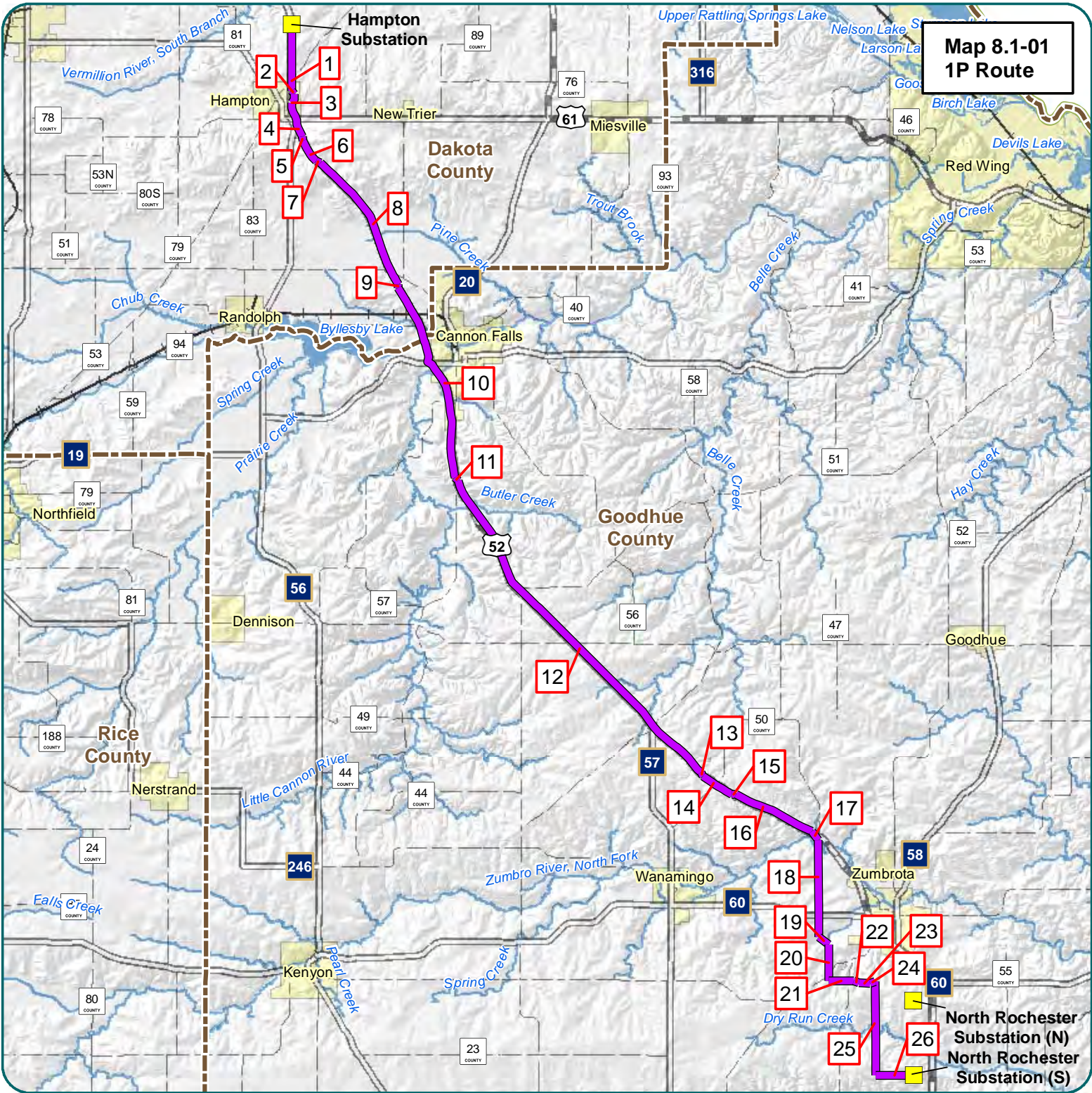


## Appendix D – Detailed Descriptions of Route Alternatives - Minnesota Final EIS

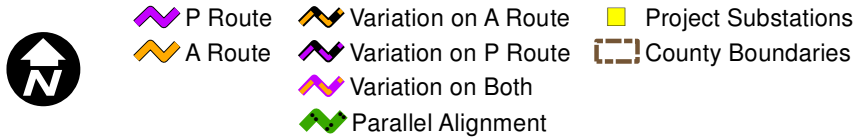
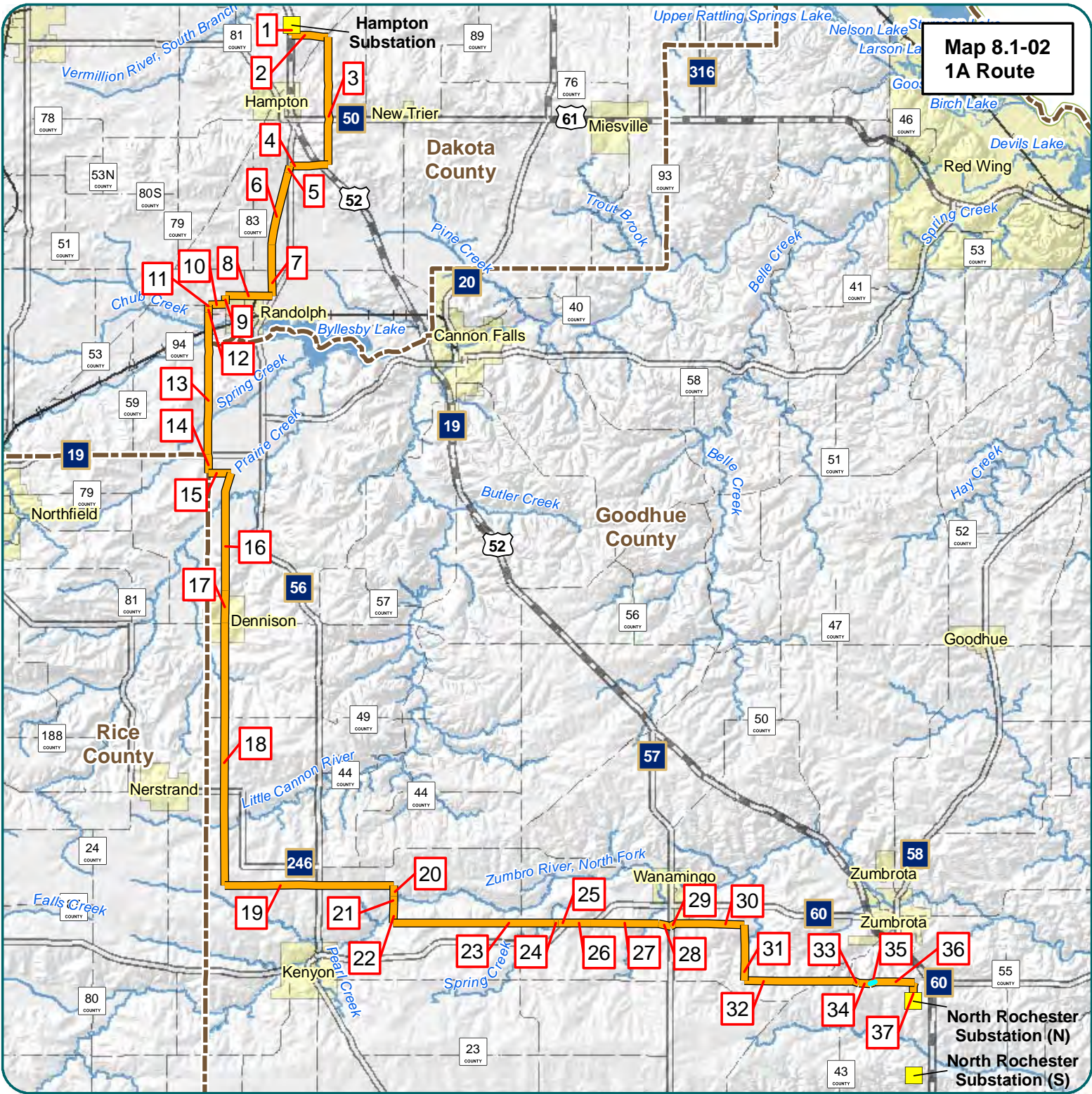
8.1.1 Description of Route Alternatives – Hampton to North Rochester Substation

Hampton to North Rochester (1P)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the Hampton Substation go south following US Hwy 52	1.77	Major Hwy
2	Turn southeast cross-country	0.11	Cross-country
3	Turn south then southwest following field line/cross country to US Hwy 52	0.26	Field Line/Cross-country
4	Turn south/southeast following US Hwy 52	0.96	Major Hwy
5	Turn south crossing US Hwy 52	0.12	Major Hwy
6	Turn southeast following US Hwy 52	0.63	Major Hwy
7	Turn east/southeast crossing US Hwy 52	0.13	Major Hwy
8	Turn southeast following US Hwy 52	3.91	Major Hwy
9	Turn south crossing US Hwy 52	0.11	Major Hwy
10	Turn southeast following US Hwy 52	5.44	Major Hwy
11	Continue southeast crossing US Hwy 52	0.12	Major Hwy
12	Turn south/southeast following US Hwy 52/transmission line	10.23	Major Hwy/Transmission Line
13	Continue south/southeast crossing US Hwy 52	0.12	Major Hwy
14	Turn southeast following US Hwy 52	0.90	Major Hwy
15	Turn east crossing US Hwy 52	0.13	Major Hwy
16	Turn southeast following US Hwy 52/transmission line	2.25	Major Hwy/Transmission Line
17	Turn south/southeast crossing US Hwy 52 then cross-country	0.28	Major Hwy/Cross-country
18	Turn south following field line/cross country	2.58	Field Line/Cross-country
19	Turn south/southeast cross-country	0.32	Cross-country
20	Turn south following field line	0.98	Field Line
21	Turn east following field line	0.66	Field Line
22	Turn east/southeast cross-country	0.15	Cross-country
23	Turn east following field line	0.29	Field Line
24	Turn east/northeast cross-country	0.15	Cross-country
25	Turn south following transmission line	2.51	Transmission Line
26	Turn east following field line/cross-country and enters the proposed North Rochester Substation (S) area	1.01	Field Line/Cross-country
Total Length		36.11	



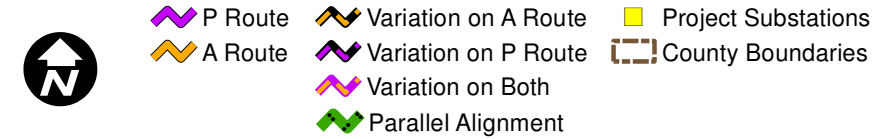
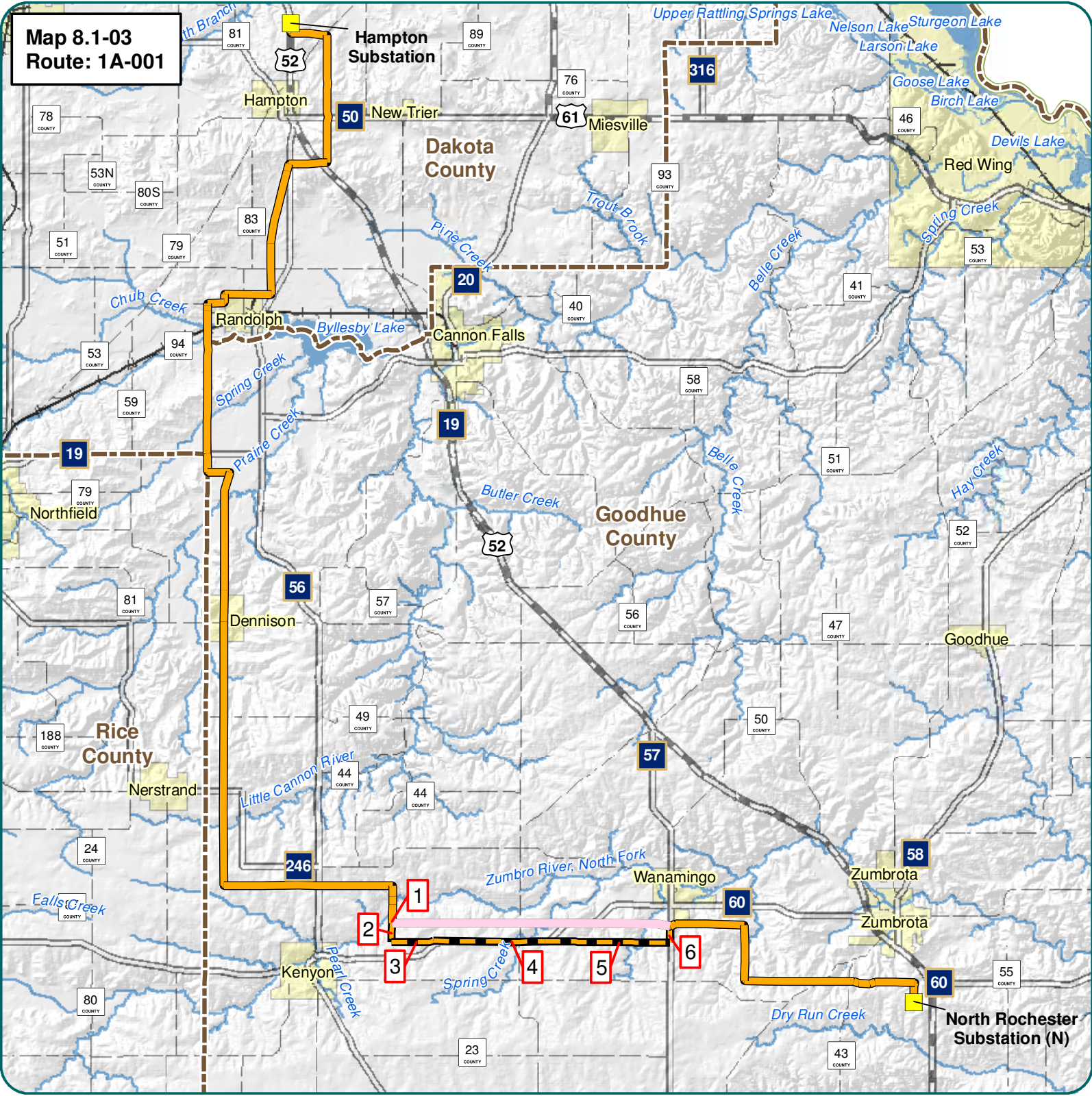


Hampton to North Rochester (1A)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the Hampton Substation go south following US Hwy 52	0.27	Major Hwy
2	Turn east following field line/cross-country	0.97	Field Line/Cross-country
3	Turn south following field line/cross-country	3.40	Field Line/Cross-country
4	Turn west following field line/cross-country	1.03	Field Line/Cross-country
5	Turn southwest cross-country to Douglas State Trail	0.18	Cross-country
6	Continue southwest then south following Douglas State Trail	1.98	Trail
7	Continue south following field line	1.36	Field Line
8	Turn west following field line	1.24	Field Line
9	Turn south following field line	0.23	Field Line
10	Turn west following field line	0.45	Field Line
11	Turn south following field line	0.06	Field Line
12	Continue south following 290th St. SE	0.14	Cty or Twp Road
13	Continue south following field line/cross-country to Goodhue Ave.	3.79	Field Line/Cross-country
14	Continue south following Goodhue Ave.	0.50	Cty or Twp Road
15	Turn east following field line	0.61	Field Line
16	Turn southwest then south following field line/cross-country to 5th Ave. Way	3.17	Field Line/Cross-country
17	Continue south following 5th Ave. Way	0.84	Cty or Twp Road
18	Continue south following field line/cross-country	7.00	Field Line/Cross-country
19	Turn east following field line/cross-country to 50th Ave.	4.49	Field Line/Cross-country
20	Turn south following 50th Ave.	0.28	Cty or Twp Road
21	Continue south cross-country	0.22	Cross-country
22	Continue south following 50th Ave.	0.51	Cty or Twp Road
23	Turn east following field line/cross-country to local road	4.27	Field Line/Cross-country
24	Continue east following local road	0.12	Local Road
25	Continue east following transmission line	0.25	Transmission Line
26	Continue east following MNTH 60/transmission line	0.62	Major Hwy/transmission line
27	Continue east following field line/cross-country	1.80	Field Line/Cross-country
28	Turn east/southeast cross-country	0.32	Cross-country
29	Turn northeast cross-country	0.16	Cross-country
30	Turn east following field line/cross-country	1.83	Field Line/Cross-country
31	Turn south following field line/cross-country	1.50	Field Line/Cross-country
32	Turn east following field line/cross-country	2.91	Field Line/Cross-country
33	Turn east/southeast cross-country	0.15	Cross-country
34	Turn east following field line	0.29	Field Line
35	Turn east/northeast cross-country	0.15	Cross-country
36	Turn east following field line	1.05	Field Line
37	Turn southwest then south following transmission line and enters the Proposed North Rochester Substation (N)	0.49	Transmission Line
Total Length		48.62	



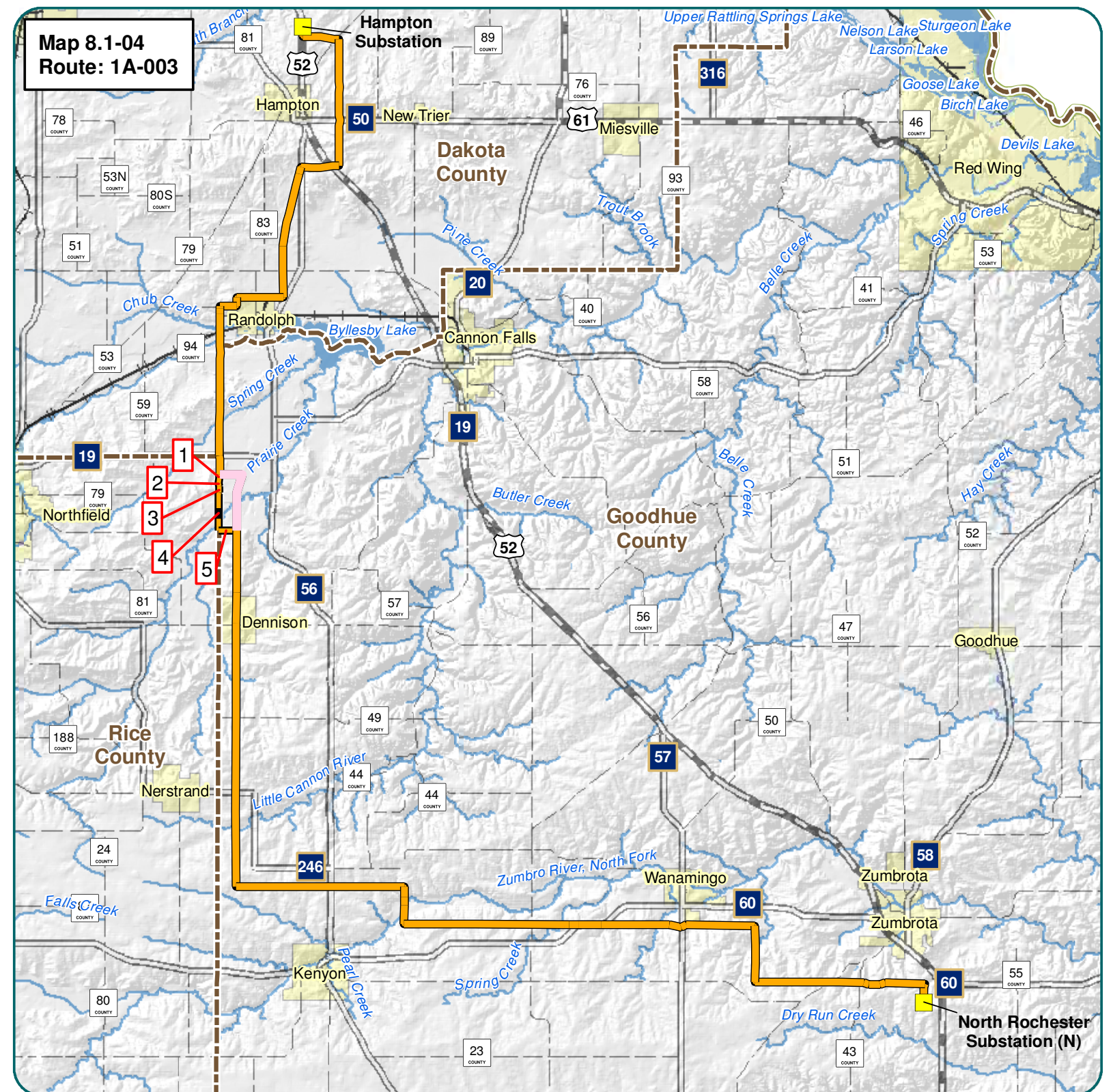


Hampton to North Rochester (1A-001)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until 50th Ave.		
2	Continue south following 50th Ave.	0.50	Cty or Twp Road
3	Turn east following field lines to MN Hwy 60	1.10	Field Line
4	Continue east following MN Hwy 60 along existing transmission line	2.97	Major Hwy/Transmission Line
5	Continue east following 460th Street	3.31	Cty or Twp Road
6	Turn north following TH 57	0.44	Returns to applicant's alternate route - Major Hwy/Transmission Line
Total Length		49.58	





Hampton to North Rochester (1A-003)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until Goodhue Ave.		
2	Continue south following Goodhue Ave. to 350th St.	0.33	Cty or Twp Road
3	Continue south X-Country	0.17	X-Country
4	Continue south following Goodhue Ave. to 350th St.	1.01	Cty or Twp Road
5	Turn east following 350th St.	0.49	Returns to applicant's alternate route - Cty or Twp Road
Total Length		48.48	

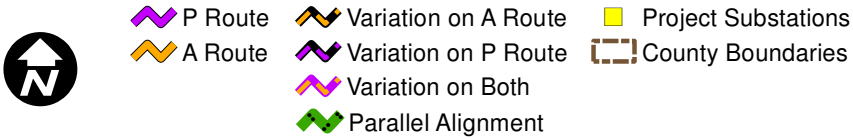
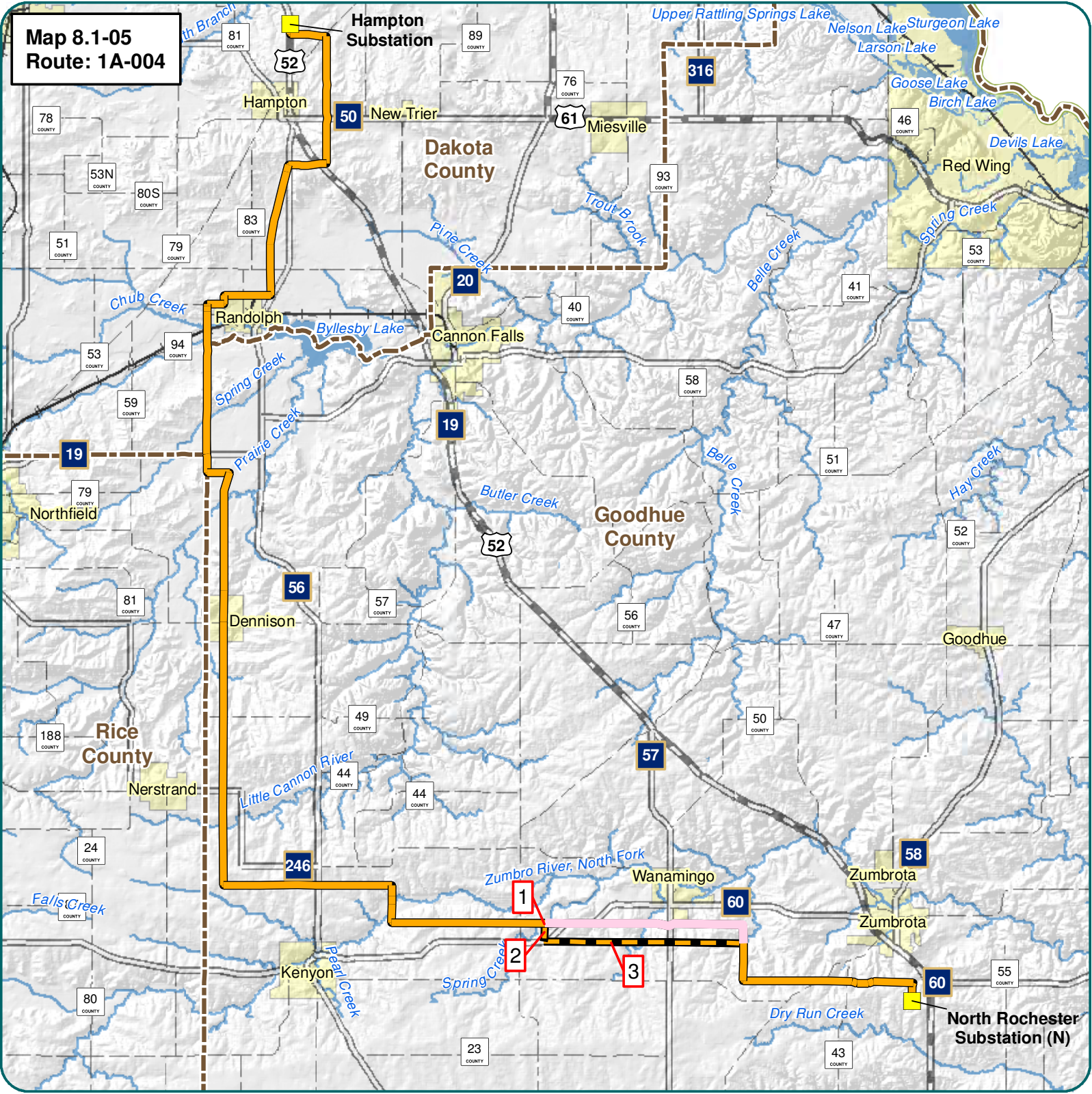


## Section 8.1

## Hampton Substation to North Rochester Substation

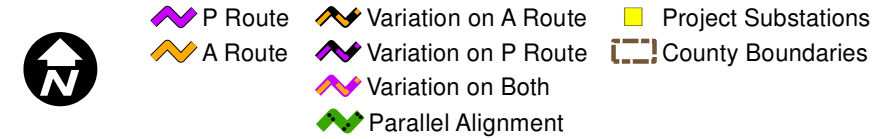
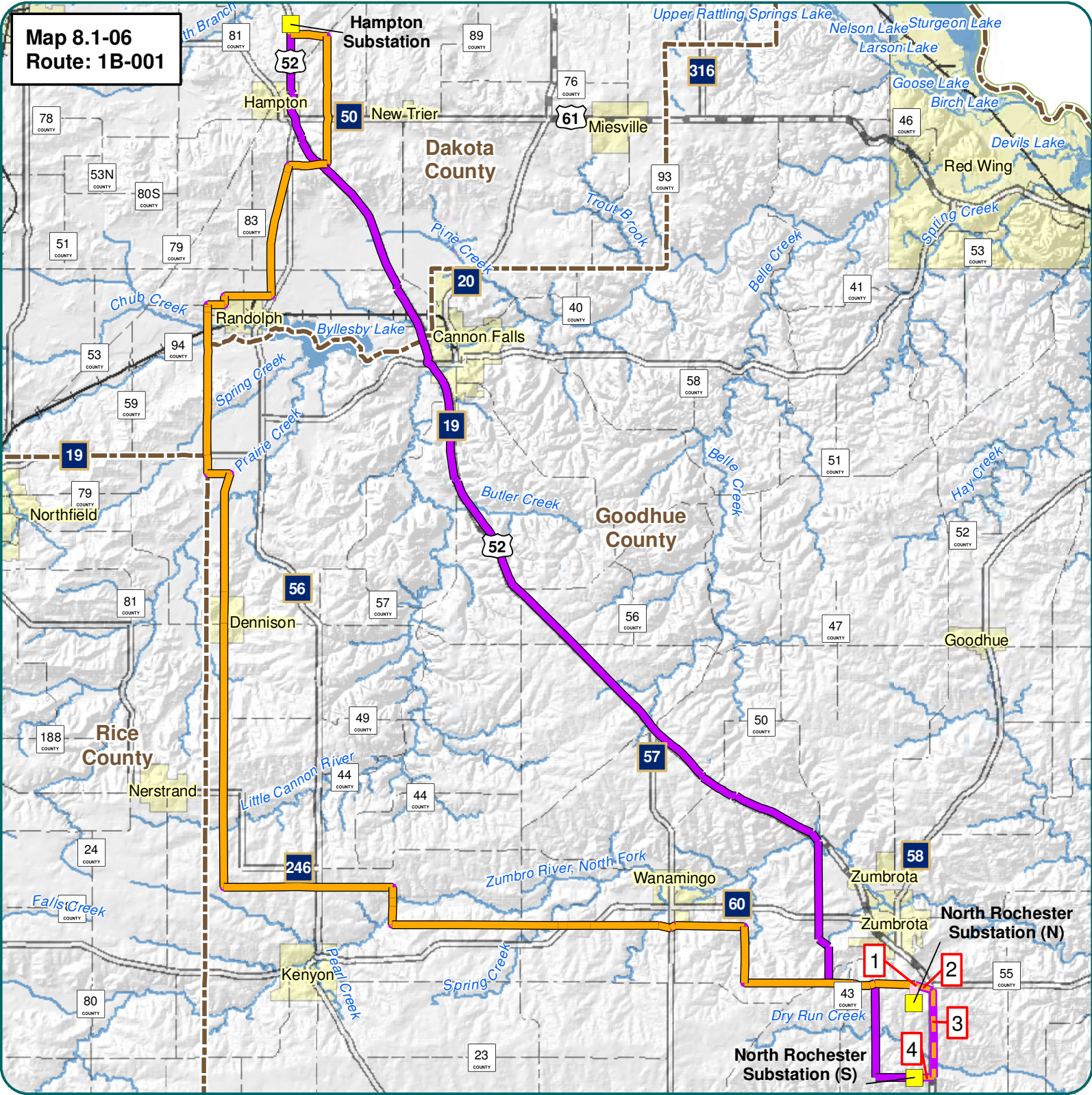


Hampton to North Rochester (1A-004)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until 0.5 miles north of intersection MN Hwy 60 and 460th St.		
2	Turn south following existing transmission line	0.50	Transmission Line
3	Turn east following 460th St.	5.30	Returns to applicant's alternate route - Cty or Twp Road
Total Length		48.63	





