#### SOUTH KING STREET WIDENING PHASE II (MASONS LN. TO GREENWAY DR.) IFB No. 13301-FY15-20 Addendum #1 April 28, 2015

#### 1. Questions and Answers:

<u>Question 1:</u> We have downloaded plans for the subject project from Bid Board. Sheet Index indicates Sheets T-1, T-2-T-2C & T-3 "Traffic Signal Plan" however, the set only contains Sheets T-1 & T-3. Could you please advise us to the status of Sheets T-2 – T-2C?

Answer 1: Traffic signal plan sheets were inadvertently left out of the bid plan set. Sheets T-2, T-2A, T-2B, and T-2C have been attached to this addendum as Attachment A.

#### END OF ADDENDUM #1

# ATTACHMENT 'A'

	GENERAL NOTES SOUTH KING STREET INTERSECTION	
A.	ENERAL EXCEPT AS NOTED HEREIN,ALL WORK UNDER THIS CONTRACT SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS,THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS,DATED JANUARY 2007 AS AMENDED,THE 2008 VDOT ROAD AND BRIDGE STANDARDS AND DCSM,AS AMENDED,AND THE SPECIAL PROVISIONS INCLUDING BUT NOT LIMITED TO THE SPECIAL PROVISIONS LISTED HEREIN. ) A COPY OF THE PERMIT WITH THE STAMPED APPROVED SIGNAL DESIGN SHALL BE ON THE JOB WHENEVER WORK IS BEING	5
	PREFORMED. ) A IMSA LEVEL II CERTIFICATION HOLDER WILL BE REQUIRED ON SITE AT ALL TIMES DURING SIGNAL MODIFICATIONS OR CONSTRUCTION. ) POLE AND CONTROLLER PLACEMENTS SHALL BE VERIEVED BY THE TOWN OF LEESPURG ENCINEER SEVEN DAYS PRIOR TO	
	INSTALLATION. ALL CATALOG CUTS,POLE CALCULATIONS,FOUNDATION SHOP DRAWINGS,ETC.MUST BE SUBMITTED TO AND APPROVED BY THE TOWN OF	
	LEESBURG PRIOR TO CONSTRUCTION.TEN DAYS NOTICE IS REQUIRED. ) TEN (IO) DAYS PRIOR TO BEGINNING ANY SIGNALIZATION WORK THE CONTRACTOR SHALL CONTACT THE TOWN OF LEESBURG TRAFFIC ENGINEER BY CALLING 703-777-2420 AND PROVIDING:	
	2. CONTRACTORS NAME, DAYTIME AND EMERGENCY PHONE NUMBER. 9 SIGNAL INSTALLATION SHALL NOT BE PLACE INTO FULL COLOR OPERATION WITHOUT PRIOR NOTIFICATION AND APPROVAL OF THE TOWN 9 OF LEESBURG. ARRANGEMENTS SHALL BE MADE TO HAVE THE TOWN OF LEESBURG'S TRAFFIC ENGINEER PRESENT. A MINIMUM OF 48 9 HOURS ADVANCE NOTICE REQUIRED.	
В.	IAINTENCE OF TRAFFIC	
	THE CONTRACTOR SHALL FURNISH FLAGGERS FOR TRAFFIC CONTROL AND TEMPORARY SIGN PANELS ACCORDING TO THE MUTCD, VIRGINI. WORK AREA PROTECTION MANUAL AND ACCEPTED CURRENT PRACTICES.NO WORK SHALL BE DONE IN THE ROADWAY FROM 7:00 AM TO 9:00 AM AND 3:00 PM AND 7:00PM UNLESS APPROVED BY THE TOWN TRAFFIC ENGINEER. ) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC AS STATED IN SECTIONS 105.02,107.08,107.09,107.JO AN 512 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS. ) THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE TOWN FOR REVIEW AND APPROVAL TEN DAYS PRIOR TO THE INITIATION OF ANY WORK AFFECTING TRAFFIC FLOW.ALL ENTRANCES SHALL REMAIN OPEN DURING CONSTRUCTION. ) ALL DETECTION SHALL BE MAINTAINED DURING CONSTRUCTION AT ALL TIMES.	A ID
С.	CONTROLLER AND CABINET	
