QUANTITY SUMMARIES

	TRAF CON TROL	FIC PO - SUI - STI	WER SPLY S	POWER SUPPLY SIGNALS	TRAFFIC SIGNAL HEAD	FUN- NATIO	CAE FL N NA	BINET JN- TION	MAST COMBI	ARM POLE, MP-1 NATION LUMINARIES 30', B = 21'		SIO JUN B	GNAL CTION SOX			CON	NDUCTOF	R CABLE				cc	NDUIT	1-3_0	HANGER ASSEM-	TRENCH EXCA-	AMPLIFIER			MENT (9)	₽₽	>			≥ 3		<u> </u>	
NTERSECTION	CONTROLLER	TDICAL SEBVICE	SE-3 (1) SE-3	ELECTRICAL SERVICE SE-3 (2)	12" STANDARD	· 1	4	CONC. FOUNDATION CF-1	WO ARMS, 18' & 54'		ONE ARM, 56°	JB-5C		6/2	14/3	14/4	16/3 14/1 (FNCLOSED)	DETECTORS(7) 14/2 SHIELDED	COAXIAL CABLE	#8 BONDED GROUND	FLEXIBLE	1" METAL	2,,	JACKED 6" SCH. 80 PVC	SM-3 ONE WAY	TRENCH EXCAVATION ECI-1	LOOP DETECTOR AMPLIFIER (13)		SAWCUT	VIDEO DETECTION EQUIPN	INTERCONNECTION— SPREAD SPECTRUM REM RADIO W/YAGE ANTEN	OPTICOM— EMERGENC PREEMPTION SYSTEM	TYPE A PAVEMENT LINE MARKING	——————————————————————————————————	1 TYPE B, CLASS	ERADICATION OF EXISTING PAVEMENT MARKINGS	TYPE B CLASS IV ELONGATED PAVEMENT MESSAGE MARKING	MESSAGE MARKING
UI	IIT EA	. Е	Α.	EA.	EA.	EA.	E.	A.	EA.		EA.	EA.		LF. LF.	. LF.	LF.	LF. LI	F. LF.	LF.		LF.	LF, Lf	LF.	LF.	EA.	LF.	EA.		LF.	LS.	EA.	EA.	LF,	LF.	EA.	LF.	EA.	\perp
RTE. 460/WAL-MART ENTR.	1		1	1	30	3		1	1		1	5		363 17	770	1277	7 467 9	02 33	527	2010	60	27 20	1449	260	10	142	3		328	1	1	1	2735	303	16	20	1	\dashv
RTE, 460/ALT. 220 EXIST. SIGNALS																	1						-					1			1		2,00]	+
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TOTAL		<u> </u>	1	4	30	7		4	4					363 17	770	1.5	1 407 0	02 33		2010		27 20	1449	260	10	142			328				2735					

		LEGEND
PROPOSED		EXISTING
•	Metal Pole	©
•	Wood Pole	0
•	Concrete Pole	Ф
•	Mast Arm Metal Signal Pole	ŷ ⊚
•	Wood Pole w/Metal Mast Arm	0
	Combination Luminarie — Signal Metal Pole	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
① ***	Combination Luminarie — Signal Wood Pole	y - a 0
⊕ * - 3	Combination Luminarie — Signal Concrete Pole	↑ □ Φ
•—•	One Way Signal Head	ÛÛ
• ①	Two Way Signal Head	• - -0
	Three Way Signal Head	
4 3 2	Four Way Signal Head	4 0 2 3
•• —••	One Way Bracket Mounted Signal — Metal Pole	© - 1
⊕	Two Way Bracket Mounted Signal — Metal Pole	∞ p—① ②
•-1	One Way Bracket Mounted Signal — Wood Pole	<i>⊕</i>
● ①	Two Way Bracket Mounted Signal — Wood Pole	- 1
1	One Way Bracket Mounted Signal — Concrete Pole	② ⊕ ①
1	Two Way Bracket Mounted Signal — Concrete Pole	D-1
① 	One Way Pedestal Top Mounted Signal — Metal Pole	⊕—⊠
① [<u>@</u> -@	Two Way Pedestal Top Mounted Signal — Metal Pole	① ②②
① — ①	One Way Pedestal Top Mounted Signal — Metal Pole	①
① —②	Two Way Pedestal Top Mounted Signal — Concrete Pole	① - ②
٥	Base Mounted Local Control Cabinet	
МС	Base Mounted System Master Cabinet	[MC]
	Bracket Mounted (S. O. P.) Control Cabinet Metal Pole	
	Bracket Mounted (S. O. P.) Control Cabinet Wood Pole	
	Bracket Mounted (S. O. P.) Control Cabinet Concrete Pol	e ©D

