

**PROJECT DESCRIPTION TRAFFIC CONTROL ONLY - SCOPE OF WORK**

THIS PROJECT INVOLVES THE UPGRADE OF THE TRAFFIC CONTROL DEVICES LOCATED ON THE APPROACHES TO THE DRAW SPAN OF THIS SWING BRIDGE. NEW ADVANCE WARNING SIGNS WITH HAZARD INDICATION BEACONS WILL BE ADDED TO BOTH APPROACHES. THE EXISTING TRAFFIC SIGNALS WILL BE RELOCATED. THE EXISTING TRAFFIC WARNING GATES WILL BE REPLACED ON BOTH APPROACHES. NEW TRAFFIC BARRIER GATES WILL BE ADDED ON EACH FLANKING SPANS IN ADDITION. NEW STOP LINES AND "STOP HERE ON RED" SIGNS WILL BE ADDED TO BOTH APPROACHES. THESE PLANS HAVE BEEN DEVELOPED IN CONJUNCTION WITH AND APPROVED BY MDSHA - OFFICE OF TRAFFIC AND SAFETY.

THE CONSTRUCTION STAGING SCHEDULE SHALL PERFORM ALL OF THE TRAFFIC CONTROL WORK THAT AFFECTS THE BRIDGE TRAFFIC GATES, SIGNALS AND GATES AT THE SAME TIME THAT THE BRIDGE IS CLOSED TO NAVIGATION. IF THE SIGNALS AND GATES ARE NOT OPERATIONAL BY THE END OF THE NAVIGATION CLOSURE, THE CONTRACTOR SHALL SUPPLY FLAGMEN AND ADDITIONAL EQUIPMENT AS REQUIRED TO STOP VEHICULAR TRAFFIC TO ALLOW THE BRIDGE TO OPEN FOR NAVIGATION TRAFFIC.

**CONSTRUCTION SEQUENCE**

STANDARD MDSHA TRAFFIC CONTROL PLANS WILL BE REQUIRED.

THE ELECTRICAL CONTROL SYSTEM FOR THE SWING SPAN IS ALSO BEING REPLACED (SEE DRAWING NOS. E1 TO E ). AS PART OF THIS WORK, THE TRAFFIC CONTROL DEVICES LOCATED ON THE BRIDGE APPROACHES WILL BE UPGRADED. THE SCOPE OF THE TRAFFIC CONTROL WORK INCLUDES:

1. INSTALL NEW POWER SUPPLY AND CONTROL WIRING WITH CONDUIT.
2. PAINT NEW STOP LINES ON ROADWAY (2).
3. REPLACE "STOP HERE ON RED" SIGNS.
4. TRAFFIC SIGNALS (2)
  - A. RELOCATE EXISTING SIGNAL POLES.
  - B. REPLACE SIGNAL HEADS.
5. REPLACE EXISTING TRAFFIC WARNING GATES (4).
6. INSTALL NEW TRAFFIC BARRIER GATES (2).
7. INSTALL NEW ADVANCE WARNING SIGNS ON BOTH APPROACHES.

**GENERAL NOTES**

1. SINGLE LANE CLOSURES - VEHICULAR TRAFFIC
  - A. PROVIDE FLAGMEN IN ACCORDANCE WITH MDSHA STANDARD DRAWINGS.
  - B. LANE CLOSURES WILL BE ALLOWED AT THE FOLLOWING TIMES ONLY: 9 AM - 3 PM; AND 8 PM - 6 AM
  - C. SCHEDULE FOR PROPOSED LANE CLOSURES SHALL BE APPROVED BY DISTRICT 5 PRIOR TO STARTING THE WORK.
2. EQUIPMENT - ALL NEW TRAFFIC CONTROL EQUIPMENT SHALL BE IN CONFORMANCE WITH THE MARYLAND BOOK OF STANDARDS AND MDSHA CAT. CODE #'S AS SHOWN IN THE EQUIPMENT SCHEDULE SHOWN ON THIS DRAWING. ADDITIONAL DETAILS FOR THE JUNCTION BOXES AND MISCELLANEOUS COMPONENTS ARE SHOWN ON DRAWING NO. E-19 TO E-21.
3. DEMOLITION - THE CONTRACTOR SHALL CONTACT MDSHA PRIOR TO STARTING WORK THAT WILL AFFECT THE TRAFFIC CONTROL EQUIPMENT. MAINTAIN EXISTING TRAFFIC CONTROL EQUIPMENT UNTIL NEW IS OPERATIONAL. EXISTING TRAFFIC SIGNAL EQUIPMENT THAT IS NO LONGER REQUIRED, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. EQUIPMENT DESIGNAED TO BE SALVAGED BY THE MDSHA, SHALL BE CAREFULLY REMOVED AND SHIPPED TO THE DESIGNATED MDSHA SHOP BY THE CONTRACTOR.

