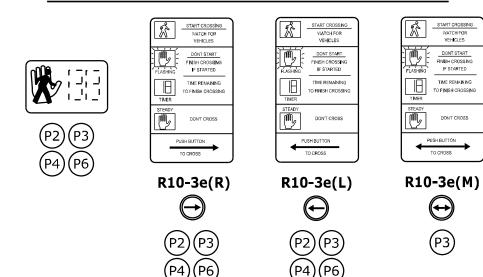
### PROPOSED PEDESTRIAN SIGNAL DETAILS



PEDESTRIAN SIGNALS/PUSHBUTTONS SHALL BE ACCESSIBLE

## **PULL BOX SIZING NOTE**

STREET NAME SIGNS (SNS)

OVERHEAD STREET NAME SIGNS SHALL BE INSTALLED ON SIGNAL MAST ARMS. SIGNS SHALL POSSESS MINIMUM 12" UPPERCASE AND 9" LOWERCASE LETTERS, WITH FINAL STREET NAME SIGN LEGEND DESIGN COORDINATED WITH CITY OF KNOXVILLE.

LARGER SIZED PULL BOXES (17" x30" x18") SHALL BE USED AS NEEDED WHERE THERE ARE MANY CONDUITS AND SIGNAL CABLES IN A PULL BOX LOCATION.

# SCALE: 1" = 20'

6515 NIGHTINGALE LANE KNOXVILLE, TN 37909 (865) 934-6023

# CANNON & CANNON INC TEL 865.670.8555 8550 Kingston Pike Knoxville, TN 37919

AGR LTURY  OMMERC  1154  OF TEN

APV	CHK	ВУ	DESCRIPTION	DATE	).
ВЈН	ВЈН	WAS	REVISED PER CITY OF KNOXVILLE COMMENTS	10/28/2021	
ВЈН	ВЈН	ВЈН	ADDED PULL BOX SIZING NOTE	12/02/2021	
ВЈН	ВЈН	ВЈН	REVISED SIGNAL POLE LOCATIONS	10/05/2022	
ВЈН	ВЈН	ВЈН	REVISED PER CITY OF KNOXVILLE COMMENTS	10/20/2022	
ВЈН	ВЈН	ВЈН	INCREASED MAST ARM LENGTH OF POLE F	11/01/2022	

PEDESTRIAN SIGNAL HEAD W/ ASSOCIATED PHASE PEDESTRIAN PUSHBUTTON AND

PROPOSED LEGEND

CONTROLLER CABINET

SIGNAL STRAIN POLE

VEHICLE SIGNAL HEAD W/ ASSOCIATED PHASE

PEDESTRIAN PEDESTAL POLE/POST

PAD MOUNTED

SIGN W/ ASSOCIATED PHASE SIGNAL MAST ARM

RADAR DETECTION

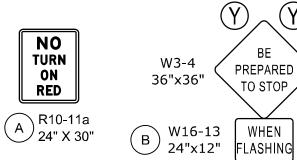
SIGNAL PULL BOX (TYPE B)

SIGNAL CONDUIT (PVC) OVERHEAD SIGN

RADAR DETECTION ZONE W/ ASSOCIATED PHASE FIBER OPTIC PULL BOX (TYPE B)

RADIO ANTENNA

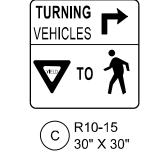
### **PROPOSED SIGNS**



INSTALL W3-4 (BE PREPARED TO STOP, 36" x 36") SIGNS A DISTANCE OF 355 FEET FROM THE STOP BAR ON EASTBOUND PARKSIDE DRIVE. W3-4 SIGNS SHALL BE ACCOMPANIED WITH "WHEN FLASHING" PLAQUES AND WARNING FLASHERS. FLASHERS SHALL OPERATE IN A WIG-WAG

PATTERN AND SHALL ACTIVATE AS

DESCRIBED ON SHEET T2.



36"x36" W16-15P 24"x12"

INSTALL W3-3 (SIGNAL AHEAD, 36" x 36") SIGNS A DISTANCE OF 300 FEET FROM THE STOP BAR ON PARKSIDE DRIVE. W3-3 SIGNS SHALL BE ACCOMPANIED WITH "NEW" PLAQUES. W3-3 SIGNS AND PLAQUES SHALL BE REMOVED BY CITY OF KNOXVILLE ONE YEAR AFTER ACTIVATION OF THE TRAFFIC SIGNAL.

