NOTES:

1. THE BOTTOM OF THE VEHICULAR SIGNAL HEAD BACK PLATES SHALL BE MINIMUM OF 17.0' AND A MAXIMUM OF 19.0' ABOVE THE ROADWAY PAVEMENT.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL UTILITIES AND EXISTING SIGNAL HARDWARE AND APPARATUSES PRIOR TO EXCAVATION.
3. CONTRACTOR TO MAINTAIN MINIMUM DISTANCE OF 10-FEET FROM ADJACENT POWER LINES DURING INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT, PER OSHA MINIMUM CLEARANCE DISTANCE REQUIREMENTS FOR VOLTAGE UP TO 50kV (STANDARD 1926.1408, TABLE A).
4. ALL RADAR UNITS TO BE REMOVED AND REINSTALLED ON STRAIN POLES EXCEPT FOR THE RADAR UNITS LOCATED ON SP-3.

LEGEND

- EXISTING SIGNAL SUPPORT POLE
- EX. CONTROLLER CABINET AND WORK PAD (TS-2)
- EX. PULL BOX
- EX. 3-SECTION VEHICLE HEAD
- EX. DILEMMA ZONE RADAR DETECTION UNIT
- EX. STOP BAR RADAR DETECTION UNIT
- PROPOSED SIGNAL SUPPORT POLE
- PROPOSED 3-SECTION VEHICLE SIGNAL HEAD
- CONDUIT
- DILEMMA ZONE RADAR DETECTION UNIT
- DETECTION ZONE
- PREEMPTION CONFIRMATION LIGHT AND RECEIVER

SP-1 STRAIN POLE
TC-81.11, DESIGN 10, 32'
STA. 109+54.65, 57.14' LT.
SPANWIRE ATTACH HT. = 29.45'

1-7/C
1-RADAR
SPAN = 79.5'

1-7/C
SPAN = 29'

EX. SP-3 STRAIN POLE
DESIGN 7, 32'
STA. 110+50.36, 40.91' LT.
PROP. SPANWIRE ATTACH HT. = 21.29'

EX. 3" CONDUIT: PROPOSED 2-5/C & 1-7/C
EX. 1-1/2" CONDUIT: 1-2/C POWER
PR. 3" CONDUIT: 3-RADAR & 2-4/C
IN TRENCH = 8'

EX. PB-1

EX. 3" CONDUIT: PROPOSED 2-5/C & 1-7/C
EX. 1-1/2" CONDUIT: 1-2/C POWER
PR. 3" CONDUIT: 3-RADAR & 2-4/C
IN TRENCH = 7'

EX. GROUND MOUNTED CONTROLLER, BATTERY BACKUP SYSTEM, AND TYPE 2 WORKPAD
STA. 110+66.26, 40.00' LT.

EX. SERVICE POINT
STA. 110+88.37, 44.91' LT.

2-5/C
2-RADAR
SPAN = 85.5'

1-5/C
SPAN = 41'

SP-2 STRAIN POLE
TC-81.11, DESIGN 10, 32'
STA. 109+57.06, 64.86' RT.
SPANWIRE ATTACH HT. = 30.39'

EX, SP-4 STRAIN POLE
DESIGN 10, 32', W/ 4' EXT (36' TALL)
12' LUMINAIRE ARM
STA. 110+40.02, 43.79' RT.
PROP. SPANWIRE ATTACH HT. = 21.52'

WOOSTER PIKE (SR 3)

I-76 EB EXIT RAMP

I-76 EB ENTRANCE RAMP

EX. LA-R/W

RDZ2A RDZ2B RDZ4A RDZ4C RDZ6A RDZ6B

Ex R/W

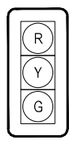
OHL

STM

PULL BOX DATA

NO.	STATION	OFFSET	SIZE
EX. PB-1	110+58.10	39.35' LT.	24"

SIGNAL HEADS



SIGNALS

2A 2B 4A
4B 6A 6B

- ALL SIGNAL HEADS SHALL HAVE 12" LED LENSES.
- ALL SIGNAL HEADS SHALL BE BLACK IN COLOR, POLYCARBONATE, AND HAVE BACKPLATES.
- ALL SIGNAL HEAD VISORS SHALL BE TUNNEL TYPE.
- ALL SIGNAL HEADS SHALL HAVE A 15-YEAR LAMP LIFE.

