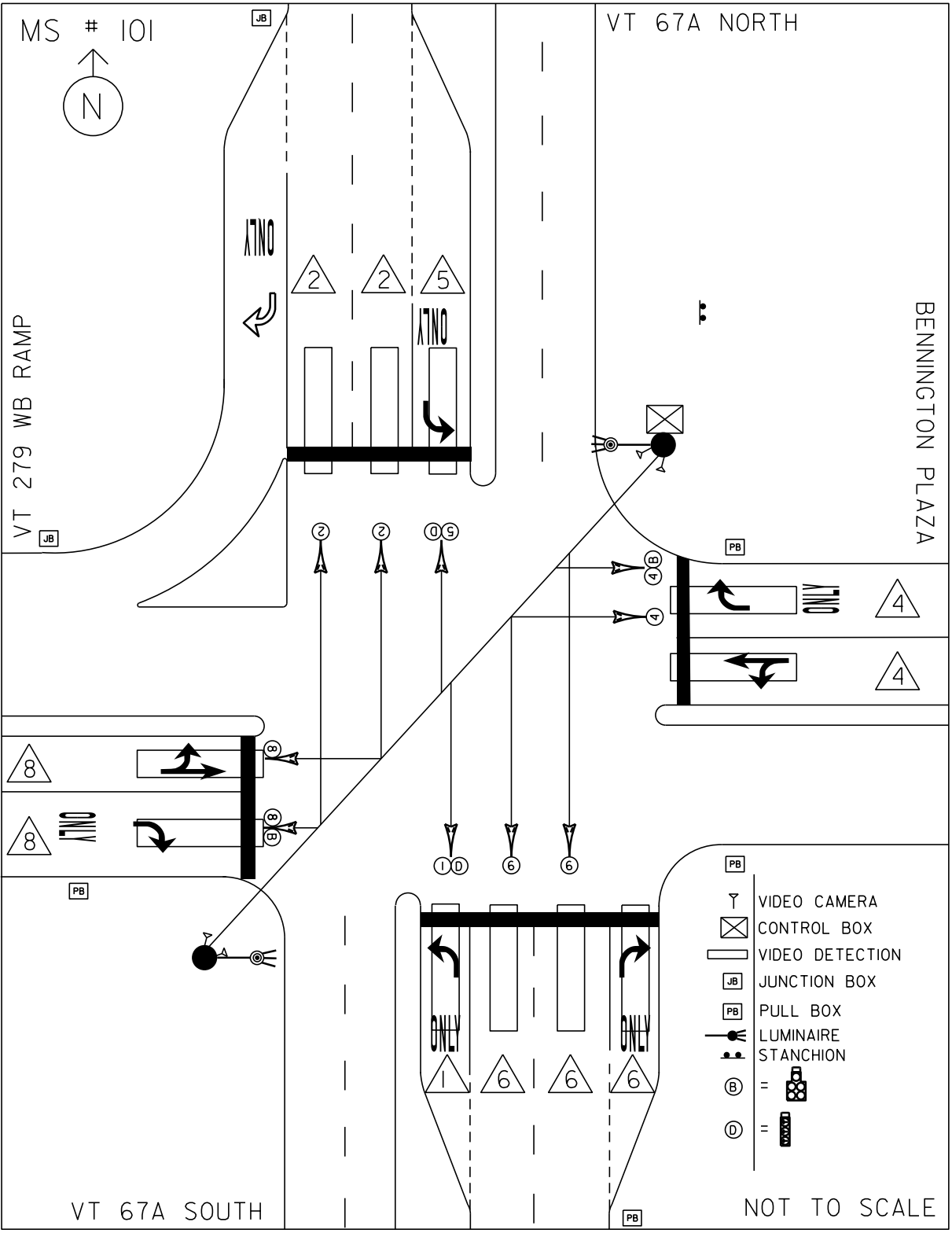
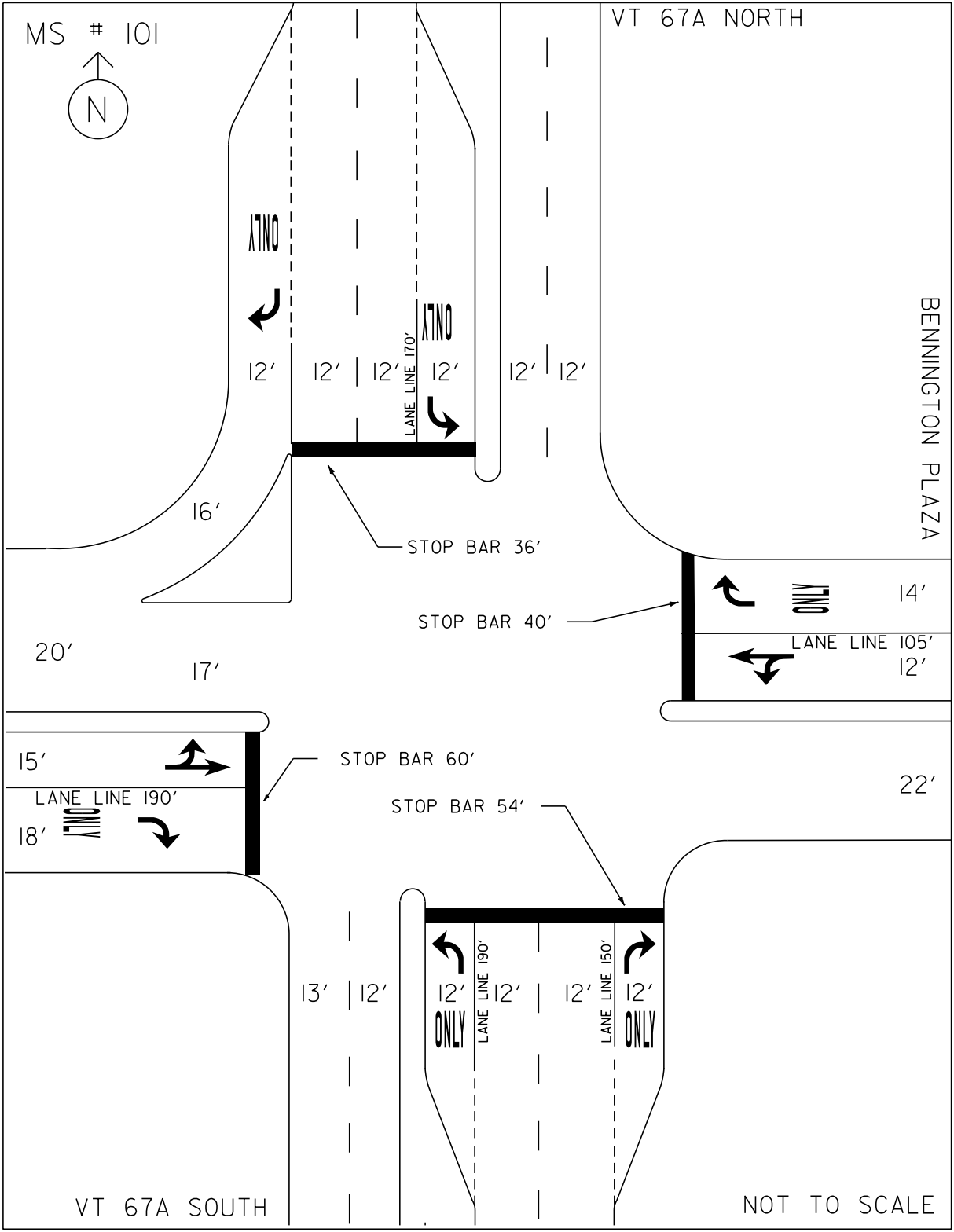
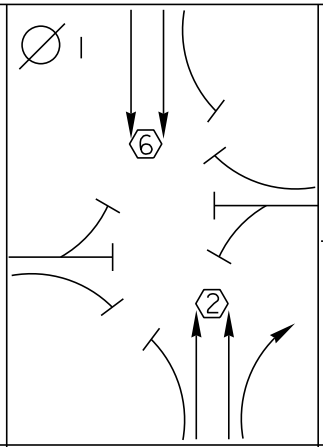
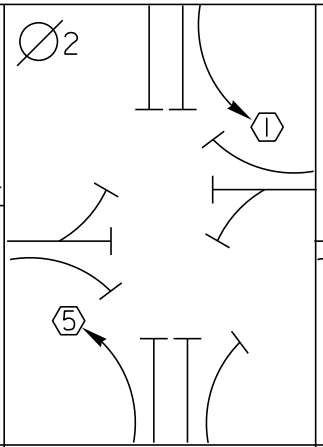