 			P4	
=======	========	7 :[		3L)
 POLE A PROPOSED CAN SIGNAL SUPPOR	т	R4 PE6 1	C A	4 SNS PE
	Z5-1	R5/2	ARM A2	PE3 √ SNS √ 3L 3
	Z2			
			<u> </u>	

POLE G

PROPOSED PEDESTRIAN

PEDESTAL POLE (TYPE B)

PROPOSED PEDESTRIAN PEDESTAL POLE (TYPE B)

		DET	ECTIO	N ZONE	SCHEDULE						
ASSOC. ZONE	DETECTOR ID	ZONE DIMENSIONS	ASSOC. PHASE	AMP MODE	COMMENTS						
1-1 Z1-1 8 x 100 1 PRES. DELAY/NORMAL W/ 3 SEC. DELAY											
2-1 Z2-1 20 x 50 2 PRES. NORMAL W/ 3 3LC. DLLAT											
2-2	Z2-2	8 x 50	2	PRES.	NORMAL						
3-1	Z3-1	8 x 50	3	PRES.	DELAY/NORMAL W/ 3 SEC. DELAY						
3-2	Z3-2	8 x 50	3	PRES.	DELAY/NORMAL W/ 10 SEC. DELAY						
4-1	Z4-1	8 x 50	4	PRES.	DELAY/NORMAL W/ 3 SEC. DELAY						
4-2	Z4-2	8 x 50	4	PRES.	NORMAL						
5-1	Z5-1	8 x 100	5	PRES.	DELAY/NORMAL W/ 3 SEC. DELAY						
6-1	Z6-1	20 x 50	6	PRES.	NORMAL						
6-2	Z6-2	8 X 50	6	PRES.	NORMAL						

### NOTES:

. RADAR DETECTOR UNITS ON PLANS ARE SUGGESTED PLACEMENT. FINAL PLACEMENT SHALL BE BASED ON MANUFACTURER RECOMMENDATIONS.

. DETECTORS SPECIFIED AS DELAY/NORMAL SHALL HAVE A TIME DELAYED OUTPUT WHEN ASSOCIATED PHASE NOT GREEN (DELAY SETTINGS AS SPECIFIED). OUTPUT SHALL BE NORMAL WHEN ASSOCIATED PHASE IS GREEN.

	PROPO	SED POLE	LOCATIONS	
POLE ID	POLE TYPE	POLE HEIGHT	NORTHING	EASTING
Α	MAST ARM	22'	575841.98	2517708.73
В	PEDESTAL TYPE B	20'	575847.92	2517764.49
С	PEDESTAL TYPE A	8'	575801.29	2517806.68
D	PUSHBUTTON POST	5'	575760.80	2517753.29
E	PEDESTAL TYPE B	20'	575732.72	2517717.86
F	MAST ARM	22'	575730.19	2517706.42
G	PEDESTAL TYPE B	20'	575795.88	2517653.15

\*COORDINATES FOR PROPOSED POLE LOCATIONS SHOULD BE FIELD VERIFIED WITH PROPOSED POLE LOCATIONS SHOWN ON THIS SHEET. \*CONTRACTOR TO VERIFY MAST POLE HEIGHTS AND VERTICAL CLEARANCES PRIOR TO ORDERING POLES.

PEDESTRIAN PUSHBUTTON AND SIGN LOCATIONS

POLE C

POLE D

POLE E

POLE H PROPOSED WARNING

(355' FROM STOP BAR)

SIGN "B" PEDESTAL POLE

PROPOSED WARNING SIGN "B" PEDESTAL POLE (355' FROM STOP BAR)

POLE B

POLE G

PROPOSED PEDESTRIAN

PEDESTAL POLE (TYPE B)

PROPOSED PEDESTRIAN PUSHBUTTON POST

PROPOSED PEDESTRIAN PEDESTAL POLE (TYPE A)

PROPOSED CANTILEVER

SIGNAL SUPPORT

\PROPOSED

PAD MOUNTED SIGNAL CABINET

PREEMPT DETECTOR

PROJECT NUMBER 5143-20-039 DRAWING NUMBER

NOTES:
1) POWER SERVICE AND GROUND CONDUITS AND CABLE NOT SHOWN.
2) CONDUIT SHALL BE SCHEDULE 80 PVC EXCEPT WHERE
SPECIFIED OTHERWISE.

