Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

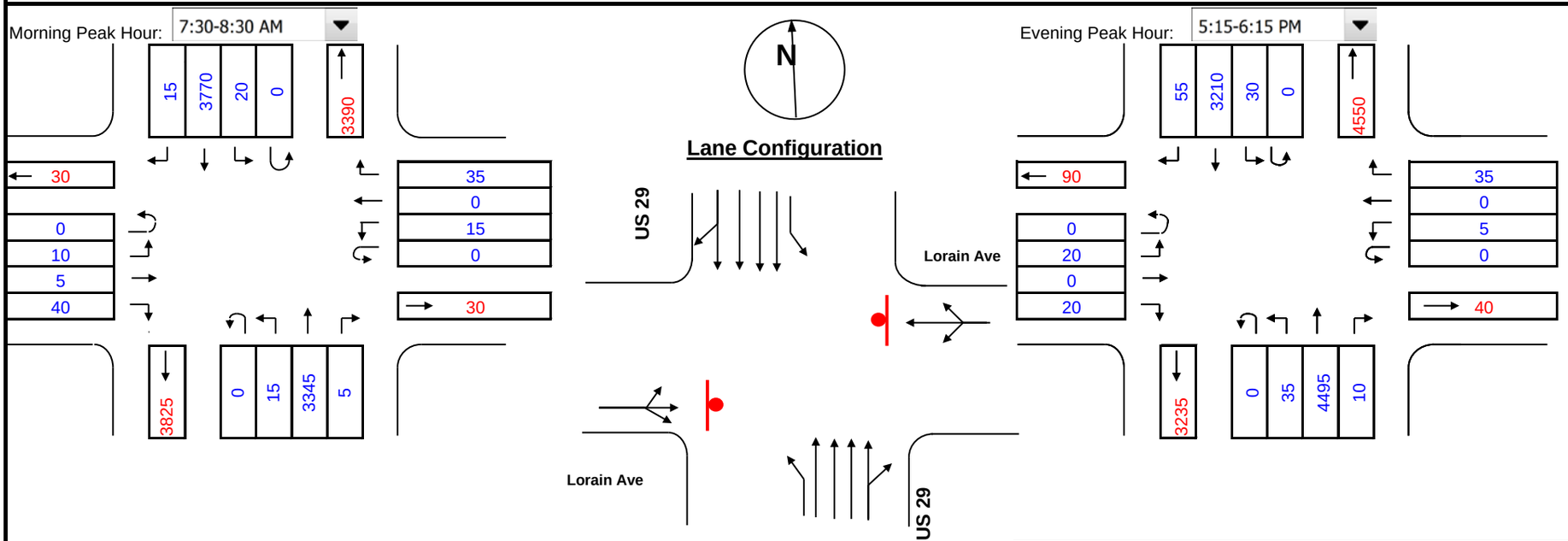
Count Date: 5/28/2015 Location: US 29 at Lorain Ave

Conditions: Future No-Build

Design Year: 2040 Computed by: NB Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:15-6:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.55	B <=	1150	<= 599	2.0
3 =	0.40	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ○ Signal ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	3350	0.30	1005	20	1025	
	SB	3785	0.30	1136	15	1151	*
	EB	56	1.00	56	15	71	*
	WB	52	1.00	52	10	62	

Remarks:

* Critical volume Total **1222**

Level of service (V/C) **0.76** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4505	0.30	1352	30	1382	*
	SB	3265	0.30	980	35	1015	
	EB	42	1.00	42	5	47	
	WB	41	1.00	41	20	61	*

Remarks:

* Critical volume Total **1442**

Level of service (V/C) **0.90** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

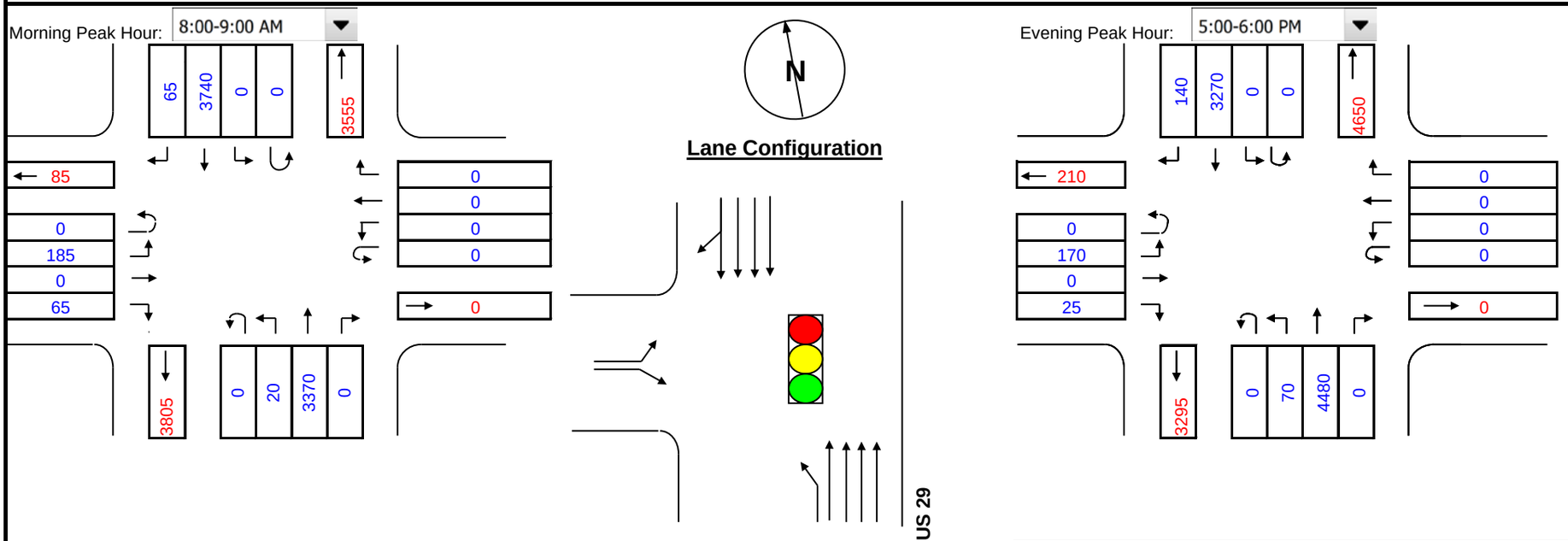
Count Date: 6/24/2014 Location: US 29 at Southwood and Eastwood

Conditions: Future No-Build

Design Year: 2040 Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	3370	0.30	1011	0	1011	
	SB	3805	0.30	1142	20	1162	*
	EB	185	1.00	185	0	185	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1347**

Level of service (V/C) **0.84** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4480	0.30	1344	0	1344	*
	SB	3410	0.30	1023	70	1093	
	EB	170	1.00	170	0	170	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1514**

Level of service (V/C) **0.95** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

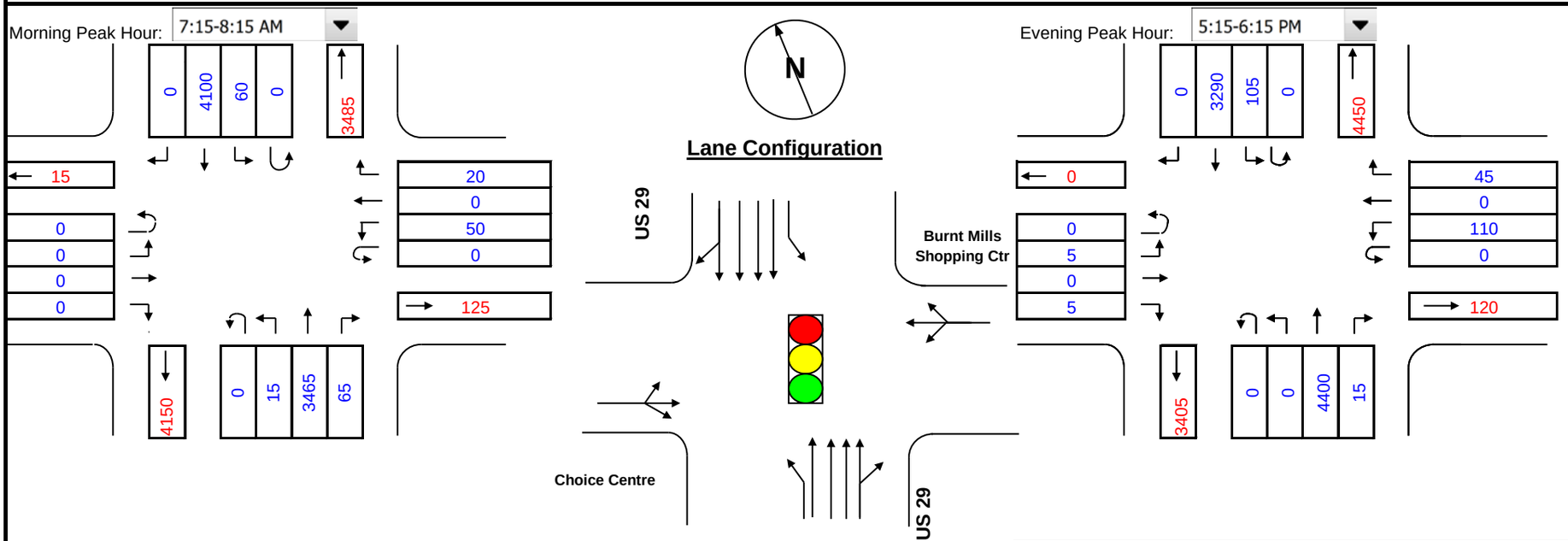
Count Date: 9/16/2014 Location: US 29 at Burnt Mills Shopping Ctr