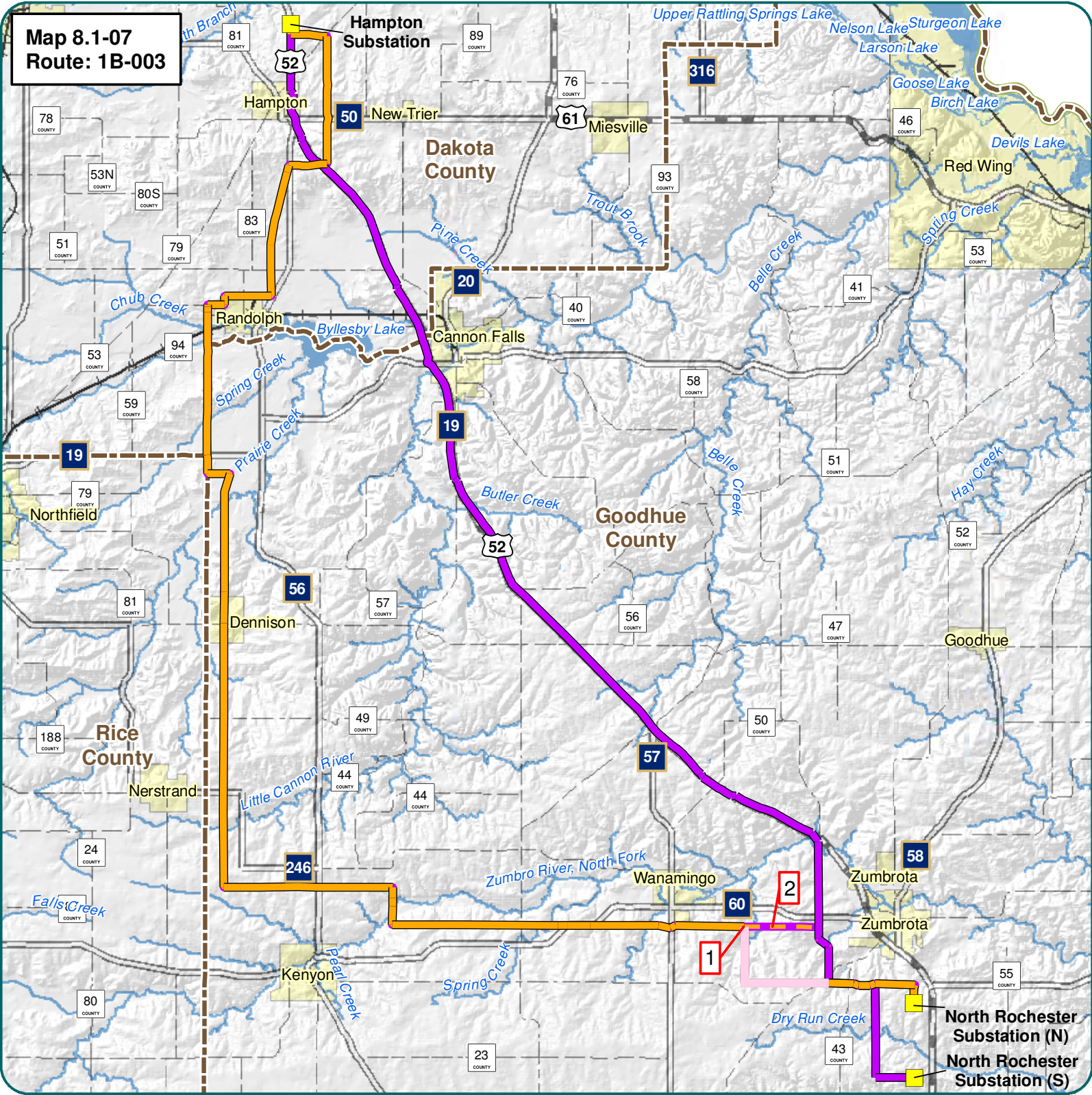
Hampton to North Rochester (1B-001)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until 0.5 miles west of intersection MN Hwy 60 and US Hwy 52		
2	Continue east cross-country to US Hwy 52	0.50	Cross-country
3	Turn south following US Hwy 52	2.32	Major Hwy
4	Turn west following field line	0.52	Connects to North Rochester Substation (S) - Field Line
Total Length		51.46	



Section 8.1  
Hampton Substation to North Rochester Substation

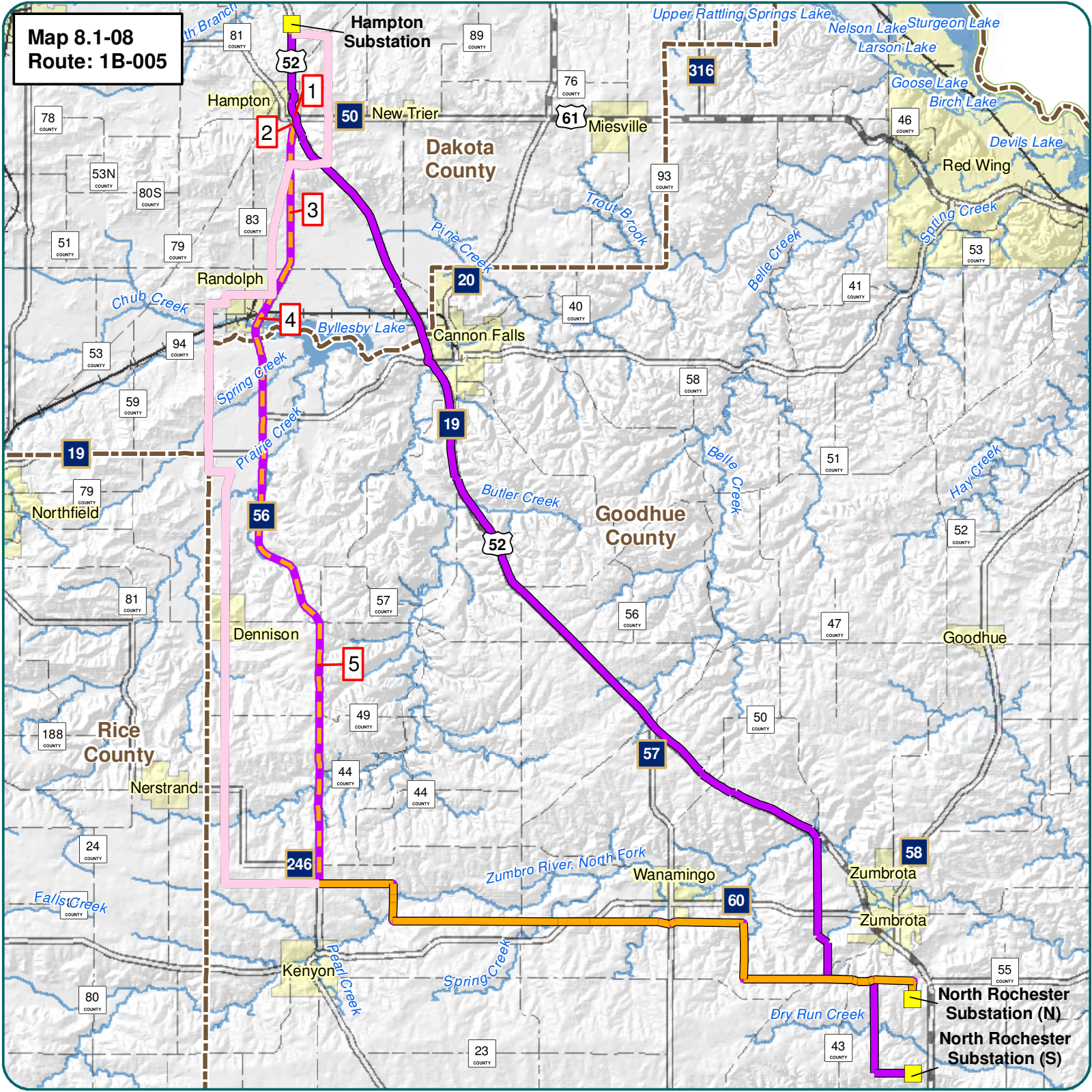


Hampton to North Rochester (1B-003)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until 0.5 miles south of intersection 140th Ave Way and MNTH 60		
2	Continue east cross-country and following field lines	1.99	Returns to applicant's preferred route - Cross-country/field lines
Total Length		48.53	





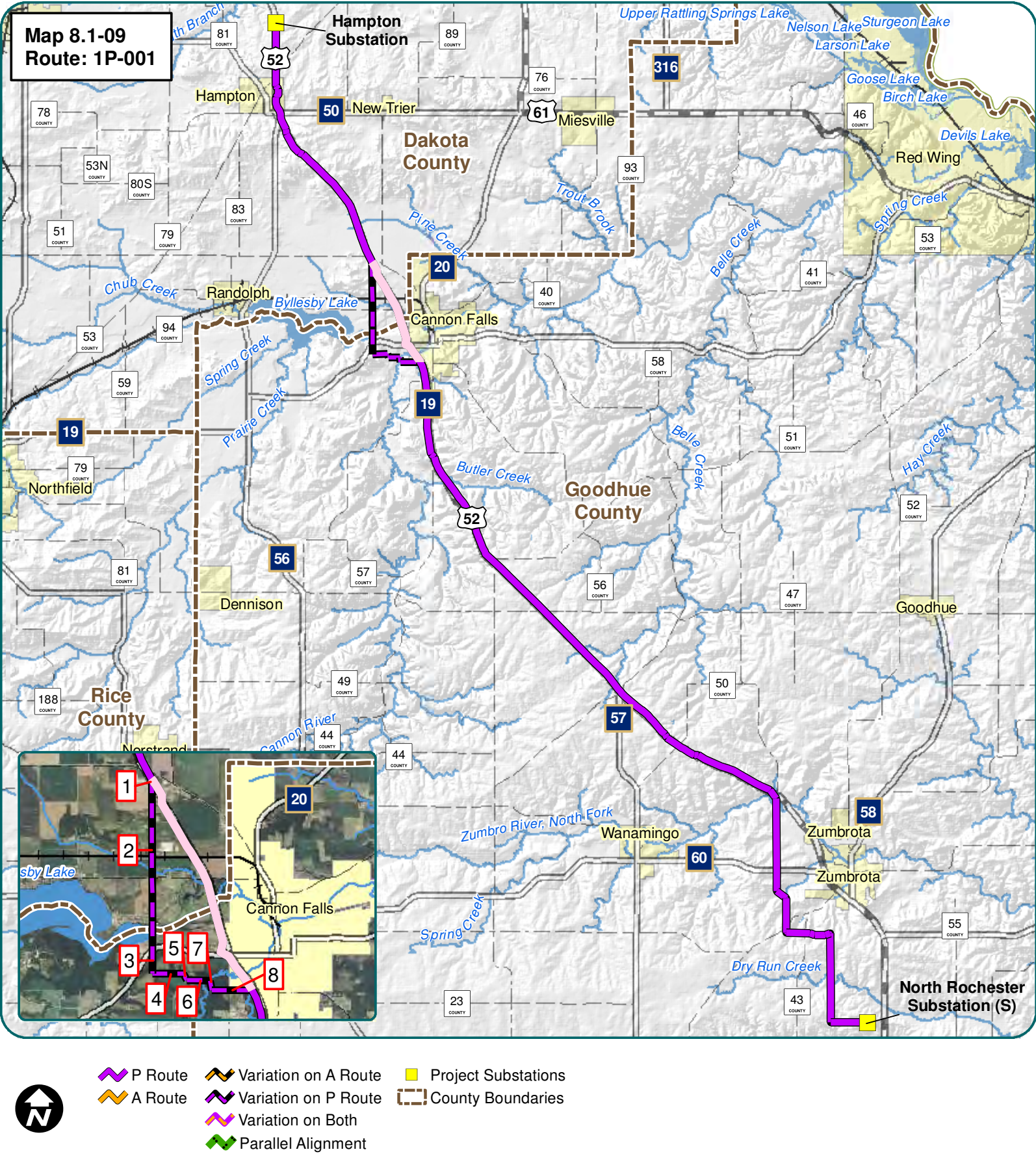
Hampton to North Rochester (1B-005)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of Emery Ave. and Rochester Blvd.		
2	Turn west cross-country to Emery Ave.	0.14	Cross-country
3	Turn south following Emery Ave. (MNTH 56)	3.75	Major Hwy
4	Continue southwest following Randolph Blvd.(MNTH 56)	2.14	Major Hwy
5	Continue south following MN Hwy 56	15.29	Returns to applicant's alternate route - Major Hwy
Total Length		43.04	



Section 8.1  
Hampton Substation to North Rochester Substation

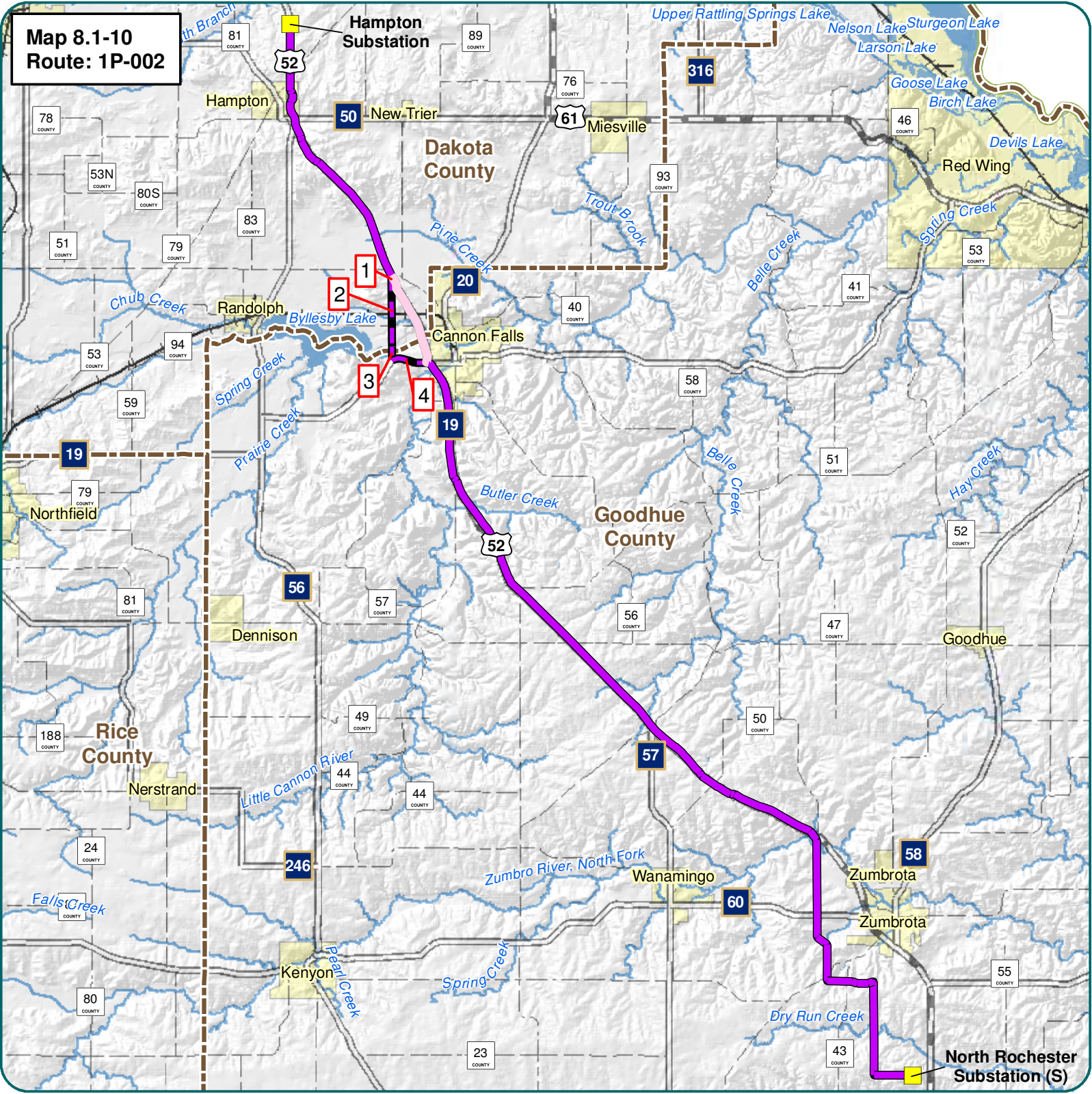


Hampton to North Rochester (1P-001)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of US Hwy 52 and Harry Ave.		
2	Turn south following Harry Ave.	1.90	Cnty or Twp Road
3	Continue south cross-country	0.69	Cross-country
4	Turn east following field line	0.41	Field Line
5	Turn southeast cross-country	0.10	Cross-country
6	Turn east cross-country	0.31	Cross-country
7	Turn southeast cross-country	0.13	Cross-country
8	Turn east cross-country/field lines	0.53	Returns to applicant's preferred route - Cross-country/field lines
Total Length		36.97	





Hampton to North Rochester (1P-002)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of US Hwy 52 and Harry Ave.		
2	Turn south following Harry Ave.	1.90	Cnty or Twp Road
3	Continue south following existing transmission line/cross-country to MN Hwy 19	0.37	Transmission Line
4	Turn east following MN Hwy 19	0.98	Returns to preferred route - Major Hwy
Total Length		36.77	

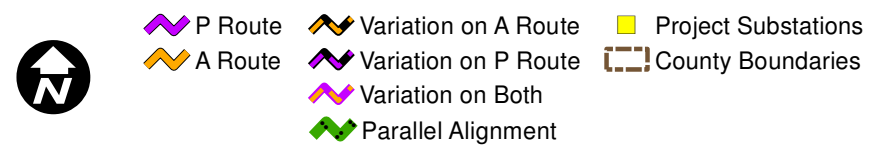
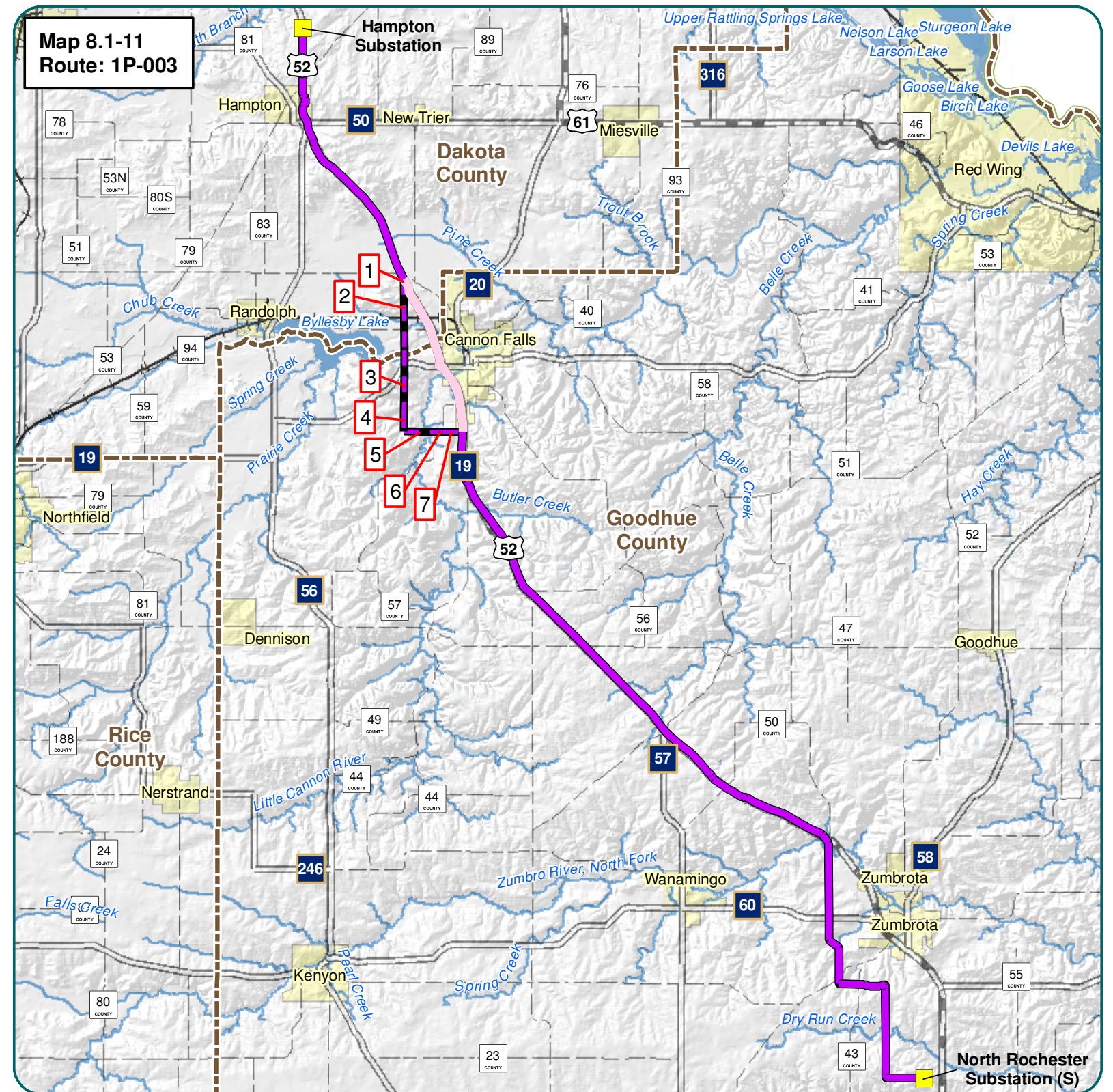


Section 8.1  
Hampton Substation to North Rochester Substation



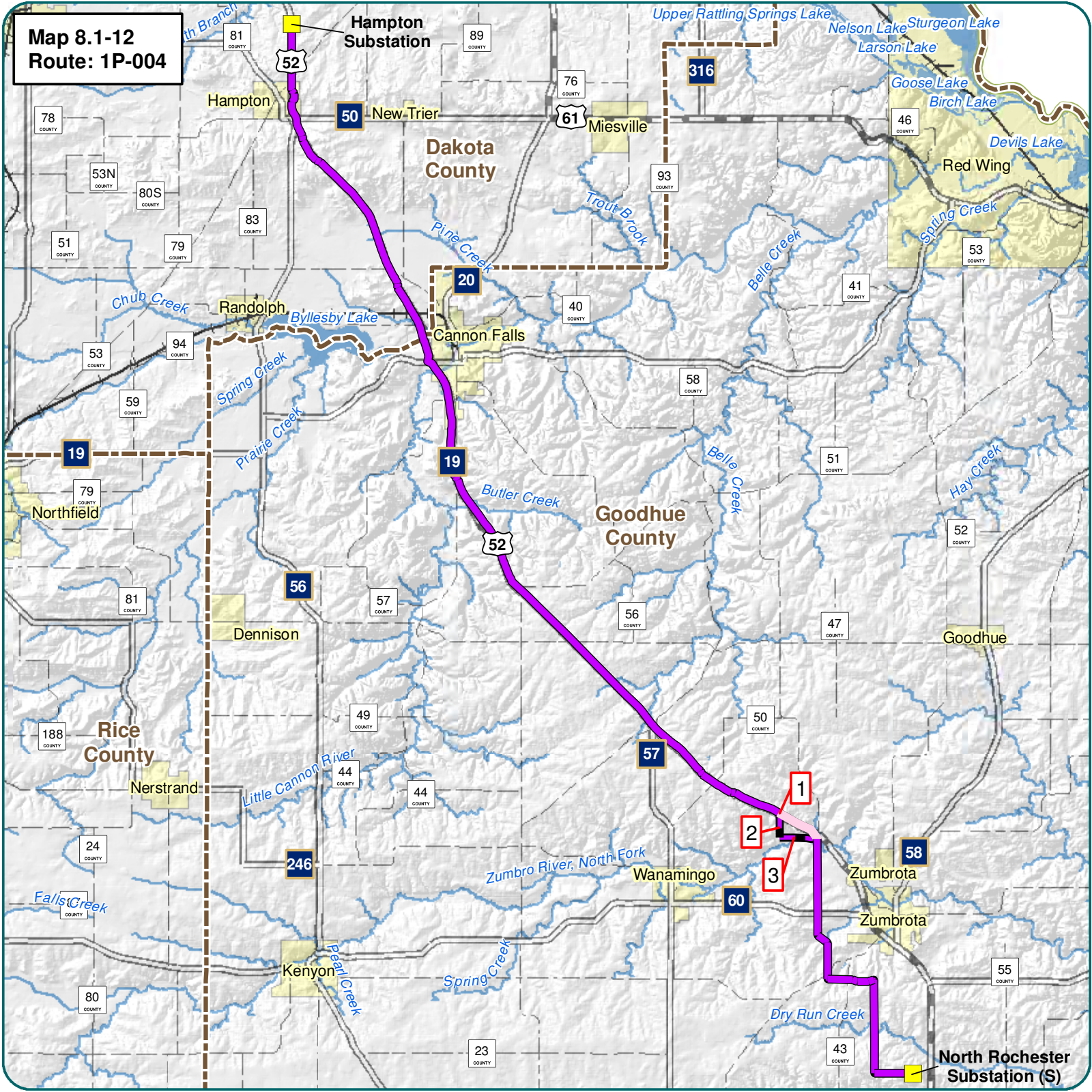
## Section 8.1



Hampton to North Rochester (1P-003)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of US Hwy 52 and Harry Ave.		
2	Turn south following Harry Ave.	1.90	Cnty or Twp Road
3	Continue south cross-country to Stanton Trail	1.66	Cross-country
4	Continue south following Stanton Trail	0.50	Cnty or Twp Road
5	Turn east cross-country/field lines	0.92	Cross-country/field lines
6	Continue east on 323rd St.	0.11	Cnty or Twp Road
7	Continue east cross-country/field lines	0.53	Returns to applicant's preferred route - Cross-country/field lines
Total Length		37.23	









Hampton to North Rochester (1P-004)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.5 miles east of intersection US Hwy 52 and 145th Ave. Way		
2	Turn south following field line	0.68	Field Line
3	Turn east cross-country	1.00	Returns to applicant's preferred route - Cross-country
Total Length		36.52	





- 
-  P Route


 A Route

 Project Substations

 County Boundaries
-  Variation on A Route

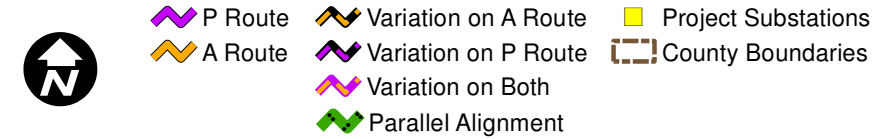
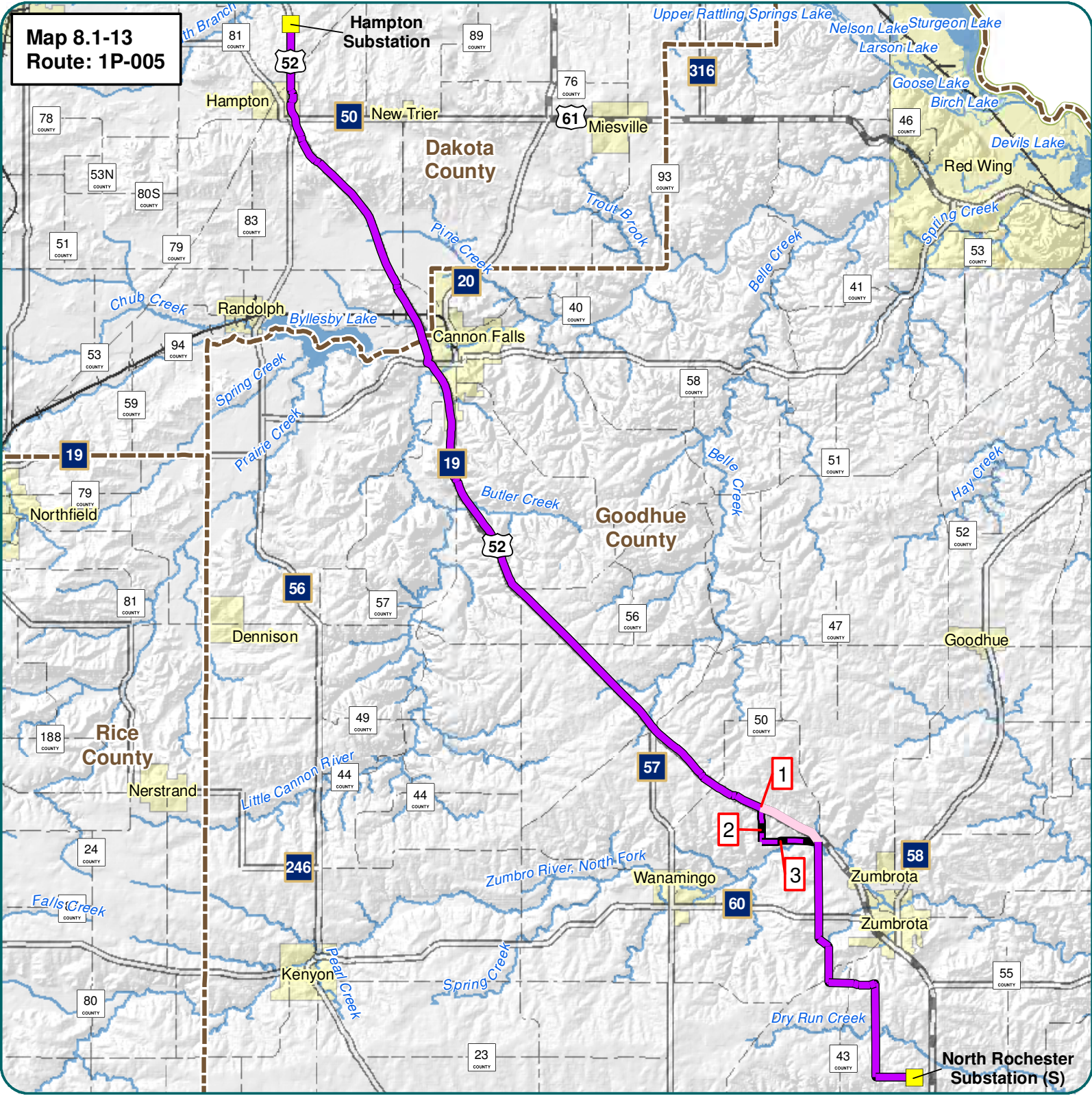
 Variation on P Route

 Variation on Both

 Parallel Alignment

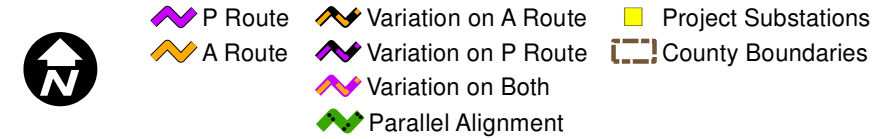
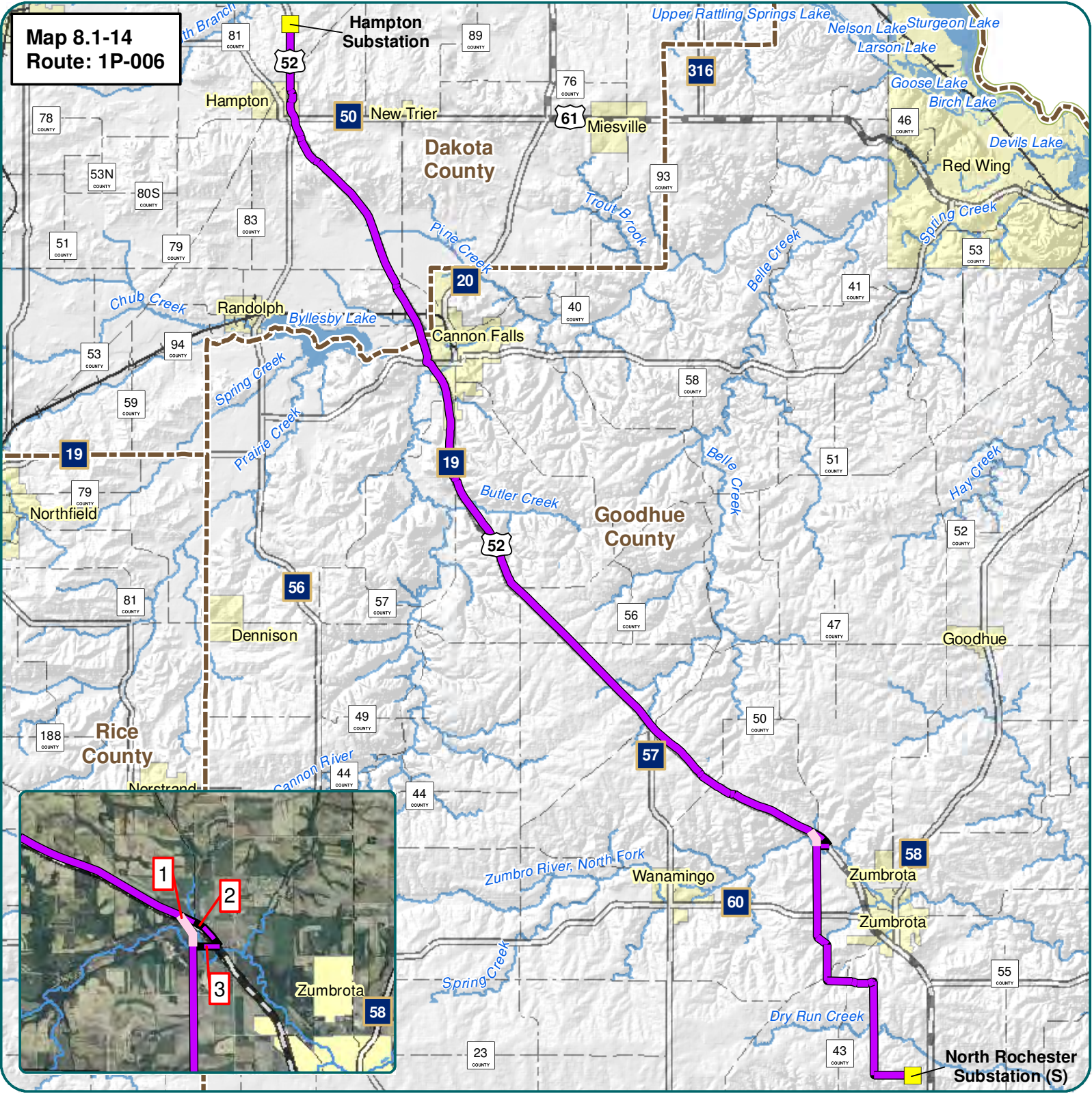