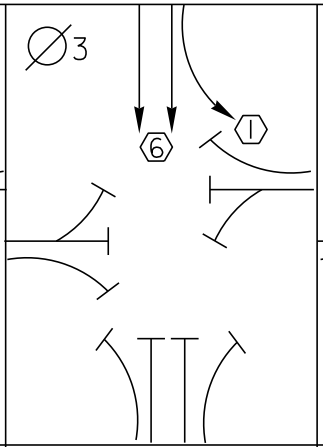
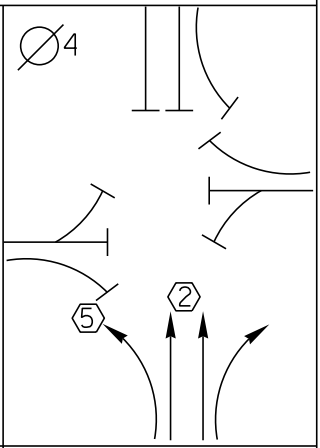
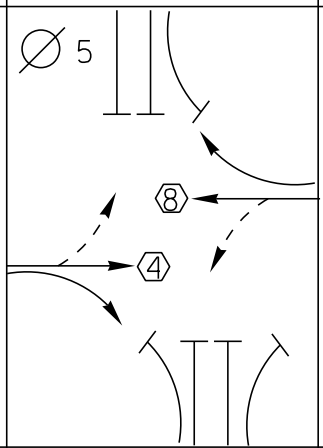

