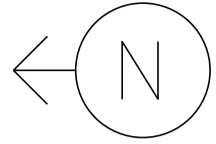











MS # 910



US 5 NORTH

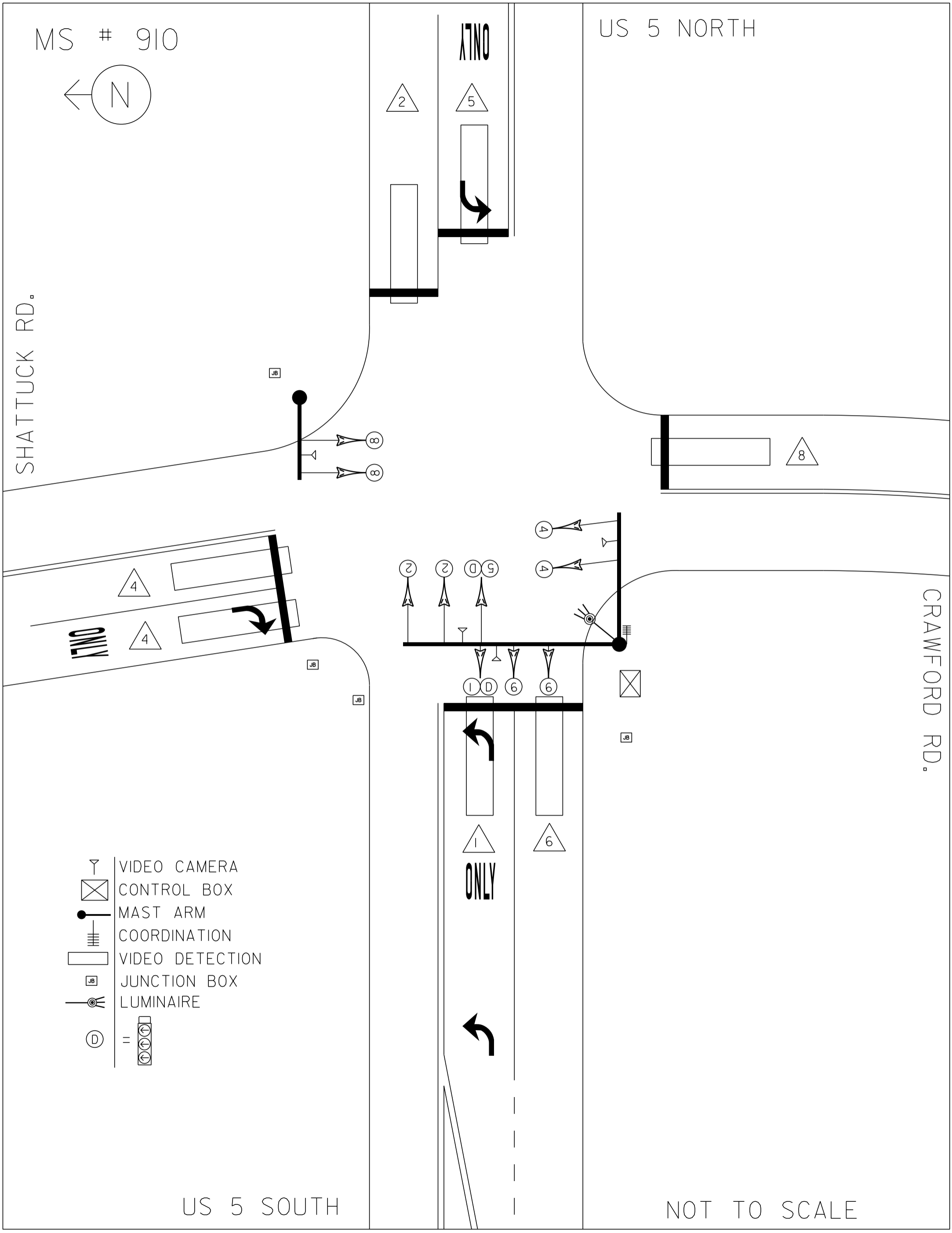
SHATTUCK RD.

CRAWFORD RD.

