APPENDIX C:
Transportation

Table C-1. Existing (2011) Vehicle Delays at Public At-Grade Crossings

Segment No.	Street	County, State	ADT (vpd)	L (feet)	V (mph)	Dc (min)	Da (min)	N (# trains)	Td (# veh)	NL (# lanes)	Q (# of veh)	Dv (min)	Crossing LOS	Total Vehicle Traffic Delay (24 hour) (min)
LIRC-01	Hanna Ave	Marion, IN	16,200	3,160	25	1.9	1.3	2	44	2	31	0.007	A	54.84
LIRC-01	Wever Ave/ Windemere St	Marion, IN	400	3,160	25	1.94	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	Shelby St	Marion, IN	14,300	3,160	25	1.9	1.3	2	38	4	14	0.007	A	48.41
LIRC-01	Edwards Ave	Marion, IN	500	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.69
LIRC-01	Lawrence Ave	Marion, IN	500	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.69
LIRC-01	Thompson St	Marion, IN	14,100	3,160	25	1.9	1.3	2	38	2	27	0.007	A	47.73
LIRC-01	Epler Ave	Marion, IN	2,800	3,160	25	1.9	1.3	2	8	2	5	0.007	A	9.48
LIRC-01	Edgewood Ave	Marion, IN	10,700	3,160	25	1.9	1.3	2	29	2	21	0.007	A	36.22
LIRC-01	Banta Rd	Marion, IN	3,600	3,160	25	1.9	1.3	2	10	2	7	0.007	A	12.19
LIRC-01	Southport Rd	Marion, IN	16,700	3,160	25	1.9	1.3	2	45	2	32	0.007	A	56.53
LIRC-01	South St	Marion, IN	700	3,160	25	1.9	1.3	2	2	2	1	0.007	A	2.37
LIRC-01	Stop 10 Rd	Marion, IN	1,700	3,160	25	1.9	1.3	2	5	2	3	0.007	A	5.75
LIRC-01	Stop 11 Rd	Marion, IN	25,700	3,160	25	1.9	1.3	2	69	4	25	0.007	A	86.99
LIRC-01	County Line Rd S	Marion, IN	31,300	3,160	25	1.9	1.3	2	84	4	30	0.007	A	105.95
LIRC-01	N Meridian St	Johnson, IN	7,600	3,160	25	1.9	1.3	2	20	2	15	0.007	A	25.73
LIRC-01	Academy St	Johnson, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	E Broadway St	Johnson, IN	500	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.69
LIRC-01	E Main St/CR #950N	Johnson, IN	11,200	3,160	25	1.9	1.3	2	30	2	22	0.007	A	37.91
LIRC-01	Stop 18 Rd/CR #800N	Johnson, IN	6,600	3,160	25	1.9	1.3	2	18	2	13	0.007	A	22.34
LIRC-01	Worthsville Rd	Johnson, IN	3,200	3,160	25	1.9	1.3	2	9	2	6	0.007	A	10.83
LIRC-01	Rushville Rd/CR #700N	Johnson, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	CR #600N	Johnson, IN	1,400	3,160	25	1.9	1.3	2	4	2	3	0.007	A	4.74
LIRC-01	Walnut St	Johnson, IN	600	3,160	25	1.9	1.3	2	2	2	1	0.007	A	2.03
LIRC-01	Main St	Johnson, IN	8,100	3,160	25	1.9	1.3	2	22	2	16	0.007	A	27.42

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LIRC-01	Pearl St	Johnson, IN	600	3,160	25	1.9	1.3	2	2	2	1	0.007	A	2.03
LIRC-01	CR #400N	Johnson, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	School House Rd/CR #300N	Johnson, IN	2,600	3,160	25	1.9	1.3	2	7	2	5	0.007	A	8.80
LIRC-01	Commerce Dr	Johnson, IN	800	3,160	25	1.9	1.3	2	2	2	2	0.007	A	2.71
LIRC-01	Graham Rd	Johnson, IN	2,200	3,160	25	1.9	1.3	2	6	2	4	0.007	A	7.45
LIRC-01	Cincinnati St	Johnson, IN	1,100	3,160	25	1.9	1.3	2	3	2	2	0.007	A	3.72
LIRC-01	Adams St	Johnson, IN	600	3,160	25	1.9	1.3	2	2	2	1	0.007	A	2.03
LIRC-01	King St	Johnson, IN	2,000	3,160	25	1.9	1.3	2	5	2	4	0.007	A	6.77
LIRC-01	Jefferson St/SR #44	Johnson, IN	10,400	3,160	25	1.9	1.3	2	28	2	20	0.007	A	35.20
LIRC-01	Monroe St	Johnson, IN	1,300	3,160	25	1.9	1.3	2	3	2	3	0.007	A	4.40
LIRC-01	State St	Johnson, IN	600	3,160	25	1.9	1.3	2	2	2	1	0.007	A	2.03
LIRC-01	CR #150S	Johnson, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	CR #250S	Johnson, IN	500	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.69
LIRC-01	Bragan Rd/CR #300S	Johnson, IN	200	3,160	25	1.9	1.3	2	1	2	0	0.007	A	0.68
LIRC-01	Main Cross St/CR #350S	Johnson, IN	300	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.02
LIRC-01	CR #400S	Johnson, IN	900	3,160	25	1.9	1.3	2	2	2	2	0.007	A	3.05
LIRC-01	Durham Rd/CR #650S	Johnson, IN	800	3,160	25	1.9	1.3	2	2	2	2	0.007	A	2.71
LIRC-01	Anglin Rd/CR #700E	Johnson, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	Naomi St	Johnson, IN	300	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.02
LIRC-01	Center Cross St	Johnson, IN	4,700	3,160	25	1.9	1.3	2	13	2	9	0.007	A	15.91
LIRC-01	E Main Cross St	Johnson, IN	3,100	3,160	25	1.9	1.3	2	8	2	6	0.007	A	10.49
LIRC-01	Thompson St	Johnson, IN	800	3,160	25	1.9	1.3	2	2	2	2	0.007	A	2.71
LIRC-01	Perry St	Johnson, IN	600	3,160	25	1.9	1.3	2	2	2	1	0.007	A	2.03
LIRC-01	County Line St	Johnson, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35

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Segment No.	Street	County, State	ADT (vpd)	L (feet)	V (mph)	Dc (min)	Da (min)	N (# trains)	Td (# veh)	NL (# lanes)	Q (# of veh)	Dv (min)	Crossing LOS	Total Vehicle Traffic Delay (24 hour) (min)
LIRC-01	CR #900N	Bartholomew, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	CR #800N	Bartholomew, IN	700	3,160	25	1.9	1.3	2	2	2	1	0.007	A	2.37
LIRC-01	CR #700N	Bartholomew, IN	100	3,160	25	1.9	1.3	2	0	2	0	0.007	A	0.34
LIRC-01	Mill St	Bartholomew, IN	100	3,160	25	1.9	1.3	2	0	2	0	0.007	A	0.34
LIRC-01	Tannehill Rd	Bartholomew, IN	3,600	3,160	25	1.9	1.3	2	10	2	7	0.007	A	12.19
LIRC-01	CR #550N	Bartholomew, IN	7,500	3,160	25	1.9	1.3	2	20	2	15	0.007	A	25.39
LIRC-01	CR #500N	Bartholomew, IN	200	3,160	25	1.9	1.3	2	1	2	0	0.007	A	0.68
LIRC-01	CR #450N	Bartholomew, IN	100	3,160	25	1.9	1.3	2	0	2	0	0.007	A	0.34
LIRC-01	CR #400N	Bartholomew, IN	700	3,160	20	2.3	1.5	2	2	2	2	0.010	A	3.33
LIRC-01	Industrial Rd	Bartholomew, IN	800	3,160	20	2.3	1.5	2	3	2	2	0.010	A	3.81
LIRC-01	Lowell Rd	Bartholomew, IN	400	3,160	20	2.3	1.5	2	1	2	1	0.010	A	1.90
LIRC-01	11th St	Bartholomew, IN	9,700	3,160	20	2.3	1.5	2	31	2	22	0.010	A	46.14
LIRC-01	8th St	Bartholomew, IN	11,200	3,160	20	2.3	1.5	2	36	2	26	0.010	A	53.28
LIRC-01	5th St Ext	Bartholomew, IN	1,200	3,160	20	2.3	1.5	2	4	2	3	0.010	A	5.71
LIRC-01	SR #46	Bartholomew, IN	36,000	3,160	20	2.3	1.5	2	115	6	28	0.010	A	171.25
LIRC-01	Garden St/CR #100S/	Bartholomew, IN	500	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.69
LIRC-01	Spear St	Bartholomew, IN	1,200	3,160	25	1.9	1.3	2	3	2	2	0.007	A	4.06
LIRC-01	CR #200S	Bartholomew, IN	5,100	3,160	25	1.9	1.3	2	14	2	10	0.007	A	17.26
LIRC-01	Dawson St (Kyte)	Bartholomew, IN	100	3,160	25	1.9	1.3	2	0	2	0	0.007	A	0.34
LIRC-01	Deaver Rd	Bartholomew, IN	5,000	3,160	25	1.9	1.3	2	13	2	10	0.007	A	16.92
LIRC-01	CR #400S	Bartholomew, IN	200	3,160	25	1.9	1.3	2	1	2	0	0.007	A	0.68
LIRC-01	CR #450S	Bartholomew, IN	10,000	3,160	25	1.9	1.3	2	27	2	19	0.007	A	33.85
LIRC-01	CR #550S	Bartholomew, IN	300	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.02
LIRC-01	CR #650S	Bartholomew, IN	300	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.02
LIRC-01	CR #800S	Bartholomew, IN	300	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.02
LIRC-01	CR #850S	Bartholomew, IN	200	3,160	25	1.9	1.3	2	1	2	0	0.007	A	0.68

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LIRC-01	Jackson St/CR #950S/	Bartholomew, IN	1,200	3,160	25	1.9	1.3	2	3	2	2	0.007	A	4.06
LIRC-01	Mill St	Bartholomew, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	Poplar Rd	Bartholomew, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	County Line Rd/CR #1100S	Bartholomew, IN	500	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.69
LIRC-01	CR #1000N	Jackson, IN	300	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.02
LIRC-01	Old U.S. 31/CR #760	Jackson, IN	1,300	3,160	25	1.9	1.3	2	3	2	3	0.007	A	4.40
LIRC-01	Reddington St/Main St	Jackson, IN	2,000	3,160	25	1.9	1.3	2	5	2	4	0.007	A	6.77
LIRC-01	9th St	Jackson, IN	2,600	3,160	25	1.9	1.3	2	7	2	5	0.007	A	8.80
LIRC-01	7th St	Jackson, IN	400	3,160	25	1.9	1.3	2	1	2	1	0.007	A	1.35
LIRC-01	6th St/SR #258	Jackson, IN	12,200	3,160	25	1.9	1.3	2	33	2	24	0.007	A	41.30
LIRC-01	5th St	Jackson, IN	2,000	3,160	25	1.9	1.3	2	5	2	4	0.007	A	6.77
LIRC-01	4th St	Jackson, IN	2,600	3,160	25	1.9	1.3	2	7	2	5	0.007	A	8.80
LIRC-01	3rd St	Jackson, IN	2,600	3,160	25	1.9	1.3	2	7	2	5	0.007	A	8.80
LIRC-01	2nd St	Jackson, IN	5,200	3,160	25	1.9	1.3	2	14	2	10	0.007	A	17.60
LIRC-01	St Louis Ave N	Jackson, IN	2,400	3,160	20	2.3	1.5	2	8	2	6	0.010	A	11.42
LIRC-01	St Louis Ave S	Jackson, IN	100	3,160	20	2.3	1.5	2	0	2	0	0.010	A	0.48
LIRC-01	Tipton St/U.S. 50	Jackson, IN	25,100	3,160	25	1.9	1.3	2	68	4	24	0.007	A	84.96
LIRC-01	Bruce St	Jackson, IN	800	5,100	25	2.8	1.8	4	6	2	2	0.029	A	11.47
LIRC-01	South St	Jackson, IN	1,300	5,100	25	2.8	1.8	4	10	2	4	0.029	A	18.64
LIRC-01	Brown St	Jackson, IN	1,600	5,100	25	2.8	1.8	4	13	2	5	0.029	A	22.94
LIRC-01	Laurel St	Jackson, IN	2,600	5,100	25	2.8	1.8	4	20	2	7	0.029	A	37.28
LIRC-02	O'Brien St	Jackson, IN	4,900	5,100	25	2.8	1.8	4	38	2	14	0.029	A	70.27
LIRC-02	String Camp/CR #340N	Jackson, IN	300	5,100	25	2.8	1.8	4	2	2	1	0.029	A	4.30
LIRC-02	Swengel Rd/CR #900E	Jackson, IN	200	5,100	25	2.8	1.8	4	2	2	1	0.029	A	2.87

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LIRC-02	Farmington/CR# 300N	Jackson, IN	1,300	5,100	25	2.8	1.8	4	10	2	4	0.029	A	18.64
LIRC-02	Yankee Rd/CR #200N	Jackson, IN	300	5,100	25	2.8	1.8	4	2	2	1	0.029	A	4.30
LIRC-02	CR #950E	Jackson, IN	300	5,100	25	2.8	1.8	4	2	2	1	0.029	A	4.30
LIRC-02	Chestnut Ridge Rd	Jackson, IN	300	5,100	25	2.8	1.8	4	2	2	1	0.029	A	4.30
LIRC-02	CR #100S	Jackson, IN	100	5,100	25	2.8	1.8	4	1	2	0	0.029	A	1.43
LIRC-02	SR #250	Jackson, IN	1,600	5,100	25	2.8	1.8	4	13	2	5	0.029	A	22.94
LIRC-02	CR #400S	Jackson, IN	200	5,100	25	2.8	1.8	4	2	2	1	0.029	A	2.87
LIRC-02	CR #500S	Jackson, IN	200	5,100	25	2.8	1.8	4	2	2	1	0.029	A	2.87
LIRC-02	Walnut St	Jackson, IN	2,500	5,100	25	2.8	1.8	4	20	2	7	0.029	A	35.85
LIRC-02	Howard St	Jackson, IN	2,900	5,100	25	2.8	1.8	4	23	2	8	0.029	A	41.59
LIRC-02	Main St	Jackson, IN	3,400	5,100	25	2.8	1.8	4	27	2	10	0.029	A	48.76
LIRC-02	Industrial Way	Jackson, IN	Unknown											
LIRC-02	CR #750S	Jackson, IN	200	5,100	25	2.8	1.8	4	2	2	1	0.029	A	2.87
LIRC-02	Christie Rd	Scott, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	W Morgan Dr	Scott, IN	10,100	5,100	25	2.8	1.8	4	79	2	28	0.029	A	144.83
LIRC-02	Main St/SR #256	Scott, IN	9,700	5,100	25	2.8	1.8	4	76	2	27	0.029	A	139.10
LIRC-02	Cherry St	Scott, IN	500	5,100	25	2.8	1.8	4	4	2	1	0.029	A	7.17
LIRC-02	Plum St	Scott, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	York Rd/CR #300N	Scott, IN	600	5,100	25	2.8	1.8	4	5	2	2	0.029	A	8.60
LIRC-02	Owen St	Scott, IN	500	5,100	25	2.8	1.8	4	4	2	1	0.029	A	7.17
LIRC-02	High St	Scott, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Miner St	Scott, IN	700	5,100	25	2.8	1.8	4	5	2	2	0.029	A	10.04
LIRC-02	McClain St/SR #56	Scott, IN	17,100	5,100	25	2.8	1.8	4	134	2	48	0.029	A	245.21
LIRC-02	Wardell St	Scott, IN	1,300	5,100	25	2.8	1.8	4	10	2	4	0.029	A	18.64

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LIRC-02	Cherry St	Scott, IN	500	5,100	25	2.8	1.8	4	4	2	1	0.029	A	7.17
LIRC-02	W Walnut St	Scott, IN	500	5,100	25	2.8	1.8	4	4	2	1	0.029	A	7.17
LIRC-02	Green St	Scott, IN	500	5,100	25	2.8	1.8	4	4	2	1	0.029	A	7.17
LIRC-02	Lovers Ln	Scott, IN	500	5,100	25	2.8	1.8	4	4	2	1	0.029	A	7.17
LIRC-02	Fair Grounds Rd	Scott, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Leota Rd/SR #356	Scott, IN	3,800	5,100	25	2.8	1.8	4	30	2	11	0.029	A	54.49
LIRC-02	Radio Tower Rd	Scott, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Edrington Blvd	Scott, IN	100	5,100	25	2.8	1.8	4	1	2	0	0.029	A	1.43
LIRC-02	Hardy Rd	Scott, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	County Line Rd	Scott, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	East St	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Beagle Club Rd	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Brownstown Rd	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Hebron Church Rd	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	SR #160	Clark, IN	4,400	5,100	25	2.8	1.8	4	34	2	12	0.029	A	63.10
LIRC-02	Main St	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Caney Rd	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Pallies Rd/CR #50	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Main St	Clark, IN	1,000	5,100	25	2.8	1.8	4	8	2	3	0.029	A	14.34
LIRC-02	Mill St	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Killen Rd	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Bud Prather Rd	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Weber Rd	Clark, IN	400	5,100	25	2.8	1.8	4	3	2	1	0.029	A	5.74
LIRC-02	Riley Dr	Clark, IN	1,100	5,100	25	2.8	1.8	4	9	2	3	0.029	A	15.77
LIRC-02	SR #403	Clark, IN	10,100	5,100	25	2.8	1.8	4	79	2	28	0.029	A	144.83
LIRC-02	Utica St	Clark, IN	1,900	5,100	25	2.8	1.8	4	15	2	5	0.029	A	27.25

Table C-1. Existing (2011) Vehicle Delays at Public At-Grade Crossings

Segment No.	Street	County, State	ADT (vpd)	L (feet)	V (mph)	Dc (min)	Da (min)	N (# trains)	Td (# veh)	NL (# lanes)	Q (# of veh)	Dv (min)	Crossing LOS	Total Vehicle Traffic Delay (24 hour) (min)
LIRC-02	Bean Rd	Clark, IN	1,000	5,100	25	2.8	1.8	4	8	2	3	0.029	A	14.34
LIRC-02	Airport Dr	Clark, IN	Unknown											
LIRC-02	Hamburg Pike	Clark, IN	11,000	5,100	25	2.8	1.8	4	86	2	31	0.029	A	157.74
LIRC-02	Coopers Ln	Clark, IN	1,000	5,100	25	2.8	1.8	4	8	2	3	0.029	A	14.34
LIRC-03	Charlestown Rd	Clark, IN	12,300	5,100	20	3.4	2.2	7	203	5	17	0.073	A	448.67
LIRC-03	11th St	Jefferson, KY	2,600	5,100	10	6.3	4.1	7	80	2	16	0.250	B	325.59

Sources:

City of Columbus 2004, Traffic Counts, http://www.columbus.in.gov/engineering/traffic-counts/;

City of Indianapolis 2003, Indianapolis Property Site Locator & Market Data Resource Center, http://imaps.indygov.org/ed/;

FRA 1986-2002, Crossing Inventory Reports, http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/crossing.aspx;

Google Earth 2001-2008, http://www.google.com/earth/index.html;

Indianapolis Metropolitan Planning Organization (MPO) 2010, Traffic Counts Maps, 2010 Highway Performance Monitoring System Traffic Count Map, http://www.indympo.org/Data/Maps/Pages/TrafficCountMaps.aspx;

INDOT 2009, 2009 Average Daily Traffic and Commercial Vehicles Interactive Map, http://dotmaps.indot.in.gov/apps/trafficcounts/;

Notes:

L = length of trains

V = existing average train speed

Dc = blocked crossing time per train, minutes

Da = average delay per delayed vehicle, minutes

N = existing number of trains

Td = total delayed vehicles per day

NL = number traffic lanes

Q = vehicle queue length, number of vehicles

Dv = average delay for all vehicles, minutes

Total vehicle traffic delay (24-hour), minutes

C.1 Methodology for Projecting Traffic and Grade Crossing Delay

Train crossings interrupt roadway traffic flow for a period of time that depends on the speed and length of the train. The proposed changes in train volume as a result of the Proposed Transaction would cause increased vehicle delay at the at-grade crossings where train traffic increases. As part of the Proposed Transaction, all three rail line segments are projected to see an increase in trains by 2014. Therefore, the at-grade crossings along the Line are analyzed under the 2014 conditions.

Factors in the vehicle delay analysis include:

- The number of trains per day before and after the Proposed Transaction;
- The estimated time it takes for a train to pass the highway/rail at-grade crossing; and
- Existing and projected roadway traffic volumes.

Several values for each public at-grade crossing were calculated and included in the analysis. Existing conditions, No-Action, and conditions under the Proposed Transaction were examined for the following parameters:

- Blocked crossing time per train;
- Average delay per delayed roadway vehicle;
- Vehicle queue length;
- Average delay for all vehicles;
- Total vehicle traffic delay; and
- Traffic LOS.

The following sections describe the methodology used to measure roadway vehicle delay at highway/rail at-grade crossings.

Blocked Crossing Time per Train (Dc)

The time required for a train to cross the intersecting roadway was estimated. This time is called the blocked crossing time. This value is used to determine the length of time drivers wait when trains pass through a highway/rail at-grade crossing.

Average train speed is a major factor in this calculation. This speed is dependent not only on track conditions and train operating characteristics, but also on intersecting commuter and freight rail traffic.

The following equation, developed by Stanford Research Institute[1], was used to estimate blocked crossing time for the highway/rail at-grade crossings:

$$Dc = \frac{L}{V \times 88} + 0.50$$

[1] Prepared for FRA and the Federal Highway Administration. August 1974, RP-31, Volume 3, Appendix C.

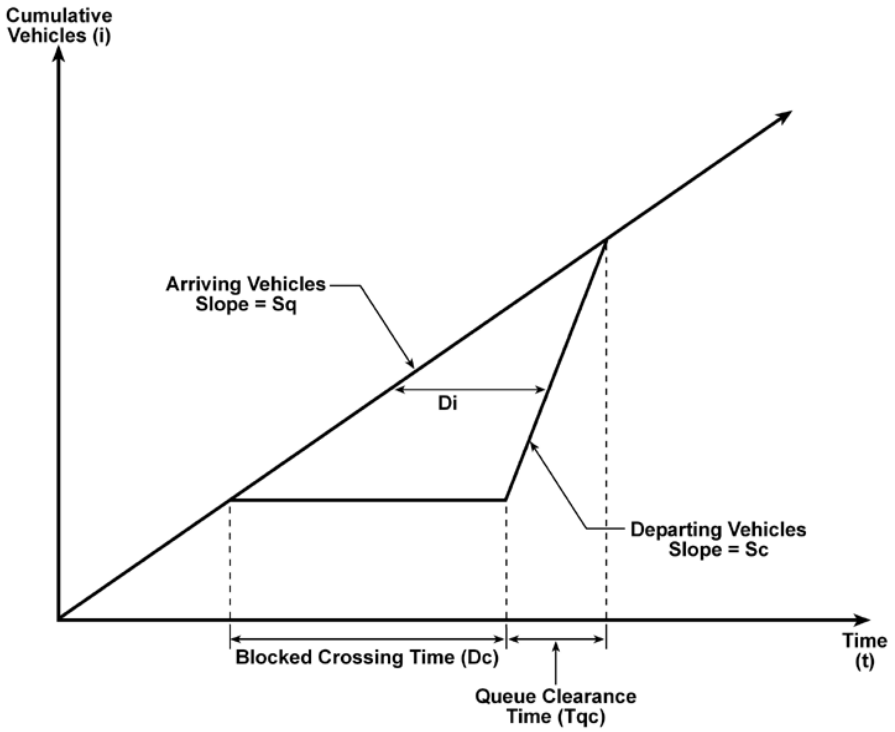
where:

Dc	=	Time required for the train to pass the highway/rail at-grade crossing (minutes). It includes time for gate closing and opening and is also referred to as the total time the crossing indication is activated or the blocked crossing time per train.
L	=	Length of the train (feet)
V	=	Train speed (mph)
88	=	Conversion factor from mph to feet per minute
0.50	=	Time required for gate closing and opening prior to and after the passage of the train (minutes)

Average Delay Per Delayed Vehicle (Da)

The average delay per delayed vehicle is the average amount of time that a driver would be delayed at a highway/rail at-grade crossing as a result of a single train crossing. It assumes a uniform arrival of vehicles. Figure C-1 illustrates the relationship between arriving and departing vehicles.

Figure C-1. Vehicle Delay Analysis (Single Train Event)



Vehicles arrive at a constant rate of *Sq* as shown by the constant slope of the arrival curve. When the blocked crossing period begins, vehicles begin to queue. When the blocked crossing period ends, queued vehicles begin to depart at the constant vehicle departure rate of *Sc*. The departure rate continues until the departure curve intersects the arrival curve, signifying the dissipation of

the queue. The arrival and departure curves then coincide until the next train event. From this model:

- The delay for vehicles (*i*), noted as *Di,* is given by the time scale (horizontal) difference between the arrival and departure curves.
- The aggregate delay for all vehicles passing through the crossing is the area between the arrival and departure curves.
- The number of vehicles that incur delay as a result of the train is equal to the number of vehicles that arrive when the crossing is blocked (Dc) and the queue is clearing (Tqc).
- The average delay per delayed vehicle (*Da*) is equal to the aggregate delay divided by the number of vehicles that are delayed. Assuming uniform arrivals, the equation for the average delay per delayed vehicle can be derived as follows:

$$Da = \frac{\text{Aggregate Delay}}{\text{Delayed Vehicles}} \times 1.3$$
$$= \frac{0.5 \times Sq \times Dc \times (Dc + Tqc)}{Sq \times (Dc + Tqc)} \times 1.3$$
$$= 0.5 \times Dc \times 1.3$$

where:

Da = Average delay per delayed vehicle (minutes)
Sq = Average arrival rate of traffic (vehicles per minute per lane)
Dc = Blocked crossing time per train (minutes)
Tqc = Queue clearance time (minutes)
0.5 = Factor used in the calculation of the area of a triangle
1.3 = Factor which is widely used in the traffic engineering profession to account for initial deceleration, queue move-up time, and final acceleration of vehicles that are delayed

Vehicle Queue Length (Q)

The vehicle queue is the estimated number of vehicles in line at the end of the blocked crossing time of a single train event. The vehicle queue is equal to the number of vehicles that arrive during the blocked crossing time (*Dc*). The vehicle queue during the peak hour of roadway traffic was estimated. The peak-hour traffic was assumed to be 10 percent of the ADT volume—a typical assumption used by traffic engineers. The vehicle queue at the end of the blocked crossing time was calculated from the following equation:

$$Q = ADT \times 0.1 \times \frac{0.6}{60} \times \frac{Dc}{NL/2}$$

where:

Q = Vehicle queue (number of vehicles)
ADT = Average daily traffic for highway/rail at-grade crossing
0.1 = Ten percent factor to convert ADT to peak-hour traffic

0.6 = 60 percent factor to convert two-way traffic to peak-direction traffic
60 = Factor to convert traffic volume per hour to traffic volume per minute
Dc = Time required for the train to pass the highway/rail at-grade crossing, including time for gate closing and opening, in minutes
NL = Highway lanes at the highway/rail at-grade crossing as reported by the FRA database
2 = Factor to convert total number of roadway lanes to number of lanes in peak direction

Average Delay for All Vehicles (Dv)

The average delay per vehicle is the average amount of time that a vehicle is delayed at that intersection.

$$Dv = Td \times Da \times 2/ADT$$

where:

Dv = Average delay for all vehicles (minutes per vehicle)
Td = Vehicles delayed per day
Da = Average delay per delayed vehicle (minutes)
2 = Factor to account for both directions of traffic
ADT = Average daily traffic for highway/rail at-grade crossing

Average Number of Vehicles Delayed Per Day (Td)

The average number of vehicles delayed per day equals the number of drivers in a 24-hour period that would be stopped for trains at highway/rail at-grade crossings. The average number of vehicles delayed per day per crossing was estimated based on the following equation:

$$Td = \frac{Dc \times N \times ADT}{1{,}440}$$

where:

Td = Vehicles delayed per day
Dc = Blocked crossing time per train (in minutes)
1,440 = Minutes per day
N = Trains per day
ADT = Average daily traffic for highway/rail at-grade crossing

Traffic Level of Service

OEA estimated the vehicle delay effects at highway/rail at-grade crossings using the LOS concept at signalized intersections, as documented in the 2010 *Highway Capacity Manual* (HCM) (Transportation Research Board [TRB] 2010). Use of the HCM procedures for signalized intersections is acceptable for the following reasons:

- the absence of a similar measure of efficiency for highway/rail at-grade crossings, and

- similarities between signalized intersection operation and highway/rail at-grade crossing operation

The red phase of a traffic signal represents the blocked crossing time at a highway/rail at-grade crossing operation. When the blocked crossing period begins, vehicles begin to queue. When the blocked crossing period ends, queued vehicles begin to depart at the constant vehicle departure rate until the queue dissipates.

The LOS for signalized intersections is defined in terms of delay and is expressed as a letter grade ranging from LOS A (free flowing) to F (severely congested). Specifically, the 1997 update to the HCM uses average control delay per vehicle. Control delay includes initial deceleration delay, queue move-up time, and final acceleration delay. Table C-2 presents the range of control delay for each LOS.

Table C-2. Control Delay for Each LOS

LOS	Control Delay per Vehicle (Seconds)
A	≤ 10.0
B	> 10.0 to ≤ 20.0
C	> 20.0 to ≤ 35.0
D	> 35.0 to ≤ 55.0
E	> 55.0 to ≤ 80.0
F	> 80.0

Source: TRB 2010, Highway Capacity Manual, Fifth Edition, TRB 209, Washington D.C.

The average delay per delayed vehicle and average delay for all vehicles are calculated. Then these calculated delays per vehicle are directly compared to the LOS thresholds from the HCM.

The roadway LOS was determined by examining the vpd on the roadways that cross the rail lines at highway/rail at-grade crossings. The daily capacity per lane was derived using the methodology in the 2010 HCM (TRB 2010). Table C-3 presents roadway capacities for different types of roadways based on the area type and classification of the roadway. "Area type" refers to the existing development adjacent to the rail lines, which is an indicator of the type of vehicles using nearby roadways, the expected traffic volumes, and the presence of traffic generators such as industries, offices, shopping centers, or residences, and the density of development.

Table C-3. Roadway Capacity by Area Type and Classification		
Area Type	**Classification**	**Capacity (vpd/lane)**
Urban/Suburban	Arterial[a]	9,800
Urban/Suburban	Collector[b]	6,800

Source: TRB 2010, Highway Capacity Manual, Fifth Edition, TRB 209, Washington D.C.

Notes:

[a] *An arterial is a class of street that allows significant traffic movements for travel between major points and provides regional connectivity.*

[b] *A collector is a class of street that collects and distributes traffic from local streets to the arterial road network.*

The daily capacity of a roadway is calculated by multiplying the number of lanes on the roadway by the capacity values shown in Table C-3 above. For example, if a roadway has 4 lanes and is classified as an urban arterial, the daily capacity is 4 lanes x 9,800 vpd/lane = 39,200 vpd. LOS is determined by calculating the volume to capacity ratio (V/C), which is the daily volume on the roadway divided by the total capacity. For example, if a roadway accommodates 42,000 vpd and the capacity is 39,200 vpd, then the V/C would be 42,000 vpd/39,200 vpd = 1.07. According to the HCM standards shown in Table C-4, below, the example roadway would exhibit an LOS F because the V/C ratio is greater than 1.0.

