Capa-Wendte, channeled, complex
RV-1019	452.90	452.98	0.07	393.24	SD055	354109	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1019	452.98	453.00	0.02	112.29	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
FEIS	453.00	455.22	No Change from FEIS					
RV-1020	455.22	455.32	0.11	558.61	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
RV-1020	455.32	455.39	0.06	326.47	SD055	354135	OwC	Ottumwa-Lakoma silty clays, 6 to 9 percent slopes
RV-1020	455.39	455.84	0.46	2,403.43	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
RV-1020	455.84	456.35	0.51	2,703.56	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
RV-1020	456.35	456.52	0.17	878.92	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
RV-1020	456.52	456.74	0.22	1,179.19	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
FEIS	456.74	461.83	No Change from FEIS					
RV-1021	461.83	461.93	0.11	554.44	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
RV-1021	461.93	462.26	0.32	1,695.22	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
RV-1021	462.26	462.26	0.01	46.55	SD055	354134	OwB	Ottumwa-Lakoma silty clays, 3 to 6 percent slopes
FEIS	462.26	475.48	No Change from FEIS					
RV-1022	475.48	475.64	0.16	847.78	SD055	354108	LaC	Lakoma silty clay, 6 to 9 percent slopes
RV-1022	475.64	475.73	0.09	491.38	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
RV-1022	475.73	475.79	0.06	312.68	SD055	354108	LaC	Lakoma silty clay, 6 to 9 percent slopes
RV-1022	475.79	475.92	0.13	687.68	SD055	354132	OtB	Ottumwa silty clay, 3 to 6 percent slopes
RV-1022	475.92	476.11	0.19	984.99	SD055	354102	KmC	Kirley-Ottumwa complex, 6 to 9 percent slopes
RV-1022	476.11	476.42	0.31	1,652.52	SD055	354101	KmB	Kirley-Ottumwa complex, 2 to 6 percent slopes
RV-1022	476.42	476.43	0.01	41.50	SD055	354122	ObE	Okaton-Lakoma silty clays, 15 to 40 percent slopes
RV-1022	476.43	476.47	0.04	231.20	SD055	354101	KmB	Kirley-Ottumwa complex, 2 to 6 percent slopes
RV-1022	476.47	476.67	0.19	1,021.92	SD055	354095	KeB	Kirley clay loam, 2 to 6 percent slopes
RV-1022	476.67	476.88	0.21	1,123.16	SD055	354110	LbE	Lakoma-Vivian complex, 9 to 25 percent slopes
RV-1022	476.88	477.10	0.22	1,167.66	SD055	354109	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1022	477.10	477.15	0.05	268.05	SD055	354085	Ct	Capa-Wendte, channeled, complex
RV-1022	477.15	477.52	0.37	1,970.03	SD055	354109	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1022	477.52	477.65	0.12	643.68	SD055	354110	LbE	Lakoma-Vivian complex, 9 to 25 percent slopes
RV-1022	477.65	477.74	0.09	488.58	SD055	354095	KeB	Kirley clay loam, 2 to 6 percent slopes
RV-1022	477.74	477.77	0.03	136.09	SD055	354094	KeA	Kirley clay loam, 0 to 2 percent slopes
FEIS	477.77	484.38	No Change from FEIS					
RV-1023	484.38	484.63	0.26	1,353.12	SD055	354103	KnD	Kirley-Vivian complex, 6 to 15 percent slopes
RV-1023	484.63	484.91	0.28	1,472.20	SD055	354162	StF	Schamber-Samsil complex, 6 to 60 percent slopes
RV-1023	484.91	485.29	0.38	2,000.62	SD055	354158	SoE	Sansarc-0pal clays, 9 to 40 percent slopes
RV-1023	485.29	485.34	0.05	238.00	SD055	354069	Ab	Albaton silty clay, depressional
RV-1023	485.34	485.45	0.12	616.11	SD055	354117	Nc	Nimbro silty clay loam, channeled
RV-1023	485.45	485.90	0.45	2,377.80	SD055	354116	Nb	Nimbro silty clay loam
RV-1023	485.90	485.96	0.06	299.97	SD055	354117	Nc	Nimbro silty clay loam, channeled
RV-1023	485.96	486.13	0.17	899.34	SD055	354077	Bu	Bullcreek clay, 0 to 6 percent slopes
FEIS	486.13	493.54	No Change from FEIS					
RV-1024	493.54	493.79	0.25	1,333.40	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1024	493.79	494.02	0.23	1,208.82	SD075	353644	LaC	Lakoma silty clay, 6 to 9 percent slopes
RV-1024	494.02	494.09	0.07	368.50	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1024	494.09	494.43	0.34	1,806.92	SD075	353634	KeB	Kirley clay loam, 2 to 6 percent slopes
RV-1024	494.43	494.69	0.26	1,348.03	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1024	494.69	494.77	0.08	417.23	SD075	353657	ObE	Okaton-Lakoma silty clays, 15 to 40 percent slopes
RV-1024	494.77	494.98	0.21	1,131.22	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
FEIS	494.98	501.75	No Change from FEIS					
RV-1025	501.75	501.89	0.14	737.15	SD075	353658	OkE	Okaton-Wendte-Bullcreek complex, 0 to 45 percent slopes
RV-1025	501.89	502.00	0.11	606.86	SD075	353636	KeD	Kirley clay loam, 9 to 15 percent slopes
RV-1025	502.00	502.08	0.08	416.97	SD075	353640	KnD	Kirley-Vivian complex, 9 to 25 percent slopes
RV-1025	502.08	502.26	0.18	942.09	SD075	353635	KeC	Kirley clay loam, 6 to 9 percent slopes
RV-1025	502.26	502.28	0.02	101.34	SD075	353640	KnD	Kirley-Vivian complex, 9 to 25 percent slopes
RV-1025	502.28	502.36	0.08	433.41	SD075	353634	KeB	Kirley clay loam, 2 to 6 percent slopes
RV-1025	502.36	502.81	0.45	2,368.29	SD075	353669	PrB	Promise clay, 3 to 6 percent slopes
RV-1025	502.81	503.09	0.28	1,458.88	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1025	503.09	503.22	0.13	702.88	SD075	353634	KeB	Kirley clay loam, 2 to 6 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
RV-1025	503.22	503.41	0.19	997.01	SD075	353670	PrC	Promise clay, 6 to 9 percent slopes
RV-1025	503.41	503.61	0.20	1,038.39	SD075	353652	Mo	Mosher silt loam
FEIS	503.61	506.33	No Change from FEIS					
RV-1026	506.33	506.41	0.07	394.45	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1026	506.41	506.56	0.16	822.65	SD075	353670	PrC	Promise clay, 6 to 9 percent slopes
RV-1026	506.56	506.76	0.20	1,065.06	SD075	353669	PrB	Promise clay, 3 to 6 percent slopes
RV-1026	506.76	506.88	0.11	603.85	SD075	353678	SoE	Sansarc-Opal clays, 9 to 40 percent slopes
RV-1026	506.88	506.89	0.01	35.63	SD075	353665	OpD	Opal clay, 6 to 15 percent slopes
RV-1026	506.89	507.32	0.43	2,293.58	SD075	353669	PrB	Promise clay, 3 to 6 percent slopes
RV-1026	507.32	507.41	0.09	458.91	SD075	353665	OpD	Opal clay, 6 to 15 percent slopes
RV-1026	507.41	507.47	0.06	329.97	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
RV-1026	507.47	507.53	0.06	316.99	SD075	353665	OpD	Opal clay, 6 to 15 percent slopes
RV-1026	507.53	507.63	0.10	518.26	SD075	353645	LaD	Lakoma silty clay, 6 to 15 percent slopes
FEIS	507.63	534.03	No Change from FEIS					
RV-1027	534.03	534.22	0.18	974.77	SD085	355591	MmB	Millboro silty clay, 3 to 6 percent slopes
RV-1027	534.22	534.31	0.09	480.80	SD085	355593	MnC	Millboro-Boro silty clays, 6 to 9 percent slopes
RV-1027	534.31	534.42	0.12	613.33	SD085	355563	BuA	Bullcreek clay, 0 to 6 percent slopes
RV-1027	534.42	535.07	0.64	3,396.51	SD085	355591	MmB	Millboro silty clay, 3 to 6 percent slopes
FEIS	535.07	540.23	No Change from FEIS					
RV-1028	540.23	540.26	0.03	164.92	SD085	355597	OhE	Okaton-Lakoma silty clays, 15 to 40 percent slopes
RV-1028	540.26	540.96	0.70	3,669.79	SD085	355619	SbE	Sansarc-Opal clays, 9 to 40 percent slopes
RV-1028	540.96	541.03	0.07	368.66	SD085	355563	BuA	Bullcreek clay, 0 to 6 percent slopes
RV-1028	541.03	541.06	0.04	186.17	SD085	355608	PoA	Promise clay, 0 to 3 percent slopes
FEIS	541.06	542.16	No Change from FEIS					
RV-1029	542.61	542.62	0.01	46.22	SD123	354433	RaB	Ree loam, 3 to 6 percent slopes
RV-1029	542.62	542.78	0.16	831.91	SD123	354407	LwA	Lowry silt loam, 0 to 4 percent slopes
RV-1029	542.78	543.16	0.38	2,009.75	SD123	354433	RaB	Ree loam, 3 to 6 percent slopes
RV-1029	543.16	543.19	0.03	133.85	SD123	354459	WeE	Westover loam, 9 to 25 percent slopes
RV-1029	543.19	543.29	0.10	526.27	SD123	354419	OBE	Okaton-Lakoma association, 15 to 40 percent slopes
RV-1029	543.29	543.48	0.19	1,018.73	SD123	354445	SAE	Sansarc-Opal association, 15 to 40 percent slopes
RV-1029	543.48	543.70	0.22	1,148.85	SD123	354450	Sw	Bullcreek clay
RV-1029	543.70	544.00	0.30	1,572.36	SD123	354445	SAE	Sansarc-Opal association, 15 to 40 percent slopes
RV-1029	544.00	544.66	0.67	3,536.76	SD123	354419	OBE	Okaton-Lakoma association, 15 to 40 percent slopes
RV-1029	544.66	544.72	0.05	268.82	SD123	354447	ShE	Schamber-Murdo complex, 15 to 40 percent slopes
RV-1029	544.72	544.76	0.05	238.46	SD123	354459	WeE	Westover loam, 9 to 25 percent slopes
RV-1029	544.76	545.21	0.45	2,382.46	SD123	354432	RaA	Ree loam, 0 to 3 percent slopes
FEIS	545.21	547.33	No Change from FEIS					
RV-1030	547.33	547.39	0.06	323.87	SD123	354450	Sw	Bullcreek clay
RV-1030	547.39	547.48	0.09	471.33	SD123	354423	OpC	Opal clay, 3 to 9 percent slopes
RV-1030	547.48	547.66	0.18	950.37	SD123	354450	Sw	Bullcreek clay
RV-1030	547.66	547.74	0.07	387.47	SD123	354445	SAE	Sansarc-Opal association, 15 to 40 percent slopes
RV-1030	547.74	548.03	0.29	1,545.49	SD123	354419	OBE	Okaton-Lakoma association, 15 to 40 percent slopes
RV-1030	548.03	548.22	0.19	996.37	SD123	354447	ShE	Schamber-Murdo complex, 15 to 40 percent slopes
RV-1030	548.22	548.25	0.04	197.69	SD123	354419	OBE	Okaton-Lakoma association, 15 to 40 percent slopes
RV-1030	548.25	548.79	0.53	2,812.66	SD123	354434	RaC	Ree loam, 6 to 9 percent slopes
RV-1030	548.79	549.20	0.41	2,181.87	SD123	354406	LoD	Lakoma-Okaton silty clays, 9 to 15 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
RV-1030	549.20	549.23	0.03	177.74	SD123	354434	RaC	Ree loam, 6 to 9 percent slopes
FEIS	549.23	578.31	578.31					
RV-1031	578.31	578.45	0.14	726.74	SD123	354387	DnC2	Dunday loamy fine sand, 3 to 9 percent slopes, eroded
RV-1031	578.45	578.45	0.00	13.17	SD123	354389	Em	Elsmere fine sandy loam
RV-1031	578.45	578.52	0.06	340.14	SD123	354387	DnC2	Dunday loamy fine sand, 3 to 9 percent slopes, eroded
RV-1031	578.52	578.57	0.05	284.51	SD123	354389	Em	Elsmere fine sandy loam
RV-1031	578.57	578.64	0.07	350.94	SD123	354387	DnC2	Dunday loamy fine sand, 3 to 9 percent slopes, eroded
RV-1031	578.64	578.71	0.08	396.91	SD123	354389	Em	Elsmere fine sandy loam
RV-1031	578.71	578.77	0.05	287.90	SD123	354454	VdC	Valentine-Dunday complex, 3 to 9 percent slopes
RV-1031	578.77	578.78	0.02	86.27	SD123	354386	DmA	Doger-Elsmere complex, 0 to 3 percent slopes
RV-1031	578.78	578.82	0.03	184.31	SD123	354454	VdC	Valentine-Dunday complex, 3 to 9 percent slopes
RV-1031	578.82	578.91	0.09	476.73	SD123	354387	DnC2	Dunday loamy fine sand, 3 to 9 percent slopes, eroded
RV-1031	578.91	579.00	0.09	488.64	SD123	354389	Em	Elsmere fine sandy loam
FEIS	579.00	599.41	No Change from FEIS					
RV-1032	599.41	599.47	0.06	290.46	SD123	354374	BOD	Boyd-Okaton association, 9 to 25 percent slopes
RV-1032	599.47	599.53	0.06	316.71	SD123	354410	MfE	Manter-Anselmo fine sandy loams, 15 to 30 percent slopes
RV-1032	599.53	599.83	0.30	1,586.80	SD123	354374	BOD	Boyd-Okaton association, 9 to 25 percent slopes
RV-1032	599.83	599.87	0.05	248.55	SD123	354427	PrB	Promise clay, 3 to 6 percent slopes
FEIS	599.87	600.96	No Change from FEIS					
NEBRASKA								
FEIS	600.96	601.75	No Change from FEIS					
Fragile Soils Alternative	601.75	601.77	0.02	104.95	NE103	357709	3177	Holt variant fine sandy loam, 3 to 6 percent slopes
Fragile Soils Alternative	601.77	601.81	0.04	198.20	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	601.81	602.03	0.22	1,171.96	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	602.03	602.09	0.06	337.27	NE103	357684	8437	Cass loam, channeled, frequently flooded
Fragile Soils Alternative	602.09	602.65	0.55	2,905.22	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	602.65	602.80	0.15	805.77	NE103	357738	3213	Longpine loamy fine sand, 3 to 30 percent slopes
Fragile Soils Alternative	602.80	602.85	0.05	273.64	NE103	357734	5252	Schamber gravelly sandy loam, 9 to 30 percent slopes
Fragile Soils Alternative	602.85	602.96	0.11	558.28	NE103	357731	3312	Ronson-Anselmo fine sandy loams, 6 to 30 percent slopes
Fragile Soils Alternative	602.96	603.00	0.04	217.12	NE103	357738	3213	Longpine loamy fine sand, 3 to 30 percent slopes
Fragile Soils Alternative	603.00	603.34	0.35	1,827.89	NE103	357731	3312	Ronson-Anselmo fine sandy loams, 6 to 30 percent slopes
Fragile Soils Alternative	603.34	603.48	0.14	738.75	NE103	357738	3213	Longpine loamy fine sand, 3 to 30 percent slopes
Fragile Soils Alternative	603.48	603.52	0.04	215.18	NE103	357694	3173	Holt-Longpine fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	603.52	603.64	0.12	641.52	NE103	357738	3213	Longpine loamy fine sand, 3 to 30 percent slopes
Fragile Soils Alternative	603.64	603.68	0.04	185.67	NE103	357731	3312	Ronson-Anselmo fine sandy loams, 6 to 30 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	603.68	603.74	0.06	297.32	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	603.74	603.79	0.06	304.25	NE103	357731	3312	Ronson-Anselmo fine sandy loams, 6 to 30 percent slopes
Fragile Soils Alternative	603.79	603.82	0.02	123.85	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	603.82	603.89	0.07	374.16	NE103	357679	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
Fragile Soils Alternative	603.89	604.03	0.14	755.92	NE103	357731	3312	Ronson-Anselmo fine sandy loams, 6 to 30 percent slopes
Fragile Soils Alternative	604.03	604.09	0.05	287.55	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	604.09	604.25	0.17	877.07	NE103	357679	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
Fragile Soils Alternative	604.25	604.32	0.07	360.50	NE103	357753	5286	Vetal loam, 1 to 3 percent slopes
Fragile Soils Alternative	604.32	604.46	0.14	733.19	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	604.46	604.48	0.02	129.25	NE103	357756	3341	Wewela fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	604.48	604.55	0.06	341.58	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	604.55	604.72	0.17	885.80	NE103	357756	3341	Wewela fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	604.72	604.77	0.05	287.28	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	604.77	605.04	0.27	1,430.99	NE103	357731	3312	Ronson-Anselmo fine sandy loams, 6 to 30 percent slopes
Fragile Soils Alternative	605.04	605.12	0.08	410.77	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	605.12	605.17	0.05	249.41	NE103	357678	9001	Anselmo fine sandy loam, 0 to 1 percent slopes
Fragile Soils Alternative	605.17	605.34	0.17	917.48	NE103	357679	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
Fragile Soils Alternative	605.34	605.51	0.17	872.11	NE103	357747	4893	Valentine-Wewela loamy fine sands, 6 to 30 percent slopes
Fragile Soils Alternative	605.51	605.60	0.09	497.97	NE103	357731	3312	Ronson-Anselmo fine sandy loams, 6 to 30 percent slopes
Fragile Soils Alternative	605.60	605.64	0.04	224.51	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	605.64	605.69	0.05	262.11	NE103	357696	2322	Inavale fine sand, channeled, frequently flooded
Fragile Soils Alternative	605.69	605.70	0.01	51.43	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	605.70	605.79	0.09	476.77	NE103	357734	5252	Schamber gravelly sandy loam, 9 to 30 percent slopes
Fragile Soils Alternative	605.79	605.83	0.04	217.32	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	605.83	605.86	0.03	164.84	NE103	357734	5252	Schamber gravelly sandy loam, 9 to 30 percent slopes
Fragile Soils Alternative	605.86	605.88	0.02	107.82	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	605.88	606.02	0.14	736.54	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	606.02	606.09	0.07	352.52	NE103	357727	3298	Ree loam, 0 to 2 percent slopes
Fragile Soils Alternative	606.09	606.30	0.21	1,104.53	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	606.30	606.35	0.05	287.39	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	606.35	606.39	0.04	209.69	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	606.39	606.44	0.05	238.48	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	606.44	606.49	0.05	274.47	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	606.49	606.62	0.13	671.71	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	606.62	606.90	0.28	1,499.68	NE103	357720	5220	Onita silt loam, 0 to 1 percent slopes
Fragile Soils Alternative	606.90	607.06	0.16	825.31	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	607.06	607.16	0.10	525.78	NE103	357727	3298	Ree loam, 0 to 2 percent slopes
Fragile Soils Alternative	607.16	607.66	0.50	2,655.35	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	607.66	607.73	0.07	353.14	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	607.73	607.81	0.08	441.74	NE103	357684	8437	Cass loam, channeled, frequently flooded
Fragile Soils Alternative	607.81	607.86	0.05	247.20	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	607.86	608.20	0.34	1,786.15	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	608.20	608.30	0.10	526.67	NE103	357733	3320	Sansarc silty clay, 20 to 40 percent slopes
Fragile Soils Alternative	608.30	608.32	0.02	130.89	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	608.32	608.40	0.08	403.02	NE103	357733	3320	Sansarc silty clay, 20 to 40 percent slopes
Fragile Soils Alternative	608.40	608.58	0.19	979.70	NE103	357739	3214	Longpine-Duda complex, 3 to 15 percent slopes
Fragile Soils Alternative	608.58	608.70	0.11	590.03	NE103	357733	3320	Sansarc silty clay, 20 to 40 percent slopes
Fragile Soils Alternative	608.70	608.86	0.17	884.90	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	608.86	608.92	0.06	316.27	NE103	357735	8935	Simeon-Holt variant-Ronson complex, 6 to 17 percent slopes
Fragile Soils Alternative	608.92	609.13	0.21	1,101.77	NE103	357730	3311	Ronson-Anselmo fine sandy loams, 6 to 11 percent slopes
Fragile Soils Alternative	609.13	609.34	0.21	1,109.64	NE103	357747	4893	Valentine-Wewela loamy fine sands, 6 to 30 percent slopes
Fragile Soils Alternative	609.34	609.62	0.28	1,486.22	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	609.62	609.64	0.02	103.20	NE103	357733	3320	Sansarc silty clay, 20 to 40 percent slopes
Fragile Soils Alternative	609.64	609.88	0.24	1,246.13	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	609.88	610.36	0.48	2,515.06	NE103	357733	3320	Sansarc silty clay, 20 to 40 percent slopes
Fragile Soils Alternative	610.36	610.43	0.08	397.78	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	610.43	610.47	0.04	190.13	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	610.47	610.50	0.04	195.52	NE103	357734	5252	Schamber gravelly sandy loam, 9 to 30 percent slopes
Fragile Soils Alternative	610.50	610.53	0.02	121.76	NE103	357747	4893	Valentine-Wewela loamy fine sands, 6 to 30 percent slopes
Fragile Soils Alternative	610.53	610.57	0.04	206.87	NE103	357684	8437	Cass loam, channeled, frequently flooded
Fragile Soils Alternative	610.57	610.63	0.06	318.03	NE103	357750	3326	Verdel silty clay loam, 2 to 6 percent slopes
Fragile Soils Alternative	610.63	610.64	0.02	93.78	NE103	357684	8437	Cass loam, channeled, frequently flooded
Fragile Soils Alternative	610.64	610.76	0.11	588.13	NE103	357750	3326	Verdel silty clay loam, 2 to 6 percent slopes
Fragile Soils Alternative	610.76	611.09	0.33	1,744.31	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	611.09	611.17	0.09	452.24	NE103	357720	5220	Onita silt loam, 0 to 1 percent slopes
Fragile Soils Alternative	611.17	611.25	0.08	422.99	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	611.25	611.48	0.23	1,232.65	NE103	357720	5220	Onita silt loam, 0 to 1 percent slopes
Fragile Soils Alternative	611.48	611.57	0.08	430.95	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	611.57	611.58	0.02	87.84	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	611.58	611.64	0.06	311.30	NE103	357720	5220	Onita silt loam, 0 to 1 percent slopes
Fragile Soils Alternative	611.64	611.73	0.08	440.01	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	611.73	612.04	0.32	1,687.40	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	612.04	612.35	0.30	1,600.83	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	612.35	612.43	0.09	459.58	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	612.43	612.80	0.37	1,939.41	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	612.80	612.89	0.08	448.07	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	612.89	613.36	0.47	2,494.00	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	613.36	613.48	0.12	630.62	NE103	357736	8943	Simeon-Valentine fine sands, 6 to 17 percent slopes, eroded
Fragile Soils Alternative	613.48	613.54	0.06	315.60	NE103	357679	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
Fragile Soils Alternative	613.54	613.69	0.15	806.20	NE103	357750	3326	Verdel silty clay loam, 2 to 6 percent slopes
Fragile Soils Alternative	613.69	613.76	0.07	371.01	NE103	357683	8435	Cass loam, rarely flooded

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	613.76	613.84	0.08	408.49	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	613.84	614.31	0.47	2,496.61	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	614.31	614.44	0.12	658.27	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	614.44	615.06	0.62	3,271.85	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	615.06	615.09	0.03	182.88	NE103	357748	3325	Verdel silty clay loam, 0 to 2 percent slopes
Fragile Soils Alternative	615.09	615.40	0.31	1,618.01	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	615.40	615.43	0.03	168.43	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	615.43	615.46	0.03	143.95	NE103	357720	5220	Onita silt loam, 0 to 1 percent slopes
