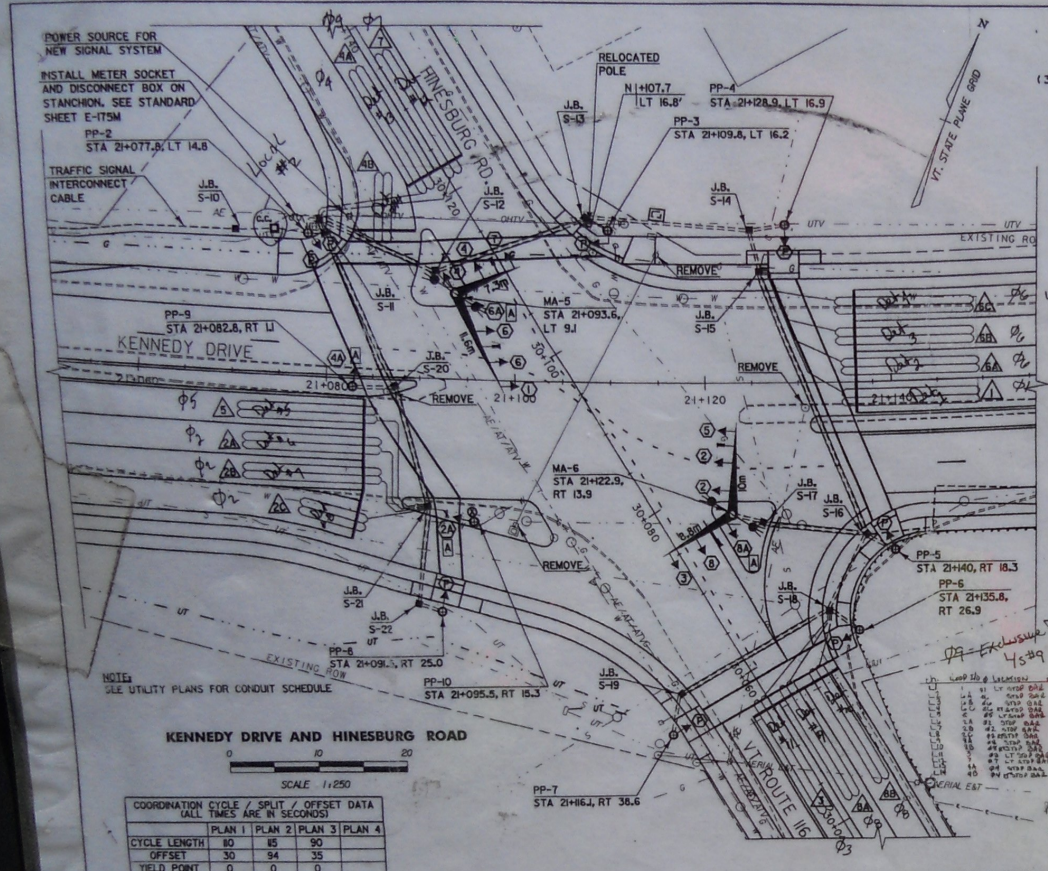


KENNEDY DRIVE AND HINESBURG ROAD

SCALE 1:250

PEDESTRIAN SIGNAL HEAD AND COUNTDOWN (300 MM LEGEND AND 225mm TEXT)

(L.E.D.) P

LS 103-1 LED SIGN A

FIRE PREEMPTION

PREEMPT 1 CALLS PHASE 2
PREEMPT 2 CALLS PHASE 6
PREEMPT 3 CALLS PHASE 4
PREEMPT 4 CALLS PHASE 8

Metric

CONTROLLER TIMING CHART

LOCAL PROGRAMMING	PHASES									
	1	2	3	4	5	6	7	8	9	FIRE PREEMPTION
MINIMUM GREEN	8	8	8	8	8	8	8	8	--	--
EXTENSION	2	2	2	2	2	2	2	2	--	--
YELLOW CLEARANCE	4	4	4	4	4	4	4	4	--	4
ALL RED CLEARANCE	2	2	2	2	2	2	2	2	--	2
MAX GREEN I 6:00-9:00 AM	8	52	16	10	11	49	8	18	--	15
MAX GREEN II 3:00-6:00 PM	8	58	10	15	15	51	8	17	--	15
MAX GREEN OFF PEAK	8	56	9	13	13	51	8	14	--	15
WALK	--	--	--	--	--	--	--	--	6	--
FLASHING DON'T WALK	--	--	--	--	--	--	--	--	23	--
FLASH	FR	FY	FR	FR	FR	FY	FR	FR	OFF	--
RECALL	OFF	MAX	OFF	OFF	OFF	MAX	OFF	OFF	--	--

NOTES:
1. Ø9 IS AN EXCLUSIVE PEDESTRIAN PHASE ACTIVATED BY PEDESTRIAN PUSH BUTTON ONLY.
2. OFF PEAK TIMING ADJUSTMENTS MAY BE NECESSARY BASED ON FIELD OBSERVATIONS DURING THE SIGNAL TEST PERIOD.
3. MAX GREEN TIMES EXCLUDE Ø9 (PEDESTRIAN PHASE)

	AM	PM	DHV
KENNEDY DRIVE	141	225	318
	556	458	648
	102	195	276
HINESBURG ROAD	253	125	46
	277	243	54
	308	344	76
	255	60	33
	185	284	51
	224	303	73
	52	123	174
	412	488	691
	32	41	58

2003 AVERAGE WEEKDAY TRAFFIC VOLUMES
*2023 DESIGN HOUR VOLUMES

VEHICLE DETECTOR LOOPS

LOOP NO.	LANE	CALL Ø	SIZE	TYPE & NO. TURNS	DELAY OR PRESENCE	INDUCTANCE CALC.	INDUCTANCE ACT.	RESISTANCE CALC.	RESISTANCE ACT.	LEAKAGE TO GROUND	LOCKING MEMORY
L5	5	EB LT	5	L8x15	QUAD-2	PRESENCE	459		0.30		
L6	2A	EB TH	2+6	L8x15	QUAD-2	PRESENCE	457		0.29		
L7	2B	EB TH	2+6	L8x15	QUAD-2	PRESENCE	455		0.28		
L8	2C	EB RT	2+6	L8x7.5	QUAD-2	PRESENCE	258		0.27		
L9	3	NB LT	3+7	L8x15	QUAD-2	PRESENCE	512		0.64		
L10	8A	NB TH	4+8	L8x15	QUAD-2	PRESENCE	509		0.63		
L11	8B	NB RT	4+8	L8x15	QUAD-2	PRESENCE	508		0.62		
L1	1	WB LT	1+5	L8x15	QUAD-2	PRESENCE	478		0.42		
L2	6A	WB TH	2+6	L8x15	QUAD-2	PRESENCE	477		0.42		
L3	6B	WB TH	2+6	L8x15	QUAD-2	PRESENCE	475		0.41		
L4	6C	WB RT	2+6	L8x15	QUAD-2	PRESENCE	474		0.40		
L11	4A	SB TH	4+8	L8x15	QUAD-2	PRESENCE	428		0.8		
L12	4B	SB TH	4+8	L8x7.5	QUAD-2	PRESENCE	227		0.07		
L13	7	SB LT	3+7	L8x15	QUAD-2	PRESENCE	429		0.13		

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

COORDINATION CYCLE / SPLIT / OFFSET DATA (ALL TIMES ARE IN SECONDS)

	PLAN 1	PLAN 2	PLAN 3	PLAN 4
CYCLE LENGTH	110	115	90	
OFFSET	30	94	35	
YIELD POINT	0	0	0	
RELEASE HOLD	3	3	3	
SPLIT TIME 01	14	14	14	
SPLIT TIME 02	58	64	62	
SPLIT TIME 03	22	16	15	
SPLIT TIME 04	16	21	19	
SPLIT TIME 05	17	21	19	
SPLIT TIME 06	55	57	57	
SPLIT TIME 07	14	14	14	
SPLIT TIME 08	24	23	20	