Table C-4. V/C Thresholds per LOS					
A	**B**	**C**	**D**	**E**	**F**
0.3	0.45	0.65	0.85	1.0	>1.0

Source: TRB 2010, Highway Capacity Manual, Fifth Edition, TRB 209, Washington D.C.

Total Daily Average Vehicle Traffic Delay

OEA calculated the total average vehicle delay for each crossing over a 24-hour period and multiplied it by the number of vehicles delayed to estimate the total daily average vehicle traffic delay.

OEA calculated all of the above factors based on existing and proposed values for the number of trains (N), average train speed (V), length of trains (L), and the number of traffic lanes (NL) for the highway/rail at-grade crossing. The calculation was based on 2011 ADT volumes for the existing roadway. OEA also determined the existing LOS for each highway/rail at-grade crossing. The LOS refers to the efficiency at which a highway/rail at-grade crossing operates when a train passes through. Letters from A to F represent the LOS, with LOS A indicating relatively freeflowing traffic and LOS F indicating extreme congestion.

To analyze the existing traffic delays under the No-Action Alternatives and compare them to traffic delays projected to occur under the Proposed Transaction public at-grade crossings, OEA compiled data from several sources, including:

- FRA location and inventory databases, which include information about highway/rail at-grade crossings, such as ADT data;
- CSXT and LIRC company databases for train lengths and speeds;
- State and local department of transportation databases for roadway ADT data; and
- CSXT's Operating Plan

OEA used 2011 ADTs to calculate existing traffic delays by using a one percent growth factor to develop the ADT for 2014.

Along the Line, 44 out of 154 public at-grade crossings met the ADT threshold. Another 27 are estimated to carry fewer than 2,500 vehicles per day; however, OEA included these crossings in the analysis because they are within 800 feet of an adjacent crossing. Therefore, OEA prepared detailed analyses for a total of 71 crossings.

OEA analyzed 2 alternatives under 2014 conditions: 2014 No-Action Alternative and 2014 Proposed Transaction. OEA assessed the 71 at-grade crossings by evaluating a single train event, which is defined as each train passing through an at-grade crossing. Other variables used in the analysis included projected number of trains on the Line, average train speed, and average length of trains. Table C-5 presents train length, train speed, and number of trains per day.

Table C-5. Train Data for 2014 Alternatives

Segment No.	Begin MP	End MP	Proposed Speed (mph)	L (ft)[a]	N (2014 Proposed Transaction)
LIRC-01	4.0	20.0	49	7,500	17
	20.0	20.7	40	7,500	17
	20.7	37.0	49	7,500	17
	37.0	42.0	20	7,500	17
	42.0	58.9	49	7,500	17
	58.9	58.9	35	7,500	17
	58.9	59.3	35	7,500	17
LIRC-02	59.3	104.5	49	7,500	17
LIRC-03	104.5	106.0	20	7,500	20
	106.0	108.3	20	7,500	20
	108.3	108.9	20	7,500	20
	108.9	109.0	20	7,500	20
	109.0	110.5	20	7,500	20

Source: CSXT 2011, LIRC Easement Information Request, June 1, 2011.
Notes:
[a] *OEA used a train length of 7,500 feet rather than the average 7,200 feet to be more conservative in the traffic delay analysis under 2014 conditions.*

Table C-6. Proposed Transaction/No-Action Alternative Average Delay and LOS – Year 2014

Segment No.	At-Grade Crossing Location	State, County	2014 ADT (vpd)	Trains per Day		2014 Crossing LOS		Queue Length (Feet)			Average Delay per Delayed Vehicle (Minutes)		Total Vehicle Traffic Delay (24-Hr) (Minutes)	
				No-Action	Proposed Transaction	No-Action	Proposed Transaction	Existing	No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction
LIRC-01	Hanna Ave	Marion, IN	16,700	2	17	A	A	784	808	935	1.26	1.46	56.53	642.62
LIRC-01	Wever Ave/Windemere St	Marion, IN	400	2	17	A	A	19	19	22	1.26	1.46	1.35	15.39
LIRC-01	Shelby St	Marion, IN	14,700	2	17	A	A	346	356	411	1.26	1.46	49.76	565.66
LIRC-01	Edwards Ave	Marion, IN	500	2	17	A	A	24	24	28	1.26	1.46	1.69	19.24
LIRC-01	Thompson St	Marion, IN	14,500	2	17	A	A	683	702	812	1.26	1.46	49.08	557.96
LIRC-01	Epler Ave	Marion, IN	2,800	2	17	A	A	136	136	157	1.26	1.46	9.48	107.74
LIRC-01	Edgewood Ave	Marion, IN	11,000	2	17	A	A	518	533	616	1.26	1.46	37.23	423.28
LIRC-01	Banta Rd	Marion, IN	3,700	2	17	A	A	174	179	207	1.26	1.46	12.52	142.38
LIRC-01	Southport Rd	Marion, IN	17,200	2	17	A	A	808	833	963	1.26	1.46	58.22	661.86
LIRC-01	Stop 11 Rd	Marion, IN	26,500	2	17	A	A	622	641	742	1.26	1.46	89.70	1019.72
LIRC-01	County Line Rd S	Marion, IN	32,300	2	17	A	A	758	782	904	1.26	1.46	109.33	1242.91
LIRC-01	N Meridian St	Johnson, IN	7,900	2	17	A	A	368	382	442	1.26	1.46	26.74	303.99
LIRC-01	E Broadway St	Johnson, IN	500	2	17	A	A	24	24	28	1.26	1.46	1.69	19.24
LIRC-01	E Main St/CR #950N	Johnson, IN	11,500	2	17	A	A	542	557	644	1.26	1.46	38.93	442.52
LIRC-01	Stop 18 Rd/CR #800N	Johnson, IN	6,800	2	17	A	A	320	329	381	1.26	1.46	23.02	261.67
LIRC-01	Worthsville Rd	Johnson, IN	3,300	2	17	A	A	155	160	185	1.26	1.46	11.17	126.98
LIRC-01	Main St	Johnson, IN	8,300	2	17	A	A	392	402	465	1.26	1.46	28.10	319.39
LIRC-01	School House Rd/CR #300N	Johnson, IN	2,700	2	17	A	A	126	131	151	1.26	1.46	9.14	103.90
LIRC-01	Adams St	Johnson, IN	600	2	17	A	A	29	29	39	1.26	1.71	2.03	31.86
LIRC-01	King St	Johnson, IN	2,000	2	17	A	A	97	97	132	1.26	1.71	6.77	106.21
LIRC-01	Jefferson St/SR #44	Johnson, IN	10,700	2	17	A	A	503	518	704	1.26	1.71	36.22	568.22
LIRC-01	Monroe St	Johnson, IN	1,400	2	17	A	A	63	68	92	1.26	1.71	4.74	74.35
LIRC-01	State St	Johnson, IN	600	2	17	A	A	29	29	39	1.26	1.71	2.03	31.86

Table C-6. Proposed Transaction/No-Action Alternative Average Delay and LOS – Year 2014

Segment No.	At-Grade Crossing Location	State, County	2014 ADT (vpd)	Trains per Day		2014 Crossing LOS		Queue Length (Feet)			Average Delay per Delayed Vehicle (Minutes)		Total Vehicle Traffic Delay (24-Hr) (Minutes)	
				No-Action	Proposed Transaction	No-Action	Proposed Transaction	Existing	No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction
LIRC-01	Center Cross St	Johnson, IN	4,900	2	17	A	A	228	237	274	1.26	1.46	16.59	188.55
LIRC-01	E Main Cross St	Johnson, IN	3,100	2	17	A	A	150	155	179	1.26	1.46	10.83	123.14
LIRC-01	Thompson St	Johnson, IN	800	2	17	A	A	39	39	45	1.26	1.46	2.71	30.78
LIRC-01	Tannehill Rd	Bartholomew, IN	3,700	2	17	A	A	174	179	207	1.26	1.46	12.52	142.38
LIRC-01	CR #550N	Bartholomew, IN	7,700	2	17	A	A	363	373	431	1.26	1.46	26.06	296.30
LIRC-01	11th St	Bartholomew, IN	10,000	2	17	A	C	557	574	1,190	1.49	3.09	47.57	1739.65
LIRC-01	8th St	Bartholomew, IN	11,500	2	17	A	C	643	660	1,369	1.49	3.09	54.70	2000.60
LIRC-01	SR #46	Bartholomew, IN	37,100	2	17	A	C	689	710	1,472	1.49	3.09	176.48	6454.11
LIRC-01	CR #200S	Bartholomew, IN	5,200	2	17	A	A	247	252	291	1.26	1.46	17.60	200.10
LIRC-01	Deaver Rd	Bartholomew, IN	5,200	2	17	A	A	242	252	291	1.26	1.46	17.60	200.10
LIRC-01	CR #450S	Bartholomew, IN	10,300	2	17	A	A	484	499	577	1.26	1.46	34.87	396.35
LIRC-01	Mill St	Bartholomew, IN	400	2	17	A	A	19	19	22	1.26	1.46	1.35	15.39
LIRC-01	9th St	Jackson, IN	2,700	2	17	A	A	126	131	151	1.26	1.46	9.14	103.90
LIRC-01	6th St/SR #258	Jackson, IN	12,600	2	17	A	A	591	610	705	1.26	1.46	42.65	484.85
LIRC-01	5th St	Jackson, IN	2,000	2	17	A	A	97	97	112	1.26	1.46	6.77	76.96
LIRC-01	4th St	Jackson, IN	2,700	2	17	A	A	126	131	151	1.26	1.46	9.14	103.90
LIRC-01	3rd St	Jackson, IN	2,700	2	17	A	A	126	131	151	1.26	1.46	9.14	103.90
LIRC-01	2nd St	Jackson, IN	5,300	2	17	A	A	252	257	297	1.26	1.46	17.94	203.94
LIRC-01	St Louis Ave N	Jackson, IN	2,400	2	17	A	A	138	138	176	1.49	1.91	11.42	158.65
LIRC-01	St Louis Ave S	Jackson, IN	100	2	17	A	A	6	6	7	1.49	1.91	0.48	6.61
LIRC-01	Tipton St/U.S. 50	Jackson, IN	25,900	2	17	A	A	608	627	950	1.26	1.91	87.67	1712.12
LIRC-01	Bruce St	Jackson, IN	800	4	17	A	A	56	56	59	1.83	1.91	11.47	52.88
LIRC-01	South St	Jackson, IN	1,400	4	17	A	A	92	99	103	1.83	1.91	20.08	92.55
LIRC-01	Brown St	Jackson, IN	1,600	4	17	A	A	113	113	117	1.83	1.91	22.94	105.77

Table C-6. Proposed Transaction/No-Action Alternative Average Delay and LOS – Year 2014

Segment No.	At-Grade Crossing Location	State, County	2014 ADT (vpd)	Trains per Day		2014 Crossing LOS		Queue Length (Feet)			Average Delay per Delayed Vehicle (Minutes)		Total Vehicle Traffic Delay (24-Hr) (Minutes)	
				No-Action	Proposed Transaction	No-Action	Proposed Transaction	Existing	No-Action	Proposed Transaction	No-Action	Proposed Transaction	No-Action	Proposed Transaction
LIRC-01	Laurel St	Jackson, IN	2,700	4	17	A	A	183	190	198	1.83	1.91	38.72	178.48
LIRC-02	O'Brien St	Jackson, IN	5,100	4	17	A	A	345	359	286	1.83	1.46	73.13	196.25
LIRC-02	Farmington/CR# 300N	Jackson, IN	1,400	4	17	A	A	92	99	78	1.83	1.46	20.08	53.87
LIRC-02	Howard St	Jackson, IN	3,000	4	17	A	A	204	211	168	1.83	1.46	43.02	115.44
LIRC-02	Main St	Jackson, IN	3,500	4	17	A	A	240	247	196	1.83	1.46	50.19	134.68
LIRC-02	W Morgan Dr	Scott, IN	10,400	4	17	A	A	712	733	582	1.83	1.46	149.14	400.19
LIRC-02	Main St/SR #256	Scott, IN	10,000	4	17	A	A	683	705	560	1.83	1.46	143.40	384.80
LIRC-02	Cherry St	Scott, IN	500	4	17	A	A	35	35	28	1.83	1.46	7.17	19.24
LIRC-02	Plum St	Scott, IN	400	4	17	A	A	28	28	22	1.83	1.46	5.74	15.39
LIRC-02	High St	Scott, IN	400	4	17	A	A	28	28	22	1.83	1.46	5.74	15.39
LIRC-02	Miner St	Scott, IN	800	4	17	A	A	49	56	45	1.83	1.46	11.47	30.78
LIRC-02	McClain St/SR #56	Scott, IN	17,600	4	17	A	A	1,205	1,240	985	1.83	1.46	252.38	677.25
LIRC-02	Wardell St	Scott, IN	1,400	4	17	A	A	92	99	78	1.83	1.46	20.08	53.87
LIRC-02	Cherry St	Scott, IN	500	4	17	A	A	35	35	28	1.83	1.46	7.17	19.24
LIRC-02	W Walnut St	Scott, IN	500	4	17	A	A	35	35	28	1.83	1.46	7.17	19.24
LIRC-02	Green St	Scott, IN	500	4	17	A	A	35	35	28	1.83	1.46	7.17	19.24
LIRC-02	Leota Rd/SR #356	Scott, IN	4,000	4	17	A	A	268	282	224	1.83	1.46	57.36	153.92
LIRC-02	SR #160	Clark, IN	4,600	4	17	A	A	310	324	258	1.83	1.46	65.96	177.01
LIRC-02	Main St	Clark, IN	400	4	17	A	A	28	28	22	1.83	1.46	5.74	15.39
LIRC-02	Mill St	Clark, IN	400	4	17	A	A	28	28	22	1.83	1.46	5.74	15.39
LIRC-02	SR #403	Clark, IN	10,400	4	17	A	A	712	733	582	1.83	1.46	149.14	400.19
LIRC-02	Hamburg Pike	Clark, IN	11,400	4	17	A	A	775	803	638	1.83	1.46	163.48	438.67
LIRC-03	Charlestown Rd	Clark, IN	12,600	7	20	A	C	418	428	600	2.21	3.09	459.62	2578.78
LIRC-03	11th St	Jefferson, KY	2,600	7	20	B	C	409	425	321	4.09	3.09	338.12	552.60

Table C-7
Emergency Service Providers Within Two Miles of the Line

Segment	Crossing(s)	County, State	Emergency Service Provider	Address
LIRC - 01	Hanna Ave. Wever Ave. Shelby St. Edwards Ave. Lawrence Ave. Thompson St. Epler Ave. Edgewood Ave.	Marion, IN	Indianapolis Fire Department 61	1108 E. Thompson Rd. Indianapolis, IN
LIRC - 01	Hanna Ave. Wever Ave. Shelby St. Edwards Ave. Lawrence Ave. Thompson St. Epler Ave. Edgewood Ave.	Marion, IN	Homecroft Police Department	4925 Shelby St. Indianapolis, IN
LIRC - 01	Southport Rd. South St. Stop 10 Rd. Stop 11 Rd. County Line Rd. S.	Marion, IN	Community Hospital South	1402 E. County Line Rd Indianapolis, IN
LIRC - 01	Meridian St. Academy St. East Broadway St. East Main St.	Johnson, IN	Valle Vista Hospital Greenwood Fire Station	898 E. Main St. Greenwood, IN 155 E. Main St. Greenwood, IN
LIRC - 01	CR 600 N.	Johnson, IN	New Whiteland Police Station	300 Tracy Rd. Whiteland, IN
LIRC - 01	Walnut St. Main St. Pearl St.	Johnson, IN	Whiteland Police Department	549 Main St. Whiteland, IN
LIRC - 01	School House Rd/ CR 300 N. Commerce Dr.	Johnson, IN	Franklin Police Dept. Fire Station 23	2801 N. Morton Franklin, IN Franklin, IN
LIRC - 01	Graham Rd. Cincinnati St. Adams St. King St. Jefferson St/SR 44 Monroe St State St.	Johnson, IN	Johnson Memorial Hospital Franklin Fire Chief Franklin Fire Station 22	100 N. Main Franklin, IN 1800 Thornburg Ln. Franklin, IN Franklin, IN
LIRC - 01	Mill St. Tannehill Rd.	Bartholomew, IN	Taylorsville Fire Dept.	9428 Main St. Taylorsville, IN

LIRC - 01	11th St. 8th St. 5th St. SR 46	Bartholomew, IN	Columbus Fire Dept. Columbus Police Dept.	1101 Jackson St. Columbus, IN 123 Washington St. Columbus, IN
LIRC - 01	CR 400 S CR 450 S CR 550 S	Bartholomew, IN	Jonesville Volunteer Fire Dept. Columbus Fire Station 6	849 E. 450 S Columbus, IN W 450 S Columbus, IN
LIRC - 01	6th St. 5th St. 4th St. 3rd St. 2nd St. St. Louis Ave. N St. Louis Ave. S Tipton St./US 50 Bruce St. South St. Brown St. O'Brien St.	Jackson, IN	Seymour Police Dept. Schneck Medical Center Seymour Fire Dept. Hamilton Twp. Fire Dept.	205 N. Ewing St. Seymour, IN 411 W. Tipton Seymour, IN 318 East St. Seymour, IN Seymour, IN
LIRC - 02	Swengel Rd./ CR 900 E Farmington Rd./ CR 300 N Yankee Rd./ CR 200 N CR 950 E	Jackson, IN	Jackson & Wa Town Fire Dept.	9039 E. County Rd. N Seymour, IN
LIRC - 02	Walnut St. Howard St. Main St.	Jackson, IN	Crothersville-Vernon Twp Fire Dept. Jackson County Ambulance Services	200 Moore St. Crothersville, IN 300 S. Bethany Rd. Crothersville, IN
LIRC - 02	W. Morgan Dr. Main St/CR 300 N Cherry St. Plum St.	Scott, IN	Austin Fire Dept. Jennings Twp. Fire Dept. Austin Police Dept.	90 W. Morgan St. Austin, IN 194 W. Main St. Austin, IN 127 US 31 Austin, IN
LIRC - 02	Owen St. High St. Miner St. McClain St./SR 56 Wardell Street Cherry St.	Scott, IN	Scottsburg Fire Dept. Scott County Sheriff	2 E. McClain Ave. Scottsburg, IN 111 S. 1st Street Scottsburg, IN

	W Walnut St. Green St. Lovers Ln.			
LIRC - 02	Fairgrounds Rd. Leota Rd./SR 356	Scott, IN	Vienna Twp. Fire Dept.	284 E. State Rd. 356 Scottsburg, IN
LIRC - 02	Hardy Rd. County Line Rd.	Scott, IN	Underwood Fire Dept.	Underwood, IN
LIRC - 02	Brownstown Rd. Hebron Church Rd. SR 160 Main St.	Clark, IN	Monroe Twp. Fire Dept. Henryville Fire Dept.	315 S. Ferguson St. Henryville, IN Henryville, IN
LIRC - 02	Main St. Mill St.	Clark, IN	Memphis Fire Dept.	1000 Main St. Memphis, IN
LIRC - 02	Riley Dr. SR 403 Utica St.	Clark, IN	Sellersburg Fire Dept. Sellersburg Police Dept. Clark Memorial Hospital	426 E. Utica St. Sellersburg, IN 101 S. New Albany Ave. Sellersburg, IN 433 N. Indiana Ave. Sellersburg, IN
LIRC-02 LIRC-03	Coopers Ln. Charlestown Rd.	Clark , IN	Kentuckiana Medical Center Jeffersonville City Fire Dept.	4601 Medical Plaza Way Clarksville, IN 1603 Truckers Blvd. Jeffersonville, IN
LIRC-03	11th St.	Jefferson, KY	Louisville City Fire Dept. Kosair Children's Hospital Louisville Metro Police Dept.	1135 W. Jefferson St Louisville, KY 231 E. Chestnut Louisville, KY 633 W. Jefferson St. Louisville, KY

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Table C-8. Predicted Accidents at Public At-Grade Crossings

USDOT /FRA Crossing No.	Segment No.	Street	County, State	MP	Existing ADT	Existing Trains Per Day	Proposed Trains Per Day	Max Timetable Speed	Accidents in Last 5 Years	Predicted Accidents per Year (Existing)	Predicted Accidents per Year (Proposed)	Change in Predicted Accidents per Year
535612B	LIRC-01	Hanna Ave	Marion, IN	4.01	16,200	2	17	25		0.02093	0.03662	0.01569
535610M	LIRC-01	Wever Ave/Windemere St	Marion, IN	4.09	400	2	17	25		0.00396	0.01049	0.00653
535611U	LIRC-01	Shelby St	Marion, IN	4.12	500	2	17	25		0.01790	0.03334	0.01544
535609T	LIRC-01	Edwards Ave	Marion, IN	4.24	500	2	17	25		0.00409	0.01080	0.00671
535608L	LIRC-01	Lawrence Ave	Marion, IN	4.43	500	2	17	25		0.00409	0.01080	0.00671
535605R	LIRC-01	Thompson Rd	Marion, IN	5.10	14,100	2	17	25		0.01365	0.02795	0.01431
535604J	LIRC-01	Epler Ave	Marion, IN	5.59	2,800	2	17	25		0.00785	0.01860	0.01076
535603C	LIRC-01	Edgewood Ave	Marion, IN	6.11	10,700	2	17	25		0.01247	0.02626	0.01380
535602V	LIRC-01	Banta Rd	Marion, IN	6.64	3,600	2	17	25		0.00866	0.02008	0.01143
535600G	LIRC-01	Southport Rd	Marion, IN	7.16	16,700	2	17	25		0.01440	0.02898	0.01458
535599P	LIRC-01	South St	Marion, IN	7.40	700	2	17	25		0.00489	0.01260	0.00771
535598H	LIRC-01	Stop 10 Rd	Marion, IN	7.69	1,700	2	17	25		0.00694	0.01687	0.00993
535597B	LIRC-01	Stop 11 Rd	Marion, IN	8.22	25,700	2	17	25		0.01648	0.03390	0.01742
535596U	LIRC-01	County Line Rd S	Marion, IN	9.27	31,300	2	17	25		0.02469	0.04017	0.01548
535595M	LIRC-01	N Meridian St	Johnson, IN	10.18	7,600	2	17	25		0.01119	0.02432	0.01313
535594F	LIRC-01	Academy St	Johnson, IN	10.60	400	2	17	25		0.00843	0.02539	0.01696
535593Y	LIRC-01	E Broadway St	Johnson, IN	10.69	500	2	17	25		0.00449	0.01172	0.00723
535592S	LIRC-01	E Main St/CR #950N	Johnson, IN	10.78	11,200	2	17	25		0.01268	0.02658	0.01390
535590D	LIRC-01	Stop 18 Rd/CR #800 N	Johnson, IN	12.27	36,600	2	17	25		0.01998	0.04714	0.02715
535589J	LIRC-01	Worthsville Rd	Johnson, IN	12.79	3,200	2	17	25		0.00749	0.01762	0.01013
535588C	LIRC-01	Rushville/CR #700N	Johnson, IN	13.32	400	2	17	25		0.00905	0.02687	0.01782
535587V	LIRC-01	CR #600 N	Johnson, IN	14.38	1,400	2	17	25		0.01348	0.03622	0.02274
535586N	LIRC-01	Walnut St	Johnson, IN	15.08	600	2	17	25		0.00485	0.01251	0.00766
535585G	LIRC-01	Main St	Johnson, IN	15.38	8,100	2	17	25		0.01138	0.02463	0.01324
535584A	LIRC-01	Pearl St	Johnson, IN	15.61	600	2	17	25		0.01003	0.02910	0.01907
535583T	LIRC-01	CR #400 N	Johnson, IN	16.50	400	2	17	25		0.00850	0.02557	0.01707
535579D	LIRC-01	School House Rd/CR #300 N	Johnson, IN	17.55	2,600	2	17	25		0.01504	0.03910	0.02407

Table C-8. Predicted Accidents at Public At-Grade Crossings

USDOT /FRA Crossing No.	Segment No.	Street	County, State	MP	Existing ADT	Existing Trains Per Day	Proposed Trains Per Day	Max Timetable Speed	Accidents in Last 5 Years	Predicted Accidents per Year (Existing)	Predicted Accidents per Year (Proposed)	Change in Predicted Accidents per Year
916448D	LIRC-01	Commerce Dr	Johnson, IN	18.49	800	2	17	25		0.00538	0.01308	0.00771
535549L	LIRC-01	Graham Rd	Johnson, IN	19.63	2,200	2	17	25	1	0.02460	0.04289	0.01829
535548E	LIRC-01	Cincinnati St	Johnson, IN	20.05	1,100	2	17	25		0.00612	0.01522	0.00910
535547X	LIRC-01	Adams St	Johnson, IN	20.20	600	2	17	25		0.00494	0.01272	0.00778
535546R	LIRC-01	King St	Johnson, IN	20.30	2,000	2	17	25		0.00953	0.01830	0.00876
535544C	LIRC-01	Jefferson St/SR #44	Johnson, IN	20.44	10,400	2	17	25		0.01468	0.02337	0.00869
535543V	LIRC-01	Monroe St	Johnson, IN	20.55	1,300	2	17	25		0.00764	0.01520	0.00756
535542N	LIRC-01	State St	Johnson, IN	20.67	600	2	17	25		0.00595	0.01224	0.00629
535539F	LIRC-01	CR #150 S	Johnson, IN	22.83	400	2	17	25		0.01201	0.02539	0.01338
535538Y	LIRC-01	CR #250 S	Johnson, IN	23.94	500	2	17	25	1	0.04252	0.06839	0.02587
535537S	LIRC-01	Bragan Rd/CR #300 S	Johnson, IN	24.50	200	2	17	25		0.00847	0.01883	0.01036
535536K	LIRC-01	Main Cross St/CR #350 S	Johnson, IN	25.13	300	2	17	25	1	0.03839	0.06114	0.02276
535535D	LIRC-01	CR #400 S	Johnson, IN	25.65	900	2	17	25		0.01620	0.03236	0.01616
535529A	LIRC-01	Durham Rd/CR #650 S	Johnson, IN	28.34	800	2	17	25		0.01114	0.03151	0.02037
535528T	LIRC-01	Anglin Rd/CR #700 E	Johnson, IN	29.23	400	2	17	25		0.01273	0.02665	0.01392
535527L	LIRC-01	Naomi St	Johnson, IN	30.19	300	2	17	25		0.00353	0.00947	0.00595
535526E	LIRC-01	Center Cross St	Johnson, IN	30.37	4,700	2	17	25		0.01203	0.01954	0.00752
535525X	LIRC-01	E Main Cross St	Johnson, IN	30.47	3,100	2	17	25		0.00940	0.01808	0.00868
535524R	LIRC-01	Thompson St	Johnson, IN	30.50	800	2	17	25		0.00547	0.01387	0.00840
535522C	LIRC-01	Perry St	Johnson, IN	30.70	600	2	17	25		0.00477	0.01235	0.00757
535519U	LIRC-01	County Line St	Johnson, IN	30.97	400	2	17	25		0.00408	0.01077	0.00669
535517F	LIRC-01	CR #900 N	Bartholomew, IN	31.99	400	2	17	25		0.00817	0.02477	0.01660
535516Y	LIRC-01	CR #800 N	Bartholomew, IN	33.04	700	2	17	25		0.01014	0.02936	0.01921
535513D	LIRC-01	CR #700 N	Bartholomew, IN	34.05	100	2	17	25		0.00553	0.01792	0.01238
535512W	LIRC-01	Mill St	Bartholomew, IN	34.45	100	2	17	25		0.00553	0.01792	0.01238
535511P	LIRC-01	Tannehill Rd	Bartholomew, IN	34.57	3,600	2	17	25		0.00862	0.02002	0.01140
535509N	LIRC-01	CR #550 N	Bartholomew, IN	35.60	7,500	2	17	25		0.01285	0.02682	0.01397
535508G	LIRC-01	CR #500 N	Bartholomew, IN	36.10	200	2	17	25		0.00602	0.01925	0.01323

Table C-8. Predicted Accidents at Public At-Grade Crossings

USDOT /FRA Crossing No.	Segment No.	Street	County, State	MP	Existing ADT	Existing Trains Per Day	Proposed Trains Per Day	Max Timetable Speed	Accidents in Last 5 Years	Predicted Accidents per Year (Existing)	Predicted Accidents per Year (Proposed)	Change in Predicted Accidents per Year
535507A	LIRC-01	CR #450 N	Bartholomew, IN	36.63	100	2	17	25		0.00416	0.01395	0.00979
535506T	LIRC-01	CR #400 N	Bartholomew, IN	37.15	700	2	17	20	1	0.03598	0.06335	0.02737
535504E	LIRC-01	Industrial Rd	Bartholomew, IN	37.80	800	2	17	20		0.01045	0.02642	0.01596
535503X	LIRC-01	Lowell Rd	Bartholomew, IN	38.18	400	2	17	20		0.00788	0.02092	0.01304
535498D	LIRC-01	11th St	Bartholomew, IN	40.84	9,700	2	17	20		0.01212	0.02575	0.01363
535497W	LIRC-01	8th St	Bartholomew, IN	40.98	11,200	2	17	20		0.01329	0.02745	0.01416
535496P	LIRC-01	5th St Exit	Bartholomew, IN	41.20	1,200	2	17	20		0.00711	0.01720	0.01009
535495H	LIRC-01	SR #46	Bartholomew, IN	41.64	36,000	2	17	20		0.02385	0.03942	0.01557
535494B	LIRC-01	Garden St/CR #100 S	Bartholomew, IN	42.53	500	2	17	25		0.00906	0.02690	0.01784
535493U	LIRC-01	Spear St	Bartholomew, IN	43.16	1,200	2	17	25		0.01257	0.03445	0.02188
535492M	LIRC-01	CR #200 S	Bartholomew, IN	43.54	5,100	2	17	25		0.00974	0.02196	0.01222
535486J	LIRC-01	Dawson St (Kyte)	Bartholomew, IN	44.65	100	2	17	25		0.00553	0.01792	0.01238
535484V	LIRC-01	Deaver Rd	Bartholomew, IN	45.15	5,000	2	17	25		0.00847	0.01962	0.01115
535483N	LIRC-01	CR #400 S	Bartholomew, IN	45.65	200	2	17	25		0.00657	0.02071	0.01415
535481A	LIRC-01	CR #450 S	Bartholomew, IN	46.26	10,000	2	17	25		0.01016	0.02292	0.01276
535479Y	LIRC-01	CR #550 S	Bartholomew, IN	47.50	300	2	17	25		0.00750	0.02312	0.01562
535477K	LIRC-01	CR #650 S	Bartholomew, IN	48.55	300	2	17	25		0.00758	0.02332	0.01574
535473H	LIRC-01	CR #800 S	Bartholomew, IN	50.19	300	2	17	25	1	0.03236	0.06107	0.02871
535472B	LIRC-01	CR #850 S	Bartholomew, IN	50.61	200	2	17	25		0.00599	0.01918	0.01318
535470M	LIRC-01	Jackson St/CR #950 S	Bartholomew, IN	51.63	1,200	2	17	25		0.00634	0.01568	0.00933
535469T	LIRC-01	Mill St	Bartholomew, IN	51.79	400	2	17	25		0.00843	0.02539	0.01696
535468L	LIRC-01	Poplar Rd	Bartholomew, IN	52.02	400	2	17	25		0.00843	0.02539	0.01696
535466X	LIRC-01	County Line Rd/CR #1100 S	Bartholomew, IN	53.13	500	2	17	25		0.00871	0.02607	0.01736
535462V	LIRC-01	CR #1000 N	Jackson, IN	54.31	300	2	17	25		0.00756	0.02325	0.01570
535461N	LIRC-01	Old U.S. 31/CR #760	Jackson, IN	54.48	1,300	2	17	25	1	0.02362	0.04096	0.01734
535460G	LIRC-01	Reddington St /Main St	Jackson, IN	56.88	2,000	2	17	25		0.00768	0.01830	0.01061
535459M	LIRC-01	9th St	Jackson, IN	58.27	2,600	2	17	25		0.00769	0.01832	0.01062