Fragile Soils Alternative	615.46	615.69	0.24	1,257.35	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	615.69	616.17	0.47	2,488.20	NE103	357720	5220	Onita silt loam, 0 to 1 percent slopes
Fragile Soils Alternative	616.17	616.54	0.37	1,977.26	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	616.54	616.84	0.30	1,588.89	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	616.84	616.92	0.07	389.99	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	616.92	616.93	0.02	87.23	NE103	357748	3325	Verdel silty clay loam, 0 to 2 percent slopes
Fragile Soils Alternative	616.93	616.97	0.04	217.21	NE103	357684	8437	Cass loam, channeled, frequently flooded
Fragile Soils Alternative	616.97	617.02	0.05	252.57	NE103	357683	8435	Cass loam, rarely flooded
Fragile Soils Alternative	617.02	617.02	0.00	11.58	NE103	357750	3326	Verdel silty clay loam, 2 to 6 percent slopes
Fragile Soils Alternative	617.02	617.08	0.05	287.12	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	617.08	617.14	0.07	352.58	NE103	357729	3305	Reliance silt loam, 2 to 6 percent slopes
Fragile Soils Alternative	617.14	617.46	0.31	1,659.20	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	617.46	617.49	0.03	149.44	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	617.49	617.58	0.10	510.50	NE103	357703	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	617.58	617.63	0.04	227.25	NE103	357704	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	617.63	617.71	0.09	459.93	NE015	357637	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	617.71	617.74	0.02	124.12	NE015	2217486	8435	Cass loam, rarely flooded
Fragile Soils Alternative	617.74	617.82	0.08	439.02	NE015	357625	1039	Grigston silt loam, occasionally flooded
Fragile Soils Alternative	617.82	617.91	0.09	498.38	NE015	2217486	8435	Cass loam, rarely flooded

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	617.91	617.95	0.04	211.00	NE015	357631	2110	Inavale loamy fine sand, occasionally flooded
Fragile Soils Alternative	617.95	618.04	0.09	457.03	NE015	357652	4241	Ord fine sandy loam, occasionally flooded
Fragile Soils Alternative	618.04	618.06	0.02	108.09	NE015	357629	2325	Inavale fine sand, 3 to 11 percent slopes
Fragile Soils Alternative	618.06	618.12	0.06	325.16	NE015	1034801	9999	Water
Fragile Soils Alternative	618.12	618.13	0.01	38.62	NE015	357618	3521	Cass fine sandy loam, occasionally flooded
Fragile Soils Alternative	618.13	618.21	0.08	418.21	NE015	357631	2110	Inavale loamy fine sand, occasionally flooded
Fragile Soils Alternative	618.21	618.26	0.05	248.67	NE015	357629	2325	Inavale fine sand, 3 to 11 percent slopes
Fragile Soils Alternative	618.26	618.36	0.10	539.73	NE015	357618	3521	Cass fine sandy loam, occasionally flooded
Fragile Soils Alternative	618.36	618.40	0.04	199.11	NE015	357636	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	618.40	618.56	0.16	854.81	NE015	357637	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	618.56	618.67	0.11	605.35	NE015	357621	4488	Dunday loamy fine sand, 3 to 6 percent slopes
Fragile Soils Alternative	618.67	618.76	0.09	449.85	NE015	2217485	4807	Valentine fine sand, rolling
Fragile Soils Alternative	618.76	618.88	0.12	626.10	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	618.88	619.36	0.49	2,562.86	NE015	357667	8925	Simeon loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	619.36	619.55	0.18	973.88	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	619.55	619.63	0.08	441.45	NE015	357623	4496	Dunday loamy fine sand, loamy substratum, 0 to 3 percent slopes
Fragile Soils Alternative	619.63	619.68	0.05	259.96	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	619.68	619.75	0.07	351.70	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	619.75	619.75	0.00	21.81	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	619.75	619.84	0.09	465.46	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	619.84	619.88	0.04	221.65	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	619.88	619.93	0.05	281.92	NE015	357667	8925	Simeon loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	619.93	620.06	0.12	645.18	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	620.06	620.15	0.09	501.15	NE015	357667	8925	Simeon loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	620.15	620.30	0.15	801.51	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	620.30	620.38	0.07	389.94	NE015	357667	8925	Simeon loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	620.38	620.50	0.12	650.38	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	620.50	620.63	0.13	674.93	NE015	357667	8925	Simeon loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	620.63	620.82	0.19	998.21	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	620.82	620.90	0.09	455.60	NE015	357621	4488	Dunday loamy fine sand, 3 to 6 percent slopes
Fragile Soils Alternative	620.90	621.03	0.13	669.61	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	621.03	621.15	0.12	632.24	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	621.15	621.28	0.13	702.49	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	621.28	621.54	0.26	1,370.70	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	621.54	621.58	0.04	188.40	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	621.58	621.65	0.07	355.94	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	621.65	621.78	0.14	713.46	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	621.78	621.84	0.06	312.65	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	621.84	621.87	0.03	173.85	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	621.87	621.99	0.12	632.68	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	621.99	622.45	0.46	2,427.76	NE015	357667	8925	Simeon loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	622.45	622.80	0.35	1,822.43	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	622.80	622.90	0.10	552.90	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	622.90	623.03	0.12	653.53	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	623.03	623.14	0.12	611.07	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	623.14	623.40	0.26	1,388.30	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	623.40	623.51	0.11	567.29	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	623.51	623.66	0.15	775.11	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	623.66	623.83	0.18	927.14	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	623.83	623.92	0.09	453.05	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	623.92	624.09	0.17	923.15	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	624.09	624.23	0.14	733.73	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes
Fragile Soils Alternative	624.23	624.35	0.11	592.50	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	624.35	624.62	0.28	1,469.69	NE015	357668	8946	Simeon-Valentine loamy sands, 0 to 6 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	624.62	624.84	0.22	1,153.02	NE015	357670	4794	Valentine fine sand, 9 to 17 percent slopes
Fragile Soils Alternative	624.84	625.07	0.23	1,201.12	NE015	357620	4485	Dunday loamy fine sand, 0 to 3 percent slopes
Fragile Soils Alternative	625.07	625.15	0.08	421.98	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	625.15	625.23	0.08	410.04	NE015	357673	3341	Wewela fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	625.23	625.28	0.05	252.41	NE015	357671	4838	Valentine loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	625.28	625.39	0.11	583.07	NE015	357673	3341	Wewela fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	625.39	625.73	0.35	1,826.59	NE015	357637	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	625.73	625.76	0.03	143.29	NE015	357652	4241	Ord fine sandy loam, occasionally flooded
Fragile Soils Alternative	625.76	625.78	0.02	123.66	NE015	357632	2328	Inavale fine sandy loam, occasionally flooded
Fragile Soils Alternative	625.78	625.81	0.02	122.25	NE015	357652	4241	Ord fine sandy loam, occasionally flooded
Fragile Soils Alternative	625.81	625.85	0.04	219.13	NE015	357632	2328	Inavale fine sandy loam, occasionally flooded
Fragile Soils Alternative	625.85	625.92	0.08	402.96	NE015	357631	2110	Inavale loamy fine sand, occasionally flooded
Fragile Soils Alternative	625.92	625.99	0.06	334.53	NE015	357610	6314	Barney silt loam, channeled, frequently flooded
Fragile Soils Alternative	625.99	626.09	0.10	528.81	NE015	1034801	9999	Water
Fragile Soils Alternative	626.09	626.22	0.13	688.14	NE089	713617	9999	Water
Fragile Soils Alternative	626.22	626.23	0.01	58.11	NE089	100080	8425	Boel-Inavale complex, channeled, frequently flooded
Fragile Soils Alternative	626.23	626.43	0.20	1,072.20	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	626.43	626.48	0.05	273.64	NE089	100114	3220	Labu silty clay, 2 to 6 percent slopes
Fragile Soils Alternative	626.48	626.53	0.04	220.49	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
Fragile Soils Alternative	626.53	626.58	0.05	286.92	NE089	100114	3220	Labu silty clay, 2 to 6 percent slopes
Fragile Soils Alternative	626.58	626.64	0.06	340.70	NE089	100115	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	626.64	626.77	0.13	675.95	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	626.77	626.86	0.09	475.20	NE089	100079	8422	Boel silty clay loam, overwash, occasionally flooded
Fragile Soils Alternative	626.86	626.99	0.13	661.28	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	626.99	627.03	0.04	225.85	NE089	100142	3270	O'Neill-Meadin fine sandy loams, 11 to 30 percent slopes
Fragile Soils Alternative	627.03	627.34	0.31	1,638.49	NE089	100139	3264	O'Neill loam, 0 to 2 percent slopes
Fragile Soils Alternative	627.34	627.38	0.04	213.05	NE089	100156	8925	Simeon loamy sand, 0 to 3 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	627.38	627.95	0.57	3,005.23	NE089	100139	3264	O'Neill loam, 0 to 2 percent slopes
Fragile Soils Alternative	627.95	628.06	0.11	597.91	NE089	100169	4882	Valentine-Simeon sands, 9 to 30 percent slopes, eroded
Fragile Soils Alternative	628.06	628.22	0.16	827.99	NE089	100139	3264	O'Neill loam, 0 to 2 percent slopes
Fragile Soils Alternative	628.22	628.27	0.05	256.09	NE089	100138	3261	O'Neill fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	628.27	628.68	0.41	2,188.44	NE089	100139	3264	O'Neill loam, 0 to 2 percent slopes
Fragile Soils Alternative	628.68	628.71	0.03	168.96	NE089	100175	3342	Wewela loam, 0 to 2 percent slopes
Fragile Soils Alternative	628.71	628.77	0.06	311.76	NE089	100139	3264	O'Neill loam, 0 to 2 percent slopes
Fragile Soils Alternative	628.77	629.52	0.74	3,920.31	NE089	100175	3342	Wewela loam, 0 to 2 percent slopes
Fragile Soils Alternative	629.52	629.56	0.04	215.06	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	629.56	629.85	0.29	1,537.27	NE089	100175	3342	Wewela loam, 0 to 2 percent slopes
Fragile Soils Alternative	629.85	629.85	0.00	18.00	NE089	100068	9001	Anselmo fine sandy loam, 0 to 1 percent slopes
Fragile Soils Alternative	629.85	629.86	0.01	58.92	NE089	100174	3341	Wewela fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	629.86	630.17	0.31	1,633.40	NE089	100068	9001	Anselmo fine sandy loam, 0 to 1 percent slopes
Fragile Soils Alternative	630.17	630.52	0.35	1,858.29	NE089	100173	3340	Wewela fine sandy loam, 0 to 2 percent slopes
Fragile Soils Alternative	630.52	630.65	0.13	678.99	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
Fragile Soils Alternative	630.65	630.88	0.23	1,215.17	NE089	100096	4557	Elsmere loamy fine sand, clayey substratum, 0 to 3 percent slopes
Fragile Soils Alternative	630.88	631.00	0.11	596.97	NE089	100124	4662	Loup fine sandy loam, 0 to 1 percent slopes
Fragile Soils Alternative	631.00	631.14	0.15	780.82	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	631.14	631.26	0.12	625.04	NE089	100138	3261	O'Neill fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	631.26	631.40	0.14	727.50	NE089	100143	4243	Ord loam, rarely flooded
Fragile Soils Alternative	631.40	631.48	0.08	439.85	NE089	100083	6642	Boelus loamy sand, 6 to 11 percent slopes
Fragile Soils Alternative	631.48	631.56	0.08	428.09	NE089	100168	4881	Valentine-Simeon sands, 3 to 9 percent slopes
Fragile Soils Alternative	631.56	631.71	0.15	785.15	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	631.71	631.84	0.12	647.97	NE089	100114	3220	Labu silty clay, 2 to 6 percent slopes
Fragile Soils Alternative	631.84	631.91	0.07	380.19	NE089	100072	9020	Anselmo-O'Neill sandy loams, 3 to 6 percent slopes
Fragile Soils Alternative	631.91	631.96	0.05	257.01	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	631.96	632.02	0.07	344.22	NE089	100174	3341	Wewela fine sandy loam, 2 to 6 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	632.02	632.06	0.04	195.94	NE089	100115	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	632.06	632.15	0.09	474.86	NE089	100174	3341	Wewela fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	632.15	632.32	0.18	927.43	NE089	100115	3221	Labu silty clay, 6 to 11 percent slopes
Fragile Soils Alternative	632.32	632.62	0.29	1,542.17	NE089	100174	3341	Wewela fine sandy loam, 2 to 6 percent slopes
Fragile Soils Alternative	632.62	632.65	0.04	195.49	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	632.65	632.72	0.07	363.89	NE089	100080	8425	Boel-Inavale complex, channeled, frequently flooded
Fragile Soils Alternative	632.72	632.75	0.03	134.20	NE089	100114	3220	Labu silty clay, 2 to 6 percent slopes
Fragile Soils Alternative	632.75	632.80	0.05	259.33	NE089	100116	3225	Labu-Sansarc silty clays, 11 to 30 percent slopes
Fragile Soils Alternative	632.80	632.84	0.05	253.37	NE089	100175	3342	Wewela loam, 0 to 2 percent slopes
Fragile Soils Alternative	632.84	633.05	0.20	1,065.01	NE089	100068	9001	Anselmo fine sandy loam, 0 to 1 percent slopes
Fragile Soils Alternative	633.05	633.17	0.12	627.72	NE089	100090	4498	Dunday loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	633.17	634.15	0.98	5,185.43	NE089	100156	8925	Simeon loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	634.15	634.47	0.32	1,705.10	NE089	100098	4560	Elsmere-Ipage loamy fine sands, 0 to 3 percent slopes
Fragile Soils Alternative	634.47	634.60	0.13	678.82	NE089	100082	6641	Boelus loamy sand, 3 to 6 percent slopes
Fragile Soils Alternative	634.60	634.70	0.11	558.37	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
Fragile Soils Alternative	634.70	634.94	0.23	1,222.70	NE089	100095	4553	Elsmere loamy fine sand, 0 to 3 percent slopes
Fragile Soils Alternative	634.94	635.08	0.14	751.00	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	635.08	635.28	0.20	1,059.43	NE089	100125	4669	Loup fine sandy loam, frequently ponded
Fragile Soils Alternative	635.28	635.47	0.19	1,007.93	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
Fragile Soils Alternative	635.47	635.72	0.25	1,311.31	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
Fragile Soils Alternative	635.72	635.76	0.05	241.66	NE089	100162	4791	Valentine fine sand, 3 to 9 percent slopes
Fragile Soils Alternative	635.76	636.01	0.25	1,320.37	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
Fragile Soils Alternative	636.01	636.07	0.05	289.51	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
Fragile Soils Alternative	636.07	636.27	0.20	1,044.83	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
Fragile Soils Alternative	636.27	636.35	0.08	447.90	NE089	100082	6641	Boelus loamy sand, 3 to 6 percent slopes
Fragile Soils Alternative	636.35	636.54	0.19	1,014.21	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
Fragile Soils Alternative	636.54	636.61	0.06	332.95	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Fragile Soils Alternative	636.61	637.42	0.81	4,296.81	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	637.42	637.45	0.03	157.74	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	637.45	637.55	0.10	522.45	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	637.55	637.71	0.16	855.02	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	637.71	637.86	0.15	768.37	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	637.86	638.21	0.36	1,876.95	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	638.21	638.78	0.57	3,001.50	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	638.78	639.02	0.24	1,255.20	NE089	100112	3205	Josburg fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	639.02	639.23	0.21	1,107.95	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	639.23	639.36	0.13	667.37	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	639.36	639.70	0.35	1,822.47	NE089	100095	4553	Elsmere loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	639.70	639.77	0.07	392.29	NE089	100124	4662	Loup fine sandy loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	639.77	639.89	0.12	622.74	NE089	100095	4553	Elsmere loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	639.89	640.02	0.12	652.76	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	640.02	640.04	0.03	145.48	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.04	640.06	0.01	77.05	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	640.06	640.10	0.05	237.84	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.10	640.22	0.11	590.05	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.22	640.31	0.10	514.73	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	640.31	640.34	0.03	136.15	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.34	640.38	0.04	218.35	NE089	100095	4553	Elsmere loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.38	640.43	0.05	245.32	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.43	640.51	0.08	441.23	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	640.51	640.62	0.11	563.31	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	640.62	640.70	0.09	448.98	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	640.70	640.83	0.13	693.94	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	640.83	640.93	0.10	501.65	NE089	100098	4560	Elsmere-Ipage loamy fine sands, 0 to 3 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	640.93	640.94	0.01	69.03	NE089	100095	4553	Elsmere loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.94	640.96	0.02	112.17	NE089	100098	4560	Elsmere-Ipage loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	640.96	641.13	0.16	865.47	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	641.13	641.18	0.05	262.46	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	641.18	641.23	0.05	279.21	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	641.23	641.28	0.05	269.28	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	641.28	641.83	0.55	2,885.79	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	641.83	642.01	0.18	962.80	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	642.01	642.10	0.09	500.79	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	642.10	642.13	0.03	142.24	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	642.13	642.29	0.16	841.81	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	642.29	642.34	0.05	289.30	NE089	100138	3261	O'Neill fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	642.34	642.41	0.07	359.95	NE089	100090	4498	Dunday loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	642.41	642.55	0.13	703.96	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	642.55	642.64	0.09	490.32	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	642.64	642.65	0.01	75.24	NE089	100152	4722	Pivot loamy sand, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	642.65	642.79	0.14	745.01	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	642.79	642.84	0.05	245.35	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	642.84	642.90	0.06	339.17	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	642.90	643.04	0.13	712.23	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	643.04	643.12	0.08	440.56	NE089	100081	6640	Boelus loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	643.12	643.59	0.47	2,465.42	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	643.59	643.69	0.10	536.49	NE089	100081	6640	Boelus loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	643.69	644.02	0.33	1,756.72	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	644.02	644.03	0.00	12.47	NE089	100132	3245	Meadin loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	644.03	644.08	0.05	270.10	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	644.08	644.21	0.13	695.98	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	644.21	644.32	0.11	588.46	NE089	100136	3266	O'Neill loamy sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	644.32	645.26	0.94	4,968.79	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	645.26	645.42	0.16	844.09	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	645.42	645.55	0.13	691.11	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	645.55	645.70	0.15	797.00	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	645.70	646.56	0.86	4,543.18	NE089	100136	3266	O'Neill loamy sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	646.56	646.76	0.19	1,006.42	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	646.76	646.79	0.04	186.40	NE089	100091	4499	Dunday loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	646.79	646.85	0.06	336.90	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	646.85	646.89	0.03	184.55	NE089	100091	4499	Dunday loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	646.89	647.54	0.65	3,435.99	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	647.54	647.72	0.18	962.88	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	647.72	648.04	0.32	1,679.57	NE089	100139	3264	O'Neill loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	648.04	648.07	0.03	134.75	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	648.07	648.30	0.23	1,230.32	NE089	100132	3245	Meadin loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	648.30	648.73	0.43	2,257.36	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	648.73	648.99	0.26	1,368.92	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	648.99	649.02	0.04	191.15	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	649.02	649.30	0.27	1,446.87	NE089	100088	6662	Brunswick-Longpine fine sandy loams, 11 to 40 percent slopes
