

# SIGNAL WARRANT DATA SHEET

**Pik 32 & 220 / Germany Rd**

Study By: R Chaffin

Date: 09/20/04

Date of Counts: 09/15/04

<b>Condition A - Minimum Vehicular Volume</b>			
Vehicles per hour on <b>MAJOR</b> street (total of both approaches)		Vehicles per hour on higher-volume <b>MINOR</b> -street approach (one direction only)	
70% <b>420</b>	Combination / Crash Experience 56% <b>336</b>	70% <b>105</b>	Combination / Crash Experience 56% <b>84</b>
<b>Condition B - Interruption of Continuous Traffic</b>			
Vehicles per hour on <b>MAJOR</b> street (total of both approaches)		Vehicles per hour on higher-volume <b>MINOR</b> -street approach (one direction only)	
70% <b>630</b>	Combination / Crash Experience 56% <b>504</b>	70% <b>53</b>	Combination / Crash Experience 56% <b>42</b>

**Comments:**

For this analysis, the number of lanes used for moving traffic on each approach for the Major street was 2 or more.  
 The number of lanes used for moving traffic on each approach for the Minor street was 1.  
 The volume requirements were reduced 70% since the speed limit on the Major street exceeds 40 mph OR this location is within an isolated community with a population of less than 10,000.

HOUR	MAJOR STREET	MINOR APPROACH	MINOR APPROACH	Condition A	Condition B	Condition A Crash Experience	Condition B Crash Experience
	S.R. 32 Volume	S.R. 220 Volume	Germany Rd Volume				
6-7 AM	610	33	94	NO	NO	YES	YES
7-8 AM	599	65	76	NO	NO	NO	YES
8-9 AM	485	45	56	NO	NO	NO	NO
9-10 AM	402	34	32	NO	NO	NO	NO
10-11 AM	400	50	37	NO	NO	NO	NO
11-12 AM	406	57	39	NO	NO	NO	NO
12-1 PM	434	59	41	NO	NO	NO	NO
1-2 PM	484	69	46	NO	NO	NO	NO
2-3 PM	589	96	47	NO	NO	YES	YES
3-4 PM	698	134	39	YES	YES	YES	YES
4-5 PM	725	168	45	YES	YES	YES	YES
5-6 PM	596	149	33	YES	NO	YES	YES

Hours that met warrant: **3**

Condition A	Condition B	Condition A Crash Experience	Condition B Crash Experience
<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Combination Warrant: **NO**

\*This indicates that the volumes meet the requirements set for the Crash Experience Warrant. It does not indicate that the warrant is met. Please see OMTUCD Section 4C.08 for other necessary criteria.

# SIGNAL WARRANT DATA SHEET

**Pik 32 & Schuster Rd.**

Study By: R. Chaffin

Date: 11/02/04

Date of Counts: 10/26/04

<b>Condition A - Minimum Vehicular Volume</b>		
Vehicles per hour on <b>MAJOR</b> street (total of both approaches)	Vehicles per hour on higher-volume <b>MINOR</b> -street approach (one direction only)	
70% <b>420</b>	70% <b>105</b>	56% <b>84</b>
Combination / Crash Experience		Combination / Crash Experience
56% <b>336</b>		
<b>Condition B - Interruption of Continuous Traffic</b>		
Vehicles per hour on <b>MAJOR</b> street (total of both approaches)	Vehicles per hour on higher-volume <b>MINOR</b> -street approach (one direction only)	
70% <b>630</b>	70% <b>53</b>	56% <b>42</b>
Combination / Crash Experience		Combination / Crash Experience
56% <b>504</b>		

**Comments:**

For this analysis, the number of lanes used for moving traffic on each approach for the Major street was 2 or more.  
 The number of lanes used for moving traffic on each approach for the Minor street was 1.  
 The volume requirements were reduced 70% since the speed limit on the Major street exceeds 40 mph OR this location is within an isolated community with a population of less than 10,000.