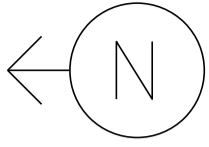
-  VIDEO CAMERA
-  CONTROL BOX
-  MAST ARM
-  COORDINATION
-  VIDEO DETECTION
-  JUNCTION BOX
-  LUMINAIRE
-  = 

US 5 SOUTH

NOT TO SCALE



MS # 910



11'

9'

12'

US 5 NORTH

LANE LINE 80'

STOP BAR 9'

STOP BAR 11'

STOP BAR 18'

15'

15'

16'

10'

9'

STOP BAR 19'

LANE LINE 50'

STOP BAR 23'

CRAWFORD RD.

LANE LINE 175'

12'

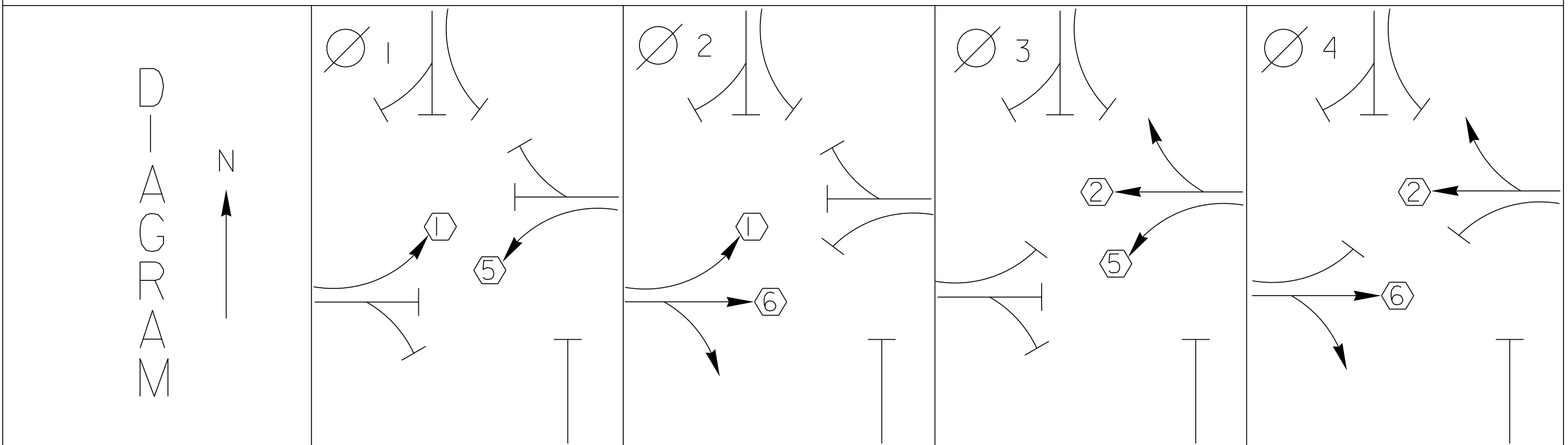
11'

12'

US 5 SOUTH

NOT TO SCALE

SHATTUCK RD.



