Signal Timing at Signalized Intersections

MD 99 at Marriotsville Rd

SIGNAL NUMBER: 13 0099 02.87 **LOCATION:** MD 99 @ MARRIOTSVILLE ROAD
COUNTY: Howard **DEVELOPED BY:** F.B. **DATE INSTALLED:** 11/15/12

RDM INFORM	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
ROAD NAME:	Marriotsville	Marriotsville	MD 99	MD 99	Marriotsville	Marriotsville	MD 99	MD 99				
DIRECTION:	N/B	S/B	W/B	E/B	S/B	N/B	E/B	W/B				
MOVEMENT:	LEFT-TURN	THRU	LEFT-TURN	ALL	LEFT-TURN	THRU	LEFT-TURN	ALL				
INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
MIN GREEN	5	25	5	8	5	25	5	8				
BIKE GRN												
CS GREEN												
WALK												
PED CLEAR												
VEH EXT	3.0	5.0	3.0	3.0	3.0	5.0	3.0	3.0				
VEH EXT 2												
DYM. MAX EXTEND		25		10		25		10				
MAX 1	10	45	15	30	15	45	15	30				
MAX II	20	60	25	45	10	60	25	45				
MAX III		100		55		100		55				
DYM. MAX		150				150						
YELLOW	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
RED CLEAR	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0				
RED RVT												
ACT B4												
SEC/ACT												
MAX INI												
TIME B4												
CARS WT												
TTREDUC												
MIN GAP												

MD 99 at Marriotsville Rd

CONFIGURATION SUBMENU

1. CONTROLLER SEQUENCE

PRIORITY		1	2	3	4	5	6	7	8	9	10	11	12
RING 1		1	2	3	4	9	10						
RING 2		5	6	7	8	11	12						
CG			∧		∧		∧						

2. PHASES IN USE

	PHASE NUMBER											
	1	2	3	4	5	6	7	8	9	10	11	12
PHASES IN USE	X	X	X	X	X	X	X	X				
EXCLUSIVE PED												

3. PHASE TO LOAD SWITCH -MMU- ASSIGNMENT

LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH/OLAP	PED	LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH/OLAP	PED
1	1		9		
2	2		10		
3	3		11		
4	4		12		
5	5		13		
6	6		14		
7	7		15		
8	8		16		

4. SDLC OPTIONS - ENABLES

	BIU NUMBER							
	1	2	3	4	5	6	7	8
TERM & FACIL								
DETECTOR	X	X						
TYPE 2 RUNS AS TYPE 1								
MMU DISABLE								
DIAGNOSTIC ENABLE TEST FIXTURE								
PEER TO PEER ENABLE								

PEER TO PEER ADDRESS				
1:	2:	3:	4:	5:
			9:	10:

6. Port 3

		Telemetry
Port 3 Protocol		NO
Port 3 Enable		
Telemetry Address		
System Detector 9 - 16 Address		
Telemetry Response Delay		
		Full
Duplex		
Modem Data Rate		1200
Data, Parity, Stop		8, 0, 1

7. ENABLE EVENT LOGS

CRITICAL RFE'S DET-TEST	
NON-CRITICAL RFE'S DET-TEST	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	X
PREEMPT	
POWER ON-OFF	X
LOW BATTERY	X
SPARE	X
ALARM 1	X
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	

CONTROLLER RECALL DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCKING MEMORY												
VEHICLE RECALL		X				X						
PED RECALL												
RECALL TO MAX												
SOFT RECALL												
DON'T REST HERE												
PED DARK N/CALL												

DELAYS:

7. NO SERVE PHASES

PHASE		CANNOT SERVE WITH :										
	12	11	10	9	8	7	6	5	4	3	2	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												

8. DIMMING

LOAD SWITCH	1	2	3	4	5	6	7	8
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								
LOAD SWITCH	9	10	11	12	13	14	15	16
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								

6. CONTROLLER START/FLASH DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
POWER START		X				X						
EXTERNAL START		X				X						
ENTRY REM FLASH		X				X						
EXIT REM FLASH		X				X						
REM FLASH YELLOW												
FL TOGETHER PHS												
FL TOGETHER OVLPS	A:			B:			C:			D:		

POWER START	Green
EXTERNAL START	Green
POWER START ALL RED TIME	0
POWER START FLASH TIME	8 Seconds

REMOTE FLASH OPTIONS
OUT OF FLASH YELLOW
OUT OF FLASH ALL RED
MINIMUM RECALL
USE ALTERNATE FLASH
FLASH THRU LOAD SWITCHES
CYCLE THROUGH PHASES
YELLOW FLASH MAIN STREET