3) ALL CABLE RUNS SHALL BE CONTINUOUS; NO SPLICES ALLOWED.

2-2"C 2-2CSH 3-7C

2-2"C 2-3"C/ 2-2CSH 3-7C 3-12C

2-RADAR 3-PREEMPT

				BA	ASIC TIMI	NG (SEC	S)				
	MINIMUM	VEHICLE			CLEAF	RANCE	PEDESTRIAN		RECALL	MEMORY	LEFT TURN
PHASE	INITIAL	INTERVAL	MAX I	MAX II	YELLOW	ALL RED	WALK	FLASHING DON'T WALK	TO	POSITION	OPERATION
1	6	1.0	20	30	4.0	2.5				OFF	PROT
2	15	2.0	60	75	4.5	1.0	7.0	18.0	MIN	OFF	
3	6	2.0	20	30	4.0	2.5	7.0	25.0		OFF	SPLIT
4	6	2.0	20	30	4.0	2.5	7.0	27.0		OFF	SPLIT
5	6	1.0	20	30	4.0	2.5				OFF	PROT
6	15	2.0	60	75	4.5	1.0	7.0	11.0	MIN	OFF	
ADVANCE W	ARNING FLASI	HERS FOR THE	WESTBOUN	D PARKSIDE	DRIVE APPRO	DACH SHALL A	ACTIVATE 7 S	ECONDS PRIOR T	O THE ON	ISET OF THE	E PHASE 6

2-2"C 5-3"C 9-2CSH 14-7C 4-12C

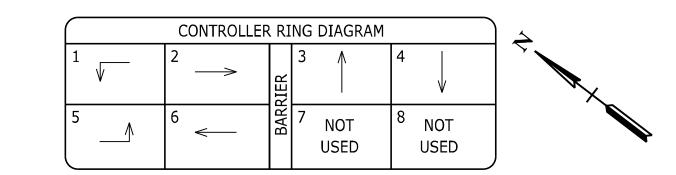
4-RADAR 1-RADIO 4-PREEMPT 1-7C 2-RADAR

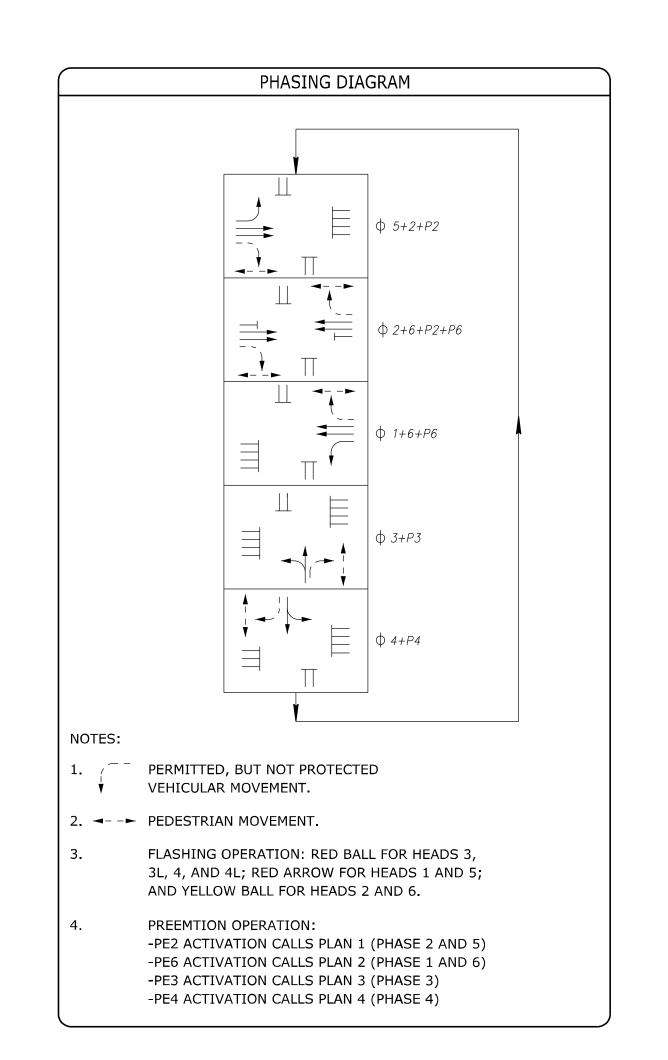
1-2"C (HDPE)

1-RADIO

1-PREEMPT

YELLOW CHANGE INTERVAL. ADVANCE WARNING FLASHERS SHALL DEACTIVATE AT THE ONSET OF THE PHASE 6 GREEN INTERVAL.







