

SEQUENCE OF OPERATION

HEAD NUMBERS	Ø1				Ø2				Ø3				Ø4				FLASH
	R/W	**	*		R/W	**	*		R/W	**	*		R/W	**	*		
Ø1	1,2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ø2	5,6,7,8	R	R	R	G	Y	R						R	R	R		Y
Ø3																	
Ø4	9,10,11	R	R	R									G	Y	R		R
Ø5	5,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ø6	1,2,3,4	R	R	R									R	R	R		Y
Ø7																	
Ø8	12,13,14	R	R	R									R	R	R		R
Ø2P	21,22	D	D	D	*	*	D						D	D	D		
Ø4P	40,41	D	D	D									*	*	D		
Ø6P	60,61	D	D	D									D	D	D		
Ø8P	80,81	D	D	D									D	D	D		

* WHEN CALLED, TIMES STEADY "WALK" THEN FLASHING "DON'T WALK" THEN GOES STEADY "DON'T WALK".

**CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

NOT USED

HEAD NUMBERS	Ø5				Ø6				Ø7				Ø8				FLASH
	R/W	**	*		R/W	**	*		R/W	**	*		R/W	**	*		
Ø1	1,2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ø2	5,6,7,8	R	R	R									R	R	R		Y
Ø3																	
Ø4	9,10,11	R	R	R									R	R	R		R
Ø5	5,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ø6	1,2,3,4	R	R	R	G	Y	R						R	R	R		Y
Ø7																	
Ø8	12,13,14	R	R	R									G	Y	R		R
Ø2P	21,22	D	D	D	*	*	D						D	D	D		
Ø4P	40,41	D	D	D									D	D	D		
Ø6P	60,61	D	D	D									D	D	D		
Ø8P	80,81	D	D	D									D	D	D		

LEGEND

- SIGNAL
- CONTROL CABINET
- PULL BOX, 24"x36"
- PULL BOX, 12"x24"
- CONDUIT
- DETECTOR LOOP
- 8"x8"x8" JUNCTION BOX
- PED HEADS
- SIGNAL WITH PED PUSH BUTTON

CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
Ø1	5 OR 6	2-4-8
Ø2	5 OR 6	1-4-8
Ø4	8	1-2-5-6
Ø5	1 OR 2	4-6-8
Ø6	1 OR 2	4-5-8
Ø8	4	1-2-5-6

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,56,57,58,59,60,61,62,63

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT	CALLING DELAY	EXTENSION STRETCH
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY					
111	—	X	—	—	Ø1	Ø1	NO	NO	NO
221,222	—	X	—	—	Ø2	Ø2	NO	NO	NO
441	—	X	—	—	Ø4	Ø4	NO	YES	NO
442	—	X	—	—	Ø4	Ø4	NO	YES	NO
551	—	X	—	—	Ø5	Ø5	NO	NO	NO
661,662	—	X	—	—	Ø6	Ø6	NO	NO	NO
881	—	X	—	—	Ø8	Ø8	NO	NO	NO
882	—	X	—	—	Ø8	Ø8	NO	YES	NO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY	PHASE RECALL
1	—	6	—
2	X	6	MIN.
3	—	—	—
4	X	8	—
5	—	2	—
6	X	2	MIN.
7	—	—	—
8	X	4	—

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP	
HARDWIRE	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CAB.	
IN SEPARATE CONTROL CAB.	X

OVERLAPS

O.L.*A*= NONE
O.L.*B*= NONE
O.L.*C*= NONE
O.L.*D*= NONE

- NOTES:
1. PED. TIMING SHALL BE PROVIDED FOR 02,04,06, & 08.
 2. NO RED SHOWN ON THE CHART FOR 01 & 05 SINCE COMPOSITE HEADS ARE USED.
 3. WHEN ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.
 4. WHEN ONE PHASE IS ON ALONE ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1)
 5. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

SEQUENCE OF OPERATION

HEAD NUMBERS	R/W	CLEAR TO	R/W	CLEAR TO	R/W	CLEAR TO	R/W	CLEAR TO
Ø1	1,2	-	-	-	-	-	-	-
Ø2	5,6,7,8	-	-	-	-	-	-	-
Ø3	9,10,11	R	R	R	R	R	R	R
Ø4	5,6	-	-	-	-	-	-	-
Ø5	1,2,3,4	R	R	R	R	R	R	R
Ø6	12,13,14	R	R	R	R	R	R	R
Ø7	25,26	D	D	D	D	D	D	D
Ø8	65,66	D	D	D	D	D	D	D
Ø8	85,86	D	D	D	D	D	D	D

HEAD NUMBERS	R/W	CLEAR TO	R/W	CLEAR TO	R/W	CLEAR TO	R/W	CLEAR TO
Ø1	1,2	-	-	-	-	-	-	-
Ø2	5,6,7,8	R	R	R	R	R	R	R
Ø3	9,10,11	R	R	R	R	R	R	R
Ø4	5,6	-	-	-	-	-	-	-
Ø5	1,2,3,4	R	R	R	R	R	R	R
Ø6	12,13,14	R	R	R	R	R	R	R
Ø7	25,26	D	D	D	D	D	D	D
Ø8	65,66	D	D	D	D	D	D	D
Ø8	85,86	D	D	D	D	D	D	D