	THE CONTROL SYSTEM PEEK TRAFFIC (PEEK) HAS BEEN DESIGNED FOR THIS PROJECT. CONTROLLER AND AUXILIARY EQUIPMENT SHALL BE MENU-DRIVEN ACTUATED CONTROLLER MANUFACTURED BY PEEK (PEEK 3000E SERIES CONTROLLER MAD AUXILIARY EQUIPMENT SHALL BE COMPATIBLE AND INTERCHANGEABLE WITH THE EXISTING PEEK EQUIPMENT CURRENTLY IN USE IN THE TOWN OF LEESBURG AND SHALL BE THE LATEST "CLMATS" FIRMWARE TO ENSURE ALL FEATURES AND FUNCTIONS ARE PROVIDED AND ARE INTERCHANGEABLE. ) THE CABINET SHALL BE A NEMA TS-2.TYPE 2,R-44,WITH REAR DOOR,COMPATIBLE WITH EXISTING TOWN OF LEESBURG EQUIPMENT. ) THE MUN SHALL BE NANUFACTURED BY PEEK (DOUBLE DIAMOND REVISION 2.3 OR HIGHER),PLUS ONE SPARE MUU. ) THE ANU SHALL BE PROVIDED BY CONTRACTOR TO TOWN OF LEESBURG PERSONNEL.TRAINING SHALL CONSIST OF VERIFICATION OF CONTROLLER,CABINET AND AUXILIARY COMPONENTS OF PROPER FUNCTIONALITY OF INPUTS,OUTPUTS AND COMMUNICATIONS WITHIN THE CABINET AS WELL AS COMMUNICATIONS WITH EXISTING TOWN OF LEESBURG EQUIPMENT. ) THE CONTROL CABINET SHALL BE WIRED WITH A MINIMUM 30 AMP SWITCH (LOCATED IN THE AUX 303B CABINET) TO POWER COMPANY FEED ON ONE SIDE AND AN ALTERNATE POWER SOURCE ON THE OPPOSITE SIDE TO AVOID A SURGE IN POWER.IN THE EVENT THE MAIN FEED IS RESTORED WHILE THE ALTERNATE SOURCE IS STILL ACTIVE.THE ALTERNATVE POWER SOURCE SHALL BE, A DOUBLE CONVERSION UNIT, COMPATIBLE WITH EXISTING UNITS IN TOWN AND BE MOUNTED IN AN AUXILIARY CABINET THAT IS MOUNTED ON THE RIGHT SIDE OF THE CABINET SHALL BE A MODEL 303B STYLE CABINET CONTAINING THREE GELTYPE BATTERNES CAPABLE OF OPERATING THE SIGNAL IN FULL OPERATION FOR A MINIMUM OF 6 HOURS.THE ALTERNATVE POWER SOURCE SHALL BE, A DOUBLE COMPATIBLE WITH EXISTING TOWN ALTERNATE POWER EQUIPMENT.A WATER-PROOF ALTERNATE OON ROADWAY FOR UPS ACTIV INSTALLED AND BE COMPATABLE WITH EXISTING TOWN ALTERNATE POWER EQUIPMENT.A WATER-PROOF ALTERNATE OA AND POWER SOURCE PLUG (LEVITON SS303 OR EQUIPMENT.THE CORD SHALL BE PROVIDED TO THE TOWN OF LEESBURG TO CONNEC COMPATIBLE WITH EXISTING TOWN OF LEESBURG EQUIPMENT.THE	E VE CT
	POWER SUPPLY,OCCUPYING THE LOWER TWO SHELVES, THE THIRD SHELF SHALL BE DEDICATED FOR THE LOCAL CONTROLLER AND MMU WITH SLIDE OUT DRAWER, SDLC COMMUNICATIONS SHALL BE PROVIDED FOR THE CONTROLLER AND MMU AND VIDEO. THE FOURTH SHELD SHALL CONTAIN THE 3000E MASTER CONTROLLER, FIBER TERMINATION HUB, 8 EQUIPMENT RECEPTICALS FOR FIBER MODEMS AND VIDE MONITOR AND THE TOP SHELF SHALL CONTAIN TWO RACK ASSEMBLIES, ONE TO CONTAIN 4 ETHERNET SWITCH (4 CHANNEL WIDE) AND POWER SUPPLY, THE OTHER SHALL BE USED FOR VIDEO DETECTION, CAPABLE OF CONTAINING 3, 4 CHANNEL VIDEO PROCESSORS PLUS POWER SUPPLY. INTERNAL CABINET LIGHTING SHALL BE LED TO ILLUMINATE ALL OF THE CABINET. ONE 3000E MASTER WITH INTERNAL 850nm FIBER MODEM SHALL BE PROVIDED.	9 F 0
D.	POLES AND SIGNALS	
	THE CONTRACTOR SHALL FIELD VERIFY SOIL CONDITIONS FOR SIGNAL POLE FOUNDATIONS AND SUBMIT A DESIGN REPORT TO THE DEPARTMENT OF ENGINEERING AND PUBLIC WORKS 15 (FIFTEEN) DAYS BEFORE ANY FOUNDATIONS ARE TO BE INSTALLED. ) SIGNAL POLE FOUNDATIONS SHALL BE IN ACCORDANCE WITH STD.PF-8. ) PEDESTAL POLES AND FOUNDATIONS SHALL BE IN ACCORDANCE WITH STD.PF-2. ) MAST ARM LENGTH TO BE SHOWN ON PLANS AND FIELD DRILLED.	
Ε.	RAFFIC SIGNAL HEADS	
	MAST ARM SIGNAL HEADS SHALL BE MOUNTED IN ACCORDANCE WITH STD.SM-3.ALL BOLTS.NUTS AND WASHERS TO BE STAINLESS STEEL.	
	<ul> <li>ALL SIGNAL HEADS SHALL BE ALUMINUM AND HAVE POLYCARBONATE BACKPLATES.HARDWARE SHALL BE STAINLESS STEEL.</li> <li>ALL SIGNALS TO BE LED IL (INCANDESENT LOOK,NON-PIXILATED) TYPE PER VDOT SPECIFICATIONS.</li> <li>PEDESTRIAN SIGNAL HEADS SHALL BE LED,IL (INCANDESENT LOOK,NON-PIXILATED) COUNT DOWN,MUTCD AND TOWN OF LEESBURG APPROVED,MOUNTED IN ACCORDANCE WITH STD.SMD-3 ONE-WAY.</li> </ul>	