Table C-8. Predicted Accidents at Public At-Grade Crossings

USDOT /FRA Crossing No.	Segment No.	Street	County, State	MP	Existing ADT	Existing Trains Per Day	Proposed Trains Per Day	Max Timetable Speed	Accidents in Last 5 Years	Predicted Accidents per Year (Existing)	Predicted Accidents per Year (Proposed)	Change in Predicted Accidents per Year
535458F	LIRC-01	7th St	Jackson, IN	58.50	400	2	17	25		0.00389	0.01033	0.00644
535457Y	LIRC-01	6th St/SR #258	Jackson, IN	58.59	12,200	2	17	25		0.01325	0.02739	0.01415
535456S	LIRC-01	5th St	Jackson, IN	58.65	2,000	2	17	25		0.00768	0.01830	0.01061
535455K	LIRC-01	4th St	Jackson, IN	58.72	2,600	2	17	25		0.00769	0.01832	0.01062
535454D	LIRC-01	3rd St	Jackson, IN	58.76	2,600	2	17	25		0.00769	0.01832	0.01062
535453W	LIRC-01	2nd St	Jackson, IN	58.86	5,200	2	17	25		0.00980	0.02207	0.01227
535452P	LIRC-01	St Louis Ave N	Jackson, IN	58.90	2,400	2	17	25		0.00741	0.01777	0.01037
535451H	LIRC-01	St Louis Ave S	Jackson, IN	58.92	100	2	17	25		0.00185	0.00524	0.00339
535450B	LIRC-01	Tipton St/U.S. 50	Jackson, IN	59.01	25,100	2	17	25		0.01849	0.03699	0.01851
535449G	LIRC-01	Bruce St	Jackson, IN	59.06	800	4	17	25		0.00519	0.01326	0.00807
535448A	LIRC-01	South St	Jackson, IN	59.15	1,300	4	17	25		0.00664	0.01627	0.00963
535447T	LIRC-01	Brown St	Jackson, IN	59.23	1,600	4	17	25		0.00666	0.01632	0.00966
535446L	LIRC-01	Laurel St	Jackson, IN	59.28	2,600	4	17	25		0.00769	0.01832	0.01062
535432D	LIRC-02	O'Brien St	Jackson, IN	59.95	4,900	4	17	25		0.01113	0.01952	0.00838
535431W	LIRC-02	String Camp/CR #340 N	Jackson, IN	60.90	300	4	17	25		0.01050	0.02325	0.01276
535430P	LIRC-02	Swengel Rd/CR #900 E	Jackson, IN	61.41	200	4	17	25		0.00833	0.01906	0.01073
535429V	LIRC-02	Farmington/CR #300N	Jackson, IN	61.50	1,300	4	17	25		0.01795	0.03580	0.01785
535428N	LIRC-02	Yankee Rd/CR #200 N	Jackson, IN	62.84	300	4	17	25		0.01050	0.02325	0.01276
535427G	LIRC-02	CR #950 E	Jackson, IN	62.84	300	4	17	25	1	0.03735	0.06031	0.02296
535421R	LIRC-02	Chestnut Ridge Rd	Jackson, IN	64.02	300	4	17	25		0.01050	0.02325	0.01276
535420J	LIRC-02	CR #100 S	Jackson, IN	65.57	100	4	17	25		0.00184	0.00465	0.00281
535418H	LIRC-02	SR #250	Jackson, IN	67.06	1,600	4	17	25		0.00894	0.01616	0.00722
535417B	LIRC-02	CR #400 S	Jackson, IN	68.78	200	4	17	25		0.00833	0.01906	0.01073
535416U	LIRC-02	CR #500 S	Jackson, IN	69.62	200	4	17	25		0.00833	0.01906	0.01073
535415M	LIRC-02	Walnut St	Jackson, IN	70.20	2,500	4	17	25		0.01020	0.01806	0.00786
535413Y	LIRC-02	Howard St	Jackson, IN	70.63	2,900	4	17	25		0.00966	0.01717	0.00751
535412S	LIRC-02	Main St	Jackson, IN	70.69	3,400	4	17	25		0.01010	0.01788	0.00778
Unknown	LIRC-02	Industrial Way	Jackson, IN	71.40	Unknown							

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USDOT /FRA Crossing No.	Segment No.	Street	County, State	MP	Existing ADT	Existing Trains Per Day	Proposed Trains Per Day	Max Timetable Speed	Accidents in Last 5 Years	Predicted Accidents per Year (Existing)	Predicted Accidents per Year (Proposed)	Change in Predicted Accidents per Year
535410D	LIRC-02	CR #750 S	Jackson, IN	72.54	200	4	17	25		0.00833	0.01906	0.01073
535408C	LIRC-02	Christie Rd	Scott, IN	73.58	400	4	17	25		0.01166	0.02539	0.01373
535407V	LIRC-02	W Morgan Dr	Scott, IN	74.49	10,100	4	17	25	2	0.06507	0.09090	0.02584
535406N	LIRC-02	Main St/SR #256	Scott, IN	74.76	9,700	4	17	25		0.01342	0.02304	0.00962
535405G	LIRC-02	Cherry St	Scott, IN	74.89	500	4	17	25		0.01299	0.02774	0.01475
535403T	LIRC-02	Plum St	Scott, IN	75.02	400	4	17	25		0.01166	0.02539	0.01373
535404A	LIRC-02	York Rd/CR #300 N	Scott, IN	75.25	600	4	17	25		0.01355	0.02871	0.01516
535400X	LIRC-02	Owen St	Scott, IN	78.93	500	4	17	25	1	0.04168	0.06812	0.02644
535399F	LIRC-02	High St	Scott, IN	78.93	400	4	17	25		0.01237	0.02665	0.01428
535398Y	LIRC-02	Miner St	Scott, IN	79.02	700	4	17	25		0.01488	0.03094	0.01606
535397S	LIRC-02	McClain St/SR #56	Scott, IN	79.11	17,100	4	17	25		0.01544	0.02603	0.01059
535396K	LIRC-02	Wardell St	Scott, IN	79.20	1,300	4	17	25		0.00902	0.01627	0.00726
535395D	LIRC-02	Cherry St	Scott, IN	79.29	500	4	17	25		0.01299	0.02774	0.01475
535394W	LIRC-02	W Walnut St	Scott, IN	79.38	500	4	17	25		0.01299	0.02774	0.01475
535393P	LIRC-02	Green St	Scott, IN	79.47	500	4	17	25		0.01299	0.02774	0.01475
535391B	LIRC-02	Lovers Ln	Scott, IN	80.15	500	4	17	25		0.01299	0.02774	0.01475
535390U	LIRC-02	Fair Grounds Rd	Scott, IN	80.64	400	4	17	25		0.01166	0.02539	0.01373
535389A	LIRC-02	Leota Rd/SR #356	Scott, IN	81.70	3,800	4	17	25		0.01200	0.02065	0.00865
535388T	LIRC-02	Radio Tower Rd	Scott, IN	83.69	400	4	17	25		0.01166	0.02539	0.01373
535387L	LIRC-02	Edrington Blvd	Scott, IN	83.98	100	4	17	25		0.00536	0.01286	0.00750
535385X	LIRC-02	Hardy Rd	Scott, IN	84.54	400	4	17	25		0.01166	0.02539	0.01373
535384R	LIRC-02	County Line Rd	Scott, IN	84.70	400	4	17	25		0.01166	0.02539	0.01373
535383J	LIRC-02	East St	Clark, IN	84.99	400	4	17	25		0.01166	0.02539	0.01373
535382C	LIRC-02	Beagle Club Rd	Clark, IN	85.54	400	4	17	25		0.01166	0.02539	0.01373
535375S	LIRC-02	Brownstown Rd	Clark, IN	88.06	400	4	17	25		0.01166	0.02539	0.01373
535374K	LIRC-02	Hebron Church Rd	Clark, IN	88.30	400	4	17	25		0.01166	0.02539	0.01373
535372W	LIRC-02	SR #160	Clark, IN	89.31	4,400	4	17	25		0.01258	0.02146	0.00888
535371P	LIRC-02	Main St	Clark, IN	89.42	400	4	17	25		0.00547	0.01048	0.00501

Table C-8. Predicted Accidents at Public At-Grade Crossings

USDOT /FRA Crossing No.	Segment No.	Street	County, State	MP	Existing ADT	Existing Trains Per Day	Proposed Trains Per Day	Max Timetable Speed	Accidents in Last 5 Years	Predicted Accidents per Year (Existing)	Predicted Accidents per Year (Proposed)	Change in Predicted Accidents per Year
535369N	LIRC-02	Caney Rd	Clark, IN	91.70	400	4	17	25		0.01166	0.02539	0.01373
535368G	LIRC-02	Pallies Rd/CR #50	Clark, IN	92.45	400	4	17	25		0.01166	0.02539	0.01373
535367A	LIRC-02	Main St	Clark, IN	93.25	1,000	4	17	25		0.00815	0.01492	0.00677
535366T	LIRC-02	Mill St	Clark, IN	93.34	400	4	17	25		0.01166	0.02539	0.01373
535362R	LIRC-02	Killen Rd	Clark, IN	94.76	400	4	17	25		0.01166	0.02539	0.01373
535359H	LIRC-02	Bud Prather R	Clark, IN	96.06	400	4	17	25		0.00547	0.01048	0.00501
535356M	LIRC-02	Weber Rd	Clark, IN	97.87	400	4	17	25		0.01166	0.02539	0.01373
535355F	LIRC-02	Riley Dr	Clark, IN	98.42	1,100	4	17	25	2	0.05757	0.07424	0.01667
535354Y	LIRC-02	SR #403	Clark, IN	98.69	10,100	4	17	25		0.01353	0.02321	0.00968
535352K	LIRC-02	Utica St	Clark, IN	99.52	1,900	4	17	25		0.01002	0.01779	0.00777
535347N	LIRC-02	Bean Rd	Clark, IN	101.25	1,000	4	17	25		0.00815	0.01492	0.00677
Unknown	LIRC-02	Airport Dr	Clark, IN	102.20	Unknown							
535344T	LIRC-02	Hamburg Pike	Clark, IN	102.42	11,000	4	17	25		0.01542	0.02600	0.01058
535343L	LIRC-02	Coopers Ln	Clark, IN	103.37	1,000	4	17	25		0.00815	0.01492	0.00677
535340R	LIRC-03	Charlestown Rd	Clark, IN	104.75	12,300	4	20	20		0.02176	0.03090	0.00914
535251Y	LIRC-03	11th St	Jefferson, KY	110.50	2,600	4	20	10		0.02351	0.03474	0.01123
Total										**1.83120**	**3.78287**	**1.95168**

Sources: City of Columbus 2004, Traffic Counts, http://www.columbus.in.gov/engineering/traffic-counts/;
FRA 2011a, Railroad Safety Data, http://safetydata.fra.dot.gov/officeofsafety/publicsite/Query/statsSas.aspx;
FRA 2011b, Crossing Inventory Reports, http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/crossing.aspx.
Indianapolis Metropolitan Planning Organization (MPO) 2010, Traffic Counts Maps, 2010 Highway Performance Monitoring System Traffic Count Map, http://www.indympo.org/Data/Maps/Pages/TrafficCountMaps.aspx;
INDOT 2009, 2009 Average Daily Traffic and Commercial Vehicles Interactive Map, http://dotmaps.indot.in.gov/apps/trafficcounts/.

C.8 Methodology for Calculating Risk of an Accident Occurring at At-Grade Crossing

The method uses three formulas:

a = K x EI x DT x MS x MT x HP x HL

$$B = \frac{T_o}{T_o + T}(a) + \frac{T}{T_o + T}(N/T) \text{ where } T_o = 1/(0.05 + a)$$

A = 0.8239 x B (for crossings protected by passive devices only)

A = 0.6935 x B (for crossings protected by flashing lights only)

A = 0.6714 x B (for crossings protected by gates and flashing lights)

where:

a = Initial predicted number of accidents per year.
K = Basic accident prediction formula constant
EI = Exposure index factor based on the product of the number of roadway vehicles and trains per day
DT = Factor for the number of through trains per day during daylight
MS = Factor for maximum timetable speed
MT = Factor for number of main tracks
HP = Factor for paved roadway
HL = Factor for number of roadway lanes
B = Weighted average of predicted accident rate and actual accident history
T = Number of years of recorded accident history
T_o = Weighting factor in DOT accident prediction formula
N = Number of accidents recorded for a crossing in T years
A = Final predicted number of accidents per year

The first formula is the result of a multiple regression analysis of the data from FRA's databases. Because FRA's data cannot describe the precise characteristics of each crossing, such as sight distances, the calculation of predicted accident rates is improved by the addition of actual accident experience at a highway/rail at-grade crossing. The results of the first formula serve as an input to the second formula, which averages the initial predicted accident rates for a highway/rail at-grade crossing with the actual experience.

The second and third formulas apply a constant that adjusts for the level of protection that the warning device at the highway/rail at-grade crossing will provide. The values shown in the third formula are from the *Highway-Rail Crossing Accident/Incident and Inventory Bulletin* (FRA 1994).


