

**LEGEND**

- COND. GALVANIZED RIGID STEEL CONDUIT
- SIG. SIGNAL CABLE
- PED. PEDESTRIAN SIGNAL CABLE
- DET. DETECTOR LEAD-IN CABLE
- ST. LT. STREET LIGHTING CABLE
- GRND. WIRE FOR POLE GROUND
- COAX. COAXIAL CABLE
- FUT. FUTURE CABLE
- B.O. BLANK OUT SIGN CABLE
- PREEMPT. PREEMPTION CABLE
- RADAR. RADAR DETECTION CABLE
- TRC. TRACER WIRE

\*4-C FROM PEDESTRIAN SIGNAL HEAD (K) TO ADA PUSHBUTTON PROVIDED BY SUPPLIER

**DETECTOR SUMMARY**

DETECTOR NUMBER	DETECTION ZONE SIZE	STOP BAR DETECTION	ADVANCED DETECTION	†TIMINGS (SEC)		MODE		PHASE CALLED	DISTANCE FROM STOP BAR
				TOTAL STRETCH + EXTENSION	DELAY	PRESENCE	PULSE		
31	6'x55'	X			2.0	X		3	-5
32,33	6'x55'	X			10.0	X		3	-5
51,52	6'x25'	X			2.0	X		5	-5
53,54	6'x6'		X		2.0	X		5	-10
55	6'x6'		X		2.0	X		5	-10
61,62	6'x55'	X			2.0	X		6	-5

† TIMINGS SHOWN IN DETECTOR SUMMARY CHART INCLUDE THE TOTAL STRETCH + EXTENSION. DETECTOR TIMINGS SHALL BE PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLER. SEE TRAFFIC SIGNAL GENERAL NOTES FOR ADVANCED DETECTION DISTANCE AND TIMING.

**SUGGESTED TIMINGS (SEC.)**

PHASE	MINIMUM INITIAL	*MAXIMUM GREEN SPLIT	**PEDESTRIAN			***CLEARANCE	
			WALK	FDW	SDW	YELLOW	ALL RED
3	10	20	-	-	-	3.6	4.3
5	10	20	-	-	-	3.6	3.3
6	10	40	11	23	-	4.5	2.3