### F. DETECTORS

- I) 6'X40' LOOP DETECTORS SHALL BE STD TD-IC, MODIFIED TO ALLOW CORNER DRILLING ONLY AND SHALL BE PLACED 5 FEET IN FRONT OF THE STOP LINE. 2) FOR 6'X40' LEFT TURN LOOPS, AN ADDITIONAL 6'x6' LOOP SHALL BE CUT 2 FOOT BEHIND THE 6x40 WHERE DIRECTED BY THE TOWN.
- 3) 6'X6' LOOP DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH STD.TD-IB
- 4) ALL DETECTORS SHALL BE INSTALLED IN BASE PAVEMENT.
- 5) ALL DETECTORS SHALL BE A MINIMUM OF 5' FROM ANY CASTING (W,T,SAN ETC.). 6) SPLICE KITS ONLY SHALL BE PERMITTED ON LOOP DETECTOR WIRING IN JUNCTION BOXES.
- 7) 14/1 ENCLOSED CONDUCTOR CABLE REQUIRES 5/8" SAW CUT FOR LEAD-IN CABLE.
- 8) THE CONTROL CABINET SHALL HAVE: 2 SHELF MOUNTED DETECTOR RACKS WITH POWER SUPPLY MODULES FOR INSTALLATION OF NEMA TYPE 8T 2 CHANNEL RACK MOUNTED DETECTOR UNITS.RACK SHALL BE FABRICATED FROM ALUMINUM (.083 THICKNESS) AND BE OF NON-CORRODING MATERIALS.ALL WIRING SHALL BE SOLDERED TO THE EDGE CONNECTION.RACK SHALL BE SECURLEY BOLTED TO CABINET SHELF.RACK SHALL HAVE SUFFICIENT NUMBER OF DETECTOR POSITIONS NEEDED FOR THE LOCATION, WITH 20 (TWENTY) BEING THE MINIMUM UNIT POSITIONS, ONE 4 CHANNEL PRE-EMPTION POSITION, THE NUMBER OF POWER SUPPLY MODULE POSITIONS TO POWER ALL LOOP DETECTOR POSITIONS. POWER SUPPLY MODULES SHALL HAVE 24 VDC WIRED TO APPROPRIATE PIN CONNECTIONS FOR ALL LOOP DETECTOR POSITIONS WITH A MINIMUM OF 5 AMP RATING.LOOP DETECTOR POSITIONS SHALL BE WIRED FOR COUNT OUTPUT ON PINS "S" AND "Y", TO BE TERMINATED FOR VOLUME COUNTS PER PHASE MOVEMENT, (RIGHT TURNS SHALL BE COUNTED SEPRATELY), USING CONTROLLER DETECTOR INPUTS 9 THRU 32 HARD WIRED TO THE IMPUT PANEL FOR FIELD ASSIGNMENT.ALL PINS OF THE DETECTOR EDGE CONNECTOR SHALL BE WIRED EXCEPT FOR PINS C, M, N, 4-12 AND 22. 9) PRE-EMPTION CONFIRMATION OUTPUTS TO BE WIRED TO CHANNELS 13-16 YELLOW OUTPUTS, TO BE ASSIGNABLE THROUGH CONTROLLER SOFTWARE.
