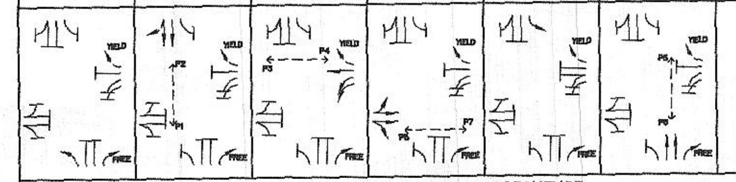
SEQUENCE AND TIMING CHART



STREET	DIR.	FACE	Ø/OL	PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7 NOT USED			PHASE 8 NOT USED			PHASE 9 NOT USED			EMERGENCY FLASH OPERATION
				R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	
ROUTE 6	EB	A	Ø5	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R										←FY
ROUTE 6	EB	B,C	Ø2	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R										FY
ROUTE 6	WB	D	Ø1	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R										←FY
ROUTE 6	WB	E,F	Ø6	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R										FY
ROUTE 140	SB	G,H	Ø3	←R	←R	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R										←FR
ROUTE 140	SB	J,K	Ø3	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R										←FR
BROWNELL AVE.	NB	L	Ø4	R	R	R	R	R	R	R	R	R	G/←G	Y	R	R	R	R	R	R	R										FR
BROWNELL AVE.	NB	M	Ø4	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R										FR
PEDESTRIAN		P1–P2		✋	✋	✋	🚶	F/✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋										FR
PEDESTRIAN		P3–P4		✋	✋	✋	✋	✋	✋	🚶	F/✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋										
PEDESTRIAN		P5–P6		✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	✋	🚶	F/✋	✋										
PEDESTRIAN		P7–P8		✋	✋	✋	✋	✋	✋	✋	✋	✋	🚶	F/✋	✋	✋	✋	✋	✋	✋	✋										

TIMING IN SECONDS

	PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7			PHASE 8			PHASE 9		
	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2	R/W	CL1	CL2
MINIMUM GREEN	6			12			12			10			6			12											
VEHICLE INTERVAL	2			2			2			2			2			2											
MAXIMUM GREEN I (FREE)*	10.5			27			19.5			19			17.5			20											
MAXIMUM GREEN II (COORDINATION)*	10.5			32			21.5			17			20.5			20											
YELLOW CLEAR		3.5			3.5			3.5			3			3.5			3.5										
ALL RED CLEAR			3			1.5			4			2			3			1.5									
PED INTERVAL (WALK)				7			7			7						7											
PED INTERVAL (FLASHING DON'T WALK)				17			17			19						19											
DETECTOR	NON–LOCK			NON–LOCK			NON–LOCK			NON–LOCK			NON–LOCK			NON–LOCK											
RECALL MODE	OFF			MIN.			MIN.			OFF			OFF			MIN.											

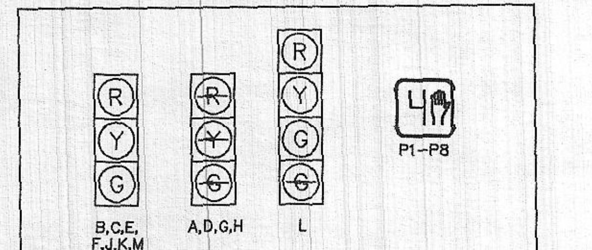
*NOTES: UPON P3–P4 PUSH BUTTON ACTIVATION, THE MAXIMUM GREEN FOR PHASE 3 SHALL BE INCREASED TO 21 SECONDS.
UPON P7–P8 PUSH BUTTON ACTIVATION, THE MAXIMUM GREEN FOR PHASE 4 SHALL BE INCREASED TO 24 SECONDS.
UPON P5–P6 PUSH BUTTON ACTIVATION, THE MAXIMUM GREEN FOR PHASE 6 SHALL BE INCREASED TO 24 SECONDS.
PEDESTRIAN PHASE CALLED UPON PUSH BUTTON ACTIVATION ONLY