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CANNON & CANNON INC

AGRICATURE AGRICATION OF TENNION OF TENNION

4	11/01/2022	INCREASED MAST ARM LENGTH OF POLE F	ВЈН	ВјН	ВјН	
3	10/20/2022	REVISED PER CITY OF KNOXVILLE COMMENTS	ВЈН	ВјН	ВЈН	
2	10/05/2022	UPDATED PER REVISED POLE LOCATIONS	ВЈН	ВЈН	ВЈН	
 1	10/28/2021	REVISED PER CITY OF KNOXVILLE COMMENTS	WAS	ВЈН	ВјН	
NO.	DATE	DESCRIPTION	ВУ	CHK	APV	

SIGNAL OPERATION
PERMIT S
DOMINION TURK
KNOXVILLE, KNOX COLL

PROJECT NUMBER **5143-20-039** 

DRAWING NUMBER

**T2** 





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CANNON & CANNON INC.

CONSULTING ENGINEERS - FIELD SURVEYORS

TEL 865.670.8555 | 8550 Kingston Pike
Knoxville, TN 37919



		ВЈН	ВЈН	ВЈН	ВЈН	ВЈН	
		ВЈН ВЈН	ВјН ВјН	ВЈН ВЈН	BJH BJH BJH	ВЈН	CHK APV

		вјн	вјн	BJH	BJH	WAS	ВУ	
		CORRECTED POLE F LABEL ON DATA TABLE	INCREASED MAST ARM LENGTH OF POLE F	REVISED PER CITY OF KNOXVILLE COMMENTS	UPDATED PER REVISED POLES	REVISED PER CITY OF KNOXVILLE COMMENTS	DESCRIPTION	
		12/02/2022	11/01/2022	10/20/2022	10/05/2022	10/28/2021	DATE	

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PERMIT SET DOMINION TURKEY CREEK XVILLE, KNOX COUNTY, TENN

PROJECT NUMBER **5143-20-039** 

DRAWING NUMBER

**T3** 

# TYPICAL SIGNAL SUPPORT POLE DATA TABLE

	SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS														
POLE		ARM													
NO.	ARM	LENGTH	SNS-1	SNS-2	VD-1	VD-2	SH-1	PRE-1	PRE-2	SH-2	SH-3	SH-4	S-1	S-2	S-3
А	A1	35'			30'		4'	19.5'		13'	25'		31.5'		
А	A2	80'	54.5'	63.5'	16.5'		48.5'	52'	66'	57.5'	61.5'	68.5'	39.5'	43.5'	72'
F	F1	65'			21'	47'	28.5'	34.5'		40.5'	52.5'		15'		