MS # 101
N
VT 67A NORTH
VT 279 WB RAMP
BENNINGTON PLAZA
VT 67A SOUTH
NOT TO SCALE
JB
PB
ONLY
VIDEO CAMERA
CONTROL BOX
VIDEO DETECTION
JUNCTION BOX
PULL BOX
LUMINAIRE
STANCHION
Ⓑ =
Ⓓ =


MS # 101
N
VT 67A NORTH
BENNINGTON PLAZA
ONLY
ONLY
12′
12′
12′
12′
12′
12′
LANE LINE 170′
16′
STOP BAR 36′
STOP BAR 40′
ONLY
14′
LANE LINE 105′
12′
20′
17′
15′
STOP BAR 60′
LANE LINE 190′
18′
ONLY
22′
STOP BAR 54′
13′
12′
12′
ONLY
LANE LINE 190′
12′
12′
LANE LINE 150′
12′
ONLY
VT 67A SOUTH
NOT TO SCALE

INTERSECTION: VT 67A & BENNINGTON ACRES S.C. MS # 101

DIAGRAM N	Ø1 	Ø2 	Ø3 	Ø4 
TIMING	G= Y=	G= Y=	G= Y=	G= Y=
DIAGRAM	Ø5 	Ø6	Ø7	Ø8
TIMING	G= Y=	G= Y=	G= Y=	G= Y=

PROTECTED TURNS

