

APPENDIX 16-1

SIGHT DISTANCE DIAGRAMS AND AASHTO TABLES

AASHTO Sight Distance

Scenario 1: Stopping Sight Distance on Level Roadways

Table 3-1. Stopping Sight Distance on Level Roadways

U.S. Customary					Metric				
Design Speed (mph)	Brake Reaction Distance (ft)	Braking Distance on Level (ft)	Stopping Sight Distance		Design Speed (km/h)	Brake Reaction Distance (m)	Braking Distance on Level (m)	Stopping Sight Distance	
			Calculated (ft)	Design (ft)				Calculated (m)	Design (m)
15	55.1	21.6	76.7	80	20	13.9	4.6	18.5	20
20	73.5	38.4	111.9	115	30	20.9	10.3	31.2	35
25	91.9	60.0	151.9	155	40	27.8	18.4	46.2	50
30	110.3	86.4	196.7	200	50	34.8	28.7	63.5	65
35	128.6	117.6	246.2	250	60	41.7	41.3	83.0	85
40	147.0	153.6	300.6	305	70	48.7	56.2	104.9	105
45	165.4	194.4	359.8	360	80	55.6	73.4	129.0	130
50	183.8	240.0	423.8	425	90	62.6	92.9	155.5	160
55	202.1	290.3	492.4	495	100	69.5	114.7	184.2	185
60	220.5	345.5	566.0	570	110	76.5	138.8	215.3	220
65	238.9	405.5	644.4	645	120	83.4	165.2	248.6	250
70	257.3	470.3	727.6	730	130	90.4	193.8	284.2	285
75	275.6	539.9	815.5	820	140	97.3	224.8	322.1	325
80	294.0	614.3	908.3	910					
85	313.5	693.5	1007.0	1010					

Note: Brake reaction distance predicated on a time of 2.5 s; deceleration rate of 11.2 ft/s² [3.4 m/s²] used to determine calculated sight distance.

Scenario 2: Stopping Sight Distance on Grades

Table 3-2. Stopping Sight Distance on Grades

U.S. Customary							Metric						
Design Speed (mph)	Stopping Sight Distance (ft)						Design Speed (km/h)	Stopping Sight Distance (m)					
	Downgrades			Upgrades				Downgrades			Upgrades		
	3%	6%	9%	3%	6%	9%		3%	6%	9%	3%	6%	9%
15	80	82	85	75	74	73	20	20	20	20	19	18	18
20	116	120	126	109	107	104	30	32	35	35	31	30	29
25	158	165	173	147	143	140	40	50	50	53	45	44	43
30	205	215	227	200	184	179	50	66	70	74	61	59	58
35	257	271	287	237	229	222	60	87	92	97	80	77	75
40	315	333	354	289	278	269	70	110	116	124	100	97	93
45	378	400	427	344	331	320	80	136	144	154	123	118	114
50	446	474	507	405	388	375	90	164	174	187	148	141	136
55	520	553	593	469	450	433	100	194	207	223	174	167	160
60	598	638	686	538	515	495	110	227	243	262	203	194	186
65	682	728	785	612	584	561	120	263	281	304	234	223	214
70	771	825	891	690	658	631	130	302	323	350	267	254	243
75	866	927	1003	772	736	704	140	341	367	398	302	287	274
80	965	1035	1121	859	817	782							
85	1070	1149	1246	949	902	862							

Scenario 3: Intersection Sight Distance – Left Turn from Stop

Table 9-7. Design Intersection Sight Distance—Case B1, Left Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	165.4	170	20	20	41.7	45
20	115	220.5	225	30	35	62.6	65
25	155	275.6	280	40	50	83.4	85
30	200	330.8	335	50	65	104.3	105
35	250	385.9	390	60	85	125.1	130
40	305	441.0	445	70	105	146.0	150
45	360	496.1	500	80	130	166.8	170
50	425	551.3	555	90	160	187.7	190
55	495	606.4	610	100	185	208.5	210
60	570	661.5	665	110	220	229.4	230
65	645	716.6	720	120	250	250.2	255
70	730	771.8	775	130	285	271.1	275
75	820	826.9	830				
80	910	882.0	885				

Note: Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane highway with no median and grades 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Scenario 4: Intersection Sight Distance – Right Turn from Stop

Table 9-9. Design Intersection Sight Distance—Case B2, Right Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	143.3	145	20	20	36.1	40
20	115	191.1	195	30	35	54.2	55
25	155	238.9	240	40	50	72.3	75
30	200	286.7	290	50	65	90.4	95
35	250	334.4	335	60	85	108.4	110
40	305	382.2	385	70	105	126.5	130
45	360	430.0	430	80	130	144.6	145
50	425	477.8	480	90	160	162.6	165
55	495	525.5	530	100	185	180.7	185
60	570	573.3	575	110	220	198.8	200
65	645	621.1	625	120	250	216.8	220
70	730	668.9	670	130	285	234.9	235
75	820	716.6	720				
80	910	764.4	765				

Note: Intersection sight distance shown is for a stopped passenger car to turn right onto or to cross a two-lane roadway with no median and with grades of 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Scenario 5: Intersection Sight Distance – Left Turn from Major Road

Table 9-17. Intersection Sight Distance—Case F, Left Turn from the Major Road

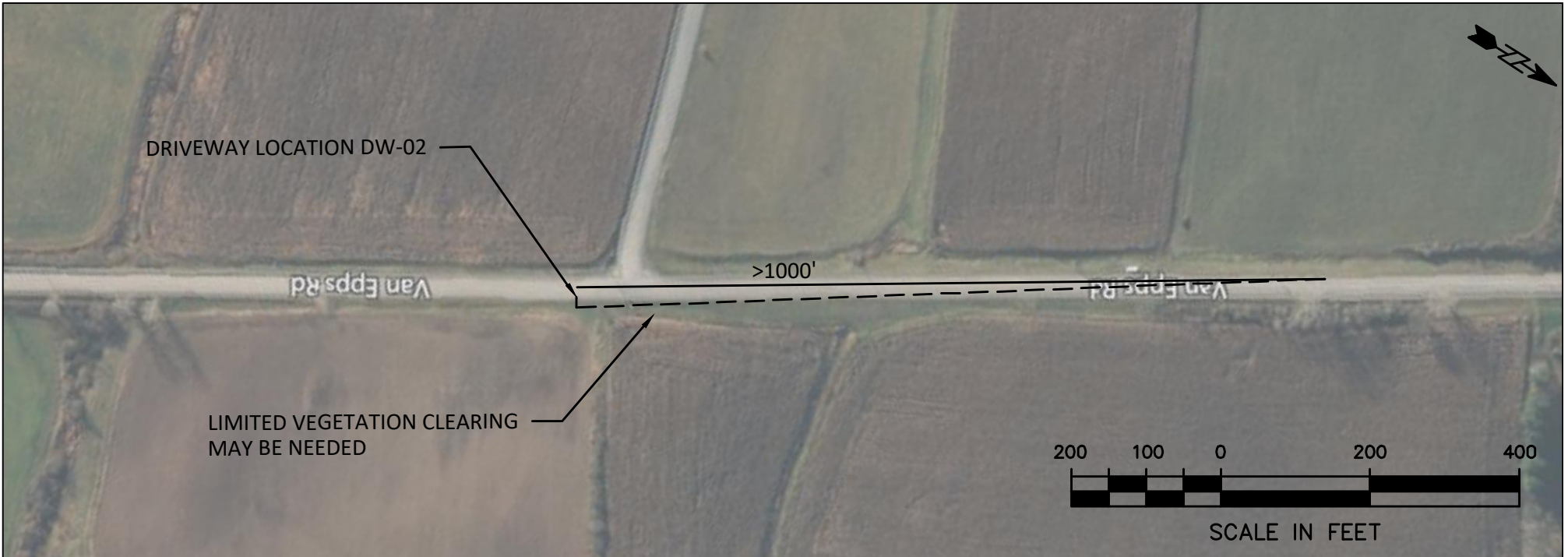
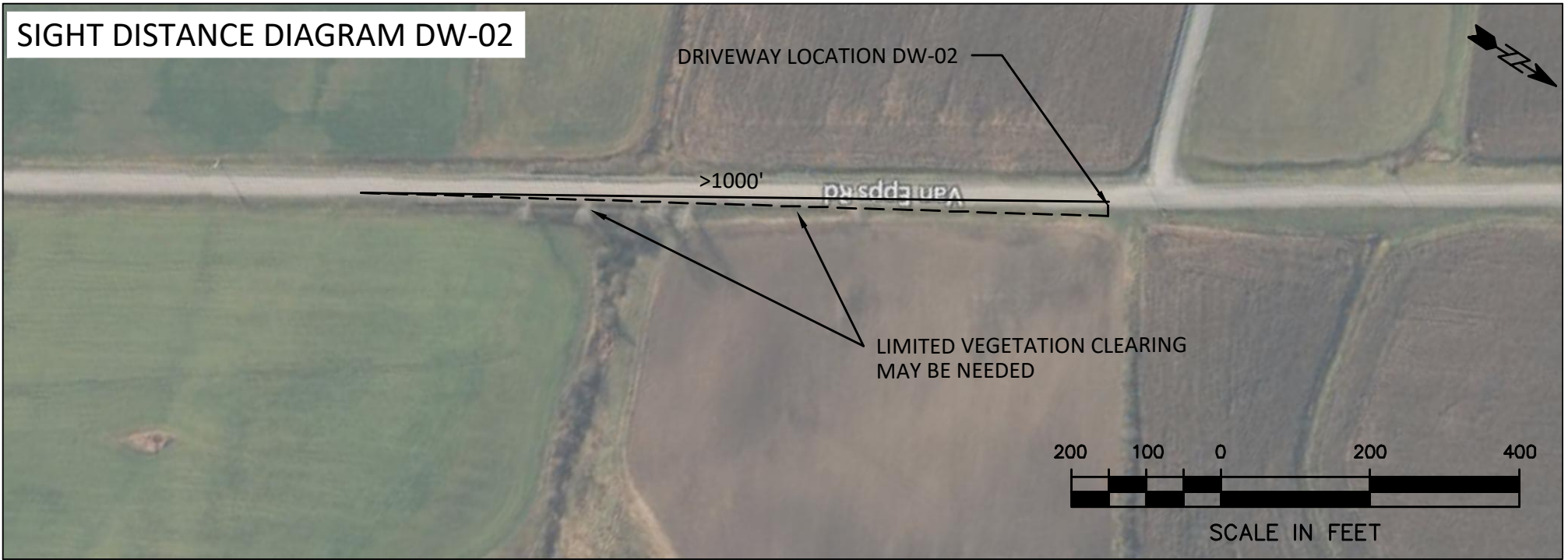
U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance	
		Passenger Cars				Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	121.3	125	20	20	30.6	35
20	115	161.7	165	30	35	45.9	50
25	155	202.1	205	40	50	61.2	65
30	200	242.6	245	50	65	76.5	80
35	250	283.0	285	60	85	91.7	95
40	305	323.4	325	70	105	107.0	110
45	360	363.8	365	80	130	122.3	125
50	425	404.3	405	90	160	137.6	140
55	495	444.7	445	100	185	152.9	155
60	570	485.1	490	110	220	168.2	170
65	645	525.5	530	120	250	183.5	185
70	730	566.0	570	130	285	198.8	200
75	820	606.4	610				
80	910	646.8	650				

Note: Intersection sight distance shown is for a passenger car making a left turn from an undivided roadway. For other conditions and design vehicles, the time gap should be adjusted and the sight distance recalculated.