APRIL ROUTE ALTERNATIVE	649.30	649.34	0.04	218.05	NE089	100080	8425	Boel-Inavale complex, channeled, frequently flooded
APRIL ROUTE ALTERNATIVE	649.34	649.45	0.11	591.44	NE089	100071	8807	Anselmo-O'Neill sandy loams, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	649.45	649.46	0.01	45.31	NE089	100088	6662	Brunswick-Longpine fine sandy loams, 11 to 40 percent slopes
APRIL ROUTE ALTERNATIVE	649.46	649.88	0.42	2,239.22	NE089	100169	4882	Valentine-Simeon sands, 9 to 30 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	649.88	650.32	0.44	2,332.70	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	650.32	650.41	0.08	435.45	NE089	100169	4882	Valentine-Simeon sands, 9 to 30 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	650.41	650.59	0.19	977.76	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	650.59	650.62	0.03	148.48	NE089	100149	3287	Paka loam, 6 to 11 percent slopes, eroded

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	650.62	650.65	0.03	135.49	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	650.65	650.71	0.06	322.71	NE089	100149	3287	Paka loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	650.71	650.80	0.10	502.03	NE089	100148	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	650.80	650.97	0.17	901.25	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	650.97	651.18	0.21	1,112.37	NE089	100148	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	651.18	651.70	0.52	2,723.34	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	651.70	651.87	0.17	905.26	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	651.87	651.91	0.04	190.34	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	651.91	651.98	0.08	413.00	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	651.98	652.11	0.12	655.34	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	652.11	652.16	0.05	283.07	NE089	100091	4499	Dunday loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	652.16	652.18	0.02	109.92	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	652.18	652.24	0.06	318.13	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	652.24	652.43	0.18	965.78	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	652.43	652.60	0.17	905.32	NE089	100090	4498	Dunday loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	652.60	652.69	0.09	488.64	NE089	100142	3270	O'Neill-Meadin fine sandy loams, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	652.69	652.76	0.07	365.31	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	652.76	652.90	0.14	721.93	NE089	100142	3270	O'Neill-Meadin fine sandy loams, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	652.90	652.99	0.09	498.61	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	652.99	653.05	0.06	328.17	NE089	100142	3270	O'Neill-Meadin fine sandy loams, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	653.05	653.15	0.09	488.34	NE089	100103	2346	Inavale sand, channeled, frequently flooded
APRIL ROUTE ALTERNATIVE	653.15	653.18	0.04	203.52	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	653.18	653.26	0.07	388.35	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	653.26	653.32	0.06	310.99	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	653.32	653.36	0.04	222.58	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	653.36	653.43	0.08	398.50	NE089	100149	3287	Paka loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	653.43	653.49	0.06	300.01	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	653.49	653.62	0.13	661.37	NE089	100148	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	653.62	653.65	0.03	157.73	NE089	100149	3287	Paka loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	653.65	653.73	0.09	457.31	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	653.73	653.84	0.11	571.22	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	653.84	654.04	0.20	1,051.89	NE089	100147	3285	Paka loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	654.04	654.06	0.03	132.68	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	654.06	654.67	0.60	3,180.86	NE089	100110	3184	Jansen loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	654.67	656.26	1.60	8,433.23	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	656.26	656.60	0.34	1,786.27	NE089	100110	3184	Jansen loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	656.60	657.32	0.71	3,769.94	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	657.32	657.46	0.15	767.73	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	657.46	657.59	0.13	665.20	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	657.59	657.70	0.11	570.64	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	657.70	657.86	0.17	878.01	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	657.86	657.90	0.04	214.97	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	657.90	657.93	0.03	150.83	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
RV-1034	657.93	658.23	0.30	1,566.95	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
RV-1034	658.23	658.44	0.21	1,092.01	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	658.44	658.47	0.04	204.01	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	658.47	658.57	0.10	511.38	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	658.57	658.61	0.04	214.35	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	658.61	658.74	0.13	687.61	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	658.74	658.79	0.04	236.10	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	658.79	658.85	0.07	350.61	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	658.85	659.04	0.18	975.84	NE089	100110	3184	Jansen loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	659.04	659.08	0.05	241.05	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
RV-1035	659.08	659.12	0.03	169.56	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
RV-1035	659.12	659.18	0.06	342.22	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
RV-1035	659.18	659.23	0.05	268.07	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
RV-1035	659.23	659.31	0.08	408.90	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
RV-1035	659.31	659.46	0.15	797.82	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
RV-1035	659.46	659.55	0.09	462.56	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
RV-1035	659.55	659.60	0.05	258.27	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
RV-1035	659.60	659.90	0.30	1,606.25	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
RV-1035	659.90	660.05	0.15	783.50	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
RV-1035	660.05	660.20	0.15	811.80	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
RV-1035	660.20	660.72	0.52	2,751.16	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
RV-1035	660.72	660.80	0.07	395.89	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
RV-1035	660.80	660.83	0.03	182.03	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	660.83	661.10	0.27	1,419.20	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	661.10	661.31	0.21	1,090.91	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	661.31	661.36	0.05	263.52	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	661.36	661.59	0.23	1,224.27	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	661.59	661.70	0.11	558.10	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	661.70	661.81	0.12	613.46	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	661.81	661.82	0.00	23.98	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
RV-1036	661.82	661.84	0.03	146.47	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
RV-1036	661.84	661.91	0.06	323.50	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
RV-1036	661.91	662.02	0.12	624.78	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
RV-1036	662.02	662.09	0.06	338.06	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
RV-1036	662.09	662.16	0.07	360.13	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
RV-1036	662.16	662.26	0.11	555.01	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
RV-1036	662.26	662.51	0.25	1,308.36	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
RV-1036	662.51	662.63	0.12	659.24	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
RV-1036	662.63	662.78	0.15	784.52	NE089	100138	3261	O'Neill fine sandy loam, 2 to 6 percent slopes
RV-1036	662.78	662.87	0.09	474.91	NE089	100103	2346	Inavale sand, channeled, frequently flooded
RV-1036	662.87	662.96	0.09	453.86	NE089	1151471	9905	Fluvaquents, sandy-Fluvaquents, loamy complex, frequently flooded
RV-1036	662.96	663.03	0.07	388.30	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
RV-1036	663.03	663.10	0.07	383.02	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
RV-1036	663.10	663.22	0.11	598.41	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
RV-1036	663.22	663.32	0.10	520.41	NE089	100131	3255	Meadin sandy loam, 2 to 30 percent slopes
RV-1036	663.32	663.75	0.43	2,295.84	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	663.75	663.78	0.03	169.24	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	663.78	663.88	0.10	509.90	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	663.88	663.99	0.11	595.50	NE089	100132	3245	Meadin loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	663.99	664.15	0.15	816.67	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	664.15	664.26	0.12	610.41	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	664.26	664.48	0.22	1,157.87	NE089	100111	3193	Jansen-Meadin loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	664.48	664.53	0.05	250.83	NE089	100089	3710	Cass fine sandy loam, rarely flooded
APRIL ROUTE ALTERNATIVE	664.53	664.68	0.15	784.67	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	664.68	664.79	0.11	571.66	NE089	100138	3261	O'Neill fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	664.79	664.93	0.14	760.71	NE089	100141	3273	O'Neill-Meadin fine sandy loams, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	664.93	665.09	0.16	863.49	NE089	100140	3271	O'Neill-Meadin fine sandy loams, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	665.09	665.44	0.34	1,819.19	NE089	100132	3245	Meadin loam, 0 to 2 percent slopes
RV-1037	665.44	665.55	0.11	600.98	NE089	100132	3245	Meadin loam, 0 to 2 percent slopes
RV-1037	665.55	665.87	0.32	1,688.49	NE089	100139	3264	O'Neill loam, 0 to 2 percent slopes
RV-1037	665.87	665.92	0.05	251.19	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
RV-1037	665.92	666.03	0.11	573.22	NE089	100132	3245	Meadin loam, 0 to 2 percent slopes
RV-1037	666.03	666.34	0.31	1,625.02	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
RV-1037	666.34	666.41	0.08	404.50	NE089	100109	3183	Jansen loam, 0 to 2 percent slopes
RV-1037	666.41	667.27	0.85	4,513.42	NE089	100137	3260	O'Neill fine sandy loam, 0 to 2 percent slopes
RV-1037	667.27	667.36	0.09	464.40	NE089	100084	6643	Boelus loamy sand, gravelly substratum, 0 to 3 percent slopes
RV-1037	667.36	667.43	0.07	369.13	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
RV-1037	667.43	667.47	0.05	247.97	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.47	667.51	0.04	187.68	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.51	667.61	0.10	543.23	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.61	667.63	0.02	79.95	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.63	667.64	0.01	50.42	NE089	100166	4857	Valentine-Dunday loamy fine sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	667.64	667.73	0.10	504.70	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.73	667.80	0.07	348.01	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.80	667.89	0.10	505.67	NE089	100084	6643	Boelus loamy sand, gravelly substratum, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.89	667.99	0.09	491.42	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	667.99	668.03	0.04	235.27	NE089	100084	6643	Boelus loamy sand, gravelly substratum, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	668.03	668.37	0.34	1,807.82	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	668.37	668.41	0.04	204.37	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	668.41	668.49	0.08	411.78	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	668.49	668.56	0.07	349.57	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	668.56	668.61	0.05	265.74	NE089	100130	3252	Meadin sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	668.61	668.75	0.14	749.21	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	668.75	668.91	0.16	849.42	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	668.91	669.04	0.13	674.38	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	669.04	669.77	0.74	3,893.72	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	669.77	670.40	0.62	3,288.34	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	670.40	670.54	0.14	751.05	NE089	100107	4650	Ipage loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	670.54	670.63	0.09	497.06	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	670.63	670.85	0.22	1,135.28	NE089	100084	6643	Boelus loamy sand, gravelly substratum, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	670.85	670.89	0.04	224.43	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	670.89	671.06	0.17	908.55	NE089	100084	6643	Boelus loamy sand, gravelly substratum, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	671.06	671.20	0.14	739.10	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	671.20	671.62	0.41	2,180.71	NE089	100081	6640	Boelus loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	671.62	671.71	0.09	481.31	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	671.71	672.43	0.72	3,805.17	NE089	100081	6640	Boelus loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	672.43	672.49	0.06	308.78	NE089	100151	4721	Pivot loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	672.49	672.55	0.06	330.93	NE089	100092	4512	Dunn loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	672.55	672.89	0.34	1,820.82	NE089	100090	4498	Dunday loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	672.89	672.95	0.06	313.42	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	672.95	673.05	0.09	501.27	NE089	100165	4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	673.05	673.26	0.21	1,131.71	NE089	100113	3206	Josburg loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	673.26	673.33	0.07	359.22	NE089	100166	4857	Valentine-Dunday loamy fine sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	673.33	673.48	0.15	777.90	NE089	100090	4498	Dunday loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	673.48	673.68	0.20	1,067.39	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	673.68	673.73	0.05	290.31	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	673.73	673.75	0.01	76.46	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	673.75	674.20	0.45	2,394.25	NE089	100068	9001	Anselmo fine sandy loam, 0 to 1 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	674.20	674.28	0.08	396.28	NE089	100143	4243	Ord loam, rarely flooded
APRIL ROUTE ALTERNATIVE	674.28	674.39	0.11	585.92	NE089	100068	9001	Anselmo fine sandy loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	674.39	674.42	0.03	149.26	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	674.42	674.48	0.06	326.10	NE089	100068	9001	Anselmo fine sandy loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	674.48	674.56	0.08	406.84	NE089	100113	3206	Josburg loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	674.56	674.59	0.04	205.08	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	674.59	674.64	0.05	265.27	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	674.64	674.69	0.05	247.63	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	674.69	674.84	0.15	779.35	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	674.84	674.93	0.09	463.70	NE089	100113	3206	Josburg loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	674.93	675.24	0.31	1,659.58	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	675.24	675.32	0.07	389.64	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	675.32	675.52	0.20	1,069.60	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	675.52	675.60	0.09	450.95	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	675.60	675.66	0.05	276.51	NE089	100113	3206	Josburg loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	675.66	675.93	0.28	1,460.87	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	675.93	675.98	0.05	240.53	NE089	100070	9010	Anselmo loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	675.98	676.20	0.22	1,173.63	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	676.20	676.32	0.11	606.72	NE089	100146	3284	Paka fine sandy loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	676.32	676.87	0.56	2,951.12	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	676.87	676.98	0.11	558.83	NE089	100149	3287	Paka loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	676.98	677.34	0.36	1,923.26	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	677.34	677.46	0.12	623.16	NE089	100091	4499	Dunday loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	677.46	677.59	0.13	678.90	NE089	100157	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	677.59	677.66	0.07	351.54	NE089	100074	6613	Bazile silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	677.66	677.79	0.13	676.79	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	677.79	677.90	0.11	601.12	NE089	100157	6575	Trent silt loam, 0 to 2 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	677.90	677.94	0.04	218.36	NE089	100074	6613	Bazile silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	677.94	678.02	0.08	440.33	NE089	100157	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	678.02	678.14	0.12	611.69	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	678.14	678.21	0.07	368.00	NE089	100074	6613	Bazile silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	678.21	678.34	0.13	684.05	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	678.34	678.45	0.12	607.66	NE089	100157	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	678.45	678.47	0.02	105.65	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	678.47	678.49	0.02	98.16	NE089	100157	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	678.49	678.58	0.09	477.01	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	678.58	678.69	0.11	563.52	NE089	100157	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	678.69	678.73	0.04	186.16	NE089	100069	9004	Anselmo fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	678.73	678.81	0.08	447.85	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	678.81	678.89	0.08	420.89	NE089	100157	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	678.89	678.98	0.09	458.47	NE089	100168	4881	Valentine-Simeon sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	678.98	679.02	0.04	230.10	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	679.02	679.11	0.09	469.32	NE089	100168	4881	Valentine-Simeon sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	679.11	679.29	0.18	967.70	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	679.29	679.38	0.09	472.13	NE089	100168	4881	Valentine-Simeon sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	679.38	679.66	0.27	1,448.10	NE089	100074	6613	Bazile silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	679.66	679.79	0.13	702.10	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	679.79	679.84	0.06	291.18	NE089	100083	6642	Boelus loamy sand, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	679.84	679.89	0.05	265.15	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	679.89	679.94	0.05	267.51	NE089	100168	4881	Valentine-Simeon sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	679.94	679.98	0.03	184.50	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	679.98	680.00	0.02	108.87	NE089	100126	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	680.00	680.09	0.09	498.14	NE089	100089	3710	Cass fine sandy loam, rarely flooded