GRAPHIC SCALE (IN FEET)
40 20 0 10 20

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WOOSTER PIKE (SR 3)

NEO COMMERCE CENTER
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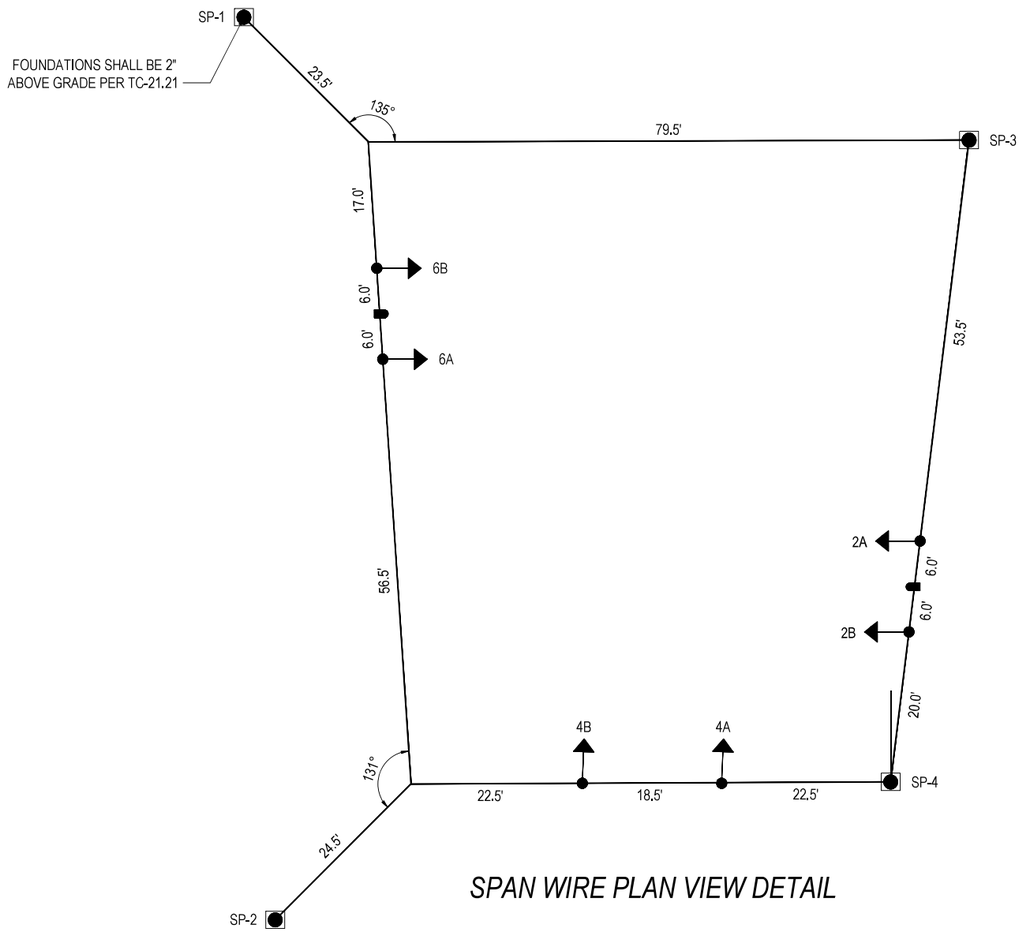
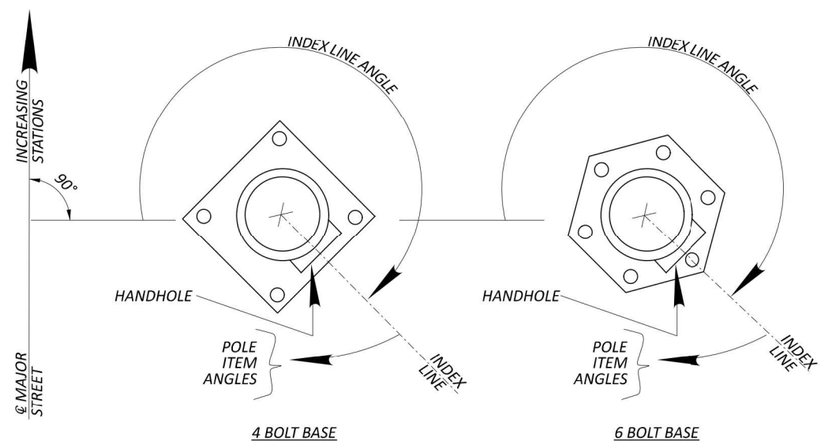
TYPE	REFERENCE SHEET NO.*	STATION & OFFSET*	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	FOUNDATION ELEV.*	SPAN WIRE ATTACHED HEIGHT*	CABLE ENTRANCE DISTANCE FROM TOP (IN.)	INDEX LINE ANGLE (DEG.)	ANGLES (DEG.) FROM INDEX LINE			
										SIGNAL CABINET	POWER SERVICE	CABLE ENTRANCE	BRACKET ARM
PROP.	T4	109+54.65, 57.14' LT.	SP-1	10	32	1090.53	29.66'	12	135	-	-	-	-
PROP.	T4	109+58.79, 62.01' RT.	SP-2	10	32	1090.83	29.21'	12	225	-	-	-	-
EX.	T4	110+50.36, 40.91' LT.	SP-3	7	32	1096.48	21.39'	12	225	280	265	280	-
EX.	T4	110+40.02, 43.79' RT.	SP-4	10	36	1096.39	21.62'	12	135	-	-	-	0