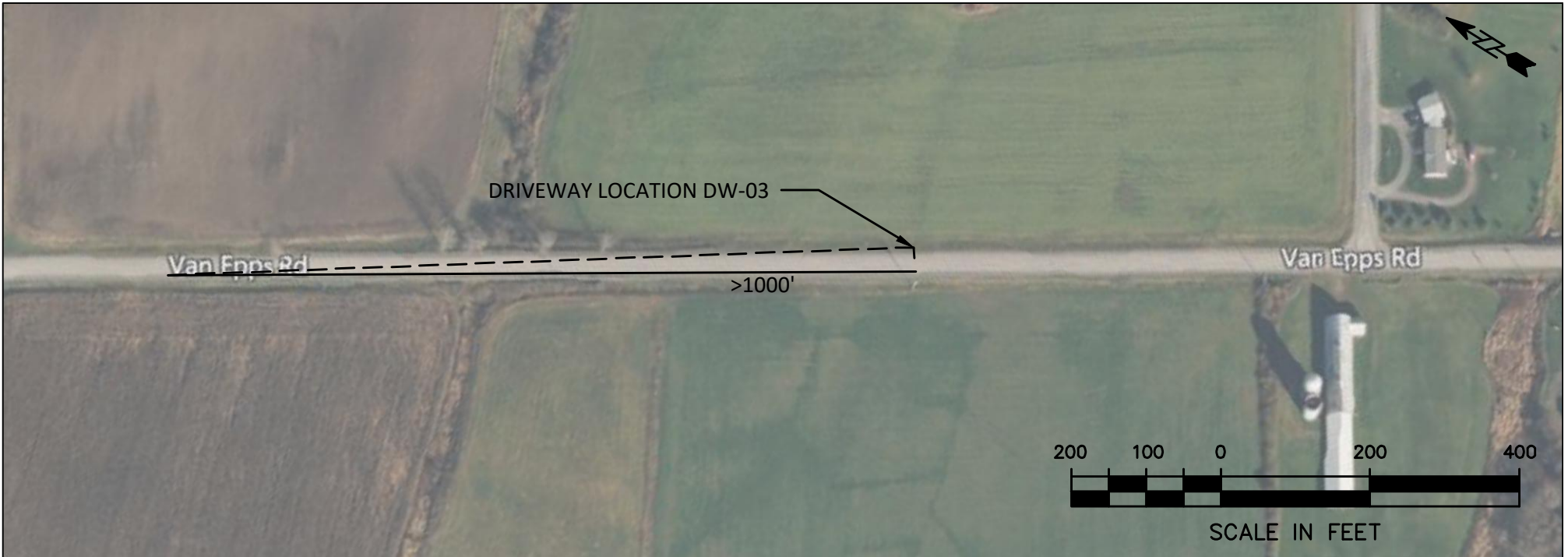
SIGHT DISTANCE DIAGRAM DW-01



SIGHT DISTANCE DIAGRAM DW-02



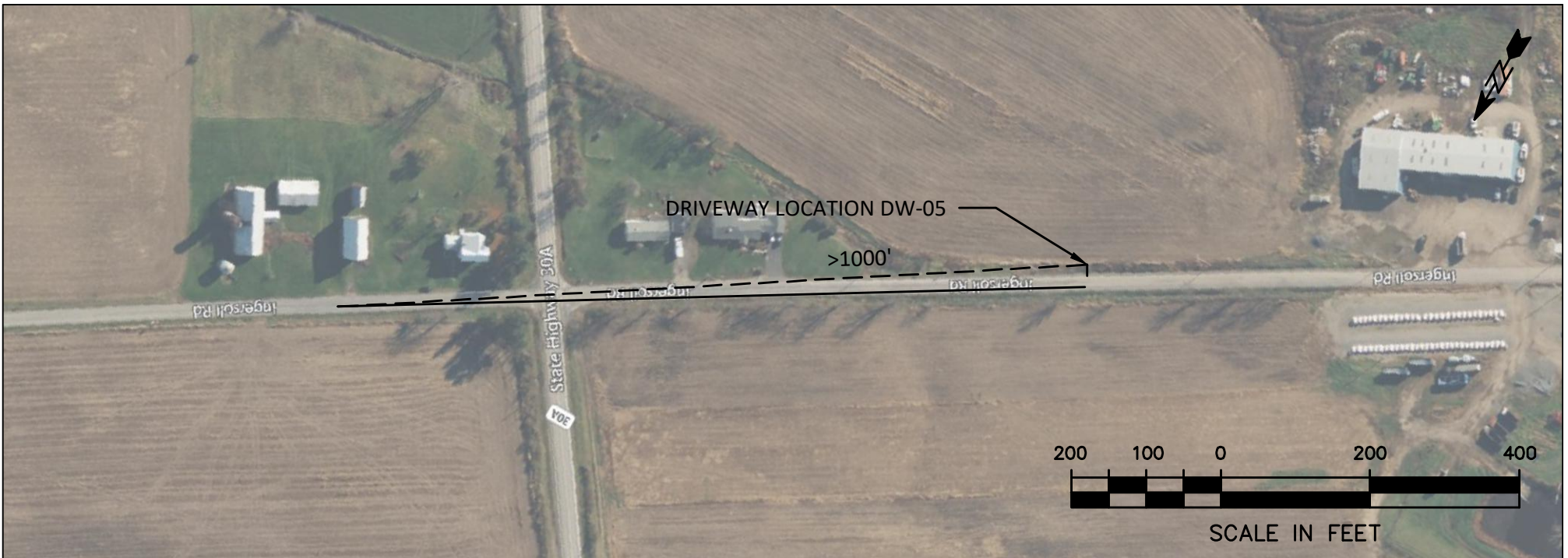
SIGHT DISTANCE DIAGRAM DW-03



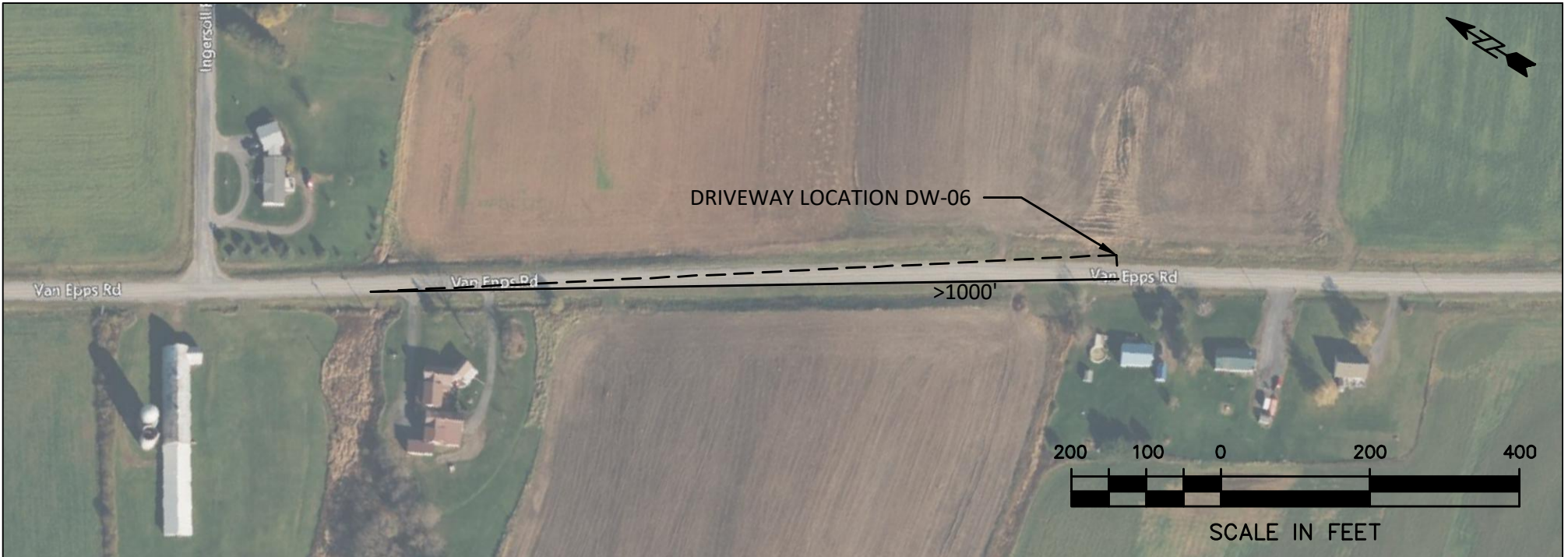
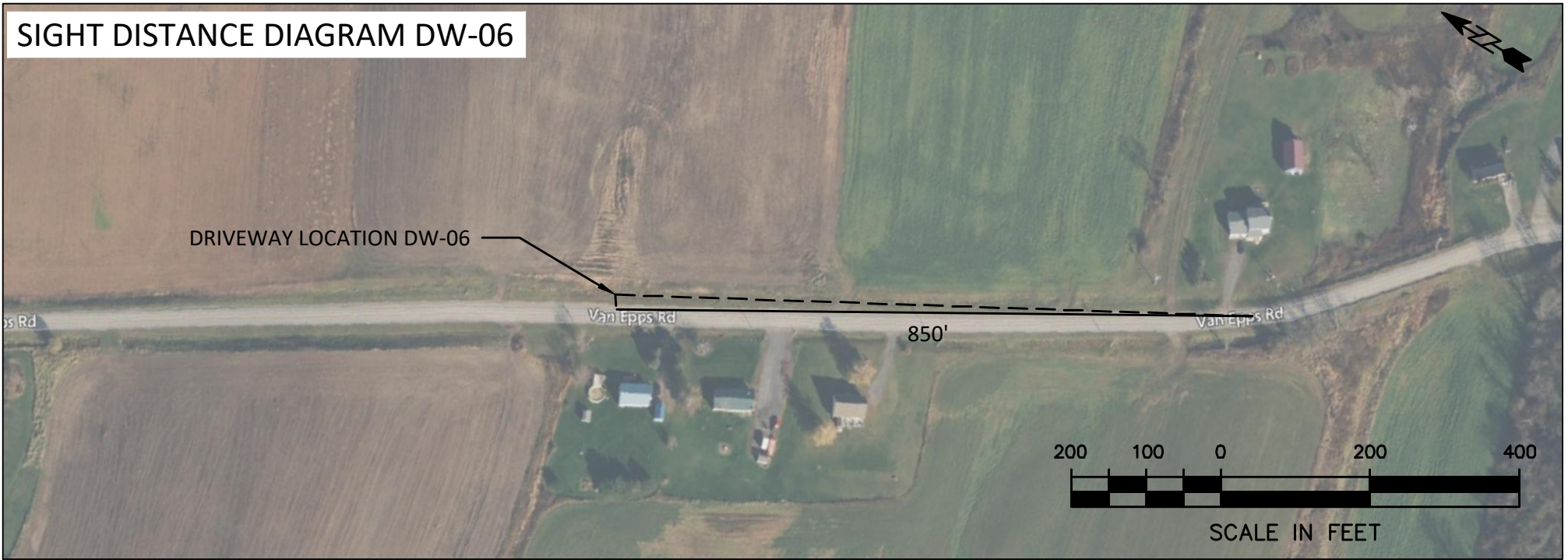
SIGHT DISTANCE DIAGRAM DW-04