Hampton to North Rochester (1P-005)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of US Hwy 52 and 145th Ave. Way		
2	Turn south following 145th Ave. Way	0.92	Cnty or Twp Road
3	Turn east cross-country/field lines	1.51	Returns to applicant's preferred route - Cross-country/field lines
Total Length		36.71	





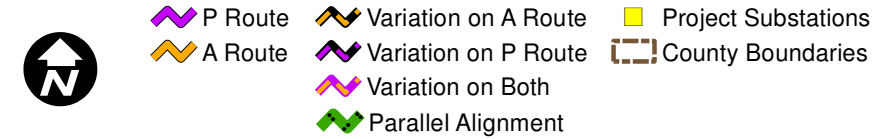
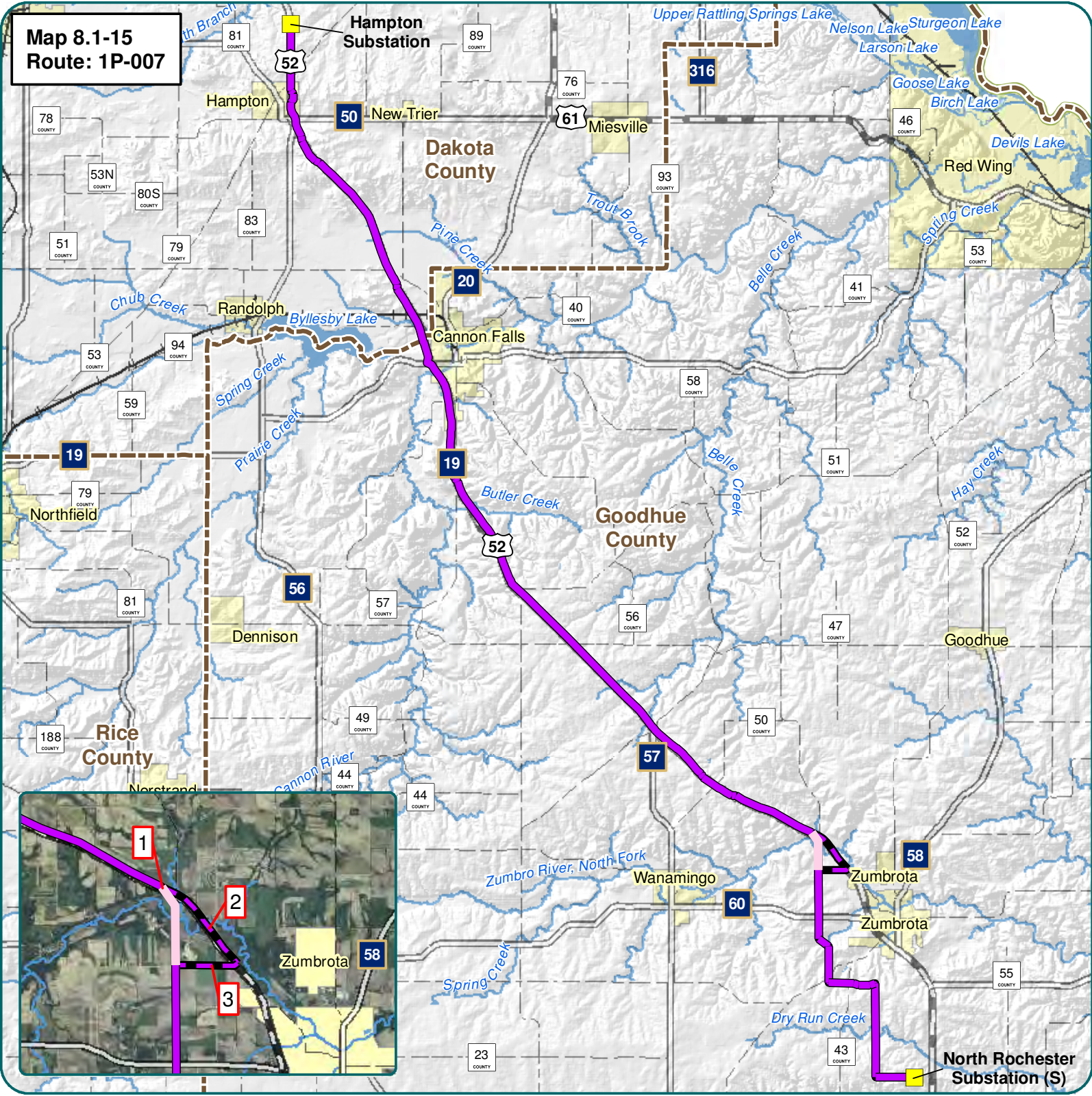
Hampton to North Rochester (1P-006)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.2 miles west of intersection US Hwy 52 and Cty Hwy 7		
2	Continue southeast following US Hwy 52	0.65	Major Hwy/Transmission Line
3	Turn west cross-country	0.33	Returns to applicant's preferred route - Cross-country
Total Length		36.65	



Section 8.1  
Hampton Substation to North Rochester Substation

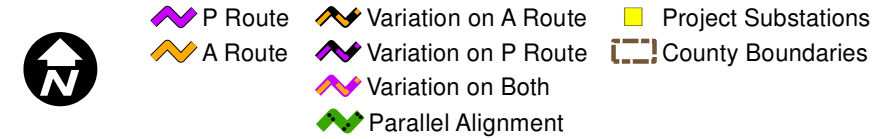
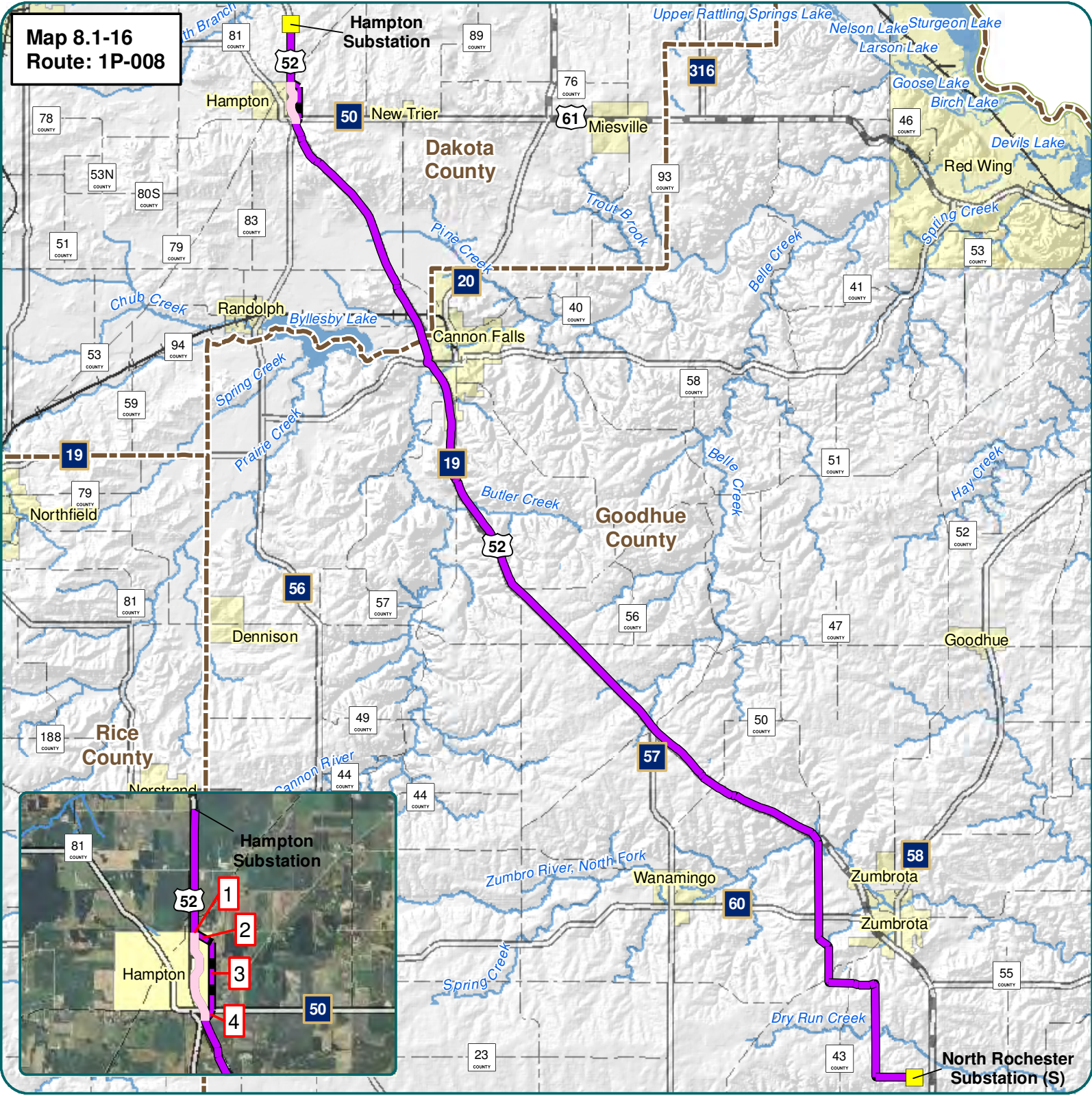


Hampton to North Rochester (1P-007)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.2 miles west of intersection US Hwy 52 and Cty Hwy 7		
2	Continue southeast following US Hwy 52	1.37	Major Hwy/Transmission Line
3	Turn west following 440th St.	0.79	Returns to applicant's preferred route - Cty or Twp Road
Total Length		37.23	



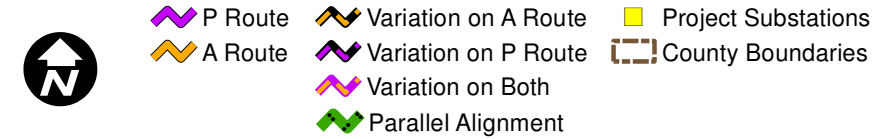
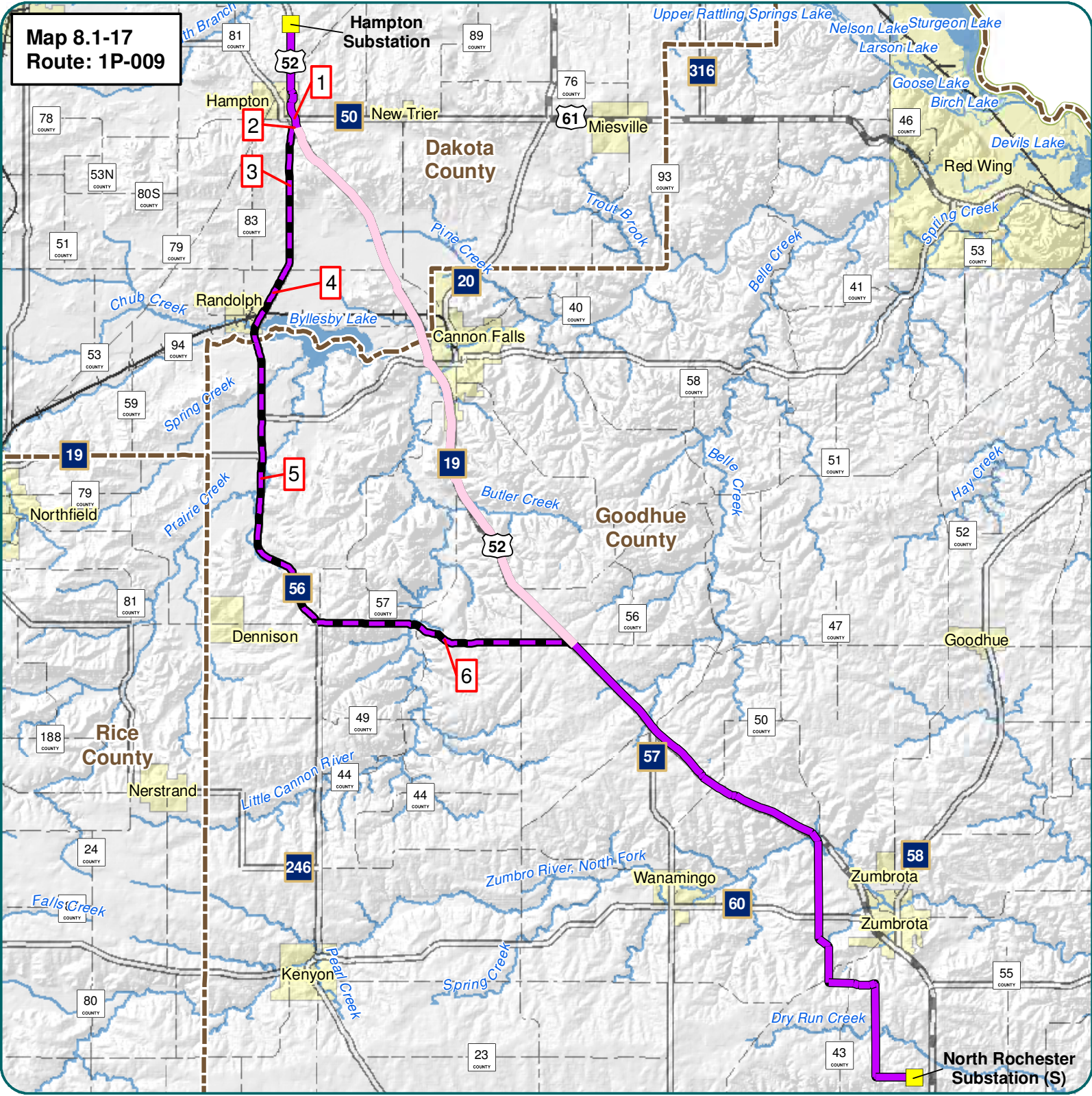


Hampton to North Rochester (1P-008)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.2 miles south of the intersection US Hwy 52 and CSAH 47		
2	Turn southeast cross-country	0.25	Cross-country
3	Turn south field lines/cross-country	0.84	Cross-country
4	Turn southwest cross-country	0.17	Returns to applicant's preferred route - Cross-country
Total Length		36.19	



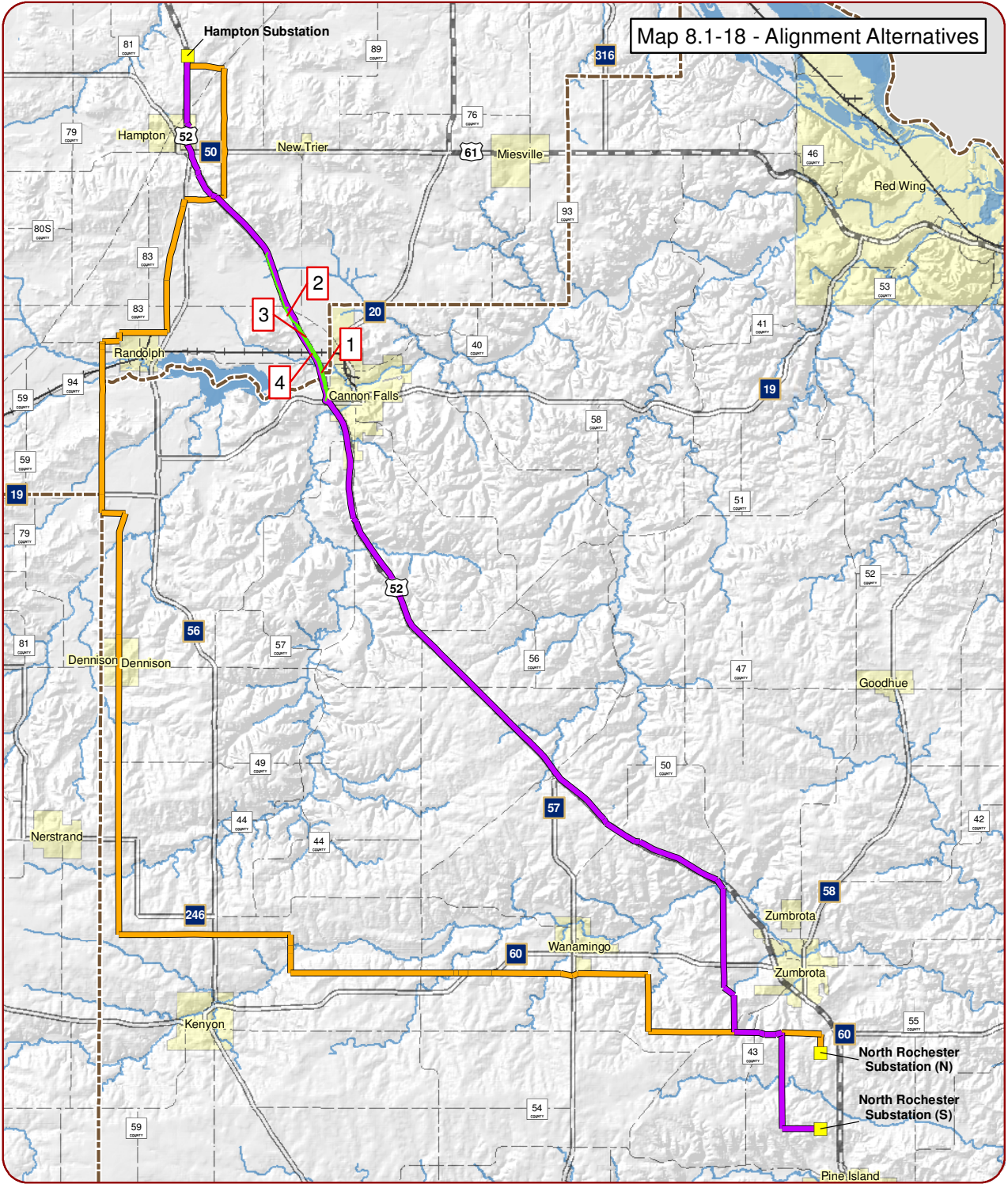
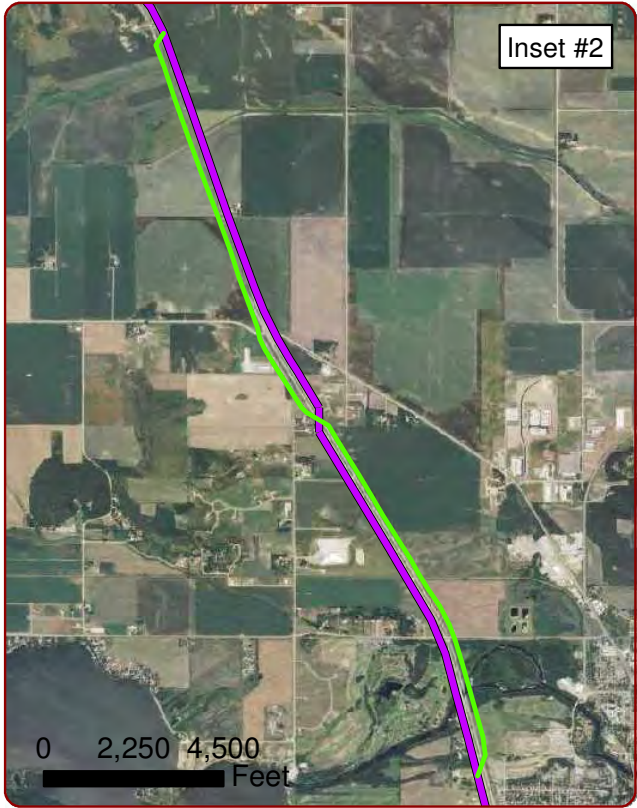


Hampton to North Rochester (1P-009)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 Follow the applicant's preferred route until 0.1 miles south of the intersection of Emery Ave. and Rochester Blvd.		
2 Turn west cross-country to Emery Ave.	0.14	Cross-country
3 Turn south following Emery Ave.	3.66	Major Hwy
4 Continue south following Randolph Blvd.	2.29	Major Hwy
5 Continue south/southeast following MN Hwy 56	8.20	Major Hwy
6 Turn east following CSAH 9	7.04	Returns to applicant's preferred route - Cty or Twp Road
Total Length	41.27	

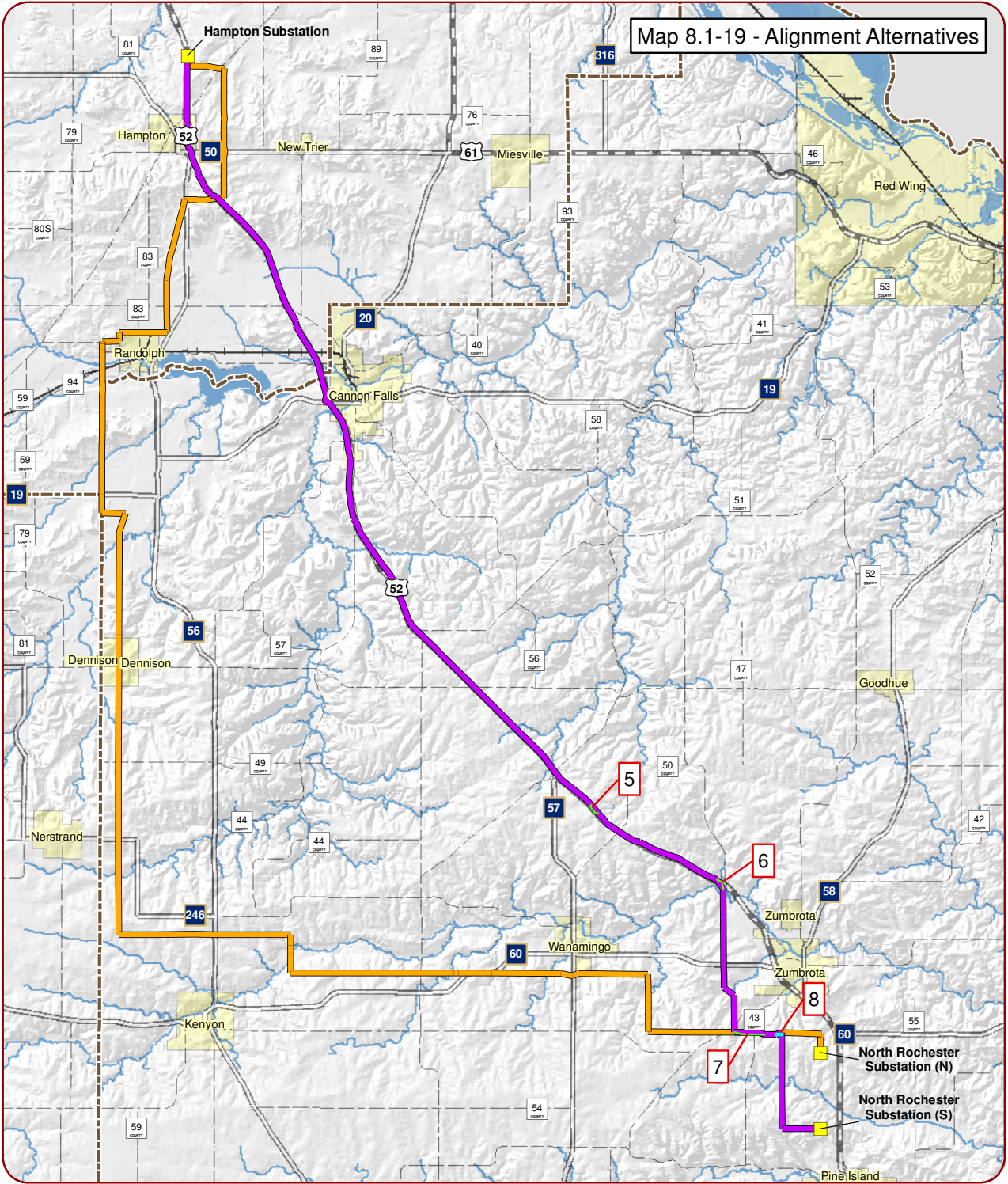
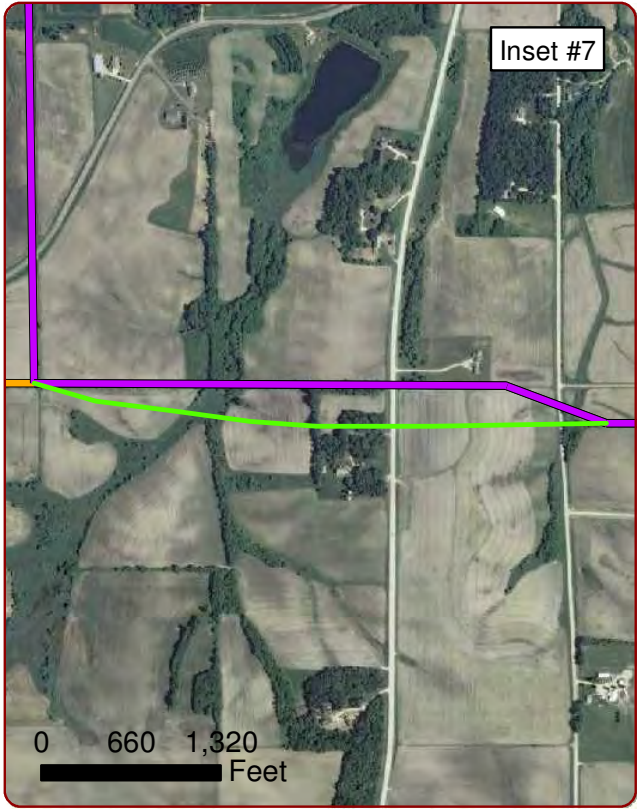




Section 8.1  
Hampton Substation to North Rochester Substation



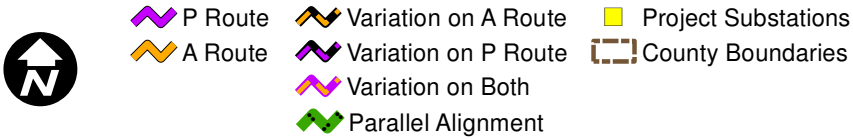
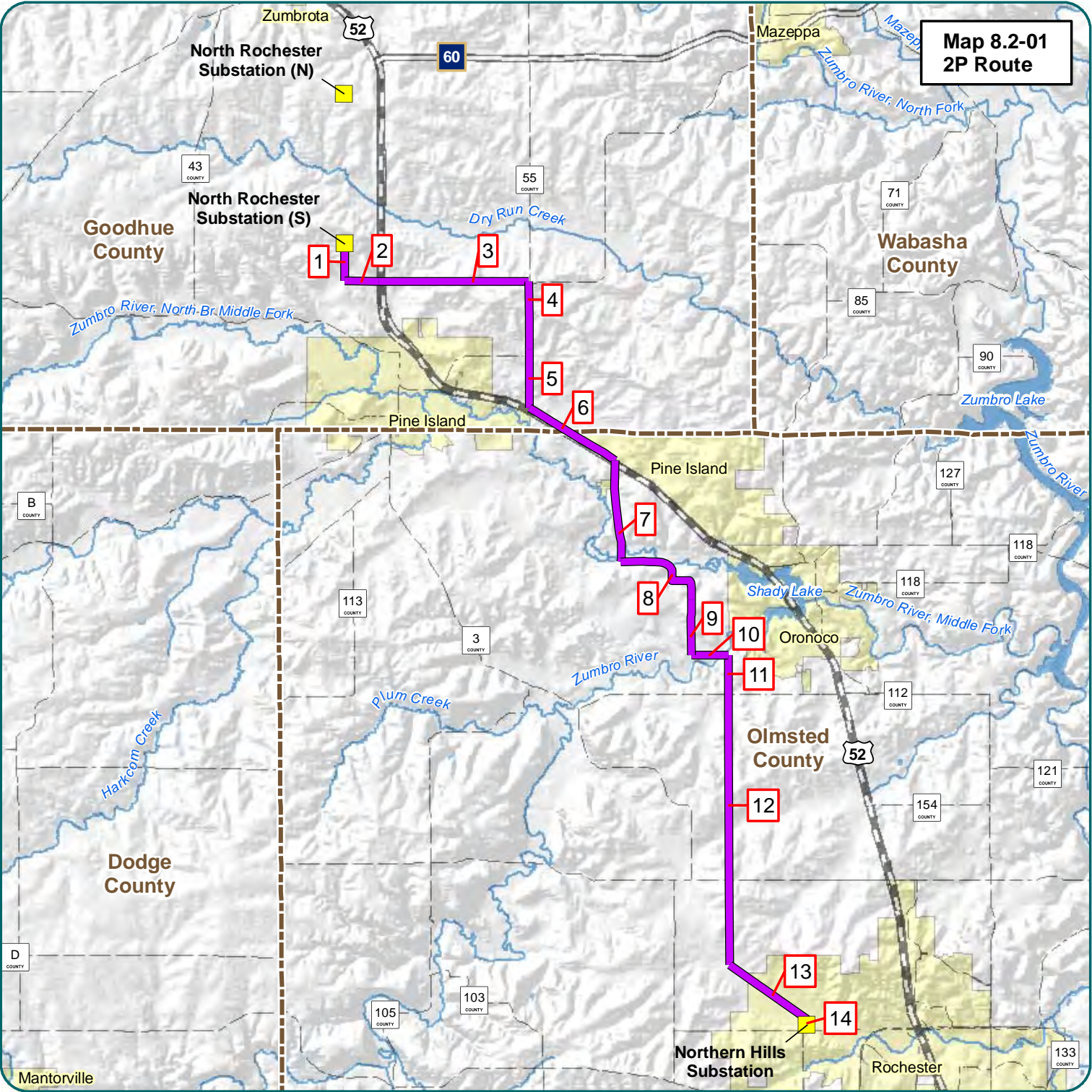






