PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 193 AND GOOD LUCK ROAD IN PRINCE GEORGE'S COUNTY. MD 193 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR E.B. AND W.B. MD 193 AND SIDE STREET SPLIT PHASES. AN ALTERNATE PEDESTRIAN PHASE FOR THE WEST LEG OF MD 193 EXISTS AND A CONCURRENT PEDESTRIAN PHASE FOR THE NORTH LEG OF GOOD LUCK ROAD WILL BE ADDED.

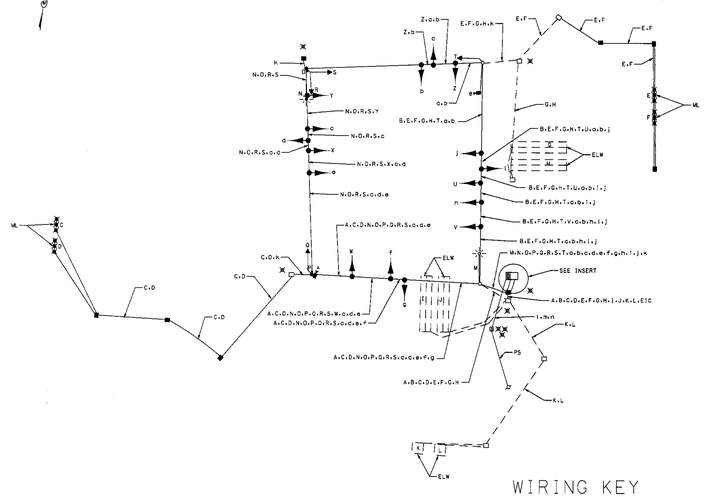
CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH THREE (3) TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET. VIDEO DETECTION CAMERA'S WILL BE USED FOR S.B. GOOD LUCK ROAD AND THE E.B. MD 193 LEFT TURN PHASE.

SPECIAL NOTE

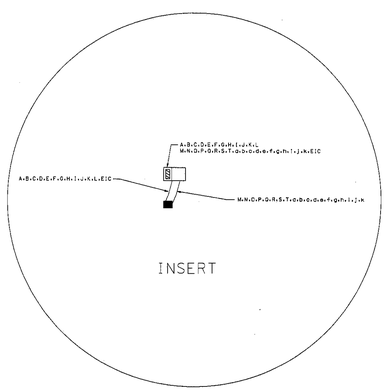
UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

WIRING DIAGRAM



WIRING KEY

A-B	VIDEO DETECTION 250 FT. PREMANUFACTURED CABLE
C-F	MICRO-LOOP PROBE
G-H	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
I-L	EXISTING 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
M-N	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
O-P	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
Q-T	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
U-Z	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
c-j	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
k	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
l-n	1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
ELW	EXISTING LOOP WIRE (NO. 14 A.W.G.)
ML	MICRO-LOOP PROBE
	GROUND ROD
EIC	EXISTING INTERCONNECT CABLE
PS	PROPOSED ELECTRIC SERVICE (1 Conductor 3-wires 250 kcmil)
	METER SERVICE PEDESTAL



PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 & 5	<G-	<G-	<G-	R	R	<G-	<G-	<G-	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 CHANGE MAY CHANGE TO PHASE 1 & 6, 2 & 5 OR 2 & 6																			
PHASE 1 & 6	<G-	<G-	<G-	G	G	<R-	<R-	<R-	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 CHANGE	<Y-	<Y-	<Y-	G	G	<R-	<R-	<R-	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 5	<R-	<R-	<R-	R	R	<G-	<G-	<G-	G	G	R	R	R	R	R	R	WK	WK	DW	DW
5 CHANGE	<R-	<R-	<R-	R	R	<Y-	<Y-	<Y-	G	G	R	R	R	R	R	R	WK	WK	DW	DW
PHASE 2 & 6	<R-	<R-	<R-	G	G	<R-	<R-	<R-	G	G	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEAR	<R-	<R-	<R-	G	G	<R-	<R-	<R-	G	G	R	R	R	R	R	R	FDW	FDW	DW	DW
2 & 6 CHANGE	<R-	<R-	<R-	Y	Y	<R-	<R-	<R-	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	G	R	R	R	DW	DW	DW	DW
3 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	R	R	R	G	DW	DW	DW	DW
4 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
PHASE ALT. 4	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	R	R	R	G	DW	DW	WK	WK
PED CLEAR	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	R	R	R	G	DW	DW	FDW	FDW
CHANGE ALT. 4	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

EQUIPMENT LIST "A"

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

CONTACT PERSONS FOR DISTRICT 3 ARE AS FOLLOWS:

MR. MAJID SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(301) 513-7318

MR. WAYNE MOWDY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 513-7304

MR. AUGIE REBISH
ASSISTANT DISTRICT ENGINEER - UTILITIES
(301) 513-7350

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE NASA FIELD OFFICE.