**CONTACTS FOR BRIDGE INSPECTION AND REMEDIAL ENGINEERING**

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**CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS**

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DISTRICT ENGINEER  
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MR. JOHN MAYS  
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MR. CHARLES GEORGE  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
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**CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY**

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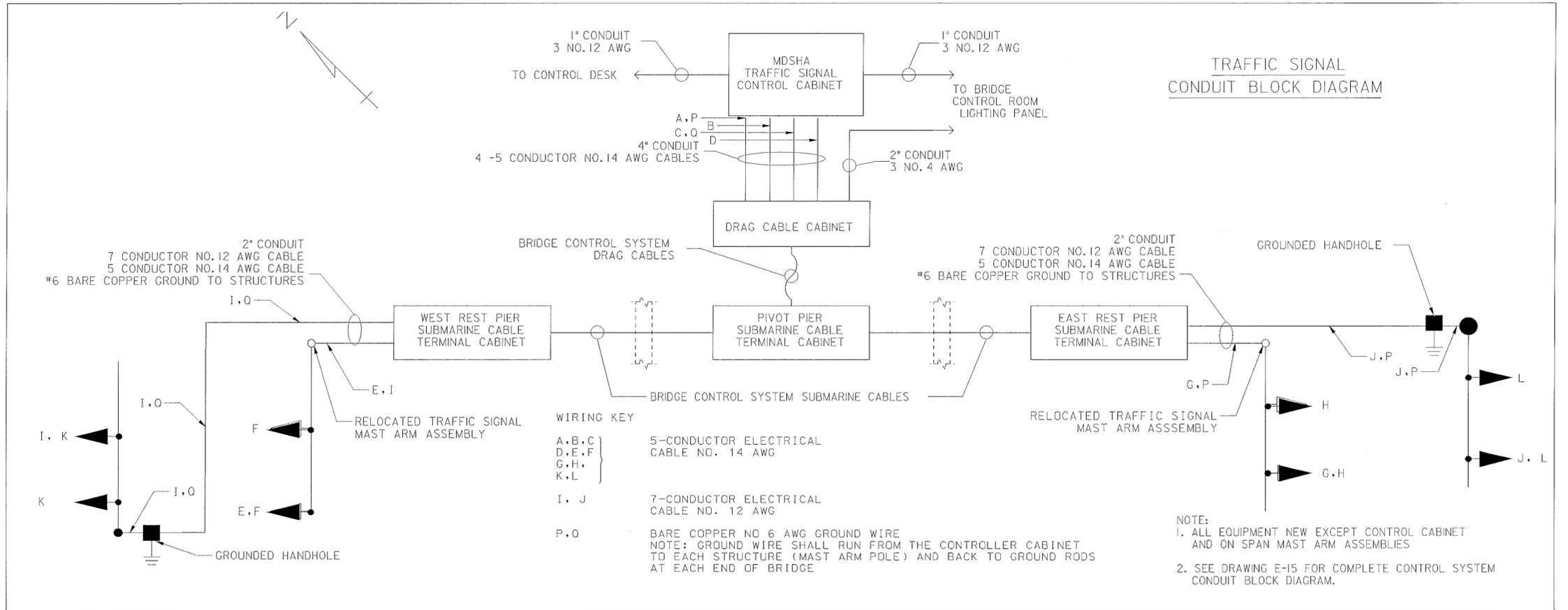
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MR. JEFF HENKEL  
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ITEM NO.	QTY.	CAT. CODE	SPEC #	DESCRIPTION
9089	105 SF	900000		FLAT SHEET ALUM SIGN-YELLOW, ORANGE, & SILVER (SF) 2 EA W 3--? 120"X60" (DRAWBRIDGE, PREPARE TO STOP, WHEN FLASHING) 2 EA R10-6A 24"X30" (STOP HERE ON RED) (CONT/CAB/ADD) RELAY (110/120 VOLT) 11 PIN 12 INCH SIGNAL HEAD SECTION
9010	2 EA	900000		27 FOOT STEEL POLE WITH 34' BUTT SECTION AND ACHOR BOLTS (MAST ARM MT) 12 INCH 1-WAY 3-SECTION POLYCARBONATE HEAD - BLACK FACED (MAST ARM MT) 12" 1-WAY, 1-SECTION SIGNAL (POLYCARBONATE) - BLACK FACE
9000	16 EA	900000		
9000	2 EA	900000		
9000	4 EA	900000		
9012	4 EA	900000		
<b>B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR</b>				
1001	1 EA	120500	104	MAINTENANCE OF TRAFFIC
5004	26 LF	585624		24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
8001	9.5 CY	801004	801	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8002	80 LF	870116	805	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8006	760 LF	861107	810	FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO.14 AWG)
8007	3350 LF	800000	810	FURNISH AND INSTALL ELECTRICAL CABLE-7 CONDUCTOR (NO.12 AWG)
8008	3400 LF	802501	810	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8009	100 SF	813015	813	INSTALL OVERHEAD SIGN
8010	2 EA	811001	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8011	2 EA	837001	804	FURNISH AND INSTALL GROUND ROD 3/4" DIAMETER X 10 FOOT LENGTH
8012	5625 LF	800000	805	FURNISH AND INSTALL 2" RIGID GALVANIZED STEEL ON STRUCTURE
8013	2 EA			FURNISH AND INSTALL 12 x 12 x 6 STAINLESS STEEL PULL BOXES ON STRUCTURE
8014	XXXX LBS			FURNISH AND INSTALL HOT DIPPED GALVANIZED STEEL CONDUIT SUPPORTS ON STRUCTURE
8015	40 LF	833016	805	FURNISH AND INSTALL 2 INCH FLEXIBLE CONDUIT
8016	2 EA	866204	818	INSTALL STEEL POLE AND SINGLE MAST ARM (ANY SIZE)

