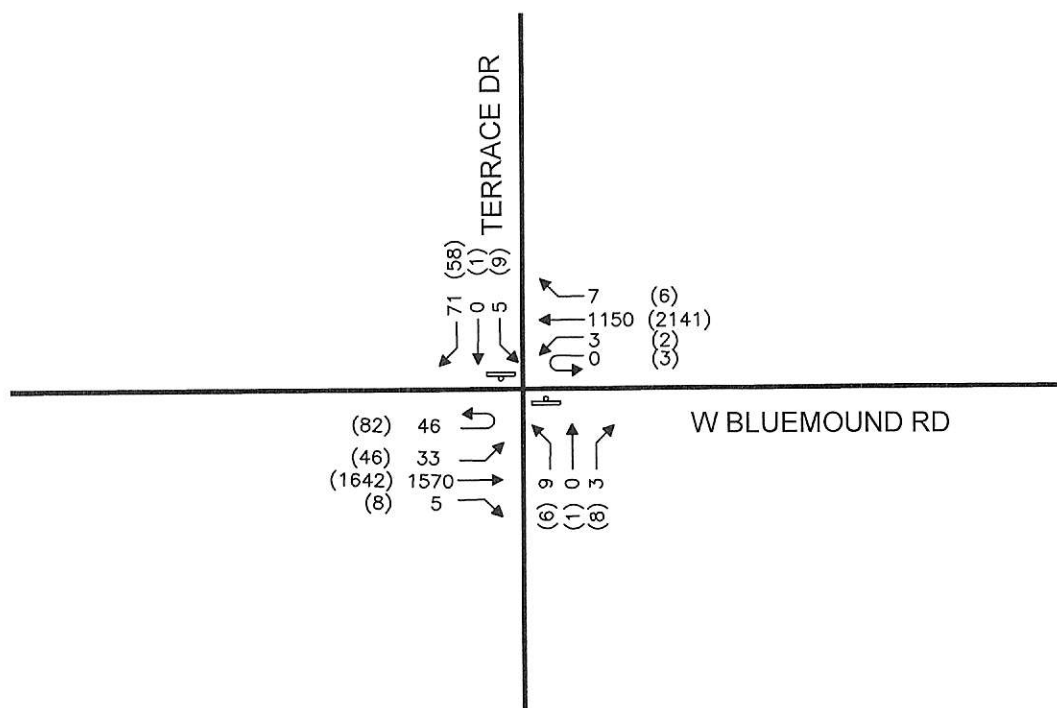




NOT TO SCALE

LEGEND

- = EXISTING TRAFFIC SIGNAL
- = EXISTING STOP SIGN
- = PROPOSED STOP SIGN



XX AM PEAK HOUR (7:15-8:15 AM)
[XX] PM PEAK HOUR (4:45-5:45 PM)



TRAFFIC
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JN# 14E26

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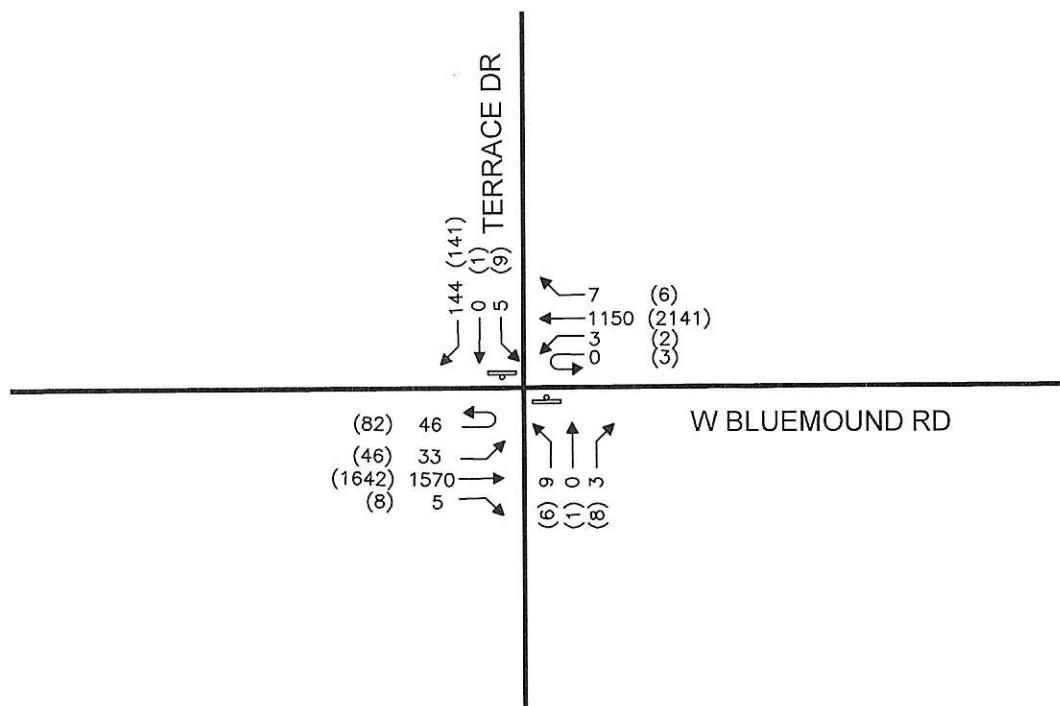
EXHIBIT 4-5
2014 EXISTING YEAR
TRAFFIC VOLUMES AM & PM
ELM GROVE - WISCONSIN EXTENSION
SUBMITTAL DATE: 10-17-2014
REVISED 7-18-2016