LEGEND

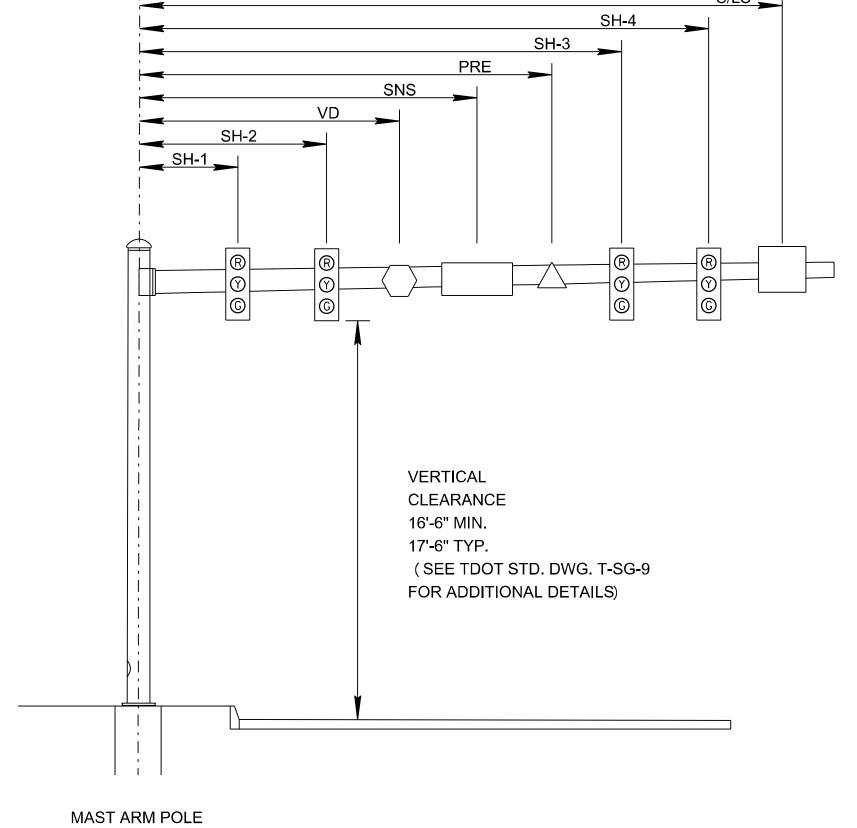
SIGN

RADAR VEHICLE DETECTOR

PREEMPTION DETECTOR

SIGNAL HEAD

STREET NAME SIGN



S: SIGN
SNS: STREET NAME SIGN
SH-X: SIGNAL HEAD
VD: RADAR VEHICLE DETECTOR
PRE: PREEMPTION DETECTOR

- (2) FINAL DESIGN OF POLES AND FOUNDATIONS ARE THE RESPONSIBILITY OF THE POLE MANUFACTURER.
- (3) EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE TDOT "SPECIAL PROVISIONS REGARDING SECTION 730K-TRAFFIC SIGNALS."
- (4) ALL EQUIPMENT SHALL MEET ALL APPLICABLE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION STANDARDS.
- (5) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN INCANDESCENT-LOOK LED (LIGHT EMITTING DIODE) SIGNAL MODULE.
- 6) CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW.
- 7) ARROW INDICATIONS SHALL MEET "ITE VTCSH-3 LED ARROW SPECIFICATION" FOR EXPANDED/EXTENDED VIEW.
- (8) ALL TRAFFIC SIGNAL HEADS SHALL HAVE YELLOW ALUMINUM HOUSINGS WITH 5-INCH LOUVERED BLACK ALUMINUM BACKPLATES. ALL BACKPLATES SHALL HAVE A 2-INCH YELLOW REFLECTIVE STRIP AROUND THE BORDER.
- (9) ALL VEHICULAR SIGNAL DISPLAYS SHALL BE 12 INCHES.
- (10) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED UNTIL SIGNAL IS OPERATIONAL.
- (11) INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.
- (12) COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.
- (13) VEHICULAR SIGNAL HEAD LENSES SHALL BE CLEAR LENSES WITH COLOR LED'S.
- (14) MANUFACTURER SHALL PROVIDE A MINIMUM FIVE-YEAR WARRANTY FOR OPERATION OF THE LED'S.
- (15) PEDESTRIAN SIGNAL HEADS SHALL HAVE YELLOW COLOR HOUSINGS. ALL PEDESTRIAN TRAFFIC SIGNAL INDICATIONS SHALL CONSIST OF LED MODULES DISPLAYING "WALKING PERSON" AND "HAND" SYMBOLS, ALONG WITH A PEDESTRIAN COUNTDOWN INTERVAL DISPLAY, WITHIN THE SAME FACE.
- (16) PEDESTRIAN INDICATIONS SHALL MEET "ITE PTCSI PART 2".
- (17) PEDESTRIAN PUSHBUTTONS SHALL BE FULLY ACCESSIBLE AND AUDIBLE AND COMPLIANT WITH ALL REQUIREMENTS OF THE MUTCD, ADA, AND PROWAG.
- (18) THE CONTRACTOR SHALL STAKE THE LOCATION OF SIGNS, POLES, PULL BOXES, AND SIGNAL CABINET PRIOR TO INSTALLATION AND SHALL CONTACT CITY OF KNOXVILLE ENGINEERING FOR APPROVAL.
- (19) CLOSELY COORDINATE FOOTING INSTALLATIONS WITH EXISTING UTILITIES. HAND DIG FOUNDATION AS REQUIRED.
- (20) LOCATIONS OF SIGNAL POLES AND PULL BOXES ARE APPROXIMATE AND CAN BE ADJUSTED UP TO 2 FEET IN THE FIELD TO AVOID UTILITY CONFLICT, SUBJECT TO THE APPROVAL OF CITY OF KNOXVILLE ENGINEERING. IF SIGNAL POLES REQUIRE RELOCATION, CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO ESTABLISH LOCATIONS OF ADDIONTAL SIDEWALK OR PUSHBUTTON POSTS TO MAINTAIN ADA ACCESSIBILITY TO PUSHBUTTONS.
- (21) EACH POLE FOUNDATION SHALL INCLUDE AT LEAST ONE SPARE 2-INCH CONDUIT.
- (22) THE TRAFFIC SIGNAL CONTROLLER SHALL BE TRAFFICWARE NEMA ATC 980 SERIES.
- (23) THE CABINET SHALL BE TRAFFIC WARE CITY OF KNOXVILLE SPEC NEMA TS2 TYPE 2.
- (24) THE CABINET FOUNDATION SHALL INCLUDE AT LEAST ONE SPARE 2-INCH CONDUIT.
- (25) ETHERNET RADIOS SHALL BE MICROHARD NANO IPN920T MODEL.