SIGHT DISTANCE DIAGRAM DW-05



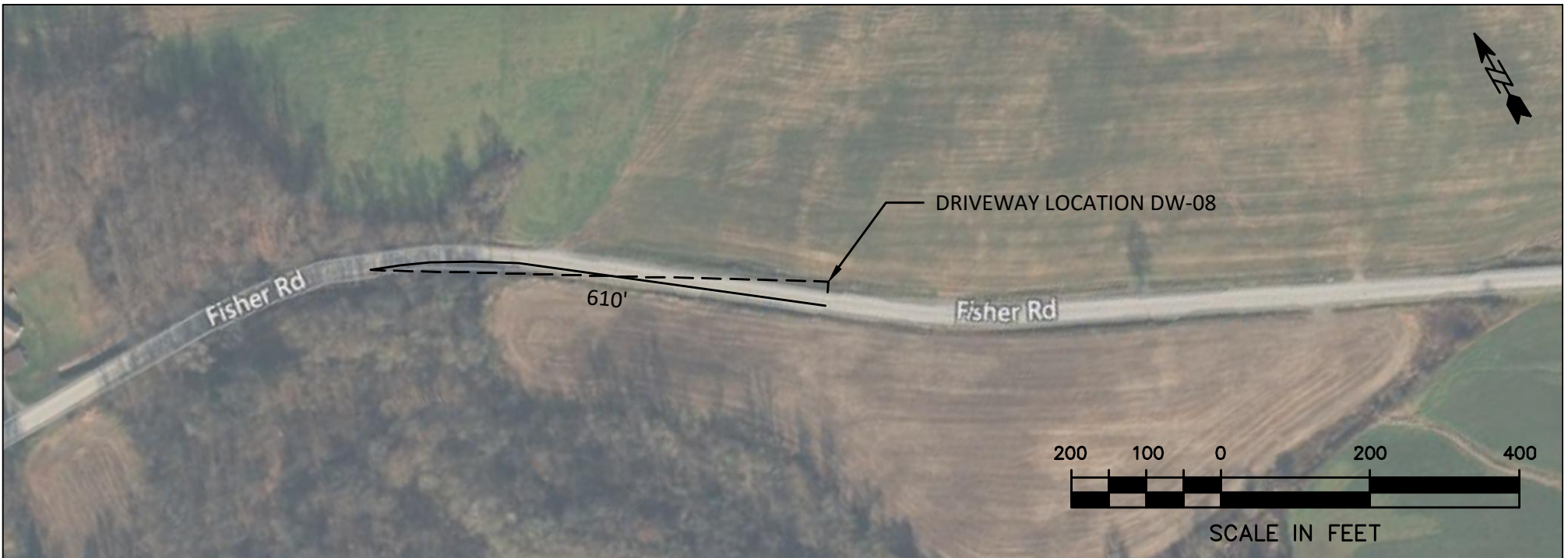
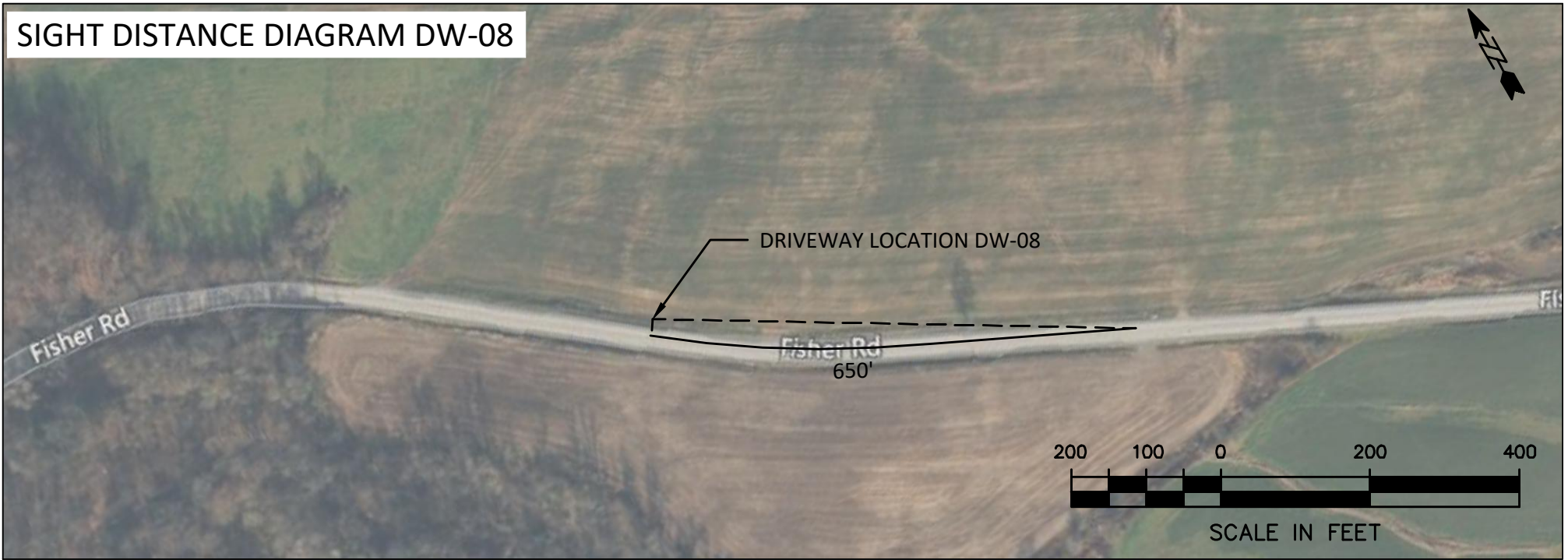
SIGHT DISTANCE DIAGRAM DW-06



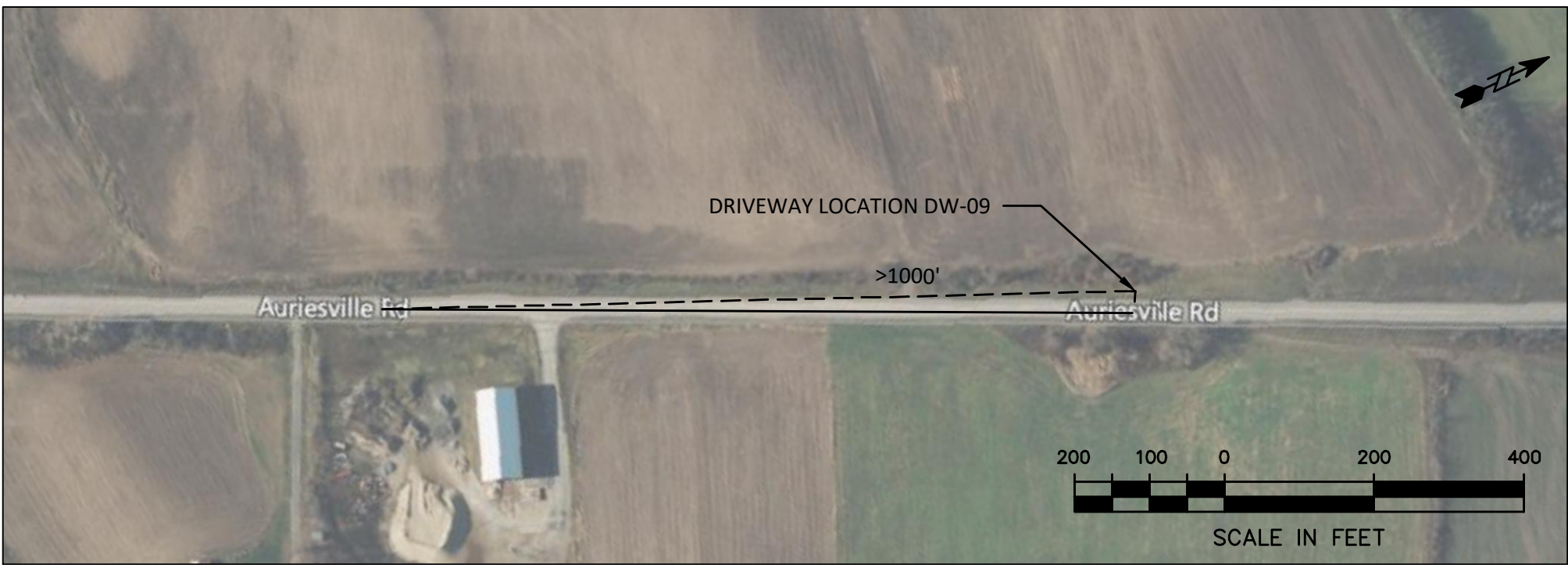
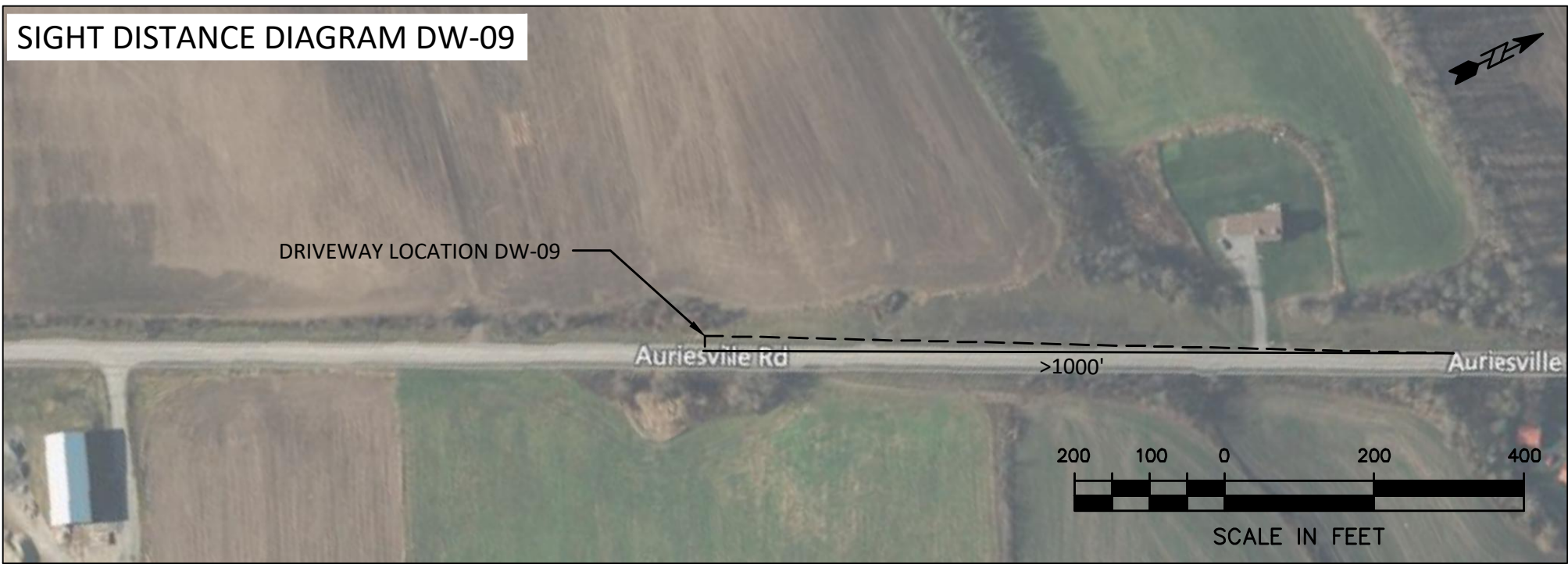
SIGHT DISTANCE DIAGRAM DW-07



