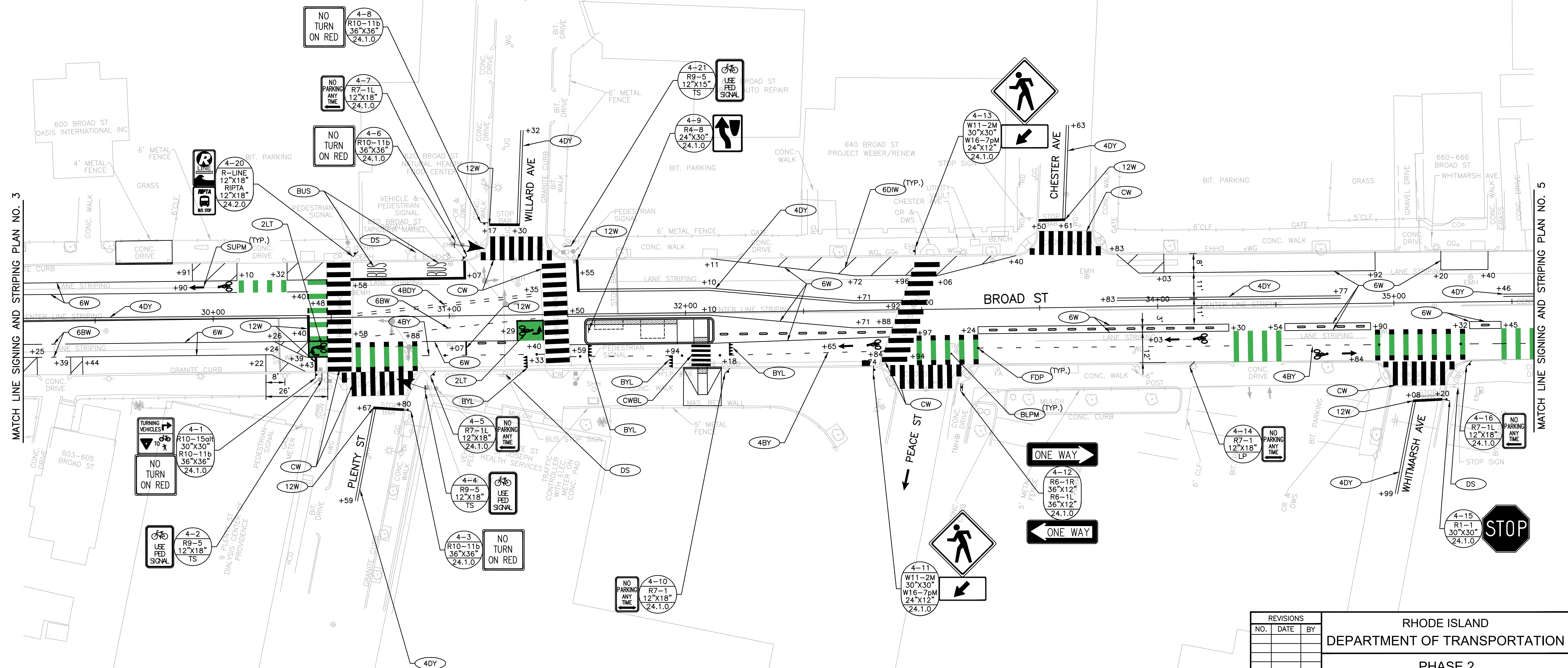


FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	405-421-868	2021	25	51



NOTES:

1. ~~CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED.~~
2. ~~CONTRACTOR TO COORDINATE WITH PROVIDENCE DPW TO RELOCATE BIKE STATIONS.~~

[illegible]

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

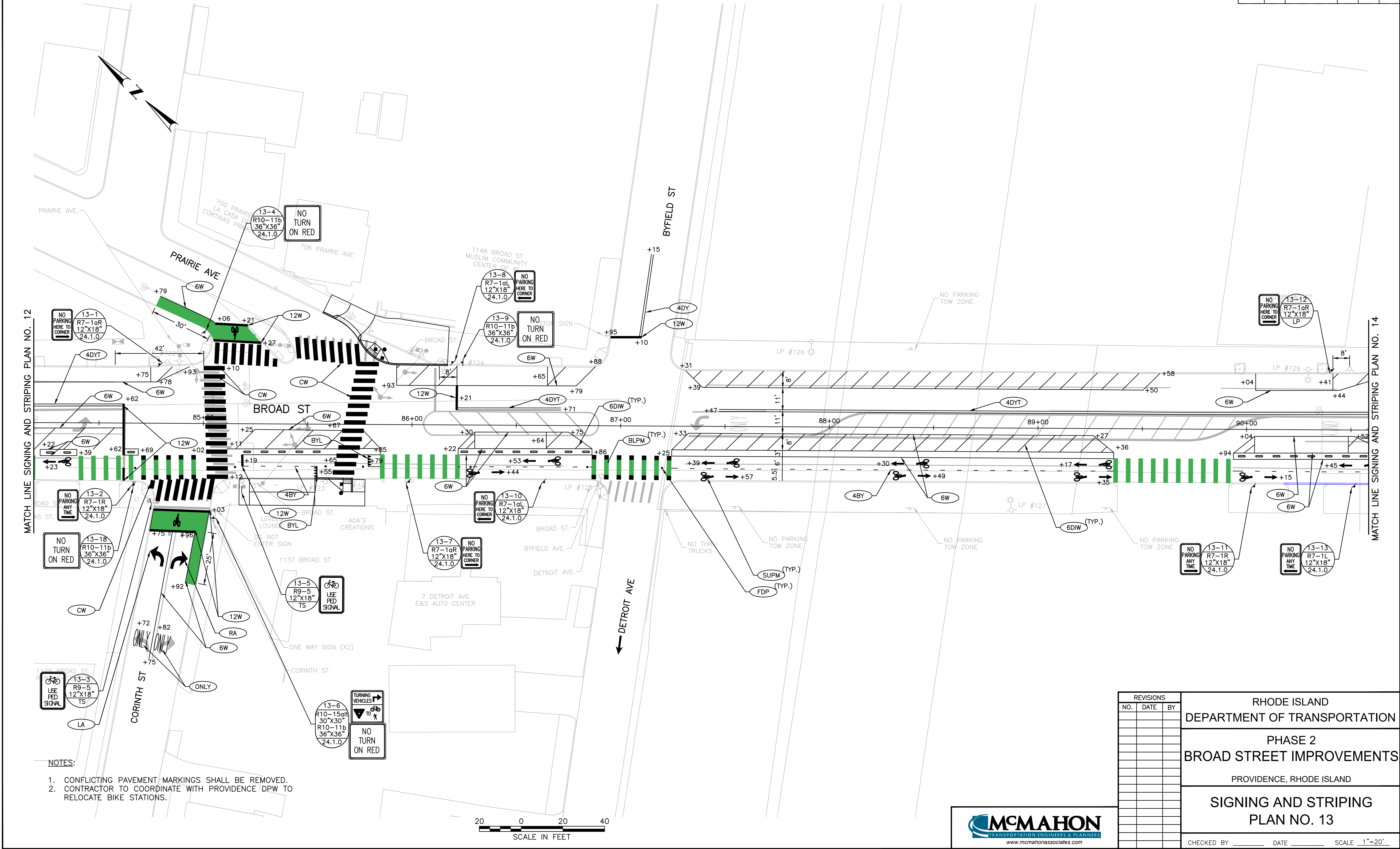
PHASE 2
BROAD STREET IMPROVEMENTS

PROVIDENCE, RHODE ISLAND

SIGNING AND STRIPING PLAN NO. 4

CHECKED BY _____ DATE _____ SCALE 1"=20'