CLEARANCE DESIGN SPEEDS:  
 SW BLVD = 40 MPH  
 PAWNEE = 40 MPH

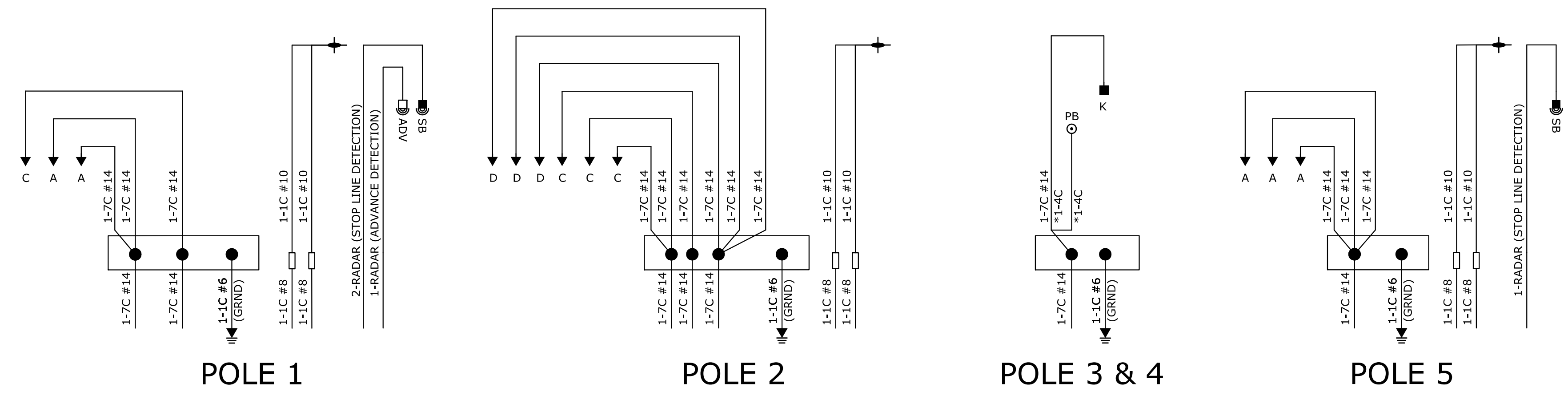
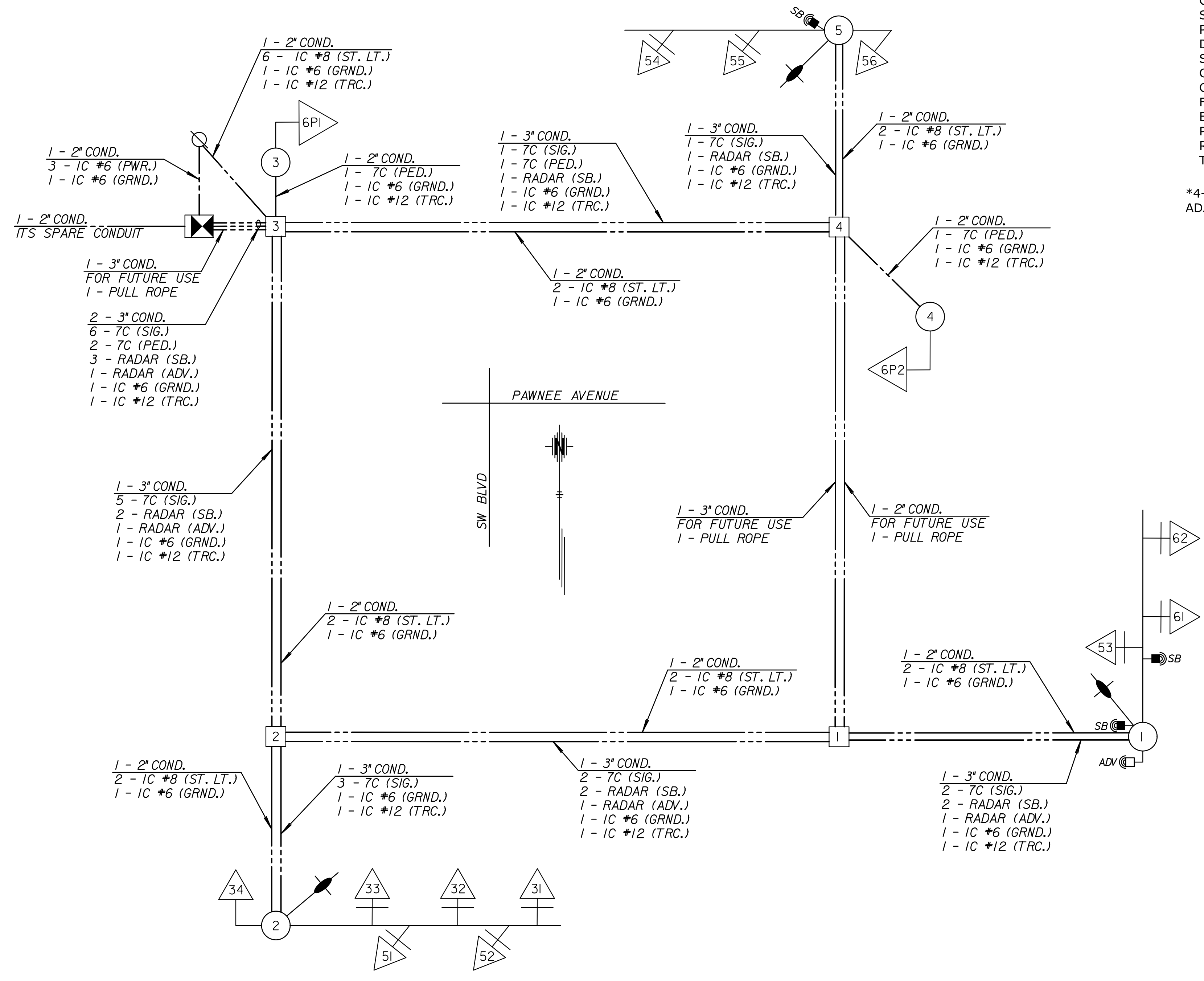
\*MAXIMUM GREEN SPLIT IS FOR NON-PEDESTRIAN CALLS ONLY. TIMING INCORPORATES YELLOW & ALL RED CLEARANCE TIMES.