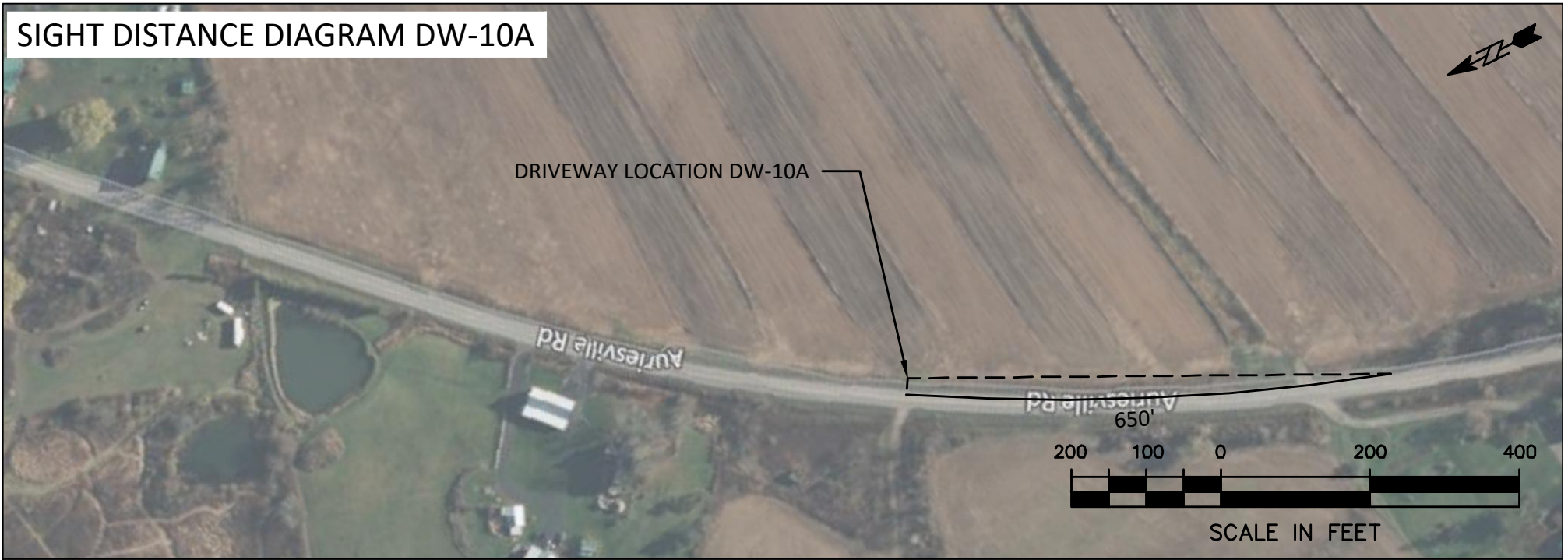
SIGHT DISTANCE DIAGRAM DW-08



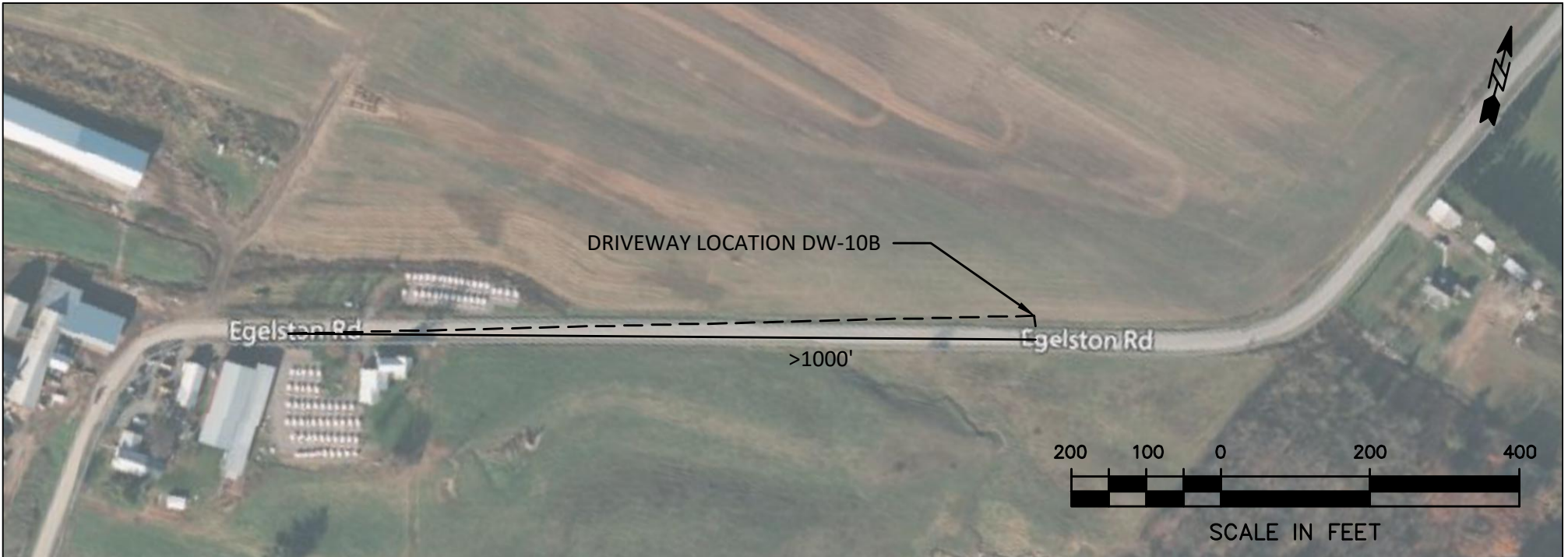
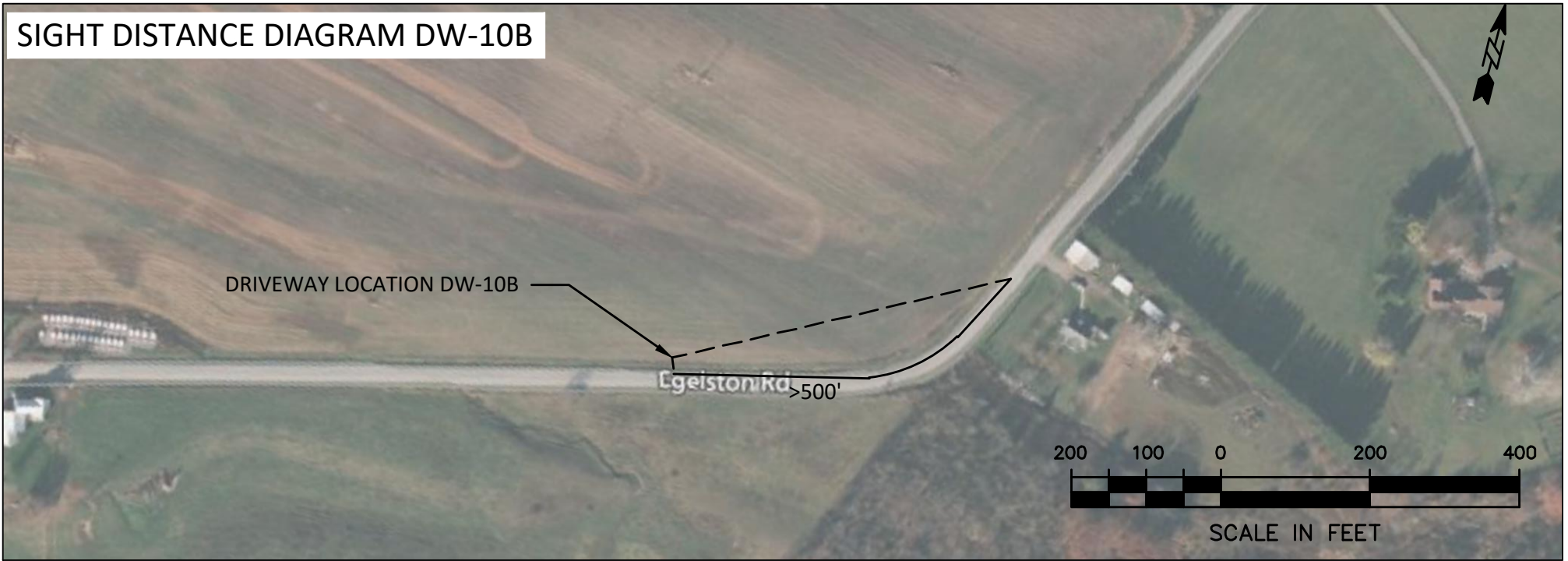
SIGHT DISTANCE DIAGRAM DW-09