- IO) THE THIRD DETECTOR RACK SHALL CONTAIN SPACE FOR THREE,4 CHANNEL POSITION VIDEO PROCCESOR MODULES PLUS POWER SUPPLY AS REQUIRED.
- II) THE FOURTH RACK SHALL BE MOUNTED AT THE TOP MOST POSITION TO HOUSE ONE POWER SUPPLY,4 KUSA OR EQUIVALENT ETHERNET SWITCHES. 12) ONE VIDEO INTERFACE PANEL FOR 4 CAMERA DECTION SHALL BE MOUNTED FOR VIDEO EQUIPMENT.
- 13) ALL LOOP DETECTORS SHALL BE RENO MODEL C-1203-R LOOP DETECTORS OR EQUIVALENT.ALL LOAD SWITCHES (16) AND LOOP DETECTORS (20) SHALL BE INSTALLED FOR FUTURE PHASES. 14) EMERGENCY PRE-EMPTION EQUIPMENT SHALL BE GTT (FORMERLY 3M) OPTICOM EMERGENCY PRE-EMPTION (750 SERIES WITH GREEN SENSE AND 2 CONFIRMATION LIGHTS FOR EACH APPROACH),72I DETECTORS SHALL BE USED.DETECTOR LOCATIONS TO BE DETERMINED BY TOWN PERSONELL.
- 15) ALL DETECTION TO BE MAINTAINED DURING CONSTRUCTION.
- 16) VIDEO SURVIELLANCE SHALL CONSIST OF A PTZ CAMERA TO MEET THE FOLLOWING SPECIFICATIONS, A CISCO VIDEO SURVEILLANCE 6930 SERIES HIGH DEFINITION PTZ IP CAMERA OR EQUIVALENT, PAN / TILT / AND ENCLOSURE WITH 10P OR PRESSURIZED 10C NTSC/PAL.TILT RANGE OF +36DG TO -85DG FROM HORIZONTAL. ABILITY TO OPERATE CONTROL & MONITOR OVER IP NETWORK, H264, MPEG-4 & MJPEG COMPRESSION. MULTILEVEL PASSWORD PROTECTION, AUTO TRACKING & HORIZONTAL ZONE & WINDOW BLANKING, ON SCREEN COMPASS AND TILT DISPLAY & OPEN IP STANDARDS. HEATER OPTICAL LENS WIT 36X OPTICAL ZOOM, NTSC WITH OPTICAL SENSOR TYPE: 1/2.8-inch CMOS WITH MINIMUM ILLUMINATION OF 0.5 LUX - COLOR - 0.05 LUX, OPTICAL ZOOM: 20 X, FOCAL LENGTH: 4.7 MM - 94 MM: AUTOMATIC, MANUAL FOCUS ADJUSTMENT, LENS IRIS: F/I.4 - AUTO AND MANUAL IRIS, 360PANNING RANGE (DEGREE), 220TILTING RANGE (DEGREE), ETHERNET IOBASE-T/IOOBASE-TX INTERFACES, 4CONTROL INTERFACE; ALARM INPUTS AC 18 - 32 V / DC 22 - 27 V, MOTION SENSOR, PROGRESSIVE SCAN CCD SYSTEM, WHITE BALANCE, AUTO GAIN CONTROL, WIDE DYNAMIC RANGE (WDR) WITH MOUNTING EQUIPMENT, POWER SUPPLY AND ALL CABLES.