QUANTITY	DESCRIPTION
2 EA	12 IN. SIGNAL HEADS

ALL OTHER SIGNAL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

SHA SPEC. SECTION	QUANTITY	DESCRIPTION
104	1 EA	MAINTENANCE OF TRAFFIC
205	3 EA	TEST PIT EXCAVATION
556	12 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING ARROW
---	2 EA	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
556	670 LF/204.22M	FURNISH AND INSTALL 12 IN.(305MM) WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
556	100 LF/30.48M	FURNISH AND INSTALL 24 IN.(610MM) WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
556	50 LF/15.24M	FURNISH AND INSTALL 5 IN.(127MM) WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
SP	2 EA	FURNISH AND INSTALL 250 FT.(76.20M) VIDEO CABLE TO CONTROLLER
818	2 EA	FURNISH AND INSTALL 12 IN.(305MM) X 32 FT.(9.75M) STRAIN POLE
814	8 EA	FURNISH AND INSTALL 12 IN.(305MM) PEDESTRIAN SIGNAL HEAD SECTION
814	46 EA	FURNISH AND INSTALL 12 IN.(305MM) VEHICULAR SIGNAL HEAD SECTION
806	2 EA	FURNISH AND INSTALL 15 FT.(4.57M) STREET LIGHTING ARM FOR SIGNAL POLE
806	1 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINAIRE
814	6 EA	FURNISH AND INSTALL 8 IN.(203MM) VEHICULAR SIGNAL HEAD SECTION
817	2 EA	FURNISH AND INSTALL PEDESTRIAN PUSHBUTTON AND SIGN (NOTE: SIGN TO READ "PUSH BUTTON TO CROSS GREENBELT RD")
SP	2 EA	FURNISH AND INSTALL NON INVASIVE MICRO-LOOP PROBE WITH 1000 FT.(304.80M) LEAD-IN
SP	LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
SP	2 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
SP	1 EA	FURNISH AND INSTALL VIDEO INTERFACE EQUIPMENT
801	12 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
810	40 LF/12.19M	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
805	60 LF/18.29M	FURNISH AND INSTALL 3 IN.(76MM) SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
811	8 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
804	6 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN.(19MM) DIAMETER X 10 FT. (3.05M) LENGTH
810	510 LF/155.49M	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 AWG)
810	950 LF/289.56M	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR (NO. 14 AWG)
810	160 LF/48.77M	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
810	1860 548.64LF/M	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
810	300 LF/91.44M	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 AWG)
815	100 LF/30.48M	FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR
819	320 LF/97.54M	FURNISH AND INSTALL 1/4 IN.(6MM) STEEL SPAN WIRE
819	320 LF/97.54M	FURNISH AND INSTALL 3/8 IN.(10MM) STEEL SPAN WIRE
805	730 LF/225.50M	FURNISH AND INSTALL 3 IN.(76MM) SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
813	104 SF/9.66M	FURNISH AND INSTALL SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING:
		6 EA R3-5(L) SIGN 30"x36"(762MMx914MM) SPAN MOUNT
		1 EA R3-6(L) SIGN 30"x36"(762MMx914MM) SPAN MOUNT
		2 EA D3-1 SIGN "GOOD LUCK RD" VARx16"(VARx406MM) SPAN MOUNT
		2 EA M95-1 SIGN 78" X 24" (1.98M X 610MM) SPAN MOUNT
SP	2 EA	FURNISH AND INSTALL MICRO-LOOP PROBE WITH 1000 FT.(304.8M) LEAD-IN
SP	1 EA	ASBUILT PLAN AND REMOVE METRIC REFERENCES
805	15 LF/4.57M	FURNISH AND INSTALL 1 IN.(25MM) LIQUID-TIGHT NON-METALLIC CONDUIT
810	650 LF/198.12M	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (ALUMINUM SHIELDED)
805	1 EA	FURNISH AND INSTALL CONDUIT BEND IN EXISTING FOUNDATION
SP	1 EA	FURNISH AND INSTALL NEMA 6 BASE MOUNTED CABINET AND CONTROLLER
810	150 LF/45.72M	REMOVE AND REINSTALL EXISTING CABLE
SP	3 EA	FURNISH AND INSTALL 4-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
805	60 LF/18.28M	FURNISH AND INSTALL 4 IN.(102MM) SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
805	40 LF/12.19M	FURNISH AND INSTALL 4 IN.(102MM) SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
810	120 LF/36.58M	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 AWG)
SP	1 EA	FURNISH AND INSTALL METER SERVICE PEDESTAL
	240 LF/73.16M	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR (250 kcmil)

REV.	DATE	DESCRIPTION	S & E BR.	CUSTOMER	P.M.	SECT HEAD
A	12-13-04	100% SUBMISSION CORRECTIONS				

C-216

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473 EMAIL TRACONCEPT@AOL.COM

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION
MD 193 AT GOOD LUCK ROAD

DRAWN BY: M.HOWELL	F.A.P. NO.	TS NO. 93-D GI	SHEET NO.
CHECKED BY: T.ZAYDEL	S.H.A. NO.		
SCALE: NONE	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. F865	34 OF 140
DATE: 1-29-05	LOG MILE: 160193 09.40		

CoF CODE or WR#	SHEET	DRAWING NO.
03GTCZ	34 OF 140	GAI-SITE-29933

FILE NAME: 03GTCZ-C216.DWG FILE DATE: 12/13/04 PLOT DATE: 12/13/04