- (26) ETHERNET SWITCH SHALL BE COMNET CNGE5MS MODEL.
- (27) ALL CONDUIT UNDER PAVEMENT SHALL BE PVC OR HDPE AND SHALL BE SCHEDULE 80.
- (28) ALL ABOVE GROUND CONDUIT SHALL BE RIGID GALVANIZED STEEL
- (29) RADAR DETECTION SHALL BE WAVETRONIX SMARTSENSOR MATRIX. THE RADAR DETECTOR UNITS SHALL BE PLACED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
- (30) PREEMPTION DETECTION SHALL BE SONEM 2000. THE PREEMPTION DETECTOR UNITS SHALL BE PLACED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
- (31) EACH RADAR SHALL HAVE A SEPARATE CONTINUOUS LEAD-IN CABLE TO THE CONTROLLER CABINET. ALL LEAD-IN CABLES SHALL BE LABLED WITH THE APPROPRIATE PHASE AND APPROACH TO WHICH THEY ARE ATTACHED BOTH IN THE PULL BOX AND CONTROLLER CABINET.
- (32) THE CABINET SHALL BE ORIENTED SUCH THAT SOMEONE FACING THE FRONT DOOR OF THE CABINET IS FACING TOWARD THE INTERSECTION. SEE CITY OF KNOXVILLE STANDARD DRAWING COK-SG-5 FOR CONTROL CABINET BASE DESIGN.
- (33) THE CABINET SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
  - A. A TS-2 TYPE 2 SIXTEEN PHASE CABINET,
  - B. A TRAFFICWARE 980 ATC CONTROLLER WITH FLASH MEMORY AND ETHERNET PORTS AND CABLES.
  - C. A TRAFFICWARE MMU 516L-E SIGNAL MONITOR WITH ETHERNET PORTS AND CABLE.
  - D. SIXTEEN LOAD SWITCHES.
  - E. EIGHT TRANSFER RELAYS.
  - F. RADAR DETECTION SYSTEM WITH EQUIPMENT FOR FOUR APPROACHES (OR AS APPROPRIATE FOR THE NUMBER OF MOVEMENTS FOR EACH INTERSECTION),
  - G. FLASHER AND ANY OTHER EQUIPMENT NECESSARY TO MAKE AN OPPERATIONAL TRAFFIC SIGNAL BASED ON THE DESIGN PLANS PROVIDED.
  - H. CLOSED LOOP SIDE PANNEL,
  - I. LAYER 2 ETHERNET SWITCH.
  - J. A ZINCFIVE UPSTEALTH BATTERY BACKUP CONFORMING TO CITY OF KNOXVILLE STANDARDS.
- (34) THE SIGNAL CONTRACTOR SHALL ARRANGE FOR INSPECTION OF THE NEW SIGNAL CONSTRUCTION BY CITY OF KNOXVILLE FOR THE FOLLOWING MILESTONES:
  - A. POLE FOUNDATION BEFORE POURING CONCRETE,
  - 3. CONDUIT AND PULL BOXES BEFORE CABLE IS INSTALLED,
  - C. DIRECTIONAL BORED CONDUIT INSTALLATION,
  - D. RADAR DETECTION INSTALLATION,
  - E. CONTROLLER CABINET AND ELECTRICAL SERVICE INSTALLATION,
  - F. CABLE AND SIGNAL HEAD INSTALLATION,
  - G. RADIO INTERCONNECT COMMUNICATION INSTALLATION,
  - H. FINAL WIRING AND OPERATION,
  - . COORDINATION OPERATION AND TIMING,
  - J. FINAL COMPLETE INSPECTION.
- (35) ALL SIGNAL CABLE SHALL BE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) APPROVED CABLE:
  - A. TRAFFIC SIGNAL CABLE SHALL BE IMSA SPECIFICATION 20-1, 12 CONDUCTOR STRANDED WIRE.
  - B. PEDESTRIAN SIGNAL CABLE SHALL BE IMSA SPECIFICATION 20-1, 7 CONDUCTOR STRANDED WIRE,