Conditions: Future No-Build

Design Year: 2040 Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:15-8:15 AM

Evening Peak Hour: 5:15-6:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	3530	0.30	1059	60	1119	
	SB	4100	0.30	1230	15	1245	*
	EB	0	1.00	0	50	50	
	WB	75	1.00	75	0	75	*

Remarks:

* Critical volume Total **1320**

Level of service (V/C) **0.83** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4415	0.30	1325	105	1430	*
	SB	3290	0.30	987	0	987	
	EB	11	1.00	11	110	121	
	WB	166	1.00	166	5	171	*

Remarks:

* Critical volume Total **1601**

Level of service (V/C) **1.00** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

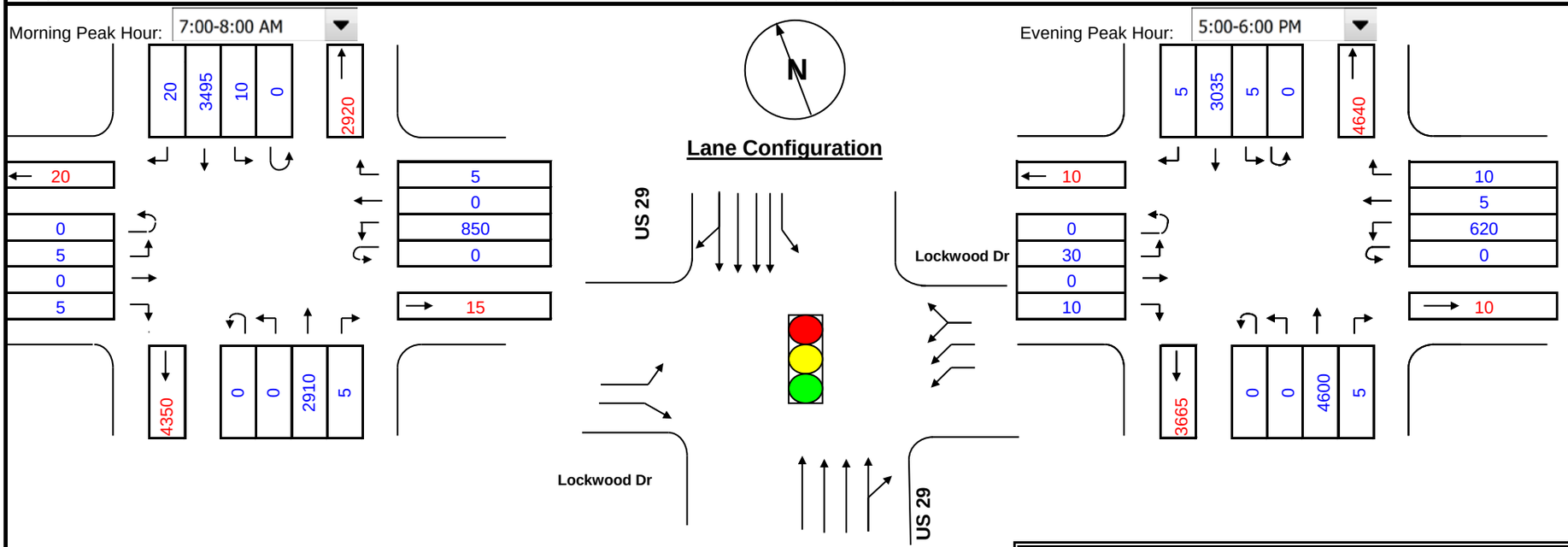
Count Date: 9/16/2014 Location: US 29 at Lockwood

Conditions: Future No-Build

Design Year: 2040 Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☑ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	2915	0.30	875	10	885	
	SB	3515	0.30	1055	0	1055	*
	EB	5	1.00	5	0	5	
	WB	855	0.37	316	5	321	*

Remarks:

* Critical volume Total **1376**

Level of service (V/C) **0.86** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4605	0.30	1382	5	1387	*
	SB	3040	0.30	912	0	912	
	EB	10	1.00	10	0	10	
	WB	635	0.37	235	30	265	*

Remarks:

* Critical volume Total **1651**

Level of service (V/C) **1.03** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: US 29 at Burnt Mills

Conditions: No-Build

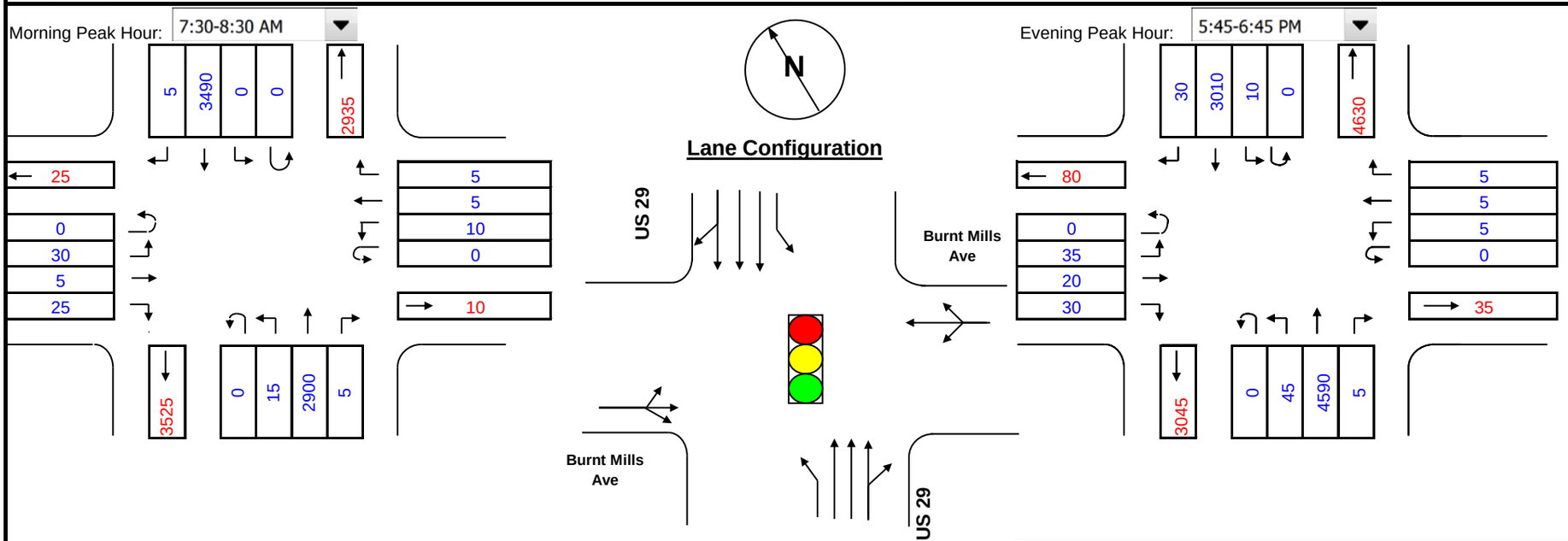
Design Year: 2040

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:45-6:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
Dbl-Lt =	0.60	E <=	1600	> 1000	5.0
		F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	2905	0.37	1075	0	1075	
	SB	3495	0.37	1293	15	1308	*
	EB	63	1.00	63	10	73	*
	WB	21	1.00	21	30	51	

Remarks:

* Critical volume Total **1381**

Level of service (V/C) **0.86** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4595	0.37	1700	10	1710	*
	SB	3040	0.37	1125	45	1170	
	EB	89	1.00	89	5	94	*
	WB	16	1.00	16	35	51	

Remarks:

* Critical volume Total **1804**

Level of service (V/C) **1.13** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