<u>PROPOS</u>	<u>SED</u>	EXISTING
O	Pedestal Pole - Metal	<u> </u>
	Pedestal Pole — Concrete	
00	Metal Pedestal Mount; Control Cabinet	
	Concrete Pedestal Mount; Control Cabinet	
ı	Junction Box	⊠ √
M	Man Hole	
H	Hand Hole	
	Loop Detector	
	Quadruple Loop Detector	E E3
s	Service Disconnect Switch Box	\$
M	Meter Box	A.
•	Span Wire	
₩	Span Wire w/Cable	آلِ آلِ
==	Conduit Only	=====
	Conduit w/Cable	=====
\prec	Guy Wire	<
● P.B.	Pedestrian Push Button	O P.B.
● P.B.	Pedestrian Push Button On Metal Pole	
•	Magnetic Detector Multi Lane	
•	Magnetic Detector — Single Lane	্র
	Magnetometer Detector Probes	-0-0-
•	Emergency Preemptor Sensor	\Diamond
•	Wood Utility Pole w/Overhead Wires	<u>></u>
9 —	Concrete Utility Pole w/Overhead Wires	<u></u>
	Direct Burial Cable (Signal)	<u> </u>
>	Emergency Preemptor Conformation Lamp	
= == ==	0	

(Jacked Pipe Shall Extend 2' Beyond Roadway)

Conduit in Jacked Pipe

SUMMARY NOTES:

- 1 EIGHT (8) PHASE CONTROLLER (INCLUDING EAGLE SIGNAL EQUIPMENT, PS-2, TYPE | WITH TS-1 EAGLE E-PAC M40 PLUS CONTROL EQUIPMENT WITH 9" BLACK AND WHITE MONITOR), AND CABINET SHALL MEET ALL REQUIREMENTS OF THE VDOT SPECS., SECTION 703, BE COMPATIBLE WITH THE SALEM DISTRICT VDOT STANDARDS AND BE SUPPLIED AND INSTALLED BY THE CONTRACTOR, WIRED WITH ALL CIRCUITRY AND LOGIC NECESSARY TO PROVIDE THE FUNCTION OF EIGHT(8) PHASE OPERATION. THE CONTROLLER CABINET SHALL INCLUDE ALL CORRESPONDING RELAYS, AUXILIARY EQUIPMENT AND SIGNAL MONITORING UNIT CAPABLE OF MONITORING A COMPLETE EIGHT(8) PHASE OPERATION ALTHOUGH THE CONTROLLER SHALL INITIALLY BE USED TO OPERATE PHASES AS SHOWN IN THE PHASING DIAGRAM AND COLOR SEQUENCE CHART OF THE PLAN SHEET. THE CONTROLLER SHALL BE CAPABLE OF SERVING AS A STAND ALONE CONTROLLER OPERATING IN AN ACTUATED OR NON-ACTUATED MODE. 3M PREEMPTION CIRCUITS SHALL BE PROVIDED IN CONTROLLER. CONTROLLER CABINET SHALL HAVE A NUMBER 2 KEY LOCK.
- 2 ELECTRICAL SERVICE FOR SIGNALS SHALL BE STD. SE-3, 100 AMP SERVICE, SINGLE POLE, 120V FUSED DISCONNECT SWITCH, NEMA 4 ENCLOSURE TO BE MOUNTED BELOW METER, METER BASE SUPPLIED BY CONTRACTOR SHALL BE MOUNTED ON SAME POLE AS SERVICE FOR STREET LIGHTS & LABELED "SIGNALS".
- 3 INCLUDED IN THIS PAY ITEM ARE 5" BACKPLATES AND STANDARD VISORS FOR ALL SIGNAL HEADS, UNLESS NOTED OTHERWISE BODY COLOR OF SIGNALS AND VISORS SHALL BE FEDERAL YELLOW, MOUNTED VIA ASTRO-BRACKETS. SIGNAL HEADS SHALL BE ALUMINUM BODY WITH GLASS LENS.
- THE CONTRACTOR SHALL FURNISH THE FOUNDATION DESIGNER WITH THE SOIL CONDITION, SLOPE CONDITION, AND ANY OTHER FIELD DATA NECESSARY TO DESIGN THE POLE FOUNDATIONS. THESE FOUNDATIONS SHALL MEET ALL THE REQUIREMENTS OF STANDARD PF-1 EXCEPT SIZE AND REBAR REQUIREMENTS WHICH WILL BE THE RESPONSIBILITY OF THE FOUNDATION DESIGNER. MAST ARM POLE FOUNDATION DESIGN SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. FOUNDATION DESIGN SHALL INCLUDE ADDITION OF FUTURE STREET SIGNS ON THE MAST ARMS. THIS BID ITEM INCLUDES FOUNDATION FOR STD. SE-3 ELECTRICAL SERVICE POLE AND COMBINATION LUMINARIE MAST ARM POLES.