NOT TO SCALE

LEGEND

-  = EXISTING TRAFFIC SIGNAL
-  = EXISTING STOP SIGN
-  = PROPOSED STOP SIGN



XX AM PEAK HOUR (7:15–8:15 AM)
[XX] PM PEAK HOUR (4:45–5:45 PM)



TRAFFIC
ENGINEERING
SERVICES, INC.

JN# 14E26

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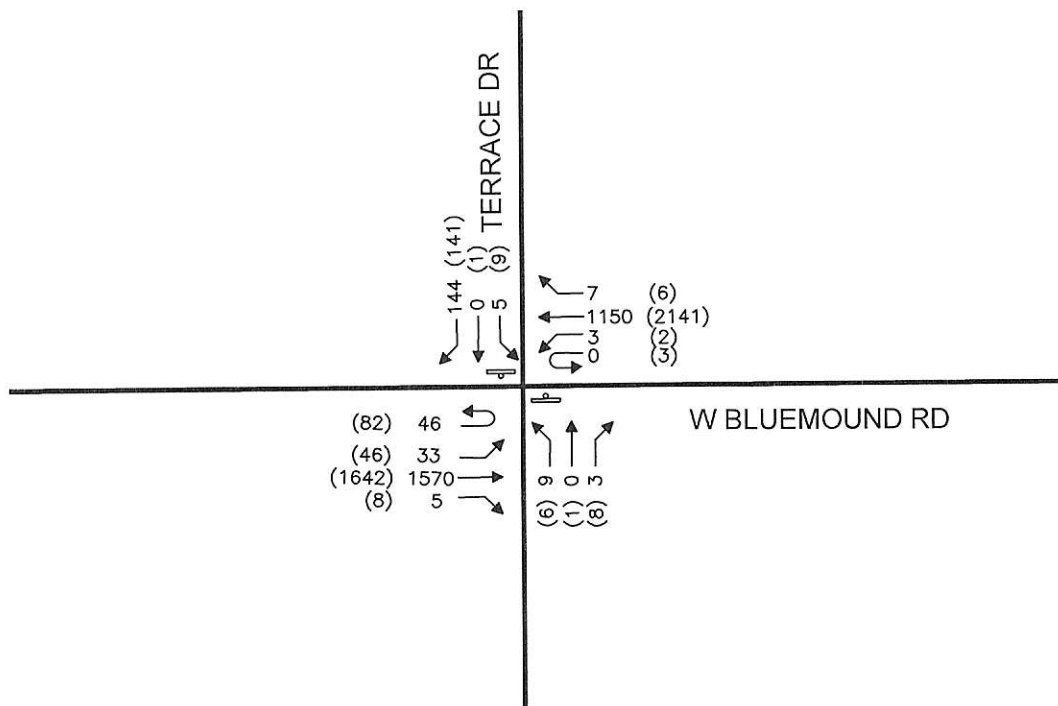
EXHIBIT 4-5A
2014 EXISTING YEAR + DIVERGED PILGRIM PARKWAY
TRAFFIC VOLUMES AM & PM
ELM GROVE - WISCONSIN EXTENSION
UPDATED DATE: 07-21-2016