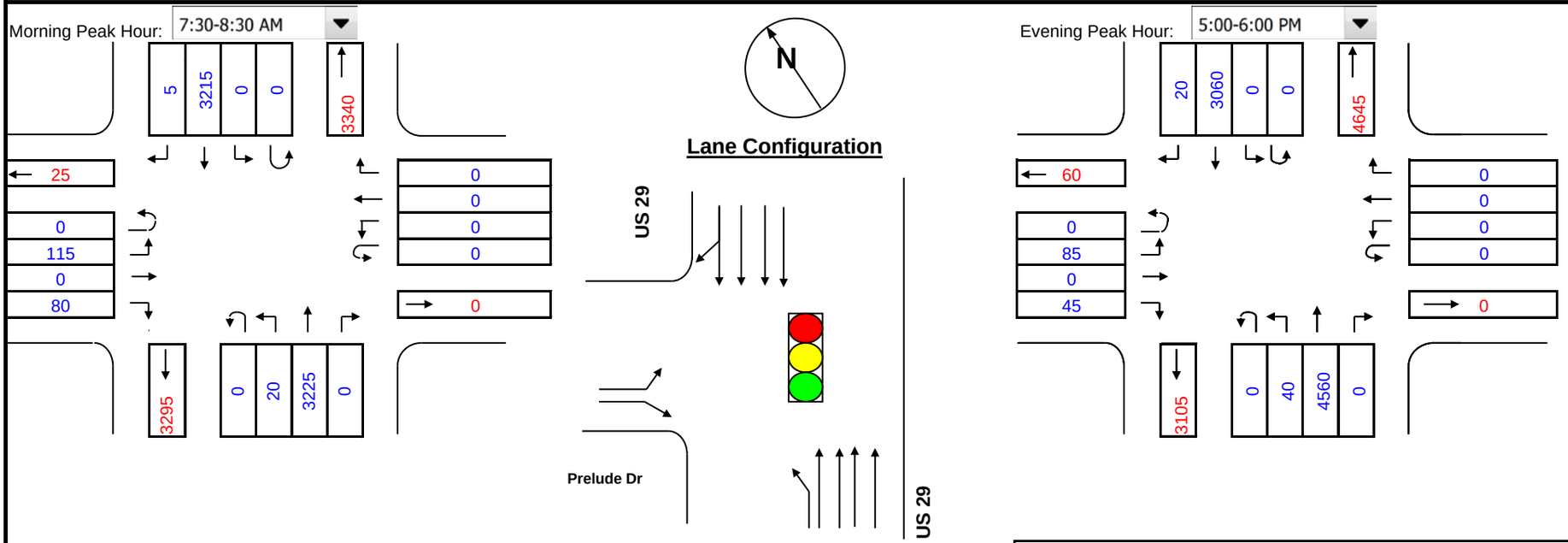
Count Date: 5/20/2015 Location: US 29 at Prelude

Conditions: No-Build

Design Year: 2040 Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	3225	0.30	968	0	968	
	SB	3220	0.30	966	20	986	*
	EB	115	1.00	115	0	115	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1101**

Level of service (V/C) **0.69** **B**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4560	0.30	1368	0	1368	*
	SB	3080	0.30	924	40	964	
	EB	85	1.00	85	0	85	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1453**

Level of service (V/C) **0.91** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

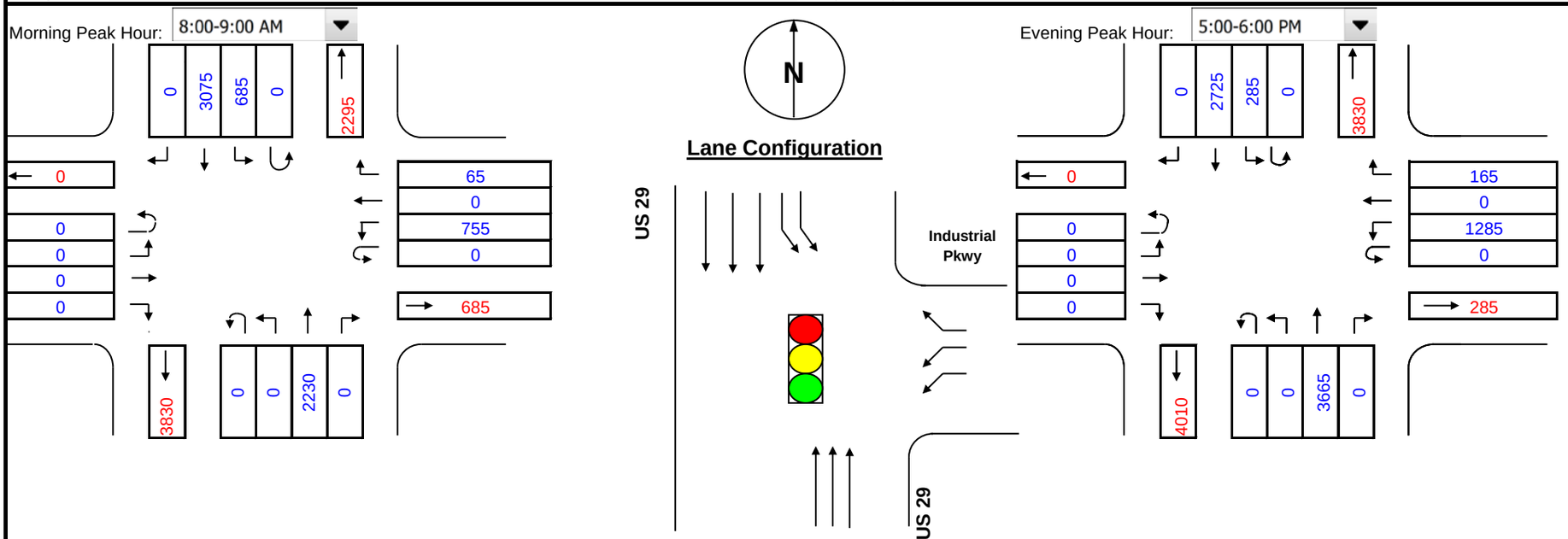
Count Date: 6/27/2012 Location: US 29 at Industrial Road

Conditions: Build

Design Year: 2040 Computed by: JC Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	2230	0.37	825	685	1510	*
	SB	3075	0.37	1138	0	1138	
	EB	0	0.00	0	0	0	
	WB	755	0.60	453	0	453	*

Remarks:

* Critical volume Total **1963**

Level of service (V/C) **1.23** **F**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3665	0.37	1356	285	1641	*
	SB	2725	0.37	1008	0	1008	
	EB	0	0.00	0	0	0	
	WB	1285	0.60	771	0	771	*

Remarks:

* Critical volume Total **2412**

Level of service (V/C) **1.51** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

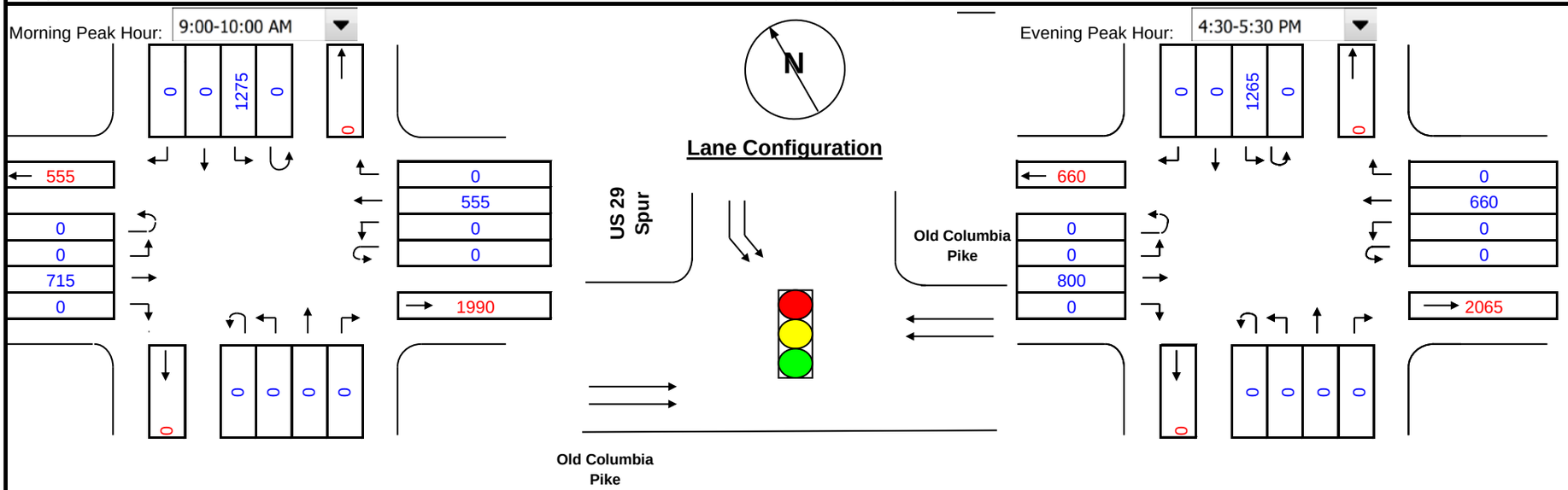
Count Date: 5/14/2015 Location: Us 29 Spur at Old Columbia Pike

Conditions: Build

Design Year: 2040 Computed by: JC Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 4:30-5:30 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	0	1.00	0	0	0	
	SB	1275	0.53	676	0	676	*
	EB	715	0.53	379	0	379	*
	WB	555	0.53	294	0	294	

Remarks:

* Critical volume Total **1055**

Level of service (V/C) **0.66** **B**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	0	1.00	0	0	0	
	SB	1265	0.53	670	0	670	*
	EB	800	0.53	424	0	424	*
	WB	660	0.53	350	0	350	

Remarks:

* Critical volume Total **1094**

Level of service (V/C) **0.68** **B**

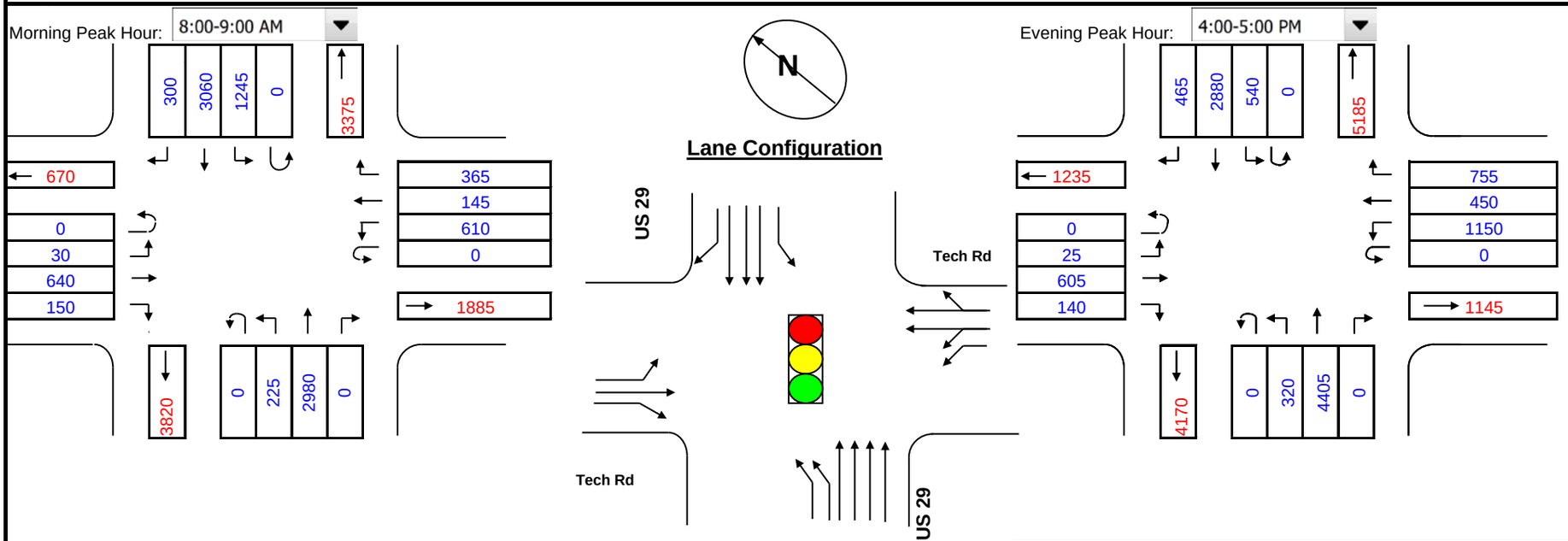
Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date: 5/6/2014 Location: US 29 at Tech Road
Conditions: Improved
Design Year: ### Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 4:00-5:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: [✓] Northbound [✓] Southbound [✓] Eastbound [ ] Westbound

Split Phasing: (●) East/West ( ) North/South ( ) None

Inx. Control: (●) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	2980	0.30	894	1245	2139	*
	SB	3060	0.37	1132	135	1267	
	EB	640	1.00	640	0	640	*
	WB	1120	0.37	414	0	414	*

Remarks:

* Critical volume Total **3193**

Level of service (V/C) **2.00** **F**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4405	0.30	1322	540	1862	*
	SB	2880	0.37	1066	192	1258	
	EB	605	1.00	605	0	605	*
	WB	2355	0.37	871	0	871	*

Remarks:

* Critical volume Total **3338**

Level of service (V/C) **2.09** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

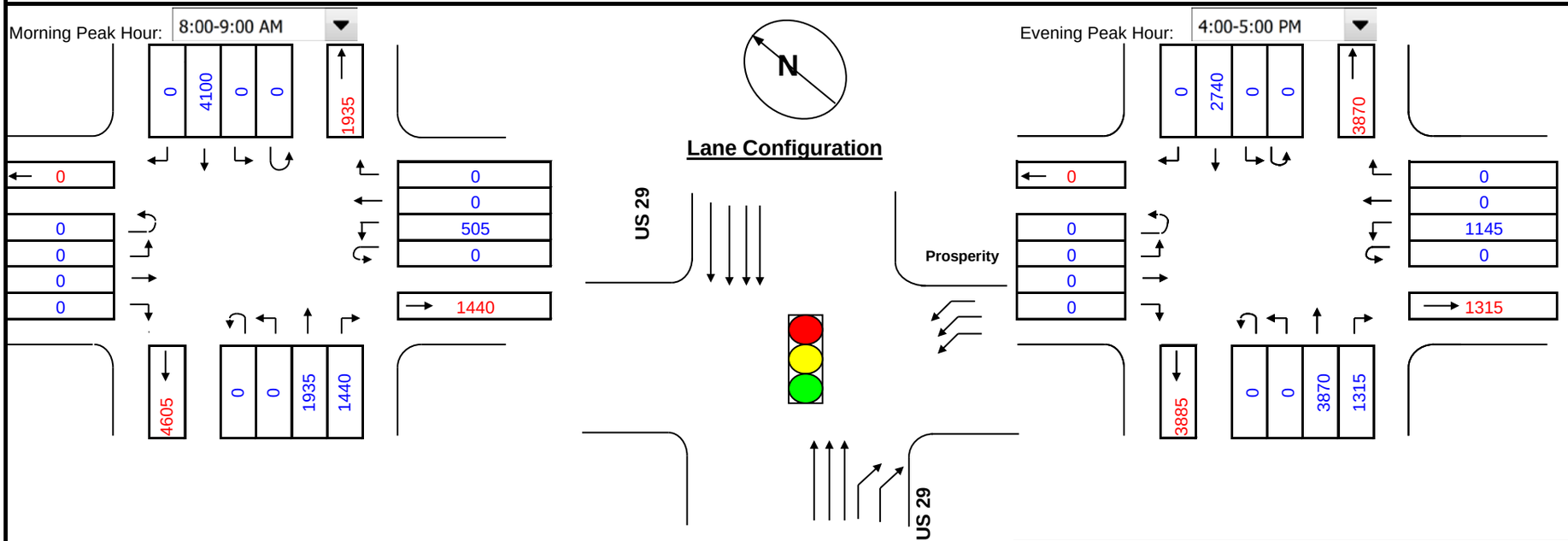
Count Date: 5/6/2014 Location: US 29 at Prosperity (Proposed)

Conditions: Improved

Design Year: ### Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 4:00-5:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☑ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1935	0.37	716	0	716	
	SB	4100	0.30	1230	0	1230	*
	EB	0	1.00	0	0	0	
	WB	505	0.37	187	0	187	*

Remarks:

* Critical volume Total **1417**

Level of service (V/C) **0.89** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3870	0.37	1432	0	1432	*
	SB	2740	0.30	822	0	822	
	EB	0	1.00	0	0	0	
	WB	1145	0.37	424	0	424	*

Remarks:

* Critical volume Total **1856**

Level of service (V/C) **1.16** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

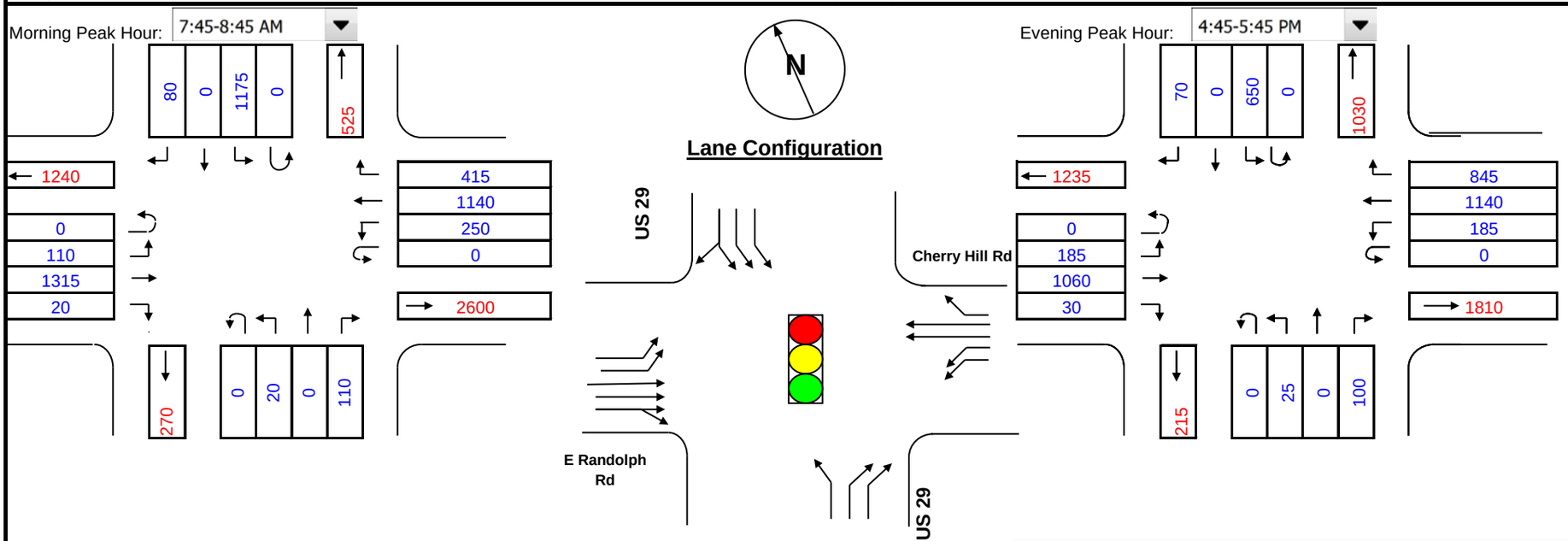
Count Date: 5/27/2015 Location: Randolph at Cherry Hill and US 29 Ramps