APRIL ROUTE ALTERNATIVE	680.09	680.13	0.04	211.78	NE089	100126	6320	Barney-Boel-Calamus complex, channeled

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	680.13	680.19	0.06	315.98	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	680.19	680.22	0.02	121.54	NE089	100082	6641	Boelus loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	680.22	680.38	0.16	861.25	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	680.38	680.44	0.05	289.79	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	680.44	680.47	0.04	195.80	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	680.47	680.51	0.04	212.02	NE089	100080	8425	Boel-Inavale complex, channeled, frequently flooded
APRIL ROUTE ALTERNATIVE	680.51	680.56	0.05	260.05	NE089	100087	6665	Brunswick-Pivot complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	680.56	680.66	0.10	514.38	NE089	100168	4881	Valentine-Simeon sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	680.66	680.72	0.06	313.04	NE089	100075	6615	Bazile silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	680.72	680.76	0.04	218.02	NE089	100081	6640	Boelus loamy sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	680.76	680.79	0.03	142.01	NE089	100082	6641	Boelus loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	680.79	680.90	0.11	582.77	NE003	2215968	6641	Boelus loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	680.90	680.93	0.03	164.02	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	680.93	680.99	0.06	301.60	NE003	2215968	6641	Boelus loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	680.99	681.04	0.05	264.78	NE003	427003	6703	Thurman loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	681.04	681.11	0.08	407.86	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	681.11	681.34	0.22	1,179.82	NE003	2215968	6641	Boelus loamy sand, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	681.34	681.39	0.06	306.83	NE003	2215953	4881	Valentine-Simeon sands, 3 to 9 percent slopes
APRIL ROUTE ALTERNATIVE	681.39	681.49	0.09	488.69	NE003	426987	6845	Ortello fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	681.49	681.70	0.21	1,105.65	NE003	426927	6604	Bazile complex, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	681.70	681.71	0.01	74.92	NE003	426926	6605	Bazile loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	681.71	681.76	0.05	273.87	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	681.76	681.81	0.05	251.52	NE003	426926	6605	Bazile loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	681.81	681.88	0.07	388.53	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	681.88	681.92	0.03	168.67	NE003	426926	6605	Bazile loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	681.92	681.99	0.07	369.18	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	681.99	682.03	0.04	215.97	NE003	426925	6500	Bazile loam, 0 to 2 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	682.03	682.23	0.20	1,074.36	NE003	426928	6607	Bazile complex, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	682.23	682.43	0.20	1,049.17	NE003	426926	6605	Bazile loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	682.43	682.48	0.05	249.58	NE003	426936	6660	Brunswick-Paka complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	682.48	682.60	0.12	635.56	NE003	426998	3282	Paka complex, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	682.60	682.87	0.28	1,453.72	NE003	426995	3287	Paka loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	682.87	683.02	0.15	804.02	NE003	426997	3281	Paka complex, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	683.02	683.05	0.03	160.71	NE003	426936	6660	Brunswick-Paka complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	683.05	683.09	0.04	197.31	NE003	1152523	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	683.09	683.22	0.12	657.14	NE003	1152524	4215	Blackloup loam, rarely flooded
APRIL ROUTE ALTERNATIVE	683.22	683.24	0.02	103.71	NE003	1152523	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	683.24	683.26	0.03	136.44	NE003	654007	9905	Fluvaquents, sandy-Fluvaquents, loamy complex, frequently flooded
APRIL ROUTE ALTERNATIVE	683.26	683.28	0.02	113.11	NE003	1152523	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	683.28	683.41	0.13	667.10	NE003	426987	6845	Ortello fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	683.41	683.44	0.03	135.35	NE003	1152523	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	683.44	683.44	0.00	25.76	NE003	426987	6845	Ortello fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	683.44	683.47	0.03	178.44	NE003	1152523	6320	Barney-Boel-Calamus complex, channeled
APRIL ROUTE ALTERNATIVE	683.47	683.50	0.03	135.53	NE003	426936	6660	Brunswick-Paka complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	683.50	683.58	0.08	423.75	NE003	426998	3282	Paka complex, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	683.58	683.59	0.01	44.13	NE003	426928	6607	Bazile complex, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	683.59	683.62	0.03	148.68	NE003	426998	3282	Paka complex, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	683.62	683.97	0.36	1,878.65	NE003	426928	6607	Bazile complex, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	683.97	684.11	0.14	749.84	NE003	426925	6500	Bazile loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	684.11	684.23	0.12	614.68	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	684.23	684.27	0.04	208.73	NE003	426926	6605	Bazile loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	684.27	684.35	0.08	401.19	NE003	426987	6845	Ortello fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	684.35	684.37	0.02	127.77	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	684.37	684.61	0.24	1,274.70	NE003	426987	6845	Ortello fine sandy loam, 3 to 6 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	684.61	684.65	0.04	221.22	NE003	426993	3285	Paka loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	684.65	684.80	0.14	756.34	NE003	426997	3281	Paka complex, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	684.80	684.81	0.01	44.21	NE003	426987	6845	Ortello fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	684.81	684.83	0.02	126.66	NE003	426930	6508	Blendon fine sandy loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	684.83	684.88	0.05	284.78	NE003	426987	6845	Ortello fine sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	684.88	684.91	0.03	146.06	NE003	426936	6660	Brunswick-Paka complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	684.91	684.97	0.06	307.47	NE003	1152522	4236	Calamus-Boel complex, channeled, rarely flooded
APRIL ROUTE ALTERNATIVE	684.97	685.00	0.03	166.08	NE003	426936	6660	Brunswick-Paka complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	685.00	685.04	0.04	223.38	NE003	426969	6792	Loretto loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	685.04	685.08	0.03	172.04	NE003	426936	6660	Brunswick-Paka complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	685.08	685.12	0.04	209.02	NE003	1152522	4236	Calamus-Boel complex, channeled, rarely flooded
APRIL ROUTE ALTERNATIVE	685.12	685.18	0.06	319.58	NE003	427010	4878	Valentine-Simeon complex, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	685.18	685.37	0.20	1,045.09	NE003	426973	3255	Meadin sandy loam, 2 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	685.37	685.66	0.29	1,532.37	NE003	426994	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	685.66	685.80	0.14	717.13	NE003	426993	3285	Paka loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	685.80	685.86	0.06	310.65	NE003	426994	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	685.86	685.88	0.02	90.51	NE003	426998	3282	Paka complex, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	685.88	686.00	0.12	659.05	NE003	426997	3281	Paka complex, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	686.00	686.09	0.09	495.06	NE003	426994	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	686.09	686.15	0.06	315.67	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	686.15	686.21	0.06	293.84	NE003	426996	3280	Paka complex, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	686.21	686.26	0.05	274.54	NE003	427006	6575	Trent silt loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	686.26	686.34	0.07	395.20	NE003	426996	3280	Paka complex, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	686.34	686.53	0.19	1,006.89	NE003	426997	3281	Paka complex, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	686.53	686.72	0.19	1,027.31	NE003	427010	4878	Valentine-Simeon complex, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	686.72	686.92	0.20	1,068.75	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	686.92	687.08	0.16	845.97	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	687.08	687.24	0.15	802.42	NE003	427002	6700	Thurman loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.24	687.29	0.06	294.43	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	687.29	687.33	0.04	188.06	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.33	687.36	0.03	148.79	NE003	427002	6700	Thurman loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.36	687.41	0.05	260.53	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.41	687.47	0.06	342.70	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	687.47	687.54	0.07	359.03	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.54	687.59	0.05	280.59	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	687.59	687.61	0.01	75.45	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.61	687.64	0.03	181.55	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	687.64	687.73	0.09	479.52	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.73	687.81	0.08	441.70	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	687.81	687.86	0.05	246.33	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	687.86	687.95	0.09	458.03	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	687.95	688.01	0.06	313.96	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	688.01	688.05	0.04	215.66	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	688.05	688.08	0.03	172.50	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	688.08	688.19	0.10	550.91	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	688.19	688.22	0.04	210.06	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	688.22	688.50	0.28	1,459.42	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	688.50	688.59	0.09	490.38	NE003	426965	4178	Longford complex, 1 to 7 percent slopes
APRIL ROUTE ALTERNATIVE	688.59	688.65	0.06	306.04	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	688.65	688.87	0.22	1,156.54	NE003	426996	3280	Paka complex, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	688.87	688.90	0.03	145.48	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	688.90	688.97	0.07	360.18	NE003	426996	3280	Paka complex, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	688.97	689.14	0.17	917.02	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	689.14	689.18	0.04	234.19	NE003	427002	6700	Thurman loamy fine sand, 0 to 2 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	689.18	689.23	0.05	263.77	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	689.23	689.27	0.04	209.74	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	689.27	689.44	0.16	848.53	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	689.44	689.58	0.15	788.31	NE003	426968	6791	Loretto loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	689.58	689.61	0.03	154.59	NE003	426996	3280	Paka complex, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	689.61	689.68	0.06	338.69	NE003	427003	6703	Thurman loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	689.68	689.69	0.01	73.70	NE003	426996	3280	Paka complex, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	689.69	689.81	0.12	645.86	NE003	426994	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	689.81	689.91	0.10	504.25	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	689.91	689.92	0.01	61.36	NE003	427003	6703	Thurman loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	689.92	690.14	0.21	1,132.83	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	690.14	690.23	0.09	499.92	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	690.23	690.37	0.14	761.64	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	690.37	690.39	0.02	101.79	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	690.39	690.54	0.15	766.26	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	690.54	690.65	0.11	585.10	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	690.65	690.92	0.27	1,409.94	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	690.92	690.96	0.05	237.94	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	690.96	691.02	0.05	284.28	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	691.02	691.06	0.04	231.25	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	691.06	691.18	0.12	618.58	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	691.18	691.22	0.05	248.67	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	691.22	691.31	0.09	461.74	NE003	426994	3286	Paka loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	691.31	691.41	0.10	519.10	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	691.41	691.48	0.07	375.34	NE003	426968	6791	Loretto loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	691.48	691.53	0.05	251.80	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	691.53	691.64	0.11	593.92	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	691.64	691.71	0.07	363.48	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	691.71	691.81	0.10	519.60	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	691.81	691.93	0.12	644.65	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	691.93	692.21	0.28	1,487.89	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	692.21	692.29	0.07	391.15	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	692.29	692.34	0.05	278.24	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	692.34	692.37	0.03	145.82	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	692.37	692.67	0.30	1,584.93	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	692.67	692.72	0.05	281.39	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	692.72	692.83	0.11	576.46	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	692.83	692.88	0.05	247.61	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	692.88	692.98	0.10	523.96	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	692.98	693.02	0.05	259.87	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	693.02	693.13	0.11	562.40	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	693.13	693.22	0.09	460.33	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	693.22	693.26	0.05	243.86	NE003	426968	6791	Loretto loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	693.26	693.35	0.08	425.94	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	693.35	693.43	0.09	470.40	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	693.43	693.86	0.43	2,257.33	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	693.86	694.00	0.14	730.61	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	694.00	694.02	0.02	104.77	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.02	694.08	0.05	289.80	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.08	694.20	0.12	644.74	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.20	694.25	0.05	280.62	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	694.25	694.49	0.24	1,250.24	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.49	694.52	0.04	199.47	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.52	694.56	0.04	200.47	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	694.56	694.67	0.11	590.53	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.67	694.70	0.03	149.71	NE003	427001	6725	Thurman fine sand, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	694.70	694.82	0.12	636.04	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.82	694.83	0.01	39.47	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.83	694.96	0.13	695.31	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	694.96	695.26	0.30	1,589.02	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	695.26	695.36	0.10	518.98	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	695.36	695.40	0.03	178.18	NE003	426968	6791	Loretto loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	695.40	695.54	0.15	772.66	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	695.54	695.61	0.07	375.45	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	695.61	695.64	0.03	167.68	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	695.64	695.73	0.08	446.50	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	695.73	695.81	0.08	435.55	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	695.81	695.84	0.02	128.06	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	695.84	695.90	0.07	358.93	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	695.90	695.94	0.04	201.28	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	695.94	696.07	0.13	689.23	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	696.07	696.14	0.07	362.29	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	696.14	696.23	0.09	465.79	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	696.23	696.35	0.12	634.63	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	696.35	696.41	0.06	307.69	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	696.41	696.52	0.12	609.62	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	696.52	696.56	0.04	210.79	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	696.56	696.62	0.05	284.18	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	696.62	696.65	0.04	189.15	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	696.65	696.71	0.05	282.40	NE003	426965	4178	Longford complex, 1 to 7 percent slopes