HOUR	MAJOR STREET	MINOR APPROACH	MINOR APPROACH	Condition A	Condition B	Condition A Crash Experience	Condition B Crash Experience
	S.R. 32 Volume	Schuster, north Volume	Schuster, south Volume				
6-7 AM	496	59	32	NO	NO	NO	NO
7-8 AM	641	148	51	YES	YES	YES	YES
8-9 AM	418	52	25	NO	NO	NO	NO
9-10 AM	352	42	27	NO	NO	NO	NO
10-11 AM	356	54	23	NO	NO	NO	NO
11-12 AM	360	38	17	NO	NO	NO	NO
12-1 PM	352	53	17	NO	NO	NO	NO
1-2 PM	417	53	25	NO	NO	NO	NO
2-3 PM	493	133	33	YES	NO	YES	NO
3-4 PM	503	146	29	YES	NO	YES	NO
4-5 PM	566	211	29	YES	NO	YES	YES
5-6 PM	495	174	22	YES	NO	YES	NO

Hours that met warrant: **5**

Condition A	Condition B	Condition A Crash Experience	Condition B Crash Experience
NO	NO	NO	NO

Combination Warrant: **NO**

\*This indicates that the volumes meet the requirements set for the Crash Experience Warrant. It does not indicate that the warrant is met. Please see OMLTCD Section 4C.08 for other necessary criteria.

OHIO DEPARTMENT OF TRANSPORTATION - DIVISION OF MULTI-MODEL PLANNING & PROGRAMS -  
 OFFICE OF TECHNICAL SERVICES

**INTERSECTION TRAFFIC COUNT SHOWING TURNING MOVEMENTS**

Co. Station Route Log Location City/Town FC Count No. Year  
 Pix No. S.R. 32 18.57 @ Schuster Rd. East of Piqueton 2 2004  
 6466

Recorder	Hour	Period	Day	Date	Weather	Road Condition
D. Johnson / S. Michels	6:00 A.M.	12:00 p.m.		10/26/04		
"	12:00 P.M.	6:00 P.M.		10/27/04		

Leg Names: North - Schuster Rd.

Counter No. \_\_\_\_\_

South - Schuster Rd.

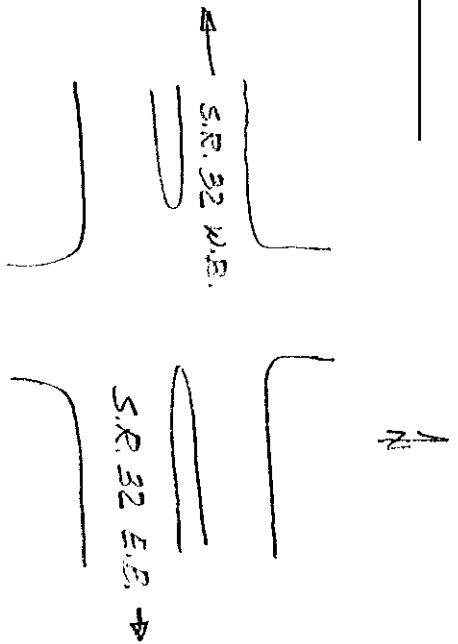
Expansion Factor: P&A \_\_\_\_\_

East - S.R. 32

Expansion Factor: B&C \_\_\_\_\_

West - S.R. 32

Seasonal Factor: \_\_\_\_\_



OHIO DEPARTMENT OF TRANSPORTATION - DIVISION OF MULTI-MODEL PLANNING & PROGRAMS -  
OFFICE OF TECHNICAL SERVICES

**INTERSECTION TRAFFIC COUNT SHOWING TURNING MOVEMENTS**

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Co. Station No. 5566 Route Log SR 32 Location 19.23 @ S.R. 220/Germany Rd. City/Town \_\_\_\_\_ FC Count No. 02 Year 2004

Recorder	Hour	Period	Day	Date	Weather	Road Condition
	:	:		/		
	:	:		/		
	:	:		/		

Leg Names: SR. 32 West

Counter No. \_\_\_\_\_

SR. 32 East

Expansion Factor: P&A \_\_\_\_\_

SR. 220 North

Expansion Factor: B&C \_\_\_\_\_

Germany Rd. South

Seasonal Factor: \_\_\_\_\_

OHIO DEPARTMENT OF TRANSPORTATION  
 District 9 Planning  
 650 Eastern Ave., Chillicothe, OH 45601  
 1-888-819-8501

File Name : Plk-32-220  
 Site Code : 00005566  
 Start Date : 09/15/2004  
 Page No : 1