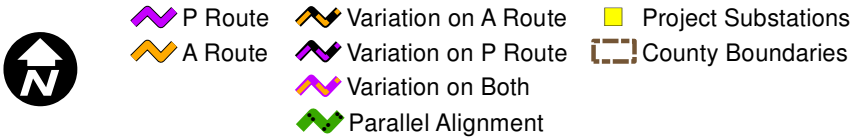
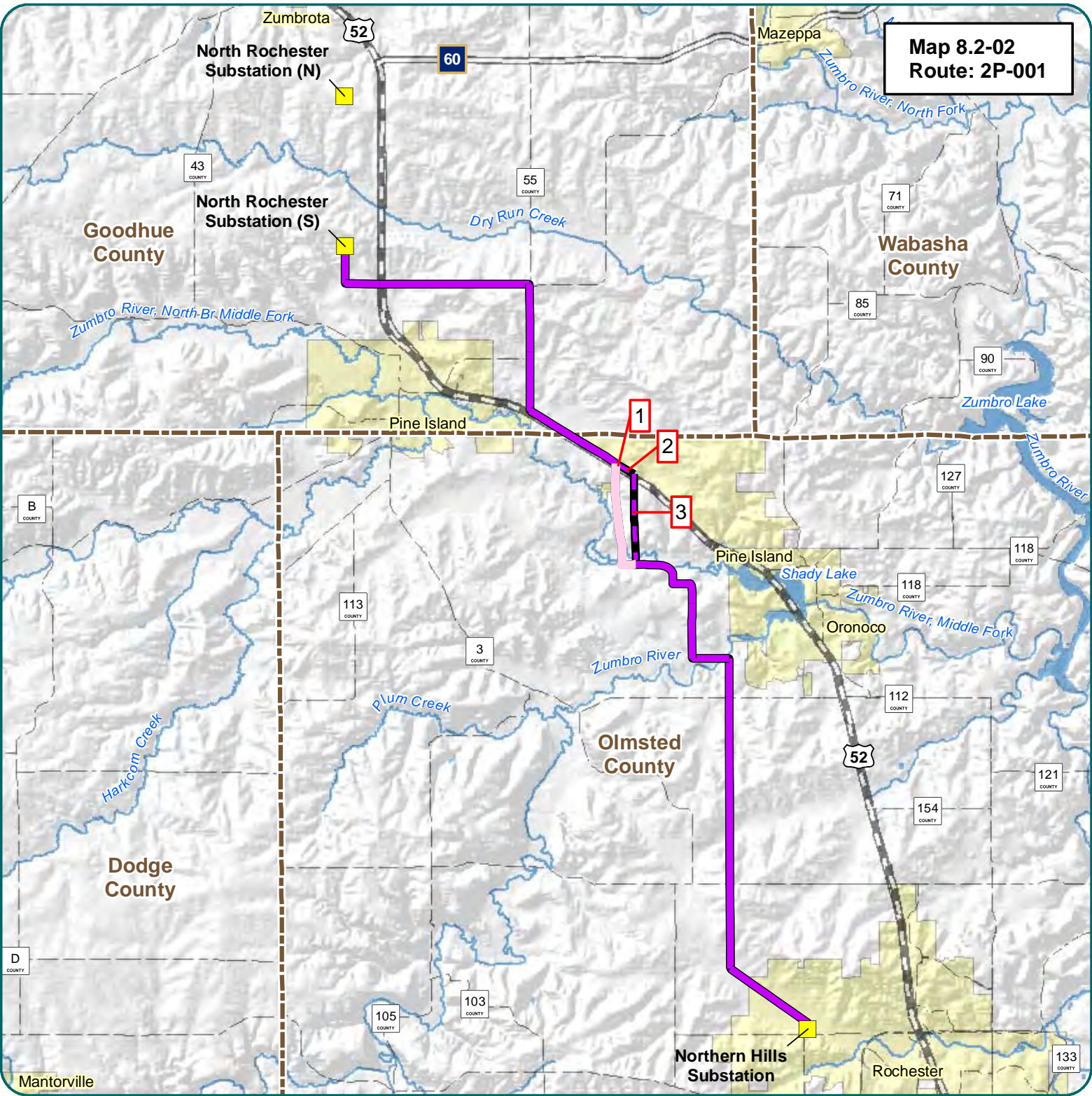
8.2.1 Description of Route Alternatives – North Rochester Substation to Northern Hills Substation

North Rochester to Northern Hills (2P)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the proposed North Rochester Substation (S) go south following transmission line	0.51	Transmission Line
2	Turn east following field line	0.46	Field Line
3	Continue east following 500th St.	2.00	Cty or Twp Road
4	Turn south following CSAH 11	0.90	Cty or Twp Road
5	Continue south following 210th Ave	0.78	Cty or Twp Road
6	Turn southeast following MN Hwy 52	1.34	Major Hwy
7	Turn south following CSAH 31	1.36	Cty or Twp Road
8	Turn east then south following 117th St. NW	1.35	Cty or Twp Road
9	Continue south following 65th Ave NW	0.74	Cty or Twp Road
10	Turn east following field line/cross-country	0.49	Field Line/Cross-country
11	Turn south cross-country to 60th Ave NW	0.50	Cross-country
12	Continue south following 60th Ave NW	3.62	Cty or Twp Road
13	Turn southeast following Douglas State Trail/Transmission line	1.26	Trail/Transmission Line
14	Turn south following transmission line and enters the Northern Hills Substation Area	0.08	Transmission Line
Total Length		15.39	





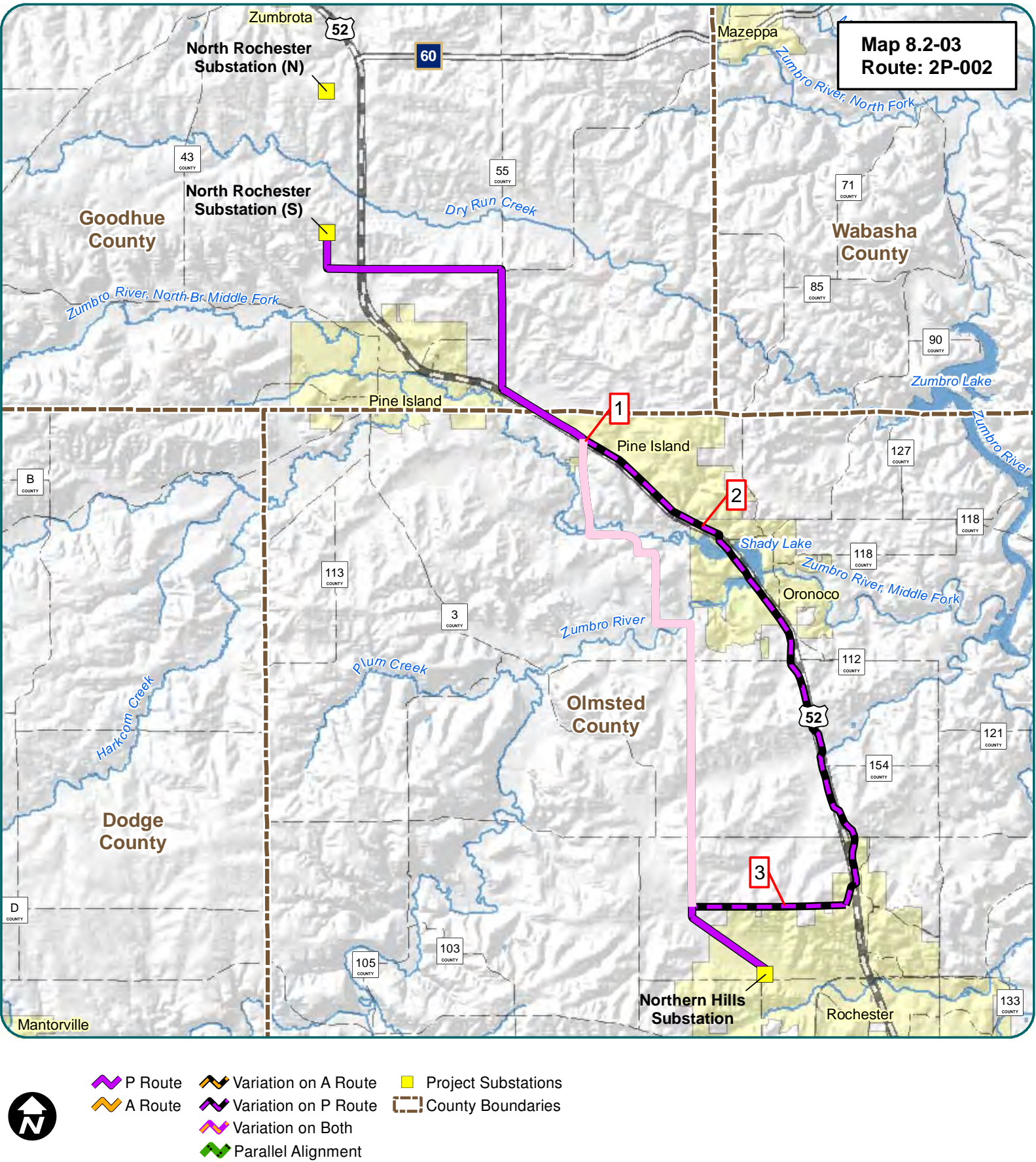
North Rochester to Northern Hills (2P-001)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of US Hwy 52 and CSAH 31		
2	Continue southwest following US Hwy 52	0.28	Major Hwy
3	Turn south cross-country	1.21	Returns to preferred route - Cross-country
Total Length		15.32	



Section 8.2  
North Rochester Substation to Northern Hills Substation

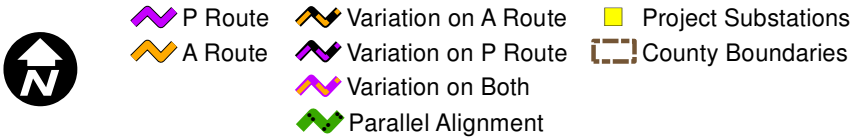
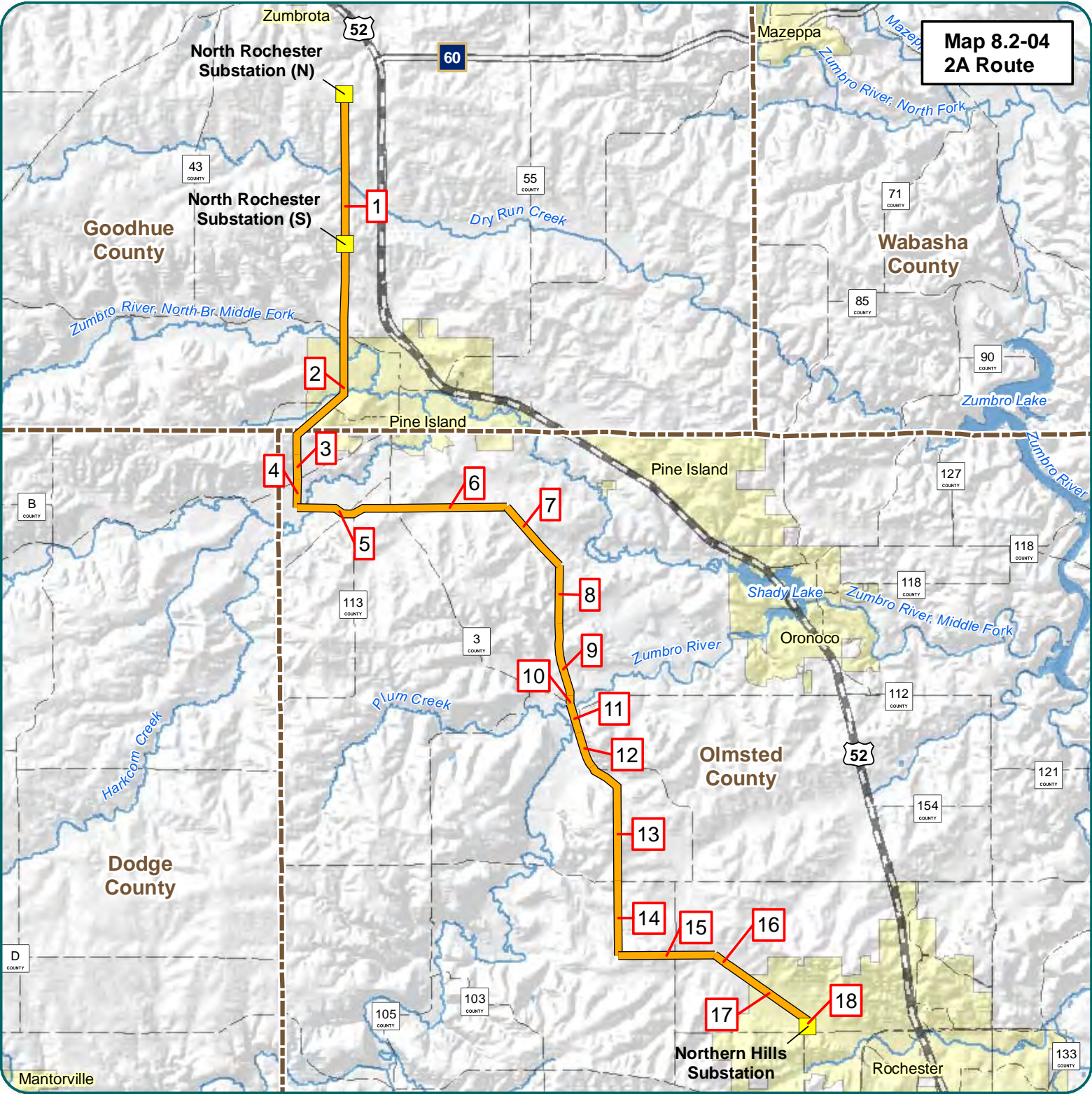


North Rochester to Northern Hills (2P-002)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of US Hwy 52 and CSAH 31		
2	Continue southwest following US Hwy 52 to 65th St. NW	8.20	Major Hwy
3	Turn west following 65th St. NW	2.15	Returns to preferred route - Cnty or Twp Road
Total Length		17.84	



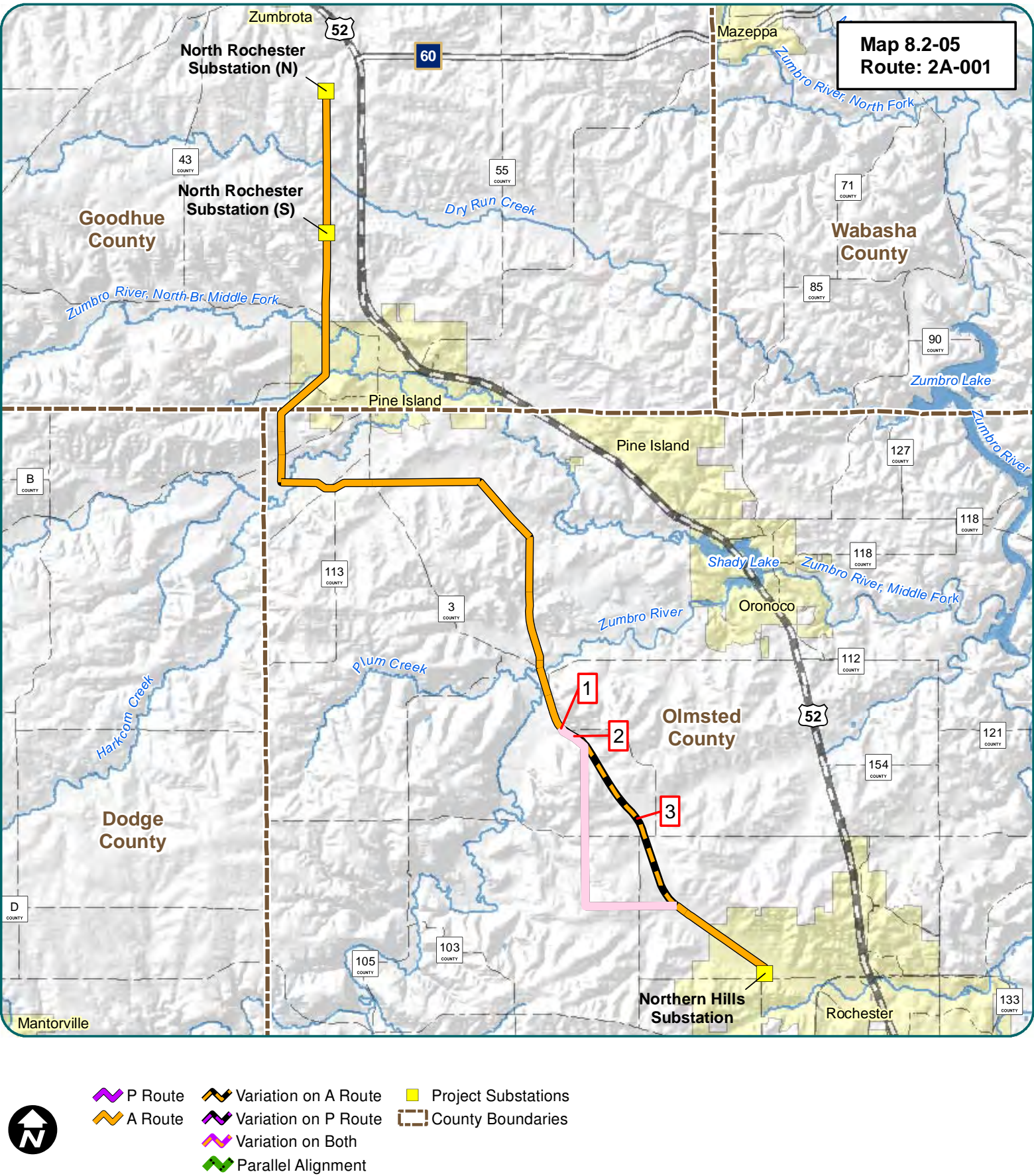


North Rochester to Northern Hills (2A)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (N) go south following transmission line to North Rochester Substation (S)	1.99	Transmission Line
2	From the North Rochester Substation (S) go south/southwest following transmission line	3.09	Transmission Line
3	Continue south following T-1382 and transmission line	0.32	Cty or Twp Road/Transmission Line
4	Continue south following transmission line	0.38	Cty or Twp Road/Transmission Line
5	Turn east following field line/cross-country to 125th St. NW	1.32	Field Line/Cross-country
6	Continue east following 125th St. NW	1.52	Cty or Twp Road
7	Turn southeast following Douglas State Trail	1.04	Trail
8	Turn south following field line/cross-country to New Haven Road NW	0.77	Field Line/Cross-country
9	Continue south following New Haven Road NW	0.98	Cty or Twp Road
10	Continue south cross-country to Douglas State Trail	0.11	Cross-country
11	Turn southeast following Douglas State Trail	0.40	Trail
12	Continue southeast following CSAH 3	0.49	Cty or Twp Road
13	Continue southeast then south following 75th Ave. NW	1.69	Cty or Twp Road
14	Continue south following field line	0.99	Field Line
15	Turn east following 65th St. NW	1.29	Cty or Twp Road
16	Turn southeast following Douglas State Trail	0.15	Trail
17	Continue southeast following Douglas State Trail/Transmission line	1.36	Trail/Transmission Line
18	Turn south following transmission line and enters the Northern Hills Substation Area	0.08	Transmission Line
Total Length		17.97	



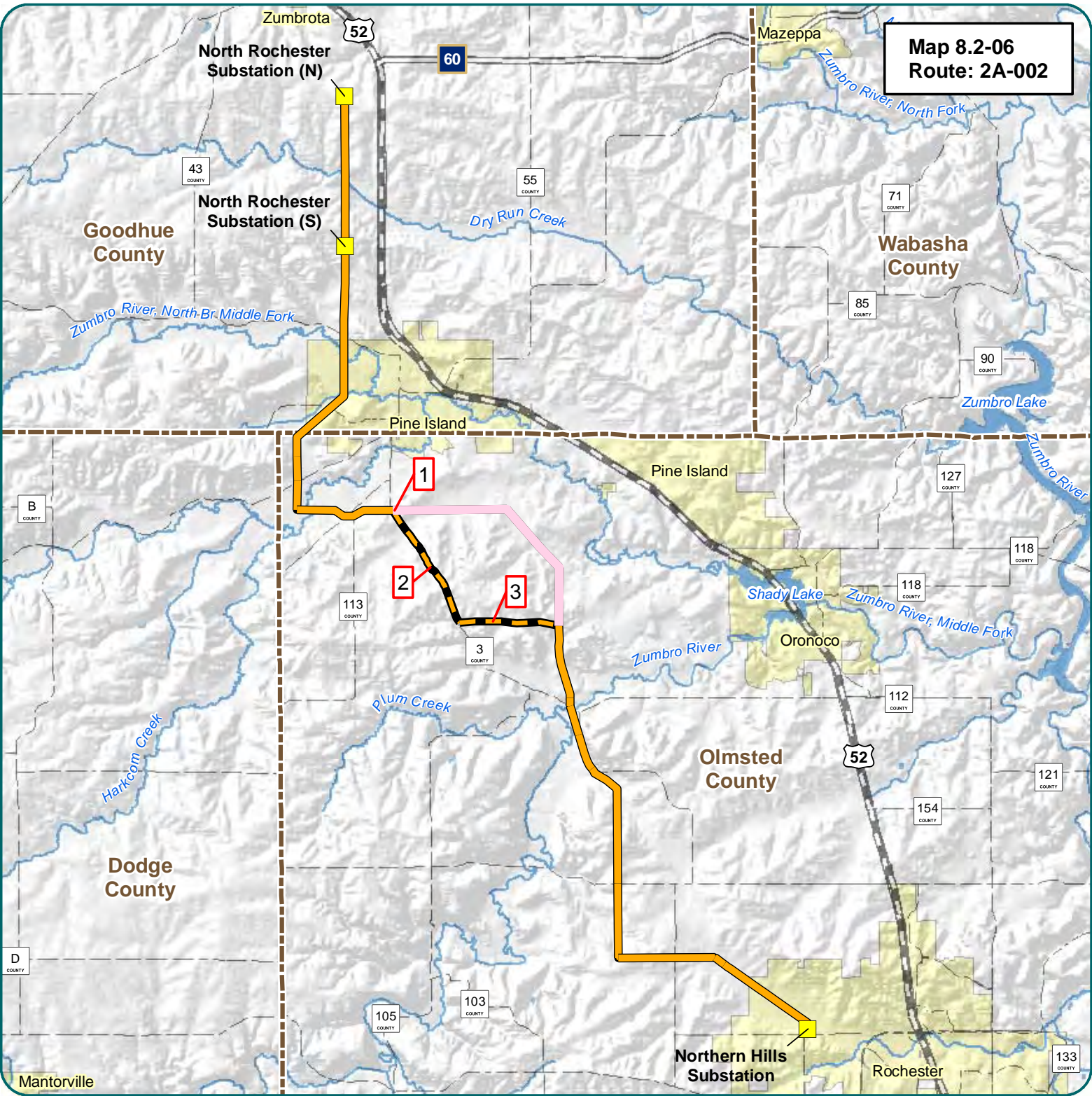




North Rochester to Northern Hills (2A-001)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route just north of intersection 90th Street and 75th Ave. NW		
2	Turn southeast following 75th Ave. NW	0.41	Cty or Twp Road
3	Continue southeast following Douglas Trail	2.66	Returns to applicant's alternate route - Trail
Total Length		17.07	


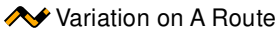


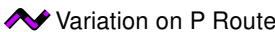



North Rochester to Northern Hills (2A-002)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until the intersection of 125th St. and CSAH 3		
2	Turn southeast following CSAH 3	1.76	Cty or Twp Road
3	Turn east cross-country/field lines	1.33	Returns to applicant's alternate route - Cross-country/field lines
Total Length		17.72	






- 
-  P Route

 A Route
-  Variation on A Route

 Variation on P Route

 Variation on Both

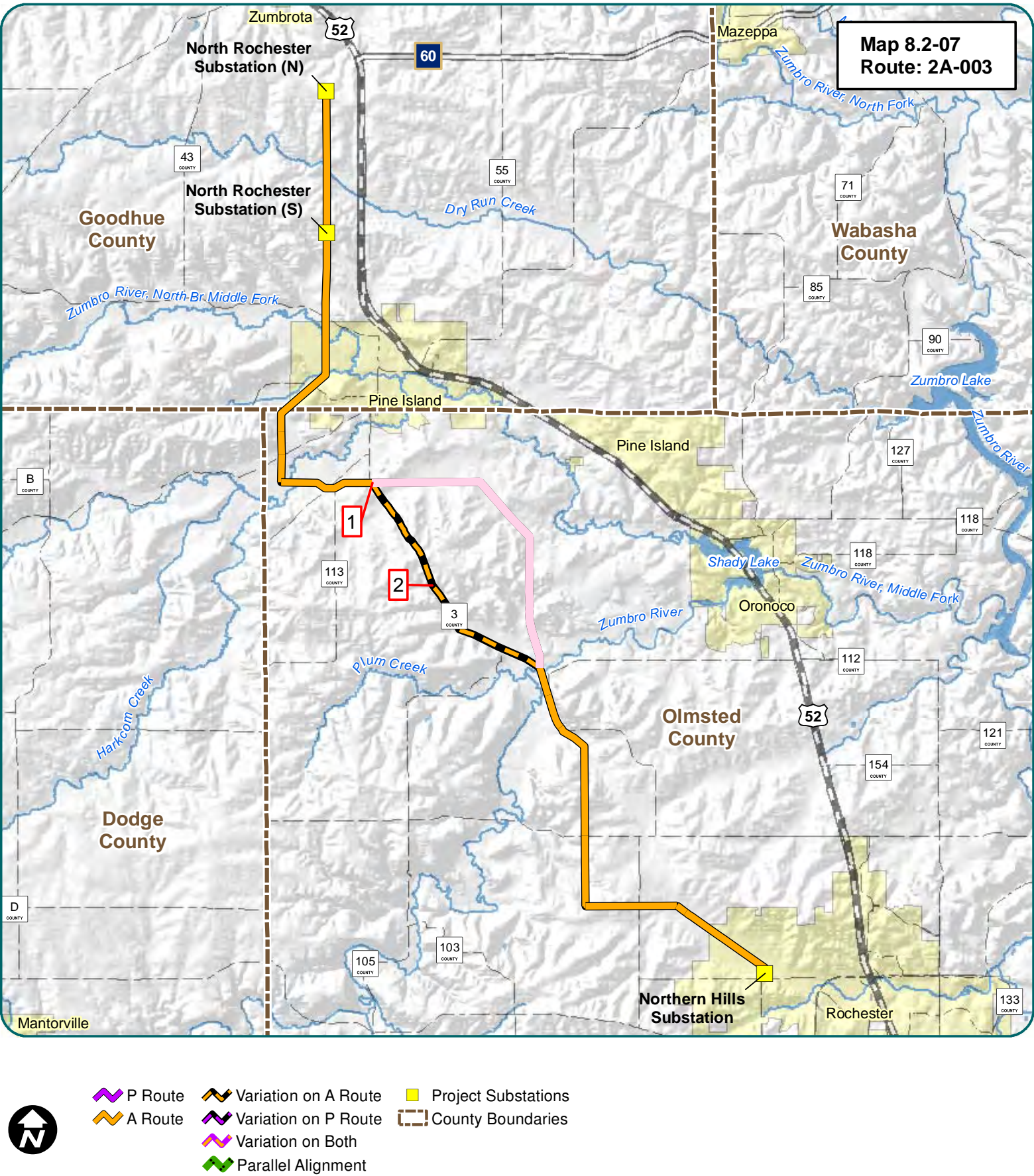
 Parallel Alignment
-  Project Substations

 County Boundaries

Section 8.2  
North Rochester Substation to Northern Hills Substation

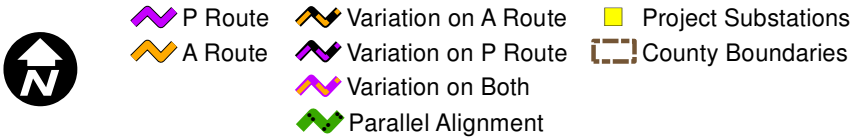
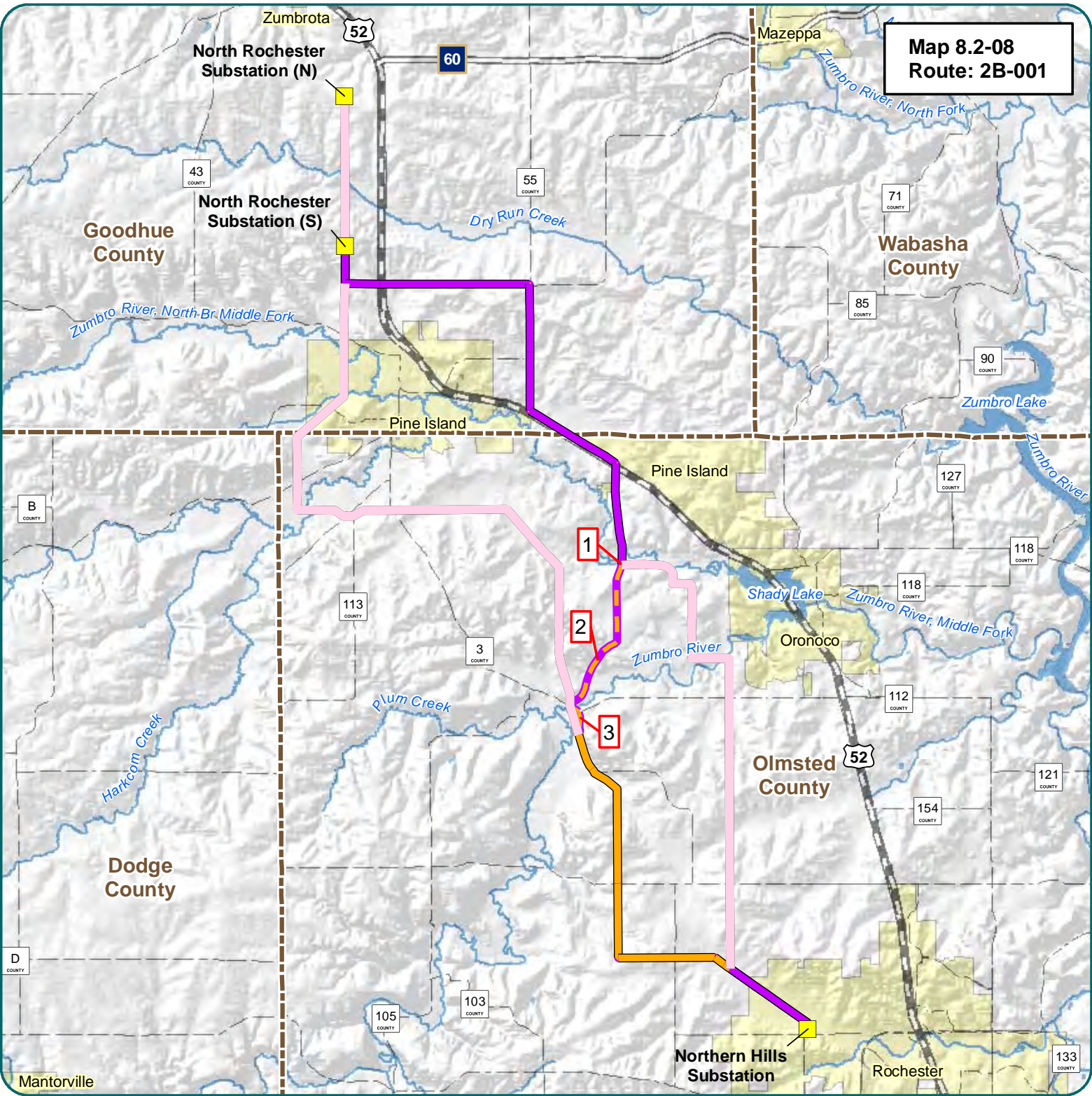


North Rochester to Northern Hills (2A-003)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until the intersection of 125th St. and CSAH 3		
2	Turn southeast following CSAH 3	3.68	Returns to applicant's alternate route - Cty or Twp Road
Total Length		17.23	