APRIL ROUTE ALTERNATIVE	696.71	696.74	0.04	199.07	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	696.74	696.82	0.08	417.28	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	696.82	696.90	0.08	410.21	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	696.90	697.02	0.12	613.40	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.02	697.10	0.08	425.16	NE003	427001	6725	Thurman fine sand, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	697.10	697.12	0.03	139.60	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.12	697.29	0.17	881.22	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.29	697.32	0.03	141.75	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.32	697.44	0.12	654.89	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.44	697.52	0.08	419.02	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	697.52	697.65	0.13	664.49	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.65	697.65	0.01	38.94	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.65	697.82	0.17	897.35	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.82	697.87	0.05	251.96	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.87	697.90	0.03	142.86	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	697.90	697.93	0.04	187.46	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	697.93	698.10	0.17	883.49	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	698.10	698.12	0.02	81.77	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	698.12	698.16	0.04	222.71	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	698.16	698.36	0.20	1,031.61	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	698.36	698.45	0.10	521.97	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	698.45	698.52	0.07	349.64	NE003	426978	6754	Nora silt loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	698.52	698.73	0.21	1,110.72	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	698.73	698.83	0.10	519.00	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	698.83	698.95	0.12	656.98	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	698.95	699.03	0.08	397.15	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	699.03	699.10	0.07	373.74	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	699.10	699.14	0.04	225.74	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	699.14	699.34	0.20	1,037.20	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	699.34	699.53	0.19	992.25	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	699.53	699.62	0.09	478.57	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	699.62	699.65	0.03	168.67	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	699.65	699.74	0.09	489.57	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	699.74	699.77	0.03	157.77	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	699.77	699.81	0.04	225.88	NE003	426968	6791	Loretto loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	699.81	699.87	0.06	309.42	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	699.87	700.39	0.52	2,749.34	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	700.39	700.42	0.03	137.47	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	700.42	700.54	0.12	619.20	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	700.54	700.66	0.12	641.86	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	700.66	700.87	0.22	1,140.69	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	700.87	700.90	0.03	142.79	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	700.90	700.93	0.03	140.04	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	700.93	700.95	0.02	95.64	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	700.95	700.99	0.04	220.27	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	700.99	701.01	0.02	92.27	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.01	701.13	0.12	648.08	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	701.13	701.20	0.08	399.89	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.20	701.29	0.08	436.54	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.29	701.37	0.08	419.61	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.37	701.41	0.04	213.56	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.41	701.47	0.06	339.23	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.47	701.66	0.19	977.05	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.66	701.66	0.00	3.81	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.66	701.73	0.07	380.18	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	701.73	701.78	0.05	259.94	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.78	701.85	0.07	368.50	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.85	701.90	0.05	289.24	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	701.90	701.91	0.01	43.41	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	701.91	702.01	0.10	533.79	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	702.01	702.04	0.03	134.45	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.04	702.07	0.03	158.26	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.07	702.09	0.03	134.11	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.09	702.15	0.06	305.06	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.15	702.19	0.04	187.77	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.19	702.25	0.06	340.95	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.25	702.29	0.04	209.99	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.29	702.34	0.05	267.40	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.34	702.36	0.02	87.75	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	702.36	702.45	0.09	469.12	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.45	702.47	0.02	130.97	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	702.47	702.55	0.07	393.32	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.55	702.57	0.02	104.30	NE003	426949	3165	Doger loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.57	702.66	0.09	482.16	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.66	702.71	0.06	293.40	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.71	702.75	0.04	193.03	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.75	702.85	0.10	532.77	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.85	702.86	0.01	38.03	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	702.86	702.90	0.04	211.49	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	702.90	703.04	0.14	763.19	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.04	703.10	0.06	319.17	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.10	703.15	0.05	262.97	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	703.15	703.24	0.08	444.38	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.24	703.27	0.03	156.57	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.27	703.32	0.05	283.20	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	703.32	703.45	0.13	668.46	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.45	703.48	0.03	175.84	NE003	426965	4178	Longford complex, 1 to 7 percent slopes
APRIL ROUTE ALTERNATIVE	703.48	703.55	0.07	371.93	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.55	703.62	0.07	348.29	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.62	703.63	0.02	89.05	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.63	703.74	0.10	552.44	NE003	426965	4178	Longford complex, 1 to 7 percent slopes
APRIL ROUTE ALTERNATIVE	703.74	703.89	0.15	794.35	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	703.89	703.95	0.07	349.65	NE003	426965	4178	Longford complex, 1 to 7 percent slopes
APRIL ROUTE ALTERNATIVE	703.95	704.01	0.06	318.36	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.01	704.11	0.09	492.74	NE003	426965	4178	Longford complex, 1 to 7 percent slopes
APRIL ROUTE ALTERNATIVE	704.11	704.16	0.06	294.19	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	704.16	704.25	0.09	458.99	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.25	704.29	0.04	234.54	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	704.29	704.32	0.03	142.93	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	704.32	704.35	0.03	161.40	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	704.35	704.39	0.04	197.48	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	704.39	704.46	0.07	378.77	NE003	426947	3163	Doger fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.46	704.50	0.04	227.13	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.50	704.60	0.09	501.02	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.60	704.66	0.06	311.44	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	704.66	704.70	0.04	231.40	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.70	704.76	0.05	284.24	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.76	704.89	0.13	704.62	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	704.89	705.01	0.12	625.49	NE003	426965	4178	Longford complex, 1 to 7 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	705.01	705.05	0.04	209.22	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	705.05	705.16	0.12	616.88	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	705.16	705.18	0.02	86.71	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	705.18	705.18	0.00	13.39	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	705.18	705.35	0.16	858.71	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	705.35	705.36	0.02	101.51	NE003	427001	6725	Thurman fine sand, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	705.36	705.40	0.03	173.21	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	705.40	705.52	0.12	631.91	NE003	426940	6688	Crofton silt loam, 6 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	705.52	705.61	0.09	497.77	NE003	426979	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	705.61	705.75	0.14	726.83	NE003	426940	6688	Crofton silt loam, 6 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	705.75	705.80	0.05	255.11	NE003	427001	6725	Thurman fine sand, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	705.80	705.85	0.05	268.08	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	705.85	705.90	0.05	261.56	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	705.90	706.03	0.14	720.56	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	706.03	706.14	0.11	573.14	NE003	426943	6698	Crofton-Nora silt loams, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	706.14	706.18	0.03	172.52	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	706.18	706.38	0.21	1,083.59	NE003	427007	4786	Valentine fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	706.38	706.60	0.22	1,136.44	NE003	426943	6698	Crofton-Nora silt loams, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	706.60	706.63	0.04	189.91	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	706.63	706.71	0.08	417.96	NE003	426989	6579	Ortello loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	706.71	706.79	0.08	432.06	NE003	426958	8869	Hord silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	706.79	706.82	0.03	155.38	NE003	427002	6700	Thurman loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	706.82	706.93	0.10	546.19	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	706.93	706.99	0.07	344.25	NE003	427002	6700	Thurman loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	706.99	707.01	0.02	86.30	NE003	427003	6703	Thurman loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	707.01	707.11	0.11	562.53	NE003	426949	3165	Doger loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	707.11	707.13	0.02	86.55	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	707.13	707.17	0.04	213.87	NE003	426935	6637	Boelus loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	707.17	707.25	0.08	397.15	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	707.25	707.37	0.12	646.02	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	707.37	707.49	0.13	664.61	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	707.49	707.75	0.25	1,345.07	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	707.75	707.94	0.19	1,024.08	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	707.94	707.97	0.03	138.14	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	707.97	708.16	0.19	997.91	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	708.16	708.47	0.32	1,663.73	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	708.47	708.63	0.15	805.30	NE003	426967	6799	Loretto sandy loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	708.63	708.70	0.07	383.21	NE003	426979	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	708.70	708.78	0.09	456.89	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	708.78	708.81	0.03	155.27	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	708.81	708.96	0.15	767.87	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	708.96	708.99	0.03	146.15	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	708.99	709.03	0.04	201.11	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	709.03	709.10	0.08	396.92	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	709.10	709.34	0.24	1,278.60	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	709.34	709.44	0.10	523.28	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	709.44	709.57	0.13	699.26	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	709.57	709.63	0.05	288.43	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	709.63	709.66	0.03	146.20	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	709.66	709.66	0.01	43.65	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	709.66	709.72	0.05	284.39	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	709.72	709.78	0.06	335.40	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	709.78	709.84	0.06	308.14	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	709.84	709.93	0.09	480.23	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	709.93	710.12	0.19	994.87	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	710.12	710.17	0.05	285.12	NE003	426979	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	710.17	710.21	0.04	191.00	NE003	426940	6688	Crofton silt loam, 6 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	710.21	710.37	0.16	852.90	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	710.37	710.43	0.06	320.12	NE003	426979	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	710.43	710.49	0.05	279.52	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	710.49	710.57	0.08	436.66	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	710.57	710.70	0.13	676.55	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	710.70	710.70	0.00	18.99	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	710.70	710.97	0.27	1,436.08	NE003	426980	6749	Nora silt loam, 11 to 17 percent slopes
APRIL ROUTE ALTERNATIVE	710.97	711.04	0.07	362.09	NE003	426940	6688	Crofton silt loam, 6 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	711.04	711.42	0.38	1,980.56	NE003	426980	6749	Nora silt loam, 11 to 17 percent slopes
APRIL ROUTE ALTERNATIVE	711.42	711.53	0.12	610.73	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	711.53	711.62	0.09	479.73	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	711.62	711.70	0.08	422.21	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	711.70	711.73	0.03	139.88	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	711.73	711.79	0.07	346.96	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	711.79	711.83	0.04	196.62	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	711.83	711.87	0.03	180.57	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	711.87	711.90	0.04	199.53	NE003	426940	6688	Crofton silt loam, 6 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	711.90	711.95	0.05	242.45	NE003	426979	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	711.95	712.04	0.09	476.91	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	712.04	712.96	0.92	4,848.87	NE003	426958	8869	Hord silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	712.96	713.06	0.11	561.84	NE003	426938	8435	Cass loam, rarely flooded
APRIL ROUTE ALTERNATIVE	713.06	713.24	0.18	929.09	NE003	426960	2330	Inavale fine sand, rarely flooded
APRIL ROUTE ALTERNATIVE	713.24	713.32	0.08	422.84	NE003	426952	4384	Nenzel loamy fine sand, very rarely flooded
APRIL ROUTE ALTERNATIVE	713.32	713.33	0.01	67.17	NE003	426961	6459	Inglewood-Boel complex, channeled, occasionally flooded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	713.33	713.36	0.03	132.48	NE003	654009	9999	Water
APRIL ROUTE ALTERNATIVE	713.36	713.48	0.12	652.11	NE003	426960	2330	Inavale fine sand, rarely flooded
APRIL ROUTE ALTERNATIVE	713.48	713.51	0.03	166.49	NE003	426961	6459	Inglewood-Boel complex, channeled, occasionally flooded
APRIL ROUTE ALTERNATIVE	713.51	713.58	0.07	345.51	NE003	426958	8869	Hord silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	713.58	713.70	0.12	617.14	NE003	427002	6700	Thurman loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	713.70	713.77	0.08	409.17	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	713.77	713.88	0.11	567.18	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	713.88	713.95	0.07	352.27	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	713.95	714.04	0.09	500.49	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	714.04	714.16	0.12	607.75	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	714.16	714.23	0.07	385.99	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	714.23	714.26	0.03	172.34	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	714.26	714.31	0.05	263.54	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	714.31	714.44	0.13	667.17	NE003	426999	6723	Thurman fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	714.44	714.56	0.12	655.03	NE003	426949	3165	Doger loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	714.56	714.66	0.10	518.08	NE003	427000	6724	Thurman fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	714.66	714.70	0.04	197.11	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	714.70	714.88	0.18	963.36	NE003	426948	3164	Doger loamy fine sand, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	714.88	714.92	0.04	209.25	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	714.92	714.96	0.04	204.52	NE003	426934	6636	Boelus loamy fine sand, 0 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	714.96	715.01	0.05	274.03	NE003	426933	6635	Boelus fine sand, 0 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.01	715.09	0.08	397.13	NE003	427003	6703	Thurman loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.09	715.31	0.22	1,157.27	NE003	426969	6792	Loretto loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.31	715.41	0.10	535.81	NE003	427004	6733	Thurman-Crofton complex, 11 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	715.41	715.45	0.04	211.41	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.45	715.59	0.15	772.49	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	715.59	715.73	0.14	713.15	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	715.73	715.85	0.12	624.44	NE003	427003	6703	Thurman loamy fine sand, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.85	715.86	0.02	82.14	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.86	715.91	0.05	274.20	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.91	715.97	0.06	315.36	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	715.97	716.04	0.06	337.55	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	716.04	716.19	0.15	778.67	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	716.19	716.26	0.07	388.09	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	716.26	716.28	0.02	86.44	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	716.28	716.33	0.06	296.46	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	716.33	716.38	0.05	255.29	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	716.38	716.44	0.06	313.57	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	716.44	716.52	0.08	399.98	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	716.52	716.74	0.22	1,172.52	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	716.74	716.87	0.14	725.98	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	716.87	716.88	0.00	23.93	NE003	426956	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	716.88	717.02	0.14	738.59	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	717.02	717.08	0.06	315.07	NE003	426946	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	717.08	717.48	0.40	2,104.02	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	717.48	717.55	0.07	365.44	NE003	426956	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	717.55	717.69	0.14	747.34	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	717.69	717.81	0.12	629.52	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	717.81	717.89	0.09	459.25	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	717.89	718.10	0.20	1,073.10	NE003	426977	6753	Nora silt loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	718.10	718.40	0.31	1,623.61	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	718.40	718.51	0.10	531.06	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	718.51	718.58	0.08	402.68	NE003	426956	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	718.58	718.63	0.05	259.48	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	718.63	718.65	0.02	96.38	NE003	426943	6698	Crofton-Nora silt loams, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	718.65	718.77	0.12	632.12	NE003	426956	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	718.77	718.82	0.05	265.94	NE003	426943	6698	Crofton-Nora silt loams, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	718.82	718.96	0.14	742.14	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	718.96	719.20	0.24	1,248.03	NE003	426974	6808	Moody silty clay loam, 0 to 2 percent slopes
APRIL ROUTE ALTERNATIVE	719.20	719.32	0.12	634.10	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	719.32	719.45	0.13	679.73	NE003	426943	6698	Crofton-Nora silt loams, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	719.45	719.45	0.00	9.29	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	719.45	719.51	0.06	313.54	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	719.51	719.58	0.07	372.14	NE003	426943	6698	Crofton-Nora silt loams, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	719.58	719.83	0.25	1,344.89	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	719.83	720.11	0.28	1,494.41	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.11	720.18	0.07	345.48	NE003	426978	6754	Nora silt loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.18	720.26	0.08	398.89	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.26	720.31	0.05	287.49	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.31	720.38	0.07	345.32	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.38	720.41	0.04	202.74	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.41	720.75	0.34	1,800.06	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.75	720.83	0.07	391.48	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.83	720.88	0.05	285.47	NE003	426956	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	720.88	720.99	0.11	581.12	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	720.99	721.00	0.01	47.85	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	721.00	721.08	0.08	422.97	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	721.08	721.20	0.11	606.80	NE003	426975	6811	Moody silty clay loam, 2 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	721.20	721.51	0.31	1,662.94	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	721.51	721.83	0.32	1,678.14	NE003	426956	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	721.83	721.84	0.02	79.86	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	721.84	721.94	0.09	483.74	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	721.94	721.98	0.04	236.89	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	721.98	722.01	0.03	158.78	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	722.01	722.09	0.08	416.63	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	722.09	722.37	0.28	1,455.61	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	722.37	722.43	0.07	352.11	NE003	426956	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	722.43	722.52	0.08	447.57	NE003	426959	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	722.52	722.77	0.25	1,321.61	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	722.77	722.81	0.04	214.65	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	722.81	722.97	0.16	834.61	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	722.97	723.03	0.06	319.84	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	723.03	723.30	0.27	1,415.85	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	723.30	723.37	0.08	411.91	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	723.37	723.42	0.04	233.99	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	723.42	723.63	0.22	1,144.59	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	723.63	724.03	0.39	2,070.01	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	724.03	724.06	0.03	182.28	NE003	426945	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	724.06	724.13	0.06	342.00	NE003	426944	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	724.13	724.13	0.00	17.48	NE003	426979	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	724.13	724.33	0.20	1,073.82	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	724.33	724.42	0.09	472.15	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	724.42	724.44	0.02	118.05	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	724.44	724.47	0.03	151.04	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	724.47	724.51	0.04	194.53	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	724.51	724.51	0.00	5.13	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	724.51	724.59	0.08	413.71	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	724.59	724.68	0.09	494.26	NE011	427018	3561	Hobbs silt loam, occasionally flooded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	724.68	724.73	0.05	255.87	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	724.73	724.85	0.12	612.94	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	724.85	725.32	0.47	2,489.43	NE011	427040	6556	Shell silt loam, rarely flooded