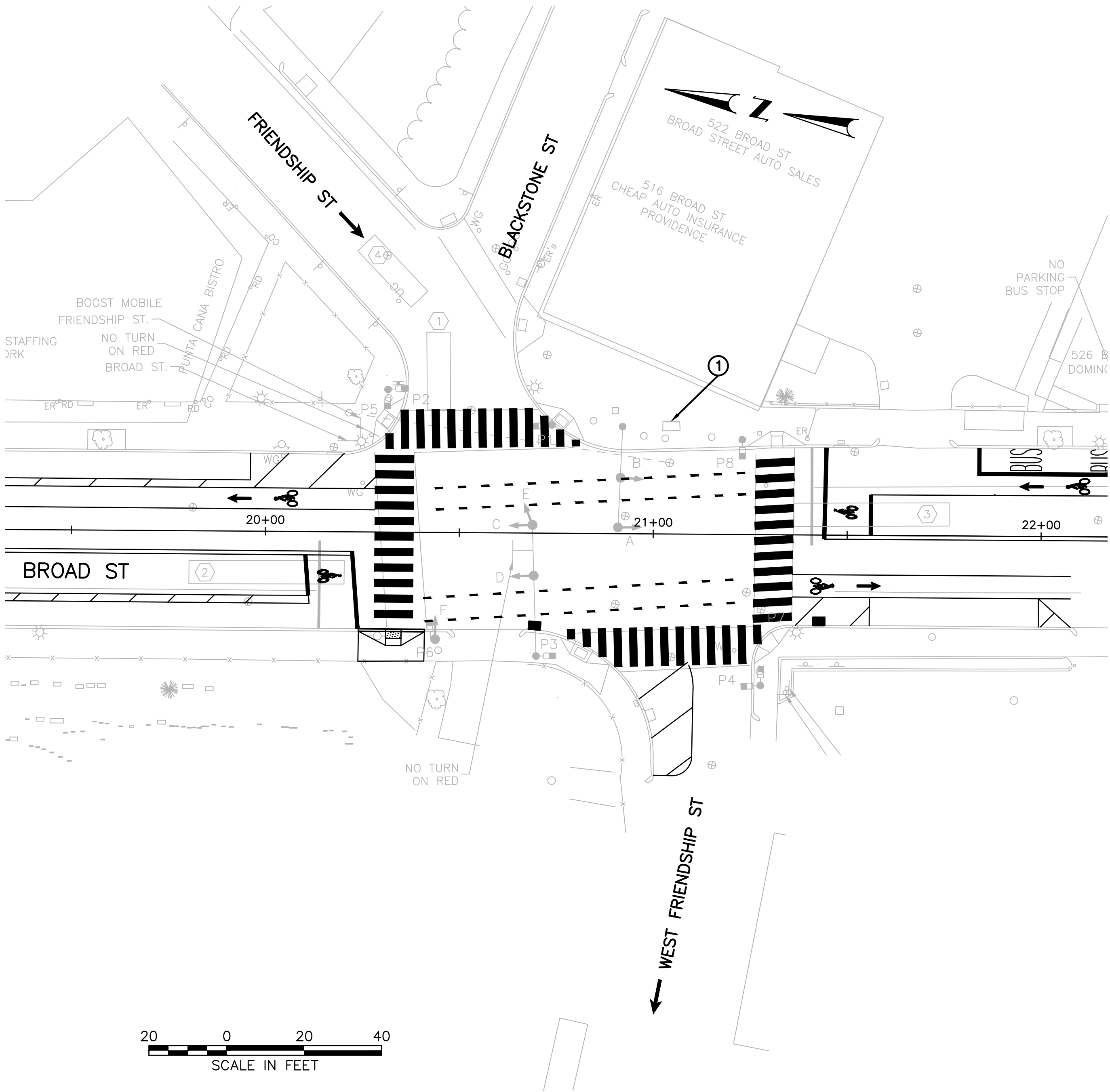
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- NOTES:
1. CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED.
 2. CONTRACTOR TO COORDINATE WITH PROVIDENCE DPW TO RELOCATE BIKE STATIONS.



REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION	
NO.	DATE	BY		
			PHASE 2 BROAD STREET IMPROVEMENTS	
			PROVIDENCE, RHODE ISLAND	
			SIGNING AND STRIPING PLAN NO. 13	
			CHECKED BY _____ DATE _____ SCALE 1"=20'	



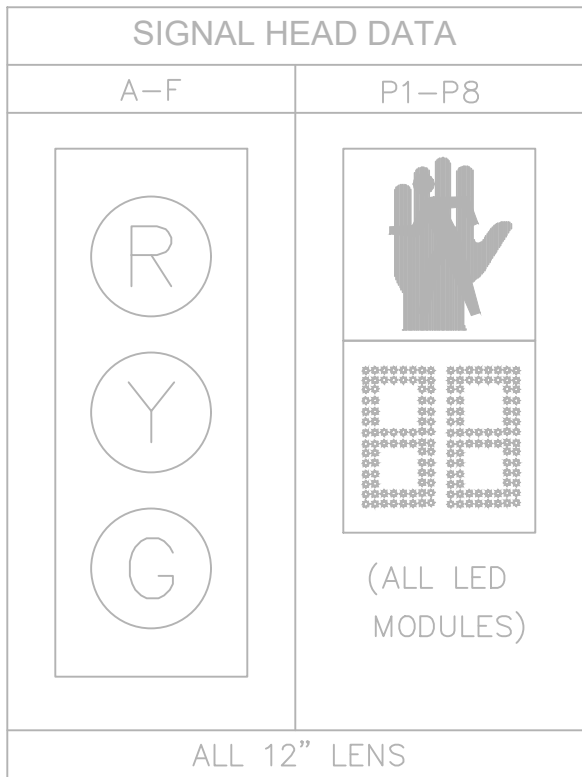
NO.	ITEM CODE	SYMBOL	ITEM DESCRIPTION
1	T12.9901		TRAFFIC SIGNAL CONTROLLER MODIFICATIONS

OPTICAL DETECTOR CONFIRMATION
BEACON SPACING:

BEACON LOCATION	DISTANCE FROM CENTER OF MAST ARM POLE
NW CORNER	27.0'

OPTICAL DETECTOR SPACING:


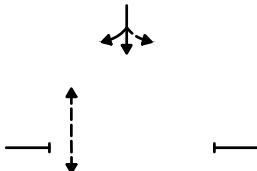
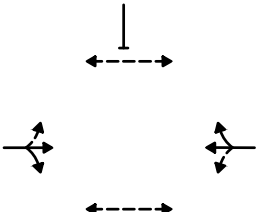
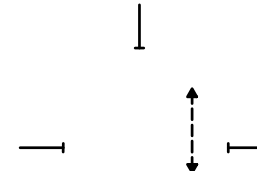

RECEIVER NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
D1	24.5'
D2	24.0'
D3	28.5'



NOTE:
ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS ARE EXISTING.

LOOP DETECTOR DATA						
DETECTOR NO.	NO. SECTION/ SIZE	RELAY NUMBER	SLOT	DELAY (SEC)	CALL PHASE	REMARKS
1	1-6'X20'	1	2	5	ø1	EXISTING
2	1-6'X40'	1	2	3	ø2	EXISTING
3	1-6'X40'	1	2	3	ø2	EXISTING
4	1-6'X20'	1	2	5	ø1	EXISTING

TRAFFIC SIGNAL CONSTRUCTION NOTES:
1. THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON ASSUMED LOCATIONS AND SIZES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATIONS AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING THE WORK.
2. PHASING CHANGES TO BE IMPLEMENTED IN CONTROLLER AND OTHER SIGNAL EQUIPMENT IN CABINET.

SEQUENCE AND TIMING														
														
			ø1				ø2				ø3			
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	FLASH OPER.
BROAD STREET	N.B.	A,B	R	R	R	R	R	G	Y	R	R	R	R	FY
BROAD STREET	S.B.	C,D	R	R	R	R	R	G	Y	R	R	R	R	FY
FRIENDSHIP STREET	W.B.	E,F	R	G	Y	R	R	R	R	R	R	R	R	FR
PEDESTRIANS	N.B./S.B.	P1–P4	DW	DW	DW	DW	W	W/FDW	DW	DW	DW	DW	DW	OUT
PEDESTRIANS	E.B./W.B.	P5–P6	W	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
PEDESTRIANS	E.B./W.B.	P7–P8	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT
TIMING IN SECONDS														
MINIMUM INTERVAL				5				10						EMERGENCY ONLY
VEHICLE EXTENSION				2.4				2.6						
MAXIMUM I				15				33						
MAXIMUM II				21				52						
YELLOW CLEARANCE					3				3					
RED CLEARANCE						2				2			3	
WALK			4				3				7			
PEDESTRIAN CLEARANCE				3/10				4/9				11		
RECALL			PED				PED				OFF			
MEMORY			NON–LOCK				NON–LOCK				NON–LOCK			

SEQUENCE AND TIMING NOTES:
1. FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28-4D.31
2. MAXIMUM 1 = ALL TIMES
3. MAXIMUM 2 NOT USED
4. ø3 PEDESTRIAN PHASE UPON PUSHBUTTON ACTIVATION ONLY.
5. CONCURRENT PEDESTRIAN PHASES TO BE REST IN WALK OPERATION.

COORDINATION DATA:		
(ALL ENTRIES IN SECONDS)		
	PLAN 1	PLAN 2
CYCLE LENGTH	90	100
OFFSET	0	25
SPLIT ø1	25	33
SPLIT ø2	43	45
SPLIT ø3	22	22
COORDINATED PHASE	ø2	ø2
PLAN 1	MONDAY-FRIDAY 7:00AM-10:00AM	
PLAN 2	ALL DAYS 2:00PM-6:00PM	
FREE	ALL OTHER TIMES	

NOTES:
1. ø2 "CALL NON ACTUATED" DURING COORDINATION.
2. OFFSET: BEGINNING OF ø2 GREEN.
3. PLAN FORCE OFF/FLOATING FORCE OFF SHALL BE IN EFFECT.
4. SPLIT TIMES EQUAL GREEN PLUS CLEARANCES.
5. INHIBIT MAX. TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
6. PHASE 1 TO BE ON PED. RECALL DURING COORDINATION.



REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION PHASE 2 BROAD STREET IMPROVEMENTS PROVIDENCE, RHODE ISLAND SIGNAL PLAN NO. 1 BROAD STREET/FRIENDSHIP STREET INTERSECTION
NO.	DATE	BY	
			CHECKED BY _____ DATE _____ SCALE 1"=20'

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	405-421-868	2021	37	51

COORDINATION DATA:		
(ALL ENTRIES IN SECONDS)		
	PLAN 1	PLAN 2
CYCLE LENGTH	90	100
OFFSET	88	8
SPLIT Ø1	66	75
SPLIT Ø2	24	25
COORDINATED PHASE	Ø1	Ø1
PLAN 1 — MONDAY-FRIDAY	7:00AM-10:00AM	
PLAN 2 — ALL DAYS	2:00PM-6:00PM	
FREE — ALL OTHER TIMES		

- NOTES:
- Ø1 "CALL NON ACTUATED" DURING COORDINATION.
 - OFFSET: BEGINNING OF Ø1 GREEN.
 - PLAN FORCE OFF/FLOATING FORCE OFF SHALL BE IN EFFECT.
 - SPLIT TIMES EQUAL GREEN PLUS CLEARANCES.
 - INHIBIT MAX. TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
 - PHASE 2 TO BE ON PED. RECALL DURING COORDINATION.

- PAVEMENT MARKING NOTES:
- PAVEMENT MARKINGS SHOWN ON THIS PLAN SHALL BE SUPERCEDED BY THE PAVEMENT MARKINGS SHOWN IN THE BROAD STREET IMPROVEMENTS — RESURFACING PLAN SET, RESURFACING PLAN NO. 3.

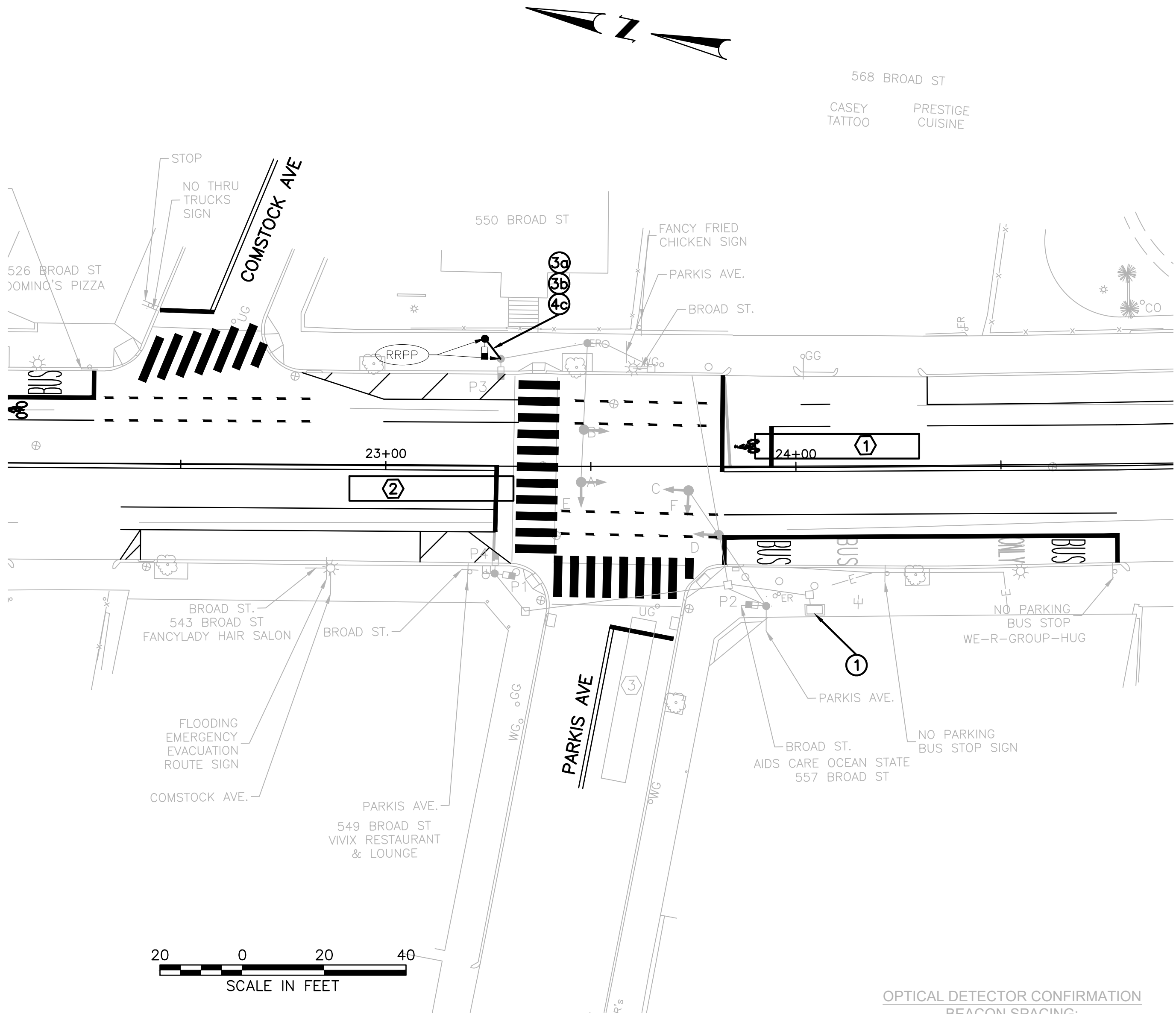
- TRAFFIC SIGNAL CONSTRUCTION NOTES:
- THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON ASSUMED LOCATIONS AND SIZES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATIONS AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING THE WORK.
 - VIDEO DETECTION ZONES TO BE ADJUSTED IN THE FIELD AS SHOWN.

SIGNAL HEAD DATA		
A-D	E,F	P1-P4
<div><div>R</div><div>Y</div><div>G</div></div>	<div><div>R</div><div>Y</div><div>G</div></div>	<div><div></div><div></div></div>
ALL 12" LENS	ALL 8" LENS	ALL 12" LENS

- NOTES:
- ALL TRAFFIC SIGNAL HEADS ARE EXISTING.
 - ALL PEDESTRIAN SIGNAL HEADS ARE PROPOSED.

SEQUENCE AND TIMING											
			Ø1				Ø2				FLASH OPER.
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	
BROAD STREET	N.B.	A,B	R	G	Y	R	R	R	R	R	
BROAD STREET	S.B.	C,D	R	G	Y	R	R	R	R	R	
PARKIS AVENUE	E.B.	E,F	R	R	R	R	R	G	Y	R	FR
PEDESTRIANS	N.B./S.B.	P1-P2	W	W/FDW	DW	DW	DW	DW	DW	DW	OUT
PEDESTRIANS	E.B./W.B.	P3-P4	DW	DW	DW	DW	W	W/FDW	DW	DW	OUT
TIMING IN SECONDS											
MINIMUM INTERVAL			10					6			EMERGENCY ONLY
VEHICLE EXTENSION			2.4					2.4			
MAXIMUM I			28					16			
MAXIMUM II			48					16			
YELLOW CLEARANCE					3				3		
RED CLEARANCE						1				1.5	
WALK		3					4				
PEDESTRIAN CLEARANCE			4/7					3/10			
RECALL			PED				PED				
MEMORY			NON-LOCK				NON-LOCK				

- SEQUENCE AND TIMING NOTES:
- FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28-4D.31
 - MAXIMUM 1 = ALL TIMES
 - MAXIMUM 2 = NOT USED
 - CONCURRENT PEDESTRIAN PHASES TO BE REST IN WALK OPERATION.



VIDEO DETECTOR DATA					
DETECTOR ZONE NO.	CAMERA NUMBER	APPROX. SIZE DET. ZONE	DELAY (SEC)	CALL PHASE	REMARKS
1	1	6'x40'	3	Ø1	PROPOSED
2	2	6'x40'	3	Ø1	PROPOSED
3	3	6'x40'	3	Ø2	EXISTING

OPTICAL DETECTOR CONFIRMATION
BEACON SPACING:

BEACON LOCATION	DISTANCE FROM CENTER OF MAST ARM POLE
NE CORNER	5.0'

OPTICAL DETECTOR
SPACING:

RECEIVER NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
D1	10.0'
D2	24.0'
D3	24.0'

VIDEO DETECTION
CAMERA SPACING:

CAMERA NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
1	12.0'
2	19.0'
3	ON SHAFT

NO.	ITEM CODE	SYMBOL	ITEM DESCRIPTION
1	T12.9901	—	TRAFFIC SIGNAL CONTROLLER MODIFICATIONS
3a	T04.5303	—	14 AWG 3 CONDUCTOR CABLE
3b	T04.5305	—	14 AWG 5 CONDUCTOR CABLE
4c	T06.5130	—	3 INCH SCHEDULE 40 POLYVINYL CHLORIDE PLASTIC CONDUIT — UNDERGROUND
RRPP	T11.9902	—	REMOVE AND RELOCATE PEDESTAL POLE



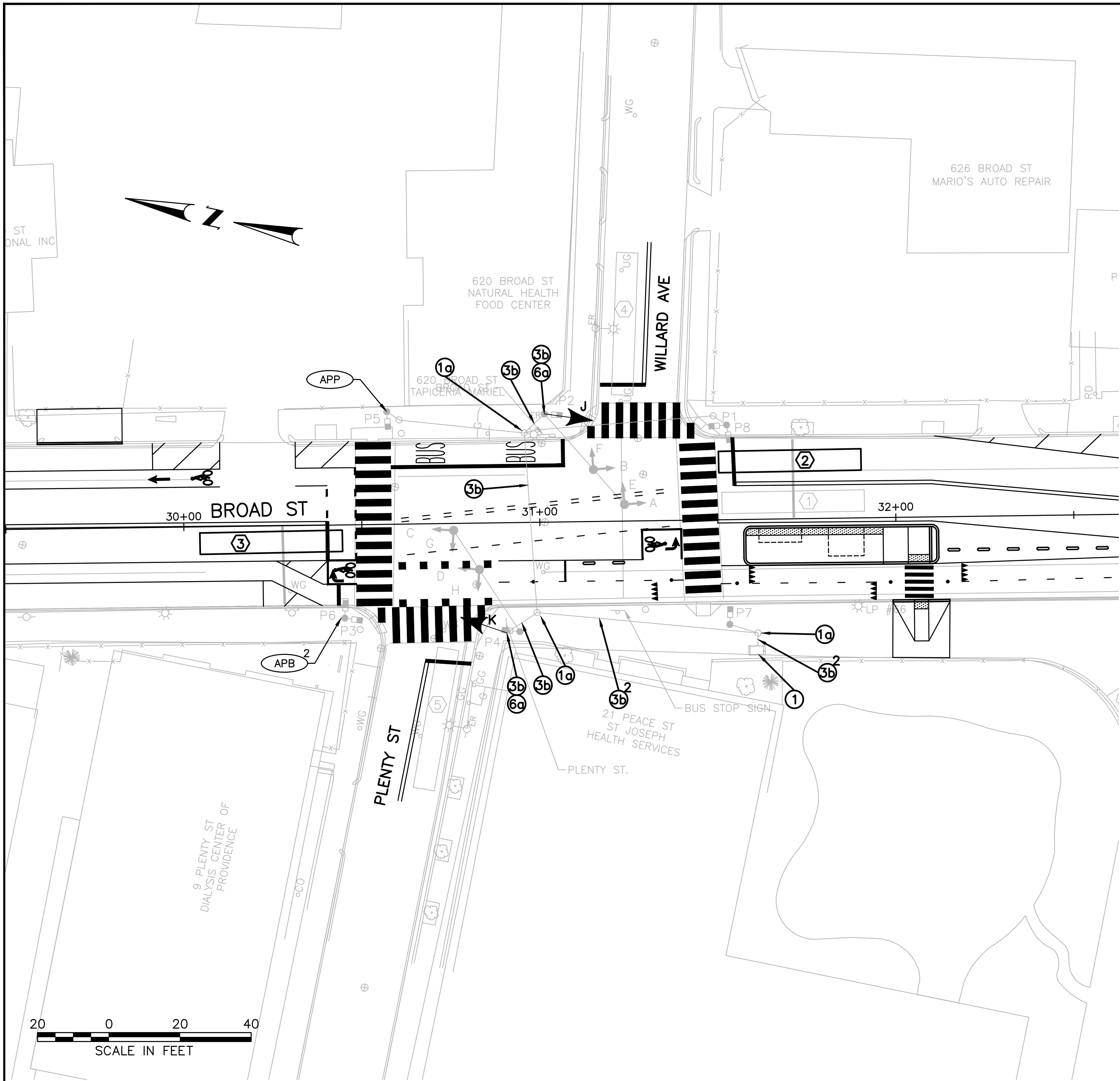
RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

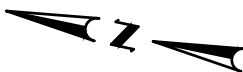
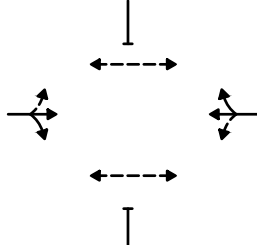
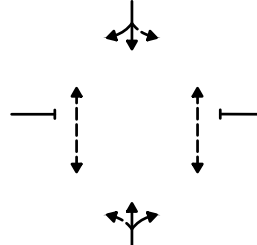
PHASE 2
BROAD STREET IMPROVEMENTS

PROVIDENCE, RHODE ISLAND

SIGNAL PLAN NO. 2
BROAD STREET/PARKIS AVENUE INTERSECTION

CHECKED BY _____ DATE _____ SCALE 1"=20'



SEQUENCE AND TIMING											
											FLASH OPER.
STREET	DIRECTION	HOUSINGS	ø1				ø2				
BROAD STREET	N.B.	A,B,J	R	G	Y	R	R	R	R	R	FY
BROAD STREET	S.B.	C,D,K	R	G	Y	R	R	R	R	R	FY
WILLARD AVENUE	W.B.	E,F	R	R	R	R	R	G	Y	R	FR
PLENTY STREET	E.B.	G,H	R	R	R	R	R	G	Y	R	FR
PEDESTRIANS	N.B./S.B.	P1-P4	W	W/FDW	DW	DW	DW	DW	DW	DW	OUT
PEDESTRIANS	E.B./W.B.	P5-P8	DW	DW	DW	DW	W	W/FDW	DW	DW	OUT
TIMING IN SECONDS											
MINIMUM INTERVAL				10				6			EMERGENCY ONLY
VEHICLE EXTENSION				2.4				2.4			
MAXIMUM I				31				17			
MAXIMUM II				46				17			
YELLOW CLEARANCE					3				3		
RED CLEARANCE						2				2	
WALK			3				4				
PEDESTRIAN CLEARANCE				4/4				3/10			
RECALL			PED				PED				
MEMORY			NON-LOCK				NON-LOCK				

- SEQUENCE AND TIMING NOTES:
- FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28-4D.31
 - MAXIMUM 1 = ALL OTHER TIMES
 - MAXIMUM 2 = 10 AM-6PM WEEKDAYS
2 PM-6PM WEEKENDS
 - CONCURRENT PEDESTRIAN PHASES TO BE REST IN WALK OPERATION.

SIGNAL HEAD SPACING:

SIGNAL HEAD	APPROXIMATE DISTANCE FROM CENTER OF MAST ARM POLE		RELOCATED DISTANCE
	EXISTING	PROPOSED	
A	38.0'	-	-
B	26.0'	22.0'	4.0'
C	38.0'	37.0'	1.0'
D	24.0'	20.0'	4.0'
E	38.0'	-	-
F	26.0'	22.0'	4.0'
G	38.0'	37.0'	1.0'
H	24.0'	20.0'	4.0'
J	-	0.0'	0.0'
K	-	0.0'	0.0'

OPTICAL DETECTOR CONFIRMATION
BEACON SPACING:

BEACON LOCATION	DISTANCE FROM CENTER OF MAST ARM POLE
NE CORNER	19.5'
SW CORNER	12.0'

OPTICAL DETECTOR SPACING:

RECEIVER NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
D1	30.0'
D2	30.0'
D3	30.0'
D4	21.0'

VIDEO DETECTION
CAMERA SPACING:

CAMERA NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
1	ON SHAFT
2	22.0'
3	24.5'
4	17.0'

SIGNAL HEAD DATA		
A-D,J,K	E-H	P1-P8
ALL 12" LENS	ALL 8" LENS	ALL 12" LENS

NO.	ITEM CODE	SYMBOL	ITEM DESCRIPTION
1	T12.9901		TRAFFIC SIGNAL CONTROLLER MODIFICATIONS
1a	T05.0400		BREAK INTO EXISTING HANDHOLE
3b	T04.5305		14 AWG 5 CONDUCTOR CABLE
6a	T14.3613		1 WAY 3 SECTION BRACKET MOUNTED SIGNAL HEAD 12 INCH
APP	T11.9901		ADJUST PEDESTAL POLE TO GRADE
APB	T13.9902		ADJUST PEDESTRIAN PUSHBUTTON VERTICALLY ON POLE

TRAFFIC SIGNAL CONSTRUCTION NOTES:

- THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON ASSUMED LOCATIONS AND SIZES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATIONS AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING THE WORK.
- VIDEO DETECTION ZONES TO BE ADJUSTED IN THE FIELD AS SHOWN.
- DETECTION ZONE 1 TO BE DELETED.
- PROPOSED SIGNAL HEADS SHALL BE EQUIPPED WITH RETROREFLECTIVE BACKPLATES.

- NOTES:
- ALL TRAFFIC SIGNAL HEADS ARE EXISTING.
 - ALL PEDESTRIAN SIGNAL HEADS ARE PROPOSED.
 - TRAFFIC SIGNAL HEADS J AND K ARE PROPOSED.



RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

PHASE 2
BROAD STREET IMPROVEMENTS

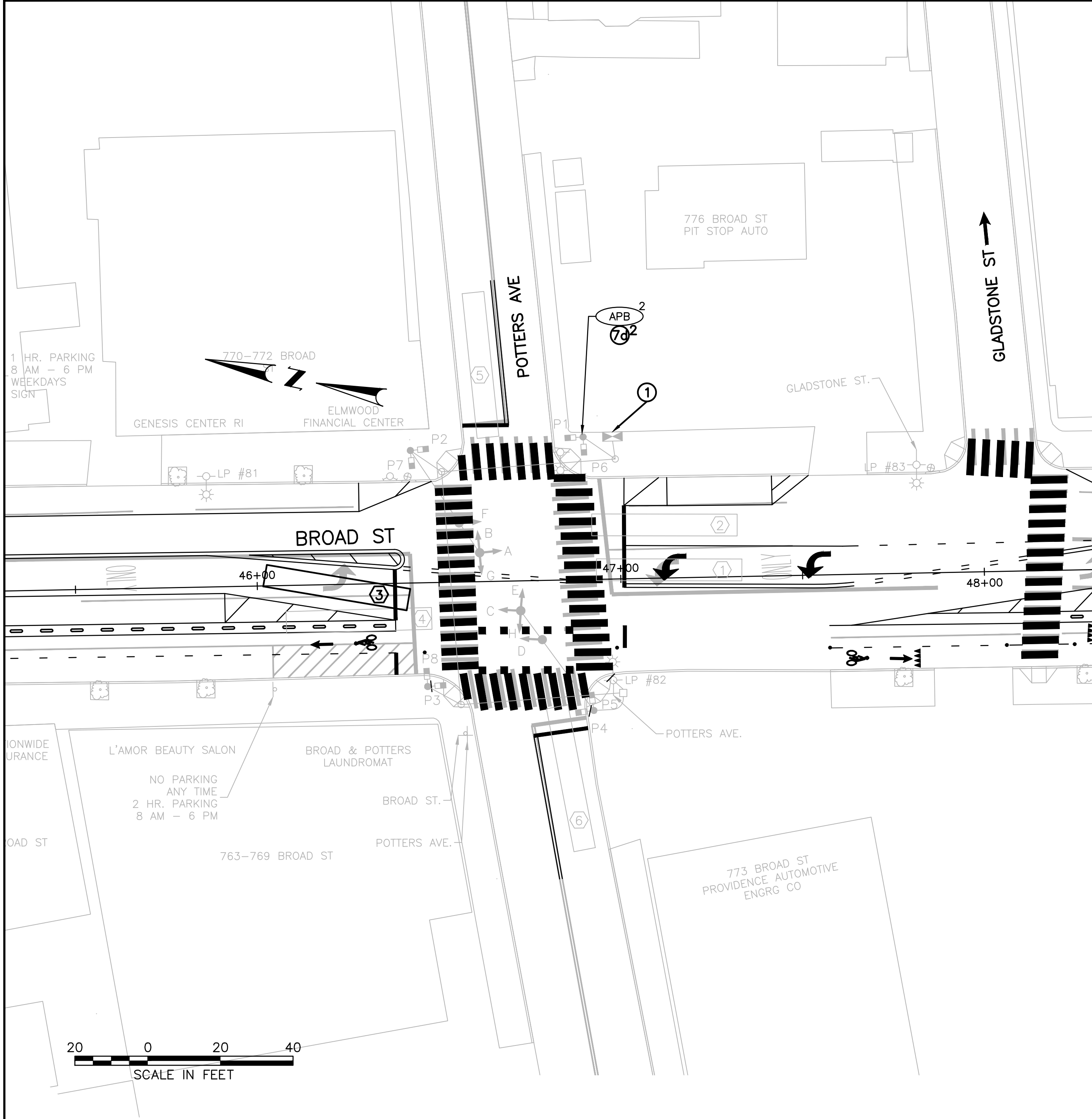
PROVIDENCE, RHODE ISLAND

SIGNAL PLAN NO. 3

BROAD STREET/PLENTY STREET INTERSECTION

CHECKED BY _____ DATE _____ SCALE 1"=20'

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	405-421-868	2021	40	51



VIDEO DETECTOR DATA					
DETECTOR ZONE NO.	CAMERA NUMBER	APPROX. SIZE DET. ZONE	DELAY (SEC)	CALL PHASE	REMARKS
1	1	6'x40'	3	Ø1	EXISTING
2	1	6'x40'	3	Ø1	EXISTING
3	2	6'x40'	3	Ø1	PROPOSED
4	2	6'x40'	3	Ø1	EXISTING
5	3	6'x40'	3	Ø2	EXISTING
6	4	6'x40'	3	Ø2	EXISTING

SIGNAL HEAD SPACING:			
SIGNAL HEAD	APPROXIMATE DISTANCE FROM CENTER OF MAST ARM POLE		RELOCATED DISTANCE
	EXISTING	PROPOSED	
A	33.0'	31.5'	1.5'
B	18.0'	15.5'	2.5'
C	35.0'	34.0'	1.0'
D	20.0'	18.5'	1.5'
E	35.0'	34.0'	1.0'
F	33.0'	31.5'	1.5'
G	33.0'	31.5'	1.5'
H	35.0'	34.0'	1'

SIGNAL HEAD DATA		
A-D	E-H	P1-P8
ALL 12" LENS	ALL 8" LENS	ALL 12" LENS

NOTES: 1) ALL TRAFFIC SIGNAL HEADS ARE EXISTING.
2) ALL PEDESTRIAN SIGNAL HEADS ARE PROPOSED.

SEQUENCE AND TIMING											
											FLASH OPER.
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	
BROAD STREET	N.B.	A,B	R	G	Y	R	R	R	R	R	FY
BROAD STREET	S.B.	C,D	R	G	Y	R	R	R	R	R	FY
POTTERS AVENUE	W.B.	E,F	R	R	R	R	R	G	Y	R	FR
POTTERS AVENUE	E.B.	G,H	R	R	R	R	R	G	Y	R	FR
TIMING IN SECONDS											
PEDESTRIANS	N.B./S.B.	P1-P4	W	W/FDW	DW	DW	DW	DW	DW	DW	OUT
PEDESTRIANS	E.B./W.B.	P5-P8	DW	DW	DW	DW	W	W/FDW	DW	DW	OUT
EMERGENCY ONLY											
MINIMUM INTERVAL			10				6				
VEHICLE EXTENSION			2.4				2.4				
MAXIMUM I			44				20				
MAXIMUM II			45				19				
YELLOW CLEARANCE					3				3		
RED CLEARANCE						1					1.5
WALK			3				4				
PEDESTRIAN CLEARANCE				4/6				3/13			
RECALL			PED				PED				
MEMORY			NON-LOCK				NON-LOCK				

SEQUENCE AND TIMING NOTES:
1. FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28-4D.31
2. MAXIMUM 1 = ALL OTHER TIMES
3. MAXIMUM 2 = NOT USED
4. CONCURRENT PEDESTRIAN PHASES TO BE REST IN WALK OPERATION.

TRAFFIC SIGNAL CONSTRUCTION NOTES:
1. THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON ASSUMED LOCATIONS AND SIZES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATIONS AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING THE WORK.
2. VIDEO DETECTION ZONES TO BE ADJUSTED IN THE FIELD AS SHOWN.
3. DETECTION ZONE 4 TO BE DELETED.

NO.	ITEM CODE	SYMBOL	ITEM DESCRIPTION
1	T12.9901		TRAFFIC SIGNAL CONTROLLER MODIFICATIONS
APB	T13.9902		ADJUST PEDESTRIAN PUSHBUTTON VERTICALLY ON POLE
7d	T13.9903		EXTENSION BRACKET FOR PEDESTRIAN PUSHBUTTON

OPTICAL DETECTOR CONFIRMATION
BEACON SPACING:

BEACON LOCATION	DISTANCE FROM CENTER OF MAST ARM POLE
NE CORNER	12.0'
SW CORNER	17.0'

OPTICAL DETECTOR SPACING:

RECEIVER NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
D1	22.0'
D2	28.0'
D3	26.0'
D4	26.0'

VIDEO DETECTION
CAMERA SPACING:

CAMERA NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
1	24.0'
2	1.0'
3	ON SHAFT
4	ON SHAFT

COORDINATION DATA:		
(ALL ENTRIES IN SECONDS)		
	PLAN 1	PLAN 2
CYCLE LENGTH	80	80
OFFSET	0	0
SPLIT Ø1	51	52
SPLIT Ø2	29	28
COORDINATED PHASE	Ø1	Ø1
PLAN 1 - MONDAY-FRIDAY	7:00AM-10:00AM	
PLAN 2 - ALL DAYS	2:00PM-6:00PM	
FREE - ALL OTHER TIMES		

NOTES:
1. Ø1 "CALL NON ACTUATED" DURING COORDINATION.
2. OFFSET: BEGINNING OF Ø1 GREEN.
3. PLAN FORCE OFF/FLOATING FORCE OFF SHALL BE IN EFFECT.
4. SPLIT TIMES EQUAL GREEN PLUS CLEARANCES.
5. INHIBIT MAX. TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
6. PHASE 2 TO BE ON PED. RECALL DURING COORDINATION.

REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION
NO.	DATE	BY	
			PHASE 2 BROAD STREET IMPROVEMENTS
			PROVIDENCE, RHODE ISLAND
			SIGNAL PLAN NO. 5
			BROAD STREET/POTTERS AVENUE INTERSECTION
			CHECKED BY _____ DATE _____ SCALE 1"=20'



VIDEO DETECTOR DATA					
DETECTOR ZONE NO.	CAMERA NUMBER	APPROX. SIZE DET. ZONE	DELAY (SEC)	CALL PHASE	REMARKS
1	1	6'x40'	3	ø1	EXISTING
2	1	6'x40'	3	ø1	EXISTING
3	2	6'x40'	3	ø1	EXISTING
4	2	6'x40'	3	ø1	EXISTING
5	3	6'x40'	3	ø2	PROPOSED
6	4	6'x40'	3	ø2	PROPOSED

SIGNAL HEAD SPACING:			
SIGNAL HEAD	APPROXIMATE DISTANCE FROM CENTER OF MAST ARM POLE		RELOCATED DISTANCE
	EXISTING	PROPOSED	
A	29.0'	—	—
B	18.0'	14.0'	4.0'
C	34.0'	29.0'	5.0'
D	20.0'	18.5'	1.5'
E	20.0	18.5'	1.5'
F	29.0	—	—
G	18.0'	14.0'	4.0'
H	29.0'	—	—
J	22.0'	—	—
K	14.0'	—	—

SIGNAL HEAD DATA			
A-D	E-H	J-K	P1-P6,P7,P8
<div><div>R</div><div>Y</div><div>G</div></div>	<div><div>R</div><div>Y</div><div>G</div></div>	<div><div>R</div><div>Y</div><div>FY</div></div>	<div><div></div><div>BB</div></div> <div>(ALL LED MODULES)</div>
ALL 12" LENS	ALL 8" LENS	12"/8" LENS	ALL 12" LENS

NOTE:
PEDESTRIAN SIGNAL HEADS P7 AND P8 ARE PROPOSED.

OPTICAL DETECTOR SPACING:		VIDEO DETECTION CAMERA SPACING:	
RECEIVER NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE	CAMERA NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
D1	19.0'	1	22.0'
D2	21.0'	2	19.5'
D3	9.0'	3	15.5'
D4	15.0'	4	10.5'

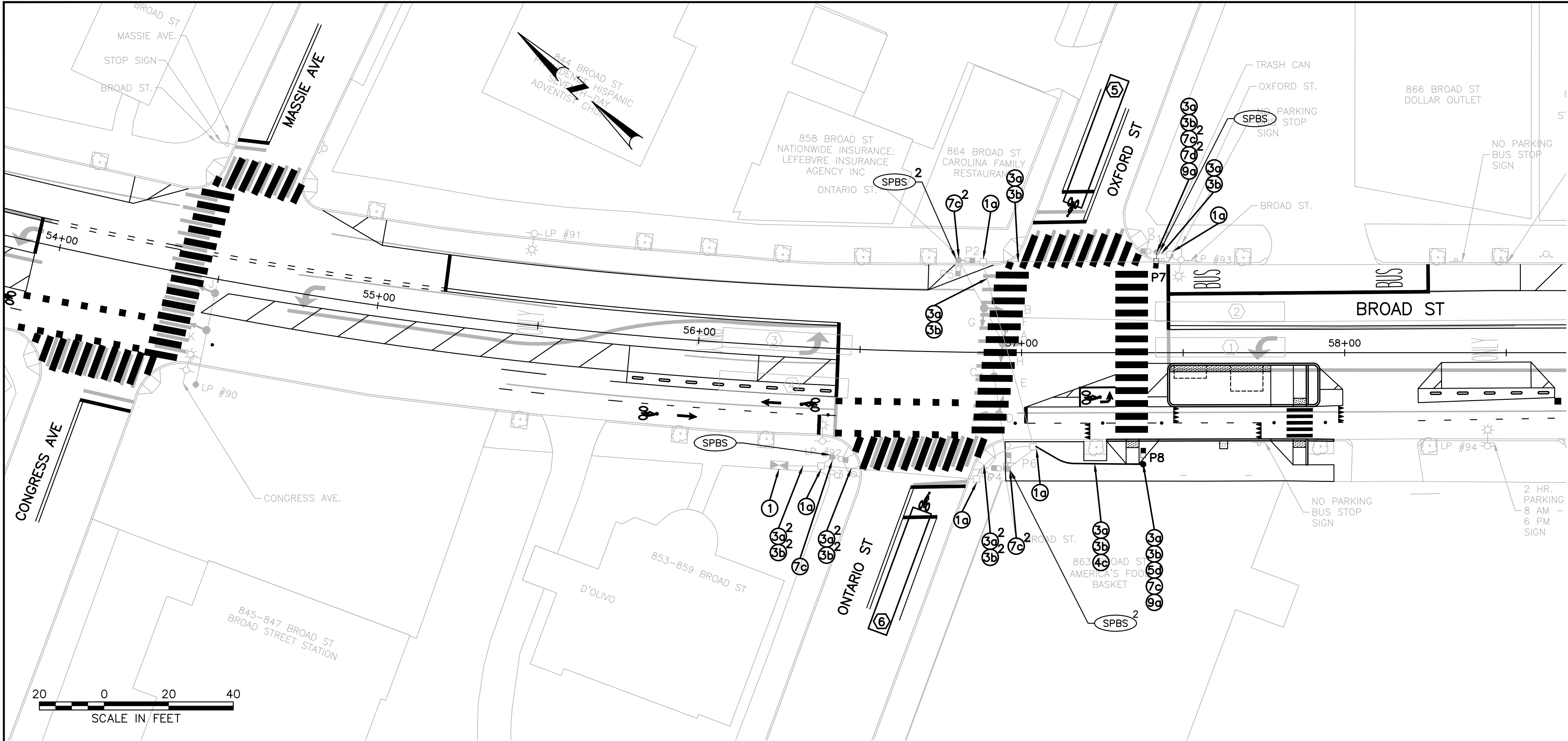
OPTICAL DETECTOR CONFIRMATION
BEACON SPACING:

BEACON LOCATION	DISTANCE FROM CENTER OF MAST ARM POLE
NE CORNER	9.0'
SW CORNER	11.0'

- SEQUENCE AND TIMING NOTES:
- FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28-4D.31
 - MAXIMUM 1 = ALL OTHER TIMES
 - MAXIMUM 2 = 10 AM-6PM WEEKDAYS
2 PM-6PM WEEKENDS
 - CONCURRENT PEDESTRIAN PHASES TO BE REST IN WALK OPERATION.