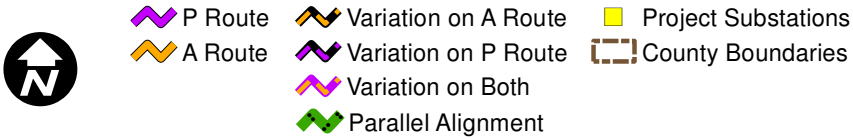
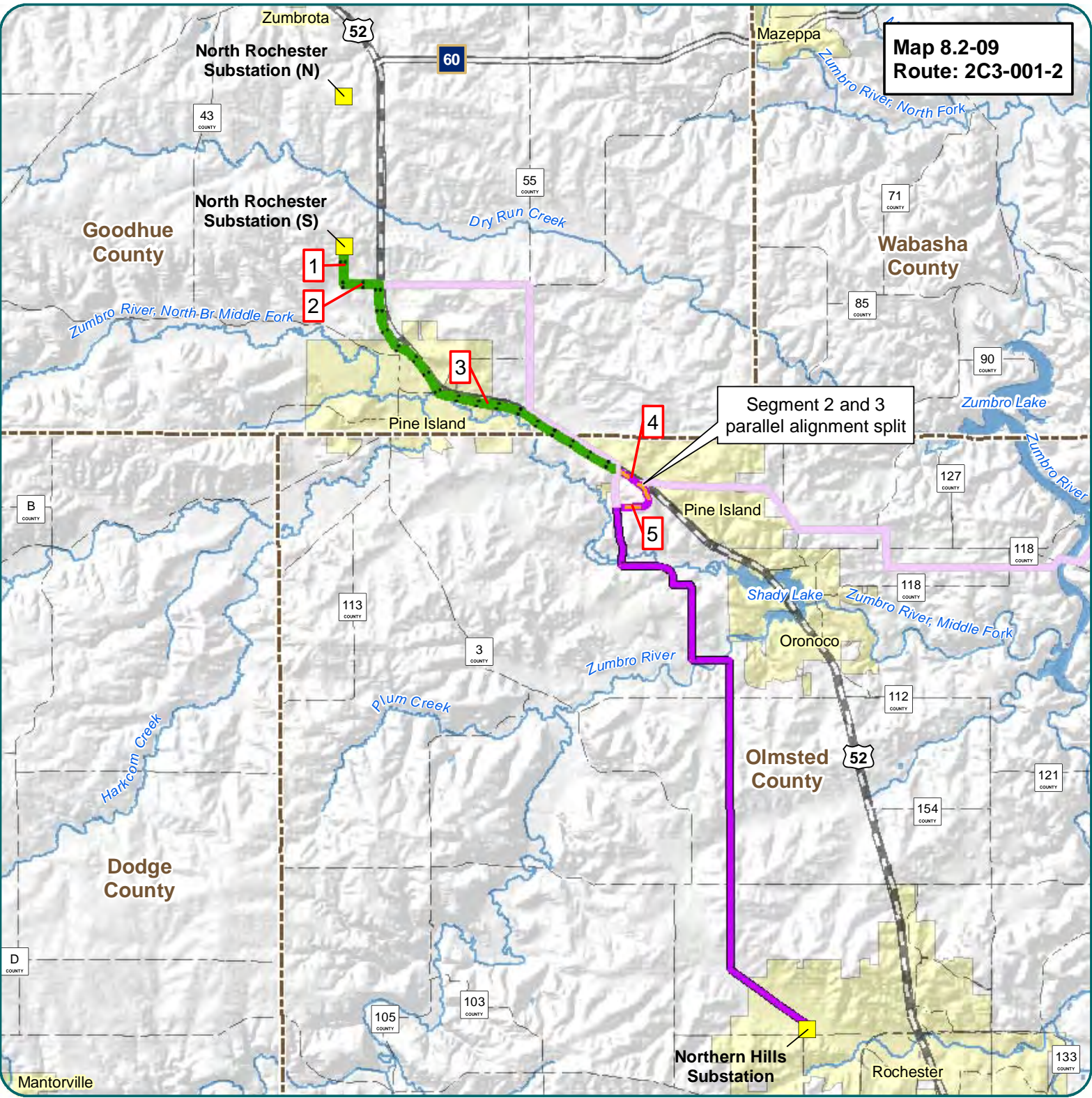
North Rochester to Northern Hills (2B-001)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of 117th St. NW and CSAH 31		
2	Continue south following CSAH 31	2.25	Returns to applicant's alternate route - Cty or Twp Road
3	Turn southeast following CSAH 3	0.31	Returns to applicant's alternate route - Cty or Twp Road
Total Length		15.96	



Section 8.2  
North Rochester Substation to Northern Hills Substation

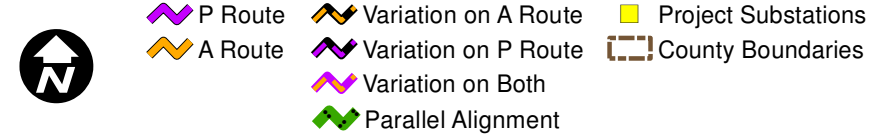
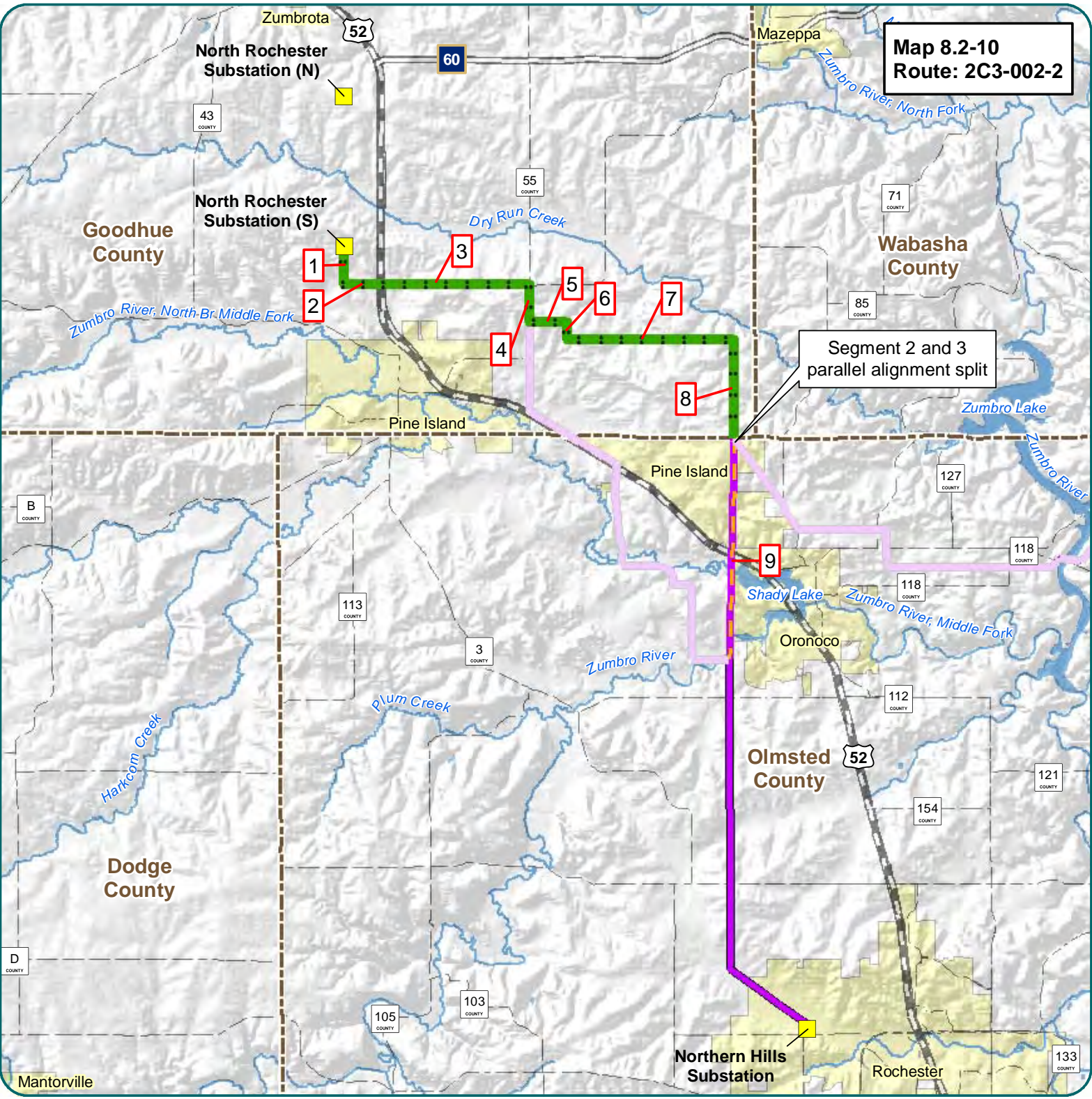


North Rochester to Northern Hills (2C3-001-2)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go south following transmission line	0.51	Transmission Line (Parallel alignment)
2	Turn east following field line	0.46	Field Line (Parallel alignment)
3	Turn south/southeast following US Hwy 52	4.33	Major Hwy (Parallel alignment)
4	Continue southeast cross-country	0.42	Cross-country
5	Turn west cross-country	0.69	Returns to applicant's preferred route - Cross-country
Total Length		15.23	





North Rochester to Northern Hills (2C3-002-2)		
Turn by Turn		Distance (miles)
1	From the North Rochester Substation (S), go south following transmission line	0.50
2	Turn east following field line	0.46
3	Continue east following 500th St.	2.00
4	Turn south following CSAH 11	0.50
5	Turn east following field line	0.50
6	Turn south following field line	0.23
7	Turn east cross-country	2.23
8	Turn south cross-country/field lines	1.31
9	Continue south cross-country/field lines	2.93
Total Length		16.12
		Comments/ROW Type
		Transmission Line (Parallel alignment)
		Field line (Parallel alignment)
		Cty or Twp Road (Parallel alignment)
		Field line (Parallel alignment)
		Cross-country (Parallel alignment)
		Cross-country (Parallel alignment)
		Returns to applicant's preferred route - cross-country

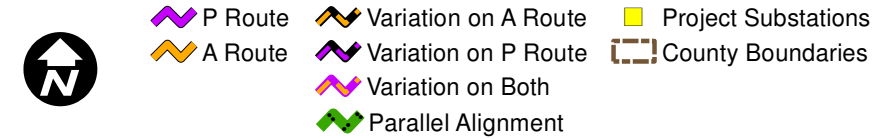
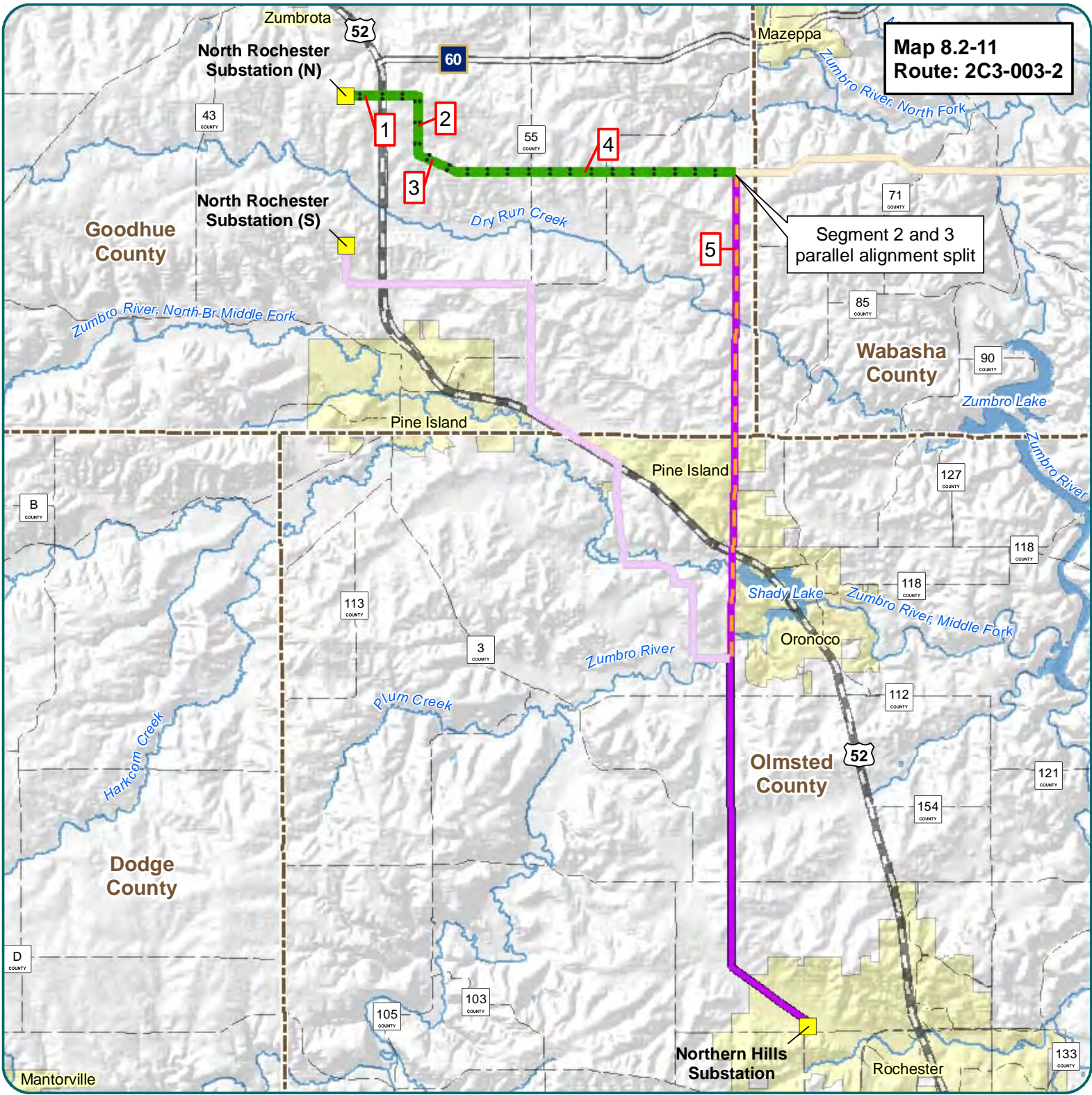


Section 8.2  
North Rochester Substation to Northern Hills Substation



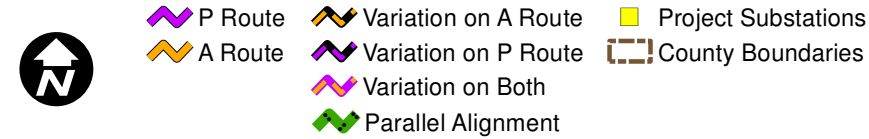
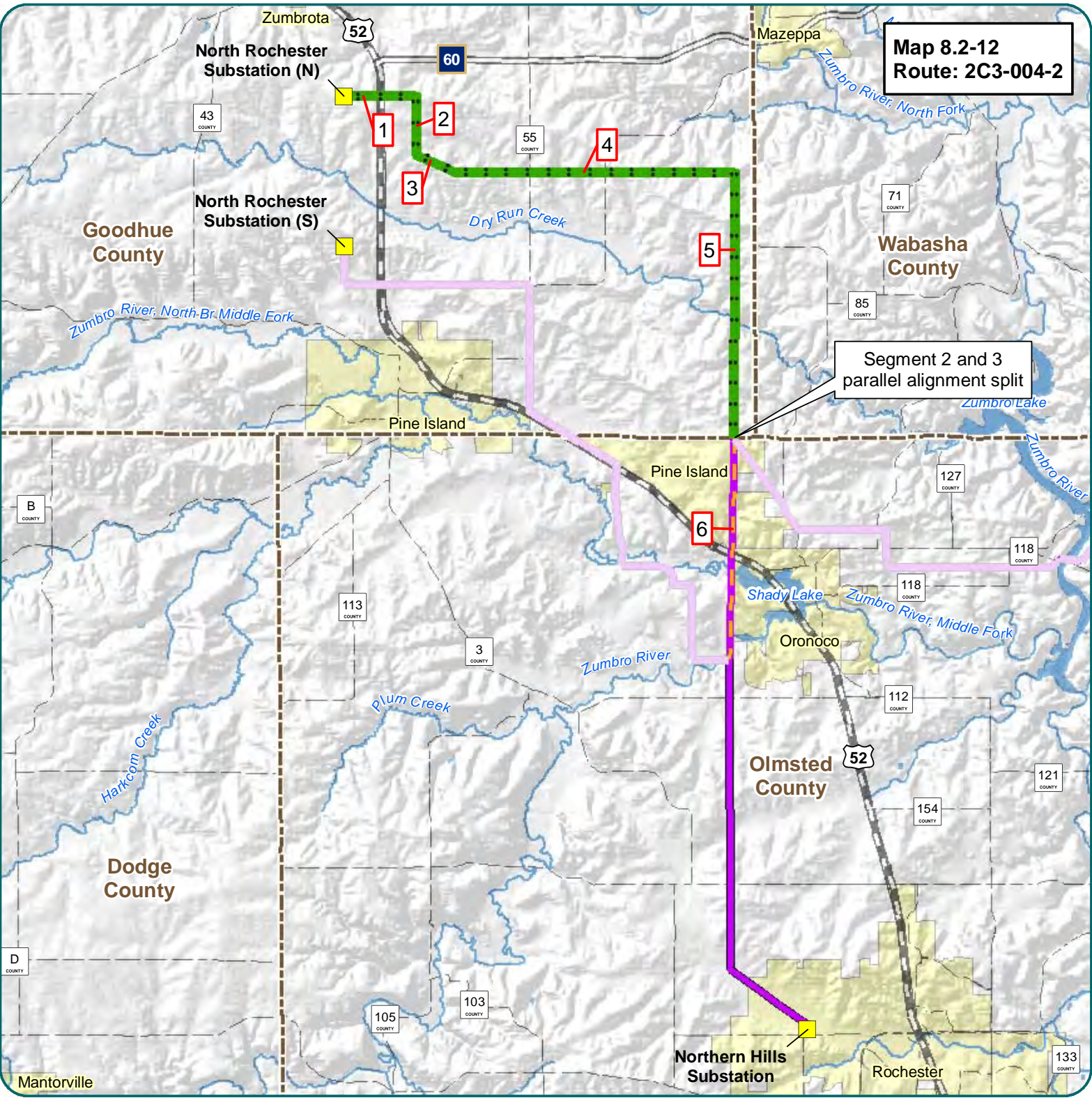
North Rochester to Northern Hills (2C3-003-2)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (N), go east following field line to 195th Ave.	0.97	Field Line (Parallel alignment)
2	Turn south following 195th Ave.	0.78	Cty or Twp Road (Parallel alignment)
3	Turn southeast cross-country	0.52	Cross-country (Parallel alignment)
4	Turn east following field line	3.75	Field Line (Parallel alignment)
5	Turn south cross-country/field line	6.46	Returns to applicant's preferred route - Cross-country

Total Length 17.93





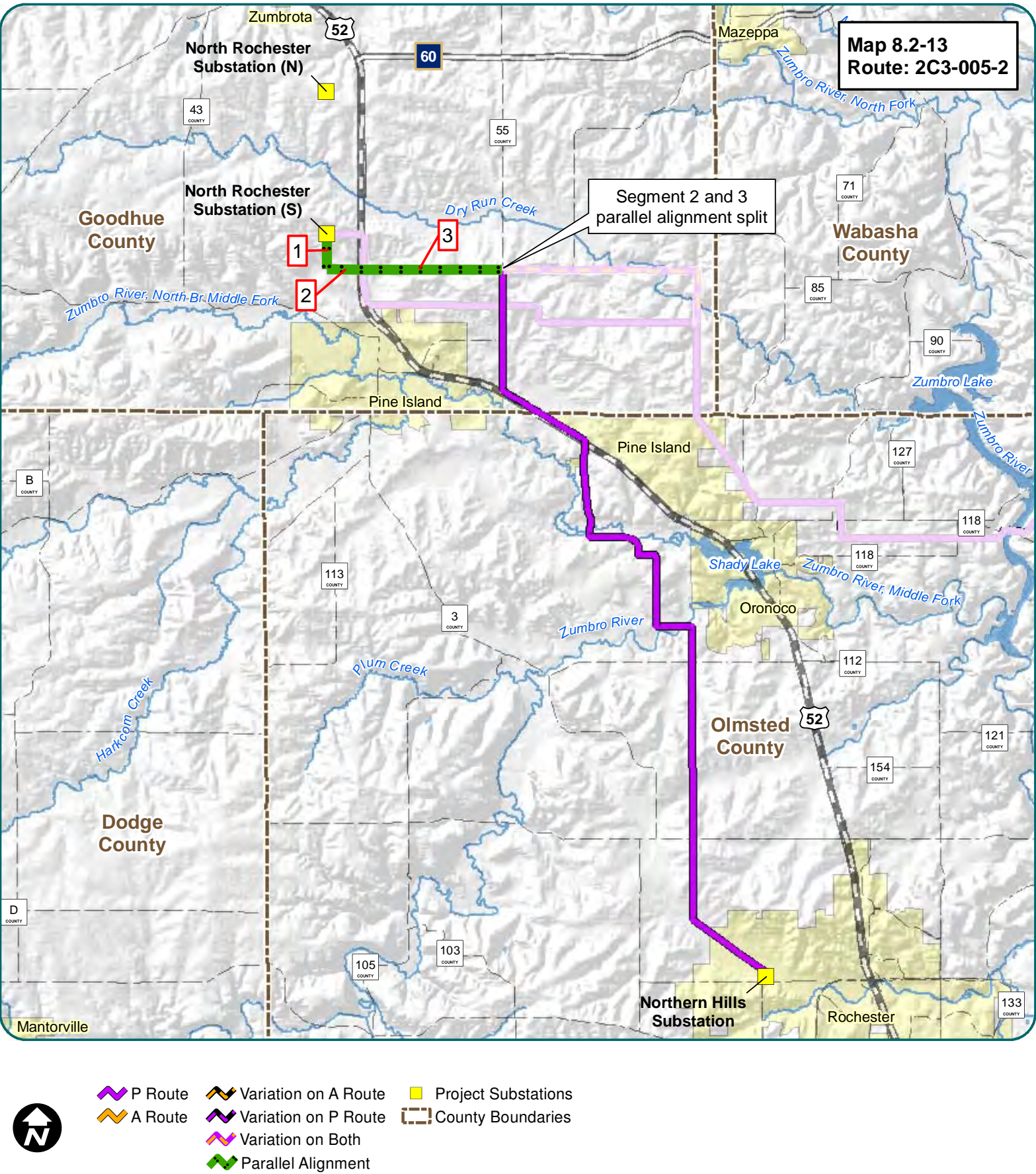
North Rochester to Northern Hills (2C3-004-2)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (N), go east following field line to 195th Ave.	0.97	Field Line (Parallel alignment)
2	Turn south following 195th Ave.	0.78	Cty or Twp Road (Parallel alignment)
3	Turn southeast cross-country	0.52	Cross-country (Parallel alignment)
4	Turn east following field line/cross-country	3.75	Field Line (Parallel alignment)
5	Turn south cross-country	3.53	Cross-country (Parallel alignment)
6	Continue south cross-country	2.93	Returns to applicant's preferred route - Cross-country
Total Length		17.93	



Section 8.2  
North Rochester Substation to Northern Hills Substation

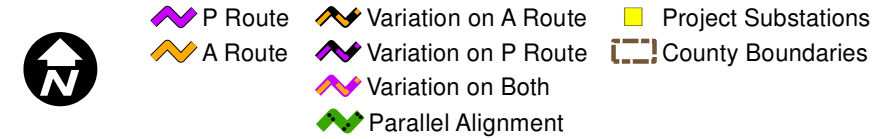
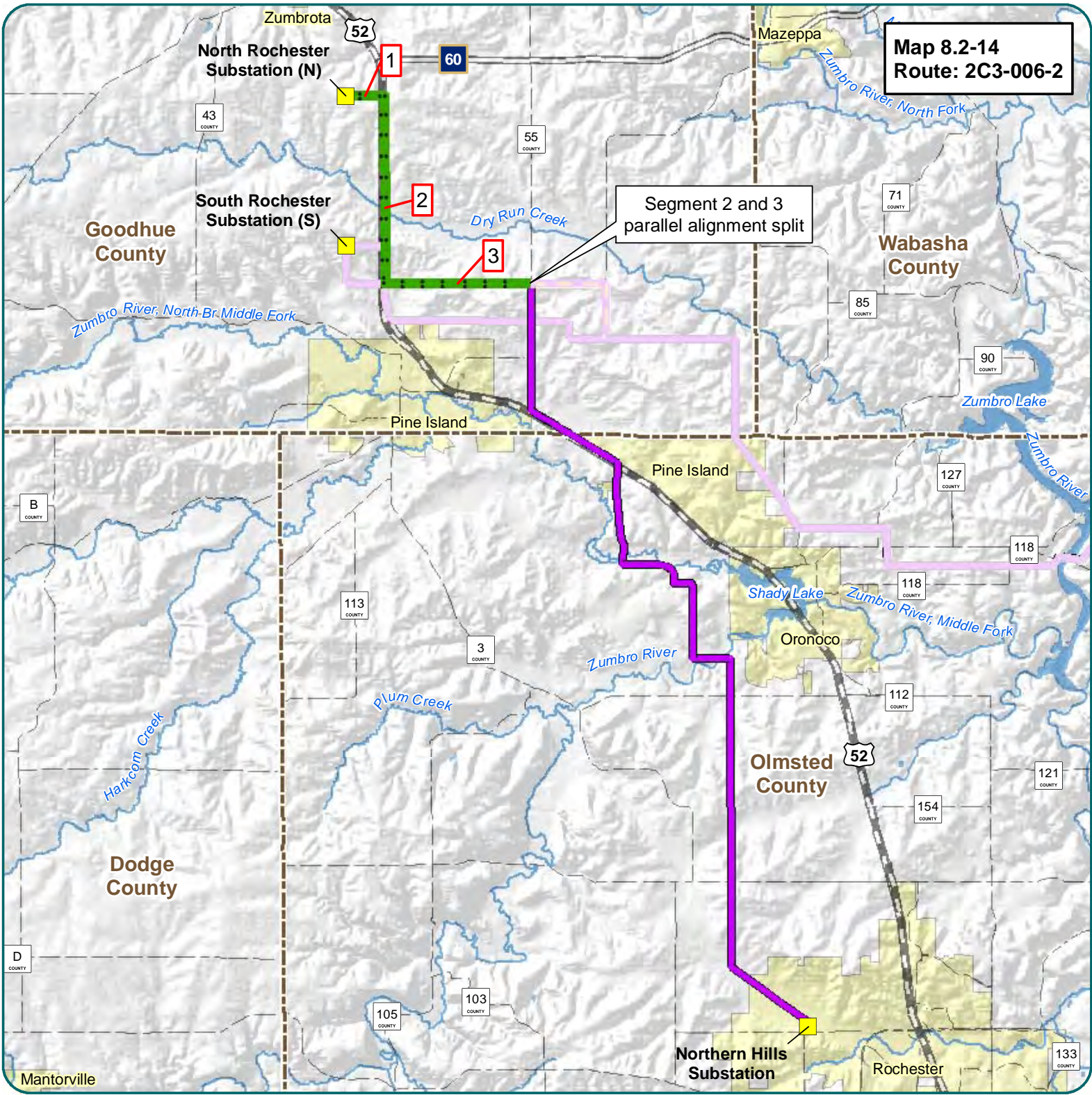


North Rochester to Northern Hills (2C3-005-2)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go south following transmission line	0.51	Transmission Line (Parallel alignment)
2	Turn east following field line	0.46	Field Line (Double-circuit)
3	Continue east following 500th St.	2.00	Returns to applicant's preferred route - Cty or Twp Road (Parallel alignment)
Total Length		15.39	





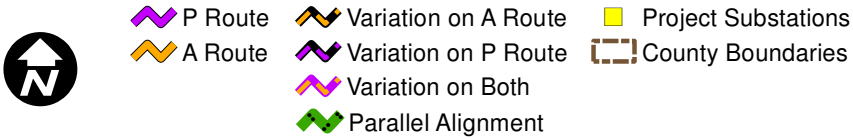
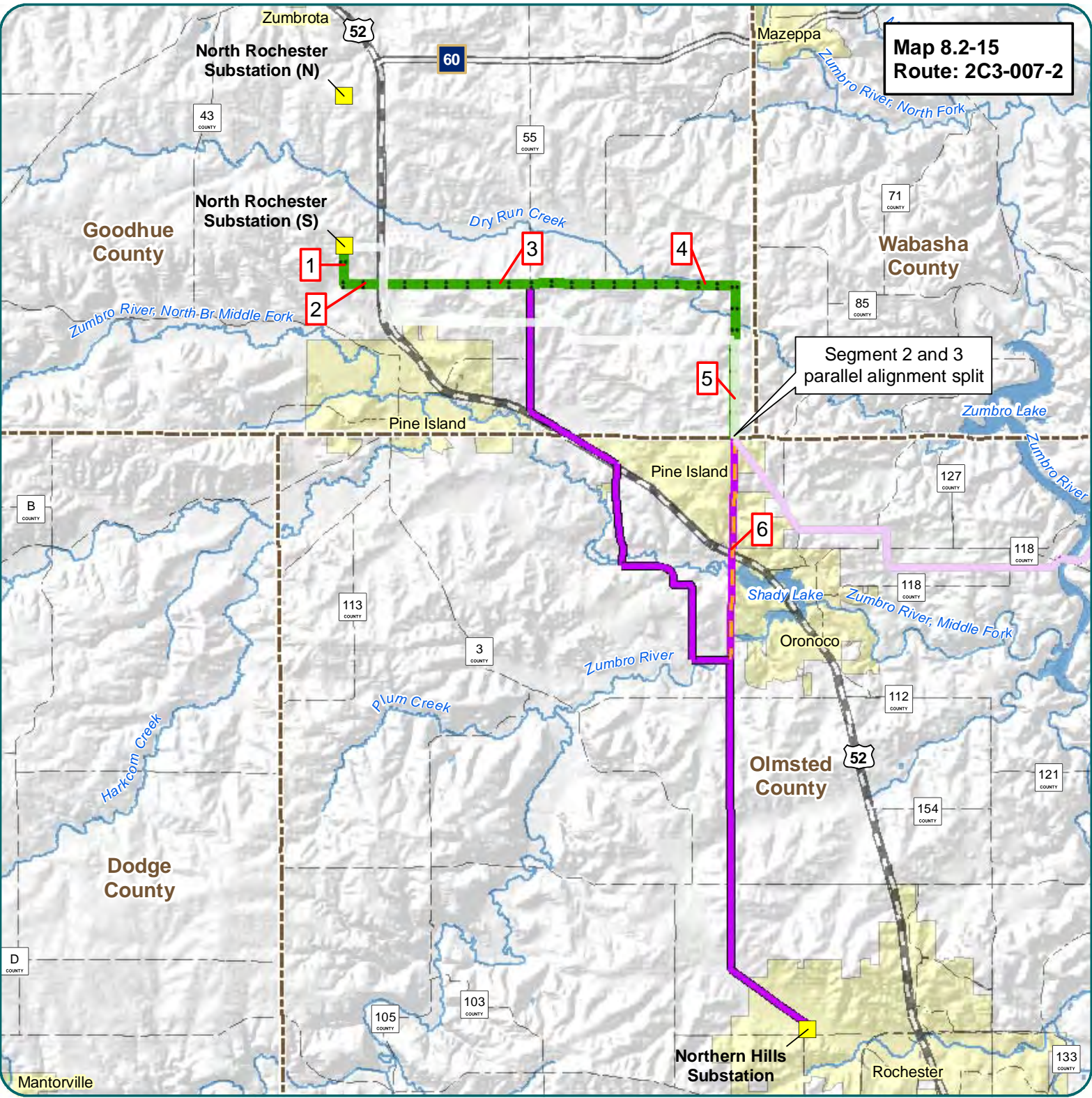
North Rochester to Northern Hills (2C3-006-2)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (N), go east following field line to US Hwy 52	0.51	Field line (Parallel alignment)
2	Turn south following US Hwy 52	2.50	Major Hwy (Parallel alignment)
3	Turn east following 500th St.	1.94	Returns to applicant's preferred route - Cty or Twp Road (Parallel alignment)
Total Length		17.37	



Section 8.2  
North Rochester Substation to Northern Hills Substation



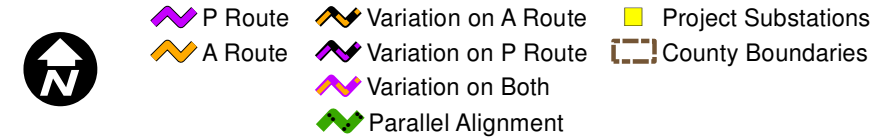
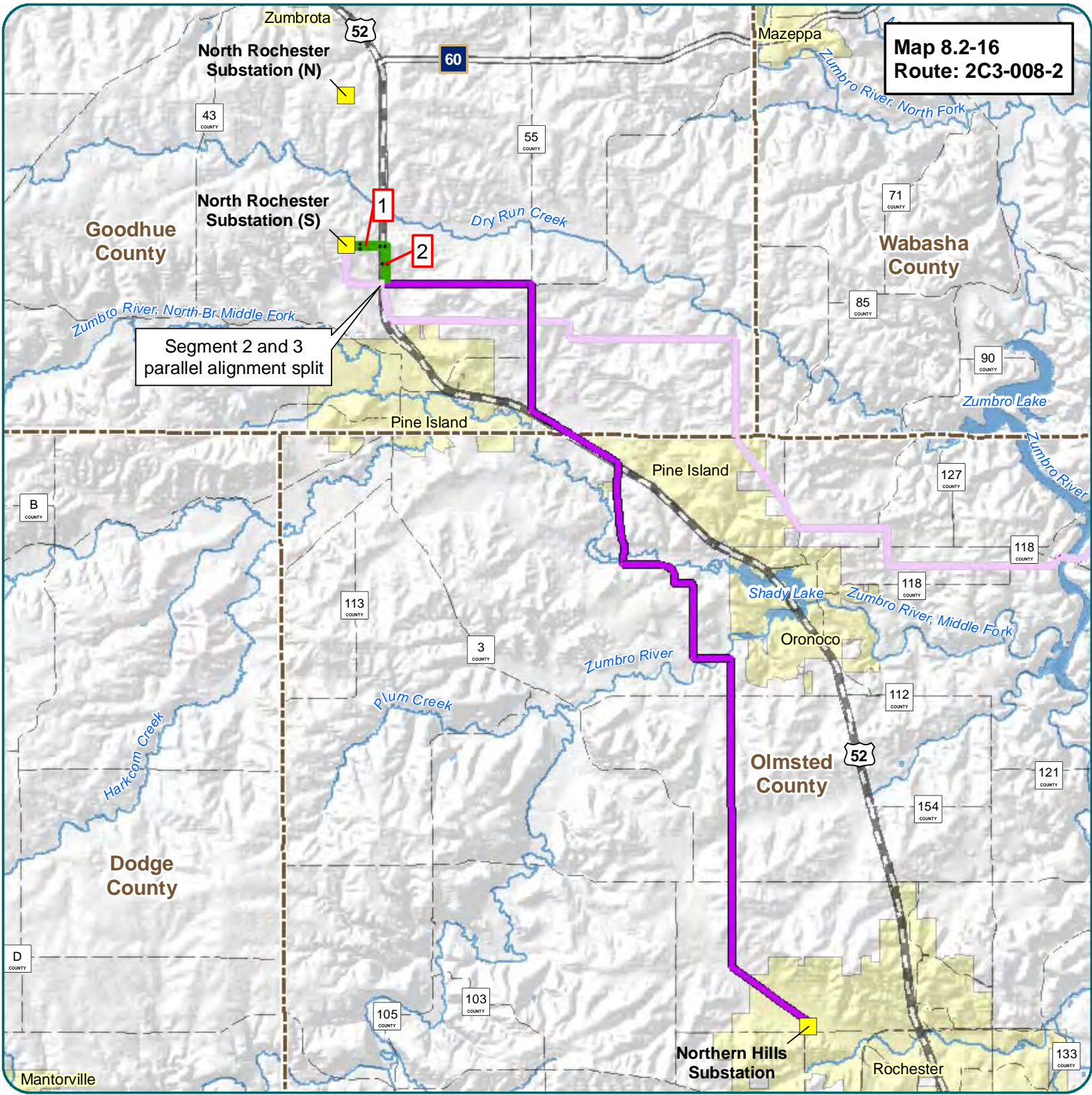
North Rochester to Northern Hills (2C3-007-2)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go south following transmission line	0.51	Transmission line (Parallel alignment)
2	Turn east following field line	0.52	Field Line (Parallel alignment)
3	Continue east on 500th St.	3.95	Cty or Twp Road (Parallel alignment)
4	Continue east cross-country	0.71	Cross-country (Parallel alignment)
5	Continue south cross-country	2.04	Cross-country (Parallel alignment)
6	Continue south cross-country/field line	2.93	Returns to applicant's preferred route - Cross-country/field line
Total Length		16.13	



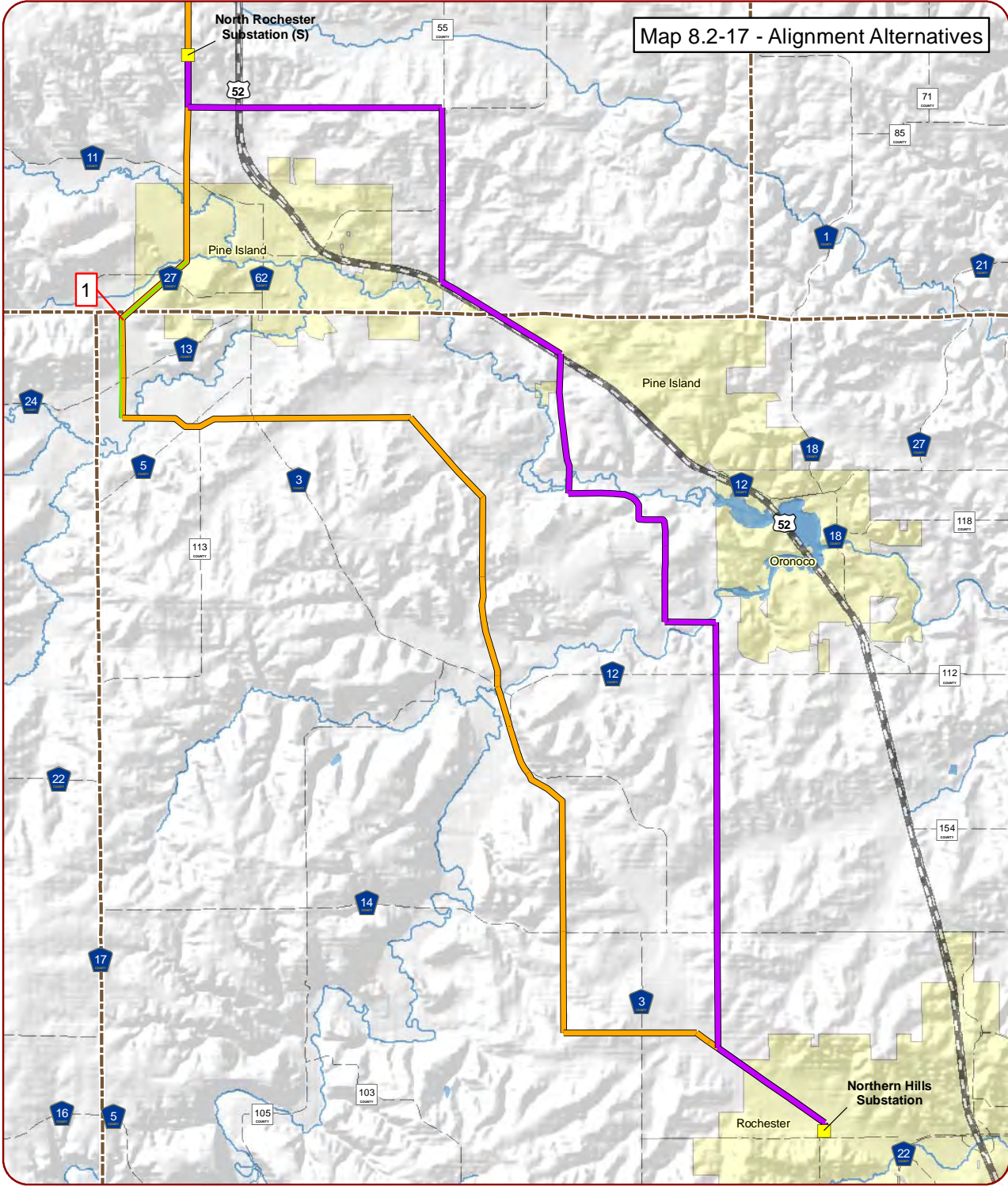


North Rochester to Northern Hills (2C3-008-2)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go east following applicant's preferred route to US Hwy 52	0.52	Field Line (Parallel alignment)
2	Turn south following US Hwy 52 and applicant's preferred route	0.51	Returns to preferred route - Major Hwy (Parallel alignment)

Total Length 15.39







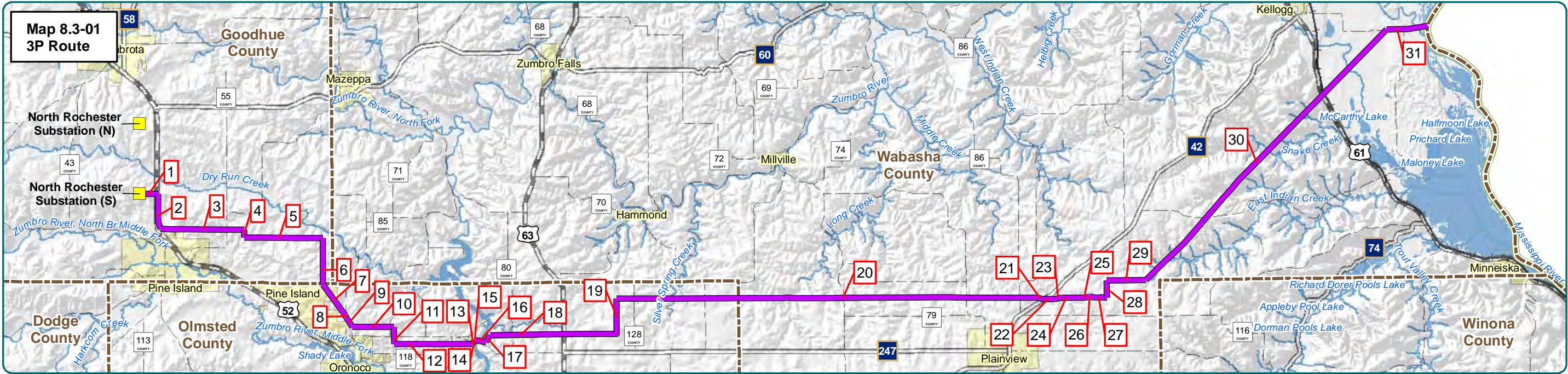
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|------------------------|----------------------|---------------------|
| Original P Route       | Variation on P Route | Project Substations |
| Original A Route       | Variation on A Route | County Boundaries   |
| Alignment Alternatives | Variation on Both    |                     |
|                        | Parallel Alignment   |                     |



8.3.1 Description of Route Alternatives – North Rochester Substation to Mississippi River

Segment 3 – North Rochester Substation to Mississippi River

Section 8.3



North Rochester to Mississippi River (3P)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 From the Proposed North Rochester Substation (S) go east following field line	0.52	Field Line
2 Turn south following US Hwy 52	1.00	Major Hwy
3 Turn east following field line/cross-country	2.36	Field Line/Cross-country
4 Turn south following field line	0.23	Field Line
5 Turn east following field line/cross-country	2.23	Field Line/Cross-country
6 Turn south following field line/cross-country to Ash Road NW	1.31	Field Line/Cross-country
7 Turn southeast following Ash Road NW	1.08	Cty or Twp Road
8 Turn south/southeast crossing Ash Road NW	0.07	Cty or Twp Road
9 Turn southeast following CSAH 18	0.31	Cty or Twp Road
10 Turn east cross-country	1.17	Cross-country
11 Turn south cross-country	0.50	Cross-country
12 Turn east following field line/cross-country	2.20	Field Line/Cross-country
13 Turn northeast cross-country to White Bridge Road NE	0.09	Cross-country
14 Continue northeast crossing White Bridge Road NE	0.03	Cty or Twp Road
15 Continue northeast cross-country	0.02	Cross-country
16 Turn east/southeast cross-country (cross the Zumbro River)	0.32	Cross-country

17 Turn northeast cross-country	0.22	Cross-country
18 Turn east following field line/cross-country	3.57	Field Line/Cross-country
19 Turn north following field line	0.99	Field Line
20 Turn east following field line/cross-country	11.94	Field Line/Cross-country
21 Turn east/southeast cross-country	0.14	Cross-country
22 Turn east cross-country	0.34	Cross-country
23 Turn east/northeast following cross-country	0.21	Cross-country
24 Turn east following field line	0.62	Field Line
25 Turn east/northeast cross-country	0.17	Cross-country
26 Turn east/southeast cross-country	0.19	Cross-country
27 Turn east cross-country	0.31	Cross-country
28 Turn north following field line	0.49	Field Line
29 Turn east following field line	1.12	Field Line
30 Turn northeast following transmission line	9.83	Transmission Line
31 Turn east/northeast following transmission line to Mississippi River	1.16	Transmission Line

Total Length 44.74

P Route

A Route

Variation on A Route

Variation on P Route

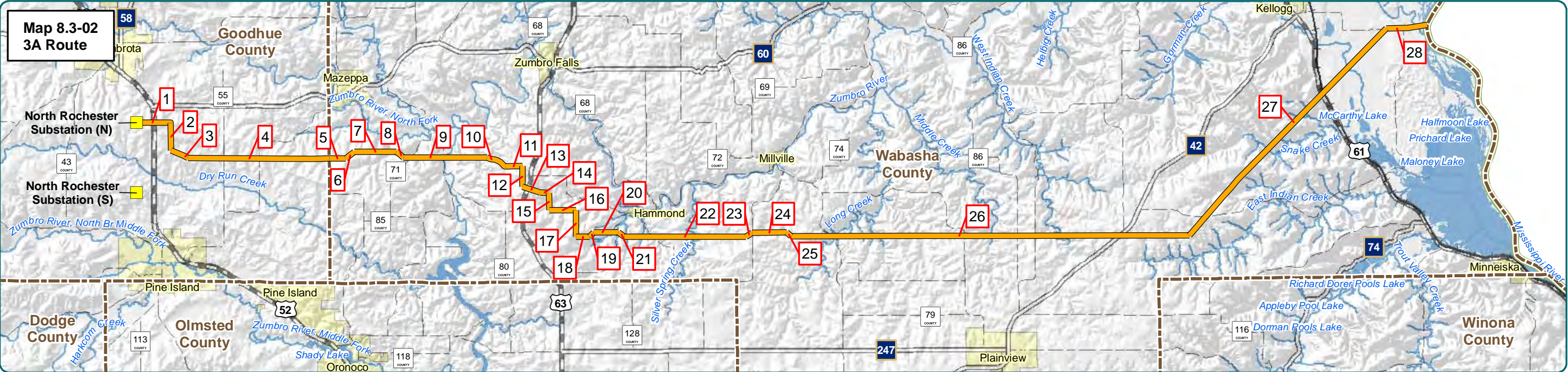
Variation on Both

Parallel Alignment

Project Substations

County Boundaries








North Rochester to Mississippi River (3A)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the Proposed North Rochester Substation (N) go east following field line	0.97	Field Line
2	Turn south following 195th Ave.	0.78	Cty or Twp Road
3	Turn southeast cross-country	0.52	Cross-country
4	Turn east following field line/cross-country to T-156	4.00	Field Line/Cross-country
5	Continue east following T-156	0.47	Cty or Twp Road
6	Turn northeast cross-country	0.30	Cross-country
7	Turn east cross-country	1.19	Cross-country
8	Turn southeast cross-country	0.26	Cross-country
9	Turn east following field line/cross-country	2.35	Field Line/Cross-country
10	Turn east/southeast cross-country	0.58	Cross-country
11	Turn east following field line	0.49	Field Line
12	Turn south following field line/cross-country	0.59	Field Line/Cross-country
13	Turn east/southeast cross-country	0.53	Cross-country
14	Turn east following field line	0.25	Field Line
15	Turn south following field line	0.50	Field Line
16	Turn east cross-country	0.75	Cross-country

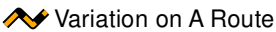
17	Turn south following field line/cross-country to T-196	0.75	Field Line/Cross-country
18	Turn east following T-196	0.40	Cty or Twp Road
19	Turn northeast cross-country	0.17	Cross-country
20	Turn east cross-country	0.71	Cross-country
21	Turn southeast cross-country	0.20	Cross-country
22	Turn east following field line/cross-country	3.43	Field Line/Cross-country
23	Turn northeast cross-country	0.21	Cross-country
24	Turn east cross-country	0.98	Cross-country
25	Turn southeast cross-country	0.16	Cross-country
26	Turn east following field line/cross-country	11.25	Field Line/Cross-country
27	Turn northeast following transmission line	8.07	Transmission Line
28	Turn east/northeast following transmission line to Mississippi River	1.16	Transmission Line

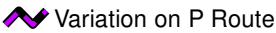
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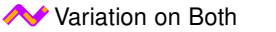



 P Route


 A Route


 Variation on A Route

 Variation on P Route

 Variation on Both

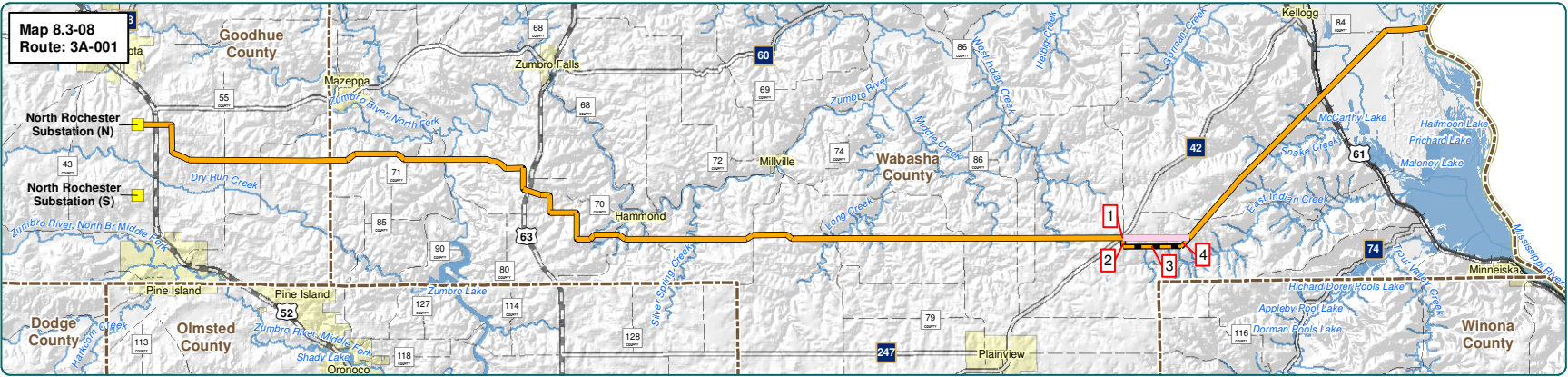
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 Project Substations

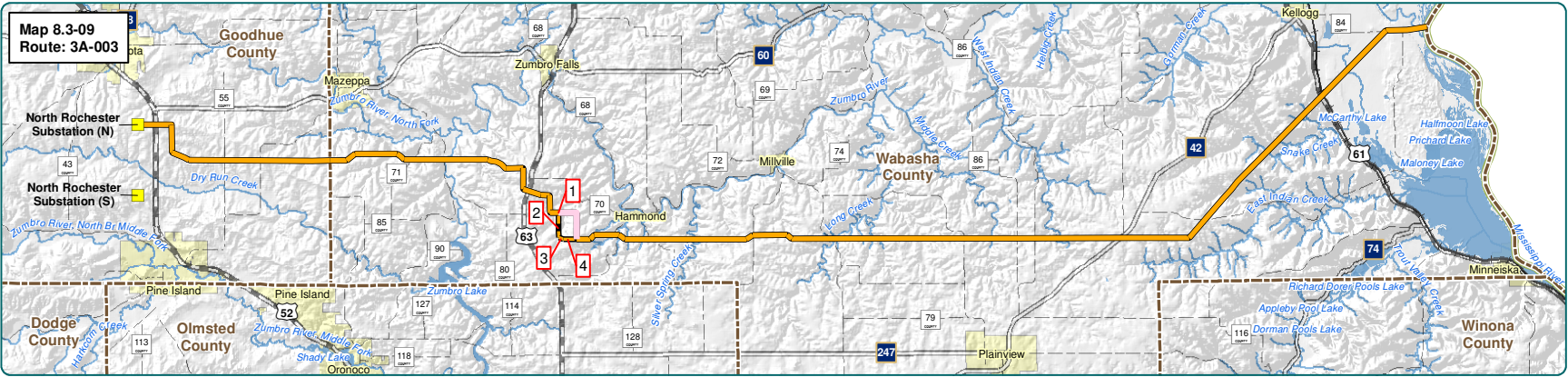
 County Boundaries



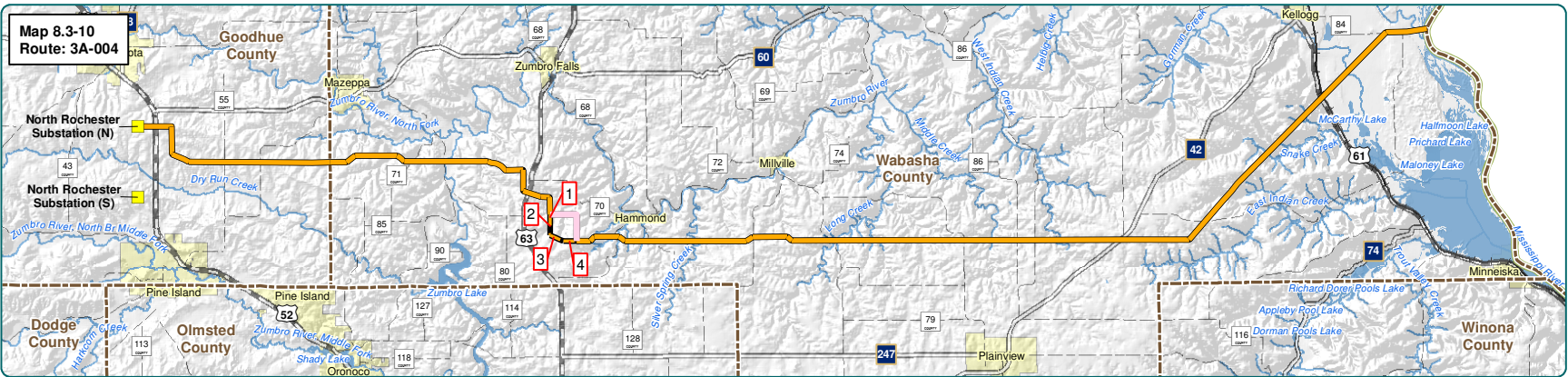
North Rochester to Mississippi River (3A-001)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until 0.1 miles south of intersection MN Hwy 42 and CSAH 14		
2	Turn south following CSAH 14	0.25	Cty or Twp Road
3	Turn east cross-country/field lines	1.64	Cross-country/field lines
4	Turn northeast following transmission line	0.33	Returns to the applicant's alternate route - Transmission Line
Total Length		42.37	





North Rochester to Mississippi River (3A-003)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alternate route until 1 mile east of intersection CSAH 7 and US Hwy 63		
2	Turn south following field line	0.69	Field Line
3	Turn southeast cross-country	0.14	Cross-contry
4	Turn east following T-196	0.37	Returns to applicant's alternate route - Cnty or Twp Road
Total Length		41.96	





North Rochester to Mississippi River (3A-004)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.75 miles east of intersection CSAH 7 and US Hwy 63		
2	Turn south cross-country	0.58	Cross-country
3	Turn southeast cross-country	0.42	Cross-country
4	Turn east following T-196	0.37	Returns to applicant's alternate route - Cnty or Twp Road
Total Length		41.88	








 P Route


 A Route

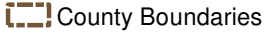
 Variation on A Route

 Variation on P Route

 Variation on Both

 Parallel Alignment

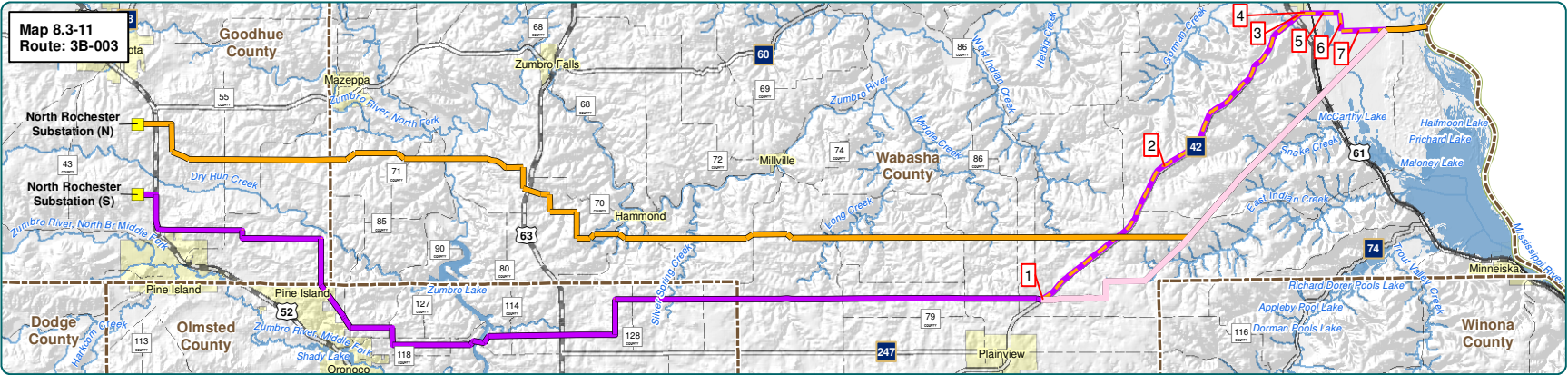
 Project Substations

 County Boundaries



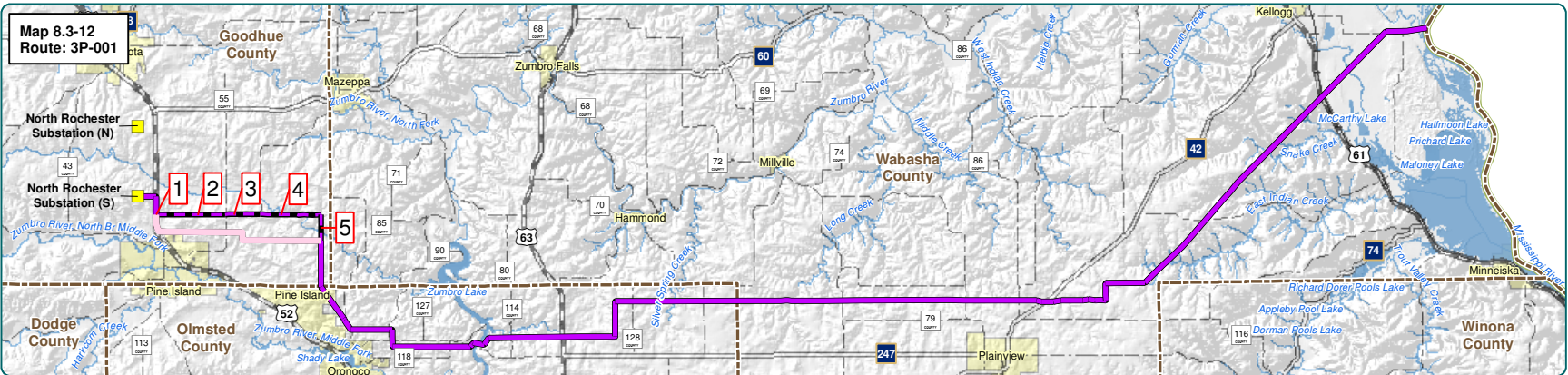
North Rochester to Mississippi River (3B-003)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 Follow the applicant's preferred route until 0.45 miles north of CSAH 27 and 0.65 miles east of CSAH 4		
2 Turn northeast following MN Hwy 42	11.06	Major Hwy
3 Continue northeast following CSAH 18	0.16	Cty or Twp Road
4 Turn east cross-country to Cty Road 84	0.11	Cross-country
5 Continue east following Cty Road 84	1.00	Cty or Twp Road
6 Turn south following Cty Road 84	0.50	Cty or Twp Road
7 Turn east following Cty Road 84	1.26	Returns to applicant's alternate route - Cty or Twp Road

Total Length 45.57



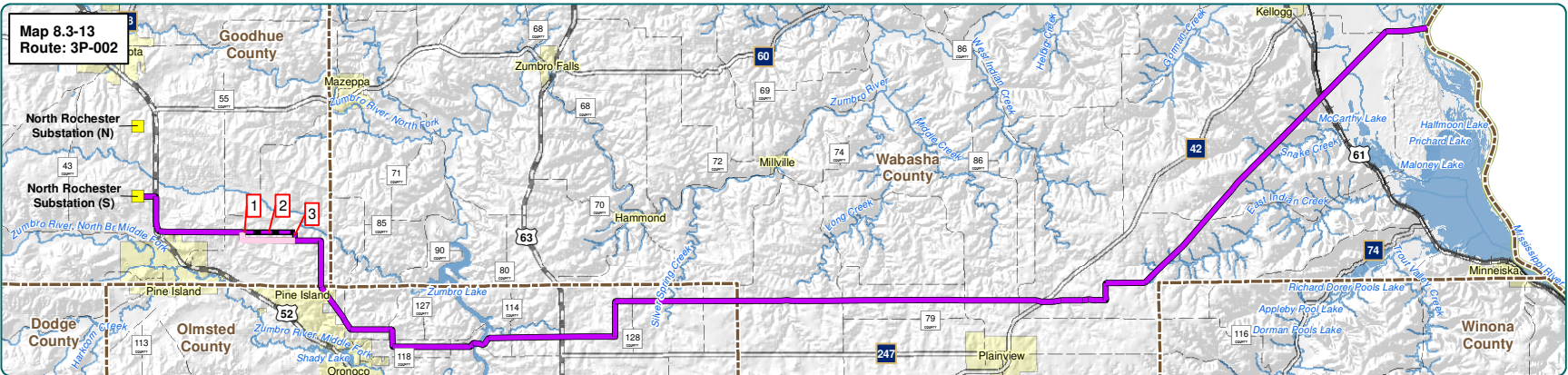
North Rochester to Mississippi River (3P-001)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 Follow the applicant's preferred route until the intersection of US Hwy 52 and 500th St.		
2 Turn east following 500th St.	1.96	Cty or Twp Road
3 Continue east following CSAH 11	1.00	Cty or Twp Road
4 Continue east following 500th St.	1.72	Cty or Twp Road
5 Continue south cross-country	0.73	Returns to applicant's preferred route - Cross-country


Total Length 44.83










North Rochester to Mississippi River (3P-002)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 Follow the applicant's preferred route until 0.5 miles west of 220th Ave. and 0.5 miles north of 510		
2 Turn east cross-country to 230th Ave.	1.49	Cty or Twp Road
3 Turn south following 230th Ave.	0.24	Returns to applicant's preferred route - Cty or Twp Road

Total Length 44.75

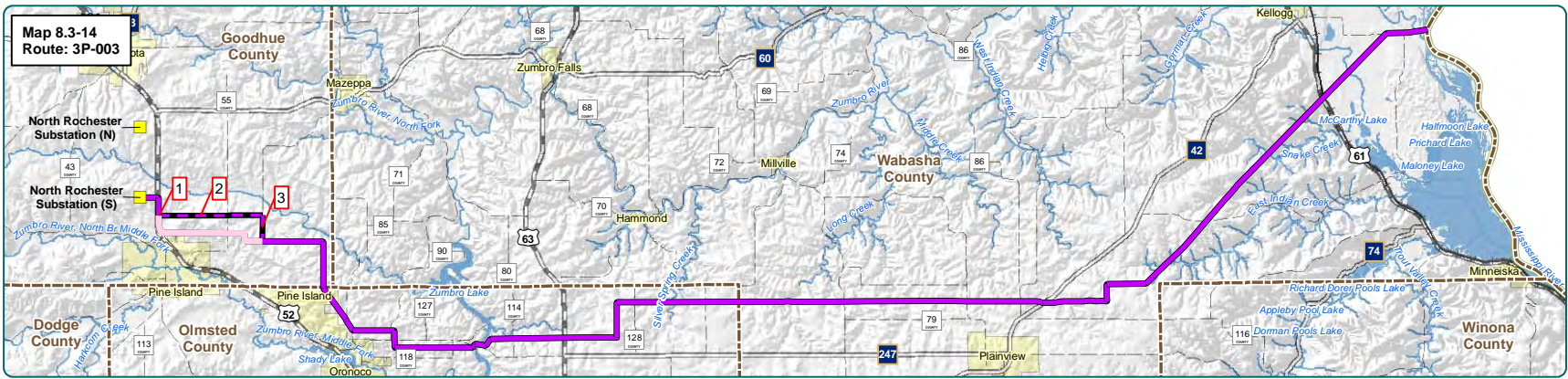




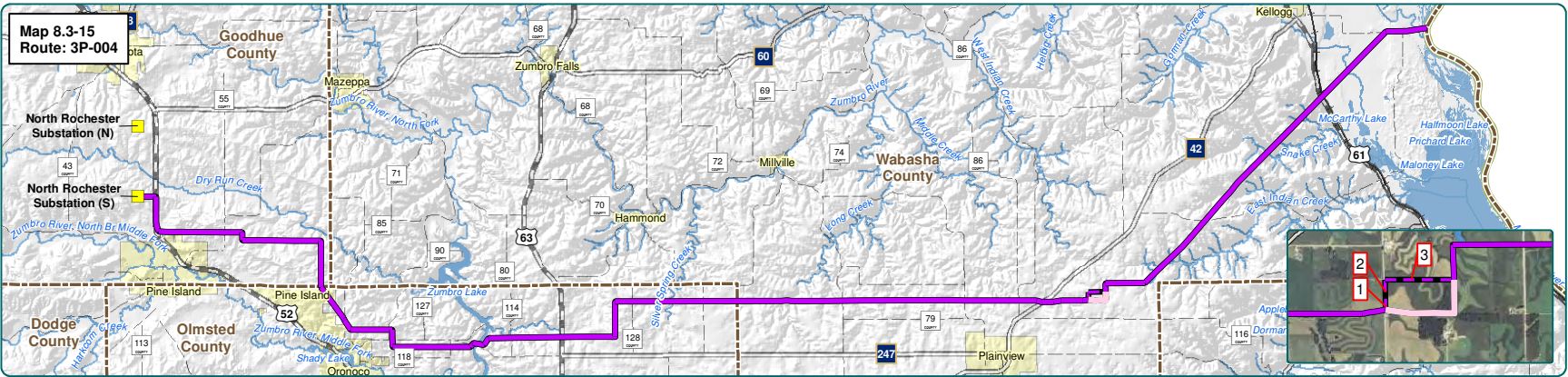
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-  A Route
-  Variation on P Route
-  Variation on Both
-  Parallel Alignment
-  Project Substations
-  County Boundaries



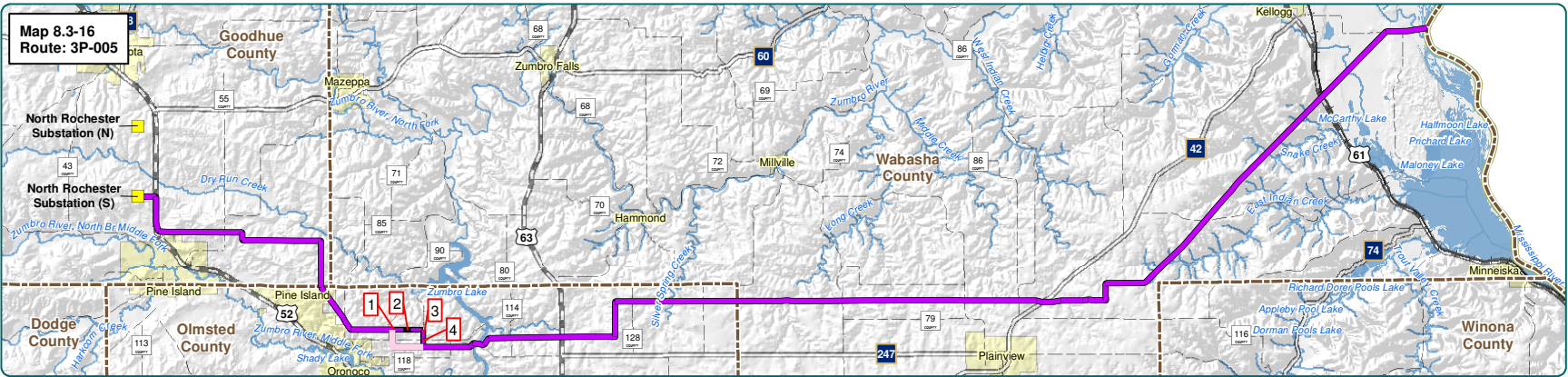
North Rochester to Mississippi River (3P-003)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the intersection of US Hwy 52 and 500th St.		
2	Turn east following 500th St.	2.95	Cty or Twp Road
3	Turn south following 200th Ave.	0.74	Returns to applicant's preferred route - Cty or Twp Road
Total Length		44.84	





North Rochester to Mississippi River (3P-004)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.45 miles south of T-307 and T-203		
2	Turn north following T-203	0.21	Cty or Twp Road
3	Turn east following field line	0.49	Returns to applicant's preferred route - Field Line
Total Length		44.72	





North Rochester to Mississippi River (3P-005)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.1 miles east of Power Dam Road and 0.25 miles north of White Bridge Road NW		
2	Continue east cross-country to 25th Ave NW	0.88	Cross-country
3	Turn south following 25th Ave.	0.25	Cty or Twp Road
4	Continue south following field line	0.24	Returns to applicant's preferred route - Field Line
Total Length		44.75	








 P Route


 A Route


 Variation on A Route

 Variation on P Route

 Variation on Both

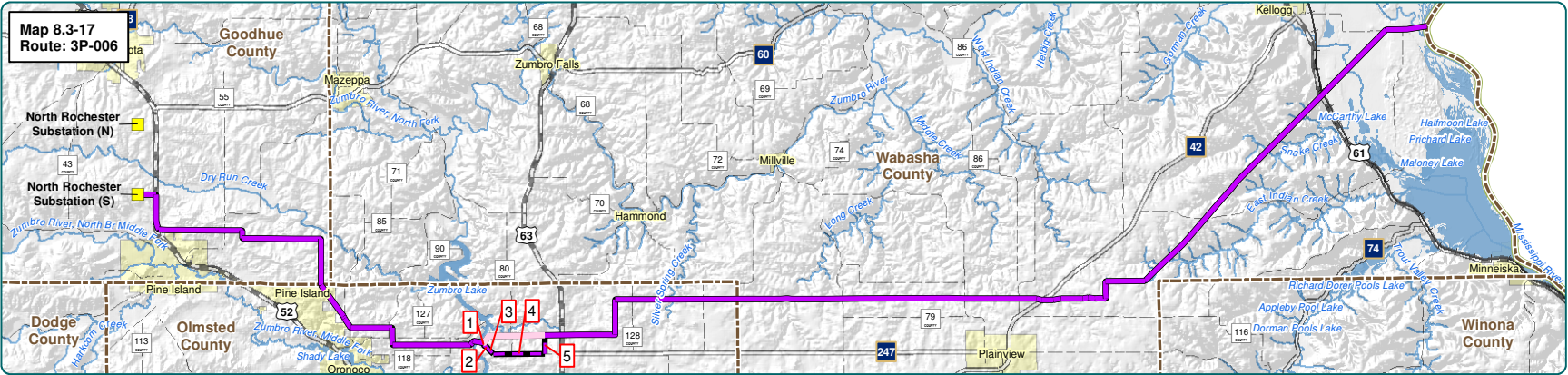
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 Project Substations

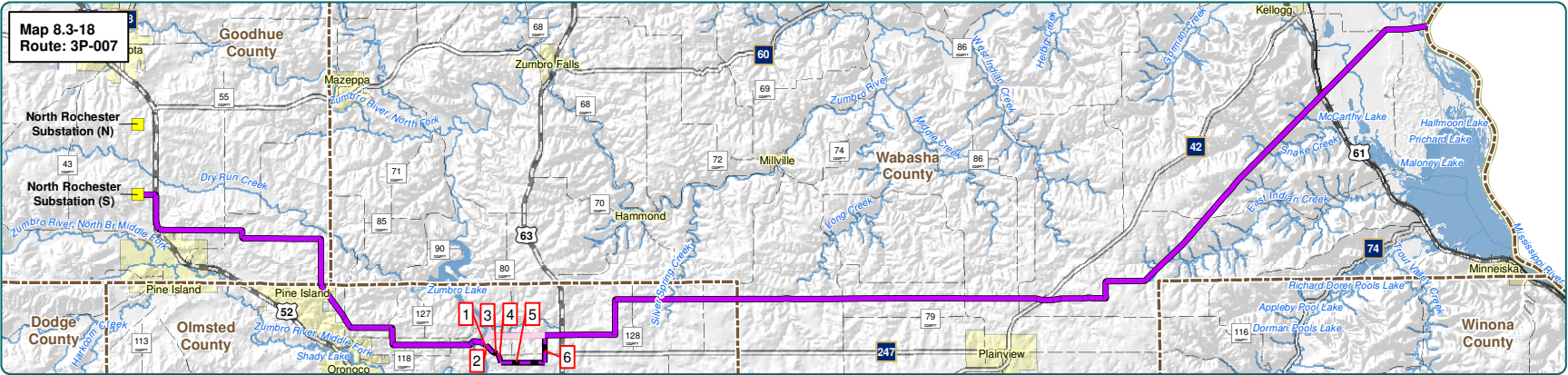
 County Boundaries



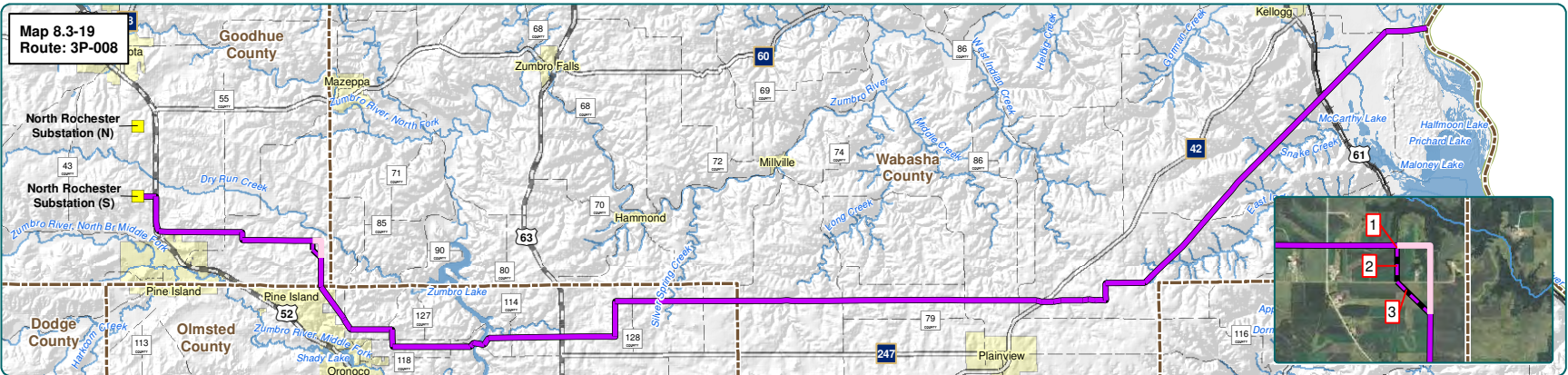
North Rochester to Mississippi River (3P-006)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.1 miles north of White Bridge Road NE and 0.1 miles east of Zumbro River		
2	Turn southeast cross country to White Bridge Road NE	0.08	Cross-country
3	Continue southeast following White Bridge Road NE	0.37	Cty or Twp Road
4	Turn east following White Bridge Road NE	1.45	Cty or Twp Road
5	Turn north following field line	0.52	Returns to applicant's preferred route - Field Line
Total Length		45.32	





North Rochester to Mississippi River (3P-007)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.08 miles north of White Bridge Road NE and 0.11 miles east of Zumbro River		
2	Turn southeast cross country to White Bridge Road NE	0.08	Cross-country
3	Continue southeast following White Bridge Road NE	0.44	Cty or Twp Road
4	Turn southeast cross country	0.28	Cross-country
5	Turn east cross country	1.23	Cross-country
6	Turn north following field line	0.78	Returns to applicant's preferred route - Field Line
Total Length		45.74	





North Rochester to Mississippi River (3P-008)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.5 miles east of 230th Ave. and 0.25 miles north of 510 St.		
2	Turn south following field line	0.26	Field Line
3	Turn southeast cross country	0.33	Returns to applicant's preferred route - Cross-country
Total Length		44.61	








 P Route


 A Route


 Variation on A Route

 Variation on P Route

 Variation on Both

 Parallel Alignment

 Project Substations

 County Boundaries



North Rochester to Mississippi River (3P-009)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.7 miles east of 230th Ave.		
2	Continue east cross-country/field lines	2.96	Cross-country/field lines
3	Turn south following CSAH 21	0.75	Cty or Twp Road/Transmission Line
4	Continue south cross-country	0.24	Cross-country/Transmission Line
5	Turn southeast cross-country to 25th Ave NW	0.30	Cross-country/Transmission Line
6	Turn east following 25th Ave	0.12	Cty or Twp Road/Transmission Line
7	Turn southeast cross-country	0.20	Cross-country/Transmission Line
8	Turn east cross-country to Postier Dr. NW	0.11	Cross-country/Transmission Line
9	Turn south following Postier Dr. NW	1.24	Cty or Twp Road/Transmission Line
10	Continue south following transmission line	0.25	Returns to applicant's preferred route - Transmission Line

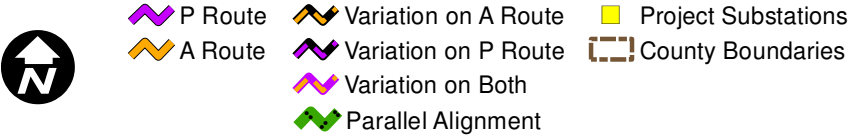
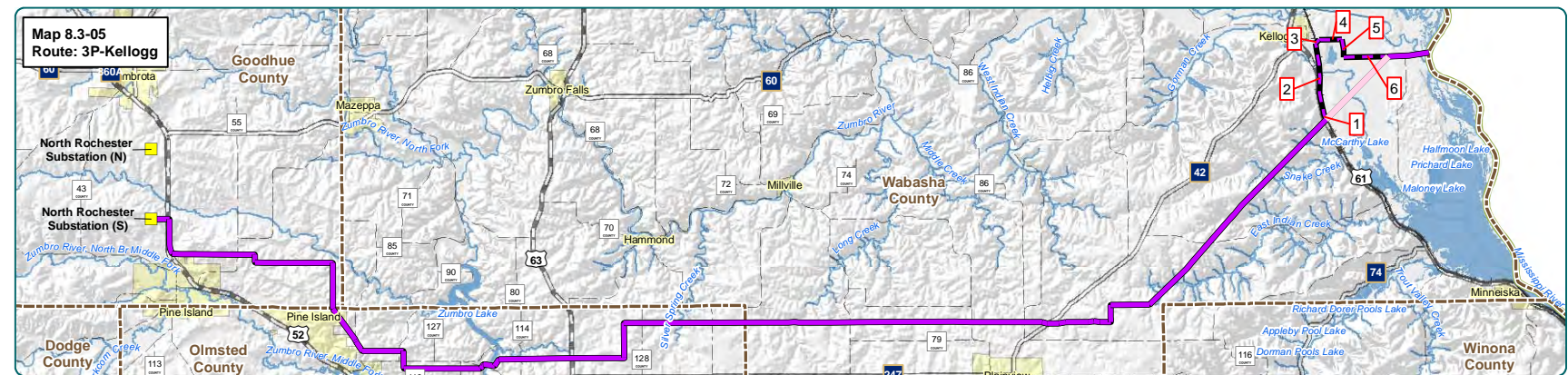
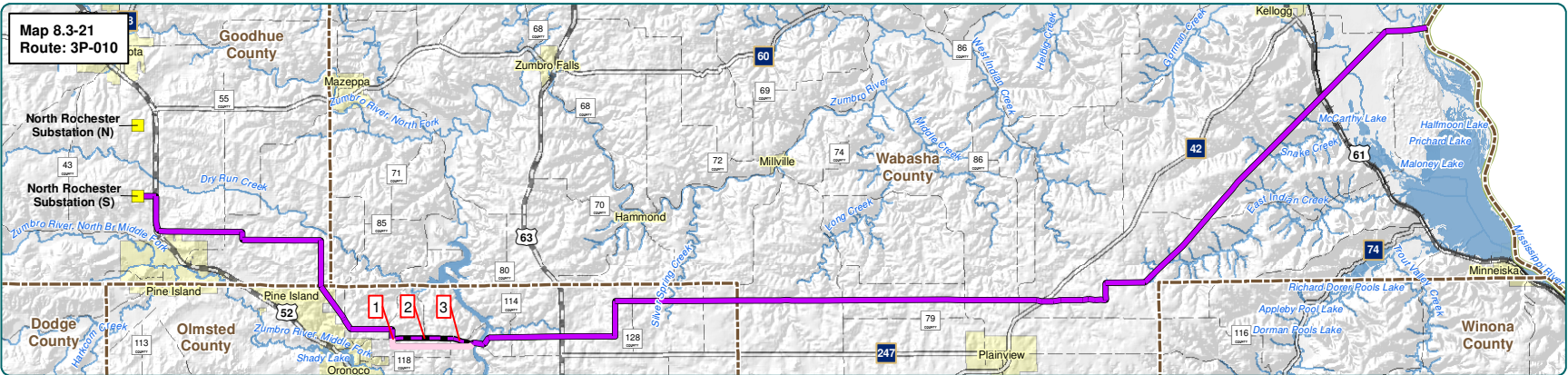
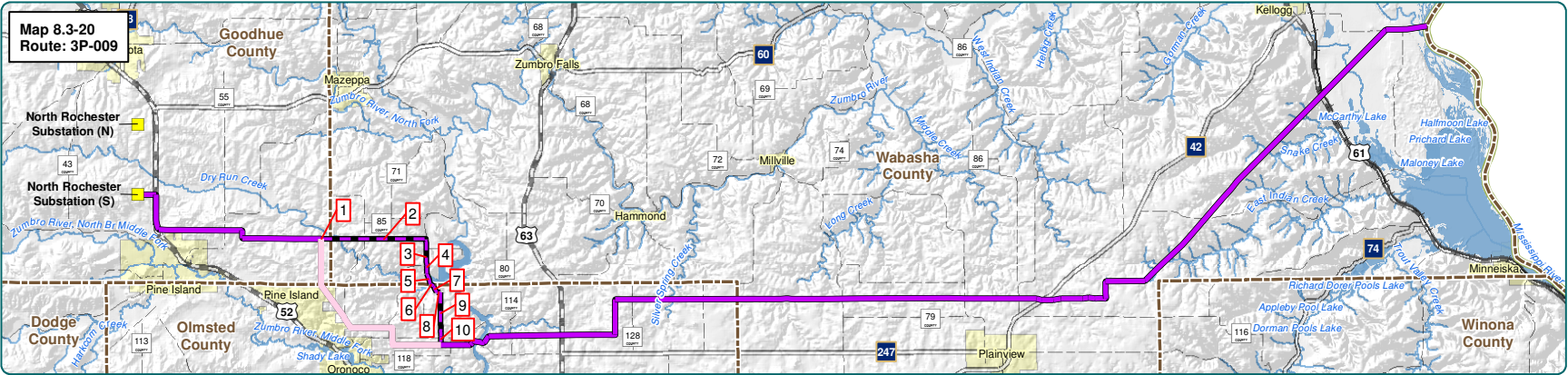
Total Length 45.08

North Rochester to Mississippi River (3P-010)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until White Bridge Road		
2	Turn east following White Bridge Road	1.72	Cty or Twp Road
3	Turn southeast following White Bridge Road	0.56	Returns to applicant's preferred route - Cty or Twp Road

Total Length 44.50

North Rochester to Mississippi River (3P-Kellogg)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until the RR tracks just east of US Hwy 61		
2	Turn north following RR line	2.20	RR Line
3	Turn northeast cross-country	0.14	Cross-country
4	Turn east along CR-84	0.66	Cty or Twp Road
5	Turn south following CR-84	0.51	Cty or Twp Road
6	Turn east following CR-84	1.26	Returns to applicant's preferred route - Cty or Twp Road

Total Length 46.98





North Rochester to Mississippi River (3A-Kellogg)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's alterante route until the RR tracks rust east of US Hwy 61		
2	Turn north following RR line	2.20	RR Line
3	Turn northeast cross-country	0.14	Cross-country
4	Turn east along CR-84	0.66	Cty or Twp Road
5	Turn south following CR-84	0.51	Cty or Twp Road
6	Turn east following CR-84	1.26	Returns to applicant's alternate route -Cty or Twp Road

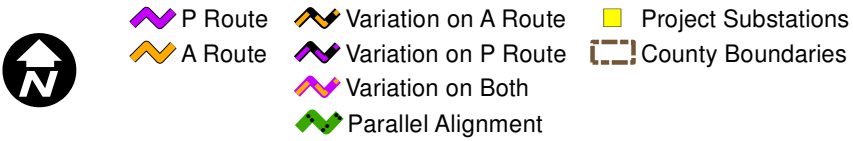
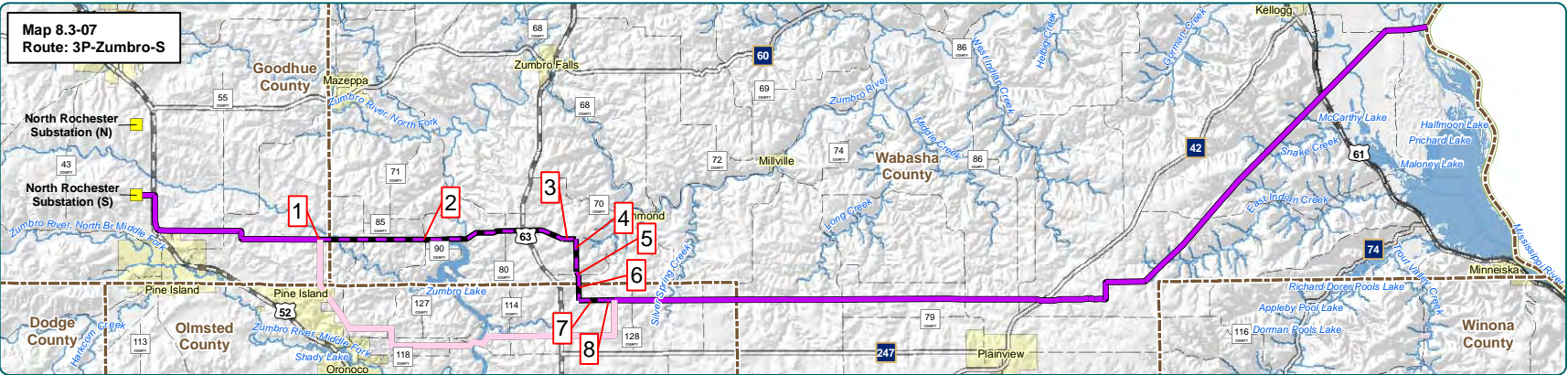
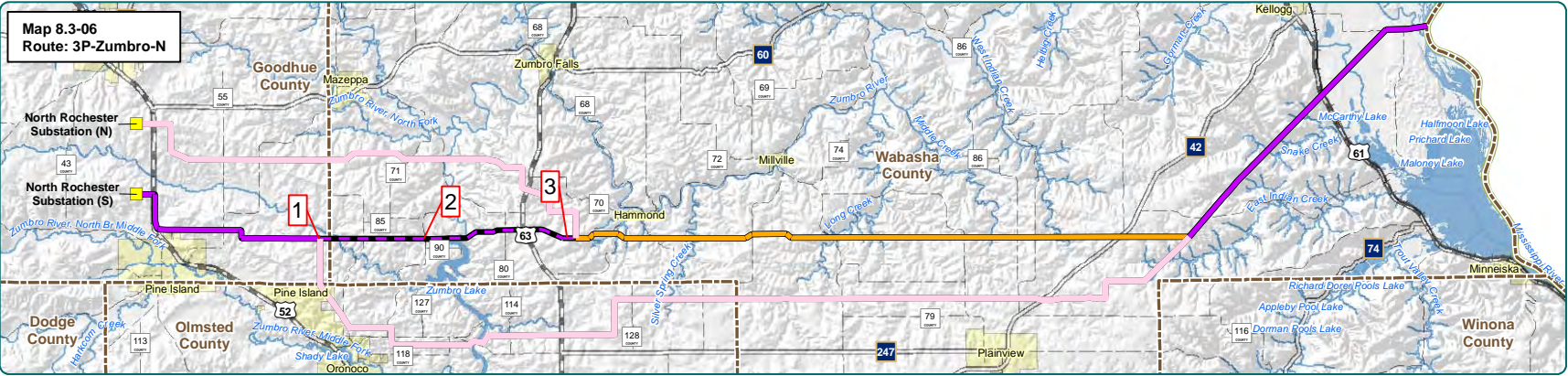
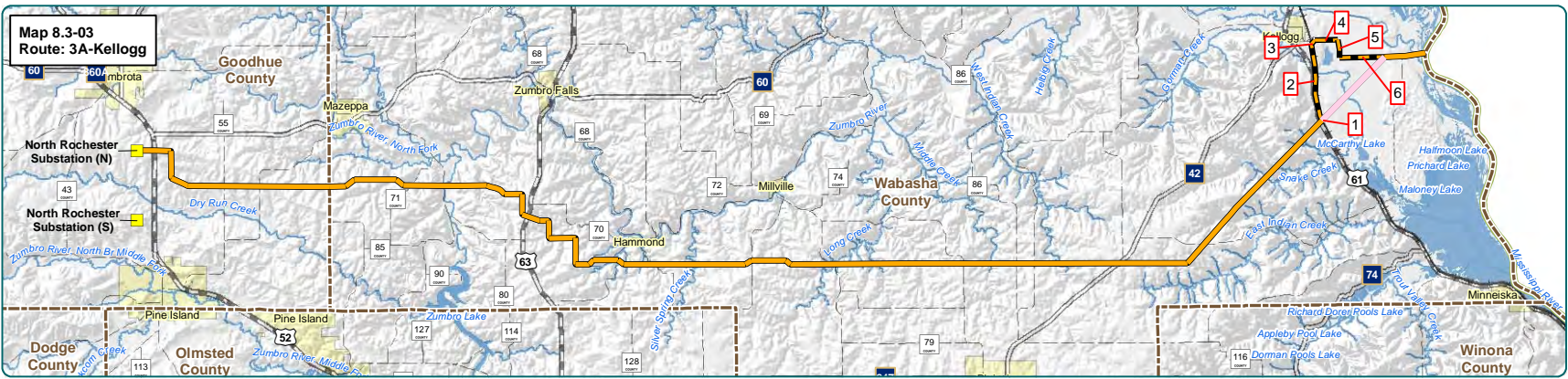
Total Length 44.26

North Rochester to Mississippi River (3P-Zumbro-N)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.7 miles east of 230th Ave		
2	Continue east cross-country/field line	6.97	Cross-country/field line
3	Continue east on T-196	0.37	Returns to applicant's alternate route - Cty or Twp Road

Total Length 40.42

North Rochester to Mississippi River (3P-Zumbro-S)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	Follow the applicant's preferred route until 0.7 miles east of 230th Ave		
2	Continue east cross-country/field line	6.97	Cross-country/field line
3	Continue east on T-196	0.37	Cty or Twp Road
4	Turn south cross-country/field line	0.92	Cross-country/field line
5	Turn southeast cross-country	0.13	Cross-country
6	Turn south cross-country/field line	0.70	Cross-country/field line
7	Turn east along field line	0.74	Field line
8	Continue east cross-country	0.25	Returns to applicant's preferred route - Cross-country

Total Length 42.92

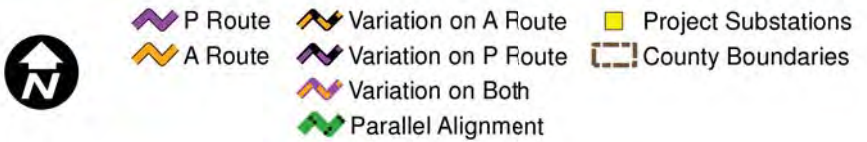
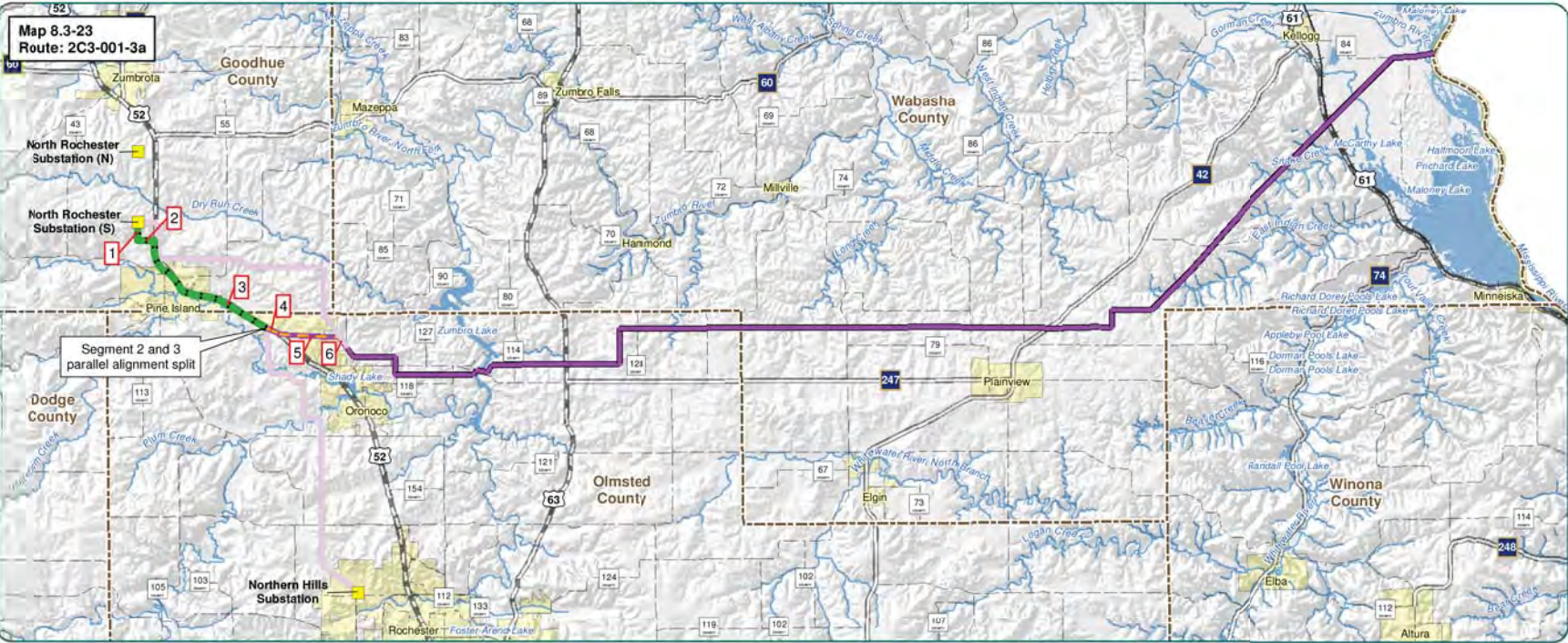
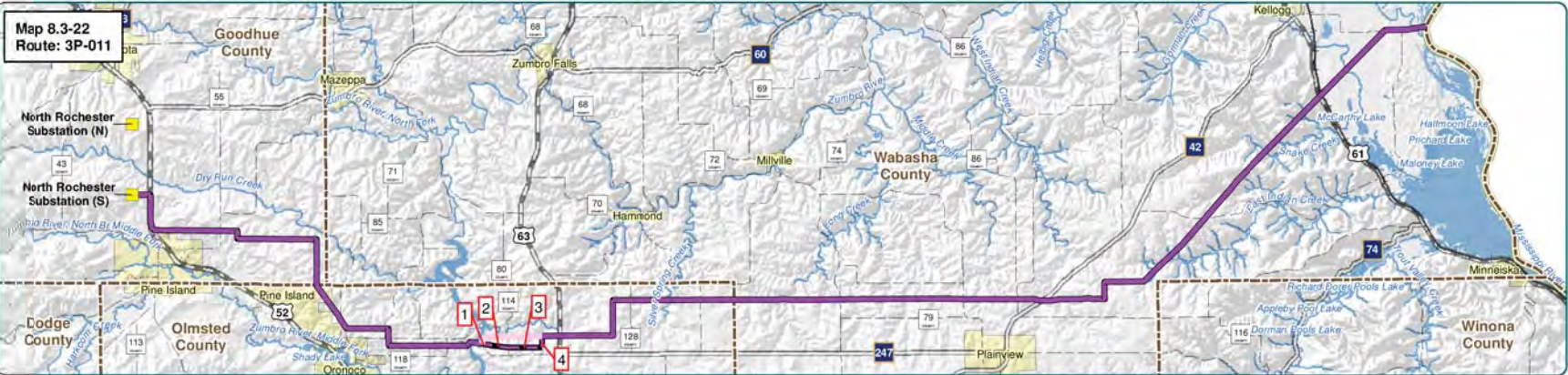
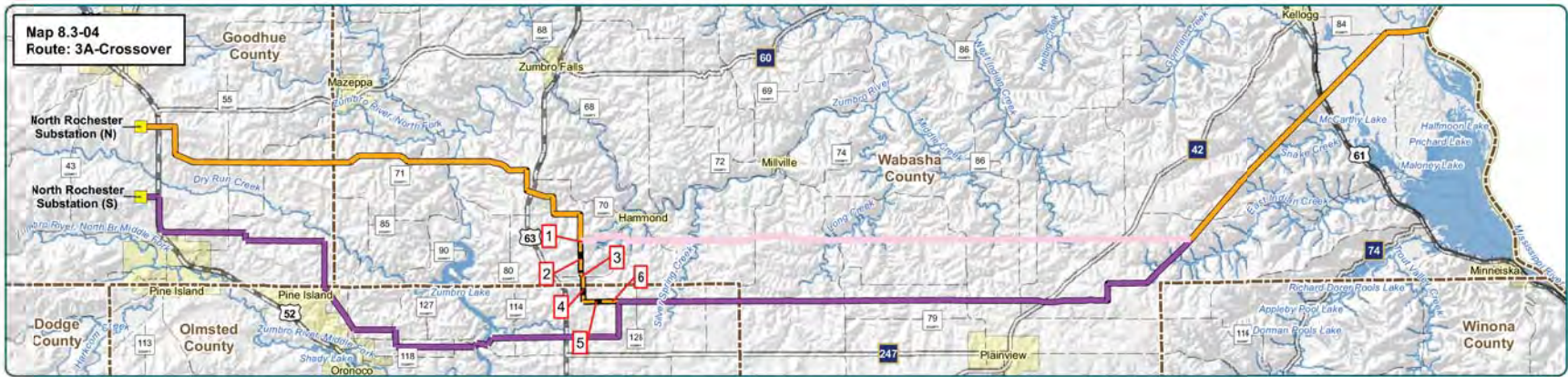