S.R. 220 From North										S.R. 32 From East										Germany Rd From South										S.R. 32 From West									
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total													
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0															
06:00 AM	0	0	2	0	2	33	48	0	0	81	0	12	8	0	20	1	26	0	0	27	1	26	0	0	27	130													
06:15 AM	0	2	11	0	13	42	76	0	0	118	0	20	6	0	26	3	39	0	0	42	3	39	1	0	42	199													
06:30 AM	0	0	6	0	6	78	81	0	0	159	0	27	7	0	34	0	36	0	0	37	0	36	1	0	37	236													
06:45 AM	1	3	8	0	12	37	70	0	0	107	0	9	5	0	14	3	36	0	0	39	3	36	0	0	39	172													
Total	1	5	27	0	33	190	275	0	0	465	0	68	26	0	94	7	137	0	0	145	7	137	1	0	145	737													
07:00 AM	0	5	10	0	15	24	72	1	0	97	0	9	13	0	22	5	43	0	0	48	5	43	0	0	48	182													
07:15 AM	0	3	13	0	16	31	53	0	0	84	0	8	12	0	20	5	55	0	0	60	3	55	0	0	60	180													
07:30 AM	0	2	17	0	19	36	89	0	0	125	0	11	9	0	20	3	33	0	0	36	3	33	0	0	36	200													
07:45 AM	0	2	13	0	15	30	72	0	0	102	0	4	10	0	14	3	44	0	0	47	3	44	0	0	47	178													
Total	0	12	53	0	65	121	286	1	0	408	0	32	44	0	76	16	175	0	0	191	16	175	0	0	191	740													
08:00 AM	1	5	6	0	12	31	67	0	0	98	0	5	4	0	9	5	55	0	0	61	7	47	0	0	54	121													
08:15 AM	0	4	4	0	8	23	47	0	0	70	0	8	3	0	11	2	43	0	0	45	2	43	0	0	45	134													
08:30 AM	0	4	5	0	9	21	43	1	0	65	0	12	7	0	19	6	39	0	0	45	6	39	0	0	45	138													
08:45 AM	1	6	9	0	16	24	44	1	0	69	2	9	6	0	17	0	32	0	0	32	3	32	0	0	32	134													
Total	2	19	24	0	45	99	201	2	0	302	2	34	20	0	56	13	169	1	0	183	13	169	1	0	183	586													
09:00 AM	0	2	6	0	8	16	36	1	0	53	0	2	4	0	6	7	47	0	0	54	7	47	0	0	54	121													
09:15 AM	0	3	6	0	9	14	37	0	0	51	2	8	4	0	14	4	42	0	0	46	4	42	0	0	46	120													
09:30 AM	0	0	11	0	12	13	39	0	0	52	1	2	3	0	6	2	42	0	0	44	2	42	0	0	44	114													
09:45 AM	0	1	4	0	5	16	50	0	0	66	0	3	3	0	6	3	32	0	1	36	3	32	0	1	36	113													
Total	0	7	27	0	34	59	162	1	0	222	3	15	14	0	32	16	163	0	1	180	16	163	0	1	180	468													
10:00 AM	0	3	9	0	12	21	38	1	0	60	1	3	3	0	7	1	41	0	0	42	1	41	0	0	42	121													
10:15 AM	0	2	16	0	18	15	30	0	0	45	0	6	4	0	10	6	52	2	2	60	6	52	2	2	60	133													
10:30 AM	1	2	7	0	10	18	31	0	0	49	0	9	3	0	12	5	36	0	0	41	5	36	0	0	41	112													
10:45 AM	1	1	8	0	10	13	35	2	0	50	1	6	1	0	8	3	50	0	0	53	3	50	0	0	53	121													
Total	2	8	40	0	50	67	134	3	0	204	2	24	11	0	37	15	179	2	0	196	15	179	2	0	196	487													
11:00 AM	0	5	9	0	14	8	40	1	0	49	1	2	3	0	6	1	56	1	0	58	1	56	1	0	58	127													
11:15 AM	1	4	11	0	16	10	39	0	0	49	0	6	4	0	10	8	38	0	0	46	8	38	0	0	46	121													
11:30 AM	1	3	9	0	13	11	40	0	0	51	2	9	3	0	14	6	38	0	0	44	6	38	0	0	44	122													
11:45 AM	1	2	11	0	14	14	48	0	0	62	0	5	4	0	9	2	44	1	0	47	2	44	1	0	47	132													
Total	3	14	40	0	57	43	167	1	0	211	3	22	14	0	39	17	176	2	0	195	17	176	2	0	195	502													
12:00 PM	0	6	14	0	20	21	36	0	0	57	0	4	4	0	8	2	54	1	0	57	2	54	1	0	57	142													
12:15 PM	0	3	8	0	11	13	33	2	0	48	1	3	4	0	7	7	40	0	0	47	7	40	0	0	47	113													
12:30 PM	0	2	13	0	15	15	41	1	0	57	1	5	6	0	12	4	50	0	0	54	4	50	0	0	54	138													
12:45 PM	0	5	8	0	13	19	40	0	0	59	1	7	6	0	14	8	47	0	0	55	8	47	0	0	55	141													
Total	0	16	43	0	59	68	150	3	0	221	2	19	20	0	41	21	191	1	0	213	21	191	1	0	213	534													