NOTES:

- PROP. = PROPOSED SIGNAL
- EX. = EXISTING SIGNAL



SPAN WIRE PLAN VIEW DETAIL



Note:

- Index line passes through the center of the handhole

POLE ORIENTATION

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IR 76 EB RAMP TRAFFIC SIGNAL PLAN DETAILS
WOOSTER PIKE (SR 3)

NEO COMMERCE CENTER
SEVILLE, OH

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SIGNAL TIMING CHART

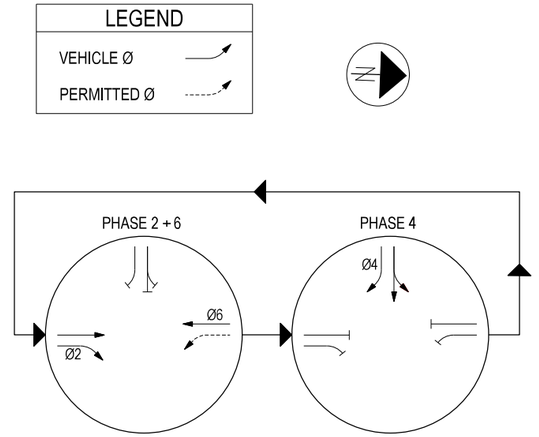
INTERSECTION: IR 76 EB RAMP & WOOSTER PIKE (SR 3) MAINTAINING AGENCY: ODOT										
START UP START IN: ALL-RED FLASH TIME FOR FLASH, ALL RED: 9, 6 FIRST PHASE(S): Ø2 + Ø6 COLOR DISPLAYED: -			DUAL ENTRY: -		PHASES: -					
			REST IN RED:		RING 1 -			RING 2 -		
			OVERLAP			A	B	C	D	
			PHASES			-	-	-	-	
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			-	NB	-	EB	-	SB	-	-
MINIMUM GREEN (INITIAL)		(SEC.)	-	20	-	12	-	20	-	-
ADDED INITIAL		*(SEC./ACTUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		*(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP)		(SEC.)	-	4.0	-	4.0	-	4.0	-	-
TIME BEFORE REDUCTION		*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	-	50	-	50	-	50	-	-
MAXIMUM GREEN II		(SEC.)	-	50	-	50	-	50	-	-
YELLOW CHANGE		(SEC.)	-	4.2	-	4.9	-	4.2	-	-
ALL RED CLEARANCE		(SEC.)	-	1.8	-	2.4	-	1.8	-	-
DELAYED GREEN (LPI) #		(SEC.)	-	-	-	-	-	-	-	-
WALK		(SEC.)	-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE		(SEC.)	-	-	-	-	-	-	-	-
RECALL	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM	(ON/OFF)	-	ON	-	OFF	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	OFF	-	ON	-	OFF	-	-

*VOLUME DENSITY CONTROLS

NOTES:

- ALL MOVEMENTS SHALL BE ACTUATED. THE PRIMARY THRU MOVEMENT SHOULD HAVE MIN RECALL ACTIVE TO REST IN GREEN.
- RADAR DETECTION UNITS FOR DILEMMA ZONE DETECTION SHALL PLACE A CONSTANT CALL TO THE CONTROLLER WHEN VEHICLE TRAVEL TIMES TO THE STOP BAR ARE BETWEEN 2.5 AND 6.0 SECONDS. SPEED TRIGGER SHALL BE SET FOR VEHICLES TRAVELING 35 MPH AND GREATER.
- RADAR SHALL HAVE QUEUE DETECTION CONFIGURED AND A ZONE PLACED AT 100-200 FEET FROM THE STOP BAR FOR SLOW MOVING VEHICLE EXTENSIONS. SPEED TRIGGER SHALL BE SET AT 1-35 MPH.
- ALL DETECTOR DELAYS SHALL BE PLACED IN THE CONTROLLER.

PHASING DIAGRAM



RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	DETECTOR NO.	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ2A	NBT	PULSE	Ø2	0	1.5	D2A	DILEMMA ZONE	325
RDZ4A	EBLT	PRESENCE	Ø4	4.0	3.0	D4A	STOP BAR	40
RDZ4B	EBR	PRESENCE	Ø4	12.0	3.0	D4B	STOP BAR	40
RDZ4C	EBLTR	PULSE	Ø4	0	1.5	D4C	DILEMMA ZONE	325
RDZ6A	SBL	PRESENCE	Ø6	4.0	3.0	D6A	STOP BAR	40
RDZ6B	SBT	PULSE	Ø6	0	1.5	D6B	DILEMMA ZONE	325

NOTE: ALL DETECTION ZONES SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE SHOWN.