- C. PEDESTRIAN PUSHBUTTON CABLE SHALL BE IMSA SPECIFICATION 50-2, 2 CONDUCTOR SHIELDED WIRE,
- D. RADAR DETECTION CABLE SHALL BE PER MANUFACTURER SPECIFICATIONS,
- E. RADIO CABLE SHALL BE PER MANUFACTURER SPECIFICATIONS.
- (36) THE CONTRACTOR SHALL NOTIFY CITY OF KNOXVILLE (EVAN HOFFMAN, 865-215-6147) OF THE DATE AND TIME OF THE PROJECT FINAL INSPECTION. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE BUSINESS DAYS PRIOR TO THE INSPECTION.
- (37) THE CONTRACTOR SHALL CONTACT CITY OF KNOXVILLE ENGINEERING ONE DAY PRIOR TO CONCRETE PLACEMENT AND CONDUIT PLACEMENT TO SCHEDULE INSPECTION.
- (38) CONTACT CITY OF KNOXVILLE ENGINEERING (EVAN HOFFMAN) TO OBTAIN COORDINATED SIGNAL TIMING.
- (39) FULL ACTIVATION OF TRAFFIC SIGNAL SHALL TAKE PLACE ON A TUESDAY, WEDNESDAY, OR THURSDAY ONLY.
- (40) THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS TO CITY OF KNOXVILLE ENGINEERING IF CONSTRUCTION OF THE TRAFFIC SIGNAL DEVIATES FROM THE TRAFFIC SIGNAL PLAN.
- (41) THE CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO CITY OF KNOXVILLE ENGINEERING FOR APPROVAL PRIOR TO ORDERING ALL MATERIALS (INCLUDING BUT NOT LIMITED TO CONDUIT, PULL BOXES, CABLE, SIGNAL HEADS, BACKPLATES, POLES, CONTROLLER, SIGNAL MONITOR, DETECTORS, CONTROLLER CABINET, SIGNAL BRACKETS, CONCRETE, ETHERNET SWITCH, AND RADIO INTERCONNECT EQUIPMENT).
- (42) THE CONTRACTOR SHALL HAVE AN IMSA LEVEL II CERTIFIED TECHNICIAN ONSITE DURING ALL CONSTRUCTION OF SIGNAL, UPON THE START OF FLASHING OPERATION, AND AT THE IMPLEMENTATION OF FULL STOP-AND-GO OPERATION OF THE SIGNAL.
- (43) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SIGNAL UNTIL THE FINAL APPROVAL IS PROVIDED FOR CITY OF KNOXVILLE ENGINEERING TO ASSUME MAINTENANCE OF THE SIGNAL.
- (44) ELICTRICAL SERVICE CONNECTION SHALL INCLUDE A MINIMUM 1-INCH STEEL CONDUIT RISER WITH WEATHERHEAD. ALL ELICTRICAL PERMITS REQUIRED BY CITY ORDINANCES SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR AFTER COMPLETION OF THE WORK. THE ENGINEER SHALL BE FURNISHED A CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM THE ELECTRICAL INSPECTION DEPARTMENT OF THE CITY OF KNOXVILLE.
- (45) THE CONTRACTOR SHALL PROVIDE A COMPLETE ELECTRICAL SERVICE AND SHALL COORDINATE THIS ACTIVITY WITH THE LOCAL UTILITY, INCLUDING THE PROVISION FOR ANY REQUIRED METERING OR OTHER SPECIAL EQUIPMENT. THE SIGNAL CONTRACTOR WILL NOT CONTACT THE CITY OF KNOXVILLE TO REQUEST SERVICE HOOKUP UNTIL THE SIGNAL IS READY TO BE PLACED INTO OPERATION AND READY FOR FINAL INSPECTION BY THE CITY OF KNOXVILLE.
- (46) TRAFFIC SIGNAL SUPPORT POLES SHALL BE TDOT STANDARD ROUND, TAPERED, GALVANIZED STEEL MAST ARM POLES IN ACCORDANCE WITH TDOT STANDARD DRAWINGS. THE POLES SHALL HAVE A GREEN POWDER-COAT FINISH ELECTROSTATICALLY APPLIED BY THE POLE MANUFACTURER AND A GREEN CAST ALUMINUM CLAMSHELL BASE COVER.
- (47) SHAFTS FOR FOOTINGS SHALL BE DRILLED THROUGH FIRM, UNDISTURBED, UNSATURATED SOIL AND SHALL BE VISUALLY INSPECTED BY THE CITY OF KNOXVILLE PRIOR TO PLACEMENT OF REINFORCEMENT. THE CITY OF KNOXVILLE REPRESENTATIVE SHALL BE ADVISED BY THE CONTRACTOR OF ANY GROUND WATER OR LOOSE SOIL ENCOUNTERED DURING DRILLING. FOOTINGS SHALL COMPLY WITH TDOT STANDARD DRAWINGS.
- (48) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF POLE AND FOUNDATION AS SPECIFIED IN CITY OF KNOXVILLE STANDARD DRAWINGS.
- (49) EACH POLE SHALL BE PROVIDED WITH A GROUND ROD WITH THE GROUND WIRE VISIBLE IN THE PULL BOX ADJACENT TO THE POLE.
- (50) STOP SIGN ON WALMART ACCESS DRIVE APPROACH SHALL BE REMOVED UPON SIGNAL ACTIVATION AND DISPOSED OF AT THE DIRECTION OF CITY OF KNOXVILLE ENGINEERING.

