DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	FRANKLIN	0011	0100	52 OF 176
	CHAMBERSBURG BOROUGH			

REVISION NUMBER	REVISIONS	DATE	BY

MOVEMENT, SEQUENCE, AND TIMING DIAGRAM

PHASE	1+5			2+5				1+6				2+6				4+8				PREEMP 2				PREEMP 6				PREEMP 4				PREEMP 8				EMERGENCY FLASHING
SIGNAL / INTERVAL	1	2	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1	R/G	R/A ①	R ①	G/G	G/G	Y ③	R ④	R	R	R	R	G	G	Y	R	R	R	R	R	SELECTIVE CLEARANCES	G/G	Y	R	SELECTIVE CLEARANCES	R	R	R	SELECTIVE CLEARANCES	R	R	R	SELECTIVE CLEARANCES	R	R	R	Y
2	R	R	R	G	G	Y ④	R ④	R	R	R	R	G	G	Y	R	R	R	R	R		G	Y	R		R	R	R		R	R	R		R	R	R	Y
3	R/G	R/A ②	R ②	R	R	R	R	G/G	G/G	Y ③	R ④	G	G	Y	R	R	R	R	R		R	R	R		G/G	Y	R		R	R	R		R	R	R	Y
4	R	R	R	R	R	R	R	G	G	Y ④	R ④	G	G	Y	R	R	R	R	R		R	R	R		G	Y	R		R	R	R		R	R	R	Y
5,6	R	R	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		G	Y	R	R
7,8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R		R	R	R		R	R	R		G	Y	R		R	R	R	R
9,10	H	H	H	M*	FH*	H	H	H	H	H	H	M*	FH*	H	H	H	H	H	H		H	H	H		H	H	H		H	H	H		H	H	H	OFF
11,12	H	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		H	H	H	OFF
13,14	H	H	H	H	H	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
15,16	H	H	H	H	H	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
FAIL-SAFE LAMP A	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
FAIL-SAFE LAMP 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	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
FAIL-SAFE LAMP C	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	ON	OFF	OFF	OFF
FAIL-SAFE LAMP 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	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
FIXED		3.0	2.6			3.8	2.6			3.8	2.6			3.8	2.6				3.4	2.0	▲	3.8	2.6		▲	3.8	2.6		▲	3.4	2.0		▲	3.4	2.0	
MINIMUM	3			3				3				12				3																				
PASSAGE	1			1				1				**				1																				
MINIMUM GAP												3																								
MAXIMUM 1	25			25				25				70				40																				
PEDESTRIAN*				⑤				⑤				7	18			7	12																			
MEMORY	NL			NL				NL				MR				NL																				

OPERATION NOTES

① R/G IF FOLLOWED BY 2+5
② R/G IF FOLLOWED BY 1+6
③ G/Y IF FOLLOWED BY 2+6
④ G IF FOLLOWED BY 2+6
⑤ TIMING TO BE SHOWN IN PHASE 2+6 IT MAY TIME OUT IN THIS PHASE OR BE COMPLETED IN PHASE 2+6

SIGNAL COORDINATED WITH ADJACENT SIGNALS; REFER TO SYSTEM INTERCONNECT PLAN #I-000XX

mR DENOTES MINIMUM RECALL
NL DENOTES NON LOCKING
* UPON PEDESTRIAN ACTUATION ONLY, OTHERWISE H AT ALL TIMES
** AS DETERMINED BY ADVANCE DETECTOR
▲ FOR DURATION OF PREEMPTION

*ADVANCE RADAR ZONE NOTES (ZONE 1)

- ESTIMATED TIME OF ARRIVAL: MIN 2.5-MAX 5.5 SEC
- RANGE OF DETECTION: MIN 100-MAX 450' FT
- MINIMUM SPEED BOUNDARY: 30 MPH
- ZONE MAY BE ADJUSTED FOR FIELD CONDITIONS

*ADVANCE RADAR ZONE NOTES (ZONE 2)

- RANGE OF DETECTION: 30-100 FEET FROM STOP BAR
- MINIMUM SPEED BOUNDARY: 1 MPH
- ZONE MAY BE ADJUSTED FOR FIELD CONDITIONS

EMERGENCY PRE-EMPTION NOTES:

OPERATION: CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR ALL APPROACHES WHICH WILL TERMINATE THE GREEN INTERVALS AND PROVIDE A SELECTIVE CLEARANCE (YELLOW & ALL RED) WHEN ACTIVATED BY EMERGENCY TRANSMISSION.