Conditions: Build

Design Year: 2040 Computed by: Date 5/25/2016

Morning Peak Hour: 7:45-8:45 AM

Evening Peak Hour: 4:45-5:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- [x] Northbound
- [ ] Southbound
- [ ] Eastbound
- [x] Westbound

Split Phasing
- ( ) East/West
- (•) North/South
- ( ) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	20	1.00	20	0	20	*
	SB	1255	0.37	464	0	464	*
	EB	1335	0.37	494	150	644	
	WB	1140	0.53	604	66	670	*

Remarks:

* Critical volume Total **1155**

Level of service (V/C) **0.72** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	25	1.00	25	0	25	*
	SB	720	0.37	266	0	266	*
	EB	1090	0.37	403	111	514	
	WB	1140	0.53	604	111	715	*

Remarks:

* Critical volume Total **1007**

Level of service (V/C) **0.63** **B**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Old Columbia Pike at Fairland Rd

Conditions: Build

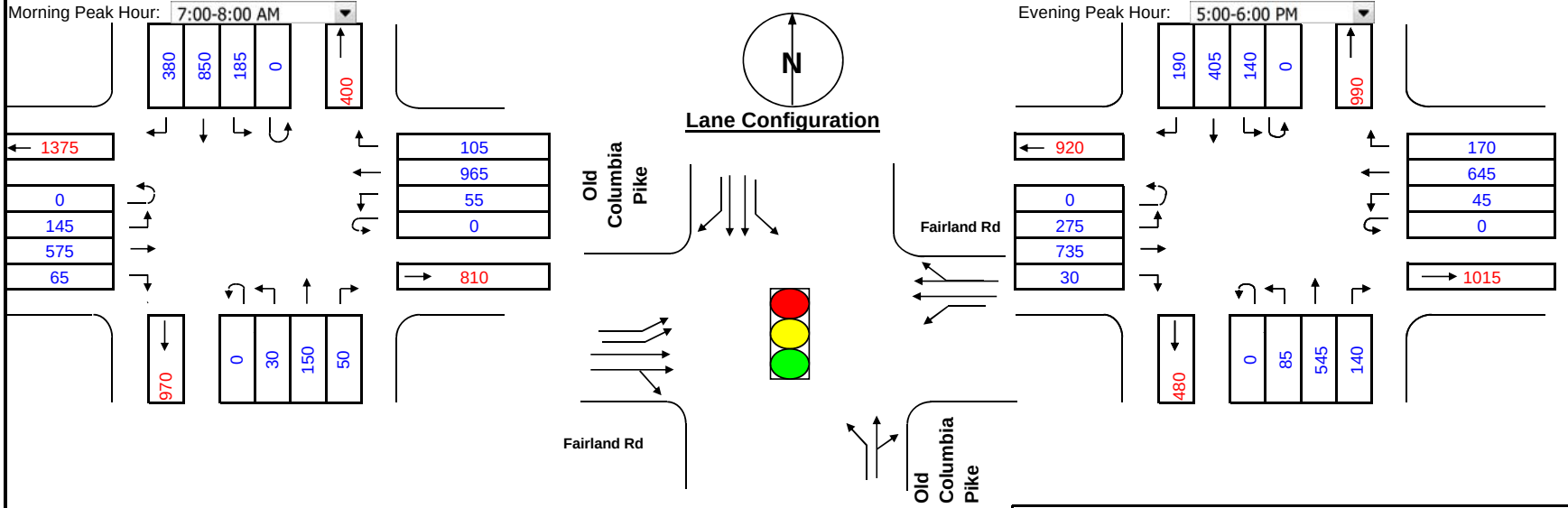
Design Year: 2040

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: [ ] Northbound [x] Southbound [ ] Eastbound [ ] Westbound

Split Phasing: ( ) East/West ( ) North/South (•) None

Inx. Control: (•) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	200	1.00	200	185	385			NB	685	1.00	685	140	825	*
	SB	850	0.53	451	30	481	*		SB	405	0.53	215	85	300	
	EB	640	0.53	339	55	394			EB	765	0.53	405	45	450	
	WB	1070	0.53	567	87	654	*		WB	815	0.53	432	165	597	*

Remarks:

* Critical volume Total **1135**

Level of service (V/C) **0.71** **B**

Remarks:

* Critical volume Total **1422**

Level of service (V/C) **0.89** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

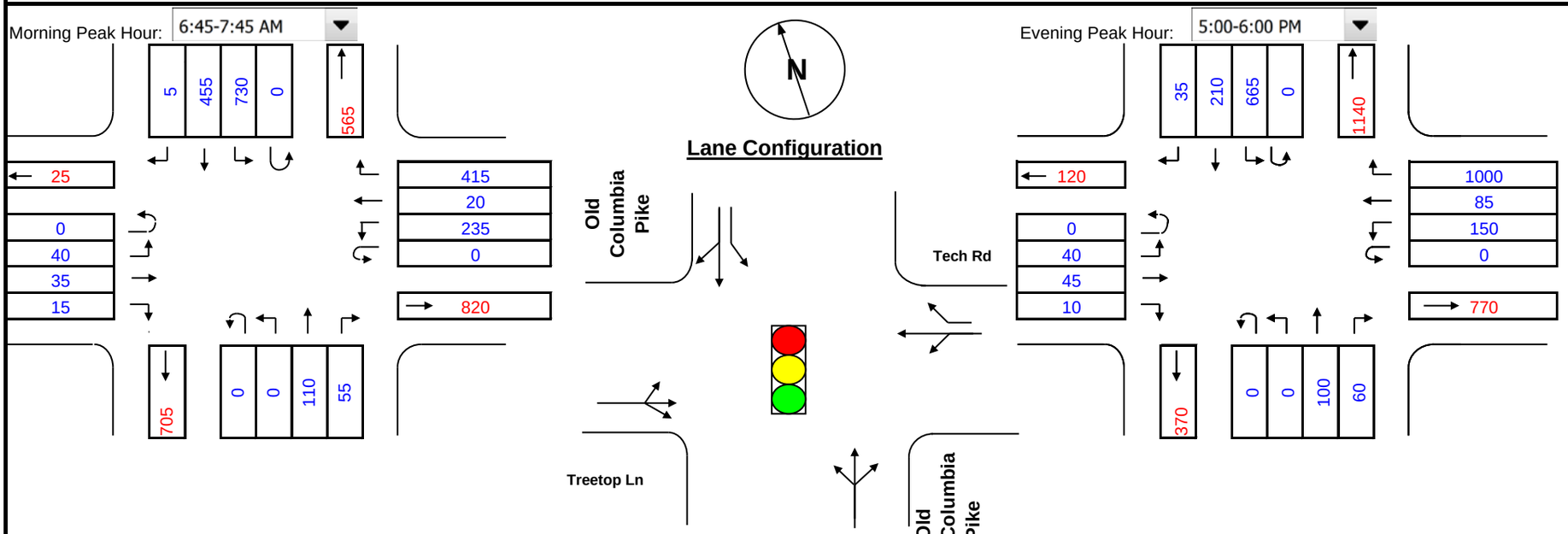
Count Date: 5/14/2015 Location: Old Columbia Pike at Tech Rd

Conditions: Build

Design Year: 2040 Computed by: RS Date 5/25/2016

Morning Peak Hour: 6:45-7:45 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound

Split Phasing: ◉ East/West ○ North/South ○ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	165	1.00	165	730	895	*
	SB	460	1.00	460	0	460	
	EB	130	1.00	130	0	130	*
	WB	279	1.00	279	0	279	*

Remarks:

* Critical volume Total **1304**

Level of service (V/C) **0.81** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	160	1.00	160	665	825	*
	SB	245	1.00	245	0	245	
	EB	135	1.00	135	0	135	*
	WB	250	1.00	250	0	250	*

Remarks:

* Critical volume Total **1210**

Level of service (V/C) **0.76** **C**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