9. CONTROLLER OPTION DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
GUAR PASSAGE												
NONACTUATED I	X					X						
NONACTUATED II												
DUAL ENTRY												
COND SERVICE												
COND RESERVICE												
ACT REST IN WALK												
FLASHING WALK												

FIVE SECTION LEFT TURN HEADS

5-2		7-4		1-6	
3-8		11-10		9-12	
DUAL ENTRY			ON	RESERVED	
COND SERVICE ENABLE				BACKUP PROTECTION GRP 1	ON
COND SERVICE DET X SWITCHING				BACKUP PROTECTION GRP 2	OFF
PED CLR PROTECT				BACKUP PROTECTION GRP 3	
SPEC PREEMPT OVLP FLASH				SIMULTANEOUS GAP GRP 1	ON
LOCK DETECTORS IN RED ONLY		X		SIMULTANEOUS GAP GRP 2	OFF
RESERVED				SIMULTANEOUS GAP GRP 3	OFF

MD 99 at Marriotsville Rd

1. NIC/TOD SUBMENU

DATE SET:	
TIME SET:	
MANUAL NIC PROGRAM STEP	
MANUAL TOD PROGRAM STEP	
SYNC REFERENCE TIME	05:15
SYNC REFERENCE	REFERENCE TIME
WEEK 1 BEGINS ON 1st SUNDAY	
DISABLE DAYLIGHT SAVINGS	
DST BEGINS LAST SUNDAY	

2. NIC/TOD WEEKLY PROGRAMS

WEEK	SUN	MON	TUE	WED	THU	FRI	SAT
1	1	2	2	2	2	2	1
2							
3							
4							
5							
6							
7							
8							
9							
10							

3. NIC/TOD YEARLY PROGRAMS

WEEK OF YEAR	1	2	3	4	5	6	7	8
WEEKLY PROGRAM	1							1
WEEK OF YEAR	9	10	11	12	13	14	15	16
WEEKLY PROGRAM	1							1
WEEK OF YEAR	17	18	19	20	21	22	23	24
WEEKLY PROGRAM	1							1
WEEK OF YEAR	25	26	27	28	29	30	31	32
WEEKLY PROGRAM	1							1
WEEK OF YEAR	33	34	35	36	37	38	39	40
WEEKLY PROGRAM	1							1
WEEK OF YEAR	41	42	43	44	45	46	47	48
WEEKLY PROGRAM	1							1
WEEK OF YEAR	49	50	51	52	53			
WEEKLY PROGRAM	1				1			

4. NIC/TOD HOLIDAY PROGRAM

HOLIDAY	FLOAT/FIXED	MON/MON	DOW/DOW	DOW/YEAR	PROG
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

5. NIC PROGRAM STEP

STEP	PGM	TIME	PATTERN	OVERRIDE
1	1	0000	6	-99
2	2	0000	99	
3	2	0630	97	
4	2	0900	99	
5	2	1500	98	
6	2	1830	99	
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Handwritten notes:

98-FREE
MAX 2
1,3,4,5,7,8
MAX x 3
2,6

99-FREE

97-FREE
MAX 2
3,4,5,7,8
MAX 3
2,6

MD 99 at Woodstock Rd

SIGNAL NUMBER: 13009903.72   LOCATION: MD 99 e Woodstock Rd
COUNTY: Howard   DEVELOPED BY: Dist 7   DATE INSTALLED: 4-6-06

RDM INFORM	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
ROAD NAME:		MD 99		Woodstock Rd		MD 99						
DIRECTION:		W/B		S/B		E/B						
MOVEMENT:		Thru		All		Thru						

INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
MIN GREEN		20		8		20						
BIKE GRN												
CS GREEN												
WALK												
PED CLEAR												
VEH EXT		6.0		3.0		6.0						
VEH EXT 2												
MAX EXT		15		10		15						
MAX 1		60		60		60						
MAX II		60		60		60						
MAX III		75				75						
DET MAX												
YELLOW		5.0 4.0		4.0		5.0 4.0						
RED CLEAR		2.0		2.0		2.0						
RED RVT												
ACT B4												
SEC/ACT												
MAX INI												
TIME B4												
CARS WT												
TTREDUC												
MIN GAP												