APRIL ROUTE ALTERNATIVE	725.32	725.34	0.03	138.38	NE011	427019	8869	Hord silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	725.34	725.60	0.25	1,321.61	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	725.60	725.67	0.07	369.63	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	725.67	725.80	0.13	703.86	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	725.80	725.83	0.03	163.55	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	725.83	726.08	0.25	1,321.65	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	726.08	726.11	0.03	176.69	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	726.11	726.36	0.25	1,307.76	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	726.36	726.56	0.20	1,068.00	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	726.56	726.61	0.05	273.35	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	726.61	726.90	0.28	1,501.27	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	726.90	727.19	0.29	1,539.00	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.19	727.52	0.33	1,722.10	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.52	727.56	0.05	243.27	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.56	727.62	0.06	317.30	NE011	427030	6681	Crofton silt loam, 17 to 30 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.62	727.75	0.12	655.71	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.75	727.83	0.08	426.04	NE011	427030	6681	Crofton silt loam, 17 to 30 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.83	727.83	0.00	5.58	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.83	727.92	0.09	465.95	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.92	727.97	0.06	290.60	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	727.97	728.65	0.68	3,589.33	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	728.65	728.80	0.15	782.25	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	728.80	728.85	0.05	247.83	NE011	427028	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	728.85	728.90	0.06	304.85	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	728.90	729.24	0.33	1,763.91	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.24	729.29	0.05	263.02	NE011	427043	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	729.29	729.32	0.03	167.97	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	729.32	729.34	0.02	113.95	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.34	729.37	0.03	172.90	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	729.37	729.39	0.01	69.28	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.39	729.46	0.07	386.56	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.46	729.48	0.02	118.87	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.48	729.54	0.06	306.02	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.54	729.58	0.04	185.05	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.58	729.66	0.08	437.47	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.66	729.69	0.03	183.70	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.69	729.96	0.27	1,419.20	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	729.96	730.03	0.07	350.54	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	730.03	730.13	0.10	517.69	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	730.13	730.17	0.04	198.17	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	730.17	730.21	0.05	259.06	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	730.21	730.23	0.01	67.49	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	730.23	730.31	0.08	434.84	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	730.31	730.42	0.11	595.10	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	730.42	730.56	0.13	705.78	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	730.56	730.59	0.03	177.82	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	730.59	730.81	0.22	1,174.92	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	730.81	730.94	0.13	671.27	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	730.94	731.23	0.29	1,511.93	NE011	427040	6556	Shell silt loam, rarely flooded
APRIL ROUTE ALTERNATIVE	731.23	731.33	0.10	547.94	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	731.33	731.36	0.03	144.47	NE011	427040	6556	Shell silt loam, rarely flooded

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	731.36	731.39	0.03	166.38	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	731.39	731.46	0.07	371.58	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	731.46	731.54	0.08	443.30	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	731.54	731.60	0.06	329.53	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	731.60	731.66	0.06	298.16	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	731.66	731.68	0.01	74.04	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	731.68	731.70	0.03	141.31	NE011	427028	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	731.70	731.93	0.23	1,229.87	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	731.93	731.96	0.02	127.59	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	731.96	732.26	0.30	1,590.89	NE011	427059	6755	Nora silt loam, 6 to 11 percent slopes
APRIL ROUTE ALTERNATIVE	732.26	732.43	0.17	913.59	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.43	732.51	0.07	382.75	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.51	732.52	0.02	89.89	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.52	732.61	0.09	451.39	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.61	732.66	0.05	274.27	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.66	732.76	0.10	531.61	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.76	732.83	0.06	338.25	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.83	732.97	0.14	763.46	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	732.97	733.04	0.07	371.87	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	733.04	733.11	0.07	348.42	NE011	427030	6681	Crofton silt loam, 17 to 30 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	733.11	733.28	0.17	901.16	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	733.28	733.34	0.07	344.28	NE011	427058	6780	Nora-Moody complex, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	733.34	733.53	0.19	1,011.35	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	733.53	734.18	0.65	3,431.56	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	734.18	734.24	0.05	282.77	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	734.24	734.26	0.03	132.87	NE011	427028	6697	Crofton-Nora silt loams, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	734.26	734.33	0.06	335.45	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	734.33	734.46	0.13	699.74	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	734.46	734.66	0.20	1,055.32	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	734.66	734.76	0.10	551.37	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	734.76	734.80	0.04	208.95	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	734.80	735.45	0.64	3,402.96	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	735.45	735.50	0.05	265.23	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	735.50	735.68	0.19	985.04	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	735.68	735.78	0.09	500.01	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	735.78	736.47	0.69	3,649.88	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	736.47	736.69	0.22	1,177.70	NE011	427058	6780	Nora-Moody complex, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	736.69	736.87	0.18	930.36	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	736.87	736.99	0.12	621.30	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	736.99	737.09	0.10	537.62	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	737.09	737.14	0.05	289.65	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	737.14	737.57	0.43	2,261.70	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	737.57	737.81	0.24	1,271.12	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	737.81	737.85	0.03	174.23	NE011	427055	6810	Moody silty clay loam, 1 to 3 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	737.85	737.96	0.11	585.11	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	737.96	738.09	0.14	730.09	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	738.09	738.16	0.07	369.17	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	738.16	738.24	0.07	393.76	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	738.24	738.53	0.29	1,549.94	NE011	427043	8872	Hord silt loam, 3 to 6 percent slopes
APRIL ROUTE ALTERNATIVE	738.53	738.59	0.05	281.44	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	738.59	738.87	0.29	1,528.19	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	738.87	739.79	0.92	4,834.30	NE011	427040	6556	Shell silt loam, rarely flooded
APRIL ROUTE ALTERNATIVE	739.79	739.98	0.19	1,008.35	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	739.98	739.99	0.01	44.00	NE011	427040	6556	Shell silt loam, rarely flooded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	739.99	740.05	0.06	310.22	NE011	427018	3561	Hobbs silt loam, occasionally flooded
RV-1038	740.05	740.07	0.03	134.73	NE011	427018	3561	Hobbs silt loam, occasionally flooded
RV-1038	740.07	740.48	0.40	2,137.21	NE011	427040	6556	Shell silt loam, rarely flooded
RV-1038	740.48	740.67	0.19	1,017.59	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
RV-1038	740.67	740.71	0.04	222.26	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
RV-1038	740.71	740.75	0.04	190.97	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
RV-1038	740.75	740.80	0.05	242.38	NE011	427018	3561	Hobbs silt loam, occasionally flooded
RV-1038	740.80	740.89	0.09	476.35	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
RV-1038	740.89	740.92	0.04	203.79	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
RV-1038	740.92	740.95	0.03	150.44	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
RV-1038	740.95	741.01	0.06	321.19	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
RV-1038	741.01	741.02	0.01	46.42	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.02	741.04	0.02	106.57	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.04	741.08	0.03	180.57	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.08	741.13	0.05	272.38	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.13	741.16	0.03	180.00	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.16	741.34	0.18	935.56	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.34	741.48	0.14	739.80	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.48	741.49	0.01	49.94	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.49	741.51	0.02	121.07	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	741.51	742.02	0.51	2,683.67	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	742.02	742.11	0.09	496.26	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.11	742.13	0.01	68.08	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.13	742.22	0.10	506.38	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.22	742.33	0.11	570.94	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	742.33	742.38	0.05	266.07	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.38	742.47	0.09	486.57	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.47	742.71	0.24	1,255.06	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.71	742.74	0.03	137.66	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.74	742.88	0.14	734.29	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	742.88	743.05	0.18	934.35	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	743.05	743.11	0.06	299.29	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	743.11	743.17	0.06	333.78	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	743.17	743.34	0.17	878.11	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	743.34	743.34	0.00	22.59	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	743.34	743.41	0.07	368.69	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	743.41	743.58	0.16	864.94	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	743.58	743.74	0.17	881.14	NE011	427040	6556	Shell silt loam, rarely flooded
APRIL ROUTE ALTERNATIVE	743.74	743.76	0.02	103.17	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	743.76	743.78	0.01	61.98	NE011	679593	9999	Water
APRIL ROUTE ALTERNATIVE	743.78	743.82	0.04	209.60	NE011	427031	8440	Cass soils, rarely flooded
APRIL ROUTE ALTERNATIVE	743.82	744.03	0.22	1,153.34	NE011	427019	8869	Hord silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	744.03	744.13	0.09	491.95	NE011	427048	6352	Leshara silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	744.13	744.47	0.34	1,807.42	NE011	427047	3518	Lamo silty clay loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	744.47	744.66	0.19	984.93	NE011	427039	8841	Hall silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	744.66	744.72	0.06	319.71	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	744.72	744.83	0.11	599.41	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	744.83	744.93	0.10	549.40	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	744.93	744.98	0.05	264.10	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	744.98	745.07	0.08	425.05	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	745.07	745.15	0.08	447.53	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	745.15	745.28	0.13	673.31	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	745.28	745.31	0.03	161.24	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	745.31	745.40	0.09	495.78	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	745.40	745.45	0.04	229.61	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
RV-1039	745.45	745.70	0.25	1,340.43	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
RV-1039	745.70	745.82	0.12	616.50	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
RV-1039	745.82	745.91	0.09	478.69	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
RV-1039	745.91	746.11	0.21	1,090.44	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
RV-1039	746.11	746.17	0.05	283.24	NE011	427018	3561	Hobbs silt loam, occasionally flooded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
RV-1039	746.17	746.40	0.23	1,216.75	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
RV-1039	746.40	746.40	0.00	11.91	NE011	427034	3951	Fillmore silt loam, occasionally ponded
RV-1039	746.40	746.82	0.42	2,214.54	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
RV-1039	746.82	746.87	0.05	278.91	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
RV-1039	746.87	746.89	0.02	86.86	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	746.89	746.92	0.04	190.17	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	746.92	747.02	0.09	481.83	NE011	427034	3951	Fillmore silt loam, occasionally ponded
APRIL ROUTE ALTERNATIVE	747.02	747.06	0.05	239.33	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	747.06	747.12	0.06	298.44	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	747.12	747.34	0.22	1,174.43	NE011	427037	8851	Hall-Gayville complex, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	747.34	747.62	0.28	1,456.28	NE011	427038	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	747.62	747.84	0.22	1,162.27	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	747.84	747.90	0.06	320.34	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	747.90	748.48	0.58	3,074.84	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	748.48	748.55	0.07	375.81	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	748.55	748.60	0.05	277.75	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	748.60	748.75	0.15	793.06	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	748.75	748.84	0.09	460.81	NE011	427018	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	748.84	749.07	0.23	1,196.62	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.07	749.15	0.09	454.32	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	749.15	749.18	0.03	141.93	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.18	749.23	0.05	268.26	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	749.23	749.28	0.05	268.77	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.28	749.36	0.08	440.27	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.36	749.45	0.08	445.06	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.45	749.61	0.16	869.89	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	749.61	749.61	0.00	1.25	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.61	749.65	0.03	175.75	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.65	749.74	0.10	505.29	NE011	427028	6697	Crofton-Nora silt loams, 17 to 30 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	749.74	749.80	0.06	311.89	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	749.80	749.97	0.17	905.92	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	749.97	749.98	0.00	11.21	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
RV-1040	749.98	750.09	0.12	608.89	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
RV-1040	750.09	750.27	0.18	963.84	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
RV-1040	750.27	750.36	0.09	473.14	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
RV-1040	750.36	750.36	0.00	10.08	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
RV-1040	750.36	750.46	0.09	501.53	NE011	427018	3561	Hobbs silt loam, occasionally flooded
RV-1040	750.46	750.58	0.12	653.27	NE011	427020	8870	Hord silt loam, 1 to 3 percent slopes
RV-1040	750.58	750.65	0.07	353.51	NE011	427018	3561	Hobbs silt loam, occasionally flooded
RV-1040	750.65	750.69	0.04	201.33	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
RV-1040	750.69	750.77	0.08	429.60	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
RV-1040	750.77	750.86	0.09	459.13	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
RV-1040	750.86	750.94	0.08	419.74	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	750.94	750.96	0.02	127.65	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	750.96	751.23	0.27	1,426.08	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	751.23	751.31	0.08	420.28	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	751.31	751.61	0.30	1,562.96	NE011	427060	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	751.61	751.76	0.15	802.17	NE011	427027	6696	Crofton-Nora silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	751.76	751.78	0.02	90.25	NE011	427026	6699	Crofton-Nora silt loams, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	751.78	751.82	0.04	226.86	NE011	427056	6812	Moody silty clay loam, 2 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	751.82	752.42	0.60	3,151.60	NE011	427054	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	752.42	752.82	0.40	2,112.11	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	752.82	753.08	0.26	1,384.08	NE125	427503	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	753.08	753.11	0.03	175.80	NE125	427491	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	753.11	753.44	0.33	1,735.75	NE125	427504	6757	Nora silt loam, 6 to 11 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	753.44	753.47	0.03	175.86	NE125	427489	6821	Moody-Nora silt loams, 3 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	753.47	753.50	0.03	157.81	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	753.50	753.54	0.04	213.36	NE125	427467	3952	Fillmore silt loam, frequently ponded