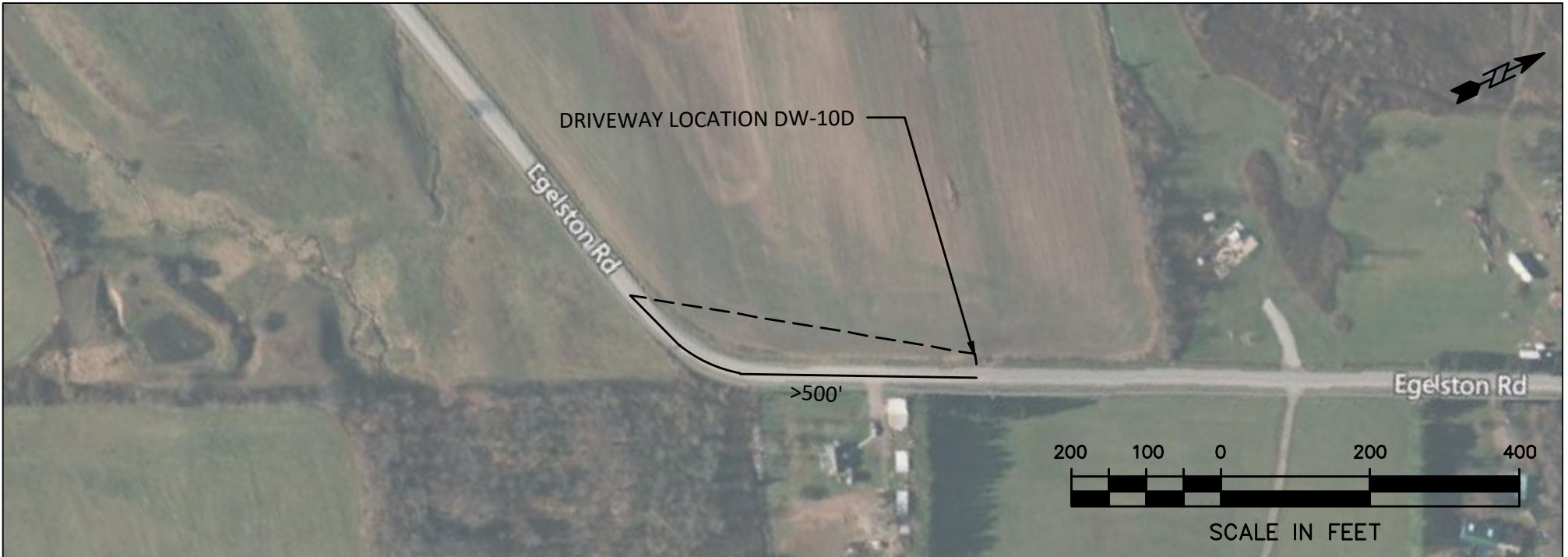
SIGHT DISTANCE DIAGRAM DW-10A



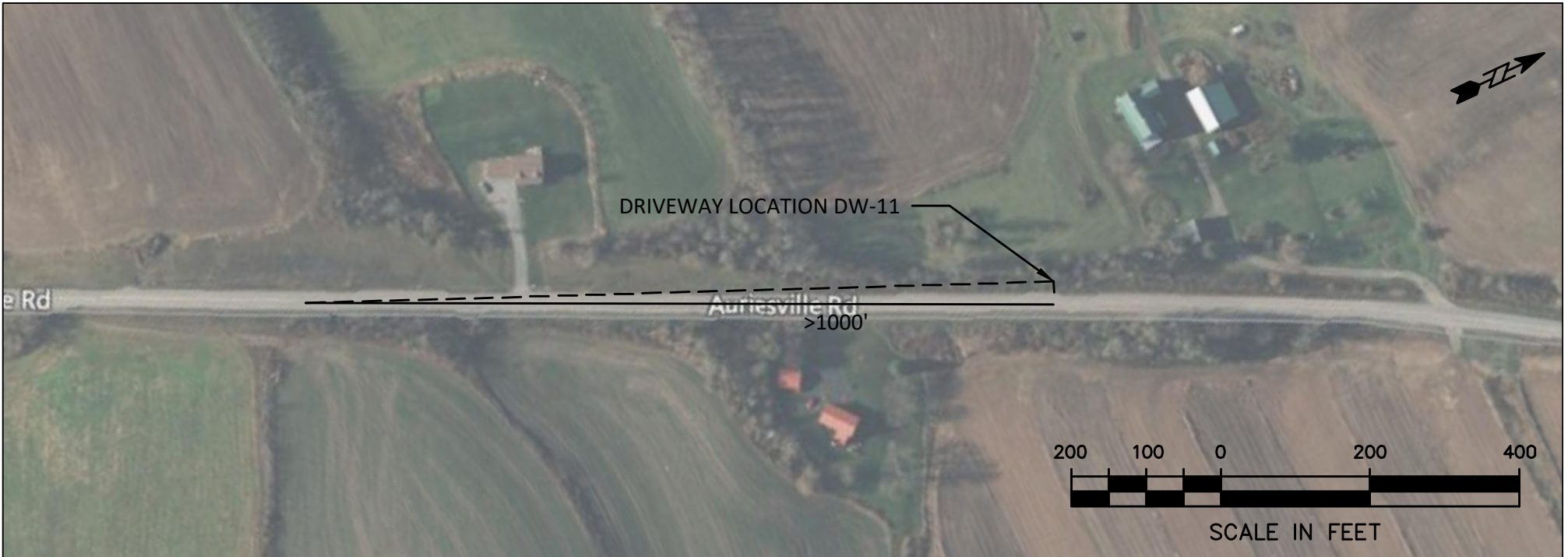
SIGHT DISTANCE DIAGRAM DW-10B



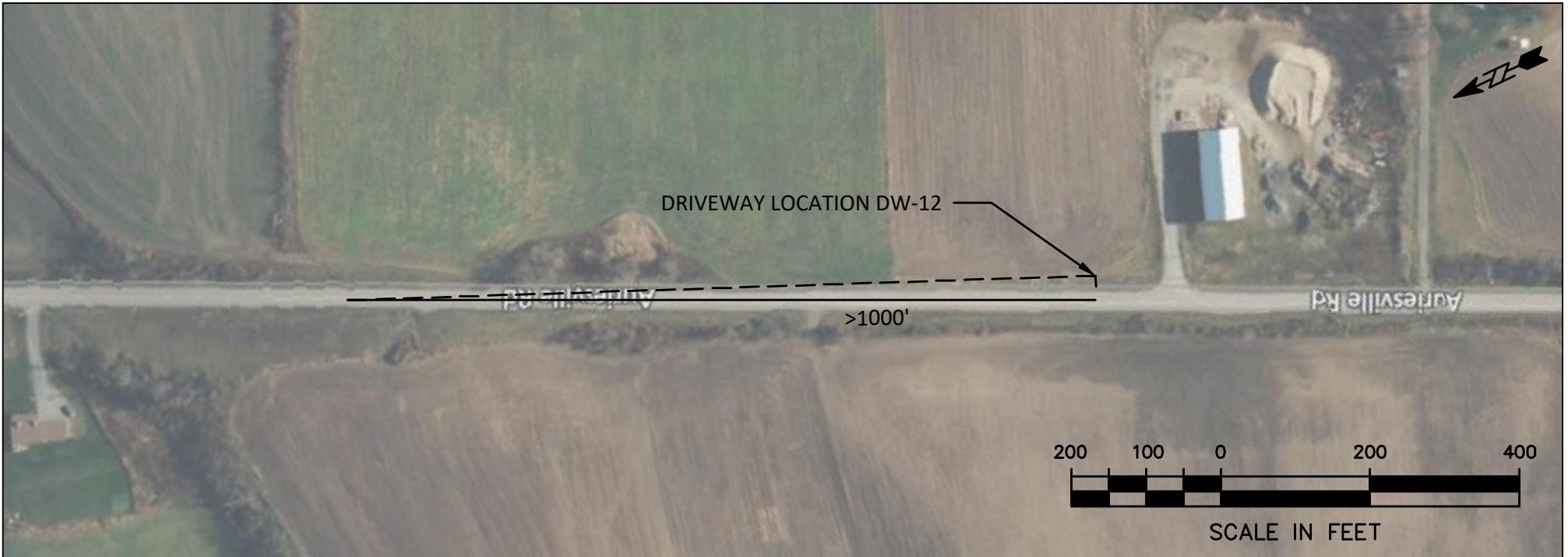
SIGHT DISTANCE DIAGRAM DW-10D



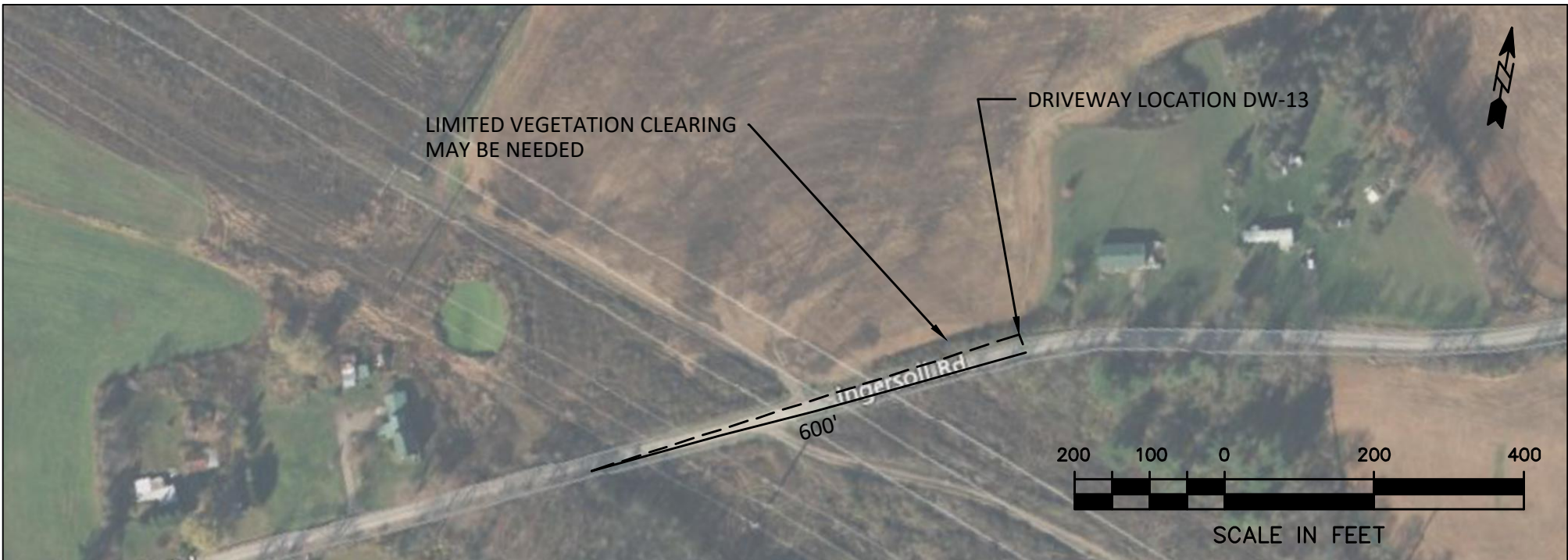
SIGHT DISTANCE DIAGRAM DW-11