MD 99 at Woodstock Rd

CONFIGURATION SUBMENU

1. CONTROLLER SEQUENCE

PRIORITY		1	2	3	4	5	6	7	8	9	10	11	12
RING 1		1	2	3	4	9	11						
RING 2		5	6	7	8	10	12						
CG			△		△		△						

2. PHASES IN USE

	PHASE NUMBER											
	1	2	3	4	5	6	7	8	9	10	11	12
PHASES IN USE		X		X		X						
EXCLUSIVE PED												

3. PHASE TO LOAD SWITCH -MMU- ASSIGNMENT

LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH/OLAP	PED	LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH/OLAP	PED
1	0		9		
2	2		10		
3	0		11		
4	4		12		
5	0		13		
6	6		14		
7	0		15		
8	0		16		

4. SDLC OPTIONS - ENABLES

	BIU NUMBER							
	1	2	3	4	5	6	7	8
TERM & FACIL								
DETECTOR	X	X						
TYPE 2 RUNS AS TYPE 1								
MMU DISABLE								
DIAGNOSTIC ENABLE TEST FIXTURE								
PEER TO PEER ENABLE								

PEER TO PEER ADDRESS:

1:	2:	3:	4:	5:
6:	7:	8:	9:	10:

6. Port 3

	Telemetry
Port 3 Protocol	
Port 3 Enable	
Telemetry Address	
System Detector 9 - 16 Address	
Telemetry Response Delay	

Duplex	Full
Modem Data Rate	1200
Data, Parity, Stop	8, 0, 1

7. ENABLE EVENT LOGS

CRITICAL RFE'S DET-TEST	
NON-CRITICAL RFE'S DET-TEST	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	X
PREEMPT	
POWER ON-OFF	X
LOW BATTERY	X
SPARE	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	

MD 99 at Woodstock Rd

CONTROLLER RECALL DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCKING MEMORY												
VEHICLE RECALL		X				X						
PED RECALL												
RECALL TO MAX												
SOFT RECALL												
DON'T REST HERE												
PED DARK N/CALL												

DELAYS:

6. CONTROLLER START/FLASH DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
POWER START		X				X						
EXTERNAL START		X				X						
ENTRY REM FLASH		X				X						
EXIT REM FLASH		X				X						
REM FLASH YELLOW												
FL TOGETHER PHS		X				X						
FL TOGETHER OVLPS	A:	B:		C:		D:						
POWER START	Green											
EXTERNAL START	Green											
POWER START ALL RED TIME	0											
POWER START FLASH TIME	8 Seconds											

REMOTE FLASH OPTIONS
OUT OF FLASH YELLOW
OUT OF FLASH ALL RED
MINIMUM RECALL
USE ALTERNATE FLASH
FLASH THRU LOAD SWITCHES
CYCLE THROUGH PHASES
YELLOW FLASH MAIN STREET

7. NO SERVE PHASES

PHASE	CANNOT SERVE WITH :										
	12	11	10	9	8	7	6	5	4	3	2
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

8. DIMMING

LOAD SWITCH	1	2	3	4	5	6	7	8
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								
LOAD SWITCH	9	10	11	12	13	14	15	16
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								

9. CONTROLLER OPTION DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
GUAR PASSAGE												
NONACTUATED I		X				X						
NONACTUATED II												
DUAL ENTRY												
COND SERVICE												
COND RESERVICE												
ACT REST IN WALK												
FLASHING WALK												

FIVE SECTION LEFT TURN HEADS

		7-4		1-6	
6-2		11-10		9-12	
8-8			RESERVED		
DUAL ENTRY			BACKUP PROTECTION GRP 1		
COND SERVICE ENABLE			BACKUP PROTECTION GRP 2		
COND SERVICE DET X SWITCHING					
PED CLR PROTECT			BACKUP PROTECTION GRP 3		
SPEC PREEMPT OVLP FLASH			SIMULTANEOUS GAP GRP 1		ON
LOCK DETECTORS IN RED ONLY	X		SIMULTANEOUS GAP GRP 2		
RESERVED			SIMULTANEOUS GAP GRP 3		

MD 99 at Woodstock Rd

1. NIC/TOD SUBMENU

	REFERENCE TIME
DATE SET	
TIME SET	
MANUAL NIC PROGRAM STEP	
MANUAL TOD PROGRAM STEP	
SYNC REFERENCE TIME	03:15
SYNC REFERENCE	
WEEK 1 BEGINS ON 1st SUNDAY	
DISABLE DAYLIGHT SAVINGS	
DST BEGINS LAST SUNDAY	

2. NIC/TOD WEEKLY PROGRAMS

WEEK	SUN	MON	TUE	WED	THU	FRI	SAT
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