**OHIO DEPARTMENT OF TRANSPORTATION**  
 District 9 Planning  
 650 Eastern Ave., Chillicothe, OH 45601  
 1-888-819-8501

File Name : Plk-32-220  
 Site Code : 00005566  
 Start Date : 09/15/2004  
 Page No : 2

Groups Printed - Unshifted - Bank 1

Start Time	S.R. 220 From North					S.R. 32 From East					Germany Rd From South					S.R. 32 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
01:00 PM	0	4	12	0	16	12	49	0	0	61	0	4	3	0	7	4	41	0	0	45	
01:15 PM	0	6	14	0	20	27	44	1	0	72	0	6	9	0	15	7	55	0	0	169	
01:30 PM	0	5	7	0	12	13	48	2	0	63	0	8	4	0	12	8	56	1	0	152	
01:45 PM	0	6	15	0	21	14	53	1	0	68	0	5	7	0	12	9	38	1	0	149	
Total	0	21	48	0	69	66	194	4	0	264	0	23	23	0	46	28	190	2	0	599	
02:00 PM	0	7	19	0	26	29	62	0	0	91	1	11	6	0	18	10	57	0	0	202	
02:15 PM	1	8	15	0	24	22	57	0	0	79	1	5	8	0	14	8	60	0	0	185	
02:30 PM	1	5	16	0	22	26	41	1	0	68	0	6	5	0	11	11	69	0	0	181	
02:45 PM	1	8	15	0	24	19	41	0	0	60	0	4	0	0	4	7	69	0	0	164	
Total	3	28	65	0	96	96	201	1	0	298	2	26	19	0	47	36	255	0	0	732	
03:00 PM	0	7	18	0	25	18	55	1	0	74	0	7	6	0	13	12	71	0	0	195	
03:15 PM	0	14	32	0	46	15	58	0	0	73	0	4	1	0	5	13	94	0	0	231	
03:30 PM	0	9	18	0	27	22	57	0	0	79	0	5	5	0	10	9	93	0	0	218	
03:45 PM	0	9	27	0	36	21	71	0	0	92	2	6	3	0	11	12	75	1	0	227	
Total	0	39	95	0	134	76	241	1	0	318	2	22	15	0	39	46	333	1	0	871	
04:00 PM	0	6	22	0	28	19	52	0	0	71	0	9	3	0	12	19	106	0	0	236	
04:15 PM	1	16	46	0	63	19	42	0	0	61	1	6	2	0	9	16	98	0	0	247	
04:30 PM	0	15	29	0	44	16	40	2	1	59	0	9	3	0	12	16	107	0	0	238	
04:45 PM	0	16	17	0	33	22	49	0	0	71	1	10	1	0	11	11	90	0	0	217	
Total	1	53	114	0	168	76	183	2	1	262	2	34	9	0	45	62	401	0	0	938	
05:00 PM	0	16	29	0	45	20	40	1	0	61	2	6	6	0	14	14	81	0	0	215	
05:15 PM	1	10	22	0	33	17	35	1	0	53	0	2	5	0	7	11	80	0	0	184	
05:30 PM	1	12	27	0	40	24	47	2	0	73	2	3	3	0	8	9	78	0	0	208	
05:45 PM	1	9	21	0	31	19	55	0	0	74	0	3	1	0	4	7	55	0	0	171	
Total	3	47	99	0	149	80	177	4	0	261	4	14	15	0	33	41	294	0	0	778	
Grand Total	15	269	675	0	959	1041	2371	23	1	3436	22	333	230	0	585	318	2663	10	1	2992	
Approch %	1.6	28.1	70.4	0.0	12.0	30.3	69.0	0.7	0.0	43.1	3.8	56.9	39.3	0.0	7.3	10.6	89.0	0.3	0.0	37.5	
Total %	0.2	3.4	8.5	0.0	12.0	13.1	29.7	0.3	0.0	43.1	0.3	4.2	2.9	0.0	7.3	4.0	33.4	0.1	0.0	37.5	