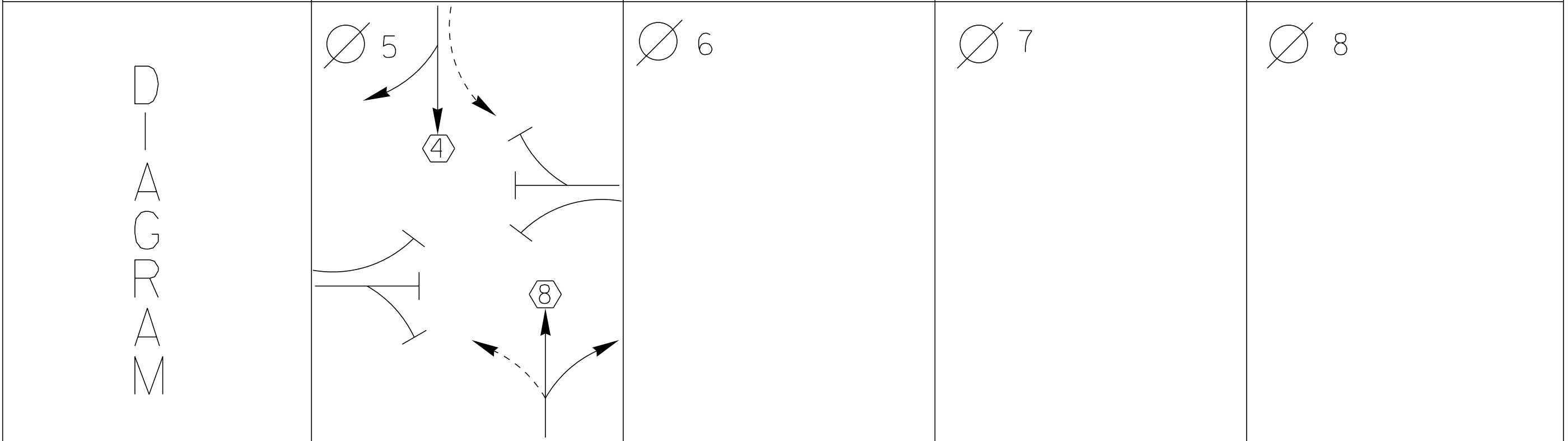
TIMING

G =
Y =

G =
Y =

G =
Y =

G =
Y =



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

(802) 334-7934

NIGHTS & WEEKENDS : PAGER# 250-0163

INTERSECTION NO. MS-910

DANGER

115 VOLTS A.C.

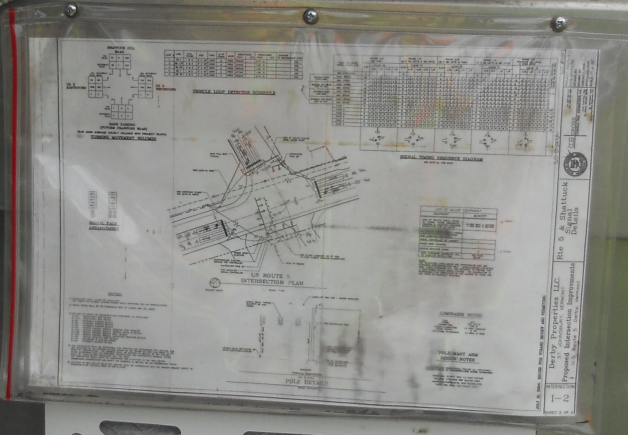
TURN ON

8-24-06

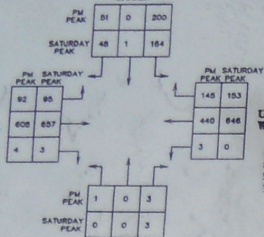
WARNING

DO NOT OPERATE
CABINET WITHOUT
CMU / MMU

A control panel with several switches and a blank rectangular display area. The switches are labeled: 'CONTROLS ON/OFF', 'FLASH', 'STOP TIME FLASH OFF/ON', and 'AUX'. There is also a small circular indicator light.



SHATTUCK HILL ROAD

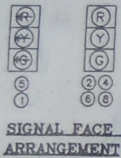


US 5 EASTBOUND

US 5 WESTBOUND

BANK PARKING (FUTURE CRAWFORD ROAD)

YEAR 2006 AVERAGE HOURLY VOLUMES WITH PROJECT TRAFFIC
TURNING MOVEMENT VOLUMES

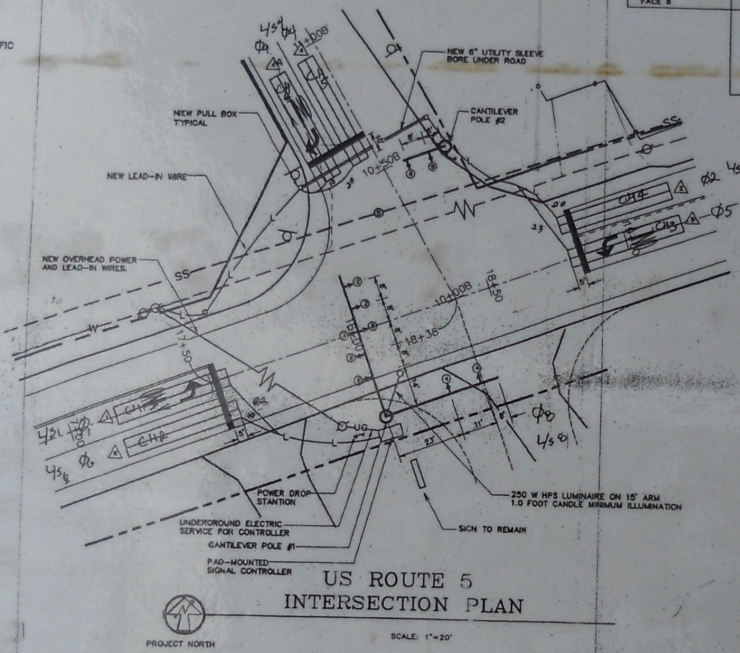
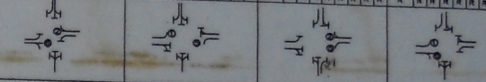