CLEARANCE: IF PRE-EMPTION OCCURS DURING A PHASE CLEARANCE INTERVAL, THAT INTERVAL WILL CONTINUE TO TIME OUT FOLLOWED BY PRE-EMPTED PHASE.

GREEN PHASE: IF PRE-EMPTION OCCURS DURING GREEN PHASE THE CONTROLLER WILL REMAIN IN THAT PHASE FOR DURATION OF PRE-EMPTION.

FLASHING: IF PRE-EMPTION OCCURS DURING FLASHING OPERATION SIGNALS REMAIN IN FLASH.

PEDESTRIAN: IF PRE-EMPTION OCCURS DURING PEDESTRIAN PHASE, THE WALK/MAN INDICATIONS WILL TERMINATE IMMEDIATELY FOLLOWED BY THE PEDESTRIAN CLEARANCE PHASE. IF PREEMPTION OCCURS DURING THE PEDESTRIAN CLEARANCE PHASE "FLASHING HAND" CONTINUES IN ITS ENTIRETY THAN THE PREEMPTIVE PHASE.

PRIORITY: IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED, PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.

RETURN: UPON COMPLETION OF PRE-EMPTION, OPERATION RESUMES IN PHASE 2+6

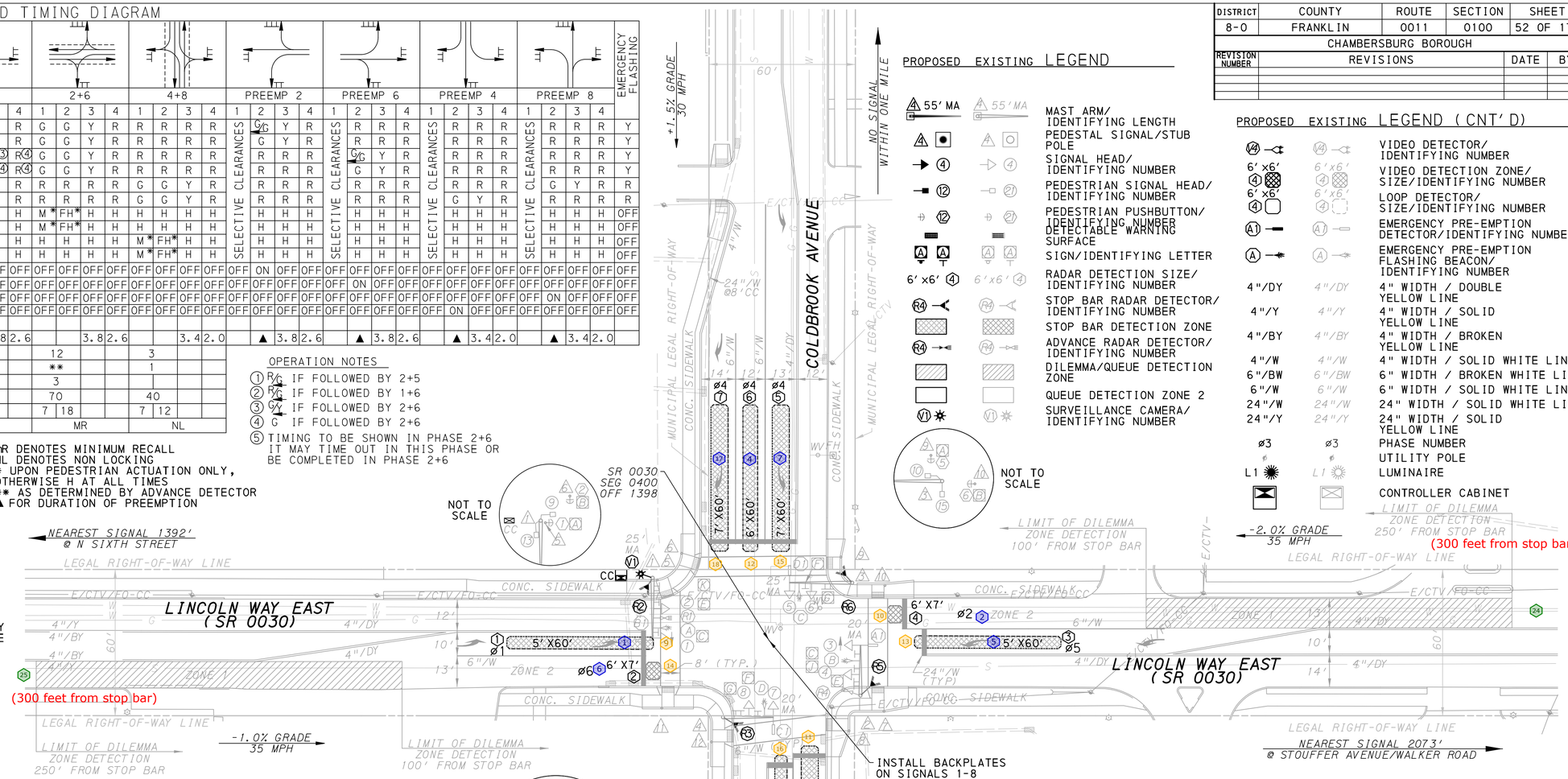
FAIL SAFE: FAIL SAFE LIGHT WILL CONSIST OF A WHITE LIGHT FOR EACH APPROACH WHICH WILL FLASH WHEN EMERGENCY TRANSMISSION HAS CONTROL OF PRE-EMPTED APPROACH.