NOT TO SCALE

LEGEND

- = EXISTING TRAFFIC SIGNAL
- = EXISTING STOP SIGN
- = PROPOSED STOP SIGN



XX AM PEAK HOUR (7:15–8:15 AM)
[XX] PM PEAK HOUR (4:45–5:45 PM)

EXHIBIT 4-5A
2014 EXISTING YEAR + DIVERGED PILGRIM PARKWAY
TRAFFIC VOLUMES AM & PM
ELM GROVE - WISCONSIN EXTENSION
UPDATED DATE: 07-21-2016



TRAFFIC
ENGINEERING
SERVICES, INC.

JN# 14E26

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TERRACE DRIVE TRAFFIC CALCULATIONS FOR ALTERNATE ROUTE TRAFFIC

Terrace Drive Existing 2014 Roadtube Count

				7:15 TO 8:15		4:45 TO 5:45	
				AM PEAK HOUR		PM PEAK HOUR	
DAY	MONTH	DATE		SB	NB	SB	NB
TUE	7	22				84	74
WED	7	23		89	35	74	57
THUR	7	24		80	44	92	77
FRI	7	25		76	45	68	62
SAT	7	26		46	25	34	46
SUN	7	27		26	30	46	45
MON	7	28		98	44	88	72
TUE	7	29		92	52		
					AM		PM
PEAK HOUR	AVERAGE DAILY TRAFFIC				ADT		131
PEAK HOUR	AVERAGE WEEKDAY TRAFFIC				AWT		150
	ALTERNATE ROUTE			AM SB		PM SB	
	TRAFFIC			73		83	
PEAK HOUR	AWT EXISTING PLUS 2035			204		232	
PEAK HOUR	INCREASE IN TRAFFIC			55%		55%	

				7:15 TO 8:15		4:45 TO 5:45		ALTERNATE PER CENT
				AM PEAK HOUR		PM PEAK HOUR		
				PILGRIM TO	TERRACE	PILGRIM TO	TERRACE	
				10	10	5	5	100%
				125	63	155	78	50%
				50	0	100	0	0%
					73		83	
				ALTERNATE ROUTE TRAFFIC				
				ADDED TO SB RT @ USH 18				
PEAK HOUR	AVERAGE DAILY TRAFFIC							
PEAK HOUR	AVERAGE WEEKDAY TRAFFIC							
	ALTERNATE ROUTE			AM SB				
	TRAFFIC			73				
PEAK HOUR	AWT EXISTING PLUS 2035			204				
PEAK HOUR	INCREASE IN TRAFFIC			55%				
		AM				PM		
		112	ADT			83		PM
		131	AWT			232		131
						55%		150

2035 PROJECTED TRAFFIC
 ALTERNATE ROUTE TRAFFIC
 FROM PILGRIM PARK WAY
 DIVERSION FORECAST
 WESTBOUND THROUGH
 WESTBOUND LEFT
 WESTBOUND RIGHT
 ALTERNATE ROUTE TRAFFIC
 ADDED TO SB RT @ USH 18

ABBREVIATIONS
 SB = SOUTHBOUND
 NB = NORTHBOUND
 PK = PEAK

BASED ON 7-DAY ROAD TUBE COUNT ON TERRACE							WEEKDAY AVERAGE	
BEGIN	MON	TUE	WED	THUR	FRI	5-DAY SUM	PK HR 7:15-8:15	PK HR 7:30-8:30
7:00	30	31	22	16	16	115		
7:15	31	32	28	27	35	153		
7:30	27	38	35	33	32	165		
7:45	46	43	32	40	33	194	660	
8:00	38	31	29	24	26	148		637
8:15	25	22	28	32	23	130		
8:30	29	29	29	25	33	145		

3.5%

PEAK HOUR = TOTAL INTERSECTION APPROACH VOLUME PER 15 MINUTES SUMMED FOR MAXIMUM HOURLY VOLUME.