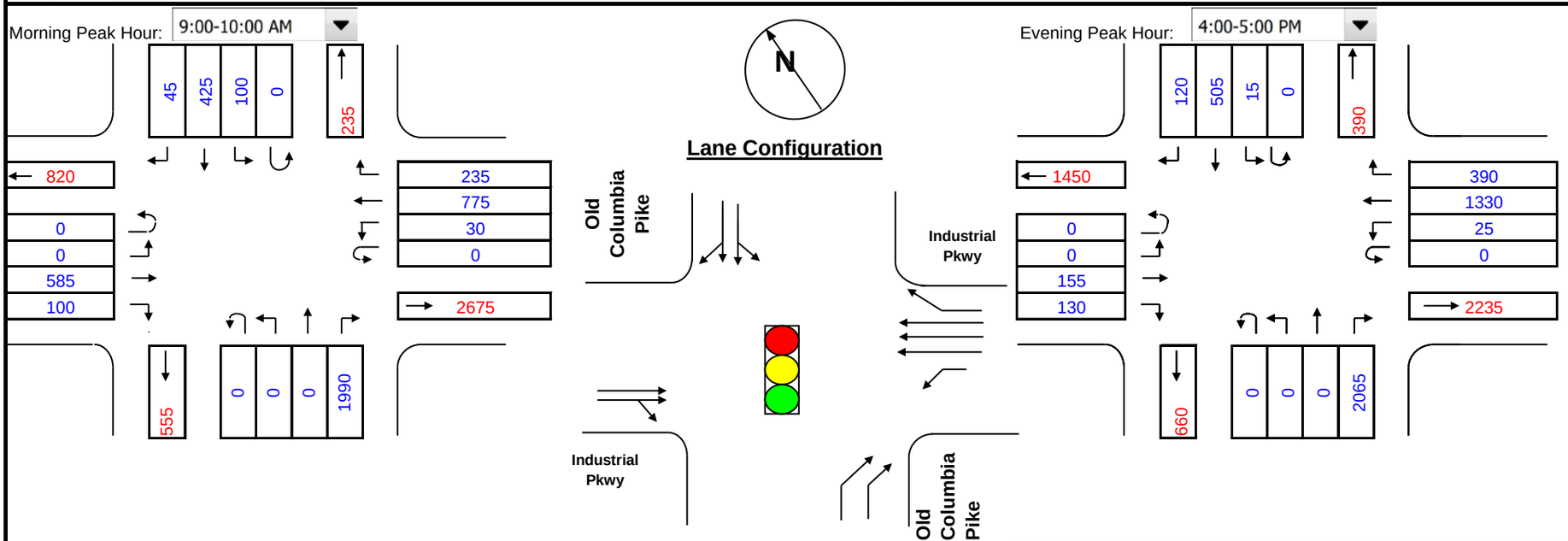
Count Date: 5/12/2015 Location: Old Columbia Pike at Industrial

Conditions: Build

Design Year: 2040 Computed by: JC Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 4:00-5:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: [x] Northbound [ ] Southbound [x] Eastbound [ ] Westbound

Split Phasing: ( ) East/West ( ) North/South (•) None

Inx. Control: (•) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1960	0.53	1039	100	1139	*
	SB	970	0.53	514	0	514	
	EB	685	0.53	363	30	393	*
	WB	775	0.37	287	0	287	

Remarks:

* Critical volume Total **1532**

Level of service (V/C) **0.96** **E**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2040	0.53	1081	15	1096	*
	SB	700	0.53	371	0	371	
	EB	285	0.53	151	25	176	
	WB	1330	0.37	492	0	492	*

Remarks: —

* Critical volume Total **1588**

Level of service (V/C) **0.99** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Old Columbia Pike at Randolph

Conditions: Build

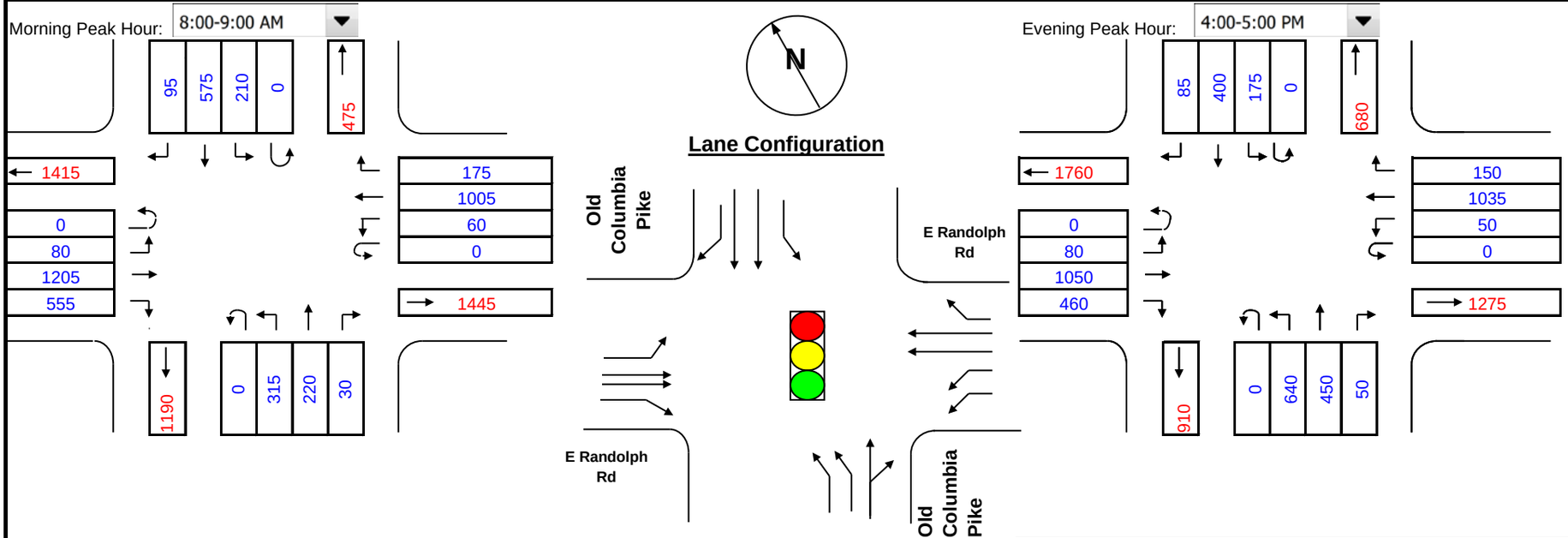
Design Year: 2040

Computed by: RS

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 4:00-5:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☑ Southbound
- ☑ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	250	1.00	250	210	460	
	SB	575	0.53	305	189	494	*
	EB	1205	0.53	639	36	675	*
	WB	1005	0.53	533	80	613	

Remarks:

* Critical volume Total **1168**

Level of service (V/C) **0.73** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	500	1.00	500	175	675	*
	SB	400	0.53	212	384	596	
	EB	1050	0.53	557	30	587	
	WB	1035	0.53	549	80	629	*

Remarks:

* Critical volume Total **1304**

Level of service (V/C) **0.81** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Cherry Hill Rd at Broadbirch/Calverton

Conditions: Build

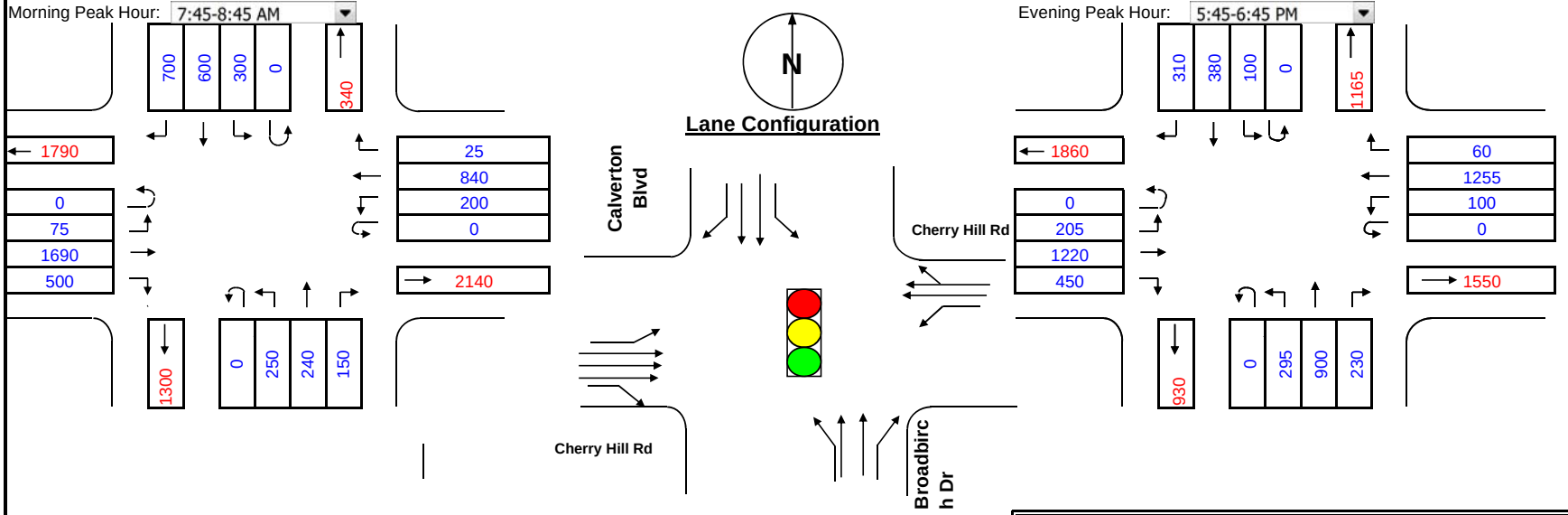
Design Year: 2040

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:45-8:45 AM

Evening Peak Hour: 5:45-6:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☑ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	240	0.53	127	300	427			NB	900	0.53	477	100	577	*
	SB	600	0.53	318	250	568	*		SB	380	0.53	201	295	496	
	EB	1690	0.37	625	200	825	*		EB	1220	0.37	451	100	551	
	WB	865	0.53	458	75	533			WB	1315	0.53	697	205	902	*
Remarks:			* Critical volume		Total	1393		Remarks:			* Critical volume		Total	1479	
					Level of service (V/C)	0.87	D						Level of service (V/C)	0.92	E