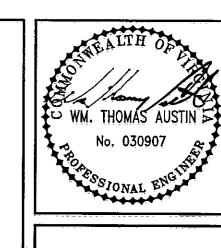
GENERAL NOTES:

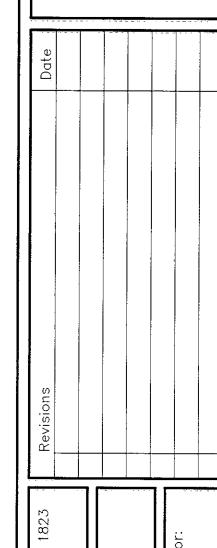
- 1. THE CONSTRUCTION ITEMS ON THIS PROJECT ARE TO BE INSTALLED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS DATED JANUARY 1994, ROAD AND BRIDGE STANDARDS DATED JANUARY 1, 1993 AND AS AMENDED BY CONTRACT PROVISIONS AND THESE PLANS.
- 2. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-552-7001)
 AT LEAST 48 HOURS BEFORE BEGINNING EXCAVATION OR TRENCHING
 TO OBTAIN FIELD UTILITY LOCATIONS.
- 3. TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE PROGRAMMED WITH INITIAL TIMINGS BY "SALEM DISTRICT TRAFFIC SIGNAL SHOP". PLEASE CONTACT BOB PERDUE AT 540-387-5468, 72 HOURS PRIOR TO TURNING SIGNALS ON, IN ORDER TO HAVE AMPLE TIME TO PROGRAM EQUIPMENT.
- 4. PAVEMENT MARKINGS ON THIS PROJECT ARE TO BE INSTALLED IN ACCORDANCE WITH SECTION 704 OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS DATED JANUARY, 1994, AND AS AMENDED BY CONTRACT PROVISIONS AND THESE PLANS.
- 5. PAVEMENT MARKINGS SHALL CONSIST OF CENTER LINES (4"), LANE LINES (4"), STOP LINES (24"), AND SYMBOL MARKERS (ELONGATED ARROWS) AS DEPICTED ON THE PLAN SHEET.
- 6. CENTER LINES AND LANE LINES SHALL BE YELLOW AND WHITE PAINT MATERIAL, RESPECTIVELY.
- 7. THE CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC ON ALL ROADWAYS AT ALL TIMES IN ACCORDANCE WITH THE VDOT WORK AREA PROTECTION MANUAL DATED JANUARY, 1996 AND/OR AS DIRECTED BY THE ENGINEER.