#### G. UTILITIES

- I) UNDERGROUND CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH STD.ECI-I.
- CONDUIT LINDER EXISTING ROADWAYS SHALL BE BORED 2)
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# TRAFFIC SIGNAL & UTILITIES LEGEND

REVISED 3/25/14



REVISED 3/25/14

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SIGN 1:25	DET,	AIL 5" 8" 17" 17" -1.5" 0.25" F			Ba	tt	le	12'-0 fi le	) el ac	d	P	kv )r	vy →	*8.55"	5" 8"(1) 4" 8"(1) 5"			S W B C M B LL
SIGN 1:25	DET,	AIL 5" 4" 17" 17" 17" 17" 17" 17" 17" 17" 17" 17		<b>(</b>	<b>Ва</b>	tt	le	12'-0 fi le	)" el ac	d	P	kv )r	vy →	*8.55 <sup>1</sup>	5" 8"(1) 4" 8"(1)			S W B C M B L L
SIGN 1:25 Panel S Dimens	DET,	AIL 5" 8" 17" 17" 2" 1.5" 0.25" 5.7 7 8" 7 8" 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3.55 <sup>,+</sup> ONT: 1) Cleary inches.t	viewHwy-	<b>Ba</b>	tt	le	12'-0 <b>fi</b> 126.9	)" el ac	d	PC	kv )r	vy →	nel edge	5" 8"(1) 4" 8"(1) 5" to lowe	17'' 8'' 5''' er left co	orner	S W B C M B L L
SIGN 1:25 Panel S Dimens	J DET,	AIL 5" 8" 17" 17" 17" 17" 0.25" F(1 VDOT 2 in	B.55 <sup>1</sup> ONT: 1) Clear inches.t	viewHwy-	<b>Ba</b>		le	12'-0 <b>fi</b> 126.9	)" el ac	d d	P C Letter TER	kv )r	vy • • • • • • • • • • • • • • • • • • •	nel edge	5" 8"(1) 4" 5" to lowe	f 17'' 8'' 5'' er left co	prner	S W B C M B L L
SIGN 1:25 Panel S Dimens	DET,	AIL 5" 8" 17" RDER 2" 1.5" 0.25" F (1) VDOT 2 in t 40 5	ONT: ONT: 1) Cleary inches.t t 46	viewHwy- cenths	<b>Ва</b> 5-w	tt 64 9	i 70 9	12'-0 fi 126.9	)" <b>el</b> ac	d d let LET	Letter 94 2	Iocations POSIT	are pa	nel edge	5" 8"(1) 4" 5" to lowe	7 17'' 8'' 5'' er left co	orner	
SIGN 1:25 Panel S Dimens B 24.6 M	DET,	AIL 5", 8", 17", RDER 2", 1.5", 0.25", F, VDOT 2 in t 40.5 a	CONT: 1) Cleary t 46 d	viewHwy- cenths	ва 5-w	f 64.9 D	i 70.9 r	12'-0 fi le 126.9	)" <b>el</b> ac	<b>d</b> <b>1 e</b> LET d 88.4	Letter TER 94.2	Iocations POSIT P 103.7	are pa	nel edge	5" 8"(1) 4" 5" to lowe	f 17'' # 8'' # 5'' er left co	orner	
SIGN 1:25 Panel S Dimens B 24.6 M 56.7	DET,	AIL 5" 8" 17" RDER 2" 1.5" 0.25" F(1) VDOT 2 in t 40.5 a 74.9	3.55 <sup>17</sup> ONT: 1) Clear 1) Clea	viewHwy- cenths	e 5-w 97.4	f 64.9 D 106.6	i 70.9 r 115.8	12'-0 fi 126.9	)" <b>el</b> ac 3"	<b>d</b> <b>1 e</b> LET d 88.4	Letter TER 94.2	locations POSIT P	are pa	nel edge	5" 8"(1) 4" 5" to lowe			