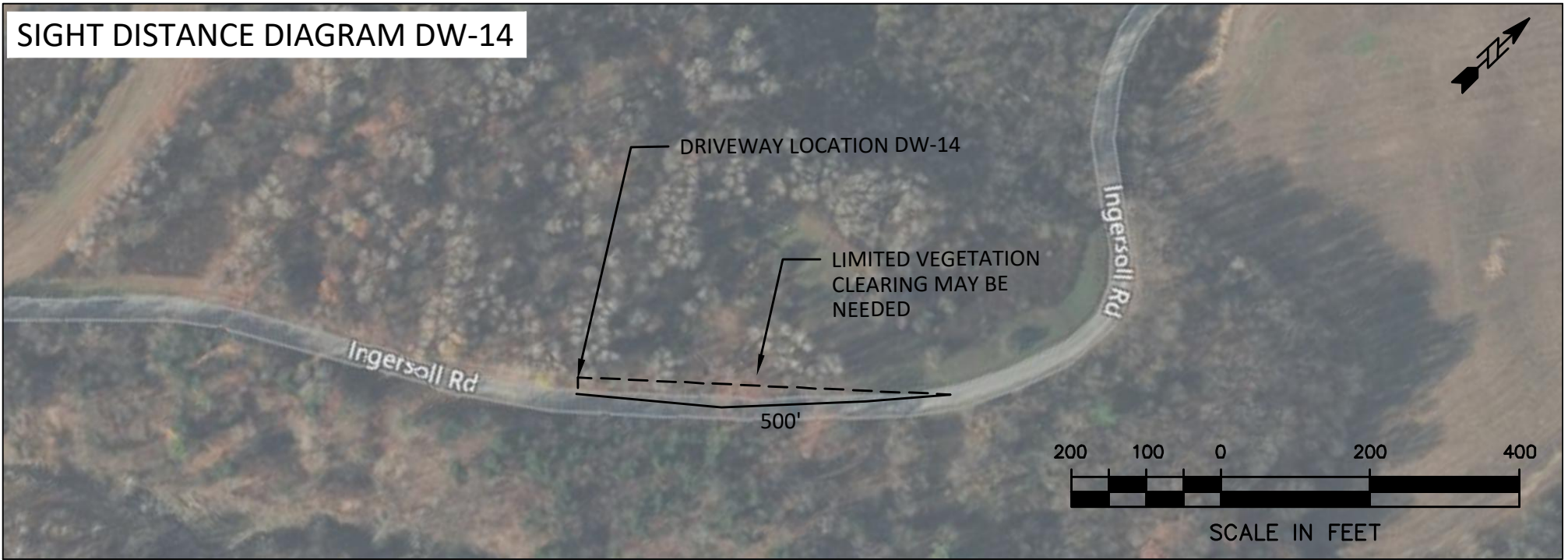
SIGHT DISTANCE DIAGRAM DW-12



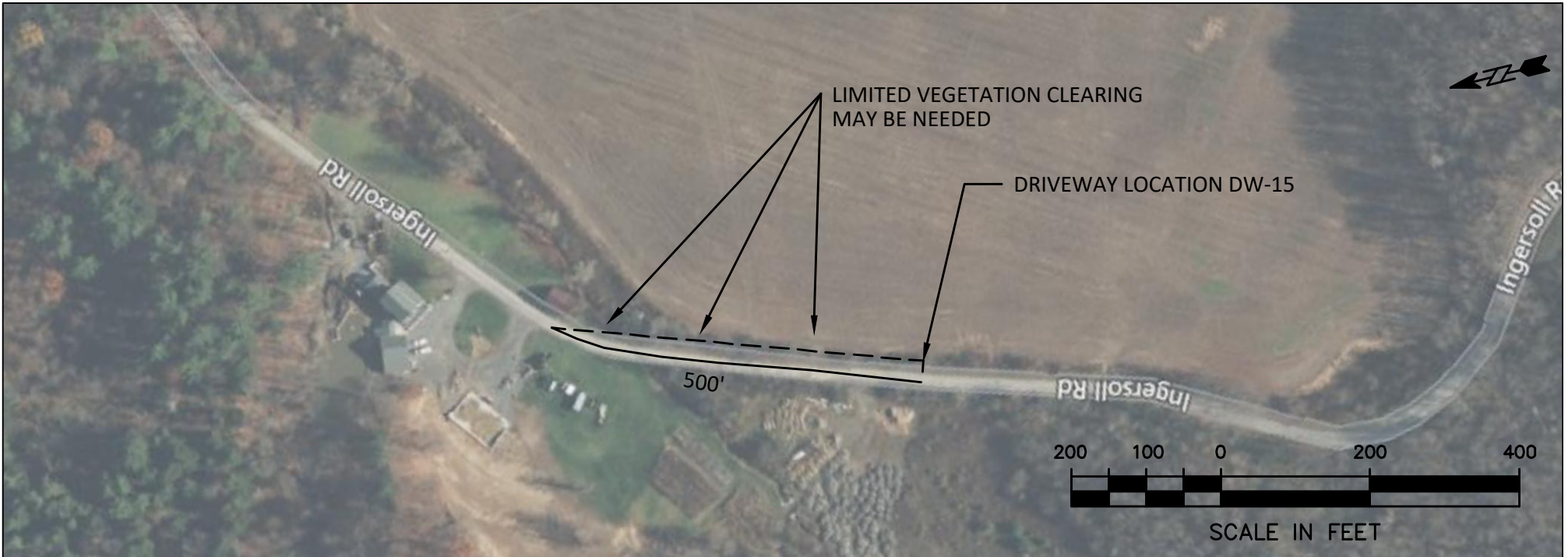
SIGHT DISTANCE DIAGRAM DW-13



SIGHT DISTANCE DIAGRAM DW-14



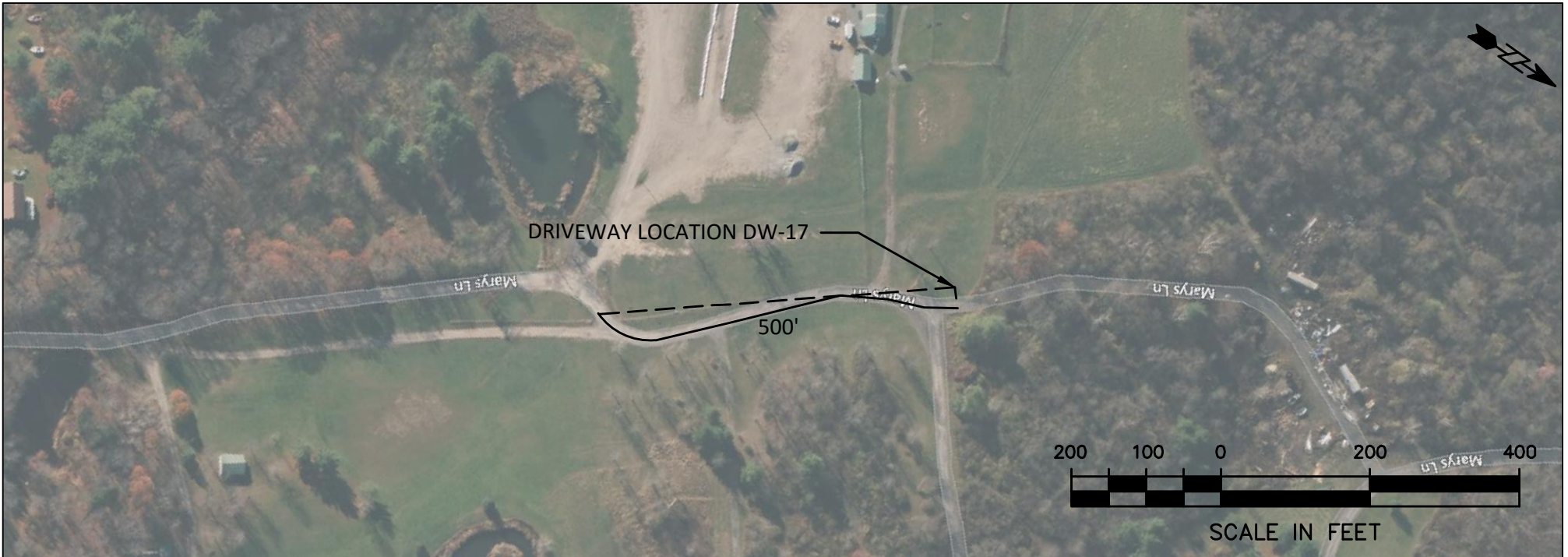
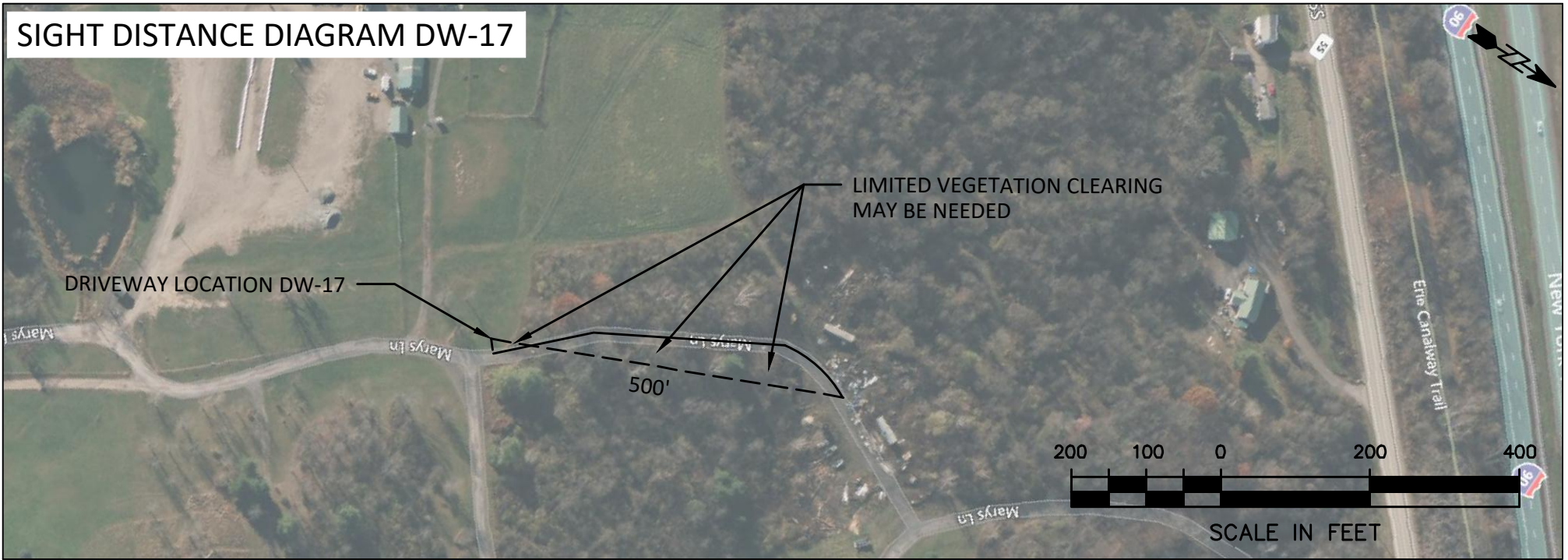
SIGHT DISTANCE DIAGRAM DW-15