LOOP #	LANE	CALL PHASE	SIZE	TYPE	# OF TURNS	MODE	INDUCTANCE CALC.	RESISTANCE ACT.	RESISTANCE CALC.	LEAKAGE TO GROUND	AMP TYPE
1	EB L	1 & 5	8' X 40'	LONG	2	PRES	354mH	0.77 Ω			STD.
2	WB LTR	2 & 6	8' X 40'	LONG	2	PRES	414mH	1.55 Ω			STD.
4	SB LTR	4 & 8	8' X 40'	LONG	2	PRES	380mH	1.23 Ω			STD.
0	WB L	1 & 5	8' X 40'	LONG	2	PRES	417mH	1.58 Ω			STD.
8	EB TR	2 & 6	8' X 40'	LONG	2	PRES	352mH	0.74 Ω			STD.

VEHICLE LOOP DETECTOR SCHEDULE

FULLY ACTUATED DRILL PHASE 1/2	PHASE 2/5 US5 THRU				PHASE 1/5 US 5 EB LEFTS & WB LEFTS				PHASE 2/5 US 5 WB LEFTS & THRU				PHASE 1/5 US 5 EB LEFTS & WB LEFTS				PHASE 4/5 SHATTUCK HILL ROAD & BANK DRIVE								
	R/W	CLEAR TO	4/8	1/5	2/5	1/8	R/W	CLEAR TO	4/8	2/8	2/5	1/8	R/W	CLEAR TO	2/8	2/5	1/5	1/8	R/W	CLEAR TO	2/8	1/5	1/8	2/5	
VEH EXTENSION	2						2						2						2						
MAX. GREEN	35	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
MIN. GREEN	15	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
MAX. GREEN	25	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
MIN. GREEN	15	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
MAX. GREEN	35	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
MIN. GREEN	15	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
MAX. GREEN	25	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
MIN. GREEN	15	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
FACE 1	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
FACE 2	G	Y	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
FACE 4	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
FACE 5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
FACE 6	G	Y	R	Y	R	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R
FACE 8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

SIGNAL TIMING SEQUENCE DIAGRAM



LIST OF MAJOR EQUIPMENT	
EQUIPMENT	QUANTITY
NEW 12" TRAFFIC SIGNAL HEADS W/ TUNNEL WISERS, DISCONNECT HANGERS & MOUNTING HARDWARE BACKPLATES FOR ALL HEADS	8-ONE WAY, 3 SECTION 1-TWO WAY, 3 SECTION
CONTROLLER (SIGNAL) (PARTIAL ARM(S) LUMINAIRE (NEW) (FOUNDATION) (SIGNAL LUMINAIRE (ARM) (HEAD))	1
SIGNAL CONTROLLER, W/ CABINET	1
POWER DROP STATION	1
VEHICLE DETECTOR LOOPS	5
MISC. HARDWARE EQUIPMENT, ETC. TO COMPLETE INSTALLATION	SEE NOTE BELOW

NOTE: THE QUANTITIES LISTED ABOVE ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY. MISCELLANEOUS (UNLISTED) WIRE, CABLE, HARDWARE, ETC. ARE REQUIRED TO PROVIDE FOR A FUNCTIONING TRAFFIC SIGNAL SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE NUMBER OF ITEMS AND THE TYPES OF EQUIPMENT REQUIRED.

