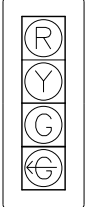
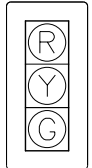


EXISTING MATERIAL USED			
ITEM	UNIT	DESCRIPTION	QTY.
603	FT	4" CONDUIT, TYPE E	100
625	FT	CONDUIT, 1", 725.04	52
625	FT	CONDUIT, 1-1/2", 725.04	267
625	FT	CONDUIT, 1-1/2", 725.05	917
625	FT	CONDUIT, 2", 725.05	145
625	FT	CONDUIT, 3", 725.05	50
625	FT	CONDUIT, JACKED OR DRILLED, AS PER PLAN, 2"	35
625	FT	CONDUIT, JACKED OR DRILLED, AS PER PLAN, 3"	128
625	EA	PULL BOX, 725.08, 18"	16
625	EA	PULL BOX, 725.08, 24"	1
625	EA	GROUND ROD, AS PER PLAN	5
632	EA	VEHICULAR SIGNAL HEAD, 3-SECTION, 12" LENS, 1-WAY, APP	6
632	EA	VEHICULAR SIGNAL HEAD, 4-SECTION, 12" LENS, 1-WAY, APP	2
632	EA	VEH. SIGNAL HEAD, OPTICALLY PROGRAMMED, 3-SEC., 12"	4
632	EA	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, APP	8
632	FT	SIGNAL CABLE, 5/C, NO. 14 AWG	1046
632	FT	SIGNAL CABLE, 7/C, NO. 14 AWG	366
632	FT	INTERC. CABLE, INTEGRAL MESS. WIRE TYPE, 5/C, NO. 14 AWG, APP	170
632	EA	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	4
632	FT	LOOP DETECTOR LEAD-IN CABLE, 2/C, NO. 14 AWG	2770
632	FT	POWER CABLE, 2/C, NO. 6 AWG	344
632	FT	POWER CABLE, 3/C, NO. 6 AWG	35
632	EA	POWER SERVICE, APP	2
632	EA	CONDUIT RISER, 1-1/2" DIAMETER	1
632	EA	METER BASE, 125 AMP WITH BYPASS	1
632	FT	LOOP DETECTOR PAVEMENT CUTTING, AS PER PLAN	725
632	FT	LOOP DETECTOR WIRE, TYPE E, AS PER PLAN	2536
632	EA	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 11, 40' ARM	2
632	EA	SIGNAL SUPPORT, INSTALL ONLY	2
632	EA	BACKPLATE FOR 3-SECTION VEH. SIGNAL HEAD	6
632	EA	BACKPLATE FOR 4-SECTION VEH. SIGNAL HEAD	2
633	EA	CONTROLLER UNIT, TYPE 2070LN, W/ CABINET, TYPE TS-1, APP	1
633	EA	CABINET FOUNDATION, APP	1
633	EA	CONTROLLER WORKPAD, APP (TYPE 2)	1
633	EA	BATTERY BACKUP SYSTEM WITHOUT ENCLOSURE, APP	1
633	EA	2070LN CONTROLLER UNIT (BACKUP)	1
633	EA	I-SPI MONITORING SYSTEM	1
633	EA	LA SOFTWARE	1
633	EA	MISC. HARDWARE FOR PREEMPT	1

MATERIAL REQUIRED PROJ. 410(06)				
REF	ITEM	UNIT	DESCRIPTION	QTY.
45	632	EA	LOOP DETECTOR TIE-IN, APP	2
97	632	FT	LOOP DETECTOR PVMT CUTTING, APP	108
99	632	FT	LOOP DETECTOR WIRE, TYPE E, APP	360