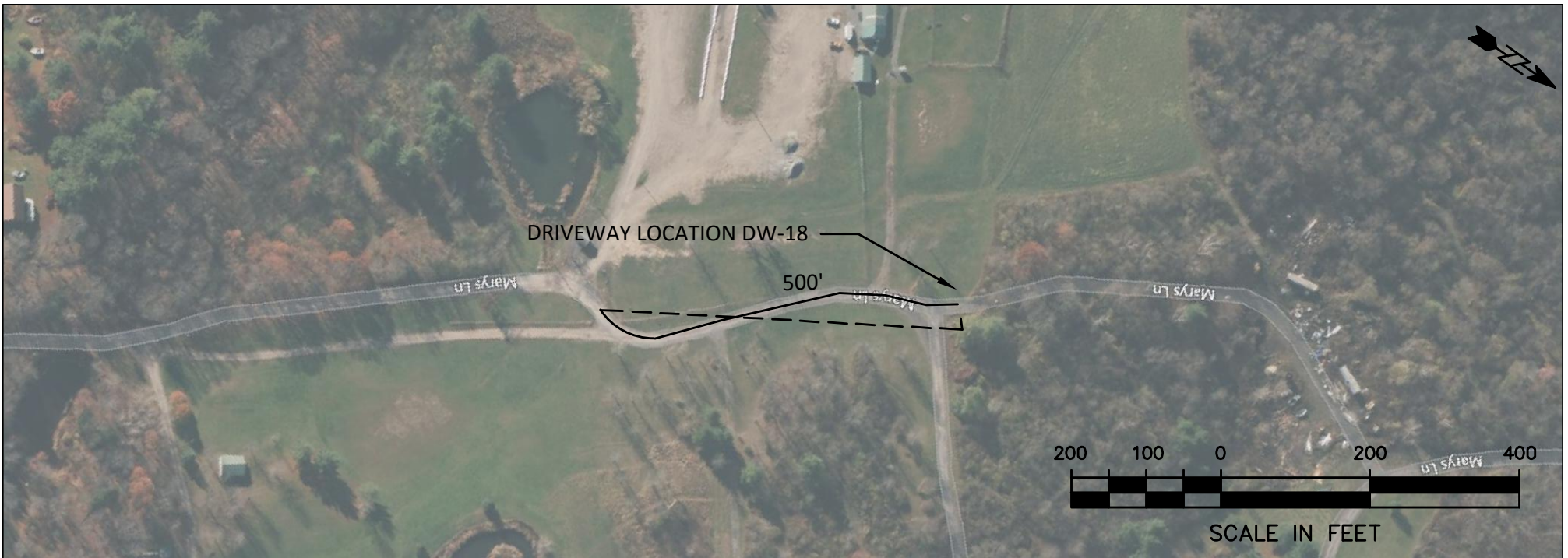
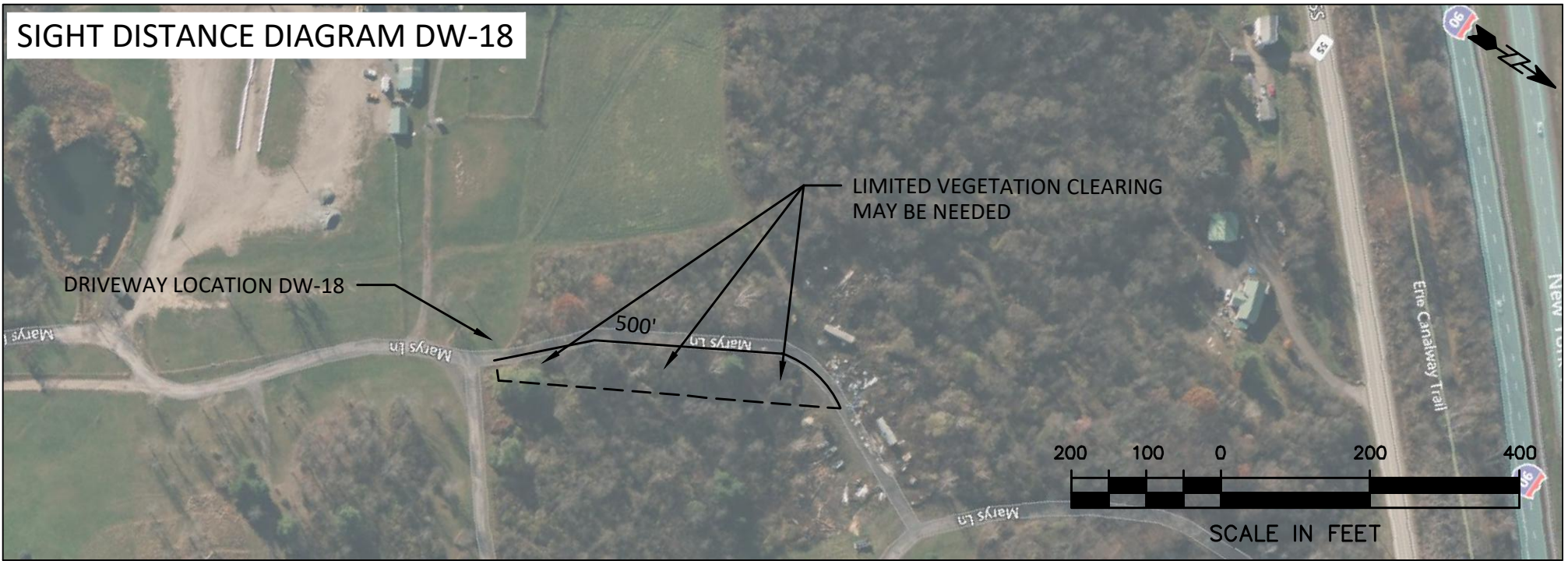
SIGHT DISTANCE DIAGRAM DW-16



SIGHT DISTANCE DIAGRAM DW-17



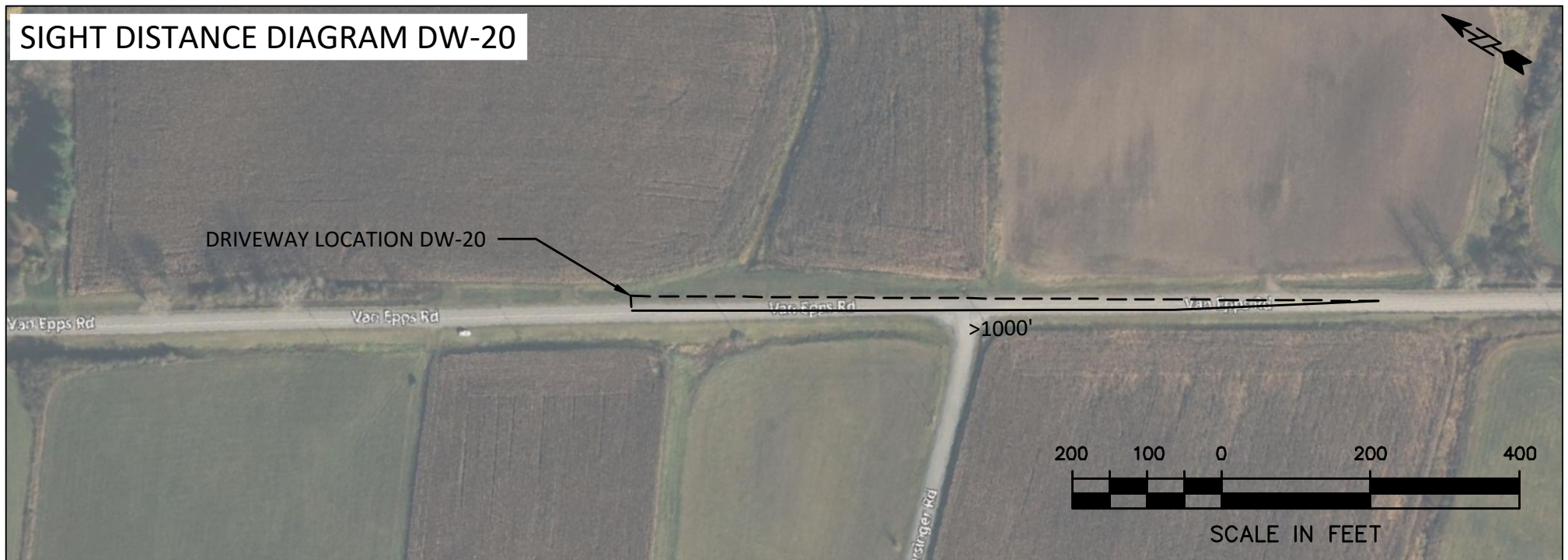
SIGHT DISTANCE DIAGRAM DW-18



SIGHT DISTANCE DIAGRAM DW-19



SIGHT DISTANCE DIAGRAM DW-20



Site Location DW-01



Looking Left

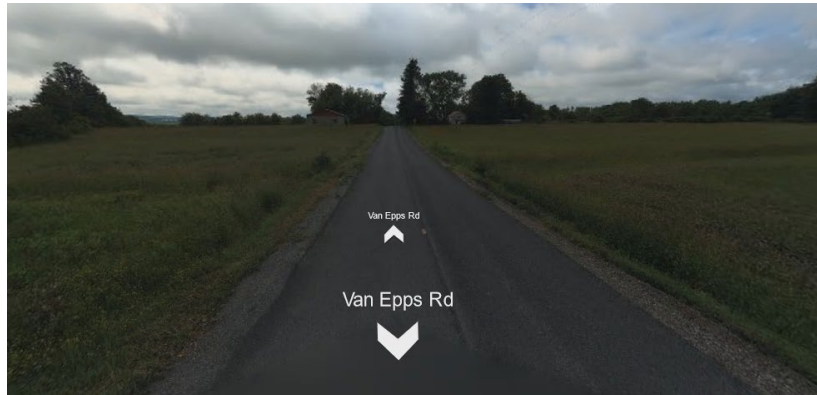


Looking Right

Site Location DW-02

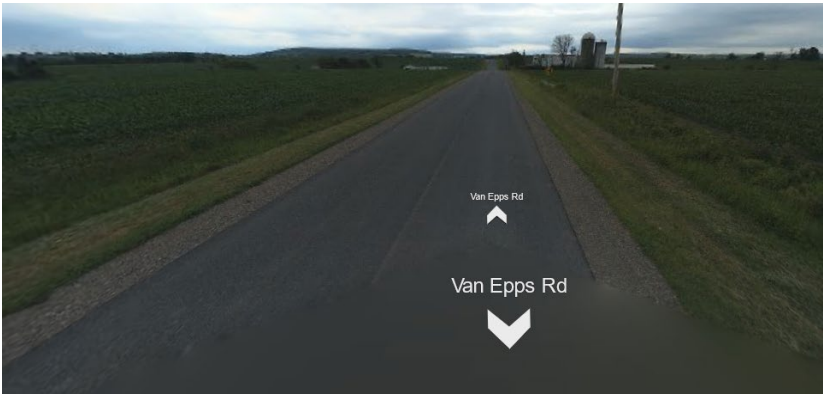


Looking Left



Looking Right

Site Location DW-03



Looking Left



Looking Right

Site Location DW-04



Looking Left



Looking Right

Site Location DW-05

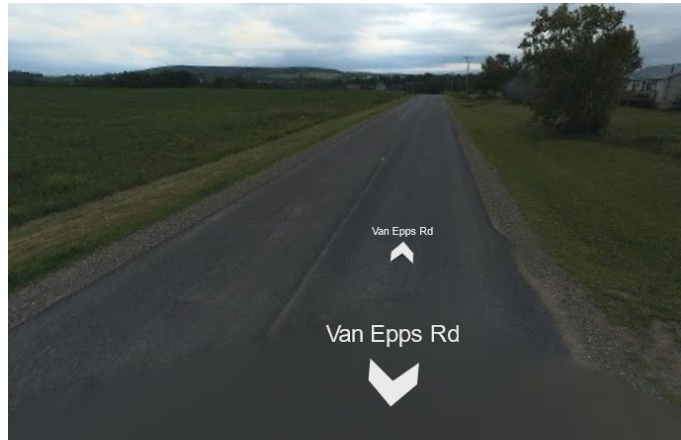


Looking Left



Looking Right

Site Location DW-06

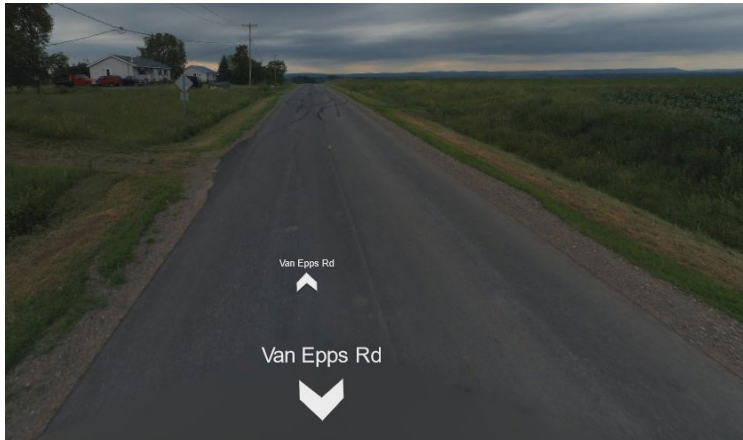


Looking Left



Looking Right

Site Location DW-07

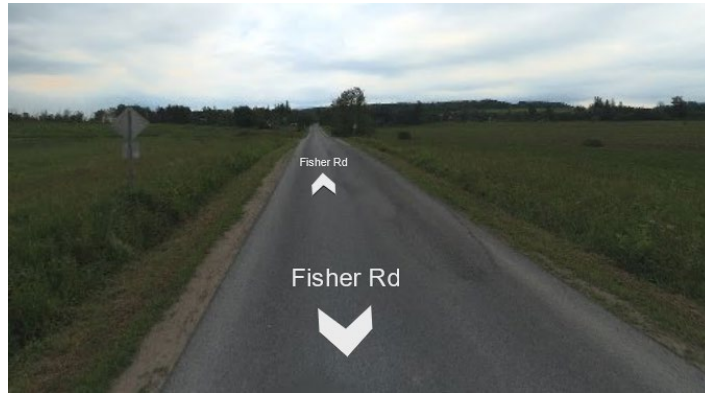


Looking Left

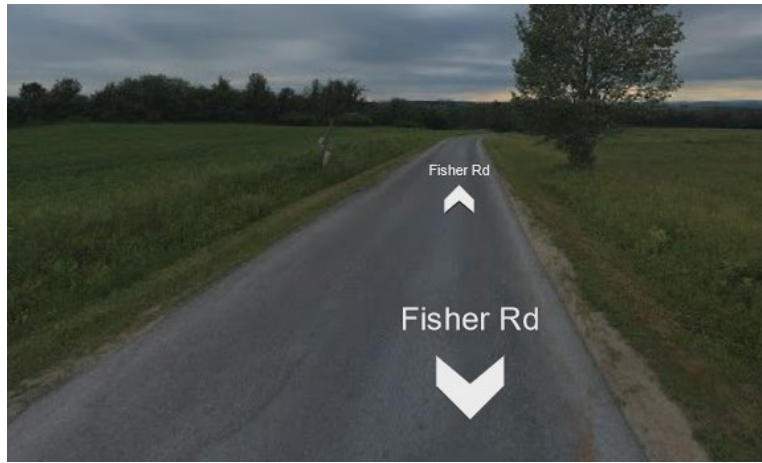


Looking Right

Site Location DW-08



Looking Left

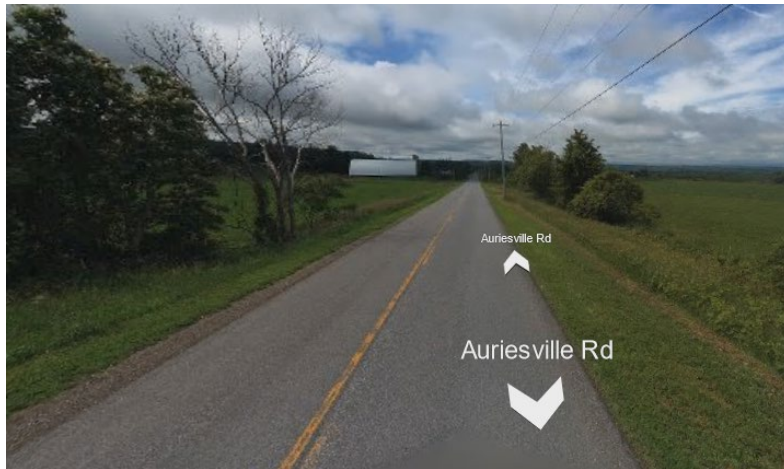


Looking Right

Site Location DW-09



Looking Left



Looking Right

Site Location DW-10A



Looking Left



Looking Right

Site Location DW-10B



Looking Left



Looking Right

Site Location DW-10D



Looking Left



Looking Right

Site Location DW-11



Looking Left



Looking Right

Site Location DW-12



Looking Left



Looking Right

Site Location DW-13



Looking Left



Looking Right

Site Location DW-14



Looking Left



Looking Right

Site Location DW-15

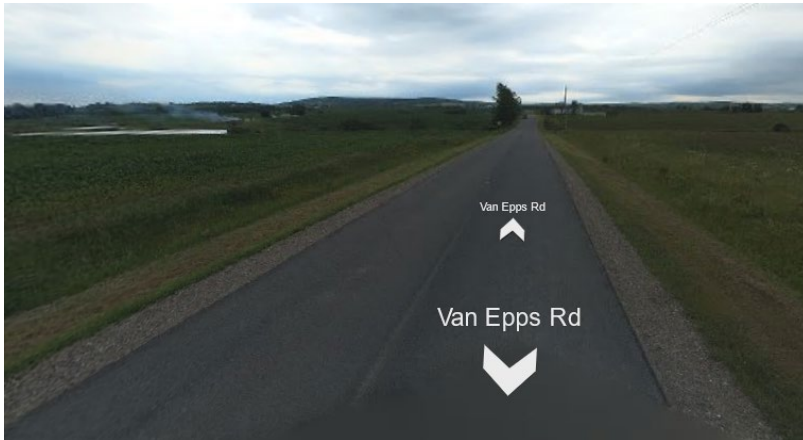


Looking Left



Looking Right

Site Location DW-16



Looking Left



Looking Right

Site Location DW-17

*No pictures available

Site Location DW-18

*No pictures available

Site Location DW-19



Looking Left



Looking Right

Site Location DW-20



Looking Left



Looking Right