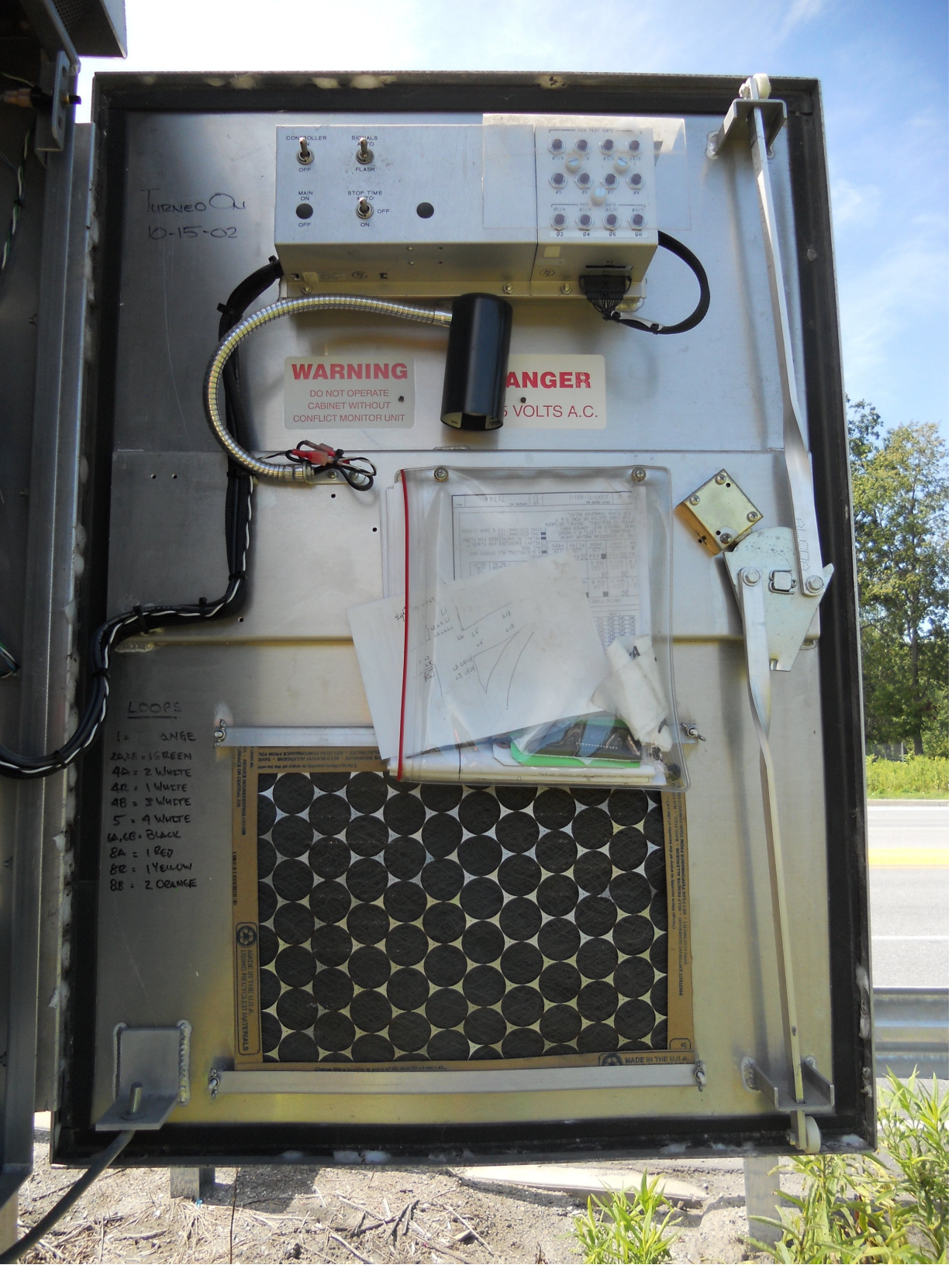
PERMITTED TURNS

PEDESTRIAN

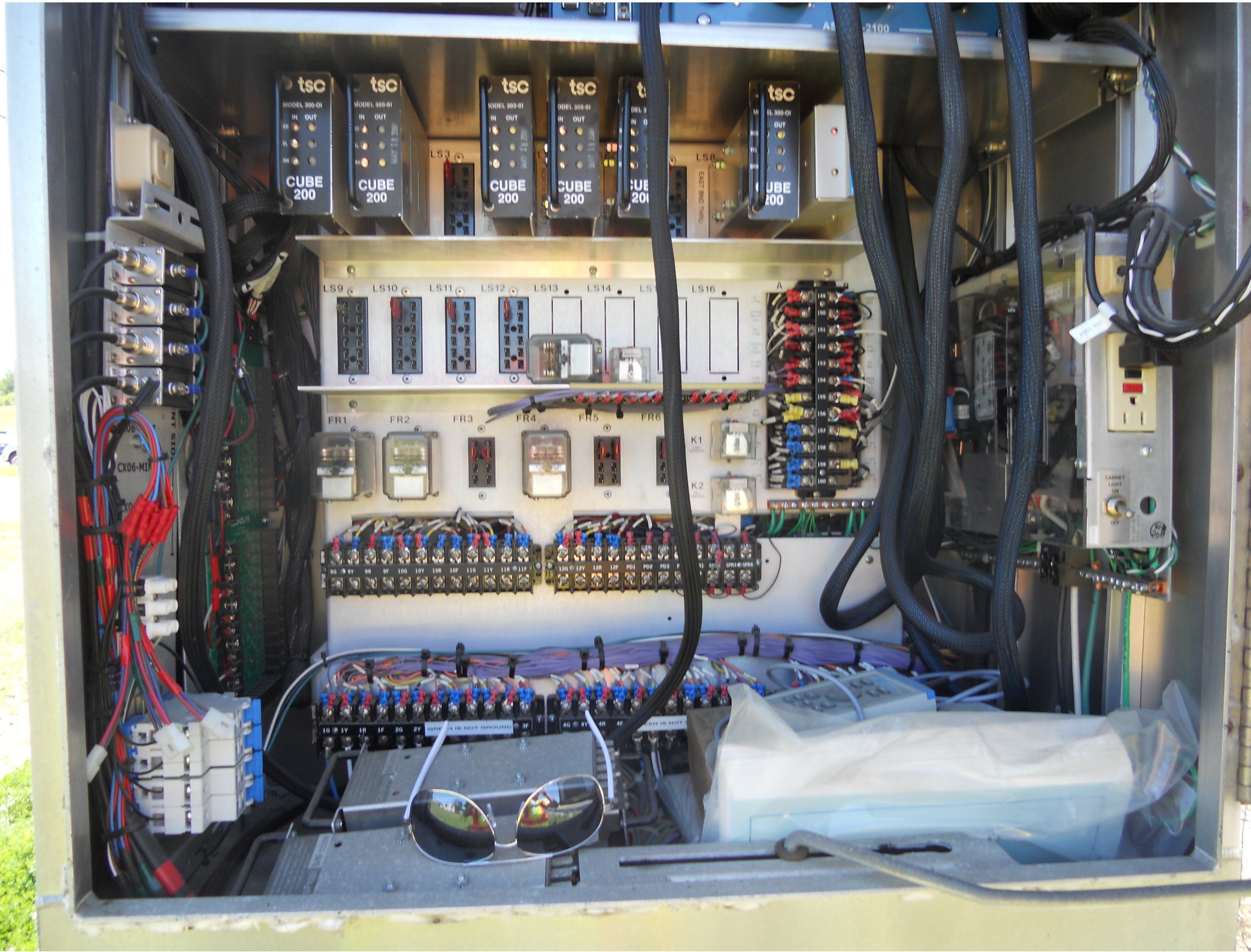
CYCLE LENGTH, C= _____ S

PROPERTY OF
VT. AGENCY OF TRANS.
MAINTENANCE DIV.
IN EMERGENCY CALL
DIST. TRANS. OFFICE
SUBARU

PROPERTY OF
VT. AGENCY OF TRANS.
MAINTENANCE DIV.
IN EMERGENCY CALL:
DIST. TRANS. OFFICE
NIGHT & WEEKENDS:
INTERSECTION NO.


CONTROLLER
OFF
SIGNALS
FLASH
MAIN
ON
OFF
STOP TIME
OFF
ON
TURNED ON
10-15-02
WARNING
DO NOT OPERATE
CABINET WITHOUT
CONFLICT MONITOR UNIT
ANGER
VOLTS A.C.
LOOPS
1= ANGE
2&5 = 1 GREEN
4A = 2 WHITE
4C = 1 WHITE
4B = 3 WHITE
5 = 4 WHITE
6,6B = BLACK
8A = 1 RED
8C = 1 YELLOW
8B = 2 ORANGE
MADE IN THE U.S.A.
USING RECYCLED MATERIALS
MADE IN THE U.S.A.

PS 17
VIP/3D.2
VIP/3D.2
ECONOLITE
CONTROL PRODUCTS, INC.
ENTER
TLM
SDLC
TERM


tsc
CUBE 200
LS9
LS10
LS11
LS12
LS13
LS14
LS16
FR1
FR2
FR3
FR4
FR5
FR6
K1
K2

ECONOLITE
CONTROL PRODUCTS, INC.
ENTER
tsc
CUBE
200
LS9
LS10
LS11
LS12
LS13
LS14
LS16
FR1
FR2
FR3
K1
K2

ONLY
67A TO HISTORIC 7A
Bennington
VERMONT 279 WEST
Troy

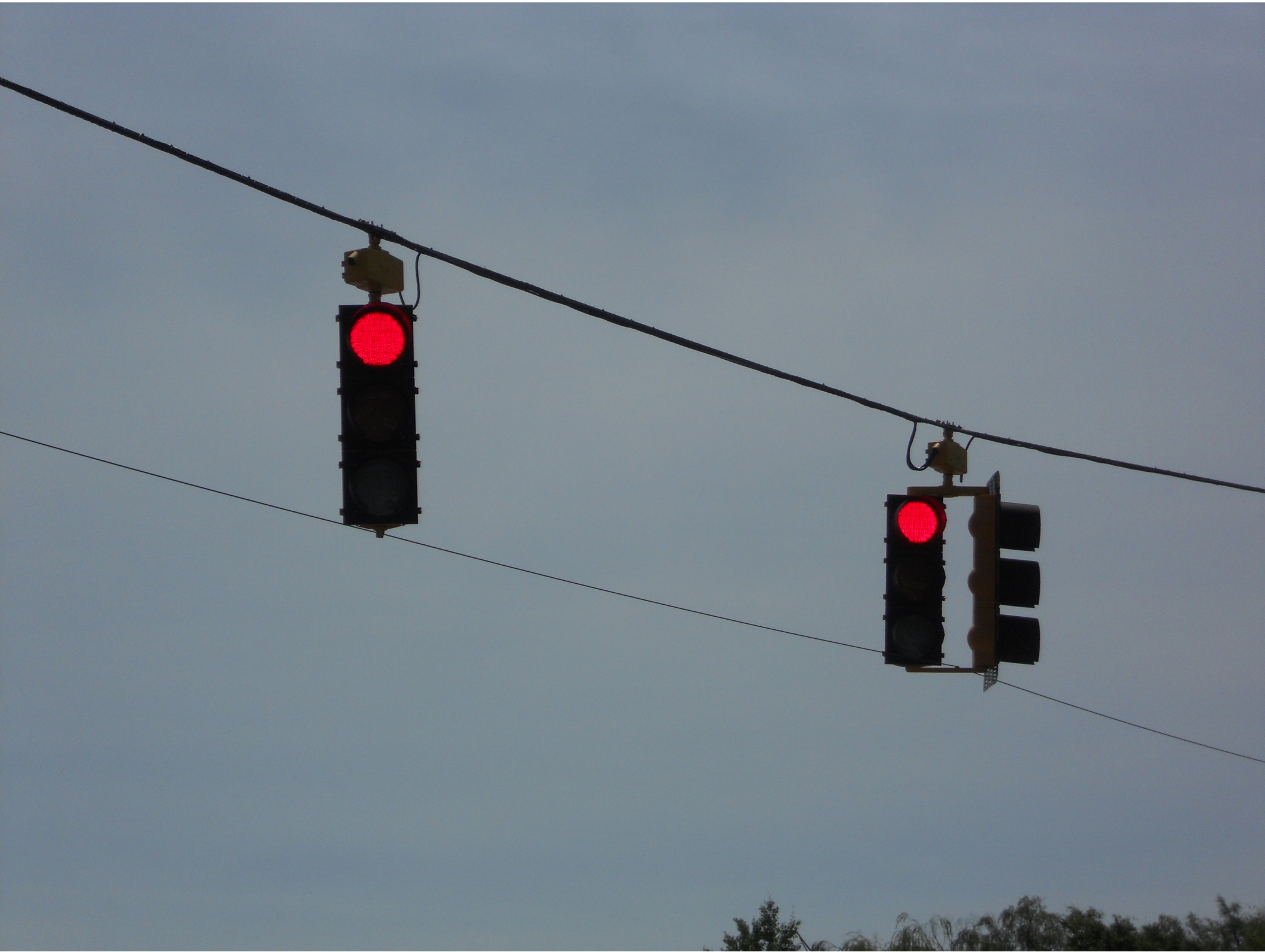
ONLY
ONLY
ONLY

ONLY
SUBARU
TO 7 EAST
TO NY 7
67
279
279

TO
HISTORIC
VERMONT
7A
SOUTH
VERMONT
67A
TO
7
EAST
VERMONT
279
TO
NY
7
WEST
VERMONT
279

ONLY
SUBARU

SUBARU
SUBARU
BENNINGTON
279



SUBARU
BENNINGTON
ONLY

TO
HISTORIC
VERMONT
7A
NORTH
VERMONT
67A
SOUTH
VERMONT
67A
BRAUN'S
EXPRESS
ONLY

SALES
BENNING

SUBARU
SALES

4-0

3E-23.5X38'
55KSI
2001
UNION METAL CORPORATION

TO
NY
7
WEST
VERMONT
279
NORTH
VERMONT
67A
SUBARU

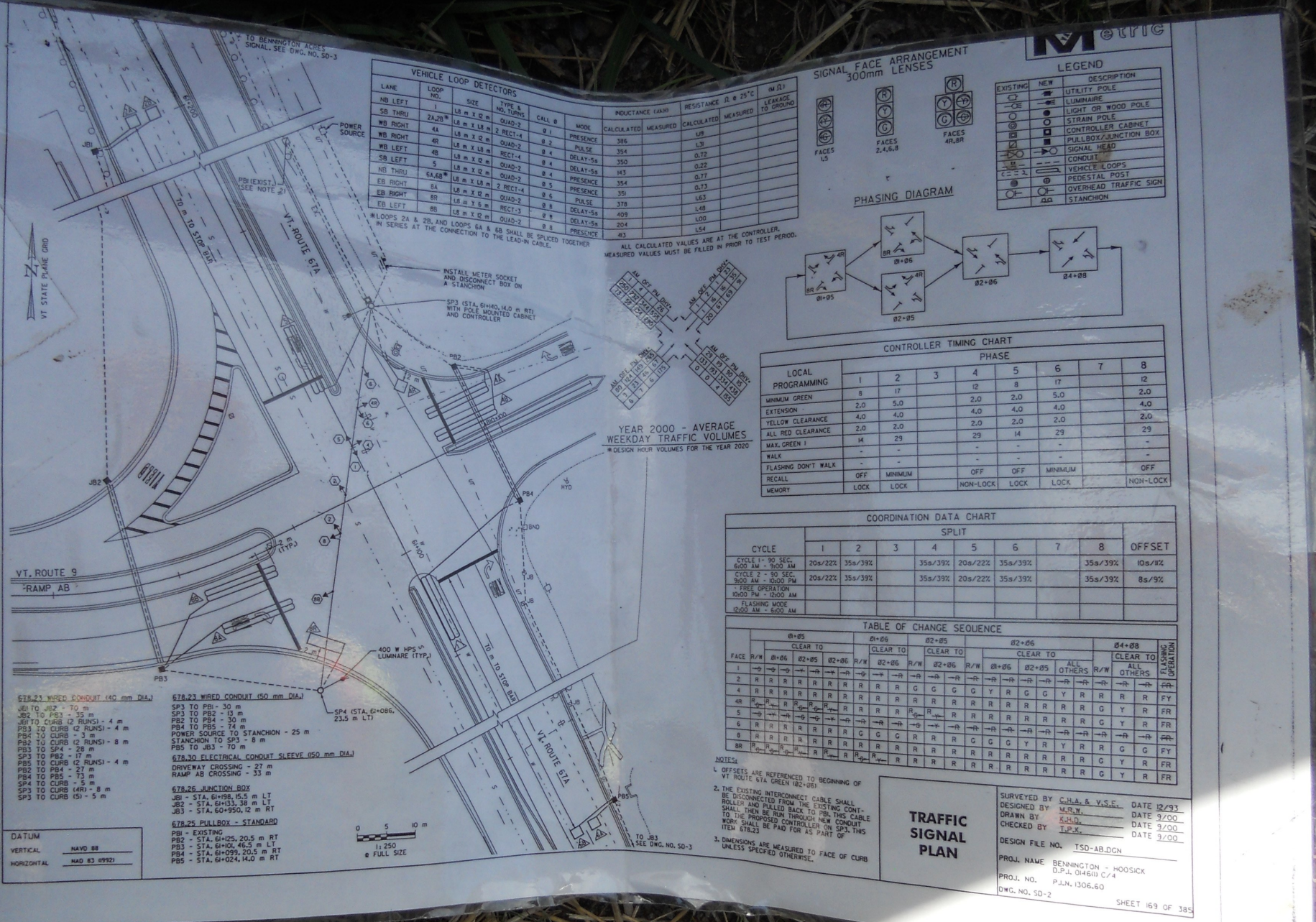
SUBARU
Pre-Owned Vehicles
ONLY
ONLY

SUBARU
Pre-Owned Vehicles
ONLY
ONLY

BENNINGTON PLAZA PVT

ONLY
ONLY

JL-23.5X38
55KSI
2001
UNION METAL CORPORATION



VEHICLE LOOP DETECTORS

LANE	LOOP NO.	SIZE	TYPE & NO. TURNS	CALL Ø	MODE	INDUCTANCE (uH) CALCULATED	INDUCTANCE (uH) MEASURED	RESISTANCE Ω @ 25°C CALCULATED	RESISTANCE Ω @ 25°C MEASURED	LEAKAGE (M Ω) TO GROUND
NB LEFT	1	L8 m x W2 m	QUAD-2	Ø 1	PRESENCE	386		L19		
SB THRU	2A,2B*	L8 m x W8 m	2 RECT-4	Ø 2	PULSE	354		L31		
WB RIGHT	4A	L8 m x W8 m	QUAD-2	Ø 4	DELAY-5s	350		0.72		
WB RIGHT	4R	L8 m x W2 m	RECT-4	Ø 4	DELAY-5s	H3		0.22		
WB LEFT	4B	L8 m x W2 m	QUAD-2	Ø 4	PRESENCE	354		0.77		
SB LEFT	5	L8 m x W2 m	QUAD-2	Ø 5	PRESENCE	351		0.73		
NB THRU	6A,6B*	L8 m x W8 m	QUAD-2	Ø 6	PULSE	378		L63		
EB RIGHT	8A	L8 m x W2 m	2 RECT-4	Ø 8	DELAY-5s	409		L48		
EB RIGHT	8R	L8 m x W2 m	QUAD-2	Ø 8	DELAY-5s	204		L00		
EB LEFT	8B	L8 m x W2 m	RECT-3	Ø 8	PRESENCE	413		L54		

*LOOPS 2A & 2B, AND LOOPS 6A & 6B SHALL BE SPLICED TOGETHER IN SERIES AT THE CONNECTION TO THE LEAD-IN CABLE.

ALL CALCULATED VALUES ARE AT THE CONTROLLER. MEASURED VALUES MUST BE FILLED IN PRIOR TO TEST PERIOD.

SIGNAL FACE ARRANGEMENT 300mm LENSES

FACES 1,5 | FACES 2,4,6,8 | FACES 4R,8R

LEGEND

EXISTING	NEW	DESCRIPTION
		UTILITY POLE
		LUMINAIRE
		LIGHT OR WOOD POLE
		STRAIN POLE
		CONTROLLER CABINET
		PULLBOX/JUNCTION BOX
		SIGNAL HEAD
		CONDUIT
		VEHICLE LOOPS
		PEDESTAL POST
		OVERHEAD TRAFFIC SIGN
		STANCHION

PHASING DIAGRAM

CONTROLLER TIMING CHART

LOCAL PROGRAMMING	PHASE 1	2	3	4	5	6	7	8
MINIMUM GREEN	8	17		12	8	17		12
EXTENSION	2.0	5.0		2.0	2.0	5.0		2.0
YELLOW CLEARANCE	4.0	4.0		4.0	4.0	4.0		4.0
ALL RED CLEARANCE	2.0	2.0		2.0	2.0	2.0		2.0
MAX. GREEN 1	14	29		29	14	29		29
WALK	-	-		-	-	-		-
FLASHING DON'T WALK	-	-		-	-	-		-
RECALL	OFF	MINIMUM		OFF	OFF	MINIMUM		OFF
MEMORY	LOCK	LOCK		NON-LOCK	LOCK	LOCK		NON-LOCK

YEAR 2000 - AVERAGE WEEKDAY TRAFFIC VOLUMES

*DESIGN HOUR VOLUMES FOR THE YEAR 2020

COORDINATION DATA CHART

CYCLE	SPLIT 1	2	3	4	5	6	7	8	OFFSET
CYCLE 1- 90 SEC. 6:00 AM - 9:00 AM	20s/22%	35s/39%		35s/39%	20s/22%	35s/39%		35s/39%	10s/11%
CYCLE 2 - 90 SEC. 9:00 AM - 10:00 PM	20s/22%	35s/39%		35s/39%	20s/22%	35s/39%		35s/39%	8s/9%
- FREE OPERATION 10:00 PM - 12:00 AM									
FLASHING MODE 12:00 AM - 6:00 AM									

TABLE OF CHANGE SEQUENCE

FACE	R/W	Ø1+Ø5 CLEAR TO Ø1+Ø6	Ø1+Ø5 CLEAR TO Ø2+Ø5	Ø1+Ø5 CLEAR TO Ø2+Ø6	R/W	Ø1+Ø6 CLEAR TO Ø2+Ø6	R/W	Ø2+Ø5 CLEAR TO Ø2+Ø6	R/W	Ø2+Ø6 CLEAR TO Ø1+Ø5	Ø2+Ø6 CLEAR TO Ø2+Ø5	Ø2+Ø6 CLEAR TO ALL OTHERS	R/W	Ø4+Ø8 CLEAR TO ALL OTHERS	FLASHING OPERATION
1	→	→	→	→	→	→	→	→	→	→	→	→	→	→	FR
2	R	R	R	R	R	R	R	R	G	G	G	Y	R	G	FY
4	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
4R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
5	→	→	→	→	→	→	R	R	R	R	R	R	G	Y	FR
6	R	R	R	R	R	R	G	G	R	R	G	G	Y	R	FR
8	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	FR
8R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	FR

NOTES:

1. OFFSETS ARE REFERENCED TO BEGINNING OF VT ROUTE 67A GREEN (Ø2+Ø6)
2. THE EXISTING INTERCONNECT CABLE SHALL BE DISCONNECTED FROM THE EXISTING CONTROLLER AND PULLED BACK TO PB1. THIS CABLE SHALL THEN BE RUN THROUGH NEW CONDUIT TO THE PROPOSED CONTROLLER ON SP3. THIS WORK SHALL BE PAID FOR AS PART OF ITEM 678.23
3. DIMENSIONS ARE MEASURED TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.