Panel S Dimens B 24.6 M 56.7	DET,	AIL 5" 8" 17" 0.25" f 0.25" f 1.5" 0.25" f 1.5" 0.25" f 1.5" 0.25" f 1.5"	a.55 <sup>,+</sup> ONT: 1) Clear inches.t t 46 d 83	viewHwy- cenths 1 52.3 e 91.5	Ba 5-w	f 64.9 D 106.6	i 70.9 r 115.8	12'-0 fi le 126.9	)" <b>el</b> ac	<b>d</b> <b>J e</b> LET d 88.4	Letter TER 94.2	locations POSIT P 103.7	are pa	nel edge	5" 8"(1) 4" 5" to lowe	7       17"       8"       75"       9       1000000000000000000000000000000000000	prner	
SIGN 1:25 Panel S Dimens B 24.6 M 56.7	J DET,	AIL 5" 8" 17" RDER 2" 1.5" 0.25" F VDOT 2 in t 40.5 a 74.9 L 17 17 17 17 17 17 17 17 17 17	0NT: 1) Cleary t 46 d 83	viewHwy- cenths I 52.3 e 91.5	ва 5-w	f 64.9 D 106.6	i 70.9 r 115.8	12'-0 fi 126.9	)" <b>el</b> ac	<b>d</b> <b>1 e</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	Letter TER 94.2	locations POSIT P 103.7	are pa	nel edge	5" 8"(1) 4" 8"(1) 5" to lowe	f 17'' # 8'' # 5'' er left co	prner	
Panel S Dimens B 24.6 M 56.7	I DET,	AIL 5" 8" 17" 17" VDOT 2 in t 40.5 a 74.9	3.55 <sup>17</sup> ONT: 1) Clear 1) Clea	viewHwy- cenths	e 5-w 97.4	f 64.9 D 106.6	i 70.9 r 115.8	12'-0 fi le 126.9	)'' <b>el</b> ac 3''	d 1e	Letter 7ER 94.2	locations POSIT P	<b>V Y</b> → IONS k 112	nel edge	5" 8"(1) 4" 5" 5" y 129.2			
SIGN         1:25         Panel S         Dimens         B         24.6         M         56.7	J DET,	AIL 5" 8" 17" 0.25" F 0.25" F 7 VDOT 2 in t 40.5 a 74.9	3.55 <sup>,1</sup> ONT: 1) Clear inches.t 46 d 83	viewHwy- cenths 91.5	e 5-w	f 64.9 D 106.6	i 70.9 r 115.8	12'-0 fi 126.9	)" <b>el</b> ac	d 1e	Letter TER 94.2	locations POSIT POSIT	are pa	nel edge	5" 8"(1) 4" 5" 5" 129.2	f 17" f 8" f 5" f 17"	orner	
SIGN         1:25         Panel S         Dimens         8         24.6         M         56.7	DET,	AIL 5", 8", 17", RDER 2", 17", VDOT 2 in t 40.5 a 74.9 17, VDOT 2 in	3.55 <sup>,7</sup> ONT: 1) Clear 1) Clea	viewHwy-	e 5-w 97.4	f 106.6	i 70.9 r 115.8 	12'-0 fi le 75.3	)" <b>el</b> ac	d 1e	Letter TER 94.2	locations POSIT POSIT	<b>V Y</b> →	nel edge	5" 8"(1) 4" 8"(1) 5" 7 129.2	Image: state of the state		