E Sumner Ave
Edgecombe Ave
Norton Ave
Standish Ave
National Ave
Madison Ave
Shelby St
Atlantic St
Pacific St
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BEGIN
LIRC
HANNA AVE
E Hanna Ave
SHELBY ST
WEVER AVE / WINDEMERE ST
Windermere St
Castle Ave
EDWARDS AVE
E Edwards Ave
E Mills Ave
E Markwood Ave
Weaver Ave
Bowman Ave
S State Ave
Asbury St
USHY 31
LAWRENCE AVE
Lawrence Ave
Salem Sq
Stover Ave
Moffitt St
E Little Piney Dr
E Little Piney Way
I-74
Long Acre Dr
Long Acre Ter
I-465
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LICK CREEK PKWY
Gabriel Rd
Matthews Way
Redfern Dr
Chering Cross Dr
Woodcrest Rd
Morgan Dr
S East St
Mount Vernon Dr
Southgreen Dr
E Elbert St
S Walcott St
Rosedale Dr
THOMPSON ST
E Thompson Rd
Camden St
Market St
Shelby St
Turk St
Madison Ave
Bay St
Matthews Ave
Hardegan St
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STOP 11 RD
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Browning Dr
Access Rd
Grenada Dr
Zona Dr
Meyhew Dr
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Shear Dr
Crossing Dr
Tocar Dr
Pickford Dr
Mc Farland Rd
Pexmil Dr
Xenia Dr
Bryan Dr
Mimo Dr
Remington Dr
Lima Ct
Cold Harbor Dr
Fredricksburg Dr
Mechanicsburg Dr
S Sherman Dr
Pleasant Creek Dr
Valley Lake Dr
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Dunster St
Madison Ave
Palo Verde Dr
Del Prado Dr
Pinto Alto Dr
La Corida Dr
Lilac Dr
Alwyne Dr
Country Estates Dr
Preddy Dr
Saint Peter St
S Keystone Ave
Summer Walk Dr
Oak Tree Dr S
Wild Ivy Dr
Nancy Ln
Paz Dr W
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Ida Ct
Spencer
Christy Dr
Sundrest Dr
Southridge
Jenner Dr
Pleasant Run Dr
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Town Dr
Brentview Dr
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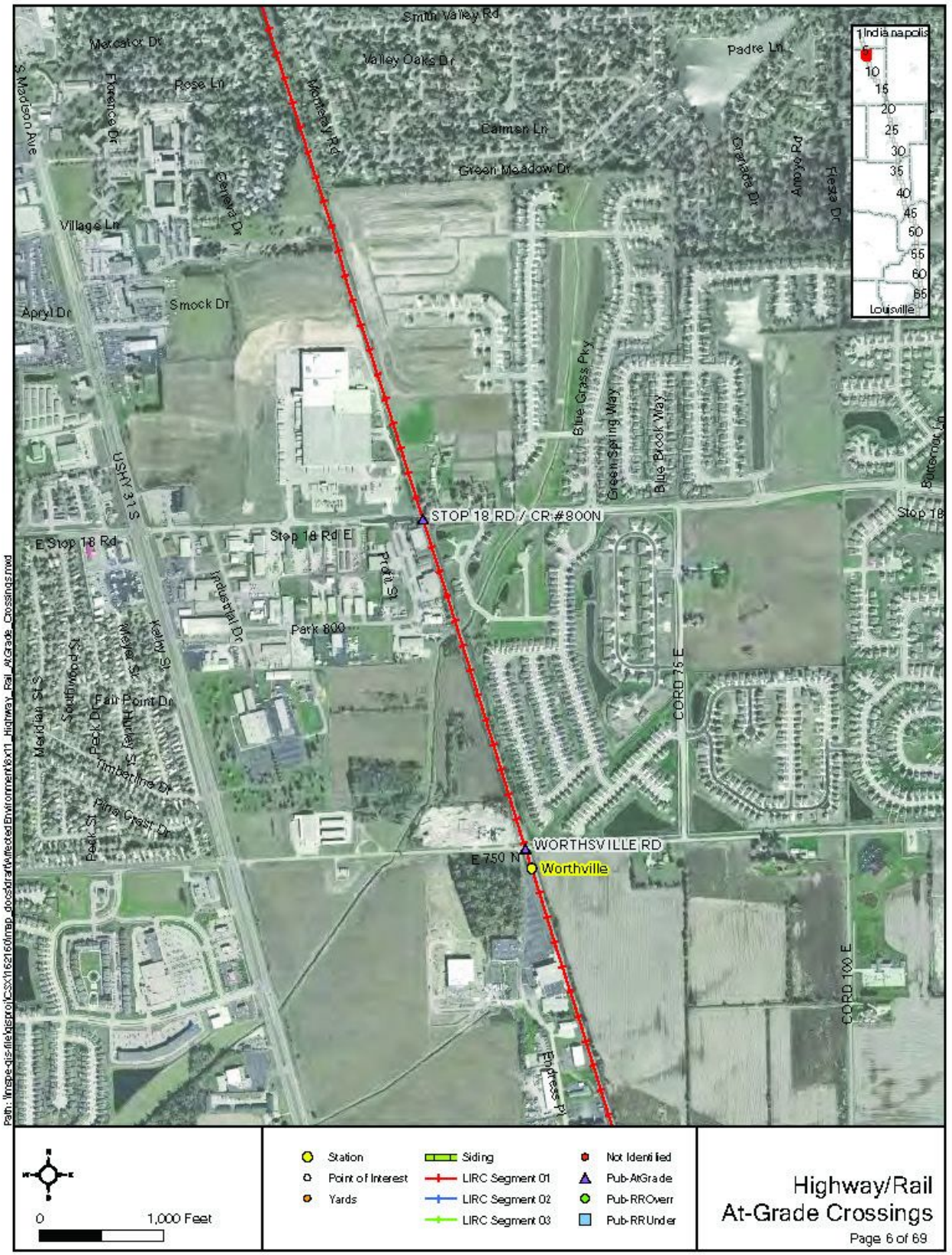
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Amoyo Rd
Riesa Dr
Cerrena Dr
Village Ln
Smock Dr
Apryl Dr
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Weyer St
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Fair Point Dr
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Perry St
N Front St
Willow Dr
Poplar St
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MAIN ST
Whiteland Rd
PEARL ST
Pearl St
Springdale Dr
Colony Dr
Briar Hill Rd
Meadowlark Dr
Nightengale Dr
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N 225 E
Paul Hand Blvd
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Bearing Dr
Essex Dr
Eastpointe Dr
Dowden Dr
Earlywood Dr
SCHOOL HOUSE RD / CR #300N
International Dr
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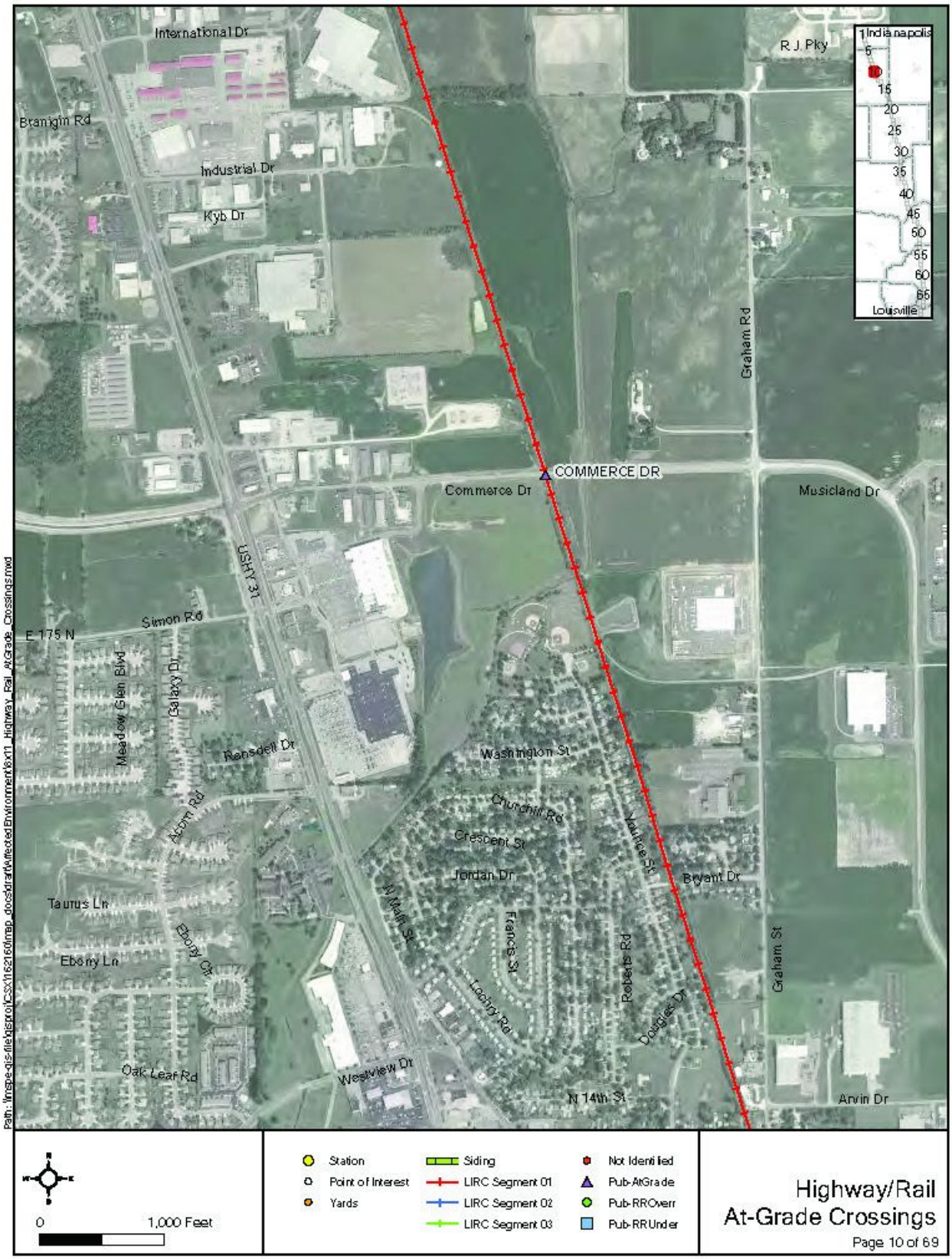
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Ransdell Dr
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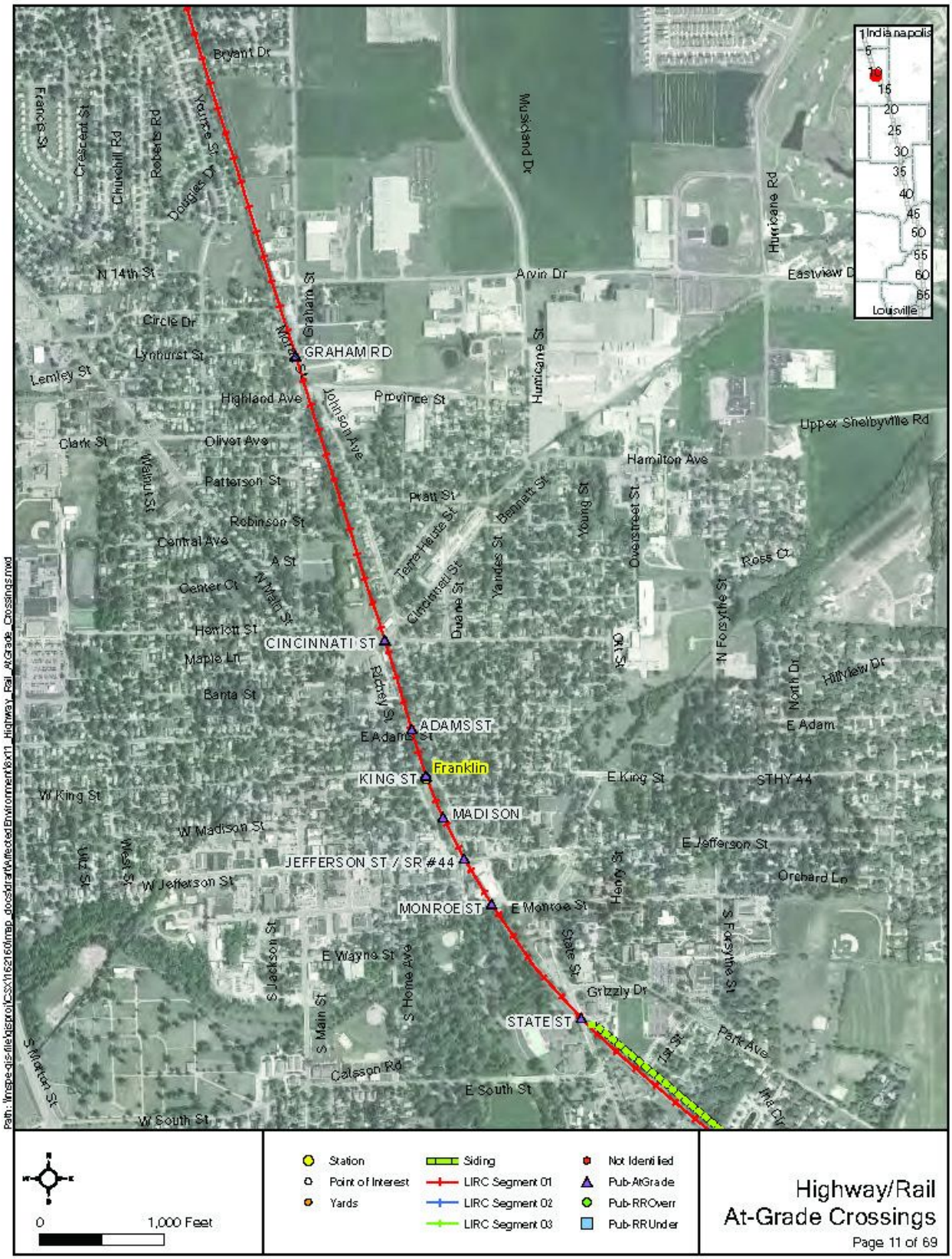
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S Jackson St
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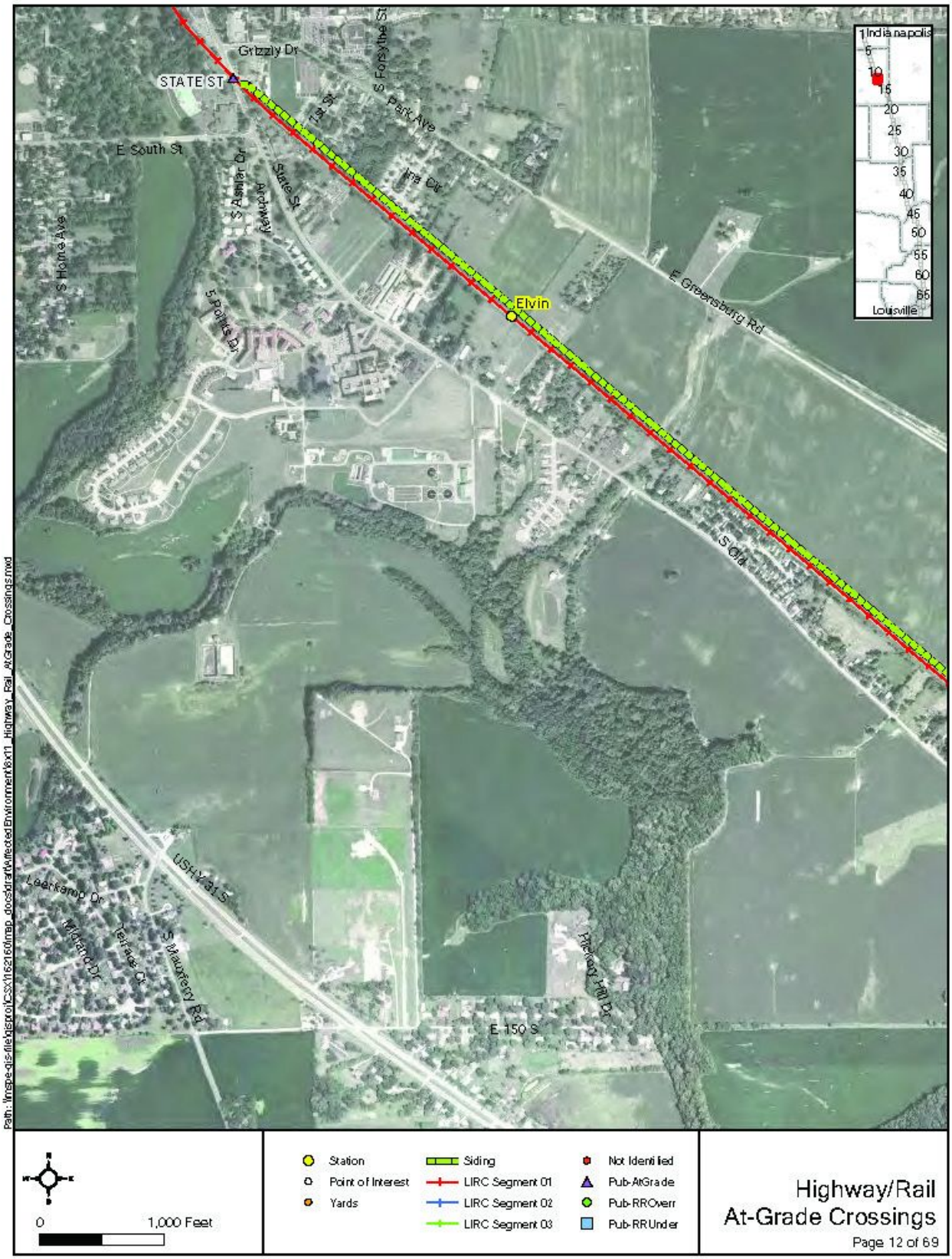
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Elvin
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Indianapolis
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Midland Dr
Fairlane Ct
S Mauxferry Rd
Hickory Hill Dr
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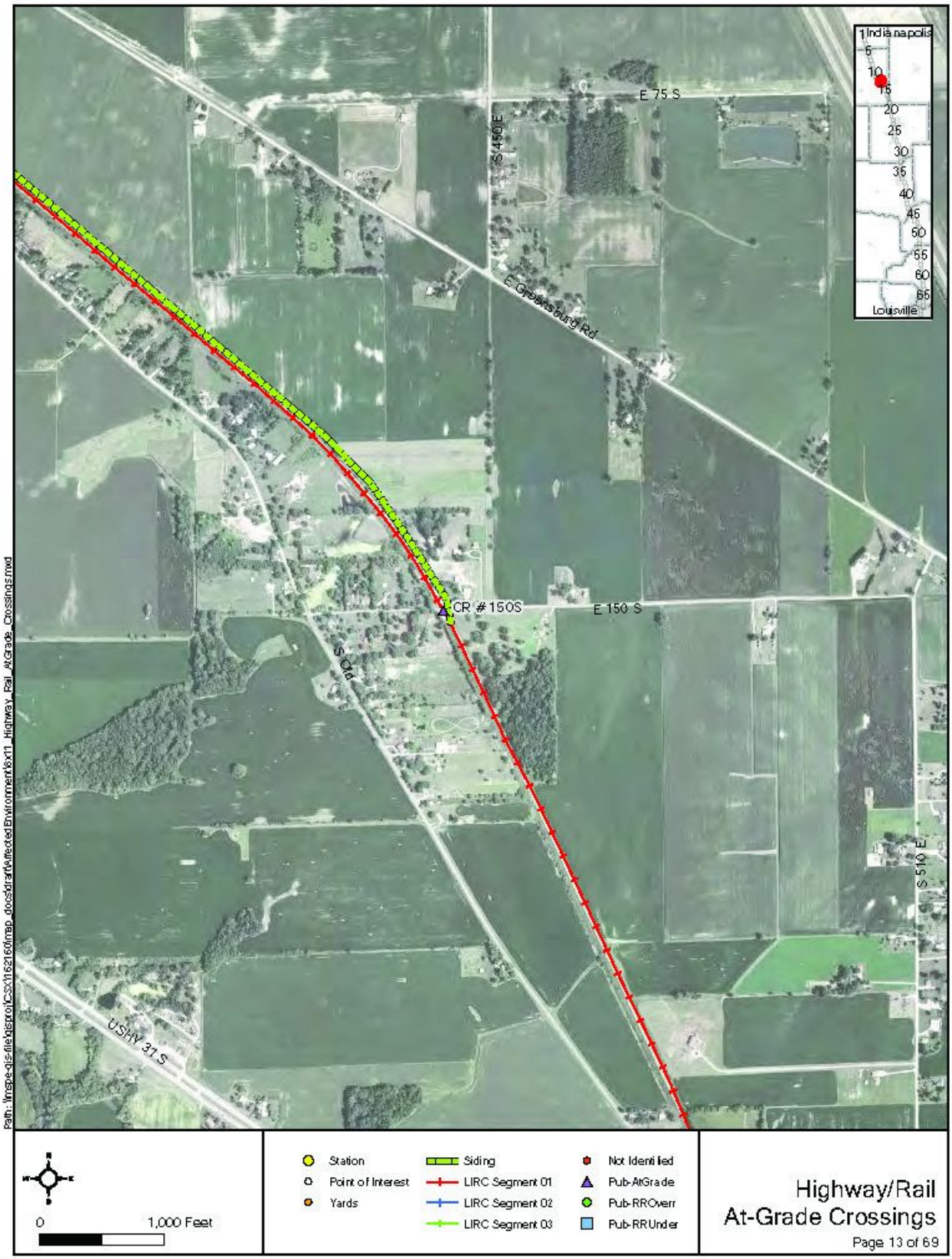
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At-Grade Crossings
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At-Grade Crossings
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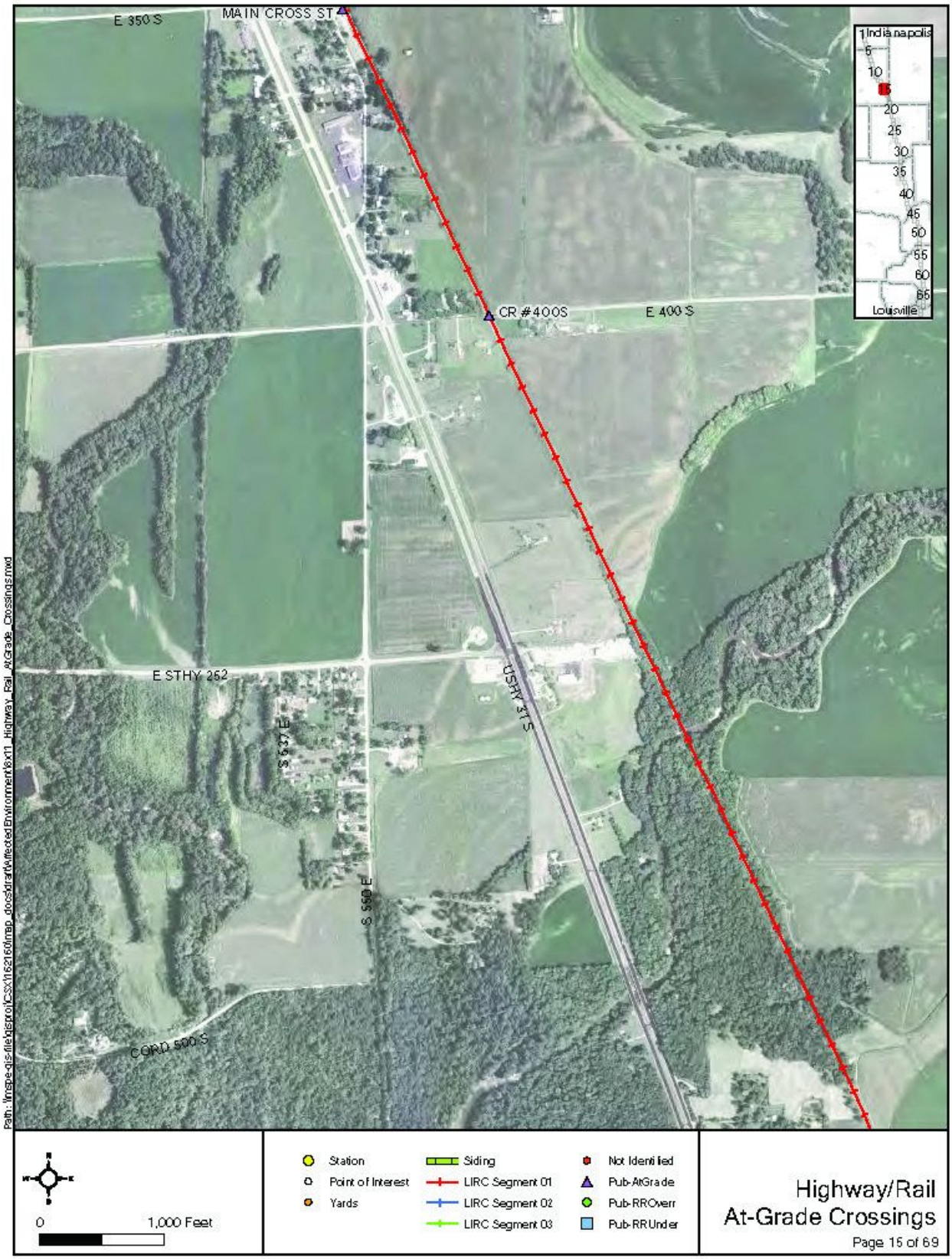
E 350 S
MAIN CROSS ST
CR #400S
E 400 S
E STHY 252
S 537 E
S 550 E
USHY 31 S
CORD 500 S
Indianapolis
Louisville
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0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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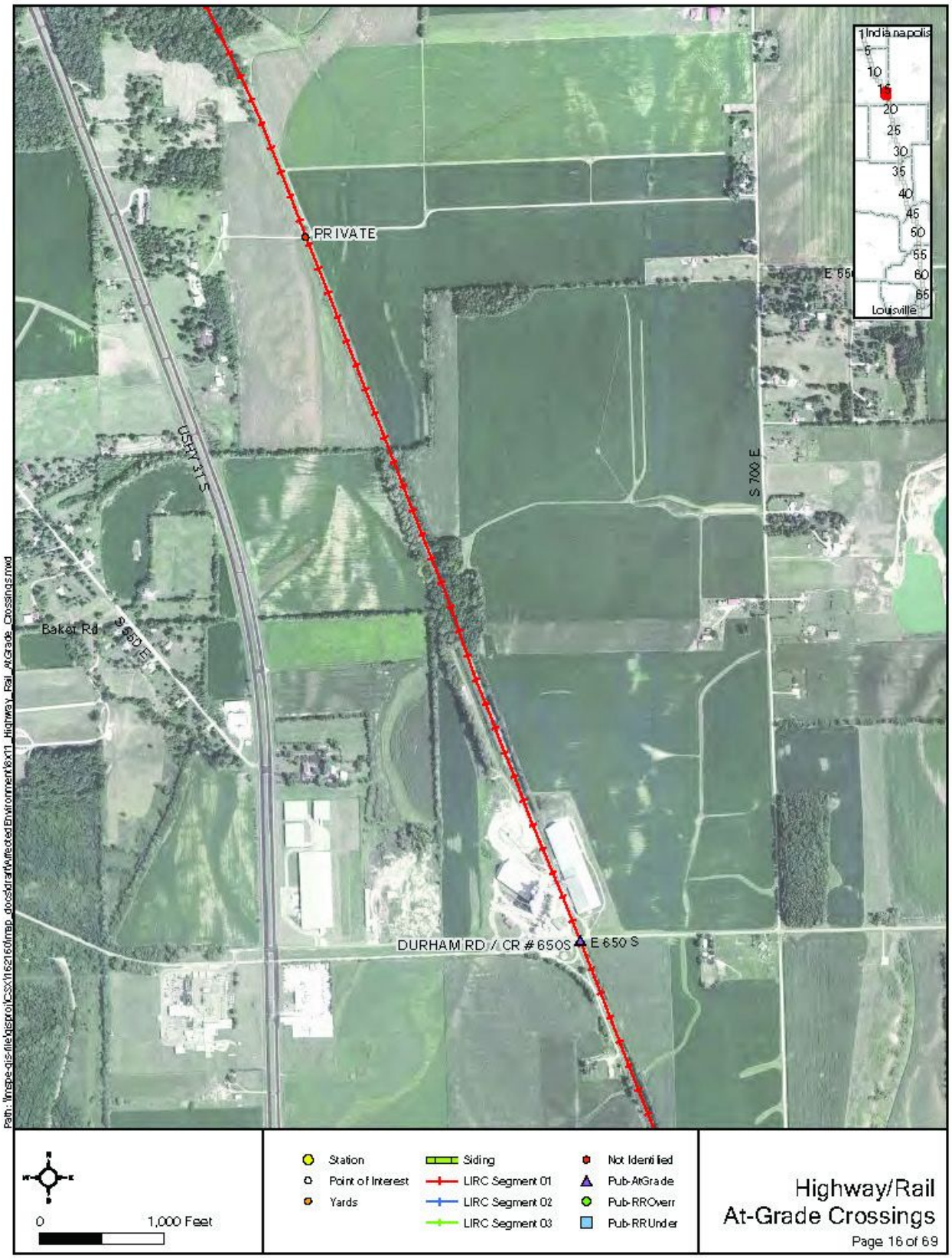
PRIVATE
USHWY 31 S
S 700 E
Baker Rd
S 650 E
DURHAM RD / CR # 650S
E 650 S
E 65
Indianapolis
Louisville
5
10
20
25
30
35
40
45
50
55
60
65
Path: \\mspe-gis-file\esri01\CSX\116216\0\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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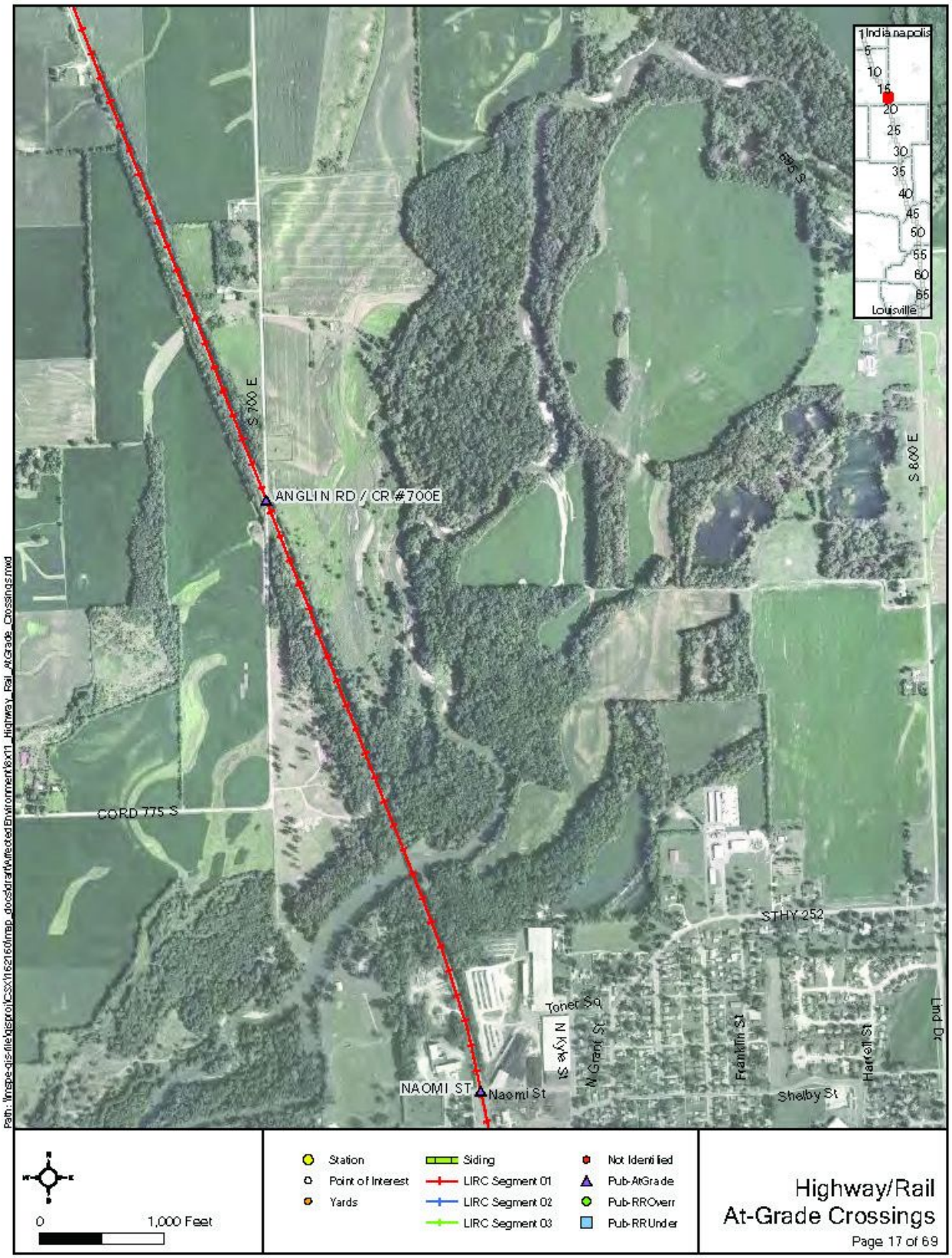
Indianapolis
Louisville
S 700 E
S 800 E
ANGLIN RD / CR #700E
CORD 775 S
STHY 252
NAOMI ST
Naomi St
N Kyle St
N Grant St
Toner Sq
Franklin St
Harrell St
Shelby St
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
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NAOMI ST
Naomi St
CENTER CROSS ST
E MAIN CROSS ST
D WEBB VACATED
THOMPSON ST
Edinburgh
OLD WARD ST
PERRY ST
COUNTY LINE ST
PRIVATE
Toner Sq
N Grant St
Franklin St
Shelby St
Harrell St
King St
N Main St
Russel St
Shelby Ave
W Center Cross St
E Center Cross St
W Main Cross St
E Main Cross St
E Thompson St
S Eisenhower Dr
W Campbell St
Keeley St
N Park Dr
Ward St
W Park Dr
Middle Park Dr
E Park Dr
W Park St
Sunset Dr
High School Dr
Memorial Dr
Fulford Dr
Huff St
Hart St
S Main St
S Holland St
S Kyle St
Duncan St
County Line Rd
Waltz St
Morris St
W Bittum St
N STHY 79
N USHY 31
W 650 N
W Harriet St
N Mary St
N Farmount Dr
W Nema St
N 250 W
Indianapolis
Louisville
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 18 of 69
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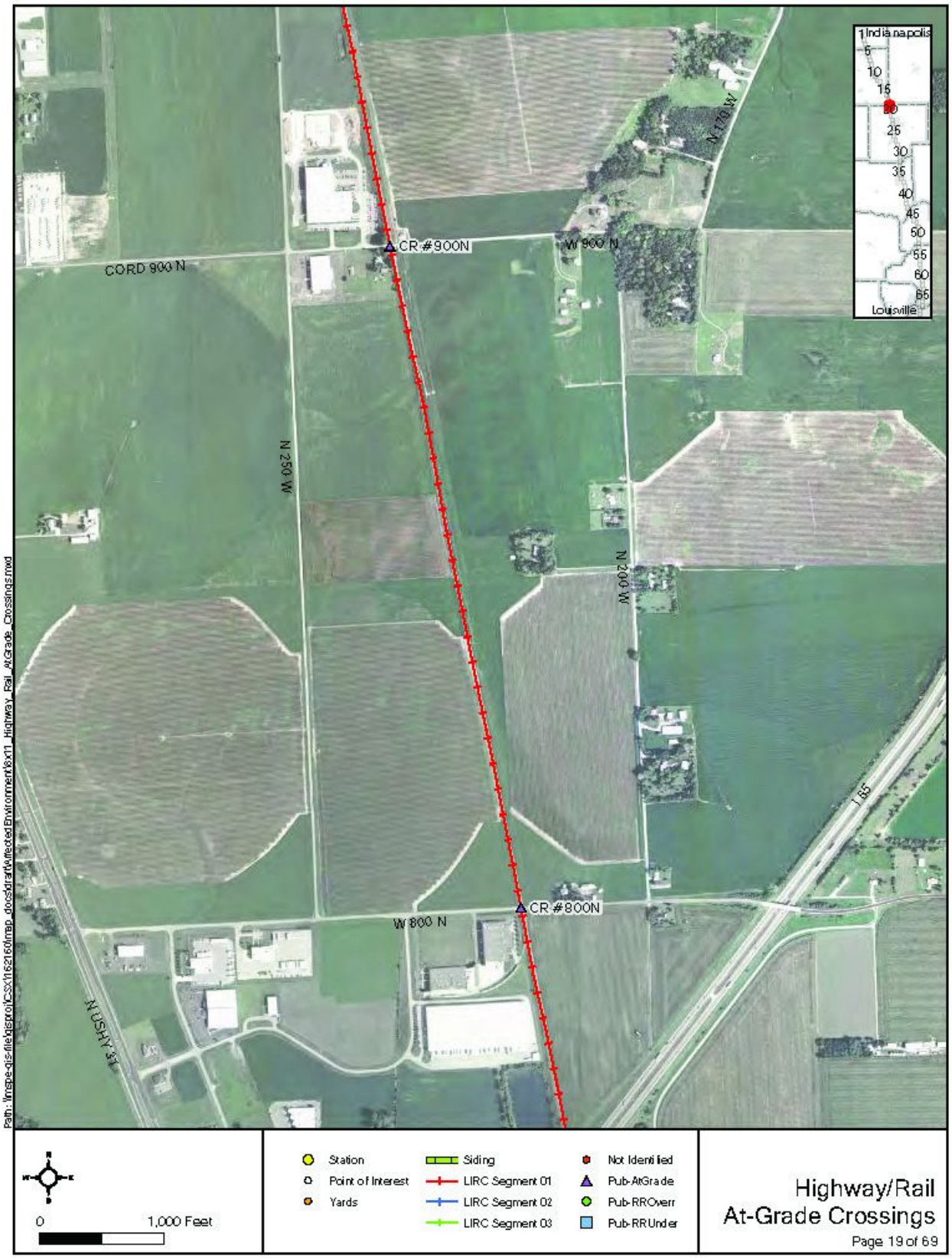
CR #900N
W 900 N
CORD 900 N
N 250 W
N 200 W
N 170 W
CR #800N
W 800 N
N US HWY 41
I 65
Indianapolis
Louisville
Path: \\mspe-gis-file\esprd\CSX\116216\0\mxd_docs\draft\Affected Environment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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I-65
Market Place Dr
(WARNER)
I 65
N 200 W
CR #700N
Taylorsville
W 700 N
East St
Pearl St
N US HY 31
MILL ST
Mill St
1st St
2nd St
3rd St
4th St
John St
TANNEHILL RD
W 650 N
Main St
Depot St
Kay St
N Friendship Dr
S Main St
Walnut St
S Walnut St
Charles St
Dacia St
Evelyn St
Franklin St
Research Rd
Indianapolis
Louisville
Path: \\mspe-gis-file\esri\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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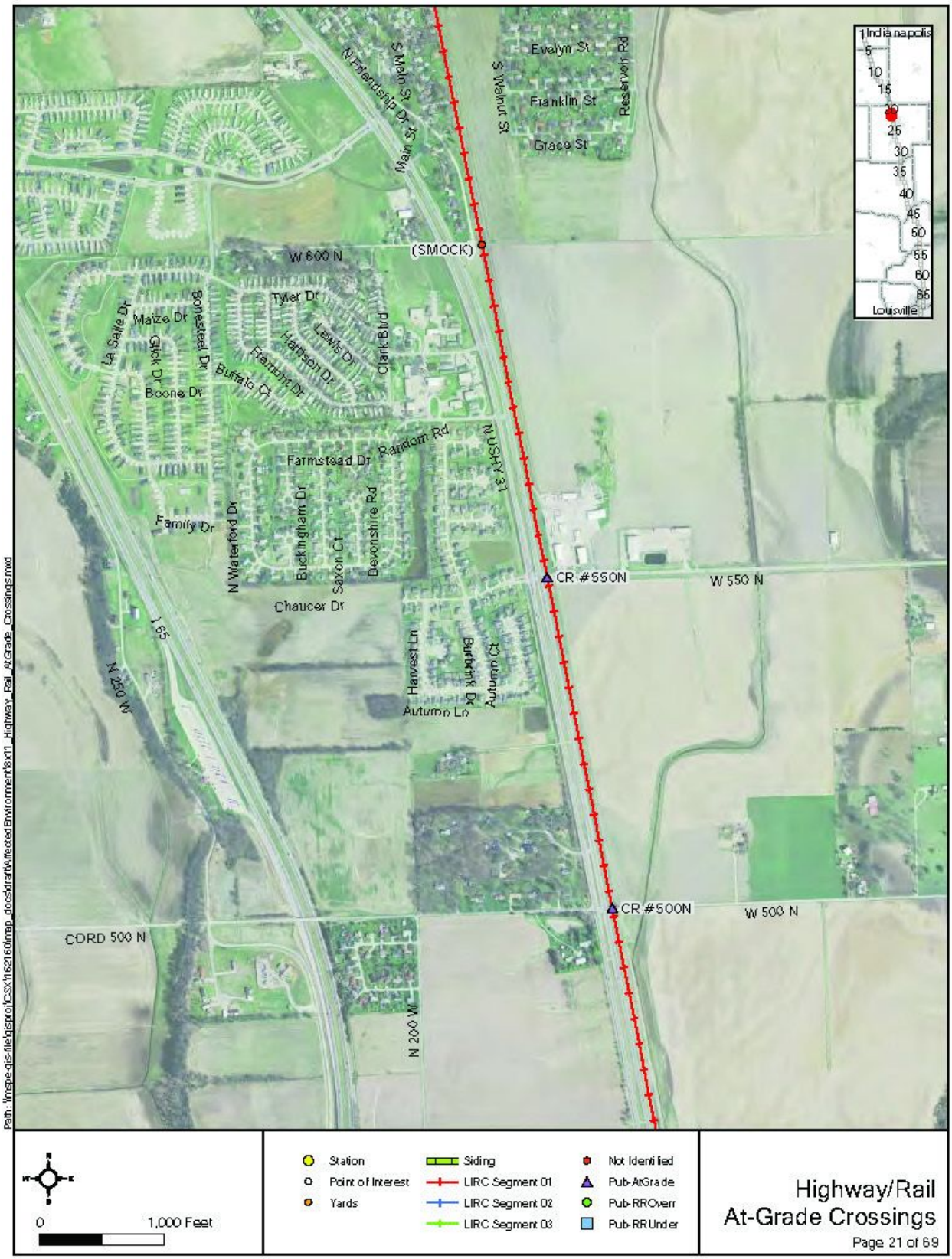
Indianapolis
Louisville
(SMOCK)
W 600 N
Tyler Dr
Maize Dr
Bonesteel Dr
Buffalo Ct
Harrison Dr
Lewis Dr
Clark Blvd
La Salle Dr
Glick Dr
Boone Dr
Farmstead Dr
Random Rd
N Waterford Dr
Buckingham Dr
Saxon Ct
Devonshire Rd
Family Dr
Chaucer Dr
N Friendship Dr
S Main St
Evelyn St
Franklin St
Grace St
Reservoir Rd
S Walnut St
N US Hwy 31
CR #550N
W 550 N
CR #500N
W 500 N
CORD 500 N
I 65
N 250 W
N 200 W
Harvest Ln
Autumn Ln
Autumn Ct
Burbank Dr
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 21 of 69
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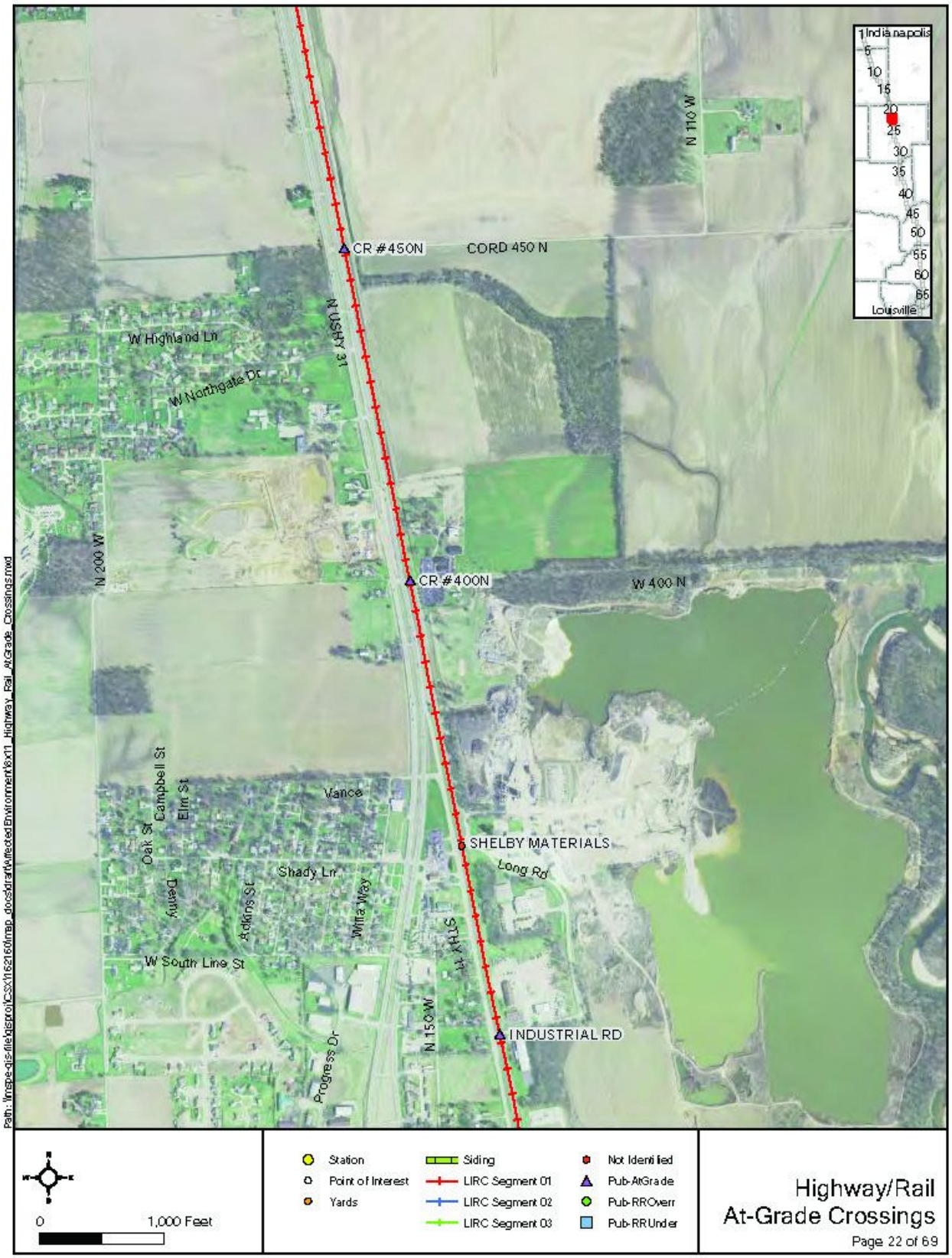
CR #450N
CORD 450 N
N 110 W
N USHY 31
W Highland Ln
W Northgate Dr
N 200 W
CR #400N
W 400 N
Campbell St
Elm St
Oak St
Vance
SHELBY MATERIALS
Long Rd
Shady Ln
Perry
Adkins St
Wilma Way
STHY 44
W South Line St
N 150 W
INDUSTRIAL RD
Progress Dr
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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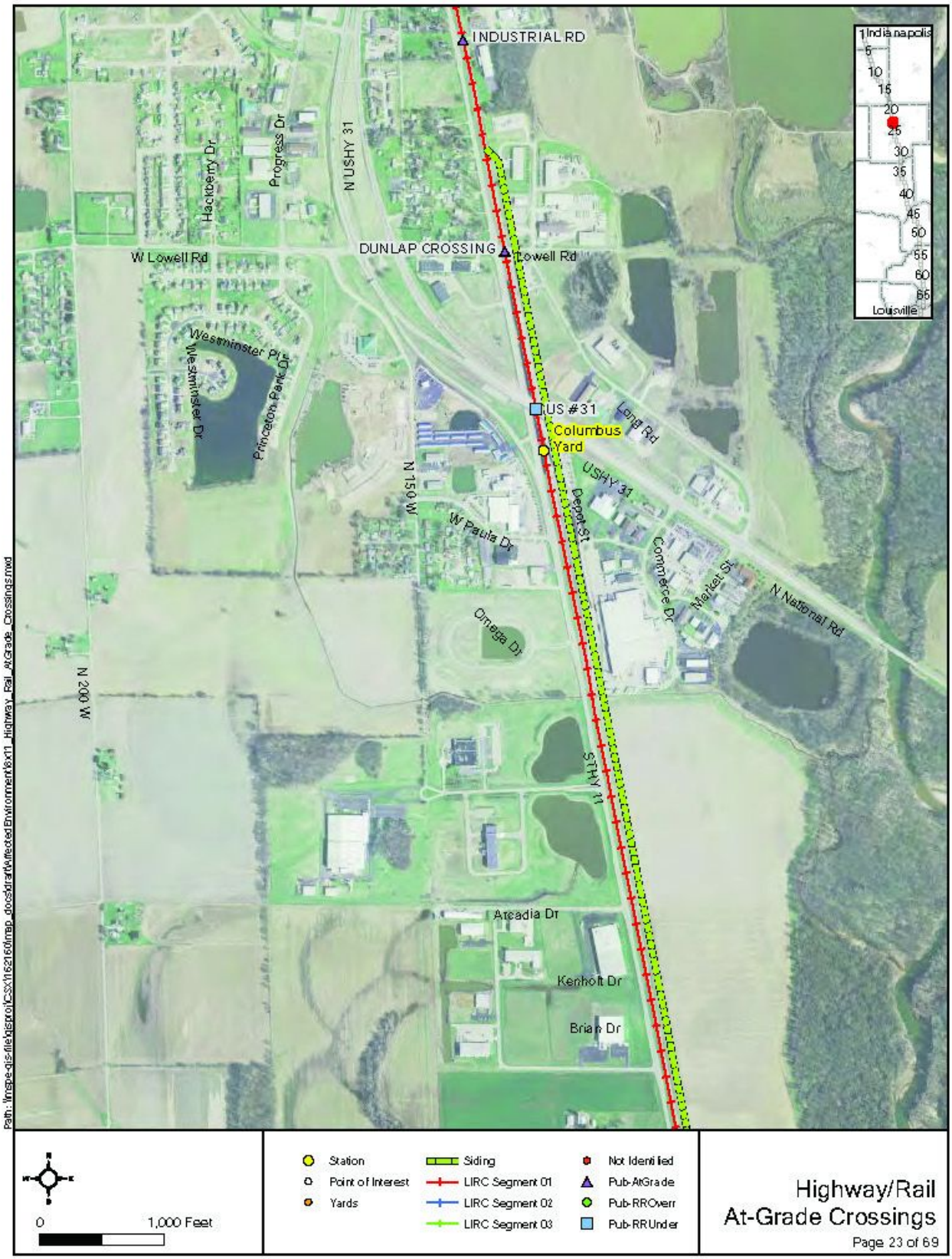
INDUSTRIAL RD
DUNLAP CROSSING
W Lowell Rd
Lowell Rd
N US HY 31
Hackberry Dr
Progress Dr
Westminster Pl Dr
Westminster Dr
Princeton Park Dr
US #31
Columbus Yard
Long Rd
N 150 W
W Patila Dr
US HY 31
Depot St
Commerce Dr
Market St
N National Rd
Omega Dr
N 200 W
S HY 11
Arcadia Dr
Kenholt Dr
Brian Dr
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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Briar Dr
(KIEL BRS OIL CO)
STHY 11
W 100 N
Tellman Rd
LOWELL RD
Lowell Rd
8TH ST
5TH ST EXT
Hill Race Park Dr
Brown St
Alley
8th St
Jackson St
Pearl St
Riverside Dr
Linden St
Highland Wkl
Washington St
Flatrock Dr
Sunset Dr
STHY 46
Newsom Ave
Lawton Ave
Franklin St
Lafayette Ave
27th
22nd St
19th St
17th St
16th St
15th St
14th St
13th St
12th St
11th St
10th St
9th St
7th St
6th St
5th St
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
Page 24 of 69
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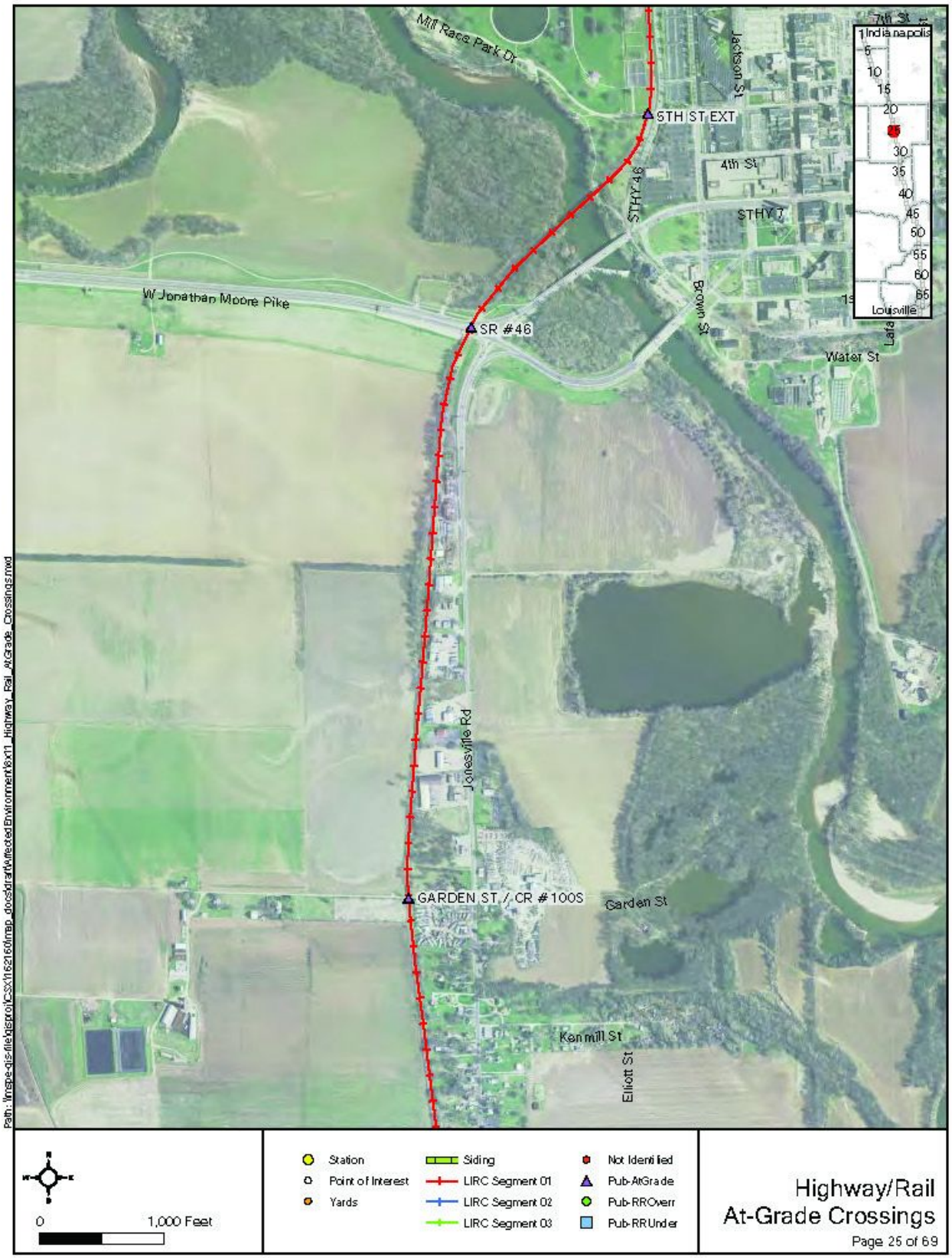
Mill Race Park Dr
Jackson St
7th St
Indianapolis
5
10
15
20
25
30
35
40
45
50
55
60
65
Louisville
STH ST EXT
4th St
STHY 46
STHY 7
W Jonathan Moore Pike
SR #46
Brown St
Water St
Jonesville Rd
GARDEN ST. / CR #100S
Garden St
Kenmill St
Elliott St
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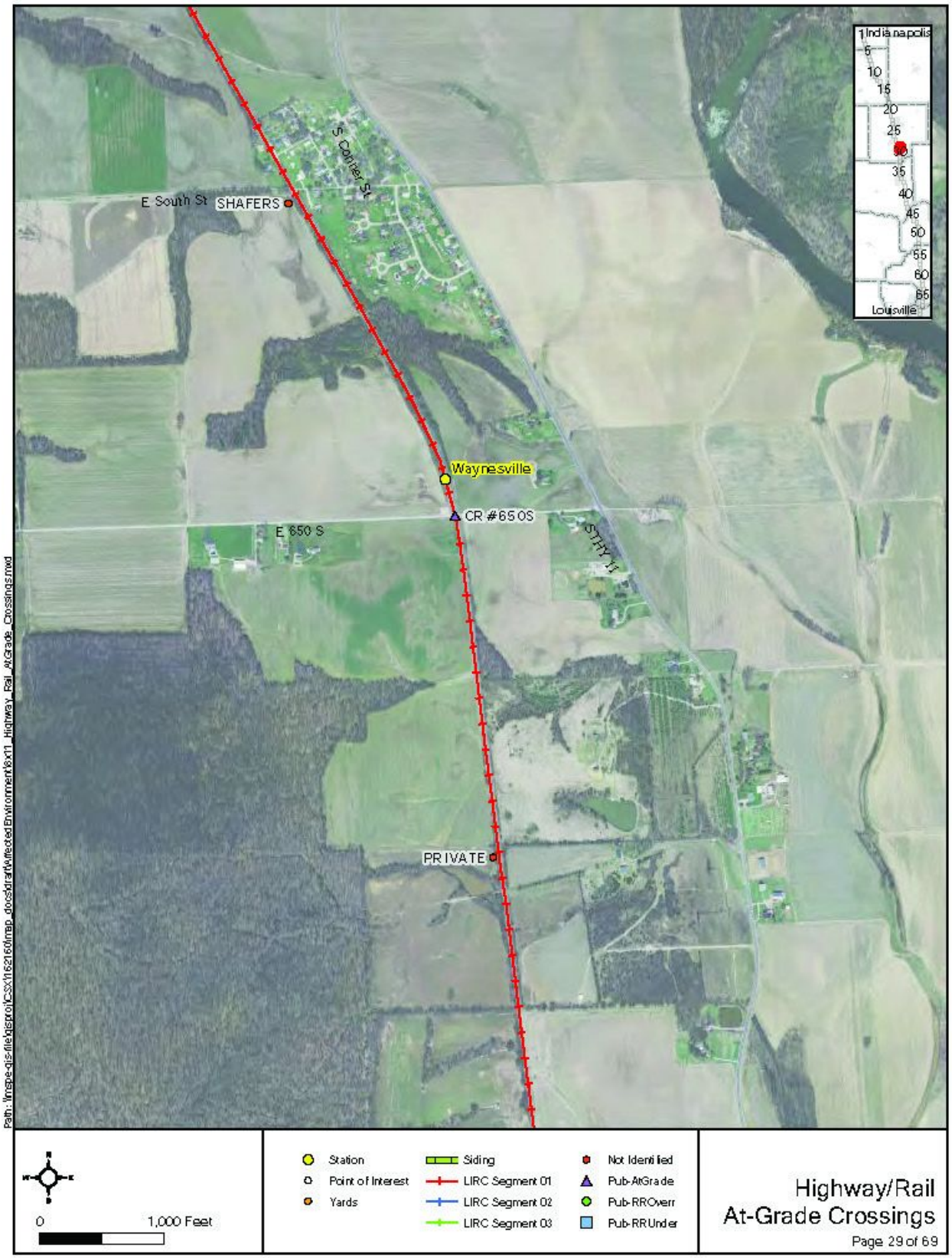
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 25 of 69