678.23 WIRED CONDUIT (40 mm DIA.)

JB1 TO JB2 - 70 m
JB2 TO PB3 - 35 m
JB1 TO CURB (2 RUNS) - 4 m
PB3 TO CURB (2 RUNS) - 4 m
PB4 TO CURB - 3 m
PB2 TO CURB (2 RUNS) - 8 m
PB3 TO SP4 - 28 m
SP3 TO PB2 - 17 m
PB5 TO CURB (2 RUNS) - 4 m
PB2 TO PB4 - 27 m
PB4 TO PB5 - 73 m
SP4 TO CURB - 5 m
SP3 TO CURB (4R) - 8 m
SP3 TO CURB (5) - 5 m

678.23 WIRED CONDUIT (50 mm DIA.)

SP3 TO PB1 - 30 m
SP3 TO PB2 - 13 m
PB2 TO PB4 - 30 m
PB4 TO PB5 - 74 m
POWER SOURCE TO STANCHION - 25 m
STANCHION TO SP3 - 8 m
PB5 TO JB3 - 70 m

678.30 ELECTRICAL CONDUIT SLEEVE (50 mm DIA.)

DRIVEWAY CROSSING - 27 m
RAMP AB CROSSING - 33 m

678.26 JUNCTION BOX

JB1 - STA. 6I+198, 15.5 m LT
JB2 - STA. 6I+133, 38 m LT
JB3 - STA. 6O+950, 12 m RT

678.25 PULLBOX - STANDARD

PB1 - EXISTING
PB2 - STA. 6I+125, 20.5 m RT
PB3 - STA. 6I+101, 46.5 m LT
PB4 - STA. 6I+099, 20.5 m RT
PB5 - STA. 6I+024, 14.0 m RT

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (1992)

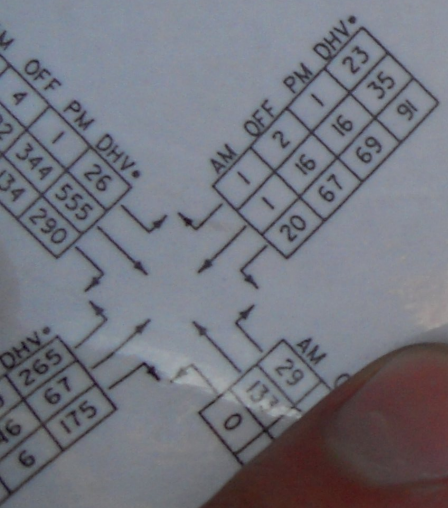
TRAFFIC SIGNAL PLAN

SURVEYED BY	C.H.A. & V.S.E.	DATE 12/93
DESIGNED BY	M.R.W.	DATE 9/00
DRAWN BY	K.H.D.	DATE 9/00
CHECKED BY	T.P.K.	DATE 9/00
DESIGN FILE NO.	TSD-AB.DGN	
PROJ. NAME	BENNINGTON - HOOSICK D.P.J. 0146(1) C/4	
PROJ. NO.	P.J.N. 1306.60	
DWG. NO. SD-2		SHEET 169 OF 385

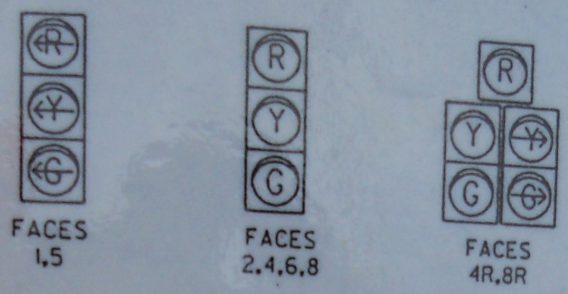
FILE NAME =u:\SIG\vertext-activated-sign
DATE/TIME =07 SEP 2000
USER =14591

...ANCE (μH)		RESISTANCE Ω @ 25°C		(MΩ)
...ED	MEASURED	CALCULATED	MEASURED	LEAKAGE TO GROUND
		1.19		
		1.31		
		0.72		
		0.22		
		0.77		
		0.73		
		1.63		
		1.48		
		1.00		
		1.54		

...CALCULATED VALUES ARE AT THE CONTROLLER.
...VALUES MUST BE FILLED IN PRIOR TO TEST PERIOD.



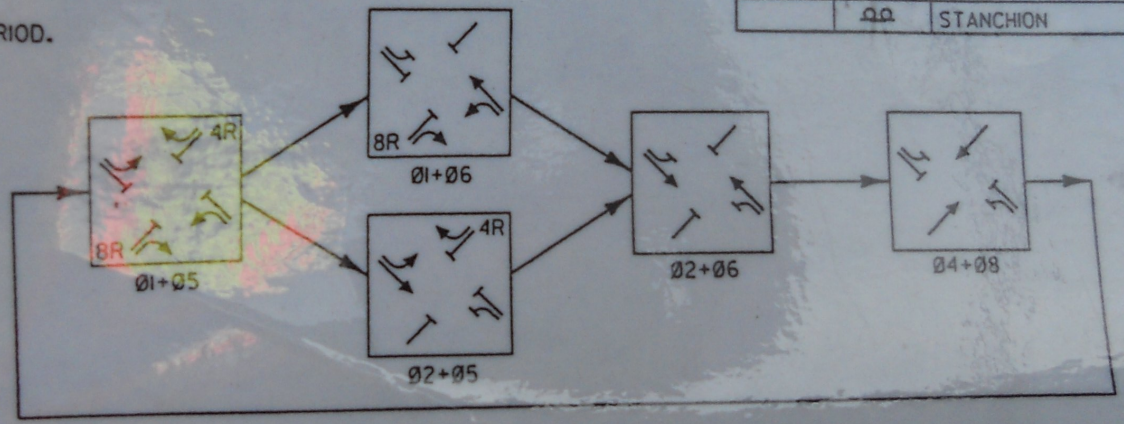
SIGNAL FACE ARRANGEMENT 300mm LENSES



LEGEND

EXISTING	NEW	DESCRIPTION
		UTILITY POLE
		LUMINAIRE
		LIGHT OR WOOD POLE
		STRAIN POLE
		CONTROLLER CABINET
		PULLBOX/JUNCTION BOX
		SIGNAL HEAD
EX		CONDUIT
		VEHICLE LOOPS
		PEDESTAL POST
		OVERHEAD TRAFFIC SIGN
		STANCHION