S-5         6'-0" x 1'-6"         1.5"         2"         Overhead         TYPE:       Reflective         COLOR:       Brown         TYPE:       Reflective         COLOR:       White/White         OT       X       Y       WID         HT       Interview       Interview         COLOR:       White/White       Interview         OT       X       Y       WID       HT         Interview       Interview       Interview       Interview         Interview       Interview       Interview       Interview         Interview       Interview       Interview       Interview         Interview       SERIESSIZE       Interview       Interview         Interview       Series       Interview       Interview         Interview       Interview       Interview       Interview	SGN DETAIL 13 SGN DETAIL 13 SGN NUMBER 13 SGN NUMBER 13 SGN NUMBER 13 SGN NUMBER 13 SGN NUMBER 10 SGN NUMBER 10	S-6       I2       0' × 2' 6'         15''       2''       Ovehoad         TYPE:       Rafacilie       Ocuriad         COLOR:       Rown       TYPE         Y V       NdD       HT         A6       17       12         IA       IA       IA         IA	EET (ROUTE 15) WIDENING       ENGINEBR:       T3 DESIGN CORPORATION         Image: Composition of the composi
S-7         12'-0" x 2'-6"         1.5"         2"         Overhead         TYPE:         Reflective         COLOR:         Brown         TYPE:         Reflective         COLOR:         White/White			2013-0001 2013-0001 2013-0001 PHASE 2 PHASE 2 PHASE 2 PHASE 2 PHASE 2 PHASE 2 PHASE 2 SUBMISSION DATE: SUBMISSION DATE:
		SIGN DETAILS TRAFFIC SIGNAL INSTALLATION Date: FEE Project: File: dC DRAWN: RTM DESIGNED: JMS CHECKED: AJM Sheet:	SCALE RUARY, 2015 07-0095 7315_T2-B T2-B SHEET T2-B

No         No           2														S		$  \rangle$	1	/	$A \not\models$	$\langle \gamma \rangle$			) [-	_			J F	Δ/	$\bigvee$ ,		/ /		<u> </u>	S										
No         No<				() (0)			8	2				9											(1)									(4) (5)	(4) (6)		OR		ERIES	ET						
ITEM NUMBER       51137       50108       51160       51170       51184				FURNISH AND INSTALL CONTROLLER CABINET ASSEMBLY	SIGN PANEL	ELECTRICAL SERVICE GROUNDING ELECTRODE (10')	ELECTRIC SERVICE SE-5	TRAFFIC SIGNAL HEAD SECTION 12" LED	PEDESTRIAN ACTUATION PA-2	PEDESTRIAN SIGNAL HEAD SP-8	PEDESTAL POLE PF-2 12'	CONCRETE FOUNDATION CF-I	CONCRETE FOUNDATION SIGNAL POLE PF-8	CONCRETE FOUNDATION PF-2	NS SIGNAL POLE MP-I ZO' ONE ARM 65'	NS SIGNAL POLE MP-I ZO' ONE ARM 70'	NS SIGNAL POLE MP-I 20' ONE ARM 75'	14/2 CONDUCTOR CABLE	14/7 CONDUCTOR CABLE	14/1 ENCLOSED CONDUCTOR CABLE	14/2 CONDUCTOR CABLE SHIELDED	NS CONDUCTOR CABLE 16/3	NS CONDUCTOR CABLE PRE-EMPTION CABLE	NS CONDUCTOR CABLE 18/2	NS CONDUCTOR CABLE COAXIAL	NS CAT-5e CABLE	HANGER ASSEMBLY SM-3	HANGER ASSEMBLY SMB-I	HANGER ASSEMBLY SMB-3	NS HANGER ASSEMBLY SMD-2	SAW CUT	NS REMOVE EXISTING SIGNAL EQUIPMENT (PER INT.)	TEMPORARY SIGNALIZATION	NS TRAFFIC SIGNALIZATION EMERGENCY PRE-EMPTION (2-WAY)	NS TRAFFIC SIGNALIZATION AUXILIARY PRE-EMPTION OPTICAL DETECT (WITH 2 CONFIRMATION LIGHTS)	NS TRAFFIC SIGNALIZATION CCTV SWITCH/CONTROL IN CABINENT	NS TRAFFIC SIGNALIZATION CCTV CAMERA & HOUSING (CISCO 6930 SE OR EQUINALENT)	NS TRAFFIC SIGNALIZATION CANDY CANE BRACKET (48" MIN.) & BRACKI	NS UNINTERRUPTIPLE POWER S.CABINET TYPE B	NS UNINTERRUPTIPLE POWER SUPPLY BATTERY	NS UNINTERRUPTIPLE POWER SUPPLY	6 CONDUCTOR CABLE	IIINCTION BOX IR-RI	
NO. INTERSECTION UNIT EA SF EA		ITEM NUMBER		5//37	50108	5//60	51170	5//84	5//98	52403	51212	51245	51238	51240	51425	51425	51425	5/600	5/607	5/6/5	51700	51614	51614	51614	51614	51614	5/830	51832	51838	51840	51910	51963	5/000 5	2000	52000	52000	52000	1 52000	52002	52002	52002	55060	55	58
	_/	NO. INTERSECTION	UNIT	EA	SF	EA	EA	EA	EA	EA	EA	EA	СҮ	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LS	LS	EA	EA	EA	EA	EA	EA	EA	EA	LF	E	:A