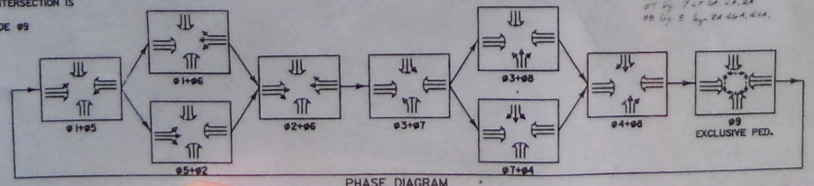
1. OFFSET IS FROM THE END OF PHASE 2&6
2. PLAN 1 AM PEAK
   PLAN 2 PM PEAK
   PLAN 3 OFF PEAK
   PLAN 4 CONDITIONAL SERVICE PLAN
3. OFF PEAK TIMING / PHASING SHALL BE DEVELOPED AFTER THE INTERSECTION IS OPENED.
4. MAX GREEN TIMES EXCLUDE Ø9 (PEDESTRIAN PHASE).

TIME OF DAY PLAN

	12AM 1 2 3 4 5 6 7 8 9 10 11	12PM 1 2 3 4 5 6 7 8 9 10 11	12AM
MONDAY	OFF	AM OFF PM OFF	OFF
TUESDAY	OFF	AM OFF PM OFF	OFF
WEDNESDAY	OFF	AM OFF PM OFF	OFF
THURSDAY	OFF	AM OFF PM OFF	OFF
FRIDAY	OFF	AM OFF PM OFF	WEEKEND
SATURDAY	OFF	OFF	
SUNDAY	OFF	OFF	

TRAFFIC SIGNAL NOTES

1. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED AND SALVAGED TO THE VAOT DISTRICT 5.
2. FIRE PREEMPTION SETTINGS TO BE TESTED AND FINALIZED IN CONJUNCTION WITH THE CITY'S FIRE DEPARTMENT DURING THE SIGNAL TEST PERIOD.
3. MAST ARMS SHALL BE ORIENTED PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE NOTED.
4. POWER SOURCE LOCATION TO BE DETERMINED BY UTILITY COMPANY AND APPROVED BY ENGINEER.
5. LOCATION OF ALL STRUCTURES SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO CONSTRUCTION.



PHASE DIAGRAM

SIGNAL FACE ARRANGEMENT (305 LENSES)

(L.E.D.) FACES 1, 3, 5, 7
(L.E.D.) FACES 2, 4, 6, 8
(L.E.D.) FACES 2A, 4A, 6A, 8A

DATE	REVISIONS	BY
	ORIGINAL PREPARED AUG. 2004	

EXISTING	NEW	LEGEND
		UTILITY POLE
		LUMINAIRE
		WOOD POLE
		STRAIN POLE
		CONTROLLER CABINET
		PULLBOX/JUNCTION BOX
		SIGNAL HEAD
		CONDUIT
		OPTICAL DETECTOR
		VEHICLE LOOPS
		PEDESTAL POST
		PEDESTAL POST W/PUSH BUTTON ONLY
		STANCHION
		SWEEP
		REGULATORY SIGN R10-12 (600X750) LEFT TURN YIELD ON GREEN BALL

received

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83 (1996)

TRAFFIC SIGNAL LAYOUT

PROJECT: SOUTH BURLINGTON
PROJECT NO.: NH 121-1(1)
DESIGN FILE NAME: m:\ST2900\HWY\DRAW\sigpin\sigpin03.dgn
PARM FILE NAME:
PLOT DATE: 17-MAR-2005
SURVEYED BY: VERMONT SURVEY & ENG.
SURVEY DATE: 1/01
SQUAD LEADER: BENOIT
DRAWN BY: MJF
SHEET: 177 OF 275

07-2673-203