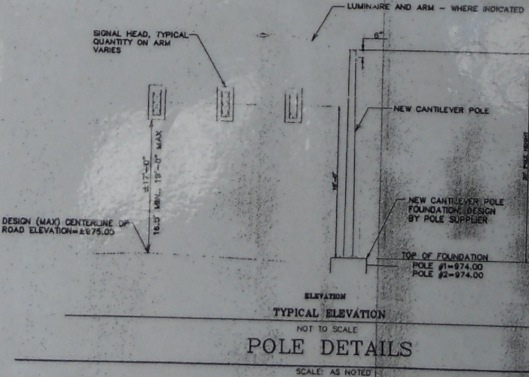
LUMINAIRE NOTES

TYPE:	250 WATTS
POWER:	TYPE III
DISTRIBUTION:	1.0 FOOT CANDLES
DESIGN ILLUMINATION:	8 CD
DESIGN HEIGHT:	E-180A, E-180B
APPLICABLE STANDARDS:	

POLE/MAST ARM DESIGN NOTES

CANTILEVER POLE DESIGN SHALL FOLLOW ALL APPLICABLE VERMONT AGENCY OF TRANSPORTATION DESIGN STANDARDS

WINDLOAD: TO MPH, W/ 1.3 BUFT FACTOR
ICE LOAD: 3 POUNDS PER SQUARE FOOT
HEADS: POLYCARBONATE, W/ BACKPLATES
POLES AND ARMS: GALVANIZED STEEL



NOTES:

- CONTRACTOR SHALL ALLOW FOR EVALUATION AND TIMING AND PHASING CHANGES DURING INITIAL OPERATION PER ADT SPECIFICATIONS.
- SIGNAL HEADS SHALL BE POLYCARBONATE WITH 12" LENSES AND LED LAMPS.
- RELATED VT AGENCY OF TRANSPORTATION STANDARDS, AS APPLICABLE:
E-142 REGULATORY SIGN DETAILS
E-145A REGULATORY SIGN DETAILS
E-191 PAVEMENT MARKING DETAILS
E-192 PAVEMENT MARKING DETAILS
E-193 PAVEMENT MARKING DETAILS
E-170 TRAFFIC CONTROL SIGNALS, PEDESTAL MOUNTED
E-171A TRAFFIC CONTROL SIGNALS, GENERAL NOTES & DETAILS
E-171B TRAFFIC CONTROL SIGNALS, MISC. DETAILS
E-171C TRAFFIC CONTROL SIGNALS, CANTILEVER MOUNTING DETAILS
E-172 VEHICLE DETECTOR LOOP DETAILS
E-173 FOLLOWERS & JUNCTION BOXES
E-191 PAVEMENT MARKING DETAILS
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THIS PLAN PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED, IN WRITING, OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD BEFORE COMMENCING CONSTRUCTION AND NOTIFY THE ENGINEER, IN WRITING, OR ANY DISCREPANCY FOUND.
- LOCATION OF NEW AND/OR RELOCATED SIGNAGE SHALL BE COORDINATED WITH THE PROPER VERMONT AGENCY OF TRANSPORTATION OFFICIALS PRIOR TO INSTALLATION.

JULY 15, 2004: ISSUED FOR VITREANS REVIEW AND PERMITTING
 DERBY PROPERTIES LLC.
 ST. JOHNSBURY, VERMONT
 Proposed Intersection Improvements
 U.S. Route 5 Derby, Vermont
 INTERSECTION
 I-2
 SHEET 2 OF 3

CROSS CONSULTING ENGINEERS INC.
 103 CANTON ROAD
 W. WINDHAM, VT 05791
 SCALE: 1" = 20'
 DATE: 07/15/04
 DRAWN: SD
 CHECKED: PNC
 APPROVED: PNC



NEW INTERFACE UNIT
POWER ON
HOLD
VALID DATA

PORT 1
PORT 2
PORT 3
PORT 4

LM 6221
M 6221
M 6221

ECONOLITE

RECEPTION EXFAD EXFAD EXFAD EXFAD

Autoscope
CONTROL PRODUCTS, INC.

encom MODEL 4200

CABINET POWER SUPPLY

POWER SUPPLY

ECONOLITE
CONTROL PRODUCTS, INC.