TYPICAL SIGNAL HEADS

① ② ③ ⑤ ⑥ ⑦ ⑧ ⑨ ⑪
④ ⑩ ⑫

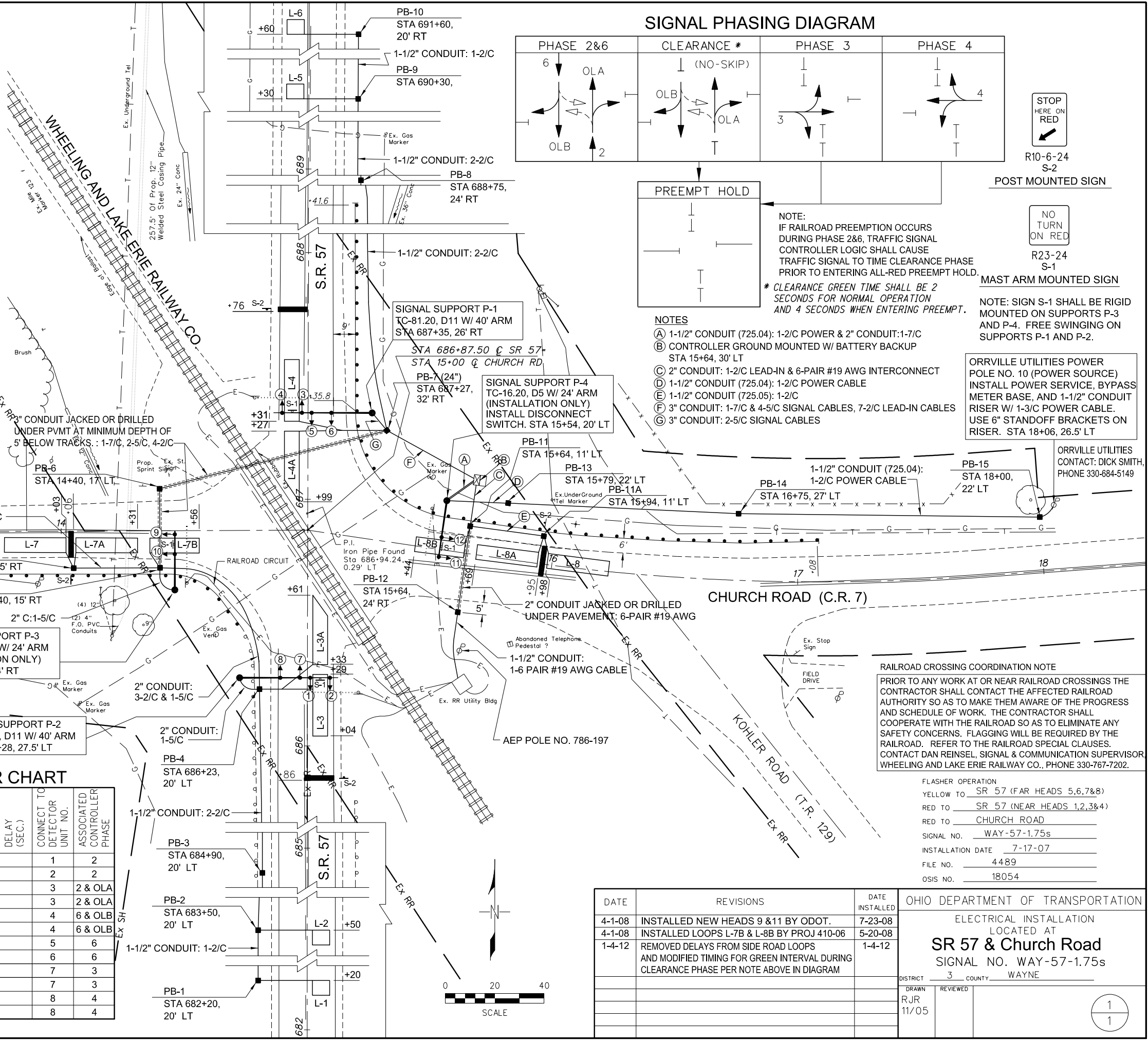
NOTE: SIGNAL HEADS NO.'S 1-4 AND 9-12 TO BE 12" POLYCARBONATE W/ RIGID MOUNT, LED LAMPS, AND BACKPLATES. SIGNAL HEADS NO.'S 5-8 ARE TO BE OPTICALLY PROGRAMMED HEADS W/ LED LAMPS, RIGID MOUNT, AND NO BACKPLATES.

LOOP DETECTOR CHART

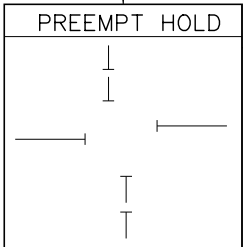
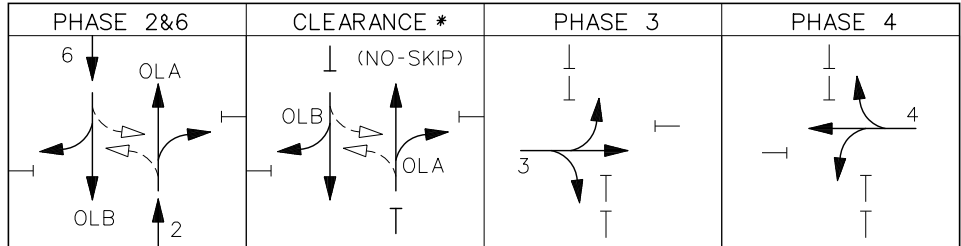
LOOP	SIZE (FT.)	NO. OF TURNS	MODE	DELAY (SEC.)	CONNECT TO DETECTOR UNIT NO.	ASSOCIATED CONTROLLER PHASE
L-1	6x8	4	PULSE		1	2
L-2	6x8	4	PULSE		2	2
L-3	6x25	3	PRESENCE		3	2 & OLA
L-3A	28x6x20x11	3	PRESENCE		3	2 & OLA
L-4	6x25	3	PRESENCE		4	6 & OLB
L-4A	28x6x20x11	3	PRESENCE		4	6 & OLB
L-5	6x8	4	PULSE		5	6
L-6	6x8	4	PULSE		6	6
L-7 & 7A	6x25	3	PRESENCE		7	3
L-7B	6x20	3	PRESENCE		7	3
L-8 & 8A	6x25	3	PRESENCE		8	4
L-8B	6x20	3	PRESENCE		8	4