3. NIC/TOD YEARLY PROGRAMS

WEEK OF YEAR								
WEEKLY PROGRAM	1	2	3	4	5	6	7	8
WEEK OF YEAR								
WEEKLY PROGRAM	9	10	11	12	13	14	15	16
WEEK OF YEAR								
WEEKLY PROGRAM	17	18	19	20	21	22	23	24
WEEK OF YEAR								
WEEKLY PROGRAM	25	26	27	28	29	30	31	32
WEEK OF YEAR								
WEEKLY PROGRAM	33	34	35	36	37	38	39	40
WEEK OF YEAR								
WEEKLY PROGRAM	41	42	43	44	45	46	47	48
WEEK OF YEAR								
WEEKLY PROGRAM	49	50	51	52	53			

4. NIC/TOD HOLIDAY PROGRAM

HOLIDAY	FLOAT/FIXED	MON/MON	DOY/DOM	WOM/YEAR	PROG
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

5. NIC PROGRAM STEP

STEP	RUN	TIME	PATTERN	OVERRIDE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

MD 99 at Wetherburn Rd


```
TIMING PLAN [   ] PHASE DATA
     PHASE      1      2      3      4      5      6      7      8
MIN GRN               25
BK  GRN



      MAX
PED CLR                                              13             15
PD CLR2
PC MAX
PED CO
VEH EXT      3.0    5.0    0.0    3.0    3.0    5.0    0.0    3.0
VH EXT2      0.0    0.0    0.0    0.0    0.0    0.0    0.0    0.0
MAX1          15     60      0     45     30     60      0     45
```

MD 99 at Wetherburn Rd


```
         PLAN [    ]
   PHASE   1    2    3    4    5
VEH EXT   3.0  5.0  0.0  3.0  3.0
VH EXT2   0.0  0.0  0.0  0.0  0.0
MAX1       15   60    0   45
MAX2       15   60    0   45
MAX3       15   90    0   45   30   90
   MAX      0   90    0    0    0   90
   STP    0.0 15.0  0.0  0.0  0.0 15.0  0.0
YELLOW    4.0  5.0  4.0  4.0  4.0  5.0  3.0
RED CLR   1.0  1.0  1.0  2.0  1.0  1.0  1.0
RED MAX   0.0  0.0  0.0  0.0  0.0  0.0  0.0
RED RVT   2.0  2.0  2.0  2.0  2.0  2.0  2.0
ACT B4     0    0    0    0    0    0    0
SEC/ACT   0.0  0.0  0.0  0.0  0.0  0.0  0.0
MAX INT
```

MD 99 at Wetherburn Rd

MD 99 at Bethany Rd

RDM INFORM	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
ROAD NAME:		MD. 99		OLD MILL		MD.99		BETHANY				
DIRECTION:		W/B		S/B		E/B		N/B				
MOVEMENT:		THRU		THRU		THRU		THRU				
INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
MIN GREEN		20		5		20		5				
BIKE GRN												
CS GREEN												
WALK												
PED CLEAR												
VEH EXT		6.0		3.0		6.0		3.0				
VEH EXT 2				15								
MAX EXT		30		10		30		10				
MAX 1		60		20		60		20				
MAX II		60		30		60		30				
MAX III		90		40		90		40				
DET MAX												
YELLOW		5.0		4.0		5.0		4.0				
RED CLEAR		1.0		2.0		1.0		2.0				
RED RVT												
ACT B4												
SEC/ACT												
MAX INI												
TIME B4												
CARS WT												
TTREDUC												
MIN GAP												

MD 99 at Bethany Rd

CONFIGURATION SUBMENU

1. CONTROLLER SEQUENCE

PRIORITY	1	2	3	4	5	6	7	8	9	10	11	12
RING 1	1	2	3	4	9	11						
RING 2	5	6	7	8	10	12						
CG												

2. PHASES IN USE

	PHASE NUMBER											
	1	2	3	4	5	6	7	8	9	10	11	12
PHASES IN USE		X		X		X		X				
EXCLUSIVE PED												

3. PHASE TO LOAD SWITCH -MMU- ASSIGNMENT

LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH/OLAP	PED	LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH/OLAP	PED
1			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

4. SDLC OPTIONS - ENABLES

	BIU NUMBER							
	1	2	3	4	5	6	7	8
TERM & FACIL								
DETECTOR	X							
TYPE 2 RUNS AS TYPE 1								
.MMU DISABLE						X		
DIAGNOSTIC ENABLE TEST FIXTURE								
PEER TO PEER ENABLE								

PEER TO PEER ADDRESS:

1:	2:	3:	4:	5:
6:	7:	8:	9:	10:

6. Port 3

Port 3 Protocol	Telemetry
Port 3 Enable	
Telemetry Address	
System Detector 9 - 16 Address	
Telemetry Response Delay	
Duplex	Full
Modem Data Rate	1200
Data, Parity, Stop	8, 0, 1

7. ENABLE EVENT LOGS

CRITICAL RFE'S DET-TEST	
NON-CRITICAL RFE'S DET-TEST	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	X
PREEMPT	
POWER ON-OFF	X
LOW BATTERY	X
SPARE	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	

MD 99 at Bethany Rd

4. CONTROLLER RECALL DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCKING MEMORY				X				X				
VEHICLE RECALL		X				X						
PED RECALL												
RECALL TO MAX	X					X						
SOFT RECALL												
DON'T REST HERE												
PED DARK N/CALL												

DELAYS: ~~BIKE LOOPS $276~~

Activated loops ~~Out~~
9-27-04

7. NO SERVE PHASES

PHASE	CANNOT SERVE WITH :										
	12	11	10	9	8	7	6	5	4	3	2
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

8. DIMMING

LOAD SWITCH	1	2	3	4	5	6	7	8
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								
LOAD SWITCH	9	10	11	12	13	14	15	16
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								

6. CONTROLLER START/FLASH DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
POWER START		X				X						
EXTERNAL START		X				X						
ENTRY REM FLASH		X				X						
EXIT REM FLASH		X				X						
REM FLASH YELLOW												
FL TOGETHER PHS												
FL TOGETHER OVLPS	A:			B:			C:		D:			
POWER START	Green											
EXTERNAL START	Green											
POWER START ALL RED TIME	0											
POWER START FLASH TIME	8 Seconds											

REMOTE FLASH OPTIONS	
OUT OF FLASH YELLOW	
OUT OF FLASH ALL RED	
MINIMUM RECALL	
USE ALTERNATE FLASH	
FLASH THRU LOAD SWITCHES	
CYCLE THROUGH PHASES	
YELLOW FLASH MAIN STREET	

9. CONTROLLER OPTION DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
GUAR PASSAGE												
NONACTUATED I		X				X						
NONACTUATED II												
DUAL ENTRY		X		X		X		X				
COND SERVICE												
COND RESERVICE												
ACT REST IN WALK												
FLASHING WALK												

	FIVE SECTION LEFT TURN HEADS				
5-2		7-4		1-6	
5-8		11-10		9-12	
DUAL ENTRY	X	RESERVED			
COND SERVICE ENABLE		BACKUP PROTECTION GRP 1			
COND SERVICE DBT X SWITCHING		BACKUP PROTECTION GRP 3			
PED CLR PROTECT		BACKUP PROTECTION GRP 5			
SPEC PREEMPT OVLP FLASH		SIMULTANEOUS GAP GRP 1			
LOCK DETECTORS IN RED ONLY	X	SIMULTANEOUS GAP GRP 2			
RESERVED		SIMULTANEOUS GAP GRP 3			

MD 99 at Bethany Rd

4. NIC/TOD HOLIDAY PROGRAM

HOLIDAY	FLOAT/FIXED	MON/MON	DOW/DOW	WOM/YEAR
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

NIC/TOD SUBMENU

DATE SET	
TIME SET	
MANUAL NIC PROGRAM STEP	
MANUAL TOD PROGRAM STEP	
SYNC REFERENCE TIME	05:15
SYNC REFERENCE	REFERENCE TIME
WEEK 1 BEGINS ON 1st SUNDAY	
DISABLE DAYLIGHT SAVINGS	
DST BEGINS LAST SUNDAY	

2. NIC/TOD WEEKLY PROGRAMS

WEEK	SUN	MON	TUE	WED	THU	FRI	SAT
1	2						2
2							
3							
4							
5							
6							
7							
8							
9							
10							

5. NIC PROGRAM STEP

STEP	HOUR	MIN	TIME	PATTERN	OVERRIDE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

3. NIC/TOD YEARLY PROGRAMS

WEEK OF YEAR	1	2	3	4	5	6	7	8
WEEKLY PROGRAM								
WEEK OF YEAR	9	10	11	12	13	14	15	16
WEEKLY PROGRAM								
WEEK OF YEAR	17	18	19	20	21	22	23	24
WEEKLY PROGRAM								
WEEK OF YEAR	25	26	27	28	29	30	31	32
WEEKLY PROGRAM								
WEEK OF YEAR	33	34	35	36	37	38	39	40
WEEKLY PROGRAM								
WEEK OF YEAR	41	42	43	44	45	46	47	48
WEEKLY PROGRAM								
WEEK OF YEAR	49	50	51	52	53	54	55	
WEEKLY PROGRAM								