LOOP DETECTOR OPERATION

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE (ft)	AMPLIFIER NUMBER	CHANNEL NUMBER	SPLICE PATTERN*	NUMBER OF TURNS	Ø CALLED	Ø EXTENSION	MODE: A=PULSE B=PRES. C=CALLING	DELAY (SECONDS)	EXTENSION (SECONDS)
1	2	6'x20'	1	1	Q	2–4–2	5	5	B	0	0
2	2	6'x20'	1	2	Q	2–4–2	2	2	B	0	0
3	1	6'x20'	2	1	Q	2–4–2	2	2	B	0	0
3a	1	6'x20'	2	2	Q (BICYCLE)	2–4–2	2	2	B	0	0
4	1	6'x20'	3	1	Q	2–4–2	1	1	B	0	0
4a	1	6'x20'	3	2	Q (BICYCLE)	2–4–2	1	1	B	0	0
5	2	6'x20'	4	1	Q	2–4–2	6	6	B	0	0
6	1	6'x20'	4	2	Q	2–4–2	6	6	B	0	0
6a	1	6'x20'	5	1	Q (BICYCLE)	2–4–2	6	6	B	0	0
7	2	6'x20'	5	2	Q	2–4–2	3	3	B	0	0
8	2	6'x20'	6	1	Q	2–4–2	3	3	B	0	0
9	2	6'x20'	6	2	Q	2–4–2	3	3	B	0	0
10	2	6'x20'	7	1	Q	2–4–2	4	4	B	0	0
11	2	6'x20'	7	2	Q	2–4–2	4	4	B	0	0

*S = SERIES, P = SERIES/PARALLEL, BL=BICYCLE LOOP, Q= QUADRUPOLE

SIGNAL DISPLAY



NOTES:
1.) ALL SIGNAL HEADS SHALL HAVE 5" BACKPLATES WITH 2" REFLECTIVE BORDER, AND TUNNEL VISORS.
2.) ALL SIGNAL LENSES SHALL BE 12" DIA. LED.
3.) ALL PEDESTRIAN SIGNAL HEADS SHALL DISPLAY INTERNATIONAL SYMBOLS – (HAND)/(PERSON WALKING WITH COUNTDOWN DISPLAY).
4.) ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE 16" LED LENSES.
5.) ALL SIGNAL HEADS SHALL BE FIXED MOUNTED.

NEW BEDFORD
ROUTE 140 & ROUTE 6 AT BROWNELL AVE.

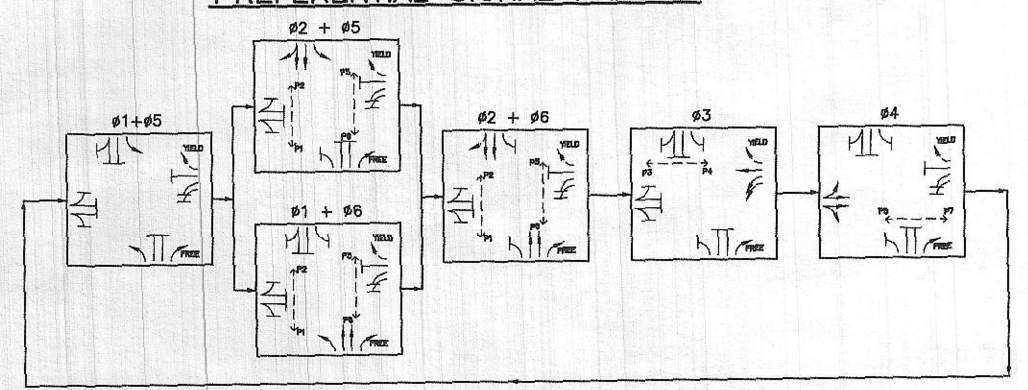
STATE	FED. PROJ. AID NO.	SHEET NO.	TOTAL SHEETS
MASS.	HSI/STP-002S(572)X	4	7
PROJ. FILE NO. 605365			