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IR 76 EB RAMP TRAFFIC SIGNAL PLAN DETAILS
WOOSTER PIKE (SR 3)

NEO COMMERCE CENTER
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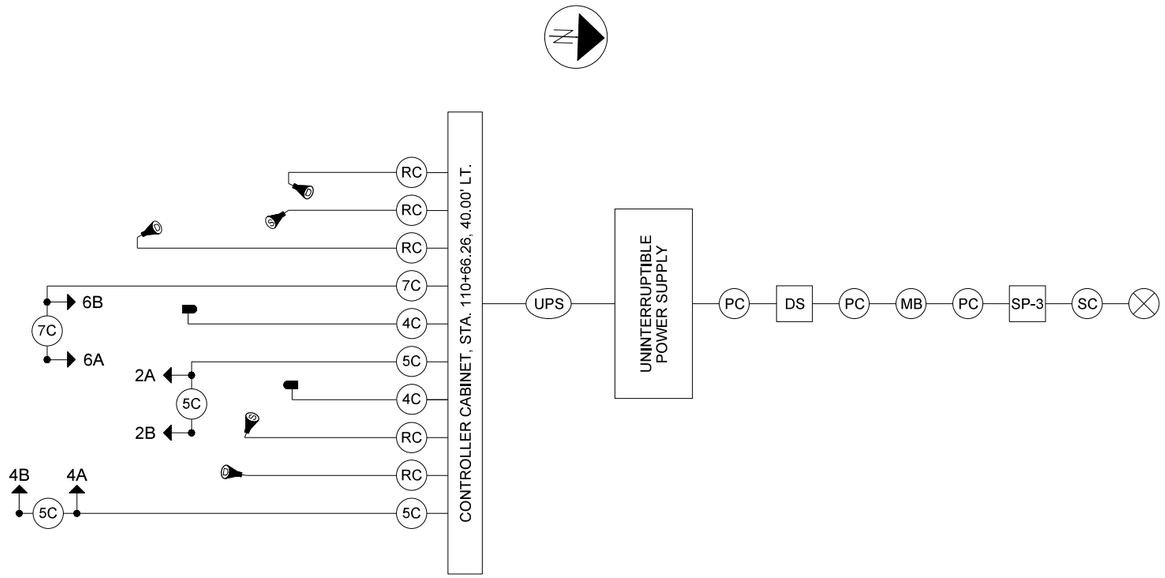
TRAFFIC SIGNAL QUANTITIES

ITEM NO.	DESCRIPTION	QTY.	UNIT
625	GROUND ROD	2	EACH
625	CONDUIT, 3", 725.051	15	L.F.
632	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	6	EACH
632	COVERING OF VEHICULAR SIGNAL HEAD	6	EACH
632	TETHER WIRE W/ ACCESSORIES	365	L.F.
632	MESSENGER WIRE, 7-STRAND, 3/8" DIAMETER W/ ACCESSORIES	365	L.F.
632	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	366	L.F.
632	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	195	L.F.
632	STRAIN POLE FOUNDATION	2	EACH
632	STRAIN POLE, TYPE TC-81.11, DESIGN 10, AS PER PLAN	2	EACH
809	EMERGENCY VEHICLE PREEMPTION, AS PER PLAN	1	EACH
809	PREEMPTION RECEIVING UNIT	2	EACH
809	PREEMPTION DETECTOR CABLE, 4 CONDUCTOR, NO. 14 AWG	325	L.F.
809	PREEMPTION PHASE SELECTOR	1	EACH
809	PREEMPTION CONFIRMATION LIGHT	2	EACH

WIRING DIAGRAM



FIELD WIRING HOOK-UP CHART

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A, 2B (NB)	R	Ø2 R	R
	Y	Ø2 Y	
	G	Ø2 G	
4A, 4B (EB)	R	Ø4 R	R
	Y	Ø4 Y	
	G	Ø4 G	
6A, 6B (SB)	R	Ø6 R	R
	Y	Ø6 Y	
	G	Ø6 G	

LEGEND

TRAFFIC SIGNAL, 3 UNIT HEAD, 12"	4C — SIGNAL CABLE, 4CONDUCTOR, NO. 14 AWG	SC — SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
DILEMMA ZONE RADAR DETECTION UNIT	5C — SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	PC — POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
STOP LINE RADAR DETECTION UNIT	7C — SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	MB — METER BASE
SP-1 — SIGNAL SUPPORT POLE NO. __	RC — RADAR DETECTION CABLE	UPS — UNINTERRUPTIBLE POWER SUPPLY CABLE
DS — SIGNAL DISCONNECT SWITCH	POWER SOURCE	

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