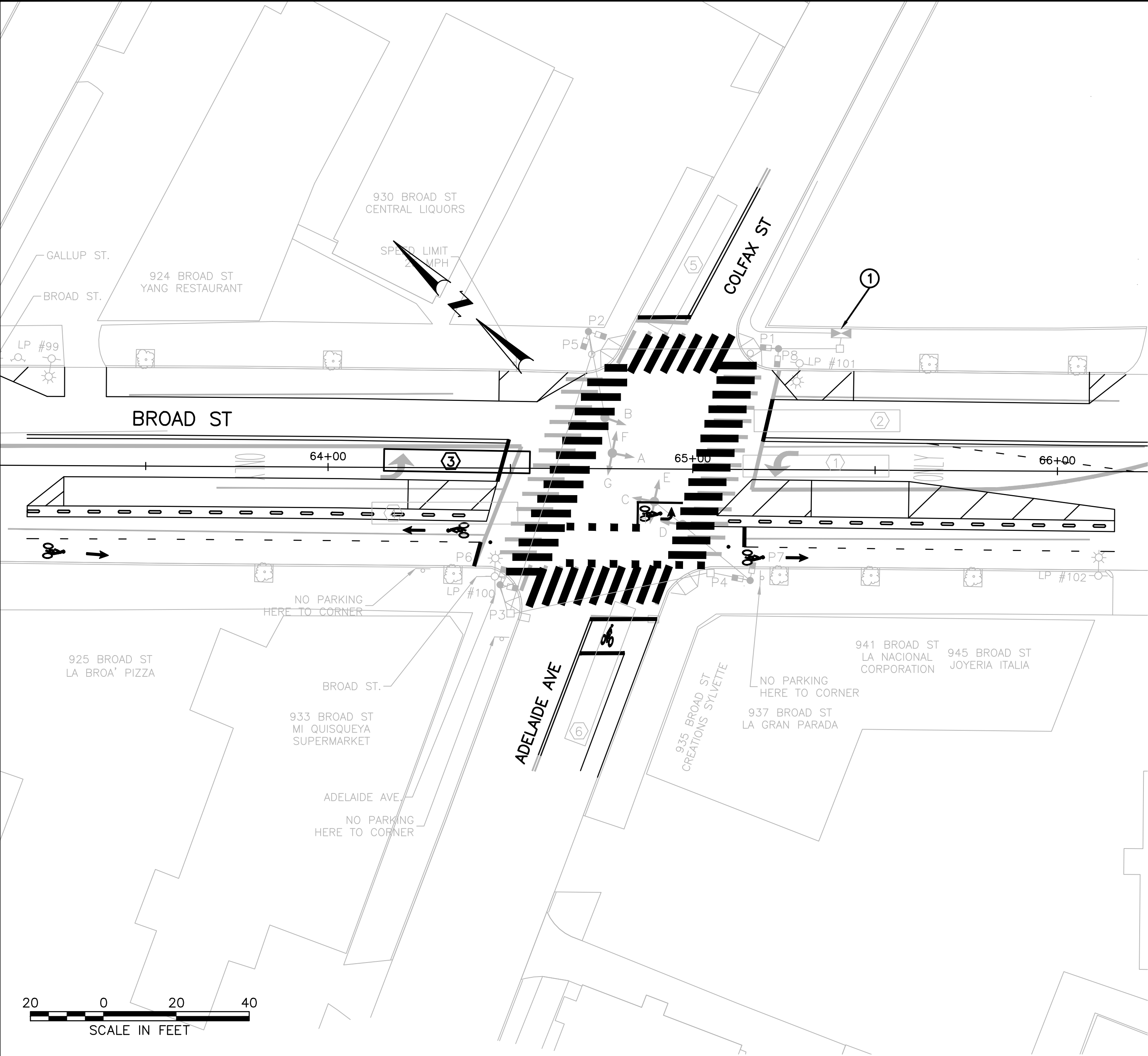
- TRAFFIC SIGNAL CONSTRUCTION NOTES:
- THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON ASSUMED LOCATIONS AND SIZES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATIONS AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING THE WORK.
 - VIDEO DETECTION ZONES TO BE ADJUSTED IN THE FIELD AS SHOWN.
 - DETECTION ZONES 1 AND 4 TO BE DELETED.
 - EXISTING FIRE STATION PRE-EMPTION TO REMAIN.

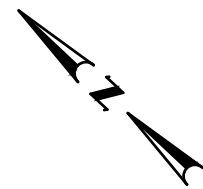
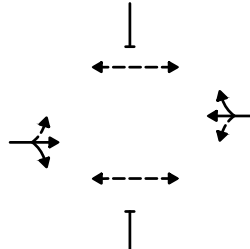
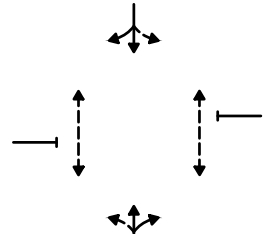
NO.	ITEM CODE	SYMBOL	ITEM DESCRIPTION
1	T12.9901		TRAFFIC SIGNAL CONTROLLER MODIFICATIONS
1a	T05.0400		BREAK INTO EXISTING HANDHOLE
3a	T04.5303		14 AWG 3 CONDUCTOR CABLE
3b	T04.5305		14 AWG 5 CONDUCTOR CABLE
4c	T06.5130		3 INCH SCHEDULE 40 POLYVINYL CHLORIDE PLASTIC CONDUIT - UNDERGROUND
5d	T11.2008	•	TRAFFIC SIGNAL STANDARD, 8 FOOT, STD 19.4.0 ALUMINUM PEDESTAL POLE AND FOUNDATION
7c	T13.8210		ACCESSIBLE PEDESTRIAN DETECTOR - PUSHBUTTON WITH SIGN
7d	T13.9903		EXTENSION BRACKET FOR PEDESTRIAN PUSHBUTTON
9a	T14.3911	⏏	1 WAY PEDESTAL MOUNTED L.E.D. PEDESTRIAN SIGNAL HEAD 12 INCH
SPBS	201.0626		REMOVE & SALVAGE TRAFFIC SIGNAL EQUIPMENT - PEDESTRIAN PUSHBUTTON WITH SIGN



SEQUENCE AND TIMING															
			ø1				ø2				FIRE PRE-EMPT				
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	FLASH OPER.	
BROAD STREET	N.B.	A,B	R	G	Y	R	R	R	R	R	R	R	R	FY	
BROAD STREET	S.B.	C,D	R	G	Y	R	R	R	R	R	G	Y	R	FY	
OXFORD STREET	W.B.	E,F	R	R	R	R	R	G	Y	R	R	R	R	FR	
ONTARIO STREET	E.B.	G,H	R	R	R	R	R	G	Y	R	R	R	R	FR	
BROAD AT CONGRESS AVENUE	S.B.	J,K	FY	FY	FY	FY	FY	FY	FY	FY	R	R	R	FY	
PEDESTRIANS	N.B./S.B.	P1–P4	W	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT	
PEDESTRIANS	E.B./W.B.	P5–P8	DW	DW	DW	DW	W	W/FDW	DW	DW	DW	DW	DW	OUT	
TIMING IN SECONDS															
MINIMUM INTERVAL				10				6				70			EMERGENCY ONLY
VEHICLE EXTENSION				2.4				2.4				–			
MAXIMUM I				39				19				70			
MAXIMUM II				44				21				70			
YELLOW CLEARANCE					3				3			3			
RED CLEARANCE						2				2				2	
WALK			3				4								
PEDESTRIAN CLEARANCE				4/7				3/11							
RECALL			PED				PED				OFF				
MEMORY			NON–LOCK				NON–LOCK				NON–LOCK				

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	405-421-868	2021	42	51



SEQUENCE AND TIMING												
											FLASH OPER.	
			ø1				ø2					
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8		
BROAD STREET	N.B.	A,B	R	G	Y	R	R	R	R	R	FY	
BROAD STREET	S.B.	C,D	R	G	Y	R	R	R	R	R	FY	
ADELAIDE AVENUE	W.B.	E,F	R	R	R	R	R	G	Y	R	FR	
ADELAIDE AVENUE	E.B.	G,H	R	R	R	R	R	G	Y	R	FR	
PEDESTRIANS	N.B./S.B.	P1-P4	W	W/FDW	DW	DW	DW	DW	DW	DW	OUT	
PEDESTRIANS	E.B./W.B.	P5-P8	DW	DW	DW	DW	W	W/FDW	DW	DW	OUT	
TIMING IN SECONDS												
MINIMUM INTERVAL				10				6			EMERGENCY ONLY	
VEHICLE EXTENSION				2.4				2.4				
MAXIMUM I				44				20				
MAXIMUM II				51				23				
YELLOW CLEARANCE					3				3			
RED CLEARANCE						1.5				1.5		
WALK			3				4					
PEDESTRIAN CLEARANCE				4/9				3/14				
RECALL			PED				PED					
MEMORY			NON-LOCK				NON-LOCK					

SEQUENCE AND TIMING NOTES:
1. FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28-D4.31
2. MAXIMUM 1 = ALL TIMES
3. MAXIMUM 2 = NOT USED
4. CONCURRENT PEDESTRIAN PHASES TO BE REST IN WALK OPERATION.