APRIL ROUTE ALTERNATIVE	753.54	753.76	0.22	1,135.24	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	753.76	754.18	0.42	2,220.09	NE125	427503	6756	Nora silt loam, 6 to 11 percent slopes, eroded

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	754.18	754.22	0.04	231.48	NE125	427497	6777	Nora-Crofton silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	754.22	754.33	0.11	589.96	NE125	427503	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	754.33	754.97	0.64	3,361.62	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	754.97	755.00	0.03	154.57	NE125	427497	6777	Nora-Crofton silt loams, 11 to 17 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	755.00	755.69	0.69	3,626.93	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	755.69	755.85	0.16	848.98	NE125	427467	3952	Fillmore silt loam, frequently ponded
APRIL ROUTE ALTERNATIVE	755.85	756.01	0.17	873.01	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	756.01	756.05	0.03	171.29	NE125	427467	3952	Fillmore silt loam, frequently ponded
APRIL ROUTE ALTERNATIVE	756.05	756.48	0.44	2,314.22	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	756.48	756.53	0.05	245.32	NE125	427467	3952	Fillmore silt loam, frequently ponded
APRIL ROUTE ALTERNATIVE	756.53	758.26	1.73	9,137.17	NE125	2228987	6809	Moody silty clay loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	758.26	758.29	0.03	149.39	NE125	427503	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	758.29	758.34	0.05	259.17	NE125	427464	6680	Crofton silt loam, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	758.34	758.36	0.02	122.47	NE125	427504	6757	Nora silt loam, 6 to 11 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	758.36	758.40	0.04	207.48	NE125	427465	6683	Crofton silt loam, 17 to 30 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	758.40	758.43	0.03	174.62	NE125	427464	6680	Crofton silt loam, 17 to 30 percent slopes
APRIL ROUTE ALTERNATIVE	758.43	758.49	0.05	284.15	NE125	427465	6683	Crofton silt loam, 17 to 30 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	758.49	758.63	0.14	763.53	NE125	427457	6624	Belfore silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	758.63	758.77	0.14	721.98	NE125	427503	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	758.77	758.82	0.05	258.47	NE125	427465	6683	Crofton silt loam, 17 to 30 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	758.82	759.16	0.35	1,822.56	NE125	427504	6757	Nora silt loam, 6 to 11 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	759.16	759.19	0.02	128.29	NE125	427470	8841	Hall silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	759.19	759.43	0.25	1,299.98	NE125	427479	3776	Muir silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	759.43	759.53	0.10	531.24	NE125	427470	8841	Hall silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	759.53	759.65	0.12	625.78	NE125	427520	3553	Hobbs silt loam, frequently flooded
APRIL ROUTE ALTERNATIVE	759.65	759.72	0.07	365.08	NE125	427469	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	759.72	759.83	0.11	596.53	NE125	427504	6757	Nora silt loam, 6 to 11 percent slopes, severely eroded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	759.83	759.87	0.04	194.47	NE125	427463	6678	Crofton silt loam, 11 to 17 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	759.87	760.06	0.18	970.01	NE125	427504	6757	Nora silt loam, 6 to 11 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	760.06	760.18	0.12	632.28	NE125	427465	6683	Crofton silt loam, 17 to 30 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	760.18	760.79	0.62	3,258.87	NE125	427503	6756	Nora silt loam, 6 to 11 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	760.79	760.83	0.04	215.79	NE125	427505	4105	Geary variant silty clay loam, 7 to 11 percent slopes, severely eroded
APRIL ROUTE ALTERNATIVE	760.83	760.93	0.10	513.55	NE125	427472	8844	Hall silt loam, 3 to 6 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	760.93	760.94	0.01	55.05	NE125	427479	3776	Muir silt loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	760.94	761.08	0.14	744.52	NE125	427469	8840	Hall silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	761.08	761.14	0.06	293.86	NE125	427491	3561	Hobbs silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	761.14	761.23	0.09	481.73	NE125	427459	8439	Cass silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	761.23	761.30	0.07	352.06	NE125	427535	8590	Wann silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	761.30	761.39	0.10	517.85	NE125	427466	3521	Cass fine sandy loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	761.39	761.46	0.06	327.79	NE125	427516	2332	Inavale fine sand, occasionally flooded
APRIL ROUTE ALTERNATIVE	761.46	761.58	0.13	667.56	NE125	427515	8493	Gothenburg loamy sand, frequently flooded
APRIL ROUTE ALTERNATIVE	761.58	761.78	0.20	1,053.35	NE125	449797	9999	Water
APRIL ROUTE ALTERNATIVE	761.78	761.82	0.04	216.65	NE125	427515	8493	Gothenburg loamy sand, frequently flooded
APRIL ROUTE ALTERNATIVE	761.82	761.86	0.04	212.62	NE125	427530	4789	Valentine fine sand, 3 to 17 percent slopes
APRIL ROUTE ALTERNATIVE	761.86	761.89	0.03	152.74	NE125	427515	8493	Gothenburg loamy sand, frequently flooded
APRIL ROUTE ALTERNATIVE	761.89	761.99	0.09	497.20	NE125	427466	3521	Cass fine sandy loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	761.99	762.01	0.03	151.78	NE125	427519	2115	Inavale soils, frequently flooded
APRIL ROUTE ALTERNATIVE	762.01	762.17	0.16	832.11	NE125	427466	3521	Cass fine sandy loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	762.17	762.23	0.06	306.46	NE125	427519	2115	Inavale soils, frequently flooded
APRIL ROUTE ALTERNATIVE	762.23	762.28	0.05	285.00	NE125	427466	3521	Cass fine sandy loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	762.28	762.34	0.05	280.15	NE125	427525	6701	Thurman loamy fine sand, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	762.34	762.42	0.08	414.64	NE125	427530	4789	Valentine fine sand, 3 to 17 percent slopes
APRIL ROUTE ALTERNATIVE	762.42	762.49	0.07	394.33	NE125	427526	6702	Thurman loamy fine sand, 1 to 3 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	762.49	762.58	0.09	485.21	NE125	427508	6843	Ortello fine sandy loam, 1 to 3 percent slopes

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Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
APRIL ROUTE ALTERNATIVE	762.58	762.74	0.16	821.75	NE125	427512	6583	Ortello very fine sandy loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	762.74	762.76	0.02	89.55	NE125	427509	6844	Ortello fine sandy loam, 1 to 3 percent slopes, eroded
APRIL ROUTE ALTERNATIVE	762.76	762.78	0.03	137.95	NE125	427508	6843	Ortello fine sandy loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	762.78	762.84	0.06	297.01	NE125	427535	8590	Wann silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	762.84	762.95	0.11	587.26	NE125	427474	8867	Hord fine sandy loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	762.95	763.44	0.49	2,609.45	NE125	427468	8850	Hall-Gayville variant silt loams, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	763.44	763.50	0.06	317.92	NE125	427535	8590	Wann silt loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	763.50	763.80	0.30	1,583.90	NE125	427514	3726	Detroit silt loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	763.80	763.99	0.19	995.02	NE125	427476	8878	Hord very fine sandy loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	763.99	764.04	0.05	238.39	NE125	427468	8850	Hall-Gayville variant silt loams, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	764.04	764.06	0.03	141.77	NE125	427481	3518	Lamo silty clay loam, occasionally flooded
APRIL ROUTE ALTERNATIVE	764.06	764.14	0.08	405.53	NE125	427476	8878	Hord very fine sandy loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	764.14	764.25	0.11	576.37	NE125	427508	6843	Ortello fine sandy loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	764.25	764.51	0.26	1,391.04	NE125	427476	8878	Hord very fine sandy loam, 0 to 1 percent slopes
APRIL ROUTE ALTERNATIVE	764.51	764.79	0.28	1,475.76	NE125	427508	6843	Ortello fine sandy loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	764.79	764.86	0.07	369.65	NE125	427512	6583	Ortello very fine sandy loam, 1 to 3 percent slopes
APRIL ROUTE ALTERNATIVE	764.86	764.98	0.12	607.97	NE125	427447	3525	Lamo silt loam, moderately saline, occasionally flooded
Clarks Alternative	764.98	765.19	0.21	1,116.17	NE125	427447	3525	Lamo silt loam, moderately saline, occasionally flooded
Clarks Alternative	765.19	765.26	0.08	396.41	NE125	427477	8879	Hord very fine sandy loam, 1 to 3 percent slopes
Clarks Alternative	765.26	765.38	0.11	587.09	NE125	427447	3525	Lamo silt loam, moderately saline, occasionally flooded
Clarks Alternative	765.38	765.55	0.17	915.83	NE125	427482	8470	Gibbon silt loam, occasionally flooded
Clarks Alternative	765.55	765.58	0.03	182.85	NE125	427509	6844	Ortello fine sandy loam, 1 to 3 percent slopes, eroded
Clarks Alternative	765.58	765.68	0.10	530.57	NE125	427482	8470	Gibbon silt loam, occasionally flooded
Clarks Alternative	765.68	765.71	0.03	156.97	NE125	427485	4267	Loup silt loam, occasionally flooded
Clarks Alternative	765.71	765.78	0.07	374.93	NE125	427447	3525	Lamo silt loam, moderately saline, occasionally flooded
Clarks Alternative	765.78	765.87	0.08	425.34	NE125	427481	3518	Lamo silty clay loam, occasionally flooded
Clarks Alternative	765.87	765.93	0.07	358.11	NE125	427447	3525	Lamo silt loam, moderately saline, occasionally flooded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Clarks Alternative	765.93	765.97	0.04	194.60	NE125	427481	3518	Lamo silty clay loam, occasionally flooded
Clarks Alternative	765.97	765.99	0.02	107.79	NE125	427447	3525	Lamo silt loam, moderately saline, occasionally flooded
Clarks Alternative	765.99	766.22	0.23	1,205.46	NE125	427481	3518	Lamo silty clay loam, occasionally flooded
Clarks Alternative	766.22	766.43	0.21	1,113.41	NE125	427459	8439	Cass silt loam, occasionally flooded
Clarks Alternative	766.43	766.48	0.05	246.28	NE125	427485	4267	Loup silt loam, occasionally flooded
Clarks Alternative	766.48	766.49	0.02	93.42	NE125	427466	3521	Cass fine sandy loam, occasionally flooded
Clarks Alternative	766.49	766.62	0.12	640.58	NE125	2228975	2288	Wann loam, occasionally flooded
Clarks Alternative	766.62	766.63	0.02	99.36	NE125	427485	4267	Loup silt loam, occasionally flooded
Clarks Alternative	766.63	766.66	0.03	142.65	NE125	449797	9999	Water
Clarks Alternative	766.66	766.67	0.01	44.90	NE125	427485	4267	Loup silt loam, occasionally flooded
Clarks Alternative	766.67	766.69	0.02	109.65	NE125	427535	8590	Wann silt loam, occasionally flooded
Clarks Alternative	766.69	766.81	0.12	610.60	NE125	2228997	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	766.81	767.02	0.22	1,155.38	NE125	427535	8590	Wann silt loam, occasionally flooded
Clarks Alternative	767.02	767.09	0.06	332.58	NE125	2228997	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	767.09	767.18	0.09	471.97	NE125	2228969	6352	Leshara silt loam, occasionally flooded
Clarks Alternative	767.18	767.23	0.05	261.22	NE121	1709659	6352	Leshara silt loam, occasionally flooded
Clarks Alternative	767.23	767.57	0.34	1,811.97	NE121	1709657	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	767.57	767.77	0.20	1,040.05	NE121	1709637	8463	Gayville-Caruso complex, occasionally flooded
Clarks Alternative	767.77	767.78	0.01	55.81	NE121	1709657	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	767.78	767.91	0.14	725.08	NE121	1709659	6352	Leshara silt loam, occasionally flooded
Clarks Alternative	767.91	767.99	0.07	390.09	NE121	1709692	2288	Wann loam, occasionally flooded
Clarks Alternative	767.99	768.17	0.19	984.45	NE121	1709659	6352	Leshara silt loam, occasionally flooded
Clarks Alternative	768.17	768.47	0.30	1,566.62	NE121	1709652	6529	Janude sandy loam, very rarely flooded
Clarks Alternative	768.47	768.50	0.03	163.08	NE121	1709673	3268	O'Neill sandy loam, 2 to 6 percent slopes
Clarks Alternative	768.50	768.59	0.09	474.75	NE121	1709625	6517	Blendon variant fine sandy loam, 0 to 2 percent slopes
Clarks Alternative	768.59	768.66	0.07	347.01	NE121	1709647	8874	Hord silt loam, sandy substratum, 0 to 1 percent slopes
Clarks Alternative	768.66	769.39	0.73	3,853.80	NE121	1709625	6517	Blendon variant fine sandy loam, 0 to 2 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Clarks Alternative	769.39	769.55	0.16	849.93	NE121	1709627	3156	Brocksburg loam, 0 to 2 percent slopes
Clarks Alternative	769.55	769.94	0.39	2,067.97	NE121	1709672	3267	O'Neill sandy loam, 0 to 2 percent slopes
Clarks Alternative	769.94	770.00	0.06	291.83	NE121	1709673	3268	O'Neill sandy loam, 2 to 6 percent slopes
Clarks Alternative	770.00	770.01	0.02	96.87	NE121	1709652	6529	Janude sandy loam, very rarely flooded
Clarks Alternative	770.01	770.04	0.03	136.89	NE121	1709662	8508	Lex variant loam, occasionally flooded
Clarks Alternative	770.04	770.07	0.03	177.69	NE121	1709655	6366	Obert silt loam, occasionally flooded
Clarks Alternative	770.07	770.10	0.03	150.81	NE121	1709662	8508	Lex variant loam, occasionally flooded
Clarks Alternative	770.10	770.22	0.12	642.81	NE121	1709637	8463	Gayville-Caruso complex, occasionally flooded
Clarks Alternative	770.22	770.28	0.06	298.15	NE121	1709657	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	770.28	770.36	0.08	405.50	NE121	1709671	8531	Novina sandy loam, rarely flooded
Clarks Alternative	770.36	770.45	0.10	505.80	NE121	1709657	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	770.45	770.47	0.02	103.16	NE121	1709659	6352	Leshara silt loam, occasionally flooded
Clarks Alternative	770.47	770.71	0.24	1,250.00	NE121	1709671	8531	Novina sandy loam, rarely flooded
Clarks Alternative	770.71	770.83	0.12	655.30	NE121	1709662	8508	Lex variant loam, occasionally flooded
Clarks Alternative	770.83	770.85	0.01	75.04	NE121	1709671	8531	Novina sandy loam, rarely flooded
Clarks Alternative	770.85	770.98	0.13	711.02	NE121	1709662	8508	Lex variant loam, occasionally flooded
Clarks Alternative	770.98	771.09	0.11	569.61	NE121	1709637	8463	Gayville-Caruso complex, occasionally flooded
Clarks Alternative	771.09	771.28	0.19	1,021.03	NE121	1709660	8503	Lex loam, occasionally flooded
Clarks Alternative	771.28	771.41	0.13	682.84	NE121	1709634	8456	Fonner sandy loam, rarely flooded
Clarks Alternative	771.41	771.48	0.06	329.38	NE121	1709662	8508	Lex variant loam, occasionally flooded
Clarks Alternative	771.48	771.58	0.10	539.28	NE121	1709621	8403	Alda loam, occasionally flooded
Clarks Alternative	771.58	772.21	0.64	3,353.79	NE121	1709634	8456	Fonner sandy loam, rarely flooded
Clarks Alternative	772.21	772.46	0.25	1,309.86	NE121	1709637	8463	Gayville-Caruso complex, occasionally flooded
Clarks Alternative	772.46	772.63	0.16	870.86	NE121	1709622	6312	Barney loam, frequently flooded
Clarks Alternative	772.63	772.67	0.04	227.89	NE121	1709649	2335	Inavale loamy fine sand, 0 to 3 percent slopes
Clarks Alternative	772.67	772.74	0.07	368.21	NE121	1709660	8503	Lex loam, occasionally flooded
Clarks Alternative	772.74	772.98	0.25	1,296.89	NE121	1709620	8405	Alda sandy loam, occasionally flooded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Clarks Alternative	772.98	773.17	0.19	997.18	NE121	1709657	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	773.17	773.32	0.14	760.15	NE121	1709621	8403	Alda loam, occasionally flooded
Clarks Alternative	773.32	773.58	0.26	1,380.92	NE121	1709660	8503	Lex loam, occasionally flooded
Clarks Alternative	773.58	773.69	0.11	585.81	NE121	1709657	3524	Lamo-Saltine complex, occasionally flooded
Clarks Alternative	773.69	773.76	0.07	383.37	NE121	1709662	8508	Lex variant loam, occasionally flooded
Clarks Alternative	773.76	773.85	0.09	476.95	NE121	1709692	2288	Wann loam, occasionally flooded
Clarks Alternative	773.85	773.92	0.06	330.98	NE121	1709676	8563	Platte loam, occasionally flooded
Clarks Alternative	773.92	774.05	0.13	700.38	NE121	1709692	2288	Wann loam, occasionally flooded
Clarks Alternative	774.05	774.09	0.04	216.13	NE121	1709671	8531	Novina sandy loam, rarely flooded
Clarks Alternative	774.09	774.17	0.08	441.05	NE121	1709692	2288	Wann loam, occasionally flooded
Clarks Alternative	774.17	774.22	0.05	267.82	NE121	1709671	8531	Novina sandy loam, rarely flooded
Clarks Alternative	774.22	774.31	0.08	444.77	NE121	1709660	8503	Lex loam, occasionally flooded
Clarks Alternative	774.31	774.41	0.11	559.84	NE121	1709621	8403	Alda loam, occasionally flooded
Clarks Alternative	774.41	774.47	0.05	279.51	NE121	1709660	8503	Lex loam, occasionally flooded
Clarks Alternative	774.47	774.57	0.10	532.89	NE121	1709652	6529	Janude sandy loam, very rarely flooded
Clarks Alternative	774.57	775.02	0.45	2,376.80	NE121	2228289	8490	Gothenburg fine sandy loam, frequently flooded
Clarks Alternative	775.02	775.06	0.04	227.67	NE121	1709690	9999	Water
Clarks Alternative	775.06	775.08	0.02	92.88	NE121	1709641	8495	Gothenburg soils, frequently flooded
Clarks Alternative	775.08	775.12	0.04	234.31	NE143	2218990	8495	Gothenburg soils, frequently flooded
Clarks Alternative	775.12	775.23	0.10	544.00	NE143	1692318	9999	Water
Clarks Alternative	775.23	775.26	0.03	181.76	NE143	1692314	8490	Gothenburg fine sandy loam, frequently flooded
Clarks Alternative	775.26	775.27	0.01	57.17	NE143	1692318	9999	Water
Clarks Alternative	775.27	775.31	0.04	198.83	NE143	1692314	8490	Gothenburg fine sandy loam, frequently flooded
Clarks Alternative	775.31	775.37	0.07	344.24	NE143	1692318	9999	Water
Clarks Alternative	775.37	775.62	0.24	1,284.08	NE143	1692314	8490	Gothenburg fine sandy loam, frequently flooded
Clarks Alternative	775.62	775.64	0.02	118.09	NE143	1692301	2342	Inavale loamy sand, 3 to 6 percent slopes, rarely flooded
Clarks Alternative	775.64	775.66	0.02	121.81	NE143	1692311	8562	Platte fine sandy loam, occasionally flooded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Clarks Alternative	775.66	775.89	0.23	1,207.02	NE143	1692280	3710	Cass fine sandy loam, rarely flooded
Clarks Alternative	775.89	776.06	0.17	906.52	NE143	1692290	8840	Hall silt loam, 0 to 1 percent slopes
Clarks Alternative	776.06	777.27	1.21	6,370.50	NE143	1692293	3773	Muir silt loam, 0 to 1 percent slopes
Clarks Alternative	777.27	777.33	0.06	301.83	NE143	1692284	2817	Uly silt loam, 3 to 6 percent slopes
Clarks Alternative	777.33	777.48	0.15	788.08	NE143	1692291	3776	Muir silt loam, 1 to 3 percent slopes
Clarks Alternative	777.48	777.76	0.28	1,477.41	NE143	1692283	2517	Coly soils, 6 to 11 percent slopes, severely eroded
Clarks Alternative	777.76	777.87	0.11	589.97	NE143	1692285	2821	Uly silt loam, 6 to 11 percent slopes, eroded
Clarks Alternative	777.87	777.99	0.13	661.35	NE143	1692281	2533	Coly silt loam, 11 to 30 percent slopes
Clarks Alternative	777.99	778.11	0.12	613.76	NE143	1692285	2821	Uly silt loam, 6 to 11 percent slopes, eroded
Clarks Alternative	778.11	778.17	0.06	303.56	NE143	1692281	2533	Coly silt loam, 11 to 30 percent slopes
Clarks Alternative	778.17	778.24	0.07	370.85	NE143	1692285	2821	Uly silt loam, 6 to 11 percent slopes, eroded
Clarks Alternative	778.24	778.35	0.11	583.83	NE143	1692281	2533	Coly silt loam, 11 to 30 percent slopes
Clarks Alternative	778.35	778.46	0.12	608.64	NE143	1692285	2821	Uly silt loam, 6 to 11 percent slopes, eroded
Clarks Alternative	778.46	780.00	1.54	8,110.66	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	780.00	780.04	0.04	211.62	NE143	1692283	2517	Coly soils, 6 to 11 percent slopes, severely eroded
Clarks Alternative	780.04	782.56	2.52	13,329.06	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	782.56	782.63	0.06	332.99	NE143	1692279	3820	Butler silt loam, 0 to 1 percent slopes
Clarks Alternative	782.63	783.38	0.75	3,969.87	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	783.38	783.68	0.30	1,599.79	NE143	1692288	3951	Fillmore silt loam, occasionally ponded
Clarks Alternative	783.68	784.13	0.44	2,347.50	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	784.13	784.28	0.16	825.42	NE143	1692283	2517	Coly soils, 6 to 11 percent slopes, severely eroded
Clarks Alternative	784.28	784.33	0.05	278.78	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	784.33	784.37	0.03	179.69	NE143	1692283	2517	Coly soils, 6 to 11 percent slopes, severely eroded
Clarks Alternative	784.37	784.58	0.21	1,121.83	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	784.58	784.69	0.11	556.91	NE143	1692282	2516	Coly soils, 3 to 6 percent slopes, severely eroded