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

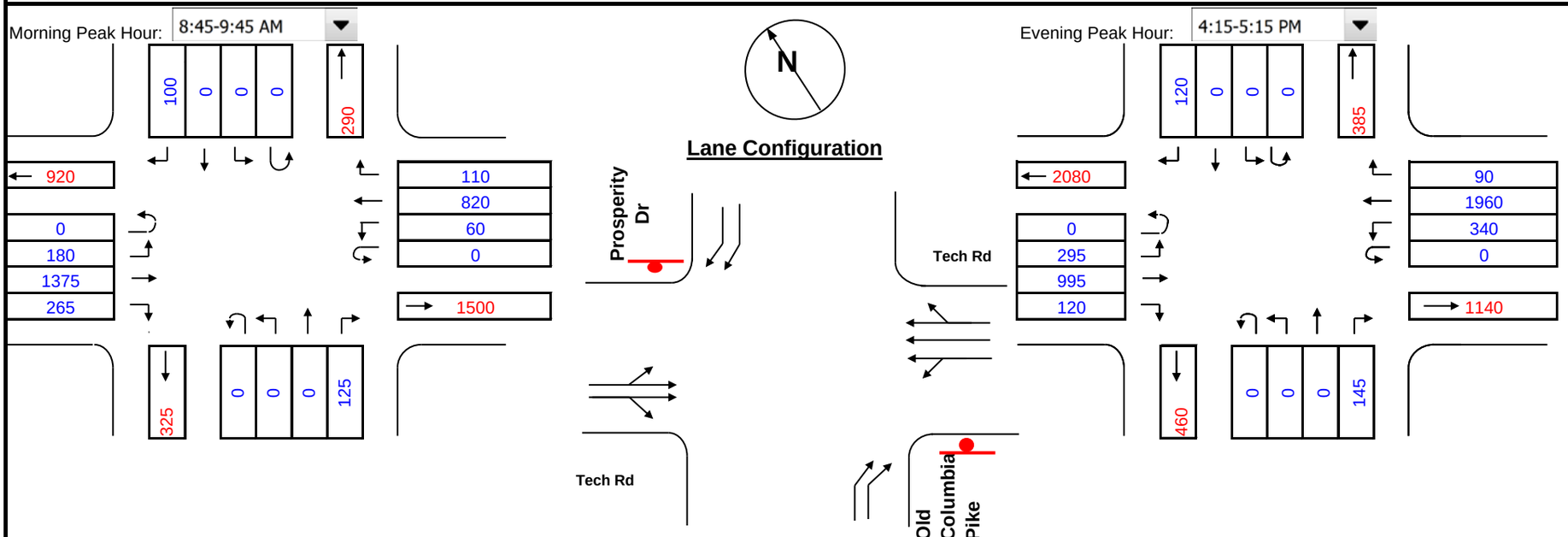
Count Date: 5/14/2015 Location: Tech Road at Prosperity

Conditions: Build

Design Year: 2040 Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:45-9:45 AM

Evening Peak Hour: 4:15-5:15 PM



Prosperity Dr

Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ○ Signal
- ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	125	0.53	66	0	66	*
	SB	100	0.53	53	0	53	
	EB	2360	0.53	1251	60	1311	*
	WB	1230	0.37	455	180	635	

Remarks:

* Critical volume Total **1377**

Level of service (V/C) **0.86** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	145	0.53	77	0	77	*
	SB	120	0.53	64	0	64	
	EB	2590	0.53	1373	340	1713	*
	WB	3750	0.37	1388	295	1683	

Remarks:

* Critical volume Total **1790**

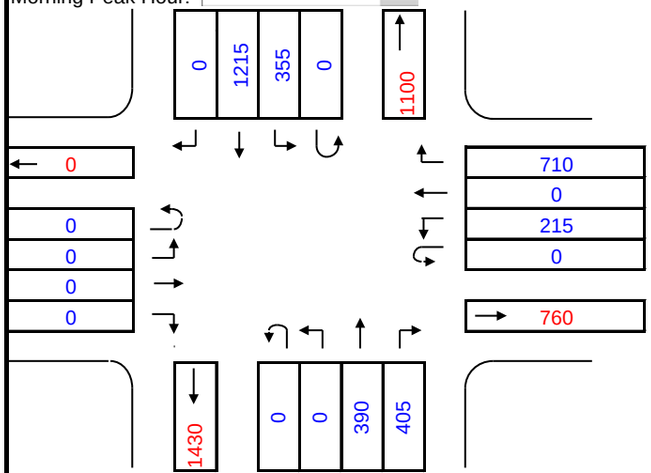
Level of service (V/C) **1.12** **F**

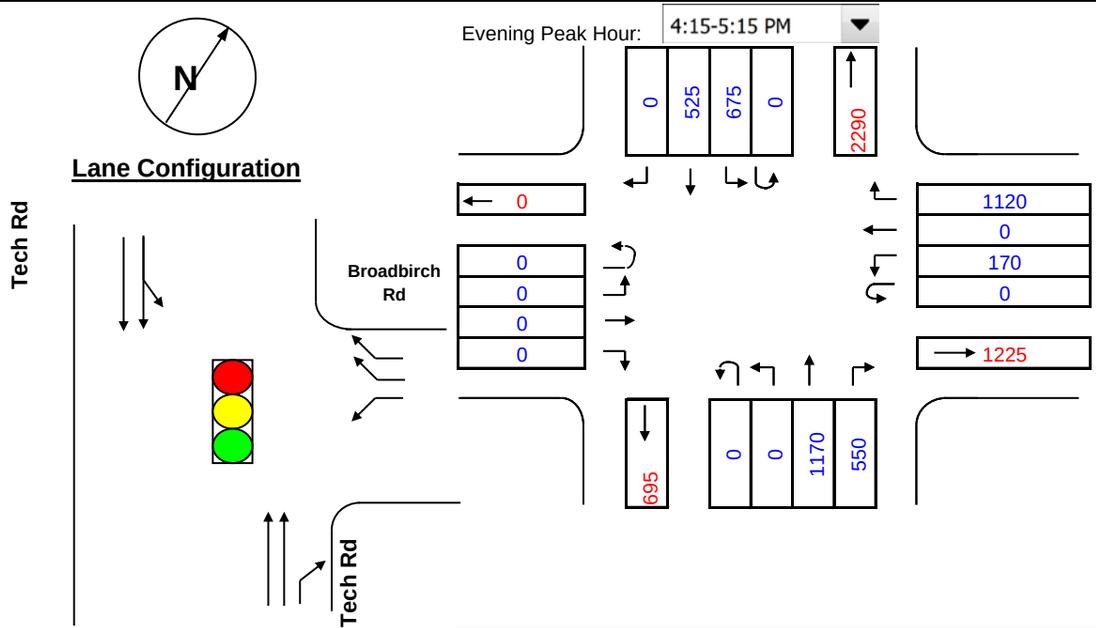
Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date: 5/14/2015 Location: Tech Road at Broadbirch
Conditions: Build
Design Year: 2040 Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:30-9:30AM





Evening Peak Hour: 4:15-5:15 PM

Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ○ Signal
- ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	390	0.53	207	355	562	
	SB	2280	0.53	1208	0	1208	*
	EB	0	0.00	0	0	0	
	WB	355	1.00	355	0	355	*

Remarks:

* Critical volume Total **1563**
Level of service (V/C) **0.98** **E**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	1170	0.53	620	675	1295	
	SB	3900	0.53	2067	0	2067	*
	EB	0	0.00	0	0	0	
	WB	445	1.00	445	0	445	*

Remarks:

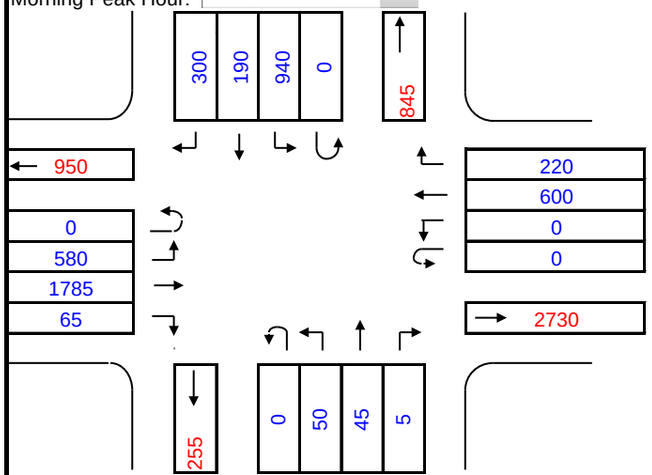
* Critical volume Total **2512**
Level of service (V/C) **1.57** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