\*\*\*SIGNAL CLEARANCE TIMINGS ARE CALCULATED BASED ON RECOMMENDATIONS FROM NCHRP REPORT 731.

\*\*PEDESTRIAN PHASING SHALL EXTEND PHASE WHEN CALLED IF APPROPRIATE. PEDESTRIAN CLEARANCE TIMES SHALL FOLLOW MUTCD GUIDELINES FOR PHASES.

**NOTES:**

- ALL MULTI-CONDUCTOR SIGNAL CABLE (IMSA 19-1) SHALL BE AWG #14 SOLID UNLESS SPECIFIED OTHERWISE. LABEL EACH WIRE AS SHOWN IN PART 700 SPECIFICATIONS.
- ALL GROUND WIRE SHALL BE #6 AWG COPPER WIRE IN ACCORDANCE WITH ATM B-3. SOLID BARE COPPER WIRE SHALL BE USED FOR ALL EXTERIOR INSTALLATIONS INCLUDING SERVICE AND GROUND ROD BONDING. OTHERWISE, GREEN INSULATED STRANDED WIRE TYPE "THHN/THWN" SHALL BE USED.
- GROUND WIRE SHALL BE BONDED TO EACH GROUND ROD AT EVERY POLE, PEDESTAL, SERVICE BOX, AND CONTROLLER TO FORM ONE CONTINUOUS GROUND CIRCUIT.
- DETECTOR CABLES SHOULD RUN CONTINUOUS. SPLICES, IF REQUIRED, SHALL ONLY OCCUR IN THE POLE BASE AND MUST BE APPROVED BY THE CITY OF WICHITA TRAFFIC ENGINEER.
- IN NO CASE SHALL MORE THAN 60% OF ANY CONDUIT BE FILLED BY AREA.
- STREET LIGHTING CABLE SHALL BE SPLICED IN SERVICE BOXES. THE SPLICE SHALL BE MADE WATERPROOF.
- SPLICES AT POLE BASE SHALL BE LINEMAN SPLICES PER SECTION 702.21.11. TERMINAL BLOCKS WILL NOT BE USED.
- ALL CONDUIT SHALL BE HOT DIPPED GALVANIZED RIGID STEEL CONDUIT (G.R.C.) AS SHOWN IN THE PROJECT SPECIFICATIONS.
- DURING EMERGENCY FLASH OPERATIONS, ALL SIGNAL PHASES SHALL BE RED INDICATIONS. PEDESTRIAN PHASE SHALL BE DARK.



- LEGEND**
- ▼ SIGNAL HEAD
  - ▶ VIDEO DETECTOR
  - ⬇ RADAR DETECTOR
  - ⊙ PTZ CCTV
  - ⊕ LUMINAIRE
  - PED. HEAD
  - PUSHBUTTON
  - ⬇ GROUND
  - ST.LT. CONNECTOR KIT
  - SPLICE CONNECTION

CONSULTANTS:

WEST STREET IMPROVEMENTS FROM PAWNEE TO HARRY



REVISIONS:	DESCRIPTION	MARK	DATE

PROJ NO: 87 N-0720-01  
 SCALE: 1"=20'  
 DATE: 9/25/2023  
 DESIGNED BY: SSP  
 DRAWN BY: SSP  
 CHECKED BY: MDB

**SHEET TITLE:**  
 WIRING DIAGRAM  
 SOUTHWEST BLVD.  
 & PAWNEE AVENUE

SHEET NO.  
**307**  
 SHEET 307 OF 517