**SEQUENCE CHART**

1	2	3	4	5	6	7	8	9
Y	Y	R	R	R	R	R	Y	Y
		Y	Y	Y	Y	Y		
		G	G	G	G	G		

PHASE 2 & 6	DARK	DARK	G	G	G	G	G	DARK	DARK	←
PHASE 2 & 6 CLEARANCE	FLY	FLY	G	G	G	G	G	FLY	FLY	→
PHASE 2 & 6 CHANGE	FLY	FLY	Y	Y	Y	Y	Y	FLY	FLY	↔
PRE-EMPT PHASE 3	FLY	FLY	R	R	R	R	R	FLY	FLY	↔
PHASE 3 CHANGE	FLY	FLY	R	R	R	R	R	FLY	FLY	↔
FLASHING OPERATION	DARK	DARK	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	↔

note: signal head 5 to be removed

**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**  
*Office of Traffic & Safety*  
**TRAFFIC ENGINEERING DESIGN DIVISION**  
MD 231 AND PATUXENT RIVER BRIDGE  
BRIDGE NO.: 4008

DRAWN BY: E RECIO	F.A.P. NO.	TS NO. 773 B
CHECKED BY: PAUL CONNOLLY	S.H.A. NO.	SHEET NO.
SCALE: 1" = 20'	COUNTY: CHARLES & CALVERT	T.I.M.S. NO. E. 124
DATE: 8/2001	LOG MILE: 04023100.00	02 OF 02