## SUMMARY OF QUANTITIES (CONT'D)

						3	3	3	3	3		
			r" conduit	I" METAL CONDUIT	I'/4" METAL CONDUIT	2" CONDUIT	3" CONDUIT	4" CONDUIT	BORED CONDUIT 4"	TRENCH EXCAVATION ECI-I	LOOP DETECTOR AMPLIFIER	TEST BORE
	ITEM NUMBER		56020	56022	56026	56030	56034	56038	56052	56200	5/540	56205
	INTERSECTION	UNIT	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA
T2A	S KING & BATTLEFIELD/MEADE		15	335	20	25	1,980	70	915	1,825	32	4

- (2) ALL BACKPLATES ARE INCLUDED IN THIS PAY ITEM.
- CONSTRUCTION.
- APPROPRIATE MANNER BY THE CONTRACTOR.

- INSTALL CONTROLLER.

### SUMMARY NOTES:

(1) THE CONTROLLER CABINET SHALL BE EQUIPPED WITH AN UNINTERRUPTABLE POWER SUPPLY (UPS).

(3) INCLUDED IN THE COST OF THIS BID ITEM IS THE COST OF EQUIPMENT GROUNDING CONDUCTOR (\*6 AWG EGC).

THE CONTRACTOR MUST REVIEW THE PROPOSED MOT CAREFULLY AND SUBMIT THE BID PRICE TO INCLUDE THE RELOCATION OF SIGNAL EQUIPMENT FOR EACH PHASE IN THE MOT PLANS.THIS BID PRICE MUST COVER CONTINUAL PROVISION OF FULL COLOR SIGNAL CONTROL DURING ALL PHASES OF

5 INCLUDED IN THIS PAY ITEM IS THE COST AND LABOR TO REMOVE EXISTING SIGNAL EQUIPMENT NOT TO BE RETAINED. REMOVED EQUIPMENT SHALL BE DISPOSED OF OFF-SITE AND IN AN

6 TEMPORARY ITEM IS TO ACCOMMODATE ANY TRAFFIC PATTERN SWITCHES AND VIDEO DETECTION AS REQUIRED DURING ALL PHASES OF CONSTRUCTION.

7 DENOTES ITEM(S) TO BE PAID FOR ON BASIS OF PLAN QUANTITIES IN ACCORDANCE WITH CURRENT ROAD AND BRIDGES SPECIFICATIONS.

B ELECTRICAL SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH ST'DS.SE-5 AS SHOWN ON THE PLANS AND SECTION 238.02(h).THE COST SHALL INCLUDE TWO 60 AMP BREAKERS.ELECTRIC SERVICE SHALL BE METERED.

ONTROLLER CABINET FOUNDATIONS SHALL BE ST'D CF-I AND THE COST OF THE FOUNDATION SHALL INCLUDE TWO 4" CONDUITS, ONE 3" CONDUIT FOR INTERCONNECT, ONE 3" CONDUIT FOR SPARE, ONE I-I/4" CONDUIT TIED TO THE JB-RI AND THE PHONE COMPANY ACCESS COMPARTMENT CC-2. (10) THE COST OF PROVIDING COMMUNICATION TO THE TRAFFIC SIGNAL IS INCLUDED IN THE COST OF

(I) EMERGENCY PREEMPTION CABLE SHALL BE GTT OPTICOM EMERGENCY PRE-EMPTION 16/3C WIRE AS SPECIFIED BY THE TOWN.

SUMMARY OF QUANTITIES

TRAFFIC SIGNAL INSTALLATION

DRAWN: RTM DESIGNED: GDS CHECKED: AJM



REVISED 3/25/14

25'

SCALE: 1"=25'

T-2C

Date: Project:

File

Sheet: