

TRAFFIC SIGNAL PERMIT

Permit No. 8220Sheet 1 of 4

In accordance with the Vehicle Code, the Secretary of Transportation hereby approves the installation and operation of a traffic signal at the intersection of Susquehanna Trail (SR 0297) & I-83 Ramps in the Township of Conewago, County of York.

This permit is issued to, and accepted by the Township of Conewago hereinafter known as the Permittee, as follows:

This installation shall be in accordance with the Vehicle Code and the Regulations for traffic signs, signals and markings of the Department of Transportation, and shall conform to the following requirements and those contained on the attached sheets.
Type of Controller Fully Actuated with Dilemma Zone Protection

Type of Signal Mounting Post Mounted and Overhead

Hours of Operation as "Stop" and "Go" Continuously

Hours of Operation as "FLASHING" Equipped for Emergency Flashing

Controller Operation Controller to provide the phasing, timing, and signal display indicated on the attached diagram. Preemption for emergency vehicles and preemption for SR 0083 ramps to provide the operation indicated on the attached diagram.
This traffic signal is integrated into the PennDOT UCC software located on the Department's UCC Server that connects back to the TMC camera

All work performed by the Permittee in the erection of the traffic signal shall be under and subject to the direction of the Secretary of Transportation or their authorized representatives. The said Permittee shall use due diligence in the execution of the work authorized under this permit and shall not obstruct or endanger travel along the said road. All operations must be conducted so as to permit safe and reasonable free travel at all times over the road within the limits of the work herein permitted.

The Permittee covenants and agrees to fully indemnify and save harmless the Department of Transportation and assume all liability for damages or injury, occurring to any person, persons or property through or in consequence of any act or omission of anyone working on the construction, or from faulty maintenance or operation of such traffic signal.

The Secretary of Transportation, by law, reserves the right to revoke and annul this permit if the Permittee shall at any time willfully or negligently fail to comply with the conditions contained in this permit, or, upon changes in traffic conditions, fail to make any changes in the construction or operation of this signal, or to remove it, when so ordered by the Secretary of Transportation; or if this installation is not in operation within twenty-four (24) months of the receipt of this permit. The Permittee shall maintain the signal in a safe condition at all times. The Permittee shall not make any change in the construction or operation of this traffic signal without prior written approval of the Secretary of Transportation.

This permit cancels and supersedes all previous permits issued for this location upon completion of the installation specified herein.

INITIAL DATE: 05/30/2002APPROVED Yassmin Gramian, P.E.REVISION DATE: 09/01/2022

BY Matthew S. Clouser Digitally signed by Matthew S. Clouser
Date: 2022.09.14 11:30:42 -04'00'

for District Executive

GENERAL NOTES

INSTALLATION, OPERATION, AND MAINTENANCE OF THIS
TRAFFIC SIGNAL TO BE IN ACCORDANCE WITH
PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
REGULATIONS ON OFFICIAL TRAFFIC CONTROL DEVICES.

NO MODIFICATIONS OF THIS INSTALLATION ARE
PERMITTED UNLESS PRIOR APPROVAL IS GRANTED, IN
WRITING, BY THE DEPARTMENT.

ALL MAINTENANCE NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS, INCLUDING TRIMMING TREES, IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND ARE TO BE INSTALLED AND MAINTAINED BY THE PERMITEE, UNLESS OTHERWISE INDICATED. EXCEPT THE LONGITUDINAL PAVEMENT MARKINGS ON STATE HIGHWAYS WHICH WILL BE MAINTAINED BY THE DEPARTMENT.

INSTALL POST MOUNTED SIGNALS WITH THE SIGNAL HEADS
A MINIMUM OF 2 FEET BEHIND THE FACE OF THE CURB
OR EDGE OF THE SHOULDER. SUPPORT POLES FOR
OVERHEAD SIGNALS WILL HAVE A MINIMUM HORIZONTAL
CLEARANCE OF 2 FEET.

THE BOTTOM OF SIGNAL HEADS AND SIGNS ERECTED OVER THE ROADWAY ARE NOT TO BE LESS THAN 15 FEET NOR MORE THAN 19 FEET ABOVE THE ROADWAY. THE BOTTOM OF POST MOUNTED SIGNAL HEADS ARE NOT TO BE LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR PAVEMENT GRADE.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNAL HEADS MEASURED AT RIGHT ANGLES TO THE APPROACH IS TO BE 8 FEET.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR EMBANKMENT REMOVAL, CURBING AND/OR SIDEWALK, DRAINAGE STRUCTURES, CHANGES IN HIGHWAY GEOMETRY, PAVEMENT WIDENING, OR INSTALLATION OF ADDITIONAL LANES.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION
DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE
PROVISIONS OF THE LATEST AMENDMENT TO ACT 50,
UNDERGROUND UTILITY LINE PROTECTION ACT, DATED
APRIL 28, 2018.

PAVEMENT MARKINGS WILL BE PLACED IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION PAVEMENT MARKING HANDBOOK.

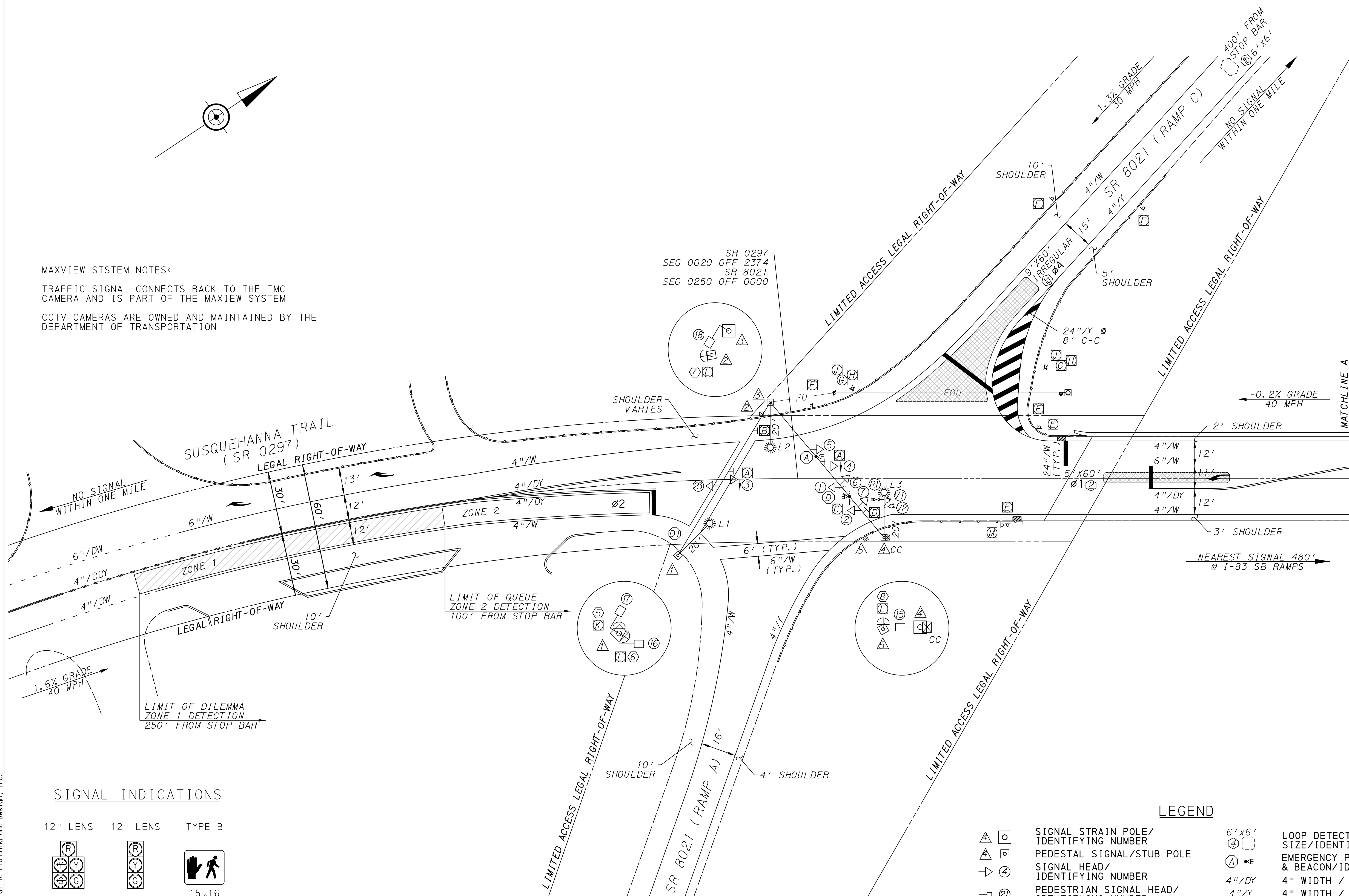
PERMITTEE IS RESPONSIBLE FOR OBTAINING APPROVAL
FOR INSTALLATION OF TRAFFIC SIGNAL DEVICES
LOCATED OUTSIDE HIGHWAY RIGHT-OF-WAY.

TRAFFIC SIGNALS INSTALLED USING LIQUID FUELS TAX FUNDS MUST CONFORM TO DEPARTMENT SPECIFICATIONS AS SET FORTH IN CURRENT PUBLICATION 408, SUPPLEMENTS AND STANDARD DRAWINGS.

MAXVIEW STSTEM NOTES:

TRAFFIC SIGNAL CONNECTS BACK TO THE TMC
CAMERA AND IS PART OF THE MAXVIEW SYSTEM

CCTV CAMERAS ARE OWNED AND MAINTAINED BY THE
DEPARTMENT OF TRANSPORTATION



SIGNAL INDICATIONS

12" LENS 12" LENS TYPE B

3, 4 1, 2, 5 15, 16
17, 18

ALL VEHICULAR SIGNAL HEADS SHALL
HAVE RED, YELLOW, AND GREEN LEDS.

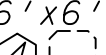
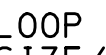
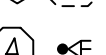
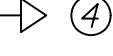
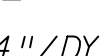
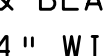
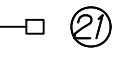
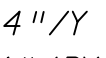
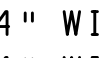
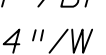
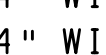
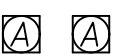
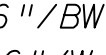
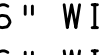
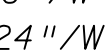
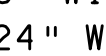
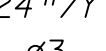
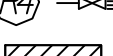
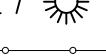
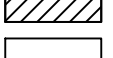
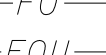
ALL PEDESTRIAN SIGNAL HEADS SHALL
HAVE LUNAR WHITE AND PORTLAND
ORANGE LEDS.

ALL VEHICULAR SIGNALS TO BE
EQUIPPED WITH BACKPLATES AND
YELLOW RETROREFLECTIVE BORDERS

SIGNALS TO BE EQUIPPED WITH TUNNEL VISORS: 1,2,3,4,5,23

SIGNALS TO BE EQUIPPED WITH TUNNEL
VISORS AND LOUVERS: 6.7

LEGEND

	SIGNAL STRAIN POLE/ IDENTIFYING NUMBER		6' X 6'		LOOP DETECTOR/ SIZE/IDENTIFYING NUMBER
	PEDESTAL SIGNAL/STUB POLE		4" / DY		EMERGENCY PRE-EMPTION DETECTOR & BEACON/IDENTIFYING NUMBER
	SIGNAL HEAD/ IDENTIFYING NUMBER		4" / Y		4" WIDTH / DOUBLE YELLOW LINE
	PEDESTRIAN SIGNAL HEAD/ IDENTIFYING NUMBER		4" / W		4" WIDTH / SOLID YELLOW LINE
	PEDESTRIAN PUSHBUTTON/ IDENTIFYING NUMBER		6" / BW		4" WIDTH / BROKEN YELLOW LINE
	SIGN/IDENTIFYING LETTER		6" / W		6" WIDTH / SOLID WHITE LINE
	THERMAL VIDEO CAMERA/ IDENTIFYING NUMBER		24" / W		6" WIDTH / BROKEN WHITE LINE
	VIDEO DETECTION ZONE/SIZE/ IDENTIFYING NUMBER		24" / Y		6" WIDTH / SOLID WHITE LINE
	ADVANCE RADAR DETECTOR/ IDENTIFYING NUMBER		ø3		24" WIDTH / SOLID YELLOW LINE
	DILEMMA/QUEUE DETECTION ZONE		L1		PHASE NUMBER
	QUEUE DETECTION ZONE 2		LUMINAIRE		UTILITY POLE
	CONTROLLER CABINET		GUIDERAILE		CCTV POLE
			—FO—		OVERHEAD FIBER OPTIC CABLE
			—FOU—		UNDERGROUND FIBER OPTIC CABLE

0 25 50 FEET

COUNTY:

YORK

MUNICIPALITY:

CONEWAGO TOWNSHIP

INTERSECTION:

SUSQUEHANNA TRAIL (SR 0297)

AND I-83 RAMPS

APPROVED: _____

APPROVED: *[Signature]* 0307

MUNICIPAL OFFICIAL DATE

MUNICIPAL OFFICIAL DATE
RECOMMENDED:

RECOMMENDED:
Matthew S. Digitally signed by Matthew S.

Clouser
Date: 2022.09.14 11:30:57 -04'00'

DIST TRAFFIC ENGR DATE

MOVEMENT, SEQUENCE, AND TIMING DIAGRAM

		PHASE 2+6				PHASE 1+6 ¹⁸				PHASE 2+5 ¹⁹				PHASE 1+5				PHASE 4+8				PHASE 4+7 ²⁴				PHASE 3+8 ²¹				EMERGENCY PREEMPTION PHASE 2+5			EMERGENCY PREEMPTION PHASE 1+6			RAMP PREEMPTION PHASE 4+7			RAMP PREEMPTION PHASE 3+8			EMERGENCY FLASHING OPERATION					
		INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS			INTERVALS			INTERVALS			INTERVALS								
EB T SW L SW T SB NE L NE T WB T NB	SIGNALS		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	SELECTIVE CLEARANCE **	29	30	31	SELECTIVE CLEARANCE **	32	33	34	SELECTIVE CLEARANCE **	35	36	37	SELECTIVE CLEARANCE **	38	39	40	
	1,2,23 LS2 = OL B = 02+3		G	G	Y	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y		R	G	Y		R	R	R		R	R	R		R	R	R	
	3,4 LS15 = OL O = 01		G	G	Y	R	G	G	Y	R	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	G	G	Y		R	G	Y		R	R	R		R	R	R		R	R	R	
	5 LS13 = OL M = 01+2+3+5+6+10		G	G	Y	R	G	G	Y	R	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	G	G	Y		R	R	R		R	R	R		R	R	R		R	R	R	
	6,7 LS4 = OL D = 04+9		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	G	G	Y	R	R	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	
	8,9 LS16 = OL P = 05		G	G	Y	R	G	G	Y	R	G	G	Y	R	G	G	Y	R	R	R	R	R	G	G	Y	R	R	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	
	10 LS14 = OL N = 01+2+5+6+7+9		G	G	Y	R	G	G	Y	R	G	G	Y	R	G	G	Y	R	R	R	R	R	G	G	Y	R	R	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	
	11,12 LS6 = OL F = 06+7		R	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	
	13,14 LS8 = OL H = 08+10		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	G	G	Y		R	R	R		R	R	R		R	R	R		R	R	R	R
	15,16* LS9 = Ped 2		M*FH*	H	H	H	H	H	H	H	M*FH*	H	H	M*FH*	H	H	M*FH*	H	H	H	H	H	H	H	H	H	H	M*FH*	H	H		H	H	H		H	H	H		H	H	H		H	H	H	OFF
17,18* LS10 = Ped 4		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	M*FH*	H	H	M*FH*	H	H	M*FH*	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	OFF					
19,20* LS11 = Ped 6		M*FH*	H	H	H	M*FH*	H	H	M*FH*	H	H	M*FH*	H	H	M*FH*	H	H	H	H	H	H	M*FH*	H	H	M*FH*	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	OFF						
21,22* LS12 = Ped 8		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	M*FH*	H	H	M*FH*	H	H	M*FH*	H	H	M*FH*	H	H	H	H	H	H	H	H	H	H	H	H	H	OFF						
FAIL SAFE A,B		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF				
FAIL SAFE C,D		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF				
FIXED				4.0	2.3			4.0	2.3			4.0	2.3			4.0	2.3			3.2	2.9			3.2	2.9			3.2	2.9	22	23	23	22	23	23	37	23	23									
MINIMUM			15				3				3				3				3				3				3																				
PASSAGE			1				6				6				6				6				6				6																				
MAXIMUM I			47				9				9				9				21				21				21																				
MAXIMUM II			42				9				9				9				31				31				31																				
PEDESTRIAN*		7	19				24				24				24			7	15				25				25																				
MEMORY			mR				NL				NL				NL				NL				NL				NL																				

ADVANCE RADAR ZONE NOTES (ZONE 1)

ESTIMATED TIME OF ARRIVAL: MIN 2.5-MAX 5.5

RANGE OF DETECTION: MIN 0' -MAX 300' FT

MINIMUM SPEED BOUNDARY: 25 MPH

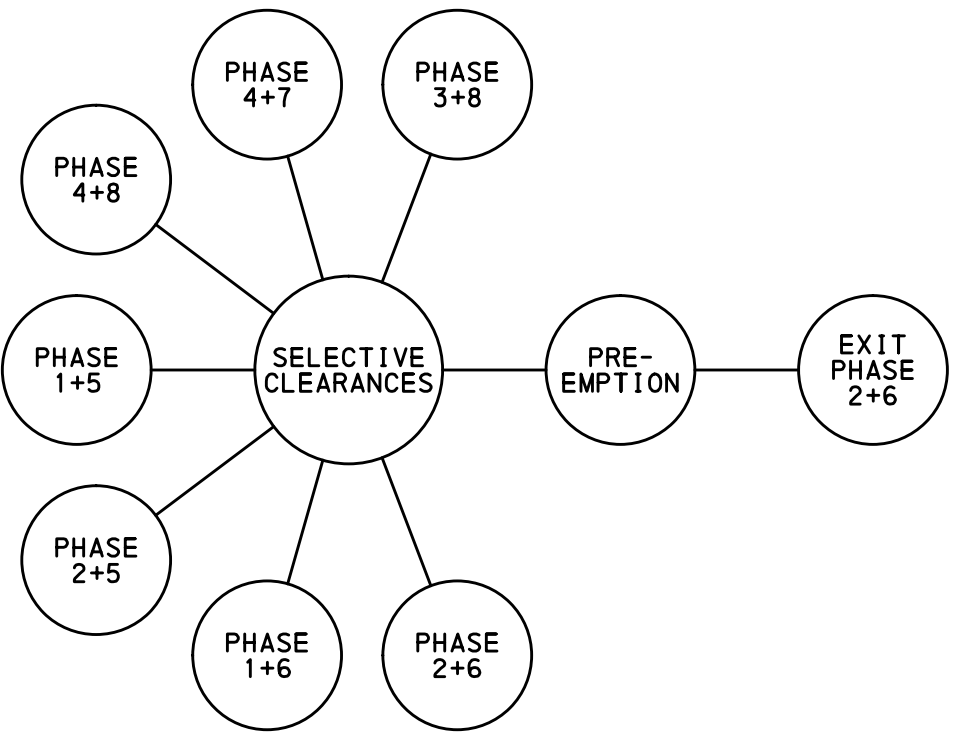
mR DENOTES MINIMUM RECALL
NL DENOTES NON LOCKING

* UPON PEDESTRIAN ACTUATION ONLY OTHERWISE H AT ALL TIMES
** SELECTIVE YELLOW INTERVAL INCLUDES THE NORMAL ALL RED PHASE INTERVAL

DETECTOR NOTES

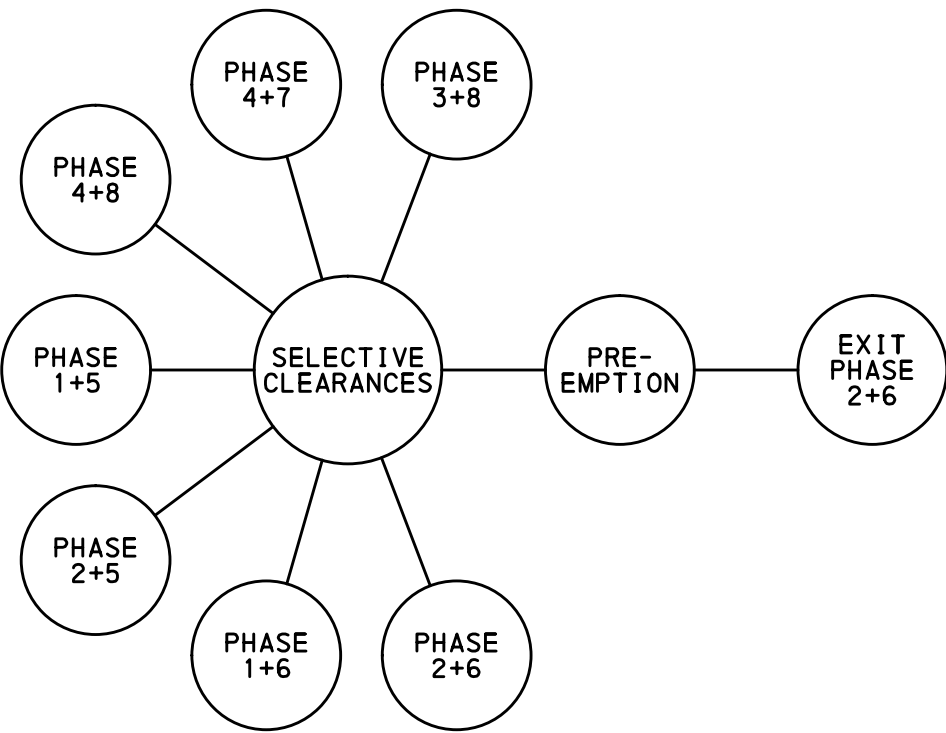
DETECTION ZONE 1a CALLS AND EXTENDS PHASE 4, PRESENCE
DETECTOR 1b CALLS AND EXTENDS RAMP PRE-EMPTION PHASE 4+7, PRESENCE
DETECTION ZONE 2 CALLS AND EXTENDS PHASE 1, PRESENCE, 5 SECOND DELAY
DETECTION ZONE 3 CALLS AND EXTENDS PHASE 5, PRESENCE, 5 SECOND DELAY
DETECTION ZONE 4a CALLS AND EXTENDS PHASE 8, PRESENCE
DETECTOR 4b CALLS AND EXTENDS RAMP PRE-EMPTION PHASE 3+8, PRESENCE

RAMP C PRE-EMPTION SEQUENCE 4 (SB)



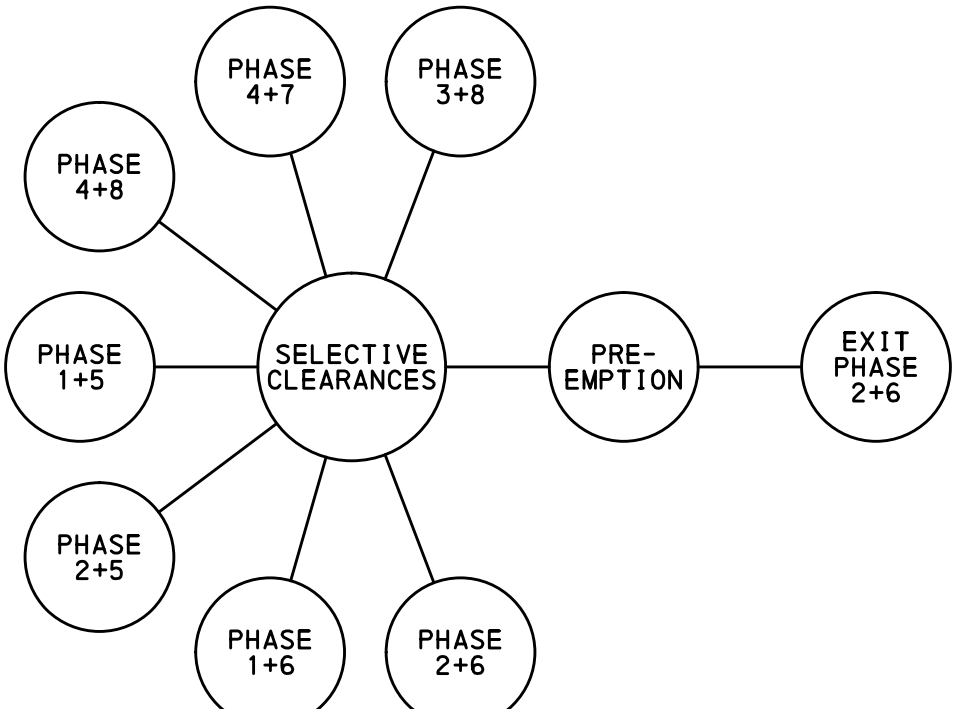
1. WHEN A CONSTANT CALL IS REGISTERED ON DETECTOR 1b FOR 25 SECONDS, THE CURRENT PHASE TIMING TERMINATES IMMEDIATELY AND IS FOLLOWED BY A SELECTIVE YELLOW. THE RAMP PRE-EMPTION PHASE FOLLOWS.
2. UPON COMPLETEION OF RAMP PRE-EMTION, PHASE 2+6 FOLLOWS.
3. IF RAMP PRE-EMPTION OCCURS DURING EMERGENCY FLASH OPERATION, SIGNALS WILL REMAIN FLASHING.

RAMP B PRE-EMPTION SEQUENCE 8 (NB)



1. WHEN A CONSTANT CALL IS REGISTERED ON DETECTOR 4b FOR 25 SECONDS, THE CURRENT PHASE TIMING TERMINATES IMMEDIATELY AND IS FOLLOWED BY A SELECTIVE YELLOW. THE RAMP PRE-EMPTION PHASE FOLLOWS.
2. UPON COMPLETEION OF RAMP PRE-EMTION, PHASE 2+6 FOLLOWS.
3. IF RAMP PRE-EMPTION OCCURS DURING EMERGENCY FLASH OPERATION, SIGNALS WILL REMAIN FLASHING.

EMERGENCY VEHICLE PRE-EMPTION SEQUENCE



1. CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE NORTHBOUND AND SOUTHBOUND APPROACH.
2. THE SIGNAL, WHEN ACTUATED BY EMERGENCY VEHICLES, SHALL PROVIDE AN APPROPRIATE SELECTIVE YELLOW INTERVAL, FOLLOWED BY A GREEN INDICATION FOR THE EMERGENCY VEHICLE PRE-EMPTION PHASE, AND A RED INDICATION FOR ALL OTHER APPROACHES.
3. UPON COMPLETION OF PRE-EMPTION, OPERATION RESUMES IN PHASE 2+6.
4. PRE-EMPTED APPROACH SHALL PROVIDE AN INDICATION (FAIL-SAFE LAMP) TO THE DRIVER OF THE APPROACHING EMERGENCY VEHICLE WHEN THE EQUIPMENT HAS PRE-EMPTED THE TRAFFIC SIGNAL FOR THAT APPROACH.
5. THE FAIL-SAFE INDICATION SHALL BE A FLASHING WHITE LIGHT ON THE APPROACH WHICH PRE-EMPTION IS PROVIDED.
6. IF PRE-EMPTION OCCURS DURING FLASHING OPERATION, SIGNAL SHALL REMAIN IN FLASH.
7. NOTE DETECTORS A & B CALL/EXTEND PHASE 1+6 PREEMPTION; DETECTORS C & D CALL/EXTEND PHASE 2+5 PREEMPTION

OPERATION NOTES

- ① G IF FOLLOWED BY 2+5 OR 3+8
- ② G IF FOLLOWED BY 3+8 OR 2+6
- ③ G IF FOLLOWED BY 1+6, 2+5, 1+5 OR 3+8
- ④ ~~Y~~ IF FOLLOWED BY 3+8 OR 2+6
~~26~~ IF FOLLOWED BY 1+5
- ⑤ G IF FOLLOWED BY 3+8 OR 2+6
~~26~~ IF FOLLOWED BY 1+5
- ⑥ G IF FOLLOWED BY 1+5, 3+8 OR 2+6
- ⑦ ~~Y~~ IF FOLLOWED BY 3+8 OR 2+6
- ⑧ G IF FOLLOWED BY 3+8 OR 2+6
- ⑨ G IF FOLLOWED BY 4+7
- ⑩ G IF FOLLOWED BY 1+6, 2+5, 1+5 OR 4+7
- ⑪ G IF FOLLOWED BY 1+5, 4+7 OR 2+6
- ⑫ ~~Y~~ IF FOLLOWED BY 1+5
~~24~~ IF FOLLOWED BY 4+7 OR 2+6
- ⑬ ~~26~~ IF FOLLOWED BY 1+5
G IF FOLLOWED BY 4+7 OR 2+6
- ⑭ ~~Y~~ IF FOLLOWED BY 4+7 OR 2+6
- ⑮ G IF FOLLOWED BY 4+7 OR 2+6
- ⑯ G IF FOLLOWED BY 1+6 OR 4+7
- ⑰ G IF FOLLOWED BY 3+8
- ⑱ CANNOT FOLLOW 2+5, BUT MAY BE FOLLOWED BY 1+5
- ⑲ CANNOT FOLLOW 1+6, BUT MAY BE FOLLOWED BY 1+5
- ⑳ WILL FOLLOW 4+8 IF 8 TIMES OUT BEFORE 4 AND THEN WILL BE FOLLOWED BY 2+6
- ㉑ WILL FOLLOW 4+8 IF 4 TIMES OUT BEFORE 8 AND THEN WILL BE FOLLOWED BY 2+6
- ㉒ FOR DURATION OF PRE-EMPTION; 60 SECOND MAXIMUM
- ㉓ NORMAL YELLOW AND ALL-RED PHASE TIMINGS BE UTILIZED
- ㉔ TIMING WILL BE AS SHOWN IN PHASE 2+6 (EXTENSION)
- ㉕ TIMING WILL BE AS SHOWN IN PHASE 4+8 (EXTENSION)

MAXIMUM II TO OPERATE 3:00PM-7:00PM MONDAY THROUGH FRIDAY.
MAXIMUM I TO OPERATE AT ALL OTHER TIMES.

COUNTY:

YORK

MUNICIPALITY:

CONEWAGO TOWNSHIP

INTERSECTION:

SUSQUEHANNA TRAIL (SR 0297)
AND I-83 RAMPS

APPROVED:

MUNICIPAL OFFICIAL

RECOMMENDED:

DIST TRAFFIC ENGR

DATE

DATE