Kenmill St
Elliott St
SPEAR ST
Sink Dr
Spears St
Jonesville Rd
Cross Creek Dr
CR #200S
W 200 S
S 130 W
Garden
CORD 230 S
Huffman Dr
(OFFITT)
S 150 W
(WILKERSON)
(PRUITT)
WELCH
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 26 of 69


Joyesville Rd
WELCH
Lincoln St
Roosevelt St
DAWSON ST(KYTE)
Kyte St
Dawson St
Blessing Rd
VAILS
Falcon Dr
Daugherty St
Collier St
Deaver Rd
DEAVER RD
Walesboro
CR #400S
E 400 S
CORD 400 S
(STADEN)
STHY 11
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
Page 27 of 69


CR #450S
E 450 S
PRIVATE
CR #550S
E 550 S
Fenceline
Indianapolis
Louisville
Path: \\mspe-gis-file\esprol\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 28 of 69


Indianapolis
Louisville
E South St
SHAFERS
S Center St
Waynesville
CR #650S
E 650 S
STHY 11
PRIVATE
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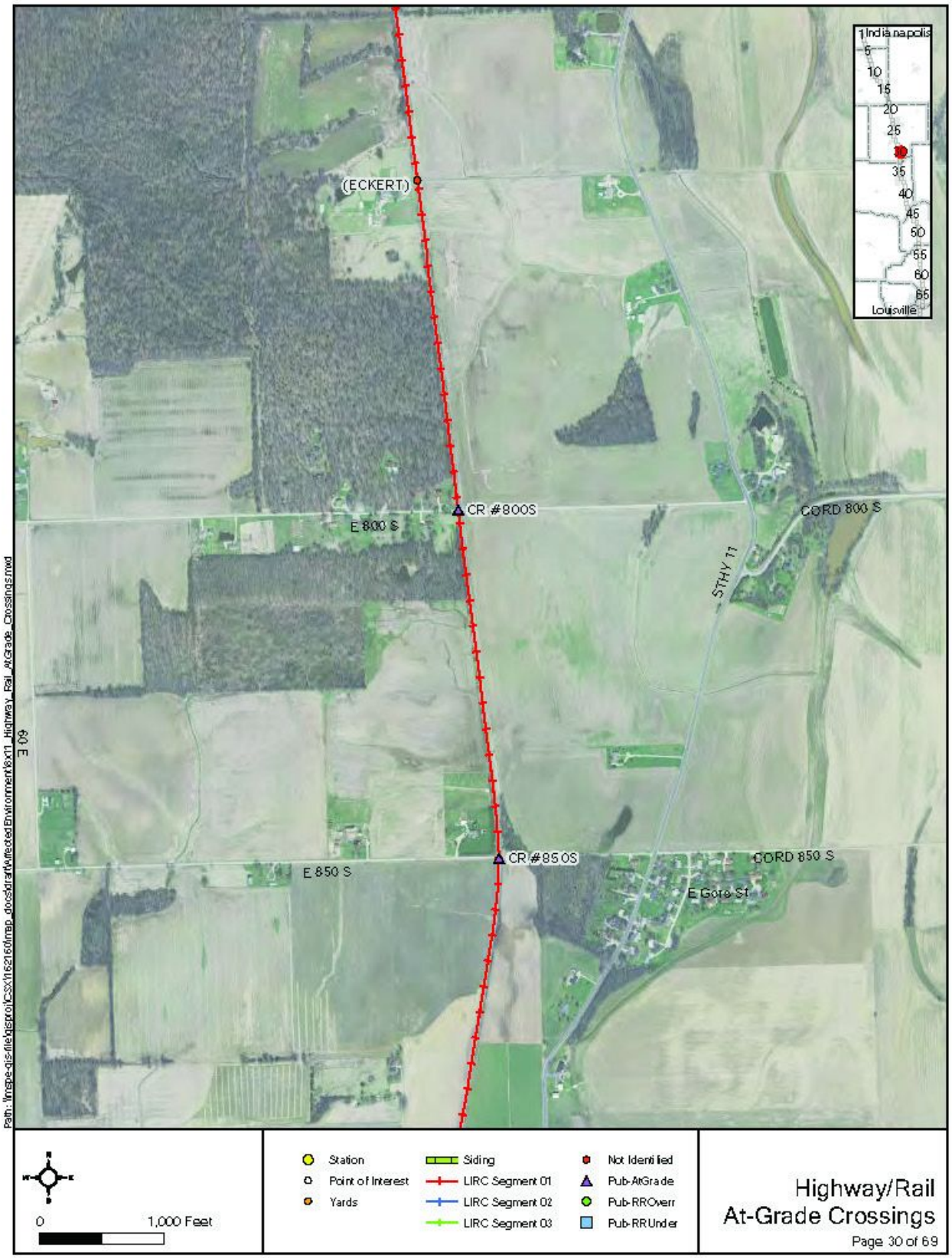
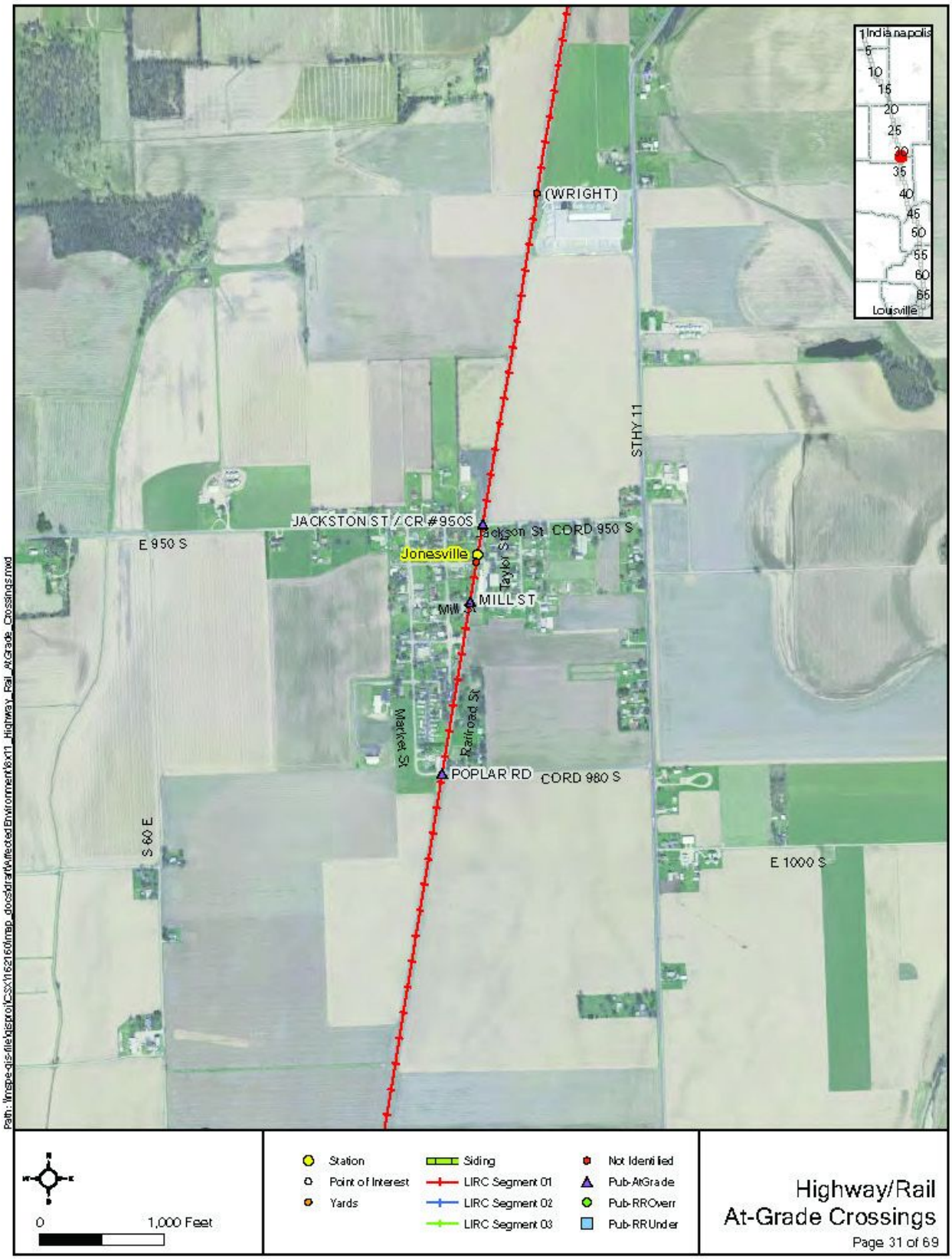
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 29 of 69


(ECKERT)
CR #800S
E 800 S
CR #850S
E 850 S
CORD 800 S
CORD 850 S
STHY 11
E Gore St
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
Page 30 of 69


(WRIGHT)
STHY 11
JACKSTON ST / CR #950S
Jackson St
CORD 950 S
E 950 S
Jonesville
Taylor St
MILL ST
Mill St
Market St
Railroad St
POPLAR RD
CORD 980 S
S 60 E
E 1000 S
Indianapolis
Louisville
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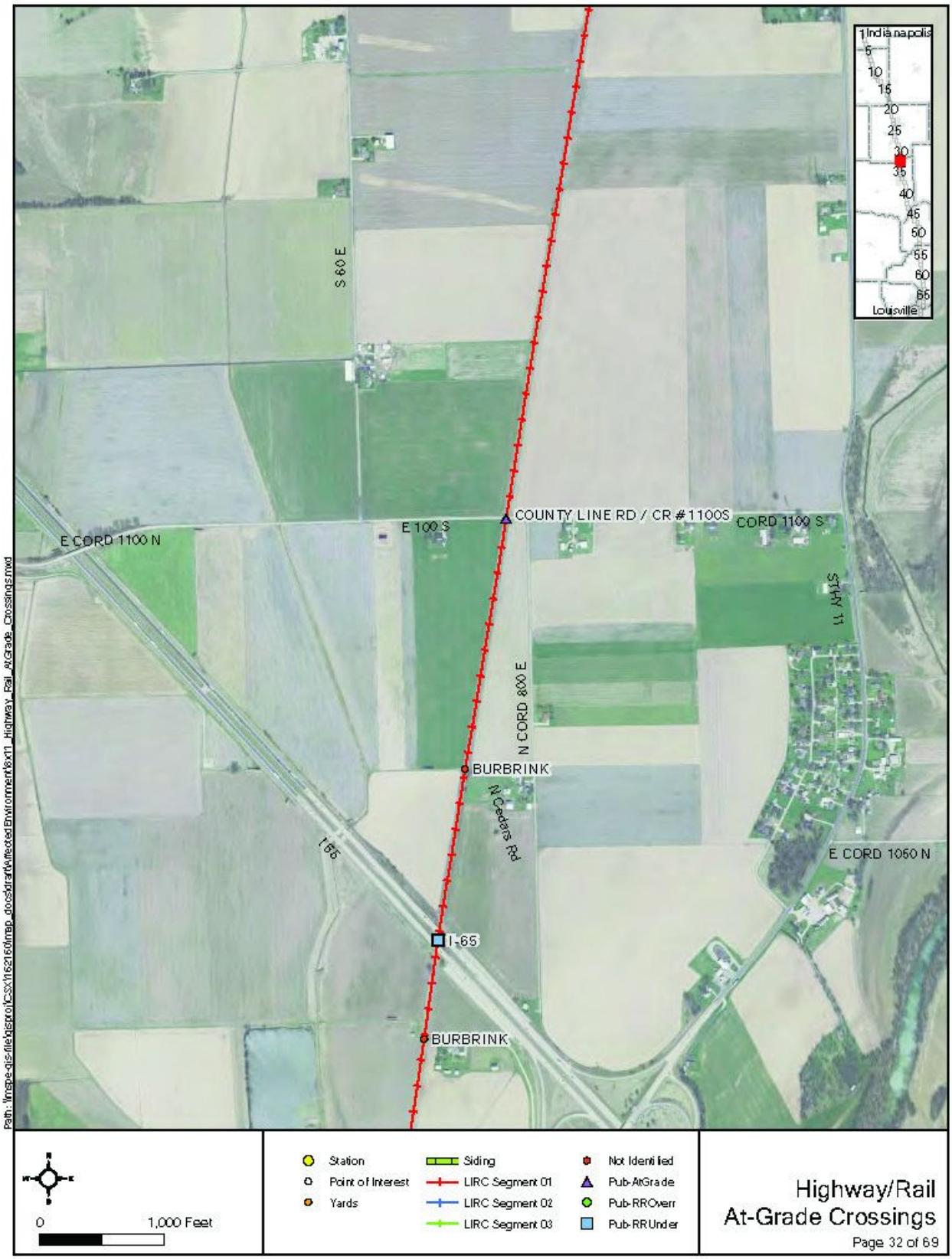
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 31 of 69


Indianapolis
Louisville
S 60 E
E CORD 1100 N
E 100 S
COUNTY LINE RD / CR # 1100S
CORD 1100 S
STHY 11
N CORD 800 E
BURBRINK
N Cedars Rd
I-65
E CORD 1050 N
BURBRINK
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 32 of 69


BURBR INK
CR #1000N
E CORD 1000 N
N CORD 790 E
N CORD 780 E
E CORD 975 N
OLD U.S. 31 / CR #760
N CORD 700 E
STHY 11
I65
Indianapolis
Louisville
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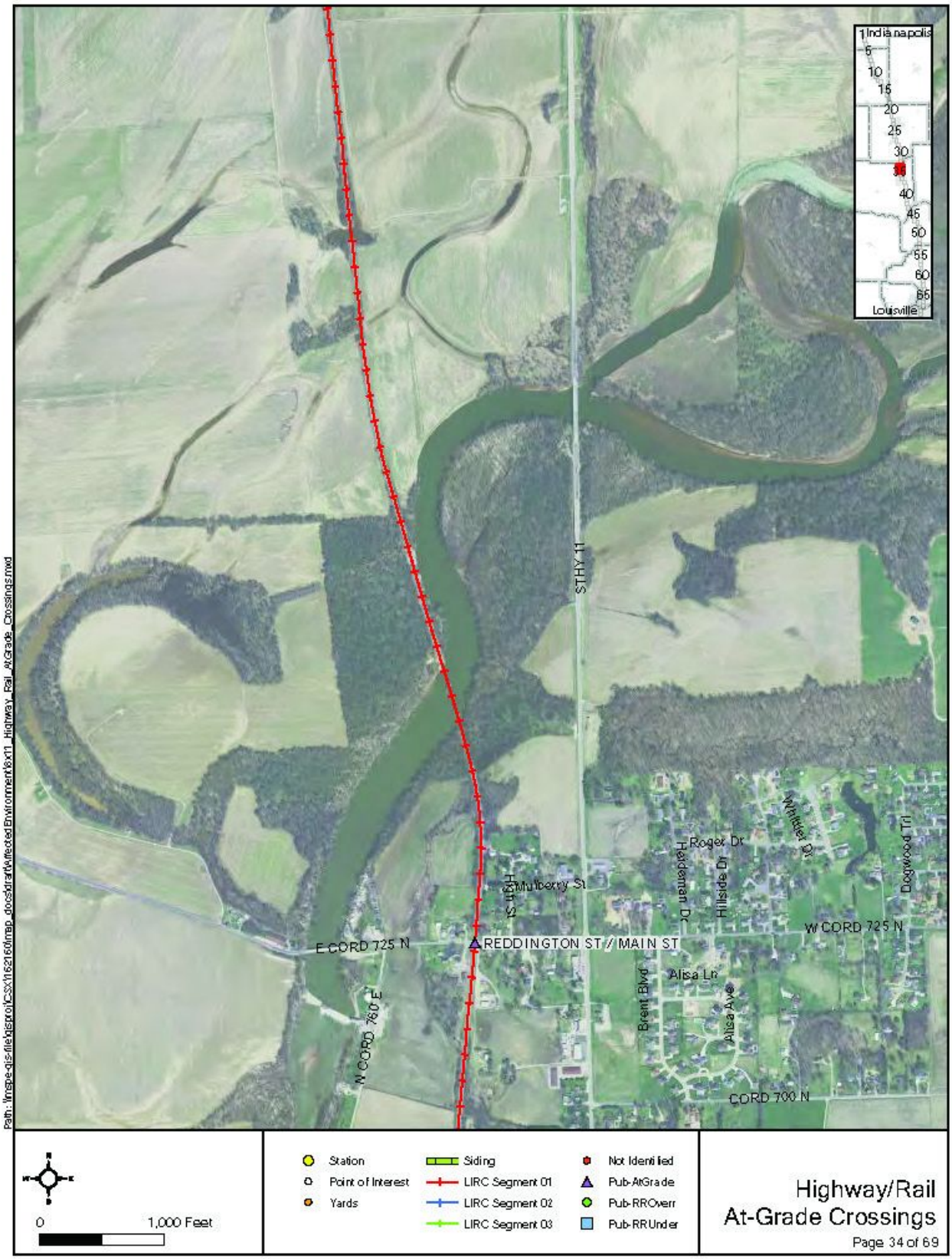
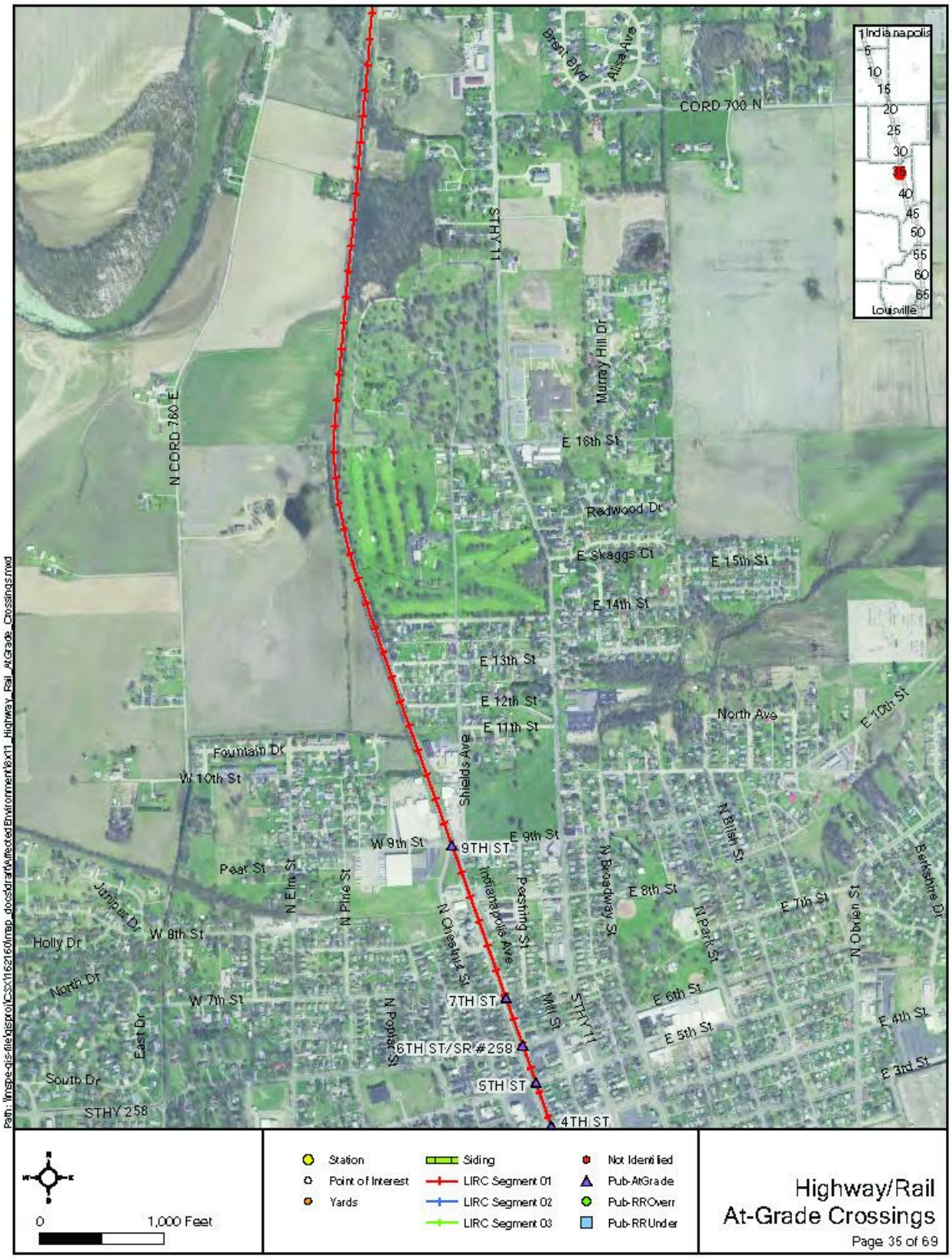
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 33 of 69