- 5 COMBINATION LUMINARIE MAST ARM POLES SHALL BE STANDARD MP-1.
 THE NUMBER OF ANCHOR RODS SHALL BE AS REQUIRED BY MANUFACTURE.
 THE COMBINATION LUMINARIE POLES SHALL HAVE LUMINARIE EXTENSION
 WITH 10' ELLIPTICAL ARMS, 2" SLIPFITTERS, AND ORIENTATION AS SHOWN
 ON THE PLAN SHEET. CONTRACTOR SHALL SUPPLY COBRA HEAD LUMINARIES.
- THE RTE. 460/WAL-MART SIGNALS, AND THE EXISTING SIGNALS AT RTE, 460/ALT. 220 SHALL BE INTERCONNECTED. THE CONTRACTOR SHALL INSTALL SPREAD SPECTRUM REMOTE RADIO IN EACH CONTROLLER CABINET AND YAGE ANTENNA MOUNTED ON TOP OF THE MAST ARM POLE AT BOTH INTERSECTIONS. CONTRACTOR COORDINATE THIS WORK WITH VDOT.
- 7 LOOP DETECTOR WIRE SHALL BE #14 STRANDED XHHW, LEAD IN CABLE 3M #30003 AND LOOP SEALANT SHALL BE 3M PRODUCT.
- 8 USE FLEXIBLE CONDUIT THE FULL LENGTH OF THE POLE ON ALL LUMINARIE WIRING EXTENDING UP MAST ARM POLES.
- 9 THIS BID ITEM INCLUDES ITERIS VANTAGE PLUS 4 CHANNEL PROCESSOR WITH TWO CAMERAS, MAST ARM MOUNTED, VANTAGE PLUS DETECTORS, AND ALL OTHER EQUIPMENT REQUIRED FOR A COMPLETE IN IN PLACE SYSTEM THAT IS COMPATIBLE TO SALEM DISTRICT VDOT STANDARDS.
- 10 EMERGENCY PREEMPTION CONDUCTOR CABLE.
- ELECTRICAL SERVICE FOR STREET LIGHTS SHALL BE STD. SE-3 (OVERHEAD DROP), 60 AMP SERVICE, 2 POLE, 240V FUSED DISCONNECT SWITCH, NEMA 4 ENCLOSURE TO BE MOUNTED BELOW METER, METER BASE SUPPLIED BY CONTRACTOR SHALL BE MOUNTED ON SAME POLE AS SERVICE FOR SIGNALS AND LABELED "STREET LIGHTS".
- 12) THIS BID ITEM INCLUDES COAXIAL CABLE FOR SPREAD SPECTRUM REMOTE RADIO AND YAGE ANTENNA AND COAXIAL CABLE FOR VIDEO CAMERA CONNECTION.
- 13) LOOP DETECTOR AMPLIFIERS SHALL BE SINGLE CHANNEL, STAND ALONE LOOP AMPLIFIERS.
- 8. PRICE BID FOR TRENCH EXCAVATION SHALL INCLUDE PAVEMENT REMOVAL, PAVEMENT RESTORATION, TOP SOIL AND SEEDING AS WELL AS ALL OTHER ITEMS COVERED IN SECTION 700 OF VDOT SPECIFICATIONS.
- 9. PAINT, LIQUID ASPHALT OR TAPE WILL NOT BE ALLOWED FOR ERADICATING
- 10. THE CONTRACTOR SHALL COORDINATE VIDEO CAMERA PLACEMENT ON THE MAST
- 11. ALL VIDEO EQUIPMENT SHALL BE COMPATIBLE TO SALEM DISTRICT STANDARDS.
- 12. CONTROLLER CABINET, VIDEO DETECTION, EMERGENCY PREEMPTION AND SPREAD SPECTRUM TRANSCEIVER EQUIPMENT SHALL BE AS DESCRIBED IN SECTION 703 SPECIAL PROVISIONS FOR "SALEM DISTRICT".
- 13. PRIOR TO INSTALLATION, ALL TRAFFIC SIGNAL POLE FOUNDATIONS SHALL BE STAKED BY THE CONTRACTOR, AND REVIEWED BY SALEM DISTRICT TRAFFIC ENGINEERING, (540)387-5468.
- 14. SEE SHEET C-43 FOR PAVEMENT MARKING PLAN.

ARMS WITH VDOT, BOB PERDUE, (540) 387-5449.

EXISTING PAVEMENT WORKINGS.





AiG
WEYORS
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Project Coordinator:

Mattern & Craig

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WAL-MART STORE #3243-00

TRAFFIC SIGNAL STANDARD
AND QUANTITY SUMMARY

Horizontal Scale:
N/A
Issue Date:
9/28/01

Sheet No.:

TS-1