7:30 TO 8:30 IS USED IN TES STUDY BASED ON TES COUNT AT TERRACE AND BLUEMOND IS 7:15 TO 8:15.

THE VOLUMES FOR EACH HOUR ARE

MON, TUE, WE & FRI PEAK HOUR IS 7:15 TO 8:15

THURS PEAK HOUR IS 7:30 TO 8:30

THE DIFFERENCE IN AM PEAK VOLUMES IS 3.5%.

14-E-24

EXHIBIT 4-5A1

LOCATION: Terrace and Buemound Road
DATE COLLECTED: Wednesday, July 23, 2014
COLLECTED BY: Traffic Engineering Services, Inc.
AM PEAK

CARS (Unshifted)

START TIME	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
7:15 AM	1	0	16	1	213	0	0	0	1	9	322	0	574
7:30 AM	1	0	18	1	266	2	0	0	2	8	400	1	719
7:45 AM	1	0	22	0	377	3	0	0	0	9	458	3	888
8:00 AM	2	0	15	1	277	2	0	0	0	7	369	1	683
TOTAL	5	0	71	3	1133	7	0	0	3	33	1549	5	2864

TRUCKS

START TIME	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
7:15 AM	0	0	0	0	5	0	0	0	0	0	5	0	10
7:30 AM	0	0	0	0	7	0	0	0	0	0	4	0	11
7:45 AM	0	0	0	0	3	0	0	0	0	0	6	0	9
8:00 AM	0	0	0	0	2	0	0	0	0	0	6	0	8
TOTAL	0	0	0	0	17	0	0	0	0	0	21	0	38

TOTAL VOLUME

START TIME	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
7:15 AM	1	0	16	1	218	0	0	0	1	9	327	0	584
7:30 AM	1	0	18	1	273	2	0	0	2	8	404	1	730
7:45 AM	1	0	22	0	380	3	0	0	0	9	464	3	897
8:00 AM	2	0	15	1	279	2	0	0	0	7	375	1	691
TOTAL	5	0	71	3	1150	7	0	0	3	33	1570	5	2902

FROM NORTH - TERRACE
 FROM EAST - BLUEMOUND
 FROM SOUTH - Westmoor
 FROM WEST - BLUEMOUND

% TRUCKS= 1.31
 PHF= 0.81

LOCATION: Terrace and Buemound Road
DATE COLLECTED: Wednesday, July 23, 2014
COLLECTED BY: Traffic Engineering Services, Inc.
PM PEAK

CARS (Unshifted)

START TIME	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
4:45 PM	3	0	13	0	1	526	2	1	3	0	11	343	914
5:00 PM	1	1	14	0	0	565	0	0	1	0	9	450	1063
5:15 PM	5	0	15	0	1	508	2	1	1	0	13	442	1010
5:30 PM	0	0	14	0	0	522	2	1	3	0	13	397	985
TOTAL	9	1	56	0	2	2121	6	3	8	0	46	1632	3972

SINGLE UNIT TRUCKS (Bank 1)

START TIME	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
4:45 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
5:00 PM	0	0	1	0	2	0	0	0	0	0	2	0	5
5:15 PM	0	0	0	0	3	0	0	0	0	0	2	0	5
5:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
TOTAL	0	0	1	0	10	0	0	0	0	0	5	0	16

SEMI TRUCKS (Bank 2)

START TIME	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
4:45 PM	0	0	0	0	4	0	0	0	0	0	1	0	5
5:00 PM	0	0	1	0	2	0	0	0	0	0	2	0	5
5:15 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
TOTAL	0	0	1	0	10	0	0	0	0	0	5	0	16

TOTAL VOLUME

START TIME	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
4:45 PM	3	0	13	0	1	534	2	1	3	0	11	344	923
5:00 PM	1	1	16	0	0	569	0	0	1	0	9	454	1073
5:15 PM	5	0	15	0	1	513	2	1	1	0	13	446	1019
5:30 PM	0	0	14	0	0	525	2	1	3	0	13	398	989
TOTAL	9	1	58	0	2	2141	6	3	8	0	46	1642	4004

FROM NORTH - TERRACE
 FROM EAST - BLUEMOUND
 FROM SOUTH - Westmoor
 FROM WEST - BLUEMOUND

% TRUCKS= 0.80
 PHF= 0.93