EQUIPMENT LOCATION: LOCATION OF EMERGENCY VEHICLE DETECTORS ARE TO BE FIELD ADJUSTED TO ACHIEVE MAXIMUM OPERATION.

ENCODING: IF THE PRE-EMPTION EQUIPMENT HAS ENCODING CAPABILITIES FOR VEHICLE IDENTIFICATION, IT IS RECOMMENDED TO HAVE THE ZERO "00" POSITION ON TO GIVE UNCODED EMITTERS THE ABILITY TO ACTIVATE THE EMERGENCY PREEMPTION.

SIGN TABULATION

PLAN SYMBOL	SERIES	SIZE	MESSAGE
A	R10-3E(L)	9"x15"	EDUCATIONAL PUSHBUTTON FOR WALK SIGNAL W/COUNTDOWN TIMER ◀
B	R10-3E(R)	9"x15"	EDUCATIONAL PUSHBUTTON FOR WALK SIGNAL W/COUNTDOWN TIMER ▶
C	R10-12	30"x36"	LEFT TURN YIELD ON GREEN ●
D	R3-7L	30"x30"	LEFT LANE MUST TURN LEFT
E	R10-11A	30"x36"	NO TURN ON RED
F	SPECIAL	30"x36"	NO TURN ON RED 7AM-9AM 2:30PM-4PM
G	D3-4	60"x16"	"Lincoln Way E"
J	D3-4	60"x16"	" ◀ N Coldbrook Ave ▶ S "
K	D3-4	60"x16"	" ◀ S Coldbrook Ave ▶ N "



DETECTOR NOTES

DETECTOR 1 CALLS AND EXTENDS PHASE 1, PRESENCE
DETECTORS 2 & 4 ARE COUNT LOOPS
DETECTOR 3 CALLS AND EXTENDS PHASE 5, PRESENCE
DETECTORS 5, 6 AND 7 CALL AND EXTEND PHASE 4, PRESENCE
DETECTORS 8 AND 9 CALL AND EXTEND PHASE 8, PRESENCE
PUSHBUTTONS 1 AND 8 CALL PHASE 4, PEDESTRIAN
PUSHBUTTONS 2 AND 5 CALL PHASE 2, PEDESTRIAN
PUSHBUTTONS 3 AND 6 CALL PHASE 8, PEDESTRIAN
PUSHBUTTONS 4 AND 7 CALL PHASE 6, PEDESTRIAN

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

SIGNAL INDICATIONS
NOT TO SCALE

16"X18" COUNTDOWN — 9,10,11,12, 13,14,15,16
12" LENS — 1,3
12" LENS — 2,4,5, 6,7,8

ALL VEHICULAR SIGNAL HEADS TO BE EQUIPPED WITH TUNNEL VISORS AND BACKPLATES WITH YELLOW RETROREFLECTIVE BORDERS

PROPOSED EXISTING LEGEND

- 55' MA / 55' MA — MAST ARM/ IDENTIFYING LENGTH
- PEDESTAL SIGNAL/STUB POLE
- SIGNAL HEAD/ IDENTIFYING NUMBER
- PEDESTRIAN SIGNAL HEAD/ IDENTIFYING NUMBER
- PEDESTRIAN PUSHBUTTON/ IDENTIFYING NUMBER
- DETECTABLE WARNING SURFACE
- SIGN/IDENTIFYING LETTER
- 6'x6' / 6'x6' — RADAR DETECTION SIZE/ IDENTIFYING NUMBER
- STOP BAR RADAR DETECTOR/ IDENTIFYING NUMBER
- STOP BAR DETECTION ZONE
- ADVANCE RADAR DETECTOR/ IDENTIFYING NUMBER
- DILEMMA/QUEUE DETECTION ZONE
- QUEUE DETECTION ZONE 2
- SURVEILLANCE CAMERA/ IDENTIFYING NUMBER

PROPOSED EXISTING LEGEND (CNT'D)

- VIDEO DETECTOR/ IDENTIFYING NUMBER
- 6'x6' / 6'x6' — VIDEO DETECTION ZONE/ SIZE/IDENTIFYING NUMBER
- 6'x6' / 6'x6' — LOOP DETECTOR/ SIZE/IDENTIFYING NUMBER
- EMERGENCY PRE-EMPTION DETECTOR/IDENTIFYING NUMBER
- EMERGENCY PRE-EMPTION FLASHING BEACON/ IDENTIFYING NUMBER
- 4"/DY / 4"/DY — 4" WIDTH / DOUBLE YELLOW LINE
- 4"/Y / 4"/Y — 4" WIDTH / SOLID YELLOW LINE
- 4"/BY / 4"/BY — 4" WIDTH / BROKEN YELLOW LINE
- 4"/W / 4"/W — 4" WIDTH / SOLID WHITE LINE
- 6"/BW / 6"/BW — 6" WIDTH / BROKEN WHITE LINE
- 6"/W / 6"/W — 6" WIDTH / SOLID WHITE LINE
- 24"/W / 24"/W — 24" WIDTH / SOLID WHITE LINE
- 24"/Y / 24"/Y — 24" WIDTH / SOLID YELLOW LINE
- ø3 / ø3 — PHASE NUMBER
- UTILITY POLE
- L1 / L1 — LUMINAIRE
- CONTROLLER CABINET

TSAMS ID #3102

ATSPM Det. Channels
- Stop Bar Presence
- Advance Count
- Stop Bar Count
- Departure Count

0 25 50 FEET

COUNTY: FRANKLIN
MUNICIPALITY: CHAMBERSBURG BOROUGH
INTERSECTION: LINCOLN WAY EAST (SR 0030) & COLDBROOK AVENUE

TRAFFIC SIGNAL CONSTRUCTION PLAN

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MICHAEL J. MUDRY — ENGINEER — No. PE-056646-E

APPROVED: Jeffrey M. Hurley 6/24/2020
MUNICIPAL OFFICIAL — DATE

RECOMMENDED: For: Chris C. Flad 7-29-2020
DIST TRAFFIC ENGR — DATE

pw:\\PTO-PW-IS.pta.trafficpa.com:TPDProjectwise\Documents\Active\CHB0\00025 - L00282 Traffic Signal Improvements\CADD\Signals\Construction Plans\22.3388 - Lincoln Way (Rt 30) and Coldbrook Ave Const.dgn
7/29/2020 2:12:13 AM mmudry
Traffic Planning and Design, Inc.