Indianapolis
Louisville
STHY 11
E CORD 725 N
W CORD 725 N
REDDINGTON ST / MAIN ST
N CORD 750 E
CORD 700 N
Mulberry St
Roger Dr
Hillside Dr
Whittier Dr
Dogwood Trl
Alisa Ln
Alisa Ave
Brent Blvd
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
Page 34 of 69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Indianapolis
Louisville
CORD 700 N
STHY 11
Brent Blvd
Allen Ave
Murray Hill Dr
N CORD 760 E
E 16th St
Redwood Dr
E Skaggs Ct
E 15th St
E 14th St
E 13th St
E 12th St
E 11th St
North Ave
E 10th St
Fountain Dr
W 10th St
Shields Ave
W 9th St
9TH ST
E 9th St
Pearl St
N Elm St
N Pine St
Indianapolis Ave
Pershing St
N Broadway St
E 8th St
N Park St
E 7th St
N Obrien St
Berkshire Dr
N Main St
Juniper Dr
W 8th St
Holly Dr
North Dr
W 7th St
East Dr
South Dr
STHY 258
N Chestnut St
N Poplar St
7TH ST
6TH ST/SR #258
5TH ST
4TH ST
E 6th St
E 5th St
E 4th St
E 3rd St
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 35 of 69


6TH ST/SR #258
5TH ST
4TH ST
3RD ST
2ND ST
ST LOUIS AVE N
Seymour
ST LOUIS AVE S
TIPTON ST / U.S. 50
BRUCE ST
SOUTH ST
BROWN ST
LAUREL ST
O'BRIEN ST
E 6th St
E 5th St
E 4th St
E 3rd St
Mill St
N Elm St
W 5th St
W 3rd St
W 2nd St
Maple Ave
USHY 50
Circle St
East St
Bush St
S Park St
Noble St
Highway Ave
Marley Ln
Miller Ln
E Oak St
Pecan Dr
Sprenger Rd
Holiday Dr
Polley Dr
Ash St
Birch St
Central Park Ave
Peak Ave
Beech St
Carter St
Windhorst Ct
S Vine St
Phillips Ln
Maplewood Dr
Sarasota Dr
S Pine St
S Poplar St
STHY 11
S Chestnut St
N Park Dr
S Park Dr
Caiser Dr
W Harrison Dr
S Harrison Dr
Ernest Dr
Wendemere Dr
Taggart Dr
Cornerstone Ave
W Freeman Ave
E Freeman Ave
Church Ave
Cardinal Dr W
Cardinal Dr E
S Obrien St
Juliann Dr
Indianapolis
Louisville
bing
Image courtesy of USGS Image courtesy of the IndianaMap © 2013 Microsoft Corporation
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail At-Grade Crossings
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STRING CAMP / CR #340N
E CORD 340 N
N CORD 850 E
N CORD 925 E
SWENGEL RD / CR #900E
FARMINGTON / CR #300N
E CORD 300 N
N CORD 900 E
N CORD 950 E
Indianapolis
Louisville
Path: \\mspe-gis-file\esri\pro\CSX\16216\0\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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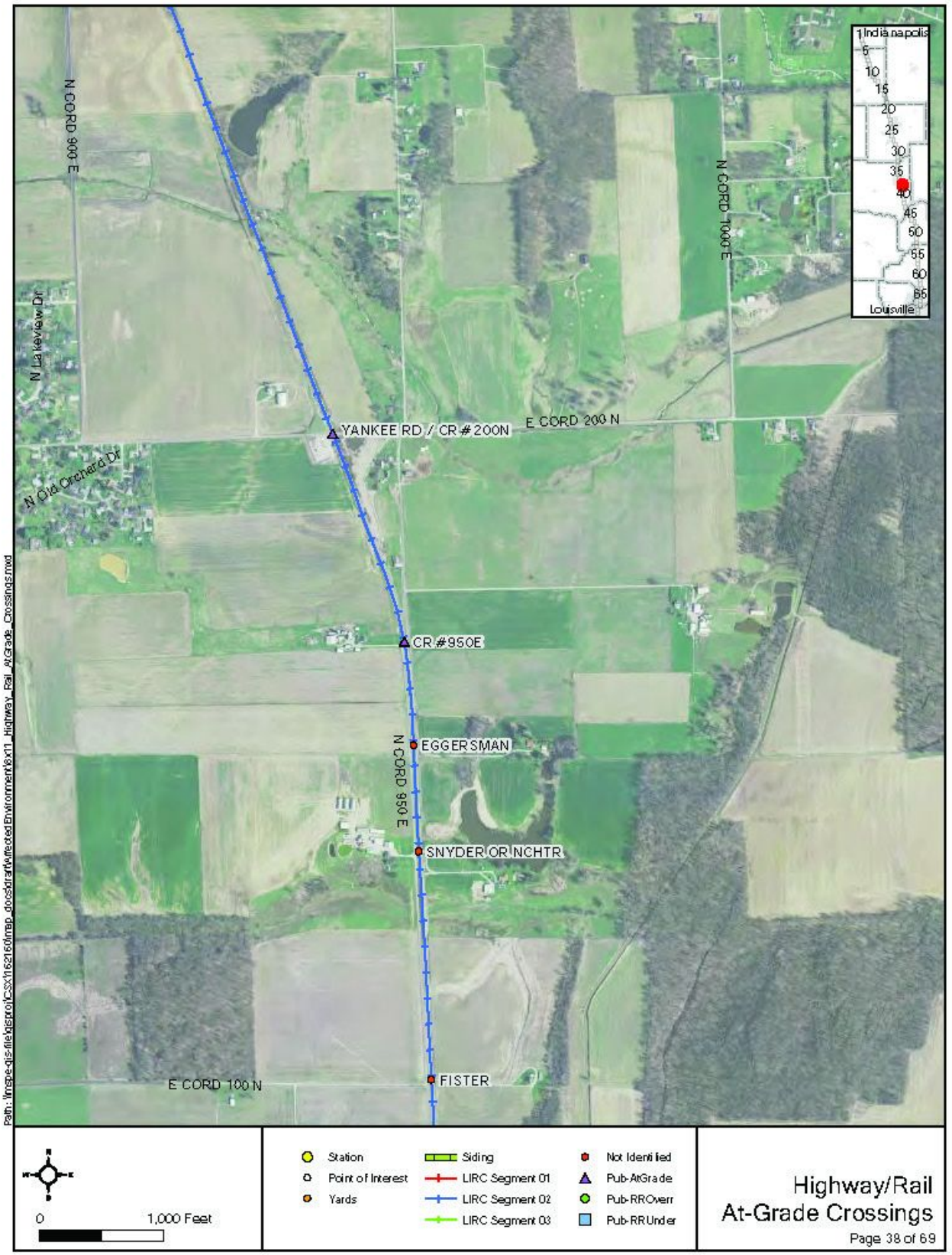
N CORD 900 E
N CORD 1000 E
N Lakeview Dr
N Old Orchard Dr
YANKEE RD / CR # 200N
E CORD 200 N
CR # 950E
EGGERSMAN
N CORD 950 E
SNYDER OR NCHTR
FISTER
E CORD 100 N
Indianapolis
Louisville
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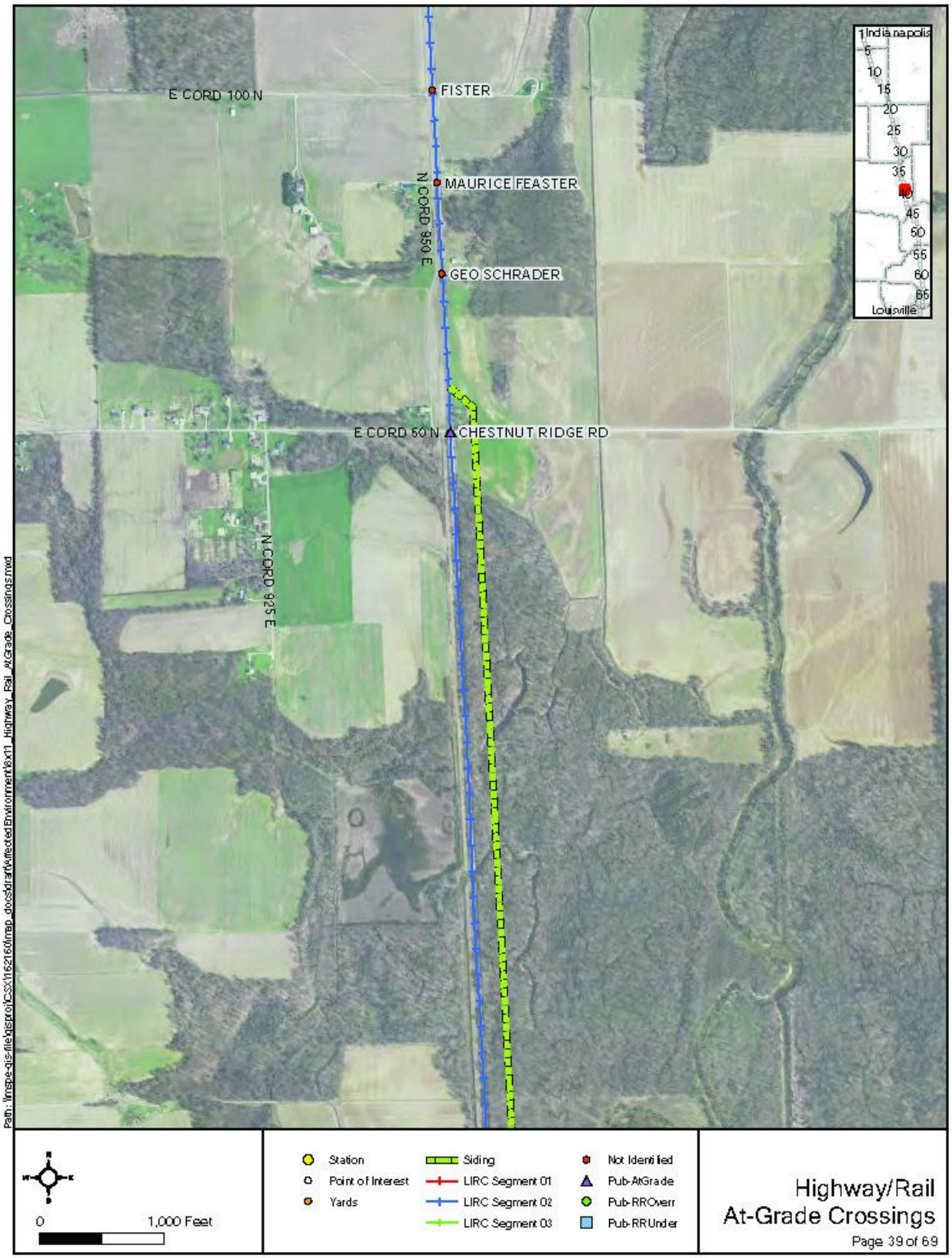
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 38 of 69


E CORD 100 N
FISTER
MAURICE FEASTER
N CORD 950 E
GEO SCHRADER
E CORD 50 N
CHESTNUT RIDGE RD
N CORD 925 E
Indianapolis
Louisville
Path: \\mspe-gis-file\esprol\CSX\116216\0\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 39 of 69


Indianapolis
5
10
15
20
25
30
35
45
50
55
60
65
Louisville
E CORD 100 S
CR #100S
E CORD 125 S
STHY 250
Path: \\mspe-gis-file\esri01\CSX\116216\0\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
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1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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HALL
SR #250
S TWY 250
E CORD 300 S
S CORD 1025 E
S CORD 1050 E
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\116216\0\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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Indianapolis
5
10
15
20
25
30
35
40
45
50
55
60
65
Louisville
E CORD 400 S
CR #415S
CR #500S
E CORD 500 S
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1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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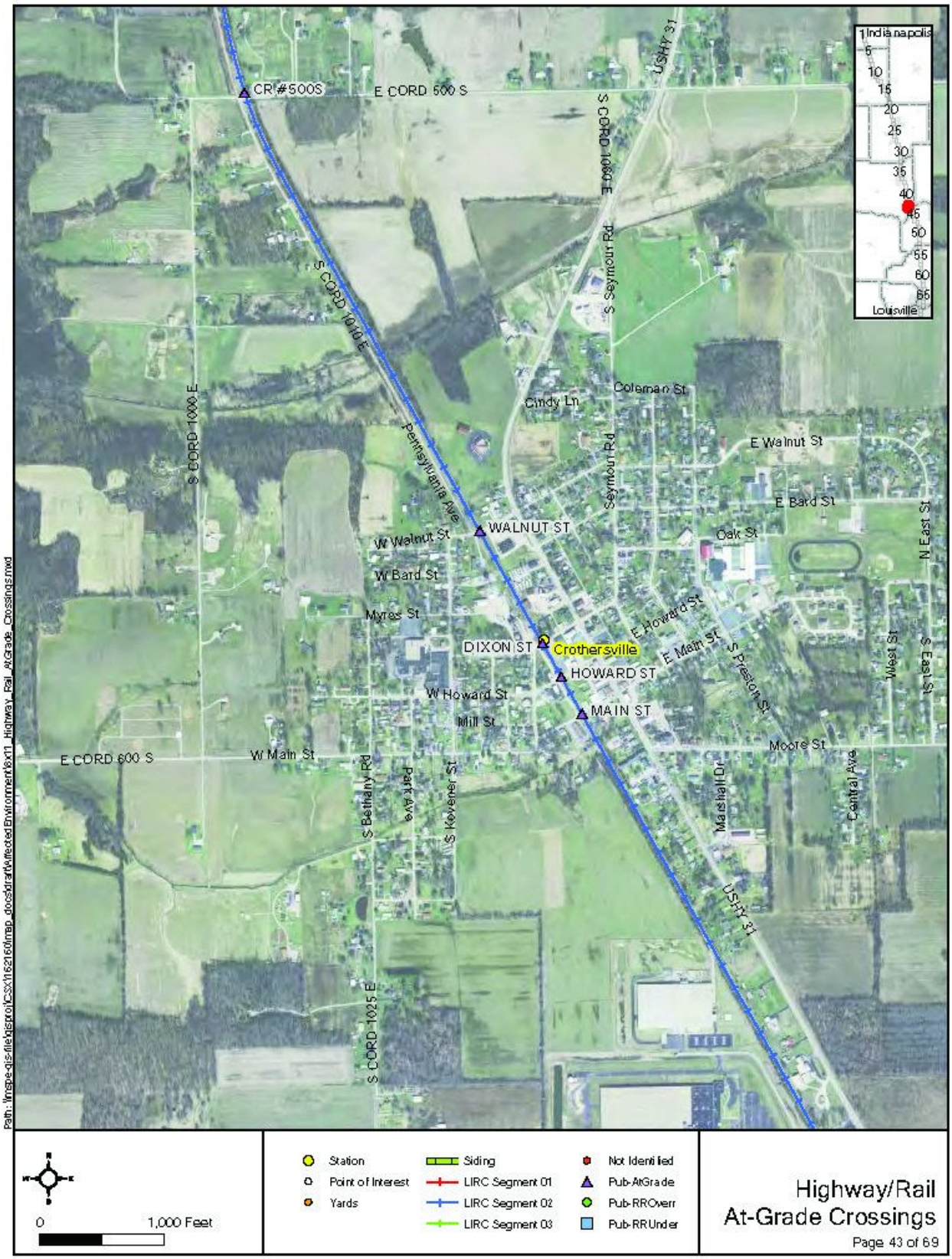
CR #500S
E CORD 500 S
USHY 31
S CORD 1000 E
S Seymour Rd
S CORD 1010 E
Pennsylvania Ave
Coleman St
Cindy Ln
E Walnut St
E Bard St
Oak St
N East St
WALNUT ST
W Walnut St
W Bard St
Myrex St
DIXON ST
Crothersville
HOWARD ST
E Howard St
E Main St
S Preston St
West St
S East St
W Howard St
MAIN ST
Mill St
Moore St
E CORD 600 S
W Main St
S Bethany Rd
Park Ave
S Kovener St
Marshall Dr
Central Ave
S CORD 1025 E
Indianapolis
Louisville
Path: \\mspe-gis-file\esproj\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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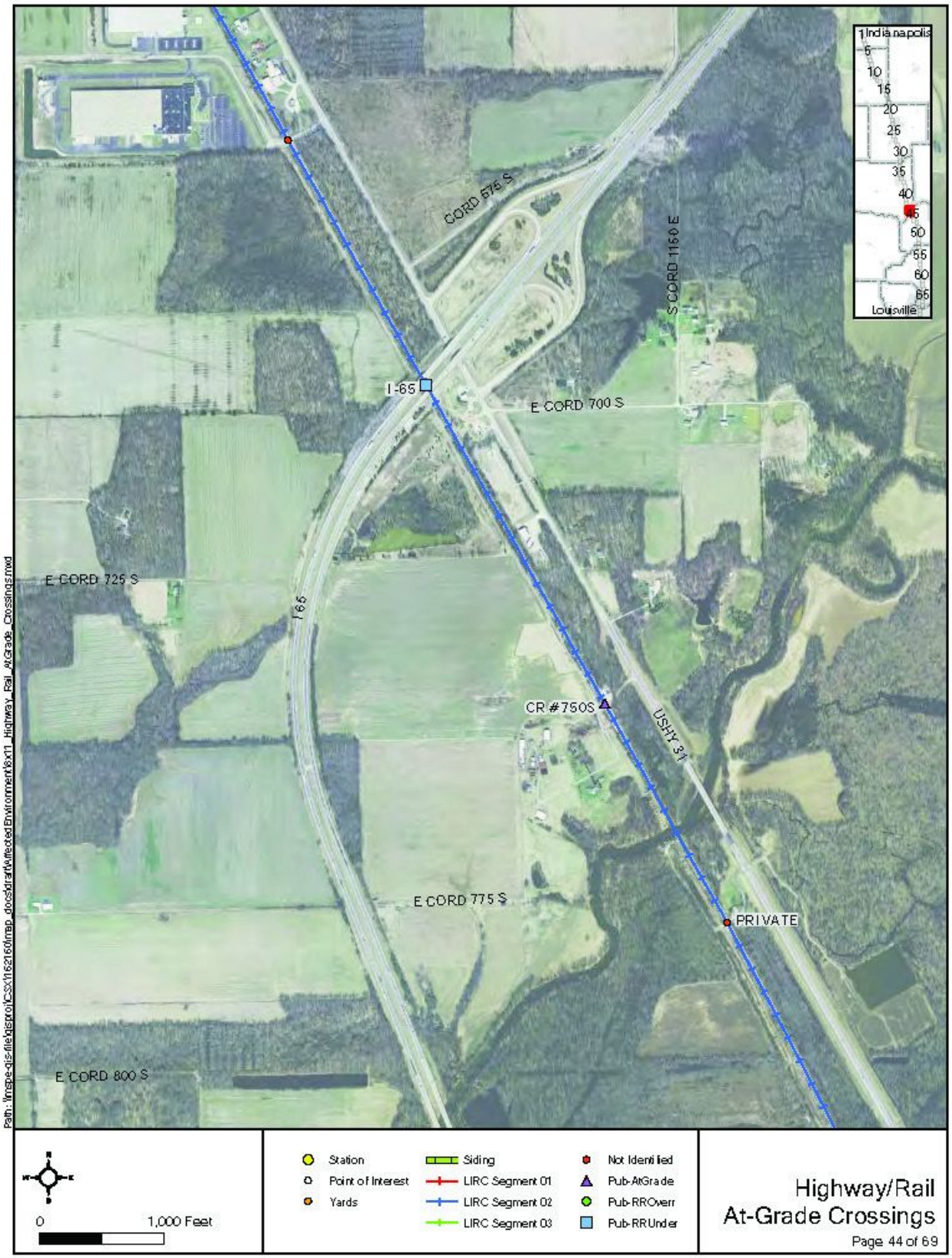
E CORD 875 S
S CORD 1150 E
I-65
E CORD 700 S
E CORD 725 S
I-65
CR #750S
US-HY 31
E CORD 775 S
PRIVATE
E CORD 800 S
Indianapolis
Louisville
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0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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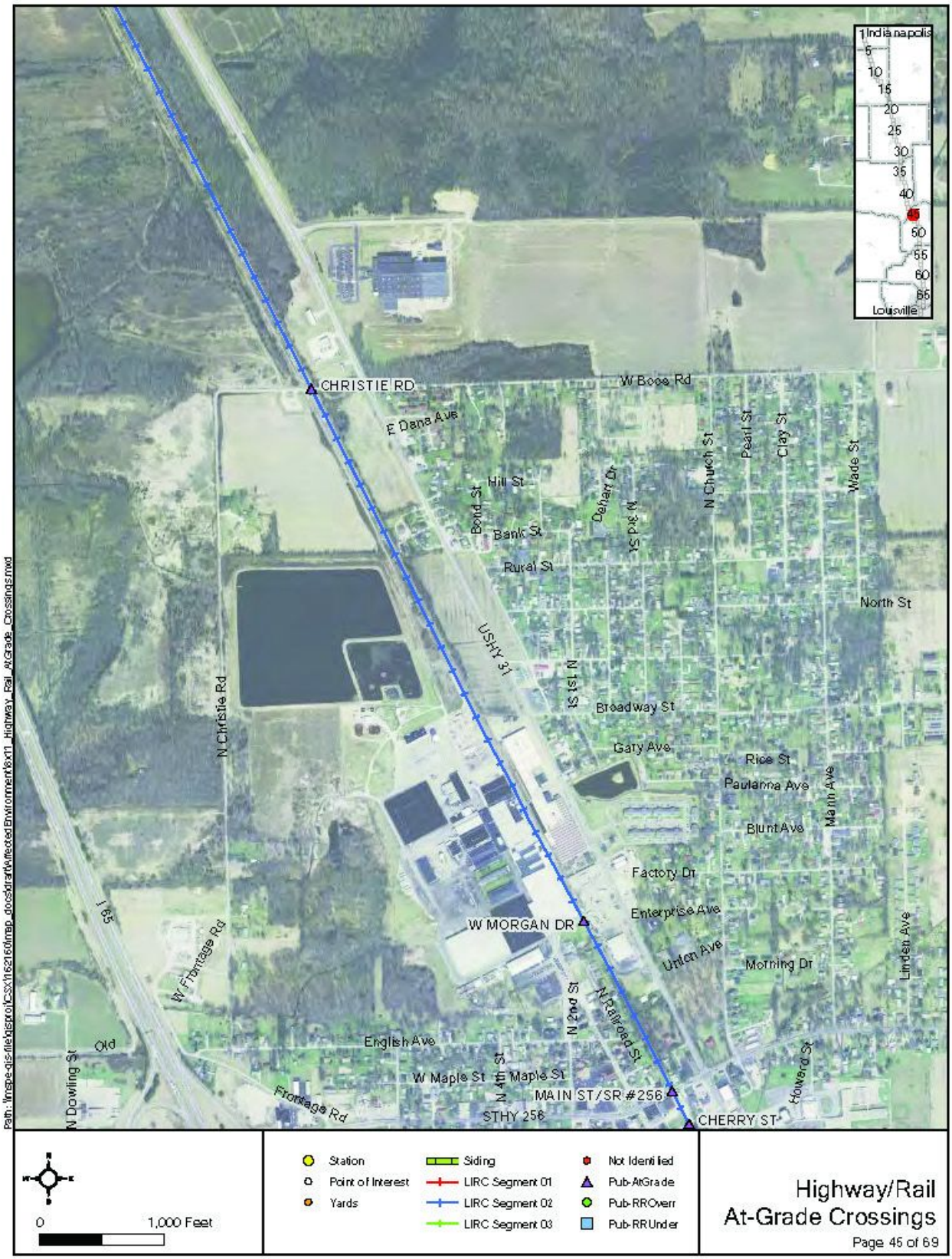
Indianapolis
Louisville
CHRISTIE RD
W Boos Rd
E Dana Ave
Hill St
Bond St
Bank St
Rural St
Dehart Dr
N 3rd St
N Church St
Pearl St
Clay St
Wade St
North St
US-HY 31
N 1st St
Broadway St
Gary Ave
Rice St
Paulanna Ave
Blunt Ave
Main Ave
Factory Dr
Enterprise Ave
W MORGAN DR
Union Ave
Morning Dr
Linden Ave
N Railroad St
N 2nd St
N Christie Rd
I 65
W Frontage Rd
Old
N Dowling St
English Ave
W Maple St
N 4th St
Maple St
MAIN ST/SR #256
STHY 256
Frontage Rd
CHERRY ST
Howard St
Path: \\mspe-gis-file\esprol\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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English Ave
W Maple St
E Maple St
Frontage Rd
STHY 256
N 4th St
N 2nd St
N Railroad St
N High St
MAIN ST/SR #256
CHERRY ST
W Cherry St
S 6th St
S 5th St
S 4th St
S 3rd St
S 1st St
S 7th St
W Cross St
PLUM ST
Austin
Plum St
USHY 31
S High St
S 2nd St
Oak St
York Rd
YORK RD/CR #300N
S New York St
W York Rd
Johnson Ln
Campbells Mobile Home Park
Boatman Rd
E Railroad St
W Black Dr
W Vancampen Rd
165
N Boatman Rd
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\affectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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W Cutshall Rd
E Cuts
Coffee Pot Rd
USHY 31
Indianapolis
5
10
15
20
25
30
35
40
45
50
55
60
65
Louisville
N USHY 31
N North Main St
W Marshfield Rd
N Terrell Rd
PRIVATE
US #31
I 65
CORD 100 N
Path: \\mspe-gis-file\esri\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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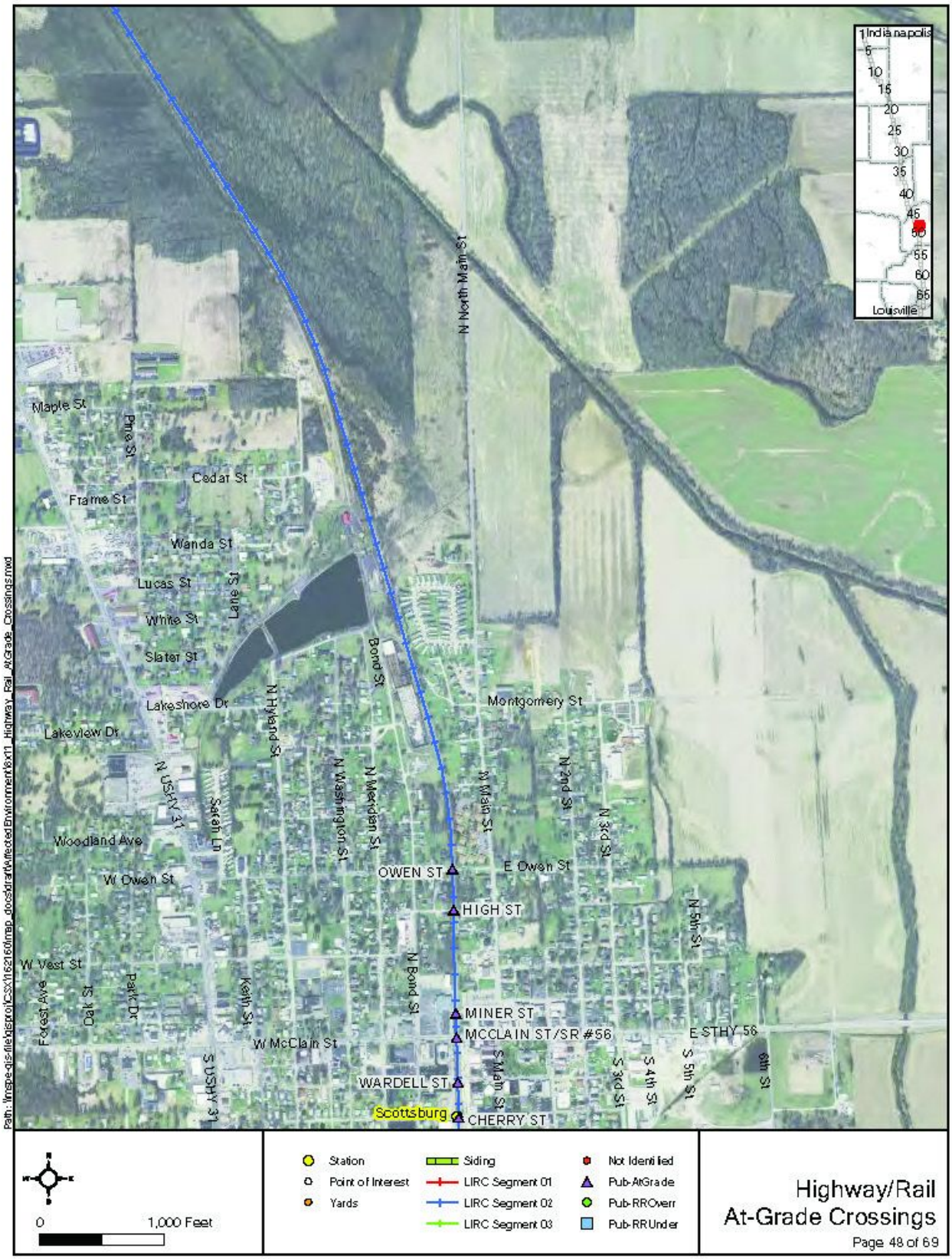
Indianapolis
Louisville
N North Main St
Maple St
Pine St
Cedar St
Frame St
Wanda St
Lucas St
Lane St
White St
Slater St
Lakeshore Dr
Lakeview Dr
Bond St
Montgomery St
N Highland St
N Meridian St
N Washington St
N Main St
N 2nd St
N 3rd St
N USHY 31
Sarah Ln
Woodland Ave
W Owen St
OWEN ST
E Owen St
HIGH ST
N 5th St
W West St
Forest Ave
N Oak St
Park Dr
Keith St
N Bond St
MINER ST
MCCLAIN ST/SR #56
E STHY 56
W McClain St
S USHY 31
WARDELL ST
S Main St
S 3rd St
S 4th St
S 5th St
6th St
Scottsburg
CHERRY ST
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0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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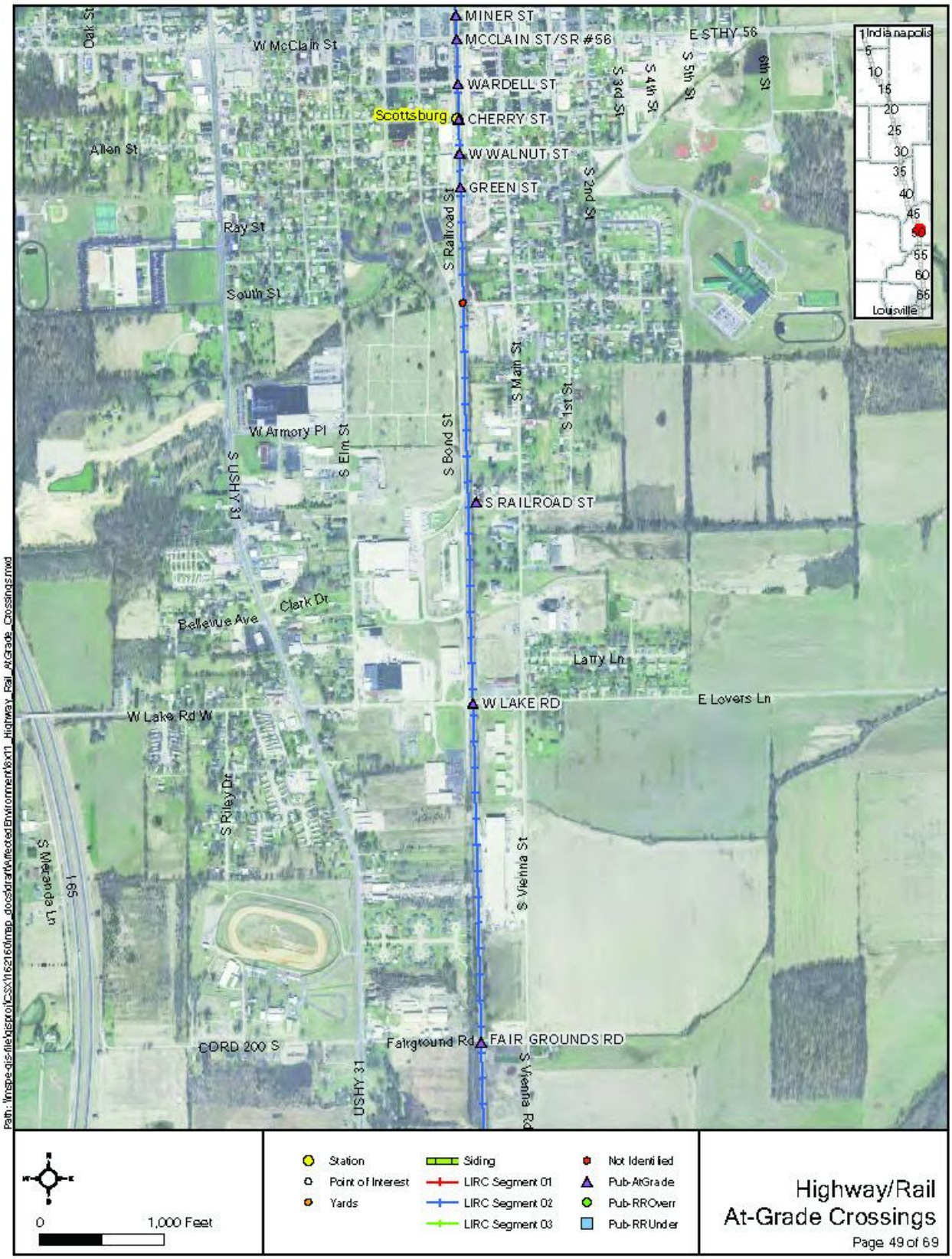
MINER ST
MCCLAIN ST/SR #56
WARDELL ST
CHERRY ST
W WALNUT ST
GREEN ST
S RAILROAD ST
W LAKE RD
FAIR GROUNDS RD
Scottsburg
W McClain St
E STHY 56
S 3rd St
S 4th St
S 5th St
6th St
Oak St
Allen St
Ray St
South St
S Railroad St
S 2nd St
S Main St
S 1st St
W Armory Pl
S Elm St
S Bond St
S USHY 31
Clark Dr
Bellevue Ave
Larry Ln
E Lovers Ln
W Lake Rd W
S Riley Dr
S Miranda Ln
I-65
S Vienna St
CORD 200 S
Fairground Rd
USHY 31
S Vienna Rd
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
Page 49 of 69
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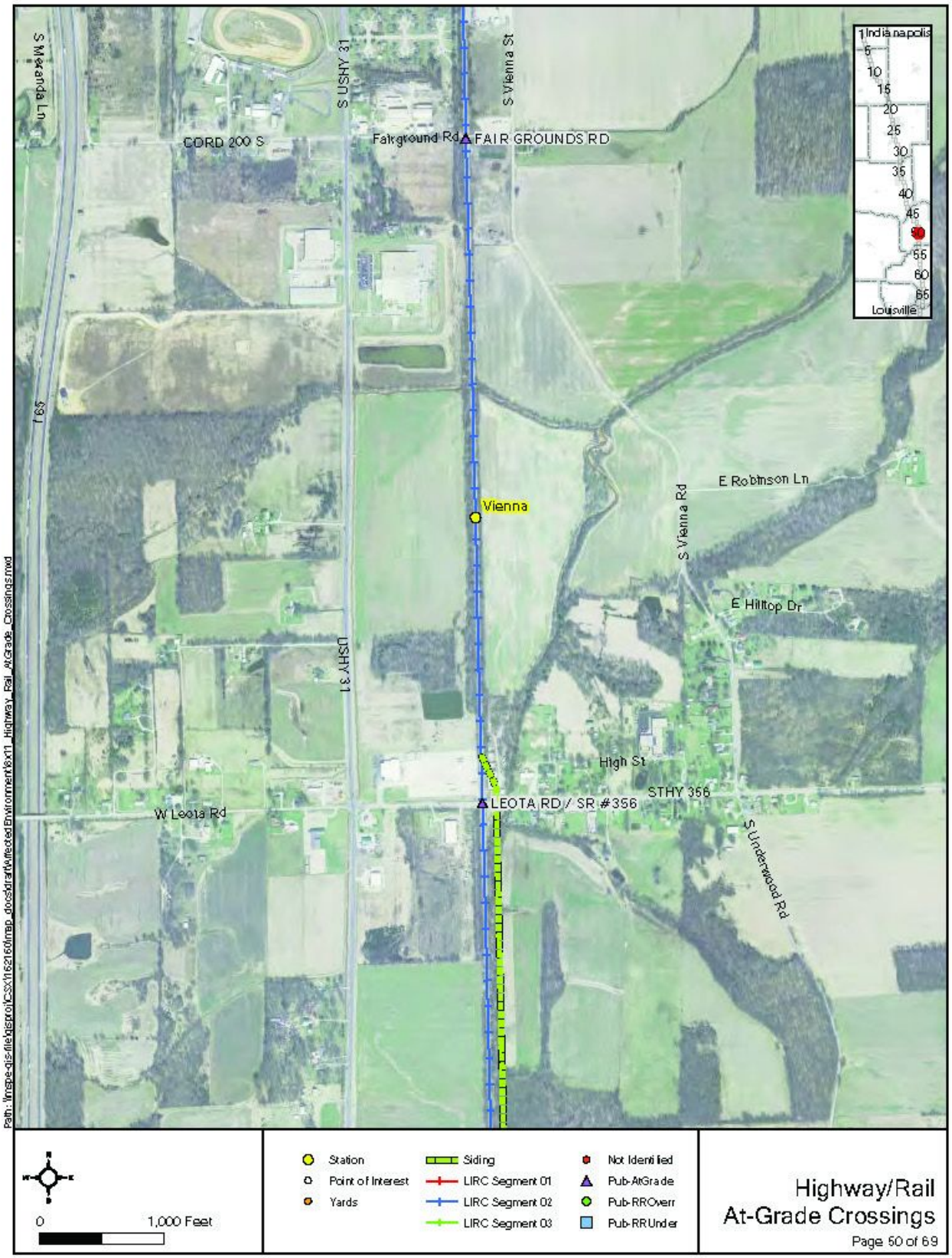
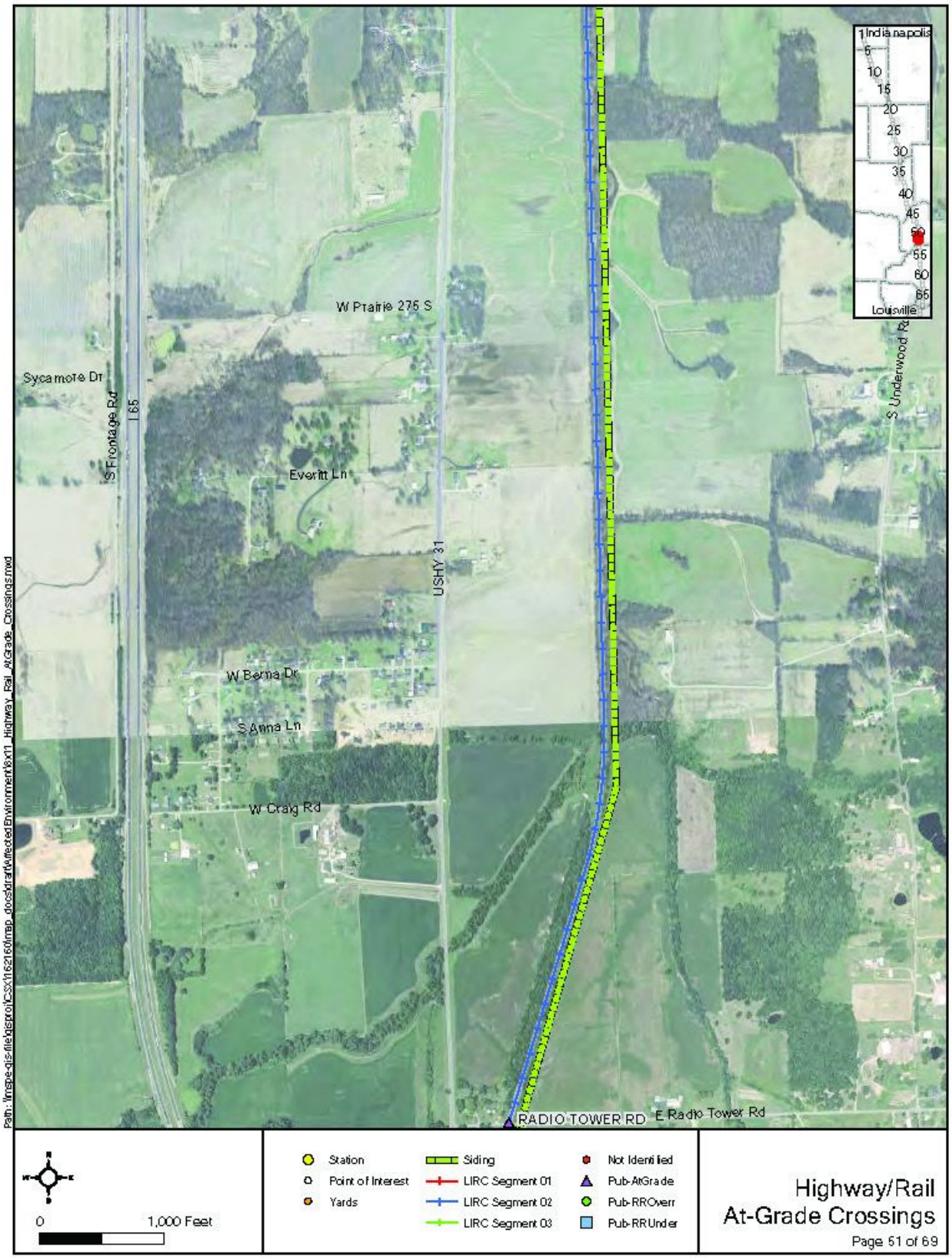

S Miranda Ln
S USHY 31
S Vienna St
CORD 200 S
Fairground Rd
FAIR GROUNDS RD
Indianapolis
5
10
15
20
25
30
35
40
45
50
55
60
65
Louisville
I-65
Vienna
E Robinson Ln
S Vienna Rd
E Hilltop Dr
USHY 31
High St
STHY 356
W Leota Rd
LEOTA RD / SR #356
S Underwood Rd
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\affectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 50 of 69


W Prairie 275 S
Sycamore Dr
S Frontage Rd
I 65
Everitt Ln
USHY 31
W Berna Dr
S Anna Ln
W Craig Rd
RADIO TOWER RD
E Radio Tower Rd
S Underwood Rd
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\116216\0\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
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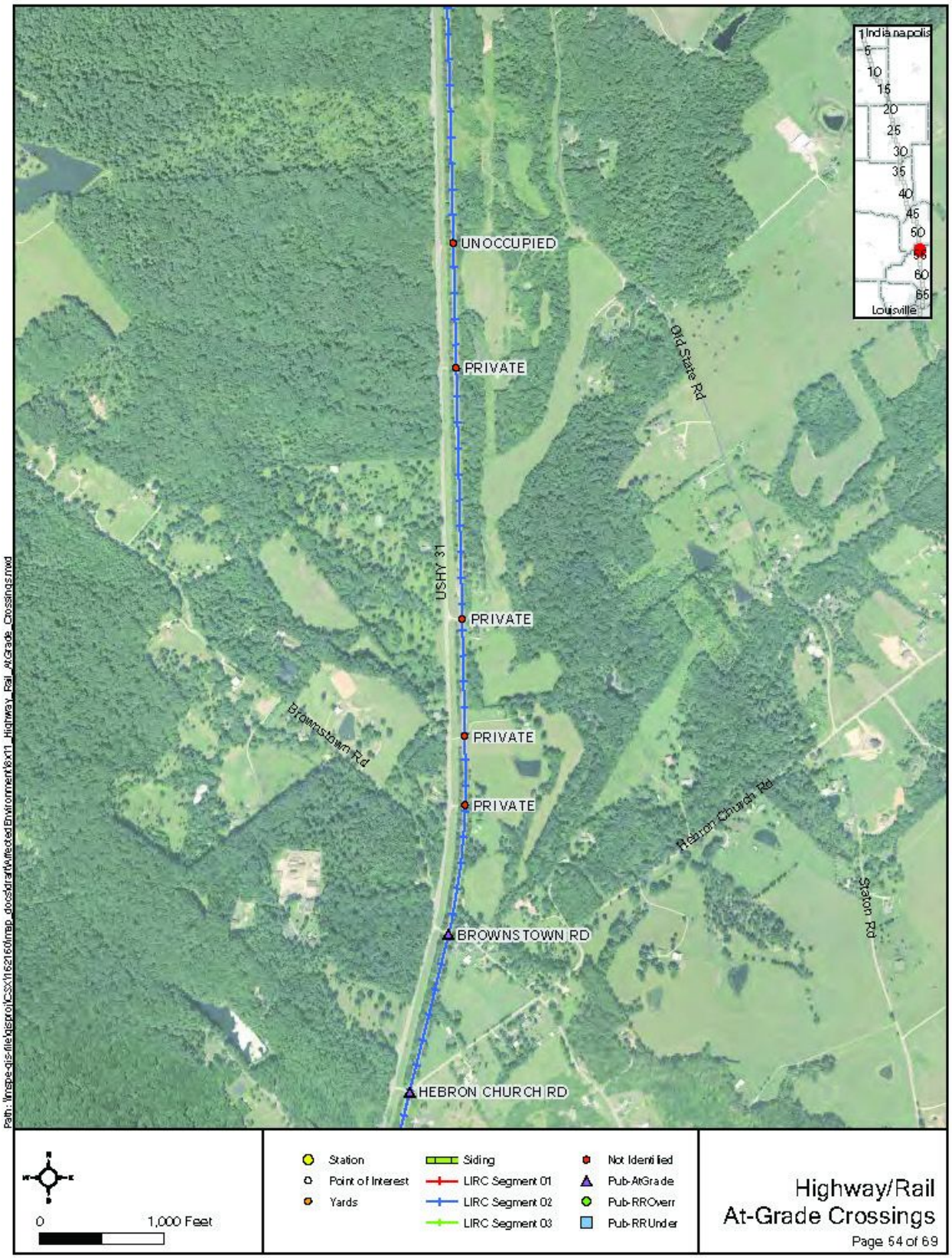
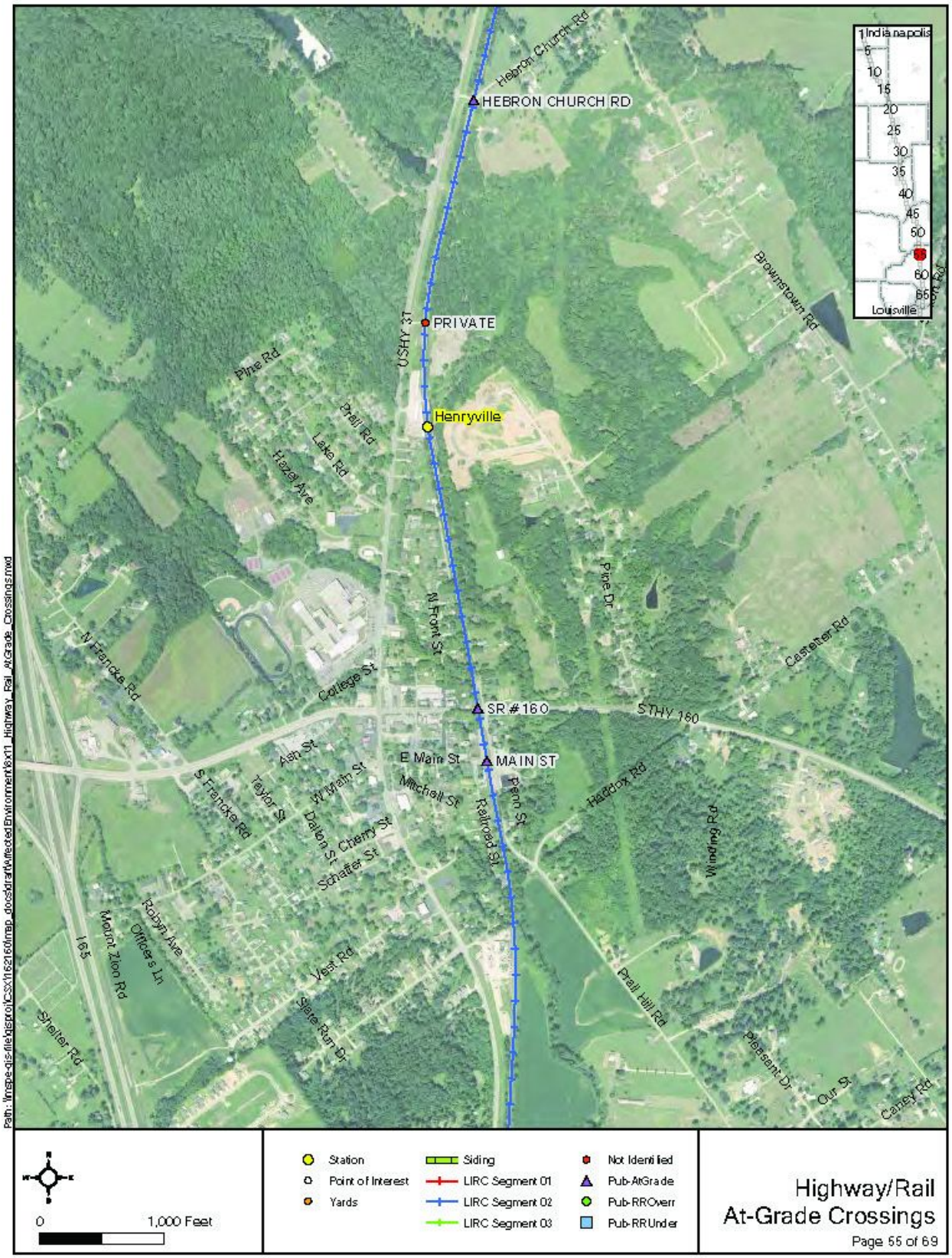
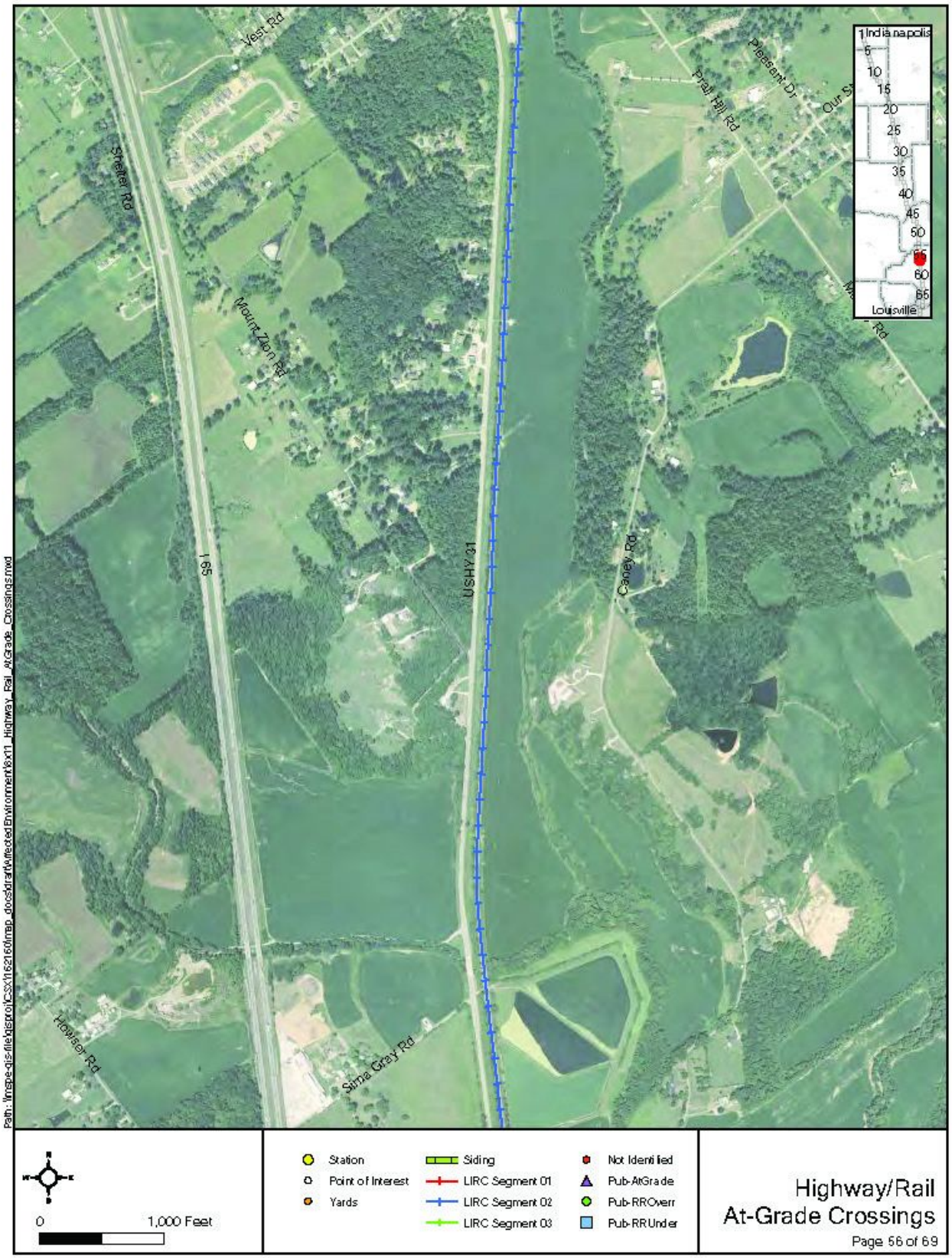
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 51 of 69

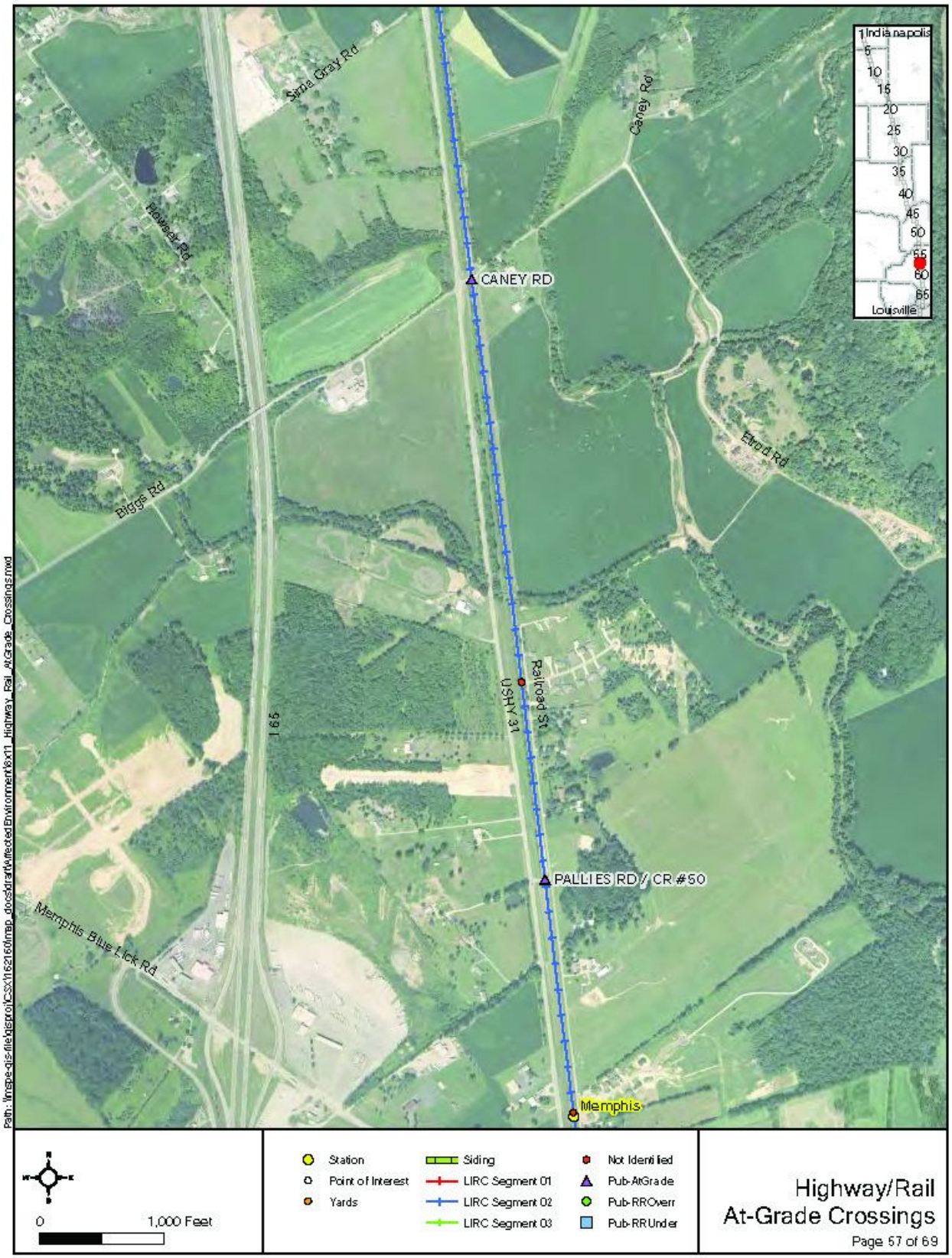

RADIO TOWER RD
E Radio Tower Rd
EDRINGTON BLVD
I 65
W Collins Rd
W Edman Rd
US HY 31
PRIVATE
HARDY RD
E Hardy Rd
S Underwood Rd
COUNTY LINE RD
E County Line Rd
County Line Rd
Smith Rd
West St
East St
Underwood
EAST ST
County Lake Rd
Campbell St
Hanna Rd
Harts Corner Rd
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
Page 52 of 69
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd


Indianapolis
Louisville
Hamretty Rd
Campbell St
Halls Corner Rd
Hwy 31 N
BEAGLE CLUB RD
Beagle Club Rd
Country Lake Rd
I 65
US Hwy 31
Old State Rd
PRIVATE
Path: \\mspe-gis-file\esri\prod\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
N
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 53 of 69


UNOCCUPIED
PRIVATE
PRIVATE
PRIVATE
PRIVATE
BROWNSTOWN RD
HEBRON CHURCH RD
USHY 31
Old State Rd
Brownstown Rd
Hebron Church Rd
Station Rd
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 54 of 69


HEBRON CHURCH RD
PRIVATE
Henryville
SR #160
MAIN ST
USHY 31
STHY 160
Hebron Church Rd
Pine Rd
Prall Rd
Lake Rd
Hazel Ave
N Front St
Pine Dr
College St
N Francke Rd
Castetter Rd
Brownstown Rd
E Main St
W Main St
Ash St
Taylor St
S Francke Rd
Mitchell St
Dalton St
Cherry St
Schaffer St
Railroad St
Penn St
Paddox Rd
Winding Rd
Robyn Ave
Officers Ln
Mount Zion Rd
165
Shelter Rd
Vest Rd
State Run Dr
Prall Hill Rd
Pleasant Dr
Our St
Carey Rd
Indianapolis
Louisville
Path: \\mspe-gis-file\esri\pro\CSX\16216\0\mxd_docs\draft\affectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 55 of 69


Vest Rd
Prall Hill Rd
Pleasant Dr
Our St
Shetler Rd
Mount Zion Rd
I-65
USHY 31
Caney Rd
Howser Rd
Sima Gray Rd
Indianapolis
Louisville
1
5
10
15
20
25
30
35
40
45
50
55
60
65
Path: \\mspe-gis-file\esri\prol\CSX\162160\mxd_docs\draft\affectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 56 of 69


Sims Gray Rd
Caney Rd
Howser Rd
CANEY RD
Biggs Rd
Elrod Rd
I 65
USHY 31
Railroad St
PALLIES RD / CR #50
Memphis Blue Lick Rd
Memphis
Indianapolis
Louisville
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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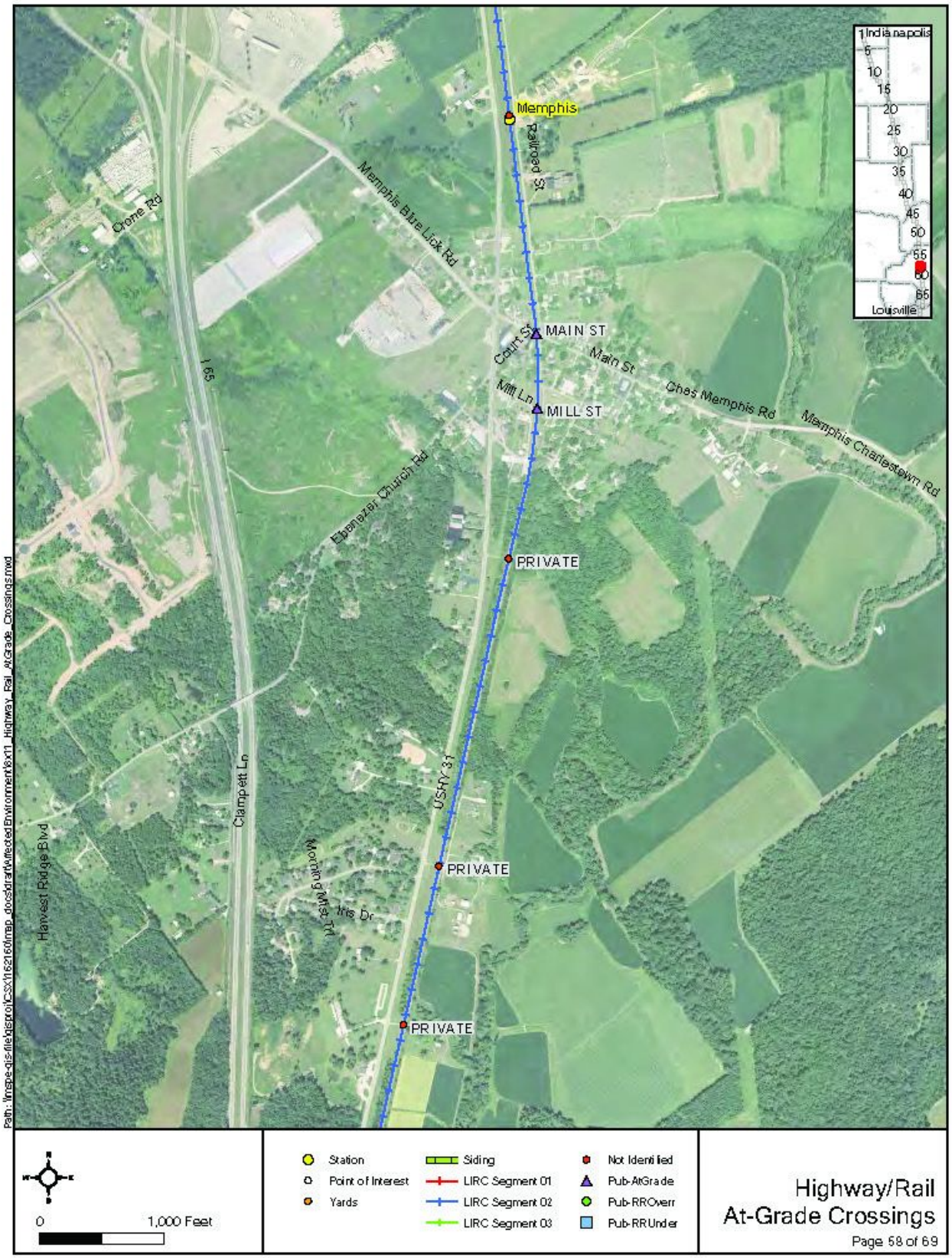
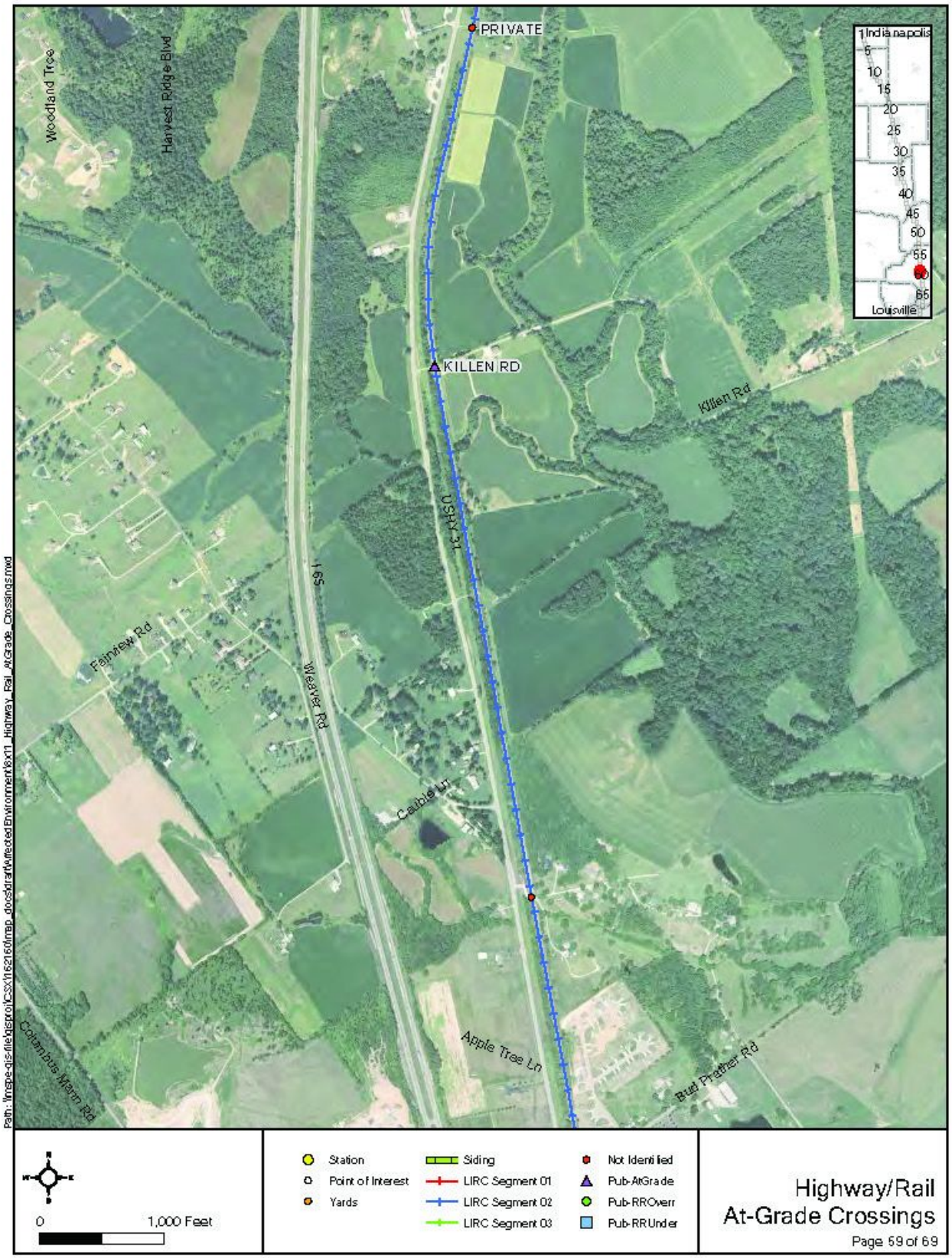

Memphis
Railroad St
Memphis Blue Lick Rd
Crone Rd
MAIN ST
Court St
Main St
Mill Ln
MILL ST
Ches Memphis Rd
Memphis Charlestown Rd
Ebenezer Church Rd
I-65
PRIVATE
PRIVATE
PRIVATE
US-RY 31
Clampett Ln
Harvest Ridge Blvd
Morning Mist Ln
Iris Dr
Indianapolis
Louisville
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 58 of 69
Path: \\mspe-gis-file\esri01\CSX\162160\mxd_docs\draft\affectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd


PRIVATE
KILLEN RD
Killen Rd
USHY 31
I 65
Weaver Rd
Fairview Rd
Cahill Ln
Apple Tree Ln
Bud Prather Rd
Columbia Mann Rd
Woodland Tree
Harvest Ridge Blvd
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
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Apple Tree Ln
USHY 31
BUD PRATHER RD
Bud Prather Rd
Perry Crossing Rd
I 65
PRIVATE
Brick Church Rd
Weber Rd
Indianapolis
Louisville
Path: \\mspe-dis-file\esprol\CSX\162160\mxd_docs\draft\AffectedEnvironment\8x11_Highway_Rail_AtGrade_Crossings.mxd
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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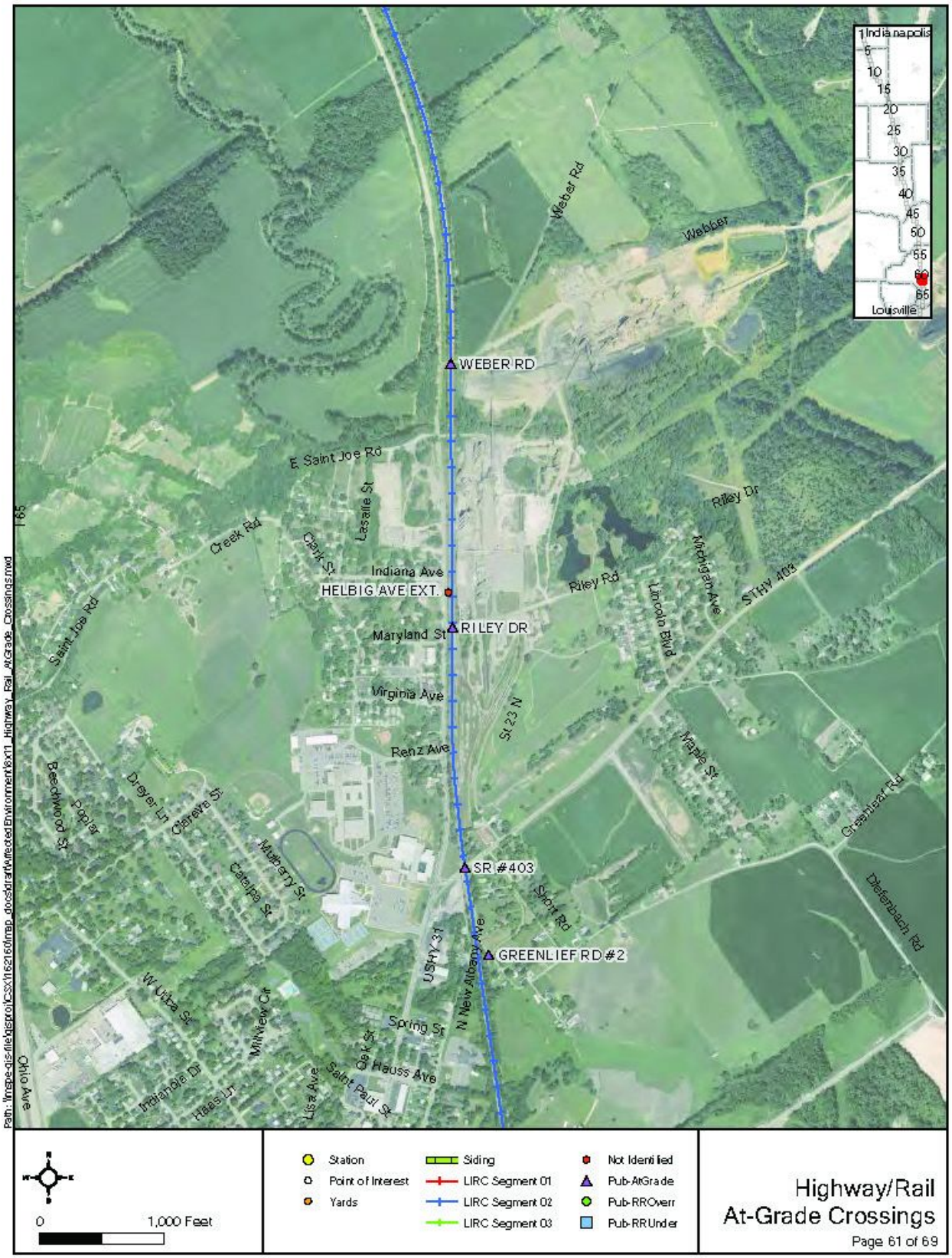
WEBER RD
HELBIG AVE EXT.
RILEY DR
SR #403
GREENLIEF RD #2
E Saint Joe Rd
Indiana Ave
Maryland St
Virginia Ave
Renz Ave
Riley Dr
Riley Rd
Webber
Weber Rd
Creek Rd
Saint Joe Rd
Clark St
Lasalle St
Michigan Ave
Lincoln Blvd
STHW 403
St 23 N
Maple St
Greenbrier Rd
Diefenbach Rd
Short Rd
N New Albany Ave
USHY 31
Spring St
Clark St
Hauss Ave
Saint Paul St
Lisa Ave
Indianola Dr
Haas Ln
W Utica St
Mulberry St
Catalpa St
Dreyer Ln
Clarevue St
Beechwood St
Poplar
Ohio Ave
I 65
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
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HELBIG-EXTENDED
UTICA ST
PRIVATE
INDUSTRIAL BLVD
Spring St
Oak St
Hauss Ave
Saint Paul St
Penn Ave
Helbig St
N Penn St
Broadway St
Service Dr
Hwy 111
Triangle Dr
Andrea St
Popp Ave
S Penn Ave
Kah St
Villa Dr
Kay Ave
Foothill Rd
Alden Rd
Linwood Ave
Eastside Ave
Wildwood Rd
Lakeside Dr
US Hwy 31
Norman Dr
I 65
Forrest Dr N
S Forrest Dr
Industrial Blvd
Progress Way
Utica Sellersburg Rd
Butler Rd
Hwy 311
Bean Rd
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
0
1,000 Feet
Highway/Rail
At-Grade Crossings
Page 62 of 69
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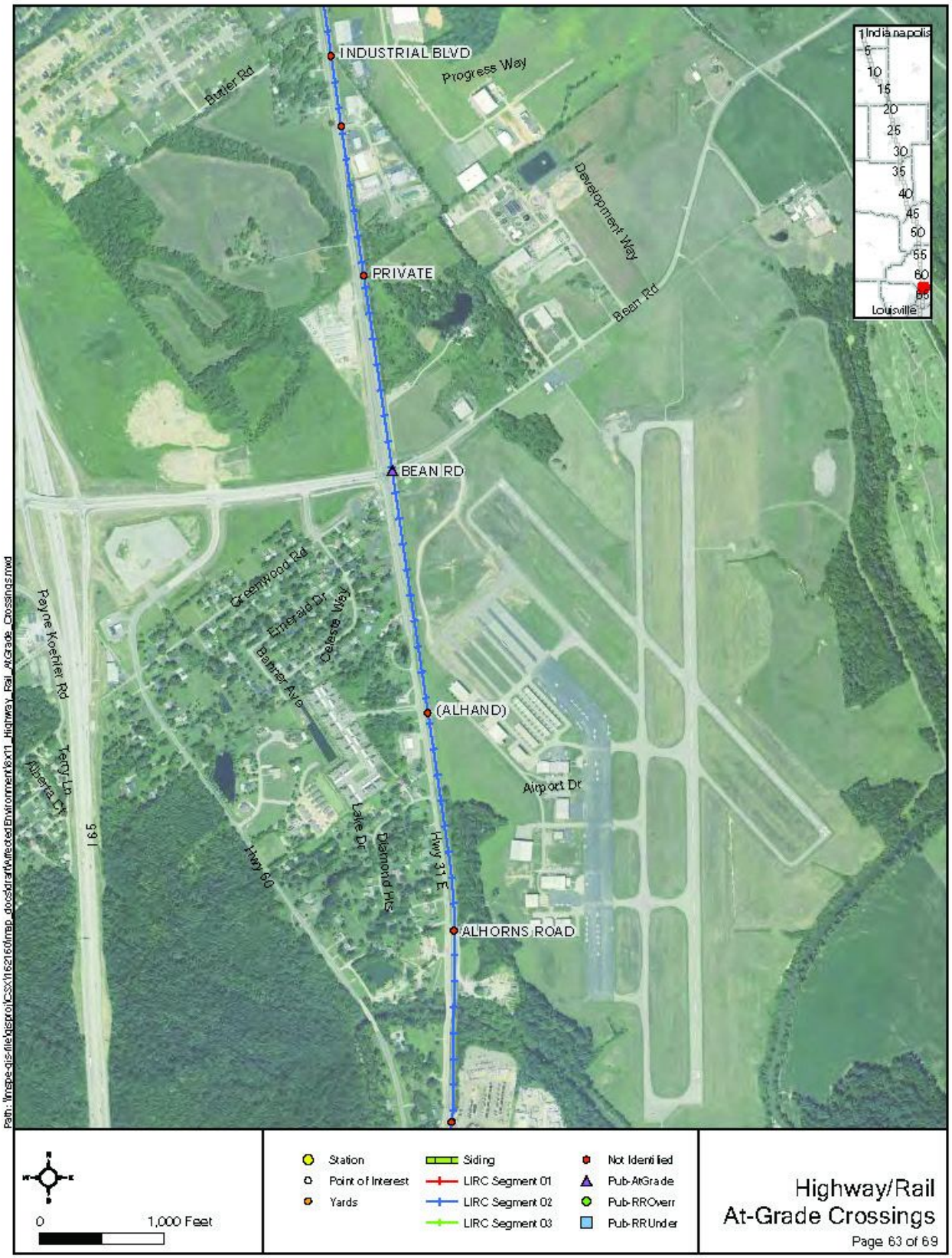
INDUSTRIAL BLVD
Progress Way
Butler Rd
Development Way
PRIVATE
Bean Rd
BEAN RD
Greenwood Rd
Emerald Dr
Celeste Way
Banner Ave
Payne Koehler Rd
Terry Ln
Alberta Ct
(ALHAND)
Airport Dr
Lake Dr
Diamond Hts
Hwy 31 E
Hwy 60
I 65
ALHORNS ROAD
Indianapolis
Louisville
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0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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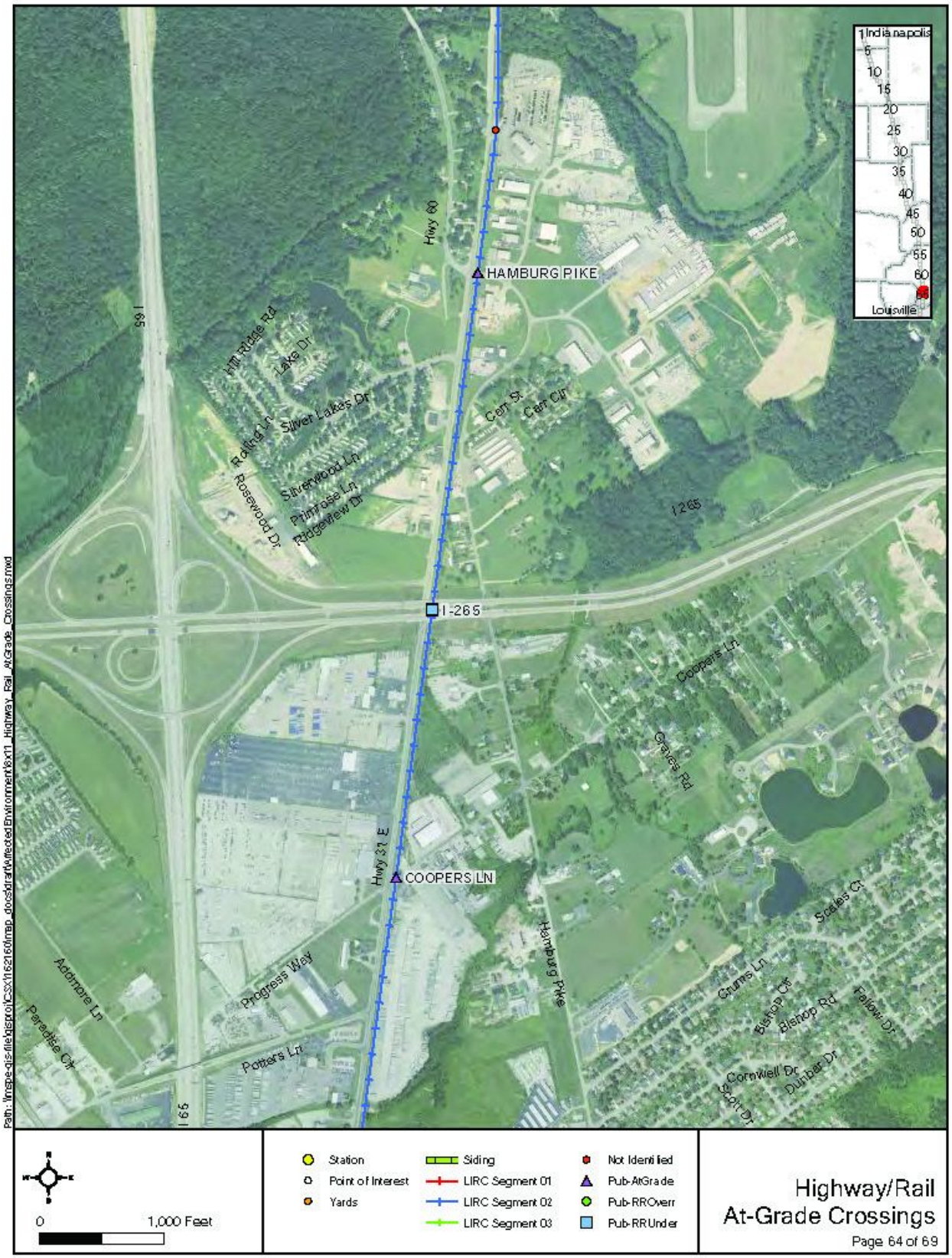
HAMBURG PIKE
I-265
COOPERS LN
Hwy 60
Hwy 31 E
I 65
I265
Hill Ridge Rd
Lake Dr
Silver Lakes Dr
Rolling Ln
Rosewood Dr
Silverwood Ln
Primrose Ln
Ridgeview Dr
Cem St
Cem Cir
Coopers Ln
Graves Rd
Hamburg Pike
Scales Ct
Grums Ln
Bishop Ct
Bishop Rd
Fallow Dr
Cornwell Dr
Dunbar Dr
Scott Dr
Progress Way
Addmore Ln
Paradise Cir
Potters Ln
Indianapolis
Louisville
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0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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Paradise Cir
Addmore Ln
Progress Way
Scenic Dr
Potters Ln
Koetter Dr
Gittner Ln
Hwy 31 E
165
US31E
Technology Way
Hamburg Pike
Crums Ln
Bishop Rd
Cornwall Dr
Belmar Dr
Indianapolis
Louisville
Horn St
Bales Blvd
Broadway St
Vexter St
Madison St
E Horn St
Cedar St
Greentree Blvd
STHY 131
CHARLESTOWN RD
Charlestown New Albany Rd
Scott St
Waverly Rd
Saint Andrews Rd
Augusta Dr
Truckers Blvd
Industrial Pky
Fabricon Blvd
Speed
Switchgrass Blvd
Elk Pointe
Summerlin Pl
Norma Dr
Hooper Ct
Production Blvd
Clearstream Way
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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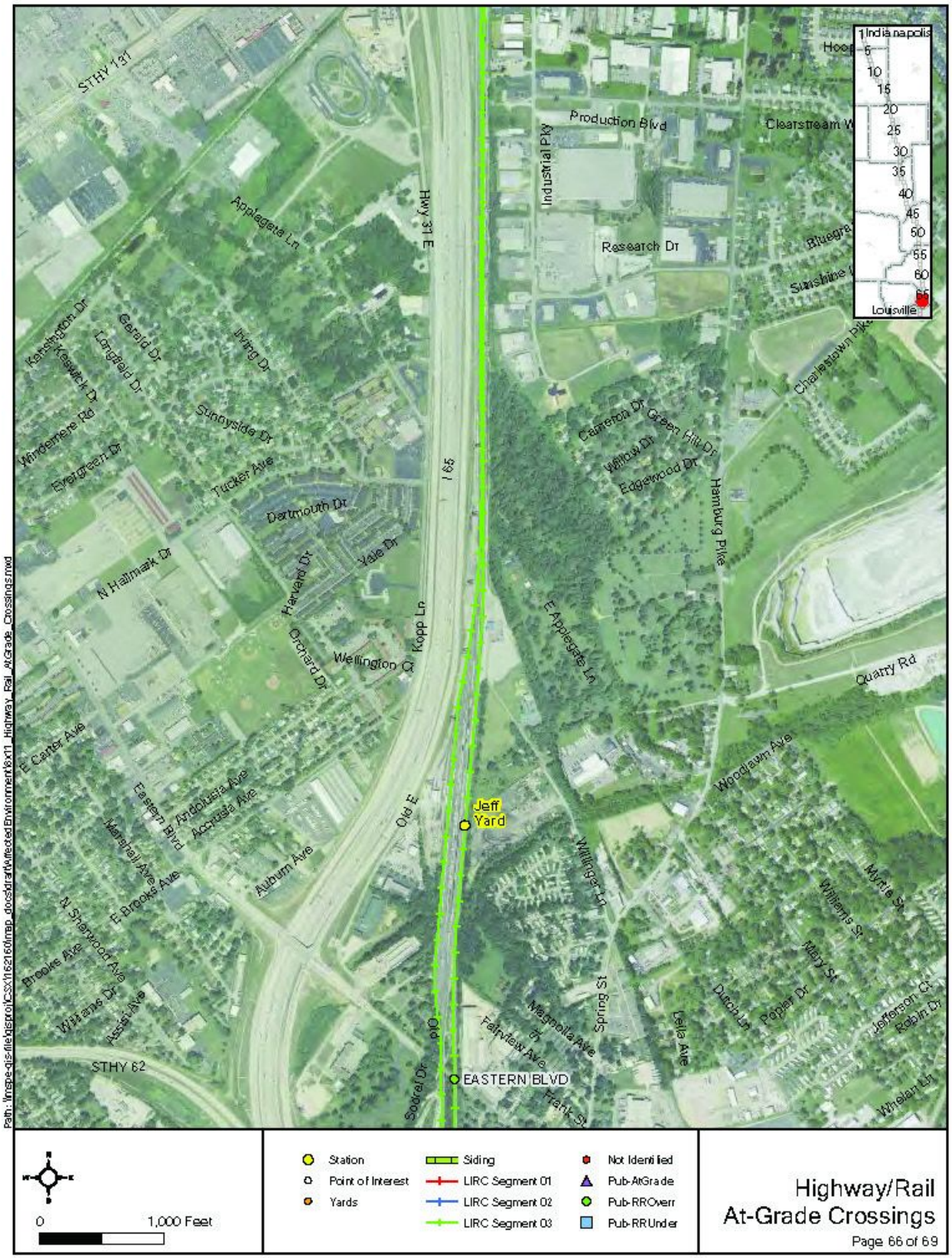
Jeff Yard
EASTERN BLVD
I 65
Old E
Sodrel Dr
Production Blvd
Industrial Pky
Research Dr
Hwy 131 E
Applegate Ln
Kopp Ln
Wellington Ct
Orchard Dr
Harvard Dr
Yale Dr
Dartmouth Dr
Tucker Ave
Sunnyside Dr
Irving Dr
Gerald Dr
Longfield Dr
Kenwick Dr
Kensington Dr
Windermere Rd
Evergreen Dr
N Hallmark Dr
STHY 131
STHY 62
E Carter Ave
Eastern Blvd
Andalusia Ave
Accrusia Ave
Marshall Ave
E Brooks Ave
Auburn Ave
N Sherwood Ave
Brooks Ave
Williams Dr
Assisi Ave
Hamburg Pike
Edgewood Dr
Willow Dr
Green Hill Dr
Cameron Dr
Charlestown Pike
E Applegate Ln
Quarry Rd
Woodlawn Ave
Wellington Ln
Spring St
Fairview Ave
Magnolia Ave
Frank St
Leila Ave
Dutch Ln
Poplar Dr
Mary St
Williams St
Myrtle St
Jefferson Ct
Robin Dr
Whelan Ln
Indianapolis
Louisville
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0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
Page 66 of 69


EASTERN BLVD
STANSIFER AVE/14T
I-65/US #31
MONTGOMERY AVE
CLARK BLVD
CLARK BLVD
RIVER SIDE DR
Ohio River Bridge
Eastern Blvd
Fairview Ave
Frank St
W Eastern Blvd
National Ave
Pope St
Kopp Ave
Alice St
Riddle St
Green St
Pennsylvania
Stella Ave
Sodalt Dr
N Clark Blvd
Miller Ave
Francis Ave
Railroad Grd
STHY 62
I 65
W Kenwood Ave
Randolph Ave
N Elm St
N Oak St
Harrison Ave
E Harrison Ave
Stansifer Ave
E Stansifer Ave
Arlington Ave
Lakeshore
Newman Ave
Lyons Ave
Marriott Dr
Mitchell Ave
Francis Dr
Duncan Ave
Spring St
W 14th St
Martin Dr
King St
Locust St
E 12th St
Watt St
Sparks Ave
Wall St
E Montgomery Ave
W 9th St
W 8th St
W 7th St
Indiana Ave
6th St
S Sherwood Ave
State St
Cheryl Dr
W Riverside Dr
S Clark Blvd
Center St
Woerner Ave
Missouri Ave
E Riverside Dr
USHY 31
W Court Ave
Pearl St
Ohio Ave
W Maple St
Mulberry St
W Market St
Indianapolis
Louisville
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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Ohio River Bridge
Shippingsport Dr
Northwestern Pky
Neiligan Ave
N 20th St
Portland Ave
Baird St
Owen St
Bank St
N 17th St
Lytle St
N 19th St
N 18th St
WALNUT ST
Rowan St
MADISON ST
Crop St
W Main St
N 15th St
JEFFERSON ST
N 14th St
N 12th St
N 11th St
N 10th St
164
Pirtle St
W Market St
MARKET STREET
Chapel St
S 10th St
N 9th St
N 8th St
N 6th St
W Jefferson St
S 18th St
S 16th St
GENE SNYDER FRWY
Cedar St
Eddy St
S 15th St
S 12th St
Liberty Ct
Cedar Ct
Court Pl
Fiok Ct
Stone Aly
Pl Dor
S 13th St
Pl Nort
S 11th St
Village Dr W
S 8th St
S 4th St
CHESTNUT
W Chestnut St
MAGAZINE ST
12th St
S 17th St
S 9th St
S 7th St
S 6th St
S 5th St
S 3rd St
Armory Pl
BROADWAY
W Broadway
Esquina Aly
Pin Aly
Indianapolis
Louisville
0
1,000 Feet
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
Pub-AtGrade
Pub-RROverr
Pub-RRUnder
Highway/Rail
At-Grade Crossings
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MAGAZINE ST
BROADWAY
MP 110.5
END LIRC
W Broadway
Esquire Aly
Maple St
W Breckinridge St
Garland Ave
Side Aly
Prentice St
W Kentucky St
Zane St
Gallagher St
Hale Ave
Dumesnil St
W Oak St
W Ormsby Ave
Wilson Ave
Saint Louis Ave
W Magnolia Ave
Myrtle St
Park Ave
Floral Ter
Levering St
Levering Aly
Saint James Ct
W Hill St
W Shipp Ave
Moore Ct
Brashear Pl
W Lee St
York St
Crystal Aly
Gavin Pl
Armory Pl
Indianapolis
Louisville
Station
Point of Interest
Yards
Siding
LIRC Segment 01
LIRC Segment 02
LIRC Segment 03
Not Identified
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Pub-RROverr
Pub-RRUnder
0
1,000 Feet
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At-Grade Crossings
Page 69 of 69
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