6515 NIGHTINGALE LANE

**KNOXVILLE, TN 37909** 

PROJECT NUMBER
5143-20-039

DRAWING NUMBER

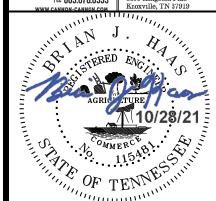
**T4** 

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architect	ure	+ d	lesi	gn
3523 Maloney Re		ville,	TN 3	37920
0. 865.474.9264		WWW.	dklev	y.con

# CANNON & CANNON INC CONSULTING ENGINEERS - FIELD SURVEYORS TO DES 670 0555 | 8550 Kingston Pike



				ВЈН	APV
				WAS BJH	BY CHK APV
				WAS	ВУ
				PER CITY OF KNOXVILL COMMENTS	DESCRIPTION

ERMIT SET		
ON TURKEY CREEK		
<b>JOX COUNTY, TENNESSEE</b>	1	10/28/2
•		

PROJECT NUMBER
5143-20-039

**T5** 

T-SG-3A	06-27-16	ALTERNATE DETECTION DETAILS
T-SG-6	10-21-19	PEDESTRIAN SIGNAL DETAILS
T-SG-7	10-21-19	SIGNAL HEAD ASSEMBLIES
T-SG-7D	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT TWO-LANE APPROACHES
T-SG-7J		TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-9	10-21-19	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-12	12-20-19	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-SG-13	06-27-16	FLASHING BEACON DETAIL
	/NION////	_

**DESCRIPTION** 

TENNESSEE DEPARTMENT OF TRANSPORTATION

### **CITY OF KNOXVILLE**

REV.

COK-SG-2	LOOP LEAD-INS, CONDU	JIT AND PULL BOXES
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COK-SG-5	CONTROLLER CABINET DETAILS
COK-SG-9A	MISCELLANEOUS SIGNAL DETAIL

COK-SG-10 MAST ARM POLE AND STRAIN POLES FOUNDATION

DETAILS