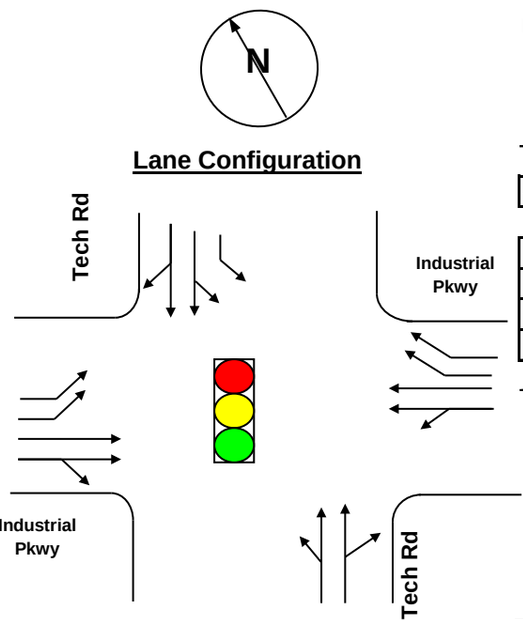
Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date: 5/14/2015 Location: Tech Road at Industrial Pkwy
Conditions: Build
Design Year: 2040 Computed by: RS Date 5/25/2016

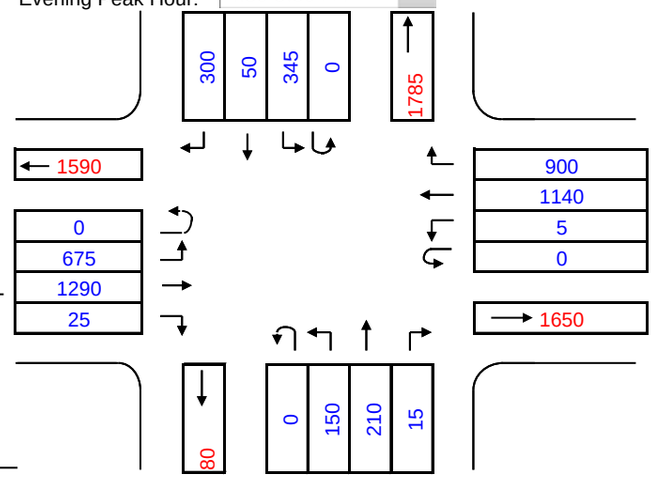
Morning Peak Hour: 9:00-10:00 AM



Lane Configuration



Evening Peak Hour: 4:30-5:30 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ◉ North/South ○ None

Inx. Control: ○ Signal ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	150	0.53	80	0	80	*
	SB	1524	0.37	564	0	564	*
	EB	1850	0.53	981	0	981	*
	WB	600	0.53	318	580	898	

Remarks:

* Critical volume Total **1624**
Level of service (V/C) **1.01** **F**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	525	0.53	278	0	278	*
	SB	1040	0.37	385	0	385	*
	EB	1315	0.53	697	5	702	
	WB	1165	0.53	617	675	1292	*

Remarks:

* Critical volume Total **1956**
Level of service (V/C) **1.22** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

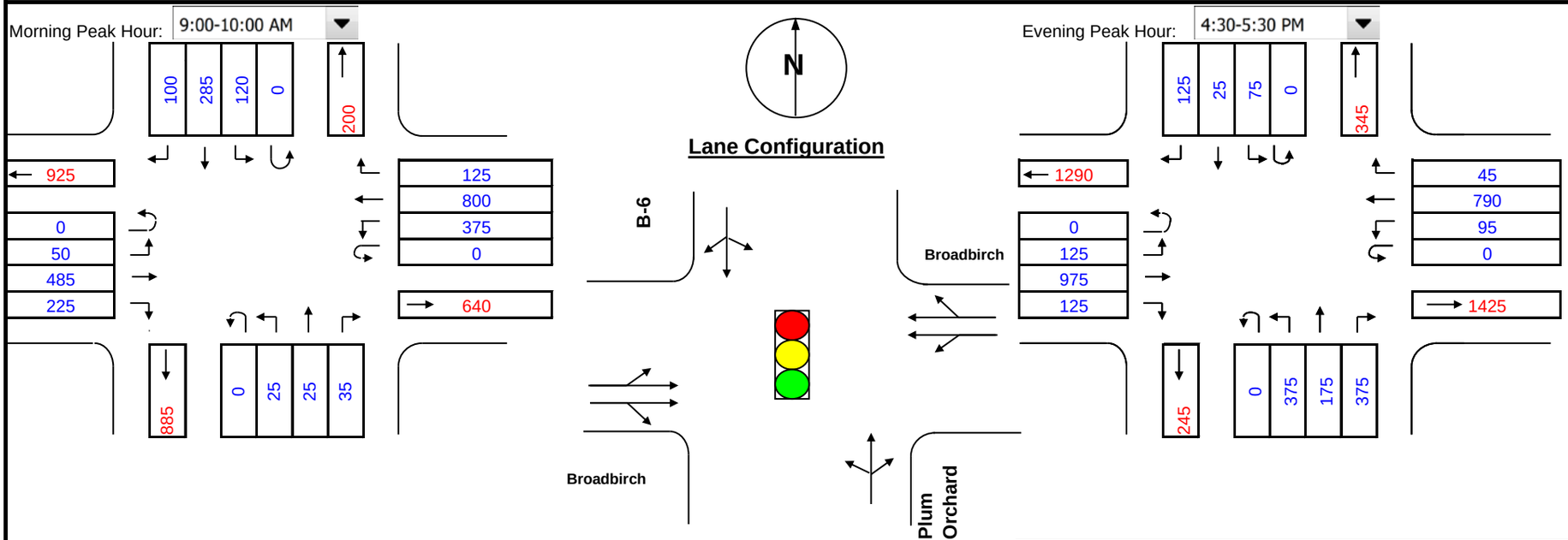
Count Date: 5/14/2015 Location: Plum Orchard at Broadbirch

Conditions: Build

Design Year: 2040 Computed by: JC Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 4:30-5:30 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	110	0.53	58	120	178	
	SB	517	0.53	274	25	299	*
	EB	910	0.53	482	375	857	
	WB	2050	0.53	1087	50	1137	*

Remarks:

* Critical volume Total **1436**

Level of service (V/C) **0.90** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	963	0.53	510	75	585	*
	SB	300	0.53	159	375	534	
	EB	1600	0.53	848	95	943	*
	WB	1310	0.53	694	125	819	

Remarks:

* Critical volume Total **1528**

Level of service (V/C) **0.96** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

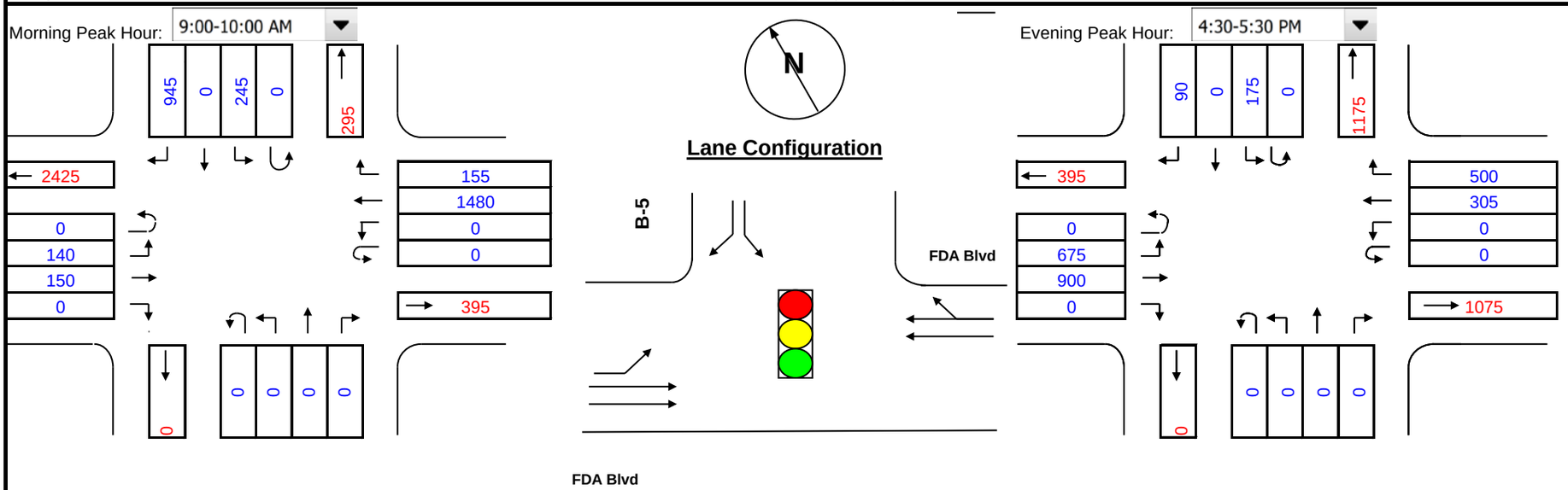
Count Date: 5/14/2015 Location: FDA Blvd at B-5

Conditions: Build

Design Year: 2040 Computed by: JC Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 4:30-5:30 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	0	1.00	0	0	0	
	SB	805	1.00	805	0	805	*
	EB	150	0.53	80	0	80	
	WB	1635	0.53	867	140	1007	*

Remarks:

* Critical volume Total **1812**

Level of service (V/C) **1.13** **F**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	0	1.00	0	0	0	
	SB	175	1.00	175	0	175	*
	EB	900	0.53	477	0	477	
	WB	805	0.53	427	675	1102	*

Remarks:

* Critical volume Total **1277**

Level of service (V/C) **0.80** **C**