PHASING DIAGRAM



CONTROLLER TIMING CHART

LOCAL PROGRAMMING	PHASE 1	2	3	4	5	6	7	8
MINIMUM GREEN	8	17		12	8	17		12
EXTENSION	2.0	5.0		2.0	2.0	5.0		2.0
YELLOW CLEARANCE	4.0	4.0		4.0	4.0	4.0		4.0
ALL RED CLEARANCE	2.0	2.0		2.0	2.0	2.0		2.0
	14	29		29	14	29		29
				-	-	-		-

...MES
...EAR 2020

By-Phase Timing Data

Direction	Phase 1	2	3	4	5	6	7	8	9	10	11	12
Minimum Green	8	17	0	12	8	17	0	12	0	0	0	0
Bike Min Green	0	0	0	0	0	0	0	0	0	0	0	0
Cond Serv Min Grn	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	7	0	7	0	7	0	7	0	7	0	7
Veh Extension	2.0	5.0	0.0	2.0	2.0	5.0	0.0	2.0	0.0	0.0	0.0	0.0
Alt Veh Exten	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Extension	0	0	0	0	0	0	0	0	0	0	0	0
Max 1	14	29	0	29	14	29	0	29	0	0	0	0
Max 2	0	0	0	0	0	0	0	0	0	0	0	0
Max 3	0	0	0	0	0	0	0	0	0	0	0	0
Det. Fail Max	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	4.0	4.0	3.0	4.0	4.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0
Red Clearance	2.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0
Act. B4 Init	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Actuation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0
Time B4 Reduction	0	0	0	0	0	0	0	0	0	0	0	0
Cars Waiting	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Recall Data, Dimming

	Phase											
	1	2	3	4	5	6	7	8	9	10	11	12
Locking Detector. . . .	X	X	.	.	X	X	.	.	.	.	.	.
Vehicle Recall.	.	X	.	.	.	X	.	.	.	.	.	.
Pedestrian Recall . . .	.	.	.	.	.	.	.	.	.	.	.	.
Recall To Max	.	.	.	.	.	.	.	.	.	.	.	.
Soft Recall	.	.	.	.	.	.	.	.	.	.	.	.
Don't Rest Here	.	.	.	.	.	.	.	.	.	.	.	.
Ped Dark if No Call . .	.	.	.	.	.	.	.	.	.	.	.	.

Dimming:

	Load Switch															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green/Walk. . . .	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Yellow/Ped Clear.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Red/Don't Walk. .	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Coordination Patterns

Pattern 1

Cycle Length . . 90 COS 111
Offset 10
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 20 2- 35 3- 0 4- 35
Phase 5- 20 6- 35 7- 0 8- 35
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .		X	.	.	.	X	.	.	.	.	.	.
Veh Recall		.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .		.	.	.	.	.	.	.	.	.	.	.
Ped Recall		.	.	.	.	.	.	.	.	.	.	.
Veh Omit		.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Pattern 2

Cycle Length . . 90 COS 211
Offset 8
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 20 2- 35 3- 0 4- 35
Phase 5- 20 6- 35 7- 0 8- 35
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .		X	.	.	.	X	.	.	.	.	.	.
Veh Recall		.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .		.	.	.	.	.	.	.	.	.	.	.
Ped Recall		.	.	.	.	.	.	.	.	.	.	.
Veh Omit		.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Bennington VT67A, VT279 Ramps Corridor MS 101 VT 67A & VT 279 WB 8/8/2012 12:48

TOD Weekly/Yearly

Weekly Program Numbers

	1	2	3	4	5	6	7	8	9	10	
Sunday . . .	1	1	1	1	1	1	1	1	1	1	Program No.
Monday . . .	1	1	1	1	1	1	1	1	1	1	Program No.
Tuesday. . .	1	1	1	1	1	1	1	1	1	1	Program No.
Wednesday. .	1	1	1	1	1	1	1	1	1	1	Program No.
Thursday . .	1	1	1	1	1	1	1	1	1	1	Program No.
Friday . . .	1	1	1	1	1	1	1	1	1	1	Program No.
Saturday . .	1	1	1	1	1	1	1	1	1	1	Program No.

Week of Year

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Prog	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Prog	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
Prog	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

NIC Program Steps

Step	Program	Step Begins	Pattern	Override
1	1	0600	1	NO
2	1	0900	2	NO
3	1	2200	0	NO

TOD Program Steps

Step 1 Program 1 Step Begins 0000

Flash	X	Dimming Enable	
Red Rest		Alt Veh Extension	
Spare 5		Det Log Enable	
Spare 3		Spare 4	
Type 0 Dly Enable		Spare 2	
Det Diag Plan	0		

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable												
Max 3 Enable												
Veh Recall												
Veh Max Recall												
Ped Recall												
Cond Service Inhibit												
Phase Omit												
Special Function												

	A	B	C	D	E	F
Alt Sequence						

Step 2 Program 1 Step Begins 0600

Flash		Dimming Enable	
Red Rest		Alt Veh Extension	
Spare 5		Det Log Enable	
Spare 3		Spare 4	
Type 0 Dly Enable		Spare 2	
Det Diag Plan	0		

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable												
Max 3 Enable												
Veh Recall												
Veh Max Recall												
Ped Recall												
Cond Service Inhibit												
Phase Omit												
Special Function												

	A	B	C	D	E	F
Alt Sequence						