ASC 2100

PORT 1 PORT 2 PORT 3 PORT 4

TERM TERM TERM TERM

1 2 3
4 5 6
7 8 9
ENTER 0 CLEAR

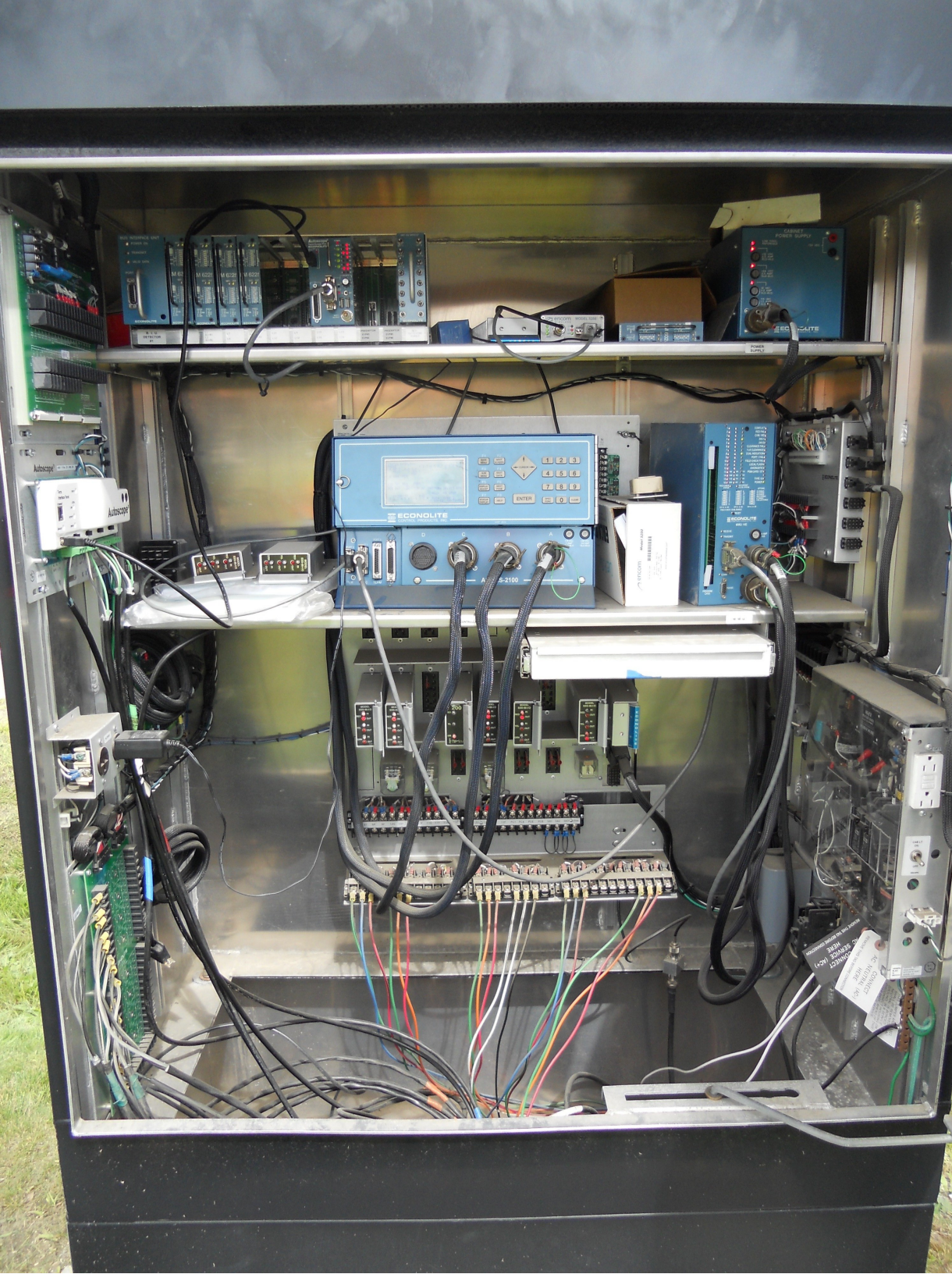
ECONOLITE
MODEL 4200

encom MODEL 4200

Autoscope
Interface Panel

CONTROL PRODUCTS, INC.