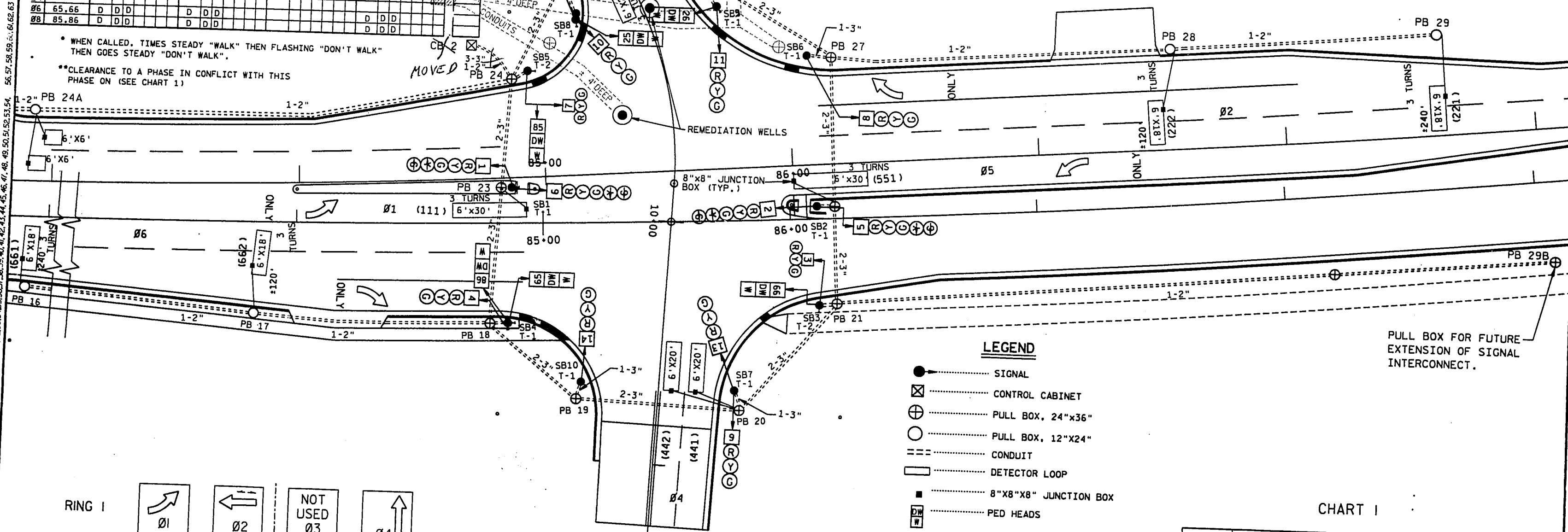
STATE PROJECT NUMBER
7220-09-71

SHEET NO.
2.81

TRAFFIC CONTROL SIGNALS
OPERATIONS OF OAK AVE. INTERSECTION
OAK AVE. DUNN CO.

* WHEN CALLED, TIMES STEADY "WALK" THEN FLASHING "DON'T WALK" THEN GOES STEADY "DON'T WALK".

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)



LEGEND

- SIGNAL
- ⊠ CONTROL CABINET
- ⊕ PULL BOX, 24"x36"
- PULL BOX, 12"x24"
- CONDUIT
- DETECTOR LOOP
- 8"x8"x8" JUNCTION BOX
- DW PED HEADS
- SIGNAL WITH PED PUSH BUTTON

CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
Ø1	5 OR 6	2-4-8
Ø2	5 OR 6	1-4-8
Ø4	8	1-2-5-6
Ø5	1 OR 2	4-6-8
Ø6	1 OR 2	4-5-8
Ø8	4	1-2-5-6

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT	CALLING DELAY	EXTENSION STRETCH
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY					
111	—	X	—	—	Ø1	Ø1	NO	NO	NO
221,222	—	X	—	—	Ø2	Ø2	NO	NO	NO
441	—	X	—	—	Ø4	Ø4	NO	YES	NO
442	—	X	—	—	Ø4	Ø4	NO	YES	NO
551	—	X	—	—	Ø5	Ø5	NO	NO	NO
661,662	—	X	—	—	Ø6	Ø6	NO	NO	NO
881	—	X	—	—	Ø8	Ø8	NO	YES	NO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY	PHASE RECALL
1	—	6	—
2	X	6	MIN.
3	—	—	—
4	X	8	—
5	—	2	—
6	X	2	MIN.
7	—	—	—
8	X	4	—

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP	
HARDWIRE	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CAB.	
IN SEPARATE CONTROL CAB.	X

OVERLAPS

O.L."A"= NONE
O.L."B"= NONE
O.L."C"= NONE
O.L."D"= NONE

- NOTES:
- PED. TIMING SHALL BE PROVIDED FOR Ø2, Ø6 & Ø8.
 - NO RED SHOWN ON THE CHART FOR Ø1 & Ø5 SINCE COMPOSITE HEADS ARE USED.
 - WHEN ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.
 - WHEN ONE PHASE IS ON ALONE ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1)
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