North Rochester to Mississippi River (3A-Crossover)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 Follow the applicant's alternate route to T-196		
2 Continue south cross-country/field line	0.92	Cross-country/field line
3 Turn southeast cross-country	0.13	Cross-country
4 Turn south cross-country/field line	0.70	Cross-country/field line
5 Turn east along field line	0.74	Field line
6 Continue east cross-country	0.25	Returns to applicant's preferred route - Cross-country
Total Length		44.52

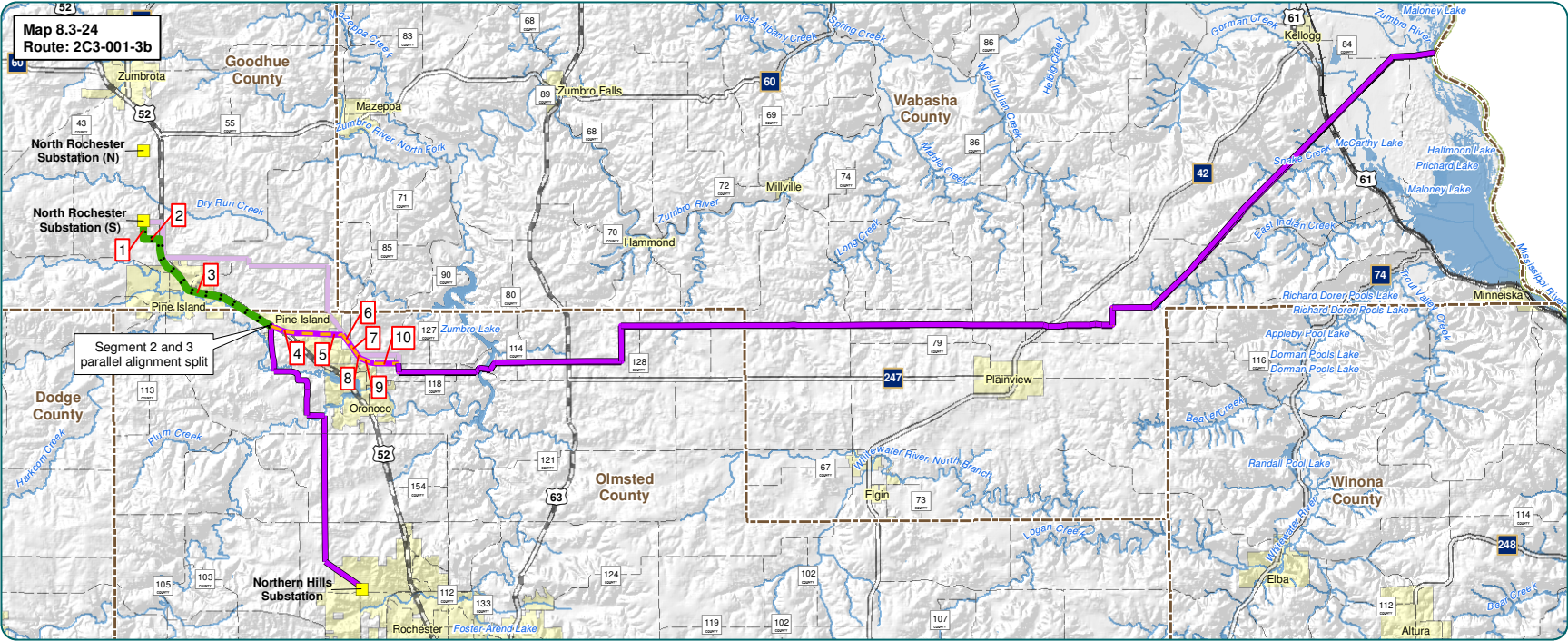
North Rochester to Mississippi River (3P-011)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 Follow the applicant's preferred route until 0.11 miles east of Zumbro River and 0.08 miles north of White Bridge Road NE		
2 Continue southeast cross-country	0.76	Cross-country
3 Turn east cross-country	0.95	Cross-country
4 Turn north cross-country	0.32	Returns to applicant's preferred route - Cross-country
Total Length		44.97

North Rochester to Mississippi River (2C3-001-3a)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 From the North Rochester Substation (S), go south following transmission line	0.51	Transmission Line (Parallel alignment)
2 Turn east following field line	0.46	Field Line (Parallel alignment)
3 Turn south following US Hwy 52	4.33	Major Hwy (Parallel alignment)
4 Continue southeast following US Hwy 52	0.38	Major Hwy
5 Turn east cross-country to Ash Road NW	1.67	Cross-country
6 Turn southeast following Ash Road NW	0.37	Returns to applicant's preferred route - Cty or Twp Road

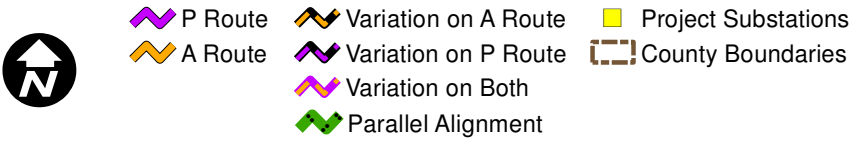
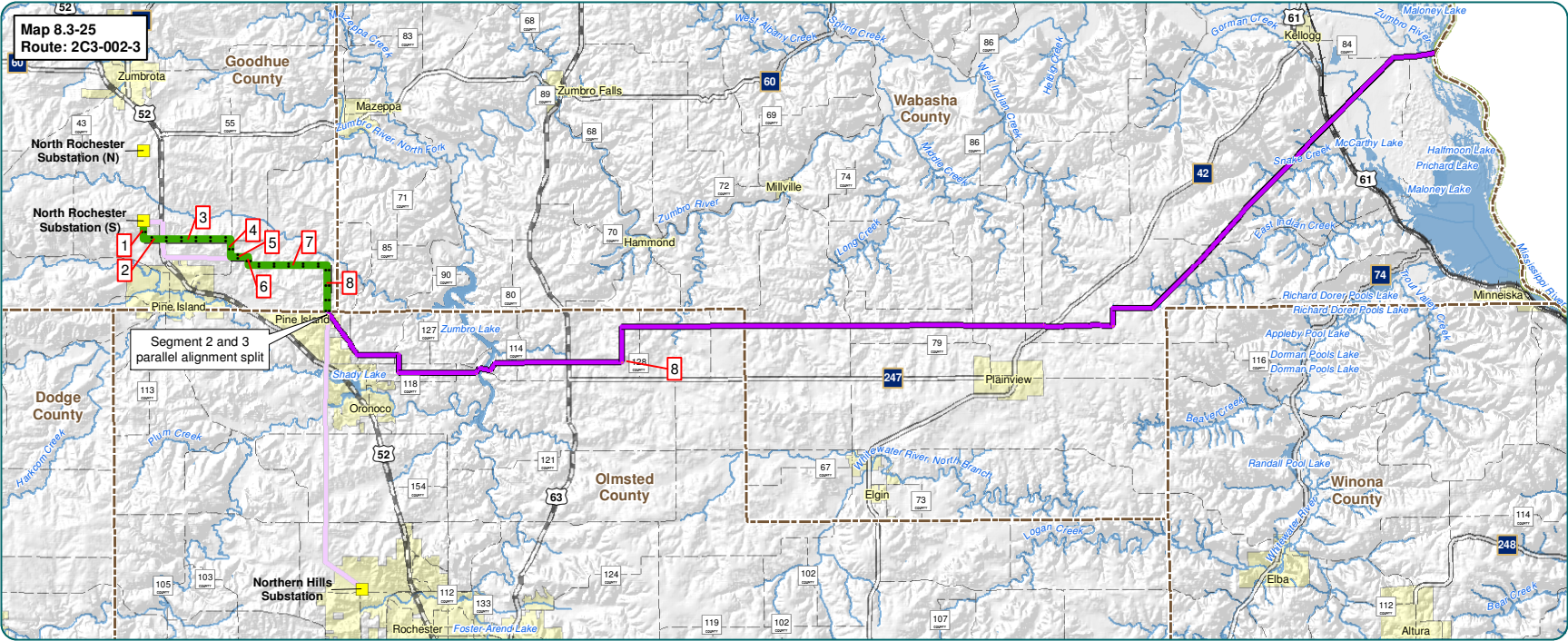




North Rochester to Mississippi River (2C3-001-3b)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go south following transmission line	0.51	Transmission Line (Parallel alignment)
2	Turn east following field line	0.46	Field Line (Parallel alignment)
3	Turn south following US Hwy 52	4.33	Major Hwy (Parallel alignment)
4	Continue southeast following US Hwy 52	0.38	Major Hwy
5	Turn east cross-country to Ash Road NW	1.67	Cross-country
6	Turn southeast following Ash Road NW	0.37	Cty or Twp Road
7	Continue southeast following CSAH 18	0.31	Cty or Twp Road
8	Continue southeast cross-country	0.14	Cross-country
9	Continue east/southeast cross-country	0.41	Cross-country
10	Turn east following White Bridge Road NW	0.70	Returns to applicant's preferred route - Cty or Twp Road
Total Length		43.47	



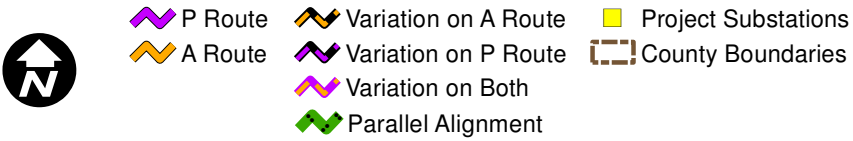
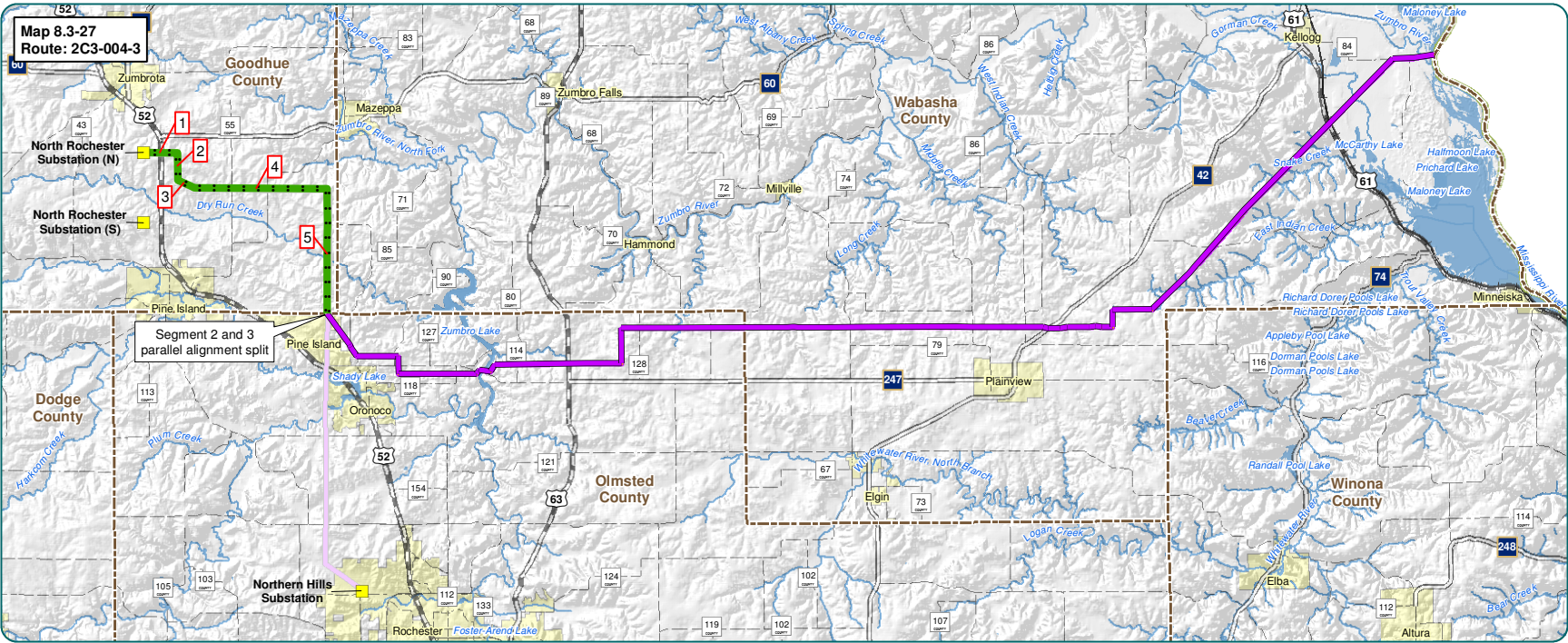
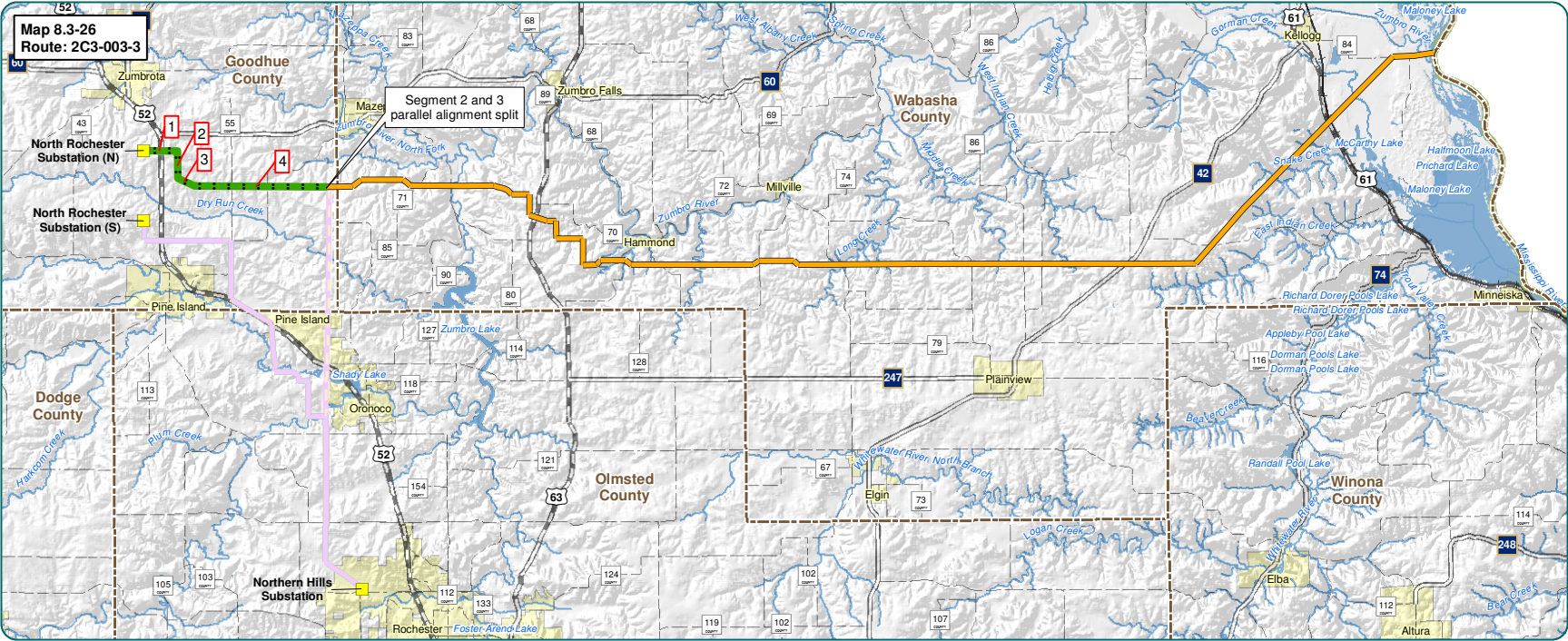
North Rochester to Mississippi River (2C3-002-3)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go south following transmission line	0.50	Transmission Line (Parallel alignment)
2	Turn east following field line	0.46	Field line (Parallel alignment)
3	Continue east following 500th St.	2.00	Cty or Twp Road (Parallel alignment)
4	Turn south following CSAH 11	0.50	Cty or Twp Road (Parallel alignment)
5	Turn east following field line	0.50	Field line (Parallel alignment)
6	Turn south following field line	0.23	Field line (Parallel alignment)
7	Turn east cross-country/field lines	2.23	Cross-country (Parallel alignment)
8	Turn south cross-country	1.31	Returns to applicant's preferred route - Cross-country (Parallel alignment)
Total Length		44.81	





North Rochester to Mississippi River (2C3-002-3)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go south following transmission line	0.50	Transmission Line (Parallel alignment)
2	Turn east following field line	0.46	Field line (Parallel alignment)
3	Continue east following 500th St.	2.00	Cty or Twp Road (Parallel alignment)
4	Turn south following CSAH 11	0.50	Cty or Twp Road (Parallel alignment)
5	Turn east following field line	0.50	Field line (Parallel alignment)
6	Turn south following field line	0.23	Field line (Parallel alignment)
7	Turn east cross-country/field lines	2.23	Cross-country (Parallel alignment)
8	Turn south cross-country	1.31	Returns to applicant's preferred route - Cross-country (Parallel alignment)
Total Length		44.81	

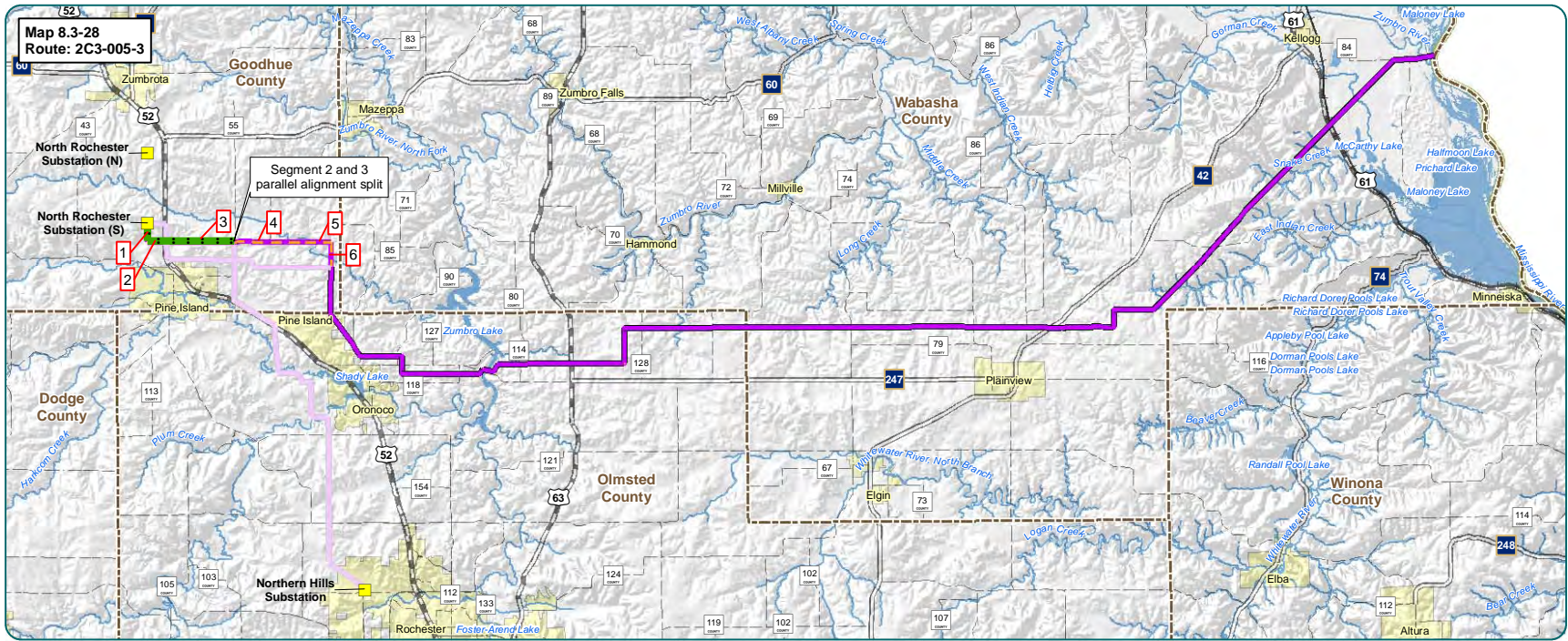
North Rochester to Mississippi River (2C3-004-3)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (N), go east following field line to 195th Ave.	0.97	Field Line (Parallel alignment)
2	Turn south following 195th Ave.	0.78	Cty or Twp Road (Parallel alignment)
3	Turn southeast cross-country	0.52	Cross-country (Parallel alignment)
4	Turn east following field line/cross-country	3.75	Field Line (Parallel alignment)
5	Turn south cross-country	3.53	Returns to applicant's preferred route - Cross-country (Parallel alignment)
Total Length		46.63	





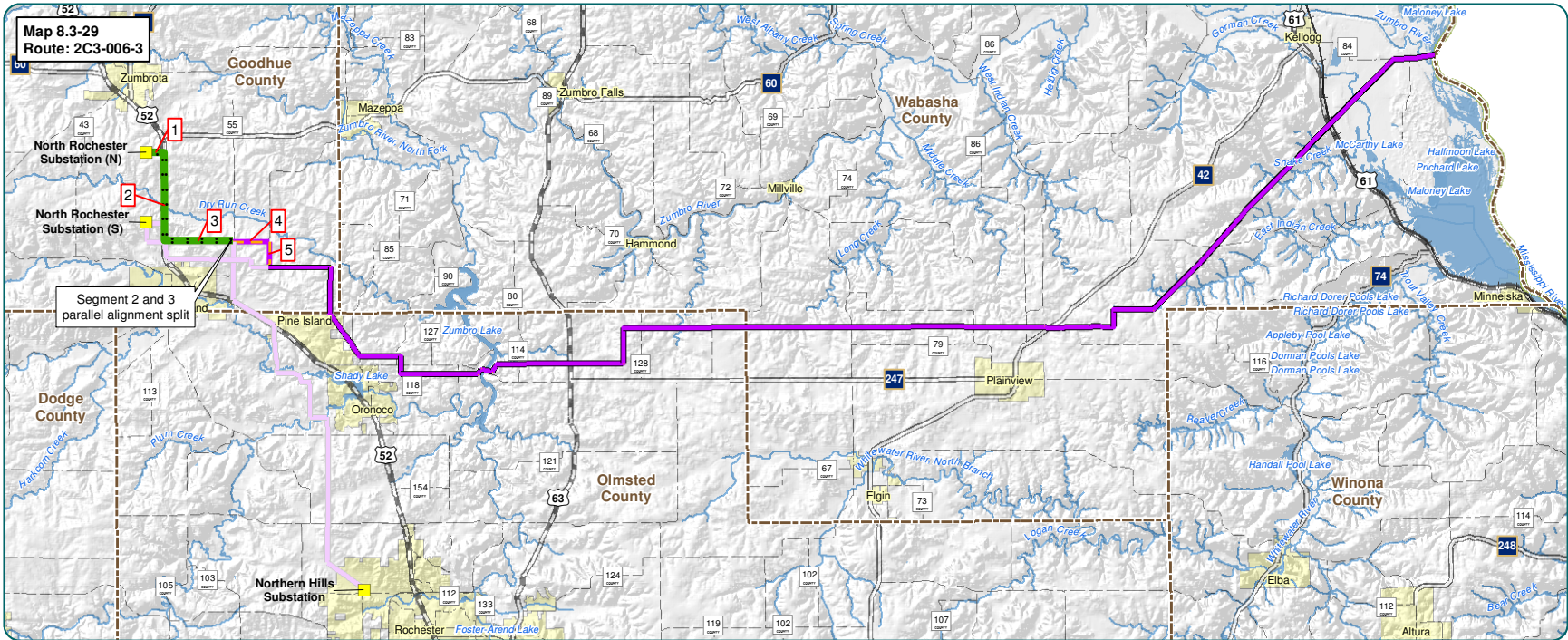
North Rochester to Mississippi River (2C3-005-3)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 From the North Rochester Substation (S), go south following transmission line	0.51	Transmission Line (Parallel alignment)
2 Turn east following field line	0.46	Field Line (Parallel alignment)
3 Continue east following 500th St.	2.00	Cty or Twp Road (Parallel alignment)
4 Continue east following 500th St.	2.01	Cty or Twp Road
5 Continue east cross-country/field lines	0.72	Cross-country/field lines
6 Turn south cross-country	0.73	Returns to applicant's preferred route - Cross-country


Total Length 44.82





North Rochester to Mississippi River (2C3-006-3)		
Turn by Turn	Distance (miles)	Comments/ROW Type
1 From the North Rochester Substation (N), go east following field line to US Hwy 52	0.51	Field line (Parallel alignment)
2 Turn south following US Hwy 52	2.50	Major Hwy (Parallel alignment)
3 Turn east following 500th St.	1.94	Cty or Twp Road (Parallel alignment)
4 Continue east following 500th St.	1.01	Cty or Twp Road
5 Turn south following 220th Ave.	0.73	Returns to applicant's preferred route - Cty or Twp Road

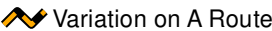
Total Length 46.80

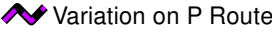


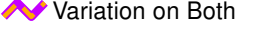



 P Route


 A Route


 Variation on A Route

 Variation on P Route

 Variation on Both

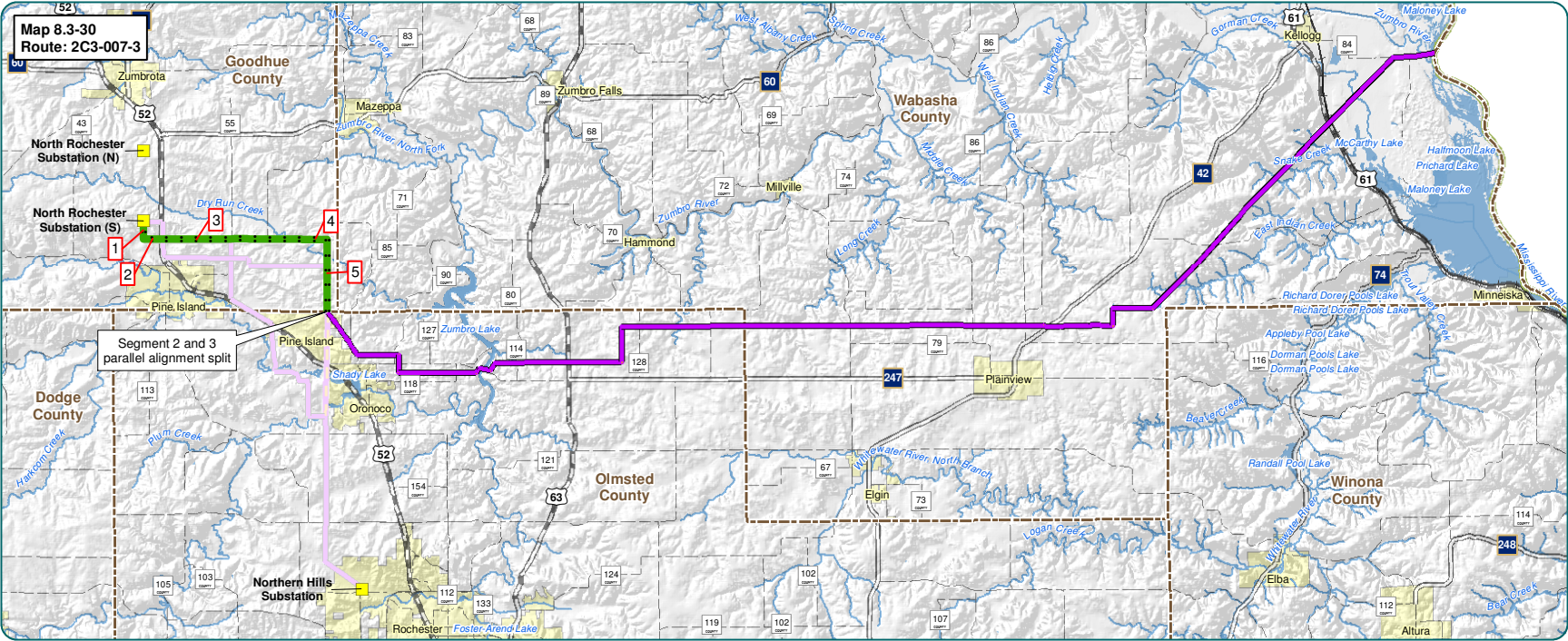
 Parallel Alignment

 Project Substations

 County Boundaries



North Rochester to Mississippi River (2C3-007-3)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go south following transmission line	0.51	Transmission line (Parallel alignment)
2	Turn east following field line	0.52	Field Line (Parallel alignment)
3	Continue east following 500th St.	3.95	Cty or Twp Road (Parallel alignment)
4	Continue east cross-country	0.71	Cross-country (Parallel alignment)
5	Turn south cross-country	2.04	Returns to the applicant's preferred route - Cross-country (Parallel alignment)
Total Length		44.82	



North Rochester to Mississippi River (2C3-008-3)			
Turn by Turn		Distance (miles)	Comments/ROW Type
1	From the North Rochester Substation (S), go east following applicant's preferred route to US Hwy 52	0.52	Field Line (Parallel alignment)
2	Turn south following US Hwy 52 and the applicant's preferred route	0.51	Returns to applicant's preferred route - Major Hwy (Parallel alignment)
Total Length		44.74	