Clarks Alternative	784.69	784.72	0.03	162.63	NE143	1692271	3561	Hobbs silt loam, occasionally flooded
Clarks Alternative	784.72	784.76	0.05	238.94	NE143	1692282	2516	Coly soils, 3 to 6 percent slopes, severely eroded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Clarks Alternative	784.76	785.42	0.66	3,459.82	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	785.42	785.56	0.14	750.15	NE143	1692284	2817	Uly silt loam, 3 to 6 percent slopes
Clarks Alternative	785.56	785.64	0.08	402.74	NE143	1692271	3561	Hobbs silt loam, occasionally flooded
Clarks Alternative	785.64	785.87	0.24	1,245.76	NE143	1692284	2817	Uly silt loam, 3 to 6 percent slopes
Clarks Alternative	785.87	785.97	0.10	514.83	NE143	1692299	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	785.97	786.11	0.14	724.40	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	786.11	786.24	0.13	689.95	NE143	1692299	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	786.24	786.89	0.65	3,453.53	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	786.89	786.95	0.06	305.25	NE143	1692288	3951	Fillmore silt loam, occasionally ponded
Clarks Alternative	786.95	788.19	1.24	6,547.53	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	788.19	788.34	0.15	803.44	NE143	1692297	3968	Hastings soils, 7 to 11 percent slopes, severely eroded
Clarks Alternative	788.34	788.46	0.12	610.30	NE143	1692298	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	788.46	788.73	0.28	1,454.51	NE143	1692296	3966	Hastings soils, 3 to 7 percent slopes, severely eroded
Clarks Alternative	788.73	788.81	0.07	383.04	NE143	1692299	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	788.81	788.87	0.07	368.19	NE143	1692293	3773	Muir silt loam, 0 to 1 percent slopes
Clarks Alternative	788.87	788.92	0.04	221.29	NE143	2218984	3545	Hobbs silt loam, channeled, frequently flooded
Clarks Alternative	788.92	788.93	0.02	81.82	NE143	2219002	8869	Hord silt loam, 0 to 1 percent slopes
Clarks Alternative	788.93	788.97	0.04	208.92	NE185	1692342	8869	Hord silt loam, 0 to 1 percent slopes
Clarks Alternative	788.97	789.06	0.08	441.09	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	789.06	789.16	0.11	570.28	NE185	1692342	8869	Hord silt loam, 0 to 1 percent slopes
Clarks Alternative	789.16	789.17	0.01	35.51	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	789.17	789.23	0.06	314.31	NE185	1692343	8870	Hord silt loam, 1 to 3 percent slopes
Clarks Alternative	789.23	789.37	0.14	739.98	NE185	1692336	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Clarks Alternative	789.37	789.47	0.10	513.13	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	789.47	789.52	0.05	272.50	NE185	1692336	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Clarks Alternative	789.52	789.85	0.33	1,752.75	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	789.85	790.31	0.46	2,433.56	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Clarks Alternative	790.31	790.39	0.08	405.32	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	790.39	790.56	0.18	924.54	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	790.56	790.64	0.07	381.85	NE185	1692336	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Clarks Alternative	790.64	790.81	0.18	943.76	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	790.81	790.89	0.07	386.46	NE185	1692322	3820	Butler silt loam, 0 to 1 percent slopes
Clarks Alternative	790.89	791.25	0.36	1,908.11	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	791.25	791.34	0.09	501.04	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	791.34	791.44	0.10	502.82	NE185	1692325	3951	Fillmore silt loam, occasionally ponded
Clarks Alternative	791.44	791.50	0.06	327.54	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	791.50	791.64	0.14	713.63	NE185	1692334	3868	Hastings silt loam, 3 to 7 percent slopes
Clarks Alternative	791.64	791.72	0.08	436.31	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	791.72	791.93	0.21	1,115.72	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	791.93	792.01	0.08	403.94	NE185	1692322	3820	Butler silt loam, 0 to 1 percent slopes
Clarks Alternative	792.01	792.25	0.25	1,303.14	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	792.25	792.66	0.41	2,138.69	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	792.66	793.16	0.50	2,653.89	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	793.16	793.26	0.10	521.32	NE185	1692322	3820	Butler silt loam, 0 to 1 percent slopes
Clarks Alternative	793.26	793.40	0.14	750.29	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	793.40	793.69	0.29	1,521.82	NE185	1692333	3866	Hastings silt loam, 1 to 3 percent slopes
Clarks Alternative	793.69	794.28	0.59	3,103.78	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	794.28	794.33	0.06	294.21	NE185	1692322	3820	Butler silt loam, 0 to 1 percent slopes
Clarks Alternative	794.33	794.58	0.24	1,279.23	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	794.58	794.67	0.09	489.26	NE185	1692325	3951	Fillmore silt loam, occasionally ponded
Clarks Alternative	794.67	794.72	0.05	277.54	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	794.72	794.83	0.11	557.20	NE185	1692325	3951	Fillmore silt loam, occasionally ponded
Clarks Alternative	794.83	795.04	0.22	1,136.61	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	795.04	795.11	0.07	368.19	NE185	1692336	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Clarks Alternative	795.11	796.00	0.89	4,681.72	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
Clarks Alternative	796.00	796.02	0.02	90.00	NE185	1692336	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Clarks Alternative	796.02	796.06	0.05	245.51	NE185	1692337	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Clarks Alternative	796.06	796.07	0.01	62.87	NE185	1692336	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Clarks Alternative	796.07	796.32	0.25	1,319.98	NE185	1692332	3864	Hastings silt loam, 0 to 1 percent slopes
FEIS	796.32	840.95	No Change in FEIS					
Western Alternative	840.95	841.03	0.08	414.06	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	841.03	841.06	0.03	145.16	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	841.06	841.10	0.04	205.21	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	841.10	841.41	0.31	1,661.62	NE151	1691143	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	841.41	841.48	0.07	351.42	NE151	1691141	3820	Butler silt loam, 0 to 1 percent slopes
Western Alternative	841.48	841.61	0.13	683.45	NE151	1691143	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	841.61	841.66	0.05	275.83	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	841.66	841.72	0.06	324.47	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	841.72	841.80	0.08	427.59	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	841.80	841.86	0.06	306.86	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	841.86	841.89	0.03	162.50	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	841.89	841.92	0.03	154.55	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	841.92	841.97	0.05	248.98	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	841.97	841.99	0.02	118.85	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	841.99	842.15	0.16	843.28	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	842.15	842.18	0.03	173.53	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	842.18	842.24	0.06	306.46	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	842.24	842.32	0.07	392.39	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	842.32	842.39	0.07	385.61	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	842.39	842.44	0.05	288.38	NE151	1691179	2824	Uly silt loam, 11 to 30 percent slopes, eroded
Western Alternative	842.44	842.46	0.02	87.14	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Western Alternative	842.46	842.53	0.07	375.79	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	842.53	842.59	0.06	306.21	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	842.59	842.62	0.03	171.44	NE151	1691169	7347	Malmo silty clay loam, 6 to 11 percent slopes, eroded
Western Alternative	842.62	842.68	0.06	329.88	NE151	1691156	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	842.68	842.74	0.05	280.52	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	842.74	842.76	0.03	136.87	NE151	1691156	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	842.76	842.79	0.03	161.17	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	842.79	842.83	0.04	217.56	NE151	1691156	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	842.83	843.08	0.25	1,319.44	NE151	1691143	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	843.08	843.22	0.14	744.16	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	843.22	843.26	0.04	207.02	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	843.26	843.37	0.11	555.36	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	843.37	843.41	0.04	206.63	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	843.41	843.43	0.03	139.23	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	843.43	843.54	0.11	554.47	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	843.54	843.57	0.03	168.62	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	843.57	843.62	0.05	254.17	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	843.62	843.65	0.03	136.19	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	843.65	843.71	0.06	338.59	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	843.71	843.82	0.11	589.91	NE151	1691141	3820	Butler silt loam, 0 to 1 percent slopes
Western Alternative	843.82	843.84	0.02	102.57	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	843.84	844.05	0.21	1,117.26	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	844.05	844.15	0.10	519.82	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	844.15	844.51	0.36	1,879.76	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	844.51	844.56	0.05	276.97	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	844.56	844.63	0.07	360.95	NE151	1691157	3962	Hastings silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	844.63	844.73	0.10	531.44	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Western Alternative	844.73	844.82	0.09	460.20	NE151	1691165	4182	Longford silty clay loam, 7 to 11 percent slopes, eroded
Western Alternative	844.82	845.29	0.47	2,502.71	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	845.29	845.81	0.52	2,746.42	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	845.81	845.97	0.16	861.38	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	845.97	846.01	0.04	210.06	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	846.01	846.14	0.12	645.59	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	846.14	846.19	0.06	301.95	NE151	1691174	3776	Muir silt loam, 1 to 3 percent slopes
Western Alternative	846.19	846.24	0.05	260.09	NE151	2219187	7868	Nodaway silt loam, channeled, occasionally flooded
Western Alternative	846.24	846.27	0.03	176.60	NE151	1691139	7267	Burchard-Steinauer clay loams, 11 to 30 percent slopes
Western Alternative	846.27	846.57	0.30	1,574.86	NE151	1691145	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	846.57	847.25	0.67	3,560.43	NE151	1691144	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	847.25	847.38	0.14	721.43	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	847.38	847.72	0.33	1,753.37	NE095	1691806	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	847.72	847.81	0.09	479.06	NE095	1691767	7231	Judson silt loam, 2 to 6 percent slopes
Western Alternative	847.81	847.83	0.03	136.82	NE095	1691772	7868	Nodaway silt loam, channeled, occasionally flooded
Western Alternative	847.83	847.89	0.06	310.53	NE095	1691768	7153	Kennebec silt loam, rarely flooded
Western Alternative	847.89	848.00	0.11	585.31	NE095	1691767	7231	Judson silt loam, 2 to 6 percent slopes
Western Alternative	848.00	848.33	0.33	1,742.28	NE095	1691806	3870	Hastings silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	848.33	848.37	0.04	192.75	NE095	1691767	7231	Judson silt loam, 2 to 6 percent slopes
Western Alternative	848.37	848.42	0.05	260.91	NE095	1691772	7868	Nodaway silt loam, channeled, occasionally flooded
Western Alternative	848.42	848.47	0.05	262.37	NE095	1691771	7750	Nodaway silt loam, occasionally flooded
Western Alternative	848.47	848.63	0.16	849.33	NE095	1691768	7153	Kennebec silt loam, rarely flooded
Western Alternative	848.63	848.77	0.14	759.83	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	848.77	848.83	0.06	294.43	NE095	1691767	7231	Judson silt loam, 2 to 6 percent slopes
Western Alternative	848.83	848.93	0.11	556.15	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	848.93	849.02	0.08	447.60	NE095	1691777	7217	Burchard clay loam, 11 to 30 percent slopes
Western Alternative	849.02	849.07	0.05	285.90	NE095	1691775	7227	Burchard clay loam, 6 to 11 percent slopes

APPENDIX M SOIL SUMMARY FOR MT, SD & NE								
Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Western Alternative	849.07	849.14	0.07	358.86	NE095	1691824	7423	Morrill clay loam, 3 to 6 percent slopes
Western Alternative	849.14	849.25	0.11	566.95	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	849.25	849.26	0.01	72.51	NE095	1691824	7423	Morrill clay loam, 3 to 6 percent slopes
Western Alternative	849.26	849.42	0.16	837.61	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	849.42	849.47	0.05	259.75	NE095	1691777	7217	Burchard clay loam, 11 to 30 percent slopes
Western Alternative	849.47	849.53	0.06	333.44	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	849.53	849.63	0.10	520.66	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	849.63	849.66	0.02	127.64	NE095	1691824	7423	Morrill clay loam, 3 to 6 percent slopes
Western Alternative	849.66	849.70	0.04	214.89	NE095	1691827	7417	Morrill clay loam, 11 to 30 percent slopes
Western Alternative	849.70	849.74	0.04	227.39	NE095	1691824	7423	Morrill clay loam, 3 to 6 percent slopes
Western Alternative	849.74	849.80	0.06	307.13	NE095	1691827	7417	Morrill clay loam, 11 to 30 percent slopes
Western Alternative	849.80	849.96	0.16	833.75	NE095	1691824	7423	Morrill clay loam, 3 to 6 percent slopes
Western Alternative	849.96	850.05	0.09	481.45	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	850.05	850.16	0.11	571.33	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	850.16	850.17	0.02	95.96	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	850.17	850.21	0.04	197.46	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	850.21	850.25	0.04	196.90	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	850.25	850.34	0.09	463.34	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	850.34	850.43	0.09	479.35	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	850.43	850.48	0.05	264.11	NE095	1691818	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded
Western Alternative	850.48	850.56	0.09	464.19	NE095	1691827	7417	Morrill clay loam, 11 to 30 percent slopes
Western Alternative	850.56	850.62	0.05	278.60	NE095	1691818	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded
Western Alternative	850.62	850.67	0.05	262.00	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	850.67	850.69	0.02	126.01	NE095	1691818	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded
Western Alternative	850.69	850.73	0.04	229.20	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	850.73	850.78	0.04	222.26	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	850.78	850.82	0.05	241.09	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Western Alternative	850.82	850.97	0.14	765.36	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	850.97	850.99	0.03	139.96	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	850.99	851.02	0.03	137.67	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	851.02	851.14	0.12	658.25	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	851.14	851.18	0.04	200.47	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	851.18	851.27	0.09	463.89	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	851.27	851.34	0.07	360.49	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	851.34	851.36	0.02	122.53	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	851.36	851.42	0.05	284.64	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	851.42	851.44	0.03	132.06	NE095	1691783	3820	Butler silt loam, 0 to 1 percent slopes
Western Alternative	851.44	851.53	0.09	481.34	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	851.53	851.57	0.04	187.63	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	851.57	851.69	0.13	669.84	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	851.69	851.73	0.04	184.92	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	851.73	851.80	0.07	356.40	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	851.80	851.84	0.04	212.26	NE095	1691818	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded
Western Alternative	851.84	851.93	0.10	503.36	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	851.93	852.05	0.12	646.27	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	852.05	852.17	0.11	587.97	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	852.17	852.27	0.10	529.86	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	852.27	852.37	0.10	544.95	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	852.37	852.49	0.13	662.27	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	852.49	852.62	0.12	643.25	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	852.62	852.68	0.06	329.46	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	852.68	852.76	0.08	413.97	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	852.76	852.97	0.21	1,108.04	NE095	1691818	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded
Western Alternative	852.97	853.02	0.05	257.34	NE095	1691767	7231	Judson silt loam, 2 to 6 percent slopes

Route ID	From Milepost	To Milepost	Length (mi)	Length (ft)	Soil Series	Mapunit Key	Mapunit Symbol	Mapunit Name
Western Alternative	853.02	853.11	0.10	514.80	NE095	1691772	7868	Nodaway silt loam, channeled, occasionally flooded
Western Alternative	853.11	853.18	0.06	326.84	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	853.18	853.22	0.05	255.88	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	853.22	853.27	0.05	267.06	NE095	1691825	7425	Morrill clay loam, 3 to 6 percent slopes, eroded
Western Alternative	853.27	853.36	0.09	471.57	NE095	1691827	7417	Morrill clay loam, 11 to 30 percent slopes
Western Alternative	853.36	853.42	0.06	304.76	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	853.42	853.50	0.08	403.67	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	853.50	853.67	0.18	934.02	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	853.67	853.78	0.11	574.19	NE095	1691820	7350	Malmo clay, 3 to 11 percent slopes, eroded
Western Alternative	853.78	853.89	0.11	573.00	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	853.89	854.00	0.10	551.57	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	854.00	854.01	0.02	94.12	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	854.01	854.09	0.07	384.83	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
Western Alternative	854.09	854.43	0.34	1,811.40	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	854.43	854.73	0.30	1,594.86	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
Western Alternative	854.73	855.00	0.26	1,396.06	NE095	1691784	3824	Crete silt loam, 0 to 1 percent slopes
Western Alternative	855.00	855.03	0.03	170.99	NE095	1691785	3825	Crete silt loam, 1 to 3 percent slopes
FEIS	855.03	873.29	No Change in FEIS					
RV-1043	873.29	873.45	0.16	847.21	NE095	1691788	3831	Crete silty clay loam, 3 to 7 percent slopes, eroded
RV-1043	873.45	873.49	0.04	190.95	NE095	1691818	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded
RV-1043	873.49	873.53	0.04	209.22	NE095	1691829	4108	Hedville loam, 30 to 50 percent slopes
RV-1043	873.53	873.61	0.08	433.07	NE095	1691818	7666	Mayberry silty clay loam, 3 to 6 percent slopes, eroded
RV-1043	873.61	873.68	0.07	383.46	NE095	1691829	4108	Hedville loam, 30 to 50 percent slopes
RV-1043	873.68	873.84	0.15	817.64	NE095	1691816	4170	Lancaster and Edalgo soils, 11 to 30 percent slopes
RV-1043	873.84	873.94	0.10	511.35	NE095	1691819	7667	Mayberry silty clay loam, 6 to 11 percent slopes
RV-1043	873.94	874.03	0.09	499.06	NE095	1691816	4170	Lancaster and Edalgo soils, 11 to 30 percent slopes
RV-1043	874.03	874.10	0.07	387.04	NE095	1691790	3855	Edalgo silty clay loam, 7 to 11 percent slopes
RV-1043	874.10	874.21	0.11	579.33	NE095	1691829	4108	Hedville loam, 30 to 50 percent slopes
RV-1043	874.21	874.26	0.05	255.55	NE095	1691790	3855	Edalgo silty clay loam, 7 to 11 percent slopes
RV-1043	874.26	874.31	0.05	278.34	NE095	1691829	4108	Hedville loam, 30 to 50 percent slopes
RV-1043	874.31	874.44	0.13	674.63	NE095	1691816	4170	Lancaster and Edalgo soils, 11 to 30 percent slopes
RV-1043	874.44	874.50	0.06	294.54	NE095	1691815	4173	Lancaster loam, 7 to 11 percent slopes
FEIS	874.50	875.38	No Change in FEIS					
			274.425	1,448,965				