SIGNAL SUPPORT P-3
TC-16.20, D5 W/ 24' ARM
(INSTALLATION ONLY)
STA 14+46, 24' RT

SIGNAL SUPPORT P-2
TC-81.20, D11 W/ 40' ARM
STA 686+28, 27.5' LT



SIGNAL PHASING DIAGRAM



NOTE:
IF RAILROAD PREEMPTION OCCURS
DURING PHASE 2&6, TRAFFIC SIGNAL
CONTROLLER LOGIC SHALL CAUSE
TRAFFIC SIGNAL TO TIME CLEARANCE PHASE
PRIOR TO ENTERING ALL-RED PREEMPT HOLD.
* CLEARANCE GREEN TIME SHALL BE 2
SECONDS FOR NORMAL OPERATION
AND 4 SECONDS WHEN ENTERING PREEMPT.

NOTES

- (A) 1-1/2" CONDUIT (725.04): 1-2/C POWER & 2" CONDUIT: 1-7/C
- (B) CONTROLLER GROUND MOUNTED W/ BATTERY BACKUP STA 15+64, 30' LT
- (C) 2" CONDUIT: 1-2/C LEAD-IN & 6-PAIR #19 AWG INTERCONNECT
- (D) 1-1/2" CONDUIT (725.04): 1-2/C POWER CABLE
- (E) 1-1/2" CONDUIT (725.05): 1-2/C
- (F) 3" CONDUIT: 1-7/C & 4-5/C SIGNAL CABLES, 7-2/C LEAD-IN CABLES
- (G) 3" CONDUIT: 2-5/C SIGNAL CABLES

ORRVILLE UTILITIES POWER
POLE NO. 10 (POWER SOURCE)
INSTALL POWER SERVICE, BYPASS
METER BASE, AND 1-1/2" CONDUIT
RISER W/ 1-3/C POWER CABLE.
USE 6" STANDOFF BRACKETS ON
RISER. STA 18+06, 26.5' LT

ORRVILLE UTILITIES
CONTACT: DICK SMITH,
PHONE 330-684-5149

RAILROAD CROSSING COORDINATION NOTE

PRIOR TO ANY WORK AT OR NEAR RAILROAD CROSSINGS THE
CONTRACTOR SHALL CONTACT THE AFFECTED RAILROAD
AUTHORITY SO AS TO MAKE THEM AWARE OF THE PROGRESS
AND SCHEDULE OF WORK. THE CONTRACTOR SHALL
COOPERATE WITH THE RAILROAD SO AS TO ELIMINATE ANY
SAFETY CONCERNS. FLAGGING WILL BE REQUIRED BY THE
RAILROAD. REFER TO THE RAILROAD SPECIAL CLAUSES.
CONTACT DAN REINSEL, SIGNAL & COMMUNICATION SUPERVISOR,
WHEELING AND LAKE ERIE RAILWAY CO., PHONE 330-767-7202.

FLASHER OPERATION
YELLOW TO SR 57 (FAR HEADS 5,6,7&8)
RED TO SR 57 (NEAR HEADS 1,2,3&4)
RED TO CHURCH ROAD
SIGNAL NO. WAY-57-1.75s
INSTALLATION DATE 7-17-07
FILE NO. 4489
OSIS NO. 18054

DATE	REVISIONS	DATE INSTALLED	OHIO DEPARTMENT OF TRANSPORTATION	
4-1-08	INSTALLED NEW HEADS 9 & 11 BY ODOT.	7-23-08	ELECTRICAL INSTALLATION LOCATED AT SR 57 & Church Road SIGNAL NO. WAY-57-1.75s DISTRICT 3 COUNTY WAYNE	
4-1-08	INSTALLED LOOPS L-7B & L-8B BY PROJ 410-06	5-20-08		
1-4-12	REMOVED DELAYS FROM SIDE ROAD LOOPS AND MODIFIED TIMING FOR GREEN INTERVAL DURING CLEARANCE PHASE PER NOTE ABOVE IN DIAGRAM	1-4-12		
			DRAWN RJR 11/05	REVIEWED 1 1