MD 99 at Bethany Rd

TOD PROGRAM STEPS

TOD PROGRAM STEP 1
Field	Value
DAY PGM NUM	1
STEP BEGINS	0000

	A	B	C	D	E	F
ALTERNATE SEQUENCE	1 2 3 4	5 6 7 8	9 10 11 12	DIM ENABLE / ALT VEH EXTSN / DET LOG ENABLE / SPARE / SPARE		

Row	1	2	3	4	5	6	7	8	9	10	11	12
PHASE												
MAX ENABLE												
MAIN ENABLE			X									
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCNS (1-8)												

TOD PROGRAM STEP 2
Field	Value
DAY PGM NUM	2
STEP BEGINS	0630

Row	1	2	3	4	5	6	7	8	9	10	11	12
PHASE						X						
(other rows blank)												

TOD PROGRAM STEP 3
Field	Value
DAY PGM NUM	1
STEP BEGINS	0830

TOD PROGRAM STEP 4
Field	Value
DAY PGM NUM	1
STEP BEGINS	1530

Row	1	2	3	4	5	6	7	8	9	10	11	12
PHASE			X									

TOD PROGRAM STEP 5
Field	Value
DAY PGM NUM	5
STEP BEGINS	1900

TOD PROGRAM STEP 6
Field	Value
DAY PGM NUM	2
STEP BEGINS	0000

Column headers for each block: FLASH, RED REST, SPARE, SPARE, SPARE, DET DIAG PLAN, ALTERNATE SEQUENCE (A–F), PHASE, MAX ENABLE, MAIN ENABLE, VEH RECALL, VEH MAX RECALL, PED RECALL, COND SERV INH, PHASE OMIT, SPECIAL FCNS. Detector columns: DIM ENABLE, ALT VEH EXTSN, DET LOG ENABLE, SPARE, SPARE.

MD 99 at St. John's Lane

SIGNAL NUMBER: 13c09906.56   LOCATION: MD 99e StJohns La/Mt Hebron HS.
COUNTY: Howard   DEVELOPED BY: System Crew   DATE INSTALLED: 9-15-98

RDM INFORM	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
ROAD NAME:	MD99	MD99	Mt Hebron H.S	St Johns LA	MD99	MD99						
DIRECTION:	E/B	W/B	S/B	N/B	W/B	E/B						
MOVEMENT:	L/T	Thru	All	All	L/T	Thru						
INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
MIN GREEN	5	20	7	7	5	20						
BIKE GRN												
CS GREEN												
WALK			7			6						
PED CLEAR			14			14						
VEH EXT	2.5	6.0	3.0	3.0	2.5	6.0						
VEH EXT 2												
MAX EXT	5	30.15	10	10	5	15 30						
MAX 1	25	60 45 40	30	30	25	45 45 60						
MAX II	25	60 45	45	30	25	45 60						
MAX III	30	60 90	50	40	30	60 90						
DET MAX												
YELLOW	4.0	4.0	4.0	4.0	4.0	4.0						
RED CLEAR	1.0	2.0	1.5	1.5	1.0	2.0						
RED RVT												
ACT B4												
SEC/ACT												
MAX INI												
TIME B4												
CARS WT												
TTREDUC												
MIN GAP												

MD 99 at St. John's Lane

1. CONTROLLER SEQUENCE

PRIORITY	1	2	3	4	5	6	7	8	9	10	11	12
RING 1	1	2	3	4	9	10						
RING 2	5	6	7	8	11	12						
CG		∧		∧		∧						

2. PHASES IN USE

	PHASE NUMBER											
	1	2	3	4	5	6	7	8	9	10	11	12
PHASES IN USE	X	X	X	X	X	X						
EXCLUSIVE PED												

3. PHASE TO LOAD SWITCH —MMU— ASSIGNMENT

LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH\OLAP	PED	LOAD SWITCH MMU CHANNEL	SIGNAL DRIVER GROUP PH\OLAP	PED
1			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

4. SDLC OPTIONS – ENABLES

	BIU NUMBER							
	1	2	3	4	5	6	7	8
TERM & FACIL								
DETECTOR	X	X						
TYPE 2 RUNS AS TYPE 1								
MMU DISABLE								
DIAGNOSTIC ENABLE TEST FIXTURE								
PEER TO PEER ENABLE								

PEER TO PEER ADDRESS:

1:   2:   3:   4:   5:
7:   8:   9:   10:

5. TELEMETRY CONFIGURATION

TELEMETRY ADDRESS	
SYSTEM DETECTOR 9-16 ADDRESS	
TELEMETRY RESPONSE DELAY	

6. TERMINAL PORT

TERMINAL DATA RATE	9600
DATA PARITY STOP	8-N-1
TELEMETRY CHANNEL ON/OFF	
DUPLEX HALF/FULL	FULL
MODEM DATA RATE (BPS)	1200
DATA, PARITY, STOP	8,0,1

7. ENABLE EVENT LOGS

CRITICAL RFE'S DET—TEST	
NON—CRITICAL RFE'S DET—TEST	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	X
PREEMPT	
POWER ON—OFF	X
LOW BATTERY	X
SPARE	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	

MD 99 at St. John's Lane

4. CONTROLLER RECALL DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCKING MEMORY												
VEHICLE RECALL		X				X						
PED RECALL						X						
RECALL TO MAX		X				X						
SOFT RECALL												
DON'T REST HERE												
PED DARK N/CALL												

BAD LOOPS ∅2 ∻ 6

7. NO SERVE PHASES

PHASE	CANNOT SERVE WITH :											
	12	11	10	9	8	7	6	5	4	3	2	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												

8. DIMMING

LOAD SWITCH	1	2	3	4	5	6	7	8
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								
LOAD SWITCH	9	10	11	12	13	14	15	16
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								

6. CONTROLLER START/FLASH DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
POWER START		X				X						
EXTERNAL START		X				X						
ENTRY REM FLASH		X				X						
EXIT REM FLASH		X				X						
REM FLASH YELLOW												
FL TOGETHER PHS		X				X						
FL TOGETHER OVLPS	A:		B:		C:		D:					

POWER START EXTERNAL START — GREEN

POWER START ALL RED TIME

POWER START FLASH TIME — 8 Seconds

REMOTE FLASH OPTIONS
OUT OF FLASH YELLOW
OUT OF FLASH ALL RED
MINIMUM RECALL
USE ALTERNATE FLASH
FLASH THRU LOAD SWITCHES
CYCLE THROUGH PHASES
YELLOW FLASH MAIN STREET

9. CONTROLLER OPTION DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
GUAR PASSAGE												
NONACTUATED I		X				X						
NONACTUATED II												
DUAL ENTRY												
COND SERVICE												
COND RESERVICE												
ACT REST IN WALK								X				
FLASHING WALK												

FIVE SECTION LEFT TURN HEADS		
5-2	7-4	1-6
3-8	11-10	9-12

DUAL ENTRY
COND SERVICE ENABLE
COND SERVICE DET X
SWITCHING
PED CLR PROTECT
SPEC PREEMPT OVLP FLASH
LOCK DETECTORS IN RED ONLY — X
RESERVED

RESERVED
BACKUP PROTECTION GRP 1 — ON
BACKUP PROTECTION GRP 2
BACKUP PROTECTION GRP 3
SIMULTANEOUS GAP GRP 1 — ON
SIMULTANEOUS GAP GRP 2
SIMULTANEOUS GAP GRP 3

MD 99 at St. John's Lane

NIC/TOD SUBMENU

1. NIC/TOD CLOCK/CALENDAR DATA

DATE SET:	
TIME SET:	
MANUAL NIC PROGRAM STEP	
MANUAL TOD PROGRAM STEP	
SYNC REFERENCE TIME	03:15
SYNC REFERENCE	REFERENCE TIME
WEEK 1 BEGINS ON 1st SUNDAY	
DISABLE DAYLIGHT SAVINGS	
DST BEGINS LAST SUNDAY	

2. NIC/TOD WEEKLY PROGRAMS

WEEK	SUN	MON	TUE	WED	THU	FRI	SAT
1	2	/	/	/	/	/	2
2							
3							
4							
5							
6							
7							
8							
9							
10							

3. NIC/TOD YEARLY PROGRAMS

WEEK OF YEAR	1	2	3	4	5	6	7	8
WEEKLY PROGRAM	/	/						/
WEEK OF YEAR	9	10	11	12	13	14	15	16
WEEKLY PROGRAM	/							/
WEEK OF YEAR	17	18	19	20	21	22	23	24
WEEKLY PROGRAM	/							
WEEK OF YEAR	25	26	27	28	29	30	31	32
WEEKLY PROGRAM	/							/
WEEK OF YEAR	33	34	35	36	37	38	39	40
WEEKLY PROGRAM	/							/
WEEK OF YEAR	41	42	43	44	45	46	47	48
WEEKLY PROGRAM	/							/
WEEK OF YEAR	49	50	51	52	53			
WEEKLY PROGRAM	/							

4. NIC/TOD HOLIDAY PROGRAM

HOLIDAY	FLOAT/FIXED	MON/MON	DOW/MON	DOW/DOW	WOM/YEAR	PROG
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						

TOD PROGRAM STEPS

MD 99 at St. John's Lane

TOD PROGRAM STEP 1

Field	Value
DAY PGM NUM	1
STEP BEGINS	0000

SPARE	
FLASH	
RED REST	
SPARE	DIM ENABLE
SPARE	ALT VEH EXTSN
SPARE	DET LOG ENABLE
SPARE	SPARE
SPARE	SPARE
DET DIAG PLAN	

ALTERNATE SEQUENCE

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE	A	B			C		D		E		F	
MAX2 ENABLE		X										
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS (1-8)												

TOD PROGRAM STEP 2

Field	Value
DAY PGM NUM	1
STEP BEGINS	0630

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE	A	B			C		D		E		F	
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL					X							
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS (1-8)												

TOD PROGRAM STEP 3

Field	Value
DAY PGM NUM	1
STEP BEGINS	0830

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE	A	B			C		D		E		F	
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS (1-8)												

TOD PROGRAM STEP 4

Field	Value
DAY PGM NUM	1
STEP BEGINS	1530

SPARE	
FLASH	
RED REST	
SPARE	DIM ENABLE
SPARE	ALT VEH EXTSN
SPARE	DET LOG ENABLE
SPARE	SPARE
SPARE	SPARE
DET DIAG PLAN	

ALTERNATE SEQUENCE

	1	2	3	4	5	6	7	8	9	10	11
PHASE	A	B			C		D		E		
MAX2 ENABLE		X									
MAX3 ENABLE											
VEH RECALL						X					
VEH MAX RECALL											
PED RECALL											
COND SERV INH											
PHASE OMIT											
SPECIAL FCTNS (1-8)											

TOD PROGRAM STEP 5

Field	Value
DAY PGM NUM	1
STEP BEGINS	1900

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE	A	B			C		D		E		F	
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS (1-8)												

TOD PROGRAM STEP 6

Field	Value
DAY PGM NUM	2
STEP BEGINS	0000

SPARE	
FLASH	
RED REST	
SPARE	DIM ENABLE
SPARE	ALT VEH EXTSN
SPARE	DET LOG ENABLE
SPARE	SPARE
SPARE	SPARE
DET DIAG PLAN	

ALTERNATE SEQUENCE

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE	A	B			C		D		E		F	
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS (1-8)												

MD 99 at US 29

Handwritten: A33699

```
TIMING PLAN [ ▓ ] PHASE DATA
    PHASE       1    2    3    4    5    6    7
MIN GRN        10   20   30    8    5   20    0
BK MGRN         0    0    0    0    0    0    0
CS MGRN         0    0    0    0    0    0    0
DLY GRN         0    0    0    0    0    0    0
WALK            0    0    0    0    0    0    0
WALK2           0    0    0    0    0    0    0
WLK MAX         0    0    0    0    0    0    0
PED CLR         0    0    0    0    0    0    0
PD CLR2         0    0    0    0    0    0    0
PC MAX          0    0    0    0    0    0    0
PED CO          0    0    0    0    0    0    0
VEH EXT       0.0  6.0  0.0  3.5  3.0  6.0  0.0   0.0
VH EXT2       0.0  0.0  0.0  0.0  0.0  0.0  0.0   0.0
MAX1               35    0   40   25   35         0
```

* - # abc def

MD 99 at US 29

TIMING PLAN [   ] PHASE DATA

PHASE	1	2	3	4	5	6	7
PC MAX							
PED CO							
VEH EXT	0.0	6.0	0.0	3.5	3.0	6.0	0.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1		35	0	40	25	35	0
MAX2		40	0	40	25	40	0
MAX3		55	0	60	45	55	0
DYM MAX							
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	0.0	5.0	0.0	4.0	4.0	5.0	0.0
RED CLR	0.0	2.0	0.0	2.0	1.0	2.0	0.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	0.0
ACT B4	0	0	0	0			

MD 99 at US 29


```
DAY PLAN [  1]    DAY PLAN IN EFFECT [
EVENT              ACTION PLAN           START TIME
     1                    99                00:00
     2                     1                06:00
     3                    99                08:00
     4                     0                00:00
     5                     0                00:00
     6                     0                00:00
     7                     0                00:00
     8                     0                00:00
     9                     0                00:00
    10                     0                00:00
    11                     0                00:00
    12                     0                00:00
    13                     0                00:00
```