COORDINATION DATA: (ALL ENTRIES IN SECONDS)		
	PLAN 1	PLAN 2
CYCLE LENGTH	90	100
OFFSET	70	75
SPLIT Ø1	61	68
SPLIT Ø2	29	32
COORDINATED PHASE	Ø1	Ø1
PLAN 1 - MONDAY-FRIDAY	7:00AM-10:00AM	
PLAN 2 - ALL DAYS	2:00PM-6:00PM	
FREE - ALL OTHER TIMES		

NOTES:
1. Ø1 "CALL NON ACTUATED" DURING COORDINATION.
2. OFFSET: BEGINNING OF Ø1 GREEN.
3. PLAN FORCE OFF/FLOATING FORCE OFF SHALL BE IN EFFECT.
4. SPLIT TIMES EQUAL GREEN PLUS CLEARANCES.
5. INHIBIT MAX. TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
6. PHASE 2 TO BE ON PED. RECALL DURING COORDINATION.

TRAFFIC SIGNAL CONSTRUCTION NOTES:
1. THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON ASSUMED LOCATIONS AND SIZES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATIONS AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING THE WORK.
2. VIDEO DETECTION ZONES TO BE ADJUSTED IN THE FIELD AS SHOWN.
3. DETECTION ZONES 1 AND 4 TO BE DELETED.

VIDEO DETECTOR DATA					
DETECTOR ZONE NO.	CAMERA NUMBER	APPROX. SIZE DET. ZONE	DELAY (SEC)	CALL PHASE	REMARKS
1	1	6'x40'	3	Ø1	EXISTING
2	1	6'x40'	3	Ø1	EXISTING
3	2	6'x40'	3	Ø1	PROPOSED
4	2	6'x40'	3	Ø1	EXISTING
5	3	6'x40'	3	Ø2	EXISTING
6	4	6'x40'	3	Ø2	EXISTING

NO.	ITEM CODE	SYMBOL	ITEM DESCRIPTION
1	T12.9901		TRAFFIC SIGNAL CONTROLLER MODIFICATIONS

SIGNAL HEAD DATA		
A-D	E-H	P1-P8
ALL 12" LENS	ALL 8" LENS	ALL 12" LENS

NOTES: 1) ALL TRAFFIC SIGNAL HEADS ARE EXISTING.
2) ALL PEDESTRIAN SIGNAL HEADS ARE PROPOSED.

SIGNAL HEAD	SIGNAL HEAD SPACING:		RELOCATED DISTANCE
	EXISTING	PROPOSED	
A	29'	28'	1'
B	20'	19'	1'
C	34.5'	34'	0.5'
D	24'	22'	2'
E	34.5'	34'	0.5'
F	29'	28'	1'
G	29'	28'	1'
H	34.5'	34'	0.5'

OPTICAL DETECTOR CONFIRMATION BEACON SPACING:	
BEACON LOCATION	DISTANCE FROM CENTER OF MAST ARM POLE
NE CORNER	15'
SW CORNER	15'

OPTICAL DETECTOR SPACING:	
RECEIVER NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
D1	23'
D2	30'
D3	20'
D4	20'

VIDEO DETECTION CAMERA SPACING:	
CAMERA NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
1	ON SHAFT
2	2'
3	1'
4	ON SHAFT



REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION
NO.	DATE	BY	
			PHASE 2 BROAD STREET IMPROVEMENTS
			PROVIDENCE, RHODE ISLAND
			SIGNAL PLAN NO. 7
			BROAD STREET/ADELAIDE AVENUE INTERSECTION
CHECKED BY _____ DATE _____ SCALE 1"=20'			

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	405-421-868	2021	44	51

COORDINATION DATA: (ALL ENTRIES IN SECONDS)		
	PLAN 1	PLAN 2
CYCLE LENGTH	60	85
OFFSET	0	0
SPLIT Ø1	33	58
SPLIT Ø2	27	27
COORDINATED PHASE	Ø1	Ø1
PLAN 1 - MONDAY-FRIDAY 7:00AM-10:00AM		
PLAN 2 - ALL DAYS 2:00PM-6:00PM		
FREE - ALL OTHER TIMES		

- NOTES:
- Ø1 "CALL NON ACTUATED" DURING COORDINATION.
 - OFFSET: BEGINNING OF Ø1 GREEN.
 - PLAN FORCE OFF/FLOATING FORCE OFF SHALL BE IN EFFECT.
 - SPLIT TIMES EQUAL GREEN PLUS CLEARANCES.
 - INHIBIT MAX. TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
 - PHASE 2 TO BE ON PED. RECALL DURING COORDINATION.

OPTICAL DETECTOR CONFIRMATION
BEACON SPACING:

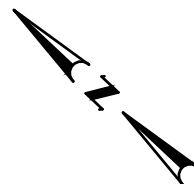
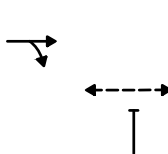
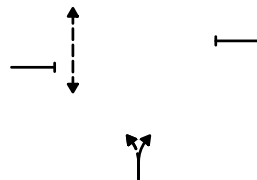
BEACON LOCATION	DISTANCE FROM CENTER OF MAST ARM POLE
SW CORNER	21'

OPTICAL DETECTOR SPACING:

RECEIVER NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
D1	18'
D2	27'
D3	23'

VIDEO DETECTION
CAMERA SPACING:

CAMERA NUMBER	DISTANCE FROM CENTER OF MAST ARM POLE
1	2.5'
2	15'
3	ON SHAFT

SEQUENCE AND TIMING												
												
			ø1				ø2					
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8		FLASH OPER.
BROAD STREET	N.B.	A,B	R	G	Y	R	R	R	R	R		FY
BROAD STREET	S.B.	C,D	R	G	Y	R	R	R	R	R	FY	
SACKETT STREET	E.B.	E,F,G	R	R	R	R	R	G	Y	R	FR	
PEDESTRIANS	N.B./S.B.	P1-P2	W	W/FDW	DW	DW	DW	DW	DW	DW	OUT	
PEDESTRIANS	E.B./W.B.	P3-P4	DW	DW	DW	DW	W	W/FDW	DW	DW	OUT	
TIMING IN SECONDS												
MINIMUM INTERVAL				10				6			EMERGENCY ONLY	
VEHICLE EXTENSION				2.4				2.4				
MAXIMUM I				26				19				
MAXIMUM II				46				19				
YELLOW CLEARANCE					3				3			
RED CLEARANCE						1				1		
WALK			3				4					
PEDESTRIAN CLEARANCE				4/8				3/13				
RECALL			PED				PED					
MEMORY			NON-LOCK				NON-LOCK					

- SEQUENCE AND TIMING NOTES:
- FLASHING OPERATION PER M.UT.C.D. SECTION 4D.28-4D.31
 - MAXIMUM 1 = ALL TIMES
 - MAXIMUM 2 = NOT USED
 - CONCURRENT PEDESTRIAN PHASES TO BE REST IN WALK OPERATION.

- TRAFFIC SIGNAL CONSTRUCTION NOTES:
- THE EXISTING CONDUIT NETWORK SHOWN ON THIS PLAN IS BASED ON ASSUMED LOCATIONS AND SIZES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDUIT LOCATIONS AND SIZES FOR ACCURACY AND ADEQUACY PRIOR TO PERFORMING THE WORK.
 - VIDEO DETECTION ZONES TO BE ADJUSTED IN THE FIELD AS SHOWN.
 - DETECTION ZONE 1 TO BE DELETED.

NO.	ITEM CODE	SYMBOL	ITEM DESCRIPTION
1	T12.9901		TRAFFIC SIGNAL CONTROLLER MODIFICATIONS

SIGNAL HEAD DATA		
A-D	E-G	P1-P4
ALL 12" LENS	ALL 8" LENS	ALL 12" LENS

- NOTES: 1) ALL TRAFFIC SIGNAL HEADS ARE EXISTING.
2) ALL PEDESTRIAN SIGNAL HEADS ARE PROPOSED.

VIDEO DETECTOR DATA					
DETECTOR ZONE NO.	CAMERA NUMBER	APPROX. SIZE DET. ZONE	DELAY (SEC)	CALL PHASE	REMARKS
1	1	6'x40'	3	Ø1	EXISTING
2	1	6'x40'	3	Ø1	EXISTING
3	2	6'x40'	3	Ø1	PROPOSED
4	3	6'x40'	3	Ø2	EXISTING

SIGNAL HEAD SPACING:			
SIGNAL HEAD	APPROXIMATE DISTANCE FROM CENTER OF MAST ARM POLE		RELOCATED DISTANCE
	EXISTING	PROPOSED	
A	19'	-	-
B	11.5'	10.5'	1'
C	33'	32'	1'
D	20'	18'	2'
E	ON SHAFT	-	-
F	33'	32'	1'
G	20'	18'	2'



REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION PHASE 2 BROAD STREET IMPROVEMENTS PROVIDENCE, RHODE ISLAND SIGNAL PLAN NO. 9 BROAD STREET/SACKETT STREET INTERSECTION
NO.	DATE	BY	
			CHECKED BY _____ DATE _____ SCALE 1"=20'