TRAFFIC SEQUENCE PLAN
LOCATION 1: ROUTE 6 AT BROWNELL AVE / ROUTE 140

SCHEDULE OF OPERATIONS

PLAN 1	PLAN 2	PLAN 3	PLAN 4
MON–FRI 6AM–9AM	MON–FRI 3PM–6PM	SATURDAY 11AM–1PM	ALL OTHER TIMES (FREE)

PREFERENTIAL SIGNAL PHASING



SEQUENCE NOTES

1. ANY PHASE NOT CALLED WILL BE SKIPPED. SIGNAL IDENTIFICATION WILL NOT CHANGE IF THE ASSIGNED RIGHT OF WAY DOES NOT CHANGE DURING THE NEXT PHASE CALLED.

2. THE RIGHT–OF–WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON–CONFLICTING PHASES.

3. MAX 1 = FREE OPERATION
MAX 2 = DURING COORDINATION

EMERGENCY VEHICLE PRE–EMPTION PHASING AND PRIORITY NOTES:

1. EMERGENCY VEHICLE PRE–EMPTION SIGNALS SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS LOCATED AT EACH INTERSECTION.

2. IN RESPONSE TO A PRE–EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR D1 (OR D2, D3, D4) THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE–EMPTION PHASE #1 (OR #2, #3, #4) GREEN FOR A MINIMUM OF FIVE (5) SECONDS OR UNTIL PRE–EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE–EMPTION PHASE CLEARANCE (4 SECONDS: YELLOW AND 2 SECONDS: ALL RED) AND SERVICE EMERGENCY VEHICLE PRE–EMPTION PHASE #2 (OR #1) IF NECESSARY, THEN TIME PHASE PRE–EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION. EMERGENCY VEHICLE PRE–EMPTION PHASES #3 & #4 SHALL BE SIMILARLY SERVED.

3. MINIMUM GREEN, NORMAL VEHICLE CLEARANCE, SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE–EMPTION DEMAND.

4. PREEMPTION STROBE SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PRE–EMPTION GREEN IS ON.

5. EMERGENCY SIGNAL PRE–EMPTION SHALL OVERRIDE COORDINATION.

LOOP DETECTOR OPERATION NOTES:

1. SEE LOOP DETECTOR DETAIL SHEETS FOR SPLICE PATTERN AND OTHER INFORMATION.

2. DELAY AND EXTENSION TIMES ARE IN SECONDS.

COORDINATION DATA (SECONDS)

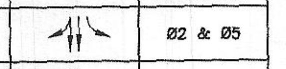
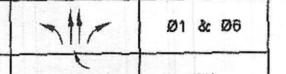
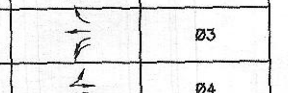
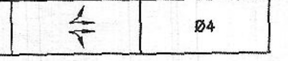
RTE 140 / KEMPTON ST (RTE 6) / BROWNELL AVE

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	100	100	100
OFFSET	87	93	93
SPLIT ø1+ø5	17	15	16
SPLIT ø2+ø5	10	12	10
SPLIT ø2+ø6	23	25	25
SPLIT ø3	29	28	27
SPLIT ø4	21	20	22

COORDINATION NOTES:

1. OFFSETS REFERENCED TO BEGINNING OF YELLOW PHASE ø2+ø6.
2. SPLIT PHASE EQUALS GREEN PLUS CLEARANCE IN SECONDS

EMERGENCY VEHICLE PRE–EMPTION PHASING AND PRIORITY

DETECTOR AND PRIORITY	PRE–EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENT
D1	1		Ø2 & Ø5
D2	2		Ø1 & Ø6
D3	3		Ø3
D4	4		Ø4