RECEPTION EXFAD EXFAD EXFAD EXFAD





DANGER / PELIGRO
HAZARD OF ELECTRICAL SHOCK OR BURN
SERVICE BY UTILITY AUTHORIZED PERSONNEL ONLY
DO NOT REMOVE COVER OR REMOVE THIS LABEL
PELIGRO DE DESCARGA ELECTRICA O QUEMADURA
SOLAMENTE PERSONAL AUTORIZADO DE LA COMPAÑIA
ELECTRICA PUEDE MANTENERLO.
NO PUEDE ENCARAR NI REMOVER ESTE ETIQUETA

Y72100-301 REV D **DCS** 10911891
15929
CL200 240V 3W TYPE C1S 30TA 1.0KH
VEC
19 709 906
Schlumberger
WATT-HOUR METER
USA 03100

DO NOT OPEN THIS COVER WITHOUT THE PROPER TRAINING AND TOOLS
DO NOT OPEN THIS COVER WITHOUT THE PROPER TRAINING AND TOOLS

DANGER / PELIGRO
HAZARD OF ELECTRICAL SHOCK OR BURN
SERVICE BY UTILITY AUTHORIZED PERSONNEL ONLY
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SOLAMENTE PERSONAL AUTORIZADO DE LA COMPAÑIA
ELECTRICA PUEDE MANTENERLO.
NO PUEDE ENCARAR NI REMOVER ESTE ETIQUETA

Crawford Rd









SPEED
LIMIT
35

LEGAL LOAD
LIMIT
24,000
POUNDS



SPEED
LIMIT
35

LEGAL LOAD
LIMIT
24,000
POUNDS



AUSTINE AUSTINE

ROY PARK
ANTIQUES



U.M.C.

7E-11.0X20FT-

7E-8.50X28FT

55 KSI

2005



Family Furniture
SUPER SALE

ONLY

ONLY

Young Drugs





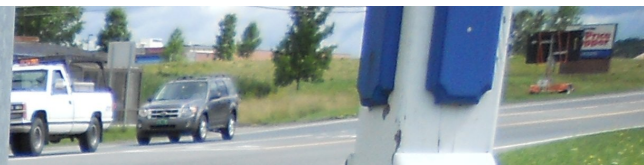


Community
National Bank

Country Rd



U.S.C.
7E-16. 8X25F7
3E-13. 8X50F7
7E-11. 8X40F7
5K31 289E



U.M.C.

7E-16.0X25FT

3E-13.0X50FT

7E-11.0X40FT

SEKSI 2006

SHATTUCK HILL

TH 7







Community
Health Inc.



Community
National Bank





ONLY

Kinney
DRUGS
GIVE YOUR PHARMACEUTICALS
FREE IN DELIVERY

Community

Walmart
DRUGS



ONLY



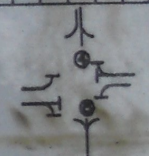
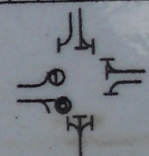
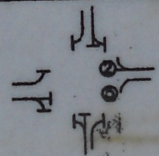
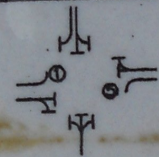
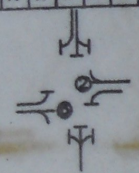




TYPE

WEEKDAY PEAK 10AM-6AM
 WEEKDAY OFF-PEAK REST OF DAY
 SATURDAY PEAK 9AM-3PM
 SATURDAY OFF-PEAK REST OF DAY

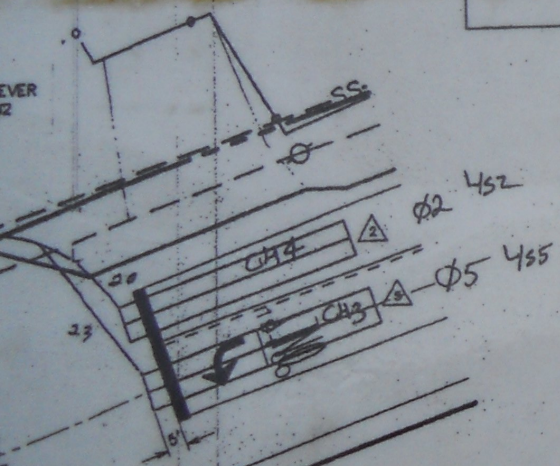
FULLY ACTUATED DWELL PHASE 2/6	PHASE 2/6 US9 THRU				PHASE 1/5 US 5 EB LEFTS & WB LEFTS				PHASE 2/5 US 5 WB LEFTS & THRU				PHASE 1/6 US 5 EB LEFTS & WB LEFTS				PHASE 4/8 SHATTUCK HILL ROAD & BANK DRIVE				FLASHING OPERATION (10:00 PM - 6:00 AM)					
	R/W	CLEAR TO				R/W	CLEAR TO				R/W	CLEAR TO				R/W	CLEAR TO									
		4/8	1/5	2/5	1/8		4/8	2/6	2/5	1/8		2/6	4/8	1/5	1/8		2/6	2/5	1/5	1/8		2/5				
VEH EXTENSION	2					2					2					2					2					
MAX. GREEN	33	4	2	4	2	9	4	2	4	2	8	4	2	4	2	9	4	2	4	2	15	4	2	4	2	
MIN. GREEN	15	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	
MAX. GREEN	25	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	
MIN. GREEN	15	4	2	4	2	8	4	2	4	2	8	4	2	4	2	9	4	2	4	2	15	4	2	4	2	
MAX. GREEN	35	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	
MIN. GREEN	15	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	12	4	2	4	2	
MAX. GREEN	25	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	
MIN. GREEN	15	4	2	4	2	8	4	2	4	2	8	4	2	4	2	8	4	2	4	2	12	4	2	4	2	
FACE 1	R	R	R	R	R	G	Y	R	Y	R	R	R	R	R	R	G	Y	R	Y	R	R	R	R	R	R	F
FACE 2	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	Y	R	R	R	R	R	R	F
FACE 4	R	R	R	R	R	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	F
FACE 5	R	R	R	R	R	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	F
FACE 6	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	Y	R	R	R	R	R	R	F
FACE 8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	F



SIGNAL TIMING SEQUENCE DIAGRAM

SEE NOTE #1, THIS SHEET

TY SLEEVE ROAD



LIST OF MAJOR EQUIPMENT	
EQUIPMENT	QUANTITY
NEW 12" TRAFFIC SIGNAL HEADS W/ TUNNEL VISORS, DISCONNECT HANGERS & MOUNTING HARDWARE BACKPLATES FOR ALL HEADS	8-ONE WAY, 3 SECTION 1-TWO WAY, 3 SECTION
CANTILEVER POLES WITH MAST ARM(S), LUMINAIRE ARM AND FOUNDATION (ONE LUMINAIRE ARM REQ'D)	
SIGNAL CONTROLLER, W/ CABINET	1
POWER DROP STATION	1

10 total

PROJECT: 99010-2
 DATE: 07/15/04

DESIGN: BD
 DRAWN: SD
 CHECKED: PHC
 APPROVED: PHC
 SCALE: 30"

Tel. 802-534-2113
 Fax. 802-534-9681

CROSS CONSULTING ENGINEERS, P.C.
 103 Fairfax Rd.
 St. Albans, Vermont 05478

CROSS CONSULTING ENGINEERS, P.C.



te 5 & Shattuck Signal Details

S.D. 07-267

S.D. 07-267

TOD Program Steps

Step 9 Program 3 Step Begins 2200

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

Alt Sequence	A	B	C	D	E	F
------------------------	---	---	---	---	---	---

Coordination Patterns

NIC Program Steps

Step	Program	Step Begins	Pattern	Override
------	---------	-------------	---------	----------

TOD Program Steps

 Step 1 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

Step 2 Program 1 Step Begins 1000

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	X	X	.	X	X	X	.	X	.	.	.	.
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

TOD Program Steps

 Step 3 Program 1 Step Begins 2200

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 . . . . .	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence A B C D E F

Step 4 Program 2 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 . . . . .	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence A B C D E F

TOD Program Steps

 Step 5 Program 2 Step Begins 0900

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	X	X	.	X	X	X	.	X	.	.	.	.
Veh Recall
Veh Max Recall
Ped Recall
Cond Service Inhibit.
Phase Omit
Special Function

A B C D E F

Alt Sequence

Step 6 Program 2 Step Begins 1500

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

TOD Program Steps

 Step 7 Program 2 Step Begins 2200

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

Alt Sequence A B C D E F

 Step 8 Program 3 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

Alt Sequence A B C D E F
